

BELLUCCI ENGINEERING, PLLC

October 3, 2022

Mr. Parag Amin
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7014

via email: parag.amin@dec.ny.gov

Re: 555 South Avenue, Beacon, NY BCP Site Number: C314117
Supplemental Remedial Work Plan for Beacon Terminal Excavation Area 3
GBTS Project: BB04157

Dear Mr. Amin:

This Supplemental Remedial Work Plan (SRWP) has been prepared for the Beacon Terminal BCP Site (C314117), Excavation Area 3, by Bellucci Engineering (Remedial Engineer) and Gallagher Bassett Technical Services (GBTS) to provide specifications for removal of PCB- and metal-impacted soil. All fieldwork will be performed in conformance with the NYSDEC-approved Remedial Action Work Plan (RAWP; January 2014), which is incorporated by reference into this SRWP. The scope of work includes excavation and removal of the contaminated material, confirmatory endpoint sampling at excavation areas, and backfilling to restore Site grades.

BACKGROUND

The RAWP proposes a Track 4 remedy, including removal of soil with contamination exceeding Part 375 Restricted-Residential Use (RRU) Soil Cleanup Objectives (SCOs) at Excavation Area 3 at the southwest portion of the Site. The RAWP anticipated excavation of soil to a maximum depth of 2 feet below surface grade (bsg) in an area south of Fisherman's Trail to the top of the slope at Fishkill Creek, based on the presence of PCBs and metals (barium, chromium, and copper) above RRU SCOs at 4SS-2.

Subsequent delineation sampling in November 2021 (samples 5SS-01 to 5SS-16) documented low-level exceedances of RRU SCOs for copper, lead, and/or mercury at three locations, including one sample immediately north of Fisherman's Trail (no PCBs were detected above the RRU SCO).

A table summarizing soil data for samples 4SS-2 and 5SS-01 to 5SS-16, and figures showing Excavation Area 3, exceedances of RRU SCOs, and the locations of the proposed excavation areas, are provided as Attachments to this SRWP.

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SITE PREPARATION SERVICES

Qualifications of On-site Remedial Personnel

Prior to the initiation of work, the identities and qualifications of the project managers and associated staff will be supplied to the NYSDEC. The Volunteer will ensure that qualified contractors are used. All on-site staff will be appropriately trained in accordance with Occupational Safety and Health Administration (OSHA) practices (29 CFR, Part 1910).

Health and Safety Plan (HASP)

All activities will be performed in accordance with the HASP provided in the RAWP. The HASP will be reviewed with site personnel and subcontractors prior to the initiation of specific fieldwork where contaminated media are likely to be encountered. All proposed work will be performed in "Level D" personal protective equipment. Field personnel (including subcontractors) will be prepared to continue services wearing more protective levels of equipment should field conditions warrant.

Community Air Monitoring

The NYSDOH Generic Community Air Monitoring Plan (CAMP; provided in Appendix A) will be initiated during all ground intrusive activities, and during any other fieldwork that is reasonably likely to generate significant dust or vapors. The implementation of the CAMP will document the presence or absence of VOCs and dust in the air surrounding the work zone, which may migrate off-site due to fieldwork activities. This plan provides guidance on the need for implementing more stringent dust and emission controls based on air quality data.

Mitigation measures may include reducing the surface area of contaminated soil being disturbed at one time, watering exposed soils to reduce fugitive dust and odors, or stopping excavation activities. Dust suppression activities will be conducted during construction activities that will disturb on-site soils and may include misting, reduction in soil movement, or cessation of excavation.

Trail Use Management

During excavation activities the public will have access to the Fisherman's Trail. Flaggers will be positioned at the intersection of Excavation Area 3 and Fisherman's Trail. Work will be halted and CAMP data reviewed before trail users are allowed to access the work zone. The work zone will be properly secured with chain link fence and signs cautioning trail users, and excavation areas will be protected using secure covers (e.g., tarps) or similar physical measures.

Utility Markouts

A utility markout will be requested prior to initiating intrusive excavation activities.

Quality Assurance / Quality Control

Sampling will be conducted in accordance with the Quality Assurance Project Plan (QAPP) prepared for the RAWP.

Laboratory

All samples will be collected in accordance with applicable NYSDEC guidelines and will be submitted to a New York State Department of Health (NYSDOH) ELAP-certified laboratory using appropriate chain of custody procedures. Field personnel will maintain all samples at cold temperatures and complete all chain of custody forms.

Laboratory reports will include detailed Quality Assurance/Quality Control (QA/QC) analyses and Category B deliverables. A Data Usability Summary Report (DUSR) will be prepared by a third, independent party (approved by the NYSDEC Project Manager). All laboratory data will be submitted to NYSDEC in accordance with current electronic data deliverable (EDD) requirements.

Notifications

The NYSDEC will be notified in writing at least one week prior to the initiation of any of the on-site work and during the course of the fieldwork if deemed necessary by on-site personnel. Changes to fieldwork scheduling will be provided via phone and/or email.

PROPOSED FIELDWORK

Community Air Monitoring Program (CAMP)

The RAWP CAMP will be implemented during all ground-intrusive fieldwork activities. Air will be monitored for the presence of volatile organic compounds and dust.

Soil Excavation

Soil excavation will be completed in accordance with the RAWP and HASP for the site. Areas with contamination above RRU SCOs (4SS-2, 5SS-03, 5SS-11, and 5SS-16) will be excavated from the surface to approximately 2 feet bsg (or shallower if bedrock is encountered). The extent of each excavation will be guided by known laboratory data and visual observation of soil conditions, including field screening for volatile compounds with a photoionization detector (PID). Excavation areas are anticipated to have a final radius of approximately 5 - 15 feet, and will extend at least half the distance from the sampling location known to have contaminated soil to the nearest clean sampling point.

Additional soil excavation will be performed, as needed, based on the results of confirmatory endpoint sampling. Open excavation areas will be shrouded with tarps, and foam will be applied if soils are odorous. Contaminated soils will be containerized in roll-off containers prior to crossing Fisherman's Trail. Fishkill Creek will be properly protected using appropriate erosion-control measures during all excavation and backfilling activities.

Excavation Dewatering

Site groundwater has been shown to be free of significant dissolved contamination, and groundwater elevation data suggest that soil removal activities will not require dewatering. If dewatering is needed the following procedures are anticipated:

- Excavation shall be conducted in a manner so that water entering the excavation can be collected and removed from the excavation area.
- The Contractor shall control surface water to prevent entry into excavations.
- The dewatering operations shall be directed to a suitable sediment filtration system (settling tank, filtration, etc.) at a rate that does not exceed the capacity of the system to remove suspended particulates. The remedial engineer will provide a design specification to NYSDEC for approval prior to system implementation.
- Water released from the filtration system will be discharged back to the Site into an excavated recharge pit, following proper erosion and runoff controls, at a suitable recharge rate (required permits will be sought prior to any discharges). The recharge area will be located at least 100 feet from the Fishkill Creek. A design specification for construction of a typical recharge pit is shown on the Erosion Control Plan in Appendix B.
- Sediment removed from the filtration system will be handled following the protocols established for contaminated soil (unless otherwise characterized as meeting unrestricted use SCOs).
- The dewatering system shall remain active during all excavation activities, as necessary; upon completion of the dewatering activities the Contractor shall remove all dewatering measures.

In the event that any overt indications of contamination are observed in groundwater entering excavations (odors, sheens, PID readings, etc.), water removed from the excavation area will be collected in a frac tank (or other equivalent equipment). Water in the collection tank will be characterized and the results provided to NYSDEC and NYSDOH for review and consultation, pending a final decision regarding either off-site disposal at a permitted facility, or on-site discharge after sediment removal and treatment (e.g., activated carbon to remove organic compounds).

