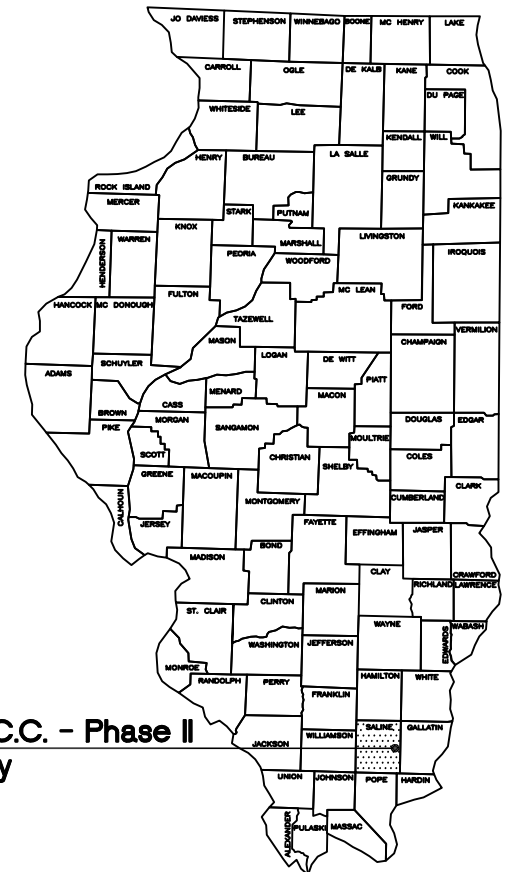


**State of Illinois**  
**Department of Natural Resources**  
**Office of Mines and Minerals**  
**Division of Abandoned Mined Lands**

Funded by the  
 United States Department of Interior  
 Federal Office of Surface Mining

**Richardson C. C. - Phase II**  
**Reclamation Project**  
**AML-GSIE-1313**  
**Saline County**  
**2LR**

**Certified Copy**



**Richardson C.C. - Phase II**  
**Saline County**

PRE-BID MEETING

A PRE-BID MEETING IS SCHEDULED FOR THIS PROJECT AT 1:00 P.M., WEDNESDAY, APRIL 16<sup>TH</sup>, 2014. ALL INTERESTED POTENTIAL BIDDERS ARE TO MEET AT THE ENTRANCE OF THE PROJECT SITE, ON CARNAHAN RD., APPROXIMATELY ½ MILE NORTHWEST OF THE DOGWALK RD. AND CARNAHAN RD. INTERSECTION.

SCHEDULE OF DRAWINGS:


- 1. Cover Sheet
- 2. Summary of Quantities/General Notes/Location Map
- 3. Site Layout/Survey Control Point Data
- 4-8. Existing Conditions
- 9-13. Proposed Conditions
- 14.-44. Cross Sections
- 45. Details

*I.D.O.T. Standard 280001-07*

CONTRACT NO. M1313

Prepared By IDNR Staff


Approved for Bidding:

  
 James Hafliker, Acting Director  
 Office of Mines and Minerals

Approved By:

  
 J. Greg Pinto, Acting Manager  
 AMLR Division

Approved By:

  
 Olga Moya Aranzubia, P.E.  
 IL Licensed Professional Engineer  
 No. 062-062471



Summary of Quantities

Item No.	#	Item	Section	Quantity			Unit	Rates/Remarks
				Site A	Site B	Total		
NRM20110	1	SPECIAL CLEARING	201	0.1	0.9	1	L SUM	
NRM20210	2	EARTH EXCAVATION	202	92,735	252,699	345,434	CU YD	Compaction per Section 205
NRM25040	3	NITROGEN FERTILIZER NUTRIENT	250	1,400	8,000	9,400	POUND	See
NRM25050	4	PHOSPHORUS FERTILIZER NUTRIENT	250	980	5,600	6,580	POUND	Schedule
NRM25060	5	POTASSIUM FERTILIZER NUTRIENT	250	3,150	18,000	21,150	POUND	Below
NRM25070	6	AGRICULTURAL GROUND LIMESTONE	250	280.0	1,600.0	1,880.0	TON	40.0 TONS/ACRE
NRM25090	7	SEEDING	250	7.0	40.0	47.0	ACRE	
25100115	8	MULCH METHOD 2	IDOT 251	7.0	40.0	47.0	ACRE	Procedure 1 - 2.0 TONS/ACRE
25301800	9	SEEDLINGS	IDOT 253	7.0	0	7.0	UNIT	100 Seedlings Per Unit 10 ft. Centers - Rows staggered
NRM25810	10	MOWING	258	7.0	40.0	47.0	ACRE	
NRM28040	11	PERIMETER EROSION BARRIER	280	996	1,520	2,516	FOOT	Silt Fence Required IDOT Standard 280001-07
NRM28050	12	INLET AND PIPE PROTECTION	280	1	0	1	EACH	Silt Fence Required IDOT Standard 280001-07
28100105	13	STONE RIPRAP, CLASS A3	IDOT 281	679	5,458	6,137	SQ YD	
NRM28610	14	SPECIAL EXCELSIOR BLANKET	286	2,336	26,642	28,978	SQ YD	8 Feet Wide Strips
35101400	15	AGGREGATE BASE COURSE, TYPE B	IDOT 351	224.0	280.0	504.0	TON	CA-6, 4" Lifts, 8" Total thickness
NRM50101	16	REMOVAL OF EXISTING STRUCTURES	501	0	1	1	L SUM	
NRM61310	17	CLEANING EXISTING CULVERTS	613	1	0	1	L SUM	
NRM61410	18	DEWATERING IMPOUNDMENTS	614	0.5	0.5	1	L SUM	
NRM61511	19	*LCD - COARSE AGGREGATE CA-1	615	0	2,408.0	2,408.0	TON	>90% Calcium Carbonate
NRM61516	20	*LCD - COARSE AGGREGATE CA-6	615	0	1,981.0	1,981.0	TON	>90% Calcium Carbonate
NRM61530	21	*LCD - COMPOST	615	0	1,172	1,172	CU YD	
NRM61540	22	*LCD - FILTER FABRIC	615	0	26,916	26,916	SQ YD	
NRM61550	23	*LCD - POLYETHYLENE LINER	615	0	11,239	11,239	SQ YD	30 mils. Minimum - High Density
NRM61560	24	*LCD - PVC PIPE 2" DIA.	615	0	110	110	FOOT	Includes all collars, fittings, elbows and connections. Schedule 40
NRM61561	25	*LCD - PERFORATED WELL CASING 2" DIA.	615	0	2,662	2,662	FOOT	Includes all collars, fittings, elbows and connections. Schedule 40
NRM67110	26	MOBILIZATION (MAX. 6% OF BID)	615	0.5	0.5	1	L SUM	

