Dearcop Farm Soil Consolidation and Cover System

Town of Gates, Monroe County, New York Site No. 828016

March 6, 2024

ADDENDUM No. 2

TO CONTRACT D012980



Prepared by:

New York State Department of Environmental Conservation
Division of Environmental Remediation

and

Ecology and Environment Engineering and Geology, P.C.

Attachment A Questions and Responses

ATTACHMENT A RESPONSES TO QUESTIONS RECIEVED THROUGH FEBRUARY 29, 2024 Dearcop Farm Site No. 828016

Contract No. D012980

Bid Questions and Responses:

(Note: Numbering below continued from Questions and Responses 1-22 included in Addendum #No. 1 dated 2/26/24)

Question 23: On what date is clearing expected to be completed on the project?

Response 23: Tree clearing will be completed no later than March 31, 2024.

Question 24: In regard to the grubbing on site, do the trees and grub need to be ground up prior to being placed under the cover?

Response 24: Modification to Addendum No. 1 Response No. 3 Refer to the revised specification section 31 10 00 "Site Clearing" in Attachment B.

Question 25: Is there a contact from the state agencies for any and all required permits?

Response 25: No. All work permits for construction-related activities will be the responsibility of the Contractor.

Question 26: Will the material from the culvert cleaning need to go underneath the cap?

Response 26: Material removed from the culvert shall be placed within the intermediate grading underneath the cover.

Question 27: Will all excess material inside the boundary lines have to underneath the cap?

Response 27: Excess material must be contained underneath the cover.

Question 28: Will the contractor be responsible for Dearcop Lane if it does not hold up to loaded truck traffic during the duration of the project?

Response 28: The Contractor shall document pre- and post- construction road conditions and restore damaged roads to pre-construction conditions. Refer to revised specification section 01 50 00 "Temporary Facilities, Controls and Decontamination" in Attachment B for additional details.

Question 29: The overall stated goal for the Dearcop Farm Soil project is 30% for MWBEs and 6% for SDVOBs, totaling 36%. Under Section C, paragraph 4 of Addendum No. 1, it states the following: "Subcontracting is limited to 30% percent on this project. (Does not include transportation and disposal)." This does not appear to align with the 36% MWBE/SDVOB goal. Please advise.

Response 29: The allowable limit of subcontracted work (excluding transportation and disposal) shall not exceed forty percent (40%). See updated Section 4 "Supplementary Bidding Information and Requirements" in Attachment B.

Question 30: Can recycled concrete be used in place of the general fill?

Response 30: Recycled concrete material may not be used as fill. Backfill shall consist of common fill or excavated soils that meet satisfactory soil requirements. Refer to specification section 31 23 00 "Excavation and Backfill" for further detail.

Question 31: Is the contractor required to provide a full stormwater pollution prevention plan or would an Erosion and Sediment Control plan be sufficient?

Response 31: A SWPPP is required. The SWPPP shall be prepared and stamped by a NYS-licensed Professional Engineer. Refer to specification section 01 50 00 "Temporary Facilities, Controls, and Decontamination" for further detail.

Question 32: Please confirm that temporary fencing is not required for the entire site and is only required around the contractor staging area.

Response 32: Temporary fencing is required to maintain site security throughout the project area. Refer to specification section 01 57 33 "Security" for further detail and the Fence note on sheet 2 of 7 in the design drawings.

Question 33: What regulatory agencies have input into the review/ acceptance of the contractor SWPPP?

Response 33: The SWPPP will be reviewed by NYSDEC.

Question 34: Please specify which utilities are required for the support trailers? Some items (water service, hardline telephone) specified can be long lead times for utility coordination.

Response 34: Contactor is to bid as specified in specification sections 01 52 11 "Engineer's Field Office" and 01 52 13 "Contractor's Field Office and Sheds".

Question 35: There are specifications regarding transportation and disposal of waste (ex. *All non-hazardous or hazardous excavated soils/waste not graded onsite as per the Contract Drawings will be shipped offsite for disposal at an appropriate facility. The waste should be sampled and segregated in the staging area prior to transport, as needed.) What waste type and volume is <u>not</u> slated for onsite encapsulation?*

Response 35: The only waste type anticipated for off-site disposal is water derived from the cleaning of the culvert. Culvert cleaning water is to be sampled in accordance with specification 01 43 36 "Sampling" and disposed of offsite at a facility permitted to accept such waste and in accordance with all NYSDEC regulations for transportation and solid waste disposal.

Question 36: Is access to both ends of the culvert coordinated with the appropriate property owners?

Response 36: NYSDOT has confirmed access to both ends of the culvert.

Question 37: Please confirm grubbed materials too large to be chipped are to be placed with the waste without processing per the specification.

Response 37: Refer to Response No. 24.

Question 38: The excavation and backfill spec states "Backfill shall consist of common fill or excavated soils that are satisfactory soil." Followed with "Compact each lift of the backfill material until all in-place density results satisfy the minimum requirements for dry density." Do the compaction testing requirements apply to all placed materials defined as "backfill" per the specification?

Response 38: Yes.

Question 39: Under what line item should the grading outside the landfill cap be carried?

Response 39: Grading outside the landfill cover is UP-4: Common Fill and UP-5: Topsoil.

Question 40: 31 10 00 Site Clearing mentions stockpiling topsoil, but no section clearly states that is the intent. Is the intent to strip the topsoil across the existing cap and reuse is?

Response 40: Onsite soils are not to be reused as cover material. Disturbed soils will be placed within intermediate grading.

Question 41: During the pre-bid a DOT permit was mentioned. Can we get a copy of the required permit or a DOT contact?

Response 41: The contractor will need to have acquired a DOT work permit prior to beginning work within the DOT right of way. Contact for this project is Zachary Starke of the New York State Department of Transportation, Regional Permits Office, Region 4, 1530 Jefferson Road, Rochester NY 14623.

Question 42: Is a security guard required on site? Would it be 24 hours per day or only during off hours including weekends.

Response 42: A security guard is not required. Refer to Specification 01 57 33 "Security".

Question 43: Do we need a full-time Health & Safety person?

Response 43: Yes, See specification Section 01 35 29 "Contractor's Health and Safety Plan".

Question 44: Who is responsible for the nuclear density testing?

Response 44: The Contractor is responsible for nuclear density testing.

