

SECTION 01400

PROJECT SIGN

PART 1 – GENERAL

1.1 DESCRIPTION

- A. The Contractor, upon receipt of Notice to Proceed, shall furnish all labor, materials, equipment, facilities and incidentals necessary to furnish and install a Project Sign at the site indicating the project as a State of New York funded project.
- B. The Contractor shall install the Project Sign at a location designated by the Engineer adjacent to the site entrance.
- C. No signs, except those specified, shall be displayed at the site.

1.2 PERMITS AND REGULATIONS

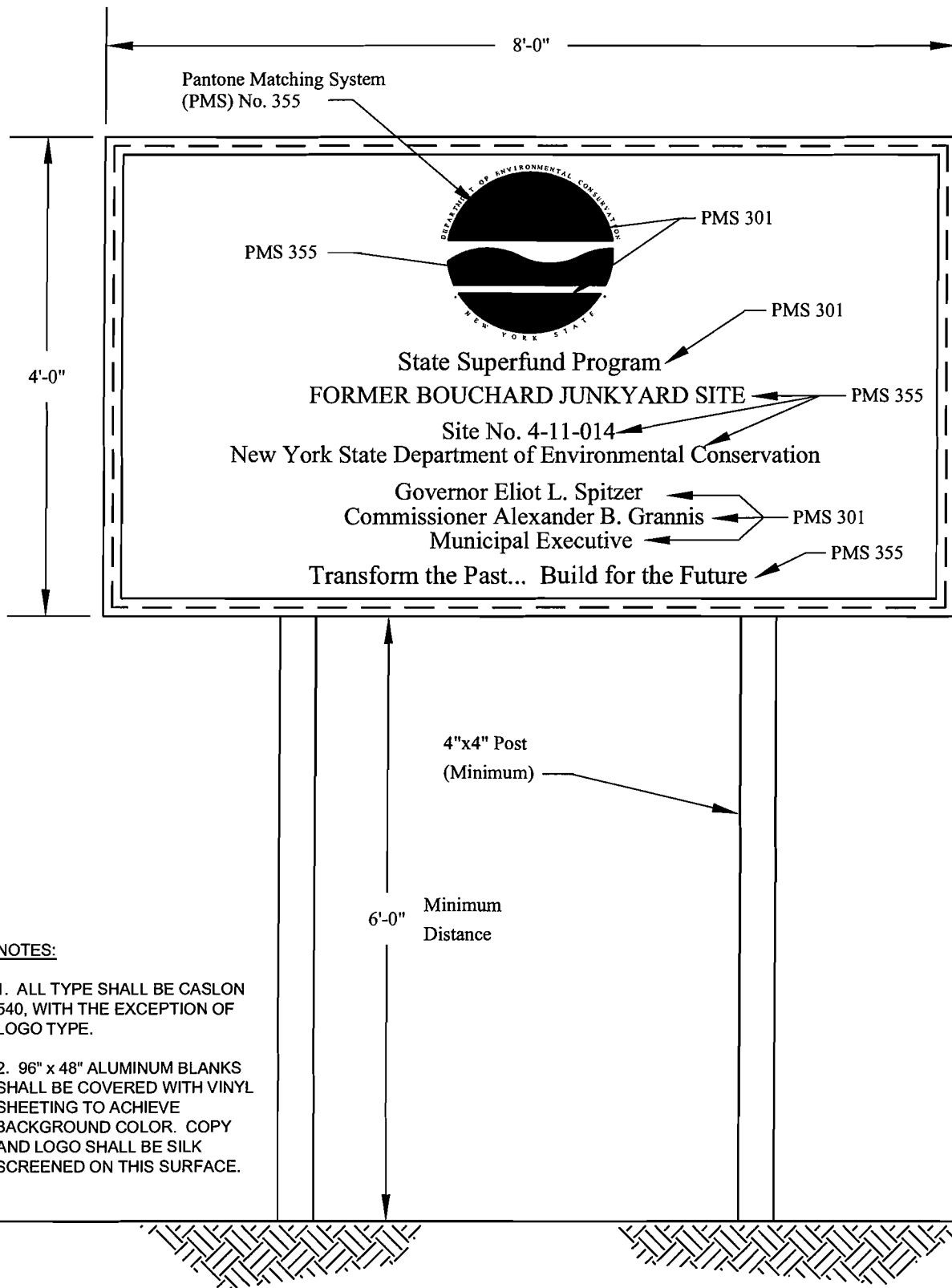
- A. The Contractor shall obtain all necessary permits, variances and approvals for the Work as required by federal, state and local agencies.

PART 2 – PRODUCTS

2.1 PROJECT SIGN

- A. The Project Sign (see Figure 1) shall be 4 feet high by 8 feet wide, and constructed of aluminum or wood blank sign boards with vinyl sheeting.
- B. Copy surrounding NYSDEC logo shall be:

<u>Text</u>	<u>Pantone Matching System (PMS) Shade</u>
"NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION"	PMS 355 Green
NYSDEC logo	PMS 301 Blue PMS 355 Green
State Superfund Program	PMS 301 Blue



NOTES:

1. ALL TYPE SHALL BE CASLON 540, WITH THE EXCEPTION OF LOGO TYPE.
2. 96" x 48" ALUMINUM BLANKS SHALL BE COVERED WITH VINYL SHEETING TO ACHIEVE BACKGROUND COLOR. COPY AND LOGO SHALL BE SILK SCREENED ON THIS SURFACE.

<u>Text</u>	<u>Pantone Matching System (PMS) Shade</u>
Site Name, Site Number, Party Performing Remedial Activities	PMS 355 Green
Names of Governor, Commissioner, Municipal Executive	PMS 301 Blue
Transform the Past....Build for the Future	PMS 355 Green
C. All type shall be Caslon 540, with the exception of the logotype. Form shall be: center each line of copy with small caps and initial caps.	
D. 96" wide x 48" high aluminum blanks shall be covered with vinyl sheeting to achieve background color. Copy and logo shall be silk screened on this surface.	
E. The legend, layout and text of the Project Sign shall be as indicated on Figure 1.	

PART 3 – EXECUTION

3.1 GENERAL

- A. The sign shall be erected on two 4 inch by 4 inch pressure treated posts or similarly suitable material such as Western Cedar. The posts shall be imbedded a minimum of 30 inches below grade. The sign shall be erected plumb and level, and such that the bottom of the sign is 6 feet above ground surface.
- B. Following substantial completion, the Contractor shall remove and properly dispose of the sign off-site.

+ + END OF SECTION + +

NO TEXT THIS PAGE

SECTION 01450

PROJECT MEETINGS

PART 1 - GENERAL

1.1 PRE-CONSTRUCTION MEETING

- A. No later than 20 days after the effective date of the Agreement, and prior to mobilizing to the site, a pre-construction meeting shall be attended by the Contractor. At a minimum, Contractor's Project Manager, Superintendent and Health and Safety Coordinator shall attend the meeting. This pre-construction meeting will be conducted by the Engineer and Department, and will include an overview of the construction activities that will be performed at the site, and a review of the responsibilities of the Engineer and Contractor. This meeting will be held at a location set by the Department.
- B. As specified in other sections of this Specification, the Contractor is required to submit plans, shop drawings and other documents pertaining to the Work prior to the pre-construction meeting. Procedures and processing of submittals, substitutions, change orders, applications for payment, proposals, field changes and Contract closeout will be discussed. Contractor's schedule will also be reviewed.
- C. The pre-construction meeting will also address specific requirements of the Department, including the limitations of use of the available facilities by the Contractor and the access of the Department to the Work.

1.2 PROGRESS MEETINGS

- A. Progress meetings will be held once every week that Work is performed at the site.
- B. The purpose of the progress meetings will be to discuss Work progress, plan work activities for the upcoming week and discuss any unanticipated site conditions encountered.
- C. The Engineer shall conduct the progress meetings. The Contractor shall be responsible for attending all progress meetings.
- D. The following is the suggested agenda for progress meetings:
 - 1. Review and approval of minutes of previous meeting.
 - 2. Review of work progress since the previous meeting.

3. Field observations, problems, conflicts.
 4. Problems which impede construction and proposed corrective actions.
 5. Review of delivery and submittal schedules.
 6. Revisions to the construction schedule.
 7. Anticipated progress during the succeeding work period.
 8. Coordination of schedule.
 9. Maintenance of construction quality, and health and safety standards.
 10. Identification of pending changes and substitutions and review of pending changes for effect on construction and project completion date.
 11. Other matters, as appropriate.
- E. Contractor personnel must attend each progress meeting and shall include, at a minimum, Contractor's Superintendent.
- F. If required by the Department or Engineer, a representative of any Subcontractor, supplier or manufacturer used by the Contractor shall attend any requested progress meetings.
- G. It is anticipated that in addition to the Engineer and Contractor personnel, the progress meetings may be attended by representatives of the Department.
- H. All progress meetings will be held in the on-site Field Offices provided by the Contractor.
- I. Site inspections may be performed as a component of the progress meetings.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION (Not used)

+ + END OF SECTION + +

SECTION 01500

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. All temporary facilities and controls shall be provided in the manner and by the Contractor as designated herein.
- B. The Contractor shall initiate, establish and maintain use of each temporary facility, including telephone service, internet service, electrical power and lighting, and potable water, throughout the performance of construction work and until the date of acceptance of construction by the Department unless specifically directed otherwise by the Department.
- C. The Contractor shall install, operate, maintain and protect temporary facilities and utilities, including telephone service, internet service, electrical power and lighting, and potable water, in a manner which will be safe, non-hazardous, sanitary and protective of persons and property. Temporary facilities shall be located within the contract limits and adjacent to the staging area for equipment, materials and supplies, and in accordance with the Contractor's prepared approved submittals.
- D. The Contractor shall be responsible for the operation and maintenance of all systems and temporary facilities to assure that necessary services are provided without disruption.
- E. The Contractor shall coordinate and install all temporary facilities and controls in accordance with the requirements of the local authorities and utility companies having jurisdiction and in accordance with all federal, state and local codes, laws and regulations.
- F. At the completion of the construction work, or when the temporary facilities and controls are no longer required, subject to the approval of the Department, the temporary facilities and controls shall be removed and the facilities restored to their original conditions by the Contractor.
- G. All costs in connection with the temporary facilities and controls including but not limited to, installation, maintenance, relocation and removal shall be borne by the Contractor at no additional cost to the Department.
- H. All facilities, equipment and utilities furnished under this section shall be provided and maintained in good working order at all times. In addition, the Contractor shall furnish daily janitorial services. All internet service,

and electrical and telephone utility costs shall be paid for by the Contractor.

- I. The Contractor shall ensure that all facilities, equipment and utilities furnished under this section are kept free of any snow or ice for the duration of the project.

1.2 TEMPORARY UTILITIES

A. Temporary Electrical Facilities:

1. Electrical power is not available for use by the Contractor at the site. The Contractor shall furnish and install a new electrical service for the facility, including New York State Electric and Gas (NYSEG) coordination, as required. The Contractor shall provide electrical connections to the power source as necessary to accommodate construction operations, including the operation of field offices, use of power tools and lighting. The Contractor shall determine the electrical loads prior to submitting his/her bid; contact NYSEG regarding the requirements and origination point of the service; and determine local requirements.
2. Contractor shall submit the following for approval by Engineer prior to installation:
 - a. Site plan locating padmount transformers, metering, related conduit and wiring for the temporary electrical facilities system.
 - b. Copies of all utility company correspondence.
 - c. Service capacity and electrical load of the facility.
3. Work Included: Temporary work shall include the following:
 - a. Furnish and install temporary electrical facilities system.
 - b. Furnish and pay for all labor, material and equipment for the installation of the temporary electrical services facility system. The installation shall comply with all applicable requirements of the National Electrical Code and any other codes or bodies having jurisdiction, including NYSEG.
 - c. Furnish and pay for all labor, material and equipment for the maintenance of the temporary electrical facilities system.

- d. Furnish and pay for labor, materials and equipment for removing all temporary electrical facilities.
- 4. The Contractor shall be responsible for all electrical usage charges (energy and demand costs) related to the temporary electrical system. Payments shall be made according to NYSEG requirements on the basis of utility bills.
- 5. Requirements:
 - a. Temporary electrical facilities system shall be as herein specified, and shall be provided no later than 45 days after the date of Notice to Proceed with Construction.
- 6. Temporary Electric Service Point:
 - a. Contractor shall furnish and install NYSEG metering equipment, distribution circuit breakers or fused switches, panelboards, poles for overhead lines, wire and conduit as required for the temporary electrical facilities. All work shall conform to the requirements of NYSEG, the National Electrical Safety Code and the National Electrical Code.
 - b. Contractor shall furnish and install power feeds from the Temporary Electric Service Point as required for the security lighting system, services to the Contractor's field offices and Engineer's/Department's office trailer.
 - c. Distribution circuit breakers or fused switches shall be furnished and installed for disconnection and overcurrent protection of the temporary electrical facilities fed from the service point.
 - d. At the completion of construction, as determined by the Department, the Contractor shall remove the temporary electric service point equipment in its entirety including all overhead lines and poles, wire and conduit.
- 7. Contractor's Field Offices and Engineer's/Department's Office Trailer:
 - a. Contractor shall extend the service from the Temporary Electric Service Point to the Contractor's field office and the Engineer's/Department's office trailer.

- b. The Contractor shall furnish and install distribution circuit breakers or fused switches, transformers, wiring and conduit as required for the services to the field offices.
 - c. At the completion of construction, as determined by the Department, the Contractor shall remove the services to the field offices, including all related electrical equipment.
8. Security Lighting System:
- a. Contractor shall furnish, install and maintain a security lighting system as herein specified. Contractor shall extend the service from the temporary electric service point as required for the security lighting system.
 - b. Security lighting system shall provide lighting to illuminate the staging area for equipment, material and supplies and the field office trailers.
 - c. Security lighting system shall consist of 250-watt high-pressure sodium floodlights with photocell, vandal shield and bracket for wood pole mounting. Two floodlights shall be mounted on each pole approximately 30 feet above the ground as directed by the Department.
 - d. Each floodlight shall be complete with a constant wattage, high power factor ballast in a cast aluminum housing, a flat clear lens of heat and impact resistant glass, photo-control, lamp and suitable mounting hardware.
 - e. Photometric performance shall be equal to that of the above specified unit with a beam spread of approximately 150 degrees horizontal to 80 degrees vertical and with a beam efficiency of not less than 55 percent.
 - f. Poles shall be 35 foot, class F wood and shall be securely set five feet in the ground.
 - g. The system will require the number of poles and floodlights to illuminate the areas designated for security lighting. There shall be a minimum of two poles for security lighting – one at the staging area for equipment, material and supplies, and one at the field office trailer area.
 - h. Wiring for the security lighting system shall be installed overhead. The security lighting system shall be properly maintained and energized at all times with each floodlight controlled by a photocell installed on the floodlight. The

photocells shall be adjusted so that all floodlights are energized at approximately the same time. Broken and burned out lamps shall be replaced by the Contractor at no additional cost to the Department.

- i. Security lighting system shall be installed and made operative within 45 days after the date of the Notice to Proceed with construction.
- j. Security lighting system shall be removed by the Contractor in its entirety at the completion of the project.

9. Additional Facilities:

- a. Should any portion of any Contractor's work require light or power in addition to that supplied by the temporary electrical facilities herein described, he/she shall furnish, install and maintain such additional temporary lighting and power facilities at his/her own expense. Additional temporary lighting shall be sufficient for safe access to and egress from such work, and for safe expeditious construction.
- b. The installation of additional facilities shall comply with all applicable requirements of the National Electrical Code and any other codes of enforcing bodies having jurisdiction, and shall be installed so as not to interfere with the work of other Contractors.
- c. Upon completion of the work under his/her contract, the Contractor responsible shall remove all additional facilities installed by him/her.

B. Temporary Water:

- 1. Municipal water is not available at the site. The Contractor shall make potable water available as needed at the site for consumption by site personnel and for the performance of all construction operations.
- 2. The Contractor shall be responsible for supplying and storing potable water. The Contractor shall be required to obtain the Engineer's approval of the sources of all water delivered to and used at the site, prior to delivery and use.

C. Sanitary Facilities:

1. The Contractor shall provide a suitable number of self-contained toilet (Port-O-John) units for use by the Engineer, Department and each Contractor's personnel.
2. Sanitary facilities shall be maintained on a regular basis by the Contractor and when directed by Engineer.
3. The Contractor shall provide separate facilities for male and female personnel.

D. Trash Disposal:

1. Contractor shall make arrangements for off-site disposal of trash not less than weekly. All garbage and miscellaneous material collected during performance of the Work shall be properly disposed. Prior to being sent off-site, all trash must be temporarily staged on-site in an orderly manner acceptable to the Department.

E. Temporary Telephone Service:

1. The Contractor shall install temporary telephone service to the Contractor's office trailer and the Engineer's/Department's office trailer.

F. DSL Internet Service:

2. The Contractor shall install temporary DSL internet service to the Contractor's office trailer and the Engineer's/Department's office trailer.

1.3 TEMPORARY HEATING, COOLING AND VENTILATION

- A. The Contractor shall provide temporary heating, cooling and ventilation as required for work conducted during cold and hot weather and to prevent damage to the work of the Contractor. Temporary heating and cooling shall be provided to maintain a minimum of 70°F on a 24 hour a day, 7 day per week basis within all structures throughout the Contract Time. The Contractor shall provide all temporary heating, cooling and ventilation at no additional cost to the Department. Additional heating and cooling shall be furnished when and as directed by the Engineer.

1.4 CONTRACTOR'S FIELD OFFICE

- A. The Contractor shall furnish and maintain a suitable single field office during the period of construction. Copies of the Contract Documents shall be kept at all times at said office.
- B. Each field office shall be located within the Contract limits.
- C. Refer to paragraph 1.11 for additional requirements.

1.5 ENGINEER'S/DEPARTMENT'S OFFICE TRAILER

- A. The Contractor shall furnish, install, operate and maintain during the period of construction, an approved separate weatherproof Engineer's/Department's office trailer ("Office Trailer") as described herein, located within the contract limits. Use and occupancy by the Engineer/Department shall be made available during construction and shall be so continued for a period not to exceed two months after the construction work has been accepted by the Department. No construction shall be started until the Office Trailer is installed, furnished as herein specified, and made available to the Engineer/Department. The Office Trailer shall be erected at a location approved by the Engineer. The Engineer's/Department's office trailer shall be separate from any office used by the Contractor.
- B. The trailer shall be structurally sound and weathertight, with floors raised above ground and open to allow free circulation of air.
- C. The trailer shall be provided with the following:
 - 1. Lighting: electric, non-glare type producing a minimum illumination level of 50 foot-candles measured at desk height and exterior lights at entrances.
 - 2. Heating and cooling: capable of maintaining ambient temperatures within the structure of 70 degrees Fahrenheit (plus or minus three degrees).
 - 3. Potable bottled water.
 - 4. Fire extinguisher: non-toxic dry chemical type, UL-approved for Class A, B and C fires (minimum rating of 2A, 10B, 10C).
- D. A 35 by 40-foot temporary parking area adjacent to the trailer for the exclusive use of the Engineer's and Department's personnel. The parking area shall be prepared by placing a 6-inch thick layer of stone (Section 02540, Access Road and Parking Area). An access spur shall be

maintained from the parking area to the nearest temporary or permanent road.

- E. The Office Trailer shall be placed on concrete blocks and leveled, with adequate wooden steps and handrails provided at each exterior door. The trailer and associated equipment shall be new or recently renovated to a like-new condition subject to the Engineer's approval. The interior shall consist of a pastel-shade paneling and fluorescent ceiling lights. The Office Trailer shall be provided with proper safety features in accordance with applicable NFPA standards and shall meet the requirements of applicable building codes.
- F. The Office Trailer shall contain two partitioned offices with locking doors, each having a minimum of 96 square feet of floor area to be utilized by the Engineer and the Department. The door locks and keys shall be different for the Engineer's/Department's offices. Each office shall contain at least four operable windows equipped with functioning blinds and security guard screens.
- G. Each of the two offices shall be supplied with the following equipment:
 - 1. One (1) office desk with lockable drawers, one (1) swivel chair and one (1) table (60 inches by 30 inches laminated top).
 - 2. Telephone with answering machine. The telephone shall have a minimum of 12 feet of cord.
 - 3. Shelf set, two shelves 12 inches deep by 3 feet long (attachable to wall). Attachment shall be performed by Contractor at the direction of Engineer.
 - 4. One (1) waste basket.
 - 5. One (1) bulletin board, measuring 4 feet by 6 feet.
 - 6. Plan rack.
 - 7. Coat rack and hooks.
 - 8. Two (2) four-drawer filing cabinets with lock. The filing cabinets shall be new, commercial quality and shall be legal size with full suspension drawer slides. Color shall be black. Upon completion of the project, the filing cabinets shall become the property of the Contractor. The Contractor may also rent the filing cabinets with the office trailer for the duration of the Contract.

- H. The Office Trailer shall contain one partitioned meeting area having a minimum of 140 square feet of floor area. The meeting area shall contain the following equipment:
1. Eight (8) straight-backed chairs.
 2. One (1) bulletin board, 4 feet by 6 feet.
 3. One (1) waste basket.
 4. One (1) paper towel dispenser with towels. The supply of towels to be replenished by the Contractor as required by the Engineer.
 5. Plain paper fax machine with a dedicated telephone line, built in telephone, auto-dial and auto-receive features.
 6. One (1) office table with laminated top 3 feet by 8 feet.
 7. One (1) paper cup dispenser with cups. The supply of cups to be replenished by the Contractor as required by the Engineer.
 8. One (1) operational water cooler with built-in refrigerator. Supply of water to be replenished by the Contractor as required by the Engineer.
 9. One (1) drafting table (3 feet by 6 feet) with a drafting stool.
 10. One (1) coat rack and clothes hanger.
 11. First aid kit suitable for 10 people with manual, Lab Safety Supply 10-person safety kit, or equal.
 12. One (1) operational coffee pot with a capacity of 10-cup minimum. Contractor shall provide coffee for the coffee pot.
 13. Duplicating machine, capable of producing 8 1/2 by 11 inch and 11 by 17 inch copies. The copy machine shall also be capable of producing enlarged or reduced copies.
- I. The Contractor shall install at a location designated by the Engineer, one (1) Dell (no substitution) Intel Core 2 Duo 2.0 gigahertz or greater notebook computer equipped with, at a minimum, 15.0-inch wide aspect SXGA LCD display, 8X DVD +/-RW Burner, 1.0 GB of DDR2-667 SDRAM memory, a 60-gigabyte hard drive, one 56K V.92 modem and integrated 10/100 Ethernet and one Dell Laser Jet printer. The computer shall be equipped with Microsoft Windows XP, Norton Antivirus 2007, Microsoft Office 2007, or latest version. The computer shall be equipped with a surge protector, leather carrying case and all necessary cables. All

licenses and warranties shall be in the name of the Contractor. The Contractor shall be responsible for installation of the computer in working order. Full e-mail and DSL internet services shall be provided and maintained by the Contractor for the Engineer's use throughout the construction period. The Contractor shall maintain ownership at the completion of the Contract.

- J. The Contractor shall be responsible for the cost of the internet service and all long distance and local calls made from the Engineer's and the Department's field office.
- K. A sign shall be furnished on the outside of the Engineer's/Department's field office. The sign shall be 3 feet x 4 feet x 3/4 inch thick marine plywood with white background and black letters. The sign shall read:

FIELD OFFICE
NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION
TELEPHONE (include number when available)

- L. The Contractor shall supply and replenish as necessary, all expendables for the duration of the project for the following furnished items:
 - 1. Duplicating machine toner, paper, etc.
 - 2. Facsimile machine paper, toner cartridges, etc.
 - 3. First aid supplies
 - 4. Drinking water and disposable cups
 - 5. Computer paper, toner cartridges, etc.
 - 6. Paper towels and tissues.
- M. Upon substantial completion of the Contract, the Contractor shall remove and assume possession of all of the items furnished by the Contractor (except as otherwise noted), less expendables, for the Office Trailer. The Contractor shall not make claim for any loss or damage to these items resulting from theft, vandalism, or normal wear and tear associated with the use of the items or due to the environment associated with a construction site.
- N. The Contractor shall pay all costs and fees associated with supplying electric and telephone services to the office trailer and shall pay all utility bills for the duration of the project, including power necessary for heat and air conditioning.

- O. The Contractor shall provide janitorial services for the Office Trailer. These cleaning services shall, at a minimum, consist of sweeping the floors and emptying the wastepaper baskets on a daily basis, and mopping the floors on a weekly basis. The janitorial services shall be provided during the normal hours of operation for construction.
- P. The Contractor shall install four private telephone lines in the Office Trailer for the exclusive use of the Engineer. Telephone jacks shall be located as directed by the Engineer. The Contractor shall furnish and install two telephones, two line type, each with speakerphone capability. The third telephone line shall be dedicated and connected to the facsimile machine. The fourth telephone line shall be dedicated for internet access and connected to the computer. The Contractor shall pay all fees, activation and installation charges associated with the telephone service and shall pay all monthly charges and usage charges (local, long distance and toll calls) for the duration of the project. The Contractor shall arrange for and pay all fees for an internet service provider selected by the Engineer.
- Q. Within 30 days after the substantial completion of the contract as directed by the Engineer, whichever is sooner, the Office Trailer together with equipment and facilities furnished by the Contractor (except for those items above which will become the property of the Department) shall revert to the Contractor who shall remove them and leave the site in a satisfactory condition, as approved by the Engineer. The Contractor shall remove and properly dispose of the temporary parking area, stairs, platforms, plywood skirt, supports, telephone poles, electrical facilities and poles, garbage cans, dumpsters, etc. and remove the Office Trailer from the project site. The area shall be restored to preexisting condition to the satisfaction of the Department and the Engineer.

1.6 FIRST AID

Contractor shall furnish and keep on the site, at each location where work is in progress, a completely equipped first aid kit and shall provide ready access thereto at all times when personnel are employed on the Work.

1.7 UNIFORM GUARD SERVICE

It is anticipated that a roving watchman will not be necessary on this Contract. However, should the Contractor elect to leave any trench or excavation open after normal working hours, then the Department will require that a watchman be stationed at the site for all of the nonworking hours until backfilling is complete (refer to Section 01540 – Security).

1.8 PROTECTION OF WORK AND MATERIALS

A. Protection Requirements:

1. During the progress of the Work and up to the date of Final Completion, the Contractor shall be solely responsible for the care and protection of all Work and materials covered by the Contract. In order to prevent damage, injury or loss, actions shall include, but not be limited to, the following:
 - a. Store apparatus, materials, supplies, and equipment in an orderly, safe manner that will not unduly interfere with the progress of the Work or the work of any others.
 - b. Provide suitable storage facilities for all materials which are subject to injury by exposure to weather, theft, breakage, or otherwise.
 - c. Place upon the Work or any part thereof only such loads as are consistent with the safety of that portion of the Work.
 - d. Clean up daily all refuse, rubbish, scrap materials, and debris caused by Contractor's operations, to the end that at all times the site of the Work shall present a safe, orderly and workmanlike appearance.
 - e. Provide barricades and guard rails around openings, for scaffolding, for temporary stairs and ramps, around excavations, elevated walkways and other dangerous areas as deemed necessary by the Department.
2. The Contractor shall protect the existing Work and material from damage by his/her workmen and shall be responsible for repairing any such damage at no additional cost to the Department.
3. The Contractor shall protect trees, shrubbery and other natural features or structures from being cut, trimmed or injured during completion of the Work, except as required to complete the Work, as specified herein and as shown on the Contract Drawings.
4. All Work and materials shall be protected in accordance with the requirements of the Contract Documents and as specified and directed by the Department.

B. Maintenance of Egress:

1. During the course of construction Work, the Contractor shall maintain and keep free of debris, materials or equipment points of egress at the facility.

C. Protection of On-site Utilities:

1. Underground utilities are defined to include, but not be limited to, all sewer, water, gas, and other piping, manholes, wells, electrical and signal conduits, and other existing subsurface work located within or adjacent to the limits of the Work.
2. The Contractor's attention is directed to the existing utilities running throughout the work. The Contractor is required to take any and all precautions necessary to locate, support and protect these utilities during construction. All costs associated with protecting, supporting, locating, digging test pits, etc., of all utilities or process pipelines shall be included in the prices bid for all work.
3. The locations of all utilities shown on the Contract Drawings are based on available in-house information furnished by the Owner and utility companies and public agencies with lines and property in the vicinity of the proposed work areas and are not guaranteed to be complete or accurate. The Contractor shall obtain utility markouts on all public and private properties in accordance with all local and state requirements where work under this Contract is to be performed. Prior to any excavation or construction, the contractor shall notify the Owner, all utility companies and applicable agencies and request a markout of their lines and properties in the field in the area of the proposed work. In addition, on the project site (outside of public right-of-way), the Contractor shall provide the services of an independent utility markout service subcontractor qualified to locate and mark out all utilities in the vicinity of the work using the appropriate equipment and methods available prior to construction. The subcontractor shall survey utilities (location/elevation) and include them as part of required site surveys (see Section 01050 – Field Engineering).
4. Prior to any excavation, in addition to utility location and markouts performed by the Contractor, local and state required services and the independent markout service subcontractor, the Contractor shall accurately locate existing utilities by probing test holes and excavating test pits where existing underground utilities are known to exist in the vicinity of the new work and at maximum intervals of 25 feet along the route or within the area of the proposed work. The Contractor shall survey (location/elevation) and prepare an as-

built drawing of all underground utilities encountered while constructing test pits and/or test hole probes for use in performance of the work under this contract. The Contractor shall backfill/restore the holes and pits, and mark out the existing utilities and take extreme caution against damaging the utilities during excavation or sheeting installation.

5. Work shall include, in addition to constructing test probes/pits, excavating and backfill, temporary sheeting, compacting and site restoration.
 6. Schedules for maintenance of utility markouts on public and private property shall be consistent with New York State law throughout the duration of the Contract.
 7. During construction/excavation, the Contractor shall locate each utility by hand digging methods prior to the use of mechanical excavation equipment. During construction/excavation, if the Contractor encounters evidence of suspected unmarked utilities, such as magnetic tape or other underground markers, the Contractor shall promptly determine the location of the suspected utility, if any, before proceeding with the work. The Contractor shall cooperate with the Owner and the utility companies involved to avoid delay or interference of service normally performed by their lines and properties.
 8. The Contractor shall take extreme caution against damaging utilities when excavating, sheeting and backfilling, during construction of test probes and test pits and while performing the work required under this Contract.
 9. The Contractor shall be responsible for all costs associated with pre-project construction utility survey(s)/markout(s), the construction of the test holes and test pit work, and utility as-builts for this project, as well as protection and hand digging operations to verify location of all utilities during construction.
- D. Protection of Surface Structures: All existing surface facilities, including but not limited to guard rails, posts, fences, guard cables, signs, poles, markers, and curbs, which are temporarily removed to facilitate installation of the Work shall be replaced and restored to their original condition at Contractor's expense.
- E. Protection of Products:
1. Control traffic to prevent damage to equipment, materials and surfaces.

2. Provide covering to protect equipment and materials from damage.

F. Protection from Flood:

1. The Contractor shall not allow any areas of the Work to flood. The Contractor shall keep all existing and new facilities within his/her Work area free of all accumulations of water.

1.9 STAGING AREAS, PARKING, STORAGE AND WORK AREAS

A. Contractor's Staging Areas:

1. The Contractor's staging areas shall be as submitted and approved by the Engineer.
2. The Contractor shall be responsible for repairs to existing fencing, grading, placing and maintaining crushed stone surfacing throughout staging areas or any other work area as required.
3. The Contractor shall provide and maintain a drainage system, approved by the Engineer, such that no ponding of water shall occur in the staging area and adjacent areas during the Contract period.
4. Within 30 calendar days following substantial completion of the Contract, the staging area shall be leveled, drained, graded and restored by the Contractor, as directed by the Engineer and the Department.

B. Parking, Storage and Work Areas:

1. The Contractor shall maintain suitable parking and storage areas for his/her use acceptable to the Department and the Engineer on and/or off the project site.
2. Contractor shall utilize the area designated by the Department as his/her specified work areas.
3. The Contractor will be required to arrange his/her work and dispose of his/her materials in such manner as to cause the least interference with the work and storage of materials of other Contractors working within the same area.
4. No Contractor shall claim exclusive occupancy of areas within or adjacent to the limits of his/her work under this Contract. The Department and its employees and the Contractors for other contracts shall also have access to these areas.

5. The Contractor shall modify any storage areas to cause minimum disturbance to existing occupants of the facility, and shall comply with the directions of the Department. At the completion of the Work, the surfaces of the land used for storage areas shall be restored by the Contractor to the satisfaction of the Department and the Engineer.

1.10 SECURITY

- A. Contractor shall safely guard all Work, materials, equipment and property from loss, theft, damage and vandalism. Contractor's duty to safely guard property shall include the Department's property and other private property from injury or loss in connection with the performance of the Work (refer to Section 01540 – Security).

1.11 TEMPORARY FENCING

- A. The Contractor shall furnish all labor, materials, supplies, equipment, power, facilities and incidentals necessary to install a temporary 6-foot high chain link fence and, at a minimum, two gates to secure the entire perimeter of the temporary facility areas, including, but not limited to, the Contractor's Field Office Trailer, the Engineer's/Department's Field Office Trailer and all staging, parking, and storage areas, as specified herein and as directed by the Department.
- B. The Contractor shall submit shop drawings of the temporary fencing showing layout, details of construction and erection of temporary fence gate and accessories in accordance with the submittal procedures specified in Section 01330.
- C. Temporary fencing and gates shall be as supplied by:
 1. National Rent-A-Fence Company (800-352-5675).
 2. Approved Equal.

1.12 CONTRACTORS' FIELD OFFICES

- A. Contractor shall furnish and maintain a field office for their use during the period of construction. Contractor shall provide their own telephone service and shall have readily accessible, at the field office, copies of the Contract Documents, latest approved Shop Drawings and all project-related correspondence, Change Orders, etc.
- B. The Contractor's field office shall be located in the designated staging area as approved by the Engineer.

C. Contractor shall provide a Contractor's field office with the minimum facilities specified. Provide all required storage and work sheds.

1. Field Office and Furnishings:

- a. Acceptable appearance, weatherproof building with lockable door.
- b. Telephone service.
- c. Six protective helmets for visitor's use.
- d. Exterior identifying sign.
- e. Company sign no larger than 4 feet by 8 feet.

2. Remove office and sheds upon Final Completion unless otherwise approved by Engineer.

1.13 ACCESS TO PROJECT SITE

Access to project site shall be from Route 20, as designated by the Engineer and Department and as shown on the Contract Drawings. Access to the site shall be limited to the hours of operation as specified herein. The Contractor shall arrange and limit all vehicle movements, material deliveries, etc., to the prescribed hours of operation. Exception to this provision shall only be made with the express written permission of the Department.

1.14 CONTRACT LIMITS

- A. The lands upon which the Work is to be performed, rights of way for access thereto, and such other lands which are designated for the use of the Contractor are presented on the Contract Drawings. For the purposes of these Contract Documents, the Contract Limits shall be as depicted on the Contract Drawings.
- B. For the purpose of providing and connecting to utilities and related services (telephone, electric, etc.), as well as to complete the required work, it will be necessary for the Contractor to undertake work outside the Contract Limits. Such work areas shall be presented to the Engineer for written approval prior to undertaking said work. The Contractor shall be required to apply for and obtain all permits and approval from the utility companies, Town of New Lebanon, County of Columbia and State of New York.
- C. The Contractor shall restore any and all existing above ground and below ground structures within the Contract Limits and on public and privately

owned property which are removed, damaged or in any way altered by the Contractor. The existing structures shall be restored to existing conditions as part of completion of the Work.

- D. Prior to any earthwork, the Contractor shall install a 6-foot high chain link fence at the Contract Limits, as shown on the Contract Drawings, and a 4-foot high plastic orange safety fence at the excavation area boundaries to prevent unauthorized access to the portion of the site where work is taking place. In addition, the Contractor shall install a 4-foot high plastic orange safety fence at the boundary of all work conducted outside the property line of the former Bouchard Junkyard while work is being conducted in these areas. The location of the chain link fence shall be surveyed by the Contractor to ensure the fence is installed on the property line shown on the Contract Drawings. The Contractor shall maintain the chain link fence and safety fence in first class condition during the Work and remove and properly dispose of the fence off-site as part of completion of the Work.
- E. Access to the portion of the site where work is taking place shall be restricted at all times to authorized Contractor, Department and Engineer personnel.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

SECTION 01540

SECURITY

PART 1 - GENERAL

1.1 SITE SECURITY

- A. The Contractor is solely responsible for the security of the Department's, Engineer's and Contractor's work areas, equipment, materials, and supplies provided under this contract. Furthermore, Contractor is responsible for ensuring site visitors related to this contract are escorted as necessary (to get where they are going) and do not enter contaminated areas without authorization. The Contractor may provide a uniformed watchman or other security measures at the expense of the Contractor. Security shall be maintained full time while Contractor personnel are on-site.
- B. The Contractor shall be responsible for site security within the project site, 24 hours/day, seven days/week, for the duration of the Contract. The repair or replacement due to loss, theft, damage or vandalism to the Contractor's work, equipment, or materials at the site shall be at the Contractor's expenses. The security requirements specified in these contract documents are only minimum requirements. The Contractor has the option to provide additional security as desired, at his own expense.
- C. If the Contractor furnishes a uniformed watchman or other security personnel, the Contractor shall provide that person(s) with accommodations separate from the Department and Engineer.
- D. Contractor shall make no claim against the Department for damage resulting from trespass.
- E. Contractor shall make good all damage to property of Department and others arising from failure to provide adequate security.
- F. The Engineer will have the right of approval and rejection of the Contractor's security personnel.
- G. The Contractor shall be responsible for the control of all persons and vehicles entering and leaving the project site. Security personnel shall:
 - 1. Require display of proper identification by each person and bar from the project site personnel not properly identified.
 - 2. Require personnel to print full name and employer and sign in on entering the project site and to sign out when leaving and maintain

the logs.

3. Maintain a log of project-related vehicles and equipment entering and leaving the work areas.
 4. Persons not associated with the project will require the Engineer's acceptance to be admitted on site.
 5. Maintain a log of visitors, separate from the project personnel log.
 6. Be unarmed.
- H. A log of all security incidents shall be maintained and furnished to the Engineer upon request.
- I. The Contractor shall ensure that all warning signs are in place and temporary fences around work areas are closed and any breaks or gaps are attended immediately. The Engineer shall be informed immediately of any incident of vandalism in the work areas.
- J. If existing fencing or barricades are breached or removed for purposes of construction, Contractor shall provide and maintain temporary security fencing equal to the existing in a manner satisfactory to the Engineer and Department.
- K. The Contractor shall contact law enforcement officials, emergency medical care units, local fire departments and utility emergency teams to ascertain the type of response required in any emergency situation and to coordinate the responses of the various units. A standard operating procedure describing security force response to foreseeable contingencies shall be developed. The Contractor shall also prepare and update a list of emergency points of contact, telephone numbers, radio frequencies, and call signs to ensure dependable responses.
- L. The Contractor shall maintain a current list of authorized persons and shall submit copies of the updated list to the Engineer. As required by the Engineer, all Contractor's employees shall be issued identification badges which shall be displayed at all times.
- M. Security personnel shall record their presence while patrolling the site using a watchman's clock. The tapes or punch cards shall be delivered to the Engineer once a week.
- N. Contractor shall maintain the security program throughout construction until the date of substantial completion and occupancy precludes the need for the Contractor's security program.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

+ + END OF SECTION + +

NO TEXT THIS PAGE

SECTION 01560

ENVIRONMENTAL CONTROLS

PART 1 – GENERAL

1.1 DESCRIPTION

- A. The Contractor shall furnish all labor, materials, equipment and incidentals necessary to perform all Work required for environmental protection in accordance with all federal, state and local laws and regulations, and as directed by the Department. For the purpose of these Specifications, environmental protection is defined as the retention of the environment in its natural state to the greatest extent possible during the Work. Environmental protection includes protection of air, water and land resources, and involves elimination of noise, dust, vapors, solid waste management and management of other pollutants.
- B. The Contractor shall provide and maintain methods, equipment, and temporary construction, as necessary to provide controls over environmental conditions at the construction site and adjacent areas. Remove physical evidence of temporary facilities at completion of Work.
- C. All waste resulting from Work activities shall be removed and disposed at an approved facility at no additional cost to the Department in accordance with applicable federal, state and local laws and regulations, and the requirements of this Contract. The Contractor, prior to requesting final acceptance of the Work, shall remove such materials from each work area.
- D. Disposal in and adjacent to the site of any debris, wastes, effluents, trash, garbage, oil, grease, chemical, etc., resulting from the Work will not be permitted. If any waste material is placed in unauthorized areas, the Contractor shall remove the waste and restore the area to its original condition. If necessary, soil contaminated from such unauthorized disposal operation shall be excavated, disposed as directed by the Engineer and the Department, replaced with general fill, compacted and seeded or paved in accordance with these Specifications, or as directed by the Engineer and the Department, at no additional cost to the Engineer and the Department.
- E. The Contractor shall take all necessary measures to control the release of dust, odors and vapors. These measures will be employed at the Contractor's expense following approval by the Engineer.

- F. The Contractor shall take all necessary measures, as approved by the Engineer, to minimize interference with or disturbance of fish and wildlife.
- G. The Contractor shall not pollute any surface waters or groundwater with fuels, oils, bitumens, calcium chloride, acids, insecticides, herbicides or other harmful materials.

1.2 NOISE CONTROL

- A. Contractor's vehicles and equipment shall be installed and operated such as to minimize noise to the greatest degree practicable. Noise levels shall conform to the latest OSHA standards and local codes. In no case, will noise levels be permitted which interfere with work of others, nearby residential areas or existing occupants of the site.

1.3 DUST CONTROL

- A. The Contractor shall take all necessary measures to prevent the migration of dust off-site due to the Work activities. No liquids other than potable water shall be used for dust control.
- B. The Contractor shall monitor for dust in accordance with Section X, Spec 00003.

1.4 PEST AND RODENT CONTROL

- A. Contractor shall provide rodent and pest control as necessary to prevent infestation of construction or staging areas.
 - 1. Employ methods and use materials which will not adversely affect conditions at the site or on adjoining properties.

1.5 WATER CONTROL

- A. The Contractor shall schedule and conduct all Work in a manner that will prevent the erosion of soils and release of soils and water from the Work area. Control measures shall be provided, such as diversion channels, berms, sedimentation or filtration systems, silt fences or other special surface treatments as required to prevent the release of soils and water, and silting, muddying and contamination of drainage ways, storm water collection systems and recharge basins. All control measures shall be in place in each area prior to performing Work.
- B. Contractor shall provide methods to control surface water and water from excavation structures to prevent damage to the Work, the site, or adjoining properties.

1. Control fill, grading and ditching to direct water away from excavations, pits, tunnels and other construction areas; and to direct drainage to proper runoff courses so as to prevent any erosion, damage or nuisance.
- C. Provide, operate and maintain equipment and facilities of adequate size to control surface water.
- D. Dispose of drainage water in a manner to prevent flooding, erosion, or other damage to any portion of the site or to adjoining areas and in conformance with all environmental requirements.
- E. Any discharge of drainage water shall comply with New York State Department of Environmental Conservation State Pollutant Discharge Elimination System (SPDES) requirements found at 6 NYCRR Part 750 and United States Environmental Protection Agency TSCA PCB Regulations found at 40 CFR Part 761. (Refer to Section 02112)

1.6 POLLUTION CONTROL

- A. The Contractor shall provide methods, means and facilities required to prevent contamination of soil, water or atmosphere by the discharge of noxious substances from construction operations.
- B. The Contractor shall provide equipment and personnel and perform emergency measures required to contain any spillages and to remove contaminated soils or liquids resulting from the Contractor's operations.
 1. Excavate and dispose of any contaminated earth off-site, and replace with suitable compacted fill and topsoil.
- C. The Contractor shall take special measures to prevent harmful substances from entering public waters.
 1. Prevent disposal of wastes, effluents, chemicals, or other such substances adjacent to streams, or in sanitary waste or storm water disposal structures.
- D. The Contractor shall provide systems for control of atmospheric pollutants.
 1. Prevent toxic concentrations of chemicals.
 2. Prevent dispersion of harmful pollutants into the atmosphere.
- E. All Contractor's equipment used during construction shall conform to all current federal, state and local laws and regulations.

1.7 EROSION CONTROL

- A. The Contractor shall plan and execute construction work and earthwork by methods to control surface drainage from cuts and fills, and from borrow and waste disposal areas, to prevent erosion and sedimentation.
 - 1. Hold the areas of bare soil exposed at one time to a minimum.
 - 2. Provide temporary control measures such as berms, dikes and drains, as specified on the Contract Drawings and as required by applicable federal, state and local codes and regulations.
- B. Periodically inspect earthwork to detect any evidence of the start of erosion and apply corrective measures as required to control erosion.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

SECTION 01652

SAMPLING PLAN

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This Section specifies requirements for sampling and analysis of waste characterization samples, excavated soil characterization samples, excavation endpoint samples, groundwater samples, water supply samples, general backfill samples, wetlands backfill samples, decontamination pad soil samples, topsoil samples and dewatering discharge samples.
- B. The Contractor shall prepare and submit a site-specific Sampling Plan (SAP) in accordance with the requirements of this section of the Specifications and as directed by the Department.
- C. The SAP shall provide a comprehensive description of the procedures to be used for collection and analysis of soil samples, collection and analysis of excavated soil characterization samples, collection and analysis of samples of all waste generated and requiring characterization during the Work and collection and analysis of water supply and groundwater samples, collection and analysis of all backfill and topsoil samples, and collection and analysis of water generate from dewatering activities. The SAP shall include, but not necessarily be limited to, procedures for sample collection, labeling, preservation, storage, chain-of-custody requirements and shipping; sample analysis including analytical methods and quality assurance/quality control; and data reduction, validation and reporting.
- D. In preparing and submitting the SAP, the Contractor shall comply with the submittal requirements specified in Section 01330 – Project Submittals.

1.2 PLAN CONTENT

- A. The SAP must include, at a minimum, the information specified below, presented in the sequence it appears below:
 - 1. The number and type of each sample to be collected and analyzed. The SAP shall include a chart reflecting the number of samples to be collected, matrices, sample containers, holding times, time from which holding times shall be measured, preservation techniques, analytical protocols to be used and anticipated QA/QC samples to be collected and analyzed. (See Table 01652-1)

2. The list of analytes to be identified and quantified for each analysis.
3. Any special handling procedures that may be required. In identifying analytical protocols, the statement "ASP" is insufficient. The Contractor shall designate by method number the specific protocol contained in the NYSDEC Analytical Services Protocol (ASP) which shall be used.
4. In accordance with ASP requirements, a table identifying the frequency and types of all required quality control samples including trip blanks, rinse blanks, field blanks, matrix spikes, matrix spike duplicates and matrix spike blanks.
5. The matrix specific detection limits for each of the analytes and matrices listed. (This value should be in the range of 1/5 the specific limit of concern.)
6. List of all field sampling and monitoring equipment, including manufacturers and model numbers, and equipment maintenance and calibration procedures, including the recommended frequency for calibration of all on-site equipment.
7. Description of sample collection methods for each sample matrix, including sample containers, sample custody, sample packaging, storage and shipping procedures.
8. Description of all equipment decontamination procedures.
9. The SAP shall include an organizational chart and identify a designated, qualified Quality Assurance (QA) Officer. The SAP shall include a copy of the QA Officer's résumé and signature page for the QA Officer. The SAP and all revisions shall be signed by the QA Officer prior to submission to the Engineer. The QA Officer shall be within the same geographical area as the project and independent of the analytical laboratory. Additional requirements of the QA Officer are provided below.
10. The SAP shall include the name(s) and qualifications of the laboratory(s) to be used for this project for chemical analyses. The Contractor shall be required to obtain approval from the Engineer for all laboratories to be used on this project.
11. The SAP must state that prior to any deviations from the agreed program, the Engineer shall be notified and the deviation accepted by the Engineer. However, such an acceptance does not limit the full responsibility of the Contractor to meet all requirements of the Contract Documents.

1.3 PLAN REQUIREMENTS

A. Sample Collection and Analysis:

1. Within the SAP the Contractor shall include all applicable information with regard to sample collection for each of the matrices of concern.
2. Samples collected as part of the Work shall be analyzed in such a manner that the resulting data meets and supports data use requirements. The data shall be reported in a manner that assures that the precision, accuracy, representativeness, comparability and completeness requirements included in the approved SAP are achieved.
3. The SAP shall include sufficient direction and detail that on-site personnel can perform all on-site activities, including instrumentation calibration, instrumentation maintenance, instrumentation use, sample collection, sample shipment, and data documentation and reporting.
4. Samples shall be collected as specified and as directed by the Engineer and the Department.
5. Waste generated on-site shall be sampled and analyzed in accordance with the approved SAP. The number of samples, sample collection methodologies, sample analysis methods and rationale for characterizing all waste shall be provided in the SAP and shall be the responsibility of the Contractor. The Contractor shall be responsible for all sampling and analyses as may be required by the disposal facilities. Results of the analyses shall be provided to the Engineer prior to removal of waste from the site.

B. Monitoring:

1. The manufacturer-supplied owner's manual for all instrumentation to be used by the Contractor shall be included in the SAP.
2. In a separate section of the SAP, the Contractor shall provide a step-by-step description of the calibration and maintenance procedures for all instrumentation, including the frequency for each procedure and separate forms to be completed each day to document calibration of equipment and recording of monitoring results.
3. The Contractor's approved QA Officer shall be responsible for calibration, maintenance and operation of all instrumentation.

1.4 EXCAVATION ENDPOINT SOIL SAMPLING PROGRAM

- A. Samples shall be collected with a disposable polyethylene scoop and analyzed for Target Compound List (TCL) polychlorinated biphenyls (PCBs) in accordance with NYSDEC ASP Method 8082. Superfund CLP Category B or equivalent reporting and deliverables shall be required. Appropriate site-specific and laboratory QA/QC sampling, including, but not limited to, matrix spike, matrix spike duplicates and trip blanks, in accordance with NYSDEC ASP requirements, shall be included as part of the sampling program.
- B. Soil samples shall be collected as follows:
 - 1. A sample shall be collected with a dedicated disposable polyethylene scoop and placed into laboratory supplied containers.
 - 2. Soil samples will be required to document the effectiveness of the removal of contaminated soil from excavation limits. The frequency, location and type of samples to be collected are specified in Section 02111 – Excavation, Removal and Handling of PCB-Contaminated Soil.

1.5 EXCAVATED SOIL WASTE CHARACTERIZATION SAMPLING PROGRAM

- A. Soil samples will be required to document the levels of contamination to determine if the excavated soil shall be considered non-hazardous or hazardous. The frequency and type of samples to be collected shall be in accordance with New Jersey Department of Environmental Protection's Division of Solid and Hazardous Waste's "Waste Classification Request Form," Appendix 1 and USEPA's TSCA PCB Regulations (40 CFR Part 761).
- B. Samples shall be collected with a disposable polyethylene scoop and analyzed in accordance with all applicable federal, state and local laws and regulations, and the requirements of the disposal facility.

1.6 WASTE CHARACTERIZATION SAMPLING

- A. Waste characterization samples shall be collected in accordance with all applicable federal, state and local laws and regulations and the requirements of the disposal facility.

1.7 WATER SUPPLY AND GROUNDWATER SAMPLING

- A. Samples shall be collected with dedicated disposable polyethylene bailers and rope and analyzed for TCL volatile organic compounds, TCL semi-

volatile organic compounds, and TCL pesticides/PCBs in accordance with NYSDEC ASP Method SOW OLMO 4.2, Target Analyte List (TAL) metals in accordance with NYSDEC ASP Method SOW ILMO 4.0 and cyanide in accordance with NYSDEC ASP Method 335.2 to document groundwater quality prior to and after completion of the work. Superfund CLP Category B or equivalent reporting and deliverables shall be required. Appropriate site-specific and laboratory QA/QC sampling, including, but not limited to, matrix spike, matrix spike duplicates and trip blanks, in accordance with NYSDEC ASP requirements, shall be included as part of the sampling program.

B. Water samples shall be collected as follows:

1. Prior to collecting the samples, water levels will be obtained from each groundwater monitoring well and water supply well using a hand held electric water level indicator. The water level shall be measured in reference to the top of the well's inner casing or surveyed reference mark.
2. A minimum of three well volumes shall be purged from the well prior to sampling. The total purged volume shall not exceed five times the amount of standing water in the well. All water purged during collection of the samples shall be containerized and properly disposed in accordance with all applicable federal, state and local laws and regulations.
3. Field measurements, including pH, conductivity, temperature, dissolved oxygen and turbidity shall be measured immediately before sampling. Turbidity must be less than 50 nephelometric turbidity units (NTUs) prior to collection of a sample for metals analysis.
4. The water samples shall be transferred directly from the polyethylene bailer directly into laboratory supplied containers.
5. Groundwater samples will be required to document the pre- and post-construction groundwater conditions.

1.8 GENERAL BACKFILL

- A.** Samples shall be collected and analyzed for TCL volatile organic compounds, TCL semivolatile organic compounds and TCL pesticides/PCBs in accordance with NYSDEC ASP Method SOW OLMO 4.2, TAL metals in accordance with NYSDEC ASP Method ILMO 4.0 and cyanide in accordance with NYSDEC ASP Method 335.2.

1.9 WETLANDS BACKFILL

- A. Samples shall be collected and analyzed for TCL volatile organic compounds, TCL semivolatile organic compounds and TCL pesticides/PCBs in accordance with NYSDEC ASP Method SOW OLMO 4.2, TAL metals in accordance with NYSDEC ASP Method ILMO 4.0, cyanide in accordance with NYSDEC ASP Method 335.2, total organic carbon in accordance with NYSDEC ASP Method 9060A, nitrogen in accordance with NYSDEC ASP Method SM4500, phosphorus in accordance with NYSDEC ASP Method SM4500 and pH in accordance with NYSDEC ASP Method 9045D.

1.10 DECONTAMINATION PAD SOIL

- A. The Contractor shall obtain and analyze one five point composite sample (0-6" below the area where the decontamination pad is to be built) prior to the construction of the decontamination pad and one five point composite sample (0-6" below grade) after the decontamination pad has been removed. Each sample shall be collected with a disposable polyethylene scoop and analyzed for TCL PCBs in accordance with NYSDEC ASP Method 8082.

1.11 TOPSOIL

- A. Samples shall be collected and analyzed for TCL volatile organic compounds, TCL semivolatile organic compounds and TCL pesticides/PCBs in accordance with NYSDEC ASP Method SOW OLMO 4.2, TAL metals in accordance with NYSDEC ASP Method ILMO 4.0 and cyanide in accordance with NYSDEC ASP Method 335.2.

1.12 WATER GENERATED FROM DEWATERING ACTIVITIES

- A. The Contractor shall collect a representative sample of contained water generated from dewatering activities prior to discharge of the water during each discharge event and weekly until the discharge is complete. Samples shall be analyzed for TCL PCBs in accordance with NYSDEC ASP Method SOW OLMO 4.2 and TAL metals in accordance with NYSDEC ASP Method ILMO 4.0.

1.13 SAMPLE DESIGNATION

- A. Sample bottles (preserved, if necessary), labels, shipping containers, trip blanks, and field blank water shall be provided by the analyzing laboratory.

- B. Sample containers to be submitted for analysis shall be labeled with the following information:
1. Site identification code;
 2. Sample type (media) identification code;
 3. Sample location identification code and field quality control identification code (if applicable);
 4. Date and time of collection;
 5. Field handling (e.g., filtration);
 6. Type of preservative added (if applicable); and
 7. Initials of sampling technician.
- C. QC identifiers shall be as follows:
1. Field Replicate = FR
 2. Field Blank = XX
 3. Matrix Spike and Matrix Spike Duplicate = MS/MSD
 4. Matrix Spike Blank = MB
 5. Trip Blank = TB
- D. A record of sequentially numbered samples for each media with corresponding sample designations shall be kept in the project log book, which shall be provided to the Engineer upon request.

1.14 FIELD SAMPLE HANDLING AND SHIPMENT

- A. All samples shall be collected and handled according to the appropriate analytical protocols for each matrix. The types of containers, volumes needed and preservation techniques for the proposed testing parameters shall be identified in the SAP.
- B. All samples shall be delivered to the approved laboratory(s) within 24 hours of collection and shall be preserved appropriately from the time of sample collection. The following sample packing and shipping procedures shall be followed for samples requiring chemical analysis.

1. Prepare cooler(s) for shipment.
 - a. tape drain(s) of cooler shut;
 - b. affix "This Side Up" arrow labels and "Fragile" labels on each cooler; and
 - c. place mailing label with laboratory address on top of cooler(s).
2. Arrange sample containers in groups by sample number.
3. Verify that all bottle labels are completed correctly. Place clear tape over bottle labels to prevent moisture accumulation from causing the label to peel off.
4. Arrange containers in front of assigned coolers.
5. Seal sample containers within plastic zip-lock bags to prevent leakage.
6. Place approximately 2 inches of vermiculite or other packaging material at the bottom, sides and top of the cooler to cushion the sample containers.
7. Arrange containers in the cooler so that they are not in contact with the cooler or other samples.
8. Fill remaining spaces with vermiculite or other packaging material.
9. Ensure all containers are firmly packed in vermiculite or other packaging material.
10. If ice is required to preserve the samples, ice cubes should be packaged in double zip-lock bags, and placed on top of the vermiculite or other packaging material.
11. Sign chain of custody form (or obtain signature) and indicate the time and date it was relinquished to carrier, as appropriate.
12. Separate copies of chain of custody forms. Seal proper copies within a large zip-lock bag and tape to inside of cooler lid. Retain copies of all forms.
13. Close lid and latch.
14. Secure each cooler using custody seals.

15. Tape cooler shut on both ends.
16. Relinquish to courier service as appropriate. Retain airbill receipt for project records. All samples shall be shipped for "Next Day" delivery.
17. Telephone laboratory contact and provide the laboratory with the following shipment information:
 - a. sampler's name;
 - b. project name;
 - c. number of samples sent according to matrix and concentration; and
 - d. airbill number.

1.15 NOTIFICATION OF CHANGES

- A. After approval of the SAP, the Engineer must be notified by the Contractor, in writing, a minimum of 14 calendar days prior to making any proposed changes or within 24 hours of making any unavoidable changes to the Plan. All changes shall require the approval of the Engineer.

1.16 LABORATORY REQUIREMENTS

- A. All laboratory analyses, and in particular all references to NYSDEC Superfund analytical chemistry, shall be in accordance with the 2000 or most current edition of the NYSDEC Analytical Services Protocol (ASP). It is the Contractor's responsibility to retain the services of a laboratory familiar with this document, and all procedures and deliverables pertaining to New York State Superfund work. All analyses must be performed by a laboratory currently certified by the New York State Department of Health Environmental Laboratory Approval Program (ELAP) and Contract Laboratory Program (CLP) in all categories.
- B. The name, qualifications and certifications of the laboratory shall be provided for the review and approval by the Engineer and the Department and in the SAP.

1.17 QA OFFICER REQUIREMENTS

- A. The Contractor's project Quality Assurance (QA) Officer must have a minimum of a bachelor's degree in chemistry or natural sciences with a minimum of 20 credit-hours in chemistry.

- B. The QA Officer must be proficient in analytical methodology, data quality and interpretation, sampling plan development, quality control procedures and auditing techniques.
- C. The QA Officer shall assist the Contractor in the development of the sampling and analytical portion of the SAP, perform field, laboratory and sampling audits, interface with the analytical laboratory to make requests and resolve problems, interface with the data validator and develop a project specific data usability report.
- D. The QA Officer shall sign off on the site-specific SAP and all revisions.

1.18 DATA EVALUATION REQUIREMENTS

- A. All data generated as part of this project shall be evaluated by the QA Officer. The QA Officer is required to identify to the Engineer in writing any and all problems or potential problems with regard to the validity of the data generated. The QA Officer shall provide with each required submittal to the Engineer a Data Usability Summary Report (DUSR) which evaluates the quality, validity and usability of the data provided with respect to the intended use. The DUSR shall follow the guidelines as specified in the New York State Department of Environmental Conservation's Draft DER-10 Technical Guidance for Site Investigation and Remediation, Appendix 2B.