\*LCD - Limestone Compost Drain

GENERAL NOTES

Unless otherwise noted on the plans, all disturbed areas within the construction limits will be amended with agricultural ground limestone, fertilizer nutrients, seeded and mulched at the required rates specified in the plans.

The contractor is responsible for visiting the site and familiarizing himself with the existing conditions and the proposed reclamation work prior to submitting a bid.

The contractor shall provide and pay for all field engineering services to execute the project as specified in the Field Engineering section of the Special Provisions.

The contractor is responsible for locating and protecting all existing utility lines pertaining to the work.

Unless noted on the plans, all onsite access roads may be used for construction and must be maintained during construction and restored to original or better condition at the completion of work by the contractor. Access roads to the site as designated in the plans are to be maintained to the satisfaction of the engineer.

The construction limits will be staked by the contractor prior to construction. The contractor is responsible for the repair and or restitution at his own expense for all damaged done to any area outside the construction limits.

Application rates specified in the plans are shown in the Summary of Quantities--Rates/Remarks column.

CONSTRUCTION NOTES

BURIAL/REMOVAL OF MATERIAL--Concrete and masonry debris designated for burial by the engineer shall be buried at least three feet below proposed final grade. Onsite organic debris and trash shall be disposed of in an engineer approved offsite landfill in accordance with Sections 201 and 501 of the Special Provisions.

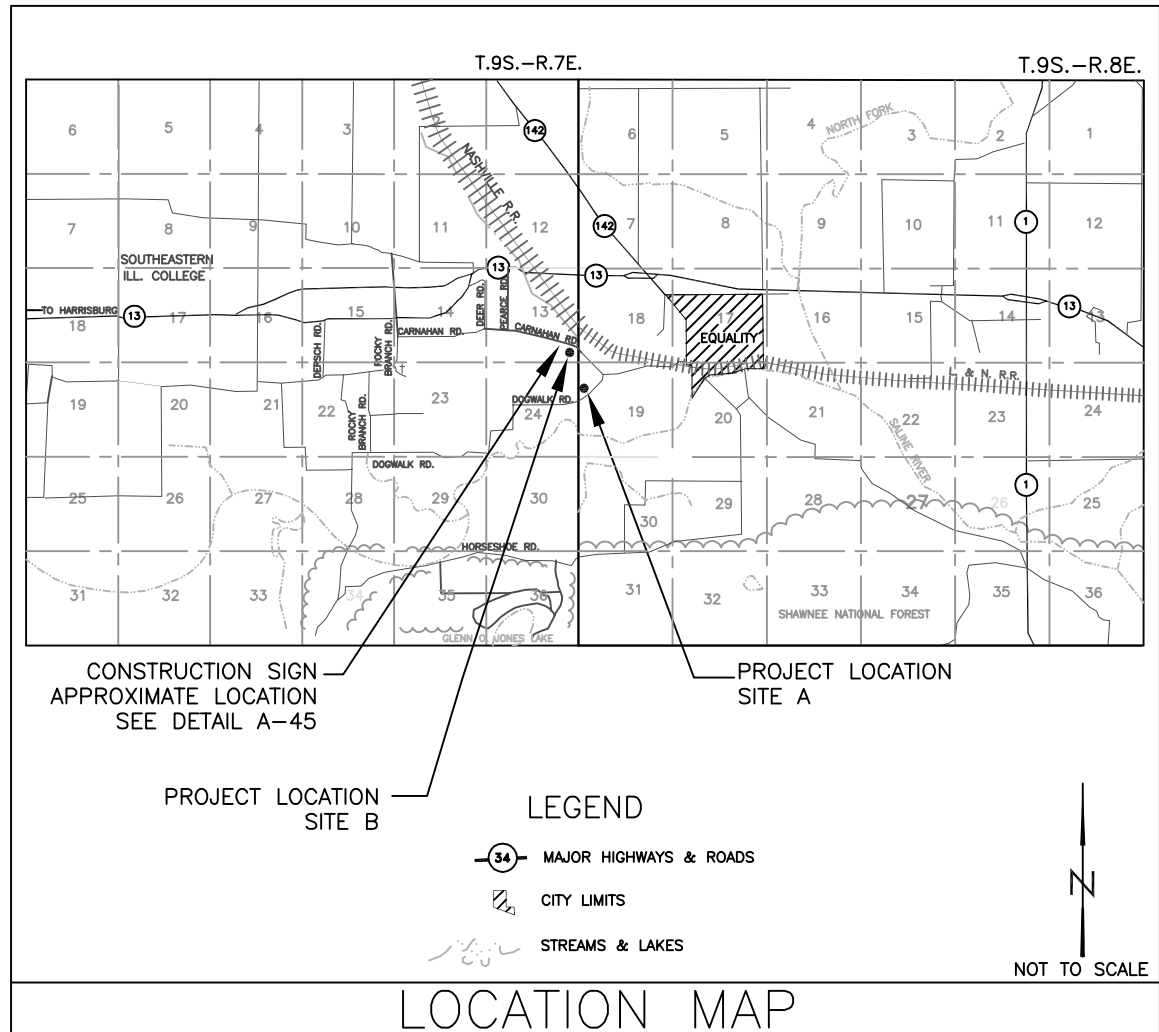
TREE REMOVAL--Trees removed shall be disposed of onsite per Section 201 of the Special Provisions.