Question 45: Please confirm the length of the fence that needs to be removed.

Response 45: Approximately 925 feet of fence is slated for removal. Refer to the CAD drawings for additional detail. In order to obtain CAD files, please fill out the "Electronic Drawing Files Release Agreement Form" provided in Appendix C of Addendum 1, email it to Alan Wong (<u>Alan.Wong@dec.ny.gov</u>) **AND** Laura Woyshner (<u>Laura.Woyshner@wsp.com</u>), and you will be provided access to download the files from a file sharing site.

Question 46: There is earthwork outside the limits of clearing and grubbing. Are we taking the outside limit cut and putting it underneath the cap?

Response 46: Material excavated to achieve intermediate grading shall be placed under the cover. Additionally, drawings have been edited to clarify the limit of clearing and grubbing to include all earthwork. Edited drawing sheets4 and 5 are included in Attachment B.

Question 47: Is there a way to access temporary electricity?

Response 47: It is the Contractors responsibility to plan for electrical service onsite, including the determination of electricity availability. Refer to revised specification section 01 50 00 "Temporary Facilities, Controls, and Decontamination" included in Attachment B for additional information.

Question 48: Has the electric company been informed?

Response 48: It is the Contractors responsibility to plan for electrical service onsite, including the determination of electricity availability. Refer to revised specification section 01 50 00 "Temporary Facilities, Controls, and Decontamination" included in Attachment B for additional information.

Question 49: Will the contractor be responsible for Varian Lane if it does not hold up to loaded truck traffic during the duration of the project.

Response 49: Refer to Response No. 28.

Question 50: Who is providing the quantity survey? Is it the contractor survey of the DEC survey?

Response 50: The Contractor shall perform surveys. Refer to specification section 02 21 00 "Surveys" for additional information.

Question 51: Do we need a decontamination trailer with showers?

Response 51: No.

Question 52: What can be done to monitor settlement? Are settlement plates acceptable?

Response 52: Proposers are responsible for compaction of placed materials per Specification section 31 23 00 "Excavation and Backfill". Settlement is not a monitored project metric except where settlement may occur during the warranty period and require remedy by the Contractor.

Question 53: Is there a plan for a maintenance road to be constructed on the cap in this project.

Response 53: No. Refer to project drawings.

Question 54: Will there be logs and debris left on site for the contractor to clean up?

Response 54: Yes, woody debris from tree clearing will be left onsite for the contractor to

manage.

Question 55: Please provide an erosion control drawing with call outs for silt fence/silt socks and other controls. Provide details for each please.

Response 55: The Contractor is responsible for providing plans for soil erosion and sedimentation control measures as part of their development of the SWPPP. Refer to specification section "01 33 00 "Project Submittals and Procedures" and revised specification section 01 50 00 "Temporary Facilities, Controls and Decontamination", included in Attachment B, for further detail.

Question 56: Is a hydrant available for use near the construction site?

Response 56: It is the Contractors responsibility to plan for water service onsite, including the determination of water availability and obtaining required municipal permits. Refer to revised specification section 01 50 00 "Temporary Facilities, Controls, and Decontamination" included in Attachment B for additional information.

Question 57: Is a county permit required for the water hookup to a hydrant.

Response 57: Determination and execution of necessary permits is the responsibility of the contractor. Refer to revised specification section 01 50 00 "Temporary Facilities, Controls, and Decontamination" included in Attachment B for additional information.

END OF QUESTIONS AND RESPONSES

Attachment B Revised Contract Pages

protocols for performing the work, the conditions existing at the work site, and to provide for visual inspection of the Site by Bidders. Bidders will be required to sign an attendance sheet to document their presence at the mandatory Pre-Bid Conference. **Department will accept Bids only from those bidders who attend the Pre-Bid Conference, attendance is mandatory as a condition of Bid.**

Attendees are encouraged to review COVID-19 Center for Disease Control (CDC) guidelines prior to attendance; current guidelines can be accessed at https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html

ARTICLE 4 - Additional Bid Submittals

Experience in performance of the Scope of Work (SOW) and in accordance with Section III, Article 17, Paragraph 4, shall be demonstrated in writing and presented to the Department within five (5) days of Department's Notice of Apparent Low Bid per Section III, Article 5, (b).

Section III – Article 17 outlines the requirements for contractor experience in performance of the Scope of Work (SOW). For this contract, that experience shall be modified as follows:

The Bidder must have a minimum of three (3) years satisfactory experience in construction of the work to be performed. This experience must include the installation of landfill cover systems. Experience must also include the decommissioning of groundwater monitoring wells. For work to be deemed satisfactory, the work must have been performed with required oversight from a certified state, local or other municipal entity directing the work. The bidder cannot meet the minimum experience requirements through the use of subcontractor(s). The SOW for this contract does include the excavation, transportations, and handling of hazardous waste and contaminated soil/sediment on a limited scale; experience for this work can be met through the use of subcontractor(s).

ARTICLE 5 - Other Available Documents

Documents and Reports associated with this Site can be found on the DECInfoLocator accessed through the Environmental Remediation Database - Site No. 828016.

The maximum subcontracting allowed for this contract is forty percent (40%) unless a higher percentage is approved by Department in writing.

ARTICLE 7 - Type of Schedule

Contractor shall provide a Critical Path Method (CPM) type of schedule as described in Section X, Section 01 32 16 – "Progress Schedule".

ARTICLE 8 - Wage Rates

The Department requires, for the work under this contract, that the Contractor and its subcontractor pay at least the prevailing wage rate and pay or provide the prevailing supplements, including premium rates for overtime pay, as issued by the State Labor Department. The current wage rates are included within the contract documents, Section XIII – Wage Rates and Associated Contract Requirements.

SECTION 01 50 00 - TEMPORARY FACILITIES, CONTROLS, AND DECONTAMINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions apply to this Section, and Specification Sections including the following:
 - 1. Section 01 10 00 "Summary"
 - 2. Section 01 33 00 "Project Submittals and Procedures"
 - 3. Section 01 40 00 "Quality Requirements"
 - 4. Section 01 56 34 "Temporary Security Measures"
 - 5. Section 01 74 19 "Waste Management and Disposal"
 - 6. Section 01 77 00 "Closeout Procedures"
 - 7. Section 02 21 00 "Surveys"
 - 8. Section 31 10 00 "Site Clearing"
 - 9. Section 31 23 00 "Excavation and Backfill"
 - 10. Section 31 23 19 "Water Management"
 - 11. Section 33 41 00 "Flushing, Cleaning, and Inspection of Culverts"

1.2 SUMMARY

- A. This Section includes requirements for temporary utilities, support facilities, security and protection facilities, environmental controls, and storm water pollution prevention controls.
- B. The Contractor shall provide positive means of erosion control (see NYSDEC's Document entitled New York State Standards and Specifications for Erosion and Sediment Control, August 2005) around work areas and any stockpile and disposal areas to prevent contaminant migration.