Erosion and Sediment Controls

The Erosion and Sedimentation Control Plan (ESCP), in Appendix B, describes preventative measures that will be taken to protect the Site and adjacent property from soil erosion and sedimentation during remedial activities. Excavation Area 3 is located close to the banks of the Fishkill Creek and the ESCP describes control measures and restoration activities to protect the waterway and control surface water runoff, and specifies that such measures shall remain in place until the appropriate cover system is constructed.

Waste Characterization and Disposal

Excavated soil will be stockpiled in a lined and covered on-Site roll-off containers, prior to off-Site disposal at a permitted facility. All waste characterization results and disposal documentation will be provided to NYSDEC in the final report.

End-Point Sampling

Confirmatory end-point soil samples will be collected from the bottom (one discrete sample for every 900 square feet) and sidewalls (one discrete sample for every 30 linear feet) of each excavation area in accordance with NYSDEC DER-10 sampling protocols. Each soil sample will be analyzed for PCBs via USEPA Method 8082 and TAL metals via USEPA Methods 6010/7473.

Cover System

Cover System installation will be performed once all confirmatory endpoint samples indicate remaining soil meets RRU SCOs. The cover system will be comprised of soils meeting SCOs as described in 6 NYCRR Part 375.6.7 (d) RRU (soil of a quality to sustain vegetation in the upper 6 inches), underlain with a demarcation layer (e.g., orange snow fence).

Clean soils imported and stockpiled at the Site in 2014 were previously approved by NYSDEC for use in the cover system and to backfill the excavation. These soils will be re-analyzed for per- and polyfluoroalkyl substances (PFAS) at the sampling frequency specified in NYSDEC DER-10 Table 5.4(e)10.

PFAS sampling and laboratory analysis (US EPA Method 1633) will be performed following the most recent NYSDEC PFAS guidance (June 2021), with a reporting limit of 0.50 ppb. Only soil meeting the RRU Guidance Values for perfluorooctanoic acid (PFOA; 33 ppb) and perfluorooctanesulfonic acid (PFOS; 44 ppb) will be used in the cover system and to backfill the excavation.

Prior to use of any material in the cover system and to backfill the excavation, a Request to Import/Reuse Fill or Soil form will be submitted to the NYSDEC for their approval, inclusive of all analytical data (2014 and current 2022 PFAS results).

DOCUMENTATION

A report documenting the remedial activities performed at Excavation Area 3, including fieldwork observations, laboratory results, Request to Import/Reuse Fill or Soil form, and disposal documentation, will be provided to NYSDEC, and will be incorporated into the Final Engineering Report for the Site.

SCHEDULE

<u>Week(s)</u>	<u>Activity</u>
1	SRWP submitted to the NYSDEC for review
2	Approval of SRWP by NYSDEC and site preparations
3	Soil excavation and sampling
4-5	Backfilling and waste disposal (pending laboratory results)
5-6	Report preparation and submittal to NYSDEC

CERTIFICATION

I, Daniel Bellucci, certify that I am currently a NYS registered professional engineer and that this Supplemental Remedial Action Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

I certify that all information and statements in this certification are true. I understand that a false statement made herein is punishable as Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

099470

NYS Professional
Engineer Number

10/03/2022

Date



Attachments: Figure 1: RAWP Proposed Excavation Area 3
Figure 2: Soil Sampling Map
Figure 3: SRWP Proposed Excavation Area
Table 1: PCBs in Soils
Table 2: TAL Metals in Soils
Appendix A – Community Air Monitoring Plan
Appendix B – Erosion and Sediment Control Plan

FIGURES

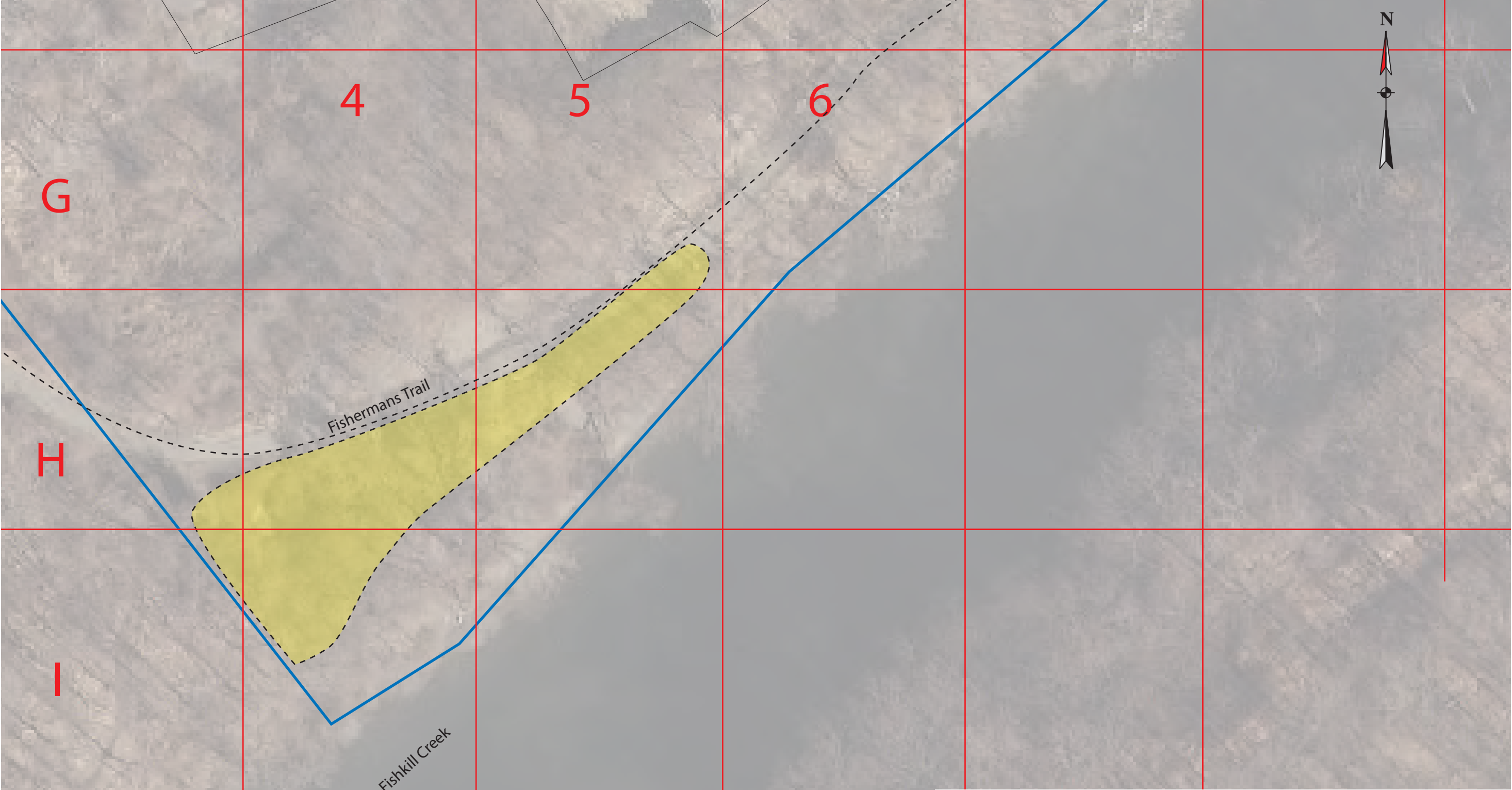
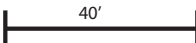


