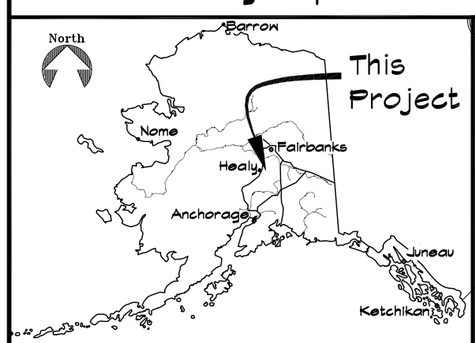
STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF PARKS AND OUTDOOR RECREATION

CRIPPLE CREEK PIT RECLAMATION – PHASE II

PROJECT NO. 52959-6

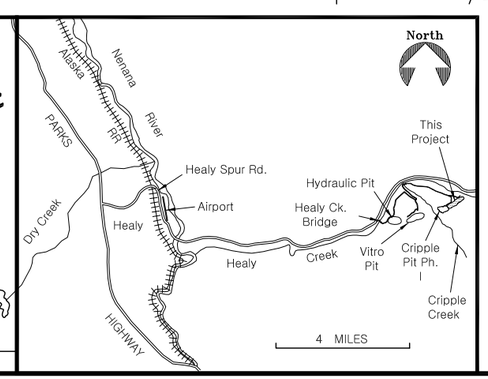
in Cooperation with the AK DNR Division of ML&W

Vicinity Map



SECS. 14 & 15, T12S, R6W, FAIRBANKS MERIDIAN

Location Map



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10. PROFILES F-F' & G-G'
11. DETAILS
12. FINAL STABILIZATION

The following D.O.T. (Highways) standard drawings apply to this project: None

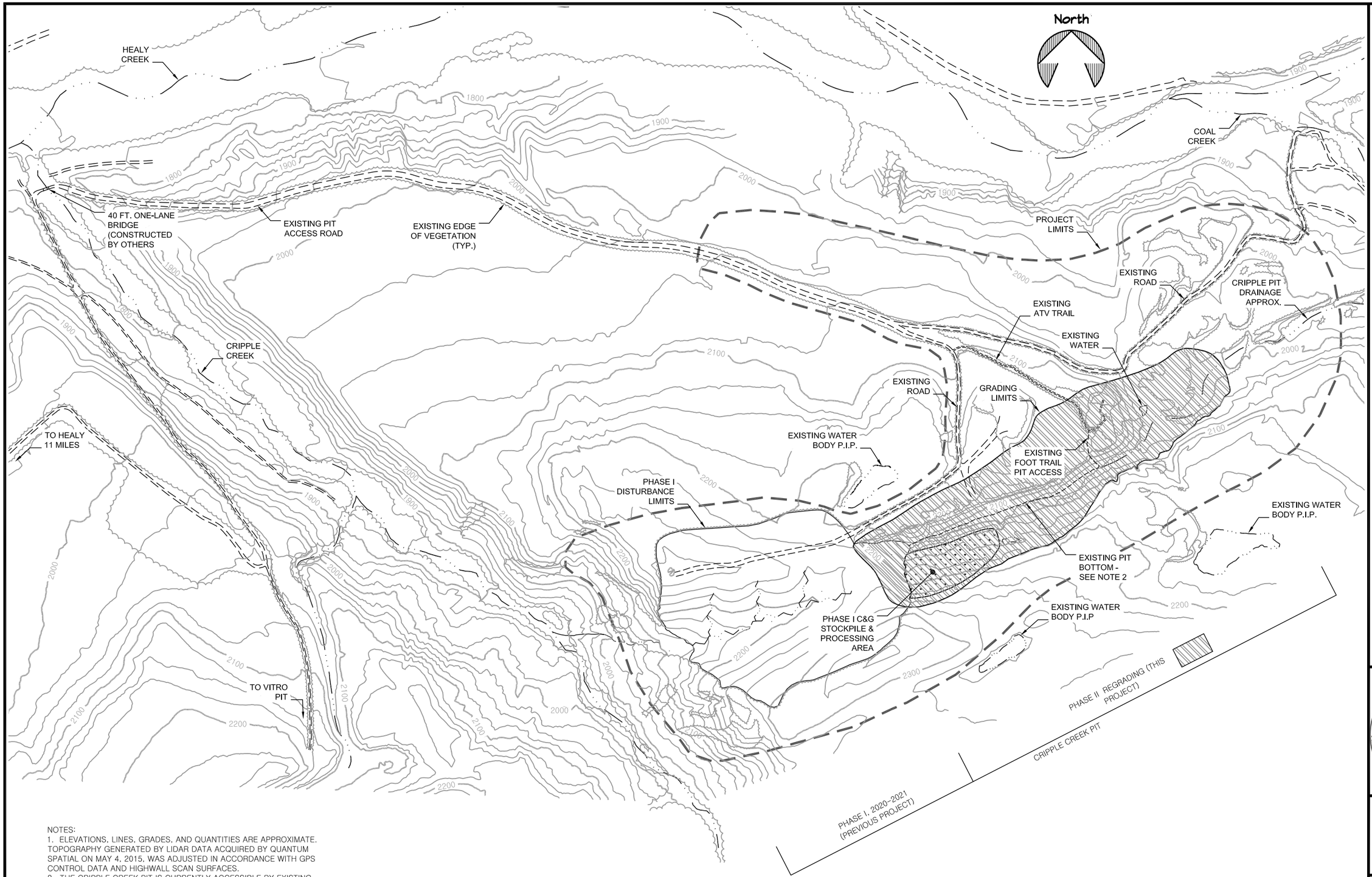
Plans developed by:
STATE OF ALASKA
Department of Natural Resources
Abandoned Mine Lands Section
550 W 7th Ave. Suite 920, Anchorage, AK 99501

Recommended:

Charles J. Ireys — Date
AML Program Manager

Approved:

Christy Colles — Date
Director, Division Mining, Land, & Water



NOTES:
1. ELEVATIONS, LINES, GRADES, AND QUANTITIES ARE APPROXIMATE. TOPOGRAPHY GENERATED BY LIDAR DATA ACQUIRED BY QUANTUM SPATIAL ON MAY 4, 2015. WAS ADJUSTED IN ACCORDANCE WITH GPS CONTROL DATA AND HIGHWALL SCAN SURFACES.
2. THE CRIPPLE CREEK PIT IS CURRENTLY ACCESSIBLE BY EXISTING ROADS ON ITS WESTERN END, AND AN ATV TRAIL TO ITS EASTERN END, WHERE A FOOT PATH DESCENDS A SCREE SLOPE INTO THE PIT BOTTOM. EQUIPMENT ROADS MAY REQUIRE DEVELOPMENT THROUGH THE PIT BOTTOM AND NORTH OF THE HIGHWALL TO ACCESS PROJECT AREAS.