1.3 SUBMITTALS

A. Action Submittals

- 1. Site Plan: Show temporary facilities, utility hookups, staging areas, parking areas for construction personnel, stockpile areas and parking areas for construction personnel.
- 2. Erosion and Sedimentation-Control Plan: Show compliance with requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.
- 3. Submit Shop drawings of the Soil Stockpile area to the Engineer for approval as per Section 01 33 00 "Project Submittals and Procedures".
- 4. The Contractor shall submit a written Storm Water Pollution Prevention Plan (SWPPP) in accordance with the requirements identified in the New York State Department of Environmental Conservation (NYSDEC)'s SPDES General Permit for Stormwater Discharges from Construction Activity, Permit No. GP-0-15-002. The SWPPP shall be prepared and stamped by a NYS-licensed Professional Engineer.
- 5. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate which Contractor personnel are responsible for management of the fire-prevention program.

6. Dust Control Plan: Submit coordination drawing and narrative that indicates the dust control measures proposed for use, proposed locations, and proposed time frame for their operation. Identify further options if proposed measures are later determined to be inadequate. Include the following:

- a. Dust control for vehicle traffic and dust control for soil/waste handling.
- b. Waste handling procedures.
- c. Other dust-control measures.
- 7. Vibration Control Plan: Submit Plan to the Engineer for approval in accordance with the requirements outlined in this Section.
- 8. Provide a written plan for electrical service while onsite in accordance with the requirements outlined in the Section.

1.4 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.5 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, the Department, Engineer, testing agencies, and authorities having jurisdiction.
- B. Electric Power Service: Pay electric-power-service use charges for electricity used by all entities for construction operations.
- C. The Contractor is responsible for securing a water source for the Project's needs.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Chain-Link Fencing: Minimum 2-inch, 0.148-inch-thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet high with galvanized-steel pipe posts; minimum 2-3/8-inch OD line posts and 2-7/8-inch OD corner and pull posts, with 1-5/8-inch-(42-mm-) OD top rails.
- B. Portable Chain-Link Fencing: Minimum 2-inch, 0.148-inch-thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet high with galvanized-steel pipe posts; minimum 2-3/8-inch OD line posts and 2-7/8-inch OD corner and pull posts, with 1-5/8-inch OD top and bottom rails. Provide concrete or galvanized steel bases for supporting posts.

2.2 WATER SERVICE

A. The Contractor is responsible for securing a water source for the Project's needs including dust control.

- B. The Contractor is responsible for providing valves with adequate temperature and pressure ratings for the intended use.
- C. Provide back flow protection or adequate vacuum breakers, as needed.
- D. Provide heavy-duty abrasion-resistant hoses with a pressure rating greater than the maximum pressure of the water system.
- E. Provide adequately sized hot water heater.

2.3 ELECTRICAL SERVICE

- A. Provide a written plan for electrical service while on site with appropriate controls as necessary.
- B. Pay electric-power-service use charges for electricity used by all entities for construction operations.
- C. Electric Service shall comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- D. Provide grounded extension cords with waterproof connectors. Use of "hard service" cords where there is exposure to abrasion and traffic.
- E. Provide general service lamps and guard cages or tempered glass enclosures where lamps are exposed to breakage by removal operations. Use liquid-tight enclosures or boxes for the devices.

2.4 TEMPORARY FACILITIES

- A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.
- B. Common-Use Field Office: Of sufficient size to accommodate one office for Department/Engineer, one office for Contractor, and a conference room to accommodate Project meetings. Keep office clean and orderly. Comply with requirements in Section 01 52 11 "Engineer's Field Offices" and Section 01 52 13 "Contractor's Field Office and Sheds".

2.5 EQUIPMENT

- A. Fire Extinguishers: Portable, UL-rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. Six protective hard hats and personal protective equipment for use by the Engineer, Department and authorized visitors.

C. One drinking water dispenser for chilled/heated water.

2.6 NYSDOT TYPE 2 SUBBASE

A. NYSDOT Type 2 Subbase shall comply with NYSDOT Specification 733-04 "Subbase Course."

B. Containing the following gradations:

Sieve Size	Percent Passing By Weight
2 inch	100
1/4 inch	25-60
No. 40	5-40
No. 200	0-10

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until the project is substantially completed.
- C. Conduct operations to cause least annoyance to residents and users of facility in vicinity of Work and comply with applicable local ordinances associated with noise and dust control.
- D. Use qualified tradesmen for installation of temporary utilities, facilities and constructions. Provide utility services as required to perform the work for the duration of the Project.
- E. Install temporary utilities in accordance with the servicing utility's requirements.
- F. Provide all temporary utilities and connections including electric, water, and telephone. Remove temporary utilities and connection upon completion of Work. Obtain all necessary permits and permissions prior to installation or connection.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Water Service: Install water service and distribution piping in sizes and pressures adequate for construction.
- C. Water Service: Clean and maintain water service facilities in a condition acceptable to Engineer. At Substantial Completion, restore these facilities to condition existing before initial use.

D. The Contractor shall provide self-contained chemical toilet units from mobilization to demobilization in an amount based on the total number of workers employed on the Project in accordance with the provisions of the Health and Sanitary Codes of the State of New York. A combination toilet/urinal unit shall count as one facility. The Contractor may locate some of them in the work area. Those that are located outside the work area shall be located where approved by NYSDEC and screened from public view. At the completion of the abatement work, units within the work area shall be decontaminated prior to their removal from the enclosures. Units shall be maintained throughout the work. Provide separate facilities for males and females. Include provisions for pest control and elimination of odors.

