



April 25, 2014

Mr. Gregory M. Dorosh, P.E.
Transportation Principal Engineer
Connecticut Department of Transportation
Bureau of Engineering & Construction
Division of Design Services
Environmental Compliance Section
P. O. Box 317546
Newington, CT 06131-7546

Attention: Mr. Christopher Bonsignore/Mr. Roger Levesque

**Re: Task Based Environmental Services
Task 310 Preliminary Design Summary
Assignment No. 204-4841
State Project No. 0098-0101
Replacement of Bridge #01127 – Route 80 (Foxon Road) Over the Farm River
North Branford, CT**

Dear Mr. Dorosh:

The following is the Preliminary Design Summary for the referenced project:

Project Environmental Summary

The Connecticut Department of Transportation (ConnDOT) is proposing the replacement of Bridge #01127, Route 80 (Foxon Road) over the Farm River in North Branford, Connecticut. Route 80 (Foxon Road) runs in an east-west direction over the Farm River in North Branford. Based upon a review of Design Plans by others; the project will involve the replacement of the bridge over the Farm River, including new retaining walls, parapets, and full depth pavement reconstruction of Foxon Road. The project will also include drainage improvements, utility relocations and cut and fill activities. In addition, a temporary by-pass will be constructed as part of this project to maintain traffic during construction activities. The limits of the project area extend from Station 1+19.4 to Station 8+24.72 along Foxon Road. The land use within the project corridor consists of the residential and commercial parcels, including a gas station and auto repair shop.

A Task 210 - Subsurface Site Investigation Report (SSIR) has been conducted in areas of anticipated construction activities associated with the bridge replacement project that consisted of the collection of soil and sediment samples from within the project corridor. The purpose of the Task 210 – SSIR was to verify the absence or presence and location of subsurface contamination, and to assess potential impacts to be encountered during proposed construction activities. The results of the environmental investigation indicated the presence of extractable total petroleum hydrocarbons (ETPH), semi-volatile organic compounds (SVOCs), specifically polycyclic aromatic hydrocarbons (PAHs), and leachable lead at concentrations exceeding the applicable Connecticut Department of Energy and Environmental Protection (CTDEEP) Remediation Standard Regulations (RSRs) in soil within the project limits. Low



concentrations of ETPH, volatile organic compounds (VOCs) and SVOCs were also detected in the soils in other areas of the project at concentrations above analytical detection limits but below the applicable CTDEEP RSR criteria.

The results of the Task 210 – SSIR also indicated the presence of PAHs and leachable lead in sediment at one (1) location within the project limits at concentrations exceeding RSR criteria. In addition, ETPH and PAHs were detected in the sediment in other areas at concentrations above analytical detection limits but below RSR criteria.

The project corridor is located within the East Haven River Basin within the South Central Eastern Complex within the South Central Coast Major Basin. The Farm River crosses Foxon Road and is classified as a Class “AA” surface water body by the CTDEEP. The Class “AA” designation indicates that these surface waters are designated for existing or proposed drinking water supplies; habitat for fish and other aquatic life and wildlife; recreation; and water supply for industry and agriculture. The CTDEEP has designated the groundwater beneath the project corridor west of the Farm River as “GA”. This classification indicates that groundwater is suitable for direct human consumption without treatment. The State’s goal is to maintain the groundwater quality. The CTDEEP has designated the groundwater beneath the project corridor east of the Farm River as “GA, GAA May Not Meet Current Standards”. This classification indicates that groundwater may not be suitable for direct human consumption without treatment because of waste discharges, spills or leaks of chemicals, or land-use effects. The State’s goal is to restore the groundwater to drinking water quality. Groundwater beneath the Site is assumed to flow towards the Farm River which bisects the project corridor. Groundwater was not encountered during the Task 210 SSIR and therefore no groundwater samples were collected.

Remediation Methodology

Based upon the results of the laboratory analyses performed on soil samples collected for the Task 210 - SSIR one (1) Area of Environmental Concern (AOEC) for soil has been identified where ETPH, PAHs, and leachable lead are present at concentrations that exceed the applicable CTDEEP RSR criteria. In addition, three (3) low-level areas of environmental of environmental concern (LLAOECs) for soil have been identified, where contaminants were detected at concentrations above analytical detection limits but below the applicable CTDEEP RSR criterion.

One (1) sediment area of environmental concern (SED-AOEC) has been designated within the project limits where PAHs and leachable lead were detected at concentrations above RSR criteria. In addition, one (1) sediment low level area of environmental concern (SED-LLOAEC) has been established for sediment within the project limits where ETPH and PAHs were detected at concentrations above analytical detection limits, but below RSR criteria (See attached sketch for the preliminary AOEC, LLAOECs, SED-AOEC, and SED-LLOAEC).

