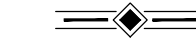


COAL MINERS PARK REPOSITORY SOIL CAP CONSTRUCTION RED LODGE, MT DEQ CONTRACT NO. 414027



PREPARED FOR

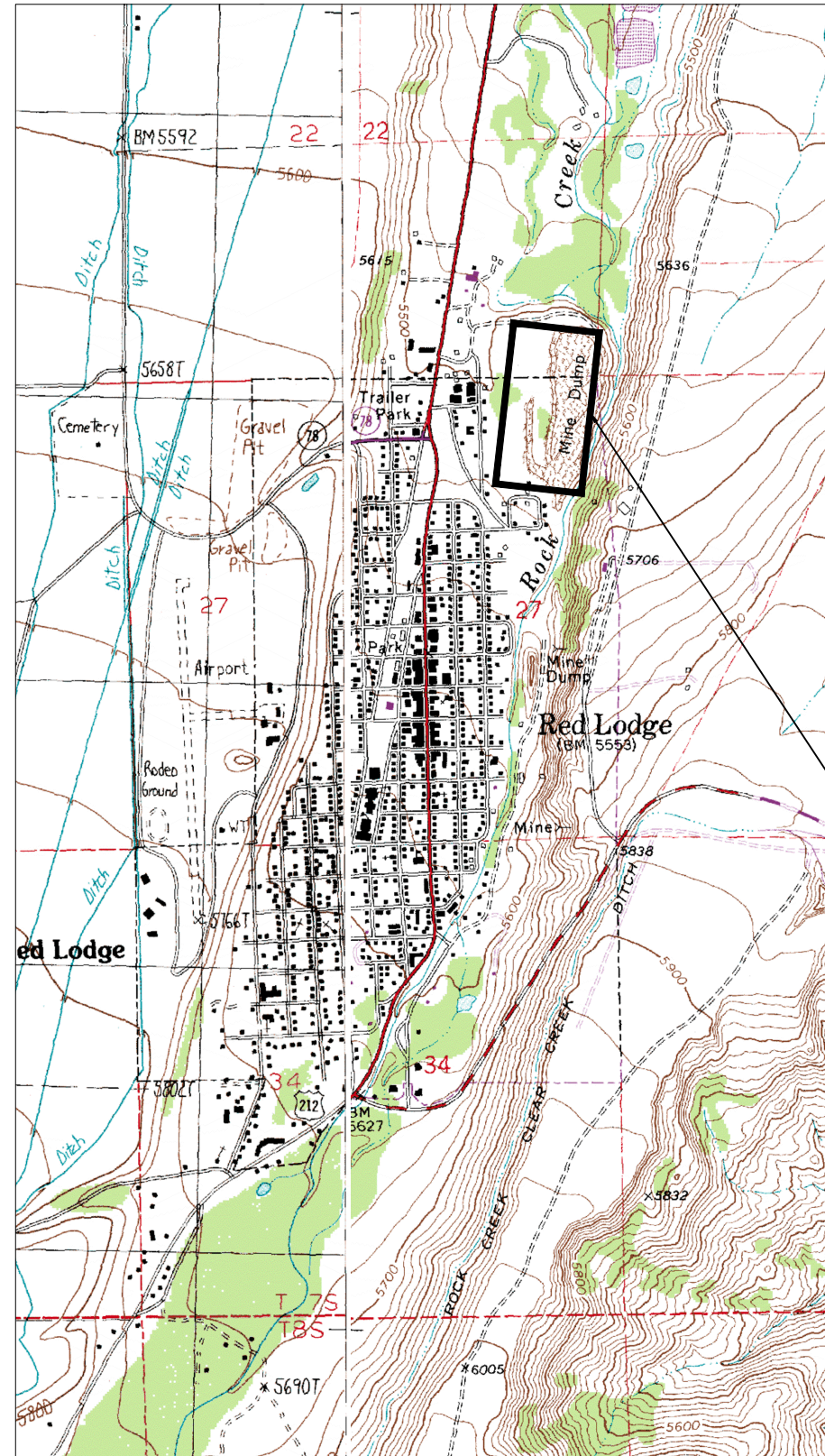
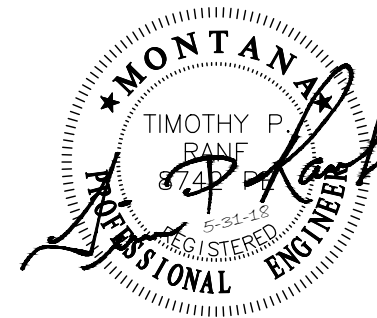
MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY/
WASTE MANAGEMENT & REMEDIATION DIVISION



PREPARED BY



MAY 31, 2018


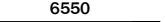




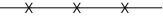


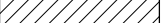
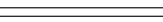


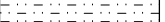



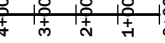

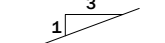





SITE VICINITY MAP

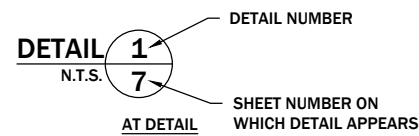
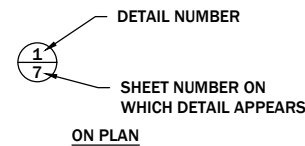


PROJECT
LOCATION

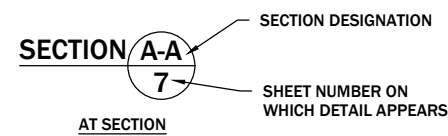
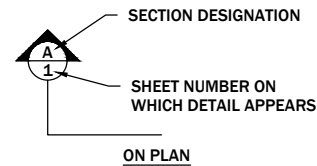
LEGEND

