

# AUDIT REPORT

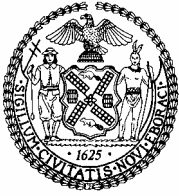


CITY OF NEW YORK  
OFFICE OF THE COMPTROLLER  
BUREAU OF MANAGEMENT AUDIT  
**WILLIAM C. THOMPSON, JR., COMPTROLLER**

## **Audit Report on the Department of Transportation's Selection Process For Its Street Resurfacing Program**

*MD06-054A*

**June 21, 2006**



THE CITY OF NEW YORK  
OFFICE OF THE COMPTROLLER  
1 CENTRE STREET  
NEW YORK, N.Y. 10007-2341

WILLIAM C. THOMPSON, JR.  
COMPTROLLER

**To the Citizens of the City of New York**

Ladies and Gentlemen:

In accordance with the Comptroller's responsibilities contained in Chapter 5, §93, of the New York City Charter, my office has audited the Department of Transportation's (DOT) selection process for its street resurfacing program.

DOT is responsible for the condition of approximately 5,700 miles of City streets and highways. We audit City operations such as this to ensure that DOT and other city agencies comply with policies and procedures established to help maintain the City's infrastructure.

The results of our audit, which are presented in this report, have been discussed with DOT officials, and their comments have been considered in preparing this report. Their complete written response is attached to this report.

I trust that this report contains information that is of interest to you. If you have any questions concerning this report, please e-mail my audit bureau at [audit@comptroller.nyc.gov](mailto:audit@comptroller.nyc.gov) or telephone my office at 212-669-3747.

Very truly yours,

A handwritten signature in cursive script that reads "William C. Thompson, Jr.".

William C. Thompson, Jr.

WCT/ec

**Report: MD06-054A**  
**Filed: June 21, 2006**

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*The City of New York  
Office of the Comptroller  
Bureau of Management Audit*

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**AUDIT REPORT IN BRIEF**

This audit determined whether the Department of Transportation (DOT) performed street resurfacing according to its street selection procedures. DOT is responsible for the condition of approximately 5,700 miles of City streets and highways. The Division of Roadway Repair selects the City streets for resurfacing and reconstruction and is responsible for performing the work.

During Fiscal Year 2005, DOT resurfaced a total of 763.5 lane miles in the five boroughs of New York City. The average cost per lane mile resurfaced for that fiscal year citywide was \$87,237, bringing the total cost for the year to over \$66 million.

**Audit Findings and Conclusions**

Overall, DOT's street resurfacing projects were performed according to DOT's selection procedures. Specifically:

- Only streets with a rating of 7 or below in the Spatial Street Smarts System were available for inclusion in DOT's Annual Plan and Assessment Report as projects for completion (resurfacing) during Fiscal Year 2005.
- Streets in our sample were resurfaced as reported. We also noted that these streets did not appear to have active projects that would have been a justification for not resurfacing the streets.
- Overall, community board officials were satisfied with DOT's response to problems arising from resurfacing projects.

**Audit Recommendation**

Since we found no material weaknesses in DOT's selection process for its street resurfacing program, we make no recommendations in this report.

## INTRODUCTION

### **Background**

The mission of the Department of Transportation (DOT) is to provide for the safe, efficient, and environmentally responsible movement of people and goods in the City and to maintain and enhance the transportation infrastructure. DOT's goals include the rehabilitation and maintenance of the City's infrastructure, including bridges, tunnels, streets, sidewalks, and highways. DOT is responsible for the condition of approximately 5,700 miles of City streets and highways. The Division of Roadway Repair is responsible for the resurfacing and reconstruction of City streets.

Resurfacing involves repairing localized base pavements by removing the old pavement through milling and replacing it with a new surface. Resurfacing maintains the pavement in a condition as close as possible to its newly constructed condition and delays the need for reconstruction, which is more costly. By contrast, the reconstruction of a street involves removing and replacing asphalt concrete, and the aggregate or concrete base on a roadway segment. Street reconstruction is required when a street has deteriorated to the degree that maintenance and rehabilitation by resurfacing are no longer viable.

DOT has an annual budgeted number of street resurfacing lane miles it can complete. This allocation is distributed among the five boroughs, with appropriations based on the size of each borough. DOT borough offices further divide up their allotted resurfacing lane miles on a community-board basis, taking into account the size of the area covered by each community board.

The planning stage of resurfacing projects begins in October, when the DOT Street Assessment Unit conducts an annual pavement condition survey that assesses conditions for one half of New York City's streets. The entire City is evaluated once every two years. Street Assessment inspectors rate individual City streets on a scale of 1 through 10 (1 being the worst and 10 being the best). Any street that receives a rating of 7 or below is eligible for resurfacing, whereas any street with a rating of 8 through 10 is not eligible. After its annual assessment, the unit provides a report on the results and enters the ratings into the Spatial Street Smarts System. This system provides computer-generated street ratings per borough, as well as information about the size and location of each street that received a rating. The system also lists any conflicting projects that are currently planned by the City and provides on-line displays of maps and photos of streets that receive a rating.