Figure 1 - RAWP Proposed Excavation Area 3		
Beacon Terminal Site Site ID: C314117 555 South Avenue City of Beacon Dutchess County, New York	File: BB04157.51	
	Scale: 	
	October 2022	Figure 1

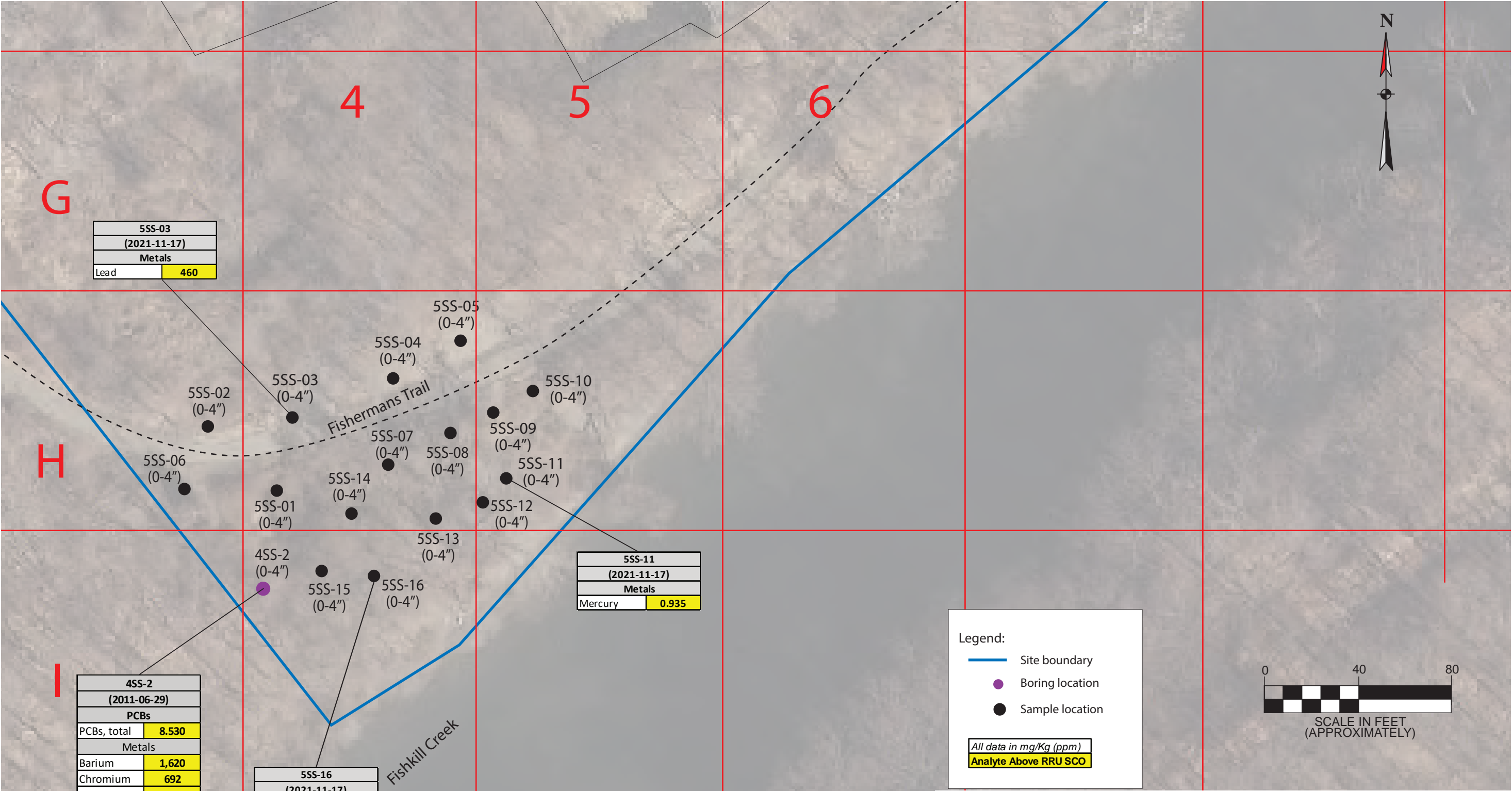


Figure 2 - Soil Sampling Map		
Beacon Terminal Site Site ID: C314117 555 South Avenue City of Beacon Dutchess County, New York	File: BB04157.51	
	Scale as shown	
	October 2022	Figure 2

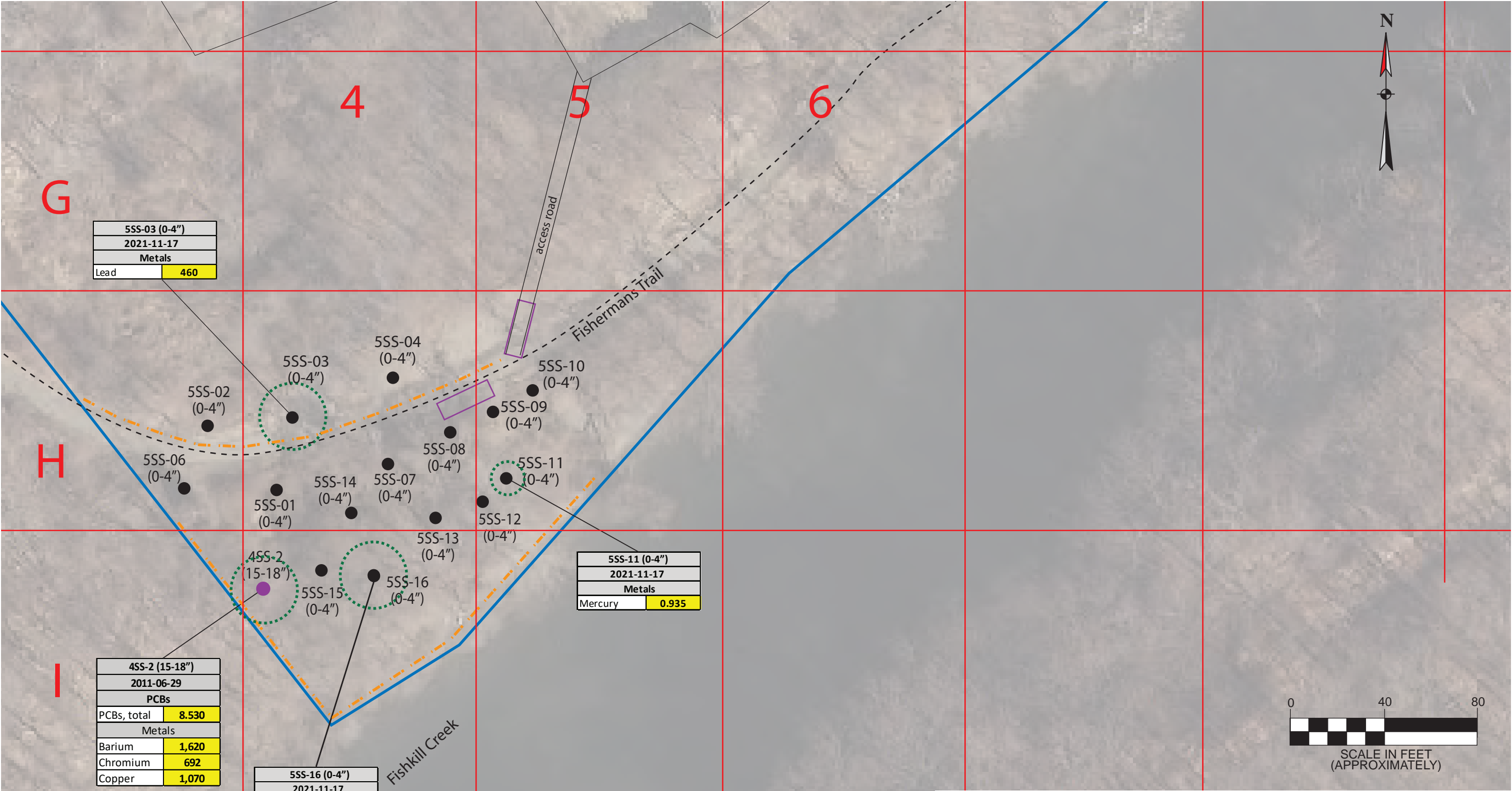


Figure 3 - SRWP Proposed Excavation Area

Beacon Terminal Site
Site ID: C314117
555 South Avenue
City of Beacon
Dutchess County, New York