	EXISTING INDEX CONTOUR		PROPOSED INDEX CONTOUR
	EXISTING INTERMEDIATE CONTOUR		PROPOSED INTERMEDIATE CONTOUR
	EXISTING ROAD		PROPOSED ROADSIDE DITCH
	EXISTING FENCE		PROPOSED REPOSITORY CAP
	EXISTING CREEK		PROPOSED SUBGRADE
	EXISTING PATH		PROPOSED DRAINAGE ROCK
	EXISTING GROUND		PROPOSED TOPSOIL
	EXISTING GOLF PLATFORM		PROPOSED CRUSHED GRAVEL
	EXISTING GOLF STATION		CENTERLINE
	EXISTING SIGN		SLOPE DESIGNATION
	EXISTING WATER WELL		
	EXISTING TREE		
	EXISTING ROCK		

DETAIL INDICATOR



SECTION INDICATOR



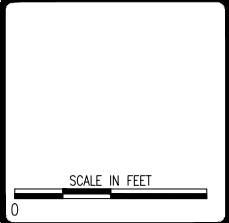
SHEET INDEX

SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	LEGEND, SHEET INDEX, AND GENERAL NOTES
3	SITE OVERVIEW & EXISTING CONDITIONS
4	REPOSITORY CAP SUBGRADE GRADING
5	REPOSITORY CAP FINISH GRADE
6	REPOSITORY CAP PROFILE
7	REPOSITORY CAP CROSS SECTIONS
8	ACCESS ROAD PLAN, PROFILE, AND CROSS SECTIONS
9	TYPICAL DETAILS

REVISION:	DATE:	BY:	DESC:

DRAWN BY:	CDR
DESIGNED BY:	JPR
CHECKED BY:	JLG
APPROVED BY:	JPR
PROJECT NO.:	
DATE:	05-31-18

DISPLAYED AS:	
COORD SYS/ZONE:	MSP
DATUM:	NAD 83
UNITS:	INT. FEET
SOURCE:	PIONEER



DEO
 COAL MINERS PARK
 REPOSITORY SOIL CAP

LEGEND, SHEET INDEX,
 AND GENERAL NOTES



GENERAL NOTES

- CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES AND UTILITY OWNERS AS DESCRIBED IN THE SPECIAL PROVISIONS. CONTRACTOR IS RESPONSIBLE FOR PROTECTING AND REPAIRING ANY DAMAGED UTILITIES. UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE BASED ON AERIAL SURVEYS AND RECORDS PROVIDED BY THE UTILITY OWNERS AND ARE APPROXIMATE. ALL UTILITY LOCATIONS SHOWN ARE SUBJECT TO THE ACCURACY OF THE LOCATION METHODS AND RECORDS EMPLOYED BY THE UTILITY OWNERS. UTILITIES ARE ALSO SUBJECT TO RELOCATION SINCE THE DRAWINGS WERE PREPARED. UTILITY LOCATIONS SHOWN SHOULD BE CONSIDERED APPROXIMATE AND ACTUAL LOCATIONS, DEPTHS, AND/OR HEIGHTS MAY VARY. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL BURIED UTILITIES ENCOUNTERED DURING CONSTRUCTION AND SHALL NOT BACKFILL UNTIL ENGINEER AND CONTRACTOR HAVE RECORDED ITS TYPE, SIZE, AND LOCATION.
- CONTRACTOR SHALL RESPECT ALL RIGHT-OF-WAY BOUNDARIES. PROTECT FROM DAMAGE: RAILROADS, BUILDINGS, WALLS, MONUMENTS, TREES AND OTHER LANDSCAPING, UTILITY POLES, AND OTHER FEATURES INSIDE AND OUTSIDE ANY RIGHTS-OF-WAY. ANY DISTURBED SECTION CORNERS, HIGHWAY MONUMENTS, PROPERTY PINS, SURVEY MONUMENTS, BENCHMARKS OR OTHER MDT HIGHWAY CONTROL SHALL BE RESET BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF MONTANA AT CONTRACTOR'S EXPENSE. THESE ITEMS ARE NOT SHOWN ON THE DRAWINGS.
- CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED TO PERFORM THE WORK PRIOR TO STARTING CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN ALL EXISTING DRAINAGE PATTERNS UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS. ADDITIONAL TEMPORARY CULVERTS MAY BE ADDED OR REQUIRED. THESE CULVERTS WILL BE INSTALLED AND REMOVED AT NO ADDITIONAL EXPENSE TO OWNER.
- CONTRACTOR SHALL COMPLY WITH ALL SAFETY AND REQUIREMENTS DESCRIBED IN THE SPECIAL PROVISIONS.



NOTE:
 1. SURVEY WAS CONDUCTED 2-6-18 WITH APPROX. 6" TO 2' SNOW ON SITE NO UTILITY LOCATES HAD BEEN CONDUCTED PRIOR TO SURVEY COORDINATE MONTANA STATE PLANE ELEVATIONS BASED ON NAVD 88.

DETENTION POND
 COULD NOT ACCESS
 DROPS APPROX.
 4' TO BOTTOM

ABANDON IN-PLACE BY CUTTING AT
 SUBGRADE ELEVATION AND FILLING
 WITH BENTONITE PELLETS

REMOVE AND RESET PLATFORM
 FOLLOWING COMPLETION OF CAP
 CONSTRUCTION (TYP.)

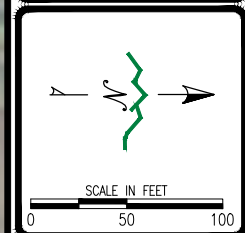
REMOVE AND RESET FOLF STATION
 FOLLOWING COMPLETION OF CAP
 CONSTRUCTION (TYP.)

