

ADDENDUM NO. 1

Long Beach Pump Building Demolition Project
Town of Long Beach
Long Beach, Indiana

Project No. IN17004

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Addendum No. 1, 14 items, 34 pages

September 8, 2017

I hereby certify that this Addendum was prepared by me or under my direct supervision and that I am a duly registered Architect/Engineer under the Laws of the State of Indiana.

GLOBAL ENGINEERING & LAND SURVEYING
601 Franklin Square, Suite 407
Michigan City, Indiana



Jeanette Hicks P.E.

TO: ALL CONTRACTORS OF RECORD

ADDENDUM NO. 1 to Drawings and Project Manuals, dated August 17, 2017, for the Construction of the Long Beach Pump Building Demolition Project, Long Beach, Indiana 46360; as prepared by Global Engineering & Land Surveying, Michigan City, Indiana.

This Addendum shall hereby be and become a part of the Contract Documents the same as if originally bound thereto.

The following clarifications, amendments, additions, revisions, changes, and modifications change the original Contract Documents only in the amount and to the extent hereinafter specified in this Addendum.

Each Contractor shall acknowledge receipt of this Addendum in his/her bid.

NOTE: Contractors are responsible for becoming familiar with every item of this Addendum. (This includes miscellaneous items at the very end of this Addendum.)

RE: ALL CONTRACTORS

ITEM NO. 1. PRE-BID MEETING NOTES

- A. Please note the responses to Contractor questions and attached sign-in sheet and plan holders list.

ITEM NO. 2. P-1 to P-2 – PROPOSAL FORM

- A. A revised proposal form is included to add the line for Alternate Bid 1 to salvage the clay roof tiles and Alternate Bid 2 for complete removal of the building wing walls.

ITEM NO. 3. IP-1 – ITEMIZED PROPOSAL FORM

- A. Revise Sheet IP-1 to include multiple revisions.

ITEM NO. 4. Project Specifications: 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

- A. Remove this section in its entirety and replace with 01 50 00 – Temporary Facilities and Controls, Revision 1.

ITEM NO. 5. Project Specifications: 02 4113.23 – UTILITY LINE REMOVAL

- A. Remove this section in its entirety and replace with Special Provision Section 30 “Removal of Existing Utilities.

ITEM NO. 6. Project Specifications: 02 61 00 – HANDLING OF PETROLEUM CONTAMINATED SOILS

- A. Remove this section in its entirety and replace with 02 61 00 – Petroleum Impacted Soil Removal and Disposal.

ITEM NO. 7. Project Specifications: 02 65 00 – UNDERGROUND STORAGE TANK REMOVAL

- A. Remove this section in its entirety and replace with 02 65 00 – Underground Storage Tank Removal, Revision 1.

ITEM NO. 8. Project Specifications: 02 82 00 – ASBESTOS REMEDIATION

- A. Remove this section in its entirety and replace with 028213.33 – Asbestos Abatement.

ITEM NO. 9. Project Specifications: 02 90 00 – MISCELLANEOUS REGULATED MATERIALS

- A. Remove this section in its entirety and replace with 024119.13 – Selective Building Demolition.

ITEM NO. 10. Project Specifications: 31 00 00 – EARTHWORK

- A. Remove this section in its entirety and replace with 31 00 00 – Earthwork, Revision 1.

ITEM NO. 11. Project Specifications: 31 25 00 – EROSION AND SEDIMENT CONTROL

- A. Remove this section in its entirety and replace with 31 25 00 – Erosion and Sediment Control, Revision 1.

ITEM NO. 12. Plan Drawing: GRADING PLAN

- A. After demolition of the building, engineered fill as specified in Section 31 00 00 – Earthwork, Revision 1 will be required to restore the site as shown on the grading plan.

ITEM NO. 13. ALTERNATE BID 1 – SALVAGE OF EXISTING CLAY ROOF TILES

- A. Existing clay roof tiles shall be carefully removed, stacked, and turned over to the Owner (Town of Long Beach) for storage. Coordinate with the Town.

ITEM NO. 14. ALTERNATE BID 2 – COMPLETE REMOVAL OF BUILDING WING WALLS

- A. The concrete wing walls extend from the corners of the building toward Lake Shore Drive. It is estimated that these walls are 40 feet long by 30 feet deep. Provide protection so as not to undermine Lake Shore Drive.



Pre-Bid Meeting Agenda

Date: August 30, 2017

Town of Long Beach Pump Building Demolition

1. Design Team
 - a. Global Engineering – Jeff Oltmanns and Jeanette Hicks
2. Long Beach
 - a. Town Council
 - b. Owner’s Representative – Nick Meyer
3. Project Information
 - a. Bids due: 3:00pm Thursday, September 14, 2017 to the Office of the Town Clerk, Town Hall (sealed) or when opened publicly at the Town Council public meeting at 7:00pm when prompted by the Board’s presiding official.
 - b. Bidding Requirements: Please carefully follow the instructions in the Information for Bidders when providing a bid.
 - c. Scope of Work:
 - i. Complete demolition of the Long Beach Pump Building and foundation
 - ii. Hazardous material abatement
 1. Asbestos – Cementitious pipe, approx. 40 LF
 2. Universal Waste – Florescent Fixtures (6) and Bulbs (4 at 4’ long) (PCBs), diesel underground tank, 10-gallon Fluoride, submerged water pumps (PCBs).
 - iii. Temporary timber retaining wall
 - iv. Dune Restoration – grading and plantings.
 - v. Erosion Control at all times – wind and runoff
 - d. Existing condition information
 - i. See the Appendix of the project specifications for the Asbestos and Universal Waste surveys.
 - e. Cooperation with Town Officials:
 - i. Emergency Services and Schools, especially if road closures
 - f. Disposal of Waste:
 - i. Properly dispose of waste in certified locations, especially hazardous materials.
 - ii. Owner will identify items to be saved, if any.
 - g. Bid forms from Specifications shall be accompanied by Form 96, Financial Statement, and Bid Security of 5%.
 - h. Performance Bond and Payment Bond in the amount of 100% of the contract price required.
 - i. Addendum: Will be issued Thursday, September 7, 2017 by 5:00pm or Monday, September 11, 2017 by 5:00pm at the latest via email to all plan holders.
 - j. Anticipated Substantial Completion: 45 days from Notice to Proceed.
 - k. Questions shall be submitted to Global Engineering by noon on Wednesday, September 6, 2017 and will be included in the addendum.