GRAPHIC SCALE
0 500 1000
FEET

STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES
PLANS DEVELOPED BY: DIVISION OF MINING, LAND, & WATER, AML PROGRAM
550 W 7TH AVE. SUITE 920, ANCHORAGE, AK 99501 – 907.269.8603

OVERVIEW

CRIPPLE CREEK PIT RECLAMATION
PHASE II -- PROJECT NO. 52959-6

PREPARED: RDA
DRAWN: RDA
REVIEWED: RM, KW
DATE: 11/14/2023

SHEET
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OF XX SHEETS

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY
201(3A)	CLEARING & GRUBBING	ACRE	32.35
203(3A)	UNCLASSIFIED EXCAVATION	CUBIC YARD	787,817
611(2)	RIPRAP, CLASS I	TON	2,750
618(1)	SEEDING	ACRE	44.30
620(1)	TOPSOIL	SQUARE YARD	214,412
640(1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQ'D
641(1)	EROSION, SEDIMENT, AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQ'D
641(2)	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL	CONTINGENT SUM	ALL REQ'D
641(6)	SWPPP PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQ'D
642(1)	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQ'D
647(2)	WIDE PAD DOZER, 65 HP MINIMUM	HOUR	10
647(6)	HYDRAULIC EXCAVATOR, 1 CY, 100 HP, MINIMUM	HOUR	10
647(7)	MOTOR GRADER, 220 HP MINIMUM	HOUR	10
680(1)	DETENTION POND	LUMP SUM	ALL REQ'D

TABLE OF ESTIMATING FACTORS

ITEM NO.	ITEM	ESTIMATING FACTOR
611(2)	RIPRAP, CLASS I	124 LB. / CU. FT.

LEGEND

EXISTING TOPOGRAPHY
PROPOSED TOPOGRAPHY
CUT BOUNDARY
FILL BOUNDARY
FOOT TRAIL ACCESS
ATV TRAIL
EXISTING ROAD EDGES
EXISTING STREAM, POND
EXISTING EDGE OF VEGETATION
PROPOSED CLEARING & GRUBBING
PROJECT BOUNDARY
BLANKET DRAIN
CONTROL POINT

OTHER LINETYPES AND HATCH PATTERNS WITH SPECIFIC APPLICATIONS ARE LABELED IN THE DRAWINGS.

ABBREVIATIONS

Ø	DIAMETER
2:1, 4:1	SLOPE RATIOS, IN HORIZONTAL TO VERTICAL UNITS
ACOE	U.S. ARMY CORPS OF ENGINEERS
ADEC	ALASKA DEPT. OF ENVIRONMENTAL CONSERVATION
ADF&G	ALASKA DEPARTMENT OF FISH AND GAME
APPROX.	APPROXIMATE
BMP	BEST MANAGEMENT PRACTICES
B.O.P.	BEGINNING OF PROJECT
C&G	CLEARING AND GRUBBING
CFS	CUBIC FEET PER SECOND
CL	CENTERLINE
CP	CONTROL POINT
C.F.	CUBIC FEET
C.Y.	CUBIC YARD
E.C.B.	EROSION CONTROL BLANKET
E.O.P.	END OF PROJECT
F.G.	FINAL GRADE
FT.	FEET
GPM	GALLONS PER MINUTE
GPS	GLOBAL POSITIONING SYSTEM
IN.	INCHES
L.S.	LUMP SUM
N, S, E, W	NORTH, SOUTH, EAST WEST
NAD83	NORTH AMERICAN DATUM, 1983
O.G.	ORIGINAL GROUND, EXISTING TOPOGRAPHY
O.H.W.	ORDINARY HIGH WATER
PERF	PERFORATED
P.I.P.	PRESERVE IN PLACE
PT.	POINT
Q	FLOW RATE, EXPRESSED IN VOLUME PER UNIT TIME
S.P.	STATE PLANE COORDINATE SYSTEM
SQ. FT.	SQUARE FEET
SQ. YD.	SQUARE YARDS
STA.	STATION
TRANS.	TRANSITION
TYP.	TYPICAL

STATE OF ALASKA 49TH Rys B. Miranda CE – 11010 Registered Professional Engineer

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ESTIMATE OF QUANTITIES, LEGEND, & TABLE OF ESTIMATING FACTORS

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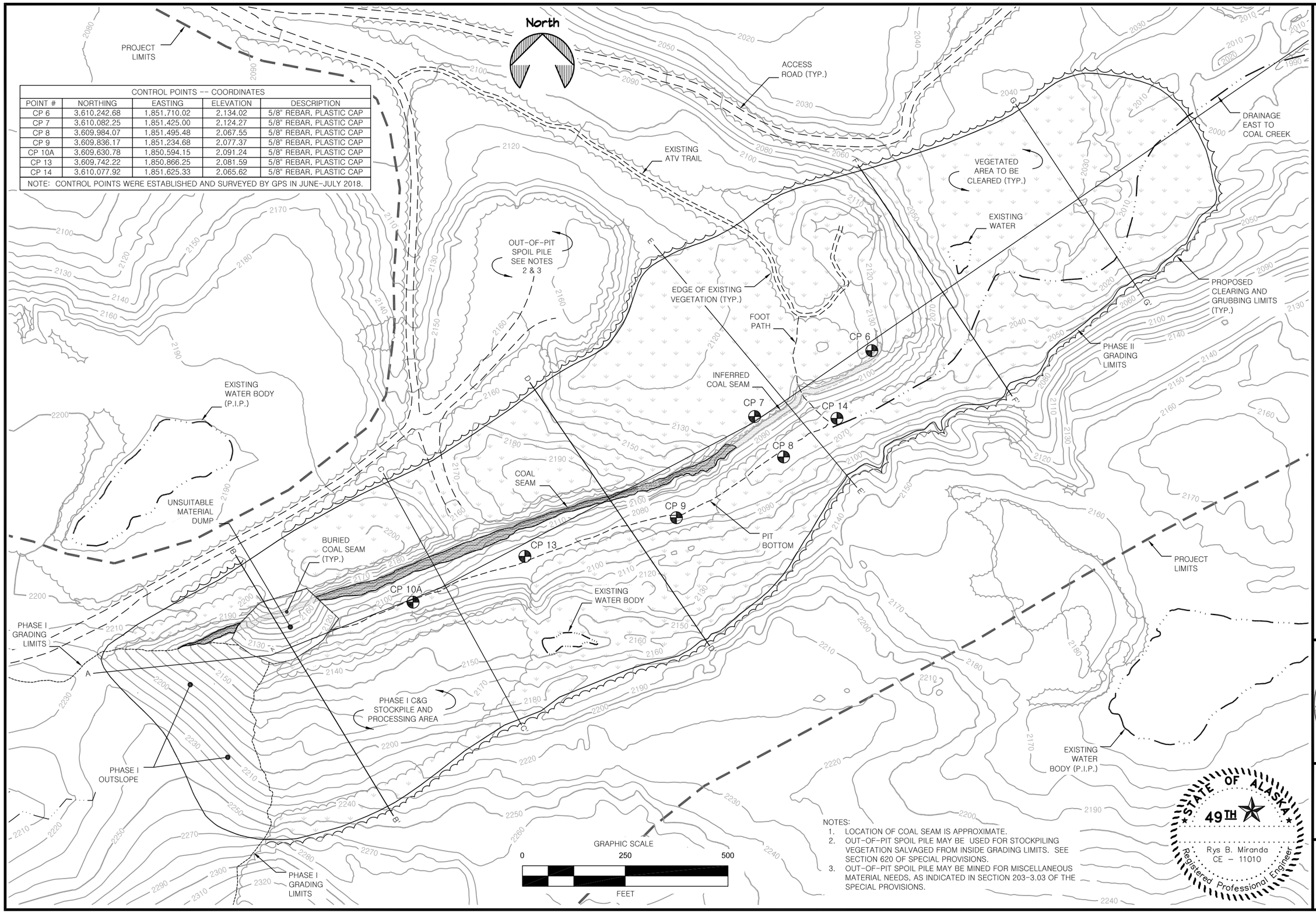
CONTROL POINTS -- COORDINATES				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP 6	3,610,242.68	1,851,710.02	2,134.02	5/8" REBAR, PLASTIC CAP
CP 7	3,610,082.25	1,851,425.00	2,124.27	5/8" REBAR, PLASTIC CAP
CP 8	3,609,984.07	1,851,495.48	2,067.55	5/8" REBAR, PLASTIC CAP
CP 9	3,609,836.17	1,851,234.68	2,077.37	5/8" REBAR, PLASTIC CAP
CP 10A	3,609,630.78	1,850,594.15	2,091.24	5/8" REBAR, PLASTIC CAP
CP 13	3,609,742.22	1,850,866.25	2,081.59	5/8" REBAR, PLASTIC CAP
CP 14	3,610,077.92	1,851,625.33	2,065.62	5/8" REBAR, PLASTIC CAP
NOTE: CONTROL POINTS WERE ESTABLISHED AND SURVEYED BY GPS IN JUNE-JULY 2018.				