RECONSTRUCT PATH FOLLOWING
 COMPLETION OF CAP CONSTRUCTION
 SEE DETAIL 3/9

REVISION:	DATE:	BY:	DESC:

DRAWN BY: CDR
 DESIGNED BY: TPR
 CHECKED BY: JLG
 APPROVED BY: TPR
 PROJECT NO: 18-001
 DATE: 05-31-18

DISPLAYED AS:
 COORD SYS/ZONE: MSP
 DATUM: NAD 83
 UNITS: INT. FEET
 SOURCE: PIONEER

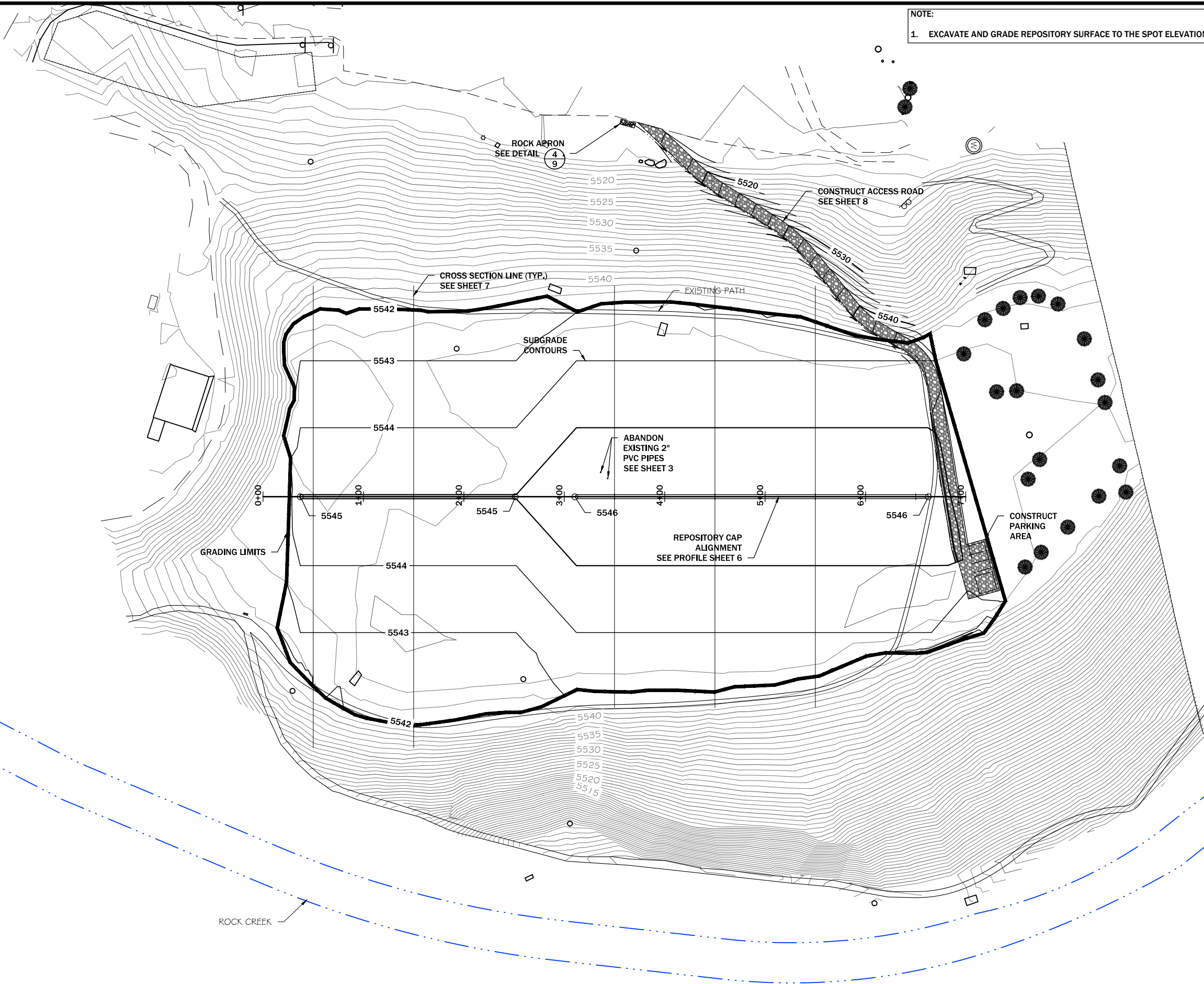


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 REPOSITORY SOIL CAP

SITE OVERVIEW AND
 EXISTING CONDITIONS

PIONEER
 TECHNICAL SERVICES, INC.
 201 E. BROADWAY, SUITE C
 HELENA, MT 59601
 (406) 457-8252

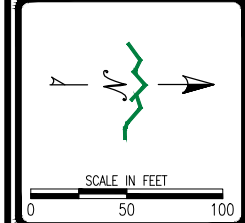
NOTE:
 1. EXCAVATE AND GRADE REPOSITORY SURFACE TO THE SPOT ELEVATION, CONTOURS, AND LIMITS SHOWN.



REVISION:	DATE:	BY:	DESC:

