



ST. ANTHONY MINE

Closeout Plan - Design Drawings

Prepared For

UNITED NUCLEAR CORPORATION AND GENERAL ELECTRIC COMPANY



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PRELIMINARY
FOR DISCUSSION ONLY

Tuesday, September 30, 2025 8:45:30 AM K:\PROJECTS\SE-DRIVE\STANTEC\233001363\SHEETS\02-29-2020_STA_DESIGN_DRAWINGS\COVER SHEET.DWG Layout\COVER SHEET

2	06/2025	KR	90% DESIGN
1	11/2021	KR	30% DESIGN
0	02/2019	KR	PRELIMINARY DESIGN
REV	DATE	BY	DESCRIPTION
DRAWN K. REED			
CHECKED M. KAPP			
APPROVED J. CUMBERS			

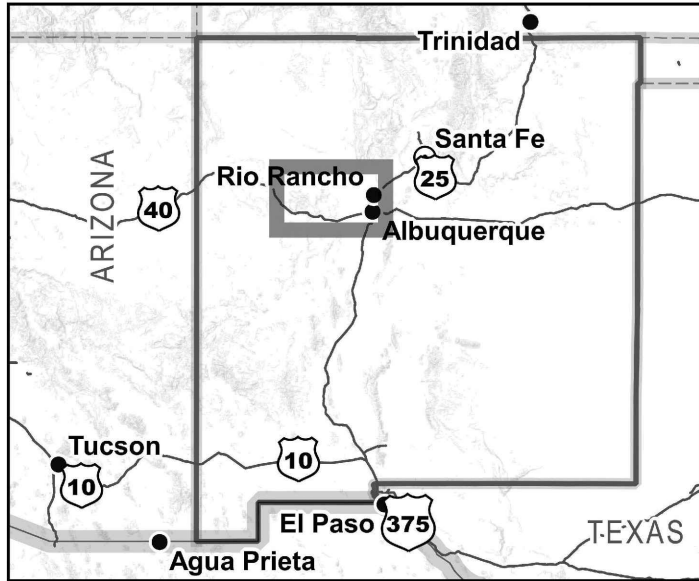
DRAWING REFERENCES:
1. All coordinates in New Mexico State Plane West, NAD83, Feet (U.S. Survey).
2. Elevations/Topo:
2.1. On site: Cooper Aerial, 05/09/2011, (050911-1000overview3d.dwg)
2.2. Supplemental Off Site: USGS DEM 10m
3. Township and Section lines: rgis.unm.edu, 08/04/2014
4. Parcels and Cibolaleta Land Grant: Cibola County, cibolacountynm.com, 02/15/18
5. Permit Boundary: (1008596X001.dwg)



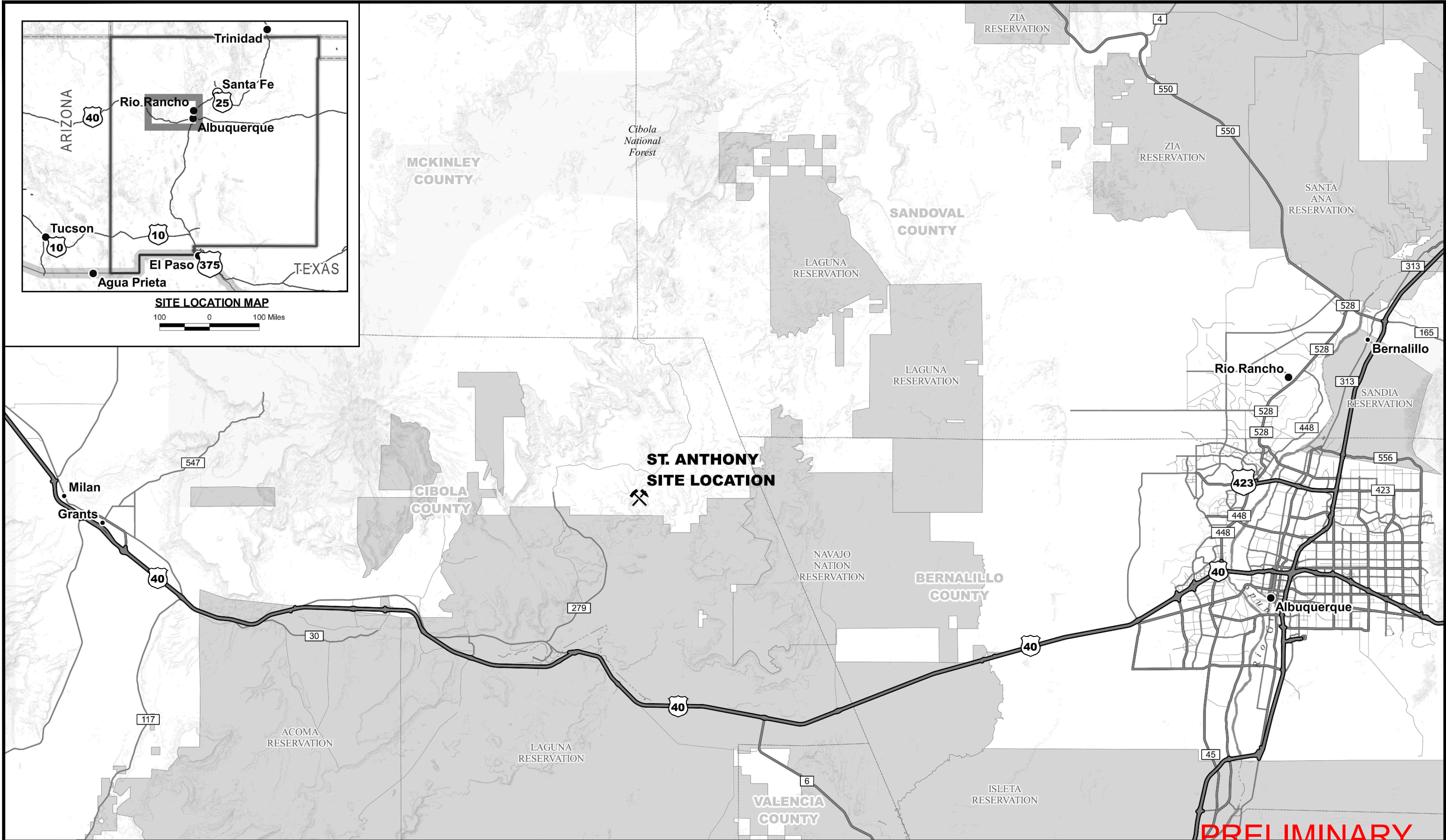
UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO

COVER SHEET

Tuesday, September 30, 2025 8:45:29 AM K:\REED C:\PROJECT\WSE-DRIVE\STANTEC\233001363\SHEETS\W02-29-2020_STA_DESIGN_DRAWINGS\SITE LOCATION.DWG Layout:SITE LOCATION



SITE LOCATION MAP
100 0 100 Miles



SITE VICINITY MAP

5 0 5 Miles

PRELIMINARY

FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION	DRAWN	CHECKED	APPROVED
2	06/2025	KR	90% DESIGN	K. REED		
1	11/2021	KR	30% DESIGN		M.KAPP	
0	02/2019	KR	PRELIMINARY DESIGN			
						J. CUMBERS



UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO

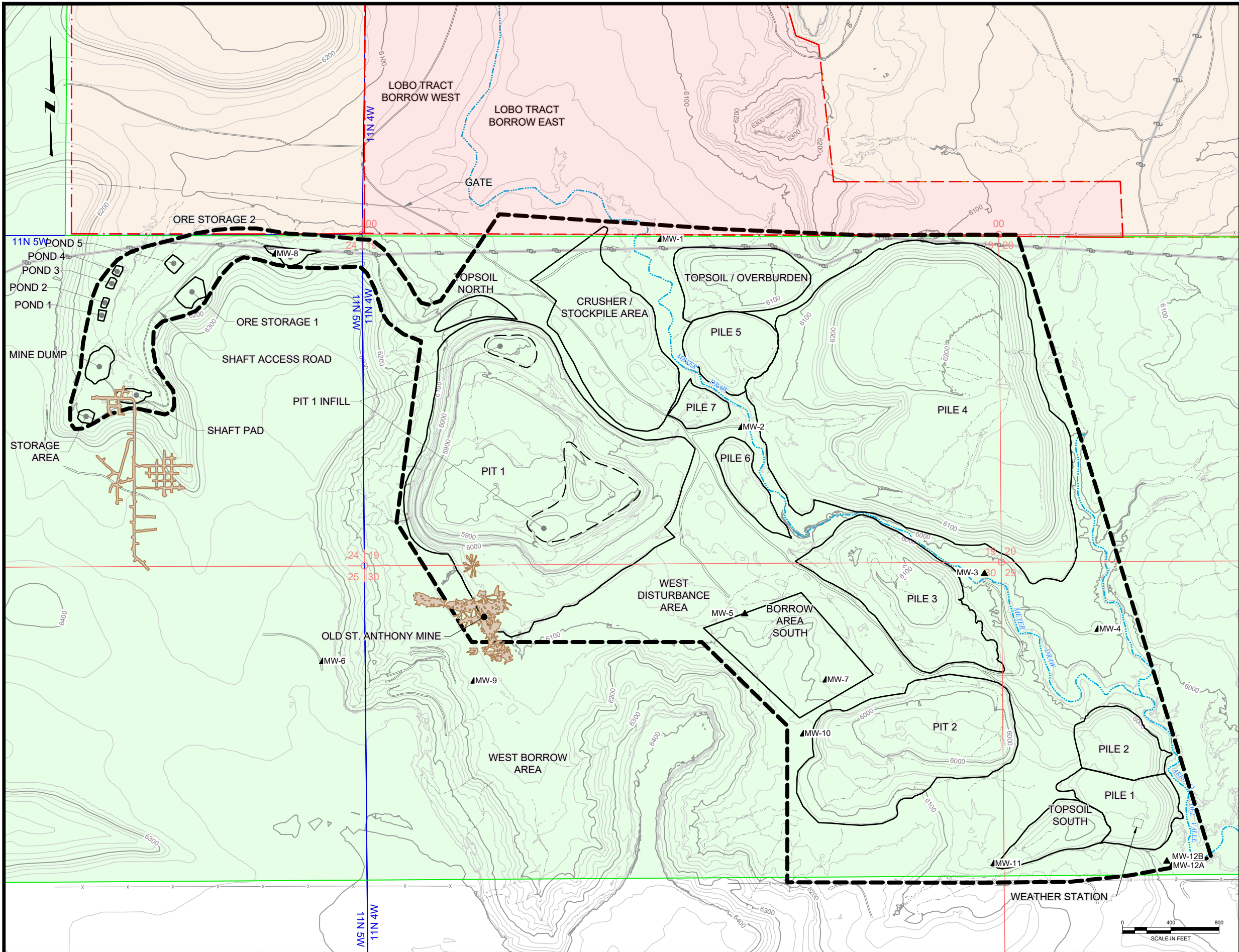
SITE LOCATION

SHEET

2

233001076

Tuesday, September 30, 2025 6:50:24 AM K:\REED C:\PROJECT\WSE-DRIVE\STANTEC\233001363\SHEETS\T02-29-2020_STA_DESIGN_DRAWINGS\STA_DD_SITE_LAYOUT.DWG Layout SITE LAYOUT



- LEGEND:
- 6100 EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
 - APPROXIMATE MINE PERMIT BOUNDARY
 - GULLEY / DRAINAGE
 - ARROYO
 - EXISTING ROAD
 - EXISTING FENCE
 - EXISTING OVERHEAD ELECTRIC, POWER POLES, AND RIGHT-OF-WAY
 - 11N 5W TOWNSHIP LINE AND NUMBER
 - 25 SECTION LINE AND NUMBER
 - CEBOLLETA LAND GRANT
 - PARCEL - LOBO PARTNERS,LLC
 - PARCEL - UNITED NUCLEAR CORP (UNC)
 - UNDERGROUND MINE WORKINGS
 - FACILITY OUTLINES
 - ▲ MW-# MONITORING WELLS

PRELIMINARY
FOR DISCUSSION ONLY

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1	11/2021	KR	30% DESIGN
0	02/2019	KR	PRELIMINARY DESIGN

DRAWN	K. REED
CHECKED	M.KAPP
APPROVED	J. CUMBERS

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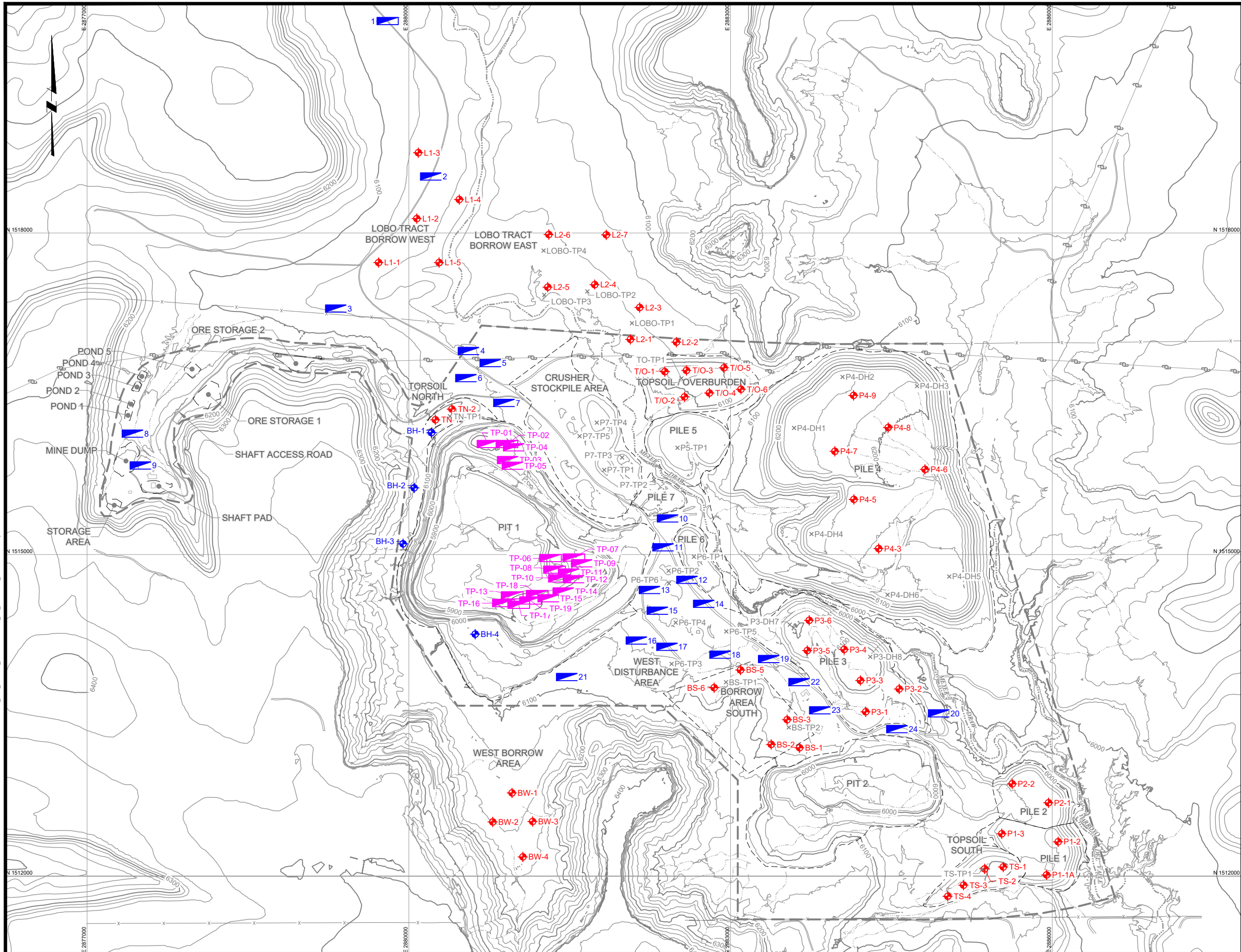
UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO

SITE LAYOUT
EXISTING CONDITIONS

SHEET
3

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Tuesday, September 30, 2025 6:52:17 AM K:\REED C:\PROJECTS\WSE-DRIVE\STANTEC\233001363\SHEETS\W2-25-2020_STA_DESIGN_DRAWINGS\STA_DD_SURFACE_CHAR.DWG Layout: SURFACE AND SUBSURFACE CHARACTERIZATION



- LEGEND:
- 6100 EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
 - APPROXIMATE MINE PERMIT BOUNDARY
 - GULLEY / DRAINAGE
 - ARROYO
 - EXISTING ROAD
 - EXISTING FENCE
 - EXISTING OVERHEAD ELECTRIC AND POWER POLES
 - FACILITY OUTLINES
 - xP4-DH2 EXISTING SAMPLING LOCATIONS (MWH, 2007)
 - P4-6 BOREHOLE (STANTEC, 2018)
 - 10 TEST PIT (STANTEC, 2018)
 - TP-01 TEST PIT (STANTEC, 2019)
 - BH-1 BOREHOLE (STANTEC, 2021)

PRELIMINARY
FOR DISCUSSION ONLY



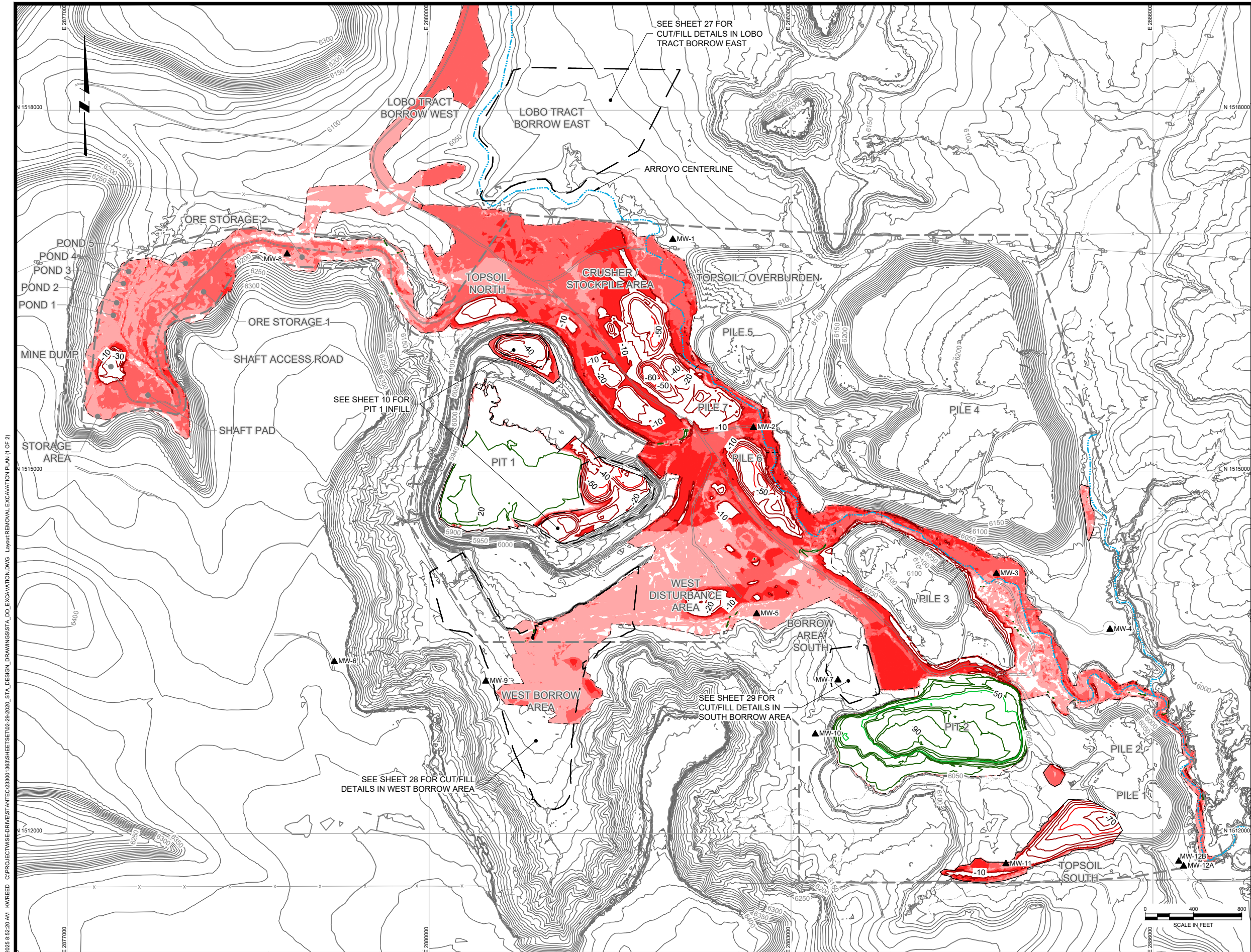
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UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
SURFACE AND SUBSURFACE CHARACTERIZATION



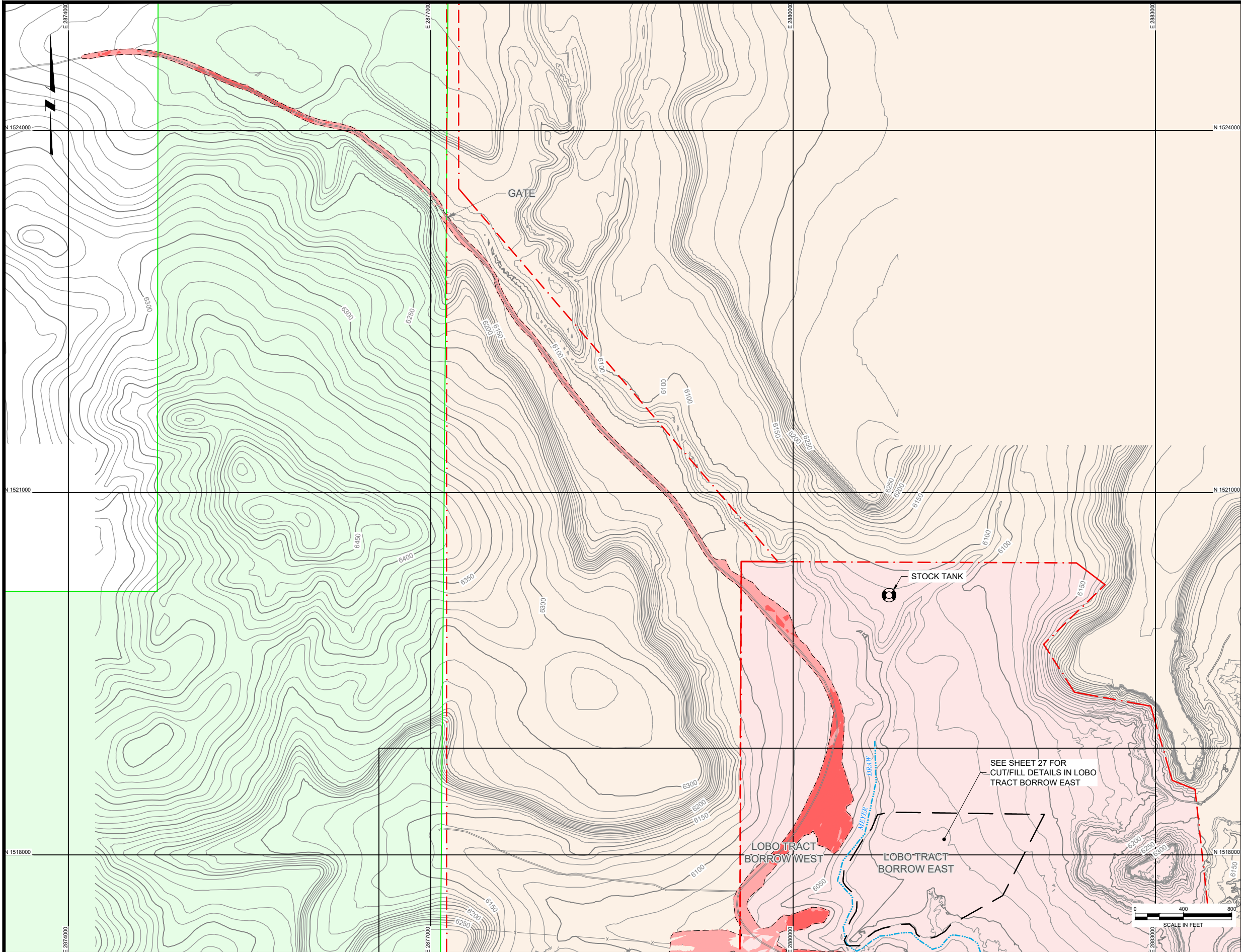
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 - 50 EXCAVATION DEPTH CONTOUR, FEET
 - 50 FILL DEPTH CONTOUR, FEET
 - APPROXIMATE MINE PERMIT BOUNDARY
 - GULLEY / DRAINAGE
 - ARROYO
 - EXISTING ROAD
 - EXISTING FENCE
 - EXISTING OVERHEAD ELECTRIC AND POWER POLES
 - REMOVAL AREA BOUNDARY
 - BORROW AREA BOUNDARY
 - MW-# MONITORING WELLS

- NOTE:**
- ALL SITE MONITORING WELLS TO BE PRESERVED DURING REMOVAL OPERATIONS.

Removal Excavation Depth Table		
COLOR	DEPTH RANGE (FT)	AREA (SF)
	5 - 10	1,772,463
	2 - 5	3,188,981
	0 - 2	3,118,033

PRELIMINARY
FOR DISCUSSION ONLY

Tuesday, September 30, 2025 8:47:43 AM K:\REED C:\PROJECT\WSE-DRIVE\STANTEC\233001363\SHEETSET\W2-29-2020_STA_DESIGN_DRAWINGS\STA_DD_EXCAVATION.DWG Layout\REMOVAL EXCAVATION PLAN (2 OF 2)



- LEGEND:**
- 6100 EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
 - GULLY / DRAINAGE
 - ARROYO
 - EXISTING FENCE
 - EXISTING ROAD
 - CEBOLLETA LAND GRANT
 - PARCEL - LOBO PARTNERS,LLC
 - PARCEL - UNITED NUCLEAR CORP (UNC)
 - REMOVAL AREA BOUNDARY
 - BORROW AREA BOUNDARY
 - EXISTING SITE WATER SUPPLY WELL

Removal Excavation Depth Table		
COLOR	DEPTH RANGE (FT)	AREA (SF)
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	0 - 2	3,118,033

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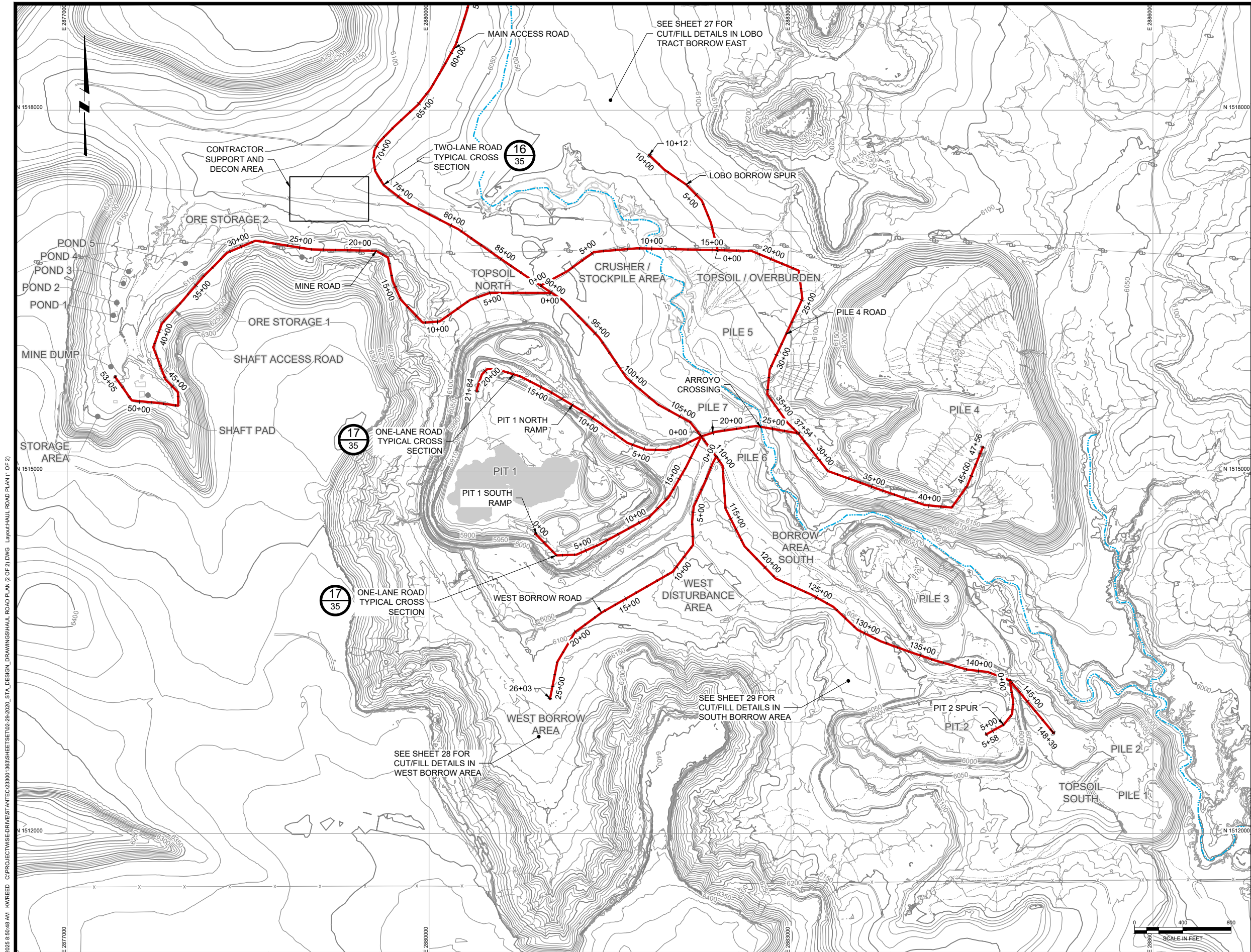


UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO

REMOVAL EXCAVATION PLAN (2 OF 2)

SHEET
6

233001076



LEGEND:

- EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
- APPROXIMATE MINE PERMIT BOUNDARY
- GULLEY / DRAINAGE
- ARROYO
- EXISTING ROAD
- EXISTING FENCE
- EXISTING OVERHEAD ELECTRIC AND POWER POLES
- PROPOSED HAUL ROADS

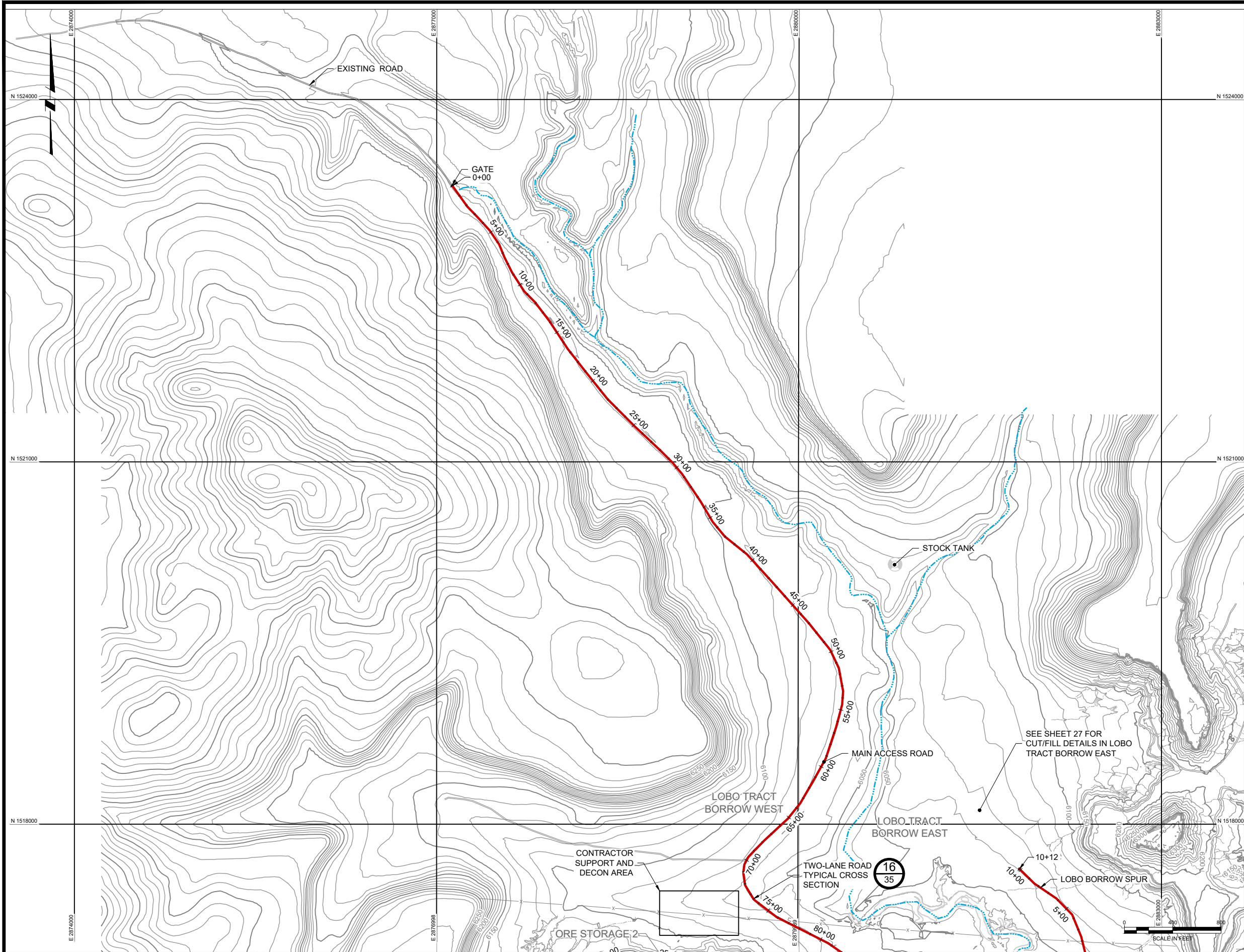
NOTE:

1. MAIN ACCESS ROAD TO BE MAINTAINED AS 2-WAY TRAFFIC. ALL OTHERS WILL BE 1-WAY, UNLESS ADJUSTED PER CONTRACTOR'S TRAFFIC PLAN.

