



Department of Energy

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Fernald Area Office**
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3191



AUG 25 2000

Mr. James A. Saric, Remedial Project Manager
U.S. Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0955-00

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

**TRANSMITTAL OF RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY
COMMENTS AND THE FINAL INTEGRATED REMEDIAL DESIGN PACKAGE FOR AREA 2,
PHASE I NON-WASTE UNITS CAROLINA AREA**

- References:
- 1) Letter, T. Schneider to J. Reising, "Conditional Approval on the Implementation Plan for Area 2, Phase I Non-Waste Units Carolina Area," dated August 7, 2000
 - 2) Letter, J. Saric to J. Reising, "Area 2, Phase I Carolina Area IRDP," dated August 10, 2000

Enclosed are the responses to the Ohio Environmental Protection Agency (OEPA) comments and the final Integrated Remedial Design Package (IRDP) for Area 2, Phase I (A2PI) Non-Waste Units Carolina Area. The IRDP consists of the Implementation Plan and Design Change Notice (DCN) 20402-109. The DCN 20402-109 replaces an earlier DCN 20402-094 and incorporates the OEPA comments addressing the handling of miscellaneous debris and the exploratory trenches. The DCN is written against the existing A2PI Southern Waste Units (SWU) contract documents, thus, the technical specifications from the SWU project are applicable to the Carolina Area.

Mr. James A. Saric
Mr. Tom Schneider

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AUG 25 2000

If you have any questions regarding these documents or need further information, please contact Robert Janke at (513) 648-3124.

Sincerely,



Johnny W. Reising
Fernald Remedial Action
Project Manager

FEMP:R.J. Janke

Enclosure

cc w/enclosure:

R. J. Janke, OH/FEMP
G. Jablonowski, USEPA-V, SRF-5J
T. Schneider, OEPA-Dayton (three copies of enclosure)
F. Bell, ATSDR
M. Schupe, HSI GeoTrans
R. Vandegrift, ODH
F. Hodge, Tetra Tech
AR Coordinator, Fluor Fernald, Inc./78

cc w/o enclosure:

N. Hallein, EM-31/CLOV
A. Tanner, OH/FEMP
J. Blankmeyer, Fluor Fernald, Inc./52-0
D. Carr, Fluor Fernald, Inc./2
M. Cherry, Fluor Fernald, Inc./52-2
J. Chiou, Fluor Fernald, Inc./52-0
T. Crawford, Fluor Fernald, Inc./52-0
D. Diallo, Fluor Fernald, Inc./52-0
T. Hagen, Fluor Fernald, Inc./65-2
J. Harmon, Fluor Fernald, Inc./90
S. Hinnefeld, Fluor Fernald, Inc./31
M. Jewett, Fluor Fernald, Inc./52-2
U. Kumthekar, Fluor Fernald, Inc./65
M. Rolfes, Fluor Fernald, Inc./60
T. Walsh, Fluor Fernald, Inc./65-2
ECDC, Fluor Fernald, Inc./52-7

**RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS
ON THE DRAFT INTEGRATED REMEDIAL DESIGN PACKAGE FOR
AREA 2, PHASE I NON-WASTE UNITS CAROLINA AREA
(20400-PL-0004, REVISION A)**

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

GENERAL COMMENTS

IMPLEMENTATION PLAN

Commenting Organization: Ohio EPA
Section #: 3.3 Pg. #: 3-2 Line #: Commentator: OFFO
Code: C
Original Comment #: 1

Comment: During walk downs of the Carolina area, numerous locations of surface debris have been seen. No specific references as to how this debris will be handled are made in this document. Along with pulling this surface debris, Ohio EPA feels that a 6-inch scrape in the same area is necessary to make sure all debris is removed. After the scrape, the material must be handled as described in the IP for the 12-inch areas.

