

THE CITY RECORD.

VOL. XXXV.

NEW YORK, SATURDAY, JULY 6, 1907.

NUMBER 10388.

THE CITY RECORD.

OFFICIAL JOURNAL OF THE CITY OF NEW YORK.

Published Under Authority of Section 1526, Greater New York Charter, by the

BOARD OF CITY RECORD.

GEORGE B. McCLELLAN, MAYOR.

WILLIAM B. ELLISON, CORPORATION COUNSEL.

HERMAN A. METZ, COMPTROLLER.

PATRICK J. TRACY, SUPERVISOR.

Published daily, except legal holidays.

Subscription, \$9.30 per year, exclusive of supplements. Three cents a copy.

SUPPLEMENTS: Civil List (containing names, salaries, etc., of the city employees), 25 cents; Official Canvass of Votes, 10 cents; Registry and Enrollment Lists, 5 cents each assembly district; Law Department and Finance Department supplements, 10 cents each; Annual Assessed Valuation of Real Estate, 25 cents each section.

Published at Room 2, City Hall (north side), New York City.

Entered as Second-class Matter, Post Office at New York City.

TABLE OF CONTENTS.

Approved Papers— For the Week Ending July 6, 1907	7207	Finance, Department of—(Continued). Sureties Required on Various Classes of Contracts	7224
Aqueduct Commissioners— Auction Sale	7229	Fire Department— Proposals	7227
Armory Board— Proposals	7226	Health, Department of— Proposals	7220
Assessors, Board of— Public Notices	7229	Manhattan, Borough of— Proposals	7220
Bellevue and Allied Hospitals— Proposals	7229	Report of Bureau of Buildings for the Week Ending June 15, 1907. Meteorological Observatory— Abstract of Registers for the Week Ending June 22, 1907.....	7214 7207
Board Meetings	7217	Municipal Civil Service Commission— Public Notices	7219
Bridges, Department of— Proposals	7229	Notice to Contractors.....	7232
Bronx, Borough of— Proposals	7227	Official Borough Papers.....	7217
Brooklyn, Borough of— Proposals	7218	Official Directory	7214
Change of Grade Damage Commission— Public Notice	7217	Official Papers	7218
Changes in Departments, etc.....	7214	Parks, Department of— Auction Sale	7220
City Chamberlain— Court and Trust Funds for the Month of June, 1907.....	7214	Proposals	7220
College of The City of New York— Proposals	7220	Police Department— Owners Wanted for Lost Property. Proposals	7221 7221
Correction, Department of— Proposals	7226	Public Charities, Department of— Proposals	7221
Report of Transactions, June 3 to 9, 1907	7213	Revision of Assessments, Board of— Minutes of Meeting of June 27, 1907	7212
Docks and Ferries, Department of— Public Notice	7229	Richmond, Borough of— Proposals	7228
Education, Department of— Proposals	7228	Street Cleaning, Department of— Ashes, etc., for Filling in Lands.... Proposals	7218 7218
Estimate and Apportionment, Board of— Minutes of Meeting of June 21, 1907 (Financial and Franchise Matters)	7129 7224	Supreme Court, First Department— Acquiring Title to Lands, etc.....	7229
Public Notices—Franchises.....	7224	Supreme Court, Second Department— Acquiring Title to Lands, etc.....	7230
Public Notices—Public Improve- ments	7224	Supreme Court, Ninth Judicial District— Notices of Applications for the Ap- pointment of Commissioners of Appraisal	7231
Finance, Department of— Corporation Sales of Buildings, etc. Notice of Assessments for Opening Streets and Parks.....	7221 7223	Water Supply, Board of— Minutes of Meetings of June 7, 11, 12 and 14, 1907.....	7210 7217
Notices to Property Owners.....	7222	Proposals	7217
Report on Application of the Board of Health for \$175,000 to Be Ex- pended to Improve the Condi- tion of the Milk Supply of The City of New York.....	7208	Water Supply, Gas and Electricity, De- partment of— Proposals	7227

BOARD OF ESTIMATE AND APPORTIONMENT.

(FINANCIAL AND FRANCHISE MATTERS.)

MINUTES OF MEETING OF BOARD OF ESTIMATE AND APPORTIONMENT, CITY OF NEW YORK,
HELD IN ROOM 16, CITY HALL, FRIDAY, JUNE 21, 1907.

The Board met in pursuance of an adjournment.

Present—George B. McClellan, Mayor; Herman A. Metz, Comptroller; Patrick F. McGowan, President, Board of Aldermen; John F. Ahearn, President, Borough of Manhattan; Bird S. Coler, President, Borough of Brooklyn; Louis F. Haffen, President, Borough of The Bronx; Joseph Bermel, President, Borough of Queens, and George Cromwell, President, Borough of Richmond.

The Mayor, Hon. George B. McClellan, presided.

The minutes of the meeting held June 7, 1907, were approved as printed.

New York City Interborough Railway Company.

The public hearing on the resolution and form of contract for certain alterations and changes in the line of the route of the New York City Interborough Railway Company in the Borough of The Bronx, and for an extension of time in which to complete the construction of twenty-four miles of double-track railway, was opened.

The public hearing was fixed for this day by resolution duly adopted May 10, 1907.

At the meeting of February 1, 1907, a report was received from the Bureau of Franchises, and is printed in full in the minutes of that date. The report was on that day referred to a Select Committee, who submitted a report to the Board on March 8, 1907.

At the meeting of May 24, 1907, a resolution was received from the North Side Board of Trade relative to the issuance of free transfers between the Boroughs of Manhattan and The Bronx, together with a report from the Division of Franchises, and consideration of the same was adjourned to this day.

No one appeared in opposition to the proposed grant.

The following appeared in favor of the same:

George W. Wickersham, of counsel for the company.

Hon. Ernest Hall.

Hon. John A. Goulden.

J. H. Jones.

J. Hines.

Henry A. Powell, Esq.

A delegation also appeared from the North Side Board of Trade and presented the following:

NORTH SIDE BOARD OF TRADE OF THE CITY OF NEW YORK,
BOROUGH OF THE BRONX, June 19, 1907.

This is to certify that at a meeting of the North Side Board of Trade of The City of New York, held this day, the following resolution was adopted:

Resolved, That it be the sense of the Executive Committee of the North Side Board of Trade that we favor the alterations asked for by the New York City Interborough Railroad Company, and that if we cannot have them with free transfers through Manhattan and The Bronx, that we favor the granting of said alterations for routes already asked for by the New York City Interborough Railroad Company; and be it further

Resolved, That a copy of this resolution be sent to the Board of Estimate and Apportionment and to the Committee on Transportation of this Board, and that said Committee be requested to be present at the hearing before the Board of Estimate and Apportionment on June 21, 1907, at 10.30 a. m., in City Hall, to express the views of the executive committee of this Board.

[SEAL.]

OLIN J. STEPHENS, President.

CHAS. E. REED, Secretary.

No one else desiring to be heard, the Chair declared the hearing closed.

The Secretary presented the following:

NEW YORK CITY, June 17, 1907.

To the Honorable Board of Estimate and Apportionment:

GENTLEMEN—We, the undersigned, the United East Bronx Improvement Association, do respectfully request your Honorable Body to take immediate action on the changes in route as applied for by the New York City Interborough Railway Company.

This action on your part will give the street railway company the necessary authority to complete its routes, and so to furnish our locality with the very much needed transportation facilities.

The Tremont avenue line of this company makes a direct route to the rapid transit station at West Farms Square, and thence across the borough. It is the only direct means of transportation available east of the Bronx river.

This route, together with the connecting lines will provide immediate relief to a section now wholly devoid of transportation facilities, and bring it in direct communication with all the other portions of The Bronx.

We respectfully request your Honorable Board to grant this application immediately, so that there may be no delay in completing this road.

AUGUSTUS G. MILLER, President.

FRANK O'RYANN, Secretary.

LAW DEPARTMENT,
OFFICE OF THE CORPORATION COUNSEL,
NEW YORK, June 17, 1907.

Board of Estimate and Apportionment:

GENTLEMEN—I have received the following communication, dated May 13, 1907, from Harry P. Nichols, Engineer in charge of the Bureau of Franchises:

"At a meeting of the Board of Estimate and Apportionment, held May 10, 1907, resolutions were adopted in relation to the form of contract for alterations in the route of the New York City Interborough Railway Company, in the Borough of The Bronx, the form of contract being that which was forwarded by your office to the Board in communication of April 23, 1907.

"Section 2 'Fourth' of such proposed form of contract reads as follows:

"Fourth. That this contract shall not become operative until the company shall procure, to be executed and approved in proper form for record, and duly deliver to the Board of Estimate and Apportionment, an agreement wherein the Union Railway Company of New York City shall agree to waive any right it may have to exclusive franchises by former grants to or now owned by the said Union Railway Company in streets or avenues for which authority to construct railways therein is hereby given, and in which agreement the said Union Railway Company shall further agree to allow the use of its tracks in such streets and avenues by the said New York City Interborough Railway Company, its successors or assigns, The City of New York, and any other company to which the City may hereafter grant or lease rights."

"Messrs. Strong and Cadwalder, as attorneys for the Interborough Company, have forwarded to me an instrument, executed by the said Union Railway Company of New York City, and before presenting the same to the Board of Estimate and Apportionment I would request that you advise the Board whether it is in such form as complies with the section of the contract quoted above.

"There are one or two questions which arose in my mind after reading it.

"First—Has the Board of Directors of the said company the right to authorize the President to execute an instrument waiving any rights which the company may have in the streets, or would it be necessary that the stockholders should ratify such agreement?

"Second—Is the form of agreement such as to be binding in that no consideration is expressed or implied?

"Third—It would seem from the form that it was meant to be attached to the contract to be subsequently executed by the New York City Interborough Railway Company and the City. Would it not be better to have such instrument separate and apart, and refer to the contract, for the reason that this instrument is to be recorded and the contract may not be?

"If the instrument is not in such form as you would think necessary to comply with the terms of the contract, will you kindly draw a proper form, that it may be submitted to the railroad company, to be executed prior to the time when final action shall be taken by the Board?

"I enclose extracts from the minutes of May 10, and also the instrument referred to."

In reply to the first question raised by Mr. Nichols in said letter, to wit, whether the consent of the stockholders would be necessary for the execution of the said agreement, I am of the opinion the contemplated agreement with the Union Railway Company waiving any right it may have to exclusive franchises as to certain portions of its route need not be specifically authorized by the stockholders, and the adoption of a resolution by the Board of Directors of the said company giving the necessary authorization to its president would be ample.

The instrument you sent me executed by the said Union Railway Company was a mere stipulation or waiver, and not an agreement to which the City was a party, and in the form proposed was, in my opinion, of doubtful force and validity. I therefore held several conferences with the attorneys of the railroad company, as the result of which an agreement was drawn up, a copy of which I send you herewith, which in my opinion will protect the interests of the City and accomplish the ends sought.

The form of contract I send you is satisfactory both to the Union Railway Company and the New York City Interborough Railway Company.

By paragraph sixth of section 2 of the proposed contract for alterations in routes of the New York City Interborough Railway Company it was further provided that said contract was not to become operative until that company executed an instrument in writing agreeing that said contract for the change of route should not in any way change, alter or amend any of the terms, conditions and requirements in the ordinance approved March 31, 1903, and accepted by the company by an instrument filed with the Comptroller on April 3, 1903, excepting only the descriptions of the routes modified in the said agreement, and excepting so much of said ordinance which related to the time for the completion of the twenty-four miles of double-track railroad.

I herewith send you a form of instrument submitted to me by the said New York City Interborough Railway Company, containing the necessary covenants, which has my approval as to form.

Respectfully yours,

G. L. STERLING, Acting Corporation Counsel.

Agreement made this day of 1907, between Union Railway Company of New York City (hereinafter called Union Company), party of the first part; New York City Interborough Railway Company (hereinafter called Interborough Company), party of the second part; and The City of New York (hereinafter called the City), party of the third part.

Whereas, The Interborough Company under ordinance of The City of New York duly approved March 31, 1903, has obtained the right to construct and operate lines of street railway upon certain portions of streets and avenues in the Borough of The Bronx, City of New York, described in said ordinance; and

Whereas, The Interborough Company has proposed to change certain of its routes and has applied to The City of New York for the consent of said City to such changes, and the City is willing to grant such consent upon condition that with respect to portions of said changed routes which are coincident with existing routes and tracks of the Union Company, said Union Company shall grant to Interborough Company and its successors the right to use the said lines of the Union Company and to release in favor of the Interborough Company, its successors and assigns, the exclusive right of the Union Company to the maintenance and operation of said portions of its said routes and tracks and the Union Company, deeming said proposed changes to be advantageous to it, is willing to grant said use as herein provided; and

Whereas, It is to the mutual advantage of the Union Company and the Interborough Company, and to the benefit of the public, that the Union Company and the Interborough Company agree upon the joint use and operation of the tracks upon said portions of said streets and avenues named in the attached contract;

Now, therefore, in consideration of the premises and of the sum of one dollar by each of the parties of the first and second parts to the other paid, the receipt whereof is hereby acknowledged, the parties of the first and second parts do hereby covenant and agree with each other, and with the party of the third part, that the Interborough Company may construct and operate its line or lines of railway on the streets and avenues named in the attached contract, the Interborough Company enjoying with the Union Company a right in common to the use of the routes and tracks of the Union Company in any and all portions of said streets and avenues named in the attached contract. And the Union Company further covenants and agrees to allow such joint use of its routes and tracks by the Interborough Company, its successors and assigns, or by the City, or by any other company to which the City may hereafter grant or lease any rights on said portions of streets and avenues named in said attached contract.

In witness whereof, the Union Company and the Interborough Company have caused these presents to be executed on their behalf by their presidents and their corporate seals to be hereunto affixed and attested by their secretaries, the day and year first above written.

UNION RAILWAY COMPANY OF NEW YORK CITY,

By....., President.

Attest:

....., Secretary.

NEW YORK CITY INTERBOROUGH RAILWAY COMPANY,

By....., President.

Attest:

....., Secretary.

(Here add acknowledgments.)

Whereas, The Board of Estimate and Apportionment of The City of New York has, by contract, dated 1907, consented to certain changes of route of the New York City Interborough Railway Company, which contract will not by its terms become operative until said New York City Interborough Railway Company shall duly execute under its corporate seal and file an instrument in writing of the following tenor and effect:

Now, therefore, in order that said contract may become operative, said New York City Interborough Railway Company does hereby covenant and agree that said consent of said Board of Estimate and Apportionment to the change of route shall not in any way change, alter or amend any of the terms, conditions and requirements in the ordinance, approved March 31, 1903, fixed and contained and thereafter duly accepted by said Railway Company by an instrument filed with the Comptroller of The City of New York on April 3, 1903, save only the description of the routes which are hereby modified, and excepting so much of said ordinance which relates to the time for the completion of twenty-four miles of double-track railroad, and that said ordinance, approved March 31, 1903, shall in all other respects remain in full force and effect.

Said New York City Interborough Railway Company further covenants and agrees to abide by and perform all the conditions and requirements of said contract, dated 1907.

In witness whereof, said New York City Interborough Railway Company has caused this instrument to be executed on its behalf by its President, and its corporate seal to be hereunto affixed and attested by its secretary, this day of June, 1907.

NEW YORK CITY INTERBOROUGH RAILWAY COMPANY,

By....., President.

Attest:

....., Secretary.

State of New York, County of New York, ss.:

On this day of June, in the year 1907, before me personally came Alfred Skitt, to me known who being by me duly sworn did depose and say that he resided in Yonkers, New York; that he is the president of the New York City Interborough Railway Company, the corporation described in, and which executed the above instrument; that he knew the seal of said corporation; that the seal affixed to said instrument was such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

Notary Public, New York County.

The following was offered:

Resolved, That the Board of Estimate and Apportionment hereby consents to certain modifications and alterations in the route of the New York City Interborough Railway Company as granted by an ordinance adopted by the Board of Aldermen on March 16, 1903, and approved by the Mayor March 31, 1903, and hereby consents to an extension of time in which to complete twenty-four miles of double track railroad including such modified or altered routes, such modifications and alterations in said routes, and such extension of time being fully set forth and described in the following form of proposed contract for the granting thereof, embodying such terms

and conditions as modify or alter said ordinance as approved March 31, 1903; which said ordinance otherwise remains unchanged as to all the other terms and conditions expressed therein; and be it further

Resolved, That the Mayor of The City of New York be and he hereby is authorized to execute and deliver such contract in the name and on behalf of The City of New York, as follows, to wit:

Proposed Form of Contract for Alterations in Routes and Extension of Time for Completion of Construction.

This contract made the day of 1907, by and between The City of New York (hereinafter called the City), party of the first part, by the Mayor of the said City acting for and in the name of said City, under and in pursuance of the authority of the Board of Estimate and Apportionment of said City (hereinafter called the Board), and the New York City Interborough Railway Company (hereinafter called the Company), party of the second part, witnesseth:

Whereas, A certain ordinance entitled:

"An ordinance granting to the New York City Interborough Railway Company the right or franchise to construct and operate a street surface railroad in, upon and along certain streets, avenues, parkways, highways and bridges of The City of New York."

—was heretofore adopted by the Board of Aldermen, March 16, 1903, and approved by the Mayor of The City of New York on March 31, 1903; and

Whereas, Thereafter the Company on April 3, 1903, filed with the Comptroller of said City a written acceptance, executed March 31, 1903, of said ordinance, and of the terms, conditions and provisions thereof, and an agreement to perform and observe the same; and

Whereas, In and by said ordinance the consent of the corporation of The City of New York was granted to the Company for the construction, maintenance and operation of the railroad of said railway company upon certain enumerated streets, avenues, highways, etc., within said City, and across certain streets, avenues, highways, etc., as may be encountered in its route; and

Whereas, On the 10th day of April, 1905, on the 20th day of June, 1906, and on the 11th day of March, 1907, the Board of Directors of the said Company at meetings of said Board duly held on said dates, and by a vote of two-thirds of all the directors of the said Company passed resolutions amending said routes as are more particularly shown on maps filed on April 25, 1905, on the 20th day of June, 1906, and on the 12th day of March, 1907, respectively, in the office of the Clerk of New York County; and

Whereas, It is the intention of said railway company when the consent of the City has been obtained to relinquish part of the routes as originally granted by the ordinance above referred to, and to substitute such changed or altered routes therefor; and

Whereas, The said Company has applied to the Board of Estimate and Apportionment as the local authorities of The City of New York by verified petitions dated June 26, 1905, June 21, 1906, and March 12, 1907, for the consent of such local authorities for such alterations and for the modification of the said ordinances in accordance therewith; and

Whereas, The Company has presented a petition dated May 18, 1906, for an extension of time in which to complete twenty-four miles of double track railroad; now therefore,

In consideration of the premises, and of the mutual covenants herein contained, the parties do hereby covenant and agree as follows:

Section 1. The City hereby grants to the Company subject to the provisions and conditions hereinafter set forth, the right to relinquish routes as heretofore granted to said Company, and to the substitution in the place thereof of certain other routes, all of which are shown on a map entitled:

"New York City Interborough Railway Company," signed Alfred Skitt, president; A. E. Kalbach, engineer, dated March 18, 1907,

—a copy of which is attached hereto and made a part hereof, and are more particularly described as follows:

Change First.

Route Relinquished—Beginning at the intersection of Sedgwick avenue with Perot street; running thence northwesterly in, upon and along Perot street to Boston avenue; thence northeasterly on Boston avenue to its intersection with Fort Independence street.

Route Substituted—Beginning at the intersection of Sedgwick avenue and Perot street; running thence northerly in, upon and along Sedgwick avenue to the intersection of Sedgwick avenue with Boston avenue; thence in, upon and along Boston avenue to Fort Independence street.

Change Second.

Route Relinquished—Beginning at the intersection of Kingsbridge road and Heath avenue; running thence northerly in, upon and along Heath avenue to its intersection with West Two Hundred and Thirtieth street; thence westerly in, upon and along West Two Hundred and Thirtieth street to its intersection with Bailey avenue.

Route Substituted—Beginning at the intersection of Kingsbridge road and Heath avenue; running thence westerly in, upon and along Kingsbridge road over the proposed viaduct or bridge, crossing the railroad tracks of the New York and Putnam Railroad Company and the New York Central and Hudson River Railroad Company and across Spuyten Duyvil creek to Muscoota street; thence in, upon and along Muscoota street to Broadway.

Change Third.

Route Relinquished—Beginning at the intersection of Boston road with East One Hundred and Seventy-eighth street; running thence northwesterly in, upon and along East One Hundred and Seventy-eighth street to Vyse street; thence northeasterly in, upon and along Vyse street to East One Hundred and Eighty-second street; thence northwesterly in, upon and along East One Hundred and Eighty-second street to the Southern Boulevard.

Route Substituted—Beginning at the intersection of the Boston road with East One Hundred and Seventy-eighth street; running thence northeasterly in, upon and along Boston road to East One Hundred and Eightieth street; thence northwesterly in, upon and along East One Hundred and Eightieth street to the Southern Boulevard.

Change Fourth.

Route Relinquished—Beginning at the intersection of Ogden avenue with West One Hundred and Sixty-first street; running thence northwesterly in, upon and along West One Hundred and Sixty-first street to its intersection with Summit avenue; thence northeasterly in, upon and along Summit avenue to its intersection with West One Hundred and Sixty-sixth street; thence westerly in, upon and along West One Hundred and Sixty-sixth street to its intersection with Lind avenue; thence northerly in, upon and along Lind avenue as it winds and turns to Aqueduct avenue; thence northeasterly in, upon and along Aqueduct avenue to Ogden avenue.

Route Substituted—Beginning at the intersection of Ogden avenue and West One Hundred and Sixty-first street; running thence northerly in, upon and along Ogden avenue to its intersection with Aqueduct avenue.

Change Fifth.

Route Relinquished—Beginning at the intersection of Kingsbridge road with Reservoir avenue; running thence northerly and westerly in, upon and along Reservoir avenue as it winds and turns to Sedgwick avenue.

Route Substituted—Beginning at the intersection of Kingsbridge road with Sedgwick avenue; running thence northerly in, upon and along Sedgwick avenue to its intersection with Reservoir avenue.

Change Sixth.

Route Relinquished—Beginning at the intersection of Tremont avenue with Ryer avenue; running thence northerly in, upon and along Ryer avenue to East One Hundred and Eightieth street; thence southeasterly in, upon and along East One Hundred and Eightieth street to Webster avenue.

Route Substituted—Beginning at the intersection of Tremont avenue and Ryer avenue; thence easterly in, upon and along Tremont avenue to Webster avenue; thence northeasterly in, upon and along Webster avenue, upon the tracks of the Union Railway Company of New York City, to the intersection of Webster avenue with East One Hundred and Eightieth street.

Change Seventh.

Route Relinquished—Beginning at the intersection of East One Hundred and Forty-ninth street and Cortlandt avenue; running thence northerly in, upon and along Cortlandt avenue to East One Hundred and Fifty-sixth street; thence easterly in, upon and along East One Hundred and Fifty-sixth street to its intersection with St. Ann's avenue.

Route Substituted—Beginning at the intersection of East One Hundred and Forty-ninth street with Cortlandt avenue; running thence easterly in, upon and along East One Hundred and Forty-ninth street to its intersection with St. Ann's avenue; thence northerly in, upon and along St. Ann's avenue to its intersection with East One Hundred and Fifty-sixth street.

And further grants an extension of time in which to complete the construction of twenty-four miles of double track railroad upon the routes of the Company as heretofore granted, and hereby modified, from July 1, 1905, to a time eighteen months after the execution of this contract by the Mayor.

Section 2. The grant of this franchise, right and privilege is subject to the following conditions:

First—That all the terms, provisions and conditions contained in said ordinance approved March 31, 1903, except only the description of the routes which are hereby modified, and excepting so much of said ordinance as related to the completion of twenty-four miles of double track railroad on or before July 1, 1905, shall apply to the routes of the said Company as described herein with the same force and effect as when they applied to the routes described in said ordinance approved March 31, 1903, and as though said altered routes had been specifically described in said ordinance.

Second—That the Company covenants and agrees to abandon and relinquish, and does hereby abandon and relinquish, to The City of New York all its right and franchise to construct, maintain and operate a street surface railroad over the routes marked "Routes Relinquished" in the paragraphs entitled: Change First, Change Second, Change Third, Change Fourth, Change Fifth, Change Sixth and Change Seventh, in Section One hereof.

Third—That the Company covenants and agrees to complete the construction and put in operation twenty-four miles of double track railroad upon the route described in the ordinance approved March 31, 1903, and as herein modified, within eighteen months from the date of the execution of this contract by the Mayor of the City.

Fourth. That this contract shall not become operative until the Company shall procure to be executed and approved in proper form for record, and duly deliver to the Board of Estimate and Apportionment an agreement wherein the Union Railway Company of New York City shall agree to waive any right it may have to exclusive franchises by former grants to or now owned by the said Union Railway Company in streets or avenues for which authority to construct railways therein is hereby given, and in which agreement the said Union Railway Company shall further agree to allow the use of its tracks in such streets and avenues by the said New York City Interborough Railway Company, its successors or assigns, the City of New York and any other company to which the City may hereafter grant or lease rights.

Fifth. Nothing in this contract shall be deemed to affect in any way the right of the City to grant to any individual or other corporation similar rights or privileges upon the same or other terms and conditions in or upon which a railway is herein authorized.

Sixth. That this contract shall not become operative until the Company shall duly execute under its corporate seal an instrument in writing to be first approved by the Corporation Counsel, and shall file the same in the office of the Comptroller of the said city within thirty days from the execution of this contract by the Mayor, in and by which said instrument in writing said Company shall covenant and agree that the consent of the Board of Estimate and Apportionment to the change of route shall not in any way change, alter or amend any of the terms, conditions and requirements in said ordinance approved March 31, 1903, fixed and contained and heretofore duly accepted by said Company by an instrument filed with the Comptroller of The City of New York on April 3, 1903, except only the description of the routes which are hereby modified, and excepting so much of said ordinance which relates to the time for the completion of twenty-four miles of double track railroad, and that said ordinance approved March 31, 1903, in all other respects shall remain in full force and effect, and said Company shall further covenant and agree, in said instrument, to abide by and perform all the conditions and requirements of this contract.

In witness whereof, the party of the first part by its Mayor, thereunto duly authorized by the Board of Estimate and Apportionment of said City, has caused the corporate seal of said City to be hereunto affixed, and the party of the second part by its officers thereunto duly authorized, has caused its corporate name to be hereunto signed and its corporate seal to be hereunto affixed the day and year first above written.

THE CITY OF NEW YORK,

By....., Mayor.

[CORPORATE SEAL.]

Attest:

.....City Clerk.

NEW YORK CITY INTERBOROUGH RAILWAY COMPANY,

[SEAL.]

By....., President.

Attest:

.....Secretary.

(Here add acknowledgments.)

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx and Queens—15.

New York and Richmond Gas Company.

In the matter of the application of the New York and Richmond Gas Company for a franchise to construct, maintain and use pipes, mains and conductors in, under and along the streets, avenues and highways comprising the Fifth Ward, Borough of Richmond, for the purpose of transmitting and distributing gas for light, heat and power to public and private consumers, upon which a report was received from the Division of Franchises at the meeting of April 26, 1907, proposing certain terms and conditions to govern the grant.

The public hearing was fixed for May 10, 1907, when it was continued until May 24, 1907, and was concluded on June 7, 1907, and on the latter date the matter was referred back to the Chief Engineer for further consideration, with instructions to report to the Board at the meeting held this day.

The Secretary presented the following:

REPORT NO. F-34.

BOARD OF ESTIMATE AND APPORTIONMENT,
OFFICE OF THE CHIEF ENGINEER,
June 18, 1907.

Hon. GEORGE B. McCLELLAN, Mayor, Chairman of the Board of Estimate and Apportionment:

SIR—At the meeting of the Board of Estimate and Apportionment held on June 7 last a public hearing was given on the application of the New York and Richmond Gas Company for a franchise to operate in the Fifth Ward of the Borough of Rich-

mond. A brief was submitted by the company raising objections to the provisions of the proposed contract, and the matter was referred to the Chief Engineer of the Board for consideration and with instructions to report at the meeting to be held on June 21. This brief is very voluminous, and in order to discuss the points raised conferences are required with representatives of the company. In view of the great number of points at issue I respectfully ask the Board for an extension of time until July 8 within which to submit a report.

Respectfully,

NELSON P. LEWIS, Chief Engineer.

BOARD OF ESTIMATE AND APPORTIONMENT,
DIVISION OF FRANCHISES, ROOM 801, No. 277 BROADWAY,
June 17, 1907.

Mr. NELSON P. LEWIS, Chief Engineer:

SIR—At a public hearing on the application of the New York and Richmond Gas Company for a franchise to operate in the Fifth Ward of the Borough of Richmond, held at a meeting of the Board on June 7, counsel for the company who appeared in favor of such grant submitted a brief in opposition to certain provisions of the proposed form of contract between the City and the Company. This brief was referred to the Chief Engineer for consideration, and he was directed to submit his report on same at the meeting of the Board to be held on June 21.

This brief is very voluminous, objections being raised to nearly every provision contained in the proposed form of contract, and after a careful examination of the same, I attempted to have an early conference with the counsel and one of the officers of the company, but was unable to make an appointment with such gentlemen before Wednesday, June 19.

Under the circumstances, I will be unable to report in time to have the same put on the calendar for the meeting of June 21, but will be able to submit my report on this matter in time for the meeting of the Board to be held on July 8.

Respectfully,

HARRY P. NICHOLS, Engineer in Charge.

The matter was thereupon laid over until the meeting of July 8, 1907.

New York and Port Chester Railroad Company.

In the matter of the application of the New York and Port Chester Railroad Company for the right to change certain portions of its route in the Borough of The Bronx, for which a franchise was granted by contract dated May 31, 1906.

At the meeting of May 24, 1907, a report was received from the Division of Franchises, proposing certain terms and conditions to govern the grant, and on June 7, 1907, the matter was referred to the Chief Engineer, who was directed to report to the Board at the meeting held this day and also to the Corporation Counsel, who was requested to report on said date.

The Secretary presented the following:

LAW DEPARTMENT,
OFFICE OF THE CORPORATION COUNSEL,
NEW YORK, June 7, 1907.

Board of Estimate and Apportionment:

GENTLEMEN—I received from you the following communication dated May 28, 1907:

"I transmit herewith a communication from the Engineer in charge of the Division of Franchises, in relation to a proposed form of contract between the City and the New York and Port Chester Railroad Company.

"I am also transmitting copy of a report presented to the Board at its meeting May 24, which contains the proposed form of contract with the railroad company, should the Board decide to grant the petition for a change of line.

"I will be obliged if you will examine this proposed form of contract, and advise the Board if it has your approval, and if not, to insert therein such provisions as you deem necessary to thoroughly protect the interests of the City.

"There is also transmitted a draft of a proposed agreement between the New York, Westchester and Boston Railway Company and the New York and Port Chester Railroad Company, referred to in the said report; all of which papers I request to be returned.

"As the public hearing will take place on June 7, I will be indebted if you can forward your reply prior to that date."

The letter from the Engineer in charge of Franchises, referred to in said communication, reads as follows:

"By resolution of the Board of Estimate and Apportionment, adopted May 10, 1907, the application of the New York and Port Chester Railroad Company for the right to change certain portions of its route, in the Borough of The Bronx, was set down for a public hearing on May 24, and duly advertised, as required by law.

"At the meeting of May 24, the hearing was continued until June 7.

"In the report of this Division which you presented to the Board on May 24, it was suggested that the proposed form of contract should be sent to the Corporation Counsel for approval as to form and also to advise the Board if the interests of the City were fully protected.

"I am informed by the attorneys for the company that the matter is very urgent, as they cannot commence condemnation proceedings in the new right-of-way, until consent is given to the change of line. I would, therefore, suggest to you that the matter be at once submitted to the Corporation Counsel, in order that he may consider the same before the public hearing which will be held on June 7, and, if possible report to the Board before that time.

"I transmit herewith copy of the report and proposed form of contract, together with a draft of an agreement mentioned in the report, as one to be made between the New York and Port Chester Railroad Company, and the New York, Westchester and Boston Railway Company.

"It may be that the Corporation Counsel will wish to suggest some modification of this agreement as well in order that any contract between the City and the New York and Port Chester Railroad Company based upon such an agreement may be effected."

I have carefully examined the proposed form of contract between the City, the New York and Port Chester Railroad Company and Millbrook Company, and am of opinion that in such form it will fully protect the interests of the City.

I, therefore, return such contract approved by me as to form.

I have also examined the enclosed draft of the proposed agreement between the New York, Westchester and Boston Railway Company and the New York and Port Chester Railroad Company, and have no modifications to suggest to such agreement.

Respectfully yours,

G. L. STERLING, Acting Corporation Counsel.

LAW DEPARTMENT,
OFFICE OF THE CORPORATION COUNSEL,
NEW YORK, June 18, 1907.

Board of Estimate and Apportionment:

SIRS—I have received the following letter from you, signed by Joseph Haag, Secretary, dated June 10, 1907:

"In a communication to the Board of Estimate and Apportionment, dated June 7, 1907, you returned a proposed form of contract to be entered into between the City and the New York and Port Chester Railroad Company for the grant of a change in the line of the railroad in the Borough of The Bronx, which received your approval as to form.

"At the public hearing held upon the application on June 7 by the Board, objection was made by counsel for the Fidelity Development Company, as is more particularly explained in the accompanying report from the Engineer in Charge of the Bureau of Franchises.

"The matter was thereupon referred to the Corporation Counsel, and the Secretary was directed to request that you report in time for the meeting of June 21. For your information I will add that the calendar for the meeting of June 21 closes on

Tuesday, June 18, and I would be indebted if your reply can reach my office prior to that date."

The petition filed by the Fidelity Development Company with your Honorable Board states the New York and Port Chester Railroad Company entered into an agreement with it, wherein it bound itself to build its line of the old route and the Fidelity Company agreed to convey to it certain land along such route. Such petition further states the Fidelity Company has commenced a suit to compel the railroad to pay for such strip of land and to enjoin it from constructing its railroad, except upon such right of way.

The question presented to me for my opinion is as to the effect of said contract and the joint litigation based thereon, on the proposed action by your Board, authorizing the railroad company to change its route.

I have had consultations with the attorneys of both the railroad company and the Fidelity Company and the attorneys of the latter have agreed with me and freely admit that at present no legal difficulty is presented to the City entering into a contract authorizing the proposed change of route which will be of full force and validity.

Had a temporary injunction been granted, the City might take notice of the pending litigation, but as it stands at present, only a private dispute is involved, of which the Board may take notice, but if it please may disregard altogether.

It is my opinion, and I so advise you, that such questions as are raised by the said petition of the Fidelity Company are only addressed to the discretionary powers of your Board in taking action upon the application of the railroad company. As such, they are not questions within my province to pass upon, and I will content myself with stating briefly the objections raised by the said Fidelity Company, and the replies made by the railroad company thereto. The objections raised by the Fidelity Company are the following:

1. The consent of the City, acting through the Board of Aldermen, for the construction and operation of a railroad along Westchester route permits an open cut, while on Port Chester route the railroad tracks must be covered over.
2. The Port Chester road has contract rights as to the present route, which would enable it to commence construction at once, while on the proposed route, it would have to resort to condemnation proceedings.
3. The real purpose of the change of route is to enable the Port Chester Company to use the pillars already built by the Westchester road.
4. An injunction may be granted preventing the Port Chester Railroad from constructing its line on the proposed route.
5. The change of route will practically permit consolidation of the two railroads, which was forbidden in their respective grants by the City.

The Port Chester Railroad specifically replies to these objections as follows:

1. Admits the proposed route would be in part an open cut and in part on a viaduct, but says the grade of the Port Chester route has not as yet been determined, and would be an open cut, except as to the part covered by the private agreement with the Fidelity Company.
2. The contract with the Fidelity Company only applies to part of the Port Chester route, and the railroad would have to institute condemnation proceedings for the balance. The railroad claims it has a good defense to the suit of the Fidelity Company, in that such company cannot give good title to the lands in question. Further claims that such company has a lease with the Westchester Racing Association which would have to be condemned before construction could begin. Says that \$900,000 has been expended for real estate on the Westchester route and title for balance can be quickly secured.
3. Admits will use pillars erected by the Westchester railroad and balance of a million and a half dollars improvements, and claims that this will hasten construction of road. Further says that the Engineer of your Board has stated that the proposed route is not only preferable but shorter, and argues from this that construction along such route can be completed in a shorter space of time.
4. Says no danger of injunction or court granting specific performance and only question of damage suit between two companies is involved. On this point, the brief submitted on behalf of the Port Chester railroad states: "Such damages is a matter for the courts to determine, and there is no doubt that the railroad company will be compelled to pay full damages to the Fidelity Development Company before it can finally acquire title to construct its line over the amended route. It is likewise true that if the railroad company has broken the contract of May 9, 1906, it will be responsible for any damages to the Fidelity Development Company."
5. Admits operation of the same line will in some ways be a consolidation, but says the identity of the two companies by terms of their franchise grants must be kept distinct, and that in any case, the City, acting through the Board of Estimate and Apportionment, could agree to consolidation, if it so wished.

Respectfully yours,

G. L. STERLING, Acting Corporation Counsel.

REPORT NO. F-37.

BOARD OF ESTIMATE AND APPORTIONMENT,
OFFICE OF THE CHIEF ENGINEER,
June 19, 1907.

Hon. GEORGE B. McCLELLAN, Mayor, Chairman of the Board of Estimate and Apportionment:

SIR—At the meeting of the Board of Estimate and Apportionment held on June 7, 1907, a hearing was given on the proposed modification of the route of the New York and Port Chester Railroad Company, and after the hearing the matter was referred to the Corporation Counsel for advice as to the proposed form of contract and for an opinion as to the force of objections raised at the hearing, and whether or not these objections would affect the right of the Board of Estimate and Apportionment to grant the application for a change of route. The Corporation Counsel has approved the form of agreement, and has also given an opinion to the effect that there is nothing in the objections raised which would prevent the Board of Estimate and Apportionment from taking the proposed action. These opinions, with a report from the Engineer in charge of the Division of Franchises, are herewith submitted.

Respectfully,

NELSON P. LEWIS, Chief Engineer.

DIVISION OF FRANCHISES,
June 19, 1907.

Mr. NELSON P. LEWIS, Chief Engineer:

SIR—At a meeting of the Board of Estimate and Apportionment, held June 7, 1907, a public hearing was had on the application of the New York and Port Chester Railroad Company for the right to change certain portions of its route in the Borough of The Bronx, for which a franchise was granted by contract dated May 31, 1906.

The Fidelity Development Company was represented by counsel at the public hearing, who filed a brief in opposition to the proposed grant. At the conclusion of the hearing the matter was referred to the Chief Engineer, who was requested to report to the Board at its meeting of June 21, 1907; and also to the Corporation Counsel, and the Secretary was directed to request the Corporation Counsel to report on said date.

The Acting Corporation Counsel, in an opinion dated June 18, 1907, states he has had conferences with attorneys for both the Railroad Company and the Fidelity Company, and the attorneys for the latter company agree that at present no legal difficulty is presented to the City entering into a contract authorizing the proposed change of route, which will be of full force and validity, and he further states "it is my opinion and I so advise you that such questions as are raised by the said petition of the Fidelity Company are only addressed to the discretionary powers of the Board in taking action upon the application of the railroad company."

As the proposed contract has been approved as to form by the Corporation Counsel, and as he has no modifications, to suggest to the proposed agreement between the New York, Westchester and Boston Railway Company and the New York and Port Chester Railroad Company, should the Board see fit to grant the right requested, the proposed form of contract should be entered on the minutes of the Board, ordered advertised in two daily newspapers and in the CITY RECORD and a day set for public hearing thereon, after which final action may be taken. As the last meeting of the Board previous to adjournment for the summer season will be July 8, the date for public hearing should be fixed as September 20, 1907.

Respectfully,

HARRY P. NICHOLS, Engineer in Charge.

The Chair stated that he had been served with an order to show cause why the members of the Board should not be restrained from granting the application of the New York and Port Chester Railroad company, as follows:

SUPREME COURT.

NEW YORK COUNTY.

Order to Show Cause.

Robert E. Robinson, plaintiff, against New York, Westchester and Boston Railway Company, New York and Port Chester Railroad Company, Milbrook Company, Marsden J. Perry, Oakleigh Thorne, William H. Chesebrough, Frederick W. Whitridge, Kenneth R. McLaren, Howard K. Wood, Allen Wardwell, Thomas D. Rhodes, John C. Gleason, Ralph P. Buell, C. E. Mitchell and Carlton Bunce, constituting a majority of the Board of Directors of the New York, Westchester and Boston Railway Company, the City and County Contract Company, George B. McClellan, Mayor of The City of New York; Herman A. Metz, Comptroller of The City of New York; Patrick F. McGowan, President of the Board of Aldermen of The City of New York; John F. Ahearn, President of the Borough of Manhattan; Bird S. Coler, President of the Borough of Brooklyn; Louis F. Haffen, President of the Borough of The Bronx; Joseph Bernel, President of the Borough of Queens; George Cromwell, President of the Borough of Richmond, said last-named eight defendants constituting the Board of Estimate and Apportionment of The City of New York, defendants.

It appearing presumptively by the complaint herein, verified June 20, 1907, and the annexed affidavit of Robert E. Robinson, the plaintiff herein, verified June 20, 1907, that the plaintiff demands and is entitled to a judgment against defendants restraining the commission of the acts hereinafter temporarily enjoined, on the grounds that such acts are a violation of plaintiff's rights as a stockholder of the New York, Westchester and Boston Railway Company; that the commission of the said acts during the pendency of this action would produce irreparable injury to the plaintiff and will tend to render the judgment herein ineffectual, and that such commission thereof upon the part of the defendants is threatened:

Now, on reading the summons and complaint herein, and the above recited affidavit of the plaintiff, and the plaintiff having given an undertaking, now approved by me:

It is ordered that until the hearing and determination of this motion, the defendants, George B. McClellan, Mayor of The City of New York; Herman A. Metz, Comptroller of The City of New York; Patrick F. McGowan, President of the Board of Aldermen of The City of New York; John F. Ahearn, President of the Borough of Manhattan; Bird S. Coler, President of the Borough of Brooklyn; Louis F. Haffen, President of the Borough of The Bronx; Joseph Bernel, President of the Borough of Queens, and George Cromwell, President of the Borough of Richmond, as members of and composing the Board of Estimate and Apportionment, be and they hereby are restrained and enjoined from granting an application of the New York and Port Chester Railroad Company that its route in The City of New York be so altered as to coincide with the route of the New York, Westchester and Boston Railway Company, as described in the franchise granted to said company by ordinance of the Board of Aldermen of The City of New York, approved August 2, 1904, or with any part of such route; and that the defendant, New York, Westchester and Boston Railway Company, its directors, officers and agents, be and they hereby are forbidden, until the hearing and determination of this motion, to consent, or to contract or agree in any manner to consent, to the said change of route hereinbefore forbidden, or to assign or convey, or to contract to assign or convey, unto said New York and Port Chester Railroad Company the right to use said route of the New York, Westchester and Boston Railway Company or any of the property, real or personal, contracts or choses in action of the said New York, Westchester and Boston Railway Company.

It is further ordered that the defendants show cause at Special Term, Part I., of this Court, to be held in and for the County of New York, on June 25, 1907, at 10.30 a. m., or as soon thereafter as counsel can be heard, why the foregoing injunction should not be continued until the final determination of this action; and why the plaintiff should not have such other relief as may be equitable.

Service of this order and of the papers on which it is granted upon the defendants on or before June 22, 1907, shall be sufficient.

It is further ordered that plaintiff may serve additional affidavits in support of this order to show cause on or before June 22, 1907.

Dated New York, June 20, 1907.

JAMES A. BLANCHARD, Justice of the Supreme Court.

Action on the matter was deferred pending the conclusion of the Court proceedings.

Bush Terminal Railroad Company.

In the matter of the application of the Bush Terminal Railroad Company, requesting that the resolution adopted by the Board November 23, 1906, be amended so as to allow the use of steam locomotives on and after June 1, 1907, which was presented to the Board at its meeting of May 24, 1907, together with a communication from Irving T. Bush, President of the Bush Terminal Company, relative to the freight movement across First avenue, Borough of Brooklyn, and was on that date referred to the Chief Engineer.

The petition and communication are printed in full in the Minutes of May 24, 1907.

The Secretary presented the following:

REPORT NO. F-35.

BOARD OF ESTIMATE AND APPORTIONMENT,
OFFICE OF THE CHIEF ENGINEER,
June 18, 1907.

Hon. GEORGE B. McCLELLAN, Mayor, Chairman of the Board of Estimate and Apportionment:

SIR—The Bush Terminal Railroad Company has, under date of May 16, 1907, requested the Board of Estimate and Apportionment to permit it to continue the use of steam locomotive power on its cross-over tracks on First avenue, in the Borough of Brooklyn, after June 1, 1907, this having been the date fixed for the removal of steam locomotives. The matter was referred to the Chief Engineer for investigation and report.

I beg to submit herewith the result of an investigation made by the Engineer in charge of the Division of Franchises, together with a report made by the Electrical Engineer of the Department of Water Supply, Gas and Electricity of the Borough of Brooklyn, with the recommendation that the time for the abandonment of steam locomotives and the substitution of electric locomotives be extended until June 1, 1908, but that it be not indefinitely postponed, as requested by the petitioners.

A resolution to that effect is herewith submitted.

Respectfully,

NELSON P. LEWIS, Chief Engineer.

DIVISION OF FRANCHISES,
June 17, 1907.

Mr. NELSON P. LEWIS, Chief Engineer:

SIR—The Bush Terminal Railroad Company, under date of May 16, 1907, has presented a verified petition to the Board of Estimate and Apportionment for the right to use steam locomotive power on its cross-over tracks on First avenue on and after June 1, 1907.

Under an ordinance adopted by the Board of Aldermen January 31, 1905, which became effective on February 14, 1905, the Bush Terminal Railroad Company was granted, subject to certain conditions, the franchise, right and privilege to construct a double-track street surface railroad with certain turnouts and cross-overs, and to operate the same by any motive power which may be lawfully employed, excepting locomotive

steam power or horse power, upon and along certain streets in the Borough of Brooklyn, of which First avenue is a part, together with such necessary connections, switches, sidings and turnouts for the operation of the railroad and accommodation of the cars of the Bush Terminal Railroad Company or its successors or assigns, as may be subsequently permitted by the Board of Estimate and Apportionment, or its successors in authority.

Thereafter, on November 23, 1906, the said Bush Terminal Railroad Company presented a petition to the Board of Estimate and Apportionment for permission to construct and operate additional cross-overs in First avenue, at or near Forty-ninth street, and at or near Fiftieth street, as shown on plans accompanying the petition, and entitled:

First—"Plan showing location of proposed cross-over track to be constructed in First avenue, at Forty-ninth street, Borough of Brooklyn, to accompany application of Bush Terminal Railroad Company to the Board of Estimate and Apportionment, City of New York, dated September 28, 1906,"

—and signed Bush Terminal Railroad Company, by Irving T. Bush, president.

Second—"Plan showing location of proposed cross-over track to be constructed in First avenue, at Fiftieth street, Borough of Brooklyn, to accompany application of Bush Terminal Railroad Company to the Board of Estimate and Apportionment, City of New York, dated September 28, 1906,"

—and signed Bush Terminal Railroad Company, by Irving T. Bush, president.

An investigation made by the Bureau of Franchises on November 8, 1906, in connection with this application, developed the fact that the cross-overs leading from the yards on the west side of First avenue across the avenue to the warehouses on the east side had been only partially electrified, and that steam switching engines were frequently used to run cars over these tracks.

The attention of the Bush Terminal Railroad Company was called to this, and in reply a communication was received from the vice-president of the company, in which it was stated that the electrification of the existing cross-overs on First avenue, between Forty-fourth street and Forty-seventh street, had been completed, and in his opinion would be found to have been done to the satisfaction of the Borough authorities.

The matter of the operation of steam locomotives across First avenue was taken up in a communication from the President of the company, dated November 15, 1906, wherein he stated that business had increased so rapidly that in order to handle the freight the company had been obliged to occasionally use its steam locomotives in shifting cars across First avenue; that a contract had already been placed for an additional electric locomotive, but delivery could not be had before May 1, 1907, and that after June 1, 1907, there would be no occasion to use steam locomotives, as the supply of electric locomotives would then be sufficient to do the work.

In consequence of these representations the Board of Estimate and Apportionment, on November 23, 1906, in a resolution granting its consent to the construction and operation of the two cross-over tracks in First avenue, as requested, provided among the terms and conditions of the consent:

"* * * that the said cross-over tracks shall be completely equipped with the overhead electrical system at the time of their construction, and provided also that the said Bush Terminal Railroad Company shall be liable on and after June 1, 1907, to a penalty of fifty dollars (\$50) for each and every violation of the provisions in said ordinance prohibiting the use of steam power within the limits of First avenue * * *"

In regard to the present application, communications were addressed to the President of the Borough of Brooklyn and to the Commissioner of Water Supply, Gas and Electricity, on May 17, 1907, enclosing copies of the petition, and requesting the opinions of these officials in regard to the matter.

In a reply dated May 21, 1907, the President of the Borough of Brooklyn states: "I am very much opposed indeed to permitting the Bush Terminal Company, or any other company, enjoying a street surface railroad franchise in this borough which is bound to use electric power to substitute steam power therefor. It seems to me that this company should be compelled to use electricity alone for the operation of its First avenue railroad."

Thereafter, at the meeting of the Board of Estimate and Apportionment held May 24, 1907, there was presented a communication from the Bush Terminal Company, dated May 20, 1907, and signed by Irving T. Bush, president, wherein it was requested that the permission to use steam power on the cross-over tracks across First avenue after June 1, 1907, sought by the Bush Terminal Railroad Company, by the petition now before the Board, be granted during the pleasure of the Board of Estimate and Apportionment, rather than for a fixed period.

In this communication the statement is made that the movement of freight on these tracks

"is made by the Bush Terminal Company, a different corporation, and has nothing to do with the freight movement along First avenue by the Bush Terminal Railroad Company. Cannot a temporary permit during the pleasure of the Board be granted to the Bush Terminal Company to cross First avenue with the consent of the Bush Terminal Railroad Company?"

In reply to this latter statement I beg to state that previous to the adoption of the resolution by the Board of Aldermen on January 31, 1905, granting the franchise to the Bush Terminal Railroad Company, it was thoroughly understood that the Bush Terminal Company had no legal authority to construct, maintain or operate a railroad in the streets of the City, and the Bush Terminal Railroad Company was incorporated for the express purpose of receiving said franchise.

It would therefore appear that the Bush Terminal Company, in operating cars on these cross-over tracks, as stated, is acting entirely outside its authority or right, and no form of permission, either temporary or otherwise, can be properly granted to the said company.

In addition such operation by the Bush Terminal Company is a direct violation of Article VI. of the franchise granted by resolution of the Board of Aldermen, adopted January 31, 1905, and approved by the Mayor February 14, 1905, under which the Board of Estimate and Apportionment granted consent to the construction and operation of these tracks.

Under date of June 12, 1907, the Deputy Commissioner of the Department of Water Supply, Gas and Electricity incloses a report addressed to him from H. S. Wynkoop, Electrical Engineer of the said Department in the Borough of Brooklyn, a copy of which is herewith attached, and recommends the suggestion therein contained to the careful consideration of the Board.

In said report Mr. Wynkoop states that the Bush Terminal Railroad Company is responsible for a remarkable business development of this section of the borough; that the present electrical facilities of the company are not sufficient, and that a sound municipal policy demands that the use of steam locomotive be permitted for a time if the company is to be allowed to continue its business. He further adds that there is no reason why a sufficient number of electric locomotives cannot be obtained in from fifteen to eighteen months and suggests that an extension of time of about two years be granted in order to permit the company to obtain them.

This report also states that some of the overhead trolley wires installed over cross-overs in the fall of 1906, as hereinabove stated, have since been removed, so that at present only two of the nine spur tracks are equipped for electrical operation, and

"that an important factor in the case is a determination of the actual attitude of the Bush Company toward the abandonment of steam altogether. The fact that the Bush Company has gone so far as to remove the trolley wire from some of the spurs, although under its franchise it should have expected to operate all of these spurs by electricity after June 1, may indicate an ulterior motive—to be in a continuous state of unpreparedness to supply electricity."

Examination of the franchise now held by the Bush Terminal Railroad Company shows that under the terms and conditions therein contained the Board has no power to grant permission to use steam power on these cross-over tracks, as requested, and it would appear that such rights can only be acquired by the company through a modification of the franchise from the Board of Estimate and Apportionment, in accordance with and pursuant to the provisions of articles 72 to 74, inclusive, of the City Charter, to which the President of Brooklyn objected in his communication.

On the other hand, it would seem to be beyond doubt that any prohibition of steam locomotives on these tracks at present, in the absence of a sufficient number of electric locomotives to handle the traffic, would, as stated in the petition, seriously interfere with the business of the petitioner and its allied interests.

I am of the opinion that the Board may in its discretion amend the resolution adopted on November 23, 1906, and approved by the Mayor on December 3, 1906, and fix the time on and after which the company shall be liable to a penalty for the use of steam on First avenue at a later date.

In the event of the Board desiring to so amend the said resolution, I herewith submit a form of resolution extending such date to June 1, 1908, which will, in my opinion, give the company ample time to obtain the necessary electric locomotives, provided it observe due diligence in preparing for the development which it would seem it has every reason to expect.

Respectfully,

HARRY P. NICHOLS, Engineer in Charge.

The Comptroller moved to amend the resolution as presented by inserting June 1, 1909, as the time when the penalty should become effective.

Which motion was adopted.

The following was offered:

Whereas, The City of New York by ordinance adopted by the Board of Aldermen on January 31, 1905, which became effective on February 14, 1905, granted to the Bush Terminal Railroad Company the right to construct a double track surface railroad with connections, turnouts and crossovers, and to operate the same by any motive power which may be lawfully employed, excepting steam locomotive power or horse power, in and upon certain streets in the Borough of Brooklyn, among which was First avenue, all as shown on certain maps filed with the application and entitled: "Map showing plan of tracks of Bush Terminal Railroad Company in application for franchise from The City of New York, July 19, 1904"; and

Whereas, The said Railroad Company may under the terms of the said ordinance, construct, such necessary connection, switches, sidings, turnouts and crossovers as may be subsequently permitted by the Board of Estimate and Apportionment or its successor in authority; and

Whereas, The said Railroad Company under date of September 28, 1906, did apply to the Board of Estimate and Apportionment for its consent to the construction and maintenance of additional crossovers in First avenue at or near Forty-ninth street, and at or near Fiftieth street, and it was then discovered that the crossovers leading from the railroad yards on the west side of First avenue, across First avenue to the warehouses on the east side, had only been partially electrified, and that steam switching engines were frequently used to move cars over these tracks; and

Whereas, The attention of the Bush Terminal Railroad Company was called to this fact, and in reply the company stated that owing to the impossibility of securing delivery before May 1, 1907, of an additional electric locomotive already contracted for, the company was obliged to occasionally use the steam locomotives in shifting cars across First avenue in order to handle its rapidly increasing freight business, and promised that after June 1, 1907, the use of steam locomotives on First avenue would be discontinued; and

Whereas, In consequence of these representations, the Board of Estimate and Apportionment did adopt a resolution on November 23, 1906, granting permission to the said Bush Terminal Railroad Company to construct and operate the proposed crossover tracks, and said resolution was duly approved by the Mayor on December 3, 1906, and in said resolution it was provided among other conditions " * * * that the said Bush Terminal Railroad Company shall be liable on and after June 1, 1907, to a penalty of fifty dollars (\$50) for each and every violation of the provisions in said ordinance prohibiting the use of steam power within the limits of First avenue * * *"; and

Whereas, Under date of May 16, 1907, the said Bush Terminal Railroad Company has presented a verified petition to the Board of Estimate and Apportionment, reciting that it has been unable to secure delivery of the additional electric locomotives contracted for, and in consequence, is unable to meet the increased demand for the use of these crossover tracks on First avenue, except by utilizing the steam locomotives, and that any prohibition of their use would seriously interfere with the business of the petitioner, and its allied interests, and impede the manufacturing development of the section, and therefore praying that the resolution adopted November 23, 1906, be amended so as to permit the use of steam locomotives on First avenue after June 1, 1907.

Resolved, That the above quoted provision of the resolution adopted November 23, 1906, providing a penalty for the use of steam on First avenue after June 1, 1907, be and is hereby amended to read as follows: " * * * that the said Bush Terminal Railroad Company shall be liable on and after June 1, 1909, to a penalty of fifty dollars (\$50) for each and every violation of the provisions in said ordinance prohibiting the use of steam power within the limits of First avenue. * * *"

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx and Queens—15.

Hudson and Manhattan Railroad Company.

In the matter of the application of the Hudson and Manhattan Railroad Company for permission to construct, maintain and use a bridge over and across Dey street, between Church and Greenwich streets, in the Borough of Manhattan, to connect the third stories of its terminal buildings now under construction on the north and south sides of Dey street, which was presented to the Board at its meeting of May 24, 1907, and was on that date referred to the Chief Engineer.

The Secretary presented the following:

REPORT No. F-33.

BOARD OF ESTIMATE AND APPOINTMENT,
OFFICE OF THE CHIEF ENGINEER,
June 18, 1907.

Hon. GEORGE B. McCLELLAN, Mayor, Chairman of the Board of Estimate and Apportionment:

SIR—On May 22, 1907, the Hudson and Manhattan Railroad Company petitioned the Board for the right to construct and maintain a bridge over and across Dey street, between Church and Greenwich streets, in the Borough of Manhattan, connecting the third stories of its terminal buildings now under construction.

I beg to submit herewith the report of the Engineer in charge of the Division of Franchises, from which it will be seen that the President of the Borough of Manhattan and the Fire Commissioner see no objection to the erection of this structure, and submitting a form of resolution granting the consent requested, and suggesting the compensation to be exacted, this compensation being based upon the customary charges for structures of this kind.

The adoption of the resolution is recommended.

Respectfully,

NELSON P. LEWIS, Chief Engineer.

DIVISION OF FRANCHISES,
June 17, 1907.

Mr. NELSON P. LEWIS, Chief Engineer:

SIR—The Hudson and Manhattan Railroad Company, under date of May 22, 1907, has presented a petition to the Board of Estimate and Apportionment for the right to

construct and maintain a bridge 11 feet wide and 30 feet above the street roadway, over and across Dey street, between Church and Greenwich streets, in the Borough of Manhattan, connecting the third stories of its terminal buildings now under construction on the north and south sides of Dey street.

The petition is accompanied by a plan, entitled:

"Plan showing location of proposed bridge to be constructed in Dey street, Borough of Manhattan, to accompany application of Hudson and Manhattan Railroad Company to the Board of Estimate and Apportionment, City of New York. Dated May 22, 1907, and signed by Wm. G. McAdoo, President."

The Hudson and Manhattan Railroad is being constructed for the purpose of carrying passengers between New Jersey and New York City, by tunnels under the Hudson river, and the petition recites that the proposed bridge is desired for the purpose of providing its patrons with a direct means of communication between the underground station of the company in the building on the block between Dey street and Fulton street and the elevated railroad station at Cortlandt and Church streets, arrangements having already been made with the Interborough Company for direct communication with the said elevated railroad station.

The petition further states that there will probably be a serious congestion of passenger traffic in this vicinity, and that the interchange of business with the elevated railroad will be large, and therefore, if a portion of the traffic can be handled above the surface of the street, some of this congestion will be relieved, the transfer of passengers simplified and greater comfort and safety will result to the traveling public.

Copies of the application and plan were sent to the President of the Borough of Manhattan and to the Fire Commissioner, with a request that the project be examined by the respective bureaus having jurisdiction, with a view to ascertaining if there were any objections or any special condition which should be incorporated in the form of consent used for similar privileges.

The Commissioner of Public Works, replying to the communication addressed to the Borough President, states that there is no objection to the construction and maintenance of the proposed bridge.

A reply has been received from the Fire Department, inclosing a copy of a report by the Chief of the Department, stating that there are no objections to the construction of the proposed bridge, provided the same is of fireproof material. This condition has been incorporated in the form of resolution granting consent, herewith submitted for adoption.

The proposed bridge will in all probability be used by a large number of persons, and the connection thus afforded between the station of the petitioner and the elevated railroad station at Cortlandt and Church streets will undoubtedly prove extremely advantageous to the Hudson and Manhattan Railroad Company in a pecuniary sense, and will also relieve congestion in and about the terminal buildings and stations of the company. At the same time, I am of the opinion that the project will to some extent prevent congestion in the public streets at this point.

I would therefore recommend that the requested permission be granted during the pleasure of the Board of Estimate and Apportionment, but in no case to extend beyond ten years from the date of approval by the Mayor, and revocable upon sixty (60) days' notice in writing, and that it be made a condition of the consent that a security deposit of the sum of \$2,500 be required, said deposit to be in the form of either money or securities to be approved by and deposited with the Comptroller, for the faithful performance of the terms and conditions of the consent.

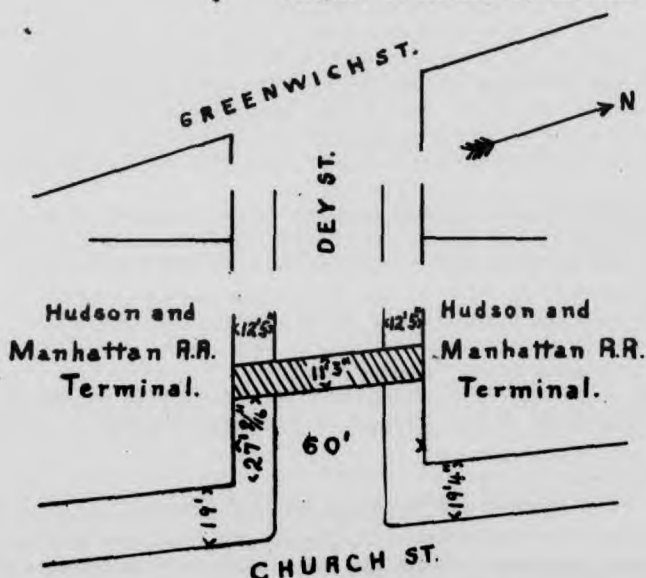
The attorney for the petitioner has informed me that the terminal buildings are to be constructed by May 1, 1908, but in order to allow for any unavoidable delay in construction, it is recommended that the bridge shall be completed before November 1, 1908.

The total area of plan of the proposed bridge between the building lines is 675 square feet. On the basis of compensation heretofore adopted by the Board in the case of passageways underneath the street, viz.: 8 per cent. of the assessed valuation of the plan area of the structure per annum, the charge for this privilege would be \$2,310 per annum for the first term of five years, which, with a 5 per cent. increase, would make the charge for the second term of five years \$2,425 per annum. This compensation should commence on the date of the approval of the consent by the Mayor.

I transmit herewith a form of resolution for adoption by the Board, containing the customary provisions.

Respectfully,

HARRY P. NICHOLS, Engineer in Charge.



Plan of proposed Bridge for
HUDSON & MANHATTAN
R.R. CO.

DIVISION OF FRANCHISES.

BOARD OF ESTIMATE AND APPORTIONMENT,
DIVISION OF FRANCHISES, ROOM 801, NO. 277 BROADWAY,
June 20, 1907.

Mr. NELSON P. LEWIS, Chief Engineer:

SIR—In relation to the matter of the application of the Hudson and Manhattan Railroad Company for the right to construct and maintain a bridge across Dey street, between Church and Greenwich streets, Borough of Manhattan, and upon which application a report of this Division was made to you under date of June 17, 1907, accompanied by a proposed resolution granting the same, I would state the proposed resolution was submitted to the attorneys for the Hudson and Manhattan Railroad Company.

Under date of June 19, 1907, a communication was received from the attorneys of the Company, in which objection was made to the term of consent being not to exceed ten (10) years, and further that as it was not the intention of the company to complete the construction of the bridge prior to May 1, 1908, and that it is, therefore not equitable to require the annual payments to begin on the date on which the resolution is signed by the Mayor, it is asked that such date be fixed as of January 1, 1908.

Since the structure is to be used by a public service corporation, and for the purpose of handling traffic which would otherwise cause congestion on the surface of the street, I see no objection in making the term of the consent not to exceed twenty-five (25) years. I would suggest, however, that the compensation to be paid for the privilege should increase five (5) per cent. during each period of five years; this has

been customary in previous consents of this character for a term of twenty-five (25) years. The annual payments would, therefore, during the last fifteen years be as follows: The third five years, twenty-five hundred and forty-five dollars (\$2,545) per annum; the fourth five years, twenty-six hundred and seventy-five dollars (\$2,675) per annum, and the fifth five years, twenty-eight hundred and ten dollars (\$2,810) per annum.

I see no objection to fixing the date upon which the consent shall take effect as January 1, 1908, since it is not the intention of the Company to use such consent previous to that date.

I submit herewith the amendments as above to the resolution previously transmitted to you, with the report of June 17, 1907.

Respectfully,

HARRY P. NICHOLS, Engineer in Charge.

The following was offered:

Whereas, The Hudson and Manhattan Railroad Company has presented an application, dated May 22, 1907, to the Board of Estimate and Apportionment of The City of New York, for its consent to the construction, maintenance and use of an overhead bridge across Dey street, between Church and Greenwich streets, in the Borough of Manhattan, said bridge to connect the buildings of the company on either side of said Dey street, and to be used as a passageway between the third floors of said buildings; now therefore be it

Resolved, That the consent of the Corporation of The City of New York be and the same is hereby given to the Hudson and Manhattan Railroad Company, the owner of certain properties on both sides of Dey street, between Church and Greenwich streets, Borough of Manhattan, City of New York, to construct, maintain and use a single span bridge across said Dey street, connecting its buildings as shown on the plan accompanying the application and entitled:

"Plan showing location of proposed bridge to be constructed in Dey street, Borough of Manhattan, to accompany application of the Hudson and Manhattan Railroad Company, to the Board of Estimate and Apportionment, City of New York," dated May 22, 1907.

—and signed by W. G. McAdoo, President; a copy of which is annexed hereto and made a part hereof, upon the following terms and conditions:

1. Said consent shall take effect on January 1, 1908, and shall continue only during the pleasure of the Board of Estimate and Apportionment or its successors in authority, and shall be revocable upon sixty (60) days' notice in writing, to said grantee, its successors or assigns, but in no case shall it extend beyond a term of twenty-five (25) years from January 1, 1908, and thereupon all rights of the said Hudson and Manhattan Railroad Company in or over said Dey street, by virtue of this consent, shall cease and determine.

2. The said Hudson and Manhattan Railroad Company, its successors or assigns, shall pay into the Treasury of The City of New York as compensation for the privilege hereby granted, during the first term of five years the annual sum of twenty-three hundred and ten dollars (\$2,310); during the second term of five years the annual sum of twenty-four hundred and twenty-five dollars (\$2,425); during the third five years the annual sum of twenty-five hundred and forty-five dollars (\$2,545); during the fourth term of five years the annual sum of twenty-six hundred and seventy-five dollars (\$2,675), and during the fifth term of five years the annual sum of twenty-eight hundred and ten dollars (\$2,810). Such payments shall be made in advance on November 1, of each year, provided, however, that the amount of the first payment made on November 1, 1907, shall be only that proportion of twenty-three hundred and ten dollars (\$2,310) as the time between January 1, 1908, and November 1, 1908, bears to the whole year. Such compensation shall not be considered in any manner in the nature of a tax, but shall be in addition to any and all taxes of whatsoever kind or description now or hereafter required to be paid under any ordinance of The City of New York or by any law of the State of New York.

3. Upon the removal of the said grantee from either one or both of the buildings connected by the bridge or upon revocation or termination of this consent, the said grantee, its successors or assigns, shall, at its own cost, cause the bridge and all its appurtenances to be removed from the limits of the street, if required so to do by The City of New York, through its duly authorized representatives. If the bridge constructed by the said grantee under this consent shall not be required to be removed, it is agreed that the said bridge shall become the property of The City of New York.

4. The consent hereby given is for the exclusive use of the grantee and shall not be assigned, either in whole or in part, or leased or sublet in any manner, nor shall title thereto, or right, interest or property therein, pass to or vest in any person or corporation whatsoever, either by the acts of said grantee, its successors or assigns, or by operation of law, without the consent in writing of The City of New York, acting by the Board of Estimate and Apportionment, or its successors in authority.

5. The said grantee shall pay the entire cost of:

- (a) The construction and maintenance of the bridge.
- (b) The protection of all surface and subsurface construction in Dey street, which may be disturbed by the construction of the bridge.
- (c) The replacing or restoring of the pavement in said street which may be disturbed during the construction of said bridge.
- (d) Each and every item of the increased cost of any future structure caused by the presence of said bridge under this consent.
- (e) The inspection of all work during the construction or removal of the bridge, which may be required by any Department of The City of New York having jurisdiction over such construction.

6. It is made a particular condition of this consent that the said bridge shall be constructed of fireproof material throughout.

Before the construction shall be begun, the grantee shall obtain permits to do the work from the President of the Borough of Manhattan, and the said grantee shall perform all the duties which may be imposed as conditions of such permits, provided such conditions are not inconsistent with the provisions of this consent. The grantee shall submit to such official working plans which shall include and show in detail the method of construction of said bridge and the mode of protection or changes in all structures required by the construction of said bridge.

7. The grantee, its successor or assigns, shall allow to The City of New York a right of way under or over any part of the bridge constructed under the consent hereby granted, for any and all structures which are now or may be hereafter placed by The City of New York in that portion of the above named street occupied by said bridge.

8. Said bridge shall be constructed, maintained and used subject to the supervision and control of the proper authorities of The City of New York, and said bridge shall be open at all times to the inspection of all the authorities who have jurisdiction in such matters under the Charter of The City of New York.

9. Said bridge shall be used by the said grantee as a means of communication and as a passageway between the aforementioned buildings, and for no other pur-

pose whatsoever, and no material of any kind, character or description shall be allowed to remain standing thereon.

10. The grant of this privilege is given subject to whatever right, title or interest the owners of the abutting property or any other person or persons may have in and to the streets where the bridge is to be constructed, and the said grantee shall be liable for all damages to persons or property, including the street, by reason of the construction or maintenance of said bridge, and it is a condition of this consent that The City of New York assumes no liability to either persons or property on account of this consent.

11. This consent is granted on the further and express condition that all laws or ordinances now in force, or which may hereafter be adopted, shall be strictly complied with.

12. The said grantee, its successors or assigns, shall commence the construction of said bridge under this consent and complete the same on or before November 1, 1908; otherwise this consent shall be forfeited forthwith and without any proceeding, either at law or otherwise, for that purpose; provided, however, that such time may be extended by the Board of Estimate and Apportionment for a period not exceeding six months beyond the date specified.

13. This consent is upon the express condition that within thirty (30) days after its approval by the Mayor, and before anything is done in exercise of the rights conferred hereby, the said grantee shall deposit with the Comptroller of The City of New York the sum of two thousand five hundred dollars (\$2,500), either in money or in securities to be approved by him, which fund shall be security for the performance of the terms and conditions of this consent, especially those which relate to the payment of the annual charge.

In case of default in the payment of the annual charge, The City of New York shall collect the same, with interest, from such fund after ten (10) days' notice in writing to the said grantee.

In case of any drafts so made upon the security fund, the said grantee shall, upon thirty (30) days' notice in writing, pay to the Comptroller of The City of New York a sum of money sufficient to restore the said fund to the original amount of two thousand five hundred dollars (\$2,500), and in default of the payment thereof the consent hereby given may be canceled and annulled at the option of the Board of Estimate and Apportionment of The City of New York, acting on behalf of said City. No action or proceedings or rights under the provisions of this section shall affect any other legal rights, remedies or causes of action belonging to The City of New York.

14. Said grantee shall give notice to the President of the Borough of Manhattan in writing of its intention to begin construction of the work hereby authorized at least forty-eight (48) hours before such construction commences. The grantee shall also give to the Board of Estimate and Apportionment notice in writing of the date on which the work is commenced, and also the date on which the same is completed.

15. This consent shall not become operative until said grantee shall duly execute an instrument in writing, wherein said grantee shall promise, covenant and agree on its part to conform to, abide by and perform all the terms, conditions and requirements in this consent fixed and contained, and file the same with the Board of Estimate and Apportionment of The City of New York within thirty (30) days after the approval of this consent by the Mayor.

And the said grantee shall promise, covenant and agree in said instrument to hold The City of New York harmless from all damages to persons and property which may result from the construction, maintenance or use of the bridge hereby authorized.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

Camden Construction Company.

The Secretary presented an opinion, dated June 11, 1907, from the Acting Corporation Counsel, relative to the alleged right of the Camden Construction Company to lay pipes and operate in that portion of the Fifth Ward, Borough of Richmond, formerly comprising the Village of Tottenville, as follows:

LAW DEPARTMENT,
OFFICE OF THE CORPORATION COUNSEL,
NEW YORK, June 11, 1907.

Board of Estimate and Apportionment:

SIRS—I am in receipt of a communication from Joseph Haag, Secretary, under date of the 23d ult., which reads as follows:

"The Camden Construction Company, a corporation organized under the Laws of the State of New Jersey, claims permission to lay pipes and operate in that portion of the Fifth Ward of the Borough of Richmond, formerly comprising the Village of Tottenville. A complete history of this company is contained on page 11 of the report of the Division of Franchises dated April 8, 1907, on the application of the New York and Richmond Gas Company for permission to operate in the Fifth Ward of the Borough of Richmond, a copy of which I am transmitting herewith.

"Will you kindly furnish the Board with your opinion as to whether any rights exist in this company to operate in such territory, and if not, as to what procedure would be necessary to follow to prevent the company from attempting to lay mains and operate therein."

From the report of the Division of Franchises, dated April 8, 1907, therein referred to, the facts with reference to the Camden Construction Company and its alleged rights in that portion of the Fifth Ward of the Borough of Richmond formerly comprising the Village of Tottenville are as follows:

The Camden Construction Company is a foreign corporation, organized on the 2d day of December, 1881, under the Laws of the State of New Jersey, for the purpose of contracting for the construction of railroads, bridges and other works of improvement in the States of New Jersey, New York, Connecticut and elsewhere, to receive as payment bonds and stocks or other securities, to sell the same and to lease, purchase, acquire, hold, assign, etc., real and personal property.

To this company the Board of Trustees of the former Village of Tottenville granted permission, on the 23d day of November, 1897, to lay gas mains in the streets thereof, for the term of twenty-five years, and an agreement embodying all the terms of the grant was entered into on the same day between the Trustees of the said former village and the company.

It appears that the company has attempted on two or three occasions to lay mains and conduct operations under this permission, but has been prevented from so doing. Mr. Joseph Poole, one of the incorporators, in a letter stated that the company

"did claim and do claim now that they have the right and franchise to lay pipes and supply the former Village of Tottenville with gas, and they propose to protect that right and exercise it in due time."

The Engineer in charge of the Bureau of Franchises was informed by the State Board of Tax Commissioners that this company never filed with said Board any report of property subject to the special franchise tax, under the provisions of chapter 712 of the Laws of 1899. Under section 15 of the General Corporation Law all foreign stock corporations, except certain corporations in whose class the Camden Construction Company does not fall, are forbidden to do business in this State without first procuring from the Secretary of State "a certificate that they have complied with all the requirements of law to authorize them to do business in this State, and that the business of the corporation to be carried on in this State is such as may be lawfully carried on by a corporation incorporated under the laws of this State

for such or similar business." The Camden Construction Company never obtained a certificate of authority to operate in this State.

Upon this state of facts I am requested to advise you whether any rights exist in this company to operate in the territory formerly comprising the Village of Tottenville, and, if not, as to the procedure it would be necessary to follow to prevent the company from attempting to lay mains and operate therein.

It will be observed that the permit was granted on the 23d day of November, 1897, after passage of the original Greater New York Charter and before it became fully operative, on the first day of January, 1898.

In *Hendrickson vs. The City of New York*, 160 N. Y., 144, the validity of a contract made between the Town Board of the former Town of Jamaica and the Jamaica Electric Light Company, on the 17th day of December, 1897, was attacked upon the ground that the said Town Board had no power to enter into a ten years' contract when the life of the town was to terminate shortly thereafter. The Court, at page 148, says:

"* * * We have this situation: The Greater New York Charter was passed in May, 1897, but did not go into full effect until the first day of January, 1898. Section 1611 of the Charter provides that for the purpose of determining the effect of the act upon other acts and the effect of other acts upon it, the Charter should, except as in the section otherwise provided, be deemed to have been enacted on the first day of January, 1898. It is quite evident that the intention of this section was to continue the legal powers of the various municipalities, that were ultimately to form a part of The City of New York, unimpaired in their legitimate exercise during the balance of the time they were to exist.

"The contract in question is to be considered, in the first place, in the light of section 587 of the Greater New York charter, which provides, in brief, that the commissioner of public buildings, lighting and supplies in the greater city of New York shall let separate contracts for each of the boroughs in the manner therein specified in detail for lighting the streets, public buildings and parks; that the commissioner is to determine the number, kind and location of lights to be furnished under each of the contracts, and no contract was to be made for more than the term of one year.

"When this section is considered in detail, it is evident that the legislature contemplated that on the first day of January, 1898, the entire system of lighting the greater city should be under the supervision and control of this single commissioner, particularly the new territory about to be annexed.

"It is apparent upon the face of this proceeding that the town board of Jamaica determined as to the territory covered by that town to defeat the provisions of this section, and to inaugurate for a period of ten years such a system of lighting in that portion of the greater city as they saw fit, without consulting the authorities of the municipality that was about to spring into existence.

"The officials concerned in making this contract were evidently aware of the provision of the Greater New York charter, and, in view of the facts conceded in this record, it is apparent that the contract was not made in good faith. There was no such emergency as warranted the town officers in regulating for ten years the lighting of territory that would become a part of the greater city of New York in fourteen days after they had signed the contract.

"The motive actuating this proceeding is quite apparent.

"* * * * *
"We are of opinion that the contract before us was not entered into in good faith by the town of Jamaica, but was intended to embarrass and control the greater city of New York in lighting its streets in the territory covered by the town for ten years after its execution.

"We also hold that, under the provisions of the Greater New York charter, the town of Jamaica had no power to enter into this contract.

"We further decide that the legislative scheme, as contained in the Greater New York charter, discloses a public policy that was violated by the execution of this contract.

"For all of these reasons the contract is void."

In *Vacheron vs. The City of New York*, 34 Misc., 420, Mr. Justice Gaynor cites with approval the case of *Hendrickson vs. The City of New York*, in the following words:

"But the contract with the plaintiff had no validity after the year 1897. The charter of the defendant was passed May 4, 1897, to go into effect January 1, 1898. The power of the Board of Supervisors of Queens County over the roads of the county was thereby limited to the period from May 4, 1897, to January 1, 1898. The contract here in question, made July 6, 1897, was therefore invalid except for the remainder of the year 1897 (*Hendrickson vs. City of New York*, 160 N. Y., 144). It is claimed that the opinion in the Court of Appeals in the case cited puts the invalidity of the contract there principally on the ground of fraud by the officials in the making of it. This seems to be so; and the opinion apparently assumes to make a finding of fact that there was fraud. I am therefore asked to distinguish the present case from that one on the ground that the answer here does not plead fraud, and it is conceded there was no fraud. But if you look into the record in the *Hendrickson* case you will find that no fraud was pleaded there either, and that there was therefore no such question in that case, and of course there was no finding of fraud by the trial court; and as the Court of Appeals had no power to make such a finding of fact, it cannot be deemed that the decision of that court rested thereon. The remarks in that respect of the judge writing the opinion were not official but individual; and the decision of the court must therefore be deemed to rest only on lack of power in the officials to make the contract.

"I am also of the opinion that the board of supervisors had no power to make such a contract to run longer than the period of its own existence. The care of the roads was an administrative duty to be performed by each successive board during its existence. An existing board could not perform that duty for its successors."

Under the doctrines enunciated in both these cases I am of opinion that the permission granted by the Board of Trustees of the former village of Tottenville and the contract attempted to be entered into pursuant thereto, are void as violative of the public policy evinced in the Legislative scheme as contained in the Greater New York Charter.

The permit and contract being void, the Camden Construction Company has absolutely no right to lay mains in the territory which was formerly the village of Tottenville, or to exercise any franchise authority thereunder.

This leaves for determination the procedure necessary to prevent this company from attempting to lay mains and operate.

Section 469 of the Greater New York Charter, having to do with the jurisdiction of the Commissioner of Water Supply, Gas and Electricity, gives said Commissioner cognizance and control

"of the use and transmission of gas, electricity, pneumatic power and steam for all purposes in, upon, across, over and under all streets, roads, avenues, parks, public places and public buildings; of the construction of electric mains, conduits, conductors and subways in any such streets, roads, avenues, parks and public places, and the granting of the permission to open streets, when approved by the Borough President, and to open the same for the purpose of carrying on therein the business of transmitting, conducting, using and selling electricity, steam, or for the service of pneumatic tubes."

Section 383 of the Charter, dealing with the powers and duties of Borough Presidents, gives to the President of a borough for which he shall have been elected, cognizance and control " * * * of the issue of permits to builders and others to use or open the streets."

Section 391 in part provides:

"No removal of the pavement or disturbance of the surface of any street for the purpose of constructing vaults or lateral ways, digging cellars, laying foundations of buildings or other structures, making sewer connections, or repairing sewers or pipes, or laying down gas and water pipes, steam pipes and electric wires, or introducing the same into buildings, or for any purpose whatever, shall be made until a permit is first had from the President of the Borough where the work is to be done; * * *"

Therefore, no opening of the streets in The City of New York for the purpose of laying mains for the transmission of gas, can be made without the permission of the Commissioner of Water Supply, Gas and Electricity, and of the Borough President. Any attempt on the part of the Camden Construction Company to open the streets with a view of laying mains pursuant to the permission of the said Trustees and the agreement attempted to be entered into thereunder, without permits from these two

officers, is illegal, and the Police Department is clothed with power to arrest any persons opening the streets without this necessary authority so to do.

It might be well, to safeguard the interests of the City, to notify the Commissioner of Water Supply, Gas and Electricity, and the President of the Borough of Richmond not to grant to the said Camden Construction Company, or to any one claiming under the said alleged permission and agreement, any permits to open the streets in the territory embraced in the former village of Tottenville.

Respectfully yours,

G. L. STERLING, Acting Corporation Counsel.

REPORT No. F-31.

BOARD OF ESTIMATE AND APPORTIONMENT,
OFFICE OF THE CHIEF ENGINEER,
June 18, 1907.

Hon. GEORGE B. McCLELLAN, Mayor, Chairman of the Board of Estimate and Apportionment:

SIR—In the report upon the application of the New York and Richmond Gas Company for a franchise, attention was called to the consent formerly given by the Trustees of the village of Tottenville to the Camden Construction Company to lay gas mains, and while doubt was expressed as to the validity of any right which this Company might claim, it was suggested that the Corporation Counsel be asked for an opinion. Such an opinion he has given under date of June 11, and he holds that this Company has no right whatever to lay gas mains in the public streets, and suggests that the President of the Borough of Richmond and the Commissioner of Water Supply, Gas and Electricity, without whose permission such mains cannot be laid, be notified of his conclusions and be requested not to grant any permit to this Company.

It is recommended that the Board act upon this suggestion and so advise and request the President of the Borough of Richmond and the Commissioner of Water Supply, Gas and Electricity. The opinion of the Corporation Counsel and the report of the Engineer in charge of the Division of Franchises are herewith submitted.

Respectfully,

NELSON P. LEWIS, Chief Engineer.

BOARD OF ESTIMATE AND APPORTIONMENT,
DIVISION OF FRANCHISES, ROOM 801, No. 277 BROADWAY,
June 13, 1907.

Mr. NELSON P. LEWIS, Chief Engineer:

SIR—In connection with the application of the New York and Richmond Gas Company for permission to operate in the Fifth Ward of the Borough of Richmond, I caused an investigation to be made as to whether any rights existed in any other companies to operate in that territory, and found that the corporation known as the Camden Construction Company had obtained the consent of the Board of Trustees of the Village of Tottenville to lay its gas mains in the streets thereof for a period of twenty-five years.

In order to ascertain as to whether this grant was valid and if any rights existed in the company at the present time, it was suggested in the report of April 8, 1907, that the matter be placed before the Corporation Counsel, with the request that he advise the Board as to whether the company had any right to lay its mains in the streets of that part of the Fifth Ward, and if not, as to what procedure might be necessary to prevent it from doing so.

On June 11, 1907, the Corporation Counsel, in an opinion to the Board, advised that the company has absolutely no right to lay its mains in such territory, and suggested the advisability of notifying the President of the Borough of Richmond and the Commissioner of Water Supply, Gas and Electricity not to grant to said company, or to any one claiming under the said alleged permission and agreement, any permits to open the streets in the territory embraced in the former Village of Tottenville.

I would suggest that, in accordance with the advice of the Corporation Counsel, the Board direct the Secretary to notify the President of the Borough of Richmond and the Commissioner of Water Supply, Gas and Electricity accordingly.

Respectfully,

HARRY P. NICHOLS, Engineer in Charge.

The opinion of the Acting Corporation Counsel was ordered filed, and the Secretary was directed to notify the President of the Borough of Richmond and the Commissioner of Water Supply, Gas and Electricity accordingly.

Mutual Life Insurance Company of New York.

At the meeting of January 4, 1907, a petition was received from the Mutual Life Insurance Company of New York, requesting the Board to revoke the consent granted by resolution adopted by the Board of Aldermen April 7, 1903, approved by the Mayor April 30, 1903, permitting this Company to construct, maintain and use two pipes and certain vault space under and across Liberty street, between Nassau and William streets, Borough of Manhattan, and release it from payment of the annual charge, and also cancel the bond filed in accordance with the consent. At the same meeting a report was received from the Bureau of Franchises recommending that the company be required to remove the pipes, restore the space now occupied as a vault to its original condition, make payments up to and including the date on which the revocation of the consent becomes effective and comply with the rules, regulations and requirements prescribed by the President of the Borough of Manhattan, the Commissioner of Water Supply, Gas and Electricity and the Comptroller, and by resolution adopted on that date these officials were requested to present certificates in writing to the Board when the rules of their departments had been complied with.

At the meeting of February 1, 1907, the petitioner requested that it be allowed to remove the pipes, wires and cables from the brick lined tube or tunnel and build walls under the curb line of the street at the ends of the tunnel, and also build walls under the vault; and the matter was referred to the Bureau of Franchises.

The Secretary presented the following:

REPORT No. F-32.

BOARD OF ESTIMATE AND APPORTIONMENT,
OFFICE OF THE CHIEF ENGINEER,
June 18, 1907.

Hon. GEORGE B. McCLELLAN, Mayor, Chairman of the Board of Estimate and Apportionment:

SIR—I submit herewith report received from the Engineer in charge of the Division of Franchises relative to the request of the Mutual Life Insurance Company to be relieved from the obligation of removing structures erected by it under Liberty street, and that the Company be permitted simply to remove the pipes, wires and cables, and allow the tunnels containing them to remain.

The Commissioner of Water Supply, Gas and Electricity, and the President of the Borough of Manhattan have both been consulted, and they are of the opinion that the present tunnels offer serious obstruction and that they should be removed, and I concur in the conclusion and recommendation of the Engineer in charge of the Division of Franchises that the application of the Mutual Life Insurance Company requesting the revocation of the consent already given it be denied, and that the annual charge and bond exacted from the Company and on file in the office of the Comptroller be continued until the certificates required by resolution of the Board of January 4, 1907, shall have been received and the consent shall have been revoked.

Respectfully,

NELSON P. LEWIS, Chief Engineer.

DIVISION OF FRANCHISES,
June 13, 1907.

Mr. NELSON P. LEWIS, Chief Engineer:

SIR—By resolution duly adopted by the Board of Aldermen April 7, 1903, approved by the Mayor April 30, 1903, permission was granted "to the Mutual Life Insurance Company of New York, its successors and assigns, to construct and maintain a tunnel under and across Liberty street, in the Borough of Manhattan, between Nassau and William streets, to connect the properties Nos. 33 and 35 Liberty street and Nos. 41 to 49 Liberty street on the north side of said street, with No. 46 Liberty street, on the south side of said street, which properties are owned by the said Mutual Life Insurance Company; * * * providing the said Mutual Life Insurance Company shall pay to The City of New York as compensation for the privilege such amount as may be determined as an equivalent therefor by the Commissioners of the Sinking Fund."

The compensation to be paid for the privilege was subsequently fixed by the Board of Estimate and Apportionment at \$1,248.04 per annum, and the Company was required, in addition thereto, to construct the tunnel under the direction of the President of the Borough of Manhattan, and subject to such conditions as he should prescribe; and the Company was also required to file a bond in the office of the Comptroller for the faithful performance of all the terms and conditions.

Under this consent, the Mutual Life Insurance Company constructed a pipe from Nos. 33 to 35 Liberty street 4 feet 2 inches in diameter, and two pipes from No. 43 Liberty street 3 feet 2 inches each in diameter; and also a vault space 28 feet 3 inches by 5 feet 6 inches in front of No. 46 Liberty street.

In a verified petition dated December 27, 1906, and presented to the Board of Estimate and Apportionment at the meeting held January 4, 1907, the Mutual Life Insurance Company requested the Board to revoke the consent, and release it from the payment of the annual charge, and also to revoke the permit issued by the President of the Borough of Manhattan, and cancel the bond, thereby releasing the petitioner from any and all liability in the premises.

At this same meeting a resolution was adopted directing that a copy of the petition and the report of the Bureau of Franchises thereon be transmitted to the Comptroller, the President of the Borough of Manhattan and the Commissioner of Water Supply, Gas and Electricity, and that these officials submit certificates to the Board that the pipes or tunnel and walls of the vault have been removed, and the subsurface of the street restored to its original condition by the Insurance Company, after such work had been completed, and the Company had complied with all the regulations of their departments.

Thereupon the Company presented a communication dated January 28, 1907, to the Board of Estimate and Apportionment at a meeting held on February 1, which was as follows:

"The said the Mutual Life Insurance Company of New York, the petitioner herein, would respectfully state that it finds that in order to comply with the requirements imposed by said resolution it would entail a great expense to this petitioner, besides as petitioner verily believes that the course of proceeding as hereinafter prayed for by petitioner would answer the same ends and be as effective in favor of the City as a compliance with the requirements contained in said resolutions.

"Petitioner, therefore, respectfully prays that your Honorable Board reconsider the said resolutions and that petitioner may be permitted to remove the pipes, wires and cables from the brick lined tube or tunnel and build up substantial walls under the curb line of the street at the respective ends of said tunnel, and also to leave the vault as it now is, and build up a substantial vault wall under the curb line of said street, and thereafter be relieved from the annual compensation reserved by the said City of New York as hereinabove set forth."

—which was referred to the Bureau of Franchises.

Under date of February 11, 1907, communications were addressed to the President of the Borough of Manhattan, and to the Commissioner of Water Supply, Gas and Electricity, requesting their opinion as to what action should be taken in regard to the matter.

The Deputy Commissioner of Water Supply, Gas and Electricity, in a reply dated February 16, 1907, states that it is the opinion of the Chief Engineer that the vault may present an obstruction to the future use of this street by his department for subsurface work, and he recommends that the Mutual Life Insurance Company be directed to remove the tunnel entirely, and to restore the street pavement to its original condition.

Under date of June 11, 1907, the Secretary of the President of the Borough of Manhattan transmitted a copy of a report from the Chief Engineer of Sewers, dated June 6, 1907, to the Superintendent of Sewers, wherein it is stated that "It is quite possible if these pipes should be withdrawn from the street that sewer would cave in, and that any permission given to this Company to withdraw these pipes should be accompanied by an obligation to rebuild the sewer at that point in case of failure."

In view of these facts, I am of the opinion that the application now before the Board, requesting revocation of the consent, be denied, and that the annual charge and the bond required to be filed in the office of the Comptroller for the faithful performance of the terms and conditions of the consent be continued until the certificates required by the resolution heretofore adopted by the Board on January 4, 1907, have been received and the consent has been revoked.

Respectfully,

HARRY P. NICHOLS, Engineer in Charge.

The following was offered:

Whereas, By resolution duly adopted by the Board of Aldermen April 7, 1903, and approved by the Mayor April 30, 1903, permission was granted to the Mutual Life Insurance Company of New York to construct and maintain a tunnel under and across Liberty street, between Nassau and William streets, in the Borough of Manhattan, to connect the properties Nos. 33 and 35 Liberty street and Nos. 41 to 49 Liberty street, on the north side of said street, with No. 46 Liberty street, on the south side of said street, and the compensation to be paid for such privilege was subsequently fixed by the Board of Estimate and Apportionment at \$1,248.04 per annum, and the company was required, in addition thereto, to construct the tunnel under the direction of the President of the Borough of Manhattan, and to file a bond in the office of the Comptroller for the faithful performance of all the terms and conditions; and

Whereas, Under this consent, the Mutual Life Insurance Company constructed a pipe from Nos. 33 and 35 Liberty street, and two pipes from No. 43 Liberty street, and also a vault space in front of No. 46 Liberty street; and

Whereas, In a verified petition, dated December 27, 1906, and presented to the Board of Estimate and Apportionment at the meeting held January 4, 1907, the Mutual Life Insurance Company requested the Board to revoke the consent and release it from the payment of the annual charge, and also to revoke the permit issued by the President of the Borough of Manhattan and cancel the bond, thereby releasing the petitioner from any and all liability in the premises; and

Whereas, At this same meeting of the Board a resolution was adopted directing the Comptroller, the President of the Borough of Manhattan, and the Commissioner of Water Supply, Gas and Electricity to inform the Board when the above mentioned pipes or tunnels and walls of the vault had been removed and the subsurface and surface of the street restored to its original condition by the insurance company; and

Whereas, The insurance company presented a communication dated January 28, 1907, to the Board of Estimate and Apportionment, at a meeting held February 1, 1907, praying that the petitioner be permitted to construct walls under the curb lines at the ends of said tunnels and vault, instead of removing the said tunnels and vault, and thereafter be relieved from the annual compensation reserved by The City of New York; and

Whereas, It would appear from the reports made to the Board that the pipes and vault may present an obstruction to the construction of subsurface work in the future;

Resolved, That the petition of the Mutual Life Insurance Company of New York, to construct walls under the curb lines at the ends of the tunnels and vault in question, in lieu of removing the same entirely from the street, be and is hereby denied, and that the annual charge and bond required to be filed in the office of the Comptroller for the faithful performance of the terms and conditions of the consent be continued until the certificates required by the resolution hereinabove mentioned, and adopted by the Board on January 4, 1907, have been received and the consent has subsequently been revoked.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

Traders' Hygiene Ice Company.

By resolution adopted by the Board April 27, 1906, approved by the Mayor May 2, 1906, the Traders' Hygiene Ice Company was granted permission to construct, maintain and use a pipe line under and along East One Hundred and Thirty-sixth street, from the bulkhead in the Harlem river, at the East One Hundred and Thirty-sixth street slip, to the ice plant of the company on One Hundred and Thirty-sixth street, between Madison and Fifth avenues, Borough of Manhattan.

Section 13 of the consent required that the company should notify the Board of the date when it commenced and completed construction of same.

The Secretary presented the following:

TRADERS' HYGIENE ICE COMPANY,
June 6, 1907.

The Board of Estimate and Apportionment, City of New York:

GENTLEMEN—We wish to advise that the work of constructing the 10-inch pipe under One Hundred and Thirty-sixth street, from the Harlem river to our plant, was begun on the 12th of December and completed December 31, 1906.

Yours truly,

TRADERS' HYGIENE ICE COMPANY,
Per H. GROSSKOPF.

Which was ordered filed.

Manhattan Refrigerating Company; Brooklyn Grade Crossing Commission and Long Island Railroad Company, as Lessee of the New York, Brooklyn and Manhattan Beach Railway Company.

A communication was received from the Mayor's office, returning, duly approved by the Mayor, resolutions as follows:

(a) Granting permission to the Manhattan Refrigerating Company to construct, maintain and use a pipe line from its building at Horatio and West streets, along Horatio, West and Gansevoort streets and Thirteenth avenue, to the pier next north of Pier 52, North river;

(b) Consenting to a relocation and change of grade of the tracks of the Manhattan Beach Division of the New York, Brooklyn and Manhattan Beach Railway, from Avenue M to a point south of Emmons (or Neptune) avenue, Borough of Brooklyn.

Which was ordered filed.

Central Railroad of New Jersey.

The Secretary presented the following:

Application of the Central Railroad Company of New Jersey for permission to construct, maintain and use an overhead foot bridge over West street (at a point between Liberty and Cedar streets), in The City of New York.

To the Honorable Board of Estimate and Apportionment of The City of New York:

The Central Railroad Company of New Jersey respectfully represents to your Honorable Board that it is a New Jersey corporation and entitled to do business in the State of New York. That it is the owner in fee of a piece of real estate near the southeast corner of Liberty and West streets, in the City, County and State of New York, more particularly described as follows:

Beginning at a point on the easterly side of West street, distant southwardly twenty-two (22) feet five (5) inches from the southeasterly corner of Liberty and West streets, at the middle of a party wall; thence (1) eastwardly through the middle of said party wall fifty-seven (57) feet eight (8) inches to the middle of another party wall; thence (2) northwardly through the middle of said last mentioned party wall twenty-one (21) feet seven (7) inches to a point in the southerly side of Liberty street distant sixty-three (63) feet ten (10) inches eastwardly from the said southeasterly corner of Liberty and West streets; thence (3) easterly along said southeasterly side of Liberty street twenty-one (21) feet six (6) inches to a store or lot, now or late belonging to Stephen Allen; thence (4) southerly along said store or lot, now or late of Stephen Allen, forty-three (43) feet two (2) inches to the middle of a party wall; thence (5) westerly along the middle of said party wall seventy-three (73) feet to the said easterly side of West street; thence (6) northwardly along said easterly side of West street twenty-two (22) feet four (4) inches to the place of beginning, be the said distances more or less.

Being the same premises conveyed to the Communipaw Central Land Company by two deeds from John F. Morton, unmarried, both dated the 20th day of October, 1905, and recorded in Liber 92, page 220, and in Liber 93, page 454, of deeds for said County.

That it is also the owner in fee of a certain piece of real estate on the westerly end of Liberty street and also opposite the first described real estate, the same having a frontage of some one hundred and seventy-three (173) feet on West street, which last piece of real estate is now used for the purpose of a ferry house.

That, pursuant to a plan adopted by the authorities of The City of New York, extensive improvements are now being made on this property by the railroad company, which when completed will (inter alia) result in widening West street from 70 feet to approximately 250 feet. That large numbers of the public use the present ferry house each day, crossing West street in connection with such use, resulting in congestion of traffic at the Liberty street crossing of West street. That in connection with these improvements now under way, and with a view to relieving the congestion of traffic already referred to, and for the better accommodation of the public in seeking access to and egress from its ferry boats, the said company desires permission to connect the two above described pieces of property on either side of West street by an overhead foot bridge, as appears in the accompanying plan. That the bridge shall be 16 feet in width, extending from the West street front of the first above described piece of property directly across to the ferry house property, also above described. The same to be at a minimum clearance above the street of 16 feet, and the frame work to be of steel truss bands riveted together, as more specifically shown on the plan herewith submitted.

The railroad company further represents that it desires to adapt the real estate first above described and its ferry house improvements now under way to the accommodation of the bridge herein applied for, and to build the said bridge with all reasonable speed, which, in view of the situation, can hardly be brought about in less than twelve to fifteen months, and that if the consent of your Honorable Body is obtained to this application that the rent fixed by your Board should not exceed

\$100, and that the time from which rent should commence should approximate to the time when the same was available for public use.

Wherefore the said the Central Railroad Company of New Jersey applies for permission to construct an overhead foot bridge in accordance with the plan accompanying this application.

THE CENTRAL RAILROAD COMPANY OF NEW JERSEY,

By W. G. BESLER, Vice-President and General Manager.

Dated June 18, 1907.

Which was referred to the Chief Engineer.

Atlantic Telephone Company.

In the matter of the application of the Atlantic Telephone Company for a franchise to construct, maintain and operate poles, wires and necessary appliances for the installation of a telephone system throughout The City of New York.

At the meeting of June 14, 1907, a public hearing was had before the Committee of the Whole, and at the conclusion thereof said committee reported that a franchise be granted to the Atlantic Telephone Company upon terms and conditions to be imposed by the Board, and requested that such committee be discharged from further consideration of the matter, which report was accepted by the Board, and by motion duly adopted on said date the matter of granting the franchise was ordered taken up at the conclusion of the calendar of this day.

Hon. Martin W. Littleton, of counsel, appeared on behalf of the Atlantic Telephone Company.

J. Aspinwall Hodge appeared in behalf of the New York Electric Lines Company, and in opposition to the proposed grant.

The President of the Borough of Manhattan presented the following statement, in answer to the remarks of Mr. Hodge, which was read by the Clerk:

First—The Atlantic Telephone Company refused to co-operate with the so-called independent telephone companies in this State because—

1. The so-called independent telephone companies of the State were endeavoring to sell out their interests to the Bell Company, and were prevented by the action of Attorney General Jackson of the State.

2. The independent telephone companies declined to join the Atlantic Telephone Company unless it would turn over the control of its plant to them—a significant demand followed by a significant proposal of sale to the Bell Company.

Second—The Atlantic Telephone Company has executed contracts to the extent of eighty thousand in number with real estate owners in The City of New York for telephone service as soon as it is in position to give such service and its officers and counsel have been flooded with correspondence and letters from various institutions in this city asking for the privilege of subscribing to its service.

Third—The Atlantic Telephone Company has no contract with outside independent companies and cannot make a contract with any outside independent companies until it is in position to give those outside independent telephone companies connection with New York City, but it has an offer from the Keystone Telephone Company of Philadelphia, the Independent Telephone Company of Pittsburg, the Independent Telephone Company of Pennsylvania and of New Jersey, coming as near as Elizabeth, for long distance connection which will take us as far west as you can talk over the telephone.

Fourth—The Independent Telephone Company of Chicago, which installed the automatic, is not backed by the Automatic Electric Company, and even if it were the Automatic Electric Company has not one dollar's worth of interest in the Atlantic Telephone Company, but simply has an exclusive contract with the Atlantic Telephone Company to furnish automatic appliances to-day in The City of New York.

Fifth—The President of the Atlantic Telephone Company and his associates are in negotiation to take over the Independent Telephone Company of Chicago, and in the group of men who are in that enterprise there is a representative of over one million independent telephones within talking distance of Chicago.

Sixth—The Automatic Electric Company of Chicago has doubled its plant within the last year in order to meet and fulfil orders for its appliances, and has installed to-day in the city of Baltimore the automatic system instead of the manual system. It has installed the automatic in Grand Rapids, Columbus, Los Angeles and a multitude of western cities of smaller size.

Seventh—The Automatic Electric Company, with which the Atlantic Telephone Company has an exclusive contract, is the one automatic company in America and controls and manufactures all of the automatic appliances for telephone use, and the working plans submitted to the Atlantic Telephone Company, at great expense, show that they can be used for a large city just as well as for a small one.

Eighth—The Automatic Electric Company is in undisputed control of its patents. It is occasionally assailed by some strikers who are endeavoring to bleed it of money under the pretense that they have some claim upon its patents, but they have never yet won a lawsuit that they have begun.

Ninth—The Automatic Electric Company, which manufactures automatic appliances, is a company which has paid and is paying ten per cent. upon its stock as an actual dividend which is earned every year, and has doubled its capital stock and doubled its plant. This is in answer to the proposition that it is doing no business.

Tenth—The Atlantic Telephone Company does not propose to install a small plant in New York City, but is under contract, under the proposed agreement, to install so many telephones each year, and if it does not do so the City may forfeit its rights.

Eleventh—The Atlantic Telephone Company refuses to deal with a great portion of the independent telephone companies of New York until it is sure that they do not intend to sell out to the Bell Company, as they undertook to do until stopped by an injunction.

Twelfth—The so-called franchise of the New York Electric Lines Company has been capitalized, and a million dollars of stock launched upon the market and flooded over the country in an endeavor to secure enough money to keep it going. The franchise which they claim is over twenty-one years old, unexercised and has not one dollar's worth of property built upon it.

Thirteenth—The Atlantic Telephone Company has not sold one dollar's worth of stock nor one bond, nor has it offered to sell one dollar's worth of stock or bonds to any person. Its stocks and bonds are all held in abeyance, but if it gets any franchise they will be valuable, provided it makes good on the franchise it gets.

Elias E. Reis appeared in behalf of the United States Automatic Telephone Company.

The Chair presented the following communications:

The Honorable Board of Estimate and Apportionment of The City of New York, No. 277 Broadway, New York:

SIRS—The Star Telephone Company hereby protests against the granting of a franchise to the Atlantic Telephone Company without your Honorable Board first considering the merits of the Star Telephone Company's application for such a franchise.

The Star Company considers that its proposition is fairer to the City than any other that has been made and that it is financially better able than any other of the applicant companies to undertake the establishment of a competing telephone system.

The Atlantic Company has not shown itself to be financially responsible or otherwise able to carry out the terms of its proposed contract with this Board.

The Star Telephone Company respectfully submits that if any street franchise is to be granted at this time it should, solely upon the merits of its application, be the one to receive it.

Dated, June 20, 1907.

STAR TELPEPHONE COMPANY.

By EDWARD L. BLACKMAN, Attorney.

NEW YORK, June 20, 1907.

Board of Estimate and Apportionment, No. 280 Broadway, New York City:

DEAR SIRS—Your communication to the undersigned, bearing date the 26th day of October, 1906, signed by your Secretary, stating that the matter of the former application of the Municipal Subway Company to the Commissioner of Water Supply, Gas and Electricity, and the execution of the contract with reference to the building of new subways for electrical conduits, had been referred to the Corporation Counsel for opinion as to the right and power of the Commissioner of Water Supply, Gas and Electricity in the premises, and that said corporation is advised that there is no authority in such officer to grant such franchises, is received and contents noted.

Under the circumstances we respectfully request that your Honorable Board will take up the consideration of said petition, and, having full power in the premises, will grant to the Municipal Subway Company the relief heretofore requested by that company from the Commissioner of Water Supply, Gas and Electricity.

We remain, SIRS, your obedient servants,

[SEAL.]

MUNICIPAL SUBWAY COMPANY,

Per JOHN D. BEERS, President.

Attest:

WM. E. BURROUGHS, Secretary.

CALHOUN, ROBBINS & Co.,
Nos. 408 AND 410 BROADWAY,
NEW YORK, June 20, 1907.

To the Board of Estimate and Apportionment, New York City:

GENTLEMEN—Through the press I note that there is now pending before your Honorable Board the question of granting a franchise to the Atlantic Telephone Company to operate a separate telephone system in this city. There is also pending before you an offer from the existing telephone company to furnish service at reasonable rates under the supervision and control of the City.

There is, therefore, now before you for a decision a question of vital interest to the trade and commerce of this city, namely, whether there shall be one uniform system of telephone service upon rates and of a quality subject to the control of the public authorities, furnished by a company already established and equipped, or whether there shall be forced upon the business interests of the city a divided service, with the increased trouble, annoyance and cost incident thereto.

Some eight year or more ago the writer, not having made at that time a study of the respective merits of competition and non-competition in telephone service, felt that a competing telephone company in this city would be of advantage, and therefore associated himself with other business interests in an independent telephone company. The result of the experience obtained at that time, coupled with the close personal study given to the question since that time, has, however, convinced him that the greatest benefit to be derived by business houses from telephone service depends upon the highest degree of interchangeability of telephonic communication at the least cost of time, trouble and money, and that this greatest degree of benefit can be obtained only through the service of one company, which should be, however, subject to proper supervision and control by the city authorities.

My information derived from personal experience in cities where dual telephone systems are in existence, as well as from statements made to me by business houses located in such cities, is to the effect that instead of reducing the cost of telephone service and increasing the efficiency of the service, in the long run the dual system has an exactly opposite effect. The cost is greatly increased because two telephone systems must be maintained, and the service ultimately deteriorates.

About two years ago the writer had the honor to be the chairman of the committee of the Merchants' Association of New York appointed to investigate conditions in regard to the telephone service of this city. This original committee felt at the time that the telephone rates were higher than they should be, and that effective control either by voluntary publicity or by authorities constituted by law should be had for the proper protection of the public. To the attitude of the writer as chairman of this committee the telephone company took exception, protesting that an effort was being made to destroy the telephone company and to use methods to obtain regulation which in the opinion of the telephone company at that time indicated bad faith on my part.

It was the determination of the chairman of the Telephone Committee that the telephone company should be brought under control, reduce their rates and at the same time give better service.

In order that there might be no obstacle in the way of the Merchants' Association of New York in its effort to accomplish these results, the writer proposed to the telephone company that he would retire as chairman and member of the committee provided that the telephone company would open its books to the inspection of the Merchants' Association, and that whatever recommendations were made by that committee as a result of their study of the facts developed by such investigation should receive the serious consideration of the telephone company. The writer thereupon did resign, and the Merchants' Association conducted the investigation, with the result that there was saved to the people of the city \$1,500,000 per annum in rates. This is stated simply to demonstrate that the writer is not arguing as an advocate of the telephone company, but, on the contrary, is considering the subject exclusively from the standpoint of the business interests of the city.

In New York City the expense of doing business is far in excess of that in any other city in the country. The business community should not be further handicapped by the unnecessary increase in the cost of any essential factor in doing business. As far as business houses are affected the creation of a dual system almost invariably increases the expense of doing business in so far as telephone service is concerned. If, therefore, there can be obtained an adequate service from a single company, under proper supervision and control as to rates and quality of service, the best interests of that community demands such a single system. Moreover, the streets of our city are already in a worse condition than ever before. The installation of a new telephone service, with the constant necessity of tearing up streets, will simply add unnecessary injury to the pavements over which the trade and commerce of this city must pass.

Study of the history of dual telephone service in other cities shows that the usual method of procedure adopted by a new competing company in seeking a franchise is to stir up dissatisfaction through newspaper articles and otherwise. This is a comparatively easy thing to do, because there is quite a proportion of any community which has never made a personal study of the merits of the question and therefore are not competent to pass upon those merits. The agents of the competing company seeking a franchise usually hold out as an inducement a promise of reduction in rates and of great betterment in service on account of competition. These agents often find it an easy matter to obtain the promises of thousands of subscribers, but in no instance does the writer know of a company permanently to make good the roseate promises of reduced rates and better service. On the contrary, the people they have beguiled into ordering their old telephones out and the new ones installed soon find that in order to get adequate service they must have both telephones, necessitating to search through two directories and addition oper-

ation cost, and causing the defacement of streets and residences by additional wires. And all this at an increased total expense for the telephone service.

On account of the constant friction between the two competing companies, each of which is liable to work against the other, even in the endeavor to create dissatisfaction among employees, the general conditions of telephone service, instead of becoming better, grow a great deal worse.

Towns that have granted a franchise for a second telephone company very speedily find themselves cursed with the gratified desire, for the competing company often destroys the earning capacity of the original company to pay dividends, without any ability to earn a profit for itself.

Many of these competing companies are originated for the purpose of forcing the old company to buy them out, or are later compelled by force of circumstances to combine with or sell out to the original company. This is not confined to the telephone business. For an example of similar methods of endeavor to make money at the expense of a successful business it is but necessary to look at the history of the American Express Company and the Merchants' Union Express Company, which latter was formed ostensibly for the purpose of reducing the express rates by competition. A rate war was waged for several years until the earning capacity of the American Express Company was reduced to a point where they were compelled to absorb the Merchants' Union Company, and then reasonably satisfactory service was given. Another instance is shown in the history of the West Shore Railroad, which through unnecessary competition so affected the earning capacity of the New York Central Railroad that the latter company was finally compelled to acquire the West Shore for its own protection, guaranteeing the securities of the West Shore Railroad. Another instance is shown in the history of the Nickle Plate Road.

Believing that your Honorable Board is actuated by a desire to serve the business community of this city in the most efficient manner, and further believing, as a result of personal study of the question, that these business interests will be conserved by insuring a proper telephone service given by a single company under proper supervision and control, as one who has spent his life in business in this city, I most earnestly urge that no franchise be given to a competing company, but that your Board should forthwith arrange for the continuation of service by the existing company, under such proper supervision and control.

If the Merchants' Association of New York, as is the case, was able, without occupying any official position in the matter, to obtain a modification of the rates of the telephone company amounting to \$1,500,000 annually, it is certainly the fact that official supervision and control by the city authorities would insure to the telephone users fair, just and competent service.

Should your Body be disinclined to take this view at this time I would respectfully urge that the matter of the application of the Atlantic Telephone Company be held in abeyance until such time as exact and detailed data shall be collated concerning the physical equipment of the present company, the proposed equipment of the Atlantic Telephone Company and the ability of each to carry out the proposition it has made to the city.

Yours very truly,

WM. F. KING.

The Secretary presented the following:

Report of the Committee on City Affairs of the Republican Club, dated June 17, 1907.

NEW YORK ELECTRIC LINES COMPANY,
No. 32 BROADWAY,
NEW YORK, June 18, 1907.

To the Board of Estimate and Apportionment of The City of New York:

GENTLEMEN—The attention of this company has been called to a resolution of your Honorable Board, passed on the 7th inst., calling for a public hearing on all telephone matters on the 14th.

We have also before us the opinion of the Corporation Counsel, which was the occasion of the resolution.

Accordingly our counsel appeared before the Board on that day and upon the matter being referred to the Committee of the Whole, we requested the privilege of stating the position of our company as a necessary factor in the granting of any franchise to any other company, but was informed that it was not the appropriate time to present that matter to the Board, there being then pending a resolution of the Committee of the Whole that they recommend to the Board the granting of a franchise upon such terms as the Board might fix, to the Atlantic Telephone Company.

It is therefore true that except so far as the matter is raised in the opinion of the Corporation Counsel this Board has never had before it in considering a franchise to the Atlantic Company, the rights which our company possesses.

Without repeating the facts contained in this letter, addressed to his Excellency, the Mayor, on September 11, 1906, we deem it very important that our position be clearly understood for, as suggested in the opinion of the Corporation Counsel, the existence of our franchise, as well as our present endeavors to install the Independent telephone system, in the city, are necessary factors in any consideration of the subject before you.

Noting also the action of your Honorable Board, sitting as a Committee of the Whole, on the matter of a telephone franchise to the Atlantic Telephone Company, on the 14th inst., we wish to offer a protest against the granting of such a franchise, submitting the following reasons for such protest:

First—The Atlantic Telephone Company has not shown its independence by co-operating with other independent telephone companies in this State, or elsewhere seeking New York City connection.

Second—That they have not a single contract for telephone service in New York City that is enforceable, their so-called contracts amounting to nothing more than "wiring permits" taken six years ago.

Third—That they have no contracts with outside independent companies insuring a single long-distance connection for New York City.

Fourth—That under a similar franchise granted to the so-called Independent Company, controlled by the Automatic Electric Company, which is now backing the Atlantic Telephone Company, by the City of Chicago five years ago, they have failed to conform to the conditions of the franchise and the City of Chicago is now endeavoring to cancel the same.

Fifth—That notwithstanding the efforts of the independent telephone companies surrounding Chicago, now operating more than 1,200,000 telephones, these people have refused connection with the independents, and retarded the growth of the independent systems seeking Chicago connection more than all other conditions combined.

Sixth—That while the control of the Automatic Electric Company in whose interests this franchise is sought, is unknown, it has done more to retard independent telephone competition than as if such control was publicly known to be vested in the telephone monopoly.

Seventh—While a proper and efficient automatic system may be theoretically correct, certainly the one controlled by the Atlantic Company is not adapted to large cities, as shown by its decline in Chicago from 10,000 to a little over 6,000 telephones in three years, leaving a mere handful where the monopoly has over 165,000 telephones in operation.

Eighth—The City would be entering into a very dangerous contract if it relied upon the Atlantic Company, who are in return relying on the patents of the Automatic Electric Company. The basic principles of these patents and of the entire system are now being contested by the Globe Automatic Company, with strong probability of the Atlantic Company being enjoined from using the patents and the system upon which the entire application and business is based. We do not understand that the City has ever inquired into this patent situation, either through its Bureau of Franchises or otherwise.

Ninth—That notwithstanding the most strenuous business activity on the part of the Automatic Electric Company in the introduction of the automatic system, they have been successful in installing less than 100 exchanges during the last twelve

years, as against over 6,000 exchanges by the manual system, while many of these automatic systems have been abandoned and manual systems installed in their place.

Tenth—That a small automatic system of a few thousand, such as they have in Chicago, with no outside or long distance connection, in competition with the 250,000 instruments now claimed by the trust in the metropolitan district, will prove worse than no competition and retard the establishment of an adequate system to meet the demands of the City.

Eleventh—That until the Atlantic Telephone Company can show to your Honorable Board duly executed contracts with at least a majority of the independent telephone companies of the State, insuring long distance connection, and is willing to guarantee at least 100,000 subscribers in New York City within three years, their application should be held for further consideration.

Twelfth—In the consideration of the proposed franchise to the Atlantic Telephone Company it should be borne in mind, as pointed out in the recent opinion of the Corporation Counsel in this matter, that there is already a franchise outstanding of the New York Electric Lines Company. Upon the strength of that franchise the company has expended over \$200,000, and has been able, ready and anxious to install a telephone system under it, as evidenced by applications made December 5, 1905.

That the franchise is an irrevocable contract with the City, as it has been emphatically declared (1) by Mr. Justice Bischoff at Special Term; (2) as it has been admitted by the Corporation Counsel in his brief in the Appellate Division; (3) as it has been asserted by the opinion of the learned Judge writing for the Court of Appeals. We quote from these authorities to prove that this is so.

Justice Bischoff at Special Term says:

"It is quite apparent, however, that the relator did conform to the conditions of the statute, as expressed. It organized within one year and also commenced the transaction of its business, for it obtained a franchise from the city to lay wires underground, one of the purposes of its incorporation as stated in its charter. The statute did not require that it should commence the work of constructing electrical subways, nor that it should undertake any particular endeavor; one step in the transaction of its business within the year was a commencement, and when obtaining a franchise from the city it took that step and did commence the transaction of its business. The corporate life of the relator was not, therefore, brought to an end by the statute.

"So, too, it may be held that the franchise from the city, obtained by the relator in the year 1883, was irrevocable by the city, because not forfeited by any terms of the agreement itself."

The Corporation Counsel in his brief says:

"It is well to bear in mind that the present claim of the relator is not the right to lay wires in subways, a right which no one disputes. * * * There is no claim that the relator has been refused permission to string its wires in the subway or that there is lack of room for such wires therein. If the subways of the Empire City Subway Company are not sufficient, means can readily be found for the construction of other subways."

The Court of Appeals decision says:

"The essential purpose of the relator's incorporation and the permission acquired by it April 10, 1883 (the franchise from the city), was to lay electric conductors, and its right in that respect has not been materially or essentially violated or impaired.

"The only effect of the statutes and the contracts made in pursuance thereof (the subway acts and the contracts thereunder) is to require that the electric conductors to be laid by the relator shall be placed in conduits constructed in accordance with the general plan, prepared in accordance with said statute, instead of allowing the relator to construct its own subways for laying such electric conductors.

"The rights of the relator have not, in our judgment, been impaired by said acts and contracts in any essential particular."

But, what is more important to the City, we beg to show that the contract between the City and the New York Electric Lines Company is a better contract for the City than the franchise now proposed for the Atlantic Telephone Company, in that it gives to the City two (2) per cent. of its gross receipts, while the company has voluntarily cut the Bell rates in half. This, on the basis of the present Bell rates, will save to the City in telephone rentals over \$125,000 a year, while 2 per cent. of its gross receipts will amount annually to over \$300,000 additional.

In addition to this, its rates to subscribers, ranging from \$1 to \$5 a month for unlimited residential service, and from 2 cents to 5 cents a message for business or measured service (a rate upon which over 105,000 contracts are secured in this City within five months), will save to the telephone users of this City more than eight million dollars (\$8,000,000) a year.

Further than this, we urge that we have contracts with the independent telephone companies outside of this City, insuring long distance connection with over 300 companies in this State, now operating over 175,000 telephones, while all independent companies within talking distance of New York, now operating over 2,000,000 telephones, will be privileged to connect with our long distance service upon equal terms.

We have not thought to impose upon your Honorable Board the details of our system nor have we taken the public into our confidence more than necessary during the adjudication of our rights, but deem it only proper at this time that you should know that we have not slept upon those rights.

Thirteenth—It is absolutely essential that any company granted a franchise by the City or attempting to install a comprehensive telephone system should (if the City is to be protected against the monopoly) be in such contractual relations with outside independent telephone companies as to insure long distance connection between telephone users in the City and the independent telephone users (who already outnumber the Bell) outside of the City.

But it is still more essential in protection of the City against the Bell monopoly, that such an arrangement should be existing as a condition precedent to the granting of any franchise since only thus can the continuance of a system as an independent company within the City be positively assured. If the operating independent company in New York City has contractual relations with and is controlled by those who own the independent telephone companies outside of the City, there is little or no danger of the Bell Company ever absorbing such an independent company. That is a protection far more valuable than any bond. A bond could be forfeited, and if the Bell Telephone Company made good the bond they could make themselves whole out of the increased tolls from the citizens within a very short period of time.

Since receiving the text of the decision of the Court of Appeals herein quoted, we have had our engineers at work remodeling our plans to conform thereto, and on the 18th inst. filed our first requisition with the Empire City Subway Company (limited) which will be supplemented by other requisitions until a full, comprehensive telephone system for New York City is attained.

We respectfully urge that in the consideration of the application of the Atlantic Telephone Company but one side (their side) of the question has been presented, and that an intelligent consideration of the subject should include any subject having any bearing. If the statements herein contained are true; if the Atlantic Telephone Company cannot refute those statements; if it is true that the City has made a better contract with the New York Electric Lines Company than is now offered by the Atlantic Company and that the granting of the proposed franchise means three telephone systems in the City, then we urge that it is the public duty of your Honorable Board to defer action upon such franchise until briefs can be submitted fully determining the standing of all companies seeking an entrance to this City.

We are prepared to meet any sub-committee of your Board, or to submit in detail any information which it may be useful for you to have, including our proposed rates, our contracts with subscribers, numbering already upwards of \$100,000 and our arrangements with the companies outside of the City having over 700,000 subscribers who, because they are independent companies are denied admission to the City and are unable to send a single message to anyone in this metropolis of the nation.

It should, however, be ever remembered, that our rights are based upon a franchise already granted, which, although it has been before the courts on several occasions, has never been successfully attacked, and is, we believe, without question an irrevocable grant and contract of value to the City, to the public and to us.

Respectfully submitted,

D. A. REYNOLDS,
Treasurer, New York Electric Lines Company.

THE UNITED STATES AUTOMATIC TELEPHONE COMPANY,
No. 116 NASSAU STREET,
NEW YORK, June 17, 1907.

The Board of Estimate and Apportionment of The City of New York:

GENTLEMEN—On May 31, 1906, I had the honor of submitting to you a petition and application for a telephone franchise on behalf of the United States Automatic Telephone Company, which came up for the consideration of your Honorable Board on June 8, 1906. The petition was submitted to the Corporation Counsel, who rendered an opinion, dated October 17, 1906, advising your Honorable Board that this company had no power to receive, nor the Board power to grant, the franchise applied for, on the ground that this company was incorporated under the manufacturing and not under the railroad and transportation laws of the State of New York. The application for a franchise was thereupon denied by the Board of Estimate and Apportionment at its meeting of November 9, 1906, without prejudice, however, to the right of this company to renew its application, upon complying with the statutory provisions.

According to the reports of the meeting of your Board held June 14, 1907, it appears that favorable action was taken toward granting a franchise to the Atlantic Telephone Company, whose petition was pending concurrently with that of the United States Automatic Telephone Company. Without wishing at this time to either oppose the grant of a franchise to the Atlantic Telephone Company or to renew the application for a franchise on behalf of the United States Automatic Telephone Company, the writer desires in the general interest to call the attention of your Board to the following considerations:

First—If The City of New York is to have a competing telephone system, it is self-evident that, in the interest of the public, the Board of Estimate and Apportionment should take such precautions as will insure and guarantee to the people of this city a telephone service that is better than that now given by the New York and the New Jersey Telephone companies.

Second—Such a telephone system should not only be better, but should be the best and most perfect that the art affords.

Third—It should be not only the best in point of clearness and distance of telephonic transmission, but should also excel in the matter of rapidity and certainty of connections and in low cost of the service.

Fourth—The instruments and apparatus employed should be of the most simple and reliable character, and of such a nature as to be capable of thorough interchangeability of service with the wires and existing instruments and apparatus of other telephone companies.

Fifth—The organization of the apparatus should be such as to afford absolutely secret telephonic communication, so that switchboard operators, where these are employed, will be incapable of "listening in" after connection has been established and conversation is in progress.

The system proposed to be installed by the Atlantic Telephone Company under its application for a franchise is one that aims to substitute mechanical devices for the human operators at central. This is not necessary for, nor will it accomplish, secrecy in service, since human operators would have to be installed at trunking and branch-exchange boards. Furthermore, it is exceedingly questionable whether a purely mechanical exchange system such as proposed will prove satisfactory for a city of the size and importance of Greater New York.

In view of the foregoing, the writer would respectfully suggest to your Honorable Board, in the event that a franchise be granted by it upon the application of the Atlantic Telephone Company, or to any other telephone operating company, that a provision be inserted in the grant, requiring that such telephone company shall use and employ only such telephone appliances and methods of operation as are capable of giving the public the best possible telephone service and the most rapid and economical that the art affords, and reserving to the Board and its engineers the right to recommend and cause it to adopt such available telephone system and appliances as the Board may, upon due investigation, find to be most capable of meeting these requirements.

That the art does afford a telephone system that is greatly superior to and far more economical than that furnished the public either by the present monopoly or that proposed by the Atlantic Telephone Company, will in some degree be apparent to your Board from a perusal of the special advantages and merits of this company's system, as well as the improved service and low schedule of rates which it renders possible, as set forth in its said petition of May 31, 1906, and the supplementary reports accompanying the same, which are on file.

The system of the United States Automatic Telephone Company possesses all the advantages claimed for the mechanical exchange system, such as prompt and automatic connections, secrecy of service, etc., without involving any of its limitations, mechanical complications and increased expense for installation and maintenance. At the same time, since it is a manual system with most of the manual work now imposed upon operators eliminated, owing to its distinctively automatic signaling, supervisory and clearing out features, it is directly in line with the standard practice that has been so successfully used in the largest manual telephone exchange system, while getting rid of substantially all of the annoying delays, "listening in," false "busy reports" and other objectionable features incident to the existing service. In other words, this company's system occupies the middle ground between and combines the best features of both the manual and the mechanical exchange methods without the limitations of either, in the most simple manner and with great benefit to the service.

This system, though admittedly superior in every way to its own, has not been adopted by the existing telephone monopoly, nor is it ever likely to do so of its own volition so long as it continues to enjoy the exclusive privilege of furnishing telephone service in this city, notwithstanding the benefits that would accrue to the public from its use. It is also well known that the present telephone monopoly has but little faith in a mechanical exchange system and does not regard an opposition company employing such a method of operation as a serious competitor, whereas it would have cause to feel otherwise if the competing service were organized along lines that permitted of indefinite expansion and that would also readily permit of a future interchange of traffic between its wires and those of other telephone exchange companies employing the manual system.

In order to obtain the best and most lasting benefits to the public from any competitive telephone service that might be created by the exercise of the franchise granting power vested in the Board of Estimate and Apportionment, it would seem to be absolutely necessary that the Board should not merely grant a franchise which may pervert the very purpose of the grant, but should carefully decide as to the system to be adopted as well as to exercise a wise control and supervision over the relations existing between the company and the public. The public has been a severe sufferer from the laxity that has heretofore characterized the granting of franchises for public utilities, and from the failure and lack of power to compel the corporation holding the franchise, upon the report of a suitable commission, to adopt such improved methods and appliances of established merit as may from time to time be developed and whose practical value is susceptible of demonstration.

If an independent telephone system is installed it should not only be superior to and more economical of operation than either the system at present used in this city or the one proposed by the Atlantic Telephone Company, but should also be of such essentially standard or interchangeable character as will permit of the ultimate direct interchange of business over the lines and instruments of the two competing companies, should the City at some future time find it necessary or desirable to bring about a joinder of the competing systems or to take over the control and operation of the telephone service itself, in the same manner as it now contemplates the ultimate control of its transit facilities.

In line with the above suggestions and in an entirely public spirited manner, the United States Automatic Telephone Company hereby invites your Honorable Board to cause a thorough investigation to be made of the merits of its system and apparatus, as originally requested in its petition, with a view to its recommendation for adoption by the Atlantic Telephone Company or any other telephone operating company desiring to inaugurate a competing telephone system in this city, feeling convinced that it will prove to be the best practical solution of this difficult problem. This company further agrees, in the event its system is recommended by your Board, to furnish, upon such reasonable terms as your Board may itself recommend, the use of its system and appliances, or such portions of the same as may be desired, under the letters patent owned by this company, and free of all royalty, to any competing telephone company to whom you may see proper to grant a franchise for Greater New York or any portion thereof.

Trusting that this proposal may meet with the approval of your Honorable Board and that it may be productive of results that will inure to the benefit of the people of this city, we beg to remain,

Respectfully yours,
THE UNITED STATES AUTOMATIC TELEPHONE COMPANY.
By ELIAS E. RIES, President.

COST OF CONSTRUCTION AND OPERATION OF A PROPOSED AUTOMATIC TELEPHONE SYSTEM FOR NEW YORK CITY,
AS SUBMITTED BY THE ATLANTIC TELEPHONE COMPANY.

General.

In considering the construction of a telephone system for this great City of New York as it is to-day, the question of what the city will be in, say twenty years from now, comes prominently to the front. It is impossible to divorce the city to-day from what the city will be in the future; hence any telephone system which is designed to take care of the present telephone needs of New York must be comprehensive enough to meet its telephone requirements in the future.

New York City, with its area of 325 square miles and a population, according to the State census of 1905, of approximately 4,000,000, with a growth from 1900 to 1905 of approximately 16 per cent., is a large problem when considering its telephone needs. Assuming now that this percentage of increase in population is maintained until, say the year 1925, the population will then be approximately 7,250,000. If we assume a 10 per cent. telephone development at that time, that is 10 telephones to each 100 of the population, the then existing telephone system, to be adequate, would be obliged to provide and take care of 725,000 telephones. We believe that this 10 per cent. development can be expected if the telephone rates are placed at a point low enough to popularize them.

The automatic system lends itself peculiarly to a large development in lines and with ease of interconnecting between these lines, inasmuch as it is a trunking system.

Description of Automatic Telephone System.

In an automatic telephone system electric machinery in the central offices is made to do the will of the calling subscriber, that is, connecting together the called and calling subscribers' lines obedient to the calling subscriber's wishes.

Each telephone in an automatic system is provided with a dial or wheel conveniently arranged thereon, on the right hand side of which and along the edge are 10 holes into which the ends of one's fingers may be thrust. These holes are numbered consecutively from 1 to 9 and 0, and from the bottom of the dial up. Letters are also used with these numbers if needed (see print 5 attached); a finger-stop is also provided at the lower edge of the above mentioned dial, to which it may be revolved.

Should a subscriber wish to call another subscriber, say No. 4921, he would place his finger in the hole marked "4," and revolve the dial until his finger pressed against the finger-stop; on withdrawing the finger the dial would return to its normal position; he would then place his finger in the hole marked "9" and pull it to the finger-stop, again letting the dial return to normal position; he would do the same with the "2" and the "1." His line would now be connected with line No. 4921, and the simple pressing of a button used with and adjacent to the dial (see print 5 attached), would ring the bell of No. 4921 subscriber.

A little thought in reference to the above method of operation will indicate that a subscriber in making a call extends his line by building up the number, one digit at a time, and in the above-described operation the first pull of the dial would extend his line to the 4,000 group; the 9 would extend his line to the 900 in that group, and so on. If this is understood it will be plain that if five figures are used, instead of four, the first pull of the dial would extend the subscriber's line to the 10,000 group, the next to the 1,000 group in that 10,000 group, and so on. By using six figures the first pull of the dial would extend the subscriber's line to the 100,000 group wanted, the next pull to the 10,000 group associated with that 100,000, the next to the 1,000 in that 10,000 and so on.

Further thought on this system of calling will make it plain that with a dial having ten holes in it, and assuming that all numbers have six figures, we can accommodate or switch to 1,000,000 lines; for since the first pull of the dial in a six-figure system extends the subscriber's line to the particular 100,000 group wanted, and there being ten holes or numbers on the dial, the subscriber can at will select any one of ten groups of 100,000 each, and by the subsequent movements or pulls of the dial select any one of the 100,000 subscribers in any of those groups.

If an ultimate of 10,000 subscribers is to be cared for in the system, four pulls of the dial would be made; if 100,000 lines are to be accommodated, five pulls would be made; if over 100,000 lines are to be accommodated six pulls would be made.

At this point it may be well to explain that a subscriber's telephone numbers may consist of a combination of letters and numbers, if so desired (see print 5 attached).

In arranging for taking care of the telephone needs of New York City, as they exist to-day, it is obvious that we must provide for over 100,000 lines, hence a six movement system would be used. With this plan in mind New York City has been divided up as follows:

One 100,000 group in the zone or office between the Battery and Tenth street.
One 100,000 group in the zone or office between Tenth street and Seventy-ninth street.

One 100,000 group in the zone or office between Seventy-ninth street and the Harlem river.

One 100,000 group in the Borough of The Bronx.
One 100,000 group in the Borough of Brooklyn.

Each of these five zones or offices as planned has a capacity of 100,000 lines, or 500,000 in all, and should the territory require additional offices they can be installed at any time.

Under this plan, should a subscriber in a lower Manhattan zone wish to talk with a subscriber in the Bronx, he would remove his receiver from the hook, place his finger in the hole marked "X" (see print 5 attached) and revolve the dial; the subsequent movements of the dial would connect him with the particular subscriber in The Bronx wanted. Similarly, should he wish to call a subscriber in Brooklyn he would place his finger in the hole marked "B" and revolve the dial, which move would extend his line to Brooklyn, and the subsequent movements would connect him with the particular subscriber wanted in the Brooklyn zone.

In this scheme of operation it will be noted that the subscriber is largely an independent individual who builds up his number, one digit at a time, and has command of the situation to a very much larger extent than is possible with a manually operated system.

Should a subscriber in this system wish to call up the toll office, he would place his finger in the hole marked "Long Distance" (see print 5 attached), and revolve the dial to the finger-stop, allowing it to return; he would then be placed in direct communication with the toll operator, who would minister to his wants the same as in the manual system. Should he wish information on any subject, such as in reference to changed numbers or new subscribers, he would place his finger in the hole marked "Information" (see print 5 attached), and on revolving the dial and pressing the button he would be put in communication with the information operator. The trouble department would be similarly called. It will be noted that in these last three operations of calling the toll, information and trouble the subscriber calls the department wanted direct, and is not obliged to be switched by any operator. In all the switching, that is, from local to local, and from local to information, toll or trouble, the subscriber does his own switching, and enjoys the privilege of a secret conversation.

Rates.

The attached rates are arranged for flat and unlimited calling between all subscribers in the boroughs of Manhattan, The Bronx, Brooklyn and in Long Island City. In other words, a subscriber, for a definite known sum can call any telephone in these boroughs any time, and as often as he wishes, without any variation in the amount charged for the service. He can use the telephone once or twenty times a day, without let or hindrance, or any extra charge. In contrasting this system of charging with the present zone system, with its added encumbrances of various limited message rates to various zones, and other uncertain elements of charging,

hard to understand by the subscriber, the herein enumerated rates should be popular to the telephoning public, and can safely be assumed to be approximately one-third the cost of the present rates for a like amount of service.

The rates as now charged by the existing company, being measured, must be counted. Automatic machinery not being employed for the counting thereof, this counting is left to the discretion of the operators with the possible and probable chance of errors in the number of messages recorded. In every meter system, such as gas and electric light systems, it is possible to take one's meter, and have it compared with a standard to insure its accuracy with the method of registering calls now used by the New York Telephone Company, it is impossible to do this, or to verify the bills, for, while the meter itself might be accurate in its operation, the fact that it is manually operated leads to possible and probable errors.

Compilation of Construction Figures.

Included in the estimate herein for a telephone system is the equipment and switches necessary to take care of direct line telephones, party line telephones, private branch exchange switchboards and duplicate service, i. e., stations having more than one line.

The amounts allowed in the construction schedule covering real estate are based on figures obtained from real estates dealers, and are, in all probability a maximum.

The toll equipment has been omitted in the thought that this portion of the equipment will care for itself; i. e., any contracts which would be entered into with toll line companies for interchange of business, would be drawn on a basis to provide adequate income to take care of the toll switchboards, expenses and operation of the same.

We have not included in the cost of construction of exchanges those in Queens and Staten Island, except the one in Long Island City, Long Island City being relatively the most important. Calls to and from Long Island City, it is believed, should be put on the same basis with the boroughs of Manhattan, Brooklyn and The Bronx. The other exchanges in Queens and Staten Island being relatively unimportant, as compared with the rest of New York City, have not been included in the flat rate on which the three main boroughs and Long Island City are recommended to operate.

These construction figures allow for all wires in Manhattan to be distributed underground, except a few north of Fort George. The Bronx construction figures include underground in all the close and medium built sections and open wires in the more scattered sections. The Brooklyn construction figures are based on underground distribution for a radius of upwards of six miles from the Brooklyn end of the Brooklyn Bridge, and in thinly settled districts extending outwards a small amount of open wires have been allowed for. Long Island construction figures are included in the Brooklyn estimate, and nothing but the thinly settled districts will have open wires.

In compiling the construction figures large scale maps were used, and the present advertised telephone development in each square in the city blocks were posted in on them. The maps were then divided up into exchange office units. The approximate center of telephone distribution in each unit was then found, and maps were made of the actual cable and wire plant necessary to connect all subscribers to their local office exchanges. This involved a large amount of labor, but produced accurate results as regards construction figures.

Compilation of Cost of Operation.

Included in the cost of operation for this proposed system is two and one-quarter times the single duct feet which will be required in Manhattan, and which, of course, would be supplied by the Empire City Subway Company, and for which a rental would be charged.

The other amounts shown in the schedule of cost are self-explanatory.

Compilation of Income.

In the attached schedule of income, the amounts shown are based on what business might be expected to be done with the wires and equipment which are provided and allowed for in the estimates. The figures in the construction account, however, include more underground construction, space in buildings, etc., than will be needed to install the system herein estimated on, as it is obvious that provisions must be made in subways and buildings for future growth.

RATE FOR UNLIMITED SERVICE RECOMMENDED FOR THE BRONX, MANHATTAN, BROOKLYN AND LONG ISLAND CITY (WITH NO ADDITIONAL CONNECTING FEE).

Flat and Unlimited.

Four-party residence service, per year.....	\$42 00
Three-party residence service, per year.....	48 00
Two-party residence service, per year.....	54 00
Individual residence service, per year.....	60 00
Two-party business service, per year.....	66 00
Individual business service, per year.....	90 00

Private Branch Exchange Switchboard Service.

The first central office line, per year.....	\$90 00
Additional central lines, per year.....	60 00
Local telephone connected to the Private Branch Exchange, per year.....	18 00

Minimum one line and three local telephones.

The balance of Queens and all Staten Island flat rate and unlimited service to their own boroughs only.

Individual business service, per year.....	\$48 00
Two-party business service, per year.....	42 00
Individual residence service, per year.....	42 00
Two-party residence service, per year.....	36 00
Three-party residence service, per year.....	30 00

Five cents per call to Brooklyn.

Eight cents per call to Manhattan and The Bronx.

NEW YORK TELEPHONE COMPANY'S PRESENT RATES.

Direct line schedule business and residence for all of Manhattan and The Bronx. Local calls only:

Minimum Number of Annual Messages.	Annual Rate Per Year.	For Additional Messages.
600.....	\$48 00	5 cents.
800.....	57 00	5 cents.
1,000.....	66 00	5 cents.
1,200.....	75 00	5 cents.
1,500.....	87 00	5 cents.
1,800.....	99 99	5 cents.
2,100.....	111 00	5 cents.
2,400.....	123 00	5 cents.
2,700.....	135 00	5 cents.
3,000.....	147 00	4 cents.
3,300.....	156 00	4 cents.
3,600.....	165 00	4 cents.
3,900.....	174 00	4 cents.
4,200.....	183 00	4 cents.
4,500.....	192 00	4 cents.

Minimum Number of Annual Messages.	Annual Rate Per Year.	For Additional Messages.
4,800.....	201 00	4 cents.
5,100.....	210 00	4 cents.
5,400.....	219 00	4 cents.
5,700.....	228 00	4 cents.

The above rates apply to all of Manhattan and The Bronx as follows:

Manhattan is divided into two zones or districts. District No. 1, all exchanges on Manhattan Island, between the Battery and One Hundred and Tenth street; District No. 2, from One Hundred and Tenth street north to Harlem river; District No. 3, Borough of The Bronx.

BOROUGH OF MANHATTAN AND THE BRONX.

Two-party Residence on Manhattan. Two-party Business or Residence in The Bronx.

Minimum Number of Annual Messages.	Annual Rate Per Year.	For Additional Messages.
600.....	\$42 00	5 cents.
800.....	51 00	5 cents.
1,000.....	60 00	5 cents.
1,200.....	69 00	5 cents.
1,500.....	78 00	5 cents.

Four-party Line Service in Exchanges of Audubon, Morningside, Harlem, Melrose and Tremont.

Minimum Number of Annual Messages.	Annual Rate Per Year.	For Additional Messages.
600.....	\$36 00	5 cents.

A local message will be defined as follows:

From District No. 1 to any subscriber in District Nos. 1, 2 or 3.
From District No. 2 to any subscriber in District Nos. 1, 2 or 3.
From District No. 3 to any subscriber in District Nos. 2 or 3.
Message from District No. 3 to No. 1, 10 cents each.

Manhattan and The Bronx Rates.

Private Branch Switchboard Rates—Minimum equipment to consist of one switchboard with two central office lines and two local telephones and the right to send 3,600 messages a year, \$204 per year.

Additional lines, \$24 per year.

Additional local stations, \$6 per year.

Additional messages if contracted for in advance, 100 messages, \$3, or 3 cents each.

Kingsbridge, Williamsbridge and Westchester Flat Rates.

	Direct Line, Per Year.	Two-party Line, Per Year.	Four-party Line, Per Year.
Business	\$48 00	\$36 00	.....
Residence	36 00	30 00	\$24 00

All calls to The Bronx exchanges and to Manhattan north of One Hundred and Tenth street, 5 cents per call.

All calls south of One Hundred and Tenth street, 10 cents each.

Extension telephones, \$6 per year.

NEW YORK TELEPHONE COMPANY PRESENT RATES.

BOROUGH OF BROOKLYN.

Residence service, including calls to the exchanges of Main, Bay Ridge, Bedford, Bushwick, East New York, Flatbush, Greenpoint, Hamilton, Prospect, South and Williamsburg.

Individual line service, \$5 per month.

Two-party line service, \$4 per month.

Four-party line service, 600 messages, \$3 per month; 800 messages, \$3.75 per month.

Additional messages, 5 cents each.

Extension telephones, \$1 per month.

BUSINESS RATES.

Individual Lines.

Messages.	Rate Per Month.
600	\$4 50
800	5 25
1,000	6 00
1,200	6 75
1,400	7 50
1,600	8 25

Two-Party Lines.	
600	3 50
800	4 25
1,000	5 00
1,200	5 75
1,400	6 50
1,600	7 25

Additional messages, \$3 per hundred.

Additional single messages, 5 cents each.

MANHATTAN CONSTRUCTION ACCOUNT, EXCLUSIVE OF OFFICE CENTRE TRUNKS.

Pairs of Wires Provided, 113,625.

Real estate and buildings.....	\$2,357,000 00
2,746,225 feet of cable, total cost, f. o. b., New York City.....	1,992,112 25
Splicing and installing.....	411,933 75

82,320 direct line switches, at \$28.....	2,304,960 00
7,220 party line switches, at \$36.....	259,920 00
4,160 duplicate service switches, at \$28.....	116,840 00
82,320 main line telephones, at \$12.....	987,840 00
13,940 party line telephones, at \$16.....	223,040 00
4,119 extension telephones, at \$9.....	37,071 00
2,046 P. B. X. switchboards, average 15 points, at \$180.....	368,280 00
6,138 P. B. X. telephones, at \$8.....	49,104 00
Installing switchboards.....	51,150 00
38 two-position wire chief desks, at \$1,000.....	38,000 00
38 two-position information desks, at \$600.....	22,800 00
19 special test desks, at \$400.....	7,600 00
400 poles, at \$15.....	6,000 00
91,340 pairs of protectors, at 30 cents.....	27,402 00
106,517 telephones installed, at \$2.....	213,034 00
lines wired, main terminal to outlet, at \$12.....	616,500 00
62,250 lines wired, main terminal to outlet, at \$8.....	498,000 00
Tools and equipment.....	60,000 00
6 for three years' rent on storage houses.....	10,800 00
Soliciting, at 75 cents per telephone.....	79,887 75
Securing right-of-way through subscribers' premises.....	75,000 00
Legal	150,000 00
General office expense.....	100,000 00
Engineering, 3 per cent. of total, except real estate, legal, general, rents, soliciting.....	240,000 00
Total	\$11,303,914 75

BROOKLYN CONSTRUCTION ACCOUNT.

Real estate and buildings, 8, at \$60,000.....	\$480,000 00
7,000,000 feet of ducts, at 35 cents per foot.....	2,450,000 00
40,000 cable circuit miles, at \$29 per mile, including drawing and splicing	1,160,000 00
26,000 direct line switches, at \$28 each.....	728,000 00
9,000 party line switches, at \$36 each.....	324,000 00
450 duplicate service switches, \$28 each.....	12,600 00
25,920 main line telephones, at \$12 each.....	311,040 00
16,800 party line telephones, at \$16 each.....	268,800 00
840 extension telephones, at \$9 each.....	7,560 00
2,500 poles, at \$15 each.....	37,500 00
14 two-position wire chief desks, at \$1,000 each.....	14,000 00
14 two-position information desks, at \$600 each.....	8,400 00
14 special desks, at \$200 each.....	2,800 00
420 P. B. X. switchboards, at \$180 each.....	75,600 00
1,260 P. B. X. telephones, at \$8 each.....	10,080 00
50,000 pairs of protectors, at 40 cents per pair.....	20,000 00
Labor installing telephones, at \$3 each.....	134,460 00
Wiring from main terminal to house or building outlet, at \$10 each	427,200 00
Wire and hardware supplies.....	20,000 00
Other labor	25,000 00
Soliciting	44,820 00
General expenses	30,000 00
Storage and rents	3,000 00
Legal	60,000 00
Engineering, 3 per cent. on all expenses, except real estate, soliciting, general, legal, rents.....	181,111 00
Total	\$6,835,971 00

BRONX CONSTRUCTION ACCOUNT.

Kingsbridge and Williamsbridge will be sub-offices of the adjacent larger office. They will have approximately 250 telephones each. These 500 lines and trunks will cost \$100 each

\$50,000 00

Balance of Bronx.

Conduits, 1,200,000 feet, at 35 cents per foot.....	420,000 00
14,000 cable circuit miles, at \$29 per circuit mile, including drawing and splicing	406,000 00
4,800 direct line switches, at \$28 each.....	134,400 00
3,100 party line switches, at \$36 each.....	111,600 00
100 duplicate service switches, at \$28 each.....	2,800 00
4,800 main line telephones, at \$12 each.....	57,600 00
7,750 party line telephones, at \$16 each.....	124,000 00
320 extension telephones, at \$9 each.....	2,880 00
9,000 poles, complete, at \$15 each.....	135,000 00
2 two-position wire chief desks.....	2,000 00
2 two-position information desks.....	1,500 00
6 special testing desks, at \$200 each.....	1,200 00
40 P. B. X. switchboards, average, 15 points per switchboard, at \$12 per point or \$180 each.....	7,200 00
120 P. B. X. telephones, at \$8 each.....	960 00
1,600 pairs protectors, at 40 cents per pair.....	640 00
Installing telephones, labor.....	36,000 00
Hardware, wire, strand, etc.....	40,000 00
Other labor	100,000 00
Soliciting	8,000 00
General expenses	20,000 00
Storage, rents and teaming.....	5,000 00
Real estate and buildings.....	80,000 00
Engineering, 3 per cent. on all expenses, exclusive of real estate, soliciting, rents, legal, etc.....	47,000 00
Total	\$1,789,789 00

COST OF OFFICE OR ZONE CENTRE TRUNKS.

283,800 feet of 100-pair cable, at \$1 per foot.....	\$283,800 00
15,900 feet of 150-pair cable, at \$1.18 per foot.....	18,760 00
235,000 feet of 200-pair cable, at \$1.31 per foot.....	307,850 00
26,500 feet of 250 pair cable, at \$1.50 per foot.....	39,750 00
Drawing and splicing, 20 cents per foot.....	112,240 00
Submarine cable	49,329 00
Installing and splicing	15,000 00
Engineering, 3 per cent.....	20,984 00
Total.....	\$847,713 00

MANHATTAN INCOME ACCOUNT.

Based on 82,320 direct line switches, 7,220 party line switches, 10 per cent. of which are idle in the central office.

Four thousand and eighty duplicate service switches, one-half of which are idle in the central office.

Seventy per cent. of direct line telephones will be business.

Thirty per cent. of same will be residence.

Ninety per cent. party line telephones will be residence.

Ten per cent. party line telephones will be business.

Ninety per cent. of extension telephones will be business.

Ten per cent. of same will be residence.

51,861 business telephones, at \$90 per year.....	\$4,667,490 00
22,226 residence telephones, at \$60 per year.....	1,333,560 00
1,624 party line business, at \$66 per year.....	107,184 00
14,621 party line residence, at \$51 per year (average).....	743,671 00
2,046 private branch exchange switchboards, at \$150.....	306,900 00
Total	\$7,160,805 00

BROOKLYN AND LONG ISLAND CITY INCOME ACCOUNT.

Forty-two thousand telephones, main and party lines: Sixty per cent. of which will be party lines. Forty per cent. of which will be direct lines. Sixty per cent. of direct lines will be business, or 10,080. Forty per cent. of direct lines will be residence, or 6,720. Seventy-five per cent. of party lines will be residence, or 18,900. Twenty-five per cent. of party lines will be business, or 6,300. Two per cent. of subscribers have one extension, or 840. One per cent. of subscribers have a private branch exchange, or 480.	
10,080 direct line business telephones, at \$90.....	\$907,200 00
6,720 direct line residence telephones, at \$60.....	403,200 00
18,900 party line residence telephones (average), at \$31.....	963,900 00
6,300 party line business telephones, at \$66.....	415,800 00
420 private branch exchanges, at \$150.....	63,000 00
Total	\$2,753,100 00

BRONX INCOME ACCOUNT.

Direct line switches	4,800
Party line switches	3,100
Ten per cent. of which are idle in central office.	
1,728 direct line business, at \$90 per year.....	\$155,520 00
2,592 direct line residence, at \$60 per year.....	155,520 00
2,511 party line residence, at \$51 per year (average).....	128,061 00
279 party line business, at \$66 per year (average).....	18,414 00
40 private branch exchange switchboards, at \$150 per year.....	6,000 00
Total	\$463,515 00

YEARLY COST OF OPERATION.

153,000 telephones, at \$15 per telephone per year.....	\$2,295,000 00
Rental on 1,078 miles of single duct, averaged at \$900 per mile (this is 2½ times the actual amount now needed).....	970,200 00
Maintenance, labor on main trunk system.....	25,000 00
Average 4½ per cent. of gross receipts to City.....	466,983 00
Taxes on real estate.....	87,510 00
General office expenses, \$2 per telephone.....	306,000 00
Legal	100,000 00
Light and power, at \$0.50 per telephone per year.....	76,500 00
Repair material, at \$1.50 per year per telephone.....	229,500 00
Right of way rental.....	500,000 00
Traveling expenses	25,000 00
Elevator and janitor service.....	40,000 00
Heating of buildings.....	30,000 00
Total	\$5,151,693 00

RECAPITULATION.

Manhattan construction account.....	\$11,303,014 00
Brooklyn construction account.....	6,835,971 00
The Bronx construction account.....	1,789,780 00
Office centre trunk cables.....	847,713 00
Gross construction cost.....	\$20,777,378 00
Cost of Operation.	
Including operating and maintenance expenses, gross.....	\$5,151,693 00
Revenue.	
Manhattan rentals	\$7,160,805 00
Brooklyn rentals	2,753,100 00
The Bronx rentals.....	463,515 00
Gross revenue.....	10,377,420 00
Net revenue	\$5,225,727 00
Five per cent. sinking fund.....	\$975,899 00
Interest on construction account.....	2,077,945 00
	3,053,844 00
Surplus	\$2,171,883 00

REPORT No. F-36.

BOARD OF ESTIMATE AND APPORTIONMENT,
OFFICE OF THE CHIEF ENGINEER,
June 18, 1907.

Hon. GEORGE B. McCLELLAN, Mayor, Chairman of the Board of Estimate and Apportionment:

SIR—At the meeting of the Board of Estimate and Apportionment held on June 14, 1907, a hearing was given upon the telephone franchise matters then pending before the Board, and the matter was laid over until June 21.

In order that the Board might have before it in convenient form a brief history of what has taken place up to the present time, I have requested the Engineer in charge of the Division of Franchises to prepare such a statement, which is herewith submitted, together with an amendment of the proposed form of contract with the Atlantic Telephone Company, should the Board decide to grant a franchise.

Respectfully,

NELSON P. LEWIS, Chief Engineer.

BOARD OF ESTIMATE AND APPORTIONMENT,
DIVISION OF FRANCHISES, ROOM 801, No. 277 BROADWAY,
June 17, 1907.

Mr. NELSON P. LEWIS, Chief Engineer:

SIR—At a meeting of the Board of Estimate and Apportionment held December 7, 1906, the following resolution was presented:

"Resolved, That the communication dated July 13, 1906, from the New York Telephone Company and the New York and New Jersey Telephone Company, in response to the resolution adopted by the Board of Estimate and Apportionment June 15, 1906, be referred to the Bureau of Franchises, which Bureau is directed to cause an examination to be made of the companies' plant and property, their capitalization, bonded indebtedness, earnings, dividends, surplus, etc., also the relation between the said companies and the American Telephone and Telegraph Company, a New York State corporation, under whose license said companies are operating; also the relations of the said companies with the Western Electric Company, a manufacturing concern supplying all equipment of said companies, and for the

purpose of considering such examination the Bureau is authorized to employ such expert accountants and appraisers as may be required. The cost of such examination to be paid from an appropriation of the Board of Estimate and Apportionment; and be it further

"Resolved, That the reply of the New York Telephone Company contained in the letter of July 13, in relation to the suit of the City against the Empire City Subway Company, Limited, for an accounting and the forfeiture of the property of said company in the streets, be referred to the Corporation Counsel, who is requested to examine the same and confer, if necessary, with the representatives of the company and advise this Board, if, in his opinion, it is possible to secure a settlement of this suit upon terms satisfactory to the City, and if so, to submit terms upon which he would recommend such settlement to be made; and be it further

"Resolved, That the Atlantic Telephone Company be requested to submit plans of the telephone system which it proposes to install in The City of New York, showing in sufficient detail to admit of estimates to be made of the cost of the same; to submit its detailed estimate of the cost of installation and operation of such system; to state what, in its opinion, is the amount of capital required to successfully finance the company, and the extent to which it is proposed to bond the company;

—Objection being made by representatives of the Atlantic Telephone Company to the consideration of the offer of the New York Telephone Company and the New York and New Jersey Telephone Company upon the grounds that the City had no legal right to accept the same for the reason that it would create a monopoly, the following additional clause was added to the resolution:

"Resolved, That the Corporation Counsel be requested to inform this Board whether, in his opinion, the local authorities have power to grant an exclusive franchise as requested by the New York Telephone Company and the New York and New Jersey Telephone Company, or make any arrangement equivalent thereto."

The same being accepted, the entire resolution was thereupon adopted.

In pursuance of the request contained in the third paragraph of this resolution, the Atlantic Telephone Company has under date of April 24, 1907, transmitted to the Board a report containing plans and estimates of the cost of installing an automatic telephone system in The City of New York, with the exception of the Borough of Richmond and that portion of the Borough of Queens outside of Long Island City. For the Borough of Richmond and the portion of the Borough of Queens, outside of Long Island City, it is proposed to install local systems where required, with provision for connections with the main system. A copy of this estimate, I am informed, was furnished to each member of the Board.

In making this estimate, the company has divided the City into zones. One zone consists of the Borough of The Bronx, and one consists of the Borough of Brooklyn and Long Island City. The Borough of Manhattan is divided into three zones; from the Battery to Tenth street; from Tenth street to Seventy-ninth street, and from Seventy-ninth street to the Harlem river. Each of these five zones is planned to have an ultimate capacity of 100,000 lines. There will be situated within the area of each zone a "Zone Centre Station," having an ultimate capacity of 100,000 lines, and various central offices, each having an ultimate capacity of 10,000 lines.

The number of telephones upon which the estimate is made is as follows:

Borough.	Telephones.	Private Branch Exchanges.
Manhattan	90,332	2,046
Brooklyn and Long Island City.....	42,000	420
The Bronx	7,110	40

The street equipment provided, however, is enough for a much larger system.

Provision is made for the distribution of wires in underground conduits, as follows:

All of the Borough of Manhattan, with the exception of that portion north of Fort George; all the close and medium built sections in the Borough of The Bronx; in the Borough of Brooklyn, all within a radius of six miles from the Brooklyn end of the New York and Brooklyn Bridge.

The final figures given in the estimate are:

Total cost of construction.....	\$20,777,378 00
Revenue from rentals.....	\$10,377,420 00
Cost of operation.....	5,151,693 00
Net revenue	\$5,225,727 00

—which latter sum will be available to provide for sinking fund, interest upon bonds, dividends upon capital stock and a surplus.

This estimate has been examined by the engineers of this division in consultation with the engineers of the Atlantic Company, and it is our opinion that a fair study of the situation from the standpoint of an automatic system was made, and that the estimates were carefully prepared.

The rates upon which the estimated income is figured are fixed sums per annum for unlimited service, and subscribers in any part of the system have the privilege, upon paying such rates, to connect with any other subscriber upon the system, whether in the same borough or any other borough, except as noted above.

Under date of May 7, 1907, the company addressed a communication to the Board in which it stated that the rates specified in the estimate are those which the company proposes to charge for service, should it obtain a franchise, except that they are subject to such reduction as it may be possible to make from time to time after the installation of the system.

The questions in relation to the offer of the New York Telephone Company and the New York and New Jersey Telephone Company, and to a settlement of the suit of the City against the Empire City Subway Company, Limited, in connection therewith, were submitted to the Corporation Counsel on December 7, 1906, in accordance with the above resolution, and his reply thereto was presented to the Board at its meeting on June 7, 1907.

In regard to the offer, he states:

"I therefore advise you that if, in the wisdom of your Board, but one system of telephone service is advisable or proper under conditions presently existing, an application for the right to supply such service may be considered and granted on satisfactory terms, the payments provided thereby to continue only so long as the grantee company enjoys the sole privilege of supplying such service, provisions being made for a reduction or modification of such terms in the event of other telephone systems being established in the city, or other telephone franchises being granted. It should clearly appear that such a grant should not be a bar to the City's making other grants under changed conditions, or even under existing conditions, if the City should thereafter conclude to grant other applications for similar service."

As to the case against the Empire City Subway Company, Limited, he states:

"The second point on which you have asked my opinion is whether, if independently or as part of the consideration of the franchise grant herein contemplated, a settlement on terms satisfactory to the City could be effected in the action of the Empire City Subway Company vs. the City. On this point I cannot give you any definite answer at this time, except that while the company professes to be willing to settle this action, there is practically no possibility of such a settlement involving the voluntary surrender of the rights of the company to maintain its present system of conduits and ducts in the streets of the city."

The Corporation Counsel also takes up the question of the validity of the franchise under which the New York Telephone Company and the New York and New Jersey Telephone Company claim to be at present operated, for, as he states, this

question is inevitably connected with any consideration of the foregoing. In relation to this matter, he says:

"I do not see how any final consideration of franchise terms can be made unless, as a basis thereof, the validity or invalidity of the present franchises of the telephone companies now operating in the City are known, or at least until the City has adopted a policy in regard thereto. If the franchises are of a negligible value, that fact will, of course, have a very great influence in the fixing of terms."

Pending the receipt of this opinion, the Division of Franchises has taken no steps toward making the investigation of the New York Telephone Company as outlined in the resolution, and at the same meeting at which this opinion was presented, a motion was adopted to hold a public hearing upon all pending franchise applications. This hearing was held at a meeting of the Board on June 14, 1907, when the Board resolved itself into a Committee of the Whole, and after hearing counsel representing the respective companies, to wit, Mr. Edward M. Grout on behalf of the New York Telephone Company and the New York and New Jersey Telephone Company, and Mr. Martin W. Littleton on behalf of the Atlantic Telephone Company, the Committee rose and reported to the Board that it had considered the matter and recommended that a franchise be granted on terms to be fixed by the Board to the Atlantic Telephone Company. Subsequently a motion was adopted that the matter of granting the franchise be taken up at the meeting to be held June 21, and be placed at the foot of the calendar on that date for action.

The present status of the application of the Atlantic Telephone Company may be summarized as follows:

A petition was duly presented and a public hearing held thereon.

Two reports were made by the Bureau of Franchises and the latter one, on April 24, 1906, contained a proposed form of contract, the conditions of which had been accepted by the applicants, with two exceptions. First, the initial payment of \$250,000 was objected to and the Company offered in lieu thereof \$100,000. Second, the company objected to the clause limiting its stock and bond issue to such sum as might be fixed by the Board.

This report, with the proposed contract, was referred to the Committee of the Whole, which, on June 8, 1906, reported out the matter, and with a resolution calling upon the New York Telephone Company to submit an application for a franchise.

During the summer of 1906 an investigation was conducted by the Bureau of Franchises of the operation of the dual system in various cities, and the result of these investigations was set forth in a report made to the Board dated November 21, 1906.

In the conclusions set forth in the report it was stated that it was believed that where independent companies have installed the automatic system they had been able to furnish to their subscribers a more efficient service than the company using the manual system.

It is also stated that it is impossible to say whether the claims made by the automatic telephone companies is true that service can be rendered by the automatic system at lower rates than by the manual system, and

"If it can be proven that better and cheaper service can be furnished by the automatic system than by the manual, the question then to decide would be whether the benefits derived from such reduction in cost to the larger number of subscribers and increased efficiency of the service would overcome the inconvenience and additional cost of two systems to the smaller number of subscribers."

For the purpose of determining the question as to whether or not the automatic service can be rendered at less cost than the manual system, it was proposed that the Atlantic Telephone Company be requested to make a complete study and estimate for an automatic telephone system in this city, and submit with such estimate the rates which it proposes to charge in order to earn a fair revenue upon the capital invested, should it obtain a franchise. It was further proposed should the Board consider the offer of the New York Telephone Company and the New York and New Jersey Telephone Company, that an examination be made of the property and financial affairs of the companies, to ascertain if the rates now charged are fair.

It was believed that if this was done the Board would then have before it data by which it could make a direct comparison of the rates for service which it is necessary to charge for the manual system and the automatic system, in order to earn a fair revenue upon the capital invested to install such systems.

Upon this recommendation the resolution of December 7, 1906, hereinbefore quoted, was adopted, and as before stated the Atlantic Telephone Company has made a detailed estimate and submitted rates called for in the resolution, but no attempt has been made to examine the property and affairs of the New York Telephone Company and the New York and New Jersey Telephone Company.

In view of the report of the Committee of the Whole it appears to be the opinion of the Board that the Atlantic Telephone Company should be granted a franchise. I would therefore suggest that the contract submitted with the report of April 24, 1906, be amended in order to require the construction of the automatic system, since it was found that the automatic system renders better service than the manual where it is in operation in cities of the United States. The clause to which I refer is section 2, subdivision 9, which provides that the company may use either the automatic or manual system, or a combination of the two. I believe the company should be required to install the automatic system entirely, except where a combination of the two is required to make toll line connections.

I have drawn a clause embodying these suggestions, and submit herewith an amended contract containing such clause, and the new rates which were submitted by the Atlantic Telephone Company, with its estimate as near as I am able to interpret the same.

If the Board approves of the terms and conditions for a franchise as proposed, or shall modify the same, the form of contract should be sent to the Corporation Counsel for his approval as to form, and to incorporate therein such matters as he deems advisable, in order to fully protect the interests of the City.

I would suggest that the Corporation Counsel's attention be called to the fact, that inasmuch as the proposed form of contract must remain upon the minutes of the Board for thirty days before final action can be taken by the Board, unless his approval is in the hands of the Board previous to July 8, 1907, no action can be taken by the Board until September 20, 1907.

Respectfully,

HARRY P. NICHOLS, Engineer in Charge.

SYNOPSIS OF PROVISIONS OF CONTRACT.

Section 1. Right to operate a telephone system throughout The City of New York.

Sec. 2. First—Term of grant to be for a term of twenty-five (25) years, with privilege of renewal for a further term of twenty-five (25) years upon a revaluation by appraisers.

Second—Plant and property in streets to become property of City without cost at termination of grant. Real estate, etc., to be paid for if taken over. Valued by appraisers.

Third—Compensation to be paid to the City during first twenty-five years. Compensation for renewal not to be less than for last year of first twenty-five years. How and when paid to Comptroller.

Fourth—Assignee to be bound by conditions of this contract as to payments.

Fifth—Free service for an unlimited number of telephones for the use of the City offices.

Sixth—No assignment of franchise without consent of Board.

Seventh—Company to sign contracts with other companies for long distance service within six months.

Eighth—Construction and operation under control of all City authorities.

Ninth—Latest and best automatic system to be used, except where manual system is required to make connections with toll lines. Continuous service during twenty-four hours in each day.

Tenth—Subways: In Manhattan and part of The Bronx existing subways to be used. Must use City subways if constructed. Company agrees to sell subways constructed by it to City at cost, less depreciation. Shall provide one 3-inch duct for use of City. Permits for subway must be obtained and plans of same furnished. Company to keep in repair all pavement removed for term of one year and bear cost of all inspection required and any changes necessary in subsurface structures.

Tenth—Privilege of constructing subways in streets shall be subject to rights, if any, of owners of abutting property or others.

Eleventh—Construction to be commenced in six months, and have equipped and operating 33,250 telephones during the first three years. Contract to be used in its entirety and not in connection with any other right or franchise previously granted.

Twelfth—Maps to be filed with Board showing ducts and wires.

Thirteenth—Board may require extension of system and use of improved system unless controlled by patents owned by other companies.

Fourteenth—Company to bear all expense of installation.

Fifteenth—Board reserved right to change and regulate rates.

Sixteenth—Maximum rates never to be exceeded so long as rate districts remain the same. Given in detail.

Seventeenth—No excessive deposit or advance payments to be required from subscribers. Unpaid bills never to be charged against property.

Eighteenth—Wires to be used for no other purpose than for telephones and never to be used for illegal purposes.

Nineteenth—Reports to be furnished weekly to Police Commissioner, and Police Department permitted to examine instruments.

Twentieth—Company to assume all liability to persons and property.

Twenty-first—Penalty for inefficient public service \$100 per day. Failure to operate system for a period of two months, Board may declare the franchise terminated.

Twenty-second—Report to be made to Comptroller of gross receipts and such other information as he may require. Comptroller has right to examine books and officers of company under oath.

Twenty-third—Company not to increase capital stock or bonded indebtedness, or issue stock or bonds without consent of Board. Reports to be filed annually with Board.

Twenty-fourth—Deposit of \$50,000 required for faithful performance of terms and conditions of contract. Imposition of penalties by Comptroller.

Twenty-fifth—In case of violation of contract, suit may be brought by Corporation Counsel to forfeit.

Twenty-sixth—If authority of Board of Estimate and Apportionment or other officer is transferred, then such other Board or officer shall act for City.

Twenty-seventh—Definition of "Notice."

Twenty-eighth—Covenant to obey provisions of contract.

ATLANTIC TELEPHONE COMPANY.

Proposed Form of Contract.

This contract, made this _____ day of _____, 1907, by and between The City of New York (hereinafter called the City), party of the first part, by the Mayor of said City, acting for and in the name of said City, under and in pursuance of the authority of the Board of Estimate and Apportionment of said City (hereinafter called the Board), and the Atlantic Telephone Company, a domestic corporation of the State of New York (hereinafter called the Company), party of the second part, witnesseth:

In consideration of the mutual covenants and agreements herein contained, the parties hereto do hereby covenant and agree as follows:

Section 1. The City hereby grants to the Company, subject to the conditions and provisions hereinafter set forth, the right and privilege to lay, erect, construct and maintain suitable wires or other conductors, with the necessary poles, pipes, conduits and appliances, in, over, under and across the streets, avenues and highways within the territory comprised by The City of New York, as now constituted, with the sole object and purpose of constructing, maintaining and operating a telephone system within the said territory.

Sec. 2. The grant of this privilege is subject to the following conditions:

First—The said right and privilege to lay, erect, construct and maintain the wires or other conductors for operating a telephone system as herein provided, shall be held and enjoyed by the Company, its successors or assigns, for the term of twenty-five (25) years from the date when this contract is signed by the Mayor, with the privilege of renewal of said contract for a further period of twenty-five (25) years upon a fair revaluation of said right and privilege. Such revaluation shall be of the right and privilege to maintain and operate such a telephone system by itself, and not to include any valuation derived from the ownership, operation or control of any other telephone, telegraph or other system used for means of communication.

If the Company shall determine to exercise its privilege of renewal it shall make application to the Board or any authority which shall be authorized by law to act for the City in place of the Board. Such application shall be made at any time, not earlier than two years and not later than one year, before the expiration of the original term of this contract. The determination of the revaluation shall be sufficient if agreed to in writing by the Company and the Board. If the Company and the Board shall not reach such agreement on or before the day one year before the expiration of the original term of this contract, then the annual rate of compensation for such succeeding twenty-five (25) years shall be reasonable, and either the City (by the Board) or the Company shall be bound, upon request of the other, to enter into a written agreement with such other, fixing the rate of such compensation at such amount as shall be reasonable, and if the parties shall not forthwith agree upon what is reasonable, then the parties shall enter into a written agreement, fixing such annual rate at such amount as shall be determined by three disinterested freeholders, selected in the following manner.

