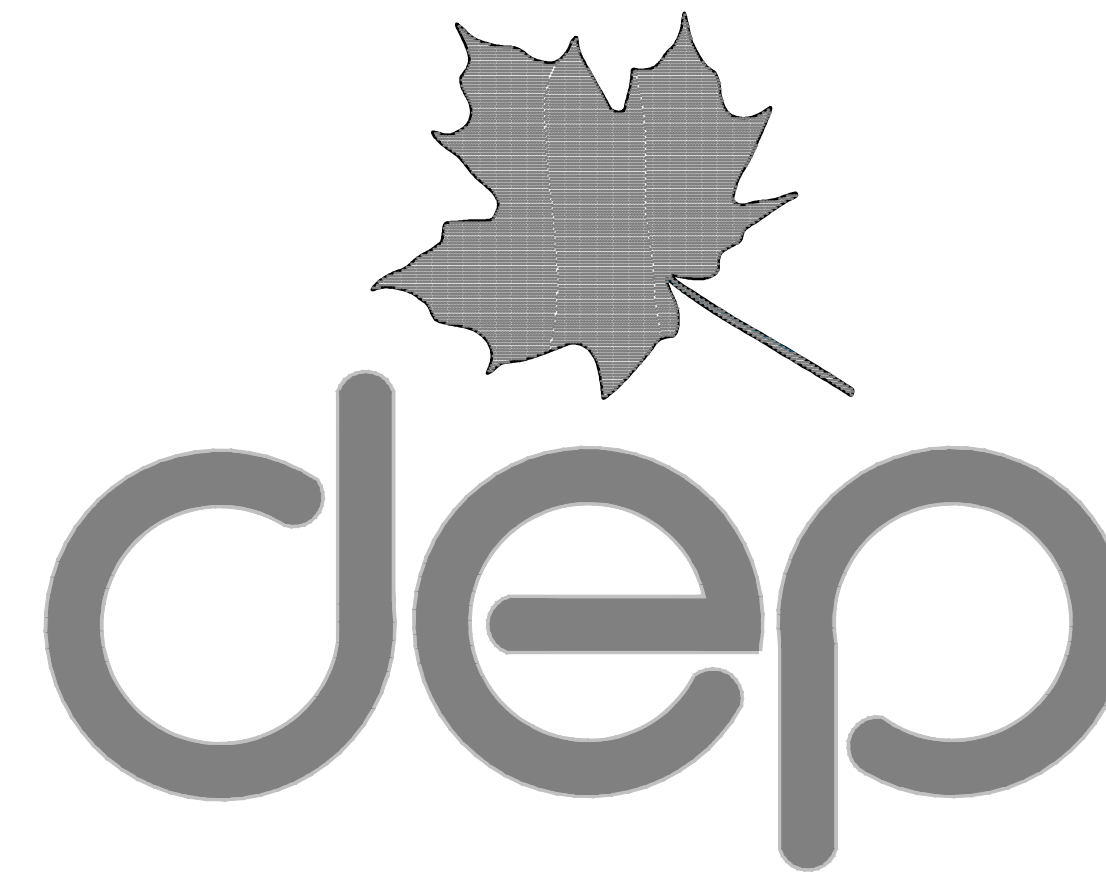


WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF ABANDONED MINE LANDS AND RECLAMATION LILBERN PRITT HIGHWALL

BARBOUR COUNTY, WEST VIRGINIA

Earl Ray Tomblin,
Governor

Randy C. Huffman,
Cabinet Secretary

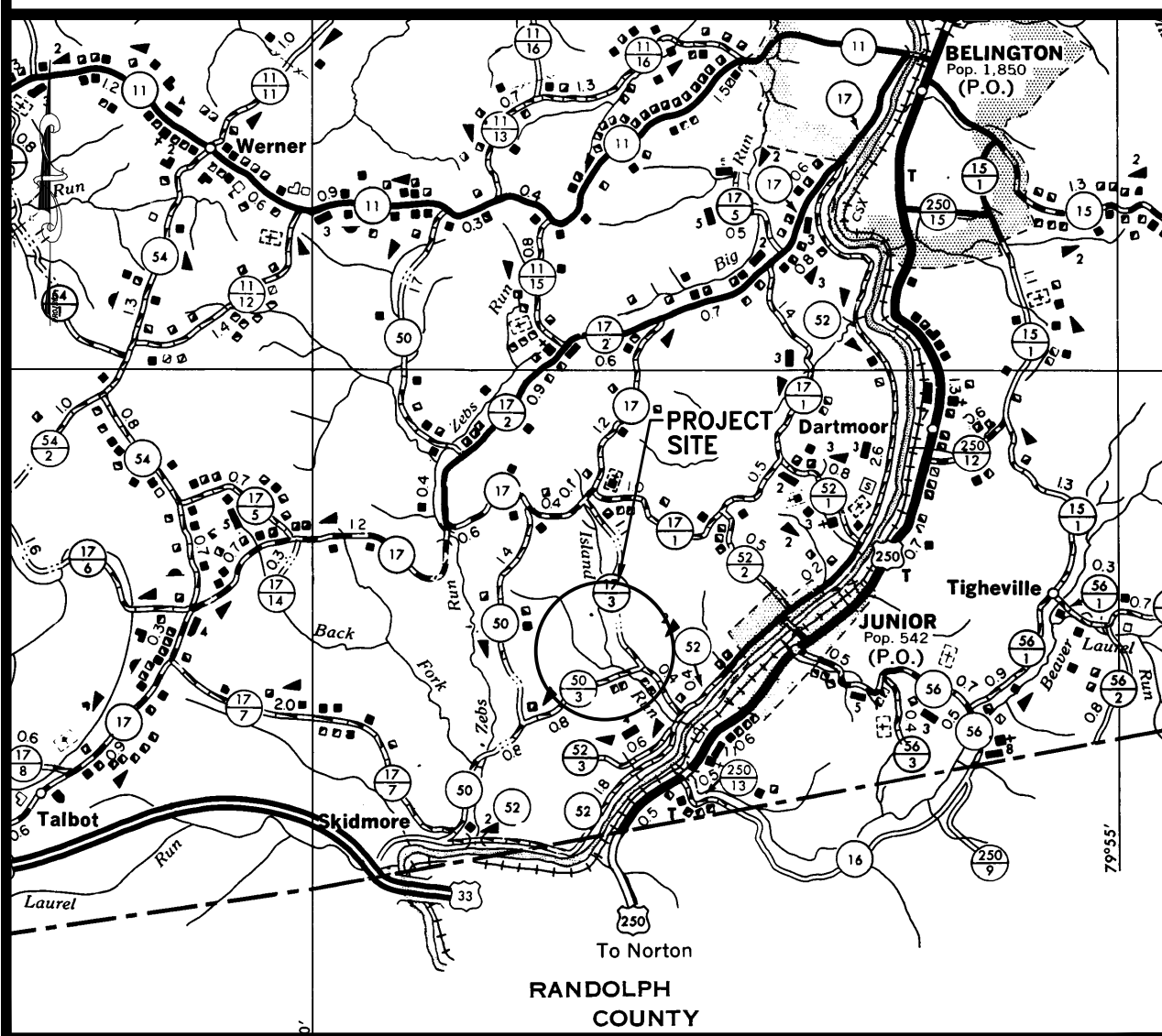


LILBERN PRITT HIGHWALL				
Contractor's Bid Schedule				
Company Name: _____				
Address: _____				
The DEP reserves the right to request additional information and supporting documentation regarding unit prices when the unit price appears to be unreasonable.				
ITEM NO.	QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
1.0	LS	Mobilization and Demobilization (Limited to 10% of Total Bid)	LS	\$
2.0	LS	Construction Layout (Limited to 5% of Total Bid)	LS	\$
3.0	LS	Quality Control (Limited to 3% of Total Bid)	LS	\$
4.1	LS	Site Preparation (Limited to 10% of Total Bid)	LS	\$
4.2	677 TN	Gravel Access Road Rehabilitation		\$
5.1	1,015 LF	Temporary Straw Wattles		\$
5.2	680 LF	Temporary Silt Fence		\$
5.3	955 LF	Temporary Super Silt Fence		\$
5.4	17 EA	Temporary Triangular Silt Dikes		\$
5.5	1 EA	Temporary Sediment Traps		\$
5.6	12,700 SY	Slope Protection Temporary Erosion Control Matting		\$
5.7	510 SY	Slope Protection Permanent Erosion Control Matting		\$
5.8	1 EA	Temporary Inlet Protection		\$
5.9	2 EA	Temporary Stabilized Construction Entrance		\$
6.0	6.4 AC	Revegetation (Per Plan Acre)		\$
7.1	450 LF	Type I Channel		\$
7.2	290 LF	Type II Channel		\$
7.3	255 LF	Type III Channel		\$
7.4	175 LF	Type IV Channel		\$
7.5	100 LF	Type V Channel		\$
7.6	1 EA	WVDOH Type G Inlet		\$
7.7	160 LF	24" Diameter HDPE Pipe		\$
7.8	1,680 LF	HDPE Drainage Blanket		\$
8.0	6,246 CY	Unclassified Excavation		\$
10.0	50 LF	Underdrain		\$
12.0	450 LF	Guardrail		\$
13.1	1 EA	Performance Tests		\$
13.2	LS	Soil Nail and Rock Anchors, Complete	LS	\$
14.1	215 LF	Temporary Jersey Barrier		\$
14.2	215 LF	Temporary Jersey Barrier Safety Fence		\$
15.0	280 LF	6' Height Chainlink Safety Fence		\$
TOTAL				\$

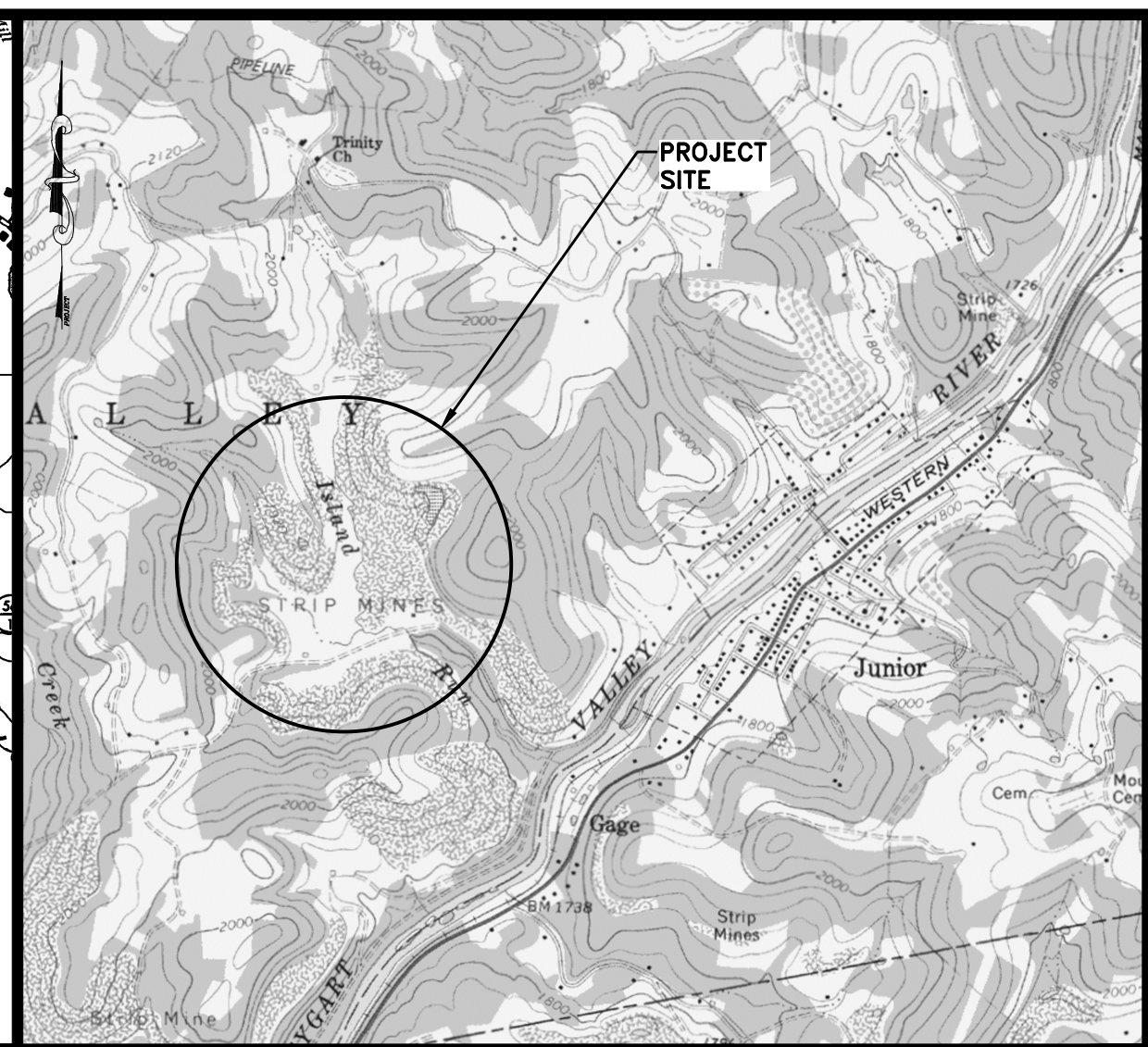
CORPORATION
TERRADON

LILBERN PRITT HIGHWALL
BARBOUR COUNTY, WEST VIRGINIA

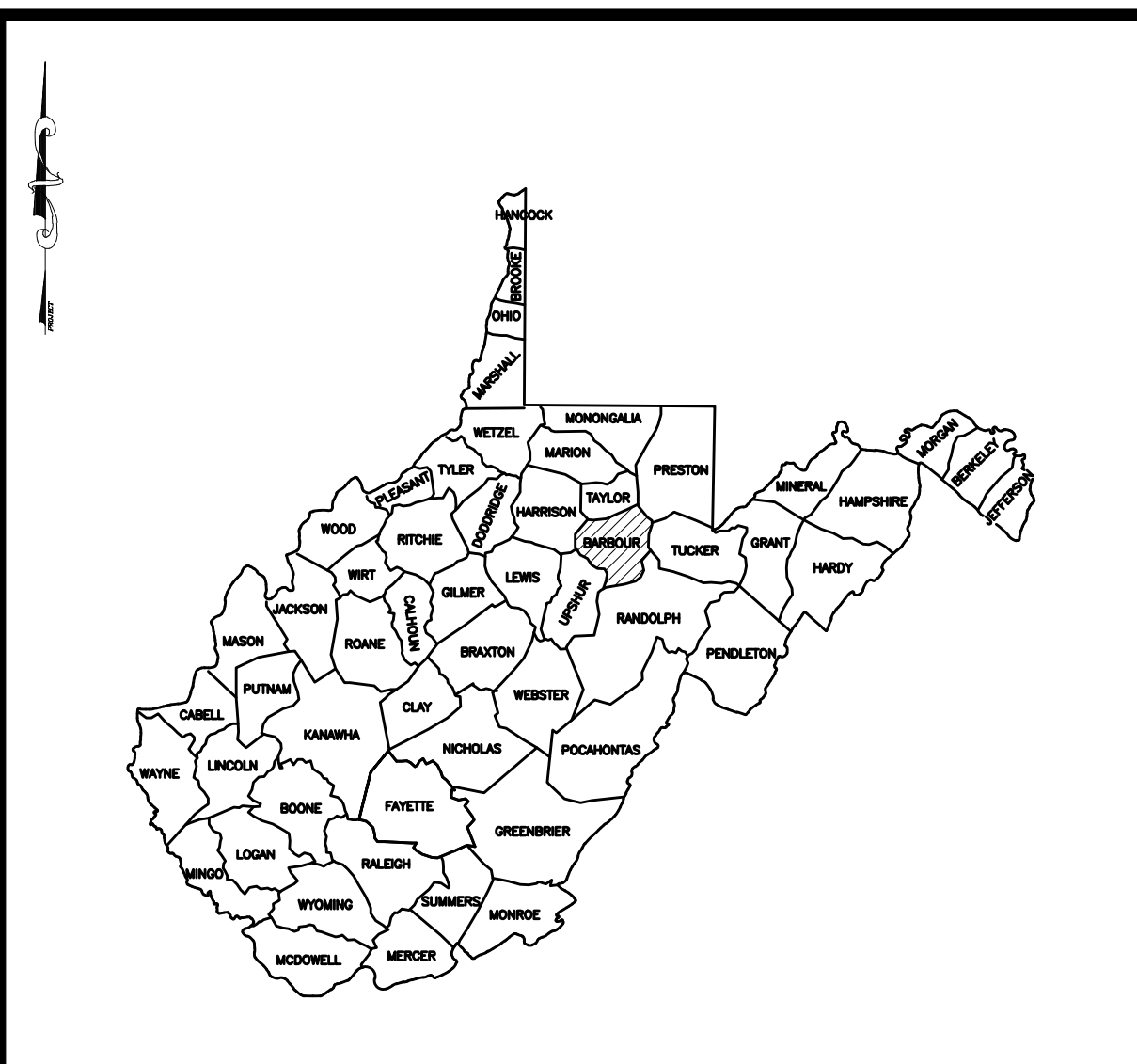
PLOT DATE : 9/29/2014 8:16 AM FILE SAVED BY : BILL GERENCOR ON 9/29/2014 8:15 AM P:\2012\12056-0051 LILBERN PRITT HIGHWALL\40-TRANS-AML\DWG\PRODUCTION\SP\12056-0051-TITLE-SHT.DWG



VICINITY MAP
WV DIVISION OF HIGHWAYS
BARBOUR COUNTY HIGHWAY MAP
SCALE: 1"=1 MILE



LOCATION MAP
USGS 7.5' QUADRANGLE
JUNIOR, WEST VIRGINIA
SCALE: 1"= 2000'



WEST VIRGINIA

SHEET INDEX	
SHEET 1	TITLE AND INDEX SHEET
SHEET E1	SITE 1 - EXISTING CONDITIONS
SHEET E2	SITE 2 - EXISTING CONDITIONS
SHEET C1	RECLAMATION PLAN COMPOSITE
SHEET R1	SITE 1 - RECLAMATION PLAN
SHEET R1A	SITE 1 - SOIL NAIL/ROCK ANCHOR PLAN
SHEET R1B	SOIL NAIL/ROCK ANCHOR ELEVATION VIEWS
SHEET R2	SITE 2 - RECLAMATION PLAN
SHEET T1	SITE 1 - TAXMAP OVERLAY
SHEET T2	SITE 2 - TAXMAP OVERLAY
SHEET NI	GENERAL NOTES AND CONTROL POINT DETAILS
SHEET D1-D5	MISCELLANEOUS DETAILS
SHEET P1-P2	CHANNEL PROFILES
SHEET X1-X2	BASELINE '1' CROSS SECTIONS

TERRADON CORPORATION
P.O. Box 519
Nitro, West Virginia 25143
(304) 755-8291 FAX 755-2636

Approved _____

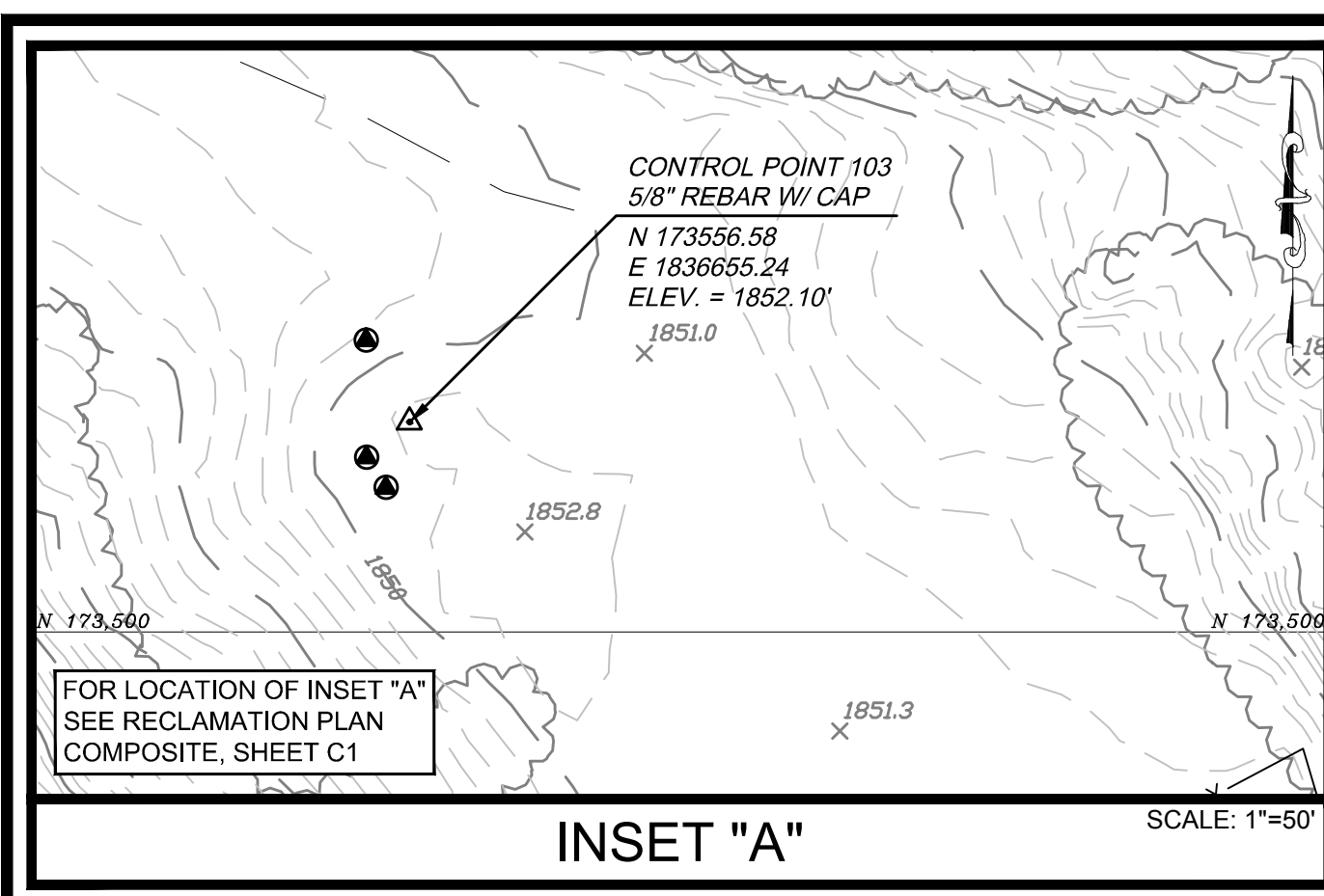
Date _____

SEAL _____

TITLE AND INDEX SHEET

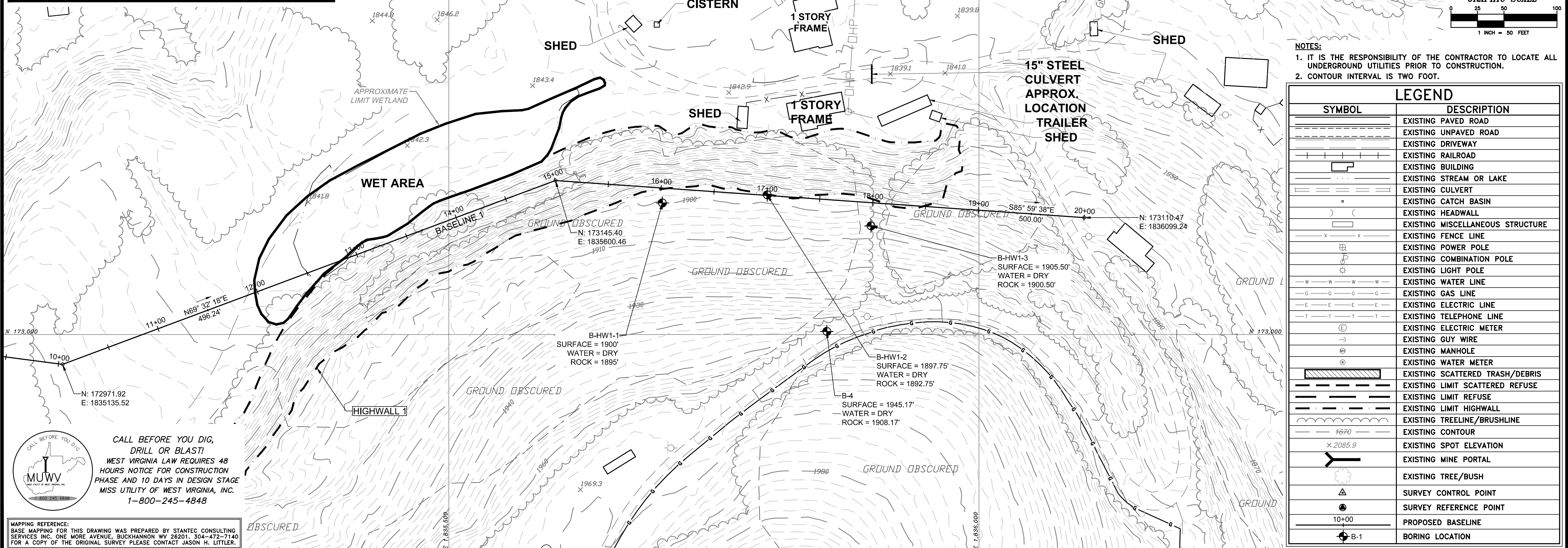
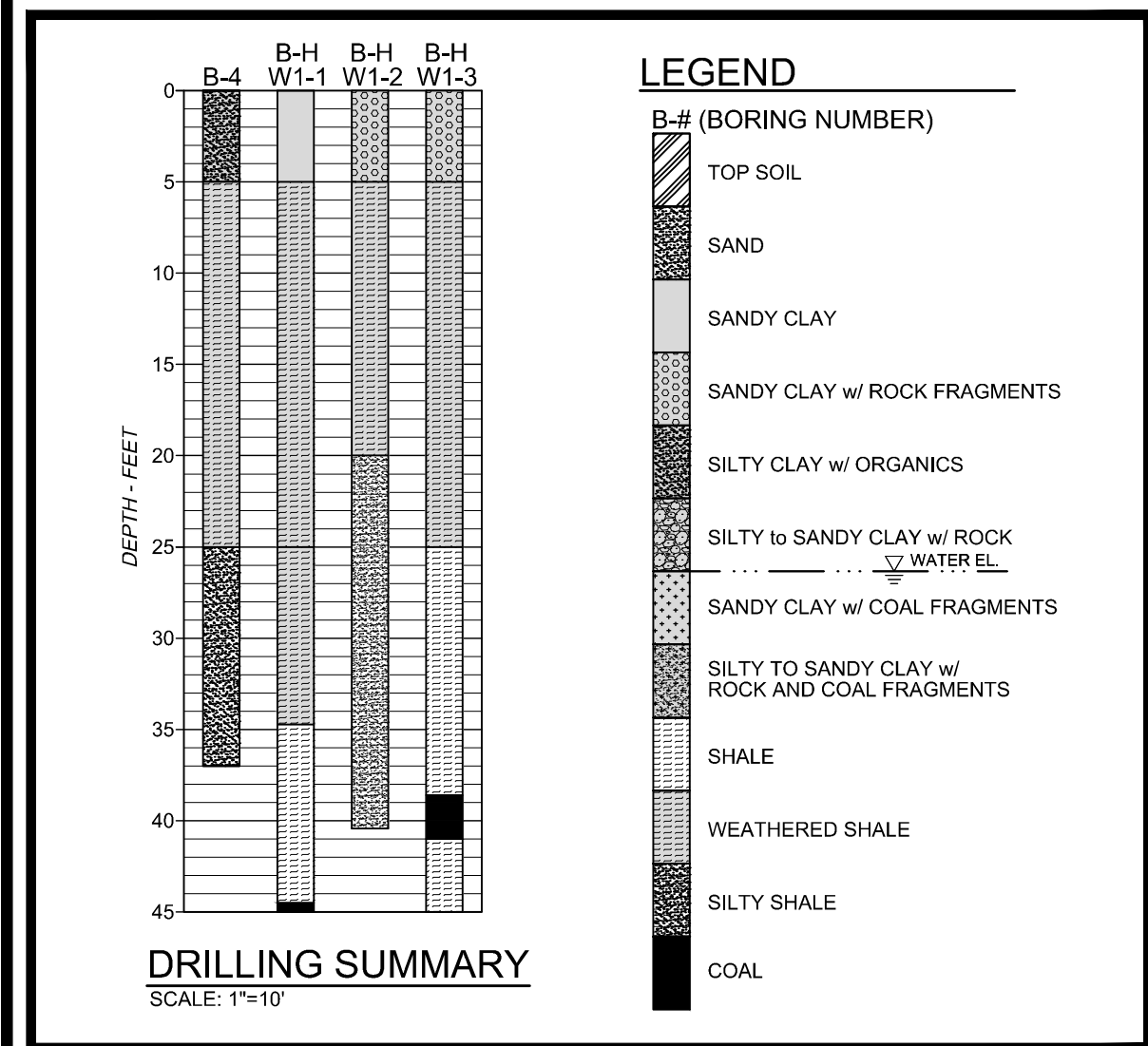
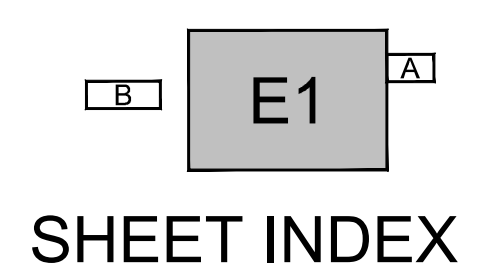
*TITLE-SHT-INT
TITLE
CAD File No.
WLG
Drawn
WJS
Checked
WJS
Approved
AS SHOWN
Scale:
10-6-2014
Date:
12056-0051
Project No.
1
Drawing No.

PLOT DATE : 9/29/2014, 8:17 AM FILE SAVED BY: BILL GERENCOR, ON: 9/29/2014, 8:17 AM EX: 2012.12056-0051-EXIST-COND.DWG



UTILITY COMPANIES AND CONTACTS

A. MISS UTILITY WEST VIRGINIA	PHONE: 1-800-245-4848
B. FIRSTENERGY CORPORATION	PHONE: 1-888-544-4877
C. MOUNTAINEER GAS COMPANY	PHONE: 1-800-834-2070
D. PDC MOUNTAINEER	PHONE: 1-304-842-3597
E. ENERGY CORPORATION OF AMERICA	PHONE: 1-304-926-3100
F. FRONTIER COMMUNICATIONS	PHONE: 1-800-752-2415
G. PETROLEUM DEVELOPMENT COMPANY	PHONE: 1-800-826-0867



- NOTES:**
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
 - CONTOUR INTERVAL IS TWO FEET.

LEGEND

SYMBOL	DESCRIPTION
—	EXISTING PAVED ROAD
- - -	EXISTING UNPAVED ROAD
—+—+—+—	EXISTING DRIVEWAY
—+—+—+—+—+—+—	EXISTING RAILROAD
—	EXISTING BUILDING
—	EXISTING STREAM OR LAKE
—	EXISTING CULVERT
—	EXISTING CATCH BASIN
—	EXISTING HEADWALL
—	EXISTING MISCELLANEOUS STRUCTURE
—	EXISTING FENCE LINE
—	EXISTING POWER POLE
—	EXISTING COMBINATION POLE
—	EXISTING LIGHT POLE
—	EXISTING WATER LINE
—	EXISTING GAS LINE
—	EXISTING ELECTRIC LINE
—	EXISTING TELEPHONE LINE
—	EXISTING ELECTRIC METER
—	EXISTING GUY WIRE
—	EXISTING MANHOLE
—	EXISTING WATER METER
—	EXISTING SCATTERED TRASH/DEBRIS
—	EXISTING LIMIT SCATTERED REFUSE
—	EXISTING LIMIT REFUSE
—	EXISTING LIMIT HIGHWALL
—	EXISTING TREELINE/BRUSHLINE
—	EXISTING CONTOUR
—	EXISTING SPOT ELEVATION
—	EXISTING MINE PORTAL
—	EXISTING TREE/BUSH
—	SURVEY CONTROL POINT
—	SURVEY REFERENCE POINT
—	PROPOSED BASELINE
—	BORING LOCATION

CALL BEFORE YOU DIG, DRILL OR BLAST!
WEST VIRGINIA LAW REQUIRES 48 HOURS NOTICE FOR CONSTRUCTION PHASE AND 10 DAYS IN DESIGN STAGE MISS UTILITY OF WEST VIRGINIA, INC. 1-800-245-4848

MAPPING REFERENCE: BASE MAPING FOR THIS DRAWING WAS PREPARED BY STANTEC CONSULTING SERVICES INC. ONE MORE AVENUE, BUCKHANNON WV 26201. 304-472-7140 FOR A COPY OF THE ORIGINAL SURVEY PLEASE CONTACT JASON H. LITTLER.

REVISION

NO.	DATE

TERRADON
Engineering - Surveying - Landscape Architecture
P.O. Box 519
Nitro, West Virginia 25143
(304) 755-8291 FAX 755-2636
www.terradon.com

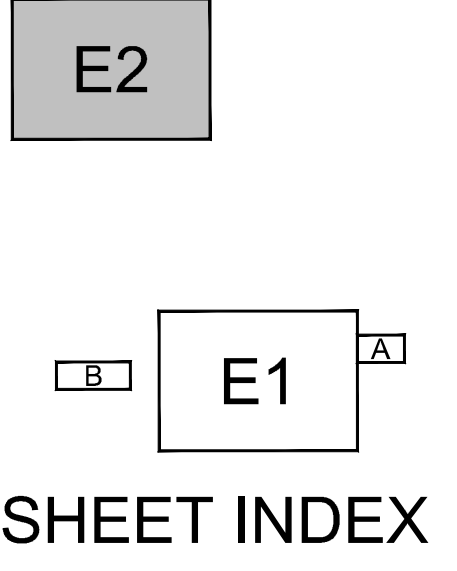
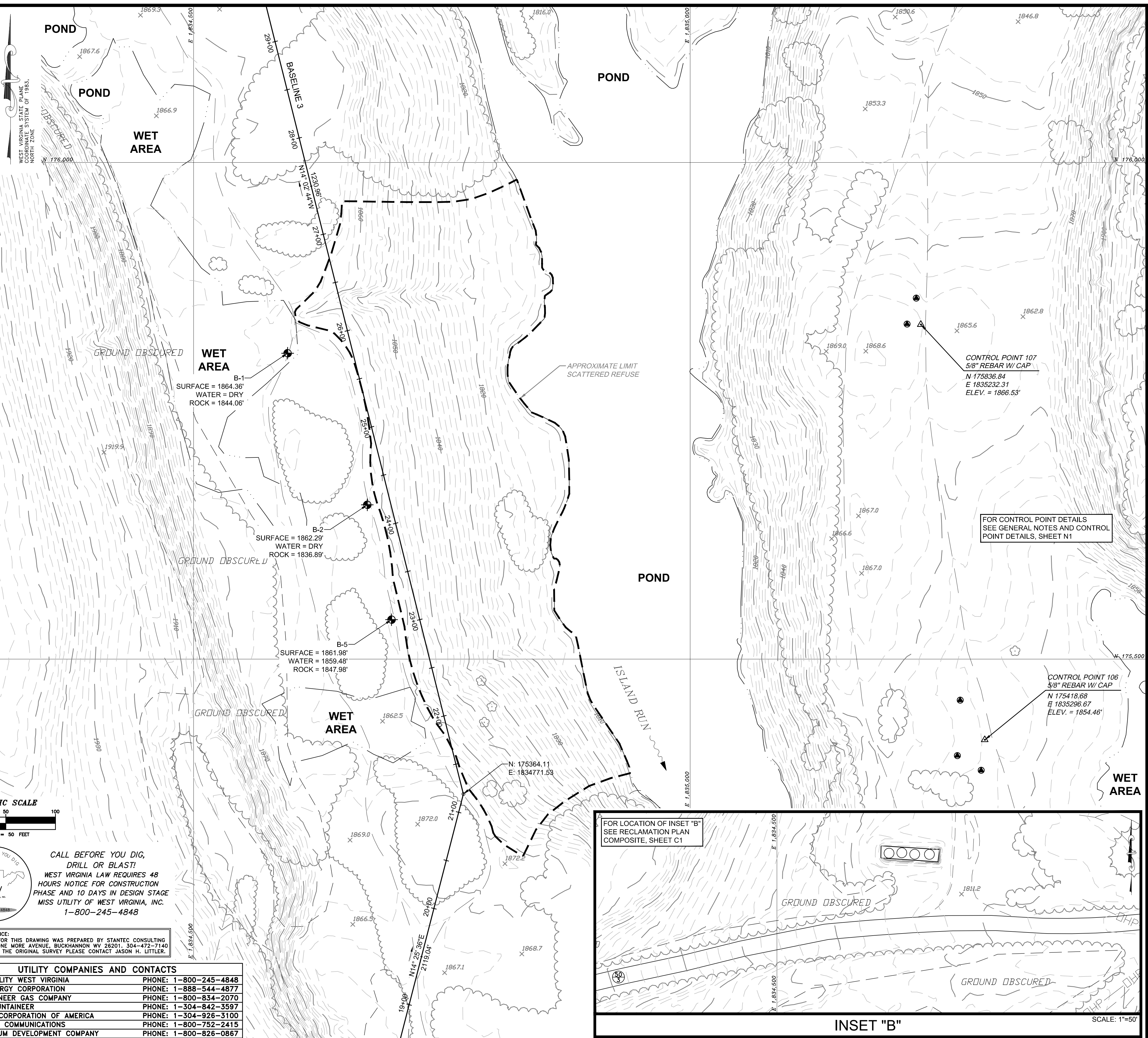
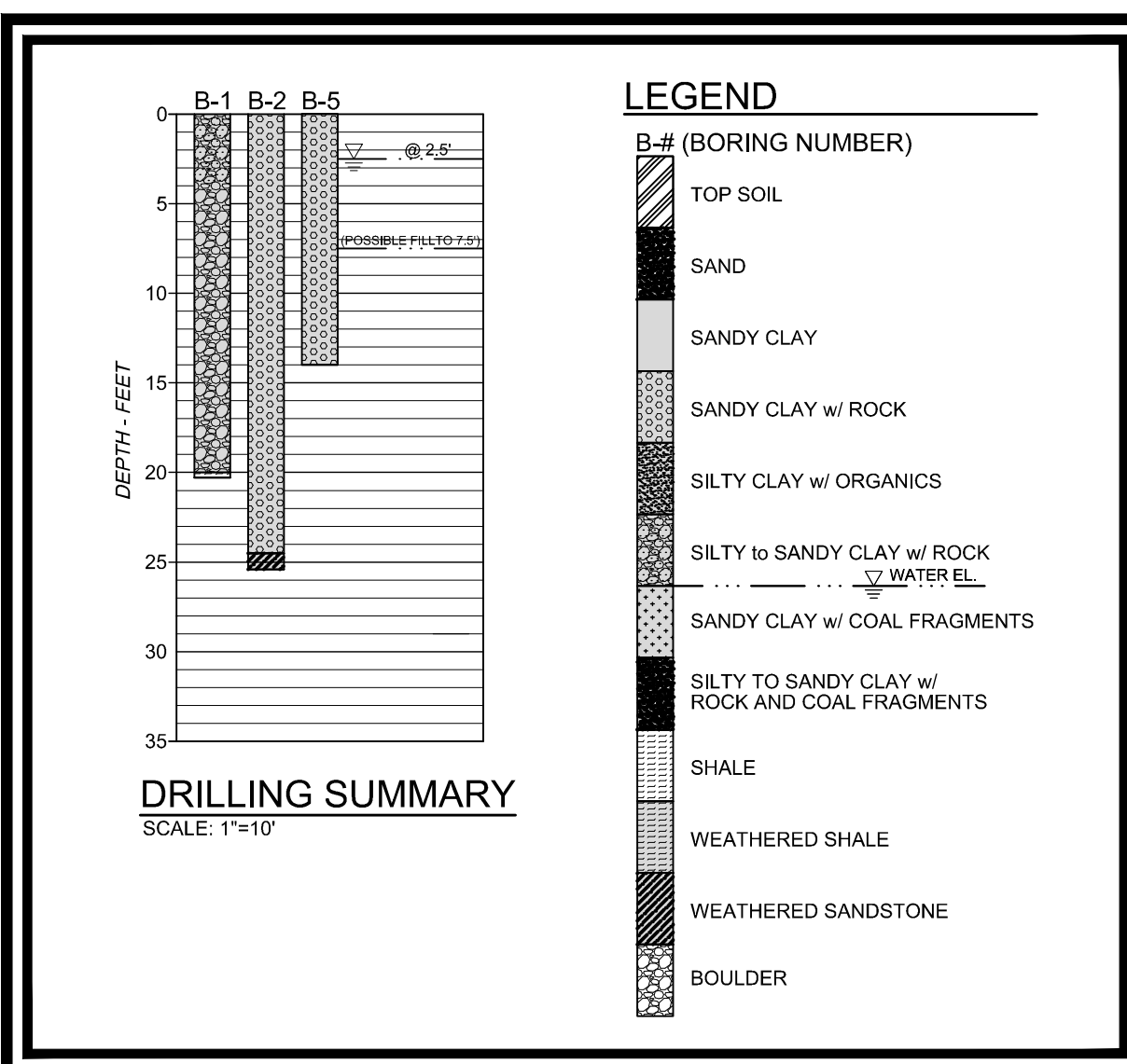
WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ABANDONED MINE LANDS AND RECLAMATION

SITE 1 - EXISTING CONDITIONS
LILBERN PRITT HIGHWALL
BARBOUR COUNTY, WEST VIRGINIA

Project No. 12056-0051
Drawn: WLG
Checked: WJS
Approved: WJS
Scale: 1"=50'
Date: 10-6-2014
CAD File # 0051-EXIST-COND

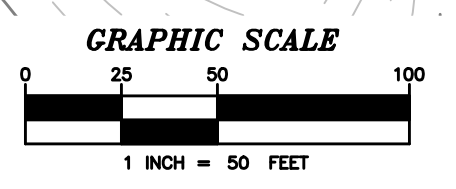
E1

PLOT DATE : 9/29/2014 8:19 AM FILE SAVED BY : BILL GERENCOR ON 9/29/2014 8:19 AM EX:2012\12056-0051 LILBERN_PRRIT HIGHWALL\40-TRANS-AML\AML\DWG\PRODUCTION\SPX\12056-0051-EXIST-COND.DWG



- NOTES:**
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
 - CONTOUR INTERVAL IS TWO FOOT.