ACID WATER TREATMENT--If acid mine drainage treatment is determined necessary by the engineer, and not otherwise specified in the plans, any water treatment will be paid for in accordance with Article 109.04 of the Standard Specifications.

EROSION CONTROL--The contractor shall schedule his operations and take such precautions that may be necessary to prevent or minimize erosion. Failure to comply with this requirement shall cause the contractor to be fully responsible for repairing any eroded areas and cleaning up areas or drainage structures that have become silted in or damaged.

AGRICULTURAL GROUND LIMESTONE--Immediately prior to seed bed preparation, fertilizer nutrients and agricultural ground limestone shall be uniformly spread at the rates specified in the plans.

MULCHING--Within 24 hours from the time seeding has been performed, the seeded area shall be given a covering of mulch at the rates specified in the plans. The mulch is to be anchored into the soil in accordance with the requirements for method 2, procedure 1 of Article 251.03 of the Standard Specifications. If Excelsior or Special Excelsior Blanket is to be used, the blanket shall be placed the same day that the areas are seeded.



Schedule of Seeding, Fertilizer Nutrients, Mulch and Mowing

ITEM (unit)	FALL 2014 AUG. 20 - SEPT. 30		WINTER 2015 JAN. 1 - MAR. 15		SPRING 2015 MAY 15 - JUN. 15		TOTAL QUANTITY
	SITE A	SITE B	SITE A	SITE B	SITE A	SITE B	
SEEDING (acre)	7.0	40.0					47.0
AGRICULTURAL GROUND LIMESTONE (tons)	280.0 40.0 T/A	1,600.0 40.0 T/A			Actual Date to be Approved by Engineer		1,880
NITROGEN FERTILIZER NUTRIENT (pounds)	700 100 LB./A	4,000 100 LB./A	700 100 LB./A	4,000 100 LB./A			9,400
PHOSPHOROUS FERTILIZER NUTRIENT (pounds)	980 140 LB./A	5,600 140 LB./A					6,580
POTASSIUM FERTILIZER NUTRIENT (pounds)	3,150 350 LB./A	18,000 450 LB./A					21,150
MULCH, METHOD 2 PROCEDURE 1 (acre)	7.0 2.0 T/A	40.0 2.0 T/A					47.0
MOWING (acres)					7.0	40.0	47.0

State of Illinois  
Department of Natural Resources

Richardson C.C. - Phase II  
Reclamation Project  
AML-GSIE-1313  
Saline County

Date: 08-13-14  
Drawn By: OMA  
Checked By:

Summary of Quantities/  
General Notes/Location Map  
Sheet 2 of 45

BASELINE A LAYOUT DATA		
STATION	NORTHING	EASTING
0+00	385717.38	972676.30
2+00	385803.82	972856.68
4+00	385905.45	973028.91
5+00	385961.45	973111.78
6+00	386026.33	973187.88
8+00	386179.10	973316.93
9+00	386260.91	973374.38

BASELINE B LAYOUT DATA		
STATION	NORTHING	EASTING
10+00	387179.21	972937.92
16+00	387157.51	972338.31
20+00	387079.84	971945.91

BASELINE C LAYOUT DATA		
STATION	NORTHING	EASTING
21+00	388135.36	972595.16
32+44	388435.52	971491.62
46+00	388940.47	970232.73

