

Exhibit-F: Excavating, Loading, Hauling, and Disposal of Contaminated Soil

Excavating, Loading, Hauling, and Disposal of Contaminated Soil, Bid Item 90001.

A Description

A.1 General

This special provision describes excavating, loading, hauling, and landfill disposal of contaminated soil at a Wisconsin DNR-licensed facility. **Tipping fees shall be paid for by the Contractor.** The closest WDNR-licensed landfills and bioremediation facility that can treat or dispose of this soil is:

Waste Management Mad Prairie Landfill
6002 Nelson Rd.
Sun Prairie, WI 53590
608.837.9031
Contact: Brian Smith, 414.793.0232

Waste Management Deer Track Park Landfill
N6756 Waldmann Lane
Watertown, WI 53094
608.837.9031
Contact: Brian Smith, 414.793.0232

Perform this work in accordance to section 205 of the standard specifications and with pertinent parts of Chapters NR 700-754 of the Wisconsin Administrative Code, as supplemented herein. Per NR 718.07, a solid waste collection and transportation service-operating license is required under NR 502.06 for each vehicle used to transport contaminated soil.

A.2 Notice to the Contractor – Contaminated Soil Types and Locations

The City of Madison completed testing for soil contamination where excavation is required. Testing indicated that contaminated soil is present at locations as shown on **Exhibit-E: Contaminated Soils Map**. Soil test results indicated three main types of soil contamination that will be encountered during construction. All three types of contamination will be disposed of under the *same* landfill profile, but only Type 2 soils may be reused on site if geotechnically suitable. Descriptions of the soil material types and the planned management approval for each are provided below.

Type 1 - Petroleum-Contaminated Soils:

- Located inside the building in the location of the elevator pit (GB105) and outside the building in the location of STM-3.
- May have petroleum odors and/or gray, black, or green staining.
- May be located above or below the water table
- Will be disposed offsite at a licensed solid waste landfill if excavated.
- May not be reused in utility trench excavations, even if geotechnically suitable.

Type 2 - Fill Soils with Cinders:

- Located throughout the project limits, both inside and outside the building. Includes the location of the large storm water detention system.
- Contain appreciable qualities (more than 5%) of non-native fill material such as cinders/ash.
- Excavated cinder-contaminated soil shall be reused on the project, under pavement, as fill or backfill in trenches and excavations to the maximum extent practicable, as directed by the Environmental Consultant, subject to the locational criteria listed below.
- Only excess excavated cinder-contaminated fill that cannot be reused on the project shall be considered for offsite disposal in a licensed landfill.

Note: Fill mixed with what appears to be rubbish or trash or other “non-soil” materials (e.g. bricks, stumps, and concrete) larger than an 8-inch cobble is considered a solid waste and must be disposed in a licensed solid waste landfill if excavated. Where practicable, the Contractor shall segregate bulky, solid waste material from soil prior to hauling.

Unless approved by WDNR, contaminated soil, may not be placed as follows: 1) within a floodplain; 2) within 100 feet of any wetland or critical habitat area; 3) within 300 feet of any navigable river, stream, lake, pond, or flowage; 4) within 100 feet of any on-site water supply well or 300 feet of any off-site water supply well; 5) within 3 feet of the high groundwater level; 6) at a depth greater than the depth of the original excavation from which the contaminated soil was removed; or 7) where the contaminated soil poses a threat to public health, safety, or welfare or the environment.

Type 3 – Soils with Chlorinated Solvent Contamination

- Located inside the building around GB106.
- May or may not exhibit noticeable odors or detected vapors using a PID meter.
- Will be disposed offsite at a licensed solid waste landfill if excavated.
- May not be reused in utility trench excavations, even if geotechnically suitable.

If contaminated soils—based on unusual odor, presence of cinders, staining, etc.—are encountered elsewhere on the project, notify the Environmental Consultant and Engineer. Suspect or potentially contaminated soils or historic fill materials might include material that exhibits odors or staining, material that is solid waste/debris, ash, cinders, or material that is a mix of soil with these types of waste materials.

A.3 Coordination

Coordinate work under this contract with the City of Madison:

Brynn Bemis
210 Martin Luther King Jr. Blvd., Rm 115
Madison, WI 53703
608.267.1986
608.695.1385 (cell)
bbemis@cityofmadison.com

The role of the City will be to hire an Environmental Consultant to be onsite during excavation near and within the contaminated soils sites. The role of the Environmental Consultant will be limited to:

- Providing onsite observation and documentation of soil management.
- Assisting the Contractor with properly segregating contaminated soil from clean soil.
- Collecting additional soil samples for laboratory analysis as needed.
- Evaluating unanticipated environmental contamination encountered during construction.
- Obtaining the necessary approvals for treatment or disposal of excess contaminated soil from the Contractor-selected licensed landfill.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the areas of contamination to the environmental consultant. Also notify the Environmental Consultant at least three calendar days prior to commencement of excavation activities near contaminated areas.

Coordinate with the Environmental Consultant to ensure that the Environmental Consultant is present during excavation activities at contaminated areas. Perform excavation work in each of the

contaminated areas on a continuous basis until excavation work is completed. Assist the Environmental Consultant will sample collection if required.

