

UNCLASSIFIED EXCAVATION OF CONTAMINATED SOILS

****From Barre City FEFC F 026-1(34)C/1**

- xx. DESCRIPTION. This work shall consist of excavating, segregating, stockpiling, and maintaining stockpiles of all soil materials located within the limits defined in the Plans and as directed by the Engineer.
- xx. SUBMITTALS. The Contractor shall provide a detailed soils management plan regarding the excavation, stockpiling, loading, and disposal of contaminated media, including but not limited to 29 CFR 19190.120(b) *Health and Safety Plan*, 29 CFR 19190.120(d) *Site Control Program*, 29 CFR 1910.120(g), *Engineering Controls, Work Practices and Personal Protective Equipment for Employee Protection*, and 29 CFR 1910.120(k) *Decontamination*. Plans submitted by the Contractor are subject to review and approval by VTrans and the Waste Management Division prior to implementation.
- xx. CONSTRUCTION REQUIREMENTS.
- (a) General. Prior to the beginning of excavation, all necessary clearing in that area shall have been completed in accordance with Section 201 of the Standard Specifications.
- (b) Excavation. Excavate materials by methods that will permit observation of exposed subsurface soils to identify, test, and segregate any soils/wastes and that will limit the potential for mixing contaminated soils with uncontaminated soils.

Given the shallow nature of the contaminated soils, it is likely that the contaminated soils will be mostly or completely disturbed/excavated during site preparation including clearing, grubbing, and stripping of organics necessary for construction of the roadway and structures. Therefore, site clearing will consist of conventionally cutting trees and vegetation; however, the stumps, surficial organics, and granular fill will need to be carefully stockpiled and segregated from the contaminated soils to limit the amount of material requiring off-site disposal.

Excavated material shall be classified into two main groups for purposes of on-site reuse or off-site disposal or treatment according to criteria specified herein. The Contractor shall immediately halt soil movement and dewatering activities and notify VTrans if visual, olfactory, or other evidence suggests that soils or groundwater contain contaminated soils, or may be contaminated with petroleum or hazardous materials. The Contractor shall provide reasonable assistance to VTrans and to the VTrans representative for access to potential contamination areas for proper assessment of hazardous conditions. Additional analyses may be required based on conditions encountered during excavation.

(1) Soil Classification. Soils shall be classified into the following groups:

- a. GROUP I - Potentially Suitable, and Un-Regulated for Reuse. These soils include the naturally deposited soils. Naturally deposited soils encountered will generally consist of a fluvial stratum consisting of nested cobbles and boulders ranging from 1.83 to 5.64 meters (6 to 18.5 feet) in thickness. The fluvial stratum is underlain by a heavily overconsolidated glaciolacustrine stratum consisting of white to light brown, Silt to Silty Clay, with varying amounts of sand and gravel. Group I soils meet the criteria for unrestricted on-site reuse subject to the requirements of the Contract.
- b. GROUP II - Blue-Gray Ash Fill. The contaminated soils were visually identified by a blue-gray color and the presence of cinders and ash. The ash fill was observed at the ground surface as well as below 0.30 to 0.61 meters (1 to 2 feet) of surficial gravel fill primarily within the limits of the unpaved access roadway.

Cease excavation before undermining footings or utilities, or affecting the stability of structures. Maintain a minimum lateral distance of 300 mm (one foot) away from footings or bottom of other structures for each 300 mm (one foot) of depth of excavation below the structure, or as otherwise necessary to protect existing utilities or structures. Excavate using methods that do not disturb nor damage pavement outside the final limits of the work area.

- (c) Protection of Existing Facilities. Protect landscaping structures, paving, monitoring wells, and other features outside of the limits of the work. Install barriers or grade the area surrounding the excavation to prevent the flow of surface water into the excavation. Provide fences, barricades, or any other means necessary to protect the public from entering the work area or open excavations.
- (d) Support of Excavations. Take adequate measures to support structures, streets, utilities, sidewalks, and other facilities in the vicinity of the excavations to protect such facilities against damaging movements or effects, and to protect workers from injury. If movements or other effects of construction are noted, revise construction procedures and take measures to mitigate and abate further movement, at no additional cost to VTrans.
- (e) Soil Segregation and Stockpiling. Excavated material shall be segregated and stockpiled on-site by Group Classification for later reuse or disposal at an approved

off-site location in accordance with applicable local, State and federal requirements.

Temporary stockpiles of Group II soils shall be placed on a minimum of two layers of 6 mil polyethylene plastic and securely covered with polyethylene. Cover shall be maintained throughout the stockpile period to prevent water from entering the stockpiled materials and to prevent blowing dust. The area shall be blocked off to minimize the contact with stockpiled materials and will be visibly marked with appropriate signs warning of potential hazards.

xx. METHOD OF MEASUREMENT. The quantity of Special Provision (Unclassified Excavation of Contaminated Soils) to be measured for payment will be the number of cubic meters (cubic yards) of soil removed in the complete and accepted work. The quantity will be measured in its original position by cross-sections and computed by the method of average end areas. When impractical, other acceptable methods involving three-dimensional measurement may be used to determine the quantity. The limits shall not exceed those shown on the Plans or authorized in writing by the Engineer. The method of mass centers for computing volumes will be allowed only when the method has been used in the original design computations.

xx. BASIS OF PAYMENT. The accepted quantity of Special Provision (Unclassified Excavation of Contaminated Soils) will be paid for at the Contract unit price per cubic meter (cubic yard). Payment will be full compensation for performing the work specified, including preparing, providing, and where necessary modifying soils management plan submittals required herein; performing any necessary clearing; excavating, classifying, segregating, and stockpiling soil materials; supporting excavations; protecting existing facilities; performing any testing required; satisfactorily disposing of contaminated materials; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.608 Special Provision (Unclassified Excavation of Contaminated Soils)	Cubic Meter (Cubic Yard)