O. Construction Impacts

1. Introduction

The redevelopment of the site and implementation of the project would require a variety of construction activities including demolition and site clearance, excavation/foundation tasks, structural framing, building enclosure and interior fit-out, parkland development, bulkhead restoration, slip/pier installation and dredging of portions of Glen Cove Creek. Under ordinary conditions, construction activities would take place Monday through Friday, 7:00 AM to 3:30 PM. It is not anticipated that the construction impacts from this project would be any different than from similar projects on Long Island, with the exception of special procedures as outlined in the Site Management Plan to deal with the potential sub-surface environmental contamination.

Typical equipment used for tasks such as demolition, excavation, and building foundations would include excavators, bulldozers, backhoes, front-end loaders, tractors, graders, cranes, drills, and concrete pumping trucks. Dump trucks would remove any excavated material and construction debris, or would deliver fill materials to the site. Concrete trucks would arrive at the site with pre-mixed concrete and delivery trucks would bring other building materials. Cranes, compressors, hoists, bending machines and welding machines would later be used during the structural framing period. During facade and roof construction, hoists and cranes would continue to be used and trucks would remain in use for material supply and construction waste removal.

As detailed in the Economics section, based on the preliminary construction estimates, the project is expected to generate a total of 6,979 full-time equivalent construction jobs. Since construction progresses in stages, the total number of employees involved in the development of the project at any one time would vary. However, with an estimated seven-year build-out, this would result in an annual average of approximately 997 construction jobs.

Construction Phasing and Schedule

Given the size of the project, its development will necessarily be phased and such phasing will depend on market conditions. For purposes of the DEIS, an anticipated phasing approach has been prepared, which illustrates the relationship between the construction of the various public amenities and each development phase. In general, the Applicant intends to commence with construction on the east side of the project, and move west as the project progresses, with development of the blocks occurring in an overlapping fashion.

The project is anticipated to commence with demolition, any necessary additional remediation, site work, and construction of the rental buildings in Blocks E and H. This would also include development of the central plaza park area on Block E. As the initial site work is completed and construction of the buildings in Blocks E and H commences, development activity on Block I would begin. Site work and build-out for the East Lawn

and Esplanade East (the open space area between the ferry terminal and Block I), associated bulkhead and creek edge improvements, relocation of the Angler's Club, and development of the permanent/transient boat marina would overlap with the build-out of Block I.

Development of the workforce units (Blocks F and G) and the office building (Block D) would then occur, followed by development of the Block J retail. The Block J activity would also include the construction of the adjacent waterfront open space and marine improvements (e.g, amphitheater, turning basin, bulkhead repair/replacement.) Upon completion of each block the associated open space would be made available for public use. As currently conceived, the development of the east side of the project would occur over a period of four years. The necessary materials storage and staging areas for the construction of each block would be determined in coordination with the contractors and Building Department officials. Given the large and predominantly vacant nature of the site, there are ample spaces for staging.

Development of the west side of the project would likely begin during the closing stages of construction on the east side, and could commence with the hotel building (Block C), yacht marina, and adjacent pocket pack. This phase would also include the Captain's Cove wetland restoration and ecology pier, and the esplanade from the ferry to Block B. As construction of the hotel site concludes, site preparation for Block B would commence. Development of Block A, the anticipated final stage of development, would overlap with build-out of Block B. Development of the restaurant at the point and the adjacent Garvies Point Beach restoration and improvements would occur generally during the same period as the Block A construction. As currently projected, the total construction period would have a duration of approximately seven years.

As noted above, it is possible that the sequencing, particularly on the west side of the project, may be modified as the project develops. However, regardless of ultimate sequencing, the immediately adjacent open space and recreational amenities would be constructed in concert with each of the development blocks. The possible exception to this would be during the first phase of development on the west side, which, regardless of the block that begins construction, could include the Captain's Cove wetland restoration and ecology pier. The first phase on the west side would also include extension of the esplanade from the ferry to the proposed ecology pier. In the event that Block A is built first, the esplanade construction would be extended to the point.

The following charts summarize the anticipated construction timing and amenities sequencing.

Insert Exhibit III.O-1
Anticipated Phasing Schedule

Insert Exhibit III.O-2
Potential Phasing Sequence 1

Insert Exhibit III.O-3
Potential Phasing Sequence 2

Insert Exhibit III.O-4
Potential Phasing Sequence 3

2. Potential Impacts

Air Quality

During construction of the proposed project, work activities and engine emissions from on-site equipment could have the potential to impact local air quality. Therefore, an assessment of the potential for air pollution from construction, based on construction activities and schedules, is discussed below along with methods that may be employed to minimize or eliminate the effects of construction activities on air quality.