Response: The Design Change Notice (DCN) addresses the removal of the miscellaneous surface debris located throughout the Carolina Area. There were 32 identified surface debris locations identified during electromagnetic scanning and given coordinates, as shown on the DCN. A separate note, General Note 7 of the DCN, addresses the contingency of additional, previously unidentified debris. In addition, the General Note 7 and Excavation Note 5 are to be revised to state that a 6-inch deep area over an approximate 5-foot radius around the debris location is to be scraped to verify that there is no additional debris present.

Action: The DCN will be revised to incorporate the 6-inch scrape over an approximate 5-foot radius around the debris locations. Section 3.3 of the Implementation Plan will also be revised to incorporate a discussion on the handling of miscellaneous debris.

Commenting Organization: Ohio EPA
Section #: 3.3.3 Pg. #: 3-4 Line #: Commentator: OFFO
Code: C
Original Comment #: 2

Comment: Ohio EPA has concerns that a strict 30-foot trench may not be long enough in some sections of Paddys Run. The document should state that the trench lengths will be field located such that they extend through the berm along the stream bank.

Response: The DCN states that these dimensions are minimum, and therefore the length of the trench is not limited to the 30 feet as stated. Field direction will be such that the trench length can be increased if it is determined to be necessary. OEPA will be notified before start of construction to allow field observation during excavation.

Action: The DCN and Implementation Plan will be revised to state that the trench lengths will be field located such that they extend through the berm along the stream bank. A note will also be added to the DCN referencing agency input prior to and during the excavation of the trenches.

Commenting Organization: Ohio EPA

Commentator: OFFO

Section #: 3.3.3

Pg. #: 3-4

Line #: 3

Code: C

Original Comment #: 3

Comment: This line references Figure 3-2 for the trenches, when the actual figure is 3-3. Please correct.

Response: Noted.

Action: The text of the Implementation Plan will be revised to reference the correct figure.

RCI/DCN FORM

3191

REQUEST FOR CLARIFICATION OF INFORMATION / DESIGN CHANGE NOTICE			
(1) PROJECT/CWO/RES NO.: 20402		(2) S/C NO.: FSC 614	(5) Pg 1 Of 3
(3) S/C TITLE: Southern Waste Units - Excavation		(6) DATE 8/10/00	
(4) RESPONSIBLE DISCIPLINE: E <input type="checkbox"/> M <input type="checkbox"/> C <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>	(4A) RCI/DCN TITLE: Carolina Area Excavation	(11) DCN NO.: 20402-109	
(7) DOCUMENTS AFFECTED Construction Drawings	(7) DOCUMENT NOS. 92X-5900-X-00394	(7) REV.: 2	(8) OTHER Drawing index
(9) <input type="checkbox"/> RCI-INQUIRY	<input type="checkbox"/> USQD SCREENING BY PROJECT ENGINEER	(9) <input checked="" type="checkbox"/> DCN-JUSTIFICATION, EXISTING CONDITION & REQUESTED/PROPOSED CHANGE	
<input type="checkbox"/> REQUIRED	<input checked="" type="checkbox"/> NOT REQUIRED		
<p>In the designated areas, remove debris and excavate to the depths shown on the attached figures in accordance with specification section 02205. Also remove any debris encountered at the surface</p> <p>Place silt fence as shown on the attached sketch.</p> <p>Upon completion of excavation, Fluor Fernald will conduct real-time radiological monitoring of the area. Additional excavation may be necessary based on the results of the monitoring.</p> <p>Seed in accordance with specification section 02900.</p> <p>Replaces & supercedes DCN 20402-0940</p>			
(10) REQUESTOR: <i>Michael P. [Signature]</i>	COMPANY: Fluor Fernald	DATE: 8/16/00	(12) CE / PE <i>Jennifer Blankmeyer</i>
(13) RESPONSE: FOR RCI, IS A DCN REQ'D? <input type="checkbox"/> NO <input type="checkbox"/> YES	(14) FOR DCN: <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> APPROVED AS NOTED <input type="checkbox"/> DISAPPROVED		
RCI - DCN ACCEPTANCE			
(15) DESIGN ORGANIZATION APPROVAL/DISAPPROVAL DATE: <i>William P. [Signature] (PARSONS)</i>		(20) CHARGE NO. FOR CADD SERVICES TO INCORPORATE:	
<input type="checkbox"/> FIT <input checked="" type="checkbox"/> FORM <input type="checkbox"/> FUNCTION	DATE: 8/16/00		
(16) FDF PE ACCEPTANCE & VERIFICATION THAT ALL REQUIRED REVIEWS ARE COMPLETE (DCN ONLY) PERFORMANCE GRADE: (17) 5	DATE: 8/16/00		
(18) CONSTRUCTION CONCURRENCE DATE: <i>Steve P. [Signature]</i>	DATE: 8/16/00	(21) FIELD WORK COMPLETED:	
PURCHASE REQUISITION REQUIRED: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO (19)	(SIGNOFF BY CE OR PE) DATE:		

