

Peconic Environmental Services Corp.
Medford, New York
Construction and Demolition Debris Transfer Station

ENGINEERING REPORT

August 31, 2020

Project: C&D Transfer Station
Address: 100 Peconic Avenue, Medford, NY 11763
Applicant: Peconic Environmental Services Corp
SCTM No. 200-736-2-8.3

1. SITE LOCATION AND PROJECT DESCRIPTION

The proposed Transfer Facility is located on the north side of Peconic Avenue between Medford Avenue (Route 112) and Horse Block Road (County Road 16) approximately 2430 feet from Buffalo Avenue. The site is currently vacant. The lot consists of 263,787 square feet (6.05 Acres) of property. All access to the subject site is via Peconic Avenue where the site enjoys 400.1 feet of street frontage. The north property line shares its boundary with the LIRR Mainline.

The proposed project contemplates construction of a Construction & Demolition Debris Transfer Facility on a 6.05 Acre parcel located on the north side of Peconic Avenue, 2,430 feet east of Buffalo Avenue. The site is bounded on the north by the Long Island Railroad. The site will have three buildings when complete. One small existing 514 square foot building will be retained and use for security and monitoring the flow of vehicles into and out of the site. A large new building with 38,755 square feet of space will be where the construction debris will be transferred from delivery trucks onto rail cars. The building will be constructed to allow trucks that bring debris to the facility to off load the material within the building. The building will have a rail spur passing through it to allow rail cars to enter the building and be loaded with the material for removal off the property and out of the region. Material transfer will be done entirely within the building. A third 800 square foot building will be constructed immediately adjacent to and be attached to the large transfer building. This building will function as an administration building and Scalehouse.

The site will be provided with 16 parking spaces including one handicapped space. The railroad provides access to the national rail system which can transport large quantities of material great distances at low cost. The property owner has a permitted railroad siding already in operation to serve this site.

- A. Description of Waste to be Accepted at the Facility:
- Construction and demolition debris (C&D)
- B. Origin of Waste:
- Residential and commercial construction projects in Suffolk County, Nassau County and New York City
- C. Composition of Waste shall include, but not be limited to:
- | | |
|--|--------------------------|
| • Asphalt products; roofing, pavements | • Gypsum, wall coverings |
| • Auto Recycling Residue | • Insulations |
| • Brick & masonry materials | • Metals |
| • Carpeting | • Plumbing fixtures |
| • Concrete | • Stone |
| • Glass | • Wood |
- D. Quantity of Waste:
- design capacity is 1,938 tons per day.

There will be a total of 5 full time employees on site continuously through the workday. Our analysis assumes 3.75 cubic yards of C&D material equates to one ton. Therefore, the site will be limited to handling 7267.5 cubic yards of material. Trucks bring the material to the site will typically have 20 and 40 cubic yard carrying capacities. It is anticipated that two-thirds of the material will arrive using the 40 yard trucks and one third of the material will arrive using the 20 cubic yard trucks. Based on these assumptions the site will generate 122 forty-cubic yard deliveries and 120 twenty-cubic yard deliveries for a total of 242 trips to the site over an eleven-hour period, assuming the Facility operates at maximum capacity.

E. Description of Overall Operation:

- Roll-off container transportation vehicles will enter facility via the site access gate located on the south side of the site on Peconic Avenue. Transportation vehicles will be weighed in via an in-bound truck scale. Vehicles will then proceed into a tip floor area and dump. The primary method of transporting the waste off site will be by rail. The site abuts the LIRR. The building will have a rail spur passing through it to allow rail cars to enter the building and be loaded with the material for removal off the site and out of the region. Excavators and/or payloaders will transfer the C&D waste material from the tip floor into rail cars. When filled, the rail car can exit the site via the internal rail track at the north side of the site. The concrete tip floor pad will be entirely enclosed with a steel frame building of approximately 38,775 square feet. After the transportation vehicles are emptied, they will be weighed once more at the out-bound truck scale and then proceed to leave the site via the site access gate on the south side of the site. In the event there is a disruption to rail service, the secondary method of transporting waste off site will be by on road transfer trailers. The facility will have the capacity to load transfer trailers within the building limits.