Global Engineering and Land Surveying

601 South Franklin Street | Suite 407 | Michigan City, IN 46360
219-872-4444 | fax 219-879-9920

Town of Long Beach Pump Building Demolition

August 30, 2017

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Contractor Questions:

1. Following the demolition of the building, will backfill material need to be brought in to establish the slope? Please specify.
 - a. *According to Article 2.1A, B, and D of the 31 00 00 Earthwork, Revision 1 project specifications, satisfactory fill soils are soil groups SW (well-graded sand) and SP (poorly-graded sand) as defined in ASTM D-2487 or sand as defined in ASTM C 33. (Note all fill soils shall be tested, certified, placed, and compacted to meet all ASTM specifications stated in the Earthwork section).*
2. What is the size of the underground diesel tank (UST)? What was the UST used for? Is it registered?
 - a. *Refer to the "Universal Waste Survey" by Aegis Environmental, Inc. in the Appendix of the project specifications.*
3. Will post closure soil and/or water sampling for the UST be required? If so, what analysis?
 - a. *According to the "Universal Waste Survey" by Aegis Environmental, Inc. in the Appendix of the project specifications, there is no documentation regarding if the UST was properly closed. If the UST is required to be closed, it shall be performed properly per state and federal regulations.*
4. The submerged water pumps are listed as PCB. What component is PCB? Should the water be pumped and disposed of as PCB? Should the pumps be disposed of as PCB?
 - a. *Refer to the "Universal Waste Survey" by Aegis Environmental, Inc. in the Appendix of the project specifications. Disposal shall follow 329 IAC 4.1-13-5 as stated.*
5. Is the 10-gallon drum of fluoride full? What is the quantity?
 - a. *Refer to the "Universal Waste Survey" by Aegis Environmental, Inc. in the Appendix of the project specifications. Approximately 10 gallons of fluoride is noted.*
6. Is the Excess Liability Umbrella Insurance necessary as the CGL limit is \$5-million and Auto is \$1-million?
 - a. *Page SGC-4 of the Supplemental General Conditions in the project specifications states to provide an umbrella coverage for **both Comprehensive General Liability and Comprehensive Automobile Liability with a combined minimum limit of \$2,000,000.***
7. Is Railroad Protective Liability Insurance required?
 - a. *No. The specifications state "where applicable" and it is not applicable for this project.*
8. Are the wing walls which extend from the corners of the building out toward Lake Shore Drive and are buried within the existing lawn to be included in the demolition?
 - a. *If the wing walls are less than 10 feet deep, they are to be demolished in full. If they are more than 10 feet deep, they shall be ground/saw cut down 4 feet below the surface of the lawn. Refer to the project Alternates.*
9. For site security, is chain link fence required by the Town, or is orange plastic snow fence acceptable?
 - a. *Chain link security fence shall be provided.*

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PROPOSAL

LONG BEACH PUMP BUILDING DEMOLITION PROJECT

LONG BEACH, LA PORTE COUNTY, INDIANA

To the Town of Long Beach, La Porte County, Indiana:

Pursuant to the published "Request for Proposals", the undersigned has investigated the conditions affecting the cost of the proposed:

LONG BEACH PUMP BUILDING DEMOLITION PROJECT

And hereby tenders this quote to construct said project in accordance with the Contract Documents now on file with Long Beach, Indiana, and to furnish all necessary machinery, equipment, tools, labor, and other means of construction, and to furnish all material specified in the manner and at the time prescribed as required by the Contract Documents and pursuant to the Payment Bond and Performance Bond to be filed, each in the amount of 100 percent of the Contract price of

BASE BID AMOUNT

_____ Dollars (words)
_____ Dollars (figures)

ALTERNATE BID 1 AMOUNT (Salvage and stack clay roof tiles)

_____ Dollars (words)
_____ Dollars (figures)

ALTERNATE BID 2 AMOUNT (Complete removal of wing walls)

_____ Dollars (words)
_____ Dollars (figures)

These prices are the sum of the quoted unit prices multiplied by the quantity for each item as shown on the attached Itemized Proposal. Whereas a mathematical computation error exists on the Itemized Proposal; thus causing the above-stated Bid Amount to be stated incorrectly, the Bidder acknowledges that the unit prices, as stated on the Itemized Proposal shall govern.

As required by the statutes of the State of Indiana for any bid of \$100,000 or more, Questionnaire Form 96 (revised 2013), of the Indiana State Board of Accounts is properly executed and attached hereto. It is hereby agreed that this Proposal shall remain in full force and effect, and may not be withdrawn for a period of 90 days from the date of receiving proposals by the Town of Long Beach, La Porte County, Indiana.