One disinterested freeholder shall be chosen by the Board; one disinterested freeholder shall be chosen by the Company; these two shall choose a third disinterested freeholder; and the three so chosen shall act as appraisers and shall make the revaluations aforesaid. Such appraisers shall be chosen at least six months prior to the expiration of this original contract, and their report shall be filed with the Board within three months after they are chosen. They shall act as appraisers and not as arbitrators. They may base their judgment upon their own experience and upon such information as they may obtain by inquiries and investigations without the presence of either party. They shall have the right to examine the books of the Company and its officers under oath. The valuations so ascertained, fixed and determined shall be conclusive upon both parties, but no annual sum shall, in any event, be less than the sum required to be paid for the last year of this original contract. If, in any case, the annual rate shall not be fixed prior to the termination of the original term of this contract, then the Company shall pay the annual rate theretofore prevailing until the new rate shall be determined, and shall then make up to the City the amount of any excess of the annual rate then determined over the previous annual rate. The compensation and expenses of the said appraisers shall be borne jointly by the City and the Company, each paying one-half thereof.

Second—Upon the termination of this original contract or if the same is renewed, then at the termination of the said renewal term, or upon the termination of the rights hereby granted for any other cause, or upon the dissolution of the Company before such termination, the plant and property of the Company used for telephone purposes within the streets and highways of the City, shall become the property of the City without cost, and the same may be used by the City for any purpose whatsoever. If, however, at the termination of this grant, as above, the City, by the Board, shall so order by resolution, the Company shall, upon thirty (30) days' notice from the Board, remove any and all of its wires, electrical conductors, pipes, conduits, subways and equipment from all the streets and public places within the limits of the City.

At the election of the Board, any real estate, buildings, equipments, etc., not within the streets, used by the Company in connection with the telephone service, shall become the property of The City of New York upon the termination of this grant as above, by the payment to the Company of its fair market value, exclusive of any value which such property may have by reason of this grant. Such valuation shall be determined in the same manner as the revaluation for a renewal of this contract, as herein provided for.

Third—The Company shall pay to the City for the said privilege the following sums of money:

The sum of two hundred and fifty thousand dollars (\$250,000) in cash within thirty (30) days after the signing of this contract.

During the first two (2) years of this contract an annual sum which shall in no case be less than twenty thousand dollars (\$20,000), and which shall be equal to one per cent. of the gross receipts of the Company if such percentage shall exceed the sum of twenty thousand dollars (\$20,000).

During the succeeding three (3) years of this contract an annual sum which shall in no case be less than thirty thousand dollars (\$30,000), and which shall be equal to two per cent. of the gross receipts of the Company, if such percentage shall exceed the sum of thirty thousand dollars (\$30,000).

During the succeeding five (5) years of this contract an annual sum which shall in no case be less than sixty thousand dollars (\$60,000), and which shall be equal to four per cent. of the gross receipts of the Company if such percentage shall exceed the sum of sixty thousand dollars (\$60,000).

During the succeeding five (5) years of this contract an annual sum which shall in no case be less than one hundred thousand dollars (\$100,000), and which shall be equal to six per cent. of the gross receipts of the Company if such percentage shall exceed the sum of one hundred thousand dollars (\$100,000).

During the succeeding five (5) years of this contract an annual sum which shall in no case be less than one hundred and fifty thousand dollars (\$150,000), and which shall be equal to seven per cent. of the gross receipts of the Company if such percentage shall exceed the sum of one hundred and fifty thousand dollars (\$150,000).

During the succeeding and remaining five (5) years of this original contract an annual sum which shall in no case be less than two hundred thousand dollars (\$200,000), and which shall be equal to seven and one-half per cent. of the gross receipts of the Company if such percentage shall exceed the sum of two hundred thousand dollars (\$200,000).

The minimum annual sums herein provided for shall be paid to the Comptroller of the City in equal quarterly payments on the first days of January, April, July and October of each year.

Whenever the percentage required to be paid shall exceed the minimum amounts, such sum over and above such minimum shall be paid to the Comptroller on or before December 1 in each year for the year ending September 30 next preceding.

Fourth—The said annual charge or payments, as above specified, shall continue throughout the whole term of the original contract, notwithstanding any clause in any statute or in the charter of any telephone or other company providing for payments for similar rights or franchises at a different rate, and no assignment, lease or sub-lease of the rights or franchises hereby granted or any part thereof shall be valid or effectual for any purpose unless the said assignment, lease or sub-lease shall contain a covenant on the part of the assignee or lessee that the same is subject to all the conditions of this contract and that the assignee or lessee assumes and will be bound by all of said conditions as to payments, any statute or any condition herein contained to the contrary notwithstanding, and that the said assignee or lessee waives any more favorable conditions created by said statute or its charter, and that it will not claim by reason thereof or otherwise, exemption from liability to perform each and all of the conditions of this contract. Nothing herein contained shall apply to any mortgagee or mere lienor, but shall apply to any purchaser upon foreclosure or under or by virtue of any provision of a mortgage or lien.

It is agreed that any and all payments to be made by the terms of this contract by the Company to the City shall not be considered in any manner in the nature of a tax, but that such payments shall be in addition to any and all taxes of whatsoever kind or description now or hereafter required to be paid by any ordinance of the City or by any law of the State of New York.

Fifth—The Company shall install free of charge to the City, so many telephones and necessary appurtenances in each public office as may be required from time to time by the Board, which the Company shall maintain at its own cost and expense, and shall furnish free service throughout the term of the grant from such telephones to any other telephone on the system of the Company or any other system owned, controlled or operated in connection therewith, within the limits of the City.

The intention and meaning of this paragraph is that the Company shall furnish a full, sufficient and unlimited telephone service for all the requirements of the City within the limits of the City without cost to it.

Sixth—The rights and privileges hereby granted shall not be assigned, either in whole or in part, or leased or sublet in any manner, either by the act of the Company, its successors or assigns, or by operation of law, whether under the provisions of the statute relating to the consolidation or merger of corporations or otherwise, to any person or corporation whatsoever, nor shall the Company, its successors or assigns, in any manner consolidate or pool its stock, business or interests or enter into any agreement for a division of business interest or territory or to prevent competition or a reduction in rates to acquire, own or make use of or in any manner exercise control over any of the rights, privileges, franchises or stock, or use, own, control or operate any of the property, works, plants or appliances of any such persons or corporation without the consent of the City, acting by the Board, evidenced by an instrument under seal, anything herein contained to the contrary thereof in anywise notwithstanding, and the granting, giving or waiving of any one or more of such consents shall not render unnecessary any subsequent consent or consents.

Seventh—Within six months after the execution of this contract, the Company shall execute contracts covering the same period as this contract, with other telephone companies, such contracts to provide for long distance service between New York and all cities within a radius of 1,000 miles, having a population of 4,000 or over, and shall file certified copies thereof in the office of the Board. The Company herewith agrees that the charges to the public in any portion of the City for the long distance service provided for in said contracts shall not at any time exceed 75 per cent. of the present schedule of the New York Telephone Company.

Eighth—The Company shall construct, maintain and operate its telephone system subject to the supervision and control of all the authorities of the City who have jurisdiction in such matters under the Charter of the City, and in strict compliance with all laws or ordinances now in force or which may be adopted, affecting telephone companies operating in the City.

Ninth—The telephone system shall be constructed and operated in the latest improved manner of automatic telephone construction, and shall be operated with the most modern and improved appliances, provided that the manual system may be used in connection with the automatic system for the purpose of making connections between stations within the City and stations without the City, and also for the purpose of making connections between stations within two different sections within the City, as hereinafter described and fixed, and between stations located in districts, the boundaries of which may be hereafter fixed by the Board, but not otherwise.

The Company shall furnish a service which shall be efficient in all respects and continuous for twenty-four hours in each day during the term of this contract or any renewal thereof, except for interruption from unavoidable causes, over which the Company shall have no control.

Tenth—In the Borough of Manhattan and in such portion of the Borough of The Bronx as may be directed by the Board, all cables and wires of the Company shall be placed in ducts, conduits or subways (referred to in this paragraph as subways). Such subways shall be leased from the company or companies having control thereof under the provisions of law, or from the City, should it succeed to the rights of such company or companies. If the City shall construct subways for electrical conductors, the Company hereby agrees to place its wires and conductors in such subways, and the City agrees to lease to the Company such space as may be required for its telephone system herein authorized. The Company agrees to place in subways any or all of its wires and conductors within one year after being required to do so by the Board. If the Company at any time during the term of this contract or its renewal, shall construct subways for electrical conductors in any part of the City, it shall agree to sell them to the City, and so much of their equipment as the City may require, upon the written demand of the Board and upon payment by the City to the Company, the sum equal to their original cost less depreciation, up to the time of such purchase. The Company shall file with the Board on the first day of November in each year, a statement in such detail, as may be prescribed by the Board, of the moneys actually spent for the construction of such subways. The Company shall at all times keep accurate books of accounts of the moneys so spent, and authorized representatives of the Board shall at any time have access to such books for the purpose of ascertaining the correctness of the Company's statement. If the Company shall construct subways of its own, it shall provide, free of charge, one duct of at least three inches in diameter in every subway for the exclusive use of the City. Such subways shall be used by the Company solely for the purpose of carrying such wires or conductors as are necessary for the operation of its telephone system hereby authorized and by the City, as herein provided. Before the construction of such subways shall be begun, the Company shall obtain permits to do the work from the President of the Borough in which such work is to be done, and the Commissioner of Water Supply, Gas and Electricity. The Company shall perform all the duties which may be imposed upon the Company by these officials, as conditions upon which such permits are given, provided such conditions are not inconsistent with the provisions of this contract. The Company shall submit to these officials working plans which shall include and show in detail the method of construction of such subways and the mode of protection or changes in all subsurface structures required by

such construction. The Company shall bear the expense of keeping in repair for one year after it has been replaced all pavement which may at any time be removed by said Company, either for the purpose of construction or repairing such subways or their appurtenances. The Company shall bear the expense of inspection of all the work of construction or removal of such subways, as herein provided, which may be required by the President of the Borough and the Commissioner of Water Supply, Gas and Electricity. The Company shall pay the entire cost for the protection and changes of all surface and subsurface structures which shall in any way be disturbed by such construction. The privilege of constructing such subways shall be subject to whatever right, title or interest the owners of abutting property, or others, may have in and upon streets, avenues and highways in which such subways are constructed.

Eleventh—The Company shall commence construction within six months from the date of the signing of the contract, and within three years thereafter shall have erected and completely equipped and in operation in the boroughs of the City as follows:

In the Borough of Manhattan, 18,000 telephone stations.
In the Borough of Brooklyn, 10,000 telephone stations.
In the Borough of The Bronx, 3,500 telephone stations.
In the Borough of Queens, 1,000 telephone stations.
In the Borough of Richmond, 750 telephone stations.

It is the intent and meaning of this contract that the rights hereby granted shall be used in their entirety, and that no part of the same shall be used in connection with any other right or franchise heretofore granted for rights within the present limits of the City, except as herein provided.

Twelfth—The Company shall file with the Board, on the first day of November in each year, a map, plan or diagram upon which shall be plainly marked and designated the streets and public places in which are then laid and proposed to be laid, during the succeeding year, the several conduits and ducts necessary for the cables and wires used and to be used by the Company, together with a statement showing the number of ducts in each street and wires in each duct occupied.

Thirteenth—The Board may, in its discretion and upon due notice to and hearing on the part of the said Company, its successors or assigns, direct the construction of extensions, the installation of subsidiary connections, the revision or improvement of equipment or service, and the installation of any new system of telephony which may be approved by the Board and which is not covered by patents not under the control of the Company.

Fourteenth—It is a condition of this contract that the Company shall bear the entire expense of all work undertaken by reason of this grant.

Fifteenth—During the term of this contract or its renewal the Board shall have absolute power to regulate all rates, provided that such rates shall be reasonable and fair and provided further, that the maximum rates hereinafter specified shall not be increased for the several districts described, so long as any or all of said districts remain unchanged.

Sixteenth—For the purpose of fixing and determining the present maximum rates, The City of New York shall be divided into three districts, as follows:

The first district shall include the Boroughs of Manhattan, The Bronx and Brooklyn, and the First Ward of the Borough of Queens, formerly Long Island City.

The second district shall comprise all of the Borough of Queens, with the exception of the First Ward, formerly Long Island City.

The third district shall comprise all of the Borough of Richmond.

The boundary of these districts shall remain the same throughout the term of this contract and its renewal, unless a change of the same is authorized by the Board.

The rates for service between any pay stations within a district, as above, and any other station within the same district, shall not exceed five (5) cents per call.

To subscribers in the first district, the Company shall never charge rates in excess of the following so long as the boundary of such districts remain unchanged:

	Per Annum.
For 4-party residence service.....	\$42 00
For 3-party residence service.....	48 00
For 2-party residence service.....	54 00
For individual or direct line residence service.....	60 00
For 2-party business service.....	66 00
For individual or direct line business service.....	90 00

Private Branch Exchange Switchboard Service.

	Per Annum.
For the first central office line.....	90 00
For additional central office lines, each.....	60 00
For local telephone connected to private branch exchange, each.....	18 00

The minimum equipment for private branch exchange service shall be one central office line and three local telephones.

Upon payment of these rates by the subscriber to the Company, the subscriber shall be entitled to make an unlimited number of connections with stations situated within the first district.

To subscribers in the second and third districts, the Company shall never charge rates in excess of the following so long as the boundary of such districts remain unchanged:

	Per Annum.
For a 3-party residence service.....	\$30 00
For a 2-party residence service.....	36 00
For an individual or direct line, residence service.....	42 00
For a 2-party business service.....	42 00
For an individual or direct line business service.....	48 00

Upon payment of these rates by the subscriber to the Company, the subscriber shall be entitled to make an unlimited number of connections with stations located within the same district of the subscriber.

The rates for service between any station situated in the second or the third district, and any station situated in the Borough of Brooklyn, shall not exceed five (5) cents per call.

The rates for service between any stations in the second and third districts and any station situated in the Borough of Manhattan and The Bronx, shall not exceed eight (8) cents per call.

Seventeenth—The Company shall not require or receive any deposit or advance payment in excess of what is reasonably necessary to insure payment of current bills, and on such amounts so paid the Company shall pay interest at the statutory rate whenever such money is held for more than one month. Unpaid bills, unless due from an owner, shall never be charged against property, and no person not himself in arrears shall be denied service because any previous occupant of the same premises is in arrears to the Company for service.

Eighteenth—The wires of the Company shall be employed for no other purposes than those explicitly set forth herein, except by consent of the Board, and the Company binds itself not to lay, use, lease or operate wires for illegal purposes or to illegal places.

Nineteenth—The Company shall furnish weekly to the Police Commissioner of the City a report showing the location and number of all instruments installed by lease or sale from the Company, and also all connections made or authorized by it, together with the name of the person contracting for such instrument or connection. The Company shall further agree to allow the Police Commissioner of the City, and such members of the Police Department as he shall designate for that purpose, to examine any instrument which has been installed or any connections which have been made by the Company, and shall immediately remove any instrument upon notice so to do from the Police Commissioner of the City. The City shall agree that all inspections to be made under the provisions of this paragraph shall be made only by the Police Officers above designated. All contracts made by the Company with subscribers shall contain provisions in accordance with the above and shall provide that subscribers shall allow inspections of instruments and connections to be made at any time by said Police Officials.

Twentieth—The Company shall assume all liability to persons or property by reason of the construction or operation of the system authorized by this contract, and it is a condition of this contract that the City shall assume no liability whatsoever to either persons or property on account of the same, and the Company hereby agrees to repay to the City any damage which the City shall be compelled to pay by reason of any acts or defaults of the Company.

Twenty-first—If the said Company, its successors or assigns, shall fail to give efficient public service at the rates herein fixed, or hereafter fixed by the Board, or fails to maintain its structures in good condition throughout the full term of its occupancy of such streets, the Board may give written notice to the said Company specifying any default on the part of said Company, and requiring said Company to remedy the same within a reasonable time, and upon the failure of the Company to remedy said default within a reasonable time said Company shall for each day thereafter during which the default or defect remains, pay to the City a sum of one hundred dollars (\$100), as fixed or liquidated damages, or the said City, in case such structures which may affect the surface of the streets, shall not be put in good condition within a reasonable time after notice by the Board as aforesaid, shall have the right to make all needed repairs at the expense of the Company, in which case the said Company shall pay to the City the amount of the cost of such repairs, with legal interest thereon, all of which sums may be deducted from the fund hereinbefore provided.

If, for a period of two consecutive months the telephone system of the Company shall not be operated, the Board may declare the right and franchise and this contract terminated without further proceedings in law or in equity.

Twenty-second—The Company shall at all times keep accurate books of account and shall, on or before November 1 in each year, make a verified report to the Comptroller of the City of the business done by the Company for the year ending September 30 next preceding. Such report shall contain a statement of the gross receipts from all business done by the Company, together with such other information and in such form and detail as the Comptroller may require. The Comptroller shall have access to all books of the Company for the purpose of ascertaining the correctness of its report and may examine its officers under oath.

Twenty-third—The Company, its successors or assigns, hereby agrees not to issue stock or bonds other than have been heretofore issued, until a certificate of authority therefor has been issued by the Board, or until the Board shall further certify in writing as to the amount of stock or bonds reasonably required for the purposes of the Company. The stock and bonds of the Company, its successors or assigns, shall not be issued in excess of the amount so certified.

The Company, its successors or assigns, shall not increase its capital stock or its bonded indebtedness without the consent in writing of the Board, stating the amount of the authorized increase. For the purpose of making this determination as to the amount of stock and bonds to be issued, or the amount of the authorized increase of the capital stock and bonded indebtedness of the Company, its successors or assigns, the Board may take and hear testimony under oath and examine the books and papers of the Company, and require verified statements from the officers thereof, pertaining to the value of the property and of the franchise owned or operated by the Company. Such determination shall be made within sixty (60) days after the final submission of the papers or of final hearing on the application for the issue or increase of capital stock or bonds of indebtedness.

The Company shall submit a report to the Board not later than November 1 of each year, for the year ending September 30 next preceding, which shall state:

1. The amount of stock issued; for cash; for property;
 2. The amount paid in as by last report;
 3. The total amount of capital stock paid in;
 4. The funded debt by last report;
 5. The total amount of funded debt;
 6. The floating debt as by last report;
 7. The amount of floating debt;
 8. The total amount of funded and floating debt;
 9. The average rate per annum of interest on funded debt;
 10. The amount of dividends paid during the year and the rate of same;
 11. The amounts paid for damage to persons or property on account of construction and operation;
 12. Total expenses for operation, including salaries;
- and such other information in regard to the business of the Company as may be required by the Board.

For failure to comply with the foregoing the Company shall pay a penalty of one hundred dollars (\$100) per day until such statement is rendered, which may be collected by the Comptroller without notice.

Twenty-fourth—This grant is upon the express condition that the Company within thirty (30) days after the execution of this contract, and before anything is done in exercise of the rights conferred thereby, shall deposit with the Comptroller of the City the sum of fifty thousand dollars (\$50,000), either in money or securities to be approved by him, which fund shall be security for the performance by the Company of the terms and conditions of the contract, especially those which relate to the payment of the annual charges for the franchise granted, in default of which payment of the annual charges the Comptroller, acting in behalf of the City, shall collect same with interest from such fund after five days' notice in writing to the Company. In case of failure of the Company to comply with the terms of this contract relating to the filing of annual statements and the commencement and rate of construction, or its neglect or refusal to comply with any demand or direction of the Board, or other municipal officials, made pursuant to the terms of the contract, or under the authority of any laws or ordinances now or hereafter in force, in such case and in any of these events the Company shall pay to the Comptroller of the City a penalty of \$1,000 for each violation; and in case of any violation of the provisions relating to the illegal use of wires the Company shall pay to the Comptroller of said City for each violation a penalty of not less than \$100 and not more than \$500, to be fixed by the said Comptroller.

The procedure for the imposition and collection of the penalties provided in the grant shall be as follows:

The Comptroller of the City, on complaint made, shall, in writing, notify the Company, through its president, to appear before him on a certain day not less than five days after the date of such notice, to show cause why it should not be penalized in accordance with the foregoing provisions. If the Company fails to make an appearance, or, after a hearing, appears, in the judgment of the Comptroller, to be in fault, said Comptroller shall forthwith impose the prescribed penalty, or where the amount of the penalty is not prescribed herein, such amount as appears to him to be just, and without legal procedure withdraw the amount of such penalty from the security fund deposited with him. In case of any drafts made upon the security fund the Company shall, upon ten days' notice in writing, pay to the Comptroller of the City a sum sufficient to restore said security fund to the original amount of \$50,000, and in default thereof the contract may be revoked at the option of the Board, acting in behalf of the City. No action or proceeding or rights under the provisions of the grant shall affect any other legal rights, remedies or causes of action belonging to the City.

In case of failure of the Company to make the weekly statement required by section 17 on or before Wednesday of each week for the week ending on the preceding Saturday, the Company shall be liable to a penalty of \$200, and in case it shall appear that the instruments of the Company have been used in connection with an illegal act, with or without the knowledge of the Company or its agents, the Company shall be liable to a penalty of \$500.

Twenty-fifth—In case of any violation or breach or failure to comply with any of the provisions of this contract, the same may be forfeited by a suit brought by the Corporation Counsel on notice of ten days to the Company, or at the option of the Board, by resolution of said Board, which said resolution may contain a provision to the effect that all property constructed and in use by virtue of this grant shall thereupon become the property of the City, without proceedings at law or equity.

Twenty-sixth—If at any time the powers of the Board or any other of the authorities herein mentioned or intended to be mentioned shall be transferred by law to any other board, authority, officer or officers, then and in such case such other board, authority, officer or officers shall have all the powers, rights and duties herein reserved to or prescribed for the Board or other authorities, officer or officers.

Twenty-seventh—The word "notice," wherever used in this certificate, shall be deemed to mean a written notice. Every such notice to be served upon the Com-

pany shall be delivered at such office in The City of New York as shall have been designated by the Company, or if no such office shall have been designated, or if such designation shall have for any reason become inoperative, shall be mailed in the City, postage prepaid, addressed to the Company at The City of New York. Delivery or mailing of such notice as and when above provided shall be equivalent to direct personal notice, and shall be deemed to have been given at the time of delivery or mailing.

Twenty-eighth—The Company promises, covenants and agrees on its part and behalf to conform to and abide by and perform all the terms, conditions and requirements in this contract fixed and contained.

In witness whereof the party of the first part, by its Mayor, thereunto duly authorized by the Board of Estimate and Apportionment of said City, has caused the corporate name of said City to be hereunto signed and the corporate seal of said City to be hereunto affixed, and the party of the second part, by its officers, thereunto duly authorized, has caused its corporate name to be hereunto signed and its corporate seal to be hereunto affixed, the day and year first above written.

THE CITY OF NEW YORK,

(Corporate Seal.)

By....., Mayor.

Attest:

....., City Clerk.

ATLANTIC TELEPHONE COMPANY,

(Seal.)

By....., President.

Attest:

....., Secretary.

[Here add acknowledgments.]

The President of the Board of Aldermen moved that the entire matter be referred to a Select Committee consisting of the Corporation Counsel, the Comptroller and the Chief Engineer.

The President of the Borough of Manhattan moved as an amendment that he be added as a member of such committee.

Which amendment was lost by the following vote:

Affirmative—The Presidents of the Boroughs of Manhattan, Brooklyn and Queens—5.

Negative—The Mayor, the Comptroller, the President of the Board of Aldermen and the President of the Borough of Richmond—10.

The Chair then put the original motion.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, Queens and Richmond—15.

Independent Telephone Company of New York.

The Chair presented the following:

To the Board of Estimate and Apportionment of The City of New York:

The petition of the Independent Telephone Company of New York respectfully shows:

1. That on or about the 29th day of November, 1899, the Independent Telephone Company of New York was duly organized under the laws of the State of New York, under the Transportation Corporations Law, for the purpose of constructing, owning, using and maintaining line or lines of electric telephone and telegraph wholly within or partly beyond the limits of the State of New York, pursuant to the provisions of said law.

2. That on or about the 12th day of March, 1900, the said Independent Telephone Company of New York duly filed with the then Department of Public Buildings and Supplies its application for permission to construct, lay and maintain lines of electrical conductors for the transmission of electric currents for telephone purposes through the low tension subway, and additionally, when requested, to have constructed, as by law provided, such subways wherever the same should be found necessary throughout The City of New York; also for the right and license to lay wires throughout the streets, alleys, avenues and other places, as well as to construct, erect and maintain pole lines throughout the different boroughs of The City of New York according to the specifications contained in Schedule A of said application, which said application and Schedule A are hereby referred to and prayed to be made and taken as a part hereof with the same force and effect as if herein set forth at length.

3. That on or about the 10th day of July, 1902, the said company duly made and filed in said office above mentioned its offer in writing to pay to The City of New York as royalty for the permit so applied for, as above stated, one dollar for each telephone installed as long as the telephone is used, and further agreed to install one hundred thousand telephones in said City of New York as soon as it could be done, and stipulated and agreed to furnish service to subscribers in said city at the reduced amounts set forth in said offer, reference to which is hereby made, and the same prayed to be made and taken as a part hereof with the same force and effect as if herein set forth at length.

4. Said company duly filed with Commissioner Henry S. Kearny, on or about March 12, 1900, in connection with said application above recited for a permit to operate electrical conductors in all the five boroughs of Greater New York, maps and plans which covered all the principal streets and avenues in said five boroughs, and the petitioner has duly complied with all the provisions of the law with reference to its said application.

Wherefore your petitioner prays that the said records on said application now existing in the office of the Commissioner of Water Supply, Gas and Electricity, as above stated, be transferred before the Board of Estimate and Apportionment, and that thereupon your Honorable Board may duly grant, according to the statute in such case made and provided, a franchise to your petitioner to construct, lay and maintain lines of electrical conductors for the transmission of electric currents for telephone purposes through the low tension subways, and additionally, when requested, to have constructed, as by law provided, such subways wherever the same may be found necessary throughout The City of New York, and may have the right, license and privilege to lay wires throughout the streets, alleys and other places, as well as to construct and erect pole lines throughout the different boroughs of The City of New York according to the specifications contained in said Schedule A above referred to, and as appears on the maps of the proposed routes accompanying said application above referred to, subject to the provisions of the rules and regulations governing the matter of your Honorable Body, and in accordance with the offer, dated July 10, 1902, to the Hon. J. Hampden Dougherty, Commissioner of Water Supply, Gas and Electricity, signed by your petitioner, to furnish said service for prices therein stated referred to above.

And your petitioner avers that it is ready and willing, pursuant to the statute in such case made and provided, to enter into a proper contract in regard to such franchise, containing such reasonable clauses and conditions to protect the city with reference to the same, according to the statute in such case made and provided, as may be hereafter agreed upon between your petitioner and the city.

And your petitioner will ever pray.

Dated June 20, 1907.

INDEPENDENT TELEPHONE COMPANY OF NEW YORK,

[COMPANY'S SEAL.]

Per LOUIS ANNIN AMES, President.

Attest:

JOHN A. WALLACE, Secretary.

State of New York, City and County of New York, ss.:

John A. Wallace, being duly sworn, deposes and says, I am the Secretary of the Independent Telephone Company of New York, the corporation mentioned in the foregoing petition; I have read the foregoing petition and know the contents thereof, and the statements of fact therein contained are true to the best of my knowledge.

JOHN A. WALLACE.

Subscribed and sworn to before me this 20th day of June, 1907.

WIRT HOWE,

Notary Public, New York County, N. Y.

Which was referred to the Chief Engineer.

The Secretary presented the following communication from the Comptroller, recommending the transfer of \$7,000, as requested by the Commissioners of Accounts, from the account entitled Salaries of Assistants to the account entitled Supplies and Contingencies for the year 1907.

CITY OF NEW YORK—DEPARTMENT OF FINANCE,
COMPTROLLER'S OFFICE,
June 17, 1907.

JOSEPH HAAG, Esq., Secretary, Board of Estimate and Apportionment:

DEAR SIR—I herewith return the following requests of the heads of the various departments for transfers of appropriations, which were transmitted to the Comptroller for examination and report, in accordance with the resolution of the Board of Estimate and Apportionment adopted January 4, 1907, viz.:

Commissioners of Accounts..... \$7,000 00

In view of the fact that there are sufficient funds available to provide for the transfers requested, and the same appear to be proper and reasonable, I recommend to the Board of Estimate and Apportionment that the necessary resolutions be adopted making such transfers.

Respectfully,

H. A. METZ, Comptroller.

OFFICE OF THE COMMISSIONERS OF ACCOUNTS,
STEWART BUILDING, No. 280 BROADWAY,
NEW YORK, June 6, 1907.

Hon. GEORGE B. MCCLELLAN, Chairman, Board of Estimate and Apportionment:

DEAR SIR—By resolution dated March 8, 1907, the Board of Estimate and Apportionment ordered the transfer of \$7,000 from our appropriation for Supplies and Contingencies, for the current year, to the Law Department.

We find that the expenditures properly chargeable to Supplies and Contingencies for the first five months of this year, together with the probable demands that will be made during the rest of the year, will nearly equal the original appropriation of \$11,500.

We therefore ask that the \$7,000 so transferred may be restored to the appropriation for Supplies and Contingencies, and the same amount taken from our appropriation for Salaries of Assistants to the Commissioners of Accounts for the current year.

Yours respectfully,

JOHN C. HERTLE,

JOHN PURROY MITCHEL,

Commissioners of Accounts.

The following resolution was offered:

Resolved, That the sum of seven thousand dollars (\$7,000) be and the same is hereby transferred from the appropriation made to the Commissioners of Accounts for the year 1907, entitled Salaries of Assistants, the same being in excess of the amount required for the purposes thereof, to the appropriation made to said Department for the same year entitled Supplies and Contingencies, the amount of said appropriation being insufficient.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Borough of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The Secretary presented requests for the issues of Bonds as follows:

Resolution of the Board of Aldermen requesting the issue of \$75,000 Special Revenue Bonds for the purchase of fire hose for the Fire Department.

Resolution of the Board of Aldermen requesting the issue of \$5,000 Special Revenue Bonds to meet expenses of the Hospital Commission of The City of New York.

Resolution of the Board of Aldermen requesting the issue of \$500 Special Revenue Bonds to meet expenses of the Committee on Codification of the Board of Aldermen in revising the Code of Ordinances.

Resolution of the Board of Aldermen requesting the issue of \$5,000 Special Revenue Bonds for the payment of salaries of the clerical force and incidental expenses necessary in connection with the preparation of a Building Code by the Commission appointed in pursuance of section 497 of the Charter.

Resolution of the Board of Aldermen requesting the issue of \$15,000 Special Revenue Bonds to defray expenses of moving and sorting various records in the office of the County Clerk, Kings County, in the Hall of Records, Borough of Brooklyn.

Requisition of the Board of Rapid Transit Railroad Commissioners for an appropriation of \$729,773.63, being the balance of interest paid from Rapid Transit Construction Fund, Manhattan-The Bronx Division, on Corporate Stock of The City of New York, issued for the construction of the Rapid Transit Railroad to May 1, 1907, inclusive.

Which were referred to the Comptroller.

The Secretary presented communications requesting the fixing of salaries and the establishment of new grades in the various City departments, as follows:

From the Secretary, Board of Justices, Municipal Court, submitting resolution of said Board unanimously approving the raises in salary of the Stenographers from \$2,000 to \$2,500.

From the President, Borough of Manhattan, requesting the fixing of salary of the position of Chief Engineer, Bureau of Highways, at \$6,000 per annum.

From the Police Commissioner, requesting an increase in salary from \$7,500 to \$15,000 per annum.

Which were referred to a Select Committee, consisting of the Comptroller and the President, Board of Aldermen.

The Secretary presented the following communication from the Comptroller, requesting the establishment of an additional grade of the position of Examiner of Sewer Claims, at \$3,500 per annum, for one incumbent, and additional incumbents for grades of various positions already established:

CITY OF NEW YORK—DEPARTMENT OF FINANCE,
COMPTROLLER'S OFFICE,
June 17, 1907.

To the Board of Estimate and Apportionment:

GENTLEMEN—Request is hereby made that the Board of Estimate and Apportionment recommend to the Board of Aldermen, in accordance with section 56 of the

Charter, that additional salaries for the following positions in the Department of Finance be fixed at the amounts specified:

Examiner of Sewer Claims (for one incumbent).....	\$3,500 00
Examiner of Sewer Claims (for two incumbents, instead of for one as at present)	1,800 00
Examiner of Sewer Claims (for four incumbents, instead of for one as at present)	1,500 00
Inspector of Repairs and Supplies (for three incumbents, instead of for one as at present).....	1,800 00
Automobile Engineman (for three incumbents, instead of for two as at present)	1,200 00

The salary for the first mentioned position is desired in order to promote the Examiner who has had charge of the Division of Sewer Claims since the early part of 1906, and who, by his fidelity in discharging his duties and by his ability, which, in my judgment, is of a high order, has saved the City hundreds of thousands of dollars. Just how much it is impossible to positively estimate, for the reason that the saving has not only been in the number of sewer claims which have been successfully defended or withdrawn, but the moral effect of his having been placed in charge of the employees who handle these claims has been such as to greatly reduce the number of claims filed. His present salary is \$2,850.

In regard to the other additional grades of positions which I have requested I will be pleased to furnish the Board with detailed information in regard to the necessity for their establishment, if such is desired.

Respectfully yours,

H. A. METZ, Comptroller.

The Comptroller, on behalf of the Select Committee, consisting of the Comptroller and the President of the Board of Aldermen, reported orally in favor of granting the foregoing request, and offered the following resolution:

Resolved, That the Board of Estimate and Apportionment, in accordance with the provisions of section 56 of the Greater New York Charter, hereby recommends to the Board of Aldermen the establishment of the grade of the position of Examiner of Sewer Claims in the Department of Finance, in addition to those already existing therein, at the rate of three thousand five hundred dollars (\$3,500) per annum, for the present incumbent, Mr. Frank J. Prial, only.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The following resolution was offered:

Resolved, That the Board of Estimate and Apportionment, in accordance with the provisions of section 56 of the Charter as amended, hereby recommends to the Board of Aldermen the amendment of the resolutions adopted by this Board April 20, 1906, July 6, 1906, and March 22, 1907, establishing grades of various positions in the Department of Finance, in so far as they relate to the number of incumbents of the following positions:

	Incumbents.	Per Annum.
Examiner of Sewer Claims (for William J. Parrell and Robert J. Jordan only).....	2	\$1,800 00
Examiner of Sewer Claims (for Thomas J. Dougherty, William A. Hartye, Jr.; James J. Fitzgerald and Charles A. Gallagher only)	4	1,500 00
Inspector of Repairs and Supplies (for John F. Scanlon, Elmer DeCamp and Harlan P. Christie only).....	3	1,800 00
Automobile Engineman (for William Wiley, Frank Mattes, Oliver H. Quimby only).....	3	1,200 00

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The Secretary presented a communication from the Chief Engineer, Board of Estimate and Apportionment, recommending the fixing of salaries of the following employees in the office of the Board of Estimate:

John W. Meade, Stenographer and Typewriter, at \$1,200 per annum.

Frederick P. Peirce, Topographical Draughtsman, at \$1,650 per annum.

Florence B. McQueeney, Stenographer and Typewriter, at \$900 per annum.

Which was referred to a Select Committee, consisting of the Comptroller and the President, Board of Aldermen.

The Secretary presented a communication from the attorney for the Association of Inspectors of Masonry and Construction, requesting the equalization of salaries of all Masonry and Construction Inspectors in the City, giving a gradual increase for every year's additional service.

Which was referred to a Select Committee, consisting of the Comptroller and the President, Board of Aldermen.

The Secretary presented the following communication from the Presiding Justice, Court of Special Sessions, First Division, requesting the transfer of \$1,500 to the account "Supplies and Contingencies for the year 1907," together with communication from the Comptroller stating that there are no unexpended balances of appropriations for the year 1907 available at present for the transfer of said amount.

Which were ordered on file.

COURT OF SPECIAL SESSIONS CHAMBERS,
June 4, 1907.

To the Honorable Board of Estimate and Apportionment:

GENTLEMEN—We would respectfully ask that you have transferred to the credit of the fund of "Supplies and Contingencies, Court of Special Sessions, First Division, New York City," from some unexpended balance the sum of \$1,500, for the following reasons:

The amount of \$2,500 appropriated for this fund for the year 1907 is entirely insufficient and is nearly used up. We asked for double this amount. The amount actually expended on this account last year was \$4,500. The constantly growing business of this Court demands increased expense. We are short handed in every respect, both as to clerical force and the means to conduct our business as it should be conducted. In the item of postage stamps alone, we are obliged at times to use more than one hundred dollars' worth a month. We have but five process servers to serve the processes of the Court, and sometimes the exigencies of our business render it a physical impossibility for our limited number of process servers to serve all our papers. We have the carfare of these men to pay and, in addition, the carfare of four probation officers. Our telephone bills are fifty dollars a month or more. For stenographic reports in probation cases and incidentals in other directions, absolutely required to further the ends of justice, we are obliged to spend from \$75 to \$100 monthly. This Court will dispose of about 17,000 cases this year, as compared

with 11,000 last year, and that involves, as you will readily see, an infinite detail of business in all directions, which, with the limited force at our command, hampers us very considerably.

Trusting you will give this matter your immediate attention, I am,

Yours respectfully,

JOHN B. MCKEAN, Justice Presiding.

DEPARTMENT OF FINANCE—CITY OF NEW YORK, }
June 10, 1907. }

JOSEPH HAAG, Esq., Secretary, Board of Estimate and Apportionment:

DEAR SIR—In reply to your letter of June 5, I desire to inform you that there are no unexpended balances of appropriations for the year 1907 that can be obtained at present for the transfer of \$1,500 to the appropriation for Supplies and Contingencies for the Court of Special Sessions, First Division, as requested by the Hon. John B. McKean, Justice presiding under date of June 4, 1907.

Respectfully,

H. A. METZ, Comptroller.

The Secretary presented the following communication from the City Clerk requesting the transfer of \$1,262.50 to the account the Board of Aldermen and City Clerk—Salaries, for the year 1907, and communication from the Comptroller stating that there are no unexpended balances of appropriations for the year 1907 available at present for the transfer of said amount.

Which were ordered on file.

THE CITY OF NEW YORK,
OFFICE OF THE CITY CLERK, CITY HALL,
NEW YORK, June 4, 1907. }

To the Honorable the Board of Estimate and Apportionment:

GENTLEMEN—I hereby respectfully make application for the transfer of the sum of \$1,262.50 to the account of the Board of Aldermen and City Clerk—Salaries, for the purpose of providing for the following increases in salary not asked for in the Budget for 1907:

Salary of Librarian increased December 11, 1906, from \$1,000 to \$2,000, amount required	\$1,000 00
Salaries of two Clerks of the Board of Aldermen increased April 1, 1907, as follows:	
From \$1,800 to \$2,000, amount required.....	150 00
From \$1,650 to \$1,800, amount required.....	112 50
	<hr/>
	\$1,262 50

Respectfully,

P. J. SCULLY, City Clerk.

DEPARTMENT OF FINANCE—CITY OF NEW YORK, }
June 10, 1907. }

JOSEPH HAAG, Esq., Secretary, Board of Estimate and Apportionment:

DEAR SIR—In reply to your letter of June 4, 1907, I desire to inform you that there are no unexpended balances of appropriations for the year 1907 that can be obtained at present for the transfer of \$1,262.50 to the appropriation the Board of Aldermen and City Clerk—Salaries, as requested by Mr. P. J. Scully, City Clerk, under date of June 4, 1907.

Respectfully,

H. A. METZ, Comptroller.

The Secretary presented a communication from Edward M. Murphy, attorney for property owners, requesting immediate action on the resolution of the Board of Education relative to vesting title to property now under condemnation for a school site located on One Hundred and Thirteenth street, between First and Second avenues, Borough of Manhattan, together with communication from the Comptroller stating that the preliminary report has been made in this matter and that title will vest about July 1, 1907.

Which were ordered on file.

The Secretary presented the following communication from the Comptroller, recommending the amendment of resolution adopted April 5, 1907, in so far as it relates to the description of property authorized to be acquired by purchase at \$125,000, located on the northerly side of Talman street, distant 80 feet 6 inches westerly from the northwesterly corner of Talman street and Jay street, Brooklyn, for the use of the Manhattan Bridge (Bridge No. 3):

CITY OF NEW YORK—DEPARTMENT OF FINANCE, }
COMPTROLLER'S OFFICE,
June 11, 1907. }

Hon. HERMAN A. METZ, Comptroller:

SIR—The Board of Estimate and Apportionment, at a meeting held April 5, 1907, adopted a resolution authorizing the acquisition of property on the northerly side of Talman street, distant 80 feet 6 inches westerly from the northwesterly corner of Talman street and Jay street, in the Borough of Brooklyn, having a frontage of 66.59 feet on Talman street and a frontage of 18.74 feet on York street, it appearing that the Board of Estimate and Apportionment at a meeting held January 20, 1905, had adopted a resolution in accordance with the provisions of section 1436a of the Greater New York Charter, approving and authorizing the acquisition of certain lands and premises selected by the Commissioner of the Department of Bridges for the use of the Manhattan Bridge (Bridge No. 3), in the Borough of Brooklyn, and that included within the area of the property described in said resolution was a portion of the premises situated on the westerly side of Jay street, between the southerly side of York street and the northerly side of Talman street, occupied by the Roman Catholic Church of the Assumption. The price to be paid for the said property included within the area of the proposed improvement was the sum of \$125,000.

It appears that an examination of the title by the Title Guarantee and Trust Company discloses that the beginning point on Talman street is 80 feet from the corner of Jay street, instead of 80 feet 6 inches from Jay street, as provided in the original resolution, and the Corporation Counsel has informed this office that it would be advisable to amend the resolution under this condition.

I would therefore respectfully recommend that the Board of Estimate and Apportionment amend their resolution of April 5, 1907, in regard to this matter, by inserting therein the following description instead of the one included in said resolution:

Beginning at a point on the northerly side of Talman street, distant 80 feet westerly from the corner formed by the intersection of the northerly side of Talman street with the westerly side of Jay street; thence northerly parallel with Jay street 99.68 feet to the southerly side of York street; thence easterly along the southerly side of York street 18.74 feet; thence southeasterly along the easterly line of land laid out to be acquired for bridge purposes, in accordance with a resolution of the Board of Estimate and Apportionment adopted January 20, 1905, 110.36 feet to the northerly side of Talman street, which point is distant 13.41 feet westerly from the northwesterly corner of Jay and Talman streets; thence westerly along the northerly line of Talman street 66.59 feet to the point or place of beginning, be the said several dimensions more or less, together with all the right, title and interest of the owners of said premises, of, in and to the streets in front thereof to the centre thereof.

Respectfully submitted for approval,

THOMAS F. BYRNES,

Appraiser of Real Estate, Department of Finance.

Approved:

H. A. METZ, Comptroller.

The following resolution was offered:

Resolved, That the resolution adopted by the Board of Estimate and Apportionment on April 5, 1907, relative to the acquisition of property on the northerly side of Talman street, near Jay street, Borough of Brooklyn, be and the same is hereby amended so as to read as follows:

Whereas, The Board of Estimate and Apportionment, at a meeting held January 20, 1905, in accordance with the provisions of section 1436a of the Greater New York Charter, approved of the selection by the Commissioner of the Department of Bridges of certain lands and premises for the use of the Manhattan Bridge (Bridge No. 3), Borough of Brooklyn, and authorized the institution of condemnation proceedings for the acquisition of all of the property included within the area of the said property selected by the Commissioner of Bridges and mentioned in said resolution; and

Whereas, The Comptroller of The City of New York has reported to this Board that the City has been offered a certain parcel of land, with the improvements thereon, situated on the northerly side of Talman street and the southerly side of York street, near Jay street, in the Borough of Brooklyn, which is included within the area as laid down by the Commissioner and described in said resolution; and

Whereas, The Comptroller in said report has stated that in his opinion it would be advisable for the City to acquire the premises for the Bridge Commissioner; therefore be it

Resolved, That the Comptroller of The City of New York is hereby authorized to enter into a contract for the acquisition of the property bounded and described as follows:

Beginning at a point on the northerly side of Talman street, distant 80 feet westerly from the corner formed by the intersection of the northerly side of Talman street with the westerly side of Jay street; thence northerly parallel with Jay street 99.68 feet to the southerly side of York street; thence easterly along the southerly side of York street 18.74 feet; thence southeasterly along the easterly line of land laid out to be acquired for bridge purposes, in accordance with a resolution of the Board of Estimate and Apportionment adopted January 20, 1905, 110.36 feet to the northerly side of Talman street, which point is distant 13.41 feet westerly from the northwesterly corner of Jay and Talman streets; thence westerly along the northerly line of Talman street 66.59 feet to the point or place of beginning, be the said several dimensions more or less, together with all the right, title and interest of the owners of said premises of, in and to the streets in front thereof to the centre thereof,

—at private sale at a price not exceeding one hundred and twenty-five thousand dollars (\$125,000), said contracts to be submitted to the Corporation Counsel for his approval as to form.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The Secretary presented a communication from the Comptroller recommending the acquisition by purchase, at \$10,000, of property located on the north side of North Hempstead Turnpike, containing one acre, for the use of the Police Department, in connection with other property in the Borough of Queens, authorized on November 9, 1906, to be acquired for departmental purposes.

Which was referred back to the Comptroller for further consideration.

The Secretary presented a communication from the President, Borough of The Bronx, requesting the issue of \$63,000 Corporate Stock, in addition to the amount heretofore authorized, for the rebuilding of the East One Hundred and Forty-ninth street sewer, Borough of The Bronx.

Which was referred to the Comptroller.

The Secretary presented a communication from the Commissioner of Water Supply, Gas and Electricity submitting copy of communication from the attorneys for the Citizens' Water Supply Company of Newtown.

On May 24 the Comptroller's report was presented relative to the form of agreement between the City and the said company for supplying not less than 1,000,000 gallons of water per day, at \$65 per million gallons, etc., and in accordance with the recommendations contained therein the matter was referred back to the Commissioner of Water Supply, Gas and Electricity for further consideration.

Referred to the Comptroller.

The Secretary presented a communication from the President, Board of Trustees, Bellevue and Allied Hospitals, requesting the issue of \$145,000 Corporate Stock for the construction of a training school for Nurses for the Harlem Hospital, in accordance with preliminary plans submitted with said communication.

Which was referred to the Comptroller.

The Secretary presented a communication from the Commissioner of Parks, Borough of The Bronx, requesting an appropriation of \$100,000 for the construction of an eight-foot drain to take the waters of Tibbett's brook from the lake in Van Cortlandt Park to, and connect with the twin sewer already constructed in Broadway.

Which was referred to the Chief Engineer of the Board and to the Chief Engineer of the Borough of The Bronx.

The Secretary presented a communication from the Commissioner of Street Cleaning relative to the acquisition of property on the northwest corner of Wadsworth avenue and West One Hundred and Eighty-second street, Manhattan, as a site for a stable for said Department.

Which was referred to the Comptroller.

The Secretary presented the following communication from the Commissioner of Street Cleaning submitting two alternative forms of contract, in triplicate, for the final disposition of all ashes, street sweepings and rubbish of the Borough of Brooklyn for a period of five years, together with communication from the Comptroller relative thereto:

DEPARTMENT OF STREET CLEANING, }
NEW YORK, June 17, 1907. }

Hon. GEORGE B. McCLELLAN, Mayor, Chairman, Board of Estimate and Apportionment:

DEAR SIR—I transmit herewith for the approval by your Board of the terms and conditions thereof, pursuant to section 544 of the Charter, two (2) alternative forms of contract in triplicate, distinguished as "No. 1" and "No. 2," for the final disposition of all ashes, street sweepings and rubbish of the Borough of Brooklyn, for a period of five years, beginning the 28th day of October, 1907.

Forms "No. 1" and "No. 2" differ in this respect: Form "No. 1" provides for the final disposition of the materials for the entire Borough of Brooklyn, while form "No. 2" expressly omits from its operation two portions of the Borough, each described by metes and bounds, the first exception being the territory tributary to the dumps at Wallabout Bay and the foot of Gold street, the second the territory tributary to the dump on Gowanus Bay at the foot of Thirty-seventh street.

These forms have been approved as to form by the Corporation Counsel. In order to insure competition, it is necessary that these contracts shall be advertised as quickly as possible.

An extra copy of each form is enclosed, for the files of your Board.

Respectfully,

M. CRAVEN, Commissioner.

CITY OF NEW YORK—DEPARTMENT OF FINANCE,
COMPTROLLER'S OFFICE,
June 21, 1907.

Hon. HERMAN A. METZ, Comptroller:

SIR—Hon. M. Craven, Commissioner, Department of Street Cleaning, in communication under date of June 17, 1907, transmits to the Board of Estimate and Apportionment for its approval, pursuant to section 544 of the Greater New York Charter, two alternate forms of contract in triplicate, designated as Nos. 1 and 2, for the final disposition of all ashes, street sweepings and rubbish in the Borough of Brooklyn, for a period of five (5) years, beginning the 28th day of October, 1907.

I would report: Two forms of contracts differ in this respect:

Form No. 1. Provides for the final disposition of materials for the entire Borough of Brooklyn.

Form No. 2. Expressly omits from the operation, two portions of the Borough of Brooklyn, each described by metes and bounds, first exception being the territory tributary to the dump on the Wallabout Bay at the foot of Clinton and Waverly avenues, and the dump on the East river at the foot of Gold street.

The above territory comprises that portion of the borough now divided for the purpose of the Department of Street Cleaning, sections numbered first, four, five, thirteen, fourteen, fifteen and eighteen.

Second—That territory tributary to the dump on Gowanus Bay at the foot of Seventeenth street. The above territory comprises that portion of the borough now divided for the purpose of the Department of Street Cleaning, into sections numbered nine and ten.

Form No. 2 is proposed in order that it may be determined if it will be economical to except the above noted areas in order that the Department of Street Cleaning may use the ashes, etc., within the above described portions of the Borough of Brooklyn, for the purpose of filling in low lands belonging to The City of New York.

I have gone over in detail the terms and conditions of the two forms of contract with the Street Cleaning Commissioner and made certain modifications which have been accepted by the Commissioner.

The above forms of contract contain the following terms and conditions:

The material to be handled and disposed of consists of all the street sweepings, ashes and rubbish that may be collected either by carts of the Department of Street Cleaning or other carts so far as such other carts can be controlled by the said Department, and which as to ashes and street sweepings when collected shall contain not more than five per centum of weight of other refuse, and as to rubbish shall contain not more than two and one-half per centum by weight of all other refuse.

2. The period of these contracts will be for a term of five (5) years, beginning October 28, 1907.

3. The amount of security, \$100,000.

4. Each bid or estimate must be accompanied by a complete description of the methods to be pursued by the contractor, such description to be accompanied by complete plans and specifications, such plans and specifications to be sufficient fully to set forth the method or methods to be used and the result to be secured, and to describe and locate the place or places where the material is to be received by the contractor; such place or places, together with the buildings, not exceeding fifteen (15) in number to be furnished at the contractor's expense, and to be changed only with the consent of the Commissioner. Said plans and specifications shall provide also for the transporting conveyances, if any, which it is proposed to employ. These plans and specifications shall fully describe the interior and exterior arrangements of the buildings proposed therein.

5. If the contractor shall delay or neglect to commence the work of final disposition under this contract, or any portion thereof on the 28th day of October, 1907, that party of the first party may perform the same or any portion thereof for such period of neglect or delay, and charge the whole expense thereof to the contractor, and deduct the same from any moneys retained, accruing, due or to grow due under this contract.

6. Compensation—Price per annum for each year of the five years to be paid in equal twelve (12) parts on the 15th day of each month with ten per cent. (10%) retained to be paid thirty (30) days after the thirty-first day of December next ensuing.

With the modifications suggested by me and accepted by the Commissioner of Street Cleaning, the respective forms of contract and specifications are drawn with care, and may be properly approved by the Board of Estimate and Apportionment, in compliance with section 544 of the amended Greater New York Charter, as requested by the Commissioner.

Respectfully,

CHANDLER WITHINGTON, Chief Engineer.

Approved:

H. A. METZ, Comptroller.

The following resolution was offered:

Resolved, That, pursuant to the provisions of section 544 of the Greater New York Charter, the Board of Estimate and Apportionment hereby approves of the terms and conditions contained in the two alternative forms of contract, submitted in triplicate by the Commissioner of Street Cleaning under date of June 17, 1907 (with the modifications as suggested in the report of the Comptroller dated June 21, 1907), for the following purposes:

Contract No. 1. For the final disposition of all ashes, street sweepings and rubbish in the Borough of Brooklyn;

Contract No. 2. For the final disposition of all ashes, street sweepings and rubbish in the Borough of Brooklyn, with the exception of the territory tributary to the dump on the Wallabout Bay at the foot of Clinton and Waverly avenues and the dump on the East river at the foot of Gold street, known as sections one, four, five, thirteen, fourteen, fifteen and eighteen; also the territory tributary to the dump on Gowanus Bay at the foot of Thirty-seventh street, known as sections nine and ten, —said contracts being for a period of five years beginning October 28, 1907.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The Secretary presented a communication from the President, Board of Trustees, Brooklyn Public Library, requesting an appropriation of \$10,000 for the purchase of books for the new Leonard (Carnegie) Branch.

Which was referred to the Comptroller.

The Secretary presented a communication from the former Register, Kings County, requesting that the Board authorize the payment of \$6,500, pursuant to chapter 621, Laws of 1901, for work performed by him after the expiration of his term of office.

Which was referred to the Comptroller.

The Secretary presented a communication from the Surrogate, New York County, transmitting certificate of work to be done in the Surrogates' Court and office for the preservation of the public records.

Which was ordered on file.

The Secretary presented a communication from the Commissioner of Correction requesting the issue of \$4,000,000 Corporate Stock to provide means for the erection and completion of a new penitentiary on Riker's Island.

Which was referred to the Comptroller.

The Secretary presented the following communications from the President, Board of Rapid Transit Railroad Commissioners, transmitting copies of invitations to contractors, forms of contract, bonds, schedules and contractors' proposals for the construction of parts of the proposed Brooklyn loop lines (Pearl street to Park row; Delancey street, between the Bowery and Norfolk street, and Centre street to the Bowery), and requesting the consent of the Board of Estimate and Apportionment to the proposed contracts to be entered into, and the authorization of the issues of Corporate Stock for the construction of said railways and pipe galleries, as follows:

Bradley Contracting Company (Pearl street to Park row contract).....	\$1,003,828 00
Bradley Contracting Company (Delancey street, between the Bowery and Norfolk street, contract).....	1,298,436 00
Bradley Contracting Company (Centre street to the Bowery contract)...	1,547,342 00

BOARD OF RAPID TRANSIT RAILROAD COMMISSIONERS,
No. 320 BROADWAY, NEW YORK,

To the Board of Estimate and Apportionment:

The Board of Rapid Transit Railroad Commissioners of The City of New York, on May 25, 1905, adopted routes and a general plan for the construction of a rapid transit railway in the Boroughs of Manhattan and Brooklyn, which routes and plan were approved by your Honorable Board on July 14, 1905, by the Mayor of The City of New York on July 28, 1905, and by the Appellate Division of the Supreme Court in the First Judicial Department by an order entered on March 12, 1907.

Pursuant to law, the said Board of Rapid Transit Railroad Commissioners prepared detailed plans and specifications for the construction of such rapid transit railway, and included in said plans provisions for galleries, ways, subways or tunnels for gas or water pipes, electric wires and other subsurface structures and conductors proper to be placed underground (hereafter in this communication referred to as pipe galleries), and determined to make a separate contract for the construction of a part of the said road along Centre street, between Pearl street and Park row (Section 9-0-1). The form of the said contract, as duly adopted by the said Rapid Transit Board, was approved by the Corporation Counsel on May 15, 1907, and by your Honorable Board on May 10, 1907.

Thereafter the said Board of Rapid Transit Railroad Commissioners duly advertised for proposals by notices printed twice a week for three successive weeks and upwards, in four of the daily newspapers published in The City of New York, which notice stated that the said proposals would be opened at the office of the Board on Thursday, June 13, at 12 o'clock noon. At the said time and place, proposals were received as follows:

Patrick McGovern—	
For construction of the railroad.....	\$1,257,000 00
Pipe galleries	10,000 00
	<u>\$1,267,000 00</u>
Bradley Contracting Company—	
For construction of the railroad.....	\$998,328 00
Pipe galleries	5,500 00
	<u>\$1,003,828 00</u>
The Degnon Contracting Company—	
For construction of the railroad.....	\$1,386,000 00
Pipe galleries	10,000 00
	<u>\$1,396,000 00</u>
Williams Engineering and Contracting Company—	
For construction of the railroad.....	\$1,250,000 00
Pipe galleries	7,500 00
	<u>\$1,257,500 00</u>

The said Board of Rapid Transit Railroad Commissioners, having duly considered the said proposals, did, on the 13th day of June, 1907, by a vote of six of its members, accept the proposal of the said Bradley Contracting Company, both for railroad construction and for pipe galleries, and accordingly awarded the contract for construction of the same to said company, subject to the consent of your Honorable Board as required by law. A complete copy of said contract as so adopted and awarded is herewith transmitted.

The said Board of Rapid Transit Railroad Commissioners therefore requests your Honorable Board to consent to said contract herewith transmitted and to prescribe a limit to the amount of bonds available to meet the requirements of the said contract, to wit: The sum of \$998,328 for construction of the part of the said rapid transit railway included in said contract, and the sum of \$5,500 for construction of pipe galleries in connection therewith; and also to direct the Comptroller of The City of New York to issue Corporate Stock of the said City, bearing interest at the rate of 4 per centum per annum, for the purpose of providing the necessary means for construction at the public expense of the part of the said rapid transit railway above described, including the said pipe galleries.

And the said Board of Rapid Transit Railroad Commissioners does hereby, pursuant to section 45 of the Greater New York Charter, make request for the authorization of such Corporate Stock for the full amount sufficient to pay the entire estimated expense of executing such contract, to wit: The sum of one million three thousand eight hundred and twenty-eight dollars (\$1,003,828).

In witness whereof, the Board of Rapid Transit Railroad Commissioners for The City of New York has caused its official seal to be hereto affixed and these presents to be signed by its President and Secretary, this 14th day of June, 1907.

[SEAL.]

A. E. ORR, President.

BION L. BURROWS, Secretary.

BOARD OF RAPID TRANSIT RAILROAD COMMISSIONERS, CITY OF NEW YORK.

INVITATION TO CONTRACTORS, FORM OF CONTRACT, BOND, SCHEDULE AND CONTRACTOR'S PROPOSAL FOR CONSTRUCTION OF A PART OF THE PROPOSED BROOKLYN LOOP LINES (PEARL STREET TO PARK ROW).

INVITATION TO CONTRACTORS.

(Pearl Street to Park Row.)

The City of New York (hereinafter called the City), acting by its Board of Rapid Transit Commissioners (hereinafter called the Board), contemplates building a certain rapid transit railroad, known as Route No. 9, in Centre street (Manhattan) and other streets in the boroughs of Manhattan and Brooklyn, including ultimately Delancey street, Grand street, Desbrosses street, Canal street and William street, in Manhattan, and Fulton street, Lafayette avenue and Broadway, in Brooklyn.

By this advertisement the City invites proposals to construct that part of said railroad which is situated between a line crossing Centre street about 40 feet north of Pearl street and the southeasterly side of Park row, in accordance with the detailed

plans and specifications adopted therefor. This part will consist principally of an underground railway station, together with the railroad tracks running through it and extending for short distances northerly and southerly from it. Suitable cross-overs, turnouts and sidings are also to be provided, all as shown in the detailed plans of construction. The railway tunnels are to have a height of not less than thirteen (13) feet in the clear, and a maximum width of fifteen (15) feet for each track, except at curves, etc., where the width may be increased. The roof of the tunnels is generally to be as near the surface of the street as street conditions and grades will permit. The roof and sides of the tunnels will be of iron or steel and masonry. Entrances to the station are intended to be placed on property acquired or to be acquired by the City.

The manner of construction shall be by excavation under cover within the lines of Centre, Pearl, Duane, Reade and New Chambers streets and Park row; within the lines of Park street and City Hall place, and except as noted above by open excavation, unless otherwise directed by the Board.

In the detailed plans for construction, provisions for pipe galleries on the western side of Centre street are included, as indicated on the detailed plans. Bids for the construction of the station and railroad tracks must be accompanied by a separate bid for the construction of the pipe galleries above referred to, as it is essential for the City to separate the cost of the railroad construction from the cost of the pipe galleries. The Board reserves the right to accept a bid for the railroad construction and at the same time to reject the accompanying bid for pipe galleries.

The price stated for railroad construction is to include the furnishing of all materials and the performance of all labor requisite to the complete construction of that part of the proposed railroad which is to be built under this contract, including the station, and all sewer and street construction and reconstruction and other work caused by or incidental to the construction of the same as set out in the proposed form of contract.

A fuller description of the work to be done is set forth, and other requirements, provisions, details and specifications are stated in the printed form of contract now on file in the office of the Board, No. 320 Broadway, Borough of Manhattan, and in the detailed drawings therein referred to, at which office copies of the contract and of the form of bond and contractor's proposal may be had on application. The contract drawings may be inspected at the same office. The printed form of contract and the detailed drawings are to be deemed a part of this invitation.

Partial payments to the contractor will be made monthly as the work proceeds, as provided in the form of contract.

The work of construction (including pipe galleries) is to be completed as soon as practicable, and within twenty months from the date of delivery of the contract.

Sealed bids or proposals will be received at the said office of the Board, at No. 320 Broadway, Borough of Manhattan, City of New York, until Thursday, the 13th day of June, 1907, at 12 o'clock noon, at which time or at a later date, to be fixed by the Board, the proposals will be publicly opened.

Proposals must be in the form prescribed by the Board, copies of which may be obtained at the office of the Board.

Each proposal must be signed and acknowledged and also verified by an affidavit of the bidder (or if it be a corporation then by an officer thereof), to the effect that the several matters therein stated are in all respects true. If the proposal is made by a firm, it will be sufficient if the proposal is signed and the affidavit sworn to by one member of the firm.

Each proposal must specify an office within The City of New York at which notices may be delivered; and delivery of a notice at such office shall be deemed a sufficient delivery and notice to the bidder.

Each proposal or bid must contain the name and place of residence of the person or persons making the same, the names of all persons interested with him therein, and if no other person be so interested, it shall distinctly state that fact; and if the bidder shall be a corporation, there shall be submitted a certified copy of its certificate of incorporation, with a certificate of the amount of stock paid in in cash, and the names and business addresses of all officers and directors of the corporation shall be stated; also, that it is made without any connection with any other person making a proposal or bid for the same purpose, and is in all respects fair and without collusion or fraud, and that no member of the Board of Aldermen, head of department, chief of bureau, deputy thereof or clerk therein, or other officer of the corporation, or any member or employee of the Board, is interested, directly or indirectly, as contracting party, partner, stockholder or otherwise in or in the performance of the contract, or in supplies, work or business to which it relates, or in any portion of the profits thereof.

No proposal will be allowed to be withdrawn for any reason whatever after it shall have been deposited with the Board.

The Board is not obliged by law to accept any of the proposals received by it, but may reject all such proposals and readvertise, or may accept any of such proposals as will, in the judgment of the Board, best promote the public interest and award a contract accordingly, subject to approval by the Board of Estimate and Apportionment, as required by law.

The award of the contract or contracts (if awarded) will be made by the Board within ten days after the opening of the proposals. The bidder or bidders whose proposal shall be accepted shall in person or by duly authorized representative attend at the said office of the Board within ten days after the delivery of a notice by the Board that his proposal is accepted and that the contract is approved by the Board of Estimate and Apportionment; and such bidder shall then deliver a contract in the form referred to, duly executed, with its execution duly proved.

At the time of the delivery of a contract, the contractor will be required to furnish security to the City by giving a bond in the penalty of one hundred and sixty thousand dollars. At the option of the successful bidder cash or approved securities may be deposited instead of giving a bond. If securities are deposited in place of a bond under this contract, they must be of the character of securities in which savings banks may invest their funds and must be approved by the Board. The contractor's bond must be in the form annexed to the form of contract.

In addition and as further security to the City, ten per cent. of each amount certified from time to time to be due to the contractor will be retained until the work is fully completed.

Each bidder must state in his proposal the names and places of business of the proposed sureties on the bond and describe any securities proposed to be deposited.

A bidder whose proposals are otherwise satisfactory to the Board may, in case the sureties or securities named by them are not approved by the Board, substitute the names of new sureties or a different schedule of securities approved by the Board; but such substitution must be made within five days after notice of disapproval by the Board, unless this period is extended by the Board.

In case of failure or neglect to execute and deliver the contract or to make the required deposit or to execute and deliver the required bond, the bidder whose proposal was accepted will, at the option of the Board, be deemed either to have made the contract or to have abandoned the contract. In the latter case the Board will give notice thereof to the defaulting bidder. And the Board may thereupon proceed to make another contract with such, if any, of the original bidders, as, in the opinion of the Board, it will be to the best interest of the City to contract with, or may by new advertisement invite further proposals. The defaulting bidder shall thereupon be liable to the City for all loss and damage by it sustained, including the excess, if any, of the amount it shall pay any other contractor over the amount of the bid of such defaulting bidder.

Every proposal must, when submitted, be enclosed in a sealed envelope endorsed "Proposal for Constructing Rapid Transit Railroad—(Pearl Street to Park Row)" and must be delivered to the Board or to its Secretary; and in the presence of the person offering the proposal it will be deposited in a sealed box in which all proposals will be deposited. No proposal will be received or deposited unless accompanied by a certified check drawn upon a National or State Bank or Trust Company within The City of New York and satisfactory to the Board, payable to the order of the Comptroller of The City of New York, for the sum of twelve thousand five hundred dollars.

If the Board shall give notice to any bidder that his or its proposal is accepted and the contract is approved by the Board of Estimate and Apportionment, and if the bidder shall fail within ten days thereafter, or within such further period, if any, as may be prescribed by the Board, to execute and deliver the contract and to execute and deliver the bond with sureties, or make a deposit in cash or securities, then this invitation to contractors and proposal accepted as aforesaid shall be a contract

binding such bidder to pay to the City the damages by it sustained by reason of such failure; and in that case the bidder absolutely assigns to the City the ownership of the check accompanying his or its proposal as a payment on account of such damages.

Such check must not be enclosed in the sealed envelope containing the proposal, but must be separately delivered to the Board or to its Secretary, who will give a proper voucher for the deposit.

All such deposits made by bidders whose proposals shall not be accepted by the Board will be returned to the person or persons making the same within five days after the contract shall be executed and delivered. The deposit of the successful bidder will be returned when the contract is executed and its provisions as to security are complied with.

THE BOARD OF RAPID TRANSIT RAILROAD COMMISSIONERS FOR THE CITY OF NEW YORK.

BION L. BURROWS, Secretary.

By A. E. ORR, President.

BOARD OF RAPID TRANSIT RAILROAD COMMISSIONERS FOR THE CITY OF NEW YORK.

CONTRACT NO. 9-O-1 FOR THE CONSTRUCTION OF A PART OF THE PROPOSED BROOKLYN LOOP LINES (PEARL STREET TO PARK ROW).

Approved as to form this 15th day of May, 1907.

JOHN L. O'BRIEN,
Acting Corporation Counsel of The City of New York.

BROOKLYN LOOP LINES.

Contract No. 9-O-1.

Agreement, made this day of , 1907, between The City of New York, hereinafter called the City, acting by the Board of Rapid Transit Railroad Commissioners for the City of New York, hereinafter called the Board, party of the first part, and of , hereinafter called the Contractor, party of the second part.

Whereas, The Board, in behalf of the City, by due advertisement, pursuant to law, has invited contractors to submit to the Board proposals for making this contract; and

Whereas, The Contractor has thereupon duly submitted to the Board a proposal, which has been accepted; and

Whereas, The Board of Estimate and Apportionment of The City of New York has consented to this contract;

Now, therefore, in consideration of the mutual stipulations and covenants hereinafter contained, and under the authority of chapter 4 of the Laws of 1891, entitled "An act to provide for rapid transit railroads in cities of over one million inhabitants," and of the various acts amending the same, the parties hereby do, the City for itself and its successors and the Contractor for* and assigns, agree each with the other as follows:

*Here insert, if a corporation, itself, its successors; if a single individual, himself, his executors, administrators; if several individuals, themselves jointly and severally, and their and each of their executors, administrators.

I.—GENERAL PROVISIONS AND DEFINITIONS.

Outline of Contract.

The Contractor agrees to construct the part hereinafter described of a rapid transit railway with its appurtenances (including pipe galleries). The City agrees to pay to the Contractor the sums of money hereinafter mentioned at the times and in the manner and upon the terms and conditions hereinafter set forth.

Brief Description of Subject.

The railroad and railroad station to be constructed under this contract forms a part of a certain rapid transit route adopted by the Board May 25, 1905, and approved by the Board of Estimate and Apportionment of The City of New York on July 14, 1905; by the Mayor on July 28, 1905, and by the Appellate Division of the Supreme Court in the First Judicial Department by an order entered on March 12, 1907. The part to be constructed under this contract is described as follows, viz.:

A railroad station, including station approaches and also the appurtenant and adjacent tracks shown on the detailed drawings and plans hereinafter referred to. The centre line of the said tracks shall begin at or near a point where the centre line of Centre street intersects a line drawn parallel to and about forty (40) feet north of the northerly line of Pearl street; the said point being at the southerly end of that portion of the general route above mentioned for the construction of which a contract (known as Contract 9-O-2) has recently been let to Degnon Contracting Company. From the said point of beginning the said centre line of the tracks shall run southerly, curving slightly to the east, under Centre street and Pearl street, to a point near the intersection of Centre and Duane streets; and thence continuing in a southerly direction and crossing under Park street, Duane street, Reade street, City Hall place, New Chambers street and Park row to a point on the southeasterly side of Park row distant about one hundred and ten (110) feet from the southwesterly corner of Park row and North William street, at and near which point a connection can be made with tracks passing over the Brooklyn Bridge. From the southerly side of Pearl street to the northwesterly side of Park row the said station and railroad tracks will be constructed partly under Centre street and the other streets above mentioned, and partly through and under property acquired or to be acquired by the City lying between the said several streets.

There are to be four tracks from the above mentioned place of beginning to a point near Park row, where they will converge, forming two tracks; and at the crossing under Park row there will be two tracks. The precise location of the said tracks, and the dimensions, location and other characteristics of the station, are more fully stated in the specifications forming a part of this contract and in the detailed drawings and plans hereinafter mentioned. The pipe galleries which are to be constructed, as an independent item of the work, are also described in the said specifications and are shown in the detailed drawings and plans.

Statutes Incorporated Herein.

This contract is made pursuant to the Rapid Transit Act, which is to be deemed a part hereof as if it were incorporated herein.

Marginal Notes, etc.

Titles, headings and marginal notes are printed hereon merely for convenience and shall not be deemed to be any part of this contract for any purpose whatever.

Definition of Words.

The following words and expressions used in this contract shall, except where by the context it is clear that another meaning is intended, be construed as follows:

"City."

1. The word "City" to mean The City of New York, and any other corporation or division of government to which the ownership, rights, powers and privileges of The City of New York, under the Rapid Transit Act, shall hereafter come, belong or appertain.

"Board."

2. The word "Board" to mean the Board of Rapid Transit Railroad Commissioners for the City of New York, and any other board, body, official or officials, to which or to whom the powers now belonging to the said Board shall, by virtue of any act or acts hereafter passed or be held to appertain.

"Contractor."

3. The word "Contractor" to mean the part* of the second part to this contract, and any and every person or corporation who or which shall at any time be liable in the place or for the part of the second part to perform any obligations under this contract assumed by the said part of the second part. For convenience the Contractor is hereinafter spoken of as if the Contractor were an individual. The word "he" shall, as the sense may require, include "it," "she" and "they"; the word "him" shall include "it," "her" and "them"; and the word "his" shall include "its," "her" and "their."

* Here and in like blanks hereafter insert y or ies, as the case may be.

† Here insert, as the case may be, either its successors or his executors, administrators and assigns, or their executors, administrators and assigns.

"Comptroller."

4. The word "Comptroller" to mean the Comptroller of The City of New York, and the officer or board to whom or to which his powers now existing under the Rapid Transit Act shall come to appertain.

"Engineer."

5. The word "Engineer" to mean the present Chief Engineer of the Board and any successor or successors duly appointed or any deputy or substitute for him who shall be appointed by the Board or by its authority.

"Rapid Transit Act."

6. The words "Rapid Transit Act" to mean chapter 4 of the Laws of 1891, as amended by chapters 102 and 556 of the Laws of 1892, chapters 528 and 752 of the Laws of 1894, chapter 519 of the Laws of 1895, chapter 729 of the Laws of 1896, chapter 616 of the Laws of 1900, chapter 587 of the Laws of 1901, chapters 533, 542, 544 and 584 of the Laws of 1902, chapters 562 and 564 of the Laws of 1904, chapters 599 and 631 of the Laws of 1905, and chapters 472, 606 and 607 of the Laws of 1906, or as heretofore otherwise amended.

"Railroad."

7. The word "railroad" to mean the part of the general route which the Contractor agrees by this contract to build, including the station belonging to or to be used in conjunction therewith, and all appurtenances thereto which are to be constructed or provided by the Contractor.

8. The words "pipe galleries" to mean all galleries, ways, subways or tunnels for sewers, gas or water pipes, electric wires and other subsurface structures and conductors which the Contractor agrees by this contract to build as a separate undertaking from the railroad.

9. The words "the works" to mean all of the matters and things herein agreed to be furnished or done by or on the part of the Contractor.

"New York."

10. The words "New York" to mean The City of New York, according to its boundaries at the date of this contract.

"Daily Newspaper."

11. The words "daily newspaper" to mean any paper regularly published in The City of New York on every day or every day except Sundays and holidays.

"Notice."

12. The word "notice" to mean a written notice. The word "direction" to mean a written direction.

Legal Address of Contractor. Address May be Changed. Service Upon Contractor Personally.

The address given in the bid or proposal upon which this contract is founded is hereby designated as the place where all notices, directions and other communications to the Contractor shall be certified, mailed or delivered. The delivering at the above-named place or depositing in postpaid wrapper directed to the above place, in any post-office box regularly maintained by the post-office, of any notice, letter or other communication to the Contractor, shall be deemed sufficient service thereof upon the Contractor. Such address may be changed at any time by an instrument in writing, executed and acknowledged by the Contractor and delivered to the Board. Nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, direction or other communication upon the Contractor personally.

Contractor Responsible for Acts of Sub-Contractor's Employees.

If the Contractor shall cause any part of this contract to be performed by a sub-contractor, the provisions of this contract shall apply to such sub-contractor and his officers, agents and employees in all respects, as if he and they were employees of the Contractor; and the Contractor shall not be in any manner thereby discharged from his obligations and liabilities hereunder, but shall be liable hereunder for all acts and negligence of the sub-contractor, his officers, agents and employees, as if they were employees of the Contractor. The employees of the sub-contractor shall be subject to the same provisions hereof as employees of the Contractor; and the work or materials furnished by the sub-contractor shall be subject to the provisions hereof, as if furnished directly by the Contractor.

Board May Disapprove Sub-Contractors.

The Contractor, before making any sub-contract of the work, shall state in writing to the Board the name of such sub-contractor, the portion of the work which such sub-contractor is to do, or the materials which such sub-contractor is to furnish, the place of business of such sub-contractor and such information as the Board may require to enable it to know whether such sub-contractor is able competently to do the work or provide the materials. The Board shall have the right, upon reasonable grounds, to require the Contractor not to award any sub-contract to a person disapproved by the Board.

*II.—WORK TO BE DONE, PRICE, ETC.**Work to be Done.*

The Contractor shall at his own cost and expense, and in strict conformity with the specifications hereinafter contained and called the Specifications and also in strict conformity with the plans which are made a part hereof and with all the provisions of this contract, whether included in the Specifications or not, furnish all the materials and labor necessary and proper for the purpose, and, in a good, substantial and workmanlike manner, construct and provide the railroad, including therein the station, side-tracks, switches, cross-overs, and all other appurtenances as hereinafter specified.

Construction Includes Sewer and Other Incidentals.

In order to construct the railroad it will be necessary to take up and relay the pavement or other surface material, to protect and support during construction all buildings and other structures, including their foundations, and all elevated and surface railways, water mains, gas pipes, electric subways, pneumatic tubes, steam pipes and other surface and subsurface structures, together with their necessary connections, as the same may be met with along the route; to build sewers both along the route and other streets; to make or remake the necessary manholes, catch basins and other sewer connections therewith; to move, alter, readjust or rebuild water mains, gas pipes, electric subways, pneumatic tubes, steam pipes and other subsurface structures, together with their necessary connections; and to do all such additional and incidental work as may be necessary for the completion of the railroad and the reconstruction and restoration of the street pavements or other surfaces adjacent to the route of the railroad and which may have been directly or indirectly disturbed by the Con-

tractor in the progress of the work of construction, to as useful and good a condition as existed before construction shall have been begun. All such work of every description including underpinning wherever necessary, of all buildings of whatsoever nature, monuments, elevated railways and surface railways affected by or interfered with during the construction of the railroad, is part of the work which is included in this contract and which the Contractor agrees to perform.

Price for the Railroad Construction.

The City shall pay, and the Contractor shall receive for the construction of the railroad, including the incidental work above mentioned, the sum of (\$) subject to modification and the conditions in this contract prescribed.

Pipe Galleries to be Constructed.

[The Board has included in the detailed plans and specifications hereinafter mentioned, provisions for pipe galleries. The Contractor in addition to the work of construction of the railroad shall also, at his own cost and expense, and in strict conformity with the said plans and specifications, and with all the provisions of this contract, whether included in the Specifications or not, furnish all the material and labor necessary and proper for the purpose and in a good substantial and workmanlike manner construct and provide the pipe galleries with all appurtenances thereof along such of the above sections as is or are included in this contract.

Price for Pipe Galleries.

The City shall pay and the Contractor shall receive for the construction of the pipe galleries (in addition to the above payment for the construction of the railroad) the sum of dollars (\$) subject to modification as hereinafter provided and to the conditions in this contract prescribed.

What is Included in Pipe Gallery Construction.

The construction of the pipe galleries as herein specified shall include (1) the furnishing of all labor and materials necessary for and included in the construction of said pipe galleries and appurtenances; (2) all excavation of earth and rock determined by the Engineer as necessary for the construction of the pipe galleries, outside of the side lines of excavation for the railroad, that would not otherwise be excavated; (3) the removal and relaying of all electric ducts or ways in existence at the time of executing this contract (excepting the ducts of street railroads) that it may be necessary to remove and relay, and the furnishing and laying of such additional ducts as are indicated on the plans, not to exceed double the number now in existence at any place or places along the line of the railroad; and (4) the construction of such chambers and manholes as are necessary for the proper and convenient operation of the pipe galleries.

The removal, reconstruction and replacement of all other pipes or subsurface structures shall be included in construction of the railroad.

Provisions of this Chapter Apply to Pipe Galleries.

All the following provisions of this contract, except where by the context it is clear that another meaning is intended, shall be construed to apply to and include both the construction of the railroad and the construction of pipe galleries.]*

Right of Board to Amplify Plans, to Require Extra Work, etc.

The Board shall have the right, during the progress of the work, to amplify the plans, to add explanatory specifications and to furnish additional specifications and drawings. The Board shall also have the right by notice to the Contractor to require additional work to be done or additional materials to be furnished, or both, or to require work or materials herein specified or provided for to be omitted; provided, however, that the amount of work and materials called for by this contract shall not be so increased or diminished as substantially to alter the general character or extent of the work proposed.

Payment for Extra Work, etc.

If additional work or materials shall be so required, then the reasonable value thereof shall be additionally paid to the Contractor. If work or materials herein specified or provided for shall be so required to be omitted, then a reasonable deduction shall be made in the manner hereinafter provided from the amount to be paid to the Contractor for construction.

* The five paragraphs in brackets are to be omitted in case the bid for constructing pipe galleries is rejected.

The location of the station and the ventilating shafts or chambers, as stated in the Specifications, or as shown in the detailed plans, may in like manner be changed, or ventilating shafts or chambers may be added or omitted at any time during the progress of the work, the Contractor receiving additional payments as above provided in case additional work is thereby made necessary, or a deduction being made in case diminution of work is caused thereby.

Beauty of Material as well as Efficiency.

The railroad system of which the railroad constructed under this contract forms a part, will constitute a great public work. All parts of the structure where exposed to public sight are, therefore, designed and shall be constructed with a view to the beauty of their appearance, as well as to their efficiency.

Contractor Bound to Complete in Best Manner.

The Contractor shall complete the work in accordance with the Specifications and contract drawings and according to the other provisions of this contract and within the time specified in this contract, in the most workmanlike manner and with the highest regard to the safety of life and property and according to the lines, levels and directions given by the Engineer, for the prices hereinbefore agreed upon; except that for extra work, if any, ordered by the Board there shall be additional payment, and except that for part or parts of the works, if any, omitted, there shall be a deduction from the contract prices, all as hereinbefore provided.

Best Materials, Machinery, Tools, etc., to be Used.

The Contractor is to furnish of the best description all materials, machinery, implements, tools and labor necessary to construct and put in complete working order all work covered by the specifications, contract drawings and other provisions of this contract, including all additional specifications, drawings and details issued or required as hereinbefore provided.

No Acceptance to Obviate the Necessity for Sound Work, etc.

No acceptance of any part of the works or of materials therefor shall relieve the Contractor of his obligation to furnish sound material and perform sound work, whether with respect to such part or to any other part of the works.

Inspection.

The Board contemplates, and the Contractor hereby approves, the most thorough and minute inspection by the Board and its Engineer, and by their representatives or subordinates, of all work and materials and of the manufacture or preparation of such materials from the beginning of construction to the final completion of the works. It is the intention of the Board that its Engineer shall draw the attention of the Contractor to all errors or variations from the requirements of this contract or other defects in workmanship or materials. But it is expressly agreed that no omission on the part of the Board or its Engineers or any officer, member or subordinate of the Board to point out such errors, variations or defects shall give the Contractor any right or claim against the City or shall in any way relieve the Contractor from his obligations according to the terms of this contract.

Contractor to Afford Facilities for Inspection.

The Contractor shall at all times give to the Board and its members, to the Engineer and the assistants and superintendents under the Engineer, and any person

designated by the Board or its President, all facilities, whether necessary or convenient, for inspecting the materials to be furnished and the work to be done under this contract. The members of the Board, the Engineer and any superintendent, assistant or other person bearing his authorization or the authorization of the Board or its President, shall be admitted at any time summarily and without delay to any part of the works or to inspection of materials at any place or stage of their manufacture, preparation, shipment or delivery.

Substitute for Chief Engineer.

Any engineer substituted by the Board in place of the Chief Engineer during his absence, illness or inability or when the Board shall so determine, shall, during his official connection, have all the power and authority of the Chief Engineer, and in all respects be recognized as such Chief Engineer.

Work to be Subject to Approval of Engineer.

The work is to be done and the materials are to be furnished subject to the direction and approval of the Engineer. The Contractor shall promptly obey and follow every direction which shall be given by the Engineer, including any direction which he shall give by way of withdrawal, modification or reversal of any previous direction given by him. If any additional specification be prescribed or additional drawing be required to be followed, or additional detail required, or if any question shall arise as to the quality, character or amount of materials or work, or as to the obligation of the Contractor to do any particular work or furnish any particular materials, or as to the value of any additional work or materials required by the Board or as to the deduction to be made from the contract price by reason of any materials or work directed by the Board to be omitted; or if any other dispute, question or doubt as to what is the obligation of the Contractor shall arise prior to the time of the complete construction of the work and the declaration thereof by the Board, the determination of the Engineer shall be binding upon the Contractor and the City, so far that the Contractor shall proceed or refrain from proceeding, as the case may be, and without any delay obey the requirement of the Engineer.

III.—ARBITRATION BETWEEN CITY AND CONTRACTOR.

Appeal from Engineer's Determination. Mode of Review. Arbitration.

Either the Contractor or the City may appeal as hereinafter provided from any determination of the Engineer as to the reasonable value of any work or materials additionally required by the Board as aforesaid or omitted as aforesaid, or as to the question whether the Contractor is entitled to additional payment for anything additionally required by the Engineer, whether upon additional specifications or drawings or in the way of additional details as aforesaid, or otherwise as herein provided, or as to the question whether the City is entitled to a deduction from the amount payable to the Contractor according to the terms hereof. In every such case the Engineer shall make his determination in writing, and in duplicate, one duplicate to be filed with the Board and the other duplicate to be delivered to the Contractor. Such determination as to work done or materials supplied shall be binding upon the City unless the Board shall appeal within ten days after its next meeting after such determination shall be filed with it and notice of such filing shall be given to its President; and shall be binding upon the Contractor, unless the Contractor shall appeal within ten days after the same shall be delivered to him. The appeal shall be taken by a written notice addressed, if the Board be the appellant, to the Contractor, or if the Contractor be the appellant, then in duplicate, one to the President of the Board and one to its Secretary. The notice of appeal shall state the determination appealed from, the grounds of appeal, and the precise award or redress desired; and shall include the appointment of an arbitrator on the part of the appellant, with a written undertaking on the part of the arbitrator to act. Within ten days after the receipt of a notice of appeal the party receiving the same shall appoint an arbitrator, and give written notice to the party appealing of such appointment, with a written undertaking on the part of the arbitrator to act. If the party against whom the appeal is taken shall not so nominate an arbitrator who shall so accept and give such written notice thereof with such written acceptance of such arbitrator, then the arbitrator named by the party appealing shall be the sole arbitrator. Either party may, by a general notice to the other, appoint a standing arbitrator for such party. In case of such standing appointment such arbitrator shall be deemed to be appointed upon each appeal, without specification of his appointment upon the appeal. Any vacancy in any office of arbitrator shall be filled by the party which shall have appointed the last incumbent thereof, within ten days after notice of the vacancy—during which ten days the running of other periods of time prescribed for or in course of the arbitration shall be suspended. If not so filled—or if notice of the appointment be not given within such ten days—the remaining arbitrator shall be the only arbitrator. Within five days after the appointment of its arbitrator by the party against whom the appeal is taken, or, if there be a standing arbitrator for such party, then after ten days, but within fifteen days after notice of the appeal is given—the arbitrators—or if the party against whom the appeal is taken shall be in default in appointing an arbitrator, then within five days after such default the arbitrator named by the party appealing—shall proceed summarily, and upon two days' notice to both parties, to hear such evidence or statements, oral or written, as may be produced. Such hearing shall be finished within five days after such hearing shall begin unless extended by order of the arbitrator or arbitrators; and within five days after finishing such hearing, the determination of such arbitrators or arbitrator shall be made. But if within such five days the arbitrators (in the case of two arbitrators) shall fail to agree upon and make an award, then they shall forthwith so certify to the Board and the Contractor, and the controversy shall, with the concurrence of one of the arbitrators, be determined by an umpire to be nominated by the executive committee for the time being (or the committee thereto corresponding) of the Chamber of Commerce of the State of New York, or if within three days after being notified by either of the parties hereto of such failure the said committee shall not make a nomination, then by an umpire to be named by the executive committee for the time being (or the committee thereto corresponding) of the Association of the Bar of The City of New York. The umpire shall hear the parties, their counsel, the statements of the arbitrators and the statements and evidence received by them, or such of them and so much thereof as may appear or be submitted to the umpire upon ten days' notice to the parties. Such notice shall be given within three days after the nomination of the umpire. The hearing by the umpire shall be concluded within five days unless extended by order of the umpire. His award shall be made within five days after the hearing before him is concluded, and shall be effectual if concurred in within such five days by one of the arbitrators. Every determination by the arbitrators or arbitrator and umpire shall be in writing in duplicate, one to be delivered to the Secretary of the Board and the other to the Contractor. The executive (or other corresponding) committee of the said Chamber of Commerce and the executive (or other corresponding) committee of the said Association of the Bar may, upon the joint request of both parties, from time to time nominate a standing umpire, or a standing board of three experts. Such standing umpire or standing board of experts shall, upon every arbitration where an umpire is required, be such umpire, and a decision or determination by a majority of such board of experts shall be the decision of the umpire. The days for notices and other proceedings shall be exclusive of Saturdays, Sundays and holidays. All fees and expenses of arbitrators and umpires shall be borne and paid equally by the City and the Contractor, by both of whom every such arbitrator and umpire shall be deemed to be employed. Every such arbitrator and umpire (including members of any board of experts) shall, before proceeding to hear the testimony or to consider the matter, be sworn as nearly as may be in the same manner as referees in actions at law are required to be sworn. Every such arbitrator, umpire or expert shall be a disinterested person.

No Estoppel.

Neither the City nor the Board shall be precluded or estopped by any return or certificate made or given by the Engineer (if unappealed from) or by the Board, or by any other officer from showing at any time (either before or after the completion of the railroad and payment therefor pursuant to any such return or certificate), the true and correct amount and character of the work done and materials furnished by the Contractor, or any other person under this agreement, or from showing at any time that any such return or certificate is untrue and incorrect, or improperly made in any particular, or that the work and materials, or any part thereof, do not in fact conform

to the specifications; and the City shall not be precluded or estopped, notwithstanding any such return or certificate and payment in accordance therewith, from demanding and recovering from the Contractor such damages or other legal remedy as it may be entitled to by reason of the Contractor's failure to comply with this contract and the specifications forming a part thereof.

Vouchers for Extra Work.

The Contractor shall become entitled to additional payment for extra work only upon the production of the certificate and determination of the Engineer if unappealed from, or, if so appealed from, then only upon and according to the final award of arbitrators, or arbitrator and umpire as aforesaid; it being expressly agreed that the City shall make no additional payment to the Contractor except upon vouchers which include such certificate and determination unappealed from, or if appealed from, then such certificate and determination with such final award as a condition precedent to payment and that no payment shall be made in any case inconsistently with such final award.

When City Entitled to Abatement of Price.

The City shall not be entitled to claim any abatement from the contract price by reason of diminution in the amount of work required, delay in completion or otherwise except upon the certification or determination of the Engineer unappealed from as aforesaid, or, if so appealed from, then upon the certificate and award of the arbitrators or arbitrator and umpire as aforesaid.

In Case Arbitration Cannot Validly Be Had.

Provided, however, and it is expressly agreed, that, if in any case, or for any reason, an arbitration cannot validly be had as aforesaid, then the City or the Contractor, after having appealed from such determination and being in no way responsible for failure of the arbitration, may prosecute such appeal or review such determination in or by any proper suit or proceeding.

IV.—SPECIFICATIONS.

Specifications and Drawings Subject to Requirement of Railroad of Highest Grade.

The specifications and contract-drawings hereinafter mentioned and taken in connection with the other provisions of this contract are intended by the Board to be full and comprehensive, and to show all the work required to be done. But in a work of this magnitude it is impossible either to show in advance all details, or to precisely forecast all exigencies. The specifications and contract-drawings are to be taken, therefore, as indicating the amount of work, its nature and the method of construction so far as the same are now distinctly apprehended. The railroad is intended to be constructed for actual use and operation as an interurban railroad of the highest class, adapted to the necessities of the people of The City of New York. The Contractor shall construct and complete the railroad in the best manner, according to the best rules and usages of railway construction, and if in the specifications or contract-drawings or in the provisions of this contract any detail or other matter or thing requisite for such construction be not mentioned, nevertheless the same is deemed to be included, and the Contractor hereby undertakes to do the same as part of his work hereunder. And it is expressly agreed that the price to be paid the Contractor as herein prescribed includes full compensation for every such detail, matter and thing.

Where Text of Contract Doubtful Best Materials and Workmanship Required.

In the event of any doubt as to the meaning of any portion or portions of the specifications or contract-drawings, or of the text of the contract, the same shall be interpreted as calling for the best construction, both as to materials and workmanship, capable of being supplied or applied under the then existing local conditions. This provision, by way of illustration (but of illustration only), implies the requirement that the interior surface of every part of the tunnel containing the railway shall be entirely free from percolation of ground or other water from without; the requirement throughout of a structure whose component parts shall be of as permanent and durable a character as practicable; the requirement that the steel and such other parts of the structure as are liable to rust and decay shall be fully protected from such action; and the requirement that there shall be an adequate and comfortable station. All the clauses of the specifications and all the parts of the contract-drawings are, therefore, to be understood, construed and interpreted as intending to produce the results hereinbefore stated.

The plans referred to in the specifications hereinafter contained are seventeen in number, bear date May 9, 1907, are each countersigned by the Engineer, are stamped with the seal of the Board and bear the general title, Route No. 9-O-1, Contract-Drawing No. The sheets are numbered as follows: Nos. A-1, B-1 to B-3, both inclusive; and C-1 to C-13, both inclusive.

Plans and Contract Drawings.

The sections and dimensions of all parts shown on the contract-drawings are typical sections and dimensions applicable to the greater part of the work, and where no extraordinary conditions exist. Where such conditions do exist, or where unforeseen contingencies arise, such as the encountering of quicksand or other bad material, or when there are buildings, monuments or other structures whose foundations are of such a character as to bring an undue thrust upon the tunnel, or other similar circumstances exist, then and in every such case the Board may issue such special plans, duly countersigned by the Engineer, and accompanied by specifications explanatory thereof, or describing the method of construction, changing the sections or the dimensions of the parts or the materials of the structure; and such special plans and specifications when so issued shall be binding on the contractor as though originally contained in this contract, and shall not be made the basis of any claim for additional payments for extra work.

Supplementary Drawings.

In addition to the contract-drawings already mentioned the Board has had prepared a set of maps and plans, bearing the same seal and general title as the contract-drawings, but designated as Supplementary Drawings, which are signed by the Engineer and marked Nos. D-1 and D-2, and E-1 and E-3, both inclusive. These supplementary drawings exhibit certain information which the Board has received from its Engineer of the nature of the soil underlying portions of the route, the nature and position of elevated and surface railways, water mains, gas and other pipes, sewers, electric subways, manholes, hydrants, catch basins and other surface and subsurface structures. The supplementary drawings have been exhibited to the Contractor without any guaranty on the part of the Board as to their completeness or correctness; and the contractor may, at his option and at the expense of the Board, have copies thereof for such aid, if any, as the contractor may derive from them. If, upon opening the streets, difficulties of any nature be encountered which are not indicated or suggested by the supplementary drawings, or if additional surface or subsurface structures or obstructions be discovered or found of different size or in different positions or of different nature from those shown on the supplementary drawings, or if in any way such supplementary drawings be found erroneous, the Contractor shall have no claim whatever for any such failure, discrepancy or error, but is to take every necessary or proper precaution to overcome the unforeseen difficulty, and is to take care of, protect, remove, adjust or readjust, as the case may be, the additional or different surface or subsurface structures according to the direction of the Engineer.

Specifications Not Exclusive.

It is expressly understood that the specifications do not include all requirements, but are requirements in addition to those heretofore or elsewhere given or provided in this contract. The specifications and other provisions of this contract and the contract drawings are intended to be explanatory of each other. Should, however, any discrepancy appear or any misunderstanding arise as to the import of anything contained in either, the explanation of the Engineer shall be final and conclusive, except that upon any claim by the Contractor that he has been called upon to do work or furnish materials in excess in quantity or value of those called for by the terms of this contract, he shall be entitled to appeal and to a determination by arbi-

trators or by an arbitrator and umpire, as hereinbefore provided, and to a correction by way of money allowance of any error of the Engineer.

These specifications are grouped in subdivisions as follows:

1. Description of the Work.
2. Manner of Prosecution.
3. Excavation.
4. Backfilling.
5. Piling and Timbering.
6. Masonry.
7. Cement.
8. Mortar.
9. Concrete.
10. Brick Masonry.
11. Stone Masonry.
12. Waterproofing.
13. Drains and Pumps.
14. Steel and Iron.
15. Painting.
16. Ducts.
17. Sewers.
18. Water Mains.
19. Paving.
20. Maintenance of Street Railway Tracks, Mains and other Surface or Subsurface structures.
21. Stations.
22. General Clauses.

I. DESCRIPTION OF THE WORK.

The work to be done under and in accordance with the contract and these specifications is the construction of a part of the rapid transit railroad known as Route No. 9, which is described in the routes and general plan. This work consists essentially of an underground railway station situated between Pearl street and Park row, and of an underground railroad or subway passing through the station and extending a short distance north and south from it and having four tracks. The tracks will be built southerly from points about forty feet north of Pearl street; partly under Centre street and crossing also under Pearl, Park, Duane and Reade streets, City Hall place, New Chambers street and Park row; and partly through and under property, acquired or to be acquired by the City, which is included between the several streets enumerated above. On reaching points between New Chambers street and Park row, the tracks will converge, making a junction, and the subway passing under Park row will contain two tracks only. Suitable turnouts and cross-overs are to be constructed as indicated on the contract drawings above mentioned.

The above description of the station and tracks is given in general language. The precise dimensions and location of the station and the various tracks, junctions, grades, etc., are set forth more particularly on the accompanying contract drawings.

Surface and Subsurface Structures.

In addition to the construction of the station and railroad tracks, it will be necessary to construct or reconstruct certain sewers, together with house and other sewer connections, and to adjust, readjust and maintain railways, pipes, subways and other surface and subsurface structures, and to relay the street pavement, both on the streets occupied by, and on streets other than those occupied by, the route of the railroad.

Openings with gratings will be built at or over the station, for the purpose of admitting air to the railroad.

Pipe Galleries.

Pipe galleries or ways will also be constructed on the westerly side of Centre street if provided in the contract and as indicated on the plans.

The Contractor shall place in the galleries provided therefor all pipes and other subsurface contrivances that properly belong therein, at such places as indicated on the plans or as otherwise provided in this contract, and shall relay where necessary all electric ducts or subways of every nature, and shall do all work necessary to restore all services of every nature that exist at the time of executing this contract.

Drained and Ventilated.

The galleries are to be adequately drained by pipe connections with the sewers wherever convenient, fitted with the necessary traps, back pressure valves and vents to prevent sewer gases entering the galleries; they are also to have the necessary gratings or other openings to obtain thorough ventilation.

Manholes.

At the cross streets, and at other places convenient for such construction at intervals of about one hundred (100) feet, manholes for access to the galleries will be constructed, of form and dimensions to afford proper facilities for the convenient handling of pipes and other accessories.

Sewers not in Galleries.

Sewers will not be placed in the galleries; but, if necessary, sewer manholes having sealed covers will connect with the galleries for convenient access thereto.

Ducts and Duct Manholes.

The ducts, to receive electric wires or cables, will be placed generally as shown on the contract drawings, and suitable manholes for drawing and splicing the wires or cables and for other work necessary in connection therewith, will be built, generally at the intersection of the cross streets.

Waterproofing.

The galleries and manholes shall be waterproofed as shown on the plans.

Trolley Rails Provided.

One or more trolley rails or tracks shall be provided, attached to the roof of the galleries, in accordance with detailed plans to be furnished, for the convenient handling and transportation of pipes and materials.

Ends of Work Bulkheaded.

At the ends of the railroad near Pearl street and at Park row, if so ordered by the Engineer, substantial waterproofed bulkheads shall be erected to protect the work and to prevent settlement of the streets, etc., and the Contractor shall keep the railroad entirely free from water until its final acceptance by the Board.

Proper provision must be made as directed by the Engineer for suitable connections or junctions with the section known as 9-0-2; and where the said section is finished in advance of this contract all work necessary for making such connections in a perfect manner must be done, and the connection made.

Lines and Grades.

During the progress of the work the Board will give, through the Engineer, to the Contractor, suitable points, marks or benches, indicating the line and grade of the railroad and of the sewers; such points or bench marks to be established at such intervals as the Engineer deems necessary for the Contractor to be able to perform his work.

Detailed Drawings.

The Engineer will prepare and furnish to the Contractor, from time to time as required, drawings and plans amplifying such details of the contract drawings as may be necessary, and drawings and plans necessary to show the adjustment and reconstruction of all surface and subsurface structures wherever the reconstruction of the same is necessitated by the construction of the railroad. These plans must be strictly followed by all parties concerned, unless local conditions should develop, during construction, suggesting changes, when, with the approval of the Engineer, such changes may be permitted.

Working and Shop Drawings.

The Contractor shall make all working or shop drawings which may be required in addition to the contract drawings, or in addition to such other drawings as the Board may issue in amplification of such contract drawings, as explained above. All working or shop drawings shall be submitted in duplicate to the Engineer for his approval, which approval shall be indicated by his countersigning one set of such working or shop drawings and returning the same to the Contractor. Should the working or shop drawings be not in accordance with the contract drawings and specifications, then the Engineer shall return one set of such working or shop drawings, with the necessary corrections and changes indicated thereon; and the Contractor must make such corrections and changes, and again submit plans in duplicate for the approval of the Engineer; and no work shall be done upon said working or shop drawings until the approval of the Engineer be obtained, except as specified below. In the event of the Engineer failing to take any action within ten (10) working days after delivery to him at his office of such plans in duplicate, such failure shall be taken as equivalent to approval, and the Contractor shall be entitled to proceed exactly the same as if one set had been returned to him with the Engineer's approval indicated by his signature.

2. MANNER OF PROSECUTION.

Permits.

No work shall be begun until the Board shall issue to the Contractor a permit authorizing him to proceed. Such permits are to be in such form and cover such sections of the work as the Board shall prescribe.

Before any opening is made in the surface of a street, a copy of the permit issued by the Board must have been filed with the Borough President not less than five days, unless the Chief Engineer shall expressly direct work to begin within a less period.

Rapidity and Safety.

All the work shall be prosecuted in the manner, according to local conditions, best calculated to promote rapidity in construction, to secure safety to life and property and to reduce to the minimum any interference with the public travel.

Width of Excavation.

Special care must be taken to diminish damage wherever open excavation is permitted, and the width of such excavation must not exceed the width actually necessary, in the opinion of the Engineer, for the proper prosecution of the work.

Night Work.

Wherever, in the judgment of the Engineer, subject to review by the Board, traffic or other local conditions demand, the work shall be prosecuted during the night only or during both night and day; and at all points the Board shall have power to require the Contractor to so conduct his work that it shall not remain open or obstruct traffic an unreasonable length of time. In addition to the above general requirements the Contractor shall conduct his work in compliance with the following special requirements:

Work Begun.

Work of excavation shall not be begun at any point until the Contractor has given reasonable assurance to the Engineer in writing that the material needed for construction at such points has been acquired and is on hand.

Shafts and Dumping Platforms.

Plans showing the proposed location, and proposed method of construction, of shafts, dumping platforms, etc., must be submitted to the Engineer and receive his approval before permits will be granted for such plant and appliances to be constructed and put in operation.

Number of Shifts.

When construction has been begun the same shall be prosecuted with all possible energy, with at least two (2) shifts of eight (8) hours each every working day.

Street Intersections.

On all parts of the work, street intersections must be kept at all times open to traffic for at least one-half the width of the crosstown roadways, and such other portions of the street intersections as may be opened by the permission of the Board must be kept substantially and neatly bridged for foot traffic; and the Contractor shall at all times keep all the street crossings on the lines of the sidewalks in a clean and neat condition, bridging gutters and low places where water might collect.

Streets to be Kept Open for Traffic.

The street surface (except in Park street and City Hall place) wherever excavation is necessary shall be kept substantially boarded over wherever excavation is in progress, and the work of covering the street surface must be prosecuted as much as possible during the night or at times of least traffic, and all necessary facilities are to be furnished by the Contractor for the benefit of street travel, both on longitudinal and cross streets.

Access to Buildings, etc.

No building shall, without the consent of the occupant, and after notice to the Engineer be deprived of means of access thereto; and, where streets are open, proper and easy means for passengers to reach or leave street cars shall be maintained.

Vaults Disturbed.

Wherever vaults are broken through or otherwise disturbed the Contractor shall erect a temporary partition on or about the building line, or as directed, that will afford proper protection to the owner or occupant of the adjoining premises.

Temporary Pipes, etc.

Temporary water and gas pipes, if laid above the street or sidewalk surfaces, must be neatly and substantially placed, and in a manner to cause the minimum of inconvenience to the abutting property owners and to the public.

Openings for Ventilation.

Wherever the excavations are boarded over, suitable openings must be provided for proper ventilation where gas pipes are maintained in service or where gases are liable to accumulate under the roadway. These openings will be placed as directed by the Engineer, and they must be substantially protected in order to prevent accidents.

Close Observance of Above Conditions.

The Board will insist on the close observance of the requirements of the above conditions in reference to keeping certain portions of the streets covered during the prosecution of the work, and that ordinary travel be not interfered with excepting at such time, and in such manner, and in such places as the Engineer (subject to the review of the Board) in writing may permit.

Restoration of Street Surfaces.

As the structural work nears completion, on the several parts of the route, it will be necessary to restore the street surfaces and sidewalks to their original condition. It will then become necessary to remove the temporary street coverings, in order to complete the backfilling, and to build and readjust such appurtenances of subsurface structures as will necessarily come to the surface.

Such work must be done expeditiously, and only at night if so directed by the Engineer and during such hours as he may designate. It must be done as directed by the Engineer from time to time, and in sections of such limited extent as will permit its proper execution, and at the same time interfere least with the general street travel and with the convenience of the abutting property owners. In all cases, however, at least one-half of the roadway where such work is being done must be kept open for public traffic.

3. EXCAVATION.

Access to Fire Hydrants.

Wherever the work is being carried on, free access must be given to every fire hydrant and fire alarm box, and when required hydrants shall be extended by suitable tube or piping to an accessible point as approved by the Engineer, and to the satisfaction of the Chief of the Fire Department. Materials must not be piled at any time or place within ten (10) feet of any fire hydrant or fire alarm box; and where materials are unavoidably piled or placed in the vicinity of a fire hydrant or fire alarm box, and to such height as to obscure a sight of the same, the position of such hydrant or fire alarm box shall be indicated by suitable signals, both day and night.

Depth of Trenches.

Trenches shall be excavated to such depth as may be necessary to permit the laying of such concrete bed or special foundation as may be deemed necessary by the Engineer.

Material Stored.

Excavated sand, gravel or stone that in the judgment of the Engineer is suitable for use in mortar, concrete, or masonry, also structural and other material to be used in the work, may be stored within the limits of the property acquired or to be acquired by the City; but the disposition of such material shall be subject to the approval of the Engineer.

No materials of any nature shall be piled along Centre street. On cross-streets adjacent to the work, only such material may be stored as may be necessary, in case of an emergency, to sheet or to support the excavation; or a reasonable amount of structural material may be stored such as may be absolutely necessary to avoid delay in construction; but such material must not be allowed to accumulate, but may be replenished from day to day. The amount to be so allowed shall be determined by the Engineer; in no case, however, shall such material be stored in front of an occupied building if objected to by the occupant or owner.

In any case material may only be so stored with the approval of the Engineer, revokable at any time; and if so ordered, such material shall be removed immediately on receiving the order, or within a stated period of time.

Material Removed to Riker's Island or Riverside Park.

All excavated material not required for construction of the subway shall, if directed by the Board, be taken to Riker's Island or to Riverside Park, and there deposited, as directed by the Engineer; provided that the work of rehandling at that point, other than dumping, shall be done by the City, and with reasonable dispatch.

Removed Expeditiously.

Excavated material shall be removed expeditiously and disposed of, except as stated above, in any place selected by the Contractor, subjected to the ordinances and regulations of the City authorities governing the disposal of such material, and the regulations of the United States Government as to the disposal or dumping of material in and about or near the harbor of New York.

Material Watered.

All material that, with the permission of the Board, may be left temporarily in the street, shall be watered by the Contractor when so directed by the Engineer.

Waste material of any character will, under no conditions, be permitted to remain on the streets, but must immediately on its becoming unfit for use in the work be carted away and disposed of as the Contractor may desire; nor shall such material be allowed to accumulate in the trenches.

Temporary Tramways.

For the purpose of facilitating construction and to diminish the period of occupancy of any street for the transportation of material, the Contractor may, with the approval of the Board, lay, upon or over the surface of any street, temporary tramways to be used only for the removal of excavated materials and for the transportation of materials for use in construction; provided, however, that any such tramway shall be forthwith removed upon the direction of the Board.

Carts to be Tight.

All carts, buckets or other vehicles used by the Contractor for the removal of material shall be tight and so arranged and so loaded as not to spill over the top. Whenever a cart, bucket or other vehicle so used is leaky or unsuitable, it shall be immediately withdrawn from the work on notification by the Engineer or his duly qualified assistant, in charge of that portion of the work.

Width of Excavation.

All excavations shall be of such width, in addition to that of the railroad, as shall be necessary, in the opinion of the Engineer, for the proper and expeditious progress of the work, and to permit the laying and readjusting of all sewers, mains, subways and other subsurface structures encountered along the route and contiguous to the railroad.

Sides to be Secured.

The sides of the excavations shall be secured against slips by suitable sheet-piling or sheeting, held in place by braces, shores, or waling strips, special precautions being taken where there is additional pressure due to the presence of buildings or other structures; where a movement of the ground might cause the settlement of an adjacent building, if near the building, the sheeting must be started before the elevation of the bottom of the foundation of the building is reached; or if away from the building, at such depth of the excavation as the Engineer may permit; and excavation must not be made in advance of or below the bottom of the sheeting.

Iron Sheet-piling.

Special forms of sheet-piling of iron or steel shall be used if so ordered and considered necessary by the Engineer, which shall be left in position or drawn as directed.

Fill Back of Sheeting.

When sheeting is placed against the sides of the excavation, the spaces or voids back of the sheeting wherever possible, and if so ordered by the Engineer, must be immediately and carefully filled with suitable material to prevent as far as possible the natural ground back of the sheeting from moving.

Additional Supports.

The Engineer may order additional braces and supports, and the same shall be promptly put in place by the Contractor. All such sheet-piling, sheeting, bracing, shores and waling strips, shall be put in place by workmen especially skilled for that purpose, and shall be so arranged as to permit their being safely withdrawn when the trenches are being backfilled.

Quicksand. Buildings Underpinned.

In the event of encountering quicksand, subsurface streams or similar dangerous contingencies, or where passing especially heavy buildings which by their construction or position might bring a great pressure upon the trenches, the right is reserved by the Board for the Engineer to direct that such buildings shall be underpinned; or that special sheeting shall be driven in such manner and to such depth as the Engineer directs; or that but a short length of trench shall be opened at one time; and furthermore to direct, if necessary, that the same shall be securely sheeted and braced on all sides after the manner of a shaft, and that the permanent work be constructed in such shaft and backfilled before another opening is made; or that pneumatic caissons be used in construction.

Pumping.

Whenever water is encountered in trenches, the same shall be removed by baling or pumping, great care being taken when pumping that the surrounding particles of soil be not disturbed or removed. If necessary to prevent such disturbance, the

pumping must be done by a series of driven wells whose points are protected by fine wire cloths, the rate of flow at each well being made so slow as not to remove the particles of soil; or the pumping must be done by other means approved by the Engineer. The delivery from all pumps shall be conducted into the adjacent sewers, and the delivery pipes shall be so arranged as to be readily inspected at all times to ascertain if the water is free from particles of soil.

Rock Excavation.

There are no indications that rock will be encountered on any part of the work; if, however, rock should be found or boulders, or old masonry work requiring blasting, the work of removing same shall be carried on as herein provided.

Blasting.

Whenever rock or material requiring blasting is encountered in any trench or tunnel, all necessary precautions must be exercised by the Contractor, as required by the ordinances of The City of New York relative to blasting. Explosives shall be used only of such character and strength as may be permitted by the Board, and the right is reserved for the Engineer to direct that in special cases ordinary blasting powder only, in small charges, shall be used.

Near Pipes and Mains.

Whenever any pipe or main is encountered in the trench, right is reserved to direct that all rock within five (5) feet of the same shall be removed by means other than blasting.

In rock excavation in the trenches for the railroad the work must be so regulated as to avoid, as far as possible, shattering the rock beyond the established lines for excavation.

Reckless and careless blasting causing the rock to break beyond the established lines of excavation will not be permitted.

Rock Measurement.

Whenever rock is encountered in the trench, it shall be stripped of earth in sections of not less than twenty feet, and the Engineer in charge shall be duly notified, in order that he may measure or cross-section the same.

Boulders.

Boulders containing one-half (½) cubic yard or more of masonry encountered within the lines of excavation will be measured as rock excavation.

Storage of Explosives.

No larger quantity of explosives shall be kept on the line of the work than will be actually required for the twelve (12) hours of work next ensuing, and such supplies shall be divided as far as possible and kept under lock, the key to which is to be only in the hands of the foreman or other equally trustworthy person. The amount of explosives kept in any one place shall not exceed the limit permitted by any ordinance of the City, or as may be determined by the Board. Caps and exploders shall not be kept in the same place with dynamite and other explosives. During freezing weather, special precautions shall be taken as to the care and manipulation of dynamite.

4. BACKFILLING.

Quality of Material. How Placed.

The trenches at the sides of and over the top of the subway and wherever backfilling is necessary, shall be backfilled with sand, gravel, or other good clean earth, free from perishable material and from stones exceeding six (6) inches in diameter, and not containing in any place a proportion of stone of or below that size exceeding one (1) part of stone to five (5) parts of earth. The filling shall be deposited in layers not exceeding nine (9) inches in thickness, and then be well moistened with water and thoroughly packed by suitable rammers, and in such manner that no unbalanced pressure can be thrown upon the subway or any sewer, pipe or other subsurface structure.

The Contractor will be required to backfill all of the property shown in outline on the plans, which property has been acquired or is to be acquired by the City, both within and beyond the limits of the railroad. The backfill must be carried to the level of the adjacent streets and on uniform grades between these streets; and where necessary the Contractor must support the backfill by methods approved by the Engineer so as to prevent its encroachment on abutting private property. At such places as in the judgment of the Engineer backfilling can not be effectively done as provided above the material must be placed and compacted by flooding with water.

Surface Structures. Frozen Material not Permitted.

Whenever pipes, sewers, or other subsurface structures are met with, the filling must be carefully packed, rammed and tamped under such subsurface structures, using special tools for the purpose. No filling of trenches with frozen earth will in any case be permitted, nor will any filling be permitted over material that has slipped or fallen in the trenches and then become frozen, until the frost has disappeared and such loose material has been properly rammed or placed as above provided.

Sheeting Removed.

As fast as the work of filling permits, sheeting and other timber supporting the sides of the excavations, as may be directed by the Engineer, shall be carefully withdrawn, and the spaces left by the removal of such material carefully backfilled.

5. PILING AND TIMBERING.

Piles.

Where the excavation is in wet ground, if in the judgment of the Engineer the ground is of such a character as to require piling, the Board may direct the Contractor to drive piles. Such piles shall be of good, sound oak, pine or spruce, straight and free from shakes; they shall be not less than twelve (12) inches in diameter at the butt end, or less than six (6) inches in diameter at the point, and shall be driven to the satisfaction of the Engineer and by means of a steam hammer driver if so required by him. If necessary the points of the piles shall be protected by proper shoes, and the butts by rings or caps. Piles shall not be spliced unless permitted by the Engineer, and then in such manner as he directs. Piles shall be carefully cut off to the grade given by the Engineer.

If in the judgment of the Engineer special conditions may so require, piles of reinforced concrete of an approved form of construction shall be used.

Grillage.

Timber grillage foundations shall be built if so directed by the Engineer.

Foundation Timber.

All foundation timber shall be of pine or spruce, or other timber permitted by the Engineer, sound and free from shakes. It shall be of such dimensions, and laid in such manner, as the special plans to be issued shall require, and held in place by spikes or good seasoned oak or locust treenails.

Timber for Temporary Purposes.

All timber used for sheeting, shoring, bracing, bridging or other temporary purposes, shall be sound and free from any defects that may impair its strength. The top or wearing surface of all bridging used for carriageways shall be of oak or hard yellow pine, sound, straight and free from all shakes and large loose knots. All sheeting and timber used temporarily shall be put in place by skilled mechanics, keyed tight by wedges where necessary and so arranged as to be withdrawn readily without endangering the adjoining soil.

6. MASONRY.

Laid in Portland Cement.

All masonry, except as otherwise specified, shall be laid in Portland cement mortar, and shall be built of the forms and dimensions shown on the plans, or as directed by the Engineer from time to time; and the system of joining or bonding ordered by the Engineer shall be strictly followed.

Water Not to Interfere With.

Care must be taken that no water shall interfere with the proper laying of masonry in any of its parts.

Freezing Weather.

During freezing weather such masonry only will be built whose construction, in the judgment of the Engineer, can not be postponed, except at the cost of delaying the work. The Contractor must provide such appliances as are necessary for heating the water and the materials used in the masonry according to the specific instructions of the Engineer.

Pointing.

During freezing weather all masonry shall be protected by a suitable covering of salt hay, canvas, tarpaulin or by such material or in such ways as may be necessary to insure it against freezing.

Unless otherwise permitted, every joint that is to be pointed shall be raked out, within two days after being laid, to a depth of at least two inches.

Pointing of the face joints of masonry shall be thoroughly made with cement mortar mixed in the proportion of one (1) volume of cement to one (1) volume of sand, except where otherwise specially provided.

No pointing shall be done in freezing weather, and masonry laid between December 1 and April 1 shall not be pointed until permitted by the Engineer.

Hot Weather.

During hot weather all masonry, especially concrete, shall be kept wet by sprinkling and properly covered until it has become thoroughly set and hardened.

Defective Masonry.

Any masonry which is found to be defective from any cause whatever, before the final completion and acceptance of the work, must be removed and properly rebuilt, or if damaged during such time must be properly repaired.

Materials Used.

All Materials used in masonry must be of the best quality.

All stone before being laid shall be thoroughly cleaned, and washed if so directed by the Engineer.

7. CEMENT.

Portland Cement.

Portland cement, slow or quick setting, as directed, and equal in quality to the best grade of American Portland cement, is to be used, and delivered in well made casks or such other packages as may be approved by the Engineer.

Brand to Be Approved.

Before any cement will be allowed to be used, the brand and name of the maker must be submitted to and receive the approval of the Engineer, and no cement will be permitted to be used that is not in all respects satisfactory to him.

Inspection.

All cements used shall be subject to inspection at the place where manufactured, and to such rigorous tests as shall be ordered by the Engineer; preference will be given to cements, however, which, by their records, show a tendency to develop strength steadily for long periods, unless for special purpose cement is required that will develop great strength in a short time.

Cement before being used must pass inspection as to the following requirements:

Fineness.

Ninety-eight (98) per cent. shall pass a No. 50 sieve, ninety (90) per cent. a No. 100 sieve, and seventy-two (72) per cent. a No. 200 sieve.

Tensile Strength.

Neat cement briquettes shall have at the end of one (1) day in water, after hard set, a breaking strength per square inch of sectional area of not less than one hundred and fifty (150) pounds; at the end of seven (7) days, one (1) day in air, six (6) days in water, of not less than four hundred (400) pounds, and at the end of twenty-eight (28) days, one (1) day in air, twenty-seven (27) days in water, of not less than five hundred (500) pounds.

Briquettes, when composed of one (1) portion of cement and two (2) portions of sharp quartz sand (preference shall be given to a natural sand of approved quality), shall have, at the end of seven (7) days, one (1) day in air, six (6) days in water, a breaking strength per square inch of sectional area of not less than two hundred (200) pounds, and at the end of twenty-eight (28) days, one (1) day in air and twenty-seven (27) days in water, of not less than three hundred (300) pounds.

Chemical Analysis.

Chemical analysis will be made from time to time, and cement furnished must show a reasonably uniform composition, sulphur being limited to six-tenths (0.6) of one (1) per cent.

Tests for soundness will be made as follows:

Soundness.

Tests for checking and cracking and for color will be made by moulding on plates of glass cakes of neat cement about three (3) inches in diameter, one-half (½) inch thick in the centre, and with very thin edges. One (1) of these cakes, when set perfectly hard, shall be put in water and examined for distortion or cracks, and one (1) shall be kept in air and examined for color, distortion and cracks. Another cake shall be allowed to set hard in dry air for twenty-four (24) hours and then put in boiling water for twenty-four (24) hours. Such cakes should at the end of the test still adhere to the glass and show neither cracks nor distortion. A briquette, in like manner, shall be allowed to set hard in dry air for twenty-four (24) hours, then boiled for twenty-four (24) hours, be cooled in water, and then broken, and show three hundred and fifty (350) pounds tensile strength.

Increase in Strength.

Neat briquettes must show a minimum increase in strength of ten (10) per cent., and sand briquettes twenty-five (25) per cent., from the tests at the end of seven (7) days to those at twenty-eight (28) days.

Methods of Storing.

The Contractor must at all times keep in store at some convenient point in the vicinity of the work, or at the place of manufacture, should the Engineer so elect, a sufficient quantity of cement to allow ample time for tests to be made, and the Engineer shall be notified at once of each delivery. Cements shall be stored in a tight building, each cask or package being raised several inches above the ground by blocking or otherwise, and ample storage room must be provided so that each separate lot of not more than one hundred (100) barrels can be stored so as to make it convenient to identify each individual lot in case of its rejection, or in case of the necessity for further tests.

Access to Stores.

Access shall be given to the Engineer and properly authorized members of his staff to enter at any time any and all places where cement is manufactured or stored, in order to identify the same, or to inspect the method of manufacturing, storing and protection; all packages shall be properly marked for identification.

8. MORTAR.

Cement and Sand. Mixing.

All mortar shall be prepared from cement in perfect condition, which has passed the required tests, and coarse, clean, sharp sand, free from loam or foreign matter, and approved by the Engineer. These ingredients shall be thoroughly mixed dry in the proportions as specified below; a moderate dose of water is then to be added, so as to produce a stiff paste of the proper consistency. The mortar shall be freshly mixed for the work in hand in proper boxes made for that purpose, and no mortar shall be used that has become hard or that has stood beyond such limit of time as may be determined by the Engineer.

How Measured.

In mixing mortar, one volume of cement shall be 380 pounds net, and one volume of sand shall be 3½ cubic feet compacted; the proportions by volume shall be, for the various classes of work, as specified below:

Proportions.

Brick masonry, one (1) volume cement, two (2) volumes sand.

Column footing stones, one (1) volume cement, two (2) volumes sand.

Stone masonry, one (1) volume cement, two and one-half (2½) volumes sand.

Pointing, one (1) volume cement, one (1) volume sand.

Concrete masonry, as specified under the head of concrete.

For station finish work, as specified under stations.

For other classes of work, as directed by the Engineer.

9. CONCRETE.

How Composed.

The concrete shall be composed of sound, clean, screened gravel or sound broken stone, or a mixture of both, free from all dirt and dust, and mixed together with the proportion of mortar specified below.

Sand.

Sand for concrete shall be of the kind herein specified for mortar.

Stone.

Stone for concrete shall be sound screened gravel or sound hard broken limestone, trap rock or gneiss. Gneiss, however, may only be used of selected quality, practically free from mica.

Broken stone must be free from all dirt and dust, and shall contain no pieces which will not pass through a ring one (1) inch in diameter, unless otherwise specifically permitted by the Engineer; it shall be screened over ¼-inch mesh screen to remove the dust.

Size of Stone and Gravel.

Gravel shall be screened over a screen having ¼-inch mesh, and shall contain no stone that will not pass through a ring one (1) inch in diameter, unless otherwise permitted by the Engineer.

Rubble Concrete.

In concrete where the thickness is thirty (30) inches or more, if approved by the Engineer, the Contractor may imbed in the same broken pieces of sound stone whose greatest diameter does not exceed twelve (12) inches and whose least diameter or thickness is not less than three-quarters (¾) of the greatest diameter. These stones shall be set by hand in the concrete as the layers are being rammed, and so placed that each stone is completely and perfectly imbedded. No two (2) stones are to be within six (6) inches of each other, and no stones within four (4) inches of an exposed face, nor shall any such stone be placed nearer than six (6) inches to any metal built in the concrete for reinforcing the same.

Proportions.

The proportions of cement, sand and stone used in making concrete shall be as follows:

Concrete in floor, sidewalls and roof, one (1) volume of cement, two and one-half (2½) volumes of sand and four and one-half (4½) volumes of stone.

Protective concrete outside of waterproofing lines on sides and roof, one (1) volume of cement, three (3) volumes of sand and six (6) volumes of stone; or one (1) volume of cement and five (5) volumes of sand.

Volume Defined.

In proportioning ingredients for concrete, one volume of cement shall mean 380 pounds net, and one volume of sand or stone shall measure 3½ cubic feet compacted. The sand and stone for each batch of concrete shall be measured in rectangular boxes or frames.

Mixing by Machine.

Whenever practicable, concrete shall be mixed by machine. The mixing machine shall be of a pattern approved by the Engineer, and mixing one batch at a time.

Mixing by Hand.

When concrete is mixed by hand the stone or gravel shall be spread on a platform in a bed about six (6) inches thick, and shall be thoroughly wet. Sand shall be spread on a platform and the requisite portion of cement spread on the sand. After thoroughly mixing the latter, the dry mixture thus formed shall be spread evenly over the bed of stone wet as above, and the whole turned over until thoroughly mixed, but not less than two (2) turnings on the mixing board shall be allowed in any case, water being added as necessary. Care should be taken to keep the bed of concrete wet and avoid piling.

How Laid.

Concrete shall be placed, immediately after mixing, in layers of such thickness as may be directed by the Engineer, and shall be thoroughly compacted throughout the mass by ramming or working. Special tamping bars or tools shall be used as approved by the Engineer. The amount of water used in making the concrete shall be as approved by the Engineer. If a small amount of water has been used in mixing, ramming shall be continued until the water flushes to the surface; as a rule, however, concrete will be required to be placed wet.

Made Smooth to Receive Waterproofing.

Concrete to which waterproofing is to be applied shall be made smooth at the time of laying and shall be carefully protected from injury by barricades or otherwise, if necessary, until thoroughly set.

Time for Hardening.

Concrete shall be allowed to set for twelve (12) hours, or more, if so directed, before any work shall be laid upon it; and no walking over or working upon it shall be allowed while it is setting. Concrete shall not be flooded with water before being thoroughly set.

Rock Surface to be Cleared.

Before laying concrete on rock surfaces the latter shall be swept clean of all debris and dirt, and when laid on earth the earth shall in all cases be well rammed before placing the concrete.

Surface Rough for Bonding.

Wherever a section of concrete is necessarily left unfinished, leaving a surface which will be hard set before additional concrete is laid, the surface must be left rough to form a bond with the new work; and in any jointing of old and new work, if deemed necessary by the Engineer, the joints shall be reinforced with steel bars or dowels, and a coating of mortar or cement shall be applied before placing the concrete, if so ordered.

Joints Cleaned.

In all cases of joints of old with new work the old surface shall be first thoroughly cleaned and wet.

Forms.

Suitable form shall be provided by the Contractor to support the concrete while being placed in the walls or roofs. These forms shall be immediately replaced by new ones as soon as they commence to lose their proper shape. Before being used they shall be carefully cleaned of cement and dirt and shall present to the concrete on the surface afterwards exposed to sight, a perfectly smooth face. The forms shall be made of wood, kept carefully smoothed; or made of metal sufficiently thick to retain their shape without the use of wood.

No forms made of wood and covered with iron will be permitted.

The forms if made of wood shall be made of boards with close-fitted matched joints.

For those faces of the concrete that are to remain exposed the inside faces of the form that are in contact with the concrete are to be planed in order to give a smooth and even finish to the work, and if so directed by the Engineer these portions of the forms are to be of tongued and grooved boards.

Precautions in Placing.

Every precaution shall be taken in placing or assembling the forms to do so in such a manner that when removed, after the concrete has been placed, the faces of the concrete that are to remain exposed shall present a smooth and even surface.

Forms, Who Set. Forms Removed. Surface Irregularities Corrected. Defective Work Replaced.

The forms shall be set true to line, firmly secured, and be so tight as not to allow water in the mortar to escape; they shall be thoroughly wet before placing the concrete and shall be removed as soon after the concrete has been placed as in the judgment of the Engineer it may be done with safety to the work. Immediately on the removal thereof the faces that will remain exposed shall be carefully examined and any irregularities of the surface corrected; projections shall be removed and voids filled with mortar. If, however, the voids are such as to indicate an excessive loss of mortar, portions of the concrete shall be cut out to the fullness of such defects and the space refilled with a rich concrete or mortar in such proportions and in such manner as the Engineer may direct.

Surfaces Not to be Painted.

The exposed faces of the concrete, excepting within station limits, will not be painted, but will be left with the natural cement finish; therefore, immediately following the removal of the forms, followed by the removal of the projections and the filling of voids as provided above, these entire surfaces shall be rubbed down in such a manner, approved by the Engineer, as will leave a smooth and even surface to receive the final finish.

Exposed Surfaces, How Finished.

All exposed surfaces of concrete shall finally, and at such time as may be directed by the Engineer, be finished by applying one rather heavy coat of neat cement-wash brushed on.

This coating may be lightened by adding a proper proportion of finishing lime to the cement, or darkened by the addition of suitable coloring matter at the discretion of the Engineer, the object in view being to obtain a generally smooth finished surface with uniformity in color.

10. BRICK MASONRY.*Quality.*

Bricks for all masonry shall be of the best quality hard-burned bricks, burned hard entirely through, regular and uniform in shape and size and of compact texture.

Hollow Terra Cotta Blocks.

Hollow terra cotta blocks or bricks may be used in station work on the outside of walls of structure or at such other places as the Engineer may direct. They shall be of the best porous terra cotta as approved by the Engineer, and shall be laid in such manner as hereinafter specified or as the Engineer may direct.

How Laid.

All brick masonry shall be laid in mortar of the quality above described, except that in exposed locations coloring matter may be added, if permitted by the Engineer. The bricks shall be laid to line with the joints in the face work (except in stations) not exceeding one-quarter ($\frac{1}{4}$) of an inch in the beds, and three-eighths ($\frac{3}{8}$) of an inch on ends; the bricks to be thoroughly wet before laying and to be completely embedded in mortar under the bottom and on the sides and ends at one operation, care being taken to have every joint full of mortar.

All exterior surfaces shall be smooth and regular.

Cleaned.

The inside faces of all arches and other exposed parts shall have all the mortar scraped off and washed clean immediately after the centres have been struck, and shall be pointed and left in neat condition.

No "Bats" or Culls.

All bricks of whatever nature shall be carefully culled and if necessary gauged before laying, at the expense of the Contractor. No "bats" shall be used except in large masses of brick work, where a moderate proportion, to be determined by the Engineer, may be used, but nothing smaller than half bricks.

All unfinished work must be racked back or toothed, as directed by the Engineer, and before new work is joined to it the faces of the brick in the old work must be scraped entirely clean, scrubbed with a stiff brush and be well moistened.

Special Bricks.

Where necessary to make a neat joint in connection with steel framework, or at corners, curves, or other similar places, special bricks of proper shape shall be furnished and used. All centers and forms shall be made to fit the curves of the work; they shall be put up and removed in a manner satisfactory to the Engineer.

11. STONE MASONRY.*Footings for Columns.*

In general columns will be set on a concrete base; in special cases, however, footing stones may be required.

Footing Stones. To be Set High.

If footing stones for columns are required they shall be of the dimensions and shapes shown on detailed plans, which will be provided; they shall be strong and free from defects, and shall be set in cement mortar. Before being set the tops shall be rough-pointed without chisel draft, the vertical sides shall be left quarry faced, the portion of the top where the column base plate is to rest shall be dressed true with pean hammers, and the top brought to a plane, so that at no point will it be more than one-eighth ($\frac{1}{8}$) of an inch from a straight edge laid across in any direction. In

case the contractor fails to set the footing stones true to line and surface, then they shall be set with their tops about one-eighth ($\frac{1}{8}$) of an inch above the grade called for by the plans, and not less than two (2) days after being set they shall have their tops dressed with pean hammers, so as to form accurate seats for the base plates of the columns.

Anchor Bolt Holes.

Holes shall be accurately drilled for anchor bolts and filled with neat cement mortar after the bolts are set in place.

Columns during erection shall be set on iron shims, if shims are necessary; wooden shims are prohibited.

Where shims are used the voids under column bases shall be filled with cement grout consisting of one volume of cement and two volumes of sand.

Rubble or Other Masonry.

In case, during the progress of the work, any rubble or other masonry of a different class from that specified above, shall become necessary, and shall be required by the Board, the same shall be constructed according to specifications applicable to the best work of such class, and according to the direction of the Engineer.

12. WATERPROOFING.

It is the very essence of these specifications to secure a railroad structure underground which shall be free from the percolation of ground or outside water.

Placing and Protection.

To this end the placing and protection of the waterproofing shall be as herein provided and as shown on the plans.

The protecting masonry shall be hollow terra cotta blocks, common bricks or concrete, laid as herein elsewhere provided, and shall not be less than four inches in thickness.

In places where permanent sheeting is placed at the waterproofing line, the waterproofing, if permitted by the Engineer, may be applied against the sheeting.

All surfaces to which waterproofing is to be applied shall be made as smooth as possible; on these surfaces there shall be spread either hot melted pitch or asphaltum in a thick layer of uniform thickness; on this layer of pitch or asphaltum shall be laid a fabric of such material as may be approved by the Engineer; this process shall be repeated until such number of layers as may be required by the Engineer have been placed and a final coat of pitch or asphaltum shall then be applied.

Definition of Term "Ply."

The term "ply" as used in these specifications shall mean a layer of treated fabric both sides of which shall be coated with pitch or asphaltum at the time of laying.

Number of "Ply."

The number of plys on the sides and under the floor shall in no case be less than three (3) in ground that is quite dry; where there is a water pressure against the masonry equal to ten (10) feet, not less than six (6) plys. Where the water pressure is less than ten (10) feet, such number of plys, between three (3) and six (6), shall be used as the Engineer may direct. The number of plys on the roof shall be not less than four (4).

Brick in Asphalt Mastic.

In all cases over the station roofs, and also against other portions of the structure where the head of ground water is ten feet or more, two plys of waterproofing as described above shall be used, together with one or more layers of bricks laid in asphalt mastic; the number of layers of bricks, not exceeding three, to be determined by the Engineer. Said bricks, before being laid, shall be thoroughly dried and warmed. At all other points where the pressure of ground water is less than ten (10) feet, the Contractor may substitute in lieu of the number of plys, as described above, one (1) ply in hot asphalt, and one (1) or more courses of brick laid in asphalt mastic, as the Engineer shall direct.

Asphalt Mastic.

Asphalt mastic shall contain one-third ($\frac{1}{3}$) pure bitumen, the other ingredients to be sand and limedust or cement, in proportions governed by local requirements and weather conditions.

Waterproofing Omitted.

In those portions of the structure where the ground is dry the regular waterproofing, excepting on the roof and for a distance of not less than four feet below the roof on the sides, may, if approved by the Engineer, be omitted; in arched cut and cover work waterproofing as called for above may be omitted, at the option of the Engineer, but the extrados of the arch shall be coated with hot pitch or asphaltum of the quality described.

Leaks Stopped.

Any masonry that is found to leak at any time prior to the completion of the work and final acceptance thereof by the Board shall be cut out and the leak stopped.

Quality of Pitch.

Pitch shall consist of either coal-tar or natural asphalt, as the Engineer shall select. The coal-tar pitch shall be straight-run pitch which will soften at 70 degrees Fahrenheit, and melt at 100 degrees Fahrenheit, being a grade in which distillate oils, distilled therefrom, shall have a specific gravity of 1.105.

Quality of Asphalt.

The asphalt used shall be the best grade of Bermudez, Alcatraz or lake asphalt, of equal quality, and shall comply with the following requirements:

The asphalt shall be a natural asphalt or a mixture of natural asphalts, containing in its refined state not less than ninety-five (95) per cent. of natural bitumen soluble in rectified carbon bisulphide or in chloroform. The remaining ingredients shall be such as not to exert an injurious effect on the work. Not less than two-thirds ($\frac{2}{3}$) of the total bitumen shall be soluble in petroleum naphtha of seventy (70) degrees Baume or in Acetone. The asphalt shall not lose more than four (4) per cent. of its weight when maintained for ten (10) hours at a temperature of three hundred (300) degrees Fahrenheit.

Fabric for Waterproofing.

The fabric to be used, together with the pitch or asphaltum for waterproofing, shall have been treated with pitch or asphaltum or another suitable material before being brought on the work. The fabric and the material used in its treatment shall be approved by the Engineer.

Concrete to be Dry.

All concrete shall be dry before waterproofing is attached. If for any reason it is impracticable to have the concrete dry, then there shall be first laid a layer of the treated fabric, on the upper surface of which is to be spread the first layer of pitch or asphaltum; the said layer of fabric shall not be counted as one of the required plys.

Each layer of pitch or asphaltum fluxed as directed by the Engineer must completely and entirely cover the surface on which it is spread without cracks or blow-holes.

Fabric to be Carefully Laid.

The fabric must be rolled out into the pitch or asphaltum while the latter is still hot, and pressed against it so as to insure its being completely stuck over its entire surface, great care being taken that all joints are well broken, and that the ends of the rolls of the bottom layers are carried up on the inside of the layers on the sides, and those of the roof down on the outside of the layers on the sides so as to secure a full lap of at least one (1) foot. Especial care must be taken with this detail.

Skilled Labor to be Employed.

None but competent men, especially skilled in work of this kind, shall be employed to lay the waterproofing.

When the finishing layer of concrete is laid over or next to the waterproofing material, care must be taken not to break, tear or injure in any way the outer surface of the pitch or asphaltum.

13. DRAINS AND PUMPS.

Railroad to be Drained.

Every part of the railroad, the stations and appurtenances connected therewith, must be arranged so far as possible that any water finding access thereto will be led away automatically to the City sewers.

Where the railroad is on an inclined gradient, and is constructed in dry, porous soil, the floor of the railway may be depended on to act as a conduit. At the bottom of the inclined gradient connections must be made with a sewer or with sub-drains lying beneath the railway and draining into the sewers.

Sub-drains.

Along such parts of the work where the soil is not porous, or where the floor of the railroad cannot, in the judgment of the Engineer, be used as a conduit, there shall be laid, beneath the rail level and on a continuous descending gradient, drain pipes of vitrified salt-glazed stoneware, of the quality described in these specifications for sewer pipe. These drain pipes shall be of such diameter not exceeding fifteen (15) inches, as the Engineer may direct, and there shall be one (1) such drain for each two (2) tracks. Each drain shall be laid in the concrete or directly in the soil with tight or open joints, as directed, and in such manner and in such position as, in the opinion of the Engineer, local circumstances require.

Where drain pipes connect with the City sewers, the junction shall be protected by suitable traps, and back-pressure valves or gate valves where necessary, to prevent back rush of water or gas from the sewers. Connections with the railroad shall be as necessity demands and all as directed by the Engineer. Where the railroad is in rock, or partly in rock, cross drains will be placed at such places and in such manner as the Engineer shall direct and connected with the main drains.

Sumps.

Whenever the grade of the railroad passes below the bottom of adjacent sewers there shall be constructed a sump connected with the sub-drains or the floor of the railroad. Such sump must be watertight, with a capacity of not less than eight hundred (800) gallons.

14. STEEL AND IRON.

Open Hearth Steel.

The steel used in this work shall be of two grades, medium steel and rivet steel. All steel shall be made by the open hearth process and may be either acid or basic, with the following maximum limits of phosphorus and sulphur in the finished material:

Phosphorus and Sulphur.

	Acid. Per Cent.	Basic. Per Cent.
Phosphorus limit .....	.07	.05
Sulphur limit .....	.04	.04

Allowable Tonnage.

All ingots must have sufficient material cut off at the top before being rolled into finished material, to insure against piping and possible segregation. When the finished weight from any melt exceeds the designed capacity of any open-hearth furnace from which such melt has been poured, allowing a minimum discard of fifteen (15) per cent. at the roughing mill and an additional scraping of ten (10) per cent. at the finishing mill, such heat shall be rejected.

Required Records.

A copy of all loading slips of rolled material must be furnished the Inspector; also three copies of invoices.

Variation in Weight.

All finished material shall be perfect in all parts and free from irregularities, surface imperfections of all kinds, and piping. No variation in the cross-section or weight of sections, as called for by the plans, exceeding two and one-half (2½) per cent., will be permitted. Material which subsequent to test at mills and acceptance there develops weak spots, brittleness, cracks or other imperfections, or is found to have any injurious defects, will be rejected at the shops and shall be replaced by the manufacturer without question and at his own cost.

Melt Number.

The original melt number must be painted or stamped on all ingots, blooms, billets and slabs, in order to identify the material throughout the various processes of manufacture; and the same melt number must be hot stamped on each piece of finished material, except in the case of rivet steel and small pieces not forming part of the calculated sections, and members which may be shipped in bundles wired together, with the melt number on a metal tag attached and stamped by the Department; failure to observe these requirements will be cause for rejection.

Sample Bars.

Two (2) sample bars having a sectional area of approximately three-quarters (¾) square inch shall be cut from the finished product of every melt. These test pieces shall be selected and stamped by the Inspector from the finished product and shall only represent the product then rolled; any later rolling, on a previously tested heat, will be treated as a new heat and tests selected as in previous rolling.

Tests shall be made on all sample bars in their natural state without annealing. Measurements to determine elongation shall be made on an original length of eight (8) inches. When a melt is rolled into several classes or shapes, or different gauges of same class, the material of each class, and lightest and heaviest gauges of same class, shall be separately tested; one (1) test bar sufficing for each class if no wide variation of gauge occurs therein.

The test pieces, when tested in a lever machine, shall for each melt fulfill the following requirements:

Requirements.

	Ultimate Strength, Pounds.	Elastic Limit, Pounds.	Elonga- tion, Per Cent.	Reduction of Area, Per Cent.
Medium steel.....	58,000 to 68,000	35,000	22	44
Rivet steel.....	48,000 to 58,000	28,000	27	54

When required on important material the Elastic Limit may be determined by the use of dividers.

The entire fracture shall be silky.

Bending Tests.

One (1) cold bend test shall be made on each melt. In the case of important material, angles shall in full section open flat or bend shut under the hammer without sign of fracture. A strip at least six (6) inches wide cut from universal mill plates, one edge of which shall remain as rolled, and a similar strip from sheared plates shall each bend around its own thickness without sign of fracture. In the case of channels and I beams, where the test piece must be punched out from the web, the ordinary two and one-half (2½) inch wide test piece will be accepted, when it is mechanically impossible to get a wider strip. In the case of unimportant material this test may be made on the ordinarily prepared specimen. In the case of rivet steel the test piece shall close up against itself without showing any crack or flaw.

Duplicate Tests.

Duplicate test pieces, to be selected and stamped by the Inspector, providing the variation of original tests is not more than ten thousand (10,000) pounds, may be made when the original test pieces pass four (4) of the above-mentioned requirements, and the chemical analyses. If the second tests pass all requirements the melt will be accepted.

Office Facilities.

When the duties of an Inspector or Inspectors are required constantly at the place of manufacture, the manufacturer or corporation furnishing material under these specifications shall provide sanitary, well-lighted office quarters, with ample room for the proper conduct of the work.

Cast Iron.

All castings shall be made of tough gray iron by the cupola process, which shall exhibit a uniform and closely grained fracture free from any white, mottled or vitreous appearance. The metal shall be soft enough to be readily cut, drilled and chipped, and when struck on a corner or edge with a hammer, it shall indent and not break off. Maximum sulphur content, .08 per cent.

All columns must be cast vertically.

Tests.

The metal must exhibit a minimum tensile strength of twenty-one thousand (21,000) pounds per square inch when measured on a test specimen, from which the external coating or skin has been entirely removed by turning, planing or milling. When tested in the rough state, not rumbled with the "skin" retained, sample bars or castings having a uniform width and depth of one and one-quarter (1¼) inches and a length of fifteen (15) inches shall, when placed horizontally upon two (2) sharp edged supports, twelve (12) inches apart, sustain at their middle point a gradually applied load of three thousand three hundred (3,300) pounds, with a minimum deflection at the centre of one-tenth (0.1) of an inch.

Test Bars.

The Contractor shall make, prepare and provide at least two (2) of the said cross breaking test bars and the same number of said tensile test bars, which must be cast vertically from each charge or running of the metal actually used in the manufacture of any castings for said work. Two (2) of the test bars of each set shall be poured at the beginning and two (2) at the end of each charge or running. The tension bars shall be of such size and form as may be required by the Engineer or his representative. All such specimens are to be true samples of the iron used in the castings made from said charge or running. All test specimens are to be properly numbered for reference.

In judging the suitability of the metal the average of these tests shall be considered as representing the strength of the metal as required aforesaid.

All steel castings shall be annealed.

Steel Castings. Tests.

Every steel casting shall be made with a coupon for testing, which coupon shall be cut off after annealing, and the test shall be made from a three-quarter (¾) inch round cut from the coupon. The test piece shall show an ultimate strength of at least seventy thousand (70,000) pounds, an elastic limit of not less than thirty-five thousand (35,000) pounds, an elongation of at least fifteen (15) per cent. in two (2) inches, and a reduction of area of twenty (20) per cent. at the point of fracture.

When the bearing surface of any steel casting is finished there shall be no blow-hole visible exceeding one (1) inch in any direction, nor exceeding one-half (½) inch in area. The length of the blowholes gauged by any straight line laid in any direction shall never exceed one (1) inch in one (1) foot.

All portions of the metal work exposed to view, especially at stations, shall be neatly finished, pains being taken with any ornamental work to give it an attractive and artistic appearance.

All rolled members shall be carefully straightened at the shop before assembling.

Size of Rivets.

The nominal size of the rivets shown on the plans shall be understood to be the actual size of the cold rivets before heating. Rivets when driven must completely fill the holes, have full heads concentric with the rivet holes, and be machine driven wherever practicable, the machines to be capable of retaining the applied pressure after the upsetting is completed. The rivet heads must be fully and neatly finished, of approved shape and in full contact with the surface, or be countersunk or flattened when so required, and of a uniform size for the whole diameter of the rivet throughout the work, and must bind the connecting pieces thoroughly together.

Imperfect Rivets.

All loose or otherwise imperfect rivets must be cut out and replaced. No tightening of rivets by caulking or recutting will be permitted.

Rivet holes must be accurately spaced, and on die side must not measure more than three thirty-seconds (3/32) of an inch larger than the size of the cold rivet.

The use of drift pins will be allowed only to bring together the several parts forming a member, and they must not be driven with sufficient force to distort the metal about the holes.

If any hole has to be enlarged to admit the rivet, it must be reamed.

Rivet Holes.

Rivet holes, except rivet holes for splices in the bottom flanges of roof beams, may be made by a punch whose diameter is one-sixteenth (1/16) of an inch greater than that of the rivets called for by the plans, provided such punched holes will admit a hot rivet of specified size, otherwise subpunching and reaming will be required.

All punched holes shall be free from torn or ragged edges, sharp fins being trimmed off before riveting.

Rivet holes in flange splices and connecting splice plates, as above mentioned, shall be made by a punch whose diameter is one-eighth (⅛) of an inch less than that of the rivets called for on the plans, and subsequently increased by reaming to a diameter one-sixteenth (1/16) inch greater than the rivets specified. After reaming every hole shall be entirely smooth, showing that the reaming tool has everywhere touched the metal. When required by the Engineer a reamer shall be run on the outer edge of holes so as to remove the sharp edges and make a fillet of at least one-sixteenth (1/16) inch in width under the rivet head.

Rivet holes in the flanges of girders whose thickness is over five-eighths (⅝) of an inch shall be made by a punch whose diameter is one-eighth (⅛) of an inch less than the specified rivets, and shall be subsequently increased by reaming three-sixteenths (3/16) of an inch.

Field Rivets.

All holes for field rivets, where reaming is called for by the preceding paragraphs, shall be reamed to iron templates at least one (1) inch thick, or shall be reamed while the connecting pieces are temporarily assembled either in shop or in the field. If such work is done in the shop the connecting parts must be matchmarked to insure similar positions in erecting.

Built-up Members.

All built-up members, when finished, must be true and free from twists, kinks, buckles or bent joints between component pieces. All abutting surfaces of compression members, except flanges of plate girders, must be planed or turned to even bearings, so that they shall be in perfect contact.

Columns.

All I-beam and built-up columns, after gusset plates are riveted on, shall be faced top and bottom at right angles to the axis and to exact length. The lug angles shall then be set so as to produce an even bearing as determined by a straight edge. If lug angles are not set to give an even bearing, then the same shall be riveted on before facing, but such facing shall not reduce the thickness of angles

more than one-sixteenth (1-16) of an inch. The base plates and cap plates must also be true to surface.

Web Plates.

Web plates must not project beyond the flange angles, nor be more than one-quarter (1/4) of an inch from the same. The web stiffeners of the plate girders shall in all cases be milled, to form a close bearing against the flange angle.

Ends of Girders.

The ends of all stringers, and longitudinal and abutting girders, shall be faced true and square or to exact level, as called for by the plans. The header angles shall be so accurately fitted that when the ends of the stringers or girders are faced to the figured length, the amount of metal removed shall not reduce the thickness of the ends of the header angles by more than one-sixteenth (1-16) of an inch, while securing a true surface on the whole width of the connection.

The abutting ends of the beams in the roof must either be faced or cold sawed so smooth, true, square and perfectly at right angles to the longitudinal axis of the beams that joints will be tight and give full bearing of beam ends.

Universal Mill Plates.

All plates thirty-six (36) inches and less in width shall have edges universal-mill rolled or planed.

Bolts.

When members are connected by bolts which transmit sheering stresses, the holes must be reamed parallel and the bolts have a driving fit.

Anchor Bolts.

All anchor bolts are to be of soft steel with cold pressed or rolled threads and nuts and so made that when tested to destruction, the threaded portion of the bolts will develop greater strength than the unthreaded portions of same.

All threads and nuts, unless otherwise ordered, shall be of the United States standard.

All machined surfaces shall be coated with white lead and tallow.

Care in Handling.

Great care must be taken in handling steel, and straightening after punching must be conducted so as to reduce the risk of cracking to the minimum.

Annealing.

Steel sections must not be hammered cold or worked at a block heat. When any part of the steel piece in which the full strength is required has to be heated for working, the whole shall be afterwards annealed.

All parts shall be loaded for shipment from the shops, so as to avoid injury in transportation. In shipping or handling at any time, every care shall be taken to avoid bending or straining the pieces, or damaging the paint.

All pieces bent or otherwise injured will be rejected.

All pieces of finished work shall have proper marks stencilled thereon before shipment.

To be Carefully Piled.

All steel for delivery and which is to be held in storage, shall be piled in courses on suitable timber supports, and all so arranged as to prevent the component parts from being bent or damaged. Such steel shall be piled in such locality as to prevent its being covered with dirt, and shall be protected from the weather.

General Information.

The General Inspector of Material shall be furnished in triplicate with complete copies of all mill orders, and no material shall be rolled nor work done before proper notification has been given so that inspection may be arranged for. Inspectors shall have access at all times, to all parts of the mill or shop plant furnishing material, and to all records in any way covering the material to be inspected.

15. PAINTING.

All metal work, excepting as otherwise herein provided, shall be painted with three coats of paint, including the shop coat, of kind and quality approved by the Engineer. Lead or carbon paint will generally be required.

Shop Coat, Red Lead.

The metal work before leaving the shop shall be thoroughly cleaned with wire brushes and have all loose rust and scale removed to the satisfaction of the Engineer, and be given one (1) coat of either pure red lead and pure boiled linseed oil, mixed in the proportion of thirty (30) pounds of red lead to a gallon of oil, or one coat of such other paint as may be approved by the Engineer. Where the shop coat has become damaged before or after erection, through any cause whatever, it shall be renewed with the same kind of paint as originally used, such renewal to be considered only as a part of the original shop coat. If the Engineer so directs, on members or parts of members buried in concrete the shop coat will be omitted.

Rods.

Rods intended for use in reinforced concrete shall be protected from the weather before being put in place, and shall be cleaned and scales removed but not painted before being incased in the concrete.

Second Coat Carbon Paint.

The second coat of paint shall be a black carbon paint or such other paint as may be approved by the Engineer. It shall be applied after erection, but not until the metal has been cleaned from dirt or other objectionable matter that may be found thereon. It shall be applied to such parts of the metal as the Engineer shall direct.

Metal to be Cleaned After Erection.

After erection the metal shall be thoroughly cleaned of all dirt, rust or scales by stiff wire brushes or sand blasts, as directed, and afterward dusted and thoroughly and evenly painted as described above. No paint to be applied until the cleaning has been passed upon by an Inspector.

Third Coat.

The exposed members shall be given a third coat. Between stations, this shall be black carbon paint, but for stations, and for 30 feet each way therefrom, see specifications for painting under the heading of Stations.

Third Coat, When Applied.

The third or finishing coat shall be applied to all exposed surfaces of the metal after its erection, and after the completion of the masonry or other work; it shall be applied at such time after such completion and before the final acceptance of the work as in the judgment of the Engineer it may be advisable.

Surfaces in Contact.

Surfaces of built-up members in contact, or inaccessible after assembling, shall be cleaned before assembling, and shall be painted with one (1) heavy coat of red lead. The parts shall be at once assembled for riveting, while the paint is still fresh.

All recesses that might contain water, or through which water could enter, must be filled with thick paint or a waterproof cement of ground skins before receiving final painting.

All surfaces so close together as to prevent the insertion of a brush, must be painted thoroughly by using a piece of cloth.

Inspection of Paint.

All materials for painting shall be subject to the closest inspection and chemical analysis, and the detection of any inferior quality of material, or adulterant, shall involve the rejection of all such material and the scraping and repainting of such portions of the work as were painted with it.

The mixing and application of paint and the preparation of the surface before the application of the paint will be subject to the closest scrutiny.

No painting in rainy or freezing weather or on wet surfaces shall be permitted under any circumstances.

16. DUCTS.

Quality, Size.

The ducts to contain cables for transmitting electricity shall be manufactured of the best clay, thoroughly mixed, burnt and vitrified, sound in all respects, straight and free from soft spots, stones, cracks or blisters calculated to impair their strength or durability; in lengths generally of from eighteen (18) to thirty-six (36) inches shorter lengths shall only be used as directed; generally in four-way form with circular holes, the least diameter to be three and one half (3 1/2) inches; one, two or three-way ducts shall be used in special cases as determined by the Engineer. The interior surface of the holes to be smooth and clear of warts, tits, pits or blisters, which may tend to strip the lead coating from the electric cable in pulling the same through the duct. The ends to be cut smooth and at right angles to the axis of the duct and beveled on inside for three-quarters (3/4) of an inch.

The outside walls and webs of four-way ducts to be three-quarters (3/4) of an inch thick; the outside dimensions of ducts to be not less than nine and one-quarter (9 1/4) nor more than ten (10) inches, and constructed square on outer lines; the dimensions of single, two-way or three-way ducts shall be consistent with the above.

The ends of ducts to be combed with two (2) sets of three (3) combings each, each combing to have a width of one-quarter (1/4) of an inch and a depth of one-sixteenth (1-16) of an inch.

Glaze.

The inside and outside of ducts to be thoroughly glazed in the most approved manner with good salt glaze.

Inspection.

All ducts to be subject to inspection, both at the works and on delivery on the work. All rejected ducts to be promptly removed by the Contractor at his expense.

How Laid.

The ducts shall be laid in beds of cement mortar about one-quarter (1/4) of an inch in thickness, with broken joints and with full bearing. Two (2) strips of thick muslin six (6) inches wide, and coated with neat cement mortar, shall be used to wrap each joint, the ends of the wrap to lap six (6) inches. In laying the ducts care must be taken to close abutting joints so that practically the end of ducts shall be in contact on all sides. Where ducts are laid on curves, the wraps must be doubled if required, to protect the openings between the ends of the ducts on the outer line of the duct and to exclude all mortar from duct openings.

The ducts shall be laid with a mandril of the length and diameter to be prescribed, accurately fitted duct openings, the mandril to be left in each duct until the next succeeding duct is laid.

The ducts shall be laid with dowel pins where required.

The ducts shall be so laid that the centre of the holes to receive the electric cables shall, for each vertical section of duct, be laid on the same line vertically and horizontally, to an accurate and perfect alignment.

To be Rodded.

After the ducts are laid, and sufficient time is given to allow the mortar in beds to partially set, they shall be rodded; all mortar or other foreign matter must be cleaned from the duct openings, leaving a clear and smooth opening. If obstructions are found in rodding the ducts which cannot be removed by cleaners, so as to give a clear and smooth opening of three and one-half (3 1/2) inches in all duct openings, the ducts shall be removed and relaid; all ducts after being rodded shall be plugged with suitable plugs to be furnished by the Contractor.

Other Forms of Ducts.

Other forms of ducts may be permitted, such as iron pipe tubing or ducts formed directly in the concrete benches, by special methods during construction, but only under plans and methods approved by the Engineer.

Duct Manholes.

Duct manholes shall be built at the sides of the railway in connection therewith and as indicated on the plans. These manholes shall be generally at intervals of about three hundred feet, and shall be on either or both sides of the railway as necessary, in accordance with the location of the duct lines.

They may vary in form as may be necessary to accommodate the work to local conditions.

Duct manholes will be built at the ends of the stations to provide for the passage of the lines under the station platforms, and if found necessary on account of the lengths of station platforms, additional manholes will be constructed under the platforms.

At manholes the ducts will be laid to conform to plans.

17. SEWERS.

In Accordance with Plans and Specifications.

All sewers and appurtenances shall be built of the materials, of the sizes and dimensions, on the lines and grade, at the depths, with the connections and in the manner as called for by these specifications and as shown on the drawings.

Change of Location.

If, during the progress of the work, it is found in the opinion of the Engineer reasonably impossible to construct according to the contract drawings, any sewers, manholes or other appurtenances, owing to the presence of unknown subsurface structures or other contingencies, the Contractor shall construct such sewers, manholes or appurtenances in the location given by and according to the directions of the Engineer.

General Clauses Apply.

The general clauses in this contract relating to excavation, both in open trench and tunnel; backfilling, cement, mortar, masonry, water-proofing, piling, timber work of all kinds, care of streets and public places, maintenance of surface and subsurface structures, protection of persons and property, repaving or restoring of the surface of the street or other public places, responsibility of the Contractor, authority of the Engineer to examine and condemn materials; and the power of the Board and the Engineer in all or any other respects to enforce this contract, apply to the construction and reconstruction of sewers, water mains, galleries or pavements, unless specifically amended or exempted below, both along the route occupied by the railway and elsewhere.

No Claims for Damages.

Should postponement or delay be occasioned by the precedence of paving or other contracts, which may be either let or executed by the Borough President, Commissioner of Water Supply, Gas and Electricity, or other heads of departments, either before or after the execution of this contract, on the line of the work, no claims for damages therefor shall be made or allowed; nor shall any claim for damages be made or allowed in consequence of the street or the adjoining sewers not being in the condition contemplated by the parties at the time of making the contract, except that if the Contractor shall be delayed in the performance of its work by reason of the street or the adjoining sewers not being in such condition, an allowance of time shall be given in the completion of the work equal to the delay so occasioned, as elsewhere provided in this contract.

Size of Trenches.

The trenches for sewers and basin culverts, both in earth and in rock, in streets along the route of the railroad, shall have vertical sides and shall be not less than 6 inches wider than the greatest external width of the sewer or its foundation on the side farthest away from the subway, and in other streets the trenches shall have vertical sides and shall not be less than 6 inches wider on each side than the greatest external diameter of the sewer, but no trench shall be less than 4 feet in width. They shall be excavated to the depth and the form of the sewer or its foundation.

Limit of Trench Opening.

Not more than one hundred (100) feet of trench in sewers off the line of the railroad shall be opened at any one time in advance of the complete building of the sewer, unless by permission of the Engineer and for the distance specified.

The excavation of trenches shall be fully completed at least 20 feet in advance of the laying of the sewer.

Sewers Protected from Blasts.

Should rock be encountered which requires blasting, the exposed end of the sewer shall, in all cases, be fully protected.

Trenches for Manholes and Receiving Basins.

Where the foundation for a manhole or a receiving basin extends beyond the line of such manhole or receiving basin, the minimum excavation required in earth shall be to the lines of the smallest rectangle inclosing the full dimensions of the exterior of the foundation, and shall have vertical sides to the surface, but it shall, in all cases, be not less than 6 inches larger than the greatest external dimension of the manhole or receiving basin.

In rock excavation the trench shall be 6 inches larger than the greatest external dimension of the manhole or receiving basin, or its foundation, and shall have vertical sides to the surface.

Foundations to be Made Good.

Where the ground does not afford a sufficiently solid foundation, the trench shall be excavated to such increased depth as the Engineer may deem necessary; and this extra depth, and all other irregularities in the bottom of the trench shall be filled up to the required level and form with such material, and in such manner, as the Engineer shall direct. If so directed, piles shall be driven and a timber foundation shall be constructed as elsewhere provided in these specifications to support the sewer.

Inspection of Grades.

When the trench is properly prepared, and before laying any sewer, the Contractor shall notify the Engineer, who will thereupon cause the grades for the sewer to be tested, and if correct the sewer shall then be laid in the presence of a duly authorized inspector, and at no other time shall such construction work be done.

Trenches to be Kept Free from Water.

The trenches shall be kept entirely free from water while the foundation and the masonry are being constructed or the sewer laid. In no case shall water be allowed to flow over the invert or foundation or through the sewer until the mortar is thoroughly set.

Tunneling.

When tunneling for sewers shall be deemed advisable it shall be done as directed by the Engineer and as elsewhere provided in these specifications.

Gutter and Passageway to be Kept Open.

At all times the gutters shall be kept open for surface drainage, and the streets and sidewalks shall be kept clear and free for the passage of carts, wagons, carriages and street or steam railroad cars or pedestrians, and as otherwise provided in these specifications.

Crosswalk, Sidewalk and Roadway to be Kept Clear.

Where any crosswalk or roadway is cut by the trench it shall be temporarily replaced by a timber bridge with side railings, according to the direction and approval of the Engineer. The work shall at all times be conducted so as to cause as little inconvenience as practicable to the public.

Disposition of Paving Material.

All curb, gutter, flagging, paving and macadam stones necessary to be removed, which, in the judgment of the Engineer, are suitable to be used again, shall be stored in such places as the Engineer shall direct, or shall be removed as provided in these specifications; in all cases a passageway on the sidewalks and in the roadway shall be preserved free from needless obstructions.

Flow of Sewers to be Maintained.

The Contractor shall provide for the flow of all sewers, drains and watercourses interrupted during the progress of the work, and shall restore and make good all connections, and shall immediately cart away all offensive matter, in such manner and with such precautions as the Engineer may direct. All temporary house connections shall be made by closed iron pipes, with suitable provision for preventing leakage at joints. Wooden troughs for such connections will not be permitted.

Bricks.

In the construction of brick masonry none but the best quality of hard, burnt brick, burnt entirely through, regular and uniform in shape and size and of compact texture, shall be used. They shall be culled as they are brought on the ground, and all bats and bricks of improper quality are to be removed from the work. Bats are to be used only in manholes and closures.

How Laid.

The bricks are, to be thoroughly wet by immersion immediately before laying. Every brick is required to be laid in a full joint of mortar, made as described in these specifications, on its bed, end and side at one operation. In no case is mortar to be slushed or grouted in afterward. The bricks shall be neatly and truly laid, every second course to line, and the joints to be carefully struck on the inside.

All brick work, as it progresses, shall be racked back in courses, and in no case will it be allowed to be toothed, unless by special permission from the Engineer.

Brick or Stone Inverts.

All inverts, or bottom curves, shall be formed from profiles, accurately made according to the dimensions of the sewer, and correctly set according to the grades furnished. The masonry shall be allowed to set for twenty-four (24) hours before the arch is turned. Vitrified brick or granite paving blocks shall be used when required by the Engineer, and whenever so used they must be thoroughly jointed, so as to be water-tight along the inner surface of the sewer. The last course of the invert masonry below the springing line shall be laid as headers.

Brick Arches.

The arches or upper curves shall be formed on strong centres of correct form, according to the sizes and shapes required, and keyed with stretchers in full joints of mortar. The extrados of the arch shall be plastered with mortar 1 inch thick, mixed in the proportion of one portion of cement to two portions of sand. The centres shall not be removed nor withdrawn in less than thirty-six hours, or until the work is thoroughly set and until the filling on the arch is properly put into place to a depth which is at least 1 foot above the crown of the arch. The centres in all cases shall be struck and not drawn, so as not to crack or injure the work. Should any crack or settlement appear in the arch after the centres are removed, so much

of the work as the Engineer may require shall be taken down immediately and replaced.

Spurs.

Vitrified or iron sewer pipes or spurs, equal in every respect to those described elsewhere in these specifications, and not less than six inches interior diameter with hubs moulded for house connections, and of sufficient length to project a least four inches beyond the exterior of the sewer, shall be built into the walls of brick sewers and at such an angle as shown on the plan, or as the Engineer may direct.

How Built In.

They shall be built in wherever similar house connections exist in the present sewer which is to be reconstructed under this contract, but in no case shall the distance be more than twenty feet between spurs. In the case of the construction of new sewers where no sewers existed previously, except sewers under public parks or those crossing intersecting streets, they shall be built opposite each house, and where there are no houses, they shall not be more than fifteen feet apart on each side of the sewer or at such frequent intervals as local conditions may require. They shall be set so that their inner ends shall be flush with the inner face of the sewer, at such height in the walls as the Engineer may direct, and each pipe shall be closed on the outside with an approved earthenware cover set in mortar.

Iron Chair Spurs.

Where the sewers to be built under this contract will be at a depth greater than thirteen feet below the established grade of the street (or below the surface of the street where final grades have not been established), cast iron chair spurs, of the design shown on the drawings, not less than six inches in diameter and of the weight of extra heavy soil pipe, shall be used instead of vitrified pipe spurs. Where house drains are to be connected to these spurs, extra heavy soil pipe and fixtures shall be used for the riser between the spur and the house drain. Where the spurs are provided for future connections, risers of extra heavy soil pipe shall be placed in each spur and shall be brought to a point thirteen feet below the established grade of the street, the end of which shall be closed with an approved cover laid in cement mortar. The joints of this pipe shall be packed, leaded and caulked in accordance with these specifications for laying water mains.

Under Station Platforms.

Wherever the sewer passes under a station platform, pipe gallery or other structure, extra heavy soil pipe shall be laid from the spur to the outside of such station, pipe gallery or other structure, brought up to a point thirteen feet below the established grade of the street, caulked and capped as provided above. All pipes passing under such structures shall be laid in concrete.

Concrete Sewers, Form, Dimensions and Materials.

Where shown on the plan, or, if during the progress of the work it is deemed advisable to build sewers of concrete in place of building brick sewers, the Contractor, when directed by the Engineer, shall build such sewers of the kind and quality herein specified.

Steel Bars Used if Ordered.

Concrete sewers shall be reinforced with steel bars, if so shown on the plans or directed by the Engineer.

Profiles and Inverted Centres for Inverts.

Proper profiles for the concrete inverts shall be set up at the required distances, and the concrete for the bottom and invert of the sewer shall be deposited in place and rammed and worked down to the required shape. The concrete for the bottom and invert, if so directed, shall be placed in alternate lengths extending between every other pair of profiles, so that opportunity may be given to properly work the concrete in place. If the Engineer so directs, the concrete for the invert shall be put into position and properly rammed into place against suitable forms of invert centres, which are to be removed when the concrete has become sufficiently set.

Invert to be Protected.

The concrete of the invert shall be protected during the progress of the work with planking, or by such other suitable methods as the Engineer shall direct and for so long a time as he may require.

Forms, Moulds, etc.

Suitable forms or moulds, of the size and design to be approved by the Engineer, shall be provided by the Contractor to support the concrete of the side walls and roof while the same is being rammed into the permanent work. All forms or moulds shall be made of the material, and shall be secured, as elsewhere provided in these specifications.

Defective Work.

If any voids, or irregular or defective work is discovered upon removing the forms or moulds, such voids or work shall be cut out and filled with a rich concrete or mortar mixed in such proportions and of such materials as provided elsewhere in these specifications.

Joints.

No joints between different sections of the walls of a sewer shall, in any case, be a straight line, but shall always be stepped or toothed, so as to give a broken joint in the manner to be approved by the Engineer.

Spur Pipes, Branches, etc.

In so far as they will be applicable to sewers constructed of concrete, the provisions and requirements for brick sewers shall be understood to govern in such construction.

Vitrified Pipe Sewers. Quality of Pipe.

Pipe sewers shall be built of vitrified, salt glazed stone-ware pipe, with or without hub, as the Engineer may direct. The pipe shall be of the best quality, thoroughly and perfectly burnt, without warps, cracks or imperfections, well and smoothly glazed over the entire inner and outer surfaces and perfect in shape. The pipe shall be subject to all tests ordered in conformity with any requirements of the Bureau of Sewers, at any time previous to its being used.

Thickness.

The size of the pipes shall be designated by their interior diameters. Each pipe shall be a true cylinder, and of even thickness throughout, according to the following schedule:

Six-inch pipes shall be not less than $\frac{5}{8}$ of an inch thick;
Eight-inch pipes shall be not less than $\frac{3}{4}$ of an inch thick;
Ten-inch pipes shall be not less than $\frac{7}{8}$ of an inch thick;
Twelve-inch pipes shall be not less than 1 inch thick;
Fifteen-inch pipes shall be not less than $1\frac{1}{4}$ inches thick;
Eighteen-inch pipes shall be not less than $1\frac{1}{2}$ inches thick;
Twenty-four-inch pipes shall be not less than two inches thick;
Thirty-inch pipes shall be not less than $2\frac{1}{2}$ inches thick.

Lengths.

No pipe shall be less than two feet in length, excepting pipes of 12 inches, 15 inches and 18 inches in diameter, which shall not be less than three feet in length.

Curved Pipes.

When required, curved pipes shall be furnished and laid, curved to such a radius as may be required or as shown on the plan of the work. No curved pipe shall exceed three feet in length.

Hub and Spigot Pipe.