SYMBOL	DESCRIPTION
	EXISTING PAVED ROAD
	EXISTING UNPAVED ROAD
	EXISTING DRIVEWAY
	EXISTING RAILROAD
	EXISTING BUILDING
	EXISTING STREAM OR LAKE
	EXISTING CULVERT
	EXISTING CATCH BASIN
	EXISTING HEADWALL
	EXISTING MISCELLANEOUS STRUCTURE
	EXISTING FENCE LINE
	EXISTING POWER POLE
	EXISTING COMBINATION POLE
	EXISTING LIGHT POLE
	EXISTING WATER LINE
	EXISTING GAS LINE
	EXISTING ELECTRIC LINE
	EXISTING TELEPHONE LINE
	EXISTING ELECTRIC METER
	EXISTING GUY WIRE
	EXISTING MANHOLE
	EXISTING WATER METER
	EXISTING SCATTERED TRASH/DEBRIS
	EXISTING LIMIT SCATTERED REFUSE
	EXISTING LIMIT REFUSE
	EXISTING LIMIT HIGHWALL
	EXISTING TREELINE/BRUSHLINE
	EXISTING CONTOUR
	EXISTING SPOT ELEVATION
	EXISTING MINE PORTAL
	EXISTING TREE/BUSH
	SURVEY CONTROL POINT
	SURVEY REFERENCE POINT
	PROPOSED BASELINE
	BORING LOCATION



**CALL BEFORE YOU DIG,
DRILL OR BLAST!**
WEST VIRGINIA LAW REQUIRES 48 HOURS NOTICE FOR CONSTRUCTION PHASE AND 10 DAYS IN DESIGN PHASE FOR A COPY OF THE ORIGINAL SURVEY PLEASE CONTACT JASON H. LITTLER.
MISS UTILITY OF WEST VIRGINIA, INC.
1-800-245-4848

MAPPING REFERENCE:
BASE MAPPING FOR THIS DRAWING WAS PREPARED BY STANTEC CONSULTING SERVICES INC. ONE MORE AVENUE, BUCKHANNON WV 26201. 304-472-7140 FOR A COPY OF THE ORIGINAL SURVEY PLEASE CONTACT JASON H. LITTLER.

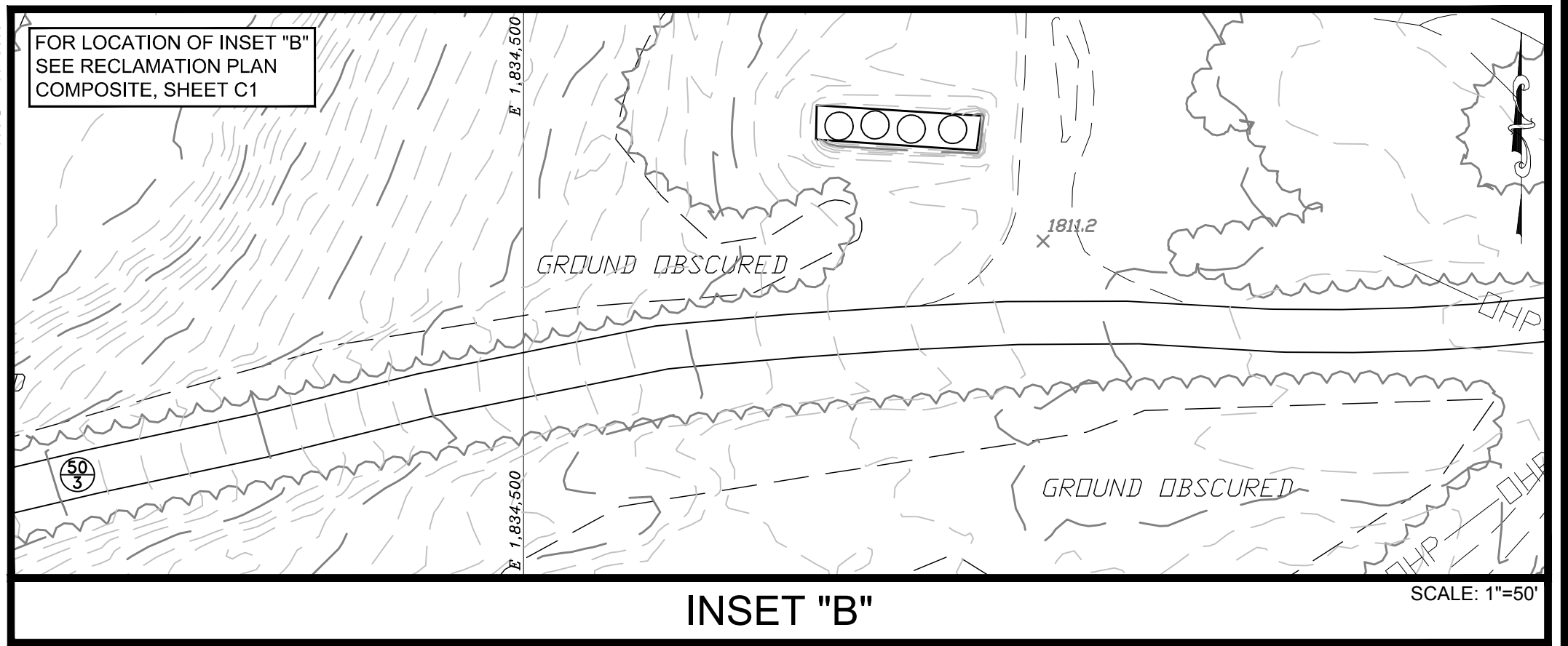
UTILITY COMPANIES AND CONTACTS	
A. MISS UTILITY WEST VIRGINIA	PHONE: 1-800-245-4848
B. FIRSTENERGY CORPORATION	PHONE: 1-888-544-4877
C. MOUNTAINEER GAS COMPANY	PHONE: 1-800-834-2070
D. PDC MOUNTAINEER	PHONE: 1-304-842-3597
E. ENERGY CORPORATION OF AMERICA	PHONE: 1-304-926-3100
F. FRONTIER COMMUNICATIONS	PHONE: 1-800-752-2415
G. PETROLEUM DEVELOPMENT COMPANY	PHONE: 1-800-826-0867

FOR CONTROL POINT DETAILS SEE GENERAL NOTES AND CONTROL POINT DETAILS, SHEET N1

CONTROL POINT 106
3/8" REBAR W/ CAP
N 175418.68
E 1835296.67
ELEV. = 1854.46'

CONTROL POINT 107
5/8" REBAR W/ CAP
N 175836.84
E 1835232.31
ELEV. = 1866.53'

FOR LOCATION OF INSET "B" SEE RECLAMATION PLAN COMPOSITE, SHEET C1



NO.	DATE	REVISION

TERRADON CORPORATION
Engineering - Surveying - Landscape Architecture
P.O. Box 519
Nitro, West Virginia 25143
(304) 755-8291 FAX 755-2636
www.terradon.com

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ABANDONED MINE LANDS AND RECLAMATION

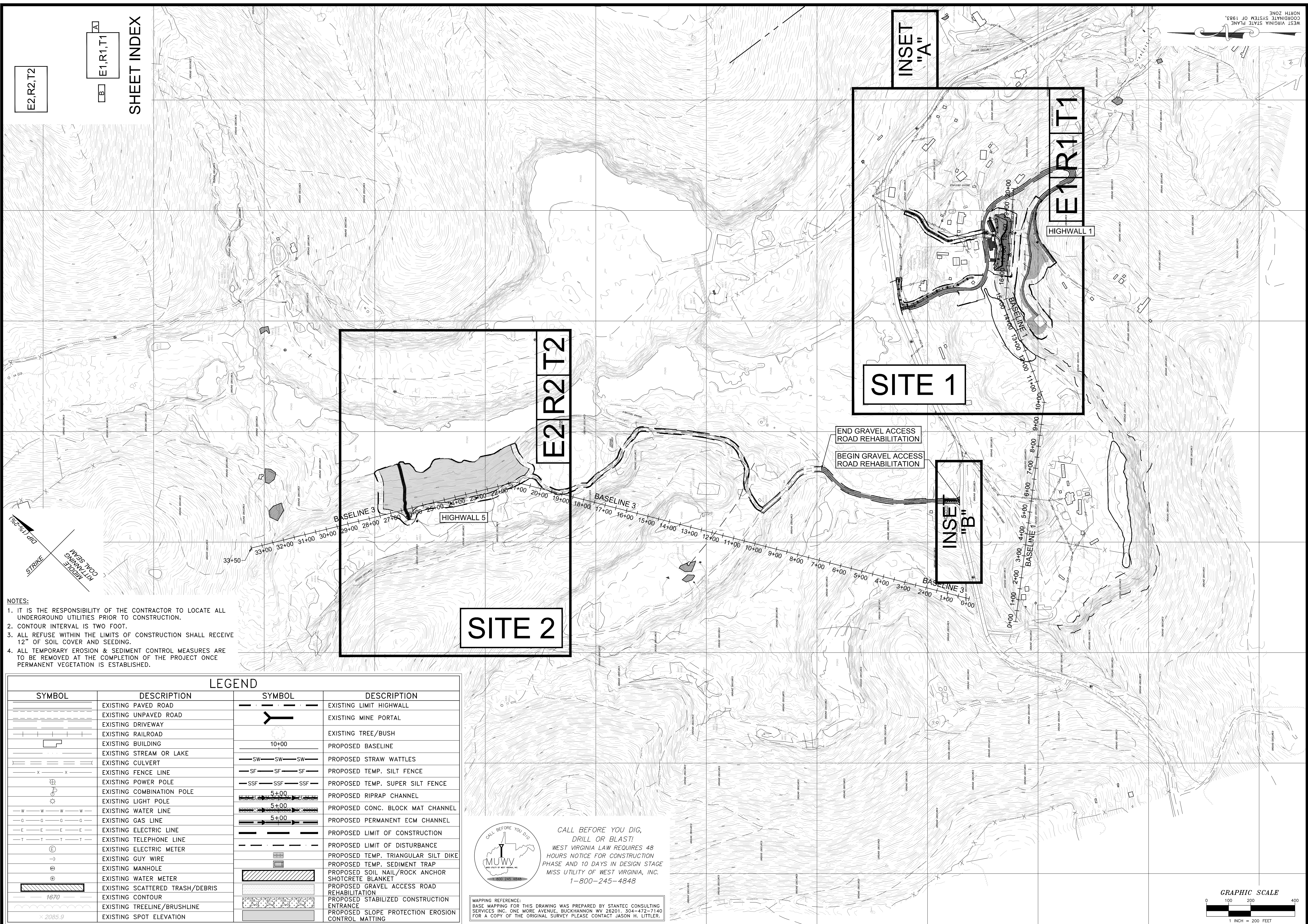
SITE 2 - EXISTING CONDITIONS
LILBERN PRITT HIGHWALL
BARBOUR COUNTY, WEST VIRGINIA

Project No. 12056-0051
Drawn: WLG
Checked: WJS
Approved: WJS
Scale: 1"=50'
Date: 10-6-2014
CAD File # 0051-EXIST-COND

E2

PLOT DATE : 9/29/2014 8:23 AM FILE SAVED BY : BILL GERENCIOR ON 9/26/2014 3:05 PM EX:2012\12056-0051\LILBERN_PRRIT_HIGHWALL_V40-TRANS-AMI\AMLDWC\PRODUCTION\SP\12056-0051-REC-PLAN.DWG

E2,R2,T2
 E1,R1,T1
 SHEET INDEX

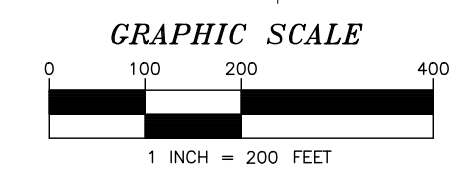


- NOTES:**
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
 - CONTOUR INTERVAL IS TWO FOOT.
 - ALL REFUSE WITHIN THE LIMITS OF CONSTRUCTION SHALL RECEIVE 12" OF SOIL COVER AND SEEDING.
 - ALL TEMPORARY EROSION & SEDIMENT CONTROL MEASURES ARE TO BE REMOVED AT THE COMPLETION OF THE PROJECT ONCE PERMANENT VEGETATION IS ESTABLISHED.

LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
[Symbol]	EXISTING PAVED ROAD	[Symbol]	EXISTING LIMIT HIGHWALL
[Symbol]	EXISTING UNPAVED ROAD	[Symbol]	EXISTING MINE PORTAL
[Symbol]	EXISTING DRIVEWAY	[Symbol]	EXISTING TREE/BUSH
[Symbol]	EXISTING RAILROAD	[Symbol]	PROPOSED BASELINE
[Symbol]	EXISTING BUILDING	[Symbol]	PROPOSED STRAW WATTLES
[Symbol]	EXISTING STREAM OR LAKE	[Symbol]	PROPOSED TEMP. SILT FENCE
[Symbol]	EXISTING CULVERT	[Symbol]	PROPOSED TEMP. SUPER SILT FENCE
[Symbol]	EXISTING FENCE LINE	[Symbol]	PROPOSED RIPRAP CHANNEL
[Symbol]	EXISTING POWER POLE	[Symbol]	PROPOSED CONC. BLOCK MAT CHANNEL
[Symbol]	EXISTING COMBINATION POLE	[Symbol]	PROPOSED PERMANENT ECM CHANNEL
[Symbol]	EXISTING LIGHT POLE	[Symbol]	PROPOSED LIMIT OF CONSTRUCTION
[Symbol]	EXISTING WATER LINE	[Symbol]	PROPOSED LIMIT OF DISTURBANCE
[Symbol]	EXISTING GAS LINE	[Symbol]	PROPOSED TEMP. TRIANGULAR SILT DIKE
[Symbol]	EXISTING ELECTRIC LINE	[Symbol]	PROPOSED TEMP. SEDIMENT TRAP
[Symbol]	EXISTING TELEPHONE LINE	[Symbol]	PROPOSED SOIL NAIL/ROCK ANCHOR
[Symbol]	EXISTING ELECTRIC METER	[Symbol]	PROPOSED SHOTCRETE BLANKET
[Symbol]	EXISTING GUY WIRE	[Symbol]	PROPOSED GRAVEL ACCESS ROAD REHABILITATION
[Symbol]	EXISTING MANHOLE	[Symbol]	PROPOSED STABILIZED CONSTRUCTION ENTRANCE
[Symbol]	EXISTING WATER METER	[Symbol]	PROPOSED SLOPE PROTECTION EROSION CONTROL MATTING
[Symbol]	EXISTING SCATTERED TRASH/DEBRIS		
[Symbol]	EXISTING CONTOUR		
[Symbol]	EXISTING TREELINE/BRUSHLINE		
[Symbol]	EXISTING SPOT ELEVATION		

CALL BEFORE YOU DIG!
 DRILL OR BLAST!
 WEST VIRGINIA LAW REQUIRES 48 HOURS NOTICE FOR CONSTRUCTION PHASE AND 10 DAYS IN DESIGN STAGE MISS UTILITY OF WEST VIRGINIA, INC. 1-800-245-4848

MAPPING REFERENCE:
 BASE MAPING FOR THIS DRAWING WAS PREPARED BY STANTEC CONSULTING SERVICES INC. ONE MORE AVENUE, BUCKHANNON WV 26201. 304-472-7140 FOR A COPY OF THE ORIGINAL SURVEY PLEASE CONTACT JASON H. LITTLE.



NO.	DATE	REVISION

TERRADON CORPORATION
 Engineering • Surveying • Landscape Architecture
 P.O. Box 519
 Nitro, West Virginia 25143
 (304) 755-8291 FAX 755-2636
 www.terradon.com

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
 OFFICE OF ABANDONED MINE LANDS AND RECLAMATION
 RECLAMATION PLAN COMPOSITE
 LILBERN PRRIT HIGHWALL
 BARBOUR COUNTY, WEST VIRGINIA

Project No. 12056-0051
 Drawn: WLG
 Checked: WJS
 Approved: WJS
 Scale: 1"=200'
 Date: 10-6-2014
 CAD File # 0051-REC-PLAN

C1

R2

R1
SHEET INDEX

NOTE:
ALL APPROACHES ON DOH R/W WILL BE CONSTRUCTED ACCORDING TO THE "MANUAL ON RULES AND REGULATIONS FOR CONSTRUCTING DRIVEWAYS ON STATE HIGHWAY RIGHT-OF-WAY".

NOTE:
FOR SITE ACCESS SEE RECLAMATION PLAN COMPOSITE SHEET C1.

NOTE:
CONTRACTOR MUST HAUL/PLACE MATERIAL AS SHOWN ON RECLAMATION PLANS AND CROSS SECTIONS.

NOTE:
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ACCESS FOR LANDOWNER DURING CONSTRUCTION.

SITE 1 - HIGHWALL 1 EARTHWORK TABLE

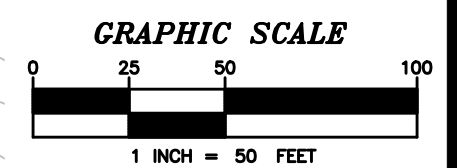
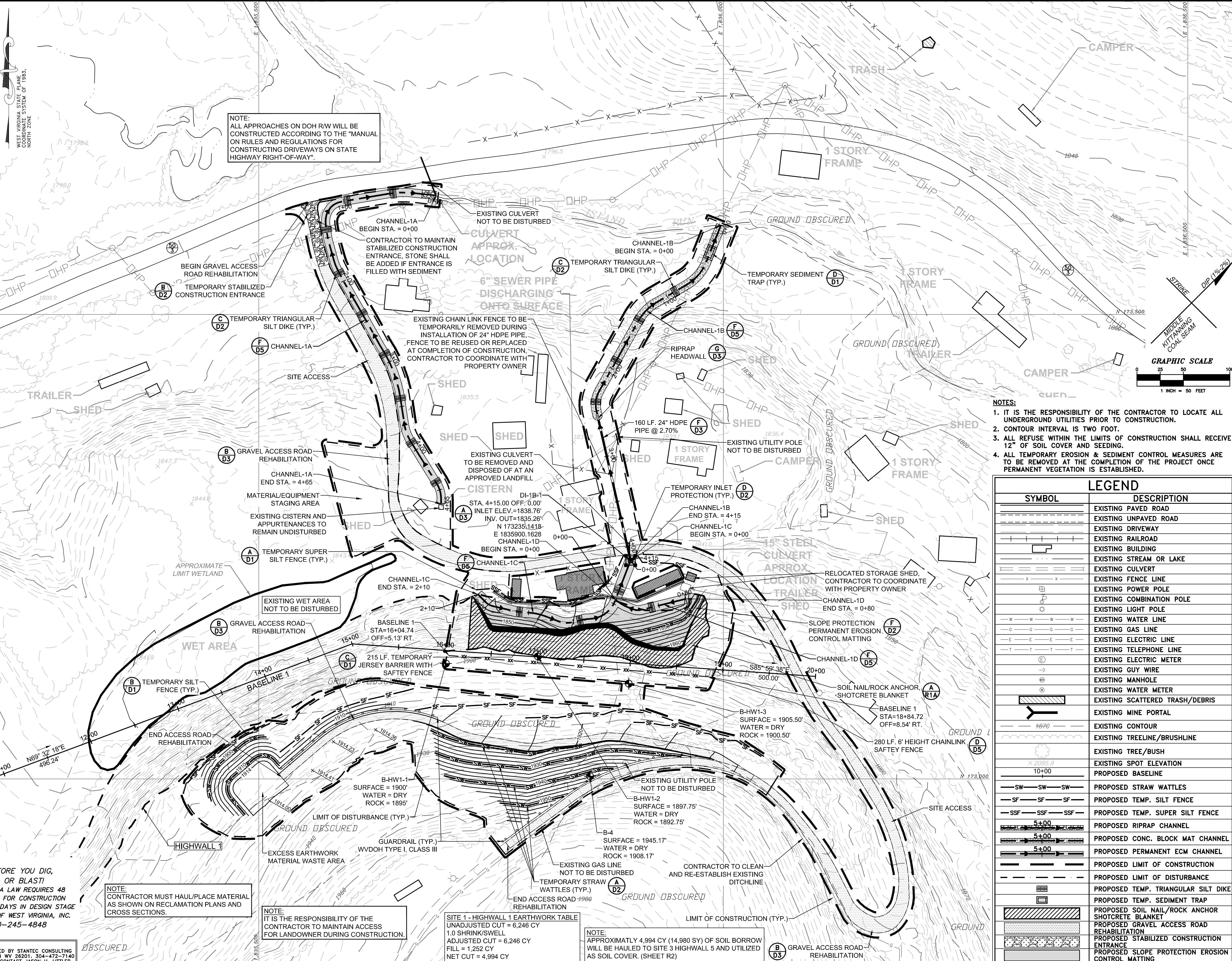
UNADJUSTED CUT = 6,246 CY
1.0 SHRINK/SWELL
ADJUSTED CUT = 6,246 CY
FILL = 1,252 CY
NET CUT = 4,994 CY

NOTE:
APPROXIMATELY 4,994 CY (14,980 SY) OF SOIL BORROW WILL BE HAULED TO SITE 3 HIGHWALL 5 AND UTILIZED AS SOIL COVER. (SHEET R2)

PLOT DATE : 9/29/2014 8:24 AM FILE SAVED BY : BILL GERENCIOR ON 9/29/2014 8:23 AM P:\2012\12056-0051 LILBERN PRITT HIGHWALL 40-TRANS-AML\DWG\PRODUCTION\SP12056-0051-REC-PLAN.DWG

CALL BEFORE YOU DIG, DRILL OR BLAST!
WEST VIRGINIA LAW REQUIRES 48 HOURS NOTICE FOR CONSTRUCTION PHASE AND 10 DAYS IN DESIGN STAGE MISS UTILITY OF WEST VIRGINIA, INC. 1-800-245-4848

MAPPING REFERENCE:
BASE MAPING FOR THIS DRAWING WAS PREPARED BY STANTEC CONSULTING SERVICES INC. ONE MORE AVENUE, BUCKHANNON WV 26201. 304-472-7140 FOR A COPY OF THE ORIGINAL SURVEY PLEASE CONTACT JASON H. LITTLER.



- NOTES:**
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
 - CONTOUR INTERVAL IS TWO FEET.
 - ALL REFUSE WITHIN THE LIMITS OF CONSTRUCTION SHALL RECEIVE 12" OF SOIL COVER AND SEEDING.
 - ALL TEMPORARY EROSION & SEDIMENT CONTROL MEASURES ARE TO BE REMOVED AT THE COMPLETION OF THE PROJECT ONCE PERMANENT VEGETATION IS ESTABLISHED.

LEGEND	
SYMBOL	DESCRIPTION
[Symbol]	EXISTING PAVED ROAD
[Symbol]	EXISTING UNPAVED ROAD
[Symbol]	EXISTING DRIVEWAY
[Symbol]	EXISTING RAILROAD
[Symbol]	EXISTING BUILDING
[Symbol]	EXISTING STREAM OR LAKE
[Symbol]	EXISTING CULVERT
[Symbol]	EXISTING FENCE LINE
[Symbol]	EXISTING POWER POLE
[Symbol]	EXISTING COMBINATION POLE
[Symbol]	EXISTING LIGHT POLE
[Symbol]	EXISTING WATER LINE
[Symbol]	EXISTING GAS LINE
[Symbol]	EXISTING ELECTRIC LINE
[Symbol]	EXISTING TELEPHONE LINE
[Symbol]	EXISTING ELECTRIC METER
[Symbol]	EXISTING GUY WIRE
[Symbol]	EXISTING MANHOLE
[Symbol]	EXISTING WATER METER
[Symbol]	EXISTING SCATTERED TRASH/DEBRIS
[Symbol]	EXISTING MINE PORTAL
[Symbol]	EXISTING CONTOUR
[Symbol]	EXISTING TREELINE/BRUSHLINE
[Symbol]	EXISTING TREE/BUSH
[Symbol]	EXISTING SPOT ELEVATION
[Symbol]	PROPOSED BASELINE
[Symbol]	PROPOSED STRAW WATTLES
[Symbol]	PROPOSED TEMP. SILT FENCE
[Symbol]	PROPOSED TEMP. SUPER SILT FENCE
[Symbol]	PROPOSED RIPRAP CHANNEL
[Symbol]	PROPOSED CONC. BLOCK MAT CHANNEL
[Symbol]	PROPOSED PERMANENT ECM CHANNEL
[Symbol]	PROPOSED LIMIT OF CONSTRUCTION
[Symbol]	PROPOSED TEMP. OF DISTURBANCE
[Symbol]	PROPOSED TEMP. TRIANGULAR SILT DIKE
[Symbol]	PROPOSED TEMP. SEDIMENT TRAP
[Symbol]	PROPOSED SOIL NAIL/ROCK ANCHOR SHOTCRETE BLANKET
[Symbol]	PROPOSED GRAVEL ACCESS ROAD REHABILITATION
[Symbol]	PROPOSED STABILIZED CONSTRUCTION ENTRANCE
[Symbol]	PROPOSED SLOPE PROTECTION EROSION CONTROL MATTING

NO.	DATE	REVISION

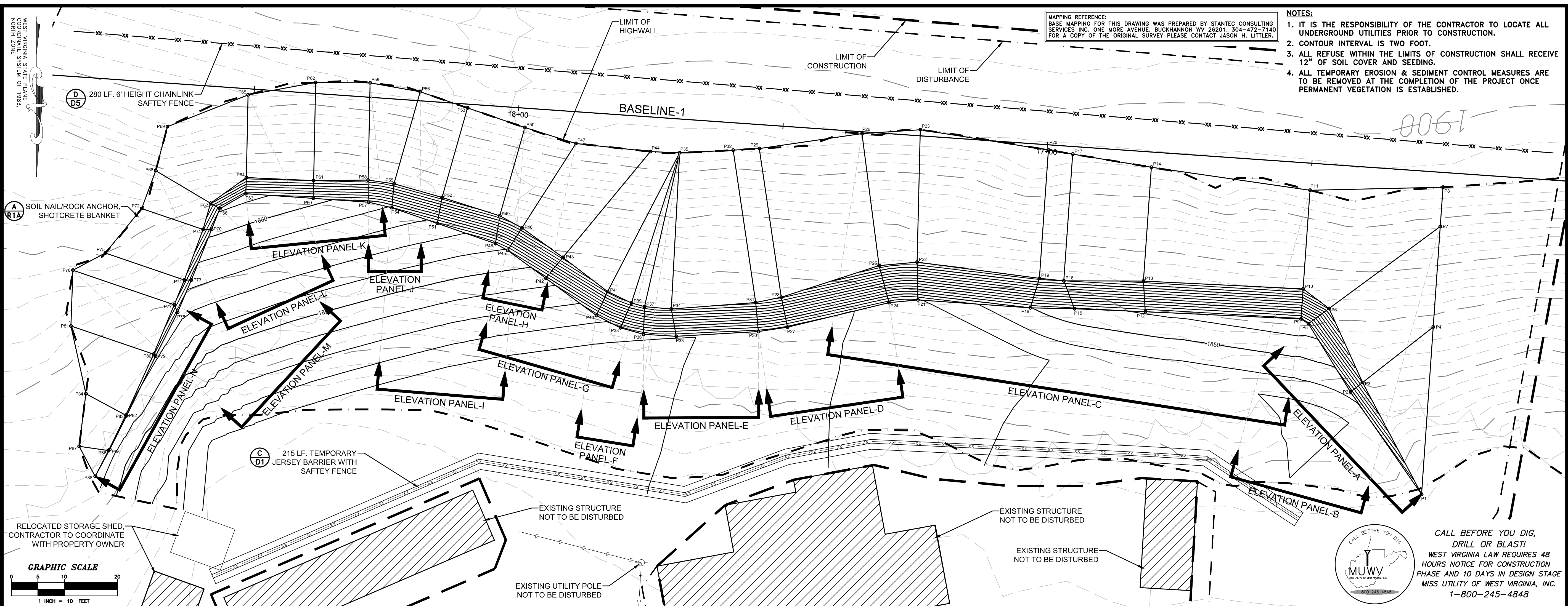
TERRADON
Engineering - Surveying - Landscape Architecture
P.O. Box 519
Nitro, West Virginia 25143
(304) 755-8291 FAX 755-2636
www.terradon.com

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ABANDONED MINE LANDS AND RECLAMATION
SITE 1 - RECLAMATION PLAN
LILBERN PRITT HIGHWALL
BARBOUR COUNTY, WEST VIRGINIA

Project No. 12056-0051
Drawn: WLJ
Checked: WJS
Approved: WJS
Scale: 1"=50'
Date: 10-6-2014
CAD File # 0051-REC-PLAN

R1

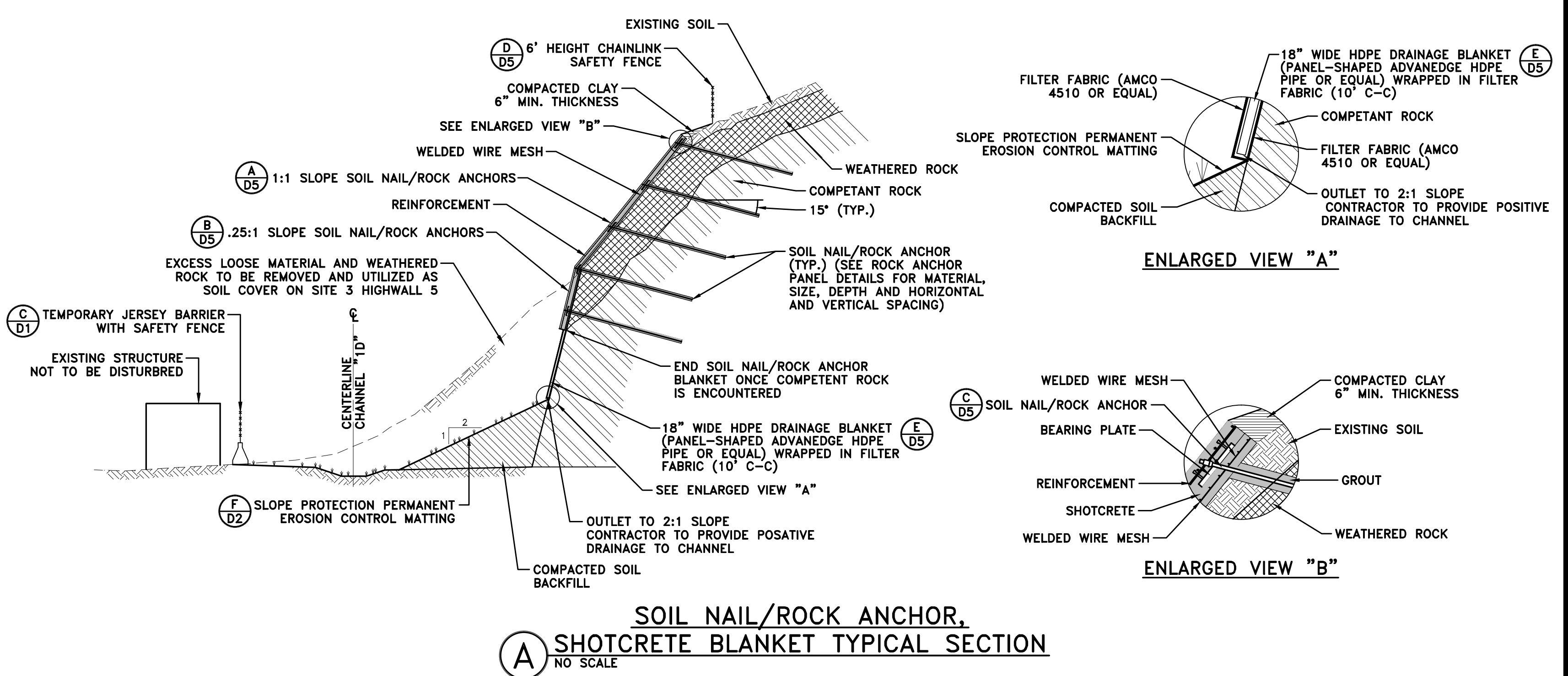
PLOT DATE : 9/29/2014 8:25 AM FILE SAVED BY : BILL GERENCIOR ON 9/29/2014 8:24 AM P:\2012\12056-0051 LILBERN PRIT HIGHWALL\40-TRANS-AML\DWG\PRODUCTION\SP1\2056-0051-REC-PLAN.DWG



ROCK ANCHOR/SOIL NAIL PANEL COORDINATES

POINT #	NORTHING	EASTING	ELEV.	POINT #	NORTHING	EASTING	ELEV.	POINT #	NORTHING	EASTING	ELEV.
P1	173197.40	1835729.41	1846.56	P33	173167.58	1835870.01	1842.18	P65	173122.03	1835950.80	1891.93
P2	173178.10	1835742.81	1848.52	P34	173162.42	1835870.93	1862.93	P66	173143.50	1835956.11	1862.25
P3	173176.31	1835740.54	1860.08	P35	173132.95	1835869.37	1894.31	P67	173142.45	1835957.87	1870.43
P4	173165.82	1835727.19	1868.11	P36	173167.21	1835876.20	1842.56	P68	173136.33	1835968.21	1879.15
P5	173165.20	1835750.74	1853.13	P37	173161.99	1835876.00	1863.38	P69	173128.03	1835966.00	1887.80
P6	173162.34	1835746.86	1872.43	P38	173165.98	1835880.53	1843.33	P70	173147.40	1835957.67	1860.66
P7	173146.87	1835725.87	1888.35	P39	173161.28	1835878.46	1863.87	P71	173147.42	1835959.29	1866.39
P8	173139.45	1835725.35	1896.24	P40	173163.67	1835885.07	1844.66	P72	173143.47	1835970.87	1873.37
P9	173164.30	1835752.15	1853.63	P41	173159.13	1835882.96	1864.70	P73	173156.96	1835961.49	1856.71
P10	173158.65	1835751.75	1876.29	P42	173156.62	1835894.65	1848.79	P74	173156.95	1835962.81	1861.45
P11	173140.01	1835750.45	1896.04	P43	173152.68	1835891.39	1869.00	P75	173151.87	1835977.71	1870.15
P12	173162.93	1835781.53	1852.21	P44	173132.71	1835874.89	1894.01	P76	173163.09	1835964.09	1854.74
P13	173157.16	1835781.88	1875.19	P45	173151.35	1835901.82	1851.88	P77	173161.63	1835964.72	1859.66
P14	173135.67	1835780.37	1896.04	P46	173147.12	1835899.12	1871.89	P78	173155.11	1835983.83	1867.42
P15	173162.40	1835794.86	1851.35	P47	173131.18	1835888.93	1893.87	P79	173171.34	1835968.23	1854.33
P16	173157.12	1835796.89	1871.98	P48	173150.09	1835904.12	1852.65	P80	173170.96	1835968.60	1856.37
P17	173133.19	1835795.22	1897.15	P49	173144.83	1835903.32	1873.47	P81	173165.63	1835984.21	1862.51
P18	173162.22	1835803.22	1849.92	P50	173128.17	1835898.58	1894.60	P82	173182.58	1835973.68	1853.15
P19	173156.64	1835801.49	1872.91	P51	173146.26	1835915.08	1855.46	P83	173182.48	1835973.87	1854.00
P20	173132.42	1835799.79	1897.53	P52	173141.36	1835914.20	1875.31	P84	173178.43	1835981.38	1857.39
P21	173160.71	1835824.42	1845.86	P53	173124.48	1835909.38	1895.08	P85	173188.94	1835976.88	1852.86
P22	173153.59	1835824.58	1874.09	P54	173143.30	1835923.66	1857.84	P86	173189.16	1835977.12	1853.33
P23	173128.60	1835823.97	1897.92	P55	173138.78	1835923.26	1875.73	P87	173188.34	1835982.65	1856.03
P24	173161.23	1835829.87	1844.79	P56	173121.43	1835918.31	1895.68	P88	173194.03	1835979.63	1853.33
P25	173154.23	1835831.74	1873.69	P57	173142.27	1835928.04	1858.91				
P26	173129.32	1835834.98	1898.21	P58	173138.10	1835928.15	1875.47				
P27	173165.85	1835849.02	1843.33	P59	173119.74	1835927.76	1896.06				
P28	173160.22	1835850.19	1866.36	P60	173141.54	1835938.52	1860.62				
P29	173132.15	1835854.35	1894.79	P61	173138.20	1835938.41	1873.99				
P30	173166.68	1835854.52	1842.98	P62	173119.66	1835938.03	1894.93				
P31	173161.20	1835855.02	1864.95	P63	173140.67	1835951.21	1862.77				
P32	173132.43	1835859.28	1893.88	P64	173137.62	1835951.12	1874.98				

*NOTE: SEE SHEET R1B, "SOIL NAIL/ROCK ANCHOR ELEVATION VIEWS" FOR PANEL ELEVATION VIEWS.