- E. Heating, Ventilating, and Enclosures.
 - 1. Provide sufficient temporary heating, cooling, ventilating, and enclosures to ensure safe working conditions and prevent damage to existing facilities and the Work.
 - 2. Maintain temperature of areas occupied by Department's personnel or electronic equipment, including offices, lunch rooms, locker rooms, toilet rooms, and rooms containing computers, microprocessors, and control equipment, between 65 degrees F and 80 degrees F with relative humidity less than 75 percent.
 - 3. Require temperature range for storage areas and certain elements of the Work, including preparation of materials and surfaces, installation or application, and curing as applicable, shall be in accordance with the supplementary conditions for the associated Work and/or the Supplier's recommended temperature range for storage, application, or installation, as appropriate.
 - 4. Provide temporary ventilation sufficient to prevent accumulation in construction areas and areas occupied by Department of hazardous and nuisance levels or concentrations of dust and particulates, mist, fumes or vapors, odors, and gasses, associated with construction.
 - 5. Provide temporary enclosures and partitions required to maintain required temperature and humidity.
 - 6. Provide temporary heating, ventilation, and cooling for Engineer's field office in accordance with Section 01 52 11 "Engineer's Field Office".
- F. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.
 - 1. Install electric power service overhead unless otherwise indicated.
- G. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
 - 2. Install lighting for Project identification sign.
- H. Telephone Service: Provide temporary telephone service in common-use facilities for use by all construction personnel. Install one telephone line for each field office.
 - 1. At each telephone, post a list of important telephone numbers.
 - a. Police and fire departments.
 - b. Ambulance service.
 - c. Contractor's home office.
 - d. Contractor's emergency after-hours telephone number.
 - e. Engineers' offices.
 - f. Principal subcontractors' field and home offices.
 - 2. Provide superintendent with cellular telephone or portable two-way radio for use when away from field office.

3.3 TEMPORARY FACILITIES

A. General

1. The construction of any staging area and access road shall require lining with a Mirafi FW 500 Geotextile fabric and 12 inches of NYSDOT Crusher Run stone Type 2. The staging area shall be used for all temporary facilities (proposed trailer and parking area, proposed truck staging area, material stockpile area, decontamination pad and onsite certified scale).

2. The Contractor shall be responsible for maintenance and protection of the temporary staging area and access road. It is the Contractor's responsibility to supply materials, including stone, steel plates, or any other necessary materials, in order to protect and maintain these features.

B. Staging Areas (Material Stockpile Area)

- 1. Staging areas shall be located on site in areas approved by the Engineer in order to minimize possible cross contamination.
- 2. In addition, the contaminated soil staging area shall also have the following:
 - a. The Contractor shall cover the 12 inches of NYSDOT stone with a minimum 40-mil sealed, HDPE watertight liner.
 - b. The Contractor shall place a minimum of 6 inches of NYSDOT SS Crushed Stone Type 2 identified in the NYSDOT SS Table 703-4 and described in Section 703-02 on top of the HDPE watertight liner.
- 3. Waste materials shall be covered at all times within the staging area using a minimum 20-mil HDPE sealed, watertight liner to prevent contaminated runoff. Liners shall be anchored to prevent movement due to wind. Remove the liners when the staging area is no longer needed, and dispose properly off-site.
- 4. All staging areas shall be constructed to prevent the spread of any contamination to the surrounding soils, surfaces, and/or groundwater.
- 5. Water spray or equivalent shall be utilized as necessary to prevent dust generation. Monitoring shall be provided to ensure that unacceptable levels of dust generated from the movement and handling of soil do not migrate from the site.
- 6. Sumps, pumping facilities, and temporary storage facilities shall be adequate for anticipated use.
- 7. Temporary storage facility may be mobile tankers or suitable fixed tanks. Fixed 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 1.0x10-7 centimeters per second (cm/sec).
- 8. The Contractor shall decontaminate staging areas following the completion of construction activities as directed by the Engineer.
- 9. Clean soil staging areas: Cover staged clean materials with 20 mil liner. Anchor liner to prevent any movement due to wind. Dispose of cover when staging area is no longer needed.
- 10. Materials staging area: Provide and maintain material staging areas as needed in locations indicated on the Contractor's work site layout, or as approved by the Engineer.

C. Decontamination Station

1. The decontamination pad(s) shall be equipped with a drain system and holding tank on a properly graded area that has no deleterious material.

2. The Contractor shall be responsible for the provision of an adequately equipped decontamination pad(s), which shall meet the following requirements. The dimensions shown on the Contract Drawings are provided for reference.

- a. Adequate dimensions to contain wash water and debris from the largest sized vehicles to be utilized in this Contract. All vehicles and construction equipment leaving the contaminated zone shall be decontaminated.
- b. Curb or berm the perimeter and provide splash guards.
- c. A 40-mil impervious very low density polyethylene (VLDPE) membrane is required to prevent seepage into the ground.
- d. Sumps, pumping facilities, and temporary storage facilities to be adequate for anticipated use.
- e. Temporary storage facility may be mobile tankers or suitable fixed tanks. Fixed 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 1.0x10-7 centimeters per second (cm/sec).
- f. Previously non-contaminated areas are not to be contaminated during construction activities. This may require the construction and use of multiple decontamination pads.
- g. The Contractor shall place a 40-mil impervious VLDPE liner on top of the 12 inch layer of NYSDOT SS Crushed Stone Type 2.
- h. The Contractor shall also place a minimum of 6 inches of NYSDOT SS Crushed Stone Type 2 identified in the NYSDOT SS Table 703-4 and described in Section 703-02 on top of the VLDPE liner.
- i. Construct side wall panels, 6 feet high minimum on two sides, to prevent over spray.
- 3. The Contractor shall regularly containerize, characterize, stage, and transport all generated decontamination water and sediments off-site for treatment and disposal at a licensed and permitted facility.
- 4. No trucking of soils on public right of way. All spilled or tracked soils will require immediate cleanup or corrective action.
- 5. The Contractor shall clean the decontamination pad after daily use. No contamination shall be left behind.
- 6. Upon completion of the work, the Contractor will decontaminate, remove, and properly dispose of, all decontamination station(s) utilized by the Contractor and shall do all necessary earthwork and grading to restore the areas disturbed to their original condition or to other improved condition as directed by the Engineer.