NOTES:
1. LOCATION OF COAL SEAM IS APPROXIMATE.
2. OUT-OF-PIT SPOIL PILE MAY BE USED FOR STOCKPILING VEGETATION SALVAGED FROM INSIDE GRADING LIMITS. SEE SECTION 620 OF SPECIAL PROVISIONS.
3. OUT-OF-PIT SPOIL PILE MAY BE MINED FOR MISCELLANEOUS MATERIAL NEEDS, AS INDICATED IN SECTION 203-3.03 OF THE SPECIAL PROVISIONS.

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EXISTING CONDITIONS, CLEARING & GRUBBING PLAN, & CONTROL POINTS

CRIPPLE CREEK PIT RECLAMATION
PHASE II -- PROJECT NO. 52959-6

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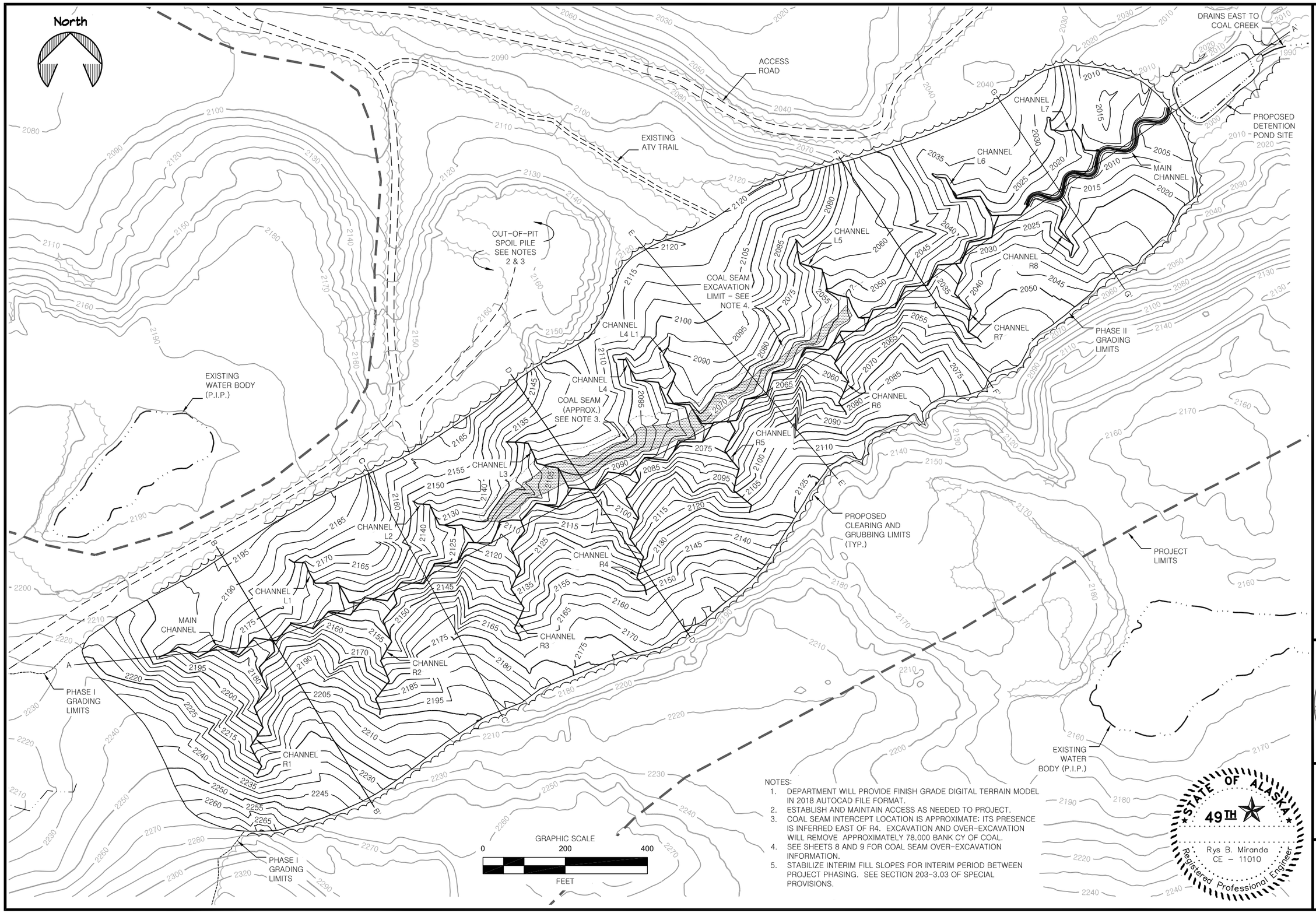
SHEET 04 OF XX SHEETS



NOTES:

1. DEPARTMENT WILL PROVIDE FINISH GRADE DIGITAL TERRAIN MODEL IN 2018 AUTOCAD FILE FORMAT.
2. ESTABLISH AND MAINTAIN ACCESS AS NEEDED TO PROJECT.
3. COAL SEAM INTERCEPT LOCATION IS APPROXIMATE: ITS PRESENCE IS INFERRED EAST OF R4. EXCAVATION AND OVER-EXCAVATION WILL REMOVE APPROXIMATELY 78,000 BANK CY OF COAL.
4. SEE SHEETS 8 AND 9 FOR COAL SEAM OVER-EXCAVATION INFORMATION.
5. STABILIZE INTERIM FILL SLOPES FOR INTERIM PERIOD BETWEEN PROJECT PHASING. SEE SECTION 203-3.03 OF SPECIAL PROVISIONS.

