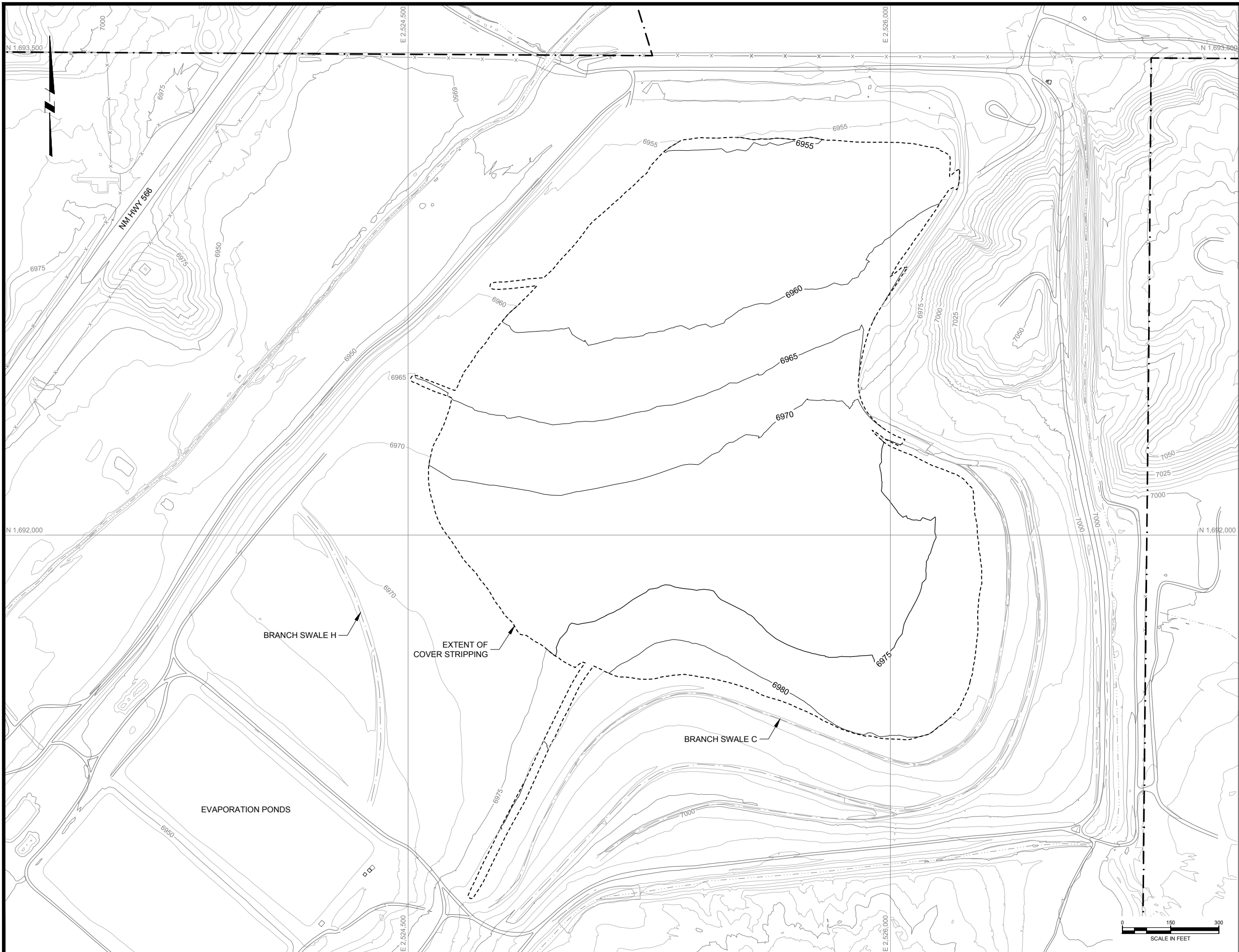


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LEGEND:

- EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
- PROPOSED SUBGRADE SURFACE CONTOUR & ELEVATION, FEET
- UNC PROPERTY BOUNDARY
- EXISTING ROADS
- NATURAL DRAINAGE
- EXISTING FENCE
- EXISTING SWALES
- STRUCTURES

NOTE(S):

- REPOSITORY REGRADED SUBGRADE IS 6 INCHES BELOW THE EXISTING TDA COVER WITH THE SURFACE SWALES FILLED IN.

E	10/31/19	KR	LAR: REVISE COVER THICKNESS
D	09/24/18	KR	ISSUED FOR LAR
C	04/09/18	KR	ISSUED FOR REVISED 95% DESIGN
B	10/30/17	KR	ISSUED FOR 95% DESIGN
A	07/15/16	KR	ISSUED FOR 30% DESIGN
REV	DATE	BY	DESCRIPTION

DESIGNED	K REED
CHECKED	M WITLER
APPROVED	J CUMBERS



UNITED NUCLEAR CORPORATION AND NORTHEAST CHURCH ROCK MINE
MCKINLEY COUNTY, NEW MEXICO

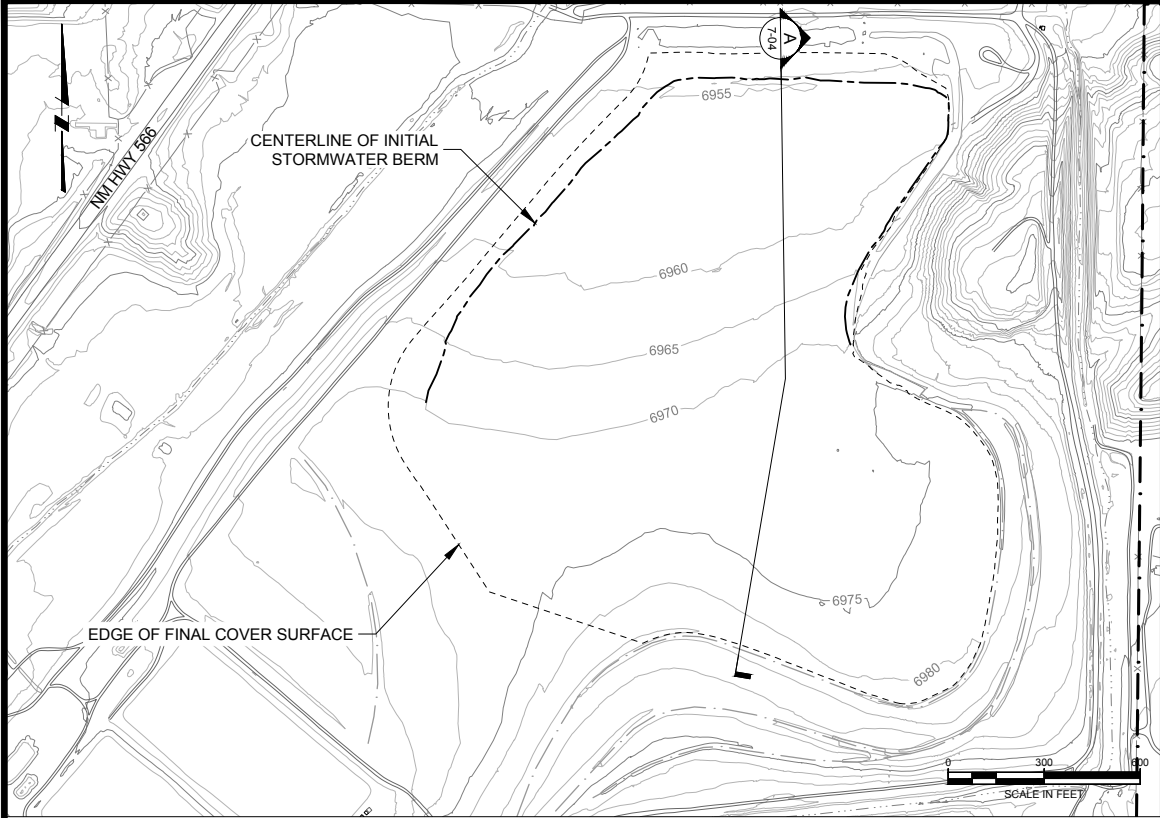
NORTHEAST CHURCH ROCK PROJECT 95% DESIGN
REPOSITORY SUBGRADE - EXISTING RADON BARRIER