Groundwater samples were not collected as part of the Task 210 – SSIR, therefore dewatering fluids encountered during construction activities should be managed and discharged in accordance with the construction dewatering permit for the project. However, if contamination is encountered during



dewatering activities controlled management and disposal of contaminated groundwater in accordance with DEEP permits may be required.

The proposed remediation methodology for the AOEC and SED-AOEC is controlled handling, management and disposal and/or re-use of material excavated from within the AOEC and SED-AOEC. Excavated material from the AOEC may be stockpiled adjacent to the area of excavation for immediate reuse from the originating AOEC. Material excavated from the AOEC, which cannot be reused immediately, shall be transported to and stockpiled at the Waste Stockpile Area (WSA) prior to disposal and/or re-use. Material excavated from the SED-AOEC cannot be reused within the project limits and shall be transported to and stockpiled at the WSA for waste characterization prior to off site disposal.

Material generated from LLAOECs and SED-LLAOEC does not require special handling procedures and may be re-used within the project limits. Material from the LLAOECs and SED-LLAOEC, which cannot be re-used within the project limits, shall be transported to the WSA and characterized for off-site disposal. Controlled materials shall be sampled and characterized for disposal and/or re-use in accordance with the contract specifications and RSRs.

Based on the proposed construction activities, it is anticipated that the WSA will require a minimum of four (4) bins. An area of approximately 10,000 square feet (s.f.) will be required for construction of the WSA for the project. The ideal location should be within the project limits with easy access to construction activities.

*Recommended - DOT Maint. Forest on Lexton Island Rd.
4.7 miles*

Environmental Specification Sections and Drawings

The following are anticipated environmental specification sections and drawings:

Drawings:

- ENV-001 – Environmental Plan (Based on Final Design Plan Sheets)
- ENV-002 – Waste Stockpile Area Plan and Truck Route
- ENV-003 – Environmental Details

Specifications:

- Notice to Contractor – Environmental Investigations
- Item No. 0101000A - Environmental Health and Safety
- Item No. 0101117A - Controlled Material Handling
- Item No. 0101130A – Environmental Work - Solidification
- Item No. 0101128A - Securing, Construction and Dismantling of a Waste Stockpile and Treatment Area
- Item No. 0202315A - Disposal of Controlled Material
- Item No. 0202318A - Management of Reusable Controlled Material
- Item No. 0020763A – Disposal of Sediments

Health and Safety Requirements

Based on the results of the environmental investigations, proposed construction activities pose a low to moderate risk of harm to site construction workers, inspectors and downwind receptors from exposure

Mr. Gregory M. Dorosh, P.E.
April 25, 2014
Page 4 of 4



to ETPH, VOCs, PAHs, and metals through inhalation of vapors or dust, dermal contact or ingestion. A site specific health and safety plan (HASP) shall be implemented to address the relative risks of exposure to documented hazards present within the AOEC, LLAOEC, SED-AOEC, and SED-LLAOEC. The HASP shall establish health and safety protocols to address the environmental concerns directly related to site conditions and in accordance with applicable Federal and State regulations and the contract specifications.