TERRADON
 Engineering - Surveying - Landscape Architecture
 P.O. Box 519
 Nitro, West Virginia 25143
 (304) 755-8291 FAX 755-2636
 www.terradon.com

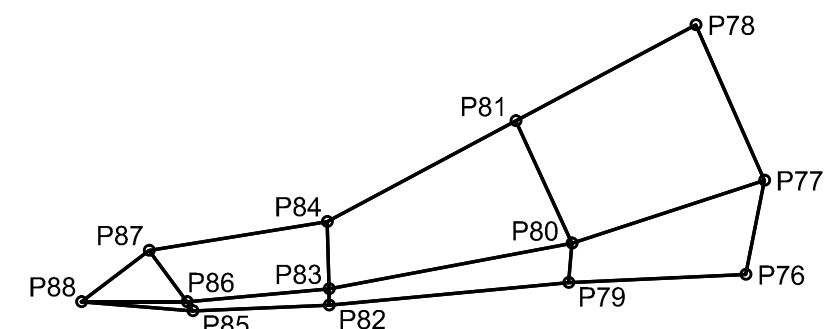
WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
 OFFICE OF ABANDONED MINE LANDS AND RECLAMATION

SITE 1 - SOIL NAIL/ROCK ANCHOR PLAN
 LILBERN PRIT HIGHWALL
 BARBOUR COUNTY, WEST VIRGINIA

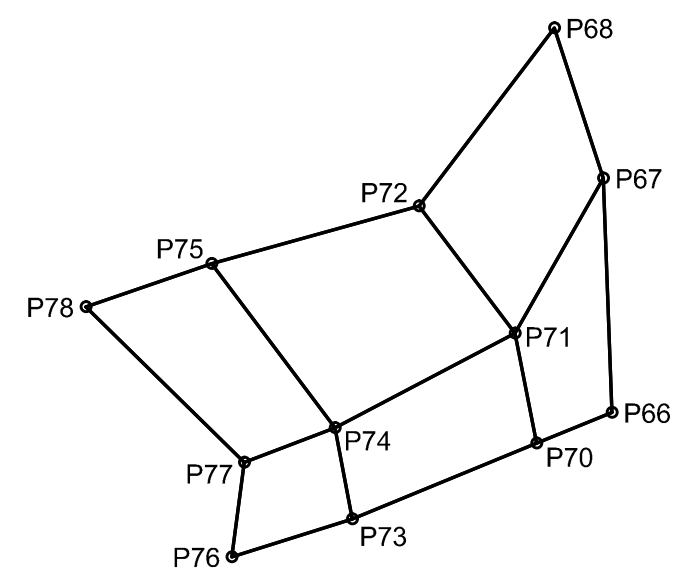
Project No. 12056-0051
 Drawn: WLG
 Checked: WJS
 Approved: WJS
 Scale: 1"=10'
 Date: 10-6-2014
 CAD File # 0051-REC-PLAN

R1A

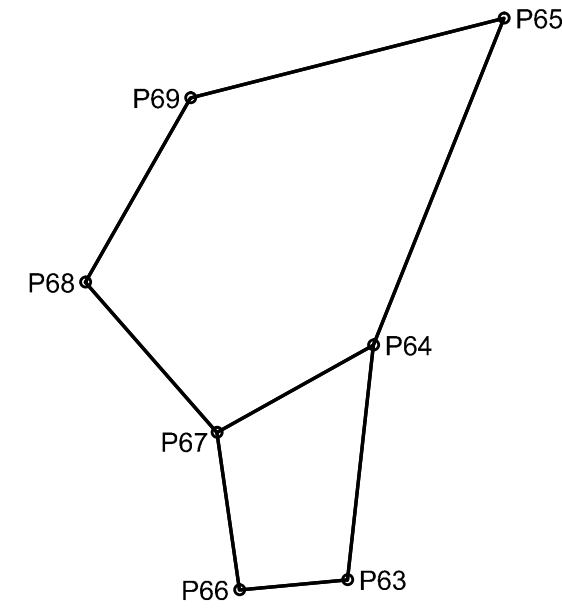
PLOT DATE : 9/29/2014 8:26 AM FILE SAVED BY :BILL.GERENCIAR ON 9/29/2014 8:24 AM P:\2012\12056-0051.LILBERN.PRITT.HIGHWALL\40-TRANS-AML\DWG\PRODUCTION\SP\12056-0051-REC-PLAN.DWG



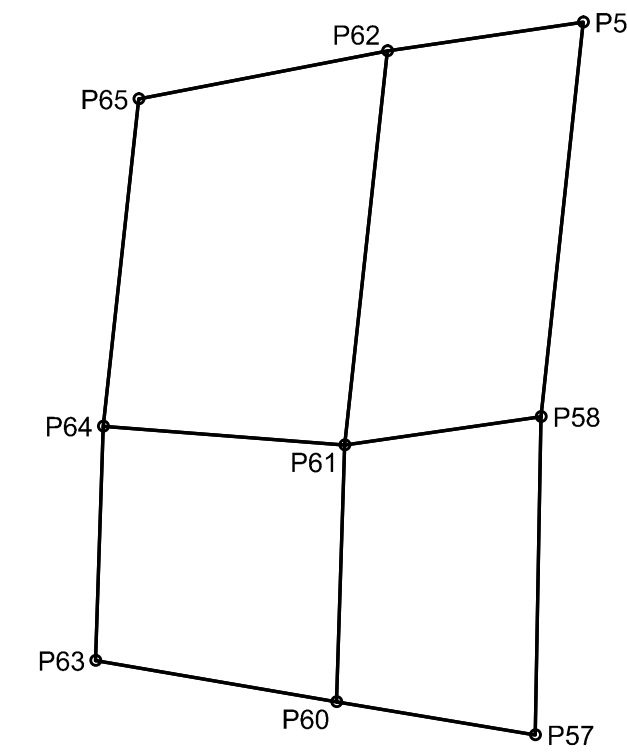
ELEVATION VIEW PANEL-N
SCALE: 1"=10'



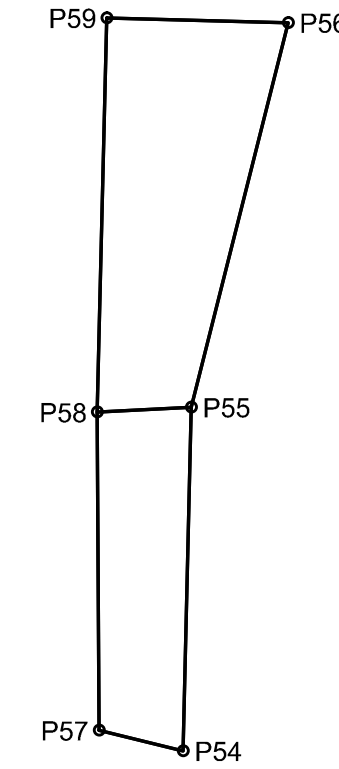
ELEVATION VIEW PANEL-M
SCALE: 1"=10'



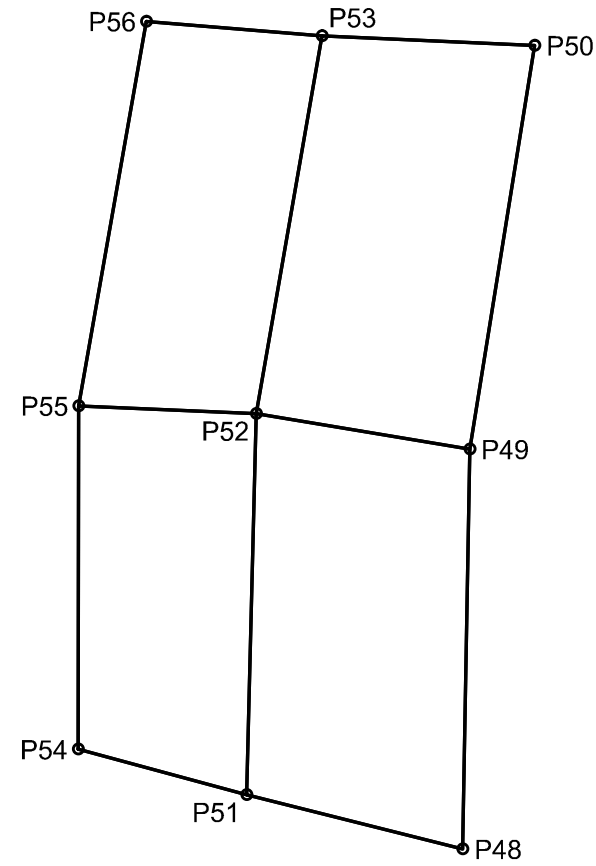
ELEVATION VIEW PANEL-L
SCALE: 1"=10'



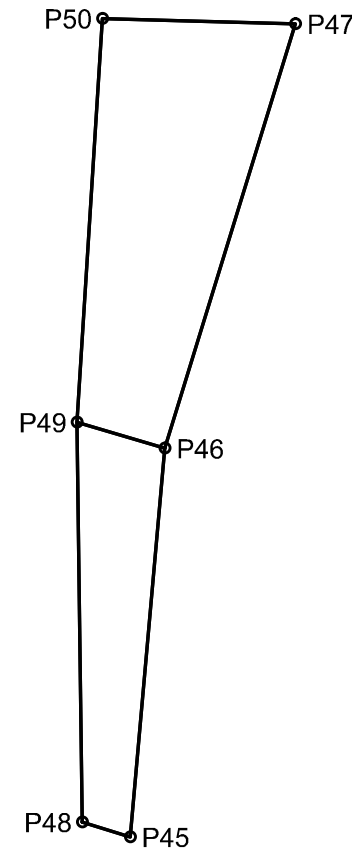
ELEVATION VIEW PANEL-K
SCALE: 1"=10'



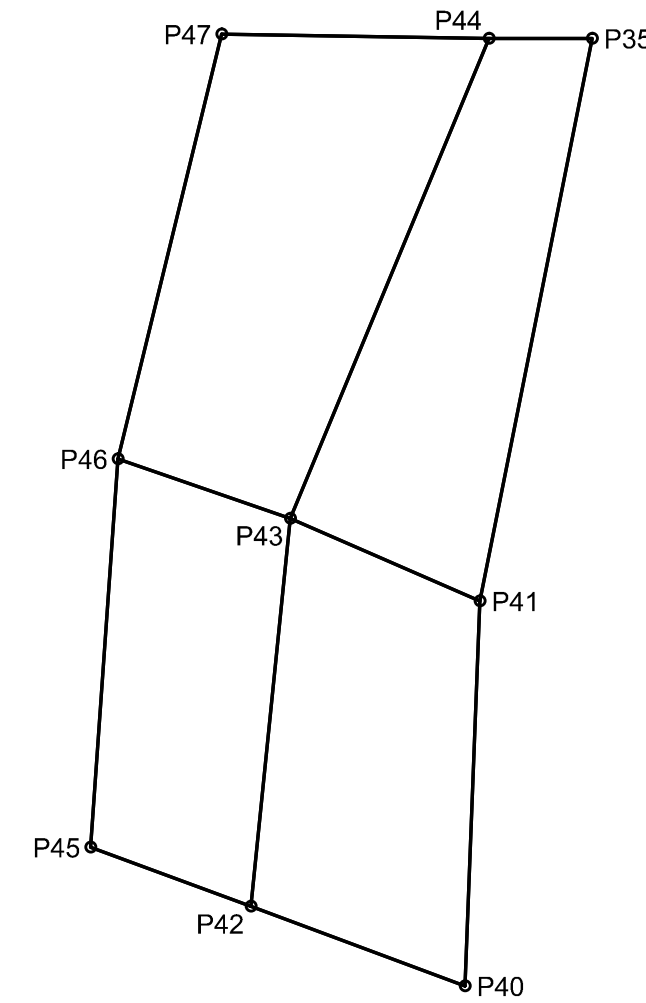
ELEVATION VIEW PANEL-J
SCALE: 1"=10'



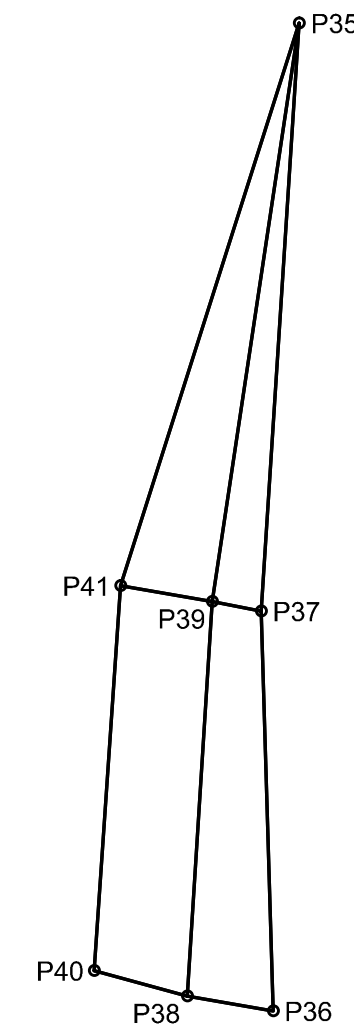
ELEVATION VIEW PANEL-I
SCALE: 1"=10'



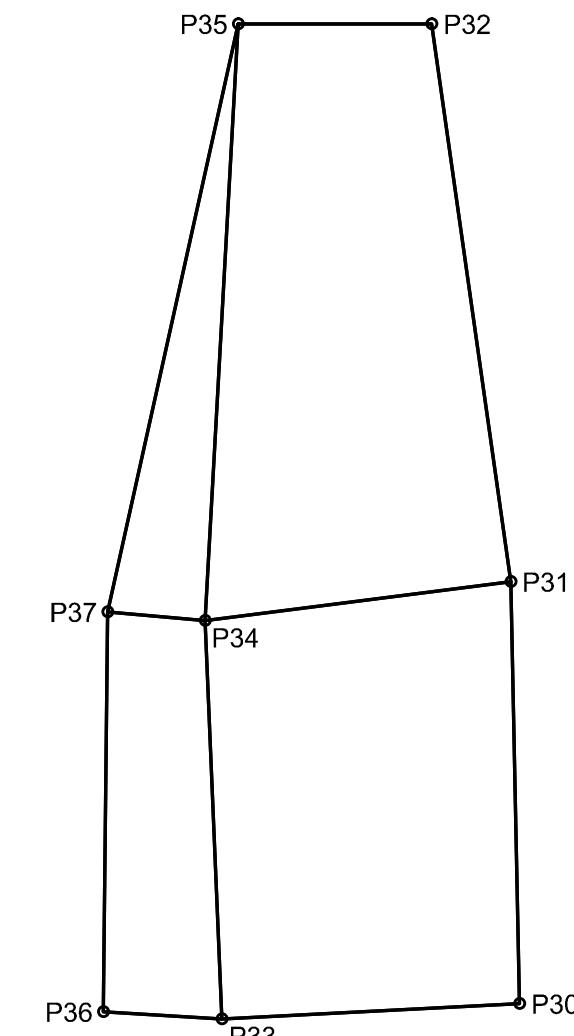
ELEVATION VIEW PANEL-H
SCALE: 1"=10'



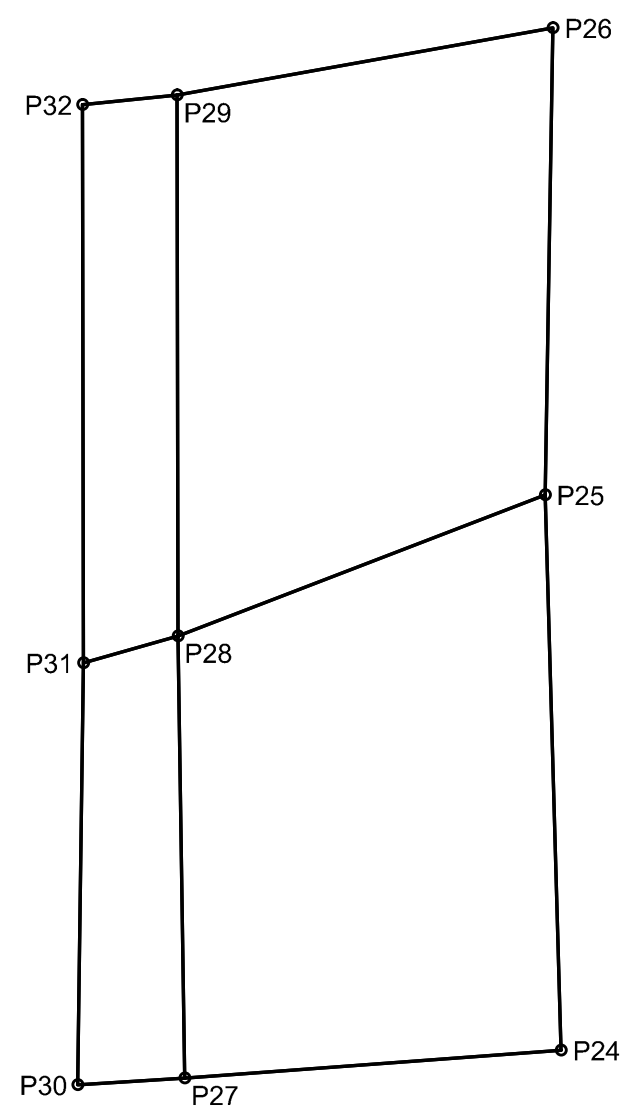
ELEVATION VIEW PANEL-G
SCALE: 1"=10'



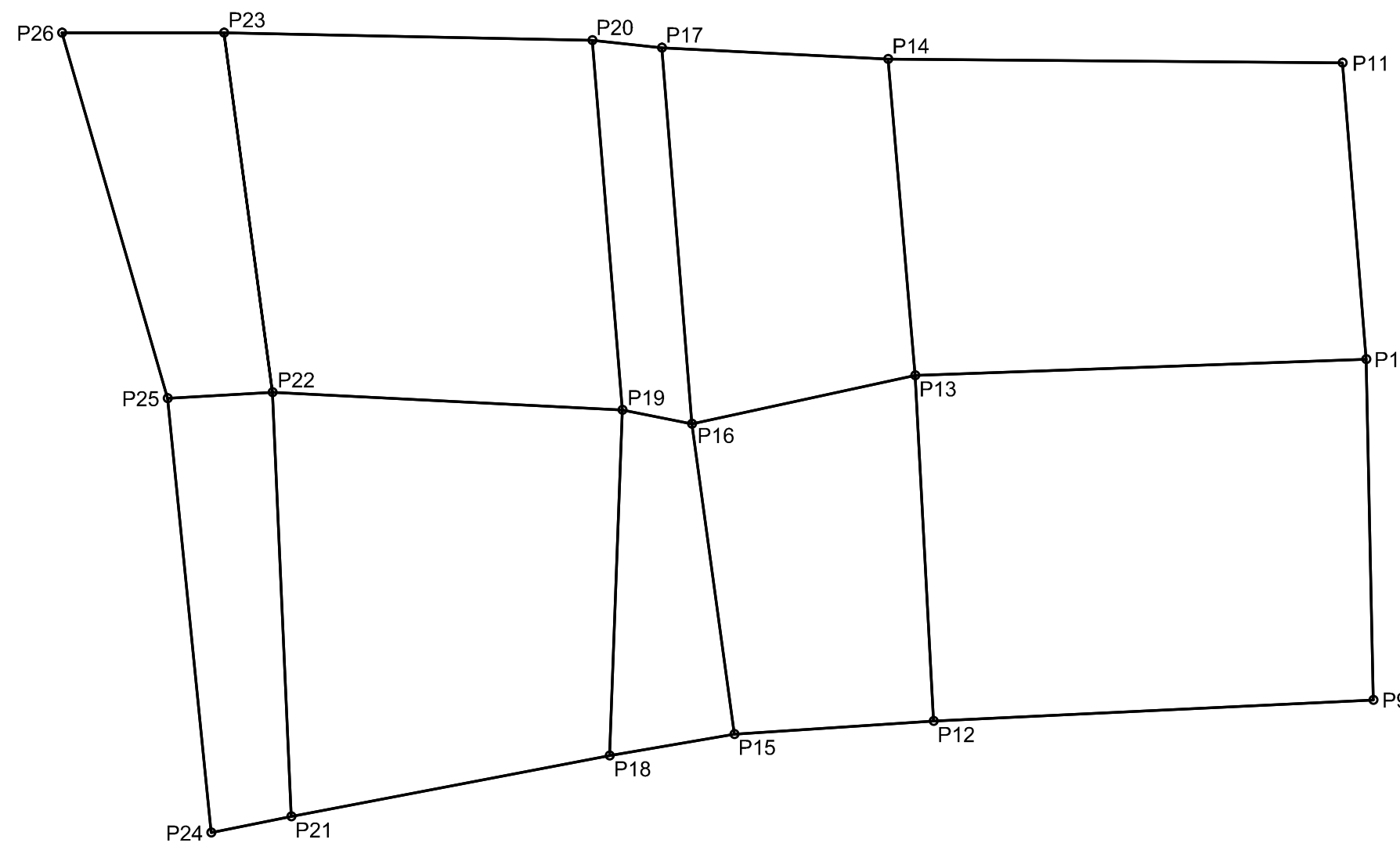
ELEVATION VIEW PANEL-F
SCALE: 1"=10'



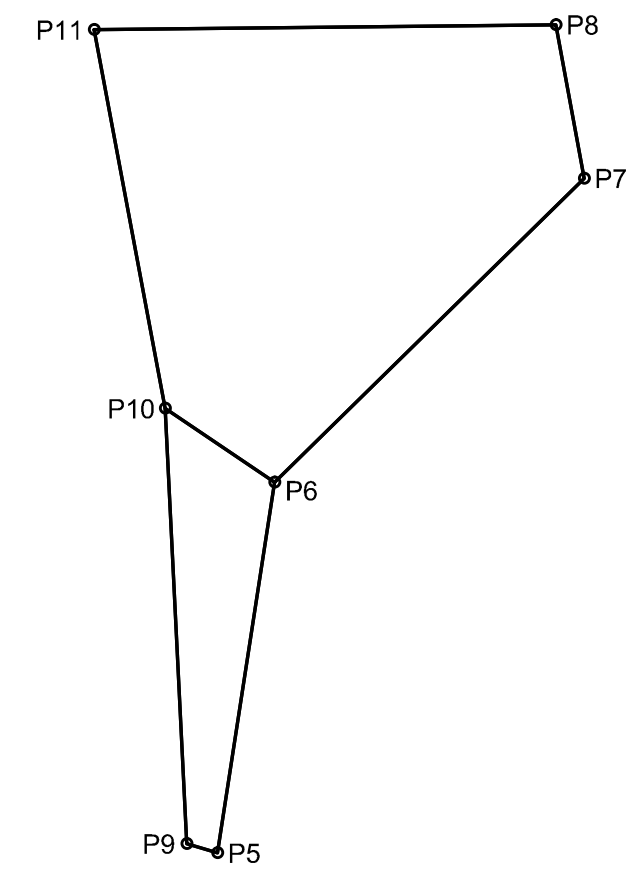
ELEVATION VIEW PANEL-E
SCALE: 1"=10'



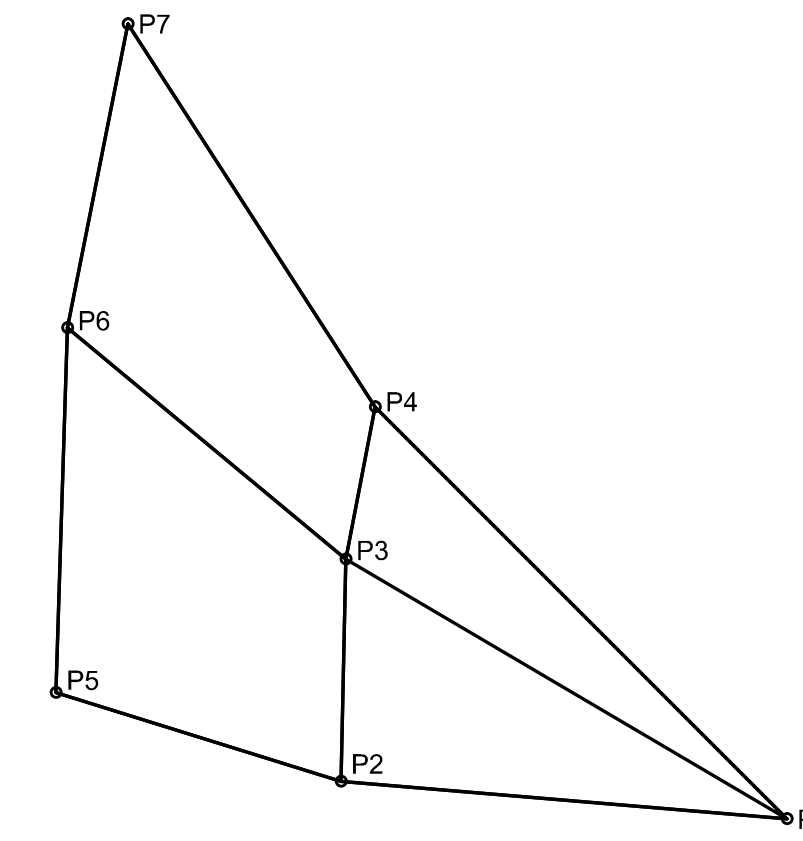
ELEVATION VUEW PANEL-D
SCALE: 1"=10'



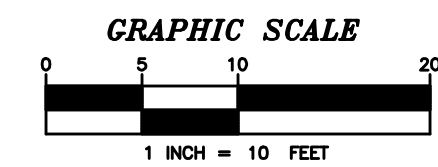
ELEVATION VIEW PANEL-C
SCALE: 1"=10'



ELEVATION VIEW PANEL-B
SCALE: 1"=10'



ELEVATION VIEW PANEL-A
SCALE: 1"=10'



NO.	DATE	REVISION

TERRADON
CORPORATION
Engineering - Surveying - Landscape Architecture
P.O. Box 519
Nitro, West Virginia 25143
(304) 755-8291 FAX 755-2636
www.terradon.com

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ABANDONED MINE LANDS AND RECLAMATION
SOIL NAIL/ROCK ANCHOR ELEVATION VIEWS
LILBERN PRITT HIGHWALL
BARBOUR COUNTY, WEST VIRGINIA

Project No.	12056-0051
Drawn:	WLG
Checked:	WJS
Approved:	WJS
Scale:	1"=10'
Date:	10-6-2014
CAD File #	0051-REC-PLAN

R1B

PLOT DATE : 9/29/2014 8:28 AM FILE SAVED BY : BILL GERENCIOR ON 9/29/2014 8:27 AM P:\2012\12056-0051 LILBERN PRITTS HIGHWALL 40-TRANS-AM\LANDWORK\PRODUCTION\SP\12056-0051-REC-PLAN.DWG

R2
R1
SHEET INDEX

WEST VIRGINIA STATE PLANE
NAD 83 SYSTEM OF 1983
N 176.000



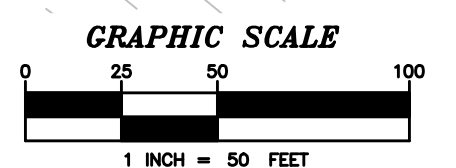
- NOTES:**
1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
 2. CONTOUR INTERVAL IS TWO FOOT.
 3. ALL REFUSE WITHIN THE LIMITS OF CONSTRUCTION SHALL RECEIVE 12" OF SOIL COVER AND SEEDING.
 4. ALL TEMPORARY EROSION & SEDIMENT CONTROL MEASURES ARE TO BE REMOVED AT THE COMPLETION OF THE PROJECT ONCE PERMANENT VEGETATION IS ESTABLISHED.

SYMBOL	DESCRIPTION
[Symbol]	EXISTING PAVED ROAD
[Symbol]	EXISTING UNPAVED ROAD
[Symbol]	EXISTING DRIVEWAY
[Symbol]	EXISTING RAILROAD
[Symbol]	EXISTING BUILDING
[Symbol]	EXISTING STREAM OR LAKE
[Symbol]	EXISTING CULVERT
[Symbol]	EXISTING FENCE LINE
[Symbol]	EXISTING POWER POLE
[Symbol]	EXISTING COMBINATION POLE
[Symbol]	EXISTING LIGHT POLE
[Symbol]	EXISTING WATER LINE
[Symbol]	EXISTING GAS LINE
[Symbol]	EXISTING ELECTRIC LINE
[Symbol]	EXISTING TELEPHONE LINE
[Symbol]	EXISTING ELECTRIC METER
[Symbol]	EXISTING GUY WIRE
[Symbol]	EXISTING MANHOLE
[Symbol]	EXISTING WATER METER
[Symbol]	EXISTING SCATTERED TRASH/DEBRIS
[Symbol]	EXISTING MINE PORTAL
[Symbol]	EXISTING CONTOUR
[Symbol]	EXISTING TREELINE/BRUSHLINE
[Symbol]	EXISTING TREE/BUSH
[Symbol]	EXISTING SPOT ELEVATION
[Symbol]	PROPOSED BASELINE
[Symbol]	PROPOSED STRAW WATTLES
[Symbol]	PROPOSED TEMP. SILT FENCE
[Symbol]	PROPOSED TEMP. SUPER SILT FENCE
[Symbol]	PROPOSED RIPRAP CHANNEL
[Symbol]	PROPOSED CONC. BLOCK MAT CHANNEL
[Symbol]	PROPOSED PERMANENT ECM CHANNEL
[Symbol]	PROPOSED LIMIT OF CONSTRUCTION
[Symbol]	PROPOSED LIMIT OF DISTURBANCE
[Symbol]	PROPOSED TEMP. TRIANGULAR SILT DIKE
[Symbol]	PROPOSED TEMP. SEDIMENT TRAP
[Symbol]	PROPOSED SOIL NAIL/ROCK ANCHOR SHOTCRETE BLANKET
[Symbol]	PROPOSED GRAVEL ACCESS ROAD REHABILITATION
[Symbol]	PROPOSED STABILIZED CONSTRUCTION ENTRANCE
[Symbol]	PROPOSED SLOPE PROTECTION EROSION CONTROL MATTING

NOTE:
CONTRACTOR MUST HAUL/PLACE MATERIAL AS SHOWN ON RECLAMATION PLANS AND CROSS SECTIONS.

SITE 3 - HIGHWALL 9 EARTHWORK TABLE
UNADJUSTED CUT FROM HW-1 = 4,994 CY
1.0 SHRINK/SWELL
ADJUSTED CUT FROM HW-1 = 4,994 CY
FILL = 4,994 CY
NET FILL = 0 CY

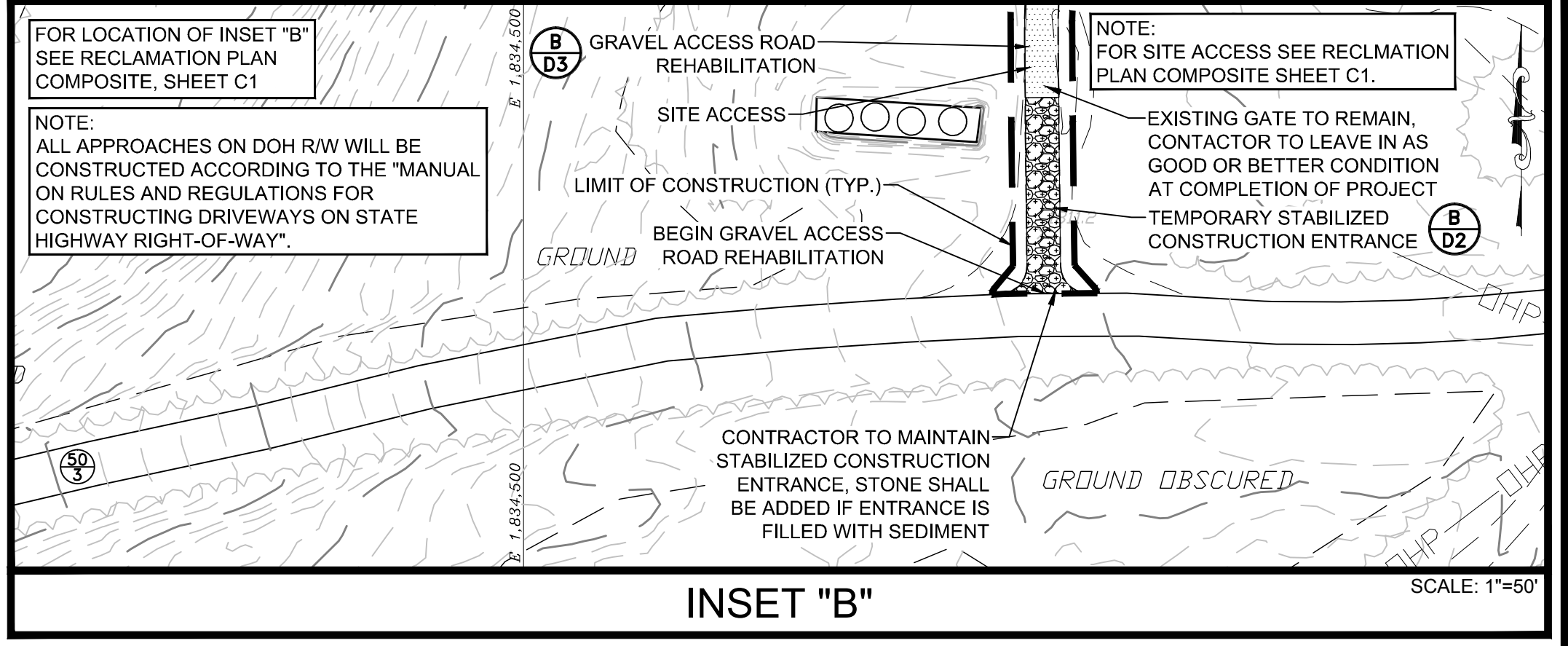
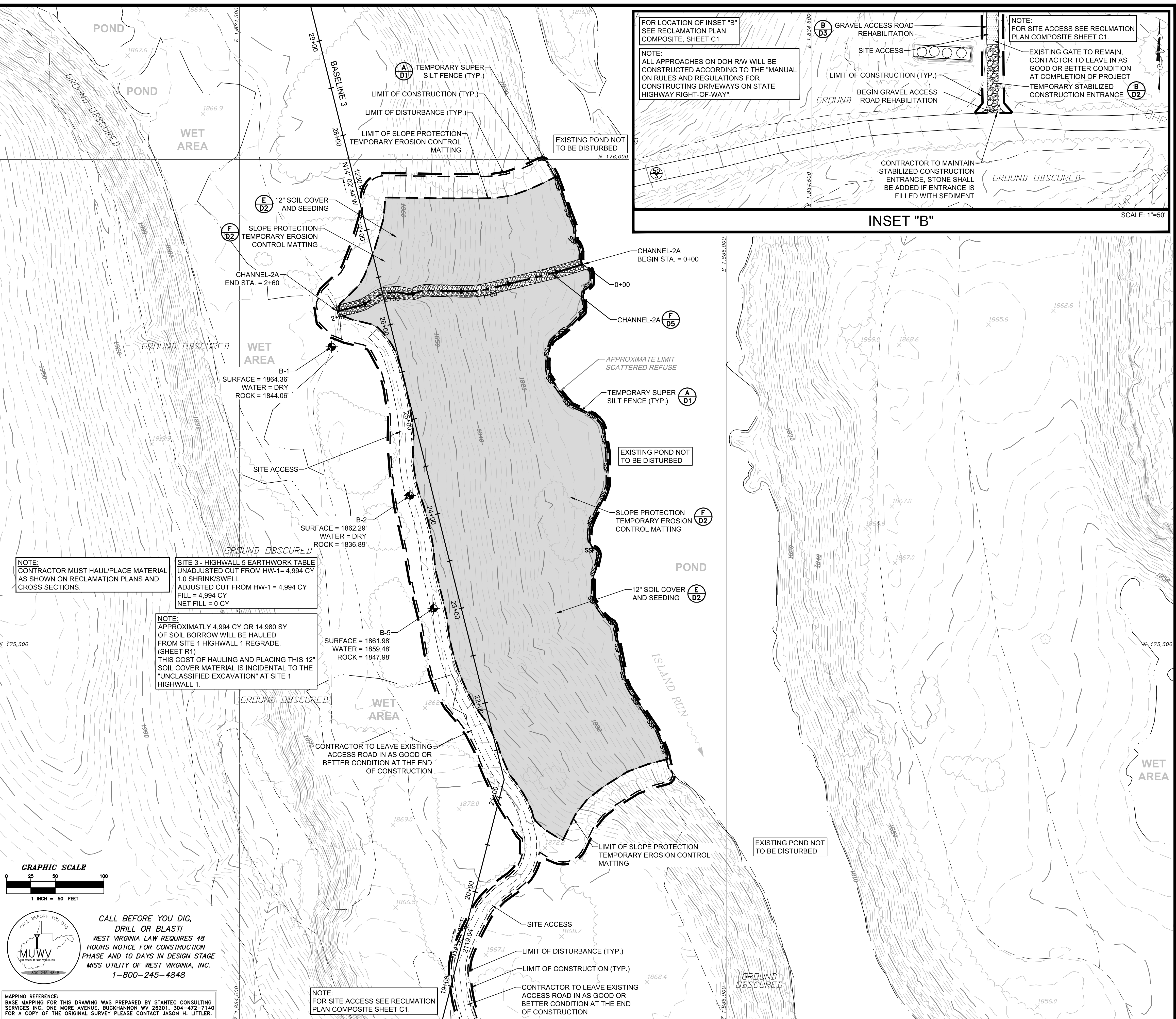
NOTE:
APPROXIMATELY 4,994 CY OR 14,980 SY OF SOIL BORROW WILL BE HAULED FROM SITE 1 HIGHWALL 1 REGRADE. (SHEET R1)
THIS COST OF HAULING AND PLACING THIS 12" SOIL COVER MATERIAL IS INCIDENTAL TO THE "UNCLASSIFIED EXCAVATION" AT SITE 1 HIGHWALL 1.



**CALL BEFORE YOU DIG,
DRILL OR BLAST!**
WEST VIRGINIA LAW REQUIRES 48 HOURS NOTICE FOR CONSTRUCTION PHASE AND 10 DAYS IN DESIGN STAGE MISS UTILITY OF WEST VIRGINIA, INC. 1-800-245-4848

MAPPING REFERENCE:
BASE MAPPING FOR THIS DRAWING WAS PREPARED BY STANTEC CONSULTING SERVICES INC. ONE MORE AVENUE, BUCKHANNON WV 26201. 304-472-7140 FOR A COPY OF THE ORIGINAL SURVEY PLEASE CONTACT JASON H. LITTLER.

NOTE:
FOR SITE ACCESS SEE RECLAMATION PLAN COMPOSITE SHEET C1.



NO.	DATE	REVISION

TERRADON
Engineering - Surveying - Landscape Architecture
P.O. Box 519 Nitro, West Virginia 25143
(304) 755-8291 FAX 755-2636
www.terradon.com

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ABANDONED MINE LANDS AND RECLAMATION
SITE 2 - RECLAMATION PLAN
LILBERN PRITTS HIGHWALL
BARBOUR COUNTY, WEST VIRGINIA

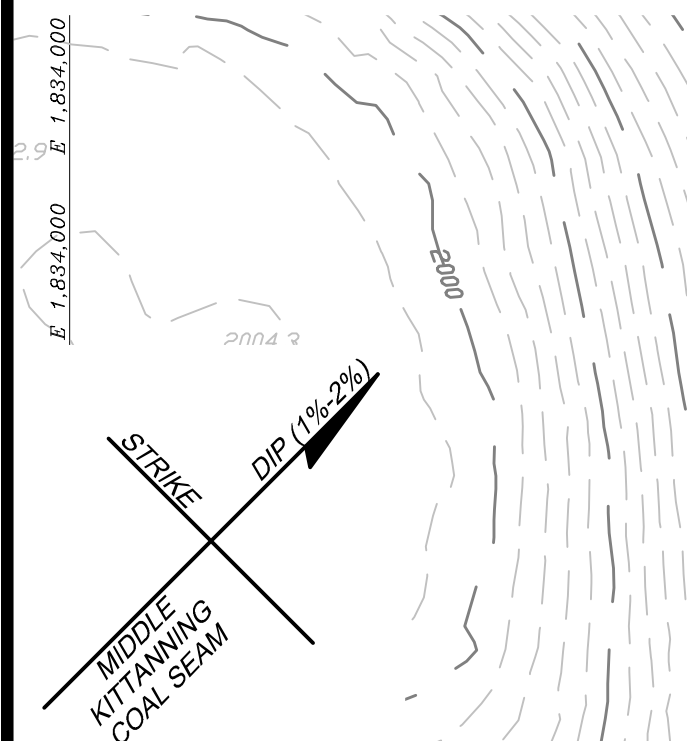
Project No.	12056-0051
Drawn:	WLG
Checked:	WJS
Approved:	WJS
Scale:	1"=50'
Date:	10-6-2014
CAD File #	0051-REC-PLAN

R2

PLOT DATE : 9/29/2014 8:30 AM FILE SAVED BY : BILL GERENCIOR ON 9/29/2014 8:28 AM P:\2012\12056-0051\TRANS-HIGHWALL\40-TRANS-AM\LDWG\PRODUCTION\SP\12056-0051-REC-PLAN.DWG

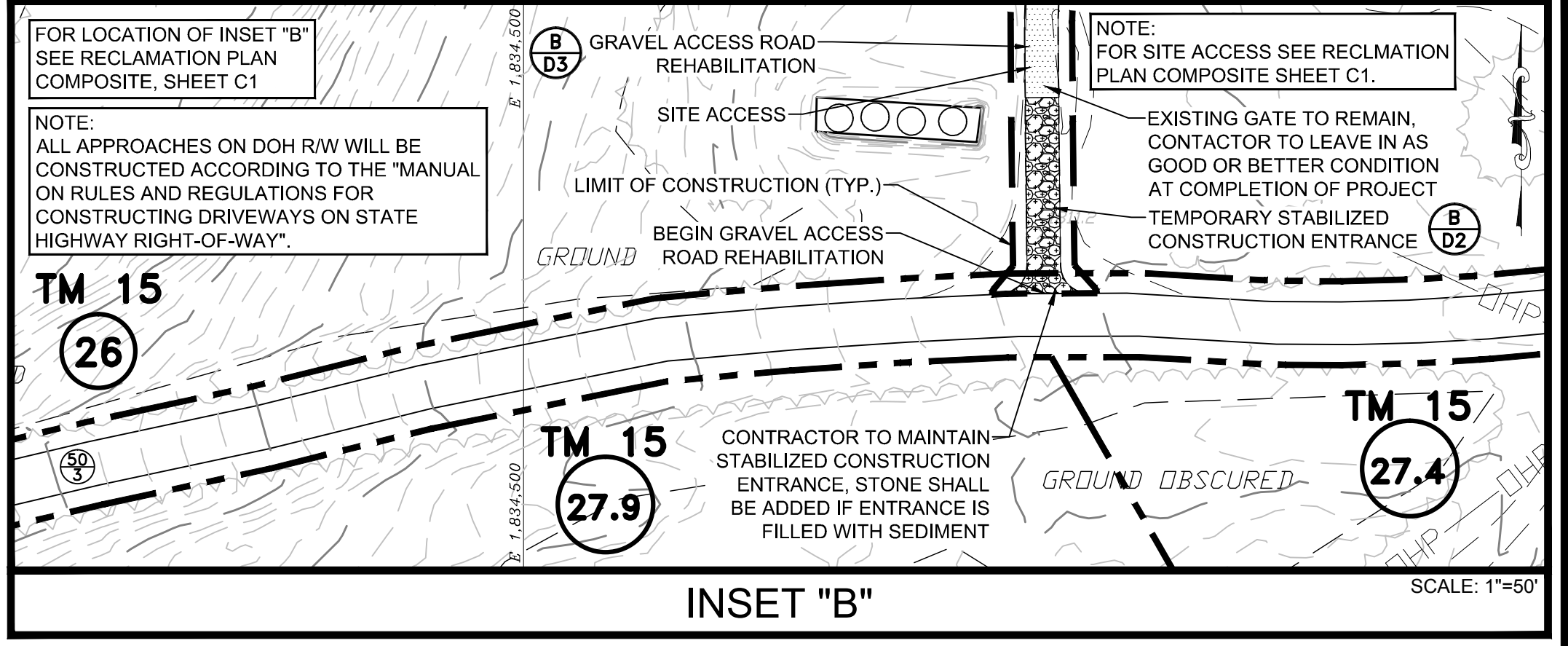
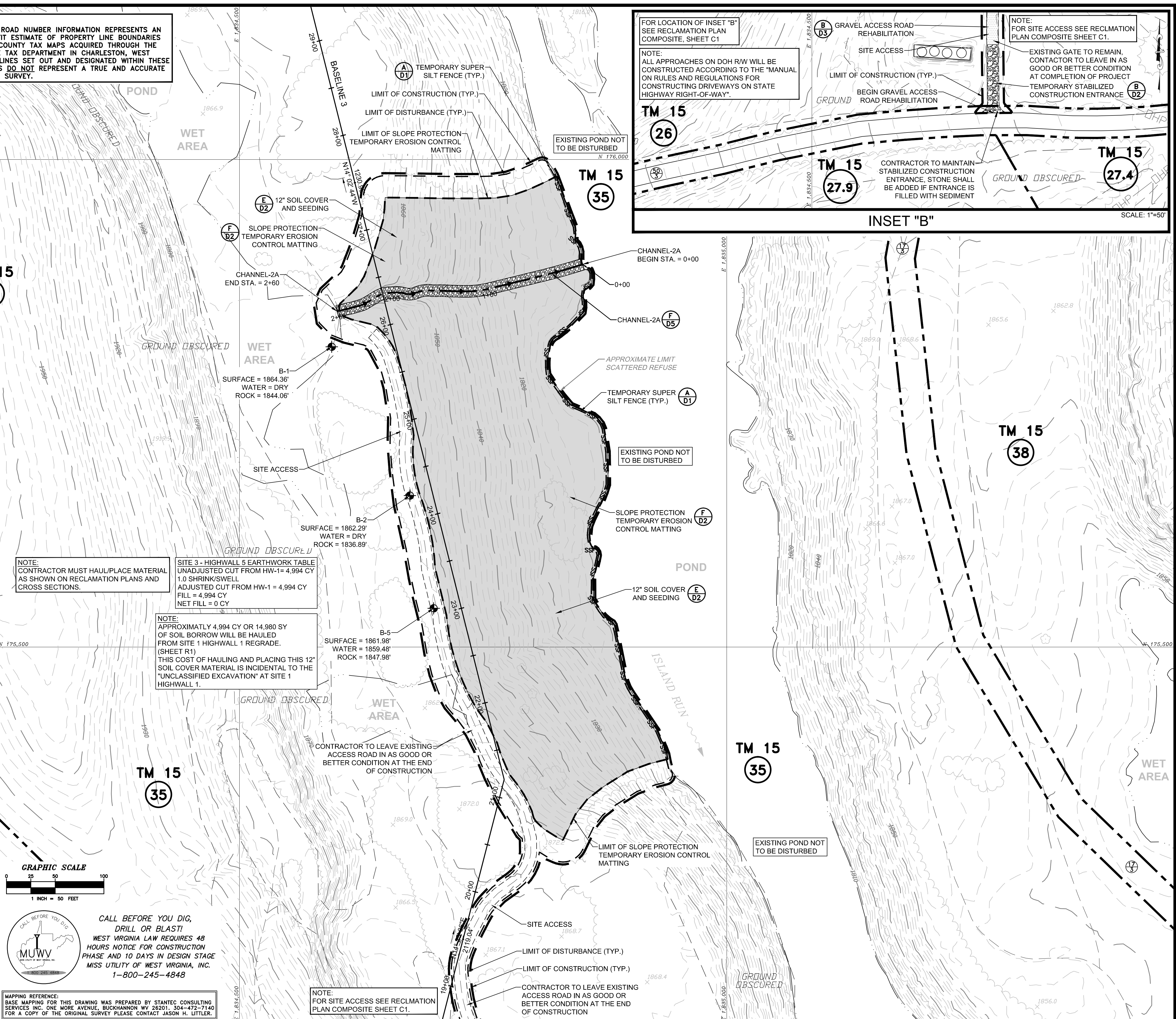
T2
T1
SHEET INDEX

NOTE:
PROPERTY LINE AND ROAD NUMBER INFORMATION REPRESENTS AN APPROXIMATE BEST FIT ESTIMATE OF PROPERTY LINE BOUNDARIES AS OBTAINED FROM COUNTY TAX MAPS ACQUIRED THROUGH THE WEST VIRGINIA STATE TAX DEPARTMENT IN CHARLESTON, WEST VIRGINIA. PROPERTY LINES SET OUT AND DESIGNATED WITHIN THESE CONSTRUCTION PLANS DO NOT REPRESENT A TRUE AND ACCURATE PROPERTY BOUNDARY SURVEY.