SHEET

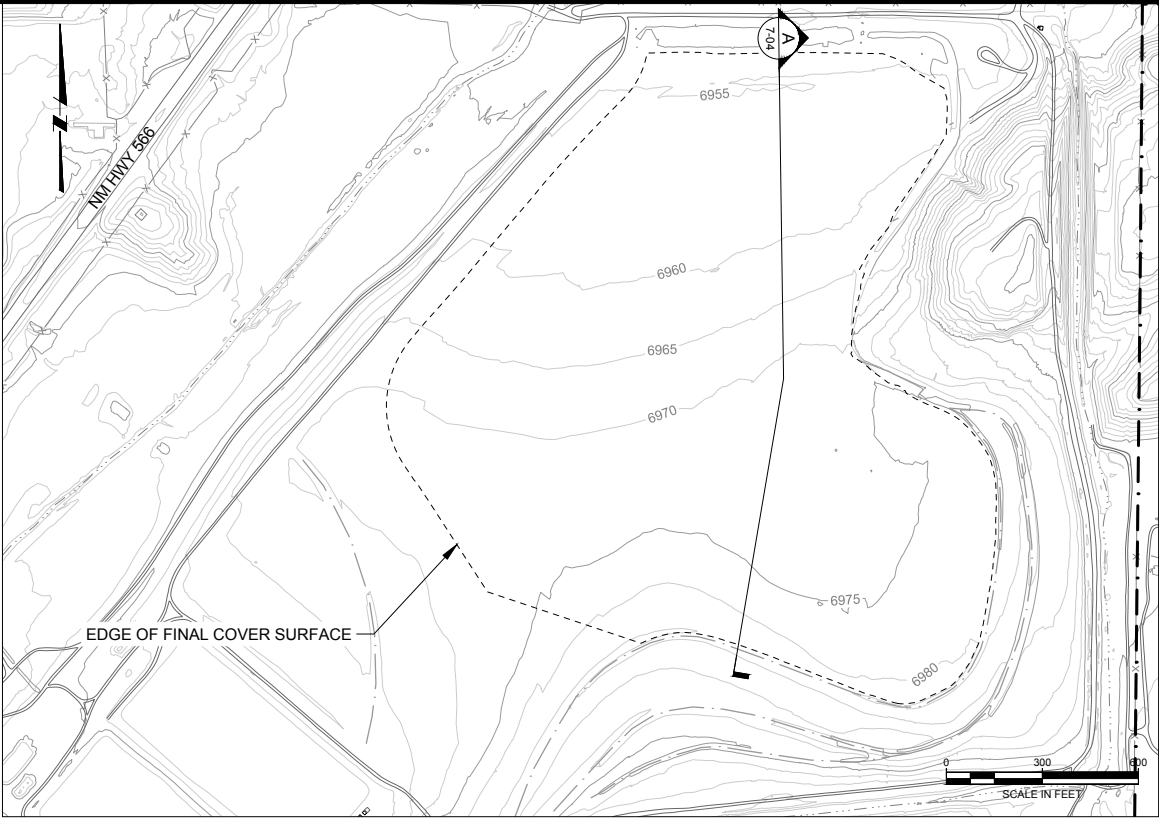
7-01

233001048

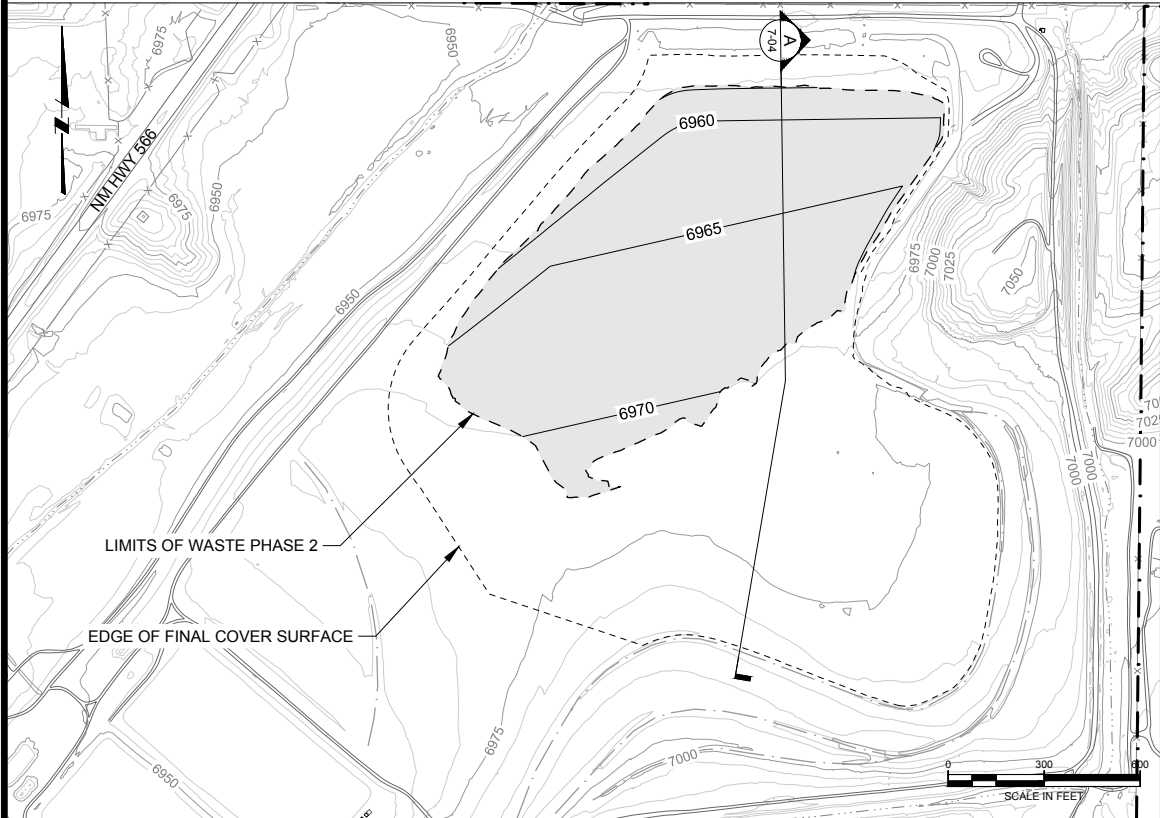
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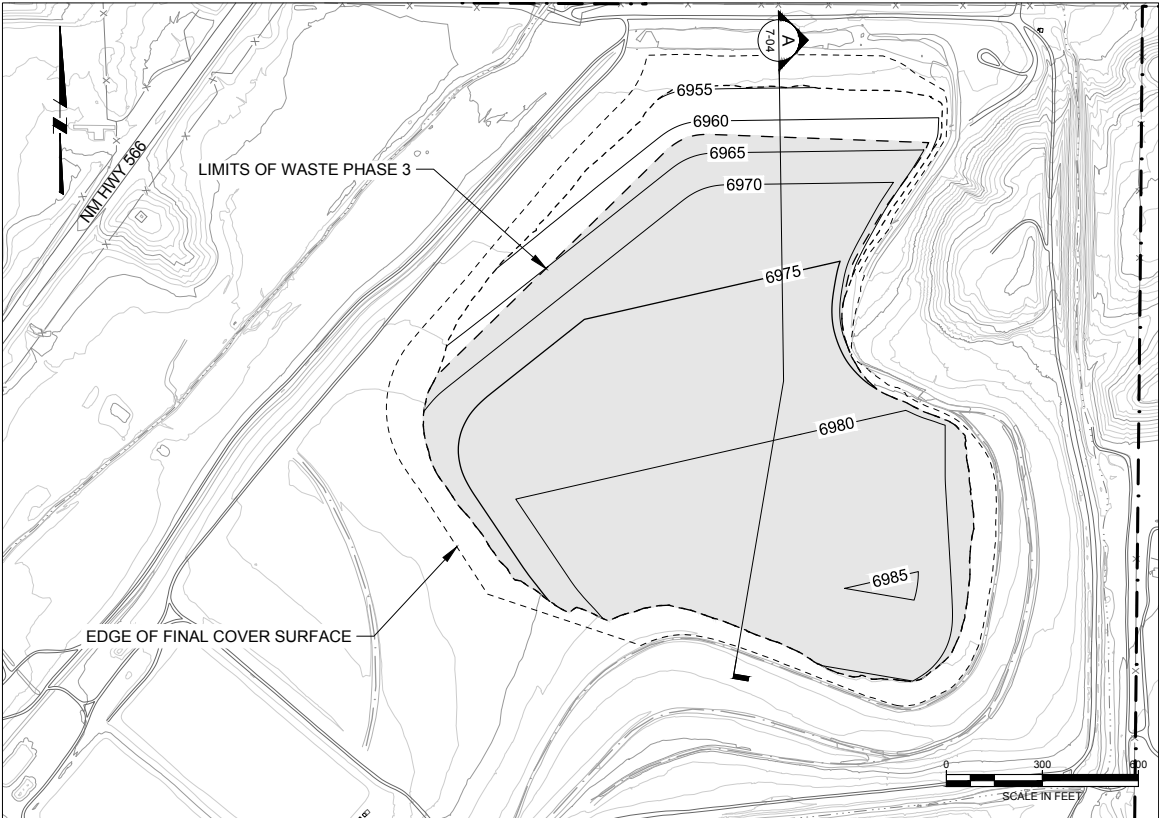
INITIAL STORMWATER CONTROL BERM



REPOSITORY MINE WASTE PLACEMENT PHASE 1
NO PLANNED PLACEMENT OF MINE WASTE (NOTE 3)



REPOSITORY MINE WASTE PLACEMENT PHASE 2
173,594 CY OF MINE WASTE



REPOSITORY MINE WASTE PLACEMENT PHASE 3
445,559 CY OF MINE WASTE (619,153 CY TOTAL)

LEGEND:

- 7200 EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
- 7200 PROPOSED WASTE SURFACE CONTOUR & ELEVATION, FEET
- EXISTING ROADS
- NATURAL DRAINAGE
- EXISTING FENCE
- EXISTING SWALES
- STORMWATER BERM
- CURRENT PLACEMENT AREA

NOTE(S):

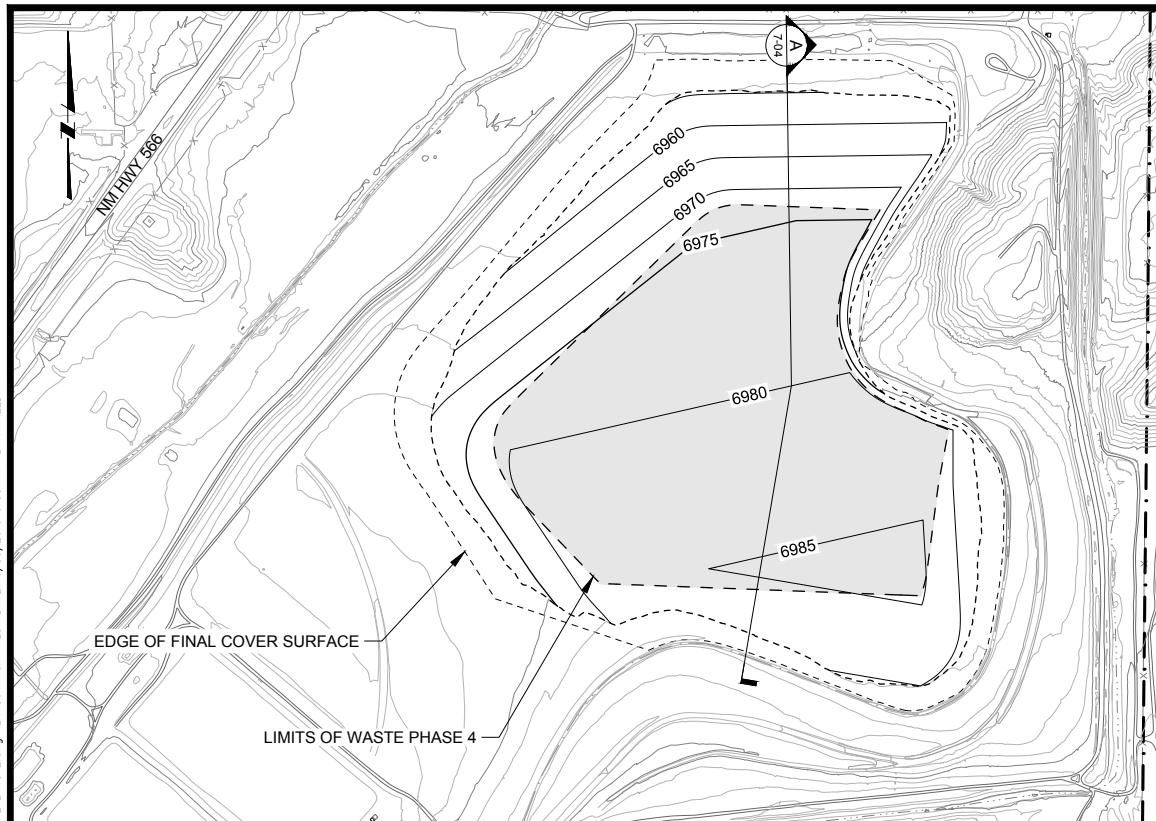
- MINE WASTE PLACEMENT PHASES CORRESPOND TO MINE REMOVAL PHASES SHOWN IN SECTION 3. PLACEMENT SHOWN WITHOUT VOLUME REDUCTION FOR COMPACTION.
- STORMWATER BERMS CONSTRUCTED OF CLEAN BORROW SOIL MEETING COVER MATERIAL SPECIFICATIONS.
- PHASE 1 PTW TO BE DISPOSED OFFSITE

E	10/31/19	KR	LAR: REVISE COVER THICKNESS
D	09/24/18	KR	ISSUED FOR LAR
C	04/09/18	KR	ISSUED FOR REVISED 95% DESIGN
B	10/30/17	KR	ISSUED FOR 95% DESIGN
A	07/15/16	KR	ISSUED FOR 30% DESIGN
REV	DATE	BY	DESCRIPTION