GENERAL NOTES

1. EXCAVATION LIMITS DEFINED ARE BASED ON PHYSICAL SAMPLING, ELECTROMAGNETIC (EM) SURVEY, AND GROUND PENETRATING RADAR (GPR). PHYSICAL SAMPLING HAS DETERMINED THAT FLYASH MAY BE ENCOUNTERED IN EXCAVATION LOCATION NO. 4 LIMITS. EM AND GPR HAVE DETERMINED THAT DEBRIS AND/OR FLYASH MAY BE ENCOUNTERED WITHIN ALL SIX EXCAVATION LOCATIONS. PREDESIGN SAMPLING AND REAL-TIME MONITORING DETERMINED THAT THERE ARE NO RADIOLOGICAL CONSTITUENTS ABOVE FINAL REMEDIATION LEVELS WITHIN THE WORK LIMITS.
2. THE CONSTRUCTION MANAGER WILL PROVIDE CONTINUOUS RADIOLOGICAL AND WAD COVERAGE DURING EXCAVATION AND SCRAPING.
3. PROTECT EXISTING MONITORING WELLS, SURVEY MONUMENTS, AND UTILITIES.
4. SEED AND MULCH ALL DISTURBED AREAS IN ACCORDANCE WITH SPECIFICATION SECTION 02900.
5. DUST CONTROL SHALL BE IN ACCORDANCE WITH PART 6 OF THE CONTRACT DOCUMENTS.
6. ACCUMULATED STORM WATER IN THE EXCAVATIONS SHALL BE PUMPED TO BASIN NO. 2.
7. IF ADDITIONAL AREAS NOT IDENTIFIED ON THIS SHEET CONTAIN EXPOSED OR PARTIALLY EXPOSED DEBRIS, PERFORM A 6-INCH SCRAPE OVER A 5-FOOT RADIUS AROUND THE DEBRIS LOCATION AS DIRECTED BY THE CONSTRUCTION MANAGER TO VERIFY THAT NO ADDITIONAL DEBRIS IS PRESENT. TRANSPORT DEBRIS TO OSDF. THE SOIL SHALL REMAIN IN THE AREA.
8. FINAL GRADING SHALL BE AS DIRECTED BY THE CONSTRUCTION MANAGER.
9. IMPACTED MATERIAL ENCOUNTERED SHALL BE STAGED IN AN AREA DESIGNATED BY CONSTRUCTION MANAGER. APPROPRIATE DRAINAGE, SILT FENCING AND EROSION CONTROL FOR THE AREA SHALL BE DETERMINED AND DIRECTED BY CONSTRUCTION MANAGER.

