



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Paul R. LePage
GOVERNOR

David Bernhardt
COMMISSIONER

May 2, 2016
Subject: Highway Reconstruction
State WIN: 019196.00
Location: **Ellsworth**
Amendment No. 2

Dear Sir/Ms:

Make the following changes to the bid book:

REMOVE pages 82 thru 89, "SPECIAL PROVISION, SECTION 203, EXCAVATION AND EMBANKMENT (CONTAMINATED SOIL AND GROUNDWATER MANAMGEMENT)" dated 07/28/2014 and **REPLACE** with the attached revised "SPECIAL PROVISION, SECTION 203, EXCAVATION AND EMBANKMENT (CONTAMINATED SOIL AND GROUNDWATER MANAMGEMENT)", 8 pages, dated 07/28/2014, updated 04/29/2016.

The following questions have been received:

Question: p.60 Section 105: Does this apply to side streets. Clarify that alternating one way during night work is exempt from SLDs

Response: Yes, p.60 Section 105 applies to side streets. Alternating one way will be allowed under Section 105 General Scope of Work No. 2 (page 62)

Question: p.83 Verify stations describing 'Area A'

Response: See attached updated special provision section 203 excavation and embankment. Both areas A and B have been corrected.

Question: Does 2" on Old Mill Rd. tie into anything?

Response: The Department assumes the question refers to the 2" water line. The proposed 2" HDPE shown on the plans is the replacement of an existing 1" copper line currently laid in the same location as the proposed 2" HDPE. The terminus of the proposed 2" HDPE will connect to an existing 1" copper line.



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Question: Can the DOT allow SaniTite HP (Dual and Triple Wall Polypropylene Pipe meeting AASHTO M330) to be utilized for the 12", 15", 18", 24", 30", & 36" Class III & Class V RCP that is specified on the Project?

Response: No.

Consider this change and information prior to submitting your bid on **May 4, 2016**.

Sincerely,



George M. A. Macdougall P.E.
Contracts & Specifications Engineer

**SPECIAL PROVISION
SECTION 203
EXCAVATION AND EMBANKMENT
(CONTAMINATED SOIL AND GROUNDWATER MANAGEMENT)**

General. The work under this specification shall be performed in conformance with all the procedures and requirements described herein for the following activities: contaminated soil handling, reuse, temporary stockpiling, transportation, storage and disposal and, contaminated water handling, storage, treatment and disposal. This specification also addresses contaminated soil location, identification, and classification. The intent of this specification is to ensure that any contaminated soil and/or water encountered during construction will be managed in a manner that protects worker health and safety, public welfare and the environment.

Environmental Site Conditions. The Maine Department of Transportation's Office of Safety and Compliance (MaineDOT's-OSC.) has conducted a series of assessments related to the Ellsworth Main Street (Route 1A) Highway Improvement Project. An initial Phase I Environmental Assessment for the project area was completed to obtain a general understanding of the environmental conditions along the project corridor. Data garnered from this assessment was used to design a Modified, Phase II Contamination Assessment for the project. The primary focus of the assessments was to evaluate the type and extent of subsurface contamination along the project corridor. The Phase I Assessment included a review of relevant Maine Department of Environmental Protection's (MaineDEP's) and Environmental Protection Agency's (EPA's) databases and field reconnaissance of the project area. During Phase II, borings were advanced along the project's length for investigative purposes. During the advancement of these borings, two areas with impacted soil were identified. A photo-ionization detector (PID) was used to test soil grab samples from select explorations for volatile organic compound (VOC) concentrations indicative of petroleum products. (See *Identified Areas of Contamination* below). Select samples for laboratory testing were also taken to further aid in evaluating subsurface conditions. The results of these investigations are available for review from the Hydrogeologist at MaineDOT's -OSC and in Augusta (207-624-3004).