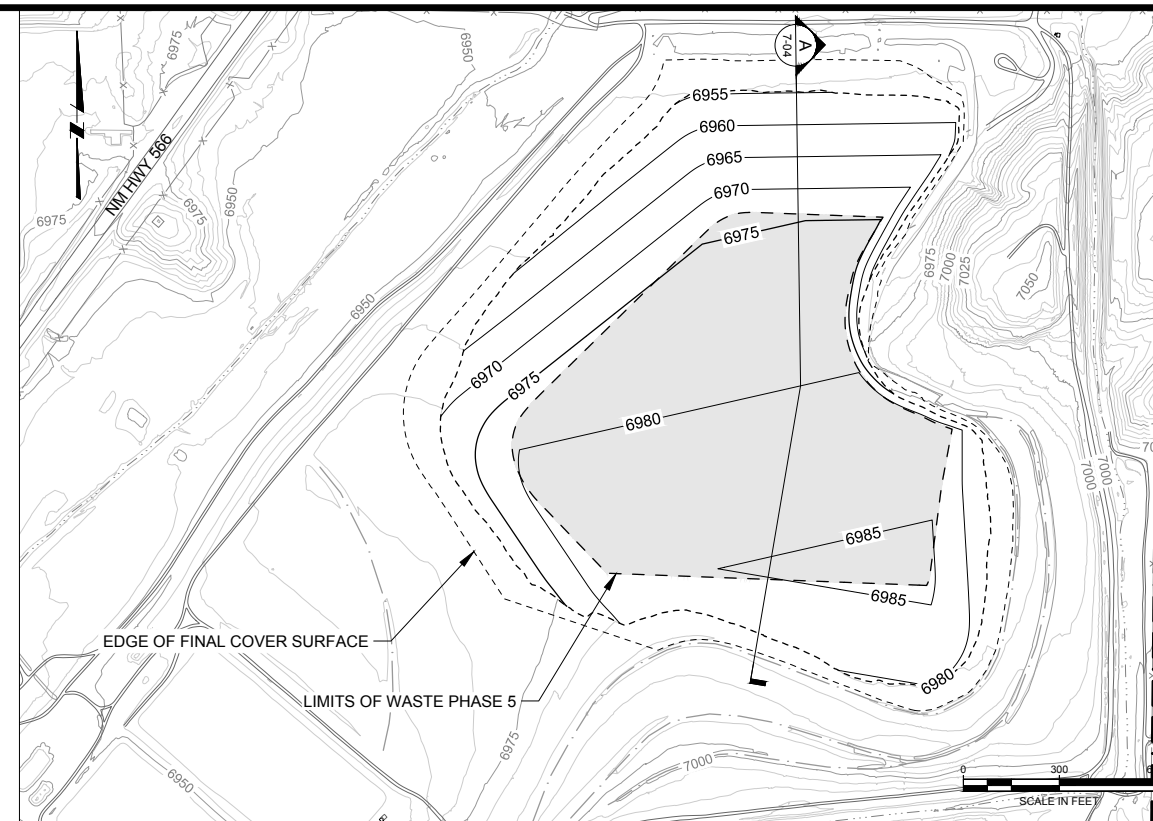
DESIGNED	K REED
CHECKED	M WITLER
APPROVED	J CUMBERS



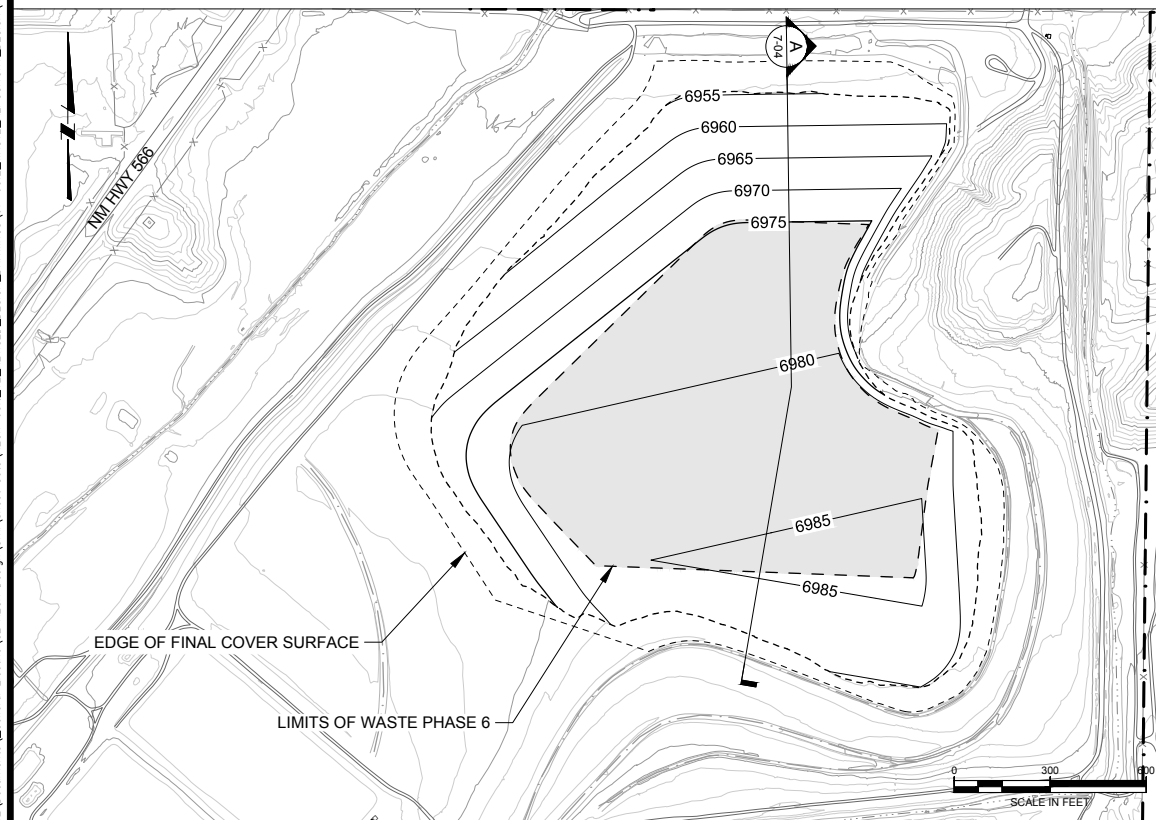
UNITED NUCLEAR CORPORATION AND NORTHEAST CHURCH ROCK MINE
MCKINLEY COUNTY, NEW MEXICO
NORTHEAST CHURCH ROCK PROJECT 95% DESIGN
REPOSITORY MINE WASTE FILL BY REMOVAL PHASE
AND TEMPORARY STORMWATER CONTROL BERMS (1 OF 2)



REPOSITORY MINE WASTE PLACEMENT PHASE 4
43,459 CY OF MINE WASTE (662,612 CY TOTAL)



REPOSITORY MINE WASTE PLACEMENT PHASE 5
34,272 CY OF MINE WASTE (696,884 CY TOTAL)



REPOSITORY MINE WASTE PLACEMENT PHASE 6
28,356 CY OF MINE WASTE (725,240 CY TOTAL)

E	10/31/19	KR	LAR: REVISE COVER THICKNESS	DESIGNED <u> K REED </u>
D	09/24/18	KR	ISSUED FOR LAR	
C	04/09/18	KR	ISSUED FOR REVISED 95% DESIGN	
B	10/30/17	KR	ISSUED FOR 95% DESIGN	
A	07/15/16	KR	ISSUED FOR 30% DESIGN	CHECKED <u> M WITLER </u>
REV	DATE	BY	DESCRIPTION	APPROVED <u> J CUMBERS </u>

DESIGNED K REED

CHECKED M WITLER

APPROVED J CUMBERS



UNITED NUCLEAR CORPORATION AND NORTHEAST CHURCH ROCK MINE
McKINLEY COUNTY, NEW MEXICO
NORTHEAST CHURCH ROCK PROJECT 95% DESIGN
REPOSITORY MINE WASTE FILL BY REMOVAL PHASE
AND TEMPORARY STORMWATER CONTROL BERMS (2 OF 2)

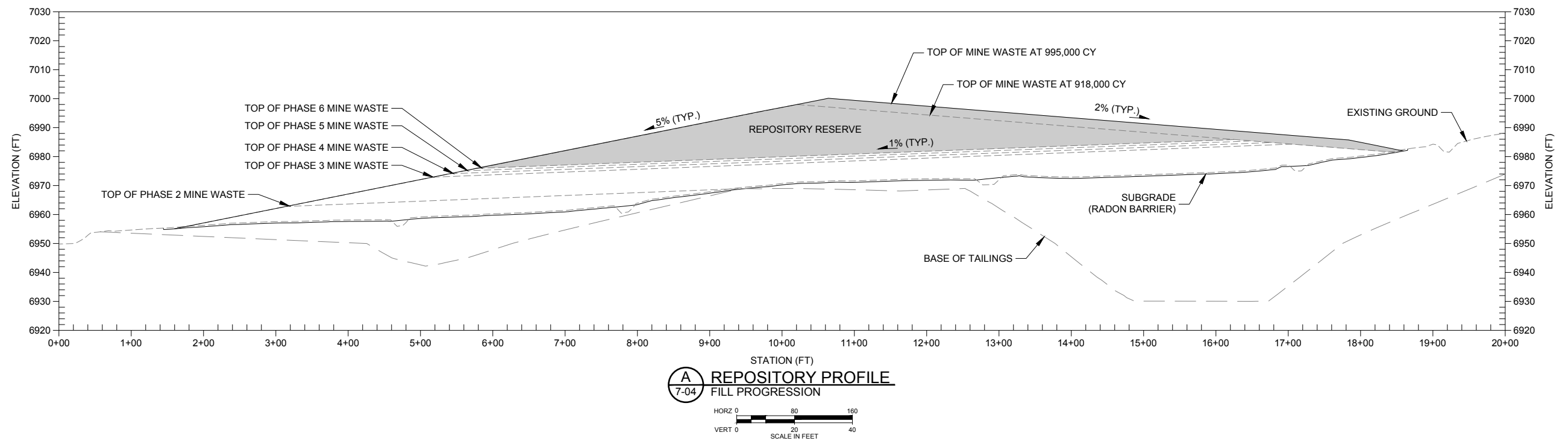
SHEET

-03

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\\amervint03.mnhglobal.com:AM_PROJECTS2\Documents\General Electric\GE NECR Design\Civil\Sheet Sets\NECR-95%_V2_REVISED_DRAWINGS\07-95.2_WASTE_REPOSITORY_DESIGN\NECR 7-03 REP WASTE LIFTS 2.dwg PLOT DATE:10/30/2019 3:55 PM BY:KWEED

p:\omerve\103.mh\global.comr:AM_PROJECTS\202\Documents\General Electric\GE_NECR_Design\Civil\Sheet Sets\NECR-95%_V2_WASTE_REPOSITORY_DESIGN\NECR 7-04_REP_LIFT_PROFILES.dwg PLOT DATE:10/20/2019 3:56 PM BY:KWEED

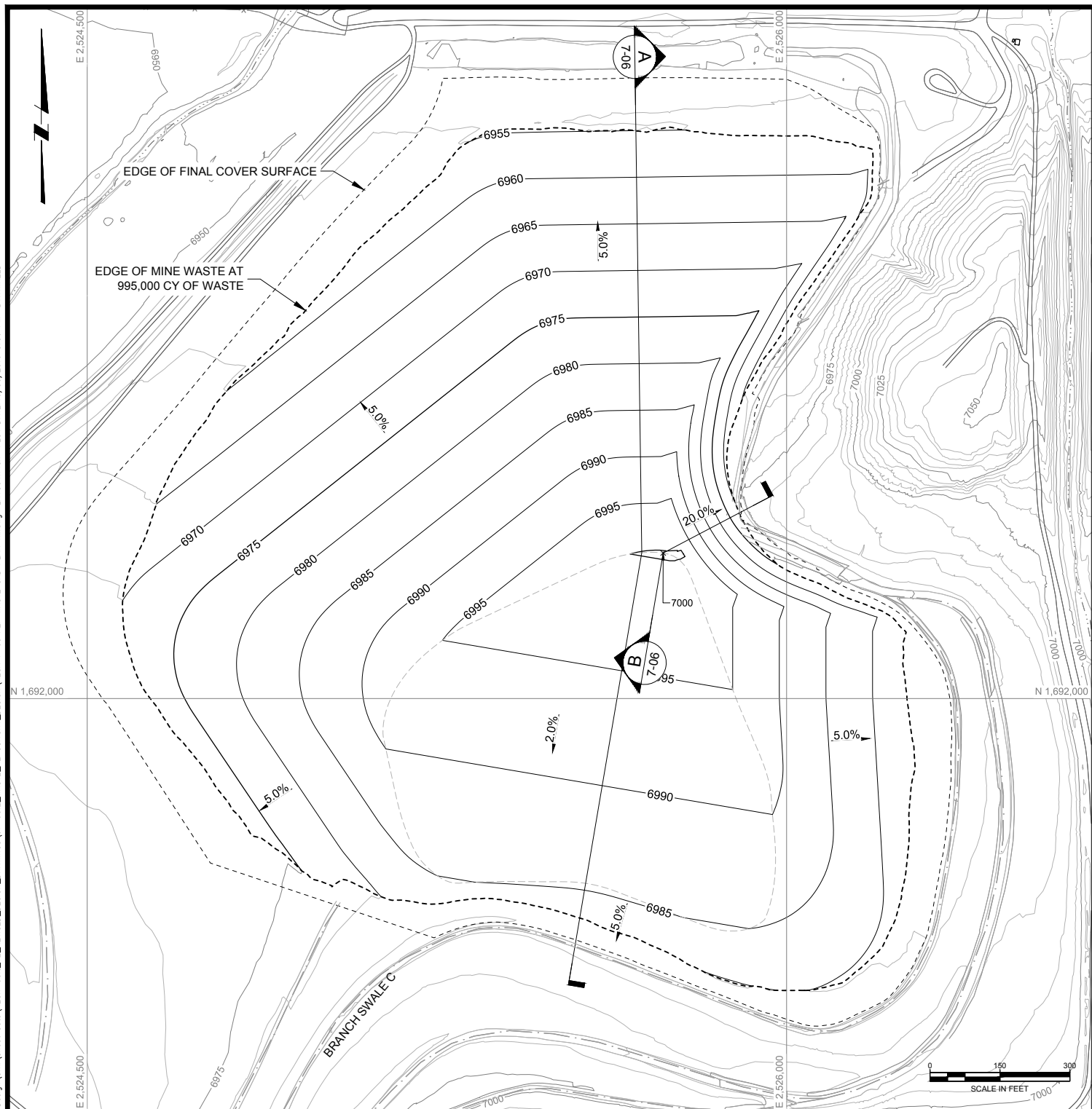


D	10/31/19	KR	LAR: REVISE COVER THICKNESS
C	04/09/18	KR	ISSUED FOR REVISED 95% DESIGN
B	10/30/17	KR	ISSUED FOR 95% DESIGN
A	07/15/16	KR	ISSUED FOR 30% DESIGN
REV	DATE	BY	DESCRIPTION

DESIGNED	K. REED
CHECKED	M. WITLER
APPROVED	J. CUMBERS









UNITED NUCLEAR CORPORATION AND NORTHEAST CHURCH ROCK MINE
McKINLEY COUNTY, NEW MEXICO
NORTHEAST CHURCH ROCK PROJECT 95% DESIGN
REPOSITORY MINE WASTE FILL PROFILE BY REMOVAL PHASE