EXCAVATION NOTES

1. SCRAPE 12 INCHES TO VERIFY THAT DEBRIS HAS BEEN REMOVED. SCRAPE AROUND TREES, SEPARATE DEBRIS AND SOIL. TRANSPORT DEBRIS TO OSDF AND STOCKPILE SOIL FOR BACKFILL AFTER EXCAVATION IS COMPLETE. IF DEBRIS CAN NOT BE SEGREGATED FROM THE SURROUNDING SOIL, TRANSPORT SURROUNDING SOIL WITH DEBRIS TO OSDF FOR PLACEMENT.
2. EXCAVATE WITHIN LIMITS OF MOUND TO A BASE ELEVATION OF 533. TRANSPORT TO OSDF AS UNCLASSIFIED IMPACTED MATERIAL. EXCAVATE WITHIN LIMITS OF EXCAVATION LOCATION 4 TO ELEVATION 528.
3. EXCAVATION LIMITS REPRESENT TOE OF SLOPE.
4. REMOVE DEBRIS FROM ROAD EMBANKMENT WITH A MINIMUM EXCAVATION OF 12 INCHES. AVOID UNDERCUTTING OF THE ROAD. ADDITIONAL EXCAVATION DEPTH SHALL BE AS DIRECTED BY CONSTRUCTION MANAGER. RESTORE GRAVEL ROAD BERM AS DIRECTED BY CONSTRUCTION MANAGER.
5. REMOVE DEBRIS AND SIZE REDUCE AS NECESSARY IN ACCORDANCE WITH SPECIFICATION SECTION 02205 AT THESE LOCATIONS AND TRANSPORT TO OSDF FOR PLACEMENT. PERFORM A 6-INCH DEEP SCRAPE OVER AN APPROXIMATE RADIUS OF 5 FEET AROUND THE LOCATION OF THE DEBRIS TO VERIFY THAT NO ADDITIONAL DEBRIS IS PRESENT.

STATE OF OHIO NORTH
GNAD 831

FEMP
NORTH
Z=1.5672"

RETENTION
BASIN #2

GRAVEL ROAD

SFVH

GW-B*
TREATMENT LINE
GW-B*
DISCHARGE LINE
ST-6 (18")
TRANSFER LINE

31564

ELECTRICAL
SERVICE PANEL

EW-14

EXCAVATION
LOCATION 1

SURVEY MONUMENTS
SEE GENERAL NOTE 3

EXCAVATION
LOCATION 2

OUTER LIMIT OF
EXCAVATION (TYP)
SEE EXCAVATION NOTE 3

LIMITS OF 12" SCRAPING
SEE EXCAVATION NOTE 1

AREA TO REMOVE DEBRIS
SEE EXCAVATION NOTE 4

TRENCH (TYP)

PADDY'S RUN

EXCAVATION
LOCATION 3

EXCAVATION
LOCATION 4

SEE EXCAVATION NOTE 2

EXCAVATION
LOCATION 5

EXCAVATION
LOCATION 6

ELEC CONDUITS
FG-6"
DW-6"

EXIST
RIPRAP

ADD ADDITIONAL SILT FENCE AS NECESSARY
AND AS DIRECTED BY CONSTRUCTION MANAGER.

LIMITS OF 12" SCRAPE
AND MOUND

[A]	NORTHING	EASTING
A	477087.16	1348239.01
B	477068.65	1348217.63
C	477082.76	1348189.83
D	476988.78	1348213.17
E	476953.58	1348248.78
F	476933.71	1348265.66
G	476944.24	1348318.28
H	476946.27	1348323.72
I	476958.16	1348349.45
J	476979.31	1348196.20
K	476945.36	1348138.99
L	476891.44	1348175.85
M	476862.12	1348268.68
N	476891.44	1348273.83
O	476932.96	1348253.79