- NOTES:**
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
 - CONTOUR INTERVAL IS TWO FOOT.
 - ALL REFUSE WITHIN THE LIMITS OF CONSTRUCTION SHALL RECEIVE 12" OF SOIL COVER AND SEEDING.
 - ALL TEMPORARY EROSION & SEDIMENT CONTROL MEASURES ARE TO BE REMOVED AT THE COMPLETION OF THE PROJECT ONCE PERMANENT VEGETATION IS ESTABLISHED.

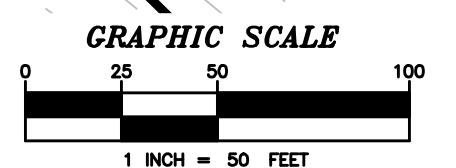
LEGEND	
SYMBOL	DESCRIPTION
[Symbol]	EXISTING PAVED ROAD
[Symbol]	EXISTING UNPAVED ROAD
[Symbol]	EXISTING DRIVEWAY
[Symbol]	EXISTING RAILROAD
[Symbol]	EXISTING BUILDING
[Symbol]	EXISTING STREAM OR LAKE
[Symbol]	EXISTING CULVERT
[Symbol]	EXISTING HEADWALL
[Symbol]	EXISTING FENCE LINE
[Symbol]	EXISTING POWER POLE
[Symbol]	EXISTING COMBINATION POLE
[Symbol]	EXISTING LIGHT POLE
[Symbol]	EXISTING WATER LINE
[Symbol]	EXISTING GAS LINE
[Symbol]	EXISTING ELECTRIC LINE
[Symbol]	EXISTING TELEPHONE LINE
[Symbol]	EXISTING ELECTRIC METER
[Symbol]	EXISTING GUY WIRE
[Symbol]	EXISTING MANHOLE
[Symbol]	EXISTING WATER METER
[Symbol]	EXISTING SCATTERED TRASH/DEBRIS
[Symbol]	EXISTING MINE PORTAL
[Symbol]	EXISTING CONTOUR
[Symbol]	EXISTING TREELINE/BRUSHLINE
[Symbol]	EXISTING TREE/BUSH
[Symbol]	EXISTING SPOT ELEVATION
[Symbol]	PROPOSED BASELINE
[Symbol]	PROPOSED STRAW WATTLES
[Symbol]	PROPOSED TEMP. SILT FENCE
[Symbol]	PROPOSED TEMP. SUPER SILT FENCE
[Symbol]	PROPOSED RIPRAP CHANNEL
[Symbol]	PROPOSED CONC. BLOCK MAT CHANNEL
[Symbol]	PROPOSED PERMANENT ECM CHANNEL
[Symbol]	PROPOSED LIMIT OF CONSTRUCTION
[Symbol]	PROPOSED LIMIT OF DISTURBANCE
[Symbol]	PROPOSED TEMP. TRIANGULAR SILT DIKE
[Symbol]	PROPOSED TEMP. SEDIMENT TRAP
[Symbol]	PROPOSED SOIL NAIL/ROCK ANCHOR
[Symbol]	PROPOSED SHOTCRETE BLANKET
[Symbol]	PROPOSED GRAVEL ACCESS ROAD REHABILITATION
[Symbol]	PROPOSED STABILIZED CONSTRUCTION ENTRANCE
[Symbol]	PROPOSED SLOPE PROTECTION EROSION CONTROL MATTING
[Symbol]	PROPERTY LINE
[Symbol]	TAX MAP NUMBER
[Symbol]	PARCEL NUMBER



NOTE:
CONTRACTOR MUST HAUL/PLACE MATERIAL AS SHOWN ON RECLAMATION PLANS AND CROSS SECTIONS.

SITE 3 - HIGHWALL 9 EARTHWORK TABLE
UNADJUSTED CUT FROM HW-1 = 4,994 CY
1.0 SHRINK/SWELL
ADJUSTED CUT FROM HW-1 = 4,994 CY
FILL = 4,994 CY
NET FILL = 0 CY

NOTE:
APPROXIMATELY 4,994 CY OR 14,980 SY OF SOIL BORROW WILL BE HAULED FROM SITE 1 HIGHWALL 1 REGRADE. (SHEET R1)
THIS COST OF HAULING AND PLACING THIS 12" SOIL COVER MATERIAL IS INCIDENTAL TO THE "UNCLASSIFIED EXCAVATION" AT SITE 1 HIGHWALL 1.



CALL BEFORE YOU DIG, DRILL OR BLAST!
WEST VIRGINIA LAW REQUIRES 48 HOURS NOTICE FOR CONSTRUCTION PHASE AND 10 DAYS IN DESIGN STAGE MISS UTILITY OF WEST VIRGINIA, INC. 1-800-245-4848

MAPPING REFERENCE:
BASE MAPPING FOR THIS DRAWING WAS PREPARED BY STANTEC CONSULTING SERVICES INC. ONE MORE AVENUE, BUCKHANNON WV 26201. 304-472-7140 FOR A COPY OF THE ORIGINAL SURVEY PLEASE CONTACT JASON H. LITTLER.

NO.	DATE	REVISION

TERRADON
Engineering - Surveying - Landscape Architecture
P.O. Box 519 Nitro, West Virginia 25143
(304) 755-8291 FAX 755-2636
www.terradon.com

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ABANDONED MINE LANDS AND RECLAMATION
SITE 2 - TAX MAP OVERLAY
LILBERN PRITT HIGHWALL
BARBOUR COUNTY, WEST VIRGINIA

Project No. 12056-0051
Drawn: WLG
Checked: WJS
Approved: WJS
Scale: 1"=50'
Date: 10-6-2014
CAD File # 0051-REC-PLAN

T2

PLOT DATE : 9/29/2014 8:33 AM FILE SAVED BY :BILL.GERENCIOR ON 9/26/2014 3:26 PM P:\2012\12056-0051\TRANS-AML\DWG\PRODUCTION\SP\12056-0051-DETAILS.DWG

GOVERNING SPECIFICATIONS

THE PROJECT SPECIFICATIONS, THE CONTRACT DOCUMENTS AND THE CONTRACT PLANS ARE THE GOVERNING PROVISIONS APPLICABLE TO THIS PROJECT. ANY MODIFICATION TO THE SPECIFICATIONS OR CHANGES TO THE WORK AS SHOWN ON THE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL BY THE WVDEP.

VERIFICATION OF DIMENSIONS

THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL PLAN AND ELEVATION DIMENSIONS PRIOR TO ORDERING MATERIALS FOR THE CONSTRUCTION OF THE VARIOUS BID ITEMS IN THIS PROJECT.

EROSION AND SEDIMENT CONTROL

DETAILS NOT SHOWN IN THE PLANS SHALL BE IN ACCORDANCE WITH THE WEST VIRGINIA EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL, DATED 2006. IN THE EVENT THAT TEMPORARY EROSION AND POLLUTION CONTROL MEASURES ARE ORDERED DUE TO CONTRACTOR'S NEGLIGENCE, CARELESSNESS, OR FAILURE TO INSTALL PERMANENT CONTROLS AS PART OF THE WORK AS SCHEDULED, SUCH ITEMS AND WORK SHALL BE PERFORMED BY THE CONTRACTOR AT HIS OWN EXPENSE.

THE FIRST ORDER OF WORK FOR THE CONTRACTOR IS TO INSTALL SEDIMENT CONTROL FEATURES AS DEFINED BY THE EROSION AND SEDIMENT CONTROL PLAN TO ESTABLISH EROSION CONTROL AT THE EARLIEST POSSIBLE DATE. INITIAL CLEARING AND GRUBBING IS TO ONLY BE WHAT IS NECESSARY IN ORDER TO ACCOMPLISH THESE OPERATIONS.

IN ADDITION, THE CONTRACTOR IS TO NAME AN INDIVIDUAL TO INSPECT AND DOCUMENT THE EROSION CONTROL FEATURES ONCE A WEEK TO ASSESS THE SUCCESS OF THE EROSION CONTROL STRUCTURES, REVEGETATION EFFORTS, AND SEE THAT REPLACEMENT, CLEANING, AND/OR INSTALLATION OF ADDITIONAL FEATURES IF NECESSARY ARE CARRIED OUT.

PERIODIC INSPECTIONS WILL BE CONDUCTED BY REPRESENTATIVES OF THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION TO ENSURE THAT THE REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT ARE BEING FULLFILLED.

ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT VEGETATION OR OTHER PROTECTION IS ESTABLISHED.

DISTURBED AREAS SHALL BE SEEDED OR SODDED WITHIN SEVEN (7) DAYS AFTER FINAL GRADING. MULCH SHALL BE USED AS NECESSARY FOR PROTECTION UNTIL VEGETATION IS ESTABLISHED.

REMOVAL OF EXISTING FEATURES

REMOVAL OF EXISTING TRASH AND DEBRIS, EXISTING PIPE AND RELOCATION OF EXISTING SHED SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM NO. 4.1 "SITE PREPARATION".

STRIPPING AND STOCKPILING OF TOPSOIL

THE CONTRACTOR WILL BE REQUIRED TO STRIP TOPSOIL FROM THOSE AREAS WITHIN THE CONSTRUCTION LIMITS NOT FORESTED OR DESIGNATED WETLANDS. THE MATERIAL WILL BE STOCKPILED AND REDISTRIBUTED AS THE "12" SOIL COVER" LAYER OVER ANY EXPOSED REFUSE ON THE PROJECT SITE.

PAYMENT FOR STRIPPING OF THE TOPSOIL, STOCKPILING, ANY SUBSEQUENT REHANDLING, FINAL PLACEMENT AND SEEDING AND MULCHING OF THE STOCKPILE IS TO BE INCLUDED IN THE UNIT BID PRICE FOR ITEM NO. 12.0 "12" SOIL COVER".

GEOTECHNICAL INFORMATION

GEOTECHNICAL INFORMATION IS PROVIDED WITH THESE PLANS AND SHALL BE CONSIDERED AS A PART OF THE CONTRACT DOCUMENTS. SUPPLEMENTARY GEOTECHNICAL INFORMATION MAY BE AVAILABLE. ANY INQUIRIES FOR SUPPLEMENTAL INFORMATION SHOULD BE DIRECTED TO: WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF ABANDONED MINE LANDS AND RECLAMATION 601 57TH STREET SE CHARLESTON, WV 25304

THE INFORMATION PRESENTED IS BASED IN PART ON SMALL DIAMETER TEST BORINGS AND SHOULD BE CONSIDERED AS APPROXIMATE. SHOULD DIFFERING CONDITIONS BE ENCOUNTERED THE CONTRACTOR SHALL CONTACT THE ENGINEER AT THE EARLIEST OPPORTUNITY FOR RE-EVALUATION PRIOR TO PROCEEDING WITH WORK ON THAT PORTION OF THE PROJECT.

CONSTRUCTION SEQUENCE

GENERAL:

- REVIEW THE CONSTRUCTION LIMITS AND MARK ANY TREES AND BUFFER AREAS THAT ARE TO REMAIN FOR SEDIMENT AND EROSION CONTROL PROTECTION.
- INSTALL TEMPORARY CONSTRUCTION ENTRANCES/EXITS IN ACCORDANCE WITH PROJECT PLANS AND DETAILS AND UPGRADE ACCESS ROADS AS REQUIRED FOR CONSTRUCTION SITE ACCESS.
- INSTALL SILT FENCE AND SUPER SILT FENCE BELOW GRADING LIMITS AND TEMPORARY DIVERSION BERMS ABOVE GRADING LIMITS FOR EROSION AND SEDIMENT CONTROL AS SHOWN ON PROJECT PLANS AND DETAILS.
- REMOVE AND DISPOSE OF ANY TRASH AND DEBRIS WITHIN THE CONSTRUCTION LIMITS.
- CONSTRUCT ALL OTHER TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AS SOON AS CONSTRUCTION WILL PERMIT. SEDIMENT TRAPS, STRAW WATTLES AND TRIANGULAR SILT DIKES SHALL BE PLACED AS SHOWN ON PROJECT PLANS AND DETAILS.
- UPON COMPLETION OF CONSTRUCTION ACTIVITIES FOR A GIVEN AREA, COMPLETE ACCESS ROAD REHABILITATION, AS SHOWN ON PROJECT PLANS AND DETAILS.
- PERMANENTLY VEGETATE ALL DISTURBED AREAS IN ACCORDANCE WITH PROJECT PLANS AND DETAILS.
- AFTER SITE IS STABILIZED, REMOVE ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES AND INSTALL PERMANENT VEGETATION ON ANY DISTURBED AREAS CAUSED BY REMOVING THE TEMPORARY MEASURES.

SITE 1 HIGHWALL 1:

- PERFORM GENERAL PROCEDURES STEPS 1 THROUGH 5.
- PERFORM ANY GRADING REQUIRED NEAR EXISTING STRUCTURES AND INSTALL TEMPORARY JERSEY BARRIER WITH SAFETY FENCE AS PER PROJECT PLANS AND DETAILS. THE CONTRACTOR SHALL ENSURE THE BARRIER IS STABLE, AND ANY ANCHORING NECESSARY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- EXCAVATE MATERIAL IN ACCORDANCE WITH PROJECT DOCUMENTS DOWN TO THE FIRST ROW OF SOIL NAIL/ROCK ANCHORS, HAULING WASTE MATERIAL TO SITE 3 HIGHWALL 5.
- INSTALL ANCHOR WALL AS PER PLANS, DETAILS AND SPECIFICATIONS.
- CONTINUE EXCAVATION OF MATERIAL IN ACCORDANCE WITH PROJECT DOCUMENTS DOWN TO THE NEXT ROW OF SOIL NAIL/ROCK ANCHORS, HAULING WASTE MATERIAL TO SITE 3 HIGHWALL 5.
- INSTALL ANCHOR WALL AS PER PLANS, DETAILS AND SPECIFICATIONS.
- REPEAT STEPS 6 AND 7 UNTIL ALL ANCHORS REQUIRED FOR THE PROJECT ARE INSTALLED.
- INSTALL PERMANENT SHOTCRETE FACING.
- REGRADE ALL REMAINING AREAS IN ACCORDANCE WITH PROJECT PLANS AND DETAILS AND INSTALL ALL REMAINING REQUIRED PERMANENT DRAINAGE FEATURES NOT ALREADY INSTALLED.
- INSTALL TEMPORARY EROSION CONTROL MATTING AS SHOWN ON PROJECT PLANS AND DETAILS.
- PERFORM GENERAL PROCEDURES STEPS 7 AND 8.

SITE 2 HIGHWALL 5

- PERFORM GENERAL PROCEDURES STEPS 1 THROUGH 5.
- INSTALL CHANNEL 3I IN ACCORDANCE WITH PROJECT PLANS AND DETAILS.
- PLACE BORROW MATERIAL FROM SITE 1 HIGHWALL 1 IN ACCORDANCE WITH PROJECT PLANS AND DETAILS.
- INSTALL TEMPORARY EROSION CONTROL MATTING AS SHOWN ON PROJECT PLANS AND DETAILS.
- PERFORM GENERAL PROCEDURES STEPS 6 THROUGH 8.

GENERAL CONSTRUCTION NOTES :

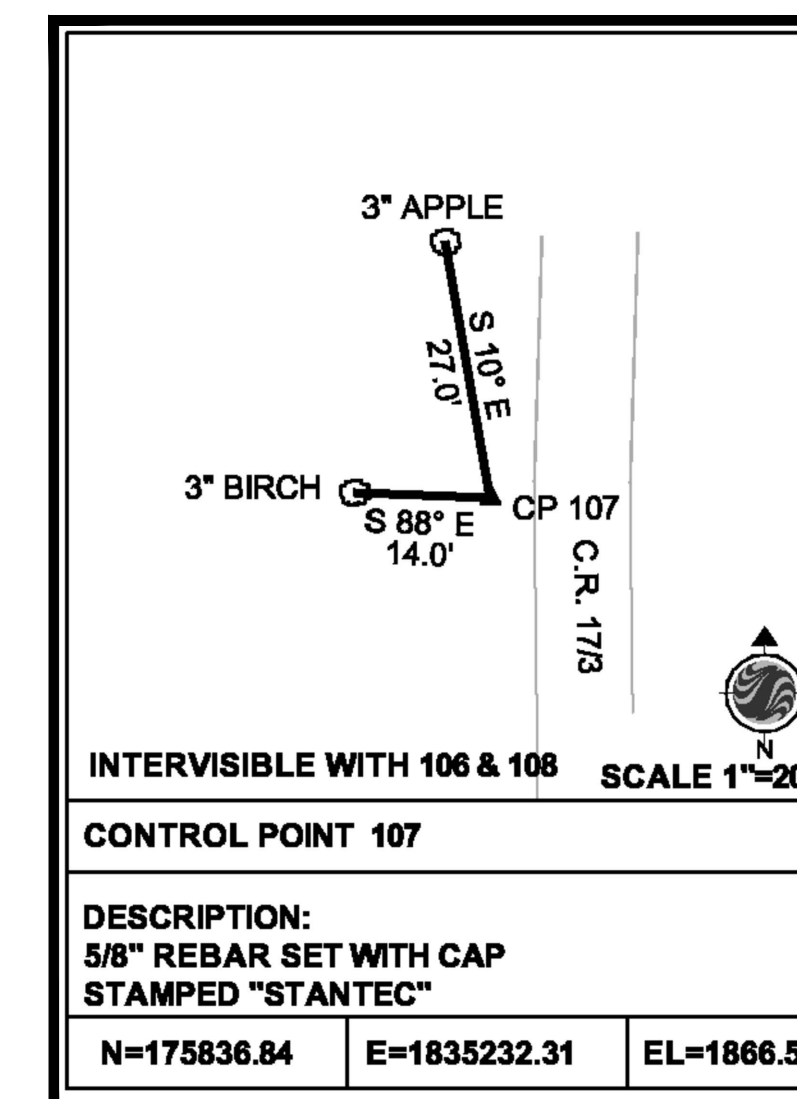
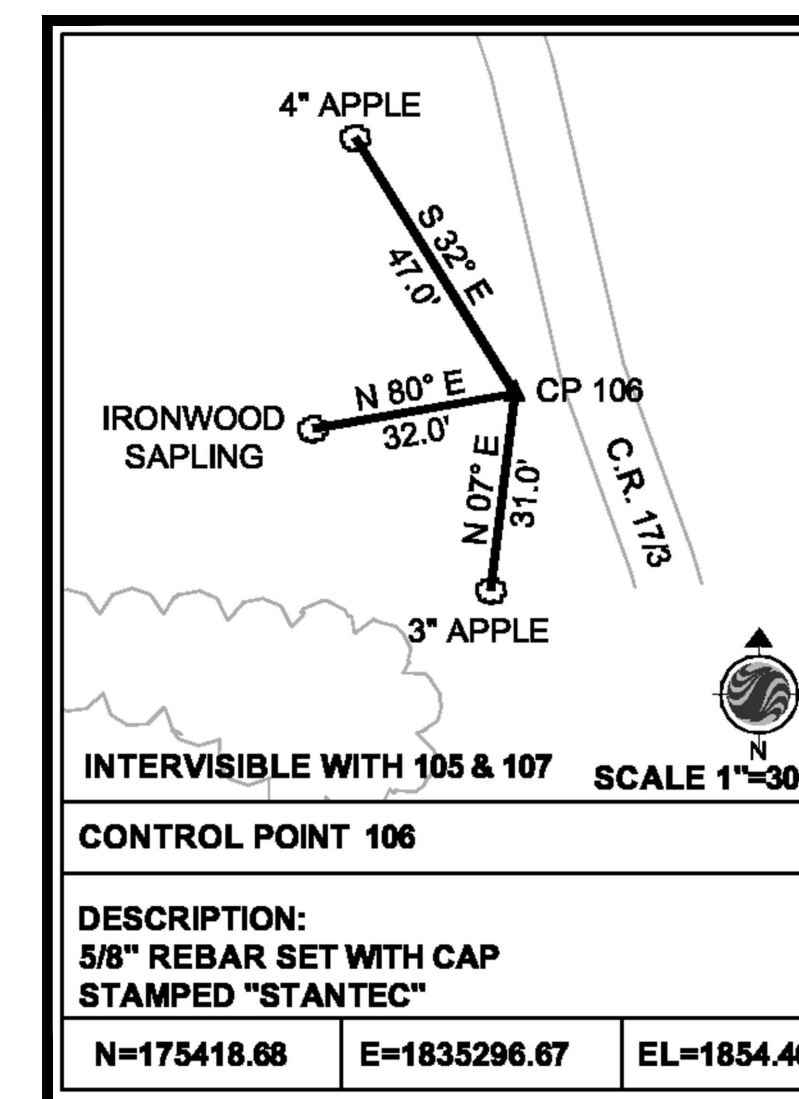
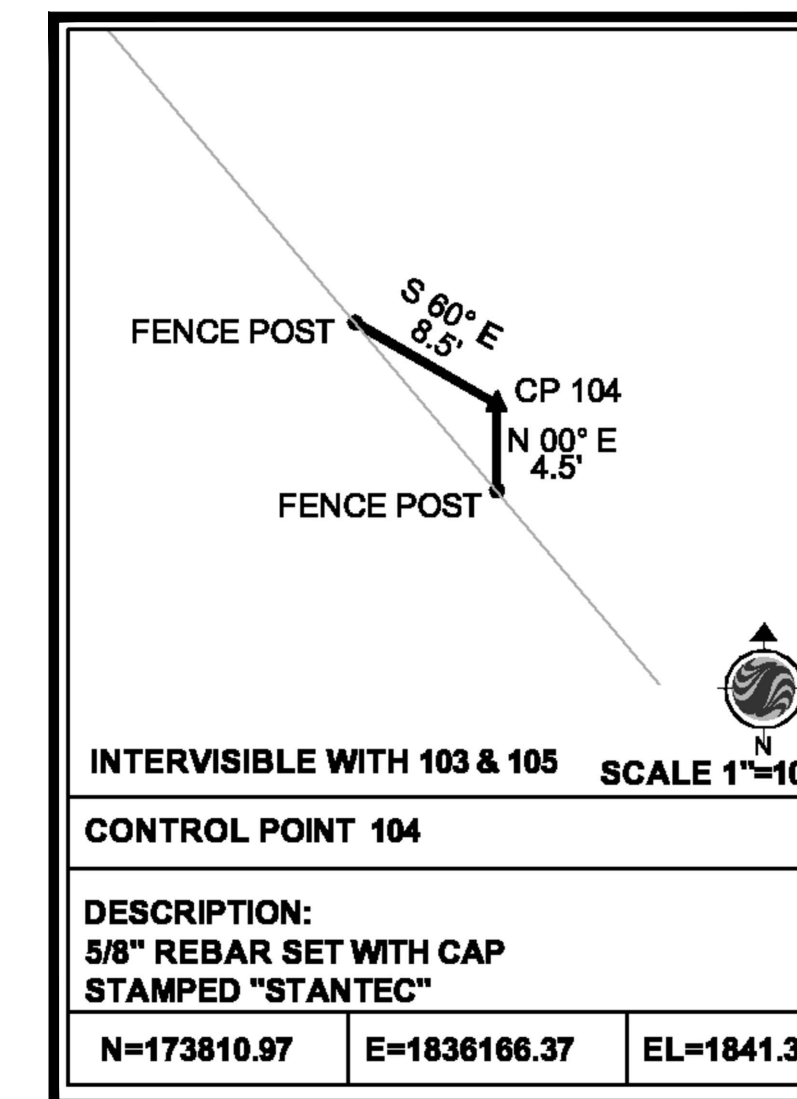
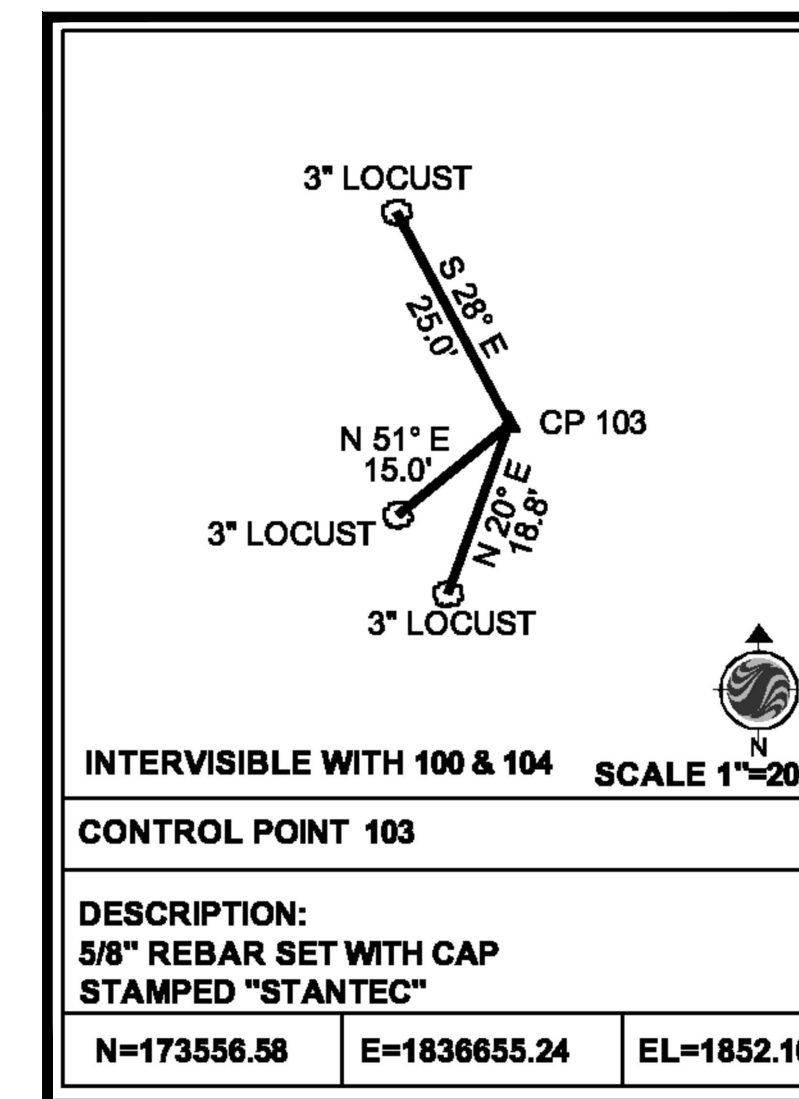
- THE CONTRACTOR SHALL CONTACT THE LOCAL ONE CALL SYSTEM TO HAVE UTILITIES LOCATED AND MARKED PRIOR TO COMMENCING WITH CONSTRUCTION. THIS FIRM DOES NOT CERTIFY AS TO THE LOCATION OR EXISTENCE OF UNDERGROUND UTILITIES OR TO SOIL CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND DEPTH OF ALL UTILITIES BEFORE COMMENCING WORK AND FOR ANY DAMAGES WHICH MIGHT OCCUR BY HIS FAILURE TO LOCATE OR PRESERVE THESE UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION AT LEAST TWO WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS, PRIOR TO COMMENCEMENT OF EXCAVATION.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
- ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR.
- THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
- CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE PROPERTY OWNER.
- CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
- CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
- CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
- CONTRACTOR SHALL FURNISH THE WVDEP WITH AS-BUILT DRAWINGS UPON COMPLETION OF WORK.
- PRIOR TO SUBMISSION OF BID AND START OF CONSTRUCTION IN ACCORDANCE WITH APPROVED PLANS, CONTRACTOR WILL COORDINATE WITH THE WVDEP PROJECT MANAGER TO DETERMINE WHAT PERMITS WERE OBTAINED BY THE WVDEP. ALL REQUIRED PERMITS NOT OBTAINED BY THE WVDEP MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR. AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES.
- CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
- THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER CONTRACT.
- CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 48 HOURS IN ADVANCE PRIOR TO CONSTRUCTION START FOR ENGINEERING REVIEW AND INSPECTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.

PROPRIETARY SOIL NAIL/ROCK ANCHOR BLANKET NOTES

- A DRAINAGE LAYER IN ACCORDANCE WITH DETAIL A-R1A ON SHEET R1A SHALL BE PROVIDED BEHIND SOIL NAIL/ROCK ANCHOR, SHOTCRETE BLANKET REGARDLESS OF FINAL DESIGN USED DURING CONSTRUCTION.
- IF A PROPRIETARY DESIGN IS USED FOR THE CONSTRUCTION OF THE SOIL NAIL/ROCK ANCHOR, SHOTCRETE BLANKET, ALL INFORMATION REGARDING THE DESIGN, INCLUDING FINAL GLOBAL AND ETERNAL STABILITY, MUST BE SUBMITTED TO THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF ABANDONED MINE LANDS AND RECLAMATION.

POTENTIAL SOIL NAIL/ROCK ANCHOR CONTRACTORS

- NICHOLSON CONSTRUCTION COMPANY:
12 MCCLANE STREET
CUDDY, PA 15031
PHONE: 412-221-4500 FAX: 412-221-3127
- GEOSTABILIZATION INTERNATIONAL:
P.O. BOX 4709
GRAND JUNCTION
CO 81502
PHONE: 970-210-6170 FAX: 970-24-7737
- HAYWARD BAKER:
7550 TEAGUE ROAD
SUITE 300
HANOVER, MD 21076
TOLL FREE: 800-456-6548 TEL: 410-551-8200



NO.	DATE	REVISION

TERRADON CORPORATION
Engineering - Surveying - Landscape Architecture
P.O. Box 519
Nitro, West Virginia 25143
(304) 755-8291 FAX 755-2636
www.terradon.com

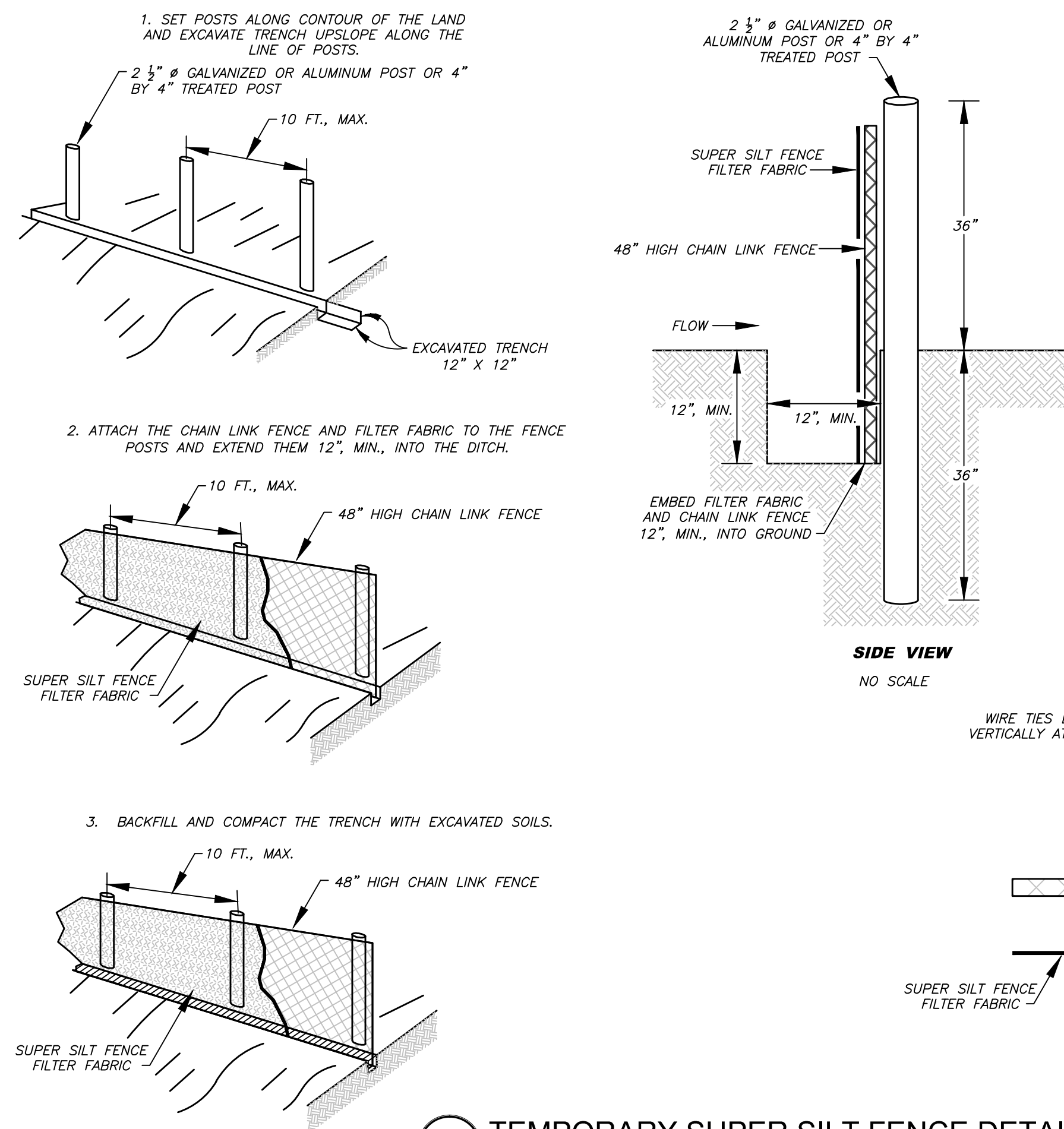
WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ABANDONED MINE LANDS AND RECLAMATION

GENERAL NOTES AND CONTROL POINT DETAILS
LILBERN PRITT HIGHWALL
BARBOUR COUNTY, WEST VIRGINIA

Project No.	12056-0051
Drawn:	WLG/WVDEP
Checked:	WJS
Approved:	WJS
Scale:	AS NOTED
Date:	10-6-2014
CAD File #	*-DETAILS

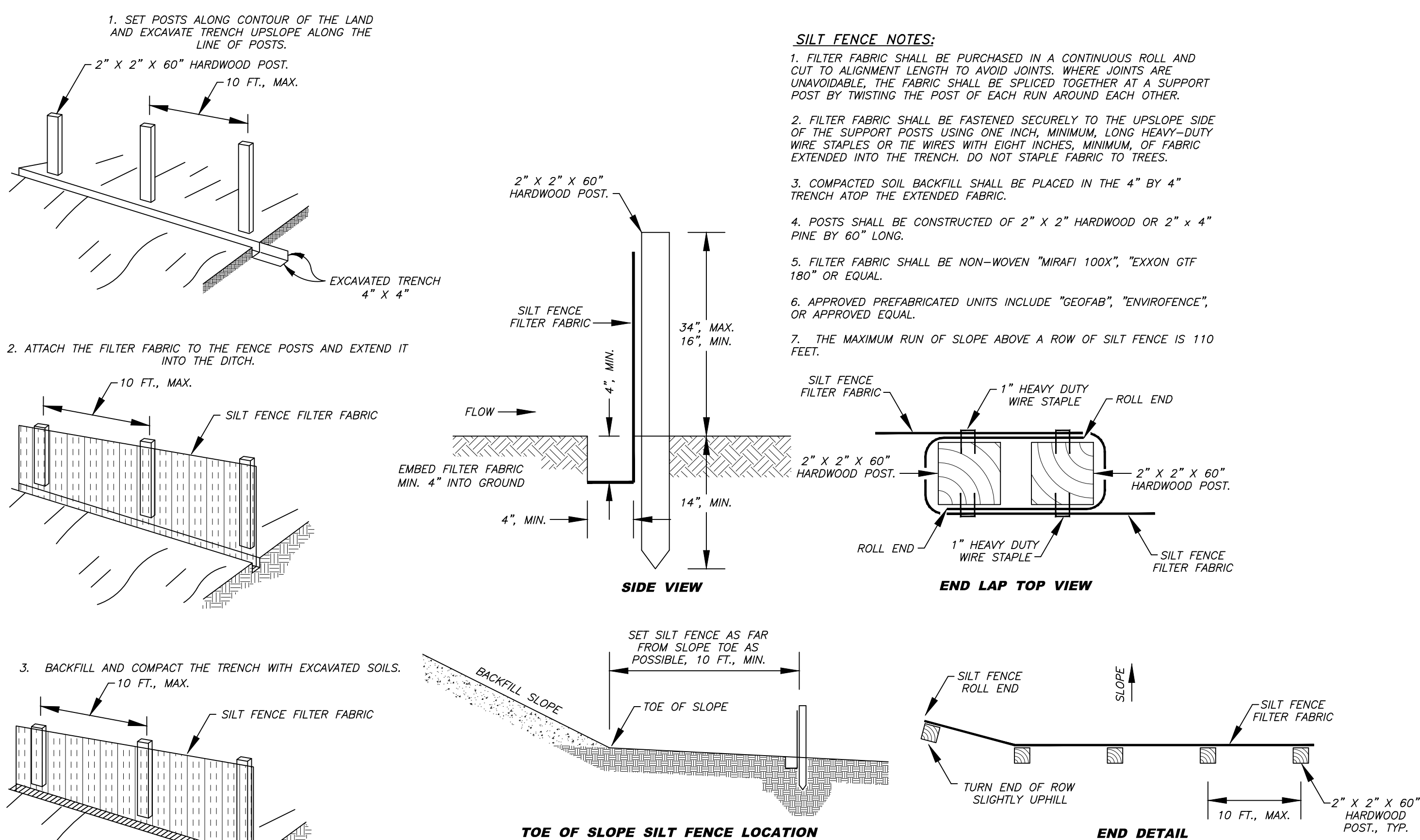
N1

PLOT DATE : 9/29/2014 8:34 AM FILE SAVED BY :BILL.GERENCIER ON 9/26/2014 3:26 PM P:\2012\12056-0051\LIBERN PRIT HIGHWALL\40-TRANS-AML\DWG\PRODUCTION\SP\12056-0051-DETAILS.DWG



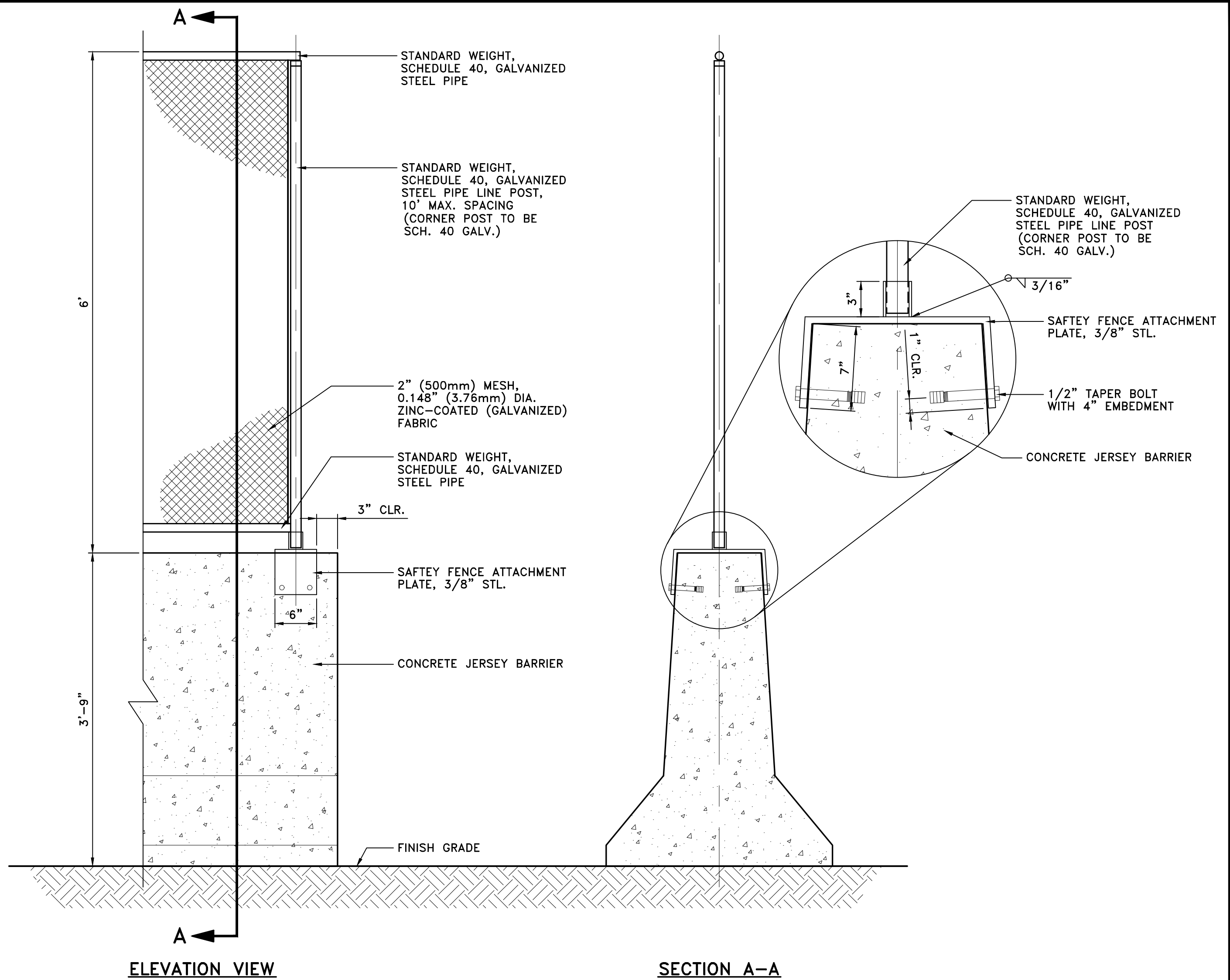
(A) TEMPORARY SUPER SILT FENCE DETAIL
 NO SCALE

- SUPER SILT FENCE NOTES:**
1. CHAIN LINK FENCE SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 608 OF THE WVDOT SPECIFICATIONS. CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE POSTS WITH WIRE TIES OR STAPLES.
 2. POSTS NEED NOT BE SET IN CONCRETE.
 3. THE FILTER FABRIC SHALL BE FASTENED TO THE CHAIN LINK FENCE WITH TIES EVERY 24" AT THE TOP AND MID SECTION.
 4. FABRIC AND FENCE SHALL BE EMBEDDED 12", MINIMUM, INTO THE GROUND.
 5. A 6", MINIMUM, OVERLAP SHALL BE PROVIDED WHERE TWO SECTIONS OF FABRIC ADJOIN. THE OVERLAPPED FABRIC SHALL BE FOLDED TOGETHER AND ATTACHED TO THE CHAIN LINK FENCE.
 6. 4" BY 4" PRESSURE TREATED POSTS MAY BE SUBSTITUTED FOR METAL FENCE POSTS WITH THE APPROVAL OF THE ENGINEER.
 7. THE LENGTH OF SLOPE ABOVE THE FENCE SHALL NOT EXCEED 400 FEET IN STEEP TERRAIN. IN FLATTER AREAS THE LENGTH CAN BE EXTENDED WITH THE APPROVAL OF THE ENGINEER.