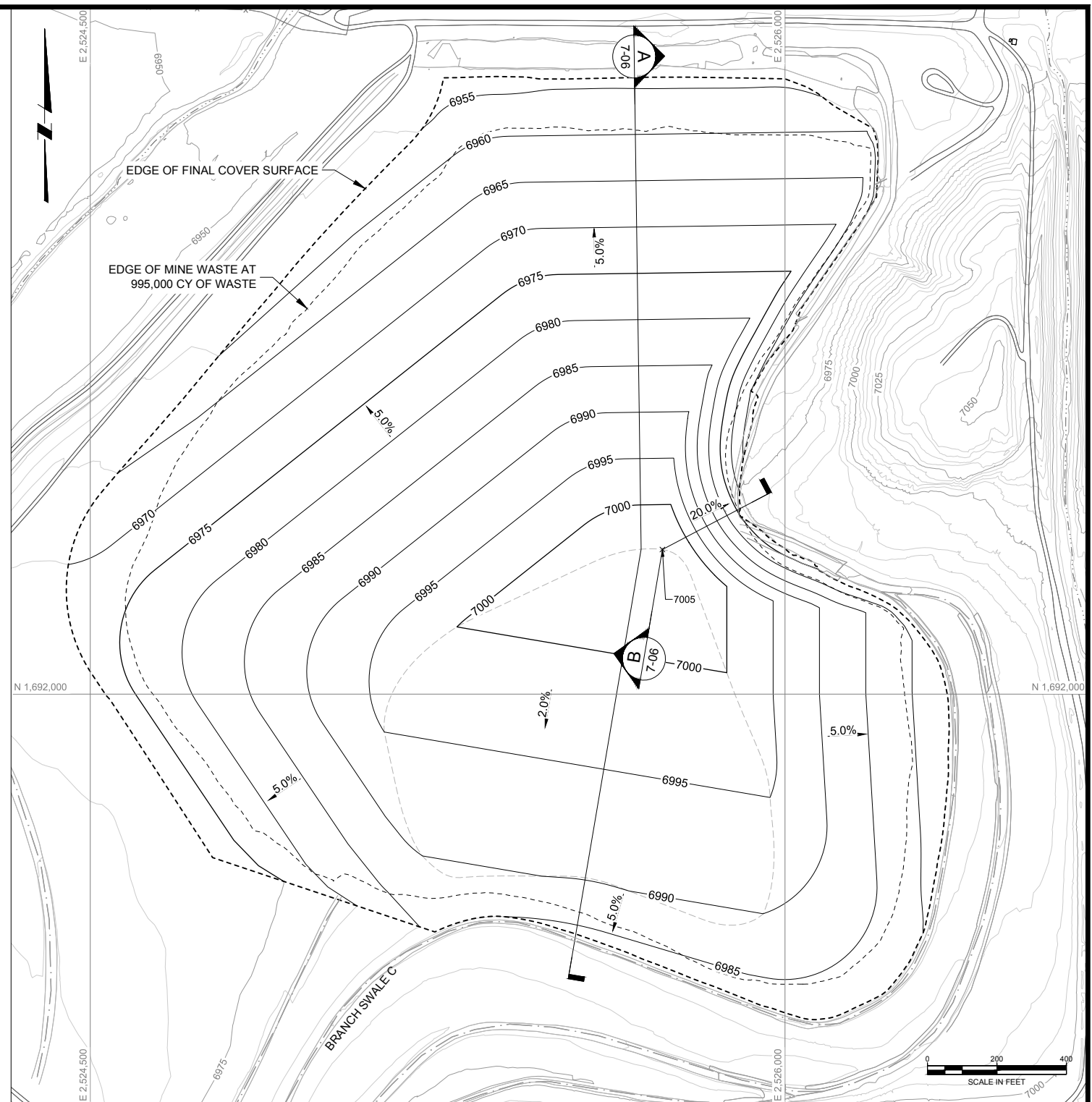


REPOSITORY TOP OF MINE WASTE SURFACE
AT 995,000 CY OF MINE WASTE

LEGEND:

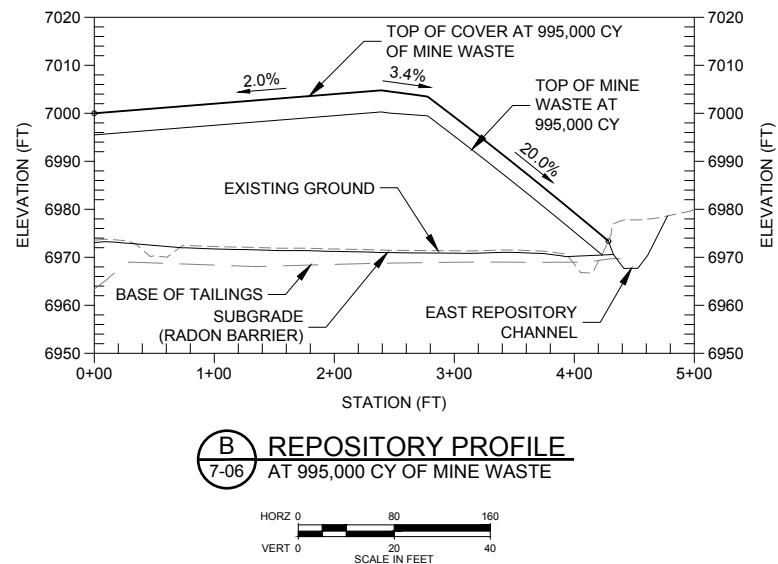
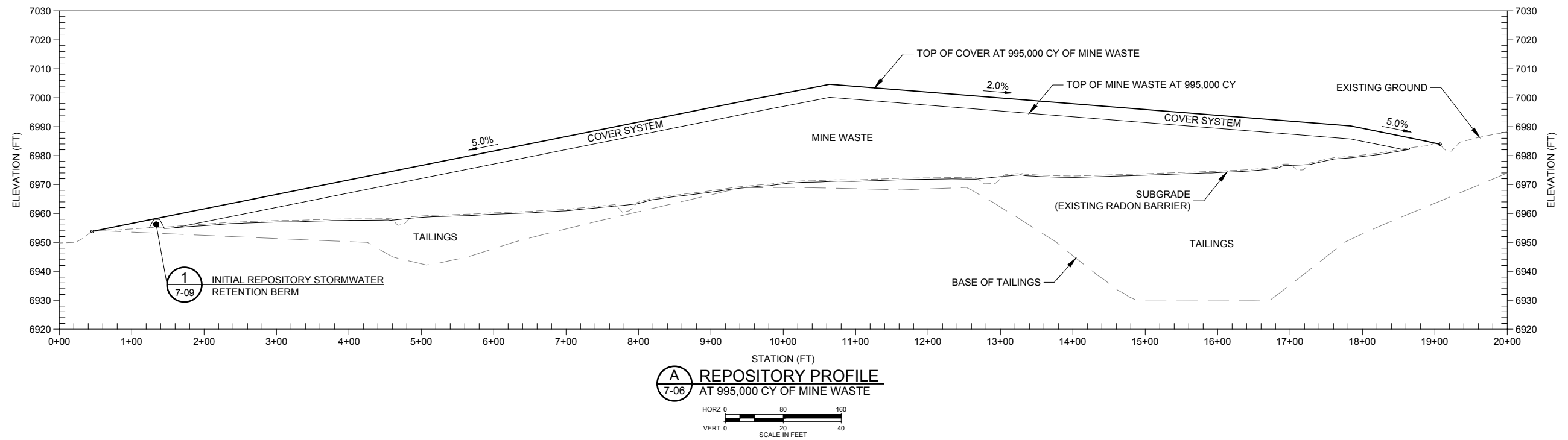
- | | |
|---|---|
|  | EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET |
|  | PROPOSED SURFACE CONTOUR & ELEVATION, FEET |
|  | EXISTING ROADS |
|  | NATURAL DRAINAGE |
|  | EXISTING SWALES |
|  | STRUCTURES |

E	10/31/19	KR	LAR: REVISE COVER THICKNESS	
D	09/24/18	KR	ISSUED FOR LAR	DESIGNED <u>K REED</u>
C	04/09/18	KR	ISSUED FOR REVISED 95% DESIGN	
B	10/30/17	KR	ISSUED FOR 95% DESIGN	CHECKED <u>M.WITLER</u>
A	07/15/16	KR	ISSUED FOR 30% DESIGN	
REV	DATE	BY	DESCRIPTION	APPROVED <u>J.CUMBERS</u>



REPOSITORY TOP OF COVER SURFACE
AT 995,000 CY OF MINE WASTE

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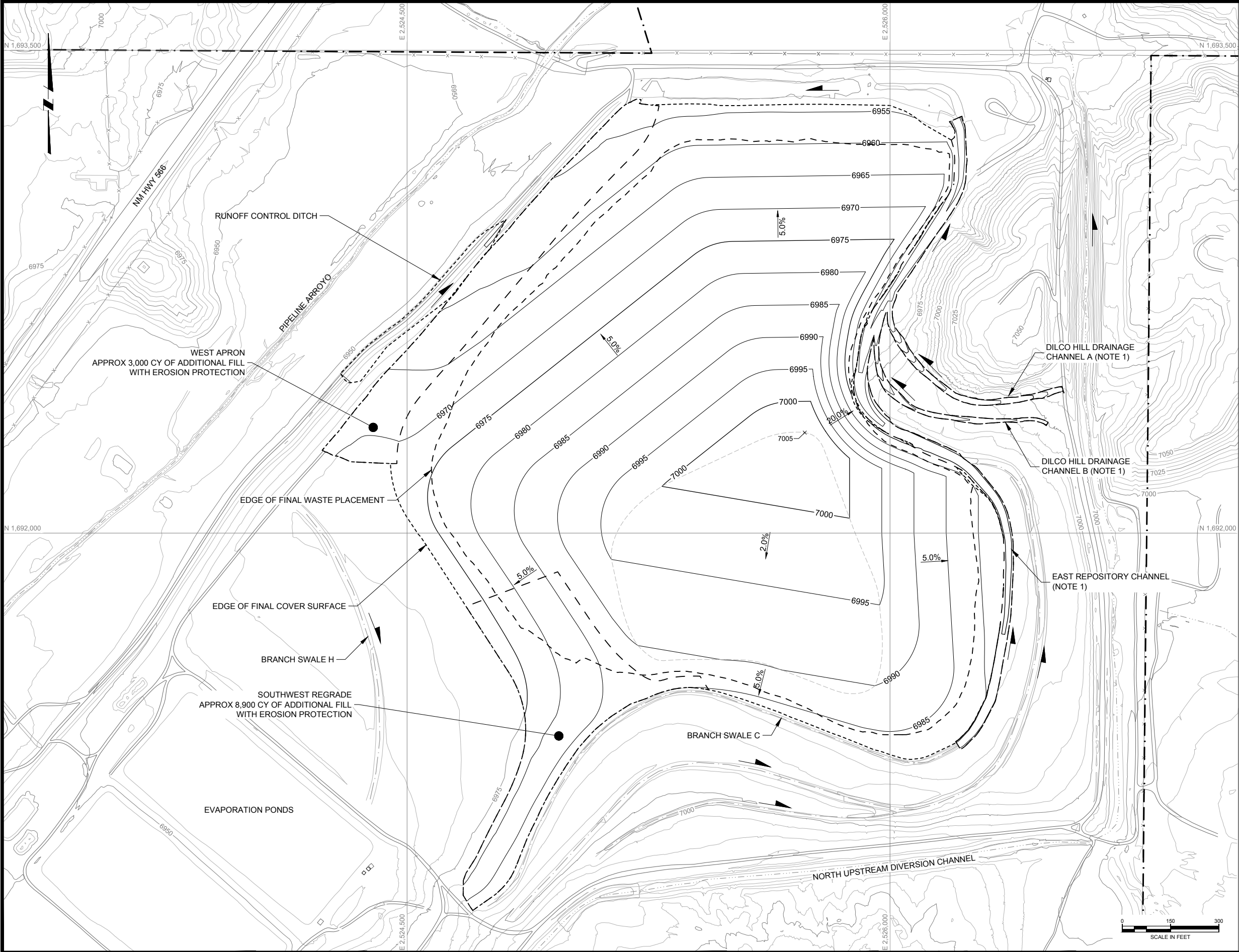
D	10/31/19	KR	LAR: REVISE COVER THICKNESS
C	04/09/18	KR	ISSUED FOR REVISED 95% DESIGN
B	10/30/17	KR	ISSUED FOR 95% DESIGN
A	07/15/16	KR	ISSUED FOR 30% DESIGN
REV	DATE	BY	DESCRIPTION

DESIGNED K. REED
CHECKED M. WITLER
APPROVED J. CUMBERS



UNITED NUCLEAR CORPORATION AND NORTHEAST CHURCH ROCK MINE
McKINLEY COUNTY, NEW MEXICO
NORTHEAST CHURCH ROCK PROJECT 95% DESIGN
REPOSITORY PROFILES

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7-06
233001048



LEGEND:

- EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
- PROPOSED SURFACE CONTOUR & ELEVATION, FEET
- UNC PROPERTY BOUNDARY
- ROADS
- NATURAL DRAINAGE
- EXISTING FENCE
- EXISTING SWALES
- STRUCTURES
- FLOW DIRECTION