Respectfully submitted,

Contractor
(Individual) (Partnership) or (Corporation)

By: _____

Address: _____

Dated: _____

The above Bidder acknowledges receipt of Addenda Nos. _____

Note: The legal status of the Bidder, whether as an individual, partnership or corporation, must be indicated as above, and all pertinent information as required by the Specifications must be furnished.

LONG BEACH, INDIANA
LONG BEACH PUMP BUILDING DEMOLITION PROJECT

BID FORM

CONTRACTOR: _____

ITEM	DESCRIPTION	VALUE	VALUE	VALUE
1	MOBILIZATION / DEMOBILIZATION	LSUM	1	
2	MISC. REGULATED MATERIALS - LAMPS, BALLASTS, ETC	LSUM	1	
3	MISC. REGULATED MATERIALS - FLOURIDE AND TANK	LSUM	1	
4	UNDERGROUND STORAGE TANK - DECOMMISSION AND CLOSURE BY REMOVAL	LSUM	1	
5	UTILITY DISCONNECTION / TERMINATION	LSUM	1	
6	SITE SECURITY FENCING: CHAIN LINK	LSUM	1	
7	EROSION AND SEDIMENT CONTROL	LSUM	1	
8	DEMOLITION AND DISPOSAL OF BUILDING AND DEBRIS	LSUM	1	
9	DISPOSAL OF CATEGORY II FRIABLE ASBESTOS-CONTAINING CEMENTITIOUS PIPING	LFT	40	
10	DISPOSAL OF ABANDONED EQUIPMENT, FURNISHINGS, AND DEBRIS	LSUM	1	
11	LOAD, HAUL, DISPOSE OF UNDERGROUND STORAGE TANK CONTENTS	LSUM	1	
12	DISPOSAL OF CONTAMINATED SOILS	TON	20	
13	CONCRETE FOUNDATION REMOVAL AND DISPOSAL	LSUM	1	
14	REMOVAL OF ALL FLATWORK - SIDEWALKS	SFT	283	
15	BACKFILL - PLACEMENT, GRADE, AND COMPACT	TON	800	
16	SLOPE STABILIZATION - GRADING, EROSION CONTROL	LSUM	1	
17	PLANTINGS - DUNEGRASS PLUGS	EACH	300	
18	CAP AND ABANDON EXISTING WATER INTAKE PIPE	LSUM	1	
19	SEEDING - DISTURBED LAWN ADJACENT TO LAKE SHORE DRIVE	LSUM	1	
20	TIMBER RETAINING WALL	LFT	40	
21	FINAL SURVEY	LSUM	1	
22	MAINTAINING TRAFFIC	LSUM	1	
BASE BID				
A1	ALTERNATE BID 1: SALVAGE EXISTING CLAY ROOF TILES			
A2	ALTERNATE BID 2: COMPLETE REMOVAL OF BUILDING WING WALLS			

SP 30 REMOVAL OF EXISTING UTILITIES

The CONTRACTOR shall excavate, remove, and backfill existing facility utilities in accordance with Section 200 of the Standard Specifications and as follows.

It is the responsibility of the CONTRACTOR to field verify locations of all existing facility utilities including but not limited to existing water distribution piping, sewer piping, and appurtenances.

Existing sanitary sewers and water distribution piping shall be disconnected from the municipal systems at the property line. Sewers and water piping shall be capped or plugged. Mechanical fittings shall meet American Water Works Association (AWWA) and Town of Long Beach Water Department standards for water piping termination. Plugging of sewers by concrete shall use a minimum of 3,000 psi, 28-day concrete. Work on sanitary sewers shall be done to the satisfaction of the Michigan City Sanitary District.

Disposal of utility materials and contents shall be performed to all local, state, and federal standards.

Contractor shall submit record drawings showing locations of any terminated utility disconnections and capping/plugging.

Payment for the item will be made by Lump Sum, LSUM.

LONG BEACH PUMP BUILDING
DEMOLITION PROJECT

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS-REVISION 1

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

1.3 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, Owner's construction forces, Architect, testing agencies, and authorities having jurisdiction.
- B. Sewer Service: Pay sewer-service use charges for sewer usage by all entities for construction operations.
- C. Water Service: Pay water-service use charges for water used by all entities for construction operations.
- D. Electric Power Service: Pay electric-power-service use charges for electricity used by all entities for construction operations.

1.4 INFORMATIONAL SUBMITTALS

- A. Erosion- and Sedimentation-Control Plan: Show compliance with requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.
- B. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.
- C. Dust- and HVAC-Control Plan: Submit coordination drawing and narrative that indicates the dust- and HVAC-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:

LONG BEACH PUMP BUILDING
DEMOLITION PROJECT

1. Locations of dust-control partitions at each phase of work.
2. HVAC system isolation schematic drawing.
3. Location of proposed air-filtration system discharge.
4. Waste handling procedures.
5. Other dust-control measures.

1.5 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.

1.6 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. 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.

2.2 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
 1. Heating Units: Listed and labeled for type of fuel being consumed, by a qualified testing agency acceptable to authorities having jurisdiction, and marked for intended location and application.
- C. Air-Filtration Units: Primary and secondary HEPA-filter-equipped portable units with four-stage filtration. Provide single switch for emergency shutoff. Configure to run continuously.

