APPENDIX G

Study to Reduce Impacts from Waste Truck Traffic

DETAILED SCOPE OF SERVICES

Over the last several decades the number of private waste transfer stations in New York City has grown. New transfer stations have tended to locate in districts of the City that have significant areas zoned for manufacturing, often however not immediately adjacent to major highways. Waste carter and hauler truck traffic to and from such facilities generates community complaints, notably with respect to air, noise, odor and congestion impacts. Some truck traffic complaints center on trucks that are not on designated Local or Through truck routes. While local deliveries may lawfully use non-truck route streets, enforcement efforts have demonstrated that a problem exists with respect to trucks taking unlawful shortcuts off of truck routes. It is the objective of this study to build upon the 2004 Department of Sanitation (DSNY) Commercial Waste Management Study and other studies such as the ongoing NYC Department of Transportation Truck Impact Reduction Study by focusing on practical and cost-effective ways to reduce community impacts from transfer station truck traffic. Such mitigation measures could include:

- recommendations for designating specific routes for waste hauling traffic leaving transfer stations under existing DSNY authority,
- appropriate signage at facility reminding driver of designated export truck route;
- additional regulatory measures,
- possible modifications to/detours from the local truck route network (possibly limited to waste hauling trucks) to avoid residences and sensitive receptors,
- structural changes to the geometry of certain intersections to enable waste hauling traffic to avoid truck route sections with numerous residences,
- other measures, as appropriate.

The study will be confined to four communities:

- Hunts Point, Bronx
- Port Morris, Bronx
- Greenpoint/Williamsburg, Brooklyn
- Jamaica, Queens

1.0 PROBLEM DEFINITION

1.1 Hold Kick-Off Meetings with Community Representatives.

Kick-off meetings will be held with a representative group or advisory committee from each community. These initial meetings would begin with a presentation by DSNY of the goals, objectives and limitations of the study. The consultant would provide a brief overview of the

scope of work. The committee's comments would be solicited to identify key issues and existing problem locations. It is assumed that DSNY would identify potential participants and coordinate the meeting set-up.

1.2 Review Existing Data Sources

The purpose of this subtask will be to obtain available data in order to bring to light existing problem or conflict locations, understand the magnitude of identified problems, and help provide the basis for evaluating problems and recommending solutions. The type of information sought will include:

- Complaint records from 311 or DSNY
- Community studies of truck movements and transfer stations
- Transcripts, testimony summaries and written comments received on the Commercial Waste Management Study
- Transcripts, testimony summaries and written comments received on DSNY's draft New Solid Waste Management Plan and related Environmental Impact Statement
- Data from the Commercial Waste Management Study and other area environmental assessments. The data will include:
  -Turning movement counts
  -Classification counts (general trucks)
  -Classification counts (waste trucks DSNY and Private)
  -Field noise measurements
- Data and studies generated by ongoing NYC Department of Transportation Truck Impact Reduction Study
- Land use and zoning maps from the Department of City Planning
- Truck route maps
- Recent accident data at key intersections
- Data from any recent truck route enforcement campaigns
- Maps from local transfer station operators for export truck routing
- Quarterly Reports from DSNY for data on average daily tonnage at transfer stations.
- Lists of commercial carter fleets garaged in area.

1.3 Perform Initial Neighborhood Screening

A neighborhood screening will be performed, using information gathered in the previous subtask, to identify where trucks from waste transfer stations may cause impacts upon local residents and other sensitive receptors such as community facilities, parks and schools. It is expected that this list would also include conflict locations identified in the previous subtask. Specifically, the screening process would look for:

- Intersections which are known to have congestion problems, through which waste trucks would pass on the way to or from transfer stations
- Residential buildings and other sensitive receptors along truck routes
- Residential buildings and other sensitive receptors near the study clusters, along non-truck routes that may be used by waste trucks.

1.4 Define Open Issues/Data Gaps

We expect that the initial neighborhood screening will identify the need to gather more information. The data would be required to further identify potentially affected areas, define/quantify problems where they are suspected, and to help formulate improvement options. We intend to focus our efforts on identifying locations where noise, congestion, and use of non-truck routes are issues. Quarterly Report tonnage figure will enable estimates to be made of number of waste trucks per transfer station in each area.

1.5 Prepare Technical Memorandum/Public Involvement

A technical memorandum will be prepared summarizing the results of the screening process and the initial conflict/issue locations which have been identified. The memo shall also detail the proposed data collection program. The findings, as summarized in this memo, will also be presented to the advisory committee for each study community. Their comments will be incorporated into the work program going forward as directed by DSNY.

2.0 DATA COLLECTION

As noted earlier, additional data will be gathered to further identify potentially affected areas, define/quantify problems where they are suspected, and to help formulate improvement options.

2.1 Survey Land Use/Zoning

Where waste transport trucks are expected to pass by residences or other sensitive receptors within the cluster study areas, field confirmation of those receptors will be performed. Observations will be made of the type of residence (Single family detached, row house, apartment house) and proximity of the residence to the street. For the purposes of this proposal, we have assumed that 2 corridors per cluster (8 total) will be surveyed for up to 20 blocks, with priority given to designated truck routes and to the shortest route from each transfer station to the local truck route.

2.2 Perform Traffic/Truck Counts

Extensive turning movement counts have been performed throughout each of the four study communities. This data was gathered at major intersections with the objective of determining the extent to which waste trucks contribute to congestion at key locations. We expect that this body of existing data is sufficient for gauging congestion effects on major roads.