In case the Engineer shall order hub and spigot pipe to be used, the hub shall have a depth of at least three (3) inches from its face to the shoulder of the pipe on which it is moulded, and shall have an interior diameter not less than one (1) nor more than two (2) inches greater than the exterior diameter of the pipe which is to be fitted into it.

Straight Pipe With Collars.

In case the Engineer shall order pipe without hubs to be used, it shall be fitted with a collar of the same thickness as the pipe and not less than five inches wide. Each collar must have an internal diameter of not less than one-half inch nor more than one and one-half inches greater than the external diameter of the pipe to which it is to be fitted.

Spur Pipes.

Pipes having spurs not less than six inches in diameter with hubs moulded thereon for house connections shall be furnished and laid at such points as shown on the plan or as directed by the Engineer, and when not immediately used, they shall be closed on the outside with approved vitrified earthen-ware covers set in mortar.

Risers.

The provisions for risers on brick sewers shall also apply to pipe sewers.

Bends.

Bends, siphons and special pipe shall be furnished and laid of the size and forms shown on the plans of the work, or as required.

Pipe Sewers, How Laid.

All pipes shall be laid in concrete cradles of the required form and dimensions. The first layer of concrete shall be four inches thick, for the full width of the cradle, and after being thoroughly tamped shall be allowed to set for a period of not less than twenty-four hours. Upon the bed thus prepared, the pipe shall be laid true according to the lines and grades furnished. The ends of the pipes shall abut against each other and in such manner that there shall be no shoulder or unevenness of any kind along the bottom half of the sewer on the inside. Unless otherwise ordered, no less than fifteen feet of pipe shall be laid at any one time, in any one length of trench. The remainder of the concrete shall then be put in place and shall be exposed for at least twenty-four hours for inspection, as required for the bottom course.

Jointing Hub and Spigot Pipes.

When hub and spigot pipes are used, the lower half of each hub shall be plastered on the inside with a layer of cement mortar mixed in the proportion of one part of cement to one part of sand and of a sufficient thickness to bring the inner surface of the abutting pipes flush and even with the established flow line. After the pipes are fitted, the space between the inside of the lower half of each hub and the outside of the entering pipe shall be filled with cement mortar mixed as above specified, and the outside of the joint shall be thoroughly sealed with the same kind of mortar and the joints carefully wiped inside and outside.

Jointing Pipes Without Hubs.

When pipe without hubs is used, the collar or rings shall lap equally the ends of each abutting pipe. The lower third shall, in all cases, be whole and unbroken and the rest of the collar shall consist of not more than two pieces.

The space between the ring and the pipes shall be as uniform as possible and shall be thoroughly filled with cement mortar mixed in the proportions specified for hub and spigot pipe. The joints shall be carefully wiped and pointed inside and outside and all mortar that may be left on the inside shall be thoroughly cleaned out and the pipe left clean and smooth throughout.

Iron Pipe Sewers.

Iron pipe of the quality and laid in the manner described elsewhere in these specifications for the laying of water mains shall be laid wherever shown on the plans or at such places as the Engineer shall direct.

Special Castings.

Wherever such pipes are laid under station platforms pipe galleries or through vaults, they shall, when required by the Engineer, be provided with special castings for manholes, which shall be fitted with a cover bolted on so as to make an air-tight joint, according to the plans to be furnished by the Engineer.

Ventilators.

Whenever, in the opinion of the Engineer, it becomes necessary to provide ventilation for sewers under station platforms, pipe galleries or other structures, iron pipe shall be laid from the sewer to the surface of the street fitted with proper gratings according to the plans to be furnished by the Engineer.

Connections.

All existing sewers, culverts, drains and house connections intercepted by the proposed sewers, culverts or receiving basins shall be connected with the new work by proper curves and grades and in such manner as the Engineer shall direct; and all drains, basins or culverts rendered unnecessary or becoming disused by the work herein contemplated shall be filled in and made solid with good wholesome earth in the manner directed. Provision shall also be made for the connection of future sewers or basins by constructing brick spurs or inserting vitrified pipe at the points indicated on the contract drawings and at other points as the Engineer may direct. These connections shall be closed with bulkheads not less than eight inches in thickness and of the quality specified for brick masonry.

Fresh Work to be Protected.

All fresh work shall be carefully protected from injury in every way. No wheeling nor walking will be allowed on it, and any portion injured must be relaid by the Contractor; no walking or working over the pipes after they are laid (except as may be necessary in tamping the earth and refilling) will be allowed until there is at least two and one-half feet of earth over them.

Pipes to be Kept Clean.

The interior of the pipes shall be carefully freed from all dirt, cement and superfluous material of every description as the work progresses, for which purpose a disc, mould or plate, attached to a rod sufficiently long to pass two joints from the end of the pipe last laid, shall be continuously worked through.

Exposed Ends of Pipes to be Protected.

The exposed ends of pipes shall, in all cases, be protected with a board or other stopper carefully fitted to the pipe, to prevent earth or other substances from washing in, and in no case shall brick or stone be used for that purpose.

Manholes.

Manholes shall be built at such points on the line of the sewers and of the form, thickness and materials as shown on the plans. The masonry or concrete shall be carried up so that the top of the iron head when set shall be at the level of the established grade of the street at that point or to such height as the Engineer may direct, and from templates correctly made and set at top and bottom, between which no less than eight lines shall be drawn. Where manholes are not built to the established grade of the street, they shall be covered, when necessary, by special bluestone eight inches in thickness, to support the manhole heads. All joints shall be neatly struck and pointed on the inside. Each manhole shall be plastered thoroughly on the outside with cement mortar one inch in thickness, mixed in the proportion of one part of cement to two parts of sand.

Foundations.

The foundations for manholes shall be of concrete or masonry of the kind indicated on the plans and shall commence not less than twelve inches below the flow-line grade of the sewer, except as otherwise shown on the plan. When additional foundation to that shown on the plan is required, it shall be built as directed by the Engineer.

Sewer pipes shall be built in and trimmed, when necessary, so as to be flush with the inner face of the manhole, and an arch, laid in cement mortar, shall be turned over the pipe.

The invert shall be built of vitrified brick, cut stone or concrete masonry, as directed by the Engineer.

Use of Bats.

A reasonable number of bats not smaller than half bricks may be used in the construction of manholes or receiving basins, provided all interstices are thoroughly filled with mortar.

Steps.

Standard steps of good quality of galvanized wrought iron, of the size, length and shape required for steps, shall be built into the interior sides of all manholes at a distance apart of not more than fifteen (15) inches vertically and they shall be so arranged that the lowest step shall be not more than two feet above the bench at the bottom of the manholes nor more than two feet above the invert of the sewer where there is no bench. Each manhole head shall have cast on the inside a wrought iron step, when directed by the Engineer.

Bluestone.

Hammer-wrought bluestone shall be furnished and laid of the form and thickness required as shown on the plan or as otherwise directed.

Manhole Head and Cover.

A cast-iron manhole head and cover of the quality specified for cast-iron and of the pattern adopted by the Presidents of the different boroughs, and in dimensions, weight and all other respects satisfactory to the Engineer, shall be fitted on a bed of mortar to each of the above-described manholes. Manhole heads and covers which do not conform to these specifications shall be at once removed from the work.

Perforations.

Covers to be used on manholes in the street shall be perforated. Those used on sidewalk manholes shall be tight-fitting, without perforations.

Weights.

Each manhole head and cover shall have its weight distinctly marked upon it with oil paint. The following shall be allowed as the minimum and maximum weights:

Street manhole head, 475 to 500 pounds.
Street manhole cover, 135 to 150 pounds.
Sidewalk manhole head, 300 to 310 pounds.
Sidewalk manhole cover, 100 to 110 pounds.

Noiseless Heads and Covers.

When the pavement of the street is asphalt the manhole shall be fitted with a noiseless head and cover, to be approved by the Engineer.

Sealed Manhole Heads and Covers.

All manholes in station platforms, pipe galleries, vaults or other structures shall be provided with sealed manhole heads and covers according to the design shown on the plans.

Emergency Manholes.

Whenever a sewer crosses under the subway, emergency manholes shall be provided when directed by the Engineer and according to plans to be furnished by him.

Manholes to be Completed.

The above-described manholes, whether on brick or pipe sewers, shall in all cases be fully and completely built and fitted with their covers as the work progresses and as each is reached, and the sewers shall not be laid beyond or in advance of any uncompleted manhole.

Receiving Basins.

Receiving basins shall be built as located on the plans or as the Engineer shall direct and in accordance with the plans to be furnished. Each portion of the basin shall be built of the size and materials designated on said drawings and shall be thoroughly plastered, both inside and outside, with cement mortar in the proportion of one part of cement to two parts of sand.

Foundations.

The foundations for receiving basins shall be of concrete or masonry of the kind indicated on the plans, and shall commence not less than twelve inches below the finished floor of the basin, except as otherwise shown on the plans. When additional foundation is required, it shall be built as directed by the Engineer.

Stone Flooring.

The flooring shall be of hammer-dressed North river bluestone flagging, not less than three inches thick, in two pieces, and shall be set in a full bed of mortar and rammed into place. The floor may be finished with cement mortar mixed in the proportion of one volume of cement to one volume of sand if so directed by the Engineer. The mortar shall be spread, while fresh, upon the concrete base while the latter is still soft and adhesive and before it shall have reached its first set, in such quantity that after thorough manipulation it shall be one inch in thickness.

Head Stone and Gutter Stone.

Where head stone and gutter stone are required they shall be of sound, durable granite of the dimensions shown on the plan, hammer dressed to an even surface and cut to the satisfaction of the Engineer. Cast-iron basin heads and gutter pieces of the design shown on the plans shall be set instead of the above when required.

Cast-iron Cover.

A cast-iron cover of approved pattern weighing not less than eighty nor more than ninety-five pounds shall be fitted to the opening in the head stone.

Grate Bar.

A grate bar made according to the plan shall be fastened solidly into the said head stone in the manner shown.

Cast-iron Trap.

A cast-iron trap of the form and dimensions shown on the plan and free from imperfections and properly coated with coal pitch varnish shall be furnished and built into place as directed by the Engineer.

The joints shall be tightly fitted with an oakum gasket or with cement mortar if so directed.

Iron Steps.

Galvanized iron steps of the same design required for manholes shall be built into the walls.

Culvert Pipes.

The culvert pipe for connections with sewers shall be 12-inch vitrified pipe, unless otherwise shown on the plan, and of the kind and quality previously described, and shall be laid in all cases in a concrete cradle of the form and dimensions required for pipe sewers and in accordance with the directions of the Engineer. In case it becomes necessary to connect any basin already built with the work to be constructed, so much of such culverts as, in the opinion of the Engineer, may be necessary shall be taken

up and rebuilt or relaid with vitrified pipe, or brick, as the case may be, in the manner described above, and reconnected on the straight lines to said sewer.

Waterproofing.

Whenever, in the opinion of the Engineer, it is necessary to waterproof a sewer, chamber or receiving basin, or their appurtenances, it shall be done as shown on the plans or as directed by the Engineer, and in the manner described elsewhere in these specifications.

Refilling.

The refilling of the trenches shall be done as provided elsewhere in these specifications.

Mortar.

All masonry shall be laid in Portland cement mortar of the quality described in these specifications. It shall be mixed in the proportion of one (1) volume of cement to two (2) volumes of sand, excepting as otherwise specially provided.

Concrete.

All concrete for sewers shall be made in the proportions of one (1) volume of cement to two and one-half (2½) volumes of sand and four and one-half (4½) volumes of stone.

Paving.

On the completion of each section of one hundred feet of sewer, the regrading and temporary paving over the same shall be done and all surplus earth, sand and rubbish shall be immediately removed. After the completion of the work a permanent pavement shall be placed over the entire length of the trench, as provided elsewhere in these specifications.

Permits for Connections.

The Commissioner of Public Works shall have the right to connect any sewer or sewers with the sewers herein described or to grant permits to any person or persons to make connections therewith at any time before it is finally completed, and the Contractor shall not interfere with or place obstructions in the way of such person or persons as may be employed in building such new sewer or sewers, or in making such connections.

Sewers, etc., to be Kept Clean.

During the progress of the work, and until the entire completion and final acceptance thereof, the sewers, drains, basins, culverts and connections shall be kept thoroughly cleaned throughout, and left clean, and the drainage of any old sewer that may be taken up or intercepted shall be provided for and taken care of by the Contractor.

18. WATER MAINS.

Whenever it is necessary to relay any water main, all new material required for the same shall be of the quality and laid in the manner specified below, and subject to the various clauses of these specifications applicable thereto.

Pipes to Be Cylinders.

The pipes shall be circular cylinders, with the inner and outer surfaces concentric, and of the full interior diameter required.

Hubs and Spigots.

The hub or socket and the spigot end shall be shaped in exact conformity with the standards of the Department of Water Supply, to be furnished by the Board, and will be tested by circular gauges.

The seat or shoulder of the socket and the end of the spigot must be straight and even, so as to make a smooth joint. Special care will be required in making the sockets and spigots to conform to the drawings, and all pipes will be particularly tested at these points. No pipe will be received whose eccentricity at the spigot and socket ends, or either, exceeds one-eighth (1/8) of an inch.

The pipes shall be designated by dimensions of the interior diameter.

Bands, lugs, buttons or ribs shall, if required, be cast on the pipes, of such forms and dimensions as the Engineer may direct.

Length of Pipe.

The straight pipe shall be twelve (12) feet long, exclusive of hub; all others as may be directed.

All the pipes shall be straight in the direction of the axis of the cylinder.

Thickness.

The thickness of the pipes, branches and special castings shall correspond with the standards of the Department of Water Supply. The weight for straight pipe shall be approximately as follows:

48-inch pipes, 8,270 pounds each.
42-inch pipes, 6,860 pounds each.
36-inch pipes, 5,305 pounds each.
30-inch pipes, 3,940 pounds each.
24-inch pipes, 2,660 pounds each.
20-inch pipes, 2,005 pounds each.
16-inch pipes, 1,475 pounds each.
12-inch pipes, 1,015 pounds each.
6-inch pipes, 415 pounds each.

The thickness of the metal of the pipes and special castings will be tested by calipers after the castings have been freed from sand and cleaned.

Variations in Thickness.

No pipe will be received when the thickness of metal is less by more than one-twelfth (1/12) of an inch the thickness required by the standard.

No straight pipe or casting will be received which weighs less than the weights above mentioned, by more than five (5) per cent., for pipes 16 inches or less in diameter, or more than four (4) per cent. for pipes more than 16 inches in diameter. No special casting will be received which weighs less than the standard weight by more than ten (10) per cent. for pipes 12 inches or less in diameter, and eight (8) per cent. for larger pipes.

All straight pipes shall be cast vertically, and all pipes 12 inches or more in diameter shall be cast with the hub end down.

All the castings shall be made in such molding sand or loam as will leave the surface clean and smooth.

Castings, How Marked.

All the castings shall have the year in which they are cast, the running number of the castings of the same size and form, the letters D. W. S., and the initials or name of the Contractor, and of the foundry where cast, cast on the outer side in raised letters of not less than two (2) inches in length and one-eighth (1/8) of an inch in relief, in such manner as the Engineer may designate; and, in case any pipe shall be condemned, the letters D. W. S. shall be erased by the Contractor.

Quality of Cast Iron.

The metal of which the castings are to be cast (which must be remelted in a cupola or air furnace) shall be pig iron, made without any admixture of cinder iron or other inferior metal, and shall be of such character as to make a pipe strong, tough and of an even grain, entirely free from uncombined carbon when seen under the microscope, and such as will bear, satisfactorily, drilling and cutting, and shall have a tensile strength of at least sixteen thousand (16,000) pounds to the square inch.

The castings shall be free from scoria, sand holes, air bubbles and other defects and imperfections.

Castings to Be Clean.

The castings shall be perfectly cleaned and no lumps shall be left on the inner surface of the barrels or sockets, or on the outer surface of the spigot end.

Subject to Hammer Inspection.

All castings being perfectly cleaned, according to the specifications and the directions of the Engineer, shall be subjected to a careful and thorough hammer inspection.

Every casting must be thoroughly dressed and made clean and free from earth, sand and dust, which adheres to the iron in the moulds. Iron wire brushes must be used, as well as softer brushes, to remove the loose dust. No acid or other liquid shall be used in cleaning the castings.

Pipes to Be Coated.

Every pipe, branch and special casting shall be carefully coated inside and out with coal pitch and oil. Every casting must likewise be entirely free from rust when the coating is applied. If the casting cannot be dipped immediately after being cleaned the surface must be oiled with linseed oil to preserve it until it is ready to be dipped; no casting to be dipped after rust has set in.

Pitch.

The coal tar pitch is to be made from coal tar distilled until the naphtha is entirely removed and the material deodorized with a mixture of five (5) or six (6) per cent. of linseed oil. Pitch, which becomes hard and brittle when cold, will not answer for this use.

Pitch of the proper quality having been obtained, it must be carefully heated in a suitable vessel to a temperature of three hundred (300) degrees Fahrenheit, and must be maintained at not less than this temperature during the time of dipping. The material will thicken and deteriorate after a number of pipes have been dipped; fresh pitch must therefore be frequently added, and occasionally the vessel must be entirely emptied of its old contents and refilled with fresh pitch.

Every casting must attain a temperature of three hundred (300) degrees Fahrenheit before being removed from the vessel of hot pitch. It may then be slowly removed and laid on skids to drip.

To Be Inspected Before Dipping.

No casting shall be dipped until the authorized Inspector has examined it as to cleaning and rust, and subjected it thoroughly to the hammer test. It may then be dipped, after which it will be passed to the hydraulic press to meet the required water test. The proper coating must be tough and tenacious when cold on the pipes, and not brittle or with any tendency to scale off.

Tests.

The castings must be capable of sustaining a pressure, in the hydraulic press, of three hundred (300) pounds to a square inch, and any casting which shows any defect by leaking, sweating or otherwise, will be rejected. This test will be made at the foundry, and at the expense of the Contractor.

Weighed and Marked.

The casting will be weighed, and the weight distinctly marked on the casting in white paint. The Contractor will provide at the foundry where the pipes and castings are to be manufactured proper sealed scales and weights for weighing the casting, which will be done at the expense of the Contractor, under the supervision of the Inspector.

Blocking and Wedges.

Each pipe over eight (8) inches inside diameter, unless otherwise ordered, shall be placed on two (2) blocks and four (4) wedges of hemlock timber, the wedges to rest on the blocks and the pipe on the wedges.

The blocks and wedges shall be of sound hemlock timber; 48 and 36 inch pipe shall be laid on blocks 4 feet long, 12 inches wide and 6 inches thick, with wedges 18 inches long, 6 inches wide, 4 inches thick on one end and ½ inch thick on the other; 30 and 24 inch pipe on blocks 3 feet long, 10 inches wide and 5 inches thick, with wedges 15 inches long, 5 inches wide and 3½ inches thick on one end and ½ inch thick on the other end; 12 and 20 inch pipe on blocks 2 feet long, 8 inches wide and 4 inches thick, with wedges 12 inches long, 4 inches wide, 3 inches thick on one end and ½ inch thick on the other.

Joints.

The spigot end of the pipe shall be inserted into the hub to within from one-fourth (1/4) to one-eighth (1/8) of an inch of the full depth of the hub, and the space around the pipe shall be equalized so as to give as nearly as possible an equal space for the packing. The space between the pipe and hub shall be packed with clean, sound hemp packing yarn, free from tar, far enough to leave the proper space for lead. The remaining space shall then be filled by running it full of lead to a depth of four (4) inches, with a bead outside of the face of the hub large enough to allow for caulking, so that when the joint is properly caulked the lead will be flush with the hub of the pipe. After the joint shall have been run with lead, it shall be caulked by means of proper tools, so as to make a water-tight joint.

Lead.

The lead to be used shall be of the best quality of pure, soft lead, and in every respect suitable for the purpose.

Notice of Interruption to be Given.

In case it becomes necessary to cut any connection with any other main, house or hydrant, or in any way to interfere with the continuous and normal flow of water, due notice shall be sent at least forty-eight (48) hours in advance to the Engineer and to the Commissioner of Water Supply, and the Contractor shall, if so ordered, make a temporary by-pass or other arrangement to preserve the flow of water while breaking connections.

All connections cut, interfered with or injured shall be restored under the directions of the Engineer, without delay and in accordance with the rules and regulations of the Department of Water Supply governing such matters, to a suitable condition as good as existed before commencing work.

Stop cocks, boxes, branches, curved pipe and other specials according to the standards of the Department of Water Supply shall be set where necessary.

19. PAVING.

Pavement to be Restored.

As soon as the work in any open excavation or trench made under this contract shall have been completed, the trench backfilled and the backfilling thoroughly rammed in place and compacted, as provided under the clauses relating to backfilling, a temporary paving shall be laid and maintained in a condition satisfactory to the Engineer, and after the earth shall have, in the opinion of the Engineer, become sufficiently settled, the Contractor shall proceed to restore the surface to a condition similar to and equally as good as that existing previous to the commencement of construction.

Other Pavements May Be Laid.

Nothing contained in these specifications shall be understood or construed as prohibiting the Contractor from making any arrangement with the President of the Borough, or such other officer of The City of New York as may be in charge of street paving, to lay a better or other form of street pavement; or to make an arrangement with any property owner to lay another style of sidewalk in front of such premises in place of the pavement or sidewalk taken up; in which case the Contractor is to file with the Board a copy of its contract with such municipal officer or with such property owner, duly acknowledged in writing by both parties. In case the municipal officer in charge of street paving, or any property owner, desires to lay a pavement in any street, or a sidewalk along any street, affected by this contract, different from the one removed, and shall notify the Board in writing that he has failed to make satisfactory arrangements for such work with the Contractor, then the Board, in its discretion, may direct the Contractor to finish and dress off the filling over its work to such grade as the Engineer may select, and further direct it to remove from the street all stones of whatever nature not required to be relaid, and to permit another

contractor to lay such pavement or sidewalk; in which case the liability of the Contractor under this contract shall cease as far as that part of its work is concerned, whenever the Engineer shall report to the Board that the instructions of the Board have been complied with, exactly the same as if the Contractor had fully completed the repaving as hereinbefore provided. The Engineer shall then report to the Board the number of square yards of pavement thus disturbed but not relaid, and the Board will deduct from the amount named in this contract as the price to be paid to the Contractor such sum as the Engineer shall certify as the fair value of the expense of restoring the previous pavement.

20. MAINTENANCE OF STREET RAILROAD TRACKS, MAINS AND OTHER SURFACE OF SUB-SURFACE STRUCTURES.

Surface and Subsurface Structures to be Maintained.

The Contractor shall at all times, by suitable bridging or other supports, maintain and support in an entirely safe condition for their usual service and to the reasonable satisfaction of the owners, all elevated railroad structures, street tramways of whatever character, telegraph, telephone or electric light poles or wires, water and gas mains, steam pipes, pneumatic tubes, electric subways, sewers, drains, and all other surface or subsurface structures encountered during the progress of the work. The sidewalks, curbs, areas and stoops along the line of the work must also be protected from any injury; but should any injury occur to any surface or subsurface structure as mentioned above, or sidewalk, curb, area or stoop, the Contractor shall fully restore the same to as good a condition as existed before the injury was done.

Notice to be Given.

Notice is to be given by the Contractor to all companies and the proper city officials, owning or having charge of surface or subsurface structures along any part of the work, of its intention to commence operations along such part of the route, at least one (1) week in advance, and the Contractor shall file with the Engineer at the same time a copy of said notice; and he shall co-operate with the proper officers or officials in charge of such structures and shall furnish them with all reasonable facilities to inspect the methods of caring for their property.

Plans Furnished.

In the rearrangement of subsurface structures a tentative plan will be made by the Engineer, which will be submitted to the parties interested; if any reasonable changes are then requested by any of the said parties within ten days after the submission of the tentative plan, such changes will then be made, if in the judgment of the Engineer they will best conserve the interest of all parties concerned; a further plan will then be made which, on the approval of the Engineer, will be final.

Owners of Structures May do Work.

Whenever it becomes necessary to cut, move, change, or reconstruct any such structures as named above, or connections therewith, such work shall be done according to the reasonable satisfaction of the owners of such pipes or other structures, and should they so desire by the owners themselves, at the expense of the Contractor; such expense not to exceed the actual cost of labor and materials used, together with a reasonable allowance for the use of plant and tools not exceeding seven and a half (7½) per cent.

Reasonable Dispatch.

All work or reconstruction or alteration, if performed by the City or owners, shall be done with reasonable dispatch, and facilities are to be provided so that said work will interfere as little as possible with the practical working and use of such structures. Failure to make such alterations within a reasonable time as shall be adjudged by the Board may be considered by the Contractor as a waiver on the part of said City or owners of the right to do said work.

Facilities to be Given to Make Extensions.

In the event of the companies or the City being required to make any alteration to their structures as above provided, or in case they shall consider it necessary or desirable to make any further alterations in, or do any work to or in connection with surface or subsurface structures owned by them or it, at the time the work under this contract is in progress, the Contractor shall give said companies or the City all reasonable opportunity to perform such work; provided such work or alteration for the benefit solely of the owners of subsurface structures does not cause the Contractor any serious loss or delay, as shall be determined by the Board.

21. STATIONS.

The following contract drawings indicate the general plan and outline and the chief structural and decorative features of the station designated.

Station Plans Furnished.

As soon as possible after the letting of the contract the Engineer will furnish to the Contractor full detail plans and specifications of the above-mentioned station.

Materials of Construction for Underground Station Finish.

Marble enameled bricks, face bricks, glass and glazed tiles, faience, terra cotta, mosaic work, metal laths, Keene cement, plaster, cement floors, metal covered wood, woodwork, brass and iron grilles, railings, gates, toilet fixtures, lighting conduits, and all other materials used in the decoration and interior finish of the station shall be of the best merchantable grade of the respective articles, as approved by the Engineer, and shall be laid, fabricated and erected in the most approved manner by workmen especially skilled in their respective trades.

Vault Lights.

The roofs of the station, where under the sidewalks, shall, to as great an extent as possible, consist of what is known as vault lights. These lights shall be made with lenses not exceeding three (3) inches in diameter, of strong glass set in cement; they shall be provided with non-slipping treads, buttons or other devices, all of design approved by the Engineer; and shall be of sufficient strength to carry, when supported in a manner similar to that in which they are to be permanently set, an equally distributed load of at least five hundred (500) pounds per square foot without signs of failure, deformation or permanent set, when such test load is removed. The right is reserved to test at least one (1) frame in every ten (10) delivered, as selected by the Engineer. Should the one selected fail, another will be selected by the Engineer; and if that fail, then the whole lot may be rejected. These frames must be set in place with cement, lead or other means to be absolutely waterproof.

Hollow Space in Walls.

In order to prevent any leaks and as far as possible condensation, the Contractor must exercise great care in the construction of station walls and roofs. The walls above the platform level, when acting as retaining walls, shall be built of brick or concrete, with a waterproof layer, all as described under the appropriate clauses in these specifications. The walls shall be constructed so as to contain a hollow space. The hollow space shall be obtained by lining the walls on the inside with hollow terra cotta blocks four (4) inches thick, or with a common brick facing wall four (4) inches thick set away from the side-walls two (2) inches distance. These hollow block and facing walls shall be laid as herein before or after specified in order to provide clear-way spaces for drainage from the top to the bottom of the walls. The hollow spaces in the wall shall be connected at the bottom by a pipe leading to the drains. Where it shall become necessary to cut into or through the hollow blocks for the purpose of laying electric conduits or any other pipes or tubes, the spaces thus cut out shall be covered with galvanized metal lath, fastened to the hollow blocks with suitable fastenings, before any scratch coat or plastering is applied to the wall surface, thereby securing a clear opening behind the wire mesh for drainage.

Laying Hollow Blocks.

The hollow blocks shall be laid where possible, when the concrete side-walls of the station are constructed, so that a secure bond may be obtained between the hollow block linings and the sidewalls. This may be done by laying the blocks against the inside of the concrete forms, as directed by the Engineer, before the concrete is placed. Care must be taken that the hollow spaces in blocks are not filled with cement mortar or concrete. Where the blocks cannot be laid in this manner they shall be laid up within one (1) inch of the interior face of the walls. In such cases the hollow block lining walls shall be anchored to the sidewalls, as approved by the Engineer, not oftener than once in each square yard.

Laying Common Brick Facing Walls.

The four (4) inch facing walls shall be laid in running bond, with headers set hard against the station sidewalls, not oftener than once in each square yard. All facing walls shall be anchored to the sidewalls in an approved manner not oftener than once in each square yard.

Mortar.

Mortar for brick masonry; station finish, common brick or hollow blocks, one (1) volume cement, three (3) volumes sand; face brick station finish, extra No. one (1) portion freshly burned and thoroughly slaked lime of an approved brand and sand in proportion to properly work under the trowel, and one (1) portion of cement, and to be colored to match the face brick. The lime and sand are to be mixed together, and the cement added as it is being used.

Interior Wall Finish.

The interior walls of the station, including all sidewalls of the station, closets, toilet rooms, passageways and the walls of the railroad for at least thirty (30) feet in both directions from the extreme ends of the platforms, shall be finished in marble, enameled brick, face brick, glass or glazed tile, "art ceramic," or glass tile mosaic, or such other material as may be approved by the Engineer. All materials shall be furnished in such dimensions and of such colors, and laid or set, as the Engineer may direct. In the designs of the stations all angles formed by the intersection of the sidewalls, floors and ceilings shall be avoided by joining these surfaces by curves. In order that such curved surfaces shall present a smooth and workmanlike finish the Contractor shall supply special bricks, tiles or pieces of other materials curved to the radius used. All details of the stations must be so arranged as to provide as few lodgment places as possible for dust and dirt, to facilitate cleaning, and to permit if desired a thorough washing of all parts of the station and their approaches by means of a hose.

Ceilings.

The roof, except where constructed of vault lights, shall be formed in the ordinary manner as the roof of the railway, all carefully waterproofed. The ceiling shall be constructed with an air space. Wherever possible this air space is to be obtained by lining the roof with hollow terra cotta blocks two (2) inches thick. The hollow blocks are to be laid, when the roof is constructed, in a similar manner to those in the sidewalls. In other cases galvanized metal laths shall be attached to the roof beams or furred out from the roof in an approved manner, so as to leave an air space beneath the same.

Interior Ceiling Finish.

The interior ceilings, over the platforms, mezzanines, passageways, closets, toilet rooms and tracks at the station, and for a distance of at least thirty (30) feet in both directions from the extreme ends of the station platforms, except under vault lights, shall be finished in cement plaster and Keene cement, or other approved material, applied to the concrete surface, the terra cotta blocks, or metal laths in the following manner, or as directed by the Engineer:

On metal lath, one (1) scratch coat, one (1) brown coat and two (2) finish coats.

On terra cotta blocks, one (1) brown coat and two (2) finished coats.

On concrete, two (2) finished coats.

The brown coat and first finish coat shall be scored to insure a proper bond for the following coats. The scratch and brown coats shall consist of cement mortar of such proportions as directed by the Engineer. The two finish coats shall consist of the best grade of domestic Keene cement, or other material approved by the Engineer. The final coat is to have a smooth hard finish, and shall be in such colors as directed. All angles shall be coved.

Floors.

The floors of the station shall be constructed as hereinafter specified, and generally shall be so arranged as to drain to the edge of the platform and thence into the tracks. Under special conditions, however, they shall be arranged to drain to one or more points as directed, where suitable and proper provisions shall be made for the removal of water used in flushing the same. In order to provide a space in which all floor drains, pipes, tubes and electric conduits may be laid, concrete construction under the finish shall be stopped at least six (6) inches below the finish floor grades at all points.

Floor Finish.

The floors of the station platforms, closets, toilet rooms, mezzanines and passageways shall be finished in concrete and cement of a minimum thickness of three inches, composed of two (2) inches of concrete and one (1) inch of cement finish. The three (3) inch floor finish shall be laid upon a concrete foundation three (3) inches thick. The materials and proportions shall be as follows:

Three (3) inch foundation concrete, one (1) volume of cement, two and a half (2½) volumes of sand and six (6) volumes of not exceeding three-quarter (¾) inch broken stone.

Two (2) inches of concrete, one (1) volume of cement, two and a half (2½) volumes of sand and six (6) volumes of not exceeding three-quarter (¾) inch broken stone.

Cement finish, one volume of cement, and two (2) volumes of coarse white sand.

The cement for the two (2) inch concrete layer and cement finish and the white sand may be special materials, approved by the Engineer; all other materials shall be as herein before or after specified.

Method of Laying.

The top of the three (3) inch foundation concrete shall be left three (3) inches below and parallel to the finished floor elevations. After the foundation concrete has set, the two (2) inch concrete layer shall be spread to an even thickness and rammed so that its top surface shall be one (1) inch below and parallel to the finish floor lines. Before this concrete is set, lay the one (1) inch cement finish and trowel to a smooth uniform surface.

The floor shall be laid out in blocks about three (3) feet square. These blocks are to be formed by cutting through the two (2) inch concrete, before it has begun to set, with a tool which will make a quarter (¼) inch joint. The cement finish shall be marked with a suitable tool directly over the joint above described.

At the intersection of the floor and sidewalls a sanitary cove of two (2) inch radius shall be formed. The floor shall be kept moist and protected until perfectly set.

Stairways.

The stairways shall be constructed of concrete reinforced with steel rods, and finished with a cement finished as directed, and furnished with the most approved form of treads to prevent slipping. At least as many stairways shall be provided for each side of the station as are shown on the plans. If ordered by the Board, however, as many additional stairways as ordered shall be provided. The stairways shall be of as great width as the local conditions will satisfactorily permit. The entrances to the station will be on property acquired or to be acquired by the City.

Ticket Booths, Doors, and Newsstands.

The ticket booths, doors and newsstands shall be constructed of metal covered wood with mouldings independently applied, or such non-combustible material as may

be approved by the Engineer. The ticket windows of the booths shall be glazed in plate glass plain or frosted as indicated, and shall be inclosed with bronze grille. Plate glass coin shelves shall be provided.

No obstructions whatever shall be placed on the station platforms within the lines of the station walls excepting as may be approved by the Board.

Hardware.

The hardware required for the ticket booths, doors, toilet rooms and newsstands shall be of solid bronze metal without lacquer, and of weight, quality and design as approved by the Engineer.

Railings and Grilles.

The platform and stairway railings and grilles, and the stairway railings and hood at the street surface, shall be constructed of iron and bronze design, and constructed in a manner satisfactory to the Engineer. If practicable and so ordered a compressed air service shall be used to manipulate the exit gates and they shall be so constructed. Where ordered by the Board railings shall be constructed along the edge of the station platforms, and at express stations additional railings shall be provided as directed for the purpose of controlling and regulating passengers entering and leaving the train.

Sanitary Arrangements.

Each side of the station, unless otherwise ordered by the Board, shall be equipped with two (2) toilet rooms, plainly marked for the use of women and men respectively and one (1) porter's closet. The women's room shall be furnished with not more than two (2) bowls, one (1) basin, and one (1) floor drain; the men's with not more than two (2) bowls, two (2) urinals, one (1) basin and one (1) slop sink and one floor drain. All the toilet fixtures shall be of the most approved design, and provided with most approved flushing devices. The doors leading to these rooms shall be equipped with self-closing springs. Each room shall have a ventilating pipe leading direct to the outer air, and covered by a suitable cast-iron grating set in the sidewalk or other place, and a suitable chamber shall be furnished in which a small automatic fan may be installed.

The bowls and urinals shall be connected by means of cast-iron drain pipes to the main sewer. These drains shall be furnished with sufficient traps of approved design, set close to the fixtures, which traps shall be back aired in an efficient and workmanlike manner, such back-air pipes terminating in the sidewalk or other approved situation, and covered by suitable galvanized iron gratings.

Soil and Other Pipes.

All soil, waste, vent and water supply pipes, wherever possible, shall be run in specially arranged and accessible wall spaces between an outer marble or glass finish and the sidewalls of the toilets. When it is impossible to connect the soil pipes directly to the sewer, sewage shall be discharged into a sewage sump of approved form and dimensions, in which an approved automatic sewage ejector will be installed. All soil piping in connection therewith shall be provided as a part of the station construction and from thence into the sewer. Between the wall spaces and the sewer all soil and supply pipes shall be run where possible in pipe troughs constructed under the station platforms. All water supply pipes shall be encased in asbestos or other approved non-conducting material and all pipes exposed in the troughs or wall spaces shall be suitably painted. All pipes are to be concealed from view. The toilet room stalls shall be finished in marble or glass as approved by the Engineer. All work must conform with the City building and health regulations, which are to be considered as part of these specifications.

Water Connections.

Both sides of the station shall have connection with the water main so as to permit the attaching of hose or hoses for the flushing and washing of all parts of the station and platform, waiting rooms and stairways.

Sewers Under Platforms.

Where it may be necessary to pass sewers or pipes, or both, beneath the station platforms, in order to reach the same for the purpose of inspection and repair, cast-iron frames capable of being lifted shall be inserted in the floor, and the concrete of the floor so laid as to be exactly flush with the same.

The necessary conduit, outlet boxes, fittings and all other material required for the installation of a lighting system shall be supplied and erected in accordance with detailed plans furnished by the Engineer.

Ventilation.

Ventilating openings shall be constructed in the roof of the station. These openings shall be of such dimensions as indicated on the detailed plans, and shall be covered at the sidewalk surface with approved gratings, provided with non-slipping bars. The openings shall be so arranged as to exclude storm water from the station platforms.

Heating.

Provision for electric heating shall be made in all toilet rooms, ticket booths and newsstands.

Pipes, Conduits, etc., Concealed.

At the station all signal wires, air pipes, electric conduits and wires, pipes or conduits for any purpose whatever shall be concealed from view behind the finished walls or ceilings, or under the platforms or platform overhangings in such manner as approved by the Engineer.

Station Painting.

All exposed metal work at the station and between the tracks opposite the station in the subway, and for at least thirty (30) feet from the ends of the station platforms, shall be thoroughly and evenly painted, after all other station finish work has been completed, with three (3) additional coats of paint besides the renewed shop coat. The first coat shall be the same as the first coat applied to all other metal work in the subway after erection, and the other two coats shall be of such character of paint and in such colors as may be designated by the Engineer.

22. GENERAL CLAUSES.

Best Quality of Work.

All materials and workmanship must be of the best class in every respect as elsewhere provided in this contract, and the Engineer is to be the sole judge of their quality and efficiency.

Fences.

Wherever necessary the Contractor shall erect and maintain at his own expense fences for the protection of adjoining property and of the adjoining public places.

Work to be Cleared.

At his own expense and as directed from time to time by the Engineer, the Contractor is to clear the work, streets and all public places occupied by him from all refuse and rubbish that may accumulate from any source whatever and leave them in a neat condition.

Where access to any adjacent property is temporarily cut off, owing to the occupancy of the street by the Contractor, he must, at his own cost, render every assistance to the owner or occupant in handling such materials of any description, including all material to be removed by the Department of Street Cleaning, that has to be taken to or removed from such property; such material shall be taken to or from the nearest accessible point that in the opinion of the Engineer is convenient for handling.

Notice, How Given.

Wherever the Contractor is absent from any part of the work where it may be necessary to give instructions, orders will be given by the Engineer to, and shall be received and obeyed by, the superintendent or overseer of the Contractor, who may have charge of the particular work in relation to which the orders are given, and a confirmation in writing of such orders will be given to the Contractor by the Engineer if so requested.

Lines and Grades.

The principal lines and grades are to be given by the Engineer, who may change them from time to time as may be authorized and directed by the Board. The stakes and marks given by the Engineer must be carefully preserved by the Contractor, who must give to the Engineer all necessary assistance and facilities for establishing benches and plugs for making measurements.

Imperfect Work.

Any imperfect work which may be discovered before the final acceptance of the work, shall be corrected immediately on the requirement of the Engineer, notwithstanding that it may have been overlooked by the proper Inspector.

In all work of whatever kind which during its progress and before its final acceptance shall become damaged from any cause, so much of it as may be objectionable shall be broken up or removed and be replaced by good and sound work.

Notice Regarding Commencement of Work.

Before commencing work on any part of the route, whether on the railroad or on the sewers lying off the line of the railroad, the Contractor shall give notice in writing to the Engineer at least one (1) week in advance of his intention to commence such operations; and before commencing manufacture, or resuming manufacture if the same has been suspended, of any article called for by these specifications, notice shall be given to the Engineer in writing at least one (1) week in advance, with the name and address of the maker and the amount and description of the material to be manufactured, in order that proper inspection may be arranged for.

If so requested by the Engineer in writing, countersigned by the President of the Board, a further reasonable delay in commencing work or manufacture must be granted, such delay to extend the time of completing this contract as named herein.

Conveniences for Men.

Necessary conveniences, properly secluded from public observation, shall be constructed and maintained wherever needed for the use of laborers on the works, to the satisfaction of the Engineer and the sanitary authorities.

Advertisements Forbidden.

The using of fences and buildings during construction for advertising purposes, other than the name and address of the Contractor, is forbidden; all temporary buildings and fences erected by the Contractor shall be neat in appearance and shall be painted as directed by the Engineer.

All barricades and bridges erected by the Contractor for the protection of the work or use of the public shall be substantial in character and neat in appearance.

Requirements of Borough President, etc., to be Observed.

Whenever the construction of the works under the provisions of this contract shall interfere with, disturb or endanger any sewer, waterpipe, gaspipe, or other duly authorized subsurface structures, the work of construction at such points shall be conducted in accordance with the reasonable requirements of the Borough President or the Commissioner of Water Supply, Gas and Electricity or other officer or local authority having the care of and the jurisdiction or control over such subsurface structures so interfered with, disturbed or endangered.

Ordinances and Regulations.

In all operations connected with the work, all ordinances of the City authorities, and of the Board of Health, which shall be valid and operative with respect to work on the Rapid Transit Railroad, and the valid regulations of the officers of the United States in charge of the navigable waters in and about the harbor of New York, and all laws of this State which are now applicable to and control or limit in any way the actions of those engaged in the work or affecting the materials belonging to them, must be respected and strictly complied with.

Condemned Materials to be Removed.

If the work or any part thereof, or any material found or brought on the ground for use in the work or selected for the same, shall be condemned by the Engineer as unsuitable or not in conformity with the specifications, the Contractor shall forthwith rebuild or remedy such work and remove such materials as may be directed by the Engineer.

Competent Men.

The Contractor shall employ only competent, skillful and faithful men to do the work. Whenever the Engineer shall notify the Contractor in writing that any man on the work is in his opinion incompetent, unfaithful or disorderly, such man shall be discharged from the work and shall not again be employed on it.

V.—SECURITY TO BE FURNISHED BY CONTRACTOR.

Security by Contractor. Contractor's Bond. Deposit of Cash or Securities.

Simultaneously with the execution of this contract the Contractor shall give security for the performance of his obligations by filing with the Comptroller a bond in due form executed by the Contractor and by two or more sureties to be corporations or persons approved by the Board in the sum of one hundred and sixty thousand dollars (\$160,000). In case any of the sureties upon the bond shall become insolvent or unable in the opinion of the Board to pay promptly the amount of such bond to the extent to which such surety might be liable, then the Contractor within thirty days after notice by the Board to the Contractor shall, by supplemental bond or otherwise, substitute another and sufficient surety to be approved by the Board in place of the surety so insolvent or unable. If the Contractor shall fail, within such thirty days or such further time as the Board may grant, to substitute another and sufficient surety, then the Contractor shall, for all the purposes of this contract, be deemed to be in default in the performance of its obligations hereunder and upon the said bond, and the Board may terminate the contract or may bring any proper suit or proceeding against the Contractor and the sureties, or either of them, or may require to be deducted from any moneys then in or thereafter coming into the hands of the City and due to the Contractor the amount for which the surety insolvent or unable as aforesaid shall have justified on the bond; and the moneys so deducted shall be held by the Comptroller as collateral security for the performance of the condition of the bond.

The Contractor may, at his option, deposit with the Comptroller in lieu of said bond or of any part thereof, an equal amount in cash or in value of securities. If securities be deposited they shall be securities of which a schedule shall be hereto annexed, entitled Schedule of Securities, together with the written approval of the Board, which it shall give when satisfied as to the character thereof. In case any of the securities so deposited shall, in the opinion of the Board, at any time cease to be of the character of securities in which the savings banks of the State of New York are then authorized by law to invest moneys, or shall, in the opinion of the Board, at any time become of less value than the value stated for it or them in the said schedule, then, within ten days after notice to the Contractor of the objection of the Board, the Contractor shall either substitute therefor securities which shall be approved by the Board as of the character aforesaid and as being of at least the value of the former securities to which the Board shall have objected, as such value was originally stated in the said schedule, or shall deposit with the Comptroller in cash the amount of such value of such former securities as so originally stated. In case the Contractor shall not, within such ten days, substitute such new securities, he shall, if the Board so elect, be deemed to be in default in the performance of his obligations under this contract; and, in addition to any and all other remedies against the Contractor or its sureties, the Board may require the Comptroller to deduct from any moneys then due or which may hereafter become due to the Contractor under this contract, the amount of the original valuation of such securities objected to, and to hold such amount in lieu of such securities, as if part of the original deposit or as if deposited with the Comptroller as aforesaid, and such amount shall in such case be deemed to be paid to the Contractor upon the contract. The securities so objected to shall, upon substitution of securities or deposit of cash in lieu thereof, be returned to the Contractor.

When Contractor May Substitute Cash for Securities.

If, and as the Board shall consent and the law permits, the Contractor may, from time to time substitute cash for securities, or securities of the character aforesaid for cash, but always so that the total amount and value of the deposit shall not be reduced.

The City shall, from time to time, collect all interest, dividends or other profits or income on any securities deposited by the Contractor, and shall account for the same as hereinafter provided.

The said deposit, whether in cash or securities, in the form and as the same shall at any time be, shall be security for the faithful performance by the Contractor of all the covenants, conditions and requirements specified and provided for in this contract. In case of any default on the part of the Contractor in such performance, and in the further case that the City shall for or by reason of such failure, whether by reason of employment of another contractor or contractors or otherwise, incur or become liable for expense through such default as hereinafter provided, then the Comptroller shall forthwith pay or apply to the use of the City the amount of such expense out of the said deposit in cash or securities or out of the portion of the deposit remaining at the time.

The Comptroller shall, upon requirement of the Board, in order to make such payment or application to the use of the City, sell at public auction in The City of New York any of the securities which may then constitute part of such deposit, upon notice to be published in three daily newspapers, the first publication to be as much as ten days before the sale and such publication to be made three times within such ten days. Any such sale shall be adjourned from time to time if requested by the Board. The Comptroller shall, upon the requirement of the Board, deduct from the proceeds of any such sale all expenses thereof and of such advertisement, and pay and apply to the use of the City so much of the residue of such proceeds as may be necessary for the purpose aforesaid. And the Contractor, within ten days after notice from the Board so to do, shall (unless the time be extended by the Board) by further deposit, according to the requirement of the Board, of money or securities of the character aforesaid, approved by the Board, restore the said deposit with the Comptroller to the full amount originally required. In addition to, or in lieu of, the sale above provided for the Board may, in the name of and in behalf of the City, bring any appropriate suit or proceeding, in any proper court, to enforce the lien and claim of the City in and upon the said deposit, whether such deposit be in money or securities.

If at any time, when the Contractor shall otherwise be entitled to a return of the said deposit, there shall be pending any claim for damages or loss caused to others by the negligence, fault or default of the Contractor, for which it shall be claimed that the City shall be liable, then and in that case the said deposit, or such part thereof as the Board shall prescribe, shall, upon the requirement of the Board, be reserved by the Comptroller for a reasonable time as security to the City against such claims. And the amount of any such damages or costs paid by the City to others, or for which the City shall be liable to others, shall be deducted from the said deposit before the same shall be returned to the Contractor, as hereinafter provided.

When the Contractor shall have fully completed works according to the terms of this contract and the Board shall so certify, the Comptroller shall pay and deliver to the Contractor the said deposit, or so much thereof as shall not have been reserved or used or applied for any of the purposes above mentioned, and the Contractor shall also then be entitled to the payment of a sum which shall be equal, as the case may be, either to the interest on the said deposit (if made in cash) from the time of such deposit at the average rate of interest received by the City on its bank balances during the period of such deposit, or to the interest, dividends or other income which the City shall have received from the said securities, together with interest on any such interest, dividends or other income so received by the City from such securities from the time of its receipt at the average rate of interest received by the City on its bank balances during the period of such deposit. If, however, any of the cash so deposited shall have been used or applied for any of the purposes above mentioned then the Contractor shall not be entitled to credit for interest on the amount of cash so applied from the time of such application.

VI.—PAYMENTS TO CONTRACTOR.*Payments—How to Be Made.*

The City shall make payments to the Contractor on account as the work progresses, upon vouchers certified by the Board. Written requisitions by the Contractor for such payments shall be delivered to the Board at intervals of not less than one month. Each requisition by the Contractor shall be accompanied by a certificate of the Engineer to the effect that work has been done and materials have been delivered in accordance with the terms of the contract at or upon the works prior to the time of such requisition of an estimated value stated in such certificate. Such value shall be ascertained relatively to the contract value of the entire work.

The Board shall thereupon forthwith prepare and certify a voucher in due form for payment by the City for 90 per cent. of the estimated value of the work so done and materials so furnished. The Board shall not be bound by the certificate of the Engineer, but may in every case fix the amount due at such sum as the Board shall itself determine to be 90 per cent. of the proper actual relative value of such work and materials. The amount so certified by the Board shall be forthwith paid by the City to the Contractor without any deduction except as herein otherwise provided. In case the Contractor shall be dissatisfied with the determination of the Board as to value as aforesaid, the Contractor may, within twenty days after notice of such determination, appeal therefrom in the manner hereinbefore provided for appeals from determinations of the Engineer as to additional work, and the receipt by the Contractor of the amount certified by the Board shall not be deemed a waiver of the right to appeal. And, if the payment upon such appeal shall be determined to be too small, then upon such determination the City shall forthwith and upon a voucher certified by the Board pay to the Contractor the additional amount awarded upon such appeal.

Final Certificate and Final Payment.

Whenever and as soon as the Contractor shall have completed all work of construction under this contract, the Board shall make a certificate in writing stating that the work has been completed and accepted, and stating also the amount payable for all the work of every kind done under and according to the terms of this contract. On the expiration of forty days after the filing of such certificate in the office of the Comptroller, the City shall pay to the Contractor in cash the amount remaining after deducting from the amount stated in the last mentioned certificate (1) all such sums as shall theretofore have been paid to the Contractor under any of the provisions of this contract, and (2) all such sums as by the terms hereof the City is at that time authorized to receive or retain. The City shall also at the same time surrender the Contractor's bond, or any cash or securities deposited instead of such bond. All prior certificates upon which partial payments may have been made, being merely estimates, shall be subject to correction in the final certificate.

Final Payment to Terminate Liability of City.

The acceptance by the Contractor of the last payment aforesaid shall be and shall operate as a release to the City, the Board and each of them and their agents, from all claim and liability to the Contractor for anything done or furnished for, or relating to, the work, or for any act or neglect of the City or of any person relating to or affecting the work, except the claim against the City for the remainder, if any there be, of the amounts kept or retained as provided in this contract.

Contractor's Claims for Damage. Statements of Damage to Be Filed with Engineer.

If the Contractor shall claim compensation for any damage sustained by reason of the acts of the Board, or its agents, he shall, within five days after the sustaining of such damage, make a written statement of the nature of the damage sustained, to the Engineer. On or before the fifteenth day of the month succeeding that in which any such damage shall have been sustained, the Contractor shall file with the Engineer an itemized statement of the details and amount of such damage, and, unless such statement shall be made as thus required, his claim for compensation may be forfeited and invalidated, and he shall not be entitled to payment on account of any such damage.

Evidence That Labor and Materials Have Been Paid For.

The Contractor shall furnish the Board with satisfactory evidence that all persons who shall have done work or furnished materials, and who shall have given written notice to the Board before, or within ten days after, the final completion of the works, that any balance for such work or materials is due and unpaid, have been fully paid and satisfactorily secured; and in case such evidence is not furnished as aforesaid such amount as may be necessary to meet the claims of the persons aforesaid may be retained from the money due to the Contractor under this agreement until the liabilities aforesaid shall be fully discharged or such notice or notices withdrawn.

Lien for Work or Materials.

If at the time of any requisition any lien shall have been filed against the Contractor on the railroad or any part thereof against the amount payable to the Contractor under the provisions of this contract by any person or corporation entitled to file the same for work, labor, or services done or performed, or for materials furnished to the Contractor in or about construction of the railroad, an amount reasonably sufficient to pay and discharge such lien and to pay the costs of foreclosure thereof shall be retained by the Comptroller from the amount which would be otherwise payable to the Contractor on such requisition, until the said lien shall be discharged or secured as provided by law. If such lien shall be foreclosed according to law then the Comptroller may pay the said amount found due upon such lien by the judgment in the foreclosure action to the person entitled thereto, and such payment shall be deemed a payment hereunder to the Contractor. If the sum so retained shall not be sufficient to discharge the lien so foreclosed, the deficiency shall be retained by the Comptroller out of the next moneys coming due to the Contractor.

VII.—CONTRACTOR'S LIABILITY FOR INJURIES TO PERSONS OR PROPERTY.*Contractor Approves Plans as Involving No Damage.*

The Contractor admits and covenants to and with the City that the plans and specifications and other provisions of this contract for construction, if the work be done without fault or negligence on the part of the Contractor, do not involve any danger to the foundations, walls or other parts of adjacent buildings or structures; and the Contractor shall at his own expense make good any damage that shall, in the course of construction, be done to any such foundations, walls or other parts of adjacent buildings or structures or to navigation. But this covenant is not to be construed as applying to the foundations, walls or other parts of buildings erected upon private property through which the railroad or any station entrance or approach shall be constructed.

Engineer May Order Adjacent Property Supported.

The Contractor shall obey any order of the Engineer to support or secure adjacent property or any surface or structure thereon; but the Contractor shall not be relieved of responsibility either by compliance with any such order, or by any failure or omission of the Engineer to give any such order or to give notice of any danger.

Traffic to Be Maintained.

The Contractor shall during the performance of the work safely maintain the traffic on streets, avenues, highways, parks, waters or other public places in connection with the work as provided in the specifications, and shall take all necessary precautions to place proper guards for the prevention of accidents, and put up and keep at night suitable and sufficient lights.

Indemnification for Accidents, etc.

The Contractor shall save harmless the City against and from all damages or costs to which it may be put by reason of injury to the person or property of another or others, resulting from negligence or carelessness of the Contractor or of any sub-contractor or other person employed on the works, either in the performance of the works or from guarding the same, or from any improper materials used in its construction, or by or on account of any other act or omission of the Contractor or any sub-contractor or other person employed on the works; and shall fully meet and duly pay the amount of any loss or damage caused or done to the City or that the City may suffer from any injury to any person or the property of any person through the negligence, act or omission in the course of construction of the Contractor or of any sub-contractor or other person employed on the works.

Money Due the Contractor May Be Retained to Meet Claims.

In case any claim shall be made by any person or corporation against the Contractor or the City for loss or damage to person or property caused by, or arising from, or alleged to have been caused by, or to have arisen from, any negligence, act or omission of the Contractor or of any sub-contractor or other person employed on the work, the amount of such claim or so much thereof as the Board shall deem reasonable, shall, upon the requirement and in the discretion of the Board, be retained by the Comptroller out of any moneys thereafter growing due to the Contractor hereunder (in addition to the other sums hereinbefore authorized to be so retained), as security for the payment of such claim or claims. If and when the liability of the City or the Contractor on such claim or claims shall have been established by a judgment of a Court of competent jurisdiction, or shall have been admitted by the Contractor to be valid, the said claim or claims shall be paid from the amount so retained and the balance, if any, paid to the Contractor.

Protection of Abutting Property Owners.

It is the intent of this agreement that in addition to indemnifying the City against all claims for damages, the Contractor shall also be liable to the owners of adjacent or abutting property, or of buildings or structures thereon and to all tenants of or persons in such buildings or structures, for all physical injuries to property or person which may be occasioned by the work of construction, even in cases where such owners, tenants or other persons have no legal claim against the City for such injuries. It is therefore further expressly agreed, and is one of the terms and conditions upon which this contract is awarded to the Contractor, that in addition to all other liability for injuries to adjacent or abutting property, or to buildings or structures thereon, or for injuries to persons, the Contractor shall fully meet and duly pay the amount of any loss or damage that any abutting or other owners or other persons may suffer by reason or any physical injury to property or person occasioned by any act or omission of the Contractor or of any sub-contractor or other person employed on the work; this clause of the contract being a separate and independent provision, disassociated from any duty resting upon the City, and having for its sole purpose the complete indemnification by the Contractor of all owners of adjacent or abutting property or of buildings or structures thereon, and of all tenants of and persons in such buildings or structures for any physical injury which may be done to their property or persons through any act or omission of the Contractor or of any sub-contractor or of any other person in the course of any employment under the Contractor or any sub-contractor in or upon the construction of the works or any part thereof.

Damage to Work During Construction.

All risk of loss or damage to the works or to the materials therefor, prior to final completion, unless caused by the fault of the City, is assumed and shall be borne by the Contractor, and any such loss or damage shall be made good by the Contractor at his own cost, and the construction shall be carried forward by him in accordance with this contract, without additional cost to the City by reason of such loss or damage.

VIII.—CITY TO SECURE CONTRACTOR AGAINST INTERFERENCE BY INJUNCTIONS, TO ACQUIRE REAL ESTATE, ETC.*City's Assurances to Contractor of Right to Construct and Operate.*

The City hereby stipulates and covenants to and with the Contractor that the City will secure and assure to the Contractor so long as the Contractor shall perform the stipulations of this Contract, the right to construct and to operate the railroad as prescribed in this contract free of all right, claim or other interference, whether by in-

junction, suit for damages or otherwise, on the part of any owners, abutting owner, or other person; but not including any interference, legal or otherwise, by patentees or persons claiming to be patentees of tools, methods or appliances. Provided, however, that the Contractor shall enforce its rights against the City under this provision solely by claim for money, and shall have no right to set up any failure or default on the part of the City to perform or satisfy this stipulation or covenant in defense, or by way of exculpation or any excuse whatsoever (otherwise than as a claim or counterclaim for money) of the Contractor for any default or failure of any character whatsoever on its part. Nothing herein contained shall be construed to require the Contractor to do any act in violation of a valid injunction issued by a Court of competent jurisdiction forbidding such act.

Claims for Infringement of Patents.

The Contractor shall hold himself responsible for any claims made against the City for any infringement of patents by the use of patented articles in the performance and completion of the work, or of any process connected with the work agreed to be performed under this contract, or of any materials used upon the said work; and shall save harmless and indemnify the City for all costs, expenses and damages which the City shall be obliged to pay by reason of any infringement of patents used in the performance and completion of the work.

Acquisition of Real Estate.

The City will acquire all such real estate and rights of way or other rights, terms, franchises, easements and privileges therein as may be needed, either permanently or temporarily, for the purpose of constructing the railroad or pipe galleries, including necessary station entrances and approaches, or to provide, lay or maintain conduits, pipes, ways or other means for the transmission of electricity, steam, water, air or other source or means of power or of signals or of messages necessary or convenient for or in the construction or operation of such road, or for the transportation of materials necessary for such construction, or to provide a temporary or permanent way or course for any such conduit, pipe or other means or source of transportation; and the City may also acquire any and all rights, privileges, franchises and easements, whether of owners or abutters, or others, to interfere with the construction of the railroad or to recover damages therefor, which, in the opinion of the Board, it shall be necessary to acquire or extinguish for the purpose of constructing the railroad free of interference or right of interference.

IX.—TIME FOR COMPLETION, DAMAGES FOR DELAY, ETC.

Commencement and Completion of Work.

Time is of the essence of this contract. The Contractor shall begin actual work within sixty (60) days after the execution of this contract. The entire work covered by this contract shall be completed in all respects within twenty months from the date of the delivery of this contract.

Price to be Reduced for Delay.

In the event of delay in the completion of the works beyond the period herein prescribed, and in case any such delay shall not be excusable, or the period extended, as hereinafter provided, the City shall be paid damages for such delay. Inasmuch as the amount of such damages will be extremely difficult to ascertain, especially in view of the fact that the railroad herein contracted for is only a part of a complete system, the remainder of which is to be constructed under other contracts, it is hereby expressly agreed that damages shall be liquidated and paid by reducing the price to be paid the Contractor as follows: From the several amounts which shall become payable to the Contractor after the expiration of the periods above limited (but not including the retained percentages from amounts theretofore certified to be due), there shall be deducted and retained by the City as liquidated damages for such delay (and not as a penalty) one per cent. thereof for each and every month after the expiration of the said period until such amounts are severally certified to be due and payable. But in case the Contractor shall be delayed by reason of any labor strike not caused or instituted or provoked by the Contractor, or by any sub-Contractor, agent or representative of the Contractor (which fact the Contractor shall prove to the satisfaction of the Board), or in case the Contractor shall be delayed by any injunction or by any interference of public authority, and in case the Contractor cannot, notwithstanding such injunction or interference, with reasonable diligence make up for the delay so occasioned by speedier work when the Contractor shall not be so interfered with, then the said date for completion shall be extended to a date later than the expiration of the said period by the amount of the time of such delay.

Board May Intervene in Case of Injunction.

But no injunction, strike or interference of public authority shall be ground for such extension except if and from the time when the Contractor shall give the Board notice of the injunction or other cause of delay, with copies of the injunction or other orders and of the papers upon which the same shall have been granted. The Board and the City, or either, shall be accorded the right to intervene or become a party to any suit or proceeding in which any such injunction shall be obtained, and to move to dissolve the same or otherwise, as the Board or City may deem proper. If necessary, the Corporation Counsel or the counsel or attorneys of the Board shall be authorized by the Contractor to appear, for that purpose, as counsel or attorneys for him.

Suspension of Work and Additional Time for Performance.

The Board reserves the right of temporarily suspending the execution of the whole or any part of the work herein contracted to be done, if it shall deem it for the interest of The City of New York so to do, without compensation to the Contractor for such suspension, other than extending the time for completing the work as much as it may have been delayed by such suspension.

Time for Completion to be Extended in Case of Delay in Acquiring Real Estate.

In case the Contractor shall at any time give notice to the Board that any real estate is necessary under this contract for any of the purposes specified above, which notice shall give a brief description of such real estate, the Board shall (if it finds that such necessity exists) begin and conduct with diligence, proceedings to acquire the real estate described; and in case the Board shall fail to put the Contractor in possession of such real estate within three months from the delivery of such notice, then the period for completion of the works shall be extended for such a time as such completion is necessarily delayed by the failure of the Board to furnish such real estate; but no allowance by way of damages shall be made for such delay. In any arbitration, suit or proceeding involving this clause of the contract, the burden of proof shall be on the Contractor to show that the real estate which he described was in fact necessary.

Permission to Complete Contract Not a Waiver.

The permitting of the Contractor to go on and finish the work, or any part of it, after the time fixed for its completion, or after the date to which the time for completion may have been extended, or the making of partial payments to the Contractor after any such periods, shall in no wise operate as a waiver on the part of the City of any of its rights under this contract.

Price to be Increased in Case of Early Completion.

In the event that the construction shall be completed as aforesaid ready for immediate, full and continuous operation within twenty months from the date of the delivery of this contract, then the price to be paid the Contractor shall be increased at the rate of one (1) per cent. upon the total amount thereof for every month to elapse between the date of such completion and the expiration of such period of twenty months.

X.—REMEDIES IN CASE OF CONTRACTOR'S DEFAULT.

Contractor's Default in Construction.

In case the Contractor shall fail to complete the works within the period above limited, or shall at any time fail to proceed with reasonable diligence, or so that it shall

not be reasonably probable that the works will be completed within the period above limited, then and in such case the Board upon a notice to the Contractor of not less than thirty days may—

City May Complete.

1. By resolution declare the Contractor to be in default, and the City by the Board in addition to every, or in substitution for any other, remedy which it may have by law or hereunder, may thereupon forthwith, so far as the City may now have or may hereafter secure statutory power, procure by contract or otherwise, either for the Contractor, for his account and at his risk or otherwise as the Board shall determine, the completion of such construction, or, in any case where the Board shall deem it for the interest of the City, the performance of any part of such construction; and the City may, to the extent of the cost of such completion of the construction or of such performance or provision of any part thereof and interest on such cost, withhold and apply thereon any moneys otherwise due or to become due by the City to the Contractor, and the Contractor shall be liable to the City and shall, as the Board may from time to time require, forthwith pay to the City the excess, if any, of the cost to the City of the completion of such construction or of such performance or provision of any part thereof over the amount payable to the Contractor therefor under the terms of this contract, and also the amount, if any, which shall be due to the City by reason of any delay in completion of the construction, or in such performance or provision of any part thereof. Or

Or Make New Contract.

2. By resolution declare this Contract at an end except as to the liability of the Contractor hereinafter in this paragraph provided, and make a new contract for construction, upon advertisement of a new invitation to Contractors, upon such terms as the Board may deem proper; the same to provide among other things that the new Contractor shall allow for so much of construction as has been already completed, a reasonable amount to be prescribed in such new contract or to be ascertained as in such new contract to be provided; and in such case the Contractor shall pay the City all damages which the City shall sustain by reason of such failure, including the excess, if any, of the amount which the City shall pay the new Contractor over the amount it would have had to pay the Contractor, party hereto, for the same work or materials, together with the amount, if any, which shall be due the City by reason of the delay in completion of the construction.

Or Proceed Upon Bond for Construction.

3. The City may also proceed as to the Board shall seem proper upon the bond, or with respect to the deposits of cash or securities made as aforesaid, or with respect to the bonds, surety, obligations or securities given by sub-contractors and assigned as aforesaid.

Or May Bring Suit.

4. The City may also bring any suit, or proceeding for specific performance or for injunction or to recover damages or to obtain any relief or for any purpose proper under this contract.

XI.—MISCELLANEOUS PROVISIONS.

Changes in the Contract.

No correction or change in this contract shall be made except by written instrument duly authorized by the Board, and consented to by the Contractor and, if a bond shall have been given as aforesaid and be then in force, then also consented to by the sureties upon such bond; but this provision shall not limit or affect the right to prescribe variations of detail whether of construction or location of route as in this contract elsewhere provided.

Members of Board Not Liable.

No claim shall be made by the Contractor against any member of the Board personally by reason of this contract or of any of its articles or provisions.

Contract, When Assignable.

This contract shall not be assigned without the written consent of the Board, concurred in by six members thereof.

Provisions in Case Board Cease.

In case the Board shall cease to exist the Legislature may provide what public officer or officers shall exercise the powers and duties of the Board under and by virtue of this contract; and in default of such provision, such powers and duties shall be deemed to be vested in the Mayor of the City. In case any officer or officers other than the Board shall hereafter have the powers of the Board or any of them, then the provisions of this contract shall be applicable to such officer or officers to the extent to which the powers of the Board shall appertain to such officer or officers, and any official act or determination of such officer or officers or of this Board shall be sufficient hereunder, anything herein to the contrary notwithstanding, if the same be done or had by lawful vote or resolution or in such manner as the Legislature may from time to time prescribe.

Labor Law.

The Contractor agrees to comply with the provisions of the Labor Law, including section 3 thereof as re-enacted by chapter 506 of the Laws of 1906. The Contractor further agrees and stipulates that no laborer, workman or mechanic in the employ of the Contractor, sub-contractor or other person doing or contracting to do the whole or a part of the work contemplated by this contract, shall be permitted or required to work more than eight hours in any one calendar day, except in cases of extraordinary emergency caused by fire, flood or danger to life or property; and further that the wages to be paid for a legal day's work as hereinbefore defined to all classes of such laborers, workmen or mechanics upon the work contemplated by this contract or upon any material to be used upon or in connection therewith, shall not be less than the prevailing rate for a day's work in the same trade or occupation in the Borough of Manhattan, where the work hereby contemplated about or in connection with which such labor is performed, is in its final or completed form to be situated, erected or used; and that each such laborer, workman or mechanic employed by the Contractor or by any sub-contractor or other person on, about or upon the work contemplated by this contract, shall receive such wages herein provided for. This contract shall be void and of no effect, unless the Contractor shall comply with the provisions of this paragraph. In obedience to the requirements of section 13 of the Labor Law it is further provided that if the provisions of the said section are not complied with, this contract shall be void.

All Necessary Legal Provisions Deemed Inserted Herein.

It is the intent and understanding of the parties to this agreement that each and every provision of law required to be inserted in this contract should be and is inserted herein. Furthermore, it is hereby stipulated that every such provision is to be deemed to be inserted herein; and if, through mistake or otherwise, any such provision is not inserted in correct form, then the contract shall forthwith, upon the application of either party, be amended by such insertion so as to comply strictly with the law, and without prejudice to the rights of either party hereunder.

Provision in Case of Unlawful Provision.

If this contract contains any unlawful provision not an essential part of the general structure of the contract and which shall not appear to have been a controlling or very material inducement to the making thereof, the same shall be deemed of no effect, and shall upon the application of either party be struck from the contract without affecting the binding force of the contract as it shall remain after omitting such provision.

In witness whereof this contract has been executed for The City of New York by its Board of Rapid Transit Railroad Commissioners under and by a resolution duly adopted by the said Board and concurred in by not less than six of its members, and the seal of the said Board has been hereto affixed and these presents signed

by the President and Secretary of the said Board; and the Contractor has* hereunto set his hand and seal the day and year first above written.

*If the Contractor is not a single individual, but is a corporation or partnership, the words following the asterisk will be struck out and the words "caused its corporate seal to be hereto affixed and this contract to be witnessed by its president and secretary," or other appropriate words, will be substituted.

State of New York, County of New York, ss.:

On the _____ day of _____, 190____, before me personally appeared Alexander E. Orr and Bion L. Burrows, to me known and known to me to be the said Alexander E. Orr, the President, and the said Bion L. Burrows, the Secretary of the Board of Rapid Transit Railroad Commissioners for The City of New York; and the said Alexander E. Orr and Bion L. Burrows, being by me duly sworn, did depose and say, each for himself and not for the other, the said Alexander E. Orr, that he resides in the Borough of Brooklyn, in the said city, that he is the President of the said Board and that he subscribed his name to the foregoing contract by virtue of the authority hereof; and the said Bion L. Burrows, that he resides in the Borough of Brooklyn, in The City of New York, that he is the Secretary of the said Board and that he subscribed his name thereto by like authority; and both the said Alexander E. Orr and Bion L. Burrows that they know the seal of the said Board and that the same was affixed to the foregoing instrument by the authority of the said Board and of a resolution duly adopted by the same.

Note—An acknowledgment by the Contractor, in due form, will be added here at or before the time of the delivery of the contract.

CONTRACTOR'S BOND.

Know all men by these presents that _____ of _____ Contractor, and _____ hereinafter called the _____ and hereinafter called the _____

Sureties, are held and firmly bound unto The City of New York, hereinafter called the City, in the penal sum of one hundred and sixty thousand dollars (\$160,000), lawful money of the United States of America, to be paid to the City, for which payment well and truly to be made the Contractor and the Sureties do hereby bind themselves and their, and each of their, executors, administrators and successors firmly by these presents, as follows: The Contractor to be so held and bound for the full amount of the said one hundred and sixty thousand dollars (\$160,000), and each of the said Sureties to be so held and bound only for a portion of said penal sum as follows:

The said _____ for the sum of _____ (\$ _____); the said _____ dollars (\$ _____); the said _____ for the sum of _____ dollars _____ for the sum of _____ dollars (\$ _____).

In witness whereof the Contractor and the Sureties have hereunto caused their respective seals to be hereto affixed and these presents to be attested by the proper officers of each of them which is a corporation, this _____ day of _____, 1907.

Whereas, The City, by its Board of Rapid Transit Railroad Commissioners (hereinafter called the Board), is about to enter into a contract with the Contractor bearing even date herewith for the construction of certain works in The City of New York, more particularly described in the said contract; and

Whereas, The City is about to enter into such contract with the Contractor upon the condition, and not otherwise, that this bond shall be given to the City, and upon the faith thereof,

Now, therefore, the condition of the foregoing obligation is such that if the Contractor shall fully perform the said contract, then this obligation shall be null and void, but else it shall remain in full force and virtue.

It is expressly agreed between the City and the Sureties (and it is upon such agreement that the City accepts this bond) that the Sureties will and do waive any and every notice of default on the part of the Contractor; that they will and do permit the City to extend the time of the Contractor to make any payment or do any act; that no omission on the part of the City to give any notice or extension of time granted by or on behalf of the City shall be availed of by the Sureties or either of them as a defence upon this bond; that the Sureties shall not set up or have any defence upon this Bond by reason of any alteration of the said contract unless such alteration shall be represented by a formal written instrument duly executed between the City and the Contractor which shall have been duly authorized by a vote of the Board; and that in case of such alteration, however made, the same shall be a defence to the Sureties only to the extent of the actual injury or damage caused to the Sureties by said alteration.*

*The execution of the bond must be duly proved before delivery in the form essential to proof to entitle a deed to record in the State of New York. Full affidavits of justification of sureties must be added.

CONTRACTOR'S PROPOSAL.

(Pearl Street to Park Row.)

Notice—Sums of money must be written in words and also in figures. There must remain annexed hereto:

- Copy of invitation to contractors.
- Copy of form of contract.
- Copy of form of bond.

Schedule of securities, filled up only if the bidder desires to deposit securities in lieu of cash.

To the Board of Rapid Transit Railroad Commissioners in and for The City of New York:

1. The undersigned*

do hereby, in pursuance of the invitation to contractors, a copy of which is attached hereto, propose according to the terms thereof to enter into a contract with The City of New York in the form therein referred to and to perform all the work mentioned in the said contract, and hereby agree to accept in full payment therefor the following sums, to wit:

For construction of the railroad (as these words are defined in the form of contract), including the furnishing of all labor, materials and appliances required to do the work, the sum of _____ dollars (\$ _____).

For construction of pipe galleries, including the furnishing of all labor, materials and appliances required to do the work, the sum of _____ dollars (\$ _____).

It is understood that the acceptance of the foregoing bid for pipe galleries is conditional on the acceptance of the above bid for construction of the railroad; but that the Board may accept the bid for construction of the railroad and reject the bid for construction of pipe galleries.

*If the bid is submitted by a corporation, the full legal title must be given here and a certified copy of the certificate of incorporation must be submitted, together with an affidavit showing the amount of stock paid in in cash and the names and addresses of the directors and principal officers. If the bid is submitted by a firm, the above blank must be filled up in the following form, "the firm of A. B. & Co., composed of A., B., C., D., etc." (giving the names of all the partners).

2. It is understood by the undersigned that all of the above sums are subject to modification, as provided in the above mentioned form of contract, and that payments are to be made when and as therein provided.

3. If this proposal is accepted, the undersigned will within ten days after delivery of notice, execute and deliver the contract with the City in the form aforesaid and at the same time will deliver to the Comptroller of The City of New York, pursuant to the terms of the said contract, a bond in the penalty of one hundred and

sixty thousand dollars (\$160,000), in the form hereto annexed, with the following named sureties, viz.:

*The bidder may, under section 34-C of the Rapid Transit Act, deposit cash or securities, with the approval of the Board, in lieu of a bond; and the bidder, if desirous of so doing, may so state here, and strike out the words in italics.

4. Your Board may cause any notice intended for the undersigned to be delivered at Room No. _____ on the _____ floor of the building No. _____ in the Borough of _____ in the City of New York. Such delivery shall be sufficient notice to the undersigned.

5. At the time of delivering this proposal to your Board the undersigned will separately deliver a certified check payable to the order of the Comptroller of the City of New York for the sum of twelve thousand five hundred dollars (\$12,500). If your Board shall notify the undersigned that this contractor's proposal is accepted and that the proposed contract is approved by the Board of Estimate and Apportionment, then, if the undersigned shall fail within ten days thereafter or within such longer period as may be prescribed by your Board to make the deposit in cash or securities as aforesaid; or to procure the above described bond to be duly executed and delivered; or if the undersigned shall fail to procure the contract to be duly executed and delivered as aforesaid, then the invitation to contractors and this contractor's proposal shall constitute a contract binding the undersigned to pay to the City the damages by it sustained by reason of such failure of the undersigned, as provided in said invitation to contractors. And the undersigned hereby assigns to the City the said sum so specially deposited by the delivery of such certified check, subject only to the condition that if this proposal shall not be accepted, or, if it shall be accepted and the undersigned shall within ten days after notice as aforesaid or any longer period prescribed by your Board, execute the said contract and make the said deposit in cash or securities and procure the said bond to be duly executed and delivered, then the amount of the said check so specially deposited shall be returned to the undersigned.

6. A notice of acceptance of this proposal by your Board addressed to the undersigned as aforesaid shall forthwith, at the option of your Board, operate as against the undersigned as a complete making of a contract according to the form thereof as aforesaid, with the blanks therein contained filled in according to this proposal.

7. There are no persons interested with the undersigned in this proposal, except *

*Here insert the names and addresses of all persons interested with the bidder. If there are no such persons strike out the word "except."

8. This proposal is made without any connection with any other person making a proposal or bid for the same purpose, and is in all respects fair and without collusion or fraud. No member of the Board of Aldermen, head of department, chief of bureau, deputy thereof or clerk therein, or other officer of The City of New York, or any member or employee of the Board of Rapid Transit Railroad Commissioners of said City is interested directly or indirectly, as contracting party, partner, stockholder, or otherwise in or in the performance of the contract, or in the supplies, work or business to which it relates, or in any portion of the profits thereof.

Dated the _____, 190____.

Affidavit of Verification.

State of New York, City and County of New York, ss.:

being duly sworn, says: I am*

the proposing contractor above named. I have read the foregoing proposal. The same is in all respects true.

Sworn to before me this _____ day of _____, 190____.

*If the bidder is an individual, do not fill this blank; if the bidder is a firm, here say "a member of the firm of _____"; if a corporation, say "the (President or other officer duly authorized) of the _____ Company."

Acknowledgment for Individual or Firm.

State of New York, City and County of New York, ss.:

On this _____ day of _____, 190____, before me personally came _____ to me known and known to me to be _____ the person described in and who executed the foregoing proposal, and he acknowledged to me that he executed the same for the purposes therein mentioned.

Acknowledgment for Corporation.

State of New York, City and County of New York, ss.:

On this _____ day of _____, 190____, before me personally came _____ to me known and known to me to be _____ of the _____ Company and _____ to me known and known to me to be _____ of the said _____ Company, who being by me severally duly sworn, did say: the said _____ that he resides at _____ and is the _____ of said _____ the corporation described in and which executed the foregoing proposal, and the said _____ that he resides in _____ and is the _____ of said Company; and each for himself did say that he knows the corporate seal of said company; that the seal affixed to the foregoing instrument is such corporate seal; that it was so affixed by order of the board of directors of said company, and that by like order each thereto signed his name and official designation.

Schedule of Securities.

Note—If the bidder desires not to give a bond, but to deposit securities in lieu thereof, a description of the securities to be deposited for that purpose must be inserted below.

All the securities when delivered must be payable to, or run in favor of, or be transferred to, the Comptroller of The City of New York.

The following resolution was offered:

Resolved, That, pursuant to the provisions of section 37 of the Rapid Transit Act (chapter 4 of the Laws of 1891 as amended) and the requisition of the Board of Rapid Transit Railroad Commissioners, duly made by the President and the Secretary of said Board on June 14, 1907, the Comptroller be and is hereby authorized and directed to issue Corporate Stock of The City of New York to the amount of one million three thousand eight hundred and twenty-eight dollars (\$1,003,828), bearing interest at a rate not exceeding four (4) per centum per annum, to provide means for the following purposes:

For the construction of a part of the proposed Brooklyn loop lines, rapid transit railway, along Centre street, between Pearl street and Park row, in the Borough of Manhattan.....	\$998,328 00
For the construction of pipe galleries in connection therewith.....	5,500 00
	<u>\$1,003,828 00</u>

—and be it further

Resolved, That the amount of Corporate Stock hereby authorized to be issued shall not exceed the aforesaid sum of one million three thousand eight hundred and twenty-eight dollars (\$1,003,828) for the purposes above mentioned; and be it further

Resolved, That the Board of Estimate and Apportionment hereby consents to the proposed contract to be entered into by the Bradley Contracting Company and The City of New York, acting by the Board of Rapid Transit Railroad Commissioners, for the construction of said portion of the Brooklyn loop lines, rapid transit railway, along Centre street, between Pearl street and Park row, in the Borough of Manhattan, and for the construction of pipe galleries in connection with said railway.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

BOARD OF RAPID TRANSIT RAILROAD COMMISSIONERS, }
No. 320 BROADWAY, NEW YORK.

To the Board of Estimate and Apportionment:

The Board of Rapid Transit Railroad Commissioners of The City of New York, on May 25, 1905, adopted routes and a general plan for the construction of a rapid transit railway in the Boroughs of Manhattan and Brooklyn, which routes and plan were approved by your Honorable Board on July 14, 1905, by the Mayor of The City of New York on July 28, 1905, and by the Appellate Division of the Supreme Court in the First Judicial Department by an order entered on March 12, 1907.

Pursuant to law, the said Board of Rapid Transit Railroad Commissioners prepared detailed plans and specifications for the construction of such rapid transit railway, and included in said plans provisions for galleries, ways, subways or tunnels for gas or water pipes, electric wires and other subsurface structures and conductors proper to be placed underground (hereafter in this communication referred to as pipe galleries), and determined to make a separate contract for the construction of a part of the said road in Delancey street, between the Bowery and Norfolk street (Section 9-O-5). The form of the said contract, as duly adopted by the said Rapid Transit Board, was approved by the Corporation Counsel on May 15, 1907, and by your Honorable Board on May 10, 1907.

Thereafter the said Board of Rapid Transit Railroad Commissioners duly advertised for proposals by notices printed twice a week for three successive weeks and upwards, in four of the daily newspapers published in The City of New York, which notice stated that the said proposals would be opened at the office of the Board on Thursday, June 13, at 12 o'clock noon. At the said time and place, proposals were received as follows:

The Degnon Contracting Company—		
For construction of the railroad.....	\$1,530,000 00	
Pipe galleries	175,000 00	\$1,705,000 00
Bradley Contracting Company—		
For construction of the railroad.....	\$1,229,136 00	
Pipe galleries	69,300 00	\$1,298,436 00
Patrick McGovern—		
For construction of the railroad.....	\$1,595,000 00	
Pipe galleries	95,000 00	\$1,690,000 00
Thomas Crimmins—		
For construction of the railroad.....	\$1,374,649 00	
Pipe galleries	91,120 00	\$1,465,769 00
Cranford Company—		
For construction of the railroad.....	\$1,800,000 00	
Pipe galleries	80,000 00	\$1,880,000 00

The said Board of Rapid Transit Railroad Commissioners, having duly considered the said proposals, did, on the 13th day of June, 1907, by a vote of six of its members, accept the proposal of the said Bradley Contracting Company, both for railroad construction and for pipe galleries, and accordingly awarded the contract for construction of the same to said company, subject to the consent of your Honorable Board as required by law. A complete copy of said contract as so adopted and awarded is herewith transmitted.

The said Board of Rapid Transit Railroad Commissioners therefore requests your Honorable Board to consent to said contract herewith transmitted and to prescribe a limit to the amount of bonds available to meet the requirements of the said contract, to wit: The sum of \$1,229,136 for construction of the part of the said rapid transit railway included in said contract, and the sum of \$69,300 for construction of pipe galleries in connection therewith; and also to direct the Comptroller of The City of New York to issue Corporate Stock of the said City, bearing interest at the rate of 4 per centum per annum, for the purpose of providing the necessary means for construction at the public expense of the part of the said rapid transit railway above described, including the said pipe galleries.

And the said Board of Rapid Transit Railroad Commissioners does hereby, pursuant to section 45 of the Greater New York Charter, make request for the authorization of such Corporate Stock for the full amount sufficient to pay the entire estimated expense of executing such contract, to wit: The sum of one million two hundred and ninety-eight thousand four hundred and thirty-six dollars (\$1,298,436).

In witness whereof, the Board of Rapid Transit Railroad Commissioners for The City of New York has caused its official seal to be hereto affixed and these presents to be signed by its President and Secretary, this 14th day of June, 1907.

[SEAL]

A. E. ORR, President.

BION L. BURROWS, Secretary.

BOARD OF RAPID TRANSIT RAILROAD COMMISSIONERS, CITY OF NEW YORK.

INVITATION TO CONTRACTORS, FORM OF CONTRACT, BOND, SCHEDULE AND CONTRACTOR'S PROPOSAL FOR CONSTRUCTION OF A PART OF THE PROPOSED BROOKLYN LOOP LINES (DELANCEY STREET, BETWEEN THE BOWERY AND NORFOLK STREET).

INVITATION TO CONTRACTORS.

(Delancey Street, between the Bowery and Norfolk Street.)

The City of New York (hereinafter called the City), acting by its Board of Rapid Transit Commissioners (hereinafter called the Board), contemplates building a certain rapid transit railroad, known as Route No. 9, in Delancey street (Manhattan) and other streets in the boroughs of Manhattan and Brooklyn, including ultimately Centre street, Grand street, Desbrosses street, Canal street and William street, in Manhattan, and Fulton street, Lafayette avenue and Broadway, in Brooklyn.

By this advertisement, the City invites proposals to construct that part of said railroad which is situated in Delancey street, between the Bowery and Norfolk street, in accordance with the detailed plans and specifications adopted therefor.

The general plan of construction calls for a subsurface railroad with four tracks. Suitable crossovers, turnouts and sidings are also to be provided, all as shown in the detailed plans of construction. The tunnels are to have a height of not less than thirteen (13) feet in the clear, and a maximum width of fifteen (15) feet for each track, except at curves, etc., where the width may be increased. The roof of the tunnels is generally to be as near the surface of the street as street conditions and grades will permit, but will be depressed whenever necessary to avoid grade crossings. The roof

and sides of the tunnels will be of iron or steel and masonry. The manner of construction shall be by excavation under cover, unless otherwise directed by the Board.

In the detailed plans for construction, provisions for pipe galleries through Delancey street are included. Bids for the construction of the railroad must be accompanied by a separate bid for the construction of the pipe galleries above referred to, as it is essential for the City to separate the cost of the railroad from the cost of the pipe galleries. The Board reserves the right to accept a bid for the construction of the railroad and at the same time to reject the accompanying bid for pipe galleries.

The price stated for railroad construction is to include the furnishing of all materials and the performance of all labor requisite to the complete construction of that part of the proposed railroad which is to be built under this contract, including all sewer and street construction and reconstruction and other work caused by or incidental to the construction of the same as set out in the proposed form of contract.

A fuller description of the work to be done is set forth, and other requirements, provisions, details and specifications are stated in the printed form of contract now on file in the office of the Board, No. 320 Broadway, Borough of Manhattan, and in the detailed drawings therein referred to, at which office copies of the contract and of the form of bond and contractor's proposal may be had on application. The contract drawings may be inspected at the same office. The printed form of contract and the detailed drawings are to be deemed a part of this invitation.

Partial payments to the contractor will be made monthly as the work proceeds, as provided in the form of contract.

The work of construction (including pipe galleries) is to be completed as soon as practicable, and within twenty months from the date of delivery of the contract.

Sealed bids or proposals will be received at the said office of the Board, at No. 320 Broadway, Borough of Manhattan, City of New York, until Thursday, the 13th day of June, 1907, at 12 o'clock noon, at which time or at a later date to be fixed by the Board the proposals will be publicly opened.

Proposals must be in the form prescribed by the Board, copies of which may be obtained at the office of the Board.

Each proposal must be signed and acknowledged and also verified by an affidavit of the bidder (or if it be a corporation then by an officer thereof) to the effect that the several matters therein stated are in all respects true. If the proposal is made by a firm it will be sufficient if the proposal is signed and the affidavit sworn to by one member of the firm.

Each proposal must specify an office within The City of New York at which notices may be delivered, and delivery of a notice at such office shall be deemed a sufficient delivery and notice to the bidder.

Each proposal or bid must contain the name and place of residence of the person or persons making the same, the names of all persons interested with him therein, and if no other person be so interested it shall distinctly state that fact; and if the bidder shall be a corporation, there shall be submitted a certified copy of its certificate of incorporation, with a certificate of the amount of stock paid in in cash, and the names and business addresses of all officers and directors of the corporation shall be stated; also, that it is made without any connection with any other person making a proposal or bid for the same purpose, and is in all respects fair and without collusion or fraud, and that no member of the Board of Aldermen, head of department, chief of bureau, deputy thereof of clerk therein, or other officer of the corporation, or any member or employee of the Board, is interested, directly or indirectly, as contracting party, partner, stockholder, or otherwise in or in the performance of the contract, or in the supplies, work or business to which it relates, or in any portion of the profits thereof.

No proposal will be allowed to be withdrawn for any reason whatever after it shall have been deposited with the Board.

The Board is not obliged by law to accept any of the proposals received by it but may reject all such proposals and readvertise, or may accept any of such proposals as will in the judgment of the Board best promote the public interest and award a contract accordingly, subject to approval by the Board of Estimate and Apportionment as required by law.

The award of the contract or contracts (if awarded) will be made by the Board within ten days after the opening of the proposals. The bidder or bidders whose proposal shall be accepted shall in person or by duly authorized representative attend at the said office of the Board within ten days after the delivery of a notice by the Board that his proposal is accepted and that the contract is approved by the Board of Estimate and Apportionment; and such bidder shall then deliver a contract in the form referred to, duly executed with its execution duly proved.

At the time of the delivery of a contract, the Contractor will be required to furnish security to the City by giving a bond in the penalty of one hundred and eighty thousand dollars. At the option of the successful bidder cash or approved securities may be deposited instead of giving a bond. If securities are deposited in place of a bond under this contract, they must be of the character of securities in which savings banks may invest their funds and must be approved by the Board. The Contractor's bond must be in the form annexed to the form of contract.

In addition and as further security to the City, ten per cent. of each amount certified from time to time to be due to the Contractor will be retained until the work is fully completed.

Each bidder must state in his proposal the names and places of business of the proposed sureties on the bond and describe any securities proposed to be deposited.

A bidder whose proposals are otherwise satisfactory to the Board may, in case the sureties or securities named by them are not approved by the Board, substitute in their proposals the names of new sureties or a different schedule of securities approved by the Board; but such substitution must be made within five days after notice of disapproval by the Board, unless this period is extended by the Board.

In case of failure or neglect to execute and deliver the contract or to make the required deposit or to execute and deliver the required bond, such bidder or bidders will, at the option of the Board, be deemed either to have made the contract or to have abandoned the contract. In the latter case the Board will give notice thereof to the defaulting bidder or bidders. And the Board may thereupon proceed to make another contract with such, if any, of the original bidders, as, in the opinion of the Board, it will be to the best interest of the City to contract with, or may by new advertisement invite further proposals. The defaulting bidder or bidders shall thereupon be liable to the City for all loss and damage by it sustained, including the excess, if any, of the amount it shall pay any other contractor over the amount of the bid of such defaulting bidder or bidders.

Every proposal must, when submitted, be enclosed in a sealed envelope endorsed "Proposal for Constructing Rapid Transit Railroad—(Delancey Street)" and must be delivered to the Board or to its Secretary; and in the presence of the person offering the proposal it will be deposited in a sealed box in which all proposals will be deposited. No proposal will be received or deposited unless accompanied by a certified check drawn upon a National or State Bank or Trust Company within The City of New York and satisfactory to the Board, payable to the order of the Comptroller of The City of New York, for the sum of fifteen thousand dollars.

If the Board shall give notice to any bidder that his or its proposal is accepted and the contract is approved by the Board of Estimate and Apportionment, and if the bidder shall fail within ten days thereafter or within such further period, if any, as may be prescribed by the Board, to execute and deliver the contract and to execute and deliver the bond with sureties, or make a deposit in cash or securities, then this Invitation to Contractors and proposal accepted as aforesaid shall be a contract binding the bidder to pay to the City the damages by it sustained by reason of such failure; and in such case the bidder hereby absolutely assigns to the City the ownership of the check accompanying his or its proposal as a payment on account of such damages.

Such check must not be enclosed in the sealed envelope containing the proposal, but must be separately delivered to the Board or to its Secretary, who will give a proper voucher for the deposit.

All such deposits made by bidders whose proposals shall not be accepted by the Board will be returned to the person or persons making the same within five days after the contract shall be executed and delivered. The deposit of the successful bidder or bidders will be returned when the contract is executed and its provisions as to security are complied with.

THE BOARD OF RAPID TRANSIT RAILROAD COMMISSIONERS FOR THE CITY OF NEW YORK.

By A. E. ORR, President.

BION L. BURROWS, Secretary.

BOARD OF RAPID TRANSIT RAILROAD COMMISSIONERS FOR THE CITY OF NEW YORK.

CONTRACT No. 9-O-5 FOR THE CONSTRUCTION OF A PART OF THE PROPOSED BROOKLYN LOOP LINES (DELANCEY STREET, BETWEEN THE BOWERY AND NORFOLK STREET.)

Approved as to form this 15th day of May, 1907.

JOHN L. O'BRIEN,

Acting Corporation Counsel of The City of New York.

BROOKLYN LOOP LINES.

Contract No. 9-O-5.

Agreement, made this _____ day of _____, 1907, between The City of New York, hereinafter called the City, acting by the Board of Rapid Transit Railroad Commissioners for The City of New York, hereinafter called the Board, party of the first part, and _____ hereinafter called the Contractor, party of the second part.

Whereas, The Board in behalf of the City by due advertisement pursuant to law, has invited contractors to submit to the Board proposals for making this contract; and

Whereas, The Contractor has thereupon duly submitted to the Board a proposal, which has been accepted; and

Whereas, The Board of Estimate and Apportionment of The City of New York has consented to this contract.

Now, therefore, in consideration of the mutual stipulations and covenants hereinafter contained, and under the authority of chapter 4 of the Laws of 1891, entitled, "An Act to provide for Rapid Transit Railroads in Cities of over one million Inhabitants," and of the various acts amending the same, the parties hereby do, the City for itself and its successors and the Contractor for* and assigns

* Here insert, if a corporation, "itself, its successors;" if a single individual, "himself, his executors, administrators;" if several individuals, "themselves jointly and severally, and their and each of their executors, administrators."

Agree each with the other as follows:

I.—GENERAL PROVISIONS AND DEFINITIONS.

Outline of Contract.

The Contractor agrees to construct the part hereinafter described of a Rapid Transit Railway with its appurtenances (including pipe galleries). The City agrees to pay to the Contractor the sums of money hereinafter mentioned at the times and in the manner and upon the terms and conditions hereinafter set forth.

Brief Description of Railroad.

The Railroad to be constructed under this contract forms a part of a certain route adopted by the Board May 25, 1905, and approved by the Board of Estimate and Apportionment of The City of New York on July 14, 1905, by the Mayor on July 28, 1905, and by the Appellate Division of the Supreme Court in the First Judicial Department by an order entered on March 12, 1907. The part to be constructed under this contract is described as follows, viz.:

A route the centre line of which shall begin at a point on the centre line of Delancey street about 225 feet east of the centre line of the Bowery and running thence easterly under and along Delancey street to a point about 155 feet west of the westerly line of Norfolk street, where it will connect with the Manhattan Subway Station of the Williamsburg Bridge now under construction by the Department of Bridges.

There are to be four tracks for the entire route on Delancey street, all as shown on the plans and drawings hereinafter mentioned. The precise location of the tracks, and the dimensions and other characteristics of the railroad are more fully stated in the specifications forming a part of this contract and in the detailed drawings and plans hereinafter mentioned. The pipe galleries which are to be constructed, as an independent item of the work, are also described in the said specifications, drawings and plans.

Statutes Incorporated Herein.

This contract is made pursuant to the Rapid Transit Act which is to be deemed a part hereof as if it were incorporated herein.

Marginal Notes, etc.

Titles, headings and marginal notes are printed hereon merely for convenience and shall not be deemed to be any part of this contract for any purpose whatever.

Definitions of Words.

The following words and expressions used in this contract shall, except where by the context it is clear that another meaning is intended, be construed as follows:

"City."

1. The word "City" to mean The City of New York, and any other corporation or division of government to which the ownership, rights, powers and privileges of The City of New York under the Rapid Transit Act, shall hereafter come, belong or appertain.

"Board."

2. The word "Board" to mean the Board of Rapid Transit Railroad Commissioners for The City of New York, and any other board, body, official or officials, to which or to whom the powers now belonging to the said Board shall, by virtue of any act or acts, hereafter pass or be held to appertain.

"Contractor."

3. The word "Contractor" to mean the part* of the second part to this contract, and† any and every person or corporation who or which shall at any time be liable in the place or for the part of the second part to perform any obligations under this contract assumed by the said part of the second part. For convenience the Contractor is hereinafter spoken of as if the Contractor were an individual. The word "he" shall, as the sense may require, include "it," "him," "she," "her," "they" and "them," and the word "his" shall include "its," "her" and "their."

* Here and in like blanks hereafter insert "y" or "ies;" as the case may be.

† Here insert, as the case may be, either "its successors" or "his executors, administrators and assigns," or "their executors, administrators and assigns."

"Comptroller."

4. The word "Comptroller" to mean the Comptroller of The City of New York, and the officer or board to whom or to which his powers now existing under the Rapid Transit Act shall come to appertain.

"Engineer."

5. The word "Engineer" to mean the present Chief Engineer of the Board and any successor or successors duly appointed or any deputy or substitute for him who shall be appointed by the Board or by its authority.

"Rapid Transit Act."

6. The words "Rapid Transit Act" to mean chapter 4 of the Laws of 1891, as amended by chapters 102 and 556 of the Laws of 1892, chapters 528 and 752 of the Laws of 1894, chapter 519 of the Laws of 1895, chapter 729 of the Laws of 1896, chapter 616 of the Laws of 1900, chapter 587 of the Laws of 1901, chapters 533, 542,

544 and 584 of the Laws of 1902, chapters 562 and 564 of the Laws of 1903, chapters 599 and 631 of the Laws of 1905 and chapters 472, 606 and 607 of the Laws of 1906, as heretofore otherwise amended.

"Railroad."

7. The word "railroad" to mean the part of the general contract agreed by this contract to build, including the station and all appurtenances thereto used in conjunction therewith, and all appurtenances thereto constructed or provided by the Contractor.

8. The words "pipe galleries" to mean all galleries, ways, sewers, gas or water pipes, electric wires and other subterranean ducts which the Contractor agrees by this contract to build as part of the railroad.

9. The words "the works" to mean all of the matters and things to be furnished or done by or on the part of the Contractor.

"New York."

10. The words "New York" to mean The City of New York and its boundaries at the date of this contract.

"Daily Newspaper."

11. The words "daily newspaper" to mean any paper regularly published in The City of New York on every day or every day except Sundays and holidays.

"Notice."

12. The word "notice" to mean a written notice. The word "direction" to mean a written direction.

Legal Address of Contractor. Address May Be Changed. Service Upon Contractor Personally.

The address given in the bid or proposal upon which this contract is founded is hereby designated as the place where all notices, directions and other communications to the Contractor shall be certified, mailed or delivered. The delivering at the above-named place or depositing in a postpaid wrapper directed to the above place, in any post office box regularly maintained by the post office, of any notice, letter or other communication to the Contractor, shall be deemed sufficient service thereof upon the Contractor. Such address may be changed at any time by an instrument in writing executed and acknowledged by the Contractor and delivered to the Board. Nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, direction or other communication upon the Contractor personally.

Contractor Responsible for Acts of Sub-Contractor's Employees.

If the Contractor shall cause any part of this contract to be performed by a subcontractor the provisions of this contract shall apply to such subcontractor and his officers, agents and employees in all respects, as if he and they were employees of the Contractor; and the Contractor shall not be in any manner thereby discharged from his obligations and liabilities hereunder, but shall be liable hereunder for all acts and negligence of the subcontractor, his officers, agents and employees as if they were employees of the Contractor. The employees of the subcontractor shall be subject to the same provisions hereof as employees of the Contractor; and the work or materials furnished by the subcontractor shall be subject to the provisions hereof, as if furnished directly by the Contractor.

Board May Disapprove Sub-Contractors.

The Contractor, before making any subcontract of the work, shall state in writing to the Board the name of such subcontractor, the portion of the work which such subcontractor is to do or the materials which such subcontractor is to furnish, the place of business of such subcontractor and such information as the Board may require to enable it to know whether such subcontractor is able competently to do the work or provide the materials. The Board shall have the right upon reasonable grounds to require the Contractor not to award any subcontract to a person disapproved by the Board.

II.—WORK TO BE DONE, PRICE, ETC.

Work to be Done.

The Contractor shall at his own cost and expense, and in strict conformity with the specifications hereinafter contained and called the Specifications, and also in strict conformity with the plans which are made a part hereof and with all the provisions of this contract, whether included in the Specifications or not, furnish all the materials and labor necessary and proper for the purpose, and, in a good, substantial and workmanlike manner, construct and provide the railroad, including therein all side-tracks, switches, cross-overs and other appurtenances as hereinafter specified.

Construction Includes Sewer and Other Incidentals.

In order to construct the railroad it will be necessary to take up and relay the pavement or other surface material, to protect and support during construction all buildings and other structures, including their foundations, and all elevated and surface railways, water mains, gas pipes, electric subways, pneumatic tubes, steam pipes and other surface and subsurface structures, together with their necessary connections, as the same may be met with along the route; to build sewers both along the route and other streets; to make or remake the necessary manholes, catch basins and other sewer connections therewith; to move, alter, readjust or rebuild water mains, gas pipes, electric subways, pneumatic tubes, steam pipes and other subsurface structures, together with their necessary connections; and to do all such additional and incidental work as may be necessary for the completion of the railroad and the reconstruction and restoration of the street pavements or other surfaces adjacent to the route of the railroad, and which may have been directly or indirectly disturbed by the Contractor in the progress of the work of construction, to as useful and good a condition as existed before construction shall have been begun. All such work of every description, including underpinning wherever necessary, of all buildings of whatsoever nature, monuments, elevated railways and surface railways affected by or interfered with during the construction of the railroad, is part of the work which is included in this contract and which the Contractor agrees to perform.

Price for the Railroad Construction.

The City shall pay, and the Contractor shall receive for the construction of the railroad, including the incidental work above mentioned, the sum of (\$ _____) subject to modification and the conditions in this contract prescribed.

Pipe Galleries to be Constructed.

[The Board has included in the detailed plans and specifications hereinafter mentioned, provisions for pipe galleries. The Contractor, in addition to the work of construction of the railroad, shall also, at his own cost and expense, and in strict conformity with the said plans and specifications, and with all the provisions of this contract, whether included in the specifications or not, furnish all the material and labor necessary and proper for the purpose and in a good substantial and workmanlike manner construct and provide the pipe galleries with all appurtenances thereof along such of the above sections as is or are included in this contract.

Price for Pipe Galleries.

The City shall pay and the Contractor shall receive for the construction of the pipe galleries (in addition to the above payment for the construction of the railroad) the sum of (\$ _____) Dollars (\$ _____) subject to modification as hereinafter provided and to the conditions in this contract prescribed.

Included in Pipe Gallery Construction.

the pipe galleries as herein specified shall include (1) the materials necessary for and included in the construction of the pipe galleries; (2) all excavation of earth and rock necessary for the construction of the pipe galleries, outside of the railroad, that would not otherwise be excavated; (3) the relaying of all electric ducts or ways in existence at the time of the construction (excepting the ducts of street railroads) that it is necessary to remove and relaying, and the furnishing and laying of such additional materials as may be necessary for the proper and convenient operation of the railroad; and (4) the construction of such additional work as may be necessary for the proper and convenient operation of the railroad.

Provisions of This Chapter Apply to Pipe Galleries.

The provisions of this contract, except where by the context it is clearly intended, shall be construed to apply to and include both the construction of the railroad and the construction of pipe galleries.*

Right of Board to Amplify Plans, to Require Extra Work, etc.

The Board shall have the right, during the progress of the work, to amplify the plans, to add explanatory specifications and to furnish additional specifications and drawings. The Board shall also have the right by notice to the Contractor, to require additional work to be done or additional materials to be furnished, or both, or to require work or materials herein specified or provided for to be omitted; provided, however, that the amount of work and materials called for by this contract shall not be so increased or diminished as substantially to alter the general character or extent of the work proposed.

Payment for Extra Work, etc.

If additional work or materials shall be so required, then the reasonable value thereof shall be additionally paid to the Contractor. If work or materials herein specified or provided for shall be so required to be omitted, then a reasonable deduction shall be made in the manner hereinafter provided from the amount to be paid to the Contractor for construction.

The location of ventilating shafts or chambers, as stated in the specifications, or as shown in the detailed plans, may in like manner be changed, or ventilating shafts or chambers may be added or omitted at any time during the progress of the work, the Contractor receiving additional payments as above provided in case additional work is thereby made necessary, or a deduction being made in case diminution of work is caused thereby.

* The five paragraphs in brackets are to be omitted in case the bid for constructing pipe galleries is rejected.

Beauty of Material as Well as Efficiency.

The railroad system of which the Railroad constructed under this contract forms a part, will constitute a great public work. All parts of the structure where exposed to public sight are, therefore, designed and shall be constructed with a view to the beauty of their appearance, as well as to their efficiency.

Contractor Bound to Complete in Best Manner.

The Contractor shall complete the entire work in accordance with the specifications and contract drawings and according to the other provisions of this contract and within the times specified in this contract, in the most workmanlike manner and with the highest regard to the safety of life and property and according to the lines, levels and directions given by the Engineer, for the prices hereinbefore agreed upon; except that for extra work, if any, ordered by the Board there shall be additional payment, and except that for part or parts of the works, if any, omitted, there shall be a deduction from the contract prices, all as hereinbefore provided.

Best Materials, Machinery, Tools, etc., to Be Used.

The Contractor is to furnish of the best description all materials, machinery, implements, tools and labor necessary to construct and put in complete working order all work covered by the specifications, contract drawings and other provisions of this contract, including all additional specifications, drawings and details issued or required as hereinbefore provided.

No Acceptance to Obviate the Necessity for Sound Work, etc.

No acceptance of any part of the works or of materials therefor shall relieve the Contractor of his obligation to furnish sound material and perform sound work, whether with respect to such part or to any other part of the works.

Inspection.

The Board contemplates, and the Contractor hereby approves, the most thorough and minute inspection by the Board and its Engineer, and by their representatives or subordinates, of all work and materials and of the manufacture or preparation of such materials from the beginning of construction to the final completion of the works. It is the intention of the Board that its Engineer shall draw the attention of the Contractor to all errors or variations from the requirements of this contract or other defects in workmanship or materials. But it is expressly agreed that no omission on the part of the Board or its Engineers or any officer, member or subordinate of the Board to point out such errors, variations or defects shall give the Contractor any right or claim against the City or shall in any way relieve the Contractor from his obligations according to the terms of this contract.

Contractor to Afford Facilities for Inspection.

The Contractor shall at all times give to the Board and its members, to the Engineer and the assistants and superintendents under the Engineer, and any person designated by the Board or its president, all facilities, whether necessary or convenient, for inspecting the materials to be furnished and the work to be done under this contract. The members of the Board, the Engineer and any superintendent, assistant or other person bearing his authorization or the authorization of the Board or its president, shall be admitted at any time summarily and without delay to any part of the works or to inspection of materials at any place or stage of their manufacture, preparation, shipment or delivery.

Substitute for Chief Engineer.

Any Engineer substituted by the Board in place of the Chief Engineer during his absence, illness or inability or when the Board shall so determine, shall, during his official connection, have all the power and authority of the Chief Engineer, and in all respects be recognized as such Chief Engineer.

Work to be Subject to Approval of Engineer.

The work is to be done and the materials are to be furnished subject to the direction and approval of the Engineer. The Contractor shall promptly obey and follow every direction which shall be given by the Engineer, including any direction which he shall give by way of withdrawal, modification or reversal of any previous direction given by him. If any additional specification be prescribed or additional drawing be required to be followed, or additional detail required, or if any question shall arise as to the quality, character or amount of materials or work, or as to the obligation of the Contractor to do any particular work or furnish any particular materials, or as to the value of any additional work or materials required by the Board, as to the deduction to be made from the contract price by reason of any materials or work directed by the Board to be omitted; or if any other dispute, question or doubts as to what is the obligation of the Contractor shall arise prior to the time of the complete

construction of the work and the declaration thereof by the Board, the determination of the Engineer shall be binding upon the Contractor and the City, so far that the Contractor shall proceed or refrain from proceeding, as the case may be, and without any delay obey the requirement of the Engineer.

*III.—ARBITRATION BETWEEN CITY AND CONTRACTOR.**Appeal from Engineer's Determination. Mode of Review. Arbitration.*

Either the Contractor or the City may appeal as hereinafter provided from any determination of the Engineer as to the reasonable value of any work or materials additionally required by the Board as aforesaid or omitted as aforesaid, or as to the question whether the Contractor is entitled to additional payment for anything additionally required by the Engineer, whether upon additional specifications or drawings or in the way of additional details as aforesaid, or otherwise as herein provided, or as to the question whether the City is entitled to a deduction from the amount payable to the Contractor according to the terms hereof. In every such case the Engineer shall make his determination in writing and in duplicate, one duplicate to be filed with the Board and the other duplicate to be delivered to the Contractor. Such determination as to work done or materials supplied shall be binding upon the City unless the Board shall appeal within ten days after its next meeting after such determination shall be filed with it and notice of such filing shall be given to its president; and shall be binding upon the Contractor, unless the Contractor shall appeal within ten days after the same shall be delivered to him. The appeal shall be taken by a written notice addressed, if the Board be the appellant, to the Contractor, or if the Contractor be the appellant, then in duplicate, one to the president of the Board and one to its secretary. The notice of appeal shall state the determination appealed from, the ground of appeal, and the precise award or redress desired; and shall include the appointment of an arbitrator on the part of the appellant with a written undertaking on the part of the arbitrator to act. Within ten days after the receipt of a notice of appeal the party receiving the same shall appoint an arbitrator, and give written notice to the party appealing of such appointment, with a written undertaking on the part of the arbitrator to act. If the party against whom the appeal is taken shall not so nominate an arbitrator who shall so accept, and give such written notice thereof with such written acceptance of such arbitrator, then the arbitrator named by the party appealing shall be the sole arbitrator. Either party may, by a general notice to the other, appoint a standing arbitrator for such party. In case of such standing appointment such arbitrator shall be deemed to be appointed upon each appeal without specification of his appointment upon the appeal. Any vacancy in any office of arbitrator shall be filled by the party which shall have appointed the last incumbent thereof within ten days after the notice of the vacancy, during which ten days the running of other periods of time prescribed for or in course of the arbitration shall be suspended. If not so filled, or if notice of the appointment be not given within such ten days, the remaining arbitrator shall be the only arbitrator. Within five days after the appointment of its arbitrator by the party against whom the appeal is taken or, if there be a standing arbitrator for such party, then after ten days, but within fifteen days after the notice of the appeal is given, the arbitrators, or if the party against whom the appeal is taken shall be in default in appointing an arbitrator, then within five days after such default the arbitrator named by the party appealing, shall proceed summarily, and upon two days' notice to both parties, to hear such evidence or statements, oral or written, as may be produced. Such hearing shall be finished within five days after such hearing shall begin unless extended by order of the arbitrator or arbitrators; and within five days after finishing such hearing the determination of such arbitrators or arbitrator shall be made. But if within such five days the arbitrators (in case of two arbitrators) shall fail to agree upon and make an award, then they shall forthwith so certify to the Board and the Contractor, and the controversy shall, with the concurrence of one of the arbitrators, be determined by an umpire to be nominated by the executive committee for the time being (or the committee thereto corresponding) of the Chamber of Commerce of the State of New York, or if within three days after being notified by either of the parties hereto of such failure the said committee shall not make a nomination, then by an umpire to be named by the executive committee for the time being (or the committee thereto corresponding) of the Association of the Bar of the City of New York. The umpire shall hear the parties, their counsel, the statements of the arbitrators and the statements and evidence received by them, or such of them and so much thereof as may appear or be submitted to the umpire upon ten days' notice to the parties. Such notice shall be given within three days after the nomination of the umpire. The hearing by the umpire shall be concluded within five days unless extended by order of the umpire. His award shall be made within five days after the hearing before him is concluded, and shall be effectual if concurred in within such five days by one of the arbitrators. Every determination by the arbitrators or arbitrator and umpire shall be in writing in duplicate, one to be delivered to the secretary of the Board and the other to the Contractor. The executive (or other corresponding) committee of the said Chamber of Commerce and the executive (or other corresponding) committee of the said Association of the Bar may, upon the joint request of both parties, from time to time nominate a standing umpire, or a standing board of three experts. Such standing umpire or standing board of experts shall, upon every arbitration where an umpire is required, be such umpire, and a decision or determination by a majority of such board of experts shall be the decision of the umpire. The days for notices and other proceedings shall be exclusive of Saturdays, Sundays and holidays. All fees and expenses of arbitrators and umpires shall be borne and paid equally by the City and the Contractor, by both of whom every such arbitrator and umpire shall be deemed to be employed. Every such arbitrator and umpire (including members of any board of experts) shall, before proceeding to hear the testimony or to consider the matter, be sworn as nearly as may be in the same manner as referees in actions at law are required to be sworn. Every such arbitrator, umpire or expert shall be a disinterested person.

No Estoppel.

Neither the City nor the Board shall be precluded or estopped by any return or certificate made or given by the Engineer (if unappealed from) or by the Board, or by any other officer from showing at any time (either before or after the completion of the railroad and payment therefor pursuant to any such return or certificate) the true and correct amount and character of the work done and materials furnished by the Contractor, or any other person under this agreement, or from showing at any time that any such return or certificate is untrue and incorrect, or improperly made in any particular, or that the work and materials, or any part thereof, do not in fact conform to the specifications; and the City shall not be precluded or estopped, notwithstanding any such return or certificate and payment in accordance therewith, from demanding and recovering from the Contractor such damages or other legal remedy as it may be entitled to by reason of the Contractor's failure to comply with this contract and the specifications forming a part thereof.

Vouchers for Extra Work.

The Contractor shall become entitled to additional payment for extra work only upon the production of the certificate and determination of the Engineer if unappealed from, or, if so appealed from, then only upon and according to the final award of arbitrators, or arbitrator and umpire as aforesaid; it being expressly agreed that the City shall make no additional payment to the Contractor except upon vouchers which include such certificate and determination unappealed from, or if appealed from, then such certificate and determination with such final award as a condition precedent to payment and that no payment shall be made in any such case inconsistently with such final award.

When City Entitled to Abatement of Price.

The City shall not be entitled to claim any abatement from the contract price by reason of diminution in the amount of work required, delay in completion or otherwise except upon the certificate or determination of the Engineer unappealed from as aforesaid, or, if so appealed from, then upon the certificate and award of the arbitrators or arbitrator and umpire as aforesaid.

In Case Arbitration Cannot Validly be Had.

Provided, however, and it is expressly agreed, that, if in any case, or for any reason, an arbitration cannot validly be had as aforesaid, then the City or the Contractor, after having appealed from such determination and being in no way respon-

sible for failure of the arbitration, may prosecute such appeal or review such determination in or by any proper suit or proceeding.

IV.—SPECIFICATIONS.

Specifications and Drawings Subject to Requirement of Railroad of Highest Grade.

The specifications and contract-drawings hereinafter mentioned and taken in connection with the other provisions of this contract, are intended by the Board to be full and comprehensive, and to show all the work required to be done. But in a work of this magnitude it is impossible either to show in advance all details, or to precisely forecast all exigencies. The specifications and contract-drawings are to be taken, therefore, as indicating the amount of work, its nature and the method of construction so far as the same are now distinctly apprehended. The railroad is intended to be constructed for actual use and operation as an interurban railroad of the highest class, adapted to the necessities of the people of The City of New York. The Contractor shall construct and complete the railroad in the best manner, according to the best rules and usages of railway construction, and if in the specifications or contract-drawings or in the provisions of this contract, any detail or other matter or thing requisite for such construction be not mentioned, nevertheless the same is deemed to be included, and the Contractor hereby undertakes to do the same as part of his work hereunder. And it is expressly agreed that the price to be paid the Contractor as herein prescribed includes full compensation for every such detail, matter and thing.

Where Text of Contract Doubtful, Best Materials and Workmanship Required.

In the event of any doubt as to the meaning of any portion or portions of the specifications or contract-drawings, or of the text of the contract, the same shall be interpreted as calling for the best construction, both as to materials and workmanship, capable of being supplied or applied under the then existing local conditions. This provision, by way of illustration (but of illustration only), implies the requirement that the interior surface of every part of the tunnel containing the railway shall be entirely free from percolation of ground or other water from without; the requirement throughout of a structure whose component parts shall be of as permanent and durable a character as practicable; the requirement that the steel and such other parts of the structure as are liable to rust and decay shall be fully protected from such action. All the clauses of the specifications, and all the parts of the contract-drawings, are, therefore, to be understood, construed and interpreted as intending to produce the results hereinbefore stated.

The plans referred to in the specifications hereinafter contained are eleven in number, bear date May 9, 1907, are each countersigned by the Engineer, are stamped with the seal of the Board and bear the general title, Route No. 9-O-5, Contract Drawing No.

The sheets are numbered as follows: Nos. A-6, B-1, B-13 and B-14; and C-1 to C-7, both inclusive.

Plans and Contract Drawings.

The sections and dimensions of all parts shown on the contract-drawings are typical sections and dimensions applicable to the greater part of the work, and where no extraordinary conditions exist. Where such conditions do exist, or where unforeseen contingencies arise, such as the encountering of quicksand or other bad material, or when there are buildings, monuments or other structures whose foundations are of such character as to bring an undue thrust upon the tunnel, or other similar circumstances exist, then and in every such case the Board may issue such special plans, duly countersigned by the Engineer, and accompanied by specifications explanatory thereof, or describing the method of construction, changing the sections or the dimensions of the parts or the materials of the structure; and such special plans and specifications when so issued shall be binding on the Contractor as though originally contained in this contract, and shall not be made the basis of any claim for additional payments for extra work.

Supplementary Drawings.

In addition to the contract drawings already mentioned, the Board has had prepared a set of maps and plans, bearing the same seal and general title as the contract drawings, but designated as supplementary drawings, which are signed by the Engineer and marked Nos. D-8 and D-9, and E-22 to E-26, both inclusive. These supplementary drawings exhibit certain information which the Board has received from its Engineer of the nature of the soil underlying portions of the route, the nature and position of elevated and surface railways, water mains, gas and other pipes, sewers, electric subways, manholes, hydrants, catch basins and other surface and subsurface structures. The supplementary drawings have been exhibited to the Contractor without any guaranty on the part of the Board as to their completeness or correctness; and the Contractor may, at his option and at the expense of the Board, have copies thereof for such aid, if any, as the Contractor may derive from them. If, upon opening the streets by tunneling or otherwise, difficulties of any nature be encountered which are not indicated or suggested by the supplementary drawings, or if additional surface or subsurface structures or obstructions be discovered or found of different size or in different positions or of different nature from those shown on the supplementary drawings, or if in any way such supplementary drawings be found erroneous, the Contractor shall have no claim whatever for any such failure, discrepancy or error, but is to take every necessary or proper precaution to overcome the unforeseen difficulty, and is to take care of, protect, remove, adjust or readjust, as the case may be, the additional or different surface or subsurface structures according to the direction of the Engineer.

Specifications Not Exclusive.

It is expressly understood that the specifications do not include all requirements, but are requirements in addition to those heretofore or elsewhere given or provided in this contract. The specifications and other provisions of this contract, and the contract drawings, are intended to be explanatory of each other. Should, however, any discrepancy appear or any misunderstanding arise as to the import of anything contained in either, the explanation of the Engineer shall be final and conclusive, except that upon any claim by the Contractor that he has been called upon to do work or furnish materials in excess in quantity or value of those called for by the terms of this contract, he shall be entitled to appeal and to a determination by arbitrators or by an arbitrator and umpire, as hereinbefore provided, and to a correction by way of money allowance to it of any error of the Engineer.

These specifications are grouped in subdivisions as follows:

1. Description of the Work.
2. Manner of Prosecution.
3. Excavation.
4. Backfilling.
5. Piling and Timbering.
6. Masonry.
7. Cement.
8. Mortar.
9. Concrete.
10. Brick Masonry.
11. Stone Masonry.
12. Waterproofing.
13. Drains and Pumps.
14. Steel and Iron.
15. Painting.
16. Ducts.
17. Sewers.
18. Water Mains.
19. Paving.
20. Maintenance of Street Railway Tracks, Mains and other Surface or Sub surface Structures.
21. General Clauses.

I. DESCRIPTION OF THE WORK.

The work to be done under and in accordance with the contract and these specifications is the construction of a part of the rapid transit railroad known as Route No. 9, which is described in the routes and general plan.

It is to be an underground railroad or subway having four tracks along and under Delancey street, the centre line of which will begin at a point on the centre line of Delancey street about 225 feet east of the centre line of the Bowery and run thence easterly along Delancey street to a junction with the westerly end of the Manhattan subway station of the Williamsburg Bridge that is now under construction by the Department of Bridges, at a point about 155 feet west of the westerly line of Norfolk street. Suitable turn-outs and cross-overs are also to be constructed as indicated on the contract drawings.

The above description of the line is in general language, but the locations of the various tracks, junctions, grades, etc., are set forth more particularly on the accompanying contract drawings.

Surface and Subsurface Structures.

In addition to the construction of the station and railroad tracks, it will be necessary to construct or reconstruct certain sewers, together with house and other sewer connections, and to adjust, readjust and maintain railways, pipes, subways and other surface and subsurface structures, and to relay the street pavement, both on streets occupied by, and on streets other than those occupied by, the route of the railroad.

Ventilating Chambers and Gratings.

In order to provide for a frequent renewal of air in the railroad, chambers for the installation of the necessary ventilating devices, shall be built at the sides of the railroad and in connection therewith. These chambers shall be generally of the form and dimensions as shown on the plans, varying somewhat with the requirements of local conditions. They will be so arranged that the air will discharge through gratings placed generally in the sidewalks in the roofs of the chambers. If, owing to local conditions, it becomes necessary to lead the air to gratings or other outlets away from the chambers, suitable air-ways, ducts or flues shall be constructed.

The chambers will also be provided with suitable doors or openings from the railroad, and with ladders reaching to the street for use as exits in cases of emergency.

Pipe Galleries.

Pipe galleries or ways will also be constructed over, or on one or both sides of the railroad, as provided in the contract and as indicated on the plans.

The Contractor shall place in the galleries provided therefor all pipes and other subsurface contrivances that properly belong therein, at such places as indicated on the plans or as otherwise provided in this contract, and shall relay where necessary all electric ducts or subways of every nature, and shall do all work necessary to restore all services of every nature that exist at the time of executing this contract.

Drained and Ventilated.

The galleries are to be adequately drained by pipe connections with the sewers wherever convenient, fitted with the necessary traps, back pressure valves and vents to prevent sewer gases entering the galleries; they are also to have the necessary gratings or other openings to obtain thorough ventilation.

Manholes.

At the cross streets, and at other places convenient for such construction, at intervals of about one hundred (100) feet, manholes for access to the galleries will be constructed, of form and dimensions to afford proper facilities for the convenient handling of pipes and other accessories.

Sewers Not in Galleries.

Sewers will not be placed in the galleries; but, if necessary, sewer manholes having sealed covers, will connect with the galleries for convenient access thereto.

Ducts and Duct Manholes.

The ducts to receive electric wires or cables will be placed generally as shown on the contract drawings, and suitable manholes for drawing and splicing the wires or cables and for other work necessary in connection therewith, will be built, generally at the intersection of the cross streets.

Waterproofing.

The galleries and manholes shall be waterproofed as shown on the plans.

Trolley Rails Provided.

One or more trolley rails or tracks shall be provided, attached to the roof of the galleries, in accordance with detailed plans to be furnished, for the convenient handling and transportation of pipes and materials.

Ends of Work Bulkheaded.

At the ends of the railroad near Pearl street and at Park row, if so ordered by the Engineer, substantial waterproofed bulkheads shall be erected to protect the work and to prevent settlement of the streets, etc., and the Contractor shall keep the railroad entirely free from water until its final acceptance by the Board.

Proper provision must be made as directed by the Engineer for suitable connections or junctions with other sections of Route 9-O; and with the Manhattan subway station of the Williamsburg Bridge; and where the other sections are finished in advance of this contract all work necessary for making such connections in a perfect manner must be done and the connections made.

Lines and Grades.

During the progress of the work the Board will give, through the Engineer, to the Contractor, suitable points, marks or benches, indicating the line and grade of the railroad and of the sewers; such points or bench marks to be established at such intervals as the Engineer deems necessary for the Contractor to be able to perform his work.

Detailed Drawings.

The Engineer will prepare and furnish to the Contractor, from time to time as required, drawings and plans amplifying such details of the contract drawings as may be necessary, and drawings and plans necessary to show the adjustment and reconstruction of all surface and subsurface structures wherever the reconstruction of the same is necessitated by the construction of the railroad. These plans must be strictly followed by all parties concerned, unless local conditions should develop, during construction, suggesting changes, when, with the approval of the Engineer, such changes may be permitted.

Working and Shop Drawings.

The Contractor shall make all working or shop drawings which may be required in addition to the contract drawings, or in addition to such other drawings as the Board may issue in amplification of such contract drawings, as explained above. All working or shop drawings shall be submitted in duplicate to the Engineer for his approval, which approval shall be indicated by his countersigning one set of such working or shop drawings and returning the same to the Contractor. Should the working or shop drawings be not in accordance with the contract drawings and specifications, then the Engineer shall return one set of such working or shop drawings, with the necessary corrections and changes indicated thereon; and the Contractor must make such corrections and changes and again submit plans in duplicate for the approval of the Engineer; and no work shall be done upon said working or shop drawings until the approval of the Engineer be obtained, except as specified below. In the event of the Engineer failing to take any action within ten (10) working days after delivery to him at his office of such plans in duplicate, such failure shall be taken as equivalent to approval, and the Contractor shall be entitled to proceed exactly the same as if one set had been returned to him with the Engineer's approval indicated by his signature.

2. MANNER OF PROSECUTION.

Permits.

No work shall be begun until the Board shall issue to the Contractor a permit authorizing him to proceed. Such permits are to be in such form and cover such sections of the work as the Board shall prescribe.

Before any opening is made in the surface of a street, a copy of the permit issued by the Board must have been filed with the Borough President not less than five days, unless the Chief Engineer shall expressly direct work to begin within a less period.

Rapidity and Safety.

All the work shall be prosecuted in the manner, according to local conditions, best calculated to promote rapidity in construction, to secure safety to life and property and to reduce to the minimum any interference with the public travel.

Width of Excavation.

Special care must be taken to diminish damage wherever open excavation is permitted, and the width of such excavation must not exceed the width actually necessary, in the opinion of the Engineer, for the proper prosecution of the work.

Night Work.

Wherever, in the judgment of the Engineer, subject to review by the Board, traffic or other local conditions demand, the work shall be prosecuted during the night only or during both day and night; and at all points the Board shall have power to require the Contractor to so conduct his work that it shall not remain open or obstruct traffic an unreasonable length of time. In addition to the above general requirements the Contractor shall conduct his work in compliance with the following special requirements:

Work Begun.

Work of excavation shall not be begun at any point until the Contractor has given reasonable assurance to the Engineer in writing that the material needed for construction at such points has been acquired and is on hand.

Shafts and Dumping Platforms.

Plans showing the proposed location, and proposed methods of construction, of shafts, dumping platforms, etc., must be submitted to the Engineer and receive his approval before permits will be granted for such plant and appliances to be constructed and put in operation.

Number of Shifts.

When construction has been begun the same shall be prosecuted with all possible energy, with at least two (2) shifts of eight (8) hours each every working day.

Street Intersections.

On all parts of the work, street intersections must be kept at all times open to traffic for at least one-half the width of the cross-town roadways, and such other portions of the street intersections as may be opened by the permission of the Board must be kept substantially and neatly bridged for foot traffic; and the Contractor shall at all times keep all the street crossings on the lines of the sidewalks in a clean and neat condition, bridging gutters and low places where water might collect.

Excavation, Where to be Covered.

Express permission is hereby given to construct the works by open excavation within the limits of the parkways along the centre line of Delancey street; but this permission shall not be construed as extending to the roadway or sidewalks either of Delancey street or the intersecting streets. The surfaces of the said roadway and sidewalks, wherever excavation is necessary, shall be kept substantially boarded over wherever excavation is in progress unless otherwise specially permitted by the Board, and the work of covering the street surfaces must be prosecuted as much as possible during the night or at times of least traffic, and all necessary facilities are to be furnished by the Contractor for the benefit of street travel, both on longitudinal and cross streets.

Access to Buildings, etc.

No building shall, without the consent of the occupant, and after notice to the Engineer, be deprived of means of access thereto; and, where streets are open, proper and easy means for passengers to reach or leave street cars shall be maintained.

Vaults Disturbed.

Wherever vaults are broken through or otherwise disturbed, the Contractor shall erect a temporary partition on or about the building line, or as directed, that will afford proper protection to the owner or occupant of the adjoining premises.

Temporary Pipes, etc.

Temporary water and gas pipes, if laid above the street or sidewalk surfaces, must be neatly and substantially placed, and in a manner to cause the minimum of inconvenience to the abutting property owners and to the public.

Openings for Ventilation.

Wherever the excavations are boarded over, suitable openings must be provided for proper ventilation where gas pipes are maintained in service or where gases are liable to accumulate under the roadway. These openings will be placed as directed by the Engineer, and they must be substantially protected in order to prevent accidents.

Close Observance of Above Conditions.

The Board will insist on the close observance of the requirements of the above conditions in reference to keeping certain portions of the streets covered during the prosecution of the work, and that ordinary travel be not interfered with excepting at such time, and in such manner, and in such places as the Engineer (subject to the review of the Board) in writing may permit.

Restoration of Street Surfaces.

As the structural work nears completion on the several parts of the route it will be necessary to restore the parkways, the street surfaces and the sidewalks to their original condition. It will then become necessary to remove the temporary street coverings, in order to complete the backfilling, and to build and readjust such appurtenances of subsurface structures as will necessarily come to the surface.

Such work must be done expeditiously, and only at night if so directed by the Engineer and during such hours as he may designate. It must be done as directed by the Engineer from time to time, and in sections of such limited extent as will permit its proper execution, and at the same time interfere least with the general street travel and with the convenience of the abutting property owners. In all cases, however, at least one-half of the roadway where such work is being done must be kept open for public traffic.

3. EXCAVATION.

Access to Fire Hydrants.

Wherever the work is being carried on free access must be given to every fire hydrant and fire alarm box, and when required hydrants shall be extended by suitable tube or piping to an accessible point as approved by the Engineer, and to the satisfaction of the Chief of the Fire Department. Materials must not be piled at any time or place within ten (10) feet of any fire hydrant or fire alarm box; and where materials are unavoidably piled or placed in the vicinity of a fire hydrant or fire alarm box, and to such height as to obscure a sight of the same, the position of such hydrant or fire alarm box shall be indicated by suitable signals, both day and night.

Depth of Trenches.

Trenches shall be excavated to such depth as may be necessary to permit the laying of such concrete bed or special foundation as may be deemed necessary by the Engineer.

Material Stored.

Excavated sand, gravel or stone that in the judgment of the Engineer is suitable for use in mortar, concrete or masonry, may be stored and used in the work.

Unless specially permitted by the Board no materials of any nature shall be piled along Delancey street. On cross streets adjacent to the work only such material may be stored as may be necessary, in case of an emergency, to sheet or to support the excavation; or a reasonable amount of structural material may be stored such as may be absolutely necessary to avoid delay in construction; but such material must not be allowed to accumulate, but may be replenished from day to day. The amount to be so allowed shall be determined by the Engineer; in no case, however, shall such material be stored in front of an occupied building if objected to by the occupant or owner.

In any case material may only be so stored with the approval of the Engineer, revokable at any time; and if so ordered such material shall be removed immediately on receiving the order, or within a stated period of time.

Material Removed to Riker's Island or Riverside Park.

All excavated material not required for construction of the subway shall, if directed by the Board, be taken to Riker's Island or to Riverside Park, and there deposited, as directed by the Engineer; provided that the work of rehandling at that point, other than dumping, shall be done by the City, and with reasonable dispatch.

Removed Expeditiously.

Excavated material shall be removed expeditiously and disposed of, except as stated above, in any place selected by the Contractor, subject to the ordinances and regulations of the City authorities governing the disposal of such material, and the regulations of the United States Government as to the disposal or dumping of material in and about or near the harbor of New York.

Material Watered.

All material that with the permission of the Board may be left temporarily in the street shall be watered by the Contractor when so directed by the Engineer.

Waste material of any character will under no conditions be permitted to remain on the streets, but must immediately on its becoming unfit for use in the work be carted away and disposed of as the Contractor may desire; nor shall such material be allowed to accumulate in the trenches.

Temporary Tramways.

For the purpose of facilitating construction and to diminish the period of occupancy of any street for the transportation of material, the Contractor may, with the approval of the Board, lay, upon or over the surface of any street, temporary tramways to be used only for the removal of excavated materials and for the transportation of materials for use in construction; provided, however, that any such tramway shall be forthwith removed upon the direction of the Board.

Carts to be Tight.

All carts, buckets or other vehicles used by the Contractor for the removal of material shall be tight and so arranged and so loaded as not to spill over the top. Whenever a cart, bucket or other vehicle so used is leaky or unsuitable it shall be immediately withdrawn from the work on notification by the Engineer, or his duly qualified assistant, in charge of that portion of the work.

Width of Excavation.

All excavations shall be of such width, in addition to that of the railroad, as shall be necessary, in the opinion of the Engineer, for the proper and expeditious progress of the work, and to permit the laying and readjusting of all sewers, mains, subways and other subsurface structures encountered along the route and contiguous to the railroad.

Sides to be Secured.

The sides of the excavations shall be secured against slips by suitable sheet-piling or sheeting, held in place by braces, shores, or waling strips, special precautions being taken where there is additional pressure due to the presence of buildings or other structures; where a movement of the ground might cause the settlement of an adjacent building, if near the building, the sheeting must be started before the elevation of the bottom of the foundation of the building is reached; or if away from the building, at such depth of the excavation as the Engineer may permit; and excavation must not be made in advance of or below the bottom of the sheeting.

Iron Sheet-piling.

Special forms of sheet-piling of iron or steel shall be used if so ordered and considered necessary by the Engineer, which shall be left in position or drawn as directed.

Fill Back of Sheeting.

When sheeting is placed against the sides of the excavation the spaces or voids back of the sheeting wherever possible, and if so ordered by the Engineer, must be immediately and carefully filled with suitable material to prevent as far as possible the natural ground back of the sheeting from moving.

Additional Supports.

The Engineer may order additional braces and supports, and the same shall be promptly put in place by the Contractor. All such sheet-piling, sheeting, bracing, shores and waling strips shall be put in place by workmen especially skilled for that purpose, and shall be so arranged as to permit their being safely withdrawn when the trenches are being backfilled.

Quicksand. Buildings Underpinned.

In the event of encountering quicksand, subsurface streams or similar dangerous contingencies, or where passing especially heavy buildings which by their construction or position might bring a great pressure upon the trenches, the right is reserved by the Board for the Engineer to direct that such buildings shall be underpinned; or that special sheeting shall be driven in such manner and to such depth as the Engineer directs; or that but a short length of trench shall be opened at one time; and furthermore to direct, if necessary, that the same shall be securely sheeted and braced on all sides after the manner of a shaft, and that the permanent work be constructed in such shaft and backfilled before another opening is made; or that pneumatic caissons be used in construction.

Pumping.

Whenever water is encountered in trenches the same shall be removed by baling or pumping, great care being taken when pumping that the surrounding particles of soil be not disturbed or removed. If necessary to prevent such disturbance the pumping must be done by a series of driven wells whose points are protected by fine wire cloths, the rate of flow of each well being made so slow as not to remove the particles of soil; or the pumping must be done by other means approved by the Engineer. The delivery from all pumps shall be conducted into the adjacent sewers, and the delivery pipes shall be so arranged as to be readily inspected at all times to ascertain if the water is free from particles of soil.

Rock Excavation.

There are no indications that rock will be encountered on any part of the work; if, however, rock should be found, or boulders, or old masonry work requiring blasting, the work of removing same shall be carried on as herein provided.

Blasting.

Wherever rock or material requiring blasting is encountered in any trench or tunnel, all necessary precautions must be exercised by the Contractor, as required by the ordinances of The City of New York relative to blasting. Explosives shall be used only of such character and strength as may be permitted by the Board, and the right is reserved for the Engineer to direct that in special cases ordinary blasting powder only, in small charges, shall be used.

Near Pipes and Mains.

Whenever any pipe or main is encountered in the trench, right is reserved to direct that all rock within five (5) feet of the same shall be removed by means other than blasting.

In rock excavation in the trenches for the railroad the work must be so regulated as to avoid, as far as possible, shattering the rock beyond the established lines for excavation.

Reckless and careless blasting causing the rock to break beyond the established lines of excavation will not be permitted.

Rock Measurement.

Whenever rock is encountered in the trench, it shall be stripped of earth in sections of not less than twenty feet; and the Engineer in charge shall be duly notified, in order that he may measure or cross-section the same.

Boulders.

Boulders containing one-half ($\frac{1}{2}$) cubic yard or more or masonry encountered within the lines of excavation will be measured as rock excavation.

Storage of Explosives.

No larger quantity of explosives shall be kept on the line of the work than will be actually required for the twelve (12) hours of work next ensuing, and such supplies shall be divided as far as possible and kept under lock, the key to which is to be only in the hands of the foreman or other equally trustworthy person. The amount of explosives kept in any one place shall not exceed the limit permitted by any ordinance of the City, or as may be determined by the Board. Caps and exploders shall not be kept in the same place with dynamite and other explosives. During freezing weather, special precautions shall be taken as to the care and manipulation of dynamite.

4. BACKFILLING.**Quality of Material. How Placed.**

The trenches at the sides of and over the top of the subway and wherever backfilling is necessary, shall be backfilled with sand, gravel or other good clean earth, free from perishable material and from stones exceeding six (6) inches in diameter, and not containing in any place a proportion of stone of or below that size exceeding one (1) part of stone to five (5) parts of earth. The filling shall be deposited in layers not exceeding nine (9) inches in thickness, and then be well moistened with water and thoroughly packed by suitable rammers, and in such manner that no unbalanced pressure can be thrown upon the subway or any sewer, pipe or other subsurface structure.

At such places as in the judgment of the Engineer, backfilling can not be effectively done as provided above, the material must be placed and compacted by flooding with water.

Surface Structures. Frozen Material Not Permitted.

Whenever pipes, sewers or other subsurface structures are met with, the filling must be carefully packed, rammed and tamped under such subsurface structures, using special tools for the purpose. No filling of trenches with frozen earth will in any case be permitted, nor will any filling be permitted over material that has slipped or fallen in the trenches and then become frozen, until the frost has disappeared and such loose material has been properly rammed or placed as above provided.

Sheeting Removed.

As fast as the work of filling permits, sheeting and other timber supporting the sides of the excavations, as may be directed by the Engineer, shall be carefully withdrawn, and the spaces left by the removal of such material carefully backfilled.

5. PILING AND TIMBERING.**Piles.**

Where the excavation is in wet ground, if in the judgment of the Engineer the ground is of such a character as to require piling, the Board may direct the Contractor to drive piles. Such piles shall be of good, sound oak, pine or spruce, straight and free from shakes; they shall be not less than twelve (12) inches in diameter at the butt end, or less than six (6) inches in diameter at the point, and shall be driven to the satisfaction of the Engineer and by means of a steam hammer driver if so required by him. If necessary, the points of the piles shall be protected by proper shoes, and the butts by rings or caps. Piles shall not be spliced unless permitted by the Engineer, and then in such manner as he directs. Piles shall be carefully cut off to the grade given by the Engineer.

If in the judgment of the Engineer special conditions may so require, piles of reinforced concrete of an approved form of construction shall be used.

Grillage.

Timber grillage foundations shall be built if so directed by the Engineer.

Foundation Timber.

All foundation timber shall be of pine or spruce, or other timber permitted by the Engineer, sound and free from shakes. It shall be of such dimensions, and laid in such manner, as the special plans to be issued shall require, and held in place by spikes or good seasoned oak or locust treenails.

Timber for Temporary Purposes.

All timber used for sheeting, shoring, bracing, bridging or other temporary purposes, shall be sound and free from any defects that may impair its strength. The top or wearing surface of all bridging used for carriageways shall be of oak or hard yellow pine, sound, straight and free from all shakes, and large loose knots. All sheeting and timber used temporarily shall be put in place by skilled mechanics, keyed tight by wedges where necessary, and so arranged as to be withdrawn readily without endangering the adjoining soil.

6. MASONRY.**Laid in Portland Cement.**

All masonry, except as otherwise specified, shall be laid in Portland cement mortar, and shall be built of the forms and dimensions shown on the plans, or as directed by the Engineer from time to time; and the system of joining or bonding ordered by the Engineer shall be strictly followed.

Water not to Interfere With.

Care must be taken that no water shall interfere with the proper laying of masonry in any of its parts.

Freezing Weather.

During freezing weather such masonry only will be built whose construction, in the judgment of the Engineer, can not be postponed, except at the cost of delaying the work. The Contractor must provide such appliances as are necessary for heating the water and the materials used in the masonry according to the specific instructions of the Engineer.

During freezing weather all masonry shall be protected by a suitable covering of salt hay, canvas, tarpaulin or by such material or in such ways as may be necessary to insure it against freezing.

Pointing.

Unless otherwise permitted, every joint that is to be pointed shall be raked out within two days after being laid, to a depth of at least two inches.

Pointing of the face joints of masonry shall be thoroughly made with cement mortar mixed in the proportion of one (1) volume of cement to one (1) volume of sand, except where otherwise specially provided.

No pointing shall be done in freezing weather, and masonry laid between December 1 and April 1, shall not be pointed until permitted by the Engineer.

Hot Weather.

During hot weather all masonry, especially concrete, shall be kept wet by sprinkling and properly covered until it has become thoroughly set and hardened.

Defective Masonry.

Any masonry which is found to be defective from any cause whatever, before the final completion and acceptance of the work, must be removed and properly rebuilt, or if damaged during such time must be properly repaired.

Materials Used.

All materials used in masonry must be of the best quality. All stone before being laid shall be thoroughly cleaned and washed if so directed by the Engineer.

7. CEMENT.**Portland Cement.**

Portland cement, slow or quick setting, as directed, and equal in quality to the best grade of American Portland cement, is to be used, and delivered in well-made casks or such other packages as may be approved by the Engineer.

Brand to be Approved.

Before any cement will be allowed to be used, the brand and name of the maker must be submitted to, and receive the approval of, the Engineer, and no cement will be permitted to be used that is not in all respects satisfactory to him.

Inspection.

All cements used shall be subject to inspection at the place where manufactured, and to such rigorous tests as shall be ordered by the Engineer; preference will be given to cements, however, which, by their records, show a tendency to develop strength steadily for long periods, unless for special purpose cement is required that will develop great strength in a short time.

Cement before being used must pass inspection as to the following requirements:

Fineness.

Ninety-eight (98) per cent. shall pass a No. 50 sieve, ninety (90) per cent. a No. 100 sieve, and seventy-two (72) per cent. a No. 200 sieve.

Tensile Strength.

Neat cement briquettes shall have at the end of one (1) day in water, after hard set, a breaking strength per square inch of sectional area, of not less than one hundred and fifty (150) pounds; at the end of seven (7) days, one (1) day in air, six (6) days in water, of not less than four hundred (400) pounds, and at the end of twenty-eight (28) days, one (1) day in air, twenty-seven (27) days in water, of not less than five hundred (500) pounds.

Briquettes when composed of one (1) portion of cement and two (2) portions of sharp quartz sand (preference shall be given to a natural sand of approved quality), shall have at the end of seven (7) days, one (1) day in air, six (6) days in water, a breaking strength per square inch of sectional area, of not less than two hundred (200) pounds; and at the end of twenty-eight (28) days, one (1) day in air and twenty-seven (27) days in water, of not less than three hundred (300) pounds.

Chemical Analysis.

Chemical analysis will be made from time to time, and cement furnished must show a reasonably uniform composition, sulphur being limited to six-tenths (0.6) of one (1) per cent.

Soundness.

Tests for soundness will be made as follows:

Tests for checking and cracking and for color will be made by moulding on plates of glass, cakes of neat cement about three (3) inches in diameter, one-half ($\frac{1}{2}$) inch thick in the centre, and with very thin edges. One (1) of these cakes when set perfectly hard shall be put in water and examined for distortion or cracks, and one (1) shall be kept in air and examined for color, distortion and cracks. Another cake shall be allowed to set hard in dry air for twenty-four (24) hours and then put in boiling water for twenty-four (24) hours. Such cakes should at the end of the test still adhere to the glass and show neither cracks nor distortion. A briquette, in like manner, shall be allowed to set hard in dry air for twenty-four (24) hours, then boiled for twenty-four (24) hours, be cooled in water and then broken, and show three hundred and fifty (350) pounds tensile strength.

Increase in Strength.

Neat briquettes must show a minimum increase in strength of ten (10) per cent., and sand briquettes twenty-five (25) per cent., from the tests at the end of seven (7) days to those at twenty-eight (28) days.

Methods of Storing.

The Contractor must at all times keep in store, at some convenient point in the vicinity of the work, or at the place of manufacture, should the Engineer so elect, a sufficient quantity of cement to allow ample time for tests to be made, and the Engineer shall be notified at once of each delivery. Cements shall be stored in a tight building, each cask or package being raised several inches above the ground by blocking or otherwise, and ample storage room must be provided so that each separate lot of not more than one hundred (100) barrels can be stored so as to make it convenient to identify each individual lot in case of its rejection, or in case of the necessity for further tests.

Access to Stores.

Access shall be given to the Engineer and properly authorized members of his staff to enter at any time any and all places where cement is manufactured or stored, in order to identify the same, or to inspect the method of manufacturing, storing and protection; all packages shall be properly marked for identification.

8. MORTAR.**Cement and Sand. Mixing.**

All mortar shall be prepared from cement in perfect condition, which has passed the required tests, and coarse, clean, sharp sand, free from loam or foreign matter, and approved by the Engineer. These ingredients shall be thoroughly mixed dry in the proportions as specified below; a moderate dose of water is then to be added, so as to produce a stiff paste of the proper consistency. The mortar shall be freshly mixed for the work in hand, in proper boxes made for that purpose, and no mortar shall be used that has become hard or that has stood beyond such limit of time as may be determined by the Engineer.

How Measured.

In mixing mortar one volume of cement shall be 380 pounds net, and one volume of sand shall be $3\frac{1}{2}$ cubic feet compacted; the proportions by volume shall be, for the various classes of work, as specified below:

Proportions.

Brick masonry, one (1) volume cement, two (2) volumes sand.
 Column footing stones, one (1) volume cement, two (2) volumes sand.
 Stone masonry, one (1) volume cement, two and one-half (2½) volumes sand.
 Pointing, one (1) volume cement, one (1) volume sand.
 Concrete masonry, as specified under the head of concrete.
 For other classes of work, as directed by the Engineer.

9. CONCRETE.**How Composed.**

The concrete shall be composed of sound, clean, screened gravel or sound broken stone, or a mixture of both, free from all dirt and dust, and mixed together with the proportion of mortar specified below.

Sand.

Sand for concrete shall be of the kind herein specified for mortar.

Stone.

Stone for concrete shall be sound screened gravel or sound hard broken limestone, trap rock or gneiss. Gneiss, however, may only be used of selected quality practically free from mica.

Broken stone must be free from all dirt and dust, and shall contain no pieces which will not pass through a ring one (1) inch in diameter, unless otherwise specifically permitted by the Engineer; it shall be screened over ¼ inch mesh screen to remove the dust.

Size of Stone and Gravel.

Gravel shall be screened over a screen having ¼ inch mesh, and shall contain no stone that will not pass through a ring one (1) inch in diameter unless otherwise permitted by the Engineer.

Rubble Concrete.

In concrete where the thickness is thirty (30) inches or more, if approved by the Engineer, the Contractor may imbed in the same broken pieces of sound stone whose greatest diameter does not exceed twelve (12) inches and whose least diameter or thickness is not less than three-quarters (¾) of the greatest diameter. These stones shall be set by hand in the concrete as the layers are being rammed, and so placed that each stone is completely and perfectly imbedded. No two (2) stones are to be within six (6) inches of each other and no stones within four (4) inches of an exposed face, nor shall any such stone be placed nearer than six (6) inches to any metal built in the concrete for reinforcing the same.

Proportions.

The proportions of cement, sand and stone used in making concrete shall be as follows:

Concrete in floor, sidewalls and roof, one (1) volume of cement, two and one-half (2½) volumes of sand and four and one-half (4½) volumes of stone.

Protective concrete outside of waterproofing lines on sides and roof, one (1) volume of cement, three (3) volumes of sand and six (6) volumes of stone; or, one (1) volume of cement and five (5) volumes of sand.

Volume Defined.

In proportioning ingredients for concrete, one volume of cement shall mean 380 pounds net, and one volume of sand or stone shall measure 3½ cubic feet compacted. The sand and stone for each batch of concrete shall be measured in rectangular boxes or frames.

Mixing by Machine.

Whenever practicable, concrete shall be mixed by machine. The mixing-machine shall be of a pattern approved by the Engineer and mixing one batch at a time.

Mixing by Hand.

When concrete is mixed by hand the stone or gravel shall be spread on a platform in a bed about six (6) inches thick, and shall be thoroughly wet. Sand shall be spread on a platform and the requisite portion of cement spread on the sand. After thoroughly mixing the latter, the dry mixture thus formed shall be spread evenly over the bed of stone wet as above, and the whole turned over until thoroughly mixed, but not less than two (2) turnings on the mixing board shall be allowed in any case, water being added as necessary. Care should be taken to keep the bed of concrete wet and avoid piling.

How Laid.

Concrete shall be placed immediately after mixing in layers of such thickness as may be directed by the Engineer, and shall be thoroughly compacted throughout the mass by ramming or working. Special tamping bars or tools shall be used as approved by the Engineer. The amount of water used in making the concrete shall be as approved by the Engineer. If a small amount of water has been used in mixing, ramming shall be continued until the water flushes to the surface; as a rule, however, concrete will be required to be placed wet.

Made Smooth to Receive Waterproofing.

Concrete to which waterproofing is to be applied shall be made smooth at the time of laying and shall be carefully protected from injury by barricades or otherwise, if necessary, until thoroughly set.

Time for Hardening.

Concrete shall be allowed to set for twelve (12) hours, or more, if so directed, before any work shall be laid upon it; and no walking over or working upon it shall be allowed while it is setting. Concrete shall not be flooded with water before being thoroughly set.

Rock Surface to be Cleaned.

Before laying concrete on rock surfaces the latter shall be swept clean of all debris and dirt, and when laid on earth the earth shall in all cases be well rammed before placing the concrete.

Surface Rough for Bonding.

Whenever a section of concrete is necessarily left unfinished, leaving a surface which will be hard set before additional concrete is laid, the surface must be left rough to form a bond with the new work; and in any jointing of old and new work, if deemed necessary by the Engineer, the joints shall be reinforced with steel bars or dowels, and a coating of mortar or cement shall be applied before placing the concrete if so ordered.

Joints Cleaned.

In all cases of joints of old with new work the old surface shall be first thoroughly cleaned and wet.

Forms.

Suitable forms shall be provided by the Contractor to support the concrete while being placed in the walls or roofs. These forms shall be immediately replaced by new ones as soon as they commence to lose their proper shape. Before being used they shall be carefully cleaned of cement and dirt and shall present to the concrete on the surface afterwards exposed to sight, a perfectly smooth face. The forms shall be made of wood, kept carefully smoothed; or made of metal sufficiently thick to retain their shape without the use of wood.

No forms made of wood and covered with iron will be permitted.

The forms if made of wood, shall be made of boards with close-fitted matched joints.

For those faces of the concrete that are to remain exposed the inside faces of the forms that are in contact with the concrete are to be planed in order to give a smooth and even finish to the work, and if so directed by the Engineer these portions of the forms are to be of tongued and grooved boards.

Precautions in Placing.

Every precaution shall be taken in placing or assembling the forms to do so in such a manner that when removed, after the concrete has been placed, the faces of the concrete that are to remain exposed shall present a smooth and even surface. *Forms; How Set. Forms Removed. Surface Irregularities Corrected. Defective*

Work Replaced.

The forms shall be set true to line, firmly secured, and be so tight as not to allow water in the mortar to escape; they shall be thoroughly wet before placing the concrete and shall be removed as soon after the concrete has been placed as in the judgment of the Engineer it may be done with safety to the work. Immediately on the removal thereof the faces that will remain exposed shall be carefully examined and any irregularities of the surface corrected; projections shall be removed and voids filled with mortar. If, however, the voids are such as to indicate an excessive loss of mortar, portions of the concrete shall be cut out to the fullness of such defects and the space refilled with a rich concrete or mortar in such proportions and in such manner as the Engineer may direct.

Surfaces Not to Be Painted.

The exposed faces of the concrete, excepting within twenty-five feet from each end of the work, will not be painted, but will be left with the natural cement finish; therefore, immediately following the removal of the forms, followed by the removal of the projections and the filling of voids as provided above, these entire surfaces shall be rubbed down in such a manner, approved by the Engineer, as will leave a smooth and even surface to receive the final finish.

Exposed Surfaces; How Finished.

All exposed surfaces of concrete except the twenty-five feet at each end of the work, shall finally, and at such time as may be directed by the Engineer, be finished by applying one rather heavy coat of neat cement-wash brushed on.

This coating may be lightened by adding a proper proportion of finishing lime to the cement, or darkened by the addition of suitable coloring matter at the discretion of the Engineer, the object in view being to obtain a generally smooth finished surface with uniformity in color.

The exposed side wall surfaces included in the twenty-five feet at each end of the work, as noted, shall be finished in glass or glazed tile or such other material as may be approved by the Engineer. The corresponding ceiling surfaces shall be finished in cement plaster and Keene cement or other approved material.

10. BRICK MASONRY.**Quality.**

Bricks for all masonry shall be of the best quality hard-burned bricks, burned hard entirely through, regular and uniform in shape and size and of compact texture.

Hollow Terra Cotta Blocks.

Hollow terra cotta blocks or bricks may be used on the outside of walls of structure or at such other places as the Engineer may direct. They shall be of the best porous terra cotta as approved by the Engineer, and shall be laid in such manner as hereinafter specified or as the Engineer may direct.

How Laid.

All brick masonry shall be laid in mortar of the quality above described, except that in exposed locations coloring matter may be added, if permitted by the Engineer. The bricks shall be laid to line with joints in the face work not exceeding one-quarter (¼) of an inch in the beds, and three-eighths (⅜) of an inch on ends; the bricks to be thoroughly wet before laying and to be completely embedded in mortar under the bottom and on the sides and ends at one operation, care being taken to have every joint full of mortar.

All exterior surfaces shall be smooth and regular.

Cleaned.

The inside faces of all arches and other exposed parts shall have all the mortar scraped off and washed clean immediately after the centres have been struck, and shall be pointed and left in neat condition.

No "Bats" or Culls.

All bricks of whatever nature shall be carefully culled and if necessary gauged before laying, at the expense of the Contractor. No "bats" shall be used except in large masses of brick work, where a moderate proportion, to be determined by the Engineer, may be used, but nothing smaller than half bricks.

All unfinished work must be raked back or toothed, as directed by the Engineer, and before new work is joined to it the faces of the brick in the old work must be scraped entirely clean, scrubbed with a stiff brush and be well moistened.

Special Bricks.

Where necessary to make a neat joint in connection with steel framework, or at corners, curves, or other similar places, special bricks of proper shape shall be furnished and used. All centers and forms shall be made to fit the curves of the work; they shall be put up and removed in a manner satisfactory to the Engineer.

11. STONE MASONRY.**Footings for Columns.**

In general columns will be set on a concrete base; in special cases, however, footing stones may be required.

Footing Stones. To Be Set High.

If footing stones for columns are required they shall be of the dimensions and shapes shown on detailed plans, which will be provided; they shall be strong and free from defects, and shall be set in cement mortar. Before being set the tops shall be rough-pointed without chisel draft, the vertical sides shall be left quarry faced, the portion of the top where the column base plate is to rest shall be dressed true with pean hammers, and the top brought to a plane, so that at no point will it be more than one-eighth (⅛) of an inch from a straight edge laid across in any direction. In case the Contractor fails to set the footing stones true to line and surface, then they shall be set with their tops about one-eighth (⅛) of an inch above the grade called for by the plans, and not less than two (2) days after being set they shall have their tops dressed with pean hammers, so as to form accurate seats for the base plates of the columns.

Anchor Bolt Holes.

Holes shall be accurately drilled for anchor bolts, and filled with neat cement mortar after the bolts are set in place.

Columns during erection shall be set on iron shims, if shims are necessary; wooden shims are prohibited.

Where shims are used the voids under column bases shall be filled with cement grout consisting of one volume of cement and two volumes of sand.

Rubble or Other Masonry.

In case, during the progress of the work, any rubble or other masonry of a different class from that specified above, shall become necessary, and shall be required by the Board, the same shall be constructed according to specifications applicable to the best work of such class, and according to the direction of the Engineer.

12. WATERPROOFING.

It is the very essence of these specifications to secure a railroad structure underground which shall be free from the percolation of ground or outside water.

Placing and Protection.

To this end the placing and protection of the waterproofing shall be as herein provided and as shown on the plans.

The protecting masonry shall be hollow terra cotta blocks, common bricks or concrete, laid as herein elsewhere provided, and shall not be less than four inches in thickness.

In places where permanent sheeting is placed at the waterproofing line, the waterproofing, if permitted by the Engineer, may be applied against the sheeting.

All surfaces to which waterproofing is to be applied shall be made as smooth as possible; on these surfaces there shall be spread either hot melted pitch or asphaltum in a thick layer of uniform thickness; on this layer of pitch or asphaltum shall be laid a fabric of such material as may be approved by the Engineer; this process shall be repeated until such number of layers as may be required by the Engineer have been placed and a final coat of pitch or asphaltum shall then be applied.

Definition of Term "Ply."

The term "ply" as used in these specifications shall mean a layer of treated fabric both sides of which shall be coated with pitch or asphaltum at the time of laying.

Number of "Ply."

The number of plys on the sides and under the floor shall in no case be less than three (3) in ground that is quite dry; where there is a water pressure against the masonry equal to ten (10) feet, not less than six (6) plys. Where the water pressure is less than ten (10) feet, such number of plys, between three (3) and six (6), shall be used as the Engineer may direct. The number of plys on the roof shall be not less than four (4).

Brick in Asphalt Mastic.

In all cases over the station roofs, and also against other portions of the structure where the head of ground water is ten feet or more, two plys of waterproofing as described above shall be used, together with one or more layers of bricks laid in asphalt mastic; the number of layers of bricks, not exceeding three, to be determined by the Engineer. Said bricks, before being laid, shall be thoroughly dried and warmed. At all other points where the pressure of ground water is less than ten (10) feet, the Contractor may substitute in lieu of the number of plys, as described above, one (1) ply in hot asphalt, and one (1) or more courses of brick laid in asphalt mastic, as the Engineer shall direct.

Asphalt Mastic.

Asphalt mastic shall contain one-third ($\frac{1}{3}$) pure bitumen, the other ingredients to be sand and lime dust or cement, in proportions governed by local requirements and weather conditions.

Waterproofing Omitted.

In those portions of the structure where the ground is dry the regular waterproofing, excepting on the roof and for a distance of not less than four feet below the roof on the sides, may, if approved by the Engineer, be omitted; in arched cut and cover work waterproofing as called for above may be omitted, at the option of the Engineer, but the extrados of the arch shall be coated with hot pitch or asphaltum of the quality described.

Leaks Stopped.

Any masonry that is found to leak at any time prior to the completion of the work and final acceptance thereof by the Board shall be cut out and the leak stopped.

Quality of Pitch.

Pitch shall consist of either coal-tar or natural asphalt as the Engineer shall select.

The coal-tar pitch shall be straight-run pitch which will soften at 70 degrees Fahrenheit, and melt at 100 degrees Fahrenheit, being a grade in which distillate oils, distilled therefrom, shall have a specific gravity of 1.105.

Quality of Asphalt.

The asphalt used shall be the best grade of Bermudez, Alcatraz or lake asphalt, of equal quality, and shall comply with the following requirements:

The asphalt shall be a natural asphalt or a mixture of natural asphalts, containing in its refined state not less than ninety-five (95) per cent. of natural bitumen soluble in rectified carbon bisulphide or in chloroform. The remaining ingredients shall be such as not to exert an injurious effect on the work. Not less than two-thirds ($\frac{2}{3}$) of the total bitumen shall be soluble in petroleum naphtha of seventy (70) degrees Baume or in Acetone. The asphalt shall not lose more than four (4) per cent. of its weight when maintained for ten (10) hours at a temperature of three hundred (300) degrees Fahrenheit.

Fabric for Waterproofing.

The fabric to be used, together with the pitch or asphaltum for waterproofing, shall have been treated with pitch or asphaltum or another suitable material before being brought on the work. The fabric and the material used in its treatment shall be approved by the Engineer.

Concrete to be Dry.

All concrete shall be dry before waterproofing is attached. If for any reason it is impracticable to have the concrete dry, then there shall be first laid a layer of the treated fabric, on the upper surface of which is to be spread the first layer of pitch or asphaltum; the said layer of fabric shall not be counted as one of the required plys.

Each layer of pitch or asphaltum fluxed as directed by the Engineer must completely and entirely cover the surface on which it is spread without cracks or blow-holes.

Fabric to be Carefully Laid.

The fabric must be rolled out into the pitch or asphaltum while the latter is still hot, and pressed against it so as to insure its being completely stuck over its entire surface, great care being taken that all joints are well broken and that the ends of the rolls of the bottom layers are carried up on the inside of the layers on the sides, and those of the roof down on the outside of the layers on the sides so as to secure a full lap of at least one (1) foot. Especial care must be taken with this detail.

Skilled Labor to be Employed.

None but competent men, especially skilled in work of this kind, shall be employed to lay the waterproofing.

When the finishing layer of concrete is laid over or next to the waterproofing material, care must be taken not to break, tear or injure in any way the outer surface of the pitch or asphaltum.

13. DRAINS AND PUMPS.

Railroad to be Drained.

Every part of the railroad must be arranged so far as possible that any water finding access thereto will be led away automatically to the City sewers.

Where the railroad is on an inclined gradient, and is constructed in dry, porous soil, the floor of the railway may be depended on to act as a conduit. At the bottom of the inclined gradient connections must be made with a sewer or with subdrains lying beneath the railway and draining into the sewers.

Sub-Drains.

Along such parts of the work where the soil is not porous, or where the floor of the railroad cannot, in the judgment of the Engineer, be used as a conduit, there shall be laid, beneath the rail level and on a continuous descending gradient, drain pipes of vitrified salt-glazed stoneware, of the quality described in these specifications for sewer pipe. These drain pipes shall be of such diameter not exceeding fifteen (15) inches, as

the Engineer may direct, and there shall be one (1) such drain for each two (2) tracks. Each drain shall be laid in the concrete or directly in the soil with tight or open joints as directed and in such manner and in such position as, in the opinion of the Engineer, local circumstances require.

Where drain pipes connect with the City sewers, the junction shall be protected by suitable traps and back-pressure valves or gate valves where necessary to prevent back rush of water or gas from the sewers. Connections with the railroad shall be as necessity demands and all as directed by the Engineer. Where the railroad is in rock, or partly in rock, cross drains will be placed at such places and in such a manner as the Engineer shall direct and connected with the main drains.

Sumps.

Whenever the grade of the railroad passes below the bottom of adjacent sewers there shall be constructed a sump connected with the subdrains or the floor of the railroad. Such sump must be water-tight, with a capacity of not less than eight hundred (800) gallons.

14. STEEL AND IRON.

Open Hearth Steel.

The steel used in this work shall be of two grades, medium steel and rivet steel. All steel shall be made by the open-hearth process and may be either acid or basic, with the following maximum limits of phosphorus and sulphur in the finished material:

Phosphorus and Sulphur.

	Acid.	Basic.
Phosphorus limit.....	.07%	.05%
Sulphur limit.....	.04%	.04%

Allowable Tonnage.

All ingots must have sufficient material cut off at the top before being rolled into finished material to insure against piping and possible segregation. When the finished weight from any melt exceeds the designed capacity of any open-hearth furnace from which such melt has been poured, allowing a minimum discard of fifteen (15) per cent. at the roughing mill and an additional scraping of ten (10) per cent. at the finishing mill, such heat shall be rejected.

Required Records.

A copy of all loading slips of rolled material must be furnished the Inspector; also three copies of invoices.

Variation in Weight.

All finished material shall be perfect in all parts and free from irregularities, surface imperfections of all kinds and piping. No variation in the cross-section or weight of sections, as called for by the plans, exceeding two and one-half ($2\frac{1}{2}$) per cent., will be permitted. Material which subsequent to test at the mills and acceptance there develops weak spots, brittleness, cracks or other imperfections, or is found to have any injurious defects, will be rejected at the shops and shall be replaced by the manufacturer without question and at his own cost.

Melt Number.

The original melt number must be painted or stamped on all ingots, blooms, billets and slabs in order to identify the material throughout the various processes of manufacture, and the same melt number must be hot stamped on each piece of finished material, except in the case of rivet steel and small pieces not forming part of the calculated sections, and members which may be shipped in bundles wired together, with the melt number on a metal tag attached and stamped by the department; failure to observe these requirements will be cause for rejection.

Sample Bars.

Two (2) sample bars having a sectional area of approximately three-quarters ($\frac{3}{4}$) square inch shall be cut from the finished product of every melt. These test pieces shall be selected and stamped by the inspector from the finished product and shall only represent the product then rolled; any later rolling on a previously tested heat will be treated as a new heat and tests selected as in previous rolling.

Tests shall be made on all sample bars in their natural state without annealing. Measurements to determine elongation shall be made on an original length of eight (8) inches. When a melt is rolled into several classes or shapes, or different gauges of same class, the material of each class, and lightest and heaviest gauges of same class, shall be separately tested; one (1) test bar sufficing for each class if no wide variation of gauge occurs therein.

The test pieces, when tested in a lever machine, shall for each melt fulfill the following requirements:

Requirements.

	Ultimate Strength, Pounds.	Elastic Limit, Pounds.	Elonga- tion, Per Cent.	Reduction of Area, Per Cent.
Medium steel.....	58,000 to 68,000	35,000	22	44
Rivet steel.....	48,000 to 58,000	28,000	27	54

When required on important material, the elastic limit may be determined by the use of dividers.

The entire fracture shall be silky.

Bending Tests.

One (1) cold bend test shall be made on each melt. In the case of important material, angles shall in full section open flat or bend shut under the hammer without sign of fracture. A strip at least six (6) inches wide cut from universal mill plates, one edge of which shall remain as rolled, and a similar strip from sheared plates shall each bend around its own thickness without sign of fracture. In the case of channels and I beams, where the test piece must be punched out from the web, the ordinary two and one-half ($2\frac{1}{2}$) inch wide test piece will be accepted, when it is mechanically impossible to get a wider strip. In the case of unimportant material, this test may be made on the ordinarily prepared specimen. In the case of rivet steel, the test piece shall close up against itself without showing any crack or flaw.

Duplicate Tests.

Duplicate test pieces, to be selected and stamped by the Inspector, providing the variation of original tests is not more than ten thousand (10,000) pounds, may be made when the original test pieces pass four (4) of the above mentioned requirements and the chemical analyses. If the second tests pass all requirements the melt will be accepted.

Office Facilities.

When the duties of an Inspector or Inspectors are required constantly at the place of manufacture, the manufacturer or corporation furnishing material under these specifications shall provide sanitary, well lighted office quarters, with ample room for the proper conduct of the work.

Cast Iron.

All castings shall be made of tough gray iron by the cupola process, which shall exhibit a uniform and closely grained fracture, free from any white, mottled or

vitreous appearance. The metal shall be soft enough to be readily cut, drilled and chipped, and when struck on a corner or edge with a hammer it shall indent and not break off. Maximum sulphur content, .08 per cent.

All columns must be cast vertically.

Tests.

The metal must exhibit a minimum tensile strength of twenty-one thousand (21,000) pounds per square inch when measured on a test specimen, from which the external coating or skin has been entirely removed by turnings, planing or milling. When tested in the rough state, not rumbled, with the "skin" retained, sample bars or castings having a uniform width and depth of one and one-quarter ($1\frac{1}{4}$) inches and a length of fifteen (15) inches shall, when placed horizontally upon two (2) sharp edged supports, twelve (12) inches apart, sustain at their middle point a gradually applied load of three thousand three hundred (3,300) pounds, with a minimum deflection at the centre of one-tenth (0.1) of an inch.

Test Bars.

The Contractor shall make, prepare and provide at least two (2) of the said cross breaking test bars and the same number of said tensile test bars, which must be cast vertically from each charge or running of the metal actually used in the manufacture of any castings for said work. Two (2) of the test bars of each set shall be poured at the beginning and two (2) at the end of each charge or running. The tension bars shall be of such size and form as may be required by the Engineer or his representative. All such specimens are to be true samples of the iron used in the castings made from said charge or running. All test specimens are to be properly numbered for reference.

In judging the suitability of the metal, the average of these tests shall be considered as representing the strength of the metal as required aforesaid.

All steel castings shall be annealed.

Steel Castings. Tests.

Every steel casting shall be made with a coupon for testing, which coupon shall be cut off after annealing, and the test shall be made from a three-quarter ($\frac{3}{4}$) inch round cut from the coupon. The test piece shall show an ultimate strength of at least seventy thousand (70,000) pounds, an elastic limit of not less than thirty-five thousand (35,000) pounds, an elongation of at least fifteen (15) per cent. in two (2) inches, and a reduction of area of twenty (20) per cent. at the point of fracture.

When the bearing surface of any steel casting is finished there shall be no blow-hole visible exceeding one (1) inch in any direction, nor exceeding one-half ($\frac{1}{2}$) inch in area. The length of the blowholes gauged by any straight line laid in any direction shall never exceed one (1) inch in one (1) foot.