Identified Area of Contamination. MaineDOT's-OSC investigation identified two areas of soil contamination associated with the Main Road (Route 1A) Highway Improvement Project. For reference, these areas are designated as "Area A" and "Area

B”. The location of **Area A** is defined as being in the vicinity of the Irving retail gasoline station roughly between MaineDOT survey stations 1311+00 to 1312+50, right of centerline along Main Street (Route 1A). Within **Area A**, poly-bag field samples screened with a photo-ionization detector (PID) were below detection limit (BDL) to 518 parts per million (PPM) ^{gasoline equivalent}. Laboratory results for the following: Extractable Petroleum Hydrocarbons (EPH); C9-C18 Aromatic hydrocarbons at 19.7 parts per million (ppm), Phenanthrene at 0.416 ppm and Naphthalene at 0.382 ppm. For Volatile Petroleum Hydrocarbons (VPH); C5-C8 Aliphatic Hydrocarbons at 681 ppm, C9-C12 Aliphatic Hydrocarbons at 90 ppm, C9-C10 Aromatic Hydrocarbons at 170 ppm, Ethylbenzene at 4.33 ppm, M,p-Xylenes at 20.6 ppm, O-Xylene at 4.54 ppm, and Naphthalene at 3.44 ppm. Laboratory results for the following VOCs were detected; 4-Isopropyltoluene at 538 parts per billion (ppb), Ethylbenzene at 3360 ppb, Isopropylbenzene at 996 ppb, m,p-Xylenes at 11800 ppb, Naphthalene at 2070 ppb, n-Butylbenzene at 1070 ppb, n-Propylbenzene at 2740 ppb, o-Xylene at 3060 ppb, sec-Butylbenzene at 446 ppb, 1,2,4-Trimethylbenzene at 15900 ppb, and 1,3,5-Trimethylbenzene at 6200 ppb. Total lead was 5.4 ppm. TCLP Lead was <0.05 ppm. TCLP Benzene was <5.0 ppb. These concentrations define the soils as potential special waste per State remedial guidelines. Soil contamination in **Area A** appears to be related to the past use and storage of gasoline.

The location of **Area B** is in the vicinity of a former retail gasoline station located roughly between MaineDOT stations 1312+50 to 1313+50 right of centerline. Within **Area B**, poly-bag field sample screened with a PID was 10 ppm. Laboratory results for the following: Extractable Petroleum Hydrocarbons (EPH); C19-C36 Aliphatic Hydrocarbons at 11.7 ppm, C11-C22 Aromatic Hydrocarbons at 20.1 ppm, Phenanthrene at 1.06 ppm, Fluoranthene at 0.566 ppm and Pyrene at 0.655 ppm. For Volatile Petroleum Hydrocarbons (VPH); C5-C8 Aliphatic Hydrocarbons at 60.1 ppm, C9-C12 Aliphatic Hydrocarbons at 10.5 ppm, C9-C10 Aromatic Hydrocarbons at 22.5 ppm, Benzene at 0.156 ppm, Ethylbenzene at 0.452 ppm, M,p-Xylenes at 2.22 ppm, O-Xylene at 0.626 ppm, and Naphthalene at 1.47 ppm. The laboratory results indicate the following VOCs were detected 4-Isopropyltoluene at 199 ppb, Ethylbenzene at 1020 ppb, Isopropylbenzene at 303 ppb, m,p-Xylenes at 3470 ppb, Naphthalene at 1510 ppb, n-Butylbenzene at 379 ppb, n-Propylbenzene at 870 ppb, o-Xylene at 929 ppb, sec-Butylbenzene at 158 ppb, 1,2,4-Trimethylbenzene at 5440ppb, and 1,3,5-Trimethylbenzene at 2060 ppb. Total lead was 5.9 ppm. TCLP Lead was <0.05 ppm. TCLP Benzene was <5.0 ppb. These concentrations define the soils as potential special waste per State remedial guidelines. Soil contamination in **Area B** appears to be related to the past use and storage of gasoline.

Identifying and Screening Contaminated Soil and Groundwater. Within the contaminated sections designated **Area A** and **Area B**, excavated soils will be classified by the Resident (or a MaineDOT-OSC representative) based on photo-ionization detector (PID) field screening measurements.

The excavated soils shall be classified as Group 1, Group 2 or Group 3.