File: BB04157.51

Scale as shown

October 2022

Figure 3

TABLES

Table 1: PCBs in Soils

BCP ID: C314117

GBTS Project: BB04157.51

Sample ID		4SS-2		5SS-01		5SS-02		5SS-03		5SS-04		5SS-05	
Sample Date		(2021-06-29)		(2021-11-17)		(2021-11-17)		(2021-11-17)		(2021-11-17)		(2021-11-17)	
Dilution		1		1		1		1		1		1	
PCBs, 8082	RRU SCO	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Aroclor 1016	1.00	0.072	U	0.026	U	0.0221	U	0.0365	U	0.0268	U	0.0239	U
Aroclor 1221	1.00	0.072	U	0.026	U	0.0221	U	0.0365	U	0.0268	U	0.0239	U
Aroclor 1232	1.00	0.072	U	0.026	U	0.0221	U	0.0365	U	0.0268	U	0.0239	U
Aroclor 1242	1.00	0.072	U	0.026	U	0.0221	U	0.0365	U	0.0268	U	0.0239	U
Aroclor 1248	1.00	0.072	U	0.026	U	0.0221	U	0.0365	U	0.0268	U	0.0239	U
Aroclor 1254	1.00	0.062	U	0.026	U	0.0221	U	0.0365	U	0.0268	U	0.0239	U
Aroclor 1260	1.00	0.062	U	0.026	U	0.0221	U	0.0365	U	0.0268	U	0.0239	U
Aroclor, Total	1.00	0.484		0.182		0.1547		0.2555		0.1876		0.1673	
Total PCBs	1.00	8.53		0.026	U	0.037		0.0566		0.0293		0.0263	

Sample ID		5SS-06		5SS-07		5SS-08		5SS-09		5SS-10		5SS-11	
Sample Date		(2021-11-17)		(2021-11-17)		(2021-11-17)		(2021-11-17)		(2021-11-17)		(2021-11-17)	
Dilution		1		1		1		1		1		1	
PCBs, 8082	RRU SCO	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Aroclor 1016	1.00	0.025	U	0.0208	U	0.0297	U	0.0198	U	0.019	U	0.0212	U
Aroclor 1221	1.00	0.025	U	0.0208	U	0.0297	U	0.0198	U	0.019	U	0.0212	U
Aroclor 1232	1.00	0.025	U	0.0208	U	0.0297	U	0.0198	U	0.019	U	0.0212	U
Aroclor 1242	1.00	0.025	U	0.0208	U	0.0297	U	0.0198	U	0.019	U	0.0212	U
Aroclor 1248	1.00	0.025	U	0.0208	U	0.0297	U	0.0198	U	0.019	U	0.0212	U
Aroclor 1254	1.00	0.025	U	0.0208	U	0.0297	U	0.0198	U	0.019	U	0.0212	U
Aroclor 1260	1.00	0.025	U	0.0208	U	0.0297	U	0.0198	U	0.019	U	0.0212	U
Aroclor Total	1.00	0.175		0.1456		0.2079		0.1386		0.133		0.1484	
Total PCBs	1.00	0.172		0.0208	U	0.0297	U	0.0198	U	0.019	U	0.0212	U

Sample ID		5SS-12		5SS-13		5SS-14		5SS-15		5SS-16		DUP-20211117	
Sample Date		(2021-11-17)		(2021-11-17)		(2021-11-17)		(2021-11-17)		(2021-11-17)		(2021-11-17)	
Dilution		1		1		1		1		1		1	
PCBs, 8082	RRU SCO	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Aroclor 1016	1.00	0.0231	U	0.0232	U	0.0214	U	0.0209	U	0.0435	U	0.0225	U
Aroclor 1221	1.00	0.0231	U	0.0232	U	0.0214	U	0.0209	U	0.0435	U	0.0225	U
Aroclor 1232	1.00	0.0231	U	0.0232	U	0.0214	U	0.0209	U	0.0435	U	0.0225	U
Aroclor 1242	1.00	0.0231	U	0.0232	U	0.0214	U	0.0209	U	0.0435	U	0.0225	U
Aroclor 1248	1.00	0.0231	U	0.0232	U	0.0214	U	0.0209	U	0.0435	U	0.0225	U
Aroclor 1254	1.00	0.0231	U	0.0232	U	0.0214	U	0.0209	U	0.0435	U	0.0225	U
Aroclor 1260	1.00	0.0231	U	0.0232	U	0.0214	U	0.0209	U	0.0435	U	0.0225	U
Aroclor, Total	1.00	0.1617		0.1624		0.1498		0.1463		0.3045		0.1575	
Total PCBs	1.00	0.0231	U	0.0232	U	0.0214	U	0.0623		0.135		0.0225	U

Analyte Detected

Analyte Above RRU SCO

Notes: Detections of Total PCBs are due to the presence of non-target analytes (Aroclor 1262 and/or 1268).

Table Page 1 of 1

Table 2: TAL Metals in Soils

BCP ID: C314117

GBTS Project: BB04157.51

Sample ID Sample Date Dilution		4SS-2 (2021-06-29)		5SS-01 (2021-11-17)		5SS-02 (2021-11-17)		5SS-03 (2021-11-17)		5SS-04 (2021-11-17)	
		1		1		1		1		1	
		1		1		1		1		1	
Metals, 6010 and 7473	RRU SCO	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Aluminum	NA	1,070		14,600		21,000		13,900		10,700	
Antimony	NA	19.4		4.2		5.96		5.5	U	4.09	U
Arsenic	16	3.13		2.35	U	2.01	U	3.3	U	3.27	
Barium	400	1,620		106		120		119		67.6	
Beryllium	72	0.024	U	0.511		0.599		0.418		0.082	U
Cadmium	4.3	0.395	U	0.662		0.733		0.982		0.585	
Calcium	NA	1,600		7,400		4,450		14,100		26,200	
Chromium	180	692		31.7		34.9		38.8		15.5	
Cobalt	NA	0.243	U	12.2		14.1		13.2		10.5	
Copper	270	1,070		127		139		129		68.4	
Iron	NA	8,910		24,300		35,900		27,200		20,400	
Lead	400	295		233		91.8		460		37	
Magnesium	NA	295		4,720		5,940		5,540		14,500	
Manganese	2,000	129		736		763		942		666	
Mercury	0.81	0.295	U	0.301		0.297		0.357		0.116	
Nickel	310	46.2		29.7		15.3		15.4		11.5	
Potassium	NA	260		1,990		1,590		1,780		1,310	
Selenium	180	3.14		3.92	U	3.34	U	5.5	U	4.09	U
Silver	180	0.273	U	0.784	U	0.669	U	1.1	U	0.819	U
Sodium	NA	158		78.4	U	182		110	U	449	
Thallium	NA	0.577	U	3.92	U	3.34	U	5.5	U	4.09	U
Vanadium	NA	40.3		27.5		29		30.4		37.2	
Zinc	10,000	243		225		251		286		150	