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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 facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

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. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.
- C. Water Service: Install water service and distribution piping in sizes and pressures adequate for construction.
- D. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- E. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.
 - 1. Prior to commencing work, isolate the HVAC system in area where work is to be performed according to coordination drawings.
 - a. Disconnect supply and return ductwork in work area from HVAC systems servicing occupied areas.
 - b. Maintain negative air pressure within work area using HEPA-equipped air-filtration units, starting with commencement of temporary partition construction, and continuing until removal of temporary partitions is complete.
 - 2. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust-containment devices.
 - 3. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.
- 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.

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2. Connect temporary service to Owner's existing power source, as directed by Owner.
- 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.

3.3 SUPPORT FACILITIES INSTALLATION

- A. Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate for construction operations.
1. Provide dust-control treatment that is nonpolluting and nontracking. Reapply treatment as required to minimize dust.
- B. Temporary Use of Permanent Roads and Paved Areas: Locate temporary roads and paved areas in same location as permanent roads and paved areas. Construct and maintain temporary roads and paved areas adequate for construction operations. Extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.
1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
 2. Prepare subgrade and install subbase and base for temporary roads and paved areas according to Section 310000 "Earthwork."
 3. Recondition base after temporary use, including removing contaminated material, regrading, proofrolling, compacting, and testing.
 4. Delay installation of final course of permanent hot-mix asphalt pavement until immediately before Substantial Completion. Repair hot-mix asphalt base-course pavement before installation of final course according to Section 321216 "Asphalt Paving."
- C. Traffic Controls: Comply with requirements of authorities having jurisdiction.
1. Protect existing site improvements to remain including curbs, pavement, and utilities.
 2. Maintain access for fire-fighting equipment and access to fire hydrants.
- D. Parking: Use designated areas of Owner's existing parking areas for construction personnel.
- E. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
 2. Remove snow and ice as required to minimize accumulations.
- F. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.

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1. Identification Signs: Provide Project identification signs as indicated on Drawings.
 2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
 - a. Provide temporary, directional signs for construction personnel and visitors.
 3. Maintain and touchup signs so they are legible at all times.
- G. Waste Disposal Facilities: Provide waste disposal for temporary facilities in accordance with all local, state, and federal requirements.

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. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
- C. Temporary Erosion and Sedimentation Control: Comply with Indiana Department of Environmental Management (IDEM) Storm Water Permitting requirements for erosion and sediment control procedures Indiana Administrative Code (3271AC 15-5) "Rule 5" and "Rule 13" (327 IAC 15-13) requirements specified in Section 312500 " Erosion and Sediment control."
- D. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to Indiana Department of Environmental Management (IDEM) Storm Water Permitting requirements for erosion and sediment control procedures Indiana Administrative Code (3271AC 15-5) "Rule 5" and "Rule 13" (327 IAC 15-13) requirements specified in Section 312500 " Erosion and Sediment control."
 1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant- protection zones.
 2. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
 3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from Project site during the course of Project.
 4. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.
- 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. Site Enclosure Fence: Before construction operations begins, furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.

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1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.
 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel.
- G. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.
- H. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- I. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities.
- J. 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.
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. Provide the required amount of fire extinguishers, installed on walls on mounting brackets, visible and accessible from space being served, with sign mounted above.

3.5 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
1. Maintain operation of temporary enclosures, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
1. Materials and facilities that constitute temporary facilities are property of Contractor.
 2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.

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3. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period.

END OF SECTION 015000

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SECTION 024119.13 - SELECTIVE BUILDING DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Demolishing designated building equipment and fixtures as outlined in the Aegis Environmental Inc., Universal Waste Survey dated June 14, 2017, contained in the Appendix including 6 fluorescent light fixtures, 4 fluorescent bulbs (4' bulbs), approximately 10 gallons of fluoride with tank, and submerged water pumps.
2. Removing designated items.
3. Removing demolished materials.

1.2 BASIS OF PAYMENT:

- A. The cost of all work for the removal and disposal of above materials within the Base Bid as a lump sum, LSUM.
- B. The underground diesel storage tank referenced in the above Universal Waste Survey will be paid for as a separate pay item as shown on the Itemized Proposal form.
- C. All other associated cost shall be considered incidental.

1.3 REGULATORY REQUIREMENT REFERENCES

- A. U.S. EPA
- B. Occupational Safety and Health Administration (OSHA).
- C. Indiana Department of Environmental Management (IDEM)

1.4 SUBMITTALS

- A. Demolition Schedule: Indicate overall schedule and any interruptions required for utilities.
- B. Shop Drawings: Indicate sequences, and location of temporary work.
- C. Submit complete chain of custody forms to the ENGINEER for all materials identified in the Universal Waste Survey within 10 days of disposal.

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1.5 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of any capped utilities, concealed utilities, and subsurface obstructions.

PART 2 - PRODUCTS

- 2.1 Not Used.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Notify any affected utility companies before starting work and comply with their requirements.
- B. Contractor to obtain any necessary permits related to transportation and disposal.

3.2 DEMOLITION AND DISPOSAL

- A. Minimize interference with adjacent properties.
- B. Do not close or obstruct roadways and sidewalks without permits.
- C. Remove demolished materials from Site. Do not burn or bury materials on Site.
- D. Remove materials as Work progresses.
- E. Disposal shall be at licensed facility meeting all local, state, and federal requirements.

