



TETRA TECH RIZZO

January 18, 2010

Mr. Patrick Bowe
Remediation Division Director
Connecticut Department of Environmental Protection
79 Elm Street
Hartford, Connecticut 06103

**RE: Branford Railroad Station Parking Lot Expansion
Reuse of Low Level Areas of Environmental Concern Material (LLAOEC)
14 Kirkham Street
Branford, Connecticut
Department of Transportation State Project No. 310-0047
Assignment No. 403-3551**

Dear Mr. Bowe:

As discussed with Ms. Diane Duva, Tetra Tech Rizzo (Tetra Tech) performed a subsurface soil investigation at 14 Kirkham Street pursuant to Section 22a-133k-2 (h)(3) of the Remediation Standard Regulations as it relates to the reuse of polluted soil.

Introduction

On behalf of the Connecticut Department of Transportation (CTDOT), we are submitting the findings of this subsurface investigation along with soil sample results previously collected at the railroad station parking lot extension, located to the southeast across the railroad tracks at 25 Maple Street. Along with tabulated soil data from both properties, laboratory report, and a site plan locating sample locations on both properties, we are including a Transmittal Form requesting the commissioner's approval to reuse approximately 2,200 cubic yards (cy) of polluted soil at the 14 Kirkham Street property. The 2,200 cy was excavated during construction of the parking lot extension at 25 Maple Street. We present the following information and discussion in support of reusing this material at the 14 Kirkham Street property.

Background

At 25 Maple Street, the CTDOT is constructing a parking lot extension that will connect to the existing railroad station parking lot. The groundwater beneath both the parking lot extension and at 14 Kirkham Street (receiving facility) is classified GB. The approximate 1/2 - acre CTDOT-owned parcel at 14 Kirkham Street parcel is zoned residential and is serviced by a public water supply. No structures are present on this parcel.



Previous subsurface investigations conducted by Tetra Tech and others at the 25 Maple Street property have characterized the soil throughout the parking lot extension. Based on the findings of these investigations, the area where the parking lot extension is currently being constructed was classified as a former solid waste disposal area and a solid waste disposal closure plan was developed. Soil data collected during previous subsurface investigations was used to delineate LLAOEC and Areas of Environmental Concern (AOEC) across the area where the parking lot extension was proposed. LLAOEC are areas where the soil data has identified the presence of only low levels (below the GB PMC and R DEC) of contaminants. AOEC are those areas where contaminants have been detected above the GB PMC and/or the R DEC. **Table 1** summarizes the LLAOEC-Reuse soil data collected during previous investigations. **Table 2** summarizes the soil data recently collected from the subsurface investigation completed at 14 Kirkham Street. Soil boring locations, LLAOEC, AOEC and other features are depicted on the **Figure 1 - Surface Soil Sampling Location Plan**.

In accordance with the solid waste closure plan, AOEC and LLAOEC soil is being reused on the site and will be capped with bituminous pavement. The DOT is requesting that approximately 2,200 cubic yards of excess LLAOEC soil be reused at the 14 Kirkham Street where a vehicle turnaround/pedestrian drop off is planned. The turnaround/drop off will be finished with a bituminous pavement cap.

25 Maple Street

A total of nine soil borings were completed within LLAOEC. A total of 10 soil samples were collected and analyzed for constituents of concern (COCs) within LLAOEC. Soil samples were collected from 0-8 feet below grade (fbg). The soil sample results were used to characterize the soil in these areas across the parking lot extension. No COCs exceed the RSR criteria.

14 Kirkham Street

Five soil borings were completed across the parcel. A total of 10 soil samples were collected and analyzed for COCs. Soil samples were collected 0-10 fbg to characterize soil quality. Fill material consisting of brick and asphalt fragments and slag-like material were noted in a number of soil borings.

Of the 10 soil samples collected from the geoprobe borings completed by Logical Environmental Solutions on January 11, 2010, total lead and a number of SVOCs were detected above the R DEC and/or the GB PMC in one sample (RSB-4 5-10'). Total arsenic was also detected above the DEC in one sample (RSB-5 5-10').