D. Sanitary Facilities

1. The Contractor shall provide self-contained chemical toilet units from mobilization to demobilization in an amount based on the total number of workers employed on the Project in accordance with the provisions of the Health and Sanitary Codes of the State of New York. A combination toilet/urinal unit shall count as one facility. The Contractor may locate some of them in the work area. Those that are located outside the work area shall be located where approved by NYSDEC and screened from public view. At the completion of the abatement work, units within the work area shall be decontaminated prior to their removal from the enclosures. Units shall be maintained throughout the work. Provide separate facilities for males and females. Include provisions for pest control and elimination of odors. Toilet units shall be placed near the construction zone in an area easily accessible for all the workers. Toilets shall be locked during non-work hours to prevent unauthorized usage.

E. Temporary Access Roads

1. Construct and maintain temporary access roads for the duration of the contract as necessary to ensure unimpeded completion of this contract. This includes areas necessary for installation of the decontamination station, truck scale, staging areas and all work site facilities.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
- B. Water Control: Exercise care in project drainage practice to prevent pollution of watercourses.
 - 1. The Contractor shall be fully responsible for any and all damages to life and property that occur as a result of their activities. Damages resulting from polluting watercourses shall be repaired, restored, or compensated for by the Contractor.
 - 2. Grade construction areas so as to minimize retention of rainwater, except as specified hereafter. Provide temporary rainwater runoff diversion around construction areas.
 - 3. Comply with procedures and requirements identified in the New York State Department of Environmental Conservation (NYSDEC)'s SPDES General Permit for Stormwater Discharges from Construction Activity, Permit No. GP-0-15-002.
 - 4. Temporary erosion controls may include, but are not limited to, surface stabilization which shall be accomplished with vegetation and mulch, dewatering, erosion control matting (rolled erosion control mats), temporary earthen diversion berms and ditches; and minimization of disturbed acreage. Contractor is responsible for preventing excessive onsite erosion during construction as well as protecting the work included in this Contract.
 - 5. Temporary sedimentation controls may include, but are not limited to, silt fences, traps, temporary earthen diversion berms and ditches, rock dams, stabilized construction entrance and appurtenances at the foot of sloped surfaces. Contractor is responsible for preventing migration of sediment into wetland areas, streams, and adjacent properties during construction. The performance of Contractor's sedimentation controls is subject to approval by the Engineer.
 - 6. Stockpiles shall be protected from transfer of material due to erosion by providing sedimentation controls along the toe of the slopes, seeding the side slopes (with the exception of soil-bentonite mixture stockpiles which shall be covered with plastic) and by maintaining stable slopes.
 - 7. Contractor shall be responsible for maintaining all temporary and existing permanent erosion control structures on the site. Maintenance shall include but not be limited to making all repairs necessary to maintain the structures as well as remove all accumulated sediment as necessary to maintain the structures in proper working condition. The frequency of sediment removal from all on-site erosion control structures shall be bimonthly at a minimum.
 - 8. Silt fence shall be installed on site to protect against off-site runoff until all diversion structures are constructed and operational.
 - 9. Weekly inspection of the erosion and sediment controls shall be completed as required by the SWPPP.
 - 10. Should any of the temporary erosion and sediment control measures employed by the Contractor fail to produce results which comply with the requirements of NYSDEC, Contractor shall immediately take whatever steps are necessary to correct the deficiency at his own expense.

C. Pollution Control

1. Maintain work areas on and off site free from further environmental pollution that would be in violation of any federal, state, or local regulations.

- 2. Minimize air pollution by wetting down bare soils with clean water, requiring use of properly operating combustion emission control devices on construction vehicles and equipment used by Contractors, and encouraging shutdown of motorized equipment not actually in use.
- 3. Any emissions during site activities that may have an adverse health effect on workers or the community shall be suppressed to the extent possible.
- 4. Chemicals used, whether herbicide, pesticide, disinfectant, polymer, reactant, or other classification, must be approved by either the EPA or USDA or any other applicable regulatory agency and the Engineer and be used in a manner as their original purpose was intended.
- 5. Use of such chemicals and disposal of residues shall be in conformance with manufacturers' instructions.
- 6. Use of chemicals must be approved in advance by the Engineer.
- 7. Disposal of volatile fluid wastes (such as mineral spirits, oil, or paint thinner) in storm or sanitary sewer system or into streams or waterways is not permitted.
- 8. Volatile wastes generated will be handled as hazardous wastes and reported to NYSDEC.
- 9. The Contractor shall provide that the generated project hazardous waste (if any) and any existing hazard waste to be removed under this project shall be transported, manifested, and disposed in accordance with the current regulations.

D. Rubbish Control (Non-contaminated)

- 1. Clean up the debris resulting from the work at the end of each day and leave work areas broom clean. Locate containers where directed.
- 2. Remove debris from the site at least once a week or more often if it presents a fire hazard or becomes excessive. Burning of waste material will not be permitted.
- 3. Containers shall have secure tops.
- E. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- F. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
- G. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using environmentally safe materials.
- H. Noise Control: Control noise levels associated with site operations to not exceed the energy equivalent ambient sound level of 35 dBa at the site perimeter. Measure noise levels in decibels with a sound level meter conforming to the American National Standard Specification, S1.4 (1971) Type S2A, and set to use the A-weighted network with slow meter response. Measurements shall be continuous during the first week of construction activities. Additional measurements may be directed by the Engineer throughout the course of the project.
- I. Dust Control: No visible dust shall be permitted. Use dust suppression techniques to limit airborne dust. Apply water or dust suppressants to exposed sol, haul roads or routes, and other areas

disturbed by operations. Dry brooming will not be permitted. Do not unnecessarily shake bags of dry product such as cement, concrete mortar, or fertilizer.

J. Vibration Control

1. The planned remediation activities have the potential to generate vibration. The Contractor shall complete a Vibration Control Plan and be responsible for limiting vibration activities by continuously monitoring for vibration resulting from construction activities.