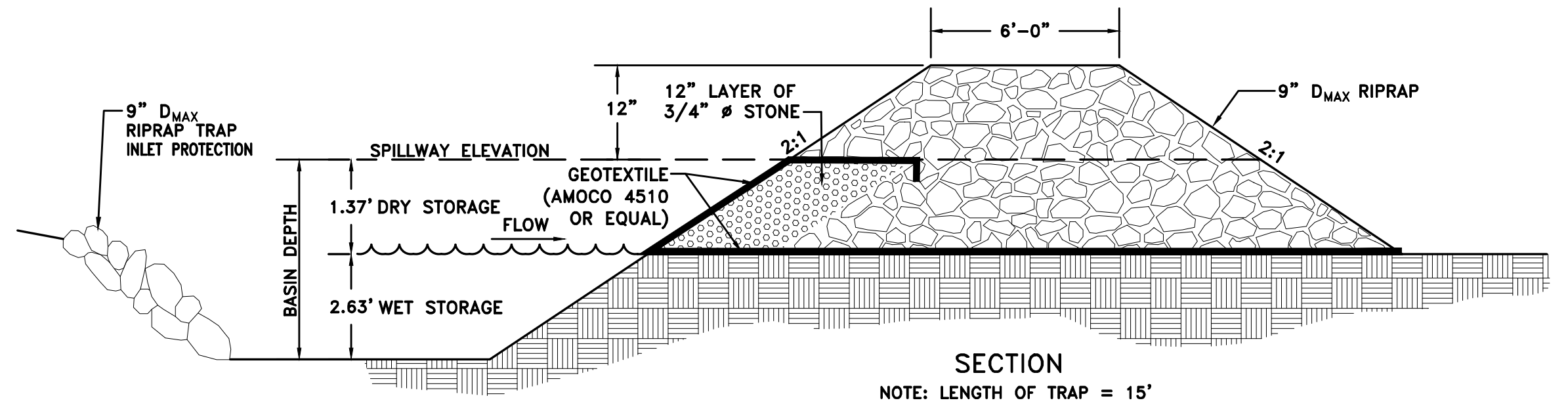
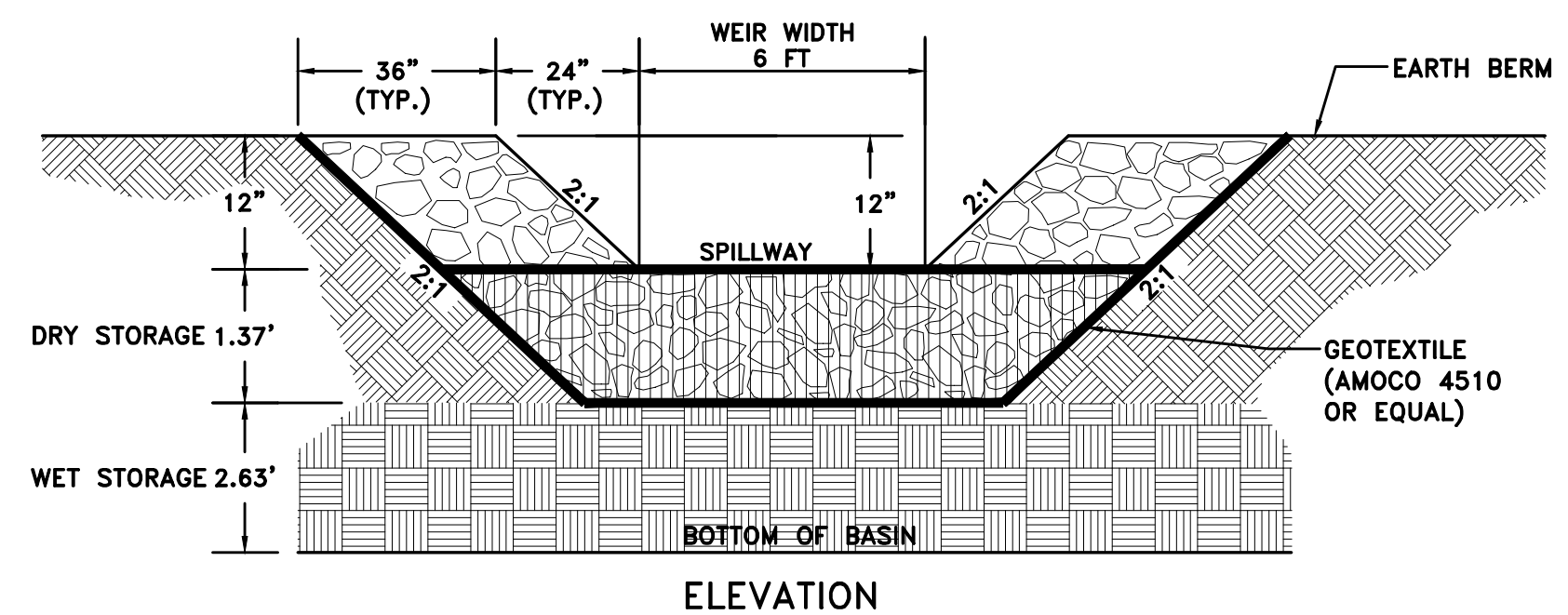


(B) TEMPORARY SILT FENCE DETAIL
 NO SCALE

- SILT FENCE NOTES:**
1. FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL AND CUT TO ALIGNMENT LENGTH TO AVOID JOINTS. WHERE JOINTS ARE UNAVOIDABLE, THE FABRIC SHALL BE SPLICED TOGETHER AT A SUPPORT POST BY TWISTING THE POST OF EACH RUN AROUND EACH OTHER.
 2. FILTER FABRIC SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE SUPPORT POSTS USING ONE INCH, MINIMUM, LONG HEAVY-DUTY WIRE STAPLES OR TIE WIRES WITH EIGHT INCHES, MINIMUM, OF FABRIC EXTENDED INTO THE TRENCH. DO NOT STAPLE FABRIC TO TREES.
 3. COMPACTED SOIL BACKFILL SHALL BE PLACED IN THE 4" BY 4" TRENCH ATOP THE EXTENDED FABRIC.
 4. POSTS SHALL BE CONSTRUCTED OF 2" X 2" HARDWOOD OR 2" X 4" PINE BY 60" LONG.
 5. FILTER FABRIC SHALL BE NON-WOVEN "MIRAFI 100X", "EXXON GTF 180" OR EQUAL.
 6. APPROVED PREFABRICATED UNITS INCLUDE "GEOFAB", "ENVIROFENCE", OR APPROVED EQUAL.
 7. THE MAXIMUM RUN OF SLOPE ABOVE A ROW OF SILT FENCE IS 110 FEET.



(C) TEMPORARY JERSEY BARRIER WITH SAFETY FENCE DETAIL
 NO SCALE



(D) TEMPORARY SEDIMENT TRAP
 NO SCALE

NO.	DATE	REVISION

TERRADON
 CORPORATION
 Engineering - Surveying - Landscape Architecture
 P.O. Box 519
 Nitro, West Virginia 25143
 (304) 755-8291 FAX 755-2636
 www.terradon.com

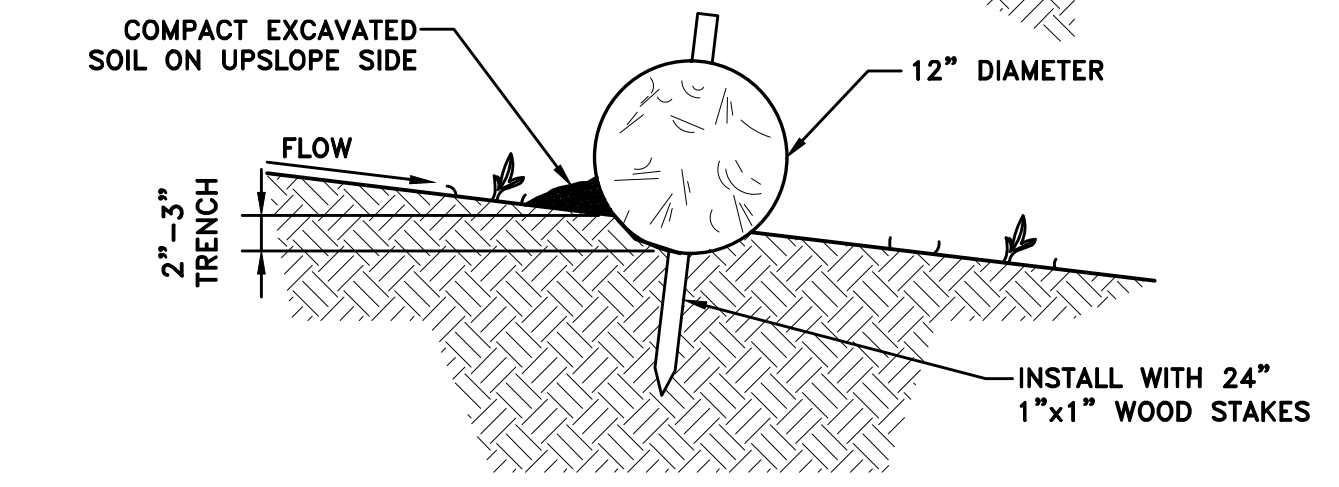
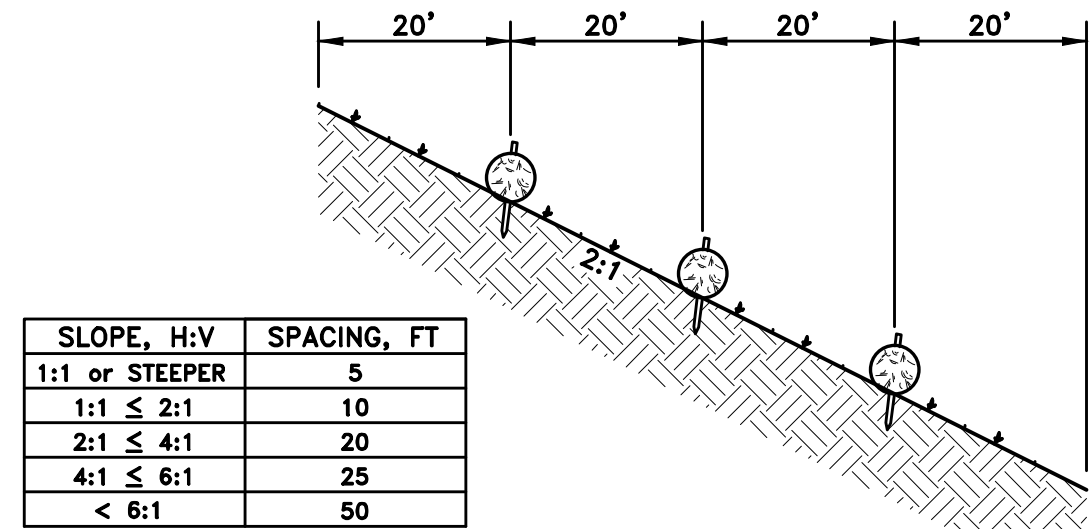
WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
 OFFICE OF ABANDONED MINE LANDS AND RECLAMATION

MISCELLANEOUS DETAILS
 LILBERN PRIT HIGHWALL
 BARBOUR COUNTY, WEST VIRGINIA

Project No.	12056-0051
Drawn:	WLG/WVDEP
Checked:	WJS
Approved:	WJS
Scale:	AS NOTED
Date:	10-6-2014
CAD File #	*-DETAILS

D1

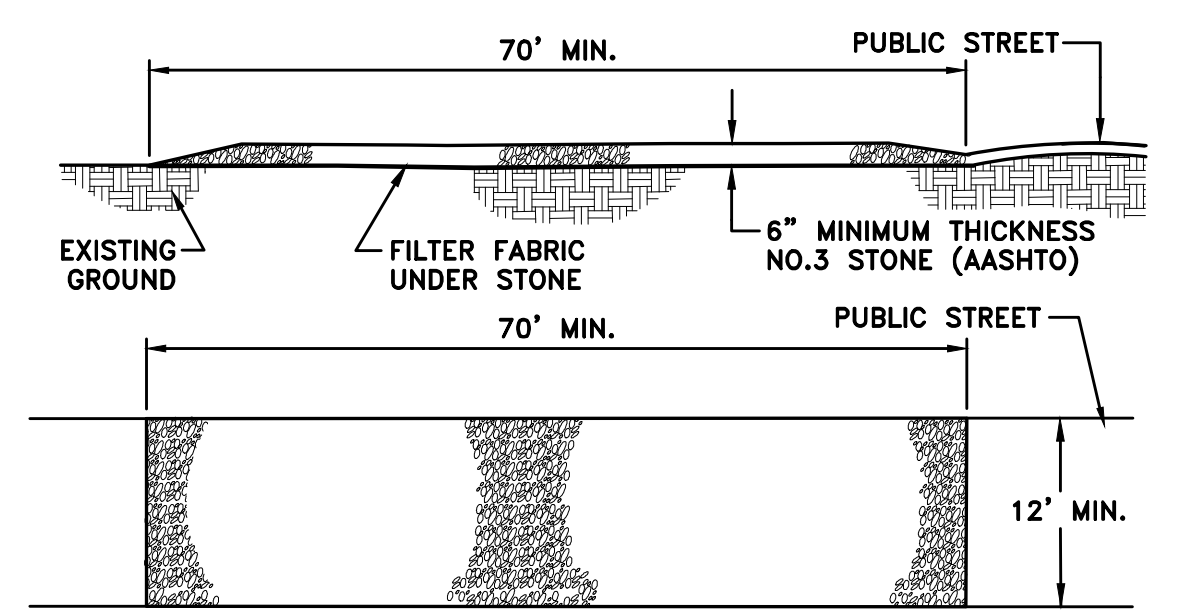
PLOT DATE : 9/29/2014 8:35 AM FILE SAVED BY :BILL.GERENCIOR ON 9/29/2014 8:35 AM P:\2012\12056-0051-TRANS-AML\XAML\DWG\PRODUCTION\SP\12056-0051-DETAILS.DWG



- NOTES:**
1. DRIVE STAKE UNTIL 2"-3" REMAINS EXPOSED.
 2. INSTALL STAKES 3'-4' APART AND PERPENDICULAR TO SLOPE FACE.
 3. ADJACENT STRAW WATTLES ARE TO ABUT TIGHTLY.
 4. STRAW WATTLES TO BE NORTH AMERICAN GREEN WS1210 OR EQUAL.

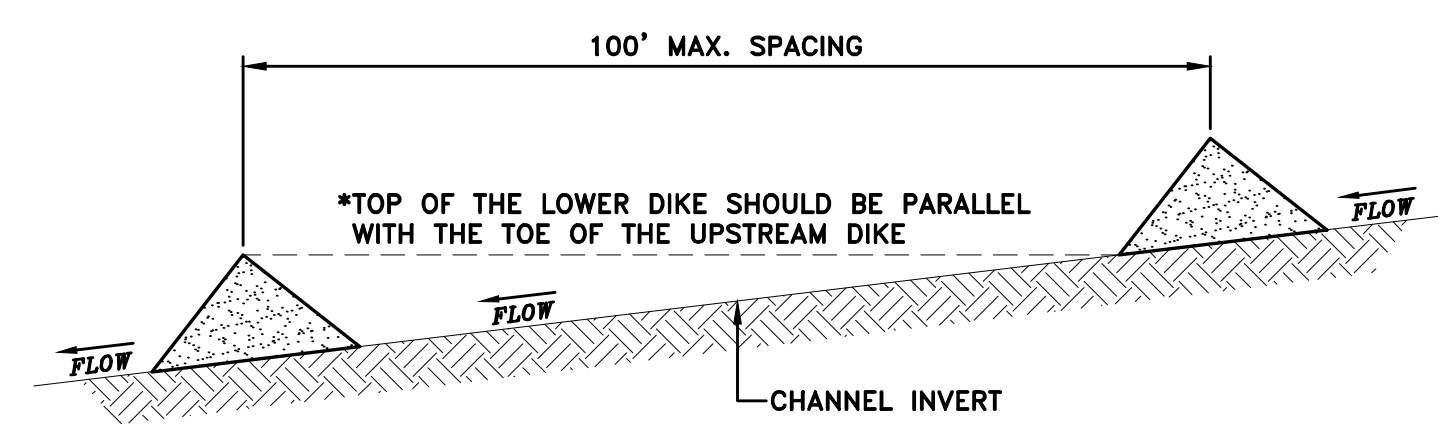
(A) TEMPORARY STRAW WATTLE ANCHORING/ENTRENCHMENT DETAIL
NO SCALE

- EROSION AND SEDIMENT CONTROL NOTES:**
1. Except as noted below, stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than four days after the construction activity in that portion of the site has permanently ceased.
 2. Where the initiation of stabilization measures by the fourth day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as conditions allow.
 3. Where construction activity will resume on a portion of the site within 14 days from when activities ceased, (e.g., the total time period that construction activity is temporarily halted is less than 14 days) then stabilization measures do not have to be initiated on that portion of the site by the seventh day after construction activities have temporarily ceased.
 4. Areas where the seed has failed to germinate adequately (uniform perennial vegetative cover with a density of 70%) within 30 days after seeding and mulching must be reseeded immediately, or as soon as weather conditions allow.
 5. Diversions must be stabilized prior to becoming functional.
 6. At a minimum, all erosion and sediment controls on the site will be inspected at least once every seven calendar days and within 24 hours after any storm event of greater than 0.5 inches of rain per 24-hour period.

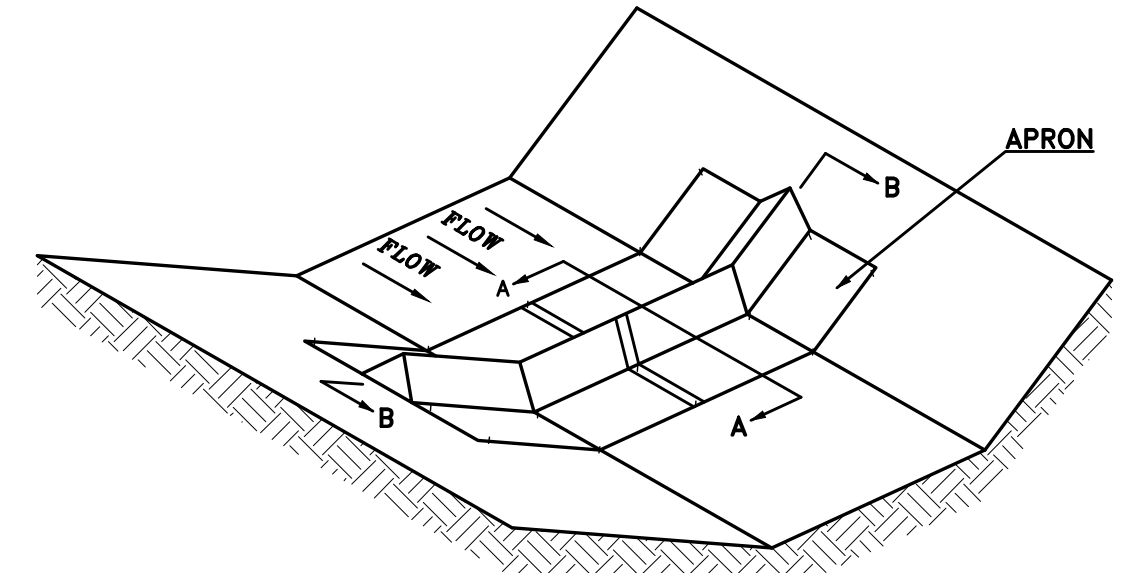


- NOTES:**
1. A STABILIZED ENTRANCE PAD OF WASHED STONE SHALL BE LOCATED WHERE TRAFFIC WILL LEAVE OR ENTER THE CONSTRUCTION SITE ONTO A PUBLIC ROAD.
 2. FILTER FABRIC OR CRUSHER RUN MAY BE USED AS A BASE COURSE FOR THE CONSTRUCTION ENTRANCE.
 3. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS WARRANT AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 4. ANY SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC STREETS MUST BE REMOVED IMMEDIATELY.
 5. WHEN APPROPRIATE, WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING A PUBLIC STREET.

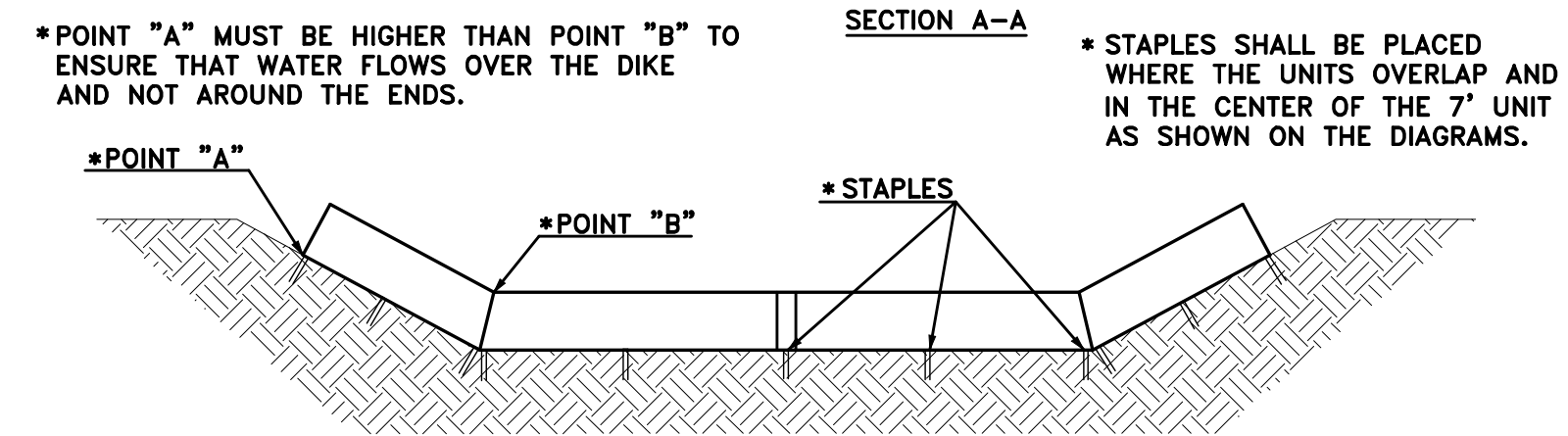
(B) TEMPORARY STABILIZED CONSTRUCTION ENTRANCE DETAIL
NO SCALE



TYPICAL SPACING DIAGRAM



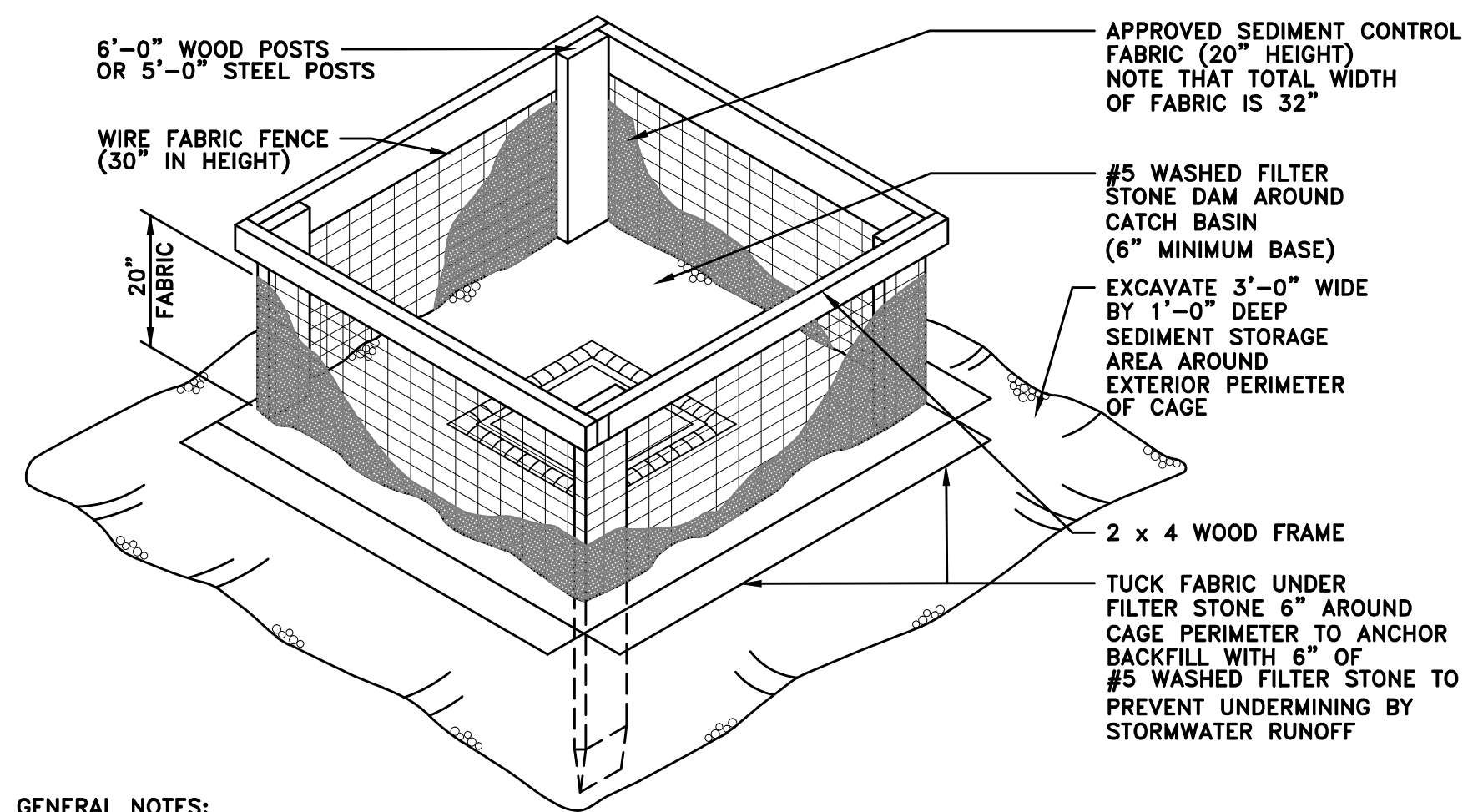
CUT SECTION



SECTION A-A

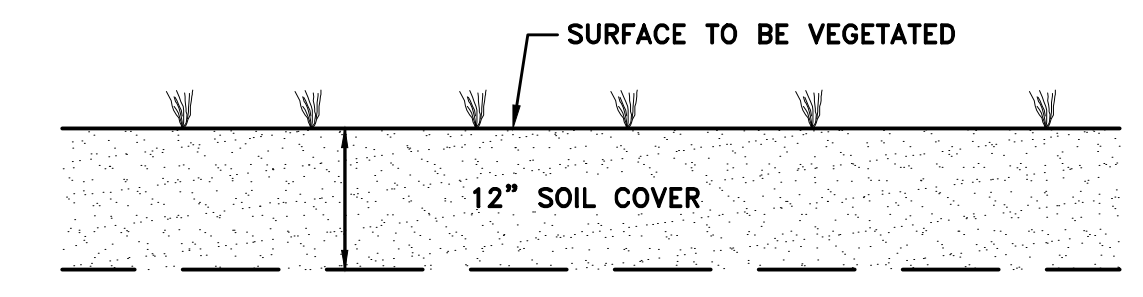
- NOTES:**
1. BY ACF ENVIRONMENTAL TRISILT7 OR EQUAL.
 2. CONTRACTOR TO REMOVE AFTER VEGETATION HAS BEEN ESTABLISHED. SILT DIKE CAN THEN BE REUSED IN ALTERNATE LOCATION.
 3. CONTRACTOR TO MAINTAIN ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

(C) TEMPORARY TRIANGULAR SILT DIKE
NO SCALE



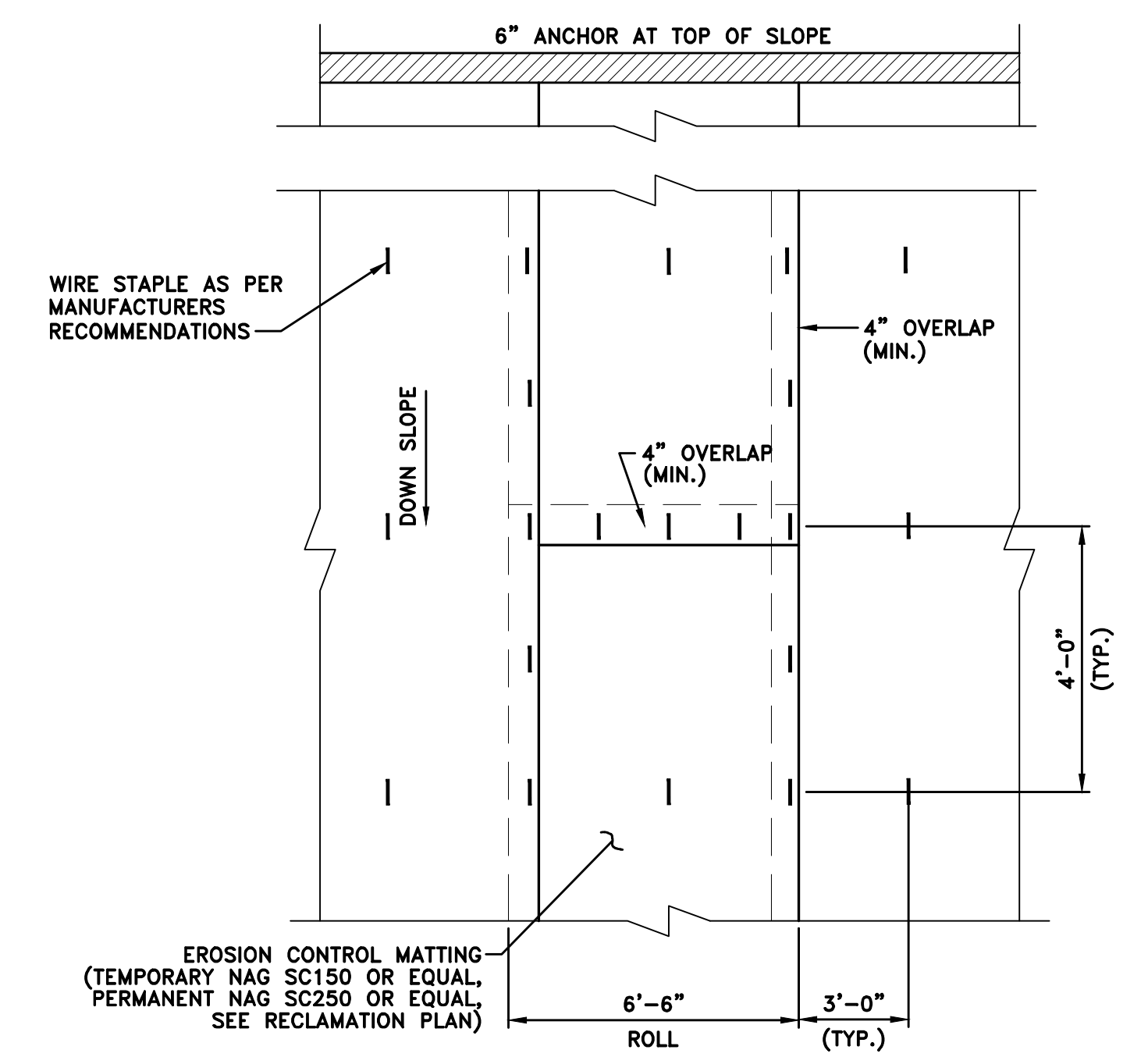
- GENERAL NOTES:**
1. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
 2. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
 3. THE SEDIMENT TRAP SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
 4. MINIMUM STAKE LENGTH SHALL BE 3' LONG.

(D) TEMPORARY INLET PROTECTION DETAIL
NOT TO SCALE

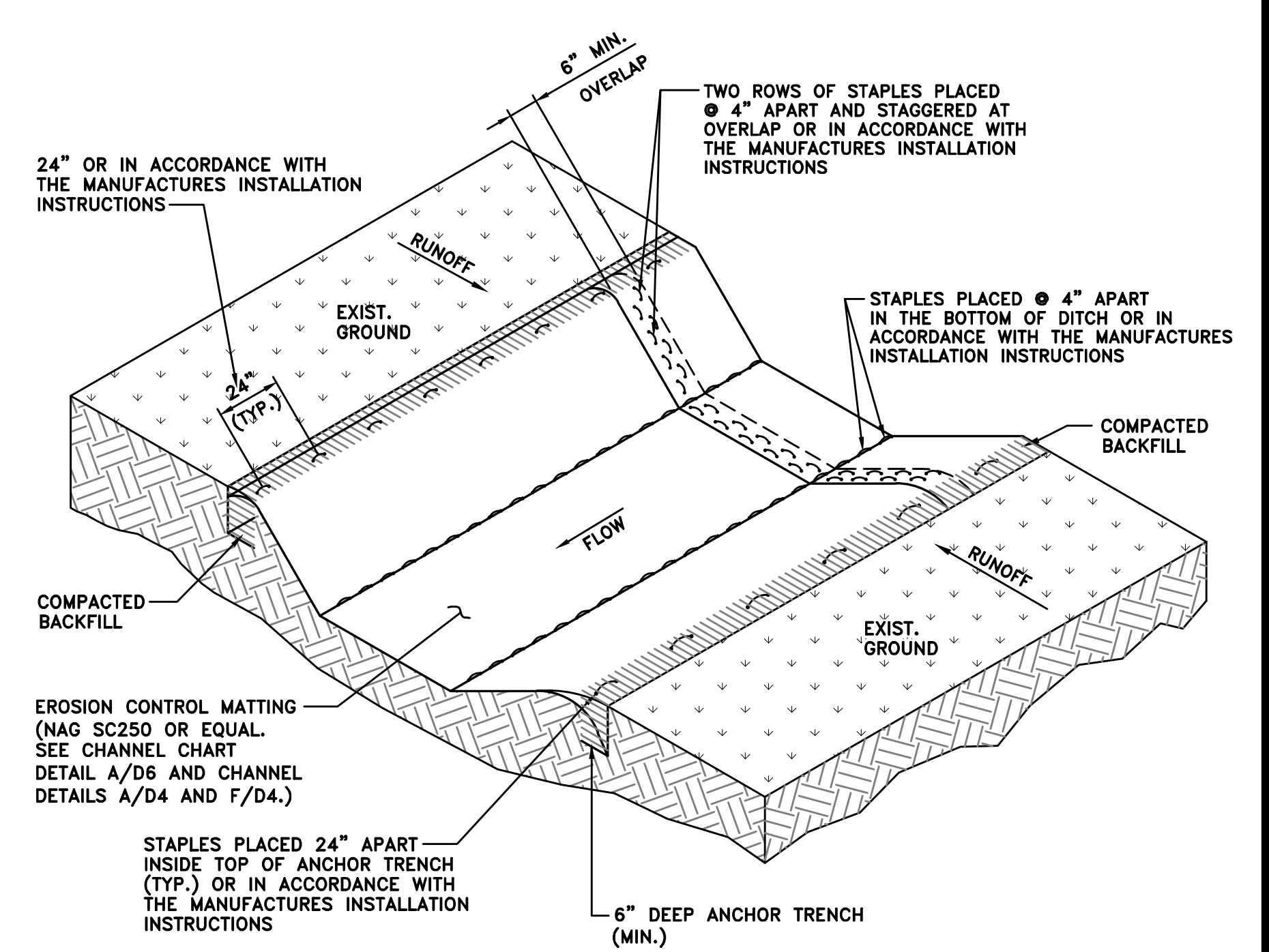


- NOTES:**
1. REGRADED OR BARE AREAS WITHIN THE LIMITS OF CONSTRUCTION SHALL RECEIVE A 12" SOIL COVER LAYER.
 2. SOIL COVER THICKNESS UNDER CHANNELS SHALL BE 15" MIN.