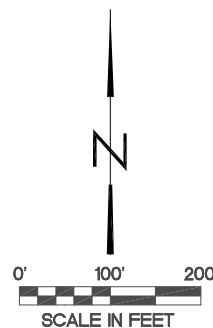
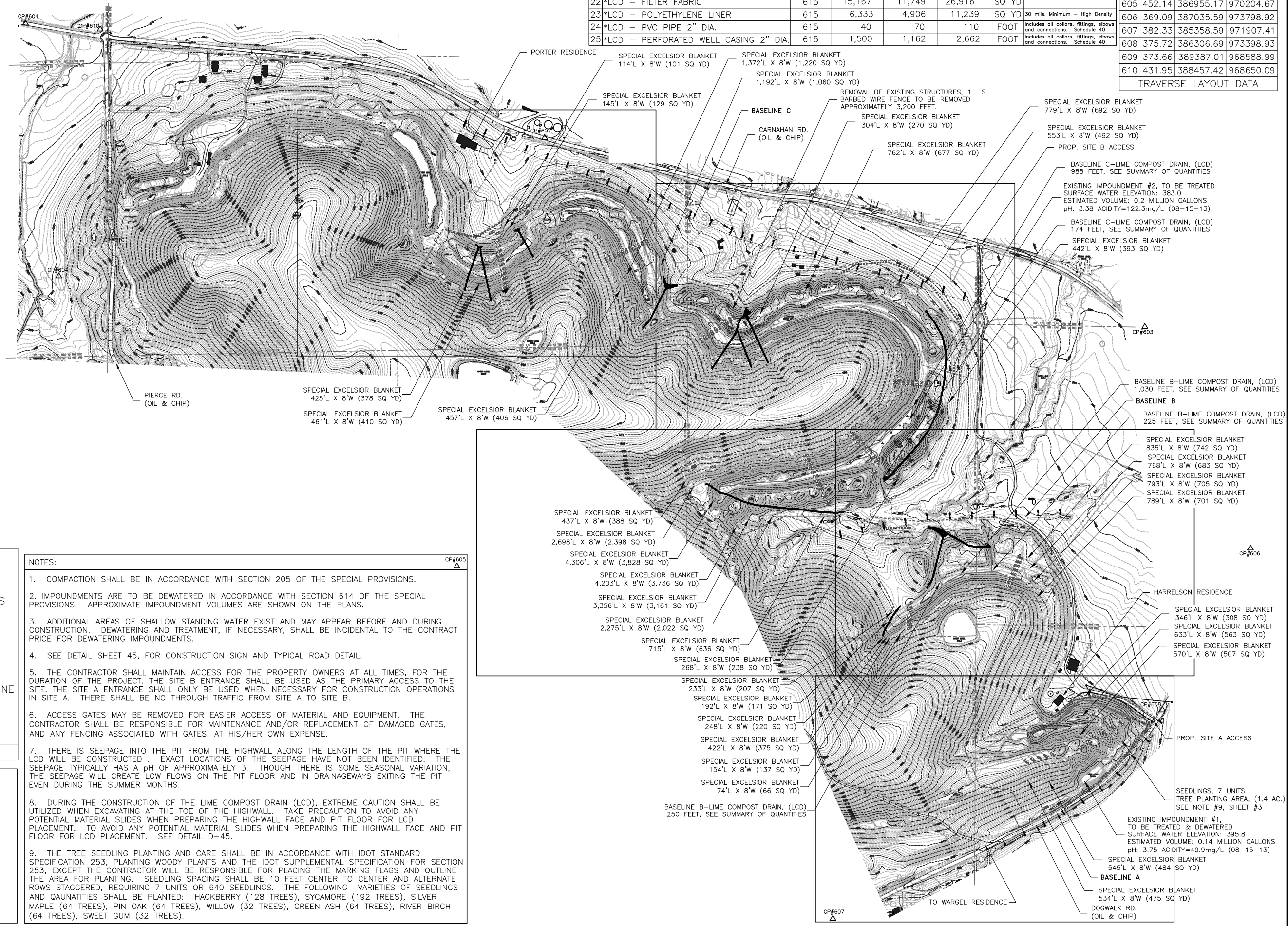
BASELINE NAME	EARTH CUT (CU YD)	EARTH FILL (CU YD)	COMMENTS
BASELINE A	92,735	6,948	COMPACTION PER SEC. 205
BASELINE B	40,494	25,508	COMPACTION PER SEC. 205
BASELINE C	212,205	269,877	COMPACTION PER SEC. 205
PROJECT TOTAL	345,434	302,333	COMPACTION PER SEC. 205

\*LCD - LIMESTONE COMPOST DRAIN SUMMARY OF QUANTITIES

#	ITEM	SECTION	BASELINE B	BASELINE C	TOTAL	UNIT	RATES/REMARKS
19	*LCD - COARSE AGGREGATE CA-1	615	1,357.0	1,051.0	2,408.0	TON	>90% Calcium Carbonate
20	*LCD - COARSE AGGREGATE CA-6	615	1,116.0	865.0	1,981.0	TON	>90% Calcium Carbonate
21	*LCD - COMPOST	615	660	512	1,172	CU YD	
22	*LCD - FILTER FABRIC	615	15,167	11,749	26,916	SQ YD	
23	*LCD - POLYETHYLENE LINER	615	6,333	4,906	11,239	SQ YD	30 mils. Minimum - High Density
24	*LCD - PVC PIPE 2" DIA.	615	40	70	110	FOOT	Includes all collars, fittings, elbows and connections. Schedule 40
25	*LCD - PERFORATED WELL CASING 2" DIA.	615	1,500	1,162	2,662	FOOT	Includes all collars, fittings, elbows and connections. Schedule 40

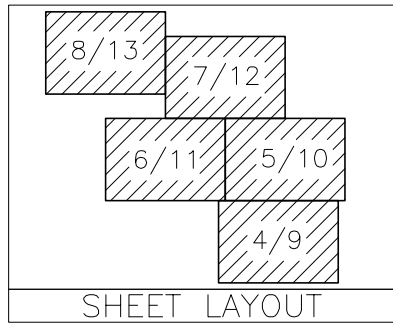
CP#	ELEV.	NORTHING	EASTING
601	374.93	389413.79	968250.07
602	382.52	388894.37	970601.91
603	355.16	388038.89	973320.51
604	392.15	388269.04	968401.19
605	452.14	386955.17	970204.67
606	369.09	387035.59	973798.92
607	382.33	385358.59	971907.41
608	375.72	386306.69	973398.93
609	373.66	389387.01	968588.99
610	431.95	388457.42	968650.09