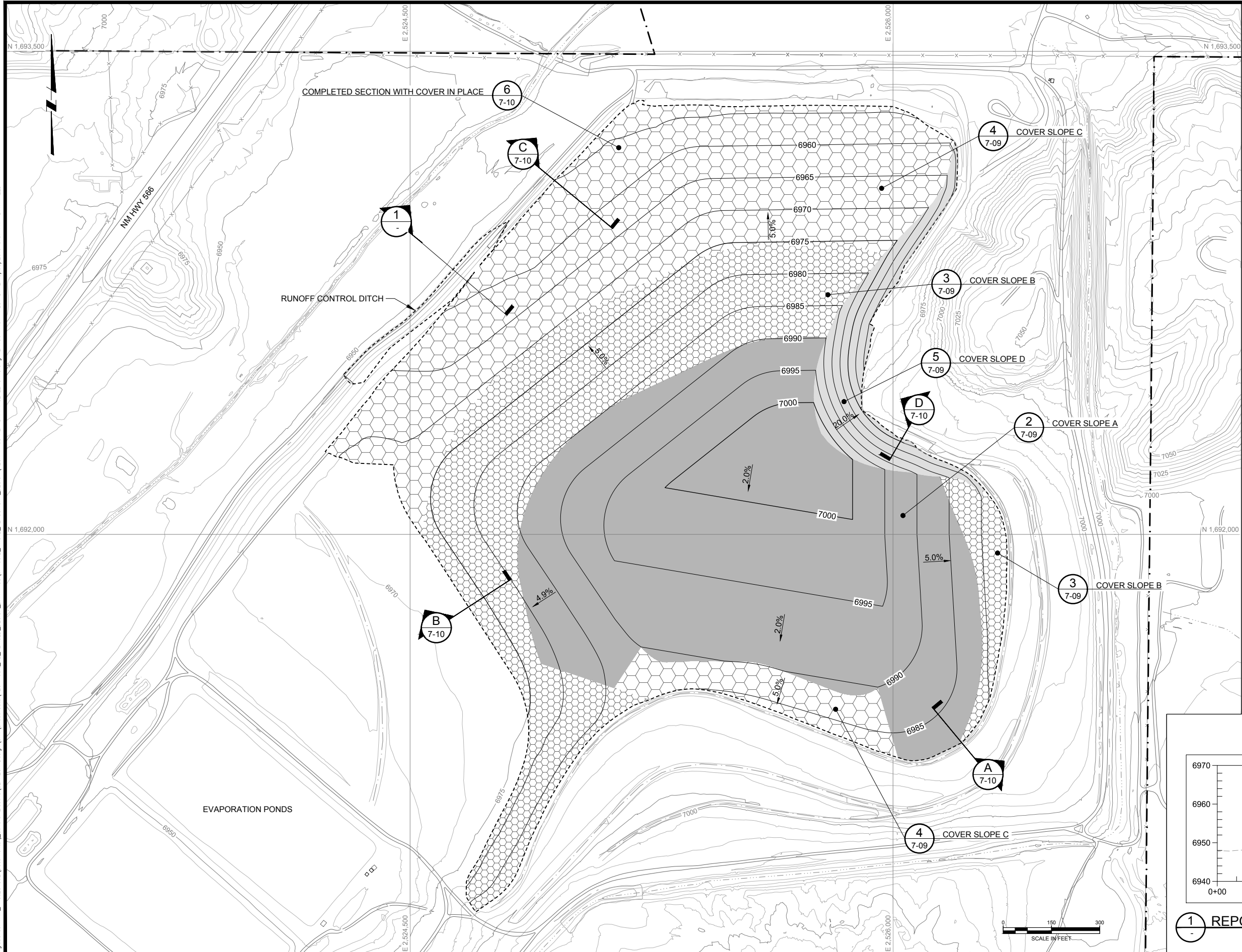
NOTE(S):

- PERMANENT STORMWATER CONTROL STRUCTURES DETAILED IN SECTION 9 DRAWINGS.

E	10/31/19	KR	LAR: REVISE COVER THICKNESS
D	09/24/18	KR	ISSUED FOR LAR
C	04/09/18	KR	ISSUED FOR REVISED 95% DESIGN
B	10/30/17	KR	ISSUED FOR 95% DESIGN
A	07/15/16	KR	ISSUED FOR 30% DESIGN
REV	DATE	BY	DESCRIPTION
DESIGNED _K REED			
CHECKED _M WITLER			
APPROVED _J CUMBERS			



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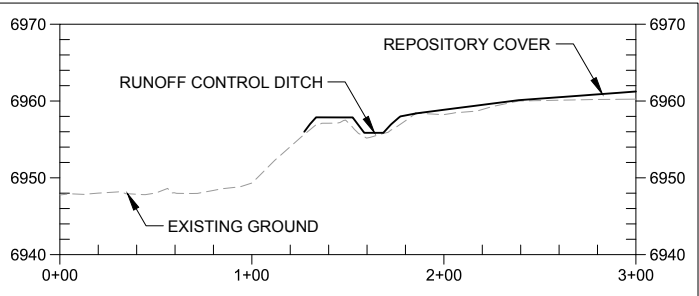


LEGEND:

- EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
- PROPOSED POST STRIPPING SURFACE CONTOUR & ELEVATION, FEET
- UNC PROPERTY BOUNDARY
- ROADS
- NATURAL DRAINAGE
- EXISTING FENCE
- EXISTING SWALES
- STRUCTURES
- COVER SLOPE A (D₅₀ = 1.5 INCHES)
- COVER SLOPE B (D₅₀ = 2 INCHES)
- COVER SLOPE C (D₅₀ = 3.5 INCHES)
- COVER SLOPE D (D₅₀ = 1.5 INCHES)

NOTE(S):

- COVER SLOPES A, B, AND C DESIGNED BY DWYER ENGINEERING, LLC.
- COVER SLOPE D DESIGNED BY STANTEC.



1 REPOSITORY COVER TO CHANNEL TRANSITION

F	10/31/19	KR	LAR: REVISE COVER THICKNESS
E	06/06/19	KR	REVISED FOR NRC RAI
D	09/24/18	KR	ISSUED FOR LAR
C	04/09/18	KR	ISSUED FOR REVISED 95% DESIGN
B	10/30/17	KR	ISSUED FOR 95% DESIGN
REV	DATE	BY	DESCRIPTION

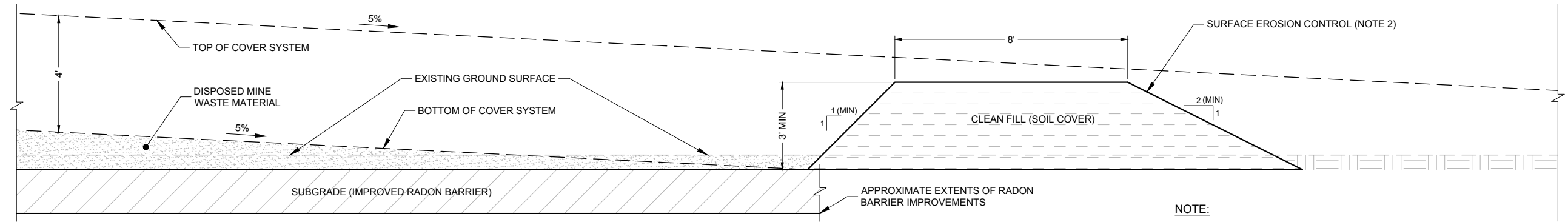
DESIGNED	K. REED
CHECKED	M. WITLER
APPROVED	J. CUMBERS



UNITED NUCLEAR CORPORATION AND NORTHEAST CHURCH ROCK MINE
MCKINLEY COUNTY, NEW MEXICO
NORTHEAST CHURCH ROCK PROJECT 95% DESIGN
COVER SURFACE EROSION PROTECTION

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7-08
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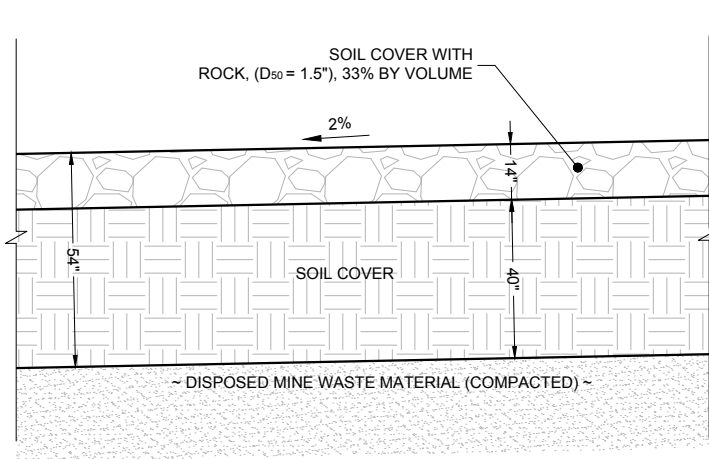
p:\mineview\103.mh\global.com:AM_PROJECTS\202\Documents\General Electric (GE) NRCR Design\Civil\Sheet Sets\NCR-95%_V2_REVISED DESIGN DRAWINGS\07-95.2_WASTE_REPOSITORY DESIGN\NCR 7-09 DETAILS.dwg LAYOUT:7-09 PLOT DATE:10/30/2019 3:57 PM BY:KWEED



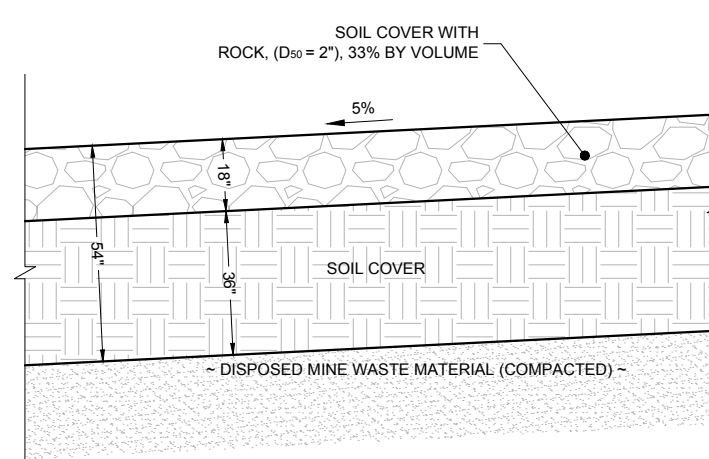
1 INITIAL REPOSITORY PERIMETER STORMWATER RETENTION BERM
7-09 (NOT TO SCALE)

NOTE:

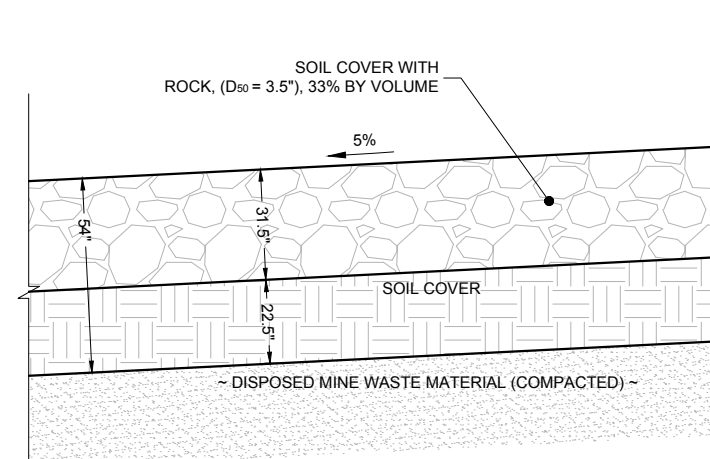
1. CLEAN FILL FOR BERMS TO BE GRADED INTO SOIL COVER LAYER.
2. SEE CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN
3. MAINTAIN 3-FOOT HEIGHT ABOVE DISPOSED MINE MATERIAL SURFACE FOR STORMWATER CONTROL.