END OF SECTION 024119.13

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SECTION 02 61 00- PETROLEUM IMPACTED SOIL REMOVAL AND DISPOSAL

PART 1 -GENERAL

1.01 SUMMARY

A. Section Includes:

1. Excavation and disposal of petroleum impacted soil at a state licensed and permitted landfill.
2. Excavated soils will be segregated at the discretion of the Engineer's on-site field scientist who will field screen the excavated soil and collect samples according to regulations set forth by the Indiana Department of Environmental Management (IDEM). The contractor shall segregate soils as directed by the field scientist into "clean" soils and "impacted" soils. Impacted soils will be loaded directly into trucks or lined dumpsters for disposal. Clean overburden will be placed on plastic sheeting and covered. The volume of petroleum impacted soil will be based on landfill disposal receipts.

B . Contractor Cost

1. Contractor cost will be based on the unit price per ton removed and disposal documentation. Payment will be made by the TON.

1.02 SUBMITTALS

- A. Provide the name of the landfill including the telephone number and contact person.
- B. Provide the name and license of the transportation company.
- C. Provide a summary of loads of soil transported and disposed at the landfill including truck number, date, time. Include landfill disposal receipts that show tonnage.

PART 2 – COMPLETION OF WORK

2.01 EXCAVATION, STOCKPILING, AND TRANSPORTATION OF IMPACTED SOIL

- A. Excavated soils will be segregated at the discretion of an onsite field scientist who will field screen the excavated soil and collect samples according to regulations set forth by the Indiana Department of Environmental Management (IDEM). The contractor shall segregate soils as directed by the field scientist into "clean" soils and "impacted" soils. Impacted soils will be loaded directly into lined trucks or dumpsters for disposal. The contractor shall provide a disposal manifest for any loads of petroleum impacted soil transported to the landfill. Clean overburden will be excavated and placed on and covered with minimum 6 mil visqueen. The visqueen cover shall be secured to prevent movement by wind, rain, etc. Do not commingle soils from the UST removal Scope of Work with soils from other site work, i.e., demolition.
- B. Clean overburden will remain stockpiled until laboratory analytical is completed.

2.02 PERMITS

- A. Contractor is responsible for obtaining approval for disposal of petroleum impacted soils.

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Section 02 65 00 - Underground Storage Tank Removal

The governing specification for this Section is INDOT Standard Specification Section 202.

The summary of work for this project is the removal and disposal of a Underground Storage Tank (UST) used for diesel storage. The tank is of unknown dimensions, but is estimated to be under 3,000 gallons. The Town had contents removed in the past when the building was no longer in operation.

Removal of underground storage tanks shall consist of the proper excavation; removal of the tank; removal and disposal of liquids, sludges, and other materials in the tanks; backfilling, and permanent closure of underground storage tanks located as shown on the plans or as identified by the Engineer.

This work shall be performed in accordance with the requirements as follows:

- (a) Technical Standards and Corrective Action Requirements for Owners and Operations of Underground Storage Tanks, UST, Code of Federal Regulations, Title 40, Part 280 (40 CFR 280), Subparts F and G;
- (b) American Petroleum Institute Recommended Practice 1604, "Removal and Disposal of Used Underground Petroleum Storage Tanks";
- (c) American Petroleum Institute Publication 2015, "Cleaning Petroleum Storage Tanks";
- (d) RCRA and the Indiana Environmental Management Act;
- (e) UST Notification, Reporting and Closure Requirements as prepared by the IDEM Underground Storage Tank Branch;
- (f) safety regulations issued by OSHA;
- (g) Indiana Fire Prevention Code, Flammable and Combustible Liquids, Article 79, 675 IAC 22;
- (h) all applicable Federal and State requirements for certification of underground storage tank removal contractors; and
- (i) local fire codes.

An individual who has been certified for underground storage tank closure or removal, as appropriate, through the State Fire Marshall shall be present at all times for tank

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closure or removal. Evidence of such certification shall be given to the Engineer prior to starting work.

The removal and disposal of all regulated materials in or around the tanks shall be in accordance with all local, state, and federal regulations.

The Contractor shall have the responsibilities as follows:

- (a) obtain a review of available tank information from the Engineer;
- (b) unless the Owner has already done so, provide notification of tank removal operations to appropriate authorities. Notification shall be provided as required to the IDEM, Office of the State Fire Marshall and local fire department in accordance with (a) through (i) above. Notification shall be provided to IDEM at least 30 days prior to closure or removal of regulated tanks in the form of the completed Notification for Underground Storage Tanks Form, and at least 14 days prior to removal or closure to the State Fire Marshall and the local fire department. At least 14 days prior notice, by telephone, shall be given to the IDEM Underground Storage Tank Branch of intended closure or removal date. Such forms are available from the Indiana Department of Environmental Management;
- (c) allow the Engineer to visually inspect tanks after removal;
- (d) allow the Engineer to visually inspect the excavation zone for contaminated soils;
- (e) obtain from the Engineer the limits of excavation for each tank to be removed;
- (f) allow the Engineer to verify all documentation for remediation;
- (g) sample and classify the tank contents, if access is available, or confirm tank contents by sampling and testing;
- (h) submit a site operation plan for the contaminated area to the Engineer for review and approval before beginning removal operations;
- (i) provide and maintain pedestrian safety fencing;
- (j) remove all liquids and sludges from tanks;
- (k) clean tanks and connected piping, including feed lines and drain lines, of contents;
- (l) remove tanks from the ground;
- (m) dispose of all tank content wastes in accordance with local, state, and federal

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regulations;

(n) render tanks useless or dismantle tanks and transport to scrap dealer or landfill;

(o) implement a site operation plan for the contaminated area as directed in accordance with Section 026100 "Petroleum Impacted Soil Removal and Disposal";

(p) backfill excavations in an approved manner. Backfill shall be B borrow in accordance with Section 310000 "Earthwork";

(q) maintain accurate records of all operations. Submit reports, including a completed Notification for UST and an UST System Closure Site Assessment Report, to IDEM's UST Branch within 30 days after closure. Two copies of these forms shall be provided to the Engineer with verification that the documents were submitted to IDEM;

(r) obtain disposal approvals for the hauling and disposal of all tank content waste materials from the site; and

(s) if the soil or groundwater surrounding the tank shows evidence of contamination, the hole shall be covered to prevent contamination of rainwater until remediation is complete.