Officials from the Division of Roadway Repair select the streets to be resurfaced based on the information generated by the Spatial Street Smarts System and the Division of Roadway Repair's subsequent inspections and analysis. The Division checks to see whether the streets identified as being eligible for resurfacing by the Street Assessment inspectors were properly assessed and whether streets in need of resurfacing are near each other. The Division also notes additional streets that might not have been initially assessed and adds them to the Spatial Street Smarts System. The Division of Roadway Repair has its own inspectors who reinspect and assess whether the streets are eligible for resurfacing. The assessment ratings of the Division of

Roadway Repair are recorded in DOT's Assessment Report. The Division also determines whether there are obstacles to performing the work, such as ongoing construction, planned work by utility companies, public events, or other scheduled capital improvements. Requests made by community board officials, elected officials, or the public, as well as other factors, such as time of year, weather conditions, and proximity to schools are also evaluated. All of this information is the basis for DOT's Annual Plan and Assessment Report, which, based on the above criteria, records all streets that are eligible to be resurfaced.

After the final selection is made, Division of Roadway Repair staff enter the streets selected into the Spatial Street Smarts System, include a picture of the street, assign it a project number, and then submit their resurfacing plan to the DOT Capital Planning Division for approval. Division of Roadway Repair officials also inquire about other City capital projects. The Capital Planning Division does its own research and ensures that other City agencies are not planning capital projects for the selected resurfacing locations that might conflict with DOT's plans.

After approval by the Capital Planning Division, the listing of proposed resurfacing projects is sent to the DOT Commissioner for final approval. At the same time, DOT submits a list of streets to be resurfaced to the Community Boards whose districts will be affected by the resurfacing so that they can coordinate the project and cause as little disruption as possible to the public.

Street resurfacing work is completed from April to December. After a project is completed and the Division of Roadway Repair performs all of the required inspections, staff members upgrade the Spatial Street Smarts System to reflect the completion of the project. Any street that is resurfaced is considered protected for five years. If an emergency requires an agency to work on a resurfaced street before the end of the five-year period, it has to specifically obtain a permit from DOT.

During Fiscal Year 2005, DOT resurfaced a total of 763.5 lane miles in the five boroughs of New York City. The average cost per lane mile resurfaced for that fiscal year citywide was \$87,237, bringing the total cost for the year to over \$66 million.

### **Objective**

The objective of this audit was to determine whether street resurfacing was performed according to DOT's street selection procedures.

### **Scope and Methodology**

We reviewed New York City streets that could have been eligible for resurfacing in Fiscal Year 2005.

To obtain an understanding of the street resurfacing program, DOT's Assistant Commissioner of Technical Services for the Division of Roadway Repair and Maintenance and

the Directors of Roadway and Maintenance for each of the five boroughs were interviewed. We reviewed the Street Assessment Unit's mission, the criteria used in the unit's evaluation and ratings of City streets, the Fiscal Year 2005 Spatial Street Smarts Report, and DOT's Fiscal Year 2005 Annual Plan and Assessment Report.

We compared the Fiscal Year 2005 Spatial Street Smarts Report to DOT's Fiscal Year 2005 Annual Plan and Assessment Report, and obtained explanations of any discrepancies from DOT officials. This comparison was conducted to assess the reliability of the information obtained from DOT's Spatial Street Smarts System and to also verify that only streets that could have been eligible for resurfacing in Fiscal Year 2005 were in fact included in that population. We did not specifically test the information technology controls of the Spatial Street Smarts System due to the additional street inspection information contained in the Annual Plan and Assessment Report and the results of our own street resurfacing inspections (noted below).

To assess DOT's compliance with its procedures for deciding which streets should not be resurfaced, we reviewed DOT's Fiscal Year 2005 Annual Plan and Assessment Report, which contained 63,141 rated street projects. We randomly selected 20 projects per borough—a total of 100 projects—that had a rating of 7 or below and that had not been resurfaced. We then requested the reasons those streets had not been resurfaced.

To assess DOT's compliance with its procedures for deciding which streets should be resurfaced, we randomly selected 10 projects<sup>1</sup> per borough that had been resurfaced—a total of 50 project sites—from the 545 projects listed in DOT's Fiscal Year 2005 Annual Plan and Assessment Report and conducted our own assessment of the street conditions. We physically inspected the streets, from February 8, 2006, to February 10, 2006, and on February 21, 2006, to determine whether the streets had been recently resurfaced, whether they were in satisfactory condition, and whether there were other City capital projects underway on the streets that had recently been resurfaced.