1.19 DELIVERABLES

- A. At a minimum, 24-hour laboratory turnaround shall be provided for all sample analyses.
- B. All sampling and monitoring results shall be submitted to the Engineer in the form of typed summary tables. The summary tables shall provide the identification name of each location that each sample was collected from, the sample identification number, the date and time each sample was collected and the results of the analysis for each parameter. Electronic versions of the summary tables must be submitted.
- C. Final analytical reports shall be Superfund CLP Category B deliverables or equivalent and shall be provided to the Engineer within 28 days from receipt of the sample by the laboratory, unless directed otherwise by the Department.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

**Table 01652-1
Summary of Analytical Sampling Requirements**

Parameter	Sample Analysis	Sample Type	Sample Frequency	QA/QC Frequency	Required Turn Around Time	Level of Reporting	Data Validation Required?
Endpoint Soil Samples							
TCL PCBs	NYSDEC ASP EPA Method 8082	Grab	For Excavations 20 to 300 feet in perimeter: One per 30' (Linear Sidewall) One per every 900 square feet bottom area For Excavations greater than 300 feet in perimeter: One per 100' (Linear Sidewall) One per every 2500 square feet bottom area	One MS/MSD/MSB per 20 samples	24 Hour	NYS Category B	DUSR
Water Supply and Groundwater Samples							
Volatiles	NYSDEC ASP Method SOW OLMO 4.2	Grab	Pre-Construction (MW-1,MW-2R,MW-4, MW-6R,and 6 on-site water supply wells) Post-Construction (MW-1,MW-2R,MW-4, MW-6R,and 6 on-site water supply wells)	One Trip Blank per Sample Shipment and one MS/MSD/MSB per 20 samples or one per sample set	24 Hour	NYS Category B	DUSR
Semivolatiles	NYSDEC ASP Method SOW OLMO 4.2	Grab	Pre-Construction (MW-1,MW-2R,MW-4, MW-6R,and 6 on-site water supply wells) Post-Construction (MW-1,MW-2R,MW-4, MW-6R,and 6 on-site water supply wells)	One Trip Blank per Sample Shipment and one MS/MSD/MSB per 20 samples or one per sample set	24 Hour	NYS Category B	DUSR
TCL Pesticides/PCBs	NYSDEC ASP Method SOW OLMO 4.2	Grab	Pre-Construction (MW-1,MW-2R,MW-4, MW-6R,and 6 on-site water supply wells) Post-Construction (MW-1,MW-2R,MW-4, MW-6R,and 6 on-site water supply wells)	One Trip Blank per Sample Shipment and one MS/MSD/MSB per 20 samples or one per sample set	24 Hour	NYS Category B	DUSR
TAL Metals	NYSDEC ASP Method SOW ILMO 4.0	Grab	Pre-Construction (MW-1,MW-2R,MW-4, MW-6R,and 6 on-site water supply wells) Post-Construction (MW-1,MW-2R,MW-4, MW-6R,and 6 on-site water supply wells)	One Trip Blank per Sample Shipment and one MS/MSD/MSB per 20 samples or one per sample set	24 Hour	NYS Category B	DUSR
Cyanide	NYSDEC ASP Method 335.2	Grab	Pre-Construction (MW-1,MW-2R,MW-4, MW-6R,and 6 on-site water supply wells) Post-Construction (MW-1,MW-2R,MW-4, MW-6R,and 6 on-site water supply wells)	One Trip Blank per Sample Shipment and one MS/MSD/MSB per 20 samples or one per sample set	24 Hour	NYS Category B	DUSR
Excavated Soil Waste Characterization							
Disposal Facility Requirements	Disposal Facility Requirements	In accordance with NJDEP Division of Solid Waste's "Waste Classification Request Form" Appendix 1		Disposal Facility Requirements	24 Hour	NYS Category B	DUSR
Waste Characterization							
Disposal Facility Requirements	Disposal Facility Requirements	Disposal Facility Requirements		Disposal Facility Requirements	24 Hour	NYS Category B	DUSR

Table 01652-1 (continued)
Summary of Analytical Sampling Requirements

Parameter	Sample Analysis	Sample Type	Sample Frequency	QA/QC Frequency	Required Turn Around Time	Level of Reporting	Data Validation Required?
General Backfill							
Volatiles	NYSDEC ASP Method SOW OLMO 4.2	Grab	One per 1000 cy ⁽⁵⁾	One MS/MSD/MSB per 20 samples or one sample set	24 Hour	NYS Category B	DUSR
Semivolatiles	NYSDEC ASP Method SOW OLMO 4.2	Grab	One per 1000 cy ⁽⁵⁾	One MS/MSD/MSB per 20 samples or one sample set	24 Hour	NYS Category B	DUSR
TCL Pesticides/PCBs	NYSDEC ASP Method SOW OLMO 4.2	Grab	One per 1000 cy ⁽⁵⁾	One MS/MSD/MSB per 20 samples or one sample set	24 Hour	NYS Category B	DUSR
TAL Metals	NYSDEC ASP Method SOW ILMO 4.0	Grab	One per 1000 cy ⁽⁵⁾	One MS/MSD/MSB per 20 samples or one sample set	24 Hour	NYS Category B	DUSR
Cyanide	NYSDEC ASP Method 335.2	Grab	One per 1000 cy ⁽⁵⁾	One MS/MSD/MSB per 20 samples or one sample set	24 Hour	NYS Category B	DUSR
Wetland Backfill							
Volatiles	NYSDEC ASP Method SOW OLMO 4.2	Grab	One per 1000 cy ⁽⁵⁾	One MS/MSD/MSB per 20 samples or one sample set	24 Hour	NYS Category B	DUSR
Semivolatiles	NYSDEC ASP Method SOW OLMO 4.2	Grab	One per 1000 cy ⁽⁵⁾	One MS/MSD/MSB per 20 samples or one sample set	24 Hour	NYS Category B	DUSR
TCL Pesticides/PCBs	NYSDEC ASP Method SOW OLMO 4.2	Grab	One per 1000 cy ⁽⁵⁾	One MS/MSD/MSB per 20 samples or one sample set	24 Hour	NYS Category B	DUSR
TAL Metals	NYSDEC ASP Method SOW ILMO 4.0	Grab	One per 1000 cy ⁽⁵⁾	One MS/MSD/MSB per 20 samples or one sample set	24 Hour	NYS Category B	DUSR
Cyanide	NYSDEC ASP Method 335.2	Grab	One per 1000 cy ⁽⁵⁾	One MS/MSD/MSB per 20 samples or one sample set	24 Hour	NYS Category B	DUSR
Total Organic Carbon	NYSDEC ASP Method 9060A	Grab	One per 1000 cy ⁽⁵⁾	One blind duplicate per sample set	24 Hour	NYS Category B	DUSR
Nitrogen	NYSDEC ASP Method SM4500	Grab	One per 1000 cy ⁽⁵⁾	One blind duplicate per sample set	24 Hour	NYS Category B	DUSR
Phosphorus	NYSDEC ASP Method SM4500	Grab	One per 1000 cy ⁽⁵⁾	One blind duplicate per sample set	24 Hour	NYS Category B	DUSR
pH	NYSDEC ASP Method 9045D	Grab	One per 1000 cy ⁽⁵⁾	One blind duplicate per sample set	24 Hour	NYS Category B	DUSR
Decontamination Pad Soil							
TCL PCBs	NYSDEC ASP EPA Method 8082	Five point composite	Pre-Construction Post-Construction	One MS/MSD/MSB per 20 samples or one sample set	24 Hour	NYS Category B	DUSR

**Table 01652-1 (continued)
Summary of Analytical Sampling Requirements**

Parameter	Sample Analysts	Sample Type	Sample Frequency	QA/QC Frequency	Required Turn Around Time	Level of Reporting	Data Validation Required?
Topsoil							
Volatiles	NYSDEC ASP Method SOW OLMO 4.2	Grab	One per 1000 cy ⁽⁵⁾	One MS/MSD/MSB per 20 samples or one sample set	24 Hour	NYS Category B	DUSR
Semivolatiles	NYSDEC ASP Method SOW OLMO 4.2	Grab	One per 1000 cy ⁽⁵⁾	One MS/MSD/MSB per 20 samples or one sample set	24 Hour	NYS Category B	DUSR
TCL Pesticides/PCBs	NYSDEC ASP Method SOW OLMO 4.2	Grab	One per 1000 cy ⁽⁵⁾	One MS/MSD/MSB per 20 samples or one sample set	24 Hour	NYS Category B	DUSR
TAL Metals	NYSDEC ASP Method SOW ILMO 4.0	Grab	One per 1000 cy ⁽⁵⁾	One MS/MSD/MSB per 20 samples or one sample set	24 Hour	NYS Category B	DUSR
Cyanide	NYSDEC ASP Method 335.2	Grab	One per 1000 cy ⁽⁵⁾	One MS/MSD/MSB per 20 samples or one sample set	24 Hour	NYS Category B	DUSR
Water from Dewatering Activities							
TCL PCBs	NYSDEC ASP Method SOW OLMO 4.2	Grab	Prior to discharge of the water for each discharge event and weekly until the discharge is complete.	One Trip Blank per Sample Shipment and one	24 Hour	NYS Category B	DUSR
TAL Metals	NYSDEC ASP Method SOW ILMO 4.0	Grab	Prior to discharge of the water for each discharge event and weekly until the discharge is complete.	One Trip Blank per Sample Shipment and one	24 Hour	NYS Category B	DUSR

Notes:

1. DUSR = NYSDEC Data Usability Summary Report
2. Turn-Around-Time is the amount of time between submittal of samples to the analytical laboratory and receipt of analytical results.
3. The DUSR shall be completed by an independent data validator.
4. Standard level of reporting shall consist of a summary of laboratory results, laboratory QA/QC results, and a copy of the chain-of custody submitted to the laboratory with the samples.
5. If a New York State Department of Transportation (NYSDOT) approved borrow source is used for backfill only one sample will be required for the source. If a manufactured fill material is used for backfill, analysis will be required every 500 cy or more frequently if necessary at the discretion of the Engineer.

SECTION 01653

WORK PLAN

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The Contractor shall prepare and submit a site-specific Work Plan in accordance with the requirements of the Contract Documents.
- B. In preparing and submitting the Work Plan the Contractor shall comply with the submittal requirements specified in Section 01330 - Project Submittals and Section III, Article 5.

1.2 PLAN CONTENT

- A. The Work Plan shall include, but not necessarily be limited to, the following:
 - 1. Drawings to scale showing the proposed locations and dimensions of all facilities, including the office trailers and sanitary facilities; temporary truck weigh scale; fencing; parking areas; site access and egress routes; areas where existing debris will be moved to; staging areas for excavated soil; equipment staging area, storm water management facilities; and storage areas for plastic sheeting, general fill, etc. The drawings provided shall also include, but not be limited to the layout of material stockpiles, including a drainage plan for the area and waste stockpiles.
 - 2. A detailed progress schedule for performance of tasks required to fulfill the Contract requirements. The schedule shall at a minimum identify the dates of all required submittals, and start dates and completion dates for the following activities: notifications; pre-construction groundwater monitoring; mobilization to the site; construction of fencing and signs; clearing and grubbing; consolidation of debris; delivery of the project trailers; installation of utilities; construction and preparation of staging and storage areas; construction of sheeting; construction of temporary truck weigh scale; dewatering; excavation, off-site transportation and disposal of contaminated soil; wetlands dewatering; excavation, off-site transportation and disposal of contaminated sediment in wetland areas; placing, compacting and grading of general fill; site restoration; wetlands restoration; wetlands post-excavation characterization sampling and monitoring; post-construction groundwater monitoring; and demobilization from the site. Refer to

and monitoring; post-construction groundwater monitoring; and demobilization from the site. Refer to Section X, Standard Specifications, Spec 00001, Progress Schedule, for additional requirements.

3. Identification of all permits, approvals, licenses, notifications, etc., required to complete the Work.
4. An organization chart including subcontractors. The responsibilities of each individual in the organization shall be clearly defined in terms of project activities including, but not limited to, project management and coordination; scheduling and schedule control; quality control; sampling, measurement, analysis, and data management; and completion of construction activities. In addition, the previous experience of each individual in the project organization shall also be submitted for review and approval. Credentials of new operators, quality control personnel, and supervisory engineering and technical staff shall be furnished to the Engineer for approval.
5. Procedures for characterization and management of all waste generated, including used plastic sheeting, personal protective equipment, etc.
6. Manpower, procedures and equipment to be used for pre- and post-construction groundwater monitoring.
7. Manpower, procedures and equipment to be used for post-excavation wetlands characterization sampling and monitoring.
8. Manpower, procedures and equipment to be used for clearing and grubbing, including protection of wells and other structures, utilities and facilities to remain in place.
9. Manpower, procedures and equipment to be used for consolidation of debris and other material.
10. Manpower, procedures and equipment to be used for installation of temporary facilities.
11. Manpower, procedures and equipment to be used for installation of temporary truck weigh scale, including testing, calibration procedures, and a sample certified weigh scale ticket.
12. Manpower, procedures and equipment to be used for dewatering, sedimentation and erosion control, control of odors, vapors and dust, management of construction waters, transporting waste, containing and covering waste and sheeting, shoring and bracing.

13. A dewatering plan describing the manpower, procedures and equipment to be used to dewater excavation areas.
14. Manpower, procedures and equipment to be used for removal of contaminated soil, including excavating, storing, and transporting the material.
15. Manpower, procedures and equipment to be used for the removal of contaminated sediment from the wetlands area, including dewatering, and excavating, storing and transporting the material.
16. A site-specific quality control program detailing the procedures for inspection, testing, and correction of deficiencies. This program shall ensure that the Contractor's operations comply with the requirements of the contract plans and specifications with respect to quality of materials, workmanship, construction, finish, functional performance, and accuracy of data.
17. A proposed Process Material Tracking Schedule for recording and managing the quantities of the contaminated materials excavated, temporarily stored and disposed of off-site, and backfill and topsoil delivered to the site.
18. A mobilization and demobilization plan.
19. For environmental compliance, a site-specific Noise Control and Monitoring Plan. This plan shall include, but not be limited to, expected noise level, sources of noise, proposed noise control, and types and locations of monitoring devices.
20. Truck routing plan, describing how the Contractor will transport contaminated and clean materials throughout the site to minimize spreading contamination.
21. Manpower, procedures and equipment to be used for waste transportation and disposal.
22. Manpower, procedures and equipment to be used for backfill and compaction, including transporting, filling, grading and compacting.
23. Manpower, procedures and equipment to be used for placement of topsoil, seed and plantings.
24. Manpower, procedures and equipment to be used for restoration of the wetlands areas.

25. The proposed source of gravel, general fill, topsoil, trees, bushes, and any other materials to be delivered to the site by the Contractor.
26. Letters of Commitment shall be obtained by the Contractor from all waste haulers and from all transfer, treatment, storage and disposal facilities to which the Contractor intends to ship any and all waste and other materials generated by the Work. The letters of commitment shall specifically identify the types and quantities of waste that the facility will be able to accept from the Contractor, the permit numbers for all facilities at which the waste will be accepted and all waste characterization requirements. In the event that a facility (such as a privately owned treatment works) is prohibited from issuing a letter of commitment without a sample of the waste, a conditional type letter will be acceptable. Such a conditional letter shall specifically state what types and quantities of waste the facility will accept. In addition, the following information shall be submitted:
 - a. For each waste hauler
 - 1) Name and federal and state identification numbers.
 - 2) Address.
 - 3) Name of responsible contact for the hauler.
 - 4) Telephone number for the contact.
 - 5) List of types and sizes of all transport vehicles and equipment to be used.
 - 6) A description of proposed transportation route, method and procedures for hauling waste material, including type of vehicles that will be used for each type of waste.
 - 7) Copies of any and all necessary permits and authorizations for each type of waste transported.
 - b. For each transfer, treatment, storage and disposal facility, the Contractor shall submit the following information.
 - 1) General Information:
 - a) Facility name and federal and state identification numbers
 - b) Facility location

- c) Name of responsible contact for the facility
 - d) Telephone number for contact
 - e) Signed letter of commitment to accept waste as specified in this Contract
 - f) Unit of measure utilized at facility for costing purposes
 - 2) Copies of all permits, licenses, letters of approval, and other authorizations to operate, held by the proposed facility as they pertain to receipt and management of waste derived from work conducted under this Contract.
 - 3) The Contractor shall identify the unit(s) that the facility will use to manage the waste.
 - 4) The Contractor shall provide the date of the proposed facility's last compliance inspection by all federal, state and local government agencies.
 - 5) List of all active (unresolved) compliance orders (or agreements), enforcement notices, or notices of violation issued to the proposed facility.
- 27. Description of security operations.
 - 28. Description of procedures to be used to delineate and control access and egress from the facility.
 - 29. The owner's name, address and telephone number, location and certifying agency of all weigh scales to be used for measurement of materials. A sample certified weigh scale ticket shall be included for each weigh scale to be used.
 - 30. A sample of the decontamination certificates to be provided by the Contractor in accordance with the requirements of the Specifications.
 - 31. A description of the procedures and equipment to be used to identify and protect aboveground and underground utilities and structures.

1.3 NOTIFICATION OF CHANGES

- A. After approval of the Work Plan, the Engineer must be notified by the Contractor in writing a minimum of 14 calendar days prior to making any

proposed changes or within 24 hours of making any unavoidable changes to the Work Plan. All changes shall require the approval of the Engineer.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

+ + END OF SECTION + +

SECTION 01654

CONSTRUCTION QUALITY ASSURANCE/ CONSTRUCTION QUALITY CONTROL PROGRAM

PART 1 - GENERAL

1.1 SCOPE

1. All aspects of the Work shall be subject to a Construction Quality Assurance/Construction Quality Control (QA/QC) program.
2. Refer to Section 01652, Sampling Plan, for all QA/QC requirements associated with environmental samples (e.g., endpoint samples) to be collected during the Contract. All other work and testing shall be covered by the construction QA/QC Plan described herein.
3. All work and materials shall be tested as specified in these Contract Documents, and only work and materials which comply with these specifications and pass the required tests shall be accepted. Any work and/or materials which fail to satisfy the requirements of these specifications shall be reworked, repaired or removed and replaced, and retested, as appropriate, at no additional cost to the Department.
4. The Contractor shall retain the services of an independent testing laboratory(s) to perform testing required to be performed by the Contractor. Where applicable, the laboratory shall meet the "Recommended Requirements for Independent Laboratory Qualifications" latest edition, published by the American Council of Independent Laboratories. The Contractor shall submit a copy of a report regarding the latest inspection of the proposed laboratory facilities conducted by the Materials Reference Laboratory of the National Bureau of Standards. The report shall specifically include any deficiencies or remedies resulting from the inspection. The selection of the independent testing laboratory shall be submitted to the Engineer for review and approval.
5. The Contractor shall bear all costs associated with testing required to be performed by the Contractor in accordance with these Specifications. The Contractor may perform additional testing as the Contractor deems appropriate for the Contractor's own information and shall bear all costs associated with the additional testing.

6. In addition to testing performed by the Contractor, the Department may retain the services of an independent testing laboratory(s) to perform testing and furnish certified results for all the tests to be conducted by the Engineer.
7. In the event that the Engineer is required to sample and test any aspect of the Work more than the initial sampling and testing, and one resampling and retesting, the Contractor shall bear all costs relating to the Department's independent testing laboratory for any second or subsequent resampling and retesting of the specific work in question. The costs associated with any second or subsequent resampling and retesting required by the Engineer shall be determined based on the standard charges of the laboratory in place for the project and shall be deducted from the monies due the Contractor from the next payment request.
8. The specific tests, procedures and frequencies of tests to be performed by the Contractor and, if applicable, the Engineer are enumerated in the pertinent specification sections of the Contract Documents.
9. The Contractor shall provide access to and assist the Engineer, the Department's independent testing laboratory or Department's representatives in the taking and securing of samples, tests, and any related items as specified, as required or as appropriate in the opinion of the Engineer.
10. The Contractor shall schedule and/or make available all materials which are required to be tested prior to their incorporation into the Work in order to allow ample time for sampling, testing (including retesting as appropriate) and receipt of results. The Contractor shall not consider compliance with the sampling, testing, subsequent resampling and retesting requirements, and any related items as specified herein as grounds for hardship or delay, or as the basis for a claim.

B. Contractor's Quality Control

1. General - The Contractor shall furnish for approval by the Engineer, the Contractor's Construction QA/QC Plan within 5 calendar days after the notification that the Bidder is the apparent low Bidder. The Plan shall identify personnel, procedures, instructions, records and forms to be used. If the Contractor fails to submit an acceptable QA/QC Plan within the time herein prescribed, the Engineer may refuse to allow construction to start until such time as the Contractor submits an acceptable plan.

2. The Contractor's Construction QA/QC Plan shall include as a minimum, the following:
 - a. A description of the quality control organization, including chart showing lines of authority and acknowledgment that the Contractor's QC staff shall report to the Contractor's Superintendent or someone higher in the Contractor's organization.
 - b. The name, qualifications, duties, responsibilities and authorities of each person assigned a QC function.
 - c. A copy of a statement signed by an authorized official of the Contractor's firm which describes the responsibilities and delegates the authorities of the QA/QC Site Manager.
 - d. Procedures for scheduling and managing submittals, including those of subcontractors, off-site fabricators, suppliers and purchasing agents.
 - e. Quality control methods and procedures for each specific test. The name, address and qualifications of each proposed testing laboratory and the intended project-specific function of each laboratory shall be provided. Approval from the Engineer shall be required for all testing laboratories used on the project.
 - f. Description of all instrumentation and equipment to be used for testing on-site, including manufacturers and model numbers, calibration procedures and qualifications of technicians.
 - g. Description of quality assurance for installation of the various components of the Work, manufacturing, fabrication and delivery of raw materials; transportation handling and storage materials; earth work (surface preparation, trench anchorage); panel placement; field seaming; corrective measures and documentation.
 - h. Reporting procedures, including proposed reporting formats.
3. Acceptance of Plan - Acceptance of the QA/QC Plan by the Engineer is required prior to mobilization on-site. Acceptance is conditional and will be predicated on satisfactory performance during the construction.
4. Notification of Changes - After acceptance of the QA/QC Plan by the Engineer, the Contractor shall notify the Engineer in writing of

any proposed change. Proposed changes are subject to acceptance by the Engineer.

C. Quality Assurance/Quality Control Organization

1. QA/QC Site Manager – The QA/QC Site Manager shall be responsible for overall management of the QA/QC Plan and have the authority to act in all QA/QC matters for the Contractor. This person shall demonstrate the ability to perform correctly the duties required to the satisfaction of the Engineer and shall be physically at the project site whenever work is in progress and will be in charge of the Contractor's Quality Control program for this project. All of the Contractor's submittals for approval shall be reviewed and modified or corrected as needed by the QA/QC Site Manager or authorized assistants and approved correct prior to forwarding of such submittals to the Engineer.
2. Personnel - The personnel of the QA/QC staff shall be fully qualified by experience and technical training to perform their assigned responsibilities and shall be directly hired by and work for the Contractor.
3. The QA/QC Site Manager shall be responsible for certifying that all submittals are in compliance with the Contract requirements.

D. Execution

1. Contractor Construction Quality Control is the means by which the Contractor shall be assured that the construction complies with the requirements of the Contract Drawings and Specifications. The controls shall be adequate to cover all construction operations, including both on-site and off-site operations, and will be keyed to the proposed construction sequence. The controls shall include the following:
 - a. Preparatory Inspection - This shall be performed prior to beginning any definable feature of work. It shall include a review of Contract requirements; a check to assure that all materials and/or equipment have been tested, submitted and approved; a check to assure that provisions have been made to provide required testing; examination of the Work area to ascertain that all preliminary work has been completed; and a physical examination of materials, equipment and sample work to assure that they conform to approved shop drawings or submittal data, and that all material and/or equipment are on hand.

- b. Initial Inspection - This shall be performed as soon as a representative portion of the particular feature of work has been accomplished and shall include examination of the quality of workmanship and a review of testing for compliance with Contract requirements, use of defective or damaged materials, omissions and dimensional requirements.
- c. Follow-up Inspection - These shall be performed daily to assure continuing compliance with the Contract requirements, including control testing, until completion of the particular feature of work. Such inspection shall be made a matter of record in the QA/QC documentation. Final Follow-up Inspections shall be conducted and deficiencies corrected prior to the addition of new features of work.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

NO TEXT THIS PAGE

SECTION 01655

STORM WATER MANAGEMENT PLAN

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The Contractor shall prepare and submit a site-specific Storm Water Management Plan (SWMP) prior to mobilization to the site. The Contractor shall prepare and submit the SWMP in accordance with the requirements of the specifications, the Contract Drawings, as directed by the Department and as required by applicable federal, state and local codes and regulations.
- B. In preparing and submitting the SWMP the Contractor shall comply with the requirements specified in Section 01330, Project Submittals and Section III, Article 5.
- C. The Storm Water Management Plan shall be prepared by the Contractor to describe the storm water management systems to be implemented in complete detail pursuant to the requirements of the Contract Documents. No work shall be permitted until the SWMP has been approved. Any modifications to the SWMP which may become necessary, as a result of the Contractor's methods of working or which may be required by the Engineer shall be submitted to the Engineer for approval. The Contractor shall adhere strictly to the provisions of the SWMP as approved, and shall control and manage storm water in every area where work activities take place, and are impacted by water from work areas or other Contractor activities at the site.
- D. Design criteria and construction of all water management systems shall be in accordance with New York State guidelines and applicable federal, state and local requirements.
- E. Management and disposal of all water/liquids shall be in accordance with all federal, state and local laws and regulations.
- F. In the event surface runoff is the cause of existing clean areas or subsequently cleaned areas becoming contaminated, the affected areas shall be cleaned as directed by the Department at no additional cost to the Department. The Contractor shall be responsible for all costs associated with mitigating the effects of contaminated runoff migrating to clean areas or off-site during the duration of the Contract.

1.2 QUALITY ASSURANCE

- A. Reference Standards: The Work shall comply with applicable provisions and recommendations of the following, except where otherwise shown or specified:
1. New York State Department of Environmental Conservation (NYSDEC):
 - a. DEC – 2005 New York Standards and Specifications for Erosion and Sediment Control.
 - b. SPDES - SPDES General Permit for Storm Water Discharges from Construction Activities (Permit Number GP-02-01)
 - c. DEC-SCM - 1986 Stream Corridor Management: A Basic Reference Manual
 2. Soil and Water Conservation Society - Empire State Chapter:
 - a. SWCS - 1997 (or latest version) New York Guidelines for Urban Erosion and Sediment Control
 3. Codes, Rules, and Regulations of the State of New York:
 - a. 6 NYCRR Part 700 - Definitions, Samples and Tests
 - b. 6 NYCRR Part 360 - Solid Waste Management Facilities
 4. Laws of the State of New York:
 - a. ECL Article 15 - Water Resources

1.3 PLAN CONTENT

- A. The Storm Water Management Plan shall be prepared by a professional engineer licensed to practice in New York State and shall include, but not necessarily be limited to, the following:
1. Drawings to scale showing the proposed locations and dimensions of all storm water management facilities, including, but not limited to on-site recharge facilities, sediment and erosion control facilities, storm water control structures and water storage facilities. The SWMP shall show and describe the storm water routes, collection and diversion features, and disposal or discharge locations for each phase of construction.

2. Identification of all permits, approvals, licenses, notifications, etc. required to complete the storm water management work, including but not limited to, NYSDEC SPDES permits and NYSDEC's Division of Water's Notice of Intent.
3. Procedures for handling all water/liquids generated including storm water, decontamination water, dust control water, dewatering liquids, etc.
4. The SWMP shall show and describe measures to control storm water and to maintain separation of potentially contaminated water from uncontaminated water during each phase of construction. In addition, the SWMP shall show and describe the measures to control runoff from migrating off-site.
5. The SWMP shall describe the methods and equipment to be used to prevent storm water from entering open excavations during construction. The SWMP shall describe the sequencing of excavation work, in accordance with the Contract Drawings, and in conjunction with storm water management on site during construction.
6. The SWMP shall describe the means and methods to prevent storm water from contacting excavated soil stored on-site.
7. All calculations and assumptions used for the sizing and siting of proposed temporary erosion and sedimentation control facilities.

B. Erosion and Sediment Control Guidelines:

1. Existing vegetation on the project site shall be retained and protected to minimize soil loss on the project site and to minimize erosion control costs.
2. Sediment control practices and measures, where necessary, shall be designed to protect the natural character of rivers, streams or other water bodies on-site, and minimize erosion and sedimentation off-site from the start of land disturbance activities to establishment of permanent stabilization.
3. The off-site impacts of erosion and sedimentation related to land clearing, grading and construction activities shall not be any greater during and following land disturbance activities than under pre-development conditions.

4. Pursuant to 6 NYCRR Part 700:

- a. Toxic and other deleterious substances shall not be discharged in amounts that will adversely affect the taste, color or odor thereof, or impair the waters of the State for their classified usages.
- b. Suspended, colloidal and settleable solids shall not be discharged in amounts that cause substantial visible contrast to natural conditions, or causes deposition or impairs the waters for their classified usages.

Stream reaches on-site and downstream of construction areas shall not have substantial visible contrast relative to color, taste, odor, turbidity and sediment deposition from the reaches upstream of the construction area. Impacts such as these which result from construction or development activities are a violation of 6 NYCRR Part 700 water quality standards and may be subject to enforcement actions.

5. Erosion and sediment control measures shall be constructed in accordance with an erosion and sediment control plan. The plan shall be included as part of the SWMP and shall:

- a. Describe the temporary structural and vegetative measures that will be used to control erosion and sedimentation for each stage of the project from land clearing to the finished stage.
- b. Provide a map showing the location of erosion and sediment control measures.
- c. Provide dimensional details of proposed and sediment control facilities, as well as calculations used in the siting and sizing of sediment basins.
- d. Identify temporary erosion and sediment control facilities which will be converted to permanent storm water management facilities.
- e. Provide an implementation schedule for staging temporary and permanent erosion and sediment control facilities.
- f. Provide a maintenance schedule for soil erosion and sediment control facilities, and describe maintenance activities to be performed.

6. Erosion and sediment control measures shall be constructed prior to beginning any other land disturbances. The devices shall not be removed until the disturbed land areas are stabilized.
7. Guidance:
 - a. Exposure Restrictions: No more than 5 acres of unprotected soil shall be exposed at any one time. Previous earthwork shall be stabilized in accordance with SWCS before additional area is exposed. Site factors, including topography, soil erosion potential, proximity to wetlands and watercourses, may require limiting the amount of raw earth that shall be exposed at any one time to less than 5 acres.
 - b. Grading: Perimeter grading shall blend with adjoining properties.
 - c. Vegetative Protection: Where protection of trees or other vegetation is required, the location of the site to be protected shall be shown on the erosion control plan. The method of protecting vegetation during construction shall conform to the design criteria in SWCS.
 - d. Drainage Control:
 - 1) Surface runoff that is relatively clean and sediment free shall be diverted or otherwise prevented from flowing through areas of construction activity on the project site.
 - 2) A fill associated with an approved temporary sediment control structure or permanent storm water management structure shall not be created which causes water to pond off-site on adjacent property, without first having obtained ownership or permanent easement for such use from the owner of the off-site or adjacent property.
 - 3) Natural drainage channels shall not be altered or relocated without the proper approvals. Pursuant to ECL Article 15, a protected stream, and the bed and banks thereof, shall not be altered or relocated without the approval of the Department.
 - 4) Runoff from any land disturbing activity shall not be discharged or have the potential to be discharged off-site or into storm drains or into watercourses unless

such discharge is directed through a properly designed, installed and maintained structure, such as a sediment trap, to retain sediment on-site. Accumulated sediment shall be removed when 60 percent of the storage capacity of the sediment retention structure is filled with sediment.

- 5) For finished grading, adequate gradients shall be provided so as to prevent water from standing on the surface of lawns for more than 24 hours after the end of a rainfall, except in a swale flow area which may drain as long as 48 hours after the end of the rainfall.
- 6) Permanent swales or other points of concentrated water flow shall be stabilized with sod, riprap, paving, or covered with an approved erosion control matting as provided for in the design criteria in SWCS.
- 7) Surface flows over cut and fill slopes shall be controlled as provided for in the design criteria for vegetating waterways in SWCS.

e. Timing:

- 1) Except as noted below, all sites shall be seeded and stabilized with erosion control materials, such as straw mulch, jute mesh or excelsior within 15 days of final grading. If construction has been suspended, or sections completed, areas shall be seeded immediately and stabilized with erosion control materials. Maintenance shall be performed as necessary to ensure continued stabilization.
 - i) For active construction areas, such as borrow or stockpile areas and roadway improvements, a perimeter sediment control system consisting of silt fencing or hay bales shall be installed and maintained to contain soil.
 - ii) On cut side of roads, ditches shall be stabilized immediately with rock riprap or other non-erodible liners or, where appropriate, vegetative measures such as sod. When seeding is approved, an anchor mulch shall be used and soil shall be limed and fertilized in accordance with SWCS.

- iii) Permanent seeding shall optimally be undertaken in accordance with Section 02485 of the Specifications. During the peak summer months and in the fall when seeding is found to be impracticable, mulch shall be applied. Permanent seeding shall be undertaken during summer if plans provide for adequate watering of the seed bed.
 - iv) All slopes steeper than 3:1 (h:v), as well as basin embankments, shall, upon completion, be immediately stabilized with sod, seed and anchored straw mulch, or other approved stabilization measures. Areas outside of the perimeter sediment control system shall not be disturbed. Slopes shall be maintained as necessary to ensure continued stabilization.
- 2) Temporary sediment trapping devices shall be removed within 30 calendar days following establishment of permanent stabilization in all contributory drainage areas. Storm water management structures used temporarily for sediment control shall be converted to the permanent configuration within this time period as well.

f. Stream protection:

- 1) The bed and banks of all off-site streams that may be impacted by land clearing, grading and construction activities shall be protected to prevent stream, streambank erosion, stream enlargement and degradation, or loss of fisheries habitat. Measures for protecting the bed and banks of a stream include riprap, log cribbing and vegetative measures.
- 2) Where temporary work roads or haul roads cross stream channels, adequate waterway openings shall be constructed using spans, culverts, washed rock backfill or other acceptable, clean methods that will ensure that road construction and use do not result in turbidity and sediment downstream. All stream crossing activities and appurtenances shall be in compliance with a permit issued pursuant to ECL Article 15 and shall be carried out in conformance with guidelines in DEC-SCM.

g. Maintenance:

- 1) An erosion control plan for the project site shall identify maintenance requirements for erosion and sediment control practices utilized and it shall provide a maintenance schedule. All erosion and sediment control measures shall be inspected periodically and maintained in conformance with the schedule so as to ensure they remain in effective, operating condition until such times as they are removed.
- 2) All points of construction ingress and egress shall be protected to prevent the deposition of materials onto traversed public thoroughfare, either by installing and maintaining a stabilized construction entrance, or by washing all vehicle wheels in a safe disposal area. All materials deposited onto public thoroughfares shall be removed immediately. Proper precautions shall be taken to ensure that materials deposited onto public thoroughfares are removed.
- 3) Accumulated sediment shall be removed when 60 percent of the storage capacity of the retention structure is filled with sediment.

PART 2 - PRODUCT (NOT USED)

PART 3 - EXECUTION (NOT USED)

+ + END OF SECTION + +

SECTION 01656

CONTRACTOR'S EQUIPMENT AND TOOLS

PART 1 – GENERAL

1.1 DESCRIPTION

- A. The Contractor shall provide all equipment and experienced personnel necessary to complete the Work. The Contractor shall provide all materials, tools, equipment, accessories, fuel, power, and all other materials and services necessary for the satisfactory completion of all Work.
- B. The Contractor shall maintain the equipment in good operating condition for the life of the Contract. In the event that, during the course of the Work, the equipment, judged on the basis of Work completed to date is considered unsatisfactory to the Engineer and the Department, the Contractor shall, within 48-hours, unless otherwise approved by the Department, replace the unsatisfactory equipment with equipment which is satisfactory to the Department.
- C. The Contractor shall not be reimbursed for time lost due to breakage and/or maintenance of equipment.
- D. The Contractor shall furnish and keep on the site where Work is in progress, a completely equipped first-aid kit and shall provide ready access thereto at all times when workers are employed at the site in accordance with the Contractor's Health and Safety Plan.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

+ + END OF SECTION + +

NO TEXT THIS PAGE

SECTION 01657

STORAGE OF MATERIALS AND EQUIPMENT

PART 1 – GENERAL

1.1 DESCRIPTION

- A. The Contractor shall place and store all equipment and materials to be used and incorporated in the Work so as not to injure, hinder, or unduly interfere with any part of the Work and so that free access can be had at all times to the site, facilities and Work areas. Materials and equipment shall be kept neatly piled and compactly stored in such locations as will cause a minimum of inconvenience to personnel entering the site and in areas approved by the Department. The Department shall not assume liability for the security of said equipment and materials.
- B. The Contractor shall take appropriate measures to ensure that no materials are stockpiled adjacent to excavation areas.
- C. Soil stockpiles shall be managed in accordance with the approved Work and Waste Handling Plan, Section 02111 – Excavation, Removal and Handling of PCB-Contaminated Soil, and as shown on the Contract Drawings.
- D. The Contractor shall ensure that all containers used in the completion of Work are covered, stored on pallets as appropriate and labeled during the completion of Work.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

NO TEXT THIS PAGE

SECTION 01658

EQUIPMENT DECONTAMINATION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The Work covered by this Section consists of the decontamination of equipment. Personnel decontamination shall be addressed in the Contractor's Health and Safety Plan.
- B. The Contractor shall furnish all labor, equipment, materials, supplies, facilities, power and incidentals needed for construction of a decontamination pad for the decontamination of equipment as specified and as directed by the Department and as shown on the Drawings.
- C. The Contractor shall minimize the use of water for decontamination purposes to the extent practicable.
- D. All equipment decontamination following the excavation of soil with PCBs greater than 50 ppm, shall be conducted in accordance with USEPA TSCA regulations (40 CFR Part 761).
- E. All decontamination waste liquids and solids shall be collected, managed and disposed off-site in accordance with applicable federal, state and local laws and regulations, and in accordance with Section 01652 – Sampling Plan, and Section 01653 – Work Plan. No decontamination waste liquids and solids shall be discharged and disposed of on-site.
- F. Refer to Section X, Spec. 00003, Minimum Requirements for Health and Safety for additional equipment decontamination requirements.

1.2 SUBMITTALS

- A. In accordance with Section 01330 – Project Submittals, the Contractor shall submit the following as part of the Health and Safety Plan:
 - 1. A description of decontamination methods consisting of:
 - a. The proposed equipment and methods to be used in the equipment decontamination procedures including dusting, brushing, water use, power requirements and detergents to be used. This shall also include any additional decontamination procedures for equipment used to excavate TSCA regulated PCB-contaminated soil

- b. Drawings showing construction details of the decontamination pad, spill prevention methods, and required storage methods and volumes for wastewater.
- 2. A certificate signed by the Contractor stating that each vehicle shall be free of contamination prior to entering the site.
- 3. A sample of the decontamination certificate, to be signed and submitted by the Contractor, for each construction vehicle leaving the site.

PART 2 - PRODUCTS

2.1 EQUIPMENT/MATERIALS

- A. All decontamination equipment, materials and supplies necessary for the performance of the Work shall be supplied by the Contractor.
- B. A decontamination pad shall be constructed as shown on the Contract Drawings and as directed by the Engineer. The decontamination pad shall meet the following minimum requirements:
 - 1. Adequate dimensions to contain wash water and debris from the largest sized vehicles to be utilized in this Contract.
 - 2. Perimeter to be curbed a minimum of 1 foot high.
 - 3. A 40 mil impervious HDPE liner, overlain with a 16 ounce per square yard non-woven geotextile.
 - 4. Sloped 2% such that decontamination water is collected in a sump to be pumped to a mobile tanker or on-site storage tank.
 - 5. A 6 foot wide pea gravel ramp on the inlet and outlet sides of the pad.
- C. On-site storage tanks shall be located within secondary containment areas capable of containing 100% of the tank capacity, or 110% of the largest tank where the secondary containment area holds more than one tank. The secondary containment area shall have a permeability of not more than 1.0×10^{-7} cm/sec.

PART 3 - EXECUTION

3.1 GENERAL REQUIREMENTS

- A. The Contractor shall obtain and analyze one five point composite soil sample (0-6" below the area where the decontamination pad is to be built) prior to the construction of the decontamination pad and after the decontamination pad has been removed. Refer to Section 01652, Sampling Plan, for additional requirements. Should the sample results indicated contamination caused by the operation of the decontamination station, defined by an increase in concentrations from pre- to post-construction samples, the Contractor shall excavate and dispose of all contaminated soil and re-sample the area, as directed by the Engineer, at no additional cost to the Department.
- B. Contractor shall minimize use of wash waters used for decontamination purposes.
- C. All decontamination wash waters and other wastes shall be managed, transported and disposed off-site by the Contractor in accordance with federal, state and local laws and regulations.
- D. All safety equipment and other equipment used during performance of the Work shall be either decontaminated and salvaged, or contained and disposed of in accordance with applicable regulatory requirements.
- E. The station shall at a minimum include shovels, brushes, power washers, a steam generator, detergent solutions and provisions to collect decontamination wastewaters.
- F. At the end of each work day the Contractor shall remove all wastewater, precipitation and other materials which accumulate in the decontamination pad.

3.2 DECONTAMINATION OF EQUIPMENT, TOOLS AND FACILITIES

- A. The Contractor shall erect decontamination facilities at location(s) selected by the Contractor and approved by Engineer so that all heavy equipment is clean prior to leaving the site.
- B. All equipment used for excavation and other earthwork activities shall be decontaminated prior to:
 - 1. Crossing areas of the site which do not require remediation or have already been remediated;
 - 2. Handling clean fill materials; and

3. Leaving the site.

- C. All equipment used for excavation of TSCA regulated PCB-contaminated soil shall be properly decontaminated prior to excavation of non-TSCA regulated PCB-contaminated soil.
- D. The Contractor shall not allow equipment to leave the site with water leaking or mud dripping or caked to the equipment. All equipment leaving the site shall be dry except during rainy or snowy weather, or with the Engineer's written consent for other exceptions.
- E. Dry brushes shall be used to decontaminate excavators, trucks, trailers and drill rigs. Decontamination of this equipment may take place at the stabilized construction entrance for the site depicted on the Contract Drawings. Trailers and trucks shall not be decontaminated using jet washers or steam generators unless approved by the Engineer. Any dry decontamination must be performed in accordance with the activity cessation thresholds for dust as specified in the Contractor's HASP.
- F. Final decontamination of equipment other than excavators, trucks, trailers and drill rigs, shall consist of using a powered or steam cleaning system (steam generator) capable of effectively removing all soil, residues and other debris adhering to equipment. Additives to the wash water shall be used when necessary and approved by the Engineer to enhance decontamination to levels acceptable to the Engineer.
- G. After completion of the Work, the Contractor shall remove and dispose of the decontamination pad in accordance with all applicable federal, state and local laws and regulations. Approval from the Engineer shall be required prior to removal of the decontamination pad from the site. The Contractor shall remove any material from beneath the decontamination pad which is visibly contaminated as a result of the Contractor's operations as directed by the Department and at no additional cost to the Department.

3.3 PERSONNEL DECONTAMINATION

- A. Personnel shall be decontaminated in accordance with the Contractor's Health and Safety Plan.
- B. Employees of the Engineer and regulatory agencies will utilize the personnel decontamination facilities provided by Contractor.

+ + END OF SECTION + +

SECTION 01720

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Contractor shall maintain and provide the Engineer with project record documents as specified below except where otherwise specified or modified in the Contract Documents, and in Section VIII, Article 5.19.

1.2 MAINTENANCE OF DOCUMENTS

- A. Maintain in Contractor's field office in clean, dry, legible condition complete sets of the following: Contract Drawings, Specifications, Addenda, approved Shop Drawings, Samples, Photographs, Change Orders, other Modifications of Contract, Test Records, Field Orders, and all other documents pertinent to Contractor's Work.
- B. Provide files and racks for proper storage and easy access. File in accordance with filing format of Construction Specification Institute (CSI) unless otherwise approved by Engineer.
 - 1. Make documents available at all times for inspection by Engineer and Department representative.
 - 2. Record documents shall not be used for any other purpose and shall not be removed from the office without Engineer's approval.

1.3 RECORDING UPDATED INFORMATION

- A. General:
 - 1. Label each document "PROJECT RECORD" in 2-inch high printed letters.
 - 2. Keep record documents current, and updated at least monthly.
 - 3. Do not permanently conceal any Work until required information has been recorded.
- B. Contract Drawings: Legibly mark to record actual construction including:
 - 1. Depths of various elements of foundation in relation to datum.

2. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
 3. Field changes of dimensions and details.
 4. Changes made by Change Order or Field Order.
 5. Details not on original Contract Drawings.
- C. Specifications and Addenda: Legibly mark up each Section to record:
1. Changes made by Change Order or Field Order.
 2. Other matters not originally specified.
- D. Shop Drawings: Maintain as record documents and legibly annotate Drawings to record changes made after review.

1.4 FINAL SUBMITTAL OF RECORD DOCUMENTS

A. General

1. Upon completion of all Work and before requesting final payment, Contractor shall provide final excavation plans and site restoration plans showing all deviations from the Contract Documents. Two sets of paper prints shall be submitted to Engineer for review and approval. An electronic copy of the plans shall be submitted on compact disk to the Engineer in AutoCAD version 2007 and Adobe Acrobat version 7.0 (or alternate versions as approved by the Engineer).
2. Contractor shall revise the required plans in accordance with Engineer's comments and resubmit two additional sets of paper prints of the revised plans for Engineer's review and approval if requested by Engineer. An electronic copy of the plans shall be submitted on compact disk to the Engineer in AutoCAD version 2007 and Adobe Acrobat version 7.0 (or alternate versions as approved by the Engineer).
3. All plans showing final elevations and the locations and dimensions of Work shall be sealed and signed by a New York State-licensed surveyor and a New York State – licensed Professional Engineer employed by the Contractor in AutoCAD version 2007 and Adobe Acrobat version 7.0 (or alternate versions as approved by the Engineer).

4. Engineer's checking and approval of plans will apply to content only. Contractor shall be responsible for the accuracy and completeness of its Work.
5. Engineer will not approve Contractor's request for final payment until the required plans are received and approved. Final payment and acceptance shall be made in accordance with Section VIII, Article 13.11.
6. Shop drawings will not be deemed acceptable as as-built drawings.

B. Submittal:

1. At completion of project, deliver record documents to Engineer.
2. Accompany submittal with transmittal letter containing:
 - a. Date.
 - b. Project title and number.
 - c. Contractor's name and address.
 - d. Title and number of each record document.
 - e. Certification that each document as submitted is complete and accurate.
 - f. Signature of Contractor, or his/her authorized representative.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

NO TEXT THIS PAGE

SECTION 01760

PROJECT CLOSEOUT

PART 1 - GENERAL

1.1 FINAL CLEANING

- A. At the completion of the Work, the Contractor shall remove all rubbish from and about the location of the Work, and all temporary structures, construction signs, tools, scaffolding, materials, supplies and equipment which he/she or any of his/her Subcontractors may have used in the performance of the Work. Contractor shall broom clean paved surfaces and rake clean other surfaces of grounds.
- B. Contractor shall thoroughly clean all materials, equipment and structures; all marred surfaces shall be touched up to match adjacent surfaces and burned-out lights replaced as required; all glass surfaces cleaned and floors cleaned and polished so as to leave Work in a clean and new appearing condition.
- C. Remove spatter, grease, stains, fingerprints, dirt, dust, labels, tags, packing materials and other foreign items or substances from interior and exterior surfaces, equipment, signs and lettering.
- D. Remove paint, clean and restore all equipment and material nameplates, labels and other identification markings.
- E. Contractor shall maintain cleaning until project, or portion thereof, is occupied and final accepted by the Engineer and the Department.

1.2 INSPECTIONS

- A. At the time of substantial completion an inspection shall be held in accordance with the requirements of Section VIII, Article 13.6 of the Contract Documents. At this time the Contractor shall also provide all necessary documentation as required by the Specifications.
- B. At the time of completion of all the Work a final inspection shall be held in accordance with the requirements of Section VIII, Article 13.9 of the Contract Documents. The Contractor shall also provide all necessary documentation as required by the Specifications, and comply with all the requirements of the Contract Documents.

C. Follow-up Inspection:

1. At the time of the completion of the guarantee period as specified in Section VIII, Article 16.9 of the Contract Documents, the Engineer will make arrangements with the Department and the Contractor for a follow-up inspection and will send a written notice to said parties to inform them of the date and time of the inspection.
2. After the inspection, the Engineer will inform the Contractor of any corrections required.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

+ + END OF SECTION + +

DIVISION 2 – SITE WORK

NO TEXT THIS PAGE

SECTION 02050

DEMOLITION, REMOVALS AND MODIFICATIONS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope:

1. Contractor shall furnish all labor, materials, equipment and incidentals required for demolition, removal and disposal Work shown, specified and required to complete the project.
2. The Work shall include, but not limited to, demolition and removal of existing materials, equipment, or work necessary to install the new Work as shown and specified and to connect same with existing work in an approved manner.
3. Demolitions, removals and modifications which may be specified under other Sections shall conform to requirements of this section.

B. Related Work Specified Elsewhere:

1. Section 02110 – Clearing and Grubbing
2. Section 02111 – Excavation, Removal and Handling of PCB – Contaminated Soil

1.2 JOB CONDITIONS

A. Protection:

1. Contractor shall execute the demolition and removal Work to prevent damage or injury to structures, existing building services, occupants thereof and adjacent features which might result from falling debris or other causes, and so as not to interfere with the use, and free and safe passage to and from adjacent structures.
2. Contractor shall provide interior and exterior shoring, bracing and support to prevent movement, settlement, or collapse of existing structures or facilities. The Department assumes no responsibility for the actual condition of the structures or facilities adjacent to the Work or the structures or facilities designated for removal or modifications.

3. Closing or obstructing of roadways, sidewalks, and passageways adjacent to the Work by the placement or storage of materials will not be permitted, and all operations shall be conducted with a minimum interference to vehicular or pedestrian traffic.
4. Contractor shall erect and maintain barriers, lights, sidewalk sheds, and other required protective devices.
5. Contractor shall repair damages caused by his/her operation to facilities to remain, or to any property belonging to the Department, utilities, adjacent facilities or occupants of the facilities.
6. The Work shall comply with the applicable provisions and recommendation of ANSI A10.2, Safety Code for Building Construction, all governing codes and as hereinafter specified.
7. Contractor shall exercise precautions for fire protection. Burning of debris shall not be permitted.

B. Scheduling:

1. Contractor shall carry out all operations so as to avoid interference with operations of the adjacent facilities.
2. The Contractor shall be solely responsible for making all necessary arrangements and for performing all necessary work involving the discontinuance or interruption of all utilities or services.
3. Any equipment, piping and appurtenances removed without proper authorization, shall immediately be replaced to the satisfaction of the Engineer at no cost to the Department.

C. Notification:

1. At least 48 hours prior to commencement of a demolition or removal, Contractor shall notify the Engineer in writing of his/her proposed schedule. No removals shall be started without the permission of the Department.

D. Explosives:

1. Do not bring explosives on site. No explosives will be permitted for this project.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 GENERAL

- A. Contractor shall dispose of all demolition materials, equipment, debris, and all other items off the site and in conformance with applicable federal, state and local laws and regulations.
- B. Pollution Controls: Use water sprinkling, temporary enclosures, and other suitable methods to limit the amount of dust and dirt rising and scattering in the air to the lowest practical level. Comply with governing regulations pertaining to environmental protection.
 - 1. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding, and pollution.
 - 2. Clean adjacent structures, facilities, and improvements of dust, dirt, and debris caused by demolition operations. Return adjacent areas to conditions existing prior to the start of the Work.

3.2 STRUCTURAL REMOVALS

- A. All concrete, brick, tile, concrete block, roofing materials, reinforcement, structural or miscellaneous metals, plaster, wire mesh and other items contained in or upon the structure shall be removed and taken from the site, unless otherwise approved by the Engineer. Demolished items shall not be used in backfill.

3.3 PAVEMENT, GRAVEL ROADWAY, CURB AND SIDEWALK REMOVALS

- A. Remove existing pavement and gravel roadway, including base and surface courses, stabilized sub-bases, curbs, and gutters as required to construct new facilities or as shown. Before removing, saw a straight joint at least 1-1/2-inches deep between pavement designated for removal and that left in place. Curbs and gutters shall be removed to the nearest construction joint.
- B. Determine the thickness of existing pavement, base, sub-base, curb, gutter and driveway pavement to be removed, and the extent to which they are reinforced. No additional compensation will be made because of variations from the thickness shown or for variations in the amount of reinforcement.
- C. Provide for satisfactory transition between replaced pavement and the portions remaining in place.

3.4 CLEAN-UP

- A. Contractor shall remove from the site all debris resulting from the demolition operations as it accumulates. Upon completion of the Work, all materials, equipment, waste, and debris of every sort shall be removed and premises shall be left, clean, neat and orderly.

+ + END OF SECTION + +

SECTION 02111

EXCAVATION, REMOVAL AND HANDLING OF PCB-CONTAMINATED SOIL

PART 1 –GENERAL

1.1 SCOPE OF WORK

- A. Contractor shall excavate, handle and store contaminated soil as shown, specified and required to complete the work. The work shall generally consist of excavation, removal and handling of approximately 27,700 cubic yards of PCB-contaminated surface soil (0'-1.5' bgs) and 4,700 cubic yards of PCB-contaminated subsurface soil (1.5'-9' bgs). Characterization data on the nature and extent of the contaminated material is available in the Limited Site Data Summary Report for review by the Contractor (refer to Section IV, Article 5).
- B. Excavation limits are depicted on the Contract Drawings.
- C. Contractor shall establish a 50-foot grid network, as shown on the Contract Drawings, within the contract limits for use during construction. At areas near the contract limits, extra nodes may be required by the Engineer to properly delineate the limits of excavation. A minimum of four temporary benchmarks shall be established by the Contractor outside the contract limits for use during the work. All survey work required by the Contract shall consist of the measurement of spot elevations at each node of the grid network. Aerial surveys shall not be acceptable. Contractor shall utilize grade stakes at each node of the grid network to measure the depth of excavation as work proceeds. Where visibly uneven grades are observed by the Engineer between grid nodes, extra grade stakes may be required for further delineation, as directed by the Engineer. Grade stakes shall be labeled by the Contractor with cut line and shall remain in place to allow for field inspection of the excavation depths.
- D. As shown on the Contract Drawings, certain trees are to be replaced at the completion of the excavation work. Department, Engineer and Contractor shall jointly inspect the property and designate which trees are to be replaced prior to performing the excavation work. Trees that will be replanted shall be marked in the field using blue paint. The Contractor shall be responsible for surveying the location of all trees designated to be replaced and specifically noting them as a part of the initial site survey in

accordance with the requirements of Section 01050 – Field Engineering.

- E. The Contractor shall be responsible for ensuring compliance with permits applied for and held by the NYSDEC, including, but not necessarily limited to, wetland permits for clearing, excavation, grading, filling or construction in or within 100 feet of freshwater wetlands, pursuant to Articles 24 and 15 of the Environmental Conservation Law and the U.S. Army Corps of Engineers (Nationwide Permit 33 – Temporary Construction, Access and Dewatering, and Nationwide Permit 38 – Cleanup of Hazardous and Toxic Waste). The Contractor shall be responsible for ensuring compliance with all general conditions, specific conditions and notification requirements of issued permits.
- F. Related Work Specified Elsewhere:
 - 1. Section 02050, Demolition, Removals and Modifications.
 - 2. Section 02110, Clearing and Grubbing.
 - 3. Section 02112, Excavation, Removal and Handling of PCB-Contaminated Material in Wetlands Area
 - 4. Section 02120, Removal of Yard Waste and Debris.
 - 5. Section 02130, Waste Transportation and Disposal.
 - 6. Section 02200, Backfill and Compaction.
- G. All dewatering, sheeting and shoring, and other work necessary to complete the required excavation work shall be conducted by the Contractor in accordance with these Specifications.
- H. Work shall follow the sequence of construction presented in the Contract Drawings and all of the Contractor's approved submittals unless approval for a modified sequence is granted by the Engineer.
- I. The Contractor shall excavate all TSCA regulated PCB-contaminated soil prior to excavating any non-TSCA regulated PCB-contaminated soil in each area.

1.2 JOB CONDITIONS

A. Existing Structures:

1. Shown on the Contract Drawings are certain utilities and surface and underground structures located on or adjacent to the Work. This information has been obtained from existing records. It is not guaranteed to be correct or complete and is shown for the convenience of the Contractor. Contractor shall explore ahead of the required excavation to determine the exact location of all structures and utilities. They shall be supported and protected from damage or injury by the Contractor. If they are damaged or injured, they shall be restored immediately by the Contractor at no additional expense to the Department.
2. Following notice to proceed and prior to execution of the Work, the Contractor shall check and verify governing dimensions and elevations. The Contractor and Engineer shall jointly visually inspect the condition of adjoining structures. Photographs and records shall be made by the Contractor of any prior settlement or cracking of structures, pavements, and the like, that may become the subject of possible damage claims.

B. Existing Utilities:

1. Locate existing underground utilities in the areas of Work. If utilities are to remain in place, provide adequate means of protection during earthwork operations.
2. Should uncharted or incorrectly charted piping or utilities be encountered during excavation, consult with the Engineer and the Department in keeping respective services and facilities in operation. Repair damaged utilities to the satisfaction of the Engineer.
3. Do not interrupt existing utilities serving facilities occupied and used by the occupants of the facility or others, except when permitted in writing by Engineer.

C. Protection of Persons and Property:

1. Barricade open excavations occurring as part of this Work and post with warning lights. Operate warning lights during

hours from dusk to dawn each day and as otherwise required.

2. Protect structures, utilities, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by Contractor's operations.
 3. Consult Engineer and obtain his/her approval before removing or disturbing pipes, structures, or other facilities that are encountered on the line of the excavation.
 4. Structures, utilities, sidewalks, pavements and other facilities removed or disturbed shall be replaced to their original condition, unless otherwise shown, specified or directed.
- D. Dust Control: Contractor shall conduct all of his/her operations and maintain the area of his/her activities, including constant sweeping and sprinkling of roadways on a daily basis, so as to minimize creation and dispersion of dust. Due to the proximity of the Work to residential property, the Contractor shall be responsible for controlling the dispersion of the dust on a 24-hour basis. In addition, Contractor shall be responsible for controlling dust caused by his/her operation of vehicles and equipment, clearing or for any reason whatever.
- E. Odor Control: As an odor abatement measure, cover, at the end of each work day, all areas of organic or odorous material which were exposed during excavation with a minimum 6-in and a maximum 24-inch deep layer of clean fill. Excavated organic or odorous material shall be immediately removed off-site and shall not be stockpiled on-site. Such material shall be properly characterized and disposed of off-site in accordance with all applicable federal, state and local regulations.
- F. Roadways and Walks: Unless otherwise approved by the Engineer, excavated material and materials of construction shall be so deposited, and the Work shall be so conducted, as to leave open and free for vehicular traffic on an on-site roadway not less than 10 feet in width. All hydrants, valves, and other facilities which may require access during construction shall be kept accessible for use. During the progress of the Work, Contractor shall maintain such roadways in satisfactory condition and the Work shall at all times be so conducted as to cause a minimum of inconvenience to the occupants of the facility and pedestrians.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 EXCAVATION

A. General:

1. All excavation areas shall be surveyed by the Contractor as shown on the Contract Drawings. The surveyed excavation areas shall be approved by the Department and the Engineer prior to excavating.
2. Contractor shall perform all excavation required to complete the Work as shown and specified. All material excavated shall be non-classified. It shall include all materials such as earth, sand, clay, gravel, hardpan, boulders, organic materials, rock, rubbish and all other materials within the excavation limits. It should be noted that the site was formerly utilized as a junkyard. As a result, material to be excavated may include miscellaneous automobile parts, metal, tires, and other debris. The Contractor shall be responsible for removing all visibly large miscellaneous debris from the excavated soil and ensuring that the excavated soil meets all disposable facility requirements. The debris removed shall be stockpiled separately and characterized and disposed off-site in accordance with all applicable federal, state and local regulations and the requirements of the disposal facility.
3. Excavations shall be open type, shored and braced where necessary to prevent injury to workmen and to new and existing structures or pipelines.
4. All excavations shall be made in the dry.
5. All equipment shall be decontaminated and free from debris, caked soil, contamination, and any other foreign materials prior to mobilization to the site. Equipment utilized during the remediation shall be decontaminated in accordance with the requirements outlined by Section 01658-Equipment Decontamination, and Section X, Spec 00003, Article 1.14.

B. Contaminated Soil Excavation:

1. Excavation shall be made to the grades and extents shown on the Contract Drawings. Excavation shall be performed in a manner that will limit spills and the potential for contaminated material to be mixed with uncontaminated material. An excavation log describing visible signs of contamination encountered shall be maintained for each area of excavation. Excavation logs shall be prepared in accordance with ASTM D5434.
2. Excavation shall be accomplished by methods which preserve the undisturbed state of subgrade soils.
3. Excavation equipment shall be satisfactory for carrying out the work in accordance with the Specifications. Earth shall not be plowed, scraped, or dug with machines so near to the finished subgrade as to result in excavation of, or disturbance of material below grade.
4. When excavation has reached final depths, the Engineer shall be notified and will inspect conditions. If materials and conditions are not satisfactory to the Engineer, the Engineer will issue instructions as to the procedures for correction of the unsatisfactory condition.
5. Excavation endpoint soil sample locations shall be staked out for Engineer's approval prior to sampling as follows:
 - a. For excavations 20 to 300 feet in perimeter:
 - 1) One sample will be collected from the top of each sidewall for every 30 linear feet of sidewall.
 - 2) One sample will be collected from the excavation bottom for every 900 square feet of bottom area.
 - b. For excavations greater than 300 feet in perimeter, the proposed sampling frequency considered adequate for documentation of the effectiveness of soil removal will consist of the following:
 - 1) One sample will be collected from the top of each sidewall for every 100 linear feet of sidewall.
 - 2) One sample will be collected from the excavation bottom for every 2,500 square feet of bottom area.

Upon approval from the Engineer, the Contractor shall collect the excavation endpoint soil samples.

6. The Contractor shall collect enough sample volume to split samples with the Engineer and/or Department, if requested.
7. The samples shall be sent to the laboratory for analysis via overnight shipment. The laboratory shall analyze the samples within 24 hours. The results of the analysis shall be emailed, telecopied or telephoned to the Contractor, who shall report the results to the Engineer within 4 hours after receipt. All samples shall be analyzed for PCBs in accordance with NYSDEC ASP Method 8082 and with the Contractor prepared Sampling Plan (refer to Section 01652).
8. Backfill and compaction shall not be conducted until satisfactory endpoint sample results, DUSR reports and surveyed excavation drawings are approved by the Engineer, unless otherwise shown or specified. The Contractor will be permitted to backfill excavation areas prior to obtaining the Engineer's approval; however, the Contractor does so at his/her own risk. If endpoint sample analyses indicate that contamination remains at levels exceeding soil cleanup criteria, additional material shall be excavated to the depths and extents specified by the Engineer and the Department. Additional endpoint sampling will be required at the frequency specified for excavation endpoint sampling.
9. The Contractor shall continue to work with the exception of excavation work, in other areas of the site while awaiting endpoint sample results. The Contractor shall make no claims due to stoppage of work as a result of endpoint sample results delivery or Engineer's review of endpoint sample results, DUSR reports and surveyed excavation drawings.
10. During final excavation to subgrade level, take precautions required to prevent disturbance of material.
11. Soil which is excavated and removed in excess of the limits specified by the Contract Drawings as a result of Contractor error shall be handled, transported, disposed of off-site, and the excavation backfilled in accordance with the specifications at no additional cost to the Department.

3.2 DEWATERING

- A. The Contractor shall prepare a dewatering plan describing how the Contractor will dewater all excavation areas, in order to conduct the work. The plan shall be prepared as a part of the Work Plan (see Section 01653) and shall be submitted in accordance with the requirements of Section 01330 – Project Submittals and all specific and general requirements of the U.S. Army Corps of Engineers Nationwide Permit 33 – Temporary Construction, Access and Dewatering.
- B. The Contractor shall provide all diking, sheeting and dewatering as required to lower the groundwater in excavations to a level sufficiently below the bottoms of these excavations and to maintain such level so that the excavation of contaminated soil can be completed. Dewatering shall be accomplished by wells, open sumps, or other methods approved by the Engineer. There shall be no additional compensation for any dewatering done or additional compensation for equipment and materials used in connection therewith under this Contract. Lowering of ground water to the injury or detriment of other structures shall be part of the Contractor's risk and responsibility. Any structure injured or damaged as a result of the lowering of the ground water shall be repaired or replaced to the satisfaction of the Department at the expense of the Contractor and at no additional cost to the Department.
- C. No additional compensation will be given to the Contractor because of damage from flooding caused by groundwater or surface waters rising above ground elevations.
- D. The Contractor shall be responsible for adhering to all provisions of necessary dewatering permits at no additional costs to the Department. Groundwater shall not be permitted to be discharged without proper approval from regulatory agencies.
- E. All discharges from dewatering activities shall comply with the New York Standards and Specifications for Erosion and Sediment Control dated August 2005. The Contractor shall collect, containerize, sample and analyze all water generated by dewatering activities. Collected water shall be treated to meet the discharge criteria established in the short-term discharge effluent criteria presented in Appendix A of this Specification. The Contractor shall be required to collect representative samples of the contained water prior to discharge and weekly during discharge until completion. All samples shall be analyzed for PCBs in

accordance with NYSDEC ASP Method OLMO 4.2 and TAL metals in accordance with NYSDEC ASP Method ILMO 4.0. All sampling shall be performed in accordance with the Contractor prepared Sampling Plan (refer to Section 01652).

- F. Care shall be taken not to damage or kill vegetation by excessive watering or by damaging silt accumulation in the discharge area. If discharges are sediment laden, techniques shall be employed to remove sediment prior to discharge. Any sediment collected shall be transported off-site and disposed of in accordance with all applicable federal, state and local regulations.
- G. The Contractor shall not restrict or close off the natural flow of water in such a way that ponding or flooding damage will occur to the surrounding environment, and shall at all times prevent flooding of public thoroughfares and private property. All damages resulting from construction-related flooding and restriction of flows shall be the sole responsibility of the Contractor, and shall be repaired by the Contractor at no additional expense.

3.3 SHEETING, SHORING AND BRACING

A. General:

- 1. All sheeting, walers, shoring and bracing shall be designed by a Professional Engineer licensed to practice in New York State. Drawings showing plans, sections and details shall be signed by the Engineer doing the design and shall be submitted to the Engineer for his records.
- 2. Sheeting, shoring and bracing shall be used where necessary to prevent injury to workmen, structures, or pipe lines. Jetting for sheeting installation is prohibited.
- 3. All municipal, county, state and federal ordinances, codes, regulations and laws shall be observed. All trenches shall be shored with the minimal protection of sheeting listed in OSHA Regulations, 29 CFR, Part 1926, Subpart P – Excavations.
- 4. Maintain shoring and bracing in excavations regardless of time period excavations will be open. Carry down shoring and bracing as excavation progresses.
- 5. Unless otherwise shown, specified or ordered, all materials used for temporary sheeting shall be removed when work is

completed. Such removal shall be made in a manner not injurious to the structure or its appearance or to adjacent Work.

6. The clearances and types of the temporary sheeting, insofar as they affect the character of the finished Work, will be subject to the approval of the Engineer, but the Contractor shall be responsible for the adequacy of all sheeting, shoring, bracing and other related Work.
7. Safe and satisfactory installation of the sheeting shall be the entire responsibility of the Contractor.
8. Remove sheeting and bracing from excavation, unless otherwise ordered in writing by the Engineer. Removal shall be done so as to not cause injury to the Work. Removal shall be equal on both sides of excavation to ensure no unequal loads on piping or structures. Use of vibratory extractors is prohibited.

3.4 CONTAMINATED MATERIAL STORAGE

- A. Excavated material shall be placed in temporary storage or taken off-site for disposal immediately after excavation. Temporary storage areas shall be located within each excavation area, as approved by the Engineer and the Department. Storage units shall be in good condition and constructed of materials that are compatible with the material or liquid to be stored. Each storage unit shall be clearly labeled with an identification number and a written log shall be kept to track the source of contaminated material in each unit.
- B. Storage of excavated material outside the approved soil staging areas is prohibited.
- C. The following methods of storage are acceptable:
 1. Stockpiles
 - a. Excavated materials shall be stockpiled in areas approved by the Engineer and the Department.
 - b. Stockpiled soil shall be placed on a geomembrane cover. The minimum thickness of the cover shall be 0.25 mm (10 mils).

- c. Stockpiles shall be constructed to isolate stored contaminated material from the environment. The maximum stockpile height shall be 10 feet. Each stockpile shall be labeled with an identification number identifying the material stored within the stockpile, as well as the grid area from which the soil was excavated.
- d. Diversion measures shall be employed, to prevent storm water run-on and run-off and shall be included as a part of the Storm Water Management Plan (see Section 01655).
- e. A geomembrane cover shall be used to prevent precipitation from entering the stockpile and emissions and dust from escaping. The minimum thickness of the membrane cover shall be 0.25 mm (10 mils). Control measures such as wetting the stockpile surfaces shall be employed to suppress dust. Only potable water shall be used for this purpose.
- f. Stockpiles shall be covered at all times and the Contractor shall maintain the integrity of the cover for the duration of the project.