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GRADING PLAN

CRIPPLE CREEK PIT RECLAMATION
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ALASKA DEPARTMENT OF NATURAL RESOURCES

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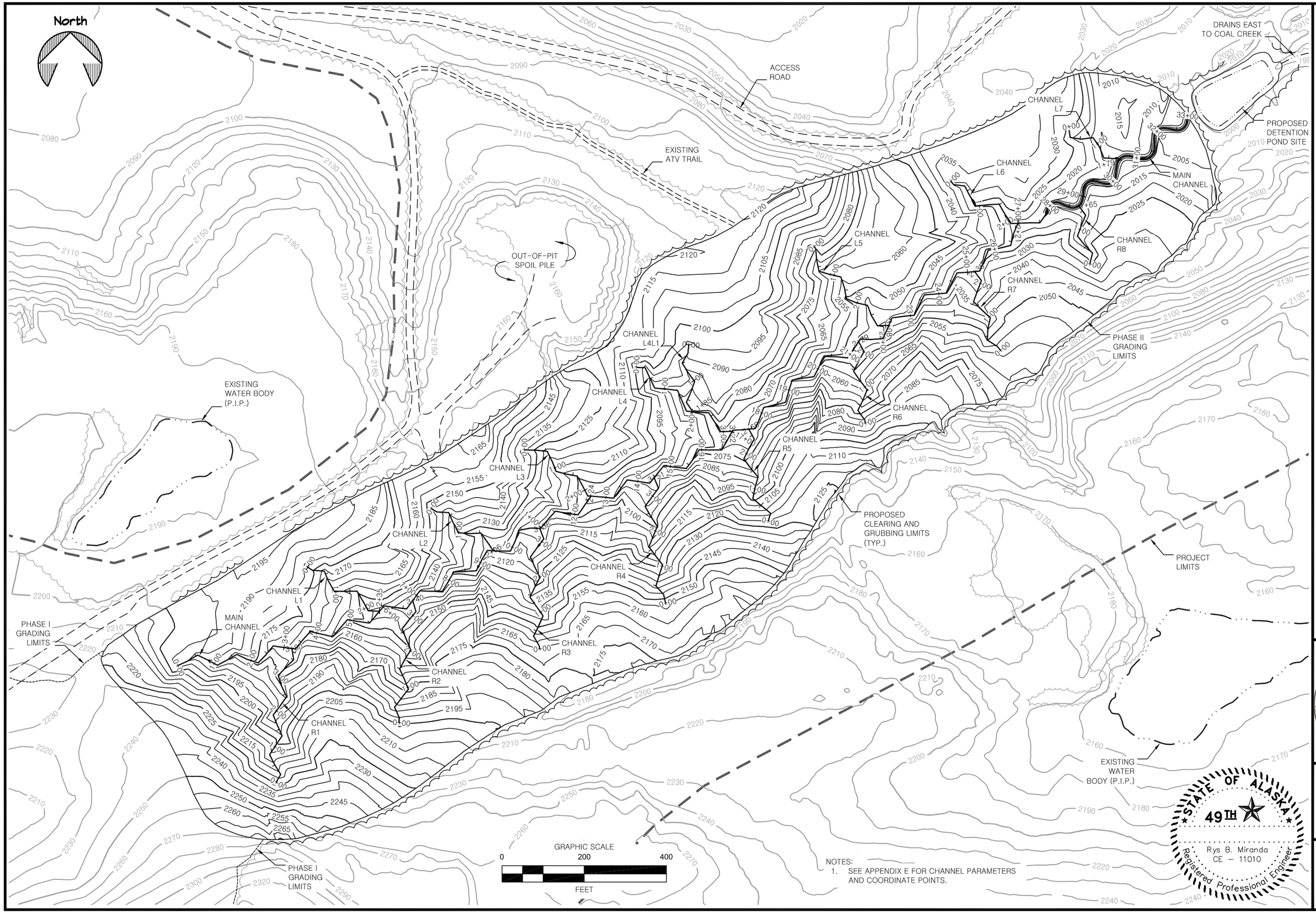

NOTES:
1. SEE APPENDIX E FOR CHANNEL PARAMETERS AND COORDINATE POINTS.