The two main sources of air pollution at a construction site are diesel engine emissions and fugitive dusts. In general, most construction engines are diesel-powered, and produce relatively high levels of nitrogen oxides (NO_X) and particulate matter (PM). Although diesel engines emit much lower levels of carbon monoxide (CO) than gasoline engines, the stationary nature of construction emissions and the large quantity of engines could also lead to increased CO concentrations. Sulfur oxides (SO_x) emitted from diesel engines would likely be negligible since ultra-low-sulfur diesel (ULSD) fuel is now easily available and can be used in almost any diesel engine. Therefore, the pollutants of concern for the construction period are NO_2, CO, fine particles with an aerodynamic diameter of less than or equal to 10 micrometers (PM_{10}), and fine particles with an aerodynamic diameter of less than or equal to 2.5 micrometers ($PM_{2.5}$).

Construction activities also generate various levels of fugitive dust. An active construction project might include a wide variety of tasks that could generate or re-suspend fugitive dust on-site. Some of the more common activities are: excavating; dumping and grading of earthen materials; loading or drop operations that transfer materials (e.g., debris, soil and fill) to and from dump trucks; demolition or deconstruction of existing structures or surfaces; and, on-site travel across paved or unpaved roads/surfaces that cause particulate matter to become airborne.

The quantity of air pollutants emitted during the construction period would likely vary by location and over time. This is because equipment types and activities associated with each distinct construction task would be different. With regards to the effects on air quality, the excavation task would generally emit the highest level of air pollutants during the construction program. This would be especially true for particulate matter since excavation activities have the greatest potential to generate fugitive dusts, as described above. The intensity of excavation would be a controlling factor for the emission levels. High intensity excavation would require greater amounts of equipment onsite, which would increase emissions from diesel engines. Higher excavation rates would also produce more fugitive dusts per unit time (i.e., increase daily emissions). The number of dump trucks needed for transporting excavated materials and delivery of fill would increase with intensity. Any increase of vehicles traveling onsite would produce greater amounts of road dust. In addition, excavation occurs at ground level. Air pollutant emissions released at ground level do not disperse as easily with distance as elevated emissions, and nearby sensitive receptors are more likely to be located at ground level.

Air emissions relating to tasks other than excavation would be most affected by the amount of heavy equipment being used onsite and the engine size (i.e., horsepower) of each unit. The number of delivery trucks entering the site would also affect emission levels. Queuing of heavy vehicles such as concrete delivery trucks may be a concern during the foundations task. In some cases, elevated equipment during structural tasks would be of concern if nearby sensitive receptors were located at a similar height. However, in general these other tasks are less of a concern than the excavation periods.

Although the air emission sources described above would increase the ambient level of some pollutants in the immediate area surrounding the various construction sites (blocks), it is not expected that the intensity or duration of the construction activities would increase those pollutants by amounts that would be considered significant. In most cases, heavy equipment would operate intermittently over the course of a day, and over the course of the construction period. The active construction area would also move from one block to the next as construction progresses throughout the re-development area. As for excavation activities, each block would be excavated during different time periods according to the construction schedule (i.e., multiple blocks would not be excavated simultaneously).

As stated above, particulate matter is an important concern during construction periods, especially for fugitive dust. However, much of the fugitive dusts generated by construction activities consist of relatively large-size particles, which typically settle out within a short distance of the source. The development areas for the project are not situated close to existing residential neighborhoods and therefore, fugitive dusts would be less likely to affect sensitive receptors. Finally, the effects of construction activities on air quality can be significantly curtailed by following the mitigation measures described below in subsection 3.

Noise

Impacts on community noise levels during construction can result from noise from construction equipment operation, and from construction vehicles and delivery vehicles traveling to and from the site. Noise and vibration levels at a given location are dependent on the type and quantity of construction equipment being operated, the acoustical utilization factor of the equipment (i.e., the percentage of time a piece of equipment is operating), the distance from the construction site, and any shielding effects (from structures such as buildings, walls, or barriers). Typical noise levels of construction equipment are shown in Table III-O-1. Noise levels caused by construction activities would vary widely, depending on the phase of construction and the location of the construction activities relative to noise sensitive receptor locations. Noise sensitive receptors in the vicinity of the project sites include the Garvies Point Preserve, residential neighborhoods to the north and east of the project site, and residential neighborhoods south of the Glen Cove Creek and project site.