(E) SOIL COVER DETAIL
NO SCALE



(F) SLOPE PROTECTION TEMPORARY OR PERMANENT EROSION CONTROL MATTING DETAIL
NO SCALE



- NOTES:**
1. SEED, LIME, & FERTILIZE DITCH IMMEDIATELY BEFORE DEPLOYING EROSION CONTROL MATTING.
 2. 8" 9 GA. "U" STAPLES TO BE USED IN LOOSE OR ROCKY SOILS OR IN ACCORDANCE WITH THE MANUFACTURES INSTALLATION INSTRUCTIONS

(G) CHANNEL EROSION CONTROL MATTING DETAIL
NO SCALE

NO.	DATE	REVISION

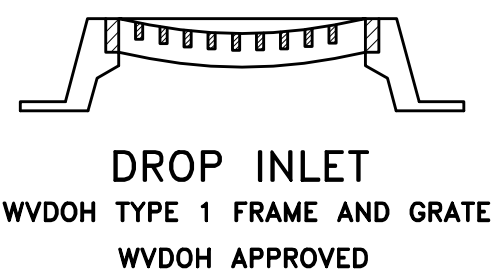
TERRADON
CORPORATION
Engineering - Surveying - Landscape Architecture
P.O. Box 519
Nitro, West Virginia 25143
(304) 755-8291 FAX 755-2636
www.terradon.com

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ABANDONED MINE LANDS AND RECLAMATION
MISCELLANEOUS DETAILS
LILBERN PRITT HIGHWALL
BARBOUR COUNTY, WEST VIRGINIA

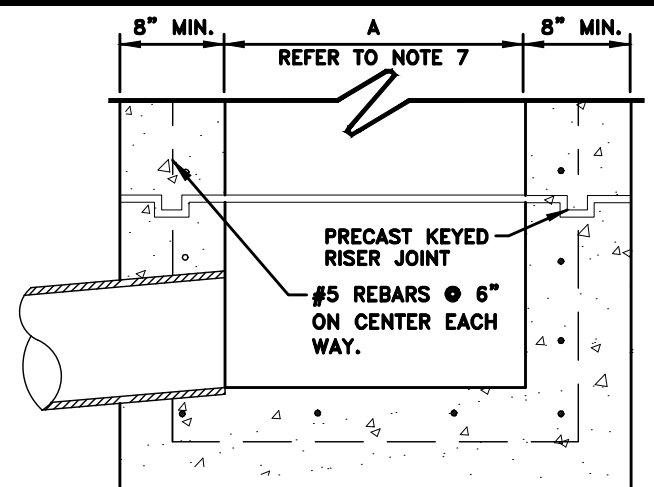
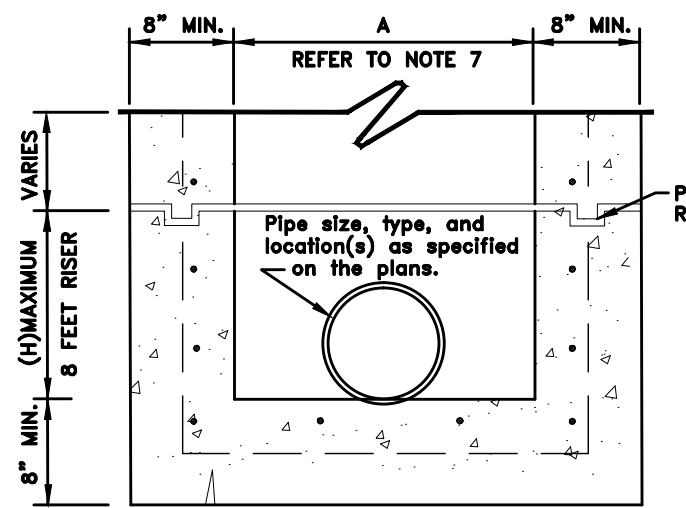
Project No.	12056-0051
Drawn:	WLG/WVDEP
Checked:	WJS
Approved:	WJS
Scale:	AS NOTED
Date:	10-6-2014
CAD File #	*-DETAILS

D2

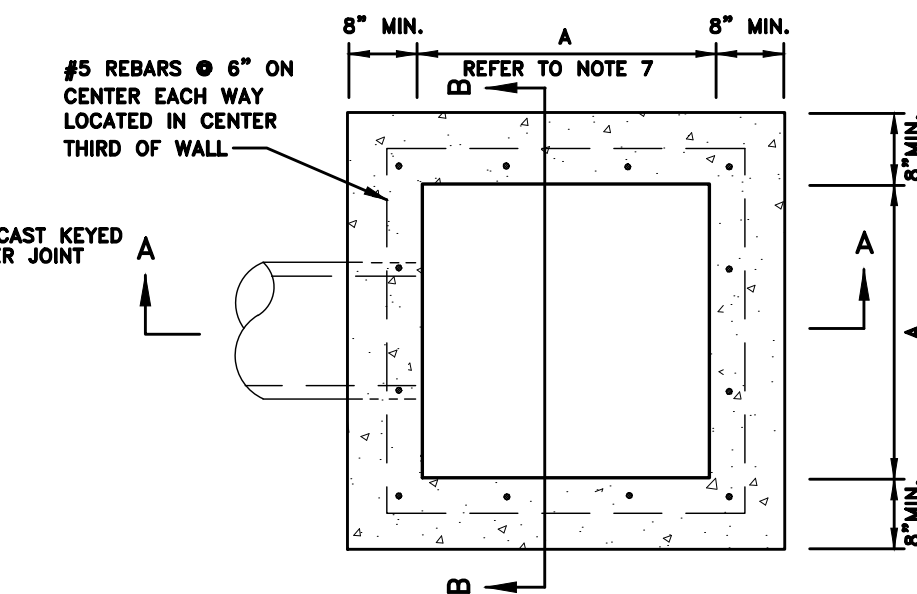
PLOT DATE : 9/29/2014 8:36 AM FILE SAVED BY :BILL.GERENCIOR ON 9/29/2014 8:35 AM P:\2012\12056-0051\TRANS-AML\DWG\PRODUCTION\SP\12056-0051-DETAILS.DWG



DIMENSION "A"
G INLET 1B-1 = 4'-0"



SIDE SECTION A-A

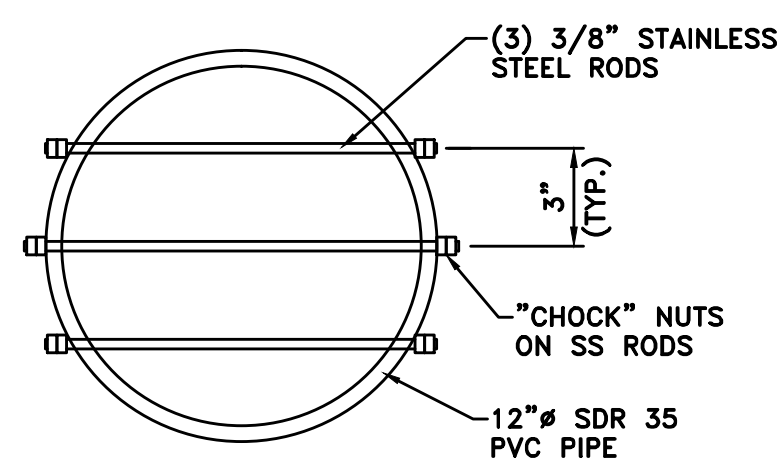


PLAN

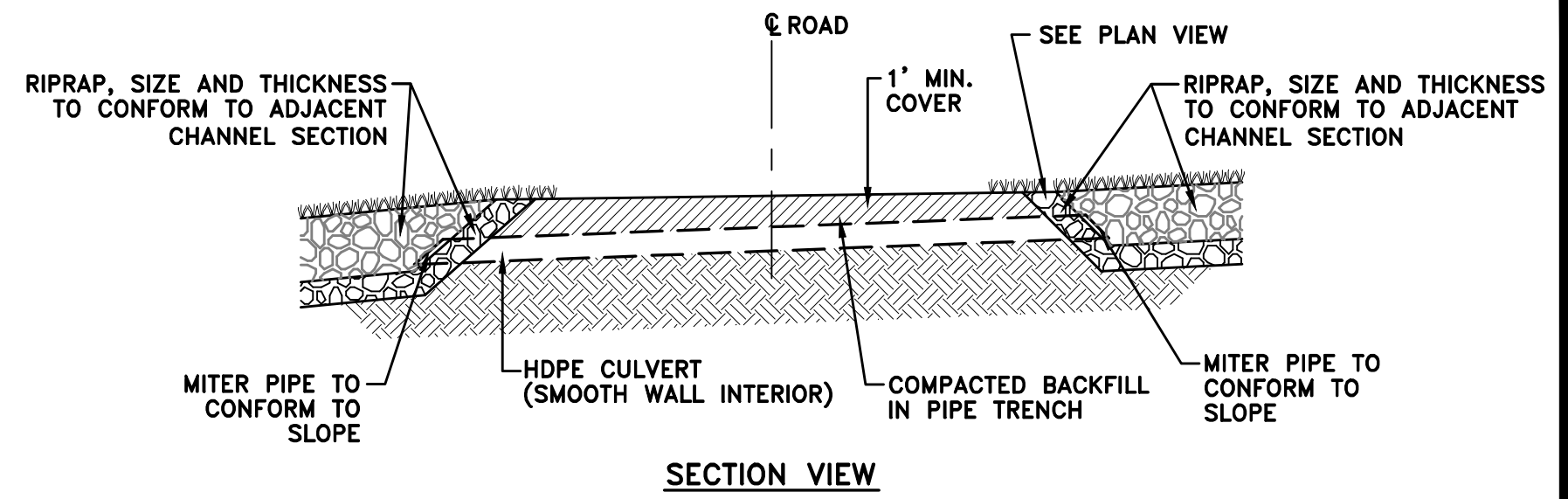
A WVDOH TYPE G INLET
NO SCALE

DRAINAGE STRUCTURE NOTES

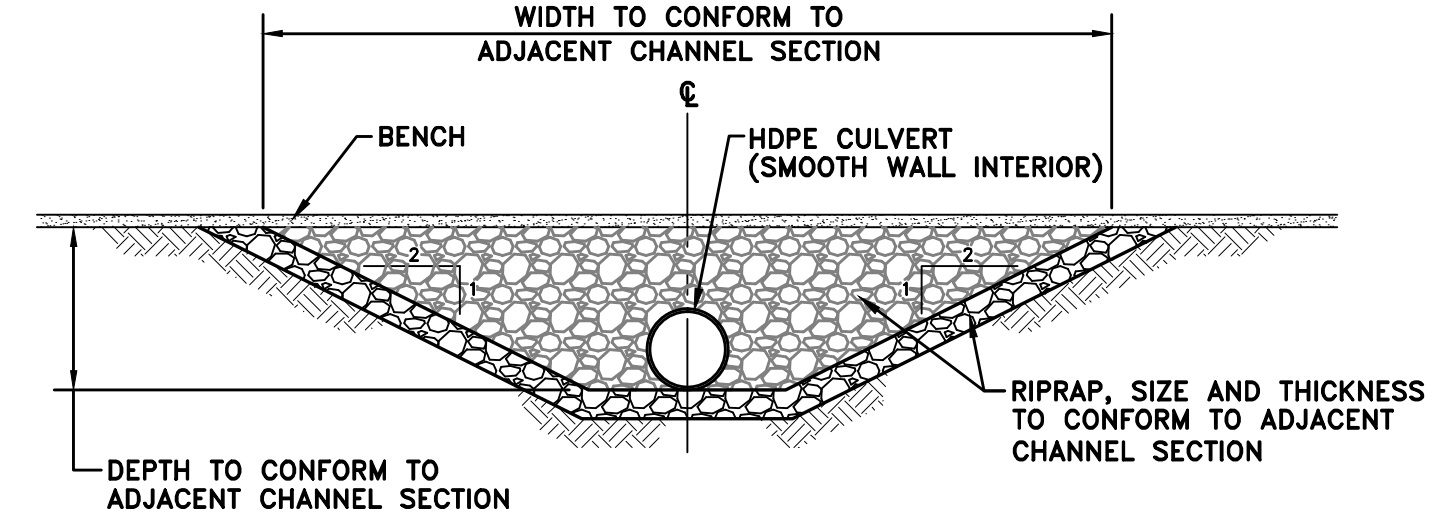
1. CONCRETE MINIMUM COMPRESSIVE STRENGTH SHALL BE 4500 PSI.
2. ALL REINFORCING STEEL SHALL MEET ASTM A615 FOR GRADE 60. WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185.
3. MAXIMUM DEPTH TO TOP OF BOTTOM SLAB SHALL BE LIMITED TO 15'-0".
4. LIFT HOLES OR PINS SHALL BE IN ACCORDANCE WITH OSHA STANDARD 1926.704.
5. PRECAST STRUCTURES OVER 4'-0" IN DEPTH SHALL BE PROVIDED WITH STEPS/LADDER INSTALLED IN ACCORDANCE WITH WVDOH STANDARDS AND AS FIELD CONDITIONS DICTATE.
6. JOINTS SHALL BE SEALED WITH APPROVED SEALANTS.
7. MAXIMUM STRUCTURE SIZE SHALL BE LIMITED TO INSIDE CLEAR SPACE NEEDED TO HOUSE PIPING.
8. MINIMUM STRUCTURE SIZE SHALL BE THE OUTSIDE PIPE DIAMETER ON A GIVEN SKEW PLUS 2" OR THE OPENING REQUIRED FOR FRAME AND GRATE WHICHEVER IS GREATER.
9. IN CURB AND GUTTER LINES, USE WVDOH STANDARD FRAME AND GRATE HOOD. SEE WVDOH ROADWAY DESIGN MANUAL.
10. USE WVDOH HEAVY DUTY TRAFFIC FRAME AND GRATE DROP INLET OR CURB BOX THAT IS PEDESTRIAN AND BICYCLE SAFE. SEE PLAN FOR APPLICABLE TYPE AT EACH LOCATION.
11. THE TOP OF THE INLET AND GRATE SHALL CONFORM TO THE ELEVATION AND SLOPES OF THE PAVEMENT UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE PROJECT ENGINEER.
12. PC (MINIMUM PIPE COVER) SHALL BE 12" BELOW INLET TOP FOR PIPES PLACED UNDER SIDEWALK OR GRASSED AREA OR 24" BELOW INLET TOP FOR PIPES PLACED UNDER PAVEMENT OR SHOULDER.
13. GROUT INSIDE AND OUTSIDE BOX AT PIPE/CB JOINTS WITH NON-SHRINK GROUT.
14. DRILL TWO (2) 1" DIA. WEEP HOLES IN EACH SIDE OF CATCH BASIN WALLS AT PAVEMENT SUBGRADE ELEVATION TO HELP ALLEVIATE SUBSURFACE WATER.



(D) 12" ANIMAL BARRIER DETAIL
NO SCALE

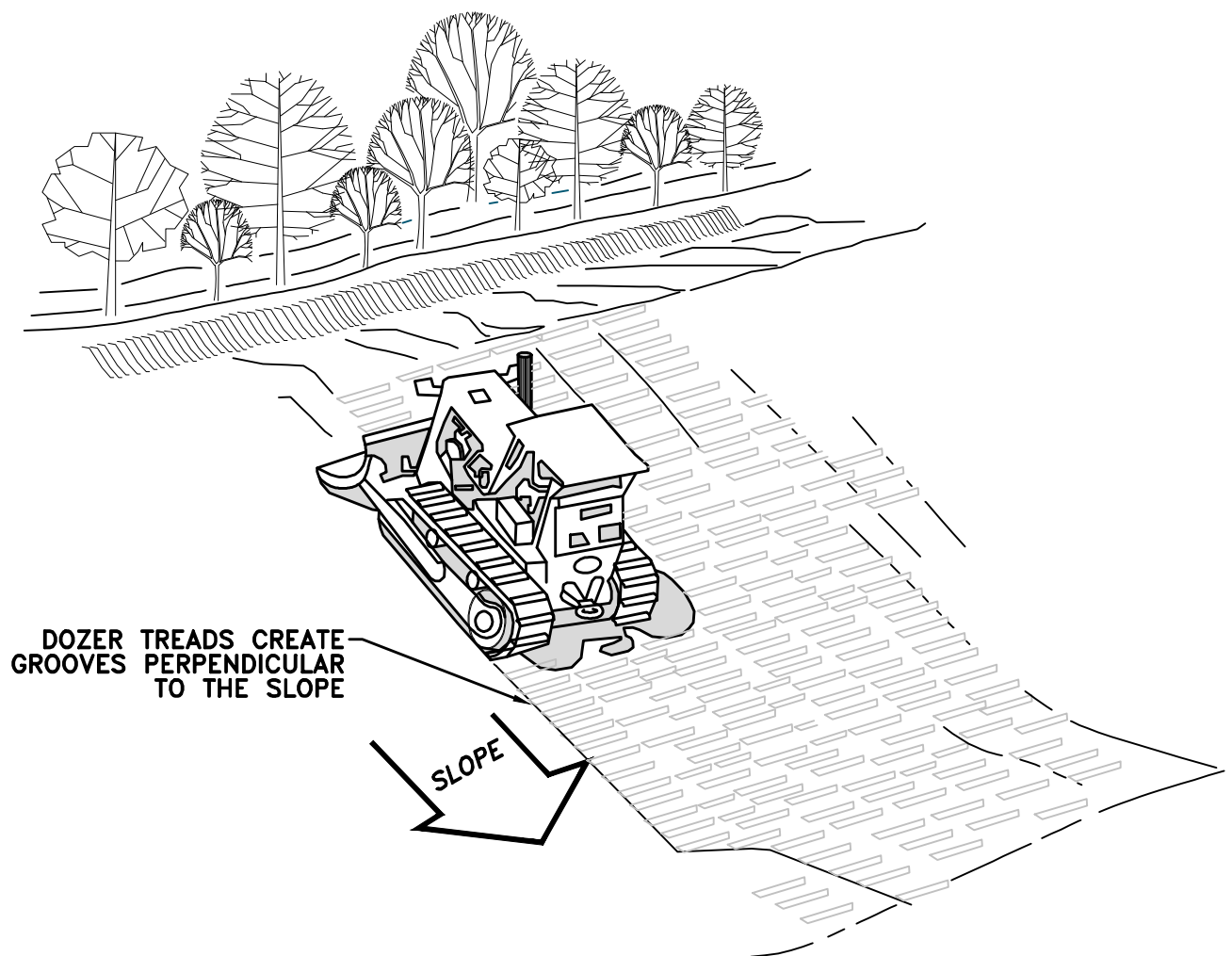


SECTION VIEW

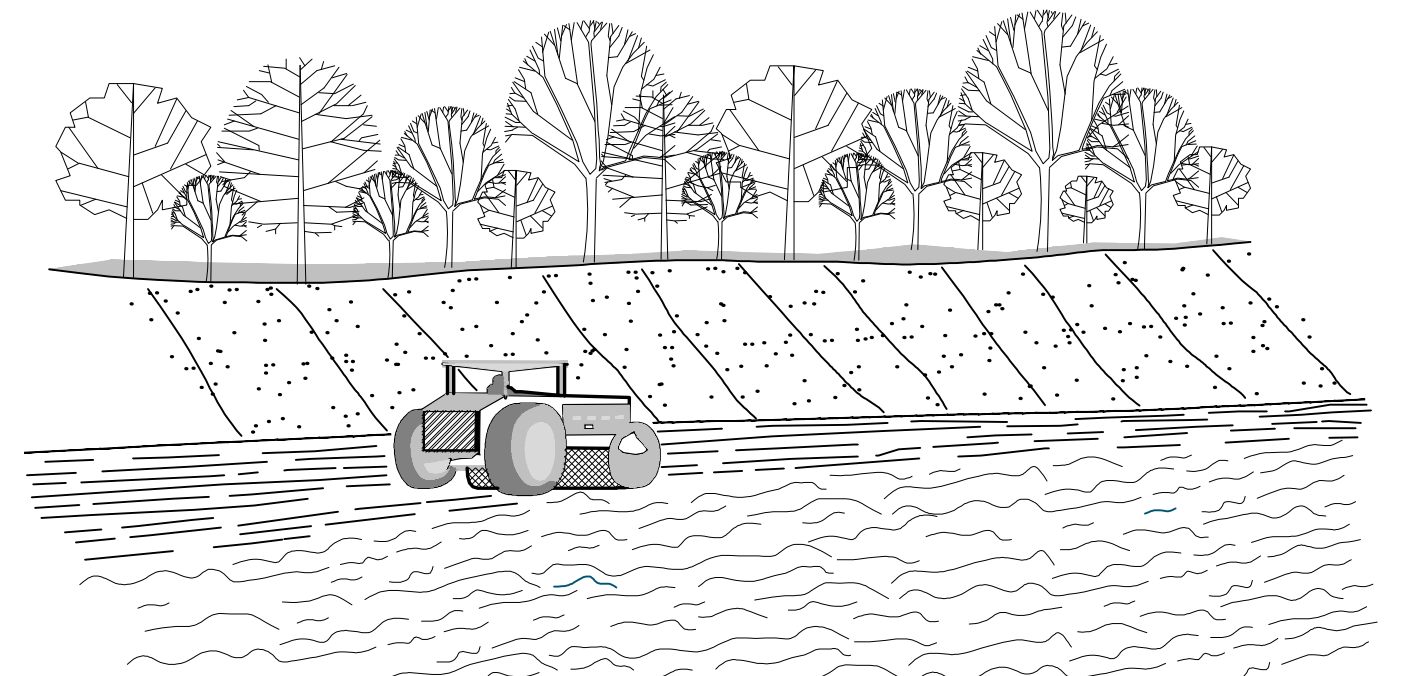


END VIEW

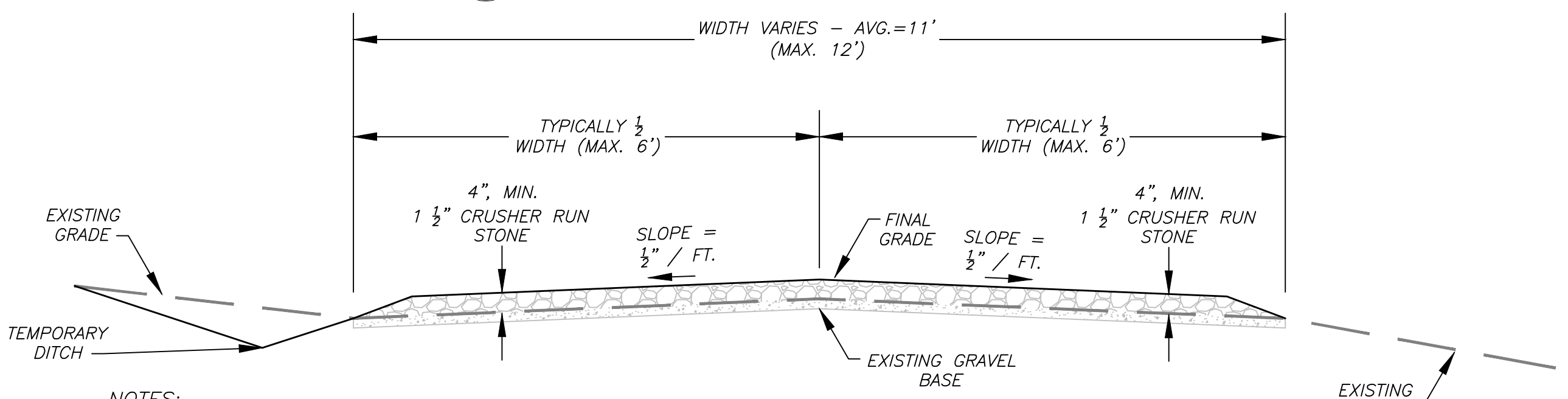
(G) RIPRAP HEADWALL DETAIL
NO SCALE



(E) TRACKING DETAIL
NO SCALE



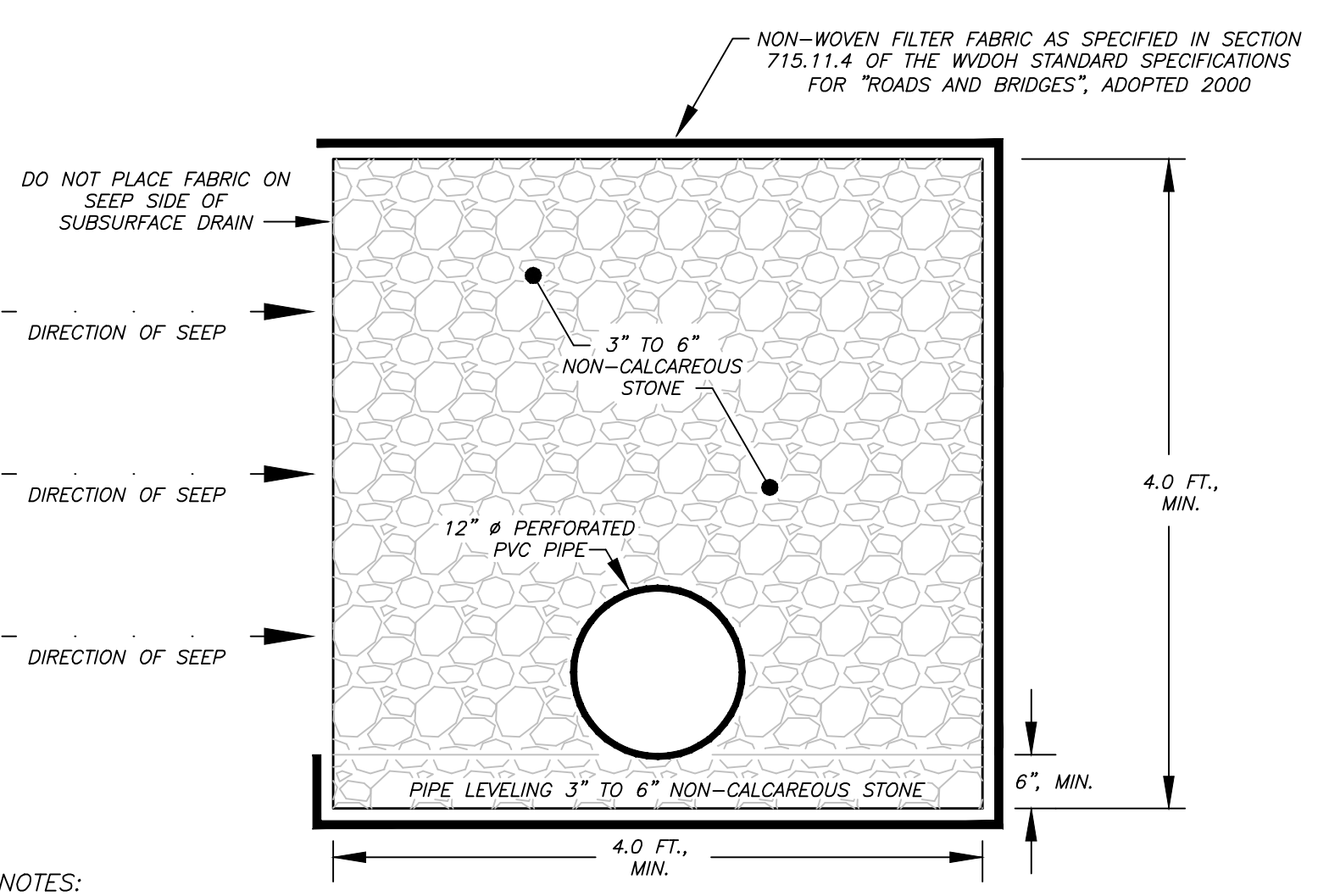
(H) FILL SLOPE TREATMENT DETAIL
NO SCALE



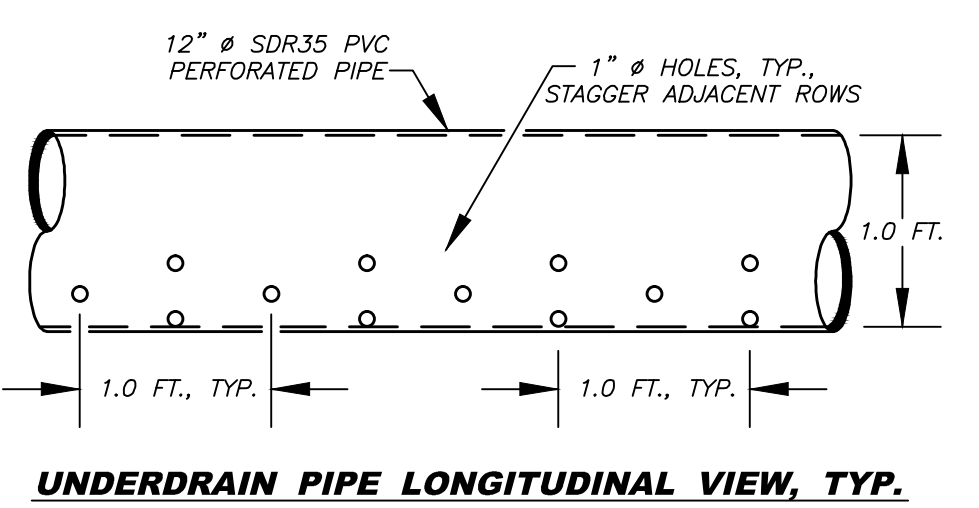
(B) GRAVEL ACCESS ROAD REHABILITATION DETAIL
NO SCALE

NOTES:

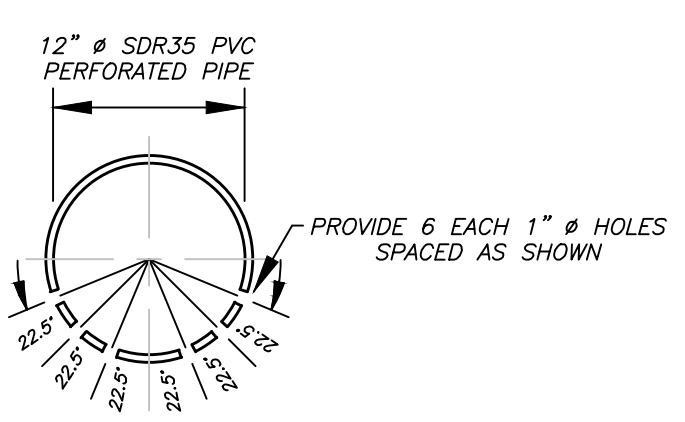
1. PRIOR TO STONE PLACEMENT, REGRADE EXISTING ROADWAY INTO "CROWNED" OR "SLOPE TO DITCH" CONFIGURATION AS DIRECTED BY THE ENGINEER. REMOVE, REFILL, AND COMPACT SOFT SPOTS AS DIRECTED BY THE ENGINEER. ALL CUT/FILL SLOPES SHALL BE 2H:1V.
2. 1 1/2" CRUSHER RUN STONE SHALL MEET THE GRADATION REQUIREMENTS FOR CLASS 1 AGGREGATE IN TABLE 704.6.2A OF THE WVDOH STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.



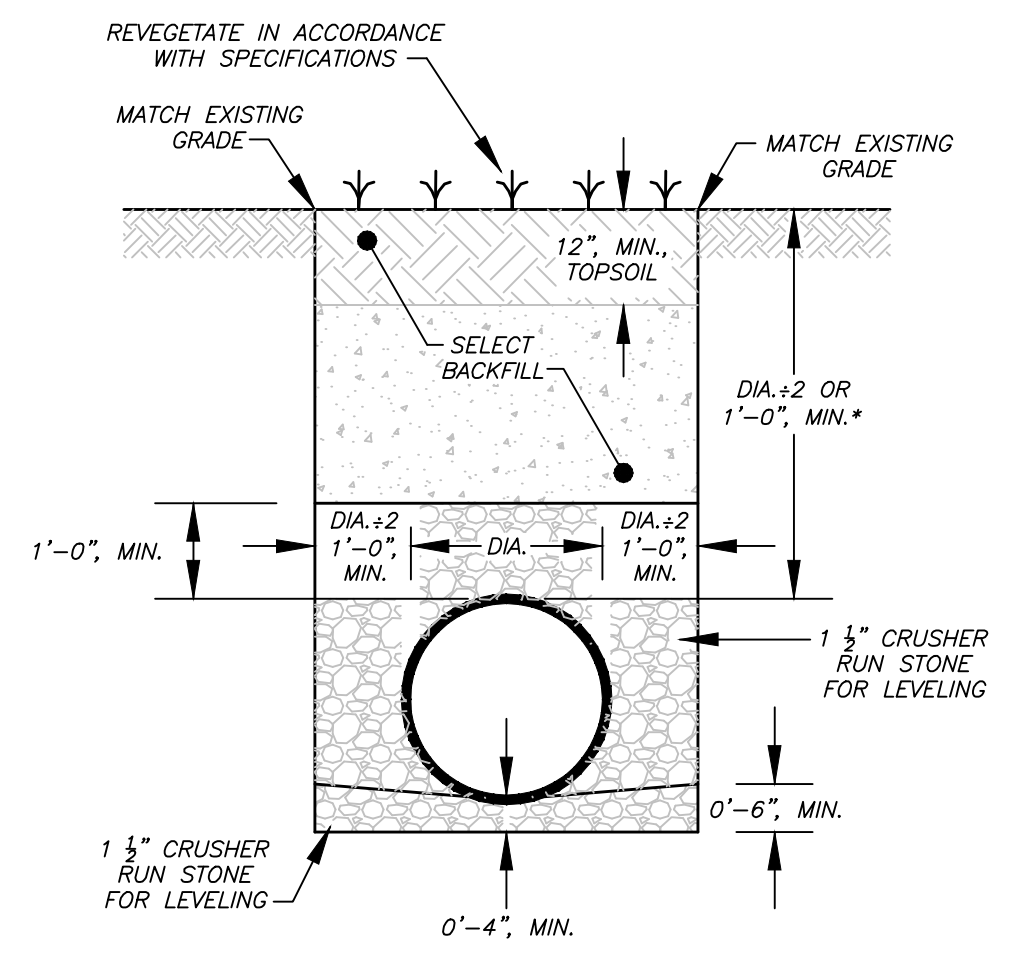
(C) UNDERDRAIN DETAIL
NO SCALE



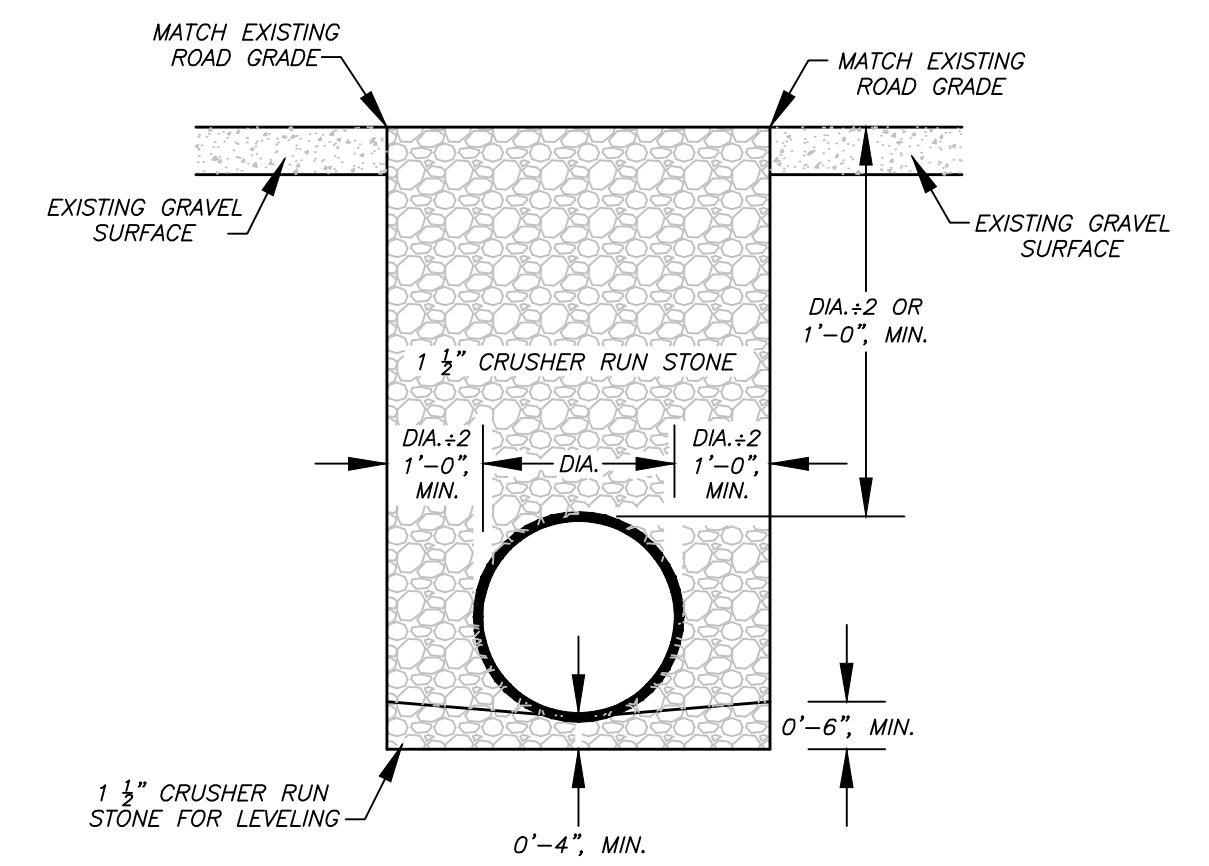
UNDERDRAIN PIPE LONGITUDINAL VIEW, TYP.



UNDERDRAIN PIPE CROSS SECTION, TYP.



(F) PIPE TRENCH DETAIL (VEGETATED SURFACE)
NO SCALE



(I) PIPE TRENCH DETAIL (AGGREGATE SURFACE)
NO SCALE

- NOTES:**
1. THE FILTER FABRIC SHALL BE OVERLAPPED 1.0 FOOT, MINIMUM, AT ALL JOINTS.

- NOTES:**
1. *SHOULD DIA. + 2 BE EQUAL TO 1'-0", THEN CRUSHER RUN STONE GOES ALL THE WAY TO SURFACE.
 2. 1 1/2" CRUSHER RUN STONE SHALL MEET THE GRADATION REQUIREMENTS FOR CLASS 1 AGGREGATE IN TABLE 704.6.2A OF THE WVDOH STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

- NOTES:**
1. 1 1/2" CRUSHER RUN STONE SHALL MEET THE GRADATION REQUIREMENTS FOR CLASS 1 AGGREGATE IN TABLE 704.6.2A OF THE WVDOH STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

NO.	DATE	REVISION

TERRADON
CORPORATION
Engineering - Surveying - Landscape Architecture
P.O. Box 519
Nitro, West Virginia 25143
(304) 755-8291 FAX 755-2636
www.terradon.com

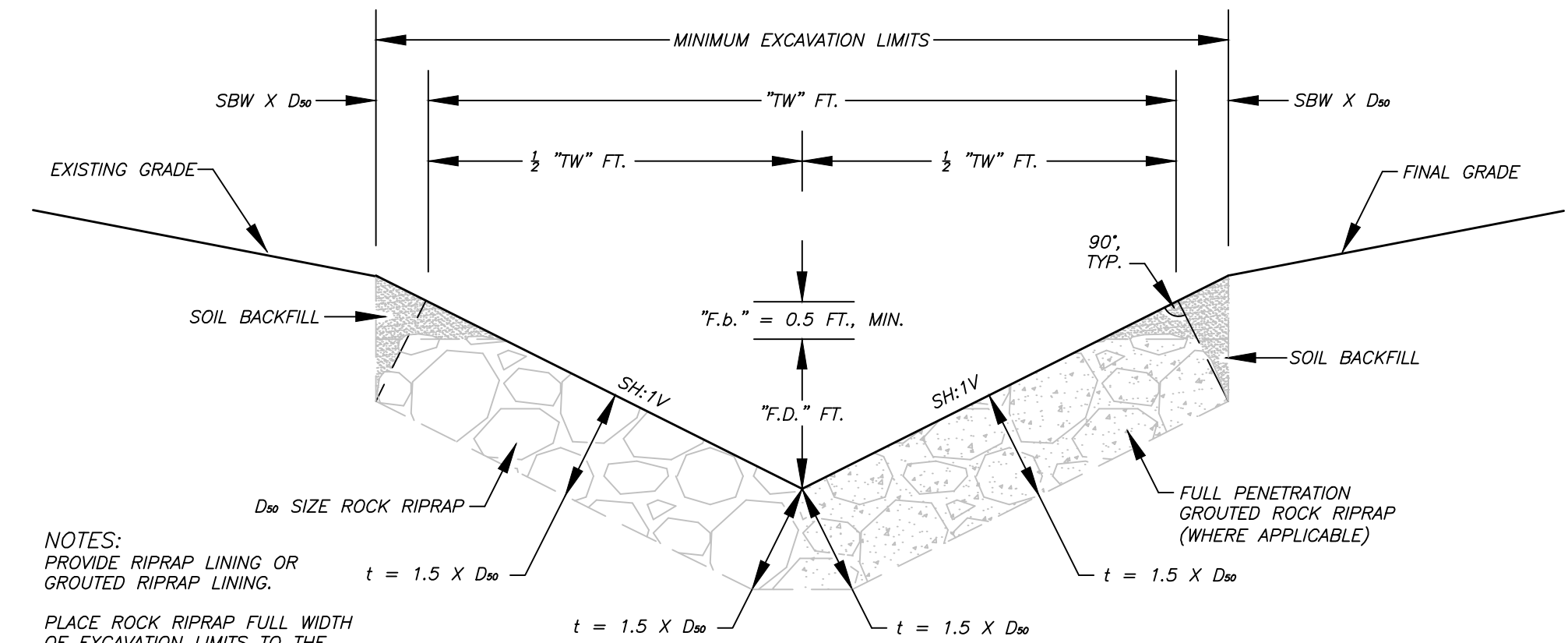
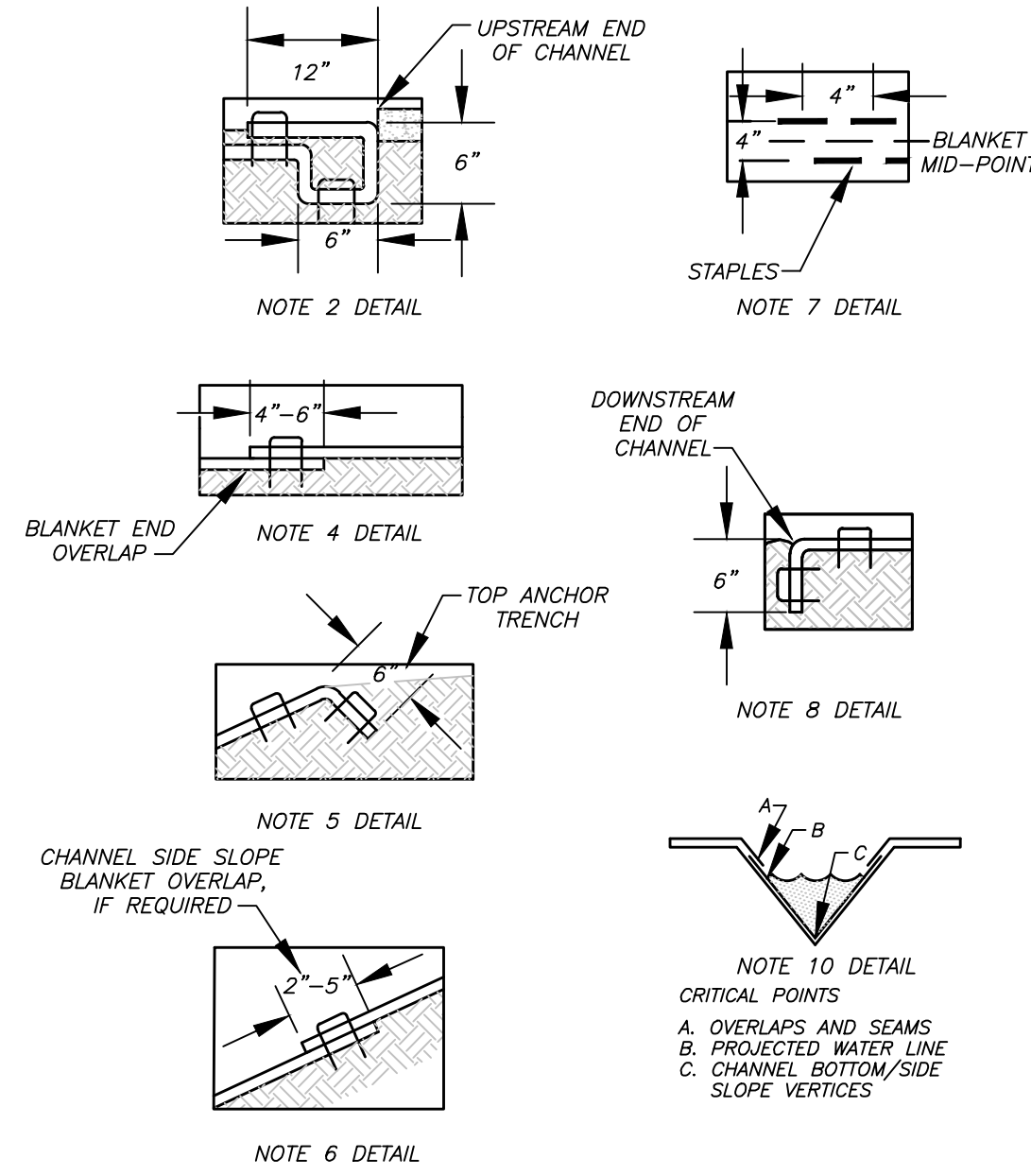
WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ABANDONED MINE LANDS AND RECLAMATION
MISCELLANEOUS DETAILS
LILBERN PRITT HIGHWALL
BARBOUR COUNTY, WEST VIRGINIA

Project No.	12056-0051
Drawn:	WLG/WVDEP
Checked:	WJS
Approved:	WJS
Scale:	AS NOTED
Date:	10-6-2014
CAD File #	*-DETAILS

D3

NOTES:

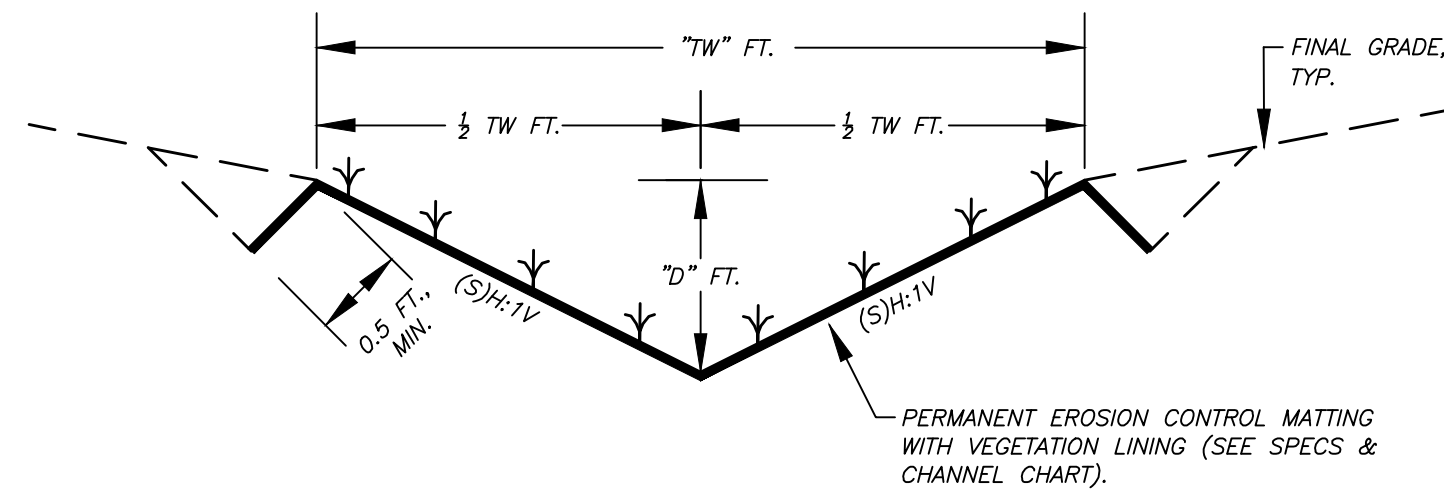
- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
- BEGIN AT THE UPSTREAM END THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" ACROSS THE WIDTH OF THE BLANKET.
- ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
- PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4" - 6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE BLANKETS.
- FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2" - 5" (DEPENDING ON BLANKET TYPE) AND STAPLED.
- IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
- THE DOWNSTREAM END OF THE CHANNEL BLANKET MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- IN LOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE REQUIRED TO PROPERLY ANCHOR THE BLANKET.
- HORIZONTAL STAPLE SPACING SHOULD BE ALTERED, IF NECESSARY, TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.
- PERMANENT SEED MIXTURE, IN ACCORDANCE WITH THE SPECIFICATIONS, SHALL BE USED FOR VEGETATED CHANNELS EXCEPT CROWNVEITCH (CORONILLA VARIA) AT 20 LBS./AC. SHALL BE SUBSTITUTED FOR BIRDSFOOT TREFOIL.
- "TW" = TOP WIDTH
"D" = DEPTH
"S" = SIDE SLOPE