2. Pre-Construction Structural Condition Assessment

- a. The Contractor shall arrange for a pre-construction structural condition assessment of any nearby buildings, structure, or utilities that may potentially be at risk from the vibrations associated with construction activities. The assessment method shall be in general accordance with SEI/ASCE 11 Guidelines for Structural Condition Assessment of Existing Buildings and SEI/ASCE 30 Guideline for Condition Assessment of the Building Envelope, latest editions and shall be acceptable to the Contractor's insurance company. The Contractor shall be responsible for any damage resulting from the construction activities. The pre-construction structural condition assessment report shall be made available to the Engineer for review two weeks before any construction activity begins. Occupants of local buildings shall be notified by the Contractor prior to the commencement of construction activities.
- b. The pre-construction structural condition assessment shall be done on all buildings and structures within 100 feet of the project construction work limits. The pre-construction condition assessment shall produce the following as a minimum requirement:
 - 1) Diagrams and information as required accurately showing the building or structure's existing conditions.
 - 2) Photographs of existing damage.
 - 3) Comprehensive video of the entire structure.
- c. Pre-construction structural condition assessment shall be completed by a practicing civil engineer registered in the State of New York, who has experience in foundation design, and building design and construction.

3. Vibration Limits

- a. Establish appropriate maximum limit for Peak Particle Velocity (PPV) for each structure or facility that is adjacent to, or near the project site. Base maximum limits on expected sensitivity of each structure or facility to construction induced vibrations and federal, state, or local regulatory requirements, but not to exceed 2 inches per second (ips) when frequency is 40-Hz or greater, and 0.75 ips when frequency is less than 40-Hz.
- b. Allowable construction activities shall be based on vibration levels that shall not cause damage.
- c. The Contractor shall monitor the project site at least two seismographs located within the work limits. At least one seismograph shall be located outside of the work limits near the closest property boundary to the excavation area. The seismograph used shall be capable of recording particle velocity for three mutually perpendicular components of vibration in the range generally found with vibration from construction activities as well as air overpressure. The seismographs must be capable of storing data in digital form, which can be electronically transferred into a computer. The type of seismograph instrumentation, and the method of use, must conform to the general guidelines for proper use of seismographs.
- d. Peak particle velocity of each component shall not be allowed to exceed the safe limits of the nearest structure subject to vibration damage. The Contractor shall employ an Engineer-approved qualified vibration specialist to establish the safe

vibration limits. The vibration specialist shall also interpret the seismograph records to ensure that the seismograph data shall be effectively utilized in the control of the construction operations with respect to the existing structures. The vibration specialist used shall be subject to the Engineer's approval. The vibration specialist shall supervise the placement and operation of the seismograph.

Data recorded for each day shall be furnished to the Engineer and shall include the following:

- 1) Identification of instrument used.
- 2) Name of qualified observer and interpreter.
- 3) Distance and direction of recording station from construction area.
- 4) Type of ground at recording station and material on which the instrument is sitting.
- 5) Maximum particle velocity in each component and frequency.
- 6) The time history of each component.
- 7) The time history of air overpressure.
- 8) A dated and signed copy of records of seismograph readings.
- e. If damage to existing facilities or adjacent property occurs due to construction activities or the safe vibration limits are exceeded, immediately suspend the construction activities and report damage to the Vibration Specialist and the Engineer.
- f. Before resuming construction operations, take appropriate measures to control effects of vibration from construction activities and submit complete description of proposed changes for reducing potential for future damage to the Vibration Specialist and the Engineer.
- g. Do not resume construction until approved by the Vibration Specialist and Engineer.
- 4. Post-Construction Structural Condition assessment
 - a. Similar to the pre-construction structural condition assessment, the Contractor shall complete the post-construction structural condition assessment of nearby buildings following the completion of construction activities. The post-construction structural condition assessment shall be done on all buildings and structures with 100 feet of the project construction work limits.
- K. Road Protection: The Contractor shall document road conditions on the local nearby roads that will be utilized for construction traffic. Documentation shall be both pre-construction and post-construction. Documentation shall include, but not be limited to, identification of any deficiencies or damage to the roads, both before construction begins and changes to road condition at the end of construction. Road inspections shall include at a minimum, but not be limited to, Dearcop Drive and Varian Lane. Restoration of any damage to local roads caused by construction activities shall be in accordance with Section 01 55 13 "Access Roads and Parking Areas".
- L. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- M. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.
 - 1. Prohibit smoking in construction areas.
 - 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.

3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.

4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

N. Community Air Monitoring Program (CAMP)

- 1. The Contractor shall include as part of the CPP (See Section 01 35 29 "Contractor's Health and Safety Plan") the following:
 - a. Three CAMP monitors shall be active and placed around the work limits. The air monitors shall be placed such that 2 monitors collect downwind data and 1 monitor collects upwind data. The locations of all CAMP monitors shall be approved daily by the Engineer prior to installation by the Contractor.

3.5 PROTECTION OF NATURAL RESOURCES

A. General

- 1. Preserve the natural resources within the project site that are not specified for removal or change.
- 2. Preserve the natural resources outside the project site impacted by the work.
- 3. Conform to federal, state and local permitting requirements.
- 4. Restore disturbed resources to an equivalent or improved condition upon completion of work.
- 5. Vehicles, equipment and machinery delivered or used at the site that have visible oil or hydraulic leaks will not be allowed on site. Clean up any oil or hydraulic fluid spills immediately.

B. Land Resources

- 1. Except in areas specified to be cleared, do not remove, cut, deface, injure, or destroy existing vegetation.
- 2. Protect vegetation that is to remain, from damage by construction operations.
- 3. Vegetation, intended to remain, that is scarred or damaged by construction operations shall be removed and replaced with equivalent undamaged vegetation.
- 4. Removal of scarred or damaged vegetation shall be in accordance with the specifications.
- 5. Trees or shrubs with 30 percent or more of their root systems damaged shall require removal and replacement.
- 6. Replacement vegetation shall be approved by the Engineer before replacement.

C. Water Resources

- 1. Prevent oily or hazardous substances from entering the ground, drainage areas, or local bodies of water.
- 2. Provide secondary containment of temporary fuel oil, petroleum, or hazardous substance storage tanks of sufficient size and strength to contain the contents of the tanks.

D. Fish and Wildlife Resources

- 1. Do not alter or significantly disturb water flows on or adjacent to the project site, except as indicated or specified.
- 2. Do not alter or significantly disturb native habitat on or adjacent to the project site, except as indicated or specified.

3.6 REMOVAL

A. Maintain all temporary facilities and controls as long as needed for the safe and proper completion of the work.

B. Remove all such temporary facilities and controls as soon as safe progress of the work will permit.

* END OF SECTION 01 50 00 *

SECTION 01 55 13 ACCESS ROADS AND PARKING AREAS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope:

- 1. Contractor shall provide temporary construction roads, walks, parking areas, and appurtenances required during the Project for use by Contractor, Department and emergency vehicles.
- 2. Temporary roads and parking areas shall be designed and maintained by Contractor and shall be fully passable to vehicles in all weather conditions.