DRAWN BY: CDR
 DESIGNED BY: TPR
 CHECKED BY: JLG
 APPROVED BY: TPR
 PROJECT NO: 05-31-18
 DATE: 05-31-18

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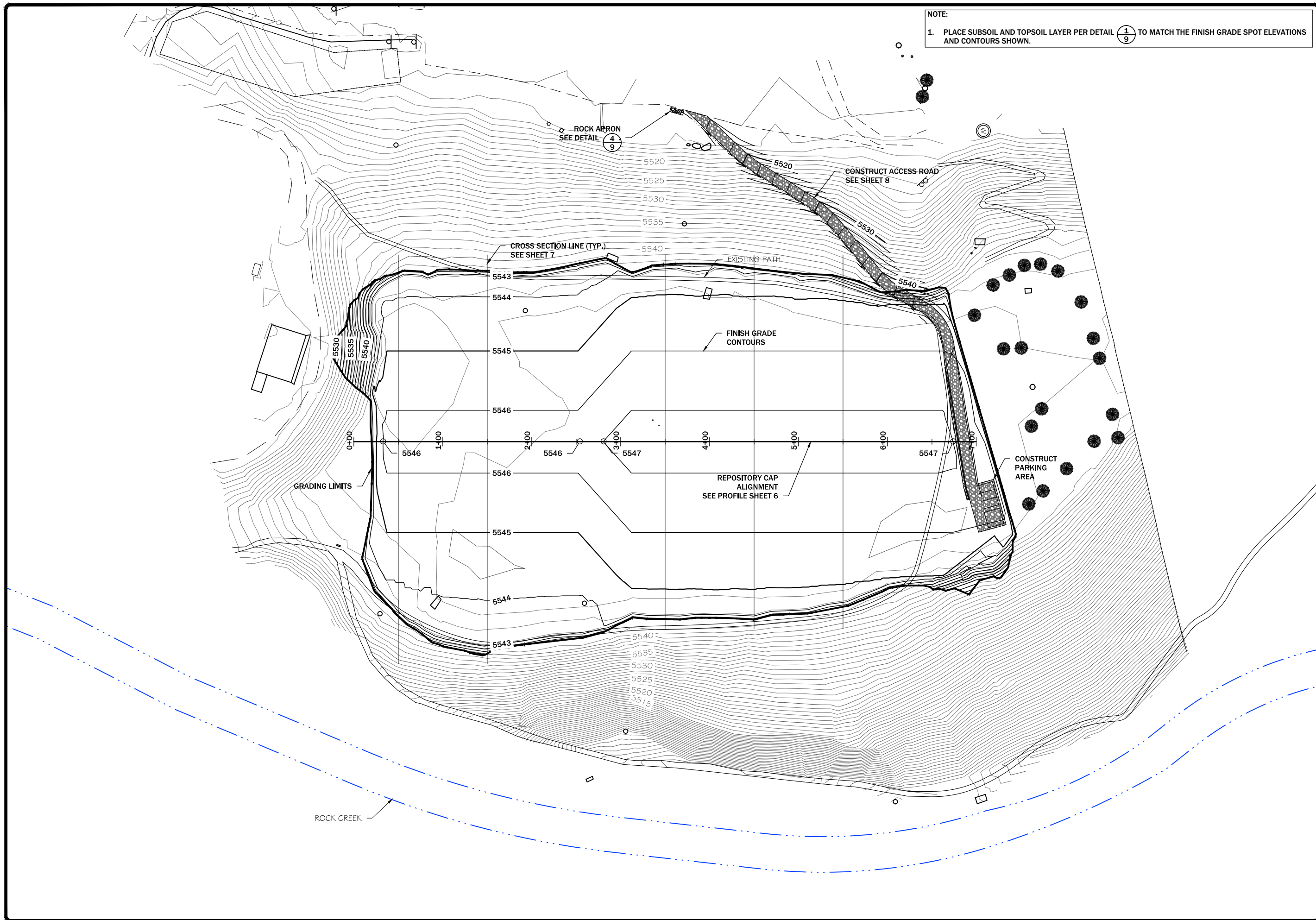


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 COAL MINERS PARK
 REPOSITORY SOIL CAP

REPOSITORY CAP
 SUBGRADE GRADING



SHEET
 4 OF 9

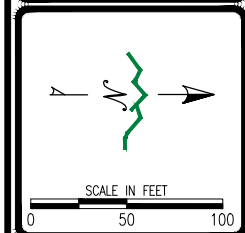


NOTE:
 1. PLACE SUBSOIL AND TOPSOIL LAYER PER DETAIL (1/9) TO MATCH THE FINISH GRADE SPOT ELEVATIONS AND CONTOURS SHOWN.

REVISION:	DATE:	BY:	DESC:

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 DESIGNED BY: TPR
 CHECKED BY: JLG
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 PROJECT NO: 05-31-18
 DATE: 05-31-18

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 DATUM: NAD 83
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 REPOSITORY SOIL CAP

REPOSITORY CAP
 FINISH GRADE

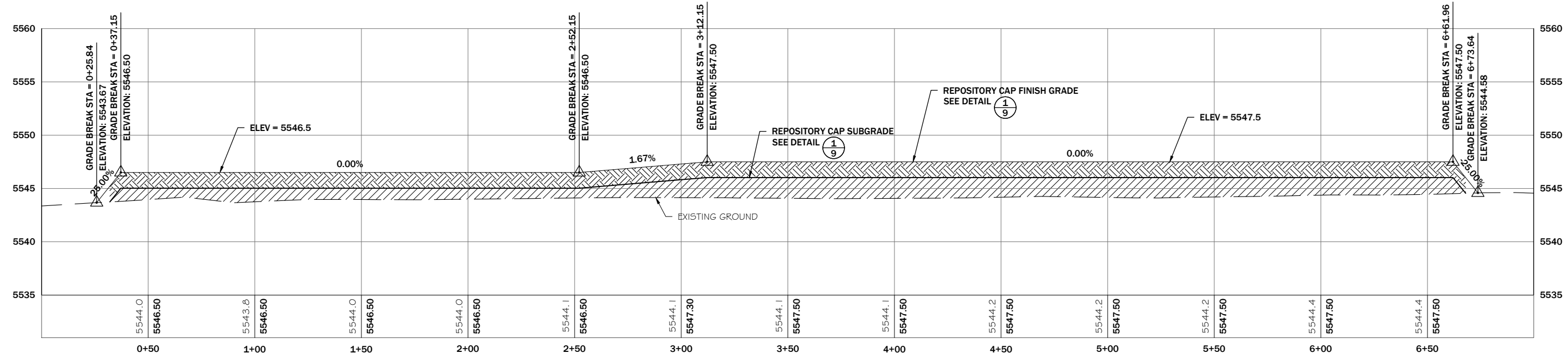
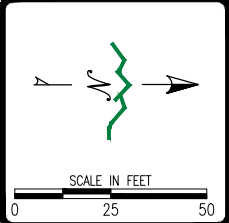


SHEET
 5 OF 9

REVISION:	DATE:	BY:	DESC:

DRAWN BY: CDR
 DESIGNED BY: TPR
 CHECKED BY: JLG
 APPROVED BY: TPR
 PROJECT NO: 05-31-18
 DATE: 05-31-18

DISPLAYED AS:
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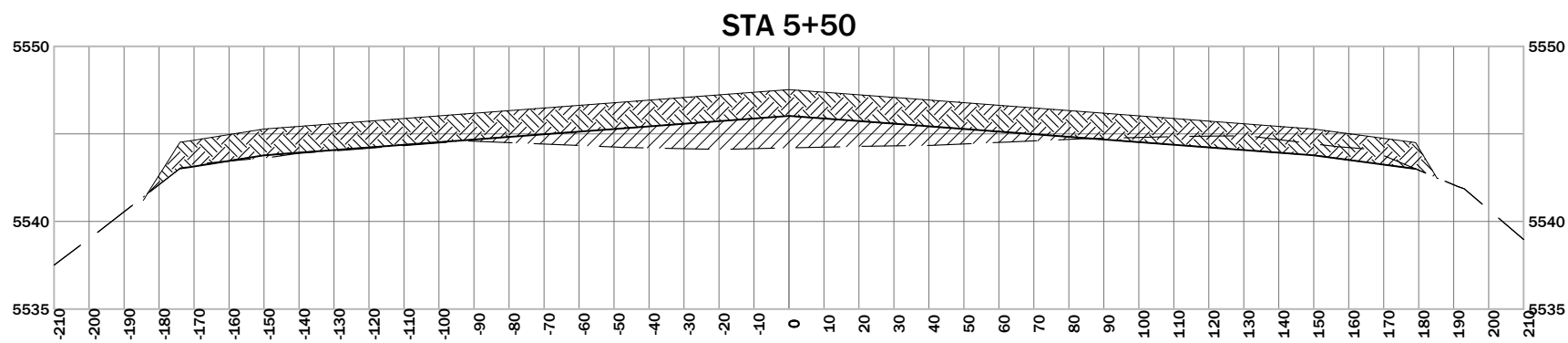
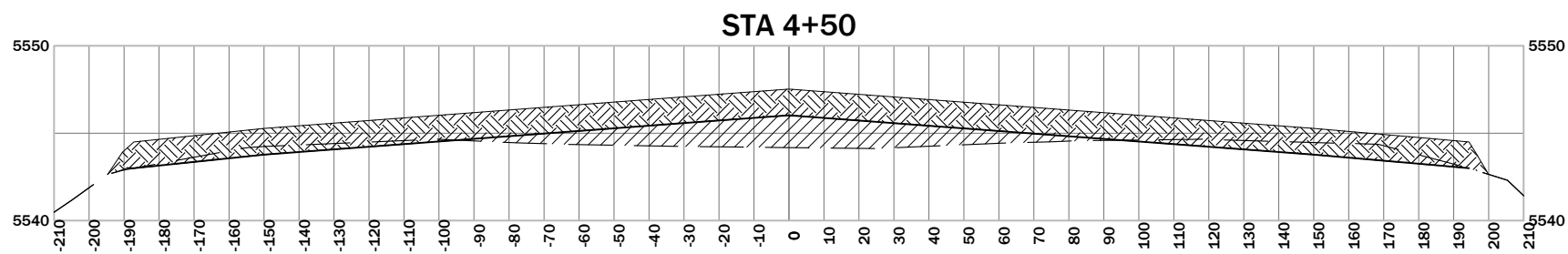
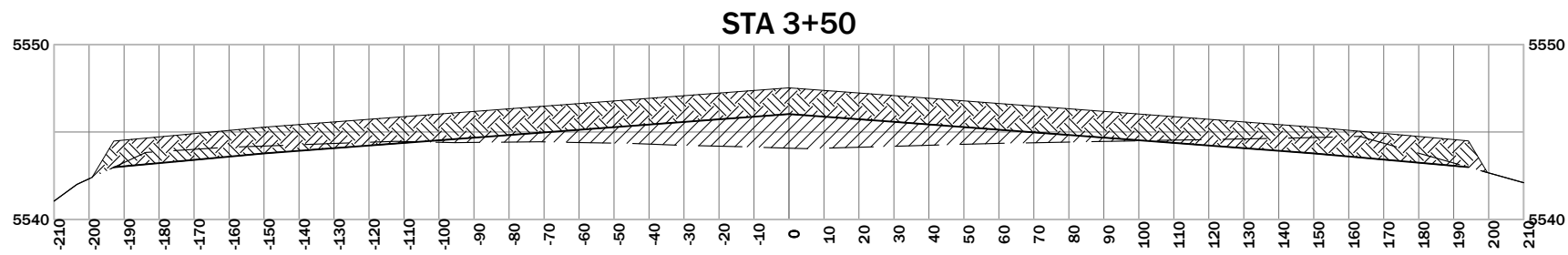
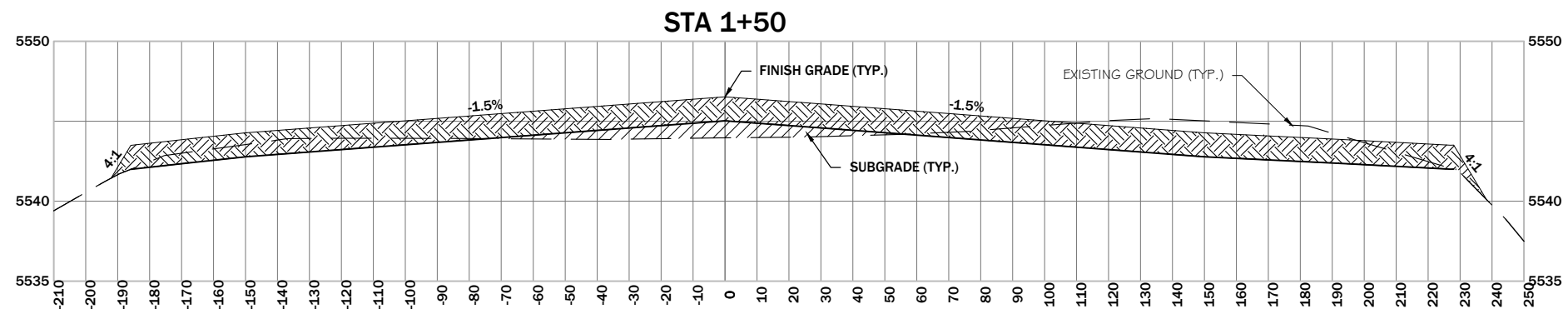
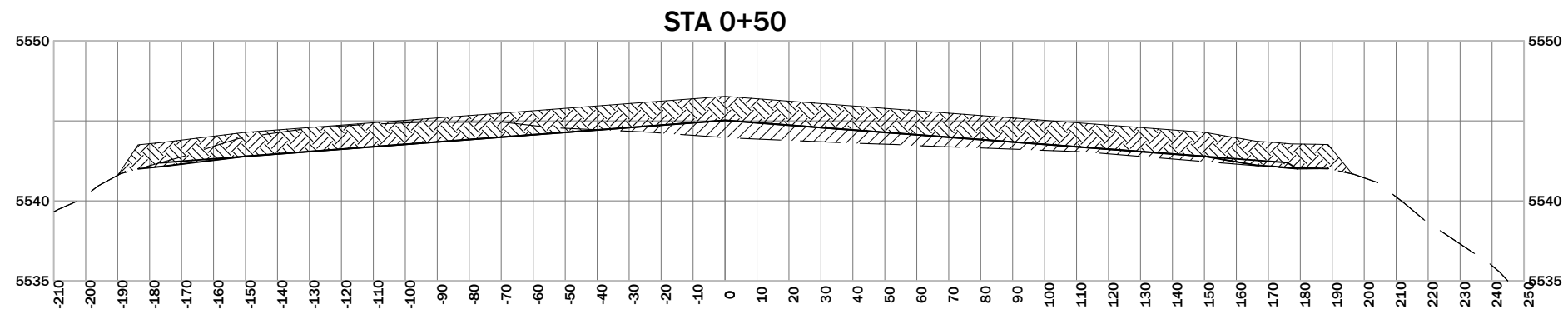
REPOSITORY CAP PROFILE
 VERT. EX = 5X