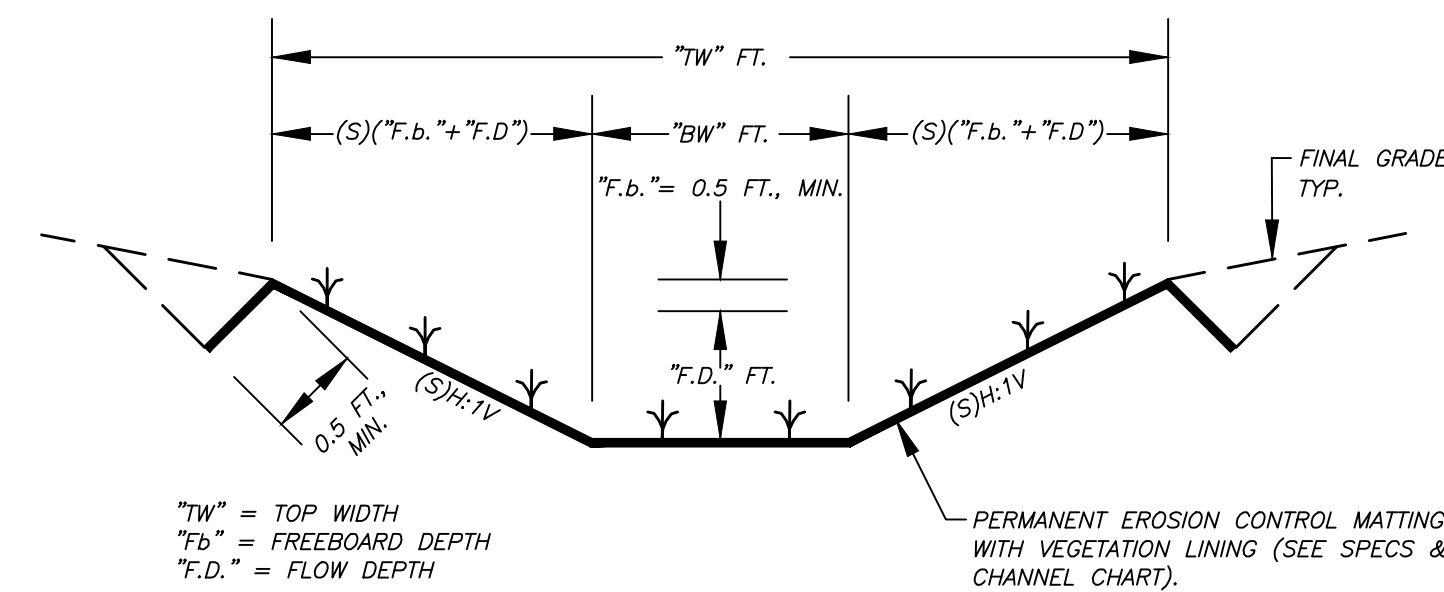
- NOTES:
PROVIDE RIPRAP LINING OR GROUTED RIPRAP LINING.
PLACE ROCK RIPRAP FULL WIDTH OF EXCAVATION LIMITS TO THE DESIGNED FLOW DEPTH (FD).
"TW" = TOP WIDTH
"Fb" = FREEBOARD DEPTH
"F.D." = FLOW DEPTH
"t" = THICKNESS
"SBW" = SOIL BACKFILL WIDTH

ROCK RIPRAP SIZING	
GRADATION	D ₅₀ = 12"
50%	12" - 18"
35%	6" - 12"
15%	3" - 6"

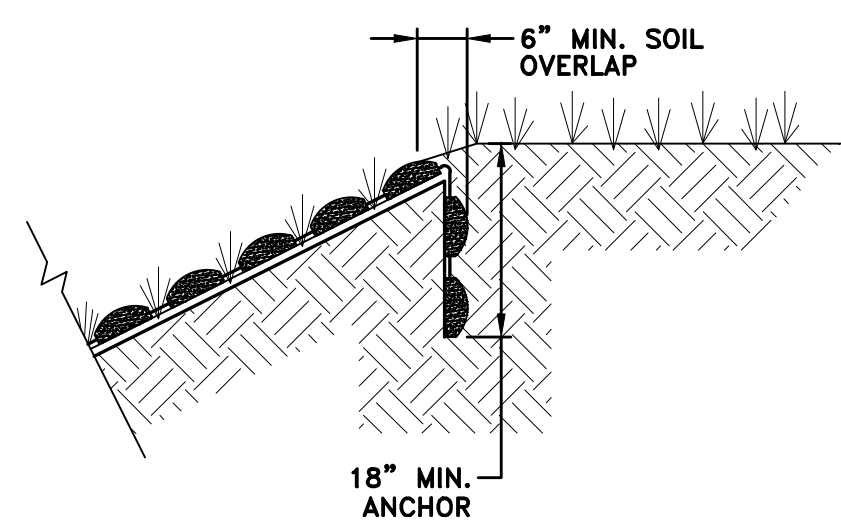
E RIPRAP "VEE" CHANNEL DETAIL (TYPE IV)
NO SCALE



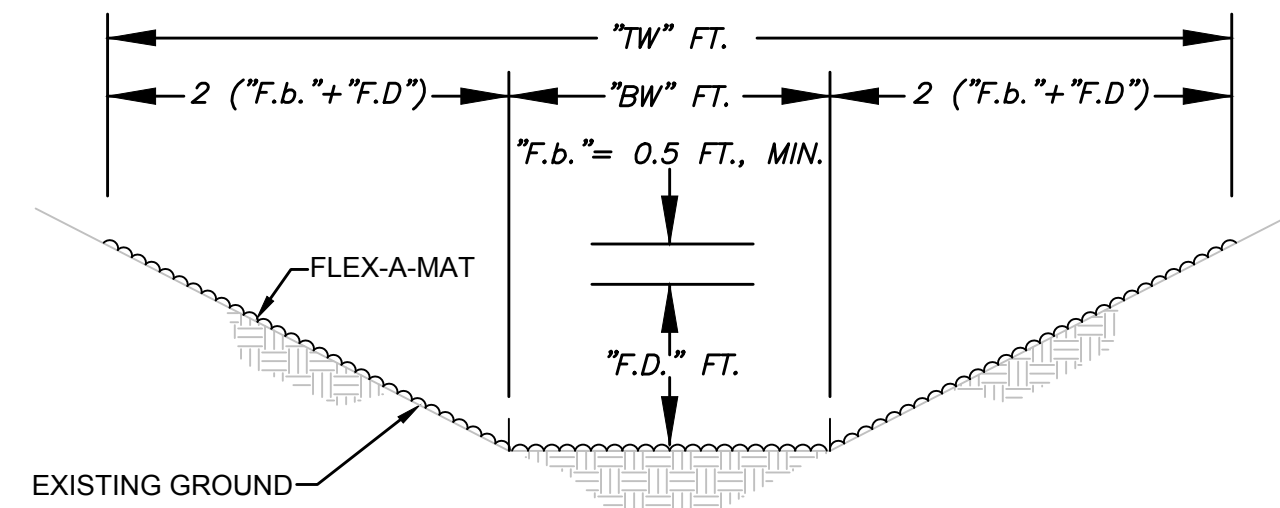
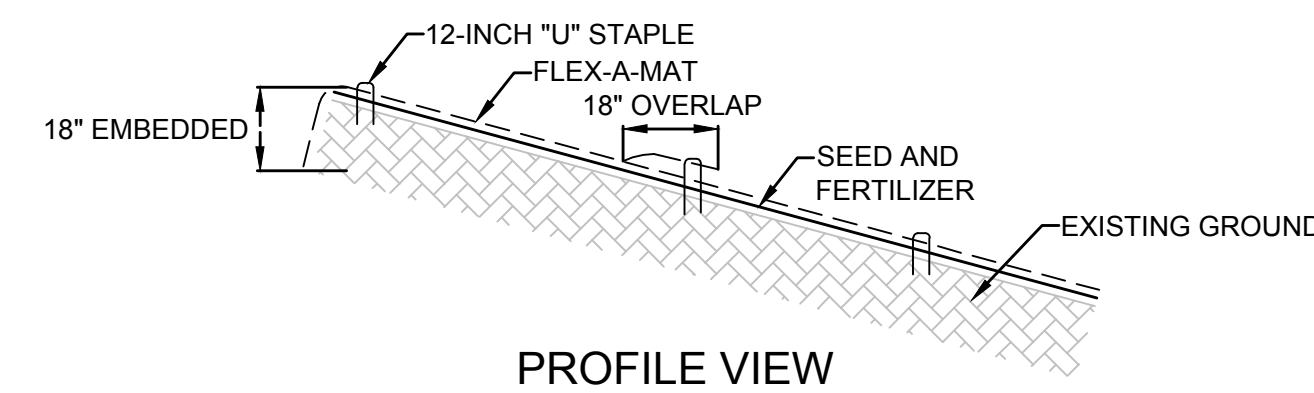
A VEGETATED "VEE" CHANNEL DETAIL (TYPE I)
NO SCALE



B VEGETATED "TRAPEZOIDAL" CHANNEL DETAIL (TYPE II)
NO SCALE



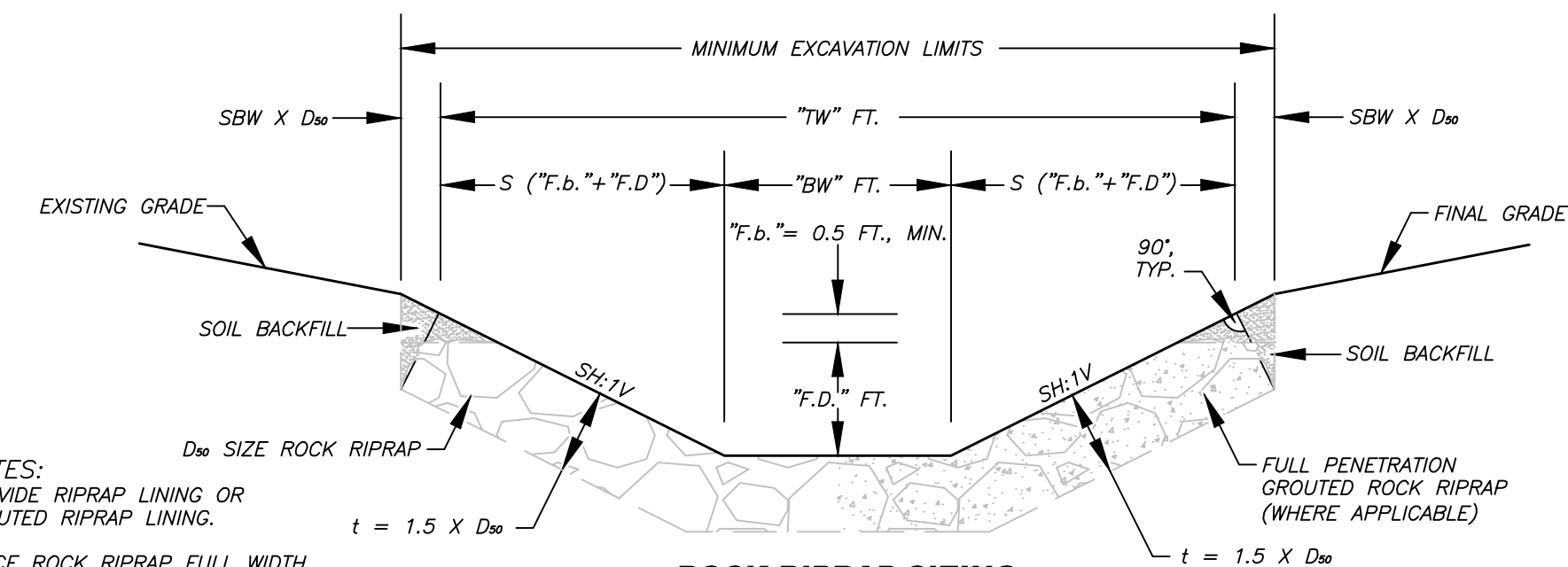
C TIED CONCRETE BLOCK MAT ANCHOR DETAIL
NO SCALE



CROSS SECTION VIEW

D TIED CONCRETE BLOCK MAT CHANNEL DETAIL (TYPE III)
NO SCALE

- CONSTRUCTION NOTES:
- PREPARE SUB GRADE AS DETAILED ON THE PLANS. ALL SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND FREE OF ALL ROCKS, STICKS, ROOTS, OTHER PROTRUSIONS, OR DEBRIS OF ANY KIND. THE PREPARED SURFACE SHALL PROVIDE A FIRM UNYIELDING FOUNDATION FOR THE MATS WITH NO SHARP OR ABRUPT CHANGES OR BREAKS IN THE GRADE.
 - SILT CHECKS SHALL BE INSTALLED EVERY 15' OF CHANNEL. SILT CHECKS CONSIST OF AN 80Z NONWOVEN FABRIC KNIFED INTO THE GROUND. THE NONWOVEN FABRIC IS 36" WIDE AND LAID ACROSS THE CHANNEL. A SPECIAL APPARATUS SUPPLIED BY MANUFACTURER ATTACHES TO THE EXCAVATOR BUCKET. THE APPARATUS IS A HEAVY WHEEL WITH A BLADE THAT "KNIFES" NONWOVEN FABRIC INTO THE SUBGRADE. IT WILL BE KNIFED TO A DEPTH OF 8" - 10". EXCESS FABRIC WILL BE LAID UPHILL.
 - APPLY SEED DIRECTLY TO THE PREPARED SOIL PRIOR TO FLEXAMAT INSTALLATION. USE SEED PER PROJECT SPECIFICATIONS.
 - INSTALL FLEXAMAT STANDARD. FLEXAMAT STANDARD IS FLEXAMAT WITH DOUBLE NETTED STRAW BLANKET ADHERED TO THE BACK OF THE BLOCKS. INSTALLATION WILL BEGIN AT THE BOTTOM OF THE CHANNEL. THE ROLLS HAVE STRAPS INTERNALLY ROLLED WITHIN THEM. THESE STRAPS ATTACH TO THE EXCAVATOR TO UNROLL THE ROLL UPHILL. THE NEXT SECTION OF FLEXAMAT WILL OVERLAP THE PREVIOUS SECTION 18".
 - INSTALL ANCHORS IN 2' INCREMENTS THROUGH THE OVERLAP AT THE LEADING EDGE OF EACH SECTION OF FLEXAMAT. ANCHORS CONSIST OF #2 REBAR CUT IN 18" LENGTHS. THESE ARE INSTALLED AT A 30° ANGLE TOWARDS THE UPHILL. ANCHORS ARE INSTALLED SO THAT THE TOP OF THE ANCHOR IS FLUSH WITH THE TOP OF THE FLEXAMAT BLOCK OVERLAPPING THE PREVIOUS SECTION. THE INITIAL LEADING EDGE OF THE FLEXAMAT CHANNEL SHALL BE EMBEDDED 18" VERTICALLY INTO THE GROUND.



- NOTES:
PROVIDE RIPRAP LINING OR GROUTED RIPRAP LINING.
PLACE ROCK RIPRAP FULL WIDTH OF EXCAVATION LIMITS TO THE DESIGNED FLOW DEPTH (FD).
"TW" = TOP WIDTH
"Fb" = FREEBOARD DEPTH
"F.D." = FLOW DEPTH
"t" = THICKNESS
"SBW" = SOIL BACKFILL WIDTH

ROCK RIPRAP SIZING	
GRADATION	D ₅₀ = 12"
50%	12" - 18"
35%	6" - 12"
15%	3" - 6"

F RIPRAP "TRAPEZOIDAL" CHANNEL DETAIL (TYPE V)
NO SCALE

PLOT DATE : 9/29/2014 8:37 AM FILE SAVED BY :BILL.GERENCIOR ON 9/29/2014 8:36 AM P:\2012\12056-0051 LILBERN PRIT HIGHWALL\40-TRANS-AML\DWG\PRODUCTION\SP\12056-0051-DETAILS.DWG

REVISION
NO. DATE

TERRADON
CORPORATION
Engineering - Surveying - Landscape Architecture
P.O. Box 519
Nitro, West Virginia 25143
(304) 755-8291 FAX 755-2636
www.terradon.com

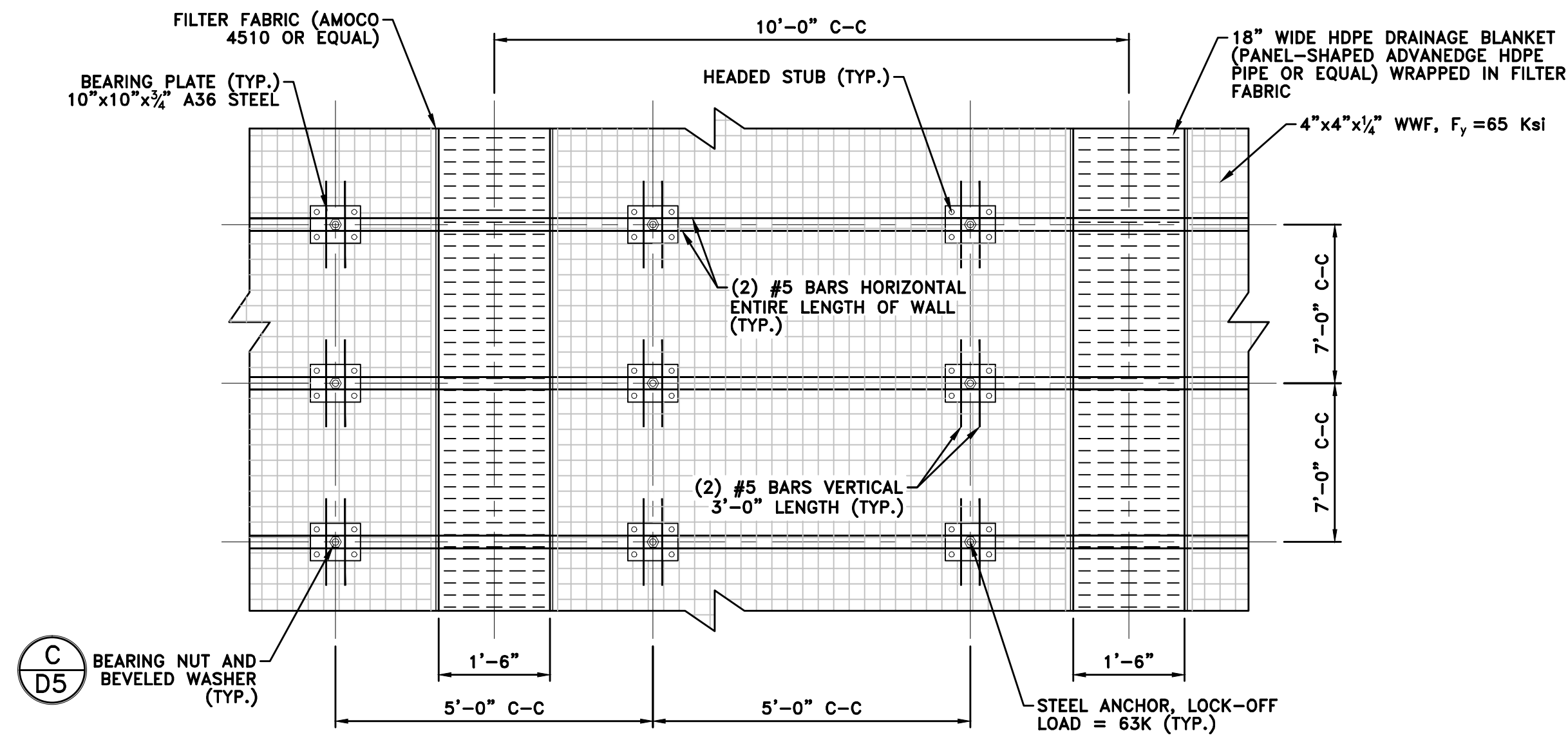
WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ABANDONED MINE LANDS AND RECLAMATION

MISCELLANEOUS DETAILS
LILBERN PRIT HIGHWALL
BARBOUR COUNTY, WEST VIRGINIA

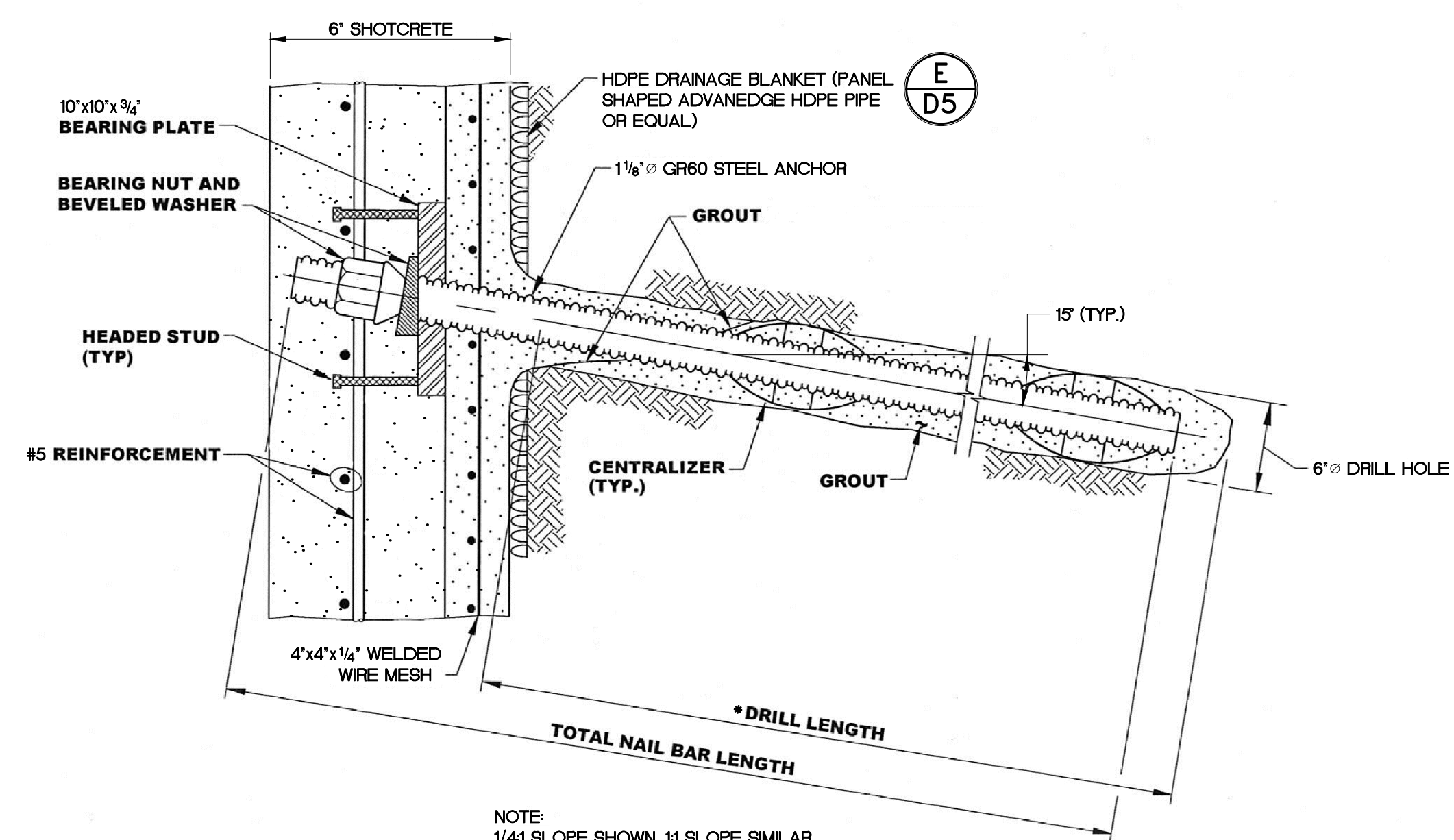
Project No. 12056-0051
Drawn: WLG/WVDEP
Checked: WJS
Approved: WJS
Scale: AS NOTED
Date: 10-6-2014
CAD File # *-DETAILS

D4

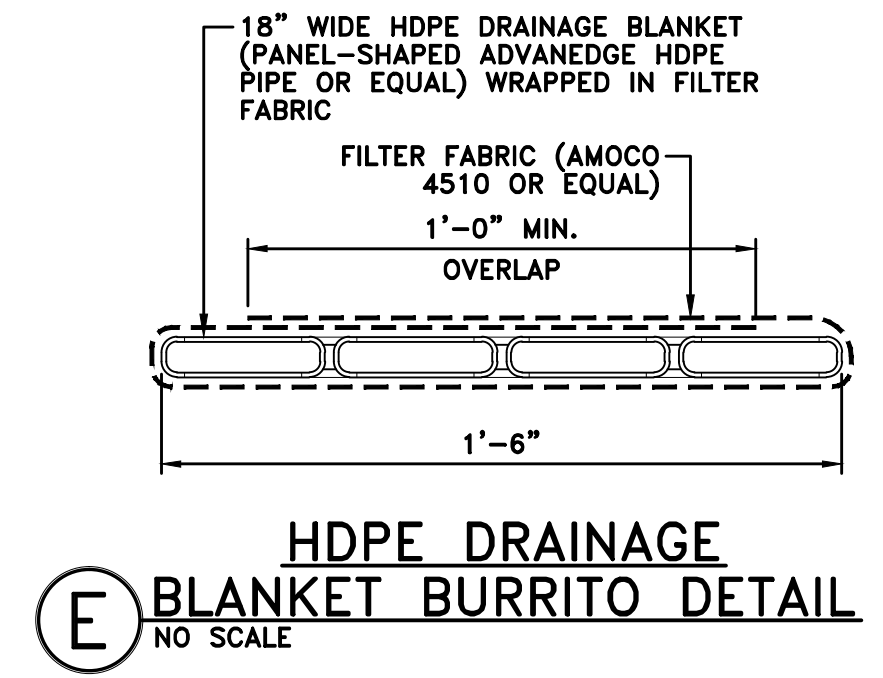
PLOT DATE : 9/29/2014 8:38 AM FILE SAVED BY :BILL GERENCI ON 9/29/2014 8:36 AM P:\2012\12056-0051 LILBERN_PRRIT HIGHWALL\40-TRANS-AML\DWG\PRODUCTION\SP\12056-0051-DETAILS.DWG



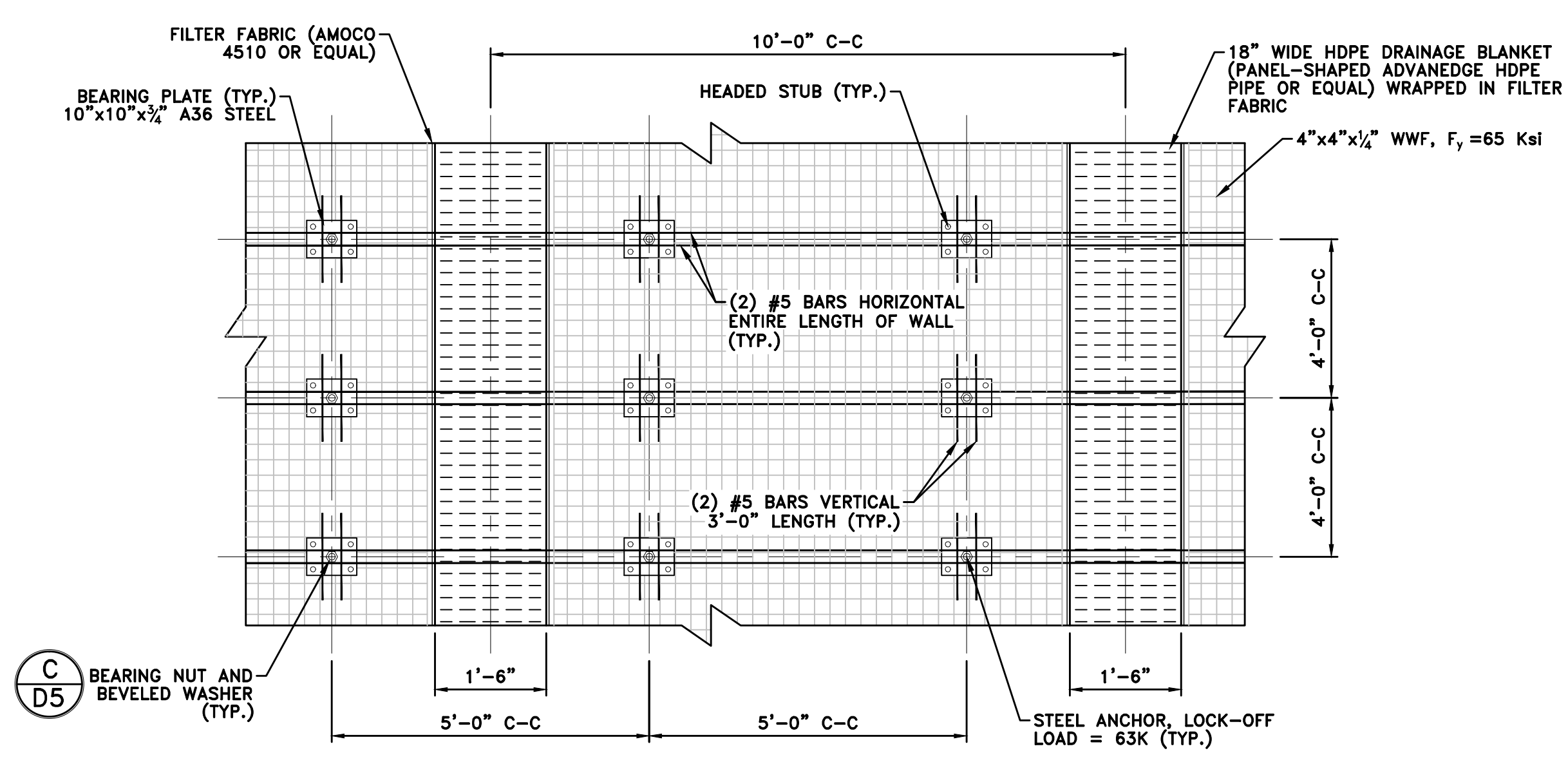
A 1:1 SLOPE SOIL NAIL/ROCK ANCHOR PATTERN
NO SCALE



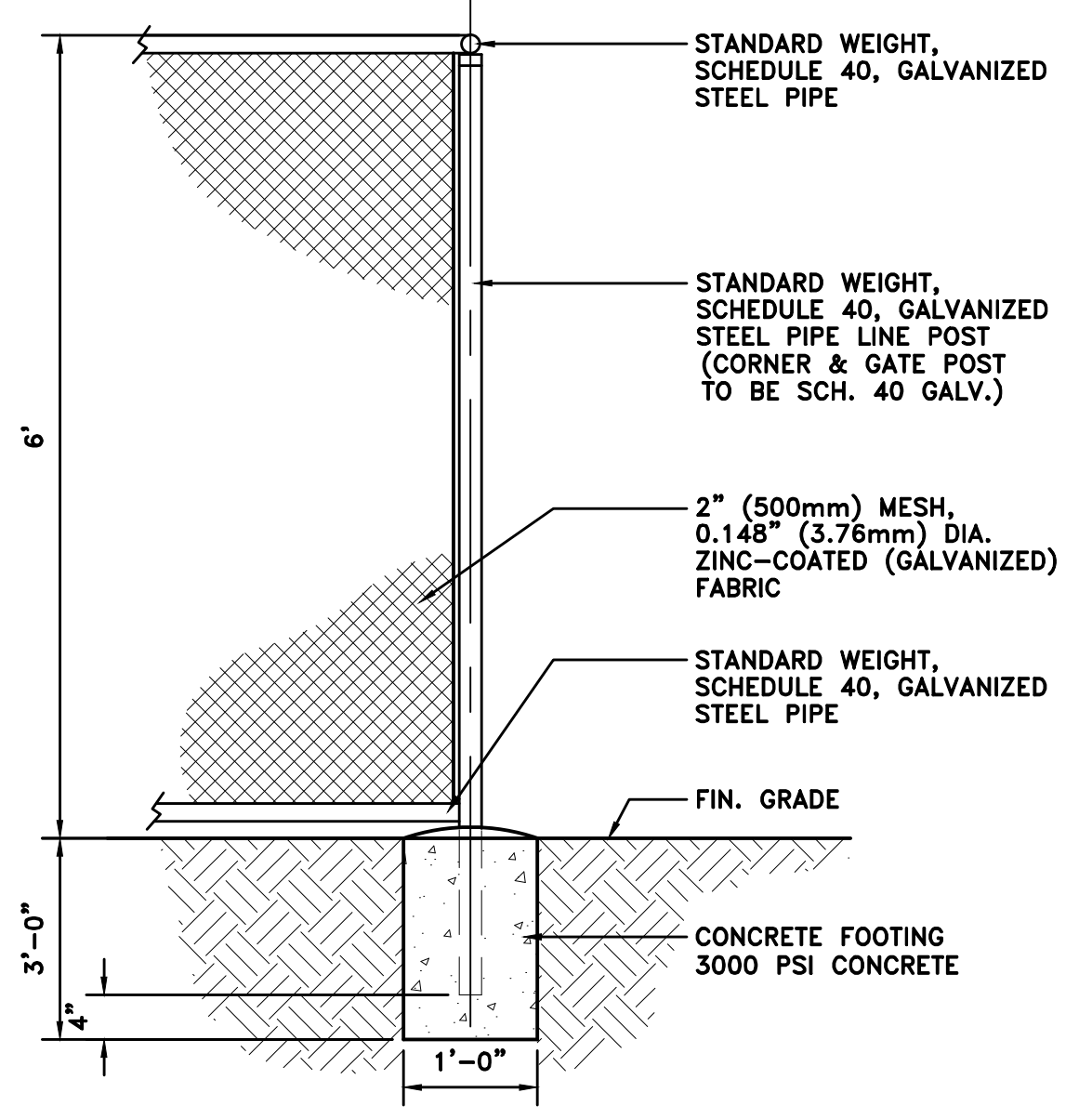
C SOIL NAIL/ROCK ANCHOR DETAIL
NO SCALE



E HDPE DRAINAGE BLANKET BURRITO DETAIL
NO SCALE



B .25:1 SLOPE SOIL NAIL/ROCK ANCHOR PATTERN
NO SCALE



D 6' HEIGHT CHAINLINK SAFETY FENCE DETAIL
NO SCALE

Lilbern Pritt Highway: Channel Lining Chart												
CHANNEL	TYPE	DETAIL	LINING	BEG STA	END STA	LENGTH	BW	FD + 0.5'	TW	S:1	SBW	
1A	IV	E/D4	RIPRAP	0+00	0+15	15	0	1.5	9	3	0.5	
1A	I	A/D4	PERMANENT MATTING	0+15	4+65	450	0	1.5	9	3	N/A	
1B	III	D/D4	CONCRETE BLOCK MAT	0+00	2+55	255	4	1.5	10	2	0.5	
1B	N/A	N/A	24" HDPE PIPE	2+55	4+15	160	N/A	N/A	N/A	N/A	N/A	
1C	II	B/D4	PERMANENT MATTING	0+00	0+30	30	6	1	12	3	N/A	
1C	II	B/D4	PERMANENT MATTING	0+30	0+40	10	TRANS.	1	TRANS.	3	N/A	
1C	II	B/D4	PERMANENT MATTING	0+40	2+10	170	5	1	11	3	N/A	
1D	II	B/D4	PERMANENT MATTING	0+00	0+80	80	4	1	10	3	N/A	
2A	V	F/D4	RIPRAP	0+00	0+80	80	4	2	12	2	0.7	
2A	V	F/D4	RIPRAP	0+80	1+00	20	TRANS.	TRANS.	TRANS.	TRANS.	TRANS.	
2A	IV	E/D4	RIPRAP	1+00	2+60	160	EXISTING	3+	EXISTING	EXISTING	EXISTING	

NOTES:
 1. WHERE CHANNEL IS CUT TO ROCK, NO ADDITIONAL CHANNEL LINING IS REQUIRED.
 2. REFER TO CHANNEL DETAILS AS NOTED FOR CHANNEL CROSS SECTION AND LINING MATERIAL.