Group 1 soils shall have PID field screening measurements indicating relative concentrations of volatile organic compounds (VOCs) less than or equal to 20 parts per million (ppm) as measured in the soil headspace.

Group 2 soils shall have PID field screening measurements indicating VOC concentrations in ppm greater than 20 ppm and less than the value indicated in Table 1 of SOP-TS004 when screened in accordance with the “Outdoor Commercial Worker/Excavation-Construction Worker” clean-up scenario. Field screening will also be done using an oleophilic dye test.

Group 3 soils shall exceed the threshold limit stated in the TS004 Compendium of Field Testing of soil samples exceeding “Outdoor Commercial Worker/Excavation-Construction Worker” clean-up scenario or has a saturated result using the oleophilic dye test.

Handling and Disposition of Soil Materials. Within **Area A and Area B** soil material excavated during construction shall be handled as follows:

Group 1 soils are not considered contaminated. Thus, special handling and disposal are not required for Group 1 soils.

Group 2 soils shall be placed back into their excavation section of origin. The Contractor shall make every attempt to side cast any Group 2 soils next to their excavation site. Upon completion of the given constructional feature, the Group 2 soils shall be placed back into the excavation. Group 2 materials not handled in this manner shall be considered Surplus Group 2 soils. Surplus Group 2 soils must be disposed of or treated at a facility licensed by the MDEP to accept petroleum contaminated special waste. The Contractor is solely responsible for obtaining the associated permits and approvals for the disposal or treatment of the Surplus Group 2 soils from all relevant Municipal, State, and Federal agencies at no additional cost to the State. Notification shall be given to the Resident once approval is granted for the acceptance of this material at the off site facility. No removal of Surplus Group 2 soils from the project shall occur without prior approval by the Resident. If any Surplus Group 2 soils cannot be transported to the pre-approved, properly licensed facility within 8 hours of their excavation, they must be placed in a Temporary Secure Stockpile Area somewhere within the project limits (See Temporary Secured Stockpile Area below).

Group 3 soils shall not be excavated without prior approval by the Resident. The Contractor shall arrange and undertake disposal of all Group 3 soils at a landfill or treatment facility licensed to accept petroleum contaminated special waste. The Contractor is responsible for all additional testing required by the receiving facility. Group 3 soils that cannot be disposed of within 8 hours of excavation

shall be stored in a Temporary Secured Stockpile area. If the Contractor proposes other disposal or treatment options, the Contractor is solely responsible for obtaining the associated permits and approvals from all relevant Municipal, State, and Federal agencies at no additional cost to the State.

The Resident is responsible for signing any manifests or bills of lading required to transport and dispose of contaminated soil. The Resident will send all manifests and bills of lading to MaineDOT-OSC, Station 16, Augusta, Maine 04333.

Trench and Underdrain/Stormdrain Design in Contaminated Sections. In **Area A** and **Area B**, solid, Option III, non-perforated pipe shall be used instead of perforated underdrain pipe to help prevent the infiltration and transportation of potentially contaminated groundwater within the underdrain/stormdrain system. The Contractor shall backfill around the pipe and trenches in this section with uncontaminated material. Backfilling of the trench shall be in accordance with Section 206.03. All stones larger than 3 inches, frozen lumps, dry chunks of clay or any other objectionable matter shall be removed before backfilling.

Seepage control dikes (SCD) shall be installed roughly every 60 feet along the stormwater pipe trench

The SCDs shall consist of a mineral clay material with a liquid limit of equal to or greater than 24 and a natural moisture content of at least 20 percent. The clay should be placed in dry excavations in 6 inch maximum, thick lifts and compacted to 90% of the maximum dry unit weight as determined by AASHTO T99 (Standard Proctor). The SCDs shall be 5 feet long, be in intimate contact with the trench floor, trench walls and circumference of the pipe and extend up to the bottom of the road base. The excavated existing road base or similar material may be placed on top of the SCDs. The Contractor shall take care to ensure that no voids or uncompacted soil is left beside or beneath the Option III culvert pipe.