TRAVERSE LAYOUT DATA



---	EXISTING CONTOUR
---	PROPOSED CONTOUR
---	CONSTRUCTION LIMITS
---	TREELINE
---	WATER WAY
---	SECTION LINE
---	OVERHEAD POWER LINE
---	FENCE LINE
△	CONTROL POINT

LEGEND



NOTES:

1. COMPACTION SHALL BE IN ACCORDANCE WITH SECTION 205 OF THE SPECIAL PROVISIONS.
2. IMPOUNDMENTS ARE TO BE DEWATERED IN ACCORDANCE WITH SECTION 614 OF THE SPECIAL PROVISIONS. APPROXIMATE IMPOUNDMENT VOLUMES ARE SHOWN ON THE PLANS.
3. ADDITIONAL AREAS OF SHALLOW STANDING WATER EXIST AND MAY APPEAR BEFORE AND DURING CONSTRUCTION. DEWATERING AND TREATMENT, IF NECESSARY, SHALL BE INCIDENTAL TO THE CONTRACT PRICE FOR DEWATERING IMPOUNDMENTS.
4. SEE DETAIL SHEET 45, FOR CONSTRUCTION SIGN AND TYPICAL ROAD DETAIL.
5. THE CONTRACTOR SHALL MAINTAIN ACCESS FOR THE PROPERTY OWNERS AT ALL TIMES, FOR THE DURATION OF THE PROJECT. THE SITE B ENTRANCE SHALL BE USED AS THE PRIMARY ACCESS TO THE SITE. THE SITE A ENTRANCE SHALL ONLY BE USED WHEN NECESSARY FOR CONSTRUCTION OPERATIONS IN SITE A. THERE SHALL BE NO THROUGH TRAFFIC FROM SITE A TO SITE B.
6. ACCESS GATES MAY BE REMOVED FOR EASIER ACCESS OF MATERIAL AND EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND/OR REPLACEMENT OF DAMAGED GATES, AND ANY FENCING ASSOCIATED WITH GATES, AT HIS/HER OWN EXPENSE.
7. THERE IS SEEPAGE INTO THE PIT FROM THE HIGHWALL ALONG THE LENGTH OF THE PIT WHERE THE LCD WILL BE CONSTRUCTED. EXACT LOCATIONS OF THE SEEPAGE HAVE NOT BEEN IDENTIFIED. THE SEEPAGE TYPICALLY HAS A pH OF APPROXIMATELY 3. THOUGH THERE IS SOME SEASONAL VARIATION, THE SEEPAGE WILL CREATE LOW FLOWS ON THE PIT FLOOR AND IN DRAINAGEWAYS EXITING THE PIT EVEN DURING THE SUMMER MONTHS.
8. DURING THE CONSTRUCTION OF THE LIME COMPOST DRAIN (LCD), EXTREME CAUTION SHALL BE UTILIZED WHEN EXCAVATING AT THE TOE OF THE HIGHWALL TAKE PRECAUTION TO AVOID ANY POTENTIAL MATERIAL SLIDES WHEN PREPARING THE HIGHWALL FACE AND PIT FLOOR FOR LCD PLACEMENT. TO AVOID ANY POTENTIAL MATERIAL SLIDES WHEN PREPARING THE HIGHWALL FACE AND PIT FLOOR FOR LCD PLACEMENT. SEE DETAIL D-45.
9. THE TREE SEEDLING PLANTING AND CARE SHALL BE IN ACCORDANCE WITH IDOT STANDARD SPECIFICATION 253, PLANTING WOODY PLANTS AND THE IDOT SUPPLEMENTAL SPECIFICATION FOR SECTION 253, EXCEPT THE CONTRACTOR WILL BE RESPONSIBLE FOR PLACING THE MARKING FLAGS AND OUTLINE THE AREA FOR PLANTING. SEEDLING SPACING SHALL BE 10 FEET CENTER TO CENTER AND ALTERNATE ROWS STAGGERED, REQUIRING 7 UNITS OR 640 SEEDLINGS. THE FOLLOWING VARIETIES OF SEEDLINGS AND QUANTITIES SHALL BE PLANTED: HACKBERRY (128 TREES), SYCAMORE (192 TREES), SILVER MAPLE (64 TREES), PIN OAK (64 TREES), WILLOW (32 TREES), GREEN ASH (64 TREES), RIVER BIRCH (64 TREES), SWEET GUM (32 TREES).