PRELIMINARY
FOR DISCUSSION ONLY

Tuesday, September 20, 2017 10:01 AM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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LEGEND:

- 6100 EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
- APPROXIMATE MINE PERMIT BOUNDARY
- GULLEY / DRAINAGE
- ARROYO
- EXISTING ROAD
- EXISTING FENCE
- EXISTING OVERHEAD ELECTRIC AND POWER POLES
- PROPOSED HAUL ROADS

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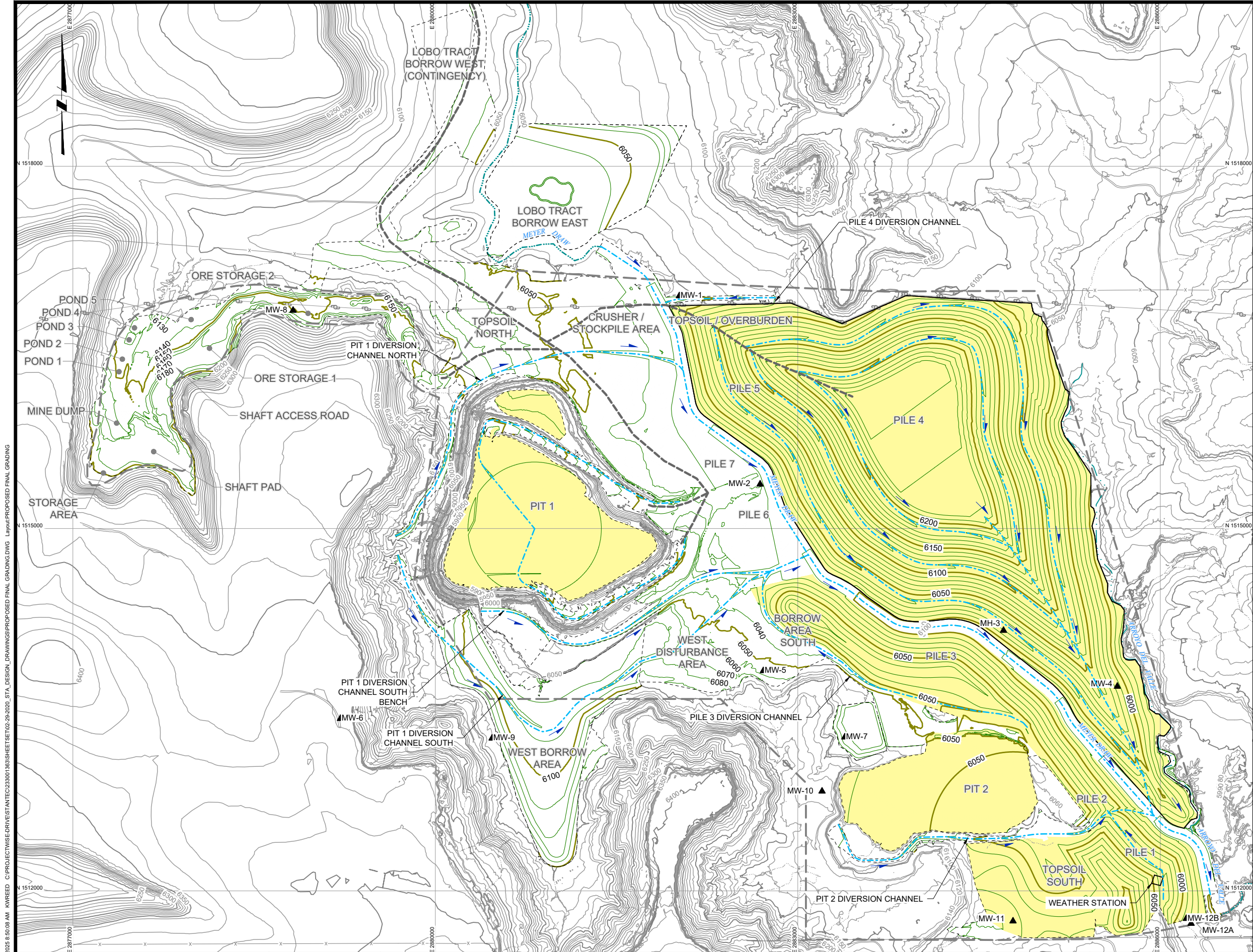
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HAUL ROAD PLAN (2 OF 2)

SHEET
8
233001076



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- GULLEY / DRAINAGE
- EXISTING ARROYO
- EXISTING ROAD
- EXISTING FENCE
- EXISTING OVERHEAD ELECTRIC AND POWER POLES
- FINAL DRAINAGE CENTERLINE
- PROPOSED PERMANENT ACCESS ROAD
- AREAS TO BE COVERED
- ▲ MW-# MONITORING WELLS

NOTE:

- SEE DETAIL 37 FOR MONITORING WELL EXTENSIONS WITHIN AREAS TO BE COVERED.
- CONTRACTOR TO MAINTAIN 20-FOOT EASEMENT ALONG EX. POWER LINES. NO EARTHWORK WITHIN 10 FEET OF EX. POLES.

PRELIMINARY

FOR DISCUSSION ONLY

0 400 800
SCALE IN FEET

UNITED NUCLEAR CORPORATION ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO			
PROPOSED FINAL GRADING			

SHEET			
9			
233001076			

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1	11/2021	KR	30% DESIGN
0	02/2019	KR	PRELIMINARY DESIGN

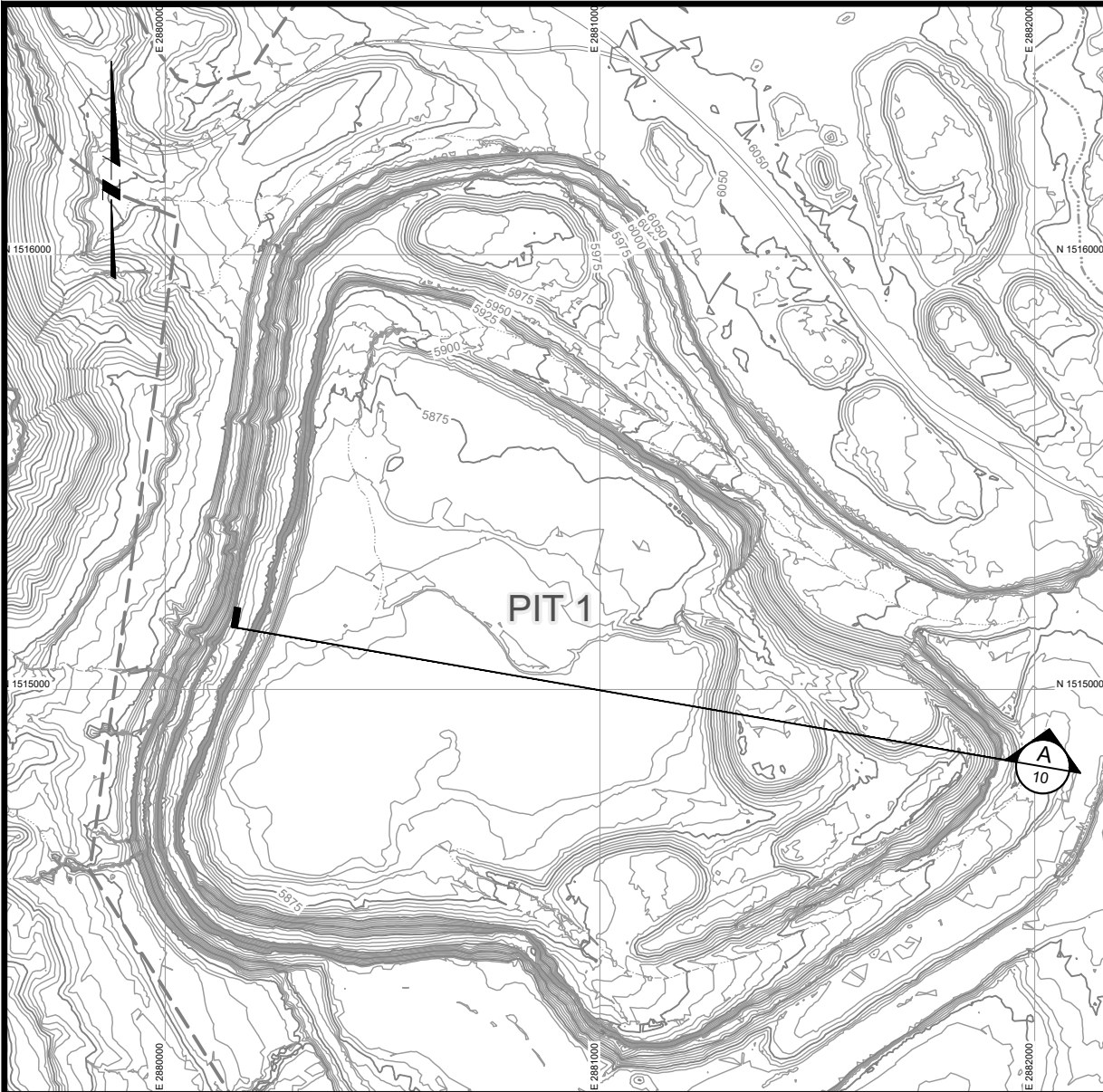
DRAWN	K. REED
CHECKED	M.KAPP
APPROVED	J. CUMBERS

DRAWING REFERENCES:	
1.	All coordinates in New Mexico State Plane West, NAD83, Feet (U.S. Survey).
2.	Elevations: Topo.
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2.2.	Supplemental Off Site: USGS DEM 10m
3.	Township and Section lines: rgis.unm.edu, 08/04/2014
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5.	Permit Boundary: (1008596X001.dwg)

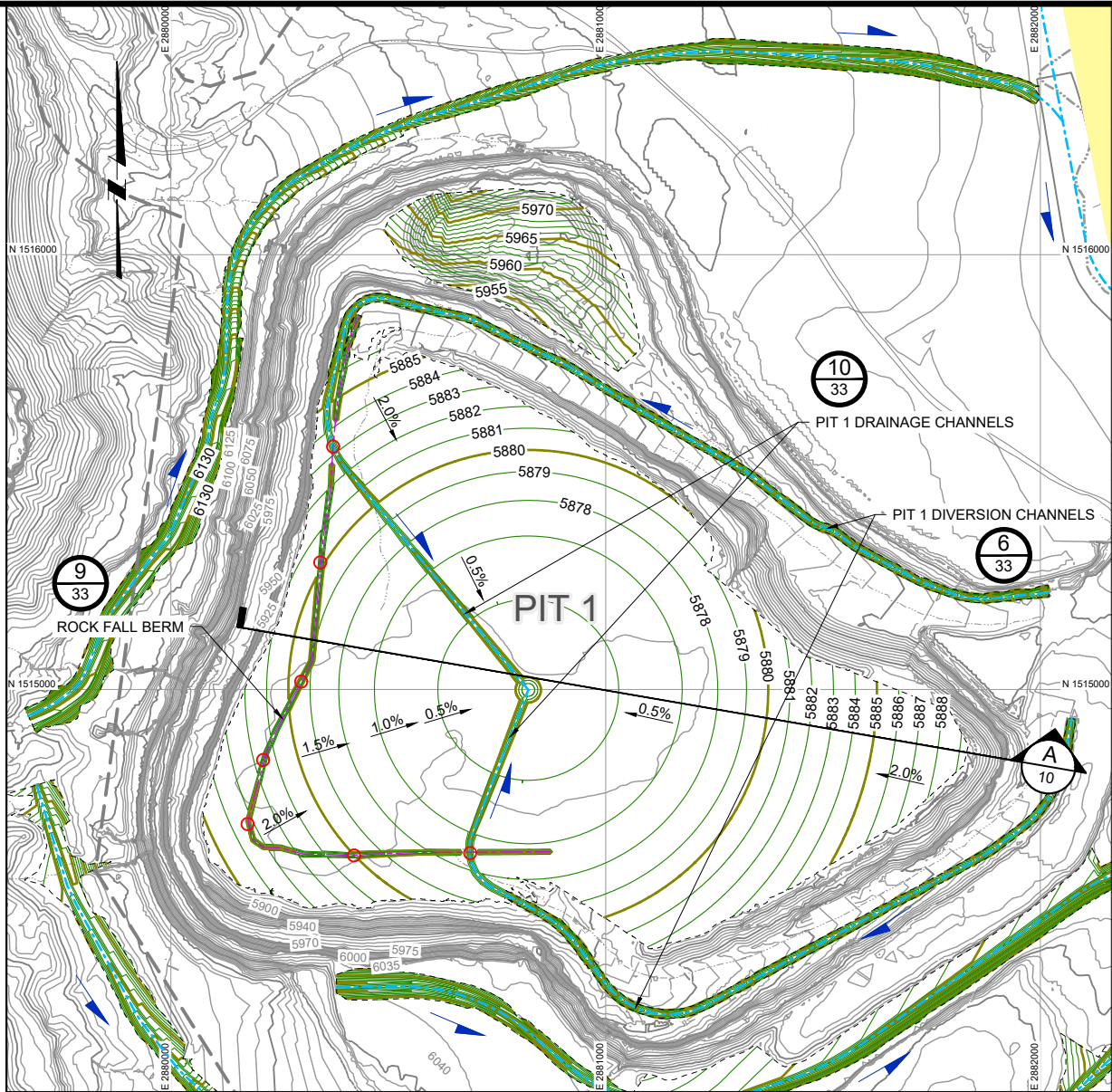
UNITED NUCLEAR CORPORATION ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO	
PROPOSED FINAL GRADING	

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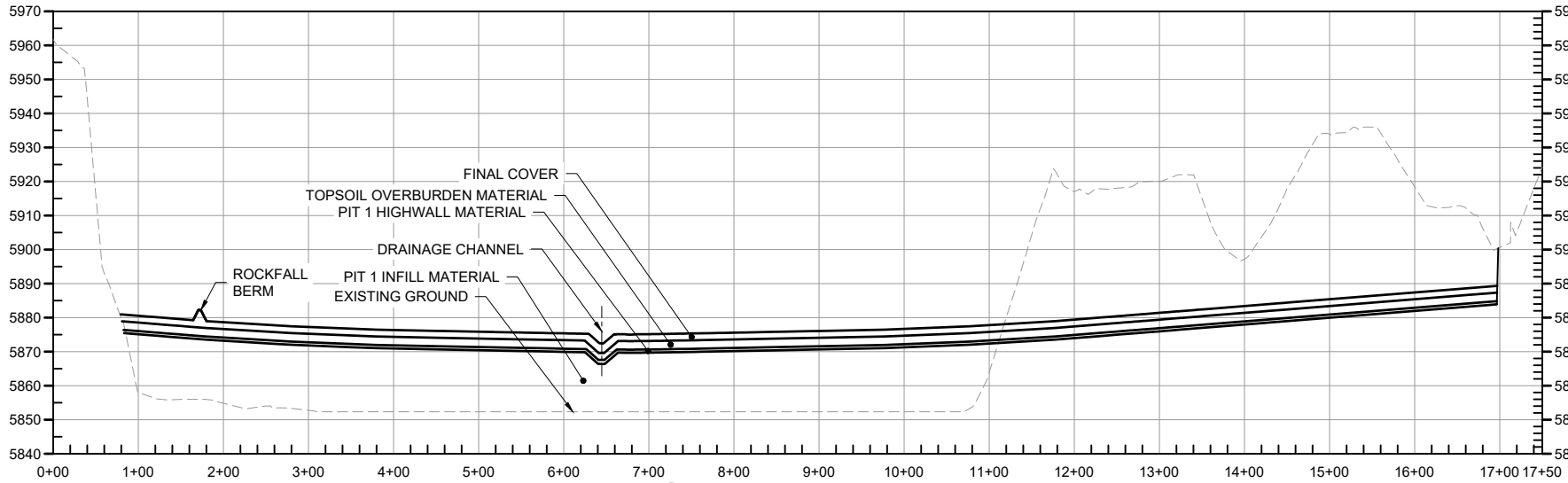


PIT 1
EXISTING CONDITIONS



PIT 1
FINAL CONDITIONS

- LEGEND:
- EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
 - PROPOSED FINAL GRADING CONTOUR & ELEVATION, FEET
 - APPROXIMATE MINE PERMIT BOUNDARY
 - GULLEY / DRAINAGE
 - ARROYO
 - EXISTING ROAD
 - FINAL DRAINAGE CENTERLINE
 - AREAS TO BE COVERED
 - ROCKFALL BERM
 - GAP IN ROCKFALL BERM FOR DRAINAGE



A 10
PIT 1 CROSS SECTION

PRELIMINARY
FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION
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1	11/2021	KR	30% DESIGN

DRAWN K. REED
CHECKED M.KAPP
APPROVED J. CUMBERS

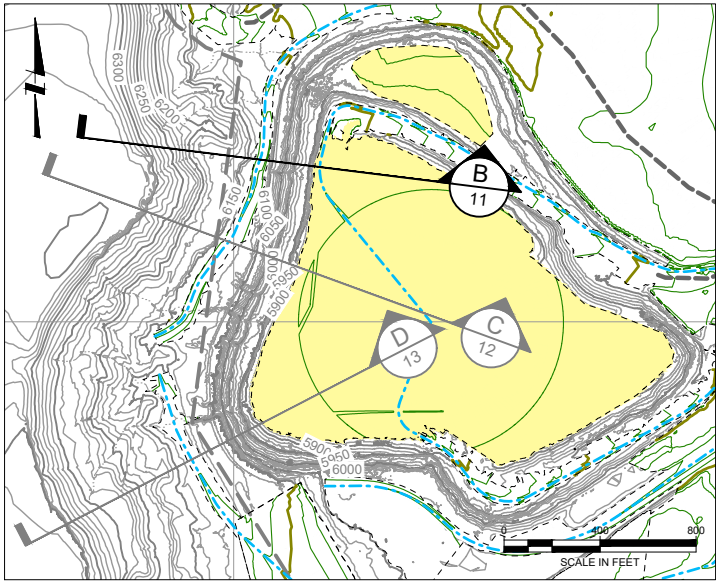
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 - Supplemental Off Site: USGS DEM 10m
 - Township and Section lines: rgis.unm.edu, 08/04/2014
 - Parcels, and Cibolaleta Land Grant: Cibola County, cibolacountynm.com, 02/15/18
 - Permit Boundary: (1008596X001.dwg)



UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
PIT 1 EXISTING AND FINAL CONDITIONS

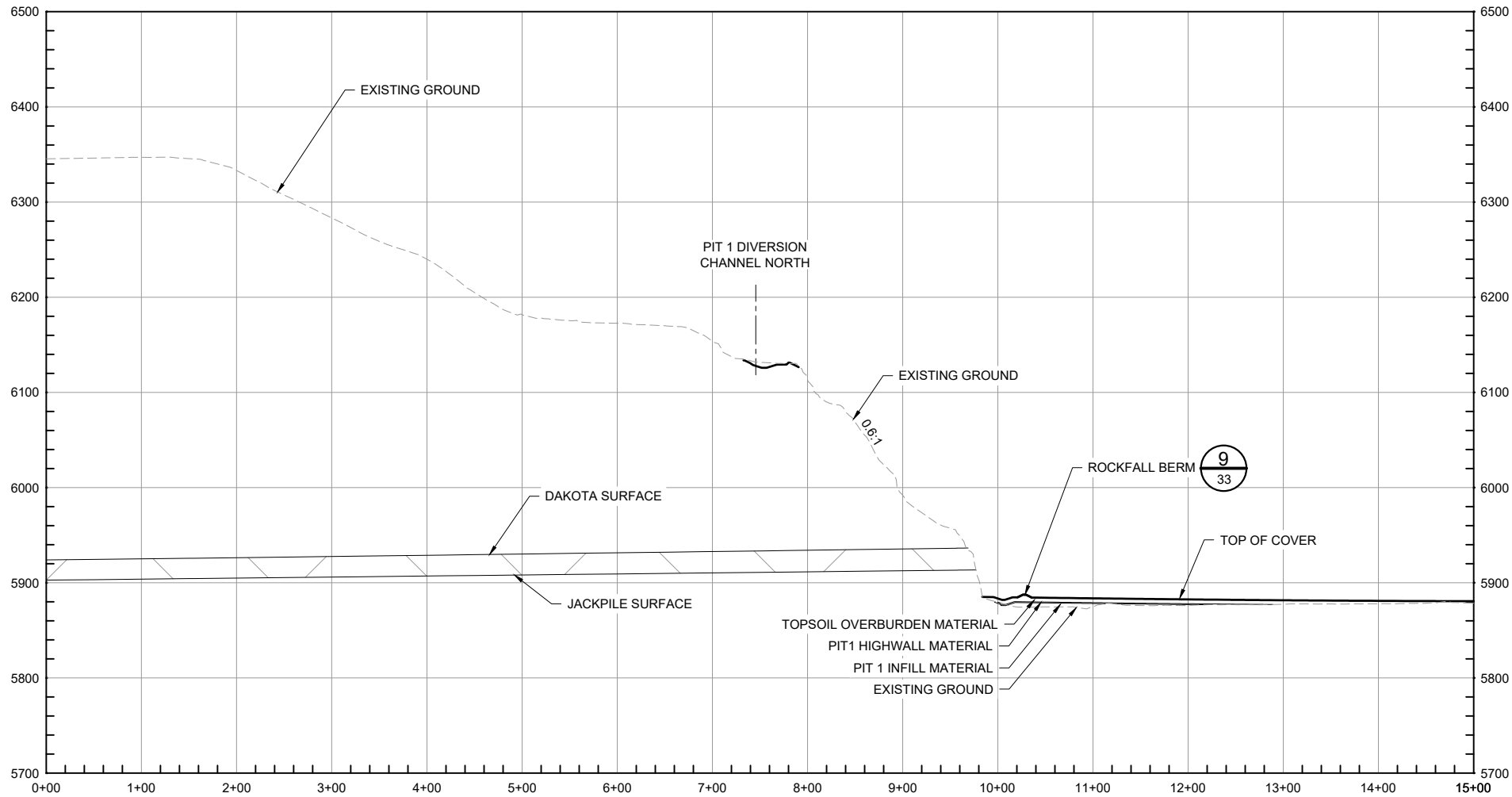
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LEGEND:

- EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
- PROPOSED FINAL GRADING CONTOUR & ELEVATION, FEET
- FINAL DRAINAGE CENTERLINE
- AREAS TO BE COVERED



B 11 CROSS SECTION B

PRELIMINARY
FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION
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0	03/2020	CF	PRELIMINARY DESIGN

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CHECKED M. KAPP
APPROVED J. CUMBERS

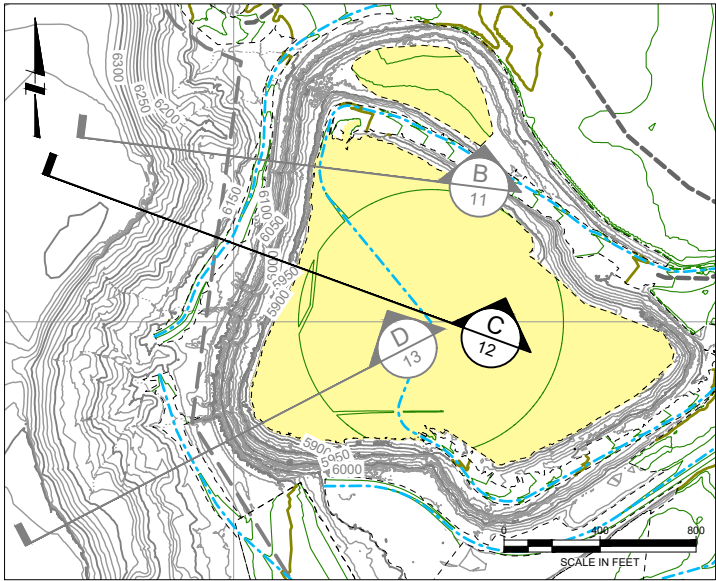
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 - Elevations/Topo:
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 - Supplemental Off Site: USGS DEM 10m
 - Township and Section lines: rgis.unm.edu, 08/04/2014
 - Parcels, and Cebolleta Land Grant: Cibola County, cibolacountynm.com, 02/15/18
 - Permit Boundary: (1008596X001.dwg)



UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
PIT 1 HIGHWALL CROSS SECTION B