The Engineer will classify the tank contents as one of the following liquid wastes for purposes of disposal requirements and payment.

(a) Type A Waste

Type A waste will consist of direct discharge wastewater which may be discharged to a sanitary sewer system with or without treatment, upon receipt of required permits.

(b) Type B Waste

Type B waste will consist of low flash wastewater which shall be treated off-site at a treatment facility prior to disposal.

(c) Type C Waste

Type C waste will consist of petroleum or other chemical liquid and sludge wastes which are regulated materials under current EPA, U.S. Department of Transportation, or IDEM regulations. Such waste shall be disposed of at a RCRA approved facility.

Basis of payment:

The cost of removing the tanks and all pipe from the ground, removal and disposal of all miscellaneous parts associated with the tank such as concrete pads or holding devices,

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filing of all required notifications, preparation and implementation of a site operation plan, excavation of all materials necessary in order to remove the tank, compliance with closure requirements, all necessary pedestrian safety fencing, cleaning and draining of tanks and pipes, dismantling or transport, and all required record keeping or reports shall be included in the cost of underground storage tanks, remove and dispose as a Lump Sum, LSUM. However, backfill and removal/disposal of contaminated soil will be paid for separately. No payment will be made for work not performed in accordance with the specifications or not required by the contract.

END SECTION 02 65 00

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SECTION 028213.33 - ASBESTOS ABATEMENT

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Removal of ACM-contaminated pipes.
2. Cutting of pipes containing ACM.
3. Monitoring of Work area during cutting and cleaning operations.

1.2 DEFINITIONS

A. ACM: Asbestos-containing material.

1.3 UNIT PRICES

A. Removal of ACM Piping:

1. Basis of Measurement: By linear foot, measured along piping and including fittings and appurtenances.
2. Basis of Payment: Includes cutting, packaging, transport, disposal, and monitoring.

1.4 REFERENCE STANDARDS

A. Occupational Safety and Health Administration (OSHA):

1. 29 CFR Part 1926 - Safety and Health Regulations for Construction.
2. 29 CFR 1910.1001 - General Industry Standard
3. 40 CFR Part 763, Subpart E, Appendix E, Section 1- Polarized Light Microscopy.
4. 42 CFR Part 84, Subpart K - Non-Powered Air-Purifying Particulate Respirators.

B. U.S. Environmental Protection Agency:

1. National Emission Standards for Hazardous Air Pollutants (NESHAPs).

C. Indiana Department of Environmental Management (IDEM):

1. Indiana Administrative Code Title 36 Air Pollution Control Division Article 14. Emission Standards for Hazardous Air Pollutants.

1.5 SUBMITTALS

A. Product Data: Manufacturer information on respirators and air monitor.

B. Manufacturer's Certificate: Products meet or exceed specified requirements.

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- C. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.
- D. Qualifications Statements:
 - 1. Qualifications for contractor, on-Site representative, and disposal firm.
 - 2. Qualifications for testing laboratory.

1.6 QUALITY ASSURANCE

- A. Perform Work according to NESHAPs, OSHA, NIOSH, and IDEM standards.
- B. Contractor: Company specializing in repairing, modifying, cleaning, or removing AC pipe as specified in this Section with three (3) years' experience. Contractor personnel shall attend and successfully complete training per 40 CFR, Part 763, Subpart E Appendix C. Such training shall be current during course of project.
- C. On-Site Representative: Person trained in performing Work of this Section with three (3) years' experience.
- D. Disposal Firm: Company specializing in packaging and hauling ACM to disposal site.
- E. Active Waste Disposal Site: Solid waste disposal site permitted to accept ACM waste.
- F. Testing Laboratory: Company participating in National Voluntary Laboratory Accreditation Program for asbestos, administered by National Institutes of Standards and Technology.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store materials according to manufacturer instructions.
- B. Respirators Not in Use:
 - 1. Store in sanitary location that protects respirators from dust, sunlight, heat, extreme cold, excessive moisture, and potentially damaging chemicals.
 - 2. Place in plastic bags or closed containers.

PART 2 - PRODUCTS

2.1 RESPIRATORS

- A. Manufacturers:
 - 1. Furnish materials according to OSHA standards.
- B. Description:
 - 1. Comply with 42 CFR Part 84, Subpart K.
 - 2. Type: Half-face mask; reusable after washing.

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3. Maintenance: Replaceable filters and cartridges only.
4. Single-use respirators are not acceptable.

C. Filters: Top air inlet.

D. Performance and Design Criteria:

1. Application: Asbestos abatement for concentrations up to 10 times permissible exposure limit (PEL).
2. Design: Low profile.

2.2 AIR MONITOR

A. Manufacturers:

1. Furnish materials according to OSHA standards.

B. Description:

1. The Contractor shall maintain a daily log of all personal air testing results.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Perform ACM removal without damage to or contamination of adjacent Work or existing area.