Table III-O-1
Typical Noise Emission Levels for Construction Equipment

Equipment Item	Noise Level at 50 ft. (dBA)
Air compressor	81
Backhoe	80
Ballast Equalizer	82
Ballast Tamper	83
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83
Dozer	85
Generator	81
Grader	85
Impact Wrench	85
Jack Hammer, Drills	88
Loader	85
Mounted Impact Hammer (Hoe Ram)	90
Paver	89
Pile Driver (Impact)	101
Pile Driver (Sonic)	96
Pneumatic Tool	85
Pump	76
Rail Saw	90
Rock Drill	98
Roller	74
Saw	76
Scarifier	83
Scraper	89
Shovel	82
Spike Driver	77
Tie Cutter	84
Tie Handler	80
Tie Inserter	85
Truck	88

Sources: 1) Transit Noise and Vibration Impact Assessment, Federal Transit Administration (FTA), May 2006.
2) Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM)

Construction noise is regulated by the EPA's noise emission standards and the City of Glen Cove Noise Code [sections §196-4(H) and §196-4(O)]. These local and federal requirements mandate that specific construction equipment meet specified noise emission standards; that construction activities be limited to weekdays between the hours of 7 AM and 6 PM.

As per §196-4(H) of the Code, "Pile Drivers, hammers and heavy construction equipment. The operation between the hours of 6:00 p.m. and 7:00 a.m. on weekdays and all day Saturday, Sunday and holidays of any pile drivers, steam shovels, pneumatic hammer, derrick, hoist or any heavy construction equipment, the use of which is attended by loud or unusual noise, is prohibited except in the case of an emergency and then only with a permit for three days from the Building Department Administrator, which permit may be renewed for a period of three days or less while the emergency continues."

As per §196-4(O) of the Code, "Construction, alterations or demolition of buildings. Any erection, excavation, alternations or demolition of any building which is attended by loud and unusual noise is prohibited between the hours of 6:00 p.m. and 7:00 a.m. on

weekdays, Saturdays and all day Sundays and holidays except in the case of an urgent necessity in the interest of public safety, and then only with a permit for three days from the Building Department Administrator, which permit may be renewed for a period of three days or less while the emergency continues."

A screening level analysis was performed to assess noise due to construction activities using a methodology developed by the Federal Transit Administration (Transit Noise and Vibration Impact Assessment, FTA, May 2006). This methodology conservatively predicts construction noise values based on the following:

- The two noisiest pieces of construction equipment are examined;
- The equipment is assumed to be operating at the center of each construction site;
- For each piece of construction equipment, full power operation (i.e., acoustical utilization factor of 1) for a time period of one hour is assumed;
- Free-field conditions (i.e., no shielding) are assumed; and
- Ground effects are ignored (i.e., G = 0).

Using this procedure, construction activities are assumed to have the potential to result in a significant impact at residential receptors if the 1-hour L_{eq} exceeds 90 dBA during the daytime hours.

Table III.O-2 shows the results of the construction noise analysis. While construction activities would produce noise levels that may be noisy and intrusive, they would not be expected to result in significant noise impacts. All of the predicted noise levels shown below in **Table III.O-2** would be less than the 90 dBA guideline and consequently construction activity would not have the potential to significantly impact adjacent noise sensitive uses.

Table III.O-2
Construction Noise Analysis Results

Receiving Property	Associated Land Use	Construction Equipment Location	Approximate Distance to Receiver (feet)	1-Hour L_{eq} (dBA)
South of Project Site / Glen Cove Creek	Residential / Open Space	Building Block B	1600	71.2
East of Project Site	Residential / Open Space	Building Block J	140	88.2*
Garvies Point Preserve	Wildlife Preserve	Building Block B	215	88.7
North of Project Site	Residential	Building Block G	240	87.7
Site 9 (Shore Road at Albin Street)	Residential	Building Block C	1220	73.6
Site 10 (Cliff Way at the Boulevard)	Residential / Open Space	Building Block A	2795	66.4

Notes: The two noisiest pieces of construction equipment assumed to be operating onsite were the impact pile driver and the hoe ram.

* Vibratory pile drivers were assumed for the construction of Block J; impact pile drivers were assumed for other blocks.

Source: AKRF, Inc.