Secured Stockpile Area. Direct transport of Surplus Group 2 or Group 3 soils to a pre-approved management facility is recommended. However, should the Contractor temporarily store any Surplus Group 2 or Group 3 soils at the site for more than 8 hours following excavation, they must be placed into a properly constructed Temporary Secured Stockpile Area. The Temporary Secured Stockpile Area must be constructed as defined herein and must be approved by the Resident prior to its use.

Should the Contractor utilize a Temporary Secured Stockpile Area, they shall install a continuous 0.3 meter high compacted soil berm around the Secured Stockpile. The Secured Stockpile shall be placed on a liner of 20-mil polyethylene and securely covered with 20-mil polyethylene. The polyethylene liner and cover shall be placed over the soil berm and be installed to ensure that precipitation water drains directly to the outside of the berm perimeter while leachate from the contaminated soil is retained within the stockpile. The Secured Stockpile and soil berm shall be enclosed within a perimeter of concrete Jersey barriers or wooden barricades. The area within the Jersey

barriers (or wooden barricades) shall be identified as a "restricted area" to prevent unauthorized access to the contaminated soils.

Secured Stockpile Area - Materials.

A. Polyethylene. Polyethylene used for liner in the Secured Stockpile Area shall have a minimum of 20-mil thickness and shall meet the requirements of ASTM D3020.

B. Common Borrow. Fill used in the construction of the Temporary Secured Stockpile Area soil berm shall consist of Common Borrow and meet the requirements of Section 703.18

C. Concrete Barriers or Wooden Barricades. Concrete barriers or Wooden Barricades to form the sides of the Temporary Secured Stockpile Area shall meet the requirements of Section 526 or 652.05.

Health and Safety/Right-to-Know. Contractors and subcontractors are required to notify their workers of the history of the site and contamination that may be present and to be alert for evidence of contaminated soil and groundwater. The Contractor shall notify the Resident **at least three business days** prior to commencing any excavation in **Areas A and Area B.**

The Contractor shall prepare a site specific Health and Safety Plan (HASP) for its workers and subcontractors who may work in the contaminated areas of the site. A Qualified Health and Safety Professional shall complete the HASP. The Qualified Health and Safety Professional will be an expert in field implementation of the following federal regulations:

29 CFR 1910.120 or 29 CFR 1926.65	Hazardous Waste Operations and Emergency Response
29 CFR 1910.134	Respiratory Protection
29 CFR 1926.650	Subpart D - Excavations
29 CFR 1926.651	General Requirements
29 CFR 1926.652	Requirements for Protective Systems

MaineDOT is voluntarily ameliorating the contamination in **Areas A and Area B.** The remedial efforts defined herein have been reviewed and approved by MaineDEP. Given that this is a voluntary clean up effort approved by a regulatory agency, the OSHA requirements as defined in 29 CFR 1910.120 apply. These requirements mandate that workers and any subcontractors working in the contaminated areas shall comply with all OSHA regulations for Hazardous Waste Operations and Emergency Response including

a 40 hour initial hazardous waste operations certification [OSHA 1910.120(e)], annual 8 hour refresher course within the last 12 months and medical surveillance [OSHA 1910.120(f)] within the last 12 months.

The contractor shall designate a person to provide direct on-site supervision of the work in the contaminated areas. This person shall have the training under OSHA 1910.120 (e) as above and in addition be qualified as a construction Competent Person. It is the responsibility of the competent person to make those inspections necessary to identify situations that could result in hazardous conditions (e.g., possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions), and then to insure that corrective measures are taken.

Submittals. The Contractor shall submit a site specific Health and Safety Plan (HASP) to the Resident at least two weeks in advance of any excavation work on the project. The Contractor shall not proceed with work until MaineDOT has reviewed the plan and notified the Contractor that it is acceptable.

Health and Safety Monitoring. Within the contaminated areas of the project, the Contractor's designated on-site person shall monitor the worker breathing zone for those constituents specified in the Contractor's HASP. The Contractor shall provide all required health and safety monitoring equipment.