2. Roll-off Units

- a. Roll-off units or equivalent, used to temporarily store contaminated material shall be watertight. A cover shall be placed over the units to prevent precipitation from contacting the stored material. Liquid which collects inside the units shall be removed, collected, sampled and disposed of in accordance with all applicable federal, state and local laws and regulations.
- D. Storage and handling of PCB contaminated soil must comply with all applicable NYSDEC hazardous waste regulations (6 NYCRR Part 371-376) and USEPA PCB TSCA regulations (40 CFR Part 761).
- E. The Contractor shall be responsible for ensuring that all stockpiled waste meets the approved landfill's acceptance criteria, including, but not limited to, the absence of free liquids. The Contractor shall

be responsible for all costs involved in the handling of any wastes deemed unacceptable by the approved landfill.

+ + END OF SECTION + +

SECTION 02112

EXCAVATION, REMOVAL AND HANDLING OF PCB-CONTAMINATED MATERIAL IN WETLANDS AREA

PART 1 –GENERAL

1.1 SCOPE OF WORK

- A. Contractor shall excavate, handle and store contaminated soil as shown, specified and required to complete the work. The work shall generally consist of excavation, removal and handling of approximately 140 cubic yards of PCB-contaminated sediment from within Area 8 (0-0.5 bgs) and approximately 130 cubic yards of PCB-contaminated sediment from Area 8A. Characterization data on the nature and extent of the contaminated material is available in the Limited Site Data Summary Report for review by the Contractor (refer to Section IV, Article 5).
- B. Excavation limits are depicted on the Contract Drawings.
- C. Contractor shall establish a 50-foot grid network, as shown on the Contract Drawings, within the contract limits for use during construction. At areas near the contract limits, extra nodes may be required by the Engineer to properly delineate the limits of excavation. A minimum of four temporary benchmarks shall be established by the Contractor outside the contract limits for use during the work. All survey work required by the Contract shall consist of the measurement of spot elevations at each node of the grid network. Aerial surveys shall not be acceptable. Contractor shall utilize grade stakes at each node of the grid network to measure the depth of excavation as work proceeds. Where visibly uneven grades are observed by the Engineer between grid nodes, extra grade stakes may be required for further delineation, as directed by the Engineer. Grade stakes shall be labeled by the Contractor with cut line and shall remain in place to allow for field inspection of the excavation depths.
- D. The Contractor shall be responsible for ensuring compliance with permits applied for and held by the NYSDEC, including, but not necessarily limited to, wetland permits for clearing, excavation, grading, filling or construction in or within 100 feet of freshwater wetlands, pursuant to Articles 24 and 15 of the Environmental Conservation Law and the U.S. Army Corps of Engineers (Nationwide Permit 33 – Temporary Construction, Access and

Dewatering, and Nationwide Permit 38 – Cleanup of Hazardous and Toxic Waste). The Contractor shall be responsible for ensuring compliance with all general conditions, specific conditions and notification requirements of issued permits.

E. Related Work Specified Elsewhere:

1. Section 02050, Demolition, Removals and Modifications.
2. Section 02110, Clearing and Grubbing.
3. Section 02111, Excavation, Removal and Handling of PCB-Contaminated Soil
4. Section 02120, Removal of Yard Waste and Debris.
5. Section 02130, Waste Transportation and Disposal.
6. Section 02200, Backfill and Compaction.

F. All dewatering, sheeting and shoring, and other work necessary to complete the required excavation work shall be conducted by the Contractor in accordance with these Specifications.

G. Work shall follow the sequence of construction presented in the Contract Drawings and all of the Contractor's approved submittals unless approval for a modified sequence is granted by the Engineer.

1.2 JOB CONDITIONS

A. General:

1. Contractor shall comply with the requirements of Section 02111 – Excavation, Removal and Handling of PCB-Contaminated Soil, Part 1, Paragraph 1.2.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 EXCAVATION

A. General:

1. Contractor shall comply with the requirements of Section 02111 – Excavation, Removal and Handling of PCB-Contaminated Soil, Part 3, Paragraph 3.1.

B. Contaminated Soil Excavation:

1. Excavation shall be made to the grades and extents shown on the Contract Drawings. Excavation shall be performed in a manner that will limit spills and the potential for contaminated material to be mixed with uncontaminated material. An excavation log describing visible signs of contamination encountered shall be maintained for each area of excavation. Excavation logs shall be prepared in accordance with ASTM D5434.
2. Excavation shall be accomplished by methods which preserve the undisturbed state of subgrade soils.
3. Excavation equipment shall be satisfactory for carrying out the work in accordance with the Specifications. Earth shall not be plowed, scraped, or dug with machines so near to the finished subgrade as to result in excavation of, or disturbance of material below grade.
4. When excavation has reached final depths, the Engineer shall be notified and will inspect conditions. If materials and conditions are not satisfactory to the Engineer, the Engineer will issue instructions as to the procedures for correction of the unsatisfactory condition.
5. Excavation endpoint soil sample locations shall be staked out for Engineer's approval prior to sampling as follows:
 - a. For excavations 20 to 300 feet in perimeter:
 - 1) One sample will be collected from the top of each sidewall for every 30 linear feet of sidewall.
 - 2) One sample will be collected from the excavation bottom for every 900 square feet of bottom area.

b. For excavations greater than 300 feet in perimeter, the proposed sampling frequency considered adequate for documentation of the effectiveness of soil removal will consist of the following:

- 1) One sample will be collected from the top of each sidewall for every 100 linear feet of sidewall.
- 2) One sample will be collected from the excavation bottom for every 2,500 square feet of bottom area.

Upon approval from the Engineer, the Contractor shall collect the excavation endpoint soil samples.

6. The Contractor shall collect enough sample volume to split samples with the Engineer and/or Department, if requested.
7. The samples shall be sent to the laboratory for analysis via overnight shipment. The laboratory shall analyze the samples within 24 hours. The results of the analysis shall be emailed, telecopied or telephoned to the Contractor, who shall report the results to the Engineer within 4 hours after receipt. All samples shall be analyzed for PCBs in accordance with NYSDEC ASP Method 8082 and with the Contractor prepared Sampling Plan (refer to Section 01652).
8. Backfill and compaction shall not be conducted until satisfactory endpoint sample results, DUSR reports and surveyed excavation drawings are approved by the Engineer, unless otherwise shown or specified. The Contractor will be permitted to backfill excavation areas prior to obtaining the Engineer's approval; however, the Contractor does so at his/her own risk. If endpoint sample analyses indicate that contamination remains at levels exceeding soil cleanup criteria, additional material shall be excavated to the depths and extents specified by the Engineer and the Department. Additional endpoint sampling will be required at the frequency specified for excavation endpoint sampling.
9. The Contractor shall continue to work with the exception of excavation work, in other areas of the site while awaiting endpoint sample results. The Contractor shall make no claims due to stoppage of work as a result of endpoint sample results delivery or Engineer's review of endpoint sample results, DUSR reports and surveyed excavation drawings.

10. During final excavation to subgrade level, take precautions required to prevent disturbance of material.
11. Soil which is excavated and removed in excess of the limits specified by the Contract Drawings as a result of Contractor error shall be handled, transported, disposed of off-site, and the excavation backfilled in accordance with the specifications at no additional cost to the Department.

3.2 DEWATERING

- A. The Contractor shall prepare a dewatering plan describing how the Contractor will dewater all excavation areas, in order to conduct the work. The plan shall be prepared as a part of the Work Plan (see Section 01653) and shall be submitted in accordance with the requirements of Section 01330 – Project Submittals and all specific and general requirements of the U.S. Army Corps of Engineers Nationwide Permit 33 – Temporary Construction, Access and Dewatering.
- B. The Contractor shall provide all diking, sheeting and dewatering as required to lower the water in excavations to a level sufficiently below the bottoms of these excavations and to maintain such level so that the excavation of contaminated material can be completed. Dewatering shall be accomplished by wells, open sumps, or other methods approved by the Engineer. There shall be no additional compensation for any dewatering done or additional compensation for equipment and materials used in connection therewith under this Contract. Lowering of water to the injury or detriment of other structures shall be part of the Contractor's risk and responsibility. Any structure injured or damaged as a result of the lowering of the water shall be repaired or replaced to the satisfaction of the Department at the expense of the Contractor and at no additional cost to the Department.
- C. No additional compensation will be given to the Contractor because of damage from flooding caused by surface waters rising above ground elevations.
- D. The Contractor shall be responsible for adhering to all provisions of necessary dewatering permits at no additional costs to the Department. Water shall not be permitted to be discharged without proper approval from regulatory agencies.
- E. All discharges from dewatering activities shall comply with the New York Standards and Specifications for Erosion and Sediment Control dated August 2005.

- F. The Contractor shall collect, containerize, sample and analyze all water generated by dewatering activities. Collected water shall be treated to meet the discharge criteria established in the short-term discharge effluent criteria presented in Appendix A of this Specification. The Contractor shall be required to collect representative samples of the contained water prior to discharge and weekly during discharge until completion. All samples shall be analyzed for PCBs in accordance with NYSDEC ASP Method OLMO 4.2 and TAL metals in accordance with NYSDEC ASP Method ILMO 4.0. All sampling shall be performed in accordance with the Contractor prepared Sampling Plan (refer to Section 01652).
- G. Turbidity of discharged water shall be monitored continuously during discharge. Turbidity of discharge shall not exceed 50 NTUs.
- H. Care shall be taken not to damage or kill vegetation by excessive watering or by damaging silt accumulation in the discharge area. If discharges are sediment laden, techniques shall be employed to remove sediment prior to discharge. Any sediment collected shall be transported off-site and disposed of in accordance with all applicable federal, state and local regulations.
- I. The Contractor shall not restrict or close off the natural flow of water in such a way that ponding or flooding damage will occur to the surrounding environment, and shall at all times prevent flooding of public thoroughfares and private property. All damages resulting from construction-related flooding and restriction of flows shall be the sole responsibility of the Contractor, and shall be repaired by the Contractor at no additional expense.

3.3 SHEETING, SHORING AND BRACING

- A. General:
 - 1. All sheeting, walers, shoring and bracing shall be designed by a Professional Engineer licensed to practice in New York State. Drawings showing plans, sections and details shall be signed by the Engineer doing the design and shall be submitted to the Engineer for his records.
 - 2. If sheeting is used as a barrier to reduce infiltration in the excavation areas, the sheeting must be at least 10 feet beyond the areas designated for removal.

3. Sheeting, shoring and bracing shall be used where necessary to prevent injury to workmen, structures, or pipe lines. Jetting for sheeting installation is prohibited.
4. All municipal, county, state and federal ordinances, codes, regulations and laws shall be observed. All trenches shall be shored with the minimal protection of sheeting listed in OSHA Regulations, 29 CFR, Part 1926, Subpart P – Excavations.
5. Maintain shoring and bracing in excavations regardless of time period excavations will be open. Carry down shoring and bracing as excavation progresses.
6. Unless otherwise shown, specified or ordered, all materials used for temporary sheeting shall be removed when work is completed. Such removal shall be made in a manner not injurious to the structure or its appearance or to adjacent Work.
7. The clearances and types of the temporary sheeting, insofar as they affect the character of the finished Work, will be subject to the approval of the Engineer, but the Contractor shall be responsible for the adequacy of all sheeting, shoring, bracing and other related Work.
8. Safe and satisfactory installation of the sheeting shall be the entire responsibility of the Contractor.
9. Remove sheeting and bracing from excavation, unless otherwise ordered in writing by the Engineer. Removal shall be done so as to not cause injury to the Work. Removal shall be equal on both sides of excavation to ensure no unequal loads on piping or structures. Use of vibratory extractors is prohibited.

3.4 CONTAMINATED MATERIAL STORAGE

- A. Excavated material shall be placed in temporary storage or taken off-site for disposal immediately after excavation. Temporary storage areas shall be located within each excavation area, as approved by the Engineer and the Department. Storage units shall be in good condition and constructed of materials that are compatible with the material or liquid to be stored. Each storage unit shall be clearly labeled with an identification number and a

written log shall be kept to track the source of contaminated material in each unit.

B. Storage of excavated material outside the approved soil staging areas is prohibited.

C. The following methods of storage are acceptable:

1. Stockpiles

- a. Excavated materials shall be stockpiled in areas approved by the Engineer and the Department.
- b. Stockpiled soil shall be placed on a geomembrane cover. The minimum thickness of the cover shall be 0.25 mm (10 mils).
- c. Stockpiles shall be constructed to isolate stored contaminated material from the environment. The maximum stockpile height shall be 10 feet. Each stockpile shall be labeled with an identification number identifying the material stored within the stockpile, as well as the grid area from which the soil was excavated.
- d. Diversion measures shall be employed, to prevent storm water run-on and run-off and shall be included as a part of the Storm Water Management Plan (see Section 01655).
- e. A geomembrane cover shall be used to prevent precipitation from entering the stockpile and emissions and dust from escaping. The minimum thickness of the membrane cover shall be 0.25 mm (10 mils). Control measures such as wetting the stockpile surfaces shall be employed to suppress dust. Only potable water shall be used for this purpose.
- f. Stockpiles shall be covered at all times and the Contractor shall maintain the integrity of the cover for the duration of the project.

2. Roll-off Units

- a. Roll-off units or equivalent, used to temporarily store contaminated material shall be watertight. A cover shall be placed over the units to prevent precipitation from contacting the stored material. Liquid which collects inside the units shall be removed, collected, sampled and disposed of in accordance with all applicable federal, state and local laws and regulations.
- D. Storage and handling of PCB contaminated soil must comply with all applicable NYSDEC hazardous waste regulations (6 NYCRR Part 371-376) and USEPA PCB TSCA regulations (40 CFR Part 761).
- E. The Contractor shall be responsible for ensuring that all stockpiled waste meets the approved landfill's acceptance criteria, including, but not limited to, the absence of free liquids. The Contractor shall be responsible for all costs involved in the handling of any wastes deemed unacceptable by the approved landfill.

+ + END OF SECTION + +

NO TEXT THIS PAGE

SECTION 02113

SOIL EROSION AND SEDIMENT CONTROL

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work Included: Erosion control shall include all work, materials and measures necessary to control soil erosion and sedimentation resulting from construction operations, prevent flow of sediment from the construction site, and contain construction materials (including excavation and backfill) within protected working areas. In general, the work under this section shall include, but not be limited to, the work shown on the sequence of construction and Sediment Control Details. The work shall comply with the approved Storm Water Management Plan.
- B. Related Work Specified Elsewhere:
 - 1. Section 01655 – Storm Water Management Plan

1.2 QUALITY ASSURANCE

- A. The contractor shall comply with the requirements of the NYSDEC as they relate to erosion control.

PART 2 - PRODUCTS – (NOT USED)

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Proper collection treatment and disposal of water from dewatering operations shall be performed in accordance with the requirements of the specifications and approved dewatering plan.
- B. Settling basins, plastic filter fabrics, hay bales or other erosion and sediment control measures approved by the Engineer and the NYSDEC and as specified and shown on the Contract Drawings shall be used where necessary to protect vegetation, wetlands and wetlands buffer zones and to prevent sediment from either surface runoff or the dewatering operations from entering catch basins, surface waters, etc.

- C. All soil erosion and sediment control practices are to be installed prior to any major soil disturbance and shall be maintained until permanent protection is established. No soil erosion or sediment control devices shall be removed unless directed by the Engineer.
- D. A stabilized construction entrance shall be installed immediately after initial site disturbance as shown and described on the Contract Drawings. The construction entrance shall be maintained in a condition which will prevent tracking or flowing of material onto public rights-of-way. This may require periodic top dressing with additional stone or additional length as conditions demand and repair and/or cleanout of any measures used to trap material. All material spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately and collected for off-site transportation and disposal in accordance with all applicable federal, state and local regulations.
- E. Upon completion of construction activities, the area used for the construction entrance and Contractor's/Engineer's staging and storage area shall be returned to elevations and conditions which existed prior to start of construction, and as shown on the Contract Drawings.
- F. The Contractor shall take necessary measures to maintain dust control. Dirt haul roads shall be sprinkled with water or given a surface of crushed stone or wood chips as required. Vehicles shall be cleaned, as necessary, prior to using public streets in accordance with Section 01658, Equipment Decontamination. Paved roads shall be sprinkled with water and cleaned daily.
- G. Any changes to the approved soil erosion and sediment control plans will require the submission of Storm Water Management Plan (See Section 01655) to the Engineer and the NYSDEC for reapproval. The revised plans must meet all current State soil erosion and sediment control practices. No extension of the Contract time will be given to the Contractor should resubmission be required.
- H. Contractor shall obtain all required permits.
- I. Upon completion of construction work and after final grading and when permanent stabilization has been established, the bales, silt fences and sediment filters will be removed by the Contractor. However, no soil erosion devices shall be removed and disposed without written prior permission of the Engineer.
- J. All excavated material will be removed from the site by the Contractor in accordance with the Contract Documents or as ordered by the Engineer.

- K. Conduit outlets and catch basin inlets must be protected prior to start of construction. The Contractor shall be responsible for the cleaning of all outlets and catch basins due to the malfunction of any protection devices.
- L. The Contractor shall provide a detailed sequence of construction operations conforming to the Contract Drawings for review and submittal to the Engineer.
- M. The Contractor shall meet the Engineer on-site to define those areas which will require soil erosion and sediment control facilities, discuss their construction and thereafter provide detailed plans for review of such facilities by the Engineer and the Department.
- N. All soil erosion and sediment control practices shall be left in place and maintained, including silt and sediment removal, until the Contract has reached substantial completion, the site is stabilized and the Engineer so directs, unless otherwise specified.
- O. The Contractor shall restrict his/her operations to the areas of construction as shown on the Contract Drawings. Any encroachment outside the areas of construction shall be the Contractor's responsibility and he/she shall assume all costs for repairing any damage caused by his/her operations.

+ + END OF SECTION + +

NO TEXT THIS PAGE

SECTION 02120

REMOVAL OF YARD WASTE, TIRES, SCRAP METAL AND DEBRIS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The Contractor shall furnish all labor, materials, supplies, services, equipment, power, facilities and incidentals necessary to remove and dispose off-site all yard waste, tires, scrap metal, debris and other waste material existing at the site to the limits necessary to provide access for excavation, proper grading, and location of all Contractor's and Engineer's/Department's construction office trailers, and staging of materials, tools and equipment within the Contract Limits as specified and as directed by the Department.
- B. The Work includes, but is not limited to, removal and proper transport and disposal off-site of trash, trees, vegetation, yard waste, soil stockpiles, tires, scrap metal, concrete debris, wood debris, rebar, construction and demolition debris, concrete, and asphalt, if present.
- C. The Contractor shall relocate existing debris, as shown on the Contract Drawings and as directed by the Engineer or Department, to a location specified by the Department. A preliminary location for the relocated debris is shown on the Contract Drawings. A final location shall be specified by the Department prior to construction.
- D. Other material includes all material regardless of type, character, composition, size, weight, moisture or condition.
- E. Any and all excavation required to complete the Work specified in this section shall be performed, backfilled and restored in accordance with the requirements of these Specifications.
- F. All Work shall be performed in accordance with all applicable federal, state and local laws and regulations. The Contractor shall obtain all permits and approvals required to perform the Work. The Work shall be performed in accordance with all approved submittals and plans. Before any materials are removed from the site, prior approval of the disposal facility shall be required from the Engineer and the Department.
- G. Related Work Specified Elsewhere:
 - 1. Section 02110 – Clearing and Grubbing

2. Section 02111 - Excavation, Removal and Handling of PCB-contaminated soil.
3. Section 02112 - Excavation, Removal and Handling of PCB-contaminated Material in Wetlands Area.
4. Section 02130 - Waste Transportation and Disposal
5. Section 02200 - Backfill and Compaction

1.2 EXISTING CONDITIONS

- A. The Contractor shall immediately notify the Engineer of any perceived differences in existing conditions that may impact the Work.
- B. The Contractor shall be solely responsible for locating, marking out and protecting all underground and aboveground utility lines and structures on site and coordinating the Work with utility companies.
- C. There is no guarantee that any materials of value now exist on the site and that any materials to be removed will be present at the time the Contractor begins the Work. The Contractor shall have no claims against the Department because of a decrease in or loss of salvage value of any materials on the site.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

- A. Removal of yard waste, tires, scrap metal, debris and other material shall be limited to the Contract Limits and confined to the limits of the area required for location of the specified office trailers, lay down of materials, tools and equipment, and excavation of contaminated soil.
- B. Excavations of partially buried materials shall be backfilled, graded and compacted in accordance with the requirements of these Specifications.
- C. No blasting or burning shall be permitted on the site or on any adjoining property.
- D. Materials to be removed shall be staged for off-site disposal in an area designated by the Contractor and approved by the Engineer and the Department.

- E. All materials required to be removed shall be removed from the site within 30 calendar days of the notice to proceed date granted to the Contractor by the Department.

++ END OF SECTION ++

NO TEXT THIS PAGE

SECTION 02130

WASTE TRANSPORTATION AND DISPOSAL

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The Contractor shall furnish all labor, materials, supplies, equipment, power, facilities and incidentals necessary to label, sample, test, manifest, transport and dispose of all waste and materials generated by the Work, and designated for removal from the site by the Department, and any other materials as shown on the Contract Drawings and as directed by the Department.
- B. The Contractor shall prepare a truck routing plan, describing how the Contractor will transport contaminated and clean materials throughout the site to minimize contamination. The plan shall be prepared as a part of the Contractor's Work Plan (see Section 01653).
- C. The Contractor shall deliver, set-up and install a certificated portable truck scale for the purposes of weighing all waste materials transported off-site for disposal. This shall include, but not be limited to, certification of the scale by the Columbia County Bureau of Weights and Measures, employing a trained weighmaster familiar with the scale provided, repair and maintenance of the scale for the duration of the Contract, providing proper foundations and ramps for the scale in accordance with the manufacturer's recommendations and Columbia County Bureau of Weights and Measures, and removal of scale, foundations, and ramps upon final acceptance of the Work.
- D. Labeling, sampling, testing, manifesting, transporting and disposing of waste shall be performed in accordance with all applicable federal, state and local laws and regulations, including NYSDEC hazardous waste regulations (6 NYCRR Parts 370-376) and USEPA PCB TSCA regulations (40 CFR Part 761) and the requirements of the disposal facility.
- E. The Contractor is not required to pay the Hazardous Waste Special Assessment (generator tax). Remedial work which generates hazardous waste from inactive hazardous waste disposal sites (as defined in 27-1301 of the Environmental Conservation Law (ECL)) are not subject to the special assessment "tax" because of the exemption found in 27-0923(3)(c) of the ECL. The Contractor remains responsible for paying any local and/or county taxes which may be applicable to the disposal of wastes from the remedial work.

- F. The Contractor shall prepare and issue all notifications, and apply for and obtain all permits and approvals required to complete the Work. All fees for licenses, permits, tolls, approvals, taxes, etc. shall be the responsibility of the Contractor.
- G. The Work shall be performed in accordance with all the approved plans.
- H. Materials removed from the site shall be transported directly to facilities which have received prior approval of the Department.
- I. Related Work Specified Elsewhere:
 - 1. Section 01653 – Work Plan.

PART 2 - PRODUCTS

2.1 CERTIFIED PORTABLE TRUCK SCALE

- A. The Contractor shall provide a BridgeMont Portable Truck Scale, Model BMS-P, as manufactured by Avery Weigh-Tronix or approved equal. The portable truck scale and all associated components shall be installed and certified in accordance with the manufacturer's recommendations and the requirements of the Columbia County Bureau of Weights and Measures. The portable truck scale shall conform to the following specifications:
 - 1. The scale shall have a clear and unobstructed steel weighing surface of not less than 70 feet long and 10 feet wide.
 - 2. The scale shall be designed to perform as a single weighing platform and shall be of flat-top design.
 - 3. The scale shall have a gross weighing capacity of 200,000 pounds.
 - 4. The scale shall be designed to accept vehicles that generate up to 70,000 pounds per tandem axle.
 - 5. The scale shall be equipped with an electronic indicator and ticket printer. The indicator and printer shall be of the same manufacturer as the truck scale and shall be fully compatible with the scale.
 - 6. The electronic indicator shall be directly interfaced with the Contractor's computer and a Truck Scale Data Management System, as provided by the scale manufacturer.

- B. The Contractor shall prepare a suitable foundation prior to installation of the truck scale and ramps at the entrance and exit of the truck scale after installation of the truck scale. The foundation and ramps shall be prepared in accordance with the manufacturer's recommendations and the requirements of the Columbia County Bureau of Weights and Measures.

PART 3 - EXECUTION

- A. The Contractor shall provide all required notifications to federal, state and local agencies prior to transporting material off site. Copies of all notifications issued by the Contractor shall be transmitted to the Engineer at the time of issuance.
- B. Contaminated materials removed from the site shall not be combined with noncontaminated material. Material characterized as hazardous waste shall not be combined with any other material.
- C. The Contractor shall be responsible for all sampling and analyses required for disposal. All sampling shall be conducted with the Engineer present. The Contractor shall be required to obtain approval from the Engineer and the Department of the sampling and analytical methods and the analytical laboratory to be used (refer to Section 01652 - Sampling Plan). The results of all analyses shall be submitted to the Engineer prior to removal of any material from the site. The time and date of collection and sample identification numbers shall be clearly indicated on the results of analyses furnished to the Engineer.
- D. The Contractor shall acquire and complete all required manifest forms and bills of lading as required by applicable laws and regulations for transportation and disposal of materials off-site. The EPA-required generator identification number for the site is NYR000142190. The Contractor shall provide all required manifests and bills of lading to the Engineer along with all requested backup documentation. The Engineer shall sign manifests and bills of lading for the Department. However, the Contractor shall be responsible for assuring that all notifications, labeling, documentation, sampling, analysis, transportation and disposal requirements of the disposal facility, and federal, state and local requirements are complied with and properly documented. Waste manifests submitted to the Department and Engineer shall be furnished with a certification signed by the Contractor stating that all requirements of the disposal facility, and federal, state and local governments are complied with.
- E. In accordance with the approved Work Plan, the Contractor shall provide letters of commitment from all disposal facilities to the Engineer. The

letters of commitment shall state that the facility is able to accept the waste which the Contractor intends to ship to the facility.

- F. Vehicles used to haul materials shall be designed, equipped, operated and maintained to prevent leakage, spillage or airborne emissions during transport. The containers shall be lined with 10-mil polyethylene sheeting prior to loading. All vehicles shall be decontaminated as specified in Section 01658 – Equipment Decontamination, including truck tires and undercarriages, prior to leaving the site. The Contractor shall be responsible for supplying all labor, materials, equipment and supplies for decontaminating the vehicles used and shall be responsible for disposal of wastes resulting from decontamination.
- G. Prior to departure from the site of each vehicle transporting waste, a decontamination certificate signed by the Contractor's site superintendent shall be submitted to the Engineer. The certificate shall include:
 - 1. The date and time of departure and the vehicle license number;
 - 2. A statement that no contaminated soil or other contaminated material is adhered to the vehicle body, tires or undercarriage and no soil will be tracked off site onto public roadways;
 - 3. A statement that the vehicle container is lined with plastic sheeting and/or is not leaking or dripping liquids;
 - 4. A statement that the contents of the vehicle are covered or completely enclosed so as to prevent any releases of vapors or particulate matter; and
 - 5. The route of transport and location where the waste is being transported to.
- H. On-site Truck Scale
 - 1. The Contractor shall deliver, install, certify, and have the truck scale foundation, ramped approaches and all associated components in proper working order prior to removing materials for disposal from the site.
 - 2. The scale shall be located in an uncontaminated area. The Engineer must first approve of any location proposed.
 - 3. The weight indicator and ticket printer shall be protected from weather and vandalism by being placed either in a suitable scale house or an office trailer.

4. Prior to transportation of materials off-site, the materials shall be weighed by the on-site truck scale. The sequence of operation for truck weighing is as follows:
 - a. The incoming empty truck proceeds to the weigh scale.
 - b. The truck stops on the scale and is weighed without the driver in the truck; the empty weight is recorded.
 - c. The truck exits the scale area and proceeds to the loading area.
 - d. After being loaded, the truck proceeds to the decontamination pad and is decontaminated.
 - e. After being decontaminated, the truck again proceeds to the weight scale.
 - f. The truck stops on the scale and is weighed without the driver in the truck; the loaded weight is recorded.
 - g. The truck exits the scale area and site.
5. No weights will be accepted or paid for unless the Engineer witnesses the weighing and receives the associated weight ticket.
- I. Certified weigh tickets showing the weight of the vehicle at the time of arrival and departure from the contract work site and the disposal facility shall be provided as a prerequisite to payment for all material transported off-site. The weight tickets shall be signed and dated by a representative of the Contractor certifying to the accuracy of all measurements, the date and time of arrival and departure of each vehicle, the disposal location and the vehicle identification number.

+ + END OF SECTION + +

NO TEXT THIS PAGE

SECTION 02200

BACKFILL AND COMPACTION

PART 1 - GENERAL

1.1 SUMMARY

A. Scope:

1. Contractor shall perform all backfilling and compacting of earth materials as shown, specified, and required.
2. Installation of a demarcation layer to designate areas where PCB contamination in subsurface soil (>1.5' bgs) is present less than applicable subsurface cleanup objectives, but greater than surface soil clean up objectives.
3. All necessary preparation of subgrade shall be included.

B. Sources of Materials:

1. Soil materials shall be obtained from off-site sources.

C. Related Work Specified Elsewhere:

1. Section 02111 - Excavation, Removal and Handling of PCB-Contaminated Soil.

1.2 SUBMITTALS

A. Submit the following in accordance with Section 01330 – Project Submittals:

1. Independent Testing Laboratory: Prior to conducting the required tests, the Contractor shall submit, to the Engineer, for approval, the name of the independent test laboratory which will facilitate the required testing.
2. Samples and Test Results:
 - a. At least 2 weeks prior to the date of anticipated use, the Contractor shall submit, to the Engineer, for approval, a representative sample of all off-site material required. The Contractor shall notify the Engineer in writing of the source of each sample.

- b. The Contractor shall provide, along with the above samples, the required test results, as specified herein, excluding the field density test.
3. Manufacturer's Data: Submit for approval manufacturer's specifications, performance characteristics and operating instructions for the compaction equipment.

1.3 QUALITY ASSURANCE

A. Reference Standards: Comply with applicable provisions and recommendations of the following except as otherwise shown or specified.

1. ASTM D422, Particle-Size Analysis of Soils.
2. ASTM D1557, Moisture-Density Relations of Soils and Soil-Aggregate Mixtures, using 10-pound (4.54 kg) Rammer and 18-inch (457 mm) Drop.
3. ASTM D1556, Density and Unit Weight of Soil in Place by the Sand-Cone Method
4. ASTM D2922, Nuclear Density Gauge of Soils.
5. ASTM D2167, Density and Unit Weight of Soil in Place by the Rubber Ballon Method.
6. ASTM D751, Coated Fabrics (Modified).
7. ASTM D3786, Hydraulic Bursting Strength of Textile Fabrics-Diaphragm Bursting Strength Tester Method.
8. ASTM D1682, Breaking Load and Elongation of Textile Fabrics.

B. Tests:

1. An independent testing laboratory shall be employed by the Contractor to perform the required tests.
2. Required tests:
 - a. Select Fill Samples: Gradation, ASTM D 422.
 - b. Compacted Select Fill: Compaction, ASTM D 1557.
 - c. Optimum Moisture: Maximum density curve for each soil used for backfill.

- d. Field Density Tests on each lift of backfilled material: ASTM D1556, ASTM D2167 or ASTM D2922.
- e. Chemical Analysis: Target Compound List (TCL) volatile organic compounds; TCL semivolatile compounds; TCL pesticides; TCL PCBs; Target Analyte List (TAL) metals and cyanide. Sample collection and analysis shall be in accordance with NYSDEC ASP Method OLMO 4.2 for organics, Method ILMO 4.0 for metals and Method 335.2 for cyanide and the Contractor's approved Sampling and Analysis Plan (see Section 01652).

1.4 JOB CONDITIONS

- A. Dust Control: Contractor shall conduct all of his/her operations and maintain the area of his/her activities, including sweeping and sprinkling of roadways, so as to minimize creation and dispersion of dust. In addition, Contractor shall be responsible for controlling dust caused by his/her operation of vehicles and equipment, clearing or for any reason whatever.
- B. Odor Control: As an odor abatement measure, cover, at the end of each work day, all areas of organic or odorous material which were exposed during excavation with a minimum 6-in and a maximum 24-inch deep of clean fill. Excavated organic or odorous material shall be immediately removed off-site and shall not be stockpiled on-site.
- C. Roadways and Walks: Unless otherwise approved by the Engineer, excavated material and materials of construction shall be so deposited, and the Work shall be so conducted, as to leave open and free for vehicular traffic an on-site roadway not less than 10 feet in width. All hydrants, valves, and other facilities which may require access during construction shall be kept accessible for use. During the progress of the Work, Contractor shall maintain such roadways in satisfactory condition and the Work shall at all times be so conducted as to cause a minimum of inconvenience to the Department and Pedestrians.

PART 2 - PRODUCTS

2.1 GENERAL REQUIREMENTS FOR ALL FILL MATERIAL

- A. All fill material from off-site sources shall be free of refuse and vegetable matter, frozen material and other objectionable material.
- B. The Contractor shall excavate, haul and place material from approved off-site sources.

- C. All materials shall be subject to inspection by the Engineer. Material from off-site sources not meeting the above specifications shall not be accepted. All costs associated with rejected material shall be borne by the Contractor.
- D. All material shall be sampled at a frequency of no less than once per 200 cubic yards (cy) of materials. Tests shall be conducted in accordance with the requirements as described in Section 1.3(B). All results shall be submitted to the Engineer and Department for review and approval.
- E. If a New York State Department of Transportation (NYSDOT) approved borrow source is used for backfill, only one chemical analysis, in accordance with the requirements as described in Section 1.3 (B.2.e), will be required for the source. Additional sampling will be at the discretion of the Engineer. If a non-NYSDOT approved borrow source is used for backfill, chemical analysis will be required every 1,000 CY or at the discretion of the Engineer. If a manufactured fill material is used for backfill, chemical analysis will be required every 500 CY or more frequently, if necessary, at the discretion of the Engineer.

2.2 SOIL MATERIALS

- A. Select Fill: Well graded granular material or bank run gravel, free from organic matter. Not more than 80 percent by weight shall pass through a No. 40 sieve; not more than 10 percent by weight through a No. 200 sieve; and 100 percent shall pass a 3-inch square sieve.
- B. General Fill: Soil materials for general backfill and fill shall be free of organics, clay, debris, waste, frozen materials and other deleterious matter and shall conform to the following gradation.

<u>Sieve Size</u>	<u>Percent Passing by Weight</u>
6-inch	100
No. 40	0-70
No. 200	0-15

- C. Crushed aggregate: Shall consist of crushed stone or crushed gravel conforming to the following gradation:

<u>Sieve Size</u>	<u>Percent Retained on Sieve</u>
3/4-inch	85-100 (throughout)

- D. Unsuitable Material: All soils not meeting the requirements of Paragraphs A, B, and C, and all organic materials.

2.3 DEMARCATION LAYER MATERIALS

- A. Provide a polypropylene, staple fiber, needle-pinched, nonwoven geotextile to act as a visible barrier layer between uncontaminated soils and contaminated soils potentially present in the subsurface soils (> 1.5' bgs) after excavation of surface soils. Geotextile shall be Model Geotex 311, as manufactured by Propex, or approved equal. Provide demarcation layer in accordance with the following:

<u>Property</u>	<u>Minimum Value</u>
Tensile Strength (Grab)	80 lbs
Elongation	50%
Puncture	50 lbs
Mullen Burst	150 psi
Trapezoidal Tear	30 lbs
UV Resistance	70%
Apparent Opening Size (AOS)	50 US Std. Sieve
Permittivity	2.0 sec
Water Flow Rate	150 gpm/ft

PART 3 - EXECUTION

3.1 INSPECTION

- A. Contractor shall provide Engineer with sufficient time and means to examine the areas and conditions under which excavating, filling, and grading are to be performed. Work shall not proceed until all unsatisfactory conditions have been corrected in a manner acceptable to Engineer.

3.2 BACKFILL AND COMPACTION

- A. Fill excavations as promptly as Work permits, but not until completion of the following:
1. Acceptance by Engineer of all Work within the excavation, including approval of endpoint sampling results.
 2. Inspection, testing approval, and recording of locations of underground utilities, connections, branches, structures and other facilities.

3. Removal of temporary shoring and bracing, and backfilling of voids with satisfactory materials.
 4. Removal of trash and debris.
 5. Completion of endpoint sampling and successful analytical results.
- B. Contractor shall place demarcation layer material at 1.5' bgs throughout areas of the site that exhibit concentrations of PCBs in the subsurface soil (> 1.5' bgs) greater than surface soil cleanup objectives (1 part per million (ppm)), but less than subsurface soil cleanup objectives (10 ppm). The location of the demarcation layer material shall be determined by the results of the approved excavation endpoint soil samples. All locations shall be approved by the Engineer and the Department prior to installation.
- C. Excavation shall be kept dry during backfilling operations. Backfills around piping and structures shall be brought up evenly on all sides.
- D. All backfill shall be placed in layers not exceeding 6 inches in thickness, and each layer shall be compacted as specified below.
- E. All structures and pipe trenches shall be backfilled with the type of material shown on the Contract Drawings.
- F. Backfill above and adjacent to pipe, and adjacent to buildings and walls shall be compacted by light weight equipment, such as "walk behind" vibratory plate compactors. Heavy self propelled compactors shall not be used until the following criteria are met:
1. A minimum of 18 inches of compacted backfill has been placed above the top of the pipe.
 2. Area to be compacted is a minimum distance of 3 pipe diameters away from the adjacent pipe.
 3. Area to be compacted is a minimum of 10 feet from building walls.
- G. "Jumping jack" hammers shall not be used above pipes until a minimum of 3 feet of backfill has been placed and compacted.
- H. Compaction Density Requirements:
1. Unless otherwise noted, the degree of compaction required for all types of fill shall be 95 percent in accordance with ASTM D 1557 (Modified Proctor Test). Material shall be moistened or aerated as necessary to provide the moisture content that will facilitate obtaining the specified compaction.

2. The Contractor shall notify the Engineer a minimum of 24 hours prior to starting any compaction operation.
 3. Field density tests shall be made by an independent testing laboratory employed by the Contractor to determine the actual density attained in each layer of fill. No fill shall be placed over a layer which has not been tested and approved. Should these tests indicate that the density of any layer of fill or portion thereof is below the required density, the particular layer or portion thereof shall be reworked until the required density has been obtained. Field density test procedures shall conform with ASTM D2167, ASTM D1556, or ASTM D2922. All final test results shall be submitted to the Engineer for review. At least one test per lift or one test per 50 yards placed shall be performed, whichever is greater.
 4. The moisture content of the fill material shall be at or slightly below the optimum moisture content for the soils being utilized during the entire time when the compactor is working on the fill. If, in the opinion of the Engineer, the fill is too dry for proper compaction, the Contractor shall spray the fill with a sufficient quantity of clean water to bring the fill layer to the proper moisture content. No compactive effort shall be made if the fill is significantly above the optimum moisture content, unless specifically approved by the Engineer.
 5. No fill material shall be placed, spread or compacted while the ground or fill is frozen or thawing or during unfavorable weather conditions. When work is interrupted, fill operations shall not be resumed unless the moisture content and density of the fill are as previously specified. The fill surface must be made smooth and free from ruts or indentations at the end of any working day when any significant precipitation is forecast and/or at the completion of the compaction operations in that area, in order to prevent saturation of the fill material.
- I. Contractor shall repair, at no additional cost to the Department, any damage to the work due to settlement that occurs. He/she shall make all repairs and replacements necessary within 30 days after notice from the Engineer.

3.3 GRADING

- A. Uniformly grade areas within Contract Limits, including adjacent transition areas. Smooth subgrade surface within specified tolerances, compact with uniform levels or slopes between points where elevations are shown, or

between such points and existing grades, as shown on the Contract Drawings.

- B. Slabs: Grade smooth and even, free of voids, compacted as specified, and to required elevation. Provide final grades within a tolerance of 1/4-inch when tested with a 10-foot straightedge.
- C. Compaction: After grading, compact subgrade surfaces to the depth and percentage of maximum density required.

+ + END OF SECTION + +

SECTION 02280

EROSION CONTROL MATERIALS

PART 1 - GENERAL

1.1 SUMMARY

- A. Work Included: Under this section, the Contractor shall provide all labor, equipment and material necessary to furnish and install erosion control materials as shown on the Contract Drawings, as specified and as directed by the Engineer.
- B. General:
 - 1. Erosion control materials shall be installed on sideslopes to provide soil erosion resistance, as shown on the Contract Drawings and/or as directed by the Engineer.
 - 2. Erosion control materials shall be installed in seeded drainage channels, swales and sideslopes to provide permanent soil erosion resistance and vegetation reinforcement, as shown on the Contract Drawings and/or as directed by the Engineer.
- C. Related Work Specified Elsewhere:
 - 1. Section 02111 - Excavation, Removal and Handling of PCB-Contaminated soil.
 - 2. Section 02112 – Excavation, Removal and handling of PCB-contaminated Materials in Wetlands Area.
 - 3. Section 02112 - Soil Erosion and Sediment Control.
 - 4. Section 02200 - Backfill and Compaction.
 - 5. Section 02485 - Seeding.

1.2 QUALITY ASSURANCE

- A. The manufacturer of the erosion control materials shall be a specialist in the production of the specified materials and the proposed materials shall be a standard product of their manufacture.

1.3 SUBMITTALS

- A. Submit shop drawings in accordance with Section 01330 – Project Submittals.
- B. Submittal shall include, but not be limited to, manufacturer's data, specifications, samples, installation instructions and a list of previous installations identifying the name of the owner, the project, Engineer (with telephone number and contact name), quantity of material furnished and its intended purpose.
- C. The Contractor shall furnish a notarized affidavit signed by an authorized representative of the manufacturer certifying that the proposed materials comply with the requirements specified herein and are suitable for the intended purpose.
- D. No material shall be shipped to the Project site until the affidavit is submitted to and approved by the Engineer.

PART 2 - PRODUCTS

2.1 PERMANENT EROSION CONTROL FABRIC

- A. The composite turf reinforcement mat (C-TRM) shall be a machine produced mat of 100% UV stabilized polypropylene fiber matrix incorporated into a permanent 3-dimensional netting structure.
- B. The matrix shall be evenly distributed across the entire width of the matting and stitch bonded between three super heavy-duty UV stabilized nettings with 0.50 x 0.50-inch (1.27 x 1.27 cm) openings. The middle, dramatically corrugated (crimped) netting shall form prominent closely spaced ridges across the entire width of the mat. The three nettings shall be stitched together on 1.50-inch (3.81 cm) centers with UV stabilized polypropylene thread to form a permanent 3-dimensional structure.

All mats shall be manufactured with a colored thread stitched along both outer edges (approximately 2 to 5 inches [5 to 12.5 cm] from the edge) as an overlap guide for adjacent mats.

- C. The composite turf reinforcement mat shall be the North American Green P550, or equivalent. The P550 permanent composite turf reinforcement mat shall have the following physical properties:

Material Content

Matrix	100% UV Stabilized Polypropylene Fibers (0.50 lbs/yd ²) (0.27 kg/m ²)
Netting	Top and bottom – Ultra Heavy UV Stabilized Polypropylene - (24 lb/1,000 ft ² [11.7 kg/100m ²] approximate weight) Mid – Ultra Heavy UV Stabilized Corrugated (24 lb/1,000 ft ² [11.7 kg/100m ²] approximate weight)
Thread	Black UV Stabilized Polypropylene

Physical Specifications (per roll)

	<u>English</u>	<u>Metric</u>
Width	6.50 ft	2.00 m
Length	55.50 ft	16.90 m
Weight	52 lbs ± 10%	23.59 kg
Area	40 yd ²	33.40 m ²
Stitch Spacing	1.50 in	3.81 cm

- D. Erosion control fabric shall be secured in place using heavy duty metal staples. The metal staples shall be U-shaped, a minimum of 12 inches long (each leg) and shall be fabricated from 9 gauge or greater diameter metal wire. The metal staples shall be furnished by the manufacturer of the erosion control fabric and shall be suitable for the installed product and consistent with the manufacturer's recommendations.

2.2 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Each roll of erosion control material delivered to the site shall be labeled by the manufacturer identifying the manufacturer's name, product identification, roll dimension and direction for unrolling. Each roll of erosion control material shall be supplied wrapped in a relatively watertight and opaque protective cover.
- B. All erosion control material shall be properly stored to protect the materials from ultraviolet degradation, precipitation or other inundation, mud, dirt, dust, puncture, cutting, extreme heat caused by direct sunlight or any other damaging or deleterious conditions.
- C. Materials which are damaged during shipment, storage, handling or installation shall be rejected, removed from the job site and replaced at no additional cost to the Department. The Contractor shall take special care to ensure that the integrity of the protective wrapping on each roll is maintained until the time of installation.

PART 3 - EXECUTION

3.1 GENERAL

- A. The erosion control materials shall be installed over the prepared seedbed which has been constructed in accordance with the requirements of these specifications.
- B. Prior to the placement of the erosion control materials in an area, the Contractor and the Engineer shall examine the prepared seedbed to ensure that it is smooth, stable, firm, evenly graded, free of protrusions, sharp stones, vehicle imprints or other damaging objects, properly and evenly seeded and free of erosion. The Contractor shall immediately repair any damage or defect in the prepared seedbed, including reseeding if necessary, prior to the installation of the erosion control materials.
- C. The Contractor shall handle and install the erosion control materials in such a manner to ensure that the material is not damaged in any way.
- D. The protective wrapping on each roll shall not be removed sooner than one hour prior to unrolling. Unused portions of rolls, which are not used in the same day that they are unwrapped, shall be rewrapped and properly stored. Unused portions of rolls which are shorter than 33% of the manufactured roll length shall be discarded unless specifically approved by the Engineer for a particular application.
- E. In the presence of wind, the erosion control material shall be weighted with sandbags or the equivalent. Such sandbags shall be installed during placement and shall remain in place until the installation of the erosion control material is completed. The sandbags shall not be left in place, incorporated into the work, or their contents deposited on the work.
- F. The erosion control materials shall be cut using approved cutting instruments as recommended by the manufacturer. The method of cutting shall result in a neat, clean, controlled cut which does not cause pulling or unraveling of the material components.
- G. The erosion control materials shall be installed on the prepared seedbed within 36 hours of the placement of the seed and landscaping materials.
- H. Apply erosion control materials with the length of roll laid parallel to the flow of the water in swales and channels or along the direction of slope for crown and sideslope areas.

I. Sideslope Installation:

1. The erosion control fabric shall be installed on the sideslope areas in accordance with the manufacturer's recommendations as specified and as directed by the Engineer.
2. The erosion control fabric shall be installed vertically downslope in the direction of water flow.
3. Anchor fabrics at top of slope in a 6-inch by 6-inch anchor trench, staple fabric in anchor trench on 3 feet centers. Backfill, compact and hand reseed trench areas.
4. Overlap fabric edges at least 3 inches and secure with staple at least 3 feet on centers.
5. Do not pull the erosion control fabric taut during installation. The erosion control fabric must be in intimate contact with the underlying soil surface. If trampolining is experienced, install additional staples to secure the fabric to the soil.
6. Staple the erosion control fabric to the underlying soil using a uniform stapling pattern which will provide a staple (field) density of at least two staples per square yard.
7. Install check slots every 50 feet by placing a fold at least 8 inches vertically into the soil. Staple the fabric in the check slot on 3 feet centers and at each edge. Backfill, compact and hand seed the check slots.
8. Overlap successive lengths of erosion control fabric at least 1-foot shingle style, with upslope layer on top. Staple overlapped area on 1-foot centers.
9. Anchor the downslope ends of the fabric in an anchor slot at least 8 inches deep. Secure the fabric in the anchor slot with staples 3 feet on center and at each edge. Backfill, compact and hand seed the anchor slot.

- J. The Contractor shall exercise extreme care during the placement and installation of the erosion control materials so as to minimize the disturbance to the prepared seedbed. The Contractor shall repair any damage to the prepared seedbed to the satisfaction of the Engineer.

+ + END OF SECTION + +

NO TEXT THIS PAGE

SECTION 02447

FENCING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Scope:
 - 1. Contractor shall furnish all labor, materials, equipment and incidentals required to provide fencing as shown and specified.
 - 2. The types of fencing and appurtenances include the following:
 - a. Swing gates.
 - b. Accessories and fittings.
 - c. Galvanized steel chain link fabric system for fencing systems.
 - d. Polyvinyl chloride (PVC) coating.
- B. Related Work Specified Elsewhere:
 - 1. Section X-00002, Concrete.

1.2 QUALITY ASSURANCE

- A. Erector Qualifications: Erector must be a firm experienced in the erection of fencing of the type specified and approved by the manufacturer.
- B. Design Criteria: Comply with the standards of the Chain Link Fence Manufacturer's Institute "Product Manual" and Federal Specification RR-F-191/1A/1C, unless otherwise shown or specified.
- C. Source Quality Control: Provide each type of fence and gate as a complete unit produced by a single manufacturer, including necessary erection accessories, fittings and fastenings.

D. Reference Standards: Comply with applicable provisions and recommendations of the following, except as otherwise shown or specified:

1. ASTM A 120, Specification for Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless Steel Pipe of Ordinary Uses.
2. ASTM A 153, Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
3. ASTM A 392, Specification for Zinc-Coated Steel Chain-Link Fence Fabric.
4. ASTM D 412, Tension Testing of Vulcanized Rubber.
5. ASTM D 746, Test for Brittleness Temperature of Plastics and Elastomers by Impact.
6. ASTM D 792, Tests for Specific Gravity and Density of Plastics by Displacement.
7. ASTM D 2240, Test for Indentation Hardness, of Rubber and Plastic by Means of Durometer.
8. ASTM G 23, Light and Water-Exposure Apparatus (Carbon-Arc Type) for Exposure of Nonmetallic Materials.
9. Chain Link Fence Manufacturer's Institute, Galvanized Steel Chain-Link Fence Fabric.
10. Federal Specification, RR-F-191/IA, Fencing, Wire and Post, Metal (Chain-Link Fence Fabric).
11. ASTM B-221, Specification for Aluminum Alloy Extruded Bars, Rods, Wire, Shapes and Tubes.
12. ASTM F-668, Specification for Polyvinyl Chloride (PVC)-coated Steel Chain Link Fence Fabric.

1.3 SUBMITTALS

A. Samples: Submit for approval samples approximately 6 inches long, or 6 inch square of fabric material, framework members, and typical accessories, in a full range of manufacturer's standard and custom colors. Engineer's review will be for color and texture only. Compliance with all other requirements is the exclusive responsibility of the Contractor.

B. Shop Drawings:

1. Submit for approval Shop Drawings for fences and gates, including plan layout and details illustrating fence height, location and sizes of posts, rails, braces, gates, and footings, hardware list and erection procedures.
2. Submit for approval copies of manufacturer's technical data test reports on physical properties, and installation instructions for steel fences and gates.

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Delivery of Materials: Deliver material in manufacturer's original packaging with all tags and labels intact and legible.
- B. Handling of Materials: Handle and store material in such manner as to avoid damage.

1.5 GUARANTEE

- A. Furnish manufacturer's written 10-year guarantee against cracking and peeling of the PVC coating, and rusting of the metal.

PART 2 - PRODUCTS

2.1 GENERAL

- A. All fencing shall be 6' high chain link fencing.
- B. Pipe sizes specified are commercial pipe sizes.
- C. Tube sizes specified are nominal outside dimension.
- D. Roll-formed section sizes are the nominal outside dimensions.
- E. Finish for Framework and Appurtenances: Furnish the following finishes for steel framework and appurtenances:
 1. Galvanized finish with minimum weights of zinc as follows:
 - a. Pipe: ASTM A 120, Schedule 40, 1.8 ounces zinc per square foot.
 - b. Hardware and Accessories: ASTM A 153, zinc weight per Table I, Federal Specification RR-F-191/1A.

2. Polyvinyl chloride (PVC) epoxy modified plastic resin finish, fusion bonded to heated metal, minimum 10-mil thickness. The physical properties of the polyvinyl chloride coating follow:
 - a. Specific Gravity, ASTM D 792; 1.26-1.30, Max.
 - b. Ultimate Tensile Strength, ASTM D 412; 2,600 psi; 5 percent.
 - c. Hardness, ASTM D 2240; Durometer A (10 Second) 95 +5; Durometer D (10 Second) 45 +-5.
 - d. Ultimate Elongation, ASTM D 412; 275% +-5 percent.
 - e. Compression Cut Resistance, Bell Labs; 2,000 pounds per square inch.
 - f. Low Temperature Brittleness, ASTM D 746; -20 C.
 - g. Low Temperature Flexibility, (Mandrel Wrap) @ -40 C.
 - h. Weatherometer Exposure, ASTM G 23; with no change; 1,000 hours.

2.2 FABRIC

A. Furnish chain link fabric as follows:

1. One-piece fabric widths, for fence heights up to 12 feet.
 - a. No. 9 gage core wires.
2. 2-inch mesh.
3. Top selvages twisted and barbed and bottom selvage knuckled for fabric over 60 inches high.
4. Galvanized finish with not less than 0.30 ounces zinc per square foot complying with ASTM F668, Class 2a or 2b, or aluminum finish with not less than 0.30 ounces per square foot.
5. Polyvinyl chloride (PVC) plastic resin finish over galvanized steel or aluminum wire by the Thermal Extrusion Method or Fusion Bonded Method, complying with ASTM F668, Class 2a or 2b.

- a. Not less than 0.020 inches thick for 9 gage core wire for Class 2a.
 - b. Not less than 0.007 inches thick for 9 gage core wire for Class 2b.
- B. Privacy slats shall be 6 feet in height and 1-1/8-inch wide plastic vertical tubing (PVT). Color samples shall be provided to the Engineer before final acceptance.

2.3 POSTS, RAILS AND BRACES

- A. End, Corner, and Pull Posts: Furnish end, corner, and pull posts of the minimum sizes and weights as follows:
 - 1. 2.5-inch O.D. pipe weighing 3.65 pounds per linear foot.
- B. Line Posts: Furnish line posts of the minimum sizes and weights as follows. Space posts 10 feet on centers maximum, unless otherwise shown.
 - 1. 2-inch O.D. pipe weighing 2.70 pounds per linear foot.
- C. Gate Posts: Furnish gate posts for supporting single gate leaf as follows:
 - 1. 4-inch O.D. schedule 40 galvanized posts weighing 9.1 pounds per foot.
- D. Top Rail: Furnish top rails, unless otherwise shown, of the following:
 - 1. 1.660-inch O.D. pipe weighing 2.27 pounds per linear foot.
 - 2. Furnish in manufacturer's longest lengths, with expansion type couplings, approximately 6 inches long, for each joint. Provide means for attaching the top rail securely to each gate, corner, pull, and end post.
- E. Center Rails Between Line Posts: Furnish center rails between line posts where indicated, consisting of 1.660 inch O.D. pipe weighing 2.27 pounds per linear foot.
- F. Post Brace Assembly: Furnish bracing assemblies at end and gate posts at both sides of corner and pull posts, with the horizontal brace located at mid-height of the fabric.

1. Use 1.660-inch O.D. pipe weighing 1.80 pounds per linear foot for horizontal brace and 3/8 inch diameter rod with turnbuckle for diagonal truss.
- G. Tension Wire: Furnish tension wire consisting of aluminized 7 gage coiled spring wire.
1. Locate at bottom and top of fabric.
- H. Post Tops: Pressed steel, wrought iron, or malleable iron, designed as a weathertight closure cap, for tubular posts. Furnish one cap for each post.
1. Furnish caps with openings to permit through passage of the top rail.
- I. Stretcher Bars: One piece lengths equal to full height of fabric, with a minimum cross-section of 3/16 inch by 3/4 inch. Provide one stretcher bar for each gate and end post, and 2 for each corner and pull post, except where fabric is integrally woven into the post.
- J. Stretcher Bar Bands: Steel, wrought iron, or malleable iron, spaced not over 15 inches on center to secure stretcher bars to end, corner, pull, and gate posts.
1. Bands may also be used with special fittings for securing rails to end, corner, pull and gate posts.

2.4 GATES

- A. Manufacturer: The gates shall be the aluminum swing gate type (unless otherwise noted) as shown on the Drawings, and as manufactured by one of the following:
1. Anchor Fence, Inc.
 2. Or approved equal.
- B. Frame: Gate frames shall be made of 2-inch square aluminum tubing, alloy 6063-T6, weighing 0.94 pounds per lineal foot and shall be welded at all corners so as to form a rigid one-piece unit. Fabric shall be securely stretched and held on all four sides in the 2-inch square tubing by use of hook bolts and tension rods. Fabric filler shall match fence.
- C. Size/Type: The size and type of the gates shall be as specified, as shown on the Drawings and as directed by the Department.

- D. Posts: Gates shall be installed on 4-inch O.D. Schedule 40 galvanized posts weighing 9.1 pounds per foot.
- E. Bracing: Install diagonal cross-bracing consisting of 3/8-inch diameter galvanized steel adjustable length truss rods on gates where necessary to ensure frame rigidity without sag or twist.
- F. Gate Hardware: All gate hangers, latches, brackets, guide assemblies and stops shall be galvanized after fabrication malleable iron or steel. A positive latch shall be provided with provisions for padlocking.

2.5 MISCELLANEOUS MATERIALS AND ACCESSORIES

- A. Wire Ties: For tying fabric to line posts, use 9 gage wire ties spaced 12 inches on center. For tying fabric to rails and braces, use 9 gage wire ties spaced 24 inches on center. For tying fabric to tension wire, use 11 gage hog rings spaced 24 inches on center. Finish of ties to match fabric finish.
 - 1. Manufacturer's standard procedure will be accepted if of equal strength and durability.
- B. Concrete: Provide concrete as specified in Section X-00002, Concrete.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Contractor shall examine the conditions under which the fence and gates are to be installed and notify the Engineer in writing of conditions detrimental to the proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions have been corrected in a manner acceptable to the Engineer.

3.2 PREPARATION

- A. Do not begin fence installation and erection before the final grading is completed, with finish elevations established.

3.3 INSTALLATION

- A. Excavation: Drill holes of diameters and spacings shown, for post footings in firm compacted soil.
 - 1. Unless otherwise indicated, excavate hole depths approximately 6 inches lower than the post bottom, with bottom of posts set not

less than 36 inches below the surface when in firm, undisturbed soil.

- a. Remove or spread soil from excavations uniformly adjacent to the fence line, or on adjacent areas of the site, as directed.
2. When solid rock is encountered near the surface, drill into rock at least 12 inches for line posts and at least 18 inches for end, pull, corner, and gate posts. Drill hole at least 1-inch greater diameter than the largest dimension of the post to be placed.
 - a. If solid rock is below soil overburden, drill to full depth required, except penetration into rock need not exceed the minimum depths specified above.
- B. Setting Posts: Remove loose and foreign materials from sides and bottoms of holes, and moisten soil prior to placing concrete.
 1. Center and align posts in holes 6 inches above bottom of excavation.
 2. Place concrete around posts in a continuous pour, and vibrate or tamp for consolidation. Check each post for vertical and top alignment, and hold in position during placement and finishing operations.
 3. Trowel finish tops of footings, and slope or dome to direct water away from posts. Extend footings for gate posts to the underside of bottom hinge. Set keeps, stops, sleeves and other accessories into concrete as required.
 4. Keep exposed concrete surfaces moist for at least 7 days after placement, or cure with membrane curing materials, or other acceptable curing method.
 5. Grout posts set in sleeved holes, concrete constructions, or rock with grout, as specified in Section X-00002, Concrete.
- C. Concrete Strength: Concrete must attain at least 75 percent of its minimum 28-day compressive strength, but in no case sooner than 7 days after placement, before rails, tension wires, or fabric is installed. Do not stretch and tension fabric and wires, and do not hang gates until the concrete has attained its full design strength.
 1. Take samples and test concrete to determine strength as specified in Section X-00002, Concrete.

- D. Top Rails: Run rail continuously through post caps or extension arms, bending to radius for curved runs. Provide expansion couplings as recommended by fencing manufacturer.
- E. Center Rails: Provide center rails only where shown. Install in one piece between posts and flush with post on fabric side, using special offset fittings where necessary.
- F. Brace Assemblies: Install braces so posts are plumb when diagonal rod is under proper tension.
- G. Tension Wire: Install tension wires by weaving through the fabric and tying each post with not less than 6 gage galvanized wire, or by securing the wire to the fabric.
- H. Fabric: Leave approximately 2 inches between finish grade and bottom selvage, except where bottom of fabric extends into concrete. Pull fabric taut and tie to posts, rails, and tension wires. Install fabric on security side of fence, and anchor to framework so that fabric remains in tension after pulling force is released.
- I. Repair coatings damaged in the shop or during field erection by recoating with manufacturer's recommended repair compound, applied per manufacturer's direction.
- J. Stretcher Bars: Thread through or clamp to fabric 4 inches on center, and secure to posts with metal bands spaced 15 inches on center.
- K. Gates: Install gates plumb, level, and secure for full opening without interference. Install ground-set items in concrete for anchorage, as recommended by the fence manufacturer. Adjust hardware for smooth operation and lubricate where necessary.
- L. Tie Wires: Use U-shaped wires conforming to diameter of pipe. Clasp pipe and fabric firmly with ends twisted at least two full turns. Bend ends of wire to minimize hazard to persons or clothing.
- M. Fasteners: Install nuts for tension band and hardware bolts on side of fence opposite fabric side. Peen ends of bolts or score threads to prevent removal of nuts.

3.4 ADJUSTMENT AND CLEANING

- A. Adjust all fencing and gates and leave in good working condition.

- B. Repair or replace any broken or bent components as directed by the Engineer.
- C. Protect gates and fencing from construction traffic until acceptance of the Work.

+ + END OF SECTION + +

SECTION 02485

SEEDING

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope of Work:

1. This section provides for seeding for restoration of grass areas as specified, shown on the Contract Drawings, and as directed by Department. At a minimum, all existing grass areas which are disturbed by the Work shall be seeded.
2. Areas of the site which are backfilled during periods outside the time of seeding requirements of this section shall be temporarily stabilized until permanent vegetation can be established. Contractor shall submit to the Engineer for approval the method of temporary stabilization prior to initiating excavation activities.

B. Related Work Specified Elsewhere:

1. Section 02111 - Excavation, Removal and Handling of PCB-Contaminated Soil
2. Section 02200 - Backfill and Compaction
3. Section 02280 - Erosion Control Materials

1.2 QUALITY ASSURANCE

A. The Contractor shall comply with the submittal requirements specified in Section 01330 - Project Submittals.

B. Submittals:

1. The Contractor shall submit certificates of materials compliance before delivery of material for the following items:
 - a. Seed
 - b. Topsoil
 - c. Fertilizer (5-10-10)

- d. Limestone
- e. Superphosphate
- f. Mulch

1.3 INSPECTION

- A. The sources of seed and topsoil shall be submitted to the Engineer at least five (5) days prior to delivery. Seed and topsoil shall be inspected prior to delivery.

PART 2 - PRODUCTS

2.1 TOPSOIL

- A. The Contractor shall comply with the general requirements for all fill materials as stated under Section 02200 – Backfill and Compaction, Part 2 Paragraph 2.1.
- B. The topsoil shall consist of a fertile, friable, natural top soil of loamy character, without admixtures of subsoil, uniform in quality and shall be free from refuse of any nature, hard clods, stiff clay, sods, hard pan, pebbles larger than 3/4-inch in diameter, coarse sand, noxious weeds, sticks, brush, or other rubbish.
- C. The topsoil shall be taken from a well drained, arable site, preferably one which has been under cultivation at least 5 years previous to the time of removal.
- D. The topsoil shall contain not less than 5 percent nor more than 20 percent organic matter, as determined by loss on ignition of oven-dried samples. The samples shall be thoroughly oven-dried to constant weight at a temperature of 221°F.
- E. The Hydrogen Ion value of all topsoil shall be not less than 5 and not more than 7. After the testing of the samples of material, if the loam is found to be unsatisfactory for the intended use, the Department shall require that the Contractor, without additional compensation, add to the top soil proposed for use, lime, particular fertilizer or particular humus, as directed in order to make the topsoil suitable.
- F. Mechanical Analysis: The sieve analysis on an oven-dried sample shall be as follows:

<u>Sieve Size</u>	<u>% Passing by Weight</u>
1 inch	100
1/4 inch	97-100
# 100	40-70
# 200	minimum 20%

- G. Chemical Analysis: The topsoil shall be analyzed for Target Compound List (TCL) volatile organic compounds; TCL semivolatile compounds; TCL pesticides; TCL PCBs; Target Analyte List (TAL) metals; and cyanide. Sample collection and analysis shall be in accordance with the Contractor's approved Sampling and Analysis Plan (See Section 01652).