In general, for Building Blocks A through J, the noisiest activities (demolition, excavation, and foundation/superstructure) would take place for a limited period of time (approximately 18 to 24 consecutive months.) As indicated above, pile driving would represent the noisiest anticipated activity during these periods. It is anticipated that piles would be required to support most of the proposed buildings, with potential exceptions for the smaller structures (e.g. the workforce units) located further upland. The period of pile driving required for each building block would be expected to have a duration of approximately two months.

Typical noise levels due to construction activities during the other phases would be less than those during the demolition, excavation, and foundation/superstructure phases. Construction activities would commence on the eastern portion of the project site at Building Blocks E and H in the first quarter of 2010. As work progresses, the construction activities and their associated noise would gradually move along the project site, from east to west, terminating at Building Block A in the fourth quarter of 2016. Therefore, no long-term, significant noise impacts at adjacent noise sensitive receptors are expected from construction activities.

While the construction period would be approximately seven years in total, the level of noisy and intrusive activity would vary and move throughout the project site, and no one area would experience the effects of the project's construction activities for the full seven-year duration. Construction adjacent to each of the new project buildings would last between 6 and 24 consecutive months, depending on the location, and would typically consist of a short period of demolition (1 month), excavation (1 to 2 months), foundations/superstructure (3 months), some exterior work (3 months), and interior work, but the noisiest adjacent activities for each of the new project buildings would take place for a limited period of time (less than 24 consecutive months). Therefore, no long-term,

significant noise impacts on the project buildings to be constructed as part of the proposed project are expected from construction activities. Also, the occupants of the new buildings will be fully aware of the possible construction activities to complete the waterfront project.

Traffic

Project implementation would generate construction-related traffic, including construction worker commuting and the delivery of materials and equipment. The numbers and types of vehicles would vary depending on construction phase. Deliveries would generally be made on flat-bed or box trucks, with delivery routing having trucks traveling north from the Long Island Expressway on Glen Cove Road (which eventually becomes Route 107), approaching the project area on Route 107 and entering the site at Herb Hill Road at Charles Street. Exiting truck traffic would follow this route in reverse. Typically, construction workers arrive on-site prior to the AM peak hour and depart before the PM peak hour, limiting the potential impact of employee traffic. The construction jobs associated with the proposed project will not all be active simultaneously or continuously active. Based on its experience with similar projects, the Applicant estimates that at peak there would be approximately 300 construction workers on site. As discussed above, intensive building phases such as the foundation/superstructure work, and associated peak employment levels could last for approximately three to six months. However, the project is currently at the PUD Master Development Plan Approval stage, and detailed scheduling is not yet available. Peak worker activity periods may also be influenced by labor availability and market considerations. Anticipated construction scheduling will be refined as the project progresses through site plan review. Assuming some car pooling (average of 1.5 occupants per vehicle), it is anticipated that peak construction periods would result in approximately 200 vehicles. The maximum number of construction-related trips would therefore not exceed the projected traffic volumes for the build-out analyzed in Section III.F.

Erosion and Sedimentation

Disturbance and exposure of soil during construction can create the potential for the transport of sediment in stormwater flows. Consistent with State regulations and construction best management practices, a Stormwater Pollution Prevention Plan will be prepared and implemented for the site to mitigate this impact.

3. Mitigation Measures

Air Quality

As stated above, construction activity has the potential to adversely affect air quality as a result of diesel emissions. In order to minimize adverse effects on air

quality, the following components would be implemented as part of the construction program to the extent feasible:

- Diesel Equipment Reduction - Elements of the construction plan would minimize the use of diesel engines and instead use electric engines to the extent practicable. Construction contracts will encourage the use of electric engines where practicable and ensure the distribution of power connections throughout the area as needed. Access to grid power would be most beneficial by eliminating the need for diesel powered generators,
- Clean Fuel - ULSD will be required for diesel engines throughout the construction program. If fuel blends included bio-diesel, further reduction of PM emissions would be possible.
- Idle Time Restrictions - The construction specifications would include the restriction of on-site vehicle idle time to three minutes for all vehicles that are not using the engine to operate a loading, unloading, or processing device (e.g., concrete mixing trucks),
- Planning - Some emission sources (e.g., concrete trucks and pumps, cranes, large generators) would be located as far as possible from residential buildings and public spaces, to the extent practicable,
- Utilization of Tier 1 or Newer Equipment - The construction specifications will encourage the use of Tier 1[1] or later construction equipment for nonroad diesel engines greater than 50 hp. The more recent the "Tier," the cleaner the engine for all criteria pollutants, including fine PM. Therefore, restricting site access to newer equipment with lower engine-out PM emission values would significantly reduce adverse affects on air quality from diesel engines.