Analyte Detected

Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: TAL Metals in Soils

BCP ID: C314117

GBTS Project: BB04157.51

Sample ID		5SS-05		5SS-06		5SS-07		5SS-08		5SS-09	
All data in ppm		(2021-11-17)		(2021-11-17)		(2021-11-17)		(2021-11-17)		(2021-11-17)	
U= Not Detected		1		1		1		1		1	
Metals, 6010 and 7473	RRU SCO	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Aluminum	NA	13,800		18,000		18,000		19,500		18,700	
Antimony	NA	3.59	U	5.9		5.91		4.68		5.65	
Arsenic	16	3.5		3.32		1.9	U	2.69	U	1.8	U
Barium	400	79.8		113		100		128		62	
Beryllium	72	0.251		0.505		0.669		0.711		0.933	
Cadmium	4.3	0.625		0.453		0.57		0.714		0.674	
Calcium	NA	36,200		5,080		5,060		9,740		3,480	
Chromium	180	21.7		51.7		27.4		32.2		23.7	
Cobalt	NA	11.5		12.8		14.6		17.4		24.4	
Copper	270	57.9		122		110		90.8		53.7	
Iron	NA	25,000		31,500		38,100		31,500		38,300	
Lead	400	52.5		117		110		110		34.3	
Magnesium	NA	22,500		5,550		5,640		5,540		7,570	
Manganese	2,000	735		936		825		1,270		891	
Mercury	0.81	0.146		0.606		0.262		0.377		0.127	
Nickel	310	11.9		11.8		11.7		15.1		18.5	
Potassium	NA	2,230		1,910		2,060		2,400		1,730	
Selenium	180	3.59	U	3.77	U	3.17	U	4.48	U	2.99	U
Silver	180	0.718	U	0.754	U	0.633	U	0.897	U	0.598	U
Sodium	NA	86.9		75.4	U	63.3	U	89.7	U	59.8	U
Thallium	NA	3.59	U	3.77	U	3.31		4.48	U	4.33	
Vanadium	NA	38		30.8		28.2		36		30.9	
Zinc	10,000	116		165		183		206		125	

Analyte Detected

Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: TAL Metals in Soils

BCP ID: C314117

GBTS Project: BB04157.51

Sample ID <i>All data in ppm</i> <i>U= Not Detected</i>		5SS-10		5SS-11		5SS-12		5SS-13		5SS-14	
		(2021-11-17)		(2021-11-17)		(2021-11-17)		(2021-11-17)		(2021-11-17)	
		1		1		1		1		1	
Metals, 6010 and 7473	RRU SCO	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Aluminum	NA	19,300		25,300		23,300		20,900		22,000	
Antimony	NA	5.25		5.38		4.5		4.66		5.59	
Arsenic	16	1.73	U	3.12		2.27		2.12	U	1.94	U
Barium	400	77		119		128		120		82.6	
Beryllium	72	0.773		0.786		0.72		0.728		0.73	
Cadmium	4.3	0.506		0.511		0.493		0.604		0.469	
Calcium	NA	3,530		3,200		4,630		4,900		3,620	
Chromium	180	23.1		25.4		26.4		26		25.9	
Cobalt	NA	18.9		14.2		11.8		16.7		15.6	
Copper	270	44.9		35		40		43.1		49.8	
Iron	NA	36,100		35,200		30,200		31,000		38,300	
Lead	400	46.7		113		91.9		91.5		60.8	
Magnesium	NA	6,770		7,120		5,070		5,410		6,790	
Manganese	2,000	1,710		766		555		844		791	
Mercury	0.81	0.186		0.935		0.515		0.0424	U	0.259	
Nickel	310	12.3		14.7		13.8		14.7		17.1	
Potassium	NA	1,630		1,530		1,520		1,600		1,650	
Selenium	180	2.88	U	3.19	U	3.52	U	3.53	U	3.23	U
Silver	180	0.577	U	0.638	U	0.704	U	0.707	U	0.646	U
Sodium	NA	57.7	U	63.8	U	70.4	U	70.7	U	64.6	U
Thallium	NA	6.16		3.19	U	3.52	U	3.53	U	3.25	
Vanadium	NA	28.7		45.5		35.1		44.6		30.7	
Zinc	10,000	113		149		147		146		145	

Analyte Detected

Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
 Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: TAL Metals in Soils

BCP ID: C314117

GBTS Project: BB04157.51

Sample ID <i>All data in ppm</i> <i>U= Not Detected</i>		5SS-15		5SS-16		DUP-20211117	
		Sample Date		(2021-11-17)		(2021-11-17)	
		Dilution		1		1	
Metals, 6010 and 7473	RRU SCO	<i>Result</i>	<i>Qualifier</i>	<i>Result</i>	<i>Qualifier</i>	<i>Result</i>	<i>Qualifier</i>
Aluminum	NA	22,200		6,550		18,800	
Antimony	NA	6.43		9.57		5.55	
Arsenic	16	3.87		3.98	U	2.67	
Barium	400	132		112		106	
Beryllium	72	0.305		0.133	U	0.49	
Cadmium	4.3	0.379	U	0.797	U	0.792	
Calcium	NA	1,490		3,040		5,450	
Chromium	180	58.9		169		31.5	
Cobalt	NA	9.61		7.2		13	
Copper	270	231		392		124	
Iron	NA	28,100		13,300		33,800	
Lead	400	282		176		80.3	
Magnesium	NA	4,540		1,170		5,920	
Manganese	2,000	252		90.6		774	
Mercury	0.81	0.193		1.25		0.635	
Nickel	310	14.5		38		16	
Potassium	NA	1,180		905		1,490	
Selenium	180	3.16	U	6.64	U	3.39	U
Silver	180	0.632	U	1.33	U	0.678	U
Sodium	NA	63.2	U	133	U	143	
Thallium	NA	3.16	U	6.64	U	3.39	U
Vanadium	NA	30.8		78.8		28	
Zinc	10,000	122		148		248	

Analyte Detected

Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
 Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Appendix A – Community Air Monitoring Plan

Appendix 1A

New York State Department of Health Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.
4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