All portions of the metal work exposed to view, especially at stations, shall be neatly finished, pains being taken with any ornamental work to give it an attractive and artistic appearance.

All rolled members shall be carefully straightened at the shop before assembling.

Size of Rivets.

The nominal size of the rivets shown on the plans shall be understood to be the actual size of the cold rivets before heating. Rivets, when driven, must completely fill the holes, have full heads concentric with the rivet holes, and be machine driven wherever practicable, the machines to be capable of retaining the applied pressure after the upsetting is completed. The rivet heads must be fully and neatly finished, of approved shape and in full contact with the surface, or be countersunk or flattened when so required, and of a uniform size for the whole diameter of the rivet throughout the work, and must bind the connecting pieces thoroughly together.

Imperfect Rivets.

All loose or otherwise imperfect rivets must be cut out and replaced. No tightening of rivets by caulking or recupping will be permitted.

Rivet holes must be accurately spaced, and on die side must measure more than three-thirty-seconds ($3\frac{32}$) of an inch larger than the size of the cold rivet.

The use of drift pins will be allowed only to bring together the several parts forming a member, and they must not be driven with sufficient force to distort the metal about the holes.

If any hole has to be enlarged to admit the rivet, it must be reamed.

Rivet Holes.

Rivet holes, except rivet holes for splices in the bottom flanges of roof beams, may be made by a punch whose diameter is one-sixteenth ($1\text{-}16$) of an inch greater than that of the rivets called for by the plans, provided such punched holes will admit a hot rivet of specified size; otherwise subpunching and reaming will be required.

All punched holes shall be free from torn or ragged edges, sharp fins being trimmed off before riveting.

Rivet holes in flange splices and connecting splice plates, as above mentioned, shall be made by a punch whose diameter is one-eighth ($\frac{1}{8}$) of an inch less than that of the rivets called for on the plans, and subsequently increased by reaming to a diameter one-sixteenth ($1\text{-}16$) inch greater than the rivets specified. After reaming, every hole shall be entirely smooth, showing that the reaming tool has everywhere touched the metal. When required by the Engineer a reamer shall be run on the outer edge of holes so as to remove the sharp edges and make a fillet of at least one-sixteenth ($1\text{-}16$) inch in width under the rivet head.

Rivet holes in the flanges of girders whose thickness is over five-eighths ($\frac{5}{8}$) of an inch shall be made by a punch whose diameter is one-eighth ($\frac{1}{8}$) of an inch less than the specified rivets, and shall be subsequently increased by reaming three-sixteenths ($3\text{-}16$) of an inch.

Field Rivets.

All holes for field rivets, where reaming is called for by the preceding paragraphs, shall be reamed to iron templates at least one (1) inch thick, or shall be reamed while the connecting pieces are temporarily assembled either in shop or in the field. If such work is done in the shop, the connecting parts must be matchmarked to insure similar positions in erecting.

Built Up Members.

All built up members, when finished, must be true and free from twists, kinks, buckles or bent joints between component pieces. All abutting surfaces of compression members, except flanges of plate girders, must be planed or turned to even bearings, so that they shall be in perfect contact.

Columns.

All I-beam and built up columns, after gusset plates are rivetted on, shall be faced top and bottom at right angles to the axis and to exact length. The lug angles shall then be set so as to produce an even bearing as determined by a straight edge. If lug angles are not set to give an even bearing, then the same shall be rivetted on before facing, but such facing shall not reduce the thickness of angles more than one-sixteenth ($1\text{-}16$) of an inch. The base plates and cap plates must also be true to surface.

Web Plates.

Web plates must not project beyond the flange angles, nor be more than one-quarter ($\frac{1}{4}$) of an inch from the same. The web stiffeners of the plate girders shall in all cases be milled, to form a close bearing against the flange angle.

Ends of Girders.

The ends of all stringers, and longitudinal and abutting girders, shall be faced true and square or to exact bevel, as called for by the plans. The header angles shall be so accurately fitted that when the ends of the stringers or girders are faced to the figured length, the amount of metal removed shall not reduce the thickness of the ends of the header angles by more than one-sixteenth ($1\text{-}16$) of an inch, while securing a true surface on the whole width of the connection.

The abutting ends of the beams in the roof must either be faced or cold sawed so smooth, true, square and perfectly at right angles to the longitudinal axis of the beams that joints will be tight and give full bearing of beam ends.

Universal Mill Plates.

All plates thirty-six (36) inches and less in width shall have edges universal mill rolled or planed.

Bolts.

When members are connected by bolts which transmit sheering stresses, the holes must be reamed parallel and the bolts have a driving fit.

Anchor Bolts.

All anchor bolts are to be of soft steel with cold pressed or rolled threads and nuts and so made that when tested to destruction the threaded portion of the bolts will develop greater strength than the unthreaded portions of same.

All threads and nuts, unless otherwise ordered, shall be of the United States standard.

All machined surfaces shall be coated with white lead and tallow.

Care in Handling.

Great care must be taken in handling steel, and straightening after punching must be conducted so as to reduce the risk of cracking to the minimum.

Annealing.

Steel sections must be hammered cold or worked at a black heat. When any part of the steel piece in which the full strength is required has to be heated for working, the whole shall be afterwards annealed.

All parts shall be loaded for shipment from the shops so as to avoid injury in transportation. In shipping or handling at any time every care shall be taken to avoid bending or straining the pieces or damaging the paint.

All pieces bent or otherwise injured will be rejected.

All pieces of finished work shall have proper marks stenciled thereon before shipment.

To Be Carefully Piled.

All steel for delivery and which is to be held in storage shall be piled in courses on suitable timber supports, and also arranged as to prevent the component parts from being bent or damaged. Such steel shall be piled in such locality as to prevent its being covered with dirt, and shall be protected from the weather.

General Information.

The General Inspector of Material shall be furnished in triplicate with complete copies of all mill orders, and no material shall be rolled nor work done before proper notification has been given so that inspection may be arranged for. Inspectors shall have access at all times to all parts of the mill or shop plant furnishing material and to all records in any way covering the material to be inspected.

15. PAINTING.

All metal work, excepting as otherwise herein provided, shall be painted with three coats of paint, including the shop coat, of kind and quality approved by the Engineer. Lead or carbon paint will generally be required.

Shop Coat Red Lead.

The metal work before leaving the shop shall be thoroughly cleaned with wire brushes and have all loose rust and scale removed to the satisfaction of the Engineer, and be given one (1) coat of either pure red lead and pure boiled linseed oil mixed in the proportion of thirty (30) pounds of red lead to a gallon of oil, or one coat of such other paint as may be approved by the Engineer. Where the shop coat has become damaged before or after erection, through any cause whatever, it shall be renewed with the same kind of paint as originally used, such renewal to be considered only as a part of the original shop coat. If the Engineer so directs on members or parts of members buried in concrete the shop coat will be omitted.

Rods.

Rods intended for use in reinforced concrete shall be protected from the weather before being put in place, and shall be cleaned and scales removed but not painted before being incased in the concrete.

Second Coat Carbon Paint.

The second coat of paint shall be a black carbon paint, or such other paint as may be approved by the Engineer. It shall be applied after erection, but not until the metal has been cleaned from dirt or other objectionable matter that may be found thereon. It shall be applied to such parts of the metal as the Engineer shall direct.

Metal to be Cleaned After Erection.

After erection the metal shall be thoroughly cleaned of all dirt, rust or scales by stiff wire brushes or sand blasts, as directed, and afterward dusted and thoroughly and evenly painted as described above. No paint to be applied until the cleaning has been passed upon by an Inspector.

Third Coat.

The exposed members, excepting within twenty-five feet of each end of the work, shall be given a third coat, which shall be black carbon paint. For the parts above excepted the exposed metal work shall, at such time as the Engineer may direct, be painted with three additional coats of paint besides the renewed shop coat; the first coat shall be the same as the first coat applied to all other metal work after erection, and the other two coats shall be of such character of paint and in such colors as may be designated by the Engineer.

Third Coat, When Applied.

The third or finishing coat shall be applied to all exposed surfaces of the metal after its erection, and after the completion of the masonry or other work; it shall be applied at such time after such completion and before the final acceptance of the work as in the judgment of the Engineer it may be advisable.

Surfaces in Contact.

Surfaces of built-up members in contact, or inaccessible after assembling, shall be cleaned before assembling, and shall be painted with one (1) heavy coat of red lead. The parts shall be at once assembled for riveting while the paint is still fresh.

All recesses that might contain water, or through which water could enter, must be filled with thick paint or waterproof cement of ground skins before receiving final painting.

All surfaces so close together as to prevent the insertion of a brush, must be painted thoroughly by using a piece of cloth.

Inspection of Paint.

All materials for painting shall be subject to the closest inspection and chemical analysis, and the detection of any inferior quality of material, or adulterant, shall involve the rejection of all such material and the scraping and repainting of such portions of the work as were painted with it.

The mixing and application of paint and the preparation of the surface before the application of the paint will be subject to the closest scrutiny.

No painting in rainy or freezing weather or on wet surfaces shall be permitted under any circumstances.

16. DUCTS.

Quality. Size.

The ducts to contain cables for transmitting electricity shall be manufactured of the best clay, thoroughly mixed, burnt and vitrified, sound in all respects, straight and free from soft spots, stones, cracks or blisters calculated to impair their strength or durability; in lengths generally of from eighteen (18) to thirty-six (36) inches

shorter lengths shall only be used as directed; generally in four-way form with circular holes, the least diameter to be three and one-half ($3\frac{1}{2}$) inches: one, two or three-way ducts shall be used in special cases as determined by the Engineer. The interior surface of the holes to be smooth and clear of warts, tits, pits or blisters, which may tend to strip the lead coating from the electric cable in pulling the same through the duct. The ends to be cut smooth and at right angles to the axis of the duct and beveled on inside for three-quarters ($\frac{3}{4}$) of an inch.

The outside walls and webs of four-way ducts to be three-quarters ($\frac{3}{4}$) of an inch thick; the outside dimensions of ducts to be not less than nine and one-quarter ($9\frac{1}{4}$) nor more than ten (10) inches, and constructed square on outer lines; the dimensions of single, two-way or three-way ducts shall be consistent with the above.

The ends of ducts to be combed with two (2) sets of three (3) combings each, each combing to have a width of one-quarter ($\frac{1}{4}$) of an inch and a depth of one-sixteenth ($\frac{1}{16}$) of an inch.

Glaze.

The inside and outside of ducts to be thoroughly glazed in the most approved manner with good salt glaze.

Inspection.

All ducts to be subject to inspection, both at the works and on delivery on the work. All rejected ducts to be promptly removed by the Contractor at his expense.

How Laid.

The ducts shall be laid in beds of cement mortar about one-quarter ($\frac{1}{4}$) of an inch in thickness, with broken joints and with full bearing. Two (2) strips of thick muslin six (6) inches wide, and coated with neat cement mortar, shall be used to wrap each joint, the ends of the wrap to lap six (6) inches. In laying the ducts care must be taken to close abutting joints so that practically the end of ducts shall be in contact on all sides. Where ducts are laid on curves the wraps must be doubled if required to protect the openings between the ends of the ducts on the outer line of the duct and to exclude all mortar from duct openings.

The ducts shall be laid with a mandrill of the length and diameter to be prescribed, accurately fitted duct openings, the mandrill to be left in each duct until the next succeeding duct is laid.

The duct shall be laid with dowel pins where required.

The ducts shall be so laid that the centre of the holes to receive the electric cables shall, for each vertical section of duct, be laid on the same line vertically and horizontally to an accurate and perfect alignment.

To Be Rodded.

After the ducts are laid, and sufficient time is given to allow the mortar in beds to partially set, they shall be rodded; all mortar or other foreign matter must be cleaned from the duct openings, leaving a clear and smooth opening. If obstructions are found in rodding the ducts which cannot be removed by cleaners, so as to give a clear and smooth opening of three and one-half ($3\frac{1}{2}$) inches in all duct openings, the ducts shall be removed and relaid; all ducts after being rodded shall be plugged with suitable plugs to be furnished by the Contractor.

Other Forms of Ducts.

Other forms of ducts may be permitted, such as iron pipe tubing or ducts formed directly in the concrete benches by special methods during construction, but only under plans and methods approved by the Engineer.

Duct Manholes.

Duct manholes shall be built at the sides of the railway in connection therewith and as indicated on the plans. These manholes shall be generally at intervals of about three hundred feet, and shall be on either or both sides of the railway as necessary, in accordance with the location of the duct lines.

They may vary in form as may be necessary to accommodate the work to local conditions.

Duct manholes will also be built at the ends of the work, where connecting with stations, so as to provide for the passage of the lines under the station platforms.

At manholes the ducts will be laid to conform to plans.

17. SEWERS.

In Accordance With Plans and Specifications.

All sewers and appurtenances shall be built of the materials, of the sizes and dimensions, on the lines and grade, at the depths, with the connections, and in the manner, as called for by these specifications and as shown on the drawings.

Drawings.

The drawings referred to in these specifications are in number, entitled Contract Drawings No. B- to No. B- , inclusive.

Change of Location.

If during the progress of the work it is found in the opinion of the Engineer, reasonably impossible to construct according to the contract drawings any sewers, manholes or other appurtenances, owing to the presence of unknown subsurface structures or other contingencies, the Contractor shall construct such sewers, manholes or appurtenances in the location given by and according to the directions of the Engineer.

General Clauses Apply.

The general clauses in this contract relating to excavation, both in open trench and tunnel; backfilling; cement; mortar; masonry; waterproofing; piling; timber work of all kinds; care of streets and public places; maintenance of surface and subsurface structures; protection of persons and property; repaving or restoring of the surface of the street or other public places; responsibility of the Contractor; authority of the Engineer to examine and condemn materials; and the power of the Board and the Engineer in all or any other respects to enforce this contract, apply to the construction and reconstruction of sewers, water mains, galleries or pavements, unless specifically amended or exempted below, both along the route occupied by the railway and elsewhere.

No Claims for Damages.

Should postponement or delay be occasioned by the precedence of paving or other contracts, which may be either let or executed by the Borough President, Commissioner of Water Supply, Gas and Electricity, or other heads of departments, either before or after the execution of this contract, on the line of the work, no claims for damages therefor shall be made or allowed; nor shall any claim for damages be made or allowed in consequence of the street or the adjoining sewers not being in the condition contemplated by the parties at the time of making the contract, except that if the Contractor shall be delayed in the performance of its work by reason of the street or the adjoining sewers not being in such condition, an allowance of time shall be given in the completion of the work equal to the delay so occasioned, as elsewhere provided in this contract.

Size of Trenches.

The trenches for sewers and basin culverts both in earth and in rock, in streets along the route of the railroad, shall have vertical sides and shall be not less than six inches wider than the greatest external width of the sewer or its foundation on the side farthest away from the subway; and in other streets the trenches shall have vertical sides, and shall not be less than six inches wider on each side than the greatest external diameter of the sewer, but no trench shall be less than four feet in width. They shall be excavated to the depth and the form of the sewer and its foundation.

Limit of Trench Opening.

Not more than one hundred (100) feet of trench in sewers off the line of the railroad shall be opened at any one time in advance of the complete building of the sewer, unless by permission of the Engineer, and for the distance specified.

The excavation of trenches shall be fully completed at least twenty feet in advance of the laying of the sewer.

Sewers Protected from Blasts.

Should rock be encountered which requires blasting, the exposed end of the sewer shall, in all cases, be fully protected.

Trenches for Manholes and Receiving Basins.

Where the foundation for a manhole or a receiving basin extends beyond the line of such manhole or receiving basin, the minimum excavation required in earth shall be to the lines of the smallest rectangle enclosing the full dimensions of the exterior of the foundation, and shall have vertical sides to the surface, but it shall in all cases be not less than six inches larger than the greatest external dimension of the manhole or receiving basin.

In rock excavation, the trench shall be six inches larger than the greatest external dimension of the manhole or receiving basin, or its foundation, and shall have vertical sides to the surface.

Foundations to be Made Good.

Where the ground does not afford a sufficiently soiled foundation, the trench shall be excavated to such increased depth as the Engineer may deem necessary; and this extra depth, and all other irregularities in the bottom of the trench, shall be filled up to the required level and form with such material, and in such manner as the Engineer shall direct. If so directed, piles shall be driven and a timber foundation shall be constructed as elsewhere provided in these specifications to support the sewer.

Inspection of Grades.

When the trench is properly prepared, and before laying any sewer, the Contractor shall notify the Engineer, who will, thereupon, cause the grades for the sewer to be tested, and if correct the sewer shall then be laid in the presence of a duly authorized Inspector, and at no other time shall such construction work be done.

Trenches to be Kept Free from Water.

The trenches shall be kept entirely free from water while the foundation and the masonry are being constructed or the sewer laid. In no case shall water be allowed to flow over the invert or foundation or through the sewer until the mortar is thoroughly set.

Tunneling.

When tunneling for sewers shall be deemed advisable, it shall be done as directed by the Engineer and as elsewhere provided in these specifications.

Gutter and Passageway to be Kept Open.

At all times, the gutters shall be kept open for surface drainage, and the streets and sidewalks shall be kept clear and free for the passage of carts, wagons, carriages and street or steam railroad cars or pedestrians, and as otherwise provided in these specifications.

Crosswalk, Sidewalk and Roadway to be Kept Clear.

Where any crosswalk or roadway is cut by the trench, it shall be temporarily replaced by a timber bridge with side railings, according to the direction and approval of the Engineer. The work shall at all times be conducted so as to cause as little inconvenience as practicable to the public.

Disposition of Paving Material.

All curb, gutter, flagging, paving and macadam stones necessary to be removed, which in the judgment of the Engineer are suitable to be used again, shall be stored in such places as the Engineer shall direct, or shall be removed as provided in these specifications; in all cases a passageway on the sidewalks and in the roadway shall be preserved free from needless obstructions.

Flow of Sewers to be Maintained.

The Contractor shall provide for the flow of all sewers, drains and water courses interrupted during the progress of the work, and shall restore and make good all connections, and shall immediately cart away all offensive matter, in such manner and with such precautions as the Engineer may direct. All temporary house connections shall be made by closed iron pipes, with suitable provision for preventing leakage at joints. Wooden troughs for such connections will not be permitted.

Bricks.

In the construction of brick masonry none but the best quality of hard burnt brick, burnt entirely through, regular and uniform in shape and size and of compact texture shall be used. They shall be culled as they are brought on the ground, and all bats and bricks of improper quality are to be removed from the work. Bats are to be used only in manholes and closures.

How Laid.

The bricks are to be thoroughly wet by immersion immediately before laying. Every brick is required to be laid in a full joint of mortar, made as described in these specifications, on its bed, end and side, at one operation. In no case is mortar to be slushed or grouted in afterward. The bricks shall be neatly and truly laid, every second course to line and the joints to be carefully struck on the inside.

All brick work, as it progresses, shall be racked back in courses, and in no case will it be allowed to be toothed, unless by special permission from the Engineer.

Brick or Stone Inverts.

All inverts, or bottom curves, shall be formed from profiles accurately made according to the dimensions of the sewer, and correctly set according to the grades furnished. The masonry shall be allowed to set for twenty-four (24) hours before the arch is turned. Vitrified brick or granite paving blocks shall be used when required by the Engineer, and whenever so used they must be thoroughly jointed, so as to be water-tight along the inner surface of the sewer. The last course of the invert masonry below the springing line shall be laid as headers.

Brick Arches.

The arches or upper curves shall be formed on strong centres of correct form, according to the sizes and shapes required, and keyed with stretchers in full joints of mortar. The extrados of the arch shall be plastered with mortar one inch thick, mixed in the proportion of one portion of cement to two portions of sand. The centres shall not be removed nor withdrawn in less than thirty-six hours, or until the work is thoroughly set, and until the filling on the arch is properly put into place, to a depth which is at least one foot above the crown of the arch. The centres in all cases shall be struck and not drawn, so as not to crack or injure the work. Should any crack or settlement appear in the arch after the centres are removed, so much of the work as the Engineer may require shall be taken down immediately and replaced.

Spurs.

Vitrified or iron sewer pipes or spurs, equal in every respect to those described elsewhere in these specifications and not less than 6 inches interior diameter, with hubs moulded for house connections, and of sufficient length to project at least 4 inches beyond the exterior of the sewer, shall be built into the walls of brick sewers and at such an angle as shown on the plan, or as the Engineer may direct.

How Built In.

They shall be built in wherever similar house connections exist in the present sewer which is to be reconstructed under this contract, but in no case shall the distance be more than 20 feet between spurs. In the case of the construction of new sewers where no sewers existed previously, except sewers under public parks or those crossing intersecting streets, they shall be built opposite each house, and where there are no houses they shall not be more than 15 feet apart on each side of the sewer, or at such frequent intervals as local conditions may require. They shall be set so that their inner ends shall be flush with the inner face of the sewer, at such height in the walls as the Engineer may direct, and each pipe shall be closed on the outside with an approved earthenware cover set in mortar.

Iron Chair Spurs.

Where the sewers to be built under this contract will be at a depth greater than 13 feet below the established grade of the street (or below the surface of the street where final grades have not been established), cast iron chair spurs, of the design shown on the drawings, not less than 6 inches in diameter and of the weight of extra heavy soil pipe, shall be used instead of vitrified pipe spurs. Where house drains are to be connected to these spurs, extra heavy soil pipe and fixtures shall be used for the riser between the spur and the house drain. Where the spurs are provided for future connections risers of extra heavy soil pipe shall be placed in each spur and shall be brought to a point thirteen feet below the established grade of the street, the end of which shall be closed with an approved cover laid in cement mortar. The joints of this pipe shall be packed, leaded and caulked in accordance with these specifications for laying water mains.

Under Pipe Galleries, etc.

Wherever the sewer passes under a pipe gallery or other structure extra heavy soil pipe shall be laid from the spur to the outside of such station, pipe gallery or other structure, brought up to a point 13 feet below the established grade of the street, caulked and capped as provided above. All pipes passing under such structures shall be laid in concrete.

Concrete Sewers, Form, Dimensions and Materials.

Where shown on the plan, or if during the progress of the work it is deemed advisable to build sewers of concrete in place of building brick sewers, the Contractor, when directed by the Engineer, shall build such sewers of the kind and quality herein specified.

Steel Bars Used if Ordered.

Concrete sewers shall be reinforced with steel bars, if so shown on the plans or directed by the Engineer.

Profiles and Inverted Centres for Inverts.

Proper profiles for the concrete inverts shall be set up at the required distances, and the concrete for the bottom and invert of the sewer shall be deposited in place and rammed and worked down to the required shape. The concrete for the bottom and invert, if so directed, shall be placed in alternate lengths extending between every other pair of profiles, so that opportunity may be given to properly work the concrete in place. If the Engineer so directs, the concrete for the invert shall be put into position and properly rammed into place against suitable forms of invert centres, which are to be removed when the concrete has become sufficiently set.

Invert to be Protected.

The concrete of the invert shall be protected during the progress of the work with planking, or by such other suitable methods as the Engineer shall direct and for so long a time as he may require.

Forms, Moulds, etc.

Suitable forms or moulds, of the size and design to be approved by the Engineer, shall be provided by the Contractor to support the concrete of the side walls and roof while the same is being rammed into the permanent work. All forms or moulds shall be made of the material, and shall be secured, as elsewhere provided in these specifications.

Defective Work.

If any voids, or irregular or defective work is discovered upon removing the forms or moulds, such voids or work shall be cut out and filled with a rich concrete or mortar mixed in such proportions and of such materials as provided elsewhere in these specifications.

Joints.

No joints between different sections of the walls of a sewer shall, in any case, be a straight line, but shall always be stepped or toothed, so as to give a broken joint in the manner to be approved by the Engineer.

Spur Pipes, Branches, etc.

In so far as they will be applicable to sewers constructed of concrete, the provisions and requirements for brick sewers shall be understood to govern in such construction.

Vitrified Pipe Sewers. Quality of Pipe.

Pipe sewers shall be built of vitrified, salt glazed stone-ware pipe, with or without hub, as the Engineer may direct. The pipe shall be of the best quality, thoroughly and perfectly burnt, without warps, cracks or imperfections, well and smoothly glazed over the entire inner and outer surfaces and perfect in shape. The pipe shall be subject to all tests ordered in conformity with any requirements of the Bureau of Sewers, at any time previous to its being used.

Thickness.

The size of the pipes shall be designated by their interior diameters. Each pipe shall be a true cylinder, and of even thickness throughout, according to the following schedule:

Six inch pipes shall be not less than $\frac{5}{8}$ of an inch thick.
Eight inch pipes shall be not less than $\frac{3}{4}$ of an inch thick.
Ten inch pipes shall be not less than $\frac{7}{8}$ of an inch thick.
Twelve inch pipes shall be not less than 1 inch thick.
Fifteen inch pipes shall be not less than $1\frac{1}{4}$ inches thick.
Eighteen inch pipes shall be not less than $1\frac{1}{2}$ inches thick.
Twenty-four inch pipes shall be not less than 2 inches thick.
Thirty inch pipes shall be not less than $2\frac{1}{2}$ inches thick.

Lengths.

No pipe shall be less than 2 feet in length, excepting pipes of 12 inches, 15 inches and 18 inches in diameter, which shall not be less than 3 feet in length.

Curved Pipes.

When required, curved pipes shall be furnished and laid, curved to such a radius as may be required or as shown on the plan of the work. No curved pipe shall exceed 3 feet in length.

Hub and Spigot Pipe.

In case the Engineer shall order hub and spigot pipe to be used, the hub shall have a depth of at least three (3) inches from its face to the shoulder of the pipe on which it is moulded, and shall have an interior diameter not less than one (1) nor more than two (2) inches greater than the exterior diameter of the pipe which is to be fitted into it.

Straight Pipe With Collars.

In case the Engineer shall order pipe without hubs to be used, it shall be fitted with a collar of the same thickness as the pipe and not less than 5 inches wide. Each collar must have an internal diameter of not less than $\frac{1}{2}$ inch nor more than $1\frac{1}{2}$ inches greater than the external diameter of the pipe to which it is to be fitted.

Spur Pipes.

Pipes having spurs not less than six inches in diameter with hubs moulded thereon for house connections shall be furnished and laid at such points as shown on the plan or as directed by the Engineer, and when not immediately used, they shall be closed on the outside with approved vitrified earthenware covers set in mortar.

Risers.

The provisions for risers on brick sewers shall also apply to pipe sewers.

Bends.

Bends, siphons and special pipe shall be furnished and laid of the size and forms shown on the plans of the work, or as required.

Pipe Sewers, How Laid.

All pipes shall be laid in concrete cradles of the required form and dimensions. The first layer of concrete shall be 4 inches thick, for the full width of the cradle, and after being thoroughly tamped shall be allowed to set for a period of not less than twenty-four hours. Upon the bed thus prepared, the pipe shall be laid true according to the lines and grades furnished. The ends of the pipes shall abut against each other and in such manner that there shall be no shoulder or unevenness of any kind along the bottom half of the sewer on the inside. Unless otherwise ordered, no less than 15 feet of pipe shall be laid at any one time, in any one length of trench. The remainder of the concrete shall then be put in place and shall be exposed for at least twenty-four hours for inspection, as required for the bottom course.

Jointing Hub and Spigot Pipes.

When hub and spigot pipes are used, the lower half of each hub shall be plastered on the inside with a layer of cement mortar mixed in the proportion of one part of cement to one part of sand and of a sufficient thickness to bring the inner surface of the abutting pipes flush and even with the established flow line. After the pipes are fitted, the space between the inside of the lower half of each hub and the outside of the entering pipe shall be filled with cement mortar mixed as above specified, and the outside of the joint shall be thoroughly sealed with the same kind of mortar and the joints carefully wiped inside and outside.

Jointing Pipes Without Hubs.

When pipe without hubs is used, the collar or rings shall lap equally the ends of each abutting pipe. The lower third shall, in all cases, be whole and unbroken and the rest of the collar shall consist of not more than two pieces.

The space between the ring and the pipes shall be as uniform as possible and shall be thoroughly filled with cement mortar mixed in the proportions specified for hub and spigot pipe. The joints shall be carefully wiped and pointed inside and outside and all mortar that may be left on the inside shall be thoroughly cleaned out and the pipe left clean and smooth throughout.

Iron Pipe Sewers.

Iron pipe of the quality and laid in the manner described elsewhere in these specifications for the laying of water mains shall be laid wherever shown on the plans or at such places as the Engineer shall direct.

Special Castings.

Wherever such pipes are laid under station platforms, pipe galleries or through vaults, they shall, when required by the Engineer, be provided with special castings for manholes, which shall be fitted with a cover bolted on so as to make an air-tight joint, according to the plans to be furnished by the Engineer.

Ventilators.

Whenever, in the opinion of the Engineer, it becomes necessary to provide ventilation for sewers under station platforms, pipe galleries or other structures, iron pipe shall be laid from the sewer to the surface of the street fitted with proper gratings according to the plans to be furnished by the Engineer.

Connections.

All existing sewers, culverts, drains and house connections intercepted by the proposed sewers, culverts or receiving basins shall be connected with the new work by proper curves and grades and in such manner as the Engineer shall direct; and all drains, basins or culverts rendered unnecessary or becoming disused by the work herein contemplated shall be filled in and made solid with good wholesome earth in the manner directed. Provision shall also be made for the connection of future sewers or basins by constructing brick spurs or inserting vitrified pipe at the points indicated on the contract-drawings and at other points as the Engineer may direct. These connections shall be closed with bulkheads not less than eight inches in thickness and of the quality specified for brick masonry.

Fresh Work to be Protected.

All fresh work shall be carefully protected from injury in every way. No wheeling nor walking will be allowed on it and any portion injured must be relaid by the Contractor; no walking or working over the pipes after they are laid (except as may be necessary in tamping the earth and refilling) will be allowed until there is at least two and one-half feet of earth over them.

Pipes to be Kept Clean.

The interior of the pipes shall be carefully freed from all dirt, cement and superfluous material of every description as the work progresses, for which purpose a disc, mould or plate, attached to a rod sufficiently long to pass two joints from the end of the pipe last laid shall be continuously worked through.

Exposed Ends of Pipes to be Protected.

The exposed ends of pipes shall, in all cases, be protected with a board or other stopper carefully fitted to the pipe, to prevent earth or other substances from washing in, and in no case shall brick or stone be used for that purpose.

Manholes.

Manholes shall be built at such points on the line of the sewers and of the form, thickness and materials as shown on the plans. The masonry or concrete shall be carried up so that the top of the iron head when set shall be at the level of the established grade of the street at that point or to such height as the Engineer may direct, and from templates correctly made and set at top and bottom, between which no less than eight lines shall be drawn. Where manholes are not built to the established grade of the street they shall be covered, when necessary, by special bluestone eight inches in thickness, to support the manhole heads. All joints shall be neatly struck and pointed on the inside. Each manhole shall be plastered thoroughly on the outside with cement mortar one inch in thickness, mixed in the proportion of one part of cement to two parts of sand.

Foundations.

The foundations for manholes shall be of concrete or masonry of the kind indicated on the plans, and shall commence not less than twelve inches below the flow-line grade of the sewer, except as otherwise shown on the plan. When additional foundation to that shown on the plan is required, it shall be built as directed by the Engineer.

Sewer pipes shall be built in and trimmed, when necessary, so as to be flush with the inner face of the manhole, and an arch, laid in cement mortar, shall be turned over the pipe.

The invert shall be built of vitrified brick, cut stone or concrete masonry, as directed by the Engineer.

Use of Bats.

A reasonable number of bats not smaller than half bricks may be used in the construction of manholes or receiving basins, provided all interstices are thoroughly filled with mortar.

Steps.

Standard steps of good quality of galvanized wrought iron, of the size, length and shape required for steps, shall be built into the interior sides of all manholes at a distance apart of not more than fifteen (15) inches vertically and they shall be so arranged that the lowest step shall be not more than two feet above the bench at the bottom of the manholes nor more than two feet above the invert of the sewer where there is no bench. Each manhole head shall have cast on the inside a wrought iron step, when directed by the Engineer.

Bluestone.

Hammer-wrought bluestone shall be furnished and laid of the form and thickness required as shown on the plan or as otherwise directed.

Manhole Head and Cover.

A cast-iron manhole head and cover of the quality specified for cast-iron and of the pattern adopted by the Presidents of the different boroughs, and in dimensions, weight and all other respects satisfactory to the Engineer shall be fitted on a bed of mortar to each of the above described manholes. Manhole heads and covers which do not conform to these specifications shall be at once removed from the work.

Perforations.

Covers to be used on manholes in the street shall be perforated. Those used on sidewalk manholes shall be tight-fitting, without perforations.

Weights.

Each manhole head and cover shall have its weight distinctly marked upon it with oil paint. The following shall be allowed as the minimum and maximum weights:

- Street manhole head, 475 to 500 pounds.
- Street manhole cover, 135 to 150 pounds.
- Sidewalk manhole head, 300 to 310 pounds.
- Sidewalk manhole cover, 100 to 110 pounds.

Noiseless Heads and Covers.

When the pavement of the street is asphalt the manhole shall be fitted with a noiseless head and cover, to be approved by the Engineer.

Sealed Manhole Heads and Covers.

All manholes in station platforms, pipe galleries, vaults or other structures shall be provided with sealed manhole heads and covers according to the design shown on the plans.

Emergency Manholes.

Whenever a sewer crosses under the subway, emergency manholes shall be provided when directed by the Engineer and according to plans to be furnished by him.

Manholes to Be Completed.

The above described manholes, whether on brick or pipe sewers, shall in all cases be fully and completely built and fitted with their covers as the work progresses and as each is reached, and the sewers shall not be laid beyond or in advance of any uncompleted manhole.

Receiving Basins.

Receiving basins shall be built as located on the plans or as the Engineer shall direct and in accordance with the plans to be furnished. Each portion of the basin shall be built of the size and materials designated on said drawings and shall be thoroughly plastered, both inside and outside, with cement mortar in the proportion of one part of cement to two parts of sand.

Foundations.

The foundations for receiving basins shall be of concrete or masonry of the kind indicated on the plans and shall commence not less than twelve inches below the finished floor of the basin, except as otherwise shown on the plans. When an additional foundation is required, it shall be built as directed by the Engineer.

Stone Flooring.

The flooring shall be of hammer-dressed North River bluestone flagging, not less than three inches thick, in two pieces, and shall be set in a full bed of mortar and rammed into place. The floor may be finished with cement mortar mixed in the proportion of one volume of cement to one volume of sand if so directed by the Engineer. The mortar shall be spread, while fresh, upon the concrete base while the latter is still soft and adhesive and before it shall have reached its first set, in such quantity that after thorough manipulation it shall be one inch in thickness.

Head Stone and Gutter Stone.

Where head stone and gutter stone are required they shall be of sound, durable granite of the dimensions shown on the plan, hammer dressed to an even surface and cut to the satisfaction of the Engineer. Cast-iron basin heads and gutter pieces of the design shown on the plans shall be set instead of the above when required.

Cast-Iron Cover.

A cast-iron cover of approved pattern weighing not less than eighty nor more than ninety-five pounds shall be fitted to the opening in the head stone.

Grate Bar.

A grate bar made according to the plan shall be fastened solidly into the said head stone in the manner shown.

Cast-Iron Trap.

A cast-iron trap of the form and dimensions shown on the plan and free from imperfections, and properly coated with coal pitch varnish shall be furnished and built into place as directed by the Engineer.

The joints shall be tightly fitted with an oakum gasket or with cement mortar if so directed.

Iron Steps.

Galvanized iron steps of the same design required for manholes shall be built into the walls.

Culvert Pipes.

The culvert pipe for connections with sewers shall be 12-inch vitrified pipe unless otherwise shown on the plan, and of the kind and quality previously described, and shall be laid, in all cases, in a concrete cradle of the form and dimensions required for pipe sewers and in accordance with the directions of the Engineer. In case it becomes necessary to connect any basin already built, with the work to be constructed, so much of such culverts as, in the opinion of the Engineer, may be necessary shall be taken up and rebuilt or relaid with vitrified pipe, or brick as the case may be, in the manner described above and reconnected on the straight lines to said sewer.

Waterproofing.

Whenever, in the opinion of the Engineer, it is necessary to waterproof a sewer, chamber or receiving basin, or their appurtenances, it shall be done as shown on the plans or as directed by the Engineer and in the manner described elsewhere in these specifications.

Refilling.

The refilling of the trenches shall be done as provided elsewhere in these specifications.

Mortar.

All masonry shall be laid in Portland cement mortar of the quality described in these specifications. It shall be mixed in the proportion of one (1) volume of cement to two (2) volumes of sand, excepting as otherwise specially provided.

Concrete.

All concrete for sewers shall be made in the proportions of one (1) volume of cement to two and one-half (2½) volumes of sand and four and one-half (4½) volumes of stone.

Paving.

On the completion of each section of one hundred feet of sewer, the regrading and temporary paving over the same shall be done and all surplus earth, sand and rubbish shall be immediately removed. After the completion of the work a permanent pavement shall be placed over the entire length of the trench as provided elsewhere in these specifications.

Permits for Connections.

The Commissioner of Public Works shall have the right to connect any sewer or sewers with the sewers herein described or to grant permits to any person or persons to make connections therewith at any time before it is finally completed, and the Contractor shall not interfere with or place obstructions in the way of such person or persons as may be employed in building such new sewer or sewers or in making such connections.

Sewers, etc., to Be Kept Clean.

During the progress of the work, and until the entire completion and final acceptance thereof, the sewers, drains, basins, culverts and connections shall be kept thoroughly cleaned throughout, and left clean, and the drainage of any old sewer that may be taken up or intercepted shall be provided for and taken care of by the Contractor.

18. WATER MAINS.

Whenever it is necessary to relay any water main, all new material required for the same shall be of the quality and laid in the manner specified below, and subject to the various clauses of these specifications applicable thereto.

Pipes to Be Cylinders.

The pipes shall be circular cylinders, with the inner and outer surfaces concentric, and of the full interior diameter required.

Hubs and Spigots.

The hub or socket and the spigot end shall be shaped in exact conformity with the standards of the Department of Water Supply, to be furnished by the Board, and will be tested by circular gauges.

The seat or shoulder of the socket and the end of the spigot must be straight and even, so as to make a smooth joint. Special care will be required in making the sockets and spigots to conform to the drawings and all pipes will be particularly tested at these points. No pipe will be received whose eccentricity at the spigot and socket ends, or either, exceeds one-eighth (⅛) of an inch.

The pipes shall be designated by dimensions of the interior diameter.

Bands, lugs, buttons, or ribs shall, if required, be cast on the pipes of such forms and dimensions as the Engineer may direct.

Length of Pipe.

The straight pipe shall be twelve (12) feet long, exclusive of hub; all others as may be directed.

All the pipes shall be straight in the direction of the axis of the cylinder.

Thickness.

The thickness of the pipes, branches and special castings shall correspond with the standards of the Department of Water Supply. The weight for straight pipe shall be approximately as follows:

- 48-inch pipes, 8,270 pounds each.
- 42-inch pipes, 6,860 pounds each.
- 36-inch pipes, 5,305 pounds each.
- 30-inch pipes, 3,940 pounds each.
- 24-inch pipes, 2,660 pounds each.
- 20-inch pipes, 2,005 pounds each.
- 16-inch pipes, 1,475 pounds each.
- 12-inch pipes, 1,015 pounds each.
- 6-inch pipes, 415 pounds each.

The thickness of the metal of the pipes and special castings will be tested by calipers after the castings have been freed from sand and cleaned.

Variations in Thickness.

No pipe will be received when the thickness of metal is less by more than one-twelfth (1-12) of an inch than the thickness required by the standards.

No straight pipe or casting will be received which weighs less than the weights above mentioned by more than five (5) per cent. for pipes 16 inches or less in diameter, or more than four (4) per cent. for pipes more than 16 inches in diameter. No special casting will be received which weighs less than the standard weight by more than ten (10) per cent. for pipes 12 inches or less in diameter, and eight (8) per cent. for larger pipes.

All straight pipes shall be cast vertically, and all pipes 12 inches or more in diameter shall be cast with the hub end down.

All the castings shall be made in such moulding sand or loam as will leave the surface clean and smooth.

Castings, How Marked.

All the castings shall have the year in which they are cast, the running number of the castings of the same size and form, the letters D. W. S., and the initials or name of the Contractor, and of the foundry where cast, cast on the outer side in raised letters of not less than two (2) inches in length and one-eighth (⅛) of an inch in relief, in such manner as the Engineer may designate; and in case any pipe shall be condemned, the letters D. W. S. shall be erased by the Contractor.

Quality of Cast Iron.

The metal of which the castings are to be cast (which must be remelted in a cupola or air-furnace) shall be pig-iron, made without any admixture of cinder-iron or other inferior metal, and shall be of such character as to make a pipe strong, tough and of an even grain, entirely free from uncombined carbon when seen under the microscope and such as will bear satisfactorily drilling and cutting and shall have a tensile strength of at least sixteen thousand (16,000) pounds to the square inch.

The castings shall be free from scoria, sand holes, air bubbles and other defects and imperfections.

Castings to be Clean.

The castings shall be perfectly cleaned and no lumps shall be left on the inner surface of the barrels or sockets or on the outer surface of the spigot end.

Subject to Hammer Inspection.

All castings being perfectly cleaned, according to the specifications and the directions of the Engineer, shall be subjected to a careful and thorough hammer inspection.

Every casting must be thoroughly dressed and made clean and free from earth, sand and dust, which adheres to the iron in the moulds. Iron wire brushes must be used, as well as softer brushes, to remove the loose dust. No acid or other liquid shall be used in cleaning the castings.

Pipes to be Coated.

Every pipe, branch and special casting shall be carefully coated inside and out with coal pitch and oil. Every casting must likewise be entirely free from rust when the coating is applied. If the casting cannot be dipped immediately after being cleaned, the surface must be oiled with linseed oil to preserve it until it is ready to be dipped; no casting to be dipped after rust has set in.

Pitch.

The coal-tar pitch is to be made from coal tar distilled until the naphtha is entirely removed and the material deodorized with a mixture of five (5) or six (6) per cent. of linseed oil. Pitch which becomes hard and brittle when cold will not answer for this use.

Pitch of the proper quality having been obtained, it must be carefully heated in a suitable vessel to a temperature of three hundred (300) degrees Fahrenheit, and must

be maintained at not less than this temperature during the time of dipping. The material will thicken and deteriorate after a number of pipes have been dipped; fresh pitch must, therefore, be frequently added, and occasionally the vessel must be entirely emptied of its old contents and refilled with fresh pitch.

Every casting must attain a temperature of three hundred (300) degrees Fahrenheit before being removed from the vessel of hot pitch. It may then be slowly removed and laid on skids to drip.

To be Inspected Before Dipping.

No casting shall be dipped until the authorized inspector has examined it as to cleaning and rust and subjected it thoroughly to the hammer test. It may then be dipped, after which it will be passed to the hydraulic press to meet the required water test. The proper coating must be tough and tenacious when cold on the pipes, and not brittle or with any tendency to scale off.

Tests.

The castings must be capable of sustaining a pressure in the hydraulic press of three hundred (300) pounds to a square inch, and any casting which shows any defect by leaking, sweating or otherwise, will be rejected. This test will be made at the foundry and at the expense of the Contractor.

Weighed and Marked.

The casting will be weighed and the weight distinctly marked on the casting in white paint. The Contractor will provide at the foundry where the pipes and castings are to be manufactured proper sealed scales and weights for weighing the castings, which shall be done at the expense of the Contractor under the supervision of the Inspector.

Blocking and Wedges.

Each pipe over eight (8) inches inside diameter, unless otherwise ordered, shall be placed on two (2) blocks and four (4) wedges of hemlock timber, the wedges to rest on the blocks and the pipe on the wedges.

The blocks and wedges shall be of sound hemlock timber; 48 and 36 inch pipe shall be laid on blocks 4 feet long, 12 inches wide and 6 inches thick, with wedges 18 inches long, 6 inches wide, 4 inches thick on one end and $\frac{1}{2}$ inch thick on the other; 30 and 24 inch pipe on blocks 3 feet long, 10 inches wide and 5 inches thick, with wedges 15 inches long, 5 inches wide and $3\frac{1}{2}$ inches thick on one end and $\frac{1}{2}$ inch thick on the other end; 12 and 20 inch pipe on blocks 2 feet long, 8 inches wide and 4 inches thick, with wedges 12 inches long, 4 inches wide, 3 inches thick on one end and $\frac{1}{2}$ inch thick on the other.

Joints.

The spigot end of the pipe shall be inserted into the hub to within from one-fourth ($\frac{1}{4}$) to one-eighth ($\frac{1}{8}$) of an inch of the full depth of the hub, and the space around the pipe shall be equalized so as to give as nearly as possible an equal space for the packing. The space between the pipe and the hub shall be packed with clean, sound hemp packing yarn, free from tar, far enough to leave the proper space for lead. The remaining space shall then be filled by running it full of lead to a depth of four (4) inches, with a bead outside of the face of the hub large enough to allow for caulking, so that when the joint is properly caulked the lead will be flush with the hub of the pipe. After the joint shall have been run with lead, it shall be caulked by means of proper tools, so as to make a watertight joint.

Lead.

The lead to be used shall be of the best quality of pure, soft lead, and in every respect suitable for the purpose.

Notice of Interruption to be Given.

In case it becomes necessary to cut any connection with any other main, house or hydrant, or in any way to interfere with the continuous and normal flow of water, due notice shall be sent at least forty-eight (48) hours in advance to the Engineer and to the Commissioner of Water Supply, and the Contractor shall, if so ordered, make a temporary bypass or other arrangement to preserve the flow of water while breaking connections.

All connections cut, interfered with or injured shall be restored under the directions of the Engineer, without delay and in accordance with the rules and regulations of the Department of Water Supply governing such matters, to a suitable condition as good as existed before commencing work.

Stop cocks, boxes, branches, curved pipe and other specials, according to the standards of the Department of Water Supply, shall be set where necessary.

19. PAVING.

Pavement to be Restored.

As soon as the work in any open excavation or trench made under this contract shall have been completed, the trench backfilled and the backfilling thoroughly rammed in place and compacted, as provided under the clauses relating to backfilling, a temporary paving shall be laid and maintained in a condition satisfactory to the Engineer, and after the earth shall have, in the opinion of the Engineer, become sufficiently settled, the Contractor shall proceed to restore the surface to a condition similar to, and equally as good as that existing previous to the commencement of construction.

Other Pavements May be Laid.

Nothing contained in these specifications shall be understood or construed as prohibiting the Contractor from making any arrangement with the President of the Borough, or such other officer of The City of New York as may be in charge of street paving, to lay a better or other form of street pavement; or to make an arrangement with any property owner to lay another style of sidewalk in front of such premises in place of the pavement or sidewalk taken up; in which case the Contractor is to file with the Board a copy of its contract with such municipal officer or with such property owner, duly acknowledged in writing by both parties. In case the municipal officer in charge of street paving, or any property owner, desires to lay a pavement in any street or a sidewalk along any street, affected by this contract, different from the one removed, and shall notify the Board in writing that he has failed to make satisfactory arrangements for such work with Contractor, then the Board in its discretion may direct the Contractor to finish and dress off the filling over its work to such grade as the Engineer may select, and further direct it to remove from the street all stones, of whatever nature not required to be relaid, and to permit another Contractor to lay such pavement or sidewalk; in which case the liability of the Contractor under this contract shall cease as far as that part of its work is concerned, whenever the Engineer shall report to the Board that the instructions of the Board have been complied with, exactly the same as if the Contractor had fully completed the repaving as hereinbefore provided. The Engineer shall then report to the Board the number of square yards of pavement thus disturbed but not relaid, and the Board will deduct from the amount named in this contract as the price to be paid to the Contractor such sum as the Engineer shall certify as the fair value of the expense of restoring the previous pavement.

20. MAINTENANCE OF STREET RAILROAD TRACKS, MAINS AND OTHER SURFACE OF SUBSURFACE STRUCTURES.

Surface and Subsurface Structures to be Maintained.

The Contractor shall at all times, by suitable bridging or other supports, maintain and support in an entirely safe condition for their usual service and to the reasonable satisfaction of the owners, all elevated railroad structures, street tramways of whatever character, telegraph, telephone or electric light poles or wires; water and gas mains, steam pipes, pneumatic tubes, electric subways, sewers, drains and all other surface or subsurface structures encountered during the progress of the work. The sidewalks, curbs, areas and stoops along the line of work must also be protected from any injury; but should any injury occur to any surface or subsurface structure, as mentioned above, or sidewalk, curb, area or stoop, the Contractor shall fully restore the same to as good a condition as existed before the injury was done.

Notice to be Given.

Notice is to be given by the Contractor to all companies and the proper City officials owning or having charge of surface or subsurface structures along any part

of the work of its intention to commence operations along such part of the route at least one (1) week in advance, and the Contractor shall file with the Engineer at the same time a copy of said notice; and he shall co-operate with the proper officers or officials in charge of such structures and shall furnish them with all reasonable facilities to inspect the methods of caring for their property.

Plans Furnished.

In the rearrangement of subsurface structures a tentative plan will be made by the Engineer, which will be submitted to the parties interested; if any reasonable changes are then requested by any of the said parties within ten days after the submission of the tentative plan, such changes will then be made if, in the judgment of the Engineer, they will best conserve the interest of all parties concerned, a further plan will then be made which, on the approval of the Engineer, will be final.

Owners of Structures May Do Work.

Whenever it becomes necessary to cut, move, change or reconstruct any such structures as named above, or connections therewith, such work shall be done according to the reasonable satisfaction of the owners of such pipes or other structures, and, should they so desire, by the owners themselves, at the expense of the Contractor; such expense not to exceed the actual cost of labor and materials used, together with a reasonable allowance for the use of plant and tools not exceeding seven and one-half (7½) per cent.

Reasonable Dispatch.

All work of reconstruction or alteration, if performed by the City or owners, shall be done with reasonable dispatch, and facilities are to be provided so that said work will interfere as little as possible with the practical working and use of such structures. Failure to make such alterations within a reasonable time, as shall be adjudged by the Board, may be considered by the Contractor as a waiver on the part of said City or owners of the right to do said work.

Facilities to be Given to Make Extensions.

In the event of the companies or the City being required to make any alteration to their structures as above provided, or in case they shall consider it necessary or desirable to make any further alterations in, or do any work to or in connection with, surface or subsurface structures owned by them or it at the time the work under this contract is in progress, the Contractor shall give said companies or the City all reasonable opportunity to perform such work; provided such work or alteration for the benefit solely of the owners of subsurface structures does not cause the Contractor any serious loss or delay, as shall be determined by the Board.

21. GENERAL CLAUSES.

Best Quality of Work.

All materials and workmanship must be of the best class in every respect, as elsewhere provided in this Contract, and the Engineer is to be the sole judge of their quality and efficiency.

Fences.

Wherever necessary the Contractor shall erect and maintain at his own expense fences for the protection of adjoining property and of the adjoining public places.

Work to be Cleared.

At his own expense and as directed from time to time by the Engineer, the Contractor is to clear the work, streets and all public places occupied by him from all refuse and rubbish that may accumulate from any source whatever, and leave them in a neat condition.

Where access to any adjacent property is temporarily cut off, owing to the occupancy of the street by the Contractor, he must, at his own cost, render every assistance to the owner or occupant in handling such materials of any description, including all material to be removed by the Department of Street Cleaning, that has to be taken to or removed from such property; such material shall be taken to or from the nearest accessible point that, in the opinion of the Engineer, is convenient for handling.

Notice—How Given.

Wherever the Contractor is absent from any part of the work where it may be necessary to give instructions, orders will be given by the Engineer to, and shall be received and obeyed by, the superintendent or overseer of the Contractor, who may have charge of the particular work in relation to which the orders are given, and a confirmation in writing of such orders will be given to the Contractor by the Engineer if so requested.

Lines and Grades.

The principal lines and grades are to be given by the Engineer, who may change them from time to time as may be authorized and directed by the Board. The stakes and marks given by the Engineer must be carefully preserved by the Contractor, who must give to the Engineer all necessary assistance and facilities for establishing benches and plugs for making measurements.

Imperfect Work.

Any imperfect work which may be discovered before the final acceptance of the work, shall be corrected immediately on the requirement of the Engineer, notwithstanding that it may have been overlooked by the proper Inspector.

In all work of whatever kind which during its progress and before its final acceptance shall become damaged from any cause, so much of it as may be objectionable shall be broken up or removed and be replaced by good and sound work.

Notice Regarding Commencement of Work.

Before commencing work on any part of the route, whether on the railroad or on the sewers lying off the line of the railroad, the Contractor shall give notice in writing to the Engineer at least one (1) week in advance of his intention to commence such operations; and before commencing manufacture, or resuming manufacture if the same has been suspended, of any article called for by these specifications, notice shall be given to the Engineer in writing at least one (1) week in advance, with the name and address of the maker and the amount and description of the material to be manufactured, in order that proper inspection may be arranged for.

If so requested by the Engineer in writing, countersigned by the President of the Board, a further reasonable delay in commencing work or manufacture must be granted, such delay to extend the time of completing this contract as named herein.

Conveniences for Men.

Necessary conveniences, properly secluded from public observation, shall be constructed and maintained wherever needed for the use of laborers on the works, to the satisfaction of the Engineer and the sanitary authorities.

Advertisements Forbidden.

The using of fences and buildings during construction for advertising purposes, other than the name and address of the Contractor, is forbidden; all temporary buildings and fences erected by the Contractor shall be neat in appearance and shall be painted as directed by the Engineer.

All barricades and bridges erected by the Contractor for the protection of the work or use of the public shall be substantial in character and neat in appearance.

Requirements of Borough President, etc., to be Observed.

Whenever the construction of the works under the provisions of this contract shall interfere with, disturb or endanger any sewer, waterpipe, gaspipe, or other duly authorized subsurface structure, the work of construction at such points shall be conducted in accordance with the reasonable requirements of the Borough President or the Commissioner of Water Supply, Gas and Electricity or other officer or local authority having the care of and the jurisdiction or control over such subsurface structures so interfered with, disturbed or endangered.

Ordinances and Regulations.

In all operations connected with the work, all ordinances of the City authorities; and of the Board of Health, which shall be valid and operative with respect to work on the rapid transit railroad, and the valid regulations of the officers of the United States in charge of the navigable waters in and about the harbor of New York, and all laws of this State which are now applicable to and control or limit in any way

the actions of those engaged in the work or affecting the materials belonging to them, must be respected and strictly complied with.

Condemned Materials to be Removed.

If the work or any part thereof, or any material found or brought on the ground for use in the work or selected for the same, shall be condemned by the Engineer as unsuitable or not in conformity with the specifications, the Contractor shall forthwith rebuild or remedy such work and remove such materials as may be directed by the Engineer.

Competent Men.

The Contractor shall employ only competent, skillful and faithful men to do the work. Whenever the Engineer shall notify the Contractor in writing that any man on the work is in his opinion incompetent, unfaithful or disorderly, such man shall be discharged from the work and shall not again be employed on it.

V.—SECURITY TO BE FURNISHED BY CONTRACTOR.

Security by Contractor. Contractor's Bond. Deposit of Cash or Securities.

Simultaneously with the execution of this contract, the Contractor shall give security for the performance of his obligations by filing with the Comptroller a bond in due form executed by the Contractor and by two or more sureties to be corporations or persons approved by the Board in the sum of one hundred and eighty thousand dollars (\$180,000). In case any of the sureties upon the bond shall become insolvent or unable in the opinion of the Board to pay promptly the amount of such bond to the extent to which such surety might be liable, then the Contractor within thirty days after notice by the Board to the Contractor shall, by supplemental bond or otherwise, substitute another and sufficient surety to be approved by the Board in place of the surety so insolvent or unable. If the Contractor shall fail, within such thirty days or such further time as the Board may grant, to substitute another and sufficient surety, then the Contractor shall, for all the purposes of this contract, be deemed to be in default in the performance of its obligations hereunder and upon the said bond, and the Board may terminate the contract or may bring any proper suit or proceeding against the Contractor and the sureties, or either of them, or may require to be deducted from any moneys then in or thereafter coming into the hands of the City and due to the Contractor the amount for which the surety insolvent or unable as aforesaid shall have justified on the bond; and the moneys so deducted shall be held by the Comptroller as collateral security for the performance of the condition of the bond.

The Contractor may at his option deposit with the Comptroller in lieu of said bond or of any part thereof an equal amount in cash or in value of securities. If securities be deposited they shall be securities of which a schedule shall be hereto annexed, entitled Schedule of Securities, together with the written approval of the Board, which it shall give when satisfied as to the character thereof. In case any of the securities so deposited shall, in the opinion of the Board, at any time cease to be of the character of securities in which the savings banks of the State of New York are then authorized by law to invest moneys, or shall, in the opinion of the Board, at any time become of less value than the value stated for it or them in the said schedule—then within ten days after notice to the Contractor of the objection of the Board, the Contractor shall either substitute therefor securities which shall be approved by the Board as of the character aforesaid and as being of at least the value of the former securities to which the Board shall have objected as such value was originally stated in the said schedule, or shall deposit with the Comptroller in cash the amount of such value of such former securities as so originally stated. In case the Contractor shall not within such ten days substitute such new securities, he shall, if the Board so elect, be deemed to be in default in the performance of his obligations under this contract; and in addition to any and all other remedies against the Contractor or its sureties, the Board may require the Comptroller to deduct from any moneys then due or which may hereafter become due to the Contractor under this contract, the amount of the original valuation of such securities objected to, and to hold such amount in lieu of such securities, as if part of the original deposit or as if deposited with the Comptroller as aforesaid, and such amount shall in such case be deemed to be paid to the Contractor upon the contract. The securities so objected to shall, upon such substitution of securities or deposit of cash in lieu thereof, be returned to the Contractor.

When Contractor May Substitute Cash or Securities.

If, and as the Board shall consent and the law permits, the Contractor may from time to time substitute cash for securities, or securities of the character aforesaid for cash, but always so that the total amount and value of the deposit shall not be reduced.

The City shall from time to time collect all interest, dividends or other profits or income on any securities deposited by the Contractor, and shall account for the same as hereinafter provided.

The said deposit, whether in cash or securities, in the form and as the same shall at any time be, shall be security for the faithful performance by the Contractor of all the covenants, conditions and requirements specified and provided for in this contract. In case of any default on the part of the Contractor in such performance, and in the further case that the City shall for or by reason of such failure, whether by reason of employment of another contractor or contractors, or otherwise, incur or become liable for expense through such default as hereinafter provided, then the Comptroller shall forthwith pay or apply to the use of the City the amount of such expense out of the said deposit in cash or securities or out of the portion of the deposit remaining at the time.

The Comptroller shall, upon the requirement of the Board, in order to make such payment or application to the use of the City, sell at public auction in The City of New York any of the securities which may then constitute part of such deposit upon notice to be published in three daily newspapers, the first publication to be as much as ten days before the sale, and such publication to be made three times within such ten days. Any such sale shall be adjourned from time to time if requested by the Board. The Comptroller shall, upon the requirement of the Board, deduct from the proceeds of any such sale, all expenses thereof and of such advertisement, and pay and apply to the use of the City so much of the residue of such proceeds as may be necessary for the purpose aforesaid. And the Contractor within ten days after notice from the Board so to do shall (unless the time be extended by the Board), by further deposit, according to the requirement of the Board, of money or securities of the character aforesaid, approved by the Board, restore the said deposit with the Comptroller to the full amount originally required. In addition to, or in lieu of, the sale above provided for, the Board may, in the name of and in behalf of the City, bring any appropriate suit or proceeding in any proper court to enforce the lien and claim of the City in and upon the said deposit, whether such deposit be in money or securities.

If at any time when the Contractor shall otherwise be entitled to a return of the said deposit there shall be pending any claim for damages or loss caused to others by the negligence, fault or default of the Contractor, for which it shall be claimed that the City shall be liable, then and in that case the said deposit, or such part thereof as the Board shall prescribe, shall, upon the requirement of the Board, be reserved by the Comptroller for a reasonable time as security to the City against such claims. And the amount of any such damages or cost paid by the City to others or for which the City shall be liable to others, shall be deducted from the said deposit before the same shall be returned to the Contractor, as hereinafter provided.

When the Contractor shall have fully completed works according to the terms of this contract and the Board shall so certify, the Comptroller shall pay and deliver to the Contractor the said deposit, or so much thereof as shall not have been reserved or used or applied for any of the purposes above mentioned and the Contractor shall also then be entitled to the payment of a sum which shall be equal, as the case may be, either to the interest on the said deposit (if made in cash) from the time of such deposit at the average rate of interest received by the City on its bank balances during the period of such deposit, or to the interest, dividends or other income which the City shall have received from the said securities, together with interest on any such interest, dividends or other income so received by the City from such securities from the time of its receipt at the average rate of interest received by the City on its bank balances during the period of such deposit. If, however, any of the cash so deposited shall have been used or applied for any of the purposes above mentioned then the Contractor shall not be entitled to credit for interest on the amount of cash so applied from the time of such application.

VI.—PAYMENTS TO CONTRACTOR.

Payments, How to be Made.

The City shall make payments to the Contractor on account as the work progresses, upon vouchers certified by the Board. Written requisitions by the Contractor for such payments shall be delivered to the Board at intervals of not less than one month. Each requisition by the Contractor shall be accompanied by a certificate of the Engineer to the effect that work has been done and materials have been delivered in accordance with the terms of the contract at or upon the works prior to the time of such requisition of an estimated value stated in such certificate. Such value shall be ascertained relatively to the contract value of the entire work.

The Board shall thereupon forthwith prepare and certify a voucher in due form for payment by the City for 90 per cent. of the estimated value of the work so done and materials so furnished. The Board shall not be bound by the certificate of the Engineer, but may in every case fix the amount due at such sum as the Board shall itself determine to be 90 per cent. of the proper actual relative value of such work and materials. The amount so certified by the Board shall be forthwith paid by the City to the Contractor without any deduction except as herein otherwise provided. In case the Contractor shall be dissatisfied with the determination of the Board as to value as aforesaid, the Contractor may, within twenty days after notice of such determination, appeal therefrom in the manner hereinbefore provided for appeals from determinations of the Engineer as to additional work, and the receipt by the Contractor of the amount certified by the Board shall not be deemed a waiver of the right to appeal. And, if the payment upon such appeal shall be determined to be too small, then upon such determination the City shall forthwith and upon a voucher certified by the Board pay to the Contractor the additional amount awarded upon such appeal.

Final Certificate and Final Payment.

Whenever and as soon as the Contractor shall have completed all work of construction under this contract, the Board shall make a certificate in writing stating that the work has been completed and accepted, and stating also the amount payable for all the work of every kind done under and according to the terms of this contract. On the expiration of forty days after the filing of such certificate in the office of the Comptroller, the City shall pay to the Contractor in cash the amount remaining after deducting from the amount stated in the last mentioned certificate (1) all such sums as shall theretofore have been paid to the Contractor under any of the provisions of this contract, and (2) all such sums as by the terms hereof the City is at that time authorized to receive or retain. The City shall also at the same time surrender the Contractor's bond, or any cash or securities deposited instead of such bond. All prior certificates upon which partial payments may have been made, being merely estimates, shall be subject to correction in the final certificate.

Final Payment to Terminate Liability of City.

The acceptance by the Contractor of the last payment aforesaid shall be and shall operate as a release to the City, the Board and each of them and their agents, from all claim and liability to the Contractor for anything done or furnished for, or relating to, the work, or for any act or neglect of the City or of any person relating to or affecting the work, except the claim against the City for the remainder, if any there be, of the amounts kept or retained as provided in this Contract.

Contractor's Claims for Damage. Statements of Damage to be Filed with Engineer.

If the Contractor shall claim compensation for any damage sustained by reason of the acts of the Board, or its agents, he shall within five days after the sustaining of such damage, make a written statement of the nature of the damage sustained, to the Engineer. On or before the fifteenth day of the month succeeding that in which any such damage shall have been sustained, the Contractor shall file with the Engineer an itemized statement of the details and amount of such damage, and, unless such statement shall be made as thus required, his claim for compensation may be forfeited and invalidated, and he shall not be entitled to payment on account of any such damage.

Evidence That Labor and Materials Have Been Paid for.

The Contractor shall furnish the Board with satisfactory evidence that all persons who shall have done work or furnished materials, and who shall have given written notice to the Board before, or within ten days after, the final completion of the works, that any balance for such work or materials is due and unpaid, have been fully paid and satisfactorily secured; and in case such evidence is not furnished as aforesaid such amount as may be necessary to meet the claims of the persons aforesaid may be retained from the money due to the Contractor under this agreement until the liabilities aforesaid shall be fully discharged or such notice or notices withdrawn.

Liens for Work or Materials.

If at the time of any requisition any lien shall have been filed against the Contractor on the railroad or any part thereof against the amount payable to the Contractor under the provisions of this contract by any person or corporation entitled to file the same for work, labor, or services done or performed, or for materials furnished to the Contractor in or about construction of the railroad, an amount reasonably sufficient to pay and discharge such lien and to pay the costs of foreclosure thereof shall be retained by the Comptroller from the amount which would be otherwise payable to the Contractor on such requisition, until the said lien shall be discharged or secured as provided by law. If such lien shall be foreclosed according to law then the Comptroller may pay the said amount found due upon such lien by the judgment in the foreclosure action to the person entitled thereto, and such payment shall be deemed a payment hereunder to the Contractor. If the sum so retained shall not be sufficient to discharge the lien so foreclosed, the deficiency shall be retained by the Comptroller out of the next moneys coming due to the Contractor.

VII.—CONTRACTOR'S LIABILITY FOR INJURIES TO PERSONS OR PROPERTY.

Contractor Approves Plans as Involving no Damage.

The Contractor admits and covenants to and with the City that the plans and specifications and other provisions of this contract for construction, if the work be done without fault or negligence on the part of the Contractor, do not involve any danger to the foundations, walls or other parts of adjacent buildings or structures; and the Contractor shall at his own expense make good any damage that shall, in the course of construction, be done to any such foundations, walls or other parts of adjacent buildings or structures or to navigation. But this covenant is not to be construed as applying to the foundations, walls or other parts of buildings erected upon private property through which the railroad or any station entrance or approach shall be constructed.

Engineer May Order Adjacent Property Supported.

The Contractor shall obey any order of the Engineer to support or secure adjacent property or any surface or structure thereon; but the Contractor shall not be relieved of responsibility either by compliance with any such order, or by any failure or omission of the Engineer to give any such order or to give notice of any danger.

Traffic to be Maintained.

The Contractor shall during the performance of the work safely maintain the traffic on streets, avenues, highways, parks, waters or other public places in connection with the work as provided in the specifications, and shall take all necessary precautions to place proper guards for the prevention of accidents and put up and keep at night suitable and sufficient lights.

Indemnification for Accidents, etc.

The Contractor shall save harmless the City against and from all damages or costs to which it may be put by reason of injury to the person or property of another or others, resulting from negligence or carelessness of the Contractor or of any sub-contractor or other person employed on the works, either in the performance of the works or from guarding the same, or from any improper materials used in its construction, or by or on account of any other act or omission of the Contractor or any sub-contractor or other person employed on the works; and shall fully meet and duly pay the amount of any loss or damage caused or done to the City or that the City may suffer from any injury to any person or the property of any person through the negligence, act or omission in the course of construction of the Contractor or of any sub-contractor or other person employed on the works.

Money Due the Contractor May be Retained to Meet Claims.

In case any claim shall be made by any person or corporation against the Contractor or the City for loss or damage to person or property caused by or arising from or alleged to have been caused by or to have arisen from any negligence, act or omission of the Contractor or of any sub-contractor or other person employed on the work, the amount of such claim or so much thereof as the Board shall deem reasonable, shall, upon the requirement and in the discretion of the Board, be retained by the Comptroller out of any moneys thereafter growing due to the Contractor hereunder (in addition to the other sums hereinbefore authorized to be so retained), as security for the payment of such claim or claims. If and when the liability of the City or the Contractor on such claim or claims shall have been established by a judgment of a court of competent jurisdiction, or shall have been admitted by the Contractor to be valid, the said claim or claims shall be paid from the amount so retained and the balance, if any, paid to the Contractor.

Protection of Abutting Property Owners.

It is the intent of this agreement that in addition to indemnifying the City against all claims for damages, the Contractor shall also be liable to the owners of adjacent or abutting property, or of buildings or structures thereon and to all tenants of or persons in such buildings or structures, for all physical injuries to property or persons which may be occasioned by the work of construction, even in cases where such owners, tenants or other persons have no legal claim against the City for such injuries. It is therefore further expressly agreed, and is one of the terms and conditions upon which this contract is awarded to the Contractor, that in addition to all other liability for injuries to adjacent or abutting property, or to buildings or structures thereon, or for injuries to persons, the Contractor shall fully meet and duly pay the amount of any loss or damage that any abutting or other owners or other persons may suffer by reason of any physical injury to property or person occasioned by any act or omission of the Contractor or of any sub-contractor or other person employed on the work; this clause of the contract being a separate and independent provision, disassociated from any duty resting upon the City and having for its sole purpose the complete indemnification by the Contractor of all owners of adjacent or abutting property or of buildings or structures thereon, and of all tenants of and persons in such buildings or structures for any physical injury which may be done to their property or persons through any act or omission of the Contractor or of any sub-contractor or of any other person in the course of any employment under the Contractor or any sub-contractor in or upon the construction of the works or any part thereof.

Damage to Work During Construction.

All risk of loss or damage to the works or to the materials therefor, prior to final completion, unless caused by the fault of the City, is assumed and shall be borne by the Contractor, and any such loss or damage shall be made good by the Contractor at his own cost, and the construction shall be carried forward by him in accordance with this contract without additional cost to the City by reason of such loss or damage.

VIII.—CITY TO SECURE CONTRACTOR AGAINST INTERFERENCE BY INJUNCTIONS, TO ACQUIRE REAL ESTATE, ETC.*City's Assurances to Contractor of Right to Construct and Operate.*

The City hereby stipulates and covenants to and with the Contractor that the City will secure and assure to the Contractor so long as the Contractor shall perform the stipulations of this contract, the right to construct and to operate the railroad as prescribed in this contract free of all right, claim or other interference, whether by injunction, suit for damages or otherwise, on the part of any owners, abutting owner, or other person; but not including any interference, legal or otherwise, by patentees or persons claiming to be patentees of tools, methods or appliances. Provided, however, that the Contractor shall enforce its rights against the City under this provision solely by claim for money, and shall have no right to set up any failure or default on the part of the City to perform or satisfy this stipulation or covenant in defense, or by way of exculpation or any excuse whatsoever (otherwise than as a claim or counter-claim for money) of the Contractor for any default or failure of any character whatsoever on its part. Nothing herein contained shall be construed to require the Contractor to do any act in violation of a valid injunction issued by a court of competent jurisdiction forbidding such act.

Claims for Infringement of Patents.

The Contractor shall hold himself responsible for any claims made against the City for any infringement of patents by the use of patented articles in the performance and completion of the work, or of any process connected with the work agreed to be performed under this contract, or of any materials used upon the said work; and shall save harmless and indemnify the City for all costs, expenses and damages which the City shall be obliged to pay by reason of any infringement of patents used in the performance and completion of the work.

Acquisition of Real Estate.

The City will acquire all such real estate and rights of way or other rights, terms, franchises, easements and privileges therein as may be needed, either permanently or temporarily, for the purpose of constructing the railroad or pipe galleries, or to provide, lay or maintain conduits, pipes, ways or other means for the transmission of electricity, steam, water, air or other source or means of power or of signals or of messages necessary or convenient for or in the construction or operation of such road, or for the transportation of materials necessary for such construction, or to provide a temporary or permanent way or course for any such conduit, pipe or other means or source of transportation; and the City may also acquire any and all rights, privileges, franchises and easements, whether of owners or abutters, or others, to interfere with the construction of the railroad or to recover damages therefor, which, in the opinion of the Board, it shall be necessary to acquire or extinguish for the purpose of constructing the railroad free of interference or right of interference.

IX.—TIME FOR COMPLETION, DAMAGES FOR DELAY, ETC.*Commencement and Completion of Work.*

Time is of the essence of this contract. The Contractor shall begin actual work within sixty (60) days after the execution of this contract. The entire work covered by this contract shall be completed in all respects within twenty months from the date of the delivery of this contract.

Price to be Reduced for Delay.

In the event of delay in completion of the works beyond the period herein prescribed, and in case any such delay shall not be excusable, or the period extended, as hereinafter provided, the City shall be paid damages for such delay. Inasmuch as the amount of such damages will be extremely difficult to ascertain, especially in view of the fact that the Railroad herein contracted for is only a part of a complete system; the remainder of which is to be constructed under other contracts, it is hereby expressly agreed that damages shall be liquidated and paid by reducing the price to be paid the Contractor as follows: From the several amounts which shall become payable to the Contractor after the expiration of the periods above limited (but not including the retained percentages from amounts theretofore certified to be due), there shall be deducted and retained by the City as liquidated damages for such delay (and not as a penalty) one per cent. thereof for each and every month after the expiration of the said period until such amounts are severally certified to be due and payable. But in case the Contractor shall be delayed by reason of any labor strike not caused or instituted or provoked by the Contractor, or by any sub-contractor, agent or representative of the Contractor (which fact the Contractor shall prove to the satisfaction of the Board), or in case the Contractor shall be delayed by any injunction or by any interference of public authority, and in case the Contractor cannot, notwithstanding such injunction or interference, with reasonable diligence make up for the delay so occasioned by speedier work when the Contractor shall not be so interfered with, then the said date for completion shall be extended to a date later than the expiration of the said period by the amount of the time of such delay.

Board May Intervene in Case of Injunction.

But no injunction, strike or interference of public authority shall be ground for such extension except if and from the time when the Contractor shall give the Board

notice of the injunction or other cause of delay, with copies of the injunction or other orders and of the papers upon which the same shall have been granted. The Board and the City or either shall be accorded the right to intervene or become a party to any suit or proceeding in which any such injunction shall be obtained, and to move to dissolve the same or otherwise, as the Board or City may deem proper. If necessary the Corporation Counsel or the counsel or attorneys of the Board shall be authorized by the Contractor to appear for that purpose as counsel or attorneys for him.

Suspension of Work and Additional Time for Performance.

The Board reserves the right of temporarily suspending the execution of the whole or any part of the work herein contracted to be done, if it shall deem it for the interest of The City of New York so to do, without compensation to the Contractor for such suspension, other than extending the time for completing the work as much as it may have been delayed by such suspension.

Time for Completion to be Extended in Case of Delay in Acquiring Real Estate.

In case the Contractor shall at any time give notice to the Board that any real estate is necessary under this contract for any of the purposes specified above, which notice shall give a brief description of such real estate, the Board shall (if it finds that such necessity exists) begin and conduct with diligence, proceedings to acquire the real estate described; and in case the Board shall fail to put the Contractor in possession of such real estate within three months from the delivery of such notice, then the period for completion of the works shall be extended for such a time as such completion is necessarily delayed by the failure of the Board to furnish such real estate; but no allowance by way of damages shall be made for such delay. In any arbitration, suit or proceeding involving this clause of the contract, the burden of proof shall be on the Contractor to show that the real estate which he described was in fact necessary.

Permission to Complete Contract Not a Waiver.

The permitting of the Contractor to go on and finish the work, or any part of it, after the time fixed for its completion, or after the date to which the time for completion may have been extended, or the making of partial payments to the Contractor after any such periods, shall in no wise operate as a waiver on the part of the City of any of its rights under this Contract.

Price to be Increased in Case of Early Completion.

In the event that the construction shall be completed as aforesaid ready for immediate, full and continuous operation within twenty months from the date of the delivery of this contract, then the price to be paid the Contractor shall be increased at the rate of one (1) per cent. upon the total amount thereof for every month to elapse between the date of such completion and the expiration of such period of twenty months.

X.—REMEDIES IN CASE OF CONTRACTOR'S DEFAULT.*Contractor's Default in Construction.*

In case the Contractor shall fail to complete the works within the period above limited, or shall at any time fail to proceed with reasonable diligence, or so that it shall not be reasonably probable that the works will be completed within the period above limited, then and in any such case the Board upon a notice to the Contractor of not less than thirty days may—

City May Complete.

1. By resolution declare the Contractor to be in default; and the City by the Board in addition to every, or in substitution for any other, remedy which it may have by law or hereunder, may thereupon forthwith, so far as the City may now have or may hereafter secure statutory power, procure by contract or otherwise, either for the Contractor, for his account and at his risk or otherwise as the Board shall determine, the completion of such construction, or, in any case where the Board shall deem it for the interest of the City, the performance of any part of such construction; and the City may to the extent of the cost of such completion of the construction or of such performance or provision of any part thereof and interest on such cost, withhold and apply thereon any moneys otherwise due or to become due by the City to the Contractor, and the Contractor shall be liable to the City and shall, as the Board may from time to time require, forthwith pay to the City the excess, if any, of the cost to the City of the completion of such construction or of such performance or provision of any part thereof over the amount payable to the Contractor therefor under the terms of this contract, and also the amount, if any, which shall be due to the City by reason of any delay in completion of the construction, or in such performance or provision of any part thereof. Or

Or Make New Contract.

2. By resolution declare this contract at an end except as to the liability of the Contractor hereinafter in this paragraph provided, and make a new contract for construction, upon advertisement of a new invitation to contractors, upon such terms as the Board may deem proper; the same to provide among other things that the new Contractor shall allow for so much of construction as has been already completed, a reasonable amount to be prescribed in such new contract or to be ascertained as in such new contract to be provided; and in such case the Contractor shall pay the City all damage which the City shall sustain by reason of such failure, including the excess, if any, of the amount which the City shall pay the new Contractor over the amount it would have had to pay the Contractor, party hereto, for the same work or materials, together with the amount, if any, which shall be due to the City by reason of the delay in completion of the construction.

Or Proceed Upon Bond for Construction.

3. The City may also proceed as to the Board shall seem proper upon the bond, or with respect to the deposits of cash or securities made as aforesaid, or with respect to the bonds, surety, obligations or securities given by sub-Contractors and assigned as aforesaid.

Or May Bring Suit.

4. The City may also bring any suit or proceeding for specific performance or for injunction or to recover damages or to obtain any relief or for any purpose proper under this contract.

XI.—MISCELLANEOUS PROVISIONS.*Changes in the Contract.*

No correction or change in this Contract shall be made except by written instrument duly authorized by the Board, and consented to by the Contractor, and, if a bond shall have been given as aforesaid and be then in force, then also consented to by the sureties upon such bond; but this provision shall not limit or affect the right to prescribe variations of detail whether of construction or location of route as in this Contract elsewhere provided.

Members of Board not Liable.

No claim shall be made by the Contractor against any member of the Board personally by reason of this contract or of any of its articles or provisions.

Contract, When Assignable.

This contract shall not be assigned without the written consent of the Board, concurred in by six members thereof.

Provisions in Case Board Cease.

In case the Board shall cease to exist the Legislature may provide what public officer or officers shall exercise the powers and duties of the Board under and by virtue of this contract; and in default of such provision, such powers and duties shall be deemed to be vested in the Mayor of the City. In case any officer or officers other than the Board shall hereafter have the powers of the Board or any of them, then the provisions of this contract shall be applicable to such officer or officers to the extent to which the powers of the Board shall appertain to such officer or officers, and any official act or determination of such officer or officers or of this

Board shall be sufficient hereunder, anything herein to the contrary notwithstanding, if the same be done or had by lawful vote or resolution or in such manner as the Legislature may from time to time prescribe.

Labor Law.

The Contractor agrees to comply with the provisions of the Labor Law, including section 3 thereof as re-enacted by chapter 506 of the Laws of 1906. The Contractor further agrees and stipulates that no laborer, workman or mechanic in the employ of the Contractor, sub-Contractor or other person doing a contracting to do the whole or a part of the work contemplated by this contract, shall be permitted or required to work more than eight hours in any one calendar day, except in cases of extraordinary emergency caused by fire, flood or danger to life or property; and further, that the wages to be paid for a legal day's work as hereinbefore defined to all classes of such laborers, workmen or mechanics upon the work contemplated by this contract or upon any material to be used upon or in connection therewith, shall not be less than the prevailing rate for a day's work in the same trade or occupation in the Borough of Manhattan, where the work hereby contemplated, about or in connection with which such labor is performed, is in its final or completed form to be situated, erected or used; and that each such laborer, workman or mechanic employed by the Contractor or by any sub-Contractor or other person on, about or upon the work contemplated by this contract, shall receive such wages herein provided for. This contract shall be void and of no effect, unless the Contractor shall comply with the provisions of this paragraph. In obedience to the requirements of section 13 of the Labor Law, it is further provided that if the provisions of the said section are not complied with, this contract shall be void.

All Necessary Legal Provisions Deemed Inserted herein.

It is the intent and understanding of the parties to this agreement that each and every provision of law required to be inserted in this contract should be and is inserted herein. Furthermore, it is hereby stipulated that every such provision is to be deemed to be inserted herein; and if, through mistake or otherwise, any such provision is not inserted in correct form, then the contract shall forthwith, upon the application of either party, be amended by such insertion so as to comply strictly with the law, and without prejudice to the rights of either party hereunder.

Provision in Case of Unlawful Provision.

If this contract contains any unlawful provision not an essential part of the general structure of the contract, and which shall not appear to have been a controlling or very material inducement to the making thereof, the same shall be deemed of no effect, and shall upon the application of either party, be struck from the contract without affecting the binding force of the contract as it shall remain after omitting such provision.

In witness whereof, this contract has been executed for The City of New York by its Board of Rapid Transit Railroad Commissioners under and by a resolution duly adopted by the said Board and concurred in by not less than six of its members, and the seal of the said Board has been hereto affixed, and these presents signed by the President and Secretary of the said Board; and the Contractor has* hereunto set his hand and seal the day and year first above written.

*If the Contractor is not a single individual, but is a corporation or partnership, the words following the asterisk will be struck out and the words "caused its corporate seal to be hereto affixed and this contract to be witnessed by its President and Secretary," or other appropriate words, will be substituted.

State of New York, County of New York, ss.:

On the _____ day of _____, 190____, before me personally appeared Alexander E. Orr and Bion L. Burrows, to me known and known to me to be the said Alexander E. Orr, the President, and the said Bion L. Burrows, the Secretary of the Board of Rapid Transit Railroad Commissioners for The City of New York; and the said Alexander E. Orr and Bion L. Burrows, being by me duly sworn, did depose and say, each for himself and not for the other, the said Alexander E. Orr, that he resides in the Borough of Brooklyn, in the said City, that he is the President of the said Board and that he subscribed his name to the foregoing contract by virtue of the authority hereof; and the said Bion L. Burrows, that he resides in the Borough of Brooklyn, in the City of New York, that he is the Secretary of the said Board and that he subscribed his name thereto by like authority; and both the said Alexander E. Orr and Bion L. Burrows that they know the seal of the said Board and that the same was affixed to the foregoing instrument by the authority of the said Board and of a resolution duly adopted by the same.

Note—An acknowledgement by the Contractor, in due form, will be added here at or before the time of the delivery of the contract.

CONTRACTOR'S BOND.

Know all men by these presents, That _____ of _____ and hereinafter called the Contractor, and _____ and hereinafter called the Sureties, are held and firmly bound unto The City of New York, hereinafter called the City, in the penal sum of one hundred and eighty thousand dollars (\$180,000) lawful money of the United States of America, to be paid to the City, for which payment well and truly to be made the Contractor and the Sureties do hereby bind themselves and their, and each of their, executors, administrators and successors firmly by these presents, as follows: The Contractor to be so held and bound for the full amount of the said one hundred and eighty thousand dollars (\$180,000) and each of the said Sureties to be so held and bound only for a portion of said penal sum as follows:

The said _____ for the sum of _____ (\$ _____); the said _____ for the sum of _____ dollars (\$ _____); the said _____ for the sum of _____ dollars (\$ _____); the said _____ for the sum of _____ dollars (\$ _____).

In witness whereof, the Contractor and the Sureties have hereunto caused their respective seals to be hereto affixed and these presents to be attested by the proper officers of each of them which is a corporation, this _____ day of _____, 1907.

Whereas, The City by its Board of Rapid Transit Railroad Commissioners (hereinafter called the Board) is about to enter into a contract with the Contractor bearing even date herewith for the construction of certain works in The City of New York more particularly described in the said contract; and

Whereas, The City is about to enter into such contract with the contractor upon the condition, and not otherwise, that this bond shall be given to the City, and upon the faith thereof.

Now, therefore, The condition of the foregoing obligation is such that if the Contractor shall fully perform the said contract, then this obligation shall be null and void, but else it shall remain in full force and virtue.

It is expressly agreed between the City and the Sureties (and it is upon such agreement that the City accepts this bond) that the Sureties will and do waive any and every notice of default on the part of the Contractor; that they will and do permit the City to extend the time of the Contractor to make any payment or do any act; that no omission on the part of the City to give any notice or extension of time granted by or on behalf of the City shall be availed of by the Sureties or either of them as a defense upon this bond; that the Sureties shall not set up or have any defence upon this bond by reason of any alteration of the said contract unless such alteration shall be represented by a formal written instrument duly executed between the City and the Contractor which shall have been duly authorized by a vote of the Board; and that in case of such alteration, however made, the same shall be a defence to the Sureties only to the extent of the actual injury or damage caused to the Sureties by said alteration.*

*The execution of the bond must be duly proved before delivery in the form essential to proof to entitle a deed to record in the State of New York. Full affidavits of justification of sureties must be added.

CONTRACTOR'S PROPOSAL.

(Delancey Street, Between the Bowery and Norfolk Streets.)

Notice—Sums of money must be written in words and also in figures. There must remain annexed hereto:

Copy of Invitation to Contractors.

Copy of Form of Contract.

Copy of form of Bond.

Schedule of securities, filled up only if the bidder desires to deposit securities in lieu of cash.

To the Board of Rapid Transit Railroad Commissioners in and for The City of New York:

1. The undersigned* _____ do hereby, in pursuance of the Invitation to Contractors, a copy of which is attached hereto, propose according to the terms thereof to enter into a contract with The City of New York in the form therein referred to and to perform all the work mentioned in the said contract and hereby agree to accept in full payment therefor the following sums, to wit:

For construction of the railroad (as these words are defined in the form of contract), including the furnishing of all labor, materials and appliances required to do the work, the sum of _____ dollars (\$ _____).

For construction of the pipe galleries, including the furnishing of all labor, materials and appliances required to do the work, the sum of _____ dollars (\$ _____).

It is understood that the acceptance of the foregoing bid for pipe galleries is conditional on the acceptance of the above bid for construction of the railroad; but that the Board may accept the bid for construction of the railroad and reject the bid for construction of pipe galleries.

*If the bid is submitted by a corporation, the full legal title must be given here and a certified copy of the certificate of incorporation must be submitted, together with an affidavit showing the amount of stock paid in in cash and the names and addresses of the directors and principal officers. If the bid is submitted by a firm, the above blank must be filled up in the following form: "The firm of A. B. & Co., composed of A, B, C, D, eac." (giving the names of all the partners).

2. It is understood by the undersigned that all of the above sums are subject to modification as provided in the above mentioned form of contract and that payments are to be made when and as therein provided.

3. If this proposal is accepted, the undersigned will, within ten days after delivery of notice, execute and deliver the contract with the City in the form aforesaid and at the same time will deliver to the Comptroller of The City of New York, pursuant to the terms of the said contract, a bond in the penalty of one hundred and eighty thousand dollars (\$180,000) in the form hereto annexed with the following named securities, viz.:

*The bidder may, under section 34-c of the Rapid Transit Act, deposit cash or securities, with the approval of the Board, in lieu of a bond; and the bidder, if desirous of so doing, may so state here, and strike out the words in italics.

4. Your Board may cause any notice intended for the undersigned to be delivered at Room No. _____, on the _____ floor of the building No. _____, in the Borough of _____, in The City of New York. Such delivery shall be sufficient notice to the undersigned.

5. At the time of delivering this proposal to your Board the undersigned will separately deliver a certified check payable to the order of the Comptroller of The City of New York for the sum of fifteen thousand dollars (\$15,000). If your Board shall notify the undersigned that this Contractor's Proposal is accepted and that the proposed contract is approved by the Board of Estimate and Apportionment, then, if the undersigned shall fail within ten days thereafter or within such longer period as may be prescribed by your Board to make the deposit in cash or securities as aforesaid; or to procure the above described bond to be duly executed and delivered; or if the undersigned shall fail to procure the contract to be duly executed and delivered as aforesaid, then the Invitation to Contractors and this Contractor's Proposal shall constitute a contract binding the undersigned to pay to the City the damages by it sustained by reason of such failure of the undersigned, as provided in said Invitation to Contractors. And the undersigned hereby assigns to the City the said sum so specially deposited by the delivery of such certified check, subject only to the condition that if this proposal shall not be accepted, or, if it shall be accepted and the undersigned shall within ten days after notice as aforesaid or any longer period prescribed by your Board, execute the said contract and make the said deposit in cash or securities and procure the said bond to be duly executed and delivered, then the amount of the said check so specially deposited shall be returned to the undersigned.

6. A notice of acceptance of this proposal by your Board addressed to the undersigned as aforesaid shall forthwith, at the option of your Board, operate as against the undersigned as a complete making of a contract according to the form thereof as aforesaid, with the blanks therein contained filled in according to this proposal.

7. There are no persons interested with the undersigned in this proposal, except* _____

*Here insert the names and addresses of all persons interested with the bidder. If there are no such persons, strike out the word "except."

8. This proposal is made without any connection with any other person making a proposal or bid for the same purpose, and is in all respects fair and without collusion or fraud. No member of the Board of Aldermen, head of department, chief of bureau, deputy thereof or clerk therein, or other officer of The City of New York, or any member or employee of the Board of Rapid Transit Railroad Commissioners of said City is interested directly or indirectly, as contracting party, partner, stockholder or otherwise in or in the performance of the contract, or in the supplies, work or business to which it relates, or in any portion of the profits thereof.

Dated the _____, 190____.

Affidavit of Verification.

State of New York, City and County of New York, ss.:

_____ being duly sworn, says: I am*

the proposing Contractor above named. I have read the foregoing proposal. The same is in all respects true.

Sworn to before me this _____ day of _____, 190____.

*If the bidder is an individual, do not fill this blank; if the bidder is a firm, here say, "a member of the firm of _____"; if a corporation, say "the _____ Company."

Acknowledgment for Individual or Firm.

State of New York, City and County of New York, ss.:

On this _____ day of _____, 190____, before me personally came _____

to me known and known to me to be _____ the person described in and who executed the foregoing proposal, and he acknowledged to me that he executed the same for the purposes therein mentioned.

Acknowledgment for Corporation.

State of New York, City and County of New York, ss.:

On this _____ day of _____, 190____, before me personally came _____

to me to be the _____ of the _____ Company, and _____ to me known and known to me to be the _____ of the said _____ Company, who being by me severally duly sworn, did say: the said _____ that he resides at _____ and is the _____ of said _____ the corporation described in and which executed the foregoing proposal, and the said _____ that he resides in _____ and is the _____

of said Company; and each for himself did say that he knows the corporate seal of said company; that the seal affixed to the foregoing instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said Company, and that by like order each thereto signed his name and official designation.

Schedule of Securities.

Note—If the bidder desires not to give a bond, but to deposit securities in lieu thereof, a description of the securities to be deposited for that purpose must be inserted below.

All securities when delivered must be payable to, or run in favor of, or be transferred to, the Comptroller of The City of New York.

The following resolution was offered:

Resolved, That, pursuant to the provisions of section 37 of the Rapid Transit Act (chapter 4 of the Laws of 1891, as amended), and the requisition of the Board of Rapid Transit Railroad Commissioners, duly made by the President and the Secretary of said Board on June 14, 1907, the Comptroller be and is hereby authorized and directed to issue Corporate Stock of The City of New York to the amount of one million two hundred and ninety-eight thousand four hundred and thirty-six dollars (\$1,298,436), bearing interest at a rate not exceeding four (4) per centum per annum, to provide means for the following purposes:

For the construction of a part of the proposed Brooklyn loop lines, rapid transit railway, in Delancey street, between the Bowery and Norfolk street, in the Borough of Manhattan.....	\$1,229,136 00
For the construction of pipe galleries in connection therewith.....	69,300 00
	<u>\$1,298,436 00</u>

—and be it further

Resolved, That the amount of Corporate Stock hereby authorized to be issued shall not exceed the aforesaid sum of one million two hundred and ninety-eight thousand four hundred and thirty-six dollars (\$1,298,436) for the purposes above mentioned; and be it further

Resolved, That the Board of Estimate and Apportionment hereby consents to the proposed contract to be entered into by the Bradley Contracting Company and The City of New York, acting by the Board of Rapid Transit Railroad Commissioners, for the construction of said portion of the Brooklyn loop lines, rapid transit railway, in Delancey street, between the Bowery and Norfolk street, in the Borough of Manhattan, and for the construction of pipe galleries in connection with said railway.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

BOARD OF RAPID TRANSIT RAILROAD COMMISSIONERS, }
No. 320 BROADWAY, NEW YORK, }

To the Board of Estimate and Apportionment:

The Board of Rapid Transit Railroad Commissioners of The City of New York, on May 25, 1905, adopted routes and a general plan for the construction of a rapid transit railway in the Boroughs of Manhattan and Brooklyn, which routes and plan were approved by your Honorable Board on July 14, 1905, by the Mayor of The City of New York on July 28, 1905, and by the Appellate Division of the Supreme Court in the First Judicial Department by an order entered on March 12, 1907.

Pursuant to law, the said Board of Rapid Transit Railroad Commissioners prepared detailed plans and specifications for the construction of such rapid transit railway, and included in said plans provisions for galleries, ways, subways or tunnels for gas or water pipes, electric wires and other subsurface structures and conductors proper to be placed underground (hereafter in this communication referred to as pipe galleries), and determined to make a separate contract for the construction of a part of the said road in the new extension of Delancey street, between Centre street and the Bowery (Section 9-0-4). The form of the said contract, as duly adopted by the said Rapid Transit Board, was approved by the Corporation Counsel on May 20, 1907, and by your Honorable Board on May 17, 1907.

Thereafter the said Board of Rapid Transit Railroad Commissioners duly advertised for proposals by notices printed twice a week for three successive weeks and upwards, in four of the daily newspapers published in The City of New York, which notice stated that the said proposals would be opened at the office of the Board on Thursday, June 13, at 12 o'clock noon. At the said time and place, proposals were received as follows:

The Degnon Contracting Company—	
For construction of the railroad.....	\$1,938,000 00
Pipe galleries	60,000 00
	<u>\$1,998,000 00</u>
Patrick McGovern—	
For construction of the railroad.....	\$1,950,000 00
Pipe galleries	60,000 00
	<u>\$2,010,000 00</u>
Cranford Company—	
For construction of the railroad.....	\$1,690,000 00
Pipe galleries	45,000 00
	<u>\$1,735,000 00</u>
Bradley Contracting Company—	
For construction of the railroad.....	\$1,518,302 00
Pipe galleries	29,040 00
	<u>\$1,547,342 00</u>

The said Board of Rapid Transit Railroad Commissioners, having duly considered the said proposals, did, on the 13th day of June, 1907, by a vote of six of its members, accept the proposal of the said Bradley Contracting Company, both for railroad construction and for pipe galleries, and accordingly awarded the contract for construction of the same to said company, subject to the consent of your Honorable Board as required by law. A complete copy of said contract as so adopted and awarded is herewith transmitted.

The said Board of Rapid Transit Railroad Commissioners therefore requests your Honorable Board to consent to said contract herewith transmitted and to prescribe a limit to the amount of bonds available to meet the requirements of the said contract, to wit: The sum of \$1,518,302 for construction of the part of the said rapid transit railway included in said contract, and the sum of \$29,040 for construction of pipe galleries in connection therewith; and also to direct the Comptroller of The City of New York to issue Corporate Stock of the said City, bearing interest at the rate of 4 per centum per annum, for the purpose of providing the necessary means for construction at the public expense of the part of the said rapid transit railway above described, including the said pipe galleries.

And the said Board of Rapid Transit Railroad Commissioners does hereby, pursuant to section 45 of the Greater New York Charter, make request for the authorization of such Corporate Stock for the full amount sufficient to pay the entire estimated expense of executing such contract, to wit: The sum of one million five hundred and forty-seven thousand three hundred and forty-two dollars (\$1,547,342).

In witness whereof, the Board of Rapid Transit Railroad Commissioners for The City of New York has caused its official seal to be hereto affixed and these presents to be signed by its President and Secretary, this 14th day of June, 1907.

[SEAL.]

BION L. BURROWS, Secretary.

A. E. ORR, President.

BOARD OF RAPID TRANSIT RAILROAD COMMISSIONERS CITY OF NEW YORK.

INVITATION TO CONTRACTORS, FORM OF CONTRACT, BOND, SCHEDULE AND CONTRACTOR'S PROPOSAL FOR CONSTRUCTION OF A PART OF THE PROPOSED BROOKLYN LOOP LINES (CENTRE STREET TO THE BOWERY).

INVITATION TO CONTRACTORS.

(Centre Street from Canal to Broome.)

The City of New York (hereinafter called the City) acting by its Board of Rapid Transit Commissioners (hereinafter called the Board) contemplates building a certain Rapid Transit Railroad, known as Route No. 9, in Delancey street (Manhattan) and other streets in the Boroughs of Manhattan and Brooklyn, including ultimately Centre street, Grand street, Desbrosses street, Canal street and William street in Manhattan, and Fulton street, Lafayette avenue and Broadway in Brooklyn.

By this advertisement, the City invites proposals to construct that part of said railroad which begins at the northerly side of Broome street and curves through Cleveland place (formerly Marion street) and private property into the new Delancey street extension, and runs thence under said extension and under and across the Bowery and under Delancey street to a point about 225 feet east of the centre line of the Bowery.

The general plan of construction calls for a four-track subsurface railroad. A station at the Bowery and extending to points between Elizabeth and Chrystie streets will be constructed, and suitable cross-overs, turnouts and sidings are also to be provided, all as shown in the detailed plans of construction. The tunnels are to have a height of not less than thirteen (13) feet in the clear, and a maximum width of fifteen (15) feet for each track, except at curves, etc., where the width may be increased. The roof of the tunnels is generally to be as near the surface of the street as street conditions and grades will permit, but will be depressed at the Bowery in order to avoid a grade crossing with a subway to be hereafter built. The roof and sides of the tunnels will be of iron or steel and masonry. Entrances to the station are intended to be placed within private property, rights in which will be acquired for the purpose.

The manner of construction shall be by excavation under cover, unless otherwise directed by the Board.

In the detailed plans for construction, provisions for pipe galleries through Delancey street and the new extension are included. Bids for the construction of the railroad must be accompanied by a separate bid for the construction of the pipe galleries above referred to, as it is essential for the City to separate the cost of the railroad from the cost of the pipe galleries. The Board reserves the right to accept a bid for construction of the railroad and at the same time to reject the accompanying bid for pipe galleries.

Bidders must visit the location of the railroad and station to be built under this contract and note the present conditions, especially along the line of the new Delancey street extension. The buildings standing within the lines of the said new street on May 1, 1907, are to be demolished and the materials removed by other contractors.

A fuller description of the work to be done is set forth, and other requirements, provisions, details and specifications are stated in the printed form of contract now on file in the office of the Board, No. 320 Broadway, Borough of Manhattan, and in the detailed drawings therein referred to, at which office copies of the contract and of the form of bond and contractor's proposal may be had on application. The contract drawings may be inspected at the same office. The printed form of contract and the detailed drawings are to be deemed a part of this invitation.

Partial payments to the Contractor will be made monthly as the work proceeds, as provided in the form of contract.

The work of construction (including pipe galleries) is to be completed as soon as practicable, and within twenty months from the date of delivery of the contract.

Sealed bids or proposals will be received at the said office of the Board, at No. 320 Broadway, Borough of Manhattan, City of New York, until Thursday, the 13th day of June, 1907, at 12 o'clock noon, at which time or at a later date to be fixed by the Board the proposals will be publicly opened.

Proposals must be in the form prescribed by the Board, copies of which may be obtained at the office of the Board.

Each proposal must be signed and verified by an affidavit of the bidder (or if it be a corporation then by an officer thereof) to the effect that the several matters therein stated are in all respects true. If the proposal is made by a firm, it will be sufficient if the proposal is signed and the affidavit sworn to, by one member of the firm.

Each proposal must specify an office within The City of New York at which notices may be delivered; and delivery of a notice at such office shall be deemed a sufficient delivery and notice to the bidder.

Each proposal or bid must contain the name and place of residence of the person or persons making the same, the names of all persons interested with him therein, and if no other person be so interested, it shall distinctly state that fact; and if the bidder shall be a corporation, there shall be submitted a certified copy of its certificate of incorporation, with a certificate of the amount of stock paid in in cash, and the names and business addresses of all officers and directors of the corporation shall be stated; also, that it is made without any connection with any other person making a proposal or bid for the same purpose, and is in all respects fair and without collusion or fraud, and that no member of the Board of Aldermen, head of department, chief of bureau, deputy thereof or clerk therein, or other officer of the corporation, or any member or employee of the Board, is interested, directly or indirectly, as contracting party, partner, stockholder, or otherwise in or in the performance of the contract, or in the supplies, work or business to which it relates, or in any portion of the profits thereof.

No proposal will be allowed to be withdrawn for any reason whatever after it shall have been deposited with the Board.

The Board is not obliged by law to accept any of the proposals received by it, but may reject all such proposals and readvertise, or may accept any of such proposals as will, in the judgment of the Board, best promote the public interest, and award a contract accordingly, subject to approval by the Board of Estimate and Apportionment, as required by law.

The award of the contract or contracts (if awarded) will be made by the Board within ten days after the opening of the proposals. The bidder or bidders whose proposal shall be accepted shall in person or by duly authorized representative attend at the said office of the Board within ten days after the delivery of a notice by the Board that the proposal is accepted and that the contract is approved by the Board of Estimate and Apportionment, and such bidder or bidders shall then deliver a contract in the form referred to, duly executed, with its execution duly proved.

At the time of the delivery of a contract, the Contractor will be required to furnish security to the City by giving a bond in the penalty of one hundred and fifty thousand dollars. At the option of the successful bidder, cash or approved securities may be deposited instead of giving a bond. If securities are deposited in place of a bond under this contract, they must be of the character of securities in which savings banks may invest their funds and must be approved by the Board. The Contractor's bond must be in the form annexed to the form of contract.

In addition and as further security to the City, 10 per cent. of each amount certified from time to time to be due to the Contractor will be retained until the work is fully completed.

Each bidder must state in his proposal the names and places of business of the proposed sureties on the bond and describe any securities proposed to be deposited.

Bidders whose proposals are otherwise satisfactory to the Board may, in case the sureties or securities named by them are not approved by the Board, substitute in their proposals the names of new sureties or a different schedule of securities approved by the Board; but such substitution must be made within five days after notice of disapproval by the Board, unless this period is extended by the Board.

In case of failure or neglect to execute and deliver the contract, or to make the required deposit or to execute and deliver the required bond, such bidder will, at the option of the Board, be deemed either to have made the contract or to have abandoned the contract. In the latter case the Board will give notice thereof to the defaulting bidder. And the Board may thereupon proceed to make another contract with such, if any, of the original bidders, as, in the opinion of the Board, it will be to the best interest of the City to contract with, or may by new advertisement invite further proposals. The defaulting bidder shall thereupon be liable to the City for all loss and

damage by it sustained, including the excess, if any, of the amount it shall pay any other contractor over the amount of the bid of such defaulting bidder.

Every proposal must, when submitted, be inclosed in a sealed envelope indorsed "Proposal for Constructing Rapid Transit Railroad—(Centre Street to the Bowery)" and must be delivered to the Board or to its Secretary, and in the presence of the person offering the proposal it will be deposited in a sealed box in which all proposals will be deposited. No proposal will be received or deposited unless accompanied by a certified check drawn upon a National or State Bank or Trust Company within The City of New York and satisfactory to the Board, payable to the order of the Comptroller of The City of New York, for the sum of twelve thousand five hundred dollars.

If the Board shall give notice to any bidder that his or its proposal is accepted and the contract is approved by the Board of Estimate and Apportionment, and if the bidder shall fail within ten days thereafter or within such further period, if any, as may be prescribed by the Board, to execute and deliver the contract and to execute and deliver the bond with sureties, or make a deposit in cash or securities, then this invitation to contractors and proposal accepted as aforesaid shall be a contract binding the bidder to pay to the City the damages by it sustained by reason of such failure; and in such case the bidder hereby absolutely assigns to the City the ownership of the check accompanying his or its proposal as a payment on account of such damages.

Such check must not be inclosed in the sealed envelope containing the proposal, but must be separately delivered to the Board or to its Secretary, who will give a proper voucher for the deposit.

All such deposits made by bidders whose proposals shall not be accepted by the Board will be returned to the person or persons making the same within five days after the contract shall be executed and delivered. The deposit of the successful bidder will be returned when the contract is executed and its provisions as to security are complied with.

THE BOARD OF RAPID TRANSIT RAILROAD COMMISSIONERS FOR THE CITY OF NEW YORK,

By A. E. ORR, President.

BION L. BURROWS, Secretary.

BOARD OF RAPID TRANSIT RAILROAD COMMISSIONERS FOR THE CITY OF NEW YORK.

CONTRACT No. 9-O-4 FOR THE CONSTRUCTION OF A PART OF THE PROPOSED BROOKLYN
LOOP LINES (CENTRE STREET TO THE BOWERY).

Approved as to form this _____ day of _____, 1907.

Corporation Counsel of The City of New York.

BROOKLYN LOOP LINES.

Contract No. 9-O-4.

Agreement made this _____ day of _____, 1907, between The City of New York, hereinafter called the City, acting by the Board of Rapid Transit Railroad Commissioners for The City of New York, hereinafter called the Board, party of the first part, and _____ of _____ hereinafter called the Contractor, party of the second part.

Whereas, The Board in behalf of the City by due advertisement pursuant to law, has invited contractors to submit to the Board proposals for making this contract; and Whereas, The Contractor has thereupon duly submitted to the Board a proposal which has been accepted; and

Whereas, The Board of Estimate and Apportionment of The City of New York has consented to this contract;

Now, therefore, in consideration of the mutual stipulations and covenants hereinafter contained and under the authority of chapter 4 of the Laws of 1891, entitled "An Act to provide for rapid transit railroads in cities of over one million inhabitants," and of the various acts amending the same, the parties hereby do, the City for itself and its successors and the Contractor for*

Agree each with the other as follows:

and assigns

* Here insert, if a corporation, itself, its successors; if a single individual, himself, his executors, administrators; if several individuals, themselves jointly and severally and their and each of their executors, administrators.

I.—GENERAL PROVISIONS AND DEFINITIONS.

Outline of Contract.

The Contractor agrees to construct the part hereinafter described of a Rapid Transit Railway with its appurtenances (including pipe galleries). The City agrees to pay to the Contractor the sums of money hereinafter mentioned at the times and in the manner and upon the terms and conditions hereinafter set forth.

Brief Description of Works.

The railroad to be constructed under this contract forms a part of a certain route adopted by the Board May 25, 1905, and approved by the Board of Estimate and Apportionment of The City of New York on July 14, 1905, by the Mayor on July 28, 1905, and by the Appellate Division of the Supreme Court in the First Judicial Department by an order entered on March 12, 1907. The part to be constructed under this contract is described as follows, viz.:

A four-track railway, the centre line of which shall begin at a point on the north line of Broome street near the east line of Cleveland place (formerly called Marion street) at the southerly end of subsection 9-O-3; and curving thence northerly and easterly through Cleveland place and private property to a point in the southerly side of the new Delancey street extension about 56 feet west of the westerly line of Mulberry street; thence still curving to the east under the Delancey street extension to a point on or near the centre line thereof and about 48 feet east of the easterly line of Mulberry street; and thence continuing easterly under the Delancey street extension and under and across the Bowery and under Delancey street to a point about 225 feet east of the centre line of the Bowery where it will connect with the westerly end of Section 9-O-5.

The precise location of the tracks and the dimensions and other characteristics of the railroad are more fully stated in the specifications forming a part of this contract and in the detailed drawings and plans hereinafter mentioned. A station is to be constructed under this contract as a part of the railroad at the Bowery extending to points between Elizabeth and Chrystie streets. The pipe galleries which are to be constructed, as an independent item of the work, are also described in the said specifications, drawings and plans.

Delancey Street Extension.

The Delancey street extension above referred to has not yet been opened for traffic, the City having taken title only on May 1, 1907. The buildings standing within the lines of the said new street at the date last mentioned are to be demolished and the materials thereof removed by other contractors.

Statutes Incorporated Herein.

This contract is made pursuant to the Rapid Transit Act which is to be deemed a part hereof as if it were incorporated herein.

Marginal Notes, etc.

Titles, headings and marginal notes are printed hereon merely for convenience and shall not be deemed to be any part of this contract for any purpose whatever.

Definitions of Words.

The following words and expressions used in this contract shall, except where by the context it is clear that another meaning is intended, be construed as follows:

"City."

1. The word "City" to mean The City of New York, and any other corporation or division of government to which the ownership, rights, powers and privileges of The City of New York under the Rapid Transit Act shall hereafter come, belong or appertain.

"Board."

2. The word "Board" to mean the Board of Rapid Transit Railroad Commissioners for The City of New York and any other board, body, official or officials to which or to whom the powers now belonging to the said Board shall, by virtue of any act or acts, hereafter pass or be held to appertain.

"Contractor."

3. The word "Contractor" to mean the part* of the second part to this contract, and any and every person or corporation who or which shall at any time be liable in the place or for the part of the second part to perform any obligations under this contract assumed by the said part of the second part. For convenience the Contractor is hereinafter spoken of as if the Contractor were an individual. The word "he" shall, as the sense may require, include "it," "she" and "they"; the word "him" shall include "her," "it" and "them"; and the word "his" shall include "its." "her" and "their."

* Here and in like blanks hereafter insert "y" or "ies," as the case may be.

† Here insert, as the case may be, either "its successors" or "his executors, administrators and assigns," or "their executors, administrators and assigns."

"Comptroller."

4. The word "Comptroller" to mean the Comptroller of The City of New York, and the officer or board to whom or to which his powers now existing under the Rapid Transit Statute shall come to appertain.

"Engineer."

5. The word "Engineer" to mean the present Chief Engineer of the Board and any successor or successors duly appointed or any deputy or substitute for him who shall be appointed by the Board or by its authority.

"Rapid Transit Act."

6. The words "Rapid Transit Act" to mean chapter 4 of the Laws of 1891, as amended by chapters 102 and 556 of the Laws of 1892, chapters 528 and 752 of the Laws of 1894, chapter 519 of the Laws of 1895, chapter 729 of the Laws of 1896, chapter 616 of the Laws of 1900, chapter 587 of the Laws of 1901, chapters 533, 542, 544 and 584 of the Laws of 1902, chapters 562 and 564 of the Laws of 1904, chapters 599 and 631 of the Laws of 1905, and chapters 472, 606 and 607 of the Laws of 1906, or as heretofore otherwise amended.

"Railroad."

7. The word "railroad" to mean the part which the Contractor agrees by this contract to build, together with the station belonging to or to be used in conjunction therewith, and all appurtenances thereto which are to be constructed or provided by the Contractor.

8. The words "pipe galleries" to mean all galleries, ways, subways or tunnels for sewers, gas or water pipes, electric wires and other subsurface structures and conductors which the Contractor agrees by this contract to build as a separate undertaking from the railroad.

9. The words "the works" to mean all of the matters and things herein agreed to be furnished or done by or on the part of the Contractor.

"New York."

10. The words "New York" to mean The City of New York according to its boundaries at the date of this contract.

"Daily Newspaper."

11. The words "daily newspaper" to mean any paper regularly published in The City of New York on every day or every day except Sundays and holidays.

"Notice."

12. The word "notice" to mean a written notice. The word "direction" to mean a written direction.

Legal Address of Contractor. Address May Be Changed. Service Upon Contractor Personally.

The address given in the bid or proposal upon which this contract is founded is hereby designated as the place where all notices, directions and other communications to the Contractor shall be certified, mailed or delivered. The delivering at the above-named place or depositing in a postpaid wrapper directed to the above place, in any post office box regularly maintained by the post office, of any notice, letter or other communication to the Contractor, shall be deemed sufficient service thereof upon the Contractor. Such address may be changed at any time by an instrument in writing executed and acknowledged by the Contractor and delivered to the Board. Nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, direction or other communication upon the Contractor personally.

Contractor Responsible for Acts of Subcontractor's Employees.

If the Contractor shall cause any part of this contract to be performed by a subcontractor the provisions of this contract shall apply to such subcontractor and his officers, agents and employees in all respects, as if he and they were employees of the Contractor; and the Contractor shall not be in any manner thereby discharged from his obligations and liabilities hereunder, but shall be liable hereunder for all acts and negligence of the subcontractor, his officers, agents and employees as if they were employees of the Contractor. The employees of the subcontractor shall be subject to the same provisions hereof as employees of the Contractor; and the work or materials furnished by the subcontractor shall be subject to the provisions hereof, as if furnished directly by the Contractor.

Board May Disapprove Subcontractors.

The Contractor, before making any subcontract of the work, shall state in writing to the Board the name of such subcontractor, the portion of the work which such subcontractor is to do or the materials which such subcontractor is to furnish, the place of business of such subcontractor and such information as the Board may require to enable it to know whether such subcontractor is able competently to do the work or provide the materials. The Board shall have the right upon reasonable grounds to require the Contractor not to award any subcontract to a person disapproved by the Board.

II.—WORK TO BE DONE, PRICE, ETC.

Work to be Done.

The Contractor shall at his own cost and expense, and in strict conformity with the specifications hereinafter contained and called the Specifications, and also in strict conformity with the plans which are made a part hereof and with all the provisions of this contract, whether included in the Specifications or not, furnish all the materials and labor necessary and proper for the purpose, and in a good, substantial and workmanlike manner construct and provide the railroad, including therein the station, sidetracks, switches, crossovers and all other appurtenances as hereinafter specified.

Construction Includes Sewer and Other Incidentals.

In order to construct the railroad it will be necessary (except in the new Delancey street extension) to take up and relay the pavement or other surface material, to protect and support during construction all buildings and other structures, including their foundations, and all elevated and surface railways, water mains, gas pipes, electric subways, pneumatic tubes, steam pipes and other subsurface structures, together with their necessary connections, as the same may be met with along the route; to build sewers both along the route and other streets; to make or remake the necessary manholes, catch basins and other sewer connections therewith; to move, alter, readjust or rebuild water mains, gas pipes, electric subways, pneumatic tubes, steam pipes and other subsurface structures, together with their necessary connections; and to do all such additional and incidental work as may be necessary for the completion of the railroad and the reconstruction and restoration of the street pavements or other surfaces adjacent to the route of the railroad and which may have been directly or indirectly disturbed by the Contractor in the progress of the work of

construction, to as useful and good a condition as existed before construction shall have been begun. All such work of every description, including under-pinning wherever necessary, of all buildings of whatsoever nature, monuments, elevated railways and surface railways affected by or interfered with during the construction of the railroad, is part of the work which is included in this contract and which the Contractor agrees to perform.

Price for the Railroad Construction.

The City shall pay, and the Contractor shall receive for the construction of the railroad, including the incidental work above mentioned, the sum of (\$) subject to modification and the conditions in this contract prescribed.

Pipe Galleries to be Constructed.

[The Board has included in the detailed plans and specifications hereinafter mentioned, provisions for pipe galleries. The Contractor in addition to the work of construction of the railroad, shall also, at his own cost and expense, and in strict conformity with the said plans and specifications, and with all the provisions of this contract, whether included in the specifications or not, furnish all the material and labor necessary and proper for the purpose and in a good, substantial and workmanlike manner construct and provide the pipe galleries, with all appurtenances thereof along such of the above sections as is or are included in this contract.

Price for Pipe Galleries.

The City shall pay and the Contractor shall receive for the construction of the pipe galleries (in addition to the above payment for the construction of the railroad) the sum of dollars (\$) subject to modification as hereinafter provided and to the conditions in this contract prescribed.

What is Included in Pipe Gallery Construction.

The construction of the pipe galleries as herein specified shall include (1) the furnishing of all labor and materials necessary for and included in the construction of said pipe galleries and appurtenances; (2) all excavation of earth and rock determined by the Engineer as necessary for the construction of the pipe galleries, outside of the side lines of excavation for the railroad, that would not otherwise be excavated; (3) the removal and relaying of all electric ducts or ways in existence at the time of executing this contract (excepting the ducts of street railroads) that it may be necessary to remove and relay, and the furnishing and laying of such additional ducts as are indicated on the plans; and (4) the construction of such chambers and manholes as are necessary for the proper and convenient operation of the pipe galleries.

The removal, reconstruction and replacement of all other pipes or subsurface structures shall be included in construction of the railroad.

Provisions of this Chapter Apply to Pipe Galleries.

All the following provisions of this contract, except where by the context it is clear that another meaning is intended, shall be construed to apply to and include both the construction of the railroad and the construction of pipe galleries.]*

*The five paragraphs in brackets are to be omitted in case the bid for constructing pipe galleries is rejected.

Right of Board to Amplify Plans, to Require Extra Work, etc.

The Board shall have the right, during the progress of the work, to amplify the plans, to add explanatory specifications and to furnish additional specifications and drawings. The Board shall also have the right by notice to the Contractor to require additional work to be done or additional materials to be furnished, or both, or to require work or materials herein specified or provided for to be omitted; provided, however, that the amount of work and materials called for by this Contract shall not be so increased or diminished as substantially to alter the general character or extent of the work proposed.

Payment for Extra Work, etc.

If additional work or materials shall be so required, then the reasonable value thereof shall be additionally paid to the Contractor. If work or materials herein specified or provided for shall be so required to be omitted, then a reasonable deduction shall be made in the manner hereinafter provided from the amount to be paid to the Contractor for construction.

The location of the station and the ventilating shafts or chambers, as stated in the specifications, or as shown in the detailed plans, may in like manner be changed, or ventilating shafts or chambers may be added or omitted at any time during the progress of the work, the Contractor receiving additional payments as above provided in case additional work is thereby made necessary, or a deduction being made in case diminution of work is caused thereby.

Beauty of Material as well as Efficiency.

The railroad system of which the railroad constructed under this contract forms a part, will constitute a great public work. All parts of the structure where exposed to public sight are, therefore, designed and shall be constructed with a view to the beauty of their appearance, as well as to their efficiency.

Contractor Bound to Complete in Best Manner.

The Contractor shall complete the entire work in accordance with specifications and contract-drawings and according to the other provisions of this contract and within the times specified in this contract, in the most workmanlike manner and with the highest regard to the safety of life and property and according to the lines, levels and directions given by the Engineer, for the prices hereinbefore agreed upon; except that for extra work, if any, ordered by the Board, there shall be additional payment, and except that for part or parts of the works, if any, omitted, there shall be a deduction from the contract prices, all as hereinbefore provided.

Best Materials, Machinery, Tools, etc., to be Used.

The Contractor is to furnish of the best description all materials, machinery, implements, tools and labor necessary to construct and put in complete working order all work covered by the specifications, contract-drawings and other provisions of this contract, including all additional specifications, drawings and details issued or required as hereinbefore provided.

Contractor has Examined Location, Plans, etc.

The Contractor hereby represents that prior to the execution of this contract he has examined on the ground the location mentioned herein and shown on the plans, that he has examined the plans and has read this contract and has had full opportunity to consider the same and make investigations relating thereto; and he agrees that he will not make any claim for, or have any right to damages or extension of time for completion of the works, or other remedy or concession, because of any misinterpretation or misunderstanding of this contract or of the plans, or because of any lack of information.

No Acceptance to Obviate the Necessity for Sound Work, etc.

No acceptance of any part of the works or materials therefor shall relieve the Contractor of his obligation to furnish sound material and perform sound work, whether with respect to such part or to any other part of the works.

Inspection.

The Board contemplates, and the Contractor hereby approves, the most thorough and minute inspection by the Board and its Engineer, and by their representatives or subordinates, of all work and materials and of the manufacture or preparation of such materials from the beginning of construction to the final completion of the works. It is the intention of the Board that its Engineer shall draw the attention of the Contractor to all errors or variations from the requirements of this contract or other defects in workmanship or materials. But it is expressly agreed that no omission on the part of the Board or its Engineer or any officer, member or subordinate of the Board to point out such errors, variations or defects shall give the Contractor any right or claim against the City or shall in any way relieve the Contractor from his obligations according to the terms of this contract.

Contractor to Afford Facilities for Inspection.

The Contractor shall at all times give to the Board and its members, to the Engineer and the Assistants and Superintendents under the Engineer, and any person designated by the Board or its President, all facilities, whether necessary or convenient, for inspecting the materials to be furnished and the work to be done under this contract. The members of the Board, the Engineer and any Superintendent, Assistant or other person bearing his authorization or the authorization of the Board or its President, shall be admitted at any time summarily and without delay to any part of the works or to inspection of materials at any place or stage of their manufacture, preparation, shipment or delivery.

Substitute for Chief Engineer.

Any engineer substituted by the Board in place of the Chief Engineer during his absence, illness or inability or when the Board shall so determine, shall, during his official connection, have all the power and authority of the Chief Engineer, and in all respects be recognized as such Chief Engineer.

Work to Be Subject to Approval of Engineer.

The work is to be done and the materials are to be furnished subject to the direction and approval of the Engineer. The Contractor shall promptly obey and follow every direction which shall be given by the Engineer, including any direction which he shall give by way of withdrawal, modification or reversal of any previous direction given by him. If any additional specification be prescribed or additional drawing be required to be followed, or additional detail required, or if any question shall arise as to the quality, character or amount of materials or work, or as to the obligation of the Contractor to do any particular work or furnish any particular materials, or as to the value of any additional work or materials required by the Board or as to the deduction to be made from the contract price by reason of any materials or work directed by the Board to be omitted; or if any other dispute, question or doubt as to what is the obligation of the Contractor shall arise prior to the time of the complete construction of the work and the declaration thereof by the Board, the determination of the Engineer shall be binding upon the Contractor and the City, so far that the Contractor shall proceed or refrain from proceeding, as the case may be, and without any delay obey the requirement of the Engineer.

III.—ARBITRATION BETWEEN CITY AND CONTRACTOR.

Appeal from Engineer's Determination. Mode of Review. Arbitration.

Either the Contractor or the City may appeal as hereinafter provided from any determination of the Engineer as to the reasonable value of any work or materials additionally required by the Board as aforesaid or omitted as aforesaid, or as to the question whether the Contractor is entitled to additional payment for anything additionally required by the Engineer, whether upon additional specifications or drawings or in the way of additional details as aforesaid, or otherwise as herein provided, or as to the question whether the City is entitled to a deduction from the amount payable to the Contractor according to the terms hereof. In every such case the Engineer shall make his determination in writing and in duplicate, one duplicate to be filed with the Board and the other duplicate to be delivered to the Contractor. Such determination as to work done or materials supplied shall be binding upon the City unless the Board shall appeal within ten days after its next meeting after such determination shall be filed with it and notice of such filing shall be given to its president; and shall be binding upon the Contractor, unless the Contractor shall appeal within ten days after the same shall be delivered to him. The appeal shall be taken by a written notice addressed, if the Board be the appellant, to the Contractor, or if the Contractor be the appellant, then in duplicate, one to the President of the Board and one to its Secretary. The notice of appeal shall state the determination appealed from, the grounds of appeal, and the precise award or redress desired; and shall include the appointment of an arbitrator on the part of the appellant, with a written undertaking on the part of the arbitrator to act. Within ten days after the receipt of a notice of appeal the party receiving the same shall appoint an arbitrator, and give written notice to the party appealing of such appointment, with a written undertaking on the part of the arbitrator to act. If the party against whom the appeal is taken shall not so nominate an arbitrator who shall so accept, and give such written notice thereof with such written acceptance of such arbitrator, then the arbitrator named by the party appealing shall be the sole arbitrator. Either party may, by a general notice to the other, appoint a standing arbitrator for such party. In case of such standing appointment such arbitrator shall be deemed to be appointed upon each appeal, without specification of his appointment upon the appeal. Any vacancy in any office of arbitrator shall be filled by the party which shall have appointed the last incumbent thereof, within ten days after notice of the vacancy—during which ten days the running of other periods of time prescribed for or in course of the arbitration shall be suspended. If not so filled—or if notice of the appointment be not given within such ten days—the remaining arbitrator shall be the only arbitrator. Within five days after the appointment of its arbitrator by the party against whom the appeal is taken or, if there be a standing arbitrator for such party, then after ten days, but within fifteen days after notice of the appeal is given—the arbitrators—or if the party against whom the appeal is taken shall be in default in appointing an arbitrator, then within five days after such default the arbitrator named by the party appealing—shall proceed summarily, and upon two days' notice to both parties, to hear such evidence or statements, oral or written, as may be produced. Such hearing shall be finished within five days after such hearing shall begin unless extended by order of the arbitrator or arbitrators; and within five days after finishing such hearing, the determination of such arbitrators or arbitrator shall be made. But if within such five days the arbitrators (in the case of two arbitrators) shall fail to agree upon and make an award, then they shall forthwith so certify to the Board and the Contractor, and the controversy shall, with the concurrence of one of the arbitrators, be determined by an umpire to be nominated by the Executive Committee for the time being (or the committee thereto corresponding) of the Chamber of Commerce of the State of New York, or if within three days after being notified by either of the parties hereto of such failure the said Committee shall not make a nomination, then by an umpire to be named by the Executive Committee for the time being (or the committee thereto corresponding) of the Association of the Bar of The City of New York. The umpire shall hear the parties, their counsel, the statements of the arbitrators and the statements and evidence received by them, or such of them and so much thereof as may appear or be submitted to the umpire upon ten days' notice to the parties. Such notice shall be given within three days after the nomination of the umpire. The hearing by the umpire shall be concluded within five days unless extended by order of the umpire. His award shall be made within five days after the hearing before him is concluded, and shall be effectual if concurred in within such five days by one of the arbitrators. Every determination by the arbitrators or arbitrator and umpire shall be in writing in duplicate, one to be delivered to the Secretary of the Board and the other to the Contractor. The Executive (or other corresponding) Committee of the said Chamber of Commerce and the Executive (or other corresponding) Committee of the said Association of the Bar may, upon the joint request of both parties, from time to time nominate a standing umpire, or a standing board of three experts. Such standing umpire or standing board of experts shall, upon every arbitration where an umpire is required, be such umpire, and a decision or determination by a majority of such board of experts shall be the decision of the umpire. The days for notices and other proceedings shall be exclusive of Saturdays, Sundays and holidays. All fees and expenses of arbitrators and umpires shall be borne and paid equally by the City and the Contractor, by both of whom every such arbitrator and umpire shall be deemed to be employed. Every such arbitrator and umpire (including members of any board of experts) shall, before proceeding to hear the testimony or to consider the matter, be sworn as nearly as may be in the same manner as referees in actions at law are required to be sworn. Every such arbitrator, umpire or expert shall be a disinterested person.

No Estoppel.

Neither the City nor the Board shall be precluded or estopped by any return or certificate made or given by the Engineer (if unappealed from) or by the Board, or by any other officer from showing at any time (either before or after the completion of the railroad and payment therefor pursuant to any such return or certificate) the true and correct amount and character of the work done and materials furnished by the Contractor, or any other person under this agreement, or from showing at any time that any such return or certificate is untrue and incorrect, or improperly made in any particular, or that the work and materials, or any part thereof, do not in fact con-

form to the specifications; and the City shall not be precluded or estopped, notwithstanding any such return or certificate and payment in accordance therewith, from demanding and recovering from the Contractor such damages or other legal remedy as it may be entitled to by reason of the Contractor's failure to comply with this contract and the specifications forming a part thereof.

Vouchers for Extra Work.

The Contractor shall become entitled to additional payment for extra work only upon the production of the certificate and determination of the Engineer if unappealed from, or, if so appealed from, then only upon and according to the final award of arbitrators, or arbitrator and umpire, as aforesaid; it being expressly agreed that the City shall make no additional payment to the Contractor except upon vouchers which include such certificate and determination unappealed from, or if appealed from, then such certificate and determination with such final award as a condition precedent to payment and that no payment shall be made in any such case inconsistently with such final award.

When City Entitled to Abatement of Price.

The City shall not be entitled to claim any abatement from the contract price by reason of diminution in the amount of work required, delay in completion or otherwise, except upon the certificate or determination of the Engineer unappealed from as aforesaid, or, if so appealed from, then upon the certificate and award of the arbitrators or arbitrator and umpire as aforesaid.

In Case Arbitration Cannot Validly Be Had.

Provided, however, and it is expressly agreed, that, if in any case, or for any reason, an arbitration cannot validly be had as aforesaid, then the City or the Contractor, after having appealed from such determination and being in no way responsible for failure of the arbitration, may prosecute such appeal or review such determination in or by any proper suit or proceeding.

IV.—SPECIFICATIONS.

Specifications and Drawings Subject to Requirement of Railroad of Highest Grade.

The specifications and contract drawings hereinafter mentioned and taken in connection with the other provisions of this contract, are intended by the Board to be full and comprehensive, and to show all the work required to be done. But in a work of this magnitude it is impossible either to show in advance all details, or to precisely forecast all exigencies. The specifications and contract drawings are to be taken, therefore, as indicating the amount of work, its nature and the method of construction so far as the same are now distinctly apprehended. The railroad is intended to be constructed for actual use and operation as an interurban railroad of the highest class, adapted to the necessities of the people of The City of New York. The Contractor shall construct and complete the railroad in the best manner, according to the best rules and usages of railway construction, and if in the specifications or contract drawings or in the provisions of this contract, any detail or other matter or thing requisite for such construction be not mentioned, nevertheless the same is deemed to be included, and the Contractor hereby undertakes to do the same as part of his work hereunder. And it is expressly agreed that the price to be paid the Contractor as herein prescribed includes full compensation for every such detail, matter and thing.

Where Text of Contract Doubtful, Best Materials and Workmanship Required.

In the event of any doubt as to the meaning of any portion or portions of the specifications or contract drawings, or of the text of the contract, the same shall be interpreted as calling for the best construction, both as to materials and workmanship, capable of being supplied or applied under the then existing local conditions. This provision, by way of illustration (but of illustration only), implies the requirement that the interior surface of every part of the tunnel containing the railway shall be entirely free from percolation of ground or other water from without; the requirement throughout of a structure whose component parts shall be of as permanent and durable a character as practicable; the requirement that the steel and such other parts of the structure as are liable to rust and decay shall be fully protected from such action; and the requirement that there shall be an adequate and comfortable station. All the clauses of the specifications, and all the parts of the contract drawings are, therefore, to be understood, construed and interpreted as intending to produce the results hereinbefore stated.

The plans referred to in the specifications hereinafter contained are eighteen in number, bear date May 9, 1907, are each countersigned by the Engineer, are stamped with the seal of the Board and bear the general title, Route No. 9-O-4, Contract Drawing No. The sheets are numbered as follows: Nos. A-5, B-1, B-11, B-12, and C-1 to C-14 both inclusive.

Plans and Contract Drawings.

The sections and dimensions of all parts shown on the contract drawings are typical sections and dimensions applicable to the greater part of the work, and where no extraordinary conditions exist. Where such conditions do exist, or where unforeseen contingencies arise, such as the encountering of quicksand or other bad material, or when there are buildings, monuments or other structures whose foundations are of such a character as to bring an undue thrust upon the tunnel, or other similar circumstances exist, then and in every such case the Board may issue special plans, duly countersigned by the Engineer, and accompanied by specifications explanatory thereof, or describing the method of construction, changing the sections or the dimensions of the parts or the materials of the structure; and such special plans and specifications when so issued shall be binding on the Contractor as though originally contained in this contract, and shall not be made the basis of any claim for additional payments for extra work.

Supplementary Drawings.

In addition to the contract drawings already mentioned, the Board has had prepared a set of maps and plans, bearing the same seal and general title as the contract drawings, but designated as supplementary drawings, which are signed by the Engineer and marked Nos. D-7, D-8, and E-18 to E-22 both inclusive. These supplementary drawings exhibit certain information which the Board has received from its Engineer of the nature of the soil underlying portions of the route, the nature and position of elevated and surface railways, water mains, gas and other pipes, sewers, electric subways, manholes, hydrants, catch basins, and other surface and subsurface structures. The supplementary drawings have been exhibited to the Contractor without any guaranty on the part of the Board as to their completeness or correctness and the Contractor may, at his option and at the expense of the Board, have copies thereof for such aid, if any, as the Contractor may derive from them. If, upon opening the streets by tunneling or otherwise, difficulties of any nature be encountered which are not indicated or suggested by the supplementary drawings, or if additional surface or subsurface structures or obstructions be discovered or found of different size or in different positions or of different nature from those shown on the supplementary drawings, or if in any way such supplementary drawings be found erroneous, the Contractor shall have no claim whatever for any such failure, discrepancy, or error, but is to take every necessary or proper precaution to overcome the unforeseen difficulty, and is to take care of, protect, remove, adjust or readjust as the case may be, the additional or different surface or subsurface structures according to the direction of the Engineer.

Specifications not Exclusive.

It is expressly understood that the specifications do not include all requirements, but are requirements in addition to those heretofore or elsewhere given or provided in this contract. The specifications and other provisions of this contract, and the contract drawings, are intended to be explanatory of each other. Should, however, any discrepancy appear or any misunderstanding arise as to the import of anything contained in either, the explanation of the Engineer shall be final and conclusive, except that, upon any claim by the Contractor that he has been called upon to do work or furnish materials in excess in quantity or value of those called for by the terms of this contract, he shall be entitled to appeal and to a determination by arbitrators or by an arbitrator and umpire, as hereinbefore provided, and to a correction by way of money allowance to it of any error of the Engineer.

These specifications are grouped in subdivisions as follows:

1. Description of the work.
2. Manner of prosecution.

3. Excavation.
4. Backfilling.
5. Piling and timbering.
6. Masonry.
7. Cement.
8. Mortar.
9. Concrete.
10. Brick masonry.
11. Stone masonry.
12. Waterproofing.
13. Drains and pumps.
14. Steel and iron.
15. Painting.
16. Ducts.
17. Sewers.
18. Water mains.
19. Paving.
20. Maintenance of street railway tracks, mains and other surface or subsurface structures.
21. Stations.
22. General clauses.

I. DESCRIPTION OF THE WORK.

The work to be done under and in accordance with the contract and these specifications is the construction of a part of the Rapid Transit Railroad known as Route No. 9, which is described in the routes and general plan.

It is to be a four track underground railroad or subway, the centre line of which is described at page 6 of this contract.

Station to be Constructed.

A station is to be constructed at the Bowery crossing which will extend both west and east to points between Elizabeth and Chrystie streets, and also suitable turn-outs and cross-overs, all as indicated on the plans.

The above description of the line is in general language, but the location of the various tracks, junctions, grades, etc., are set forth more particularly on the accompanying contract drawings.

Surface and Subsurface Structures.

In addition to the construction of the railroad itself (except within the limits of the private property to be acquired by the City for railway purposes, and within the lines of the new Delancey street extension), it will be necessary to construct or reconstruct certain sewers, together with house and other sewer connections, and to adjust, readjust and maintain railways, pipes, subways and other surface and subsurface structures, and to relay the street pavement, both on streets occupied by, and on streets other than those occupied by, the route of the railroad.

Ventilating Chambers and Gratings.

In order to provide for a frequent renewal of air in the railroad, chambers for the installation of the necessary ventilating devices, shall be built at the sides of the railroad and in connection therewith. These chambers shall be generally of the form and dimensions as shown on the plans, varying somewhat with the requirements of local conditions. They will be so arranged that the air will discharge through gratings placed generally in the sidewalks in the roofs of the chambers. If, owing to local conditions, it becomes necessary to lead the air to gratings or other outlets away from the chambers, suitable air-ways, ducts or flues shall be constructed.

Other openings with gratings will be built at or over the station, for the purpose of admitting air to the railroad.

The chambers will also be provided with suitable doors or openings from the railroad, and with ladders reaching to the street for use as exits in cases of emergency.

Pipe Galleries.

Pipe galleries or ways and a new sewer will also be constructed over, or on one or both sides of, the railroad on Delancey street and the new extension of Delancey street, as provided in this contract and indicated on the plans.

Drained and Ventilated.

The galleries are to be adequately drained by pipe connections with the sewers wherever convenient, fitted with the necessary traps, back pressure valves and vents to prevent sewer gases entering the galleries; they are also to have the necessary gratings or other openings to obtain thorough ventilation.

Manholes.

At the cross streets, and at other places convenient for such construction at intervals of about one hundred (100) feet, manholes for access to the galleries will be constructed, of form and dimensions to afford proper facilities for the convenient handling of pipes and other accessories.

Sewers Not in Galleries.

Sewers will not be placed in the galleries, but, if necessary, sewer manholes having sealed covers will connect with the galleries for convenient access thereto.

Ducts and Duct Manholes.

The ducts, to receive electric wires or cables, will be placed generally as shown on the contract drawings, and suitable manholes for drawing and splicing the wires or cables and for other work necessary in connection therewith, will be built, generally at the intersection of the cross streets.

Waterproofing.

The galleries and manholes shall be waterproofed as shown on the plans.

Trolley Rails Provided.

One or more trolley rails or tracks shall be provided, attached to the roof of the galleries, in accordance with detailed plans to be furnished, for the convenient handling and transportation of pipes and materials.

Ends of Work Bulkheaded.

At the ends of the railroad on Delancey street and at the northerly side of Broome street, if ordered by the Engineer, substantial waterproofed bulkheads shall be erected to protect the work and to prevent settlement of the streets, etc., and the Contractor shall keep the railroad entirely free from water until its final acceptance by the Board.

Proper provision must be made as directed by the Engineer for suitable connections or junctions with other sections of Route 9-O-4; and where other sections are finished in advance of this contract all work necessary for making such connections in a perfect manner must be done, and the connections made.

Lines and Grades.

During the progress of the work the Board will give, through the Engineer, to the Contractor, suitable points, marks or benches, indicating the line and grade of the railroad and of the sewers; such points or bench marks to be established at such intervals as the Engineer deems necessary for the Contractor to be able to perform his work.

Detailed Drawings.

The Engineer will prepare and furnish to the Contractor, from time to time as required, drawings and plans amplifying such details of the contract drawings as may be necessary, and drawings and plans necessary to show the adjustment and reconstruction of all surface and subsurface structures wherever the reconstruction of the same is necessitated by the construction of the railroad. These plans must be strictly followed by all parties concerned, unless local conditions should develop, during construction, suggesting changes, when, with the approval of the Engineer, such changes may be permitted.

Working and Shop Drawings.

The Contractor shall make all working or shop drawings which may be required in addition to the contract drawings, or in addition to such other drawings

as the Board may issue in amplification of such contract drawings, as explained above. All working or shop drawings shall be submitted in duplicate to the Engineer for his approval, which approval shall be indicated by his countersigning one set of such working or shop drawings and returning the same to the Contractor. Should the working or shop drawings be not in accordance with the contract drawings and specifications, then the Engineer shall return one set of such working or shop drawings, with the necessary corrections and changes indicated thereon; and the Contractor must make such corrections and changes, and again submit plans in duplicate for the approval of the Engineer; and no work shall be done upon said working or shop drawings until the approval of the Engineer be obtained, except as specified below. In the event of the Engineer failing to take any action within ten (10) working days after delivery to him at his office of such plans in duplicate, such failure shall be taken as equivalent to approval, and the Contractor shall be entitled to proceed exactly the same as if one set had been returned to him with the Engineer's approval indicated by his signature.

2. MANNER OF PROSECUTION.

Permits.

No work shall be begun until the Board shall issue to the Contractor a permit authorizing him to proceed. Such permits are to be in such form and cover such sections of the work as the Board shall prescribe.

Before any opening is made in the surface of a street, a copy of the permit issued by the Board must have been filed with the Borough President not less than five days, unless the Chief Engineer shall expressly direct work to begin within a less period.

Rapidity and Safety.

All the work shall be prosecuted in the manner, according to local conditions, best calculated to promote rapidity in construction, to secure safety to life and property and to reduce to the minimum any interference with the public travel.

Width of Excavation.

Special care must be taken to diminish damage wherever open excavation is permitted, and the width of such excavation must not exceed the width actually necessary, in the opinion of the Engineer, for the proper prosecution of the work.

Night Work.

Wherever, in the judgment of the Engineer, subject to review by the Board, traffic or other local conditions demand, the work shall be prosecuted during the night only or during both night and day; and at all points the Board shall have power to require the Contractor to so conduct his work that it shall not remain open or obstruct traffic an unreasonable length of time. In addition to the above general requirements the Contractor shall conduct his work in compliance with the following special requirements:

Work Begun.

Work of excavation shall not be begun at any point until the Contractor has given reasonable assurance to the Engineer in writing that the material needed for construction at such points has been acquired and is on hand.

Shafts and Dumping Platforms.

Plans showing the proposed location and proposed methods of construction of shafts, dumping platforms, etc., must be submitted to the Engineer and receive his approval before permits will be granted for such plant and appliances to be constructed and put in operation.

Number of Shifts.

When construction has been begun the same shall be prosecuted with all possible energy, with at least two (2) shifts of eight (8) hours each every working day.

Street Intersections.

On all parts of the work, street intersections must be kept at all times open to traffic for at least one-half the width of the crosstown roadways, and such other portions of the street intersections as may be opened by the permission of the Board must be kept substantially and neatly bridged for foot traffic; and the Contractor shall at all times keep all the street crossings on the lines of the sidewalks in a clean and neat condition, bridging gutters and low places where water might collect.

Excavation, Where to be Covered.

The street surface at and near the intersection of Centre street and Cleveland place with Broome street, at the crossings of Mulberry, Mott and Elizabeth streets, on the Bowery, and on Delancey street east of the Bowery, shall be kept substantially boarded over wherever and whenever excavation is in progress; and the work of covering the street surface must be prosecuted as much as possible during the night or at times of least traffic.

Open Trench Excavation, Where Permitted.

On the new Delancey street extension within the limits of the property recently acquired by the City for the said street, and within the limits of the parkway on Delancey street between the Bowery and Chrystie street, the Contractor will be permitted to prosecute his work in open trench excavation.

All necessary facilities are to be furnished by the Contractor for the benefit of street travel, both on longitudinal and cross streets.

Access to Buildings, etc.

No building shall, without the consent of the occupant, and after notice to the Engineer, be deprived of means of access thereto; and, where streets are open, proper and easy means for passengers to reach or leave street cars shall be maintained.

Vaults Disturbed.

Wherever vaults are broken through or otherwise disturbed the Contractor shall erect a temporary partition on or about the building line, or as directed, that will afford proper protection to the owner or occupant of the adjoining premises.

Temporary Pipes, etc.

Temporary water and gas pipes, if laid above the street or sidewalk surfaces, must be neatly and substantially placed, and in a manner to cause the minimum of inconvenience to the abutting property owners and to the public.

Openings for Ventilation.

Wherever the excavations are boarded over suitable openings must be provided for proper ventilation where gas pipes are maintained in service or where gases are liable to accumulate under the roadway. These openings will be placed as directed by the Engineer, and they must be substantially protected in order to prevent accidents.

Close Observance of Above Conditions.

The Board will insist on the close observance of the requirements of the above conditions in reference to keeping certain portions of the streets covered during the prosecution of the work, and that ordinary travel be not interfered with excepting at such time, and in such manner, and in such places as the Engineer (subject to the review of the Board) in writing may permit.

Restoration of Street Surfaces.

As the structural work nears completion, on the several parts of the route, it will be necessary to restore the street surfaces and sidewalks to their original condition. It will then become necessary to remove the temporary street coverings in order to complete the backfilling, and to build and readjust such appurtenances of subsurface structures as will necessarily come to the surface.

Such work must be done expeditiously, and only at night if so directed by the Engineer and during such hours as he may designate. It must be done as directed by the Engineer from time to time, and in sections of such limited extent as will permit its proper execution, and at the same time interfere least with the general street travel and with the convenience of the abutting property owners. In all cases, however, at least one-half of the roadway where such work is being done must be kept open for public traffic.

3. EXCAVATION.

Access to Fire Hydrants.

Wherever the work is being carried on free access must be given to every fire hydrant and fire alarm box, and when required hydrants shall be extended by suitable tube or piping to an accessible point as approved by the Engineer, and to the satisfaction of the Chief of the Fire Department. Materials must not be piled at any time or place within ten (10) feet of any fire hydrant or fire alarm box, and where materials are unavoidable piled or placed in the vicinity of a fire hydrant or fire alarm box, and to such height as to obscure a sight of the same, the position of such hydrant or fire alarm box shall be indicated by suitable signals, both day and night.

Depth of Trenches.

Trenches shall be excavated to such depth as may be necessary to permit the laying of such concrete bed or special foundation as may be deemed necessary by the Engineer.

Excavation Includes Removal of Old Building Materials, etc.

This Contractor must do all work within the lines of the new Delancey street extension which shall be found necessary for the construction and completion of the Works even though some of such work, as, for instance, the demolition of buildings and removal of building materials from the said new street, might or should have been done by other contractors. The work of excavation shall therefore be understood as including the demolition and removal of the materials of any cellars or other buildings or structures that may be met with along the said new street.

Material Stored.

Excavated sand, gravel or stone that in the judgment of the Engineer is suitable for use in mortar, concrete, or masonry, also structural and other material to be used in the work, may be stored within the limits of the property recently acquired by the City for the extension of Delancey street, but the disposition of such material shall be subject to the approval of the Engineer.

No materials of any nature shall be piled along Delancey street east of the Bowery. On cross streets adjacent to the work only such material may be stored as may be necessary, in case of an emergency, to sheet or to support the excavation, or a reasonable amount of structural material may be stored such as may be absolutely necessary to avoid delay in construction; but such material must not be allowed to accumulate, but may be replenished from day to day. The amount to be so allowed shall be determined by the Engineer; in no case, however, shall such material be stored in front of an occupied building if objected to by the occupant or owner.

In any case material may only be so stored with the approval of the Engineer, revocable at any time, and if so ordered, such material shall be removed immediately on receiving the order, or within a stated period of time.

Material Removed to Riker's Island or Riverside Park.

All excavated material not required for construction of the subway shall, if directed by the Board, be taken to Riker's Island or to Riverside Park, and there deposited, as directed by the Engineer; provided that the work of rehandling at that point, other than dumping, shall be done by the City, and with reasonable dispatch.

Removed Expeditiously.

Excavated material shall be removed expeditiously and disposed of, except as stated above, in any place selected by the Contractor, subject to the ordinances and regulations of the City authorities governing the disposal of such material, and the regulations of the United States Government as to the disposal or dumping of material in and about or near the harbor of New York.

Material Watered.

All material that with the permission of the Board may be left temporarily in the street shall be watered by the Contractor when so directed by the Engineer.

Waste material of any character will under no conditions be permitted to remain on the streets, but must immediately on its becoming unfit for use in the work be carted away and disposed of as the Contractor may desire; nor shall such material be allowed to accumulate in the trenches.

Temporary Tramways.

For the purpose of facilitating construction and to diminish the period of occupancy of any street for the transportation of material, the Contractor may, with the approval of the Board, lay upon or over the surface of any street temporary tramways to be used only for the removal of excavated materials and for the transportation of materials for use in construction; provided, however, that any such tramway shall be forthwith removed upon the direction of the Board.

Carts to be Tight.

All carts, buckets or other vehicles used by the Contractor for the removal of material shall be tight and so arranged and so loaded as not to spill over the top. Whenever a cart, bucket or other vehicle so used is leaky or unsuitable, it shall be immediately withdrawn from the work on notification by the Engineer, or his duly qualified assistant in charge of that portion of the work.

Width of Excavation.

All excavation shall be of such width, in addition to that of the railroad, as shall be necessary, in the opinion of the Engineer, for the proper and expeditious progress of the work, and to permit the laying and readjusting of all sewers, mains, subways and other subsurface structures encountered along the route and contiguous to the railroad.

Sides to be Secured.

The sides of the excavation shall be secured against slips by suitable sheet-piling or sheeting, held in place by braces, shores, or waling strips, special precautions being taken where there is additional pressure due to the presence of buildings or other structures; where a movement of the ground might cause the settlement of an adjacent building, if near the building, the sheeting must be started before the elevation of the bottom of the foundation of the building is reached; or if away from the building, at such depth of the excavation as the Engineer may permit; and excavation must be made in advance of or below the bottom of the sheeting.

Iron Sheet-piling.

Special forms of sheet-piling of iron or steel shall be used if so ordered and considered necessary by the Engineer, which shall be left in position or drawn as directed.

Fill Back of Sheet-piling.

When sheeting is placed against the sides of the excavation the spaces or voids back of the sheeting wherever possible, and if so ordered by the Engineer, must be immediately and carefully filled with suitable material to prevent as far as possible the natural ground back of the sheeting from moving.

Additional Supports.

The Engineer may order additional braces and supports, and the same shall be promptly put in place by the Contractor. All such sheet-piling, sheeting, bracing, shores and waling strips shall be put in place by workmen especially skilled for that purpose, and shall be so arranged as to permit their being safely withdrawn when the trenches are being backfilled.

Quicksand. Buildings Underpinned.

In the event of encountering quicksand, subsurface streams or similar dangerous contingencies, or where passing especially heavy buildings which by their construction or position might bring a great pressure upon the trenches, the right is reserved by the Board for the Engineer to direct that such buildings shall be underpinned, or that special sheeting shall be driven in such manner and to such depth as the Engineer directs, or that but a short length of trench shall be opened at one time; and furthermore to direct, if necessary, that the same shall be securely sheeted and braced on all sides after the manner of a shaft, and that the permanent work be constructed in such shaft and backfilled before another opening is made, or that pneumatic caissons be used in construction.

Pumping.

Whenever water is encountered in trenches the same shall be removed by bailing or pumping, great care being taken when pumping that the surrounding particles of soil be not disturbed or removed. If necessary to prevent such disturbance the pumping must be done by a series of driven wells whose points are protected by fine wire cloths, the rate of flow at each well being made so slow as not to remove the particles of soil; or the pumping must be done by other means approved by the Engineer. The delivery from all pumps shall be conducted into the adjacent sewers, and the delivery pipes shall be so arranged as to be readily inspected at all times to ascertain if the water is free from particles of soil.

Rock Excavation.

There are no indications that rock will be encountered on any part of the work; if, however, rock should be found or boulders or old masonry work requiring blasting the work of removing the same shall be carried on as herein provided.

Blasting.

Whenever rock or material requiring blasting is encountered in any trench or tunnel, all necessary precautions must be exercised by the Contractor, as required by the ordinances of The City of New York relative to blasting. Explosives shall be used only of such character and strength as may be permitted by the Board, and the right is reserved for the Engineer to direct that in special cases ordinary blasting powder only, in small charges, shall be used.

Near Pipes and Mains.

Whenever any pipe or main is encountered in the trench right is reserved to direct that all rock within five (5) feet of the same shall be removed by means other than blasting.

In rock excavation in the trenches for the railroad the work must be so regulated as to avoid, as far as possible, shattering the rock beyond the established lines for excavation.

Reckless and careless blasting causing the rock to break beyond the established lines of excavation will not be permitted.

Rock Measurement.

Whenever rock is encountered in the trench, it shall be stripped of earth in sections of not less than 20 feet; and the Engineer in charge shall be duly notified, in order that he may measure or cross-section the same.

Boulders.

Boulders containing one-half (1/2) cubic yard or more or masonry encountered within the lines of excavation will be measured as rock excavation.

Storage of Explosives.

No larger quantity of explosives shall be kept on the line of the work than will be actually required for the twelve (12) hours of work next ensuing, and such supplies shall be divided as far as possible and kept under lock, the key to which is to be only in the hands of the foreman or other equally trustworthy person. The amount of explosives kept in any one place shall not exceed the limit permitted by any ordinance of the City, or as may be determined by the Board. Caps and exploders shall not be kept in the same place with dynamite and other explosives. During freezing weather, special precautions shall be taken as to the care and manipulation of dynamite.

4. BACKFILLING.**Quality of Material. How Placed.**

The trenches at the sides of and over the top of the subway and wherever backfilling is necessary, shall be backfilled with sand, gravel, or other good clean earth, free from perishable material and from stones exceeding six (6) inches in diameter, and not containing in any place a proportion of stone of or below that size exceeding one (1) part of stone to five (5) parts of earth. The filling shall be deposited in layers not exceeding nine (9) inches in thickness, and then be well moistened with water and thoroughly packed by suitable rammers or rollers, and in such manner that no unbalanced pressure can be thrown upon the subway or any sewer, pipe or other subsurface structure.

On those portions of the work which are included within the limits of the property recently acquired by the City for the extension of Delancey street, the backfilling is to be brought up to the grades of the enclosing streets and to a uniform grade between these streets: at the surface and extending down from the surface to the old basement or cellar floors of the buildings removed or partly removed, unless otherwise permitted by the Engineer, it is to extend not less than six (6) feet on each side of the structure beyond the limiting line thereof, and wherever necessary such means as may be approved by the Engineer shall be adopted by the Contractor to support the backfilling and prevent its encroachment on abutting property.

At such places as in the judgment of the Engineer backfilling can not be effectively done as provided above the material must be placed and compacted by flooding with water.

Surface Structures. Frozen Material not Permitted.

Whenever pipes, sewers, or other subsurface structures are met with, the filling must be carefully packed, rammed and tamped under such subsurface structures, using special tools for the purpose. No filling of trenches with frozen earth will in any case be permitted, nor will any filling be permitted over material that has slipped or fallen in the trenches and then become frozen, until the frost has disappeared and such loose material has been properly rammed or placed as above provided.

Sheeting Removed.

As fast as the work of filling permits, sheeting and other timber supporting the sides of the excavations, as may be directed by the Engineer, shall be carefully withdrawn, and the spaces left by the removal of such material carefully backfilled.

5. PILING AND TIMBERING.**Piles.**

Where the excavation is in wet ground, if in the judgment of the Engineer the ground is of such a character as to require piling, the Board may direct the Contractor to drive piles. Such piles shall be of good, sound oak, pine or spruce, straight and free from shakes; they shall be not less than twelve (12) inches in diameter at the butt end, or less than six (6) inches in diameter at the point, and shall be driven to the satisfaction of the Engineer and by means of a steam hammer driver if so required by him. If necessary the points of the piles shall be protected by proper shoes, and the butts by rings or caps. Piles shall not be solicited unless permitted by the Engineer, and then in such manner as he directs. Piles shall be carefully cut off to the grade given by the Engineer.

If in the judgment of the Engineer special conditions may so require, piles of reinforced concrete of an approved form of construction shall be used.

Grillage.

Timber grillage foundations shall be built if so directed by the Engineer.

Foundation Timber.

All foundation timber shall be of pine or spruce, or other timber permitted by the Engineer, sound and free from shakes. It shall be of such dimensions, and laid in such manner, as the special plans to be issued shall require, and held in place by spikes or good seasoned oak or locust trenails.

Timber for Temporary Purposes.

All timber used for sheeting, shoring, bracing, bridging or other temporary purposes, shall be sound and free from any defects that may impair its strength. The top or wearing surface of all bridging used for carriageways shall be of oak or hard yellow pine, sound, straight, and free from all shakes, and large loose knots. All sheeting and timber used temporarily shall be put in place by skilled mechanics, keyed tight by wedges where necessary, and so arranged as to be withdrawn readily without endangering the adjoining soil.

6. MASONRY.**Laid in Portland Cement.**

All masonry, except as otherwise specified, shall be laid in Portland cement mortar, and shall be built of the forms and dimensions shown on the plans, or as directed by the Engineer from time to time; and the system of joining or bonding ordered by the Engineer shall be strictly followed.

Water Not to Interfere With.

Care must be taken that no water shall interfere with the proper laying of masonry in any of its parts.

Freezing Weather.

During freezing weather such masonry only will be built whose construction, in the judgment of the Engineer, can not be postponed, except at the cost of delaying the work. The Contractor must provide such appliances as are necessary for heating the water and the materials used in the masonry according to the specific instructions of the Engineer.

During freezing weather all masonry shall be protected by a suitable covering of salt hay, canvas, tarpaulin or by such material or in such ways as may be necessary to insure it against freezing.

Pointing.

Unless otherwise permitted, every joint that is to be pointed shall be raked out, within two days after being laid, to a depth of at least two inches.

Pointing of the face joints of masonry shall be thoroughly made with cement mortar mixed in the proportion of one (1) volume of cement to one (1) volume of sand, except where otherwise specially provided.

No pointing shall be done in freezing weather, and masonry laid between December 1 and April 1 shall not be pointed until permitted by the Engineer.

Hot Weather.

During hot weather all masonry, especially concrete, shall be kept wet by sprinkling and properly covered until it has become thoroughly set and hardened.

Defective Masonry.

Any masonry which is found to be defective from any cause whatever, before the final completion and acceptance of the work, must be removed and properly rebuilt, or if damaged during such time must be properly repaired.

Materials Used.

All materials used in masonry must be of the best quality.

All stone before being laid shall be thoroughly cleaned, and washed if so directed by the Engineer.

7. CEMENT.**Portland Cement.**

Portland cement, slow or quick setting, as directed, and equal in quality to the best grade of American Portland cement, is to be used, and delivered in well-made casks or such other packages as may be approved by the Engineer.

Brand to Be Approved.

Before any cement will be allowed to be used, the brand and name of the maker must be submitted to, and receive the approval of, the Engineer, and no cement will be permitted to be used that is not in all respects satisfactory to him.

Inspection.

All cements used shall be subject to inspection at the place where manufactured, and to such rigorous tests as shall be ordered by the Engineer; preference will be given to cements, however, which, by their records, show a tendency to develop strength steadily for long periods, unless for special purpose cement is required that will develop great strength in a short time.

Cement before being used must pass inspection as to the following requirements:

Fineness.

Ninety-eight (98) per cent. shall pass a No. 50 sieve, ninety (90) per cent. a No. 100 sieve, and seventy-two (72) per cent. a No. 200 sieve.

Tensile Strength.

Neat cement briquettes shall have at the end of one (1) day in water, after hard set, a breaking strength per square inch of sectional area, of not less than one hundred and fifty (150) lbs.; at the end of seven (7) days, one (1) day in air, six (6) days in water, of not less than four hundred (400) lbs.; and at the end of twenty-eight (28) days, one (1) day in air, twenty-seven (27) days in water, of not less than five hundred (500) lbs.

Briquettes when composed of one (1) portion of cement and two (2) portions of sharp quartz sand (preference shall be given to a natural sand of approved quality), shall have at the end of seven (7) days, one (1) day in air, six (6) days in water, a breaking strength per square inch of sectional area, of not less than two hundred (200) lbs.; and at the end of twenty-eight (28) days, one (1) day in air and twenty-seven (27) days in water, of not less than three hundred (300) lbs.

Chemical Analysis.

Chemical analysis will be made from time to time, and cement furnished must show a reasonably uniform composition, sulphur being limited to six-tenths (0.6) of one (1) per cent.

Soundness.

Tests for soundness will be made as follows:

Tests for checking and cracking and for color will be made by moulding on plates of glass, cakes of neat cement about three (3) inches in diameter, one-half (1/2) inch thick in the centre, and with very thin edges. One (1) of these cakes when set perfectly hard shall be put in water and examined for distortion or cracks, and one (1) shall be kept in air and examined for color, distortion and cracks. Another cake shall be allowed to set hard in dry air for twenty-four (24) hours and then put in boiling water for twenty-four (24) hours. Such cakes should at the end of the test still adhere to the glass and show neither cracks nor distortion. A briquette, in like manner, shall be allowed to set hard in dry air for twenty-four (24) hours, then boiled for twenty-four (24) hours, be cooled in water and then broken, and show three hundred and fifty (350) pounds tensile strength.

Increase in Strength.

Neat briquettes must show a minimum increase in strength of ten (10) per cent., and sand briquettes twenty-five (25) per cent., from the tests at the end of seven (7) days to those at twenty-eight (28) days.

Methods of Storing.

The Contractor must at all times keep in store, at some convenient point in the vicinity of the work, or at the place of manufacture, should the Engineer so elect, a sufficient quantity of cement to allow ample time for tests to be made, and the Engineer shall be notified at once of each delivery. Cements shall be stored in a tight building, each cask or package being raised several inches above the ground by blocking or otherwise, and ample storage room must be provided so that each separate lot of not more than one hundred (100) barrels can be stored so as to make it convenient to identify each individual lot in case of its rejection, or in case of the necessity for further tests.

Access to Stores.

Access shall be given to the Engineer and properly authorized members of his staff to enter at any time any and all places where cement is manufactured or stored, in order to identify the same, or to inspect the method of manufacturing, storing and protection; all packages shall be properly marked for identification.

8. MORTAR.**Cement and Sand. Mixing.**

All mortar shall be prepared from cement in perfect condition, which has passed the required tests, and coarse, clean, sharp sand, free from loam or foreign matter, and approved by the Engineer. These ingredients shall be thoroughly mixed dry in the pro-

portions as specified below; a moderate dose of water is then to be added, so as to produce a stiff paste of the proper consistency. The mortar shall be freshly mixed for the work in hand, in proper boxes made for that purpose, and no mortar shall be used that has become hard or that has stood beyond such limit of time as may be determined by the Engineer.

How Measured.

In mixing mortar one volume of cement shall be 380 pounds net, and one volume of sand shall be $3\frac{1}{2}$ cubic feet compacted; the proportions by volume shall be, for the various classes of work, as specified below:

Proportions.

Brick masonry, one (1) volume cement, two (2) volumes sand.
Column footing stones, one (1) volume cement, two (2) volumes sand.
Stone masonry, one (1) volume cement, two and one-half ($2\frac{1}{2}$) volumes sand.
Pointing, one (1) volume cement, one (1) volume sand.
Concrete masonry, as specified under the head of concrete.
For station finish work, as specified under stations.
For other classes of work, as directed by the Engineer.

9. CONCRETE.

How Composed.

The concrete shall be composed of sound, clean, screened gravel or sound broken stone, or a mixture of both, free from all dirt and dust, and mixed together with the proportion of mortar specified below.

Sand.

Sand for concrete shall be of the kind herein specified for mortar.

Stone.

Stone for concrete shall be sound screened gravel or sound hard broken limestone, trap rock or gneiss. Gneiss, however, may only be used of selected quality practically free from mica.

Broken stone must be free from all dirt and dust, and shall contain no pieces which will not pass through a ring one (1) inch in diameter, unless otherwise specifically permitted by the Engineer; it shall be screened over $\frac{1}{4}$ inch mesh screen to remove the dust.

Size of Stone and Gravel.

Gravel shall be screened over a screen having $\frac{1}{4}$ inch mesh, and shall contain no stone that will not pass through a ring one (1) inch in diameter unless otherwise permitted by the Engineer.

Rubble Concrete.

In concrete where the thickness is thirty (30) inches or more, if approved by the Engineer, the Contractor may imbed in the same broken pieces of sound stone whose greatest diameter does not exceed twelve (12) inches and whose least diameter or thickness is not less than three-quarters ($\frac{3}{4}$) of the greatest diameter. These stones shall be set by hand in the concrete as the layers are being rammed, and so placed that each stone is completely and perfectly imbedded. No two (2) stones are to be within six (6) inches of each other, and no stones within four (4) inches of an exposed face, nor shall any such stone be placed nearer than (6) inches to any metal built in the concrete for reinforcing the same.

Proportions.

The proportions of cement, sand and stone used in making concrete shall be as follows:

Concrete in floor, sidewalls and roof, one (1) volume of cement, two and one-half ($2\frac{1}{2}$) volumes of sand and four and one-half ($4\frac{1}{2}$) volumes of stone.

Protective concrete outside of waterproofing lines on sides and roof, one (1) volume of cement, three (3) volumes of sand and six (6) volumes of stone; or, one (1) volume of cement and five (5) volumes of sand.

Volume Defined.

In proportioning ingredients for concrete, one volume of cement shall mean 380 pounds net, and one volume of sand or stone shall measure $3\frac{1}{2}$ cubic feet compacted. The sand and stone for each batch of concrete shall be measured in rectangular boxes or frames.

Mixing by Machine.

Whenever practicable, concrete shall be mixed by machine. The mixing machine shall be of a pattern approved by the Engineer and mixing one batch at a time.

Mixing by Hand.

When concrete is mixed by hand the stone or gravel shall be spread on a platform in a bed about six (6) inches thick, and shall be thoroughly wet. Sand shall be spread on a platform and the requisite portion of cement spread on the sand. After thoroughly mixing the latter, the dry mixture thus formed shall be spread evenly over the bed of stone wet as above, and the whole turned over until thoroughly mixed, but not less than two (2) turnings on the mixing board shall be allowed in any case, water being added as necessary. Care should be taken to keep the bed of concrete wet and avoid piling.

How Laid.

Concrete shall be placed immediately after mixing in layers of such thickness as may be directed by the Engineer, and shall be thoroughly compacted throughout the mass by ramming or working. Special tamping bars or tools shall be used as approved by the Engineer. The amount of water used in making the concrete shall be approved by the Engineer. If a small amount of water has been used in mixing, ramming shall be continued until the water flushes to the surface; as a rule, however, concrete will be required to be placed wet.

Made Smooth to Receive Waterproofing.

Concrete to which waterproofing is to be applied shall be made smooth at the time of laying and shall be carefully protected from injury by barricades or otherwise, if necessary, until thoroughly set.

Time for Hardening.

Concrete shall be allowed to set for twelve (12) hours, or more, if so directed, before any work shall be laid upon it; and no walking over or working upon it shall be allowed while it is setting. Concrete shall not be flooded with water before being thoroughly set.

Rock Surface to be Cleared.

Before laying concrete on rock surfaces the latter shall be swept clean of all debris and dirt, and when laid on earth the earth shall in all cases be well rammed before placing the concrete.

Surface Rough for Bonding.

Wherever a section of concrete is necessarily left unfinished, leaving a surface which will be hard set before additional concrete is laid, the surface must be left rough to form a bond with the new work; and in any jointing of old and new work, if deemed necessary by the Engineer, the joints shall be reinforced with steel bars or dowels, and a coating of mortar or cement shall be applied before placing the concrete if so ordered.

Joints Cleaned.

In all cases of joints of old with new work the old surface shall be first thoroughly cleaned and wet.

Forms.

Suitable forms shall be provided by the Contractor to support the concrete while being placed in the walls or roofs. These forms shall be immediately replaced by new ones as soon as they commence to lose their proper shape. Before being used they shall be carefully cleaned of cement and dirt and shall present to the concrete on the surface afterwards exposed to sight a perfectly smooth face. The forms shall be

made of wood, kept carefully smoothed, or made of metal sufficiently thick to retain their shape without the use of wood.

No forms made of wood and covered with iron will be permitted.

The forms if made of wood shall be made of boards with close-fitted matched joints.

For those faces of the concrete that are to remain exposed the inside faces of the forms that are in contact with the concrete are to be planed in order to give a smooth and even finish to the work, and if so directed by the Engineer these portions of the forms are to be of tongued and grooved boards.

Precautions in Placing.

Every precaution shall be taken in placing or assembling the forms to do so in such a manner that when removed, after the concrete has been placed, the faces of the concrete that are to remain exposed shall present a smooth and even surface.

Forms, How Set. Forms Removed. Surface Irregularities Corrected. Defective Work Replaced.

The forms shall be set true to line, firmly secured and be so tight as not to allow water in the mortar to escape; they shall be thoroughly wet before placing the concrete and shall be removed as soon after the concrete has been placed as in the judgment of the Engineer it may be done with safety to the work. Immediately on the removal thereof the faces that will remain exposed shall be carefully examined and any irregularities of the surface corrected; projections shall be removed and voids filled with mortar. If, however, the voids are such as to indicate an excessive loss of mortar, portions of the concrete shall be cut out to the fullness of such defects and the space refilled with a rich concrete or mortar in such proportions and in such manner as the Engineer may direct.

Surfaces Not to be Painted.

The exposed faces of the concrete, excepting within station limits, will not be painted, but will be left with the natural cement finish; therefore, immediately following the removal of the forms, followed by the removal of the projections and the filling of voids as provided above, these entire surfaces shall be rubbed down in such a manner, approved by the Engineer, as will leave a smooth and even surface to receive the final finish.

Exposed Surfaces, How Finished.

All exposed surfaces of concrete shall finally, and at such time as may be directed by the Engineer, be finished by applying one rather heavy coat of neat cement-wash brushed on.

This coating may be lightened by adding a proper proportion of finishing lime to the cement, or darkened by the addition of suitable coloring matter at the discretion of the Engineer, the object in view being to obtain a generally smooth finished surface with uniformity in color.

10. BRICK MASONRY.

Quality.

Bricks for all masonry shall be of the best quality hard-burned bricks, burned hard entirely through, regular and uniform in shape and size and of compact texture.

Hollow Terra Cotta Blocks.

Hollow terra cotta blocks or bricks may be used in station work on the outside of walls of structure or at such other places as the Engineer may direct. They shall be of the best porous terra cotta as approved by the Engineer, and shall be laid in such manner as hereinafter specified or as the Engineer may direct.

How Laid.

All brick masonry shall be laid in mortar of the quality above described, except that in exposed locations coloring matter may be added, if permitted by the Engineer. The bricks shall be laid to line with joints in the face work (except in stations) not exceeding one quarter ($\frac{1}{4}$) of an inch in the beds and three-eighths ($\frac{3}{8}$) of an inch on ends; the bricks to be thoroughly wet before laying and to be completely embedded in mortar under the bottom and on the sides and ends at one operation, care being taken to have every joint full of mortar.

All exterior surfaces shall be smooth and regular.

Cleaned.

The inside faces of all arches and other exposed parts shall have all the mortar scraped off and washed clean immediately after the centres have been struck, and shall be pointed and left in neat condition.

No "Bats" or Culls.

All bricks of whatever nature shall be carefully culled and if necessary gauged before laying, at the expense of the Contractor. No "bats" shall be used except in large masses of brick-work, where a moderate proportion, to be determined by the Engineer, may be used, but nothing smaller than half bricks.

All unfinished work must be racked back or toothed, as directed by the Engineer, and before new work is jointed to it the faces of the brick in the old work must be scraped entirely clean, scrubbed with a stiff brush and be well moistened.

Special Bricks.

Where necessary to make a neat joint in connection with steel framework, or at corners, curves, or other similar places, special bricks of proper shape shall be furnished and used. All centres and forms shall be made to fit the curves of the work; they shall be put up and removed in a manner satisfactory to the Engineer.