Construction also has the potential to adversely affect air quality as a result of activities that generate fugitive dust. In order to minimize adverse effects on air quality, the following components would also be implemented as part of the construction program to the extent feasible:

- Planning - Fugitive dust control plans will be required as part of contract specifications,
- Watering - Truck routes and exposed excavation areas would be watered as needed,
- Cleaning - Truck exit areas would be established for washing off the wheels of all trucks that exit the construction sites, and include drive off pads,

[1] The first federal regulations for new nonroad diesel engines were adopted in 1994, and signed by EPA into regulation in a 1998 Final Rulemaking. The 1998 regulation introduces Tier 1 emissions standards for all equipment 50 hp and greater and phases in the increasingly stringent Tier 2 and Tier 3 standards for equipment manufactured in 2000 through 2008. The Tier 1 through 3 standards regulate the EPA criteria pollutants, including particulate matter (PM), hydrocarbons (HC), oxides of nitrogen (NO_x) and carbon monoxide (CO). Prior to 1998, emissions from nonroad diesel engines were unregulated. These engines are typically referred to as Tier 0.

- Stabilization - In cases where truck routes would remain in the same place for an extended period, the routes will be stabilized, covered with gravel, or temporarily paved to avoid the re-suspension of road dust.
- Truck Covers – Dust covers for dump trucks will be required.

In addition, as detailed in **Section III.B**, this brownfield site has been subject to remediation work. Any further intrusive work that would possibly disturb soils with residual contamination, including construction activity, will be performed in compliance with the Site Management Plan, which includes a series of measures to control dust. Construction work must also be conducted in accordance with the procedures defined in the Health and Safety Plan and the Community Air Monitoring Program prepared for the site. In accordance with the Community Air Monitoring Program, air monitoring will be carried out between work areas and the site perimeter to prevent exposure downwind of the site.

Noise

A wide variety of measures (source controls, path control, and receptor controls) can be used to minimize construction noise and reduce potential noise impacts. The Applicant will also maintain a construction schedule on its website so the public can be informed as to all activities. The Applicant shall work closely with city officials and neighbors on the creek to ensure there are no conflicts with specific events. During each phase of construction at the project site, measures would be implemented to reduce construction noise and vibration levels to within the limits required by applicable codes and regulations. During periods of extensive excavation activity, measures would be taken to ensure that no structural damage to adjacent structures would occur. For example, if deemed necessary: 1) the use of on-site vibration monitoring equipment and crack measurements; 2) the excavation contractor may install soldier piles and bracing to stabilize the foundations of the adjacent buildings and structures; and 3) in more extreme cases, the entire foundation of the adjacent building can be braced with horizontal members held in place with vertical and batter piles.

In terms of source controls (i.e., reducing noise emission levels at the source or during the most noise sensitive time periods), all contractors and subcontractors would be required to properly maintain their equipment and have the appropriate manufacturer's noise reduction devices, including, but not limited to, a quality muffler that is free of rust, holes, and exhaust leaks installed.

In terms of path controls (e.g., placement of equipment, implementation of barriers between equipment and noise sensitive receptors), the following measures for construction would be implemented to the extent feasible and practicable:

- Noisy equipment, such as generators, cranes, trailers, concrete pumps, concrete trucks, and dump trucks, would be located away from and shielded from noise sensitive receptor locations.

- During the construction of Building Block J, either vibratory pile drivers or a shroud/noise bellows system would be used in conjunction with impact pile drivers to reduce noise levels from pile driving activity at adjacent noise sensitive locations (i.e., residences and parks/open space).

Traffic

The sequencing of construction and provision of staging and material stockpile areas over the approximate seven-year construction period would permit the coordinated use of construction crews and equipment and the reduction of material deliveries. As described above, construction workers typically arrive on-site prior to the AM peak hour and depart before the PM peak hour, limiting the potential impact of employee traffic.