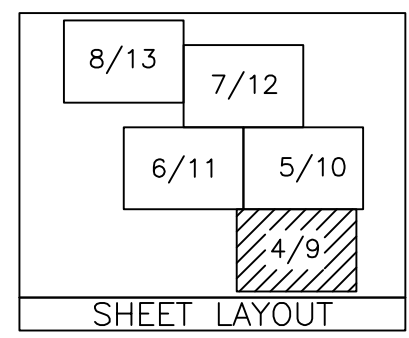
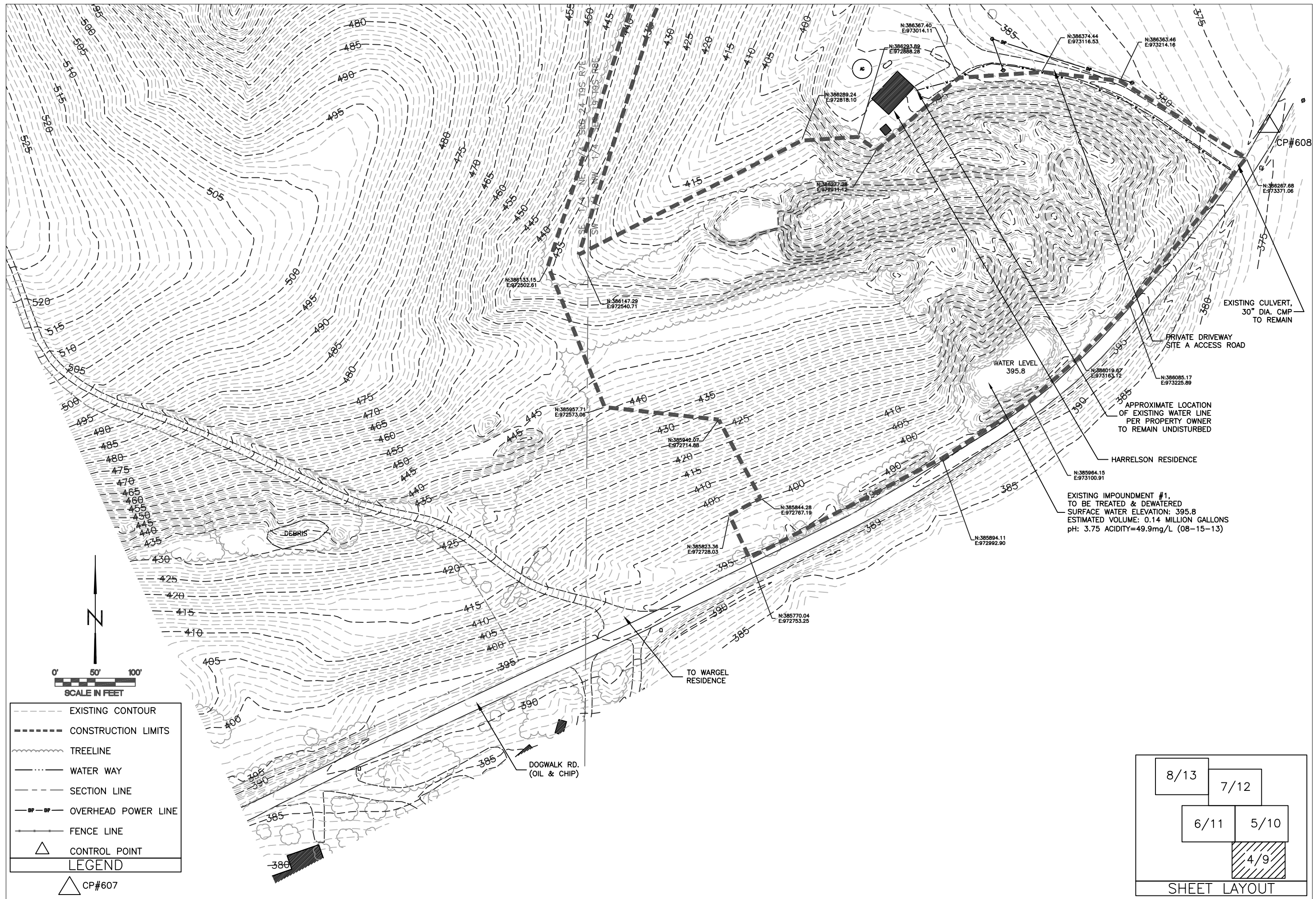
State of Illinois  
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Richardson C.C. - Phase II  
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AML-GSIE-1313  
Saline County

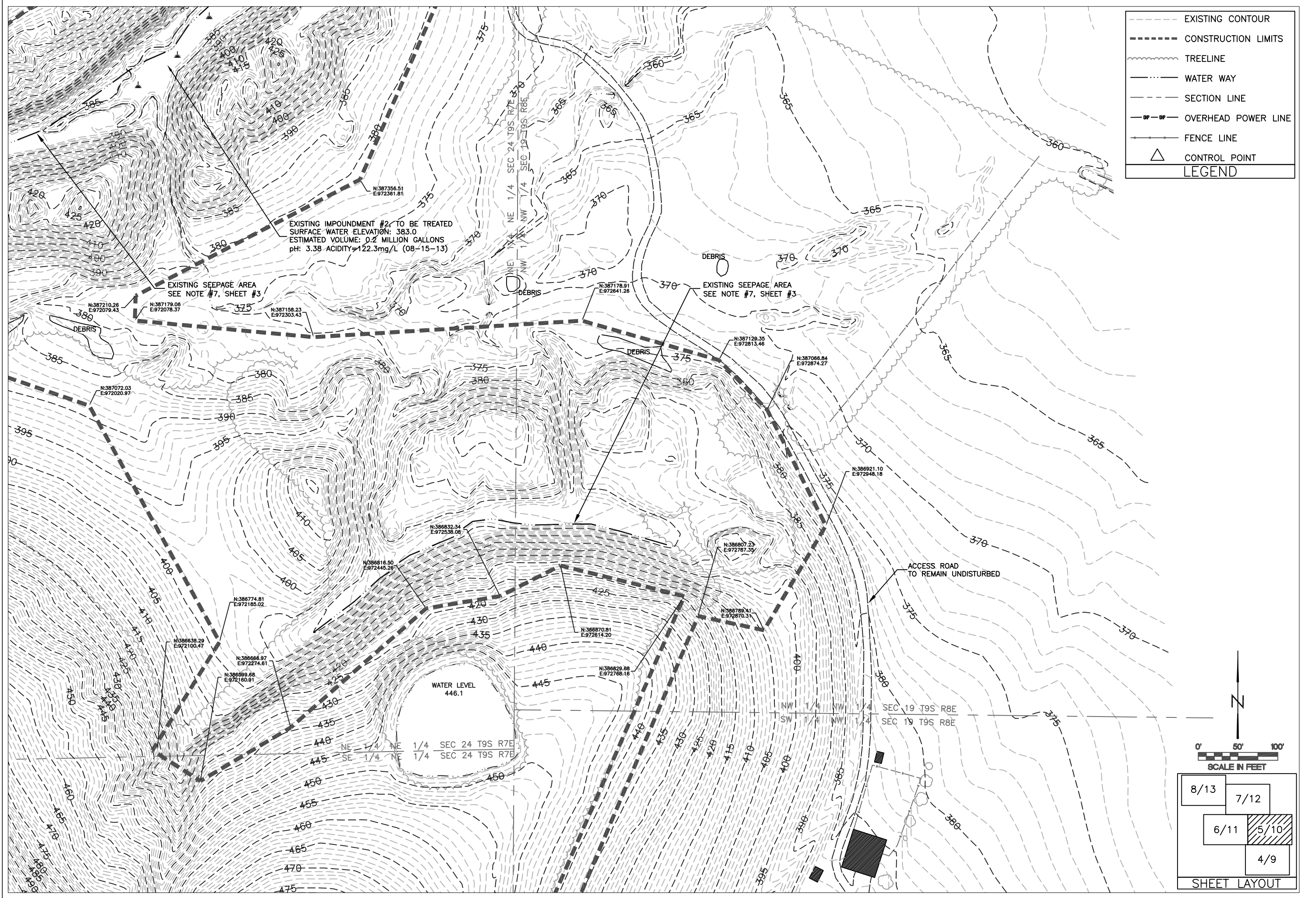
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Checked By:  
Date: 08-18-14