We reviewed records of meetings that the Resurfacing Directors of each borough held with the community boards, the monthly Utility Coordination Meetings with representatives of utility companies, and meetings held with elected officials and utility company representatives during the planning stages for Fiscal Year 2005. We also randomly selected 43 of the 59 community boards<sup>2</sup> and surveyed their District Managers to determine their satisfaction with DOT's resurfacing.

Although the results of the above-mentioned tests were not projected to the respective populations of streets from which they were drawn, they provide a reasonable basis to assess DOT's compliance with its street resurfacing procedures.

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<sup>1</sup> A project site could include just one street or an area of up to three miles.

<sup>2</sup> We contacted 3 community boards in Staten Island and 10 community boards in each of the other four boroughs.

## **Discussion of Audit Results**

The matters covered in this report were discussed with DOT officials during and at the conclusion of this audit. A preliminary draft report was sent to DOT officials on April 12, 2006, and discussed at an exit conference held on May 5, 2006. On May 16, 2006, we submitted a draft report to DOT officials with a request for comments. We received a written response from DOT on June 2, 2006, stating “DOT agrees with the reported conclusion that street resurfacing projects were performed according to DOT’s selection procedures and that there are no material weaknesses in the selection process.”



## FINDINGS AND RECOMMENDATIONS

Overall, DOT's street resurfacing projects were performed according to DOT's procedures. Specifically:

- Only streets with a rating of 7 or below in the Spatial Street Smarts System were available for inclusion in DOT's Annual Plan and Assessment Report as projects for completion (resurfacing) during Fiscal Year 2005.
- Streets in our sample were resurfaced as reported. We also noted that these streets did not appear to have active projects that would have been a justification for not resurfacing the streets.
- Overall, community board officials were satisfied with DOT's response to problems arising from resurfacing projects.

### **Evaluation of Streets Not Selected for Resurfacing**

In accordance with DOT procedures, DOT's Fiscal Year 2005 Annual Plan and Assessment Report did not show streets with a rating of 8 or above as scheduled to be resurfaced. In addition, DOT officials were able to provide appropriate reasons for streets not being selected for resurfacing during Fiscal Year 2005.

The Directors of Roadway and Maintenance for each borough office stated that during the planning stage of resurfacing, DOT borough officials send out one of their own inspectors to determine whether there are any issues of concern—such as problems with any utility companies, schools in the vicinity that might be affected during that time of year proposed for resurfacing, or new or ongoing construction—regarding streets reported by the Street Assessment Unit as eligible for resurfacing.

During these inspections, DOT officials may assess streets that were assigned a high rating by the Street Assessment Unit as requiring additional work and will then ask the Street Assessment Unit to rate those streets again. Further, the inspectors on their own sometimes discover certain streets that require resurfacing. Even when those streets had not been evaluated by the Street Assessment Unit that particular year, if the investigators identify a street that requires resurfacing and it is in the vicinity of or within a cluster of streets that are already included in the plan, DOT officials ask the Street Assessment Unit to rate that particular street<sup>3</sup> so that they can work on all of the surrounding streets as one operation. DOT officials stated that it is cost effective to assign work to as many neighboring streets as possible at one time instead of separately, at different times. However, if a street receives a low rating but is not within a cluster of other streets with low ratings, DOT officials may still choose to resurface that particular street to prevent greater damage in the near future.

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<sup>3</sup> DOT cannot resurface a street that has not been rated by the Street Assessment Unit.

DOT officials also take other factors into consideration before starting the actual resurfacing, such as not working during the school year in areas that have schools. Instead they wait till the summer time to work in those areas. In addition, they try not to work in areas where new buildings were recently constructed because there is a greater likelihood that a utility company might need to go in to do additional work in those areas. In scheduling the work, DOT officials also take into consideration other factors, such as holidays and festivals, planned activities, or tourist attractions in certain areas during certain times of the year.

We examined 20 randomly selected projects per borough from DOT's Assessment Report—a total of 100 projects—that had a rating of 7 or below and that had not been resurfaced during Fiscal Year 2005. We then met with the Directors of Roadway and Maintenance from each borough to obtain the reasons those streets had not been resurfaced. The Directors were able to offer detailed reasons why all 100 projects had not been resurfaced during Fiscal Year 2005. The reasons ranged from streets that required reconstruction instead of resurfacing to the presence of other construction projects underway at the same time. Furthermore, streets with a rating of a 5 or 6 take precedence in selection in order to make sure that the street conditions don't further deteriorate. In addition, certain community boards had already exceeded their lane-mile targets for that year, so streets within the districts of those community boards were placed on the resurfacing plan for the following year. Some streets, although rated a 6, were not the subject of any requests or complaints from community boards or elected officials. DOT officials placed these streets on the following year's resurfacing plan as well.