2.2 SEED

A. General:

- Grass seed shall be fresh, recleaned seed of the latest crop. Material other than pure live seed shall comprise only nonviable seed, chaff, hulls, harmless inert matter and shall be free from noxious weeds. The mixture shall have less than one quarter (1/4) of one (1) percent weed content. Seed shall be mixed before delivery and shall consist of the mixture specified and in conformity with the following proportions by weight and meeting with the following standards of seed content. The percentage of purity shown on the label will be acceptable. The percentage of germination shall not be less than the minimum specified.

B. Mixtures:

- Mixture A to be seeded, in general, on areas not regularly mowed.

Mixture A

<u>Seed Mixture</u>	<u>Variety</u>	<u>Rate in lbs/ac. (lbs/1000 ft²)</u>
Tall fescue	Kentucky 31	20 (0.5)
Perennial ryegrass	Pennfine	5 (0.1)
Birdsfoot trefoil	Empire	8 (0.2)

- Mixture B to be seeded, in general, on areas regularly mowed and well-maintained.

Mixture B

<u>Seed Mixture</u>	<u>Variety</u>	<u>Rate in lbs/ac. (lbs/1000 ft²)</u>

Kentucky bluegrass	Adephi/Baron	20 (0.5)
Perennial ryegrass	Pennfine	5 (0.1)

3. The following brand name mixtures are approved substitutes: Manhattan, Pennfine, N.K. 200 or Norlea in the proper percentages of mixture or any other current approved brand name mixture.

C. Packaging:

1. All grass seed shall be delivered in unopened standard size bags of the vendor showing weight, analysis and the name of vendor. It shall be stored in such a manner that its effectiveness will not be impaired.

2.3 COMMERCIAL FERTILIZER

A. Composition:

1. Commercial granular fertilizer shall have the following composition by weight: Nitrogen five (5) percent; Phosphorus ten (10) percent; Potassium ten (10) percent. The Nitrogen shall be fifty (50) percent organic (from organic sources, e.g., fish meal, dried blood, dried manure, activated sewage sludge, castor pomace, cottonseed meal, etc.) and fifty (50) percent inorganic. The elements shall be available according to the methods adopted by the Association of Official Agricultural Chemists.

B. Packaging:

1. Fertilizers shall be packed in the manufacturer's standard containers weighing not over one hundred (100) pounds each with the name of the material, net weight of contents and the manufacturer's name and guaranteed analysis appearing on each container.

2.4 GROUND LIMESTONE

A. Composition:

1. Ground limestone (calcium carbonate) shall have the following analysis: At least fifty (50) percent shall pass a two hundred (200) mesh sieve; at least seventy (70) percent shall pass a one hundred (100) mesh sieve; and one hundred (100) percent shall pass a ten (10) mesh sieve. Total carbonates shall not be less than eighty (80) percent or 44.8 percent calcium oxide equivalent; for purposes

of calculation, total carbonates shall be considered as calcium carbonate.

B. Packaging:

1. Ground limestone packed in the manufacturer's standard containers shall weigh not over one hundred (100) pounds each with the name of the material, net weight of contents and the manufacturer's name and guaranteed analysis appearing on each container. Bulk shipments shall be accompanied by a certificate covering the names, weight and analysis as specified herewith for packaged material.

2.5 SUPERPHOSPHATE

A. Composition:

1. Superphosphate shall be an approximate 0-20-0 formulation with an acceptable minimum of eighteen (18) percent available phosphoric acid.

B. Packaging:

1. Superphosphate packed in the manufacturer's standard containers shall weigh not over one hundred (100) pounds each, with the name of the material, net weight of contents and the manufacturer's name and guaranteed analysis appearing on each container. Bulk shipments shall be accompanied by a certificate covering the names, weight and analysis as specified herewith for packaged material.

2.6 MULCH-WOOD FIBER

A. General:

1. Wood fiber suitable for use as a mulch for seeding shall be processed so that the fibers will remain in uniform suspension in water under agitation and will blend with grass seed, fertilizer, ground limestone and other additives to form a homogenous slurry. It shall have the characteristics which, upon hydraulic application, shall form a blotter-like ground coating with moisture absorption and percolation properties and the ability to cover and hold grass seed in intimate contact with the soil. Wood fiber shall contain no growth or germination inhibiting factors and shall be dyed green. The wood fiber mulch shall be "Superior Fiber" manufactured by

Wolbert Master and Assoc. Inc., "Silva Fiber" as manufactured by Weyerhaeuser or equal.

B. Packaging:

1. Wood fibers shall be supplied in the manufacturer's unopened standard containers weighing not over one hundred (100) pounds each, with the name of the material, net weight of contents, the manufacturer's name and the air dry weight of fiber (equivalent to ten (10) percent moisture) appearing on each container.

2.7 HAY

- A. Hay for mulching shall be mowings of acceptable herbaceous growth which is free of mold, undesirable seeds, coarse or deleterious materials or from noxious weeds. Materials which are low grade and unfit for farm use such as "U.S. sample grade" shall be acceptable.

2.8 EROSION CONTROL FABRICS

A. General:

Erosion control fabrics for slope protection shall be in accordance with Section 02280 – Erosion Control Materials.

2.8 MISCELLANEOUS LANDSCAPE MATERIALS

A. Water:

1. Water shall be from fresh water sources and free from soil, acids, alkalis, salt or any other substance injurious to plant growth.

PART 3 - EXECUTION

3.1 GENERAL

- A. The Contractor will be required to supply the necessary material to provide a 6-inch layer of topsoil over the areas to be seeded. Where directed by the Engineer, the surface of the subsoil shall be scarified or tilled to a minimum depth of 2 inches before topsoil or soil is placed to permit bonding of the upper soil layer with the subsoil.
- B. When delays in seeding operations carry the work beyond the specified seasons or when conditions of high winds, excessive moisture or frost are such that satisfactory results are not likely to be obtained for any stage of

the work, the Engineer will stop the work. The work shall be resumed with the Engineer's approval when the desired results are likely to be obtained or when approved corrective measures and procedures are adopted.

- C. The Contractor shall be liable for any damage to property caused by seeding operations and all areas disturbed shall be restored to their original conditions to the satisfaction of the Engineer.
- D. One inch of water per week shall be applied (by the Contractor) on seeded areas for adequate soil saturation as required by weather conditions and as ordered by the Engineer until final acceptance. Watering shall be continued until final payment. Watering shall be done in a manner which will not cause erosion or other damage to the finished surfaces. Any surfaces which become gullied or otherwise damaged shall be repaired to reestablish the grade and conditions of the soil prior to seeding. After the repairs have been made, the areas shall be reseeded as specified.

3.2 GRASS SEEDING

A. Time of Seeding:

- 1. Seeding shall be performed from March 1 to April 15 and from August 15 to October 15 unless otherwise approved. The Contractor shall notify the Engineer at least 48 hours in advance of the time he/she intends to begin seeding and shall not proceed with such work until permission has been granted.
- 2. If permanent seeding cannot be performed within the prescribed dates, the Contractor shall apply temporary seed and mulch to the completed areas as follows at no additional cost to the Department. For the period between April 15 and August 15, the temporary seed shall be Annual Ryegrass applied at a minimum rate of 40 pounds per acre, uniformly mulched with hay at a minimum rate of 2 tons per acre and secured with mulch anchorage in accordance with the manufacturer's recommendations. For the period between October 15 and March 1, the temporary seed shall be winter rye or winter wheat applied at a minimum rate of 180 pounds per acre, uniformly mulched with hay at a minimum rate of 2 tons per acre and secured with mulch anchorage in accordance with the manufacturer's recommendations. Temporary plant materials shall be cut and removed or otherwise killed back prior to placement of final cover materials and permanent seedings at no additional cost to the Department.

B. Preparation of Areas:

1. The areas to be seeded shall be cultivated and cleaned of all vegetative growth to a depth of 6 inches except as otherwise directed by the Engineer on designated areas where topsoil has been furnished and placed to a depth of 6 inches immediately prior to seeding. All weeds, roots, stumps, large stones and debris shall be removed, transported and disposed off-site by the Contractor. All washouts or other surface irregularities shall be repaired and additional topsoil shall be placed over the area as required until the entire area to be seeded is covered with a minimum of 6-inch compacted layer of topsoil. The areas to be seeded shall then be rough graded to conform to the proper elevations as directed by the Engineer.

C. Final Preparations of Seed Bed:

1. The areas to be seeded shall be cultivated with a disc, rototiller or scarifier to a depth of 4 inches. The areas shall be smoothly graded to the proper elevations, free from all unsightly ridges, depressions or undue irregularities. Areas to be seeded that cannot be cultivated by mechanical means shall be scarified by hand to attain the degree of smoothness and uniformity of adjacent lawn areas. Any soft areas shall be thoroughly compacted with an accepted roller weighing at least 200 pounds.
2. All topsoil not used is to be removed and disposed of as directed by the Engineer.
3. Ground limestone shall be evenly distributed at the rate of two thousand (2000) pounds per acre and worked into the top 3 inches of the soil during the cultivation required for the final preparation of seed bed.
4. Commercial fertilizer (5-10-10) as specified shall be evenly distributed at the rate of six hundred (600) pounds per acre using an approved mechanical spreader and shall be worked into the top 1-inch of the soil.
5. In the event that it rains between the time the soil on any area is prepared and before it is seeded by any specified method, the soil on all areas to be seeded shall be completely pulverized to a depth of 1-inch as determined, directed and approved by the Engineer.

D. Sowing Seed:

1. Grass seed shall be sown evenly at the rate of one hundred fifty (150) pounds per acre. All seeding is to be done on dry or moderately dry soil and at times when the wind does not exceed a velocity of five (5) miles per hour.
2. A mechanical seeder may be used such as a Brillion seeder or equal to distribute the seed. Rolling will not be necessary.
3. If the grass seed is to be sown by hand the seed shall be evenly distributed and lightly raked into the top 1/4-inch of soil. After seeding and raking, the soil surface is to be rolled with an accepted roller weighing at least two hundred (200) pounds.

E. Hydroseeding:

1. All requirements of "Grass Seeding" hereinbefore specified shall apply except as modified herein.
2. Areas to be hydroseeded shall be scarified sufficiently to break up the surface crust immediately before seeding as approved by the Engineer, except where the ground is loose and friable as immediately following grading, or as otherwise approved.
3. The hydroseeder slurry shall be a homogenous mixture of seed, mulch, limestone and fertilizer which shall remain in suspension in water under agitation. The slurry shall be evenly distributed over the area to be seeded and shall be applied in accordance with the following application rates per acre of surface seeded.
 - a. 6,000 gallons of water, 2,000 pounds of wood fiber mulch, 200 pounds of grass seed mixture, 1,200 pounds of ground limestone, 900 pounds of 5-10-10 fertilizer.
4. Any hydroseed slurry applied to paved areas or structures (e.g., fencing, building exterior walls, etc.) shall be promptly removed.

F. Seeding with Erosion Control Fabrics:

1. Erosion control fabrics shall be applied in accordance with the manufacturers' instructions as modified, directed and approved by the Engineer.

3.3 ESTABLISHMENT OF SEEDED AREAS

1. The Contractor shall maintain, water, mow and protect the seeded areas until a uniform stand of grass 2 1/2 inches high has been obtained. Any areas which have been damaged or fail to show a uniform stand of grass shall be scarified, refertilized and reseeded with the original seed mixture until all the designated areas are covered with grass.

+ + END OF SECTION + +

SECTION 02487

PLANTING

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope of Work:

1. This section provides for furnishing and planting of trees and includes provisions for planting of shrubs and small caliper trees that are removed, preserved and restored as described in other sections of this Specification.
2. The Contractor shall furnish all labor, materials, equipment, supplies and incidentals required for planting and maintaining, at a minimum, pine, fir, spruce and hemlock, balled and burlapped as specified herein and as directed by the Engineer and the Department. The trees shall be, at a minimum, 4 feet in height. Approval of the location of the trees by the Engineer shall be required prior to delivery to the site.

B. Related Work Specified Elsewhere:

1. Section 02110 – Clearing and Grubbing.
2. Section 02200 - Backfill and Compaction.

1.2 QUALITY ASSURANCE

A. Nomenclature:

1. The common and scientific names of plants shall be in conformity with the approved names by Standardized Plant Names prepared by the American Joint Committee on Horticultural Nomenclature 1942 Edition or its successor as the American Association of Nurserymen's recognized authority on Botanical Nomenclature.

B. Standards:

1. Plants including root spread and ball size shall be in accordance with the current edition of "American Standard for Nursery Stock," (ANSI Z60.1) a code of standards sponsored by the American Nursery and

Landscape Association as modified herein and as otherwise specified.

C. Inspection:

1. All trees and shrubs shall be subject to inspection and approval of the Department at the growing site, but approval and marking at the growing site shall not obligate the Department to pay for any tree or shrub until it has been delivered and planted at the planting site in a satisfactory condition. The removal of nursery stock rejected at the planting site and its replacement in compliance with specifications shall be made at no extra cost to the Department.
2. All plants shall be subject to inspection at any place and at anytime. The Contractor shall be represented at all inspections.

1.3 CERTIFICATIONS

A. Plant Material:

1. The Contractor shall be responsible for all certificates of inspection of plant materials which may be required by Federal, State or other authority to accompany shipment of plants. Certificates of Inspection shall be submitted to the Engineer for each shipment of plants at delivery.
2. Labeling shall be in accordance with normal nursery labeling practice except that the Contractor shall be required at any time to supply certification of positive identification of any plant species and/or variety in addition to those specified herein.
3. The Contractor shall submit certificates of material compliance before delivery of each type of fertilizer and the anti-desiccant to be supplied.

PART 2 - PRODUCTS

2.1 PLANTS

A. General:

1. Trees and shrubs shall have a normal habit of growth and be typically characteristic of their respective kinds. When a minimum and maximum size is specified, an average size is required. Plants shall not be pruned before delivery and no plants shall be cut back from larger sizes to meet the sizes specified. Plants shall be free from

injury. Plants shall be nursery grown unless otherwise specified and bear evidence of proper nursery care normal to current nursery practice.

B. Abbreviations:

Cal. - Indicates the caliper of the trunk of the tree
B.R. - Indicates plants to be dug with bare roots
B&B - Indicates plants to be balled and burlapped
B&P - Indicates plants to be balled and platformed
C.G. - Indicates container-grown plants
P.G. - Indicates pot-grown plants

C. Substitutions:

1. No change of quantity, size, kind or quality of plants as specified will be accepted except upon written approval by the Engineer.

D. Digging and Handling:

1. Plants shall be dug with care and skill immediately before shipment. No cold storage plants will be accepted unless approved by the Engineer. Plants stored temporarily shall be properly heeled in or otherwise protected from injury. Digging shall avoid all possible injury to, or loss of roots but roots cut shall be cleanly cut.
2. After plants are dug their roots shall be protected from injury such as caused by heat, sun, wind and freezing temperatures. All bare roots of trees, shrubs and vines shall be puddled at the time of digging unless otherwise approved by the Engineer. Puddling shall be done in a wet clay mixture, of a quality to adhere to all parts of the root system. Roots of bare root plants which have been thoroughly covered at the time of digging with an anti-desiccant will not require puddling. Bare roots shall be further protected by wrapping in wet straw, moss, burlap or other suitable material.
3. Burlap or other equivalent covers shall be placed over plants transported by open trucks or by open freight cars. Doors on closed trucks shall be kept closed to prevent drafts. Shipments made in boxcars or closed trucks shall be adequately ventilated to prevent "sweating." The heads of trees shall be tied in carefully to prevent fracturing or breaking the branches. Trunks and branches shall be adequately supported and padded to avoid scraping or bruising.

E. Trees and Shrubs:

1. Where ordered by the Engineer to replace a tree over 4 inches in caliper that has been removed to construct the work, the Contractor shall furnish 2-inch to 2 1/2-inch caliper trees, B&B and of Specimen Quality from the following approved list:
 - a. *Pinus resinosa*
 - b. *Pinus strobus*
 - c. *Picea abies*
 - d. *Picea Pungens*
 - e. *Acer rubrum*
 - f. *Abies balsamea*
 - g. *Tsuga canadensis*
 - h. *Rhus syphina*
 - i. *Rosa multiflora*
 - j. *Spirea alba*
 - k. Or as approved by the Engineer

The species will be selected by the Engineer during construction. The selection will be based on conformity to existing area planting and availability of the species.

2. Nursery grown trees shall have no cuts of limbs which are not healing and no cuts over 3/4 inch which have not completely callused over, no cut back crowns and no abrasions of the bark. The center leader on all major trees shall be intact. Trees must have good fibrous root systems characteristic of the kind. The tops of deciduous trees shall be well formed structurally with reasonably straight trunks and normal spread of crowns.
3. Specimen Quality trees shall have straight trunks, single leader intact, having a minimum deviation from the vertical which is characteristic of the kind, with well branched, symmetrical tops and with the lower branches 6-7 feet from the ground.

4. Bare root trees shall not require earth adhering to the roots except as required for puddling.
5. Balled and burlapped trees shall be properly dug and protected to preserve the natural earth in contact with the roots. No manufactured balls will be accepted. The balls shall be of the required size, firmly wrapped and tied with minimum three-ply sisal or equal. No balled tree will be acceptable if the ball is cracked or broken.
6. Balled and platformed trees shall be balled as specified for (B&B) trees. Platforms shall be square or octagonal shaped of a size slightly larger than the diameter of the bottom of the soil mass inserted under each ball by means of ties from the platform corners to the rope collar on top of the ball.
7. The quality of balled and burlapped shrubs shall be as specified for (B&B) trees herein. Shrubs shall have good fibrous root systems.
8. Trees and shrubs shall be a minimum of 4 feet tall.

F. Container Grown Plants:

1. The sizes of containers shall be as specified on the Drawings or may have a root ball 25 percent less in diameter and depth than that specified for B&B material. A 15 percent tolerance will be allowed in diameter and depth provided that the volume of the resultant root ball is no less than the volume of the root ball as specified. This specification is intended to determine the size of the root ball produced from a container and is not to be construed as a determination of the actual dimensions of the container.
2. Container grown plants shall exhibit a well-rooted condition which is evidenced by the firmness of the ball. The outside of the ball shall be well netted with healthy working roots which have not been restricted. Plants shall have been adequately hardened off before shipment.
3. Containers shall be of such a shape as to permit easy removal of the plant and shall be rigid enough to maintain the shape of the ball. NO plant will be accepted if the ball is cracked or broken.

2.2 TOPSOIL

- A.** The topsoil shall consist of a fertile, friable, natural top soil of loamy character, without admixtures of subsoil, uniform in quality and shall be free from refuse of any nature, hard clods, stiff clay, sods, hard pan, pebbles

larger than 3/4-inch in diameter, coarse sand, noxious weeds, sticks, brush, or other rubbish.

- B. The topsoil shall be taken from an approved source in accordance with the specifications and Contractor shall pre-qualify the source of supply prior to use at the site.
- C. The topsoil shall be taken from a well-drained, arable site, preferably one which has been under cultivation at least 5 years previous to the time of removal.
- D. The topsoil shall contain not less than 5 percent nor more than 20 percent organic matter, as determined by loss on ignition of oven-dried samples. The samples shall be thoroughly oven-dried to constant weight at a temperature of 221°F.
- E. The Hydrogen Ion value of all topsoil shall be not less than 5 and not more than 7. After the testing of the samples of material, if the loam is found to be unsatisfactory for the intended use, the Department may require that the Contractor, without additional compensation, add to the top soil proposed by him for use, lime, particular fertilizer or particular humus, as directed in order to make the topsoil suitable.
- F. Mechanical Analysis: The sieve analysis on an oven-dried sample shall be as follows:

<u>Sieve Size</u>	<u>% Passing by Weight</u>
1 inch	100
1/4 inch	97-100
#100	40-70
#200	minimum 20%

2.3 FERTILIZER

- A. Composition:
 - 1. The fertilizer shall be a slow release type contained in polyethylene, perforated bags with micropore holes for controlled feeding. The bags shall contain 4 ounces of soluble fertilizer analysis 16-8-16 minimum per unit to last for 8 years. Minimum guaranteed analysis shall be a fertilizer containing nitrogen, phosphoric acid and potash in the ratio of 16-8-16 with approximately one-half the nitrogen in the ammonium form and one-half in the nitrate form.

2. Fertilizer on mulch shall be a mixed granular commercial fertilizer containing nitrogen, phosphoric acid and potash in the ratios of 10-6-4 as specified in Section titled "Seeding."

B. Packaging:

1. Fertilizer packets shall be packed in the manufacturer's standard containers weighing not over 100 pounds each with the name of the material, net weight of contents and the manufacturer's name and guaranteed analysis appearing on each container.

2.4 MULCH

A. Wood Chips:

1. Wood chips for mulching plants may be either hardwood or softwood chips as produced by any standard chipping machine. No leaves, young green growth, wood shavings, sawdust or foreign materials which are injurious to plant growth shall be mixed with the chips. Chips shall be 1/8-inch nominal thickness with 50 percent having an area of not less than 1 square inch nor more than size 6 square inches.

B. Peat Moss:

1. Peat moss shall be composed of the partly decomposed stems and leaves of any or several species of sphagnum moss. It shall be free from wood, decomposed colloidal residue and other foreign matter. Acidity range: 3.5 pH to 5.5 pH. Water absorbing ability shall be minimum 1100% by weight on an oven-dry basis.

C. Bedding Mulch:

1. Shall be composed of shredded cedar bark of medium chip size installed over a weed block unless otherwise directed by the Engineer.
2. Product and Manufacturer:
 - a. Western Decorative by Far West Forests, Fair Oaks, California.
 - b. Or equal.

D. Weed Block:

1. Shall be Horticulture Fabric made of ultra violet resistant woven Polypropylene weighing 3.3 ounces per square yard.
2. Product and Manufacturer:
 - a. Horticulture Fabric style 31211 (Ground cover) by N.Y.P. Corporation Elizabeth New Jersey.
 - b. Or equal.

2.5 WATER

- A. Water shall be from fresh water sources and free from soil, acids, alkalis, salt or any other substance injurious to plant growth.

2.6 PROTECTION OF PLANTS

A. Stakes for Supporting Trees:

1. Stakes for supporting trees shall be of white or red cedar wood. Cedar stakes of 8 to 10 feet long shall have a minimum diameter of 2 inches. The maximum diameter of cedar stakes shall not exceed 3 inches and shall have a minimum allowable deflection of 1/2 inch for every 1 foot of length. All stakes shall be sound and free from insects and fungi. Length of stakes shall be as specified unless otherwise approved by the Engineer. Stakes shall be pointed.

B. Guy Stakes:

1. Guy stakes used to anchor guy wires which support trees shall be of the quality and sizes required for the operations calling for their use.

C. Wire:

1. Wires for guying plants shall be new annealed galvanized wire No. 12 and 10, AS&W. gauge as specified and/or as shown on the Contract Drawings.

D. Jute Burlap:

1. Jute burlap for wrapping trees shall be in 4-inch wide strips and weigh 8 ounces per square yard. Other material shall be as approved by the Engineer.

E. Paper Wrapping:

1. Paper for wrapping trees shall be waterproof paper 30-30-30 kinklecraft or equal in 4-inch strips as approved by the Engineer.

F. Hose:

1. Hose for protecting the bark from the guy wires shall be good quality braided rubber or reinforced materials. Hose shall be at least 3/4-inch outside diameter.

G. Twine:

1. Twine for use in wrapping trees shall be jute twine not less than two ply. Green plastic ties or masking tape as approved by the Engineer will be acceptable. Plastic ties shall be a minimum of 1/2-inch in width and shall have a smooth surface with the ability to stretch as the tree grows.

H. Anti-desiccants:

1. Anti-desiccants shall be emulsions which will provide a protective film over plant surfaces permeable enough to permit transpiration. Acceptable materials shall be wilt-pruf, vanex, or equal.

I. Tree Wound Dressing:

1. Tree wound dressing shall be antiseptic, waterproof, adhesive and elastic such as asphalt, gutta percha and certain oils with a fungicide and which remains tacky for four hours and retains elasticity after setting when tested under the heat of the hand. It shall not contain kerosene, coal tar, creosote or other material harmful to the living tissue of the trees.

PART 3 - EXECUTION

3.1 GENERAL

A. Planting Seasons:

1. Unless otherwise approved, deciduous material shall be planted between March 1 and May 1, and from October 15 to December 15. Evergreen material shall be planted from March 1 to May 15 and from August 15 to December 15. Container grown plants shall be planted from March 1 to May 15 and between August 15 and December 15.

B. Obstructions:

1. In the event that rock or other underground obstructions are encountered in excavating plant pits, the pits shall be relocated as ordered by the Engineer.
2. In all locations where utilities are located plant pits shall be dug by hand as ordered by the Engineer.

C. Delivery:

1. The Contractor shall give notice to the Engineer at least 48 hours in advance before delivering any plant material, unless otherwise approved. The Engineer shall be furnished a legible copy of the invoice for every shipment showing sizes and kinds of materials included.

D. Storage:

1. All plants shall be properly protected from drying out. Such protection shall include the time when the plants are in transit, being handled or in temporary storage on the project. Bare root plants which are not planted immediately upon receipt shall be heeled-in in trenches with the bundles opened, the plants spaced separately and all roots covered. Balled plants shall have their earth balls protected by earth, wet cloth, straw or may be heeled-in as ordered by the Engineer. Plants not protected as specified which have not been planted within 2 calendar days of delivery shall be rejected unless otherwise approved by the Engineer.

3.2 GROUND PREPARATION

A. Layout:

1. Locations for plants and outlines of areas to be planted shall be marked out on the ground by the Contractor to the satisfaction of the Engineer before any pits or planting beds are dug.
2. The Contractor shall be held responsible for the proper location of each tree. Any species of tree planted in the wrong location shall be replaced with a new tree in the next succeeding planting season.

B. Size of Pits:

1. Unless otherwise specified the minimum diameter of plant pits shall be five times the diameter of the root ball. The depth of all pits shall be adequate to permit a minimum of 6 inches of planting soil under all roots and balls.
 - a. In concrete and asphalt areas, the tree pit along various County Roads shall be a minimum length of 48 inches. The width shall be 36 inches.
 - b. In grass areas the tree pits along various County Roads shall be a minimum 48 inches long and the widths shall be from the back of the curb to the edge of the sidewalk or where room allows, the width shall be a minimum of 48 inches.
 - c. Where undesirable material is encountered in digging the pits, the pits shall be enlarged as approved and backfilled with acceptable material. When planting in wooded areas the Contractor shall cut the existing vegetation or grub out an area twice the size of the plant pit as directed by the Engineer. In planting bed areas existing vegetation shall be removed as directed.
 - d. Before excavating existing tree pits in locations where asphalt and/or stone block exist the Contractor shall, as directed by the Engineer, saw cut the asphalt, remove the stone block and reset the latter after trees are planted.

C. Drainage:

1. Where an impervious stratum of soil is encountered during the excavation of plant pits or planting beds, all such soil to a depth as approved shall be removed and backfilled with acceptable material.

D. Disposal of Excavated Materials:

1. Topsoil and subsoil excavation from tree pits and planting beds shall be disposed of off the site by the Contractor. Existing topsoil shall not be used for planting unless approved by the Department.

E. Planting Beds:

1. Unless otherwise specified the depth of planting beds for shrubs shall be 18 inches deep. Depth of beds shall be taken from existing

grades. Backfill material for planting beds shall be as indicated on the Drawings.

F. Planting Soil:

1. Backfill soil for planting shall be topsoil except that for ericaceous plants backfill soil shall be topsoil and peat moss thoroughly mixed in the proportions of 2 to 1 respectively.

G. Fertilizer:

1. Fertilizer packets as described under "Materials" of this Specification, shall be placed in the plant pits prior to completion of backfilling. During the entire planting operation the Contractor will not be allowed to use any damaged packets and he shall ensure that all packets remain undamaged. The fertilizer packets shall be placed 6 inches to 8 inches deep as follows:

a. Shrubs:

12 inches to 23 inches high	1 packet next to the ball
24 inches to 35 inches high	2 packets on opposite sides of the ball
3 feet to 6 feet high	3 packets equally spaced around the ball

b. Deciduous Trees:

1 inch to 1 3/4 inch caliper	2 packets on opposite sides of the ball
2 inches to 2 1/2 inches caliper	3 packets equally spaced around the ball
2 1/2 inches to 3 inches caliper	4 packets equally spaced around the ball
3 1/2 inches to 4 inches caliper	5 packets equally spaced around the ball
4 1/2 inches to 6 inches caliper	6 packets equally spaced around the ball

c. Evergreens (Excluding Ericaceous Plants [Rhododendrons, etc.]):

2 feet to 5 feet high	2 packets on opposite sides of the ball
6 feet to 7 feet high	3 packets equally spaced around the ball

8 feet to 11 feet high	4 packets equally spaced around the ball
12 feet to 17 feet high	5 packets equally spaced around the ball
18 feet to 20 feet high	6 packets equally spaced around the ball

d. Large Shrubs and Small Trees:

6 feet to 9 feet high	2 packets on opposite sides of the ball
10 feet to 14 feet high	3 packets equally spaced around the ball

3.3 SETTING PLANTS

A. General:

1. Plants shall be planted below existing grade as directed with a minimum saucer depth of 3 inches and a maximum saucer depth of 6 inches except as otherwise directed by the Engineer in grass areas and other areas where mulch will not be required. Saucer depth shall be in direct proportion to the size of plant. In planting beds, plants shall be planted 3 inches below proposed grade. Ericaceous plants may be required to be planted at existing grade as directed by the Engineer. Backfill material may be either carefully placed into plant pits in layers of approximately 4 inches in depth and firmly tamped before additional material is placed or backfill may be compacted by thorough watering. Regardless of which method is used, backfill soil for all plants shall be watered three times prior to mulching to insure compaction of backfill, and backfill added as necessary.

B. Balled Plants (B&B, B&P, C.G.):

1. Root balls are to be planted with backfill carefully tamped or compacted by thorough watering under and around the sides of each ball to fill voids. As directed by the Engineer, burlap, cloth, rope and restraining ties shall be cut and pulled away from the tops of root balls but not removed from the sides of root balls or pulled out from under root balls. Platforms shall be removed.

C. Bare Root Balls:

1. Roots of B&R plants shall be properly spread out in a natural position and backfill soil shall be carefully worked in among them. All broken and frayed roots shall be cleanly cut off.

D. Wrapping:

1. Unless otherwise directed, the trunks of all deciduous trees over 1-1/2 inches in caliper shall be wrapped immediately after planting unless otherwise approved. Wrapping shall extend beyond the point where hose and wires pass around the tree trunk. Wrapping shall be a single layer of burlap bandage wound spirally, starting from the base and overlapping one and 1-1/2 inches. The wrapping shall be tied in place with twine, green plastic ties or masking tape at about 1-foot intervals.

E. Staking, Guying and Anchoring:

1. All trees shall be firmly staked or guyed at the time of planting as shown on the Standard Details on the Plans unless otherwise approved. Stakes shall be pointed and shall not injure plant balls. Wires used for tying the trunk to stakes or for guying shall be secured to the tree by passing through a rubber hose to prevent chafing and injury to the trees. Guy wires fastened to guy stakes shall be tightened by driving the stakes, leaving the wires to be twisted for tightening during the period of establishment.

F. Pruning:

1. Pruning shall be done as specified and as directed by the Engineer. Deciduous trees and shrubs shall be pruned to reduce the vegetative growth by one third of its total branching unless otherwise directed. Wood removed shall be inferior branches, competing branches, crossing branches and dead and damaged wood. The natural branching habit of the plant shall be adhered to at all times.
2. Container grown trees may be pruned at the time of potting to reduce the length of branches one third to one half. Minor pruning may be required at the time of planting.
3. Trees used in street tree plantings, parking areas and playground areas shall have all branches removed up to a height of 6 feet or as otherwise directed.

4. Tree wound dressing shall be applied on all pruning cuts exceeding one inch on deciduous trees.

G. Mulching:

1. Depth of mulch shall be 3 inches. Mulch shall completely cover the areas of all plant pits, planting beds and/or entire planted areas. Mulch shall be wood chips.
2. After planting is completed and as directed by the Engineer, fertilizer (10-6-4) shall be broadcast on all mulch, except mulch on ericaceous plants, at the rate of 0.015 pounds of nitrogen per square foot.
3. The Engineer may direct that mulching be omitted from around plant pits within designated grass areas. Where so directed, the area over the plant pit shall be restored in accordance with Section Titled "Seeding" of this Specification.

H. Progress and Sequence of Planting:

1. All the provisions of Setting Plants shall be accomplished within 7 calendar days after the plant is set in the pit except that the Engineer shall take into consideration unexpected interruptions in work due to emergencies, storms, etc. severe enough to stop work. Scheduled non-work days such as weekends, holidays, etc. shall not be a reason for extending the 7-day limitation. The sequence of planting shall be as follows:
 - a. Wrapping, staking or guying and wiring.
 - b. Three waterings to insure compaction of backfill and addition of backfill as necessary.
 - c. Mulching - If this sequence is not adhered to, and as a result the operations subsequent to setting and backfilling are not being accomplished within the specified time, the Engineer may stop all setting and backfilling of plants, and any other planting operations he may deem necessary, until such time as he is satisfied that the sequence of planting operations is again on schedule.

I. Restoration:

1. Areas disturbed by the planting operations shall be left in an orderly condition. Excess soil and rubbish shall be disposed of as directed. Grassed areas disturbed by planting operations shall be restored to a

satisfactory condition which may include filling to grade, fertilizing and seeding.

3.4 CARE OF PLANTS

A. Care of Plants Prior to Satisfactory Completion of Planting:

1. The Contractor shall care for the planting which shall consist of keeping all plants in a healthy growing condition by watering, weeding, cultivating, pruning, spraying, tightening of guys, remulching and any other necessary operations as required until satisfactory completion of planting.
2. All plants shall be sprayed with an anti-desiccant. The anti-desiccant shall be applied according to the manufacturer's directions to thoroughly cover all above ground parts. The time of application shall be as follows, unless otherwise approved.
 - a. Evergreen - Apply within 10 days following planting.
 - b. Deciduous - Spring planting - apply when leaves have reached at least 75 percent of mature size.
- Fall planting - apply in October and November when the temperature is 40°F or over.
3. All plants shall be watered at least once a week between April 1 and October 1 unless otherwise directed by the Engineer, until satisfactory completion of planting. Each watering shall provide not less than five gallons per square yard on plant pits and bed areas.
4. All dead and rejected plants shall be promptly removed from the contract site. In the event of the threat of serious damage from insects, diseases or rodents, the plants shall be treated by preventive or remedial measures currently approved for good horticultural practice. In the event "heeled-in" material must be held over until a later planting season, such "heeled-in" material shall be lifted, replanted and maintained in a satisfactory condition in nursery rows. Such emergency storage and maintenance shall be at the entire risk of the Contractor and at no cost to the Department. The land for such storage shall be provided for by the Contractor unless otherwise specified or approved.
5. Grass and weed growth shall be removed from all plant pits and planting beds as directed by the Engineer. Prior to final acceptance of the planting, the outer portions of tree pit saucers and all other disturbed areas, excluding planting beds, shall have acceptable

evidence of grass growth unless otherwise directed by the Engineer. Seed used for this purpose shall be as specified under Section "Seeding" of this Specification or as approved by the Engineer.

B. Replacement Prior to Satisfactory Completion of Planting:

1. At the conclusion of the essential portion of the planting work, all plants in an unhealthy or badly impaired condition in the opinion of the Engineer, shall be removed. All planting to be completed or replaced shall be planted not later than the next succeeding planting season.

C. Final Inspection:

1. When, in the opinion of the Contractor, the planting is complete and ready for final inspection, he shall notify the Engineer who will arrange to give the entire work a thorough inspection. Before final payment will be made, any dead plants, defects or omissions noted on this inspection must be rectified by the Contractor.

3.5 PERIOD OF ESTABLISHMENT

A. Guarantee:

1. The Contractor shall guarantee the life of all plants for a period of 1 year after the Engineer has made his final inspection and the planting has been confirmed in writing by the Engineer as having been satisfactorily completed. Any plant which is damaged, destroyed or dies from whatever cause except theft or vandalism during the above period shall be replaced not later than the next succeeding planting season as specified upon written notice to the Contractor from the Engineer. Plants that have died during the period of establishment shall be replaced and shall be guaranteed for an additional year.

B. Care of Plants and Replacement During Period of Establishment:

1. Due to planting seasons, the Contractor shall be required to replace any damaged, destroyed or dead plant within the two planting seasons during the "Period of Establishment" which may entail replacing the same plant twice after satisfactory completion of planting.
2. The Contractor shall be responsible for all work required to care for the plants properly and make necessary replacements during the period of establishment, including watering, mulching, pruning,

restaking and replanting. He shall maintain during this period a sufficient labor force at all time to care for the plants in a proper manner and perform all necessary operations efficiently and expeditiously.

3. The Contractor shall be required to water all plant material a minimum of six times during the period of establishment. Each plant shall receive 5 gallons of water for each square yard of pit area. Watering shall be performed when plants are in active vegetative growth. If in the opinion of the Engineer unseasonable dry conditions exist, additional watering may be required as directed by the Engineer.
4. At the end of the "Period of Establishment" the Contractor shall remove and dispose of all stakes, wire, hose, and tree trunk wrapping from all trees as directed by the Engineer. All holes left due to removal of stakes shall be filled with topsoil. All of the above work shall be performed at no additional cost to the Department.

+ + END OF SECTION + +

SECTION 02488

WETLAND RESTORATION

PART 1 – GENERAL

1.1 DESCRIPTION

A. Scope of Work:

1. The Contractor shall furnish all labor, materials, equipment, supplies and incidentals required for backfill, planting and restoration of impacted wetland areas, as specified herein, as shown on the Contract Drawings and as directed by the Engineer and the Department. This shall include, but is not limited to, restoration of the pre-excavation hydrologic regime, backfilling of areas in which greater than 6-inches of material has been excavated, and restoration of vegetation to develop a new forest canopy.
2. The Contractor shall prepare a wetland restoration report, documenting the final elevations and planting layout, as well as a summary of the corrective actions taken during restoration to address issues that may have occurred during the construction of the project. The report shall be submitted as a part of the final, as-built conditions submittal in accordance with Section 01050 – Field Engineering and Section 01330 – Project Submittals.
3. The Contractor shall prepare a wetland restoration monitoring plan, describing how the Contractor will monitor the success of the wetland restoration for a minimum of one year following final acceptance of the Work. This shall include, but is not limited to, collection of hydrologic data, collection of soils data in both disturbed and undisturbed areas, collection of vegetation data along established transects in spring (May-June), summer (July-August) and fall (September-October), collection and summary of local climatological data for the monitoring period, and monitoring for invasive species. The plan shall be prepared in accordance with the requirements specified in the "Wetland Restoration Plan for the former Bouchard Junkyard Site, New Lebanon, NY," as prepared by EcoLogic, LLC. A copy of the Restoration Plan is included as a part of the Limited Site Data Summary Report. The plan shall be submitted in accordance with Section 01330 – Project Submittals.

B. Related Work Specified Elsewhere:

1. Section 02112 – Excavation, Removal and Handling of PCB-Contaminated Material in Wetlands Area.
2. Section 02200 – Backfill and Compaction
3. Section 02487 – Planting

1.2 QUALITY ASSURANCE

A. The Contractor shall retain the services of a qualified environmental wetlands subcontractor to conduct all wetland area planting, prepare the wetland restoration monitoring plan and conduct the long term monitoring. The environmental wetlands subcontractor shall have a minimum of five years experience performing substantially similar work. The Contractor may qualify as the environmental wetlands subcontractor if the Contractor can document the necessary experience.

B. Reference Standards: Comply with applicable provisions and recommendation of the following, except as otherwise shown or specified.

1. ASTM D422, Particle Size Analysis of Soils.

C. Tests for Backfill:

1. An independent testing laboratory shall be employed by the Contractor to perform the required tests.
2. Required tests:
 - a. Grain size, ASTM D422
 - b. Total Organic Carbon (see Section 01652)
 - c. Bulk Density, ASTM D4531
 - d. Permeability, ASTM D5084
 - e. pH (see Section 01652)
 - f. Nutrient Analysis: Nitrogen and phosphorus (see Section 01652)

- g. Chemical Analysis: Target Compounds List (TCL) volatile organic compounds; TCL semivolatile organic compounds; TCL pesticides; TCL PCBs; Target Analyte List (TAL) metals and cyanide. Sample collection and analysis shall be in accordance with the Contractor's approved Sampling and Analysis Plan (see Section 01652).

C. Planting: General

- 1. Reference Standards: Comply with applicable provisions and recommendations of the following, except where otherwise shown or specified.
 - ANSI Z60.1, American Standard for Nursery Stock
 - Association of Official Analytical Chemists, Official Methods of Analysis
 - American Joint Committee on Horticultural Nomenclature, Standardized Plant Names

B. Nomenclature:

- 1. The common and scientific names of plants shall be in conformity with the approved names by Standardized Plant Names prepared by the American Joint Committee on Horticultural Nomenclature 1942 Edition or its successor as the American Association of Nurserymen's recognized authority on Botanical Nomenclature.

C. Standards:

- 1. Plants including root spread and ball size shall be in accordance with the current edition of "American Standard for Nursery Stock," a code of standards sponsored by the American Nursery and Landscape Association as modified herein and as otherwise specified.

D. Inspection:

- 1. All trees shall be subject to inspection and approval of the Department at the growing site, but approval and marking at the growing site shall not obligate the Department to pay for any tree or shrub until it has been delivered and planted at the planting site in a satisfactory condition. At least 10 days prior to digging and shipment of the trees from the growing site, the Contractor shall notify the Engineer. The removal of nursery stock rejected at the planting site and its replacement in compliance with specifications shall be made at no extra cost to the Department.

2. All plants shall be subject to inspection at any place and at anytime. The Contractor shall be represented at all inspections.

1.3 SUBMITTALS

- A. Submit the following in accordance with Section 01330 – Project Submittals:
 1. Independent Testing Laboratory: Prior to conducting the required tests, the Contractor shall submit, to the Engineer, for approval, the name of the independent testing laboratory which will facilitate the required testing.
 2. Samples and Test Results:
 - a. At least 2 weeks prior to the date of anticipated use, the Contractor shall submit, to the Engineer, for approval, a representative samples of all off-site materials required. The Contractor shall notify the Engineer in writing of the source of each sample.
 - b. The Contractor shall provide, along with the above samples, the required test results.
- B. Shop Drawings: 10 copies of the following shall be submitted to the Engineer for review and approval:
 1. Planting schedule showing scheduled dates for all planting work.
 2. Manufacturer's or suppliers Specifications and installation instructions for all materials required.
 3. Certificates from tree vendors for each species stating botanical and common name for each species.
 4. Tree and shrub planting details, as prepared by the environmental wetland restoration subcontractor, for each wetland species type specified (see 2.2(B)). This should include all details and requirements for ground preparation, plant setting, size of pits, staking, guying or anchoring, mulching, fertilizing, and watering.

1.4 CERTIFICATIONS

- A. The Contractor shall be responsible for all certificates of inspection of trees which may be required by federal, state or other authority to accompany

shipment of trees. Certificates of Inspection shall be submitted to the Engineer for each shipment of plants at delivery.

- B. Labeling shall be in accordance with normal nursery labeling practice except that the Contractor shall be required at any time to supply certification of positive identification of any plant species and/or variety in addition to those specified herein.
- C. The Contractor shall submit certificates of material compliance before delivery of each type of fertilizer and the anti-desiccant to be supplied.

PART 2 – PRODUCTS

2.1 FILL MATERIAL

A. General:

- 1. The Contractor shall comply with the general requirements for all fill materials, as stated under Section 02200 – Backfill and Compaction, Part 2, Paragraph 2.1.

B. Soil Materials:

- 1. Fill materials should be selected to match the specified guidelines:

<u>Characteristic</u>	<u>Guideline</u>
Grain size, bulk density, permeability, total organic carbon	Within the range of the mean $\pm$ the standard deviation of baseline measurements
pH, nutrients (nitrogen and phosphorus)	Within the maximum and minimum range of baseline measurements
2. The Contractor shall not be required to pre-characterize the wetland areas as a part of the Work. Contractor will be provided with baseline measurements from the Engineer and/or the Department prior to the wetland restoration work.	

2.2 PLANTS

A. General:

- 1. The Contractor shall comply with all requirements for plants, as stated under Section 02487 – Planting, Part 2, Paragraph 2.1, with the exception of Item E.

B. Trees and Shrubs:

1. Where ordered by the Engineer to replace a tree with a facultative wetland (FACW) species type, the Contractor shall furnish 2-inch to 2-1/2 inch caliper trees, B&B or C.G. and of Specimen Quality from the following approved list:
 - a. *Acer rubrum*
 - b. *Ulmus americana*
 - c. *Alnus rugosa*
 - d. *Cornus sericea* (stolonifera)
 - e. *Ilex verticillata*
 - f. *Sambucus Canadensis*
 - g. *Vaccinium corymbosum*
2. Where ordered by the Engineer to replace a tree with a facultative (FAC) species type, the Contractor shall furnish 2-inch to 2-1/2 inch caliper trees, B&B or C.G. and of Specimen Quality from the following approved list:
 - a. *Abies balsamea*
 - b. *Acer rubrum*
3. Where ordered by the Engineer to replace a tree with a facultative upland (FACU) species type, the Contractor shall furnish 2-inch to 2-1/2 inch caliper trees, B&B or C.G. and of Specimen Quality from the following approved list:
 - a. *Acer saccharum*
 - b. *Betula papyrifera*
 - c. *Pinus strobus*
 - d. *Tsuga Canadensis*
4. The species and potting of planting for each area shall be specified by the Engineer during construction. The selection will be based on

conformity to existing area planting, availability of species, and pre-excavation baseline hydrology, soil and vegetation measurements.

5. Nursery grown trees shall have no cuts of limbs which are not healing and no cuts over 3/4 inch which have not completely callused over, no cut back crowns and no abrasions of the bark. The center leader on all major trees shall be intact. Trees must have good fibrous root systems characteristic of the kind. The tops of deciduous trees shall be well formed structurally with reasonably straight trunks and normal spread of crowns.
6. Bare root trees shall not require earth adhering to the roots except as required for puddling.
7. Balled and burlapped trees shall be properly dug and protected to preserve the natural earth in contact with the roots. No manufactured balls will be accepted. The balls shall be of the required size, firmly wrapped and tied with minimum three (3) ply sisal or equal. No balled tree will be acceptable if the ball is cracked or broken.
8. Balled and platformed trees shall be balled as specified for (B&B) trees. Platforms shall be square or octagonal shaped of a size slightly larger than the diameter of the bottom of the soil mass inserted under each ball by means of ties from the platform corners to the rope collar on top of the ball.
9. The quality of balled and burlapped shrubs shall be as specified for (B&B) trees herein. Shrubs shall have good fibrous root systems.
10. Trees shall be a minimum of 4 feet tall.

2.3 WATER

- A. Water shall be from fresh water sources and free from soil, acids, alkalis, salt or any other substance injurious to plant growth. The Contractor shall be required to obtain the Department's approval of the Source of Water to be used.

PART 3 – EXECUTION

3.1 INSPECTION

- A. Contractor shall provide the Engineer with sufficient time and means to examine the areas and conditions under which backfilling and planting are to

be performed. Work shall not proceed until all unsatisfactory conditions have been corrected in a manner acceptable to the Engineer.

3.2 BACKFILL

- A. Contractor shall backfill excavation areas as promptly as Work permits, but not until acceptance by the Engineer of all Work within the excavation areas, including approval of endpoint sampling results.
- B. Contractor shall only backfill excavations areas in which the total depth of excavation was greater than 6-inches. Areas excavated to a total depth of only 6-inches will not require backfill.
- C. Contractor shall not backfill depressions left from the removal of trees and their associated roots in areas in which the total depth of excavation was only 6-inches.

3.3 HYDROLOGY

- A. Contractor shall restore stream channels impacted by the excavation within the wetland areas, as shown on the Contract Drawings. Streams shall be restored to the original elevation, stream course, channel width, channel depth, and gradient that was present prior to conducting excavation activities, as directed by the Department and the Engineer.

3.4 PLANTING

- A. All planting within the areas of the wetland shall only be conducted by the environmental wetland restoration subcontractor, as approved by the Engineer and the Department.
- B. Trees and shrubs within the wetland areas shall be planted in accordance with the Contract Drawings and with the following planting requirements:
 - 1. Areas with a final elevation of less than 686 feet amsl shall be planted with 100% FACW type trees and shrubs.
 - 2. Areas with a final elevation of 686 to 687 feet amsl shall be planted with a mix of 70% FACW and 30% FAC type trees and shrubs.
 - 3. Areas with a final elevation of 687 to 688 feet amsl shall be planted with a mix of 30% FACW and 70% FAC type trees and shrubs.
 - 4. Areas with a final elevation of greater than 688 feet amsl shall be planted with a mix of 50% FAC and 50% FACU type trees and shrubs.

5. Or as approved by the Engineer.
- C. Trees and shrubs planted within the 100-foot wetland buffer zone shall be in accordance with Section 02487 – Planting
- D. One tree and two shrubs shall be planted for every 400 square feet of excavated wetland area. Locations shall be randomly selected within each 400 square foot area and shall not be located in a row. The distance between trees shall not be less than 10 feet and the distance between shrubs shall not be less than 5 feet.
- E. Final locations for all plants shall be staked to the satisfaction of the Engineer before any trees or shrubs are planted.
- F. The Contractor shall be held responsible for the proper location of each tree and shrub. Any species of tree planted in the wrong location shall be replaced with a new tree in the next succeeding planting season.
- G. All requirements for ground preparation, plant setting and care of plants shall be in accordance with the environmental wetland restoration subcontractor's submitted shop drawings.

3.5 CARE OF PLANTS

- A. Care of Plants Prior to Satisfactory Completion of Planting:
 1. The Contractor shall care for the planting which shall consist of keeping all plants in a healthy growing condition by watering, weeding, cultivating, pruning, spraying, tightening of guys, remulching and any other necessary operations as required until satisfactory completion of planting.
 2. All plants shall be watered at least once a week between April 1 and October 1 unless otherwise directed by the Engineer, until satisfactory completion of planting. Each watering shall provide not less than five gallons per square yard on plant pits and bed areas.
 3. All dead and rejected plants shall be promptly removed from the contract site. In the event of the threat of serious damage from insects, diseases or rodents, the plants shall be treated by preventive or remedial measures currently approved for good horticultural practice. In the event "heeled-in" material must be held over until a later planting season, such "heeled-in" material shall be lifted, replanted and maintained in a satisfactory condition in nursery rows. Such emergency storage and maintenance shall be at the entire risk of the Contractor and at no cost to the Department. The land for such

storage shall be provided for by the Contractor unless otherwise specified or approved.

4. Grass and weed growth shall be removed from all plant pits and planting beds as directed by the Engineer. Prior to final acceptance of the planting, the outer portions of tree pit saucers and all other disturbed areas, excluding planting beds, shall have acceptable evidence of grass growth unless otherwise directed by the Engineer. Seed used for this purpose shall be as specified under Section "Seeding" of this Specification or as approved by the Engineer.

B. Replacement Prior to Satisfactory Completion of Planting:

1. At the conclusion of the essential portion of the planting work, all plants in an unhealthy or badly impaired condition, in the opinion of the Engineer, shall be removed. All planting to be completed or replaced shall be planted not later than the next succeeding planting season.

C. Final Inspection:

1. When, in the opinion of the Contractor, the planting is complete and ready for final inspection, he shall notify the Engineer who will arrange to give the entire work a thorough inspection. Before final payment will be made, any dead plants, defects or omissions noted on this inspection must be rectified by the Contractor.

3.6 PERIOD OF ESTABLISHMENT

A. Guarantee:

1. The Contractor shall guarantee the life of all plants for a period of one (1) year after the Engineer has made his final inspection and the planting has been confirmed in writing by the Engineer as having been satisfactorily completed. Any plant which is damaged, destroyed, or dies from whatever cause except theft or vandalism during the above period shall be replaced no later than the next succeeding planting season as specified upon written notice to the Contractor from the Engineer. Plants that have died during the period of establishment shall be replaced and shall be guaranteed for an additional year.

B. Care of Plants and Replacement During Period of Establishment:

1. Due to planting seasons, the Contractor shall be required to replace any damaged, destroyed or dead plant within the two (2) planting

seasons during the "Period of Establishment" which may entail replacing the same plant twice after satisfactory completion of planting.

2. The Contractor shall be responsible for all work required to care for the plants properly and make necessary replacements during the period of establishment, including watering, mulching, pruning, restaking and replanting. He shall maintain during this period a sufficient labor force at all time to care for the plants in a proper manner and perform all necessary operations efficiently and expeditiously.
3. The Contractor shall be required to water all plant material a minimum of six (6) times during the period of establishment. Each plant shall receive five (5) gallons of water for each square yard of pit area. Watering shall be performed when plants are in active vegetative growth. If in the opinion of the Engineer unseasonable dry conditions exist, additional watering may be required as directed by the Engineer.
4. At the end of the "Period of Establishment" the Contractor shall remove and dispose of all stakes, wire, hose, and tree trunk wrapping from all trees as directed by the Engineer. All holes left due to removal of stakes shall be filled with topsoil. All of the above work shall be performed at no additional cost to the Department.

+ + END OF SECTION + +

NO TEXT THIS PAGE

SECTION 02540

ACCESS ROAD AND PARKING AREAS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope of Work

1. The Contractor shall furnish all labor, materials, equipment, services, incidentals, etc., required to construct the 6-inch layer (or depth as shown on drawings) of aggregate as shown on the Drawings, as specified and as directed by the Engineer and the Department.
2. The Contractor shall pre-qualify the sources of the materials prior to use on the project.
3. For each source to be considered, the Contractor shall furnish the name and location of the source or stockpile, the estimated quantity of material available, and a representative sample of each material under consideration. Sample collection shall be performed in the presence of the Engineer.
4. The Contractor shall furnish all labor, materials, equipment, services, incidentals, etc., necessary for the placement and installation of geotextile filter fabric as shown on the Drawings, as specified and as directed by the Engineer and the Department.
5. The surface of the subgrade areas shall be prepared to provide a uniformly firm, finished surface to provide full intimate contact with the geotextile.
6. Before placing any material on the prepared subgrade, the Engineer and the Contractor shall visually inspect the prepared subgrade to evaluate the suitability of the subgrade to ensure that the surface is properly compacted, smooth and uniform, free of loose soil or protrusions, and that the elevations are consistent with the Drawings.

1.2 RELATED SECTIONS

- A. Section 02111 – Excavation, Removal and Handling of PCB-Contaminated Soil.

- B. Section 02112 – Excavation, Removal and handling of PCB-contaminated Material in Wetlands Area.
- C. Section 02200 – Backfill and Compaction.

1.3 REFERENCES

- A. American Association of State Highway and Transportation Officials (AASHTO) "Standard Specification for Geotextile Specification for Highway Applications" Designation M 288-96.
- B. American Society for Testing and Materials (ASTM):
 - 1. D 123 - Standard Terminology Relating to Geotextiles.
 - 2. D 276 - Standard Test Method for Identification of Fibers in Textiles.
 - 3. D 3786 - Standard Test Method for Hydraulic Bursting Strength of Knitted Goods and Nonwoven Fabrics.
 - 4. D 4354 - Practice for Sampling of Geosynthetics for Testing.
 - 5. D 4355 - Test Method for Deterioration of Geotextiles from Exposure to Ultraviolet Light and Water (Xenon-Arc Type Apparatus).
 - 6. D 4439 - Terminology for Geotextiles.
 - 7. D 4491 - Test Methods for Water Permeability of Geotextiles by Permittivity.
 - 8. D 4533 - Test Method for Index Trapezoid Tearing Strength of Geotextiles.
 - 9. D 4632 - Test Method for Grab Breaking Load and Elongation of Geotextiles.
 - 10. D 4759 - Practices for Determining the Specification Conformance of Geosynthetics.
 - 11. D 4751 - Test Method for Determining Apparent Opening Size of a Geotextile.
 - 12. D 4833 - Test Method for Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products.

- 13. D 4873 - Guide for Identification, Storage and Handling of Geotextiles.
- 14. D5261 – Standard Test Method for Measuring Mass per Unit Area.
- C. Federal Highway Administration (FHWA) - Geosynthetic Design and Construction Guidelines, Publication No. FHWA HI-95-038, May 1995.
- D. Geosynthetic Accreditation Institute - Laboratory Accreditation Program (GAI-LAP).
- E. International Standards Organization (ISO) 9002 - Quality System Certification.

1.4 SUBMITTALS

- A. The Contractor shall comply with the submittal requirements specified by Section 01330 – Project Submittals.
- B. Submit 10 copies of each to the Engineer for approval:
 - 1. Certification:
 - a. The Contractor shall provide the Engineer a certificate stating the name of the geotextile manufacturer, product name, style, chemical compositions of filaments or yarns and other pertinent information to fully describe the geotextile.
 - b. The manufacturer is responsible for establishing and maintaining a quality control program to assure compliance with the requirements of the specification. Documentation describing the quality control program shall be submitted.
 - c. The manufacturer's certificate shall state that the furnished geotextile meets MARV requirements of the specification as evaluated under the manufacturer's quality control program. The certificate shall be attested to by a person having legal authority to bind the manufacturer.
 - 2. Manufacturing Quality Control (MQC) test results shall be provided.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Geotextile labeling, shipment and storage shall follow ASTM D 4873.
- B. Product labels shall clearly show the manufacturer or supplier name, style name and roll number.

- C. Each shipping document shall include a notation certifying that the material is in accordance with the manufacturer's certificate.
- D. Each geotextile roll shall be wrapped with a material that will protect the geotextile from damage due to shipment, water, sunlight and contaminants.
- E. The protective wrapping shall be maintained during periods of shipment and storage. If the wrapping is damaged prior to installation, the outer wrap of geotextile material must be discarded before installation.
- F. During storage, geotextile rolls shall be elevated off the ground and adequately covered to protect them from the following: Site construction damage, extended exposure to ultraviolet (UV) radiation, precipitation, chemicals that are strong acids or strong bases, flames, sparks, temperatures in excess of 160°F, and any other environmental condition that might damage the geotextile.

1.6 QUALITY ASSURANCE SAMPLING, TESTING AND ACCEPTANCE

- A. Geotextile:
 - 1. Geotextiles shall be subject to sampling and testing to verify conformance with this specification. Sampling for testing shall be in accordance with ASTM D 4354.
 - 2. Acceptance shall be in accordance with ASTM D 4759 based on testing of either conformance samples obtained using Procedure A of ASTM D 4354, or based on manufacturer's certifications and testing of quality control samples obtained using Procedure B of ASTM D 4354.
 - 3. Quality assurance sampling and testing will be waived for ISO 9002-certified manufacturing facilities. Documentation of ISO 9002 certification shall be provided upon request.

PART 2 - PRODUCTS

2.1. MATERIALS

- A. Aggregate:
 - 1. Aggregate shall be a uniformly graded mixture of crushed stone conforming to the material requirements of the New York State Department of Transportation (NYSDOT) Standard Specification, Section 304 – Subbase Course Type 2.

B. Geotextile:

1. The geotextile construction shall be a propylene, staple fiber, needle-punched nonwoven geotextile. Fibers shall be needed to form a stable network that retains dimensional stability relative to each other.
2. Resistant to UV degradation, and biological and chemical environments normally encountered in soils.
3. Minimum Average Roll Values:

<u>Property</u>	<u>Test Method</u>	<u>Units</u>	<u>Property Requirement</u>
Grab Tensile Strength	ASTM D 4632	N (lbs)	979 (220)
Grab Elongation	ASTM D 4632	Percent	50
Puncture Strength	ASTM D 4833	N (lbs)	601 (135)
Mullen Burst	ASTM D 3786	kPa (psi)	2,895 (420)
Trapezoidal Tear	ASTM D 4533	N (lbs)	423 (95)
Apparent Opening Size	ASTM D 4751	mm (US Std.)	0.180 (80)
Permittivity	ASTM D 4491	sec-1	1.5
Water Flow Rate	ASTM D 4491	l/min/m ² (gpm/ft ²)	4,480 (110)
UV Resistance (percent retained at 500 hours)	ASTM D 4355	Percent	70

4. Quality Control:
 - a. Manufacturing Quality Control (MQC): Testing shall be performed at a laboratory accredited by GAI-LAP for tests required for the geotextile, at frequency exceeding ASTM D 4354, with the following minimum acceptable testing frequency for the properties indicated:

<u>Property</u>	<u>Test Method</u>	<u>Test Frequency (sq ft)</u>
Grab Tensile Strength	ASTM D 4632	1/100,000
Grab Elongation	ASTM D 4632	1/100,000
Trapezoidal Tear	ASTM D 4533	1/100,000
Mullen Burst	ASTM D 3786	1/100,000

5. Manufacturer and Product: SI Geosolutions, Inc., Old Hickory, Tennessee, Geotex 861, or approved equal.

PART 3 - EXECUTION

3.1 GENERAL

- A. The Contractor shall prepare the subgrade to the lines and grades as shown on the Drawings. The subgrade surface shall be compacted with an approved self-propelled roller weighing not less than 10 tons. All hollows and depressions which develop under rolling shall be filled with acceptable General Fill material and shall be re-rolled. This process of shaping, rolling and filling shall be repeated until no depressions develop.
- B. The geotextile shall be laid smooth without wrinkles or folds on the prepared subgrade in the direction of construction traffic.
- C. Adjacent geotextile rolls shall be overlapped, at a minimum, 24 inches.
- D. On curves, the geotextile may be folded or cut to conform to the curves. The fold or overlap shall be in the direction of construction and held in place by pins, staples or piles of fill or rock.
- E. Prior to covering, the geotextile shall be inspected by the Engineer to ensure that it has not been damaged during installation. No material shall be placed over any portion of the geotextile until it has been accepted by the Engineer.
- F. Damaged areas, as identified by the Engineer, shall be repaired immediately by covering the damaged area with a geotextile patch that extends an amount equal to the required overlap beyond the damaged area.
- G. Aggregate shall be placed by end dumping onto the geotextile, or over previously placed subbase aggregate such that at least the minimum specified 6-inch lift thickness shall be between the construction equipment

tires or tracks and the geotextile at all times. The Contractor shall place all materials in such a manner to ensure the geotextile is not damaged and no excess tensile stresses are generated in the geotextile. Any material which could damage the geotextile, as determined by the Engineer, shall be removed from the site by the Contractor.

- H. Do not place overlaps along anticipated primary wheel path locations. Place overlaps at end of rolls in direction of aggregate placement with previous roll on top. The upper edge of the geotextile shall be properly folded into the aggregate to prevent a free edge.
- I. The Contractor shall place and compact a 6-inch (minimum) layer of aggregate over the geotextile. The Contractor shall compact the road surface using no less than four passes of the approved self-propelled 10-ton roller and shall fill and re-roll any depressions as required and as directed by the Engineer. Do not blade ruts down.

3.2 PROTECTION

- A. Atmospheric exposure of the geotextile to the elements following lay down shall be limited to 5 days to prevent damage.

+ + END OF SECTION + +

NO TEXT THIS PAGE

DIVISION 15 – MECHANICAL

NO TEXT THIS PAGE

SECTION 15451

GROUNDWATER MONITORING WELLS

PART 1 – GENERAL

1.1 DESCRIPTION

- A. Contractor shall take all precautions necessary to protect groundwater monitoring wells during completion of the work specified herein, shown on the Contract Drawings or as directed by the Department. At the discretion of the Engineer or the Department, the Contractor shall abandon and replace any groundwater monitoring well damaged during the project. Abandonment and replacement of groundwater monitoring wells shall be conducted in accordance with this specification, the Contract Drawings and as directed by the Department and the Engineer.
- B. The Contractor shall furnish all labor, materials, equipment, services, incidentals, etc., required to abandon existing groundwater monitoring wells (MW-2, MW-3, MW-5 and MW-6) and install new groundwater monitoring wells (replacement of MW-2 and MW-6) as shown on the Contract Drawings, as specified and as directed by the Department.
- C. The Contractor shall retain the services of a well driller registered with the State of New York to install and repair water wells as set forth under Section 15-1525 of the New York State Environmental Conservation Law. This well driller shall perform all activities necessary to abandon and install groundwater monitoring wells. On-site supervision provided by the well driller shall be performed by an individual certified by the National Ground Water Association.
- D. The Contractor shall be responsible for the correctness of the procedures used to conduct the Work. The Contractor shall provide the Engineer advance written notification of any changes in field procedures, describing and justifying such changes. No changes shall be made to the procedures, unless requested or authorized in writing by the Department.
- E. The requirements for locating and protecting existing structures and utilities outlined in Section 02111, Excavation, Removal and Handling of PCB-Contaminated Soil, shall also apply to this section.