Dewatering. Groundwater may be encountered and its removal necessary to complete work within **Area A** and **Area B**. It will be treated as "contaminated" water. The Contractor shall inform the Resident before any dewatering commences. The "contaminated" water shall be pumped into a temporary holding tank(s). The Contractor will be responsible for the procurement of any holding tank(s). Any testing, treatment and/or disposal of the stored, petroleum-contaminated water shall be undertaken by the Contractor in accordance with applicable Federal, State and local regulatory requirements.

On-Site Water Storage Tanks - Materials. If dewatering within the identified contaminated area becomes necessary the holding tanks used for temporary storage of contaminated water pumped from excavations shall be contamination free and have a minimum capacity of 2,000 gallons.

Dust Control. The Contractor shall employ dust control measures to minimize the creation of airborne dust during the construction process in potentially contaminated areas. As a minimum, standard dust control techniques shall be employed where heavy equipment and the public will be traveling. These may include techniques such as watering-down the site or spreading hygroscopic salts.

Unanticipated Contamination. If the Contractor encounters previously undiscovered contamination or potentially hazardous conditions related to contamination,

the Contractor shall immediately suspend work and secure the area. The Contractor will then notify the Resident immediately. These potentially hazardous conditions include, but are not limited to, buried containers, drums, tanks, "oil saturated soils", strong odors, or the presence of petroleum sufficient to cause a sheen on the groundwater. The area of potential hazard shall be secured to minimize health risks to workers and the public and to prevent a release of contaminants into the environment. The source of any suspected contamination shall be evaluated by the Resident (or MaineDOT's -OSC representative). As appropriate, the Resident will notify the MDEP's Response Services Unit in Bangor and MaineDOT's -OSC. The Ellsworth Fire Department must also be notified prior to removal of buried storage tanks and associated piping. The Contractor will evaluate the impact of the hazard on construction, amend the HASP if necessary, and with the Resident's approval, recommence work in accordance with the procedures of this Special Provision.

Method of Measurement. There will be no measurement for identification and environmental screening of contaminated soil material (this will be done by the Resident or MaineDOT-OSC representative).

Measurement for the development of a Health and Safety Plan (HASP) and providing health and safety equipment and personnel shall be by lump sum.

Measurement of the off site treatment or disposal of Surplus Group 2 and all Group 3 soils will be by the ton of Special Excavation.

There will be no measurement for construction of a Temporary Secured Stockpile Area. Construction of a Temporary Secured Stockpile Area, if necessary, is considered incidental to project construction. There will be no measurement for hauling Surplus Group 2 material or Group 3 soils to the Temporary Secure Stockpile area or placement and removal of Surplus Group 2 or Group 3 soils in or out of the Temporary Secure Stockpile area. All hauling and any subsequent management/placement of contaminated soils are considered incidental to project construction.

There will be no measurement for additional laboratory testing of contaminated soil that is required by the landfill or treatment facility. Testing is incidental to the disposal of Special Excavation.

Measurement for the following items shall be according to Subsection 109:04 ("Change Order"/Force Account): any necessary contaminated water holding tank(s); and treatment or disposal of any contaminated groundwater.

Basis of Payment. There will be no payment for the identification and environmental screening of contaminated soil material (this will be done by the Resident or MaineDOT-OSC representative).

Payment for the development of a Health and Safety Plan (HASP) and providing health and safety equipment and personnel shall be by the lump sum

Payment for off site disposal or treatment of contaminated Surplus Group 2 and all Group 3 soils at a MDEP licensed facility shall be by the ton of Special Excavation.

There will be no payment for the construction of the Temporary Secured Stockpile Area or hauling/management/placement of contaminated soils to the Temporary Secured Stockpile Area. The Temporary Secured Stockpile Area shall be considered incidental to project construction.

Payment for the following items shall be according to Subsection 109:04 (“Change Order”/Force Account): any necessary contaminated water holding tank(s); and treatment or disposal of any contaminated groundwater.

Pay Item		Pay Unit
203.2312	Health and Safety Plan (HASP)	L.S.
203.2333	Disposal/Treatment of Special Excavation	Ton