We noted that all the streets scheduled to be resurfaced during Fiscal Year 2005 were rated at 7 or below. However, since there are only a limited number of streets that can be resurfaced in any given year, DOT officials must make judgments as to which streets should be given priority.

### **Streets Were Resurfaced as Reported**

Based on our sample of 50 randomly selected street resurfacing projects (10 projects for each borough), we found that DOT was in compliance with its procedures and that the streets indicated by DOT as having been resurfaced were in fact resurfaced. Furthermore, we found no utility projects underway on the newly resurfaced streets.

Once a street is resurfaced, it is considered protected for five years and there should not be the need for any additional work, such as utility crews breaking up a street for utility work. Therefore, DOT officials conduct monthly meetings with utility companies, such as Con Edison, as well as other City agencies, such as the Department of Design and Construction and the Department of Environmental Protection. The purpose of these meetings is to coordinate all the projects to ensure that they do not conflict with one another and that the utility companies do not dig up and destroy the newly resurfaced areas.

At the utility meetings, DOT officials from the Division of Roadway Repair present the streets that are on the resurfacing plan and have the potential for resurfacing. The representatives from each utility and agency then take the information to their respective units to check for any

conflicts or projects in areas that are scheduled for resurfacing; if there are, the Division of Roadway Repair is notified. This process permits the Division of Roadway Repair to coordinate construction schedules with the affected parties. According to DOT officials, the monthly utility meetings have curtailed the need for DOT to perform additional work on streets that have already been resurfaced.

We verified that Utility Coordination Meetings had taken place during our audit scope period by reviewing minutes of the meetings. Furthermore, our observations of 50 DOT projects revealed that the streets had been recently resurfaced, as DOT officials had claimed. In addition, we found no utility construction work on 47 (94%) of the 50 projects. For the remaining three projects, although we observed utility companies working on three different streets (one in each project), it was apparent that DOT had not resurfaced those particular streets.

### **Community Board Satisfaction**

Based on our survey of District Managers from 43 community boards, it appears that overall, community board officials are satisfied with the work performed by DOT.

According to DOT officials, they meet with the community boards on a regular basis concerning the resurfacing of streets in their areas. Once final approval is obtained from the DOT Commissioner, DOT compiles a list of streets that will be resurfaced and sends the list to the community boards so that DOT can coordinate the projects with the boards and minimize disruption to the surrounding community. The list usually comes out in July for the upcoming year, when there is still time to make adjustments. Officials from the community boards are free to express any concerns or make suggestions regarding the resurfacing of streets that are not on the list.

After DOT and the community board officials finalize the selection of streets for resurfacing, the community boards notify their communities about how various quality of life issues (parking, cleaning of the streets, etc.) will be affected during the resurfacing. In addition, public safety agencies (Police, Fire, and Emergency Medical Services) are also notified so that they can make plans about how to reach the affected areas in case of an emergency. Through regular contact and interaction with the community boards, DOT officials become aware of neighborhood occurrences that might impact the resurfacing schedule.

Our survey of the District Managers from 43 community boards found that overall, the District Managers were satisfied with their interaction with DOT officials. They felt that DOT officials were cooperative and available to meet with them. The District Managers also felt that DOT officials were responsive to their needs and that whenever possible, DOT officials took immediate action to resolve any unforeseen issues that arose. However, when asked how often they attend the monthly Utility Coordination Meetings, the majority of District Managers replied that either they had never heard of the meetings or that they were never invited to join the meetings. Most of them felt that it would be in their best interest to attend these meetings and stated that they wished to be invited to future meetings.

During the exit conference, DOT officials stated that the purpose of the Utility Coordination Meetings was to ensure that planned projects do not conflict with one another. DOT officials stated that community board members would have a greater benefit from meetings that specifically addressed their needs.

### **Recommendation**

Since we found no material weaknesses in DOT's selection process for its street resurfacing program, we make no recommendations in this report.



**New York City  
Department of Transportation**

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**Iris Weinshall, Commissioner**

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May 31, 2006

John Graham  
Deputy Comptroller for Audits, Accountancy & Contracts  
City of New York  
Office of the Comptroller  
1 Centre Street  
New York, NY 10007-2341

RE: MD06-054A

Dear Mr. Graham:

This is in response to your draft report "Audit Report of the Department of Transportation's Selection Process for its Street Resurfacing Program."

The Department of Transportation (DOT) agrees with the reported conclusion that street resurfacing projects were performed according to DOT's selection procedures and that there are no material weaknesses in the selection process. The report did not include any recommendations.

If you have any questions concerning this response, I can be reached at (212) 788-8162.

Very truly yours,

THOMAS C. MATHEWS  
Auditor General

cc: Commissioner Iris Weinshall  
F/D/C Judith Bergtraum  
D/C Joseph Cannisi  
Dir Jeffrey Kay, MOO