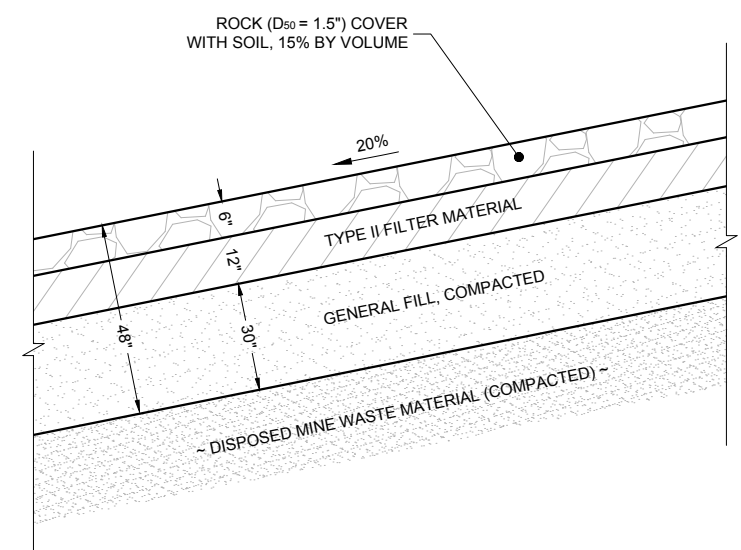
2 COVER SLOPE A (TOP SLOPES)
7-09 (NOT TO SCALE)



3 COVER SLOPE B (SIDE SLOPES)
7-09 (NOT TO SCALE)



4 COVER SLOPE C (LOWER SIDE SLOPES)
7-09 (NOT TO SCALE)



5 COVER SLOPE D (20% SLOPE)
7-09 (NOT TO SCALE)

NOTE:

1. COVER SLOPES A, B, AND C DESIGNED BY DWYER ENGINEERING, LLC. COVER SLOPE D DESIGNED BY STANTEC.

E	10/31/19	KR	LAR: REVISE COVER THICKNESS
D	06/06/19	KR	REVISED FOR NRC RAI
C	04/09/18	KR	ISSUED FOR REVISED 95% DESIGN
B	10/30/17	KR	ISSUED FOR 95% DESIGN
A	07/15/16	KR	ISSUED FOR 30% DESIGN
REV	DATE	BY	DESCRIPTION

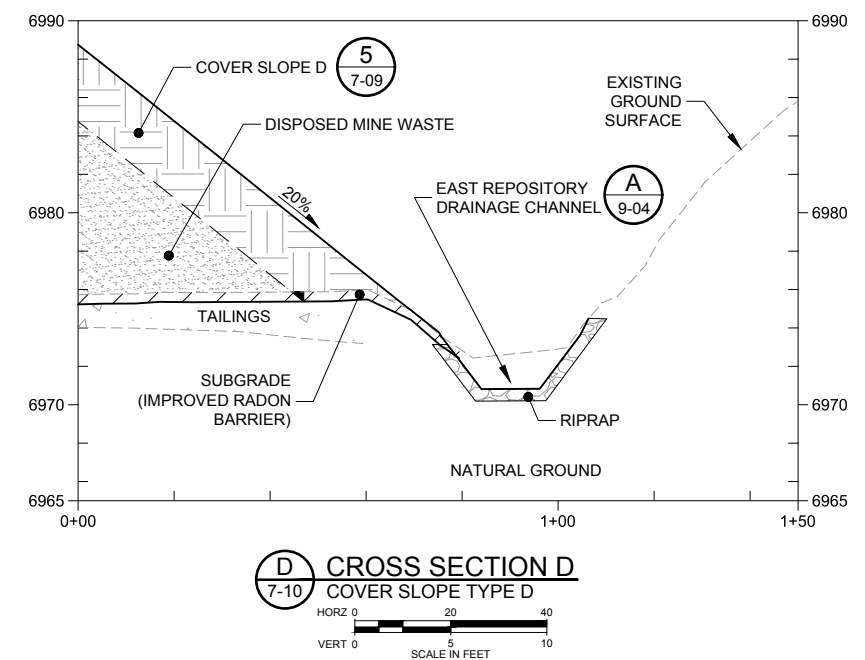
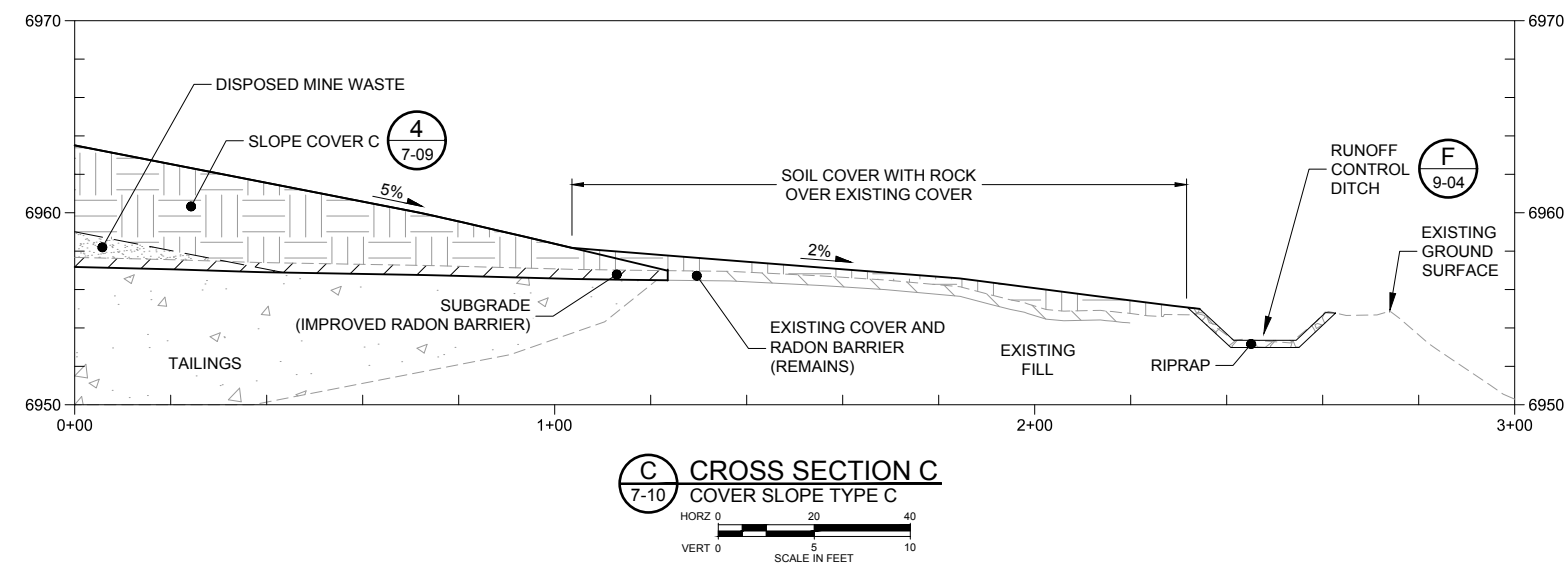
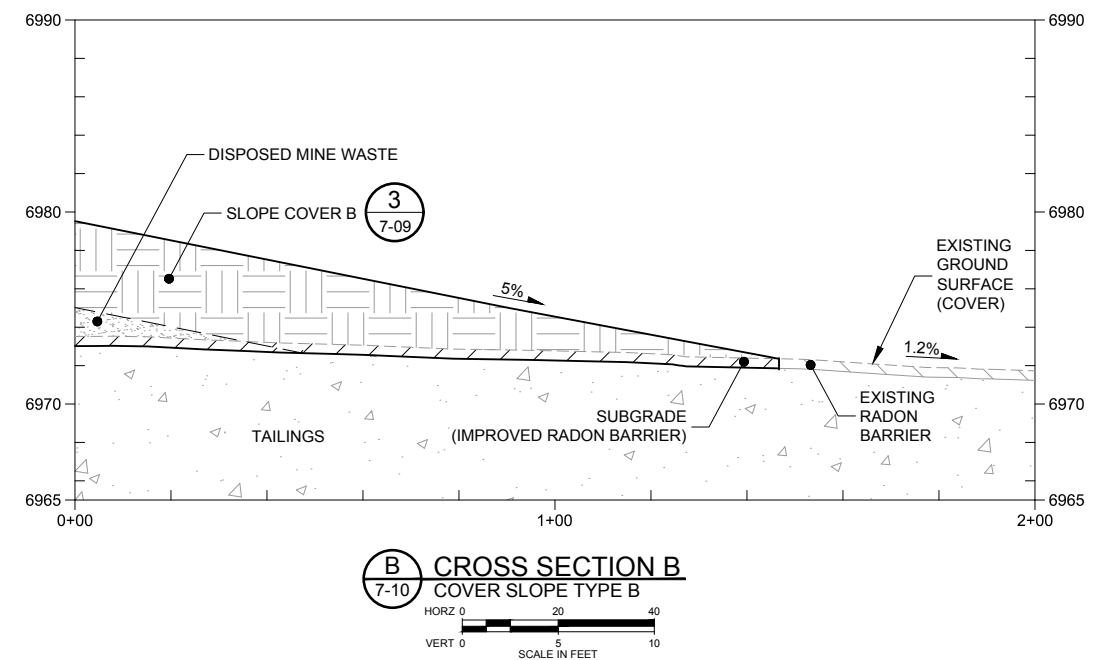
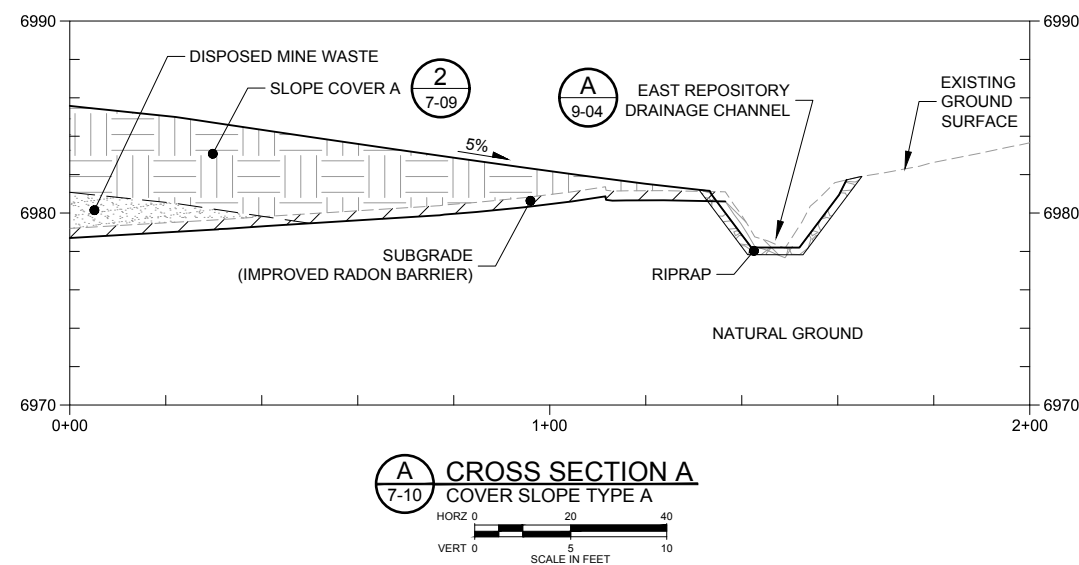
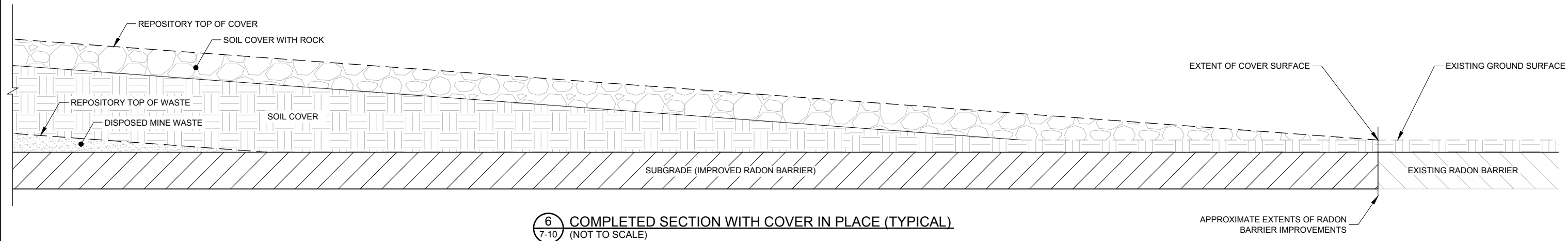
DESIGNED	K REED
CHECKED	M WITLER
APPROVED	J CUMBERS



UNITED NUCLEAR CORPORATION AND NORTHEAST CHURCH ROCK MINE
MCKINLEY COUNTY, NEW MEXICO
NORTHEAST CHURCH ROCK PROJECT 95% DESIGN
REPOSITORY COVER DETAILS