PART 2 - PRODUCTS

2.1 PVC PIPE

- A. Well casing shall be 2-inch inner diameter (I.D.) Schedule 40 PVC conforming to ASTM D-1784 and ASTM D-1785 as manufactured by Atlantic Screen and Manufacturing, Inc. or approved equal. The riser shall be joined using internally threaded flush joints. Solvent weld pipe shall not be permitted.
- B. Well screen shall be 2-inch I.D. 0.010-inch slotted Schedule 40 PVC threaded flush joint manufactured by Atlantic Screen and Manufacturing, Inc. or approved equal. The bottom of the screen shall be fitted with an internally threaded, flush joint PVC plug fabricated from solid stock. Solvent weld pipe shall not be acceptable.

2.2 SAND PACK

- A. Screen sand pack shall be a No. 1 well gravel pack, 100 percent passing the No. 8 Sieve and less than 2 percent passing the No. 25 sieve, as supplied by the U.S. Silica Company or approved equal. The No. 1 well gravel pack shall be clean, washed and graded silica sand supplied in sealed bags.

2.3 BENTONITE PELLETS

- A. The bentonite shall be ½-inch diameter with a dry bulk density of 82 pounds per cubic foot, and containing a minimum of 90 percent sodium montmorillonite. The pellets shall be capable of swelling to 10 to 15 times their dry volume when hydrated with potable water. The bentonite pellets shall be Volclay Tablets as manufactured by CETCO Drilling Products or approved equal.

2.4 CEMENT BENTONITE GROUT MIX

- A. The bentonite shall be Wyo-Ben, Inc. Extra High Yield Gel or approved equal.
- B. The cement shall be Type 1 Portland Cement as manufactured by the Lehigh Portland Cement Company or approved equal.
- C. The cement/bentonite grout mix shall be prepared in the following proportion and in accordance with the manufacturer's specifications:
 - 8.3 gallons of potable water

- 5.0 pounds of bentonite
- One 94-lb. bag of Type 1 Cement

2.5 PROTECTIVE CASING

- A. The protective casing shall be 4 inches in diameter and shall be 6 feet long. The casing shall be constructed of steel with a rust resistant coating and a lockable hinged access door. The protective casing shall be Model 755X4 as manufactured by Petroleum Equipment Manufacturing Company, Inc., or approved equal.
- B. The protective casing shall be furnished with a padlock manufactured for outdoor service by Master Lock or approved equal. The locks for all of the locking protective casings shall be keyed the same. Four keys shall be provided for each lock.

PART 3 – EXECUTION

3.1 ABANDONMENT OF EXISTING GROUNDWATER MONITORING WELLS

- A. Groundwater monitoring wells designated for abandonment shall be abandoned in accordance with the Department document entitled, "Groundwater Monitoring Well Decommissioning Procedures," dated April 2003.
- B. Specifically, four groundwater monitoring wells are located within the Contract Limits that will require abandonment. These wells are 2 inches in diameter and have a maximum depth of approximately 25 feet below ground surface. Well construction logs are provided in the Limited Site Data Summary Report. Due to the fact that these wells are relatively shallow, it is likely that the casings can be successfully pulled without breakage. As a result, well abandonment procedures are as follows:
 1. Contractor shall measure the total depth of the well to ensure the well depth is consistent with the recorded construction depth.
 2. Contractor shall remove the steel manhole or steel "stickup" protective casing with an effort being made to ensure that the riser does not splinter and/or become structurally unstable for pulling.
 3. The bottom of the casing shall be punctured and the casing freed from the hole using suitable equipment (i.e., drill rig cable system).

4. The well shall be tremie-grouted with a cement-bentonite grout while removing the casing. The grout shall be completed to a depth of approximately 5 feet below grade.
 5. A bentonite seal shall be placed on top of the grout.
- C. In the event that the casing or well screen is severed during casing pulling, or if borehole collapse occurs, the remaining materials will be removed by overdrilling using the conventional auguring method described below.
1. Contractor shall measure the total depth of the well to ensure the well depth is consistent with the recorded construction depth.
 2. Contractor shall remove the steel manhole or steel "stickup" protective casing with an effort being made to ensure that the riser does not splinter and/or become structurally unstable for pulling.
 3. A J-plug or other suitable cap shall be placed on top of the well casing.
 4. Overdrilling shall be conducted by either using a hollow-stem auger with outward facing carbide cutting teeth with a diameter 2 inches larger than the casing and/or using a hollow-stem auger fitting with a plug used to grind the well materials which will be brought to the surface by the auger.
 5. Overdrilling shall be advanced 0.5 feet beyond the original bore depth.
 6. Once the desired drilling depth has been completed (using the open ended hollow-stem auger method) the casing and screen shall be retrieved from the center of the augers.
 7. As the augers are being retracted, cement-bentonite grout shall be pumped down the center of the augers.
 8. Grout shall be completed to a depth of approximately 5 feet below grade.
 9. A bentonite seal shall be placed on top of the grout.
- D. Upon completion of well abandonment procedures, the Contractor shall prepare a letter report documenting the abandonment of wells. The letter report shall include, but not be limited to, the date work was completed, all procedures utilized to complete the work, a description of any changes to planned procedures and a statement that the abandonment has been completed in accordance with the requirements of the NYSDEC and this

specification. The letter report shall be submitted to the Engineer for approval.

3.2 INSTALLATION OF NEW GROUNDWATER MONITORING WELLS

- A. The new groundwater monitoring wells (MW-2R and MW-6R) shall be installed at the locations shown on the Contract Drawings or alternate locations identified by the Engineer or the Department. Wells shall be installed in accordance with well construction logs provided in the Limited Site Data Summary Report.
- B. The borehole for the installation of monitoring wells shall be drilled by 4 1/4-inch I.D. hollow stem auger method or alternate method approved by the Engineer. DRILLING MUD WILL NOT BE PERMITTED. Drill pipe and drill rod thread lubrication shall be vegetable oil.
- C. At the completion of each borehole, monitoring wells shall be constructed of threaded flush joint 2-inch I.D. Schedule 40 PVC riser pipe and 2-inch I.D. Schedule 40 PVC well screen 10-feet in length, with slot size of 0.010 inches as specified herein.
- D. No. 1 Grade Clean Silica Sand shall be placed around the well screen to a minimum height of 2-feet above the screened interval. All sand shall be well rounded, washed and sized with a diameter and gradation determined to be compatible with the native aquifer formation. A 2-foot thick bentonite seal shall be placed above the sand pack. The remainder of the borehole shall be completed with a cement/bentonite grout seal. All materials placed in the borehole annulus shall be installed using a tremie pipe. The cement/bentonite grout shall be pressure pumped into the borehole using a tremie pipe to ensure that no bridging of bentonite within the hole occurs and shall extend from the top of the seal to the ground surface.
- E. The Contractor shall furnish and install a protective outer steel surface casing with locking cover and a surface cement pad around each well casing/riser as shown on the Drawings. A locking removable air-tight well cap shall be placed in the well riser pipe. Locks for each Master Lock or approved equal padlocks shall be provided for each well cap and keyed uniformly. Two keys shall be provided to the Engineer and two keys shall be provided to the Department. Each well head shall be clearly labeled with a preprinted weatherproof decal providing the well identification number. Each letter and number on the alpha-numeric label shall be a minimum of 2 inches in height. A minimum 5-foot high permanent flag shall be installed to the side of the outer casing.
- F. Contractor shall install three bollards at 120-degree intervals around the well. Bollards shall be installed in accordance with the detail on Drawing 7.

- G. The Contractor shall be responsible for identifying and complying with all federal, state and local laws and regulations associated with constructing monitoring wells. The Contractor will be responsible for obtaining all required permits, utility markouts and protection of utilities, traffic controls, safety, security. Drill cuttings shall be disposed off-site in accordance with Section 02130 – Waste Transportation and Disposal.
- H. The Contractor shall develop each monitoring well installed. The Contractor shall develop the groundwater monitoring wells by airlift, over pumping with a submersible pump, or pump and surge as approved by the Engineer. Development shall continue until the well water contains 50 NTUs or less as measured with a turbidity meter or until the Engineer approves cessation of development. The sediment-free condition is to be measured within the first 15 minutes of pumping following start-up. Well development shall be supplemented by measurements of field parameters, including temperature, pH and conductivity. Development shall continue until the field parameters stabilize for a minimum of three consecutive readings of 10 percent or less variability for each of the parameters or until the Engineer approves cessation of development. Development water may be disposed on-site, as directed by the Engineer.
- I. Well casings and screens shall be installed straight, plumb and concentric in the borehole.
- J. Oversight of all drilling activities shall be provided by a geologist provided by the Contractor with experience in hydrogeology projects and with at least 5 years experience with the proposed drilling method. Monitoring well construction logs shall be prepared by the geologist for each well and submitted to the Engineer within 14 calendar days of the date of completion of well construction. The well construction logs shall be typed. All logs shall include name of project, contract number, well identification number, location sketch, date of drilling/construction, and name of the geologist. The logs shall include depth of boring below grade from direct measurements accurate to within 0.10 foot and shall show screen slot size, length, depth and materials of construction, the dimensions of the borehole, and depth and thickness of sand and grouting. By signing each well construction log, the geologist shall certify that each log provides an accurate representation of the construction. The location and elevation of the top of casing of each well shall be surveyed by a Land Surveyor licensed to practice in New York State and shall be shown on a signed and sealed drawing submitted to the Engineer in triplicate and in electronic format in AutoCAD version 2007 and Adobe Acrobat version 7.0, or later. Survey tolerance shall be ± 0.01 -foot vertical and ± 0.1 -foot horizontal. The survey shall be tied to the New York State Coordinate System.

- K. If the Contractor installs wells which are not functional or do not perform in accordance with the requirements of these Specifications as determined by the Engineer, the Contractor shall repair the wells, or replace the wells and abandon the disapproved wells in accordance with the Specifications as directed by the Department at no additional cost to the Department.
- L. All large diameter down-hole equipment shall be cleaned of all foreign matter and steam-cleaned at a temperature of 212°F and void of any external oils and greases prior to use in each borehole and well. All small diameter down-hole equipment shall be washed with potable water, followed by an Alconox and potable water solution wash and a final distilled water rinse.
- M. All pumps and cables shall be cleaned and flushed between uses. This cleaning process shall consist of steam cleaning of pump casing. The pumps and cables shall then be flushed with 10 gallons of potable water.
- N. A new length of dedicated polyethylene tubing shall be used for each well and disposed after use. The pump, tubing and cables shall always be placed on clean polyethylene sheeting to avoid contact with the ground surface.
- O. All parts of drilling and heavy equipment which contact contaminated material, including drill rods and portions of vehicles which contact contaminated material shall be cleaned after mobilization to and demobilization from the project site, and between individual locations. All drilling and heavy equipment shall be cleaned of all foreign matter and steam cleaned at a temperature of 212°F, and void of any external oils and grease.
- P. All equipment shall be stored above ground in a clean manner. All downhole equipment shall be stored in such a manner as to prevent contact with the ground surface.
- Q. The Contractor shall provide or construct a decontamination pad on which to clean all equipment, materials and supplies. Decontamination shall be completed to the satisfaction of the Engineer.
- R. In the event that the Contractor shall fail to install any monitoring well to the depth specified, or to such lesser depth as directed by the Engineer, or should the Contractor abandon the monitoring well because of loss of tools, or for any other cause, including separation of the well during construction, through the fault of the Contractor, the Contractor shall abandon the well as specified above. There will be no payment for incorrectly installed or incomplete monitoring wells and the abandonment of such wells, will be performed at no additional cost to the Department.

3.3 RESTORATION

- A. Immediately upon completion of a monitoring well, the Contractor shall remove all equipment, materials, and supplies from the site of the work, remove all surplus materials and debris, fill in all holes or excavations, vehicle tracks, ruts, and grade and seed the site and its access to specified elevations and conditions. The site shall be thoroughly cleaned by the Contractor as directed by the Engineer.

+ + END OF SECTION + +

APPENDIX A

SHORT-TERM EFFLUENT DISCHARGE CRITERIA

NO TEXT THIS PAGE

xc: Section chiefs Bob

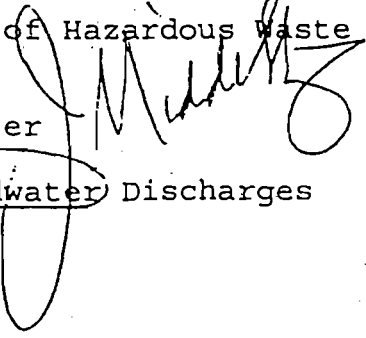
New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-3505



MEMORANDUM

Michael D. Zagata
Commissioner

TO: Michael O'Toole, Director, Division of Hazardous Waste Remediation

FROM:  N.G. Kaul, Director, Division of Water 

SUBJECT: Generic Effluent Criteria for Groundwater Discharges

DATE: SEP 28 1995

This memo is to transmit a general authorization for short term, batch groundwater discharges of pump test and containerized well development waters. Remedial investigations and designs have often required DOW to provide rapid turnaround times to develop short term groundwater pump test and containerized well development water discharge criteria. The attached generic groundwater effluent criteria and general conditions were developed by DOW staff to reduce delays in implementing these short term groundwater discharges and to save staff time for both Divisions. Please have your staff pay particular attention to the footnotes listed at the end of the document.

The attached criteria do not contain discharge limitations for radioactive discharges. Limitations on discharges of radiation or radioactive isotopes are addressed under Part 380 Radiation Control Permits. Alternate monitoring frequencies, discharge limitations (where appropriate) or inclusion of parameters not identified in the attachment will be considered; however, a complete review by DOW staff will be required. The attached parameter list is extensive and DOW's intent is for monitoring to be conducted only for those parameters which are known or suspected to be present at the site. Monitoring of parameters not present is not required by these criteria.

The DOW does not have any regulatory authority over a discharge from State, PRP, Federal Superfund Sites without SPDES permits. DHWR will be responsible for ensuring compliance with the attached effluent criteria and approval of all engineering submissions. Footnote (15) requires identification of the DHWR contact person who will receive all effluent results, engineering submissions and modification requests. The Regional Water Engineer should be kept appraised of the status of this discharge and sent a copy of the effluent results for informational purposes.

Long term groundwater and both short and long term surface water discharges are not addressed in the attached criteria. A complete review of these proposed discharge scenarios will still require full DOW review. The attached criteria may be used as a planning tool by your staff, consultants and PRPs determining the most feasible discharge option. All long term groundwater and surface water discharge requests and modifications of the short term groundwater discharge criteria should be directed to Mr. Angus Eaton, Chief, Chemical Systems Section, Bureau of Wastewater Facilities Design.

If you have any questions, please call Mr. Angus Eaton at 457-0625.

Attachment

cc: Regional Water Engineers
A. Eaton, DOW

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event

and lasting until 7 days from the start of the discharge.

the discharges from the treatment facility to groundwater shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	CAS No.	Discharge	Units	Minimum	
		Limitations		Monitoring Requirements	
		Daily Max.		Measurement Frequency	Sample Type
<u>Outfall 001 - Containerized Well Development Water and/or Pump Test Water:</u>					
Flow	NA	Monitor	gpd	Continuous	Meter
pH(Range)	NA	6.5 to 8.5	SU	(1)	Grab
Oil and Grease	NA	15	mg/l	(1)	Grab
Solids, Total Dissolved	NA	1,000	mg/l	(1)	Grab
Nitrogen, Total (as N)	NA	10	mg/l	(1)	Grab
Foaming Agents (as MBAS)	NA	1.0	mg/l	(1)	Grab
Acenaphthene	83-32-9	20	µg/l	(1)	Grab
Acetone	67-64-1	100.0 ²	µg/l	(1)	Grab
Acrylic acid	79-10-7	50	µg/l	(1)	Grab
Acrylonitrile	107-13-1	5	µg/l	(1)	Grab
Alachlor	15972-60-8	35	µg/l	(1)	Grab
Aldicarb	116-06-3	8.0 ²	µg/l	(1)	Grab
Methomyl	16752-77-5	40.0 ²	µg/l	(1)	Grab
Aldicarb sulfone	1646-88-4	2	µg/l	(1)	Grab
Aldicarb sulfoxide	1646-87-3	4	µg/l	(1)	Grab
Aldrin	309-00-2	0.020 ²	µg/l	(1)	Grab
Alkyl dimethyl benzyl ammonium chloride	68391-01-5	50	µg/l	(1)	Grab
Alkyl diphenyl oxide sulfonates ³	NA	50	µg/l	(1)	Grab
Aluminum, Total	NA	2000	µg/l	(1)	Grab
Ametryn	834-12-8	50	µg/l	(1)	Grab
Aminomethylene phosphonic acid salts ⁴	NA	50	µg/l	(1)	Grab
Sum of Aminopyridines	NA	1.0	µg/l	(1)	Grab
Ammonia (as N)	7664-41-7	2000	µg/l	(1)	Grab
Aniline	62-53-3	10	µg/l	(1)	Grab
Anthracene	120-12-7	50	µg/l	(1)	Grab
Antimony, Total	NA	10	µg/l	(1)	Grab
Arsenic, Total	NA	50	µg/l	(1)	Grab
Aryltriazoles ³	NA	50	µg/l	(1)	Grab
Atrazine	1912-24-9	8	µg/l	(1)	Grab
Azinphosmethyl	86-50-0	4.4	µg/l	(1)	Grab
Azobenzene	103-33-3	5	µg/l	(1)	Grab
Barium, Total	NA	2,000	µg/l	(1)	Grab
Benefin(Benfluralin)	1861-40-1	35	µg/l	(1)	Grab
Benz(a)anthracene	56-55-3	0.050 ²	µg/l	(1)	Grab
Benzene	71-43-2	0.80 ²	µg/l	(1)	Grab

SEE PAGES 9 OF 10 AND 10 OF 10 FOR FOOTNOTES.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event

and lasting until 7 days from the start of the discharge.

the discharges from the treatment facility to groundwater shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	CAS No.	Discharge Limitations Daily Max.	Units	Minimum Monitoring Requirements	
				Measurement Frequency	Sample Type
Benzidine	92-87-5	5	µg/l	(1)	Grab
Benzisothiazole	271-61-4	50	µg/l	(1)	Grab
Benzo(b)fluoranthene	205-99-2	0.070 ²	µg/l	(1)	Grab
Benzo(k)fluoranthene	207-08-9	0.020 ²	µg/l	(1)	Grab
Benzo(a)pyrene	50-32-8	0.090 ²	µg/l	(1)	Grab
Beryllium, Total	NA	3	µg/l	(1)	Grab
Bis(2-chloroethyl)ether	111-44-4	1.0	µg/l	(1)	Grab
Bis(2-ethylhexyl)phthalate	117-81-7	4,200	µg/l	(1)	Grab
Boric acid, Borates & Metaborates ⁵	NA	125	µg/l	(1)	Grab
Boron, Total	NA	2,000	µg/l	(1)	Grab
Bromacil	314-40-9	10.0 ²	µg/l	(1)	Grab
Bromide, Total	NA	2,000	µg/l	(1)	Grab
Bromobenzene	108-86-1	5	µg/l	(1)	Grab
Bromochloromethane	74-97-5	5	µg/l	(1)	Grab
Bromodichloromethane	75-27-4	50	µg/l	(1)	Grab
Bromoform	75-25-2	50	µg/l	(1)	Grab
Bromomethane	74-83-9	5	µg/l	(1)	Grab
Butachlor	23184-66-9	3.5	µg/l	(1)	Grab
Butoxyethoxyethanol	112-34-5	50	µg/l	(1)	Grab
Butoxypropanol	5131-66-8	50	µg/l	(1)	Grab
Butylate	2008-41-5	50	µg/l	(1)	Grab
n-Butylbenzene	104-51-8	5	µg/l	(1)	Grab
sec-Butylbenzene	135-98-8	5	µg/l	(1)	Grab
tert-Butylbenzene	98-06-6	5	µg/l	(1)	Grab
Butyl benzyl phthalate	85-68-7	50	µg/l	(1)	Grab
Butyl isopropyl phthalate	NA	50	µg/l	(1)	Grab
Cadmium, Total	NA	20	µg/l	(1)	Grab
Captan	133-06-2	18	µg/l	(1)	Grab
Carbaryl	63-25-2	29	µg/l	(1)	Grab
Carbofuran	1563-66-2	15	µg/l	(1)	Grab
Carbon tetrachloride	56-23-5	5	µg/l	(1)	Grab
Carboxin	5234-68-4	50	µg/l	(1)	Grab
Chloramben ⁶	NA	88	µg/l	(1)	Grab
Chlordane	57-74-9	0.1	µg/l	(1)	Grab
Chloride	NA	500,000	µg/l	(1)	Grab
2,3,7,8-Tetrachlorodibenzo-p-dioxin	NA	0.0080 ²	µg/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event

and lasting until 7 days from the start of the discharge.

the discharges from the treatment facility to groundwater shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	CAS No.	Discharge Limitations Daily Max.	Units	Minimum Monitoring Requirements	
				Measurement Frequency	Sample Type
Chlorinated dibenzo-p-dioxins and Chlorinated dibenzofurans	NA	0.0080 ²	µg/l	(1)	Grab
Chlorobenzene	108-90-7	5	µg/l	(1)	Grab
4-Chlorobenzotrifluoride	98-56-6	5	µg/l	(1)	Grab
Chloroethane	75-00-3	5	µg/l	(1)	Grab
Chloroform	67-66-3	7	µg/l	(1)	Grab
2-Chloronaphthalene	91-58-7	10	µg/l	(1)	Grab
2-Chlorotoluene	95-49-8	5	µg/l	(1)	Grab
4-Chlorotoluene	106-43-4	5	µg/l	(1)	Grab
5-Chloro-o-toluidine	95-79-4	5	µg/l	(1)	Grab
Chromium, Total	NA	100	µg/l	(1)	Grab
Chromium, Hexavalent	NA	100	µg/l	(1)	Grab
Chrysene	218-01-0	0.60 ²	µg/l	(1)	Grab
Copper, Total	NA	1,000	µg/l	(1)	Grab
Cyanide, Total	NA	400	µg/l	(1)	Grab
Dalapon ⁶	NA	50	µg/l	(1)	Grab
4,4'-DDT	50-29-3	0.050 ²	µg/l	(1)	Grab
4,4'-DDD	72-54-8	0.040 ²	µg/l	(1)	Grab
4,4'-DDE	72-55-9	0.020 ²	µg/l	(1)	Grab
Dechlorane Plus	13560-89-9	5	µg/l	(1)	Grab
Diazinon	333-41-5	0.7	µg/l	(1)	Grab
Dibromochloromethane	124-48-1	50	µg/l	(1)	Grab
1,2-Dibromo-3-chloropropane	96-12-8	5	µg/l	(1)	Grab
Dibromodichloromethane	594-18-3	5	µg/l	(1)	Grab
Dibromomethane	74-95-3	5	µg/l	(1)	Grab
2,2-Dibromo-3-nitrilopropionamide	10222-01-2	50	µg/l	(1)	Grab
Di-n-butyl phthalate	84-74-2	770	µg/l	(1)	Grab
Dicamba	1918-00-9	0.44	µg/l	(1)	Grab
1,2-Dichlorobenzene	95-50-1	see sum of 1,2- & 1,4-Dichlorobenzenes			
1,4-Dichlorobenzene	106-46-7	see sum of 1,2- & 1,4-Dichlorobenzenes			
Sum of 1,2- & 1,4-Dichlorobenzenes	NA	4.7	µg/l	(1)	Grab
1,3-Dichlorobenzene	541-73-1	5	µg/l	(1)	Grab
3,4-Dichlorobenzotrifluoride	328-84-7	5	µg/l	(1)	Grab
Dichlorodifluoromethane	75-71-8	5	µg/l	(1)	Grab
1,1-Dichloroethane	75-34-3	5	µg/l	(1)	Grab
1,2-Dichloroethane	107-06-2	5	µg/l	(1)	Grab
cis-1,2-Dichloroethylene	156-59-2	5	µg/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event

and lasting until 7 days from the start of the discharge.

the discharges from the treatment facility to groundwater shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	CAS No.	Discharge Limitations Daily Max.	Units	Minimum Monitoring Requirements	
				Measurement Frequency	Sample Type
trans-1,2-Dichloroethylene	156-60-5	5	µg/l	(1)	Grab
1,1-Dichloroethylene	75-35-4	5	µg/l	(1)	Grab
Dichlorofluoromethane	75-43-4	5	µg/l	(1)	Grab
2,4-Dichlorophenoxyacetic acid	94-75-7	4.4	µg/l	(1)	Grab
1,2-Dichloropropane	78-87-5	5	µg/l	(1)	Grab
1,1-Dichloropropane	78-99-9	5	µg/l	(1)	Grab
1,3-Dichloropropane	142-28-9	5	µg/l	(1)	Grab
2,2-Dichloropropane	594-20-7	5	µg/l	(1)	Grab
1,1-Dichloropropene	563-58-6	5	µg/l	(1)	Grab
cis-1,3-Dichloropropene	10061-01-5	5	µg/l	(1)	Grab
trans-1,3-Dichloropropene	10061-02-6	5	µg/l	(1)	Grab
2,3-Dichlorotoluene	32768-54-0	5	µg/l	(1)	Grab
2,4-Dichlorotoluene	95-73-8	5	µg/l	(1)	Grab
2,5-Dichlorotoluene	19398-61-9	5	µg/l	(1)	Grab
2,6-Dichlorotoluene	118-69-4	5	µg/l	(1)	Grab
3,4-Dichlorotoluene	95-75-0	5	µg/l	(1)	Grab
3,5-Dichlorotoluene	25186-47-4	5	µg/l	(1)	Grab
Dieldrin	60-57-1	0.0080 ²	µg/l	(1)	Grab
Di(2-ethylhexyl)adipate	103-23-1	50	µg/l	(1)	Grab
Diethyl phthalate	84-66-2	50	µg/l	(1)	Grab
N,N-Dimethyl aniline	121-69-7	5	µg/l	(1)	Grab
Dimethylformamide	68-12-2	50	µg/l	(1)	Grab
Dimethyl phthalate	131-11-3	50	µg/l	(1)	Grab
Dimethyl tetrachloroterephthalate	1861-32-1	50	µg/l	(1)	Grab
2,6-Dinitrotoluene	606-20-2	5	µg/l	(1)	Grab
Di-n-octyl phthalate	117-84-0	50	µg/l	(1)	Grab
Diphenamid	957-51-7	50	µg/l	(1)	Grab
1,2-Diphenylhydrazine	122-66-7	ND	µg/l	(1)	Grab
1,1-Diphenylhydrazine	530-50-7	ND	µg/l	(1)	Grab
Diquat dibromide	85-00-7	20	µg/l	(1)	Grab
Dodecylguanidine acetate	2439-10-3	see sum of Dodecylguanidine acetate and Dodecylguanidine hydrochloride			
Dodecylguanidine hydrochloride	13590-97-1				
Sum of Dodecylguanidine acetate and dodecylguanidine hydrochloride	NA	50	µg/l	(1)	Grab
Dyphylline	479-18-5	50	µg/l	(1)	Grab
Endothall	145-73-3	50	µg/l	(1)	Grab
Endrin	72-20-8	0.020 ²	µg/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event

and lasting until 7 days from the start of the discharge.

the discharges from the treatment facility to groundwater shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	CAS No.	Discharge Limitations Daily Max.	Units	Minimum Monitoring Requirements	
				Measurement Frequency	Sample Type
Ethylbenzene	100-41-4	5	µg/l	(1)	Grab
Ethylene chlorohydrin	107-07-3	50	µg/l	(1)	Grab
Ethylene dibromide	106-93-4	5	µg/l	(1)	Grab
Ethylene glycol	107-21-1	50	µg/l	(1)	Grab
Ethylene oxide	75-21-8	0.05	µg/l	(1)	Grab
Ethylenethiourea	96-45-7	ND	µg/l	(1)	Grab
Ferbam	14484-64-1	4.2	µg/l	(1)	Grab
Fluometuron	2164-17-2	50	µg/l	(1)	Grab
Fluoranthene	206-44-0	50	µg/l	(1)	Grab
Fluorene	86-73-7	50	µg/l	(1)	Grab
Fluoride	NA	3,000	µg/l	(1)	Grab
Folpet	133-07-3	56	µg/l	(1)	Grab
Glyphosate	1071-83-6	50	µg/l	(1)	Grab
Guaifenesin	93-14-1	50	µg/l	(1)	Grab
Heptachlor	76-44-8	0.010 ²	µg/l	(1)	Grab
Heptachlor epoxide	1024-74-3	0.30 ²	µg/l	(1)	Grab
Hexachlorobenzene	118-74-1	0.35	µg/l	(1)	Grab
Hexachlorobutadiene	87-68-3	5	µg/l	(1)	Grab
α-Hexachlorocyclohexane(α-BHC)	319-84-6	0.010 ²	µg/l	(1)	Grab
β-Hexachlorocyclohexane(β-BHC)	319-85-7	0.020 ²	µg/l	(1)	Grab
δ-Hexachlorocyclohexane(δ-BHC)	319-86-8	0.040 ²	µg/l	(1)	Grab
γ-Hexachlorocyclohexane(Lindane)	58-89-9	0.020 ²	µg/l	(1)	Grab
Hexachlorocyclopentadiene	77-47-4	5	µg/l	(1)	Grab
Hexachlorophene	70-30-4	7	µg/l	(1)	Grab
2-Hexanone	591-78-6	50	µg/l	(1)	Grab
Hexazinone	51235-04-2	50	µg/l	(1)	Grab
1-Hydroxyethylidene- 1,1-diphosphonic acid	2809-21-4	50	µg/l	(1)	Grab
2-(2-Hydroxy-3,5-di-tert- pentylphenyl)benzotriazole	25973-55-1	50	µg/l	(1)	Grab
Indeno(1,2,3-cd)pyrene	193-39-5	0.20 ²	µg/l	(1)	Grab
Iron, Total ⁷	NA	600	µg/l	(1)	Grab
Isophorone	78-59-1	50	µg/l	(1)	Grab
Isopropylbenzene	98-82-8	5	µg/l	(1)	Grab
4-Isopropyltoluene	99-87-6	5	µg/l	(1)	Grab
Kepone	143-50-0	10.0 ²	µg/l	(1)	Grab
Lead, Total	NA	50	µg/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event

and lasting until 7 days from the start of the discharge.

the discharges from the treatment facility to groundwater shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	CAS No.	Discharge Limitations Daily Max.	Units	Minimum Monitoring Requirements	
				Measurement Frequency	Sample Type
Magnesium, Total	NA	35,000	µg/l	(1)	Grab
Malathion	121-75-5	7.0	µg/l	(1)	Grab
Mancozeb	8018-01-7	60.0 ²	µg/l	(1)	Grab
Maneb	12427-38-2	60.0 ²	µg/l	(1)	Grab
Manganese, Total ⁷	NA	600	µg/l	(1)	Grab
Mercaptobenzothiazole	149-30-4	50	µg/l	(1)	Grab
Mercury, Total	NA	4	µg/l	(1)	Grab
Methacrylic acid	79-41-4	50	µg/l	(1)	Grab
Methoxychlor	72-43-5	35	µg/l	(1)	Grab
(2-Methoxyethyl)benzene	4013-34-7	50	µg/l	(1)	Grab
(1-Methoxyethyl)benzene	3558-60-9	50	µg/l	(1)	Grab
Sum of Methybenz(a)anthracenes	NA	0.002	µg/l	(1)	Grab
Methyl chloride	74-87-3	5	µg/l	(1)	Grab
2-Methyl-4-chlorophenoxyacetic acid(MCPA)	94-74-6	1000 ²	µg/l	(1)	Grab
Methylene bithiocyanate	6317-18-6	50	µg/l	(1)	Grab
Methylene chloride	75-09-2	5	µg/l	(1)	Grab
4-(1-Methylethoxy)-1-butanol	31600-69-8	50	µg/l	(1)	Grab
2-Methylethyl-1,3-dioxolane	126-39-6	50	µg/l	(1)	Grab
Methyl ethyl ketone	78-93-3	50	µg/l	(1)	Grab
Methyl methacrylate	80-62-6	700	µg/l	(1)	Grab
2-Methylstyrene	611-15-4	5	µg/l	(1)	Grab
3-Methylstyrene	100-80-1	5	µg/l	(1)	Grab
Metribuzin	21087-64-9	50	µg/l	(1)	Grab
Mirex	2385-85-5	5	µg/l	(1)	Grab
Nabam	142-59-6	60.0 ²	µg/l	(1)	Grab
Naphthalene	91-20-3	10	µg/l	(1)	Grab
Niacinamide	98-92-0	500	µg/l	(1)	Grab
Nickel, Total	NA	2,000	µg/l	(1)	Grab
Nitralin	4726-14-1	35	µg/l	(1)	Grab
Nitrate (as N)	NA	20,000	µg/l	(1)	Grab
Nitritotriacetic acid ⁸	NA	3	µg/l	(1)	Grab
Nitrobenzene	98-95-3	5	µg/l	(1)	Grab
N-Nitrosodiphenylamine	86-30-6	50	µg/l	(1)	Grab
Oxamyl	23135-22-0	50	µg/l	(1)	Grab
Paraquat	4685-14-7	3.0	µg/l	(1)	Grab
Parathion	56-38-2	see sum of Parathion & Methyl parathion			
Methyl parathion	298-00-0	see sum of Parathion and Methyl parathion			

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event

and lasting until 7 days from the start of the discharge.

the discharges from the treatment facility to groundwater shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	CAS No.	Discharge Limitations Daily Max.	Units	Minimum Monitoring Requirements	
				Measurement Frequency	Sample Type
Sum of Parathion & Methyl parathion	NA	1.5	µg/l	(1)	Grab
Pentachloronitrobenzene	82-68-8	0.40 ²	µg/l	(1)	Grab
Phenanthrene	85-01-8	50	µg/l	(1)	Grab
Phenolic compounds (total phenols) ¹⁵	NA	8.0 ²	µg/l	(1)	Grab
Phenyl ether	101-84-8	10	µg/l	(1)	Grab
Phenylpropanolamine	14838-15-4	50	µg/l	(1)	Grab
cis-1-Phenyl-1-propene	766-90-5	5	µg/l	(1)	Grab
trans-1-Phenyl-1-propene	873-66-5	5	µg/l	(1)	Grab
3-Phenyl-1-propene	637-50-3	5	µg/l	(1)	Grab
Phorate	298-02-2	0.60 ²	µg/l	(1)	Grab
Disulfoton	298-04-4	0.60 ²	µg/l	(1)	Grab
Picloram ⁵	NA	50	µg/l	(1)	Grab
PCB-1016	12674-11-2	0.30 ^{2,10}	µg/l	(1)	Grab
PCB-1221	11104-28-2	0.30 ^{2,10}	µg/l	(1)	Grab
PCB-1232	11141-16-5	0.30 ^{2,10}	µg/l	(1)	Grab
PCB-1242	53469-21-9	0.30 ^{2,10}	µg/l	(1)	Grab
PCB-1248	12672-29-6	0.30 ^{2,10}	µg/l	(1)	Grab
PCB-1254	11097-69-1	0.30 ^{2,10}	µg/l	(1)	Grab
PCB-1260	11096-82-5	0.30 ^{2,10}	µg/l	(1)	Grab
Principal organic contaminant(POC) ⁹	NA	5	µg/l	(1)	Grab
Prometon	1610-18-0	50	µg/l	(1)	Grab
Propachlor	1918-16-7	35	µg/l	(1)	Grab
Propanil	709-98-8	7.0	µg/l	(1)	Grab
Propazine	139-40-2	16	µg/l	(1)	Grab
Propham	122-42-9	50	µg/l	(1)	Grab
n-Propylbenzene	103-65-1	5	µg/l	(1)	Grab
Pyrene	129-00-0	50	µg/l	(1)	Grab
Pyridine	110-86-1	50	µg/l	(1)	Grab
Selenium, Total	NA	40	µg/l	(1)	Grab
Silver, Total	NA	100	µg/l	(1)	Grab
Simazine	122-34-9	75	µg/l	(1)	Grab
Sodium	NA	20,000	µg/l	(1)	Grab
Styrene	100-42-5	930	µg/l	(1)	Grab
Sulfate	NA	500,000	µg/l	(1)	Grab
Sulfides, Total	NA	1,000	µg/l	(1)	Grab
Tebuthiuron	34014-18-1	50	µg/l	(1)	Grab
Terbacil	5902-51-2	50	µg/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event

and lasting until 7 days from the start of the discharge.

the discharges from the treatment facility to groundwater shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	CAS No.	Discharge Limitations Daily Max.	Units	Minimum Monitoring Requirements	
				Measurement Frequency	Sample Type
Terbufos	13071-79-9	100.0 ²	µg/l	(1)	Grab
Sum of Tetrachlorobenzenes	12408-10-5	10	µg/l	(1)	Grab
1,2,3,4-Tetrachlorobenzene	634-66-2	5	µg/l	(1)	Grab
1,2,3,5-Tetrachlorobenzene	634-90-2	5	µg/l	(1)	Grab
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0 ²	µg/l	(1)	Grab
1,1,1,2-Tetrachloroethane	630-20-6	5	µg/l	(1)	Grab
1,1,2,2-Tetrachloroethane	79-34-5	5	µg/l	(1)	Grab
Tetrachloroethylene	127-18-4	5	µg/l	(1)	Grab
Tetrachloroterephthalic acid	2136-79-0	50	µg/l	(1)	Grab
Tetrahydrofuran	109-99-9	50	µg/l	(1)	Grab
Thallium, Total	NA	4	µg/l	(1)	Grab
Theophylline	58-55-9	40	µg/l	(1)	Grab
Thiram	137-26-8	1.8	µg/l	(1)	Grab
Toluene	108-88-3	5	µg/l	(1)	Grab
o-Toluidine	95-53-4	5	µg/l	(1)	Grab
Tolytriazole	29385-43-1	50	µg/l	(1)	Grab
Toxaphene	8001-35-2	1.0 ²	µg/l	(1)	Grab
1,2,4-Tribromobenzene	615-54-3	5	µg/l	(1)	Grab
Tributyltin oxide	56-35-9	50	µg/l	(1)	Grab
Sum of Trichlorobenzenes	12002-48-1	10	µg/l	(1)	Grab
1,2,3-Trichlorobenzene	87-61-6	5	µg/l	(1)	Grab
1,2,4-Trichlorobenzene	120-82-1	5	µg/l	(1)	Grab
1,3,5-Trichlorobenzene	108-70-3	5	µg/l	(1)	Grab
1,1,1-Trichloroethane	71-55-6	5	µg/l	(1)	Grab
1,1,2-Trichloroethane	79-00-5	5	µg/l	(1)	Grab
Trichloroethylene	79-01-6	5	µg/l	(1)	Grab
Trichlorofluoromethane	75-69-4	5	µg/l	(1)	Grab
2,4,5-Trichloro-phenoxyacetic acid	93-76-5	35	µg/l	(1)	Grab
2,4,5-Trichloro-phenoxypropionic acid	93-72-1	0.26	µg/l	(1)	Grab
1,1,2-Trichloropropane	598-77-6	5	µg/l	(1)	Grab
1,2,3-Trichloropropane	96-18-4	5	µg/l	(1)	Grab
cis-1,2,3-Trichloropropene	13116-57-9	5	µg/l	(1)	Grab
trans-1,2,3-Trichloropropene	13116-58-0	5	µg/l	(1)	Grab
alpha,2,4-Trichlorotoluene	94-99-5	5	µg/l	(1)	Grab
alpha,2,6-Trichlorotoluene	2014-83-7	5	µg/l	(1)	Grab
alpha,3,4-Trichlorotoluene	102-47-6	5	µg/l	(1)	Grab
alpha,alpha,2-Trichlorotoluene	88-66-4	5	µg/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event

and lasting until 7 days from the start of the discharge.

the discharges from the treatment facility to groundwater shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	CAS No.	Discharge Limitations Daily Max.	Units	Minimum Monitoring Requirements	
				Measurement Frequency	Sample Type
alpha,alpha,4-Trichlorotoluene	13940-94-8	5	µg/l	(1)	Grab
2,3,4-Trichlorotoluene	7359-72-0	5	µg/l	(1)	Grab
2,3,5-Trichlorotoluene	56961-86-5	5	µg/l	(1)	Grab
2,3,6-Trichlorotoluene	2077-46-5	5	µg/l	(1)	Grab
2,4,5-Trichlorotoluene	6639-30-1	5	µg/l	(1)	Grab
2,4,6-Trichlorotoluene	23749-65-7	5	µg/l	(1)	Grab
1,1,1-Trichloro-2,2,2-trifluoroethane	354-58-5	5	µg/l	(1)	Grab
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5	µg/l	(1)	Grab
Trifluralin	1582-09-8	35	µg/l	(1)	Grab
1,2,3-Trimethylbenzene	526-73-8	5	µg/l	(1)	Grab
1,2,4-Trimethylbenzene	95-63-6	5	µg/l	(1)	Grab
1,3,5-Trimethylbenzene	108-67-8	5	µg/l	(1)	Grab
2,3,6-Trimethylpyridine	1462-84-6	50	µg/l	(1)	Grab
2,4,6-Trimethylpyridine	108-75-8	50	µg/l	(1)	Grab
Triphenyl phosphate	115-86-6	50	µg/l	(1)	Grab
Uranyl ion	NA	10,000	µg/l	(1)	Grab
Vinyl chloride	75-01-4	2	µg/l	(1)	Grab
1,2-Xylene	95-47-6	5	µg/l	(1)	Grab
1,3-Xylene	108-38-2	5	µg/l	(1)	Grab
1,4-Xylene	106-42-3	5	µg/l	(1)	Grab
Zinc, Total	NA	5,000	µg/l	(1)	Grab
Zineb	12112-67-7	60.0 ²	µg/l	(1)	Grab
Ziram	137-30-4	8.0 ²	µg/l	(1)	Grab

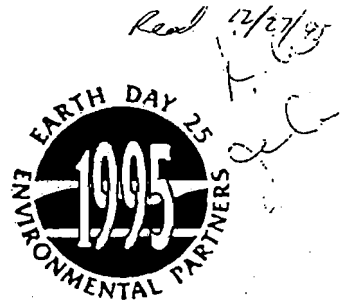
Footnotes:

- (1) Samples must be collected prior to each discharge event. Discharge may not commence until the sample results show compliance with the above discharge limitations.
- (2) Discharge limit is set at the Practical Quantitation Limit (PQL). Actual groundwater effluent standard/limitation is below this limit.
- (3) Limit applies to each isomer individually.
- (4) Limit applies to each salt individually.
- (5) Limit applies as boron equivalents to the sum of these substances.

SEE PAGE 10 OF 10 FOR ADDITIONAL FOOTNOTES.

Footnotes(continued):

- (6) Limit includes forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.
- (7) The combined concentration of iron, total and manganese, total shall not exceed 1000 µg/l.
- (8) Includes related forms that convert to nitrilotriacetic acid upon acidification to a pH of 2.3 or less.
- (9) Applies to any and every individual substance to which the ambient principal organic contaminant standard applies, except any substance that has an effluent standard or limitation value listed above. See DOW TOGS 1.1.1 for information on determining the applicability of the ambient POC standard to individual substances.
- (10)
 - a. The treatment plant operator must monitor this discharge for PCBs using USEPA laboratory method 608. The laboratory must make all reasonable attempts to achieve an Minimum Detection Level (MDL) of 0.065 µg/l.
 - b. 0.10 µg/l is the discharge goal. The treatment plant operator shall report all values above the MDL (0.065 µg/l per Aroclor). If the level of any Aroclor is above 0.10 µg/l, the treatment plant operator must evaluate the treatment system and identify the cause of the detectable level of PCBs in the discharge.
 - c. If the Department determines that effluent monitoring results above 0.10 µg/l can be prevented by implementation of additional measures as proposed by the treatment plant operator in footnote 10.b above, and approved by the Department, the treatment plant operator shall implement such additional measures.
- (11) Only site generated pump test and containerized well development water are authorized for treatment and discharge.
- (12) Samples and measurements, to comply with the monitoring requirements specified above, must be taken from the holding tank prior to discharge to groundwater.
- (13) Discharge may not occur unless the ground is capable of accepting the treated effluent. The discharged water may not be ponded on top of saturated or frozen ground or permitted to flow across the ground surface. Also, a minimum separation distance of 100 feet must be maintained between the discharge location and any surface waters (including wetlands).
- (14) Discharge is not authorized until such time as an engineering submission showing the method of treatment and discharge is approved by the Department. The discharge rate may not exceed the effective treatment system or ground adsorptive capacity. All monitoring data, engineering submissions and modification requests must be submitted to the following DHWR contact person: _____.
- (15) Total phenolics must be analyzed using EPA Methods 420.1 or 420.2.



MEMORANDUM

Michael D. Zagata
Commissioner

TO: Michael O'Toole, Director, Division of Hazardous Waste Remediation

FROM: ☒ N.G. Kaul, Director, Division of Water

SUBJECT: Generic Effluent Criteria for Surface Water Discharges

DATE: SEP 28 1995

This memo is to transmit a general authorization for short term, batch surface water discharges of pump test and containerized well development waters. Remedial investigations and designs have often required DOW to provide rapid turnaround times to develop short term surface water pump test and containerized well development water discharge criteria. The attached generic surface water effluent criteria and general conditions were developed by DOW staff to reduce delays in implementing these short term surface water discharges and to save staff time for both Divisions. Please have your staff pay particular attention to the footnotes listed at the end of the document.

The attached criteria are subject to the following conditions:

1. Discharges to surface waters within the New York City watershed are not authorized by the attached criteria. A full DOW review is required by these discharges.
2. The criteria do not contain discharge limitations for radioactive discharges. Limitations on discharges of radiation or radioactive isotopes are addressed under Part 380 Radiation Control Permits.
3. Alternate monitoring frequencies, discharge limitations (where appropriate) or inclusion of parameters not identified in the attachment will be considered; however, a complete review by DOW staff will be required.
4. The attached parameter list is extensive and DOW's intent is for monitoring to be conducted only for those parameters which are known or suspected to be present at the site. Monitoring of parameters not present is not required by these criteria.

The DOW does not have any regulatory authority over a discharge from State, PRP, Federal Superfund Sites without SPDES permits. DHWR will be responsible for ensuring compliance with the attached effluent criteria and approval of all engineering submissions. Footnote (11) requires identification of the DHWR contact person who will receive all effluent results, engineering submissions and modification requests. The Regional Water Engineer should be kept appraised of the status of each discharge and sent a copy of the effluent results for informational purposes.

Long term groundwater and surface water discharges are not addressed in the attached criteria or in the short term groundwater criteria sent in a previous memo. A complete review of these proposed discharge scenarios will still require full DOW review. The attached criteria may be used as a planning tool by your staff, consultants and PRPs determining the most feasible discharge option. All long term groundwater and surface water discharge requests and modifications of the short term discharge criteria should be directed to Mr. Angus Eaton, Chief, Chemical Systems Section, Bureau of Wastewater Facilities Design.

If you have any questions, please call Mr. Angus Eaton at 457-0625.

Attachment

cc: Regional Water Engineers
A. Eaton, DOW

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event

and lasting until 7 days from start of discharge.

the discharges from the treatment facility to surface water shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	CAS No.	Discharge Limitations Daily Max.	Units	Minimum Monitoring Requirements	
				Measurement Frequency	Sample Type
<u>Outfall 001 - Containerized Well Development Water and/or Pump Test Water:</u>					
Flow	NA	Monitor	gpd	Continuous	Meter
pH(Range)	NA	6.5 to 8.5	SU	(1)	Grab
Oil and Grease	NA	15	mg/l	(1)	Grab
BOD, 5-day	NA	5	mg/l	(1)	Grab
Solids, Total Suspended	NA	10	mg/l	(1)	Grab
Solids, Total Dissolved	NA	200	mg/l	(1)	Grab
Turbidity	NA	5	NTUs	(1)	Grab
Acenaphthene	83-32-9	10	µg/l	(1)	Grab
Acenaphthylene	208-96-8	10	µg/l	(1)	Grab
Acetone	67-64-1	100.0 ²	µg/l	(1)	Grab
Acrylic acid	79-10-7	50	µg/l	(1)	Grab
Acrylonitrile	107-13-1	0.07	µg/l	(1)	Grab
Alachlor	15972-60-8	0.3	µg/l	(1)	Grab
Aldicarb	116-06-3	8.0 ²	µg/l	(1)	Grab
Methomyl	16752-77-5	40.0 ²	µg/l	(1)	Grab
Aldicarb sulfone	1646-88-4	2	µg/l	(1)	Grab
Aldicarb sulfoxide	1646-87-3	4	µg/l	(1)	Grab
Aldrin	309-00-2	0.020 ²	µg/l	(1)	Grab
Alkyl dimethyl benzyl ammonium chloride	68391-01-5	50	µg/l	(1)	Grab
Alkyl diphenyl oxide sulfonates ³	NA	50	µg/l	(1)	Grab
Aluminum, Total	NA	100	µg/l	(1)	Grab
Ametryn	834-12-8	50	µg/l	(1)	Grab
Aminomethylene phosphonic acid salts ⁴	NA	50	µg/l	(1)	Grab
Sum of Aminopyridines	NA	1.0	µg/l	(1)	Grab
Ammonia, Total (as NH ₃)	7664-41-7	660	µg/l	(1)	Grab
Aniline	62-53-3	10.0 ²	µg/l	(1)	Grab
Anthracene	120-12-7	10	µg/l	(1)	Grab
Antimony, Total	NA	10.0 ²	µg/l	(1)	Grab
Arsenic, Total	NA	36	µg/l	(1)	Grab
Aryltriazoles ³	NA	50	µg/l	(1)	Grab
Atrazine	1912-24-9	8.0 ²	µg/l	(1)	Grab
Azinphosmethyl	86-50-0	0.60 ²	µg/l	(1)	Grab
Azobenzene	103-33-3	0.5	µg/l	(1)	Grab
Barium, Total	NA	1,000	µg/l	(1)	Grab
Benz(a)anthracene	56-55-3	0.050 ²	µg/l	(1)	Grab

SEE PAGES 9 OF 10 AND 10 OF 10 FOR FOOTNOTES.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event

and lasting until 7 days from start of discharge.

the discharges from the treatment facility to surface water shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	CAS No.	Discharge Limitations Daily Max.	Units	Minimum Monitoring Requirements	
				Measurement Frequency	Sample Type
Benzene	71-43-2	0.80 ⁴	µg/l	(1)	Grab
Benzidine	92-87-5	0.30 ²	µg/l	(1)	Grab
Benzisothiazole	271-61-4	50	µg/l	(1)	Grab
Benzo(a)anthracene	56-55-3	10	µg/l	(1)	Grab
Benzo(b)fluoranthene	205-99-2	0.070 ²	µg/l	(1)	Grab
Benzo(k)fluoranthene	207-08-9	0.020 ²	µg/l	(1)	Grab
Benzo(ghi)Perylene	191-24-2	10	µg/l	(1)	Grab
Benzo(a)pyrene	50-32-8	0.090 ²	µg/l	(1)	Grab
Beryllium, Total	NA	3	µg/l	(1)	Grab
Bis(2-chloroethyl)ether	111-44-4	1.0 ²	µg/l	(1)	Grab
Bis(2-ethylhexyl)phthalate	117-81-7	8.0 ²	µg/l	(1)	Grab
Boric acid, Borates & Metaborates ⁵	NA	125	µg/l	(1)	Grab
Boron, Total	NA	1,000	µg/l	(1)	Grab
Bromide, Total	NA	2,000	µg/l	(1)	Grab
Bromobenzene	108-86-1	5	µg/l	(1)	Grab
Bromochloromethane	74-97-5	5	µg/l	(1)	Grab
Bromodichloromethane	75-27-4	10	µg/l	(1)	Grab
Bromoform	75-25-2	10	µg/l	(1)	Grab
Bromomethane	74-83-9	5	µg/l	(1)	Grab
Butoxyethoxyethanol	112-34-5	50	µg/l	(1)	Grab
Butoxypropanol	5131-66-8	50	µg/l	(1)	Grab
Butylate	2008-41-5	50	µg/l	(1)	Grab
n-Butylbenzene	104-51-8	5	µg/l	(1)	Grab
sec-Butylbenzene	135-98-8	5	µg/l	(1)	Grab
tert-Butylbenzene	98-06-6	5	µg/l	(1)	Grab
Butyl benzyl phthalate	85-68-7	50	µg/l	(1)	Grab
Butyl isopropyl phthalate	NA	50	µg/l	(1)	Grab
Cadmium, Total	NA	1.2	µg/l	(1)	Grab
Carbofuran	1563-66-2	10.0 ²	µg/l	(1)	Grab
Carbon tetrachloride	56-23-5	0.50 ²	µg/l	(1)	Grab
Carboxin	5234-68-4	50	µg/l	(1)	Grab
Chloramben ⁶	NA	50	µg/l	(1)	Grab
Chlordane	57-74-9	0.060 ²	µg/l	(1)	Grab
Chloride	NA	250,000	µg/l	(1)	Grab
2,3,7,8-Tetrachlorodibenzo-p-dioxin	NA	0.0080 ²	µg/l	(1)	Grab
Chlorinated dibenzo-p-dioxins and Chlorinated dibenzofurans	NA	0.0080 ²	µg/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event

and lasting until 7 days from start of discharge.

the discharges from the treatment facility to surface water shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	CAS No.	Discharge Limitations Daily Max.	Units	Minimum Monitoring Requirements	
				Measurement Frequency	Sample Type
Chlorine, Total Residual	NA	100.0 ²	µg/l	(1)	Grab
Chlorobenzene	108-90-7	5	µg/l	(1)	Grab
4-Chlorobenzotrifluoride	98-56-6	5	µg/l	(1)	Grab
Chloroethane	75-00-3	5	µg/l	(1)	Grab
Chloroform	67-66-3	7	µg/l	(1)	Grab
2-Chloronaphthalene	91-58-7	10	µg/l	(1)	Grab
2-Chlorotoluene	95-49-8	5	µg/l	(1)	Grab
4-Chlorotoluene	106-43-4	5	µg/l	(1)	Grab
5-Chloro-o-toluidine	95-79-4	0.7	µg/l	(1)	Grab
Chromium, Total	NA	207	µg/l	(1)	Grab
Chromium, Hexavalent	NA	11	µg/l	(1)	Grab
Chrysene	218-01-0	0.60 ²	µg/l	(1)	Grab
Cobalt, Total	NA	5	µg/l	(1)	Grab
Copper, Dissolved	NA	Monitor	µg/l	(1)	Grab
Copper, Total	NA	24	µg/l	(1)	Grab
Cyanide, Amenable to Chlorination	NA	60.0 ²	µg/l	(1)	Grab
Dalapon ⁶	NA	50	µg/l	(1)	Grab
4,4'-DDT	50-29-3	0.050 ²	µg/l	(1)	Grab
4,4'-DDD	72-54-8	0.040 ²	µg/l	(1)	Grab
4,4'-DDE	72-55-9	0.020 ²	µg/l	(1)	Grab
Sum of Demeton	NA	0.1	µg/l	(1)	Grab
Dechlorane Plus	13560-89-9	5	µg/l	(1)	Grab
Diazinon	333-41-5	0.7	µg/l	(1)	Grab
Dibenzo(a,h)Anthracene	53-70-3	10	µg/l	(1)	Grab
Dibromochloromethane	124-48-1	10	µg/l	(1)	Grab
1,2-Dibromo-3-chloropropane	96-12-8	0.2	µg/l	(1)	Grab
Dibromodichloromethane	594-18-3	5	µg/l	(1)	Grab
Dibromomethane	74-95-3	5	µg/l	(1)	Grab
2,2-Dibromo-3-nitrilopropionamide	10222-01-2	20	µg/l	(1)	Grab
Di-n-butyl phthalate	84-74-2	50	µg/l	(1)	Grab
1,2-Dichlorobenzene	95-50-1	see sum of Dichlorobenzenes	µg/l	(1)	Grab
1,4-Dichlorobenzene	106-46-7	see sum of Dichlorobenzenes	µg/l	(1)	Grab
1,3-Dichlorobenzene	541-73-1	see sum of Dichlorobenzenes	µg/l	(1)	Grab
Sum of Dichlorobenzenes	NA	5	µg/l	(1)	Grab
4-Dichlorobenzotrifluoride	328-84-7	5	µg/l	(1)	Grab
Trichlorodifluoromethane	75-71-8	5	µg/l	(1)	Grab
1,1-Dichloroethane	75-34-3	5	µg/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event

and lasting until 7 days from start of discharge.

the discharges from the treatment facility to surface water shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	CAS No.	Discharge Limitations Daily Max.	Units	Minimum Monitoring Requirements	
				Measurement Frequency	Sample Type
1,2-Dichloroethane	107-06-2	0.8	µg/l	(1)	Grab
cis-1,2-Dichloroethylene	156-59-2	5	µg/l	(1)	Grab
trans-1,2-Dichloroethylene	156-60-5	5	µg/l	(1)	Grab
1,1-Dichloroethylene	75-35-4	0.50 ²	µg/l	(1)	Grab
Dichlorofluoromethane	75-43-4	5	µg/l	(1)	Grab
2,4-Dichlorophenol	120-83-2	2.0 ²	µg/l	(1)	Grab
2,4-Dichlorophenoxyacetic acid	94-75-7	10	µg/l	(1)	Grab
1,2-Dichloropropane	78-87-5	0.5	µg/l	(1)	Grab
1,1-Dichloropropane	78-99-9	5	µg/l	(1)	Grab
3-Dichloropropane	142-28-9	5	µg/l	(1)	Grab
2,2-Dichloropropane	594-20-7	5	µg/l	(1)	Grab
1,1-Dichloropropene	563-58-6	5	µg/l	(1)	Grab
cis-1,3-Dichloropropene	10061-01-5	5	µg/l	(1)	Grab
trans-1,3-Dichloropropene	10061-02-6	5	µg/l	(1)	Grab
2,3-Dichlorotoluene	32768-54-0	5	µg/l	(1)	Grab
2,4-Dichlorotoluene	95-73-8	5	µg/l	(1)	Grab
2,5-Dichlorotoluene	19398-61-9	5	µg/l	(1)	Grab
2,6-Dichlorotoluene	118-69-4	5	µg/l	(1)	Grab
3,4-Dichlorotoluene	95-75-0	5	µg/l	(1)	Grab
3,5-Dichlorotoluene	25186-47-4	5	µg/l	(1)	Grab
Dieldrin	60-57-1	0.0080 ²	µg/l	(1)	Grab
Di(2-ethylhexyl)adipate	103-23-1	50	µg/l	(1)	Grab
Diethyl phthalate	84-66-2	50	µg/l	(1)	Grab
N,N-Dimethyl aniline	121-69-7	1.0	µg/l	(1)	Grab
Dimethylformamide	68-12-2	50	µg/l	(1)	Grab
Dimethyl phthalate	131-11-3	50	µg/l	(1)	Grab
Dimethyl tetrachloroterephthalate	1861-32-1	50	µg/l	(1)	Grab
2,6-Dinitrotoluene	606-20-2	0.080 ²	µg/l	(1)	Grab
Di-n-octyl phthalate	117-84-0	50	µg/l	(1)	Grab
Diphenamid	957-51-7	50	µg/l	(1)	Grab
1,2-Diphenylhydrazine	122-66-7	0.05	µg/l	(1)	Grab
Diquat dibromide	85-00-7	20	µg/l	(1)	Grab
Dodecylguanidine acetate	2439-10-3	see sum of Dodecylguanidine acetate and Dodecylguanidine hydrochloride			
Dodecylguanidine hydrochloride	13590-97-1				
sum of Dodecylguanidine acetate and dodecylguanidine hydrochloride	NA	50	µg/l	(1)	Grab
Dyphylline	479-18-5	50	µg/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge eventand lasting until 7 days from start of discharge.

the discharges from the treatment facility to surface water shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	CAS No.	Discharge Limitations Daily Max.	Units	Minimum Monitoring Requirements	
				Measurement Frequency	Sample Type
Endosulfan	115-73-3	0.020 ⁴	µg/l	(1)	Grab
Endothall	145-73-3	50	µg/l	(1)	Grab
Endrin	72-20-8	0.020 ²	µg/l	(1)	Grab
Ethylbenzene	100-41-4	5	µg/l	(1)	Grab
Ethylene chlorohydrin	107-07-3	50	µg/l	(1)	Grab
Ethylene dibromide	106-93-4	0.05	µg/l	(1)	Grab
Ethylene glycol	107-21-1	50	µg/l	(1)	Grab
Ethylene oxide	75-21-8	0.05	µg/l	(1)	Grab
Fluometuron	2164-17-2	50	µg/l	(1)	Grab
Fluoranthene	206-44-0	10	µg/l	(1)	Grab
Fluorene	86-73-7	10	µg/l	(1)	Grab
Fluoride	NA	2000	µg/l	(1)	Grab
Glyphosate	1071-83-6	50	µg/l	(1)	Grab
Guaifenesin	93-14-1	50	µg/l	(1)	Grab
Heptachlor	76-44-8	0.010 ²	µg/l	(1)	Grab
Heptachlor epoxide	1024-74-3	0.30 ²	µg/l	(1)	Grab
Hexachlorobenzene	118-74-1	0.20 ²	µg/l	(1)	Grab
Hexachlorobutadiene	87-68-3	1.0 ²	µg/l	(1)	Grab
α-Hexachlorocyclohexane(α-BHC)	319-84-6	0.010 ²	µg/l	(1)	Grab
β-Hexachlorocyclohexane(β-BHC)	319-85-7	0.020 ²	µg/l	(1)	Grab
δ-Hexachlorocyclohexane(δ-BHC)	319-86-8	0.040 ²	µg/l	(1)	Grab
Γ-Hexachlorocyclohexane(Lindane)	58-89-9	0.020 ²	µg/l	(1)	Grab
Hexachlorocyclopentadiene	77-47-4	2.0 ²	µg/l	(1)	Grab
2-Hexanone	591-78-6	50	µg/l	(1)	Grab
Hexazinone	51235-04-2	50	µg/l	(1)	Grab
Hydrazine	302-01-2	5	µg/l	(1)	Grab
Hydrogen sulfide	7783-06-4	2.0	µg/l	(1)	Grab
Hydroquinone	123-31-9	2.2	µg/l	(1)	Grab
1-Hydroxyethylidene- 1,1-diphosphonic acid	2809-21-4	50	µg/l	(1)	Grab
2-(2-Hydroxy-3,5-di-tert- pentylphenyl)benzotriazole	25973-55-1	50	µg/l	(1)	Grab
Indeno(1,2,3-cd)pyrene	193-39-5	0.20 ²	µg/l	(1)	Grab
Iron, Total	NA	300	µg/l	(1)	Grab
Isodecyl diphenyl phosphate	29761-21-5	1.7	µg/l	(1)	Grab
Isophorone	78-59-1	10	µg/l	(1)	Grab
Isopropylbenzene	98-82-8	5	µg/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event

and lasting until 7 days from start of discharge.

the discharges from the treatment facility to surface water shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	CAS No.	Discharge Limitations Daily Max.	Units	Minimum Monitoring Requirements	
				Measurement Frequency	Sample Type
4-Isopropyltoluene	99-87-6	5	µg/l	(1)	Grab
Total Isothiazolones	NA	1	µg/l	(1)	Grab
Lead, Total	NA	4.0 ²	µg/l	(1)	Grab
Magnesium, Total	NA	35,000	µg/l	(1)	Grab
Malathion	121-75-5	0.6 ²	µg/l	(1)	Grab
Manganese, Total	NA	300	µg/l	(1)	Grab
Mercaptobenzothiazole	149-30-4	50	µg/l	(1)	Grab
Mercury, Total	NA	0.8 ²	µg/l	(1)	Grab
Methacrylic acid	79-41-4	50	µg/l	(1)	Grab
Methoxychlor	72-43-5	0.4 ²	µg/l	(1)	Grab
(2-Methoxyethyl)benzene	4013-34-7	50	µg/l	(1)	Grab
(1-Methoxyethyl)benzene	3558-60-9	50	µg/l	(1)	Grab
Sum of Methybenz(a)anthracenes	NA	0.002	µg/l	(1)	Grab
Methyl chloride	74-87-3	5	µg/l	(1)	Grab
Methylene bithiocyanate	6317-18-6	1.0	µg/l	(1)	Grab
Methylene chloride	75-09-2	5	µg/l	(1)	Grab
4-(1-Methylethoxy)-1-butanol	31600-69-8	50	µg/l	(1)	Grab
2-Methylethyl-1,3-dioxolane	126-39-6	50	µg/l	(1)	Grab
Methyl ethyl ketone	78-93-3	50	µg/l	(1)	Grab
2-Methylstyrene	611-15-4	5	µg/l	(1)	Grab
3-Methylstyrene	100-80-1	5	µg/l	(1)	Grab
Metribuzin	21087-64-9	50	µg/l	(1)	Grab
Mirex	2385-85-5	0.4 ²	µg/l	(1)	Grab
Naphthalene	91-20-3	10	µg/l	(1)	Grab
Niacinamide	98-92-0	500	µg/l	(1)	Grab
Nickel, Total	NA	96	µg/l	(1)	Grab
Nitrate (as N)	NA	10,000	µg/l	(1)	Grab
Nitrilotriacetic acid ⁷	NA	3	µg/l	(1)	Grab
Nitrite	NA	20	µg/l	(1)	Grab
Nitrobenzene	98-95-3	5	µg/l	(1)	Grab
N-Nitrosodiphenylamine	86-30-6	10	µg/l	(1)	Grab
Oxamyl(Vydate)	23135-22-0	10	µg/l	(1)	Grab
Parathion	56-38-2	0.6 ²	µg/l	(1)	Grab
Methyl parathion	298-00-0	0.6 ²	µg/l	(1)	Grab
o-chlorophenol	87-86-5	2 ²	µg/l	(1)	Grab
Phenanthrene	85-01-8	10	µg/l	(1)	Grab
Phenolic compounds (total phenols) ¹¹	NA	8.0 ²	µg/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge eventand lasting until 7 days from start of discharge.

the discharges from the treatment facility to surface water shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	CAS No.	Discharge Limitations Daily Max.	Units	Minimum Monitoring Requirements	
				Measurement Frequency	Sample Type
Phenyl ether	101-84-8	10	µg/l	(1)	Grab
Phenylpropanolamine	14838-15-4	50	µg/l	(1)	Grab
cis-1-Phenyl-1-propene	766-90-5	5	µg/l	(1)	Grab
trans-1-Phenyl-1-propene	873-66-5	5	µg/l	(1)	Grab
3-Phenyl-1-propene	637-50-3	5	µg/l	(1)	Grab
Phosphorus	NA	20	µg/l	(1)	Grab
Picloram ⁶	1918-02-1	50	µg/l	(1)	Grab
PCB-1016	12674-11-2	0.30 ^{2,8}	µg/l	(1)	Grab
PCB-1221	11104-28-2	0.30 ^{2,8}	µg/l	(1)	Grab
PCB-1232	11141-16-5	0.30 ^{2,8}	µg/l	(1)	Grab
PCB-1242	53469-21-9	0.30 ^{2,8}	µg/l	(1)	Grab
PCB-1248	12672-29-6	0.30 ^{2,8}	µg/l	(1)	Grab
PCB-1254	11097-69-1	0.30 ^{2,8}	µg/l	(1)	Grab
PCB-1260	11096-82-5	0.30 ^{2,8}	µg/l	(1)	Grab
Prometon	1610-18-0	50	µg/l	(1)	Grab
Propham	122-42-9	50	µg/l	(1)	Grab
n-Propylbenzene	103-65-1	5	µg/l	(1)	Grab
Pyrene	129-00-0	10	µg/l	(1)	Grab
Pyridine	110-86-1	50	µg/l	(1)	Grab
Sum of Quaternary ammonium compounds	NA	10	µg/l	(1)	Grab
Selenium, Total	NA	4 ²	µg/l	(1)	Grab
Silver, Total	NA	200	µg/l	(1)	Grab
Simazine	122-34-9	8 ²	µg/l	(1)	Grab
Styrene	100-42-5	50	µg/l	(1)	Grab
Sulfate	NA	250,000	µg/l	(1)	Grab
Sulfides, Total	NA	50	µg/l	(1)	Grab
Sulfite	NA	200	µg/l	(1)	Grab
Tebuthiuron	34014-18-1	50	µg/l	(1)	Grab
Terbufos	13071-79-9	100.0 ²	µg/l	(1)	Grab
Sum of Tetrachlorobenzenes	12408-10-5	10	µg/l	(1)	Grab
1,1,1,2-Tetrachloroethane	630-20-6	5	µg/l	(1)	Grab
1,1,2,2-Tetrachloroethane	79-34-5	0.2	µg/l	(1)	Grab
Tetrachloroethylene	127-18-4	0.7	µg/l	(1)	Grab
Tetrahydrofuran	109-99-9	50	µg/l	(1)	Grab
Thallium, Total	NA	4	µg/l	(1)	Grab
Theophylline	58-55-9	40	µg/l	(1)	Grab
Terbufos	13071-79-9	100.0 ²	µg/l	(1)	Grab

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event

and lasting until 7 days from start of discharge.

the discharges from the treatment facility to surface water shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	CAS No.	Discharge Limitations Daily Max.	Units	Minimum Monitoring Requirements	
				Measurement Frequency	Sample Type
Sum of Tetrachlorobenzenes	12408-10-5	10	µg/l	(1)	Grab
1,1,1,2-Tetrachloroethane	630-20-6	5	µg/l	(1)	Grab
1,1,2,2-Tetrachloroethane	79-34-5	0.2	µg/l	(1)	Grab
Tetrachloroethylene	127-18-4	0.7	µg/l	(1)	Grab
Toluene	108-88-3	5	µg/l	(1)	Grab
o-Toluidine	95-53-4	10 ²	µg/l	(1)	Grab
Tolytriazole	29385-43-1	50	µg/l	(1)	Grab
Toxaphene	8001-35-2	1.0 ²	µg/l	(1)	Grab
1,2,4-Tribromobenzene	615-54-3	5	µg/l	(1)	Grab
Tributyltin oxide	56-35-9	50	µg/l	(1)	Grab
Sum of Trichlorobenzenes	12002-48-1	10	µg/l	(1)	Grab
1,1,1-Trichloroethane	71-55-6	5	µg/l	(1)	Grab
1,1,2-Trichloroethane	79-00-5	0.6	µg/l	(1)	Grab
Trichloroethylene	79-01-6	3	µg/l	(1)	Grab
Trichlorofluoromethane	75-69-4	5	µg/l	(1)	Grab
2,4,5-Trichloro-phenoxypropionic acid	93-72-1	10	µg/l	(1)	Grab
1,1,2-Trichloropropane	598-77-6	5	µg/l	(1)	Grab
1,2,3-Trichloropropane	96-18-4	5	µg/l	(1)	Grab
cis-1,2,3-Trichloropropene	13116-57-9	5	µg/l	(1)	Grab
trans-1,2,3-Trichloropropene	13116-58-0	5	µg/l	(1)	Grab
alpha,2,4-Trichlorotoluene	94-99-5	5	µg/l	(1)	Grab
alpha,2,6-Trichlorotoluene	2014-83-7	5	µg/l	(1)	Grab
alpha,3,4-Trichlorotoluene	102-47-6	5	µg/l	(1)	Grab
alpha,alpha,2-Trichlorotoluene	88-66-4	5	µg/l	(1)	Grab
alpha,alpha,4-Trichlorotoluene	13940-94-8	5	µg/l	(1)	Grab
2,3,4-Trichlorotoluene	7359-72-0	0.34	µg/l	(1)	Grab
2,3,5-Trichlorotoluene	56961-86-5	0.34	µg/l	(1)	Grab
2,3,6-Trichlorotoluene	2077-46-5	0.34	µg/l	(1)	Grab
2,4,5-Trichlorotoluene	6639-30-1	0.34	µg/l	(1)	Grab
2,4,6-Trichlorotoluene	23749-65-7	0.34	µg/l	(1)	Grab
1,1,1-Trichloro-2,2,2-trifluoroethane	354-58-5	5	µg/l	(1)	Grab
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5	µg/l	(1)	Grab
1,2,3-Trimethylbenzene	526-73-8	5	µg/l	(1)	Grab
1,2,4-Trimethylbenzene	95-63-6	5	µg/l	(1)	Grab
3,5-Trimethylbenzene	108-67-8	5	µg/l	(1)	Grab
3,6-Trimethylpyridine	1462-84-6	50	µg/l	(1)	Grab

SEE PAGES 9 OF 10 AND 10 OF 10 FOR FOOTNOTES.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the start of each discharge event

and lasting until 7 days from start of discharge.

the discharges from the treatment facility to surface water shall be limited and monitored by the operator as specified below:

Outfall Number & Effluent Parameter	CAS No.	Discharge Limitations Daily Max.	Units	Minimum Monitoring Requirements	
				Measurement Frequency	Sample Type
2,4,6-Trimethylpyridine	108-75-8	50	µg/l	(1)	Grab
Triphenyl phosphate	115-86-6	4	µg/l	(1)	Grab
Vanadium, Total	NA	14	µg/l	(1)	Grab
Vinyl chloride	75-01-4	0.70 ²	µg/l	(1)	Grab
1,2-Xylene	95-47-6	5	µg/l	(1)	Grab
1,3-Xylene	108-38-2	5	µg/l	(1)	Grab
1,4-Xylene	106-42-3	5	µg/l	(1)	Grab
Zinc, Total	NA	166	µg/l	(1)	Grab

Footnotes:

- (1) Samples must be collected prior to each discharge event. Discharge may not commence until the sample results show compliance with the above discharge limitations.
- (2) Discharge limit is set at the Practical Quantitation Limit (PQL). Actual surface water effluent standard/limitation is below this limit.
- (3) Limit applies to each isomer individually.
- (4) Limit applies to each salt individually.
- (5) Limit applies as boron equivalents to the sum of these substances.
- (6) Limit includes forms that convert to the organic acid upon acidification to a pH of 2 or less; and esters of the organic acid.
- (7) Includes related forms that convert to nitrilotriacetic acid upon acidification to a pH of 2.3 or less.