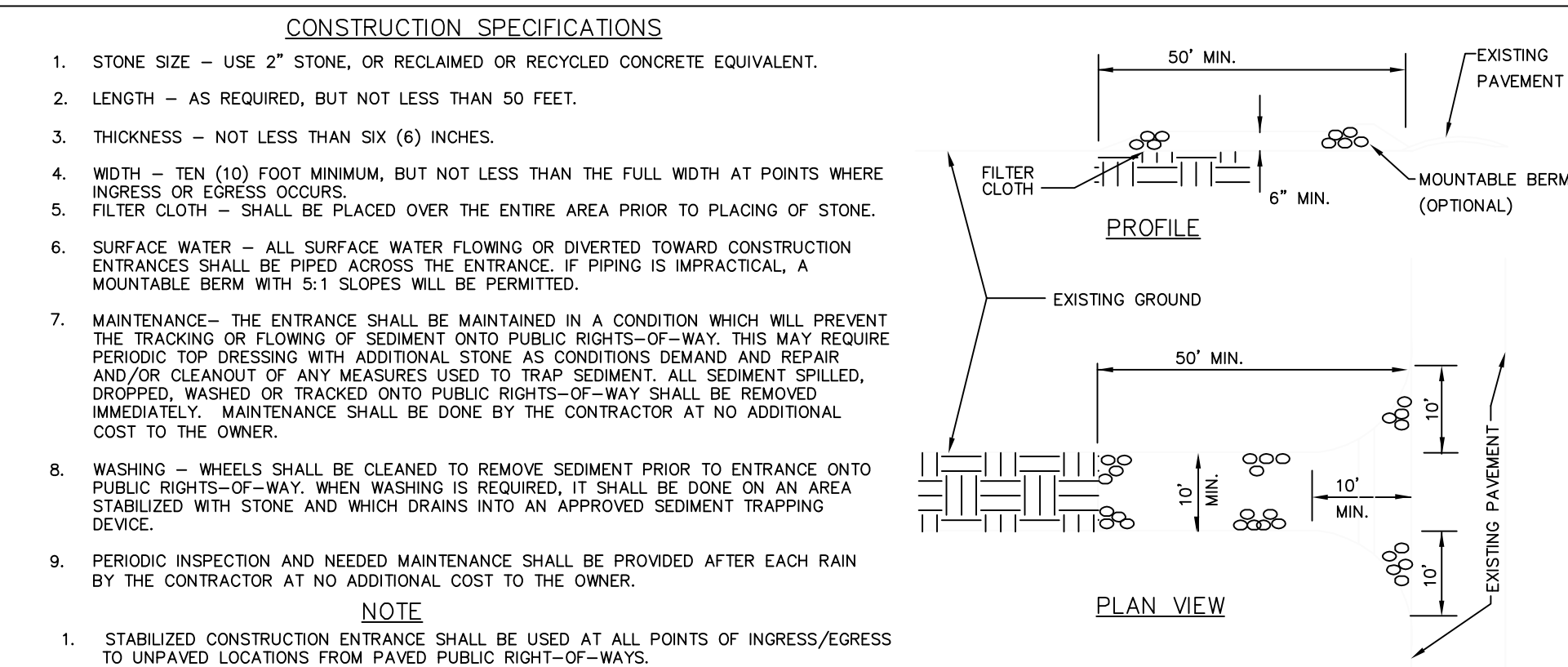
1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed $150 \text{ mcg}/\text{m}^3$ above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than $150 \text{ mcg}/\text{m}^3$ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within $150 \text{ mcg}/\text{m}^3$ of the upwind level and in preventing visible dust migration.

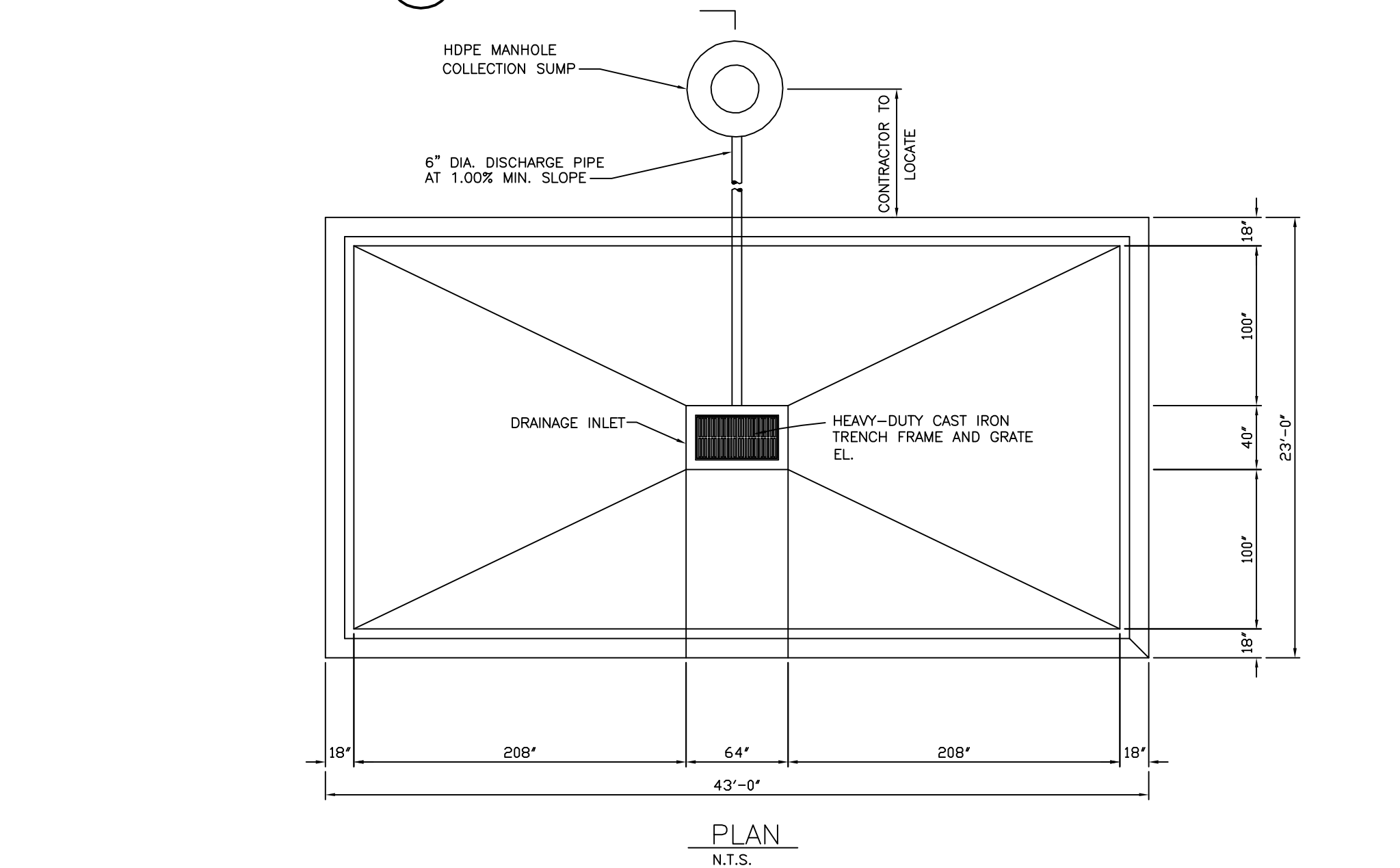
3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

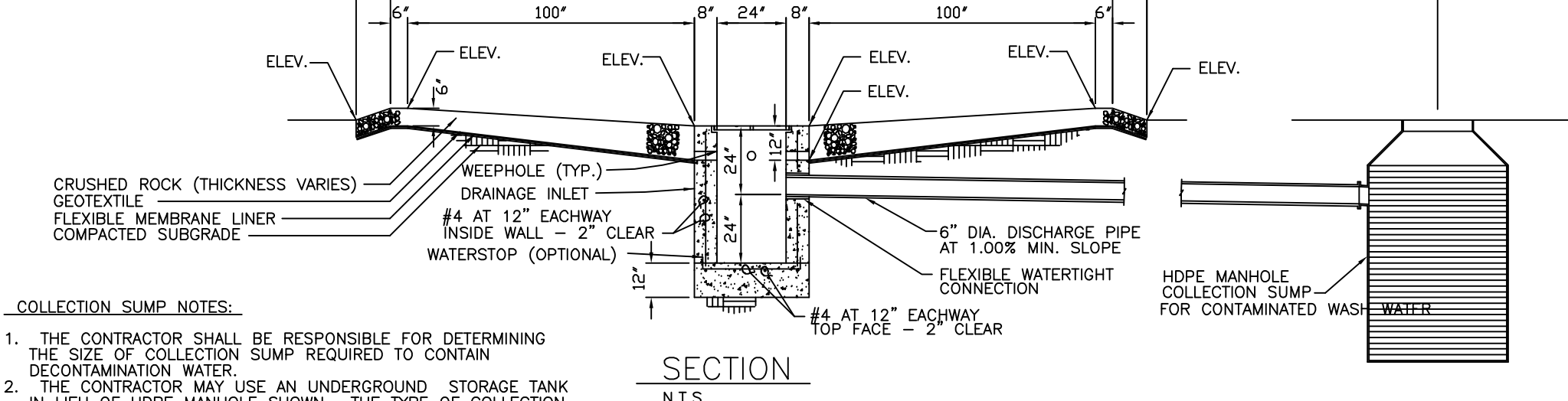
Appendix B: Erosion and Sediment Control Plan