B. Use of Existing Access Roads:

- 1. Contractor is allowed to use Department's existing roads starting on the Effective Date of the Contract and satisfying other Contract requirements relative to starting the Work.
- 2. Prevent interference with traffic on existing roads and parking areas. Always keep access roads and entrances serving the Site clear and available to Department and their respective employees; emergency vehicles; and other contractors. Do not use access roads or Site entrances for parking or storage of materials or equipment.
- 3. Contractor shall indemnify and hold harmless Department and Engineer from expenses and losses caused by Contractor's operations over existing roads, drives, and parking areas.
- 4. Schedule deliveries to minimize use of driveways and Site entrances.

1.2 SITE ACCESS

A. Site Access:

1. Contractor access to the Site shall be as shown on the drawings.

1.3 CONTRACTOR PARKING

- A. Contractor employee vehicles shall park in area(s) as described in the approved Work Plan and in the staging area as shown on the Contract Drawings.
- B. Park construction vehicles and equipment in work areas off of permanent roads and parking areas, in areas of the Site designated for Contractor staging.

PART 2 - PPRODUCTS

2.1 MATERIALS

A. Materials for temporary roads and parking areas shall comply with the Contract Documents' requirements for permanent roads, drives, and parking areas.

B. Traffic controls shall comply with requirements of authorities having jurisdiction. When such authority is the Department or facility manager, and no requirements are indicated, comply with the standard specifications of the state department of transportation in the area of the Project.

PART 3 - PART 3 - EXECUTION

3.1 TEMPORARY ROADS AND PARKING AREAS

- A. Temporary Roads and Parking in Areas Different from Permanent Pavement:
 - 1. Provide temporary roads and parking areas adequate to support and withstand traffic loads during the Project. Locate temporary roads and parking areas.
 - 2. Provide reasonably-level, graded, well-drained subgrade of satisfactory soil material, compacted to not less than 95 percent of maximum dry density in the upper six inches.
 - 3. Where required to support loads and provide separation between subgrade and subbase materials, provide geosynthetic separation fabric as required.
 - 4. Subbase:
 - a. Provide crushed stone subbase material not less than six inches thick, roller-compacted to a level, smooth, dense surface.
 - b. Subbase for temporary roads and areas traveled by construction vehicles shall be adequate for loads and traffic served.
- B. Temporary Roads and Parking in Same Areas as Permanent Pavement:
 - 1. Provide temporary roads and parking areas adequate to support and withstand traffic and construction loads during the Project. Locate temporary roads and parking areas in same location as permanent roads and parking areas. Extend temporary roads and parking areas, within construction limits indicated, as required for construction operations.
 - 2. Coordinate elevations of temporary roads and parking areas with permanent roads and parking areas.
 - 3. Prepare subgrade, subbase, and base for temporary roads and parking areas in accordance with the Contract Documents requirements for permanent roads, drives, and parking areas.
 - 4. Where required by subgrade conditions and construction loads and traffic, provide geosynthetic separation fabric as required on compacted subgrade for subbase support and separation of subbase and subgrade materials.
 - 5. Re-condition granular subbase of temporary roads and parking areas, including removing and properly disposing of granular material that has become intermixed with soil, re-grading, proof-rolling, compacting, and testing.

3.2 TRAFFIC CONTROLS

A. Traffic Controls:

- 1. Provide temporary traffic controls in accordance with the approved Traffic Control Plan (Section 01 74 19 "Waste Management and Disposal"), including, but not limited to, at intersections of temporary roads with each other and with parking areas, including intersections with other temporary roads, intersections with public roads, and intersections with permanent access roads at the Site.
- 2. Provide temporary warning signs on permanent roads and drives and provide temporary "STOP" AND "TRUCKS ENTERING" signs for traffic on temporary roads where required and at entrances to public roadways.

3. Comply with requirements of authorities having jurisdiction. When such authority is the Department or facility manager, and no requirements are indicated, comply with the standard specifications of the state department of transportation in the area of the Project.

3.3 MAINTENANCE OF ROADS

A. General:

- 1. Maintain temporary roads and parking to continuously provide at the Site access for construction vehicles and trucks, Department and facility manager vehicles, deliveries for Department and facility manager, emergency vehicles, and parking areas for Department's and facility manager's personnel.
- 2. Public roads shall be passable at all times unless a road closure is allowed in writing by authority having jurisdiction.
- 3. Public roads shall be protected in accordance with Section 01 50 00 "Temporary Facilities, Controls, and Decontamination".
- 4. When granular material of temporary roads and parking without hard surfacing become intermixed with soil or when temporary roads otherwise create a nuisance, remove intermixed granular-and-soil material and replace with clean granular material as required.
- 5. Provide snow and ice removal for temporary roads and parking areas.

B. Cleaning and Dust Control:

- 1. Cleaning: Clean paved surfaces over which construction vehicles travel.
- 2. Clean the following surfaces:
 - a. Roads within limits of the Project.
 - b. Permanent roads at the Site between the Site entrance and the work areas, and between the Site entrance and construction parking and staging areas.
 - c. Public roads that require sweeping and cleaning due to construction operations.
- 3. Dust Control:
 - a. Control dust resulting from construction activities to prevent nuisances at the Site and in nearby areas.
- C. Protection of Underground Facilities: Comply with the General Conditions, as may be modified by the Supplementary Conditions, and other requirements of the Contract Documents.

3.4 REMOVALS AND RESTORATION

A. Removals:

- 1. Remove temporary roads, drives, walks, and parking areas that are not intended for, or acceptable for, integration into permanent pavement. Return areas of temporary roads, drives, walks, and parking to pre-construction condition unless otherwise required by the Contract Documents.
- 2. Remove temporary gates, fencing, and traffic controls associated with temporary roads and parking areas.
- 3. Where areas of temporary roads and parking will be permanently landscaped, remove pavement, granular subbase, geosynthetic (where required by Engineer), soil, and other materials that do not comply with the Contract Documents regarding fill, subsoil, and landscaping.
- 4. Remove and properly dispose of materials contaminated with oil, bitumen, and other petrochemical compounds resulting from Contractor's operations, and other substances that might impair growth of plants and lawns.