DEBRIS COORDINATES
SEE EXCAVATION NOTE 5

(NO)	NORTHING	EASTING	DESCRIPTION
01	477018.01	1347935.71	CONCRETE
02	477094.05	1347965.56	CABLE
03	477066.03	1347990.80	CONCRETE
04	477046.86	1348003.88	METAL
05	477076.78	1348050.06	REBAR
06	477100.31	1348174.46	CONCRETE
07	476968.38	1348147.11	STRIP
08	476972.62	1348158.79	STRIP
09	476992.52	1348161.85	STRIP
10	476985.89	1348165.72	STRIP
11	476998.05	1348211.78	SIGN
12	476995.10	1348215.09	REBAR
13	476938.15	1348157.61	REBAR
14	476942.94	1348162.59	REBAR
15	476946.99	1348258.58	RUST-DECAY
16	476943.67	1348261.34	REBAR
17	476874.28	1348209.89	CONCRETE
18	476874.83	1348214.68	REBAR
19	476865.62	1348238.71	CONCRETE
20	476868.38	1348234.95	METAL
21	476866.17	1348238.45	METAL-WIRE
22	476862.67	1348247.66	REBAR
23	476837.23	1348254.66	REBAR
24	476832.62	1348246.80	REBAR
25	476812.16	1348247.66	REBAR
26	476889.03	1348244.16	REBAR
27	476810.23	1348128.63	CABLE
28	476887.83	1348128.45	CABLE
29	476888.39	1348124.32	CABLE
30	476882.86	1348124.87	CABLE
31	476881.28	1348128.55	CABLE
32	VARIOUS	VARIOUS	CONC, METAL, ETC.