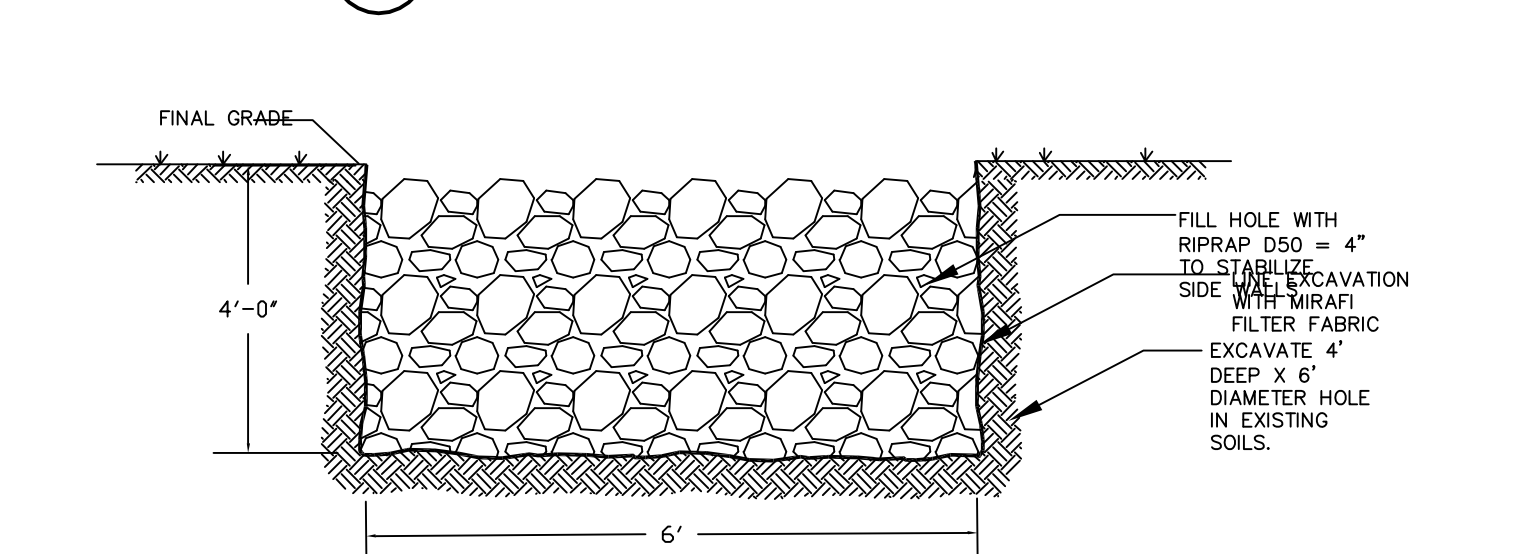
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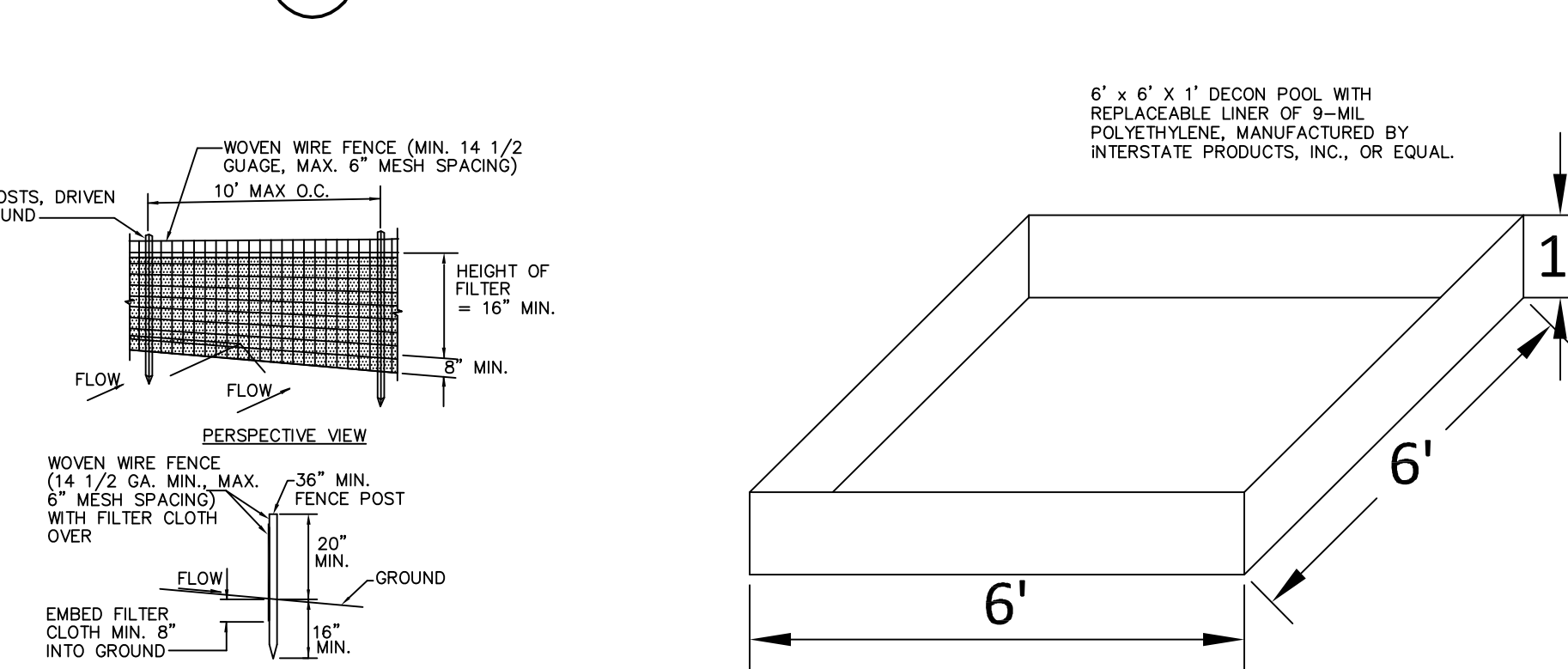
(2) N.T.S.



NOTES FOR CONSTRUCTING REGULARS BY

1. RECHARGE PIT MUST BE 100' FROM OPEN WATER SUCH AS A STREAM.
2. RECHARGE PIT MUST BE 30' FROM STORM SEWER OR CATCHBASIN.
3. EXISTING SOILS MUST BE SANDY LOAM OR COARSER, NOT SILT OR CLAY.
4. OUTFLOW FROM SEDIMENT TRAP MUST NOT EXCEED INFILTRATION RATE IN THE RECHARGE PIT.
5. IF SYSTEM STARTS TO OVERFLOW, CONSTRUCT A SECOND PIT.

3 N.T.S.



1. DECON POOL MUST BE LOCATED ON A LEVEL, PAVED SURFACE FREE OF CONTAMINATION, AND WITH NO SHARP OBJECTS THAT MAY PENETRATE THE POOL LINER.
2. REPLACEMENT POOL LINER MUST BE ON HAND.
3. AT THE COMPLETION OF SITE ACTIVITIES ALL WASTE/RINSE WATER SHOULD BE PUMPED INTO CONTAINERS AND PROPERLY MANAGED AS INVESTIGATIVE DERIVED WASTE.
4. AFTER USE THE POOL LINER MUST BE FOLDED INWARDS AND DISPOSED OF IN A SEALED CONTAINER.