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7-09
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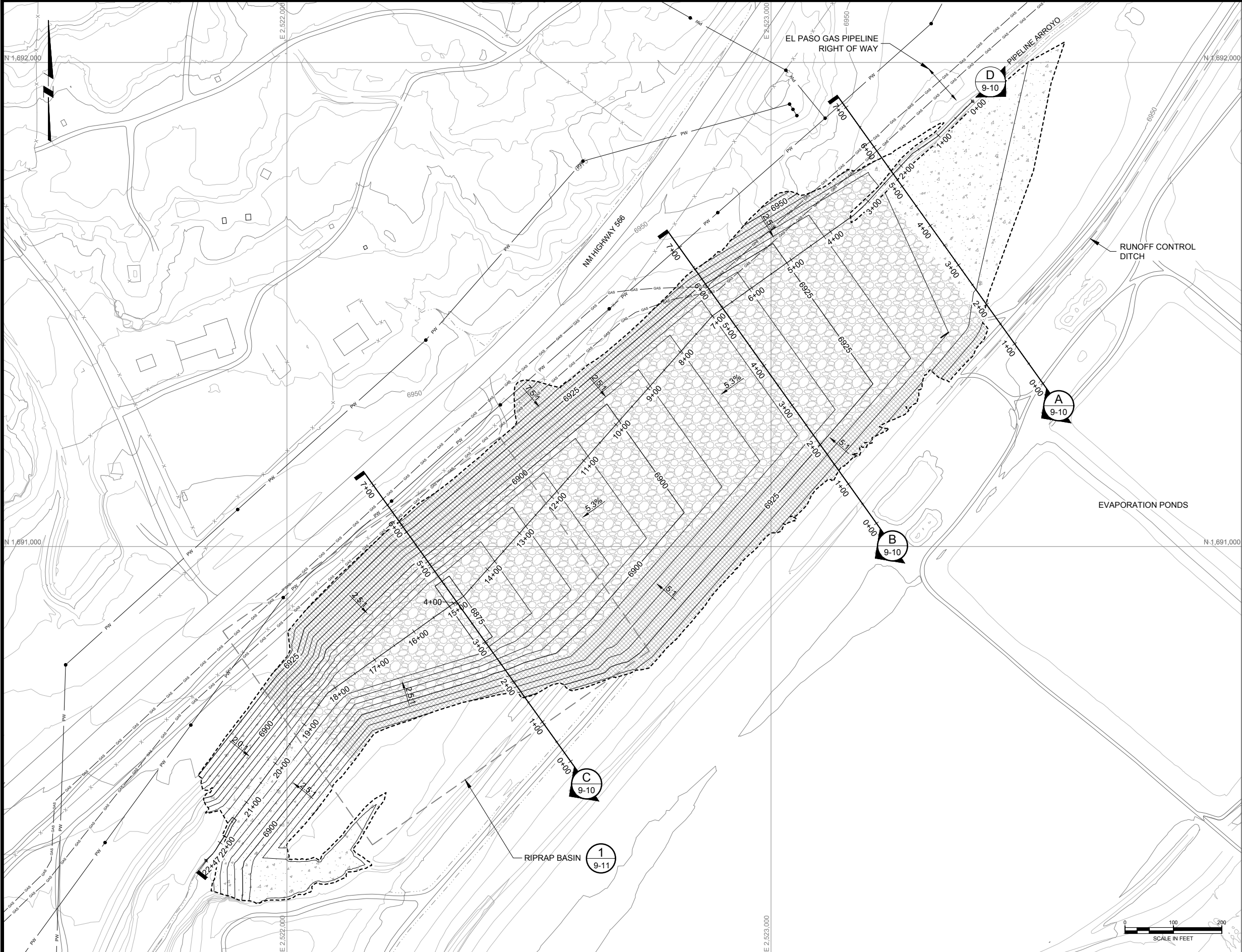
REV	DATE	BY	DESCRIPTION	APPROVED
E	10/31/19	KR	LAR: REVISE COVER THICKNESS	
D	06/06/19	KR	REVISED FOR NRC RAI	
C	04/09/18	KR	ISSUED FOR REVISED 95% DESIGN	
B	10/30/17	KR	ISSUED FOR 95% DESIGN	
A	07/15/16	KR	ISSUED FOR 30% DESIGN	

DESIGNED	K. REED
CHECKED	M. WITLER
APPROVED	J. CUMBERS



UNITED NUCLEAR CORPORATION AND NORTHEAST CHURCH ROCK MINE
MCKINLEY COUNTY, NEW MEXICO
NORTHEAST CHURCH ROCK PROJECT 95% DESIGN
REPOSITORY COVER DETAILS

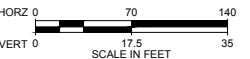
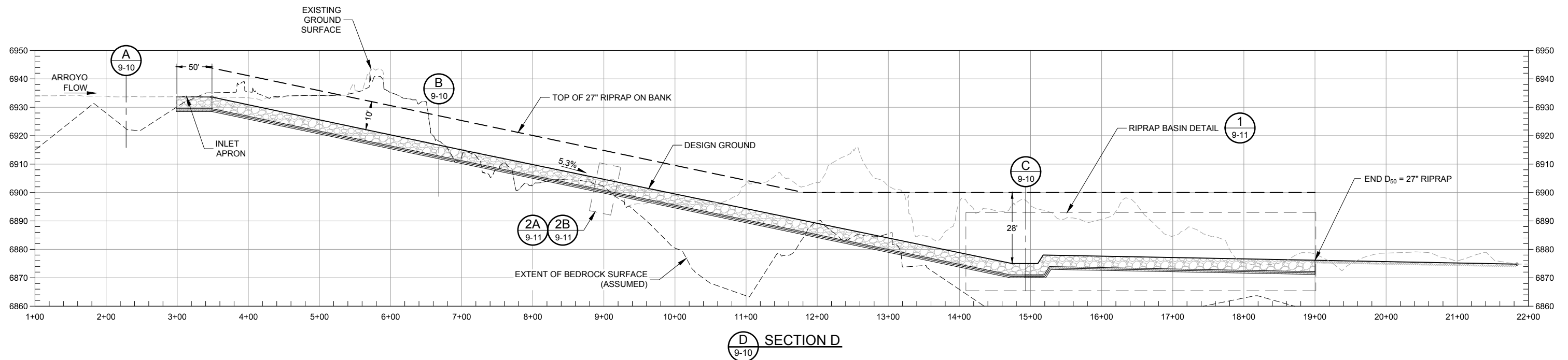
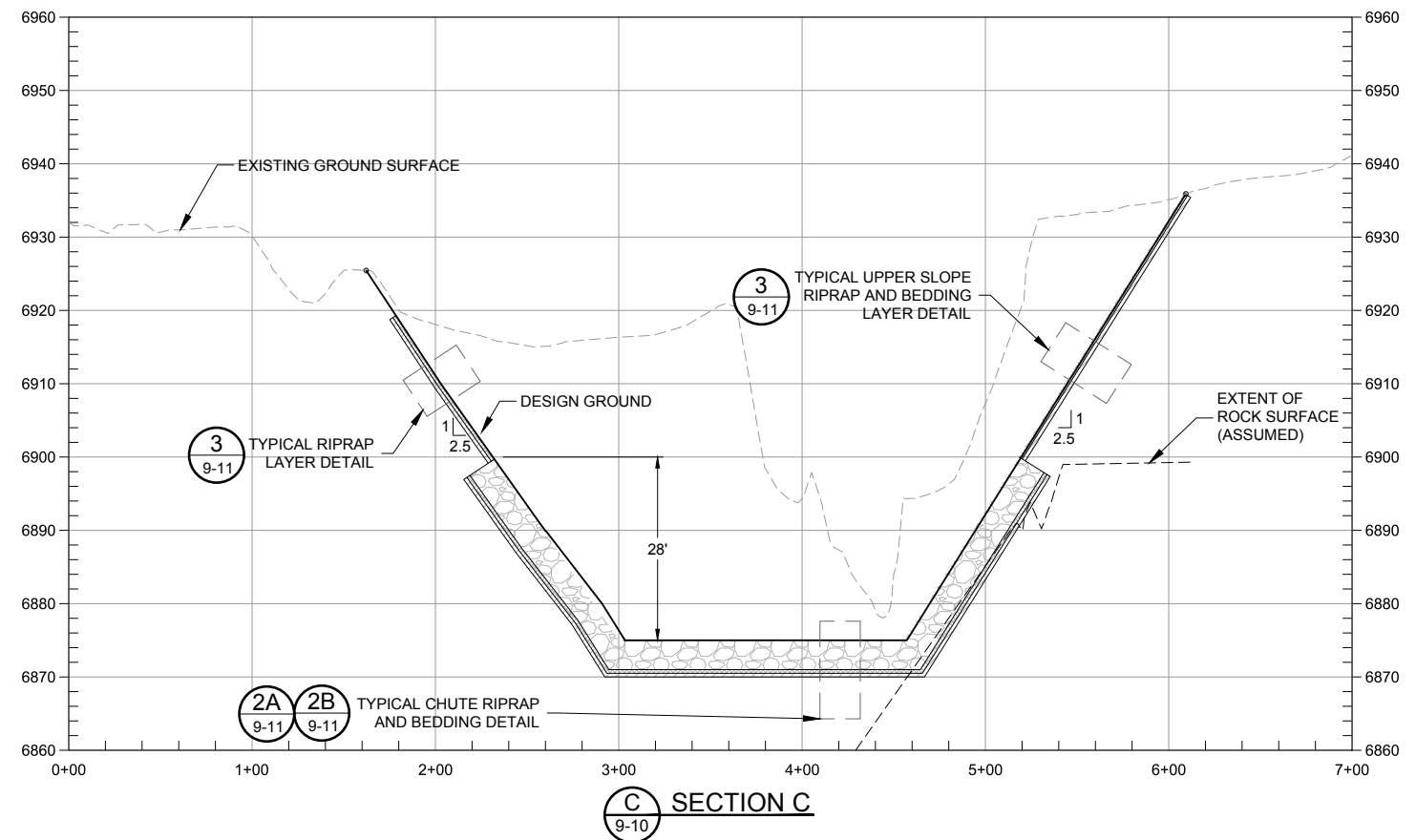
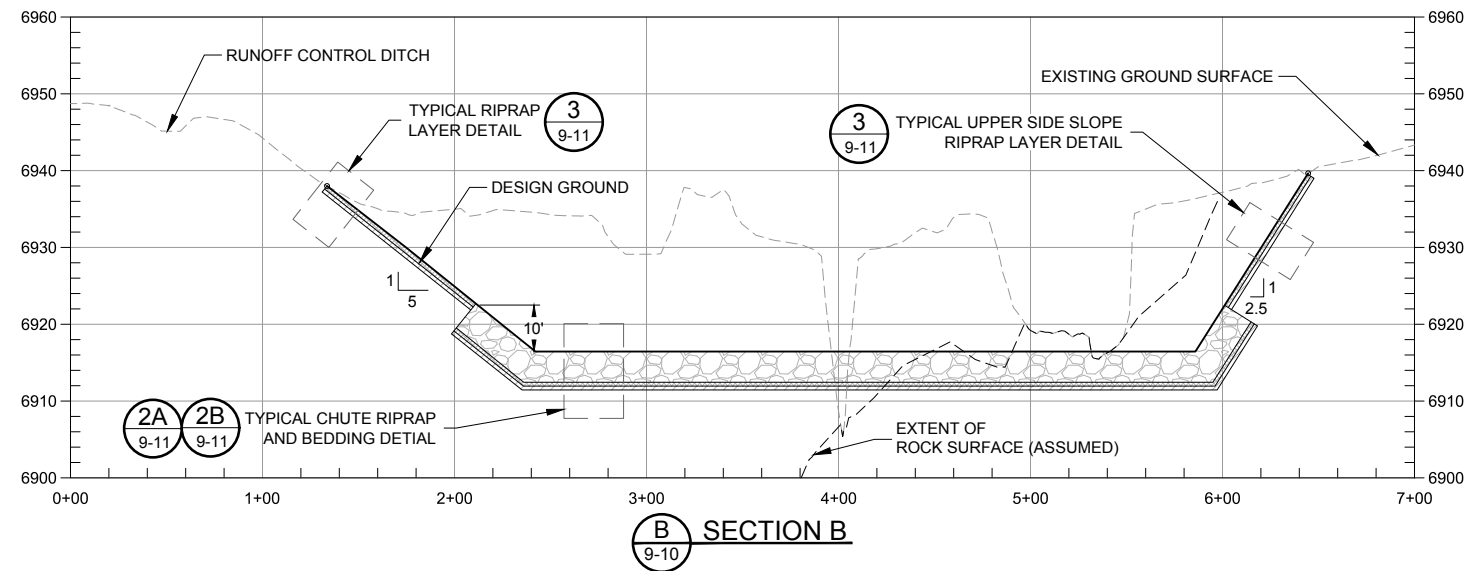
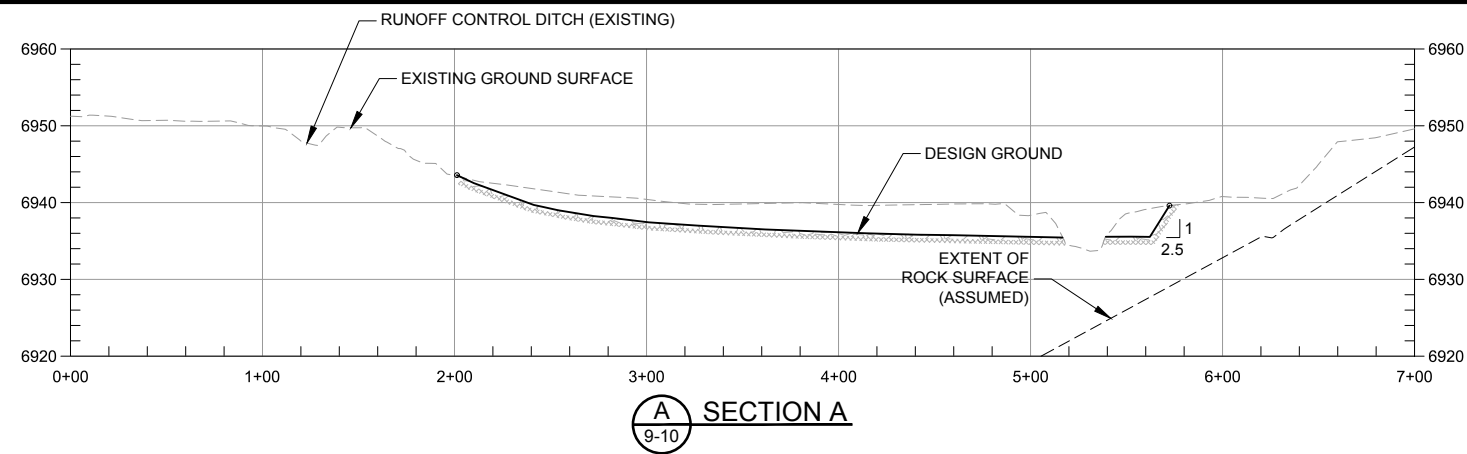
SHEET
7-10
233001048