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 REPOSITORY SOIL CAP

REPOSITORY CAP
 PROFILE



SHEET
 6 OF 9

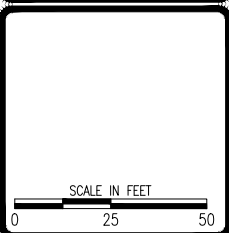


REPOSITORY CAP CROSS SECTIONS
VERTICAL EX. = 5X

REVISION:	DATE:	BY:	DESC:

DRAWN BY: CDR
 DESIGNED BY: JPR
 CHECKED BY: JLG
 APPROVED BY: JPR
 PROJECT NO:
 DATE: 05-31-18

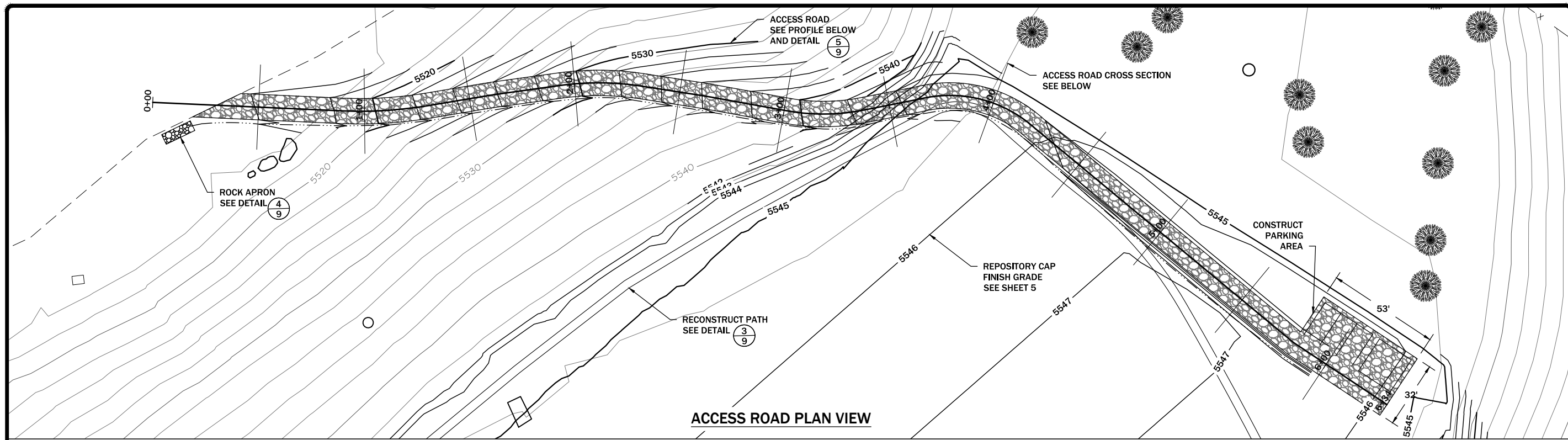
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 SOURCE: PIONEER



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 COAL MINERS PARK
 REPOSITORY SOIL CAP