B. Restoration:

1. Repair or replace paving, curbs, gutters, and sidewalks affected by temporary roads and parking, and restore to required conditions in accordance with authorities having jurisdiction.

2. Restore to pre-construction conditions existing roads, walks, and parking areas damaged by Contractor, subject to approval of the Department of affected roads, drives, walks, and parking areas. Road restoration shall include at a minimum, but not be limited to, Dearcop Drive and Varian Lane.

* END OF SECTION 01 55 13 *

SECTION 31 10 00 - SITE CLEARING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions apply to this Section, and Specification Sections including the following:
 - 1. Section 01 31 00 "Project Management and Coordination"
 - 2. Section 01 33 00 "Project Submittals and Procedures"
 - 3. Section 01 50 00 "Temporary Facilities, Controls, and Decontamination"
 - 4. Section 01 74 19 "Waste Management and Disposal"
 - 5. Section 01 77 00 "Closeout Procedures"
 - 6. Section 31 23 00 "Excavation and Backfill"

1.2 SUMMARY

- A. Section Includes:
 - 1. Protecting existing vegetation to remain.
 - 2. Removing existing vegetation.
 - 3. Clearing and grubbing.
 - 4. Stripping and stockpiling topsoil.
 - 5. Temporary erosion and sedimentation control.
- B. The Contractor shall dispose of cleared trees, shrubs, and plantings, and construction and demolition (C&D) materials on-site within the intermediate cover.

1.3 DEFINITIONS

- A. Subsoil: Soil beneath the level of subgrade; soil beneath the topsoil layers of a naturally occurring soil profile, typified by less than 1 percent organic matter and few soil organisms.
- B. Surface Soil: Soil that is present at the top layer of the existing soil profile. In undisturbed areas, surface soil is typically called "topsoil," but in disturbed areas such as urban environments, the surface soil can be subsoil.
- C. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing inplace surface soil; the zone where plant roots grow. Its appearance is generally friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects larger than 2 inches in diameter; and free of weeds, roots, toxic materials, or other nonsoil materials.
- D. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction and indicated on Drawings.
- E. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

1.4 MATERIAL OWNERSHIP

A. Except for materials indicated to be stockpiled or otherwise remain Department's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.5 SUBMITTALS

A. Informational Submittals

- 1. Waste management procedures for site preparation wastes generated, as part of the Contractor's overall Work Plan.
- 2. Record Drawings: Identifying and accurately showing locations of capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.6 FIELD CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed trafficways if required by Engineer or authorities having jurisdiction.
- B. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing.
- C. Do not commence site clearing operations until temporary erosion- and sedimentation-control and plant-protection measures are in place.
- D. The following practices are prohibited within protection zones:
 - 1. Storage of construction materials, debris, or excavated material.
 - 2. Parking vehicles or equipment.
 - 3. Foot traffic.
 - 4. Erection of sheds or structures.
 - 5. Impoundment of water.
 - 6. Excavation or other digging unless otherwise indicated.
 - 7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.
- E. Do not direct vehicle or equipment exhaust towards protection zones.
- F. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones.
- G. Soil Stripping, Handling, and Stockpiling: Perform only when the soil is dry or slightly moist.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Satisfactory Soil Material: Requirements for satisfactory soil material are specified in Section 31 23 00 – "Excavation and Backfill".

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning site work, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
 - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
 - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to Engineer that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Contract Drawings.
- D. Review of Contract Documents, Contract Drawings, and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Engineer. Keep roads and walks free of dirt and debris at all times.
- E. Protect and maintain benchmarks and survey control points from disturbance during construction.
- F. Verify that trees, shrubs, and other vegetation to remain or to be relocated have been flagged and that protection zones have been identified and enclosed.
- G. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to Engineer.

H. Keep roads and walks free of dirt and debris at all times.

3.3 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. Provide temporary erosion- and sedimentation-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and waterways, according to approved Erosion and Sedimentation Control Plan (Section 01 50 00 "Temporary Facilities, Controls, and Decontamination") and requirements of authorities having jurisdiction.
- B. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.
- C. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
- D. Remove erosion and sedimentation controls, and restore and stabilize areas disturbed during removal.

3.4 TREE AND PLANT PROTECTION

- A. Erect and maintain temporary marker ribbon around tree/vegetation protection zones before starting site clearing. Remove marker ribbon when construction is complete.
- B. Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations in a manner approved by Engineer.

3.5 EXISTING UTILITIES

- A. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Town or others, unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Engineer not less than two days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Engineer's written permission.
- B. Notify Engineer immediately of damage to or an encounter with an unknown existing utility line.
- C. Repair damage to existing utility lines at no additional cost to the Department or Engineer.

3.6 CLEARING AND GRUBBING

- A. Remove obstructions, trees, shrubs, and other vegetation to permit installation of new construction.
 - 1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
 - 2. Grind down stumps and remove roots larger than 3 inches in diameter, obstructions, and debris to a depth of 18 inches below exposed subgrade.
 - 3. Use only hand methods or air spade for grubbing within protection zones.
 - 4. Chip removed tree branches and dispose of on-site.

B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.

- 1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches, and compact each layer to a density equal to adjacent original ground.
- C. Conduct the clearing in a manner that prevents, to the extent possible, soil or soil-like material from being collected with the cleared material.

3.7 PRUNING

- A. Trim only those trees and other vegetation adjacent to cleared work areas and necessary to conduct the required work.
- B. Trim and prune branches 1½ inches or more in diameter.
- C. Neatly cut limbs and branches close to the bole of the tree or main branches.
- D. Paint cuts more than 1¼ inches in diameter with tree-pruning compound.

3.8 DISPOSAL OF CLEARED AND GRUBBED MATERIALS

- A. Consolidate rubbish/debris/grass clippings encountered during clearing and grubbing and dispose of properly on-site within the intermediate cover layer. This material shall be handled and disposed of in the same manner as the contaminated soils.
- B. Stumps, tree trunks and limbs too large for chipping shall be broken into smaller pieces to allow for chipping, be chipped, and then be appropriately disposed on-site by the Contractor within the intermediate cover layer. This material shall be handled and disposed of in the same manner as the contaminated soils.

* END OF SECTION 31 10 00 *