Site Layout  
Survey Control Point Data  
Sheet 3 of 45

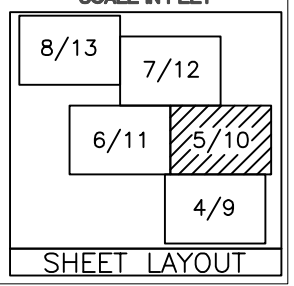
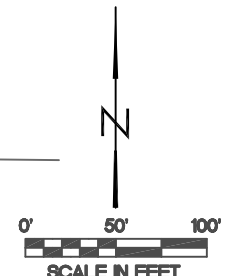




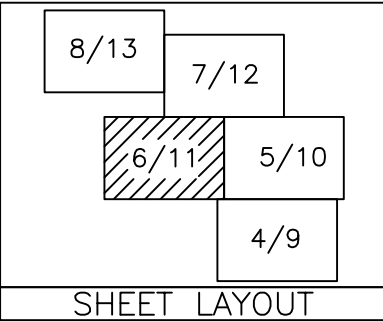
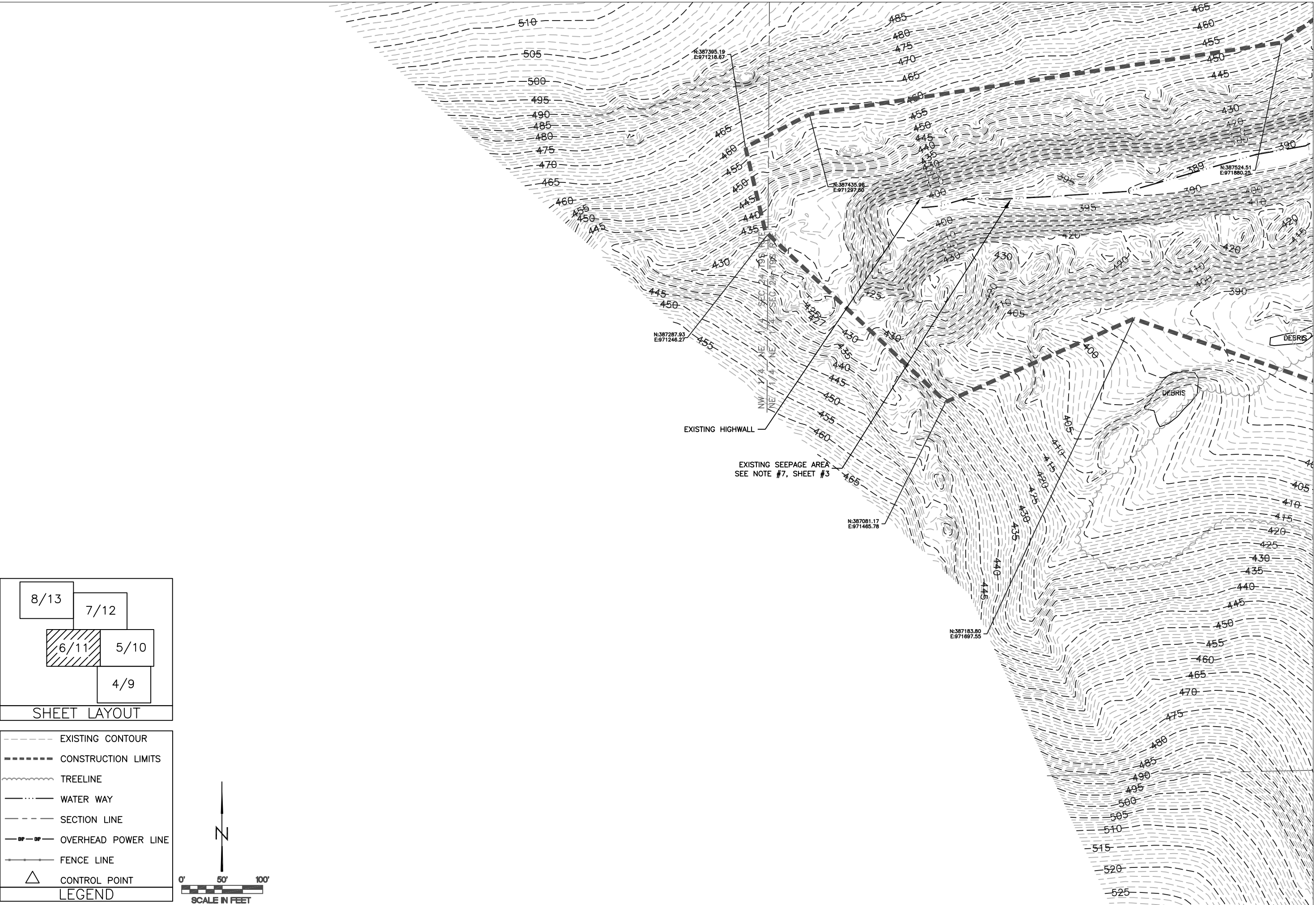