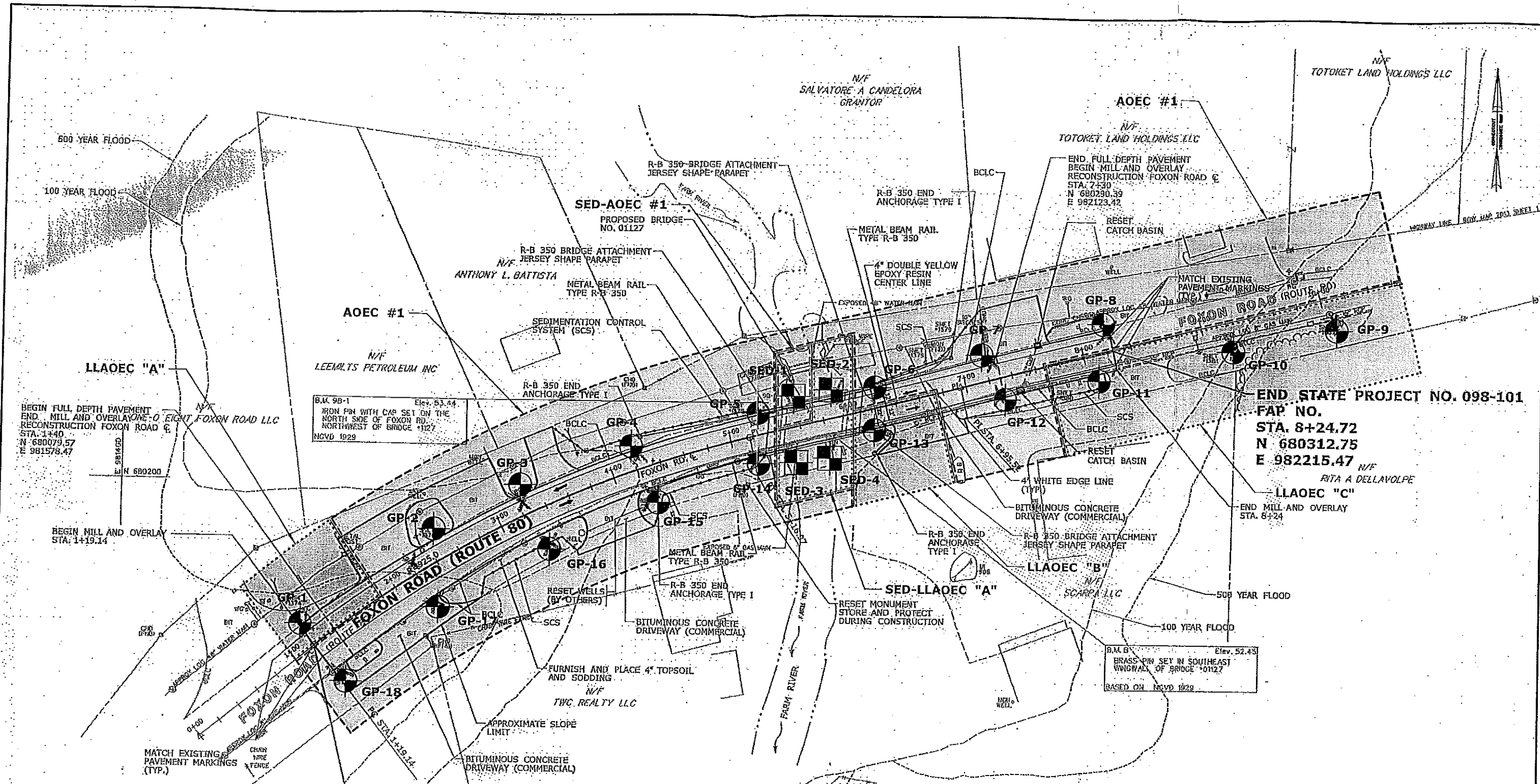
A sketch showing the preliminary Areas of Environmental Concern (AOEC), Low Level Areas of Environmental Concern (LLAOECs), Sediment Area of Environmental Concern (SED-AOEC) and Sediment Low Level Area of Environmental Concern (SED-LLAOEC) is attached for reference.

If you have any questions, please contact the undersigned at your earliest convenience.

Sincerely,

CDR MAGUIRE INC.

David R. Stock, P.E.
Vice President
Attachments



BEGIN FULL DEPTH PAVEMENT
END MILL AND OVERLAY
RECONSTRUCTION FOXON ROAD @
STA. 1+40
N 680079.57
E 981578.47

B.M. 98-1 Elev. 53.44
IRON PIN WITH CAP SET ON THE
NORTH SIDE OF FOXON RD.
NORTHWEST OF BRIDGE #1127
NGVD 1929

END STATE PROJECT NO. 098-101
FAP NO.
STA. 8+24.72
N 680312.75
E 982215.47

BEGIN MILL AND OVERLAY
STA. 1+19.14

BEGIN STATE PROJECT NO. 098-101
FAP NO.
STA. 1+19.14
N 680066.69
E 981562.06

B.M. 6 Elev. 52.43
BRASS PIN SET IN SOUTHEAST
CORNER OF BRIDGE #1127
BASED ON NGVD 1929

ENVIRONMENTAL LEGEND

- GP-# SOIL SAMPLE LOCATION
- SED-# SEDIMENT SAMPLE LOCATION
- SOIL LOW LEVEL AREA OF ENVIRONMENTAL CONCERN (LLAOEC #)
- SEDIMENT LOW LEVEL AREA OF ENVIRONMENTAL CONCERN (SED-LLAOEC #)
- SOIL AREA OF ENVIRONMENTAL CONCERN (AOEC #)
- SEDIMENT AREA OF ENVIRONMENTAL CONCERN (SED-AOEC #)

THE INFORMATION INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: CAD CHECKED BY: DRS SCALE IN FEET 0 40 80 SCALE 1"=40' Filename: \\HVV\HWY\HSH\098-101-ENV-01.dgn	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	PROJECT TITLE: BRIDGE NO. 01127 FOXON ROAD (ROUTE 80) OVER FARM RIVER	TOWN: NORTH BRANFORD	PROJECT NO. 098-101 DRAWING NO. FIG. 2 SHEET NO.
REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 3/10/2014		