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DRAINAGE PLAN

CRIPPLE CREEK PIT RECLAMATION
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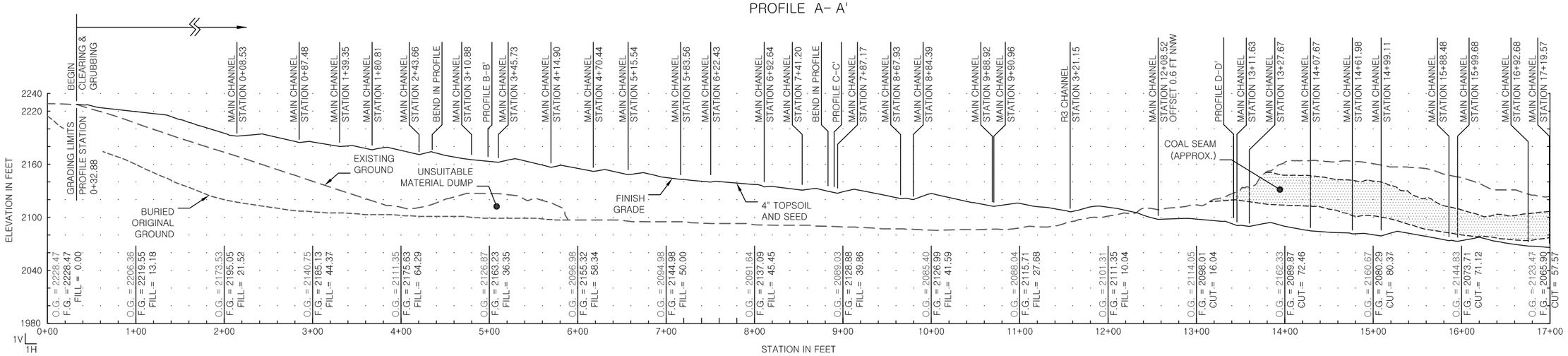
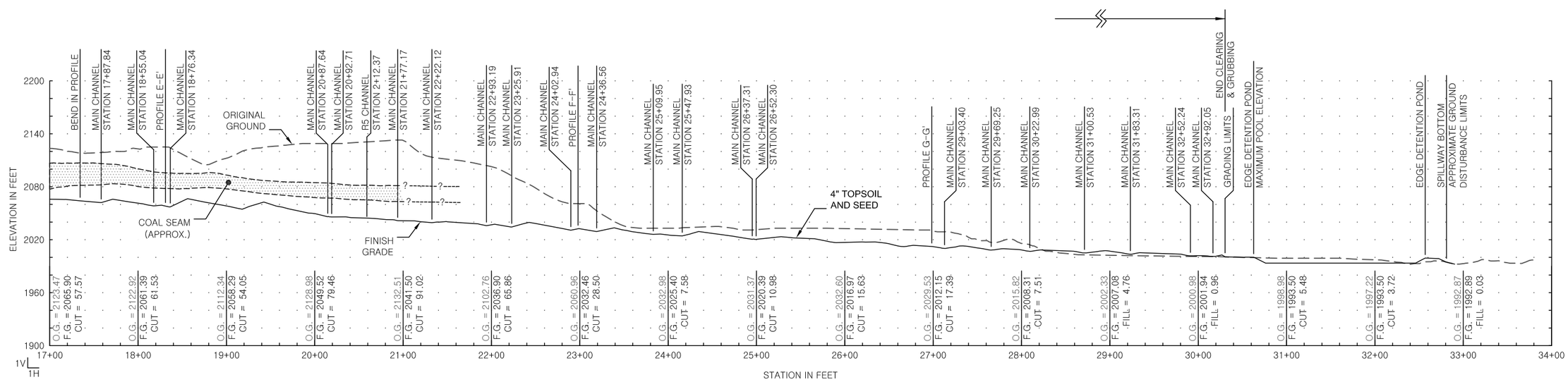
DATE: 11/14/2023

SHEET 06 OF XX SHEETS

PROFILE A- A'



PROFILE A- A' (CONT.)



NOTES:

1. STATIONING SHOWN REFERENCES THE MAIN CHANNEL, UNLESS OTHERWISE NOTED.
2. COAL SEAM IS INFERRED WHERE BURIED, EAST OF APPROX. PROFILE STATION 21+00.

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PROFILE A-A'

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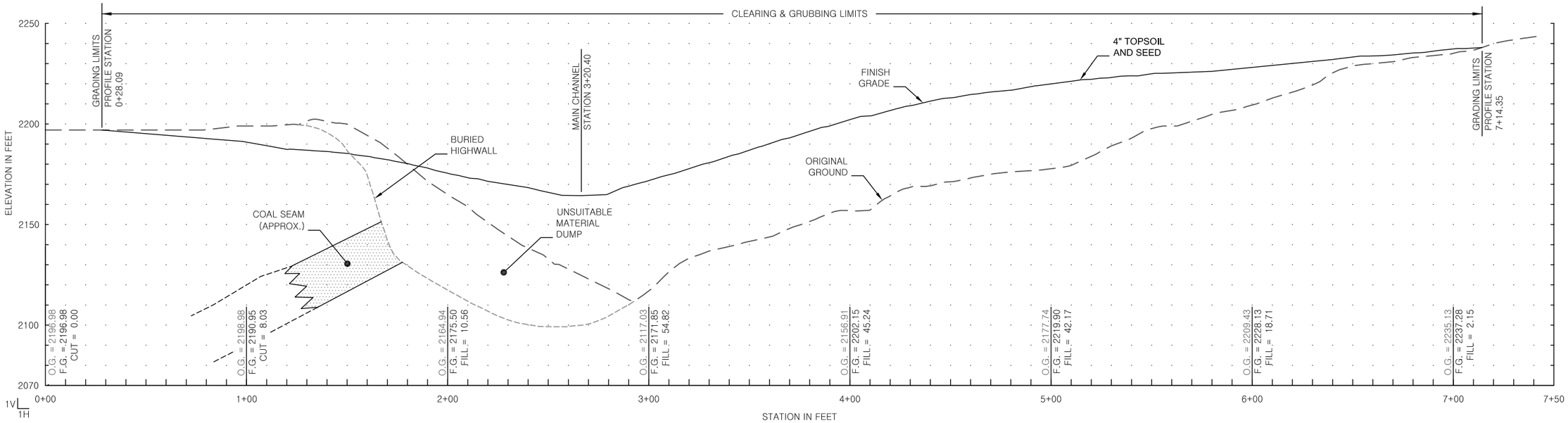
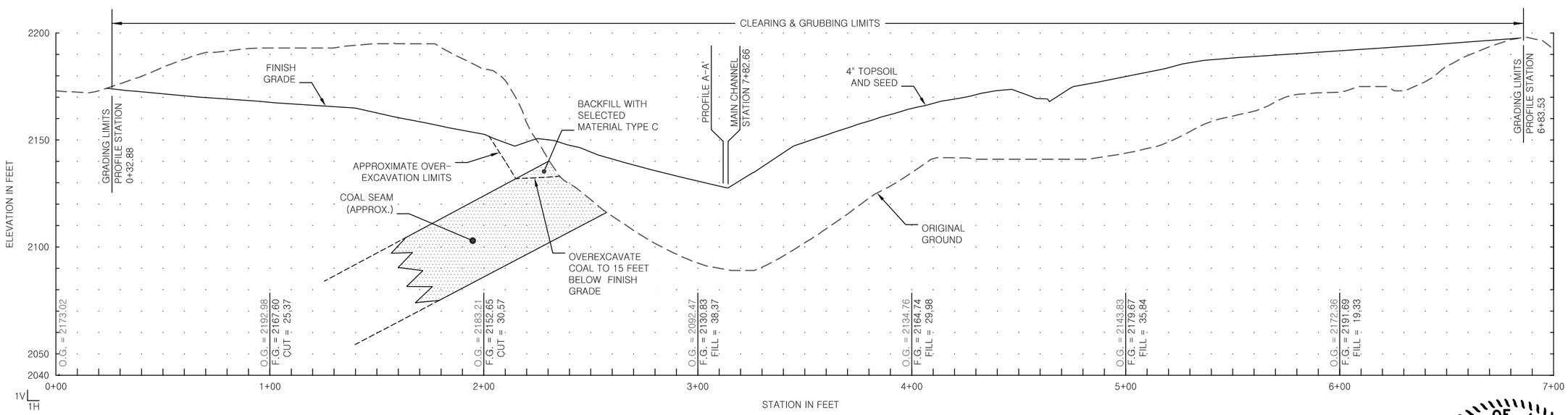
SHEET 07 OF 13 SHEETS