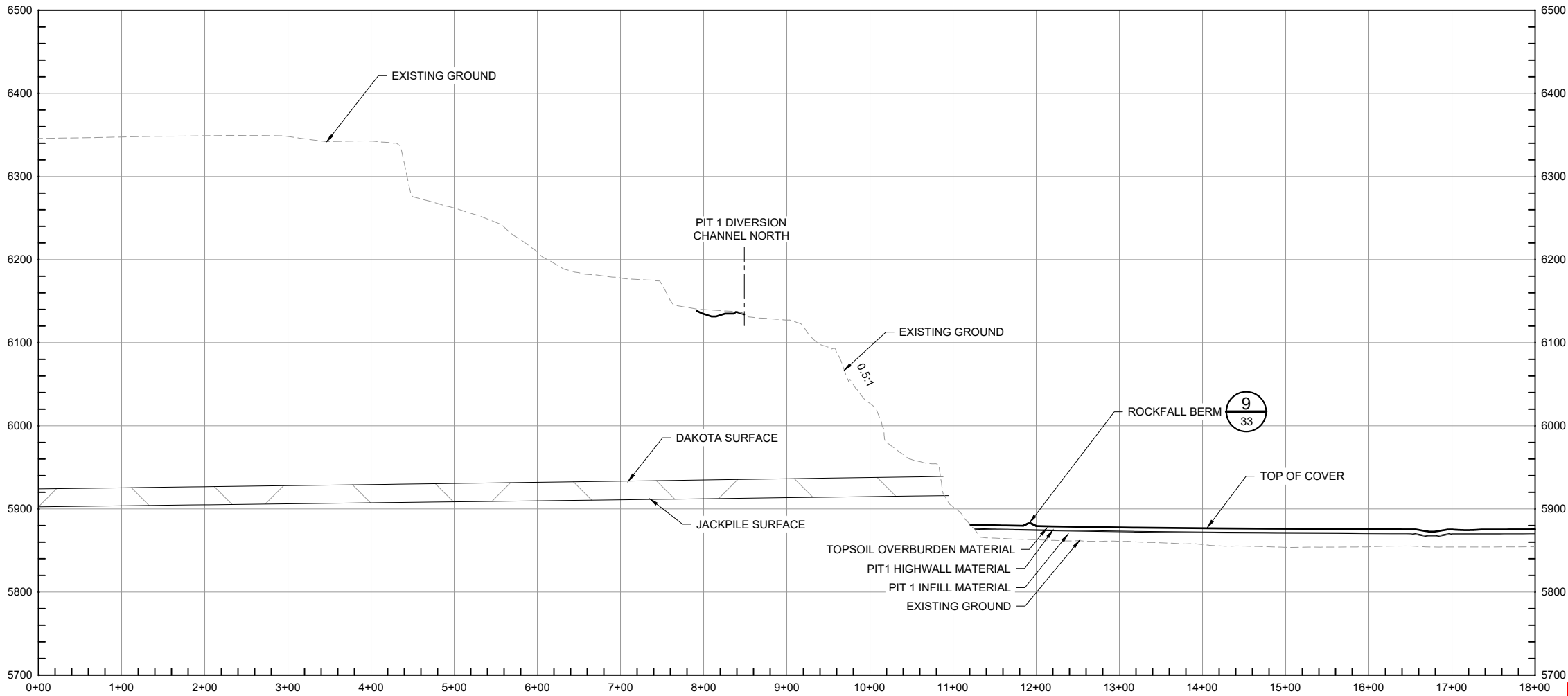
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LEGEND:

- EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
- PROPOSED FINAL GRADING CONTOUR & ELEVATION, FEET
- FINAL DRAINAGE CENTERLINE
- AREAS TO BE COVERED



C CROSS SECTION C

PRELIMINARY
FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION
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1	11/2021	KR	30% DESIGN
0	03/2020	CF	PRELIMINARY DESIGN

DRAWN K. REED
CHECKED M. KAPP
APPROVED J. CUMBERS

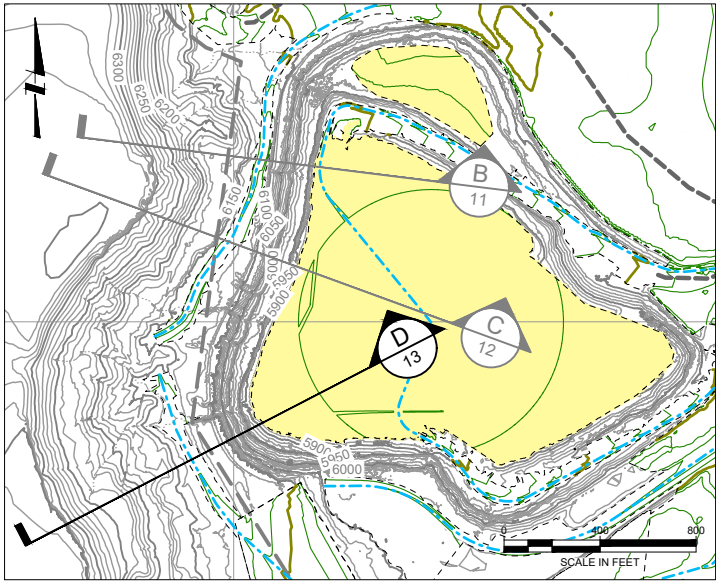
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 - Supplemental Off Site: USGS DEM 10m
 - Township and Section lines: rgis.unm.edu, 08/04/2014
 - Parcels, and Cebolleta Land Grant: Cibola County, cibolacountynm.com, 02/15/18
 - Permit Boundary: (1008596X001.dwg)



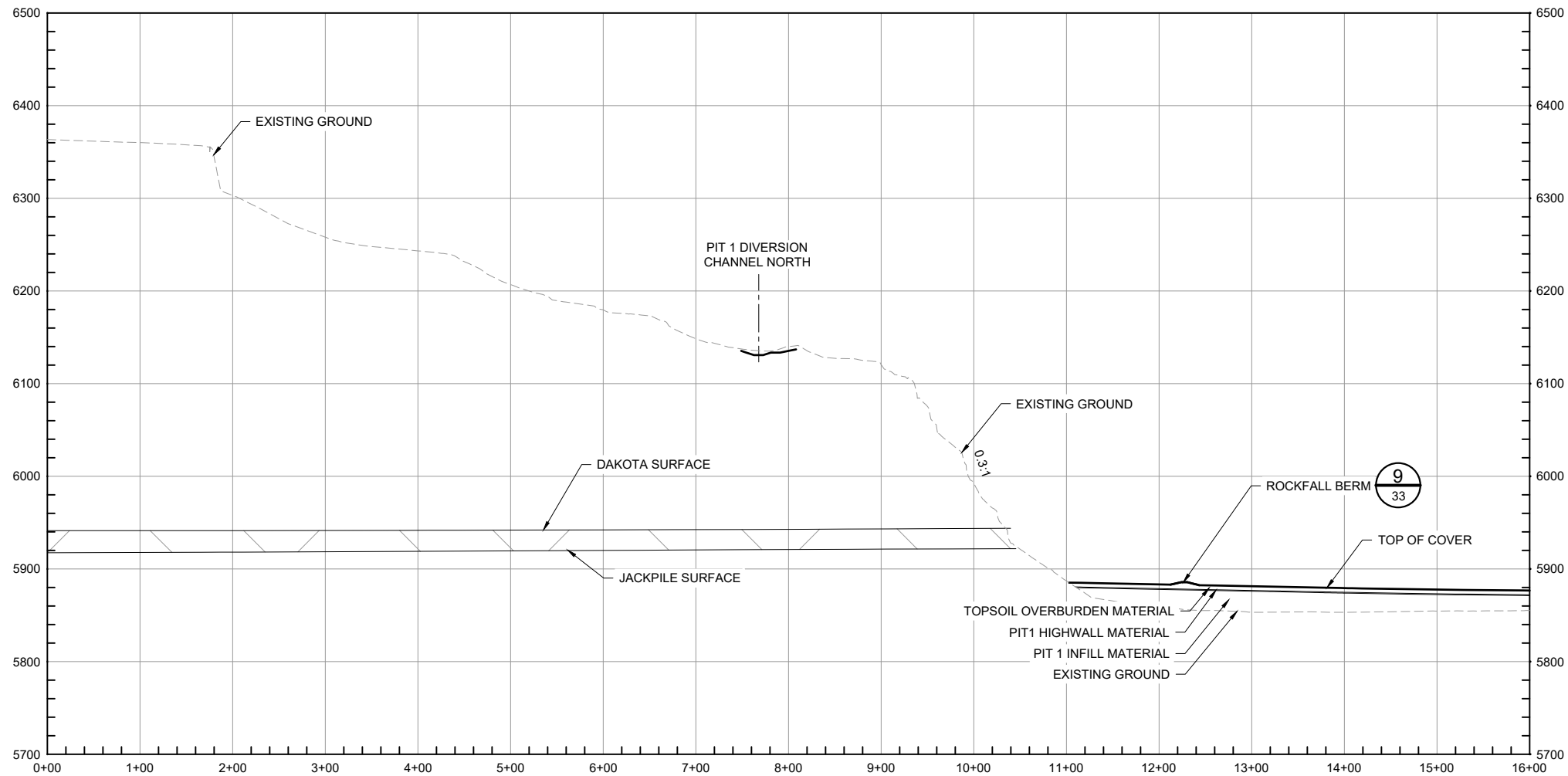
UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
PIT 1 HIGHWALL CROSS SECTION C

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- LEGEND:
- EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
 - PROPOSED FINAL GRADING CONTOUR & ELEVATION, FEET
 - FINAL DRAINAGE CENTERLINE
 - AREAS TO BE COVERED



D CROSS SECTION D

PRELIMINARY
FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION
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1	11/2021	KR	30% DESIGN
0	03/2020	CF	PRELIMINARY DESIGN

DRAWN K. REED
CHECKED M. KAPP
APPROVED J. CUMBERS

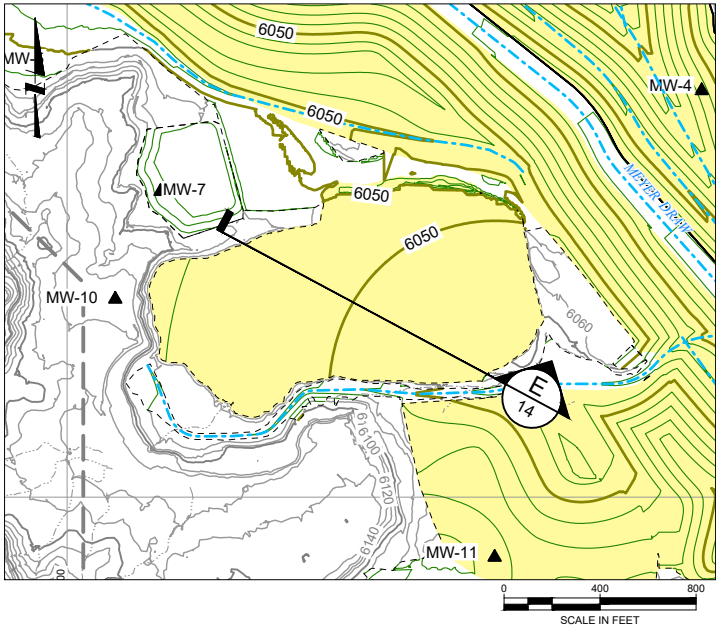
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 - Township and Section lines: rgis.unm.edu, 08/04/2014
 - Parcels, and Cebolleta Land Grant: Cibola County, cibolacountynm.com, 02/15/18
 - Permit Boundary: (1008596X001.dwg)



UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
PIT 1 HIGHWALL CROSS SECTION D

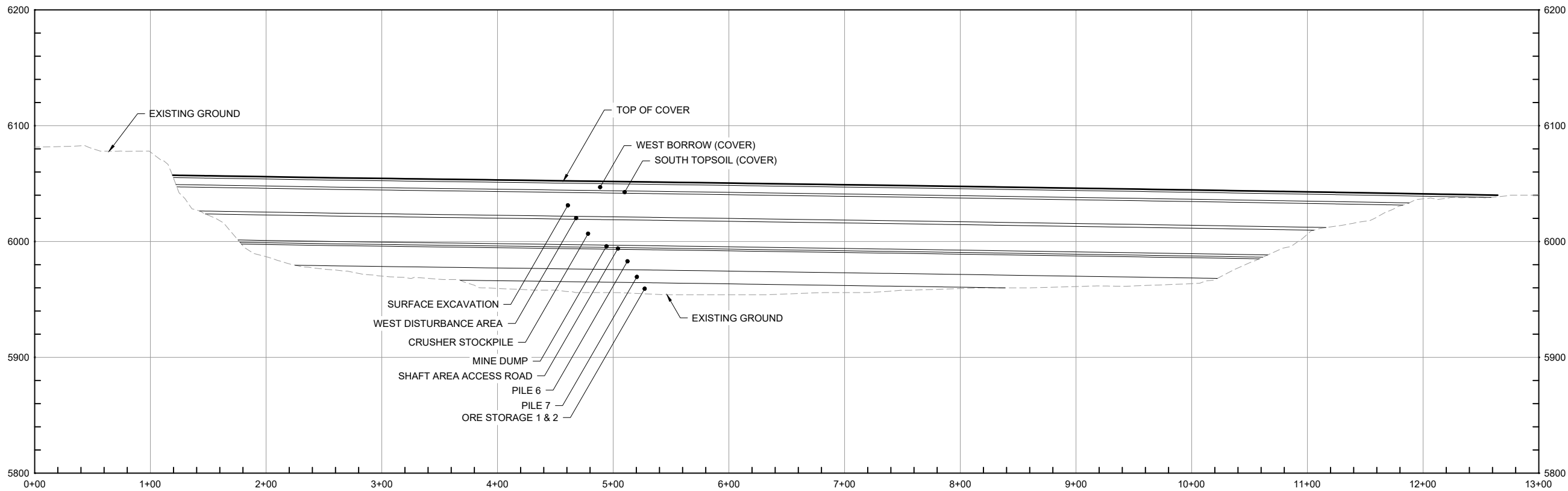
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LEGEND:

- EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
- PROPOSED FINAL GRADING CONTOUR & ELEVATION, FEET
- APPROXIMATE MINE PERMIT BOUNDARY
- FINAL DRAINAGE CENTERLINE
- AREAS TO BE COVERED
- MONITORING WELLS



PRELIMINARY
FOR DISCUSSION ONLY

E 14 CROSS SECTION E

REV	DATE	BY	DESCRIPTION
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1	11/2021	KR	30% DESIGN

DRAWN	K. REED
CHECKED	M. KAPP
APPROVED	J. CUMBERS

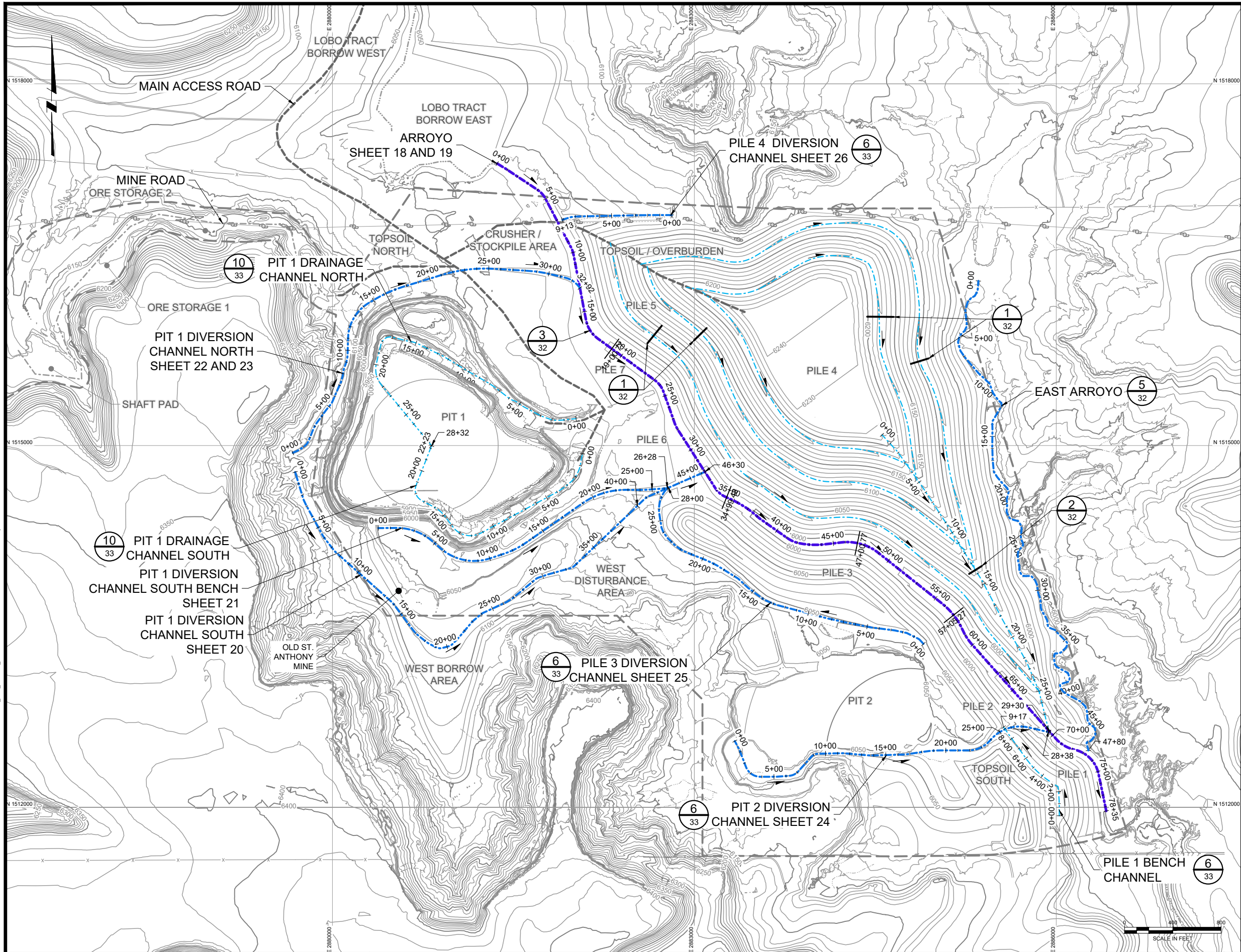
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 - Township and Section lines: rgis.unm.edu, 08/04/2014
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 - Permit Boundary: (1008596X001.dwg)



UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
PIT 2 CROSS SECTION E

SHEET
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- LEGEND:
- 6100 EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
 - APPROXIMATE MINE PERMIT BOUNDARY
 - GULLEY / DRAINAGE
 - ARROYO
 - EXISTING ROAD
 - EXISTING FENCE
 - EXISTING OVERHEAD ELECTRIC AND POWER POLES
 - DESIGN ARROYO
 - DESIGN DIVERSION CHANNELS AND EAST ARROYO
 - DESIGN DRAINAGE CHANNELS
 - PERMANENT ACCESS ROAD

PRELIMINARY
FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION
2	06/2025	KR	90% DESIGN
1	11/2021	KR	30% DESIGN
0	02/2019	KR	PRELIMINARY DESIGN

DRAWN	K. REED
CHECKED	M. KAPP
APPROVED	J. CUMBERS

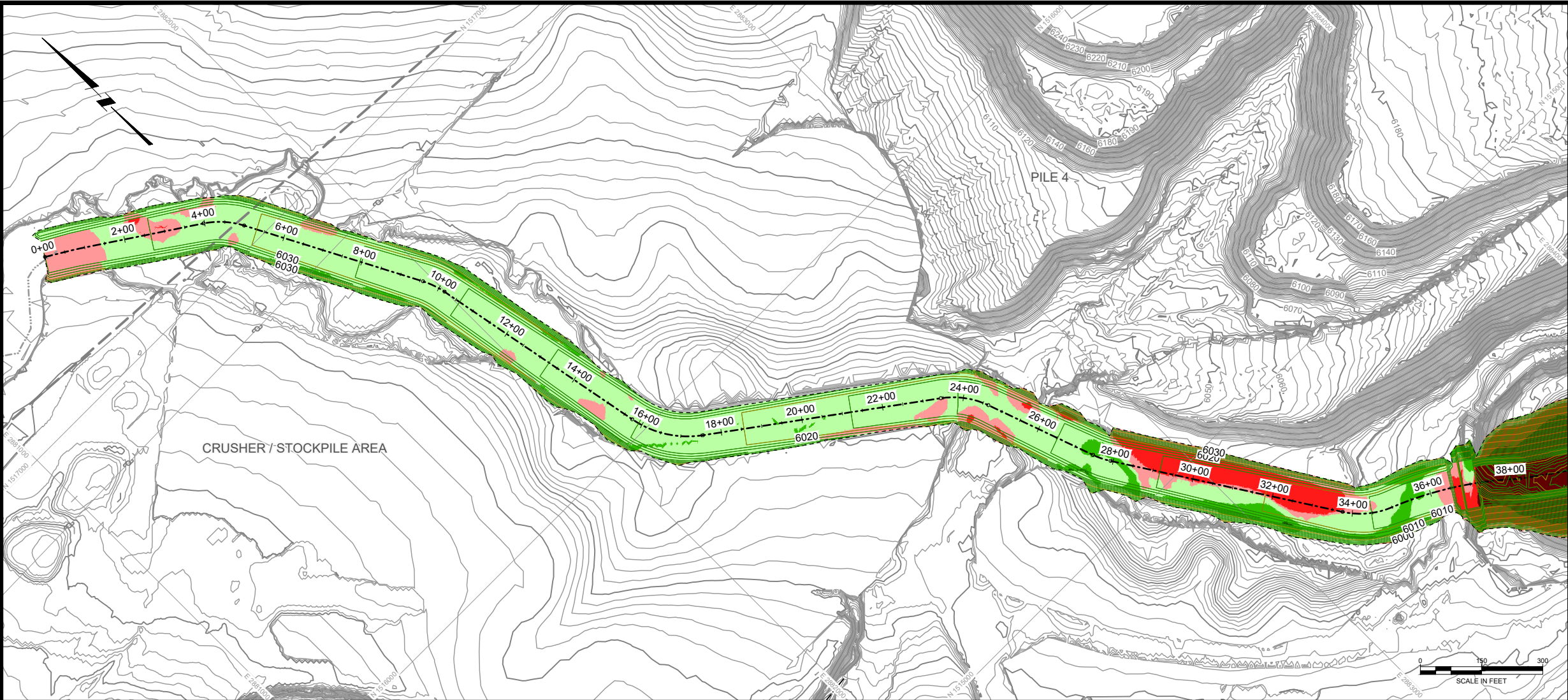
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 - Township and Section lines: rgis.unm.edu, 08/04/2014
 - Parcels, and Cibolaleta Land Grant: Cibola County, cibolacountynm.com, 02/15/18
 - Permit Boundary: (1008596X001.dwg)



UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
DIVERSION CHANNEL INDEX

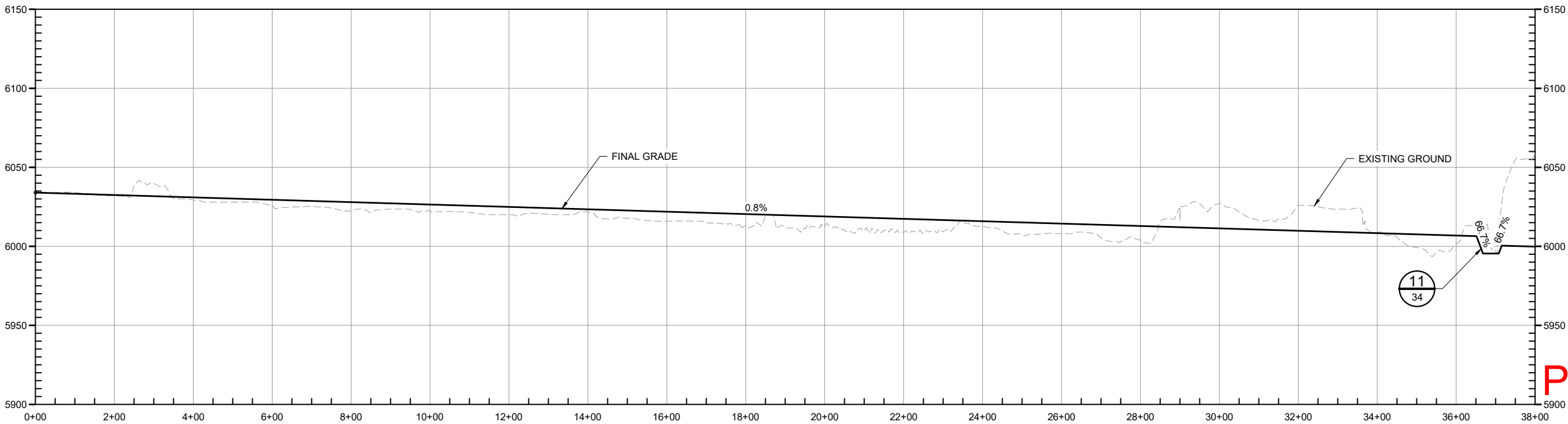
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- LEGEND:
- 6100 FINAL CONDITIONS GROUND SURFACE CONTOUR & ELEVATION, FEET
 - 6200 PROPOSED ARROYO CONTOUR & ELEVATION, FEET
 - APPROXIMATE MINE PERMIT BOUNDARY
 - GULLEY / DRAINAGE
 - PROPOSED DRAINAGE CENTERLINE

CUT (-) / FILL (+) TABLE	
COLOR	RANGE (FT)
	-140 - -40
	-40 - -10
	-10 - 0
	0 - 10
	10 - 20
	20 - 40



PRELIMINARY
FOR DISCUSSION ONLY

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1	11/2021	KR	30% DESIGN
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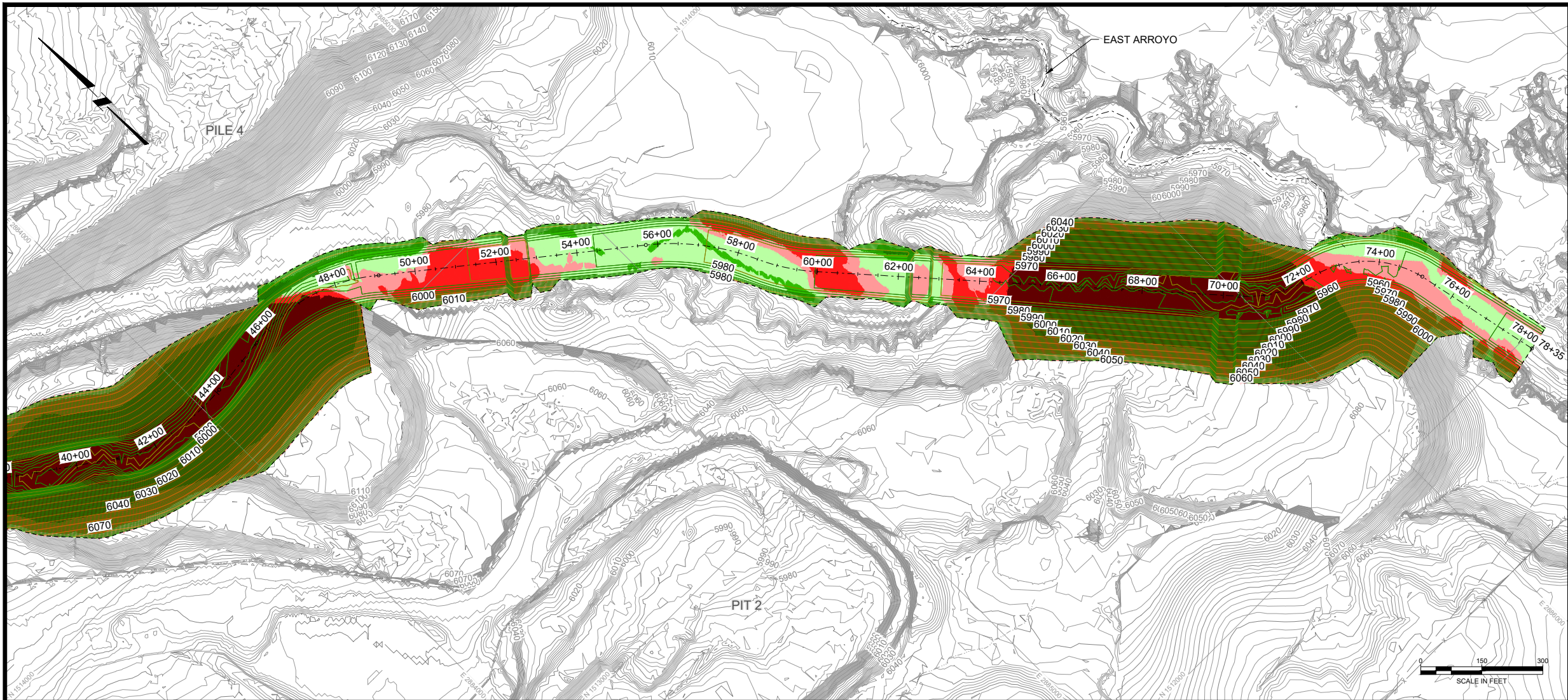
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CHECKED	M. KAPP
APPROVED	J. CUMBERS

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 - Township and Section lines: rgis.unm.edu, 08/04/2014
 - Parcels, and Cebolleta Land Grant: Cibola County, cibolacountynm.com, 02/15/18
 - Permit Boundary: (1008596X001.dwg)



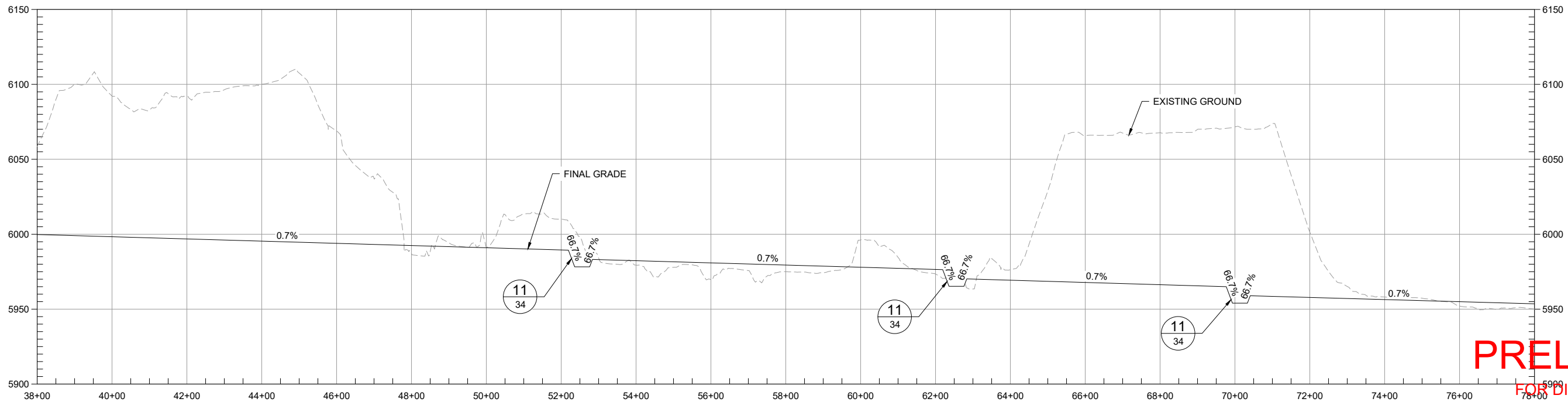
UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
ARROYO EXCAVATION PLAN AND PROFILE (1 OF 2)

