New York State Metropolitan Transportation Authority
Application for Transportation Investment Generating Economic Recovery (TIGER) Funds
Grand Central Terminal Recycling and Waste Management Facility

1. Application First Page Requirements

**General Information**

a. Project name
   Grand Central Terminal Recycling and Waste Management Facility

b. Type of project
   Rail

c. Location
   New York County
   New York State
   14th Congressional District, Carolyn Maloney

d. Type of area
   Urban

e. Amount of TIGER Funds requested
   $20,695,000

**Application and Project Contact Information**

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2. Project Description

a. Project name  Grand Central Terminal (GCT) Recycling and Waste Management Facility

b. Description  This application requests $20,695,000 in TIGER funds to construct an efficient, consolidated recycling and trash management operation in GCT for MTA Metro-North Railroad (Metro-North) and MTA Long Island Rail Road (LIRR). The project will significantly increase MTA’s recycling capabilities, decrease the number of truck trips needed for refuse removal from GCT, and enable a track to be restored for needed revenue service storage to improve Metro-North operational efficiency.

The new recycling facility will be constructed concurrent with the construction of the MTA East Side Access (ESA) concourse that will be built in a portion of the lower level of GCT. The ESA project (described further in Appendix A) will provide for new LIRR service to East Midtown Manhattan at GCT. The historic GCT currently serves hundreds of thousands of Metro-North customers, shoppers and visitors every day. Construction cost savings (about $5 million\(^1\)) will be realized by piggybacking on the construction and program management services already in place for ESA. Use of the facility will be phased in; immediately upon completion, it will be used by Metro-North for recycling and by ESA for removal of construction debris (on average about 2,500 tons per week). When ESA is fully constructed and LIRR service commences in 2016, the facility will be used jointly by Metro-North and LIRR as a recycling and waste management facility serving all of GCT and the new LIRR terminal. The facility will be operational in February 2012.

There will be three waste transfer stations, as shown on the conceptual layout of the ESA concourse – a South-, Mid- and North- transfer station (see Figure 1 for a key plan and Figures 1.A, 1.B and 1.C for details). The South- and Mid-Transfer stations will be collection points for GCT-Metro-North waste and ESA-LIRR waste, respectively. Trash shuttles will be operated at regular intervals in the concourse, “shuttling” the trash to the North-Transfer Station for flatcar loading. The North- Transfer Station will be located on currently unused stub tracks 186 through 188. A new central loading platform will be constructed at Track 187. This area will be partially enclosed on three sides to provide environmental controls. A ventilation system with a minimum of 20 air changes per hour will be installed to control odor and maintain temperatures of 85 degrees F in the summer and 65 degrees F in the winter. The existing ballasted track areas will be replaced with slab-on-grade track with trench drains located in between the rails to facilitate track clean-up of any trash overflow and the pressure washing of the area. Overhead cranes will pick up the trash shuttle containers from the shuttle trailers and deposit the contents into the appropriate flatcar containers. During this operation, the containers will be weighed to record amounts of trash and recyclables collected from the particular transfer station. The containers will be bar-coded to allow optical scanning and tracking of the waste streams for cost and revenue distributions from the trash and recycling operations. Each of the three transfer stations will be operated 24-7 and equipped with CCTV monitoring for security.

Metro-North’s Track 14 will be restored for revenue service storage as soon as the new facility is operational, since it will no longer be needed for trash hauling.

\(^1\) Savings are on the order of 10 percent of the construction cost for union supervision of trade workers and 12 percent for construction and program management services.
Current Conditions: Metro-North

The historic GCT, located at 42nd Street in East Midtown Manhattan in New York City, is the largest train station in the world with 44 platforms serving more than one million customers per week. Train service is provided by Metro-North to Westchester, Putnam, and Dutchess counties in New York State, and Fairfield and New Haven counties in Connecticut. Spanning 48 acres, GCT contains restaurants, bakeries, newstands, a gourmet and fresh food market, and more than forty retail stores. Recognized as a National architectural treasure, GCT attracts about 500,000 tourists and shoppers everyday in addition to the 250,000 daily Metro-North customers en route to their destinations.

Waste is collected throughout the Terminal, on the platforms, in the concourses (upper and lower), from the restaurants and retail establishments, the trains, and Metro-North operations. Currently, trash management operations at GCT include two main collection points for exiting non-hazardous waste streams:

- The Depew Place Loading Dock handles all compactable waste (wet trash) and deliveries via five bays, two 35-cubic yard compactor units (in a refrigerated room), a loading dock office, a ramp to street level, and two freight elevators. None of the bays have dock lifts or levelers. Space is severely constrained and the dock is expected to operate at capacity in the near future.
- Track 14 (Platform F) serves as a collection point for non-compactable waste generated by the Metro-North (e.g., 3rd rail sections, track fasteners, and miscellaneous track and power hardware) and Construction & Demolition (C&D) debris; as well as cardboard and newspaper, the only recyclables currently collected at GCT. The space is outfitted with a cardboard baler and electric charging stations for forklifts.