N.T.S.

(4) _____ N.T.S.

SCALE: 1" = 50'



EROSION CONTROL SEQUENCE

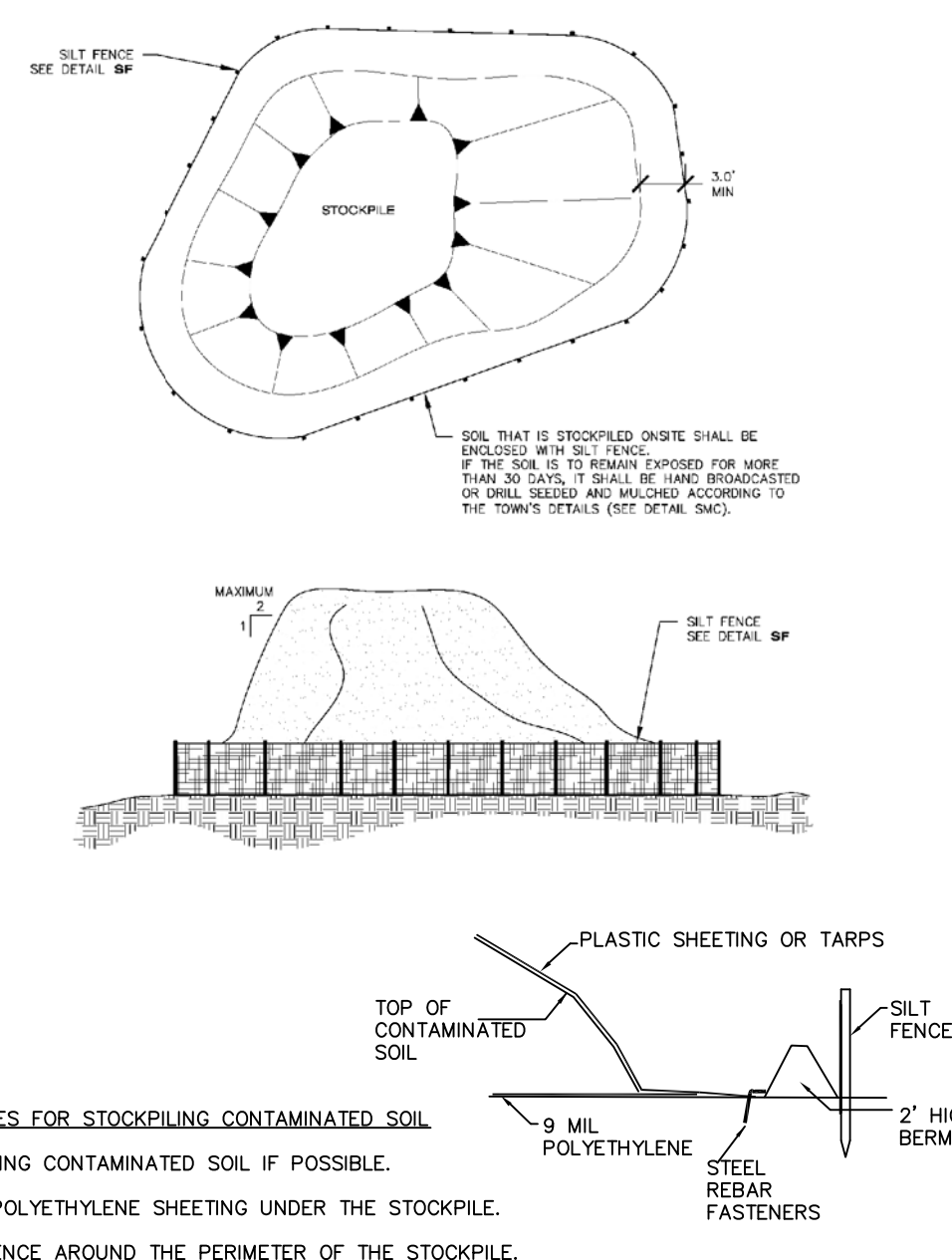
1. OVERALL SITE
 - INSTALL CONSTRUCTION ENTRANCE NEAR SOUTH ROAD
 - INSTALL SECURITY FENCING TO PROTECT WORK AREA
2. EXCAVATION AREA 1
 - INSTALL CONSTRUCTION ENTRANCE AND TRUCK DECONTAMINATION PAD
 - INSTALL DOWNHILL SILT FENCE BEFORE CLEARING AND GRUBBING WORK AREA.
 - PREPARE STOCKPILE LOCATIONS
3. EXCAVATION AREA 2
 - INSTALL EQUIPMENT DECONTAMINATION PAD NEAR BUILDING B-5B ENTRANCE THAT WILL BE USED FOR EQUIPMENT ACCESS.
4. EXCAVATION AREA 3
 - INSTALL DOWNHILL SILT FENCE BEFORE CLEARING AND GRUBBING WORK AREA.
 - INSTALL UPHILL DIVERSION SWALES
 - INSTALL CONSTRUCTION ENTRANCE AT TOP OF ACCESS DRIVE TO EXCAVATION AREA 2
5. EXCAVATION AREA 4
 - USE EQUIPMENT DECONTAMINATION PAD FROM WORK ON EXCAVATION AREA 2

EROSION CONTROL NOTES

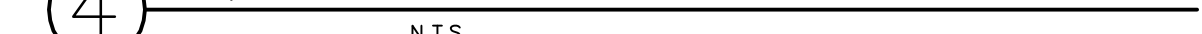
- THESE PLANS INDICATE THE PROPOSED CONTROLS TO BE FOLLOWED. DURING CONSTRUCTION FIELD CONDITIONS MAY REQUIRE THAT MODIFICATIONS TO THESE CONTROLS SHALL HAVE TO BE UTILIZED.
1. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND ANY EROSION, RAIN AND ANY REQUIRED MAINTENANCE SHALL BE DONE AT THAT TIME.
2. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL ALL PAVING AND SEED GERMINATION IS COMPLETE.
3. ALL STOCKPILES ARE TO BE SURROUNDED BY A SILT FENCE AND ALL PILES ARE TO BE STABILIZED WITH TEMPORARY SEEDING.
4. ALL DISTURBED AREAS WITH SLOPES GREATER THAN 10H:1V (10%), SHALL HAVE TEMPORARY SEEDING OF FAST GERMINATING RYE, 10 TO 15 LBS PER 1000 SQ YD.
5. ALL DISTURBED AREAS WITH SLOPES GREATER THAN 4H:1V, SHALL BE MULCHED, SEEDDED AND NETTED.
6. DISTURBED AREAS ARE TO BE PERMANENTLY STABILIZED BY ESTABLISHING A PERMANENT VEGETATION COVER. THE EXPOSED AREA WILL RECEIVE A MINIMUM OF A INCH TOPSOIL, THAT IS TO BE SEEDDED WITH PERMANENT SEEDS AND COVERED WITH FOLLOWING MIXTURE:

PERMANENT SPRING & FALL PLANTINGS:
(BEFORE MAY 15 AND AFTER AUGUST 15)
0.6 LBS/1000 S.F. FINE FESCUE
0.8 LBS/1000 S.F. PERENNIAL RYE GRASS
2.6 LBS/1000 S.F. KENTUCKY BLUEGRASS BLEND

TEMPORARY LATE SPRING & SUMMER PLANTINGS:
(BETWEEN MAY 15 AND AUGUST 15)
0.9 LBS/1000 S.F. SUDANGRASS
0.7 LBS/1000 S.F. ANNUAL RYE GRASS
0.7 LBS/1000 S.F. PERENNIAL RYE GRASS
(TO BE RE-SEWN WITH PERMANENT SEED MIXTURE)



NTS

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