However, data on non-major, non-truck routes is probably deficient. Communities have expressed concern about the number of waste trucks that they observe off of designated truck routes. These trucks contribute to congestion and noise, and may increase pedestrian hazards. The studies for the Solid Waste Management Plan included data collection on streets where truck

route violations were suspected. This data collection was somewhat limited. For the purposes of this study we would perform additional counts as follows:

- Locations: 5 mid-block locations (to be determined) in each of the four study communities. Count locations would be planned to be adjacent to sensitive receptors
- Hours: 3 morning and 3 afternoon/evening hours, for 1 mid-week day
- Classification: Trucks, waste related trucks (roll-off, compactor, other), buses and other vehicles

2.3 Document Infrastructure Condition and Existing Signage and Roadway Striping

Concurrent with the land use confirmation surveys, observations will be made of roadway conditions adjacent to sensitive receptors. Notes will be made of pavement type, evenness and existence of potholes or other irregularities. Along the required (shortest) route from each transfer station to the local truck route and through truck route, the presence of truck route signs, other relevant signage and condition of roadway signs and markings will be noted.

3.0 DEVELOPMENT OF IMPROVEMENT OPTIONS

3.1 Analyze Problems at Conflict/Issue Locations

This problem analysis subtask will begin with a renewed neighborhood screening analysis. Using the field counts, refined land use survey, and other existing data resources, the potential conflict areas will be confirmed. If use of the additional data results in new issue areas, these will be added to the study list.

Once the potential conflict areas are identified, a simple 2-step categorization process will be applied to each location. First, the nature of potential problems resulting from waste trucks will be noted. When trucks pass through residential communities, either on or off a truck route, residents complain of noise, vibration, safety, odor, increased congestion and degrading of air quality.

The second step of the categorization process is to make a judgment as to whether localized conditions contribute to negative truck impacts or if the impacts are an inherent part of lawful truck traffic. Local contributing conditions could include poor pavement, poor roadway geometry, narrow sidewalks, speeding traffic, or stop signs/signals in front of residences. Examples of inherent factors would be normal truck noise or particulate emissions.

Under this scope some issues will be quantified, while others will not. Traffic congestion will be characterized based on the available Highway Capacity Analyses and specific infrastructure conditions will be recorded based on field observations. Noise levels, however, will not be measured or reported unless already available from existing sources.

3.2 Develop Improvement Options

This subtask will develop a program of measures which can be taken at each of the identified conflict/issue locations. The program will be tailored to the nature of the problems, as categorized in the preceding subtask. The emphasis will be on low cost, easily implementable measures, where possible. The discussions below present the major categories of measures which may be taken (see also list of measures on page 1).

Regulatory Options. Regulatory options may be among the more complex measures recommended. Changes in regulations which affect transport of solid waste may involve multiple agencies and may require approval by City Council. Regulatory changes may also have broader impacts than just in the problem areas. Examples of the types of measures which could be recommended are:

- Official Truck Route changes
- Signage changes for truck routes
- Permit conditions for individual transfer station operators
- Changes in speed limits
- Street direction changes

Measures which would not be considered would include those that would impose significant changes that would reach beyond the waste carting industry.

Infrastructure Improvements. Most potential infrastructure improvements would require construction in the public right-of-way. Consequently they would require the review and approval by the New York City Department of Transportation. Measures which could reduce truck impacts would include:

- Pavement/curb treatments to provide visual indication of truck route vs. non-truck route.
- Traffic calming measures/street treatments to slow trucks
- Signal or geometric design improvements at intersections to reduce congestion
- Pavement improvements to reduce truck noise

At locations where congestion was the primary issue and where a Highway Capacity Manual analysis was available from previous studies, improvement recommendations will be tested to determine beneficial effects on average driver delay. For the purposes of this proposal, it is assumed that no more than three intersections per study community would be analyzed in this manner (12 total).

3.3 Prepare Technical Memorandum/Public Involvement

A technical memorandum would be prepared for each of the study communities describing the draft proposed improvement program. The technical memorandum would present the locations of projected conflicts/issues for each community and provide a description of the improvements proposed for each location. Where intersection improvements or changes in roadway geometry are envisioned, conceptual schematic drawings will be provided to better illustrate the

improvement proposals. The findings, as summarized in this memo, will also be presented to the advisory committee for each study community. If DSNY directs, their comments will be incorporated into the technical report.

3.4 Present Final Report
A final report will be prepared summarizing:

- Project goals and objectives
- Methodologies and findings
- Efforts at public information and coordination
- Conflict area/issue identification
- Recommended programs for improvement

The report will include appropriate maps, figures and tables as necessary to illustrate the study process and the resulting recommendations.

4.0 PROJECT ASSUMPTIONS

The scope of work, as presented above, relies on the following assumptions:

- The DSNY will be responsible for organizing community advisory boards or identifying key groups with which coordination will occur. All meeting coordination and notices will be the responsibility of the DSNY

- A prioritized list of potential projects will be prepared for each of the four study areas. Schematic concept plans, if appropriate, will be prepared for no more than 3 recommendations in each study area.

- A maximum of 12 meetings (community and DSNY) is assumed to be adequate.

- Estimates of the cost for implementing recommended improvements are not included in this effort.

- Implementation of strategies are not part of this scope and are assumed to be a separate effort.