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In addition to the exceedances detected in the two samples, total and leachable metals were detected above the reporting limits in the majority of the samples. SVOCs were also detected above the reporting limits in four samples. ETPH was also detected above the reporting limits in one sample.

Summary

A review of the soil data collected from both parcels indicates that reuse of LLAOEC material at the 14 Kirkham Street property will not adversely impact or degrade the quality of that property. The data indicates that the 14 Kirkham Street property exhibits pollution in the soils and that contamination above the RSRs also exists in several areas. Based on the information presented in this summary, we request that the DEP allow reuse of the 2,200 cy of LLAOEC at the 14 Kirkham Street property.

Fill material is required to build the next phase of the project and it is not the intent for 14 Kirkham Street to be utilized as a disposal site. If the 2,200 cy of LLAOEC material from 25 Maple Street are not used at the Kirkham Street parcel, this material will be disposed of at a landfill and 2,200 cy of new material will be purchased for the project.

Should you have any questions or need additional information, please feel free to contact me at (860) 241-8456.

Very truly yours,

David T. Williams, CPG, LEP, RS
Project Manager

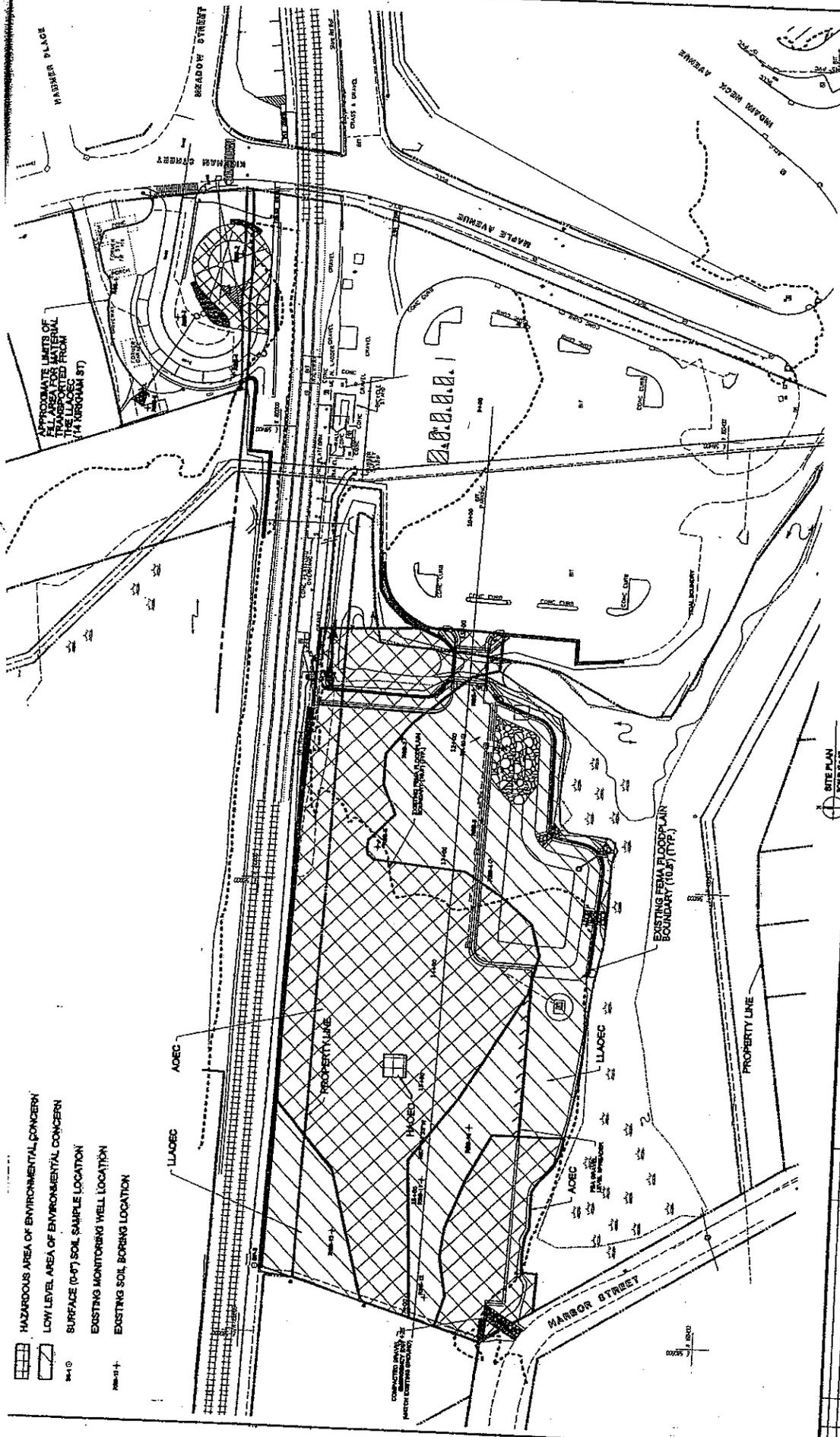
Attachments:

- Table 1 LLAOEC Soil Results
- Table 2 14 Kirkham Soil Results
- Site Plan 25 Maple Street and 14 Kirkham Street
- Laboratory Reports
- Soil Boring Logs - 14 Kirkham Street

Cc: Ms. Diane Duva - DEP
Ms. Denise Young, Mr. Gregory Dorosh - DOT

Table 2
Subsurface Investigation
14 Kibbiam Street
Branford Rail Station
Branford, Connecticut

Sample Location	Res DEC	PC DEC	GB P/MC	RES-1 S-10 R	RES-2 S-10 R	RES-3 S-10 R	RES-4 S-10 R	RES-5 S-10 R	RES-6 S-10 R	RES-7 S-10 R	RES-8 S-10 R	RES-9 S-10 R	RES-10 S-10 R
Laboratory ID	Varies	Varies	Varies	A864421 01/28/10	A864428 01/28/10	A864435 01/28/10	A864442 01/28/10	A864449 01/28/10	A864456 01/28/10	A864463 01/28/10	A864470 01/28/10	A864477 01/28/10	A864484 01/28/10
Sample Date	Varies	Varies	Varies	01/28/10	01/28/10	01/28/10	01/28/10	01/28/10	01/28/10	01/28/10	01/28/10	01/28/10	01/28/10
Volatiles/Non-Volatile Organics (µg/kg)	Varies	Varies	Varies	BR									
Acephenanthrene	1,000,000	2,500,000	8,400	<200	<250	<250	<250	<250	<250	<250	<250	<250	<250
Anthracene	1,000,000	2,500,000	84,000	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
Benz(a)anthracene	1,000	7,800	1,000	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
Benz(b)fluoranthene	1,000	7,800	1,000	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
Benz(k)fluoranthene	1,000,000	2,500,000	42,000	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
Benzo(a)pyrene	8,400	78,000	1,000	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
Benzo(b)fluoranthene	84,000	780,000	1,000	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
Chrysene	NE	NE	NE	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
Debenzo(a)anthracene	1,000,000	2,500,000	50,000	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
Fluorene	1,000,000	2,500,000	50,000	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
Indeno(1,2,3-cd)pyrene	1,000	7,800	1,000	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
Naphthalene	1,000,000	2,500,000	50,000	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
Phenanthrene	1,000,000	2,500,000	40,000	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
Pyrene	1,000,000	2,500,000	40,000	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
Inorganic Substances (mg/kg)													
Arsenic (As)	10	10	...	4.5	4.6	4.6	4.5	4.5	4.6	4.5	4.5	4.5	4.5
Barium (Ba)	4,700	140,000	...	66.1	27.7	21.6	21.2	21.2	21.6	20.6	20.6	20.6	20.6
Bismuth (Bi)	34	1,000	...	<2.0	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
Cadmium (Cd)	NE	NE	...	16.2	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Chromium, total (Cr)	400	1,000	...	183	11.9	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
Lead (Pb)	20	610	...	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Mercury (Hg)	240	10,000	...	<7.0	<7.0	<7.0	<7.0	<7.0	<7.0	<7.0	<7.0	<7.0	<7.0
Selenium (Se)	500	10,000	...	<2.0	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
zinc (Zn)	<2.0	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
Polychlorinated Biphenyls (PCBs) by EPA Method 8283 (µg/kg)													
PCB1	1,000	10,000	0.005	<370	<370	<370	<370	<370	<370	<370	<370	<370	<370
PCB2	500	2,500	2.500	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11
PCB3	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11
PCB4	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11
PCB5	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11
PCB6	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11
PCB7	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11
PCB8	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11
PCB9	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11
PCB10	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11
PCB11	<11	<11	<11	<11	<11	<11	<11	<11	<11	<11
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PCB57	<11	<11	<11	<11						