SEE PAGE 10 OF 10 FOR ADDITIONAL FOOTNOTES.

Footnotes (continued):

- (8) a. The treatment plant operator must monitor this discharge for PCBs using USEPA laboratory method 608. The laboratory must make all reasonable attempts to achieve a Minimum Detection Level (MDL) of 0.065 µg/l.
- b. 0.065 µg/l is the discharge goal. The treatment plant operator shall report all values above the MDL (0.065 µg/l per Aroclor). If the level of any Aroclor is above 0.065 µg/l, the treatment plant operator must evaluate the treatment system and identify the cause of the detectable level of PCBs in the discharge.
- c. If the Department determines that effluent monitoring results above 0.065 µg/l can be prevented by implementation of additional measures as proposed by the treatment plant operator in footnote 10.b above, and approved by the Department, the treatment plant operator shall implement such additional measures.
- (8) Only site generated pump test and containerized well development water are authorized for treatment and discharge.
- (9) Samples and measurements, to comply with the monitoring requirements specified above, must be taken from the holding tank prior to discharge to _____.
- (10) Discharge is not authorized until such time as an engineering submission showing the method of treatment and discharge is approved by the Department. The discharge rate may not exceed the effective treatment system capacity. All monitoring data, engineering submissions and modification requests must be submitted to the following DHWR contact person: _____.
- (11) Total phenolics must be analyzed using EPA Methods 420.1 or 420.2.
- (12) Discharge to a surface water body within the New York City Watershed is not authorized by these effluent criteria. Separate review of any proposed discharge to a surface water within the New York City Watershed is required.

SECTION XII

Measurement for Payment

NO TEXT THIS PAGE

SECTION XII

MEASUREMENT FOR PAYMENT

PART 1 – GENERAL

1.01 SUMMARY

- A. This section covers the methods and procedures that will be used to measure **CONTRACTOR's** work to provide payment to **CONTRACTOR** for work performance. All work elements necessary to complete the work may not be described in this section. It is the responsibility of the bidder to make a thorough investigation of the Contract Documents and the site to determine the scope of work needed or required in each bid item. Payments shall be made to **CONTRACTOR** based on the quantities or work successfully completed and accepted as measured in accordance with the specified methods of measurement and the prices stipulated as shown on the Bid Form (page V-2). This method of payment shall constitute complete compensation for all work shown on the drawings and provided in the specifications, for all costs of accepting the general risks, and liabilities, and shall include compensation for overhead, profit, materials and services, and performing all work required to accomplish and complete the work specified under each item and all other work required.

1.02 SUBMITTALS

- A. Preliminary items to be submitted in response to Notice of Intent:
 - 1. Bid breakdowns
- B. Pay Requests:
 - 1. Submit in accordance with Section VIII, Article 13, "Payments to Contractor and Completion."

1.03 PAYMENT PROCEDURES

- A. Under this Contract, **CONTRACTOR** shall provide all labor, equipment and materials and shall complete all work as shown and described in the Contract Documents and as directed by **ENGINEER**, in accordance with the expressed intent of the contract to secure a complete construction of a functionally complete project. The following bid items shall together include all work set forth in the Contract Documents or required to properly complete the work. Any necessary work that is not described shall be

considered included in the item to which it properly belongs. Where used in the Contract Documents, the word "including" ("includes", "include") shall mean "including (includes, include) but not restricted to."

Each item includes:

1. All labor, material, equipment, bonds and insurance, tests, adjustments, warranties, overhead, and other expenses required to perform the work.
2. All accessories, manuals, and services pertinent to the proper installation of materials and equipment.
3. All accessories, manuals, and services pertinent to the materials and equipment.

B. Lump Sum Items

1. The quantities of work performed under lump sum items shall not be measured except for the purpose of determining reasonable interim payments. Interim payments shall be made in accordance with the estimated value of work performed and found acceptable as determined by **ENGINEER**, or as specified in this section.
2. Where indicated for a lump sum item, **CONTRACTOR** shall provide a schedule of values. The schedule of values shall include a breakdown of major cost items included within the lump sum. The schedule of values shall be provided to **ENGINEER** prior to initiation of work.

C. Unit Price Items

1. Payments shall be made for unit items in accordance with the measurement methods set forth in this section or, where specified payment limits are unclear, as determined reasonable by **ENGINEER**, at the unit prices entered in the Bid Form. Interim measurements and/or payments may be adjusted to account for partially completed work.

D. Measurement for payment shall be made only for work that has been acceptably performed within the limits shown on the Plans, as specified, or ordered by **ENGINEER**.

E. The work of the contract shall be paid in separate items as described below.

1. Bid Item 1 – Mobilization/Demobilization and Site Preparation
 - a. Bid Item 1 shall be a lump sum amount for mobilization and demobilization as specified and directed herein.
 - b. Submit a separate bid breakdown (see Section III, Article 12, “Bid Breakdown”) for this item that shows individual cost of providing items in the scope of work for this bid item as described below plus mobilization, demobilization, and miscellaneous items on-site and off-site not specified elsewhere but necessary for a complete and proper remediation and site restoration.
 - i. Development of Work Plan including all required components.
 - ii. Permits and fees, insurance, bonds, and other expenses directly related to and required by the Contract Documents.
 - iii. Mobilization of personnel, equipment and project facilities including on-site truck scale.
 - iv. Installation of staging areas.
 - v. Setup temporary utilities and sanitary facilities.
 - vi. Capital expenses for all health and safety equipment required by the HASP, including decontamination and personal hygiene facilities.
 - vii. Providing and installing field offices and support areas.
 - viii. Control, layout, and as-built surveys.
 - ix. Underground utility survey.
 - x. Installation of erosion, surface water and sedimentation controls.
 - xi. Installation of decontamination station, including pre and post soil sampling below decontamination station.
 - xii. On-site relocation of existing debris.
 - xiii. Temporary fencing and traffic controls.
 - xiv. Pre and post excavation groundwater sampling.

- xv. Installation of bollards around new and existing groundwater monitoring wells.
 - xvi. Handling and disposal of **CONTRACTOR** generated wastes.
 - xvii. Demobilization.
 - xviii. Other work not specifically included under other items including compliance with applicable regulatory requirements; preconstruction and construction period planning, scheduling, submittals, reporting, administration, and documentation; quality control; and environmental protection and spill control.
- c. Measurement for payment shall be up to 60% of the lump sum for mobilization items installed and properly functioning. Following demobilization, measurement for payment shall be up to a maximum of 100% based on actual completion of the bid item. Payment shall be lump sum bid for each individual item described above, including mobilization, demobilization, and miscellaneous, as submitted in the **CONTRACTOR's** Bid Breakdown.

2. Bid Item 2 – Site Services

- a. Bid Item 2 shall be bid unit price per work day for site services as specified and directed herein.
- b. Submit a separate bid breakdown (see Section III, Article 12, "Bid Breakdown") for this item that shows individual cost per day for providing, operating, and maintaining items in the scope of work for this bid item as described below.
 - i. Site security.
 - ii. Access road maintenance.
 - iii. Fencing maintenance.
 - iv. Field offices maintenance.
 - v. Providing and maintaining all temporary utilities including electricity, phone service, Internet service and potable water, as well as sanitary facilities, staging and support areas.

- vi. Erosion, sedimentation and surface water control maintenance.
 - vii. On-site truck scale calibration, operation and maintenance.
 - viii. Dust, noise and odor control.
- c. Measurement for payment shall be for each day site services have been provided in the opinion of the **ENGINEER** beginning after complete mobilization to the site and shall be considered completed upon the start of demobilization or at the end of the Contract Time specified in Section VI, Article 6.1, whichever is sooner. There shall be a 50% reduction in the payment for this item for days when site services are incomplete or inadequate in the opinion of the **ENGINEER**.
3. Bid Item 3 – Health and Safety Services
- a. Bid Item 3 shall be bid unit price per work day for health and safety as specified and directed herein.
 - b. Provide all materials, equipment, incidentals, and labor necessary to perform all applicable work and requirements as described in Section 00003 (Minimum Requirements for Health and Safety) of the Standard Specifications (Section X), Section 01392 (Modifications to Minimum Requirements for Health and Safety) and Section 01658 (Equipment Decontamination) of the Supplementary Specifications (Section XI) and as shown on the Contract Drawings. Submit a separate bid breakdown (see Section III, Article 12, “Bid Breakdown”) for this item that shows individual cost per day for providing, operating, and maintaining items in the scope of work for this bid item as described below.
 - i. Providing a full-time Health and Safety Officer (HSO) at the site.
 - ii. Air monitoring, sampling, analysis and reporting during the project period.
 - iii. Operating and maintaining all health and safety equipment and decontamination reduction station.
 - iv. Sampling, analyses, handling, transportation, and disposal of personal protective equipment (PPE) and decontamination wastes not specifically included in another bid item.

- c. Measurement for payment shall be for each day the Health and Safety Plan (HASP) has been adhered to in the opinion of **ENGINEER** beginning after satisfactory establishment of an exclusion zone and shall be considered completed when there is no longer an exclusion zone in the project area or at the end of the Contract Time specified in Section VI, Article 6.1, whichever is sooner. All daily maintenance costs for health and safety are part of this bid item including all requirements of the HASP. There shall be a 50% reduction in the payment for this item for days when no work occurs in the exclusion zone. A 100% reduction in the payment for this item shall occur for each day **CONTRACTOR** fails to adhere (in the opinion of **ENGINEER**) to the HASP.
- 4. Bid Item 4 – Clearing and Grubbing
 - a. Bid Item 4 shall be bid unit price per acre of actual area cleared within the limits of disturbance as directed and specified herein.
 - b. Provide all materials, equipment, incidentals, and labor necessary to clear and grub, and perform all applicable work and requirements as described in Section 02110 (Clearing and Grubbing) and Section 02120 (Removal of Yard Waste, Tires, Scrap Metal and Debris) of the Supplementary Specifications (Section XI).
 - c. Measurement for payment of Bid Item 4 shall be the actual area in acres cleared as measured by **ENGINEER's** review of **CONTRACTOR's** survey. The survey shall be performed, signed and sealed by a Land Surveyor licensed to practice in New York State and shall show the calculated acres of area cleared.
- 5. Bid Item 5 – Gravel Access Road and Parking Area Construction
 - a. Bid Item 5 shall be bid unit price per square yard of access road and parking area constructed as directed and specified herein.
 - b. Provide all materials, equipment, incidentals, and labor necessary to install gravel access roads and parking areas disturbed during performance of the work, and perform all applicable work and requirements as described in Section 02540 (Access Road and Parking Areas) of the Supplementary Specifications (Section XI), and shown on

the Contract Drawings. This shall include, but not be limited to, the work items described below.

- i. Grading, compacting, testing and preparing the roadway subgrade.
 - ii. Furnishing and installing geotextile filter fabric.
 - iii. Placing, grading and compacting a 6 inch layer of subbase coarse material.
- c. Measurement for payment of Bid Item 5 shall be the actual area of access road and parking areas in square yards constructed as measured by **ENGINEER's** review of **CONTRACTOR's** survey. The survey shall be performed, signed and sealed by a Land Surveyor licensed to practice in New York State and shall show the calculated square yardage of access road and parking areas constructed.

6. Bid Item 6 – Fencing

- a. Bid Item 6 shall be bid unit price per linear foot of actual 6 foot high chain link fence and gates installed as directed and specified herein.
- b. Provide all materials, equipment, incidentals, and labor necessary to completely and properly install a 6 foot high chain link fence and gates, and perform all applicable work and requirements as described in Section 02447 (Fencing) of the Supplementary Specifications (Section XI), and shown on the Contract Drawings. This shall include, but not be limited to, the work items described below.
 - i. Furnishing and installing fence fabric, posts, rails, braces, wire ties and concrete footings.
 - ii. Furnishing and installing each aluminum swing gate.
 - iii. Furnishing and installing plastic vertical tubing privacy slats along lengths of fence as indicated on the Drawings.
- c. Measurement for payment of Bid Item 6 shall be the actual length in feet of fencing and gates installed as measured by **ENGINEER's** review of **CONTRACTOR's** survey. The survey shall be performed, signed and sealed by a land surveyor licensed to practice in New York State and shall show the calculated length of fence and gates installed.

7. Bid Item 7 – Excavation of PCB-Contaminated Soil.

- a. Bid Item 7 shall be bid unit cost per in-place cubic yard of PCB-contaminated soil excavated as directed and specified herein.
- b. Provide all materials, equipment, incidentals, and labor necessary to completely and properly excavate and handle PCB-contaminated soil, and perform all applicable work and requirements as described in Section 02111 (Excavation, Removal and Handling of PCB-Contaminated Soil) of the Supplementary Specifications (Section XI) and shown on the Contract Drawings.
- c. Measurement for payment of Bid Item 7 shall be the in-place volume of PCB-contaminated soil excavated as measured by **ENGINEER's** review of **CONTRACTOR's** survey. The survey shall be performed, signed and sealed by a land surveyor licensed to practice in New York State and shall show the calculated in-place volume of PCB-contaminated soil excavated.

8. Bid Item 8 – Excavation of PCB-Contaminated Wetlands Soil

- a. Bid Item 8 shall be bid unit cost per in-place cubic yard of PCB-contaminated wetlands soil excavated from Area 8 (Bid Item 8) as directed and specified herein.
- b. Provide all materials, equipment, incidentals, and labor necessary to completely and properly excavate and handle PCB-contaminated wetlands soil, and perform all applicable work and requirements as described in Section 02112 (Excavation, Removal and Handling of PCB-Contaminated Material in Wetlands Area) of the Supplementary Specifications (Section XI) and shown on the Contract Drawings.
- c. Measurement for payment of Bid Item 8 shall be the in-place volume of PCB-contaminated wetlands soil excavated as measured by **ENGINEER's** review of **CONTRACTOR's** survey. The survey shall be performed, signed and sealed by a land surveyor licensed to practice in New York State and shall show the calculated in-place volume of PCB-contaminated wetland soil excavated.

9. Bid Item 9 – Excavation Endpoint Sampling and Analysis (NYSDEC ASP Method 8082)
- a. Bid Item 9 shall be bid unit price for each excavation endpoint sample collected and analyzed as specified and directed herein.
 - b. Provide all materials, equipment, incidentals, and labor necessary to completely and properly conduct excavation endpoint sample collection and analysis, and perform all applicable work and requirements as described in Section 01652 (Sampling Plan), Section 02111 (Excavation, Removal and Handling of PCB-Contaminated Soil) and Section 02112 (Excavation, Removal and Handling of PCB-Contaminated Material in Wetlands Area) of the Supplementary Specifications (Section XI). This shall include, but not be limited to, the work items described below.
 - i. Collection, preservation, handling, shipping and 24 hour analysis of each excavation endpoint sample.
 - ii. Collection, preservation, handling, shipping and 24 hour analysis of QA/QC samples.
 - iii. Staking and surveying the location of each sample collected.
 - iv. Result analysis and review, including DUSR generation.
 - c. Measurement for payment of Bid Item 9 shall be the actual quantity of excavation endpoint samples collected and analyzed. Payment shall be made at the unit price bid for each sample analyzed as indicated by **ENGINEER's** review of **CONTRACTOR's** final chemical results and DUSR reports.
10. Bid Item 10 – Sheet piling
- a. Bid Item 10 shall be bid unit cost for each square foot of sheet piling properly installed as specified and directed herein.
 - b. Provide all materials, equipment, incidentals and labor necessary to completely and properly install and remove sheet piling for excavation of contaminated soil, and perform all applicable work and requirements as described in Section 02111 (Excavation, Removal and Handling of PCB-

Contaminated Soil) and Section 02112 (Excavation, Removal and Handling of PCB-Contaminated Material in Wetlands Area) of the Supplementary Specifications (Section XI) and shown on the Contract Drawings.

- c. Measurements for payment of Bid Item 10 shall be the actual square feet of sheeting properly installed and removed upon completion of the excavation work. Payment shall be made at the unit price bid for each square foot of sheeting installed as measured by the **ENGINEER's** review of the **CONTRACTOR's** records.
11. Bid Item 11 – Dewatering, Treatment and Discharge of Contaminated Water
- a. Bid Item 11 shall be bid lump sum for dewatering, treatment and discharge of excavation-derived water as specified and directed herein.
 - b. Provide all materials, equipment, incidentals, and labor necessary to completely and properly treat and discharge excavation-derived water, including sampling and analyses required for discharge and perform all applicable work and requirements as described in Section 01652 (Sampling Plan), Section 02111 (Excavation, Removal and Handling of PCB-Contaminated Soil) and Section 02112 (Excavation, Removal and Handling of PCB-Contaminated Material in Wetlands Area) of the Supplementary Specifications (Section XI). Submit a separate bid breakdown (see Section III, Article 12, "Bid Breakdown") for this item that shows individual costs for the work elements required.
 - c. Measurement for payment for Bid Item 11 shall be up to 100% of the lump sum based on satisfactory completion of the bid item as determined by the **ENGINEER**.
12. Bid Item 12 – Backfill – Excavated Areas
- a. Bid Item 12 shall be bid unit price for each cubic yard of backfill properly placed, compacted, tested, and graded.
 - b. Provide all materials, equipment, incidentals, and labor necessary to completely and properly conduct backfilling of excavated contaminated areas to indicated grades, compaction, and final grading, and perform all applicable work and requirements as described in Section 02200 (Backfill and Compaction) of the Supplementary

Specifications (Section XI). This shall include, but not be limited to, the work items described below.

- i. Submission of samples, mechanical and chemical test results and manufacturer's data, as specified.
 - ii. Placing, compacting and grading backfill to required depth in 6-inch depths.
 - iii. Conducting all required field tests for each compacted layer.
- c. Measurement for payment of Bid Item 12 shall be the quantity of cubic yards in final position, complete, and passing inspection by **ENGINEER**. The quantity of backfill measured shall be the in-place volume from approved backfill locations as measured by the **ENGINEER's** review of **CONTRACTOR's** survey. The survey shall be performed, signed and sealed by a land surveyor licensed to practice in New York State and shall show the calculated in-place volume of backfill.

13. Bid Item 13 – Backfill – Excavated Wetland Areas

- a. Bid Item 13 shall be bid unit price for each cubic yard of backfill properly placed, compacted, tested, and graded in wetland areas.
- b. Provide all materials, equipment, incidentals, and labor necessary to completely and properly conduct backfilling of excavated wetland contaminated areas to indicated grades, compaction, and final grading, and perform all applicable work and requirements as described in Section 02488 (Wetland Restoration) of the Supplementary Specifications (Section XI). This shall include, but not be limited to, the work items described below.
 - i. Submission of samples, test results and manufacturer's data, as specified.
 - ii. Placing backfill to required depth.
 - iii. Conducting all required field tests.
- c. Measurement for payment of Bid Item 13 shall be the quantity of cubic yards in final position, complete, and passing inspection by **ENGINEER**. The quantity of backfill

measured shall be the volume as indicated by the **ENGINEER's** review of **CONTRACTOR's** records.

14. Bid Item 14 – Transportation and Off-Site Disposal of Nonhazardous PCB-Contaminated Soil
 - a. Bid Item 14 shall be bid unit price per ton of nonhazardous PCB-contaminated soil transported and disposed of off-site as directed and specified herein.
 - b. Provide all materials, equipment, incidentals, and labor necessary to completely and properly transport and dispose of nonhazardous PCB-contaminated soil and provide characterization sampling as necessary, and perform all applicable work and requirements as described in Section 02150 (Waste Transportation and Disposal) of the Supplementary Specifications (Section XI).
 - c. Measurement for payment of Bid Item 14 shall be the actual quantity of soil disposed of as measured by the **ENGINEER's** review of **CONTRACTOR's** certified on-site weigh scale tickets and the disposal facility weigh scale tickets.
15. Bid Item 15 – Transportation and Off-Site Disposal of Hazardous, TSCA Regulated PCB-Contaminated Soil
 - a. Bid Item 15 shall be bid unit price per ton of hazardous, TSCA regulated PCB-contaminated soil transported and disposed of off-site as directed and specified herein.
 - b. Provide all materials, equipment, incidentals, and labor necessary to completely and properly transport and dispose of hazardous, TSCA regulated PCB-contaminated soil and provide characterization sampling as necessary, and perform all applicable work and requirements as described in Section 02150 (Waste Transportation and Disposal) of the Supplementary Specifications (Section XI).
 - c. Measurement for payment of Bid Item 15 shall be the actual quantity of soil disposed of as measured by the **ENGINEER's** review of **CONTRACTOR's** certified on-site weigh scale tickets and the disposal facility weigh scale tickets.

16. Bid Item 16 – Transportation and Off-Site Disposal of Tires

- a. Bid Item 16 shall be bid unit price per ton of tires transported and disposed of off site as directed and specified herein.
- b. Provide all materials, equipment, incidentals, and labor necessary to completely and properly transport and dispose of tires, and perform all applicable work and requirements as described in Section 02120 (Removal of Yard Waste, Tires, Scrap Metal and Debris) of the Supplementary Specifications (Section XI).
- c. Measurement for payment of Bid Item 16 shall be the actual quantity of tires disposed of as measured by the **ENGINEER's** review of **CONTRACTOR's** certified on-site weigh scale tickets and the disposal facility weigh scale tickets.

17. Bid Item 17 – Transportation and Off-Site Disposal of Scrap Metal

- a. Bid Item 17 shall be bid unit price per ton of scrap metal transported and disposed of off site as directed and specified herein.
- b. Provide all materials, equipment, incidentals, and labor necessary to completely and properly transport and dispose of scrap metal, and perform all applicable work and requirements as described in Section 02120 (Removal of Yard Waste, Tires, Scrap Metal and Debris) of the Supplementary Specifications (Section XI).
- c. Measurement for payment of Bid Item 17 shall be the actual quantity of scrap metal disposed of as measured by the **ENGINEER's** review of **CONTRACTOR's** certified on-site weigh scale tickets and the disposal facility weigh scale tickets.

18. Bid Item 18 – Demarcation Layer

- a. Bid Item 18 shall be bid unit price for each square yard of geotextile demarcation layer material installed as directed and specified herein.
- b. Provide all materials, equipment, incidentals, and labor necessary to completely and properly furnish and install a demarcation layer as specified and directed herein, and perform all applicable work and requirements as described in

Section 02200 (Backfill and Compaction) of the Supplementary Specifications (Section XI).

- c. Measurement for payment for Bid Item 18 shall be for the actual quantities of geotextile demarcation layer material as indicated by the **ENGINEER's** review of **CONTRACTOR's** survey. The survey shall be performed, signed and sealed by a land surveyor licensed to practice in New York State and shall show the calculated area in square yards of demarcation layer material installed.

19. Bid Item 19 – Site Restoration (Topsoil/Seeding)

- a. Bid Item 19 shall be bid unit price for each acre of topsoil and seed placed within the areas disturbed, as directed and specified herein.
- b. Provide all materials, equipment, incidentals, and labor necessary to completely and properly restore the site as directed and specified herein, and perform all applicable work and requirements as described in Section 02485 (Seeding) of the Supplementary Specifications (Section XI) and shown on the Drawings. This shall include, but not be limited to, the work items described below.
 - i. Scarifying or tilling the final grade a minimum of 2 inches.
 - ii. Supplying, placing, compacting and grading 6 inches of topsoil.
 - iii. Preparation of topsoil for seeding, including application of ground limestone and commercial fertilizer.
 - iv. Chemical and mechanical testing of topsoil.
 - v. Supplying and placing seed.
 - vi. Watering.
 - vii. Supplying and installing erosion control fabrics.
- c. Measurement for payment of Bid Item 19 shall be for the actual quantities of topsoil and seed as measured by the **ENGINEER's** review of **CONTRACTOR's** survey. The survey shall be performed, signed and sealed by a land surveyor licensed to practice in New York State and shall

show the calculated area in acres of topsoil and seed placed.

20. Bid Item 20 – Site Restoration (Trees and Shrubs)

- a. Bid Item 20 shall be bid unit price for each tree (Bid Item 20A) and shrub (Bid Item 20B) planted as directed and specified herein.
- b. Provide all materials, equipment, incidentals, and labor necessary to completely and properly plant trees and shrubs at the site as directed and specified herein, and perform all applicable work and requirements as described in Section 02487 (Planting) of the Supplementary Specifications (Section XI), and shown on the Contract Drawings. This shall include, but not be limited to, the work items described below.
 - i. Preparation of the ground prior to planting.
 - ii. Excavation of plant pits.
 - iii. Placement of topsoil, fertilizer and mulch.
 - iv. Setting plants, including wrapping, staking or guying and wiring.
 - v. Care of plants after satisfactory completion of planting, including watering, weeding, cultivating, pruning, spraying, tightening of guys, remulching and any other necessary operations as required.
- c. Measurement for payment for Bid Item 20 shall be for the actual quantity of trees and shrubs successfully planted as approved by the **ENGINEER** after satisfactory completion of planting.

21. Bid Item 21 – Wetland Restoration (Trees and Shrubs)

- a. Bid Item 21 shall be bid unit price for each tree (Bid Item 21A) and shrub (Bid Item 21B) planted within the wetlands area within Area 8 as directed and specified herein.
- b. Provide all materials, equipment, incidentals, and labor necessary to completely and properly plant trees and shrubs within the wetlands area as directed and specified herein, and perform all applicable work and requirements as described in Section 02488 (Wetland Restoration) of the

Supplementary Specifications (Section XI), and shown on the Contract Drawings. This shall include, but not be limited to, the work items described below.

- i. Preparation of the ground prior to planting.
 - ii. Excavation of plant pits.
 - iii. Placement of topsoil, fertilizer and mulch.
 - iv. Setting plants.
 - v. Care of plants after satisfactory completion of planting.
 - vi. One year of wetland restoration monitoring.
- c. Measurement for payment for Bid Item 21 shall be for the actual quantity of trees and shrubs successfully planted within the wetlands area as approved by the **ENGINEER** after satisfactory completion of planting.

22. Bid Item 22 – New Groundwater Monitoring Wells

- a. Bid Item 22 shall be bid unit price for each linear foot of groundwater monitoring well installed as directed and specified herein.
- b. Provide all materials, equipment, incidentals, and labor necessary to completely and properly install new groundwater monitoring wells as directed and specified herein, and perform all applicable work and requirements as described in Section 15441 (Groundwater Monitoring Wells) of the Supplementary Specifications (Section XI), and shown on the Contract Drawings. This shall include, but not be limited to, the work items described below.
 - i. Accessing and drilling at each well location.
 - ii. Collection of split spoon soil samples.
 - iii. Installation of well casing, screen, well packing, grout, concrete base, protective steel casing and end plug.
 - iv. Well development.

- v. Removal and off-site disposal of drill cuttings, decontamination water, purge water and any other wastes.
 - c. Measurement for payment for Bid Item 22 shall be for the actual length of well installed in feet from the bottom of the well to the top of the well casing as calculated by the **ENGINEER's** measurement and records.
- 23. Bid Item 23 – Abandon Groundwater Monitoring Wells
 - a. Bid Item 23 shall be bid lump sum to abandon existing on-site groundwater monitoring wells as directed and specified herein.
 - b. Provide all materials, equipment, incidentals and labor necessary to completely and properly abandon existing on-site groundwater monitoring wells as directed and specified herein, and perform all applicable work and requirements as described in Section 15441 (Groundwater Monitoring Wells) of the Supplementary Specifications (Section XI). Submit a separate bid breakdown (see Section III, Article 12, "Bid Breakdown") for this bid items that shows individual costs for the work elements required.
 - c. Measurement for payment of Bid Item 23 shall be up to 100% of the lump sum based on actual completion of the bid item as approved by the **ENGINEER**.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

+ + END OF SECTION + +

NO TEXT THIS PAGE

SECTION XIII

Wage Rates and Associated Contract Requirements

NO TEXT THIS PAGE



Eliot Spitzer, Governor

M. Patricia Smith, Commissioner

NYSDEC

Paul Martorano, Engineer
Dvirka and Bartilucci
Consulting Engineers
330 Crossways Park Drive
Woodbury NY 11797-2015

Schedule Year 2007 through 2008
Date Requested 01/15/2008
PRC# 2008000420

Location New Lebanon, NY
Project ID# D006282
Project Type Excavation, staging, and off-site disposal of PCB contaminated soils and sediments plus site restoration

PREVAILING WAGE SCHEDULE FOR ARTICLE 8 PUBLIC WORK PROJECT

Attached is the current schedule(s) of the prevailing wage rates and prevailing hourly supplements for the project referenced above. A unique Prevailing Wage Case Number (PRC#) has been assigned to the schedule(s) for your project.

The schedule is effective from July 2007 through June 2008. All updates, corrections, posted on the 1st business day of each month, and future copies of the annual determination are available on the Department's website www.labor.state.ny.us. Updated PDF copies of your schedule can be accessed by entering your assigned PRC# at the proper location on the website.

It is the responsibility of the contracting agency or its agent to annex and make part, the attached schedule, to the specifications for this project, when it is advertised for bids and /or to forward said schedules to the successful bidder(s), immediately upon receipt, in order to insure the proper payment of wages.

Please refer to the "General Provisions of Laws Covering Workers on Public Work Contracts" provided with this schedule, for the specific details relating to other responsibilities of the Department of Jurisdiction.

Upon completion or cancellation of this project, enter the required information and mail **OR** fax this form to the office shown at the bottom of this notice, **OR** fill out the electronic version via the NYSDOL website.

NOTICE OF COMPLETION / CANCELLATION OF PROJECT

Date Completed: _____ Date Cancelled: _____

Name & Title of Representative: _____

Phone: (518) 457-5589 Fax: (518) 485-1870
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12240

General Provisions of Laws Covering Workers on Article 8 Public Work Contracts

Introduction

The Labor Law requires public work contractors and subcontractors to pay laborers, workers, or mechanics employed in the performance of a public work contract not less than the prevailing rate of wage and supplements (fringe benefits) in the locality where the work is performed.

Responsibilities of the Department of Jurisdiction

A Department of Jurisdiction (Contracting Agency) includes a state department, agency, board or commission; a county, city, town or village; a school district, board of education or board of cooperative educational services; a sewer, water, fire, improvement and other district corporation; a public benefit corporation; and a public authority awarding a public work contract.

The Department of Jurisdiction (Contracting Agency) awarding a public work contract **MUST** obtain a Prevailing Rate Schedule listing the hourly rates of wages and supplements due the workers to be employed on a public work project. This schedule may be obtained by completing and forwarding a "Request for wage and Supplement Information" form (PW 39) to the Bureau of Public Work. The Prevailing Rate Schedule **MUST** be included in the specifications for the contract to be awarded and is deemed part of the public work contract.

Upon the awarding of the contract, the law requires that the Department of Jurisdiction (Contracting Agency) furnish the following information to the Bureau: the name and address of the contractor, the date the contract was let and the approximate dollar value of the contract. To facilitate compliance with this provision of the Labor Law, a copy of the Department's "Notice of Contract Award" form (PW 16) is provided with the original Prevailing Rate Schedule.

The Department of Jurisdiction (Contracting Agency) is required to notify the Bureau of the completion or cancellation of any public work project. The Department's PW 200 form is provided for that purpose.

Hours

No laborer, worker, or mechanic in the employ of a contractor or subcontractor engaged in the performance of any public work project shall be permitted to work more than eight hours in any day or more than five days in any week, except in cases of extraordinary emergency. The contractor and the Department of Jurisdiction (Contracting Agency) may apply to the Bureau of Public Work for a dispensation permitting workers to work additional hours or days per week on a particular public work project.

Wages and Supplements

The wages and supplements to be paid and/or provided to laborers, workers, and mechanics employed on a public work project shall be not less than those listed in the current Prevailing Rate Schedule for the locality where the work is performed. If a prime contractor on a public work project has not been provided with a Prevailing Rate Schedule, the contractor must notify the Department of Jurisdiction (Contracting Agency) who in turn must request an original Prevailing Rate Schedule from the Bureau of Public Work. Requests may be submitted by: mail to NYSDOL, Bureau of Public Work, State Office Bldg. Campus, Bldg. 12, Rm. 130, Albany, NY 12240; Fax to Bureau of Public Work (518) 485-1870; or electronically at the NYSDOL website www.labor.state.ny.us.

Upon receiving the original schedule, the Department of Jurisdiction (Contracting Agency) is **REQUIRED** to provide complete copies to all prime contractors who in turn **MUST**, by law, provide copies of all applicable county schedules to each subcontractor and obtain from each subcontractor, an affidavit certifying such schedules were received. If the original schedule expired, the contractor may obtain a copy of the new annual determination from the NYSDOL website www.labor.state.ny.us.

The Commissioner of Labor makes an annual determination of the prevailing rates. This determination is in effect from July 1st through June 30th of the following year. The annual determination is available on the NYSDOL website www.labor.state.ny.us.

Payrolls and Payroll Records

Every contractor and subcontractor **MUST** keep original payrolls or transcripts subscribed and affirmed as true under penalty of perjury. Payrolls must be maintained for at least three (3) years from the project's date of completion. At a minimum, payrolls must show the following information for each person employed on a public work project: Name, Social Security number, Classification(s) in which the worker was employed, Hourly wage rate(s) paid, Supplements paid or provide, and Daily and weekly number of hours worked in each classification.

Every contractor and subcontractor shall submit to the Department of Jurisdiction (Contracting Agency), within thirty (30) days after issuance of its first payroll and every thirty (30) days thereafter, a transcript of the original payrolls, subscribed and affirmed as true under penalty of perjury. The Department of Jurisdiction (Contracting Agency) shall receive and maintain such payrolls.

In addition, the Commissioner of Labor may require contractors to furnish, with ten (10) days of a request, payroll records sworn to as their validity and accuracy for public work and private work. Payroll records include, but are not limited to time cards, work description sheets, proof that supplements were provided, cancelled payroll checks and payrolls. Failure to provide the requested information within the allotted ten (10) days will result in the withholding of up to 25% of the contract, not to exceed \$100,000.00. If the contractor or subcontractor does not maintain a place of business in New York State and the amount of the contract exceeds \$25,000.00, payroll records and certifications must be kept on the project worksite.

The prime contractor is responsible for any underpayments of prevailing wages or supplements by any subcontractor.

All contractors or their subcontractors shall provide to their subcontractors a copy of the Prevailing Rate Schedule specified in the public work contract as well as any subsequently issued schedules. A failure to provide these schedules by a contractor or subcontractor is a violation of Article 8, Section 220-a of the Labor Law.

All subcontractors engaged by a public work project contractor or its subcontractor, upon receipt of the original schedule and any subsequently issued schedules, shall provide to such contractor a verified statement attesting that the subcontractor has received the Prevailing Rate Schedule and will pay or provide the applicable rates of wages and supplements specified therein. (See NYS Labor Laws, Article 8, Section 220-a).

Determination of Prevailing Wage and Supplement Rate Updates Applicable to All Counties

The wages and supplements contained in the annual determination become effective July 1st whether or not the new determination has been received by a given contractor. Care should be taken to review the rates for obvious errors. Any corrections should be brought to the Department's attention immediately. It is the responsibility of the public work contractor to use the proper rates. If there is a question on the proper classification to be used, please call the district office located nearest the project. Any errors in the annual determination will be corrected and posted to the NYSDOL website on the first business day of each month. Contractors are responsible for paying these updated rates as well, retroactive to July 1st.

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates for which a given set of rates is effective. To the extent possible, the Department posts rates in its possession that cover periods of time beyond the July 1st to June 30th time frame covered by a particular annual determination. Rates that extend beyond that instant time period are informational ONLY and may be updated in future annual determinations that actually cover the then appropriate July 1st to June 30th time period.

Withholding of Payments

When a complaint is filed with the Commissioner of Labor alleging the failure of a contractor or subcontractor to pay or provide the prevailing wages or supplements, or when the Commissioner of Labor believes that unpaid wages or supplements may be due, payments on the public work contract shall be withheld from the prime contractor in a sufficient amount to satisfy the alleged unpaid wages and supplements, including interest and civil penalty, pending a final determination.

When the Bureau of Public Work finds that a contractor or subcontractor on a public work project failed to pay or provide the requisite prevailing wages or supplements, the Bureau is authorized by Sections 220-b of the Labor Law to so notify the financial officer of the Department of Jurisdiction (Contracting Agency) that awarded the public work contract. Such officer MUST then withhold or cause to be withheld from any payment due the prime contractor on account of such contract the amount indicated by the Bureau as sufficient to satisfy the unpaid wages and supplements, including interest and any civil penalty that may be assessed by the Commissioner of Labor. The withholding continues until there is a final determination of the underpayment by the Commissioner of Labor or by the court in the event a legal proceeding is instituted for review of the determination of the Commissioner of Labor.

The Department of Jurisdiction (Contracting Agency) shall comply with this order of the Commissioner of Labor or of the court with respect to the release of the funds so withheld.

Summary of Notice Posting Requirements

The current Prevailing Rate Schedule must be posted in a prominent and accessible place on the site of the public work project. The prevailing wage schedule must be encased in, or constructed of, materials capable of withstanding adverse weather conditions and be titled "PREVAILING RATE OF WAGES" in letters no smaller than two (2) inches by two (2) inches.

Every employer providing workers' compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers' Compensation Board in a conspicuous place on the jobsite.

Every employer subject to the NYS Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers, notices furnished by the State Division of Human Rights.

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the NYS Department of Labor.

Apprentices

Employees cannot be paid apprentice rates unless they are individually registered in a program registered with the NYS Commissioner of Labor. The allowable ratio of apprentices to journeyworkers in any craft classification can be no greater than the statewide building trade ratios promulgated by the Department of Labor and included with the Prevailing Rate Schedule. An employee listed on a payroll as an apprentice who is not registered as above or is performing work outside the classification of work for which the apprentice is indentured, must be paid the prevailing journeyworker's wage rate for the classification of work the employee is actually performing.

NYSDOL Labor Law, Article 8, Section 220-3, require that only apprentices individually registered with the NYS Department of Labor may be paid apprenticeship rates on a public work project. No other Federal or State Agency of office registers apprentices in New York State.

Persons wishing to verify the apprentice registration of any person must do so in writing by mail, to the NYSDOL Office of Employability Development / Apprenticeship Training, State Office Bldg. Campus, Bldg. 12, Albany, NY 12240 or by Fax to NYSDOL Apprenticeship Training (518) 457-7154. All requests for verification must include the name and social security number of the person for whom the information is requested.

The only conclusive proof of individual apprentice registration is written verification from the NYSDOL Apprenticeship Training Albany Central office. Neither Federal nor State Apprenticeship Training offices outside of Albany can provide conclusive registration information.

It should be noted that the existence of a registered apprenticeship program is not conclusive proof that any person is registered in that program. Furthermore, the existence or possession of wallet cards, identification cards, or copies of state forms is not conclusive proof of the registration of any person as an apprentice.

Interest and Penalties

In the event that an underpayment of wages and/or supplements is found:

- Interest shall be assessed at the rate then in effect as prescribed by the Superintendent of Banks pursuant to section 14-a of the Banking Law, per annum from the date of underpayment to the date restitution is made.
- A Civil Penalty may also be assessed, not to exceed 25% of the total of wages, supplements, and interest due.

Debarment

Any contractor or subcontractor and/or its successor shall be ineligible to submit a bid on or be awarded any public work contract or subcontract with any state, municipal corporation or public body for a period of five (5) years when:

- Two (2) willful determinations have been rendered against that contractor or subcontractor and/or its successor within any consecutive six (6) year period.
- There is any willful determination that involves the falsification of payroll records or the kickback of wages or supplements.

Criminal Sanctions

Willful violations of the Prevailing Wage Law (Article 8 and Article 9 of the Labor Law) constitute a misdemeanor punishable by fine or imprisonment, or both.

Discrimination

No employee or applicant for employment may be discriminated against on account of age, race, creed, color, national origin, sex, disability or marital status.

No contractor, subcontractor nor any person acting on its behalf, shall by reason of race, creed, color, disability, sex or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates (NYS Labor Law, Article 8, Section 220-e(a)).

No contractor, subcontractor, nor any person acting on its behalf, shall in any manner, discriminate against or intimidate any employee on account of race, creed, color, disability, sex, or national origin (NYS Labor Law, Article 8, Section 220-e(b)).

The Human Rights Law also prohibits discrimination in employment because of age, marital status, or religion.

There may be deducted from the amount payable to the contractor under the contract a penalty of \$50.00 for each calendar day during which such person was discriminated against or intimidated in violation of the provision of the contract (NYS Labor Law, Article 8, Section 220-e(c)).

The contract may be cancelled or terminated by the State or municipality. All monies due or to become due thereunder may be forfeited for a second or any subsequent violation of the terms or conditions of the anti-discrimination sections of the contract (NYS Labor Law, Article 8, Section 220-e(d)).

Every employer subject to the New York State Human Rights Law must conspicuously post at its offices, places of employment, or employment training centers notices furnished by the State Division of Human Rights.

Workers' Compensation

In accordance with Section 142 of the State Finance Law, the contractor shall maintain coverage during the life of the contract for the benefit of such employees as required by the provisions of the New York State Workers' Compensation Law.

A contractor who is awarded a public work contract must provide proof of workers' compensation coverage prior to being allowed to begin work.

The insurance policy must be issued by a company authorized to provide workers' compensation coverage in New York State. Proof of coverage must be on form C-105.2 (Certificate of Workers' Compensation Insurance) and must name this agency as a certificate holder.

If New York State coverage is added to an existing out-of-state policy, it can only be added to a policy from a company authorized to write workers' compensation coverage in this state. The coverage must be listed under item 3A of the information page.

The contractor must maintain proof that subcontractors doing work covered under this contract secured and maintained a workers' compensation policy for all employees working in New York State.

Every employer providing worker's compensation insurance and disability benefits must post notices of such coverage in the format prescribed by the Workers' Compensation Board in a conspicuous place on the jobsite.

Unemployment Insurance

Employers liable for contributions under the Unemployment Insurance Law must conspicuously post on the jobsite notices furnished by the New York State Department of Labor.

Eliot Spitzer, Governor



M. Patricia Smith, Commissioner

NYSDEC

Paul Martorano, Engineer
Dvirka and Bartilucci
Consulting Engineers
330 Crossways Park Drive
Woodbury NY 11797-2015

Schedule Year 2007 through 2008
Date Requested 01/15/2008
PRC# 2008000420

Location New Lebanon, NY
Project ID# D006282
Project Type Excavation, staging, and off-site disposal of PCB contaminated soils and sediments plus site restoration

Notice of Contract Award

New York State Labor Law, Article 8, Section 220.3a requires that certain information regarding the awarding of public work contracts, be furnished to the Commissioner of Labor. One "Notice of Contract Award" (PW 16, which may be photocopied), **MUST** be completed for **EACH** prime contractor on the above referenced project.

Upon notifying the successful bidder(s) of this contract, enter the required information and mail **OR** fax this form to the office shown at the bottom of this notice, **OR** fill out the electronic version via the NYSDOL website.

Contractor Information

All information must be supplied

Federal Employer Identification Number: _____		
Name: _____		
Address: _____ _____		
City: _____	State: _____	Zip: _____
Amount of Contract: \$ _____	Contract Type:	
Approximate Starting Date: ____/____/____	☐ (01) General Construction	
Approximate Completion Date: ____/____/____	☐ (02) Heating/Ventilation	
	☐ (03) Electrical	
	☐ (04) Plumbing	
	☐ (05) Other : _____	

Phone: (518) 457-5589 Fax: (518) 485-1870
W. Averell Harriman State Office Campus, Bldg. 12, Room 130, Albany, NY 12240

**To all State Departments, Agency Heads and Public Benefit Corporations
IMPORTANT NOTICE REGARDING PUBLIC WORK ENFORCEMENT FUND**

Budget Policy & Reporting Manual

B-610

Public Work Enforcement Fund

effective date December 7, 2005

1. Purpose and Scope:

This Item describes the Public Work Enforcement Fund (the Fund, PWEF) and its relevance to State agencies and public benefit corporations engaged in construction or reconstruction contracts, and announces the recently-enacted increase to the percentage of the dollar value of such contracts that must be deposited into the Fund. This item also describes the roles of the following entities with respect to the Fund:

- New York State Department of Labor (DOL),
- The Office of the State of Comptroller (OSC), and
- State agencies and public benefit corporations.

2. Background and Statutory References:

DOL uses the Fund to enforce the State's Labor Law as it relates to contracts for construction or reconstruction as defined in subdivision two of Section 220 of the Labor Law. State agencies and public benefit corporations participating in such contracts are required to make payments to the Fund.

Chapter 511 of the Laws of 1995 (as amended by Chapter 513 of the Laws of 1997, Chapter 655 of the Laws of 1999, Chapter 376 of the Laws of 2003 and Chapter 407 of the Laws of 2005) established the Fund.

3. Procedures and Agency Responsibilities:

The Fund is supported by transfers and deposits based on the value of contracts for construction and reconstruction, as defined in subdivision two of Section 220 of the Labor Law, into which all State agencies and public benefit corporations enter.

Chapter 407 of the Laws of 2005 increased the amount required to be provided to this fund to .10 of one-percent of the total cost of each such contract, to be calculated at the time agencies or public benefit corporations enter into a new contract or if a contract is amended. The provisions of this bill became effective August 2, 2005.

**To all State Departments, Agency Heads and Public Benefit Corporations
IMPORTANT NOTICE REGARDING PUBLIC WORK ENFORCEMENT FUND**

OSC will report to DOL on all construction-related ("D") contracts approved during the month, including contract amendments, and then DOL will bill agencies the appropriate assessment monthly. An agency may then make a determination if any of the billed contracts are exempt and so note on the bill submitted back to DOL. For any instance where an agency is unsure if a contract is or is not exempt, they can call the Bureau of Public Work at the number noted below for a determination. Payment by check or journal voucher is due to DOL within thirty days from the date of the billing. DOL will verify the amounts and forward them to OSC for processing.

For those contracts which are not approved or administered by the Comptroller, monthly reports and payments for deposit into the Public Work Enforcement Fund must be provided to the Administrative Finance Bureau at the DOL within 30 days of the end of each month or on a payment schedule mutually agreed upon with DOL.

Reports should contain the following information:

- Name and billing address of State agency or public benefit corporation;
- State agency or public benefit corporation contact and phone number;
- Name and address of contractor receiving the award;
- Contract number and effective dates;
- Contract amount and PWEF assessment charge (if contract amount has been amended, reflect increase or decrease to original contract and the adjustment in the PWEF charge); and
- Brief description of the work to be performed under each contract.

Checks and Journal Vouchers, payable to the "New York State Department of Labor" should be sent to:

Department of Labor
Administrative Finance Bureau-PWEF Unit
Building 12, Room 464
State Office Campus
Albany, NY 12240

Any questions regarding billing should be directed to NYSDOL's Administrative Finance Bureau-PWEF Unit at (518) 457-3624 and any questions regarding Public Work Contracts should be directed to the Bureau of Public Work at (518) 457-5589.

Introduction to the Prevailing Rate Schedule

Information About Prevailing Rate Schedule

This information is provided to assist you in the interpretation of particular requirements for each classification of worker contained in the attached Schedule of Prevailing Rates.

Classification

It is the duty of the Commissioner of Labor to make the proper classification of workers taking into account whether the work is heavy and highway, building, sewer and water, tunnel work, or residential, and to make a determination of wages and supplements to be paid or provided. It is the responsibility of the public work contractor to use the proper rate. If there is a question on the proper classification to be used, please call the district office located nearest the project. District office locations and phone numbers are listed below.

Prevailing Wage Schedules are issued separately for "General Construction Projects" and "Residential Construction Projects" on a county-by-county basis.

General Construction Rates apply to projects such as: Buildings, Heavy & Highway, and Tunnel and Water & Sewer rates.

Residential Construction Rates generally apply to construction, reconstruction, repair, alteration, or demolition of one family, two family, row housing, or rental type units intended for residential use.

Some rates listed in the Residential Construction Rate Schedule have a very limited applicability listed along with the rate. Rates for occupations or locations not shown on the residential schedule must be obtained from the General Construction Rate Schedule. Please contact the local Bureau of Public Work office before using Residential Rate Schedules, to ensure that the project meets the required criteria.

Paid Holidays

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work. If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

Overtime

At a minimum, all work performed on a public work project in excess of eight hours in any one day or more than five days in any workweek is overtime. However, the specific overtime requirements for each trade or occupation on a public work project may differ. Specific overtime requirements for each trade or occupation are contained in the prevailing rate schedules.

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays.

The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Supplemental Benefits

Particular attention should be given to the supplemental benefit requirements. Although in most cases the payment or provision of supplements is for each hour worked, some classifications require the payment or provision of supplements for each hour paid (including paid holidays on which no work is performed) and/or may require supplements to be paid or provided at a premium rate for premium hours worked.

Effective Dates

When you review the schedule for a particular occupation, your attention should be directed to the dates above the column of rates. These are the dates for which a given set of rates is effective. The rate listed is valid until the next effective rate change or until the new annual determination which takes effect on July 1 of each year. All contractors and subcontractors are required to pay the current prevailing rates of wages and supplements. If you have any questions please contact the Bureau of Public Work or visit the New York State Department of Labor website (www.labor.state.ny.us) for current wage rate information.

Apprentice Training Ratios

The following are the allowable ratios of registered Apprentices to Journey-workers.

For example, the ratio 1:1,1:3 indicates the allowable initial ratio is one Apprentice to one Journeyworker. The Journeyworker must be in place on the project before an Apprentice is allowed. Then three additional Journeyworkers are needed before a second Apprentice is allowed. The last ratio repeats indefinitely. Therefore, three more Journeyworkers must be present before a third Apprentice can be hired, and so on.

Please call Apprentice Training Central Office at (518) 457-6820 if you have any questions.

Title (Trade)	Ratio
Boilermaker	1:1,1:3
Mason	1:1,1:4
Carpenter	1:1,1:4
Electrical (Outside) Lineman	1:1,1:2
Electrician (Inside)	1:1,1:3

Elevator/Escalator Construction & Modernizer	1:1,1:2
Glazier	1:1,1:3
Insulation & Asbestos Worker	1:1,1:4
Iron Worker	1:1,1:6
Laborer	1:1,1:3
Op Engineer	1:1,1:5
Painter	1:1,1:3
Plumber & Steamfitter	1:1,1:3
Roofer	1:1,1:2
Sheet Metal Worker	1:1,1:3
Sprinkler Fitter	1:1,1:2

If you have any questions concerning the attached schedule or would like additional information, please contact the nearest BUREAU of PUBLIC WORK District Office or write to:

New York State Department of Labor
Bureau of Public Work
State Office Campus, Bldg. 12
Albany, NY 12240

District Office Locations:	Telephone #	FAX #
Bureau of Public Work - Albany	518-457-2744	518-485-0240
Bureau of Public Work - Binghamton	607-721-8005	607-721-8004
Bureau of Public Work - Buffalo	716-847-7159	716-847-7650
Bureau of Public Work - Garden City	516-228-3915	516-794-3518
Bureau of Public Work - Newburgh	845-568-5287	845-568-5332
Bureau of Public Work - New York City	212-775-3568	212-775-3579
Bureau of Public Work - Patchogue	631-687-4883	631-687-4904
Bureau of Public Work - Rochester	585-258-4505	585-258-4708
Bureau of Public Work - Syracuse	315-428-4056	315-428-4671
Bureau of Public Work - Utica	315-793-2314	315-793-2514
Bureau of Public Work - White Plains	914-997-9507	914-997-9523
Bureau of Public Work - Central Office	518-457-5589	518-485-1870

Columbia County General Construction

Asbestos Worker

01/01/2008

JOB DESCRIPTION Asbestos Worker

DISTRICT 1

ENTIRE COUNTIES

Columbia, Delaware, Dutchess, Greene, Orange, Putnam, Rockland, Sullivan, Ulster

WAGES

Per hour

07/01/2007

Asbestos Worker:

Removal & Hazardous

Abatement Only

\$ 28.05

Only for the removal of insulation materials from mechanical systems which are not going to be scrapped.

SUPPLEMENTAL BENEFITS

Per hour paid

Journeyman

\$ 15.65

OVERTIME PAY

See (B, E, *Q, **T, V) on OVERTIME PAGE

HOLIDAY

Paid:

See (1) on HOLIDAY PAGE

Overtime:

See (2, 4, 6, 25) on HOLIDAY PAGE

* Code Q applies to 4,6,& 25.

** Code T applies to 2.

1-201HV

Boilermaker

01/01/2008

JOB DESCRIPTION Boilermaker

DISTRICT 1

ENTIRE COUNTIES

Albany, Broome, Chenango, Columbia, Delaware, Essex, Fulton, Greene, Hamilton, Herkimer, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Tioga, Warren, Washington

WAGES

Per hour

07/01/2007

10/01/2007

10/01/2008

Boilermaker

\$ 27.45

\$ 28.55

\$ 29.65

SUPPLEMENTAL BENEFITS

Per hour worked

Journeymen

\$ 8.96

\$ 8.96

\$ 8.96

Plus

Plus

Plus

36.6%

36.6%

36.6%

of

of

of

Wage

Wage

Wage

OVERTIME PAY

See (B, E, *Q) on OVERTIME PAGE

* DOUBLE TIME AFTER TEN HOURS ON MON.-SAT.

HOLIDAY

Paid:

See (1) on HOLIDAY PAGE

Overtime:

See (5, 6, 10, 11, 15) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

(1/2) year terms at the following percentage of Journeyman's wage.

1st

2nd

3rd

4th

5th

6th

7th

8th

65%

65%

70%

75%

80%

85%

90%

95%

Supplemental Benefits per hour worked & paid

All Apprentices get same benefits as Journeyman.

1-197

Carpenter - Building / Heavy&Highway **01/01/2008**

JOB DESCRIPTION Carpenter - Building / Heavy&Highway

DISTRICT 8

ENTIRE COUNTIES

Columbia

WAGES

WAGES(per hour)

07/01/07

Carpenter	\$ 29.20
Carpenter-Floor Cover	29.20
Dockbuilder/Piledriver	29.20
Diver Tender	27.51
Diver(WET)	53.24
Diver(Dry)	32.61

On projects for removal and/or abatement of asbestos or any toxic or hazardous material and it is required by the employer or mandated by NYS or Federal Regulation to wear protective equipment an additional \$2.00 per hour above their appropriate rate for all classifications including apprentices. For work on smokestacks, silos, or steeples more than fifty (50) feet high, an additional \$2.00 per hour, payable from the ground up.

SUPPLEMENTAL BENEFITS

(per hour paid)

Journeyman \$ 17.46

Apprentices

1st term	8.31
2nd term	12.41
3rd term	16.11
4th term	16.46

OVERTIME PAY

See (B,E,Q) on OVERTIME PAGE

HOLIDAY

BUILDING:

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5,6) on HOLIDAY PAGE

HEAVY/HIGHWAY:

Paid: See (5,6,16) on HOLIDAY PAGE including benefits

Overtime: See (5,6,16) on HOLIDAY PAGE

REGISTERED APPRENTICES

1Year terms at the following rates

1st	2nd	3rd	4th
\$ 14.70	\$ 17.06	\$ 20.73	\$ 23.96

8-19B/H&H-C

Electrician **01/01/2008**

JOB DESCRIPTION Electrician

DISTRICT 1

ENTIRE COUNTIES

Albany, Columbia, Fulton, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

PARTIAL COUNTIES

Greene: All of the city of Catskill and that portion of the county that lies north of Route 23A.

Otsego: Only the Towns of Decatur and Worchester

WAGES

Per hour

07/01/2007

06/01/2008
Additional

06/01/2009
Additional

Electrician	\$ 28.75	\$ 1.51	\$ 1.61
Audio/Sound	28.75	1.51	1.61
Video	28.75	1.51	1.61

Tele-Data	28.75	1.51	1.61
Certified Welder	31.63	1.51	1.61

An additional 5% above rate for work over 30' above floor when working on ooth picks, structural steel, temp. platforms, swing scaffolds & boatswain chairs.