F. Design Criteria:

- The weight of C&D debris accepted will be determined by the weigh scale at the site prior to unloading.
- Unloading, loading, and storage areas will be constructed of concrete material. The site and facility are adequate in size to facilitate efficient unloading from collection vehicles and provide for unobstructed movement of vehicles within the site.
- All traffic areas will be paved with either asphalt concrete or Portland concrete. The configuration of the site allows for a passable area by loaded collection and transfer vehicles.

G. Schedule of Operation:

- Monday to Saturday: 6:00 am to 7:00 pm
- Prior to the opening of the facility the operator will ensure that the concrete pad is sufficiently clear of debris to allow acceptance of the daily volume of debris expected. At the end of the day the operator will ensure that the access gates to the facility are closed and locked.

H. Anticipated Daily Traffic Routes:

- Northwest and West: Long Island Expressway (I-495) eastbound to Exit 65, Horse Block Road (CR 16) southeast bound to Americus Avenue southbound to Peconic Road eastbound.
- Northeast and East: Long Island Expressway (I-495) westbound to Exit 65, Horse Block Road (CR 16) southeast bound to Americus Avenue southbound to Peconic Road eastbound.
- North: Medford Avenue (Route 112) to Horse Block Road (CR16) southeast bound to Americus Avenue southbound to Peconic Road eastbound.
- Southwest: Sunrise Highway (Route 27) eastbound to Sill's Road (CR 101) northeast bound to north bound Station Avenue to Horse Block Road (CR16) northwest bound to Americus Avenue southbound to Peconic Road eastbound.
- Southwest: Sunrise Highway (Route 27) westbound to Horse Block Road (CR16) northwest bound to Americus Avenue southbound to Peconic Road eastbound.



I. Flow to and from Facility:

In order to determine the amount of traffic the completed site will generate the operation of the site was evaluated. There will be a total of 5 full time employees on site continuously through the workday. The site will be limited to transferring 1938 tons (7267.5 cubic yards) of material. As stated in Section 4, we estimate 242 trips to the site over an eleven-hour period, assuming the Facility operates at maximum capacity.

It is likely that there will be some lull in deliveries at the beginning and ending of the day and some fluctuations hour to hour. To arrive at a potential peak, it will be assumed that the 242 deliveries occur over a nine-hour period generating 27 entering and exiting trips per hour.

In addition to the trucks there will be employee arrivals and departures and some other deliveries such as mail. For the purposes of this analysis it will be assumed that 5 entering and exiting trips will occur each hour.

Table 1 – Trip Generation, provides the number of vehicular trips the site is anticipated to generate once the project is complete. As can be seen from a review of Table 1, the proposed new project will generate only 32 entering and exiting trips during peak activity at the site.

Land Use	A.M Peak Hours		Midday Peak Hours		P.M Peak Hours	
	Enter	Exit	Enter	Exit	Enter	Exit
Transfer Facility (1938-ton daily max)	32	32	32	32	32	32

Table 1 – Trip Generation

J. Procedure for Unloading Vehicles:

- Contents of delivery vehicles will be dumped on the tipping floor within the building. The waste will then be loaded into waiting railcars also located within the building with an excavator or payloader.

K. Description and Sizing of Storage Facilities:

- The steel building where rail cars are loaded with C&D debris is approximately 165' x 235', and approximately 38,775 square feet.

L. Disposal of Construction and Demolition Debris Residue:

- All waste received at this facility will ultimately be transferred to one of two Subtitle D landfills located in Ohio: Sunny Farms Landfill in Fostoria, OH or Tunnel Hill Reclamation in New Lexington, OH.

M. Description of Facility Drainage and Water Supply System:

- A combination of precast concrete drywells and recharge basins will be used to store stormwater. On-site water supply will be provided by a water main connection on Peconic Avenue.

N. Fire Protection and Control:

- Four (4) fire extinguishers will be located inside the transfer station building along with one (1) hose station. There is a fire hydrant located on Peconic Avenue adjacent to the site entrance.