REPOSITORY CAP
 CROSS SECTIONS

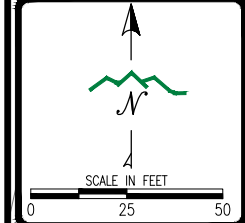




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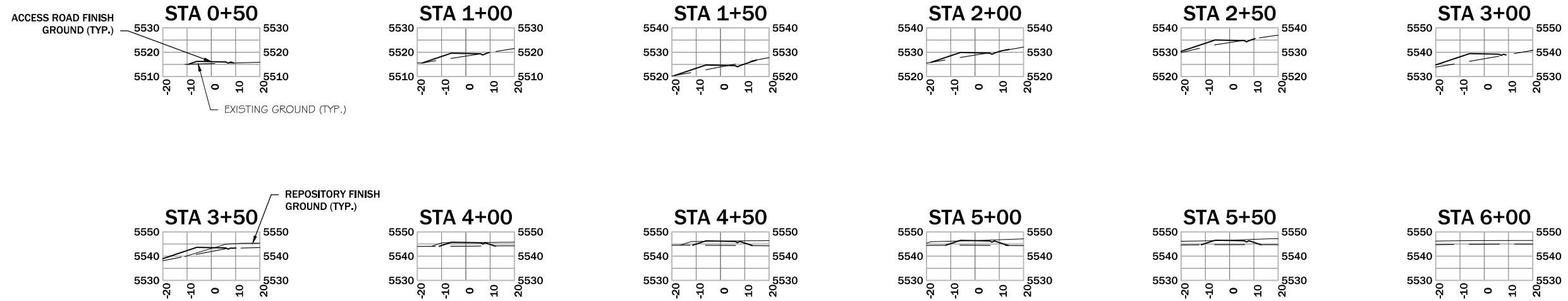
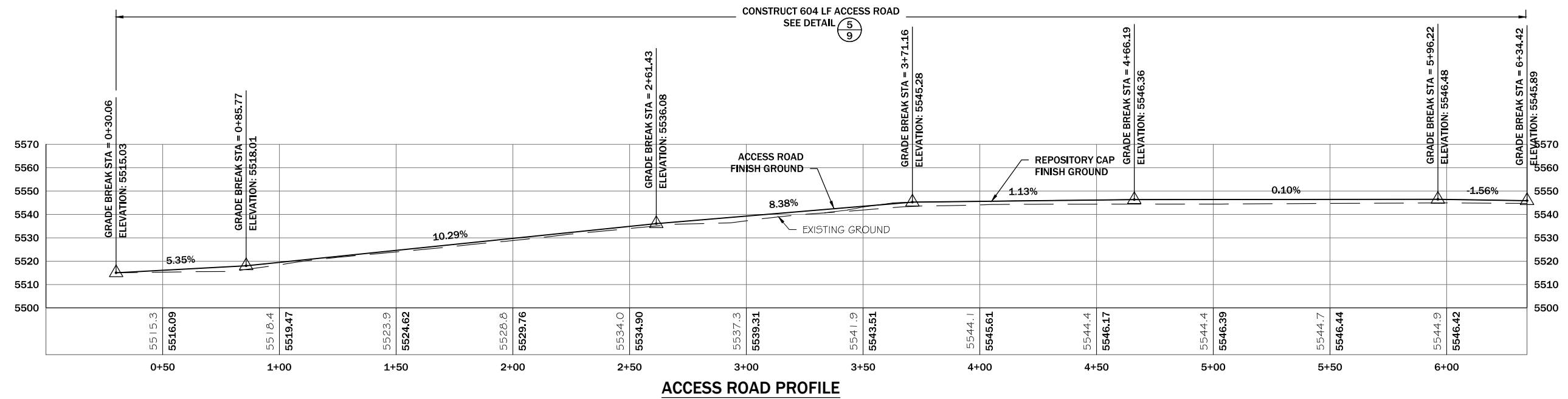
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DESIGNED BY:	TPR
CHECKED BY:	JLG
APPROVED BY:	TPR
PROJECT NO.:	
DATE:	05-31-18

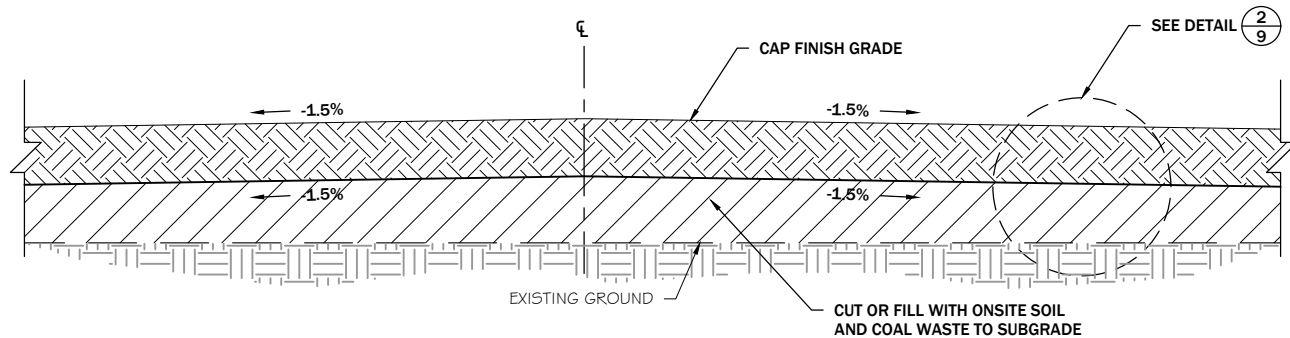
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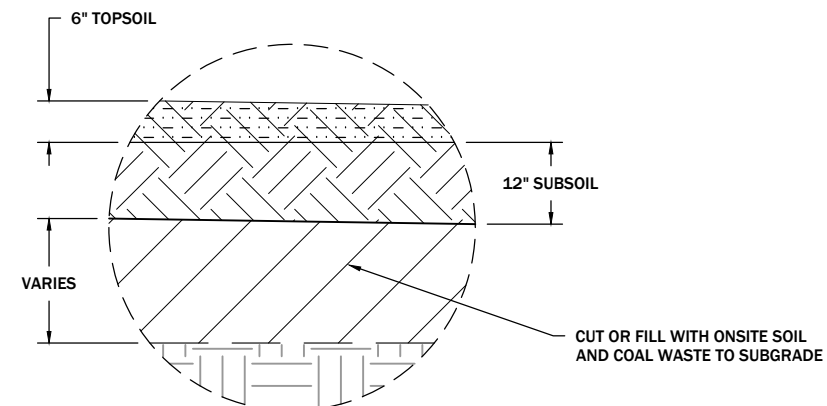
DEO
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 REPOSITORY SOIL CAP