An additional 10% above rate on towers & smoke stacks over 100' high.

An additional 20% above rate in shafts over 25' deep & tunnels over 50' lg under const.

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman	\$ 14.80	\$ 14.80
	+3% of Wage	+3% of Wage

OVERTIME PAY

See (B, *E, Q) on OVERTIME PAGE

* DOUBLE TIME AFTER 10 HOURS ON SATURDAY

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

1000 hour terms at the following percentage of Journeyman's wage.

6mo	1yr
40%	45%

1500 hour terms at the following percentage of Journeyman's wage.

2nd yr	3rd yr	4th yr	5th yr
50%	60%	70%	80%

Supplemental Benefits per hour worked

1st term	\$ 7.95*	\$ 7.95*
2nd term	7.95*	7.95*
All others	14.80*	14.80*

*Note - Plus 3% of wage.

1-236

Elevator Constructor 01/01/2008

JOB DESCRIPTION Elevator Constructor

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Essex, Franklin, Fulton, Hamilton, Herkimer, Montgomery, Oneida, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

PARTIAL COUNTIES

Columbia: Only the Townships of Stuyvesant, Kinderhook, Chatham, Canaan, Stockport, Ghent, Austerlitz, Greenport, Claverack, Hillsdale and New Lebanon.

Greene: Towns of Durham, Greenville, New Baltimore, Cosacki, Ciro, & Athens

WAGES

Per hour

	07/01/2007	01/01/2008
Mechanic	\$ 34.04	\$ 35.46
Helper	23.83	24.82

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman	\$ 14.89	\$ 16.285
	+8 %	+8%
	of wage	of wage
Helper	14.89	16.285

+6 % of wage	+6% of wage

OVERTIME PAY

See (D, O) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 15, 16) on HOLIDAY PAGE

Overtime: See (5, 6, 15, 16) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

1st 6mo	2nd 6mo	2nd yr	3rd yr	4th yr
50 %	55 %	65 %	70 %	80 %

Supplemental Benefits per hour worked

Apprentices	\$ 14.89	\$ 16.285
	+6%	+6%
	of wage	of wage

1-35

Elevator Constructor	01/01/2008

JOB DESCRIPTION Elevator Constructor

DISTRICT 1

ENTIRE COUNTIES

Dutchess, Orange, Putnam, Sullivan, Ulster

PARTIAL COUNTIES

Columbia: Only the Townships of Ancram, Clermont, Copake, Gallatin, Germantown, Livingston and Taghkanic.

Delaware: Towns of Andes, Bovina, Colchester, Davenport, Delhi, Harpersfield, Hemdon, Kortright, Meredith, Middletown, Roxbury, Hancock & Stamford

Greene: The Townships of Ashland, Catskill, Halcott, Hunter, Jewett, Lexington, Rattsville & Windham

Rockland: Only the Township of Stony Point.

Westchester: Only the Townships of Bedford, Lewisboro, Cortland, Mt. Kisco, North Salem, Pound Ridge, Somers and Yorktown.

WAGES

Per Hour	07/01/2007	01/01/2008	01/01/2009 Additional
Mechanic	\$ 43.515	\$ 45.485	\$ 3.00
Helper	30.46	31.84	3.00

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman	\$ 14.89	\$ 16.285
	+ 8 %	+8%
	of wage	of wage
Helper	14.89	16.285
	+ 6 %	+6%
	of wage	of wage

OVERTIME PAY

See (D, O) on OVERTIME PAGE

HOLIDAY

Paid: See (5,6,15,16) on HOLIDAY PAGE

Overtime: See (5,6,15,16) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

1st 6mo	2nd 6mo	2nd yr	3rd yr	4th yr
50 %	55 %	65 %	70 %	80 %

Supplemental Benefits per hour worked

Apprentices	\$ 14.89	\$ 16.285
	+6%	+6%
	of wage	of wage

1-138

Glazier **01/01/2008**

JOB DESCRIPTION Glazier

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

WAGES

Per hour

	07/01/2007	05/01/2008 Additional
Glazier	\$ 22.50	\$ 1.10
High Rate*	24.95	1.10

*When working on Swing Stage or Lift 100 feet or more in height, measured from the ground level up.

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman	\$ 10.98	\$ 10.98
Journeyman		
High Rate	18.38	18.38

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid:

See (1) on HOLIDAY PAGE

Overtime:

See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

One Half Year (900 hr) terms at the following percentage of Journeyman's wage or High Rate as applicable.

1st	2nd	3rd	4th	5th	6th	7th	8th
35%	45%	55%	65%	75%	85%	90%	95%

Supplemental Benefits per hour worked

Apprentice	\$ 10.98	\$ 10.98
Apprentice		
High Rate	18.38	18.38

1-201

Insulator - Heat & Frost **01/01/2008**

JOB DESCRIPTION Insulator - Heat & Frost

DISTRICT 1

ENTIRE COUNTIES

Albany, Columbia, Delaware, Essex, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Sullivan, Ulster, Warren, Washington

WAGES

Per Hour

	07/01/2007	05/01/2008 Additional	05/01/2009 Additional
Asbestos Worker	\$ 25.60	\$ 1.50	\$ 1.50
Insulator	\$ 25.60	1.50	1.50
Firestopping Worker*	\$ 21.76	1.50	1.50

* On Mechanical Systems only.

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman	\$ 15.44	\$ 15.44

OVERTIME PAY

See (*B, **E, ***Q) on OVERTIME PAGE

*B=Double time after 10 hours

**E=Double time after 10 hours

***Q=Triple time on Labor Day if worked.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

one year terms at the following percentage of Journeyman's wage.

1st	2nd	3rd	4th
60 %	70 %	80 %	90 %

Supplemental Benefits per hour worked:

Apprentices	\$ 15.44	\$ 15.44

1-40

Ironworker	01/01/2008

JOB DESCRIPTION Ironworker

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Columbia, Delaware, Essex, Greene, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

PARTIAL COUNTIES

Fulton: Only the Townships of Broadalbin, Mayfield, Northampton, Bleeker and Johnstown.

Hamilton: Only the Townships of Hope, Benson and Wells.

Montgomery: Only the Townships of Florida, Amsterdam, Charleston, Glen, Mohawk and Root.

Otsego: Only the Townships of Unadilla, Butternut, Morris, Otego, Oneonta, Laurens, Millford, Maryland and Worchester.

WAGES

Per hour	07/01/2007	05/01/2008 Additional
Ornmental	\$ 24.95	\$ 1.40
Reinforcing	24.95	1.40
Rodman	24.95	1.40
Sheeter Bucker-up	25.07	1.40
Structural & Precast	24.95	1.40
Mover/Rigger	24.95	1.40
Fence Erector	24.95	1.40
Stone Derrickman	24.95	1.40
Sheeter	25.20	1.40
Curtain Wall Installer	24.95	1.40
Metal Window Installer	24.95	1.40

SUPPLEMENTAL BENEFITS

Per hour worked

JOURNEYMAN	\$ 18.36	\$ 18.36

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

one YEAR TERMS AT THE FOLLOWING WAGE RATES:

1st yr	\$ 15.00
2nd yr	17.00
3rd yr	19.00
4th yr	21.00

Supplemental Benefits per hour worked

1st year	\$ 8.00
2nd year	14.83
3rd year	15.80

4th year

16.77

1-12

Laborer

01/01/2008

JOB DESCRIPTION Laborer

DISTRICT 1

ENTIRE COUNTIES

Dutchess

PARTIAL COUNTIES

Columbia: Only the Townships of Ancram, Claverack, Clermont, Copake, Gallatin, Germantown, Greenport, Hillsdale, Livingston, and Taghkanic.

WAGES

GROUP #1:

General Laborer, Mason tenders, Carpenter Tenders, Labor Stripping and Cleaning Forms, Laborer Grading and Digging Ditches, Sweepers and Cleaners.

GROUP # 2

Skilled Laborer, Hod Carriers, Plasterers helpers, Scaffold Builders (padlock and self-supporting scaffold 14' or under all runways), Mortar Mixers (machine and hand), Concrete Mixers (by machine under 21E), Vibrators, Form Setters, Working Labor Foreman, Jack Hammers and Oper. Signal Men, Gunniting, Shop Stewards, Motor Buggs, Water Pumps(2" or under), Barco Machine, Wreckers, Paving Breaker, Power Saw Operators, Other Laborer Machine Operators.

GROUP # 3:

Blaster, Laser Beam Oper., Asphalt Rakers & Drillers

WAGES per hour

07/01/2007

06/01/2008

Additional

GROUP # 1	\$ 25.75	\$ 1.70
GROUP # 2	26.25	1.70
GROUP # 3	28.10	1.70

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman	\$ 17.15	\$ 17.15

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid:

See (1) on HOLIDAY PAGE

Overtime:

See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

Additional

1000 Hour terms		
1st term	\$ 14.50	\$ 1.00
2nd term	15.50	1.00
3rd term	16.50	1.00
4th term	17.50	1.00

Supplemental Benefits per hour worked

Apprentices	\$ 9.55	\$ 9.55

1-1000

Laborer - Building

01/01/2008

JOB DESCRIPTION Laborer - Building

DISTRICT 8

ENTIRE COUNTIES

Dutchess

PARTIAL COUNTIES

Columbia: Only the Townships of Greenport, Claverack, Philmont, Clermont, Germantown, Livingston, Hillsdale, Gallatin, Copake, Ancram, Taghkanic and the City of Hudson.

WAGES

ALL WORK RELATED WITH TOXIC OR ANY ASBESTOS OR HAZARDOUS MATERIAL

WAGES: (per hour)*

07/01/2007

Protective Gear Not Required \$ 27.00

Protective Gear Required 31.55

SUPPLEMENTAL BENEFITS

(per hour worked)

Journeyman \$ 16.95

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

8-17tox

Laborer - Building

01/01/2008

JOB DESCRIPTION Laborer - Building

DISTRICT 1

ENTIRE COUNTIES

Albany, Rensselaer, Washington

PARTIAL COUNTIES

Columbia: Only the Townships of Stuyvesant, Stockport, Kinderhook, New Lebanon, Canaan, Ghent, Chatham and Austerlitz.

Greene: Entire county except the Township of Catskill.

Saratoga: Only the Townships of Halfmoon, Saratoga, Stillwater, and Waterford.

WAGES

Per hour	07/01/2007	07/01/2008 Additional
Basic	\$ 21.01	\$ 1.50
Blaster, Wagon Drill	21.01	1.50
Formsetter, Laser Oper	21.01	1.50
Well Pointing	21.01	1.50
Asbestos Abatement	22.36	1.50
Toxic Material Handler	22.36	1.50

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman \$ 12.58 \$ 12.58

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

1000 HOUR TERMS AT THE FOLLOWING PERCENTAGE OF JOURNEYMAN'S WAGE.

1ST	2ND	3RD	4TH
65 %	70 %	80 %	80 %

Supplemental Benefits per hour worked

Apprentices \$ 12.58 \$ 12.58

1-190

Laborer - Heavy&Highway

01/01/2008

JOB DESCRIPTION Laborer - Heavy&Highway

DISTRICT 1

ENTIRE COUNTIES

Dutchess

PARTIAL COUNTIES

Columbia: Only the Townships of Ancram, Claverack, Clermont, Copake, Gallatin, Germantown, Greenport, Hillsdale, Livingston, and Taghkanic.

WAGES

GROUP # 1:

Flagperson, Placing & maintenance of all flares, cones, lights, signs, barricades, traffic patterns and all reflective type materials for traffic control, custodial work, traffic directors, temporary heat or light tenders, tool room.

GROUP # 2:

General Laborer, Dumpman, Pitman, All AFL-CIO Trades Tenders. Concrete Man, Signal Man, Pipe Layer, Rip Rap, Dry Stone Layer, Jack Hammer, Powderman, Highscalers, Power Buggy Operator, Steel Rod Carrier, Vibratory Oper., Other Machine Oper., Wrecking, Vibrator Operator-Compactor, Guniting & Sand Blasting, Water Pumps 2" or under, Nipper, Chucker, Asphalt Worker.

GROUP # 3:

Asphalt Raker, Asphalt Screedman, Drillers (all), Laser Beam Operator, Form Setters/Aligners, Blaster.

WAGES per hour

07/01/2007

Group # 1	\$ 22.30
Group # 2	26.06
Group # 3	27.06

All employees who work an irregular work day that starts after 9:00 AM on a governmental mandated schedule shall be paid an additional 15% per hour.

SUPPLEMENTAL BENEFITS

Per hour worked & holidays

Journeyman	\$ 16.55

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 13, 15, 25) on HOLIDAY PAGE

Overtime: See (5, 6, 13, 15, 25) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

1000 hour year terms

1st Term	\$ 14.50
2nd Term	15.50
3rd Term	16.50
4th Term	17.50

Supplemental Benefits per hour worked & Holidays

Apprentices	\$ 9.35

1-1000h

Laborer - Heavy&Highway

01/01/2008

JOB DESCRIPTION Laborer - Heavy&Highway

DISTRICT 1

ENTIRE COUNTIES

Albany, Rensselaer, Washington

PARTIAL COUNTIES

Columbia: Only the Townships of Stuyvesant, Stockport, Kinderhook, New Lebanon, Canaan, Ghent, Chatham and Austerlitz.

Greene: Entire county except the Township of Catskill.

Saratoga: Only the Townships of Halfmoon, Saratoga, Stillwater, and Waterford.

WAGES

GROUP # A:

Basic, Drill Helper, Flagman, Outboard and Hand Boats

GROUP # B:

Bull Float, Chain Saw, Concrete Aggregate Bin, Concrete Bootmen, Gin Buggy, Hand or Machine Vibrator, Jack Hammer, Mason Tender, Mortar Mixer, Pavement Breaker, Handlers of all SteelMash, Small Generators for Laborers' Tools, Installation of Bridge Drainage Pipe, Pipe Layers, Vibrator Type Rollers, Tamper, Drill Doctor, Tail or Screw Operator on Asphalt Paver, Water Pump Operators(1-1/2" and Single Diaphragm), Nozzle (Asphalt, Gunite, Seeding and Sand Blasting), Laborers on Chain Link Fence Erection. Rock Splitter and Power Unit, Pusher Type Concrete Saw and all other Gas, Electric, Oil and Air Tool Operators, Wrecking Laborer.

GROUP # C:

All Rock or Drilling Machine Operators (Except Quarry Master and Similar Type), Acetylene Torch Operators, Asphalt Raker and Powderman.

GROUP # D:

Blasters, Form Setters(sidewalk), Stone or Granite Curb Setters.

WAGES per hour

07/01/2007

Group # A	\$ 22.49
Group # B	22.69
Group # C	22.89
Group # D	23.09

Additional 2.00 per hr. over base rate for work on a State or Federally designated waste site & where relevant State or Federal regulations require employees to use or wear forms of personal protection.

All employees who work an irregular work day that starts from 5:00 pm to 1:00 am on a governmental mandated night shift shall be paid an additional \$1.50 per hour.

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman \$ 12.70

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

1000 hour terms at the following percentage of Journeyman's wage

1st	2nd	3rd	4th
65%	70%	80%	80%

Supplemental Benefits per hour worked

Apprentices \$ 12.70

1-190 h/h

Laborer - Heavy&Highway

01/01/2008

JOB DESCRIPTION Laborer - Heavy&Highway

DISTRICT 8

ENTIRE COUNTIES

Dutchess

PARTIAL COUNTIES

Columbia: Only the Townships of Greenport, Philmont, Germantown, Livingston, Hillsdale, Taghkanic, Gallatin, Copake, Ancram, City of Hudson.

WAGES

ALL WORK RELATED WITH TOXIC OR ANY ASBESTOS OR HAZARDOUS MATERIAL(Five feet or more outside of building foundation line)

WAGES:(per hour)

07/01/2007

Protective Gear Not Required \$ 29.50

Protective Gear Required 33.40

SHIFT DIFFERENTIAL: On all NYS D.O.T. or other Governmental mandated irregular or off shift work, an additional 15% of wage on straight time hours.

SUPPLEMENTAL BENEFITS

(per hour paid)

Journeyman \$ 15.95

OVERTIME PAY

See (B, E, Q, *S) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 13, 15, 26) on HOLIDAY PAGE

Overtime: See (5, 6, 13, 15, 26) on HOLIDAY PAGE

*NOTE: If Saturday Holiday is worked, Code S applies.

REGISTERED APPRENTICES

Wages per hour

1000 hour year terms

1st term \$ 18.01

2nd term 21.28

3rd term 24.56

4th term 27.83

Supplemental Benefits per hour paid:

Apprentice \$ 12.40

8-17tox

Lineman Electrician

01/01/2008

JOB DESCRIPTION Lineman Electrician

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

WAGES

Per hour:

Includes Teledata Work within Ten feet of High Voltage Transmission Lines

	07/01/2007	05/05/2008	05/04/2009
Lineman/Tech./Welder	\$ 40.09	\$ 42.19	\$ 44.30
Cable splicer	40.09	42.19	44.30
Digging Machine Operator	36.08	37.97	39.87
Tractor Trailer Driver	34.08	35.86	37.66
Groundman Truck Driver	32.07	33.75	35.44
Mechanic 1st Class	32.07	33.75	35.44
Flagman	24.05	25.31	26.58

Additional 1.00 per hr.for entire crew when a helicopter is used.

Above rates applicable on all overhead Transmission line work & Fiber Optic Cable where other construction trades are or have been involved. This applies to transmission line work only, not other construction.

Lineman/Technician/Welder \$ 38.87 \$ 40.98 \$ 43.08

Digging Machine Operator	34.98	36.88	38.77
Tractor Trailer Driver	33.04	34.83	36.62
Groundman Truck Driver	31.10	32.78	34.46
Mech. 1st Class	31.10	32.78	34.46
Flagman	23.32	24.59	25.85
Certified WelderPipe Type Cable	40.81	43.03	45.23
Cable Splicer pipe type cable	42.76	45.08	47.39

Additional 1.00 per hour for entire crew when a helicopter job.

Above rates apply on Switching Structures, Maintenance projects, Railroad Catenary install/maint, Third rail installation, Bonding of Rails and pipe type cable and installation of Fiber Optic Cable.

Lineman /Techician	\$ 37.56	\$ 39.67	\$ 41.78
Welder/Cable Splicer	37.56	39.67	41.78
Digging Machine Operator	33.80	35.70	37.60
Tractor Trailer Driver	31.93	33.72	35.51
Groundman Truck Driver	30.05	31.74	33.42
Mechanic 1st Class	30.05	31.74	33.42
Flagman	22.54	23.80	25.07

Additional 1.00 per.hr.for entire crew when a helicopter is used.

Above rates applicable on all overhead and underground distribution and maintenance work, and all overhead and underground transmission line work and the installation of Fiber Optic Cable where no other construction trades are or have been involved.

Lineman/Technician	\$ 37.56	\$ 39.67	\$ 41.78
Cable Splicer pipe type cable	41.32	43.64	45.96
Certified Welder pipe type	39.44	41.65	43.87
Digging Machine Operato	33.80	35.70	37.60
Tractor Trailer Driver	31.93	33.72	35.51
Mechanic 1st Class	30.05	31.74	33.42
Groundman Truck Driver	30.05	31.74	33.42
Flagman	22.54	23.80	25.07

Additional \$ 1.00 per hour for entire crew when a helicopter is used.

Above rates applicable on all electrical sub-stations, switching structures, fiber optic cable and all other work not defined as "Utility outside electrical work"

SUPPLEMENTAL BENEFITS

Per hour worked including holidays listed below:

The following SUPPLEMENTAL benefits apply to all classification categories of CONSTRUCTION, TRANSMISSION and DISTRIBUTION.

\$ 11.75
*plus
7% of hourly wage paid.

OVERTIME PAY

See (B, E, Q,) on OVERTIME PAGE. Double time for all emergency work designated by the Dept. of Jurisdiction.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED BETWEEN THE HOURS LISTED BELOW:

1st shift	8:00 AM to 4:30 PM REGULAR RATE
2nd shift	4:30 PM to 1:00 AM REGULAR RATE PLUS 17.3 %
3rd shift	12:30 AM to 9:00 AM REGULAR RATE PLUS 31.4 %

HOLIDAY

Paid See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Gov. Election Day.
Overtime See (5, 6, 8, 13, 25) on HOLIDAY PAGE plus Gov. Election Day.

SUPPLEMENTS for holidays paid at straight time

REGISTERED APPRENTICES

(1000) hr terms at the following percentage of Journeyman's wage.

1st 2nd 3rd 4th 5th 6th 7th

60% 65% 70% 75% 80% 85% 90%

Supplemental Benefits per hour worked:

The following SUPPLEMENTAL benefits apply to all classification categories of CONSTRUCTION, TRANSMISSION and DISTRIBUTION.

\$ 11.75

*plus

7% of hourly wage paid

*NOTE: The 7% is based on the hourly wage paid, straight time rate or premium rate.

6-1249a

Lineman Electrician - Teledata

01/01/2008

JOB DESCRIPTION Lineman Electrician - Teledata

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

Per hour:

FOR WORK OUTSIDE BUILDING PROPERTY LINES.

07/01/2007

Cable Splicer	\$ 24.85
Installer/Repairman	23.60
Teledata Lineman	23.60
Technician/Equip oper	23.60
Groundman	12.51

NOTE: EXCLUDES Teledata work within ten feet of High Voltage (600 volts and over) transmission lines. For this work please see LINEMAN.

SUPPLEMENTAL BENEFITS

Per hour worked:

4.43

*plus 3% of
hourly wage
paid

*NOTE: The 3% is based on the hourly wage paid, straight time rate or premium rate.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6, 16) on HOLIDAY PAGE

6-1249LT - Teledata

Lineman Electrician - Traffic Signal Lighting

01/01/2008

JOB DESCRIPTION Lineman Electrician - Traffic Signal Lighting

DISTRICT 6

ENTIRE COUNTIES

Columbia, Dutchess, Orange, Putnam, Rockland, Ulster

WAGES

Per hour:

For all Lighting and Traffic Signal Systems.

	07/01/2007	05/05/2008	05/04/2009
Certified welder	\$ 37.54	\$ 39.50	\$ 41.48
Lineman/Technician	35.75	37.62	39.50
Digging Machine	32.18	33.86	35.55
Tractor Trailer driver	30.39	31.98	33.58

Groundman Truck Driver	28.60	30.10	31.60
Mechanic 1st Class	28.60	30.10	31.60
Flagman	21.45	22.57	23.70

Above rates applicable on ALL Lighting and Traffic Signal Systems and the installation, testing, operation, maintenance and repair of all traffic control and illumination projects, traffic monitoring systems, road weather information systems and the installation of Fiber Optic Cable.

SUPPLEMENTAL BENEFITS

Per hour worked including listed holidays:

\$11.75
*plus
6.5% of hourly wage paid

*NOTE: The 6.5% is based on the hourly wage paid, straight time rate or premium rate.

OVERTIME PAY

See (B, E, Q,) on OVERTIME PAGE. Note* Double time for all emergency work designated by the Dept of Jurisdiction.

NOTE: THE FOLLOWING RATES WILL APPLY ON ALL CONTRACTING AGENCY MANDATED SHIFTS OF AT LEAST FIVE (5) DAYS DURATION WORKED BETWEEN THE HOURS LISTED BELOW:

1ST SHIFT	8:00 AM TO 4:30 PM REGULAR RATE
2ND SHIFT	4:30 PM TO 1:00 AM REGULAR RATE PLUS 17.3%
3RD SHIFT	12:30 AM TO 9:00 AM REGULAR RATE PLUS 31.4%

HOLIDAY

HOLIDAY:

Paid See (5, 6, 8, 13, 25) on HOLIDAY PAGE and Gov Election Day.
Overtime See (5, 6, 8, 13, 25) on HOLIDAY PAGE and Gov Election Day.

Supplements paid at STRAIGHT TIME rate for holidays.

The following apprentice rates and the following supplemental benefits apply to all classifications.

REGISTERED APPRENTICES

(1000) hr terms at the following percentage of journeyman wage

1st	2nd	3rd	4th	5th	6th	7th
60%	65%	70%	75%	80%	85%	90%

6-1249aReg8LT

Lineman Electrician - Tree Trimmer

01/01/2008

JOB DESCRIPTION Lineman Electrician - Tree Trimmer

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Rensselaer, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Wyoming, Yates

WAGES

Per hour:

Applies to line clearance, tree work and right-of-way preparation on all new or existing overhead electrical, telephone and CATV lines.

07/01/2007

Tree trimmer	\$ 20.40
Equip Operator	18.00
Mechanic	18.00
Truck Driver	15.21
Ground person	12.49
Flag person	8.89

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 5.35
*plus 3% of
hourly wage paid

Supplements paid at STRAIGHT TIME rate for holidays.

*NOTE: The 3% is based on the hourly wage paid, straight time rate or premium rate.

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 8, 10, 15, 16) on HOLIDAY PAGE
Overtime: See (5, 6, 8, 10, 15, 16) on HOLIDAY PAGE

6-1249TT

Mason - Building 01/01/2008

JOB DESCRIPTION Mason - Building

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

WAGES

Per hour	07/01/2007	06/01/2008 Additional
Marble, Tile, Slate & Terrazzo Setter	\$ 24.35	\$ 1.75
Finisher	20.85	1.00

SUPPLEMENTAL BENEFITS

Per hour worked		
Journeyman Setter	\$ 14.00	\$ 14.00
Journeyman Finisher	11.91	11.91

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

Hour terms at the following percentage of Journeyman's wage

Setter:	
1st term 500 hours	60%
2nd term 1000 hours	80%
3rd term 500 hours	90%

Finisher:	
1st term 500 hours	70%
2nd term 1000 hours	80%
3rd term 500 hours	90%

Supplemental Benefits per hour worked

Setter:		
1st term	\$ 8.20	\$ 8.20
All others	14.00	14.00
Finishers:		
1st term	\$ 7.81	\$ 7.81
All others	11.91	11.91

1-2TS.1

Mason - Building 01/01/2008

JOB DESCRIPTION Mason - Building

DISTRICT 1

ENTIRE COUNTIES

Albany, Columbia, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Washington

PARTIAL COUNTIES

Warren: Only the Townships of Bolton, Lake George, Lake Luzerne, Queensbury, Stony Creek, Thurman & Warrensburg.

WAGES

Per hour

07/01/2007

Bricklayer	\$ 25.49
Cement Mason(Bldg)	25.49
Plasterer/Fireproofing*	25.49
Pointer/Caulker/Cleaner	25.49
Stone Mason	25.49

*Fireproofing of Structural only.

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman	\$ 14.59

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

750 hour terms at the following percentage of Journey's wage

1st	2nd	3rd	4th	5th	6th	7th	8th
55%	60%	65%	70%	75%	80%	85%	90%

Supplemental Benefits per hour worked

1st term	\$ 8.44
All others	14.59

1-2b.1

Mason - Heavy&Highway

01/01/2008

JOB DESCRIPTION Mason - Heavy&Highway

DISTRICT 1

ENTIRE COUNTIES

Albany, Cayuga, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Herkimer, Jefferson, Lewis, Madison, Montgomery, Oneida, Oswego, Rensselaer, Saratoga, Schenectady, Schoharie, St. Lawrence, Warren, Washington

PARTIAL COUNTIES

Onondaga: All classifications except Cement Masons.

WAGES

Per hour

07/01/2007

Mason & Bricklayer	\$ 26.43

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman	\$ 13.67

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

750 HR TERMS at the following percent of Journeyman's wage

1st	2nd	3rd	4th	5th	6th	7th	8th
55%	60%	65%	70%	75%	80%	85%	90%

Supplemental Benefits per hour worked

1st term	\$ 8.12
All others	13.67

1-2hh.1

Millwright 01/01/2008

JOB DESCRIPTION Millwright

DISTRICT 1

ENTIRE COUNTIES

Columbia, Greene

WAGES

Per hour:

07/01/2007

Millwright	\$ 29.28
Millwright Welder & Hazardous Waste Work	30.53

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman	\$ 17.17

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

(1)year terms at the following percentage of journeyman's rate.

1st	2nd	3rd	4th
50%	60%	70%	80%

Supplemental Benefits per hours worked:

Apprentices:

1st term	\$ 8.12
2nd term	13.55
3rd term	14.455
4th term	15.36

1-1163 ColGre

Operating Engineer - Building 01/01/2008

JOB DESCRIPTION Operating Engineer - Building

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

PARTIAL COUNTIES

Dutchess: Northern part of Dutchess (to the northern boundary line of City of Poughkeepsie, then due east to Route 115, then north along Route 115 to Bedelt Road, then east along Bedelt Road to VanWagner Road, then north along VanWagner Road to Bower Road, then east along Bower Road to Rte. 44, and along Rt. 44 east to route 343, then along route 343 east to the northern boundary of Town of Dover Plains, and east along the northern boundary of Town of Dover Plains to Connecticut).
Herkimer: East of a North/South line through the Railroad Station at Little Falls.

WAGES

Master Mechanic:

CLASS A1:

Crane, Hydraulic Cranes, Tower Crane, Locomotive Crane, Piledriver, Cableway, Derricks, Whirlies, Dragline, Boom truck over 5 ton.

CLASS A:

Maintenance Engineer, Self-Contained Crawler Drill, Hydraulic Rock drill, shovel, All Excavators including rubber tire & full swing. Backhoe(except tractor mtd. rubber tired), Gradalls, Power road grader, all CMI equipment, Front-end rubber tire loader, Tractor-mounted drill (quarry master), Mucking machine, Concrete central mix plant, Concrete pump, Belcrete system, Automated asphalt concrete plant, Tractor road paver, Boom Trucks 5 ton & under.

CLASS B:

Backhoe(rubber tired backhoe/loader combination), Bulldozer, Push cat, Tractor, Traxcavator, Scraper, LeTourneau grader, Form fine Grader, Road Roller, Blacktop Roller, Blacktop Spreader, Power Brooms, Sweepers, Trenching Machine, Barber Greene loader, Side booms, Hydro hammer, Concrete spreader, Concrete finishing machine, One Drum Hoist, Power Hoisting(single drum), hoist-two drum or more, 3 Drum Eng., power hoisting (2 drum & over) 2 & 3 Drum & Swing Engine, Hod Hoist, A-L Frame Winchs, Core & Well Drillers(one drum), Post Hole Digger, CHB Vibro Tamp or Similar Mach. Batch Pin & Plant Oper., Dinky Locom., Skid Steer loader, Track excav. 5/8 cu yd or under.

CLASS C:

Forklift, High Lift, Lull, Oiler, Fireman and Heavy-duty Greaser, Boilers, Steam Generators, Vibrator, Mortar Mixer, Air Compressor, Dust Collector, Welding Machine, Well Point, Mechanical Heater, Generators, Temporary Light Plants, Concrete Pumps, Electric Submersible Pump 4" and over, Murphy type diesel generator, Conveyor, Elevators, Concrete Mixer and Belcrete power pack (Belcrete system), Seeding & Mulching Machines, Pumps and Pump Truck.

* In the event that equipment listed above is operated by robotic control, the classification covering the operation will be the same as if manually operated.

WAGES per hour

07/01/2007

Master Mechanic	\$ 32.30
Class # A1	31.19
Class # A	30.75
Class # B	29.84
Class # C	27.27

Cranes: over 150 ft add .50 per hr, Cranes: over 200 ft add 1.00 per hr, tower Cranes add .50 per hr over class A1 rate.

Additional \$ 2.50 per hr. for hazardous or toxic waste work.

Additional \$ 2.00 per hr over B rate for Nuclear Leader work.

Additional \$.40 per hr for tunnel or excavation of shaft 40' or more deep.

SUPPLEMENTAL BENEFITS

Per hour paid

Journeyman \$ 16.27

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

1000 hours terms at the following percentage of Journeyman's wage

1st	2nd	3rd	4th
60% of	70% of	80% of	90% of
Class B	Class B	Class B	Class B

Supplemental Benefits per hour paid

All classes \$ 12.47

1-106b

Operating Engineer - Heavy&Highway

01/01/2008

JOB DESCRIPTION Operating Engineer - Heavy&Highway
ENTIRE COUNTIES

DISTRICT 1

Page 31

Per hour paid

Journeyman \$ 16.45

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

1000 hours terms at the following percentage of Journeyman's wage Class B

1st	2nd	3rd	4th
60%	70%	80%	90%

Supplemental Benefits per hour paid

All Terms \$ 12.45

1-106h

Operating Engineer - Marine Construction

01/01/2008

JOB DESCRIPTION Operating Engineer - Marine Construction

DISTRICT 4

ENTIRE COUNTIES

Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

Per Hour:

DIPPER,CLAMSHELL DREDGES & HYDRAULIC DREDGES	07/01/2007- 09/30/2007	10/01/2007- 09/30/2008	10/01/2008

CLASS A

Operator, Leverman, Lead Dredgeman	\$ 31.59	\$ 32.09	\$ 32.89

CLASS B

Spider/Spill Barge Operator, Tug Operator(over1000hp), OperatorII, Fill Placer, Derrick Operator, Engineer, Chief Mate, Electrician, Chief Welder, Maintenance Engineer	\$ 27.49	\$27.94	\$ 28.49

Certified Welder, Boat Operator(licensed)	\$ 25.79	\$ 26.29	\$ 26.84

CLASS C

Drag Barge Operator, Steward, Mate, Assistant Fill Placer, Welder (please add)	\$ 25.04	\$ 25.49	\$ 26.14
	\$ 0.51	\$ 0.06	
Boat Operator	\$ 24.29	\$ 24.79	\$ 25.29

CLASS D

Shoreman, Deckhand, Rodman, Scowman, Cook, Messman, Porter/Janitor Oiler(please add)	\$ 20.34	\$ 20.64	\$ 21.09
	\$ 0.09		

SUPPLEMENTAL BENEFITS

Per Hour:

THE FOLLOWING SUPPLEMENTAL BENEFITS APPLY TO ALL CATEGORIES

	07/01/2007- 09/30/2007	10/01/2007- 09/30/2008	10/01/2008
All Classes A & B	\$ 7.55 plus 7% of straight time wage	\$ 7.80 plus 7% of straight time wage	\$ 8.05 plus 7% of straight time wage
(overtime hours add)	\$ 0.63	\$ 0.63	\$ 0.63
All Class C	\$ 7.35 plus 7% of straight time wage	\$ 7.50 plus 7% of straight time wage	\$ 7.75 plus 7% of straight time wage
(overtime hours add)	\$ 0.48	\$ 0.48	\$ 0.48
All Class D	\$ 6.95 plus 7% of straight time wage	\$ 7.20 plus 7% of straight time wage	\$ 7.45 plus 7% of straight time wage
(overtime hours add)	\$ 0.33	\$ 0.23	\$ 0.23

OVERTIME PAY

See (B, F, R) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6, 8, 15, 26) on HOLIDAY PAGE

4-25a-MarConst

Operating Engineer - Survey Crew

01/01/2008

JOB DESCRIPTION Operating Engineer - Survey Crew

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Wyoming, Yates

PARTIAL COUNTIES

Dutchess: : The Northern portion of the county from the Northern boundary line of the City of Poughkeepsie North.

WAGES

Per hour:

SURVEY CLASSIFICATIONS: Party Chief- One who directs a survey party. Instrumentman- One who runs the instrument and assists the Party Chief. Rodman- One who holds the rods and in general, assists the survey party.

	07/01/2007	06/01/2008
Survey Rates:		
Party Chief	\$ 29.11	\$ 29.82
Instrument/Rodperson	26.43	27.05

Additional 3.00 per hr. for work in a Tunnel.

Additional 2.50 per hr. for EPA or DEC certified toxic or hazardous waste work

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman	\$ 15.45	\$ 16.30

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

(1 yr. or 1000 hrs.) terms at the following wage rates.

	1st	2nd	3rd
7/01/2007	15.86	18.51	21.15

Supplemental Benefits:
Per hour worked:

Apprentices	\$ 15.45	16.30	6-545 D.H.H.

Operating Engineer - Survey Crew - Consulting Engineer 01/01/2008

JOB DESCRIPTION Operating Engineer - Survey Crew - Consulting Engineer

DISTRICT 6

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Wyoming, Yates

PARTIAL COUNTIES

Dutchess: the northern portion of the county from the northern boundry line of the City of Poughkeepsie north.

WAGES

Per hour:

Feasibility and preliminary design surveying, line and grade surveying for inspection or supervision of construction when performed under a consulting

ENGINEER AGREEMENT SURVEY CLASSIFICATIONS: Party Chief- One who directs a survey party. Instrumentman- One who runs the instrument and assists the Party Chief. Rodman- One who holds the rods and in general, assists the survey party.

	07/01/2007	06/01/2008
Survey Rates:		
Party Chief	\$ 29.11	\$ 29.82
Instrument/Rodperson	26.43	27.05

Additional 3.00 per hr. for work in a Tunnel.

Additional 2.50 per hr. for EPA or DEC certified toxic or hazardous waste work

SUPPLEMENTAL BENEFITS

Per hour worked:

\$ 15.45	\$ 16.30

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

6-545 DCE

Operating Engineer - Trenchless Pipe Rehab 01/01/2008

JOB DESCRIPTION Operating Engineer - Trenchless Pipe Rehab

DISTRICT 4

ENTIRE COUNTIES

Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

Per Hour:

07/01/2007

DSET/DSSET Operator	\$ 30.00

Robotic Unit Operator	30.00
DDCC Injection Operator	30.00
Technician/Equipment Operator	25.50
AM Liner/Hydra Seal Installer	25.50
Hobas Pipe, Polyethylene Pipe or Pull and Inflate Liner Inst.	25.50

SUPPLEMENTAL BENEFITS

Per Hour Worked

All Classifications	\$ 11.34

OVERTIME PAY

See (B, H) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6, 8, 9, 15, 25) on HOLIDAY PAGE

REGISTERED APPRENTICES

At One Year Terms
(Per Hour)

First Year	\$ 16.00
Second Year	16.75
Third Year	17.25
Fourth Year	18.00

Supplemental Benefit
(Per Hour Worked)

All Terms	\$ 11.34

4-138TrchPReh

Painter	01/01/2008

JOB DESCRIPTION Painter

DISTRICT 1

ENTIRE COUNTIES

Columbia, Dutchess, Greene, Orange, Sullivan, Ulster

WAGES

Per hour

07/01/2007

Brush/Paper Hanger	\$ 24.59
Dry Wall Finisher	24.59
Lead Abatement	24.59
Sandblaster-Painter	24.59
Spray Rate	25.59

Bridge Painter:

See Bridge Painting rates for the following work.

Structural Steel, Tanks over 100,000 Gal or over 20' High, Towers, Smoke Stacks, Flag Poles, Bridges, Swing Stage, Boatswain Chair over 20', Bridge Sandblaster.

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman	\$ 13.69

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

One Half year terms at the following percentage of Journeyman's wage

1st	2nd	3rd	4th	5th	6th
40%	50%	60%	70%	80%	90%

Supplemental Benefits per hour worked

1st term	\$ 6.19
All others	13.69

1-155

Painter - Heavy&Highway 01/01/2008

JOB DESCRIPTION Painter - Heavy&Highway

DISTRICT 9

ENTIRE COUNTIES

Albany, Bronx, Clinton, Columbia, Dutchess, Essex, Franklin, Fulton, Greene, Hamilton, Kings, Montgomery, New York, Orange, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Sullivan, Ulster, Warren, Washington, Westchester

WAGES

(Per Hour Worked)	07/01/2007	10/01/2007	10/01/2008
STEEL:			
" Bridge Painting	\$ 43.00	\$ 44.00	\$ 45.25
" ** Power Tool/Spray	\$ 49.00	\$ 50.00	\$ 51.25

NB: For Bridge Painting Contracts, ALL WORKERS on and off the bridge (including Flagmen) are to be paid Painter's Rate; the contract must be ONLY for Bridge Painting.

SUPPLEMENTAL BENEFITS

(per hour paid)

Journeyman:	\$ 26.23	\$ 26.47

OVERTIME PAY

See (*A, **F, ***R) on OVERTIME PAGE

Note: When calculating overtime pay for the Power Tool/ Spray classification, add Six dollars to the hourly overtime rate calculated for the " bridge painting" classification.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (*4, **6) on HOLIDAY PAGE

REGISTERED APPRENTICES

(wage per hour Worked):

(1) year terms at the following percentage of Journeyman's wage.

Apprentices:	1st	2nd	3rd
07/01/2007	40%	60%	80%

Supplemental Benefits:

(1)year term at the following dollar amount:

Apprentices:	1st	2nd	3rd
07/01/2007	\$ 21.47	\$ 26.47	\$ 26.47

9-DC-9/806/155-BrSS

Painter - Line Striping 01/01/2008

JOB DESCRIPTION Painter - Line Striping

DISTRICT 9

ENTIRE COUNTIES

Albany, Bronx, Clinton, Columbia, Dutchess, Essex, Franklin, Fulton, Greene, Hamilton, Kings, Montgomery, Nassau, New York, Orange, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Suffolk, Sullivan, Ulster, Warren, Washington, Westchester

WAGES

Per hour:

Painter (Striping-Highway):	07/01/2007	06/01/2008
Striping-Machine Operator*	\$ 24.71	\$ 25.53
Linerman Thermoplastic	\$ 29.79	\$ 30.79

Note: *Includes Traffic Control

SUPPLEMENTAL BENEFITS

Per hour paid:	07/01/2007	06/01/2008
Journeyman:	\$ 8.72 + 7% of wage	\$ 9.97 + 7% of wage

OVERTIME PAY

See (B, E, P, S) on OVERTIME PAGE

HOLIDAY

Paid:	See (5, 20) on HOLIDAY PAGE
Overtime:	See (5, 8, 11, 12, 15, 16, 17, 20, 21, 22) on HOLIDAY PAGE

9-8A/28A-LS

Painter - Metal Polisher

01/01/2008

JOB DESCRIPTION Painter - Metal Polisher

DISTRICT 9

ENTIRE COUNTIES

Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

07/01/2007

Metal Polisher	\$ 23.10*

Note: *All workers shall be paid an additional premium in an amount equal to twenty (20%) percent of their basic straight time rate of pay for all time worked on hanging scaffolds and on standing scaffolds while working more than 34 feet off the ground. Such premium are to be paid on top of their straight time or overtime, whichever is applicable. This also applies to employees erecting scaffolding.

SUPPLEMENTAL BENEFITS

Per Hour:	07/01/2007

Journeyman:	\$ 11.02

OVERTIME PAY

See (B, E, Q, T) on OVERTIME PAGE

HOLIDAY

Paid:	See (5, 6, 11, 15, 16, 25, 26) on HOLIDAY PAGE
Overtime:	See (5, 6, 9, 11, 15, 16, 25, 26) on HOLIDAY PAGE

REGISTERED APPRENTICES

55% of Basic Polisher Rate (*)

9-8A/28A-MP

Plumber

01/01/2008

JOB DESCRIPTION Plumber

DISTRICT 1

ENTIRE COUNTIES

Albany, Columbia, Fulton, Greene, Montgomery, Rensselaer, Schenectady, Schoharie

PARTIAL COUNTIES

Hamilton: Only the Townships of Arietta, Benson, Hope, Indian Lake, Lake Pleasant, Morehouse and Wells.
Saratoga: Only the Townships of Charlton, Clifton Park, Galway, Halfmoon, Milton, Stillwater and Waterford.

WAGES

Per hour:

Plumber:	07/01/2007	05/01/2008	05/01/2009

Pipefitter, Steamfitter	\$ 29.46	\$ 30.31	\$ 31.41

SUPPLEMENTAL BENEFITS

Per hour worked:

Journeyman	\$ 16.23	\$ 17.45	\$ 18.62

OVERTIME PAY

Overtime Pay See (B,E*,Q,) on OVERTIME PAGE.

*Double time after 8 hrs. on Saturday.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

One year terms at the following percentage of Journeyman's wage.

1st	2nd	3rd	4th	5th
40 %	50 %	60 %	70 %	85 %

Supplemental Benefits per hour worked:

Apprentices	\$ 16.23	\$ 17.45	\$ 18.62

1-7-SF

Roofer **01/01/2008**

JOB DESCRIPTION Roofer

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Columbia, Essex, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Warren, Washington

WAGES

Per hour

	07/01/2007	06/01/2008 Additional	06/01/2009 Additional
Roofer/Waterproofer	\$ 22.65	\$ 1.50	\$ 1.50
Pitch & Asbestos	23.65	1.50	1.50

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman	\$ 10.12	\$ 10.12	\$ 10.12

OVERTIME PAY

See (B, E*Note, Q) on OVERTIME PAGE.

* Saturday may be used as a make up day at straight time if employee misses 8 hrs or more during that week due to inclement weather.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE

Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

(1/2) year terms at the following per cent of the Roofer's rate.

1st yr 1st half	50%
1st yr 2nd half	58%
2nd yr 1st half	66%
2nd yr 2nd half	74%
3rd yr 1st half	82%
3rd yr 2nd half	90%

Supplemental Benefits per hour worked

1st yr 1st half	\$ 8.70	\$ 8.70	\$ 8.70
1st yr 2nd half	8.89	8.89	8.89

2nd yr 1st half	9.12	9.12	9.12
2nd yr 2nd half	9.32	9.32	9.32
3rd yr 1st half	9.55	9.55	9.55
3rd yr 2nd half	9.75	9.75	9.75

1-241

Sheetmetal Worker **01/01/2008**

JOB DESCRIPTION Sheetmetal Worker

DISTRICT 1

ENTIRE COUNTIES

Albany, Clinton, Columbia, Essex, Franklin, Fulton, Greene, Hamilton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, Washington

WAGES

Per hour

	07/01/2007	06/01/2008 Additional	06/01/2009 Additional
Sheetmetal Worker	\$ 25.79	\$ 2.10	\$ 2.15

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman	\$ 17.88	\$ 17.88

OVERTIME PAY

See (B,E*,Q,) on OVERTIME PAGE

* Double time after 8 hours on Saturdays.

HOLIDAY

Paid: See (1) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

1st term	\$ 12.40	Same Percentage of new Journeyman rate
2nd term	13.23	
3rd term	14.06	
4th term	14.61	
5th term	15.47	
6th term	16.76	
7th term	18.05	
8th term	19.34	
9th term	20.63	
10th term	21.92	

Supplemental Benefits per hour worked

1st term	\$ 12.29
2nd term	12.50
3rd term	12.70
4th term	12.84
5th term	15.12
6th term	15.46
7th term	15.81
8th term	16.16
9th term	16.49
10th term	16.84

1-83

Sprinkler Fitter **01/01/2008**

JOB DESCRIPTION Sprinkler Fitter

DISTRICT 1

ENTIRE COUNTIES

Albany, Allegany, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Lewis, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Otsego, Rensselaer, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Tioga, Tompkins, Warren, Washington, Wayne, Wyoming, Yates

WAGES

Per hour

07/01/2007

Sprinkler Fitter

\$ 28.40

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman

\$ 15.40

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid:

See (1) on HOLIDAY PAGE

Overtime:

See (5, 6) on HOLIDAY PAGE

REGISTERED APPRENTICES

Wages per hour

One Half Year terms at the following percentage of Journeyman's wage

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
50%	50%	55%	60%	65%	70%	75%	80%	85%	90%

Supplemental Benefits per hour worked

1st & 2nd terms

\$ 6.51

3rd & 4th terms

10.65

All others

15.40

1-669

Teamster - Building

01/01/2008

JOB DESCRIPTION Teamster - Building

DISTRICT 1

ENTIRE COUNTIES

Albany, Columbia, Fulton, Greene, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Washington

PARTIAL COUNTIES

Warren: Only the Townships of Bolton, Warrensburg, Thurman, Stony Creek, Lake George, Lake Luzerne and Queensbury.

WAGES

GROUP # A:

Straight trucks, winch, transit mix on the site, road oilers, dump trucks, pick-ups, panel, water trucks, fuel trucks on the site (including nozzle).

GROUP # B:

Low boy or Low boy trailer, Euclids or similar equipment.

WAGES per hour

07/01/2007

07/01/2008

Group # A

\$ 22.92

\$ 23.57

Group # B

23.22

23.87

SUPPLEMENTAL BENEFITS

Per hour worked

Journeyman

\$ 10.71

\$ 11.56

OVERTIME PAY

See (B, E, E2, Q) on OVERTIME PAGE

HOLIDAY

Paid:

See (1) on HOLIDAY PAGE

Overtime:

See (5, 6) on HOLIDAY PAGE

Teamster - Heavy&Highway

01/01/2008

JOB DESCRIPTION Teamster - Heavy&Highway

DISTRICT 1

ENTIRE COUNTIES

Albany, Columbia, Fulton, Greene, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Washington

PARTIAL COUNTIES

Warren: Only the Townships of Bolton, Warrensburg, Thurman, Stony Creek, Lake George, Lake Luzerne and Queensbury.

WAGES

+GROUP #1:

Warehousemen, Yardmen, Truck Helpers, Pickups, Panel Trucks, Flatboy Material Trucks(straight jobs), Single Axel Dump Trucks, Dumpsters, Material Checkers and Receivers, Greasers, Truck Tiremen, Mechanics Helpers and Parts Chasers.

GROUP #2:

Tandems and Batch Trucks, Mechanics, Dispatcher.

GROUP #3:

Semi-Trailers, Low-boy Trucks, Asphalt Distributor Trucks, and Agitator, Mixer Trucks and dumpcrete type vehicles, Truck Mechanic, Fuel Trucks.

GROUP #4:

Specialized Earth Moving Equipment, Euclid type, or similar off-highway, where not self-loading, Straddle (Ross) Carrier, and self-contained concrete mobile truck.

GROUP #5:

Off-highway Tandem Back-Dump, Twin Engine Equipment and Double-Hitched Equipment where not self-loading.

WAGES per hour 07/01/2007

Group #1	\$ 23.67
Group #	23.72
Group #3	23.77
Group #4	23.92
Group #5	24.07

Hazardous waste projects that require a Level C or greater protection shall be paid an additional \$ 1.50 per hour. All employees who work a single irregular work shift starting between 5pm and 1 am on governmental mandated night shifts shall be paid an additional 1.50 per hour. For work bid on or after April 1, 1995, there shall be a 12 month carryover of the negotiated rate in effect at the time of the bid.

SUPPLEMENTAL BENEFITS

Per hour paid:

\$ 12.25

OVERTIME PAY

See (B, E, Q) on OVERTIME PAGE

HOLIDAY

Paid: See (5, 6) on HOLIDAY PAGE
Overtime: See (5, 6) on HOLIDAY PAGE

1-294h/h

Welder

01/01/2008

JOB DESCRIPTION Welder

DISTRICT 1

ENTIRE COUNTIES

Albany, Allegany, Bronx, Broome, Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Erie, Essex, Franklin, Fulton, Genesee, Greene, Hamilton, Herkimer, Jefferson, Kings, Lewis, Livingston, Madison, Monroe, Montgomery, Nassau, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Otsego, Putnam, Queens, Rensselaer, Richmond, Rockland, Saratoga, Schenectady, Schoharie, Schuyler, Seneca, St. Lawrence, Steuben, Suffolk, Sullivan, Tioga, Tompkins, Ulster, Warren, Washington, Wayne, Westchester, Wyoming, Yates

WAGES

Per hour 07/01/2007

Welder (To be paid the same rate of the mechanic performing the work)

OVERTIME PAY
HOLIDAY

1-As Per Trade

Overtime Codes

Following is an explanation of the code(s) listed in the OVERTIME section of each classification contained in the attached schedule. Additional requirements may also be listed in the HOLIDAY section.

- (A) Time and one half of the hourly rate after 7 hours per day
- (AA) Time and one half of the hourly rate after 7 and one half hours per day
- (B) Time and one half of the hourly rate after 8 hours per day
- (B1) Time and one half of the hourly rate for the 9th & 10th hours week days and the 1st 8 hours on Saturday.
Double the hourly rate for all additional hours
- (B2) Time and one half of the hourly rate after 40 hours per week
- (C) Double the hourly rate after 7 hours per day
- (C1) Double the hourly rate after 7 and one half hours per day
- (D) Double the hourly rate after 8 hours per day
- (D1) Double the hourly rate after 9 hours per day
- (E) Time and one half of the hourly rate on Saturday
- (E1) Time and one half 1st 4 hours on Saturday Double the hourly rate all additional Saturday hours
- (E3) Between November 1st and March 3rd Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather, provided a given employee has worked between 16 and 32 hours that week
- (E2) Saturday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
- (E4) Saturday and Sunday may be used as a make-up day at straight time when a day is lost during that week due to inclement weather
- (F) Time and one half of the hourly rate on Saturday and Sunday
- (G) Time and one half of the hourly rate on Saturday and Holidays
- (H) Time and one half of the hourly rate on Saturday, Sunday, and Holidays
- (I) Time and one half of the hourly rate on Sunday
- (J) Time and one half of the hourly rate on Sunday and Holidays
- (K) Time and one half of the hourly rate on Holidays
- (L) Double the hourly rate on Saturday
- (M) Double the hourly rate on Saturday and Sunday
- (N) Double the hourly rate on Saturday and Holidays
- (O) Double the hourly rate on Saturday, Sunday, and Holidays
- (P) Double the hourly rate on Sunday
- (Q) Double the hourly rate on Sunday and Holidays
- (R) Double the hourly rate on Holidays
- (S) Two and one half times the hourly rate for Holidays, if worked
- (S1) Two and one half times the hourly rate the first 8 hours on Sunday or Holidays One and one half times the hourly rate all additional hours.
- (T) Triple the hourly rate for Holidays, if worked

- (U) Four times the hourly rate for Holidays, if worked
- (V) Including benefits at SAME PREMIUM as shown for overtime
- (W) Time and one half for benefits on all overtime hours.

NOTE:BENEFITS are PER HOUR WORKED,for each hour worked, unless otherwise noted

Holiday Codes

PAID Holidays:

Paid Holidays are days for which an eligible employee receives a regular day's pay, but is not required to perform work. If an employee works on a day listed as a paid holiday, this remuneration is in addition to payment of the required prevailing rate for the work actually performed.

OVERTIME Holiday Pay:

Overtime holiday pay is the premium pay that is required for work performed on specified holidays. It is only required where the employee actually performs work on such holidays. The applicable holidays are listed under HOLIDAYS: OVERTIME. The required rate of pay for these covered holidays can be found in the OVERTIME PAY section listings for each classification.

Following is an explanation of the code(s) listed in the HOLIDAY section of each classification contained in the attached schedule. The Holidays as listed below are to be paid at the wage rates at which the employee is normally classified.

- (1) None
- (2) Labor Day
- (3) Memorial Day and Labor Day
- (4) Memorial Day and July 4th
- (5) Memorial Day, July 4th, and Labor Day
- (6) New Year's, Thanksgiving, and Christmas
- (7) Lincoln's Birthday, Washington's Birthday, and Veterans Day
- (8) Good Friday
- (9) Lincoln's Birthday
- (10) Washington's Birthday
- (11) Columbus Day
- (12) Election Day
- (13) Presidential Election Day
- (14) 1/2 Day on Presidential Election Day
- (15) Veterans Day
- (16) Day after Thanksgiving
- (17) July 4th
- (18) 1/2 Day before Christmas
- (19) 1/2 Day before New Years
- (20) Thanksgiving
- (21) New Year's Day
- (22) Christmas
- (23) Day before Christmas
- (24) Day before New Year's
- (25) Presidents' Day
- (26) Martin Luther King, Jr. Day

DEPARTMENT OF LABOR - BUREAU OF PUBLIC WORK

Under Article 8 of the NYS Labor Law, when two final determinations have been rendered against a contractor, sub-contractor and/or its successor within any consecutive six-year period determining that such contractor, sub-contractor and/or its successor has WILLFULLY failed to pay the prevailing wage and/or supplements, or when one final determination involves falsification of payroll records or the kickback of wages and/or supplements, said contractor, sub-contractor and/or its successor shall be debarred and ineligible to submit a bid on or be awarded any public work contract/sub-contract with the state, any municipal corporation or public body for a period of five years from the date of debarment.

NOTE: The agency issuing the determination and providing the information, is denoted under the heading 'Fiscal Officer'. DOL = NYS Dept. of Labor; NYC = New York City Comptroller's Office; AG = NYS Attorney General's Office; DA = County District Attorney's Office.