11. STONE MASONRY.

Footings for Columns.

In general columns will be set on a concrete base; in special cases, however, footing stones may be required.

Footing Stones. To Be Set High.

If footing stones for columns are required they shall be of the dimensions and shapes shown on detailed plans, which will be provided; they shall be strong and free from defects, and shall be set in cement mortar. Before being set the tops shall be rough-pointed without chisel draft, the vertical sides shall be left quarry faced, the portion of the top where the column base plate is to rest shall be dressed true with pean hammers, and the top brought to a plane, so that at no point will it be more than one-eighth ($\frac{1}{8}$) of an inch from a straight edge laid across in any direction. In case the Contractor fails to set the footing stones true to line and surface, then they shall be set with their tops about one-eighth ($\frac{1}{8}$) of an inch above the grade called for by the plans, and not less than two (2) days after being set they shall have their tops dressed with pean hammers, so as to form accurate seats for the base plates of the columns.

Anchor Bolt Holes.

Holes shall be accurately drilled for anchor bolts, and filled with neat cement mortar after the bolts are set in place.

Columns during erection shall be set on iron shims, if shims are necessary; wooden shims are prohibited.

Where shims are used the voids under column bases shall be filled with cement grout consisting of one volume of cement and two volumes of sand.

Rubble or Other Masonry.

In case, during the progress of the work, any rubble or other masonry of a different class from that specified above, shall become necessary, and shall be required by the Board, the same shall be constructed according to specifications applicable to the best work of such class, and according to the direction of the Engineer.

12. WATERPROOFING.

It is the very essence of these specifications to secure a railroad structure underground which shall be free from the percolation of ground or outside water.

Placing and Protection.

To this end the placing and protection of the waterproofing shall be as herein provided and as shown on the plans.

The protecting masonry shall be hollow terra cotta blocks, common bricks or concrete, laid as herein elsewhere provided, and shall not be less than 4 inches in thickness.

In places where permanent sheeting is placed at the waterproofing line, the waterproofing, if permitted by the Engineer, may be applied against the sheeting.

All surfaces to which waterproofing is to be applied shall be made as smooth as possible; on these surfaces there shall be spread either hot melted pitch or asphaltum in a thick layer of uniform thickness; on this layer of pitch or asphaltum shall be laid a fabric of such material as may be approved by the Engineer; this process shall be repeated until such number of layers as may be required by the Engineer have been placed and a final coat of pitch or asphaltum shall then be applied.

Definition of Term "Ply."

The term "ply" as used in these specifications shall mean a layer of treated fabric, both sides of which shall be coated with pitch or asphaltum at the time of laying.

Number of "Ply."

The number of plys on the sides and under the floor shall in no case be less than three (3) in ground that is quite dry; where there is a water pressure against the masonry equal to ten (10) feet, not less than six (6) plys; where the water pressure is less than ten (10) feet, such number of plys between three (3) and six (6) shall be used as the Engineer may direct. The number of plys on the roof shall be not less than four (4).

Brick in Asphalt Mastic.

In all cases over the station roofs, and also against other portions of the structure where the head of ground water is ten feet or more, two plys of waterproofing as described above shall be used, together with one or more layers of bricks laid in asphalt mastic; the number of layers of bricks, not exceeding three, to be determined by the Engineer. Said bricks, before being laid, shall be thoroughly dried and warmed. At all other points where the pressure of ground water is less than ten (10) feet, the Contractor may substitute in lieu of the number of plys, as described above, one (1) ply in hot asphalt, and one (1) or more courses of brick laid in asphalt mastic, as the Engineer shall direct.

Asphalt Mastic.

Asphalt mastic shall contain one-third (1-3) pure bitumen, the other ingredients to be sand and lime dust or cement, in proportions governed by local requirements and weather conditions.

Waterproofing Omitted.

In those portions of the structure where the ground is dry the regular waterproofing, excepting on the roof and for a distance of not less than four feet below the roof on the sides, may, if approved by the Engineer, be omitted; in arched cut and cover work waterproofing as called for above may be omitted, at the option of the Engineer, but the extrados of the arch shall be coated with hot pitch or asphaltum of the quality described.

Leaks Stopped.

Any masonry that is found to leak at any time prior to the completion of the work and final acceptance thereof by the Board shall be cut out and the leak stopped.

Quality of Pitch.

Pitch shall consist of either coal tar or natural asphalt, as the Engineer shall select.

The coal tar pitch shall be straight run pitch which will soften at 70 degrees Fahrenheit and melt at 100 degrees Fahrenheit, being a grade in which distillate oils distilled therefrom shall have a specific gravity of 1.105.

Quality of Asphalt.

The asphalt used shall be the best grade of Bermudez, Alcatraz or lake asphalt of equal quality, and shall comply with the following requirements:

The asphalt shall be a natural asphalt or a mixture of natural asphalts, containing in its refined state not less than ninety-five (95) per cent. of natural bitumen soluble in rectified carbon bisulphide or in chloroform. The remaining ingredients shall be such as not to exert an injurious effect on the work. Not less than two-thirds (2/3) of the total bitumen shall be soluble in petroleum naphtha of seventy (70) degrees Baume or in acetone. The asphalt shall not lose more than four (4) per cent. of its weight when maintained for ten (10) hours at a temperature of three hundred (300) degrees Fahrenheit.

Fabric for Waterproofing.

The fabric to be used, together with the pitch or asphaltum, for waterproofing shall have been treated with pitch or asphaltum or another suitable material before being brought on the work. The fabric and the material used in its treatment shall be approved by the Engineer.

Concrete to Be Dry.

All concrete shall be dry before waterproofing is attached. If for any reason it is impracticable to have the concrete dry, then there shall be first laid a layer of the treated fabric, on the upper surface of which is to be spread the first layer of pitch or asphaltum; the said layer of fabric shall not be counted as one of the required plys.

Each layer of pitch or asphaltum fluxed as directed by the Engineer must completely and entirely cover the surface on which it is spread, without cracks or blow-holes.

Fabric to be Carefully Laid.

The fabric must be rolled out into the pitch or asphaltum while the latter is still hot and pressed against it so as to insure its being completely stuck over its entire surface great care being taken that all joints are well broken and that the ends of the rolls of the bottom layers are carried up on the inside of the layers on the sides, and those of the roof down on the outside of the layers on the sides so as to secure a full lap of at least one (1) foot. Especial care must be taken with this detail.

Skilled Labor to be Employed.

None but competent men, especially skilled in work of this kind, shall be employed to lay the waterproofing.

When the finishing layer of concrete is laid over or next to the waterproofing material, care must be taken not to break, tear or injure in any way the outer surface of the pitch or asphaltum.

13. DRAINS AND PUMPS.**Railroad to be Drained.**

Every part of the railroad, the stations and appurtenances connected therewith must be arranged so far as possible that any water finding access thereto will be led away automatically to the City sewers.

Where the railroad is on an inclined gradient and is constructed in dry, porous soil the floor of the railway may be depended on to act as a conduit. At the bottom of the inclined gradient connections must be made with a sewer or with subdrains lying beneath the railway and draining into the sewers.

Sub-Drains.

Along such parts of the work where the soil is not porous, or where the floor of the railroad cannot, in the judgment of the Engineer, be used as a conduit, there shall be laid, beneath the rail level and on a continuous descending gradient, drain pipes of vitrified salt-glazed stoneware, of the quality described in these specifications for sewer pipe. These drain pipes shall be of such diameter, not exceeding fifteen (15) inches, as the Engineer may direct, and there shall be one (1) such drain for each two (2) tracks. Each drain shall be laid in the concrete or directly in the soil with tight or open joints, as directed, and in such manner and in such position as, in the opinion of the Engineer, local circumstances require.

Where drain pipes connect with the City sewers, the junction shall be protected by suitable traps, and back-pressure valves or gate valves where necessary, to prevent

back rush of water or gas from the sewers. Connections with the railroad shall be as necessity demands, and all as directed by the Engineer. Where the railroad is in rock, or partly in rock, cross drains will be placed at such places and in such a manner as the Engineer shall direct and connected with the main drains.

Sumps.

Whenever the grade of the railroad passes below the bottom of adjacent sewers there shall be constructed a sump connected with the subdrains or the floor of the railroad. Such sump must be water-tight, with a capacity of not less than eight hundred (800) gallons.

14. STEEL AND IRON.**Open Hearth Steel.**

The steel used in this work shall be of two grades, medium steel and rivet steel. All steel shall be made by the open-hearth process and may be either acid or basic, with the following maximum limits of phosphorus and sulphur in the finished material:

Phosphorus and Sulphur.

	Acid. Per Cent.	Basic. Per Cent.
Phosphorus limit .....	.07	.05
Sulphur limit .....	.04	.04

Allowable Tonnage.

All ingots must have sufficient material cut off at the top before being rolled into finished material to insure against piping and possible segregation. When the finished weight from any melt exceeds the designed capacity of any open-hearth furnace from which such melt has been poured, allowing a minimum discard of fifteen (15) per cent. at the roughing mill and an additional scraping of ten (10) per cent. at the finishing mill, such heat shall be rejected.

Required Records.

A copy of all loading slips of rolled material must be furnished the Inspector; also three copies of invoices.

Variation in Weight.

All finished material shall be perfect in all parts and free from irregularities, surface imperfections of all kinds and piping. No variation in the cross-section or weight of sections, as called for by the plans, exceeding two and one-half (2 1/2) per cent. will be permitted. Material which subsequent to test at the mills and acceptance there develops weak spots, brittleness, cracks or other imperfections, or is found to have any injurious defects, will be rejected at the shops and shall be replaced by the manufacturer without question and at his own cost.

Melt Number.

The original melt number must be painted or stamped on all ingots, blooms, billets and slabs, in order to identify the material throughout the various processes of manufacture, and the same melt number must be hot stamped on each piece of finished material, except in the case of rivet steel and small pieces not forming part of the calculated sections and members which may be shipped in bundles wired together, with the melt number on a metal tag attached and stamped by the Department; failure to observe these requirements will be cause for rejection.

Sample Bars.

Two (2) sample bars having a sectional area of approximately three-quarters (3/4) square inch shall be cut from the finished product of every melt. These test pieces shall be selected and stamped by the Inspector from the finished product and shall only represent the product then rolled; any later rolling, on a previously tested heat, will be treated as a new heat and tests selected as in previous rolling.

Tests shall be made on all sample bars in their natural state without annealing. Measurements to determine elongation shall be made on an original length of eight (8) inches. When a melt is rolled into several classes or shapes, or different gauges of same class, the material of each class, and lightest and heaviest gauges of same class, shall be separately tested; one (1) test bar sufficing for each class if no wide variation of gauge occurs therein.

The test pieces, when tested in a lever machine, shall for each melt fulfill the following requirements:

Requirements.

	Ultimate Strength, Pounds.	Elastic Limit, Pounds.	Elonga- tion, Per Cent.	Reduction of Area, Per Cent.
Medium steel.....	58,000 to 68,000	35,000	22	44
Rivet steel.....	48,000 to 58,000	28,000	27	54

When required on important material, the elastic limit may be determined by the use of dividers.

The entire fracture shall be silky.

Bending Tests.

One (1) cold bend test shall be made on each melt. In the case of important material, angles shall in full section open flat or bend shut under the hammer without sign of fracture. A strip at least six inches (6") wide cut from universal mill plates, one edge of which shall remain as rolled, and a similar strip from sheared plates shall each bend around its own thickness without sign of fracture. In the case of channels and I beams, where the test piece must be punched out from the web, the ordinary two and one-half inch (2 1/2") wide test piece will be accepted, when it is mechanically impossible to get a wider strip. In the case of unimportant material, this test may be made on the ordinarily prepared specimen. In the case of rivet steel, the test piece shall close up against itself without showing any crack or flaw.

Duplicate Tests.

Duplicate test pieces, to be selected and stamped by the Inspector, providing the variation of original tests is not more than ten thousand (10,000) pounds, may be made when the original test pieces pass four (4) of the above-mentioned requirements, and the chemical analyses. If the second tests pass all requirements the melt will be accepted.

Office Facilities.

When the duties of an Inspector or Inspectors are required constantly at the place of manufacture, the manufacturer or corporation furnishing material under these specifications shall provide sanitary, well-lighted office quarters, with ample room for the proper conduct of the work.

Cast iron.

All castings shall be made of tough gray iron by the cupola process, which shall exhibit a uniform and closely grained fracture free from any white, mottled or vitreous appearance. The metal shall be soft enough to be readily cut, drilled and chipped, and when struck on a corner or edge with a hammer, it shall indent and not break off. Maximum sulphur content .08 per cent.

All columns must be cast vertically.

Tests.

The metal must exhibit a minimum tensile strength of twenty-one thousand (21,000) pounds per square inch when measured on a test specimen, from which the

external coating or skin has been entirely removed by turning, planing or milling. When tested in the rough state, not rumbled with the "skin" retained, sample bars or castings having a uniform width and depth of one and one-quarter ($1\frac{1}{4}$) inches and a length of fifteen (15) inches shall, when placed horizontally upon two (2) sharp edged supports, twelve (12) inches apart, sustain at their middle point a gradually applied load of three thousand three hundred (3,300) pounds, with a minimum deflection at the centre of one-tenth (0.1) of an inch.

Test Bars.

The Contractor shall make, prepare and provide at least two (2) of the said cross breaking test bars and the same number of said tensile test bars, which must be cast vertically from each charge or running of the metal actually used in the manufacture of any castings for said work. Two (2) of the test bars of each set shall be poured at the beginning and two (2) at the end of each charge or running. The tension bars shall be of such size and form as may be required by the Engineer or his representative. All such specimens are to be true samples of the iron used in the castings made from said charge or running. All test specimens are to be properly numbered for reference.

In judging the suitability of the metal, the average of these tests shall be considered as representing the strength of the metal as required aforesaid.

All steel castings shall be annealed.

Steel Castings. Tests.

Every steel casting shall be made with a coupon for testing, which coupon shall be cut off after annealing, and the test shall be made from a three-quarter ($\frac{3}{4}$) inch round cut from the coupon. The test piece shall show an ultimate strength of at least seventy thousand (70,000) pounds, an elastic limit of not less than thirty-five thousand (35,000) pounds, an elongation of at least fifteen (15) per cent. in two (2) inches, and a reduction of area of twenty (20) per cent. at the point of fracture.

When the bearing surface of any steel casting is finished there shall be no blow-hole visible exceeding one (1) inch in any direction, nor exceeding one-half ($\frac{1}{2}$) inch in area. The length of the blowholes gauged by any straight line laid in any direction shall never exceed one (1) inch in one (1) foot.

All portions of the metal work exposed to view, especially at stations, shall be neatly finished, pains being taken with any ornamental work to give it an attractive and artistic appearance.

All rolled members shall be carefully straightened at the shop before assembling.

Size of Rivets.

The nominal size of the rivets shown on the plans shall be understood to be the actual size of the cold rivets before heating. Rivets when driven must completely fill the holes, have full heads concentric with the rivet holes, and be machine driven wherever practicable, the machines to be capable of retaining the applied pressure after the upsetting is completed. The rivet heads must be fully and neatly finished, of approved shape and in full contact with the surface, or be countersunk or flattened when so required, and of a uniform size for the whole diameter of the rivet throughout the work, and must bind the connecting pieces thoroughly together.

Imperfect Rivets.

All loose or otherwise imperfect rivets must be cut out and replaced. No tightening of rivets by caulking or recupping will be permitted.

Rivet holes must be accurately spaced, and on die side must not measure more than three thirty-seconds ($\frac{3}{32}$) of an inch larger than the size of the cold rivet.

The use of drift pins will be allowed only to bring together the several parts forming a member, and they must not be driven with sufficient force to distort the metal about the holes.

If any hole has to be enlarged to admit the rivet, it must be reamed.

Rivet Holes.

Rivet holes, except rivet holes for splices in the bottom flanges of roof beams, may be made by a punch whose diameter is one-sixteenth ($\frac{1}{16}$) of an inch greater than that of the rivets called for by the plans, provided such punched holes will admit a hot rivet of specified size, otherwise subpunching and reaming will be required.

All punched holes shall be free from torn or ragged edges, sharp fins being trimmed off before riveting.

Rivet holes in flange splices and connecting splice plates, as above mentioned, shall be made by a punch whose diameter is one-eighth ($\frac{1}{8}$) of an inch less than that of the rivets called for on the plans, and subsequently increased by reaming to a diameter one-sixteenth ($\frac{1}{16}$) inch greater than the rivets specified. After reaming, every hole shall be entirely smooth, showing that the reaming tool has everywhere touched the metal. When required by the Engineer a reamer shall be run on the outer edge of holes so as to remove the sharp edges and make a fillet of at least one-sixteenth ($\frac{1}{16}$) inch in width under the rivet head.

Rivet holes in the flanges of girders whose thickness is over five-eighths ($\frac{5}{8}$) of an inch shall be made by a punch whose diameter is one-eighth ($\frac{1}{8}$) of an inch less than the specified rivets, and shall be subsequently increased by reaming three-sixteenths ($\frac{3}{16}$) of an inch.

Field Rivets.

All holes for field rivets, where reaming is called for by the preceding paragraphs, shall be reamed to iron templates at least one (1) inch thick, or shall be reamed while the connecting pieces are temporarily assembled either in shop or in the field. If such work is done in the shop, the connecting parts must be matchmarked to insure similar positions in erecting.

Built-up Members.

All built-up members, when finished, must be true and free from twists, kinks, buckles or bent joints between component pieces. All abutting surfaces of compression members, except flanges of plate girders, must be planed or turned to even bearings, so that they shall be in perfect contact.

Columns.

All I-beam and built-up columns, after gusset plates are riveted on, shall be faced top and bottom at right angles to the axis and to exact length. The lug angles shall then be set so as to produce an even bearing as determined by a straight edge. If lug angles are not set to give an even bearing, then the same shall be riveted on before facing, but such facing shall not reduce the thickness of angles more than one-sixteenth ($\frac{1}{16}$) of an inch. The base plates and cap plates must also be true to surface.

Web Plates.

Web plates must not project beyond the flange angles, nor be more than one-quarter ($\frac{1}{4}$) of an inch from the same. The web stiffeners of the plate girders shall in all cases be milled, to form a close bearing against the flange angle.

End of Girders.

The ends of all stringers, and longitudinal and abutting girders, shall be faced true and square or to exact bevel, as called for by the plans. The header angles shall be so accurately fitted that when the ends of the stringers or girders are faced to the figured length, the amount of metal removed shall not reduce the thickness of the ends of the header angles by more than one-sixteenth ($\frac{1}{16}$) of an inch, while securing a true surface on the whole width of the connection.

The abutting ends of the beams in the roof must either be faced or cold sawed so smooth, true, square and perfectly at right angles to the longitudinal axis of the beams that joints will be tight and give full bearing of beam ends.

Universal Mill Plates.

All plates thirty-six (36) inches and less in width shall have edges universal-mill rolled or planed.

Bolts.

When members are connected by bolts which transmit sheering stresses, the holes must be reamed parallel and the bolts have a driving fit.

Anchor Bolts.

All anchor bolts are to be of soft steel with cold pressed or rolled threads and nuts and so made that when tested to destruction, the threaded portion of the bolts will develop greater strength than the unthreaded portions of same.

All threads and nuts, unless otherwise ordered, shall be of the United States standard.

All machined surfaces shall be coated with white lead and tallow.

Care in Handling.

Great care must be taken in handling steel, and straightening after punching must be conducted so as to reduce the risk of cracking to the minimum.

Annealing.

Steel sections must not be hammered cold or worked at a black heat. When any part of the steel piece in which the full strength is required has to be heated for working, the whole shall be afterwards annealed.

All parts shall be loaded for shipment from the shops, so as to avoid injury in transportation. In shipping or handling at any time, every care shall be taken to avoid bending or straining the pieces, or damaging the paint.

All pieces bent or otherwise injured will be rejected.

All pieces of finished work shall have proper marks stencilled thereon before shipment.

To Be Carefully Piled.

All steel for delivery and which is to be held in storage shall be piled in courses on suitable timber supports, and all so arranged as to prevent the component parts from being bent or damaged. Such steel shall be piled in such locality as to prevent its being covered with dirt, and shall be protected from the weather.

General Information.

The general Inspector of material shall be furnished in triplicate with complete copies of all mill orders, and no material shall be rolled nor work done before proper notification has been given so that inspection may be arranged for. Inspectors shall have access at all times, to all parts of the mill or shop plant furnishing material, and to all records in any way covering the material to be inspected.

15. PAINTING.

All metal work, excepting as otherwise herein provided, shall be painted with three coats of paint, including the shop coat, of kind and quality approved by the Engineer. Lead or carbon paint will generally be required.

Shop Coat. Red Lead.

The metal work before leaving the shop shall be thoroughly cleaned with wire brushes and have all loose rust and scale removed to the satisfaction of the Engineer, and be given one (1) coat of either pure red lead and pure boiled linseed oil, mixed in the proportion of thirty (30) pounds of red lead to a gallon of oil, or one coat of such other paint as may be approved by the Engineer. Where the shop coat has become damaged before or after erection, through any cause whatever, it shall be renewed with the same kind of paint as originally used, such renewal to be considered only as a part of the original shop coat. If the Engineer so directs, on members or parts of members buried in concrete the shop coat will be omitted.

Rods.

Rods intended for use in reinforced concrete shall be protected from the weather before being put in place, and shall be cleaned and scales removed but not painted before being incased in the concrete.

Second Coat Carbon Paint.

The second coat of paint shall be a black carbon paint, or such other paint as may be approved by the Engineer. It shall be applied after erection, but not until the metal has been cleaned from dirt or other objectionable matter that may be found thereon. It shall be applied to such parts of the metal as the Engineer shall direct.

Metal to be Cleaned after Erection.

After erection the metal shall be thoroughly cleaned of all dirt, rust or scales by stiff wire brushes or sand blasts, as directed, and afterward dusted and thoroughly and evenly painted as described above. No paint to be applied until the cleaning has been passed upon by an Inspector.

Third Coat.

The exposed members shall be given a third coat. Between stations, this shall be black carbon paint, but for stations, and for 30 feet each way therefrom, see specifications for painting under the heading of "Stations."

Third Coat, When Applied.

The third or finishing coat shall be applied to all exposed surfaces of the metal after its erection, and after the completion of the masonry or other work; it shall be applied at such time after such completion and before the final acceptance of the work as in the judgment of the Engineer it may be advisable.

Surfaces in Contact.

Surfaces of built-up members in contact, or inaccessible after assembling, shall be cleaned before assembling, and shall be painted with one (1) heavy coat of red lead. The parts shall be at once assembled for riveting, while the paint is still fresh.

All recesses that might contain water, or through which water could enter, must be filled with thick paint or a waterproof cement of ground skins before receiving final painting.

All surfaces so close together as to prevent the insertion of a brush, must be painted thoroughly by using a piece of cloth.

Inspection of Paint.

All materials for painting shall be subject to the closest inspection and chemical analysis, and the detection of any inferior quality of material, or adulterant, shall involve the rejection of all such material and the scraping and repainting of such portions of the work as were painted with it.

The mixing and application of paint and the preparation of the surface before the application of the paint will be subject to the closest scrutiny.

No painting in rainy or freezing weather or on wet surfaces shall be permitted under any circumstances.

16. DUCTS.

Quality. Size.

The ducts to contain cables for transmitting electricity shall be manufactured of the best clay, thoroughly mixed, burnt and vitrified, sound in all respects, straight and free from soft spots, stones, cracks or blisters calculated to impair their strength or durability; in lengths generally of from eighteen (18) to thirty-six (36) inches; shorter lengths shall only be used as directed; generally in four-way form with circular holes, the least diameter to be three and one-half ($3\frac{1}{2}$) inches; one, two or three way ducts shall be used in special cases as determined by the Engineer. The interior surface of the holes to be smooth and clear of warts, tits, pits or blisters, which may tend to strip the lead coating from the electric cable in pulling the same through the duct. The ends to be cut smooth and at right angles to the axis of the duct and beveled on inside for three-quarters ($\frac{3}{4}$) of an inch.

The outside walls and webs of four-way ducts to be three-quarters ($\frac{3}{4}$) of an inch thick; the outside dimensions of ducts to be not less than nine and one-quarter ($9\frac{1}{4}$) nor more than ten (10) inches, and constructed square on outer lines; the dimensions of single, two-way or three-way ducts shall be consistent with the above.

The ends of ducts to be combed with two (2) sets of three (3) combings each, each combing to have a width of one-quarter ($\frac{1}{4}$) of an inch and a depth of one-sixteenth ($\frac{1}{16}$) of an inch.

Glaze.

The inside and outside of ducts to be thoroughly glazed in the most approved manner with good salt glaze.

Inspection.

All ducts to be subject to inspection, both at the works and on delivery on the work. All rejected ducts to be promptly removed by the Contractor at his expense.

How Laid.

The ducts shall be laid in beds of cement mortar about one-quarter ($\frac{1}{4}$) of an inch in thickness, with broken joints and with full bearing. Two (2) strips of thick muslin six (6) inches wide, and coated with neat cement mortar, shall be used to wrap each joint, the ends of the wrap to lay six (6) inches. In laying the ducts care must be taken to close abutting joints so that practically the end of ducts shall be in contact on all sides. Where ducts are laid on curves, the wraps must be doubled if required, to protect the openings between the ends of the ducts on the outer line of the duct and to exclude all mortar from duct openings.

The ducts shall be laid with a mandril of the length and diameter to be prescribed, accurately fitted duct openings, the mandril to be left in each duct until the next succeeding duct is laid.

The ducts shall be laid with dowel pins where required.

The ducts shall be so laid that the centre of the holes to receive the electric cables shall, for each vertical section of duct, be laid on the same line vertically and horizontally, to an accurate and perfect alignment.

To be Rodded.

After the ducts are laid and sufficient time is given to allow the mortar in beds to partially set, they shall be rodded; all mortar or other foreign matter must be cleaned from the duct openings, leaving a clear and smooth opening. If obstructions are found in rodding the ducts which cannot be removed by cleaners, so as to give a clear and smooth opening of three and one-half ($3\frac{1}{2}$) inches in all duct openings, the ducts shall be removed and relaid; all ducts after being rodded shall be plugged with suitable plugs to be furnished by the Contractor.

Other Forms of Ducts.

Other forms of ducts may be permitted, such as iron pipe tubing or ducts formed directly in the concrete benches, by special methods during construction, but only under plans and methods approved by the Engineer.

Duct Manholes.

Duct manholes shall be built at the sides of the railway in connection therewith and as indicated on the plans. These manholes shall be generally at intervals of about three hundred feet, and shall be on either or both sides of the railway as necessary, in accordance with the location of the duct lines.

They may vary in form as may be necessary to accommodate the work to local conditions.

Duct manholes will be built at the ends of the stations to provide for the passage of the lines under the station platforms, and if found necessary on account of the lengths of station platforms, additional manholes will be constructed under the platforms.

At manholes the ducts will be laid to conform to plans.

17. SEWERS.

In Accordance with Plans and Specifications.

All sewers and appurtenances shall be built of the materials, of the sizes and dimensions, on the lines and grade, at the depths, with the connections, and in the manner, as called for by these specifications and as shown on the drawings.

Drawings.

The drawings referred to in these specifications are in number, entitled contract drawings No. B- to No. B- inclusive.

Change of Location.

If during the progress of the work it is found, in the opinion of the Engineer, reasonably impossible to construct according to the contract drawings any sewers, manholes, or other appurtenances, owing to the presence of unknown subsurface structures or other contingencies, the Contractor shall construct such sewers, manholes or appurtenances in the location given by and according to the directions of the Engineer.

General Clauses Apply.

The general clauses in this contract relating to excavation, both in open trench and tunnel; backfilling; cement; mortar; masonry; waterproofing; piling; timber work of all kinds; care of streets and public places; maintenance of surface and subsurface structures; protection of persons and property; repaving or restoring of the surface of the street or other public places; responsibility of the Contractor; authority of the Engineer to examine and condemn materials; and the power of the Board and the Engineer in all or any other respects to enforce this contract, apply to the construction and reconstruction of sewers, water mains, galleries or pavements, unless specifically amended or exempted below, both along the route occupied by the railway and elsewhere.

No Claims for Damages.

Should postponement or delay be occasioned by the precedence of paving or other contracts, which may be either let or executed by the Borough President, Commissioner of Water Supply, Gas and Electricity, or other heads of departments, either before or after the execution of this contract, on the line of the work, no claims for damages therefor shall be made or allowed; nor shall any claim for damages be made or allowed in consequence of the street or the adjoining sewers not being in the condition contemplated by the parties at the time of making the contract, except that if the Contractor shall be delayed in the performance of its work by reason of the street or the adjoining sewers not being in such condition, an allowance of time shall be given in the completion of the work equal to the delay so occasioned, as elsewhere provided in this contract.

Size of Trenches.

The trenches for sewers and basin culverts both in earth and in rock, in streets along the route of the railroad, shall have vertical sides and shall be not less than 6 inches wider than the greatest external width of the sewer or its foundation on the side farthest away from the subway; and in other streets the trenches shall have vertical sides, and shall not be less than 6 inches wider on each side than the greatest external diameter of the sewer, but no trench shall be less than 4 feet in width. They shall be excavated to the depth and the form of the sewer or its foundation.

Limit of Trench Opening.

Not more than one hundred (100) feet of trench in sewers off the line of the railroad shall be opened at any one time in advance of the complete building of the sewer, unless by permission of the Engineer, and for the distance specified.

The excavation of trenches shall be fully completed at least 20 feet in advance of the laying of the sewer.

Sewers Protected from Blasts.

Should rock be encountered which requires blasting, the exposed end of the sewer shall, in all cases, be fully protected.

Trenches for Manholes and Receiving Basins.

Where the foundation for a manhole or a receiving basin extends beyond the line of such manhole or receiving basin, the minimum excavation required in earth shall be to the lines of the smallest rectangle enclosing the full dimensions of the exterior of the foundation, and shall have vertical sides to the surface, but it shall, in all cases, be not less than 6 inches larger than the greatest external dimension of the manhole or receiving basin.

In rock excavation, the trench shall be 6 inches larger than the greatest external dimension of the manhole or receiving basin, or its foundation, and shall have vertical sides to the surface.

Foundations to be Made Good.

Where the ground does not afford a sufficiently soiled foundation, the trench shall be excavated to such increased depth as the Engineer may deem necessary;

and this extra depth, and all other irregularities in the bottom of the trench, shall be filled up to the required level and form with such material, and in such manner, as the Engineer shall direct. If so directed, piles shall be driven and a timber foundation shall be constructed as elsewhere provided in these specifications to support the sewer.

Inspection of Grades.

When the trench is properly prepared, and before laying any sewer, the Contractor shall notify the Engineer, who will thereupon cause the grades for the sewer to be tested, and if correct the sewer shall then be laid in the presence of a duly authorized inspector, and at no other time shall such construction work be done.

Trenches to be Kept Free From Water.

The trenches shall be kept entirely free from water while the foundation and the masonry are being constructed or the sewer laid. In no case shall water be allowed to flow over the invert or foundation or through the sewer until the mortar is thoroughly set.

Tunneling.

When tunneling for sewers shall be deemed advisable, it shall be done as directed by the Engineer and as elsewhere provided in these specifications.

Gutter and Passageway to be Kept Open.

At all times, the gutters shall be kept open for surface drainage, and the streets and sidewalks shall be kept clear and free for the passage of carts, wagons, carriages and street or steam railroad cars or pedestrians, and as otherwise provided in these specifications.

Crosswalk, Sidewalk and Roadway to be Kept Clear.

Where any crosswalk or roadway is cut by the trench, it shall be temporarily replaced by a timber bridge with side railings, according to the direction and approval of the Engineer. The work shall at all times be conducted so as to cause as little inconvenience as practicable to the public.

Disposition of Paving Material.

All curb, gutter, flagging, paving and macadam stones, necessary to be removed, which, in the judgment of the Engineer are suitable to be used again, shall be stored in such places as the Engineer shall direct, or shall be removed as provided in these specifications; in all cases a passageway on the sidewalks and in the roadway shall be preserved free from needless obstructions.

Flow of Sewers to be Maintained.

The Contractor shall provide for the flow of all sewers, drains and water courses interrupted during the progress of the work, and shall restore and make good all connections, and shall immediately cart away all offensive matter, in such manner and with such precautions as the Engineer may direct. All temporary house connections shall be made by closed iron pipes, with suitable provision for preventing leakage at joints. Wooden troughs for such connections will not be permitted.

Bricks.

In the construction of brick masonry none but the best quality of hard, burnt brick, burnt entirely through, regular and uniform in shape and size and of compact texture shall be used. They shall be culled as they are brought on the ground, and all bats and bricks of improper quality are to be removed from the work. Bats are to be used only in manholes and closures.

How Laid.

The bricks are to be thoroughly wet by immersion immediately before laying. Every brick is required to be laid in a full joint of mortar, made as described in these specifications, on its bed, end and side, at one operation. In no case is mortar to be slushed or grouted in afterward. The bricks shall be neatly and truly laid, every second course to line, and the joints to be carefully struck on the inside.

All brick work, as it progresses, shall be racked back in courses, and in no case will it be allowed to be toothed, unless by special permission from the Engineer.

Brick or Stone Inverts.

All inverts, or bottom curves, shall be formed from profiles accurately made according to the dimensions of the sewer, and correctly set according to the grades furnished. The masonry shall be allowed to set for twenty-four (24) hours before the arch is turned. Vitrified brick or granite paving blocks shall be used when required by the Engineer, and whenever so used they must be thoroughly jointed, so as to be watertight along the inner surface of the sewer. The last course of the invert masonry below the springing line shall be laid as headers.

Brick Arches.

The arches or upper curves shall be formed on strong centres of correct form, according to the sizes and shapes required, and keyed with stretchers in full joints of mortar. The extrados of the arch shall be plastered with mortar one inch thick, mixed in the proportion of one portion of cement to two portions of sand. The centres shall not be removed nor withdrawn in less than thirty-six hours, or until the work is thoroughly set, and until the filling on the arch is properly put into place to a depth which is at least one foot above the crown of the arch. The centres in all cases shall be struck and not drawn, so as not to crack or injure the work. Should any crack or settlement appear in the arch after the centres are removed, so much of the work as the Engineer may require shall be taken down immediately and replaced.

Spurs.

Vitrified or iron sewer pipes or spurs, equal in every respect to those described elsewhere in these specifications, and not less than six inches interior diameter with hubs moulded for house connections, and of sufficient length to project at least four inches beyond the exterior of the sewer, shall be built into the walls of brick sewers and at such an angle as shown on the plan, or as the Engineer may direct.

How Built In.

They shall be built in wherever similar house connections exist in the present sewer which is to be reconstructed under this contract, but in no case shall the distance be more than twenty feet between spurs. In the case of the construction of new sewers where no sewers existed previously, except sewers under public parks or those crossing intersecting streets, they shall be built opposite each house, and where there are no houses, they shall not be more than fifteen feet apart on each side of the sewer or at such frequent intervals as local conditions may require. They shall be set so that their inner ends shall be flush with the inner face of the sewer, at such height in the walls as the Engineer may direct, and each pipe shall be closed on the outside with an approved earthenware cover set in mortar.

Iron Chair Spurs.

Where the sewers to be built under this contract will be at a depth greater than thirteen feet below the established grade of the street (or below the surface of the street where final grades have not been established), cast iron chair spurs, of the design shown on the drawings, not less than six inches in diameter and of the weight of extra heavy soil pipe, shall be used instead of vitrified pipe spurs. Where house drains are to be connected to these spurs, extra heavy soil pipe and fixtures shall be used for the riser between the spur and the house drain. Where the spurs are provided for future connections, risers of extra heavy soil pipe shall be placed in each spur and shall be brought to a point thirteen feet below the established grade of the street, the end of which shall be closed with an approved cover laid in cement mortar. The joints of this pipe shall be packed, leaded and caulked in accordance with these specifications for laying water mains.

Under Station Platforms.

Wherever the sewer passes under a station platform, pipe gallery or other structure, extra heavy soil pipe shall be laid from the spur to the outside of such station, pipe gallery or other structure, brought up to a point thirteen feet below the established grade of the street, caulked and capped as provided above. All pipes passing under such structures shall be laid in concrete.

Concrete Sewers, Form, Dimensions and Materials.

Where shown on the plan, or if during the progress of the work it is deemed advisable to build sewers of concrete in place of building brick sewers, the Contractor, when directed by the Engineer, shall build such sewers of the kind and quality herein specified.

Steel Bars Used if Ordered.

Concrete sewers shall be reinforced with steel bars, if so shown on the plans or directed by the Engineer.

Profiles and Inverted Centres for Inverts.

Proper profiles for the concrete inverts shall be set up at the required distances, and the concrete for the bottom and invert of the sewer shall be deposited in place and rammed and worked down to the required shape. The concrete for the bottom and invert, if so directed, shall be placed in alternate lengths extending between every other pair of profiles, so that opportunity may be given to properly work the concrete in place. If the Engineer so directs, the concrete for the invert shall be put into position and properly rammed into place against suitable forms of invert centres, which are to be removed when the concrete has become sufficiently set.

Invert to be Protected.

The concrete of the invert shall be protected during the progress of the work with planking, or by such other suitable methods as the Engineer shall direct, and for so long a time as he may require.

Forms, Moulds, etc.

Suitable forms or moulds, of the size and design to be approved by the Engineer, shall be provided by the Contractor to support the concrete of the side walls and roof while the same is being rammed into the permanent work. All forms or moulds shall be made of the material, and shall be secured, as elsewhere provided in these specifications.

Defective Work.

If any voids, or irregular or defective work is discovered upon removing the forms or moulds, such voids or work shall be cut out and filled with a rich concrete or mortar mixed in such proportions and of such materials as provided elsewhere in these specifications.

Joints.

No joints between different sections of the walls of a sewer shall, in any case, be a straight line, but shall always be stepped or toothed, so as to give a broken joint in the manner to be approved by the Engineer.

Spur Pipes, Branches, etc.

In so far as they will be applicable to sewers constructed of concrete, the provisions and requirements for brick sewers shall be understood to govern in such construction.

Vitrified Pipe Sewers. Quality of Pipe.

Pipe sewers shall be built of vitrified, salt-glazed stoneware pipe, with or without hub, as the Engineer may direct. The pipe shall be of the best quality, thoroughly and perfectly burnt, without warps, cracks or imperfections, well and smoothly glazed over the entire inner and outer surfaces, and perfect in shape. The pipe shall be subject to all tests ordered in conformity with any requirements of the Bureau of Sewers, at any time previous to its being used.

Thickness.

The size of the pipes shall be designated by their interior diameters. Each pipe shall be a true cylinder, and of even thickness throughout, according to the following schedule:

- Six-inch pipes shall be not less than $\frac{5}{8}$ of an inch thick.
- Eight-inch pipes shall be not less than $\frac{3}{4}$ of an inch thick.
- Ten-inch pipes shall be not less than $\frac{7}{8}$ of an inch thick.
- Twelve-inch pipes shall be not less than 1 inch thick.
- Fifteen-inch pipes shall be not less than $1\frac{1}{4}$ inches thick.
- Eighteen-inch pipes shall be not less than $1\frac{1}{2}$ inches thick.
- Twenty-four-inch pipes shall be not less than 2 inches thick.
- Thirty-inch pipes shall be not less than $2\frac{1}{2}$ inches thick.

Lengths.

No pipe shall be less than 2 feet in length, excepting pipes of 12 inches, 15 inches and 18 inches in diameter, which shall not be less than 3 feet in length.

Curved Pipes.

When required, curved pipes shall be furnished and laid, curved to such a radius as may be required or as shown on the plan of the work. No curved pipe shall exceed 3 feet in length.

Hub and Spigot Pipe.

In case the Engineer shall order hub and spigot pipe to be used, the hub shall have a depth of at least three (3) inches from its face to the shoulder of the pipe on which it is moulded, and shall have an interior diameter not less than one (1) nor more than two (2) inches greater than the exterior diameter of the pipe which is to be fitted into it.

Straight Pipe with Collars.

In case the Engineer shall order pipe without hubs to be used, it shall be fitted with a collar of the same thickness as the pipe and not less than five inches wide. Each collar must have an internal diameter of not less than one-half inch nor more than one and one-half inches greater than the external diameter of the pipe to which it is to be fitted.

Spur Pipes.

Pipes having spurs not less than six inches in diameter with hubs moulded thereon for house connections shall be furnished and laid at such points as shown on the plan or as directed by the Engineer, and when not immediately used, they shall be closed on the outside with approved vitrified earthenware covers set in mortar.

Risers.

The provisions for risers on brick sewers shall also apply to pipe sewers.

Bends.

Bends, siphons and special pipe shall be furnished and laid of the size and forms shown on the plans of the work, or as required.

Pipe Sewers, How Laid.

All pipes shall be laid in concrete cradles of the required form and dimensions. The first layer of concrete shall be four inches thick, for the full width of the cradle, and after being thoroughly tamped shall be allowed to set for a period of not less than twenty-four hours. Upon the bed thus prepared, the pipe shall be laid true according to the lines and grades furnished. The ends of the pipes shall abut against each other and in such manner that there shall be no shoulder or unevenness of any kind along the bottom half of the sewer on the inside. Unless otherwise ordered, no less than fifteen inches of pipe shall be laid at any one time, in any one length of trench. The remainder of the concrete shall then be put in place and shall be exposed for at least twenty-four hours for inspection, as required for the bottom course.

Jointing Hub and Spigot Pipes.

When hub and spigot pipes are used, the lower half of each hub shall be plastered on the inside with a layer of cement mortar mixed in the proportion of one part of cement to one part of sand, and of a sufficient thickness to bring the inner surface of the abutting pipes flush and even with the established flow line. After the pipes are fitted, the space between the inside of the lower half of each hub and the outside of the entering pipe shall be filled with cement mortar mixed as above specified, and the outside of the joint shall be thoroughly sealed with the same kind of mortar and the joints carefully wiped inside and outside.

Jointing Pipes Without Hubs.

When pipe without hubs is used, the collar or rings shall lap equally the ends of each abutting pipe. The lower third shall, in all cases, be whole and unbroken, and the rest of the collar shall consist of not more than two pieces.

The space between the ring and the pipes shall be as uniform as possible and shall be thoroughly filled with cement mortar mixed in the proportions specified for hub and spigot pipe. The joints shall be carefully wiped and pointed inside and outside and all mortar that may be left on the inside shall be thoroughly cleaned out and the pipe left clean and smooth throughout.

Iron Pipe Sewers.

Iron pipe of the quality and laid in the manner described elsewhere in these specifications for the laying of water mains shall be laid wherever shown on the plans or at such places as the Engineer shall direct.

Special Castings.

Wherever such pipes are laid under station platforms, pipe galleries or through vaults, they shall, when required by the Engineer, be provided with special castings for manholes, which shall be fitted with a cover bolted on so as to make an air-tight joint, according to the plans to be furnished by the Engineer.

Ventilators.

Whenever, in the opinion of the Engineer, it becomes necessary to provide ventilation for sewers under station platforms, pipe galleries or other structures, iron pipe shall be laid from the sewer to the surface of the street fitted with proper gratings, according to the plans to be furnished by the Engineer.

Connections.

All existing sewers, culverts, drains and house connections intercepted by the proposed sewers, culverts or receiving basins shall be connected with the new work by proper curves and grades and in such manner as the Engineer shall direct; and all drains, basins or culverts rendered unnecessary or becoming disused by the work herein contemplated shall be filled in and made solid with good wholesome earth in the manner directed. Provision shall also be made for the connection of future sewers or basins by constructing brick spurs or inserting vitrified pipe at the points indicated on the contract drawings, and at other points as the Engineer may direct. These connections shall be closed with bulkheads not less than 8 inches in thickness and of the quality specified for brick masonry.

Fresh Work to be Protected.

All fresh work shall be carefully protected from injury in every way. No wheeling or walking will be allowed on it and any portion injured must be relaid by the Contractor; no walking or working over the pipes after they are laid (except as may be necessary in tamping the earth and refilling) will be allowed until there is at least $2\frac{1}{2}$ feet of earth over them.

Pipes to be Kept Clean.

The interior of the pipes shall be carefully freed from all dirt, cement and superfluous material of every description as the work progresses, for which purpose a disc, mould or plate, attached to a rod sufficiently long to pass two joints from the end of the pipe last laid, shall be continuously worked through.

Exposed Ends of Pipes to be Protected.

The exposed ends of pipes shall, in all cases, be protected with a board or other stopper carefully fitted to the pipe, to prevent earth or other substances from washing in, and in no case shall brick or stone be used for that purpose.

Manholes.

Manholes shall be built at such points on the line of the sewers, and of the form, thickness and materials, as shown on the plans. The masonry or concrete shall be carried up so that the top of the iron head when set shall be at the level of the established grade of the street at that point or to such height as the Engineer may direct, and from templates correctly made and set at top and bottom, between which no less than 8 lines shall be drawn. Where manholes are not built to the established grade of the street they shall be covered, when necessary, by special bluestone 8 inches in thickness, to support the manhole heads. All joints shall be neatly struck and pointed on the inside. Each manhole shall be plastered thoroughly on the outside with cement mortar 1 inch in thickness, mixed in the proportion of one part of cement to two parts of sand.

Foundations.

The foundations for manholes shall be of concrete or masonry of the kind indicated on the plans, and shall commence not less than 12 inches below the flow-line grade of the sewer, except as otherwise shown on the plan. When additional foundation to that shown on the plan is required it shall be built as directed by the Engineer.

Sewer pipes shall be built in and trimmed, when necessary, so as to be flush with the inner face of the manhole, and an arch, laid in cement mortar, shall be turned over the pipe.

The invert shall be built of vitrified brick, cut stone or concrete masonry, as directed by the Engineer.

Use of Bats.

A reasonable number of bats not smaller than half bricks may be used in the construction of manholes or receiving basins, provided all interstices are thoroughly filled with mortar.

Steps.

Standard steps of good quality of galvanized wrought iron, of the size, length and shape required for steps, shall be built into the interior sides of all manholes at a distance apart of not more than fifteen (15) inches vertically, and they shall be so arranged that the lowest step shall be not more than 2 feet above the bench at the bottom of the manholes nor more than 2 feet above the invert of the sewer where there is no bench. Each manhole head shall have cast on the inside a wrought-iron step, when directed by the Engineer.

Bluestone.

Hammer-wrought bluestone shall be furnished and laid of the form and thickness required as shown on the plan, or as otherwise directed.

Manhole Head and Cover.

A cast-iron manhole head and cover of the quality specified for cast-iron and of the pattern adopted by the Presidents of the different boroughs, and in dimensions, weight and all other respects satisfactory to the Engineer, shall be fitted on a bed of mortar to each of the above described manholes. Manhole heads and covers which do not conform to these specifications shall be at once removed from the work.

Perforations.

Covers to be used on manholes in the street shall be perforated. Those used on sidewalk manholes shall be tight-fitting, without perforations.

Weights.

Each manhole head and cover shall have its weight distinctly marked upon it with oil paint. The following shall be allowed as the minimum and maximum weights:

- Street manhole head, 475 to 500 pounds;
- Street manhole cover, 135 to 150 pounds;
- Sidewalk manhole head, 300 to 310 pounds;
- Sidewalk manhole cover, 100 to 110 pounds.

Noiseless Heads and Covers.

When the pavement of the street is asphalt the manhole shall be fitted with a noiseless head and cover, to be approved by the Engineer.

Sealed Manhole Heads and Covers.

All manholes in station platforms, pipe galleries, vaults or other structures shall be provided with sealed manhole heads and covers according to the design shown on the plans.

Emergency Manholes.

Whenever a sewer crosses under the subway, emergency manholes shall be provided when directed by the Engineer and according to plans to be furnished by him.

Manholes to Be Completed.

The above described manholes, whether on brick or pipe sewers, shall in all cases be fully and completely built and fitted with their covers as the work progresses and as each is reached, and the sewers shall not be laid beyond or in advance of any uncompleted manhole.

Receiving Basins.

Receiving basins shall be built as located on the plans or as the Engineer shall direct and in accordance with the plans to be furnished. Each portion of the basin shall be built of the size and materials designated on said drawings and shall be thoroughly plastered, both inside and outside, with cement mortar in the proportion of one part of cement to two parts of sand.

Foundations.

The foundations for receiving basins shall be of concrete or masonry of the kind indicated on the plans and shall commence not less than twelve inches below the finished floor of the basin, except as otherwise shown on the plans. When additional foundation is required, it shall be built as directed by the Engineer.

Stone Flooring.

The flooring shall be of hammer-dressed North river bluestone flagging, not less than three inches thick, in two pieces, and shall be set in a full bed of mortar and rammed into place. The floor may be finished with cement mortar mixed in the proportion of one volume of cement to one volume of sand if so directed by the Engineer. The mortar shall be spread, while fresh, upon the concrete base while the latter is still soft and adhesive and before it shall have reached its first set, in such quantity that after thorough manipulation it shall be one inch in thickness.

Head Stone and Gutter Stone.

Where head stone and gutter stone are required they shall be of sound, durable granite of the dimensions shown on the plan, hammer dressed to an even surface and cut to the satisfaction of the Engineer. Cast-iron basin heads and gutter pieces of the design shown on the plans shall be set instead of the above when required.

Cast-Iron Cover.

A cast-iron cover of approved pattern weighing not less than eighty nor more than ninety-five pounds shall be fitted to the opening in the head stone.

Grate Bar.

A grate bar made according to the plan shall be fastened solidly into the said head stone in the manner shown.

Cast-Iron Trap.

A cast-iron trap of the form and dimensions shown on the plan and free from imperfections, and properly coated with coal pitch varnish shall be furnished and built into place as directed by the Engineer.

The joints shall be tightly fitted with an oakum gasket or with cement mortar if so directed.

Iron Steps.

Galvanized iron steps of the same design required for manholes shall be built into the walls.

Culvert Pipes.

The culvert pipe for connections with sewers shall be 12-inch vitrified pipe unless otherwise shown on the plan, and of the kind and quality previously described, and shall be laid, in all cases, in a concrete cradle of the form and dimensions required for pipe sewers and in accordance with the directions of the Engineer. In case it becomes necessary to connect any basin already built, with the work to be constructed, so much of such culverts as, in the opinion of the Engineer, may be necessary shall be taken up and rebuilt or relaid with vitrified pipe, or brick as the case may be, in the manner described above and re-connected on the straight lines to said sewer.

Waterproofing.

Whenever, in the opinion of the Engineer, it is necessary to waterproof a sewer, chamber or receiving basin, or their appurtenances, it shall be done as shown on the plans or as directed by the Engineer and in the manner described elsewhere in these specifications.

Refilling.

The refilling of the trenches shall be done as provided elsewhere in these specifications.

Mortar.

All masonry shall be laid in Portland cement mortar of the quality described in these specifications. It shall be mixed in the proportion of one (1) volume of cement to two (2) volumes of sand, excepting as otherwise specially provided.

Concrete.

All concrete for sewers shall be made in the proportions of one (1) volume of cement to two and one-half (2½) volumes of sand and four and one-half (4½) volumes of stone.

Paving.

On the completion of each section of one hundred feet of sewer, the regrading and temporary paving over the same shall be done and all surplus earth, sand and rubbish shall be immediately removed. After the completion of the work a permanent pavement shall be placed over the entire length of the trench as provided elsewhere in these specifications.

Permits for Connections.

The Commissioner of Public Works shall have the right to connect any sewer or sewers with the sewers herein described or to grant permits to any person or persons to make connections therewith at any time before it is finally completed, and the Contractor shall not interfere with or place obstructions in the way of such person or persons as may be employed in building such new sewer or sewers or in making such connections.

Sewers, etc., to Be Kept Clean.

During the progress of the work, and until the entire completion and final acceptance thereof, the sewers, drains, basins, culverts and connections shall be kept thoroughly cleaned throughout, and left clean, and the drainage of any old sewer that may be taken up or intercepted shall be provided for and taken care of by the Contractor.

18. WATER MAINS.

Whenever it is necessary to relay any water main, all new material required for the same shall be of the quality and laid in the manner specified below, and subject to the various clauses of these specifications applicable thereto.

Pipes to Be Cylinders.

The pipes shall be circular cylinders, with the inner and outer surfaces concentric, and of the full interior diameter required.

Hubs and Spigots.

The hub or socket and the spigot end shall be shaped in exact conformity with the standards of the Department of Water Supply, to be furnished by the Board, and will be tested by circular gauges.

The seat or shoulder of the socket and the end of the spigot must be straight end even, so as to make a smooth joint. Special care will be required in making the sockets and spigots to conform to the drawings, and all pipes will be particularly tested at these points. No pipe will be received whose eccentricity at the spigot and socket ends, or either, exceeds one-eighth (1/8) of an inch.

The pipes shall be designated by dimensions of the interior diameter.

Bands, lugs, buttons or ribs shall, if required, be cast on the pipes, of such forms and dimensions as the Engineer may direct.

Length of Pipe.

The straight pipe shall be twelve (12) feet long, exclusive of hub; all others as may be directed.

All the pipes shall be straight in the direction of the axis of the cylinder.

Thickness.

The thickness of the pipes, branches and special castings shall correspond with the standards of the Department of Water Supply. The weight for straight pipe shall be approximately as follows:

Forty-eight-inch pipes, 8,270 pounds each.
Forty-two-inch pipes, 6,860 pounds each.
Thirty-six-inch pipes, 5,305 pounds each.
Thirty-inch pipes, 3,940 pounds each.
Twenty-four-inch pipes, 2,660 pounds each.
Twenty-inch pipes, 2,005 pounds each.
Sixteen-inch pipes, 1,475 pounds each.
Twelve-inch pipes, 1,015 pounds each.
Six-inch pipes, 415 pounds each.

The thickness of the metal of the pipes and special castings will be tested by calipers after the castings have been freed from sand and cleaned.

Variations in Thickness.

No pipe will be received when the thickness of metal is less by more than one-twelfth (1-12) of an inch than the thickness required by the standards.

No straight pipe or casting will be received which weighs less than the weights above mentioned by more than five (5) per cent. for pipes 16 inches or less in diameter, or more than four (4) per cent. for pipes more than 16 inches in diameter. No special casting will be received which weighs less than the standard weight by more than ten (10) per cent. for pipes 12 inches or less in diameter, and eight (8) per cent. for larger pipes.

All straight pipes shall be cast vertically, and all pipes 12 inches or more in diameter shall be cast with the hub end down.

All the castings shall be made in such molding sand or loam as will leave the surface clean and smooth.

Castings, How Marked.

All the castings shall have the year in which they are cast, the running number of the castings of the same size and form, the letters D. W. S., and the initials or name of the Contractor and of the foundry where cast, cast on the outer side in raised letters of not less than two (2) inches in length and one-eighth (1/8) of an inch in relief, in such manner as the Engineer may designate; and in case any pipe shall be condemned the letters D. W. S. shall be erased by the Contractor.

Quality of Cast Iron.

The metal of which the castings are to be cast (which must be remelted in a cupola or air-furnace) shall be pig iron, made without any admixture of cinder iron or other inferior metal, and shall be of such character as to make a pipe strong, tough and of an even grain, entirely free from uncombined carbon when seen under the microscope, and such as will bear, satisfactorily, drilling and cutting, and shall have a tensile strength of at least sixteen thousand (16,000) pounds to the square inch.

The castings shall be free from scoria, sand holes, air bubbles and other defects and imperfections.

Castings to be Clean.

The castings shall be perfectly cleaned and no lumps shall be left on the inner surface of the barrels or sockets, or on the outer surface of the spigot end.

Subject to Hammer Inspection.

All castings, being perfectly cleaned, according to the specifications and the directions of the Engineer, shall be subjected to a careful and thorough hammer inspection.

Every casting must be thoroughly dressed and made clean and free from earth, sand and dust, which adheres to the iron in the molds. Iron-wire brushes must be used, as well as softer brushes, to remove the loose dust. No acid or other liquid shall be used in cleaning the castings.

Pipes to be Coated.

Every pipe, branch and special casting shall be carefully coated inside and out with coal pitch and oil. Every casting must likewise be entirely free from rust when the coating is applied. If the casting cannot be dipped immediately after being cleaned, the surface must be oiled with linseed oil to preserve it until it is ready to be dipped; no casting to be dipped after rust has set in.

Pitch.

The coal-tar pitch is to be made from coal tar distilled until the naphtha is entirely removed and the material deodorized with a mixture of five (5) or six (6) per cent. of linseed oil. Pitch which becomes hard and brittle when cold will not answer for this use.

Pitch of the proper quality having been obtained, it must be carefully heated in a suitable vessel to a temperature of three hundred (300) degrees Fahrenheit, and must be maintained at not less than this temperature during the time of dipping. The material will thicken and deteriorate after a number of pipes have been dipped; fresh pitch must therefore be frequently added, and occasionally the vessel must be entirely emptied of its old contents and refilled with fresh pitch.

Every casting must attain a temperature of three hundred (300) degrees Fahrenheit before being removed from the vessel of hot pitch. It may then be slowly removed and laid on skids to drip.

To be Inspected Before Dipping.

No casting shall be dipped until the authorized Inspector has examined it as to cleaning and rust, and subjected it thoroughly to the hammer test. It may then be dipped, after which it will be passed to the hydraulic press to meet the required water test. The proper coating must be tough and tenacious when cold on the pipes, and not brittle or with any tendency to scale off.

Tests.

The castings must be capable of sustaining a pressure in the hydraulic press of three hundred (300) pounds to a square inch, and any casting which shows any defect by leaking, sweating or otherwise will be rejected. This test will be made at the foundry and at the expense of the Contractor.

Weighed and Marked.

The casting will be weighed and the weight distinctly marked on the casting in white paint. The Contractor will provide at the foundry where the pipes and castings are to be manufactured proper sealed scales and weights for weighing the castings, which will be done at the expense of the Contractor under the supervision of the Inspector.

Blocking and Wedges.

Each pipe over eight (8) inches inside diameter, unless otherwise ordered, shall be placed on two (2) blocks and four (4) wedges of hemlock timber, the wedges to rest on the blocks and the pipe on the wedges.

The blocks and wedges shall be of sound hemlock timber; 48 and 36 inch pipe shall be laid on blocks 4 feet long, 12 inches wide and 6 inches thick, with wedges 18 inches long, 6 inches wide, 4 inches thick on one end and 1/2 inch thick on the other; 30 and 24 inch pipe on blocks 3 feet long, 10 inches wide and 5 inches thick, with wedges 15 inches long, 5 inches wide and 3/4 inches thick on one end and 1/2 inch thick on the other end; 12 and 20 inch pipe on blocks 2 feet long, 8 inches wide and 4 inches thick, with wedges 12 inches long, 4 inches wide, 3 inches thick on one end and 1/2 inch thick on the other.

Joints.

The spigot end of the pipe shall be inserted into the hub to within from one-fourth ($\frac{1}{4}$) to one-eighth ($\frac{1}{8}$) of an inch of the full depth of the hub, and the space around the pipe shall be equalized so as to give as nearly as possible an equal space for the packing. The space between the pipe and hub shall be packed with clean, sound hemp packing yarn, free from tar, far enough to leave the proper space for lead. The remaining space shall then be filled by running it full of lead to a depth of four (4) inches, with a bead outside of the face of the hub large enough to allow for caulking, so that when the joint is properly caulked the lead will be flush with the hub of the pipe. After the joint shall have been run with lead it shall be caulked by means of proper tools, so as to make a water-tight joint.

Lead.

The lead to be used shall be of the best quality of pure, soft lead, and in every respect suitable for the purpose.

Notice of Interruption to Be Given.

In case it becomes necessary to cut any connection with any other main, house or hydrant, or in any way to interfere with the continuous and normal flow of water, due notice shall be sent at least forty-eight (48) hours in advance to the Engineer and to the Commissioner of Water Supply, and the Contractor shall, if so ordered, make a temporary by-pass or other arrangement to preserve the flow of water while breaking connections.

All connections cut, interfered with or injured shall be restored under the directions of the Engineer without delay and in accordance with the rules and regulations of the Department of Water Supply governing such matters, to a suitable condition as good as existed before commencing work.

Stop cocks, boxes, branches, curved pipe and other specials, according to the standards of the Department of Water Supply, shall be set where necessary.

19. PAVING.**Pavement to Be Restored.**

As soon as the work in any open excavation or trench made under this contract within a street (except as hereinafter provided) shall have been completed, the trench backfilled and the backfilling thoroughly rammed in place and compacted, as provided under the clauses relating to backfilling, a temporary paving shall be laid and maintained in a condition satisfactory to the Engineer, and after the earth shall have, in the opinion of the Engineer, become sufficiently settled, the Contractor shall proceed to restore the surface to a condition similar to and equally as good as that existing previous to the commencement of construction.

There will be no paving laid under this contract within the limits of the property recently acquired by the City for the extension of Delancey street, but the surface is to be brought to a uniform grade, as hereinbefore provided in these specifications under the heading "4. Backfilling."

Other Pavements May Be Laid.

Nothing contained in these specifications shall be understood as prohibiting the Contractor from making any arrangement with the President of the Borough, or such other officer of The City of New York as may be in charge of street paving, to lay a better or other form of street pavement, or to make an arrangement with any property owner to lay another style of sidewalk in front of such premises in place of the pavement or sidewalk taken up; in which case the Contractor is to file with the Board a copy of its contract with such municipal officer or with such property owner, duly acknowledged in writing by both parties. In case the municipal officer in charge of street paving, or any property owner, desires to lay a pavement in any street, or a sidewalk along any street, affected by this contract, different from the one removed, and shall notify the Board in writing that he has failed to make satisfactory arrangements for such work with the Contractor, then the Board, in its discretion, may direct the Contractor to finish and dress off the filling over its work to such grade as the Engineer may select, and further direct it to remove from the street all stones of whatever nature not required to be relaid, and to permit another contractor to lay such pavement or sidewalk; in which case the liability of the Contractor under this contract shall cease, as far as that part of its work is concerned, whenever the Engineer shall report to the Board that the instructions of the Board have been complied with, exactly the same as if the Contractor had fully completed the repaving as hereinbefore provided. The Engineer shall then report to the Board the number of square yards of pavement thus disturbed but not relaid, and the Board will deduct from the amount named in this contract as the price to be paid to the Contractor such sum as the Engineer shall certify as the fair value of the expense of restoring the previous pavement.

20. MAINTENANCE OF STREET RAILROAD TRACKS, MAINS AND OTHER SURFACE OF SUB-SURFACE STRUCTURES.**Surface and Subsurface Structures to be Maintained.**

The Contractor shall, at all times, by suitable bridging or other supports, maintain and support in an entirely safe condition for their usual service and to the reasonable satisfaction of the owners, all elevated railroad structures, street tramways of whatever character, telegraph, telephone or electric light poles or wires, water and gas mains, steam pipes, pneumatic tubes, electric subways, sewers, drains, and all other surface or subsurface structures encountered during the progress of the work. The sidewalks, curbs, areas and stoops along the line of the work must also be protected from any injury; but should any injury occur to any surface or subsurface structure as mentioned above, or sidewalk, curb, area or stoop, the Contractor shall fully restore the same to as good a condition as existed before the injury was done.

Notice to be Given.

Notice is to be given by the Contractor to all companies and the proper City officials, owning or having charge of surface or subsurface structures along any part of the work, of its intention to commence operations along such part of the route, at least one (1) week in advance, and the Contractor shall file with the Engineer at the same time a copy of said notice; and he shall co-operate with the proper officers or officials in charge of such structures and shall furnish them with all reasonable facilities to inspect the methods of caring for their property.

Plans Furnished.

In the rearrangement of subsurface structures, a tentative plan will be made by the Engineer, which will be submitted to the parties interested; if any reasonable changes are then requested by any of the said parties within ten days after the submission of the tentative plan, such changes will then be made, if in the judgment of the Engineer they will best conserve the interest of all parties concerned; a further plan will then be made which, on the approval of the Engineer, will be final.

Owners of Structures May Do Work.

Whenever it becomes necessary to cut, move, change, or reconstruct any such structures as named above, or connections therewith, such work shall be done according to the reasonable satisfaction of the owners of such pipes or other structures, and should they so desire by the owners themselves, at the expense of the Contractor; such expense not to exceed the actual cost of labor and materials used, together with a reasonable allowance for the use of plant and tools not exceeding seven and a half (7½) per cent.

Reasonable Dispatch.

All work of reconstruction or alteration, if performed by the City or owners, shall be done with reasonable dispatch, and facilities are to be provided so that said work will interfere as little as possible with the practical working and use of such structures. Failure to make such alterations within a reasonable time as shall be adjudged by the Board, may be considered by the Contractor as a waiver on the part of said City or owners of the right to do said work.

Facilities to be Given to Make Extensions.

In the event of the companies or the City being required to make any alteration to their structures as above provided, or in case they shall consider it necessary or desirable to make any further alterations in, or do any work to or in connection with surface or subsurface structures owned by them or it, at the time the work

under this contract is in progress, the Contractor shall give said companies or the City all reasonable opportunity to perform such work; provided such work or alteration for the benefit solely of the owners of subsurface structures does not cause the Contractor any serious loss or delay, as shall be determined by the Board.

21. STATIONS.

The contract drawings indicate the general plan and outline and the chief structural and decorative features of the station at the Bowery.

Station Plans Furnished.

As soon as possible after the letting of the contract, the Engineer will furnish to the Contractor full detail plans and specifications of the above mentioned station.

Materials of Construction for Underground Station Finish.

Marble, enameled bricks, face bricks, glass and glazed tiles, faience, terra cotta, mosaic work, metal laths, Keene cement, plaster, cement floors, metal covered wood, woodwork, brass and iron grilles, railings, gates, toilet fixtures, lighting conduits, and all other materials used in the decoration and interior finish of the station shall be of the best merchantable grade of the respective articles, as approved by the Engineer, and shall be laid, fabricated and erected in the most approved manner by workmen especially skilled in their respective trades.

Vault Lights.

The roofs of the station, where under the sidewalks, shall, to as great an extent as possible, consist of what is known as vault lights. These lights shall be made with lenses not exceeding three (3) inches in diameter, of strong glass set in cement; they shall be provided with non-slipping threads, buttons or other devices all of design approved by the Engineer; and shall be of sufficient strength to carry, when supported in a manner similar to that in which they are to be permanently set, an equally distributed load of at least five hundred (500) pounds per square foot without signs of failure, deformation or permanent set, when such test load is removed. The right is reserved to test at least one (1) frame in every ten (10) delivered, as selected by the Engineer. Should the one selected fail, another will be selected by the Engineer, and if that fail, then the whole lot may be rejected. These frames must be set in place with cement, lead or other means to be absolutely waterproof.

Hollow Space in Walls.

In order to prevent any leaks and as far as possible condensation, the Contractor must exercise great care in the construction of station walls and roofs. The walls above the platform level, when acting as retaining walls, shall be built of brick or concrete with a waterproof layer, all as described under the appropriate clauses in these specifications. The walls shall be constructed so as to contain a hollow space. The hollow space shall be obtained by lining the walls on the inside with hollow terra cotta blocks four (4) inches thick, or with a common brick facing wall four (4) inches thick set away from the side walls two (2) inches distance. These hollow block and facing walls shall be laid as herein before or after specified in order to provide clear-way spaces for drainage from the top to the bottom of the walls. The hollow spaces in the wall shall be connected at the bottom by a pipe leading to the drains. Where it shall become necessary to cut into or through the hollow blocks for the purpose of laying electric conduits or any other pipes or tubes, the spaces thus cut out shall be covered with galvanized metal lath, fastened to the hollow blocks with suitable fastenings, before any scratch coat or plastering is applied to the wall surface, thereby securing a clear opening behind the wire mesh for drainage.

Laying Hollow Blocks.

The hollow blocks shall be laid where possible, when the concrete sidewalls of the station are constructed, so that a secure bond may be obtained between the hollow block linings and the sidewalls. This may be done by laying the blocks against the inside of the concrete forms, as directed by the Engineer, before the concrete is placed. Care must be taken that the hollow spaces in blocks are not filled with cement mortar or concrete. Where the blocks cannot be laid in this manner they shall be laid up within one (1) inch of the interior face of the walls. In such cases the hollow block lining walls shall be anchored to the sidewalls, as approved by the Engineer, not oftener than once in each square yard.

Laying Common Brick Facing Walls.

The four (4) inch facing walls shall be laid in running bond, with headers set hard against the station sidewalls, not oftener than once in each square yard. All facing walls shall be anchored to the sidewalls in an approved manner not oftener than once in each square yard.

Mortar.

Mortar for brick masonry; station finish, common brick or hollow blocks, one (1) volume cement, three (3) volumes sand; face brick station finish, extra No. one (1) portion freshly burned and thoroughly slaked lime of an approved brand and sand in proportion to properly work under the trowel, and one (1) portion of cement, and to be colored to match the face brick. The lime and sand are to be mixed together, and the cement added as it is being used.

Interior Wall Finish.

The interior walls of the station, including all sidewalls of the station, closets, toilet rooms, passageways, and the walls of the railroad for at least thirty (30) feet in both directions from the extreme ends of the platforms, shall be finished in marble, enameled brick, face brick, glass or glazed tile, "art ceramic," or glass tile mosaic, or such other material as may be approved by the Engineer. All materials shall be furnished in such dimensions and of such colors, and laid or set, as the Engineer may direct. In the designs of the stations all angles formed by the intersection of the sidewalls, floors and ceilings shall be avoided by joining these surfaces by curves. In order that such curved surfaces shall present a smooth and workmanlike finish the Contractor shall supply special bricks, tiles or pieces of other materials curved to the radius used. All details of the stations must be so arranged as to provide as few lodgment places as possible for dust and dirt, to facilitate cleaning, and to permit if desired a thorough washing of all parts of the station and their approaches by means of a hose.

Ceilings.

The roof, except where constructed of vault lights, shall be formed in the ordinary manner as the roof of the railway, all carefully waterproofed. The ceiling shall be constructed with an air space. Wherever possible this air space is to be obtained by lining the roof with hollow terra cotta blocks two (2) inches thick. The hollow blocks are to be laid, when the roof is constructed, in a similar manner to those in the sidewalls. In other cases galvanized metal laths shall be attached to the roof beams or furred out from the roof in an approved manner, so as to leave an air space beneath the same.

Interior Ceiling Finish.

The interior ceilings, over the platforms, mezzanines, passageways, closets, toilet rooms and tracks at the station, and for a distance of at least thirty (30) feet in both directions from the extreme ends of the station platforms, except under vault lights, shall be finished in cement plaster and Keene cement, or other approved material, applied to the concrete surface, the terra cotta blocks, or metal laths in the following manner, or as directed by the Engineer:

On metal lath, one (1) scratch coat, one (1) brown coat and two (2) finish coats.

On terra cotta blocks, one (1) brown coat and two (2) finished coats.

On concrete, two (2) finished coats.

The brown coat and first finish coat shall be scored to insure a proper bond for the following coats. The scratch and brown coats shall consist of cement mortar of such proportions as directed by the Engineer. The two finish coats shall consist of the best grade of domestic Keene cement, or other material approved by the Engineer. The final coat is to have a smooth, hard finish, and shall be in such colors as directed. All angles shall be coved.

Floors.

The floors of the station shall be constructed as hereinafter specified, and generally shall be so arranged as to drain to the edge of the platform and thence into the tracks. Under special conditions, however, they shall be arranged to drain to one

or more points as directed, where suitable and proper provisions shall be made for the removal of water used in flushing the same. In order to provide a space in which all floor drains, pipes, tubes and electric conduits may be laid, concrete construction under the finish shall be stopped at least six (6) inches below the finish floor grades at all points.

Floor Finish.

The floors of the station platforms, closets, toilet rooms, mezzanines, and passageways shall be finished in concrete and cement of a minimum thickness of 3 inches, composed of two (2) inches of concrete and one (1) inch of cement finish. The three (3) inch floor finish shall be laid upon a concrete foundation three (3) inches thick.

The materials and proportions shall be as follows:

Three (3) inch foundation concrete, one (1) volume of cement, two and a half (2½) volumes of sand, and six (6) volumes of not exceeding three-quarter (¾) inch broken stone.

Two (2) inches of concrete, one (1) volume of cement, two and a half (2½) volumes of sand, and six (6) volumes of not exceeding three-quarter (¾) inch broken stone.

Cement finish, one volume of cement and two (2) volumes of coarse white sand.

The cement for the two (2) inch concrete layer and cement finish and the white sand may be special materials, approved by the Engineer; all other materials shall be as herein before or after specified.

Method of Laying.

The top of the three (3) inch foundation concrete shall be left three (3) inches below and parallel to the finished floor elevations. After the foundation concrete has set, the two (2) inch concrete layer shall be spread to an even thickness and rammed so that its top surface shall be one (1) inch below and parallel to the finish floor lines. Before this concrete is set, lay the one (1) inch cement finish and trowel to a smooth uniform surface.

The floor shall be laid out in blocks about three (3) feet square. These blocks are to be formed by cutting through the two (2) inch concrete, before it has begun to set, with a tool which will make a quarter (¼) inch joint. The cement finish shall be marked with a suitable tool directly over the joint above described.

At the intersection of the floor and side walls a sanitary cove of two (2) inch radius shall be formed. The floor shall be kept moist and protected until perfectly set.

Stairways.

The stairways shall be constructed of concrete reinforced with steel rods, and finished with a cement finish as directed, and furnished with the most approved form of treads to prevent slipping. At least as many stairways shall be provided for each side of the station as are shown on the plans. If ordered by the Board, however, as many additional stairways as ordered shall be provided on each side of the station. The stairways shall be of as great width as the local conditions will satisfactorily permit: shall be entered, wherever possible, through private property.

Ticket Booths, Doors and Newsstands.

The ticket booths, doors and newsstands shall be constructed of metal covered wood with mouldings independently applied, or such non-combustible material as may be approved by the Engineer. The ticket windows of the booths shall be glazed in plate glass plain or frosted as indicated, and shall be inclosed with bronze grille. Plate glass coin shelves shall be provided.

No obstructions whatever shall be placed on the station platforms, within the lines of the station walls excepting as may be approved by the Board.

Hardware.

The hardware required for the ticket booths, doors, toilet rooms and newsstands, shall be of solid bronze metal without lacquer, and of weight, quality and design as approved by the Engineer.

Railings and Grilles.

The platform and stairway railings and grilles, and the stairway railings and hood at the street surface, shall be constructed of iron and bronze design, and constructed in a manner satisfactory to the Engineer. If practicable and so ordered a compressed air service shall be used to manipulate the exit gates and they shall be so constructed. Where ordered by the Board railings shall be constructed along the edge of the station platforms, and at express stations additional railings shall be provided as directed for the purpose of controlling and regulating passengers entering and leaving the train.

Sanitary Arrangements.

Each side of the station, unless otherwise ordered by the Board, shall be equipped with two (2) toilet rooms, plainly marked for the use of women and men respectively and one (1) porter's closet. The women's room shall be furnished with not more than two (2) bowls, one (1) basin, and one (1) floor drain; the men's, with not more than two (2) bowls, two (2) urinals, one (1) basin and one (1) slop sink and one floor drain. All the toilet fixtures shall be of the most approved design, and provided with most approved flushing devices. The doors leading to these rooms shall be equipped with self-closing springs. Each room shall have a ventilating pipe leading direct to the outer air, and covered by a suitable cast-iron grating set in the sidewalk or other place, and a suitable chamber shall be furnished in which a small automatic fan may be installed.

The bowls and urinals shall be connected by means of cast-iron drain pipes to the main sewer. These drains shall be furnished with sufficient traps of approved design, set close to the fixtures, which traps shall be back-aired in an efficient and workmanlike manner, such back-air pipes terminating in the sidewalk or other approved situation, and covered by suitable galvanized iron gratings.

Soil and Other Pipes.

All soil, waste, vent and water supply pipes, wherever possible, shall be run in specially arranged and accessible wall spaces between an outer marble or glass finish and the side walls of the toilets. When it is impossible to connect the soil pipes directly to the sewer, sewage shall be discharged into a sewage sump of approved form and dimensions, in which an approved automatic sewage ejector will be installed. All soil piping in connection therewith shall be provided as a part of the station construction, and from thence into the sewer. Between the wall spaces and the sewer all soil and supply pipes shall be run where possible in pipe troughs constructed under the station platforms. All water supply pipes shall be encased in asbestos or other approved non-conducting material and all pipes exposed in the troughs or wall spaces shall be suitably painted. All pipes are to be concealed from view. The toilet room stalls shall be finished in marble or glass as approved by the Engineer. All work must conform with the City building and health regulations, which are to be considered as part of these specifications.

Water Connections.

Both sides of the station shall have connection with the water main so as to permit the attaching of hose or hoses for the flushing and washing of all parts of the station and platform, waiting rooms and stairways.

Sewers Under Platforms.

Where it may be necessary to pass sewers or pipes, or both, beneath the station platforms, in order to reach the same for the purpose of inspection and repair, cast-iron frames capable of being lifted, shall be inserted in the floor, and the concrete of the floor so laid as to be exactly flush with the same.

The necessary conduit, outlet boxes, fittings and all other material required for the installation of a lighting system shall be supplied and erected in accordance with detailed plans furnished by the Engineer.

Ventilation.

Ventilating openings shall be constructed in the roof of the station. These openings shall be of such dimensions as indicated on the detailed plans, and shall be covered at the sidewalk surface with approved gratings, provided with non-slipping bars. The openings shall be so arranged as to exclude storm water from the station platforms.

Heating.

Provision for electric heating shall be made in all toilet rooms, ticket booths and newsstands.

Pipes, Conduits, etc., Concealed.

At the station all signal wires, air pipes, electric conduits and wires, pipes or conduits for any purpose whatever shall be concealed from view behind the finished walls or ceilings, or under the platforms or platform overhangs in such manner as approved by the Engineer.

Station Painting.

All exposed metal work at the station and between the tracks opposite the station in the subway, and for at least thirty (30) feet from the ends of the station platforms, shall be thoroughly and evenly painted, after all other station finish work has been completed, with three (3) additional coats of paint besides the renewed shop coat. The first coat shall be the same as the first coat applied to all other metal work in the subway after erection, and the other two coats shall be of such character of paint and in such colors as may be designated by the Engineer.

22. GENERAL CLAUSES.

Best Quality of Work.

All materials and workmanship must be of the best class in every respect as elsewhere provided in this contract, and the Engineer is to be the sole judge of their quality and efficiency.

Fences.

Wherever necessary the Contractor shall erect and maintain at his own expense fences for the protection of adjoining property and of the adjoining public places.

Work to be Cleared.

At his own expense and as directed from time to time by the Engineer, the Contractor is to clear the work, streets and all public places occupied by him from all refuse and rubbish that may accumulate from any source whatever and leave them in a neat condition.

Where access to any adjacent property is temporarily cut off, owing to the occupancy of the street by the Contractor, he must, at his own cost, render every assistance to the owner or occupant in handling such materials of any description, including all material to be removed by the Department of Street Cleaning, that has to be taken to or removed from such property; such material shall be taken to or from the nearest accessible point that in the opinion of the Engineer is convenient for handling.

Notice, How Given.

Wherever the Contractor is absent from any part of the work where it may be necessary to give instructions, orders will be given by the Engineer to, and shall be received and obeyed by, the superintendent or overseer of the Contractor, who may have charge of the particular work in relation to which the orders are given, and a confirmation in writing of such orders will be given to the Contractor by the Engineer if so requested.

Lines and Grades.

The principal lines and grades are to be given by the Engineer, who may change them from time to time as may be authorized and directed by the Board. The stakes and marks given by the Engineer must be carefully preserved by the Contractor, who must give to the Engineer all necessary assistance and facilities for establishing benches and plugs for making measurements.

Imperfect Work.

Any imperfect work which may be discovered before the final acceptance of the work, shall be corrected immediately on the requirement of the Engineer, notwithstanding that it may have been overlooked by the proper inspector.

In all work of whatever kind which during its progress and before its final acceptance shall become damaged from any cause, so much of it as may be objectionable shall be broken up or removed and be replaced by good and sound work.

Notice Regarding Commencement of Work.

Before commencing work on any part of the route, whether on the railroad or on the sewers lying off the line of the railroad, the Contractor shall give notice in writing to the Engineer at least one (1) week in advance of his intention to commence such operations; and before commencing manufacture, or resuming manufacture if the same has been suspended, of any article called for by these specifications, notice shall be given to the Engineer in writing at least one (1) week in advance, with the name and address of the maker and the amount and description of the material to be manufactured, in order that proper inspection may be arranged for.

If so requested by the Engineer in writing, countersigned by the President of the Board, a further reasonable delay in commencing work or manufacture must be granted, such delay to extend the time of completing this contract as named herein.

Conveniences for Men.

Necessary conveniences, properly secluded from public observation, shall be constructed and maintained wherever needed for the use of laborers on the works, to the satisfaction of the Engineer and the sanitary authorities.

Advertisements Forbidden.

The using of fences and buildings during construction for advertising purposes, other than the name and address of the Contractor, is forbidden; all temporary buildings and fences erected by the Contractor shall be neat in appearance and shall be painted as directed by the Engineer.

All barricades and bridges erected by the Contractor for the protection of the work or use of the public shall be substantial in character and neat in appearance.

Requirements of Borough President, etc., to be Observed.

Whenever the construction of the works under the provisions of this contract shall interfere with, disturb or endanger any sewer, waterpipe, gas pipe or other duly authorized subsurface structure, the work of construction at such points shall be conducted in accordance with the reasonable requirements of the Borough President or the Commissioner of Water Supply, Gas and Electricity or other officer or local authority having the care of and the jurisdiction or control over such subsurface structures so interfered with, disturbed or endangered.

Ordinances and Regulations.

In all operations connected with the work, all ordinances of the City authorities, and of the Board of Health, which shall be valid and operative with respect to work on the rapid transit railroad, and the valid regulations of the officers of the United States in charge of the navigable waters in and about the harbor of New York, and all laws of this State which are now applicable to and control or limit in any way the actions of those engaged in the work or affecting the materials belonging to them, must be respected and strictly complied with.

Condemned Materials to be Removed.

If the work or any part thereof, or any material found or brought on the ground for use in the work or selected for the same, shall be condemned by the Engineer as unsuitable or not in conformity with the specifications, the Contractor shall forthwith rebuild or remedy such work and remove such materials as may be directed by the Engineer.

Competent Men.

The Contractor shall employ only competent, skillful and faithful men to do the work. Whenever the Engineer shall notify the Contractor in writing that any man on the work is in his opinion incompetent, unfaithful or disorderly, such man shall be discharged from the work and shall not again be employed on it.

V.—SECURITY TO BE FURNISHED BY CONTRACTOR.

Security by Contractor. Contractor's Bond. Deposit of Cash or Securities.

Simultaneously with the execution of this contract the Contractor shall give security for the performance of his obligations by filing with the Comptroller a bond in due

form executed by the Contractor and by two or more sureties to be corporations or persons approved by the Board in the sum of one hundred and fifty thousand dollars (\$150,000). In case any of the sureties upon the bond shall become insolvent or unable in the opinion of the Board to pay promptly the amount of such bond to the extent to which such surety might be liable, then the Contractor, within thirty days after notice by the Board to the Contractor shall, by supplemental bond or otherwise, substitute another and sufficient surety to be approved by the Board in place of the surety so insolvent or unable. If the Contractor shall fail, within such thirty days or such further time as the Board may grant, to substitute another and sufficient surety, then the Contractor shall, for all the purposes of this contract, be deemed to be in default in the performance of its obligations hereunder and upon the said bond, and the Board may terminate the contract or may bring any proper suit or proceeding against the Contractor and the sureties, or either of them, or may require to be deducted from any moneys then in or thereafter coming into the hands of the City and due to the Contractor the amount for which the surety insolvent or unable as aforesaid shall have justified on the bond; and the moneys so deducted shall be held by the Comptroller as collateral security for the performance of the condition of the bond.

The Contractor may at his option deposit with the Comptroller in lieu of said bond or of any part thereof, an equal amount in cash or in value of securities. If securities be deposited they shall be securities of which a schedule shall be hereto annexed, entitled Schedule of Securities, together with the written approval of the Board which it shall give when satisfied as to the character thereof. In case any of the securities so deposited shall, in the opinion of the Board, at any time cease to be of the character of securities in which the savings banks of the State of New York are then authorized by law to invest moneys, or shall, in the opinion of the Board, at any time become of less value than the value stated for it or them in the said schedule—then within ten days after notice to the Contractor of the objection of the Board, the Contractor shall either substitute therefor securities which shall be approved by the Board as of the character aforesaid and as being of at least the value of the former securities to which the Board shall have objected as such value was originally stated in the said schedule, or shall deposit with the Comptroller in cash the amount of such value of such former securities as so originally stated. In case the Contractor shall not within such ten days substitute such new securities, he shall, if the Board so elect, be deemed to be in default in the performance of his obligations under this contract; and in addition to any and all other remedies against the Contractor or its sureties, the Board may require the Comptroller to deduct from any moneys then due or which may hereafter become due to the Contractor under this contract, the amount of the original valuation of such securities objected to, and to hold such amount in lieu of such securities, as if part of the original deposit or as if deposited with the Comptroller as aforesaid, and such amount shall in such case be deemed to be paid to the Contractor upon the contract. The securities so objected to shall upon such substitution of securities or deposit of cash in lieu thereof be returned to the Contractor.

When Contractor May Substitute Cash or Securities.

If and as the Board shall consent, and the law permits, the Contractor may, from time to time, substitute cash for securities or securities of the character aforesaid for cash, but always so that the total amount and value of the deposit shall not be reduced.

The City shall from time to time collect all interest, dividends or other profits or income on any securities deposited by the Contractor, and shall account for the same as hereinafter provided.

The said deposit, whether in cash or securities, in the form and as the same shall at any time be, shall be security for the faithful performance by the Contractor of all the covenants, conditions and requirements specified and provided for in this contract. In case of any default on the part of the Contractor in such performance, and in the further case that the City shall for or by reason of such failure, whether by reason of employment of another Contractor or Contractors or otherwise, incur or become liable for expense through such default as hereinafter provided, then the Comptroller shall forthwith pay or apply to the use of the City the amount of such expense out of the said deposit in cash or securities or out of the portion of the deposit remaining at the time.

The Comptroller shall, upon the requirement of the Board, in order to make such payment or application to the use of the City, sell at public auction in The City of New York any of the securities which may then constitute part of such deposit, upon notice to be published in three daily newspapers, the first publication to be as much as ten days before the sale, and such publication to be made three times within such ten days. Any such sale shall be adjourned from time to time if requested by the Board. The Comptroller shall, upon the requirement of the Board, deduct from the proceeds of any such sale all expenses thereof and such advertisement, and pay and apply to the use of the City so much of the residue of such proceeds as may be necessary for the purpose aforesaid. And the Contractor, within ten days after notice from the Board so to do, shall (unless the time be extended by the Board) by further deposit, according to the requirement of the Board, of money or securities of the character aforesaid, approved by the Board, restore the said deposit with the Comptroller to the full amount originally required. In addition to, or in lieu of, the sale above provided for, the Board may, in the name of and in behalf of the City, bring any appropriate suit or proceeding in any proper court to enforce the lien and claim of the City in and upon the said deposit, whether such deposit be in money or securities.

If at any time when the Contractor shall otherwise be entitled to a return of the said deposit, there shall be pending any claim for damages or loss caused to others by the negligence, fault or default of the Contractor, for which it shall be claimed that the City shall be liable, then and in that case the said deposit, or such part thereof as the Board shall prescribe, shall, upon the requirement of the Board, be reserved by the Comptroller for a reasonable time as security to the City against such claims. And the amount of any such damages or costs paid by the City to others, or for which the City shall be liable to others, shall be deducted from the said deposit before the same shall be returned to the Contractor, as hereinafter provided.

When the Contractor shall have fully completed works according to the terms of this contract, and the Board shall so certify, the Comptroller shall pay and deliver to the Contractor the said deposit, or so much thereof as shall not have been reserved or used or applied for any of the purposes above mentioned, and the Contractor shall also then be entitled to the payment of a sum which shall be equal, as the case may be, either to the interest on the said deposit (if made in cash) from the time of such deposit, at the average rate of interest received by the City on its bank balances during the period of such deposit, or to the interest, dividends or other income which the City shall have received from the said securities, together with interest on any such interest, dividends or other income so received by the City from such securities from the time of its receipt at the average rate of interest received by the City on its bank balances during the period of such deposit. If, however, any of the cash so deposited shall have been used or applied for any of the purposes above mentioned, then the Contractor shall not be entitled to credit for interest on the amount of cash so applied from the time of such application.

VI.—PAYMENTS TO CONTRACTOR.

Payments, How to be Made.

The City shall make payments to the Contractor on account as the work progresses, upon vouchers certified by the Board. Written requisitions by the Contractor for such payments shall be delivered to the Board at intervals of not less than one month. Each requisition by the Contractor shall be accompanied by a certificate of the Engineer to the effect that work has been done and materials have been delivered in accordance with the terms of the contract at or upon the works prior to the time of such requisition of an estimated value stated in such certificate. Such value shall be ascertained relatively to the contract value of the entire work.

The Board shall thereupon forthwith prepare and certify a voucher in due form for payment by the City for 90 per cent. of the estimated value of the work so done and materials so furnished. The Board shall not be bound by the certificate of the Engineer, but may in every case fix the amount due at such sum as the Board shall itself determine to be 90 per cent. of the proper actual relative value of such work and materials. The amount so certified by the Board shall be forthwith paid by the City to the Contractor without any deduction, except as herein otherwise provided. In case the Contractor shall be dissatisfied with the determination of the Board as to value as aforesaid, the Contractor may, within twenty days after notice of such determi-

nation, appeal therefrom in the manner hereinbefore provided for appeals from determinations of the Engineer as to additional work, and the receipt by the Contractor of the amount certified by the Board shall not be deemed a waiver of the right to appeal. And if the payment upon such appeal shall be determined to be too small, then, upon such determination, the City shall forthwith and upon a voucher certified by the Board pay to the Contractor the additional amount awarded upon such appeal.

Final Certificate and Final Payment.

Whenever and as soon as the Contractor shall have completed all work of construction under this contract, the Board shall make a certificate in writing stating that the work has been completed and accepted, and stating also the amount payable for all the work of every kind done under and according to the terms of this contract. On the expiration of forty days after the filing of such certificate in the office of the Comptroller, the City shall pay to the Contractor in cash the amount remaining after deducting from the amount stated in the last mentioned certificate (1) all such sums as shall theretofore have been paid to the Contractor under any of the provisions of this contract, and (2) all such sums as by the terms hereof the City is at that time authorized to receive or retain. The City shall also at the same time surrender the Contractor's bond, or any cash or securities deposited instead of such bond. All prior certificates upon which partial payments may have been made, being merely estimates, shall be subject to correction in the final certificate.

Final Payment to Terminate Liability of City.

The acceptance by the Contractor of the last payment aforesaid shall be and shall operate as a release to the City, the Board and each of them and their agents, from all claim and liability to the Contractor for anything done or furnished for, or relating to, the work, or for any act or neglect of the City or of any person relating to or affecting the work, except the claim against the City for the remainder, if any there be, of the amounts kept or retained as provided in this contract.

Contractor's Claims for Damage. Statements of Damage to Be Filed With Engineer.

If the Contractor shall claim compensation for any damage sustained by reason of the acts of the Board, or its agents, he shall, within five days after the sustaining of such damage, make a written statement of the nature of the damage sustained to the Engineer. On or before the fifteenth day of the month succeeding that in which any such damage shall have been sustained, the Contractor shall file with the Engineer an itemized statement of the details and amount of such damage, and, unless such statement shall be made as thus required, his claim for compensation may be forfeited and invalidated, and he shall not be entitled to payment on account of any such damage.

Evidence That Labor and Materials Have Been Paid For.

The Contractor shall furnish the Board with satisfactory evidence that all persons who shall have done work or furnished materials, and who shall have given written notice to the Board before, or within ten days after, the final completion of the works, that any balance for such work or materials is due and unpaid, have been fully paid and satisfactorily secured; and in case such evidence is not furnished as aforesaid such amount as may be necessary to meet the claims of the persons aforesaid may be retained from the money due to the Contractor under this agreement until the liabilities aforesaid shall be fully discharged or such notice or notices withdrawn.

Liens for Work or Materials.

If at the time of any requisition any lien shall have been filed against the Contractor on the railroad or any part thereof against the amount payable to the Contractor under the provisions of this contract by any person or corporation entitled to file the same for work, labor, or services done or performed, or for materials furnished to the Contractor in or about construction of the railroad, an amount reasonably sufficient to pay and discharge such lien and to pay the costs of foreclosure thereof shall be retained by the Comptroller from the amount which would be otherwise payable to the Contractor on such requisition, until the said lien shall be discharged or secured as provided by law. If such lien shall be foreclosed according to law then the Comptroller may pay the said amount found due upon such lien by the judgment in the foreclosure action to the person entitled thereto, and such payment shall be deemed a payment hereunder to the Contractor. If the sum so retained shall not be sufficient to discharge the lien so foreclosed, the deficiency shall be retained by the Comptroller out of the next moneys coming due to the Contractor.

VII.—CONTRACTOR'S LIABILITY FOR INJURIES TO PERSONS OR PROPERTY.

Contractor Approves Plans as Involving No Damage.

The Contractor admits and covenants to and with the City that the plans and specifications and other provisions of this contract for construction, if the work be done without fault or negligence on the part of the Contractor, do not involve any danger to the foundations, walls or other parts of adjacent buildings or structures; and the Contractor shall at his own expense make good any damage that shall, in the course of construction, be done to any such foundations, walls or other parts of adjacent buildings or structures or to navigation. But this covenant is not to be construed as applying to the foundations, walls or other parts of buildings erected upon private property through which the railroad or any station entrance or approach shall be constructed.

Engineer May Order Adjacent Property Supported.

The Contractor shall obey any order of the Engineer to support or secure adjacent property or any surface or structure thereon; but the Contractor shall not be relieved of responsibility either by compliance with any such order, or by any failure or omission of the Engineer to give any such order or to give notice of any danger.

Traffic to be Maintained.

The Contractor shall during the performance of the work safely maintain the traffic on streets, avenues, highways, parks, waters or other public places in connection with the work as provided in the specifications, and shall take all necessary precautions to place proper guards for the prevention of accidents, and put up and keep at night suitable and sufficient lights.

Indemnification for Accidents, Etc.

The Contractor shall save harmless the City against and from all damages or costs to which it may be put by reason of injury to the person or property of another or others, resulting from negligence or carelessness of the Contractor or of any sub-Contractor or other person employed on the works, either in the performance of the works or from guarding the same, or from any improper materials used in its construction, or by or on account of any other act or omission of the Contractor or any sub-Contractor or other person employed on the works; and shall fully meet and duly pay the amount of any loss or damage caused or done to the City or that the City may suffer from any injury to any person or the property of an person through the negligence, act or omission in the course of construction of the Contractor or of any sub-Contractor or other person employed on the work.

Money Due the Contractor May Be Retained to Meet Claims.

In case any claim shall be made by any person or corporation against the Contractor or the City for loss or damage to person or property caused by, or arising from, or alleged to have been caused by, or to have arisen from, any negligence, act or omission of the Contractor or of any sub-Contractor or other person employed on the work, the amount of such claim or so much thereof as the Board shall deem reasonable, shall, upon the requirement and in the discretion of the Board, be retained by the Comptroller out of any moneys thereafter growing due to the Contractor hereunder (in addition to the other sums hereinbefore authorized to be so retained), as security for the payment of such claim or claims. If and when the liability of the City or the Contractor on such claim or claims shall have been established by a judgment of a Court of competent jurisdiction, or shall have been admitted by the Contractor to be valid, the said claim or claims shall be paid from the amount so retained and the balance, if any, paid to the Contractor.

Protection of Abutting Property Owners.

It is the intent of this agreement that in addition to indemnifying the City against all claims for damages, the Contractor shall also be liable to the owners of adjacent or abutting property, or of buildings or structures thereon and to all tenants of or persons in such buildings or structures, for all physical injuries to property or person which may be occasioned by the work of construction, even in cases where such owners,

tenants or other persons have no legal claim against the City for such injuries. It is therefore further expressly agreed, and is one of the terms and conditions upon which this contract is awarded to the Contractor, that in addition to all other liability for injuries to adjacent or abutting property, or to buildings or structures thereon, or for injuries to persons, the Contractor shall fully meet and duly pay the amount of any loss or damage that any abutting or other owners or other persons may suffer by reason of any physical injury to property or person occasioned by any act or omission of the Contractor or of any sub-Contractor or other person employed on the work; this clause of the contract being a separate and independent provision, disassociated from any duty resting upon the City, and having for its sole purpose the complete indemnification by the Contractor of all owners of adjacent or abutting property or of buildings or structures thereon, and of all tenants of and persons in such buildings or structures for any physical injury which may be done to their property or persons through any act or omission of the Contractor or of any sub-Contractor or of any other person in the course of any employment under the Contractor or any sub-Contractor in or upon the construction of the works or any part thereof.

Damage to Work During Construction.

All risk of loss or damage to the works or to the materials therefor, prior to final completion, unless caused by the fault of the City, is assumed and shall be borne by the Contractor, and any such loss or damage shall be made good by the Contractor at his own cost, and the construction shall be carried forward by him in accordance with this contract, without additional cost to the City by reason of such loss or damage.

VIII.—CITY TO SECURE CONTRACTOR AGAINST INTERFERENCE BY INJUNCTIONS, TO ACQUIRE REAL ESTATE, ETC.

City's Assurances to Contractor of Right to Construct and Operate.

The City hereby stipulates and covenants to and with the Contractor that the City will secure and assure to the Contractor so long as the Contractor shall perform the stipulations of this contract the right to construct and to operate the railroad as prescribed in this contract, free of all right, claim or other interference, whether by injunction, suit for damages or otherwise, on the part of any owners, abutting owner or other person; but not including any interference, legal or otherwise, by patentees or persons claiming to be patentees of tools, methods or appliances. Provided, however, that the Contractor shall enforce its rights against the City under this provision solely by claim for money, and shall have no right to set up any failure or default on the part of the City to perform or satisfy this stipulation or covenant in defense, or by way of exculpation or any excuse whatsoever (otherwise than as a claim or counter claim for money) of the Contractor for any default or failure of any character whatsoever on its part. Nothing herein contained shall be construed to require the Contractor to do any act in violation of a valid injunction issued by a court of competent jurisdiction forbidding such act.

Claims for Infringement of Patents.

The Contractor shall hold himself responsible for any claims made against the City for any infringement of patents by the use of patented articles in the performance and completion of the work, or of any process connected with the work agreed to be performed under this contract, or of any materials used upon the said work, and shall save harmless and indemnify the City for all costs, expenses and damages which the City shall be obliged to pay by reason of any infringement of patents used in the performance and completion of the work.

Acquisition of Real Estate.

The City will acquire all such real estate and rights of way or other rights, terms, franchises, easements and privileges therein as may be needed, either permanently or temporarily, for the purpose of constructing the railroad or pipe galleries, including necessary station entrances and approaches, or to provide, lay or maintain conduits, pipes, ways or other means for the transmission of electricity, steam, water, air or other source or means of power or of signals or of messages necessary or convenient for or in the construction or operation of such road, or for the transportation of materials necessary for such construction, or to provide a temporary or permanent way or course for any such conduit, pipe or other means or source of transportation; and the City may also acquire any and all rights, privileges, franchises and easements, whether of owners or abutters, or others, to interfere with the construction of the railroad or to recover damages therefor which, in the opinion of the Board, it shall be necessary to acquire or extinguish for the purpose of constructing the railroad free of interference or right of interference.

IX.—TIME FOR COMPLETION, DAMAGES FOR DELAY, ETC.

Commencement and Completion of Work.

Time is the essence of this contract. The Contractor shall begin actual work within sixty (60) days after the execution of this contract. The entire work covered by this contract shall be completed in all respects within twenty months from the date of the delivery of this contract.

Price to Be Reduced for Delay.

In the event of delay in completion of the works beyond the period herein prescribed, and in case any such delay shall not be excusable, or the period extended, as hereinafter provided, the City shall be paid damages for such delay. Inasmuch as the amount of such damages will be extremely difficult to ascertain, especially in view of the fact that the railroad herein contracted for is only a part of a complete system, the remainder of which is to be constructed under other contracts, it is hereby expressly agreed that damages shall be liquidated and paid by reducing the price to be paid the Contractor as follows: From the several amounts which shall become payable to the Contractor after the expiration of the periods above limited (but not including the retained percentages from amounts theretofore certified to be due), there shall be deducted and retained by the City as liquidated damages for such delay (and not as a penalty) 1 per cent. thereof for each and every month after the expiration of the said period until such amounts are severally certified to be due and payable. But in case the Contractor shall be delayed by reason of any labor strike not caused or instituted or provoked by the Contractor, or by any sub-contractor, agent or representative of the Contractor (which fact the Contractor shall prove to the satisfaction of the Board), or in case the Contractor shall be delayed by any injunction or by any interference of public authority, and in case the Contractor cannot, notwithstanding such injunction or interference, with reasonable diligence make up for the delay so occasioned by speedier work when the Contractor shall not be so interfered with, then the said date for completion shall be extended to a date later than the expiration of the said period by the amount of the time of such delay.

Board May Intervene in Case of Injunction.

But no injunction, strike or interference of public authority shall be ground for such extension except if and from the time when the Contractor shall give the Board notice of the injunction or other cause of delay, with copies of the injunction or other orders and of the papers upon which the same shall have been granted. The Board and the City or either shall be accorded the right to intervene or become a party to any suit or proceeding in which any such injunction shall be obtained, and to move to dissolve the same or otherwise, as the Board or City may deem proper. If necessary the Corporation Counsel or the counsel or attorneys of the Board shall be authorized by the Contractor to appear, for that purpose, as counsel or attorneys for him.

Suspension of Work and Additional Time for Performance.

The Board reserves the right of temporarily suspending the execution of the whole or any part of the work herein contracted to be done, if it shall deem it for the interest of The City of New York so to do, without compensation to the Contractor for such suspension, other than extending the time for completing the work as much as it may have been delayed by such suspension.

Time for Completion to be Extended in Case of Delay in Acquiring Real Estate.

In case the Contractor shall at any time give notice to the Board that any real estate is necessary under this contract for any of the purposes specified above, which notice shall give a brief description of such real estate, the Board shall (if it finds that such necessity exists) begin and conduct with diligence proceedings to acquire

the real estate described; and in case the Board shall fail to put the Contractor in possession of such real estate within three months from the delivery of such notice, then the period for completion of the works shall be extended for such a time as such completion is necessarily delayed by the failure of the Board to furnish such real estate; but no allowance by way of damages shall be made for such delay. In any arbitration, suit or proceeding involving this clause of the contract, the burden of proof shall be on the Contractor to show that the real estate which he described was in fact necessary.

Permission to Complete Contract not a Waiver.

The permitting of the Contractor to go on and finish the work, or any part of it, after the time fixed for its completion, or after the date to which the time for completion may have been extended, or the making of partial payments to the Contractor after any such periods, shall in no wise operate as a waiver on the part of the City of any of its rights under this contract.

Price to be Increased in Case of Early Completion.

In the event that the construction shall be completed as aforesaid ready for immediate, full and continuous operation within twenty months from the date of the delivery of this contract, then the price to be paid the Contractor shall be increased at the rate of one (1) per cent. upon the total amount thereof for every month to elapse between the date of such completion and the expiration of such period of twenty months.

X.—REMEDIES IN CASE OF CONTRACTOR'S DEFAULT.

Contractor's Default in Construction.

In case the Contractor shall fail to complete the works within the period above limited, or shall at any time fail to proceed with reasonable diligence, or so that it shall not be reasonably probable that the works will be completed within the period above limited, then and in any such case the Board upon a notice to the Contractor of not less than thirty days may—

City May Complete.

1. By resolution declare the Contractor to be in default; and the City by the Board in addition to every, or in substitution for any other, remedy which it may have by law or hereunder, may thereupon forthwith, so far as the City may now have or may hereafter secure statutory power, procure by contract or otherwise, either for the Contractor, for his account and at his risk or otherwise as the Board shall determine, the completion of such construction, or, in any case where the Board shall deem it for the interest of the City, the performance of any part of such construction; and the City may to the extent of the cost of such completion of the construction or of such performance or provision of any part thereof and interest on such cost, withhold and apply thereon any moneys otherwise due or to become due by the City to the Contractor, and the Contractor shall be liable to the City and shall, as the Board may from time to time require, forthwith pay to the City the excess, if any, of the cost to the City of the completion of such construction or of such performance or provision of any part thereof over the amount payable to the Contractor therefor under the terms of this contract, and also the amount, if any, which shall be due to the City by reason of any delay in completion of the construction, or in such performance or provision of any part thereof; or

Or Make New Contract.

2. By resolution declare this contract at an end except as to the liability of the Contractor hereinafter in this paragraph provided, and make a new contract for construction, upon advertisement of a new invitation to Contractors, upon such terms as the Board may deem proper; the same to provide, among other things, that the new Contractor shall allow for so much construction as has been already completed, a reasonable amount to be prescribed in such new contract or to be ascertained as in such new contract to be provided; and in such case the Contractor shall pay the City all damage which the City shall sustain by reason of such failure, including the excess, if any, of the amount which the City shall pay the new Contractor over the amount it would have had to pay the Contractor, party hereto, for the same work or materials, together with the amount, if any, which shall be due to the City by reason of the delay on completion of the construction.

Or Proceed Upon Bond for Construction.

3. The City may also proceed as to the Board shall seem proper upon the bond, or with respect to the deposits of cash or securities made as aforesaid, or with respect to the bonds, surety, obligations or securities given by sub-Contractors and assigned as aforesaid.

Or May Bring Suit.

4. The City may also bring any suit or proceeding for specific performance or for injunction or to recover damages or to obtain any relief or for any purpose proper under this contract.

XI.—MISCELLANEOUS PROVISIONS.

Changes in the Contract.

No correction or change in this contract shall be made except by written instrument duly authorized by the Board, and consented to by the Contractor, and if a bond shall be given as aforesaid and be then in force, then also consented to by the sureties upon such bond; but this provision shall not limit or affect the right to prescribe variations of detail, whether of construction or location of route, as in this contract elsewhere provided.

Members of Board Not Liable.

No claim shall be made by the Contractor against any member of the Board personally by reason of this contract or of any of its articles or provisions.

Contract, When Assignable.

This contract shall not be assigned without the written consent of the Board, concurred in by six members thereof.

Provisions in Case Board Cease.

In case the Board shall cease to exist, the Legislature may provide what public officer or officers shall exercise the powers and duties of the Board under and by virtue of this contract; and in default of such provision, such powers and duties shall be deemed to be vested in the Mayor of the City. In case any officer or officers other than the Board shall hereafter have the powers of the Board or any of them, then the provisions of this contract shall be applicable to such officer or officers to the extent to which the powers of the Board shall appertain to such officer or officers, and any official act or determination of such officer or officers or of this Board shall be sufficient hereunder, anything herein to the contrary notwithstanding, if the same be done or had by lawful vote or resolution or in such manner as the Legislature may from time to time prescribe.

Labor Law.

The Contractor agrees to comply with the provisions of the Labor Law, including section 3 thereof, as re-enacted by chapter 506 of the Laws of 1906. The Contractor further agrees and stipulates that no laborer, workman or mechanic in the employ of the Contractor, sub-Contractor or other person doing or contracting to do the whole or a part of the work contemplated by this contract, shall be permitted or required to work more than eight hours in any one calendar day, except in cases of extraordinary emergency caused by fire, flood or danger to life or property; and further that the wages to be paid for a legal day's work as hereinbefore defined to all classes of such laborers, workmen or mechanics upon the work contemplated by this contract or upon any material to be used upon or in connection therewith, shall not be less than the prevailing rate for a day's work in the same trade or occupation in the Borough of Manhattan, where the work hereby contemplated, about or in connection with which such labor is performed, is in its final or completed form to be situated, erected or used; and that each such laborer, workman or mechanic employed by the Contractor or any sub-Contractor or other person on, about or upon the work contemplated by this contract, shall receive such wages herein provided for. This contract shall be void and of no effect, unless the Contractor shall comply with the provisions of this paragraph. In obedience to the requirements of section 13 of the Labor Law, it is further provided that if the provisions of the said section are not complied with, this contract shall be void.

All Necessary Legal Provisions Deemed Inserted Herein.

It is the intent and understanding of the parties to this agreement that each and every provision of law required to be inserted in this contract should be and is inserted herein. Furthermore, it is hereby stipulated that every such provision is to be deemed to be inserted herein; and if, through mistake or otherwise, any such provision is not inserted in correct form, then the contract shall forthwith, upon the application of either party, be amended by such insertion so as to comply strictly with the law, and without prejudice to the rights of either party hereunder.

Provision in Case of Unlawful Provision.

If this contract contains any unlawful provision not an essential part of the general structure of the contract and which shall not appear to have been a controlling or very material inducement to the making thereof, the same shall be deemed of no effect, and shall upon the application of either party, be struck from the contract without affecting the binding force of the contract as it shall remain after omitting such provision.

In witness whereof, this contract has been executed for The City of New York by its Board of Rapid Transit Railroad Commissioners under and by a resolution duly adopted by the said Board and concurred in by not less than six of its members, and the seal of the said Board has been hereto affixed and these presents signed by the President and Secretary of the said Board; and the Contractor has* hereunto set his hand and seal the day and year first above written.

*If the Contractor is not a single individual, but is a corporation or partnership, the words following the asterisk will be struck out and the words "caused its corporate seal to be hereto affixed and this contract to be witnessed by its President and Secretary," or other appropriate words, will be substituted.

State of New York, County of New York, ss.:

On the _____ day of _____, 1907, before me personally appeared Alexander E. Orr and Bion L. Burrows, to me known and known to me to be the said Alexander E. Orr, the President, and the said Bion L. Burrows, the Secretary of the Board of Rapid Transit Railroad Commissioners for The City of New York; and the said Alexander E. Orr and Bion L. Burrows, being by me duly sworn, did depose and say, each for himself and not for the other, the said Alexander E. Orr, that he resides in the Borough of Brooklyn, in the said City, that he is the President of the said Board and that he subscribed his name to the foregoing contract by virtue of the authority hereof; and the said Bion L. Burrows, that he resides in the Borough of Brooklyn, in The City of New York, that he is the Secretary of the said Board and that he subscribed his name thereto by like authority; and both the said Alexander E. Orr and Bion L. Burrows that they know the seal of the said Board, and that the same was affixed to the foregoing instrument by the authority of the said Board and of a resolution duly adopted by the same.

Note—An acknowledgment by the Contractor, in due form, will be added here at or before the time of the delivery of the contract.

CONTRACTOR'S BOND.

Know all men by these presents that

of _____ Contractor, and

hereinafter called the _____ and

hereinafter called the _____

Sureties, are held and firmly bound unto The City of New York, hereinafter called the City, in the penal sum of

dollars (\$ _____), lawful money of the United States of America, to be paid to the City, for which payment well and truly to be made the Contractor and the Sureties do hereby bind themselves and their, and each of their, executors, administrators and successors firmly by these presents, as follows: The Contractor to be so held and bound for the full amount of the said _____ dollars (\$ _____), and each of the said Sureties to be so held and bound only for a portion of said penal sum as follows

The said _____ for the sum of _____ dollars (\$ _____); the said _____ for the sum of _____ dollars (\$ _____); the said _____ for the sum of _____ dollars (\$ _____).

for the sum of (\$ _____).

In witness whereof the Contractor and the Sureties have hereunto caused their respective seals to be hereto affixed and these presents to be attested by the proper officers of each of them which is a corporation, this _____ day of _____, 1907.

Whereas, The City, by its Board of Rapid Transit Railroad Commissioners (hereinafter called the Board), is about to enter into a contract with the Contractor bearing even date herewith for the construction of certain works in The City of New York more particularly described in the said contract; and

Whereas, The City is about to enter into such contract with the Contractor upon the condition, and not otherwise, that this bond shall be given to the City, and upon the faith thereof.

Now, therefore, the condition of the foregoing obligation is such that if the Contractor shall fully perform the said contract, then this obligation shall be null and void, but else it shall remain in full force and virtue.

It is expressly agreed between the City and the Sureties (and it is upon such agreement that the City accepts this bond) that the Sureties will and do waive any and every notice of default on the part of the Contractor; that they will and do permit the City to extend the time of the Contractor to make any payment or do any act; that no omission on the part of the City to give any notice or extension of time granted by or on behalf of the City shall be availed of by the Sureties or either of them as a defence upon this bond; that the Sureties shall not set up or have any defence upon this bond by reason of any alteration of the said contract unless such alteration shall be represented by a formal written instrument duly executed between the City and the Contractor which shall have been duly authorized by a vote of the Board; and that in case of such alteration, however made, the same shall be a defence to the Sureties only to the extent of the actual injury or damage caused to the Sureties by said alteration.*

*The execution of the bond must be duly proved before delivery in the form essential to proof to entitle a deed to record in the State of New York. Full affidavits of justification of Sureties must be added.

CONTRACTOR'S PROPOSAL.

(Centre Street to the Bowery.)

Notice—Sums of money must be written in words and also in figures. There must remain annexed hereto:

Copy of invitation to contractors.

Copy of form of contract.

Copy of form of bond.

Schedule of securities, filled up only if the bidder desires to deposit securities in lieu of cash.

To the Board of Rapid Transit Railroad Commissioners in and for The City of New York:

I, The undersigned* do hereby, in pursuance of the invitation to contractors, a copy of which is attached hereto, propose according to the terms thereof to enter into a contract with The City of New York in the form therein referred to and to perform all the work mentioned in the said contract and hereby agree to accept in full payment therefor the following sums, to wit:

*If the bid is submitted by a corporation, the full legal title must be given here and a certified copy of the certificate of incorporation must be submitted, together with an affidavit showing the amount of stock paid in in cash and the names and addresses of the directors and principal officers. If the bid is submitted by a firm, the above blank must be filled up in the following form: "The firm of A. B. & Co., composed of A. B., C. D., etc." (giving the names of all the partners). *

For construction of the railroad (as these words are defined in the form of contract), including the furnishing of all labor, materials and appliances required to do the work, the sum of _____ dollars (\$ _____).

For construction of the pipe galleries, including the furnishing of all labor, materials and appliances required to do the work, the sum of _____ dollars (\$ _____).

It is understood that the acceptance of the foregoing bid for pipe galleries is conditional on the acceptance of the above bid for construction of the railroad; but that the Board may accept the bid for the construction of the railroad and reject the bid for construction of pipe galleries.

2. It is understood by the undersigned that all of the above sums are subject to modification as provided in the above-mentioned form of contract, and that payments are to be made when and as therein provided.

3. If this proposal is accepted, the undersigned will within ten days after delivery of notice, execute and deliver the contract with the City in the form aforesaid and at the same time will deliver to the Comptroller of The City of New York pursuant to the terms of the said contract a bond in the penalty of one hundred and fifty thousand dollars (\$150,000) in the form hereto annexed with the following named sureties viz.:

*The bidder may, under section 34-c of the Rapid Transit Act, deposit cash or securities, with the approval of the Board, in lieu of a bond; and the bidder, if desirous of so doing, may so state here, and strike out the words in italics.

4. Your Board may cause any notice intended for the undersigned to be delivered at Room No. _____, on the _____ floor of the building No. _____ in the Borough of _____ in The City of New York. Such delivery shall be sufficient notice to the undersigned.

5. At the time of delivering this proposal to your Board the undersigned will separately deliver a certified check payable to the order of the Comptroller of The City of New York for the sum of twelve thousand five hundred dollars (\$12,500). If your Board shall notify the undersigned that this contractor's proposal is accepted and that the proposed contract is approved by the Board of Estimate and Apportionment, then, if the undersigned shall fail within ten days thereafter or within such longer period as may be prescribed by your Board to make the deposit in cash or securities as aforesaid; or to procure the above described bond to be duly executed and delivered; or if the undersigned shall fail to procure the contract to be duly executed and delivered as aforesaid, then the invitation to contractors and this contractor's proposal shall constitute a contract binding the undersigned to pay to the City the damages by it sustained by reason of such failure of the undersigned, as provided in said invitation to contractors. And the undersigned hereby assigns to the City the said sum so specially deposited by the delivery of such certified check, subject only to the condition that if this proposal shall not be accepted, or, if it shall be accepted and the undersigned shall within ten days after notice as aforesaid or any longer period prescribed by your Board, execute the said contract and make the said deposit in cash or securities and procure the said bond to be duly executed and delivered, then the amount of the said check so specially deposited shall be returned to the undersigned.

6. A notice of acceptance of this proposal by your Board addressed to the undersigned as aforesaid shall forthwith, at the option of your Board, operate as against the undersigned as a complete making of a contract according to the form thereof as aforesaid, with the blanks therein contained filled in according to this proposal.

7. There are no persons interested with the undersigned in this proposal, except*

*Here insert the names and addresses of all persons interested with the bidder. If there are no such persons strike out the word "except."

8. This proposal is made without any connection with any other person making a proposal or bid for the same purpose, and is in all respects fair and without collusion or fraud. No member of the Board of Aldermen, head of department, chief of bureau, deputy thereof or clerk therein, or other officer of The City of New York, or any member or employee of the Board of Rapid Transit Railroad Commissioners of said City is interested directly or indirectly, as contracting party, partner, stockholder or otherwise, in or in the performance of the contract, or in the supplies, work or business to which it relates, or in any portion of the profits thereof.

Dated the _____, 1907.

Affidavit of Verification.

State of New York, City and County of New York, ss.:

being duly sworn,

says: I am* the proposing Contractor above named. I have read the foregoing proposal. The same is in all respects true.

Sworn to before me this _____ day of _____, 1907.

*If the bidder is an individual, do not fill this blank; if the bidder is a firm, here say "a member of the firm of _____"; if a corporation, say "the (President or other officer duly authorized) of the _____ Company."

Schedule of Securities.

Note—If the bidder desires not to give a bond but to deposit securities in lieu thereof, a description of the securities to be deposited for that purpose must be inserted below.

All securities when delivered must be payable to, or run in favor of, or be transferred to, the Comptroller of The City of New York.

The following resolution was offered:

Resolved, That, pursuant to the provisions of section 37 of the Rapid Transit Act (chapter 4 of the Laws of 1891, as amended) and the requisition of the Board of Rapid Transit Railroad Commissioners, duly made by the President and the Secretary of said Board on June 14, 1907, the Comptroller be and is hereby authorized and directed to issue Corporate Stock of The City of New York to the amount of one million five hundred and forty-seven thousand three hundred and forty-two dollars (\$1,547,342), bearing interest at a rate not exceeding four (4) per centum per annum, to provide means for the following purposes:

For the construction of a part of the proposed Brooklyn loop lines, rapid transit railway, in the new extension of Delancey street, between Centre street and the Bowery, in the Borough of Manhattan	\$1,518,302 00
For the construction of pipe galleries in connection therewith.....	29,040 00
	\$1,547,342 00

—and be it further

Resolved, That the amount of Corporate Stock hereby authorized to be issued shall not exceed the aforesaid sum of one million five hundred and forty-seven thousand three hundred and forty-two dollars (\$1,547,342), for the purposes above mentioned; and be it further

Resolved, That the Board of Estimate and Apportionment hereby consents to the proposed contract to be entered into by the Bradley Contracting Company and The City of New York, acting by the Board of Rapid Transit Railroad Commissioners, for the construction of said portion of the Brooklyn loop lines, rapid transit railway, in the new extension of Delancey street, between Centre street and the Bowery, in the Borough of Manhattan, and for the construction of pipe galleries in connection therewith.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The Secretary presented communications from various City departments as follows:

From the Commissioner of Bridges requesting the issue of \$15,000 Corporate Stock for the construction of an automobile garage for the Department of Bridges.

From the Commissioner of Bridges requesting that title vest at once in the City to property included within the area marked 5 and 6 on print 4829, submitted with said communication, required for the subway loop connecting the Williamsburg and Brooklyn bridges.

From the Commissioner of Docks and Ferries requesting that the Board of Estimate authorize the institution of condemnation proceedings for the acquisition of property between Thirteenth and Fourteenth streets, East river, Borough of Manhattan.

From the Chairman, Police Committee of the Richmond Borough Realty Association relative to providing funds to afford police protection on the municipal ferryboats.

From the Secretary, Department of Taxes and Assessments, requesting an appropriation of \$30,000 to enable the Board of Taxes and Assessments to proceed with the work and procure materials necessary in providing new tax assessment maps.

From the Police Commissioner requesting permission to accept the bid of the Gas Engine and Power Company and Charles L. Seabury Company, Consolidated, of Morris Heights, N. Y., at \$14,280, for furnishing all labor and materials necessary in making, completing and delivering two power launches for the Police Department, said company being next to the lowest bidder.

Which were referred to the Comptroller.

The Secretary presented a communication from the Chairman, Committee on Street Openings and Public Improvements, Washington Heights Taxpayers' Association, protesting against the erection of a fire house on West One Hundred and Eighty-first street, near Audubon avenue, Manhattan.

Which was referred to the Commissioner of the Fire Department.

The Secretary presented a communication from the Secretary, Municipal Ownership League, Twentieth Assembly District, Brooklyn, inclosing resolutions of said league petitioning the Board of Estimate to take possession of the Gas Trust franchises, and the City to own, operate and construct gas plants, in order to give the City and the people cheaper and better illuminating gas.

Which was referred to the Comptroller.

The Secretary presented a communication from the Secretary, Raritan Bay Park Association of Staten Island, submitting resolutions adopted by said association relative to the erection of a suitable court house and police prison or station at Tottenville, Staten Island.

Which was referred to the Comptroller.

The Secretary presented the following communication from Mr. F. R. Sturgis protesting against the granting of an appropriation to the Legal Aid Society, as provided for by Assembly Bill No. 1964, together with a report thereon, by the Comptroller to whom this matter was referred on May 24, 1907.

Which was ordered on file.

No. 16 WEST THIRTY-SECOND STREET,
NEW YORK, May 13, 1907.

Secretary of the Board of Estimate and Apportionment, No. 277 Broadway, Manhattan, New York:

MY DEAR SIR—In process of time a bill will probably reach you which was introduced by Mr. Prentice, of New York, in the Assembly, numbered 1964, Int. 1508, which is an Act to amend the Greater New York Charter by providing for an appropriation for the Legal Aid Society, of The City of New York, to which as a citizen of New York I beg leave to enter my respectful and earnest objection:

1. On the ground that appropriations from the Treasury of The City of New York are made to charitable and eleemosynary institutions, which this society is not.
2. That the amount asked for is in excess of what they received from private contributions.
3. To appropriate this somewhat improper diversion of the funds of The City of New York, inasmuch as it gives public money for private purposes—a wrong which is too often perpetrated as it is.
4. That if these excellent people wish to assist the poor of New York to obtain their just debts, let them do it out of their own pocket. As it stands, it is a matter of business, and this society, finding that it does not pay as a business, proposes that The City of New York shall become their partners and put the larger amount into the treasury of the copartnership. In other words, they make New York City do the charity and then claim the results.

I write this letter instead of asking for a hearing, as I know from past experience the futility of any such proceeding.

I shall be much obliged if you will present this letter to the attention of the Board of Estimate and Apportionment.

Very faithfully yours,

F. R. STURGIS.

DEPARTMENT OF FINANCE,
BUREAU OF MUNICIPAL INVESTIGATION AND STATISTICS,
June 10, 1907.

To the Honorable the Board of Estimate and Apportionment of The City of New York:

GENTLEMEN—I transmit herewith a communication relative to Assembly Bill 1964, addressed to the Board of Estimate and Apportionment under date of May 13, 1907, by Mr. F. R. Sturgis, of No. 16 West Thirty-second street, New York City, together with a report of the Bureau of Municipal Investigation and Statistics on said matter, with the conclusions of which report I concur.

Respectfully yours,

H. A. METZ, Comptroller.

DEPARTMENT OF FINANCE,
BUREAU OF MUNICIPAL INVESTIGATION AND STATISTICS,
June 8, 1907.

Hon. HERMAN A. METZ, Comptroller:

SIR—In the matter of a communication, under date of May 13, 1907, addressed to the Secretary of the Board of Estimate and Apportionment by Mr. F. R. Sturgis, of No. 16 West Thirty-second street, New York City, objecting to Assembly Bill 1964, which communication was presented to the Comptroller for consideration and report, and by you referred to the Bureau of Municipal Investigation and Statistics for examination, I beg to report as follows:

Assembly Bill No. 1964 is entitled "An Act to amend the Greater New York Charter by providing for an appropriation for the Legal Aid Society of The City of New York," and amends subdivision two of paragraph ninth of section two hundred and thirty of said Charter by adding thereto the words "to the Legal Aid Society a sum not exceeding twenty-five thousand dollars for the uses and purposes of said society."

From the printed report of the president, treasurer and attorneys of the Legal Aid Society for the year 1906 it appears that this body was incorporated in 1876, and since that time has been actively at work in furnishing legal advice and aid to

persons unable to obtain the services of paid attorneys. From the constitution of the society as printed in connection with said report it appears that

"The purpose of this society shall be to render legal aid, gratuitously if necessary, to all who may appear worthy thereof and who are unable to procure assistance elsewhere, and to promote measures for their protection."

From information furnished your representative by Mr. Merrill E. Gates, Jr., attorney in charge of the main office at No. 239 Broadway, New York City, and from the statistical tables in said society's report for 1906, the following facts appear:

The society has now six offices in Greater New York located as follows:

Principal office, No. 239 Broadway, Manhattan.

Seaman's Branch, No. 1 Broadway, Manhattan.

West Side Branch, No. 741 Tenth avenue, Manhattan.

Harlem Branch, One Hundred and Twenty-fifth street and Fourth avenue, Manhattan.

Brooklyn Branch, No. 186 Remsen street, Brooklyn.

Since its organization in 1876 this society has handled for its clients 230,091 cases, has expended \$252,234.09, and has paid to clients \$1,255,087.

Its support is obtained from private donations, and the annual subscriptions of its members, together with the fees it receives from its clients. A commission of 10 per cent. is charged on all sums collected, except when the amount is less than \$5, and a similar charge is made on the value of all property recovered. A fee of 10 cents or 25 cents, according to the nature of the claim, is asked from each client upon application. Mr. Gates, however, states that the small fee is often waived in cases of the very needy. Such fees, collected during the year 1906, amounted to \$4,340.62, and the funds obtained from donations, subscriptions, etc., amounted to \$24,417.97, making, with the cash on hand January 1, 1906, \$82.89, a total of \$28,841.48 to cover disbursements for that year. The expenditures for salaries and sundries for 1906 were \$26,434.65, leaving a balance on hand December 31, 1906, of \$2,406.83. During that year 23,175 cases were handled and \$72,633 recovered for clients.

While from the foregoing statements, and from careful reading of the society's annual report, it appears that the work undertaken by this organization is of the most worthy character and doubtless materially assists in obtaining justice for many of the poor who otherwise might fail to obtain that which is legally due them, your examiner would respectfully submit, in view of the fact that the financial resources of the City are already overtaxed by demands of the most urgent character, the wisdom of this extension of City help along these lines may reasonably be questioned, especially as such legislation may be expected to open the door to many other demands of a like character.

On the same day that this matter reached the Department of Finance for examination, May 27, 1907, the said bill was approved by his Honor, the Mayor, and returned to the Governor for his action.

Respectfully yours,

CHARLES S. HERVEY,

Supervising Statistician and Examiner.

Approved:

H. A. METZ, Comptroller.

The Secretary presented the following communication from the Commissioner of Public Charities and report of the Comptroller, to whom on May 10, 1907, was referred the said communication requesting an issue of \$178,225 Corporate Stock, in addition to the \$200,000 heretofore allowed for the construction of the proposed Coney Island Hospital on Ocean Parkway, Brooklyn, also an issue of \$25,000 Corporate Stock for extraordinary repairs to the steamboat "Thomas S. Brennan":

DEPARTMENT OF PUBLIC CHARITIES,
FOOT OF EAST TWENTY-SIXTH STREET,
NEW YORK, May 9, 1907.

Hon. GEORGE B. McCLELLAN, Mayor of The City of New York and Chairman of the Board of Estimate and Apportionment:

DEAR SIR—In order to meet the bid received and to pay the architect's fees on the proposed Coney Island Hospital to be constructed in the Borough of Brooklyn, on land on Ocean parkway, in part owned and in part recently acquired by the City for such purpose, I have very respectfully to request an issue of Corporate Stock to the amount of \$178,225, in addition to the sum of \$200,000 already appropriated, such additional amount to be expended as follows:

Excess of lowest bid over the amount of the appropriation.....	\$143,000 00
Possible five per cent. increase in same.....	17,150 00
Architect's fees on total amount.....	18,075 00
Total.....	\$178,225 00

This proposed hospital will make provision for one hundred patients at an estimated per capita cost per bed of \$3,782.25, and can readily be enlarged by the addition of wings, when necessary, to provide for two hundred patients at a greatly reduced per capita cost per bed. When it is considered that the per capita cost of the recently completed Harlem and Fordham hospitals, the former in the Borough of Manhattan and the latter in the Borough of The Bronx, cost in the one case \$4,378 per bed and in the other \$4,650 per bed, it will be seen that the cost of the proposed Coney Island Hospital is not excessive. The plans for this new hospital have been most carefully prepared and are complete in every way. They have been approved by the Building Department, the Municipal Art Commission and the State Board of Charities, and in my opinion should be carried to completion by the construction of the proposed hospital as soon as possible. This is the first public hospital planned for Brooklyn for many years, and there is urgent need of increased hospital facilities in that borough.

In addition, I desire to request an issue of Corporate Stock to the amount of \$25,000 for extraordinary repairs to the Department's steamboat, "Thomas S. Brennan." The Supervising Engineer of the Department reports that this boat is in urgent need of repairs which can not safely be delayed. His report states that it will be necessary to renew the main deck entirely. Many of the main beams are in bad condition and will have to be replaced. The condenser is cracked and held together by stay bolts and soft patches, and should be replaced before the new deck is laid. Further than this, one of the ends of the boat has already sagged to such an extent that we cannot risk putting heavy trucks upon it. The estimated cost of the improvements required by the "Brennan" is \$25,000.

Respectfully submitted,

(Signed)

ROBERT W. HEBBERD, Commissioner.

A true copy.

J. McKEE BORDEN, Secretary.

CITY OF NEW YORK—DEPARTMENT OF FINANCE,
COMPTROLLER'S OFFICE,
May 15, 1907.

Hon. HERMAN A. METZ, Comptroller:

SIR—Hon. Robert W. Hebbard, Commissioner, Department of Public Charities, in communication under date of May 9, 1907, requests the Board of Estimate and Apportionment to authorize an issue of Corporate Stock to the amount of \$178,225, in addition to the sum of \$200,000 already appropriated, for the erection and completion of the Coney Island Hospital; in addition, the Commissioner also requests the authorization of an issue of Corporate Stock to the amount of \$25,000 for extraordinary repairs to the Department steamboat "Thomas S. Brennan." I would report:

The following appropriations have been authorized by the Board of Estimate and Apportionment for the proposed Coney Island Hospital, namely:

March 16, 1905.....	\$100,000 00
July 6, 1906.....	100,000 00

On May 1, 1907, the following bids were received and opened by the Commissioner of Charities:

Clarke & Stowe.....	\$343,000 00
Weed & Company.....	357,000 00
Thos. G. Carlin.....	357,496 00

Kelly & Kelly.....	365,242 00
G. F. Driscoll.....	349,000 00
Nesbit & Company.....	357,265 00
R. E. Henningham.....	361,850 00
D. J. Ryan.....	390,000 00

The lowest estimate of \$343,000 covers the complete erection of the main building, nurses' building, help's building, morgue building, stable building, power house and laundry building, a total of six buildings.

The total cubical contents of the six buildings is 1,084,196 cubic feet, and at a cost of \$360,150 (which includes architects' fees), equals 33 3/4 cents per cubic foot.

The main building will contain four large wards, with total accommodation for one hundred (100) beds. There are two isolation rooms off each ward, also incidental toilet rooms, wash rooms and diet kitchens. It will also contain operating room (with rooms incidental thereto), main kitchen, dining rooms, dispensary, laboratory, X-ray rooms, general offices, office and sleeping quarters for superintendent, sleeping quarters for six doctors and electric service elevators.

Nurses' building will provide twenty-seven sleeping rooms and other requisite rooms for twenty-seven nurses.

Help's building will provide fourteen sleeping rooms and other requisite rooms for the accommodation of twenty-four general employees.

Morgue building will contain mortuary chamber and refrigerators, small chapel, laboratory and autopsy room.

Stable building will provide wagon room for two ambulances, four stalls and sleeping quarters for drivers and help.

Power house will contain two high pressure boilers, radial brick chimney and complete laundry, with laundry machinery. All of the buildings are connected by means of underground pipe tunnels.

The cost of 31 3/4 cents per cubic foot, or 33 3/4 cents per cubic foot, including architects' fees, I consider reasonable for buildings used for this purpose.

The lowest bid received being \$343,000, and as only \$200,000 has been appropriated for the purpose, there is a deficit of \$160,150, calculated as follows:

Lowest bid.....	\$343,000 00
Architects' fees, 5 per cent.....	17,150 00

Total required.....	\$360,150 00
Amount heretofore appropriated.....	200,000 00

Deficit.....	\$160,150 00
--------------	--------------

Therefore, if the financial condition of the City warrants the expenditure, and in order to accept the bid, \$343,000, of Clarke & Stowe, for the erection and completion of the Coney Island Hospital, I think the Board of Estimate and Apportionment may properly authorize the Comptroller to issue additional Corporate Stock to the amount of \$160,150 to provide means for the erection of new buildings, additions, improving and permanently bettering and equipping existing buildings under the jurisdiction of the Commissioner of Charities; said amount to be applied only to the erection and completion of the Coney Island Hospital. I would suggest that the appropriation of \$25,000 for repairs to the steamboat "Thomas S. Brennan" be considered later.

Respectfully,

CHANDLER WITHINGTON, Chief Engineer.

Approved:

H. A. METZ, Comptroller.

The following resolution was offered:

Resolved, That, pursuant to the provisions of section 47 of the Greater New York Charter as amended, the Board of Estimate and Apportionment hereby approves of the issue of Corporate Stock of The City of New York to an amount not exceeding one hundred and sixty thousand one hundred and fifty dollars (\$160,150), to provide means for the erection of new buildings, additions, improving and permanently bettering and equipping existing buildings under the jurisdiction of the Commissioner of Public Charities; said amount to be applied only to the erection and completion of the Coney Island Hospital, and that when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding one hundred and sixty thousand one hundred and fifty dollars (\$160,150), the proceeds whereof to be applied to the purposes aforesaid.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The Secretary presented a report of the Chief Engineer, Board of Estimate, to whom on April 5, 1907, was referred the communication from the Aqueduct Commissioners, submitting resolution adopted, providing for the payment to the American Telephone and Telegraph Company of \$5,790.27 as compensation for expense and damage for removal of their pole lines from roads which will be flooded by the Cross River Reservoir, and agreeing to furnish the company new rights-of-way over the property of the City.

Which was laid over for one week and the Corporation Counsel requested to advise the Board as to the law governing this question and the City's liability thereunder.

The Secretary presented the following report of the Comptroller recommending that the sum of \$1,000,000 be set aside and appropriated from the water revenues received during 1907, etc., for the maintenance and distribution of water supply in the Borough of Brooklyn, which amount is allowed pending the completion of the examination of the request of the Commissioner of Water Supply, Gas and Electricity for an appropriation of \$2,313,610.30 for this purpose, referred to the Comptroller on May 24, 1907.

DEPARTMENT OF FINANCE,
BUREAU OF MUNICIPAL INVESTIGATION AND STATISTICS,
June 17, 1907.

To the Honorable the Board of Estimate and Apportionment:

GENTLEMEN—Pending the completion of an examination now being made by the Bureau of Municipal Investigation and Statistics of the estimate submitted by the Commissioner of Water Supply, Gas and Electricity for the maintenance and distribution of the water supply in the Borough of Brooklyn, I respectfully recommend that a further appropriation for said purpose be made available through the adoption by the Board of Estimate and Apportionment of the resolution hereunto attached.

Yours respectfully,

H. A. METZ, Comptroller.

The following resolution was offered:

Whereas, By subdivision 1 of section 242 of the Greater New York Charter, the Board of Estimate and Apportionment has the power to appropriate from time to time for the maintenance, improvement and extension of the system of water supply of the Borough of Brooklyn, the moneys received from water rents in said borough, subject, however, to the charges now imposed by law upon said revenues; and

Whereas, The Commissioner of the Department of Water Supply, Gas and Electricity has requested an appropriation of \$2,313,610.30 to meet the current expenses of the Department for the year 1907, under said section of the law; and

Whereas, Pending an examination of the Commissioner's estimate, the sum of \$400,000 having already been appropriated by this Board, namely, \$200,000 on February 1, 1907, and \$200,000 on March 22, 1907; therefore be it

Resolved, That the Board of Estimate and Apportionment hereby determines that the further sum of one million dollars (\$1,000,000) be and hereby is set aside and appropriated from the water revenues received during the year 1907, if such revenues be sufficient, and if not, from the balance remaining in the water revenue account on December 31, 1906, for the maintenance and distribution of said water supply in the Borough of Brooklyn during 1907.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The Secretary presented a resolution of the Board of Education amending its resolution adopted May 22, 1907, requesting an issue of \$11,337,490 Corporate Stock for the erection, equipment and improvement of school buildings and premises, etc., by striking out said sum and inserting in place thereof the sum of \$11,437,490.

Which was referred to the Comptroller.

The Secretary presented reports and resolutions of the Board of Education requesting the acquisition of property located on East Ninth and Tenth streets, between Avenues K and L, and on Tenth avenue, between Seventieth and Seventy-first streets, Brooklyn, as sites for school purposes; also the vesting of title in the school site located on Twentieth and Twenty-first streets, west of Eighth avenue, Borough of Manhattan, ten days after the adoption of a resolution to that effect.

Which were referred to the Comptroller.

The Secretary presented the following communication from the Comptroller relative to acquiring land and building of the "New York Staats-Zeitung," located on Centre street, Tryon row and Park row, Borough of Manhattan, recommending that the property be acquired for the sum of \$1,650,000, with interest thereon at 5 per cent. per annum from December 24, 1906:

CITY OF NEW YORK—DEPARTMENT OF FINANCE,
COMPTROLLER'S OFFICE,
June 18, 1907.

Hon. HERMAN A. METZ, Comptroller:

SIR—The Board of Estimate and Apportionment at a meeting held July 7, 1905, adopted a resolution authorizing the Corporation Counsel to acquire title in fee to such portions of the property described in said resolution as was necessary for the construction of the extension of the westerly or Manhattan terminal of the New York and Brooklyn Bridge, for the better accommodation of pedestrians, vehicles and railroad passengers using such railroad, bridge or terminal, and at a meeting held November 23, 1906, authorized that all the right, title and interest, in so far as Parcels 1, 2, 3, 4, 7 and 8, on a map furnished by the Commissioner of the Department of Bridges, in accordance with the resolution of July 7, 1905, to the Corporation Counsel for use in the proceedings, should vest in The City of New York on the 24th day of December, 1906.

Among the parcels included in this proceeding was one known as the Staats-Zeitung Building, occupied at that time by The City of New York as the Corporation Counsel's office, and also by the German edition of the New York "Morning Journal."

The Staats-Zeitung Building is a five-story, basement and cellar stone building, situated fronting on Tryon row, at the junction of Centre street and Park row, and occupies in area a space of ground containing, in accordance with the map of the Commissioner of the Department of Bridges, 5,770 square feet. The original price asked by the owners of the property was \$2,000,000, but after consultation with the Corporation Counsel's office and the Department of Finance, a price of \$1,650,000 was agreed upon as the fair market value of the property.

I doubt if there are in New York City more than three places which could be compared in situation with this Staats-Zeitung Building, and these are the Dime Savings Bank, at the junction of Thirty-second street, Broadway and Sixth avenue; the Herald Building, at the junction of Thirty-fifth street, Broadway and Sixth avenue, and the New York Journal Building, at Columbus Circle and Seventh avenue. As an advertising proposition, there is no better situated building in New York City, meeting the eye, as it does, of all the people who cross the bridge to and from Brooklyn. Upon this building could be erected, should the owners of the property desire, an additional four stories, so strongly is it built, although erected over thirty years ago. In addition to the fact that the building is a good advertising medium is also the fact that it has an entrance from the subway to the restaurant in the basement floor. There are only three other places I can think of that have this privilege, outside of the large public buildings downtown, and they are Wanamaker's store, the Hotel Belmont and the Hotel Knickerbocker. I do not believe that there are any three appraisers of real estate in New York City who could appraise the value of this property and come within \$200,000 of each other. I am of the opinion that if the building was to be reconstructed to-day, it could not be built for \$400,000. The machinery in the building has been appraised by the City's expert at \$50,000. The value of the land is \$1,200,000, or at the rate of about slightly over \$200 a square foot.

Inasmuch as the City vested title to this property on December 24, 1906, and Mr. Ridder has been a tenant of the City, paying rent therefor, he has agreed to accept 5 per cent. interest, although the law allows him in condemnation proceedings on any award which may be made to him the sum of 6 per cent., and in return he will pay the rent at the rate of 5 per cent. per annum on the amount paid to him, \$1,650,000, less, of course, the amount of rent, about \$16,000 per annum, which the City paid prior to the Corporation Counsel moving into the new Hall of Records.

I am of the opinion that the City would be making a good purchase by acquiring this property of the New York "Staats Zeitung" at the price named, \$1,650,000, and interest thereon from December 24, 1906, at 5 per cent. per annum, which has the approval of the Corporation Counsel's office, which has the condemnation proceedings in charge. I would therefore respectfully recommend that the Board of Estimate and Apportionment approve of the acquisition of the same and adopt a resolution authorizing the Comptroller to enter into contracts for the acquisition thereof at private sale at a price not exceeding \$1,650,000, and interest thereon at 5 per cent. per annum from December 24, 1906, until the date of payment.

Respectfully submitted for approval,

MORTIMER J. BROWN,

Appraiser of Real Estate, Department of Finance.

Approved:

H. A. METZ, Comptroller.

The following resolution was offered:

Whereas, The Board of Estimate and Apportionment having heretofore by resolution laid out and authorized the acquisition of certain property in the Borough of Manhattan, as an extension of the westerly or Manhattan terminal of the New York and Brooklyn Bridge, for the better accommodation of pedestrians, vehicles and railroad passengers using said bridge or terminal; and

Whereas, On November 23, 1906, the Board of Estimate and Apportionment did by resolution authorize the vesting of title on December 24, 1906, of all the property so laid out, as described in Parcels 1, 2, 3, 4, 7 and 8; and

Whereas, The Comptroller of The City of New York has reported to this Board that in his opinion the City would be benefited by the acquisition at private sale of

one of the pieces of land included within the area of Parcel No. 2 as laid out, known at the Staats Zeitung Building, which said parcel is bounded and described as follows:

Beginning at the corner of Chatham street (now Park row) and Tryon row, and running thence northeasterly along the northwesterly line of Chatham street 50 feet; thence northerly on a line parallel with Tryon row 132 feet and 4 inches to Centre street; thence southwesterly along the southeasterly line of Centre street 61 feet 6 inches to the corner of Tryon row and Centre street, and thence southeasterly along Tryon row 97 feet 9 inches to the point or place of beginning, be the said distances and dimensions more or less, together with all the right, title and interest of the owners of said premises of, in and to the streets in front thereof to the centre thereof. Being the same premises as conveyed to Oswald Ottendorfer by two several deeds, one made by the New York and Harlem Railroad Company, dated May 1, 1868, and recorded in the Register's office of the City and County of New York in Liber 1046 of Conveyances, page 360; and the other made by Henry R. Dunham and wife, dated April 1, 1870, and recorded in said Register's office in Liber 1145 of Conveyances, page 128; therefore be it

Resolved, That the Board of Estimate and Apportionment hereby approves of the proposition and authorizes the Comptroller to acquire all the right, title and interest of the owners of above described premises in and to any award which may be made in the proceedings, and to receive the proper assignment thereof when approved by the Corporation Counsel, and to pay therefor the sum of \$1,650,000, together with interest thereon at 5 per cent. per annum from December 24, 1906. Said contracts for the acquisition thereof to be submitted to the Corporation Counsel for his approval as to form.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, The Bronx, Queens and Richmond—14.

Negative—President of the Borough of Brooklyn—2.

The Secretary presented a communication from the Commissioner of Water Supply, Gas and Electricity requesting an issue of \$225,000 Corporate Stock to provide for the improvement and development of the water supply system at and near the Bayside Pumping Station in the Third Ward, Borough of Queens.

Which was referred to the Comptroller.

The Secretary presented a communication from the Clerk, Court of General Sessions of the Peace, requesting the issue of Special Revenue Bonds to the amount of \$43,791.55 to provide for the salaries of additional Judges, Clerks, Attendants, etc., of said Court for the balance of the year 1907.

Which was referred to the Comptroller.

The President, Borough of Manhattan, by unanimous consent presented the following communication requesting an issue of \$26,000 Corporate Stock to provide and equip an additional court room and Judges' quarters in the Criminal Courts Building, Borough of Manhattan, to accommodate the additional part of the Court of General Sessions, etc.

CITY OF NEW YORK,
OFFICE OF THE PRESIDENT OF THE BOROUGH OF MANHATTAN,
CITY HALL, June 20, 1907.

JOSEPH HAAG, Esq., Secretary, Board of Estimate and Apportionment:

DEAR SIR—Request is hereby made to the Board of Estimate and Apportionment for an issue of Corporate Stock of The City of New York in the amount of twenty-six thousand dollars (\$26,000), for the purpose of providing and equipping in the Criminal Courts Building an additional courtroom and Judges' quarters, to accommodate the additional part of the Court of General Sessions, as provided by the Laws of 1907.

Enclosed you will find correspondence showing the necessity for this work and the estimated cost thereof.

Very truly,
JOHN F. AHEARN,
President of the Borough of Manhattan.

CHAMBERS OF THOMAS C. O'SULLIVAN,
JUDGE OF THE COURT OF GENERAL SESSIONS,
NEW YORK, June 8, 1907.

JOHN F. AHEARN, Esq., President of the Borough of Manhattan, City Hall, New York City:

SIR—Chapters 411 and 412 of the Laws of 1907, which became laws by approval of the Governor on June 4, 1907, provide for an increase of the number of Judges of the Court of General Sessions and provides for the holding of additional parts of that Court. There are at present only four courtrooms for the use of the Court of General Sessions, and as the laws hereinabove referred to require the holding of five parts, it is necessary that immediate steps be taken to provide additional accommodations for the Judges and for the additional Court. The Judges of the Court of General Sessions have met as provided by law and have determined that such additional accommodations can be secured by the remodeling of a part of the Criminal Courts Building. I have been deputed by the Board of Judges to call this matter to your attention in order that immediate measures may be taken by you toward providing these accommodations.

Will you please send the proper official in your department to confer with the Committee of Judges having this matter in charge, so that the work can be begun at once.

Very truly yours,
(Signed) THOMAS C. O'SULLIVAN,
Judge of General Sessions.

JOHN H. DUNCAN,
No. 208 FIFTH AVENUE,
NEW YORK, June 20, 1907.

Hon JOHN F. AHEARN, President, Borough of Manhattan, New York:

DEAR SIR—The following is my estimate of the cost of the Criminal Courts Building alteration to obtain an additional courtroom for what is known as Part V., Court of General Sessions, as per my appointment as architect, dated June 13, 1907:

Masonry	\$1,218 00
Plastering	1,539 00
Carpenter and cabinet work.....	4,694 00
Iron work	1,700 00
Heating	1,000 00
Painting, wood finishing and decoration.....	2,500 00
Leaded glass dome with iron frame, at \$2.50 per square foot—\$600 for iron	3,600 00
Electric wiring	900 00
Files and moving old files.....	1,250 00
Electric fixtures	690 00
Furniture and carpets	5,500 00
Architect's commission, 5 per cent. on above.....	1,229 55
Total	\$25,820 55

Yours respectfully,
(Signed) JOHN H. DUNCAN, Architect.

The following resolution was offered:

Resolved, That, pursuant to the provisions of section 47 of the Greater New York Charter as amended, the Board of Estimate and Apportionment hereby approves of the issue of Corporate Stock of The City of New York to an amount not exceeding twenty-six thousand dollars (\$26,000), to provide and equip an additional court room and Judges' quarters in the Criminal Courts Building, Borough of Manhattan, to accommodate the additional part of the Court of General Sessions, created pursuant to chapters 411 and 412 of the Laws of 1907, and that when authority therefor shall have been obtained from the Board of Aldermen the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding twenty-six thousand dollars (\$26,000), the proceeds whereof to be applied to the purposes aforesaid.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The Secretary presented the following report and resolutions of the Board of Education requesting the acquisition of property on Second avenue, between Eighty-sixth and Eighty-seventh streets, Brooklyn, as a site for school purposes, and communication from the Comptroller recommending the condemnation of said property: To the Board of Education:

The Committee on Sites respectfully reports that it has given careful consideration to sundry recommendations of the Local School Board of District No. 37 and the Board of Superintendent that a site for a new school building be acquired in the vicinity of Second avenue and Eighty-sixth street, Borough of Brooklyn. Additional school accommodations are necessary in this vicinity, and your Committee recommends the selection of property on the easterly side of Second avenue, running from Eighty-sixth street to Eighty-seventh street. It is the intention to improve said property for school purposes as soon as title thereto is obtained, provided sufficient funds are available therefor.

The following resolutions are submitted for adoption:

Resolved, That the Board of Education hereby selects and determines as a site for school purposes the following described lands and premises on Second avenue, Eighty-sixth and Eighty-seventh streets, in Local School Board District No. 37, Borough of Brooklyn, the assessed valuation of which, as shown by the books of record on file in the Department of Taxes and Assessments, is \$15,800:

Beginning at a point formed by the intersection of the northerly line of Eighty-seventh street with the easterly line of Second avenue, and running thence easterly along the northerly line of Eighty-seventh street two hundred (200) feet; thence northerly and parallel with Second avenue two hundred (200) feet to the southerly line of Eighty-sixth street; thence westerly along the southerly line of Eighty-sixth street two hundred (200) feet to the easterly line of Second avenue; thence southerly along the easterly line of Second avenue two hundred (200) feet to the northerly line of Eighty-seventh street, the point or place of beginning.

Resolved, That the Board of Estimate and Apportionment be and it is hereby requested to take such action as may be necessary and proper for the acquisition of the lands and premises above described.

A true copy of report and resolutions adopted by the Board of Education June 12, 1907.

A. EMERSON PALMER, Secretary, Board of Education.

CITY OF NEW YORK—DEPARTMENT OF FINANCE,
COMPTROLLER'S OFFICE,
June 18, 1907.

Hon. HERMAN A. METZ, Comptroller:

SIR—The Board of Education, at a meeting held June 12, 1907, adopted the following resolution:

Resolved, That the Board of Education hereby selects and determines as a site for school purposes the following described lands and premises on Second avenue, Eighty-sixth and Eighty-seventh street, in Local School Board District No. 37, Borough of Brooklyn, the assessed valuation of which, as shown by the books of record on file in the Department of Taxes and Assessments, is \$15,800:

Beginning at a point formed by the intersection of the northerly line of Eighty-seventh street with the easterly line of Second avenue, and running thence easterly along the northerly line of Eighty-seventh street 200 feet; thence northerly and parallel with Second avenue 200 feet to the southerly line of Eighty-sixth street; thence westerly along the southerly line of Eighty-sixth street 200 feet to the easterly line of Second avenue; thence southerly along the easterly line of Second avenue 200 feet to the northerly line of Eighty-seventh street, the point or place of beginning.

Resolved, That the Board of Estimate and Apportionment be and it is hereby requested to take such action as may be necessary and proper for the acquisition of the lands and premises above described.

The preamble of said resolution recites that the Committee on Sites reported that it had given careful consideration to sundry recommendations of the Local School Board of District No. 37 and the Board of Superintendents that a site for a new school building be acquired in the vicinity of Second avenue and Eighty-sixth street in the Borough of Brooklyn; that additional school accommodations are necessary in this vicinity, and therefore the Committee recommends the selection of a piece of property on the easterly side of Second avenue, running from Eighty-sixth to Eighty-seventh street, in the Borough of Brooklyn.

The property in question has a frontage of 200 feet on the easterly side of Second avenue, a frontage of 200 feet on the north side of Eighty-seventh street, and a frontage of 200 feet on the southerly side of Eighty-sixth street, the same being known on the Land Map of the County of Kings by the Lot Nos. 1 to 10, inclusive, 13 and part of 63, in Block 6043.

After negotiations, in my endeavor to acquire the same at private sale, it appears that the property is owned by a number of people, and that it will be impossible to acquire the entire plot at private sale. I would therefore respectfully recommend that the Board of Estimate and Apportionment approve of the selection of the site heretofore described and adopt a resolution authorizing the institution of condemnation proceedings for the acquisition thereof.

Respectfully submitted for approval,

THOMAS F. BYRNES,
Appraiser of Real Estate, Department of Finance.

Approved:

H. A. METZ, Comptroller.

The following resolution was offered:

Resolved, That the Board of Estimate and Apportionment hereby approves of the action of the Board of Education in the selection of the following described premises for school purposes, in the Borough of Brooklyn:

Beginning at a point formed by the intersection of the northerly line of Eighty-seventh street with the easterly line of Second avenue, and running thence easterly along the northerly line of Eighty-seventh street 200 feet; thence northerly and parallel with Second avenue 200 feet to the southerly line of Eighty-sixth street; thence westerly along the southerly line of Eighty-sixth street 200 feet to the easterly line of Second avenue; thence southerly along the easterly line of Second avenue 200 feet to the northerly line of Eighty-seventh street, the point or place of beginning, the assessed valuation of which, as shown by the books of record on file in the Department of Taxes and Assessments, is \$15,800.

—and the Corporation Counsel be and he hereby is authorized to institute condemnation proceedings for the acquisition of all of the property within the area of the above described premises.

Nothing in this resolution contained shall be construed as preventing the Comptroller of The City of New York from entering into contracts for the acquisition of any portion of the above described premises at private sale, subject to the approval of this Board.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The Secretary presented the following report and resolutions of the Board of Education requesting the acquisition of property on Fourth avenue, between Twenty-ninth and Thirtieth streets, Brooklyn, as a site for school purposes, and communication from the Comptroller, recommending the condemnation of this property:

To the Board of Education:

The Committee on Sites respectfully reports that it has given careful consideration to sundry recommendations of the Local School Board of District No. 30 and the Board of Superintendents that a site be acquired for a new school building in the vicinity of Fourth avenue, Twenty-eighth and Thirtieth streets, Borough of Brooklyn. Additional school accommodations are necessary in this vicinity, and your Committee recommends the selection of property on the easterly side of Fourth avenue, running from Twenty-ninth street to Thirtieth street. It is the intention to improve said property for school purposes as soon as title thereto is obtained, provided sufficient funds are available therefor.

The following resolutions are submitted for adoption:

Resolved, That the Board of Education hereby selects and determines as a site for school purposes the following-described lands and premises on Fourth avenue, Twenty-ninth and Thirtieth streets, in Local School Board District No. 30, Borough of Brooklyn, the assessed valuation of which, as shown by the books of record on file in the Department of Taxes and Assessments, is \$23,000:

Beginning at a point formed by the intersection of the northerly line of Thirtieth street with the easterly line of Fourth avenue, and running thence easterly along the northerly line of Thirtieth street two hundred (200) feet; thence northerly and parallel with Fourth avenue two hundred (200) feet four (4) inches to the southerly line of Twenty-ninth street; thence westerly along the southerly line of Twenty-ninth street two hundred (200) feet to the easterly line of Fourth avenue; thence southerly along the easterly line of Fourth avenue two hundred (200) feet four (4) inches to the northerly line of Thirtieth street, the point or place of beginning, be the said several dimensions more or less.

Resolved, That the Board of Estimate and Apportionment be and it is hereby requested to take such action as may be necessary and proper for the acquisition of the lands and premises above described.

A true copy of report and resolutions adopted by the Board of Education June 12, 1907.

A. EMERSON PALMER, Secretary, Board of Education.

CITY OF NEW YORK—DEPARTMENT OF FINANCE,
COMPTROLLER'S OFFICE,
June 17, 1907.

Hon. HERMAN A. METZ, Comptroller:

SIR—The Board of Education at a meeting held June 12, 1907, adopted the following resolution:

Resolved, That the Board of Education hereby selects and determines as a site for school purposes the following described lands and premises in Fourth avenue, Twenty-ninth and Thirtieth streets, in Local School Board District No. 30, Borough of Brooklyn, the assessed valuation of which, as shown by the books of record on file in the Department of Taxes and Assessments, is \$23,000:

Beginning at a point formed by the intersection of the northerly line of Thirtieth street with the easterly line of Fourth avenue, and running thence easterly along the northerly line of Thirtieth street two hundred (200) feet; thence northerly and parallel with Fourth avenue 200 feet 4 inches to the southerly line of Twenty-ninth street; thence westerly along the southerly line of Twenty-ninth street two hundred (200) feet to the easterly line of Fourth avenue; thence southerly along the easterly line of Fourth avenue two hundred (200) feet four (4) inches to the northerly line of Thirtieth street, the point or place of beginning, be the said several dimensions, more or less.

Resolved, That the Board of Estimate and Apportionment be and it is hereby requested to take such action as may be necessary and proper for the acquisition of the lands and premises above described.

The preamble of the said resolution recites that the Committee on Sites reports that it has given careful consideration to the recommendations of the Local School Board of District No. 30, and the Board of Superintendents, that a site be acquired for a new school building in the vicinity of Fourth avenue, Twenty-eighth and Thirtieth streets, in the Borough of Brooklyn, and that additional school sites are necessary in the vicinity.

The property selected is on the easterly side of Fourth avenue, having a frontage on said street of 200 feet 4 inches, and also with a frontage on the southerly side of Twenty-ninth street of 200 feet, and a frontage on the northerly side of Thirtieth street of 200 feet, with a rear line of 200 feet 4 inches, the property being known as part of Lots Nos. 1 and 6 in Block 669, on the Land Map of the County of Kings.

Fourth avenue is 120 feet wide and is a parkway street, and the site in question is an excellent location.

After negotiation with the owners, it appears that condemnation proceedings will have to be resorted to. I would therefore respectfully recommend that the Board of Estimate and Apportionment approve of the selection of the site heretofore described and adopt a resolution authorizing the institution of condemnation proceedings for the acquisition thereof.

Respectfully submitted for approval,

THOMAS F. BYRNES,
Appraiser of Real Estate, Department of Finance.

Approved:
H. A. METZ, Comptroller.

The following resolution was offered:

Resolved, That the Board of Estimate and Apportionment hereby approves of the action of the Board of Education in the selection for school purposes of the following described premises in the Borough of Brooklyn:

Beginning at a point formed by the intersection of the northerly line of Thirtieth street with the easterly line of Fourth avenue, and running thence easterly along the northerly line of Thirtieth street two hundred (200) feet; thence northerly and parallel with Fourth avenue 200 feet 4 inches to the southerly line of Twenty-ninth street; thence westerly along the southerly line of Twenty-ninth street 200 feet to the easterly line of Fourth avenue; thence southerly along the easterly line of Fourth avenue 200 feet 4 inches to the northerly line of Thirtieth street, the point or place of beginning, be the said several dimensions more or less, said premises being assessed for the purposes of taxation at \$23,000;

—and the Corporation Counsel be and he is hereby authorized to institute condemnation proceedings for all of the parcels of land within the area of the above described premises.

Nothing in this resolution contained shall be construed as preventing the Comptroller of The City of New York from entering into contracts for the acquisition of any portion of the above described premises at private sale, subject to the approval of this Board.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The Secretary presented the following report and resolutions of the Board of Education requesting the acquisition of property on Seventh avenue, between Forty-third and Forty-fourth streets, Brooklyn, as a site for school purposes, and communication from the Comptroller recommending the condemnation of this property:

To the Board of Education:

The Committee on Sites respectfully reports that it has given careful consideration to sundry recommendations of the Local School Board of District No. 37 and the Board of Superintendents that a site be acquired for a new school building in the vicinity of Seventh and Eighth avenues, Forty-second and Forty-third streets, Borough of Brooklyn. Additional school accommodations are necessary in this vicinity, and your Committee recommends the selection of property on the easterly side of Seventh avenue, running from Forty-third street to Forty-fourth street. It is the intention to improve said property for school purposes as soon as title thereto is obtained, provided sufficient funds are available therefor.

The following resolutions are submitted for adoption:

Resolved, That the Board of Education hereby selects and determines as a site for school purposes the following described lands and premises on Seventh avenue, Forty-third and Forty-fourth streets, in Local School Board District No. 37, Borough of Brooklyn, the assessed valuation of which, as shown by the books of record on file in the Department of Taxes and Assessments, is \$7,150:

Beginning at a point formed by the intersection of the easterly line of Seventh avenue with the northerly line of Forty-fourth street, and running thence easterly along the northerly line of Forty-fourth street two hundred and fifty (250) feet; thence northerly and parallel with Seventh avenue one hundred (100) feet two (2) inches; thence westerly and parallel with Forty-fourth street one hundred and thirty (130) feet; thence again northerly and again parallel with Seventh avenue one hundred (100) feet two (2) inches to the southerly line of Forty-third street; thence westerly along the southerly line of Forty-third street one hundred and twenty (120) feet to the easterly line of Seventh avenue; thence southerly along the easterly line of Seventh avenue two hundred (200) feet four (4) inches to the northerly line of Forty-fourth street, the point or place of beginning, be the said several dimensions more or less.

Resolved, That the Board of Estimate and Apportionment be and it is hereby requested to take such action as may be necessary and proper for the acquisition of the lands and premises above described.

A true copy of report and resolutions adopted by the Board of Education June 12, 1907.

A. EMERSON PALMER, Secretary, Board of Education.

CITY OF NEW YORK—DEPARTMENT OF FINANCE,
COMPTROLLER'S OFFICE,
June 17, 1907.

Hon. HERMAN A. METZ, Comptroller:

SIR—The Board of Education, at a meeting held June 12, 1907, adopted the following resolution:

Resolved, That the Board of Education hereby selects and determines as a site for school purposes the following described lands and premises on Seventh avenue, Forty-third and Forty-fourth streets, in Local School Board District No. 37, Borough of Brooklyn, the assessed valuation of which, as shown by the books of record on file in the Department of Taxes and Assessments, is \$7,150:

Beginning at a point formed by the intersection of the easterly line of Seventh avenue with the northerly line of Forty-fourth street, and running thence easterly along the northerly line of Forty-fourth street two hundred and fifty (250) feet; thence northerly and parallel with Seventh avenue one hundred (100) feet two (2) inches; thence westerly and parallel with Forty-fourth street one hundred and thirty (130) feet; thence again northerly and again parallel with Seventh avenue one hundred (100) feet two (2) inches to the southerly line of Forty-third street; thence westerly along the southerly line of Forty-third street one hundred and twenty (120) feet to the easterly line of Seventh avenue; thence southerly along the easterly line of Seventh avenue two hundred (200) feet four (4) inches to the northerly line of Forty-fourth street, the point or place of beginning, be the said several dimensions more or less.

Resolved, That the Board of Estimate and Apportionment be and it is hereby requested to take such action as may be necessary and proper for the acquisition of the lands and premises above described.

The preamble of said resolution recites that the Committee on Sites respectfully reports that it has given careful consideration to sundry recommendations of the Local School Board of District No. 37 and the Board of Superintendents that a site be acquired for a new school building in the vicinity of Seventh and Eighth avenues, Forty-second and Forty-third streets, in the Borough of Brooklyn, and that additional school sites are necessary in the vicinity, and the Committee recommends the selection of property on the easterly side of Seventh avenue, running from Forty-third to Forty-fourth street, and further stated that it is the intention to improve said property for school purposes as soon as the title is acquired.

The property in question has a frontage on Seventh avenue of 200 feet 4 inches, a frontage on the north side of Forty-fourth street of 250 feet and a frontage on the southerly side of Forty-third street of 120 feet, the property being directly opposite Sunset Park, and known on the tax maps of the County of Kings as Lots Nos. 1, 3, 4, 6, 7, 9, 12, 74 and part of 60, in Block 732, and, after negotiation with the owners, it appears that the property cannot be acquired at a fair and reasonable price and that condemnation proceedings will have to be resorted to. I would therefore respectfully recommend that the Board of Estimate and Apportionment approve of the selection of the site heretofore described for school purposes, and adopt a resolution authorizing the acquisition of the same by condemnation proceedings.

Respectfully submitted for approval,

THOMAS F. BYRNES,
Appraiser of Real Estate, Department of Finance.

Approved:
H. A. METZ, Comptroller.

The following resolution was offered:

Resolved, That the Board of Estimate and Apportionment hereby approves of the action of the Board of Education in the selection of the following described premises for school purposes, in the Borough of Brooklyn:

Beginning at a point formed by the intersection of the easterly line of Seventh avenue with the northerly line of Forty-fourth street and running thence easterly along the northerly line of Forty-fourth street 250 feet; thence northerly and parallel with Seventh avenue 100 feet 2 inches; thence westerly and parallel with Forty-fourth street 130 feet; thence again northerly and again parallel with Seventh avenue 100 feet 2 inches to the southerly line of Forty-third street; thence westerly along the southerly line of Forty-third street 120 feet to the easterly line of Seventh avenue; thence southerly along the easterly line of Seventh avenue 200 feet 4 inches to the northerly line of Forty-fourth street, the point or place of beginning, be the said several dimensions more or less, the assessed valuation of which, as shown by the books of record on file in the Department of Taxes and Assessments, is \$7,150,

—and the Corporation Counsel be and he is hereby authorized to institute condemnation proceedings for the acquisition of all of the property within the area of the above described premises.

Nothing in this resolution contained shall be construed as preventing the Comptroller of The City of New York from entering into contracts for the acquisition of any portion of the above described premises at private sale, subject to the approval of this Board.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The Secretary presented the following report and resolutions of the Board of Education, requesting the acquisition of property on Throop avenue, Bartlett and Whipple streets, Brooklyn, as a site for school purposes, and communication from the Comptroller recommending the purchase of this property at \$167,400:

To the Board of Education:

The Committee on Sites respectfully reports that it has given careful consideration to the matter of the selection of a site for a new school building to relieve Public Schools 122 and 141, Borough of Brooklyn, in which there are nearly nine hundred (900) children on part time, and is of the opinion that property on the west side of Throop avenue, running from Bartlett street to Whipple street, should be selected for this purpose. It is the intention to improve the property mentioned for school purposes as soon as title thereto is obtained, provided sufficient funds are available therefor.

The following resolutions are submitted for adoption:

Resolved, That the Board of Education hereby selects and determines as a site for school purposes the following described lands and premises on Throop avenue, Bartlett and Whipple streets, in Local School Board District No. 32, Borough of Brooklyn, the assessed valuation of which, as shown by the books of record on file in the Department of Taxes and Assessments, is \$63,700:

Beginning at a point formed by the intersection of the northerly line of Whipple street with the westerly line of Throop avenue and running thence westerly along the northerly line of Whipple street one hundred and fifty (150) feet; thence northerly and parallel with Throop avenue one hundred (100) feet; thence easterly and parallel with Whipple street twenty-five (25) feet; thence again northerly and again parallel with Throop avenue one hundred (100) feet to the southerly line of Bartlett street; thence easterly along the southerly line of Bartlett street one hundred and twenty-five (125) feet to the westerly line of Throop avenue; thence southerly along the westerly line of Throop avenue two hundred (200) feet to the northerly line of Whipple street, the point or place of beginning, be the said several dimensions more or less.

Resolved, That the Board of Estimate and Apportionment be and it is hereby requested to take such action as may be necessary and proper for the acquisition of the lands and premises above described.

A true copy of report and resolutions adopted by the Board of Education June 12, 1907.

A. EMERSON PALMER, Secretary, Board of Education.

CITY OF NEW YORK—DEPARTMENT OF FINANCE,
COMPTROLLER'S OFFICE,
June 18, 1907.

Hon. HERMAN A. METZ, Comptroller:

SIR—The Board of Education at a meeting held June 12, 1907, adopted the following resolution:

"Resolved, That the Board of Education hereby selects and determines as a site for school purposes the following described premises on Throop avenue, Bartlett and Whipple streets, in Local School Board District No. 32, Borough of Brooklyn, the assessed valuation of which, as shown by the books of record on file in the Department of Taxes and Assessments, is \$63,700:

"Beginning at a point formed by the intersection of the northerly line of Whipple street with the westerly line of Throop avenue, and running thence westerly along the northerly line of Whipple street 150 feet; thence northerly and parallel with Throop avenue 100 feet; thence easterly and parallel with Whipple street 25 feet; thence again northerly and again parallel with Throop avenue 100 feet to the southerly line of Bartlett street; thence easterly along the southerly line of Bartlett street 125 feet to the westerly line of Throop avenue; thence southerly along the westerly line of Throop avenue 200 feet to the northerly line of Whipple street, the point or place of beginning, be the said several dimensions more or less.

"Resolved, That the Board of Estimate and Apportionment be and it is hereby requested to take such action as may be necessary and proper for the acquisition of the lands and premises above described."

The preamble of the said resolution recites that the Committee on Sites reports that it has given careful consideration to the matter of the selection of a site for a new school building to relieve Public Schools 122 and 141, Borough of Brooklyn, in which there are nearly nine hundred children on part time, and they were therefore of the opinion that the property on the west side of Throop avenue, running from Bartlett street to Whipple street, should be selected for this purpose, and that it is the intention of the Board to improve the property mentioned for school purposes as soon as title thereto is vested in The City of New York.

The property in question has a frontage on the westerly side of Throop avenue of 200 feet and a frontage on the northerly side of Whipple street of 150 feet, with a frontage on the southerly side of Bartlett street of 125 feet, the property being known on the land map of the County of Kings as Lots Nos. 21 to 37, inclusive, in Block 2272. The property has on it a number of wood and brick buildings, and after negotiation with the owners I have ascertained that the same can be acquired at private sale for the sum of \$167,400, which price, in my opinion, is not excessive. I would therefore respectfully recommend that the Board of Estimate and Apportionment approve of the selection of the site heretofore described for school purposes, and adopt a resolution authorizing the acquisition of the same at private sale, at a price not exceeding \$167,400.