ABBREVIATIONS:
 BW = BOTTOM WIDTH
 FD = FLOW DEPTH
 TW = TOP WIDTH
 S:1 = SIDESLOPE:1
 SBW = SOIL BACKFILL WIDTH
 TRANS. = TRANSITION
 N/A = NOT APPLICABLE

F CHANNEL CHART

NO.	DATE	REVISION

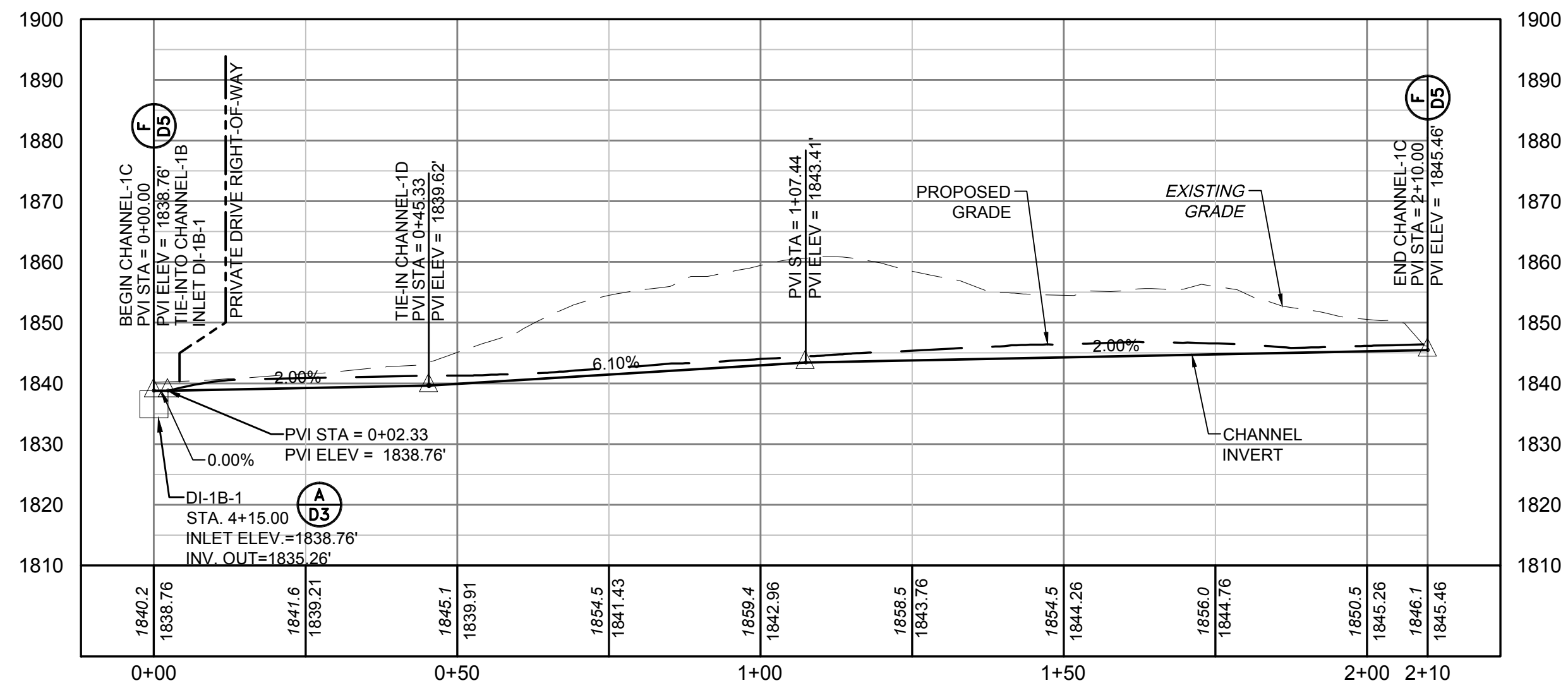
TERRADON
 CORPORATION
 Engineering - Surveying - Landscape Architecture
 P.O. Box 519
 Nitro, West Virginia 25143
 (304) 755-8291 FAX 755-2636
 www.terradon.com

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
 OFFICE OF ABANDONED MINE LANDS AND RECLAMATION
 MISCELLANEOUS DETAILS
 LILBERN PRITTS HIGHWALL
 BARBOUR COUNTY, WEST VIRGINIA

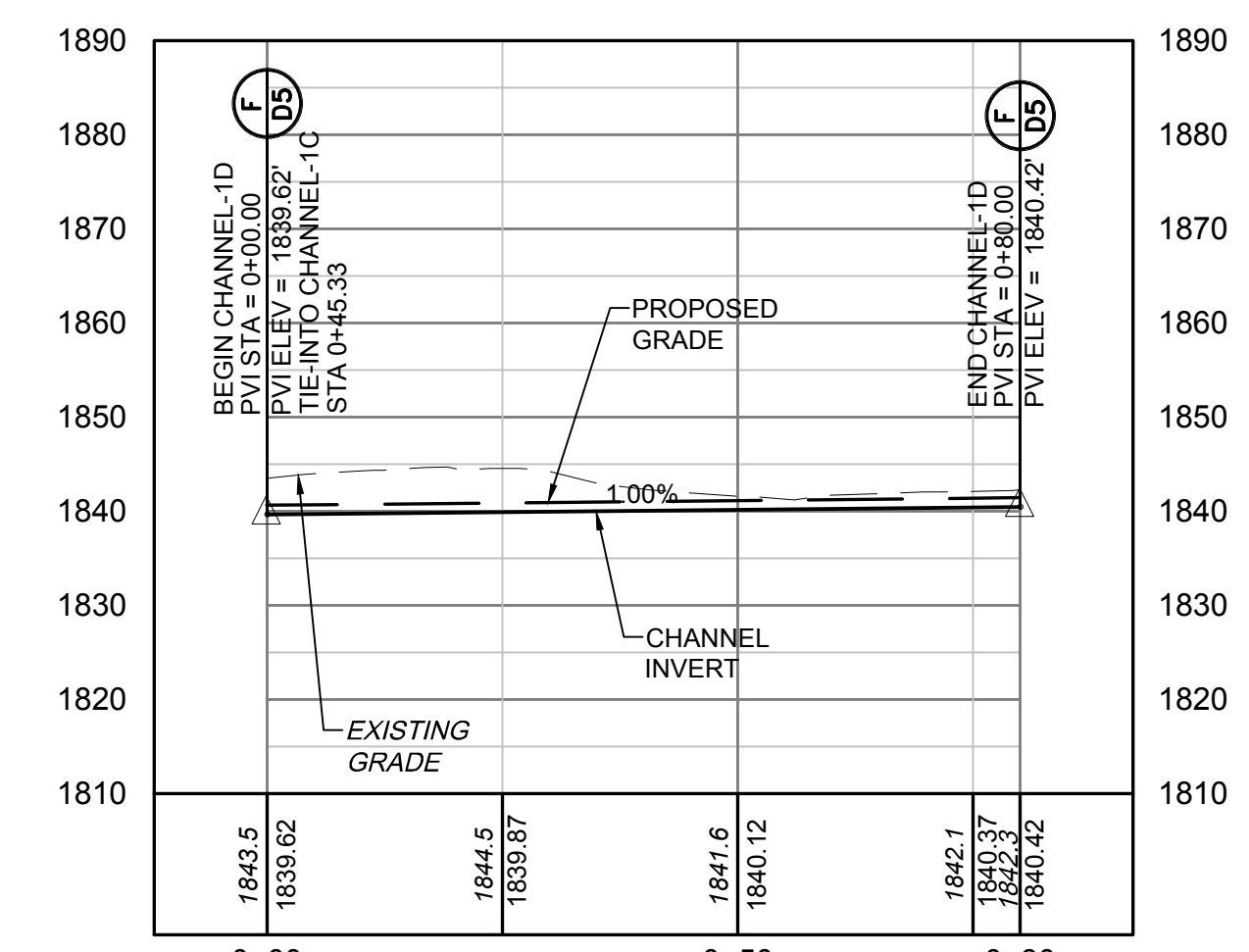
Project No. 12056-0051
 Drawn: WLG/WVDEP
 Checked: WJS
 Approved: WJS
 Scale: AS NOTED
 Date: 10-6-2014
 CAD File # *-DETAILS

D5

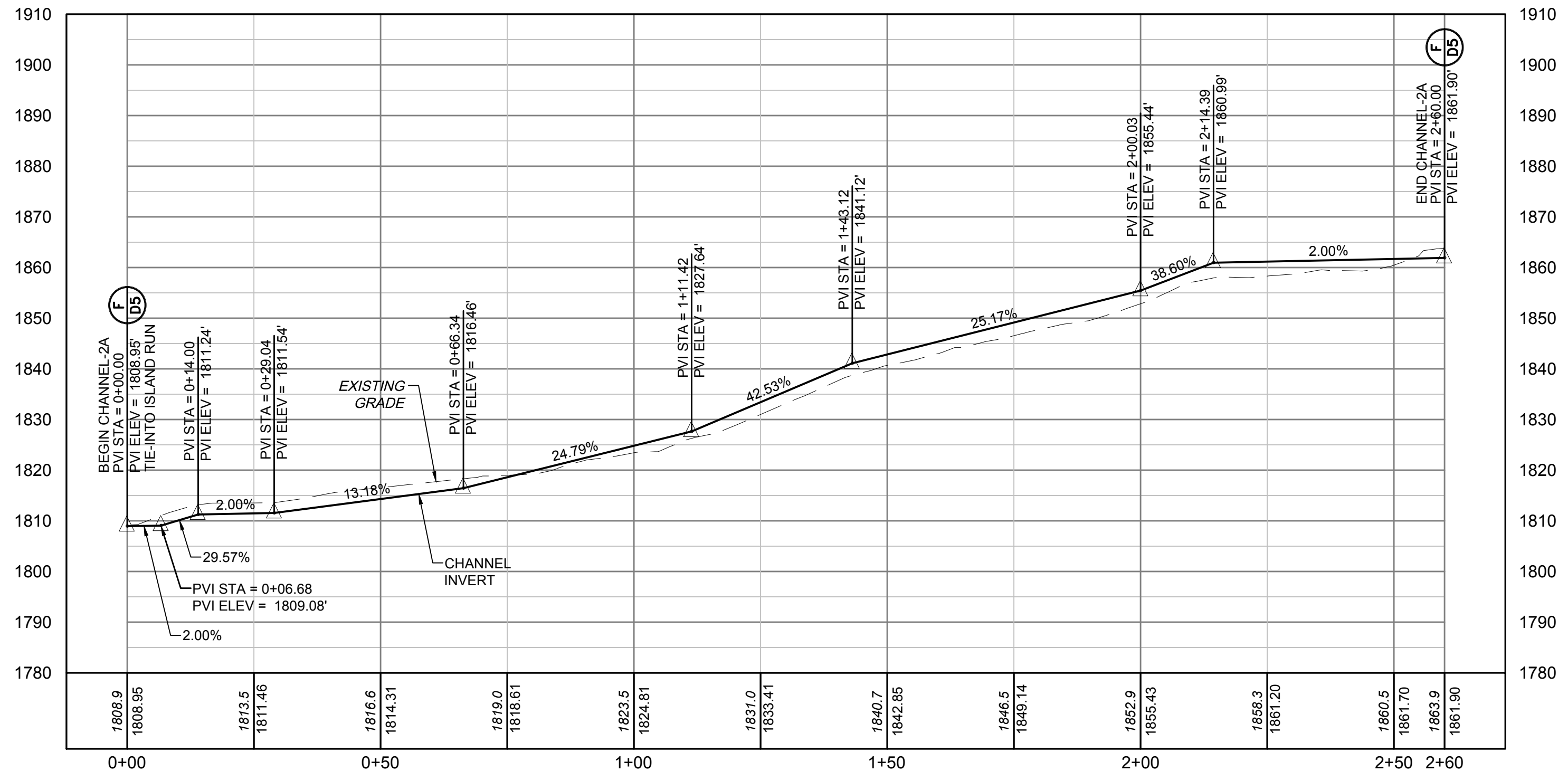
PLOT DATE : 9/29/2014 8:40 AM FILE SAVED BY :BILL GERENCIOR ON 9/26/2014 3:29 PM P:\2012\12056-0051 LILBERN PRIT HIGHWALL\40-TRANS-AML\DWG\PRODUCTION\SP\12056-0051-PROFILES.DWG



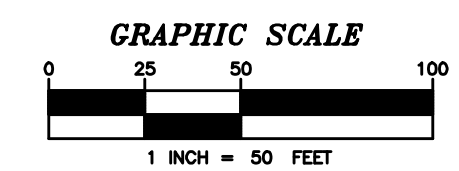
A CHANNEL-1C PROFILE
STA. 0+00 TO STA. 2+10
SCALE: 1" = 20' H&V



B CHANNEL-1D PROFILE
STA. 0+00 TO STA. 0+80
SCALE: 1" = 20' H&V



C CHANNEL-2A PROFILE
STA. 0+00 TO STA. 2+60
SCALE: 1" = 20' H&V



NO.	DATE	REVISION

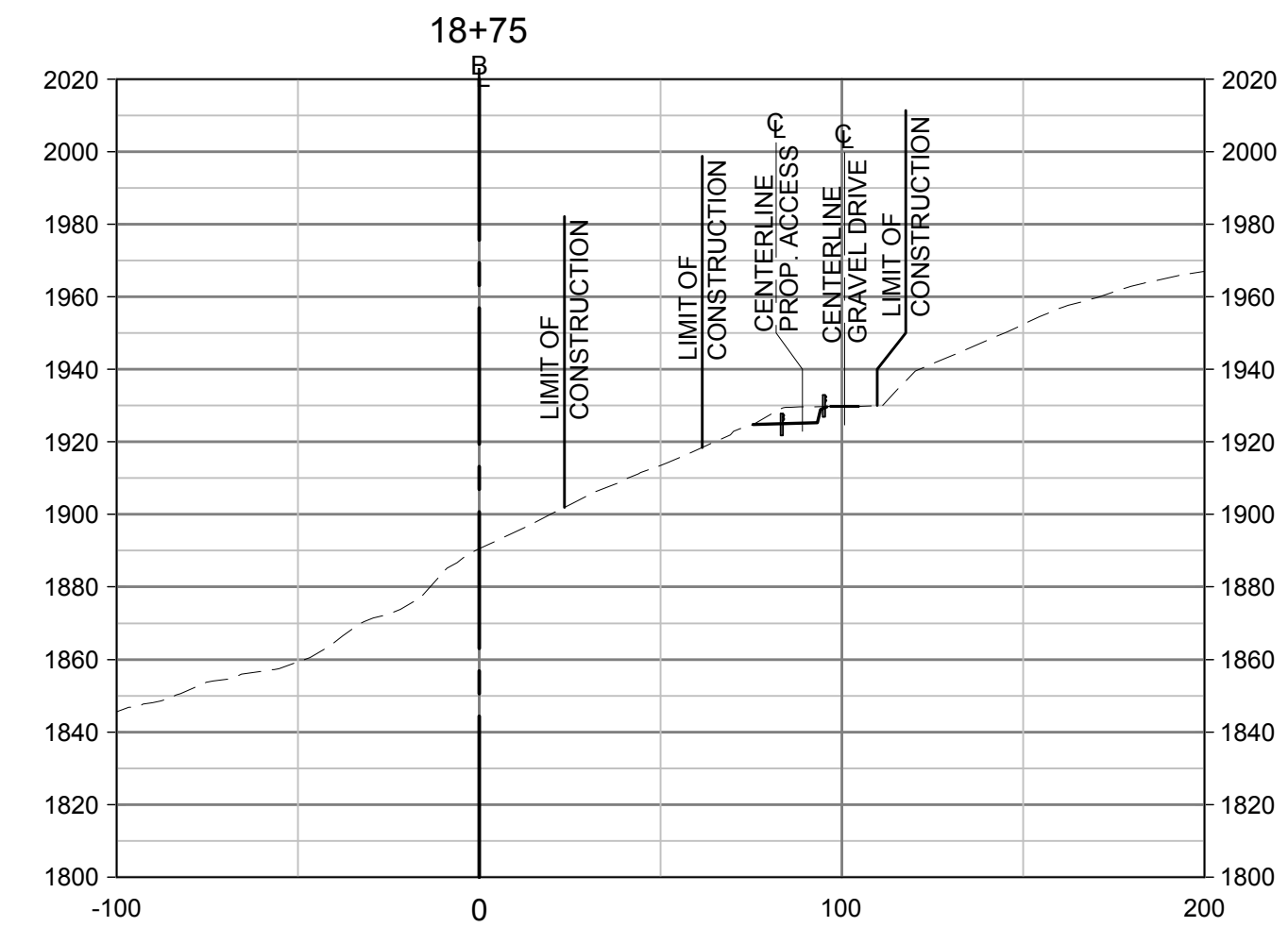
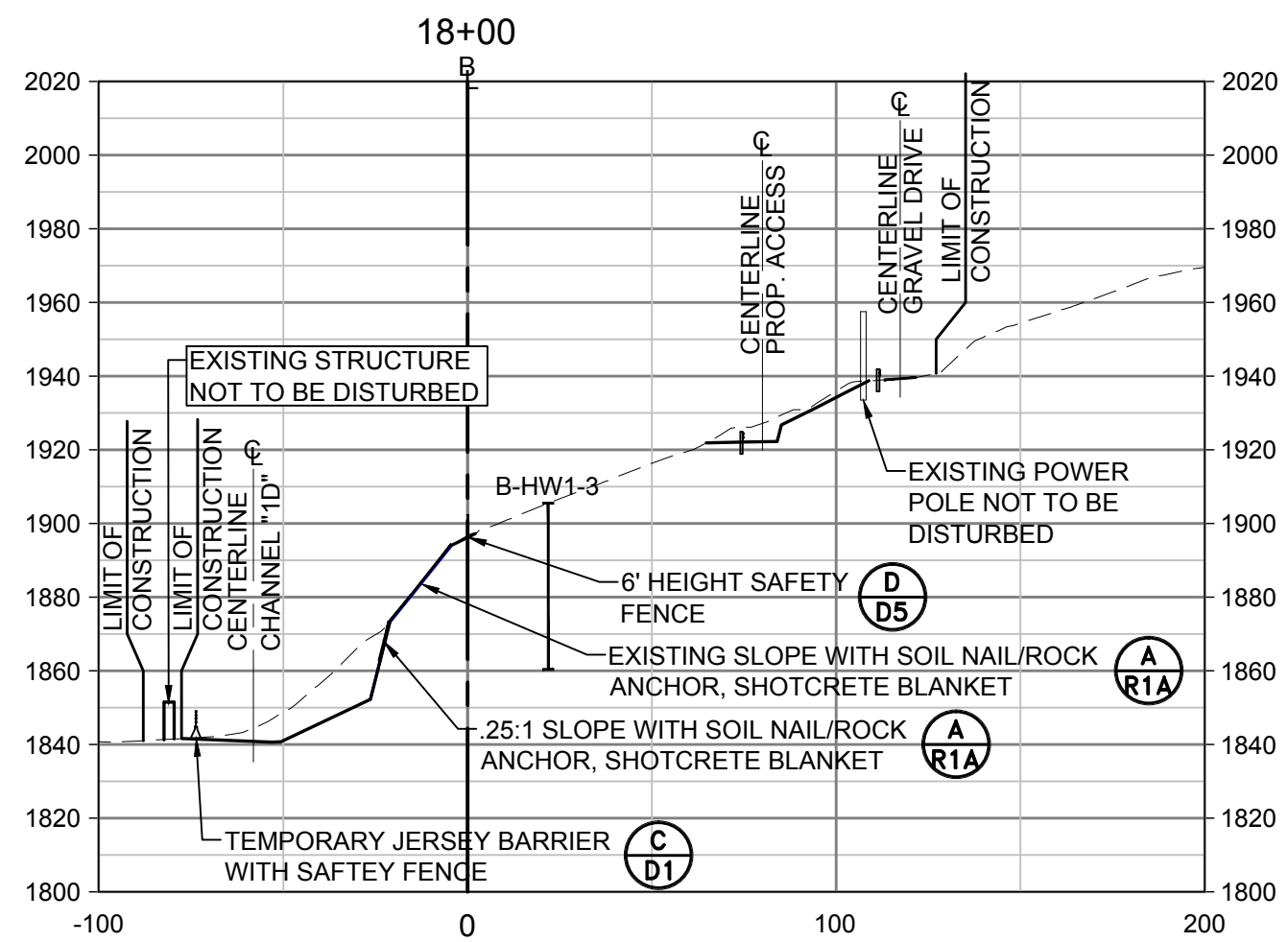
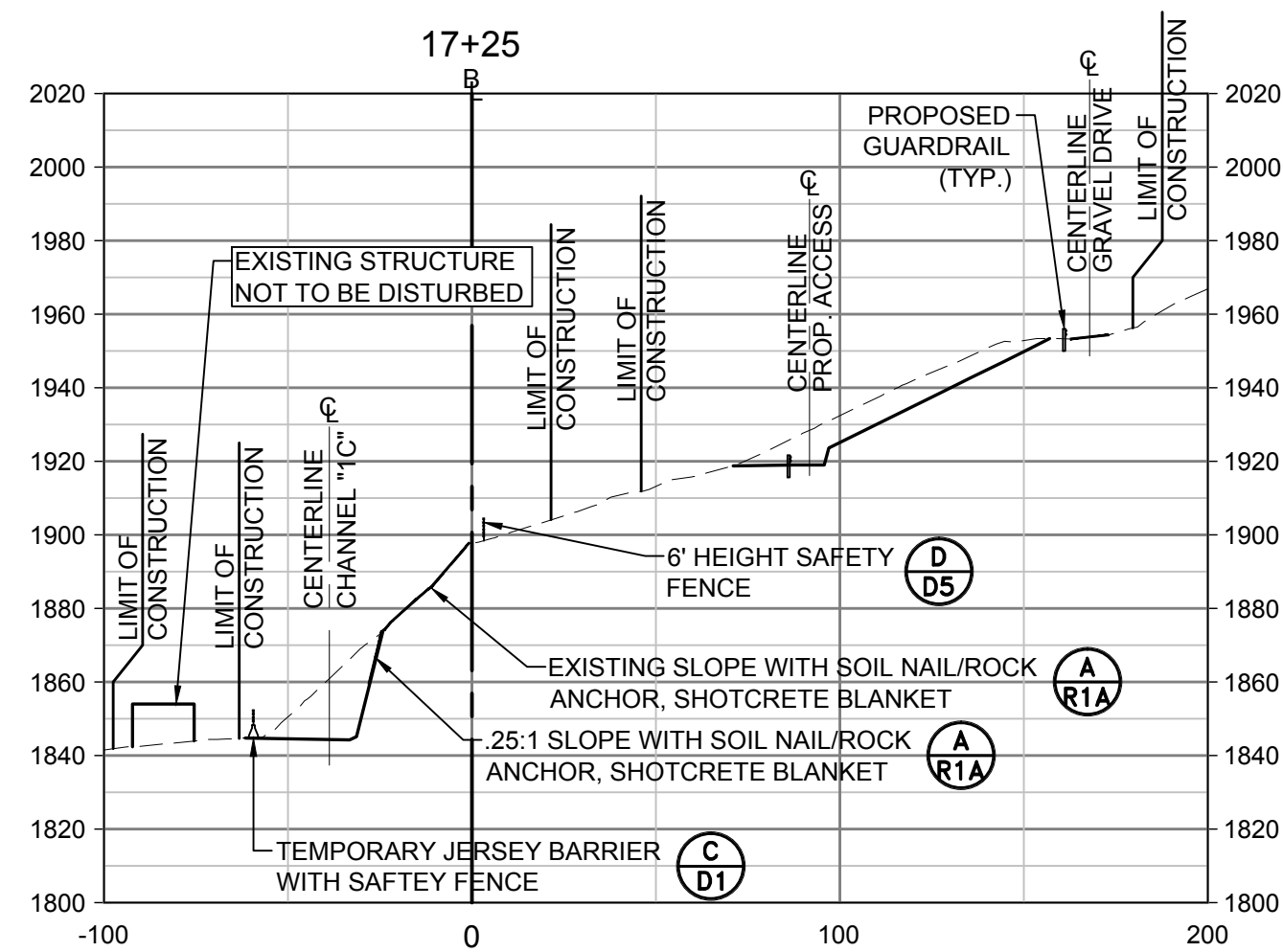
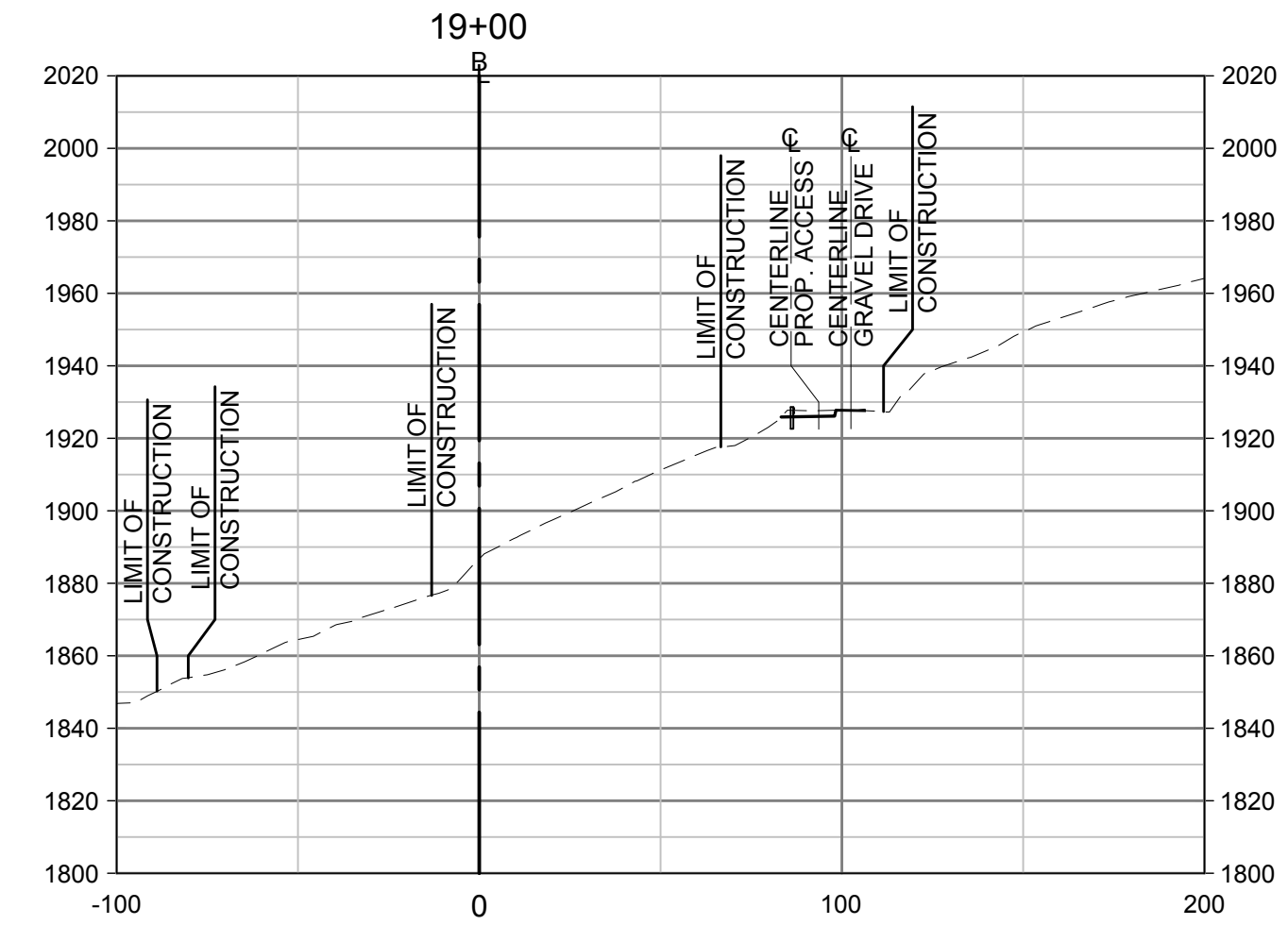
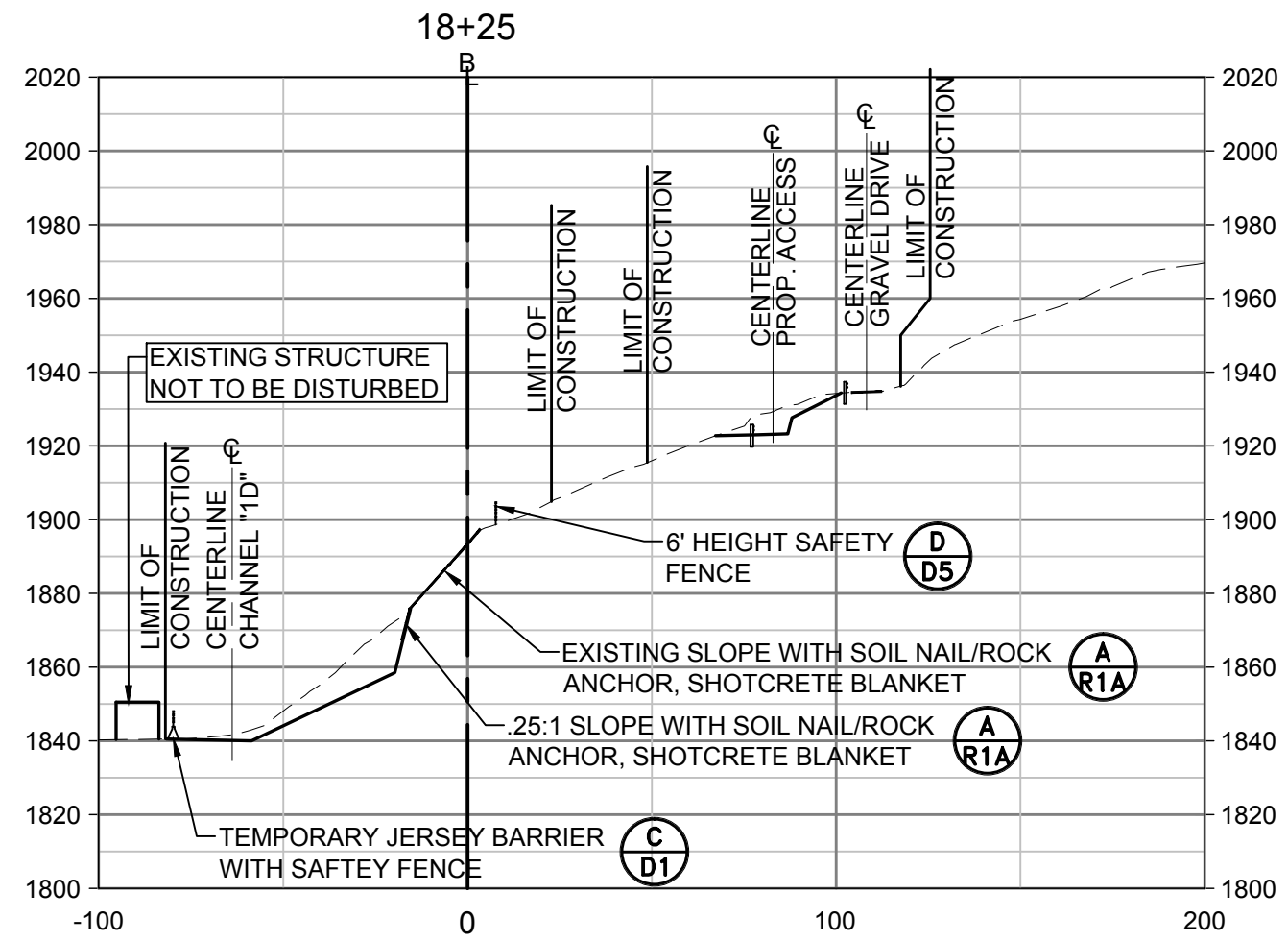
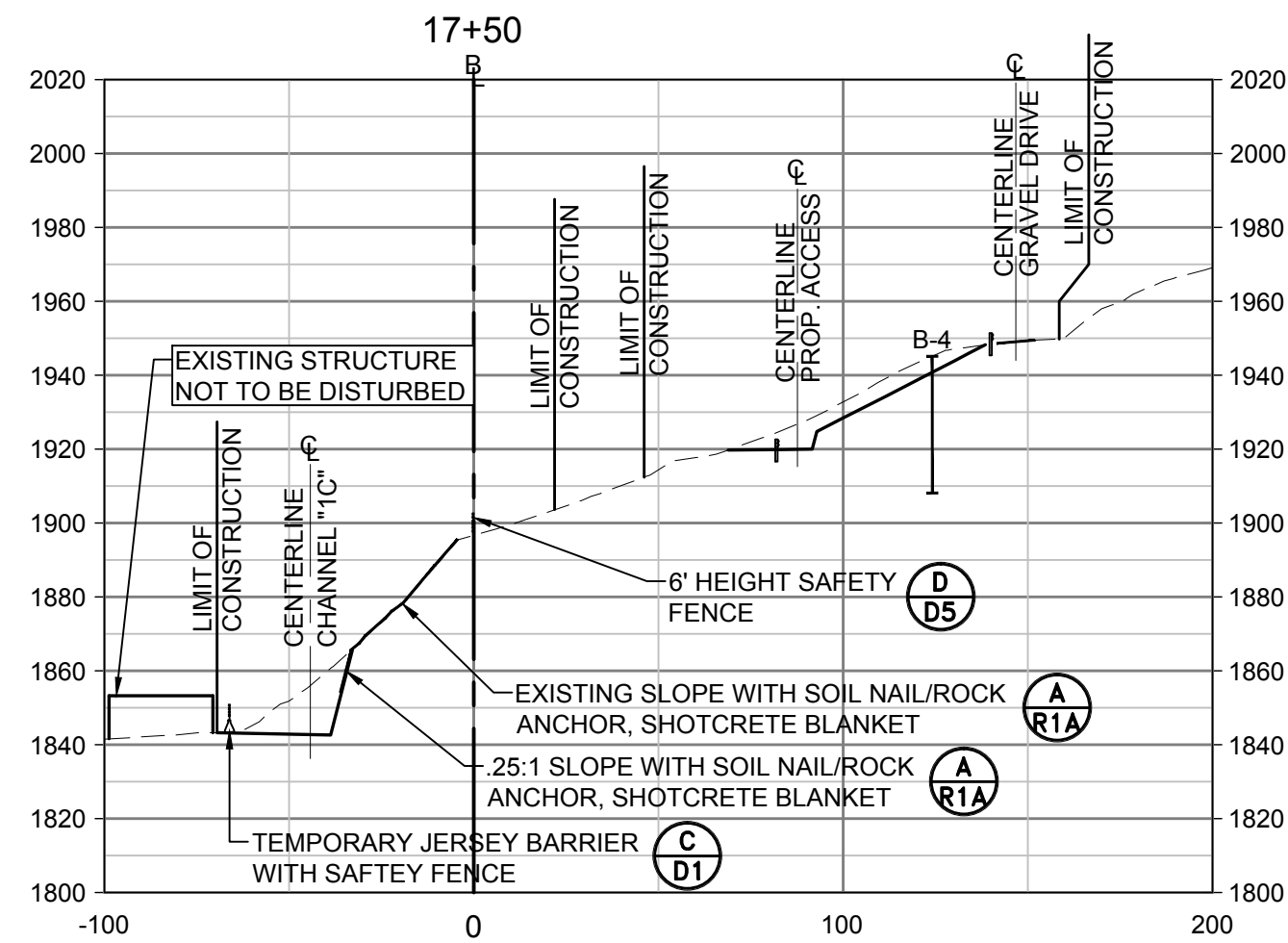
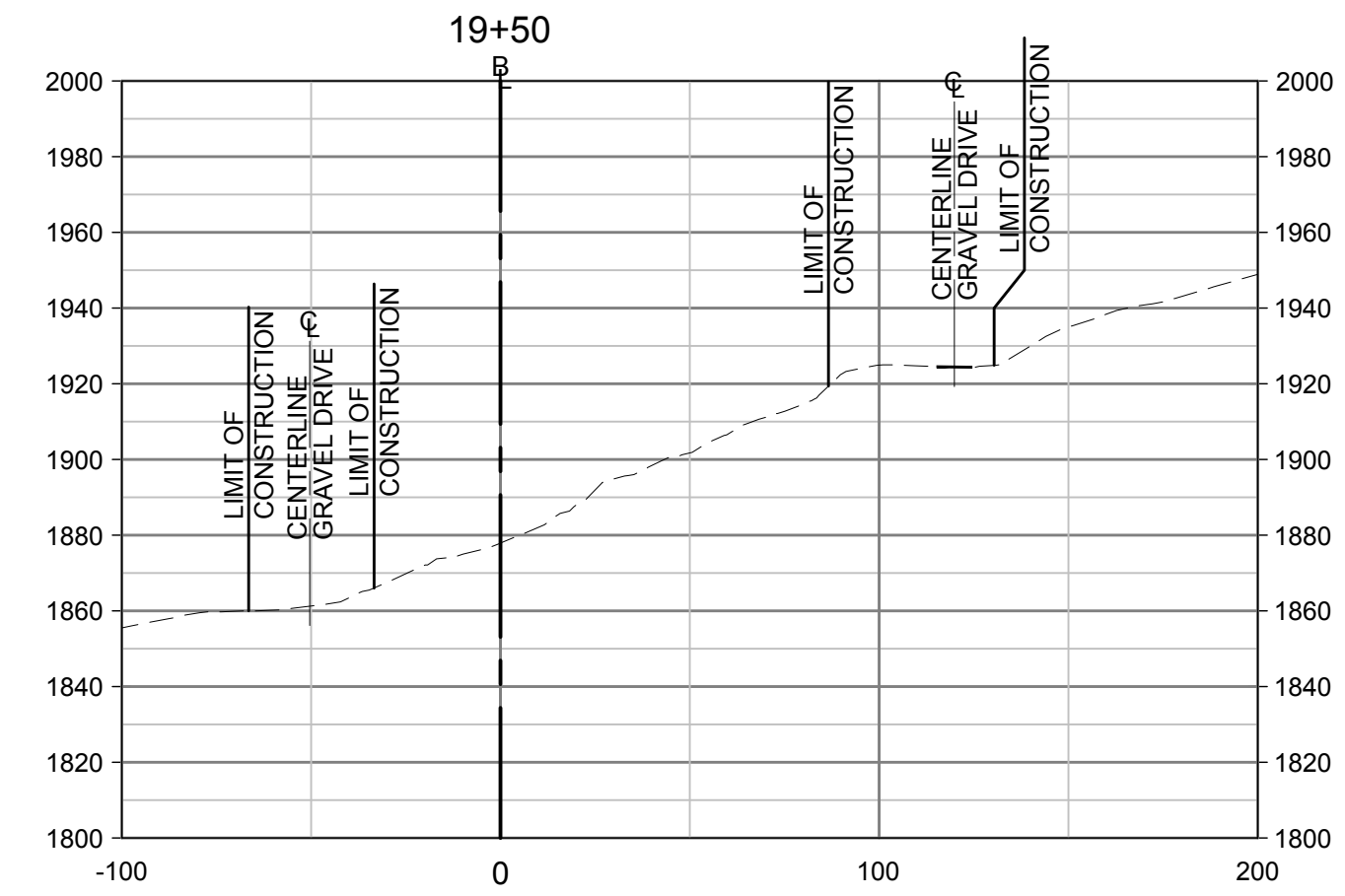
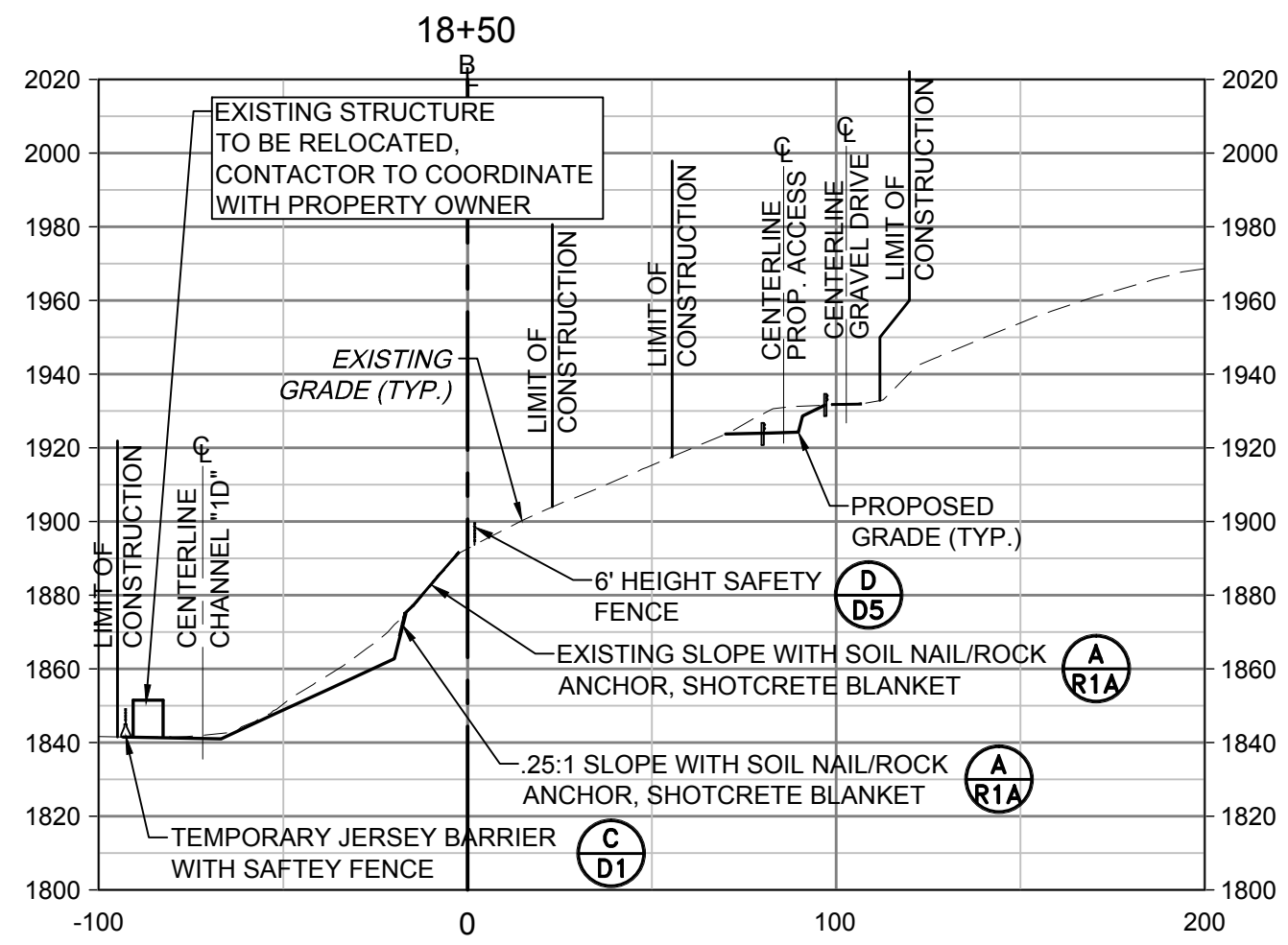
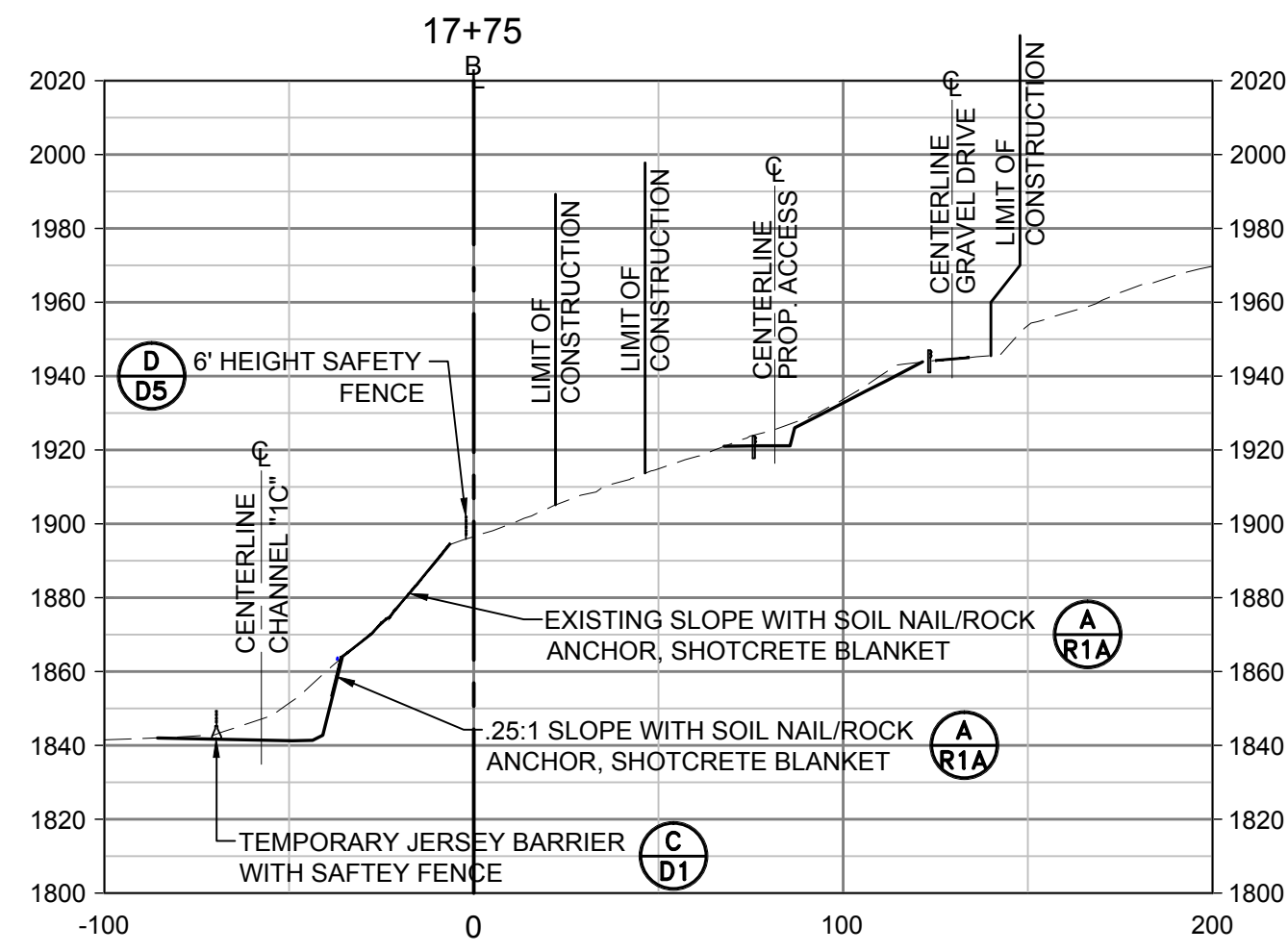
TERRADON
CORPORATION
Engineering - Surveying - Landscape Architecture
P.O. Box 519
Nitro, West Virginia 25143
(304) 755-8291 FAX 755-2636
www.terradon.com

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ABANDONED MINE LANDS AND RECLAMATION
CHANNEL PROFILES
LILBERN PRIT HIGHWALL
BARBOUR COUNTY, WEST VIRGINIA

Project No.	12056-0051
Drawn:	WLG
Checked:	WJS
Approved:	WJS
Scale:	1"=20' H&V
Date:	10-6-2014
CAD File #	0051-PROFILES

P2

PLOT DATE : 9/29/2014 8:44 AM FILE SAVED BY :BILL GERENCIOR ON 9/29/2014 8:42 AM P:\2012\12056-0051\TRANS-AML\DWG\PRODUCTION\SP\12056-0051-SECTIONS.DWG

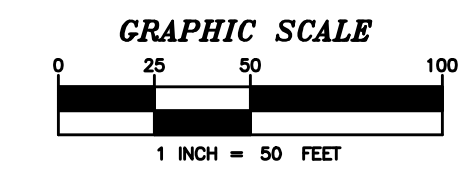


NO.	DATE	REVISION

TERRADON
CORPORATION
Engineering - Surveying - Landscape Architecture
P.O. Box 519
Nitro, West Virginia 25143
(304) 755-8291 FAX 755-2636
www.terradon.com

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ABANDONED MINE LANDS AND RECLAMATION
BASELINE "1" CROSS SECTIONS
LILBERN PRITT HIGHWALL
BARBOUR COUNTY, WEST VIRGINIA

Project No.	12056-0051
Drawn:	WLG
Checked:	KLS
Approved:	WJS
Scale:	1" = 50'
Date:	10-6-2014
CAD File #	0051-SECTIONS



X2