PROFILE B-B'



PROFILE C-C'



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PROFILES B-B' & C-C'

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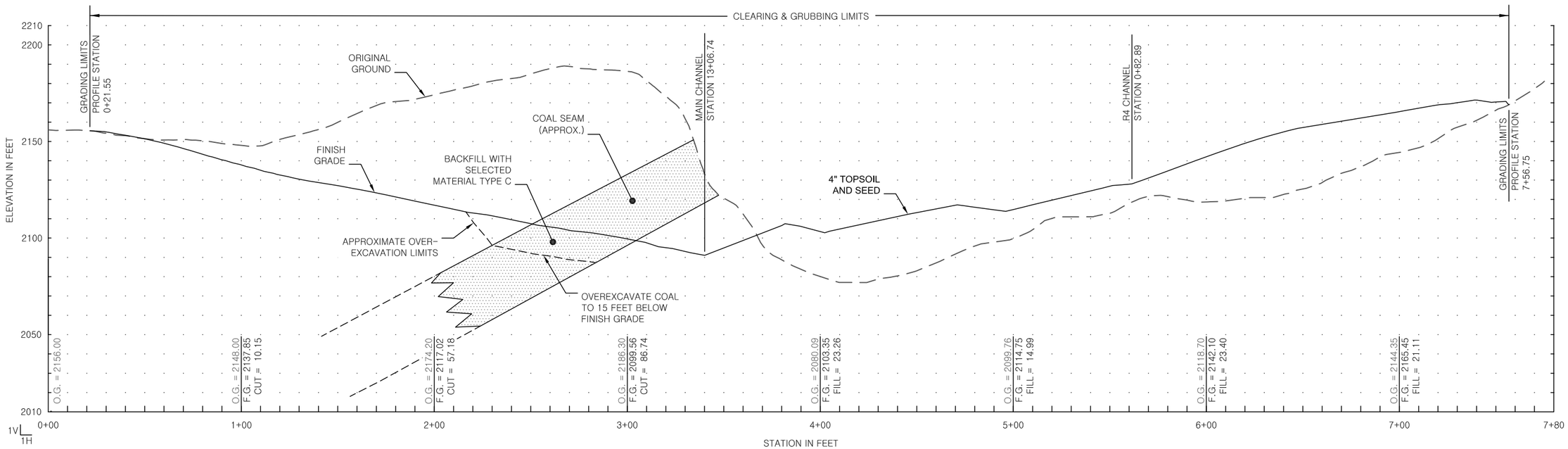
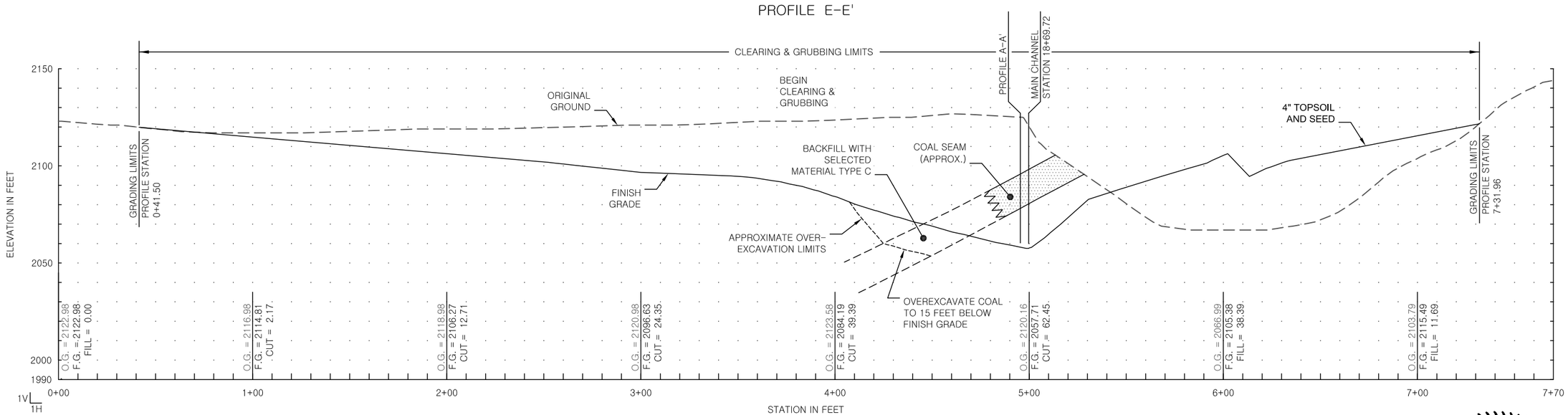
SHEET 08 OF 13 SHEETS

PROFILE D-D'



PROFILE E-E'



NOTE: STATIONING REFERENCES CHANNELS, UNLESS OTHERWISE NOTED.

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PROFILES D-D' & E-E'

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SHEET
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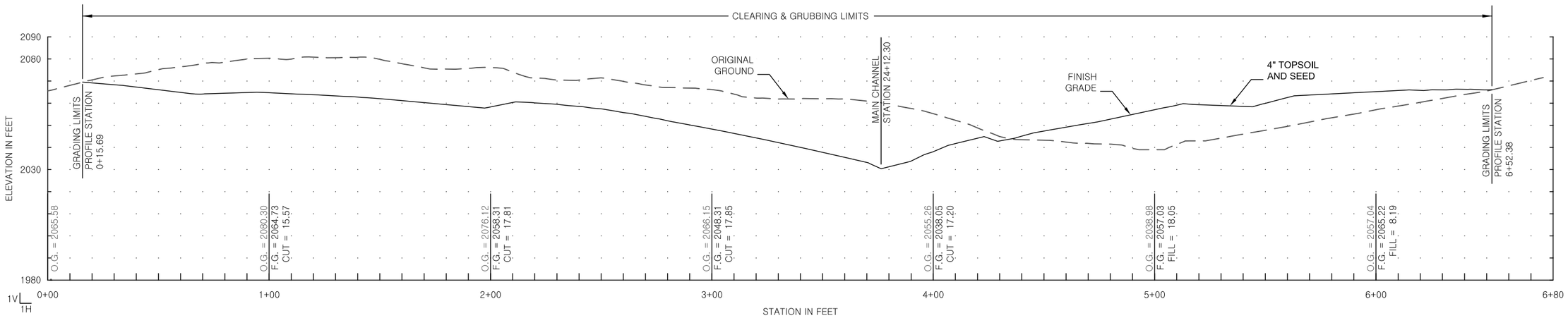
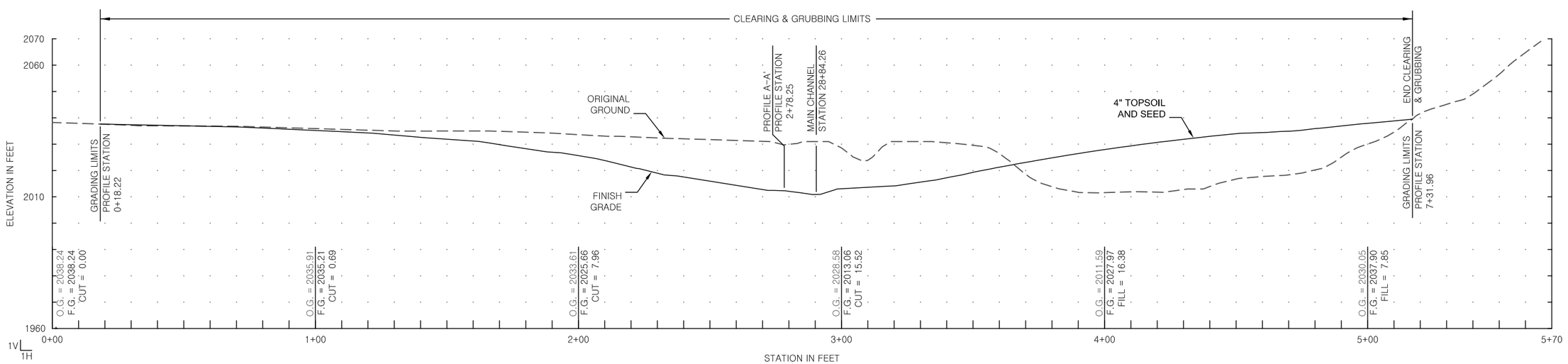
OF 13 SHEETS