Off-site processing from the Depew Place Loading Dock in Midtown Manhattan is via truck to a landfill. Off-site processing from Track 14 is via flatcar to Bronx North (BN) Yard, an existing operational yard in the Bronx, where contracted truck haulers remove and replace the containers that are off-loaded from the flatcars.

The current recycling program at GCT is inefficient and limited due to space constraints for staging and separation of waste at Track 14. Currently, metals, glass and plastics are mixed with the trash that is sent to a landfill due to the lack of space. In addition, at Depew Place, each trash container must be loaded directly onto a truck, requiring a second truck trip to provide the empty replacement container, since there is no space for staging at Depew Place.

East Side Access and Future LIRR Service

MTA's ESA will soon bring LIRR trains into a new terminal beneath Grand Central, with a large 350,000 square foot concourse occupying space within a portion of GCT's lower level. This $7.3 Billion project will construct the largest mined terminal in the history of the United States, with four new platforms and eight train tracks on two levels, separated by a large mezzanine. Expected to be operational by 2016, the new service will provide commuters from Eastern Queens, and Nassau and Suffolk counties on Long Island, with direct service to Manhattan's east side, shaving 30 to 40 minutes off their commute each day. The ESA project will add another 30,000 square feet of retail and 160,000 daily railroad customers to the GCT area.

Under the original operating scheme for GCT, waste from the new LIRR terminal, trains, and operations would be handled through a new facility built on East 50th Street between
Park and Madison Avenues, which would contain a freight elevator and loading dock, in addition to ventilation fans, ducts, substation and other equipment for operation of the terminal. Compactable waste (wet trash) would be collected in a 30 cubic yard (CY) self-contained compactor, mounted on a special freight elevator located in the 50th Street dock driveway. When the compactor is full, a night-time truck pick-up would be scheduled and a second truck would deliver an empty replacement compactor (again due to space constraints). Non-compactable waste would be stored in a 20 CY open container located in the LIRR service corridor until full, then loaded on the compactor elevator to the loading dock for truck pick-up (the compactor would need to be unloaded first). Newspaper and cardboard would also be collected in the service corridor and transferred to the loading dock for nightly pickup.

Metro-North's wet trash and non-compactable waste would continue to be handled as described above.

Proposed Action
The proposed facility will handle about 12,600 tons of waste per year, of which about 70 percent will be recycled, an increase of about 20 percent over No Action conditions. In the No Action condition, an estimated 2,567 tons per year of metals, glass and plastic (MGP) would be disposed of in landfills rather than recycled. The facility will combine three crowded and inefficient recycling and waste management operations serving GCT into one efficient operation, with state-of-the-art equipment and design, and an ability to recycle all MGP waste in GCT for the first time. The Proposed Action includes the provision of MGP and newspaper containers that will be placed throughout GCT and the new LIRR terminal. This high visibility recycling effort at GCT will promote sustainable practices to the 750,000 people who pass through GCT each day and to an additional 160,000 daily LIRR customers once ESA is operational.

d. Sponsor
MTA

e. Cost/TIGER Amount
MTA is seeking the full amount of construction costs totaling $20,695,000. Design costs will be funded locally.

f. Synopsis/Long-Term Outcome & Job Creation Benefits
The $20.7 million investment will result in a 10 year payback period when quantifiable societal benefits are taken account, which include reducing 6,578 metric tons of carbon dioxide (CO₂) and saving 94,023 million BTUs and 756,796 gallons of gasoline per year over No Action conditions. In addition, the Proposed Action will:
- Create 47 permanent jobs in GCT; and a total of 87 permanent jobs when indirect and induced jobs are considered, potentially in the Bronx, an Economically Depressed Area;
- Generate about 176 construction-related jobs, $10.2 million in total wages (in 2009$) and $35 million in total sales or economic activity (in 2009$);
- Save $5 million in construction and program management costs;
- Conserve natural resources such as: limestone (294 tons), iron ore (171 tons), coal (96 tons), sand (976 tons), soda ash (308 tons), and feldspar (120 tons) each year;
- Save 5,716 cubic yards of landfill space each year; and
- Reduce truck trips in Midtown Manhattan by nine per day.

The facility will support the recycling industry as a whole, contributing to making the process more cost-effective for suppliers and receivers. State tax revenues will increase as a result. Costs of collecting and burying trash will be avoided and the potential for