Respectfully submitted for approval,

THOMAS F. BYRNES,
Appraiser of Real Estate, Department of Finance.

Approved:

H. A. METZ, Comptroller.

Resolved, That the Board of Estimate and Apportionment hereby approves of the action of the Board of Education in the selection of the following described premises for school purposes in the Borough of Brooklyn:

Beginning at a point formed by the intersection of the northerly line of Whipple street with the westerly line of Throop avenue, and running thence westerly along the northerly line of Whipple street 150 feet; thence northerly and parallel with Throop avenue 100 feet; thence easterly and parallel with Whipple street 25 feet; thence again northerly and again parallel with Throop avenue 100 feet to the southerly line of Bartlett street; thence easterly along the southerly line of Bartlett street 125 feet to the westerly line of Throop avenue; thence southerly along the westerly line of Throop avenue 200 feet to the northerly line of Whipple street, the point or place of beginning, be the said several dimensions more or less, together with all the right, title and interest of the owners of said premises of, in and to the streets in front thereof to the centre thereof,

—and the Comptroller be, and he hereby is, authorized to enter into contracts for the acquisition of the above described premises at private sale at a price not exceeding \$167,400, said contracts to be submitted to the Corporation Counsel for his approval as to form.

Which was adopted by the following vote.

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, The Bronx, Queens and Richmond—14.

Negative—The President of the Borough of Brooklyn—2.

The Secretary presented the following report and resolutions of the Board of Education, requesting the acquisition of property known as Nos. 140 to 152 Rutledge street, inclusive, Brooklyn, as a site for school purposes, and communication from the Comptroller recommending the condemnation of this property.

To the Board of Education:

The Committee on Sites respectfully reports that it has given careful consideration to sundry recommendations of the Local School Board of District No. 31 and the Board of Superintendents, that property on Rutledge street, immediately at the rear of Public School 71, Borough of Brooklyn, be acquired for the purpose of erecting thereon an addition to said school building, in which there are a number of children on part time, and is of the opinion that the property mentioned should be selected. It is the intention to improve said property for school purposes as soon as title thereto is obtained, provided sufficient funds are available therefor.

The following resolutions are submitted for adoption:

Resolved, That the Board of Education hereby selects and determines as a site for school purposes the following described lands and premises on Rutledge street, near Lee avenue, at the rear of Public School 71, in Local School Board District No. 31, Borough of Brooklyn, the assessed valuation of which, as shown by the books of record on file in the Department of Taxes and Assessments, is \$30,800:

Beginning at a point on the southeasterly line of Rutledge street, distant one hundred and twenty-one (121) feet nine (9) inches southwesterly from the southwesterly line of Lee avenue, and running thence southeasterly and parallel, or nearly so, with Lee avenue one hundred (100) feet; thence southwesterly and parallel with Rutledge street one hundred and forty-five (145) feet three (3) inches; thence northwesterly one hundred (100) feet to the southeasterly line of Rutledge street; thence northeasterly along the southeasterly line of Rutledge street one hundred and forty-five (145) feet three (3) inches, to the point or place of beginning, be the said several dimensions more or less.

Resolved, That the Board of Estimate and Apportionment be, and it is hereby requested to take such action as may be necessary and proper for the acquisition of the lands and premises above described.

A true copy of report and resolutions adopted by the Board of Education June 12, 1907.

A. EMERSON PALMER, Secretary Board of Education.

CITY OF NEW YORK—DEPARTMENT OF FINANCE,
COMPTROLLER'S OFFICE,
June 18, 1907.

Hon. HERMAN A. METZ, Comptroller:

SIR—The Board of Education at a meeting held June 12, 1907, adopted the following resolution:

Resolved, That the Board of Education hereby selects and determines as a site for school purposes the following described lands and premises on Rutledge street, near Lee avenue, at the rear of Public School 71, in Local School Board District No. 31, Borough of Brooklyn, the assessed valuation of which as shown by the books of record on file in the Department of Taxes and Assessments, is \$30,800:

Beginning at a point on the southeasterly line of Rutledge street, distant 121 feet 9 inches southwesterly from the southwesterly line of Lee avenue, and running thence southeasterly and parallel or nearly so with Lee avenue 100 feet; thence southwesterly and parallel with Rutledge street 145 feet 3 inches; thence northwesterly 100 feet to the southeasterly line of Rutledge street; thence northeasterly along the southeasterly line of Rutledge street 145 feet 3 inches to the point or place of beginning, be the said several dimensions more or less.

Resolved, That the Board of Estimate and Apportionment be and it is hereby requested to take such action as may be necessary and proper for the acquisition of the lands and premises above described.

The preamble of said resolution recites that the Committee on Sites reports that it has given careful consideration to the recommendations of the Local School Board of District No. 31 and the Board of Superintendents that the property on Rutledge street at the immediate rear of Public School 71, in the Borough of Brooklyn, should be acquired for the purpose of erecting thereon an addition to said school building, in which there are a number of children on part time, and they are of the opinion that the property mentioned should be selected.

The property in question is known by the Nos. 140 to 152 Rutledge street inclusive, and also known as Lot Nos. 19 to 25 inclusive, in Block 2225 on the land map of the County of Kings.

After investigation of the matter as to whether the property could be acquired at private sale, I beg to report that it will be impossible to acquire all of the properties at private sale and that condemnation proceedings will have to be resorted to as to at least a portion of the property, but in the event that in the near future a portion of the property could be acquired at a fair and reasonable price, a further report can be made to the Board regarding the same. I would respectfully recommend that the Board of Estimate and Apportionment approve of the selection for school purposes of the site heretofore described and authorize the institution of condemnation proceedings for the acquisition thereof.

Respectfully submitted for approval,

THOMAS F. BYRNES,
Appraiser of Real Estate, Department of Finance.

Approved:

H. A. METZ, Comptroller.

The following resolution was offered:

Resolved, That the Board of Estimate and Apportionment hereby approves of the action of the Board of Education in the selection of the following described premises for school purposes, in the Borough of Brooklyn:

Beginning at a point on the southeasterly line of Rutledge street distant 121 feet 9 inches southwesterly from the southwesterly line of Lee avenue, and running thence southeasterly and parallel or nearly so with Lee avenue 100 feet; thence southwesterly and parallel with Rutledge street 145 feet 3 inches; thence northwesterly 100 feet to the southeasterly line of Rutledge street; thence northeasterly along the southeasterly line of Rutledge street 145 feet 3 inches to the point or place of beginning, be the said several dimensions more or less, and being assessed for the purposes of taxation at \$30,800,

—and the Corporation Counsel be and hereby is authorized to institute condemnation proceedings for the acquisition of all of the property within the area of the above described premises.

Nothing in this resolution contained shall be construed as preventing the Comptroller of The City of New York from entering into contracts for the acquisition of any portion of the above described premises at private sale, subject to the approval of this Board.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The following matters were considered by unanimous consent:

The following resolution was offered:

Resolved, That subject to the approval of the Civil Service Commission, under Rule 12, paragraph 6 of the Civil Service Rules, Walter Cook be and he is hereby appointed Consulting Architect to the Board of Estimate and Apportionment, compensation not to exceed five thousand dollars (\$5,000) and expenses in any year, to supervise the preparation of plans, designs or specifications in connection with the construction of public buildings authorized by the Board of Estimate and Apportionment.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The Comptroller presented the following communication from the Commissioner of Public Charities requesting an issue of \$3,742,000 Corporate Stock for construction of new buildings, additions, alteration and extraordinary repairs to buildings and apparatus, together with report thereon, this matter having been referred to the Comptroller on April 5, 1907:

DEPARTMENT OF PUBLIC CHARITIES,
FOOT OF EAST TWENTY-SIXTH STREET,
April 2, 1907.

Hon. GEORGE B. McCLELLAN, Mayor of The City of New York and Chairman of the Board of Estimate and Apportionment:

DEAR SIR—To meet the most urgent and pressing needs of the Department of Public Charities, and to make provision for the immediate future in the way of "new buildings, and additions, alterations and extraordinary repairs to buildings and apparatus," I have the honor very respectfully to request an issue of Corporate Stock to the amount of \$3,742,000, to be expended for the purposes hereinafter specifically set forth.

In making this request I assume that it will continue to be the policy of the City to care for the more continued as well as the chronic and incurable class of public dependents in the island hospitals and related institutions of the Department of Public Charities, where they are maintained at a minimum of expense. The land already belongs to the City, and it is proposed to erect buildings, which while good and substantial and necessarily commodious, will be of the most simple and economical form of construction.

So rapid is the increase in the growth of the population of the City, and particularly in the number of new comers having small and at times uncertain incomes, that it is my profound conviction that much want and suffering are likely to ensue unless there is prompt and adequate extension of the facilities of the hospitals and other institutions of this department. The advent of bad times, from which, for various reasons, we periodically suffer, will greatly add to the seriousness of the situation. As a matter of fact, so pressing is the need for most of the items specified in this request that the work of construction should long ago have been fully accomplished.

In order to carry out contemplated improvements at the Island institutions on a definite and comprehensive plan, I have caused a survey to be made covering the grounds of all such institutions, together with a proposed lay-out of the grounds of the City hospital district at the south end of Blackwell's Island, and also of the grounds of the Metropolitan Hospital district at the north end of Blackwell's Island. These lay-outs will show in detail the present buildings and the proposed improvements in the hospital districts named, and attention to them is respectfully invited.

The Metropolitan Hospital District, Blackwell's Island.

The greatest need at this institution at the present time is a substantial increase in the facilities for the care of tuberculosis patients. The two infirmary buildings for this class of patients have a normal bed capacity for 368 patients, while the adjacent tents have bed capacity for 171 additional patients, making 539 in all. The census has, however, shown as many as 608 patients in these two buildings and the tents during a large part of the winter. The facilities of the other hospitals of the City having this class of patients have also been greatly overtaxed, and relief to many needy persons has in consequence been greatly delayed if not denied altogether. The construction of the proposed "Sea View Hospital" for tuberculosis patients at Staten Island is being obstructed by injunction proceedings, and it is possible that this institution may not be completed for some years. In view of these urgent conditions, and the further fact that the more advanced cases of tuberculosis will not be sent to the "Sea View Hospital," but will continue to be cared for at the Infirmary at Blackwell's Island, it is proposed to construct simple hospital buildings for this class of patients at the Infirmary at a cost not to exceed \$2,000 per capita. At the present time application is made for means to pay for the construction of a building, with accessories, for three hundred tuberculosis patients at a total cost of \$600,000. This will relieve the pressure for admission and enable patients to be taken from the tents where advanced cases cannot be properly cared for during the inclement weather of winter.

Toward the north end of the Metropolitan Hospital district are a number of old wooden buildings erected for temporary use about the time of the Civil War. These buildings are used for shop, stable and dormitory purposes. They are not only unsightly structures but are unsanitary, and owing to their flimsy construction a dangerous fire risk for the other buildings of the hospital. It is proposed to remove these dilapidated structures and to erect in another location new shops and stables and an addition to the present inadequate power house and laundry at a cost of approximately \$400,000, with \$150,000 additional for equipment, making the total amount desired for these purposes \$550,000.

In order further to extend the facilities of this hospital it is proposed to construct a series of buildings designed to allow more room for patients and the administrative force in the hospital proper. Such proposed buildings are as follows:

A staff house for the physicians resident at the hospital, such as has been granted for the City Hospital at the south end of Blackwell's Island. This will make provision for forty physicians and other employees, and will cost, approximately, \$80,000.

Kitchen, Service and Storage Building—The present kitchen building is an old and dilapidated structure, inadequate and unsuitable for the purposes of this large and growing hospital, as well as badly located. It is lacking in proper storage and refrigerating capacity and is without employees' dining rooms and other desirable accessories of a modern service building. It is proposed to erect in its place a new service building, with refrigerating plant and kitchen, dining room and storage capacity. Such a building must be constructed with a view to the future needs of this hospital, and it is estimated will cost, approximately, \$350,000.

Reception Building—The Metropolitan Hospital has at the present time no adequate reception building and one is greatly needed in order that proper provision may be made to receive, bathe and examine patients, to detain contagious cases or those suspected of having such diseases, and to fumigate and store personal effects for both male and female patients, with complete separation of the sexes. The cost of this proposed building is estimated to be, approximately, \$60,000.

Morgue and Pathological Building—This hospital has at the present time no proper morgue or pathological building, which is a great disadvantage. It is proposed to construct such a building, which, with its accessories, is estimated to cost, approximately, \$40,000.

The total estimated cost of the improvements desired at the Metropolitan Hospital is \$1,680,000.

The City Hospital District, Blackwell's Island.

One of the greatest needs of this hospital at the present time is a new Maternity Hospital building to replace the present old wooden structure, which is not only inadequate, but is, because of its flimsy construction, a serious fire menace to the other buildings of the group. It is estimated that the cost of a new building and its accessories, with capacity for twenty-five patients at a time, will be, approximately, \$60,000.

A dormitory for convalescent patients is one of the pressing needs of this hospital, and it is estimated that one of suitable capacity can be constructed and equipped for \$50,000.

In order to provide more room in the hospital for the care of patients and to improve the operating room service, it is proposed to remove the operating rooms to the upper floor, now occupied by the kitchen, which is to be located in the new service building. The cost of such work is estimated to be \$20,000.

New elevators and machinery are needed in this hospital to improve the service. The estimated cost is \$15,000.

The total estimated cost of the improvements needed at the City Hospital is \$145,000.

The City Home for the Aged and Infirm, Blackwell's Island.

The hospital and other facilities of this home are greatly overtaxed, and their considerable increase is urgently needed.

A new hospital pavilion, at an estimated cost of \$40,000, is one of the pressing needs of this home, as the facilities of the present hospital buildings are inadequate to meet the requirements of the home.

An addition to the laundry facilities of this institution, at an estimated cost of \$30,000, is another urgent need which should be met, as the present facilities are entirely inadequate to meet the demands upon them.

A pavilion for an out-patient department, at an estimated cost of \$10,000, is a further need of this home.

The total estimated cost of the improvements needed at the City Home is \$80,000.

The Children's Hospitals and Schools, Randall's Island.

A Nurses' home, with capacity for 150 Nurses, is one of the greatest needs of this hospital at the present time. This would release a considerable part of the hospital itself for the use of the children. This proposed Nurses' home should have a capacity for 100 Nurses, and its estimated cost is \$200,000.

A kitchen, dining room and service building is greatly needed at this institution. The erection of such a building would release a large amount of room in several buildings for the use of inmates. The estimated cost of this building is \$125,000.

A new shop building is also required at this institution, as the present one is inadequate and has to be shored to keep it from falling down. The estimated cost of the proposed new building is \$40,000.

A new ice house is also required, at an estimated cost of \$10,000.

The total estimated cost of the improvements needed at the Children's Hospitals and Schools is \$375,000.

The Municipal Lodging House, Manhattan.

Owing to the discovery of quicksand in the part of the site selected for the location of the boiler pit, the contractor who is erecting the Municipal Lodging House in East Twenty-fifth street was unable to proceed with the work along the original plans, and is required to sink a caisson in order to comply with the requirements of the amended plans that have been approved by the Department of Buildings. The Corporation Counsel advises that the contractor is not required to do this work, the estimated cost of which is \$50,000.

The Steamboat Service, Manhattan.

A new boat is needed for the Hart's Island and Staten Island service, to take the place of the small boat "Fidelity," which is about thirty-five years old, practically worn out, and in need of constant repairs.

The Department is now running a ferry eighteen hours a day at Randall's Island, making a trip every half hour, and another on a like schedule from Fifty-second street to Blackwell's Island. Passengers and supplies are carried three times daily from Twenty-sixth street to Blackwell's and Randall's Islands on the Steamer "Brennan," and a fourth service is maintained between Twenty-sixth street and Staten and Hart's Islands by the "Fidelity." With one exception the boats of the Department are old, and all of them are at times unfitted for service, with the result that boats have to be hired for temporary service at large expense.

The cost of a new boat such as will be required is estimated to be about \$75,000.

The Kings County Hospital, Flatbush.

While the hospital system in Manhattan and The Bronx has been greatly improved during the past few years, and further large improvements are contemplated, comparatively little has been done in the Borough of Brooklyn, and nothing in the boroughs of either Richmond or Queens. The rapid growth of the Borough of Brooklyn, which will be still further augmented when projected bridges and additional rapid transit facilities are completed, makes the extension of the public hospital facilities of the Borough an urgent need.

A new Nurses' Home and Training School is required at the Kings County Hospital, with provision for the care of 100 Nurses. This will permit the present Nurses' Home to be used as a home, which is much needed for the female employees of the hospital. The estimated cost of the proposed new Nurses' Home is \$250,000.

An addition to the present Children's Hospital is a further need of this institution, as the present building is inadequate to meet the needs of the service. The estimated cost of such addition is \$100,000.

In order to provide additional space to meet the needs of the main hospital, it is proposed to reconstruct the annex building on the grounds of the hospital, which was recently vacated by the State Hospital authorities. This will make provision for 300 patients at an estimated cost of \$75,000.

A new maternity hospital should be constructed at the Kings County Hospital at approximate cost of \$60,000.

The facilities of the bakery at this hospital are inadequate to meet the needs of the growing service, and an addition to cost \$25,000 is an urgent need. A new shop is also much needed and will cost approximately \$20,000. A new fire alarm system is another important need which it will cost about \$2,500 to meet.

The hospital also requires much new flooring throughout, at an estimated cost of \$5,000. New sidewalks are also required on the grounds of the hospital, at a cost of approximately \$5,000.

The total estimated cost of the improvements needed at the Kings County Hospital is \$542,000.

The Cumberland Street Hospital, Brooklyn.

Additional ground is required for the purposes of this hospital at an estimated cost of \$100,000, upon which to construct a new nurses' home and other buildings.

A new nurses' home is much needed at this hospital, thereby releasing the present quarters for hospital cases. The cost of such a home, to accommodate 75 nurses, is estimated to be \$150,000.

The total cost of the improvements desired at the Cumberland Street Hospital is estimated to be \$250,000.

Bradford Street Hospital.

Means are needed to construct the proposed new Bradford Street Hospital on the plot of ground purchased by the City for that purpose. The estimated cost of this hospital, with facilities for the care of 100 patients, is \$250,000.

The City Farm Colony, Richmond.

In order to relieve the overcrowding at the Home for the Aged, Male Division, Brooklyn, and to provide greatly needed additional facilities for the care of aged and infirm persons dependent upon the City, it is proposed to erect additional dormitories at the Farm Colony at Staten Island to make provision for 200 men and 100 women. The cost of these additional dormitories is estimated to be \$250,000.

An adequate and suitable pavilion for the care of insane patients is also greatly needed at the Farm Colony at an estimated cost of \$20,000.

A bake shop and storehouse building is also needed and should cost approximately \$20,000.

A new ice house is a further need of the Colony and will cost about \$5,000.

The total estimated cost of the improvements needed at the Farm Colony is \$295,000.

Respectfully submitted,
ROBERT W. HEBBERD, Commissioner.

CITY OF NEW YORK—DEPARTMENT OF FINANCE,
COMPTROLLER'S OFFICE,
May 24, 1907.

Hon. HERMAN A. METZ, Comptroller:

SIR—Hon. Robert W. Hebbard, Commissioner, Department of Public Charities, in communication under date of April 2, 1907, requests the Board of Estimate and Apportionment to authorize an issue of Corporate Stock to the amount of \$3,742,000, for the purpose of providing means for the construction of new buildings, additions and extraordinary repairs to buildings and apparatus, including a new steamboat and repairs to existing steamboat as specified in said communication.

I would report that I have investigated in detail the statement of the Commissioner, and in a general way I consider all the improvements requested would add to the efficiency of the department, but I hardly consider them all necessary at this time.

If the financial condition of the City warrants the expenditure, I think, the Board of Estimate and Apportionment may properly authorize the Comptroller, pursuant to section 47 of the Greater New York Charter, as amended by chapter 409 of the Laws of 1904, to issue Corporate Stock to the amount of \$1,300,000 for the purpose of erecting new buildings, additions, improvements and permanently bettering and equip-

ping existing buildings and new steamboats under the jurisdiction of the Commissioner of Public Charities. This will provide means for the following, which I consider urgent and necessary, namely:

Staff house, Metropolitan Hospital, Blackwell's Island.....	\$80,000 00
Extension of two tuberculosis infirmaries, Metropolitan Hospital, Blackwell's Island	180,000 00
Morgue, Metropolitan Hospital, Blackwell's Island.....	40,000 00
Improvement of operating rooms, Metropolitan Hospital, Blackwell's Island	20,000 00
Elevators and machinery, City Hospital, Blackwell's Island.....	15,000 00
Hospital pavilion, City Home, Blackwell's Island.....	40,000 00
Addition to laundry, City Home, Blackwell's Island.....	30,000 00
Lodging House, Manhattan (additional appropriation).....	50,000 00
New steamboat	75,000 00
"Thomas S. Brennan" (steamboat), repairs to.....	25,000 00
Nurses' Home and Training School, Kings County Hospital.....	250,000 00
Alterations, etc., to building recently vacated by New York State, Kings County Hospital	75,000 00
Nurses' Home, Children's Hospital, Randall's Island.....	200,000 00
Additional dormitories, City Colony, Richmond.....	200,000 00
Pavilion for the care of the insane, City Colony, Richmond.....	20,000 00
Total	\$1,300,000 00

Respectfully,

CHANDLER WITHINGTON, Chief Engineer.

Approved:

H. A. METZ, Comptroller.

Resolved, That, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, the Board of Estimate and Apportionment hereby approves of the issue of Corporate Stock of The City of New York, to an amount not exceeding one million three hundred thousand dollars (\$1,300,000) for the purpose of providing means for the erection of new buildings, additions, improving and permanently bettering and equipping existing buildings and new steamboats under the jurisdiction of the Commissioner of Public Charities, said sum to be expended as follows:

Staff House, Metropolitan Hospital, Blackwell's Island.....	\$80,000 00
Extension of two tuberculosis infirmaries, Metropolitan Hospital, Blackwell's Island	180,000 00
Morgue, Metropolitan Hospital, Blackwell's Island.....	40,000 00
Improvement of operating rooms, Metropolitan Hospital, Blackwell's Island	20,000 00
Elevators and machinery, City Hospital, Blackwell's Island.....	15,000 00
Hospital Pavilion, City Home, Blackwell's Island.....	40,000 00
Addition to laundry, City Home, Blackwell's Island.....	30,000 00
Lodging house, Manhattan (additional appropriation).....	50,000 00
New steamboat	75,000 00
"Thomas S. Brennan" (steamboat) repairs to.....	25,000 00
Nurses' Home and Training School, Kings County Hospital.....	250,000 00
Alterations, etc., to building recently vacated by New York State, Kings County Hospital	75,000 00
Nurses' Home, Children's Hospital, Randall's Island.....	200,000 00
Additional dormitories, City Colony, Richmond.....	200,000 00
Pavilion for the care of insane, City Colony, Richmond.....	20,000 00
	\$1,300,000 00

—and that when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding one million three hundred thousand dollars (\$1,300,000), the proceeds whereof to be applied to the purposes aforesaid.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The Comptroller presented the following communication from the Board of Education transmitting certified copy of report and resolution of said Board requesting an appropriation of \$5,000 to install a fire alarm telegraph system in certain schools in the Borough of Richmond, together with his report thereon (this matter having been referred to him on January 18), stating that this matter is a betterment within the meaning of section 47 of the Charter and the expense of the same is a proper charge against Corporate Stock which has been issued for School Building Fund, therefore does not require a special appropriation.

BOARD OF EDUCATION,
PARK AVENUE AND FIFTY-NINTH STREET,
NEW YORK, January 10, 1907.

Mr. JOSEPH HAAG, Secretary, Board of Estimate and Apportionment:

DEAR SIR—I have the honor to transmit herewith a certified copy of report and resolution adopted by the Board of Education at a meeting held on the 9th inst., requesting the Board of Estimate and Apportionment to provide funds to the amount of \$5,000 for installing fire alarm telegraph system in certain schools in the Borough of Richmond.

Respectfully yours,

A. EMERSON PALMER, Secretary, Board of Education.

Mr. Adams presented the following:

To the Board of Education:

The Committee on Buildings respectfully reports that it has had under consideration communications from the Fire Department, stating that direct means of communicating fire alarms from school buildings to Fire Department Headquarters are provided in all boroughs except the Borough of Richmond, and that a due regard for the safeguarding of the lives of school children and the protection of school property requires the installation of the fire alarm telegraph system in that borough also.

The Superintendent of School Buildings reports that compliance with this requirement will involve an approximate expenditure of \$5,000, and, as there never has been provision made in any budget for this specific purpose, your Committee recommends that the Board of Estimate and Apportionment be requested to provide the necessary funds for said expenditure.

The following resolution is submitted for adoption:

Resolved, That the Board of Estimate and Apportionment be and it is hereby requested to provide funds to the amount of \$5,000 for installing fire alarm telegraph system in certain schools in the Borough of Richmond.

A true copy of report and resolution adopted by the Board of Education on January 9, 1907.

A. EMERSON PALMER, Secretary, Board of Education.

DEPARTMENT OF FINANCE,
BUREAU OF MUNICIPAL INVESTIGATION AND STATISTICS,
June 7, 1907.

Hon. HERMAN A. METZ, Comptroller:

SIR—In the matter of a resolution of the Board of Education requesting an appropriation of \$5,000 for the purpose of installing a fire alarm telegraph system in certain schools in the Borough of Richmond, referred to you by the Board of Estimate and Apportionment for consideration and report, and by you to the Bureau of Municipal Investigation and Statistics for examination, I beg to report as follows:

On November 24, 1906, the Fire Department, in a communication addressed to the Board of Education, stated that the safeguarding of the lives of school children and the protection of school property in the Borough of Richmond required the installation of the fire alarm telegraph system in certain schools in that Borough. On January 9, 1907, the Committee on Buildings, Board of Education, reported that a compliance with the request of the Fire Department would involve an approximate expenditure of \$5,000, and that no provision had been made in the Budget for that purpose.

The number of schools which it is proposed to connect with the fire alarm system is fifteen, with class rooms ranging from six to thirty-five in number. The work consists of the placing of fire alarm boxes in the designated schools, the running of about 12,500 feet of insulated copper wire to the nearest points of connection with the Fire Department wires, and the erection of the poles necessary for carrying same.

In estimating the probable expense of the work, the Board of Education figured upon the use of the "Gamewell" fire alarm box, which costs about \$125, on the ground that such box was the only one that would be accepted by the Fire Department. Your representative is informed, however, that this particular box is not insisted upon, but that one known as the "1903 Box," which can be purchased for about \$65, will be accepted.

In the Budget for 1907 an allowance of \$2,500 was made to the Board of Education for "Fire Alarms" in all boroughs, exclusive of Richmond, to be applied to "general repairs to present connections." The appropriation now asked for the Borough of Richmond is for new work.

It appears from the records of the Board of Education that its Committee on Buildings, in a report to the Board on March 13, 1907, upon the matter of fire alarms in school buildings in the Borough of Brooklyn, stated:

"During that year (1905) the Fire Department served this Department with orders for fire alarm boxes in one hundred and forty-seven schools. A statement was prepared and forwarded to his Honor the Mayor, asking if the expense of complying with the requirements of the Fire Department could be paid from the account Betterments or placed before the Board of Estimate for a special appropriation. It was decided that this fund might be used for this purpose."

Acting on this decision, contracts for connecting various schools with the fire alarm telegraph system were entered into and payments made from the proceeds of Corporate Stock which had been issued for "School Building Fund."

In view of the facts herein stated, I am of the opinion that the installation of a fire alarm telegraph system for various schools in the Borough of Richmond, being new work, is a betterment within the meaning of section 47 of the Greater New York Charter, and that the expense of such installation is a proper charge against Corporate Stock which has been issued for School Building Fund, and does not require any special appropriation.

Yours respectfully,

CHARLES S. HERVEY,
Supervising Statistician and Examiner.

Approved:

H. A. METZ, Comptroller.

The following resolution was offered:

Resolved, That, in accordance with the report of the Comptroller submitted this day, the Board of Education be and hereby is notified that the installation of a fire alarm telegraph system for various schools in the Borough of Richmond, being new work, is a betterment within the meaning of section 47 of the Greater New York Charter as amended, and that the expense of such installation is a proper charge against Corporate Stock which has been issued for School Building Fund and does not require any special appropriation.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The Comptroller presented the following resolutions of the Board of Education, requesting the transfer of \$150 from the account Special School Fund, Board of Education—Lectures for the year 1907 to the account Special School Fund, Board of Education—Salaries of Officers, Clerks and Other Employees for the same year; also the transfer of \$3,000 from the account Special School Fund, Board of Education—Salaries of Janitors in all Schools for the year 1906 to the account Special School Fund, Board of Education—Incidental and General Expense Fund for the same year.

Resolved, That the Board of Estimate and Apportionment be and it is hereby respectfully requested to transfer the sum of three thousand dollars (\$3,000) from the Special School Fund for the year 1906 and from the item contained therein entitled Salaries of Janitors in all Schools, Board of Education, which item is in excess of its requirements, to the item also contained within the Special School Fund for the year 1906, entitled Incidental and General Expense Fund, Board of Education, which item is insufficient for its purposes.

A true copy of resolution adopted by the Board of Education June 12, 1907.

A. EMERSON PALMER, Secretary, Board of Education.

Resolved, That the Board of Estimate and Apportionment be and it is hereby respectfully requested to transfer the sum of one hundred and fifty dollars (\$150) from the Special School Fund for the year 1907, and from the item contained therein entitled Lectures, Board of Education, which item is in excess of its requirements, to the item also contained within the Special School Fund for the year 1907, entitled Salaries of Officers, Clerks and Other Employees, Board of Education, which item is insufficient for its purposes.

A true copy of resolution adopted by the Board of Education June 12, 1907.

A. EMERSON PALMER, Secretary, Board of Education.

The following resolution was offered:

Resolved, That the sum of one hundred and fifty dollars (\$150) be and the same is hereby transferred from the appropriation made to the Department of Education for the year 1907, entitled Special School Fund, Board of Education—Lectures, the same being in excess of the amount required for the purposes thereof, to the appropriation made to said Department, for the same year, entitled Special School Fund, Board of Education—Salaries of Officers, Clerks and Other Employees, the amount of said appropriation being insufficient.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The following resolution was offered:

Resolved, That the sum of three thousand dollars (\$3,000) be and the same is hereby transferred from the appropriation made to the Department of Education, for the year 1906, entitled Special School Fund, Board of Education—Salaries of Janitors

in all Schools, the same being in excess of the amount required for the purposes thereof, to the appropriation made to said Department, for the same year, entitled Special School Fund, Board of Education—Incidental and General Expense Fund, the amount of said appropriation being insufficient.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The Comptroller presented a resolution requesting the Board of Education to divide on borough lines the \$3,500,000 Corporate Stock authorized at meeting of Board of Estimate June 7, 1907.

Which was referred to the Comptroller and the President of the Board of Aldermen.

The Comptroller presented the following communication from the Board of Health requesting an appropriation of \$50,000 for the account Supplies and Contingencies, and \$40,000 for the account Hospital Fund, together with a report thereon, this matter having been referred to the Comptroller on June 7, 1907:

DEPARTMENT OF HEALTH,
FIFTY-FIFTH STREET AND SIXTH AVENUE,
NEW YORK, May 27, 1907.

Hon. JOSEPH HAAG, Secretary, Board of Estimate and Apportionment:

SIR—Enclosed herewith you will find copies of preambles and resolutions adopted by the Board of Health at its meeting held Wednesday, May 22, 1907, requesting the Board of Estimate and Apportionment for additional appropriations in the funds of this department, entitled Supplies and Contingencies and Hospital Fund, as follows:

Supplies and Contingencies.....	\$50,000 00
Hospital Fund	40,000 00

—for the current year.

As stated in the preambles, the appropriation for the fund entitled Supplies and Contingencies was \$40,000 less than that appropriated for the year 1906, and over \$43,000 less than was actually expended during such year; while for the Hospital Fund considerably less was appropriated than the department was forced to expend during the year 1906. As the need of additions to these funds is very urgent indeed, you are respectfully requested to place the matter upon your calendar in order that the same may be considered at the earliest possible moment.

Respectfully,

EUGENE W. SCHEFFER, Secretary.

DEPARTMENT OF HEALTH,
FIFTY-FIFTH STREET AND SIXTH AVENUE,
NEW YORK, May 27, 1907.

Hon. JOSEPH HAAG, Secretary, Board of Estimate and Apportionment:

SIR—At a meeting of the Board of Health, of the Department of Health, held May 22, 1907, the following preambles and resolution were adopted:

Whereas, The amount appropriated by the Board of Estimate and Apportionment for the year 1907 under the head of Supplies and Contingencies was \$44,073, as against \$84,073 for the year 1906, and the amount appropriated was thereafter supplemented by a transfer from other funds, making a total of \$87,338.65 actually expended during the year 1906; and

Whereas, It is estimated that the necessary and economical expenditure for the year 1907, on account of Supplies and Contingencies, will be \$98,404.40, leaving an estimated deficit of \$54,331.40; therefore be it

Resolved, That this Board respectfully requests the Board of Estimate and Apportionment for an additional appropriation on account of Supplies and Contingencies of at least the sum of \$50,000 for the current year.

A true copy.

EUGENE W. SCHEFFER, Secretary.

DEPARTMENT OF HEALTH,
FIFTY-FIFTH STREET AND SIXTH AVENUE,
NEW YORK, May 27, 1907.

Hon. JOSEPH HAAG, Secretary, Board of Estimate and Apportionment:

SIR—At a meeting of the Board of Health, of the Department of Health, held May 22, 1907, the following preamble and resolution were adopted:

Whereas, The amount appropriated by the Board of Estimate and Apportionment to and for the use of the Hospital Fund in the Department of Health for the year 1907 was \$178,226.66, as against \$281,810.53 actually expended during the year 1906; and at the present time contracts have been necessarily entered into and executed against this appropriation amounting to the sum of \$188,563.91, and at least the sum of \$40,000 will be necessarily and economically expended in addition to the amount heretofore appropriated on account of Hospital Fund during the year 1907; therefore be it

Resolved, That this Board respectfully requests the Board of Estimate and Apportionment to make an additional appropriation for the Department of Health on account of the said Hospital Fund of at least the sum of \$40,000 for the current year.

A true copy.

EUGENE W. SCHEFFER, Secretary.

DEPARTMENT OF FINANCE,
BUREAU OF MUNICIPAL INVESTIGATION AND STATISTICS,
June 20, 1907.

Hon. HERMAN A. METZ, Comptroller:

SIR—In regard to a communication presented to the Board of Estimate and Apportionment by the Secretary of the Board of Health on June 7, 1907, transmitting copies of preambles and resolutions of said Board certifying that additional appropriations of \$50,000 for the account of Supplies and Contingencies and \$40,000 for the account of Hospital Fund, would be required for necessary expenses for the year 1907, which matter was referred to you by the Board of Estimate and Apportionment for consideration and report, and by you referred to the Bureau of Municipal Investigation and Statistics for examination, I beg to make the following report:

The sum of \$84,073 was allowed for Supplies and Contingencies in 1906, \$44,073 of which was Budget allowance, and \$40,000 appropriated in Revenue Bonds by the Board of Estimate and Apportionment. In the Budget for 1907, the sum of \$44,073 was granted for Supplies and Contingencies. Including transfers of \$3,265.65 from other funds, the total expended under this head for the year 1906, is stated by the Board of Health to have been \$87,338.65, and that the total amount required for the year 1907 will be \$98,404.40, leaving an estimated deficit of \$54,331.40. There was expended out of this account on May 31, 1907, the sum of \$41,519.87, including \$500 pledged for contracts.

It appears that the Budget allowance for 1907 for Supplies and Contingencies was insufficient, and I would recommend that the request of the Board of Health for an additional \$50,000 on this account be granted.

In the Budget of 1906, there was appropriated for the Hospital Fund (supplies) \$170,871.66. In addition, \$20,000 was allowed in Revenue Bonds, while the receipts for the care and maintenance of immigrants was \$93,000, a total of \$283,871.66 for this fund.

The Budget allowance for the Hospital Fund for 1907, was \$178,226.66. The Board of Health states that up to May 27, 1907, contracts have been executed against this appropriation amounting to \$188,563.91, and miscellaneous expenditures to May 31, 1907, were \$31,243.40.

Following are the receipts of the Department of Health for the care and maintenance of immigrants received in the contagious disease hospitals for the first five months of 1907:

January	\$7,506 00
February	3,746 00
March	3,306 00
April	4,968 00
May	9,784 00

Total..... \$29,310 00

As the amount received from the United States Government for the first five months of the year reaches nearly \$30,000, it is probable that the total receipts from this source during 1907 will be \$65,000 to \$70,000.

The total expenditures from the Hospital Fund during 1906 was \$281,810.53, which included \$93,000 received from the Government. As there will probably be a falling off in the receipts for the care of immigrants of \$25,000 in 1907, and as it is alleged by employees of the Department that the reduction in the number of immigrants cared for does not materially reduce the expenses of the hospitals, it appears that at least \$40,000 additional will be required to replenish this fund. I therefore recommend that the request of the Board of Health be granted.

The accompanying resolutions are respectfully submitted.

Respectfully,

CHARLES S. HERVEY,
Supervising Statistician and Examiner.

The following resolution was offered:

Resolved, That, pursuant to the provisions of chapter 535 of the Laws of 1893 and section 170 of the Greater New York Charter, and the requisition of the Board of Health, by resolution adopted May 22, 1907, the Comptroller be and hereby is authorized to issue Revenue Bonds of The City of New York to the amount of forty thousand dollars (\$40,000), the proceeds whereof to be applied to defraying the necessary expenses required to be incurred by the Board of Health for the preservation of the public health, in the purchase of supplies for the hospitals, under the Hospital Fund account of the Department of Health for the year 1907.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The following resolution was offered:

Resolved, That, pursuant to the provisions of chapter 535 of the Laws of 1893 and section 170 of the Greater New York Charter, and the requisition of the Board of Health, by resolution adopted May 22, 1907, the Comptroller be and hereby is authorized to issue Revenue Bonds of The City of New York to the amount of fifty thousand dollars (\$50,000), the proceeds whereof to be applied to defraying the necessary expenses required to be incurred by the Board of Health for the preservation of the public health in the purchase of supplies and expenditures for contingencies from the fund known as Supplies and Contingencies of the Department of Health for the year 1907.

Which was adopted by the following vote:

Affirmative—The Mayor, the Comptroller, the President of the Board of Aldermen and the Presidents of the Boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond—16.

The Comptroller presented a report on the request of the Staten Island Association of Arts and Sciences for an appropriation of \$4,180 for furnishing a room assigned to said association in the Borough Hall, Borough of Richmond, etc., which matter was referred to the Comptroller on April 12, 1907.

Referred to a Select Committee consisting of the Comptroller, the President of the Board of Aldermen and the President of the Borough of Richmond.

The President, Borough of Manhattan, presented plans, specifications, maps and estimated cost of extension and improvement of Riverside drive, from the north side of West One Hundred and Fifty-fifth street to connect with the proposed Hudson Memorial Bridge, etc.

Which were referred to Chief Engineer of Board.

The President, Borough of Manhattan, presented a communication requesting an issue of \$25,000 Corporate Stock for the purpose of rewiring and otherwise remedying the defects in the lighting system of City Hall and providing necessary electric fixtures.

Which was referred to Comptroller.

President, Borough of Manhattan, presented a communication requesting an issue of \$60,000 Corporate Stock for the purpose of defraying cost of reconstructing the outlet sewer at Forty-second street and the Hudson river.

Which was referred to Comptroller.

The President, Borough of Brooklyn, presented a communication stating that at a meeting of the Borough Presidents, held June 17, 1907, it was determined that if only \$750,000 was available for repaving the streets the amount should be divided equally between the Boroughs of Manhattan and Brooklyn; Borough Presidents Ahearn, Coler and Haffen concurring; Presidents Bermel and Cromwell objecting.

Which was referred to the Comptroller.

The Comptroller presented an application of the Black Stump Hook, Ladder and Bucket Company No. 1, of Queens Borough, for an appropriation of \$1,556.16, pursuant to section 722 of the Charter.

Which was referred to Comptroller.

The Comptroller moved that when the Board adjourn it adjourn to meet Friday, June 28, 1907, which motion was adopted.

The Board then proceeded to the consideration of the Public Improvement Calendar, after which it adjourned to meet Friday, June 28, 1907, at 10.30 o'clock a. m.

JOSEPH HAAG, Secretary.

METEOROLOGICAL OBSERVATORY OF THE DEPARTMENT OF PARKS.

Abstract of Registers from Self-recording Instruments for the Week Ending June 22, 1907.

Central Park, The City of New York—Latitude, 40° 45' 58" N. Longitude, 73° 57' 58" W.
Height of Instruments Above the Ground, 53 feet; Above the Sea, 97 feet.

BAROMETER.

DATE.	7 a. m.	2 p. m.	9 p. m.	Mean for the Day.	Maximum.	Minimum.
June.	Reduced to Freezing.	Reduced to Freezing.	Reduced to Freezing.	Reduced to Freezing.	Reduced to Freezing.	Reduced to Freezing.
Sunday, 16	29.970	29.986	30.000	29.985	30.026	29.850
Monday, 17	30.120	30.126	30.120	30.122	30.150	30.026
Tuesday, 18	30.108	30.034	30.020	30.054	30.114	30.000
Wednesday, 19	29.988	29.940	29.954	29.961	30.000	29.908
Thursday, 20	29.910	29.900	29.972	29.927	29.972	29.900
Friday, 21	30.008	30.020	30.046	30.025	30.070	29.954
Saturday, 22	30.100	30.100	30.116	30.105	30.130	30.070

Mean for the week 30.025 inches.
Maximum " at 11 a. m., June 17 30.150 "
Minimum " at 0 a. m., June 16 29.850 "
Range "300 inch.

THERMOMETERS.

DATE.	7 a. m.	2 p. m.	9 p. m.	Mean.	Maximum.	Minimum.	Maximum.
June.	Dry Bulb.	Wet Bulb.	Dry Bulb.	Wet Bulb.	Dry Bulb.	Wet Bulb.	In Sun.
Sunday, 16	68	58	65	77	69	75	86
Monday, 17	70	62	71	80	72	78	86
Tuesday, 18	74	66	73	77	69	75	86
Wednesday, 19	72	64	75	72	69	75	84
Thursday, 20	69	64	72	75	72	75	83
Friday, 21	73	67	75	74	79	71	89
Saturday, 22	79	70	89	79	74	82	90

Mean for the week 77.9 degrees.
Maximum " at 3 p. m., June 22 90 "
Minimum " at 4 a. m., June 16 62 "
Range " 28 "

WIND.

DATE.	Direction.	Velocity in Miles.	Force in Pounds per Square Foot.
June.	7 a. m.	2 p. m.	9 p. m.
Sunday, 16	NNW	NNW	W
Monday, 17	NNW	NNW	WSW
Tuesday, 18	W	SW	SW
Wednesday, 19	W	S	S
Thursday, 20	E	SW	NW
Friday, 21	W	E	S
Saturday, 22	N	SE	SE

Distance traveled during the week 511 miles.
Maximum force during the week 3 3/4 pounds.

DATE.	Hygrometer.								Clouds.			Rain and Snow.		Ozone.		
	Force of Vapor.				Relative Humidity.				Clear, Overcast, o. 10.			Depth of Rain and Snow in Inches.				
	7 a. m.	2 p. m.	9 p. m.	Mean.	7 a. m.	2 p. m.	9 p. m.	Mean.	7 a. m.	2 p. m.	9 p. m.	Time of Beginning.	Time of Ending.	Duration.	Amount of Water.	Depth of Snow.
June.																
Sunday, 16	.350	.403	.601	.451	51	38	65	51	o	o	o					o
Monday, 17	.449	.583	.677	.569	61	50	66	59	o	o	o					o
Tuesday, 18	.532	.636	.601	.589	63	51	65	59	o	7 Cir	10					o
Wed'sd'y, 19	.489	.760	.668	.639	62	67	85	71	7 Cu	2 Cir	o					o
Thursday, 20	.529	.636	.744	.636	74	56	86	72	10	2 Cir	10	11.00 p.m	11.30 p.m	.30	.04	o
Friday, 21	.581	.691	.758	.676	71	57	74	67	o	o	o					o
Saturday, 22	.612	.721	.772	.701	62	53	78	64	o	4 Cir	o					o

Total amount of water for the week04 inch.
Duration for the week 00 hours, 30 minutes.

DATE.	7 a. m.	2 p. m.
Sunday, June 16	Warm, pleasant.	Warm, pleasant.
Monday, 17	Close, hazy.	Close, hazy.
Tuesday, 18	Close, hazy.	Hot, close.
Wednesday, 19	Close, hazy.	Hot, calm.
Thursday, 20	Close, overcast.	Hot, sultry.
Friday, 21	Close, hazy.	Hot, sultry.
Saturday, 22	Close, hazy.	Hot, sultry.

DANIEL DRAPER, Ph. D., Director.

APPROVED PAPERS.

FOR THE WEEK ENDING JULY 6, 1907.

No. 363.

AN ORDINANCE reducing the width of roadway of Mansfield place (East Twenty-fourth street) between Farragut road and Avenue G, in the Borough of Brooklyn.

Be it Ordained by the Board of Aldermen of The City of New York as follows: That the width of the roadway of Mansfield place (East Twenty-fourth street), between Farragut road and Avenue G, Borough of Brooklyn, from curb line to curb line, be and it is hereby reduced from 30 feet to 28 feet.

Adopted by the Board of Aldermen, June 18, 1907.
Approved by the Mayor, July 1, 1907.

No. 364.

Resolved, That, in pursuance of subdivision 8 of section 188 of the amended Greater New York Charter, the Board of Estimate and Apportionment be and is hereby requested to authorize the Comptroller to issue Special Revenue Bonds to the amount of thirty thousand dollars (\$30,000), the proceeds whereof to be applied to pay salaries of nurses for new hospital under the jurisdiction of the Trustees of Bellevue and Allied Hospitals.

Adopted by the Board of Aldermen, June 18, 1907.

Received from his Honor the Mayor, July 1, 1907, without his approval or disapproval thereof; therefore, as provided in section 40 of the Greater New York Charter, the same took effect as if he had approved it.

No. 365.

Resolved, That, in pursuance of the provisions of subdivision 8 of section 188 of the Greater New York Charter, the Board of Estimate and Apportionment be and is hereby requested to authorize the Comptroller to issue Special Revenue Bonds to the amount of four thousand dollars (\$4,000), the proceeds whereof to be applied by the President of the Borough of Queens to repairing locks and levers, replacing steel bars where necessary, providing new heavy window screens, repairing stairways and ceilings and repainting the interior of the Queens County Jail.

Adopted by the Board of Aldermen, June 18, 1907.

Received from his Honor the Mayor, July 1, 1907, without his approval or disapproval thereof; therefore, as provided in section 40 of the Greater New York Charter, the same took effect as if he had approved it.

No. 366.

Resolved, That, in pursuance of subdivision 8 of section 188 of the amended Greater New York Charter, the Board of Estimate and Apportionment be and is hereby requested to authorize the Comptroller to issue Special Revenue Bonds to an amount not to exceed five thousand dollars (\$5,000), the proceeds whereof to be applied to the purpose of making certain repairs and changes to the additional floor space acquired for use of the Tenement House Department.

Adopted by the Board of Aldermen, June 18, 1907.

Received from his Honor the Mayor, July 1, 1907, without his approval or disapproval thereof; therefore, as provided in section 40 of the Greater New York Charter, the same took effect as if he had approved it.

No. 367.

Resolved, That it is recommended to the Commissioner of Water Supply, Gas and Electricity that water mains be laid in Penfield avenue, Wakefield, in the Borough of The Bronx.

Adopted by the Board of Aldermen, June 18, 1907.

Received from his Honor the Mayor, July 1, 1907, without his approval or disapproval thereof; therefore, as provided in section 40 of the Greater New York Charter, the same took effect as if he had approved it.

No. 368.

Resolved, That the following named persons be and they are hereby appointed Commissioners of Deeds:

Ralph Simmons, No. 71 Wall street, Manhattan.
Harry A. Jaffe, No. 121 West One Hundred and Sixteenth street, Manhattan.
Joseph M. Everard, No. 347 East Fifty-fifth street, Manhattan.
Geo. Wm. Klein, No. 335 East Tenth street, Manhattan.
T. G. Sinnott, Jr., No. 346 First street, Brooklyn.
Philip Winorsky, No. 572 Rockaway avenue, Brooklyn.
Moses N. Glickman, No. 454 Jerome street, Brooklyn.
Harry A. Dattelbaum, No. 458 Stone avenue, Brooklyn.
Chester Mayer, No. 146 West One Hundred and Eleventh street, Manhattan.
Maurice M. Strauss, No. 233 Grand street, Manhattan.
Bernhard Weinberger, No. 14 East Eighty-seventh street, Manhattan.
Chas. Frankel, No. 251 East Houston street, Manhattan.
Edgar Selden, corner Broadway and Thirty-ninth street, Manhattan.
Samuel S. Breslin, No. 1378 Fifth avenue, Manhattan.
John H. Lyons, No. 625 Sixth avenue, Manhattan.
Myrtis M. Fish, No. 62 Putnam avenue, Brooklyn.
Wm. J. Harrison, No. 805 Flatbush avenue, Brooklyn.
A. D. Anderson, No. 164 Ninth avenue, Brooklyn.
William J. Smith, No. 1353 Pacific street, Brooklyn.
J. Harry Stothoff, No. 1302 Pacific street, Brooklyn.
W. Anson Barnes, No. 761 East One Hundred and Fifty-sixth street, Bronx.
Ernest C. Wagner, No. 30 Fillmore place, Brooklyn.
Thomas J. Kiernan, No. 1571 Bushwick avenue, Brooklyn.
F. A. Peavey, No. 59 Euclid avenue, Brooklyn.
Thomas Pero, No. 578 Union street, Brooklyn.
Edward Henry Dudgeon, No. 101 Ninth street, Brooklyn.
Morris Yegendorff, No. 132 Nassau street, Manhattan.
John J. Tierney, No. 231 Fifth avenue, Brooklyn.
Charles E. Rudolph, Jr., No. 2358 Davidson avenue, Bronx.
Henry C. Brooks, No. 27 William street, Manhattan.
Adolf Kobitzsch, No. 952 Trinity avenue, Bronx.
Gesson Frank, No. 1040 Cortland street, Coney Island, Brooklyn.
Eugene Berry, No. 258 Broadway, Manhattan.
Henry Frelloehr, No. 5 St. Mark's place, Manhattan.
Walter F. Murphy, No. 409 West Fifty-fourth street, Manhattan.
Charles L. Borck, No. 1324 Madison avenue, Manhattan.
A. M. Williams, No. 150 Stanton street, Manhattan.
Frank Schilling, No. 518 East Eighty-fourth street, Manhattan.
Walter Robertson, No. 201 West One Hundred and Thirty-ninth street, Manhattan.
David Sicherman, No. 532 Fifth street, Manhattan.
Samuel K. Ellenbogen, No. 96 Madison street, Manhattan.
Henry Ciuzio, Grand and Mott streets, Manhattan.
L. Victor Fleckles, No. 181 Putnam avenue, Brooklyn.
Adopted by the Board of Aldermen, July 1, 1907.

No. 369.

Whereas, The Board of Aldermen, by resolution adopted on the 16th day of May, 1906, authorized the Board of Trustees of the College of The City of New York to have performed, without public letting, the work of certain mural decorative painting of the Great Hall of the City College; and

Whereas, For the completion of certain rooms, to wit, the assembly hall in Townsend Harris Hall, reading room, faculty room and executive offices, it is necessary to have certain decorative painting of their walls and ceilings done in accord with the other work of the rooms and in the manner directed by the architect, so that the color scheme shall be harmonious with the design and details of the rooms; and

Whereas, It is deemed important that such additional work should be executed by some one specially trained in that work, to be chosen by such Board of Trustees, rather than by competitive bidding; therefore it is

Resolved, Pursuant to section 419 of the Greater New York Charter, That the Board of Trustees of the College of The City of New York be and it hereby is authorized, without publicly inviting competition and awarding the contract to the lowest bidder, giving security for its performance, to award a contract or contracts to provide for the decorative painting of the walls and ceilings of the assembly hall in the Townsend Harris Hall, reading room, faculty room and executive offices, in accordance with and in the manner directed by the architect, so that color scheme shall be harmonious to the designs and details of the rooms, in an amount not to exceed three thousand five hundred dollars (\$3,500), the said amount to be charged to and paid out of an appropriation duly made by the Board of Estimate and Apportionment January 13, 1905.

Adopted by the Board of Aldermen, June 25, 1907.

Approved by the Mayor, July 2, 1907.

No. 370.

Resolved, That the following named persons be and they are hereby appointed City Surveyors:

Joseph L. Hunt, of Matilda street, near Two Hundred and Thirty-seventh street, Wakefield, The Bronx.
 Samuel B. Ballach, of No. 18 Tompkins avenue, Brooklyn.
 Milton Kempner, of No. 305 Henry street, Manhattan.
 William Berliner, of No. 355 East Eighth street, Manhattan.
 Hugo E. Goenner, of Waterbury avenue, Unionport, The Bronx.
 Adopted by the Board of Aldermen, June 25, 1907.
 Approved by the Mayor, July 2, 1907.

No. 371.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of twenty-nine thousand dollars (\$29,000) to provide means for the improvement of parks, parkways and drives under the jurisdiction of the Commissioner of Parks for the Boroughs of Manhattan and Richmond.

Be it Ordained by the Board of Aldermen of The City of New York, as follows:
 Section 1. The Board of Aldermen hereby approves of and concurs in the following resolution adopted by the Board of Estimate and Apportionment June 7, 1907, and authorizes the Comptroller to issue Corporate Stock of The City of New York to the amount and for the purposes therein specified:

"Resolved, That, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, the Board of Estimate and Apportionment hereby approves of the issue of Corporate Stock of The City of New York, for the purpose of providing means for the improvement of parks, parkways and drives under the jurisdiction of the Commissioner of Parks for the Boroughs of Manhattan and Richmond, to the amount of twenty-nine thousand dollars (\$29,000), and that when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter as amended, to an amount not exceeding twenty-nine thousand dollars (\$29,000), the proceeds whereof to be applied to the purposes aforesaid."

Adopted by the Board of Aldermen, June 25, 1907.
 Approved by the Mayor, July 2, 1907.

No. 372.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of two hundred and sixty-six thousand five hundred and fifty-six dollars and sixty cents (\$266,556.60), to provide means for the construction and improvement of parks, parkways, playgrounds, boulevards and driveways under the jurisdiction of the Commissioner of Parks for the Boroughs of Brooklyn and Queens.

Be it Ordained by the Board of Aldermen of The City of New York as follows:
 Section 1. The Board of Aldermen hereby approves of and concurs in the following resolution adopted by the Board of Estimate and Apportionment June 7, 1907, and authorizes the Comptroller to issue Corporate Stock of The City of New York to the amount and for the purposes set forth therein:

Resolved, That, pursuant to the provisions of section 47 of the Greater New York Charter as amended, the Board of Estimate and Apportionment hereby approves of the issue of Corporate Stock of The City of New York for the purpose of providing means for the construction and improvement of parks, parkways, playgrounds, boulevards and driveways under the jurisdiction of the Commissioner of Parks for the Boroughs of Brooklyn and Queens to the amount of two hundred and sixty-six thousand five hundred and fifty-six dollars and sixty cents (\$266,556.60) to be expended for the following purposes, the amount to be expended for any one of said purposes not to exceed that herein specifically indicated for that particular purpose:

Completion of shelter house and comfort station, Fulton Park.....	\$3,020 00
Improvements of New Lots Playground.....	2,030 40
Improvement of Winthrop Park.....	7,547 90
Completion of tennis house, Prospect Park.....	17,458 30
Construction of water pumping plant, Forest Park.....	7,500 00
Construction of shelter and locker house, McLaughlin Park.....	60,000 00
Construction of shelter house and comfort station, McKinley Park.....	7,500 00
Construction of shelter house, sidewalks and iron fence, laying out of playgrounds, grading of banks, resoling, etc., in Highland Park.....	25,000 00
Construction of stone wall and sidewalks, planting trees and shrubbery and top-soiling in Sunset Park.....	50,000 00
Removing picnic grounds, house and carousal in Prospect Park.....	10,000 00
Resoling trees, Prospect Park.....	20,000 00
Preliminary work in the construction of Canarsie Park.....	2,500 00
Improvement of Rainey Park.....	19,000 00
Improvement of Eastern parkway.....	35,000 00
	<u>\$266,556 60</u>

—and that when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York in the manner provided by section 169 of the Greater New York Charter as amended, to the amount of two hundred and sixty-six thousand five hundred and fifty-six dollars and sixty cents (\$266,556.60), the proceeds whereof to be applied to the purposes aforesaid.

Adopted by the Board of Aldermen, June 25, 1907.
 Approved by the Mayor, July 2, 1907.

No. 373.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of twenty-six thousand dollars (\$26,000), for the purpose of providing means for the improvement of parks, parkways and drives under the jurisdiction of the Commissioner of Parks, for the Boroughs of Brooklyn and Queens.

Be it Ordained by the Board of Aldermen of The City of New York as follows:
 Section 1. The Board of Aldermen hereby approves of and concurs in the following resolution adopted by the Board of Estimate and Apportionment June 7, 1907, and authorizes the Comptroller to issue Corporate Stock of The City of New York to the amount and for the purposes set forth therein:

"Resolved, That, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, the Board of Estimate and Apportionment hereby approves of the issue of Corporate Stock of The City of New York for the purpose of providing means for the improvement of parks, parkways and drives under the jurisdiction of the Commissioner of Parks for the Boroughs of Brooklyn and Queens, to the amount of twenty-six thousand dollars (\$26,000), and that when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, as amended, to an amount not exceeding twenty-six thousand dollars (\$26,000), the proceeds whereof to be applied to the purposes aforesaid."

Adopted by the Board of Aldermen, June 25, 1907.
 Approved by the Mayor, July 2, 1907.

No. 374.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of two hundred and ninety-one thousand dollars (\$291,000), to provide means for the construction and improvement of parks, parkways, playgrounds, boulevards and driveways under the jurisdiction of the Commissioner of Parks for the Boroughs of Manhattan and Richmond.

Be it Ordained by the Board of Aldermen of The City of New York as follows:
 Section 1. The Board of Aldermen hereby approves of and concurs in the following resolution adopted by the Board of Estimate and Apportionment June 7, 1907, and authorizes the Comptroller to issue Corporate Stock of The City of New York to the amount and for the purposes therein specified:

"Resolved, That, pursuant to the provisions of section 47 of the Greater New York Charter as amended, the Board of Estimate and Apportionment hereby approves of the issue of Corporate Stock of The City of New York for the purposes of providing means for the construction and improvement of parks, parkways, playgrounds boulevards and driveways under the jurisdiction of the Commissioner of Parks for the Boroughs of Manhattan and Richmond, to the amount of two hundred and ninety-one thousand dollars (\$291,000), to be expended for the following purposes,

the amount to be expended for any one of said purposes not to exceed that herein specifically indicated for that particular purpose:

Construction of bays, entrances and comfort station in St. Nicholas Park..	\$100,000
Completion of the work of installing a water supply for the Harlem river driveway.....	26,000 00
Regrading and installing new drainage and water supply on Riverside Park Loop drive.....	20,000 00
Construction of drainage system for City Hall Park.....	5,000 00
Construction and equipment of a comfort station in the Ramble, near Seventy-ninth street, Transverse road, Central Park.....	30,000 00
Completion of the improvement and construction of Colonial Park.....	110,000 00
Total.....	<u>\$291,000 00</u>

—and that when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, as amended, to the amount of two hundred and ninety-one thousand dollars (\$291,000), the proceeds whereof to be applied to the purposes aforesaid."

Adopted by the Board of Aldermen, June 25, 1907.

Approved by the Mayor, July 2, 1907.

No. 375.

Resolved, That Walter V. McCoy, of No. 2036 Webster avenue, in the Borough of The Bronx, be and hereby is appointed a City Surveyor.

Adopted by the Board of Aldermen, June 25, 1907.

Approved by the Mayor, July 2, 1907.

No. 376.

AN ORDINANCE in relation to the erection of warning signs to preserve the peace and quietude of persons confined in hospitals and like places in The City of New York.

Be it Ordained by the Board of Aldermen of The City of New York as follows:

Section 1. The several Borough Presidents are hereby authorized to erect, within their discretion, on lamp-posts, or, in the absence of lamp-posts, on such posts as they may find occasion to erect, at corners of intersecting streets, avenues or thoroughfares on which may be located a hospital, lying-in asylum, sanatorium or other institution reserved for the treatment of the sick, a sign or signs displaying the words "Notice—Hospital Street," and such other warning or admonition to pedestrians and drivers to refrain from making any or such noises or fast driving as may tend to disturb the peace and quietude of any or all of the inmates of any such institution.

Sec. 2. Any person guilty of making any unnecessary noise or a failure to drive at a speed not faster than a walk on any of the streets, avenues or thoroughfares which have hereunder been designated as "hospital streets," and for which such warning signs as described in the preceding section have been erected, shall, upon conviction thereof by a City Magistrate or upon a confession of guilt, be fined in a sum not exceeding ten dollars (\$10), and upon a failure to pay such fine, to imprisonment in the City prison for a term not to exceed ten days.

Section 3. This ordinance shall take effect immediately.

Adopted by the Board of Aldermen, June 25, 1907.

Approved by the Mayor, July 2, 1907.

No. 377.

Resolved, That permission be and the same is hereby granted to Leo H. Samuels, of No. 524 West Thirty-sixth street, to operate an advertising automobile throughout the thoroughfares in the Borough of Manhattan for the period of twenty days; such operation of this advertising automobile to be under the supervision of the Commissioner of Police or his Deputy in the Borough of Manhattan.

Adopted by the Board of Aldermen, June 25, 1907.

Approved by the Mayor, July 2, 1907.

No. 378.

Whereas, The United Spanish War Veterans will hold their annual State Encampment at Elmira, N. Y., on August 5, 6 and 7, and their National Convention at Sandusky, O., on September 9, 10 and 11; and

Whereas, A number of these veterans are employees of The City of New York, who are delegates to said encampment; and

Whereas, By reason of the service to the country, they are worthy of special consideration,

Resolved, That all employees of The City of New York who are veterans of the Spanish War or Philippine Insurrection and are delegates to the State Encampment of the United Spanish War Veterans, be granted leave of absence with pay for three days for the State Encampment, viz.: August 5, 6 and 7, and five days for the National Encampment, viz.: September 8, 9, 10, 11 and 12.

Further Resolved, That his Honor, George B. McClellan, Mayor of The City of New York be and he hereby is respectfully requested to attach his signature of approval to the resolution of the Board of Aldermen of The City of New York.

Adopted by the Board of Aldermen, June 25, 1907.

Approved by the Mayor, July 2, 1907.

No. 379.

Resolved, That permission be and the same is hereby given to Oliver Robert Myles to remove the ornamental post surmounted by electric lights now in position on the sidewalk near the curb on West Thirty-fifth street just east of Broadway, and replace the same in a position on the sidewalk near the curb in front of No. 61 West Thirty-sixth street in the Borough of Manhattan, provided said post and lights shall not be used for advertising purposes; the work of removing and replacing said post and lamps, and the illuminant to be provided, to be at the expense of the said Oliver Robert Myles, under the direction of the President of the Borough; such permission to continue only during the pleasure of the Board of Aldermen.

Adopted by the Board of Aldermen, June 25, 1907.

Approved by the Mayor, July 2, 1907.

P. J. SCULLY, City Clerk.

DEPARTMENT OF FINANCE.

Report on the Application of the Board of Health for \$175,000, to be Expended During the Last Half of 1907, to Improve the Condition of the Milk Supply of The City of New York.

DEPARTMENT OF FINANCE—CITY OF NEW YORK,
 BUREAU OF MUNICIPAL INVESTIGATION AND STATISTICS,
 New York, July 1, 1907.

Hon. HERMAN A. METZ, Comptroller:

SIR—In regard to a communication presented from the Secretary of the Board of Health, transmitting preambles and resolution of said Board, requesting an issue of \$175,000 Revenue Bonds required for the employment from July 1, 1907, to December 31, 1907, of 100 Inspectors, at \$1,200 per annum each; four Supervising Inspectors, at \$1,800 per annum each, etc., \$60,000 of said amount to be applied to the Supplies and Contingencies account, etc., in the matter of the preservation of the milk supply of New York City, referred to you by the Board of Estimate and Apportionment for consideration and report, and by you referred to the Bureau of Municipal Investigation and Statistics for examination, I beg to make the following report:

His Honor the Mayor, appointed a Commission composed of five eminent physicians to investigate the milk supply of New York City, with a view to recommending such measures as might be required relative thereto for the preservation of the public health. On May 17, 1907, said Commission made an exhaustive report on the subject.

After the consideration of various plans for the protection of the consumer against the sale or offering for sale of impure milk, the Commission arrived at the conclusion that the essential requirement was to secure from the farm safe, clean milk. In order to accomplish that object the Commission recommended the appointment of 100 additional Inspectors for the country districts, from which the milk supply

is drawn for the City, with the necessary number of Veterinarians, Physicians, Bacteriologists, Chemists, Clerks, etc.

As the Board of Health asks for \$175,000 to meet the requirements of the last six months of 1907, it would appear that the carrying out of this project for the following year would involve an outlay of \$350,000.

The Great Area to be Covered by Inspectors.

The records of the Health Department show that there are at present employed 31 Milk Inspectors, of whom 15 are distributed outside the city inspecting dairies and creameries in the States of New York, New Jersey, Pennsylvania, Connecticut, Massachusetts and Vermont.

The Milk Commission appointed by the Mayor finds that the milk supply of New York City comes from between 30,000 and 40,000 farms located in those States. There are 600 to 700 creameries scattered over that territory at central points, at which milk is gathered from dairies.

It is stated at the Health Department that at present each of the 15 Inspectors examines on an average 10 dairies or creameries each day, or about 250 a month; that with the present force all places in this wide field could not be reached oftener than once a year, but that if the additional force asked for were allowed, inspections of all dairies might be made at least quarterly.

Inspectors have found that many dairies constantly observe the rules of the Department of Health in the production and the handling of the milk. Such places do not require reinspection, except at long intervals.

It is estimated that about 90 per cent. of the dairies are willing to accept supervision by the Board of Health and to comply with its regulations. It is stated that the other 10 per cent. require watching. Violations by them are reported by the Inspectors, and the product of such dairies when found defective is excluded from sale in New York City, or the milk destroyed upon arrival here.

While it is estimated that, with the added force asked for, the whole field might be visited quarterly, it is claimed that more frequent visitations might be made to dairymen who were persistent violators of the rules, as those who were willing to comply with the regulations would not require constant surveillance.

As the Inspectors are almost constantly on the move, each man's expense account averages about \$100 a month, in addition to his salary of \$100.

Of the 16 Inspectors employed in the city 9 are on duty in Manhattan and the remaining 7 in the other boroughs. Their salary is \$1,200 each per annum.

Work of the Milk Commission of the County Medical Society.

The Milk Commission appointed by the Medical Society of the County of New York to aid in improving the milk supply of the city formulated certain requirements affecting the farms inspected by it and the handling of the milk obtained at those farms. Dealers complying with the rules established by the Milk Commission of the County Medical Society were given the right to use tin caps on their milk bottles stamped "Inspected. Milk Commission, Medical Society, County of New York." The regulations provided, in brief:

1. The barnyard to be well drained, reasonably clean, etc.
2. Stables to be ventilated, lighted, whitewashed, proper bedding, not overcrowded, etc.
3. Water supply to be pure, accessible and abundant.
4. Cows to be kept cleanly and properly fed.
5. Rules governing the milkers.
6. Utensils to be used and their care.
7. Requirements as to the condition of the milk when offered to consumers.
8. Inspection of the farms by the Commissioner.

The Milk Commissioners of the County Medical Society invited the co-operation of the milk dealers and farmers, and undertook to assist both the consumer and producer by fixing a standard of cleanliness and quality to which it could certify and to give information concerning measures needful for obtaining that degree of purity. In a circular issued in 1905 the Commissioners said:

"The most practicable standard for the estimation of cleanliness in the handling and care of milk is its relative freedom from bacteria. The Commission has fixed upon a maximum of 30,000 germs of all kinds per cubic centimeter of milk, which must not be exceeded to obtain the indorsement of the Commission. This standard must be attained solely by measures directed toward scrupulous cleanliness, proper cooling and prompt delivery.

"The milk certified by the Commission must contain not less than 4 per cent. of butter fat on the average, and have all the characteristics of pure, wholesome milk. Milk must not be sold, as certified, more than twenty-four hours after its arrival in New York City."

The dealer was expected to send a bottle of milk each week to the Research Laboratory of the Department of Health, taken at random from the day's supply, for examination by experts for the Commission. Each dealer paid a fee to the Commission. Where the daily output of a farm was from 100 to 200 quarts daily and all handled by one dealer, the monthly charge was \$10; over 500 quarts daily, \$15.

Relation of the County Medical Society Pure Milk Activities to the Department of Health Laboratories.

On March 28, 1907, Dr. William H. Park, Director of the Research Laboratory of the Department of Health, dictated the following statement to your Examiner:

"During the years 1900, 1901 and 1902, a series of investigations were carried out in the Research Laboratory upon the contamination of milk, and the effect of such contamination upon infant mortality. This investigation was in co-operation with the Rockefeller Institute for Medical Research. A number of the workers were paid for by the Institute, the work itself being done altogether at the Research Laboratory. The results of this work were published in the report for 1902 of the Health Department.

"At the time this work was being carried on Dr. Henry D. Chapin, a member of the Medical Society of the County of New York, brought up a plan to have the County Society certify milk of those dealers who would produce a pure milk, under the inspection of agents of the County Society. The dealers did not see their way to pay the expenses of this work and the plan was not adopted. It seemed a pity that the work done in the Research Laboratory and the suggestion of Dr. Chapin should not have as great a practical result as possible. It was decided, therefore, to co-operate it. An Inspector was paid for by funds of the Rockefeller Institute. The Health Department gave the use of a room for a few hours a week and the appliances for the bacteriological investigation of samples of milk.

"After a year a number of the dealers found that, either because of a desire to produce pure milk or because of the increased income which they received from the higher price obtained for such milk, they were willing to pay for the actual expenses of the inspection and the salary of an Inspector. A commission was then appointed by the President of the Medical Society of the County of New York, the Director of the Research Laboratory being one of the members.

"This Commission appointed an Inspector, with the salary of \$70 per month. This salary has been increased until it is now \$90 per month. The cost of salary, railroad expenses, and other lesser expenses, such as printing, amounts to about \$2,600 per year. None of the members of the Milk Commission receive any remuneration whatever. The Director of the Research Laboratory has the right, if there is a surplus, to use \$20 each month in any way that he sees fit, except for his personal use, either for aiding in research work upon the milk problem or in furthering the work of the Research Laboratory. These expenses are of various kinds.

"In November and December \$45 was paid in salary to a volunteer worker to aid in getting an index for hospital diseases. During March, 1907, \$15 was paid for having some typewriting done because the annual reports could not be typewritten in time at the Laboratory. During the same month \$10 was paid for looking up researches upon pasteurization. Besides the regular expenses of the Inspector and printing, about \$5 each month is paid to two of the Laboratory Assistants for stopping once or twice each month at the stores selling certified milk to take bottles of milk at random for analysis.

"Besides these samples, each of the milk dealers supplying certified milk sends a bottle or two each week to the Laboratory. The preliminary examination of this milk is made by one of the Health Department Laboratory Assistants. The final examination of the samples is made by the Inspector paid by the County Medical Society.

"All receipts from the dealers go directly to Dr. Chas. H. Richardson, Treasurer of the Medical Society of the County of New York, and all payments are made from him. The method employed is for the Director of the Research Laboratory to pay the Inspector and Laboratory Assistants and then submit vouchers to Dr. Richardson, who pays by check.

"This co-operation between the Health Department and the County Medical Society has seemed to the Department to be wise, because it has resulted in getting a considerable supply of pure milk in a way which did not seem feasible through the Department directly, and the very slight expense involved in giving a few hours' time of a Laboratory Assistant each week appeared to be much more than compensated for by the results obtained.

"Any surplus of income received during the year is made use of by the Medical Society of the County of New York in prosecuting its legal work. This has not amounted to more than \$200 in any one year."

Milk Samples for Chemical Analysis.

Prosecutions for adulteration or the sale of otherwise impure milk are primarily, if not now, solely based upon the declared results of the chemical analyses made in the Chemical Laboratory of the Department of Health, of which J. P. Atkinson is Chief Chemist.

The term "adulterated milk," when so used in the Sanitary Code of the Board of Health, means:

- First—Milk containing more than 88 per cent. of water or fluids.
 - Second—Milk containing less than 12 per cent. of milk solids.
 - Third—Milk containing less than 3 per cent. of fats.
 - Fourth—Milk drawn from animals within fifteen days before or five days after parturition.
 - Fifth—Milk drawn from animals fed on distillery waste, or any substance in a state of fermentation or putrefaction, or on any unwholesome food.
 - Sixth—Milk drawn from cows kept in a crowded or unhealthy condition.
 - Seventh—Milk from which any part of the cream has been removed.
 - Eighth—Milk which has been diluted with water or any other fluid, or to which has been added or into which has been introduced any foreign substance whatever.
 - Ninth—Milk the temperature of which is higher than 50 degrees Fahrenheit.
- Milk Inspectors are required, in addition to using the lactometer and temperature test, to take samples frequently for chemical analysis to determine the presence of adulterations or preservatives. The number of samples to be so taken for analysis is not fixed. Such samples are delivered by the Inspectors personally to the Chemical Laboratory, and, in the absence of the Milk Analyst, who may be in court or elsewhere, the samples are placed in metal boxes and sealed, the boxes being opened by the Analyst upon his return to the Laboratory.

The Milk Analyst is Dr. S. Sidney Davis, whose salary is \$1,200 per annum. He has been in the Department since September, 1904, and up to this time has been engaged about one year in the work of analyzing milk. Dr. Davis has one Laboratory Assistant at \$600 per annum, and a female Cleaner on the payroll of Willard Parker Hospital is loaned to clean glassware, apparatus, etc. All reports of analyses made by the Milk Analyst are vided, checked and approved by the Chief Chemist. The Milk Analyst appears in court in all prosecutions of violators of the Health Laws regarding milk.

In addition to the chemical analyses of milk samples, the country corps of Milk Inspectors turn in for analysis samples of water supplies of dairies throughout the milk producing sections of New York, New Jersey, Pennsylvania, Massachusetts and Connecticut. The reports of such analyses of milk and water are forwarded to the Sanitary Superintendent, usually by mail, in rubber-stamped envelopes, to headquarters of the Department.

In 1905 the total number of samples of foods, including milk and water examined for the Department of Health exclusively, were 8,626, of which 6,901 were samples of milk brought in by the Inspectors, with a small number from Health Department hospitals. Probably 1 per cent. were other than those brought in by Inspectors. Of these 6,901 milk samples examined, it was found that 2,216 were adulterated under the definition of the Sanitary Code (section 53), and therefore liable to prosecution.

There were 1,725 samples of food and water analyzed during 1905. There were also 382 samples of drugs and medicines examined, and 237 samples of miscellaneous articles.

In 1906 there were 9,439 analyses made of milk samples brought in by Inspectors. Of this number 2,984 were found to be adulterated and 6,455 unadulterated. There were also examined in 1906 samples of food and water, 3,588; drugs and medicines, 400, and miscellaneous 94. Of the 3,588 samples of food and water, 566 were of water. Adulterants usually found in milk are:

- First—Skimming, taking away the cream, and watering.
- Second—Use of preservatives, such as formaldehyde. Only occasionally a sample is found to contain borax, which is also used as a preservative.
- Third—Artificial colorings, among which is one known as Annatto, also Turmeris, both of which are vegetable colorings; coal tar colors, such as aniline and orange. These are probably harmless, but nevertheless their use is against the provisions of the Sanitary Code.

Number of Inspections, Quarts of Milk Destroyed, Analyses of Milk Samples at the Chemical Laboratory and Arrests of Offending Dealers.

Your Examiners have prepared an exhaustive compilation of the analyses of samples of milk made by the Chemical Laboratory of the Department of Health, as well as a history of each case in which dealers were prosecuted for violations of the Sanitary Code, in the different boroughs, which exhibits are on file in this Bureau, the tables which follow being summaries of said schedules.

The number of inspections and reinspections of milk by the Department of Health during the last two years in the Greater City was as follows:

	1905.	1906.
Manhattan	68,477	74,211
The Bronx	3,961	14,125
Brooklyn	25,340	25,675
Queens	747	851
Richmond	6,269	4,301
	<u>104,794</u>	<u>119,163</u>

The number of quarts of milk condemned and destroyed during the two years was:

	1905.	1906.
Manhattan	33,072	21,567
The Bronx	583	5,527
Brooklyn	5,368	12,569
Queens	1,063	1,636
Richmond	110	96
	<u>40,196</u>	<u>41,395</u>

In the following number of cases the samples of milk examined at the Chemical Laboratory of the Department of Health, five per cent. or over of adulterants were found:

	1905.	1906.
Manhattan and Richmond.....	519	365
The Bronx	15	70
Brooklyn and Queens.....	290	287
Total	<u>824</u>	<u>722</u>

Where milk analyses show that the samples are five per cent. or less below the standard the custom of the Department is to issue a "warning" to dealers, as it is practically impossible to secure a conviction in those cases. In all cases over five per cent. a warrant for the arrest of the offender is obtained by the inspector.

Following were the number of arrests of milk dealers charged with violations of the Sanitary Code and the disposition of their cases in the different boroughs:

Manhattan and Richmond.

	1905.	1906.
Number of arrests.....	506	355
Number of cases in which sentence was suspended.....	90	39
Number of cases dismissed.....	3	4
Number sent to prison.....	2	3
Total of fines collected.....	\$11,910 00	\$8,075 00

Brooklyn and Queens.

	1905.	1906.
Number of arrests.....	290	280
Number of cases in which sentence was suspended.....	118	128
Number of cases dismissed.....	14	16
Number sent to prison.....	1	1
Total of fines collected.....	\$4,525 00	\$3,890 00

The Bronx.

	1905.	1906.
Number of arrests.....	14	69
Number of cases in which sentence was suspended.....	7	13
Number of cases dismissed.....	1	2
Number sent to prison.....	.....	.....
Total of fines collected.....	\$75 00	\$915 00

SUMMARY.

Total for All Boroughs.

	1905.	1906.
Number of arrests.....	811	660
Number of cases in which sentence was suspended.....	215	180
Number of cases dismissed.....	18	22
Number sent to prison.....	3	4
Total of fines collected.....	\$16,510 00	\$12,880 00

It is noticeable that of the 861 arrests in Manhattan and Richmond for two years, in only 129 cases was sentence suspended, while of 570 arrests in Brooklyn and Queens sentence was suspended in 246 cases in the Special Sessions.

It would appear from the figures given above, that the Department of Health rigorously prosecuted the cases of milk dealers, who were found violating the law. For reasons here given, no prosecution is undertaken unless analysis shows a deviation of five per cent. adulteration from the standard. The following was the number of instances in which analysis showed the dealer liable to prosecution and the number of arrests made by Board of Health officials in the several boroughs during 1905 and 1906:

	Analysis Showing Over 5 Per Cent. Adulteration.	No. of Arrests.
Manhattan and Richmond.....	884	861
The Bronx	85	83
Brooklyn and Queens	577	570
Totals.....	1,546	1,514

Certain of the cases where prosecutions were not had are explained by statements made by Sanitary Superintendent on file in the Board of Health; some charges were withdrawn and other cases are accounted for by deaths or retirement from business by the persons against whom reports of violations had been filed. It may be said, generally, that the law appears to have been quite uniformly and conscientiously enforced.

Results of Observations Made of the Effect of Pure and Impure Milk on Infants in Tenement Houses.

An interesting report upon the results with different kinds of pure and impure milk in infant feeding in tenement houses of New York City, prepared by Dr. William H. Park and Dr. L. Emmett Holt, was read before the Association of American Physicians on May 12, 1903. The report was the outcome of an investigation covering a period of two years. Most of the children selected for observation lived in the lower east side of New York. The observations were made by a corps of doctors during the summers of 1901 and 1902, and the winter of 1901-2. During each of these seasons the different groups of infants were followed for an average period of about ten weeks. The following tables show in a condensed form the results obtained with the different foods employed in winter and in summer:

Food and Results—Winter.

	Did Well.	Did Fairly.	Did Badly.	Died.	Total.
Store milk	47	6	2	..	55
Condensed milk	39	5	2	2	48
Good bottled milk.....	51	13	1	3	68
Milk from central distributing stations.....	35	20	4	..	59
Best bottled milk.....	5	..	1	..	6
Breast feeding	7	1	..	1	9
Total, excluding cases counted twice.....	156	41	8	6	211

Food and Results—Summer.

	Did Well.	Did Fairly.	Did Badly.	Died.	Total.
Store milk	21	23	20	15	79
Condensed milk	22	20	14	14	70
Good bottled milk.....	37	23	29	9	98
Milk from central distributing stations.....	84	33	24	4	145
Best bottled milk.....	9	3	..	..	12
Breast feeding	17	7	7	..	31
Total, excluding cases counted twice.....	184	108	88	41	421

A striking contrast is shown between the results in winter and in summer. The above summary shows that of the 211 winter cases, 156 did well, 41 did fairly, 8 did badly and 6 died. Of the summer cases, 184 did well, 108 did fairly, 88 did badly and 41 died. In other words, what might be considered good results were shown in 93

per cent. of the winter cases, while good results were obtained in only 69 per cent. of the summer cases. All the children observed had the advantage of some continuous intelligent oversight, usually one visit a week, and often two, being made by the physicians.

In the district where the observations of infants were made the forms of milk extensively used were: Condensed milk, store milk, bottled milk and milk from central distributing stations, chiefly from the Straus milk depots and Good Samaritan Dispensary.

"Store milk" is the poorest grade of milk sold in New York City, but varies in quality at different stores. The bacteriological examination made of this milk during the summer of 1901 showed it to contain from 4,000,000 to 200,000,000 micro-organisms, an average of about 20,000,000 per cubic centimeter. The form of heating employed, it was found, killed about 95 to 99 per cent. of the bacteria present. In the summer of 1902, owing partly to the cooler season, but chiefly to the new regulations of the Department of Health regarding the care and sale of milk, the average was about 3,000,000 per cubic centimeter. During the winter the number of bacteria ranged from 100,000 to 5,000,000 bacteria per cubic centimeter, and averaged about 400,000 per cubic centimeter.

The bottled milk used in the tenements visited averaged about 500,000 bacteria per cubic centimeter. In summer it was heated and was treated in a general way like the store milk when prepared for use. In some special milk from "certified" farms there was found only about 10,000 bacteria per cubic centimeter.

The milk from central distributing stations was generally of excellent quality, usually from an "inspected" farm, but it was mixed with poor cream. This milk, after the addition of cream, averaged before pasteurization about 2,000,000 bacteria per cubic centimeter; after pasteurization, about 500, and after boiling about 5 per cubic centimeter.

A Limited Quantity of "Certified" Milk Supplied.

The Milk Commission of the County Medical Society has received encouragement from a number of dealers who have observed the rules laid down by the Commission regarding the care and quality of milk furnished to consumers. This milk is "certified" as having been properly inspected and to be the pure article. "Certified" milk can be supplied only to a small percentage of the population.

The efforts of the Commissioner of Health to secure a pure supply of milk for The City of New York, it would seem, do not meet with commendation by dairymen up the State. According to a special correspondent of one of the New York dailies, writing from Middletown on April 12, the head of the Dairymen's League said:

"Dr. Thomas Darlington's inspectors, wearing his badge, are trespassers, pure and simple. Farmers may safely pitch them into the highway, where they belong, badge and all, at the toe of a cowhide boot, if necessary."

It was also stated that in six months the Dairymen's League expected to control all the milk sent into the City from New York State, New Jersey, Pennsylvania and Connecticut.

In response, the Commissioner said:

"We go right on, doing our duty the best we know how. We have already inspected 1,800 dairies in the State, and we are going right on to inspect the rest of them. We are seeing to it that the dairies are kept clean."

The State Board of Health has a limited number of milk inspectors in the field, who are assisted by Milk Commissions of County Medical Societies outside of this City. That something is being accomplished was shown in the prosecution and conviction last April of a dairy farmer of Davenport Centre, Delaware County, on the charge of sending skimmed milk to New York City in place of the pure fluid. The Attorney General of the State retained special counsel to prosecute the case. Detectives secured evidence that in the case of 130 forty-quart cans of milk, two quarts of cream were taken from each, making in all 260 quarts of cream to be sold separately as such, and at the higher price demanded. What was left of the milk was sent to this City to be disposed of to consumers as pure milk. The farmer was convicted on thirty-six different counts and fined \$50 on each count, or \$1,800 in all.

Conclusions.

Your Examiner has herein presented facts regarding the efforts made by the Department of Health to improve conditions in the great area from which the milk supply of New York City is gathered; the examination of thousands of samples of milk yearly at the Chemical Laboratory to test its purity; the prosecution by the Health Department and conviction in the courts of milk dealers who violate the Sanitary Code; the labors of the Milk Commission of the New York County Medical Society and up-State authorities to secure a pure milk supply; the deleterious effect of impure milk on the children of the tenements; the probable cost to the City, if the proposition of the Board of Health be acceded to; and I would respectfully suggest that these facts be presented to the Board of Estimate and Apportionment for its consideration in connection with the application of the Board of Health for \$175,000.

I would further suggest, as worthy of consideration, the point whether or not, with the force of 100 additional Milk Inspectors, etc., asked for, the 30,000 to 40,000 farms, dairies and creameries in the six States from which the milk supply is drawn could be so effectively inspected as to insure The City of New York a pure milk supply.

Respectfully,

CHARLES S. HERVEY,
Supervising Statistician and Examiner.

BOARD OF WATER SUPPLY.

New York, June 7, 1907.

The Board met pursuant to adjournment.

Present—Commissioners Charles N. Chadwick and Charles A. Shaw.

The reading of the minutes of the previous meeting was dispensed with, by consent.

On motion, it was

Resolved, That Guy Vroman, No. 2340 Seventh avenue, New York City, be and he hereby is appointed to the position of Assistant Engineer to this Board, on transfer, with salary at the rate of \$2,100 per annum, to take effect upon assignment to duty by the Chief Engineer.

On motion, the Board adjourned.

THOS. HASSETT, Secretary.

BOARD OF WATER SUPPLY.

New York, June 11, 1907.

The Board met pursuant to adjournment.

Present—Commissioners J. Edward Simmons (President), Charles N. Chadwick and Charles A. Shaw.

The reading of the minutes of the previous meeting was dispensed with by consent.

Commissioner Chadwick presented the following report:

New York, June 11, 1907.

Board of Water Supply of The City of New York, No. 299 Broadway, New York City:

Gentlemen—I beg to report that on April 11, 1907, Mrs. Anna T. Henry offered to sell to The City of New York property owned by her and known as Parcel 352 on map of Southern Aqueduct Department, Section 5, for the sum of three hundred dollars (\$300). The said parcel lies on the east side of Mount Pleasant avenue, 100 feet south of Second street, Valhalla, Town of Mount Pleasant, County of Westchester, State of New York, and contains 50 feet front and rear by 100 feet in depth on both sides.

The price asked for this property, in my judgment, is fair, and believing that it would be a good purchase, I secured from Mrs. Henry an option to sell to the City at that price. A copy of the option is inclosed herewith. I paid Mrs. Henry one

dollar (\$1) on signing the contract, the balance, \$299, to be paid on the delivery of the deed.

I respectfully recommend the adoption of this report and the confirmation of the proposed purchase.

Yours very truly,

(Signed) CHARLES N. CHADWICK, Commissioner.

This agreement, made and executed this 22d day of April, 1907, by and between Anna T. Henry, formerly Anna T. Mallon, party of the first part, and The City of New York, party of the second part, witnesseth:

That the said party of the first part hereby agrees to sell, convey and transfer unto the said party of the second part all that certain parcel of land known as Lots 29 and 30, Block 6, Lake Kensico Park, and also as Parcel 352, Section 5, Southern Aqueduct Department, on the maps of real estate to be acquired by The City of New York by and through the Board of Water Supply for aqueduct and reservoir purposes, for the sum of three hundred dollars (\$300) to be payable as follows: One dollar upon the signing and delivering of this instrument, and the balance, \$299, on delivery of deed on or before May 25, 1907; subject to the approval of the Board of Estimate and Apportionment.

In witness whereof, the party of the first part has hereunto set her hand and seal the day and year first above written.

(Signed) ANNA T. HENRY,
Formerly Anna T. Mallon.

In the presence of:

(Signed) Edw. S. Brownson, Jr.

On motion, it was

Resolved, That the report of Commissioner Chadwick on the agreement to purchase Parcel No. 352, Section 5, Southern Aqueduct Department, on map of lands to be acquired by The City of New York, be approved, and, in accordance with section 24, chapter 724, of the Laws of 1905, the approval of the Board of Estimate and Apportionment of The City of New York for the purchase of the aforesaid real estate, for the sum of three hundred dollars (\$300), be requested, and the amount agreed upon, viz., three hundred dollars (\$300) be paid on approval of title and delivery of deed, as arranged for in the contract.

On motion, the Board adjourned.

THOS. HASSETT, Secretary.

BOARD OF WATER SUPPLY.

New York, June 12, 1907.

The Board met pursuant to adjournment.

Present—Commissioners J. Edward Simmons, President; Charles N. Chadwick and Charles A. Shaw.

The minutes of the meetings of June 5, 7 and 11, 1907, were read and approved.

The following bills were approved and ordered forwarded to the Comptroller for payment:

Voucher No.	In Favor Of.	Amount.
3675.	Arnold, Constable & Co.....	\$76 33
3676.	Bausch & Lomb Optical Company.....	3 94
3677.	E. C. Bridgmann.....	13 80
3678.	William E. Burke.....	32 56
3679.	Clarke & Baker Company.....	153 18
3680.	Arthur Church.....	39 64
3681.	Crescent Towel Supply Company.....	31 18
3682.	George Douglass.....	45 55
3683.	F. W. Devoe & C. T. Reynolds Company.....	30 00
3684.	E. Dietzgen Company.....	9 90
3685.	A. B. Dick Company.....	15 90
3686.	James H. English & Son.....	110 75
3687.	Alfred D. Flinn.....	58 10
3688.	Fowler & Sellers Company.....	3 35
3689.	Folmer & Schwing Company.....	55 65
3690.	W. & L. E. Gurley.....	67 40
3691.	Gerry & Murray.....	526 55
3692.	Greenwich Electric Company.....	19 00
3693.	H. Glasser.....	2 50
3694.	Goodyear's India Rubber Glove Manufacturing Company.....	99 52
3695.	Hopkins, Requa & Hopkins.....	17 00
3696.	Allen Hazen.....	1,606 00
3697.	Havers & Fagan.....	2 33
3698.	Howard & Morse.....	6 25
3699.	Hammacher, Schlemmer & Co.....	79 97
3700.	Hale Desk Company.....	143 75
3701.	Interborough Supply Company.....	134 76
3702.	Danforth, Jones & Co.....	73 50
3703.	Kingston Gas and Electric Company.....	2 55
3704.	F. J. Kloes.....	42 00
3705.	Henry A. Kessel.....	18 00
3706.	H. F. Kuhfeldt.....	283 84
3707.	Kolesch & Co.....	71 75
3708.	C. Volney King.....	6 00
3709.	W. B. Ketcham.....	1 00
3710.	Keuffel & Esser Company.....	14 59
3711.	Kanouse Mountain Water Company.....	29 70
3712.	A. P. LeFevre.....	13 62
3713.	Library Bureau.....	6 00
3714.	William H. Murphy.....	20 21
3715.	McGraw Publishing Company.....	24 75
3716.	Marshall Nevers.....	66 04
3717.	Tinius Olsen & Co.....	133 80
3718.	Pittsburg Plate Glass Company.....	22 00
3719.	Poughkeepsie Light, Heat and Power Company.....	7 72
3720.	Peekskill Lighting and Railroad Company.....	2 76
3721.	Horace Ropes.....	102 41
3722.	Robert C. Riddick.....	5 50
3723.	Walter E. Spear.....	338 71
3724.	Wilson Fitch Smith.....	7 20
3725.	Frederic P. Stearns.....	63 85
3726.	J. Waldo Smith.....	40 03
3727.	W. G. Stearns.....	71 46
3728.	Sullivan Machinery Company.....	60 38
3729.	Frank E. Smith Company.....	475 00
3730.	Tadt Howell Company.....	4 69
3731.	Tower Bros. Stationery Company.....	225 65
3732.	William J. Turck Company.....	43 64
3733.	Underwood Typewriter Company.....	136 90
3734.	U. S. Card Index Company.....	400 00
3735.	Benjamin S. Wood.....	2 55
3736.	Henry E. Wieber.....	33 37
3737.	A. T. Wilson.....	12 95
3738.	A. L. Washburne.....	15 00
3739.	L. S. Winne & Co.....	285 45
3740.	W. C. Wilson.....	3 50
3741.	Yawman & Erbe Manufacturing Company.....	6 50
3742.	Ernst F. Jonson.....	43 67
3743.	Frank E. Winsor.....	51 48
3744.	Thaddeus Merriman.....	76 09

Voucher No.

In Favor Of

Amount.

3745.	Cranford Company.....	9 00
3746.	C. H. McCarthy.....	6 92
3747.	Shelley Bros.....	40 00
3748.	M. M. Govan.....	65 00
3750.	Cornwall Telephone Company.....	27 81
3751.	New York Telephone Company.....	157 73
3752.	Carleton E. Davis.....	282 27
3753.	F. K. Betts.....	48 14
3754.	L. C. Brink.....	27 82
3755.	E. A. Clark.....	21 55
3756.	A. D. Nickerson.....	114 41
3757.	A. A. Sproul.....	74 04
3758.	Robert Ridgway.....	73 48
		\$7,672 84
3671.	Payroll, Laborers', week of June 1.....	1,990 00
3673.	Payroll, engineering, supplementary, May.....	2,017 22
3672.	Sprague & Henwood.....	3,372 60
3674.	Jones & Wood.....	752 40
3749.	George M. Lyon.....	1,437 50
		\$17,242 56

Financial Statement.

The following weekly financial statement was read and filed:

1905.			
June 25.	Corporate Stock authorized.....	\$100,000 00	
Nov. 24.	Corporate Stock authorized.....	500,000 00	
Dec. 8.	Corporate Stock authorized.....	1,002,000 00	
1906.			
Nov. 23.	Corporate Stock authorized.....	10,000,000 00	
		\$11,602,000 00	
1907.			
June 11.	Premium on sale of \$811,000 water bonds.....	3,235 00	
	Miscellaneous revenue.....	445 00	
		\$11,605,680 00	
June 11.	Vouchers Nos. 1 to 3758, both inclusive, registered from June 9, 1905, to June 11, 1907..	\$1,633,719 52	
	Estimated liabilities on open orders		
	unliquidated.....	\$45,928 42	
	Registered contract liabilities.....	4,265,966 70	
	Estimated liabilities under special agreements.....	601,990 49	
		4,913,885 61	
		6,547,605 13	
June 12.	Amount available.....	\$5,058,074 87	

Civil Service Matters.

On motion, it was

Resolved, That, pursuant to the recommendation of the Chief Engineer in his communication No. 866, June 11, 1907, M. G. Barnes, Petersburg, Neb., be and he hereby is appointed to the position of Division Engineer to this Board, with salary at the rate of \$3,600 per annum, to take effect upon assignment to duty by the Chief Engineer.

On motion, it was

Resolved, That the following be and they hereby are appointed to the positions set opposite their respective names, pursuant to the rules and classifications of the Municipal Civil Service Commission, to take effect upon assignment to duty by the Chief Engineer:

Abel Every, West Shokan, N. Y., Gage Keeper, \$5 per month (Rule XII., paragraph 7).

Howard Benedict, Meadowbrook, Orange County, N. Y., Office Boy, \$20 per month (Rule XII., paragraph 7).

John M. Connelly, No. 150 Bergen street, Brooklyn, N. Y., Stenographer and Typewriter, \$900 per annum.

George L. Schnapp, No. 036 Main street, Peekskill, N. Y., Automobile Engineman, \$840 per annum (Rule XVIII.).

Florence M. Miller, No. 179 West One Hundred and First street, Stenographer and Typewriter, \$900 per annum.

Sarah H. McCubbin, No. 46 West One Hundred and Thirty-first street, Stenographer and Typewriter, \$900 per annum.

On motion, it was

Resolved, That Robert Christiana, High Falls, N. Y., be and he hereby is appointed to the position of Janitor to this Board, at a salary of \$1 per day when his services are required, pursuant to Rule XII., paragraph 7, of the Municipal Civil Service Commission, to take effect upon assignment to duty by the Chief Engineer.

On motion, it was

Resolved, That, pursuant to the recommendation of the Chief Engineer in his communication No. 872, June 12, 1907, William T. Cushing, No. 2561 Pitkin avenue, Brooklyn, N. Y., be and he hereby is promoted from the position of Axeman to the position of Rodman, with salary at the rate of \$840 per annum, to take effect immediately, subject to the Civil Service rules and regulations.

Resignation was received from Robert J. O'Meara, Assistant Engineer; and, on motion, it was

Resolved, That the resignation of Robert J. O'Meara, Assistant Engineer to this Board, be and the same hereby is accepted, to take effect at the close of the day's work June 17, 1907.

A communication was received from the Engineering Bureau stating that James F. Fouhy, Charlestown, Mass., who was appointed Assistant Engineer at \$1,350 per annum on May 20, 1907, had declined said appointment.

A communication was received from the Engineering Bureau stating that Albert T. Hicks, Topographical Draughtsman, whose transfer to the office of the President of the Borough of Brooklyn had been consented to by this Board and approved by the Municipal Civil Service Commission, had terminated his services with this Board at the close of work on May 31, 1907.

On motion, it was

Resolved, That, pursuant to the recommendation of the Chief Engineer in his communication, No. 865, June 10, 1907, Robert Ridgway, Department Engineer, be and he hereby is granted a leave of absence for approximately three weeks from such date as may be fixed by the Chief Engineer.

A communication was received from the Municipal Civil Service Commission, stating that pursuant to the request of this Board, an examination would be held for Assistant Engineer solely for the Board of Water Supply, the salary to be determined by this Board, said examination to be open to residents of other States.

Leave of Absence for Veterans.

A certified copy of a resolution adopted by the Board of Aldermen May 28, 1907, and approved by the Mayor June 5, 1907, granting leave of absence with pay for June 19, 20 and 21, 1907, to all employees of The City of New York who are veterans of the Civil War and delegates to the State Encampment of the Grand Army of the Republic at Utica, was received, and on motion was filed.

Reclassification of Engineering Bureau.

Communication No. 653g, June 7, 1907, was received from the Chief Engineer; and on motion, it was

Resolved, That, in accordance with the recommendation of the Chief Engineer, Communication No. 653g, June 7, 1907, Katherine D. Bolger, Stenographer and Typewriter, be and she hereby is promoted to the salary of \$1,050 per annum, to take effect June 13, 1907.

COMMUNICATIONS FROM THE CHIEF ENGINEER.

Weekly Report.

No. 91, June 4, 1907, was read and filed.

Geological Investigations.

No. 863, June 5, 1907, transmitted report of Prof. Kemp and Dr. Berkey regarding the High Falls District, and was filed.

Agreement for Test Borings, Westchester County.

No. 864, June 10, 1907, transmitted proposition of Arthur L. Washburne, of Pleasantville, N. Y.; and on motion, it was

Resolved, That the Board of Water Supply approves of entering into an agreement with Arthur L. Washburne, of Pleasantville, N. Y., for test borings on land into rock along the proposed location of the Catskill Aqueduct, between Croton Lake and Hill View Reservoir, and at other points in Westchester County, at the rate of \$3.50 per linear foot, the contractor to furnish necessary plant, tools, pipe, fittings, etc., and to exhaust water from holes, where required, at the rate of \$2.25 per hour, the time paid for at said rate to include both the time of actual pumping and the time occupied in setting up pumps and removing the same.

Police for Territory of Contract No. 2.

No. 839, June 3, 1907, forwarded report from Robert Ridgway, Department Engineer; and on motion was referred to Commissioner Chadwick for report.

Real Estate Claims.

No. 870, June 12, 1907, submitted correspondence and map in reference to claim of D. H. Bloomer, of High Falls, for damages alleged to have been done to his property by survey work, and recommended the employment of Luther VanDermark as appraiser. On motion, this matter was referred to Commissioner Chadwick for report.

Agreement No. 32, with Healey Sewer Machine and Construction Company.

No. 875, June 12, 1907, recommended the modification of this agreement so as to provide for leaving of casing in place; and on motion, it was

Resolved, That the Board of Water Supply hereby approves of the modification of Agreement No. 32, with the Healey Sewer Machine and Construction Company, dated June 24, 1907, for test borings into rock in Sprout Brook and Foundry Brook Valleys, along the proposed Catskill Aqueduct in Putnam and Westchester Counties, so as to provide that any or all casing shall be left in place, when desired, at the following prices:

8-inch double extra heavy casing, including couplings, per linear foot.....	\$1 90
6-inch extra heavy casing, including couplings, per linear foot.....	1 58
4-inch extra heavy casing, including couplings, per linear foot.....	1 28
3½-inch casing, including couplings, per linear foot.....	36
2½-inch extra heavy casing, including couplings, per linear foot.....	26
1½-inch casing, including couplings, per linear foot.....	12

Real Estate Claims.

No. 876, June 12, 1907, transmitted letter from Thomas Taft; and on motion, this matter was referred to Commissioner Chadwick, with power to take such action in behalf of the Board as he might deem advisable.

COMMUNICATIONS FROM THE LAW DEPARTMENT.

Real Estate, Disposition of Buildings.

No. 81, June 10, 1907, was read and filed.

Kingston Sewer.

No. 82, June 12, 1907, transmitted form of resolution to be adopted by the Common Council of the City of Kingston and form of petition to be verified by this Board; and, on motion, this matter was referred to Commissioner Chadwick, with power to take such action in behalf of the Board as he might deem advisable.

Real Estate, Expense of Acquisition.

The following bills, approved by the Corporation Counsel and taxed by the Supreme Court, were received and vouchers therefor were ordered to be prepared and sent to the Comptroller:

Northern Aqueduct, Section 1.

Appeal Printing Company, printing testimony.....	\$198 60
James A. Lyon, stenographer	73 50
Norval H. Wardell, stenographer.....	30 50
J. C. Hannan, stenographer	193 00

Northern Aqueduct, Section 2.

Appeal Printing Company, printing testimony.....	346 30
J. C. Hannan, stenographer	74 50

Ashokan Reservoir, Section 4.

"Democracy," advertising	616 00
--------------------------------	--------

Ashokan Reservoir, Section 5.

"Tamany Times," advertising	565 60
-----------------------------------	--------

Ashokan Reservoir, Sections 1, 2, 3.

Ellis B. Long, clerk to commission.....	229 71
---	--------

Total..... \$2,327 71

COMMUNICATIONS FROM THE FINANCE DEPARTMENT.

Automobiles.

A communication, dated June 3, 1907, asking for certain information, was referred to Commissioner Shaw for report.

Supplies.

A communication, dated June 6, 1907, making certain suggestions in connection with the purchase of hose, was referred to Commissioner Shaw for report.

COMMUNICATIONS FROM COMMISSIONER CHADWICK.

Real Estate, Claims.

In reference to Chief Engineer's communication No. 827, May 28, 1907, Commissioner Chadwick, to whom the same was referred with power on June 5, 1907, reported that he had arranged with Elting Harp, of New Paltz, N. Y., to render assistance as Appraiser to the Examiner of Real Estate and Damages, said employment to be at the rate of \$7 per day for services and disbursements when actually engaged. On motion, this action of Commissioner Chadwick was approved.

In reference to Chief Engineer's communication No. 647, March 13, 1907, Commissioner Chadwick, to whom the same was referred on the same date, reported, and, on motion, it was

Resolved, That the Board of Water Supply pay to John McCauley, of the Town of Olive, New York, a sum not exceeding \$250 in full settlement for damages done to his property in the said Town of Olive by the agents of the Board of Water Supply.

In reference to the claim of Thomas Carson, Brown's Station, New York, Commissioner Chadwick, to whom the same was referred on February 6, 1907, reported, and, on motion, it was

Resolved, That the Board of Water Supply pay to Thomas Carson, Brown's Station, New York, or his attorney, the sum of \$50 in full settlement for damages done to his property in the Town of Olive by the agents of the Board of Water Supply.

Real Estate, Possession for Ashokan Reservoir.

In reference to Chief Engineer's communication No. 781, May 13, 1907, Commissioner Chadwick, to whom the same was referred on May 15, 1907, reported that he had been advised by Carleton E. Davis, Department Engineer, that Steger had moved out of the hotel building, and, on motion, said communication was filed.

Personal Damages.

In reference to Chief Engineer's communication No. 784, May 14, 1907, relating to the case of Charles Krum, Commissioner Chadwick, to whom the same was referred on May 15, 1907, reported, and, on motion, said communication was filed.

OTHER COMMUNICATIONS.

Agreements, Exploration Shafts and Trenches.

In reference to Chief Engineer's communication No. 803, June 4, 1907, Commissioners Chadwick and Shaw, to whom the same was referred with power on June 5, 1907, reported that they had approved the agreement with Naughton Company.

Real Estate, Taxes.

In reference to Chief Engineer's communications No. 811, May 27, 1907, and No. 838, June 3, 1907, Commissioner Shaw, to whom the same were referred on May 29, 1907, and June 5, 1907, respectively, reported that the contents of said communications had been noted, and, on motion, said communications were filed.

On motion, the Board adjourned.

THOS. HASSETT, Secretary.

BOARD OF WATER SUPPLY.

New York, June 14, 1907.

The Board met pursuant to adjournment.

Present—Commissioners Charles N. Chadwick and Charles A. Shaw.

The reading of the minutes of the previous meeting were dispensed with by consent.

On motion, it was

Resolved, That John S. Breitenstein, No. 63 Greene avenue, Brooklyn, be and he hereby is appointed to the position of Inspector of Masonry to this Board, pursuant to the rules and classifications of the Municipal Civil Service Commission, with salary at the rate of \$5 per day, to take effect upon assignment to duty by the Chief Engineer.

On motion, the Board adjourned.

THOS. HASSETT, Secretary.

BOARD OF REVISION OF ASSESSMENTS.

A meeting of the Board of Revision of Assessments was held in the Council Chamber, City Hall, on Thursday, June 27, 1907, at 11.10 o'clock a. m.

Present at rollcall—N. Taylor Phillips, Deputy and Acting Comptroller, and George L. Sterling, Assistant and Acting Corporation Counsel.

On motion of the Assistant and Acting Corporation Counsel, the minutes of meeting of June 13, 1907, were approved, as printed in the CITY RECORD.

BOROUGH OF THE BRONX.

Regulating, etc., Prospect Avenue.

The assessment list for regulating, grading, setting curb stones, flagging the sidewalks, laying crosswalks, building approaches and placing fences in Prospect avenue, from Crotona Park North to East One Hundred and Eighty-ninth street, and objections of Henry Humeke et al., filed by Arthur A. Brown, attorney, and of George Rothman et al., filed by A. C. Hottenroth, attorney, together with applications for awards for damages, and testimony taken in connection therewith, were presented by the Deputy and Acting Comptroller, having been received from the Board of Assessors under date of June 15, 1907.

No one appearing in opposition after notice, on motion of the Assistant and Acting Corporation Counsel, the objections filed against the assessment were overruled and the assessment list was confirmed, all the members present voting in the affirmative.

Paving, etc., Stebbins Avenue.

The Deputy and Acting Comptroller presented the assessment list for paving with asphalt block pavement on concrete foundation and curbing where necessary, Stebbins avenue, from Dawson street to Westchester avenue, and objections of George F. Johnson filed by A. C. & F. W. Hottenroth, attorneys, received from the Board of Assessors under date of June 15, 1907.

No one appearing in opposition after notice, on motion of the Assistant and Acting Corporation Counsel, the objections filed against the assessment were overruled and the assessment list was confirmed, all the members present voting in the affirmative.

Sewer in West One Hundred and Sixty-third Street.

The Deputy and Acting Comptroller presented the assessment list for sewer and appurtenances in West One Hundred and Sixty-third street, between Woodcrest and Ogden avenues, and objections of Louis Brenner, filed by A. C. & F. W. Hottenroth, attorneys, received from the Board of Assessors under date of June 15, 1907.

No one appearing in opposition after notice, on motion of the Assistant and Acting Corporation Counsel, the objections filed against the assessment were overruled and the assessment list was confirmed, all the members present voting in the affirmative.

Sewers in East One Hundred and Seventy-eighth Street, and in the Grand Boulevard and Concourse.

The Deputy and Acting Comptroller presented the assessment list for sewer and appurtenances in East One Hundred and Seventy-eighth street, from the existing sewer east of the Grand Boulevard and Concourse to the Grand Boulevard and Concourse, and in the Grand Boulevard and Concourse, east side, between East One Hundred and Seventy-eighth street and Echo place, and objections of Fanny Lomas, filed by Robert I. Lomas, Jr., attorney, received from the Board of Assessors under date of June 15, 1907.

Mr. Purdy, President of the Department of Taxes and Assessments, here entered the meeting and took his seat in the Board.

Mr. Lomas, attorney, was heard in opposition to the assessment.

On motion of the Assistant and Acting Corporation Counsel the objections filed against the assessment were overruled and the assessment list was confirmed, all the members voting in the affirmative.

Drains or Sewers in East Two Hundred and Thirty-third Street, between Webster and Napier Avenues, etc.

The assessment list for drains or sewers and appurtenances in East Two Hundred and Thirty-third street, between Webster avenue and Napier avenue; Webster avenue, between East Two Hundred and Thirty-third street and East Two Hundred and Thirty-fourth street; Webster avenue, between East Two Hundred and Thirty-sixth street and the City line; Vireo avenue, between East Two Hundred and Thirty-third street and East Two Hundred and Thirty-fifth street; Vireo avenue, between East Two Hundred and Thirty-seventh street and the City line; Napier avenue, between East Two Hundred and Thirty-third street and East Two Hundred and Thirty-fifth street; East Two Hundred and Thirty-fourth street, between Vireo avenue and Webster avenue; East Two Hundred and Thirty-fourth street, between East Two Hun-

dred and Thirty-third street and Katonah avenue; East Two Hundred and Thirty-sixth street, between Vireo avenue and Martha avenue, and between Katonah avenue and Kepler avenue; East Two Hundred and Thirty-seventh street, between Katonah avenue and a point about 200 feet west of Kepler avenue; East Two Hundred and Thirty-eighth street, between Martha avenue and Kepler avenue; East Two Hundred and Thirty-ninth street, between Vireo avenue and Kepler avenue; East Two Hundred and Fortieth street, between Webster avenue and Vireo avenue; East Two Hundred and Fortieth street, from a point about 580 feet east of Martha avenue to Mount Vernon avenue, and objections filed by the following attorneys, viz.:

George Wm. Clark, for the Woodlawn Heights Taxpayers' Association; Michael J. Bloomer, for Nellie A. Bloomer; Joseph A. Flannery, for R. H. Macy & Co. and others; Truman H. and George E. Baldwin, for Arthur C. Kimber and others; A. C. and F. W. Hottenroth, for Thomas K. Snyder and others; Arthur A. Brown, for Frank T. Dale and others; John C. Shaw, for Thomas Bailey and others, and by Charles H. Edgar, for the Woodlawn Cemetery, were presented by the Deputy and Acting Comptroller, having been received from the Board of Assessors under date of June 15, 1907.

Messrs. Truman H. Baldwin, Joseph A. Flannery (by representative), George W. Clark, Charles H. Edgar and A. C. and F. W. Hottenroth (by representative), attorneys, were heard in opposition to the assessment.

No others appearing in opposition after notice, on motion of the President of the Department of Taxes and Assessments, the objections filed against the assessment were overruled and the assessment list was confirmed, all the members voting in the affirmative.

BOROUGH OF MANHATTAN.

Paving, etc., West One Hundred and Sixty-fifth Street.

The Deputy and Acting Comptroller presented the assessment list for paving with asphalt blocks, curbing and recubing, West One Hundred and Sixty-fifth street, from Boulevard Lafayette to Broadway, and objections of the New York Institution for the Blind, et al., filed by Joseph A. Flannery, attorney, received from the Board of Assessors under date of June 15, 1907.

Mr. Raphael Tobias, attorney, representing Mr. Flannery, attorney, was heard in opposition to the assessment.

On motion of the President of the Department of Taxes and Assessments the objections filed against the assessment were overruled and the assessment list was confirmed, all the members voting in the affirmative.

Regulating, etc., Fairview Avenue.

The assessment list for regulating, grading, curbing and flagging Fairview avenue, from St. Nicholas avenue to Broadway, and objections of Gertie A. Gorman et al., filed by John C. Shaw, attorney; of John C. Rodgers, filed by Harry G. Smith, attorney, and of James A. & Richard T. Lynch, attorneys, and in person, together with a report made by the Chief Engineer of the Bureau of Highways in said matter, dated May 21, 1907, were presented by the Deputy and Acting Comptroller, having been received from the Board of Assessors under date of June 15, 1907.

The Assessors reported that they had made a pro rata reduction of 40 per cent. in the amount of the assessment, as determined by them at meeting held April 30, 1907.

Mr. Frederick V. V. Shaw, attorney, representing Mr. John C. Shaw, attorney, was heard in opposition to the assessment.

No others appearing in opposition after notice, on motion of the Assistant and Acting Corporation Counsel, the objections filed against the assessment were overruled and the assessment list was confirmed, all the members voting in the affirmative.

Paving Strips on Broadway, from West One Hundred and Fifty-fifth street to West One Hundred and Sixty-ninth street.

The assessment list for paving 16 feet strips between old and new curb lines on east and west sides of Broadway, from West One Hundred and Fifty-fifth to West One Hundred and Sixty-ninth street, and objections filed by the following attorneys, viz., Thomas F. Conway, for Loyal L. Smith; Joseph A. Flannery, for Waunnegan Realty Company; Arthur A. Brown, for John C. Henderson et al., and Walter H. Martin for the Fluri Construction Company, et al., were presented by the Deputy and Acting Comptroller, having been received from the Board of Assessors under date of June 21, 1907.

Mr. Martin, attorney, and Mr. Raphael Tobias, attorney, representing Mr. Flannery, attorney, were heard in opposition to the assessment.

No others appearing in opposition after notice, on motion of the President of the Department of Taxes and Assessments, the assessment list was referred back to the Board of Assessors, with instructions to reduce the gross amount of the assessment pro rata by 33 1/3 per cent. and to confirm the same as so reduced, all the members voting in the affirmative.

BOROUGH OF THE BRONX.

Sewer in West Two Hundred and Thirty-third Street, Bailey Avenue, etc.

The Deputy and Acting Comptroller presented the assessment list for sewer and appurtenances in West Two Hundred and Thirty-third street, between Broadway and Bailey avenue, and in Bailey avenue, between West Two Hundred and Thirty-third street and West Two Hundred and Thirty-eighth street, and objections filed by the following attorneys, viz., Arthur A. Brown, for Alfred Spry et al.; Joseph A. Flannery, for Max Marx; Mulqueen & Mulqueen, for A. & S. Spry; Clarence C. Ferris, for Arthur J. Provost; H. J. Uhl of counsel for the New York Central and Hudson River Railroad Company, with copy of testimony taken in said matter, and of William B. Denison, owner, received from the Board of Assessors under date of June 21, 1907.

Mr. Denison was heard in opposition to the assessment, and Mr. Tobias, attorney, representing Mr. Flannery, attorney, appeared.

No others appearing in opposition after notice, on motion of the Assistant and Acting Corporation Counsel, the objections filed against the assessment were overruled and the assessment list was confirmed, all the members voting in the affirmative.

Paving, etc., East One Hundred and Fifty-first Street.

The Deputy and Acting Comptroller presented the assessment list for paving with granite block pavement on a sand foundation East One Hundred and Fifty-first street, from Mott to River avenue, and curbing where necessary, and objections of Wm. A. Vanderhoof, owner, and of the Trustees of William Astor, filed by Joseph A. Flannery, attorney, received from the Board of Assessors under date of June 21, 1907.

Mr. Tobias, attorney, representing Mr. Flannery, attorney, and Mr. Vanderhoof were heard in opposition to the assessment.

On motion of the Assistant and Acting Corporation Counsel, the objections filed against the assessment were overruled and the assessment list was confirmed, all the members voting in the affirmative.

Paving, etc., East One Hundred and Fifty-seventh Street.

The Deputy and Acting Comptroller presented the assessment list for paving with asphalt blocks on a concrete foundation, and curbing where necessary, East One Hundred and Fifty-seventh street, from Third avenue to St. Ann's avenue, and objections of Adam Stein et al., filed by Arthur A. Brown, attorney, received from the Board of Assessors under date of June 21, 1907.

No one appearing in opposition after notice, on motion of the Assistant and Acting Corporation Counsel, the objections filed against the assessment were overruled and the assessment list was confirmed, all the members voting in the affirmative.

Sewer, etc., in East One Hundred and Seventy-fourth Street, with Branch.

The Deputy and Acting Comptroller presented the assessment list for sewer and appurtenances in East One Hundred and Seventy-fourth street, between Jerome avenue and Walton avenue, with a branch in Townsend avenue, between East One Hundred and Seventy-fourth street and Belmont street, and objections of Morris B. Schurk, filed by A. C. & F. W. Hottenroth, attorneys, received from the Board of Assessors under date of June 21, 1907.

No one appearing in opposition after notice, on motion of the Assistant and Acting Corporation Counsel, the objections filed against the assessment were overruled and the assessment list was confirmed, all the members voting in the affirmative.

Sewers, etc., in Drainage Street, etc.

The Deputy and Acting Comptroller presented the assessment list for sewers and appurtenances in Drainage street, extending from Boone (street) avenue, to Longfellow (street) avenue, between Jennings street and East One Hundred and Seventy-second street, and in Longfellow (street) avenue, between Jennings street and East One Hundred and Seventy-third street, and objections of Henry Reubel, filed by A. C. & F. W. Hottenroth, attorneys; of William Reubel et al., filed by Arthur A. Brown, attorney, and of Charlotte Blumenthal, in person, received from the Board of Assessors under date of June 21, 1907.

No one appearing in opposition after notice, on motion of the Assistant and Acting Corporation Counsel, the objections filed against the assessment were overruled and the assessment list was confirmed, all the members voting in the affirmative.

Sewer, etc., in East One Hundred and Sixty-ninth Street, and in College and Findlay Avenues.

The assessment list for sewer and appurtenances in East One Hundred and Sixty-ninth street, between Morris avenue and Findlay avenue, and in College and Findlay avenues, between East One Hundred and Sixty-eighth and East One Hundred and Seventieth streets, and objections of the estate of A. Newbold Morris and others, filed by Truman H. and George E. Baldwin, attorneys, were presented by the Deputy and Acting Comptroller, having been received from the Board of Assessors under date of June 21, 1907.

No one appearing in opposition after notice, on motion of the Assistant and Acting Corporation Counsel, the objections filed against the assessment were overruled and the assessment list was confirmed, all the members voting in the affirmative.

Paving, etc., Morris Avenue.

The assessment list for paving with asphalt blocks on a concrete foundation, Morris avenue, from One Hundred and Sixty-fourth street to One Hundred and Sixty-fifth street, and curbing where necessary, and objections of Theodore Schreppel and Frederick Braun, filed by A. C. & F. W. Hottenroth, attorneys, were presented by the Deputy and Acting Comptroller, having been received from the Board of Assessors under date of June 21, 1907.

No one appearing in opposition after notice, on motion of the Assistant and Acting Corporation Counsel, the objections filed against the assessment were overruled and the assessment list was confirmed, all the members voting in the affirmative.

At 12.40 o'clock p. m., on motion of the President of the Department of Assessments, the Board adjourned to meet on Thursday, September 12, 1907, at 11 o'clock a. m.

HENRY J. STORRS,

Chief Clerk, Board of Revision of Assessments.

DEPARTMENT OF CORRECTION.

REPORT OF TRANSACTIONS, JUNE 3 TO 9, 1907.

Communications Received.

From Civil Service Commission—Transmitting reports of Special Commission on Salaries and Grades, covering schedules for the hospital, ferry, prison, steamboat, laboratory, medical and attendance service, and stating that same have been submitted to the Board of Estimate and Apportionment for adoption.

List for prison service corrected by addition of employees now in this Department who are receiving salaries other than those mentioned in list transmitted by the Commission.

From Civil Service Commission—Stating that voucher for temporary services of a chauffeur, etc., has been received at Civil Service office. A letter should be sent asking approval of such temporary employment of the chauffeur, in order that the records may be complete. Blank form filled out and returned to Civil Service Commission.

From the Comptroller—Transmitting copy of Claim No. 52901, filed by the College of St. Francis Xavier, demanding immediate possession of the lands of the former Kings County Penitentiary, and claiming damages on account of failure of the City to remove buildings thereon by April 11, 1907. Send copies of letters in relation to above to the Comptroller.

From the Comptroller—Stating that the Finance Department should be notified at once when hose is purchased, so that same may be inspected. Couplings should be branded, in order to show date of delivery. Notification of purchase of hose should be sent to Mr. P. H. Quinn, Chief Auditor, Finance Department. Send copy of the Comptroller's letter to General Storekeeper, with instructions to notify the Finance Department as soon as hose is purchased.

From Department of Docks and Ferries—Stating that the transfer of Dennis Sullivan, Deckhand in the Department of Correction, to a similar position in Department of Docks and Ferries has been approved by the Civil Service Commission. Dennis Sullivan has therefore been appointed in said Department. Notify Civil Service Commission.

From Heads of Institutions—Reporting that meats, fish, bread, milk, etc., for week ending June 1, 1907, agreed with specifications of the contracts. On file.

From Heads of Institutions—Reports, census, labor, hospital cases, punishments, etc., for week ending June 1, 1907. On file.

From City Prison—Report of fines received during week ending June 1, 1907:

From Court of Special Sessions.....	\$50 00
From City Magistrates' Court.....	26 00

Total..... \$76 00

On file.

From District Prisons—Head Keeper, Third District Prison, reports the sudden death, on June 1, 1907, of Mrs. Mary Campbell, Matron, appointed December, 1889. Notify Civil Service Commission.

From District Prisons—Report of fines received during week ending June 1, 1907: From City Magistrates' Courts, \$652. On file.

From District Prisons—Average census report and disposition of prisoners for May, 1907. On file.

From Penitentiary, Blackwell's Island—List of prisoners received during week ending June 1, 1907: Men, 31; women, 5. On file.

From Workhouse, Blackwell's Island—Death, on June 2, 1907, of Samuel Nixon, aged 43 years. Friends notified. On file.

From Workhouse, Blackwell's Island—Fines paid at Workhouse during week ending June 1, 1907, amounted to \$32. On file.

From Workhouse, Blackwell's Island—Report of Workhouse hospitals for month of May, 1907. On file.

From Branch Workhouse, Hart's Island—Death, on June 7, 1907, of John Bendel-meyer, aged 78 years. Friends notified. On file.
From City Cemetery, Hart's Island—List of interments for week ending June 1, 1907. On file.

Communications Transmitted.

To Heads of Institutions, Department of Correction—Requesting information for use in making up estimates for 1908, viz.:

Ledger abstract.
Stock on hand June 1, 1907.
Stock on hand December 31, 1906.
List of employees, June 15, 1907, with name, position, salary, date of appointment, etc.

Also repairs and improvements necessary for 1908.

List of supplies (to General Storekeeper).

All the above data to be in Central office by June 17, 1907.

Appointed.

Maurice P. Sullivan, Deckhand on steamboats, at \$480 per annum, to date from June 10, 1907. Departmental examination.

Frank Meyer, Orderly at City Prison, at \$240 per annum, to date from June 1, 1907. Departmental examination.

Mary E. Sanderson, Orderly, at \$240 per annum, at Third District Prison, to date from June 10, 1907. Departmental examination.

Bartholomew Philpot, Hospital Helper, at \$480, at Branch Workhouse, Hart's Island, to date from June 5, 1907. Departmental examination.

Died.

Mrs. Mary Campbell, Matron at Third District Prison, on June 1, 1907.

Leave of Absence Without Pay.

To Elizabeth Bohen, Matron, at \$500 per annum, for one month, without pay, from June 1, 1907, on account of ill health, Penitentiary, Blackwell's Island.

Transferred to Another Department.

Dennis Sullivan, Deckhand on steamboats, at \$480, from Department of Correction to a similar position in Department of Docks and Ferries, to date from June 5, 1907.

Dismissed.

William Devins, Orderly at Branch Workhouse, Hart's Island, at \$240 per annum, to date from June 5, 1907, for "conduct unbecoming an officer."

Resigned.

Frank Meyer, Helper at City Prison, at \$150 per annum, to take effect May 31, 1907.

Michael Mulligan, Orderly at Branch Workhouse, Hart's Island, at \$240 per annum, to take effect June 4, 1907.

Salaries Increased.

Of Daniel F. Sheahan, Keeper, Fifth District Prison, from \$800 to \$900 per annum, to date from June 1, 1907.

Of Cornelius Hayes, Keeper, Third District Prison, from \$1,050 to \$1,200 per annum, to date from June 7, 1907.

The continuance of above increases is dependent upon the future good conduct and efficiency of said Keepers.

Of Frank Tmay, Hospital Helper at Workhouse, Blackwell's Island, from \$480 to \$600 per annum, to date from June 1, 1907.

JOHN V. COGGEY, Commissioner.

BOROUGH OF MANHATTAN.

BUREAU OF BUILDINGS.

Operations for the Week Ending June 15, 1907.

Plans filed for new buildings (estimated cost, \$1,215,900).....	25
Plans filed for alterations (estimated cost, \$279,880).....	89
Buildings reported unsafe.....	39
Buildings reported for additional means of escape.....	13
Other violations of law reported.....	335
Unsafe building notices issued.....	150
Fire escape notices issued.....	21
Violation notices issued.....	652
Unsafe building cases forwarded for prosecution.....	6
Fire escape cases forwarded for prosecution.....	.....
Violation cases forwarded for prosecution.....	134
Iron and steel inspections made.....	5,534

EDWARD S. MURPHY, Superintendent.

William H. Class, Chief Clerk.

CHANGES IN DEPARTMENTS, ETC.

DEPARTMENT OF PARKS.

Borough of The Bronx.

July 2—

The following men having failed to report for duty within five days of notification are, therefore, deemed to have resigned, in accordance with Rule XIII, paragraph 2:

Edward Wallace, No. 2408 Creston avenue, Paver.

Joseph E. McKeon, No. 16 Nelson avenue, Paver.

Herman Royerman, No. 546 East One Hundred and Fifty-fourth street, Rammer.

Jackman T. Stockdale, No. 2321 Davidson avenue, Rammer.

AQUEDUCT COMMISSIONERS.

July 3—At a meeting of the Aqueduct Commissioners, held on the 2d inst., the resignation of William J. McEvoy, Stenographer and Typewriter, was accepted to take effect as of June 23, 1907.

FIRE DEPARTMENT.

July 3—

Appointed.

Boroughs of Manhattan and The Bronx. The following named probationary Firemen to be Firemen of the fourth grade with salary at the rate of \$800 per annum, to take effect from July 1, 1907:

Martin Mangels, assigned to Engine Company 5.

Alfred H. Connihan, assigned to Engine Company 14.

Charles Thole, assigned to Engine Company 16.

John F. Geiser, assigned to Engine Company 26.

John J. Dimpel, assigned to Engine Company 26.

Harry Coyle, assigned to Engine Company 28.

John Conrad, assigned to Engine Company 30.

John J. Osterndorf, assigned to Engine Company 31.

John J. Connor, assigned to Engine Company 34.

George E. Walker, assigned to Engine Company 54.

Michael C. Shea, assigned to Engine Company 55.

Joseph L. Flannery, assigned to Engine Company 55.

William J. Gerity, assigned to Engine Company 56.

William V. Werner, assigned to Hook and Ladder Company 1.

Cornelius J. Dwyer, assigned to Hook and Ladder Company 1.

Patrick McGarty, assigned to Hook and Ladder Company 5.

Dennis S. Sullivan, assigned to Hook and Ladder Company 8.

Oscar Weisskopf, assigned to Hook and Ladder Company 10.

James W. Orr, assigned to Hook and Ladder Company 10.

George Cring, assigned to Hook and Ladder Company 11.

Peter McGuirk, assigned to Hook and Ladder Company 20.

John J. Brennan, assigned to Hook and Ladder Company 21.

Daniel J. Drout, assigned to Hook and Ladder Company 21.

James J. Walsh, assigned to Hook and Ladder Company 25.

Promoted.

The following named to be Assistant Foremen with salary at the rate of \$1,800 per annum, to take effect July 3, 1907:

Engineer of Steamer George Peterson, Engine Company 4, Manhattan and The Bronx, assigned to Hook and Ladder Company 10, Manhattan and The Bronx.

Engineer of Steamer Joseph Williams, Engine Company 28, Manhattan and The Bronx, assigned to Engine Company 16, Manhattan and The Bronx.

Engineer of Steamer William W. Mandrey, Engine Company 30, Manhattan and The Bronx, assigned to Engine Company 1, Manhattan and The Bronx.

Engineer of Steamer Matthew J. Campbell, Engine Company 54, Manhattan and The Bronx, assigned to Hook and Ladder Company 15, Manhattan and The Bronx.

Engineer of Steamer Patrick J. Grace, Engine Company 101, Brooklyn and Queens, assigned to Engine Company 110, Brooklyn and Queens.

Engineer of Steamer John Mayer, Engine Company 130, Brooklyn, assigned to Engine Company 113, Brooklyn and Queens.

Engineer of Steamer Albert A. Faubel, Engine Company 131, Brooklyn and Queens, assigned to Engine Company 13, Manhattan and The Bronx.

Engineer of Steamer William F. Messiter, Engine Company 145, Brooklyn and Queens, assigned to Engine Company 129, Brooklyn and Queens.

Engineer of Steamer Daniel E. Davison, Engine Company 151, Brooklyn and Queens, assigned to Engine Company 5, Manhattan and The Bronx.

Fireman first grade Michael J. Kendrigan, Engine Company 57, Manhattan and The Bronx, assigned to Engine Company 20, Manhattan and The Bronx.

Fireman first grade William H. Hess, Engine Company 103, Brooklyn and Queens, assigned to Engine Company 19, Manhattan and The Bronx.

Fireman first grade William J. Reed, Engine Company 131, Brooklyn and Queens, assigned to Engine Company 3, Manhattan and The Bronx.

Fireman first grade John B. Steininger, Engine Company 145, Brooklyn and Queens, assigned to Hook and Ladder Company 59, Brooklyn and Queens.

Fireman first grade Michael F. Shepard, Hook and Ladder Company 63, Brooklyn and Queens, assigned to Hook and Ladder Company 66, Brooklyn and Queens.

Retired on Half Pay.

Boroughs of Manhattan and The Bronx.

On own application after more than twenty years' continuous service:

Assistant Foreman Joseph W. Taylor, Engine Company 61, on \$900 per annum, to take effect July 1, 1907.

Fireman first grade Alfred E. Sheridan, Engine Company 83, on \$700 per annum, to take effect July 1, 1907.

Boroughs of Brooklyn and Queens.

Foreman John Gorman, Engine Company 105, on \$1,080 per annum, to take effect June 27, 1907.

Assistant Foreman Charles Heath, Engine Company 155, on \$900 per annum, to take effect July 1, 1907.

Dismissed.

Boroughs of Brooklyn and Queens.

Fireman first grade David Hyde, Engine Company 148, having been found guilty of the charges preferred against him of absence without leave (tried June 12, 1907), and has been ordered dismissed the service of the Department, to take effect from 8 a. m., on June 13, 1907.

Appointed.

Boroughs of Manhattan and The Bronx.

George J. Silvan, as ununiformed Fireman for a probationary period of one month from the 4th inst., with salary at the rate of \$800 per annum and assigned to Hook and Ladder Company 2.

Michael A. Davey, as Batteryman's Assistant, Fire Alarm Telegraph Bureau, with salary at the rate of \$1,000 per annum, to take effect from June 29, 1907.

Promoted.

Boroughs of Manhattan and The Bronx.

Engineer of Steamer Hugh T. Dunn, Engine Company 35, to be Assistant Foreman at \$1,800 per annum, to take effect on the inst., and assigned to Hook and Ladder Company 5.

Resigned.

Boroughs of Manhattan and The Bronx.

Foreman John T. Murphy, Hook and Ladder Company 10, to take effect on the 2d inst.

TENEMENT HOUSE DEPARTMENT.

July 3—Resigned, Mary J. Murray, No. 117 West Ninety-sixth street, Stenographer and Book Typewriter, salary \$750 per annum. This resignation to take effect on July 1, 1907.

Appointments.

Clerks, salary \$1,050 per annum:

Albert Sonberg, No. 206 Spring street.

James J. Keenan, No. 248 East Thirty-ninth street.

Patrick F. McSorley, No. 408 West Seventeenth street.

Joseph F. Welsh, No. 505 West Twenty-sixth street.

These appointments to take effect on June 28, 1907.

Leo F. Lacey, No. 214 East Fifty-first street, appointment to take effect on July 1, 1907.

Typewriting Copyists, salary \$750 per annum:

Alice L. Quinn, No. 252 Midwood street, Brooklyn.

Eleanor L. Parker, No. 560 Tenth street, Brooklyn.

Alice B. Begley, No. 184 East Eighty-seventh street, Brooklyn.

Kathryn T. Cronin, No. 165 East Forty-ninth street, Brooklyn.

These appointments to take effect on July 1, 1907.

DEPARTMENT OF BRIDGES.

July 3—The compensation of Thomas Smith, No. 206 East Fifth street, Manhattan, Foreman Bridge Painter and Rigger, is fixed at \$1,800 per annum, to date from July 1, 1907.

July 2—The following are appointed as Structural Steel Draughtsmen, and their compensation is fixed at \$1,800 per annum:

Mark Isaacs, No. 1650 Park avenue, Manhattan.

Stephen J. P. Gill, No. 550 Leonard street, Brooklyn.

CITY CHAMBERLAIN.

July 3, 1907.

There has been placed in the City Treasury, pursuant to law, the sum of one thousand seven hundred and sixty-one dollars and eighty-eight cents (\$1,761.88), the amount of commissions collected by this office from Court and Trust Funds for the month of June, 1907.

J. H. CAMPBELL,
Deputy Chamberlain.



OFFICIAL DIRECTORY.

STATEMENT OF THE HOURS DURING which the Public Offices in the City are open for business and at which the Courts regularly open and adjourn, as well as the places where such offices are kept and such Courts are held, together with the heads of Departments and Courts.

CITY OFFICES.

MAYOR'S OFFICE.

No. 5 City Hall, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.
Telephone, 8020 Cortlandt.
GEORGE B. MCCLELLAN, Mayor.
Frank M. O'Brien, Secretary.
William A. Willis, Executive Secretary.
James A. Rierdon, Chief Clerk and Bond and Warrant Clerk.

BUREAU OF WEIGHTS AND MEASURES.

Room 7, City Hall, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.
Telephone, 8020 Cortlandt.
Patrick Derry, Chief of Bureau.

BUREAU OF LICENSES.

9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.
Telephone, 8020 Cortlandt.
John P. Corrigan, Chief of Bureau.
Principal Office, Room 1, City Hall. Gaetano D'Amato, Deputy Chief, Boroughs of Manhattan and The Bronx.
Branch Office, Room 12, Borough Hall, Brooklyn.
Daniel J. Griffin, Deputy Chief, Borough of Brooklyn.
Branch Office, Richmond Borough Hall, Room 23, New Brighton, S. I.; William R. Woelfe, Financial Clerk, Borough of Richmond.
Branch Office, Hackett Building, Long Island City, Borough of Queens.

AQUEDUCT COMMISSIONERS.

Room 207, No. 280 Broadway, 5th floor, 9 a. m. to 4 p. m.
Telephone, 1942 Worth.
The Mayor, the Comptroller, ex-officio, Commissioners John F. Cowan (President), William H. Ten

Eyck, John J. Ryan and John P. Windolph; Harry W. Walker, Secretary; Walter H. Sears, Chief Engineer.

ARMORY BOARD.

The Mayor, George B. McClellan, Chairman; the President of the Department of Taxes and Assessments, Lawson Purdy; the President of the Board of Aldermen, Patrick F. McGowan; Brigadier-General James McLeer and Brigadier-General George Moore Smith, Commissioners.
Harrie Davis, Secretary, Room 6, Basement, Hall of Records, Chambers and Centre streets.
Office hours, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.
Telephone, 3900 Worth.

ART COMMISSION.

City Hall, Room 21.
Telephone call, 1107 Cortlandt.
Robert W. de Forest, President; Walter Cook, Vice-President; Howard Mansfield, Secretary; A. Augustus Healy, President of the Brooklyn Institute of Arts and Sciences; George B. McClellan, Mayor of The City of New York; J. Pierpont Morgan, President of Metropolitan Museum of Art; John Bigelow, President of New York Public Library; F. D. Millet, Painter; John J. Boyle, Sculptor; John B. Pine.
Milo R. Maltbie, Assistant Secretary.

BELLEVUE AND ALLIED HOSPITALS.

Office, Bellevue Hospital.
Telephone, 4400 Madison Square.
Board of Trustees—Dr. John W. Brannan, President; James K. Paulding, Secretary; Leopold Stern, Theodore E. Tack, Arden M. Robbins, Myles Tierney, Samuel Sachs, Robert W. Hebbard, ex-officio.

BOARD OF ALDERMEN.

No. 11 City Hall, 10 a. m. to 4 p. m.; Saturdays, 10 a. m. to 12 m.
Telephone, 7560 Cortlandt.
Patrick F. McGowan, President.
P. J. Scully, City Clerk.

BOARD OF ASSESSORS.

Office, No. 320 Broadway, 9 a. m. to 4 p. m.; Saturdays, 12 m.
Antonio Zucca.
Paul Weimann.
James H. Kennedy.
William H. Jasper, Secretary.
Telephone, 29, 30 and 31 Worth.

BOARD OF ELECTIONS.

Headquarters, General Office, No. 107 West Forty first street.
Commissioners—John T. Dooling (President) Charles B. Page (Secretary), John Maguire, Rudolph C. Fuller.
A. C. Allen, Chief Clerk.

BOROUGH OFFICES.

Manhattan.
No. 112 West Forty-second street.
William C. Baxter, Chief Clerk.
The Bronx.
One Hundred and Thirty-eighth street and Mott avenue (Solingen Building).
Cornelius A. Bunner, Chief Clerk.
Brooklyn.
No. 42 Court street (Temple Bar Building).
George Russell, Chief Clerk.
Queens.
No. 51 Jackson avenue, Long Island City.
Carl Voegel, Chief Clerk.
Richmond.
Borough Hall, New Brighton, S. I.
Alexander M. Ross, Chief Clerk.
All offices open from 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.

BOARD OF ESTIMATE AND APPORTIONMENT.

The Mayor, Chairman; the Comptroller, President of the Board of Aldermen, President of the Borough of Manhattan, President of the Borough of Brooklyn, President of the Borough of The Bronx, President of the Borough of Queens, President of the Borough of Richmond.

OFFICE OF THE SECRETARY.

No. 277 Broadway, Room 1406, Telephone, 2280 Worth.
Joseph Haag, Secretary; William M. Lawrence, Assistant Secretary. Charles V. Adeo, Clerk to Board.

OFFICE OF THE CHIEF ENGINEER.

Nelson P. Lewis, Chief Engineer, No. 277 Broadway, Room 1408. Telephone, 2281 Worth.
Arthur S. Tuttle, Engineer in charge Division of Public Improvements, No. 277 Broadway, Room 1408. Telephone, 2281 Worth.
Harry P. Nichols, Engineer in charge Division of Franchises, No. 277 Broadway, Room 801. Telephone, 2282 Worth.

BOARD OF EXAMINERS.

Rooms 602 and 603 Metropolitan Building, No. 1 Madison avenue, Borough of Manhattan, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.
Telephone, 5840 Gramercy.
Warren A. Conover, Charles Buek, Lewis Harding, Charles G. Smith, Edward F. Croker, Henry R. Marshall and George A. Just, Chairman.
Board meeting every Tuesday at 2 p. m.

BOARD OF REVISION OF ASSESSMENTS.

Herman A. Metz, Comptroller.
William B. Ellison, Corporation Counsel.
Lawson Purdy, President of the Department of Taxes and Assessments.
Henry J. Storrs, Chief Clerk, Finance Department, No. 280 Broadway.
Telephone, 6120 Franklin.

BOARD OF WATER SUPPLY.

Office, No. 299 Broadway.
J. Edward Simmons, Charles N. Chadwick, Charles A. Shaw, Commissioners.
Thomas Hassett, Secretary.
J. Waldo Smith, Chief Engineer.

COMMISSIONERS OF ACCOUNTS.

Rooms 114 and 115 Stewart Building, 280 Broadway, 9 a. m. to 4 p. m.
Telephone 4315 Worth.
John C. Hertle, John Purroy Mitchell, Commissioners.

CHANGE OF GRADE DAMAGE COMMISSION.

TWENTY-THIRD AND TWENTY-FOURTH WARDS.
Office of the Commission, Room 138, No. 280 Broadway (Stewart Building), Borough of Manhattan, New York City.
Commissioners—William E. Stillings, George C. Norton, Oscar S. Bailey.
Lamont McLoughlin, Clerk.
Regular advertised meetings on Monday, Wednesday and Friday of each week at 2 o'clock p. m.

CITY CLERK AND CLERK OF THE BOARD OF ALDERMEN.

City Hall, Rooms 11, 12; 10 a. m. to 4 p. m.; Saturdays, 10 a. m. to 12 m.
Telephone, 7560 Cortlandt.
P. J. Scully, City Clerk and Clerk of the Board of Aldermen.
Joseph F. Prendergast, First Deputy City Clerk.
Michael F. Blake, Chief Clerk of the Board of Aldermen.
Joseph V. Sculley, Clerk, Borough of Brooklyn.
Thomas J. McCabe, Deputy City Clerk, Borough of The Bronx.
William R. Zimmerman, Deputy City Clerk, Borough of Queens.
Joseph F. O'Grady, Deputy City Clerk, Borough of Richmond.

CITY RECORD OFFICE.

BUREAU OF PRINTING, STATIONERY AND BLANK BOOKS.
Supervisor's Office, Park Row Building, No. 21 Park Row. Entrance, Room 807, 9 a. m. to 4 p. m. Saturdays, 9 a. m. to 12 m.
Telephone, 1505 and 1506 Cortlandt. Supply Room, No. 2 City Hall.
Patrick J. Tracy, Supervisor; Henry McMillen, Deputy Supervisor; C. McKemie, Secretary.

COMMISSIONER OF LICENSES.

Office, No. 277 Broadway.
John N. Bogart, Commissioner.
James P. Archibald, Deputy Commissioner.
John J. Caldwell, Secretary.
Office hours, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.
Telephone, 2828 Worth.

COMMISSIONERS OF SINKING FUND.

George B. McClellan, Mayor, Chairman; Herman A. Metz, Comptroller; Patrick Keenan, Chamberlain; Patrick F. McGowan, President of the Board of Aldermen, and John R. Davies, Chairman Finance Committee, Board of Aldermen, Members; N. Taylor Phillips, Deputy Comptroller, Secretary.
Office of Secretary, Room 12, Stewart Building.
Telephone, 6120 Franklin.

DEPARTMENT OF BRIDGES.

Nos. 13-21 Park Row.
James W. Stevenson, Commissioner.
John H. Little, Deputy Commissioner.
Edgar E. Schiff, Secretary.
Office hours, 9 a. m. to 4 p. m.
Saturdays, 9 a. m. to 12 m.
Telephone, 6080 Cortlandt.

DEPARTMENT OF CORRECTION.

CENTRAL OFFICE.

No. 148 East Twentieth street. Office hours from 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.
Telephone, 1047 Gramercy.
John V. Coggey, Commissioner.
George W. Meyer, Deputy Commissioner.
John B. Fitzgerald, Secretary.

DEPARTMENT OF DOCKS AND FERRIES.

Pier "A," N. R., Battery place.
Telephone, 300 Rector.
John A. Bense, Commissioner.
Denis A. Judge, Deputy Commissioner.
Joseph W. Savage, Secretary.
Office hours, 9 a. m. to 4 p. m.; Saturdays, 12 m.

DEPARTMENT OF EDUCATION.

BOARD OF EDUCATION.

Park avenue and Fifty-ninth street, Borough of Manhattan, 9 a. m. to 5 p. m. (in the month of August, 9 a. m. to 4 p. m.); Saturdays, 9 a. m. to 12 m.
Telephone, 5580 Plaza.
Richard H. Adams, Richard B. Aldcroft, Jr., Grosvenor H. Backus, Nicholas J. Barrett, Joseph E. Cosgrove, Francis P. Cunneen, Thomas M. DeLaney, Samuel B. Donnelly, Horace E. Dreser, A. Leo Everett, Joseph Nicola Francolini, George Freifeld, John Greene, George J. Gillespie, Randolph Guggenheimer, George D. Hamlin, M. D.; Robert L. Harrison, Louis Haupt, M. D.; Thomas J. Higgins, Arthur Hollick, Charles H. Ingalls, Nathan S. Jonas, Hugo Kanzler, John C. Kelley, Alrick H. Man, Clement March, Mitchell May, Dennis J. McDonald, M. D.; Thomas J. O'Donohue, Frank H. Partridge, George E. Payne, Frank Lyon Polk, George W. Schaele, Henry H. Sherman, Abraham Stern, M. Samuel Stern, Cornelius J. Sullivan, Rupert B. Thomas, John R. Thompson, George A. Vandenhoff, John A. Wilbur, William N. Wilmer, Frank D. Wiley, George W. Wingate, Egerton L. Winthrop, Jr. members of the Board. (One vacancy).
Egerton L. Winthrop, Jr., President.
John Greene, Vice-President.
A. Emerson Palmer, Secretary.
Fred H. Johnson, Assistant Secretary.
C. B. J. Snyder, Superintendent of School Buildings.
Patrick Jones, Superintendent of School Supplies.
Henry K. M. Cook, Auditor.
Thomas A. Dillon, Chief Clerk.
Henry M. Leipsiger, Supervisor of Lectures.
Claude G. Leland, Superintendent of Libraries.
Henry M. Devoe, Supervisor of Janitors.

BOARD OF SUPERINTENDENTS.

William H. Maxwell, City Superintendent of Schools, and George S. Davis, Andrew W. Edson, Clarence E. Meloney, Thomas S. O'Brien, Edward B. Shallow, Edward L. Stevens, Gustave Straubmüller, John H. Walsh, Associate City Superintendents.

DISTRICT SUPERINTENDENTS.

Darwin L. Bardwell, William A. Campbell, John J. Chickering, John W. Davis, John Dwyer, James M. Edsall, Matthew J. Elgas, Edward D. Farrell, Cornelius D. Franklin, John Griffin, M. D.; John H. Haaren, John L. N. Hunt, Henry W. Jameson, James Lee, Charles W. Lyon, James J. McCabe, William J. O'Shea, Julia Richman, Alfred T. Schaffner, Albert Shields, Edgar Dubs Shimer, Seth T. Stewart, Edward W. Stitt, Grace C. Strachan, Joseph S. Taylor, Evangeline E. Whitney.

BOARD OF EXAMINERS.

William H. Maxwell, City Superintendent of Schools, and James C. Byrnes, Walter L. Hervey, Jerome A. O'Connell, George J. Smith, Examiners.

DEPARTMENT OF FINANCE.

Stewart Building, Chambers street and Broadway 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.
Telephone, 1200 Worth.
Herman A. Metz, Comptroller.
John H. McCooley and N. Taylor Phillips, Deputy Comptrollers.
Hubert L. Smith, Assistant Deputy Comptroller.
Oliver E. Stanton, Secretary to Comptroller.

MAIN DIVISION.

H. J. Storrs, Chief Clerk, Room 11.
BOOKKEEPING AND AWARDS DIVISION.
Frank W. Smith, Chief Accountant and Bookkeeper, Room 8.

STOCK AND BOND DIVISION.

James J. Sullivan, Chief Stock and Bond Clerk, Room 85.

BUREAU OF AUDIT—MAIN DIVISION.

P. H. Quinn, Chief Auditor of Accounts, Room 27.

LAW AND ADJUSTMENT DIVISION.

Jeremiah T. Mahoney, Auditor of Accounts, Room 185.

BUREAU OF MUNICIPAL INVESTIGATION AND STATISTICS.
Charles S. Hervey, Supervising Statistician and Examiner, Room 180.

CHARITABLE INSTITUTIONS DIVISION.
Daniel C. Potter, Chief Examiner of Accounts of Institutions, Room 38.

BUREAU OF THE CITY PAYMASTER.

No. 83 Chambers street and No. 65 Reade street.
John H. Timmerman, City Paymaster.

BUREAU OF ENGINEERING.

Stewart Building, Chambers street and Broadway, Chandler Withington, Chief Engineer, Room 55.

REAL ESTATE BUREAU.

Thomas F. Byrnes, Mortimer J. Brown, Appraisers of Real Estate, Room 157.

BUREAU FOR THE COLLECTION OF TAXES.
Borough of Manhattan—Stewart Building, Room O.
David E. Austen, Receiver of Taxes.
John J. McDonough and William H. Loughran, Deputy Receivers of Taxes.

Borough of The Bronx—Municipal Building, Third and Tremont avenues.
John B. Underhill and Stephen A. Nugent, Deputy Receivers of Taxes.
Borough of Brooklyn—Municipal Building, Rooms 2-8.
James B. Bouck and John F. Regan, Deputy Receivers of Taxes.
Borough of Queens—Hackett Building, Jackson avenue and Fifth street, Long Island City.
George H. Creed and Mason O. Smedley, Deputy Receivers of Taxes.
Borough of Richmond—Borough Hall, St. George, New Brighton.
John De Morgan and F. Wilsey Owen, Deputy Receivers of Taxes.

BUREAU FOR THE COLLECTION OF ASSESSMENTS AND ARREARS.

Borough of Manhattan—Stewart Building, Room 81.
Daniel Moynahan, Collector of Assessments and Arrears.
Richard E. Weldon, Deputy Collector of Assessments and Arrears.
Borough of The Bronx—Municipal Building, Rooms 1-3.
James J. Donovan, Jr., Deputy Collector of Assessments and Arrears.
Borough of Brooklyn—Mechanics' Bank Building, corner Court and Montague streets.
William E. Melody, Deputy Collector of Assessments and Arrears.
Borough of Queens—Hackett Building, Jackson avenue and Fifth street, Long Island City.
Patrick E. Leahy, Deputy Collector of Assessments and Arrears.
Borough of Richmond—Bay and Sand streets, Stapleton.
George Brand, Deputy Collector of Assessments and Arrears.

BUREAU FOR THE COLLECTION OF CITY REVENUE AND OF MARKETS.

Stewart Building, Chambers street and Broadway, Room 141.
John M. Gray, Collector of City Revenue and Superintendent of Markets.
James H. Baldwin, Deputy Collector of City Revenue.
David O'Brien, Deputy Superintendent of Markets.
BUREAU OF THE CITY CHAMBERLAIN.
Stewart Building, Chambers street and Broadway, Rooms 63 to 67.
City Chamberlain.
John H. Campbell, Deputy Chamberlain.

DEPARTMENT OF HEALTH.

Southwest corner of Fifty-fifth street and Sixth avenue, Borough of Manhattan, 9 a. m. to 4 p. m.
Burial Permit and Contagious Disease Offices all ways open.
Telephone, 4900 Columbus.
Thomas Darlington, M. D., Commissioner of Health and President.
Alvah H. Doty, M. D., Theodore A. Bingham, Commissioners.
Eugene W. Scheffer, Secretary.
Herman M. Biggs, M. D., General Medical Officer.
James McC. Miller, Chief Clerk.
Charles F. Roberts, M. D., Sanitary Superintendent.
William H. Guilfoyle, M. D., Registrar of Records.

Borough of Manhattan.

Walter Bense, M. D., Acting Assistant Sanitary Superintendent, George A. Roberts, Assistant Chief Clerk, Charles J. Burke, M. D., Assistant Registrar of Records.

Borough of The Bronx, No. 3731 Third avenue.
Charles F. Spencer, M. D., Acting Assistant Sanitary Superintendent; Ambrose Lee, Jr., Assistant Chief Clerk; Arthur J. O'Leary, M. D., Assistant Registrar of Records.

Borough of Brooklyn, Nos. 38 and 40 Clinton street.
Traverse R. Maxfield, M. D., Assistant Sanitary Superintendent; Alfred T. Metcalfe, Assistant Chief Clerk; S. J. Byrne, M. D., Assistant Registrar of Records.

Borough of Queens, Nos. 372 and 374 Fulton street, Jamaica.
John P. Moore, M. D., Assistant Sanitary Superintendent; George R. Crowley, Assistant Chief Clerk; Robert Campbell, M. D., Assistant Registrar of Records.

Borough of Richmond, Nos. 54 and 56 Water street, Stapleton, Staten Island.
John T. Sprague, M. D., Assistant Sanitary Superintendent; Charles E. Hoyer, Assistant Chief Clerk; J. Walter Wood, M. D., Assistant Registrar of Records.

DEPARTMENT OF PARKS.

Moses Herrman, Commissioner of Parks for the Boroughs of Manhattan and Richmond, and President Park Board.
M. F. Loughman, Secretary.
Offices, Arsenal, Central Park.
Michael J. Kennedy, Commissioner of Parks for the Boroughs of Brooklyn and Queens.
Offices, Litchfield Mansion, Prospect Park, Brooklyn.
Telephone, 2300 South.
Joseph I. Berry, Commissioner of Parks for the Borough of The Bronx.
Office, Zbrowski Mansion, Claremont Park.
Office hours, 9 a. m. to 4 p. m.; Saturdays, 12 m.
Telephone, 998 Tremont.

DEPARTMENT OF PUBLIC CHARITIES.

CENTRAL OFFICE.

Foot of East Twenty-sixth street, 9 a. m. to 4 p. m. Saturdays, 12 m.
Telephone, 3350 Madison Square.
Robert W. Hebbard, Commissioner.
Richard C. Baker, First Deputy Commissioner.
James J. McInerney, Second Deputy Commissioner for Brooklyn and Queens, Nos. 327 to 331 Schermerhorn street, Brooklyn.
Jeremiah Connelly, Superintendent for Richmond Borough, Borough Hall, St. George, Staten Island.
Plans and Specifications, Contracts, Proposals and Estimates for Work and Materials for Building, Repairs and Supplies, Bills and Accounts, 9 a. m. to 4 p. m. Saturdays, 12 m.
Bureau of Dependent Adults, foot of East Twenty-sixth street. Office hours, 8:30 a. m. to 4 p. m.
The Children's Bureau, No. 66 Third avenue. Office hours, 8:30 a. m. to 4 p. m.

DEPARTMENT OF STREET CLEANING.

Nos. 13 to 21 Park row, 9 a. m. to 4 p. m.
Telephone, 3863 Cortlandt.
Macdonough Craven, Commissioner.
William H. Edwards, Deputy Commissioner.
John J. O'Brien, Chief Clerk.

DEPARTMENT OF TAXES AND ASSESSMENTS.

Hall of Records, corner of Chambers and Centre streets. Office hours, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.
Commissioners Lawson Purdy, President, Frank Raymond, Nicholas Muller, James H. Tully, Charles Putzel, Thomas L. Hamilton.

DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY.

Nos. 13 to 21 Park row, 9 a. m. to 4 p. m.
Telephones, Manhattan, 8520 Cortlandt; Brooklyn, 3980 Main; Queens, 439 Greenpoint; Richmond, 94 Tompkinsville; Bronx, 62 Tremont.
John H. O'Brien, Commissioner.
Frank J. Goodwin, Deputy Commissioner.
John F. Garvey, Secretary to Department.
I. M. de Varona, Chief Engineer.
George W. Birdsall, Consulting Hydraulic Engineer.
George F. Sever, Consulting Electrical Engineer.
Charles F. Lacombe, Chief Engineer of Light and Power.
Michael C. Padden, Water Register, Manhattan.
William A. Hawley, Secretary to Commissioner.
William C. Cozier, Deputy Commissioner, Borough of Brooklyn, Municipal Building, Brooklyn.
John W. McKay, Acting Chief Engineer, Brooklyn.
William R. McGuire, Water Register, Brooklyn.
Michael Hecht, Deputy Commissioner, Borough of The Bronx, Crotona Park Building, One Hundred and Seventy-seventh street and Third avenue.
Thomas M. Lynch, Water Register, The Bronx.
Charles C. Wissel, Deputy Commissioner, Borough of Queens, Hackett Building, Long Island City.
Edward I. Miller, Deputy Commissioner, Borough of Richmond, Borough Hall, St. George, S. I.
John W. McKay, Acting Chief Engineer, Borough of Richmond, Borough Hall, St. George, S. I.

EXAMINING BOARD OF PLUMBERS.

Robert McCabe, President; John J. Moore, Secretary; John Todd, Treasurer; ex-officio, Horace Loomis and Matthew E. Healy.
Rooms 14, 15 and 16 Aldrich Building, Nos. 149 and 151 Church street.
Office open during business hours every day in the year except legal holidays. Examinations are held on Monday, Wednesday and Friday after 1 p. m.

FIRE DEPARTMENT.

Office hours for all, except where otherwise noted, from 9 a. m. to 4 p. m.; Saturdays, 12 m.

HEADQUARTERS.

Nos. 157 and 159 East Sixty-seventh street, Manhattan.
Telephone, 2230 Plaza, Manhattan; 2356 Main Brooklyn.
Francis J. Lantry, Commissioner.
Hugh Bonner, Deputy Commissioner.
Charles C. Wise, Deputy Commissioner, Boroughs of Brooklyn and Queens.
Alfred M. Downes, Secretary; Michael J. Heallon, Secretary to the Commissioner; George F. Dobson, Jr., Secretary to the Deputy Commissioner, Boroughs of Brooklyn and Queens.
Edward F. Croker, Chief of Department.
Thomas Lally, Deputy Chief of Department in charge, Boroughs of Brooklyn and Queens.
Franz S. Wolf, Oil Surveyor, temporarily in charge of Bureau of Combustibles, Nos. 157 and 159 East Sixty-seventh street, Manhattan.
John W. Trim, Clerk, temporarily in charge, Boroughs of Brooklyn and Queens, Nos. 365 and 367 Jay street, Brooklyn.
Peter Seery, Fire Marshal, Boroughs of Manhattan, The Bronx and Richmond.
William L. Beers, Fire Marshal, Boroughs of Brooklyn and Queens.
Andrew P. Martin, Inspector in charge of Fire Alarm Telegraph Bureau.
William T. Beggin, Chief of Battalion in charge Bureau of Violations and Auxiliary Fire Appliances, Boroughs of Manhattan, The Bronx and Richmond, Nos. 157 and 159 East Sixty-seventh street, Manhattan. Brooklyn and Queens, Nos. 365 and 367 Jay street, Brooklyn.
Central Office open at all hours.

LAW DEPARTMENT.

OFFICE OF CORPORATION COUNSEL.

Hall of Records, Chambers and Centre streets, 6th, 7th and 8th floors, 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m.
Telephone, 3900 Worth.
William B. Ellison, Corporation Counsel.
Assistants—Theodore Connolly, George L. Sterling, Charles D. Olendorf, James T. Malone, George S. Coleman, William P. Burr, Charles N. Harris, John L. O'Brien, Terence Farley, Franklin Chase Hoyt, Cornelius F. Collins, Edwin J. Freedman, John C. Breckinridge, Louis H. Hahlo, Frank B. Pierce, Stephen O'Brien, Charles A. O'Neill, John F. O'Brien, Edward S. Malone, William B. Crowell, Richard H. Mitchell.

John Widdecombe, James P. Keenan, Thomas F. Byrne, Andrew T. Campbell, Jr., Arthur Sweeney, George P. Nicholson, Alfred W. Booraem, William H. King, Thomas F. Noonan, Josiah A. Stover, Curtis A. Peters, Charles McIntyre, Royal E. T. Riggs, Solon Berrick, J. Gabriel Britt, William J. Clarke, Francis J. Byrne, Francis X. McQuade, Edmund C. Viemeister, John W. Goff, Jr., Leonce Fuller, Charles W. Miller, I. Townsend Burden, Jr., William H. Doherty, Francis Martin, Frank E. Smith, Henry W. Mayo.
Secretary to the Corporation Counsel—David Ryan.
Chief Clerk—Andrew T. Campbell.

BROOKLYN OFFICE.

Borough Hall, 2d floor, 9 a. m. to 5 p. m., Saturdays, 9 a. m. to 12 m.
Telephone, 2048 Main.
James D. Bell, Assistant in charge.

BUREAU OF STREET OPENINGS.

No. 90 West Broadway, 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m.
Telephone, 890 Cortlandt.
John P. Dunn, Assistant in charge.

BUREAU FOR THE RECOVERY OF PENALTIES.

No. 119 Nassau street, 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m.
Telephone, 4526 Cortlandt.
Herman Stiefel, Assistant in charge.

BUREAU FOR THE COLLECTION OF ARREARS OF PERSONAL TAXES.

No. 280 Broadway, 5th floor. Office hours for public, 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m.
Telephone, 4585 Worth.
Geo. O'Reilly, Assistant in charge.

TENEMENT HOUSE BUREAU AND BUREAU OF BUILDINGS.

No. 44 East Twenty-third street, 9 a. m. to 5 p. m., Saturdays, 9 a. m. to 12 m.
Telephone, 1961 Gramercy.
John P. O'Brien, Assistant in charge.

METROPOLITAN SEWERAGE COMMISSION.

Office, No. 17 Battery Place. Daniel Lewis, President, Olin H. Landreth, George A. Soper, Andrew J. Provost, Jr., Secretary, James H. Fuertes, Commissioners.
Telephone, 1694 Rector.

MUNICIPAL CIVIL SERVICE COMMISSION.

No. 299 Broadway, 9 a. m. to 4 p. m.
William F. Baker, R. Ross Appleton, Alfred J. Talley.
Frank A. Spencer, Secretary.
Labor Bureau.
No. 51 Lafayette street (old No. 61 Elm street).
Telephone, 2140 Worth.

MUNICIPAL EXPLOSIVES COMMISSION.

Nos. 157 and 159 East Sixty-seventh street, Headquarters Fire Department.
Hugh Bonner, Deputy Fire Commissioner and Chairman; William Montgomery, John Sherry, C. Andrade, Jr., Abram A. Breneman.
Franz S. Wolf, Secretary, No. 157 East Sixty-seventh street.
Stated meetings, Tuesday of each week, at 3 p. m.
Telephone, 640 Plaza.

POLICE DEPARTMENT.

CENTRAL OFFICE.

No. 300 Mulberry street, 9 a. m. to 4 p. m.
Telephone, 3100 Spring.
Theodore A. Bingham, Commissioner.
Arthur I. O'Keefe, First Deputy Commissioner.
Frederick H. Bugher, Second Deputy Commissioner.
Bert Hanson, Third Deputy Commissioner.
Daniel G. Slattery, Secretary to Commissioner.
William H. Kipp, Chief Clerk.

TENEMENT HOUSE DEPARTMENT.

Manhattan Office, No. 44 East Twenty-third street.
Telephone, 5331 Gramercy.
Edmond J. Butler, Commissioner.
Harry G. Darwin, First Deputy Commissioner.
Brooklyn Office, Temple Bar Building, No. 44 Court street.
Telephone, 3225 Main.
John McKeown, Second Deputy Commissioner.
Bronx Office, Nos. 2804, 2806 and 2808 Third avenue.
Telephone, 967 Melrose.
William B. Calvert, Superintendent.

BOROUGH OFFICES.

BOROUGH OF THE BRONX.

Office of the President, corner Third avenue and One Hundred and Seventy-seventh street; 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.
Louis F. Haffen, President.
Henry A. Gumbleton, Secretary.
John F. Murray, Commissioner of Public Works.
Peter J. Stumpf, Assistant Commissioner of Public Works.
Josiah A. Briggs, Chief Engineer.
Frederick Greifenberg, Principal Assistant Topographical Engineer.
Charles H. Graham, Engineer of Sewers.
Samuel C. Thompson, Engineer of Highways.
Patrick J. Reville, Superintendent of Buildings.
John A. Mason, Assistant Superintendent of Buildings.
Martin Geiszler, Superintendent of Highways.
Albert H. Liebenau, Superintendent of Public Buildings and Offices.
Telephone, 66 Tremont.

BOROUGH OF BROOKLYN.

President's Office, Nos. 15 and 16 Borough Hall, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.
Bird S. Coler, President.
Charles Frederick Adams, Secretary.
John A. Heffernan, Private Secretary.
Desmond Dunne, Commissioner of Public Works.
Durbun Van Vleck, Assistant Commissioner of Public Works.
David F. Moore, Superintendent of Buildings.
Thomas R. Farrell, Superintendent of the Bureau of Highways.
James Dunne, Superintendent of the Bureau of Sewers.
Joseph M. Lawrence, Superintendent of the Bureau of Public Buildings and Offices.

BOROUGH OF MANHATTAN.

Office of the President, Nos. 14, 15 and 16 City Hall, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.
John F. Ahern, President.
Bernard Downing, Secretary.

Henry S. Thompson, Commissioner of Public Works.
Edward S. Murphy, Superintendent of Buildings.
James J. Hagan, Assistant Commissioner of Public Works.
George F. Scannell, Superintendent of Highways.
William J. Boyhan, Superintendent of Sewers.

BOROUGH OF QUEENS.

President's Office, Borough Hall, Jackson avenue and Fifth street, Long Island City; 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.
Joseph Bernel, President.
Herman Ringe, Secretary.
Lawrence Gresser, Commissioner of Public Works.
Alfred Denton, Assistant Commissioner of Public Works.
James P. Hicks, Superintendent of Highways.
Carl Berger, Superintendent of Buildings.
Joseph H. De Bragg, Superintendent of Sewers.
Lucien Knapp, Superintendent of Street Cleaning.
Office, No. 48 Jackson avenue, Long Island City.
Mathew J. Goldner, Superintendent of Public Buildings and Offices, Office, Town Hall, Jamaica.
Robert R. Crowell, Engineer Topographical Bureau.
Office, No. 252 Jackson avenue, Long Island City.
Telephone, 1900 Greenpoint.

BOROUGH OF RICHMOND.

President's Office, New Brighton, Staten Island.
George Cromwell, President.
Maybury Fleming, Secretary.
Louis Lincoln Tribus, Consulting Engineer and Acting Commissioner of Public Works.
John Seaton, Superintendent of Buildings.
H. E. Euel, Superintendent of Highways.
John T. Fetherston, Superintendent of Street Cleaning.
Ernest H. Seehusen, Superintendent of Sewers.
John Timlin, Jr., Superintendent of Public Buildings and Offices.
George W. Tuttle, Principal Assistant Engineer, Bureau of Engineering—Topographical.
Theodor S. Oxholm, Principal Assistant Engineer, Bureau of Engineering—Construction.
Offices—Borough Hall, New Brighton, N. Y., 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.
Telephone, 1000 Tompkinsville.

CORONERS.

Borough of The Bronx—Corner of Third avenue and One Hundred and Seventy-seventh street. Telephone, 1250 Tremont and 3415 Harlem.
Robert F. McDonald, A. F. Schwannecke.
William T. Austin, Chief Clerk.
Borough of Brooklyn—Office, Room 11, Borough Hall. Telephone, 4004 Main and 4005 Main.
Henry J. Brewer, M. D., John F. Kennedy.
Joseph McGuinness, Chief Clerk.
Open all hours of the day and night.
Borough of Manhattan—Office, Criminal Courts Building, Centre and White streets. Open at all times of the day and night.
Coroners: Julius Harburger, Peter P. Acritelli, George F. Shady, Jr., Peter Dooley.
Julius Harburger, President Board of Coroners.
Jacob E. Bausch, Chief Clerk.
Telephones, 1004, 5057, 5058 Franklin.
Borough of Queens—Office, Borough Hall, Fulton street, Jamaica, L. I.
Samuel D. Nutt, Alfred S. Ambler.
Martin Mager, Jr., Chief Clerk.
Office hours, from 9 a. m. to 10 p. m.
Borough of Richmond—Second street, New Brighton. Open for the transaction of business all hours of the day and night.
Matthew J. Cahill.

COUNTY OFFICES.

NEW YORK COUNTY.

COMMISSIONER OF JURORS.

Room 127, Stewart Building, Chambers street and Broadway, 9 a. m. to 4 p. m.
Thomas Allison, Commissioner.
Matthew F. Neville, Assistant Commissioner.
Frederick P. Simpson, Assistant Commissioner.
Frederick O'Byrne, Secretary.

COMMISSIONER OF RECORDS.

Office, New County Court-house.
William S. Andrews, Commissioner.

COUNTY CLERK.

Nos. 8, 9, 10 and 11 New County Court-house
Office hours from 9 a. m. to 4 p. m.
Peter J. Doelling, County Clerk.
John F. Curry, Deputy.
Joseph J. Glennen, Secretary.
Telephone, 870 Cortlandt.

DISTRICT ATTORNEY.

Building for Criminal Courts, Franklin and Centre streets.
Office hours from 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m.
William Travers Jerome, District Attorney.
John A. Henneberry, Chief Clerk.

PUBLIC ADMINISTRATOR.

No. 119 Nassau street, 9 a. m. to 4 p. m.
William M. Hoes, Public Administrator.
Telephone, 6376 Cortlandt.

REGISTER.

Hall of Records. Office hours from 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m. During the months of July and August the hours are from 9 a. m. to 2 p. m.
Frank Gass, Register.
William H. Sinnott, Deputy Register.
Telephone, 3900 Worth.

SHERIFF.

No. 299 Broadway, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.
Nicholas J. Hayes, Sheriff.
A. J. Johnson, Under Sheriff.
Telephone, 4984 Worth.