A list of those barred from bidding, or being awarded, any public work contract or subcontract with the State, under section 141-b of the Workers' Compensation Law, may be obtained at the following link,
<https://dbr.labor.state.ny.us/EDList/searchPage.do>

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
385 Services LLC	2657 State Highway 28	Portlandville	NY	13834
FEIN: 16-1466399	Barred Until 01/08/2009	Fiscal Officer Notes: DOL Multiple willful violations		
Company Name	Address	City	State	Zip Code
4-A General Construction Corp	131 47th Street	Brooklyn	NY	11232
FEIN: 11-3161355	Barred Until 01/25/2012	Fiscal Officer Notes: AG Plea Agreement with A.G.'s Office and Spiridon Anthoulis, Anastasia Anthoulis aka Stacey Gouzou as individuals		
Company Name	Address	City	State	Zip Code
A & D Contracting Corp	15 Pine Aire Drive	Bay Shore	NY	11706
FEIN: 11-3203983	Barred Until 08/01/2010	Fiscal Officer Notes: DOL Falsification of payroll records. Also Tommaso Allocca as an individual		
Company Name	Address	City	State	Zip Code
A A General Contractors Inc	1765 Mt Read Boulevard	Rochester	NY	14606
FEIN: 16-1319254	Barred Until 10/18/2009	Fiscal Officer Notes: DOL And W J Grinder Roofing as a substantially affiliated employer and Dominic Antonucci as an individual. Multiple willful violations		
Company Name	Address	City	State	Zip Code
A Castricone Concrete Inc	P O Box 203	Athol Springs	NY	14010
FEIN: 16-1582253	Barred Until 03/03/2008	Fiscal Officer Notes: DOL and Crazy Horse Tonawanda Inc		
Company Name	Address	City	State	Zip Code
A&T General Construction Inc	3 Alan B Shepard Place	Yonkers	NY	10705
FEIN: 13-3927478	Barred Until 12/11/2011	Fiscal Officer Notes: DOL and Nick Nitis as an individual - falsification of payroll records		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name ACC Construction Corp	Address 6 East 32nd St - 7th Fl	City New York	State NY	Zip Code 10016
FEIN: 11-2688758	Barred Until 05/25/2011	Fiscal Officer Notes: NYC Falsified records		
Company Name Adam Deckman	Address	City	State	Zip Code
FEIN:	Barred Until	Fiscal Officer Notes: dba Deckman Painting		
Company Name Aegean General Contracting Inc	Address 57-16 157th Street	City Flushing	State NY	Zip Code 11355
FEIN: 11-3451267	Barred Until 03/11/2008	Fiscal Officer Notes: Settlement agreement with A.G.'s Office - falsified payrolls - Also Aegean Marble Co., Aegean Marble Contracting Co., and George Begakis individually		
Company Name Aegean Marble Co.	Address	City	State	Zip Code
FEIN: 11-3451267	Barred Until 03/11/2008	Fiscal Officer Notes: See Aegean General Contracting Inc		
Company Name Aegean Marble Contracting Co.	Address	City	State	Zip Code
FEIN: 11-3451267	Barred Until 03/11/2008	Fiscal Officer Notes: See Aegean General Contracting Inc		
Company Name Albany Pipe Insulators Inc	Address P O Box 332 - Foundry Rd	City Voorheesville	State NY	Zip Code 12186
FEIN: 14-1617890	Barred Until 02/18/2008	Fiscal Officer Notes: DOL		
Company Name Allstate Concrete Cutting, Inc	Address 635 Midland Avenue	City Garfield	State NJ	Zip Code 07026
FEIN: 11-3223101	Barred Until 07/09/2012	Fiscal Officer Notes: DOL And Robert O'Hanlon as an individual. Falsified payroll records		
Company Name American Weathertite Inc	Address P O Box 208	City Clifton	State NJ	Zip Code 07110
FEIN: 65-0465918	Barred Until 03/28/2010	Fiscal Officer Notes: DOL		
Company Name Amodio Russo	Address 14 Brayron Road	City Carmel	State NY	Zip Code 10512
FEIN:	Barred Until 06/01/2010	Fiscal Officer Notes: As in individual and P&T Iron Works. Falsification of payroll records. Settlement Agreement with A.G.'s office		
Company Name Anastasia Anthoulis	Address 131 47th Street	City Brooklyn	State NY	Zip Code 11232
FEIN:	Barred Until 01/25/2012	Fiscal Officer Notes: AG aka Stacey Gouzos - as an individual - See 4-A General Construction Corp		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name Andres Alvarez	Address 372 North Main Street	City Lodi	State NJ	Zip Code 07644
FEIN:	Barred Until 12/24/2009	Fiscal Officer Notes: See Corinthian Construction Co Inc		
Company Name Angelo Zaffuto	Address 162 Atlantic Avenue	City Lynbrook	State NY	Zip Code 11563
FEIN:	Barred Until 09/29/2008	Fiscal Officer Notes: AG As an individual. See Zaffuto Construction Company Inc		
Company Name ANS Welding Corp	Address 111 Dale Street	City West Babylon	State NY	Zip Code 11704
FEIN: 11-1867262	Barred Until 06/09/2009	Fiscal Officer Notes: DOL Debarment period extended after additional willful violations		
Company Name Anthos Contracting Corp	Address 131 47th Street	City Brooklyn	State NY	Zip Code 11232
FEIN: 11-2967327	Barred Until 01/25/2012	Fiscal Officer Notes: AG Plea Agreement with A.G.'s Office		
Company Name Aragona Construction Corp	Address 5755 Newhouse Road	City East Amherst	State NY	Zip Code 14051
FEIN: 16-1552725	Barred Until 10/10/2012	Fiscal Officer Notes: DOL And Rosario Carrubba individually - falsified payroll records		
Company Name Aztec Plumbing & Heating Corp	Address 153 Baywoods Lane	City Bay Shore	State NY	Zip Code 11706
FEIN: 11-6255761	Barred Until 03/19/2012	Fiscal Officer Notes: DA And John Bias as an individual - plea agreement with Suffolk County D.A.		
Company Name B & Z Development Inc	Address 19 West Street	City Spring Valley	State NY	Zip Code 10977
FEIN: 13-3713559	Barred Until 02/22/2010	Fiscal Officer Notes: DOL dba Ben-Zvy Enterprises Inc and Erez Ben-Zvy as an individual.		
Company Name Ballagh General Contracting Inc	Address 250 Kneeland Avenue	City Yonkers	State NY	Zip Code 10705
FEIN: 13-4157828	Barred Until 07/09/2012	Fiscal Officer Notes: DOL And Bernadette and Thomas Gormally, individually. Falsified payroll records		
Company Name Bat-Jac Construction Inc	Address 62 Neulist Avenue	City Port Washington	State NY	Zip Code 11050
FEIN: 11-3391498	Barred Until 07/17/2009	Fiscal Officer Notes: DOL aka Bat-Jac Contracting Inc. a/k/a Bat-Jac Inc. and Kenneth Merz, president and one of its five largest shareholders and Steve Menzer, vice president and one of its five largest shareholders, as individuals. Falsified payrolls.		
Company Name Bat-Jac Contracting Inc	Address	City	State	Zip Code
FEIN: 11-3133524	Barred Until 07/17/2009	Fiscal Officer Notes: See Bat-Jac Construction Inc		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Bat-Jac Inc				
FEIN:	Barred Until	Fiscal Officer Notes:		
	07/17/2009	See Bat-Jac Construction aka Bat-Jac Contracting		
Company Name	Address	City	State	Zip Code
Ben-Zvy Enterprises Inc	19 West Street	Spring Valley	NY	10977
FEIN:	Barred Until	Fiscal Officer Notes:		
13-3713559	02/22/2010	See B & Z Development Inc.		
Company Name	Address	City	State	Zip Code
Bernadette Gormally	250 Kneeland Avenue	Yonkers	NY	10705
FEIN:	Barred Until	Fiscal Officer Notes:		
	07/09/2012	As an individual. See Ballagh General Contracting		
Company Name	Address	City	State	Zip Code
Best of Friends of Schenectady Constr Co	425 Hamilton Street	Schenectady	NY	12305
FEIN:	Barred Until	Fiscal Officer Notes:		
20-2105455	01/24/2011	DOL		
Company Name	Address	City	State	Zip Code
Boguslaw Bozek				
FEIN:	Barred Until	Fiscal Officer Notes:		
	05/14/2008	As an individual - see Goldhand Construction LLC		
Company Name	Address	City	State	Zip Code
C J H Inc				
FEIN:	Barred Until	Fiscal Officer Notes:		
14-1830289	06/10/2010	See N F K Excavating and Construction Inc		
Company Name	Address	City	State	Zip Code
Cappry Contracting Management Corp	1081 Coney Island Avenue	Brooklyn	NY	11230
FEIN:	Barred Until	Fiscal Officer Notes:		
06-1174437	02/09/2011	NYC Falsified payroll records		
Company Name	Address	City	State	Zip Code
Carl Babb				
FEIN:	Barred Until	Fiscal Officer Notes:		
	07/21/2008	As an individual - See Olympic Window Installers Inc		
Company Name	Address	City	State	Zip Code
Catenary Construction Corp	112 Hudson Avenue	Rochester	NY	14605
FEIN:	Barred Until	Fiscal Officer Notes:		
54-2129721	02/14/2011	DOL Subsidiary of Lancet Arch Inc.		
Company Name	Address	City	State	Zip Code
Cavalier Constr Corp c/o Clayman & Rosenbe	305 Madison Avenue	New York	NY	10165
FEIN:	Barred Until	Fiscal Officer Notes:		
	02/19/2008	NYC Falsified records - plea agreement. Also Kingston Trucking & Rigging Corp., Manbru Construction Corp., Port Ewen Trucking Corp. and Super Structure Builders, Inc. as substantially owned-affiliated entities and/or successors of Cavalier.		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name Charles J Pardee	Address 261 Ball Road	City Hastings	State NY	Zip Code 13076
FEIN:	Barred Until 03/16/2009	Fiscal Officer Notes: DOL As an individual. See Dalton Steel Inc.		
Company Name Charles Marangoudakis	Address 25 Woodhill Lane	City Manhasset	State NY	Zip Code 11030
FEIN:	Barred Until 08/16/2010	Fiscal Officer Notes: DOL Individually and Marangos Construction Corp and Tropic Construction Corp. Multiple willful violations		
Company Name Christina J Hoek	Address	City	State	Zip Code
FEIN:	Barred Until 06/10/2010	Fiscal Officer Notes: See N F K Excavating and Construction Inc		
Company Name Christopher Nicholson	Address 91 Newman Place	City Buffalo	State NY	Zip Code 14210
FEIN:	Barred Until 10/19/2011	Fiscal Officer Notes: See Commercial System Construction		
Company Name Columbus General Construction Inc	Address 914 Newkirk Avenue	City Brooklyn	State NY	Zip Code 11230
FEIN: 11-3357344	Barred Until 12/16/2009	Fiscal Officer Notes: AG And Mohammed A Rashid as an individual. Falsified business records. Plea agreement.		
Company Name Commercial Painting Co	Address 4872 West Seneca Turnpike	City Syracuse	State NY	Zip Code 13215
FEIN: 16-1513909	Barred Until 05/01/2008	Fiscal Officer Notes: DOL James Stanton dba Commercial Painting Co - falsified payroll records		
Company Name Commercial Steel Inc	Address 65 Corporate Park Drive	City Central Square	State NY	Zip Code 13036
FEIN: 16-1557064	Barred Until 03/16/2009	Fiscal Officer Notes: DOL As a successor and/or substantially-owned affiliated entity with Dalton Steel Inc dba Pardee Construction - multiple willful violations		
Company Name Commercial System Construction	Address 91 Newman Place	City Buffalo	State NY	Zip Code 14210
FEIN: 90-0066866	Barred Until 10/19/2011	Fiscal Officer Notes: DOL And Christopher Nicholson as an individual - falsification of payroll records		
Company Name Corinthian Construction Co Inc	Address 372 North Main Street	City Lodi	State NJ	Zip Code 07644
FEIN: 13-3750033	Barred Until 12/24/2009	Fiscal Officer Notes: AG And Andres Alvarez as an individual. Plea agreement with A.G.'s Office		
Company Name Crazy Horse Tonawanda Inc	Address P O Box 203	City Athol Springs	State NY	Zip Code 14010
FEIN: 16-1528124	Barred Until 03/03/2008	Fiscal Officer Notes: DOL and A Castricone Concrete Inc		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name D J Floors Inc	Address 9276 Via Cimato Drive	City Clarence Center	State NY	Zip Code 14032
FEIN: 16-1506339	Barred Until 08/29/2012	Fiscal Officer Notes: DOL And Donald Schwendler as an individual - falsified payroll records		
Company Name Dalton Steel Inc	Address 197 U S Route 11	City Central Square	State NY	Zip Code 13036
FEIN: 16-1557064	Barred Until 03/12/2009	Fiscal Officer Notes: DOL dba Pardee Construction and Shirley Pardee as an individual - multiple willful violations. Also Charles J Pardee as an individual.		
Company Name Darby General Contracting Inc	Address 565 Oak Street	City Copiague	State NY	Zip Code 11726
FEIN: 11-3420817	Barred Until 08/04/2008	Fiscal Officer Notes: DOL dba Darby Glass Co - multiple willful violations		
Company Name Darby Glass Co	Address	City	State	Zip Code
FEIN: 11-3081390	Barred Until 08/04/2008	Fiscal Officer Notes: See Darby General Contracting Inc		
Company Name Deckman Painting	Address 154 Pond View Parkway	City Rochester	State NY	Zip Code 14612
FEIN: 75-3173012	Barred Until 04/16/2012	Fiscal Officer Notes: DOL Adam Deckman dba Deckman Painting. Falsification of payroll records		
Company Name Dellapenna Associates Inc	Address 86 Olive Street	City Johnson City	State NY	Zip Code 13790
FEIN: 16-1465989	Barred Until 02/18/2008	Fiscal Officer Notes: DOL Substantially owned-affiliated entity and/or successor of Dellapenna Brothers Inc - debarment period extended after additional violations		
Company Name Dellapenna Brothers Inc	Address 86 Olive Street	City Johnson City	State NY	Zip Code 13790
FEIN: 16-0964223	Barred Until 08/04/2008	Fiscal Officer Notes: DOL multiple willfuls - debarment period extended after additional violations		
Company Name Dennis Lounsbury Builders Inc	Address P O Box 220	City Bulville	State NY	Zip Code 10915
FEIN: 14-1538702	Barred Until 05/27/2009	Fiscal Officer Notes: DOL aka Lounsbury Erectors Inc.		
Company Name DePoalo and Son Building Contractors Inc	Address 296 Morris Road	City Schenectady	State NY	Zip Code 12303
FEIN: 14-1507523	Barred Until 07/12/2009	Fiscal Officer Notes: DOL Multiple willful violations		
Company Name DG Pipeline Inc	Address 312 Halseyville Road	City Ithaca	State NY	Zip Code 14850
FEIN: 74-2917157	Barred Until 09/06/2011	Fiscal Officer Notes: DOL and Douglas S Griffen, President and one of the five largest shareholders - falsified payrolls		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name Diamond "D" Construction Corp	Address 5270 Transit Road	City Depew	State NY	Zip Code 14043
FEIN: 16-1103218	Barred Until 12/14/2010	Fiscal Officer Notes: DOL and Joseph DiPizio individually and as its president. Falsification of payroll records		
Company Name Diracon Commercial Contractors	Address 310 Maple Avenue	City New Hampton	State NY	Zip Code 10958
FEIN: 08-1681415	Barred Until 05/18/2009	Fiscal Officer Notes: DOL and Rebecca Gatto-Wood as an individual. Falsified payarolls.		
Company Name DJH Mechanical Associates Ltd	Address 155 Kingsbridge Road East	City Mount Vernon	State NY	Zip Code 10552
FEIN: 13-3373364	Barred Until 02/01/2011	Fiscal Officer Notes: DOL False records - plea agreement		
Company Name Dominic Antonucci	Address 1939 Town Line Road	City Hilton	State NY	Zip Code 14468
FEIN:	Barred Until 10/18/2009	Fiscal Officer Notes: DOL As an individual. See A A General Contractors Inc and W J Grinder Roofing Company.		
Company Name Don Adams Roofing Inc	Address 472 Commerce Street	City Hawthorne	State NY	Zip Code 10532
FEIN: 13-3455881	Barred Until 12/07/2010	Fiscal Officer Notes: DOL Plead guilty to a felony		
Company Name Donald Schwendler	Address 9276 Via Cimato Drive	City Clarence Center	State NY	Zip Code 14032
FEIN:	Barred Until 08/29/2012	Fiscal Officer Notes: As an individual. See D J Floors, Inc.		
Company Name Douglas S Griffen	Address 312 Halseyville Road	City Ithaca	State NY	Zip Code 14850
FEIN:	Barred Until 09/06/2011	Fiscal Officer Notes: See DG Pipeline Inc		
Company Name E Green Restoration & Roofing Inc	Address 117 Hawley Street	City Binghamton	State NY	Zip Code 13901
FEIN: 16-1561693	Barred Until 06/21/2009	Fiscal Officer Notes: DOL		
Company Name Eliyhu Benyamin	Address 303 Ten Eyck Street	City Brooklyn	State NY	Zip Code 11206
FEIN:	Barred Until 03/05/2010	Fiscal Officer Notes: As an individual. See W & B Mechanical Corp.		
Company Name Elizabeth A. Carr	Address P O Box 82	City Valatie	State NY	Zip Code 12184
FEIN:	Barred Until 10/14/2008	Fiscal Officer Notes: dba Everlasting Slate - as an individual		
Company Name Emeis & Emeis General Contracting Corp	Address 131 47th Street	City Brooklyn	State NY	Zip Code 11232
FEIN: 13-4103233	Barred Until 01/25/2012	Fiscal Officer Notes: AG Plea Agreement with A.G.'s Office		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name Emes Heating & Plumbing Contr	Address 5 Emes Lane	City Monsey	State NY	Zip Code 10952
FEIN: 13-2590780	Barred Until	Fiscal Officer Notes: DOL and Julius and Gita Behrend, as individuals. Parties entered into a voluntary agreement to be permanently debarred		
Company Name Enjem's Incorporated	Address 111 South Main Street	City Herkimer	State NY	Zip Code 13350
FEIN: 16-1038008	Barred Until 03/04/2009	Fiscal Officer Notes: DOL and Francis Enjem as an individual. Falsification of records.		
Company Name Enviroclean Services LLC	Address 4245 Union Rd- Suite 210	City Buffalo	State NY	Zip Code 14225
FEIN: 26-0045677	Barred Until 09/07/2009	Fiscal Officer Notes: DOL		
Company Name Erez Ben-Zvy	Address 19 West Street	City Spring Valley	State NY	Zip Code 10977
FEIN:	Barred Until 02/22/2010	Fiscal Officer Notes: As an individual. See B & Z Development Inc		
Company Name Euro Craft Restoration, Inc.	Address 41-12 Ditmars Blvd	City Long Island City	State NY	Zip Code 11105
FEIN: 13-3769924	Barred Until 10/14/2008	Fiscal Officer Notes: DOL and Savvas A. Savva (as an individual) Falsification of records and kickback of wages. Plea agreement with A.G.'s Office		
Company Name Everlasting Slate	Address P O Box 82	City Valatie	State NY	Zip Code 12184
FEIN: 22-3397381	Barred Until 10/14/2008	Fiscal Officer Notes: DOL And Elizabeth A. Carr and Sean Campion as individuals. Falsification of records		
Company Name Florence XVI Century Marble Inc	Address 120 Glen Head Road	City Glen Head	State NY	Zip Code 11545
FEIN: 11-3262505	Barred Until 08/03/2010	Fiscal Officer Notes: Falsification of payroll records - plea agreement		
Company Name Flower City Asbestos Inc	Address 850 St Paul Street	City Rochester	State NY	Zip Code 14605
FEIN: 16-1292474	Barred Until 08/18/2009	Fiscal Officer Notes: DOL Multiple willful violations		
Company Name Flower City Insulation Sales & Contractors	Address 137 Yorkton Street	City Webster	State NY	Zip Code 14580
FEIN: 16-1157832	Barred Until 08/03/2009	Fiscal Officer Notes: DOL Multiple willful violations		
Company Name Ford Construction Inc	Address 18-18 26th Street	City Astoria	State NY	Zip Code 11102
FEIN: 11-3167975	Barred Until 07/18/2010	Fiscal Officer Notes: DOL and Mohammed Ali Alvi and Mohammed Ali Alvi T/A Ford Masonry - falsification of Records		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Ford Masonry	18-18 26th Street	Astoria	NY	11102

FEIN:	Barred Until	Fiscal Officer Notes:
	07/18/2010	DOL and Mohammed Ali Alvi individually and Ford Construction Inc. Falsification of payroll records

Company Name	Address	City	State	Zip Code
Foundation Construction Consultants Inc	294 20th Street	Brooklyn	NY	11215

FEIN:	Barred Until	Fiscal Officer Notes:
11-2761496	05/20/2008	NYC Multiple willfuls and falsification of payroll records

Company Name	Address	City	State	Zip Code
Francis Enjem	111 South Main Street	Herkimer	NY	13350

FEIN:	Barred Until	Fiscal Officer Notes:
	03/04/2009	As an individual. See Enjem's Incorporated.

Company Name	Address	City	State	Zip Code
Franco Paints Inc	159 92nd Street	Brooklyn	NY	11209

FEIN:	Barred Until	Fiscal Officer Notes:
	08/07/2008	NYC and Mida Painting Ltd, Nicholas Kallergis and Stamatia Kallergis, as individuals. Assurance of Discontinuance/Settlement Agreement

Company Name	Address	City	State	Zip Code
Frank J Tucek & Son Inc	92 North Route 9W	Congers	NY	10920

FEIN:	Barred Until	Fiscal Officer Notes:
13-3300128	01/29/2012	DOL

Company Name	Address	City	State	Zip Code
Frank Lobene Jr	13 Cheviot Lane	Rochester	NY	14624

FEIN:	Barred Until	Fiscal Officer Notes:
	10/18/2010	As an individual - See Lobene Painting Inc.

Company Name	Address	City	State	Zip Code
G A Falcone Construction Inc	253 Commonwealth Avenue	Buffalo	NY	14216

FEIN:	Barred Until	Fiscal Officer Notes:
16-1609832	08/07/2012	DOL multiple willful violations

Company Name	Address	City	State	Zip Code
George Begakis				

FEIN:	Barred Until	Fiscal Officer Notes:
	10/04/2011	As an individual - see Aegean General Contracting Inc - Debarment period has been extended for George Begakis as per A.G.'s Plea Agreement

Company Name	Address	City	State	Zip Code
George Bush	19 Hoffman Drive	Latham	NY	12118

FEIN:	Barred Until	Fiscal Officer Notes:
	01/14/2009	DOL Falsification of payroll records

Company Name	Address	City	State	Zip Code
George J Leva Sr.				

FEIN:	Barred Until	Fiscal Officer Notes:
	02/06/2008	As an individual dba Ontario Flooring Company. Debarment period extended after additional violation

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
George Lucey,Manual Tobio(see note)	150 Kings Street	Brooklyn	NY	11231
FEIN:	Barred Until	Fiscal Officer Notes:		
		NYC Manuel P Tobio and Lake Constr and Development Corp (individually and as a whole) grand larceny, falsified records, debarred permanently		
Company Name	Address	City	State	Zip Code
Gerasimo Andrianis	22-15 47th Street	Astoria	NY	11105
FEIN:	Barred Until	Fiscal Officer Notes:		
		AG As an individual. See Rainbow Renovations Inc		
Company Name	Address	City	State	Zip Code
Goldhand Construction LLC	116 East Saddle River Rd	Saddle River	NJ	07458
FEIN:	Barred Until	Fiscal Officer Notes:		
		DOL Falsified payroll records		
Company Name	Address	City	State	Zip Code
Gregory Kloepper	248 Lein Road	West Seneca	NY	14224
FEIN:	Barred Until	Fiscal Officer Notes:		
		DOL As an individual. See Kloepper's Floor Covering		
Company Name	Address	City	State	Zip Code
Haleem Zihenni	3 Alan B Shepard Place	Yonkers	NY	10705
FEIN:	Barred Until	Fiscal Officer Notes:		
		DOL As an individual see Omni Contracting Company Inc		
Company Name	Address	City	State	Zip Code
Hamax Construction Corporation	540 Commerce St - Ste 6	Thornwood	NY	10594
FEIN:	Barred Until	Fiscal Officer Notes:		
		DOL Also Thomas Hanlon and William Valentine as individuals. Multiple willfuls and falsification of records. Debarment period extended after other willful violations		
Company Name	Address	City	State	Zip Code
Harrison Jarvis	132 W 129th St-Ste 4W	New York	NY	10027
FEIN:	Barred Until	Fiscal Officer Notes:		
		AG As an individual and Two By Four Carpentry and Construction Inc. Plea agreement with A.G.'s Office.		
Company Name	Address	City	State	Zip Code
Howard K Enterprise Inc	219-02 Northern Boulevard	Flushing	NY	11361
FEIN:	Barred Until	Fiscal Officer Notes:		
		AG and Howard Kim a/k/a un Hak Kim as an individual - Plea agreement. Additional addresses: 703 Atlantic Avenue, Rochester, NY 14609 and 121 Hemingway Drive, Rochester, NY 14620		
Company Name	Address	City	State	Zip Code
Howard Kim	75 West Edsall Boulevard	Palisades Park	NJ	
FEIN:	Barred Until	Fiscal Officer Notes:		
		AG a/k/a un Hak Kim, as an individual. See Howard K Enterprise Inc		
Company Name	Address	City	State	Zip Code
IES Environmental Inc	1655 Elmwood Avenue	Cranston	RI	02910
FEIN:	Barred Until	Fiscal Officer Notes:		
		DOL And International Environmental Services Inc and James J Ney Jr as an individual. Falsification of payroll records		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
In-Tech Construction Inc	8346 Brewerton Road	Cicero	NY	13039
FEIN:	Barred Until	Fiscal Officer Notes:		
16-1478898	07/06/2012	DOL And Russell Tupper as an individual. Falsified payroll records		
Company Name	Address	City	State	Zip Code
Integrity Construction & Consulting Servs	7615 Myrtle Avenue	Glendale	NY	11385
FEIN:	Barred Until	Fiscal Officer Notes:		
11-3147728	02/15/2012	NYC Falsification of payroll records		
Company Name	Address	City	State	Zip Code
International Environmental Resources				
FEIN:	Barred Until	Fiscal Officer Notes:		
05-0448266	08/09/2007	See International Environmental Services Inc		
Company Name	Address	City	State	Zip Code
International Environmental Services Inc	2 Stafford Court	Cranston	RI	02920
FEIN:	Barred Until	Fiscal Officer Notes:		
05-0448266	10/05/2009	DOL dba International Environmental Resources - Falsified payrolls - Debarment period extended after additional violation. Also IES Environmental Inc and James J Ney Jr as an individual		
Company Name	Address	City	State	Zip Code
Ismael Cisneros				
FEIN:	Barred Until	Fiscal Officer Notes:		
	04/14/2008	As an individual - See Izi Plumbing & Heating Ltd		
Company Name	Address	City	State	Zip Code
Izi Plumbing & Heating Ltd	291 Metropolitan Avenue	Brooklyn	NY	11211
FEIN:	Barred Until	Fiscal Officer Notes:		
11-3157717	04/14/2008	DOL And Ismael Cisneros as an individual - falsified payrolls		
Company Name	Address	City	State	Zip Code
J B C Contracting Co Inc	346 Prospect Ave - 1st Fl	Brooklyn	NY	11215
FEIN:	Barred Until	Fiscal Officer Notes:		
11-3550663	03/23/2010	AG And/or 509 McDonald Avenue, Brooklyn NY 11218. And Mohammed H Kabir as an individual and J B C Contracting Company. Settlement agreement with A.G.'s Office		
Company Name	Address	City	State	Zip Code
J B C Contracting Company	346 Prospect Ave - 1st Fl	Brooklyn	NY	11215
FEIN:	Barred Until	Fiscal Officer Notes:		
11-3330280	03/23/2010	AG And/or 509 McDonald Avenue, Brooklyn NY 11218. And Mohammed H Kabir as an individual and JBC Contracting Co Inc. Settlement Agreement with A.G.'s Office		
Company Name	Address	City	State	Zip Code
J Barr Construction Corp	119-51 Metropolitan Ave	Jamaica	NY	11415
FEIN:	Barred Until	Fiscal Officer Notes:		
11-3344003	12/14/2009	DOL and Steve J Nictas as an individual. Multiple willful violations		
Company Name	Address	City	State	Zip Code
J C McCashion Construction Inc	84 Fredericks Avenue	Albany	NY	12205
FEIN:	Barred Until	Fiscal Officer Notes:		
14-1767357	04/13/2011	DOL Multiple willful violations		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name J T Painting Corp	Address P O Box 337	City Burlingham	State NY	Zip Code 12722
FEIN: 06-1260246	Barred Until 02/26/2009	Fiscal Officer Notes: DOL Falsification of records		
Company Name James Avallone	Address	City	State	Zip Code
FEIN:	Barred Until 08/07/2008	Fiscal Officer Notes: As an individual - see James Avallone Tile & Marble - debarment period extended		
Company Name James Avallone Tile & Marble	Address 217 Christie Street	City Ridgefield Park	State NJ	Zip Code 07660
FEIN: 07-5336752	Barred Until 08/07/2008	Fiscal Officer Notes: DOL Multiple willful violations - debarment period extended		
Company Name James J Ney Jr	Address 1655 Elmwood Avenue	City Cranston	State RI	Zip Code 02910
FEIN:	Barred Until 10/05/2009	Fiscal Officer Notes: DOL As an individual. See International Environmental Services Inc and IES Environmental Inc		
Company Name Jans General Construction Corp	Address 131 47th Street	City Brooklyn	State NY	Zip Code 11232
FEIN: 13-4201562	Barred Until 01/25/2012	Fiscal Officer Notes: AG Plea Agreement with A.G.'s Office		
Company Name Jason Asbury	Address 22562 Sea Bass Drive	City Boca Raton	State FL	Zip Code 33428
FEIN:	Barred Until 10/10/2012	Fiscal Officer Notes: As an individual - see Seabury Enterprises LLC		
Company Name Jay Meyer	Address 239 Marsh Drive	City DeWitt	State NY	Zip Code 13214
FEIN:	Barred Until 02/20/2012	Fiscal Officer Notes: As an individual - see Sky Communications, Inc		
Company Name John Bias	Address 153 Baywoods Lane	City Bay Shore	State NY	Zip Code 11706
FEIN:	Barred Until 03/19/2012	Fiscal Officer Notes: As an individual. See Aztec Plumbing & Heating Corp		
Company Name John Bradford	Address 6614 Furnace Road	City Ontario	State NY	Zip Code 14519
FEIN:	Barred Until 12/22/2009	Fiscal Officer Notes: As an individual. See Rusmar Environmental Services Corp.		
Company Name Joseph DiPizio	Address 5270 Transit Road	City Depew	State NY	Zip Code 14043
FEIN:	Barred Until 12/14/2010	Fiscal Officer Notes: As an individual. See Diamond "D" Construction Corp		
Company Name Joseph Zaffuto	Address 162 Atlantic Avenue	City Lynbrook	State NY	Zip Code 11563
FEIN:	Barred Until 09/29/2008	Fiscal Officer Notes: AG As an individual. See Zaffuto Construction Company Inc		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
JRC Aris Electric Contractors FEIN: Barred Until 09/13/2009	Fiscal Officer Notes: See JRC Electric Control Service Inc			
Company Name	Address	City	State	Zip Code
JRC Electric Control Service Inc FEIN: Barred Until 11-3199418 09/13/2009	516 East 51st Street NYC Fiscal Officer Notes: a/k/a JRC Aris Electric Contractors - multiple willful violations	Brooklyn	NY	11236
Company Name	Address	City	State	Zip Code
Julius and Gita Behrend FEIN: Barred Until	5 Emes Lane Fiscal Officer Notes: See Emes Heating & Plumbing Contractor, Inc	Monsey	NY	10952
Company Name	Address	City	State	Zip Code
K M Martell Construction Inc FEIN: Barred Until 14-1723810 06/25/2012	57 Cross Road DOL Fiscal Officer Notes: And Kevin Martell as an individual - falsified records	Middletown	NY	10940
Company Name	Address	City	State	Zip Code
K M R Enterprises Inc FEIN: Barred Until 14-1749993 05/03/2010	10 Stuffle Street DOL Fiscal Officer Notes: Multiple willful violations.	Cropseyville	NY	12052
Company Name	Address	City	State	Zip Code
Kefcal Construction Inc FEIN: Barred Until 01/25/2012	131 47th Street AG Fiscal Officer Notes: Plea Agreement with A.G.'s Office	Brooklyn	NY	11232
Company Name	Address	City	State	Zip Code
Kenneth Merz FEIN: Barred Until 07/17/2009	62 Neulist Avenue Fiscal Officer Notes: As an individual. See Bat-Jac Construction	Port Washington	NY	11050
Company Name	Address	City	State	Zip Code
Kenneth W Griffin FEIN: Barred Until 05/01/2011	101 Lill Street Fiscal Officer Notes: As an individual - see Lightning Fast Labor Force Services Inc	Rochester	NY	14621
Company Name	Address	City	State	Zip Code
Kevin Martell FEIN: Barred Until 06/25/2012	Fiscal Officer Notes: As an individual - see K M Martell Construction Inc			
Company Name	Address	City	State	Zip Code
Keystone Construction Corp FEIN: Barred Until 16-1402500 08/20/2008	9945 Fort Hamilton Pkwy DOL Fiscal Officer Notes: And Nicholas Margaritis as an individual	Brooklyn	NY	11209
Company Name	Address	City	State	Zip Code
King Machine FEIN: Barred Until 16-1293494 04/04/2010	11365 Center Road DOL Fiscal Officer Notes: See Robert Metzgar	Sheridan	NY	14135

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name Kingston Trucking & Rigging Corp	Address 99 St Nicholas Avenue	City Brooklyn	State NY	Zip Code 11237
FEIN: 11-3540715	Barred Until 02/19/2008	Fiscal Officer Notes: DOL As a substantially owned-affiliated entity and/or successor of Cavalier Construction Corp. Falsification of records		
Company Name Kloepfer's Floor Covering	Address 248 Lein Road	City West Seneca	State NY	Zip Code 14224
FEIN: 16-1234359	Barred Until 10/06/2009	Fiscal Officer Notes: DOL And Gregory Kloepfer as an individual. Multiple willful violations		
Company Name Kosmar Contracting Corp	Address 131 47th Street	City Brooklyn	State NY	Zip Code 11232
FEIN: 13-4103318	Barred Until 01/25/2012	Fiscal Officer Notes: AG Plea Agreement with A.G.'s Office		
Company Name Kris Clarkson	Address 2484 Caton Road	City Corning	State NY	Zip Code 14830
FEIN:	Barred Until 06/20/2012	Fiscal Officer Notes: As an individual. See R & H Commercial Flooring Inc		
Company Name K-Star Construction Corp	Address 42 48 161st Street	City Flushing	State NY	Zip Code 11358
FEIN: 01-0778648	Barred Until 12/11/2011	Fiscal Officer Notes: DOL Multiple willful violations		
Company Name L & T Plumbing Corp	Address 367 Veterans Memorial Hwy	City Commack	State NY	Zip Code 11725
FEIN: 11-3223496	Barred Until 01/11/2010	Fiscal Officer Notes: DOL And Robert DeMonte as an individual.		
Company Name Labar Enterprises of Rochester Inc	Address 2121 Empire Boulevard	City Webster	State NY	Zip Code 14580
FEIN: 16-1605462	Barred Until 04/18/2010	Fiscal Officer Notes: DOL dba Labar Excavating Inc. Multiple willful violations		
Company Name Labar Excavating Inc	Address	City	State	Zip Code
FEIN:	Barred Until 04/18/2010	Fiscal Officer Notes: See Labar Enterprises of Rochester Inc.		
Company Name Lake Construction and Development Corp	Address	City	State	Zip Code
FEIN: 11-2678816	Barred Until	Fiscal Officer Notes: See George Lucey -debarred permanently		
Company Name Lancet Arch Inc	Address 112 Hudson Avenue	City Rochester	State NY	Zip Code 14605
FEIN: 16-1259628	Barred Until 02/14/2011	Fiscal Officer Notes: DOL Multiple willful violations - and its subsidiary Catenary Construction Corp		
Company Name Liberty Painting Company Inc	Address 183 Lorfield Drive	City Snyder	State NY	Zip Code 14226
FEIN: 16-1480256	Barred Until 12/08/2010	Fiscal Officer Notes: DOL Multiple willful violations		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Lightning Fast Labor Force Services Inc	150 North Chestnut Street	Rochester	NY	14604
FEIN:	Barred Until	Fiscal Officer Notes:		
20-0386651	05/01/2011	DOL And Winston J Goins Sr. and Kenneth W Griffin individually. Falsification of records		
Company Name	Address	City	State	Zip Code
Linda Williams c/o MJAB Construction Inc	183 Washington Avenue	New Rochelle	NY	10801
FEIN:	Barred Until	Fiscal Officer Notes:		
	04/22/2009	DOL As an individual. See MJAB Construction Inc		
Company Name	Address	City	State	Zip Code
Lobene Painting Inc	13 Cheviot Lane	Rochester	NY	14624
FEIN:	Barred Until	Fiscal Officer Notes:		
16-1514981	10/18/2010	DOL And Frank Lobene Jr and Matthew Lobene as individuals - falsification of payroll records		
Company Name	Address	City	State	Zip Code
Look Under the Carpet Services Inc	P O Box 686	Buffalo	NY	14290
FEIN:	Barred Until	Fiscal Officer Notes:		
01-0664654	12/15/2010	A.G Plea Agreement with A.G.'s Office - principal place of business: 1557 Jefferson Avenue, Buffalo, NY 14208		
Company Name	Address	City	State	Zip Code
Lorenzo DeVardo	1850 Steinway Street	Long Island City	NY	11105
FEIN:	Barred Until	Fiscal Officer Notes:		
	01/08/2009	DOL As an individual. See Vardo Construction Corp		
Company Name	Address	City	State	Zip Code
Lounsbury Erectors Inc				
FEIN:	Barred Until	Fiscal Officer Notes:		
	05/27/2009	See Dennis Lounsbury Builders Inc		
Company Name	Address	City	State	Zip Code
LPD Contracting Inc	1205 McBride Avenue	West Patterson	NJ	07424
FEIN:	Barred Until	Fiscal Officer Notes:		
22-3775953	08/27/2012	DOL Falsification of payroll records		
Company Name	Address	City	State	Zip Code
LTS Construction	24 Miller Street	Rochester	NY	
FEIN:	Barred Until	Fiscal Officer Notes:		
16-1463105	06/30/2009	See Thomas L. Smalls		
Company Name	Address	City	State	Zip Code
M & S Pipeline Excavation Company Inc	784 Conklin Road	Binghamton	NY	13903
FEIN:	Barred Until	Fiscal Officer Notes:		
16-0926714	05/06/2009	DOL Multiple willful violations		
Company Name	Address	City	State	Zip Code
M & S Striping Inc	73 Industrial Park Blvd	Elmira	NY	14901
FEIN:	Barred Until	Fiscal Officer Notes:		
13-3759875	09/10/2012	DOL Multiple willful violations		
Company Name	Address	City	State	Zip Code
M K Painting Inc	4157 Seventh Street	Wyandott	MI	48192
FEIN:	Barred Until	Fiscal Officer Notes:		
38-3379688	05/14/2012	DOL Falsified payroll records		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name Manbru Construction Corp	Address 1439 Wood Road	City Bronx	State NY	Zip Code 10462
FEIN:	Barred Until 02/19/2008	Fiscal Officer Notes: DOL Also at 201-203 E 22nd Street, New York 10010. As a substantially owned-affiliated entity and/or successor of Cavalier Construction Corp. Falsification of records.		
Company Name Manns Contracting Corp	Address 131 47th Street	City Brooklyn	State NY	Zip Code 11232
FEIN:	Barred Until 01/25/2012	Fiscal Officer Notes: AG Plea Agreement with A.G.'s Office		
Company Name Manuel P. Tobio	Address	City	State	Zip Code
FEIN:	Barred Until	Fiscal Officer Notes: See George Lucey - debarred permanently		
Company Name Manuel Tobio	Address	City	State	Zip Code
FEIN:	Barred Until	Fiscal Officer Notes: See George Lucey - debarred permanently		
Company Name Marangos Construction Corp	Address 59-45 56th Avenue	City Maspeth	State NY	Zip Code 11378
FEIN: 11-2554543	Barred Until 08/16/2010	Fiscal Officer Notes: DOL And Charles Marangoudakis individually and Tropic Construction Corp. Multiple willful violations.		
Company Name Mary Newsom	Address 1537 Union Street	City Schenectady	State NY	Zip Code 12309
FEIN:	Barred Until 05/24/2009	Fiscal Officer Notes: DOL As an individual. See Pachyderm Enterprises, Inc		
Company Name Mas-Ann Mechanical Inc	Address 35 Regency Oaks Blvd	City Rochester	State NY	Zip Code 14624
FEIN: 16-1357694	Barred Until 01/04/2010	Fiscal Officer Notes: DOL Debarment period extended after additional willful violations		
Company Name Masciarelli Construction Co	Address 784 Conklin Road	City Binghamton	State NY	Zip Code 13903
FEIN: 16-0902053	Barred Until 05/06/2009	Fiscal Officer Notes: DOL Multiple willful violations		
Company Name Matthew Lobene	Address 13 Cheviot Lane	City Rochester	State NY	Zip Code 14624
FEIN:	Barred Until 10/18/2010	Fiscal Officer Notes: As an individual - See Lobene Painting Inc		
Company Name MCS Painting Contractors Inc	Address Lime Kiln Court	City Stony Point	State NY	Zip Code 10980
FEIN:	Barred Until 01/25/2011	Fiscal Officer Notes: DOL False records - also Michael Salerno as its President		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Merit Fence Co Inc	130 Old Route 6	Carmel	NY	10512
FEIN:	Barred Until	Fiscal Officer Notes:		
06-1350241	02/02/2012	DOL Multiple willful violations - debarment period extended after other willful violations		
Company Name	Address	City	State	Zip Code
MGC Restoration Services Inc	64-58 218th Street	Bayside	NY	11364
FEIN:	Barred Until	Fiscal Officer Notes:		
11-3031515	01/01/2010	AG And Michael Capous individually. Plea agreement		
Company Name	Address	City	State	Zip Code
Michael Capous	64-58 218th Street	Bayside	NY	11364
FEIN:	Barred Until	Fiscal Officer Notes:		
	01/01/2010	AG As an individual. See MGC Restoration Services Inc.		
Company Name	Address	City	State	Zip Code
Michael L Krivitza				
FEIN:	Barred Until	Fiscal Officer Notes:		
	05/14/2012	As an individual - see Northeast Technologies		
Company Name	Address	City	State	Zip Code
Michael Salerno	Lime Kiln Court	Stony Point	NY	10980
FEIN:	Barred Until	Fiscal Officer Notes:		
	01/25/2009	DOL Individually as president of MCS Painting Contractors - false records		
Company Name	Address	City	State	Zip Code
Michael Taylor	66 Rybka Road	Stuyvesant Falls	NY	12174
FEIN:	Barred Until	Fiscal Officer Notes:		
	03/02/2012	DOL As an individual - see Supreme Sports Surfaces Inc., R & T Supreme Sports Flooring, LLC, and Northeastern Supreme Floor Co., Inc.		
Company Name	Address	City	State	Zip Code
Mida Painting Ltd	159 92nd Street	Brooklyn	NY	11209
FEIN:	Barred Until	Fiscal Officer Notes:		
	08/07/2008	NYC and Franco Paints, Inc. and Nicholas Kallergis and Stamatia Kallergis, as individuals. Assurance of Discontinuance/Settlement Agreement		
Company Name	Address	City	State	Zip Code
MJAB Construction Inc	183 Washington Avenue	New Rochelle	NY	10801
FEIN:	Barred Until	Fiscal Officer Notes:		
58-2620937	04/22/2009	DOL and Linda Williams as an individual. Falsification of payroll records		
Company Name	Address	City	State	Zip Code
Modern Tech Design & Services Inc	9151 Southwestern Blvd	Angola	NY	14006
FEIN:	Barred Until	Fiscal Officer Notes:		
16-1464435	01/19/2011	DOL Multiple willful violations		
Company Name	Address	City	State	Zip Code
Mohammed A Rashid	914 Newkirk Avenue	Brooklyn	NY	11230
FEIN:	Barred Until	Fiscal Officer Notes:		
	12/16/2009	As an individual. See Columbus General Construction Inc		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name Mohammed Ali Alvi	Address 22-41 26th Street - Apt 2	City Astoria	State NY	Zip Code 11102
FEIN:	Barred Until 07/18/2010	Fiscal Officer Notes: DOL Individually and Mohammed Ali Alvi T/A Ford Masonry and Ford Construction Inc. Falsification of payroll records		
Company Name Mohammed H Kabir	Address 200 East 77th Street	City Brooklyn	State NY	Zip Code 11218
FEIN:	Barred Until 03/23/2010	Fiscal Officer Notes: AG As an individual. See J B C Contracting Co Inc and J B C Contracting Company - Settlement Agreement with A.G.'s Office		
Company Name Muir Contractors Associates Inc	Address 75 Argyle Ave - Suite 2B	City Uniondale	State NY	Zip Code 11553
FEIN:	Barred Until 11-3586616 08/18/2010	Fiscal Officer Notes: DOL Falsification of payroll records		
Company Name Musa Pacuku	Address	City	State	Zip Code
FEIN:	Barred Until 04/14/2008	Fiscal Officer Notes: As an individual - See Victory Roofing & Contracting Co Inc		
Company Name N F K Enterprises	Address	City	State	Zip Code
FEIN:	Barred Until 06/10/2010	Fiscal Officer Notes: See N F K Excavating and Construction Inc		
Company Name N F K Excavating and Construction Inc	Address 22 Black Hawk Road	City Pine Bush	State NY	Zip Code 12566
FEIN:	Barred Until 14-1803310 06/10/2010	Fiscal Officer Notes: DOL and N F K Landscaping Supply Corp and N F K Enterprises Inc and CJH Inc and Roger A Hoek Jr and Christina J Hoek as individuals. Falsification of payroll records		
Company Name N F K Landscaping Supply Corp	Address	City	State	Zip Code
FEIN:	Barred Until 14-1817371 06/10/2010	Fiscal Officer Notes: See N F K Excavating and Construction Inc		
Company Name Neuss Construction Inc	Address 1191 Route 9W - Suite #C6	City Marlboro	State NY	Zip Code 12542
FEIN:	Barred Until 14-1782213 09/06/2011	Fiscal Officer Notes: DOL And Rudolph Neuss as an individual, as chief executive and one of the five largest shareholders of Neuss Construction Inc- falsification of payroll records		
Company Name Nicholas Kallergis	Address 159 92nd Street	City Brooklyn	State NY	Zip Code 11209
FEIN:	Barred Until 08/07/2008	Fiscal Officer Notes: As an individual. See Franco Paints, Inc.and Mida Painting Ltd		
Company Name Nicholas Margaritis	Address	City	State	Zip Code
FEIN:	Barred Until 08/20/2008	Fiscal Officer Notes: See Keystone Construction Corp.		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name Nick Nitis	Address 3 Alan B Shepard Place	City Yonkers	State NY	Zip Code 10705
FEIN:	Barred Until 12/11/2011	Fiscal Officer Notes: DOL As an individual - see A&T Construction		
Company Name Northeast Technologies	Address 105 Pine Street - Apt 2	City East Rochester	State NY	Zip Code 14445
FEIN:	Barred Until 16-1597771 05/14/2012	Fiscal Officer Notes: DOL And Michael L Krivitza as an individual - multiple willful violations		
Company Name Northeastern Supreme Floor Co Inc	Address 66 Benedict Street	City Castleton	State NY	Zip Code 12033
FEIN:	Barred Until 14-1781833 03/02/2012	Fiscal Officer Notes: DOL And Michael Taylor individually, Supreme Sport Surfaces Inc and R & T Supreme Sports Flooring LLC - multiple willful violations and falsification of payroll records		
Company Name Nu-Look Painting & Wallpapering Inc	Address 151-60 7th Avenue	City Whitestone	State NY	Zip Code 11357
FEIN:	Barred Until 11-3389457 08/04/2009	Fiscal Officer Notes: AG and TF Painting Corp. and Tarcisio Ferreira, individually. Plea agreement with the A.G.'s Office.		
Company Name Olympia Mechanical Piping & Heating Inc	Address 3624 12th Avenue	City Brooklyn	State NY	Zip Code 11218
FEIN:	Barred Until 11-3161641 08/18/2010	Fiscal Officer Notes: AG And Steven Tischler and Solomon Werzberger as individuals. Plea Agreement with District Attorney		
Company Name Olympic Window Installers Inc	Address 174 Lincoln Avenue	City Hawthorne	State NJ	Zip Code 07506
FEIN:	Barred Until 22-3034903 07/21/2008	Fiscal Officer Notes: DOL and Carl and Russell Babb as individuals		
Company Name Omni Contracting Company Inc	Address 3 Alan B Shepard Place	City Yonkers	State NY	Zip Code 10705
FEIN:	Barred Until 22-3431803 12/11/2011	Fiscal Officer Notes: DOL And Haleem Zihenni as an individual - falsification of payroll records		
Company Name Ontario Flooring Company	Address 296 Rogers Parkway	City Rochester	State NY	Zip Code 14617
FEIN:	Barred Until 16-1554554 02/06/2008	Fiscal Officer Notes: DOL See George J Leva Sr. Debarment period extended after additional violation		
Company Name Oswego Trucking & Leasing	Address 258 Washington Blvd	City Oswego	State NY	Zip Code 13126
FEIN:	Barred Until 16-1371814 07/21/2008	Fiscal Officer Notes: DOL Falsified records		
Company Name P & H Supply Company Inc	Address 241-A Harrison Avenue	City Harrison	State NY	Zip Code 10528
FEIN:	Barred Until 13-3868727 05/25/2009	Fiscal Officer Notes: DOL Multiple willful violations - debarment period extended after additional willful violations		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
P&T Iron Works	59 Plain Avenue	New Rochelle	NY	10801

FEIN: 13-3895133	Barred Until 06/01/2010	Fiscal Officer Notes: and Amodio Russo individually. Falsification of payroll records. Settlement Agreement with A.G.'s office

Company Name	Address	City	State	Zip Code
Pachyderm Enterprises Inc	1537 Union Street	Schenectady	NY	12309

FEIN: 00-1386527	Barred Until 05/24/2009	Fiscal Officer Notes: DOL And Willie Jones and Mary Newsom as individuals - Multiple willful violations

Company Name	Address	City	State	Zip Code
Paragon Plate Glass Inc	210 Factory Street	Watertown	NY	13601

FEIN: 16-1113039	Barred Until 11/07/2011	Fiscal Officer Notes: DOL And Thomas E Mooney individually as President of Paragon Plate Glass Inc - falsified payrolls

Company Name	Address	City	State	Zip Code
Pardee Construction				

FEIN: 16-1557064	Barred Until 03/12/2009	Fiscal Officer Notes: See Dalton Steel Inc.

Company Name	Address	City	State	Zip Code
Perry Jacobs	736 Sherman Dr-Box 8015	Utica	NY	13505

FEIN: 12/04/2010	Barred Until	Fiscal Officer Notes: As an individual. See Precision Site Work Inc. - debarment period extended

Company Name	Address	City	State	Zip Code
Peter Gouzos	131 47th Street	Brooklyn	NY	11232

FEIN: 01/25/2012	Barred Until	Fiscal Officer Notes: AG As an individual. See SNA Contracting Corp. Plea agreement with A.G.'s Office. Falsified records.

Company Name	Address	City	State	Zip Code
Pettit & Pettit Inc	7 Schuyler Street	Belmont	NY	14813

FEIN: 16-1576164	Barred Until 03/21/2010	Fiscal Officer Notes: DOL Multiple villful violations

Company Name	Address	City	State	Zip Code
Port Ewen Trucking Corp	2013 Flatbush Avenue	Brooklyn	NY	11234

FEIN: 11-3484639	Barred Until 02/19/2008	Fiscal Officer Notes: DOL Also at 99 St. Nicholas Avenue, Brooklyn, NY 11237. As a a substantially owned-affiliated entity and/or successor of Cavalier Construction Corp. Falsification of records

Company Name	Address	City	State	Zip Code
Precision Site Work Inc	736 Sherman Dr - Box 8015	Utica	NY	13505

FEIN: 16-1609167	Barred Until 12/04/2010	Fiscal Officer Notes: DOL And its president, Perry Jacobs, as an individual. Falsification of payroll records - debarment period extended

Company Name	Address	City	State	Zip Code
R & H Commercial Flooring Inc	102 Willow Avenue	Watkins Glen	NY	14891

FEIN: 35-2207438	Barred Until 06/20/2012	Fiscal Officer Notes: DOL And Kris Clarkson as an individual

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
R & T Supreme Sports Flooring LLC	66 Rybka Road	Stuyvesant Falls	NY	12174
FEIN:	Barred Until	Fiscal Officer Notes:		
16-1511596	03/02/2012	DOL And Michael Taylor individually, Supreme Sport Surfaces and Northeastern Supreme Floor Co. Inc - multiple willful violations and falsified payroll records		
Company Name	Address	City	State	Zip Code
R S Construction Company LLC	571 Miles Square Road	Yonkers	NY	10701
FEIN:	Barred Until	Fiscal Officer Notes:		
00-2051629	04/04/2012	DOL And Robert Stevenson, individually. Falsification of payroll records		
Company Name	Address	City	State	Zip Code
Rainbow Renovations Inc	35-44 Crescent Street	Long Island City	NY	11106
FEIN:	Barred Until	Fiscal Officer Notes:		
11-3542626	08/03/2011	AG Additional addresses: 22-15 47th Street, Astoria, NY 11105 and 35-34 31st Street, Long Island City, NY 11106. Gerasimo Andrianis debarred as an individual.		
Company Name	Address	City	State	Zip Code
Rebecca Gatto-Wood				
FEIN:	Barred Until	Fiscal Officer Notes:		
	05/18/2009	As an individual. See Diracon Commercial Contractors.		
Company Name	Address	City	State	Zip Code
Robbye Bissesar	89-51 Springfield Blvd	Queens Village	NY	11427
FEIN:	Barred Until	Fiscal Officer Notes:		
		As an individual. See Star International Inc -permanently debarred		
Company Name	Address	City	State	Zip Code
Robert Amendola	1084 Sunrise Highway	Amityville	NY	11701
FEIN:	Barred Until	Fiscal Officer Notes:		
	03/19/2008	As an individual. See Westwood Fence Corp.		
Company Name	Address	City	State	Zip Code
Robert DeMonte	367 Veterans Memorial Hwy	Commack	NY	11725
FEIN:	Barred Until	Fiscal Officer Notes:		
	01/10/2010	As an individual. See L & T Plumbing Corp.		
Company Name	Address	City	State	Zip Code
Robert O'Hanlon	635 Midland Avenue	Garfield	NJ	07026
FEIN:	Barred Until	Fiscal Officer Notes:		
	07/09/2012	As an individual. See Allstate Concrete Cutting, Inc.		
Company Name	Address	City	State	Zip Code
Robert Stevenson	571 Miles Square Road	Yonkers	NY	10701
FEIN:	Barred Until	Fiscal Officer Notes:		
	04/04/2012	As an individual. See R S Construction Company LLC		
Company Name	Address	City	State	Zip Code
Robert W Metzgar	11365 Center Road	Sheridan	NY	14135
FEIN:	Barred Until	Fiscal Officer Notes:		
	04/04/2010	DOL dba King Machine - Also as an individual.		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Roger A Hoek Jr				
FEIN:	Barred Until	Fiscal Officer Notes:		
	06/10/2010	See N F K Excavating and Construction Inc		
Company Name	Address	City	State	Zip Code
Rosario Carrubba				
FEIN:	Barred Until	Fiscal Officer Notes:		
	10/10/2012	As an individual - see Aragona Construction Corp		
Company Name	Address	City	State	Zip Code
Rudolph Neuss	8 Far Horizons Drive	Newburgh	NY	12550
FEIN:	Barred Until	Fiscal Officer Notes:		
	09/06/2011	DOL As an individual - see Neuss Construction Inc		
Company Name	Address	City	State	Zip Code
Rusmar Environmental Services Corp	703 Atlantic Avenue	Rochester	NY	14609
FEIN:	Barred Until	Fiscal Officer Notes:		
16-1492326	12/22/2009	AG And John Bradford as an individual. Falsified payrolls. Plea agreement.		
Company Name	Address	City	State	Zip Code
Russell Babb				
FEIN:	Barred Until	Fiscal Officer Notes:		
	07/21/2008	As an individual - See Olympic Window Installers Inc		
Company Name	Address	City	State	Zip Code
Russell Tupper	8346 Brewerton Road	Cicero	NY	13039
FEIN:	Barred Until	Fiscal Officer Notes:		
	07/06/2012	As an individual. See In-Tech Construction, Inc.		
Company Name	Address	City	State	Zip Code
Savvas A. Savva				
FEIN:	Barred Until	Fiscal Officer Notes:		
	10/14/2008	See Euro Craft Restoration Inc		
Company Name	Address	City	State	Zip Code
Seabury Enterprises LLC	22562 Sea Bass Drive	Boca Raton	FL	33428
FEIN:	Barred Until	Fiscal Officer Notes:		
06-1456348	10/10/2012	DOL And Jason Asbury as an individual - falsification of payroll records		
Company Name	Address	City	State	Zip Code
Sean Campion	P O Box 82	Valatie	NY	12184
FEIN:	Barred Until	Fiscal Officer Notes:		
	10/14/2008	dba Everlasting Slate - as an individual		
Company Name	Address	City	State	Zip Code
Seyern Trent Environmental Services Inc	16337 Park Row	Houston	TX	77084
FEIN:	Barred Until	Fiscal Officer Notes:		
62-1168252	06/12/2012	NYC		
Company Name	Address	City	State	Zip Code
Shirley J Pardee	197 U S Route 11	Central Square	NY	13036
FEIN:	Barred Until	Fiscal Officer Notes:		
	03/12/2009	As an individual. See Dalton Steel Inc dba Pardee Construction.		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Signal Construction LLC	199 Grider Street	Buffalo	NY	14215
FEIN:	Barred Until	Fiscal Officer Notes:		
16-1610415	11/14/2011	DOL	Multiple willful violations	
Company Name	Address	City	State	Zip Code
Signature Sealcoating & Stripping Service	345 Livingston Avenue	Jamestown	NY	14702
FEIN:	Barred Until	Fiscal Officer Notes:		
20-0108469	04/04/2012	DOL	Multiple willful violations	
Company Name	Address	City	State	Zip Code
Sky Communications Inc	P O Box 278	DeWitt	NY	13214
FEIN:	Barred Until	Fiscal Officer Notes:		
16-1599397	02/20/2012	DOL	Additional address: 6305 Court Street Road, East Syracuse, NY 13057, and Jay Meyer, individually - multiple willful violations	
Company Name	Address	City	State	Zip Code
SN Contracting Corp	131 47th Street	Brooklyn	NY	11232
FEIN:	Barred Until	Fiscal Officer Notes:		
	01/25/2012	AG	Plea Agreement with A.G.'s Office	
Company Name	Address	City	State	Zip Code
SNA Contracting Corp	131 47th Street	Brooklyn	NY	11232
FEIN:	Barred Until	Fiscal Officer Notes:		
11-3502738	01/25/2012	AG	Plea Agreement with A.G.'s Office - additional FEIN # 11-3617489. Also Peter Gouzos as an individual. Falsified records	
Company Name	Address	City	State	Zip Code
Solomon Werzberger	56 Lyncrest Drive	Monsey	NY	10952
FEIN:	Barred Until	Fiscal Officer Notes:		
	08/18/2010		As an individual. See Olympia Mechanical Piping & Heating Incorporated	
Company Name	Address	City	State	Zip Code
Southwestern General Contracting Inc	1586 Gowans Road	Angola	NY	14006
FEIN:	Barred Until	Fiscal Officer Notes:		
16-1569822	10/08/2009	DOL	Falsification of records	
Company Name	Address	City	State	Zip Code
Spiridon Anthoulis	131 47th Street	Brooklyn	NY	11232
FEIN:	Barred Until	Fiscal Officer Notes:		
	01/25/2012	AG	As an individual - See 4-A General Construction Corp	
Company Name	Address	City	State	Zip Code
Stacey Gouzos				
FEIN:	Barred Until	Fiscal Officer Notes:		
	01/25/2012		See Anastasia Anthoulis	
Company Name	Address	City	State	Zip Code
Stamatia Kallergis	159 92nd Street	Brooklyn	NY	11209
FEIN:	Barred Until	Fiscal Officer Notes:		
	08/07/2008		As an individual. See Franco Paints, Inc. and Mida Painting Ltd	

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name Star International Inc	Address 89-51 Springfield Blvd	City Queens Village	State NY	Zip Code 11427
FEIN: 00-1613496	Barred Until DOL	Fiscal Officer Notes: Also Robbye Bissesar. Falsified payroll - permanently debarred		
Company Name State Environmental Services Inc	Address 1801 Stillwell Avenue	City Brooklyn	State NY	Zip Code 11223
FEIN: 11-3164259	Barred Until 02/25/2008	Fiscal Officer Notes: NYC Plea agreement		
Company Name Steve J Nictas c/o J Barr Constr	Address 119-51 Metropolitan Ave	City Jamaica	State NY	Zip Code 11415
FEIN: 12/14/2009	Barred Until DOL	Fiscal Officer Notes: As an individual - See J Barr Construction Corp.		
Company Name Steve Menzer	Address 62 Neulist Avenue	City Port Washington	State NY	Zip Code 11050
FEIN: 07/17/2009	Barred Until DOL	Fiscal Officer Notes: As an individual. See Bat-Jac Construction		
Company Name Steven Tischler	Address 1465 46th Street	City Brooklyn	State NY	Zip Code 11212
FEIN: 08/18/2010	Barred Until DOL	Fiscal Officer Notes: As an individual. See Olympia Mechanical Piping & Heating Incorporated		
Company Name Super Structure Builders Inc	Address 99 St Nicholas Avenue	City Brooklyn	State NY	Zip Code 11237
FEIN: 11-3487355	Barred Until 02/19/2008	Fiscal Officer Notes: DOL Also at 2013 Flatbush Avenue, Brooklyn, NY 11234. As a substantially owned-affiliated entity and/or successor of Cavalier Construction Corp. Falsification of records		
Company Name Superior Jamestown Corporation	Address 55 Jones-Gifford Avenue	City Jamestown	State NY	Zip Code 14701
FEIN: 16-1381131	Barred Until 03/17/2008	Fiscal Officer Notes: NYC Falsified payroll records		
Company Name Supreme Sport Surfaces Inc	Address 66 Benedict Street	City Castleton	State NY	Zip Code 12033
FEIN: 16-1515966	Barred Until 03/02/2012	Fiscal Officer Notes: DOL And Michael Taylor individually, R & T Supreme Sports Flooring LLC, and Northeastern Supreme Floor Co., Inc. -multiple willful violations and falsified payroll records		
Company Name Tao General Contractors Inc	Address 131 47th Street	City Brooklyn	State NY	Zip Code 11232
FEIN: 01/25/2012	Barred Until AG	Fiscal Officer Notes: Plea Agreement with A.G.'s Office		
Company Name Tarcisio Ferreira	Address 151-60 7th Avenue	City Whitestone	State NY	Zip Code 11357
FEIN: 08/04/2009	Barred Until AG	Fiscal Officer Notes: and Nu-Look Painting & Wallpapering Inc and TF Painting Corp. Plea agreement with A.G.'s Office.		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name TF Painting Corp	Address 151-60 7th Avenue	City Whitestone	State NY	Zip Code 11357
FEIN:	Barred Until 08/04/2009	Fiscal Officer Notes: AG and Nu-Look Painting & Wallpapering Inc. and Tarcisio Ferreira, individually. Plea agreement with A.G.'s Office.		
Company Name Thomas E Mooney	Address 164 Winslow Street	City Watertown	State NY	Zip Code 13601
FEIN:	Barred Until 11/07/2011	Fiscal Officer Notes: As an individual. Additional address: 150 Clinton Street, Apt 6, Watertown, NY 13601. See Paragon Plate Glass Inc		
Company Name Thomas Gormally	Address 250 Kneeland Avenue	City Yonkers	State NY	Zip Code 10705
FEIN:	Barred Until 07/09/2012	Fiscal Officer Notes: As an individual. See Ballagh General Contracting		
Company Name Thomas Hanlon	Address	City	State	Zip Code
FEIN:	Barred Until 09/11/2008	Fiscal Officer Notes: As an individual. See Hamax Construction Corp		
Company Name Thomas L Smalls	Address 24 Miller Street	City Rochester	State NY	Zip Code 14605
FEIN:	Barred Until 06/30/2009	Fiscal Officer Notes: DOL dba LTS Construction - also as an individual. Falsified payrolls.		
Company Name Thomas Masonry & Concrete Inc	Address 803 West Avenue, Ste 207	City Rochester	State NY	Zip Code 14611
FEIN: 16-1535306	Barred Until 08/18/2009	Fiscal Officer Notes: DOL Multiple willful violations		
Company Name Thomas Masonry Enterprise Inc	Address 955 Buffalo Road	City Rochester	State NY	Zip Code 14624
FEIN: 73-3103284	Barred Until 08/18/2009	Fiscal Officer Notes: DOL Multiple willful violations		
Company Name Tommaso Allocca	Address 15 Pine Aire Drive	City Bay Shore	State NY	Zip Code 11706
FEIN:	Barred Until 08/01/2010	Fiscal Officer Notes: DOL As an individual. T/A A & D Contracting Corp. Falsification of payroll records		
Company Name Topo-Metrics Inc	Address 432 Park Avenue South	City New York	State NY	Zip Code 10016
FEIN: 11-2465550	Barred Until 04/22/2009	Fiscal Officer Notes: DOL Falsification of payroll records		
Company Name Topor Contracting Inc	Address 153 Fillmore Avenue	City Buffalo	State NY	Zip Code 14210
FEIN: 16-1590680	Barred Until 04/27/2009	Fiscal Officer Notes: DOL Falsified payrolls		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Tower Building Maintenance and Mgmt	347 Kingsland Avenue	Brooklyn	NY	11222
FEIN:	Barred Until	Fiscal Officer Notes:		
11-3042307	11/24/2008	DOL Additional willful violations - debarment period extended		
Company Name	Address	City	State	Zip Code
Tri-State Building Contractors Inc	108 Sparrow Ridge Road	Carmel	NY	10512
FEIN:	Barred Until	Fiscal Officer Notes:		
14-1765905	05/24/2009	DOL Falsified payroll records		
Company Name	Address	City	State	Zip Code
Tropic Construction Corp	59-45 56th Avenue	Maspeth	NY	11378
FEIN:	Barred Until	Fiscal Officer Notes:		
11-2659640	08/16/2010	DOL and Marangos Construction and Charles Marangoudakis individually. Multiple willful violations		
Company Name	Address	City	State	Zip Code
Tropic Roofing Corp	59-45 56th Avenue	Maspeth	NY	11378
FEIN:	Barred Until	Fiscal Officer Notes:		
20-3188430	08/16/2010	DOL Successor to Tropic Construction Corp		
Company Name	Address	City	State	Zip Code
Two By Four Carpentry and Constr Inc	132 W 129th St-Ste 4W	New York	NY	10027
FEIN:	Barred Until	Fiscal Officer Notes:		
	08/12/2009	AG dba of Harrison Jarvis. Plea agreement with A.G.'s Office.		
Company Name	Address	City	State	Zip Code
Uddin USA Corp	663 Degraw Street	Brooklyn	NY	11217
FEIN:	Barred Until	Fiscal Officer Notes:		
11-3265184	05/17/2012	NYC Falsification of payroll records		
Company Name	Address	City	State	Zip Code
un Hak Kim				
FEIN:	Barred Until	Fiscal Officer Notes:		
	04/14/2010	AG As an individual. See Howard K Enterprise Inc and Howard Kim		
Company Name	Address	City	State	Zip Code
Urban-Suburban Recreation Inc	3 Lucon Drive	Deer Park	NY	11729
FEIN:	Barred Until	Fiscal Officer Notes:		
11-2228663	06/20/2012	DOL Multiple willful violations		
Company Name	Address	City	State	Zip Code
Vardo Construction Corporation	1850 Steinway Street	Long Island City	NY	11105
FEIN:	Barred Until	Fiscal Officer Notes:		
11-2694892	01/08/2009	DOL And Lorenzo DeVardo as an individual. Falsified payrolls		
Company Name	Address	City	State	Zip Code
Vasilios Tsimitras				
FEIN:	Barred Until	Fiscal Officer Notes:		
	11/27/2011	See William Tsimitras		
Company Name	Address	City	State	Zip Code
Victory Roofing & Contracting Co Inc	265 Victory Boulevard	Staten Island	NY	10301
FEIN:	Barred Until	Fiscal Officer Notes:		
38-0100331	04/14/2008	DOL and Musa Pacuku as in individual. Falsification of records		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name Viva Victoria Enterprises Ltd	Address 10317 90th Street	City Ozone Park	State NY	Zip Code 11417
FEIN: 11-3355466	Barred Until 06/12/2011	Fiscal Officer Notes: NYC Falsification of records		
Company Name W & B Mechanical Corp	Address 303 Ten Eyck Street	City Brooklyn	State NY	Zip Code 11206
FEIN: 11-1340725	Barred Until 03/05/2010	Fiscal Officer Notes: DOL aka White and Blue Sheet Metal Inc and Eliyhu Benyamin as an individual. Falsification of records.		
Company Name W J Grinder Roofing Company	Address 1765 Mt Read Boulevard	City Rochester	State NY	Zip Code 14606
FEIN: 16-0846854	Barred Until 10/18/2009	Fiscal Officer Notes: DOL As a substantially affiliated employer. See A A General Contractors, Inc. Multiple violations		
Company Name Westwood Fence Corp	Address 1084 Sunrise Highway	City Amityville	State NY	Zip Code 11701
FEIN: 11-3084236	Barred Until 03/19/2008	Fiscal Officer Notes: And Robert Amendola as an individual. Falsified payrolls. Plea agreement entered into with Suffolk County D.A.'s Office.		
Company Name White and Blue Sheet Metal Inc	Address 303 Ten Eyck Street	City Brooklyn	State NY	Zip Code 11206
FEIN: 03/05/2010		Fiscal Officer Notes: See W & B Mechanical Inc.		
Company Name Wiley Development Co Inc	Address 235 Northampton Street	City Buffalo	State NY	Zip Code 14208
FEIN: 16-1363561	Barred Until 08/11/2009	Fiscal Officer Notes: DOL Falsified payroll records		
Company Name William Tsimitras	Address 235 91st Street	City Brooklyn	State NY	Zip Code 11209
FEIN: 11/27/2011	Barred Until 11/27/2011	Fiscal Officer Notes: DA aka Vasilios, individually - Plea agreement with Albany County DA		
Company Name William Valentine	Address	City	State	Zip Code
FEIN: 09/11/2008	Barred Until 09/11/2008	Fiscal Officer Notes: As an individual. See Hamax Construction Corp		
Company Name Willie Jones	Address 1537 Union Street	City Schenectady	State NY	Zip Code 12309
FEIN: 05/24/2009	Barred Until 05/24/2009	Fiscal Officer Notes: DOL As an individual. See Pachyderm Enterprises Inc		
Company Name Winston J Goins Sr	Address 87 Malling Drive	City Rochester	State NY	Zip Code 14621
FEIN: 05/01/2011	Barred Until 05/01/2011	Fiscal Officer Notes: As an individual - see Lightning Fast Labor Force Services Inc		

LIST OF EMPLOYERS INELIGIBLE TO BID ON OR BE AWARDED ANY PUBLIC WORK CONTRACT

Company Name	Address	City	State	Zip Code
Wintech Contracting Inc	1950 E Main St - Ste 205A	Mohegan Lake	NY	10547
FEIN: 13-3139312	Barred Until 07/22/2009	Fiscal Officer Notes: DOL Falsified payroll records		

Company Name	Address	City	State	Zip Code
Yang General Contracting Ltd	131 47th Street	Brooklyn	NY	11232
FEIN:	Barred Until 01/25/2012	Fiscal Officer Notes: AG Plea agreement with A.G.'s Office		

Company Name	Address	City	State	Zip Code
Yin Construction Ltd	131 47th Street	Brooklyn	NY	11232
FEIN: 13-0520288	Barred Until 01/25/2012	Fiscal Officer Notes: AG Plea Agreement with A.G.'s Office		

Company Name	Address	City	State	Zip Code
Zaffuto Construction Company Inc	162 Atlantic Avenue	Lynbrook	NY	11563
FEIN: 11-2139574	Barred Until 09/29/2008	Fiscal Officer Notes: AG And Angelo Zaffuto (President of ZCCI) and Joseph Zaffuto (Key Person to ZCCI), as individuals -Settlement Agreement		

Company Name	Address	City	State	Zip Code
Zarben General Construction Inc	131 47th Street	Brooklyn	NY	11232
FEIN: 13-4201564	Barred Until 01/25/2012	Fiscal Officer Notes: AG Plea Agreement with A.G.'s Office		