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- LEGEND:
- 6100 FINAL CONDITIONS GROUND SURFACE CONTOUR & ELEVATION, FEET
 - 6200 PROPOSED ARROYO CONTOUR & ELEVATION, FEET
 - APPROXIMATE MINE PERMIT BOUNDARY
 - GULLEY / DRAINAGE
 - PROPOSED DRAINAGE CENTERLINE

CUT (-) / FILL (+) TABLE	
COLOR	RANGE (FT)
	-140 - -40
	-40 - -10
	-10 - 0
	0 - 10
	10 - 20
	20 - 40



PRELIMINARY
FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION
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1	11/2021	KR	30% DESIGN
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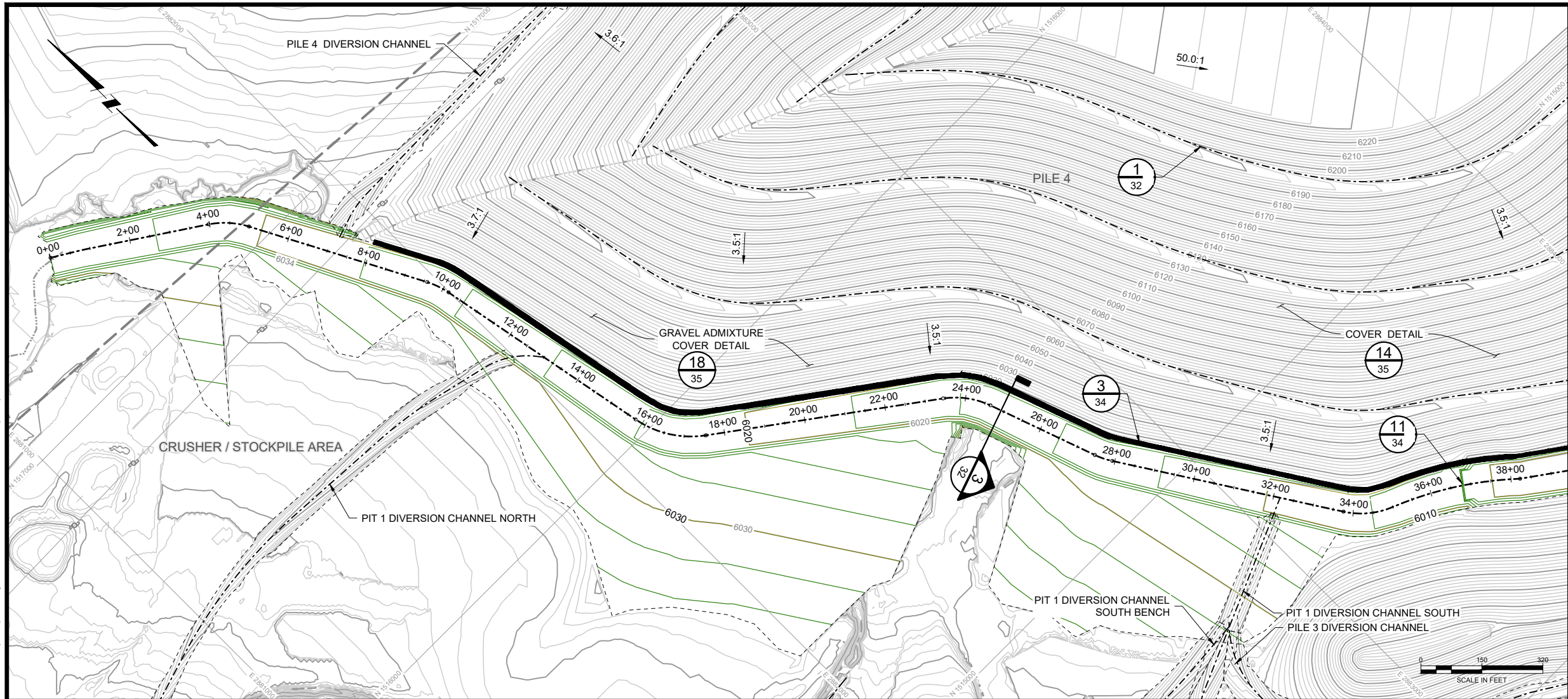
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CHECKED	M. KAPP
APPROVED	J. CUMBERS

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 - Elevations/Topo:
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 - Parcels and Cebolleta Land Grant: Cibola County, cibolacountynm.com, 02/15/18
 - Permit Boundary: (1008596X001.dwg)



UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
ARROYO EXCAVATION PLAN AND PROFILE (2 OF 2)

Tuesday, September 30, 2025 8:47:02 AM K:\PROJECTS\ARROYO\DRIVE\STANTEC\233001363\SHEETS\2025-29-2020_STA_DESIGN_DRAWINGS\ARROYO STABILIZATION PLAN AND PROFILE (1 OF 2).DWG Layout\ARROYO STABILIZATION PLAN AND PROFILE (1 OF 2)

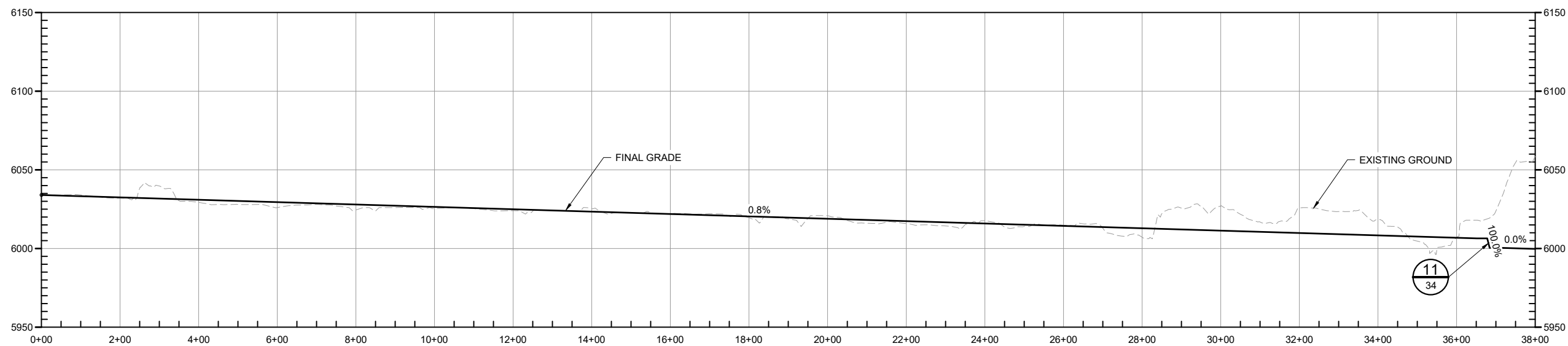


LEGEND:

- 6100 FINAL CONDITIONS GROUND SURFACE CONTOUR & ELEVATION, FEET
- 6200 PROPOSED ARROYO CONTOUR & ELEVATION, FEET
- APPROXIMATE MINE PERMIT BOUNDARY
- GULLEY / DRAINAGE
- ARROYO
- PROPOSED DRAINAGE CENTERLINE
- SEDIMENT RETENTION BERM

NOTE:

- CONTRACTOR TO ADD GRAVEL TO PILE 4 COVER SLOPE BETWEEN LOWEST BENCH AND SEDIMENT BERM.



PRELIMINARY
FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION
2	06/2025	KR	90% DESIGN
1	11/2021	KR	30% DESIGN
0	02/2019	KR	PRELIMINARY DESIGN

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APPROVED J. CUMBERS

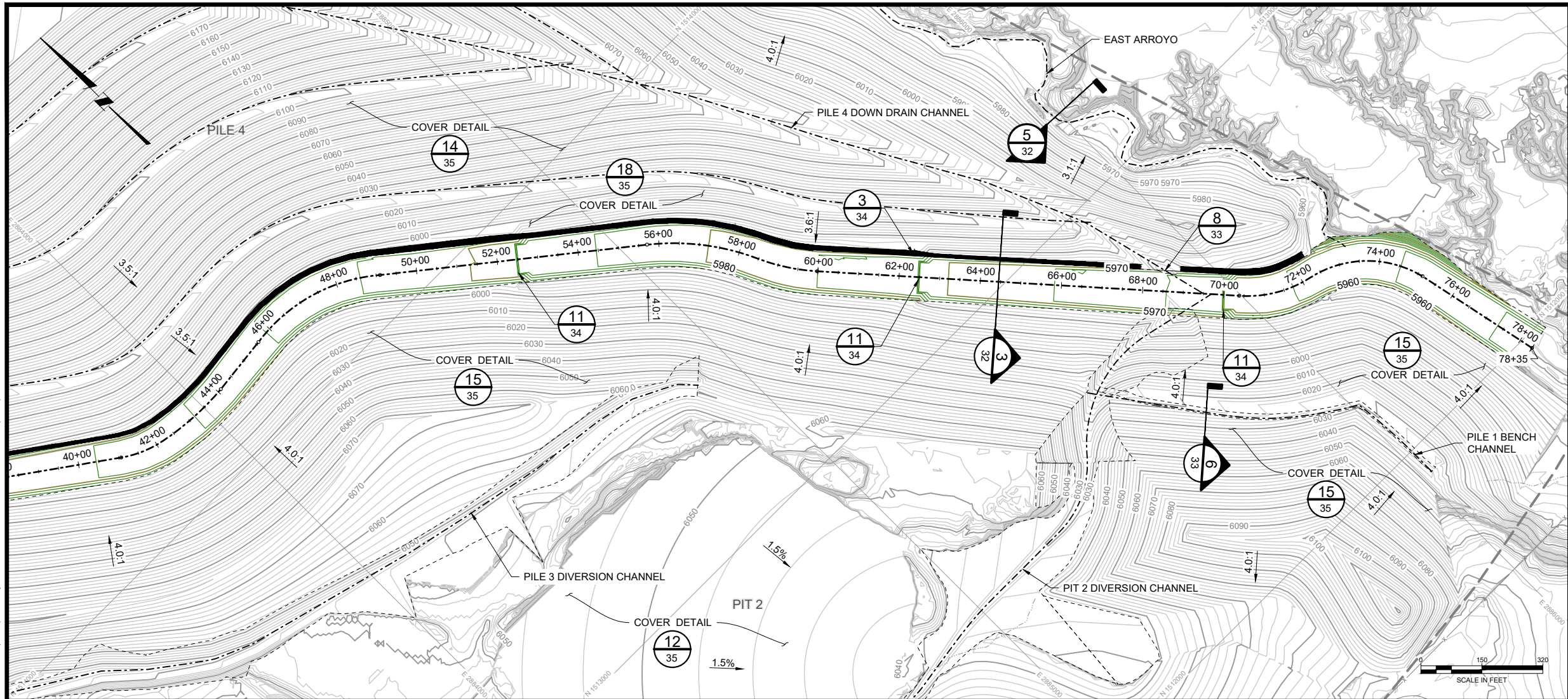
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 - Parcels, and Cebolleta Land Grant: Cibola County, cibolacountynm.com, 02/15/18
 - Permit Boundary: (1008596X001.dwg)



UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
ARROYO STABILIZATION PLAN AND PROFILE (1 OF 2)

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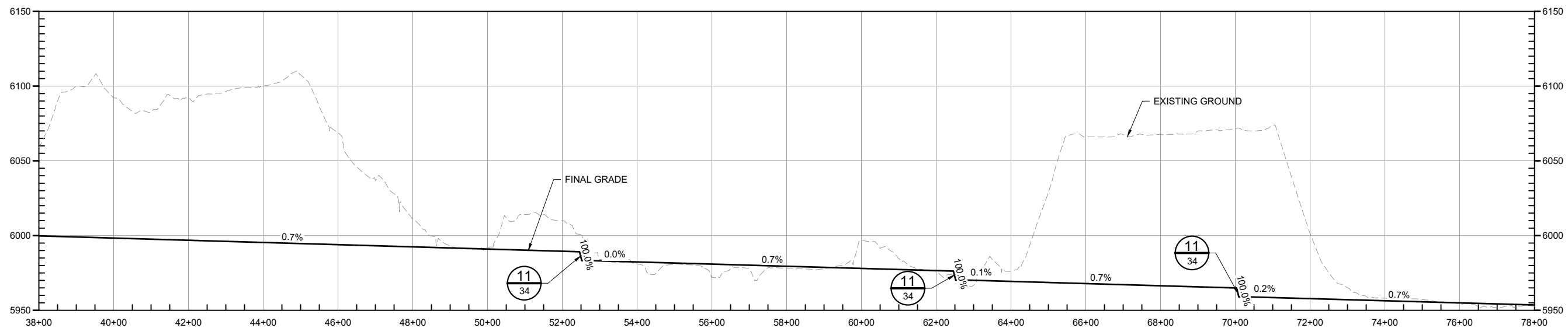


LEGEND:

- 6100 FINAL CONDITIONS GROUND SURFACE CONTOUR & ELEVATION, FEET
- 6200 PROPOSED ARROYO CONTOUR & ELEVATION, FEET
- APPROXIMATE MINE PERMIT BOUNDARY
- GULLEY / DRAINAGE
- ARROYO
- PROPOSED DRAINAGE CENTERLINE
- SEDIMENT RETENTION BERM

NOTE:

- CONTRACTOR TO ADD GRAVEL TO PILE 4 COVER SLOPE BETWEEN LOWEST BENCH AND SEDIMENT BERM.



PRELIMINARY
FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION
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1	11/2021	KR	30% DESIGN
0	02/2019	KR	PRELIMINARY DESIGN

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CHECKED M. KAPP
APPROVED J. CUMBERS

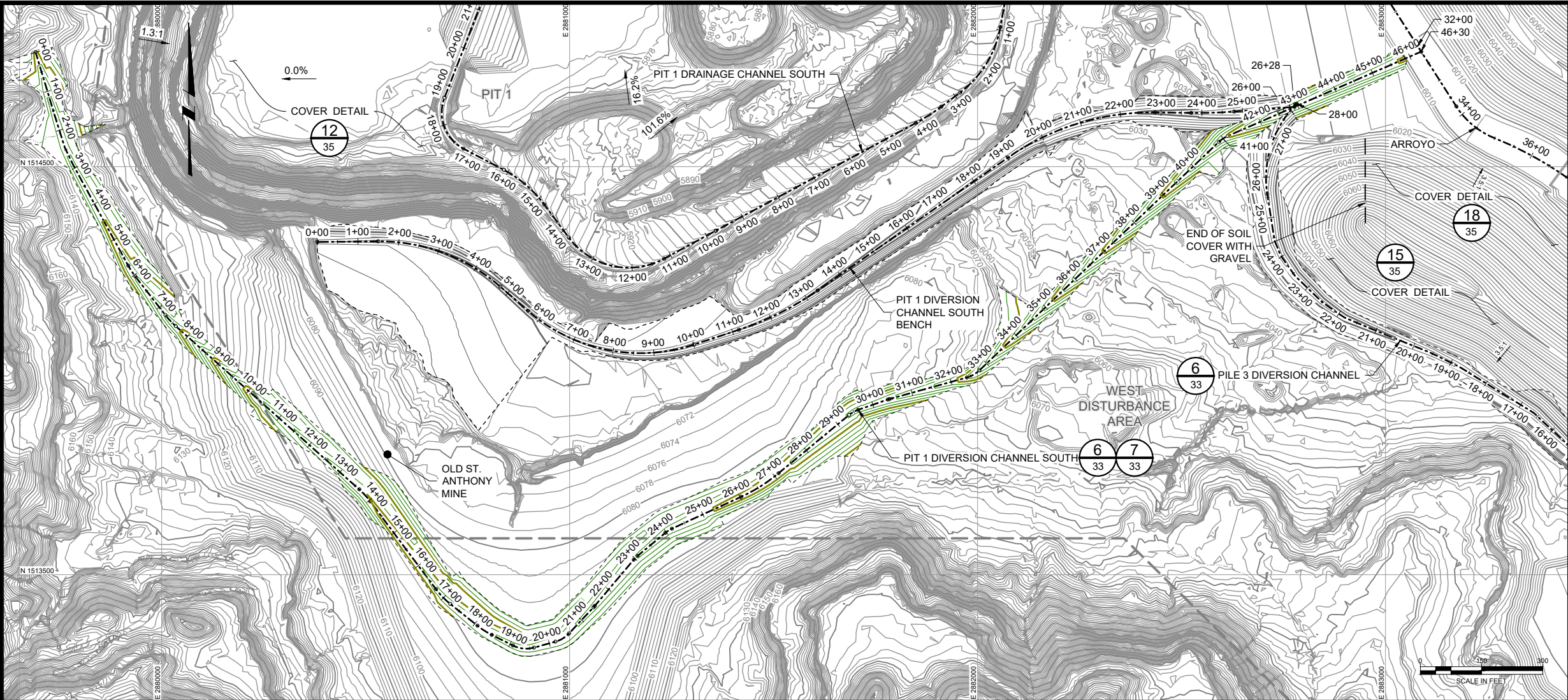
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3. Township and Section lines: rgis.unm.edu, 08/04/2014
4. Parcels and Cebolleta Land Grant: Cibola County, cibolacountynm.com, 02/15/18
5. Permit Boundary: (1008596X001.dwg)



UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
ARROYO STABILIZATION PLAN AND PROFILE (2 OF 2)

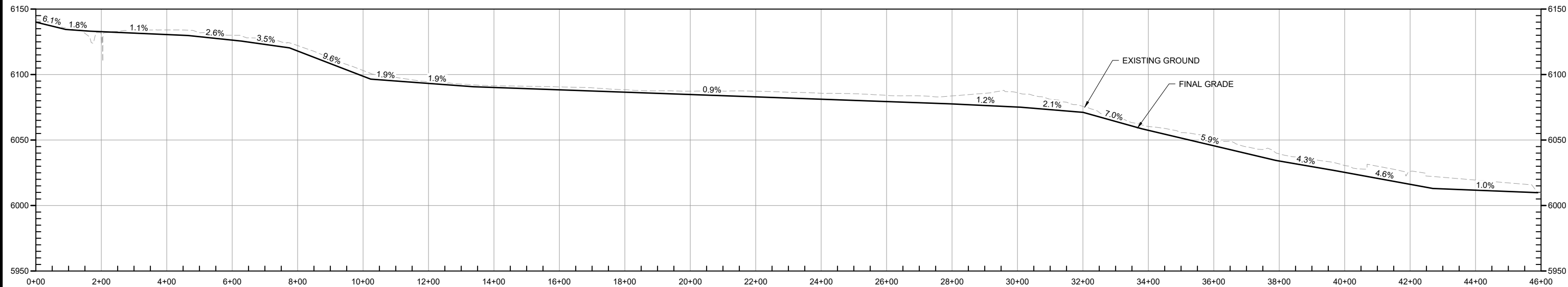
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LEGEND:

- 6100 FINAL CONDITIONS SURFACE CONTOUR & ELEVATION, FEET
- 6200 PROPOSED DRAINAGE CHANNEL CONTOUR & ELEVATION, FEET
- APPROXIMATE MINE PERMIT BOUNDARY
- GULLEY / DRAINAGE
- PROPOSED DRAINAGE CENTERLINE



PRELIMINARY
FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION
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1	11/2021	KR	30% DESIGN
0	02/2019	KR	PRELIMINARY DESIGN

DRAWN K. REED
CHECKED M.KAPP
APPROVED J. CUMBERS

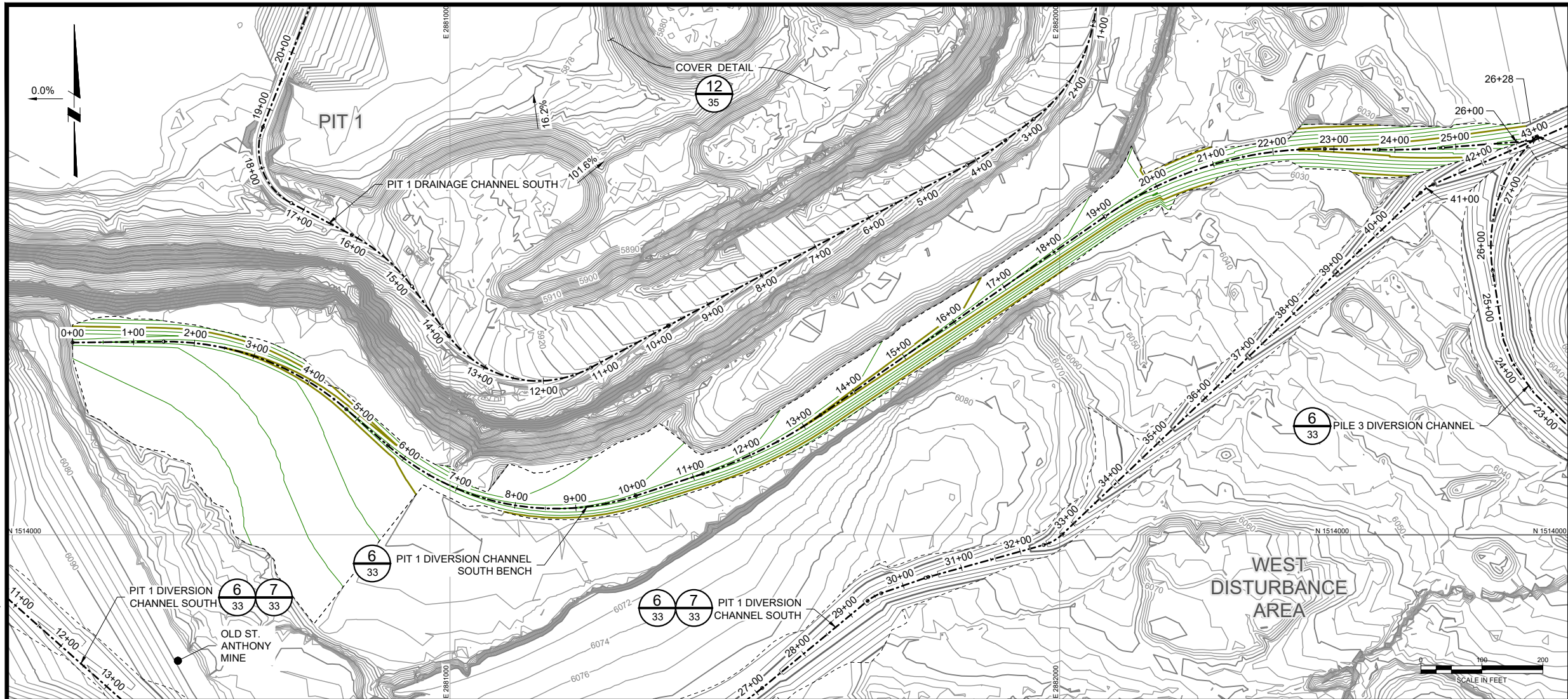
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 - Supplemental Off Site: USGS DEM 10m
 - Township and Section lines: rgis.unm.edu, 08/04/2014
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 - Permit Boundary: (1008596X001.dwg)



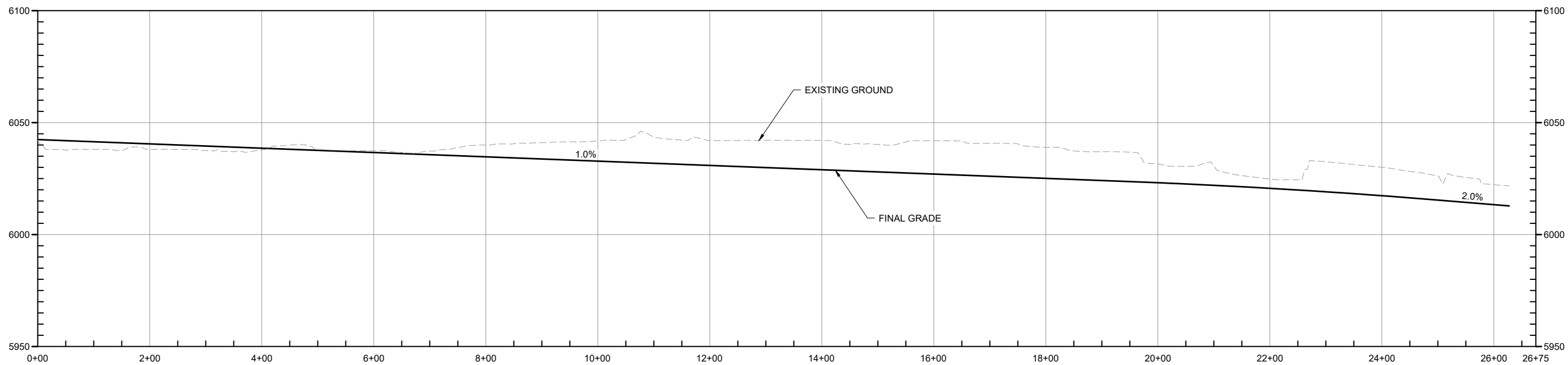
UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
PIT 1 DIVERSION CHANNEL SOUTH PLAN AND PROFILE

SHEET
20
233001076

Tuesday, September 30, 2025 8:49:26 AM K:\REED C:\PROJECT\WSE-DRIVE\STANTEC\233001363\SHEETS\W2-29-2020_STA_DESIGN_DRAWINGS\PT 1 DIVERSION CHANNEL SOUTH PLAN AND PROFILE.dwg Layout:PT 1 DIVERSION CHANNEL SOUTH PLAN AND PROFILE



- LEGEND:
- 6100 FINAL CONDITIONS SURFACE CONTOUR & ELEVATION, FEET
 - 6200 PROPOSED DRAINAGE CHANNEL CONTOUR & ELEVATION, FEET
 - GULLY / DRAINAGE
 - PROPOSED DRAINAGE CENTERLINE



PRELIMINARY
FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION
2	06/2025	KR	90% DESIGN
1	11/2021	KR	30% DESIGN
0	03/2020	KR	PRELIMINARY DESIGN

DRAWN K. REED
CHECKED M. KAPP
APPROVED J. CUMBERS

- DRAWING REFERENCES:
- All coordinates in New Mexico State Plane West, NAD83, Feet (U.S. Survey).
 - Elevations/Topo:
 - On site: Cooper Aerial, 05/09/2011, (050911-1000overview3d.dwg)
 - Supplemental Off Site: USGS DEM 10m
 - Township and Section lines: rgis.unm.edu, 08/04/2014
 - Parcels, and Cibola Land Grant: Cibola County, cibolacountynm.com, 02/15/18
 - Permit Boundary: (1008596X001.dwg)



UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO

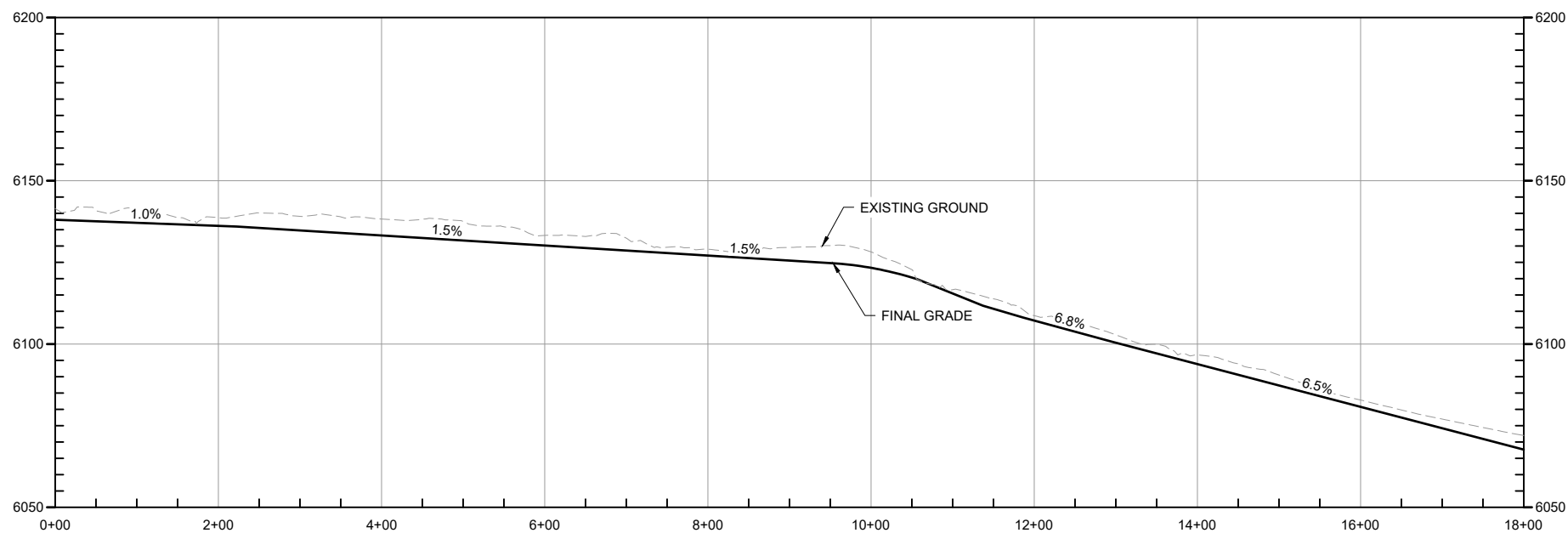
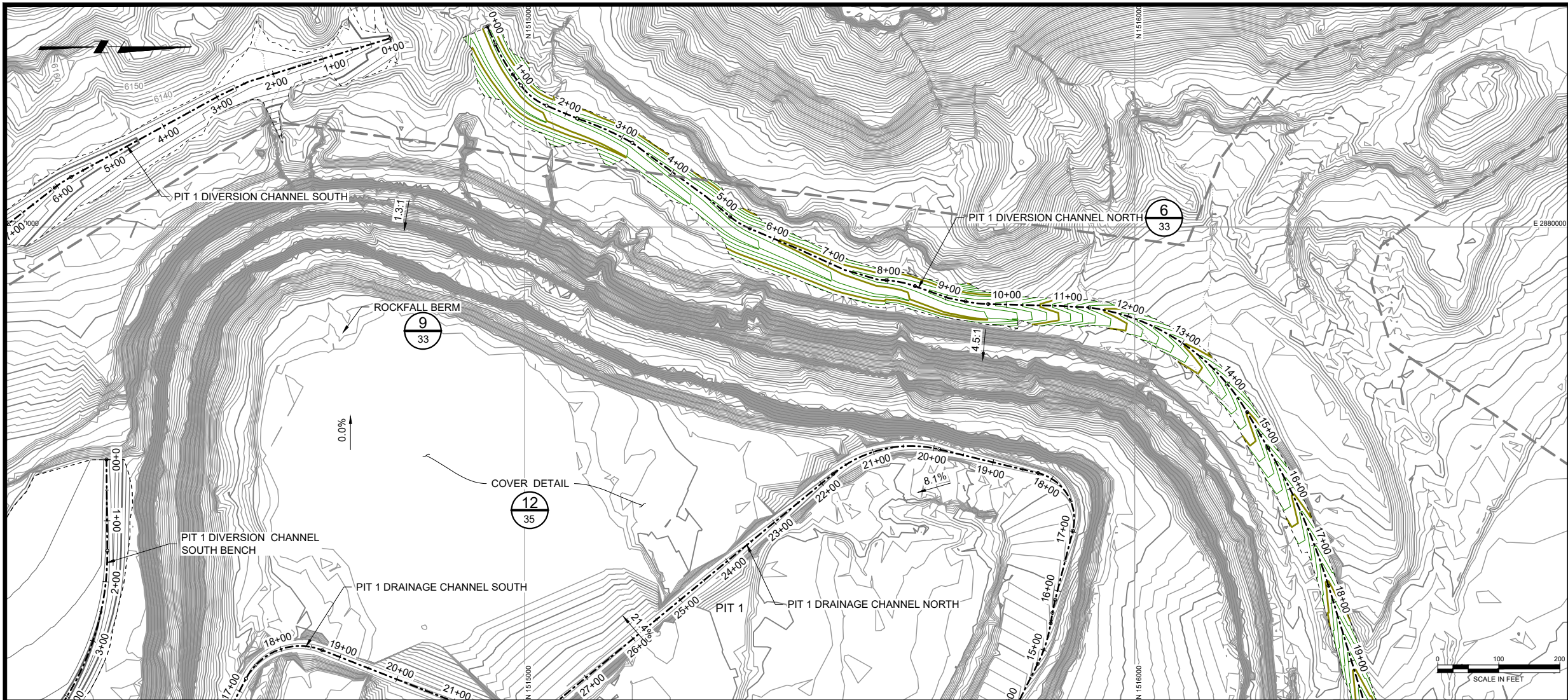
PIT 1 DIVERSION CHANNEL SOUTH BENCH PLAN AND PROFILE