Identify the WDNR-licensed treatment/disposal facility that will be used for treatment or disposal of potential excess contaminated soils and provide this information to the Environmental Consultant no later than 30 calendar days prior to commencement of excavation activities in the contaminated areas or at the preconstruction conference, whichever comes first. Disposal approval has already been obtained from Waste Management—contact Brian Smith from **Section A.1** for pricing. Do not transport contaminated soil offsite without landfill manifests and prior approval from the Environmental Consultant. The City will acquire necessary landfill manifest.

A.5 Health and Safety Requirements

Supplement subsection 107.1 of the standard specifications with the following:

During excavation activities, expect to encounter soil contaminated with metals and volatile organic compounds. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each contaminated site location as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer prior to the start of work.

B (Vacant)

C Construction

Control operations in the contaminated areas to minimize the quantity of contaminated soil excavated.

The Environmental Consultant may periodically monitor soil excavated from the contaminated areas. The Environmental Consultant will evaluate excavated soil based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the Environmental Consultant in collecting soil samples for evaluation using excavation equipment.

Excavated petroleum-impacted soil shall be landfilled. Excavated cinder-impacted soil shall be landfilled with the following exception. Excavated, cinder- contaminated soil and historic fill shall be placed back in the trench or excavation from where it was excavated, if the material is suitable for reuse as fill or back fill, as directed by the Environmental Consultant and Project Engineer. Only excess excavated contaminated soil and historic fill that cannot be reused on the project shall be considered for off-site treatment or disposal.

Load and haul excess contaminated soil from the defined contaminated soil areas, or material designated by the Environmental Consultant for off-site disposal, to the WDNR-approved licensed landfill. If petroleum-contaminated soil must be stored overnight on site, it shall be placed on a plastic sheet and covered in plastic, or some other impermeable material. Use loading and hauling practices that are appropriate to prevent any spills or releases of contaminated soils or residues. Prior to transport, sufficiently dewater soils designated for off-site treatment or disposal so as not to contain free liquids.

Based on boring logs, It is not anticipated that dewatering will be required as part of this project. However, if dewatering is required, the contractor is responsible for all work, materials and equipment required to comply with permit conditions to dewater the site. At a minimum, pump water into a settling tank to settle solids prior to discharge into the storm sewer for clean water and into the

designated sanitary sewer for potentially contaminated water. Conform with the requirements of Section 205 of the Standard Specifications, pertinent parts of the Wisconsin Administrative Code (Department of Natural Resources Environmental Investigation and Remediation of Environmental Contamination, Chapters NR 700-736), as shown on the construction plan set, and as supplemented herein.

Discharge potentially contaminated water to the sanitary sewer, as directed by the Environmental Consultant. For the purposes of this project suspended solids shall not be considered a type of contamination. Do not discharge contaminated groundwater without prior approval from the Environmental Consultant. Obtain a *City of Madison Permit to Discharge to the Sanitary Sewer* compliant with all local ordinances and state statutes, as follows:

- Meet all applicable requirements of the City of Madison, including the control of suspended solids. Perform all necessary monitoring to document compliance with the City of Madison's requirements. Furnish, install, operate, maintain, disassemble, and remove treatment equipment necessary to comply with the City of Madison's requirements.
- Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment and drainage and disposal facilities.
- Notify the Project Engineer of any dewatering activities and obtain any permits necessary to discharge water. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statutes, judiciary decisions, and regulations of the State of Wisconsin.

The contact for obtaining this permit is:

Megan Eberhardt
City of Madison Engineering
608.266.6432
meberhardt@cityofmadison.com

The City of Madison's Environmental Consultant will be responsible for obtaining the necessary approvals from the Madison Metropolitan Sewerage District (MMSD) for disposal of potentially contaminated groundwater. This approval will be issued at the same time as the *Permit to Discharge to the Sanitary Sewer*. Submit a dewatering plan to the City of Madison for approval with the application for *Permit to Discharge to the Sanitary Sewer*.

If free phase petroleum product, such as gasoline floating on the water, is observed during dewatering activities, terminate dewatering activities and notify the Engineer or the Environmental Consultant.

Costs associated with dewatering in the contaminated areas, including permitting costs, are considered incidental to this pay item.

No active groundwater monitoring wells were observed within the construction limits. At least four abandoned monitoring wells are located in the parking lot. The wells are filled with bentonite clay. The Contractor shall remove the manholes and saw cut the casing 30 inches below grade prior to paving. If active groundwater monitoring wells are encountered during construction, notify the Project Engineer and protect them to maintain their integrity.

D Measurement

The department will measure Excavating, Loading, Hauling, and Disposal of Contaminated Soil in tons of contaminated soil accepted by the DNR-approved licensed landfill as documented by weight tickets generated by the facility. Excavation and onsite reuse of contaminated soils is incidental to the associated roadway items.

E Payment

The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT	UNIT
90001	Excavating, Loading, Hauling, and Disposal of Contaminated Soil		Ton

Payment is full compensation for excavating, segregating, loading, hauling, and treatment or disposal of contaminated soil; tipping fees including applicable taxes and surcharges; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation; and dewatering of soils prior to transport, if necessary.