3.2 APPLICATION

- A. Application Standards: Apply Work according to all above referenced standards.

3.3 FIELD QUALITY CONTROL

The term "suspect ACM" would include materials discovered in the course of demolition, which only become visible during demolition or material in areas inaccessible during the inspection. If such materials are discovered during renovation or demolition, work in the area should be halted immediately, and a licensed asbestos inspector should be contacted so that the suspect ACM in question can be sampled. Only after laboratory analysis has been conducted on these samples and reported should regulatory-appropriate demolition or renovation continue.

END OF SECTION 028213.33

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SECTION 31 00 00- EARTHWORK-REVISION 1
PART 1-GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General Conditions and other Specifications Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:

1. Excavating and backfilling for building and structure demolition and removal.
2. Earthwork associated with meeting adjacent conditions.
3. Earthwork associated with placing, grading and compacting Backfill and Fill at the Project Site.
4. Excavating and backfilling trenches from utilities and utility structure removal

B. The Contractor shall fill the site with specified Backfill and Fill material to meet the proposed grades.

1.3 DEFINITIONS

A. Backfill: Satisfactory soil materials used to fill an excavation.

1. Initial Backfill: Backfill placed beside and over pipe in a trench, including hunches to support side of pipe.
2. Fina Backfill: Backfill placed over initial backfill to fill a trench.

C Bedding Course: Layer placed over the excavated subgrade in a trench before laying pipe.

D. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.

E. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.

F. Fill: soil materials used to raise existing grades.

G. Pavement: Walks, drives, roads, parking areas, and athletic courts to include all asphalt, concrete, brick and aggregate pavement.

H. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.

I. Sub base Course: Layer placed between the subgrade and base course for asphalt paving, or layer place between the subgrade and a concrete pavement or walk.

J. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below sub base, drainage fill, or topsoil materials.

K. Utilities: Include on-site underground pipes, conduits, ducts, and cable, as well as underground services within buildings.

1.4 SUBMITTALS

A. Qualification Data: For qualified testing agency.

B. Material Test Reports: For each[on-site and borrow soil material proposed for fill and backfill as follows:

1. Classification according to ASTM D 2487.
2. Laboratory compaction curve according to ASTM D 698

C. Field Compaction Test Reports: From a qualified testing agency indicating and interpreting test results for the compliance with the compaction of Backfill and Fills requirement of 95% of standard proctor.

1.5 QUALITY ASSURANCE

A. Geotechnical Testing Agency Qualifications: Qualified according to ASTM E 329 and ASTM D 3740 for testing indicated.

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1.6 PROJECT CONDITIONS

- A. Do not commence earth moving operations until temporary erosion- and sedimentation-control measures, specified in Section 312500 "Erosion and Sediment Control".
- B. Utility Locator Service: Notify Indiana811 for area where Project is located before beginning earth moving operations.
- C. Demolish and completely remove from site existing underground utilities indicated to be removed.
- D. Coordinate with utility companies disconnect any active service lines.

PART 2- PRODUCTS

2.1 SOIL MATERIALS DEFINITIONS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Satisfactory Soils: ASTM D 2487 soil classification groups SW and SP, or a combination of these group symbols; free of rock or gravel larger than 1 inch in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter. In addition, the soils must also be considered non-contaminated. GW and GP, INDOT size #53 for subbase.
- C. Unsatisfactory Soils: Except where noted above, ASTM D 2487 soil classification groups GM, GC, SM, SC, ML, MH, CL, CH, OL, OH, and PT, or a combination of these group symbols. Unsatisfactory Soils also include Satisfactory Soils not maintained within 2 percent of optimum content at the time of compaction.
- D. Sand: ASTM C 33; fine aggregate.
- E. Sub base: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand, ASTM D 2940; with at least 100% passing a 1-1/2 inch (38-mm) sieve and not more than 10% passing a No. 200 (0.075-mm) sieve.
- F. Base: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand: ASTM D 2940; with at least 100% passing a 1-1/2 inch (38-mm) sieve and not more than 10% passing a No. 200 (0.075) sieve.
- G. Bedding: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; except with 100% passing a 1-1/2 inch (25-mm) sieve and not more than 8% passing a No. 200 (0.075-mm) sieve.

2.2 ACCESSORIES

Underground Detectable Warning Tape: Acid and alkali-resistant polyethylene film warning tape manufactured for marking and identifying underground utilities, minimum 6 inches (150mm) wide and 4 mils (0.1mm) thick, continuously inscribed with a description of utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches (750mm) deep; colored follows:

- 1. Red: Electric
- 2. Yellow: Gas, oil, steam, and dangerous materials
- 3. Orange: Telephone and other communications
- 4. Blue: Water systems
- 5. Green: Sanitary and storm sewer systems
- 6. Contractor shall furnish and install underground detectable warning tape for existing remaining active utilities found during the course of work