SHEET

21

233001076

Tuesday, September 30, 2025 8:47:02 AM K:\REED C:\PROJECTS\WSE-DRIVE\STANTEC\233001363\SHEETSET\02-29-2020_STA_DESIGN_DRAWINGS\PT 2 DIVERSION CHANNEL PLAN AND PROFILE (1 OF 2)



PRELIMINARY
FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION
2	06/2025	KR	90% DESIGN
1	11/2021	KR	30% DESIGN
0	02/2019	KR	PRELIMINARY DESIGN

DRAWN K. REED
CHECKED M. KAPP
APPROVED J. CUMBERS

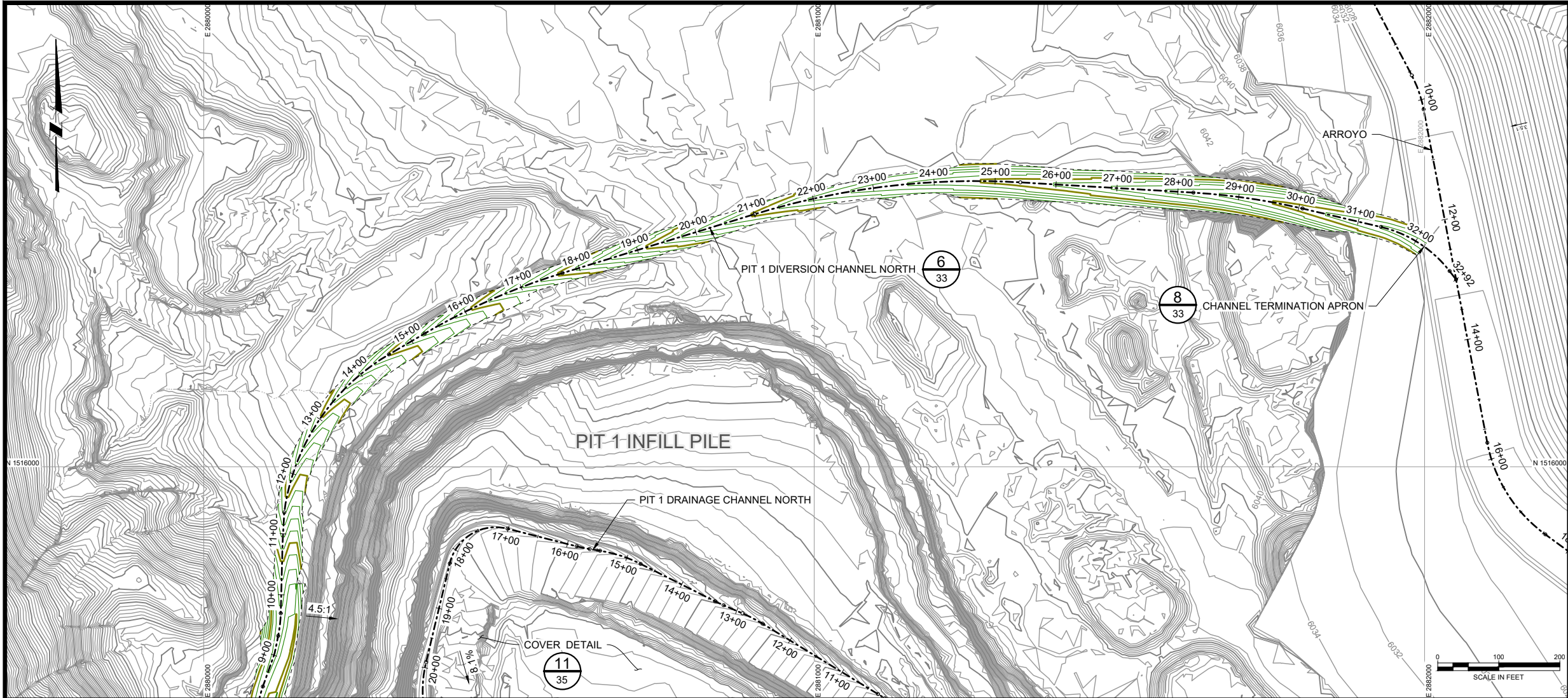
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2. Elevations/Topo:
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2.2. Supplemental Off Site: USGS DEM 10m
3. Township and Section lines: rgis.unm.edu, 08/04/2014
4. Parcels, and Cebolleta Land Grant: Cibola County, cibolacountynm.com, 02/15/18
5. Permit Boundary: (1008596X001.dwg)



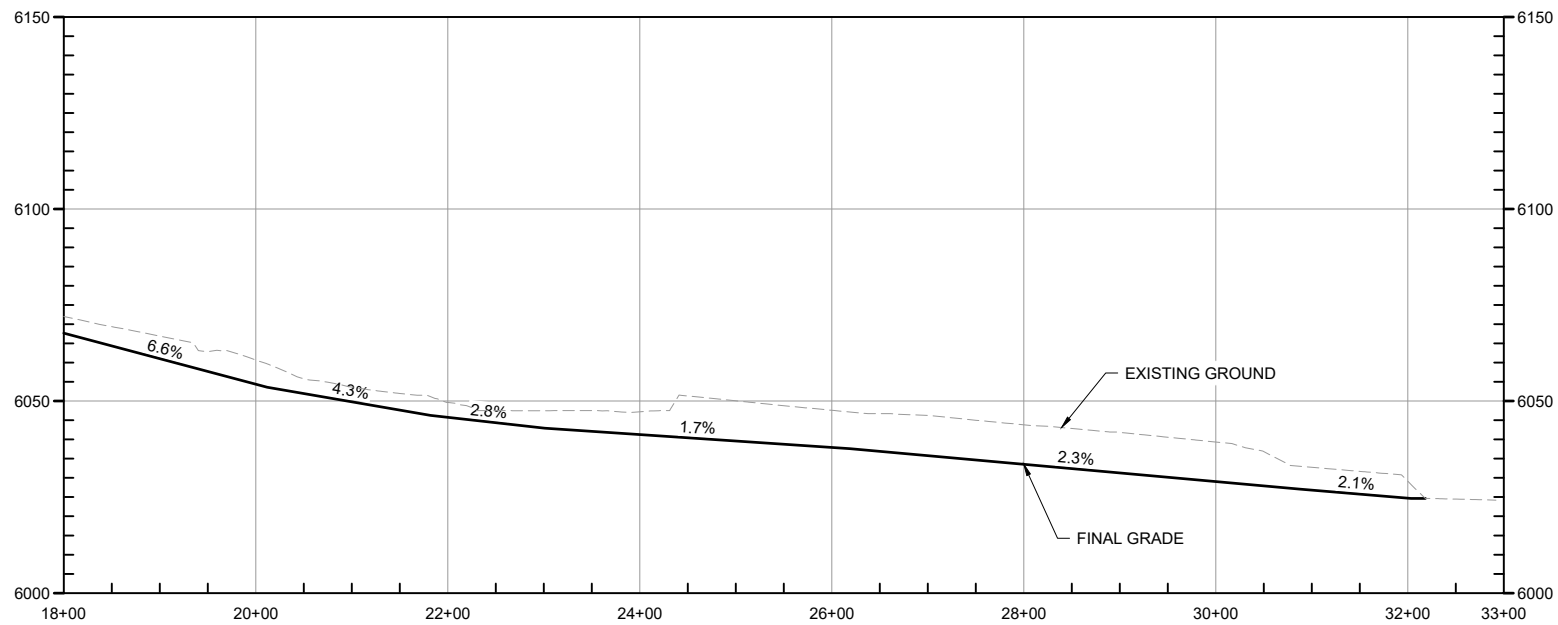
UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
NORTH PIT 1 DIVERSION CHANNEL PLAN AND PROFILE (1 OF 2)

SHEET
22
233001076

Tuesday, September 30, 2025 8:49:55 AM K:\REED C:\PROJECTWISE-DRIVE\STANTEC\233001363\SHEETSET\02-29-2020_STA_DESIGN_DRAWINGS\PT 2 DIVERSION CHANNEL PLAN AND PROFILE (2 OF 2)



- LEGEND:
- 6100 FINAL CONDITIONS SURFACE CONTOUR & ELEVATION, FEET
 - 6200 PROPOSED DRAINAGE CHANNEL CONTOUR & ELEVATION, FEET
 - GULLEY / DRAINAGE
 - PROPOSED DRAINAGE CENTERLINE



PRELIMINARY
FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION
2	06/2025	KR	90% DESIGN
1	11/2021	KR	30% DESIGN
0	03/2020	KR	PRELIMINARY DESIGN

DRAWN K. REED
CHECKED M. KAPP
APPROVED J. CUMBERS

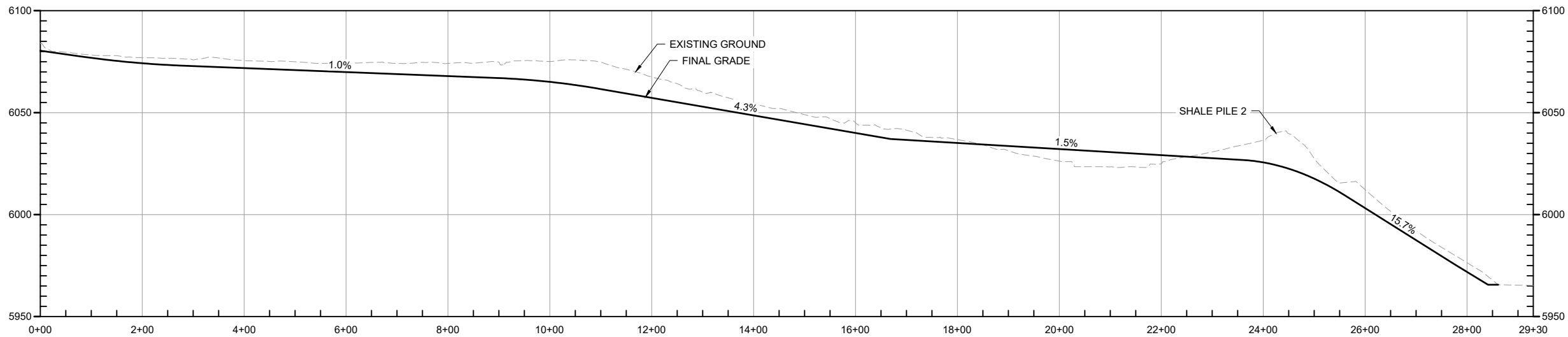
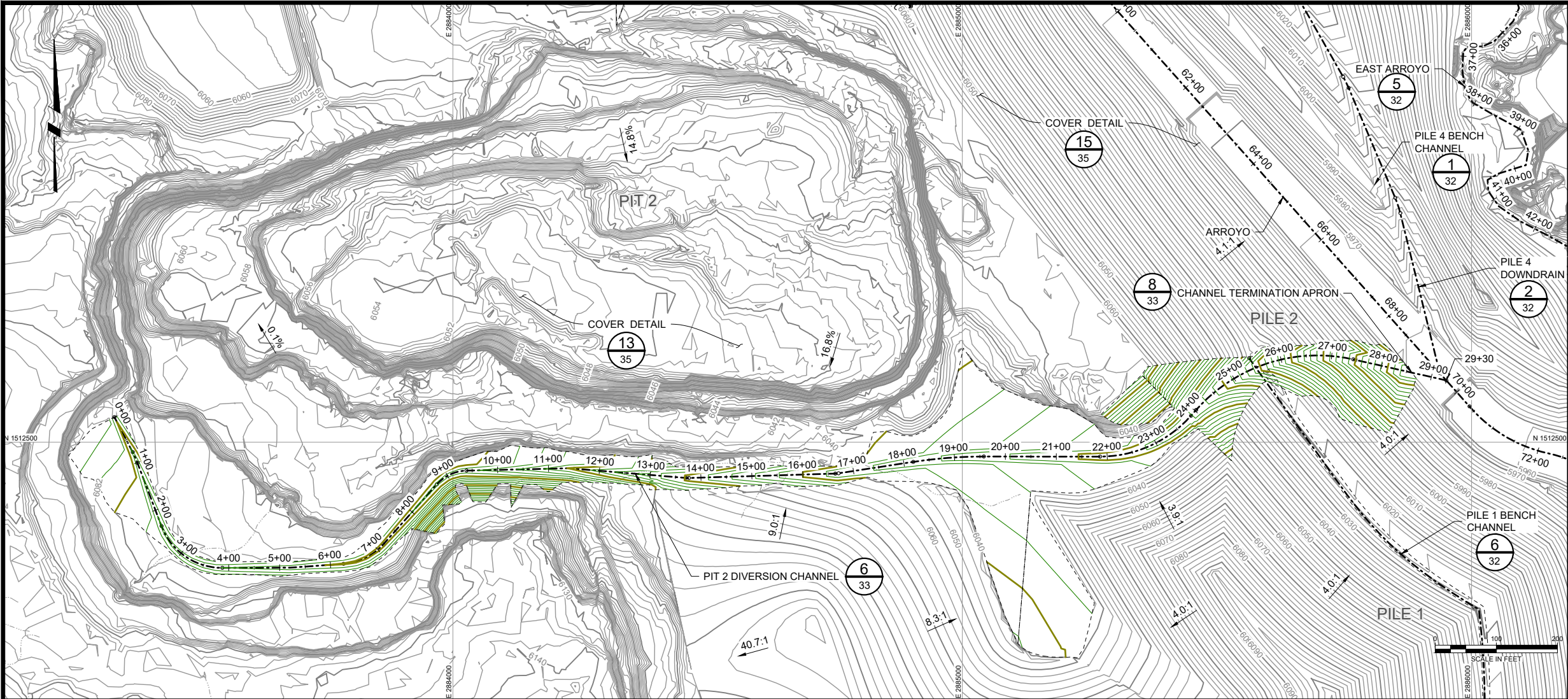
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- All coordinates in New Mexico State Plane West, NAD83, Feet (U.S. Survey).
 - Elevations/Topo:
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 - Permit Boundary: (1008596X001.dwg)



UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
NORTH PIT 1 DIVERSION CHANNEL PLAN AND PROFILE (2 OF 2)

SHEET
23
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Tuesday, September 30, 2025 8:46:35 AM K:\REED C:\PROJECTS\WSE-DRIVE\STANTEC\233001363\SHEETSET\02-29-2020_STA_DESIGN_DRAWINGS\PT 2 DIVERSION CHANNEL PLAN AND PROFILE.dwg Layout:PT 2 DIVERSION CHANNEL PLAN AND PROFILE



PRELIMINARY
FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION
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1	11/2021	KR	30% DESIGN
0	02/2019	KR	PRELIMINARY DESIGN

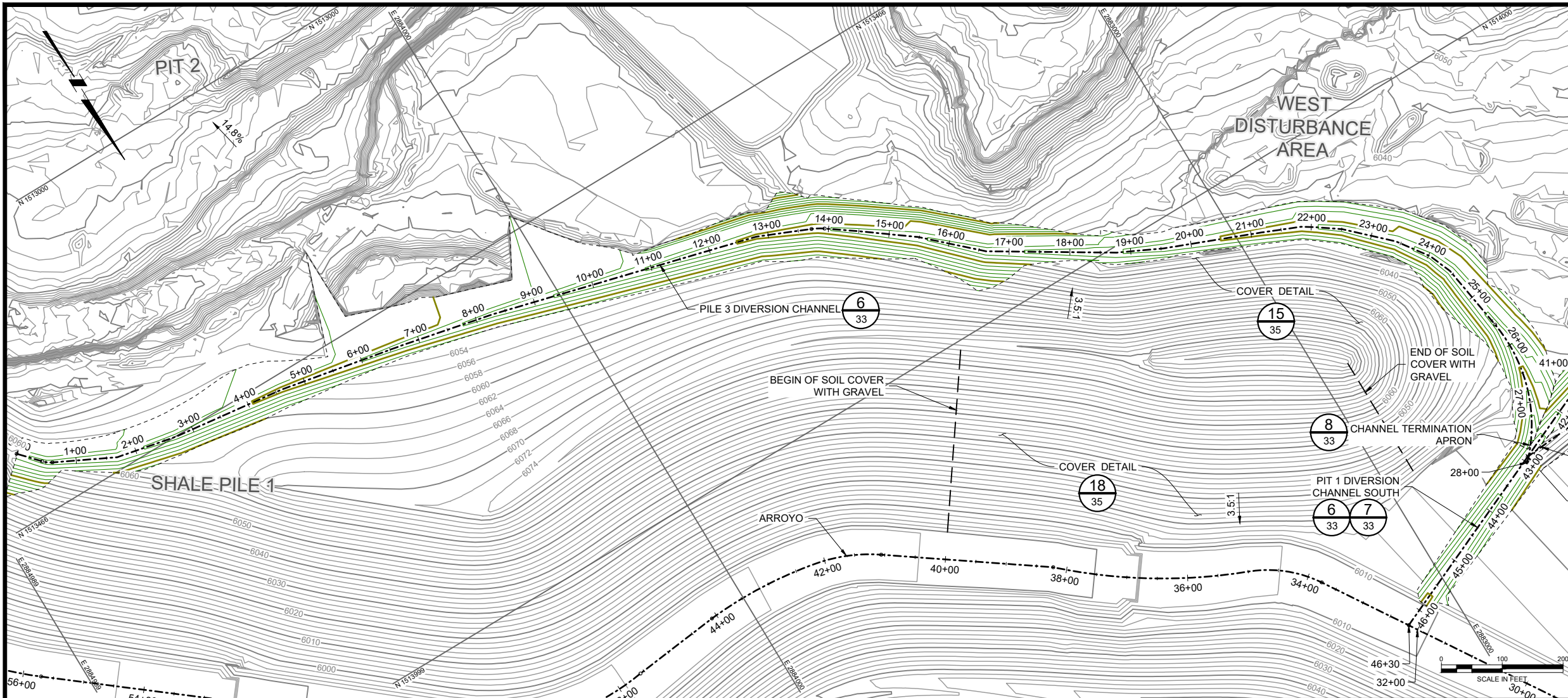
DRAWN K. REED
CHECKED M. KAPP
APPROVED J. CUMBERS

DRAWING REFERENCES:
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5. Permit Boundary: (1008596X001.dwg)

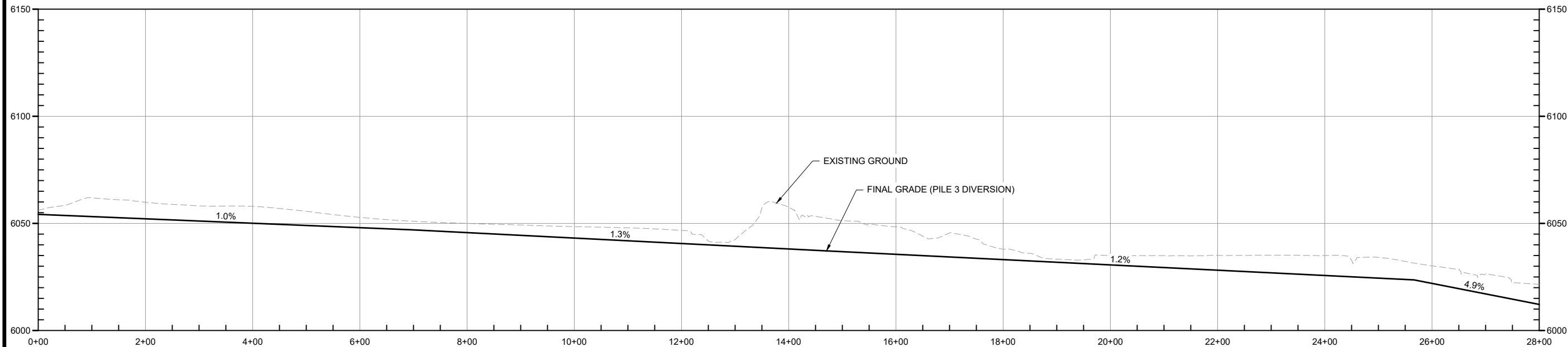


UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
PT 2 DIVERSION CHANNEL PLAN AND PROFILE

Tuesday, September 30, 2025 8:49:30 AM K:\PROJECTS\DRIVE\STANTEC\233001363\SHEETSET\02-29-2020_STA_DESIGN_DRAWINGS\PT 2 DIVERSION CHANNEL PLAN AND PROFILE.dwg Layout: PILE 3 DIVERSION CHANNEL PLAN AND PROFILE



- LEGEND:
- 6100 FINAL CONDITIONS SURFACE CONTOUR & ELEVATION, FEET
 - 6200 PROPOSED DRAINAGE CHANNEL CONTOUR & ELEVATION, FEET
 - APPROXIMATE MINE PERMIT BOUNDARY
 - GULLEY / DRAINAGE
 - PROPOSED DRAINAGE CENTERLINE



PRELIMINARY
FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION
1	06/2025	KR	90% DESIGN
APPROVED J. CUMBERS			

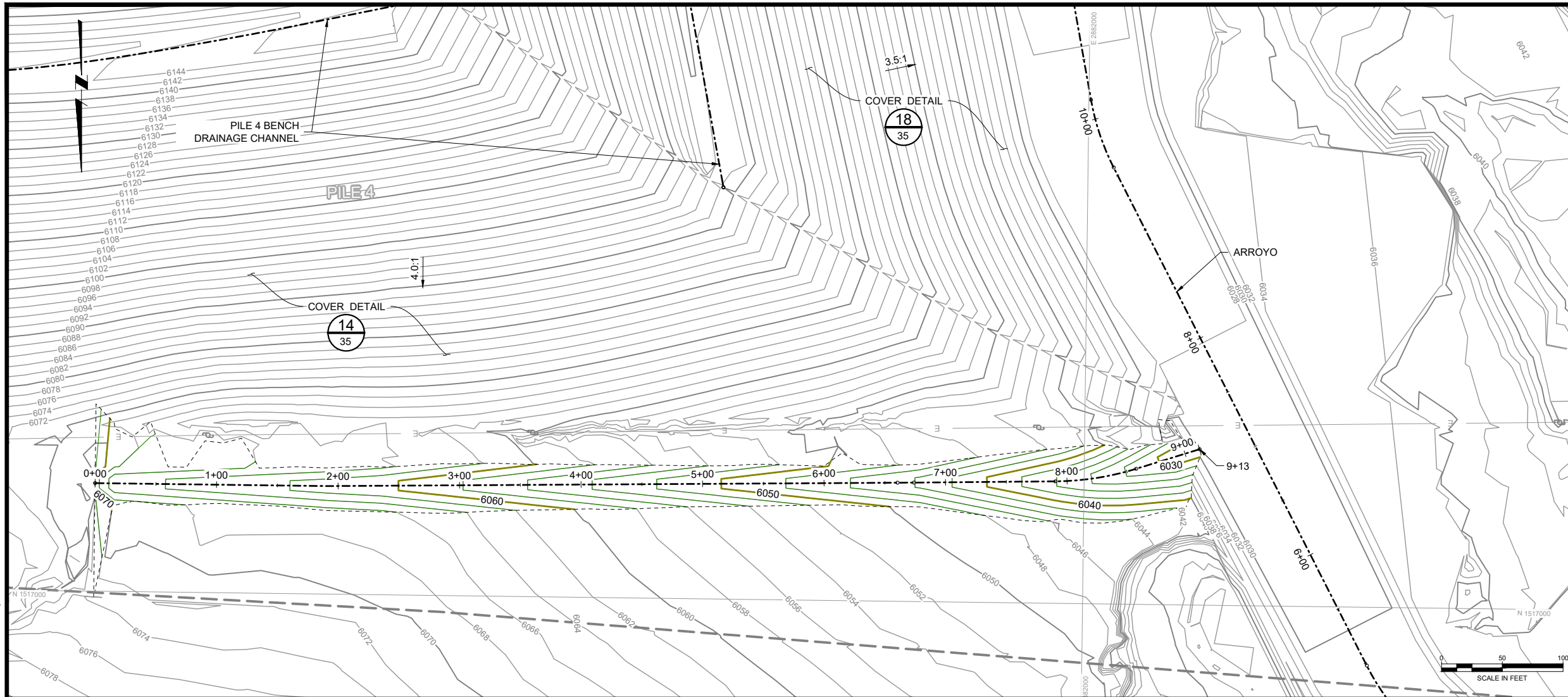
DRAWN	K. REED
CHECKED	C. FRITZ

- DRAWING REFERENCES:
- All coordinates in New Mexico State Plane West, NAD83, Feet (U.S. Survey).
 - Elevations/Topo:
 - On site: Cooper Aerial, 05/09/2011, (050911-1000overview3d.dwg)
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 - Parcels, and Cebolleta Land Grant: Cibola County, cibolacountynm.com, 02/15/18
 - Permit Boundary: (1008596X001.dwg)

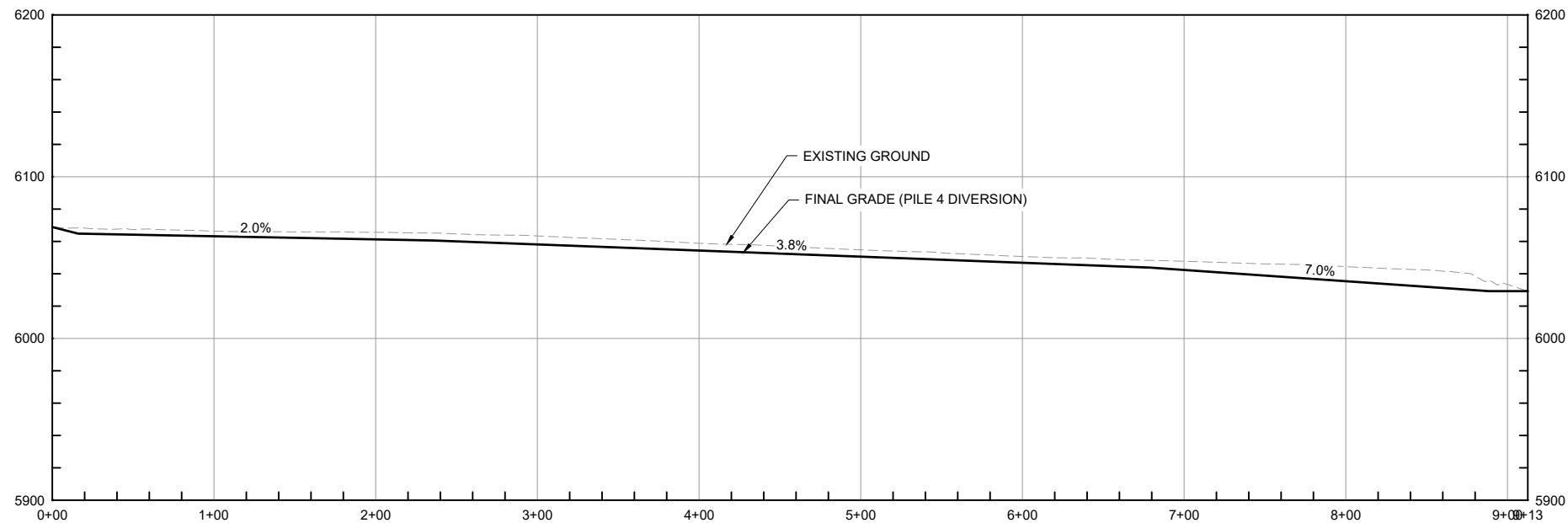


UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
PILE 3 DIVERSION CHANNEL PLAN AND PROFILE

Tuesday, September 30, 2025 8:49:30 AM K:\REED C:\PROJECT\WSE-DRIVE\STANTEC\233001363\SHEETSET\02-29-2020_STA_DESIGN_DRAWINGS\PT 2 DIVERSION CHANNEL PLAN AND PROFILE.dwg Layout: PILE 4 DIVERSION CHANNEL PLAN AND PROFILE