SURROGATE.

Hall of Records. Court open from 9 a. m. to 4 p. m., except Saturday, when it closes at 12 m. During the months of July and August the hours are from 9 a. m. to 2 p. m.
Frank T. Fitzgerald, Abner C. Thomas, Surrogates; William V. Leary, Chief Clerk.

KINGS COUNTY.

COMMISSIONER OF JURORS.

County Court-house.
Jacob Brenner, Commissioner.
Jacob A. Livingston, Deputy Commissioner.

Albert B. Waldron, Secretary.
Office hours from 9 a. m. to 4 p. m.; Saturdays, from 9 a. m. to 12 m.
Office hours during July and August, 9 a. m. to 2 p. m.; Saturdays, from 9 a. m. to 12 m.
Telephone, 1454 Main.

COMMISSIONER OF RECORDS.

Hall of Records.
Office hours, 9 a. m. to 4 p. m., excepting months of July and August, then 9 a. m. to 2 p. m.; Saturdays, 9 a. m. to 12 m.
John K. Neal, Commissioner.
Jesse D. Frost, Deputy Commissioner.
Thomas D. Mossrop, Superintendent.
William J. Beattie, Assistant Superintendent.

COUNTY CLERK.

Hall of Records, Brooklyn. Office hours, 9 a. m. to 4 p. m.; during months of July and August, 9 a. m. to 2 p. m.; Saturdays, 9 a. m. to 12 m.
Charles T. Hartzheim, County Clerk.
Bela Tokaji, Deputy County Clerk.
James P. Kohler, Assistant Deputy County Clerk.
Robert Stewart, Counsel.
Telephone call, 4930 Main.

COUNTY COURT, KINGS COUNTY.

County Court-house, Brooklyn, Rooms 10, 17, 18, 22 and 23. Court opens at 10 a. m. daily and sits until business is completed. Part I., Room No. 23; Part II., Room No. 10, Court-house. Clerk's Office, Rooms 17, 18 and 22, open daily from 9 a. m. to 4 p. m.; Saturdays, 12 m.
Norman S. Dike and Lewis L. Fawcett, County Judges.
Charles S. Devoy, Chief Clerk.
Telephone, 4154 and 4155 Main.

DISTRICT ATTORNEY.

Office, County Court-house, Borough of Brooklyn
Hours, 9 a. m. to 5 p. m.
John F. Clarke, District Attorney.

PUBLIC ADMINISTRATOR.

No. 44 Court street (Temple Bar), Brooklyn. 9 a. m. to 5 p. m.
Charles E. Teale, Public Administrator

REGISTER.

Hall of Records. Office hours, 9 a. m. to 4 p. m., excepting months of July and August; then from 9 a. m. to 2 p. m., provided for by statute.
Alfred J. Boulton, Register.

SHERIFF.

County Court-house, Brooklyn, N. Y.
9 a. m. to 4 p. m.; Saturdays, 12 m.
Michael J. Flaherty, Sheriff.

SURROGATE.

Hall of Records, Brooklyn, N. Y.
James C. Church, Surrogate.
William P. Pickett, Clerk of the Surrogate's Court.
Court opens at 10 a. m. Office hours, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.

QUEENS COUNTY.

COMMISSIONER OF JURORS.

Office hours, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m. Queens County Court-house, Long Island City.
John P. Balbert, Commissioner of Jurors.
Rodman Richardson, Assistant Commissioner.

COUNTY CLERK.

Jamaica, Fourth Ward, Borough of Queens, City of New York.
Office open, April 1 to October 1, 8 a. m. to 5 p. m.; October 1 to April 1, 9 a. m. to 5 p. m.; Saturdays throughout year until 12 noon.
John Niederstein, County Clerk.
Henry J. Walter, Jr., Deputy County Clerk.
Charles Mahler, Assistant Deputy County Clerk.
Frank C. Kligenbeck, Secretary.
Telephone, 151 Jamaica.

COUNTY COURT.

Temporary County Court-house, Long Island City.
County Court opens at 10 a. m. Trial Terms begin first Monday of each month, except July, August and September. Special Terms each Saturday, except during August.
County Judge's office always open at No. 336 Fulton street, Jamaica, N. Y.
Burt J. Humphrey, County Judge.

DISTRICT ATTORNEY.

Office, Queens County Court-house, Long Island City, 9 a. m. to 5 p. m.
Ira G. Darrin, District Attorney.

PUBLIC ADMINISTRATOR.

No. 17 Cook avenue, Elmhurst.
John T. Robinson, Public Administrator, County of Queens.

SHERIFF.

County Court-house, Long Island City, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.
Herbert S. Harvey, Sheriff.
John M. Phillips, Under Sheriff.

SURROGATE.

Daniel Noble, Surrogate.
Office at Jamaica.
Except on Sundays, holidays and half-holidays, the office is open between March 31 and October 1 from 8 a. m. to 5 p. m.; on Saturdays, from 8 a. m. to 12 m.; between September 30 and April 1, from 9 a. m. to 5 p. m.; on Saturdays, from 9 a. m. to 12 m.
The calendar is called on Tuesday of each week at 10 a. m., except during the month of August, when no court is held, and the court sits every day thereafter until all contested cases have been disposed of.

RICHMOND COUNTY.

COMMISSIONER OF JURORS.

Village Hall, Stapleton.
Charles J. Kullman, Commissioner.
John J. McCaughey, Assistant Commissioner.
Office open from 9 a. m. until 4 p. m.; Saturdays from 9 a. m. to 12 m.

COUNTY CLERK.

County Office Building, Richmond, S. I., 9 a. m. to 4 p. m.
C. L. Bostwick, County Clerk.
County Court-house, Richmond, S. I., 9 a. m. to 4 p. m.

COUNTY JUDGE AND SURROGATE.

Terms of Court, Richmond County, 1907.
County Courts—Stephen D. Stephens, County Judge.
First Monday of June, Grand and Trial Jury.
First Monday of December, Grand and Trial Jury.
Fourth Wednesday of January, without a Jury.
Fourth Wednesday of February, without a Jury.
Fourth Wednesday of March, without a Jury.
Fourth Wednesday of April, without a Jury.
Fourth Wednesday of July, without a Jury.
Fourth Wednesday of September, without a Jury.
Fourth Wednesday of October, without a Jury.
Surrogate's Court—Stephen D. Stephens, Surrogate.
Mondays at the Borough Hall, St. George, 10.30 o'clock a. m.
Tuesdays at the Borough Hall, St. George, at 10.30 o'clock a. m.
Wednesdays at the Surrogate's Office, Richmond, at 10.30 o'clock a. m.

DISTRICT ATTORNEY.

No. 400 Richmond Terrace, New Brighton, S. I.
Office hours, from 9 a. m. to 12 m., and 1 p. m. to 5 p. m.
John J. Kenney, District Attorney.
J. Harry Tiernan, Assistant District Attorney.

SHERIFF.

County Court-house, Richmond, S. I.
Office hours, 9 a. m. to 4 p. m.
Joseph J. Barth, Sheriff.
John J. Schoen, Under Sheriff.

THE COURTS.

APPELLATE DIVISION OF THE SUPREME COURT.

FIRST JUDICIAL DEPARTMENT.

Court-house, Madison avenue, corner Twenty-fifth street. Court opens at 1 p. m.
Edward Patterson, Presiding Justice, George L. Ingraham, Chester B. McLaughlin, Frank C. Laughlin, John Proctor Clarke, James W. Houghton, Francis M. Scott and John S. Lambert, Justices; Alfred Wagstaff, Clerk; William Lamb, Deputy Clerk.
Clerk's Office open at 9 a. m.

SUPREME COURT—FIRST DEPARTMENT.

County Court-house, Chambers street. Court open from 10.15 a. m. to 4 p. m.
Special Term, Part I. (motions), Room No. 15.
Special Term, Part II. (ex-parte business), Room No. 13.
Special Term, Part III., Room No. 19.
Special Term, Part IV., Room No. 20.
Special Term, Part V., Room No. 33.
Special Term, Part VI. (Elevated Railroad cases), Room 31.
Trial Term, Part II., Room No. 34.
Trial Term, Part III., Room No. 22.
Trial Term, Part IV., Room No. 21.
Trial Term, Part V., Room No. 24.
Trial Term, Part VI., Room No. 35.
Trial Term, Part VII., Room No. 23.
Trial Term, Part VIII., Room No. 27.
Trial Term, Part IX., Room No. 26.
Trial Term, Part X., Room No. 28.
Trial Term, Part XI., Room No. 37.
Trial Term, Part XII., Room No. 26.
Trial Term, Part XIII., and Special Term, Part VII., Room No. 36.
Appellate Term, Room No. 29.
Naturalization Bureau, Room No. 28, third floor.
Assignment Bureau, room on third floor.
Clerks in attendance from 10 a. m. to 4 p. m.
Clerk's Office, Special Term, Part I. (motions), Room No. 15.
Clerk's Office, Special Term, Part II. (ex-parte business), room southwest corner, mezzanine floor.
Clerk's Office, Special Term, Calendar, room southeast corner, second floor.
Clerk's Office, Trial Term, Calendar, room northeast corner, second floor, east.
Clerk's Office, Appellate Term, room southwest corner, third floor.
Trial Term, Part I. (criminal business).
Criminal Court-house, Centre street.
Justices—Charles H. Truax, Charles F. MacLean, Henry Bischoff, Jr., Leonard A. Giegerich, P. Henry Dugro, Henry A. Gildersleeve, James Fitzgerald, David Leventritt, James A. O'Gorman, James A. Blanchard, Edward S. Clinch, Samuel Greenbaum, Edward E. McCall, Edward B. Amend, Vernon M. Davis, Victor J. Dowling, Joseph Newburger, M. Linn Bruce, John W. Goff, Samuel Seabury, M. Warley Platzek, Peter A. Hendrick, John Ford, Charles W. Dayton, John J. Brady, Mitchell L. Erlanger, Charles L. Guy.
Telephone, 4586 Cortlandt.

SUPREME COURT—SECOND DEPARTMENT.

Kings County Court-house, Borough of Brooklyn N. Y.
Court open daily from 10 o'clock a. m. to 5 o'clock p. m. Seven jury trial parts. Special Term for Trials. Special Term for Motions.
James F. McGee, General Clerk.
Telephone, 6970 Main.

CRIMINAL DIVISION—SUPREME COURT.

Building for Criminal Courts, Centre, Elm, White and Franklin streets.
Court opens at 10.30 a. m.
Peter J. Doelling, Clerk; Edward R. Carroll, Special Deputy to the Clerk.
Clerk's Office open from 9 a. m. to 4 p. m.
Telephone, 6664 Franklin.

COURT OF GENERAL SESSIONS.

Held in the Building for Criminal Courts, Centre, Elm, White and Franklin streets.
Court opens at 10 a. m.
Thomas C. T. Crain, City Judge; Francis S. McAvoy, Recorder; Otto A. Rosalsky, Warren W. Foster and Thomas C. O'Sullivan, Judges of the Court of General Sessions. Edward R. Carroll, Clerk.
Clerk's Office open from 9 a. m. to 4 p. m.
During July and August Clerk's office will close at 2 p. m., and on Saturdays at 12 m.

CITY COURT OF THE CITY OF NEW YORK.

No. 32 Chambers street, Brownstone Building, City Hall Park, from 10 a. m. to 4 p. m.
Part I.
Part II.
Part III.
Part IV.
Part V.
Special Term Chambers will be held from 10 a. m. to 4 p. m.
Clerk's Office open from 9 a. m. to 4 p. m.
Edward F. O'Dwyer, Chief Justice; John Henry McCarty, Lewis J. Conlan, Theodore F. Hascall, Francis B. Delehanty, Joseph I. Green, William H. Wadhams, Justices. Thomas F. Smith, Clerk.
Telephone, 6145 Cortlandt.

COURT OF SPECIAL SESSIONS.

Building for Criminal Courts, Centre street between Franklin and White streets, Borough of Manhattan.

Court opens at 10 a. m.
Justices—First Division—John B. McKean, William E. Wyatt, Willard H. Olmstead, Joseph M. Deuel, Lorenz Zeller, John B. Mayo, Charles W. Calkin, Clerk; William M. Fuller, Deputy Clerk.
Clerk's Office open from 9 a. m. to 4 p. m.

Second Division—Trial Days—No. 171 Atlantic avenue, Brooklyn, Mondays, Wednesdays and Fridays at 10 o'clock; Town Hall, Jamaica, Borough of Queens, Tuesday at 10 o'clock; Town Hall, New Brighton, Borough of Richmond, Thursday at 10 o'clock.

Justices—Howard J. Forker, Patrick Keady, John Fleming, Thomas W. Fitzgerald, Robert J. Wilkin, George J. O'Keefe, Joseph L. Kerrigan, Clerk; John J. Dorman, Deputy Clerk.

Clerk's Office, No. 171 Atlantic avenue, Borough of Brooklyn, open from 9 a. m. to 4 p. m.

CHILDREN'S COURT.

First Division—No. 66 Third avenue, Manhattan, Edmund C. Lee, Clerk.

Second Division—No. 102 Court street, Brooklyn James P. Sinnott, Clerk.

CITY MAGISTRATES' COURT.**First Division.**

Court opens from 9 a. m. to 4 p. m.
City Magistrates—Robert C. Cornell, Leroy B. Crane, Peter T. Barlow, Matthew P. Breen, Charles S. Whitman, Joseph F. Moss, James J. Walsh, Henry Steiner, Daniel E. Finn, Charles G. F. Wahle, Frederick B. House, Charles N. Harris, Frederic Kernochan, Arthur C. Butts.
James McCabe, Secretary, One Hundred and Twenty-fifth street and Sixth avenue.
First District—Criminal Court Building.
Second District—Jefferson Market.
Third District—No. 69 Essex street.
Fourth District—Fifty-seventh street, near Lexington avenue.
Fifth District—One Hundred and Twenty-first street, southeastern corner of Sylvan place.
Sixth District—One Hundred and Sixty-first street and Brook avenue.
Seventh District—Fifty-fourth street, west of Eighth avenue.
Eighth District—Main street, Westchester.

Second Division.**Borough of Brooklyn.**

City Magistrates—Alfred E. Steers, A. V. B. Voorhees, Jr., James G. Tighe, Edward J. Dooley, John Naumer, E. G. Higginbotham, Frank E. O'Reilly, Henry J. Furlong, John F. Hylan, Alexander H. Geismar.
President of the Board, Frank E. O'Reilly, No. 249 Manhattan avenue.
Secretary to the Board, William F. Delaney, No. 405 Gates avenue.
First District—No. 318 Adams street.
Second District—Court and Butler streets.
Third District—Myrtle and Vanderbilt avenues.
Fourth District—Lee avenue and Clymer street.
Fifth District—Manhattan avenue and Powers street.
Sixth District—No. 495 Gates avenue.
Seventh District—No. 31 Snider avenue (Flatbush).
Eighth District—West Eighth street (Coney Island).
Ninth District—Fifth avenue and Twenty-third street.
Tenth District—133 New Jersey avenue.

Borough of Queens.

City Magistrates—Matthew J. Smith, Luke I. Connorton, Edmund J. Healy.
First District—Long Island City.
Second District—Flushing.
Third District—Far Rockaway.

Borough of Richmond.

City Magistrates—John Croak, Nathaniel Marsh.
First District—New Brighton, Staten Island.
Second District—Stapleton, Staten Island.

MUNICIPAL COURTS.**Borough of Manhattan.**

First District—Third, Fifth and Eighth Wards and all that part of the First Ward lying west of Broadway and Whitehall street, including Governor's Island, Bedloe's Island, Ellis Island and the Oyster Islands. New Court-house, No. 128 Prince street, corner of Wooster street.
Wauhope Lynn, Justice. Thomas O'Connell, Clerk.
Clerk's Office open from 9 a. m. to 4 p. m.
Telephone, 1371 Spring.

Second District—Second, Fourth, Sixth and Fourteenth Wards, and all that portion of the First Ward lying south and east of Broadway and Whitehall street. Court-room, No. 59 Madison street.
John Hoyer, Justice. Francis Mangin, Clerk.
Clerk's Office open from 9 a. m. to 4 p. m.
Court opens daily at 9 a. m., and remains open until daily calendar is disposed of and close of the daily business, except on Sundays and legal holidays.
Telephone, 2410 Orchard.

Third District—Ninth and Fifteenth Wards. Court-room, southwest corner Sixth avenue and West Tenth street. Court opens daily (Sundays and legal holidays excepted), from 9 a. m. to 4 p. m.
William F. Moore, Justice. Daniel Williams, Clerk.
Telephone, 2513 Chelsea.

Fourth District—Tenth and Seventeenth Wards. Court-room, No. 30 First street, corner Second avenue. Clerk's Office open daily from 9 a. m. to 4 p. m. Court opens 9 a. m. daily, and remains open to close of business.
George F. Roese, Justice. Andrew Lang, Clerk.
Telephone, 4053 Orchard.

Fifth District—The Fifth District embraces the Eleventh Ward and all that portion of the Thirteenth Ward which lies east of the centre line of Norfolk street and north of the centre line of Grand street and west of the centre line of Pitt street and north of the centre line of Delancey street and northwest of Clinton street to Livingston street, and on the centre line of Livingston street south to Norfolk street. Court-room, No. 154 Clinton street.
Benjamin Hoffman, Justice. Thomas Fitzpatrick, Clerk.
Telephone, 2326 Orchard.

Sixth District—Eighteenth and Twenty-first Wards. Court-room, northwest corner Twenty-third street and Second avenue. Court opens at 9 a. m. daily (except legal holidays), and continues open until close of business.
Henry W. Unger, Justice. Abram Bernard, Clerk.
Telephone, 4570 Gramercy.

Seventh District—That portion of Nineteenth Ward east of Lexington avenue, bounded on the south by the north side of East Forty-third street and on the north by the south side of East Eighty-sixth street, also that portion bounded on the south by the north side of East Sixty-first street, on the west by the east side of Park avenue, and on the north by the south side of East Sixty-fifth street.

Court-room, No. 151 East Fifty-seventh street. Court opens every morning at 9 o'clock (except Sundays and legal holidays), and continues open to close of business.

Herman Joseph, Justice. Edward A. McQuade, Clerk.
Telephone, 3860 Plaza.

Eighth District—Sixteenth and Twentieth Wards. Court-room, northwest corner of Twenty-third street and Eighth avenue. Court opens at 9 a. m. and continues open until close of business. Summary proceedings and return causes called at 9 a. m. Calendar causes, 9 a. m.

Clerk's Office open from 9 a. m. to 4 p. m., and on Saturdays until 12 m.
Trial days and Return days, each Court day.
James W. McLaughlin, Justice. Henry Merzbach, Clerk.
Telephone, 2665 Chelsea.

Ninth District—Twelfth Ward, except that portion thereof which lies west of the centre line of Lenox or Sixth avenue and of the Harlem river, north of the terminus of Lenox avenue. Court-room, No. 170 East One Hundred and Twenty-first street, southeast corner of Sylvan place. Court opens every morning at 9 o'clock (except Sundays and legal holidays), and continues open to close of business.

Joseph P. Fallon, Justice. William J. Kennedy, Clerk.
Clerk's office open from 9 a. m. to 4 p. m.
Telephone, 3595 Harlem.

Tenth District—The Tenth District embraces that portion of the Twenty-second Ward south of Seventh street, west of Central Park West to Fifty-ninth street, east on Fifty-ninth street to Seventh avenue, south on Seventh avenue to Fifty-third street, west on Fifty-third street to Eighth avenue, south on Eighth avenue to Fortieth street, north side to Hudson river. Court-room, No. 314 West Fifty-fourth street. Court open from 9 a. m. to 4 p. m., Sundays and legal holidays excepted.
Thomas E. Murray, Justice. Michael Skelly, Clerk.
Telephone, 1890 Columbus.

Eleventh District—The Eleventh District embraces that portion of the Twelfth Ward which lies north of the centre line of West One Hundred and Tenth street, between Lenox avenue and Seventh avenue, north of the centre line of One Hundred and Twentieth street, between Seventh avenue and Broadway; north of the centre line of One Hundred and Nineteenth street, between Broadway and the North or Hudson river, and west of the centre line of Lenox or Sixth avenue and of the Harlem river north of the terminus of Lenox or Sixth avenue. Court-room, No. 70 Manhattan street. Clerk's Office open daily (Sundays and legal holidays excepted), from 9 a. m. to 4 p. m. Court convenes daily at 9 a. m.
Francis J. Worcester, Justice. Heman B. Wilson, Clerk.
Telephone, 6335 Morningside.

Twelfth District—The Twelfth District embraces that portion of the Twenty-second Ward north of Seventh street, and that portion of the Twelfth Ward which lies north of the centre line of Eighth street and west of the centre line of Seventh avenue and south of the centre line of One Hundred and Twentieth street, between Seventh avenue and Broadway, and south of the centre line of One Hundred and Nineteenth street, between Broadway and the North or Hudson river. Court-room, No. 2555 Broadway.
Alfred P. W. Seaman, Justice. James V. Gilloon, Clerk.
Telephone, 4006 Riverside.

Thirteenth District—South side of Delancey street, from East river to Pitt street; east side of Pitt street, Grand street, south side of Grand street to Norfolk street, east side of Norfolk street to Division street, south side of Division street to Catharine street, east side of Catharine street to East river. Clerk's Office open daily (Sundays and legal holidays excepted), from 9 a. m. to 4 p. m.
Leon Sanders, Justice. James J. Devlin, Clerk.
Court-room, No. 264 Madison street.
Telephone, 2596 Orchard.

Fourteenth District—The Fourteenth District embraces that portion of the Borough of Manhattan bounded as follows: Beginning at West Fortieth street and Eighth avenue, north on Eighth avenue to West Fifty-third street; east on West Fifty-third street to Seventh avenue; north on Seventh avenue to West Fifty-ninth street to Eighth avenue; north on Eighth avenue and west on Central Park West to the Transverse road at Central Park West and West Ninety-seventh street; east on Transverse road to Fifth avenue and East Ninety-seventh street; south on Fifth avenue to East Ninety-sixth street; east on Ninety-sixth street to Lexington avenue; south on Lexington avenue to East Sixty-fifth street; west on East Sixty-fifth street to Park avenue; south on Park avenue to East Sixty-first street; east on Lexington avenue to East Fortieth street; west on East and West Fortieth streets to the point of beginning at West Fortieth street and Eighth avenue.
Edgar J. Lauer, Justice. William J. Chamberlain, Clerk.
Court-house, No. 620 Madison avenue.
Telephone, 3873 Plaza.

Borough of The Bronx.

First District—All that part of the Twenty-fourth Ward which was lately annexed to the City and County of New York by Chapter 934 of the Laws of 1895, comprising all of the late Town of Westchester and part of the Towns of Eastchester and Pelham, including the Villages of Wakefield and Williamsbridge. Court-room, Town Hall, Main street, Westchester Village. Court open daily (Sundays and legal holidays excepted), from 9 a. m. to 4 p. m. Trial of causes, Tuesday and Friday of each week.
William W. Penfield, Justice. Thomas F. Delahanty, Clerk.
Office hours, from 9 a. m. to 4 p. m.; Saturdays, closing at 12 m.

Second District—Twenty-third and Twenty-fourth Wards, except the territory described in chapter 934 of the Laws of 1895. Court-room, southeast corner of Washington avenue and One Hundred and Sixty-second street. Office hours, from 9 a. m. to 4 p. m. Court opens at 9 a. m.
John M. Tierney, Justice. Thomas A. Maher, Clerk.
Telephone, 3043 Melrose.

Borough of Brooklyn.

First District—Comprising First, Second, Third, Fourth, Fifth, Sixth, Tenth and Twelfth Wards and that portion of the Eleventh Ward beginning at the intersection of the centre lines of Hudson and Myrtle avenues, thence along the centre line of Myrtle avenue to North Portland avenue, thence along the centre line of North Portland avenue to Flushing avenue, thence along the centre line of Flushing avenue to Navy street, thence along the centre line of Navy street to Johnson street, thence along the centre line of Johnson street to Hudson avenue, and thence along the centre line of Hudson avenue to the point of beginning, of the Borough of Brooklyn. Court-house, northwest corner State and Court streets.
John J. Walsh, Justice. Edward Moran, Clerk.
Clerk's Office open from 9 a. m. to 4 p. m.

Second District—Seventh Ward and that portion of the Twenty-first and Twenty-third Wards west of the centre line of Stuyvesant avenue and the centre line of Schenectady avenue, also that portion of the Twentieth Ward beginning at the intersection of the

centre lines of North Portland and Myrtle avenues, thence along the centre line of Myrtle avenue to Waverly avenue, thence along the centre line of Waverly avenue to Park avenue, thence along the centre line of Park avenue to Washington avenue, thence along the centre line of Washington avenue to Flushing avenue, thence along the centre line of Flushing avenue to North Portland avenue, and thence along the centre line of North Portland avenue to the point of beginning.

Court-room, No. 495 Gates avenue.
Gerard B. Van Wart, Justice. Franklin B. Van Wart, Clerk.
Clerk's Office open from 9 a. m. to 4 p. m.

Third District—Embraces the Thirteenth, Fourteenth, Fifteenth, Sixteenth, Seventeenth, Eighteenth and Nineteenth Wards, and that portion of the Twenty-seventh Ward lying northwest of the centre line of Starr street between the boundary line of Queens County and the centre line of Central avenue, and northwest of the centre line of Suydam street between the centre lines of Central and Bushwick avenues, and northwest of the centre line of Willoughby avenue, between the centre lines of Bushwick avenue and Broadway. Court-house, Nos. 6 and 8 Lee avenue, Brooklyn.
Philip D. Meagher, Justice. John W. Carpenter, Clerk.
Clerk's Office open from 9 a. m. to 4 p. m.
Court opens at 9 a. m.

Fourth District—Embraces the Twenty-fourth and Twenty-fifth Wards, that portion of the Twenty-first and Twenty-third Wards lying east of the centre line of Stuyvesant avenue and east of the centre line of Schenectady avenue, and that portion of the Twenty-seventh Ward lying southeast of the centre line of Starr street between the boundary line of Queens and the centre line of Central avenue, and southeast of the centre line of Suydam street between the centre lines of Central and Bushwick avenues, and southeast of the centre line of Willoughby avenue between the centre lines of Bushwick avenue and Broadway.
Court-room, No. 14 Howard avenue.
Thomas H. Williams, Justice. G. J. Wiederhold, Clerk. Milton I. Williams, Assistant Clerk.
Clerk's Office open from 9 a. m. to 4 p. m.

Fifth District—Contains the Eighth, Thirtieth and Thirty-first Wards, and so much of the Twenty-second Ward as lies south of Prospect avenue. Court-house, northwest corner of Fifty-third street and Third avenue.
Cornelius Furgueson, Justice. Jeremiah J. O'Leary, Clerk.
Clerk's Office open from 9 a. m. to 4 p. m.
Telephone, 407 Bay Ridge.

Sixth District—The Sixth District embraces the Ninth and Twenty-ninth Wards and that portion of the Twenty-second Ward north of the centre line of Prospect avenue; also that portion of the Eleventh and the Twentieth Wards beginning at the intersection of the centre lines of Bridge and Fulton streets; thence along the centre line of Fulton street to Flatbush avenue; thence along the centre line of Flatbush avenue to Atlantic avenue; thence along the centre line of Atlantic avenue to Washington avenue; thence along the centre line of Washington avenue to Park avenue; thence along the centre line of Park avenue to Waverly avenue; thence along the centre line of Waverly avenue to Myrtle avenue; thence along the centre line of Myrtle avenue to Hudson avenue; thence along the centre line of Hudson avenue to Johnson street; thence along the centre line of Johnson street to Bridge street, and thence along the centre line of Bridge street to the point of beginning.

Justice, Lucien S. Bayliss. Charles P. Bible, Clerk.
Court-house, No. 611 Fulton street.

Seventh District—The Seventh District embraces the Twenty-sixth, Twenty-eighth and Thirty-second Wards.
Alexander S. Rosenthal, Justice. Samuel F. Brothers, Clerk.
Court-house, corner Pennsylvania avenue and Fulton street (No. 31 Pennsylvania avenue).
Clerk's Office open from 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m. Trial days, Tuesdays, Wednesdays, Thursdays and Fridays.
Jury Days: Wednesdays and Thursdays.
Telephone, 904 East New York.

Borough of Queens.

First District—First Ward (all of Long Island City formerly composing five wards). Court-room, St. Mary's Lyceum, Nos. 115 and 117 Fifth street, Long Island City.
Clerk's Office open from 9 a. m. to 4 p. m. each day, excepting Saturdays, closing at 12 m. Trial days, Mondays, Wednesdays and Fridays. All other business transacted on Tuesdays and Thursdays.
Thomas C. Kadien, Justice. Thomas F. Kennedy, Clerk.
Telephone, 2376 Greenpoint.

Second District—Second and Third Wards, which include the territory of the late Towns of Newtown and Flushing. Court-room, in Court-house of the late Town of Newtown, corner of Broadway and Court street, Elmhurst, New York. P. O. Address, Elmhurst, New York.
William Rasquin, Jr., Justice. John E. Prendeville, Clerk. William Repper, Assistant Clerk. James B. Snediker, Stenographer.
Clerk's Office open from 9 a. m. to 4 p. m.
Telephone, 87 Newtown.

Third District—Fourth and Fifth Wards, comprising the territory of the former Towns and Villages of Jamaica, Far Rockaway and Rockaway Beach.
James F. McLaughlin, Justice. George W. Damon, Clerk.
Court-house, Town Hall, Jamaica.
Telephone, 180 Jamaica.
Clerk's Office open from 9 a. m. to 4 p. m.
Court held on Mondays, Wednesdays and Fridays at 9 a. m.

Borough of Richmond.

First District—First and Third Wards (Towns of Castleton and Northfield). Court-room, former Village Hall, Lafayette avenue and Second street, New Brighton.
Thomas C. Brown, Justice. Anning S. Prall, Clerk.
Clerk's Office open from 9 a. m. to 4 p. m.
Telephone, 503 Tompkinsville.

Second District—Second, Fourth and Fifth Wards (Towns of Middletown, Southfield and Westfield). Court-room, former Edgewater Village Hall, Stapleton.
George W. Stake, Justice. Peter Tiernan, Clerk.
Clerk's Office open from 9 a. m. to 4 p. m.
Court opens at 9 a. m. Calendar called 10 a. m. Court continued until close of business. Trial days, Mondays, Wednesdays and Fridays.
Telephone, 313 Tompkinsville.

OFFICIAL BOROUGH PAPERS.**BOROUGH OF THE BRONX.**

"North Side News," "Harlem Reporter and Bronx Chronicle," "Bronx Sentinel."

BOROUGH OF RICHMOND.

"Staten Islander," "Staten Island Star."

BOROUGH OF QUEENS.

"Long Island Star" (First and Second Wards), "Flushing Evening Journal" (Third Ward), "Long Island Farmer" (Fourth Ward), "Rockaway News" (Fifth Ward).

BOROUGH OF BROOKLYN.

"Brooklyn Eagle," "Brooklyn Times," "Brooklyn Citizen," "Brooklyn Standard-Union," "Brooklyn Free Press."

BOROUGH OF MANHATTAN.

"Tammany Times" (Harlem District), "Manhattan and Bronx Advocate" (Washington Heights, Morningside Heights and Harlem Districts), "New York Daily News."
Designated by Board of City Record June 19, 1906.
Amended June 20, 1906; July 1, 1907.

BOARD MEETINGS.

The Board of Estimate and Apportionment meets in the Old Council Chamber (Room 16), City Hall, every Friday, at 10.30 o'clock a. m.
JOSEPH HAAG, Secretary.

The Commissioners of the Sinking Fund meet in the Old Council Chamber (Room 16), City Hall, at call of the Mayor.

N. TAYLOR PHILLIPS,

Deputy Comptroller, Secretary.

The Board of City Record meet in the Old Council Chamber (Room 16), City Hall, at call of the Mayor.

PATRICK J. TRACY,

Supervisor, Secretary.

CHANGE OF GRADE DAMAGE COMMISSION.**TWENTY-THIRD AND TWENTY-FOURTH WARDS.**

PURSUANT TO THE PROVISIONS OF chapter 537 of the Laws of 1893 and the Acts amendatory thereof and supplemental thereto, notice is hereby given that meetings of the Commissioners appointed under said Acts will be held at the office of the Commission, Room 138, No. 280 Broadway (Stewart Building), Borough of Manhattan, New York City, on Mondays, Wednesdays and Fridays of each week, at 2 o'clock p. m., until further notice.
Dated New York City, November 20, 1906.

WILLIAM E. STILLINGS,

GEORGE C. NORTON,

OSCAR S. BAILEY,

Commissioners.

LAMONT McLOUGHLIN, Clerk.

BOARD OF WATER SUPPLY.**TO CONTRACTORS.**

CONSTRUCTING A FIELD OFFICE BUILDING IN THE TOWN OF CORTLANDT, WESTCHESTER COUNTY, N. Y.

SEALED BIDS OR PROPOSALS WILL BE received by the Board of Water Supply at the office of the Secretary, No. 299 Broadway, New York, Room 911, ninth floor, until 2 p. m. on

TUESDAY, JULY 23, 1907.

FOR THE CONSTRUCTION OF A FIELD OFFICE BUILDING, FOR DIVISION AND SECTION ENGINEERS IN THE EMPLOY OF THE BOARD OF WATER SUPPLY, IN THE TOWN OF CORTLANDT, WESTCHESTER COUNTY, N. Y.

At the above place and hour the bids will be publicly opened and read. The award of the contract, if awarded, will be made by the Board of Water Supply as soon thereafter as practicable. This work is authorized by chapter 724, Laws of 1905, of the State of New York.

The building is to be a two-story and attic office building, 40 feet 4 inches by 45 feet 4 inches, in plan, with concrete or stone foundations, fireproof concrete vault, frame superstructure, shingle roof, and steam heating, plumbing and electric lighting systems.

The building will be located near Varrian's Mill, on the south side of the Peekskill Hollow road, in the Town of Cortlandt, Westchester County, New York.

The bond required for the faithful performance of the contract will be Two Thousand Dollars (\$2,000). No bids will be received or considered unless accompanied by a certified check upon a National or State bank in the City of New York, drawn to the order of the Comptroller, to the amount of Three Hundred Dollars (\$300).

Time allowed for the completion of the work is five months.

Pamphlets containing further information for bidders, forms of proposal, contract and bond, approved by the Corporation Counsel, and specifications; and pamphlet containing the contract drawings, can be obtained at the office of the Board of Water Supply, Room 1515, No. 299 Broadway, upon application in person or by mail, by depositing the sum of five dollars (\$5) in currency for each pamphlet, to insure the return of same in good condition within sixty (60) days from the date on which bids are to be opened.

J. EDWARD SIMMONS,

President;

CHARLES N. CHADWICK,

CHARLES A. SHAW,

Board of Water Supply.

J. WALDO SMITH, Chief Engineer.
THOS. HASSETT, Secretary.
JY5,23
See General Instructions to Bidders on the last page, last column, of the "City Record."

TO CONTRACTORS.

CONSTRUCTING MAIN DAMS FOR ASHOKAN RESERVOIR, IN ULSTER COUNTY, N. Y.

SEALED BIDS OR PROPOSALS WILL BE received by the Board of Water Supply at the office of the Secretary, No. 299 Broadway, New York, Room 911, ninth floor, until 2 p. m. on

TUESDAY, AUGUST 6, 1907.

FOR THE CONSTRUCTION OF THE MAIN DAMS FOR THE ASHOKAN RESERVOIR, NEAR BROWN'S STATION, IN THE TOWNS OF OLIVE AND MARLBETOWN, ULSTER COUNTY, N. Y.

At the above place, and hour the bids will be publicly opened and read. The award of the contract, if awarded, will be made by the Board of Water Supply as soon thereafter as practicable.

This work is authorized by chapter 724, Laws of 1905, of the State of New York.

The principal items in the Engineer's estimate of the work are as follows:

Removing steel pipes when directed.
Control of stream flow, Olive Bridge dam.
Control of stream flow, Middle Dike.
2,055,000 cubic yards earth excavation.
425,000 cubic yards rock excavation.
7,055,000 cubic yards refilling and embanking.
210,000 cubic yards soil for surface dressing.
1,100,000 barrels Portland cement.
280,000 cubic yards concrete masonry.
530,000 cubic yards cyclopean masonry.
64,000 cubic yards concrete blocks.
125,000 square feet face dressing for concrete.
95,000 cubic yards dry rubble paving.
929,000 pounds cast and wrought iron, steel and bronze, caring for and setting
900,000 pounds of metal work furnished by the City.
200 acres clearing.
11,500 linear feet vitrified pipe, not exceeding 10 inches in diameter.
10,000 linear feet vitrified pipe, not exceeding 18 inches in diameter.
950,000 feet (B. M.) timber and lumber.
For additional details and other items see contract.

Two or more bonds, the aggregate penalties of which shall be One Million Dollars (\$1,000,000), will be required for the faithful performance of the contract. Each bond must be signed by the contractor and the sureties. The name and address of each surety offered must be stated in the bid or proposal, together with the amount in which each surety will qualify. The sureties and the amount in which each will qualify must be satisfactory to the Board.

No bids will be received or considered unless accompanied by a certified check upon a national or state bank in The City of New York, drawn to the order of the Comptroller, to the amount of Two Hundred and Fifty Thousand Dollars (\$250,000).

Time allowed for the completion of the work is eighty-four months from the date of service of notice by the Board to begin work.

Pamphlets containing further information for bidders, forms of proposal, contract and bond, approved by the Corporation Counsel, and specifications; and pamphlet containing contract drawings can be obtained at the office of the Board of Water Supply, Room 1515, No. 290 Broadway, upon application in person or by mail, by depositing the sum of ten dollars (\$10) in currency or check, drawn to the order of the Board of Water Supply, for each pamphlet, to secure the return of the same in good condition within sixty days from the date on which bids are to be opened.

J. EDWARD SIMMONS, President;

CHARLES N. CHADWICK, President;

CHARLES A. SHAW, Board of Water Supply.

J. WALDO SMITH, Chief Engineer.

THOS. HASSETT, Secretary.

jy5,26

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF STREET CLEANING.

MAIN OFFICE OF THE DEPARTMENT OF STREET CLEANING, ROOM 1403, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning at the above office until 12 o'clock m. on

THURSDAY, JULY 18, 1907.

Boroughs of Manhattan, The Bronx and Brooklyn.

CONTRACT FOR FURNISHING AND DELIVERING 155 COILS PURE MANILA HEMP BOLT ROPE.

The time for the delivery of the articles, materials and supplies, and the performance of the contract is one-fourth within 30 days, one-fourth within 60 days, and the remainder within 90 days from the beginning.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per pound or other unit of measure, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total, and awards made to the lowest bidder.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Nos. 13 to 21 Park row.

M. CRAVEN, Commissioner of Street Cleaning.

Dated July 5, 1907.

jy6,18

See General Instructions to Bidders on the last page, last column, of the "City Record."

MAIN OFFICE OF THE DEPARTMENT OF STREET CLEANING, ROOM 1403, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning at the above office until 12 o'clock m. on

THURSDAY, JULY 18, 1907.

Boroughs of Manhattan, The Bronx and Brooklyn.

CONTRACT FOR FURNISHING AND DELIVERING 40 SETS SINGLE TRUCK HARNESS.

The time for the delivery of the articles, materials and supplies, and the performance of the contract is 60 days.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

The bidder will state the price per set by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total and awards made to the lowest bidder.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Nos. 13 to 21 Park row.

M. CRAVEN, Commissioner of Street Cleaning.

Dated July 5, 1907.

jy6,18

See General Instructions to Bidders on the last page, last column, of the "City Record."

MAIN OFFICE OF THE DEPARTMENT OF STREET CLEANING, ROOM 1403, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning at the above office, until 12 o'clock m. on

TUESDAY, JULY 16, 1907.

Boroughs of Manhattan, The Bronx and Brooklyn.

CONTRACT FOR FURNISHING AND DELIVERING 800 PIPE HORSE COLLARS (SIZES FROM 21-INCH TO 26-INCH).

The time for the delivery of the articles, materials and supplies, and the performance of the contract, is by or before December 31, 1907.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

N. B.—Each bidder must submit on or before the opening of the bids two (2) samples of the collar he proposes to furnish.

The bidder will state the price of each horse collar contained in the specifications or schedules herein contained or hereto annexed, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total, and awards made to the lowest bidder.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Nos. 13 to 21 Park row.

M. CRAVEN, Commissioner of Street Cleaning.

Dated July 3, 1907.

jy5,16

See General Instructions to Bidders on the last page, last column, of the "City Record."

MAIN OFFICE OF THE DEPARTMENT OF STREET CLEANING, ROOM 1403, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning at the above office until 12 o'clock m. on

FRIDAY, JULY 12, 1907.

Boroughs of Manhattan, The Bronx and Brooklyn.

CONTRACT FOR FURNISHING AND DELIVERING 200 PIECES OF TICKING FOR SADDLE PADS AND HORSE COLLARS.

The time for the delivery of the articles, materials and supplies and the performance of the contract is 30 days.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per yard or other unit of measure, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total and awards made to the lowest bidder.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Nos. 13 to 21 Park row.

M. CRAVEN, Commissioner of Street Cleaning.

Dated June 28, 1907.

jy1,12

See General Instructions to Bidders on the last page, last column, of the "City Record."

MAIN OFFICE OF THE DEPARTMENT OF STREET CLEANING, ROOM 1403, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning at the above office, until 12 o'clock m. on

FRIDAY, JULY 12, 1907.

Boroughs of Manhattan, The Bronx and Brooklyn.

No. 1. CONTRACT FOR FURNISHING AND DELIVERING PARTS FOR SPRINKLING TRUCKS AND FOR SWEEPING MACHINES.

The time for the delivery of the articles, materials and supplies and the performance of the contract is thirty days.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per pound, per hundred pounds, ton, dozen, gallon, yard or other unit of measure, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total for each class, and awards made to the lowest bidder on each class.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Nos. 13 to 21 Park row.

M. CRAVEN, Commissioner of Street Cleaning.

Dated June 28, 1907.

jy1,12

See General Instructions to Bidders on the last page, last column, of the "City Record."

MAIN OFFICE OF THE DEPARTMENT OF STREET CLEANING, ROOM 1403, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning at the above office until 12 o'clock m. on

WEDNESDAY, JULY 10, 1907.

Boroughs of Manhattan, The Bronx and Brooklyn.

CONTRACT FOR FURNISHING AND DELIVERING LEATHER.

The time for the delivery of the articles, materials and supplies and the performance of the contract is: One-half within 30 working days and one-half within 60 working days from the beginning.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

Bidders must submit sample sides of leather of each of the items, Nos. 1 and 2.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per pound or other unit of measure, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total and awards made to the lowest bidder.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Nos. 13 to 21 Park row.

M. CRAVEN, Commissioner of Street Cleaning.

Dated June 26, 1907.

j28,jy10

See General Instructions to Bidders on the last page, last column, of the "City Record."

MAIN OFFICE OF THE DEPARTMENT OF STREET CLEANING, ROOM 1403, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning at the above office until 12 o'clock m. on

WEDNESDAY, JULY 10, 1907.

Boroughs of Manhattan, The Bronx and Brooklyn.

CONTRACT FOR FURNISHING AND DELIVERING COAL FOR HEATING PURPOSES.

The time for the delivery of the articles, materials and supplies and the performance of the contract is by or before December 31, 1907.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per ton, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total for each class and awards made to the lowest bidder on each class.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Nos. 13 to 21 Park row.

M. CRAVEN, Commissioner of Street Cleaning.

Dated June 26, 1907.

j28,jy10

See General Instructions to Bidders on the last page, last column, of the "City Record."

MAIN OFFICE OF THE DEPARTMENT OF STREET CLEANING, ROOM 1403, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning at the above office until 12 o'clock m. on

TUESDAY, JULY 9, 1907.

Borough of Brooklyn.

CONTRACT FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR THE FINAL DISPOSITION OF ALL ASHES, STREET SWEEPINGS AND RUBBISH.

The period of the contract will be for five years, beginning with the 28th day of October, 1907.

The amount of the surety required will be One Hundred Thousand Dollars (\$100,000).

Each bid or estimate must be accompanied by a certified check on a solvent banking corporation in The City of New York, payable to the order of the Comptroller, for five per centum of the amount for which the work bid for is proposed in any one year to be performed. Such check must be inclosed in the envelope containing the bid or estimate.

For an estimate of the amount of the work to be done under the contract, bidders are referred to the "Information for Bidders" printed in the proposals of this form of contract.

The compensation to be paid to the contractor must be stated at a price per annum for each of the five years of the period of the contract, and this price must be written in full, and must also be given in figures.

The Commissioner reserves the right to select from the bids or estimates the bid or estimate the acceptance of which will, in his judgment, best secure the efficient performance of the work; or he may reject any or all of the said bids. No bid shall be withdrawn pending the award.

For further information, bidders are referred to the proposal form of contract and specifications.

Blank forms and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Nos. 13 to 21 Park row.

M. CRAVEN, Commissioner of Street Cleaning.

Dated June 25, 1907.

j26,jy9

See General Instructions to Bidders on the last page, last column, of the "City Record."

MAIN OFFICE OF THE DEPARTMENT OF STREET CLEANING, ROOM 1403, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning at the above office until 12 o'clock m. on

TUESDAY, JULY 9, 1907.

Borough of Brooklyn.

CONTRACT FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR THE FINAL DISPOSITION OF ALL ASHES, STREET SWEEPINGS AND RUBBISH.

The period of the contract will be for five years, beginning with the 28th day of October, 1907.

The amount of the surety required will be One Hundred Thousand Dollars (\$100,000).

Each bid or estimate must be accompanied by a certified check on a solvent banking corporation in The City of New York, payable to the order of the Comptroller, for five per centum of the amount for which the work bid for is proposed in any one year to be performed. Such check must be inclosed in the envelope containing the bid or estimate.

CONTRACT No. 2.

The period of the contract will be for five years, beginning with the 28th day of October, 1907.

The amount of the surety required will be One Hundred Thousand Dollars (\$100,000).

Each bid or estimate must be accompanied by a certified check on a solvent banking corporation in The City of New York, payable to the order of the Comptroller, for five per centum of the amount for which the work bid for is proposed in any one year to be performed. Such check must be inclosed in the envelope containing the bid or estimate.

For an estimate of the amount of the work to be done under the contract, bidders are referred to the "Information for Bidders" printed in the proposals of this form of contract.

The compensation to be paid to the contractor must be stated at a price per annum for each of the five years of the period of the contract, and this price must be written in full, and must also be given in figures.

The Commissioner reserves the right to select from the bids or estimates, the bid or estimate, the acceptance of which will, in his judgment, best secure the efficient performance of the work, or he may reject any or all of the said bids. No bid shall be withdrawn pending the award.

For further information, bidders are referred to the proposed form of contract and specifications.

Blank forms and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Nos. 13 to 21 Park row.

M. CRAVEN, Commissioner of Street Cleaning.

Dated June 25, 1907.

j26,jy9

See General Instructions to Bidders on the last page, last column, of the "City Record."

ASHES, ETC., FOR FILLING IN LANDS.

PERSONS HAVING LANDS OR PLACES in the vicinity of New York Bay to fill in can procure material for that purpose—ashes, street sweepings, etc., collected by the Department of Street Cleaning—free of charge by applying to the Commissioner of Street Cleaning, Nos. 13 to 21 Park row, Borough of Manhattan.

MACDONOUGH CRAVEN, Commissioner of Street Cleaning.

OFFICIAL PAPERS.

Morning—"The Sun," "The New York Times."

Evening—"The Globe," "The Evening Mail."

Weekly—"Democracy," "Real Estate Record and Guide."

German—"Staats-Zeitung."

Designated by the Board of City Record, January 22, 1906. Amended March 1, 1906, November 20, 1906, and February 20, 1907.

BOROUGH OF BROOKLYN.

NOTICE IS HEREBY GIVEN THAT, IN accordance with the provisions of section 432 of the Charter of The City of New York, the following petitions, on file and ready for inspection, will be considered by the Local Board of the Bay Ridge District, at a meeting to be held in the office of the President of the Borough, Room 11, Borough Hall, on

WEDNESDAY, JULY 17, 1907,

at 2:30 p. m.

No. 1. Senator Street—To request the Board of Estimate and Apportionment to direct the Corporation Counsel to discontinue so much of the proceeding pending to open Senator street, between First and Fifth avenues, as lies between First and Second avenues.

No. 2. Senator Street—To construct a sewer in Senator street, between First and Second avenues.

No. 3. Sixty-seventh Street—To construct a sewer in Sixty-seventh street, between First and Second avenues.

No. 4. Senator and Sixty-seventh Streets—To rescind resolution of April 3, 1907, initiating proceedings to construct sewers in Senator and Sixty-seventh streets, between First and Second avenues.

No. 5. Seventy-sixth, Seventy-seventh, Seventy-eighth Streets—To construct sewers in Seventy-sixth, Seventy-seventh and Seventy-eighth streets, between Twelfth and Thirteenth avenues, and in Seventy-eighth street, between Fourteenth and Fifteenth avenues.

No. 6. Forty-first Street—To grade to the level of the curb the lot lying on the north side of Forty-first street, between Sixth and Seventh avenues, known as No. 65, Block 918.

No. 7. Forty-fifth Street—To grade to the level of the curb the lot lying on the northwest corner of Forty-fifth street and Seventh avenue, known as No. 43, Block 740.

No. 8. Forty-sixth Street—To grade to the level of the curb the lot lying on the north side of Forty-sixth street, between Seventh and Eighth avenues, known as No. 69, Block 750.

No. 9. Forty-seventh Street—To grade to the level of the curb the lot lying on the south side of Forty-seventh street, between Second and Third avenues, known as Nos. 22 and 23, Block 763.

No. 10. Forty-eighth and Forty-ninth Streets—To grade to the level of the curb the lots lying on the north side of Forty-ninth street, between Ninth and Tenth avenues; on the south side of Forty-eighth street, between Ninth and Tenth avenues, and on the north side of Forty-eighth street, between Ninth and Tenth avenues, known as Nos. 5 and 1, Block 5625, and No. 1, Block 5631.

No. 11. Forty-ninth Street—To grade to the level of the curb the lot lying on the north side of Forty-ninth street, between Sixth and Seventh avenues, known as No. 49, Block 776.

No. 12. Third Avenue—To grade to the level of the curb the lots lying on the east side of Third avenue, between Eighty-sixth and Eighty-seventh streets, and on the north side of Eighty-seventh street, between Third and Fourth avenues, known as Nos. 1, 7 and 72, Block 6044.

No. 13. Nineteenth Street—To lay cement sidewalks opposite the lot lying on the south side of Nineteenth street, between Fifth and Sixth avenues, known as No. 19, Block 885.

No. 14. Fifty-second Street—To lay cement sidewalks on both sides of Fifty-second street, from Second avenue to the bulkhead line.

No. 15. Fifty-first Street—To regulate, grade, set or reset curb on concrete, pave with granite block or asphalt block on concrete foundation and lay cement sidewalks on Fifty-first street, from Second avenue to New York Bay.

No. 16. Forty-fifth Street—To regulate, grade, set curb on concrete and lay cement sidewalks on Forty-fifth street, between Sixth and Seventh avenues.

No. 17. First Avenue—To lay cement sidewalks on the west side of First avenue, between Fifty-first and Fifty-second streets.

No. 18. Forty-eighth Street—To lay cement sidewalks opposite the lot lying on the south side of Forty-eighth street, between Fifth and Sixth avenues, known as No. 44, Block 775.

No. 19. Sixtieth Street—To lay cement sidewalks opposite the lots lying on the south side of Sixtieth street, between Third and Fourth avenues, known as Nos. 1, 11, 12, 13, 14, 15, 27 and 34, Block 5281.

No. 20. Seventy-ninth Street—To lay cement sidewalks opposite the lot lying on the south side of Seventy-ninth street, between Fort Hamilton avenue and Seventh avenue, known as No. 65, Block 5982.

No. 21. Eighty-first Street—To regulate, grade, set curb on concrete and lay cement sidewalks on Eighty-first street, between Eighteenth and Nineteenth avenues.

No. 22. Eighty-first Street—To open Eighty-first street, from Fourteenth avenue to Stillwell avenue, excepting the land occupied by the tracks of the Brooklyn, Bath and West End Railroad.

No. 23. Eighty-third Street—To regulate, grade, set curb on concrete and lay cement sidewalks on Eighty-third street, between Twenty-fourth and Stillwell avenues.

No. 24. Twenty-third Avenue—To lay cement sidewalks opposite the following-described lots on Twenty-third avenue:

(a) On the northwest side, between Eighty-sixth street and Benson avenue, known as Nos. 43, 48, 51, 54, 57, 60, 63, 66, 69, 72 and 1, Block 6383.

(b) On the northwest side, between Bath and Croysey avenues known as Nos. 35 and 39, Block 6450.

(c) On the southeast side, between Eighty-sixth street and Benson avenue, known as Nos. 6, 12, 20, 23, 26, 29, 32, 35 and 38, Block 6861.

(d) On the southeast side, between Benson and Bath avenues, known as No. 32, Block 6873.

(e) On the southeast side, between Bath and Croysey avenues, known as Nos. 2, 23 and 31, Block 6888.

No. 24a. Surf Avenue—To construct sewers in Surf avenue, between West Twenty-seventh and West Thirty-seventh streets, with outlet sewers in West Thirty-first street, between Surf and Mermaid avenues; in Mermaid avenue, between West Thirty-first and West Fifteenth streets; in West Fifteenth street, between Mermaid and Neptune avenues; in Neptune avenue, between West Fifteenth street and Caisson No. 2, and in West Thirty-second street, between Surf avenue and Atlantic Ocean; also to construct a pump well at the purification works, with the necessary pumps, boilers, etc.

No. 25. Fifty-third Street—To inclose with a wooden rail fence six feet high the lot lying on the northwest corner of Fifty-third street and Fifth avenue, known as No. 49, Block 807.

No. 26. Forty-ninth Street—To amend resolution of April 3, 1907, initiating proceedings to construct a sewer in Forty-ninth street, between Fourteenth and Fifteenth avenues, by having the limits of same read: Between the summit west of Fifteenth avenue and Fourteenth avenue.

No. 27. Fifth Avenue—To set curb on concrete and lay cement sidewalks on Fifth avenue, between Sixtieth and Sixty-fifth streets.

No. 28. Fifth Avenue—To pave Fifth avenue with granite block on concrete foundation between Sixtieth and Sixty-fifth streets.

No. 29. Fifty-fifth Street—To inclose with a wooden rail fence six feet high the lots lying on the south side of Fifty-fifth street, between Fifth and Sixth avenues, known as Nos. 25 and 27, Block 832.

BIRD S. COLER,

President of the Borough of Brooklyn.

CHARLES FREDERICK ADAMS,

Secretary.

OFFICE OF THE PRESIDENT OF THE BOROUGH OF BROOKLYN, ROOM 2, BOROUGH HALL, BOROUGH OF BROOKLYN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Brooklyn, at the above office, until 11 o'clock a. m. on

WEDNESDAY, JULY 17, 1907,

Borough of Brooklyn.

No. 1. FOR REGULATING, GRADING, CURBING AND LAYING SIDEWALKS ON CONEY ISLAND AVENUE, FROM KINGS HIGHWAY TO NEPTUNE AVENUE.

The Engineer's estimate of the quantities is as follows:

18,600 linear feet of new curbstone, to be set in concrete.

26,770 cubic yards of earth excavation.

17,900 cubic yards of earth filling, not to be bid for.

920 cubic yards of concrete, not to be bid for.

84,770 square feet of cement sidewalk.

Time for the completion of the work and the full performance of the contract is one hundred and twenty (120) working days.

The amount of security required is Sixteen Thousand Dollars.

No. 2. FOR REGULATING, GRADING AND CURBING ON SCHENCK AVENUE, FROM NEW LOTS ROAD TO STANLEY AVENUE.

The Engineer's estimate of the quantities is as follows:

4,040 linear feet of new curbstone, to be set in concrete.

12,030 cubic yards of earth excavation.

4,500 cubic yards of earth filling, to be furnished.

200 cubic yards of concrete, not to be bid for.

Time for the completion of the work and the full performance of the contract is sixty (60) working days.

The amount of security required is Three Thousand Dollars.

No. 3. FOR REGULATING, GRADING, CURBING AND LAYING SIDEWALKS ON SEVENTEENTH AVENUE, FROM EIGHTY-FOURTH STREET TO EIGHTY-SIXTH STREET.

The Engineer's estimate of the quantities is as follows:

1,100 linear feet of new curbstone, to be set in concrete.

60 linear feet of old curbstone, to be reset.

170 cubic yards of earth excavation.

920 cubic yards of earth filling, to be furnished.

55 cubic yards of concrete, not to be bid for.

4,920 square feet of cement sidewalk.

Time for the completion of the work and the full performance of the contract is twenty (20) working days.

The amount of security required is Eight Hundred Dollars.

No. 4. FOR REGULATING, GRADING, CURBING AND LAYING SIDEWALKS ON SEVENTY-FIRST STREET, FROM SIXTH AVENUE TO SEVENTH AVENUE.

The Engineer's estimate of the quantities is as follows:

1,550 linear feet of new curbstone to be set in concrete.

50 cubic yards of earth excavation.

6,990 cubic yards of earth filling, to be furnished.

76 cubic yards of concrete, not to be bid for.

7,870 square feet of cement sidewalk.

Time for the completion of the work and the full performance of the contract is forty (40) working days.

The amount of security required is Two Thousand Five Hundred Dollars.

No. 5. FOR REGULATING, GRADING AND CURBING ON WILLIAMS AVENUE, FROM NEW LOTS ROAD TO LOUISIANA AVENUE.

The Engineer's estimate of the quantities is as follows:

890 linear feet of new curbstone to be set in concrete.

680 cubic yards of earth excavation.

1,810 cubic yards of earth filling, to be furnished.

45 cubic yards of concrete, not to be bid for.

Time for the completion of the work and the full performance of the contract is twenty (20) working days.

The amount of security required is Seven Hundred Dollars.

No. 6. FOR REGULATING AND REPAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF FIFTY-EIGHTH STREET, FROM FIFTH AVENUE TO SIXTH AVENUE.

The Engineer's estimate of the quantities is as follows:

2,400 square yards of asphalt pavement.

10 square yards of old stone pavement to be relaid.

410 cubic yards of concrete.

440 linear feet of new curbstone.

1,000 linear feet of old curbstone to be reset.

6 noiseless covers and heads, complete, for sewer manholes.

Time for the completion of the work and the full performance of the contract is twenty (20) working days.

The amount of security required is Two Thousand Dollars.

No. 7. FOR REGULATING AND REPAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF HALSEY STREET, FROM BROADWAY TO KNICKERBOCKER AVENUE.

The Engineer's estimate of the quantities is as follows:

5,120 square yards of asphalt pavement.

30 square yards of old stone pavement to be relaid.

1,020 cubic yards of concrete.

3,640 linear feet of new curbstone.

2,500 linear feet of old curbstone to be reset.

1 noiseless cover and head, complete, for sewer manhole.

Time for the completion of the work and the full performance of the contract is thirty-five (35) working days.

The amount of security required is Five Thousand Seven Hundred Dollars.

No. 8. FOR REGULATING AND REPAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF HAMPTON PLACE, FROM PARK PLACE TO STERLING PLACE.

The Engineer's estimate of the quantities is as follows:

750 square yards of asphalt pavement.

130 cubic yards of concrete.

500 linear feet of new curbstone.

60 linear feet of old curbstone to be reset.

2 noiseless covers and heads, complete, for sewer manholes.

Time for the completion of the work and the full performance of the contract is twenty (20) working days.

The amount of security required is Seven Hundred Dollars.

No. 9. FOR REGULATING AND REPAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF MACON STREET, FROM HOWARD AVENUE TO HOPKINSON AVENUE.

The Engineer's estimate of the quantities is as follows:

5,310 square yards of asphalt pavement.

880 cubic yards of concrete.

1,310 linear feet of new curbstone.

1,500 linear feet of old curbstone to be reset.

15 noiseless covers and heads, complete, for sewer manholes.

Time for the completion of the work and the full performance of the contract is thirty-five (35) working days.

The amount of security required is Four Thousand Four Hundred Dollars.

No. 10. FOR REGULATING AND REPAVING WITH ASPHALT PAVEMENT ON PRESENT PAVEMENT AS A FOUNDATION THE ROADWAY OF THROOP AVENUE, FROM VERNON AVENUE TO WILLOUGHBY AVENUE.

The Engineer's estimate of the quantities is as follows:

1,320 square yards of asphalt pavement.

1,320 square yards of old stone pavement to be relaid.

220 linear feet of new curbstone.

270 linear feet of old curbstone to be reset.

5 noiseless covers and heads, complete, for sewer manholes.

Time for the completion of the work and the full performance of the contract is twenty (20) working days.

The amount of security required is Eight Hundred Dollars.

No. 11. FOR REGULATING AND REPAVING WITH ASPHALT BLOCK PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF ROSS STREET, FROM WYTHE AVENUE TO KENT AVENUE.

The Engineer's estimate of the quantities is as follows:

1,910 square yards of asphalt block pavement.

20 square yards of old stone pavement to be relaid.

290 cubic yards of concrete.

910 linear feet of new curbstone.

100 linear feet of old curbstone to be reset.

6 noiseless covers and heads, complete, for sewer manholes.

Time for the completion of the work and the full performance of the contract is twenty (20) working days.

The amount of security required is One Thousand Nine Hundred Dollars.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per linear foot, square foot, square yard, cubic yard, or other unit of measure, by which the bids will be tested. The bids will be compared and the contract awarded at a lump or aggregate sum for each contract.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained and the plans and drawings may be seen at the office of the President, Department of Highways, the Borough of Brooklyn, Room 15, Municipal Building, Brooklyn.

BIRD S. COLER,

President.

Dated July 2, 1907.

See General Instructions to Bidders on the last page, last column, of the "City Record."

OFFICE OF THE PRESIDENT OF THE BOROUGH OF BROOKLYN, ROOM 15, MUNICIPAL BUILDING, BOROUGH OF BROOKLYN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Brooklyn at the above office until 11 o'clock a. m. on

WEDNESDAY, JULY 10, 1907,

No. 1. FOR REGULATING, GRADING, CURBING AND LAYING SIDEWALKS ON EIGHTY-FOURTH STREET, FROM EIGH-

TEENTH AVENUE TO STILLWELL AVENUE.

The Engineer's estimate of the quantities is as follows:

10,260 linear feet of new curbstone to be set in concrete.

200 linear feet of old curbstone to be reset.

1,520 cubic yards of earth excavation.

2,020 cubic yards of earth filling, to be furnished.

510 cubic yards of concrete, not to be bid for.

32,300 square feet of cement sidewalk.

Time for the completion of the work and the full performance of the contract is forty-five (45) working days.

The amount of security required is Six Thousand Six Hundred Dollars.

No. 2. FOR REGULATING, GRADING, CURBING AND LAYING SIDEWALKS ON ELEVENTH AVENUE, FROM SIXTIETH STREET TO SIXTY-FIFTH STREET.

The Engineer's estimate of the quantities is as follows:

2,330 linear feet of new curbstone to be set in concrete.

10 linear feet of old curbstone to be reset.

3,800 cubic yards of earth excavation.

1,480 cubic yards of earth filling, not to be bid for.

110 cubic yards of concrete, not to be bid for.

10,200 square feet of cement sidewalk.

Time for the completion of the work and the full performance of the contract is thirty-five (35) working days.

The amount of security required is Two Thousand Eight Hundred Dollars.

No. 3. FOR REGULATING, GRADING, CURBING AND LAYING SIDEWALKS ON FIFTY-FIFTH STREET, FROM SIXTH AVENUE TO SEVENTH AVENUE.

The Engineer's estimate of the quantities is as follows:

1,450 linear feet of new curbstone to be set in concrete.

1,370 cubic yards of earth excavation.

30 cubic yards of earth filling, not to be bid for.

70 cubic yards of concrete, not to be bid for.

7,380 square feet of cement sidewalk.

Time for the completion of the work and the full performance of the contract is thirty (30) working days.

The amount of security required is One Thousand One Hundred Dollars.

No. 4. FOR REGULATING, GRADING, CURBING AND LAYING SIDEWALKS ON FIFTY-EIGHTH STREET, FROM EIGHTH AVENUE TO FORT HAMILTON AVENUE.

The Engineer's estimate of the quantities is as follows:

2,920 linear feet of new curbstone to be set in concrete.

270 cubic yards of earth excavation.

2,850 cubic yards of earth filling, to be furnished.

145 cubic yards of concrete, not to be bid for.

14,220 square feet of cement sidewalk.

Time for the completion of the work and the full performance of the contract is thirty-five (35) working days.

The amount of security required is Two Thousand Three Hundred Dollars.

No. 5. FOR REGULATING, GRADING, CURBING AND LAYING SIDEWALKS ON HAWTHORNE STREET, FROM ROGERS AVENUE TO NOSTRAND AVENUE.

The Engineer's estimate of the quantities is as follows:

1,520 linear feet of new curbstone to be set in concrete.

40 linear feet of old curbstone to be reset.

270 cubic yards of earth excavation.

350 cubic yards of earth filling, to be furnished.

80 cubic yards of concrete, not to be bid for.

6,950 square feet of cement sidewalk.

Time for the completion of the work and the full performance of the contract is thirty (30) working days.

The amount of security required is One Thousand Dollars.

No. 6. FOR REGULATING, GRADING, CURBING AND LAYING SIDEWALKS ON PROSPECT PLACE, FROM ROCHESTER AVENUE TO BUFFALO AVENUE.

The Engineer's estimate of the quantities is as follows:

1,430 linear feet of new curbstone to be set in concrete.

10 linear feet of old curbstone to be reset.

700 cubic yards of earth excavation.

650 cubic yards of earth filling, not to be bid for.

70 cubic yards of concrete, not to be bid for.

7,340 square feet of cement sidewalk.

Time for the completion of the work and the full performance of the contract is thirty (30) working days.

The amount of security required is One Thousand Two Hundred Dollars.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per linear foot, foot or square yard, or other unit of measure, by which the bids will be tested. The bids will be compared and the contract awarded at a lump or aggregate sum for each contract.

Blank forms and further information may be obtained and the plans and drawings may be seen at the office of the Bureau of Highways, the Borough of Brooklyn, No. 14 Municipal Building, Brooklyn.

BIRD S. COLER,

President.

Dated June 24, 1907.

See General Instructions to Bidders on the last page, last column, of the "City Record."

MUNICIPAL CIVIL SERVICE COMMISSION.

MUNICIPAL CIVIL SERVICE COMMISSION, No. 299 BROADWAY, NEW YORK, JULY 6, 1907.

PUBLIC NOTICE IS HEREBY GIVEN OF the proposed amendment of the seventh and eighth clauses of Rule XV. in so far as they relate to the efficiency records of members of the uniformed force of the Fire Department.

A public hearing will be held, in accordance with Rule III., at the Commission's offices, No. 299 Broadway, on

WEDNESDAY, JULY 10, 1907,

at 10 o'clock in the forenoon.

F. A. SPENCER,

Secretary.

MUNICIPAL CIVIL SERVICE COMMISSION, No. 299 BROADWAY, NEW YORK, JULY 6, 1907.

PUBLIC NOTICE IS HEREBY GIVEN OF the proposed exemption of the position of Assistant Secretary to the Municipal Art Commission.

A public hearing will be held, in accordance with Rule III., at the Commission's offices, No. 299 Broadway, on

WEDNESDAY, JULY 10, 1907,

at 10 o'clock in the forenoon.

F. A. SPENCER,

Secretary.

MUNICIPAL CIVIL SERVICE COMMISSION, No. 299 BROADWAY, NEW YORK, JULY 2, 1907.

PUBLIC NOTICE IS HEREBY GIVEN that applications will be received from

TUESDAY, JULY 2, until 4 p. m. TUESDAY, JULY 16, 1907, for the position of

CATALOGUER (MEN AND WOMEN).

The examination will be held on

T

Wherever an examination is of a technical character, due notice is given by advertisement in the technical journals appertaining to the particular profession for which the examination is called.

Such notices will be sent to the daily papers as matters of news, and to the General Post office and stations thereof. The scope of the examination will be stated, but for more general information application should be made at the office of the Commission.

Unless otherwise specifically stated, the minimum age requirement for all positions is 21.

WILLIAM F. BAKER, President;
R. ROSS APPLETON,
ALFRED J. TALLEY,
Commissioners.

FRANK A. SPENCER,
Secretary.

12-24-03

BOROUGH OF MANHATTAN.

OFFICE OF THE PRESIDENT OF THE BOROUGH OF MANHATTAN, CITY HALL, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Manhattan at the City Hall, Room 16, until 3 o'clock p. m. on

THURSDAY, JULY 18, 1907.

FOR THE COMPLETION OF THE PLUMBING AND DRAINAGE OF A PUBLIC BATH BUILDING, NOW BEING ERRECTED ON EAST SIDE OF AVENUE A, BETWEEN TWENTY-THIRD AND TWENTY-FOURTH STREETS, NEW YORK CITY, WHICH HAS BEEN ABANDONED BY THE ORIGINAL CONTRACTORS.

The time allowed for doing and completing the work will be thirty (30) calendar days.

The security required will be Three Thousand Dollars (\$3,000).

The bidder shall state one aggregate price for the whole work described and specified, as the contract is entire and for a complete job.

Plans and drawings may be seen and blank forms of the contracts and specifications may be obtained at the office of the architects, Messrs. Aiken & Brunner, No. 33 Union Square West, Borough of Manhattan.

JOHN F. AHEARN,
Borough President.

The City of New York, July 5, 1907.

jy6,18

See General Instructions to Bidders on the last page, last column, of the "City Record."

OFFICE OF THE PRESIDENT OF THE BOROUGH OF MANHATTAN, CITY HALL, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Manhattan at the City Hall, Room 16, until 3 o'clock p. m. on

WEDNESDAY, JULY 10, 1907.

No. 1, FOR LABOR AND MATERIAL REQUIRED (EXCEPT FOR PLUMBING WORK) FOR THE ERECTION AND COMPLETION OF A PUBLIC BATH BUILDING AT NOS. 5 AND 7 RUTGERS PLACE, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

The time allowed for doing and completing the work will be two hundred and fifty (250) calendar days.

The security required will be Fifty Thousand Dollars (\$50,000).

The bidder shall state one aggregate price for the whole work described and specified, as the contract is entire and for a complete job; and also a unit price per cubic yard for additional rock excavation requiring blasting, and for bowlders of more than one-half cubic yard volume (estimated at 500 cubic yards), for the purpose of comparing bids.

No. 2, FOR LABOR AND MATERIALS REQUIRED FOR THE INSTALLATION OF PLUMBING WORK IN A PUBLIC BATH BUILDING TO BE ERRECTED AT NOS. 5 AND 7 RUTGERS PLACE, BOROUGH OF MANHATTAN.

The time allowed for doing and completing the work will be two hundred and fifty (250) calendar days.

The security required will be Five Thousand Dollars (\$5,000).

The bidder shall state one aggregate price for the whole work described and specified, as the contract is entire and for a complete job; and also a unit price per cubic yard for additional rock excavation requiring blasting, and for bowlders of more than one-half cubic yard volume (estimated at 200 cubic yards), for the purpose of comparing bids.

Plans and drawings may be seen and blank forms of the contracts and specifications may be obtained at the office of the architects, Messrs. Bernstein & Bernstein, No. 24 East Twenty-third street, Borough of Manhattan.

JOHN F. AHEARN,
Borough President.

The City of New York, June 27, 1907.

j27,jy10

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF HEALTH.

DEPARTMENT OF HEALTH, SOUTHWEST CORNER OF FIFTY-FIFTH STREET AND SIXTH AVENUE, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Board of Health of the Department of Health until 9.45 o'clock a. m. on

WEDNESDAY, JULY 17, 1907.

FOR FURNISHING ALL THE NECESSARY LABOR AND MATERIALS REQUIRED TO EFFECT CERTAIN ALTERATIONS AND REPAIRS TO THE STEAMBOAT "FRANKLIN EDSON" FOR THE DEPARTMENT OF HEALTH OF THE CITY OF NEW YORK.

The time for the completion of the work and the full performance of the contract is 30 consecutive working days.

The amount of security required is fifty per cent. (50%) of the amount of the bid.

Bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms and further information may be obtained at the office of the Chief Clerk of the Department of Health, southwest corner of Fifty-fifth street and Sixth avenue, Borough of Manhattan, City of New York.

THOMAS DARLINGTON, M. D.,
President.

ALVAH H. DOTY, M. D.,
THEODORE A. BINGHAM,
Board of Health.

Dated July 6, 1907.

jy6,17

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF HEALTH, SOUTHWEST CORNER OF FIFTY-FIFTH STREET AND SIXTH AVENUE, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Board of Health of the Department of Health until 9.45 a. m. on

TUESDAY, JULY 16, 1907.

FOR FURNISHING AND DELIVERING TIMBER, LUMBER, MOULDING, ETC., TO THE TUBERCULOSIS SANATORIUM, AT OTISVILLE, ORANGE COUNTY, NEW YORK, DURING THE YEAR 1907.

Deliveries will be required to be made, freight prepaid, to the Otisville station on the Erie Railroad.

The time for the completion of the work and the full performance of the contract is on or before the expiration of sixty (60) days after the award of the contract.

The amount of security required is fifty per cent. (50%) of the amount of the bid.

Bids will be compared and the contract awarded to the lowest bidder for the contract complete.

Blank forms and further information may be obtained at the office of the Chief Clerk of the Department of Health, southwest corner of Fifty-fifth street and Sixth avenue, Borough of Manhattan, and at the office of the Sanatorium, in the Tymeson House, Otisville, Orange County, N. Y.

THOMAS DARLINGTON, M. D.,
President;

ALVAH H. DOTY, M. D.,
THEODORE A. BINGHAM,
Board of Health.

Dated June 29, 1907.

j29,jy16

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF HEALTH, SOUTHWEST CORNER OF FIFTY-FIFTH STREET AND SIXTH AVENUE, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Board of Health of the Department of Health until 9.45 a. m. on

WEDNESDAY, JULY 10, 1907.

FOR FURNISHING AND DELIVERING VITRIFIED SEWER PIPE, CAST IRON MANHOLE COVERS AND PORTLAND CEMENT TO THE TUBERCULOSIS SANATORIUM AT OTISVILLE, ORANGE COUNTY, N. Y.

Deliveries will be required to be made, freight prepaid, to the Otisville Station on the Erie Railroad.

The time for the completion of the work and the full performance of the contract is on or before the expiration of thirty (30) days after the award of the contract.

The amount of security required is fifty per cent. (50%) of the amount of the bid.

Bids will be compared and the contract awarded to the lowest bidder for each class, as indicated by the specifications.

Blank forms and further information may be obtained at the office of the Chief Clerk of the Department of Health, southwest corner of Fifty-fifth street and Sixth avenue, Borough of Manhattan.

THOMAS DARLINGTON, M. D.,
President;

ALVAH H. DOTY, M. D.,
THEODORE A. BINGHAM,
Board of Health.

Dated June 28, 1907.

j28,jy10

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF HEALTH, SOUTHWEST CORNER OF FIFTY-FIFTH STREET AND SIXTH AVENUE, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Board of Health of the Department of Health until 9.45 o'clock a. m. on

TUESDAY, JULY 9, 1907.

FOR FURNISHING ALL THE LABOR AND MATERIALS NECESSARY OR REQUIRED TO FURNISH AND INSTALL TWO TUBULAR BOILERS, LAUNDRY MACHINERY AND EQUIPMENT, TOGETHER WITH ALL NECESSARY STEAMFITTING AND OTHER WORK INCIDENTAL THERETO, IN THE LAUNDRY BUILDING ON THE GROUNDS OF THE TUBERCULOSIS SANATORIUM, AT OTISVILLE, ORANGE COUNTY, NEW YORK.

The time for the completion of the work and the full performance of the contract is 90 consecutive working days.

The amount of security required is fifty per cent. (50%) of the amount of the bid.

Bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms and further information may be obtained at the office of the Chief Clerk of the Department of Health, southwest corner of Fifty-fifth street and Sixth avenue, Borough of Manhattan, City of New York, and at the office of the Sanatorium in the Tymeson House, Otisville, N. Y.

THOMAS DARLINGTON, M. D.,
President;

ALVAH H. DOTY, M. D.,
THEODORE A. BINGHAM,
Board of Health.

Dated June 18, 1907.

j19,jy9

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF PARKS.

OFFICE OF THE DEPARTMENT OF PARKS, ARSENAL BUILDING, FIFTH AVENUE AND SIXTY-FOURTH STREET, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Park Board at the above office of the Department of Parks until 3 o'clock p. m. on

THURSDAY, JULY 18, 1907.

Borough of The Bronx.

FOR FURNISHING AND DELIVERING WHITE ASH ANTHRACITE COAL (NO. 3, 1907, BOTANICAL GARDEN), FOR PARKS, BOROUGH OF THE BRONX.

The time allowed for the delivery of the articles and the completion of the contract is before December 10, 1907.

The amount of security required is Fifteen Hundred Dollars (\$1,500).

The bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms may be obtained at the office of the Department of Parks, Zbrowski Mansion, Claremont Park, The Bronx.

MOSES HERRMAN,
President;
JOSEPH I. BERRY,
MICHAEL J. KENNEDY,
Commissioners of Parks.

jy6,18

See General Instructions to Bidders on the last page, last column, of the "City Record."

OFFICE OF THE DEPARTMENT OF PARKS, ARSENAL BUILDING, FIFTH AVENUE AND SIXTY-FOURTH STREET, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Park Board at the above office of the Department of Parks until 3 o'clock p. m. on

THURSDAY, JULY 18, 1907.

Borough of The Bronx.

FOR FURNISHING AND DELIVERING VITRIFIED STONEWARE DRAIN PIPE (NO. 1, 1907), FOR PARKS, BOROUGH OF THE BRONX.

The time allowed for the delivery of the articles and the performance of the contract is before September 1, 1907.

The amount of security required is Five Hundred Dollars (\$500).

The bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms may be obtained at the office of the Department of Parks, Zbrowski Mansion, Claremont Park, The Bronx.

MOSES HERRMAN,
President;

JOSEPH I. BERRY,
MICHAEL J. KENNEDY,
Commissioners of Parks.

jy6,18

See General Instructions to Bidders on the last page, last column, of the "City Record."

OFFICE OF THE DEPARTMENT OF PARKS, ARSENAL BUILDING, FIFTH AVENUE AND SIXTY-FOURTH STREET, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Park Board at the above office of the Department of Parks until 3 o'clock p. m. on

THURSDAY, JULY 18, 1907.

Borough of Brooklyn.

FOR FURNISHING AND DELIVERING MASONS' SUPPLIES TO PROSPECT PARK.

The time for the delivery of the materials and the full performance of the contract is during the year 1907.

The amount of security required is One Thousand Dollars (\$1,000).

The bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms may be obtained at the office of the Department of Parks, Litchfield Mansion, Prospect Park, Brooklyn.

MOSES HERRMAN,
President;

JOSEPH I. BERRY,
MICHAEL J. KENNEDY,
Commissioners of Parks.

jy5,18

See General Instructions to Bidders on the last page, last column, of the "City Record."

AUCTION SALE.

THE DEPARTMENT OF PARKS, Boroughs of Brooklyn and Queens, will sell at public auction at the barn in Prospect Park, Ninth avenue and Seventh street, in the Borough of Brooklyn, at 10.30 a. m. on

WEDNESDAY, JULY 17, 1907.

the following property:

26 sheep.
54 lambs.
1 Angora goat.
1 lot of old rubber hose.

TERMS OF SALE.

Lambs and sheep are to be sold by choice in lots of one to six.

Cash payments in bankable funds at the time and place of sale, and the articles purchased are to be removed immediately after the sale. If the purchaser fails to effect removal of the articles purchased within ten days from the date of sale, he shall forfeit his purchase money and the ownership of the articles purchased. The City further reserves the right to sell the articles over again; the money received at said sale is to also become the property of the City.

M. J. KENNEDY,
Commissioner of Parks,
Boroughs of Brooklyn
and Queens.

Dated July 2, 1907.

jy5,17

OFFICE OF THE DEPARTMENT OF PARKS, ARSENAL BUILDING, FIFTH AVENUE AND SIXTY-FOURTH STREET, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Park Board at the above office of the Department of Parks until 3 o'clock p. m. on

THURSDAY, JULY 18, 1907.

Borough of Brooklyn.

FOR FURNISHING ALL THE LABOR AND MATERIALS NECESSARY TO COMPLETE AND CONSTRUCT ASPHALT TILE WALKS IN BEDFORD, BUSHWICK, FULTON, SARATOGA AND IRVING SQUARE PARKS, IN THE BOROUGH OF BROOKLYN, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The time for the completion of the whole work will be within ninety (90) consecutive working days.

The amount of security required is Eighteen Thousand Dollars (\$18,000).

The bids will be compared and the contract awarded at a lump or aggregate sum.

Plans may be seen and blank forms may be obtained at the office of the Department of Parks, Litchfield Mansion, Prospect Park, Brooklyn.

MOSES HERRMAN,
President.

JOSEPH I. BERRY,
MICHAEL J. KENNEDY,
Commissioners of Parks.

jy3,18

See General Instructions to Bidders on the last page, last column, of the "City Record."

OFFICE OF THE DEPARTMENT OF PARKS, ARSENAL BUILDING, FIFTH AVENUE AND SIXTY-FOURTH STREET, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Park Board at the above office of the Department of Parks until 3 o'clock p. m. on

THURSDAY, JULY 18, 1907.

Borough of Brooklyn.

FOR FURNISHING ALL THE LABOR, PLANT AND MATERIALS NECESSARY TO CONSTRUCT AND COMPLETE RIP-RAP SEA WALL ALONG THE BAY RIDGE PARKWAY, FROM WAKEMAN PLACE TO FORT HAMILTON AVENUE, BOROUGH OF BROOKLYN, TOGETHER WITH ALL WORK INCIDENTAL THERETO.

The time for the completion of the whole work will be within two hundred and fifty (250) consecutive working days.

The amount of security required is Sixty Thousand Dollars (\$60,000).

The bids will be compared and the contract awarded at a lump or aggregate sum.

Plans may be seen and blank forms may be obtained at the office of the Department of Parks, Litchfield Mansion, Prospect Park, Brooklyn.

MOSES HERRMAN,
President;

JOSEPH I. BERRY,
MICHAEL J. KENNEDY,
Commissioners of Parks.

j29,jy18

See General Instructions to Bidders on the last page, last column, of the "City Record."

OFFICE OF THE DEPARTMENT OF PARKS, ARSENAL BUILDING, FIFTH AVENUE AND SIXTY-FOURTH STREET, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Park Board at the above office of the Department of Parks until 3 o'clock p. m. on

THURSDAY, JULY 11, 1907.

Borough of The Bronx.

FOR FURNISHING AND PLANTING TREES, GARDEN MOLD, SODDING, ETC., ALONG THE VARIOUS STREETS IN THE BOROUGH OF THE BRONX.

The time for the delivery of the articles, materials and supplies, and the performance of the contract is on or before the expiration of the 15th day of December, 1907.

The amount of security shall be Twenty-five Thousand Dollars (\$25,000).

The bids will be compared and the contracts awarded at a lump or aggregate sum for each contract.

Blank forms may be obtained and plans may be seen at the office of the Department of Parks, Zbrowski Mansion, Claremont Park, Borough of The Bronx.

MOSES HERRMAN,
President;

JOSEPH I. BERRY,
MICHAEL J. KENNEDY,
Commissioners of Parks.

j27,jy11

See General Instructions to Bidders on the last page, last column, of the "City Record."

OFFICE OF THE DEPARTMENT OF PARKS, ARSENAL BUILDING, FIFTH AVENUE AND SIXTY-FOURTH STREET, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Park Board at the above office of the Department of Parks until 3 o'clock p. m. on

THURSDAY, JULY 11, 1907.

Borough of The Bronx.

FOR FURNISHING AND DELIVERING EIGHT HUNDRED (800) CUBIC YARDS BROKEN STONE OF TRAP ROCK AND ONE THOUSAND (1,000) CUBIC YARDS SCREENINGS OF TRAP ROCK (NO. 2, 1907) (BOTANICAL GARDEN), FOR PARKS, BOROUGH OF THE BRONX.

The time stipulated for the completion of the contract is thirty (30) days.

The amount of security required is Fifteen Hundred Dollars (\$1,500).

The bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms may be obtained at the office of the Department of Parks, Zbrowski Mansion, Claremont Park, The Bronx.

MOSES HERRMAN,
President;

JOSEPH I. BERRY,
MICHAEL J. KENNEDY,
Commissioners of Parks.

j22,jy11

See General Instructions to Bidders on the last page, last column, of the "City Record."

COLLEGE OF THE CITY OF NEW YORK.

THE CITY OF NEW YORK, BOARD OF TRUSTEES OF THE COLLEGE OF THE CITY OF NEW YORK.

TO CONTRACTORS.

PROPOSALS FOR BIDS OR ESTIMATES.

FOR FURNISHING AND DELIVERING TO THE COLLEGE OF THE CITY OF NEW YORK 8,000 GROSS TONS OF NO. 1 BUCK-WHEAT COAL, MORE OR LESS, FOR THE COLLEGE OF THE CITY OF NEW YORK, AT AMSTERDAM AVENUE, ETC.; ALSO 275 GROSS TONS OF BROKEN COAL, MORE OR LESS, FOR THE COLLEGE OF THE CITY OF NEW YORK, AT NO. 17 LEXINGTON AVENUE, AND 8 CORDS OF WOOD, MORE OR LESS, FOR BOTH PLACES.

SEALED BIDS OR ESTIMATES FOR THE above supplies, indorsed with the above title, also with the name of the person or persons making the same, and the date of presentation, will be received by the Secretary or such other member of the Board as may be present, at the office of the Board of Trustees, No. 17 Lexington avenue, Borough of Manhattan, until 10 o'clock a. m. on

TUESDAY, JULY 16, 1907.

at which place and hour the bids will be publicly opened by the Secretary of the Board or by such other members of the Board as may be present, and read, and

The time allowed to complete the whole work will be from August 15, 1907, to August 15, 1908, inclusive, as provided in the contract.

The amount of security required is 25 per cent. of the amount of the bid or estimate.

The bidder shall state a separate price for each of the following items:

- (1) 8,000 gross tons of No. 1 buckwheat..... dollars (\$.....), at the rate of..... dollars (\$.....) per ton of 2,240 pounds.
- (2) 275 gross tons of broken coal..... dollars (\$.....), at the rate of..... dollars (\$.....) per ton of 2,240 pounds.
- (3) 8 cords of wood..... dollars (\$.....), at the rate of..... dollars (\$.....) per cord of 128 cubic feet, solid measure.

The award of the contract will be made to the lowest bidder on each item. Blank forms of bids and further information may be obtained at the office of the Board, No. 17 Lexington avenue, New York City.

EDWARD M. SHEPARD,
President of the Board of Trustees.

Dated July 5, 1907, Borough of Manhattan.

See General Instructions to Bidders on the last page, last column, of the "City Record."

THE CITY OF NEW YORK, OFFICE OF THE BOARD OF TRUSTEES OF THE COLLEGE OF THE CITY OF NEW YORK, BOROUGH OF MANHATTAN.

PROPOSALS FOR BIDS OR ESTIMATES, BOND, CONTRACT AND SPECIFICATIONS FOR BINDING.

TO CONTRACTORS.

PROPOSALS FOR BIDS OR ESTIMATES.

SEALED BIDS OR ESTIMATES FOR THE above named work and materials will be received at the office of the College of the City of New York, Lexington avenue and Twenty-third street, in the City of New York, until 10 o'clock a. m., on

TUESDAY, JULY 16, 1907,

The time allowed for doing and completing the work will be up to and including the sixth (6th) day of September, 1907.

The amount of security required will be Five Hundred Dollars (\$500) for each item.

For particulars as to the quantity and quality of the supplies or the nature and extent of the work required or of the materials to be furnished, bidders are referred to the specifications and list of materials, supplies and apparatus to be furnished, on file at the office of the Department, Board of Trustees. The binding has been classified in the specifications as items (a), (b), (c) and (d). The number of books to be bound under the classifications are estimated to be 400 under (a), 600 under (b), 3,000 under (c) and 2,000 under (d). These quantities are only estimates, and are not to be considered binding on the Board. The Board hereby reserves the right to order 5 per cent. more books to be bound or 5 per cent. less, as it shall deem necessary. Blank forms and further information may be obtained at office of the Board, No. 17 Lexington avenue, New York City.

EDWARD M. SHEPARD,
President of Board of Trustees.

Dated Borough of Manhattan, July 5, 1907.

See General Instructions to Bidders on the last page, last column, of the "City Record."

POLICE DEPARTMENT.

POLICE DEPARTMENT OF THE CITY OF NEW YORK, No. 300 MULBERRY STREET.

SEALED BIDS OR ESTIMATES WILL BE received by the Police Commissioner of the Police Department of the City of New York at the Bookkeeper's office, Central Department, until 10 o'clock a. m., on

THURSDAY, JULY 18, 1907,

FOR FURNISHING ALL THE LABOR AND FURNISHING AND ERECTING ALL THE MATERIALS NECESSARY IN MAKING AND COMPLETING ALTERATIONS AND GENERAL REPAIRS TO PREMISES No. 98 JOHN STREET, BOROUGH OF MANHATTAN.

The time allowed for making and completing the repairs and alterations will be thirty days.

The amount of security required will be fifty per cent. (50%) of the amount of bid or estimate.

The bids will be compared and award made to the lowest bidder.

The bidder will state the price for which he will do all the work and provide, furnish and deliver all the labor and materials mentioned and described in said contract and specifications.

For particulars as to the nature and extent of the work required or of the materials to be furnished bidders are referred to the specifications and to the plans on file in the office of the Inspector of Repairs and Supplies of the Police Department, No. 300 Mulberry street, City of New York.

Blank forms and further information may be obtained at the Central Office of the Police Department, No. 300 Mulberry street, Borough of Manhattan.

THEODORE A. BINGHAM,
Police Commissioner.

Dated July 6, 1907.

See General Instructions to Bidders on the last page, last column, of the "City Record."

POLICE DEPARTMENT OF THE CITY OF NEW YORK, No. 300 MULBERRY STREET.

SEALED BIDS OR ESTIMATES WILL BE received by the Police Commissioner of the Police Department of the City of New York at the Bookkeeper's office, Central Department, until 10 o'clock a. m., on

THURSDAY, JULY 18, 1907,

FOR FURNISHING AND DELIVERING FIVE DOUBLE AND FIVE SINGLE PATROL WAGONS FOR THE USE OF THE POLICE DEPARTMENT OF THE CITY OF NEW YORK.

The time for the delivery of the labor, materials and supplies and the performance of the contract is ninety days.

The amount of security shall be 50 per cent. of the bid or estimate.

The bids will be compared by the sums or amounts for double patrol wagons or single patrol wagons, and the Police Department reserves the right to award the contract to the lowest bidder for either kind of patrol wagon or to the lowest bidder for the whole number of wagons.

The wagons must be delivered within The City of New York, as directed by the Police Commissioner.

The bidder will state the price for which he will do all the work and provide, furnish and deliver all the labor and materials mentioned and described in said contract and specifications.

For particulars as to the nature and extent of the work required or of the materials to be furnished bidders are referred to the specifications and to the plans on file in the office of the Inspector of Repairs and Supplies of the Police Department, No. 300 Mulberry street, City of New York.

Blank forms and further information may be obtained at the Central Office of the Police Department, No. 300 Mulberry street, Borough of Manhattan.

THEODORE A. BINGHAM,
Police Commissioner.

Dated July 5, 1907.

See General Instructions to Bidders on the last page, last column, of the "City Record."

POLICE DEPARTMENT OF THE CITY OF NEW YORK, No. 300 MULBERRY STREET.

SEALED BIDS OR ESTIMATES WILL BE received by the Police Commissioner of the Police Department of the City of New York at the Bookkeeper's office, Central Department, until 10 o'clock a. m. on

FRIDAY, JULY 12, 1907,

FOR REPAIRS TO THE STEAM VESSEL "PATROL" STATIONED AT PIER "A," NORTH RIVER, BOROUGH OF MANHATTAN, IN THE CITY OF NEW YORK.

The time allowed for making and completing the repairs and alterations will be twenty days.

The amount of security required will be fifty per cent. (50%) of the amount of bid or estimate.

The bids will be compared and award made to the lowest bidder.

The bidder will state the price for which he will do all the work and provide, furnish and deliver all the labor and materials mentioned and described in said contract and specifications.

For particulars as to the nature and extent of the work required or of the materials to be furnished, bidders are referred to the specifications and to the plans on file in the office of the Inspector of Repairs and Supplies of the Police Department, No. 300 Mulberry street, City of New York.

Blank forms and further information may be obtained at the Central Office of the Police Department, No. 300 Mulberry street, Borough of Manhattan.

THEODORE A. BINGHAM,
Police Commissioner.

Dated June 29, 1907.

See General Instructions to Bidders on the last page, last column, of the "City Record."

POLICE DEPARTMENT—CITY OF NEW YORK.

OWNERS WANTED BY THE PROPERTY Clerk of the Police Department of The City of New York, No. 300 Mulberry street, Room No. 9, for the following property, now in his custody, without claimants: Boats, rope, iron, lead, male and female clothing, boots, shoes, wine, blankets, diamonds, canned goods, liquors, etc.; also small amount of money taken from prisoners and found by Patrolmen of this Department.

THEODORE A. BINGHAM,
Police Commissioner.

POLICE DEPARTMENT—CITY OF NEW YORK, BOROUGH OF BROOKLYN.

OWNERS WANTED BY THE DEPUTY Property Clerk of the Police Department of The City of New York—Office, No. 209 State street, Borough of Brooklyn—for the following property, now in his custody, without claimants: Boats, rope, iron, lead, male and female clothing, boots, shoes, wine, blankets, diamonds, canned goods, liquors, etc.; also small amount of money taken from prisoners and found by Patrolmen of this Department.

THEODORE A. BINGHAM,
Police Commissioner.

DEPARTMENT OF PUBLIC CHARITIES.

DEPARTMENT OF PUBLIC CHARITIES, FOOT OF EAST TWENTY-SIXTH STREET, NEW YORK.

TO CONTRACTORS.

PROPOSALS FOR BIDS OR ESTIMATES.

SEALED BIDS OR ESTIMATES WILL BE received by the Department of Public Charities at the above office until 2:30 o'clock p. m. on

THURSDAY, JULY 18, 1907,

FOR ALL MATERIALS AND LABOR REQUIRED FOR THE COMPLETE CONDUITING, ELECTRIC WIRING, AND ALL OTHER WORK IN CONNECTION WITH THE INSTALLATION OF A COMPLETE ELECTRIC LIGHTING AND POWER SYSTEM FOR ALL THE BUILDINGS AND GROUNDS UNDER THE JURISDICTION OF THE DEPARTMENT OF PUBLIC CHARITIES, AND COMPRISING THE METROPOLITAN HOSPITAL DISTRICT, BLACKWELL'S ISLAND, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

The time allowed for doing and completing the entire work and the full performance of the contract is one hundred and fifty (150) consecutive calendar days.

The surety required will be Twenty Thousand Dollars (\$20,000).

The bidder shall state, in writing and in figures (without interlineation, alterations or erasure), one (1) aggregate price for the whole work as shown, noted, indicated or specified, as the contract is entire and for a complete job, and embraces the entire completion of the work in every respect and detail.

The bidder shall further similarly state one aggregate price for the whole work as shown, noted, indicated and specified and as modified by the Alternate installing underground conduit lines with service boxes, manholes, transformer vaults and the like complete as specified for all lines outside of buildings, as the contract as modified by the Alternate is entire and for a complete job, and embraces the entire completion of the work in every respect and detail.

The bidder shall further similarly state a unit price for each and every one of the items specified under "Unit Prices," in the specification (paragraphs 263 to 444), which unit prices shall govern in estimating extra work or reductions from the contract price due to any required changes from the drawings.

Bidders are requested to make their bids or estimates upon the blank form prepared by said Department, a copy of which, together with a copy of the contract, including the specifications,

in the form approved by the Corporation Counsel, can be obtained upon application therefor at the office of Raymond F. Almiral, architect, No. 51 Chambers street, The City of New York, where the drawings, which are made a part of the specifications, can be seen.

ROBERT W. HEBBERD,
Commissioner.

The City of New York, July 5, 1907.

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF PUBLIC CHARITIES, FOOT OF EAST TWENTY-SIXTH STREET, NEW YORK.

TO CONTRACTORS.

PROPOSALS FOR BIDS OR ESTIMATES.

SEALED BIDS OR ESTIMATES WILL BE received by the Department of Public Charities at the above office until 2:30 o'clock p. m. on

MONDAY, JULY 22, 1907.

No. 1. FOR PROVIDING ALL LABOR AND MATERIALS REQUIRED FOR THE TEARING DOWN AND REMOVAL, EXCAVATION AND MASONRY, STEEL AND IRON, ROOFING AND METAL WORK, CARPENTRY, GLAZING, PAINTING, HARDWARE, AND ALL OTHER WORK (EXCEPT ELECTRIC, HEATING AND PLUMBING WORK, GAS AND ELECTRIC FIXTURES AND FITTING UP) FOR THE ERECTION AND ENTIRE COMPLETION OF A DAY ROOM FOR MALE INMATES AND A DAY ROOM FOR FEMALE INMATES, A RECEPTION PAVILION FOR MALE INMATES AND A RECEPTION ROOM FOR FEMALE INMATES, AND AN OPERATION PAVILION IN CONNECTION WITH THE HOME FOR THE AGED AND INFIRM, BLACKWELL'S ISLAND, THE CITY OF NEW YORK.

The time allowed for doing and completing the tearing down and removal, excavation and masonry, steel and iron, roofing and metal work, carpentry, glazing, painting, hardware, and all other work required under No. 1, will be:

(a) For the Day Room for Male Inmates two hundred and ten (210) consecutive calendar days.

(b) For the Day Room for Female Inmates one hundred and eighty (180) consecutive calendar days.

(c) For the Reception Pavilion for Male Inmates two hundred and ten (210) consecutive calendar days.

(d) For the Reception Room for Female Inmates, two hundred and ten (210) consecutive calendar days.

(e) For the Operation Pavilion, two hundred and ten (210) consecutive calendar days.

The surety required for the execution of the tearing down and removal, excavation and masonry, steel and iron, roofing and metal work, carpentry, glazing, painting, hardware, and all other work required under No. 1, will be:

(a) For the Day Room for Male Inmates Seven Thousand Dollars (\$7,000).

(b) For the Day Room for Female Inmates Six Thousand Dollars (\$6,000).

(c) For the Reception Pavilion for Male Inmates Eight Thousand Dollars (\$8,000).

(d) For the Reception Room for Female Inmates Eight Thousand Dollars (\$8,000).

(e) For the Operation Pavilion Six Thousand Dollars (\$6,000).

The bidder shall state, in writing and in figures, without interlineation, alterations or erasure, one (1) aggregate price for the whole work as shown, noted, indicated or specified, as the contract is entire and for a complete job, and embraces the entire completion of the work in every respect and detail.

The Commissioner reserves the right to reject all bids or estimates if he deem it to be for the interest of the City so to do. Attention is called to the fact that five (5) separate bids are called for under each title. The Commissioner reserves the right to accept the lowest bid or reject all bids under either No. 1, No. 2 or No. 3, on each of the five buildings independently.

Separate sealed bids or estimates will be received at the same time and place:

No. 2. FOR PROVIDING ALL LABOR AND MATERIALS REQUIRED FOR THE ELECTRICAL CONDUIT, ELECTRIC WIRING AND SWITCHBOARD WORK, HEATING WORK, PLUMBING WORK, GAS PIPING AND ALL OTHER WORK (EXCEPT TEARING DOWN AND REMOVAL, EXCAVATION AND MASONRY, STEEL AND IRON, ROOFING AND METAL WORK, CARPENTRY, GAS AND ELECTRIC FIXTURES AND FITTING UP) FOR THE ERECTION AND ENTIRE COMPLETION OF A DAY ROOM FOR MALE INMATES AND A DAY ROOM FOR FEMALE INMATES, A RECEPTION PAVILION FOR MALE INMATES AND A RECEPTION ROOM FOR FEMALE INMATES, AND AN OPERATION PAVILION IN CONNECTION WITH THE HOME FOR THE AGED AND INFIRM, BLACKWELL'S ISLAND, THE CITY OF NEW YORK.

The time allowed for doing and completing the electrical conduit, electric wiring and switchboard work, heating work, plumbing work, gas piping, and all other work required under No. 2, will be dependent entirely upon the progress and completion of the work required under No. 1 and No. 3, and shall be:

(a) For the Day Room for Male Inmates not more than one hundred and eighty (180) consecutive calendar days.

(b) For the Day Room for Female Inmates not more than one hundred and fifty (150) consecutive calendar days.

(c) For the Reception Pavilion for Male Inmates not more than one hundred and eighty (180) consecutive calendar days.

(d) For the Reception Room for Female Inmates not more than one hundred and eighty (180) consecutive calendar days.

(e) For the Operation Pavilion not more than one hundred and eighty (180) consecutive calendar days.

The surety required for the execution of the electrical conduit, electric wiring and switchboard work, heating work, plumbing work, gas piping, and all other work required under No. 2, will be:

(a) For the Day Room for Male Inmates Two Thousand Dollars (\$2,000).

(b) For the Day Room for Female Inmates Two Thousand Dollars (\$2,000).

(c) For the Reception Pavilion for Male Inmates Three Thousand Dollars (\$3,000).

(d) For the Reception Room for Female Inmates Three Thousand Dollars (\$3,000).

(e) For the Operation Pavilion Two Thousand Dollars (\$2,000).

The bidder shall state, in writing and in figures, without interlineation, alterations or erasure, one (1) aggregate price for the whole work as shown, noted, indicated or specified, as the contract is entire and for a complete job, and embraces the entire completion of the work in every respect and detail.

The Commissioner reserves the right to reject all bids or estimates if he deem it to be for the interest of the City so to do. Attention is called to the fact that five (5) separate bids are called for under each number. The Commissioner reserves the right to accept the lowest bid or reject all bids under either No. 1, No. 2 or No. 3 on each of the five buildings independently.

Separate sealed bids or estimates will be received at the same time and place:

No. 3. FOR PROVIDING ALL LABOR AND MATERIALS REQUIRED FOR THE GAS AND ELECTRIC FIXTURES AND FITTING UP, AND ALL OTHER WORK (EXCEPT TEARING DOWN AND REMOVAL, EXCAVATION AND MASONRY, STEEL AND IRON, ROOFING AND METAL WORK, CARPENTRY, AND ELECTRIC, HEATING AND PLUMBING WORK) FOR THE ERECTION AND ENTIRE COMPLETION OF A DAY ROOM FOR MALE INMATES AND A DAY ROOM FOR FEMALE INMATES, A RECEPTION PAVILION FOR MALE INMATES AND A RECEPTION ROOM FOR FEMALE INMATES, AND AN OPERATION PAVILION IN CONNECTION WITH THE HOME FOR THE AGED AND INFIRM, BLACKWELL'S ISLAND, THE CITY OF NEW YORK.

The time allowed for doing and completing the gas and electric fixtures and fitting up, and all other work required under No. 3, will be dependent entirely upon the progress and completion of the work required under No. 1 and No. 2, and shall be:

(a) For the Day Room for Male Inmates not more than one hundred and eighty (180) consecutive calendar days.

(b) For the Day Room for Female Inmates not more than one hundred and fifty (150) consecutive calendar days.

(c) For the Reception Pavilion for Male Inmates not more than one hundred and eighty (180) consecutive calendar days.

(d) For the Reception Room for Female Inmates not more than one hundred and eighty (180) consecutive calendar days.

(e) For the Operation Pavilion not more than one hundred and eighty (180) consecutive calendar days.

The surety required for the execution of the gas and electric fixtures and fitting up, and all other work required under No. 3, will be:

(a) For the Day Room for Male Inmates Six Hundred Dollars (\$600).

(b) For the Day Room for Female Inmates Five Hundred Dollars (\$500).

(c) For the Reception Pavilion for Male Inmates Seven Hundred Dollars (\$700).

(d) For the Reception Room for Female Inmates Seven Hundred Dollars (\$700).

(e) For the Operation Pavilion Five Hundred Dollars (\$500).

The bidder shall state, in writing and in figures, without interlineation, alterations or erasure, one (1) aggregate price for the whole work as shown, noted, indicated or specified, as the contract is entire and for a complete job, and embraces the entire completion of the work in every respect and detail.

The Commissioner reserves the right to reject all bids or estimates if he deem it to be for the interest of the City so to do. Attention is called to the fact that five (5) separate bids are called for under each Number. The Commissioner reserves the right to accept the lowest bid or reject all bids under either No. 1, No. 2 or No. 3, on each of the five buildings independently.

Bidders are requested to make their bids or estimates upon the blank form prepared by said Department, a copy of which, with the proper envelope in which to inclose the bid, together with a copy of the contract, including the specifications, in the form approved by the Corporation Counsel, can be obtained upon application therefor at the office of Raymond F. Almiral, Architect, No. 51 Chambers street, The City of New York, where the drawings, which are made a part of the specifications, can be seen.

ROBERT W. HEBBERD,
Commissioner.

The City of New York, July 5, 1907.

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF FINANCE.

CORPORATION SALE OF BUILDINGS AND APPURTENANCES THERETO ON CITY REAL ESTATE.

AT THE REQUEST OF THE PRESIDENT of the Borough of Queens, public notice is hereby given that the Commissioners of the Sinking Fund, by virtue of the powers vested in them by law, will offer for sale at public auction all the buildings, parts of buildings, etc., standing within the lines of property acquired by The City of New York for street opening purposes, in the

Borough of Queens.

Being all those buildings, parts of buildings, etc., within the lines of the proposed extensions of Jamaica avenue, between Newtown road and Old Bowery Bay road; Clark street, between Van Alst avenue and Main street; Elm street, between Academy street and Second avenue; Washington avenue, between Vernon avenue and East river, all in the First Ward of the Borough of Queens, and which are more particularly described on a certain map on file in the office of the Collector of City Revenue, Department of Finance, Room 141, No. 280 Broadway, Borough of Manhattan.

Pursuant to a resolution of the Commissioners of the Sinking Fund, adopted at a meeting held June 26, 1907, the sale of the above described buildings and appurtenances thereto will be held by the direction of the Comptroller on

WEDNESDAY, JULY 10, 1907,

at 2 p. m., on the premises, upon the following

TERMS AND CONDITIONS.

It being understood that the purchasers, at the time of the auction sale, when the said bid is accepted by the City, shall execute a contract with The City of New York for the proper compliance with these terms and conditions, which contract shall provide for liquidated damages at so much per day for each and every day the removal of the buildings, etc., remains incomplete, after the expiration of sixty days from the day of sale. A copy of said contract is on file in the office of the Collector of City Revenue, Department of Finance, Room 141, No. 280 Broadway, Borough of Manhattan.

The buildings and appurtenances thereto will be sold to the highest bidder, who must pay immediately cash or a certified check drawn to the order of the Comptroller of The City of New York, and must either give a cash bond or an approved bond of a surety company in the amount of the purchase price as security for the faithful performance of the terms and conditions of the sale and of the contract. Said bond must be filed within forty-eight hours after the sale.

All the buildings, structures and parts thereof, their fixtures and foundations of every class and description within the described area, are to be torn down to a level two feet below the existing curb, and structures which may exist within any of the buildings, such as engine beds, boiler settings, etc., and all stumps and area walls shall be torn down to the same level. All partitions, sheds and fences shall be removed from the premises. All brick laid in mortar, all floor beams, joists, studdings, flooring, ceiling, roofing, boards and woodwork of every description, and all gas, water, steam and soil piping shall be removed from the premises. All combustible matter, such as tar and felt roofing, broken laths and fragments of timber, chips, splinters, etc., which are of no value, shall be gathered together by the contractor and burned or carried away. The purchaser at the sale shall also shut off and cap all water pipes at the main pipe in the street, in compliance with the rules and regulations of the Department of Water Supply, Gas and Electricity.

Failure to remove said buildings and appurtenances, or any portion thereof, within sixty days from the day of sale, will work forfeiture of ownership of such buildings or appurtenances or portion as shall then be left standing, and the bidder's assent to the above conditions being understood to be implied by the act of bidding, and the said City of New York will, without notice to the purchaser, cause the same to be removed and the cost and expense thereof charged against the security above mentioned.

The work of removal must be carried on in every respect in a thorough and workmanlike manner, and must be completed within sixty days from the day of sale, and the successful bidder will provide and furnish all materials of labor and machinery necessary thereto, and will place proper and sufficient guards and fences and warning signs by day and night for the prevention of accidents, and will indemnify and save harmless The City of New York, its officers, agents and servants, and each of them, against any and all suits and actions, claims and demands of every name and description brought against it, them or any of them, and against from all damages and costs to which it, they or any of them be put by reason of injury to the person or property of another, resulting from negligence or carelessness in the performance of the work or in guarding the same, or from any improper or defective materials or machinery, implements or appliances used in the removal of the said buildings by the said successful bidder.

Party walls and fences when existing against adjacent property not sold shall not be taken down, but all furrings, plaster, chimneys, projecting brick, etc., on the faces of such party walls shall be taken down and removed. The walls shall be made permanently self-supporting without the aid of braces, the beamholes, etc., bricked up and the wall pointed and made to exclude wind and rain and present a clean exterior. The roofs of the adjacent buildings shall be properly flashed and painted and made watertight where they have been disturbed by the operation of the contractor.

The Comptroller of The City of New York reserves the right on the day of the sale to withdraw from sale any of the buildings or parts of buildings and machinery included in the foregoing parcel, and to reject any or all bids.

H. A. METZ,
Comptroller.

City of New York, Department of Finance,
Comptroller's Office, July 2, 1907.

jy6,10

CORPORATION SALE OF BUILDINGS AND APPURTENANCES THERETO ON CITY REAL ESTATE.

AT THE REQUEST OF THE PRESIDENT of the Board of Trustees of Bellevue and Allied Hospitals, public notice is hereby given that the Commissioners of the Sinking Fund, by virtue of the powers vested in them by law, will offer for sale at public auction the building and contents thereof standing within the line of property acquired by The City of New York for hospital purposes, in the

Borough of Manhattan.

Being the building known as the plant of the United Electric Light and Power Company, and all the machinery contained therein, viz:

- Three 600 horsepower Corliss engines;
- Direct connected exciter outfit;
- Three Westinghouse 400 kilowatt generators;
- One 2,000 horsepower heater;
- Boulder feed pumps;
- 1,600 horsepower boilers;
- Steam exhaust pipe;
- Three steel stacks;
- Breachings, dampers;
- Steam and exhaust pipe covering;
- Eight 1,200 horsepower engines;
- Nine thousand six hundred horsepower kilowatt condenser;
- Eight 750 kilowatt generators;
- Three 225 kilowatt exciter outfits;
- Force draught outfit;
- Twenty-five ton traveling crane;
- Seven 200 horsepower climax boilers;
- Coal and ash conveying apparatus;
- Steam and exhaust piping;
- Two feed water heaters 2,000 horsepower;
- Three boiler feed pumps;
- Steam and exhaust pipe covering;
- Four steel stacks;
- Breachings, dampers and damper regulators;

—said building being situated between Twenty-eighth and Twenty-ninth streets and between First avenue and the East river, Borough of Manhattan, and which is more particularly described on a certain map on file in the office of the Collector of City Revenue, Department of Finance, Room 141, No. 280 Broadway, Borough of Manhattan.

Pursuant to a resolution of the Commissioners of the Sinking Fund, the sale of the above described building and contents thereof will be held on

THURSDAY, JULY 11, 1907,

at 10 a. m., on the premises, upon the following

TERMS AND CONDITIONS.

It being understood that the purchasers, at the time of the auction sale, when the said bid is accepted by the City, shall execute a contract with The City of New York for the proper compliance with these terms and conditions, which contract shall provide for liquidated damages at so much per day for each and every day the removal of the buildings, etc., remain incomplete after the expiration of sixty days from the day of sale. A copy of said contract is on file in the office of the Collector of City Revenue, Department of Finance, Room 141, No. 280 Broadway, Borough of Manhattan.

The buildings and appurtenances thereto will be sold to the highest bidder, who must pay immediately cash or a certified check drawn to the order of the Comptroller of The City of New York, and must either give a cash bond or an approved bond of a surety company in the amount of the purchase price as security for the faithful performance of the terms and conditions of the sale and of the contract. Said bond must be filed within forty-eight hours after the sale. All the buildings, structures and parts thereof,

their fixtures and foundations of every class and description within the described area are to be torn down to a level two feet below the existing curb, and structures which may exist within any of the buildings, such as engine beds, boiler settings, etc., and all stumps and area walls shall be torn down to the same level. All partitions, sheds and fences shall be removed from the premises. All brick laid in mortar, all floor beams, joists, studdings, flooring, ceiling, roofing, boards and woodwork of every description, and all gas, water, steam and soil piping shall be removed from the premises. All combustible matter, such as tar and felt roofing, broken laths and fragments of timber, chips, splinters, etc., which are of no value shall be gathered together by the contractor and burned or carried away. The purchaser at the sale shall also shut off and cap all water pipes at the main pipe in the street, in compliance with the rules and regulations of the Department of Water Supply, Gas and Electricity.

Failure to remove said buildings and appurtenances, or any portion thereof, within sixty days from the day of sale will work forfeiture of ownership of such buildings or appurtenances or portion as shall then be left standing, and the bidder's assent to the above conditions being understood to be implied by the act of bidding, and the said City of New York will, without notice to the purchaser, cause the same to be removed and the cost and expense thereof charged against the security above mentioned.

The work of removal must be carried on in every respect in a thorough and workmanlike manner, and must be completed within sixty days from the day of sale, and the successful bidder will provide and furnish all materials of labor and machinery necessary thereto, and will place proper and sufficient guards and fences and warning signs by day and night for the prevention of accidents, and will indemnify and save harmless The City of New York, its officers, agents and servants, and each of them, against any and all suits and actions, claims and demands of every name and description brought against it, them or any of them, and against from all damages and costs to which it, they or any of them be put by reason of injury to the person or property of another, resulting from negligence or carelessness in the performance of the work or in guarding the same, or from any improper or defective materials or machinery, implements or appliances used in the removal of the said buildings by the said successful bidder.

Party walls and fences when existing against adjacent property not sold, shall not be taken down, but all furrings, plaster, chimneys, projecting brick, etc., on the faces of such party walls shall be taken down and removed. The walls shall be made permanently self-supporting without the aid of braces, the beamholes, etc., bricked up and the wall pointed and made to exclude wind and rain and present a clean exterior. The roofs of the adjacent buildings shall be properly flashed and painted and made watertight where they have been disturbed by the operation of the contractor.

The Comptroller of The City of New York reserves the right on the day of the sale to withdraw from sale any of the buildings or parts of buildings and machinery included in the foregoing parcel, and to reject any or all bids.

H. A. METZ,
Comptroller.

City of New York, Department of Finance,
Comptroller's office, July 1, 1907.

jy6,11

CORPORATION SALE OF BUILDINGS AND APPURTENANCES THERETO ON CITY REAL ESTATE.

PUBLIC NOTICE IS HEREBY GIVEN that the Commissioners of the Sinking Fund, by virtue of the powers vested in them by law, will offer for sale at public auction the buildings, parts of buildings, etc., standing within the lines of property owned by The City of New York, acquired by it for bridge purposes, in the

Borough of Queens.

Being all the remaining buildings, parts of buildings, etc., between Sunnyside street and Jackson avenue, Long Island City, Borough of Queens, which were not sold on the sale of Friday, June 14, 1907, and which are more particularly described on a certain map on file in the office of the Collector of City Revenue, Department of Finance, Room 141, No. 280 Broadway, Borough of Manhattan.

Pursuant to a resolution of the Commissioners of the Sinking Fund, adopted at a meeting held May 22, 1907, the sale of the above described buildings and appurtenances thereto will be held by direction of the Comptroller on

FRIDAY, JULY 12, 1907,

at 11 a. m., on the premises, on the following

TERMS AND CONDITIONS.

It being understood that the purchasers, at the time of the auction sale, when the said bid is accepted by the City, shall execute a contract with The City of New York for the proper compliance with these terms and conditions, which contract shall provide for liquidated damages at so much per day for each and every day the removal of the buildings, etc., remain incomplete after the expiration of sixty days from the day of sale. A copy of said contract is on file in the office of the Collector of City Revenue, Department of Finance, Room 141, No. 280 Broadway, Borough of Manhattan.

The buildings and appurtenances thereto will be sold to the highest bidder, who must pay immediately cash or a certified check drawn to the order of the Comptroller of The City of New York, and must either give a cash bond or an approved bond of a surety company in the amount of the purchase price as security for the faithful performance of the terms and conditions of the sale and of the contract. Said bond must be filed within forty-eight hours after the sale.

All the buildings, structures and parts thereof, their fixtures and foundations, of every class and description, within the described area are to be torn down to a level two feet below the existing curb, and structures which may exist within any of the buildings, such as engine beds, boiler settings, etc., and all stumps and area walls shall be torn down to the same level. All partitions, sheds and fences shall be removed from the premises. All brick laid in mortar, all floor beams, joists, studdings, flooring, ceiling, roofing, boards and woodwork of every description, and all gas, water, steam and soil piping shall be removed from the premises. All combustible matter, such as tar and felt roofing, broken laths and fragments of timber, chips, splinters, etc., which are of no value, shall be gathered together by the contractor and burned or carried away. The purchaser at the sale shall also shut off and cap all water pipes at the main pipe in the street, in compliance with the rules and regulations of the Department of Water Supply, Gas and Electricity.

Failure to remove said buildings and appurtenances, or any portion thereof, within sixty days from the day of sale will work forfeiture of ownership of such buildings or appurtenances or portion as shall then be left standing, and the bidder's assent to the above conditions being understood to be implied by the act of bidding, and the said City of New York will, without notice to the purchaser, cause the same to be removed and the cost and expense thereof charged against the security above mentioned.

The work of removal must be carried on in every respect in a thorough and workmanlike manner, and must be completed within sixty days from the day of sale, and the successful bidder will provide and furnish all materials of labor and machinery necessary thereto, and will place proper and sufficient guards and fences and warning signs by day and night for the prevention of accidents, and will indemnify and save harmless The City of New York, its officers, agents and servants, and each of them, against any and all suits and actions, claims and demands of every name and description brought against it, them or any of them, and against from all damages and costs to which it, they or any of them be put by reason of injury to the person or property of another, resulting from negligence or carelessness in the performance of the work or in guarding the same, or from any improper or defective materials or machinery, implements or appliances used in the removal of the said buildings by the said successful bidder.

Party walls and fences when existing against adjacent property not sold, shall not be taken down, but all furrings, plaster, chimneys, projecting brick, etc., on the faces of such party walls shall be taken down and removed. The walls shall be made permanently self-supporting without the aid of braces, the beamholes, etc., bricked up and the wall pointed and made to exclude wind and rain and present a clean exterior. The roofs of the adjacent buildings shall be properly flashed and painted and made watertight where they have been disturbed by the operation of the contractor.

The Comptroller of The City of New York reserves the right on the day of the sale to withdraw from sale any of the buildings or parts of buildings and machinery included in the foregoing parcel, and to reject any or all bids.

H. A. METZ,
Comptroller.

City of New York, Department of Finance,
Comptroller's Office, July 2, 1907.

jy6,12

CORPORATION SALE OF BUILDINGS AND APPURTENANCES THERETO ON CITY REAL ESTATE.

AT THE REQUEST OF THE BOARD OF Education, public notice is hereby given that the Commissioners of the Sinking Fund, by virtue of the powers vested in them by law, will offer for sale all the buildings, parts of buildings, etc., standing within the lines of property owned by The City of New York, acquired by it for school purposes in the

Borough of Brooklyn.

Being all those buildings, parts of buildings, etc., on the south side of Concord street, adjoining Public School No. 1, and which is more particularly described on a certain map on file in the office of the Collector of City Revenue, Department of Finance, Room 141, No. 280 Broadway, Borough of Manhattan.

Pursuant to a resolution of the Commissioners of the Sinking Fund, adopted at a meeting held June 26, 1907, the sale of the above-described buildings and appurtenances thereto will be held under the direction of the Comptroller on

WEDNESDAY, JULY 10, 1907,

at 11 a. m., on the premises, on the following

TERMS AND CONDITIONS.

It being understood that the purchasers, at the time of the auction sale, when the said bid is accepted by the City, shall execute a contract with The City of New York for the proper compliance with these terms and conditions, which contract shall provide for liquidated damages at so much per day for each and every day the removal of the buildings, etc., remain incomplete after the expiration of sixty days from the day of sale. A copy of said contract is on file in the office of the Collector of City Revenue, Department of Finance, Room 141, No. 280 Broadway, Borough of Manhattan.

The buildings and appurtenances thereto will be sold to the highest bidder, who must pay immediately cash or a certified check drawn to the order of the Comptroller of The City of New York, and must either give a cash bond or an approved bond of a surety company in the amount of the purchase price as security for the faithful performance of the terms and conditions of the sale and of the contract. Said bond must be filed within forty-eight hours after the sale.

All the buildings, structures and parts thereof, their fixtures and foundations of every class and description within the described area are to be torn down to a level two feet below the existing curb, and structures which may exist within any of the buildings, such as engine beds, boiler settings, etc., and all stumps and area walls shall be torn down to the same level. All partitions, sheds and fences shall be removed from the premises. All brick laid in mortar, all floor beams, joists, studdings, flooring, ceiling, roofing, boards and woodwork of every description, and all gas, water, steam and soil piping shall be removed from the premises. All combustible matter, such as tar and felt roofing, broken laths and fragments of timber, chips, splinters, etc., which are of no value, shall be gathered together by the contractor and burned or carried away. The purchaser at the sale shall also shut off and cap all water pipes at the main pipe in the street, in compliance with the rules and regulations of the Department of Water Supply, Gas and Electricity.

Failure to remove said buildings and appurtenances, or any portion thereof, within sixty days from the day of sale, will work forfeiture of ownership of such buildings or appurtenances or portion as shall then be left standing, and the bidder's assent to the above conditions being understood to be implied by the act of bidding, and the said City of New York will without notice to the purchaser cause the same to be removed and the cost and expense thereof charged against the security above mentioned.

The work of removal must be carried on in every respect in a thorough and workmanlike manner and must be completed within sixty days from the day of sale, and the successful bidder will provide and furnish all materials of labor and machinery necessary thereto, and will place proper and sufficient guards and fences and warning signs by day and night for the prevention of accidents, and will indemnify and save harmless The City of New York, its officers, agents and servants, and each of them, against any and all suits and actions, claims and demands of every name and description brought against it, them or any of them, and against from all damages and costs to which it, they or any of them be put by reason of injury to the person or property of another, resulting from negligence or carelessness in the performance of the work or in guarding the same, or from any improper or defective materials or machinery, implements or appliances used in the removal of the said buildings by the said successful bidder.

Party walls and fences when existing against adjacent property not sold shall not be taken down, but all furrings, plaster, chimneys, projecting brick, etc., on the faces of such party walls, shall be taken down and removed. The walls shall be made permanently self-supporting without the aid of braces, the beamholes, etc., bricked up and the wall pointed and made to exclude wind and rain and present a clean exterior. The roofs of the adjacent buildings shall be properly flashed and painted and made watertight

where they have been disturbed by the operation of the contractor.

The Comptroller of The City of New York reserves the right on the day of the sale to withdraw from sale any of the buildings or parts of buildings and machinery included in the foregoing parcel, and to reject any or all bids.

H. A. METZ,
Comptroller.

City of New York, Department of Finance,
Comptroller's Office, July 2, 1907.

jy6,10

NOTICE TO PROPERTY OWNERS.

IN PURSUANCE OF SECTION 1018 OF THE Greater New York Charter, the Comptroller of The City of New York hereby gives public notice to all persons, owners of property, affected by the following assessment for LOCAL IMPROVEMENTS in the BOROUGH OF QUEENS:

FIRST WARD.

CRESCENT STREET—SEWER and appurtenances, from Grand avenue to Newtown avenue. Area of assessment: Both sides of Crescent street, from Grand avenue to Newtown avenue.

—that the same was confirmed by the Board of Assessors on July 2, 1907, and entered on July 2, 1907, in the Record of Titles of Assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, and unless the amount assessed for benefit on any person or property shall be paid within sixty days after the date of said entry of the assessments interest will be collected thereon, as provided in section 1019 of said Greater New York Charter.

Said section provides, in part, that "If any such assessments shall remain unpaid for the period of sixty days after the date of entry thereof in the said Record of Titles of Assessments it shall be the duty of the officer authorized to collect and receive the amount of such assessments to charge, collect and receive interest thereon, at the rate of seven per centum per annum, to be calculated to the date of payment from the date when such assessment became a lien, as provided by section 159 of this act."

Section 159 of this act provides "An assessment shall become a lien upon the real estate affected thereby ten days after its entry in the said record."

The above assessment is payable to the Collector of Assessments and Arrears at the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, at the Hackett Building, No. 51 Jackson avenue, Long Island City, Borough of Queens, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. until 12 m., and all payments made thereon on or before August 31, 1907, will be exempt from interest, as above provided, and after that date will be subject to a charge of interest at the rate of seven per centum per annum from the date when above assessment became a lien to the date of payment.

HERMAN A. METZ,
Comptroller.

City of New York, Department of Finance,
Comptroller's Office, July 2, 1907.

jys,18

NOTICE TO PROPERTY OWNERS.

IN PURSUANCE OF SECTION 1018 OF THE Greater New York Charter, the Comptroller of The City of New York hereby gives public notice to all persons, owners of property, affected by the following assessment for LOCAL IMPROVEMENTS in the BOROUGH OF MANHATTAN

TWELFTH WARD, SECTION 8.

BROADWAY—PAVING, that portion recently regraded for a width of 16 feet (between the old line of curb and the new curb), on the east and west sides, from One Hundred and Fifty-fifth to One Hundred and Sixty-ninth street. Area of assessment: Both sides of Broadway, from West One Hundred and Fifty-fifth street to West One Hundred and Sixty-ninth street and to the extent of half the block at the intersecting streets.

—that the same was confirmed by the Board of Assessors on July 2, 1907, and entered on July 2, 1907, in the Record of Titles of Assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, and unless the amount assessed for benefit on any person or property shall be paid within sixty days after the date of said entry of the assessments, interest will be collected thereon, as provided in section 1019 of said Greater New York Charter.

Said section provides, in part, that "If any such assessment shall remain unpaid for the period of sixty days after the date of entry thereof in the said Record of Titles of Assessments, it shall be the duty of the officer authorized to collect and receive the amount of such assessment to charge, collect and receive interest thereon at the rate of seven per centum per annum, to be calculated to the date of payment from the date when such assessment became a lien, as provided by section 159 of this act."

Section 159 of this act provides "An assessment shall become a lien upon the real estate affected thereby ten days after its entry in the said record."

The above assessment is payable to the Collector of Assessments and Arrears at the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, Room H, No. 280 Broadway, Borough of Manhattan, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. to 12 m., and all payments made thereon on or before August 31, 1907, will be exempt from interest, as above provided, and after that date will be subject to a charge of interest at the rate of seven per centum per annum from the date when above assessment became a lien to the date of payment.

HERMAN A. METZ,
Comptroller.

City of New York—Department of Finance,
Comptroller's Office, July 2, 1907.

jys,18

NOTICE TO PROPERTY OWNERS.

IN PURSUANCE OF SECTION 1018 OF THE Greater New York Charter, the Comptroller of The City of New York hereby gives public notice to all persons, owners of property, affected by the following assessments for LOCAL IMPROVEMENTS in the BOROUGH OF THE BRONX:

TWENTY-THIRD WARD, SECTION 9.

EAST ONE HUNDRED AND FORTY-THIRD STREET—PAVING AND SETTING CURB, from Brook avenue to St. Ann's avenue. Area of assessment: Both sides of One Hundred and Forty-third street, from Brook avenue to St. Ann's avenue and to the extent of half the block at the intersecting streets.

EAST ONE HUNDRED AND FIFTIETH STREET—PAVING, from Brook avenue to Port

Morris Branch Railroad. Area of assessment: Both sides of One Hundred and Fifty-first street, from Brook avenue to Port Morris Branch Railroad, and to the extent of half the block at the intersecting streets.

SHERMAN AVENUE—PAVING AND SETTING CURB. from One Hundred and Sixty-first to One Hundred and Sixty-fourth street. Area of assessment: Both sides of Sherman avenue, from One Hundred and Sixty-first to One Hundred and Sixty-fourth street, and to the extent of half the block at the intersecting streets.

TWENTY-THIRD WARD, SECTION 10.
ONE HUNDRED AND FORTIETH STREET—REGULATING, GRADING, CURBING, FLAGGING, LAYING CROSSWALKS, BUILDING APPROACHES AND PLACING FENCES, from a point about 150 feet west of Cypress avenue to Locust avenue. Area of assessment: Both sides of One Hundred and Fortieth street, from St. Ann's avenue to Locust avenue, and to the extent of half the block at the intersecting streets.

FOX STREET—REGULATING, PAVING AND CURBING, between Longwood avenue and Intervale avenue. Area of assessment: Both sides of Fox street, from Longwood avenue to Intervale avenue, and to the extent of half the block at the intersecting streets.

KELLY STREET—SEWER and appurtenances, between Prospect and Leggett avenues. Area of assessment: Both sides of Kelly street, from Prospect avenue to One Hundred and Fifty-sixth street; west side of Leggett avenue, from Dawson street to Beck street, and south side of One Hundred and Fifty-sixth street, from Kelly to Beck street.

TWENTY-FOURTH WARD, ANNEXED TERRITORY.

TEMPORARY SEWERS AND APPURTENANCES IN LOCUST STREET, between White Plains road and Elm avenue, and in NORTH AND SOUTH OAK DRIVES, between Elm avenue and the junction of the said drives, and in HICKORY AVENUE, between North Oak drive and the north line of Bronxwood Park. Area of assessment: Property known on the tax map as Bronxwood Park Lots, fronting on the following streets. South Oak drive, North Oak drive, Elm avenue, Locust street, Hickory avenue and White Plains road.

—that the same were confirmed by the Board of Assessors July 2, 1907, and entered July 2, 1907, in the Record of Titles of Assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, and unless the amount assessed for benefit on any person or property shall be paid within sixty days after the date of said entry of the assessments, interest will be collected thereon, as provided in section 1019 of said Greater New York Charter.

Said section provides, in part, that "If any such assessment shall remain unpaid for the period of sixty days after the date of entry thereof in the said Record of Titles of Assessments it shall be the duty of the officer authorized to collect and receive the amount of such assessment to charge, collect and receive interest thereon at the rate of seven per centum per annum, to be calculated to the date of payment from the date when such assessment became a lien, as provided by section 159 of this act."

Section 159 of this act provides: "An assessment shall become a lien upon the real estate affected thereby ten days after its entry in the said record."

The above assessments are payable to the Collector of Assessments and Arrears at the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, in the Municipal Building, corner of One Hundred and Seventy-seventh street and Third avenue, Borough of The Bronx, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. to 12 m., and all payments made thereon on or before August 31, 1907, will be exempt from interest, as above provided, and after that date will be subject to a charge of interest at the rate of seven per centum per annum from the date when the above assessments became liens to the date of payment.

HERMAN A. METZ,
Comptroller.

City of New York, Department of Finance,
Comptroller's Office, July 2, 1907.

jy5,18

NOTICE TO PROPERTY OWNERS.

IN PURSUANCE OF SECTION 1018 OF THE Greater New York Charter, the Comptroller of The City of New York hereby gives public notice to all persons, owners of property, affected by the following assessments for LOCAL IMPROVEMENTS in the BOROUGH OF BROOKLYN:

TWENTY-SIXTH WARD, SECTION 13.
RAILROAD AVENUE—REGULATING, GRADING, PAVING AND CURBING, between Jamaica avenue and Glenmore avenue. Area of assessment: Both sides of Railroad avenue, from Jamaica avenue to Glenmore avenue, and to the extent of half the block at the intersecting streets.

—that the same was confirmed by the Board of Assessors July 2, 1907, and entered July 2, 1907, in the Record of Titles of Assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, and unless the amount assessed for benefit on any person or property shall be paid within sixty days after the date of said entry of the assessments, interest will be collected thereon, as provided in section 1019 of said Greater New York Charter.

Said section provides, in part, that "If any such assessment shall remain unpaid for the period of sixty days after the date of entry thereof in the said Record of Titles of Assessments, it shall be the duty of the officer authorized to collect and receive the amount of such assessment to charge, collect and receive interest thereon at the rate of seven per centum per annum, to be calculated to the date of payment from the date when such assessment became a lien, as provided by section 159 of this act."

Section 159 of this act provides: "An assessment shall become a lien upon the real estate affected thereby ten days after its entry in the said record."

The above assessment is payable to the Collector of Assessments and Arrears at the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, in the Mechanics' Bank Building, Court and Montague streets, Borough of Brooklyn, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. until 12 m., and all payments made thereon on or before August 31, 1907, will be exempt from interest, as above provided, and after that date will be subject to a charge of interest at the rate of seven per centum per annum from the date when such assessment became a lien to the date of payment.

HERMAN A. METZ,
Comptroller.

City of New York, Department of Finance,
Comptroller's Office, July 2, 1907.

jy5,18

NOTICE OF ASSESSMENTS FOR OPENING STREETS AND PARKS.

IN PURSUANCE OF SECTION 1005 OF THE Greater New York Charter, the Comptroller of The City of New York hereby gives public notice of the confirmation by the Supreme Court, and the entering in the Bureau for the Collection of Assessments and Arrears of the assessments for OPENING AND ACQUIRING TITLE to the following named street in the BOROUGH OF THE BRONX:

TWENTY-FOURTH WARD, ANNEXED TERRITORY.

MORRIS STREET—OPENING, from Bronx river to Old Boston Post road. Confirmed August 9, 1904, November 16, 1904, and February 20, 1907; entered June 28, 1907. Area of assessment includes all those lands, tenements and hereditaments and premises situate, lying and being in the Borough of The Bronx, in The City of New York, which, taken together, are bounded and described as follows, viz.:

Beginning at a point formed by the intersection of a line parallel to and 300 feet southeasterly from the southeasterly line of Old Boston Post road with a line parallel to and 800 feet southerly from the southerly line of Morris street (East Two Hundred and Seventh street); running thence westerly along said last-mentioned parallel line (and its prolongation) to its intersection with the easterly line of the Bronx river; thence northerly along said easterly line to its intersection with the westerly prolongation of a line parallel to and 800 feet northerly from the northerly line of Morris street (East Two Hundred and Seventh street); thence easterly along said prolongation and parallel line and its easterly prolongation to its intersection with a line parallel to and 300 feet southeasterly from the southeasterly line of Old Boston Post road; thence southwesterly along said last-mentioned parallel line to the point or place of beginning.

The above entitled assessment was entered on the date hereinafter given in the Record of Titles of Assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents. Unless the amount assessed for benefit on any person or property shall be paid within sixty days after the date of said entry of the assessment interest will be collected thereon, as provided in section 1006 of the Greater New York Charter.

Said section provides that "If any such assessment shall remain unpaid for the period of sixty days after the date of entry thereof in the said Record of Titles of Assessments it shall be the duty of the officer authorized to collect and receive the amount of such assessment to charge, collect and receive interest thereon at the rate of seven per centum per annum, to be calculated to the date of payment from the date when such assessment became a lien, as provided by section 159 of this act."

Section 159 of this act provides: "An assessment shall become a lien upon the real estate affected thereby ten days after its entry in the said record."

The above assessment is payable to the Collector of Assessments and Arrears at the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, in the Municipal Building, corner of One Hundred and Seventy-seventh street and Third avenue, Borough of The Bronx, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. to 12 m., and all payments made thereon on or before August 27, 1907, will be exempt from interest, as above provided, and after that date will be subject to a charge of interest at the rate of seven per centum per annum, from the date when above assessment became a lien to the date of payment.

HERMAN A. METZ,
Comptroller.

City of New York, Department of Finance,
Comptroller's Office, June 28, 1907.

j29,jy13

NOTICE TO PROPERTY OWNERS.

IN PURSUANCE OF SECTION 1018 OF THE Greater New York Charter, the Comptroller of The City of New York hereby gives public notice to all persons, owners of property, affected by the following assessments for LOCAL IMPROVEMENTS in the BOROUGH OF THE BRONX:

TWENTY-THIRD WARD, SECTION 9.
EAST ONE HUNDRED AND FIFTY-FIRST STREET—PAVING AND CURBING, from Mott avenue to River avenue. Area of assessment: Both sides of One Hundred and Fifty-first street, from River avenue to Mott avenue, and to the extent of half the block at the intersecting streets.

EAST ONE HUNDRED AND FIFTY-SEVENTH STREET—PAVING AND CURBING, from Third avenue to St. Ann's avenue. Area of assessment: Both sides of One Hundred and Fifty-seventh street, from Third avenue to St. Ann's avenue, and to the extent of half the block at the intersecting streets.

WEST ONE HUNDRED AND SIXTY-THIRD STREET—SEWER and appurtenances, between Woodcrest avenue and Ogden avenue. Area of assessment: Both sides of One Hundred and Sixty-third street, from Woodcrest avenue to Ogden avenue.

MORRIS AVENUE—PAVING AND CURBING, from One Hundred and Sixty-fourth street to One Hundred and Sixty-fifth street. Area of assessment: Both sides of Morris avenue, from One Hundred and Sixty-third street to One Hundred and Sixty-fifth street, and to the extent of half the block at the intersecting streets.

TWENTY-THIRD WARD, SECTIONS 9 AND 11.

SEWER AND APPURTENANCES IN EAST ONE HUNDRED AND SIXTY-NINTH STREET, between Morris avenue and Findlay avenue, and in COLLEGE and FINDLAY AVENUES, between East One Hundred and Sixty-eighth street and East One Hundred and Seventieth street. Area of assessment: Blocks bounded by Morris avenue, Teller avenue, One Hundred and Sixty-eighth street and One Hundred and Sixty-ninth street; both sides of College and Findlay avenues, from One Hundred and Sixty-ninth to One Hundred and Seventieth street, including Lot No. 44, Block 2785, and both sides of Teller avenue, between One Hundred and Sixty-ninth and One Hundred and Seventieth streets.

TWENTY-THIRD WARD, SECTION 10.
STEBBINS AVENUE—PAVING AND CURBING, from Dawson street to Westchester avenue. Area of assessment: Both sides of Stebbins avenue, from Dawson street to Westchester avenue, and to the extent of half the block at the intersecting streets.

TWENTY-FOURTH WARD, SECTION 11.
EAST ONE HUNDRED AND SEVENTY-FOURTH STREET—SEWER and appurtenances, between Jerome avenue and Walton avenue, with

a branch in TOWNSEND AVENUE, between East One Hundred and Seventy-fourth street and Belmont street. Area of assessment: Both sides of Townsend and Walton avenues, from Belmont street to One Hundred and Seventy-fourth street; both sides of One Hundred and Seventy-fourth street, from Jerome avenue to Grand Boulevard and Concourse.

EAST ONE HUNDRED AND SEVENTY-EIGHTH STREET—SEWER, from the existing sewer east of the Grand Boulevard and Concourse to the Grand Boulevard and Concourse, and GRAND BOULEVARD AND CONCOURSE—SEWER, east side, between One Hundred and Seventy-eighth street and Echo place. Area of assessment: East side of the Grand Boulevard and Concourse, from Echo place to One Hundred and Seventy-ninth street; both sides of One Hundred and Seventy-eighth street, from the Grand Boulevard and Concourse to a point about 203 feet easterly.

DRAINAGE STREET—SEWER and appurtenances extending from Boone street to Longfellow street, between Jennings street and East One Hundred and Seventy-second street, and LONGFELLOW (STREET) AVENUE—SEWER, between Jennings street and East One Hundred and Seventy-third street. Area of assessment: Both sides of Longfellow avenue, from Jennings street to One Hundred and Seventy-third street; northeast corner of Bryant avenue and Jennings street; southeast corner of Bryant avenue and One Hundred and Seventy-second street, and East side of Bryant avenue, from its intersection with One Hundred and Seventy-second street to a point about 300 feet northerly.

PROSPECT AVENUE—REGULATING, GRADING, SETTING CURBSTONES, FLAGGING THE SIDEWALKS, LAYING CROSSWALKS, BUILDING APPROACHES AND PLACING FENCES, from Crotona Park North to East One Hundred and Eighty-ninth street. Area of assessment: Both sides of Prospect avenue, from Crotona Park North to East One Hundred and Eighty-ninth street, and to the extent of half the block at the intersecting streets and avenues.

TWENTY-FOURTH WARD, SECTION 12.

DRAINS OR SEWERS and appurtenances in EAST TWO HUNDRED AND THIRTY-THIRD STREET, between Webster avenue and Napier avenue; WEBSTER AVENUE, between East Two Hundred and Thirty-third street and East Two Hundred and Thirty-fourth street, between East Two Hundred and Thirty-sixth street and the City line; VERIO AVENUE, between East Two Hundred and Thirty-fifth street and East Two Hundred and Thirty-sixth street; VERIO AVENUE, between East Two Hundred and Thirty-seventh street and the City line; NAPIER AVENUE, between East Two Hundred and Thirty-third street and East Two Hundred and Thirty-fifth street; EAST TWO HUNDRED AND THIRTY-FOURTH STREET, between Verio avenue and Webster avenue; EAST TWO HUNDRED AND THIRTY-FOURTH STREET, between East Two Hundred and Thirty-third street and East Two Hundred and Thirty-fifth street; EAST TWO HUNDRED AND THIRTY-SIXTH STREET, between Verio avenue and Katonah avenue; EAST TWO HUNDRED AND THIRTY-SEVENTH STREET, between Katonah avenue and a point about 200 feet west of Kepler avenue; EAST TWO HUNDRED AND THIRTY-EIGHTH STREET, between Martha avenue and Kepler avenue; EAST TWO HUNDRED AND THIRTY-NINTH STREET, between Verio avenue and Kepler avenue; EAST TWO HUNDRED AND FORTIETH STREET, between Webster avenue and Verio avenue; EAST TWO HUNDRED AND FORTIETH STREET, from a point about 580 feet east of Martha avenue to Mount Vernon avenue.

Area of assessment: Both sides of Two Hundred and Thirty-third street, from Webster avenue to a point about 373 feet west of Mount Vernon avenue; both sides of Mount Vernon avenue, extending about 895 feet south of Two Hundred and Thirty-third street; both sides of Mount Vernon avenue, from Two Hundred and Thirty-third street to the northerly boundary line of The City of New York; both sides of Two Hundred and Thirty-fourth street, from Webster avenue to Kepler avenue; both sides of Two Hundred and Thirty-fifth and Two Hundred and Thirty-sixth streets, from Webster avenue to Mount Vernon avenue; both sides of Two Hundred and Thirty-seventh, Two Hundred and Thirty-eighth, Two Hundred and Thirty-ninth and Two Hundred and Fortieth streets, from Verio avenue to Mount Vernon avenue; both sides of Two Hundred and Forty-first and Two Hundred and Forty-second streets, from Mount Vernon avenue to the northerly boundary line of The City of New York; south side of McLean avenue, from Webster avenue to Verio avenue; both sides of Webster avenue, from Two Hundred and Thirty-third street to the northerly boundary line of The City of New York; both sides of Verio avenue, from Two Hundred and Thirty-third street to the northerly boundary line of The City of New York; both sides of Martha avenue, from Two Hundred and Thirty-fifth street to the northerly boundary line of The City of New York; both sides of Katonah avenue, from Two Hundred and Thirty-third street to Two Hundred and Forty-second street; both sides of Kepler avenue, from Two Hundred and Thirty-third street to Two Hundred and Thirty-ninth street; both sides of Oneida avenue, from Two Hundred and Thirty-third to Two Hundred and Thirty-eighth street, and both sides of Napier avenue, from Two Hundred and Thirty-third to Two Hundred and Thirty-seventh street.

WEST TWO HUNDRED AND THIRTY-THIRD STREET—SEWER and appurtenances, between Broadway and Bailey avenue, and BAILEY AVENUE—SEWER, between West Two Hundred and Thirty-third and West Two Hundred and Thirty-eighth streets. Area of assessment: Both sides of Bailey avenue, commencing about 380 feet south of Two Hundred and Thirty-third street and extending northerly to Van Courtlandt Park South; both sides of Albany road, from Two Hundred and Thirty-fourth street to Van Courtlandt Park South; both sides of Van Courtlandt Park South; both sides of Sedgewick avenue; both sides of Sedgewick avenue, from Giles place to Moshulu Parkway South; both sides of Van Courtlandt Park South, from Van Courtlandt avenue to Moshulu Parkway South; both sides of Saxon avenue, Norman avenue and Gouverneur avenue, from Sedgewick avenue to Van Courtlandt Park South, including also both sides of Stevenson Oval; both sides of Two Hundred and Thirty-sixth street, from Putnam avenue, West, to Albany road; both sides of Two Hundred and Thirty-eighth street, from Bailey avenue to Sedgewick avenue; both sides of Canon place, from Giles place to Two Hundred and Thirty-eighth street; both sides of Fort Independence street, from Heath avenue to Bailey avenue; both sides of Two Hundred and Thirty-fourth street, from Putnam avenue, West, to Albany road; both sides of Two Hundred and Thirty-third street, from Broadway to Bailey avenue; both sides of Two Hundred and Thirty-first street, from Albany road to Bailey avenue.

—that the same were confirmed by the Board of Revision of Assessments June 27, 1907, and entered June 27, 1907, in the Record of Titles of Assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and

Assessments and of Water Rents, and unless the amount assessed for benefit on any person or property shall be paid within sixty days after the date of said entry of the assessments interest will be collected thereon, as provided in section 1019 of said Greater New York Charter.

Said section provides, in part, that "If any such assessment shall remain unpaid for the period of sixty days after the date of entry thereof in the said Record of Titles of Assessments it shall be the duty of the officer authorized to collect and receive the amount of such assessment to charge, collect and receive interest thereon at the rate of seven per centum per annum, to be calculated to the date of payment from the date when such assessment became a lien, as provided by section 159 of this act."

Section 159 of this act provides: "An assessment shall become a lien upon the real estate affected thereby ten days after its entry in the said record."

The above assessments are payable to the Collector of Assessments and Arrears at the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, in the Municipal Building, corner of One Hundred and Seventy-seventh street and Third avenue, Borough of The Bronx, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. to 12 m., and all payments made thereon on or before August 26, 1907, will be exempt from interest, as above provided, and after that date will be subject to a charge of interest at the rate of seven per centum per annum from the date when the above assessments became liens to the date of payment.

HERMAN A. METZ,
Comptroller.

City of New York, Department of Finance,
Comptroller's Office, June 27, 1907.

j29,jy13

NOTICE TO PROPERTY OWNERS.

IN PURSUANCE OF SECTION 1018 OF THE Greater New York Charter, the Comptroller of The City of New York hereby gives public notice to all persons, owners of property, affected by the following assessments for LOCAL IMPROVEMENTS in the BOROUGH OF MANHATTAN:

TWELFTH WARD, SECTION 8.
WEST ONE HUNDRED AND SIXTY-FIFTH STREET—PAVING, CURBING AND RECURBING, from Boulevard Lafayette to Broadway. Area of assessment: Both sides of West One Hundred and Sixty-fifth street, from Boulevard Lafayette to Broadway and to the extent of half the block at the intersecting and terminating streets.

FAIRVIEW AVENUE—REGULATING, GRADING, CURBING AND FLAGGING, from St. Nicholas avenue to Broadway. Area of assessment: Both sides of Fairview avenue, from St. Nicholas avenue to Broadway and to the extent of half the block at the intersecting and terminating streets and avenues.

—that the same were confirmed by the Board of Revision of Assessments on June 27, 1907, and entered on June 27, 1907, in the Record of Titles of Assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, and unless the amount assessed for benefit on any person or property shall be paid within sixty days after the date of said entry of the assessments, interest will be collected thereon, as provided in section 1019 of said Greater New York Charter.

Said section provides, in part, that "If any such assessment shall remain unpaid for the period of sixty days after the date of entry thereof in the said Record of Titles of Assessments, it shall be the duty of the officer authorized to collect and receive the amount of such assessment to charge, collect and receive interest thereon at the rate of seven per centum per annum, to be calculated to the date of payment from the date when such assessment became a lien, as provided by section 159 of this act."

Section 159 of this act provides: "An assessment shall become a lien upon the real estate affected thereby ten days after its entry in the said record."

The above assessments are payable to the Collector of Assessments and Arrears at the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, Room H, No. 280 Broadway, Borough of Manhattan, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. to 12 m., and all payments made thereon on or before August 26, 1907, will be exempt from interest, as above provided, and after that date will be subject to a charge of interest at the rate of seven per centum per annum from the date when above assessments became liens to the date of payment.

HERMAN A. METZ,
Comptroller.

City of New York—Department of Finance,
Comptroller's Office, June 27, 1907.

j28,jy12

NOTICE TO PROPERTY OWNERS.

IN PURSUANCE OF SECTION 1018 OF THE Greater New York Charter, the Comptroller of The City of New York hereby gives public notice to all persons, owners of property, affected by the following assessments for LOCAL IMPROVEMENTS in the BOROUGH OF BROOKLYN.

Pursuant to the provisions of chapter 582, Laws of 1893, for improvements in the former Town of New Utrecht, to wit:

THIRTIETH WARD.
BAY RIDGE AVENUE—GRADING, PAVING AND CURBING, from Third avenue to New York Bay. Area of assessment: Both sides of Bay Ridge avenue, from Third avenue to New York Bay, and extending back 100 feet from Bay Ridge avenue.

BENSON AVENUE—GRADING, PAVING AND GUTTERING, from Eighteenth avenue to Twentieth avenue. Area of assessment: Both sides of Benson avenue, from Eighteenth avenue to Twentieth avenue, and extending back 100 feet from Benson avenue.

KOUWENHOVEN LANE—GRADING AND PAVING, from Fourth avenue to Fifth avenue. Area of assessment: Both sides of Kouwenhoven lane, from Fourth avenue to Fifth avenue, and extending back 100 feet from Kouwenhoven lane.

CROSEY AVENUE—GRADING, PAVING AND GUTTERING, from Franklin avenue to Fifteenth avenue. Area of assessment: Both sides of Crosey avenue, from Franklin avenue to Fifteenth avenue, and extending back 100 feet from Crosey avenue.

CROSEY AVENUE—GRADING, PAVING, GUTTERING AND CURBING, from Fifteenth avenue to Twenty-third avenue. Area of assessment: Both sides of Crosey avenue, from Fifteenth avenue to Twenty-third avenue, and extending back 100 feet from Crosey avenue.

EIGHTEENTH AVENUE—GRADING, PAVING AND GUTTERING. from Cropsey avenue to Gravesend avenue. Area of assessment: Both sides of Eighteenth avenue, from Cropsey avenue to Gravesend avenue, and extending back 100 feet from Eighteenth avenue.

EIGHTIETH STREET—GRADING, PAVING, GUTTERING AND CURBING. from Eighteenth avenue to Twenty-second avenue. Area of assessment: Both sides of Eightieth street, from Eighteenth avenue to Twenty-second avenue, and extending back 100 feet from Eightieth street.

EIGHTY-SIXTH STREET—GRADING, PAVING AND GUTTERING. from Fifth avenue to Shore road. Area of assessment: Both sides of Eighty-sixth street, from Fifth avenue to Shore road, and extending back 100 feet from Eighty-sixth street.

FOURTH AVENUE—GRADING, PAVING, GUTTERING AND CURBING. from Sixtieth street to Shore road. Area of assessment: Both sides of Fourth avenue, from Sixtieth street to Shore road, and extending back 100 feet from Fourth avenue.

FIFTH AVENUE—GRADING, PAVING AND GUTTERING. from Eighty-sixth street to Fourth avenue. Area of assessment: Both sides of Fifth avenue, from Eighty-sixth street to Fourth avenue, and extending back 100 feet from Fifth avenue.

FRANKLIN AVENUE—GRADING, PAVING AND GUTTERING. from Cropsey avenue to Warehouse avenue. Area of assessment: Both sides of Franklin avenue, from Cropsey avenue to Warehouse avenue, and extending back 100 feet from Franklin avenue.

NEW UTRECHT AVENUE—GRADING, PAVING AND CURBING. from old City line to Sixty-seventh street. Area of assessment: Both sides of New Utrecht avenue, from old City line to Sixty-seventh street, and extending back 100 feet from New Utrecht avenue.

NINETY-SECOND STREET—GRADING, PAVING AND GUTTERING. from Seventh avenue to Shore road. Area of assessment: Both sides of Ninety-second street, from Seventh avenue to Shore road, and extending back 100 feet from Ninety-second street.

NINETY-FIFTH STREET—GRADING, PAVING AND GUTTERING. from Second avenue to Fourth avenue. Area of assessment: Both sides of Ninety-fifth street, from Second avenue to Fourth avenue, and extending back 100 feet from Ninety-fifth street.

SECOND AVENUE—GRADING, PAVING AND GUTTERING. from Sixty-fifth street to Ninety-second street. Area of assessment: Both sides of Second avenue, from Sixty-fifth street to Ninety-second street, and extending back 100 feet from Second avenue.

SECOND AVENUE—GRADING, PAVING AND GUTTERING. from Ninety-second street to Shore road. Area of assessment: Both sides of Second avenue, from Ninety-second street to Shore road, and extending back 100 feet from Second avenue.

SIXTIETH STREET—GRADING, PAVING AND GUTTERING. from Fourth avenue to Twenty-second avenue. Area of assessment: Both sides of Sixtieth street, from Fourth avenue to Twenty-second avenue, and extending back 100 feet from Sixtieth street.

SIXTY-SEVENTH STREET—PAVING AND GUTTERING. from Fourth avenue to Fifth avenue. Area of assessment: Both sides of Sixty-seventh street, from Fourth avenue to Fifth avenue, and extending back 100 feet from Sixty-seventh street.

SIXTY-SEVENTH STREET—PAVING AND GUTTERING. from New Utrecht avenue to Eighteenth avenue. Area of assessment: Both sides of Sixty-seventh street, from New Utrecht avenue to Eighteenth avenue, and extending back 100 feet from Sixty-seventh street.

SEVENTIETH STREET—PAVING AND GUTTERING. from Fort Hamilton avenue to Tenth avenue. Area of assessment: Both sides of Seventieth street, from Fort Hamilton avenue to Tenth avenue, and extending back 100 feet from Seventieth street.

SEVENTY-NINTH STREET—GRADING, PAVING AND GUTTERING. from Eighteenth avenue to Fort Hamilton avenue. Area of assessment: Both sides of Seventy-ninth street, from Eighteenth avenue to Fort Hamilton avenue, and extending back 100 feet from Seventy-ninth street.

SEVENTY-NINTH STREET—PAVING AND GUTTERING. from Fort Hamilton avenue to Shore road. Area of assessment: Both sides of Seventy-ninth street, from Fort Hamilton avenue to Shore road, and extending back 100 feet from Seventy-ninth street.

TENTH AVENUE—PAVING AND GUTTERING. from Bay Ridge avenue to Seventy-fifth street. Area of assessment: Both sides of Tenth avenue, from Bay Ridge avenue to Seventy-fifth street, and extending back 100 feet from Tenth avenue.

TWENTY-FIRST AVENUE—GRADING, PAVING AND GUTTERING. from Eightieth street to Cropsey avenue. Area of assessment: Both sides of Twenty-first avenue, from Eightieth street to Cropsey avenue, and extending back 100 feet from Twenty-first avenue.

TWENTY-SECOND AVENUE—GRADING, PAVING AND GUTTERING. from Eightieth street to Cropsey avenue. Area of assessment: Both sides of Twenty-second avenue, from Eightieth street to Cropsey avenue, and extending back 100 feet from Twenty-second avenue.

WAREHOUSE AVENUE—GRADING, PAVING AND GUTTERING. from Franklin avenue to Seventh avenue. Area of assessment: Both sides of Warehouse avenue, from Franklin avenue to Seventh avenue, and extending back 100 feet from Warehouse avenue.

The Board of Assessors has levied and assessed the foregoing assessments in fifty equal annual installments.

The "Fourth Installment" in each case is now due and payable and hereafter for forty-six years an amount equal to one of the aforesaid annual installments with interest shall be assessed upon the lots or parcels of land benefited by said improvements. These assessments were confirmed by the Board of Revision of Assessments on June 30, 1904, and the "Fourth Installment" entered on June 25, 1907, in the Record of Titles of Assessments kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents.

Unless the amount of the fourth installment in each case shall be paid within sixty days after said date of entry, interest shall be charged, collected and received thereon, as provided in section 1019 of the Greater New York Charter.

Said section provides, in part, that "If any such assessment shall remain unpaid for the period of sixty days after the date of entry thereof in the said Record of Titles and Assessments, it shall be the duty of the officer authorized to collect and receive the amount of such assessments to charge, collect and receive interest thereon at the rate of seven per centum per annum, to be calculated to the date of payment from the date when such assessments became liens, as provided by section 159 of this act."

Section 159 of this act provides: "An assessment shall become a lien upon the real estate affected thereby ten days after its entry in the said record."

The above assessments are payable to the Collector of Assessments and Arrears at the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, in the Mechanics' Bank Building, Court and Montague streets, Borough of Brooklyn, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. to 12 m., and all payments made thereon on or before August 24, 1907, will be exempt from interest as above provided, and after that date will be subject to a charge of interest at the rate of seven per centum per annum from the date when the above assessments became liens to the date of payment.

HERMAN A. METZ,
Comptroller.

City of New York—Department of Finance,
Comptroller's office, June 25, 1907.

j27,jy11

DEPARTMENT OF FINANCE, CITY OF NEW YORK,
December 14, 1906.

UNTIL FURTHER NOTICE AND UNLESS otherwise directed in any special case surety companies will be accepted as sufficient upon the following contracts to the amounts named:

Supplies of Any Description, including Gas and Electricity—

One company on a bond up to \$50,000.

Two companies on a bond up to \$125,000.

Three companies on a bond up to \$200,000.

Asphalt, Asphalt Block and Wood Block Pavements—

Two companies on a bond up to \$50,000.

Three companies on a bond up to \$125,000.

Regulating, Grading, Paving, Sewers, Water Mains, Dredging, Construction of Parks, Parkways, Etc.—

One company on a bond up to \$25,000.

Two companies on a bond up to \$75,000.

Three companies on a bond up to \$150,000.

Four companies on a bond up to \$250,000.

New Docks, Buildings, Bridges, Aqueducts, Tunnels, Etc.—

One company on a bond up to \$25,000.

Two companies on a bond up to \$75,000.

Three companies on a bond up to \$150,000.

Four companies on a bond up to \$250,000.

Repairs, Ventilating, Heating, Plumbing, Etc.—

One company on a bond up to \$25,000.

Two companies on a bond up to \$75,000.

Three companies on a bond up to \$150,000.

Four companies on a bond up to \$250,000.

On bonds regarded as hazardous risks additional surety will be required as the Comptroller sees fit in each instance.

All bonds exceeding \$250,000 will by that fact alone be considered hazardous risks, no matter what the nature of the work.

H. A. METZ,
Comptroller.

BOARD OF ESTIMATE AND APPORTIONMENT.—PUBLIC IMPROVEMENTS.

CATSKILL AQUEDUCT.

Modification of Plan and Profile Dated October 9, 1905.

NOTICE IS HEREBY GIVEN THAT AT the meeting of the Board of Estimate and Apportionment held on June 28, 1907, the following resolutions were adopted:

Whereas, The Board of Water Supply of The City of New York, pursuant to chapter 724 of the Laws of 1905, as amended, has made such surveys, maps, plans, specifications, estimates and investigations as it deemed proper in order to ascertain the facts as to what sources for an additional supply of pure and wholesome water for The City of New York exist and are most available, desirable and best for the said supply, and

Whereas, On October 27, 1905, the Board of Estimate and Apportionment approved of a map and profile dated October 9, 1905, presented by the said Board of Water Supply, showing the plan for obtaining such additional supply, and

Whereas, The said map and profile were duly approved by the State Water Supply Commission on May 14, 1906, with certain exceptions, and

Whereas, It is necessary that the said map and profile be now modified as shown upon a map and profile submitted by said Board of Water Supply dated June 25, 1907, and entitled "Board of Water Supply of The City of New York. Modification of Line of the Catskill Aqueduct," and

Whereas, The Board of Water Supply has requested the approval of this Board to such modification; now, therefore

Resolved, That the 8th day of July, 1907, at 10.30 o'clock in the forenoon, at Room 16, in the City Hall, in The City of New York, be fixed as the time and place for a public hearing upon the said modification, and that notice be given of such public hearing by publication in the CITY RECORD and in two daily papers published in The City of New York and by posting such notice in a conspicuous place at the county seat in each and every county affected, and by publication of said notice in one paper designated as an "official paper" for the publication of official notices in each of the counties of Ulster, Orange, Dutchess and Putnam, or if there be none such in any of said counties, then in one paper published in each of said four counties, such notice being hereby determined to be reasonable public notice of said hearing; and be it further

Resolved, That the Secretary of this Board be directed to give such notices as are provided for by law and as he may be advised by the Corporation Counsel, with whom he is directed to confer in regard to this matter.

Dated June 29, 1907.

JOSEPH HAAG,
Secretary.

No. 277 Broadway, Room 1406, New York City. Tel. 2280 Worth.

j29,jy8

NOTICE IS HEREBY GIVEN THAT THE Board of Estimate and Apportionment of The City of New York, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York so as to close and discontinue the following streets:

North Thirteenth street, from Berry street to Bedford avenue.

North Thirteenth street, from Bedford avenue to Driggs avenue.

North Fourteenth street, from Berry street and Nassau avenue to Bedford avenue.

North Fourteenth street, from Bedford avenue to Driggs avenue.

Banker street, from Nassau avenue to Bedford avenue.

Banker street, from Bedford avenue to North Thirteenth street and Driggs avenue.

North Fifteenth street, from Nassau avenue to Bedford avenue.

North Fifteenth street, from Bedford avenue to Driggs avenue.

Dobbin street, from Nassau avenue to North Fifteenth street and Bedford avenue.

Guernsey street, from Nassau avenue to Bedford avenue.

Guernsey street, from Bedford avenue to Driggs avenue and North Fifteenth street.

Newton street, from Union avenue to Lorimer street.

Newton street, from Lorimer street to Leonard street.

Jane street, from Union avenue to Lorimer street.

Jane street, from Lorimer street to Leonard street.

Engert avenue, from Driggs avenue to Lorimer street.

Engert avenue, from Lorimer street to Leonard street and Manhattan avenue, in the Borough of Brooklyn, City of New York, and that a meeting of said Board will be held in the Old Council Chamber, City Hall, Borough of Manhattan, City of New York, on July 8, 1907, at 10.30 o'clock a. m., at which such proposed changes will be considered by said Board; all of which is more particularly set forth and described in the following resolutions adopted by the Board on June 21, 1907, notice of the adoption of which is hereby given, viz.:

Resolved, That the Board of Estimate and Apportionment of The City of New York, in pursuance of the provisions of section 442 of the Greater New York Charter as amended, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York by closing and discontinuing the following streets located within the outside boundary of Greenpoint Park, in the Borough of Brooklyn, City of New York:

North Thirteenth street, from Berry street to Bedford avenue.

North Thirteenth street, from Bedford avenue to Driggs avenue.

North Fourteenth street, from Berry street and Nassau avenue to Bedford avenue.

North Fourteenth street, from Bedford avenue to Driggs avenue.

Banker street, from Nassau avenue to Bedford avenue.

Banker street, from Bedford avenue to North Thirteenth street and Driggs avenue.

North Fifteenth street, from Nassau avenue to Driggs avenue.

North Fifteenth street, from Bedford avenue to Driggs avenue.

Dobbin street, from Nassau avenue to North Fifteenth street and Bedford avenue.

Guernsey street, from Nassau avenue to Bedford avenue.

Guernsey street, from Bedford avenue to Driggs avenue and North Fifteenth street.

Newton street, from Union avenue to Lorimer street.

Newton street, from Lorimer street to Leonard street.

Jane street, from Union avenue to Lorimer street.

Jane street, from Lorimer street to Leonard street.

Engert avenue, from Driggs avenue to Lorimer street.

Engert avenue, from Lorimer street to Leonard street and Manhattan avenue.

Resolved, That this Board consider the proposed change at a meeting of the Board to be held in the City Hall, Borough of Manhattan, City of New York, on the 8th day of July, 1907, at 10.30 o'clock a. m.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby that the proposed change will be considered at a meeting of the Board to be held at the aforesaid time and place, to be published in the CITY RECORD and the corporation newspapers for ten days continuously, Sundays and legal holidays excepted, prior to the 8th day of July, 1907.

Dated June 24, 1907.

JOSEPH HAAG,
Secretary.

No. 277 Broadway, Room 805.

Telephone 2280 Worth.

j24,jy5

NOTICE IS HEREBY GIVEN THAT THE Board of Estimate and Apportionment of The City of New York, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York so as to widen West Two Hundred and Thirty-first street, between Kingsbridge avenue and Albany road, and West Two Hundred and Thirty-eighth street, between Kingsbridge avenue and Putnam avenue, West, and to change the line of West Two Hundred and Thirty-first street, between Broadway and Kingsbridge avenue, Borough of The Bronx, and that a meeting of said Board will be held in the Old Council Chamber, City Hall, Borough of Manhattan, City of New York, on July 8, 1907, at 10.30 o'clock a. m., at which such proposed change will be considered by said Board; all of which is more particularly set forth and described in the following resolutions adopted by the Board on June 21, 1907, notice of the adoption of which is hereby given, viz.:

Resolved, That the Board of Estimate and Apportionment of The City of New York, in pursuance of the provisions of section 442 of the Greater New York Charter, as amended, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York by widening West Two Hundred and Thirty-first street, between Kingsbridge avenue and Albany road, and West Two Hundred and Thirty-eighth street, between Kingsbridge avenue and Putnam avenue, West, and by changing the line of West Two Hundred and Thirty-first street, between Broadway and Kingsbridge avenue, in the Borough of The Bronx, City of New York, more particularly described as follows:

West Two Hundred and Thirty-first Street, Kingsbridge Avenue to Broadway.

The northerly line of West Two Hundred and Thirty-first street is to meet Broadway at a point 430.21 feet south of the intersection of Broadway with the southerly side of West Two Hundred and Thirty-second street, and is to be carried with an interior angle of 85 degrees 11 minutes 45 seconds westerly to Kingsbridge avenue.

The southerly side of West Two Hundred and Thirty-first street is to be 80 feet southerly from and parallel with the northerly side of the street, the distance being measured at right angles to the street lines.

West Two Hundred and Thirty-first Street, Broadway to Albany Road.

The northerly line of the street is to remain unchanged.

The southerly line of the street is to be 80 feet distant from and parallel with the northerly side of the street, the distance being measured at right angles to the street line.

West Two Hundred and Thirty-eighth Street, Between Kingsbridge Avenue and Broadway.

The northerly line of West Two Hundred and Thirty-eighth street is to remain unchanged.

The southerly line of West Two Hundred and Thirty-eighth street is to be a prolongation of the southerly line of West Two Hundred and Thirty-eighth street as laid out west of Kingsbridge avenue.

West Two Hundred and Thirty-eighth Street, Between Broadway and Putnam Avenue, West.

The northerly line of the street is to remain unchanged.

The southerly line of the street is to be 80 feet southerly from and parallel with the northerly side, the distance being measured at right angles to the street line.

Resolved, That this Board consider the proposed change at a meeting of the Board, to be held in the City Hall, Borough of Manhattan, City of New York, on the 8th day of July, 1907, at 10.30 o'clock a. m.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby that the proposed change will be considered at a meeting of the Board, to be held at the aforesaid time and place, to be published in the CITY RECORD for ten days continuously, Sundays and legal holidays excepted, prior to the 8th day of July, 1907.

Dated June 24, 1907.

JOSEPH HAAG,
Secretary.

No. 277 Broadway, Room 805.

Telephone 2280 Worth.

j24,jy5

NOTICE IS HEREBY GIVEN THAT THE Board of Estimate and Apportionment of The City of New York, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York so as to extend Gray street, from McGraw avenue to the public place at the intersection of Tremont avenue (East One Hundred and Seventy-seventh street) and Westchester avenue, Borough of The Bronx, and that a meeting of said Board will be held in the Old Council Chamber, City Hall, Borough of Manhattan, City of New York, on July 8, 1907, at 10.30 o'clock a. m., at which such proposed change will be considered by said Board; all of which is more particularly set forth and described in the following resolutions adopted by the Board on June 21, 1907, notice of the adoption of which is hereby given, viz.:

Resolved, That the Board of Estimate and Apportionment of The City of New York, in pursuance of the provisions of section 442 of the Greater New York Charter, as amended, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York by extending Gray street, from McGraw avenue to the public place at the intersection of Tremont avenue (East One Hundred and Seventy-seventh street) and Westchester avenue, in the Borough of The Bronx, City of New York, more particularly described as follows:

By prolonging the lines of Gray street, as laid out north of McGraw avenue, southwardly to the public place at the intersection of East One Hundred and Seventy-seventh street (Tremont avenue) and Westchester avenue. The street is to be 60 feet wide.

Resolved, That this Board consider the proposed change at a meeting of the Board, to be held in the City Hall, Borough of Manhattan, City of New York, on the 8th day of July, 1907, at 10.30 o'clock a. m.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby that the proposed change will be considered at a meeting of the Board, to be held at the aforesaid time and place, to be published in the CITY RECORD for ten days continuously, Sundays and legal holidays excepted, prior to the 8th day of July, 1907.

Dated June 24, 1907.

JOSEPH HAAG,
Secretary.

No. 277 Broadway, Room 805.

Telephone 2280 Worth.

j24,jy5

BOARD OF ESTIMATE AND APPORTIONMENT.—FRANCHISES.

PUBLIC NOTICE.