Erosion and Sedimentation

The proposed project would employ a Stormwater Pollution Prevention Plan (SWPPP) during both project construction and post-development phases of the project to address potential sources of pollution through the development of a plan indicating appropriate measures and controls. At a minimum, the SWPPP will include:

- Description of Site Soils
- Description of Pollution Prevention Measures
- Description of Construction and Waste materials and control
- Description of the permanent and temporary controls as depicted on the Soil Erosion & Sediment Control (SESC) Plan to control runoff and sediment during all phases of the project
- Spill Prevention and Response Plan
- Identification of practices specified on the SESC plans
- Identification of temporary practices which will be converted to permanent controls at the completion of construction
- Construction Schedule
- Maintenance Schedule for the SESC devices during construction
- Temporary diversions will be identified on the SESC plans for exposed upstream areas
- Calculations for Soil Erosion practices where application
- Maintenance Schedule for the permanent stormwater management devices

The Soil Erosion and Sediment Control Plan included as part of the SWPPP would be prepared in conformance with the NYSDEC New York State Stormwater Management Design Manual (April 2008). In addition, practices would be designed based on the NYSDEC New York State Standards and Specifications for Erosion and Sediment Control (August 2005).

The following general guidelines and best management practices shall be observed:

- Remaining perimeter vegetation will be protected with construction fencing and remain undisturbed.
- Grading will be carefully scheduled to minimize the size of exposed areas and the length of time that areas are exposed.
- The length of cleared slopes will be minimized to reduce potential erosion and sedimentation. The steepness of the slopes will not exceed 1 on 3 in a fill situation and 1 on 2 in a cut situation to also minimize erosion and sedimentation.
- Sediment shall be trapped on the site.

Specific control measures will include the following:

Swales will be constructed along portions of the northern side of Garvies Point Road to collect and direct runoff from the off-site areas, prior to discharging across the project site during construction. The runoff will be collected in the infiltration trenches directly below the swale and dissipated into the soil. The swales will be planted with grass, groundcover, shrubs and trees which will reduce the runoff velocities and allow the stormwater to be filtered and dissipated back into the soil. Currently, the site does not contain any stormwater drainage system and runoff flows overland directly into Glen Cove Creek or Hempstead Harbor, with the exception of several storm sewer collection systems located within Garvies Point Road. The proposed stormwater drainage system for the project is discussed in Chapter III.C, *Water Resources*.

Site construction activity (earthwork) will not be permitted during heavy rain, frozen conditions or excessively wet conditions. It is expected that the site construction activity (grading, installation of drainage and sanitary systems, etc.) will take several years to complete. Once the building foundations are completed, other activities could be performed during inclement weather. This will facilitate the project being completed on schedule.

Sediment barriers (silt fence, hay bales or approved equal) will be installed as required along the limits of disturbance for the duration of the work in addition to a temporary construction fence. Haybales will be installed at various locations on the site, including along the water's edge, to minimize transport of soils and sediments into the adjacent tidal water bodies. In addition, a temporary 4' high construction fence with silt fencing will be installed around the entire perimeter of the subject property. No sediment from the site shall be permitted to wash onto adjacent properties, public streets or water bodies.

Graded and stripped areas and stockpiles, while kept to a minimum, will be kept stabilized through the use of temporary seeding or salt hay as required. Seed mixtures will be in accordance with the National Resources Conservation Service (formerly Soil Conservation Service) recommendations.

Drainage inlets installed will be protected from sediment buildup through the use of sediment barriers, sediment traps, etc., as required.

Trees to remain on the project site, as well as trees adjacent to the site, will be protected by fencing placed around the crown drip line of the trees. Construction equipment will not be permitted within this fenced area to minimize the possibility of soil compaction around the root system and damage to the existing trees. Minimum treatment will consist of each tree trunk being protected by a fence barrier.

Proper maintenance of erosion control measures will be implemented by daily and follow-up inspections after heavy or prolonged storms. Maintenance measures include, but are not limited to, cleaning of sediment basins or traps, cleaning or repair of sediment barriers, repair/replacement of damaged silt fencing, replacement of damaged haybales, cleaning and repair of berms and diversions, and cleaning and repair of inlet protection. Sediment, which has accumulated to the point of impairing the function of the above structures, will be removed. Additionally, supplemental hay bales and silt fencing will be required to be stored on-site, to be utilized if the initial hay bales and silt fencing become damaged or are not working as they were intended.

Appropriate means shall be used to control dust during construction. This may include water trucks and / or a sprayed on adhesive (i.e., acrylic polymer or resin in water).

A stabilized construction entrance, located at the various site driveways, shall be maintained to minimize soil and loose debris from being tracked onto local roads. These measures will be maintained until the site is permanently stabilized.

Sediment barriers and other erosion control measures shall remain in place until disturbed areas are permanently stabilized. After permanent stabilization, drainage structures shall be cleaned and flushed as necessary. If during construction operations and routine maintenance requirements it is determined that additional erosion control measures are necessary, additional barriers/protection will be added.