- LEGEND:
- 6100 FINAL CONDITIONS SURFACE CONTOUR & ELEVATION, FEET
 - 6200 PROPOSED DRAINAGE CHANNEL CONTOUR & ELEVATION, FEET
 - APPROXIMATE MINE PERMIT BOUNDARY
 - GULLEY / DRAINAGE
 - PROPOSED DRAINAGE CENTERLINE



PRELIMINARY
FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION
1	06/2025	KR	90% DESIGN

DRAWN	K. REED
CHECKED	C. FRITZ
APPROVED	J. CUMBERS

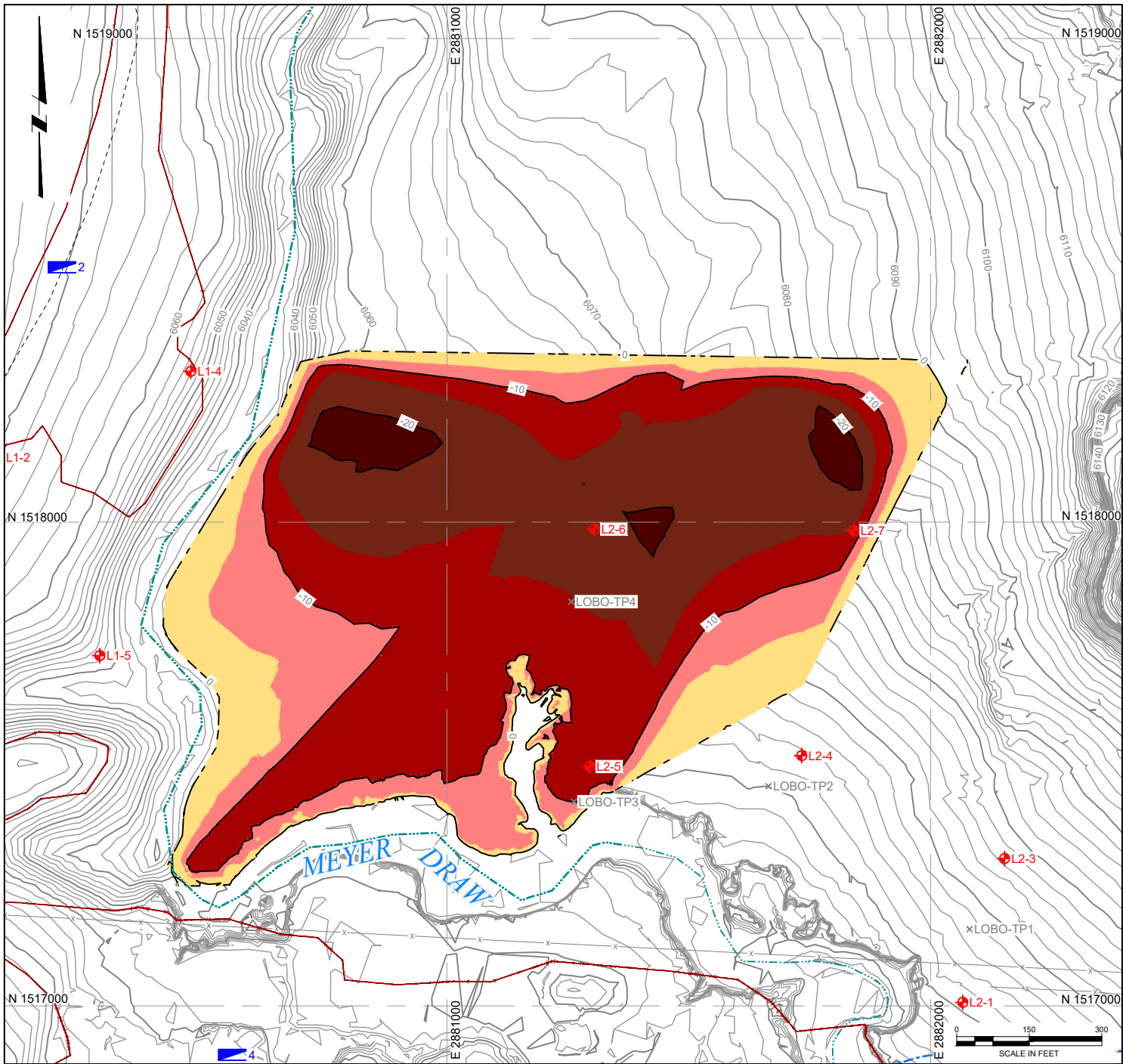
- DRAWING REFERENCES:
- All coordinates in New Mexico State Plane West, NAD83, Feet (U.S. Survey).
 - Elevations/Topo:
 - On site: Cooper Aerial, 05/09/2011, (050911-1000overview3d.dwg)
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 - Parcels, and Cibolaleta Land Grant: Cibola County, cibolacountynm.com, 02/15/18
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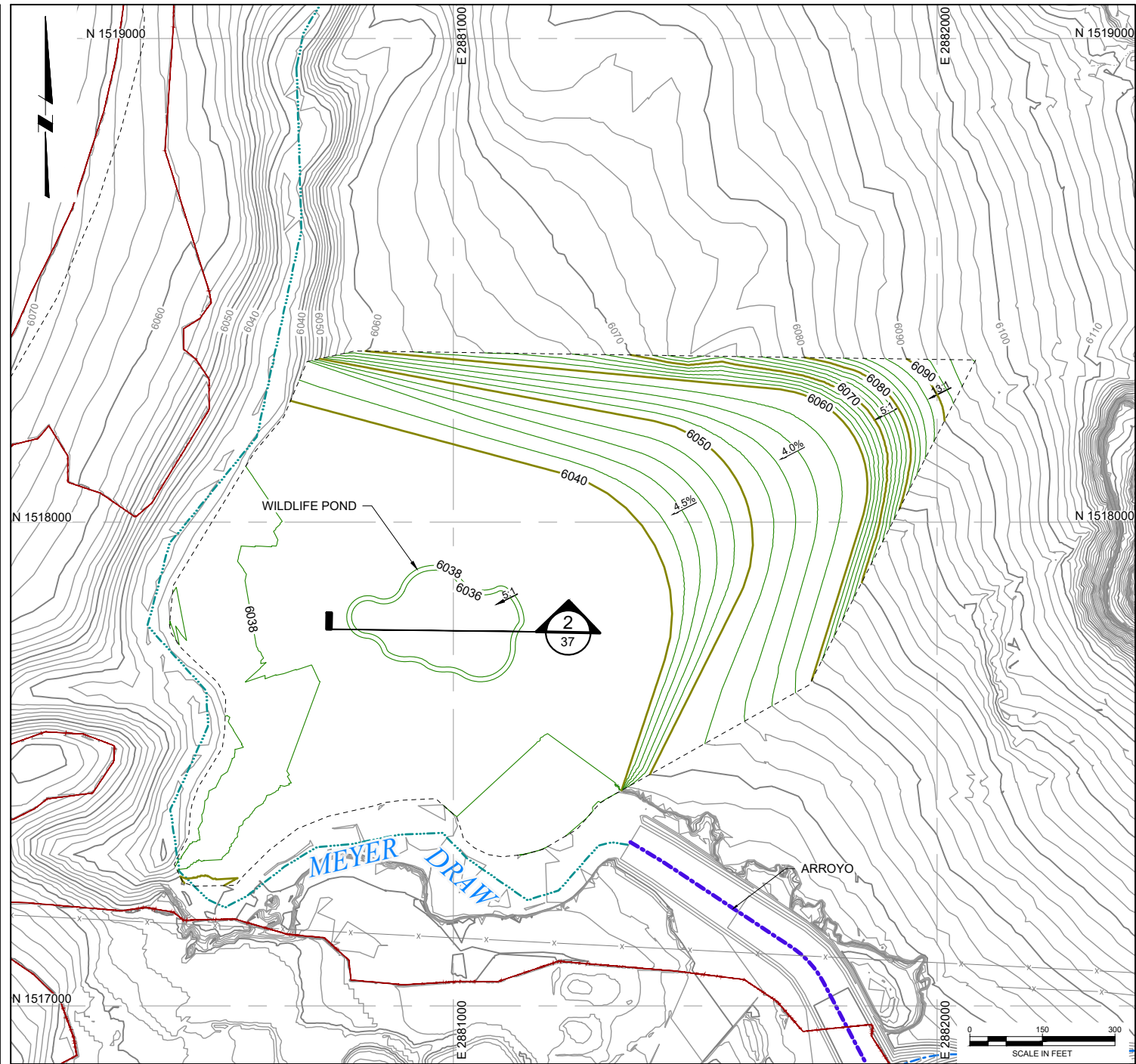
UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
PILE 4 DIVERSION CHANNEL PLAN AND PROFILE

SHEET
26
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Tuesday, September 30, 2025 8:51:02 AM K:\PROJECTS\DRIVE\STANTEC\233001363\SHEETSET\2024-06 BORROW AREAS\PROPOSED FINAL GRADING AND EXCAVATION PLAN - EAST BORROW.DWG Layout\PROPOSED EXCAVATION AND FINAL GRADING PLAN - LOBO TRACT



EAST BORROW AREA - CUT DEPTHS



EAST BORROW AREA - FINAL GRADING

LEGEND:

- 6100 EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
- 6200 PROPOSED FINAL GRADING CONTOUR & ELEVATION, FEET
- APPROXIMATE MINE PERMIT BOUNDARY
- EXISTING ARROYO
- DESIGN ARROYO
- REMOVAL AREA BOUNDARY
- EXISTING ROAD
- EXISTING FENCE
- PROPOSED DRAINAGE CHANNELS
- BOREHOLE (STANTEC, 2018)
- TEST PIT (STANTEC, 2018)
- EXISTING SAMPLING LOCATIONS (MWH, 2007)

CUT (-) / FILL (+) TABLE		
COLOR	DEPTH RANGE (FT)	AREA (SQ.FT)
	-20 - -25	43153
	-15 - -20	343477
	-10 - -15	412985
	-5 - -10	229252
	0 - -5	192951

NOTES:

- APPROX. EXCAVATION VOLUME 779,802 CY.
- STRIP VEGETATION/TOPSOIL 6 INCHES AND STOCKPILE. RESPREAD THIS MATERIAL OVER DISTURBED AREA AS PART OF RECLAMATION.

PRELIMINARY
FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION
2	06/2025	KR	90% DESIGN
1	11/2021	KR	30% DESIGN
0	02/2019	KR	PRELIMINARY DESIGN

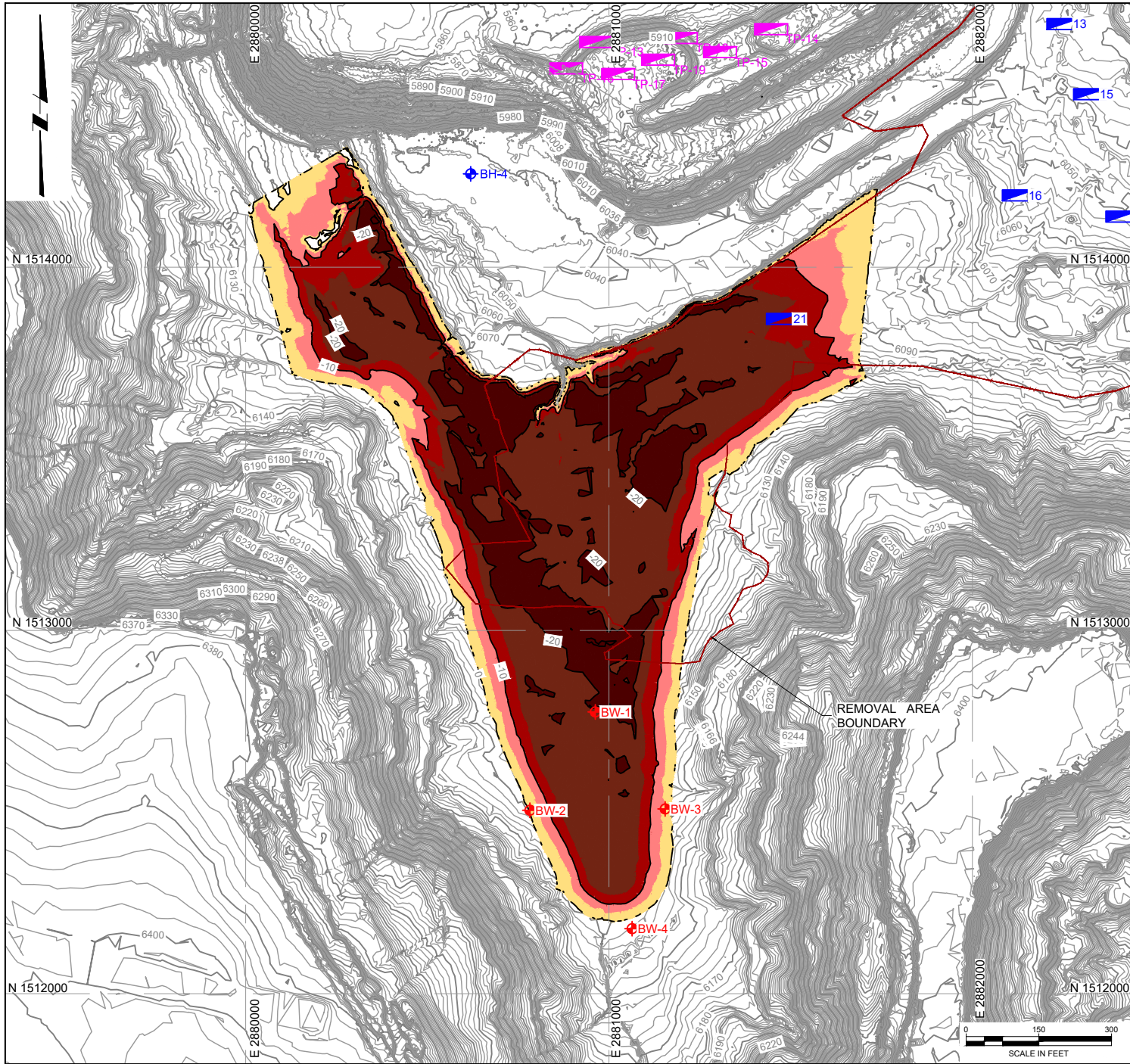
DRAWN	K. REED
CHECKED	M.KAPP
APPROVED	J. CUMBERS

- DRAWING REFERENCES:
- All coordinates in New Mexico State Plane West, NAD83, Feet (U.S. Survey).
 - Elevations/Topo:
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 - Supplemental Off Site: USGS DEM 10m
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 - Parcels, and Cibola Land Grant: Cibola County, cibolacountynm.com, 02/15/18
 - Permit Boundary: (1008596X001.dwg)



UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
PROPOSED EXCAVATION AND FINAL GRADING PLAN - LOBO TRACT

Tuesday, September 30, 2025 6:50:36 AM K:\REED C:\PROJECTS\WSE-DRIVE\STANTEC\233001363\SHEETSET\2024-06 BORROW AREAS\PROPOSED FINAL GRADING AND EXCAVATION PLAN - EAST BORROW.DWG Layout\PROPOSED EXCAVATION AND FINAL GRADING PLAN - WEST BORROW



WEST BORROW AREA - CUT DEPTHS

LEGEND:

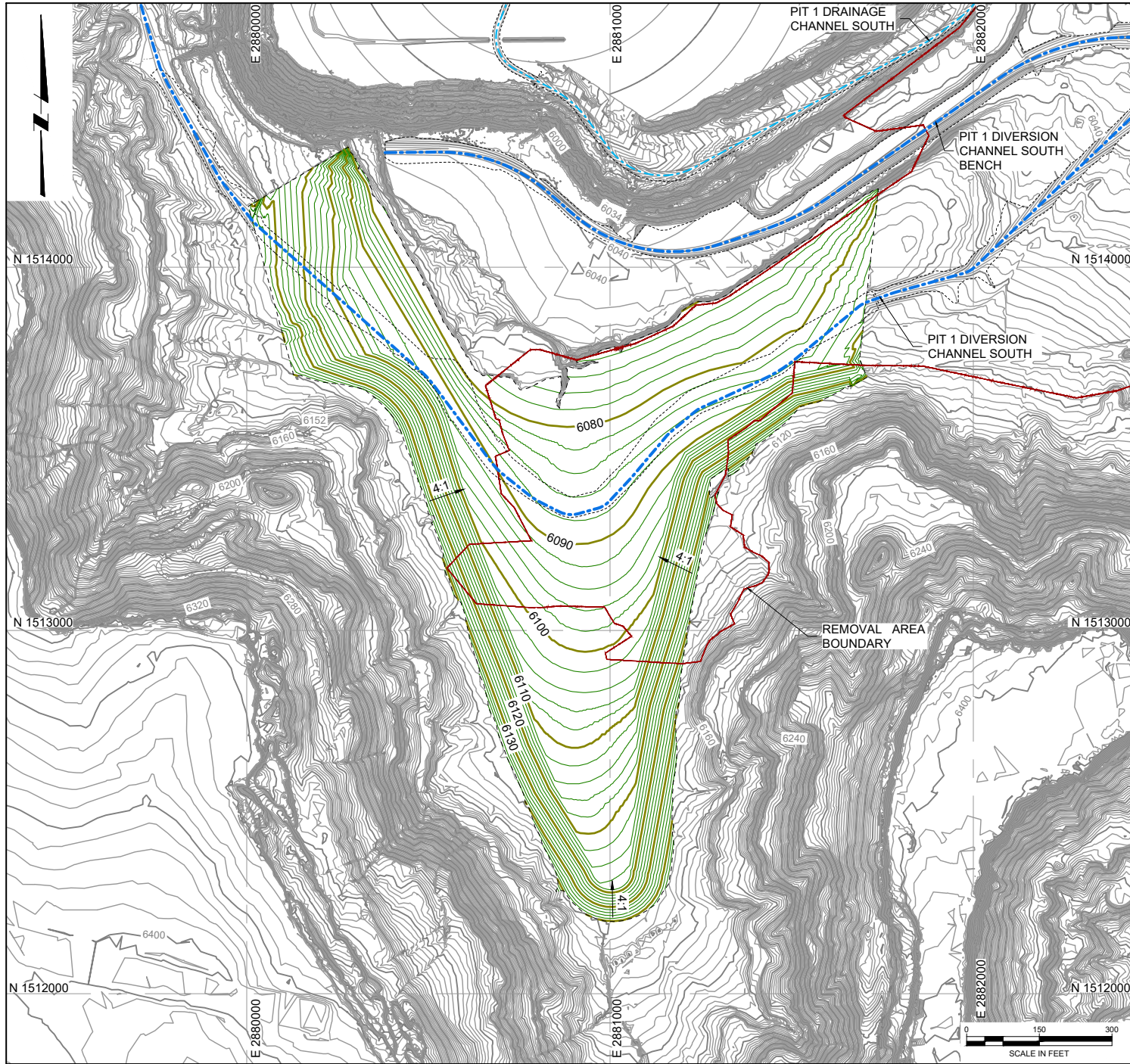
- 6100
- 6200
- DESIGN DIVERSION CHANNEL
- PROPOSED DRAINAGE CHANNELS
- REMOVAL AREA BOUNDARY
- BH-1
- TP-10
- TP-11
- BH-2
- BH-3
- BH-4

EXISTING GROUND SURFACE
CONTOUR & ELEVATION, FEET
PROPOSED FINAL GRADING
CONTOUR & ELEVATION, FEET
DESIGN DIVERSION CHANNEL
PROPOSED DRAINAGE CHANNELS
REMOVAL AREA BOUNDARY
BOREHOLE (STANTEC, 2018)
TEST PIT (STANTEC, 2018)
TEST PIT (STANTEC, 2019)
BOREHOLE (STANTEC, 2021)

CUT (-) / FILL (+) TABLE		
COLOR	DEPTH RANGE (FT)	AREA (SQ.FT)
	-20 - -35	273645
	-15 - -20	558098
	-10 - -15	177025
	-5 - -10	180936
	0 - -5	173875

NOTES:

- APPROX. EXCAVATION VOLUME 729,365 CY.
- STRIP VEGETATION/TOPSOIL 6 INCHES AND STOCKPILE. RESPREAD THIS MATERIAL OVER DISTURBED AREA AS PART OF RECLAMATION.



WEST BORROW AREA - FINAL GRADING

PRELIMINARY
FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION
2	06/2025	KR	90% DESIGN
1	11/2021	KR	30% DESIGN
0	02/2019	KR	PRELIMINARY DESIGN

DRAWN K. REED
CHECKED M.KAPP
APPROVED J. CUMBERS

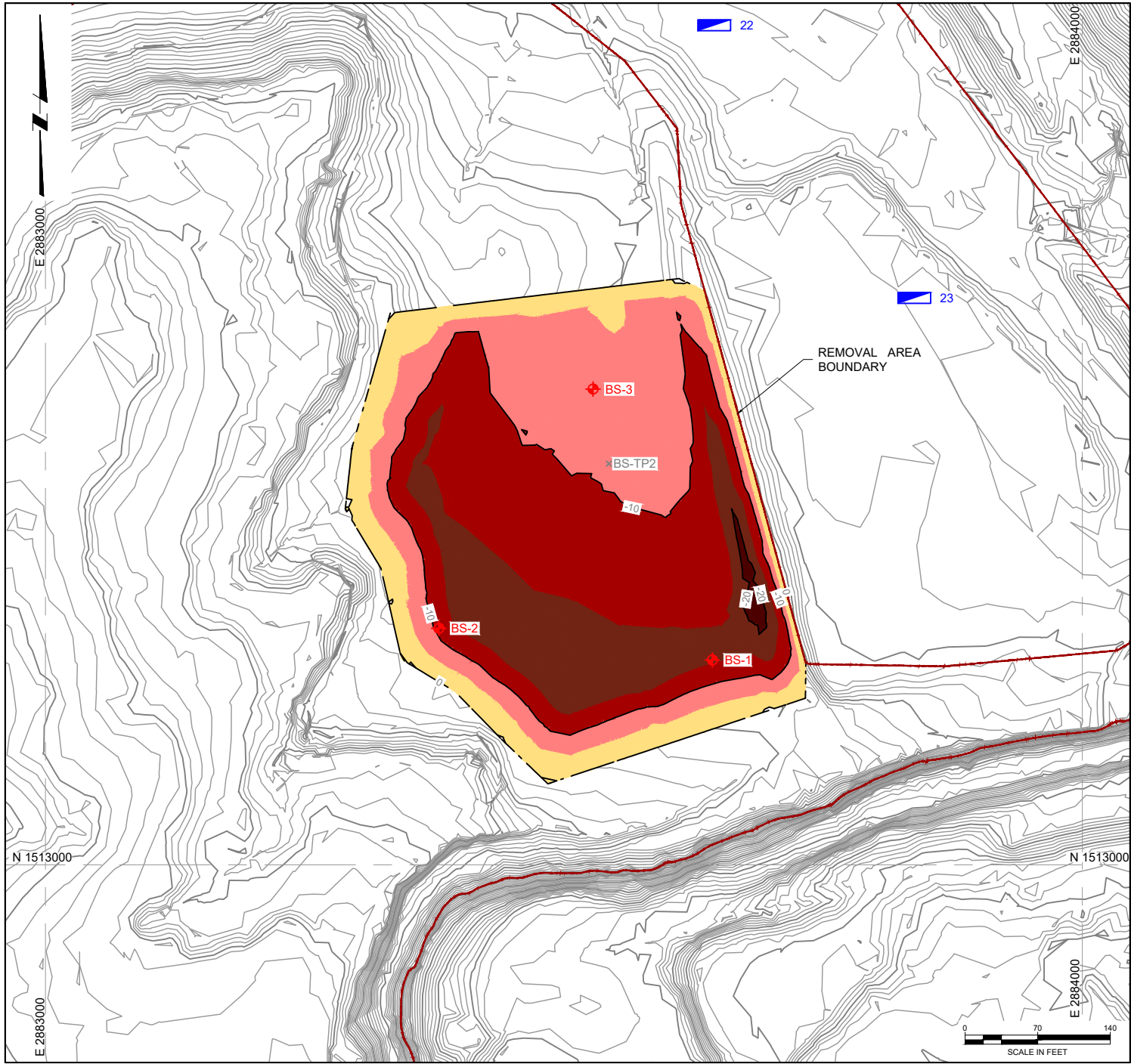
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1. All coordinates in New Mexico State Plane West, NAD83, Feet (U.S. Survey).
2. Elevations/Topo:
2.1. On site Cooper Aerial, 05/09/2011, (050911-1000overview3d.dwg)
2.2. Supplemental Off Site: USGS DEM 10m
3. Township and Section lines: rgis.unm.edu, 08/04/2014
4. Parcels, and Cibola Land Grant: Cibola County, cibolacountynm.com, 02/15/18
5. Permit Boundary: (1008596X001.dwg)



UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
PROPOSED EXCAVATION AND FINAL GRADING PLAN - WEST BORROW

SHEET
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Tuesday, September 30, 2025 8:49:23 AM K:\REED C:\PROJECTS\WSE-DRIVE\STANTEC\233001363\SHEETSET\2024-06 BORROW AREAS\PROPOSED FINAL GRADING AND EXCAVATION PLAN - EAST BORROW.DWG Layout\PROPOSED EXCAVATION AND FINAL GRADING PLAN - SOUTH BORROW



BORROW AREA SOUTH - CUT DEPTHS

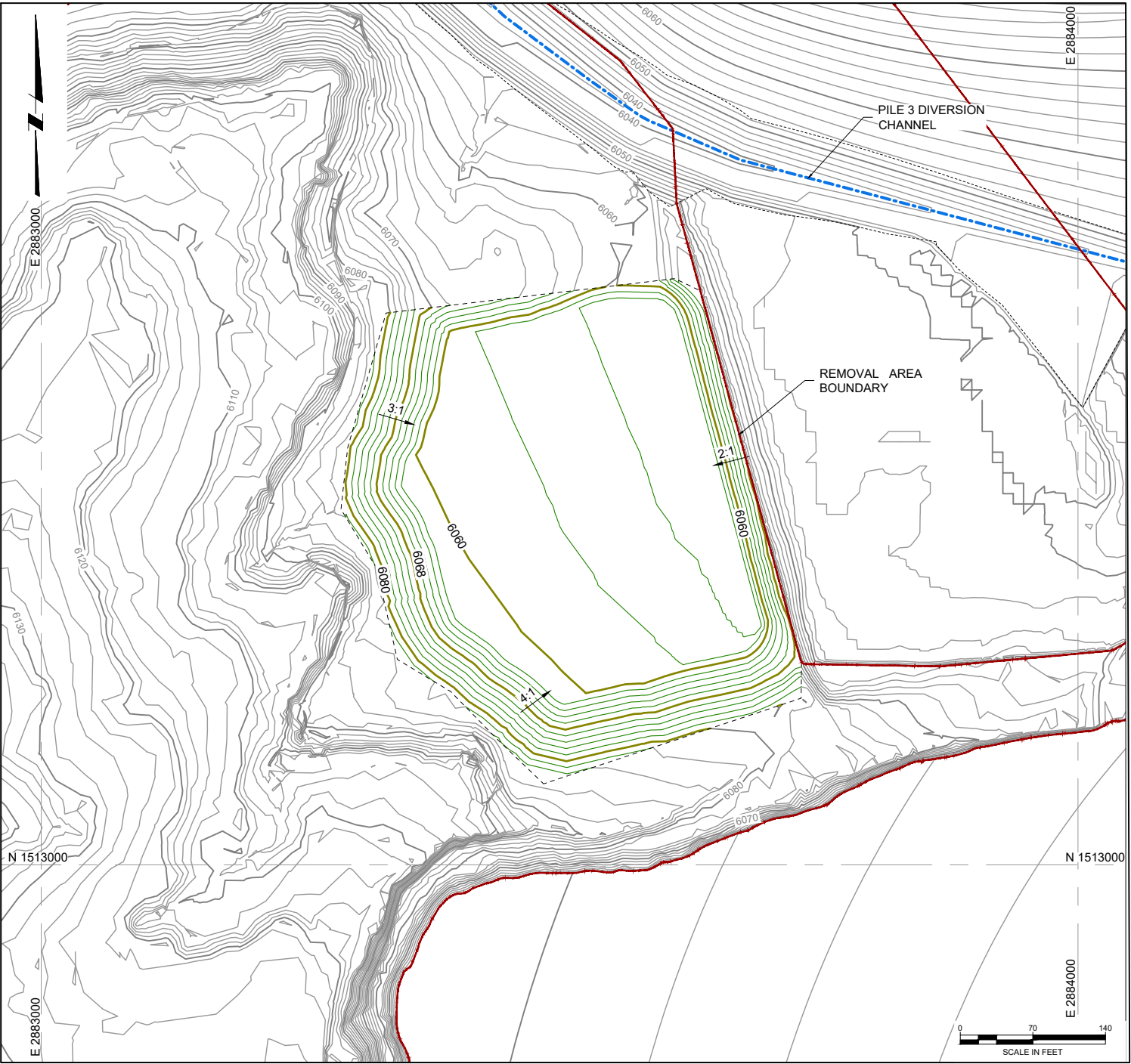
LEGEND:

- 6100 EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
- 6200 PROPOSED FINAL GRADING CONTOUR & ELEVATION, FEET
- PROPOSED DIVERSION CHANNELS
- REMOVAL AREA BOUNDARY
- P4-6 BOREHOLE (STANTEC, 2018)
- 10 TEST PIT (STANTEC, 2018)
- *LOBO-TP EXISTING SAMPLING LOCATIONS (MWH, 2007)

CUT (-) / FILL (+) TABLE		
COLOR	DEPTH RANGE (FT)	AREA (SQ.FT)
	-20 - -25	1105
	-15 - -20	29607
	-10 - -15	54734
	-5 - -10	48023
	0 - -5	23478

NOTES:

- APPROX. EXCAVATION VOLUME 60,216 CY.
- SOUTH BORROW IS A CONTINGENCY BORROW SOURCE.
- STRIP VEGETATION/TOPSOIL 6 INCHES AND STOCKPILE. RESPREAD THIS MATERIAL OVER DISTURBED AREA AS PART OF RECLAMATION.