NOTICE IS HEREBY GIVEN THAT AT a meeting of the Board of Estimate and Apportionment held in Room 16, City Hall, Borough of Manhattan, Friday, June 28, 1907, a communication dated June 27, 1907, was received from the Board of Rapid Transit Railroad Commissioners for The City of New York, transmitting certificate of grant and franchise therein contained to the Long Island Railroad Company for two cut-offs known as

(a) Montauk Cut-off.

(b) Glendale Cut-off.

—and at said meeting the following resolutions were adopted:

Resolved, That the communication be received, and, in pursuance of law, this Board hereby appoints Monday, the 8th day of July, 1907, at 10.30 o'clock in the forenoon, as the time, and Room 16 in the City Hall, Borough of Manhattan, as the place, when and where such certificate and franchise therein contained will be considered; and be it further

Resolved, That the Secretary be directed to cause notice of such consideration to be published in the CITY RECORD.

JOSEPH HAAG,
Secretary.

Dated June 28, 1907.

jy1,8

PUBLIC NOTICE IS HEREBY GIVEN that at a meeting of the Board of Estimate and Apportionment held June 14, 1907, the following petition was received:

To the Honorable Board of Estimate and Apportionment of The City of New York:

The petition of the New York and Queens County Railway Company respectfully shows:

First—That your petitioner is a street surface railway corporation duly organized and existing under the laws of the State of New York, and now operating a street surface railway in the Borough of Queens, City of New York, and has duly filed, pursuant to section 90 of the Railroad Law, a statement of the extension of its road and branch thereof herein proposed.

Second—That for the purpose of constructing and operating a branch or extension of its present road, your petitioner desires to obtain from your Honorable Board, and hereby respectfully applies for its consent to and a grant of the right, privilege and franchise for the construction, maintenance and operation of a double-track street surface railway as an extension or branch of its existing railway for public use in the conveyance of persons and property for compensation.

tion in, upon, along and over the surface of certain streets, avenues, highways, bridges, public places and private property in the Borough of Queens, City of New York, of which the following is a description:

Beginning at and connecting with its present track at the corner of Broadway and Main street, in the former Village of Flushing; running thence easterly upon and along Broadway to Whitestone avenue; thence northerly upon and along Whitestone avenue to Chestnut street or avenue; thence easterly upon and along Chestnut street or avenue to and across Flushing place; thence still easterly through private property along the line of a continuation of Chestnut street upon and along Murray lane; thence northerly upon and along Murray lane to Higgins lane; thence easterly upon and along Higgins lane to a point where Ninth avenue if extended would intersect said Higgins lane; thence northerly through private property along the line of Ninth avenue to Fourth street; thence westerly upon and along Fourth street to Eighth avenue; thence northerly upon and along Eighth avenue to Twenty-first street; thence easterly upon and along Twenty-first street to Eleventh avenue; thence northerly upon and along Eleventh avenue to Thirty-sixth street, in the former Village of Whitestone, crossing such other streets, avenues, highways and bridges as may be encountered in said route, and with such connections, turnouts, switches, crossovers, stands, poles, wires and equipment necessary for the accommodation and operation of said railway by the overhead system of electricity, or by any other motive power that may be lawfully employed upon the same.

Third—That said corporation proposes to operate said extension or branch by the overhead system of electricity, substantially similar to that now in use on its other lines, or by other motive power that may be lawfully employed.

Wherefore your petitioner prays that public notice hereof, and of the time and place when and where this application will be first considered be given as required by law, and that the desired consent be granted in accordance with the provisions of the Greater New York Charter.

Dated June 10, 1907.
NEW YORK AND QUEENS COUNTY
RAILWAY COMPANY,
By F. L. FULLER,
President.

Attest:
(Seal) H. M. FISHER,
Secretary.

State of New York, County of Queens, ss.:
F. L. Fuller, being duly sworn, deposes and says: That he is the President of the New York and Queens County Railway Company, the petitioner named in the foregoing petition; that he has read the foregoing petition and knows the contents thereof; that the same is true of his own knowledge except as to the matters therein stated to be alleged upon information and belief, and as to those matters he believes it to be true.

F. L. FULLER,
Subscribed and sworn to before me this 10th day of June, 1907.
WILLIAM A. METHVEN,
(Seal) Notary Public, Queens County.
Certificate filed in New York County.

—and the following resolutions were thereupon adopted:

Whereas, The foregoing petition from the New York and Queens County Railway Company, dated June 10, 1907, was presented to the Board of Estimate and Apportionment at a meeting held June 14, 1907,

Resolved, That in pursuance of law this Board sets Monday, the 8th day of July, 1907, at 10.30 o'clock in the forenoon, and Room 16 in the City Hall, Borough of Manhattan, as the time and place when and where such petition shall be first considered, and a public hearing be had thereon, at which citizens shall be entitled to appear and be heard; and be it further

Resolved, That the Secretary is directed to cause such petition and these resolutions to be published for at least fourteen (14) days in two daily newspapers in The City of New York, to be designated by the Mayor, and for at least ten (10) days in the CITY RECORD immediately prior to such date of public hearing. The expense of such publication to be borne by the petitioner.

JOSEPH HAAG,
Secretary.

New York, June 14, 1907. j25,jy8

PUBLIC NOTICE IS HEREBY GIVEN that at a meeting of the Board of Estimate and Apportionment held December 21, 1906, the following petition was received:

To the Honorable Board of Estimate and Apportionment of The City of New York:
The petition of the Queens Borough Street Railway Company respectfully shows:

That your petitioner is a street surface railway corporation duly organized and incorporated under and in pursuance of an act of the Legislature of the State of New York, entitled the Railroad Law.

That the said corporation proposes to build, construct, maintain and operate a street surface railroad for the public use in the conveyance of persons and property in cars for commensation in the First Ward (formerly Long Island City) of the Borough of Queens of The City of New York, State of New York, upon and along the surface of the following streets, avenues and highways in said Long Island City, to wit:

Beginning at the corner of Franklin street and Van Alst avenue as a starting point, the proposed railroad shall run in a northerly direction along Van Alst avenue to Winthrop avenue, a distance of approximately one and one-tenth (1 1-10) miles.

That the railroad proposed to be built, constructed, maintained and operated by your petitioner, as hereinbefore set forth, is intended to be operated by any motive power other than locomotive steam power, which now or at any time hereafter may lawfully be used and employed on its route.

Your petitioner further shows that, pursuant to the laws of this State and to the Charter of The City of New York, it is necessary for it to obtain the consent of the Board of Estimate and Apportionment of The City of New York to enable it to construct, maintain and operate the railroad aforesaid, and accordingly your petitioner now applies to your honorable body for such consent.

Wherefore your petitioner prays and makes application to the Board of Estimate and Apportionment of The City of New York for its consent and permission to be granted to your petitioner, its successors, successors, lessees and assigns, to construct, maintain and operate a street surface railroad for public use through, upon and along the avenues, streets and highways above set forth and described, together with all necessary connections, switches, sidings, turnouts, turntables, crossovers and suitable stands for the convenient working of said railroad, and for the accommodation of the company's cars which may be run over said railroad by your petitioner, its successors, lessees or assigns; and also that consent and permission be granted to your petitioner, its successors, lessees or assigns, to the

erection upon said streets, avenues and highways of the necessary poles and the stringing of wires, so that the cars of said company may be moved by the means or power of electricity.

Dated December 7, 1906.
QUEENS BOROUGH STREET
RAILWAY COMPANY,
By C. E. FINLAY,
President.

State of New York, County of New York, ss.:
Charles E. Finlay, being duly sworn, says that he is the President of the Queens Borough Street Railway Company, the petitioner above named; that he has read the foregoing petition and knows the contents thereof, and that the same is true to the knowledge of this deponent except as to the matters therein stated to be alleged on information and belief, and that as to those matters he believes it to be true. That the reason why this verification is not made by the petitioner is because the petitioner is a corporation; that the grounds of deponent's belief as to matters in said petition not stated upon his own knowledge are investigations which deponent has caused to be made concerning the subject matter of this petition and information acquired by deponent in the course of his duties as an officer of the corporation petitioner in this proceeding.

C. E. FINLAY,
Sworn to before me this 7th day of December, 1906.

T. J. MANNING,
Notary Public, New York County.

—and at a meeting held June 14, 1907, the following resolutions were adopted:

Whereas, The foregoing petition from the Queens Borough Street Railway Company, dated December 7, 1906, was presented to the Board of Estimate and Apportionment at a meeting held December 21, 1906,

Resolved, That in pursuance of law this Board sets Monday, the 8th day of July, 1907, at 10.30 o'clock in the forenoon, and Room 16 in the City Hall, Borough of Manhattan, as the time and place when and where such petition shall be first considered, and a public hearing be had thereon, at which citizens shall be entitled to appear and be heard; and be it further

Resolved, That the Secretary is directed to cause such petition and these resolutions to be published for at least fourteen (14) days in two daily newspapers in The City of New York, to be designated by the Mayor, and for at least ten (10) days in the CITY RECORD immediately prior to such date of public hearing. The expense of such publication to be borne by the petitioner.

JOSEPH HAAG,
Secretary.

New York, June 14, 1907. j25,jy8

PUBLIC NOTICE IS HEREBY GIVEN that at a meeting of the Board of Estimate and Apportionment, held June 14, 1907, the following petition was received:

To the Honorable Board of Estimate and Apportionment of The City of New York:
The petition of the Queens Lighting Company respectfully shows:

First—Your petitioner is a corporation duly organized and existing under the provisions of Article 6 of the Transportation Corporation Law of the State of New York, for the purpose, among other things, of manufacturing and supplying gas in the Borough and County of Queens.

Second—Your petitioner desires to obtain from The City of New York its consent to and a grant of the franchise right and privilege to manufacture and supply gas for the purpose of lighting the streets, public and private buildings and places and to lay conductors for conducting gas through the streets, lanes, squares, highways and public places of the following territory: All that portion of the Borough of Queens, City of New York, lying easterly and bounded by and within a line commencing at Little Neck Bay and Alley creek and running southwardly along West Alley road, Rocky Hill road, Black Stump road, Holliswood avenue, Hillside avenue, Carpenter avenue, Pocahontas avenue, Atlantic avenue, Farmers' avenue, Locust avenue, Rockaway road and Three Mile Mill road to Jamaica Bay, as shown upon a map submitted herewith and made a part of this petition.

Wherefore your petitioner prays that the consent of your Honorable Board be granted to it to lay conductors for conducting gas in the territory before described and that the desired consent, grant or franchise be embodied in the form of a contract in accordance with the provisions of the Greater New York Charter.

Dated City of New York, June 7, 1907.
QUEENS LIGHTING COMPANY,
By J. MAYNARD KISSAM, President.

State of New York, County of New York, ss.:
On this 7th day of June, 1907, before me personally came J. Maynard Kissam, to me personally known, who being by me duly sworn, deposes and says that he resides in Queens, Long Island; that he is the President of the Queens Lighting Company, the corporation described in and which executed the foregoing petition; that by order of the Board of Directors of such corporation he signed his name thereto and that he has read the foregoing petition and knows the contents thereof and that the same is true to his own knowledge and belief.

VINCENT T. COUGHLIN,
Notary Public,
New York County.

—and the following resolutions were thereupon adopted:

Whereas, The foregoing petition from the Queens Lighting Company, dated June 7, 1907, was presented to the Board of Estimate and Apportionment at a meeting held June 14, 1907,

Resolved, That in pursuance of law this Board sets Monday, the 8th day of July, 1907, at 10.30 o'clock in the forenoon, and Room 16 in the City Hall, Borough of Manhattan, as the time and place when and where such petition shall be first considered, and a public hearing be had thereon, at which citizens shall be entitled to appear and be heard; and be it further

Resolved, That the Secretary is directed to cause such petition and these resolutions to be published for at least two (2) days in two daily newspapers in The City of New York, to be designated by the Mayor, and for at least ten (10) days in the CITY RECORD immediately prior to such date of public hearing. The expense of such publication to be borne by the petitioner.

JOSEPH HAAG,
Secretary.

New York, June 14, 1907. j25,jy8

PUBLIC NOTICE IS HEREBY GIVEN that at a meeting of the Board of Estimate and Apportionment, held June 14, 1907, the following petition was received:

To the Honorable Board of Estimate and Apportionment of The City of New York:

The petition of the New York and Queens County Railway Company respectfully shows:

First—That your petitioner is a street surface railway corporation duly organized and existing under the laws of the State of New York, and now operating a street surface railway in the Borough of Queens, City of New York, and has duly filed, pursuant to section 90 of the Railroad

Law, a statement of the extension of its road and branch thereof herein proposed.

Second—That for the purpose of constructing and operating a branch or extension of its present road, your petitioner desires to obtain from your Honorable Board, and hereby respectfully applies for its consent to and a grant of the right, privilege and franchise for the construction, maintenance and operation of a double track street surface railway for public use in the conveyance of persons and property for compensation in, upon, along and over the surface of certain streets, avenues, highways, bridges, public places and private property in the Borough of Queens, City of New York, of which the following is a description:

Beginning at and connecting with its present tracks at the corner of Franconia avenue and Twenty-second street, in the former Village of Flushing; thence easterly upon and along Franconia avenue to and across Twenty-fourth street; thence still easterly through private property along the line of a continuation of Franconia avenue to a road on said private property immediately west of Cemetery lane, and known and described on the map of said private property as Thirty-first street; thence northerly through said private property upon the line of the road known and described on the map of said private property as Thirty-first street to Broadway; thence easterly upon and along Broadway to Bell avenue, crossing such other streets, avenues, highways and bridges as may be encountered in said route, and with such connections, turnouts, switches, crossovers, stands, poles, wires and equipment necessary for the accommodation and operation of said railway by the overhead system of electricity, or by any other motive power that may be lawfully employed upon the same.

Third—That said corporation proposes to operate said extension or branch by the overhead system of electricity, substantially similar to that now in use on its other lines, or by other motive power that may be lawfully employed.

Wherefore your petitioner prays that public notice hereof, and of the time and place when and where this application will be first considered be given as required by law, and that the desired consent be granted in accordance with the provisions of the Greater New York Charter.

Dated June 10, 1907.
NEW YORK AND QUEENS COUNTY
RAILWAY COMPANY,
By F. L. FULLER, President.

Attest:
(Seal) H. M. FISHER,
Secretary.

State of New York, County of Queens, ss.:
F. L. Fuller, being duly sworn, deposes and says: That he is the President of the New York and Queens County Railway Company, the petitioner named in the foregoing petition; that he has read the foregoing petition and knows the contents thereof; that the same is true of his own knowledge except as to the matters therein stated to be alleged upon information and belief, and as to those matters he believes it to be true.

F. L. FULLER,
Subscribed and sworn to before me this 10th day of June, 1907.

(Seal) WILLIAM A. METHVEN,
Notary Public, Queens County.

Certificate filed in New York County.

—and the following resolutions were thereupon adopted:

Whereas, The foregoing petition from the New York and Queens County Railway Company, dated June 10, 1907, was presented to the Board of Estimate and Apportionment at a meeting held June 14, 1907,

Resolved, That in pursuance of law this Board sets Monday, the 8th day of July, 1907, at 10.30 o'clock in the forenoon, and Room 16 in the City Hall, Borough of Manhattan, as the time and place when and where such petition shall be first considered, and a public hearing be had thereon, at which citizens shall be entitled to appear and be heard; and be it further

Resolved, That the Secretary is directed to cause such petition and these resolutions to be published for at least fourteen (14) days in two daily newspapers in The City of New York, to be designated by the Mayor, and for at least ten (10) days in the CITY RECORD immediately prior to such date of public hearing. The expense of such publication to be borne by the petitioner.

JOSEPH HAAG,
Secretary.

New York, June 14, 1907. j25,jy8

PUBLIC NOTICE IS HEREBY GIVEN that at a meeting of the Board of Estimate and Apportionment, held June 14, 1907, the following petition was received:

To the Honorable Board of Estimate and Apportionment of The City of New York:

The petition of the United Electric Service Company, a corporation, respectfully shows:

First—Your petitioner is a corporation duly organized and existing under and by virtue of the provisions of the Transportation Corporation Law of the State of New York.

Second—Your petitioner desires to obtain from The City of New York its consent to and a grant or franchise, right and privilege to lay, erect, construct and maintain wires and other conductors with necessary poles, pipes, conduits and appliances in, over and under the streets, avenues, highways, parks and public places within the territory of The City of New York, according to terms and conditions which the Board of Estimate may now or hereafter determine; said wires to be used in electric operation of electrical call boxes in connection with telephones, telegraph and other systems for providing calls and signals for messages and messengers.

Third—Your petitioner is prepared to distribute from its central station now in operation to many points throughout The City of New York.

Fourth—The franchise to be held and enjoyed by the company and its assigns for a term of twenty-five (25) years, and a renewal thereof for a further period of twenty-five (25) years upon a revaluation to be made by three disinterested freeholders, one of whom shall be appointed by the Board of Estimate and Apportionment, one chosen by the company, and the two thus designated shall choose a third freeholder, and the three shall make a revaluation, which shall be conclusive.

The appointment of the appraisers shall be made at least six months prior to the expiration of the first grant, and they shall report within three months after they are chosen to the Comptroller of The City of New York, or his successor.

Fifth—The company and its successors shall pay to The City of New York for such franchise for the first two years, one per cent.; one and one-half per cent. for the succeeding three years, and two per cent. for the remaining term, upon the gross sum received by the company for message and messenger service rendered its commercial or domestic customers within said territory, and for the extension pay the terms fixed by the appraisers.

Payments shall be made on November first of each year during the term of the franchise, the first payment shall be made for the portion of the above sum as the time from the grant to September 30 shall bear to the whole year; each fiscal year to end on September 30.

Sixth—The company and its assigns shall maintain and operate the aforesaid wires, conductors, poles and other appliances upon the ways aforesaid, under the supervision and control of the municipal authorities having jurisdiction under the Charter of The City of New York.

All of which is respectfully submitted and the consideration of your Honorable Board respectfully requested.

Dated New York, June 7, 1907.
THE UNITED ELECTRIC SERVICE
COMPANY,
By M. W. RAYENS,
President.

Attest:
CHAS. H. EHRENSTROM,
Secretary.

State of New York, County of New York, ss.:
On this 7th day of June, 1907, before me personally came Michael W. Rayens and Charles H. Ehrenstrom, of the United Electric Service Company, with whom I am personally acquainted, who, being by me duly severally sworn, did each for himself depose and say: The said Michael W. Rayens that he was the President of the United Electric Service Company, the corporation described in and which executed the foregoing instrument, and that he resided in the City, County and State of New York; the said Charles H. Ehrenstrom that he resided in the City, County and State of New York, and was the Secretary of the United Electric Service Company, the corporation described in and which executed the foregoing instrument; that they knew the corporate seal of said company, and that the seal affixed to the foregoing instrument is such corporate seal; that it was affixed by order of the Board of Directors of said company, and that they signed their names thereto by the like order as President and Secretary respectively of said company, and that they executed the same as the free act and deed of the said company and for the uses and purposes therein mentioned.

CHAS. L. BROCKHEIM,
Notary Public,
N. Y. Co.

—and the following resolutions were thereupon adopted:

Whereas, The foregoing petition from the United Electric Service Company, dated June 7, 1907, was presented to the Board of Estimate and Apportionment at a meeting held June 14, 1907,

Resolved, That in pursuance of law this Board sets Monday, the 8th day of July, 1907, at 10.30 o'clock in the forenoon, and Room 16 in the City Hall, Borough of Manhattan, as the time and place when and where such petition shall be first considered, and a public hearing be had thereon, at which citizens shall be entitled to appear and be heard; and be it further

Resolved, That the Secretary is directed to cause such petition and these resolutions to be published for at least two (2) days in two daily newspapers in The City of New York, to be designated by the Mayor, and for at least ten (10) days in the CITY RECORD immediately prior to such date of public hearing. The expense of such publication to be borne by the petitioner.

JOSEPH HAAG,
Secretary.

New York, June 14, 1907. j25,jy8

PUBLIC NOTICE.

PUBLIC NOTICE IS HEREBY GIVEN that at a meeting of the Board of Estimate and Apportionment, held in the Old Council Chamber, City Hall, Borough of Manhattan, on Friday, June 7, 1907, the following proceedings were had:

Whereas, The Kings County Refrigerating Company has, under date of July 13, 1905, made application to this Board for a grant of a right, privilege and franchise to construct, maintain and operate a pipe line under and along Hall street and across Flushing avenue to the lands of the Wallabout Market, in the Borough of Brooklyn, for the purpose of supplying refrigeration to consumers therein; and

Whereas, Sections 72, 73 and 74 of the Greater New York Charter, as amended by chapters 629 and 630 of the Laws of 1905, provide for the manner and procedure of making such grants; and

Whereas, In pursuance to such laws, this Board adopted a resolution on July 14, 1905, fixing the date for public hearing thereon as September 29, 1905, at which citizens were entitled to appear and be heard, and publication was had for at least two (2) days in the Brooklyn Daily "Eagle" and the Brooklyn "Citizen," newspapers designated by the Mayor, and in the CITY RECORD for ten (10) days immediately prior to the date of hearing, and the public hearing was duly held on such day; and

Whereas, This Board has made inquiry as to the money value of the franchise or right applied for and proposed to be granted to the Kings County Refrigerating Company, and the adequacy of the compensation proposed to be paid therefor; now therefore it is

Resolved, That the following form of the resolution for the grant of the franchise or right applied for by the Kings County Refrigerating Company, containing the form of proposed contract for the grant of such franchise or right, be hereby introduced and entered in the minutes of this Board as follows, to wit:

Resolved, That the Board of Estimate and Apportionment hereby grants to the Kings County Refrigerating Company the franchise or right fully set out and described in the following form of proposed contract for the grant thereof, embodying all of the terms and conditions, including the provisions as to rates and charges, upon and subject to the terms and conditions in said proposed form of contract contained, and that the Mayor of The City of New York be and he hereby is authorized to execute and deliver such contract in the name and on behalf of The City of New York as follows, to wit:

KINGS COUNTY REFRIGERATING COMPANY.
Proposed Form of Contract.

This contract, made this day of 190 by and between The City of New York, party of the first part, by the Mayor of said City, acting for and in the name of said City, under and in pursuance of the authority of the Board of Estimate and Apportionment of said City, and Kings County Refrigerating Company, a domestic corporation of the State of New York, hereinafter called the Company, party of the second part, witnesseth:

In consideration of the mutual covenants and agreements herein contained, the parties hereto do hereby covenant and agree as follows:

Section 1. The City of New York hereby grants to the Company, subject to the conditions and provisions hereinafter set forth, the right and privilege to construct, maintain and operate a conduit not to exceed twelve inches in diameter, with the necessary branches and connections therefrom, leading directly into private property, and also into the lands of the Wallabout Market, for the sole purpose of supplying refrigerant to consumers, said conduits and branches to be beneath the surface of each of the following-named

streets, avenues and highways, between the points described in the following route, all situate in the Borough of Brooklyn, City of New York, to wit:

Route—Beginning at a point in Hall street, about 325 feet north of the northerly line of Park avenue; thence northerly in, under and along Hall street to Flushing avenue; thence still northerly in, under and across Flushing avenue to the lands of the Wallabout Market, together with such branches from the pipes laid in the above-described route leading directly into private property or lands of the Wallabout Market as may be necessary for the purpose of supplying patrons of the Company with cold air or refrigerant, said route being shown on a map entitled "Map showing the proposed pipe line of the Kings County Refrigerating Company, to accompany petition to the Board of Estimate and Apportionment, dated July 13, 1907, signed by James J. Phelan, Secretary, copy of which is annexed hereto and made a part of this grant."

Sec. 2. The grant of this privilege is subject to the following conditions:

First—The said right to lay one conduit line in each of the streets, avenues or highways, and between the limits as hereinbefore described, and the privilege to maintain and operate the same shall be held and enjoyed by the said Company, its lessee or successors, for a term of fifteen years from the date of the signing of this contract, with the privilege of renewal of said grant for a further period of ten years upon a fair revaluation of said right and privilege.

If the Company shall determine to exercise its privilege of renewal it shall make application to the Board of Estimate and Apportionment of the City of New York, or any authority which shall be authorized by law to act for the City in place of the said Board. Such application shall be made at any time not earlier than two years and not later than one year before the expiration of the original term of this grant. The determination of the revaluation shall be sufficient, if agreed to in writing by the Company and the Board of Estimate and Apportionment, or such other authority in its place. If the Company and the Board, or such other authority in its place for the City, shall not reach such agreement on or before the day one year before the expiration of the original term of this grant, then the annual rate of compensation for such succeeding ten years shall be reasonable, and either the City (by the Board or such other authority in its place) or the Company shall be bound upon request of the other to enter into a written agreement with such other authority, fixing the rate of such compensation at such amount as shall be reasonable, and if the parties shall not forthwith agree upon what is reasonable, then the parties shall enter into a written agreement fixing such annual rate at such amount as shall be determined by three disinterested freeholders selected in the following manner:

One disinterested freeholder shall be chosen by the Board of Estimate and Apportionment or its successors in authority; one disinterested freeholder shall be chosen by the Company; these two shall choose a third disinterested freeholder, and the three so chosen shall act as appraisers and shall make the revaluations aforesaid. Such appraisers shall be chosen at least six months prior to the expiration of the contract, and their report shall be filed with the Board of Estimate and Apportionment or its successors in authority within three months after they are chosen. They shall act as appraisers and not as arbitrators. They may base their judgment upon their own experience and upon such information as they may obtain by inquiries and investigations without the presence of either party. They shall have the right to examine the books of the Company and its officers under oath. The valuations so ascertained, fixed and determined shall be conclusive upon both parties, but shall not in any event be less than the minimum amount fixed as the sum to be paid annually for the last year of this original grant. If in any case the annual rate shall not be fixed prior to the termination of the original term of this grant, then the Company shall pay the new rate thereafter prevailing until the new rate shall be determined, and shall then make up to the City the amount of any excess of the annual rate then determined over the previous annual rate. The compensation and expenses of the said appraisers shall be borne jointly by the City and the Company, each paying one-half thereof.

Second—Upon the termination of this contract, or if the same is renewed, then at the termination of the rights hereby granted, or for any other cause, all conduit lines and appurtenances thereto, constructed pursuant to this contract, shall be and become the property of the City of New York, without compensation therefor, and the same may be used by the City for any purpose whatsoever. If, however, at the termination of this grant, as above, the City, by the Board of Estimate and Apportionment, or its successors in authority, shall so order by resolution, the said Company shall remove, at its own expense, said conduit line and all appurtenances thereto, and shall restore the streets and pavements to their original condition.

Third—The Company, its successors or assigns, shall pay for this privilege to The City of New York the following sums of money, to wit:

1. Five hundred dollars (\$500) in cash within thirty (30) days after the signing of the contract.
2. During the first five years of this contract an annual sum which shall in no case be less than seven hundred and fifty dollars (\$750), and which shall be equal to 5 per cent. of the gross receipts of the Company, if such percentage shall exceed the sum of seven hundred and fifty dollars (\$750).

During the second five years of this contract an annual sum which shall in no case be less than one thousand dollars (\$1,000), and which shall be equal to 6 per cent. of the gross receipts of the Company, if such percentage shall exceed the sum of one thousand dollars (\$1,000).

During the third and remaining five years of this contract an annual sum which shall in no case be less than thirteen hundred dollars (\$1,300), and which shall be equal to 7 per cent. of the gross receipts of the Company, if such percentage shall exceed the sum of thirteen hundred dollars (\$1,300).

The gross receipts as above shall be the total receipts of the Company from all business of furnishing refrigerant to consumers outside of its warehouse at No. 30 Hall street, and outside of the lands of the Wallabout Market. The minimum sums provided to be paid annually shall include the percentages of such gross receipts as above and also such sums as may be paid under any agreement made with the Comptroller for privileges in the lands of the Wallabout Market.

3. An annual payment of twenty-five (25) cents for each linear foot of conduit line and two dollars (\$2) for each manhole constructed within the limits of any street, avenue or highway. The sums due shall be calculated from the day when permit is obtained to open the streets for any section of the work.

All sums herein provided for shall be paid into the Treasury of the City of New York on November 1 of each year, and shall be for the amount due to September 30 next preceding.

Any and all payments made by the terms of this franchise to The City of New York by the Company shall not be considered in any manner

in the nature of a tax, but such payments shall be in addition to any and all taxes of whatsoever kind or description, now or hereafter required to be paid by any ordinance of The City of New York or by any law of the State of New York.

Fourth—The annual charges or payments shall continue throughout the whole term of the privilege hereby granted, whether original or renewal, as hereinbefore provided, notwithstanding any clause in any statute or in the charter of any other company, providing for payments for refrigerating rights or franchises at a different rate, and no assignment, lease or sublease of the rights or privileges hereby granted, whether original or renewal, or of any part thereof, or of any of the routes mentioned herein, or of any part thereof, shall be valid or effectual for any purpose unless the said assignment, lease or sublease shall contain a covenant on the part of the assignee or lessee that the same is subject to all the conditions of this grant; and that the assignee or lessee assumes and will be bound by all of said conditions, and especially said condition as to payments, anything in any statute or in the charter of such assignee or lessee to the contrary notwithstanding, and that the said assignee or lessee waives any more favorable conditions created by such statute or its charter, and that it will not claim by reason thereof or otherwise, exemption from liability to perform each and all of the conditions of this grant. Nothing herein contained shall apply to any mortgage or mere lienor, but shall apply to any purchaser upon foreclosure, or under or by virtue of any provision of a mortgage or lien.

Fifth—The rights and privileges granted hereby shall not be assigned either in whole or in part, or leased or sublet in any manner, nor shall title thereto or right, interest or property therein pass to, or vest in any other person or corporation whatsoever, either by the act of the Company, its successor or assigns, or by operation of law, whether under the provisions of the statutes relating to the consolidation or merger of corporations, or otherwise, without the consent of The City of New York, acting by the Board of Estimate and Apportionment, or its successor in authority, evidenced by an instrument under seal, anything herein contained to the contrary thereof in anywise notwithstanding, and the granting, giving or waiving of any one or more of such consents shall not render unnecessary any subsequent consent or consents. This provision, however, shall not apply to the making of a mortgage, but shall apply to a sale under foreclosure.

Sixth—The grant of this privilege is subject to whatever right, title or interest the owners of abutting property or others may have in and to the streets, avenues and highways on the route heretofore described.

Seventh—The Company shall complete the entire conduit line along the route hereinbefore described, and have the same in operation within one (1) year from the date of the signing of this contract; otherwise this grant shall cease and determine.

Eighth—All construction which shall be made under this grant shall be done in a manner solely upon the terms and conditions hereafter to be imposed by the President of the Borough of Brooklyn and the Commissioner of Water Supply, Gas and Electricity, or their respective successors in authority. The said Company shall submit a working plan of construction to the said President and to the said Commissioner, which shall include and show in detail the method of construction of said pipe line, connections, manholes and other appurtenances, and the mode of protection of all subsurface construction under the streets, avenues and highways described in the route.

Ninth—The said Company shall bear the expense of keeping in repair for one year after it has been replaced all pavement which may at any time be removed by said Company, either for the purpose of construction or for the repairing of the pipe line and its appurtenances.

Tenth—The said Company shall bear the expense of inspection, which may be required by the President of the Borough of Brooklyn and the Commissioner of Water Supply, Gas and Electricity, of all the work of construction required, or removal of the said pipe line, which shall be done under this grant.

Eleventh—The Company shall cause a test to be made of the pipes laid under this grant before said pipes shall be used for the conveyance of gas or fluid under pressure for refrigerating purposes. The pipes so tested shall be submitted to a pressure of 450 pounds per square inch, and such test shall be made under the supervision of the Commissioner of Water Supply, Gas and Electricity. A certificate showing that such a test has been made without injury to the pipes shall be executed by an officer of the Company, indorsed by the Commissioner of Water Supply, Gas and Electricity and filed with the Board of Estimate and Apportionment.

Twelfth—During the term of this contract the Board of Estimate and Apportionment or its successor in authority shall have absolute power to regulate the maximum rates, provided that such rates shall be reasonable and fair.

The Company, upon the application for refrigeration of any person or corporation located along the routes herein authorized, shall extend its conduit to such premises and furnish to said applicant refrigerant at the prices which may be hereafter fixed; otherwise this contract shall cease and determine at the option of the Board of Estimate and Apportionment.

Thirteenth—A correct map shall be furnished to the Board of Estimate and Apportionment by the Company showing the exact location of all the conduit lines and manholes laid with reference to the curb lines of the streets and the street surface, and the same shall be furnished on the first day of November of each year until all pipe lines which are authorized by this grant are constructed, or until the right hereby authorized to construct pipe lines along the routes described have ceased by limitation, as herein provided.

Fourteenth—The grant of this privilege shall not affect in any way the right of The City of New York to grant a similar privilege upon the same or other terms and conditions to any other person or corporation.

Fifteenth—The Company shall assume all liability by reason of the construction and operation of the conduit line, and the City shall assume no liability whatsoever to either persons or property by reason of its construction.

As a condition of this grant the Company, its successor or assigns, hereby agrees to repay to the City any damages which the City shall be compelled to pay by reason of any acts or defaults of the Company, its successor or assigns.

Sixteenth—In case of any violation or breach or failure to comply with any of the provisions herein contained, except as otherwise herein specifically provided, this contract may be forfeited or avoided by The City of New York by a suit brought by the Corporation Counsel, on notice of ten days to the said Company.

Seventeenth—The conduit line hereby authorized shall be used only by the Kings County Refrigerating Company, and for no other purpose than for supplying refrigeration by the ammonia process, or such other process as may be consented to by the Board of Estimate and Apportionment.

Eighteenth—The Company shall at all times keep accurate books of accounts of the gross earnings from the privileges granted under this contract. The Company shall, on or before November 1 in each year, make a verified report to the Comptroller of The City of New York of the business done by the Company for the year ending September 30 next preceding, as he may prescribe. Such report shall contain the number of feet of conduit laid and the number of manholes constructed during the year, and also a statement of the gross receipts from all business of furnishing refrigerant to consumers outside of its warehouse at No. 30 Hall street, together with such other information and in such detail as the Comptroller may require.

The Comptroller shall have access to all books of the Company for the purpose of ascertaining the correctness of its report and may examine its officers under oath.

Nineteenth—The Company shall comply with the existing provisions of Article V. of chapter 566 of the Laws of 1890, and future amendments thereto, except in so far as the same are inconsistent with the provisions of this contract, and provided that all powers of the Company shall be limited by the provisions of this contract.

Twentieth—If the said Company, its successors or assigns, shall fail to give efficient public service at the rates herein fixed or fails to maintain its structures in good condition throughout the full term of its occupancy of such streets, the Board of Estimate and Apportionment of The City of New York may give written notice to the said Company specifying any default on the part of said Company and requiring said Company to remedy the same within a reasonable time, and upon the failure of the Company to remedy the said default within a reasonable time, said company shall, for each day thereafter during which the default or defect remains, pay to The City of New York a sum of \$50, as fixed or liquidated damages, or the said City, in case such structures, which may affect the surface of the streets, shall not be put in good condition within a reasonable time after notice by the Board as aforesaid, shall have the right to make all needed repairs at the expense of the Company, in which case the said Company shall pay to the City the amount of the cost of such repairs with legal interest thereon, all of which sums may be deducted from the fund hereinbefore provided.

Twenty-first—This grant is upon the express condition that the Company, within thirty days after the execution of this contract and before anything is done in exercise of the rights conferred thereby, shall deposit with the Comptroller of The City of New York the sum of five hundred dollars (\$500), either in money or in securities, to be approved by him, which fund shall be security for the performance by the Company of the terms and conditions of this grant, especially those which relate to the payment of the annual charge for the privilege and the penalties herein provided, and in case of default in the performance by said Company of such terms and conditions, The City of New York shall have the right, after due notice, to collect the same from the said fund without legal proceedings, or after default in the payment of the annual charges, shall collect the same, with interest from said fund after ten days' notice in writing to the said Company. In case of any drafts so made upon this security fund, the said Company shall, upon thirty days' notice in writing, pay to the Comptroller of The City of New York a sum of money sufficient to restore the said fund to the original amount of five hundred dollars (\$500), and in default thereof, the grant hereby made may be canceled and annulled at the option of the Comptroller of The City of New York, acting on behalf of said City. No action or proceeding or rights under the provisions of this section shall affect other legal rights, remedies or causes of action belonging to The City of New York.

Twenty-second—The Company promises, covenants and agrees on its part and behalf to conform to and abide by and perform all the terms, conditions and requirements in this contract fixed and contained.

In witness whereof the party of the first part, by its Mayor, thereunto duly authorized by the Board of Estimate and Apportionment of said City, has caused the corporate name of said City to be hereunto signed, and the corporate seal of said City to be hereunto affixed, and the party of the second part, by its officers, thereunto duly authorized, has caused its corporate name to be hereunto signed, and its corporate seal to be hereunto affixed, the day and year first above written.

[SEAL.] THE CITY OF NEW YORK.
By..... Mayor.
THE KINGS COUNTY REFRIGERATING COMPANY,
By..... President.

Attest:
[SEAL.]..... Secretary.

Resolved, That the results of the inquiry made by this Board as to the money value of the franchise or right proposed to be granted and the adequacy of the compensation proposed to be paid therefor and of the terms and conditions, including the provision as to rates and charges, are as hereinbefore specified and fully set forth in and by the foregoing form of proposed contract for the grant of such franchise or right;

Resolved, That these preambles and resolutions, including the said resolution for the grant of a franchise or right applied for by the Kings County Refrigerating Company and the said form of proposed contract for the grant of such franchise or right containing said results of such inquiry, after the same shall be entered in the minutes of this Board, shall be published for at least twenty (20) days immediately prior to July 8, 1907, in the City Record, and at least twice during the ten days immediately prior to July 8, 1907, in the Brooklyn "Daily Eagle" and the Brooklyn "Citizen," two daily newspapers designated by the Mayor therefor, and published in The City of New York, at the expense of the Kings County Refrigerating Company, together with the following notice, to wit:

Notice is hereby given that the Board of Estimate and Apportionment, before authorizing any contract for the grant of the franchise or right applied for by the Kings County Refrigerating Company, and fully set forth and described in the foregoing form of proposed contract for the grant of such franchise or right, and before adopting any resolution authorizing any such contract, will, at a meeting of said Board, to be held in the Old Council Chamber, City Hall, Borough of Manhattan, City of New York, on July 8, 1907, at 10.30 o'clock a. m., hold a public hearing thereon, at which citizens shall be entitled to appear and be heard.

Dated June 7, 1907. JOSEPH HAAG,
Secretary.
j23,j78

PUBLIC NOTICE.

NOTICE IS HEREBY GIVEN TO THE New York City Railway Company, Brooklyn Rapid Transit Company and Coney Island and Brooklyn Railroad Company, and all street surface railway companies operating in the Boroughs of Manhattan and Brooklyn, that at a meeting of the Board of Estimate and Apportionment, held in the Old Council Chamber,

Room 16, City Hall, Borough of Manhattan, on May 24, 1907, the Secretary of the Board of Estimate and Apportionment was directed to communicate in writing with the aforementioned railway companies, and to have published in the City Record a notice requesting the aforementioned companies to submit to the Board of Estimate and Apportionment on or before September 1, 1907, petitions in writing, duly verified by the presidents and secretaries of the respective companies, for franchises to construct, maintain and operate double-track railroads over and across the Manhattan Bridge and upon and along the Flatbush avenue extension, in the Borough of Brooklyn.

JOSEPH HAAG,
Secretary.

Dated New York, May 24, 1907.

m27,81

ARMORY BOARD.

ARMORY BOARD, HALL OF RECORDS, CHAMBERS AND CENTRE STREETS.

SEALED BIDS OR ESTIMATES WILL BE received at the office of the Mayor, Chairman of the Armory Board, in The City of New York until 2 p. m. on

MONDAY, JULY 15, 1907.

Item No. 1. FOR FURNITURE AND FITTINGS REQUIRED IN THE QUARTERS OF THE FIRST BRIGADE HEADQUARTERS, IN SEVENTY-FIRST REGIMENT ARMORY, BOROUGH OF MANHATTAN.

Security required, \$2,500.
Deposit to be made with bid, One Hundred and Twenty-five Dollars (\$125).
Time allowed for doing the work, sixty (60) working days.

Item No. 2. FOR EXCAVATION AND REMOVAL OF ROCK AND OTHER MATERIAL FROM THE SITE OF THE PROPOSED ARMORY FOR THE TWENTY-SECOND REGIMENT ENGINEERS, FORT WASHINGTON AVENUE, ONE HUNDRED AND SIXTY-EIGHTH AND ONE HUNDRED AND SIXTY-NINTH STREETS, IN THE BOROUGH OF MANHATTAN.

Security required, thirty thousand dollars (\$30,000).
Deposit to be made with bid, Fifteen Hundred Dollars (\$1,500).
Time allowed for doing the work, one hundred (100) working days.

Item No. 3. FOR FURNISHING AND INSTALLING ELECTRIC LIGHTING FIXTURES, ETC., IN TWELFTH REGIMENT ARMORY, BOROUGH OF MANHATTAN.

Security required, Five Thousand Dollars (\$5,000).
Deposit to be made with bid, Two Hundred and Fifty Dollars (\$250).
Time allowed for doing the work, seventy (70) working days.

The bids will be compared and the contracts awarded at a lump or aggregate sum for each contract.

Bidders are requested to make their bids or estimates upon the blank form prepared by the Armory Board, a copy of which with the proper envelopes in which to inclose the bid, together with a copy of the contract, including the specifications, in the form approved by the Corporation Counsel, can be obtained upon application at the office of the Armory Board, Suite 6, new Hall of Records (basement), Borough of Manhattan.

For Item No. 1, plans may be examined at the office of the architects, Messrs. Clinton & Russell, No. 32 Nassau street, Manhattan.

For Item No. 2, a survey of the site may be examined at the office of the Armory Board, Suite 6 (basement), Hall of Records, Manhattan.

For Item No. 3, plans may be examined at the office of the architects, Messrs. Robinson & Knust, No. 164 Fifth avenue, Manhattan.

THE ARMORY BOARD.

GEORGE B. McCLELLAN, Mayor;

PATRICK F. McGOWAN, President of the Board of Aldermen;

JAMES McLEER, Brigadier-General, Commanding Second Brigade;

GEORGE MOORE SMITH, Brigadier-General Commanding First Brigade;

LAWSON PURDY, President of the Department of Taxes and Assessments.

The City of New York, July 2, 1907.

j23,j15

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF CORRECTION.

OFFICE OF THE DEPARTMENT OF CORRECTION, No. 148 EAST TWENTIETH STREET, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Correction at the above office until 11 o'clock a. m. on

TUESDAY, JULY 16, 1907.

Borough of Manhattan.

No. 1. FOR FURNISHING AND DELIVERING HARDWARE, PAINTS, IRON, STEAM FITTINGS, LUMBER AND MISCELLANEOUS ARTICLES.

The time for the delivery of the articles, materials and supplies and the performance of the contract is by or before ten days.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per pound, ton, dozen, gallon, yard or other unit of measure, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the totals and awards made to the lowest bidder on each item.

The bids on lumber will be compared and the contract awarded at a lump or aggregate sum.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained and the plans and drawings may be seen at the office of the Department of Correction, the Borough of Manhattan, No. 148 East Twentieth street.

JOHN V. COGGLEY, Commissioner.

Dated July 1, 1907.

j23,j16

See General Instructions to Bidders on the last page, last column, of the "City Record."

FIRE DEPARTMENT.

HEADQUARTERS OF THE FIRE DEPARTMENT OF THE CITY OF NEW YORK, Nos. 157 and 159 EAST SIXTY-SEVENTH STREET, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Fire Commissioner at the above office until 10.30 o'clock a. m. on

**TUESDAY, JULY 16, 1907,
Borough of Manhattan.**

No. 1. FOR FURNISHING AND DELIVERING FIVE THOUSAND FIVE HUNDRED (\$5,500) FEET OF 16 CONDUCTOR UNDERGROUND CABLE.

The time for the delivery of the articles, materials and supplies and the performance of the contract is ninety (90) days.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

Borough of Queens.

No. 2. FOR FURNISHING AND DELIVERING SUPPLIES FOR THE FIRE ALARM TELEGRAPH FOR THE VOLUNTEER SYSTEM, BOROUGH OF QUEENS.

The time for the delivery of the articles, materials and supplies and the performance of the contract is by or before October 1, 1908.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per pound, ton, dozen, gallon, yard or other unit of measure, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total for each class and awards made to the lowest bidder on each class; or the bids will be compared and the contract awarded at a lump or aggregate sum for each contract.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained at the office of the Fire Department, Nos. 157 and 159 East Sixty-seventh street, Manhattan.

FRANCIS J. LANTRY,
Fire Commissioner.

Dated July 2, 1907.

jy3,16

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY.

DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY, ROOM 1536, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Water Supply, Gas and Electricity at the above office until 2 o'clock p. m. on

TUESDAY, JULY 16, 1907.

Boroughs of Manhattan and The Bronx.

FOR HAULING AND LAYING WATER MAINS IN WEST FARMS ROAD AND IN JENNINGS, MANIDA AND ONE HUNDRED AND SEVENTY-EIGHTH STREETS.

The time allowed for doing and completing the work will be ninety working days.

The security required will be Five Thousand Dollars (\$5,000).

The bidder will state the price, per unit, of each item of work or supplies contained in the specifications or schedule, by which the bids will be tested.

The bids will be compared and each contract awarded for all the work, articles, materials and supplies contained in the specifications or schedule attached thereto.

Blank forms may be obtained at the office of the Department of Water Supply, Gas and Electricity, the Borough of Manhattan, Nos. 13 to 21 Park row, and at Room 28, Municipal Building, Borough of Brooklyn.

JOHN H. O'BRIEN,
Commissioner of Water Supply,
Gas and Electricity.

The City of New York, July 2, 1907.

jy3,16

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY, ROOM 1536, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Water Supply, Gas and Electricity at the above office until 2 o'clock p. m. on

TUESDAY, JULY 16, 1907,

Borough of Brooklyn.

FOR FURNISHING AND DELIVERING 44,000 GROSS TONS OF SEMI-BITUMINOUS COAL.

The time allowed for the delivery of the articles, materials and supplies and the performance of the contract will be until May 1, 1908.

The amount of security will be Twenty Thousand Dollars (\$20,000).

The bidder will state the price, per unit, of each item of work or supplies contained in the specifications or schedule by which the bids will be tested.

The bids will be compared and the contract awarded for all the work, articles, materials and supplies contained in the specifications or schedule attached thereto.

Blank forms may be obtained at the office of the Department of Water Supply, Gas and Electricity, Room 922, the Borough of Manhattan, Nos. 13 to 21 Park Row, and at Room 28, Municipal Building, Borough of Brooklyn.

JOHN H. O'BRIEN,
Commissioner of Water Supply,
Gas and Electricity.

The City of New York, July 2, 1907.

jy3,16

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY, ROOM 1536, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Water Supply, Gas and Electricity at the above office until 2 o'clock p. m. on

THURSDAY, JULY 11, 1907.

Boroughs of Manhattan and The Bronx.
FOR FURNISHING, DELIVERING AND LAYING WATER MAINS IN NEW CHAM-

BERS, WATER OLIVER, HENRY AND PIKE STREETS, AND IN JAMES SLIP.

The time allowed for doing and completing the work will be one hundred (100) working days.

The security required will be Twenty Thousand Dollars (\$20,000).

The bidder will state the price, per unit, of each item of work or supplies contained in the specifications or schedule, by which the bids will be tested.

The bids will be compared and each contract awarded for all the work, articles, materials and supplies contained in the specifications or schedule attached thereto.

Bidders are requested to make their bids or estimates upon the blank form prepared by the Department, a copy of which, with the proper envelope in which to inclose the bid, together with a copy of the contract, including the specifications, in the form approved by the Corporation Counsel, and any further information may be obtained upon application therefor at the office of the Chief Engineer, Room 922, Nos. 13 to 21 Park row, Borough of Manhattan.

The City of New York, June 28, 1907.

JOHN H. O'BRIEN,
Commissioner of Water Supply, Gas
and Electricity.

j29,jy11

See General Instructions to Bidders on the last page, last column, of the "City Record."

BOROUGH OF THE BRONX.

OFFICE OF THE PRESIDENT OF THE BOROUGH OF THE BRONX, MUNICIPAL BUILDING, CROTONA PARK, ONE HUNDRED AND SEVENTY-SEVENTH STREET AND THIRD AVENUE.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of The Bronx at the above office until 11 o'clock a. m. on

TUESDAY, JULY 16, 1907.

No. 1. FOR FURNISHING AND DELIVERING WHITE OAK AND PINE STAKES TO THE TOPOGRAPHICAL, SEWERS AND HIGHWAYS BUREAUS.

Bureau of Highways.

6,500 1 1/2-inch by 1 1/2-inch clear white oak stakes, planed on two (2) sides, 1 end pointed.

6,000 1 1/2-inch by 1 1/2-inch by 18-inch clear white oak stakes, planed on two (2) sides, 1 end pointed.

8,000 1-inch by 3-inch by 18-inch clear pine stakes, planed on two (2) sides, 1 end pointed.

Topographical Bureau.

4,000 2-inch by 2-inch by 18-inch clear white oak stakes, planed on two (2) sides, 1 end pointed.

Bureau of Sewers.

3,000 1 1/2-inch by 1 1/2-inch by 12-inch clear white oak stakes, planed on two (2) sides, 1 end pointed.

2,000 1 1/2-inch by 1 1/2-inch by 18-inch clear white oak stakes, planed on two (2) sides, 1 end pointed.

The time for the delivery of the articles is during the year 1907.

The amount of security required is Five Hundred Dollars.

No. 2. FOR PAVING WITH GRANITE BLOCK PAVEMENT ON A SAND FOUNDATION THE ROADWAY OF DEVOE AVENUE, FROM WEST FARMS ROAD TO EAST ONE HUNDRED AND EIGHTIETH STREET.

The Engineer's estimate of the work is as follows:

2,550 square yards of new granite block pavement, on a sand foundation, laid with sand joints, and keeping the pavement in repair for one year from date of acceptance.

1,575 linear feet of old curbstone, rejoined, recut on top and reset.

The time allowed for the completion of the work will be 30 consecutive working days.

The amount of security required will be Two Thousand Dollars.

No. 3. FOR REGULATING, GRADING, SETTING CURBSTONES, FLAGGING THE SIDEWALKS, LAYING CROSSWALKS, BUILDING APPROACHES AND PLACING FENCES IN EAST ONE HUNDRED AND NINETY-NINTH STREET, FROM BAINBRIDGE AVENUE TO JEROME AVENUE.

The Engineer's estimate of the work is as follows:

1,000 cubic yards of earth excavation.

100 cubic yards of rock excavation.

10,700 cubic yards of filling.

2,350 linear feet of new curbstone, furnished and set.

9,400 square feet of new flagging, furnished and laid.

600 square feet of new bridgestone for crosswalks, furnished and laid.

450 cubic yards of dry rubble masonry in retaining walls, culverts and gutters.

The time allowed for the completion of the work will be 150 working days.

The amount of security required will be Three Thousand Six Hundred Dollars.

No. 4. FOR REGULATING, GRADING, BUILDING APPROACHES AND PLACING FENCES IN MANIDA STREET, FROM LA FAYETTE AVENUE TO EDGEWATER ROAD.

The Engineer's estimate of the work is as follows:

65,000 cubic yards of earth excavation.

3,400 cubic yards of rock excavation.

400 cubic yards of filling.

600 cubic yards of dry rubble masonry in retaining walls, culverts and gutters.

The time allowed for the completion of the work will be 300 working days.

The amount of security required will be Sixteen Thousand Dollars.

No. 5. FOR REGULATING, GRADING, SETTING CURBSTONES, FLAGGING THE SIDEWALKS, LAYING CROSSWALKS, BUILDING APPROACHES AND PLACING FENCES IN EAST ONE HUNDRED AND NINETY-THIRD STREET, FROM JEROME AVENUE TO THE GRAND BOULEVARD AND CONCOURSE.

The Engineer's estimate of the work is as follows:

100 cubic yards of earth excavation.

200 cubic yards of rock excavation.

3,930 cubic yards of filling.

1,460 linear feet of new curbstone, furnished and set.

6,400 square feet of new flagging, furnished and laid.

50 square feet of new bridgestone for crosswalks, furnished and laid.

125 cubic yards of dry rubble masonry in retaining walls, culverts and gutters.

The time allowed for the completion of the work will be 60 working days.

The amount of security required will be Seven Hundred Dollars.

No. 6. FOR REGULATING, GRADING, SETTING CURBSTONES, FLAGGING THE SIDEWALKS, LAYING CROSSWALKS, BUILDING APPROACHES AND PLACING

FENCES WHERE NECESSARY IN THE WIDENING OF SHAKESPEARE AVENUE FROM WEST ONE HUNDRED AND SIXTY EIGHTH STREET TO WEST ONE HUNDRED AND SIXTY-NINTH STREET.

The Engineer's estimate of the work is as follows:

500 cubic yards of earth excavation.

350 cubic yards of rock excavation.

500 cubic yards of filling.

375 linear feet of new curbstone, furnished and set.

250 linear feet of old curbstone, redressed and reset.

950 square feet of new flagging, furnished and laid.

1,000 square feet of old flagging, rejoined and relaid.

575 square feet of new bridgestone for crosswalks, furnished and laid.

300 square feet of old bridgestone for crosswalks, rejoined and reset.

50 cubic yards of dry rubble masonry in retaining walls, culverts and gutters.

The time allowed for the completion of the work will be 60 working days.

The amount of security required will be Seven Hundred Dollars.

No. 7. FOR REGULATING, GRADING, SETTING CURBSTONES, FLAGGING THE SIDEWALKS, LAYING CROSSWALKS, BUILDING APPROACHES AND PLACING FENCES IN NEREID AVENUE, OR TWO HUNDRED AND THIRTY-EIGHTH STREET, FROM FIRST STREET (OR BULLARD AVENUE) TO WHITE PLAINS ROAD.

The Engineer's estimate of the work is as follows:

6,800 cubic yards of earth excavation.

300 cubic yards of rock excavation.

3,400 cubic yards of filling.

2,600 linear feet of new curbstone, furnished and set.

9,500 square feet of new flagging, furnished and laid.

3,200 square feet of new bridgestone for crosswalks, furnished and laid.

150 cubic yards of dry rubble masonry, in retaining walls, culverts and gutters.

30 cubic yards of rubble masonry in mortar.

300 linear feet of vitrified stoneware pipe, 12 inches in diameter.

50 linear feet of vitrified stoneware pipe, 18 inches in diameter.

4 drainage inlets, Type A.

10 drainage inlets, Type B.

1,000 pounds of cast iron in inlet frames and covers, in place.

The time allowed for the completion of the work will be sixty (60) working days.

The amount of security required will be Six Thousand Dollars (\$6,000).

No. 8. FOR CONSTRUCTING SEWERS AND APPURTENANCES IN THE GRAND BOULEVARD AND CONCOURSE (EAST SIDE), BETWEEN EAST ONE HUNDRED AND SIXTY-SIXTH STREET AND EAST ONE HUNDRED AND SIXTY-SEVENTH STREET; AND IN GRAND BOULEVARD AND CONCOURSE (WEST SIDE), FROM A POINT ABOUT 90 FEET SOUTH OF McLELLAN STREET TO EAST ONE HUNDRED AND SIXTY-SEVENTH STREET.

The Engineer's estimate of the work is as follows:

560 linear feet of pipe sewer, 15 inch.

1,075 linear feet of pipe sewer, 12 inch.

109 spurs for house connections, over and above the cost per linear foot of sewer.

17 manholes, complete.

1 receiving basin, complete.

3,900 cubic yards of rock to be excavated and removed.

5 cubic yards of Class "B" concrete in place, additional to that shown on the plan.

1,000 feet (B. M.) of timber for foundations furnished and laid, and sheeting furnished and left in place.

10 linear feet of 12-inch drain pipe, furnished and laid.

The time allowed for the completion of the work will be two hundred and forty (240) working days.

The amount of security required will be Nine Thousand Five Hundred Dollars (\$9,500).

No. 9. FOR CONSTRUCTING SEWERS AND APPURTENANCES IN EAST ONE HUNDRED AND EIGHTIETH STREET, BETWEEN WEBSTER AVENUE AND TIEBOUT AVENUE; AND IN TIEBOUT AVENUE, BETWEEN EAST ONE HUNDRED AND EIGHTIETH STREET AND EAST ONE HUNDRED AND EIGHTY-THIRD STREET; AND IN EAST ONE HUNDRED AND EIGHTY-THIRD STREET, BETWEEN TIEBOUT AVENUE AND CRESTON AVENUE; AND IN EAST ONE HUNDRED AND EIGHTY-THIRD STREET, BETWEEN MORRIS AVENUE AND JEROME AVENUE.

The Engineer's estimate of the work is as follows:

254 linear feet of pipe sewer, 24 inch.

1,132 linear feet of pipe sewer, 18 inch.

551 linear feet of pipe sewer, 15 inch.

1,240 linear feet of pipe sewer, 12 inch.

351 spurs for house connections, over and above the cost per linear foot of sewer.

31 manholes, complete.

6 receiving basins, complete.

4,625 cubic yards of rock to be excavated and removed.

10 cubic yards of Class "B" concrete in place, additional to that shown on the plan.

4,000 feet (B. M.) of timber for foundations furnished and laid, and sheeting furnished and left in place.

25 linear feet of twelve inch drain pipe, furnished and laid.

The time allowed for the completion of the work will be 300 working days.

The amount of security required will be Fourteen Thousand Dollars.

No. 10. FOR CONSTRUCTING A TEMPORARY SEWER AND APPURTENANCES IN KINGSBRIDGE ROAD, BETWEEN TWO HUNDRED AND THIRTY-SECOND STREET (EIGHTEENTH STREET) AND TWO HUNDRED AND THIRTY-THIRD STREET (NINETEENTH STREET), WAKEFIELD.

The Engineer's estimate of the work is as follows:

353 linear feet of pipe sewer, 12 inch.

16 spurs for house connections, over and above the cost per linear foot of sewer.

4 manholes, complete.

3 cubic yards of Class "B" concrete in place, additional to that shown on the plan.

1,000 feet (B. M.) of timber for foundations furnished and laid, and sheeting furnished and left in place.

The time allowed for the completion of the work will be 30 working days.

The amount of security required will be Six Hundred and Fifty Dollars.

No. 11. FOR CONSTRUCTING A SEWER AND APPURTENANCES IN TIFFANY STREET, BETWEEN BURNET PLACE AND BARRY STREET.

The Engineer's estimate of the work is as follows:

174 linear feet of pipe sewer, 15-inch.

270 linear feet of pipe sewer, 12-inch.

64 spurs for house connections, over and above the cost per linear foot of sewer.

5 manholes, complete.

15 cubic yards of rock to be excavated and removed.

5 cubic yards of Class "B" concrete in place, additional to that shown on the plan.

5,000 feet (B. M.) of timber for foundations, furnished and laid, and sheeting furnished and left in place.

10 linear feet of 12-inch drain pipe, furnished and laid.

The time allowed for the completion of the work will be 45 working days.

The amount of security required will be Eleven Hundred Dollars.

No. 12. FOR CONSTRUCTING SEWERS AND APPURTENANCES IN MOUNT HOPE PLACE, BETWEEN THE WEST HOUSE LINE OF THE GRAND BOULEVARD AND CONCOURSE AND MONROE AVENUE; AND IN THE GRAND BOULEVARD AND CONCOURSE (BOTH SIDES), BETWEEN MOUNT HOPE PLACE AND EAST ONE HUNDRED AND SEVENTY-SIXTH STREET; AND IN THE GRAND BOULEVARD AND CONCOURSE (EAST SIDE), BETWEEN TREMONT AVENUE AND ECHO PLACE, AND BETWEEN EAST ONE HUNDRED AND SEVENTY-NINTH STREET AND EAST ONE HUNDRED AND SEVENTY-EIGHTH STREET.

The Engineer's estimate of the work is as follows:

150 linear feet of pipe sewer, 15-inch.

860 linear feet of pipe sewer, 12-inch.

52 spurs for house connections, over and above the cost per linear foot of sewer.

11 manholes, complete.

1 receiving basin, complete.

300 cubic yards of rock to be excavated and removed.

5 cubic yards of Class "B" concrete in place, additional to that shown on the plan.

1,000 feet (B. M.) of timber for foundations, furnished and laid, and sheeting furnished and left in place.

10 linear feet of 12-inch drain pipe, furnished and laid.

The time allowed for the completion of the work will be 130 working days.

The amount of security required will be Two Thousand Six Hundred Dollars.

No. 13. FOR CONSTRUCTING SEWERS AND APPURTENANCES IN GRAND BOULEVARD AND CONCOURSE (EAST SIDE), BETWEEN BUSH STREET AND EAST ONE HUNDRED AND EIGHTY-FIRST STREET, AND IN THE GRAND BOULEVARD AND CONCOURSE (WEST SIDE), BETWEEN EAST ONE HUNDRED AND EIGHTIETH STREET AND EAST ONE HUNDRED AND EIGHTY-FIRST STREET.

The Engineer's estimate of the work is as follows:

640 square feet of old bluestone flagging.
1,300 square feet of new bluestone.
600 square feet of old bluestone.
3,750 square yards of asphalt block pavement.
5,000 square yards of iron slag block pavement.

1,300 square yards of macadam pavement.
92 linear feet of Type "A" railing.
845 linear feet of Type "B" railing.
600 linear feet of Type "C" railing.
The time allowed for the completion of the work will be two hundred (200) consecutive working days.
The amount of security required will be Thirty Thousand Dollars (\$30,000).

No. 16. FOR CONSTRUCTING THE TRANSVERSE ROAD AT EAST TWO HUNDRED AND FOURTH STREET, IN CONNECTION WITH THE GRAND BOULEVARD AND CONCOURSE.

The Engineer's estimate of the work is as follows:

5,100 cubic yards of earth excavation.
100 cubic yards of rock excavation.
28,750 cubic yards of filling and back-filling.
200 cubic yards of cinder filling.
100 cubic yards of selected surfacing material.

5,000 feet (B. M.) of lumber.
4,500 cubic yards of dry rubble masonry.
780 cubic yards of rubble masonry in mortar.

4,100 cubic yards of cyclopean masonry.
530 cubic yards of Class "A" concrete.
5,600 cubic yards of Class "B" concrete.
40 cubic yards of cinder concrete.

9,500 square feet of waterproofing.
260 cubic feet of granite newels, fenders and coping.

970 linear feet of vitrified stoneware pipe drain, 18 inches in diameter.
575 linear feet of vitrified stoneware pipe drain, 12 inches in diameter.

215 linear feet of vitrified stoneware pipe drain, 10 inches in diameter.
96 spurs for house connections.
16 manholes.

5 standard receiving basins.
4 Type "A" inlets.
2 Type "B" inlets.

200 square yards of paved gutters.
440,000 pounds of steel and iron (exclusive of railings).

1,750 square feet of woven wire fabric.
120 linear feet of standard water pipe, 12 inches in diameter.

60 linear feet of standard water pipe, 20 inches in diameter.
3,350 linear feet of new bluestone curb.
85 linear feet of new granite curb.

23,200 square feet of cement flagging.
2,320 square feet of new bluestone.
5,250 square yards of asphalt block pavement.
3,050 square yards of iron slag block pavement.

1,200 square yards of macadam pavement.
91 linear feet of Type "A" railing.
1,150 linear feet of Type "B" railing.
1,150 linear feet of Type "C" railing.

The time allowed for the completion of the work will be 300 consecutive working days.
The amount of security required will be Fifty Thousand Dollars.

No. 17. FOR FURNISHING AND DELIVERING BROKEN TRAP-ROCK, LIME OR NATIVE STONE SCREENINGS TO THE BUREAU OF HIGHWAYS.

15,000 cubic yards best quality 1½-inch broken stone, trap-rock, lime or native stone.
5,000 cubic yards best quality ½-inch screenings, trap-rock, lime or native stone.

Samples must be submitted three days before date of letting.
To be delivered as directed before December 1, 1907.

The amount of security required will be Twenty Thousand Dollars.

No. 18. FOR FURNISHING AND DELIVERING TWO STEAM ROAD ROLLERS TO THE BUREAU OF HIGHWAYS.

2 double cylinder steam road rollers, Buffalo Pitts or equal (size 15 gross tons).

To be furnished and delivered to the yard of the Bureau of Highways, One Hundred and Forty-third street and College avenue, within thirty days from date of execution of the contract.

The amount of security required will be Three Thousand Dollars.

No. 19. FOR CONSTRUCTING SEWERS AND APPURTENANCES IN THE GRAND BOULEVARD AND CONCOURSE (BOTH SIDES), BETWEEN BELMONT STREET AND EAST ONE HUNDRED AND SEVENTY-SECOND STREET, AND ACROSS THE GRAND BOULEVARD AND CONCOURSE, ON THE SOUTH SIDE OF BELMONT STREET.

The Engineer's estimate of the work is as follows:

231 linear feet of pipe sewer, 15-inch.
1,275 linear feet of pipe sewer, 12-inch.
88 spurs for house connections, over and above the cost per linear foot of sewer.

15 manholes, complete.
2,950 cubic yards of rock to be excavated and removed.

5 cubic yards of Class "B" concrete, in place, additional to that shown on the plan.

1,000 feet (B. M.) of timber for foundations, furnished and laid, and sheeting furnished and left in place.

10 linear feet of 12-inch drain pipe, furnished and laid.

The time allowed for the completion of the work will be 175 working days.
The amount of security required will be Seven Thousand Five Hundred Dollars.

No. 20. FOR CONSTRUCTING A SEWER AND APPURTENANCES IN WALTON AVENUE, BETWEEN EAST ONE HUNDRED AND SIXTY-FIFTH STREET AND TUDOR PLACE.

The Engineer's estimate of the work is as follows:

365 linear feet of pipe sewer, 18-inch.
785 linear feet of pipe sewer, 15-inch.
90 linear feet of pipe sewer, 12-inch.

160 spurs for house connections, over and above the cost per linear foot of sewer.
12 manholes, complete.

4 receiving basins, complete.
1,350 cubic yards of rock, to be excavated and removed.

5 cubic yards of Class "B" concrete, in place, additional to that shown on the plan.

1,000 feet (B. M.) of timber, for foundations, furnished and laid, and sheeting furnished and left in place.

10 linear feet of 12-inch drain pipe, furnished and laid.

The time allowed for the completion of the work will be 200 working days.
The amount of security required will be Five Thousand Dollars.

No. 21. FOR CONSTRUCTING SEWERS AND APPURTENANCES IN BECK STREET, BETWEEN PROSPECT AVENUE AND LEGGETT AVENUE, AND IN LEGGETT AVENUE, BETWEEN SOUTHERN BOULEVARD AND FOX STREET, AND IN FOX STREET, BETWEEN LEGGETT AVENUE AND AVENUE ST. JOHN.

The Engineer's estimate of the work is as follows:

326 linear feet of pipe sewer, 15-inch.
1,120 linear feet of pipe sewer, 12-inch.
200 spurs for house connections, over and above the cost per linear foot of sewer.

15 manholes, complete.
2,125 cubic yards of rock, to be excavated and removed.

5 cubic yards of Class "B" concrete, in place, additional to that shown on the plan.

1,000 feet (B. M.) of timber, for foundations, furnished and laid, and sheeting furnished and left in place.

10 linear feet of 12-inch drain pipe, furnished and laid.

The time allowed for the completion of the work will be 250 working days.
The amount of security required will be Six Thousand Dollars.

No. 22. FOR CONSTRUCTING SEWERS AND APPURTENANCES IN AUSTIN PLACE, BETWEEN EAST ONE HUNDRED AND FORTY-NINTH STREET AND EAST ONE HUNDRED AND FORTY-SEVENTH STREET, AND IN EAST ONE HUNDRED AND FORTY-SEVENTH STREET, BETWEEN AUSTIN PLACE AND THE SOUTHERN BOULEVARD.

The Engineer's estimate of the work is as follows:

800 linear feet of pipe sewer, 12-inch.
91 spurs for house connections, over and above the cost per linear foot of sewer.

10 manholes, complete.
1 receiving basin, complete.

1,000 cubic yards of rock to be excavated and removed.

5 cubic yards of Class "B" concrete, in place, additional to that shown on the plan.

1,000 feet (B. M.) of timber for foundations, furnished and laid, and sheeting furnished and left in place.

10 linear feet of 12-inch drain pipe, furnished and laid.

The time allowed for the completion of the work will be 125 working days.
The amount of security required will be Three Thousand Three Hundred Dollars.

Blank forms can be obtained upon application therefor, and the plans and specifications may be seen and other information obtained at said office.

LOUIS F. HOFFEN,
President.
j24,16

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF EDUCATION.

DEPARTMENT OF EDUCATION, CORNER OF PARK AVENUE AND FIFTY-NINTH STREET, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Superintendent of School Buildings at the above office of the Department of Education until 11 o'clock a. m. on

MONDAY, JULY 15, 1907.

Borough of Brooklyn.

No. 1. FOR THE GENERAL CONSTRUCTION, ETC., OF NEW PUBLIC SCHOOL 93, ON THE SOUTHEAST CORNER OF HERKIMER STREET AND NEW YORK AVENUE, BOROUGH OF BROOKLYN.

The time allowed to complete the whole work will be 275 working days, as provided in the contract.

The amount of security required is One Hundred Thousand Dollars.

No. 2. FOR FURNITURE FOR EASTERN DISTRICT HIGH SCHOOL, ON MARCY AVENUE, BETWEEN RODNEY AND KEAP STREETS, BOROUGH OF BROOKLYN.

The time allowed to complete the whole work will be 60 working days, as provided in the contract.

The amount of security required is as follows:

Item 1..... \$8,000 00
Item 2..... 1,600 00
Item 3..... 600 00
Item 4..... 1,700 00
Item 5..... 1,700 00
Item 6..... 7,000 00
Item 7..... 3,000 00
Item 8..... 3,000 00

A separate proposal must be submitted for each item and award will be made thereon.

On Contract No. 1 the bids will be compared and the contract awarded in a lump sum to the lowest bidder.

On Contract No. 2 the bidders must state the price of each or any article or item contained in the specifications or schedules herein contained or hereto annexed by which the bids will be tested.

Extensions must be made and footed up, as the bids will be read from the total of each item, and award made to the lowest bidder on each item.

Delivery will be required to be made at the time and manner and in such quantities as may be directed.

Blank forms, plans and specifications may be obtained or seen at the office of the Superintendent at Estimating Room, ninth floor, Hall of the Board of Education, Park avenue and Fifty-ninth street, Borough of Manhattan.

Dated July 2, 1907. C. B. J. SNYDER,
Superintendent of School Buildings.
j24,15

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF EDUCATION, CORNER OF PARK AVENUE AND FIFTY-NINTH STREET, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Superintendent of School Buildings at the above office of the Department of Education until 11 o'clock a. m. on

MONDAY, JULY 15, 1907.

Borough of Manhattan.

No. 3. FOR REPAIRS TO HEATING AND VENTILATING APPARATUS OF PUBLIC SCHOOL 96, ON AVENUE A, BETWEEN EIGHTY-FIRST AND EIGHTY-SECOND STREETS, BOROUGH OF MANHATTAN.

The time allowed to complete the whole work will be until August 30, 1907, as provided in the contract.

The amount of security required is Five Hundred Dollars.

Borough of Queens.

No. 4. FOR THE GENERAL CONSTRUCTION, ETC., OF NEW PUBLIC SCHOOL 56, ON CORNER OF ELM STREET AND ORCHARD AVENUE, RICHMOND HILL, BOROUGH OF QUEENS.

The time allowed to complete the whole work will be 250 working days, as provided in the contract.

The amount of security required is Ninety Thousand Dollars.

On Contracts Nos. 3 and 4 the bids will be compared and the contract awarded in a lump sum to the lowest bidder on each contract.

Blank forms, plans and specifications may be obtained or seen at the office of the Superintendent at Estimating Room, ninth floor, Hall of the Board of Education, Park avenue and Fifty-ninth street, Borough of Manhattan, and also at Branch Office, No. 69 Broadway, Flushing, Borough of Queens, for work for their respective boroughs.

C. B. J. SNYDER,
Superintendent of School Buildings.
Dated July 3, 1907. j24,15

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF EDUCATION, CORNER OF PARK AVENUE AND FIFTY-NINTH STREET, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Superintendent of School Buildings at the above office of the Department of Education until 11 o'clock a. m. on

MONDAY, JULY 8, 1907.

Borough of Brooklyn.

No. 1. FOR ALTERATIONS, REPAIRS, ETC., TO PUBLIC SCHOOLS 16, 34, 51, 55, 57, 90, BOROUGH OF BROOKLYN.

The time allowed to complete the whole work on each school will be 55 working days, as provided in the contract.

The amount of security required is as follows:

Public School 16, \$400.
Public School 34, \$6,000.
Public School 51, \$6,000.
Public School 55, \$3,000.
Public School 57, \$4,000.
Public School 90, \$500.

A separate proposal must be submitted for each school, and award will be made thereon.

No. 2. FOR INSTALLING ELECTRIC LIGHT, WIRING, FIXTURES, ETC., IN PUBLIC SCHOOL 54, ON THE EAST SIDE OF WALWORTH STREET, AND THE WEST SIDE OF SANFORD STREET, ABOUT 112 FEET SOUTH OF MYRTLE AVENUE; ALSO FOR INSTALLING BELL AND TELEPHONE SYSTEMS IN PUBLIC SCHOOL 116, ON EAST SIDE OF KNICKBOCKER AVENUE, BETWEEN GROVE AND RALPH STREETS, BOROUGH OF BROOKLYN.

The time allowed to complete the whole work on each school will be on or before the 31st day of August, 1907, as provided in the contract.

The amount of security required is as follows:

Public School 54, \$2,000.
Public School 116, \$700.

A separate proposal must be submitted for each school, and award will be made thereon.

No. 3. FOR INSTALLING HEATING AND VENTILATING APPARATUS IN PUBLIC SCHOOL 94, ON WESTERLY SIDE OF SIXTH AVENUE, BETWEEN FIFTIETH AND FIFTY-FIRST STREETS, BOROUGH OF BROOKLYN.

The time allowed to complete the whole work will be 70 working days, as provided in the contract.

The amount of security required is \$20,000.

No. 4. FOR THE GENERAL CONSTRUCTION, ETC., OF NEW PUBLIC SCHOOL 157, ON TAAFFE PLACE AND KENT AVENUE, ABOUT 247 FEET SOUTH OF PARK AVENUE, BOROUGH OF BROOKLYN.

The time allowed to complete the whole work will be 300 working days, as provided in the contract.

The amount of security required is Two Hundred Thousand Dollars.

On Contracts Nos. 3 and 4 the bids will be compared and the contract awarded in a lump sum to the lowest bidder on each contract.

On Contracts Nos. 1 and 2 the bidders must state the price of each or any article or item contained in the specifications or schedules herein contained or hereto annexed, by which the bids will be tested.

Extensions must be made and footed up, as the bids will be read from the total of each item, and award made to the lowest bidder on each item.

Delivery will be required to be made at the time and manner and in such quantities as may be directed.

Blank forms, plans and specifications may be obtained or seen at the office of the Superintendent at Estimating Room, ninth floor, Hall of the Board of Education, Park avenue and Fifty-ninth street, Borough of Manhattan.

C. B. J. SNYDER,
Superintendent of School Buildings.
Dated June 25, 1907. j25,jy8

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF EDUCATION, CORNER OF PARK AVENUE AND FIFTY-NINTH STREET, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Superintendent of School Buildings at the above office of the Department of Education until eleven o'clock a. m. on

MONDAY, JULY 8, 1907.

Borough of The Bronx.

No. 5. FOR REPAIRS TO HEATING AND VENTILATING APPARATUS OF PUBLIC SCHOOL 32, ON ONE HUNDRED AND EIGHTY-THIRD STREET, BEAUMONT AND CAMBRELING AVENUES, AND MORRIS HIGH SCHOOL, ON ONE HUNDRED AND SIXTY-SIXTH STREET AND BOSTON ROAD, BOROUGH OF THE BRONX.

The time allowed to complete the whole work on each school will be until August 15, 1907, as provided in the contract.

The amount of security required is as follows:

Public School 32..... \$900 00
Morris High School..... 1,200 00

A separate proposal must be submitted for each school, and award will be made thereon.

No. 6. FOR INSTALLING HEATING AND VENTILATING APPARATUS IN NEW PUBLIC SCHOOL 49, ON WESTERLY SIDE OF BROWN PLACE, BETWEEN ONE HUNDRED AND THIRTY-FIFTH AND ONE HUNDRED AND THIRTY-SIXTH STREETS, BOROUGH OF THE BRONX.

The time allowed to complete the whole work will be forty working days, as provided in the contract.

The amount of security required is Eighteen Thousand Dollars.

Borough of Manhattan.

No. 7. FOR ADDITIONS TO AND ALTERATIONS IN THE ELECTRIC BELL SYSTEM OF PUBLIC SCHOOL 86, ON NINETY-SIXTH STREET AND LEXINGTON AVENUE BOROUGH OF MANHATTAN.

The time allowed to complete the whole work will be forty working days, as provided in the contract.

The amount of security required is Three Hundred Dollars.

No. 8. FOR THE ERECTION OF OUTSIDE IRON STAIRS AT ANNEX TO GIRLS' TECHNICAL HIGH SCHOOL, NO. 146 GRAND STREET, BOROUGH OF MANHATTAN.

The time allowed to complete the whole work will be forty working days, as provided in the contract.

The amount of security required is One Thousand Dollars.

Borough of Richmond.

No. 9. FOR INSTALLING ELECTRIC EQUIPMENT IN ADDITION TO AND ALTERATIONS IN PUBLIC SCHOOL 13, ON WEST SIDE OF ANDERSON STREET, BETWEEN PENNSYLVANIA AND CLIFTON AVENUES, ROSEBANK, BOROUGH OF RICHMOND.

The time allowed to complete the whole work will be 120 working days, as provided in the contract.

The amount of security required is Four Thousand Dollars.

No. 10. FOR THE GENERAL CONSTRUCTION, ETC., OF NEW PUBLIC SCHOOL 28, ON THE SOUTHWEST CORNER OF CENTRE STREET AND GARRETSON AVENUE, RICHMOND, BOROUGH OF RICHMOND.

The time allowed to complete the whole work will be 125 working days, as provided in the contract.

The amount of security required is Twenty Thousand Dollars.

On Contracts Nos. 6, 7, 8, 9 and 10 the bids will be compared and the contract awarded in a lump sum to the lowest bidder on each contract.

On Contract No. 5 the bidders must state the price of each or any article or item contained in the specifications or schedules herein contained or hereto annexed, by which the bids will be tested.

Extensions must be made and footed up as the bids will be read from the total of each item, and award made to the lowest bidder on each item.

Delivery will be required to be made at the time and manner and in such quantities as may be directed.

Blank forms, plans and specifications may be obtained or seen at the office of the Superintendent at Estimating Room ninth floor, Hall of the Board of Education, Park avenue and Fifty-ninth street, Borough of Manhattan, and also at branch office, Borough Hall, New Brighton, Borough of Richmond, for work for their respective boroughs.

C. B. J. SNYDER,
Superintendent of School Buildings.
Dated June 26, 1907. j25,jy8

See General Instructions to Bidders on the last page, last column, of the "City Record."

BOROUGH OF RICHMOND.

OFFICE OF THE PRESIDENT OF THE BOROUGH OF RICHMOND, RICHMOND BOROUGH HALL, ST. GEORGE, NEW BRIGHTON, NEW YORK CITY.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Richmond, at the above office, until 12 o'clock m. on

TUESDAY, JULY 30, 1907.

Borough of Richmond.

No. 1. FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR CONSTRUCTING REINFORCED CONCRETE RETAINING WALLS ON JAY STREET AND SOUTH STREET, AND OTHER WORK IN CONNECTION WITH THE ST. GEORGE FERRY APPROACH.

The Engineer's estimate of the quantity and quality of the material, and the nature and extent, as near as possible, of the work required, is as follows:

9,400 cubic yards of concrete in place, including forms.
1,100,000 pounds of steel in place.

23,000 cubic yards of excavation.
100 cubic yards of broken stone, for foundation.

2,500 linear feet of granite coping on parapet wall.
30 linear feet of special granite coping, Class A.

20 linear feet of special granite coping, Class B.
20 linear feet of special granite coping, Class C.

4,950 square feet of granite facing.
100 cubic yards of extra concrete for foundation, 1-3-6.

40,000 linear feet of piles, furnished, driven and cut.

16 granite pedestals, Type A.
3 granite pedestals, Type B.
1 granite pedestal, Type C.
1 granite pedestal, Type D.
1 granite pedestal, Type E.
1 granite pedestal, Type F.

The time for the completion of the work and the full performance of the contract is three hundred and fifty (350) days.

The amount of security required is One Hundred Thousand Dollars (\$100,000).

The contracts must be bid for separately, and the bids will be compared and the contract awarded at a lump or aggregate sum for each contract.

Bidders are requested to make their bids or estimates upon the blank form prepared by the President, a copy of which, with the proper envelope in which to inclose the bid, together with a copy of the contract, including the specifications, in the form approved by the Corporation Counsel, can be obtained upon application therefor at the office of the said President.

The plans and drawings may be seen and other information obtained at the office of the Commissioner of Public Works of the Borough of Richmond, Borough Hall, New Brighton, Borough of Richmond.

GEORGE CROMWELL,
President.
The City of New York, June 25, 1907. j28,jy30

See General Instructions to Bidders on the last page, last column, of the "City Record."

OFFICE OF THE PRESIDENT OF THE BOROUGH OF RICHMOND, RICHMOND BOROUGH HALL, ST. GEORGE, NEW BRIGHTON, NEW YORK CITY.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Richmond at the above office until 12 o'clock noon.

TUESDAY, JULY 9, 1907.

FOR FURNISHING AND DELIVERING ONE NEW FOUR-CYLINDER AUTOMOBILE, 1907 MODEL, OF NOT LESS THAN 30 ACT

Bidders are requested to make their bids or estimates upon the blank form prepared by the President, a copy of which, with the proper envelope in which to inclose the bid, together with a copy of the contract, including the specifications, in the form approved by the Corporation Counsel, can be obtained upon application therefor at the office of the Superintendent of Buildings, Borough Hall, St. George.

GEORGE CROMWELL,
President.
Dated City of New York, June 20, 1907.

See General Instructions to Bidders on the last page, last column, of the "City Record."

OFFICE OF THE PRESIDENT OF THE BOROUGH OF RICHMOND, BOROUGH HALL, ST. GEORGE, NEW BRIGHTON, NEW YORK CITY.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Richmond at the above office until 12 o'clock m. on

TUESDAY, JULY 9, 1907.
Borough of Richmond.

No. 1. FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR CONSTRUCTING A TEMPORARY SANITARY SEWER AND APPURTENANCES IN SIMONSON AVENUE FROM TERMINUS OF PROPOSED SEWER IN SIMONSON AVENUE, AS LAID OUT ON THE PLAN OF SEWER DISTRICT No. 17 A, TO A POINT ABOUT 475 FEET SOUTHWARD THEREFROM; ALSO A TEMPORARY COMBINED SEWER IN BAY AVENUE, SOUTHWARD OF THE TRACKS OF THE STATEN ISLAND RAPID TRANSIT RAILWAY, IN THE THIRD WARD, AS AN EXTENSION OF THE SEWER NOW IN THE COURSE OF CONSTRUCTION IN BAY AVENUE, TO A POINT ABOUT 460 FEET SOUTHERLY THEREFROM, TOGETHER WITH THE WORK INCIDENTAL THERETO.

The Engineer's estimate of the quantity and quality of the material and the nature and extent, as near as possible, of the work required is as follows:

- 100 linear feet of salt-glazed vitrified pipe sewer of twelve (12) inches interior diameter, all complete, as per section on plan of the work.
- 350 linear feet of salt-glazed vitrified pipe sewer of eight (8) inches interior diameter, all complete, as per section on plan of the work.
- 475 linear feet of salt-glazed vitrified pipe sewer of six (6) inches interior diameter, all complete, as per section on plan of the work.
- 3 manholes, complete, as per section on plan of the work.
- 1 flush tank, with No. 5 Van Vranken siphon set, and connected with water main, complete, as per section on plan of the work.
- 1,000 feet (B. M.) of sheeting, retained.
- 2 reinforced concrete receiving basins, with one and one-quarter (1 1/4) inches galvanized wrought-iron bars, all complete, as shown on plans on file in the office of the Commissioner of Public Works, and connected with sewer.
- 20 square yards of cobble gutter relaid.

The time for the completion of the work and the full performance of the contract is thirty-five (35) days.

The amount of security required is Six Hundred and Fifty Dollars (\$650).

The contracts must be bid for separately, and the bids will be compared and the contract awarded at a lump or aggregate sum for each contract.

Bidders are requested to make their bids or estimates upon the blank form prepared by the President, a copy of which, with the proper envelope in which to inclose the bid, together with a copy of the contract, including the specifications, in the form approved by the Corporation Counsel, can be obtained upon application therefor at the office of the said President.

The plans and drawings may be seen and other information obtained at the office of the Commissioner of Public Works of the Borough of Richmond, Borough Hall, New Brighton, Borough of Richmond.

GEORGE CROMWELL,
President.
The City of New York, June 21, 1907.

See General Instructions to Bidders on the last page, last column, of the "City Record."

BOARD OF ASSESSORS.

PUBLIC NOTICE IS HEREBY GIVEN TO the owner or owners of all houses and lots, improved or unimproved lands affected thereby, that the following proposed assessments have been completed and are lodged in the office of the Board of Assessors for examination by all persons interested, viz:

BOROUGH OF BROOKLYN.

List 9238, No. 1. Regulating and grading Eleventh avenue, from Fifteenth street to Terrace place, and curbing Eleventh avenue, from Fifteenth street to Eighteenth street.

BOROUGH OF THE BRONX.

List 9258, No. 2. Regulating, grading, curbing, flagging, laying crosswalks, building approaches and placing fences in Echo place, from Tremont avenue to Echo Park.

The limits within which it is proposed to lay the said assessments include all the several houses and lots of ground, vacant lots, pieces and parcels of land situated on—

No. 1. Both sides of Eleventh avenue, from Fifteenth street to Terrace place, and to the extent of half the block at the intersecting streets.

No. 2. Both sides of Echo place, from Tremont avenue to Echo Park, and to the extent of half the block at the intersecting streets.

All persons whose interests are affected by the above-named proposed assessments, and who are opposed to the same, or either of them, are requested to present their objections, in writing, to the Secretary of the Board of Assessors, No. 320 Broadway, New York, on or before August 6, 1907, at 11 a. m., at which time and place the said objections will be heard and testimony received in reference thereto.

ANTONIO ZUCCA,
PAUL WEIMANN,
JAMES H. KENNEDY,
Board of Assessors.

WILLIAM H. JASPER,
Secretary,
No. 320 Broadway,
City of New York, Borough of Manhattan,
July 5, 1907.

PUBLIC NOTICE IS HEREBY GIVEN TO the owner or owners of all houses and lots, improved or unimproved lands affected thereby, that the following proposed assessments have been completed and are lodged in the office of the Board of Assessors for examination by all persons interested, viz:

BOROUGH OF BROOKLYN.

List 9236, No. 1. Regulating, grading, curbing, laying cement sidewalk on East Fifth street, between Greenwood avenue and Fort Hamilton avenue.

List 9240, No. 2. Regulating, grading, curbing and laying cement sidewalks on Lott street, between Vernon avenue and Beverley road.

The limits within which it is proposed to lay the said assessments include all the several houses and lots of ground, vacant lots, pieces and parcels of land situated on—

No. 1. Both sides of East Fifth street, from Greenwood avenue to Fort Hamilton avenue, and to the extent of half the block at the intersecting avenues.

No. 2. Both sides of Lott street, from Beverley road to Vernon avenue, and to the extent of half the block at the intersecting streets.

All persons whose interests are affected by the above-named proposed assessments, and who are opposed to the same, or either of them, are requested to present their objections, in writing, to the Secretary of the Board of Assessors, No. 320 Broadway, New York, on or before July 30, 1907, at 11 a. m., at which time and place the said objections will be heard and testimony received in reference thereto.

ANTONIO ZUCCA,
PAUL WEIMANN,
JAMES H. KENNEDY,
Board of Assessors.

WILLIAM H. JASPER,
Secretary,
No. 320 Broadway,
City of New York, Borough of Manhattan,
June 27, 1907.

PUBLIC NOTICE IS HEREBY GIVEN TO the owner or owners of all houses and lots, improved or unimproved lands affected thereby, that the following proposed assessments have been completed and are lodged in the office of the Board of Assessors for examination by all persons interested, viz:

BOROUGH OF THE BRONX.

List 9257, No. 1. Regulating, grading, curbing, flagging, laying crosswalks, building approaches and placing fences in Eastburn avenue, from One Hundred and Seventy-fifth to Belmont street.

List 9273, No. 2. Regulating, grading, curbing, flagging a space of four feet wide, laying crosswalks, building approaches and erecting fences where necessary in East One Hundred and Ninety-seventh street, between Creston avenue and Bainbridge avenue.

List 9278, No. 3. Regulating, grading, curbing, flagging, laying crosswalks, building approaches and placing fences in Waterloo place, from East One Hundred and Seventy-fifth to East One Hundred and Seventy-sixth street.

List 9305, No. 4. Regulating, grading, curbing, flagging, laying crosswalks, building approaches and placing fences in Decatur avenue, from East Two Hundred and Seventh street to Gun Hill road.

The limits within which it is proposed to lay the said assessments include all the several houses and lots of ground, vacant lots, pieces and parcels of land situated on—

No. 1. Both sides of Eastburn avenue, from One Hundred and Seventy-fifth street to Belmont street, and to the extent of half the block at the intersecting streets.

No. 2. Both sides of One Hundred and Ninety-seventh street, from Creston avenue and to the extent of half the block at the intersecting and terminating streets.

No. 3. Both sides of Waterloo place, from One Hundred and Seventy-fifth to One Hundred and Seventy-sixth street, and to the extent of half the block at the intersecting streets.

No. 4. Both sides of Decatur avenue, from Two Hundred and Seventh street to Gun Hill road, and to the extent of half the block at the intersecting streets.

All persons whose interests are affected by the above named proposed assessments, and who are opposed to the same, or either of them, are requested to present their objections, in writing, to the Secretary of the Board of Assessors, No. 320 Broadway, New York, on or before July 30, 1907, at 11 a. m., at which time and place the said objections will be heard and testimony received in reference thereto.

ANTONIO ZUCCA,
PAUL WEIMANN,
JAMES H. KENNEDY,
Board of Assessors.

WILLIAM H. JASPER,
Secretary,
No. 320 Broadway,
City of New York, Borough of Manhattan,
June 27, 1907.

See General Instructions to Bidders on the last page, last column, of the "City Record."

BELLEVUE AND ALLIED HOSPITALS.

BELLEVUE AND ALLIED HOSPITALS DEPARTMENT OF NEW YORK CITY, TWENTY-SIXTH STREET AND FIRST AVENUE, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Board of Trustees at the above office until 3 o'clock p. m. on

THURSDAY, JULY 11, 1907.

FOR ALL LABOR AND MATERIAL REQUIRED TO CLEAN AND PAINT ALL THE IRON WORK OF THE FIRE ESCAPES AND VERANDAS ON THE BUILDINGS OF BELLEVUE HOSPITAL, TWENTY-SIXTH STREET TO TWENTY-EIGHTH STREET, FIRST AVENUE TO THE EAST RIVER, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

The surety required shall be Twelve Hundred Dollars (\$1,200).

The time for the completion of the work and the full performance of the contract is within forty (40) consecutive working days.

The bids will be compared and the contract awarded at a lump or aggregate sum to the lowest bidder.

Blank forms may be obtained at the office of the Contract Clerk, No. 419 East Twenty-sixth street, Borough of Manhattan, where bids and deposits are also delivered.

MYLES TIERNEY,
Acting President, Board of Trustees,
Bellevue and Allied Hospitals.

Dated June 27, 1907.

See General Instructions to Bidders on the last page, last column, of the "City Record."

BELLEVUE AND ALLIED HOSPITALS DEPARTMENT OF NEW YORK CITY, TWENTY-SIXTH STREET AND FIRST AVENUE, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Board of Trustees at the above office until 3 p. m. on

THURSDAY, JULY 11, 1907.

POTATOES.

The surety required will be not less than fifty per cent. (50%) of the amount of the bid.

The time for the delivery of the supplies and the full performance of the contract is on or before December 31, 1907.

The bids will be read from the total, and will be compared and awarded to the lowest bidder for the line or class, as specified, as soon thereafter as practicable, according to law.

Blank forms may be obtained at the office of the Contract Clerk, No. 419 East Twenty-sixth street, Borough of Manhattan, where the bids and deposits are also delivered.

MYLES TIERNEY,
Acting President, Board of Trustees,
Bellevue and Allied Hospitals.

Dated June 27, 1907.

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF DOCKS AND FERRIES.

DEPARTMENT OF DOCKS AND FERRIES, PIER "A," NORTH RIVER, NEW YORK, March 31, 1904.

THE COMMISSIONER HAS FIXED THE amounts of bonds required on contracts awarded by this Department, as follows:

On all contracts for supplies, 40 per cent. of the estimated cost;

On all contracts, other than contracts for supplies, where the estimated cost is not over \$200,000, 40 per cent. of the estimated cost;

On all contracts, other than contracts for supplies, where the estimated cost is over \$200,000, but not over \$1,000,000, 25 per cent. of the estimated cost;

On all contracts, other than contracts for supplies, where the estimated cost is over \$1,000,000, 20 per cent. of the estimated cost.

JOSEPH W. SAVAGE,
Secretary.

AQUEDUCT COMMISSIONERS.

PUBLIC AUCTION.

THE AQUEDUCT COMMISSIONERS OF The City of New York will sell at public auction on

MONDAY, JULY 15, 1907,

at 10 o'clock a. m., under the direction of Charles A. Berrian, auctioneer, at the Engineer's office, Katonah, Westchester County, N. Y., all the grass within the purchase lines of the new Croton Reservoir, on the following parcels between Pine's Bridge and Croton Falls:

Parcel No.	Former Owner.	Minimum.
112	Nelson Bros.....	\$20 00
115	F. T. Hopkins.....	25 00
122	John Kilday.....	3 00
126	Joseph Sables.....	5 00
135	Adelia Burr.....	5 00
183	F. T. Hopkins.....	25 00
184	John Owen.....	35 00
185	Nelson Bros.....	20 00
191	A. B. Whitlock.....	5 00
215	Mary E. Flewellin.....	3 00
251	Estate of A. Green.....	5 00
257	Henry Weiler.....	10 00
258	John Jay.....	10 00
259	George Todd.....	20 00
260	D. J. Smith.....	10 00
261	J. G. Wood.....	5 00
264	Doyle Bros.....	5 00
274	W. J. Doyle.....	3 00
314	Estate of D. M. Silkman.....	1 00
336	A. B. Whitlock.....	5 00
360	Joseph Benedict.....	5 00
362-363	George Todd.....	5 00
366	A. H. Todd.....	10 00
370	Estate of E. Washburn.....	10 00
372-374	Phoebe E. Adams.....	3 00
378	Leonora B. Strong.....	10 00
385	E. B. Brady.....	10 00
386	E. B. Brady.....	2 00
395	Anna A. Ferris.....	5 00
396-397	Allen Teed.....	2 00
399	A. B. Whitlock.....	4 00
400-403	Estate of S. E. Mead.....	5 00
404 1/2	W. H. Robertson.....	10 00
408	Estate of Harvey Vorhis.....	3 00
432	E. B. Brady.....	2 00
435	Estate of N. Parker.....	10 00
439	A. B. Whitlock.....	6 00
441	Estate of D. Horton.....	5 00
444	Estate of N. Mead.....	10 00
445 e	E. B. Brady.....	13 00
449	G. W. Brown.....	3 00
450	J. P. Landrine.....	4 00
454	Estate of R. J. Thompson.....	5 00
456 e&w	E. B. Brady.....	5 00
510 e	Estate of G. W. Slawson.....	2 00
519	Estate of G. W. Slawson.....	5 00
520 w	Elbert Wallace.....	5 00
523	Elbert Wallace.....	10 00
526	Estate of J. B. Purdy.....	30 00
525 e&w	Estate of J. B. Purdy.....	5 00
528	W. N. Todd.....	5 00
541	Estate of J. B. Purdy.....	10 00
542	Louis Ettlinger.....	3 00
566	John Franz.....	5 00
578	Concetta Butler.....	25 00
580		

TERMS OF SALE.

First—The purchase money must be paid in cash on the day of sale.

Second—The grass will not be sold for less than the minima prices given in the City Record and in the posters.

Third—The grass must be cut and removed before September 1, 1907, and will be forfeited if left on the City's land after that date.

Fourth—If the purchaser is obliged to take down any of the City's fence to get access to the grass he must restore such fence at his own expense before September 1, 1907.

Fifth—The Aqueduct Commissioners reserve the right to exclude from the sale the grass on

any of the above parcels that may be designed by the Engineer.

By order of the Aqueduct Commissioners of The City of New York.

J. F. COWAN,
President.

HARRY W. WALKER,
Secretary.

jy5,15

DEPARTMENT OF BRIDGES.

DEPARTMENT OF BRIDGES, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Bridges at the above office until 2 o'clock p. m. on

THURSDAY, JULY 18, 1907.

FOR FURNISHING AND DELIVERING SPRUCE PLANK FOR THE BROOKLYN BRIDGE.

The time for the delivery of the articles, materials and supplies and the performance of the contract is, as ordered, during the year 1907.

The amount of security will be Six Thousand Dollars (\$6,000).

The right is reserved by the Commissioner to reject all bids should he deem it to be to the interest of the City so to do.

Blank forms and specifications may be obtained at the office of the Department of Bridges.

JAMES W. STEVENSON,
Commissioner of Bridges.

Dated June 28, 1907.

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF BRIDGES, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Bridges at the above office until 2 o'clock p. m. on

THURSDAY, JULY 11, 1907.

FOR FURNISHING AND DELIVERING LUMBER TO HARLEM RIVER AND BRONX BRIDGES DURING THE YEAR 1907.

Delivery of the lumber will be required to be made from time to time during the year 1907, and in such quantities and places as may be directed by the Commissioner.

The amount of security to guarantee the faithful performance of the work will be One Thousand Dollars (\$1,000).

The right is reserved by the Commissioner to reject all bids should he deem it to be to the interest of The City of New York so to do.

Blank forms and specifications may be obtained at the office of the Department of Bridges.

Dated June 24, 1907.

JAMES W. STEVENSON,
Commissioner of Bridges.

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF BRIDGES, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

NOTICE IS HEREBY GIVEN THAT THE final, first partial and separate report of the Commissioners of Estimate and Assessment in the above entitled matter will be presented for confirmation to the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part I., to be held in the County Court House, in the Borough of Manhattan, in The City of New York, on the 12th day of July, 1907, at 10.30 o'clock in the forenoon of that day; and that the said final, first partial and separate report has been deposited in the office of the Clerk of the County of New York, there to remain for and during the space of five days, as required by law.

Dated Borough of Manhattan, New York, July 6, 1907.

INO. B. TRAINER,
MICHAEL T. DALY,
THOMAS S. SCOTT,
Commissioners.

JOHN P. DUNN,
Clerk.

jy6,12

FIRST DEPARTMENT.

In the matter of the application of The City of New York relative to acquiring title, wherever the same has not been heretofore acquired, to the lands, tenements and hereditaments required for the opening and extending of WEST ONE HUNDRED AND SIXTIETH STREET (although not yet named by proper authority), from Broadway to Riverside drive, in the Twelfth Ward, Borough of Manhattan, City of New York.

NOTICE IS HEREBY GIVEN THAT THE final, first partial and separate report of the Commissioners of Estimate and Assessment in the above entitled matter will be presented for confirmation to the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part I., to be held in the County Court House in the Borough of Manhattan, in The City of New York, on the 12th day of July, 1907, at 10.30 o'clock in forenoon of that day; and that the said final, first partial and separate report has been deposited in the office of the Clerk of the County of New York, there to remain for and during the space of five days, as required by law.

Dated Borough of Manhattan, New York, July 6, 1907.

INO. B. TRAINER,
MICHAEL T. DALY,
THOMAS S. SCOTT,
Commissioners.

JOHN P. DUNN,
Clerk.

jy6,12

FIRST DEPARTMENT.

In the matter of the application of The City of New York relative to acquiring title, wherever the same has not been heretofore acquired, to the lands, tenements and hereditaments required for the opening and extending of WEST ONE HUNDRED AND SIXTY-FIRST STREET (although not yet named by proper authority), from Broadway to Riverside drive, in the Twelfth Ward, Borough of Manhattan, City of New York.

NOTICE IS HEREBY GIVEN THAT THE final, first partial and separate report of the Commissioners of Estimate and Assessment in the above entitled matter will be presented for confirmation to the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part I., to be held in the County Court House in the Borough of Manhattan, in The City of New York, on the 12th day of July, 1907, at 10.30 o'clock in forenoon of that day; and that the said final, first partial and separate report has been deposited in the office of the Clerk of the County of New York, there to remain for and during the space of five days, as required by law.

Dated Borough of Manhattan, New York, July 6, 1907.

JAMES T. MEEHAN,
MICHAEL W. RAYENS,
Commissioners.

JOHN P. DUNN,
Clerk.

jy6,12

FIRST DEPARTMENT.

In the matter of the application of The City of New York, relative to acquiring title, wherever the same has not been heretofore acquired, to the lands, tenements and hereditaments required for the opening and extending of WEST ONE HUNDRED AND SIXTY-THIRD STREET (although not yet named by proper authority), from Fort Washington avenue to Riverside drive, in the Twelfth Ward, Borough of Manhattan, City of New York.

NOTICE IS HEREBY GIVEN THAT THE final, first partial and separate report of the Commissioners of Estimate and Assessment in the above-entitled matter will be presented for confirmation to the Supreme Court of the State of New York, First Department, at a special term thereof, Part I., to be held in the County Court House in the Borough of Manhattan in the City of New York, on the 12th day of July, 1907, at 10.30 o'clock in the forenoon of that day; and that the said final, first partial and separate report has been deposited in the office of the Clerk of the County of New York, there to remain for and during the space of five days, as required by law.

Dated Borough of Manhattan, New York, July 6, 1907.

EDWARD J. McGEAN,
JAMES M. TULLY,
WALTER LINDNER,
Commissioners.

JOHN P. DUNN,
Clerk.

jy6,12

FIRST DEPARTMENT.

In the matter of the application of The City of New York, relative to acquiring title wherever the same has not been heretofore acquired, to MONTGOMERY AVENUE (although not yet named by proper authority), between West One Hundred and Seventy-sixth street and West One Hundred and Seventy-seventh street, in the Twenty-fourth Ward, Borough of The Bronx, City of New York.

NOTICE IS HEREBY GIVEN THAT THE bill of costs, charges and expenses incurred by reason of the proceedings in the above-entitled matter, will be presented for taxation to one of the Justices of the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part I., to be held at the County Court House in the Borough of Manhattan in the City of New York, on the 16th day of July, 1907, at 10.30 o'clock in forenoon of that day, or as soon thereafter as counsel can be heard thereon; and that the said bill of costs, charges and expenses has been deposited in the Office of the Clerk of the County of New York, there to remain for and during the space of ten days, as required by the provisions of the Greater New York Charter as amended by chapter 466 of the Laws of 1907.

Dated Borough of Manhattan, New York, July 2, 1907.

J. FRED CRYER,
FRANK GASS,
JOHN A. HAWKINS,
Commissioners.

JOHN P. DUNN, Clerk.

jy2,13

FIRST DEPARTMENT.

In the matter of the application of The City of New York, acting by and through the Commissioner of Docks, relative to acquiring right and title to and possession of the wharfage rights, terms, easements, emoluments and privileges appurtenant to the dock or wharf property known as PIER (OLD) NO. 53, near the foot of Jackson street, East river, in the Borough of Manhattan, City of New York, not now owned by The City of New York, and all right, title and interest in and to said pier or any portion thereof not now owned by The City of New York, for the improvement of the water front of The City of New York, on the East river, pursuant to the plan heretofore adopted by the Board of Docks, and approved by the Commissioners of the Sinking Fund.

NOTICE IS HEREBY GIVEN THAT BY an order of the Supreme Court of the State of New York, bearing date the 10th day of June, 1907, and filed and entered in the office of the Clerk of the County of New York on the 12th day of June, 1907, John W. Russell, Louis Leavitt and Patrick J. Conway were appointed Commissioners of Estimate in the above-entitled proceeding.

Notice is further given that, pursuant to the statutes in such case made and provided, the said John W. Russell, Louis Leavitt and Patrick J. Conway will attend at a Special Term of the Supreme Court, to be held in Part II. thereof, to be held at the County Court House, in the County of New York, in the Borough of Manhattan and City of New York, on the 15th day of July, 1907, at 11 o'clock in the forenoon of that day, for the purpose of being examined under oath by the Corporation Counsel of The City of New York, or by any person interested in said proceedings, as to their qualifications to act as such Commissioners of Estimate in this proceeding.

Dated New York, July 2, 1907.

WILLIAM B. ELLISON,
Corporation Counsel.

Hall of Records, Borough of Manhattan, New York City.

jy2,13

FIRST DEPARTMENT.

In the matter of the application of The City of New York, relative to acquiring title, wherever the same has not been heretofore acquired, to the lands, tenements and hereditaments required for the opening and extending of LAWRENCE AVENUE (although not yet named by proper authority), from Lind avenue to West One Hundred and Sixty-seventh street, in the Twenty-fourth Ward, Borough of The Bronx, City of New York.

WE, THE UNDERSIGNED COMMISSIONERS of Estimate and Assessment in the above-entitled matter, hereby give notice to all persons interested in this proceeding, and to the owner or owners, occupant or occupants of all houses and lots and improved and unimproved lands affected thereby, and to all others whom it may concern, to wit:

First—That we have completed our supplemental and amended estimate and assessment, and that all persons interested in this proceeding, or in any of the lands, tenements and hereditaments and premises affected thereby, and having objections thereto, do present their said objections in writing, duly verified, to us at our office, Nos. 90 and 92 West Broadway, in the Borough of Manhattan, in the City of New York, on or before the 23d day of July, 1907, and that we, the said Commissioners, will hear parties so objecting, and for that purpose will be in attendance at our said office on the 26th day of July, 1907, at 2 o'clock p. m.

Second—That the abstracts of our said supplemental and amended estimate and assessment, together with our damage map, and also all the affidavits, estimates, proofs and other documents used by us in making the same, have been deposited in the Bureau of Street Openings, in the Law Department of The City of New York, Nos. 90 and 92 West Broadway, in the Borough of Manhattan, in said City, there to remain until the 23d day of July, 1907.

Third—That the limits of our assessment for benefit include all those lands, tenements and hereditaments and premises situate, lying and being in the Borough of The Bronx, in The City of New York, which, taken together, are bounded and described as follows, viz.:

Beginning at a point formed by the intersection of a line parallel to and distant one hundred (100) feet southerly of the southerly line of an unnamed street and the easterly line of Sedgwick avenue; running thence northerly along said easterly line of Sedgwick avenue to its intersection with a line parallel to and distant one hundred (100) feet east of the easterly line of East One Hundred and Sixty-seventh street; thence southerly along said parallel line to its intersection with a line at right angles to the westerly line of East One Hundred and Sixty-seventh street at a point midway between Lind avenue and Lawrence avenue; thence westerly along said line at right angles to East One Hundred and Sixty-seventh street to its intersection with a line parallel to and distant one hundred (100) feet west of the westerly line of East One Hundred and Sixty-seventh street; thence southerly along said parallel line with its intersection with a line parallel to and distant one hundred (100) feet westerly of the westerly line of Lind avenue; thence again southerly along said last-mentioned parallel line to its intersection with a line at right angles to the westerly line of Lind avenue and East One Hundred and Sixty-seventh street; thence easterly along said line at right angles to Lind avenue to its intersection with a line parallel to and distant one hundred (100) feet easterly of the easterly line of Lind avenue; thence southerly along said last-mentioned parallel line to its intersection with the easterly prolongation of a line parallel to and distant one hundred (100) feet southerly of the southerly line of an unnamed street; thence westerly along said easterly prolongation and parallel line to the point or place of beginning, excepting from said area all streets, avenues and roads or portions thereof heretofore legally opened as such area is shown upon our benefit maps deposited as aforesaid.

Fourth—That, provided there be no objections filed to either of said supplemental and amended abstracts, our final report herein will be presented for confirmation to the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part III., to be held in the County Court House, in the Borough of Manhattan, in the City of New York, on the 8th day of October, 1907, at the opening of the Court on that day.

Fifth—In case, however, objections are filed to either of said supplemental and amended abstracts of estimate and assessment, the notice of motion to confirm our final report herein will stand adjourned to the date to be hereafter specified, and of which notice will be given to all those who have theretofore appeared in this proceeding, as well as by publication in the City Record, pursuant to sections 981 and 984 of the Greater New York Charter, as amended by chapter 658 of the Laws of 1906.

Dated Borough of Manhattan, New York, April 29, 1907.

T. CHANNON PRESS,
Chairman;
LOUIS FALK,
FRANCIS E. SPLAIN,
Commissioners.

JOHN P. DUNN,
Clerk.

jy1,20

FIRST DEPARTMENT.

In the matter of the application of The City of New York, relative to acquiring title, wherever the same has not been heretofore acquired, to the lands, tenements and hereditaments required for the opening and extending of STEUBEN AVENUE (although not yet named by proper authority), from Moshulu Parkway to Gun Hill road, in the Twenty-fourth Ward, Borough of The Bronx, City of New York.

NOTICE IS HEREBY GIVEN THAT THE final report of the Commissioners of Estimate and Assessment in the above-entitled matter will be presented for confirmation to the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part I., to be held in the County Court House in the Borough of Manhattan, in the City of New York, on the 11th day of July, 1907, at 10.30 o'clock in forenoon of that day; and that the said final report has been deposited in the office of the Clerk of the County of New York, there to remain for and during the space of five days, as required by law.

Dated Borough of Manhattan, New York, June 29, 1907.

EDWARD D. DOWLING,
GEORGE J. CLARKE,
JOHN J. MACKIN,
Commissioners.

JOHN P. DUNN,
Clerk.

j29,jy10

FIRST DEPARTMENT.

In the matter of the application of The City of New York, relative to acquiring title, wherever the same has not been heretofore acquired, to the lands, tenements and hereditaments required for the opening and extending of the PUBLIC PARK (although not yet named by proper authority), bounded by Southern boulevard, Pelham avenue and Crotona avenue, in the Twenty-fourth Ward, Borough of The Bronx, City of New York.

WE, THE UNDERSIGNED COMMISSIONERS of Estimate and Assessment in the above-entitled matter, hereby give notice to all persons interested in this proceeding, and to the owner or owners, occupant or occupants of all houses and lots and improved and unimproved lands affected thereby, and to all others whom it may concern, to wit:

First—That we have completed our estimate of damage, and that all persons interested in this proceeding, or in any of the lands, tenements and hereditaments and premises affected thereby, and having objections thereto, do present their said objections in writing, duly verified, to us at our office, Nos. 90 and 92 West Broadway, in the Borough of Manhattan, in the City of New York, on or before the 20th day of July, 1907, and that we, the said Commissioners, will hear parties so objecting, and for that purpose will be in attendance at our said office on the 23d day of July, 1907, at 1 o'clock p. m.

Second—That the abstract of our said estimate of damage, together with our damage map, and also all the affidavits, estimates, proofs and other documents used by us in making the same, have been deposited in the Bureau of Street Openings, in the Law Department of The City of New York, Nos. 90 and 92 West Broadway, in the Borough of Manhattan, in said City, there to remain until the 23d day of July, 1907.

Third—That, provided there be no objections filed to said abstract, our final report herein will be presented for confirmation to the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part I., to be held in the County Court House in the Borough of Manhattan, in the City of New York, on the 5th day of September, 1907, at the opening of the Court on that day.

Fourth—In case, however, objections are filed to said abstract of estimate of damage, the notice of motion to confirm our final report herein will stand adjourned to the date to be hereafter specified, and of which notice will be given to all those who have theretofore appeared in this proceeding, as well as by publication in the City Record, pursuant to sections 981 and 984 of the Greater New York Charter, as amended by chapter 658 of the Laws of 1906.

Dated Borough of Manhattan, New York, June 20, 1907.

FRANCIS V. S. OLIVER,
Chairman;
BRYAN REILLY,
STEPHEN J. NAVIN, JR.,
Commissioners.

JOHN P. DUNN,
Clerk.

j29,jy18

FIRST DEPARTMENT.

In the matter of the application of The City of New York, relative to acquiring title wherever the same has not been heretofore acquired, to the lands, tenements and hereditaments required for the opening and extending of JOSEPH RODMAN DRAKE PARK in the Twenty-third Ward, Borough of The Bronx City of New York, as laid out on the map, on February 17, 1905.

NOTICE IS HEREBY GIVEN THAT THE bill of costs, charges and expenses incurred by reason of the proceedings in the above-entitled matter up to and including June 26, 1907, will be presented for taxation to one of the Justices of the Supreme Court of the State of New York, First Department, at a Special Term thereof, Part I., to be held at the County Court House in the Borough of Manhattan in the City of New York, on the 15th day of July, 1907, at 10.30 o'clock in forenoon of that day, or as soon thereafter as counsel can be heard thereon; and that the said bill of costs, charges and expenses has been deposited in the Office of the Clerk of the County of New York, there to remain for and during the space of ten days, as required by the provisions of the Greater New York Charter as amended by chapter 466 of the Laws of 1907.

Dated Borough of Manhattan, New York, June 29, 1907.

THOMAS R. LANE,
JAS. F. DELANEY,
STEPHEN J. NAVIN, JR.,
Commissioners.

JOHN P. DUNN, Clerk.

j29,jy11

FIRST DEPARTMENT.

In the matter of acquiring title, by The City of New York, to certain lands and premises situated on the NORTHERLY SIDE OF ONE HUNDRED AND THIRTEENTH STREET, between FIRST and SECOND AVENUES, in the Borough of Manhattan, duly selected as a site for school purposes, according to law.

NOTICE IS HEREBY GIVEN THAT THE report of Frederick St. John, Nathaniel A. Elsberg and John R. Nugent, Commissioners of Estimate and Appraisal, duly appointed in the above-entitled proceeding, which report bears date the 26th day of June, 1907, was filed in the office of the Board of Education of The City of New York, on the 26th day of June, 1907, and a duplicate of said report was filed in the office of the Clerk of the County of New York on the same day.

Notice is further given that the said report will be presented for confirmation to the Supreme Court of the State of New York, in the First Judicial District, at Special Term, Part I. thereof, to be held at the County Court House, in the Borough of Manhattan, in the City of New York, on the 11th day of July, 1907, at the opening of the Court on that day, and that then and there, or as soon thereafter, as counsel can be heard thereon, a motion will be made that the said report be confirmed.

Dated New York, June 26, 1907.

WILLIAM B. ELLISON,
Corporation Counsel.
Hall of Records, Borough of Manhattan, City of New York.

j27,jy9

SUPREME COURT—SECOND DEPARTMENT.

SECOND DEPARTMENT.

In the matter of acquiring title by The City of New York to certain lands and premises situated on the southeasterly side of Broadway, between Elizabeth and Vreeland streets, in the Borough of Richmond, in The City of New York, duly selected as a site for school purposes, according to law.

WE, THE UNDERSIGNED COMMISSIONERS of Estimate and Appraisal in the above-entitled proceeding, do hereby give notice to the owner or owners, lessee or lessees, parties or persons respectively entitled to or interested in the lands, tenements, hereditaments and premises title to which is sought to be acquired in this proceeding, and to all others whom it may concern, to wit:

First—That we have completed our estimate of the loss and damage to the respective owners, lessees, parties or persons respectively entitled to or interested in the lands and premises affected by this proceeding, or having any interest therein, and have filed a true report or transcript of such estimate in the office of the Board of Education, situated at the southwest corner of Fifty-ninth street and Park avenue, in the Borough of Manhattan, City of New York, for the inspection of whomsoever it may concern.

Second—That all parties or persons whose rights may be affected by the said estimate, or who may object to the same, or any part thereof, may, within ten days after the first publication of this notice, July 2, 1907, file their objections, in writing, with us, at our office, Room 401, No. 258 Broadway, in the Borough of Manhattan, in The

City of New York and we, the said Commissioners, will hear parties so objecting, at our said office, on the 15th day of July, 1907, at 2 o'clock in the afternoon of that day, and upon such subsequent days as may be found necessary.

Dated New York, July 1, 1907.
FREDERICK S. MULLEN,
J. G. TIMOLAT,
EDWARD S. RAWSON,
Commissioners.

JOSEPH M. SCHENCK,
Clerk.

jy2,13

SECOND DEPARTMENT.

In the matter of the application of The City of New York, relative to acquiring title to the lands, tenements and hereditaments required for the purpose of opening and extending the PUBLIC PARK, bounded by Eastern parkway, Washington avenue and Classon avenue, in the Ninth Ward in the Borough of Brooklyn of The City of New York, as the same has been heretofore laid out.

WE, THE UNDERSIGNED COMMISSIONERS of Estimate and Assessment in the above-entitled matter, hereby give notice to all persons interested in this proceeding, and to the owner or owners, occupant or occupants of all houses and lots and improved and unimproved lands affected thereby, and to all others whom it may concern, to wit:

First—That we have completed our amended and supplemental estimate of damage, and that all persons interested in this proceeding, or in any of the lands, tenements and hereditaments and premises affected thereby, and having objection thereto, do present their said objections in writing, duly verified, to us at our office in the office of the Law Department, No. 166 Montague street, in the Borough of Brooklyn, in the City of New York, on or before the 18th day of July, 1907, and that we, the said Commissioners, will hear parties so objecting, and for that purpose will be in attendance at our said office on the 22d day of July, 1907, at 2 o'clock p. m.

Second—That the abstract of our said amended and supplemental estimate of damage, together with our damage maps, and also all the affidavits, estimates, proofs and other documents used by us in making our report, have been deposited in the Bureau of Street Openings of the Law Department of The City of New York in the Borough of Brooklyn, No. 166 Montague street, in the Borough of Brooklyn, in the City of New York, there to remain until the 29th day of July, 1907.

Third—That our report herein will be presented for confirmation to the Supreme Court of the State of New York, Second Department, at a Special Term thereof for the hearing of motions, to be held in the County Court House in the Borough of Brooklyn, in the City of New York, on the 14th day of October, 1907, at the opening of the Court on that day.

Dated, Borough of Brooklyn, The City of New York, June 28, 1907.

CHAS. E. FISKE, Chairman;
RICHARD GOODWIN,
DANIEL G. CAMPION,
Commissioners.

JAMES F. QUIGLEY,
Clerk.

j28,jy10

SECOND DEPARTMENT.

In the matter of acquiring title by The City of New York to certain lands and premises situated on the SOUTHERLY SIDE OF HYATT STREET, the EASTERLY LINE OF CENTRAL AVENUE and the WESTERLY LINE OF STUYVESANT STREET, in the Borough of Richmond, in The City of New York, duly selected as a site for a public library, according to law.

NOTICE IS HEREBY GIVEN THAT THE report of Albert E. Hadlock and Thomas A. Braniff, Commissioners of Estimate and Appraisal, duly appointed in the above-entitled proceeding, which report bears date the 26th day of June, 1907, was filed in the office of the Board of Estimate and Apportionment of The City of New York on the 27th day of June, 1907, and a duplicate of said report was filed in the office of the Clerk of the County of New York on the same day.

Notice is further given that the said report will be presented for confirmation to the Supreme Court of the State of New York, in the Second Judicial District, at Special Term for the hearing of motions, to be held at the County Court House, in the Borough of Brooklyn, in the City of New York, on the 12th day of July, 1907, at the opening of the Court on that day, and that then and there, or as soon thereafter, as counsel can be heard thereon, a motion will be made that the said report be confirmed.

Dated New York, June 27, 1907.

WILLIAM B. ELLISON,
Corporation Counsel.
Hall of Records, Borough of Manhattan, City of New York.

j28,jy10

SECOND DEPARTMENT.

In the matter of acquiring title by The City of New York to certain lands and premises situated on the easterly side of VAN ALST AVENUE, distant 106.94 feet north of Franklin street, and on the westerly side of WEIL PLACE, 88.47 feet north of Flushing avenue, and adjoining Public School 7 on the south, in the Borough of Queens, duly selected as a site for school purposes according to law.

WE, THE UNDERSIGNED COMMISSIONERS of Estimate and Appraisal in the above-entitled proceeding, do hereby give notice to the owner or owners, lessee or lessees, parties or persons respectively entitled to or interested in the lands, tenements, hereditaments and premises title to which is sought to be acquired in this proceeding, and to all others whom it may concern, to wit:

First—That we have completed our estimate of the loss and damage to the respective owners, lessees, parties or persons respectively entitled to or interested in the lands and premises affected by this proceeding, or having any interest therein, and have filed a true report or transcript of such estimate in the office of the Board of Education of The City of New York, situated at the southwest corner of Fifty-ninth street and Park avenue, in the Borough of Manhattan, City of New York, for the inspection of whomsoever it may concern.

Second—That all parties or persons whose rights may be affected by the said estimate, or who may object to the same, or any part thereof, may, within ten days after the first publication of this notice, Friday, June 28, 1907, file their objections, in writing, with us, at our office,

Room 401, No. 258 Broadway, in the Borough of Manhattan, in The City of New York; and we, the said Commissioners, will hear parties so objecting, at our said office, on the 11th day of July, 1907, at 2 o'clock in the afternoon of that day, and upon such subsequent days as may be found necessary.

Dated New York, June 27, 1907.
JOSEPH H. FITZPATRICK,
HERMAN F. PLUMP,
JACOB F. HAUBELL,
Commissioners.
JOSEPH M. SCHENCK,
Clerk.

ja8,jy10

SECOND DEPARTMENT.

In the matter of the application of The City of New York relative to acquiring title, wherever the same has not been heretofore acquired, to the lands, tenements and hereditaments required for the opening and extending of UNION AVENUE (although not yet named by proper authority), from Richmond terrace to the pier and bulkhead line, in the Third Ward, Borough of Richmond, City of New York.

NOTICE IS HEREBY GIVEN THAT THE bill of costs, charges and expenses incurred by reason of the proceedings in the above-entitled matter will be presented for taxation to one of the Justices of the Supreme Court of the State of New York, Second Department, at a Special Term thereof, to be held for the hearing of motions, at the County Court House, in the Borough of Brooklyn, in The City of New York, on the 10th day of July, 1907, at 10.30 o'clock in forenoon of that day, or as soon thereafter as counsel can be heard thereon; and that the said bill of costs, charges and expenses has been deposited in the office of the Clerk of the County of Richmond, there to remain for and during the space of ten days, as required by the provisions of the Greater New York Charter, as amended by chapter 466 of the Laws of 1901.

Dated Borough of Manhattan, New York, June 25, 1907.

FRANK H. INNES,
DAVID RABINOWITZ,
DAVID P. SCHWARTZ,
Commissioners.

JOHN P. DUNN,
Clerk.

ja5,jy6

SECOND DEPARTMENT.

In the matter of the application of The City of New York, relative to acquiring title, wherever the same has not been heretofore acquired, to the lands, tenements and hereditaments required for the opening and extending of HOUSMAN AVENUE (although not yet named by proper authority) from the southerly line of Richmond Terrace to the Pier and Bulkhead Line, in the Third Ward, Borough of Richmond, City of New York.

WE, THE UNDERSIGNED, COMMISSIONERS of Estimate and Assessment in the above-entitled matter, hereby give notice to all persons interested in this proceeding, and to the owner or owners, occupant or occupants of all houses and lots and improved and unimproved lands affected thereby, and to all others whom it may concern, to wit:

First—That we have completed our estimate and assessment, and that all persons interested in this proceeding, or in any of the lands, tenements and hereditaments and premises affected thereby, and having objections thereto, do present their said objections in writing, duly verified, to us at our office, Nos. 90 and 92 West Broadway, in the Borough of Manhattan, in the City of New York, on or before the 11th day of July, 1907, and that we, the said Commissioners, will hear parties so objecting, and for that purpose will be in attendance at our said office on the 15th day of July, 1907, at 2 o'clock p. m.

Second—That the abstracts of our said estimate and assessment, together with our damage and benefit maps, and also all the affidavits, estimates, proofs and other documents used by us in making the same, have been deposited in the Bureau of Street Openings in the Law Department of the City of New York, Nos. 90 and 92 West Broadway, in the Borough of Manhattan, in said City, there to remain until the 15th day of July, 1907.

Third—That the limits of our assessment for benefit include all those lands, tenements and hereditaments and premises situate, lying and being in the Borough of Richmond, in The City of New York, which, taken together, are bounded and described as follows, viz.:

Beginning at a point formed by the intersection of a line drawn parallel to the easterly line of Morning Star Road and 100 feet easterly therefrom, with the southerly side of Richmond Terrace, and running thence southerly and parallel with the easterly side of Morning Star Road and 100 feet easterly therefrom to a point 100 feet southerly from the southerly line of Prospect street; thence westerly and parallel with the southerly side of Prospect street and its prolongation to a point 100 feet westerly from the westerly side of Van Name avenue; thence northerly and parallel with the westerly side of Van Name avenue and its prolongation and distant 100 feet westerly therefrom to a point 100 feet northerly from the northerly side of Richmond Terrace; thence easterly and parallel with the northerly side of Richmond Terrace as the same runs and 100 feet distant northerly therefrom to a point 100 feet easterly from the easterly side of the Old Dock; thence southerly on a straight line to the point or place of beginning; excepting from said area all streets, avenues and roads or portions thereof, heretofore legally opened as such area is shown upon our benefit maps deposited as aforesaid.

Fourth—That, provided there be no objections filed to either of said abstracts, our final report herein will be presented for confirmation to the Supreme Court of the State of New York, Second Department, at a Special Term thereof, to be held for the hearing of motions in the County Court House in the Borough of Brooklyn, in the City of New York, on the 17th day of September, 1907, at the opening of the Court on that day.

Fifth—In case, however, objections are filed to any of said abstracts of estimate and assessment, the notice of motion to confirm our final report herein will stand adjourned to the date to be hereafter specified, and of which notice will be given to all those who have theretofore appeared in this proceeding, as well as by publication in the CITY RECORD, pursuant to Sections 981 and 984 of the Greater New York Charter, as amended by Chapter 668 of the Laws of 1906.

Dated, Borough of Manhattan, New York, April 26, 1907.

LOT C. ALSTON, Chairman;
STEPHEN D. STEPHENS,
ALBERT E. HADLOCK,
Commissioners.

JOHN P. DUNN,
Clerk.

ja1jy10

SUPREME COURT—NINTH JUDICIAL DISTRICT.

NINTH JUDICIAL DISTRICT, WESTCHESTER COUNTY.

Catskill Aqueduct, Section No. 1.

In the matter of the application and petition of J. Edward Simmons, Charles A. Shaw and Charles N. Chadwick, constituting the Board of Water Supply of The City of New York, to acquire real estate for and on behalf of The City of New York, under chapter 724 of the Laws of 1905, and the acts amendatory thereof, in the towns of Yorktown and Cortlandt, Westchester County, New York, for the purpose of providing an additional supply of pure and wholesome water for the use of The City of New York.

PUBLIC NOTICE IS HEREBY GIVEN that the first separate report of Edward G. Whitaker, Wm. C. Kellogg and Arthur W. Lawrence, who were appointed Commissioners of Appraisal in the above-entitled matter by an order of this Court, made at the Special Term thereof, held at the Court House in White Plains, Westchester County, January 19, 1907, was filed in the office of the Clerk of the County of Westchester on the 28th day of June, 1907.

Said report bears date June 28, 1907, and affects parcels Nos. 2, 4, 5, 10, 24, 28, 314, 32, 42 and claim of G. Fella Stepo (known as parcel 24½), shown on the map of this proceeding.

Notice is further given that an application will be made at a Special Term of the Supreme Court of the State of New York, to be held in and for the Ninth Judicial District, at the Court House in White Plains, Westchester County, New York, on the 20th day of July, 1907, at 10 o'clock in the forenoon of that day, or as soon thereafter as counsel can be heard, for an order confirming said report, and for such other and further relief as may be just.

Dated New York, June 28, 1907.
WILLIAM B. ELLISON,
Corporation Counsel.
Hall of Records, New York City.

ja9,jy20

NINTH JUDICIAL DISTRICT.

PUTNAM COUNTY.

Catskill Aqueduct, Section No. 2.

In the matter of the application and petition of J. Edward Simmons, Charles A. Shaw and Charles N. Chadwick, constituting the Board of Water Supply of The City of New York, to acquire real estate for and on behalf of The City of New York, under chapter 724 of the Laws of 1905, and the acts amendatory thereof, in the Town of Phillipsburg, Putnam County, New York, for the purpose of providing an additional supply of pure and wholesome water for the use of The City of New York.

PUBLIC NOTICE IS HEREBY GIVEN that the first separate report of John J. Delany, William Wood and George F. Secor, who were appointed Commissioners of Appraisal in the above-entitled matter by an order of this Court, made at a Special Term thereof, held at the Court House in White Plains, Westchester County, January 19, 1907, was filed in the office of the Clerk of the County of Putnam on the 16th day of May, 1907.

Said report bears date May 15, 1907, and affects parcels Nos. 57, 58, 60, 61, 62 and 63 shown on the map in this proceeding.

Notice is further given that an application will be made at a Special Term of the Supreme Court of the State of New York to be held in and for the Ninth Judicial District, at the Court House in White Plains, Westchester County, New York, on the 6th day of July, 1907, at 10 o'clock in the forenoon of that day, or as soon thereafter as counsel can be heard, for an order confirming said report and for such other and further relief as may be just. Objection will be made to the allowance of costs by the Commissioners.

Dated New York, June 14, 1907.
WILLIAM B. ELLISON,
Corporation Counsel,
Hall of Records,
New York City.

ja5,jy8

NINTH JUDICIAL DISTRICT.

WESTCHESTER COUNTY.

KENSICO RESERVOIR.

Section No. 3.

NOTICE OF APPLICATION FOR THE APPOINTMENT OF COMMISSIONERS OF APPRAISAL.

PUBLIC NOTICE IS HEREBY GIVEN that it is the intention of the Corporation Counsel of The City of New York to make application to the Supreme Court of the State of New York for the appointment of Commissioners of Appraisal under chapter 724 of the Laws of 1905, as amended. Such application will be made at a Special Term of the Supreme Court, to be held in and for the Ninth Judicial District, at the Court House in the Village of White Plains, Westchester County, N. Y., on Saturday, July 20, 1907, at 10 o'clock in the forenoon of that day, or as soon thereafter as counsel can be heard. The object of such application is to obtain an order of the Court appointing three disinterested and competent freeholders, one of whom shall reside in the County of New York, and at least one of whom shall reside in the county where the real estate hereinafter described is situated, to act as Commissioners of Appraisal under said act and discharge all the duties conferred by the said law and the acts amendatory thereof, upon such Commissioners of Appraisal, for the purpose of providing an additional supply of pure and wholesome water for The City of New York.

The real estate sought to be taken or affected is situated in the Town of North Castle, in the County of Westchester and State of New York. The following is a brief description of the real estate sought to be taken, with a reference to the date and place of filing of the map:

All those certain pieces or parcels of real estate situated in the Town of North Castle, County of Westchester and State of New York, shown on a map entitled: "Southern Aqueduct Department, Section No. 3. Board of Water Supply of The City of New York. Map of real estate situated in the Town of North Castle, County of Westchester and State of New York, to be acquired by The City of New York, under the provisions of Chapter 724 of the Laws of 1905, as amended, for the construction of Kensico Reservoir and appurtenances, south of Kensico Dam, between the N. Y. C. & H. R. R. R., Harlem Division, and Valhalla Avenue," which map was filed in the office of the Register of the County of Westchester, at White Plains, New York, on the 22d day of April, 1907, as Map No. 1713, and is bounded and described as follows:

Beginning at the northeast corner of Parcel No. 189 in the westerly side of Broadway, in the northerly line of Parcel No. 191, and running thence along the said northerly line south 86 degrees 15 minutes east 21.5 feet to a point in the centre of Broadway; thence along the centre line of said road and the easterly line of Parcel No. 191 the following courses and distances: South 4 degrees 4 minutes east 46.5 feet, south 9 degrees 22 minutes east 104.5 feet, south 7 degrees 8 minutes east 148.1 feet, south 9 degrees 18 minutes east 84.2 feet, south 12 degrees 48 minutes east 75.4 feet, south 21 degrees 21 minutes east 104.7 feet, south 27 degrees 21 minutes east 45.5 feet, and south 29 degrees 5 minutes east 80.4 feet to the northeast corner of Parcel No. 195; thence along the easterly line of said parcel and still continuing along the centre of Broadway south 29 degrees 5 minutes east 141.7 feet, south 25 degrees 38 minutes east 27.7 feet, south 22 degrees 13 minutes east 66.6 feet, south 17 degrees 18 minutes east 73 feet and south 3 degrees 23 minutes east 23.1 feet to a point in the northerly line of Parcel No. 188; thence along the said northerly line north 76 degrees 36 minutes east 33.6 feet to the northwest corner of Parcel No. 165; thence along the northerly line of said parcel north 76 degrees 36 minutes east 127.4 feet to a point in the westerly line of Parcel No. 168; thence along the said westerly line north 48 degrees 26 minutes east 14.9 feet, north 24 degrees 35 minutes east 25.8 feet and north 13 degrees 59 minutes west 3.1 feet to the southwest corner of Parcel No. 167; thence along the westerly line of said parcel north 13 degrees 59 minutes west 25.2 feet and north 26 degrees 38 minutes west 11.2 feet to the southwest corner of Parcel No. 166; thence along the westerly line of said parcel north 26 degrees 38 minutes west 67 feet, north 21 degrees 42 minutes west 96.1 feet, north 19 degrees 36 minutes west 90.5 feet and north 11 degrees 13 minutes west 62.5 feet to the northwest corner of said Parcel No. 166; thence along the northerly line of same north 69 degrees 57 minutes east 13 feet to a point in the westerly line of Chambers avenue and the northerly line of Parcel No. 188; thence along the said northerly line north 69 degrees 57 minutes east 6.4 feet and north 85 degrees 17 minutes east 51.2 feet to the northeast corner of Parcel No. 184 in the easterly line of Chambers avenue; thence along the northerly line of said parcel north 85 degrees 17 minutes east 6.5 feet and north 82 degrees 16 minutes east 110.9 feet to the northwest corner of Parcel No. 185; thence along the northerly line of said parcel north 82 degrees 16 minutes east 86.5 feet to a point in the southerly line of See avenue; thence along the said line and still continuing along the northerly line of Parcel No. 185, north 82 degrees 16 minutes east 1.1 feet and north 89 degrees 36 minutes east 48.7 feet to a point in the northerly line of Parcel No. 188, in the westerly line of See avenue; thence along said northerly line north 89 degrees 36 minutes east 26.3 feet and north 84 degrees 25 minutes east 19 feet to a point in the easterly line of said See avenue; thence north 84 degrees 25 minutes east 27.8 feet, partly along the northerly lines of Parcels Nos. 188 and 186; thence, still continuing along the northerly line of Parcel No. 186, south 66 degrees 10 minutes east 41.4 feet, north 67 degrees 39 minutes east 43.9 feet and south 81 degrees 1 minute east 49.8 feet to the northeast corner of said parcel; thence along the easterly line of same and the easterly lines of Parcels Nos. 187 and 188 south 9 degrees 3 minutes west 466 feet to a point in the northerly line of Parcel No. 177 in the southerly line of Chambers avenue; thence along the said line south 56 degrees 57 minutes east 39.9 feet to the northeast corner of Parcel No. 177 at the southwest corner of Chambers and Valhalla avenues; thence along the westerly line of said Valhalla avenue and the easterly lines of Parcels Nos. 177 and 178 on a curve of 119.8 feet radius to the left 117 feet to the northeast corner of Parcel No. 179; thence along the easterly line of said parcel and of Parcel No. 180, and still continuing along the westerly line of Valhalla avenue, south 34 degrees 55 minutes east 94.8 feet to the southeast corner of said Parcel No. 180; thence along the southerly line of said parcel south 55 degrees 5 minutes west 130 feet to a point in the easterly line of Parcel No. 181; thence along the said easterly line south 34 degrees 55 minutes east 166.7 feet to the southeast corner of same; thence along the southerly line of said parcel south 63 degrees 52 minutes west 141.3 feet to a point in the northerly line of Nethermont avenue, in the easterly line of Parcel No. 188; thence along the said easterly line south 6 degrees 58 minutes west 136.9 feet to the northeast corner of Parcel No. 158 in the westerly line of said avenue; thence along the said westerly line and the easterly line of said parcel, and partly along the easterly line of Parcel No. 159 on a curve of 278.5 feet radius to the right 52.7 feet and still continuing along the westerly line of Nethermont avenue and the easterly line of Parcel No. 159, and along the easterly lines of Parcels Nos. 160, 161, 188, 129, 131 and 132, crossing Hillandale avenue south 9 degrees 3 minutes west 492.5 feet to the southeast corner of Parcel No. 132; thence along the southerly line of said parcel south 78 degrees 17 minutes east 141.3 feet to the northeast corner of Parcel No. 121; thence along the easterly line of said parcel south 11 degrees 12 minutes west 262.3 feet and south 8 degrees 21 minutes west 543.2 feet to the southeast corner of said parcel; thence along the southerly line of same south 62 degrees 47 minutes west 100 feet to the southeast corner of Parcel No. 120 in the easterly line of before-mentioned Broadway; thence along the southerly line of said parcel south 62 degrees 47 minutes west 41.2 feet to the southwest corner of said parcel; thence along the westerly line of same and the westerly line of Broadway the following courses and distances: North 22 degrees 56 minutes west 106.6 feet, north 32 degrees 54 minutes west 111.4 feet, north 22 degrees 52 minutes west 55.4 feet, north 12 degrees 32 minutes west 55.3 feet, north 1 degree 32 minutes west 74.5 feet, north 8 minutes east 225 feet and north 4 degrees 16 minutes east 270.1 feet to a point in the southerly line of Parcel No. 188; thence along the said line north 67 degrees 33 minutes west 9 feet to the southwest corner of said parcel; thence along the westerly line of same and still continuing along the westerly line of Broadway, recrossing Hillandale avenue, north 9 degrees 3 minutes east 942.5 feet to the southeast corner of Parcel No. 191; thence along the southerly line of said parcel the following courses and distances: North 71 degrees 16 minutes west 411.7 feet, north 71 degrees 5 minutes west 88.1 feet, north 71 degrees 20 minutes west 367.9 feet, north 63 degrees 15 minutes west 121.4 feet, south 80 degrees 28 minutes west 213.2 feet and south 88 degrees 15 minutes west 51.5 feet to the southeast corner of Parcel No. 193 in Kensico avenue; thence along the southerly line of said parcel south 72 degrees 9 minutes west 32.2 feet to a point in the westerly line of said avenue at the southeast corner of Parcel No. 194; thence along the southerly line of said parcel north 70 degrees 48 minutes west 100.3 feet to the southwest corner of said parcel in the easterly property line of the New York Central and Hudson River Railroad, Harlem Division, and running thence along the said

property line and the westerly line of said Parcel No. 194 and Parcels Nos. 193 and 192 on a curve of 1,943.1 feet radius to the left 243.8 feet to a point in the westerly line of before-mentioned Parcel No. 191; thence along the said line and still continuing along the before-mentioned easterly railroad property line on a curve of 1,943.1 feet radius to the left 424.9 feet to a point in the centre of Bronx river; thence along the centre of said river and still continuing along the said easterly railroad property line, and along the line between the Towns of North Castle and Mount Pleasant south 56 degrees 21 minutes east 11.6 feet and south 82 degrees 52 minutes east 20.4 feet; thence still continuing along the centre of said river and said town line the following courses and distances: South 82 degrees 52 minutes east 102.5 feet, north 43 degrees 23 minutes east 99 feet, south 78 degrees 55 minutes east 76.6 feet, south 79 degrees east 95.3 feet, north 88 degrees 37 minutes east 111.5 feet, north 71 degrees 13 minutes east 55.6 feet, north 25 degrees 15 minutes east 62.4 feet, north 50 degrees 56 minutes east 58.8 feet, north 54 degrees 37 minutes east 55.3 feet and north 43 degrees 15 minutes east 35.9 feet to the southwest corner of Parcel No. 190; thence along the westerly line of said parcel north 43 degrees 15 minutes east 11.3 feet and north 15 degrees 24 minutes east 42.3 feet to the southwest corner of Parcel No. 189; thence along the westerly line of said parcel and still continuing along the centre of said Bronx river and said town line north 15 degrees 24 minutes east 51.1 feet to the northwest corner of said parcel; thence along the northerly line of same south 86 degrees 15 minutes east 187.9 feet to the point or place of beginning.

The fee is to be acquired by The City of New York in all real estate contained in the above description.

Reference is hereby made to the said map, filed as aforesaid, in the office of the Register of the County of Westchester, for a more detailed description of the real estate to be taken.

Included within the foregoing description and shown on the map filed as aforesaid is certain real estate now devoted to highway purposes, which said real estate is to be acquired in fee by The City of New York, as shown on said map included within the pink lines.

There is also shown on the said map filed as aforesaid other real estate to be acquired in fee by The City of New York, which it is proposed to substitute in place of the highways to be acquired in fee as above mentioned, and the perpetual use of such real estate to be acquired for the new highways is to be allowed the public. Such new roads or highways referred to in this notice are shown on said map.

Dated June 3, 1907.

WILLIAM B. ELLISON,
Corporation Counsel.

Office and Post Office Address: Hall of Records, Corner of Chambers and Centre Streets, Borough of Manhattan, New York City.

ja8,jy20

NINTH JUDICIAL DISTRICT.

WESTCHESTER COUNTY.

KENSICO RESERVOIR.

Section No. 4.

NOTICE OF APPLICATION FOR THE APPOINTMENT OF COMMISSIONERS OF APPRAISAL.

PUBLIC NOTICE IS HEREBY GIVEN that it is the intention of the Corporation Counsel of The City of New York to make application to the Supreme Court of the State of New York for the appointment of Commissioners of Appraisal under chapter 724 of the Laws of 1905 as amended. Such application will be made at a Special Term of the Supreme Court, to be held in and for the Ninth Judicial District, at the Court House, in the Village of White Plains, Westchester County, N. Y., on Saturday, July 20, 1907, at 10 o'clock in the forenoon of that day, or as soon thereafter as counsel can be heard. The object of such application is to obtain an order of the Court appointing three disinterested and competent freeholders, one of whom shall reside in the County of New York, and at least one of whom shall reside in the county where the real estate hereinafter described is situated, to act as Commissioners of Appraisal under said act and discharge all the duties conferred by the said law and the acts amendatory thereof, upon such Commissioners of Appraisal, for the purpose of providing an additional supply of pure and wholesome water for The City of New York.

The real estate sought to be taken or affected is situated in the Towns of North Castle and Mount Pleasant, in the County of Westchester and State of New York.

The following is a brief description of the real estate sought to be taken, with a reference to the date and place of filing of the map:

All those certain pieces or parcels of real estate situated in the Towns of North Castle and Mount Pleasant, County of Westchester and State of New York, shown on a map entitled: "Board of Water Supply of The City of New York. Map of real estate situated in the Towns of N. Castle & Mt. Pleasant, County of Westchester and State of New York, to be acquired by The City of New York under the provisions of Chapter 724 of the Laws of 1905, as amended, for the construction of Kensico Reservoir and appurtenances, in vicinity of Kensico Dam & E. of Kensico Lake," which map was filed in the office of the Register of the County of Westchester, at White Plains, on the 22d day of April, 1907, as Map Number 1714; and are bounded and described as follows:

Beginning at the northwest corner of Parcel No. 284, in the easterly line of Kensico avenue, and running thence along the northerly line of said parcel the following courses and distances: South 53 degrees 40 minutes east 79.2 feet, north 86 degrees 40 minutes east 137.9 feet, south 75 degrees 04 minutes east 62.5 feet, south 69 degrees 16 minutes east 122 feet and south 54 degrees 18 minutes east 39.8 feet, crossing Mount Pleasant avenue and a parkway, to the southwest corner of the property of The City of New York; thence along the southerly line of said property, partly along the northerly line of before mentioned Parcel No. 284 and along the northerly line of Parcels Nos. 283, 285, 272 and 271, south 56 degrees 20 minutes east 384 feet, crossing Harlem avenue and North Castle road to the most easterly point of Parcel No. 271; thence along the southerly lines of said parcel and Parcels Nos. 285 and 269, and still continuing along the southerly line of the property of The City of New York, on a curve of 524 feet radius to the right 91 feet, south 60 degrees 51 minutes west 289 feet and south 55 degrees 43 minutes west 356.4 feet, crossing Kensico avenue to the southwest corner of Parcel No. 269, in the easterly property line of the New York Central and Hudson River Railroad Company (Harlem Division); thence along the westerly lines of said parcel and Parcels Nos. 285 and 270, and along the said easterly railroad property line on a curve of 1,973.1 feet radius to the left 555.3 feet, recrossing Harlem avenue; thence still continuing along said easterly railroad property line and the westerly line of said Parcel No. 270 north 43 minutes west 58.7 feet and south 82 degrees 50 minutes west 17 feet to the centre of

Davis brook; thence along the centre line of said brook and the northerly lines of Parcels Nos. 270 and 285 the following courses and distances: North 49 degrees 45 minutes east 13.4 feet, north 63 degrees 25 minutes east 57.7 feet, north 37 degrees 49 minutes east 19.7 feet, north 9 degrees 13 minutes east 20.7 feet and north 4 degrees 02 minutes west 33.6 feet, recrossing Kensico avenue to a point in the westerly line of before mentioned Parcel No. 284; thence along said line north 44 degrees 22 minutes east 71.7 feet, crossing North Castle road to the point or place of beginning.

Also all those certain pieces or parcels of real estate bounded and described as follows:

Beginning at a point in the easterly property line of the New York Central and Hudson River Railroad Company (Harlem Division), in the westerly line of Parcel No. 268, said point being also in the southerly line of the property of The City of New York, and running thence along said southerly and westerly lines the following courses and distances: North 55 degrees 43 minutes east 390.5 feet, north 60 degrees 51 minutes east 285 feet, on a curve of 624 feet radius to the left 139 feet, partly along the Bronx river, and south 56 degrees 20 minutes east 365 feet, crossing said river and Broadway; thence still continuing along the southerly line of the property of The City of New York and the westerly line of Parcel No. 268 the following courses and distances: North 33 degrees 46 minutes east 297 feet, north 32 degrees 10 minutes east 96 feet, south 25 degrees 05 minutes east 185.4 feet, south 82 degrees 01 minute east 285.4 feet and north 56 degrees 08 minutes east 225 feet to the southeast corner of said property of The City of New York; thence along the easterly line of said property and still continuing along the before mentioned westerly line of Parcel No. 268 north 7 degrees 59 minutes east 278 feet, north 4 degrees 07 minutes west 102.1 feet, north 26 degrees 50 minutes east 294.8 feet, north 10 degrees 53 minutes east 1,170.8 feet, north 40 degrees 36 minutes east 223.1 feet, north 44 degrees 50 minutes east 283.2 feet, north 54 minutes east 398.8 feet, north 10 degrees 16 minutes east 569 feet, north 4 degrees 30 minutes east 241.3 feet and north 14 degrees 48 minutes east 361.5 feet to the southwest corner of Parcel No. 286; thence along the westerly line of said parcel and still continuing along the easterly line of said property of The City of New York north 14 degrees 48 minutes east 758.7 feet and north 19 degrees 16 minutes east 450.2 feet to the northwest corner of said parcel; thence along the northerly line of same the following courses and distances: South 56 degrees 15 minutes east 133.8 feet, south 55 degrees 53 minutes east 266.8 feet, south 56 degrees 58 minutes east 82.6 feet, south 57 degrees 14 minutes east 180.3 feet and south 63 degrees 02 minutes east 46.1 feet to the northeast corner of said parcel; thence along the easterly line of same the following courses and distances: South 37 minutes west 212 feet, south 6 degrees 58 minutes west 178.8 feet, south 24 degrees 59 minutes east 48.6 feet, south 53 degrees 58 minutes east 87.6 feet, south 55 degrees 55 minutes east 235 feet, north 86 degrees 59 minutes east 41.9 feet, south 83 degrees 40 minutes east 56.1 feet, south 83 degrees 38 minutes west 239.4 feet, south 81 degrees 46 minutes west 41.9 feet, south 87 degrees 50 minutes west 17.5 feet, south 82 degrees 20 minutes west 17.5 feet, south 3 degrees 09 minutes west 106.3 feet, south 10 degrees 01 minute west 75.9 feet, south 19 degrees 21 minutes west 100.2 feet, south 38 degrees 40 minutes west 14.1 feet, south 12 degrees 50 minutes west 40.5 feet, south 3 degrees 07 minutes west 38.6 feet, south 11 degrees 34 minutes west 34.4 feet, south 65 degrees 45 minutes east 17.8 feet, south 10 degrees 07 minutes west 89.4 feet, south 14 degrees 25 minutes west 108.4 feet, south 25 degrees 44 minutes west 126 feet and south 19 degrees 41 minutes west 27.6 feet to the northeast corner of before mentioned Parcel No. 268; thence along the easterly line of said parcel the following courses and distances: South 2 degrees 06 minutes west 1,651.6 feet, south 42 degrees 08 minutes east 311.5 feet, south 24 degrees 43 minutes west 401.8 feet, north 75 degrees 23 minutes west 574.6 feet and south 10 degrees 33 minutes west 1,320.6 feet to the southeast corner of same; thence along the southerly line of said parcel the following courses and distances: North 89 degrees 44 minutes west 8.7 feet, north 80 degrees 08 minutes west 114.3 feet, north 74 degrees 25 minutes west 51.8 feet and north 79 degrees 27 minutes west 69.2 feet to the northeast corner of Parcel No. 266; in the westerly line of Davis avenue; thence along said westerly line and the easterly lines of said parcel and Parcels Nos. 267 and 264 south 20 degrees 47 minutes west 751.4 feet, crossing McClellan avenue to the southeast corner of said Parcel No. 264; thence along the southerly lines of said parcel and Parcels Nos. 267, 259, 258, 246 and 228 the following courses and distances: North 78 degrees 38 minutes west 14.5 feet, north 87 degrees 46 minutes west 129.9 feet, north 89 degrees 02 minutes west 64.3 feet, north 88 degrees 09 minutes west 71.7 feet, north 81 degrees 21 minutes west 85.7 feet, north 81 degrees 01 minute west 90.1 feet, south 67 degrees 39 minutes west 43.9 feet, north 66 degrees 10 minutes west 41.4 feet, north 84 degrees 25 minutes west 46.8 feet, south 89 degrees 36 minutes west 75 feet, south 82 degrees 16 minutes west 198.5 feet, south 85 degrees 01 minute east 57.7 feet and south 60 degrees 57 minutes west 6.4 feet, crossing Valhalla, Carpenter, See and Chambers avenues, to a point in the easterly line of Parcel No. 202 in the westerly line of Chambers avenue; thence along said easterly line and the easterly lines of Parcels Nos. 201, 200, 199, 198, 197 and 196 the following courses and distances: South 69 degrees 57 minutes west 13 feet, south 11 degrees 13 minutes east 62.5 feet, south 19 degrees 56 minutes east 90.5 feet, south 21 degrees 42 minutes east 96.1 feet, south 26 degrees 38 minutes east 38.72 feet, south 13 degrees 59 minutes east 28.3 feet and south 24 degrees 35 minutes west 25.8 feet to the southeast corner of Parcel No. 196; thence along the southerly line of said parcel and partly along the southerly line of Parcel No. 268 south 48 degrees 26 minutes west 14.9 feet and south 76 degrees 36 minutes west 161 feet to the centre of Broadway; thence along the southerly line of said Parcel No. 268 the following courses and distances: North 3 degrees 23 minutes west 23.1 feet, north 17 degrees 18 minutes west 73 feet, north 22 degrees 13 minutes west 66.6 feet, north 25 degrees 38 minutes west 27.7 feet, north 29 degrees 05 minutes west 222.2 feet, north 27 degrees 21 minutes west 45.5 feet, north 21 degrees 48 minutes west 104.7 feet, north 12 degrees 48 minutes west 75.4 feet, north 9 degrees 18 minutes west 84.2 feet, north 7 degrees 08 minutes west 148.1 feet, north 9 degrees 22 minutes west 104.5 feet and north 4 degrees 04 minutes west 46.5 feet; thence still continuing along said southerly line of Parcel No. 268 north 86 degrees 15 minutes west 209.4 feet to a point in the centre of Bronx river; thence along the centre line of said river, and still continuing along the southerly line of Parcel No. 268 and along the line between the towns of North Castle and Mount Pleasant the following courses and distances: South 15 degrees 24 minutes west 93.4 feet, south 43 degrees 15

minutes west 47.2 feet, south 54 degrees 37 minutes west 53.3 feet, south 50 degrees 56 minutes west 58.8 feet, south 25 degrees 15 minutes west 62.4 feet, south 21 degrees 13 minutes west 55.6 feet, south 88 degrees 37 minutes west 111.5 feet, north 79 degrees west 95.3 feet, north 78 degrees 55 minutes west 76.6 feet, south 43 degrees 23 minutes west 99 feet and north 82 degrees 52 minutes west 102.5 feet to the southwest corner of said Parcel No. 268, in the before mentioned easterly property line of the New York Central and Hudson River Railroad Company (Harlem Division); thence along said line and partly along the westerly line of said Parcel No. 268 on a curve of 1,973 feet radius to the left 424.2 feet, crossing and recrossing Davis brook to the point or place of beginning.

Fee is to be acquired by The City of New York in all the real estate contained in the above description.

Reference is hereby made to the said map, filed as aforesaid, in the office of the Register of the County of Westchester, for a more detailed description of the real estate to be taken.

Included within the foregoing description and shown on the map filed as aforesaid is certain real estate now devoted to highway purposes, which said real estate is to be acquired in fee by The City of New York, as shown on said map included within the pink lines.

There is also shown on the said map filed as aforesaid other real estate to be acquired in fee by The City of New York, which it is proposed to substitute in place of the highways to be acquired in fee as above mentioned, and the perpetual use of such real estate to be acquired for the new highways is to be allowed the public. Such new roads or highways referred to in this notice are shown on said map.

Dated June 3, 1907.

WILLIAM B. ELLISON,

Corporation Counsel,
Office and Post-Office Address,
Hall of Records,
Corner of Chambers and Centre Streets,
Borough of Manhattan,
New York City.

j8,jy20

NINTH JUDICIAL DISTRICT.

WESTCHESTER COUNTY.

KENSICO RESERVOIR.

Section No. 5.

NOTICE OF APPLICATION FOR THE APPOINTMENT OF COMMISSIONERS OF APPRAISAL.

PUBLIC NOTICE IS HEREBY GIVEN that it is the intention of the Corporation Counsel of The City of New York to make application to the Supreme Court of the State of New York for the appointment of Commissioners of Appraisal under chapter 724 of the Laws of 1905, as amended. Such application will be made at a Special Term of the Supreme Court, to be held in and for the Ninth Judicial District, at the Court House in the Village of White Plains, Westchester County, N. Y., on Saturday, July 20, 1907, at 10 o'clock in the forenoon of that day, or as soon thereafter as counsel can be heard. The object of such application is to obtain an order of the Court appointing three disinterested and competent freeholders, one of whom shall reside in the County of New York and at least one of whom shall reside in the county where the real estate hereinafter described is situated, to act as Commissioners of Appraisal under said act and discharge all the duties conferred by the said law and the acts amendatory thereof, upon such Commissioners of Appraisal, for the purpose of providing an additional supply of pure and wholesome water for The City of New York.

The real estate sought to be taken or affected is situated in the Town of Mount Pleasant, in the County of Westchester and State of New York.

The following is a brief description of the real estate sought to be taken, with a reference to the date and place of filing of the map:

All those certain pieces or parcels of real estate situated in the Town of Mount Pleasant, County of Westchester and State of New York, shown on a map entitled "Southern Aqueduct Department, Section No. 5. Board of Water Supply of The City of New York. Map of real estate, situated in the Town of Mount Pleasant, County of Westchester and State of New York, to be acquired by The City of New York, under the provisions of chapter 724 of the Laws of 1905, as amended, for the construction of Kensico Reservoir and appurtenances, in the vicinity of Kensico Dam and West of Kensico Lake, which map was filed in the office of the Register of the County of Westchester, at White Plains, New York, on the 3d day of May, 1907, as Map No. 1717; and is bounded and described as follows:

Beginning at a point in the westerly line of Lake View terrace 100 feet southerly from the southwest corner of Second street and said Lake View terrace, measured along the westerly line of said terrace, said point being the northeast corner of Parcel No. 353, in the northerly line of Parcel No. 363, and running thence along the said northerly line south 79 degrees 40 minutes east 50 feet, crossing Lake View terrace to a point in the easterly line thereof; thence along the said easterly line, the easterly line of Parcel No. 363 and the westerly line of the property of The City of New York the following courses and distances: South 10 degrees 20 minutes west 77.3 feet, south 52 minutes west 187.5 feet, south 8 degrees 15 minutes west 220.9 feet, south 19 degrees 14 minutes west 196.1 feet to the northwest corner of Parcel No. 304; thence along the northerly line of said parcel and still continuing along the westerly line of the property of The City of New York south 84 degrees 35 minutes east 102.5 feet, south 15 degrees 12 minutes west 101.5 feet and south 84 degrees 36 minutes east 144.9 feet to the northeast corner of said parcel; thence along the easterly line of same and of Parcel No. 303 south 5 degrees 28 minutes west 261.2 feet, crossing a parkway; thence still continuing along the westerly line of the property of The City of New York and the easterly line of said parkway, and of Parcel No. 303 south 30 degrees 47 minutes west 295 feet to the southeast corner of said parcel and the southwest corner of the property of The City of New York; thence along the southerly line of said Parcel north 54 degrees 18 minutes west 39.8 feet to the southeast corner of before mentioned Parcel No. 304; thence along the southerly line of said parcel and before mentioned Parcel No. 363, and of Parcel No. 287 the following courses and distances: North 69 degrees 16 minutes west 122 feet, north 75 degrees 4 minutes west 62.5 feet, south 86 degrees 4 minutes west 137.9 feet and north 53 degrees 40 minutes west 79.2 feet, crossing Mount Pleasant avenue to the southwest corner of said Parcel No. 287 in the easterly line of Kensico avenue; thence along the westerly line of said parcel and the easterly line of said avenue north 50 minutes east 396.8 feet; thence still continuing along the easterly line of said avenue and partly along the westerly line of said Parcel No. 287 and along the westerly lines of Parcels Nos. 288, 289, 297, 298, 291, 292 and 293 north

5 degrees 53 minutes west 783.3 feet to the southeast corner of Kensico avenue and First street in the westerly line of Parcel No. 363; thence along the said westerly line north 5 degrees 53 minutes west 28.4 feet and north 10 degrees 20 minutes east 22.7 feet to the northeast corner of said streets; thence along the easterly line of said Kensico avenue and the westerly lines of Parcels Nos. 315, 341, 316, 317, 318, 319, 320, 321, 322, 323, 324 and 325 north 10 degrees 20 minutes east 525 feet to the northwest corner of Parcel No. 325 and the southeast corner of Parcel No. 314; thence along the southerly line of said Parcel No. 314 north 79 degrees 40 minutes west 50 feet to a point in the westerly line of said avenue and the southeast corner of Parcel No. 311; thence along the southerly line of said parcel north 79 degrees 40 minutes west 100 feet to the southwest corner of same; thence along the westerly line of said parcel and of Parcels Nos. 312 and 313 north 10 degrees 20 minutes east 100 feet to the northwest corner of Parcel No. 313; thence along the northerly line of said parcel south 79 degrees 40 minutes east 100 feet to the northeast corner thereof in the westerly line of Kensico avenue and Parcel No. 314; thence along the westerly line of said parcel south 79 degrees 40 minutes east 25 feet to the centre of Kensico avenue; thence along the centre of said avenue and still continuing along the westerly line of Parcel No. 314 north 10 degrees 20 minutes east 125 feet to the northwest corner of said parcel; thence along the northerly line of same south 79 degrees 40 minutes east 25 feet to the northwest corner of Parcel No. 329; thence along the northerly line of said parcel and of Parcel No. 330 south 79 degrees 40 minutes east 225 feet to a point in the northerly line of Parcel No. 363 in the westerly line of Mount Pleasant avenue; thence south 79 degrees 40 minutes east 50 feet to the northwest corner of Parcel No. 352 in the easterly line of said avenue; thence along the northerly line of said parcel and of before mentioned Parcel No. 353 south 79 degrees 40 minutes east 225 feet to the point or place of beginning.

Also all that certain piece or parcel of real estate bounded and described as follows:

Beginning at a point in the westerly line of Kensico avenue 505.7 feet southerly from the southwest corner of First street and Kensico avenue, measured along the westerly line of said avenue at the northeast corner of Parcel No. 450, and running thence along the easterly line of said parcel and the westerly line of said avenue south 5 degrees 53 minutes east 100 feet to the southeast corner of said parcel; thence along the southerly line of same and the southerly line of Parcel No. 451 south 84 degrees 7 minutes west 100.6 feet to the southwest corner of said Parcel No. 451 in the easterly line of Cleveland street; thence along the westerly line of said parcel and the said easterly line of Cleveland street north 5 degrees 53 minutes west 100 feet to the northwest corner of said Parcel No. 451; thence along the northerly line of same and the northerly line of before mentioned Parcel No. 450 north 84 degrees 7 minutes east 199.6 feet to the point or place of beginning.

The fee of all the parcels is to be acquired. Reference is hereby made to the said map, filed as aforesaid, in the office of the Register of the County of Westchester, for a more detailed description of the real estate to be taken in fee, as above described.

Dated June 3, 1907.

WILLIAM B. ELLISON,

Corporation Counsel,
Office and Post-Office Address,
Hall of Records,
Corner of Chambers and Centre Streets,
Borough of Manhattan,
New York City.

j8,jy20

NINTH JUDICIAL DISTRICT.

WESTCHESTER COUNTY.

KENSICO RESERVOIR.

Section No. 6.

NOTICE OF APPLICATION FOR THE APPOINTMENT OF COMMISSIONERS OF APPRAISAL.

PUBLIC NOTICE IS HEREBY GIVEN that it is the intention of the Corporation Counsel of The City of New York to make application to the Supreme Court of the State of New York for the appointment of Commissioners of Appraisal, under chapter 724 of the Laws of 1905, as amended. Such application will be made at a Special Term of the Supreme Court, to be held in and for the Ninth Judicial District, at the Court House, in the Village of White Plains, Westchester County, N. Y., on Saturday, July 20, 1907, at 10 o'clock in the forenoon of that day, or as soon thereafter as counsel can be heard. The object of such application is to obtain an order of the Court appointing three disinterested and competent freeholders, one of whom shall reside in the County of New York, and at least one of whom shall reside in the county where the real estate hereinafter described is situated, to act as Commissioners of Appraisal under said act, and discharge all the duties conferred by the said law and the acts amendatory thereof, upon such Commissioners of Appraisal, for the purpose of providing an additional supply of pure and wholesome water for The City of New York.

The real estate sought to be taken or affected is situated in the Town of Mount Pleasant, in the County of Westchester and State of New York.

The following is a brief description of the real estate sought to be taken, with a reference to the date and place of filing of the map:

All those certain pieces or parcels of real estate situated in the Town of Mount Pleasant, County of Westchester and State of New York, shown on a map entitled "Southern Aqueduct Department, Section No. 6. Board of Water Supply of The City of New York. Map of real estate, situated in the Town of Mount Pleasant, County of Westchester and State of New York, to be acquired by The City of New York, under the provisions of Chapter 724 of the Laws of 1905, as amended, for the construction of Kensico Reservoir and appurtenances, West of Kensico Lake, between Second and Third Streets," which map was filed in the office of the Register of the County of Westchester, at White Plains, New York, on the 3d day of May, 1907, as Map No. 1718, and is bounded and described as follows:

Beginning at the northeast corner of Parcel No. 449, in the westerly line of the property of The City of New York, and the easterly line of Lake View terrace, and running thence along the easterly lines of said Parcel No. 449 and said terrace and the said westerly line of the property of The City of New York south 6 degrees 21 minutes east 462 feet and south 10 degrees 20 minutes west 1,035.6 feet to the southeast corner of said parcel; thence along the southerly line of same and the southerly lines of Parcels Nos. 448, 423, 422 and 382, north 79 degrees 40 minutes west 550 feet, crossing Mount Pleasant avenue to the southwest corner of Parcel No. 382 in the easterly line of Kensico avenue; thence north 79 degrees 40 minutes west 25 feet along the southerly line of before men-

tioned Parcel No. 449 to a point in the centre of said Kensico avenue; thence along the centre line of same south 10 degrees 20 minutes west 125 feet; thence north 79 degrees 40 minutes west 25 feet still continuing along the southerly line of said Parcel No. 449 to a point in the westerly line of Kensico avenue at the southeast corner of Parcel No. 364; thence along the southerly line of said parcel the following courses and distances: North 79 degrees 40 minutes west 100 feet, south 10 degrees 20 minutes west 100 feet, north 65 degrees 56 minutes west 181.3 feet and north 73 degrees 58 minutes west 55.8 feet to the southwest corner of said parcel; thence along the westerly line of said parcel the following courses and distances: North 20 degrees 21 minutes west 12.7 feet, north 7 degrees 31 minutes west 205.8 feet, north 4 degrees 37 minutes west 172.7 feet and north 9 degrees 03 minutes west 1,032.5 feet to the northwest corner of said Parcel No. 364; thence along the northerly line of same the following courses and distances: South 75 degrees 25 minutes east 117.1 feet south 81 degrees 10 minutes east 333.6 feet, south 76 degrees 51 minutes east 207 feet and south 78 degrees 14 minutes east 162 feet to a point in the northerly line of before mentioned Parcel No. 449 in Kensico avenue; thence partly along the northerly line of said parcel and the northerly lines of Parcels Nos. 404, 405, 406 and 407 south 79 degrees 40 minutes east 227.5 feet to the northeast corner of said Parcel No. 407, in the northerly line of before mentioned Parcel No. 449; thence along the said northerly line south 76 degrees 13 minutes east 39.3 feet, north 1 degree 26 minutes west 262 feet and north 83 degrees 40 minutes east 31.4 feet to the northeast corner of Parcel No. 438; thence along the northerly line of said parcel and partly along the northerly line of before mentioned Parcel No. 449 north 83 degrees 40 minutes east 201.7 feet to the point or place of beginning.

The fee is to be acquired by The City of New York in all the real estate, Parcel Nos. 364 to 449, inclusive, contained in the above description.

Reference is hereby made to the said map, filed as aforesaid, in the office of the Register of the County of Westchester, for a more detailed description of the real estate to be taken in fee, as above described.

Dated June 3, 1907.

WILLIAM B. ELLISON,

Corporation Counsel,
Office and Post-Office Address,
Hall of Records,
Corner of Chambers and Centre Streets,
Borough of Manhattan,
New York City.

j8,jy20

PROPOSALS FOR BIDS AND ESTIMATES FOR THE CITY OF NEW YORK.

NOTICE TO CONTRACTORS.

GENERAL INSTRUCTIONS TO BIDDERS.

The person or persons making a bid or estimate for any services, work, materials or supplies for The City of New York, or for any of its departments, bureaus or offices, shall furnish the same in a sealed envelope, indorsed with the title of the supplies, materials, work or services for which the bid or estimate is made, with his or their name or names and the date of presentation to the President or Board or to the head of the Department at his or its office, on or before the date and hour named in the advertisement for the same, at which time and place the estimates received will be publicly opened by the President or Board or head of said Department and read, and the award of the contract made according to law as soon thereafter as practicable.

Each bid or estimate shall contain the name and place of residence of the person making the same, the names of all persons interested with him therein, and, if no other person be so interested, it shall distinctly state that fact; also, that it is made without any connection with any other person making an estimate for the same purpose, and is in all respects fair and without collusion or fraud, and that no member of the Board of Aldermen, head of a department, chief of a bureau, deputy thereof, or clerk therein, or other officer of The City of New York is, shall be or become interested, directly or indirectly, as contracting party, partner, stockholder, surety or otherwise in or in the performance of the contract, or in the supplies, work or business to which it relates, or in any portion of the profits thereof. The bid or estimate must be verified by the oath, in writing, of the party or parties making the estimate that the several matters stated herein are in all respects true.

Each bid or estimate shall be accompanied by the consent, in writing, of two householders or freeholders in The City of New York, or of a guaranty or surety company duly authorized by law to act as surety, and shall contain the matters set forth in the blank forms mentioned below.

No bid or estimate will be considered unless, as a condition precedent to the reception or consideration of any proposal, it be accompanied by a certified check upon one of the State or National banks of The City of New York, drawn to the order of the Comptroller, or money to the amount of five per centum of the amount of the bond required, as provided in section 420 of the Greater New York Charter.

The certified check or money should not be inclosed in the envelope containing the bid or estimate, but should be either inclosed in a separate envelope addressed to the head of the Department, President or Board, or submitted personally upon the presentation of the bid or estimate.

For particulars as to the quantity and quality of the supplies, or the nature and extent of the work, reference must be made to the specifications, schedules, plans, etc., on file in the said office of the President, Board or Department.

No bid shall be accepted from or contract awarded to any person who is in arrears to The City of New York upon debt or contract, or who is a defaulter, as surety or otherwise, upon any obligation to the City.

The contract must be bid for separately. The right is reserved in each case to reject all bids or estimates if it is deemed to be for the interest of the City so to do.

Bidders will write out the amount of their bids or estimates in addition to inserting the same in figures.

Bidders are requested to make their bids or estimates upon the blank forms prepared and furnished by the City, a copy of which, with the proper envelope in which to inclose the bid, together with a copy of the contract, including the specifications, in the form approved by the Corporation Counsel, can be obtained upon application therefor at the office of the Department for which the work is to be done. Plans and drawings of construction work may also be seen there