PART 3- EXECUTION

3.1 PREPARATION

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- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth moving operations.
 - B. Protect and maintain erosion and sedimentation controls during earth moving operations.
 - C. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.
- 3.2 EXCAVATION FOR FINISHED GRADE
- A. Excavate, place, and compact Backfill and Fill materials to indicated finished grade elevations.
- 3.3 DEWATERING
- A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
 - B. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.
- 3.4 EXPLOSIVES
- Explosives: Do not use explosives.
- 3.5 APPROVAL OF SUBGRADE
- A. Notify Owners Representative when excavations have reached required subgrade.
 - B. Proof roll subgrade with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof roll wet or saturated subgrades (remove material to expose dry soil).
 - C. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by the Owner's Representative.
- 3.6 STORAGE OF SOIL MATERIALS
- A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - 1. Stockpile materials away from edge of excavations. Do not store within the drip line of remaining trees.
 - 2. Erosion control methods and stockpile materials shall conform to all erosion control requirements and methods identified by the plans and specifications.
- 3.7 SOIL FILL
- A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so Fill will bond with existing material.
 - B. Place soil fill on subgrades free of mud, frost, snow, or ice.
 - C. Place Fill material in 6" loose layers and compact to required elevations.
- 3.8 SOIL MOISTURE CONTROL
- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.
 - 1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
 - 2. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.
- 3.9 COMPACTION OF BACKFILLS AND FILLS
- A. Place Backfill and Fill materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
 - B. Compact soil to not less than 95% of maximum dry weight according to ASTM D 698 standard proctor.

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3.10 GRADING

General: Uniformly grade areas to a smooth surface, free from irregular surface changes. Comply with compaction requirements and grade to cross sections, lines and elevations indicated.

1. Provide a smooth transition between adjacent existing grades and new grades.
2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.

3.11 FIELD QUALITY CONTROL

- A. Special Inspections: Engineer will engage a qualified special inspector to perform the following special inspections:

Determine prior to placement of fill that site has been prepared in compliance with requirements.
Determine that fill material and maximum lift thickness comply with requirements.
Determine, at the required frequency, that in-place density of compacted fill complies with requirements.

- B. Testing Agency: Engineer will engage a qualified geotechnical engineering testing agency to perform tests and inspections.
- C. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earth moving only after test results for previously completed work comply with requirements.
- D. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests will be performed at frequencies outline in INDOT Standard Specifications.
- E. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil materials to depth required; recompact and retest until specified compaction is obtained.

3.12 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
1. Scarify or remove and replace soil material to depth as directed by Architect; reshape and recompact.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.19 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property

END OF SECTION 31 00 00

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SECTION 31 25 00- EROSION AND SEDIMENT CONTROL-REVISION 1

PART 1-GENERAL

1.1 SCOPE

The Project site will disturb less than one acre and does not require a Storm Water Pollution Protection Plan. However, the dune area and proximity to Lake Michigan are environmentally sensitive, so the Contractor shall implement erosion control measures to control all storm water.

1.2 REGULATORY REQUIREMENTS

Indiana Department of Environmental Management (IDEM) Storm Water Permitting requirements for erosion and sediment control procedures shall be followed. Indiana Administrative Code (3271AC 15-5) "Rule 5" and "Rule 13" (327 IAC 15-13).

1.3 SUBMITTALS

Submit soil erosion control and sedimentation control procedures and operation sequence for review and acceptance by the ENGINEER.

PART 2-PRODUCTS

2.1 Manufacturers

- A. Sill fence: AAA Silt Fencing, 400 E Wapella St, Minooka, IL 60447, (630) 901- SILT
(Or equal)

- B. Erosion Control Sock: Flow Rite Filter Tubes
Calumet Pallet, Inc., 2640 Calumet Ave, Hammond, IN 46320, (219) 932-4550
(or equal)

- C. Storm water Catch Basin Filter: Flexstorm Catch-It Filters
Inlet and Pipe Protection, Inc.,
24137 W. 111th St - Unit A
Naperville, IL 60564
(866) 287-8655
(or equal)

PART 3-EXECUTION

Coordinate all site operations with the ENGINEER before any land disturbing activities

Install erosion control measures as required by Contractor submittal to achieve the objective outlined in the scope above

Contractor shall provide all erosion control measures necessary to protect property and the environment. Perform all work in accordance with manufacturer's instruction where these specifications do not specify a higher requirement.

Install all temporary or permanent erosion control measures prior to any onsite grading or land disturbances.

Perform stripping of vegetation, grading, excavation, or other land disturbing activities in a logical sequence and manner which will minimize erosion.

Do not clear the site of topsoil, trees, and other natural ground covers before the commencement of construction. Retain natural vegetation and protect until the final ground cover is placed.

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Remove surplus excavation materials from the site immediately after rough grading. The disposal site for the surplus excavation materials shall also be subject to these erosion control requirements.

Minimize water runoff and retain or detain on-site whenever possible so as to promote settling of solids and groundwater recharge.

Convey drainage to the nearest adequate public facility. Do not discharge water in a manner that will cause erosion or sedimentation of the site or receiving facility.

Protect storm sewer inlets and catch basins in accordance with the erosion control plan, if provided. If not specified, protect inlets with straw bale barriers, silt fencing, filter basket, or other equivalent methods approved by the ENGINEER which provide the necessary erosion protection.

Divert roof drainage and runoff from all areas upslope of the site around areas to be disturbed or channel them through the site in a manner that will not cause erosion.

Minimize the pumping of sediments when dewatering. Discharge to a sedimentation basin or sedimentation vessel to reduce the discharge of sediments. Do not discharge water in a manner that will cause erosion or sedimentation of the site or receiving facility.

Contractor shall be responsible maintaining the approved erosion control measures and updating the measures as needed due to changes in the site conditions.

All temporary and permanent erosion and sediment control practices shall be maintained and repaired as needed to ensure continued performance of their intended function.

If the overall function and intent of erosion control is not being met, ENGINEER will require Contractor to provide additional measures as required to obtain the desired results.

END OF SECTION 31 25 00