PROFILE F-F'



PROFILE G-G'



NOTE: STATIONING SHOWN REFERENCES CHANNELS, UNLESS OTHERWISE NOTED.

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PROFILES F-F' & G-G'

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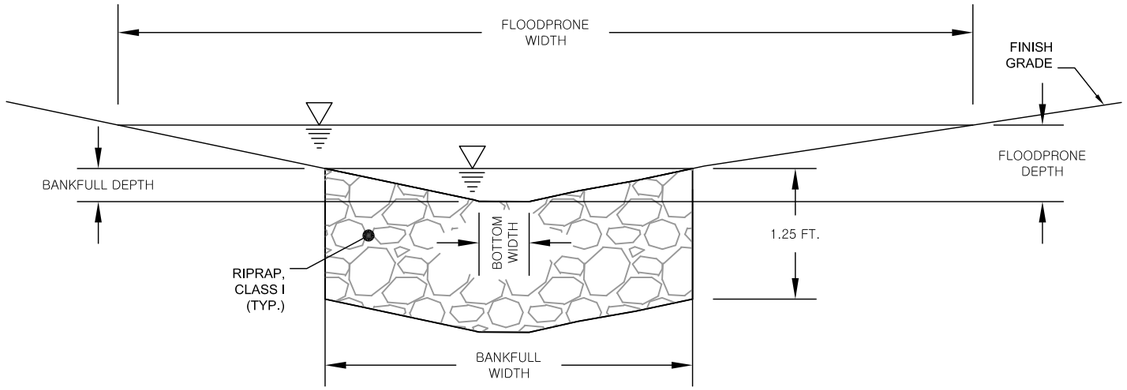
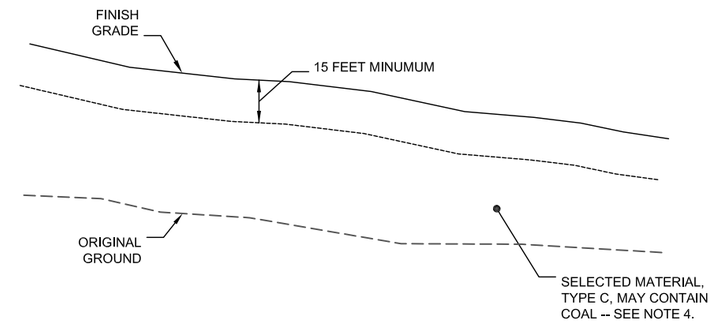
SHEET 10 OF 13 SHEETS



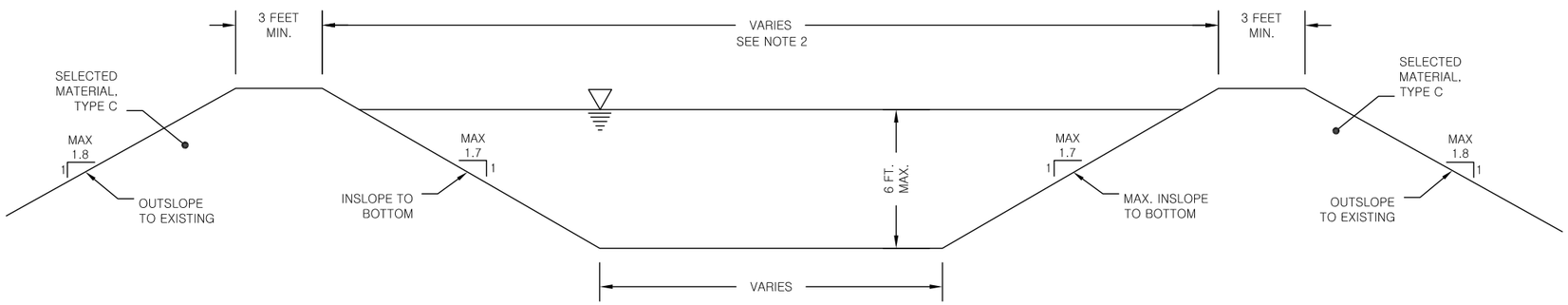
1/12 CHANNEL PARAMETERS, TYPICAL SECTION

TYPICAL CHANNEL -- SEE NOTE 1



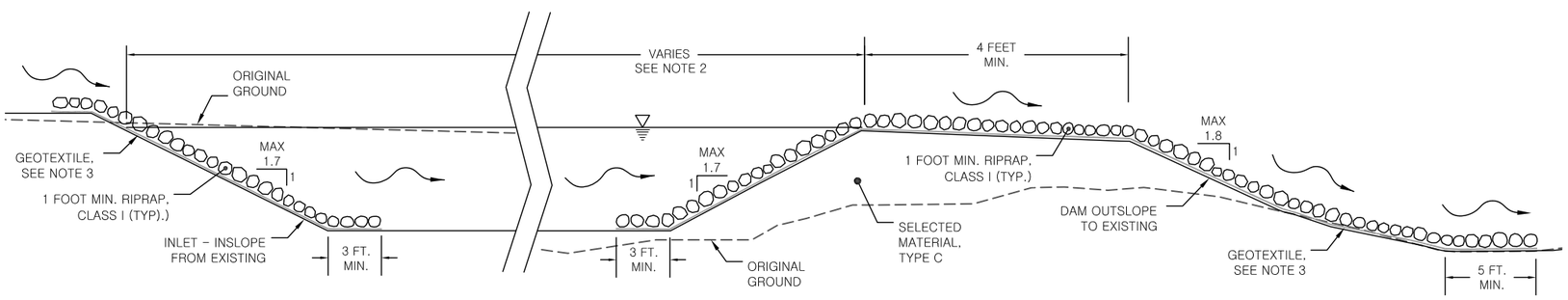
4/12 TYPICAL COAL DISPOSAL DETAIL

PROFILE SHOWING MINIMUM BURIAL DEPTH



2/12 TYPICAL DETENTION POND CROSS-SECTION

PROFILE ACROSS POND WIDTH



3/12 TYPICAL DETENTION POND INLET & OUTLET

PROFILE ALONG POND LENGTH

NOTES:

1. CHANNEL WIDTHS, DEPTHS, AND SIDE SLOPES VARY. SEE APPENDIX E FOR PARAMETERS AND COORDINATE POINTS.
2. DIMENSION POND TO MEET THE FOLLOWING REQUIREMENTS:
   CAPACITY: 84,300 CUBIC FEET
   INFLOW RATE: 21.7 CFS PEAK FLOW
   OUTFLOW RATE: 2.0 CFS AT PEAK FLOW
   FINAL CONFIGURATION AND DIMENSIONS ARE TO BE DEVELOPED BY THE CONTRACTOR.
3. GEOTEXTILE SEPARATION FABRIC, CLASS 1 OR BETTER.
4. COAL MAY BE BURIED WITHIN FILL LIMITS, WITH A MINIMUM 15-FOOT DEPTH OF NON-COAL FILL COVER.

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DETAILS

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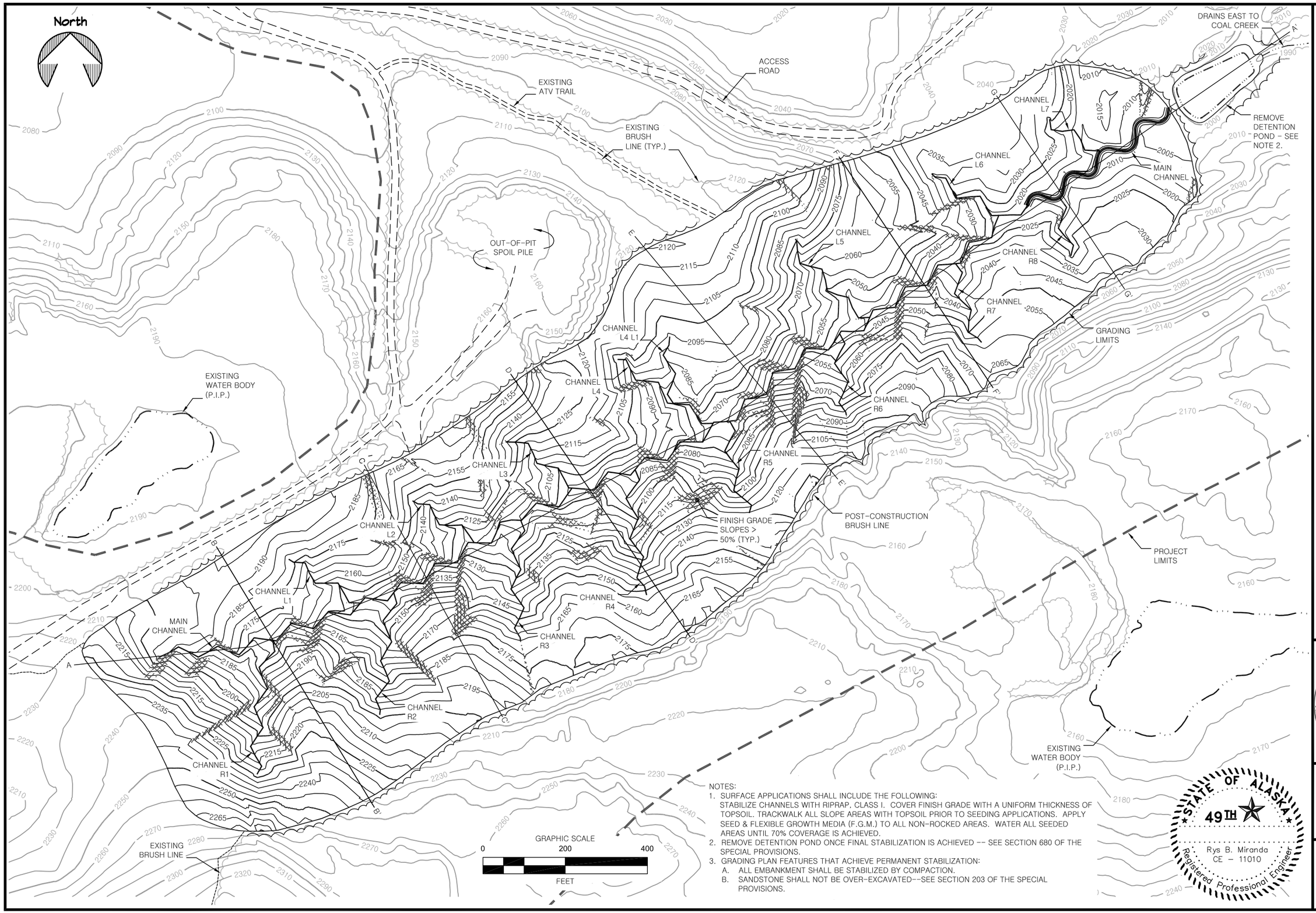
SHEET 11 OF 13 SHEETS



NOTES:

1. SURFACE APPLICATIONS SHALL INCLUDE THE FOLLOWING: STABILIZE CHANNELS WITH RIPRAP, CLASS I. COVER FINISH GRADE WITH A UNIFORM THICKNESS OF TOPSOIL. TRACKWALK ALL SLOPE AREAS WITH TOPSOIL PRIOR TO SEEDING APPLICATIONS. APPLY SEED & FLEXIBLE GROWTH MEDIA (F.G.M.) TO ALL NON-ROCKED AREAS. WATER ALL SEEDED AREAS UNTIL 70% COVERAGE IS ACHIEVED.
2. REMOVE DETENTION POND ONCE FINAL STABILIZATION IS ACHIEVED -- SEE SECTION 680 OF THE SPECIAL PROVISIONS.
3. GRADING PLAN FEATURES THAT ACHIEVE PERMANENT STABILIZATION:
   A. ALL EMBANKMENT SHALL BE STABILIZED BY COMPACTION.
   B. SANDSTONE SHALL NOT BE OVER-EXCAVATED--SEE SECTION 203 OF THE SPECIAL PROVISIONS.

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FINAL STABILIZATION

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SHEET 12 OF 12 SHEETS