ACCESS ROAD
 PLAN, PROFILE, AND
 CROSS SECTIONS

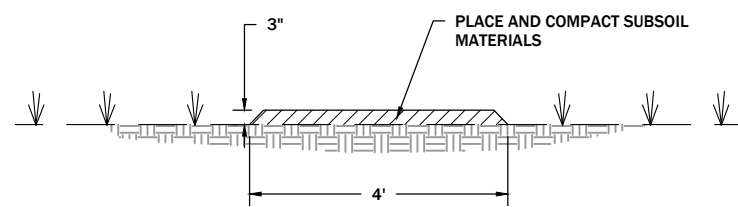




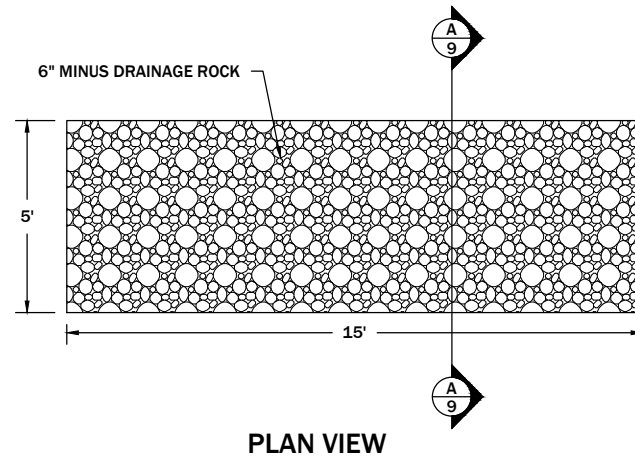
REPOSITORY CAP TYPICAL PROFILE 1/9
N.T.S.



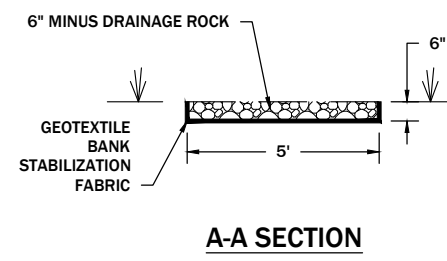
REPOSITORY CAP TYPICAL DETAIL 2/9
N.T.S.



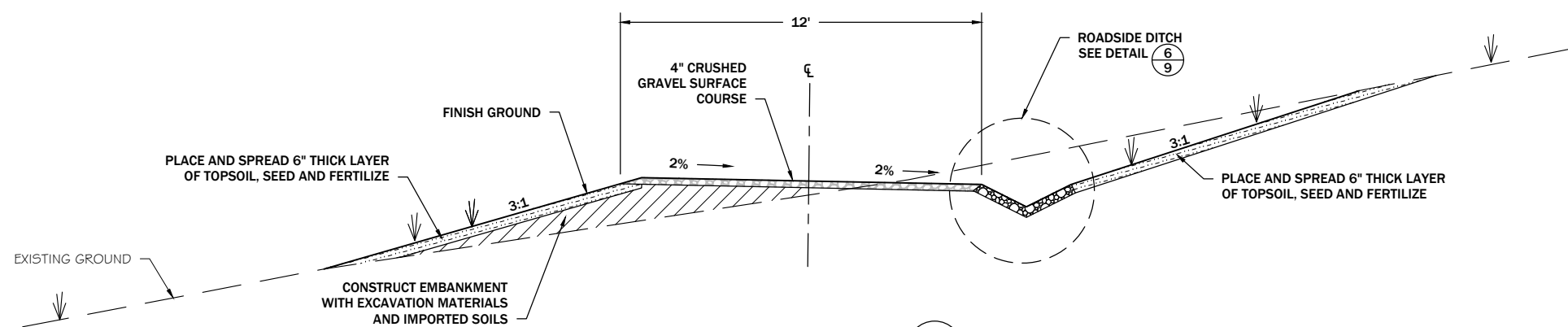
TRAIL RESTORATION TYPICAL DETAIL 3/9
N.T.S.



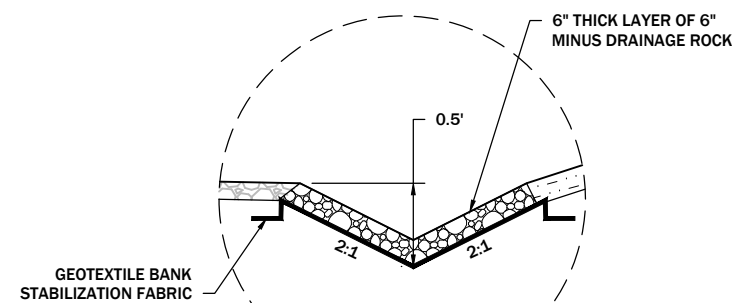
ROCK APRON TYPICAL DETAIL 3/9
N.T.S.



A-A SECTION



ACCESS ROAD TYPICAL DETAIL 5/9
N.T.S.

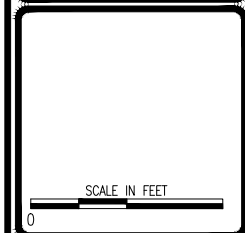


ROADSIDE DITCH TYPICAL DETAIL 6/9
N.T.S.

REVISION:	DATE:	BY:	DESC:

DRAWN BY: CDR
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 CHECKED BY: JLG
 APPROVED BY: TPR
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 DATE: 05-31-18

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 COORD SYS/ZONE: MSP
 DATUM: NAD 83
 UNITS: INT. FEET
 SOURCE: PIONEER



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 REPOSITORY SOIL CAP

TYPICAL
 DETAILS