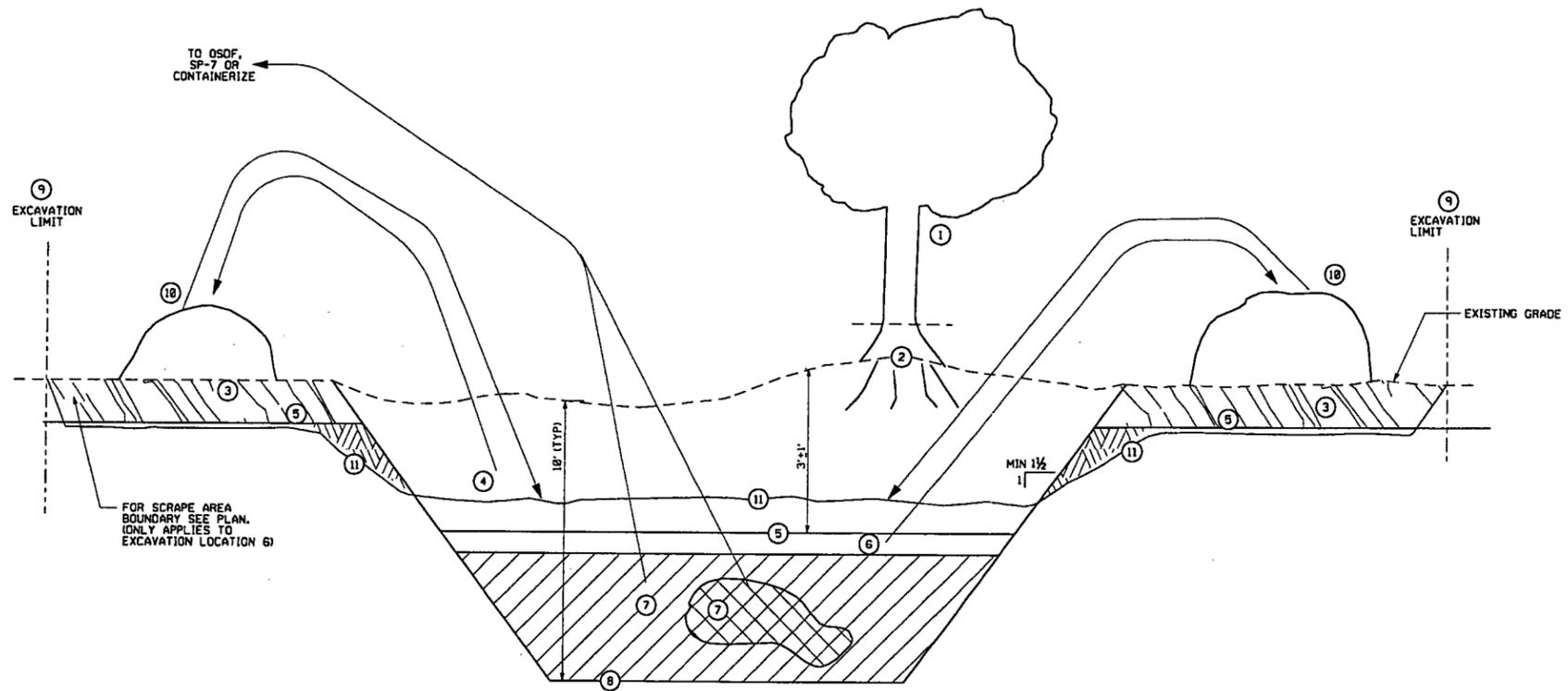
EXCAVATION LOCATIONS

EXCAVATION LOCATION	(NO)	NORTHING	EASTING
1	1	477155.68	1347986.1
	2	477155.68	1348045.6
	3	477052.37	1348045.6
	4	477052.37	1347986.1
	5	477063.31	1347937.2
2	6	477063.31	1347955.8
	7	477045.93	1347955.8
	8	477045.93	1347937.2
3	9	476987.51	1348243.7
	10	476987.51	1348276.8
	11	477021.62	1348276.8
	12	477021.62	1348243.7
	13	476958.84	1348188.1
4	14	476958.84	1348227.6
	15	476938.94	1348241.1
	16	476917.75	1348241.1
	17	476917.75	1348188.1
5	18	476886.64	1348184.6
	19	476886.64	1348117.1
	20	476981.44	1348117.1
6	21	476981.44	1348184.6
	22	476782.84	1348212.8
	23	476782.84	1348227.6
	24	476799.89	1348227.6
	25	476799.89	1348212.8

EXCAVATION SOUTH OF
RETENTION BASIN 2



DCN 20402-109A
SKETCH 1 OF 2



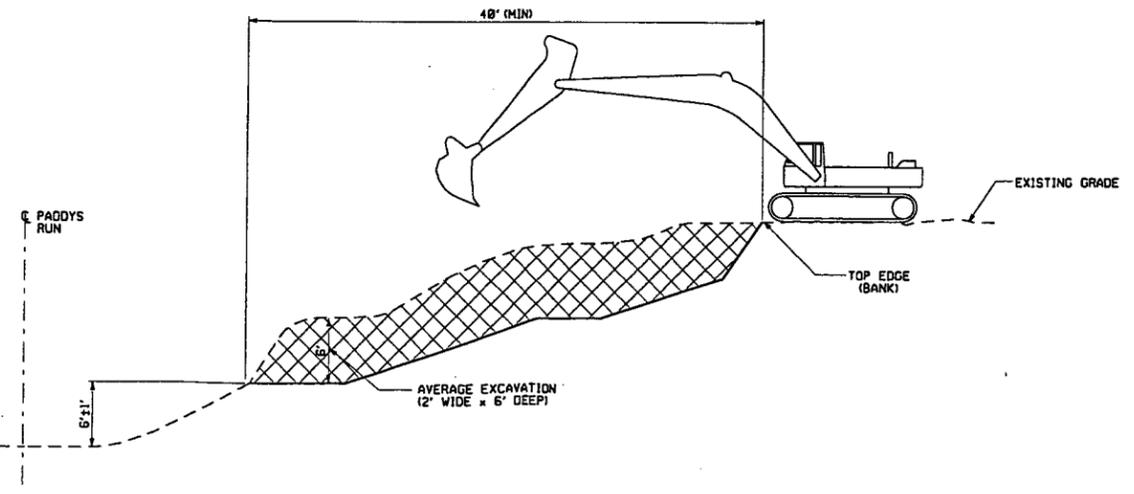
TYPICAL EXCAVATION SECTION A REF
NTS SHT 2 SHT 1

EXCAVATION STEPS:

- 1 CUT OR PUSH OVER TREES AND STOCKPILE IN AN AREA DESIGNATED BY CONSTRUCTION MANAGER.
- 2 REMOVE STUMPS AND ROOTS WHILE EXCAVATING DURING STEPS 3 OR 4.
- 3 REMOVE 12-INCHES OF SOIL AND VEGETATION TO VISUALLY MONITOR FOR DEBRIS. REMOVE AND SIZE REDUCE ANY DEBRIS AND TRANSPORT IT TO THE OSDF, SP-7, OR CONTAINERIZE IT AT DIRECTION OF CONSTRUCTION MANAGER. STOCKPILE SOIL AND VEGETATION IN WORKING PILES WITHIN THE AREA.
- 4 EXCAVATE 3 +/- 1-FOOT LIFT AND STOCKPILE SOIL IN A SEPARATE WORKING PILE WITHIN THE AREA. IF IMPACTED MATERIAL IS ENCOUNTERED, GO TO STEP 7.
- 5 FLUOR FERNALD INC. WILL PERFORM REAL-TIME MONITORING.
- 6 EXCAVATE SOIL TO A DEPTH OF 10 FEET AND STOCKPILE IN A SEPARATE WORKING PILE WITHIN THE AREA. IF NO IMPACTED MATERIAL IS ENCOUNTERED, GO TO STEP 8.
- 7 REMOVE, AND SIZE REDUCE IF NECESSARY, ANY IMPACTED MATERIAL (DEBRIS, FLYASH, ETC.) AND THE SURROUNDING SOIL TO A DEPTH OF 10 FEET AND TRANSPORT TO OSDF, SP-7, OR CONTAINERIZE IT AT DIRECTION OF CONSTRUCTION MANAGER.
- 8 FLUOR FERNALD INC. WILL PERFORM REAL-TIME MONITORING AND PHYSICAL SAMPLING AT BOTTOM OF EXCAVATION.
- 9 SURVEY FINAL EXCAVATION LIMITS AND DEPTHS.
- 10 IF NO IMPACTED MATERIAL REMOVED, BACKFILL WITH EXCAVATED MATERIAL IN 24" LOOSE LIFTS AND COMPACT USING APPROPRIATE EQUIPMENT. IF IMPACTED MATERIAL AND SURROUNDING SOIL REMOVED, GO TO STEP 11.
- 11 RESHAPE FINAL GRADE TO 4:1 FINAL SLOPE. FLUOR FERNALD INC. WILL PERFORM REAL-TIME MONITORING OVER FINAL GRADES FOR PRECERTIFICATION AND SAMPLE FOR CERTIFICATION.

TRENCHING NOTES:

- 1 TRENCH LOCATIONS SHOWN ON PLAN ARE APPROXIMATE. FIELD LOCATE AS DIRECTED BY CONSTRUCTION MANAGER TO MINIMIZE DAMAGE TO EXISTING TREES. SURVEY FINAL TRENCH LOCATIONS.
- 2 EXCAVATE TRENCHES TO SHOWN MINIMUM DIMENSIONS (2' W X 6' D X 40' L). STOCKPILE EXCAVATED MATERIAL ADJACENT TO TRENCH AND OUTSIDE OF PADDOYS RUN STREAM.
- 3 REMOVE ANY IMPACTED MATERIAL ENCOUNTERED AND TRANSPORT TO OSDF, SP-7, OR CONTAINERIZE IT.
- 4 ASSESS EXTENT OF ANY IMPACTED MATERIAL FOUND. THERE ARE THREE POSSIBLE SCENARIOS IF IMPACTED MATERIAL IS FOUND:
 1. WIDEN THE TRENCH TO PURSUE THE IMPACTED MATERIAL.
 2. DIG ADDITIONAL TRENCHES TO BOUND AND EXCAVATE THE IMPACTED MATERIAL.
 3. EXCAVATE A PORTION OF STREAMBANK TO REMOVE THE IMPACTED MATERIAL.
- 5 BACKFILL TRENCH WITH EXCAVATED MATERIAL. COMPACT MATERIAL IN 24-INCH LOOSE LIFTS USING APPROPRIATE EQUIPMENT. STABILIZE PER SPECIFICATIONS.



TYPICAL TRENCH SECTION B REF
NTS SHT 2 SHT 1