BORROW AREA SOUTH - FINAL GRADING

PRELIMINARY
FOR DISCUSSION ONLY

REV	DATE	BY	DESCRIPTION
2	06/2025	KR	90% DESIGN
1	11/2021	KR	30% DESIGN
0	02/2019	KR	PRELIMINARY DESIGN

DRAWN K. REED
CHECKED M.KAPP
APPROVED J. CUMBERS

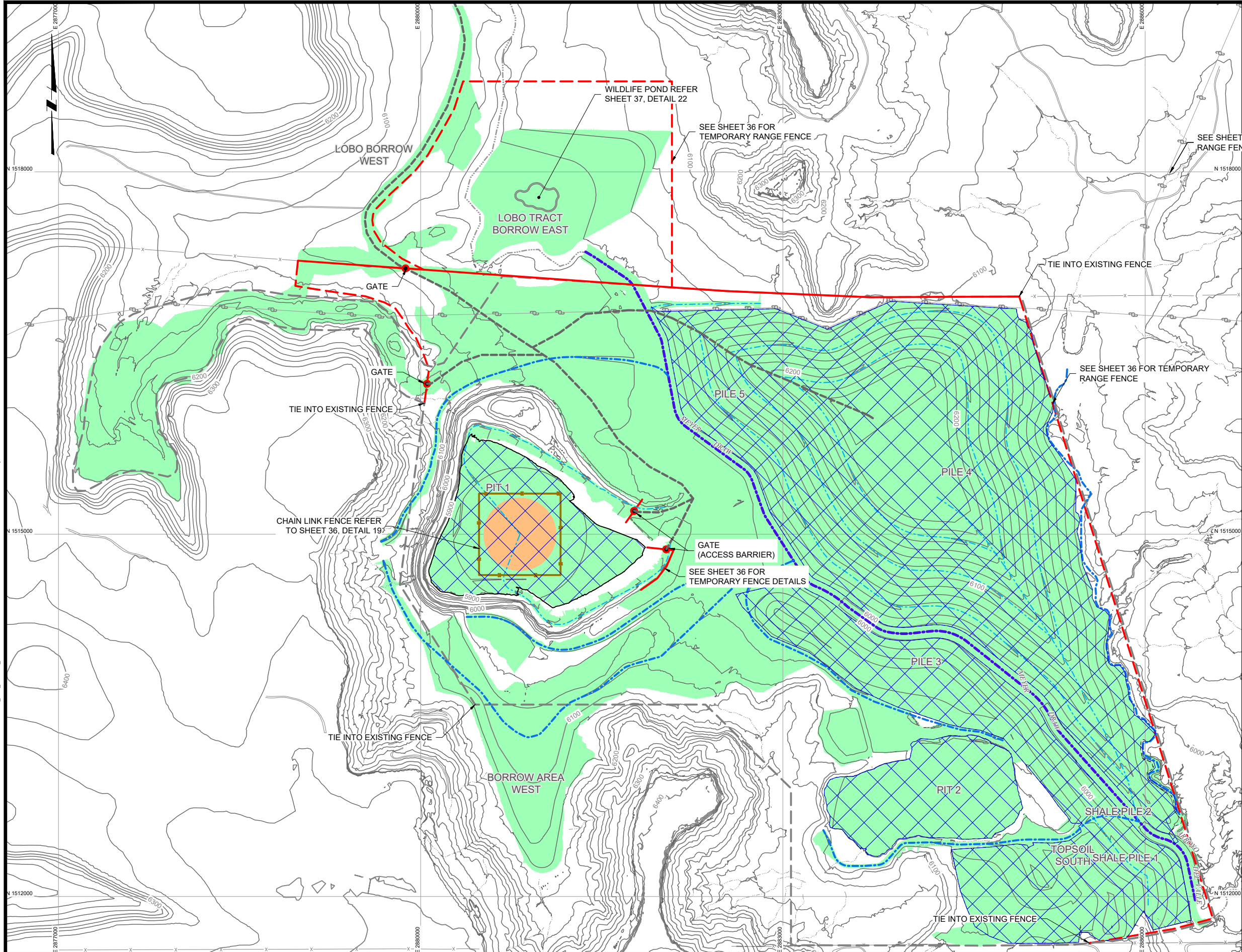
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5. Permit Boundary: (1008596X001.dwg)



UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
PROPOSED EXCAVATION AND FINAL GRADING PLAN - SOUTH BORROW

SHEET
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Tuesday, September 30, 2025 8:46:33 AM K:\PROJECTS\DRIVE\STANTEC\233001363\SHEETSET\02-29-2020_STA_DESIGN_DRAWINGS\REVEGETATION AND ENGINEERING CONTROLS PLANS\DWG_LAYOUT\REVEGETATION AND ENGINEERING CONTROLS PLAN



LEGEND:

- 6100 EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
- APPROXIMATE MINE PERMIT BOUNDARY
- GULLEY / DRAINAGE
- ARROYO
- EXISTING ROAD
- EXISTING FENCE
- EXISTING OVERHEAD ELECTRIC AND POWER POLES
- AREAS TO BE REVEGETATED (UPLAND SEED MIX)
- AREAS TO BE COVERED AND REVEGETATED
- AREAS TO BE REVEGETATED (MESIC SEED MIX)
- PERMANENT RANGE FENCE
- TEMPORARY RANGE FENCE
- PERMANENT CHAIN LINK FENCE
- PERMANENT ACCESS ROAD
- DESIGN ARROYO
- DESIGN DIVERSION CHANNELS AND EAST ARROYO
- DESIGN DRAINAGE CHANNELS

NOTE(S):

- NATIVE SEED MIX REQUIRED PER RECOMMENDATIONS OF ECOLOGICAL CONSULTANT.
- CONTRACTOR TO REPAIR/REPLACE IN KIND EX. PERMANENT FENCE REMOVED DURING CONSTRUCTION. TEMP. RANGE FENCE WILL CONNECT TO EX. FENCE LINES TO PREVENT GRAZING ACCESS.

PRELIMINARY
FOR DISCUSSION ONLY



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0	02/2019	KR	PRELIMINARY DESIGN

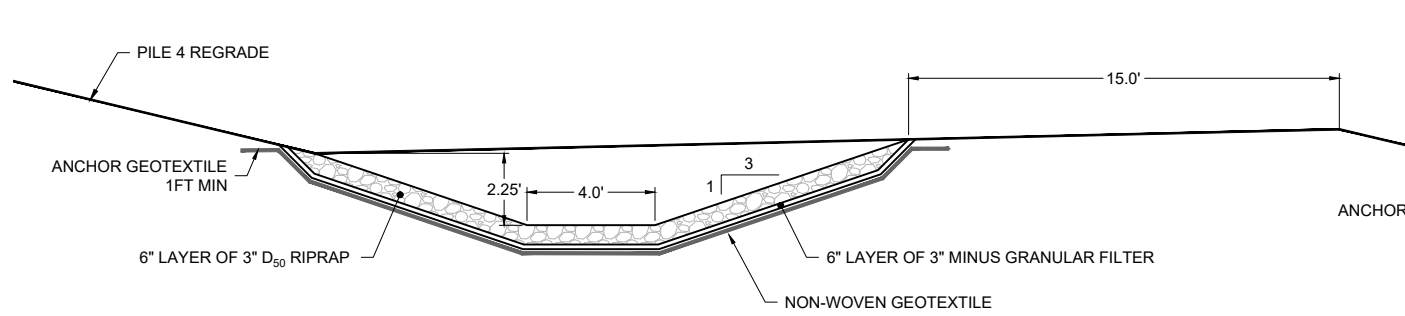
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CHECKED	M. KAPP
APPROVED	J. CUMBERS

- DRAWING REFERENCES:
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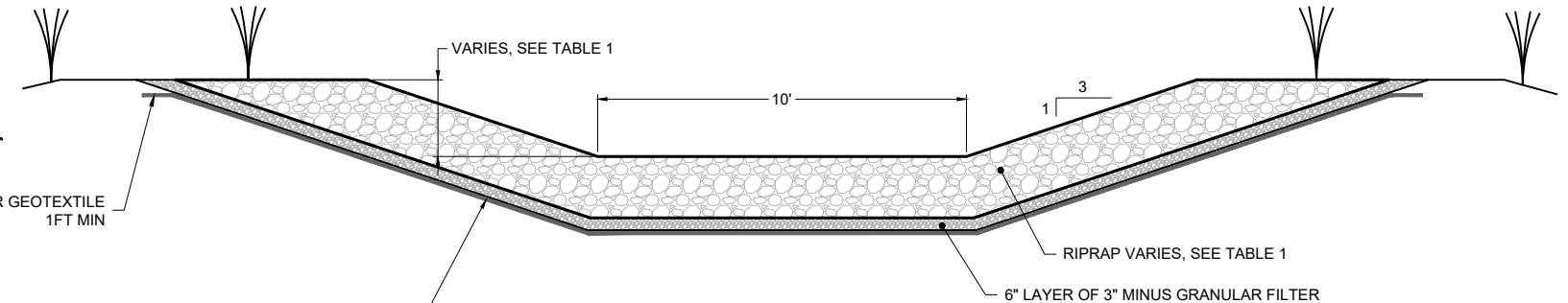


UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
REVEGETATION AND ENGINEERING CONTROLS PLAN

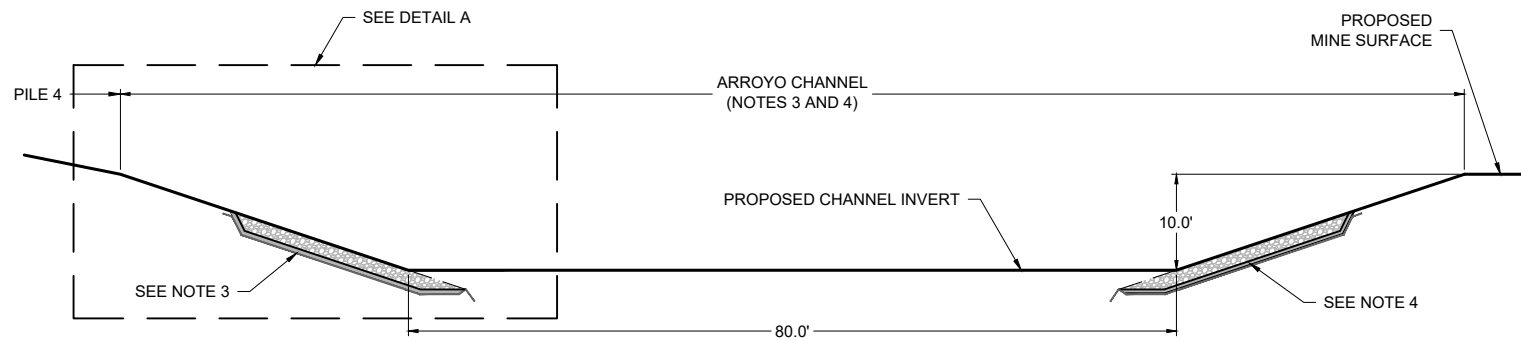
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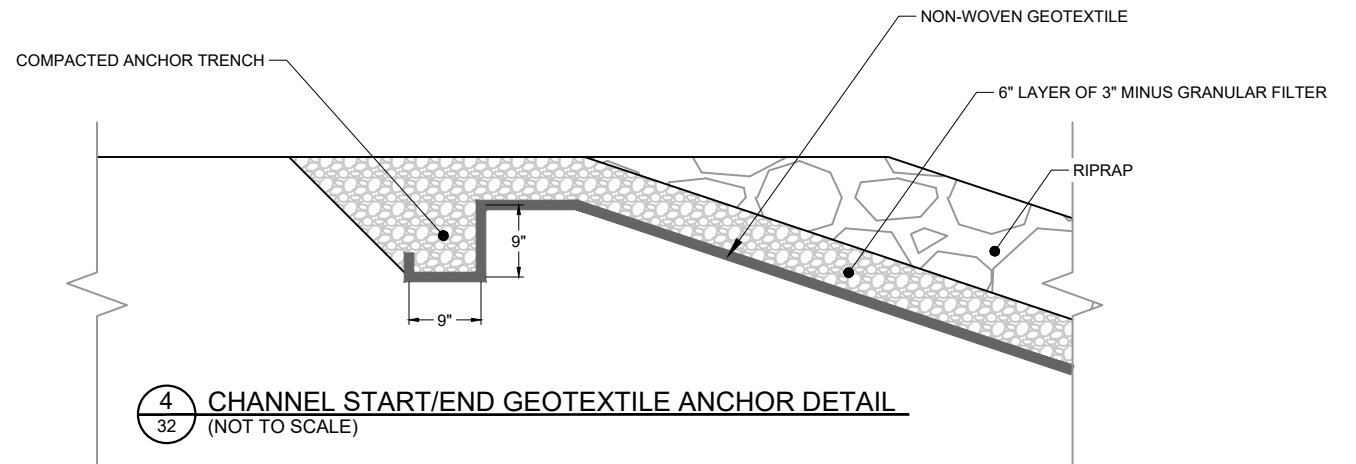
1
32 PILE 4 TYPICAL BENCH CHANNEL DETAIL
(NOT TO SCALE)



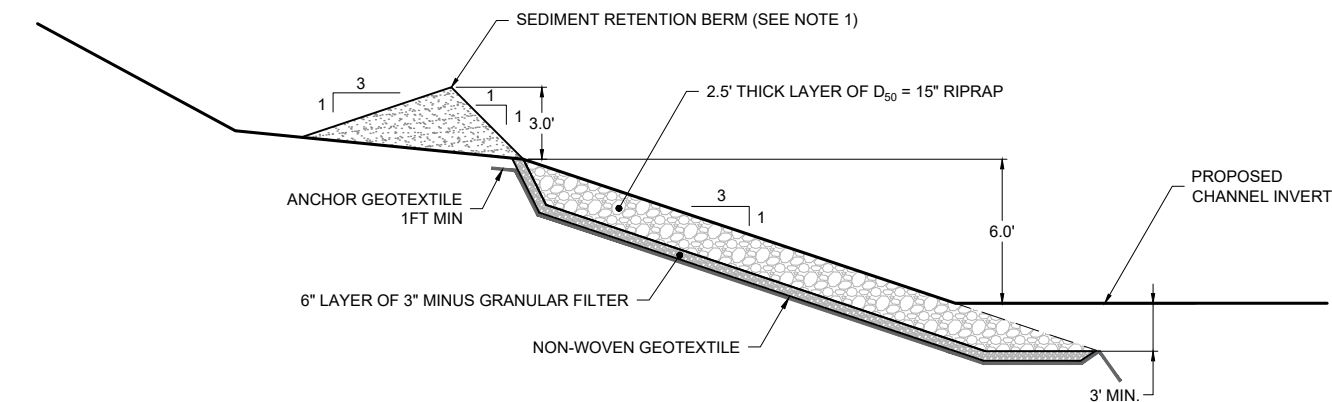
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32 PILE 4 DOWNDRAIN CHANNEL
(NOT TO SCALE)



CROSS SECTION

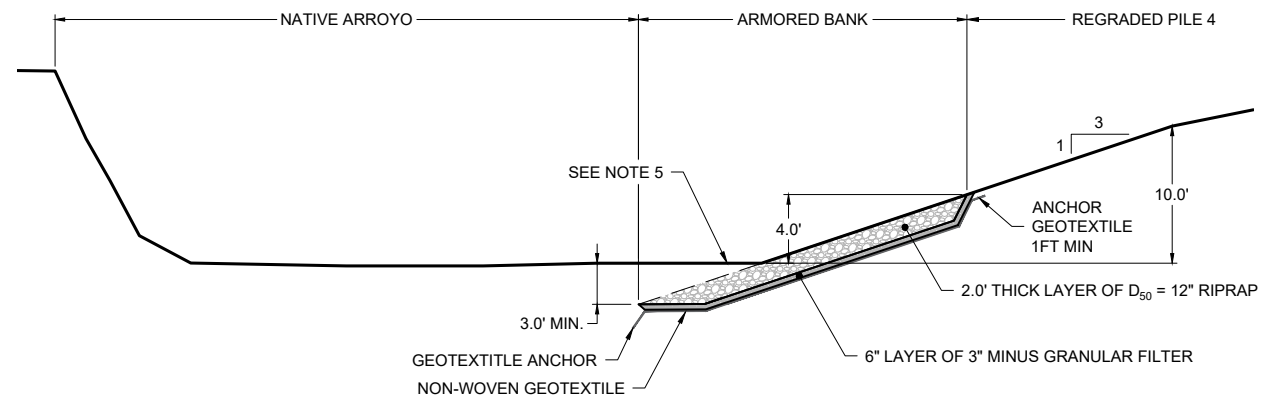


4
32 CHANNEL START/END GEOTEXTILE ANCHOR DETAIL
(NOT TO SCALE)



DETAIL A

3
32 MEYER DRAW TYPICAL SECTION AND ARMOR DETAIL
(NOT TO SCALE)



5
32 EAST TRIBUTARY CHANNEL - PILE ARMORING - TYPICAL SECTION
(NOT TO SCALE)

NOTE(S):

1. SEDIMENT RETENTION BERMS SHALL BE COMPACTED TO A MINIMUM OF 85% OF THE MAXIMUM DRY DENSITY. BREAKS IN THE BERM SHALL BE CONSTRUCTED EVERY 1,000 FT. THE 15" RIPRAP ON THE NORTHEAST SIDE OF THE ARROYO CROSS SECTION SHALL EXTEND UP TO THE BERM WHERE THERE ARE BREAKS IN THE BERM.
2. CHANNELS WITH NON-WOVEN GEOTEXTILE SHALL ANCHOR THE GEOTEXTILE AT THE START AND END OF THE CHANNEL AS SHOWN IN DETAIL 4.
3. ARMORING REQUIRED ON NORTHEAST BANK FOR STATIONS 0+00 TO 76+00.
4. ARMORING REQUIRED ON SOUTHWEST BANK FOR STA 34+50 TO STA 76+00.
5. STATIONS 0+00 TO 2+49, 10+84.5 TO 13+10.5, 18+82.6 TO 20+25.8, 33+93 TO 36+50.6, 38+23 TO 40+41.5 DO NOT REQUIRE ARMORING AT THE TOE OF PILE.

PRELIMINARY
FOR DISCUSSION ONLY

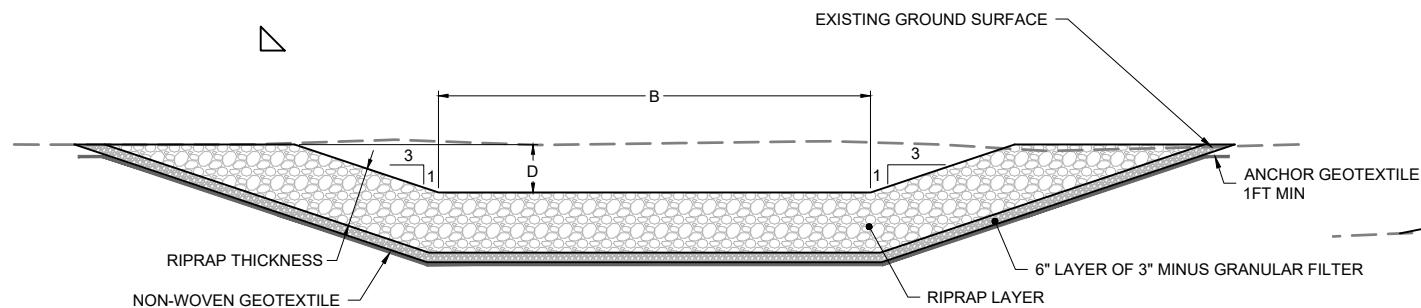
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2	06/2025	KR	90% DESIGN	DRAWN	K. REED
1	11/2021	KR	30% DESIGN	CHECKED	M. KAPP
0	02/2019	KR	PRELIMINARY DESIGN		



UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
PILE 4 STABILIZATION DETAILS (1 OF 6)

SHEET
32
233001076

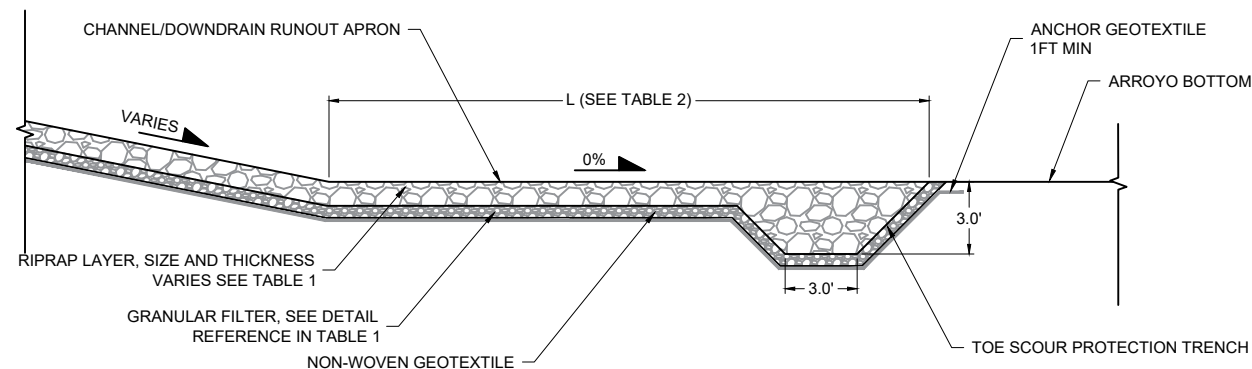
Tuesday, September 30, 2025 6:50:08 AM K:\PROJECTS\DRIVE\STANTEC\233001363\SHEETS\02-29-2020_STA_DESIGN_DRAWINGS\FILE 4 STABILIZATION DETAILS (1 OF 6).DWG Layout\DIVERSION CHANNEL DETAILS (2 OF 6)



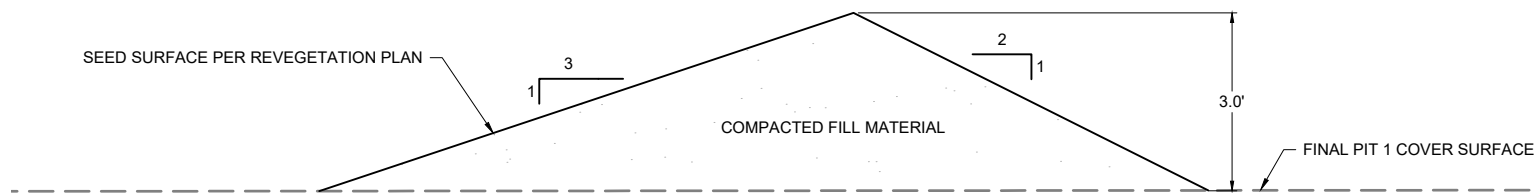
6/33 TYPICAL DIVERSION/DRAINAGE CHANNEL DETAIL (NOT TO SCALE)

NOTE(S):

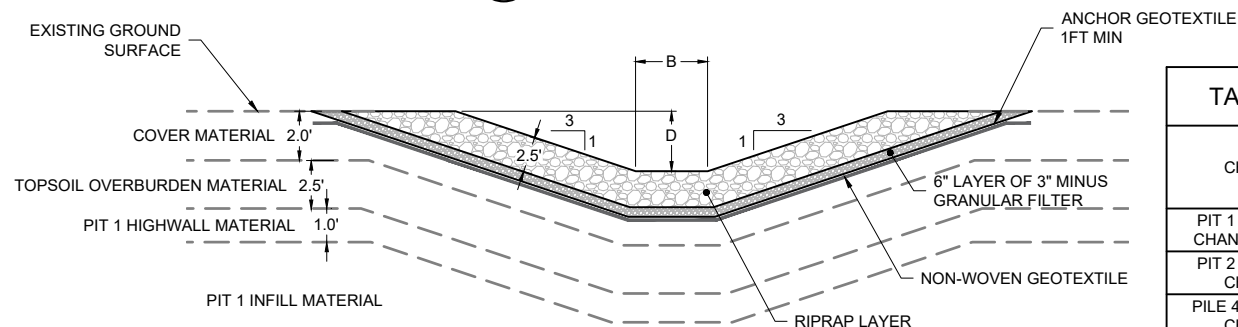
1. REFERENCE TABLE 1 FOR CHANNEL DIMENSIONS.



8/33 CHANNEL TERMINATION APRON DETAIL (NOT TO SCALE)



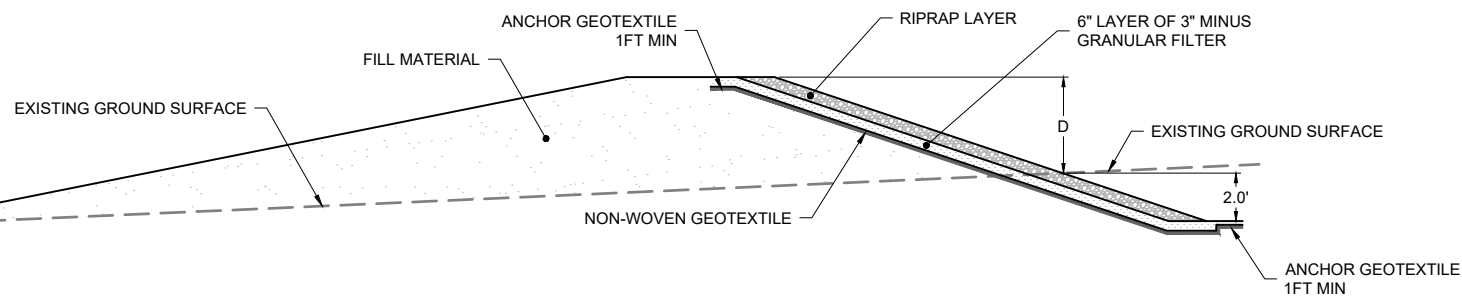
9/33 PIT 1 ROCK FALL PROTECTION BERM DETAIL (NOT TO SCALE)



10/33 PIT 1 DRAINAGE CHANNEL DETAIL (NOT TO SCALE)

NOTE(S):

1. REFERENCE TABLE 1 FOR CHANNEL DIMENSIONS.



7/33 TYPICAL DIVERSION BERM DETAIL (NOT TO SCALE)

NOTE:

1. REFERENCE TABLE 1 FOR BERM DIMENSIONS.

TABLE 1: DIVERSION CHANNEL AND BERM DIMENSIONS

CHANNEL	SECTION	DETAIL REFERENCE	BOTTOM WIDTH,	CHANNEL DEPTH,	MEDIAN RIPRAP	RIPRAP THICKNESS,
			B (FT)	D (FT)	D50 (IN)	TR (FT)
PIT 1 DIVERSION CHANNEL NORTH	0+00 TO 12+00	6	5	3.5	6	1
	12+00 TO 25+00	6	5	3	9	1.5
	25+00 TO 32+92	6	5	3.25	9	1.5
PIT 1 DIVERSION CHANNEL SOUTH	0+00 TO 10+00	6	5	2.25	9	1.5
	10+00 TO 18+00	7	0	3.25	6	1
	18+00 TO 25+25	7	0	4	9	1.5
	25+25 TO 42+90	6	10	4.25	15	2.5
	42+90 TO 46+30	6	10	4.75	15	2.5
PIT 1 DRAINAGE CHANNEL NORTH	0+00 TO 19+00	6	3	2.75	6	1
	19+00 TO 28+32	9	3	2.5	9	1.5
PIT 1 DRAINAGE CHANNEL SOUTH	0+00 TO 16+50	6	3	2.5	3	0.5
	16+50 TO 22+23	9	3	2	9	1.5
PIT 1 DIVERSION CHANNEL SOUTH BENCH	0+00 TO 20+00	6	0	3.25	3	0.5
	20+00 TO 26+28	6	4	2.5	6	1
PIT 2 DIVERSION CHANNEL	0+00 TO 10+25	6	0	4.25	6	1
	10+25 TO 13+00	6	0	3.75	9	1.5
	13+00 TO 17+00	6	10	3	9	1.5
	17+00 TO 25+00	6	10	3.5	6	1
	25+00 TO 29+30	6	20	3.25	18	3
PILE 3 DIVERSION CHANNEL	0+00 TO 16+50	6	5	3	6	1
	16+50 TO 28+00	6	7	3.5	9	1.5
PILE 4 DIVERSION CHANNEL	0+00 TO 7+03	6	5	3.25	9	1.5
	7+03 TO 9+13	6	5	3	9	1.5
PILE 4 DOWNDRAIN	0+00 TO 11+04	6	12	2	9	1.5
	11+04 TO 24+94	6	12	2.5	9	1.5
	24+94 TO 28+38	6	12	2.5	12	2
PILE 1 BENCH CHANNEL	0+00 TO 7+68	6	4	2	3	0.5
	7+68 TO 9+17	6	4	2	6	1

NOTE(S):

1. CHANNELS WITH NON-WOVEN GEOTEXTILE SHALL ANCHOR THE GEOTEXTILE AT THE START AND END OF THE CHANNEL AS SHOWN IN DETAIL 4 ON SHEET 32.