- LEGEND:
- 7200 — EXISTING GROUND SURFACE CONTOUR & ELEVATION, FEET
 - 7200 — PROPOSED SURFACE CONTOUR & ELEVATION, FEET
 - DRAINAGE CHANNEL
 - EXISTING ROADS
 - - - NATURAL DRAINAGE
 - X - EXISTING FENCE
 - STRUCTURES
 - PW - OVERHEAD POWER LINE
 - LIMITS OF EARTHWORK
 - D₅₀ = 27" RIPRAP
 - D₅₀ = 3" RIPRAP
 - BOTTOMLAND SEED MIX

D	11/01/19	KR	ISSUED FOR LAR RAI2	DESIGNED	J. ERICKSON	  	UNITED NUCLEAR CORPORATION AND NORTHEAST CHURCH ROCK MINE MCKINLEY COUNTY, NEW MEXICO NORTHEAST CHURCH ROCK PROJECT 95% DESIGN MILL SITE REPOSITORY AREA STORMWATER CONTROLS RIPRAP CHUTE	SHEET 9-09 233001048
C	04/09/18	RW	ISSUED FOR REVISED 95% DESIGN	CHECKED	N. HAWS			
B	10/30/17	KR	ISSUED FOR 95% DESIGN	APPROVED	J. CUMBERS			
A	07/15/16	RW	ISSUED FOR 30% DESIGN					
REV	DATE	BY	DESCRIPTION	APPROVED	J. CUMBERS			

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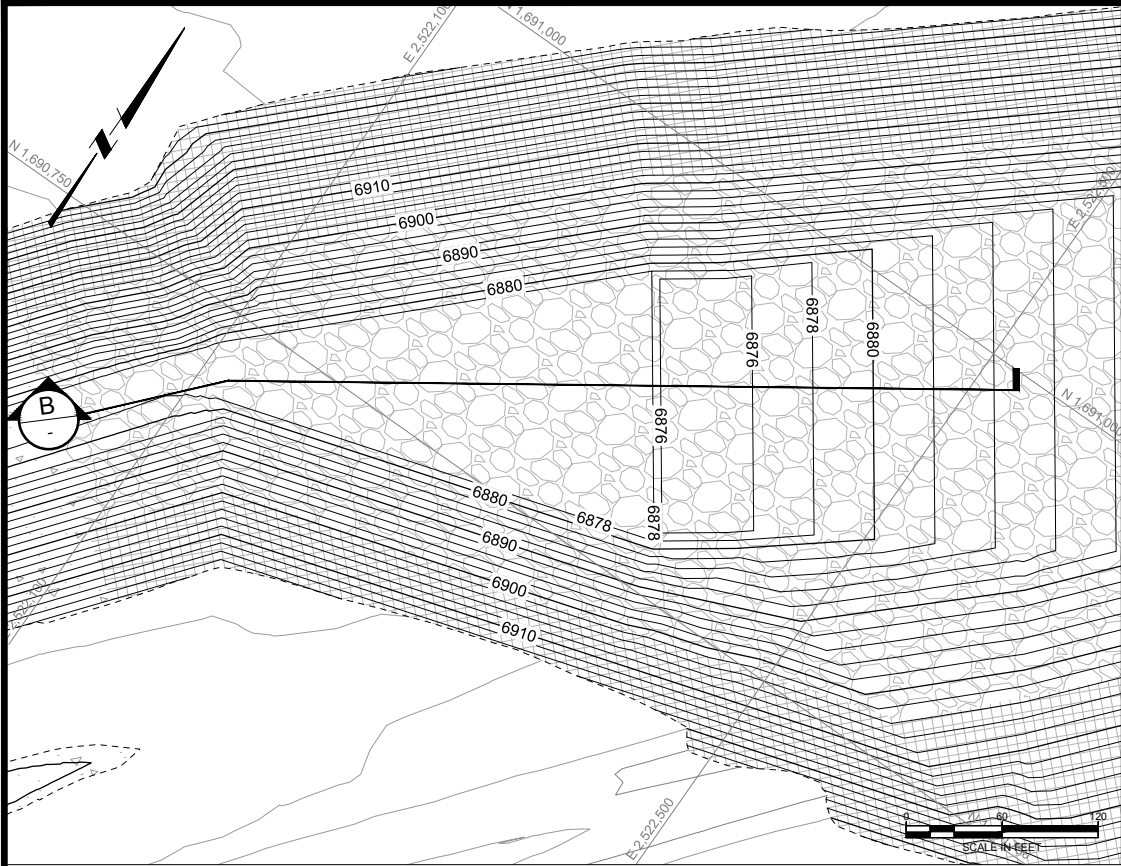


D	11/01/19	KR	ISSUED FOR LAR RAI2	DESIGNED	J. ERICKSON
C	04/09/18	RW	ISSUED FOR REVISED 95% DESIGN	CHECKED	N. HAWS
B	10/30/17	KR	ISSUED FOR 95% DESIGN	APPROVED	J. CUMBERS
A	03/15/16	RW	ISSUED FOR 30% DESIGN		
REV	DATE	BY	DESCRIPTION		

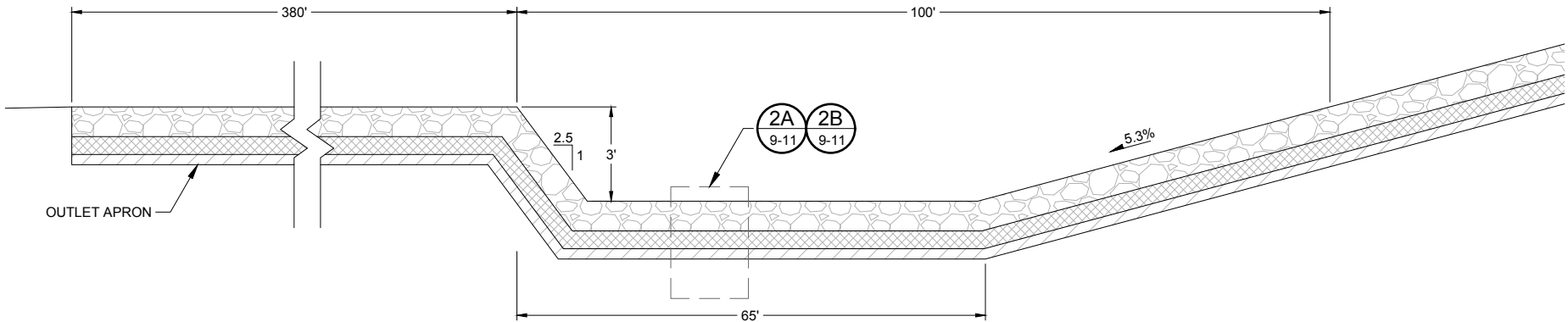


UNITED NUCLEAR CORPORATION AND NORTHEAST CHURCH ROCK MINE
MCKINLEY COUNTY, NEW MEXICO
NORTHEAST CHURCH ROCK PROJECT 95% DESIGN
MILL SITE REPOSITORY AREA STORMWATER CONTROLS
RIPRAP CHUTE SECTIONS

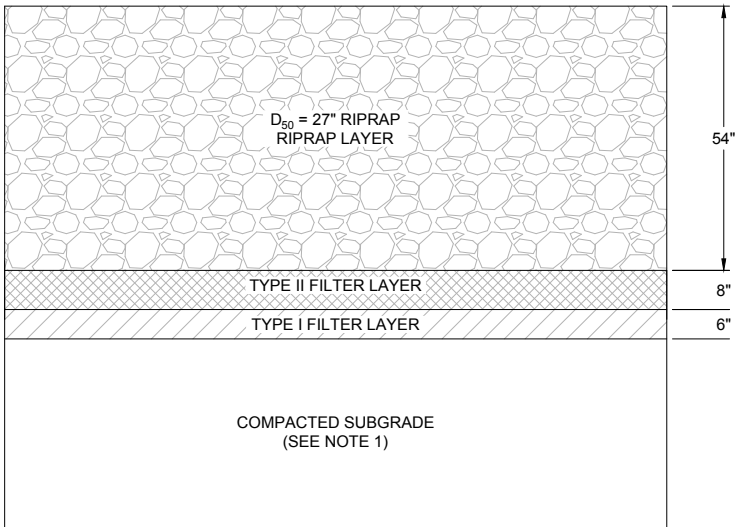
SHEET
9-10
233001048



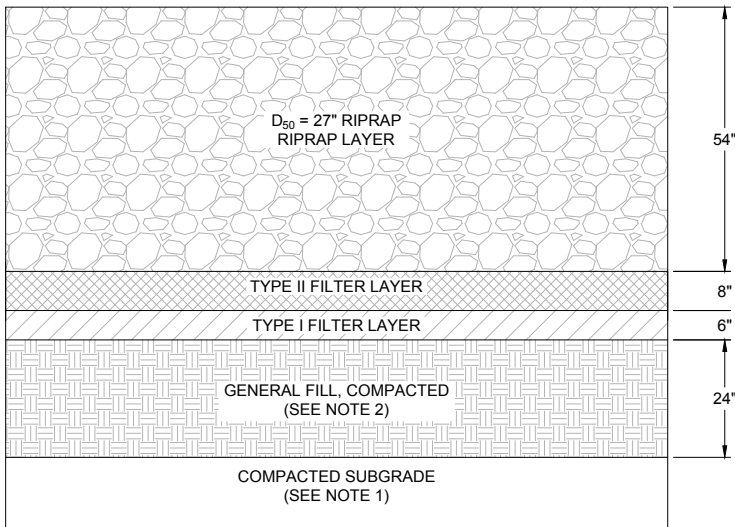
1
9-11 RIPRAP BASIN - PLAN



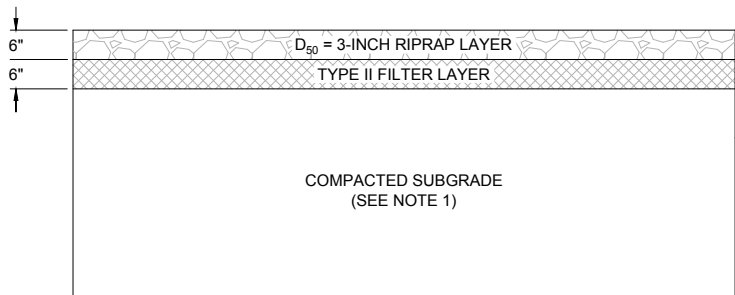
B
9-11 SECTION B - RIPRAP BASIN
(NOT TO SCALE)



2A
9-11 TYPICAL CHUTE RIPRAP AND BEDDING DETAIL
FOR AREAS OF CUT (NOT TO SCALE)



2B
9-11 TYPICAL CHUTE RIPRAP AND BEDDING DETAIL
FOR AREAS OF FILL (NOT TO SCALE)



3
9-11 TYPICAL UPPER SIDE SLOPE RIPRAP AND BEDDING DETAIL
(NOT TO SCALE)

NOTES:

1. PREPARE AND COMPACT UPPER FOOT TO MINIMUM 95% OF MAXIMUM DRY DENSITY PER STANDARD PROCTOR.
2. COMPACT TO 95% MAXIMUM DRY DENSITY PER STANDARD PROCTOR IN 6-INCH LIFTS.

D	11/01/19	KR	ISSUED FOR LAR RA12	DESIGNED	J. ERICKSON
C	04/09/18	KR	ISSUED FOR REVISED 95% DESIGN	CHECKED	N. HAWS
B	10/30/17	KR	ISSUED FOR 95% DESIGN	APPROVED	J. CUMBERS
A	03/15/16	RW	ISSUED FOR 30% DESIGN		
REV	DATE	BY	DESCRIPTION		



UNITED NUCLEAR CORPORATION AND NORTHEAST CHURCH ROCK MINE
MCKINLEY COUNTY, NEW MEXICO
NORTHEAST CHURCH ROCK PROJECT 95% DESIGN
MILL SITE REPOSITORY AREA STORMWATER CONTROLS
RIPRAP CHUTE DETAILS

SHEET
9-11
233001048