PROJECT TITLE BRANFORD RAILROAD STATION PARKING LOT ADDITION		PROJECT NO. 310-0047	
DRAWN BY TEHRA NEEDS		SHEET NO. 1 of 1	
STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION <small>DESIGNED BY: TERRY T. NEEDS, INC. APPROVED BY:</small>		DATE: 10/20/07	
CHECKED BY <small>SCALE: 1"=40'</small>		REVISIONS	



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



APPROVAL

February 8, 2010

Ms. Denise Young
Environmental Compliance Section
Bureau of Engineering and Highway Operations
Connecticut Department of Transportation
Newington, CT 06131-7546

RE: Request for Reuse of Polluted Soil
Branford Railroad Station Parking Lot Expansion
14 Kirkham Street, Branford, CT

Dear Ms. Young:

The Remediation Division of the Bureau of Water Protection and Land Reuse has reviewed the report titled "Branford Railroad Station Parking Lot Expansion, Reuse of Low Level Areas of Environmental Concern Material (LLAOEC), 14 Kirkham Street, Branford, Connecticut, Department of Transportation State Project No. 310-0047, Assignment No. 403-3551", dated January 18, 2010. The report was prepared on your behalf by Tetra Tech Rizzo and submitted in conjunction with a request by the CTDOT for the reuse of polluted soil pursuant to Section 22a-133k-2(h)(3) of the Remediation Standard Regulations.

The report describes the characterization of soils at the Branford Railroad Station Parking Lot Expansion site for the proposed reuse at 14 Kirkham Street, Branford, CT.

The above referenced report is hereby approved.

Nothing in this approval shall affect the Commissioner's authority to institute any proceeding, or take any action to prevent or abate pollution, to recover costs and natural resource damages, and to impose penalties for violations of law. If at any time the Commissioner determines that the approved actions have not fully characterized the extent and degree of pollution or have not successfully abated or prevented pollution, the Commissioner may institute any proceeding, or take any action to require further investigation or further action to prevent or abate pollution. This approval relates only to pollution or contamination identified in the above referenced report.

No provision of this approval and no action or inaction by the Commissioner shall be construed to constitute an assurance by the Commissioner that the actions taken pursuant to this approval will result in compliance or prevent or abate pollution.

In addition, nothing in this approval shall relieve any person of his or her obligations under applicable federal, state and local law.

If you have any questions pertaining to this matter, please contact Paul Jameson of my staff at (860) 424-3765.

Sincerely,

Patrick F. Bowe / Robert Bell, Assistant Director

Patrick F. Bowe
Director
Remediation Division
Bureau of Water Protection and Land Reuse

PFB:pej

c: Gregory Derosh, CTDOT
David T. Williams, Tetra Tech Rizzo, 150 Trumbull Street, 4th Floor, Hartford, CT 06103
Paul Jameson, DEP

Sent Certified Mail
Return Receipt Requested

FEB 27 2010