PRELIMINARY
FOR DISCUSSION ONLY

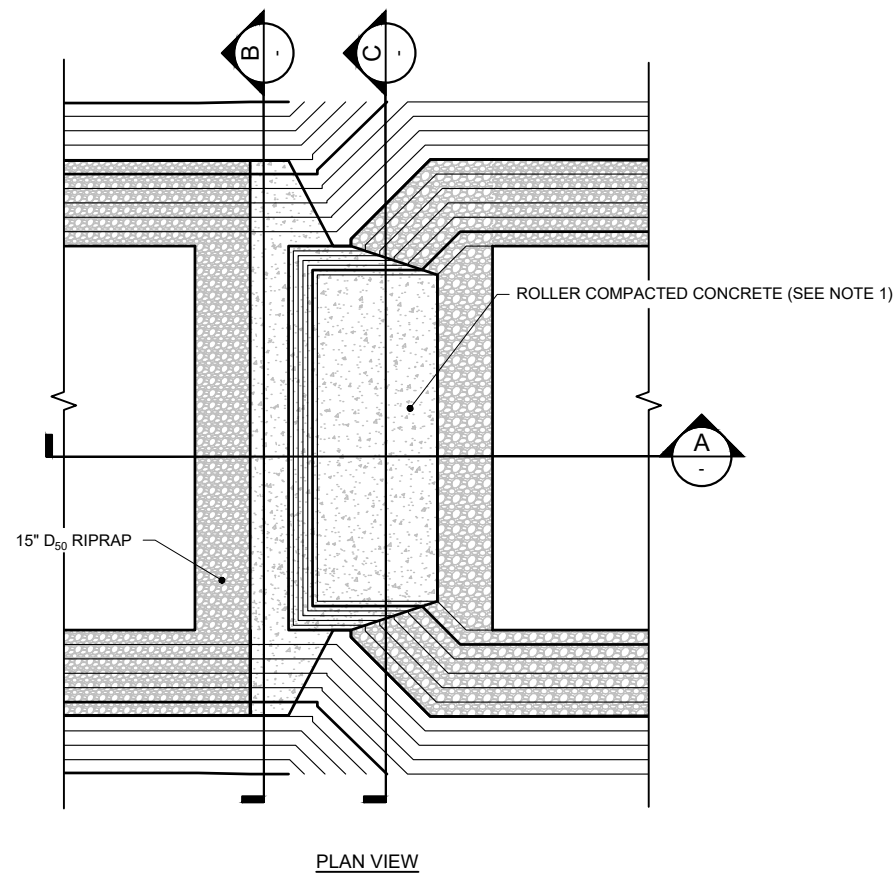
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1	11/2021	KR	30% DESIGN
DRAWN K. REED			
CHECKED M. KAPP			
APPROVED J. CUMBERS			



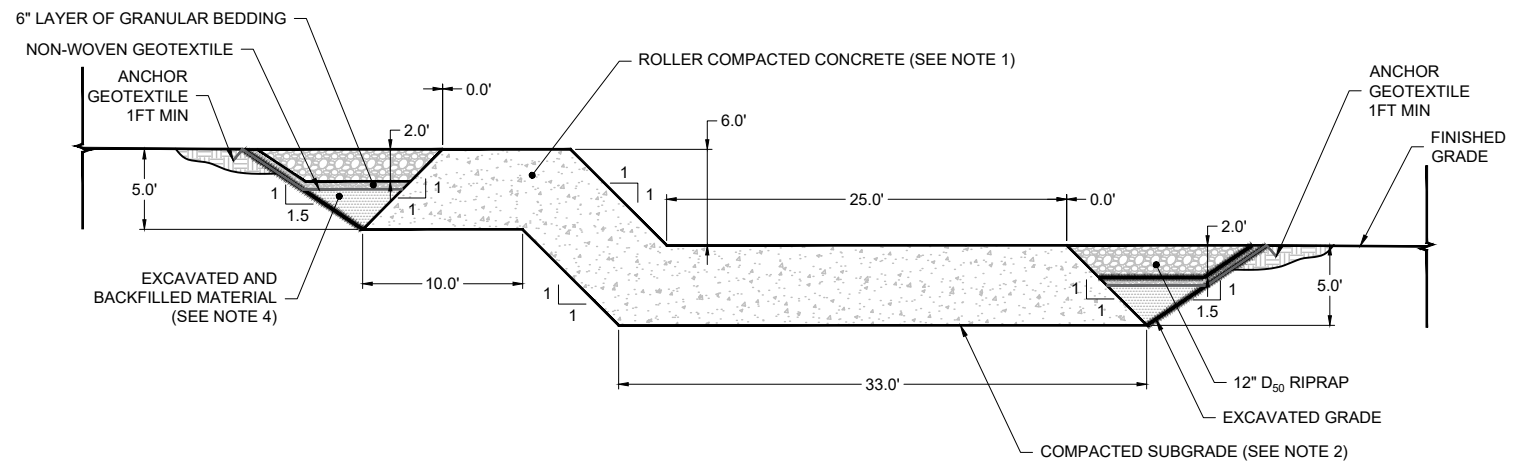
UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE, CIBOLA COUNTY, NEW MEXICO
DIVERSION CHANNEL DETAILS (2 OF 6)

SHEET
33
233001076

Tuesday, September 30, 2025 8:51:55 AM K:\PROJECTS\DRIVE\STANTEC\233001363\SHEETSET\02-29-2020_STA_DESIGN_DRAWINGS\FILE 4 STABILIZATION DETAILS (3 OF 6) Layout:ARROYO STABILIZATION DETAILS (3 OF 6)



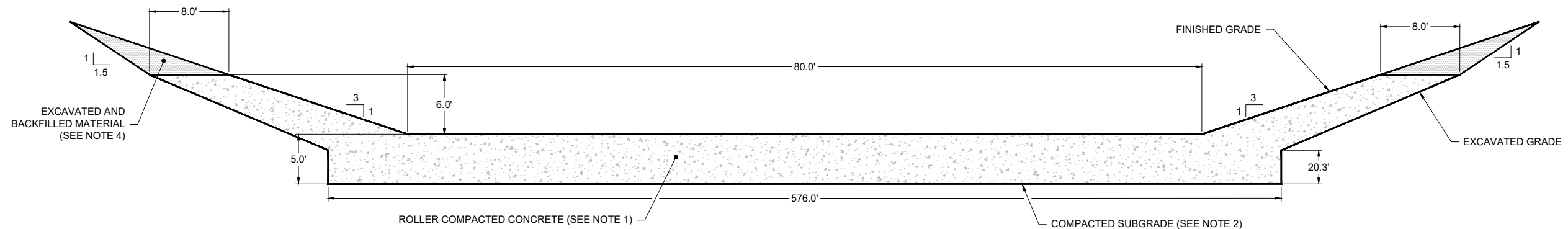
PLAN VIEW



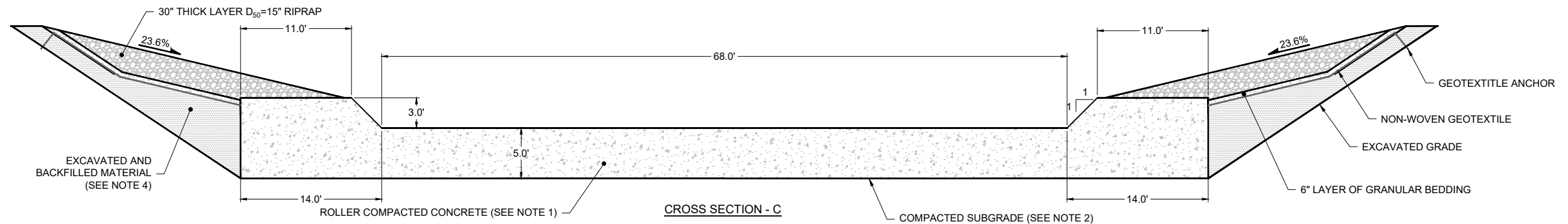
CROSS SECTION - A

NOTE(S):

1. ROLLER COMPACTED CONCRETE SHALL BE PLACED IN LIFTS WITH COMPACTED THICKNESS NO GREATER THAN 6" AND CONFORM TO THE REQUIREMENTS AS DESCRIBED IN THE PROJECT TECHNICAL SPECIFICATIONS SECTION 03400.
2. SUBGRADE SHALL BE GRADED SMOOTH, CLEAR OF ANY DEBRIS OR LARGE PROTUSIONS. BEFORE PLACEMENT OF THE ROLLER COMPACTED CONCRETE, SCARIFY THE SUBGRADE TO 6" DEPTH AND MOISTEN SOIL TO ACHIEVE A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY BASED ON STANDARD PROCTOR (ASTM D698).
3. GRANULAR BEDDING SHALL CONFORM TO THE REQUIREMENTS FOR FILTER MATERIAL AS DESCRIBED IN THE PROJECT TECHNICAL SPECIFICATIONS SECTION 02273.
4. BACKFILLED MATERIAL SHALL BE PLACED AND COMPACTED TO ACHIEVE A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY BASED ON STANDARD PROCTOR (ASTM D698).



CROSS SECTION - B



CROSS SECTION - C

11 GRADE CONTROL STRUCTURE
34 (NOT TO SCALE)

PRELIMINARY
FOR DISCUSSION ONLY

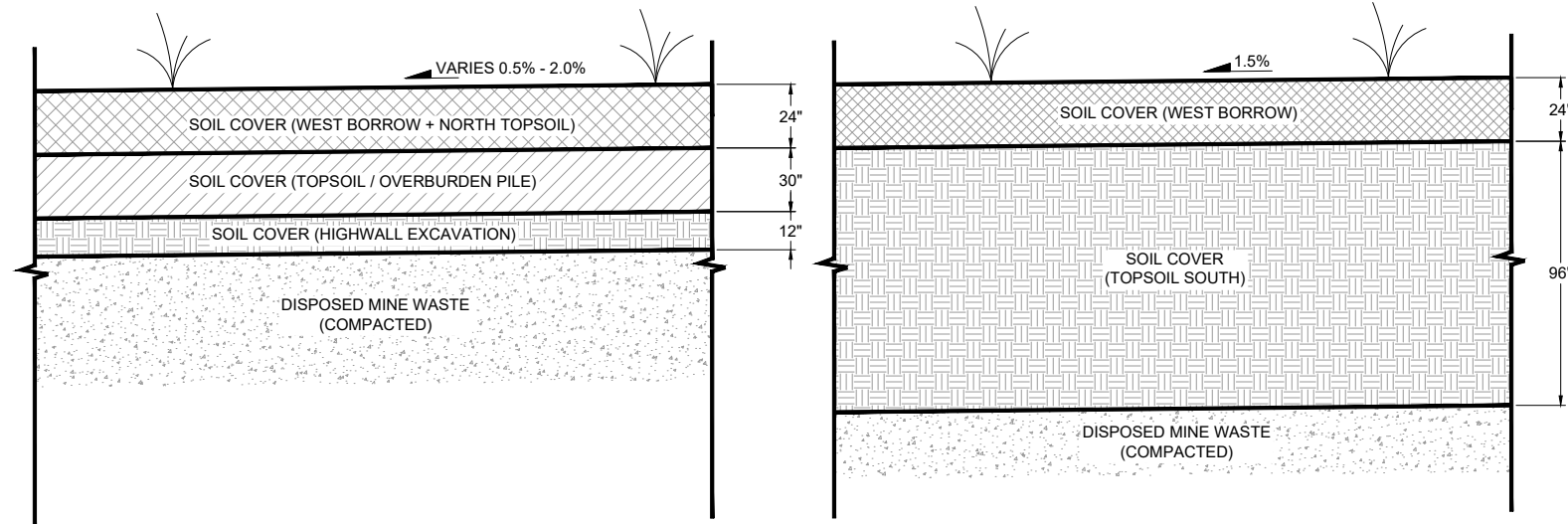
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1	11/2021	KR	30% DESIGN		M.KAPP	
0	02/2019	KR	PRELIMINARY DESIGN			
						J. CUMBERS



UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE; CIBOLA COUNTY, NEW MEXICO
ARROYO STABILIZATION DETAILS (3 OF 6)

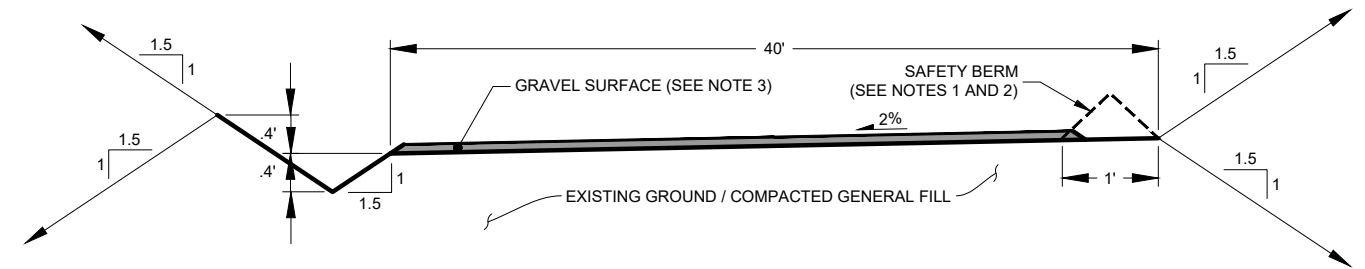
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Tuesday, September 30, 2025 6:50:34 AM KRWREED C:\PROJECT\WISE-DRIVE\STANTEC\233001363\SHEETSET\02-29-2020_STA_DESIGN_DRAWINGS\PILE 4 STABILIZATION DETAILS (4 OF 6).DWG Layout\COVER SYSTEM AND HAUL ROAD DETAILS (4 OF 6)

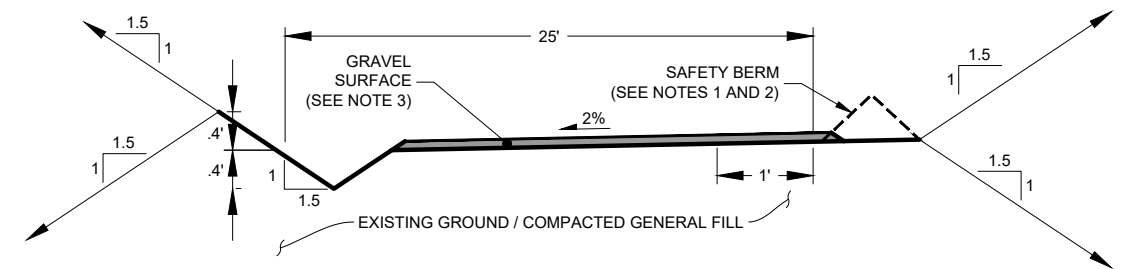


12 COVER DETAIL - PIT1
35 (NOT TO SCALE)

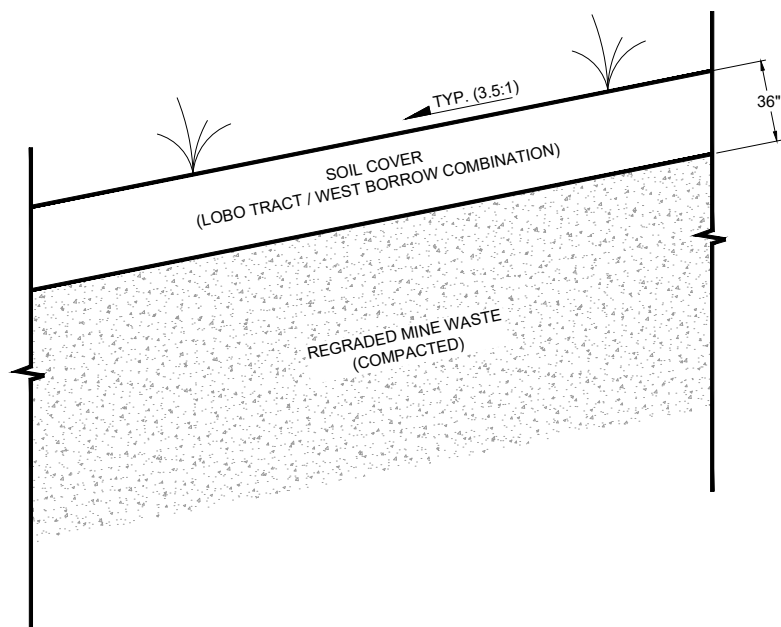
13 COVER DETAIL - PIT2
35 (NOT TO SCALE)



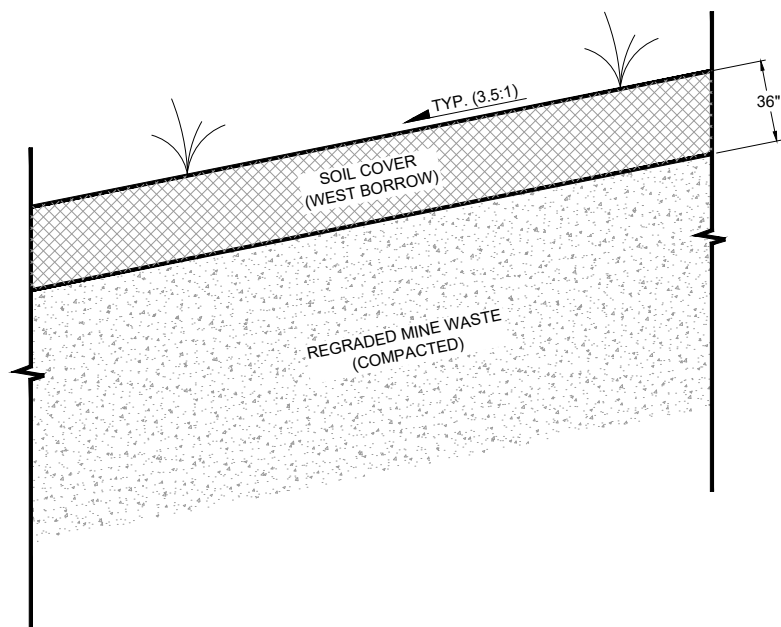
16 TWO-LANE ROAD TYPICAL CROSS SECTION
35 HAUL AND ACCESS ROADS



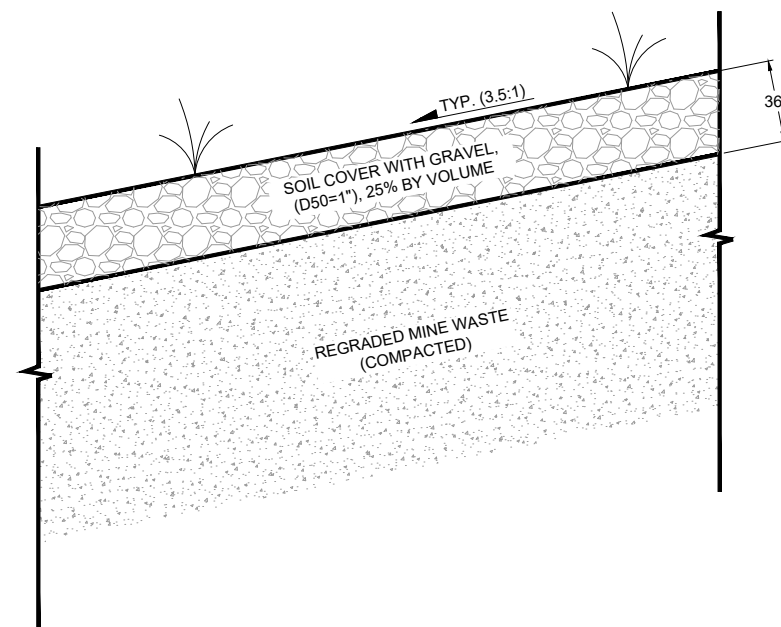
17 ONE-LANE ROAD TYPICAL CROSS SECTION
35 HAUL AND ACCESS ROADS



14 COVER DETAIL - PILE 4
35 (NOT TO SCALE)



15 COVER DETAIL - SHALE PILES 1 & 2 AND PILE 3
35 (NOT TO SCALE)



18 COVER DETAIL - LOWER SLOPES OF PILES 1 - 4
35 (NOT TO SCALE) (SEE NOTE 4)

NOTE:

- SAFETY BERM SHALL BE PROVIDED WHERE A DROPOFF EXISTS OF SUFFICIENT GRADE OR DEPTH TO CAUSE A VEHICLE TO OVERTURN OR ENDANGER THE OPERATOR.
- SAFETY BERM SHALL BE MID-AXLE HEIGHT OF LARGEST EQUIPMENT THAT TRAVELS THE ROAD.
- 4-INCH THICK LAYER OR GRAVEL SURFACING SHALL BE ADDED WHERE NOTED IN SPECIFICATIONS.
- COVER DETAIL - LOWER SLOPES OF PILES 1-4 APPLIES TO THE FIRST 250 FEET UPSLOPE ALONG MEYER DRAW AND ARROYO DEL VALLE, OR TO FIRST BENCH, WHICHEVER COMES FIRST.

PRELIMINARY
FOR DISCUSSION ONLY

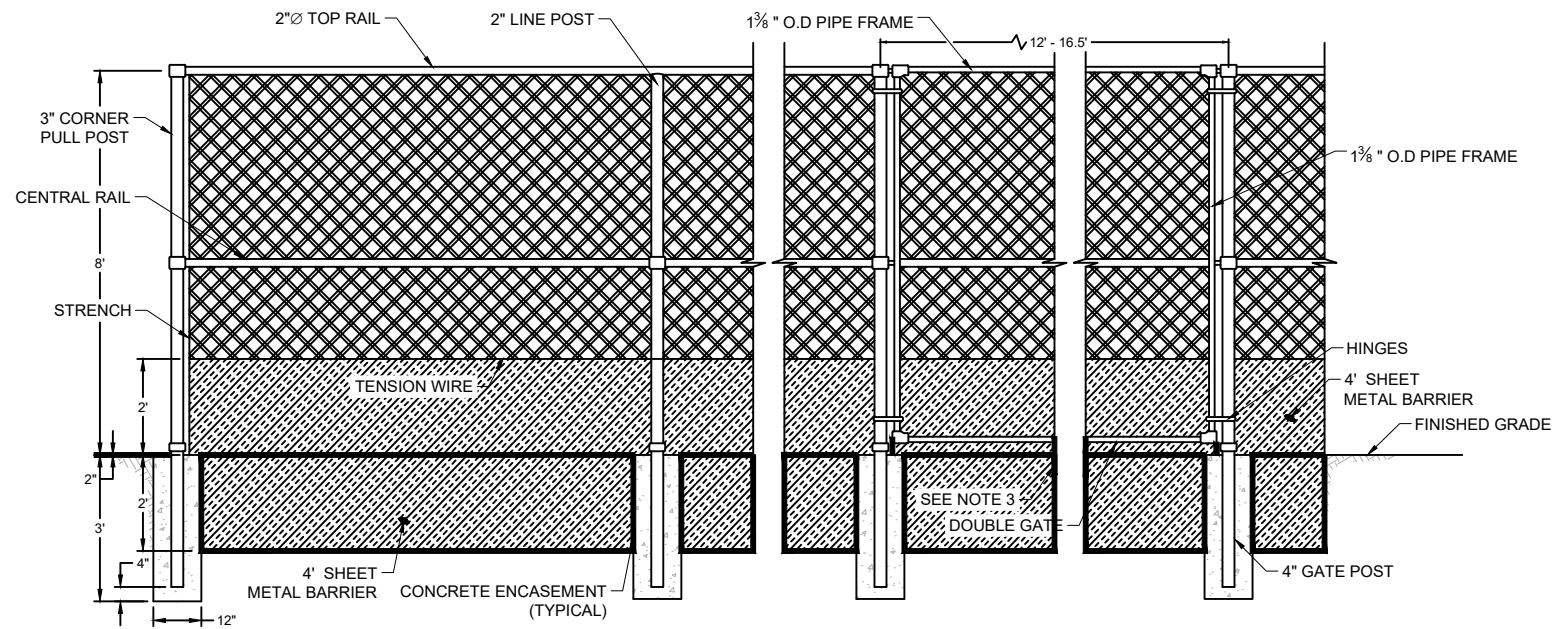
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1	11/2021	KR	30% DESIGN	CHECKED	M. KAPP
0	02/2019	KR	PRELIMINARY DESIGN		



UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE, CIBOLA COUNTY, NEW MEXICO
COVER SYSTEM AND HAUL ROAD DETAILS (4 OF 6)

SHEET
35
233001076

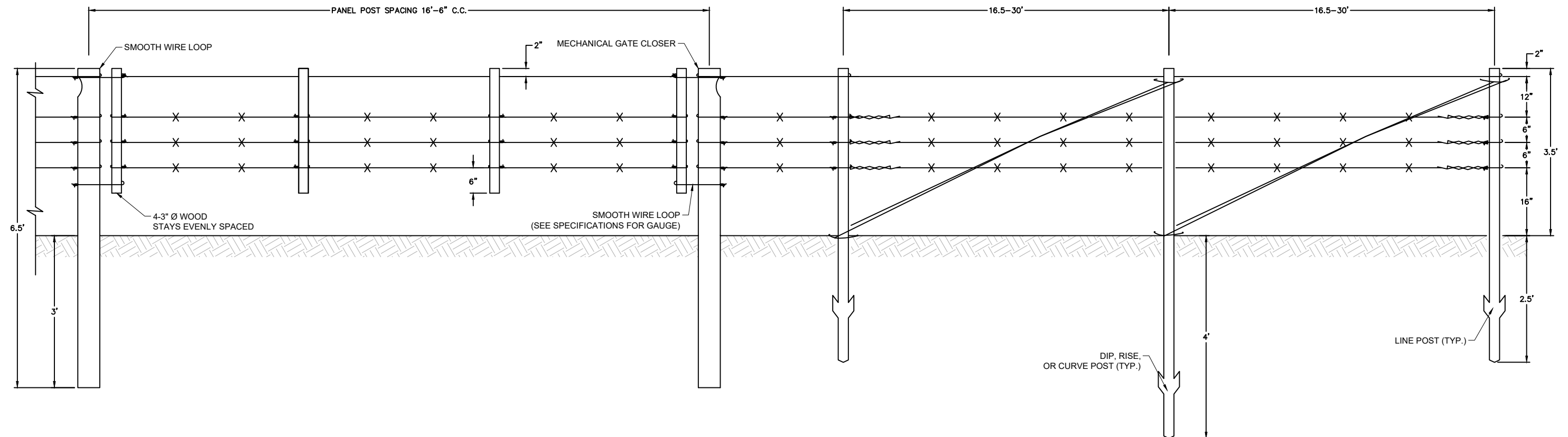
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NOTE(S):

1. ALL FENCE COMPONENT MATERIALS SHALL BE EITHER HOT DIPPED GALVANIZED STEEL FENCE. FABRIC SHALL BE ALUMINUM COATED.
2. DOUBLE GATE SHALL HAVE A LOOKING MECHANISM, DROP ROD, AND TRUSS ROD.
3. DROP ROD FOR GATE OPENING SHALL HAVE A RECEIVING PIPE SLEEVE ENCASED IN CONCRETE BELOW FINISHED GRADE.
4. OVERLAP SHEET METAL BARRIER SECTION ENDS A MINIMUM OF 4-INCHES.

19 PERMANENT PIT 1 FENCE AND GATES
(NOT TO SCALE)

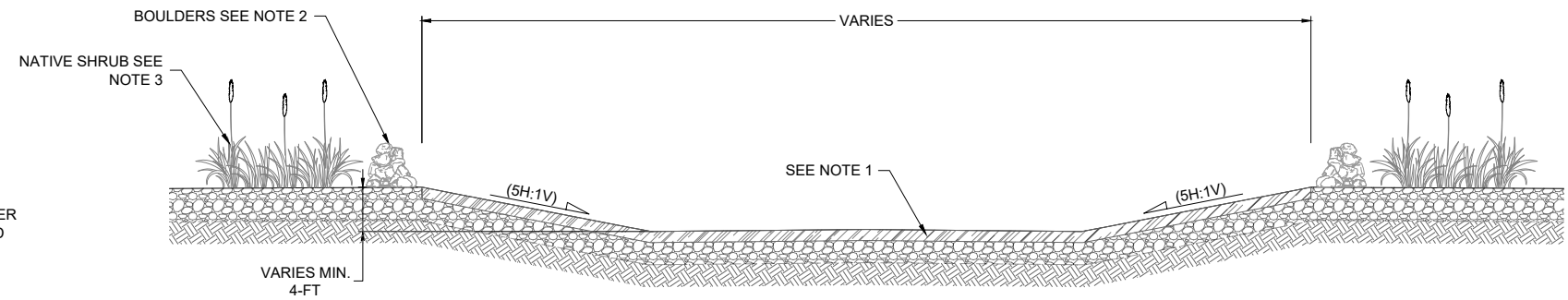
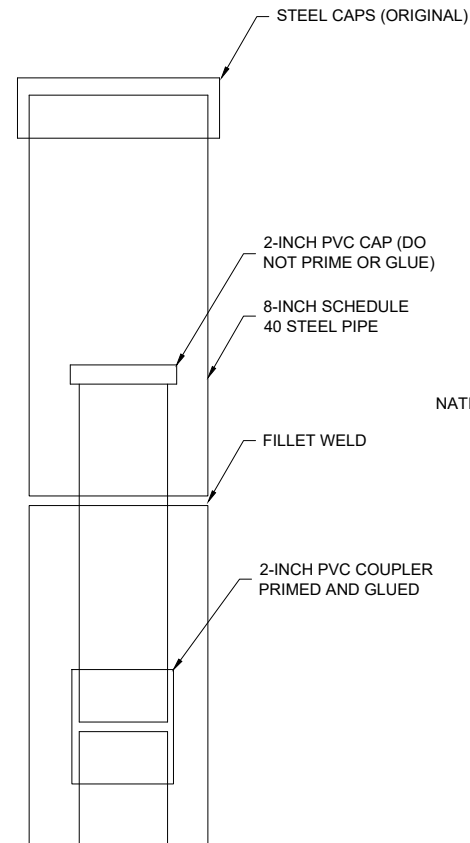


20 PERMANENT AND TEMPORARY RANGE FENCE AND GATES
(NOT TO SCALE)

0	06/2025	KR	90% DESIGN	DRAWN K. REED
REV	DATE	BY	DESCRIPTION	CHECKED M. KAPP
				APPROVED J. CUMBERS



UNITED NUCLEAR CORPORATION
ST. ANTHONY MINE, CIBOLA COUNTY, NEW MEXICO
TEMPORARY AND PERMANENT FENCE DETAILS (5 OF 6)



1. POND BOTTOM AND SLOPES TO BE EVENLY COMPACTED BY ENGINEER APPROVED CONSTRUCTION EQUIPMENT.
2. SINGLE, OR PILES OF BOULDERS TO BE PLACED ALONG CREST AT VARYING DISTANCES BETWEEN 6 AND 10 FEET APART AND BETWEEN 3 AND 10 FEET BACK FROM TOP OF SLOPE.
3. NATIVE SHRUB SPECIES TO BE SEEDED ALONG CREST (TO 10 FEET BACK FROM TOP OF SLOPE) AND SLOPE AS PART OF REVEGETATION.

					DRAWN <u>K. REED</u>
0	06/202	KR	90% DESIGN		CHECKED <u>M.KAPP</u>
REV	DATE	BY	DESCRIPTION		APPROVED <u>J. CUMBERS</u>



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