- EXISTING CONTOUR
  - CONSTRUCTION LIMITS
  - ~ TREELINE
  - WATER WAY
  - SECTION LINE
  - OVERHEAD POWER LINE
  - FENCE LINE
  - △ CONTROL POINT
- LEGEND

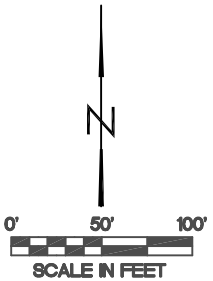


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	EXISTING CONTOUR
	CONSTRUCTION LIMITS
	TREELINE
	WATER WAY
	SECTION LINE
	OVERHEAD POWER LINE
	FENCE LINE
	CONTROL POINT

**LEGEND**

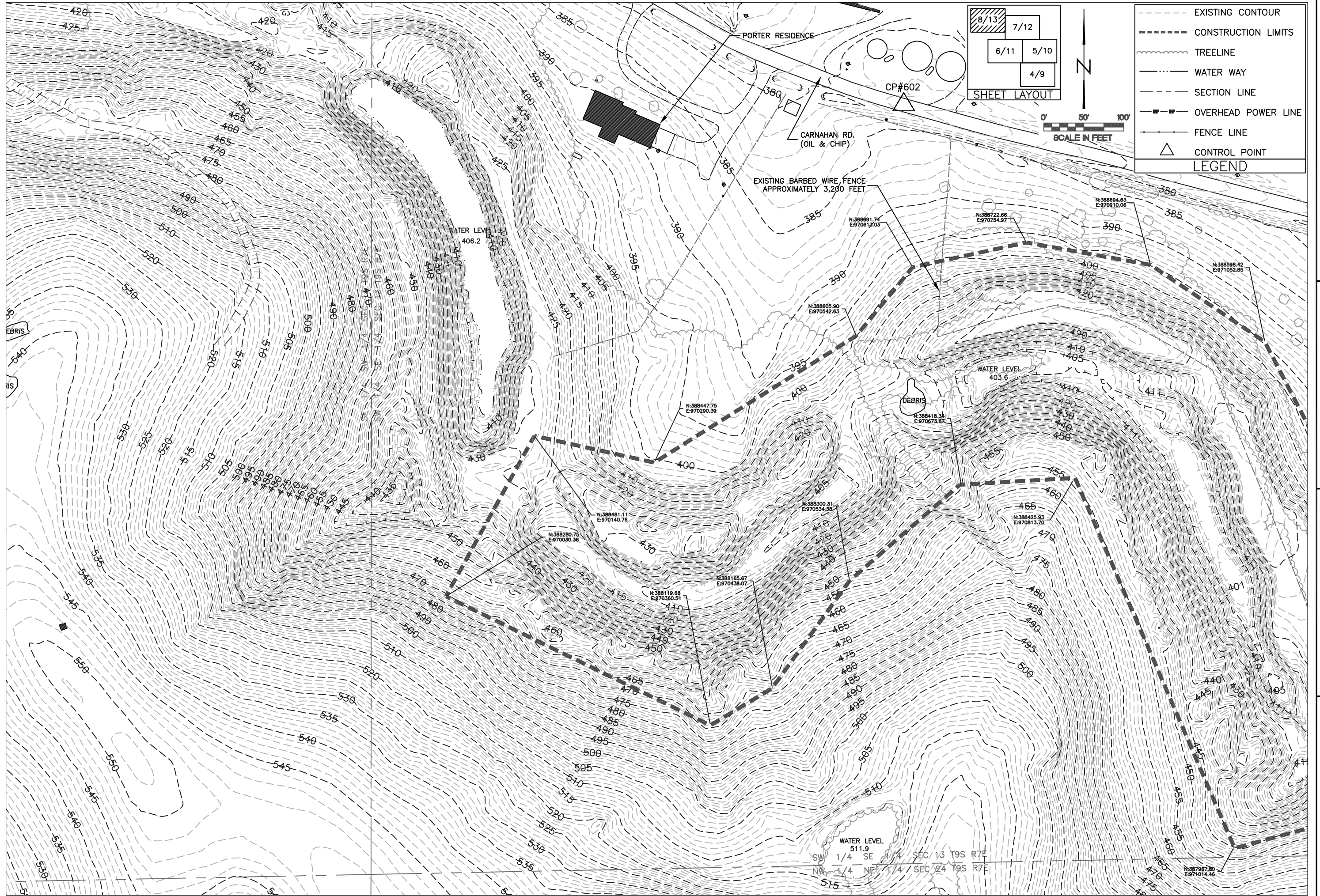


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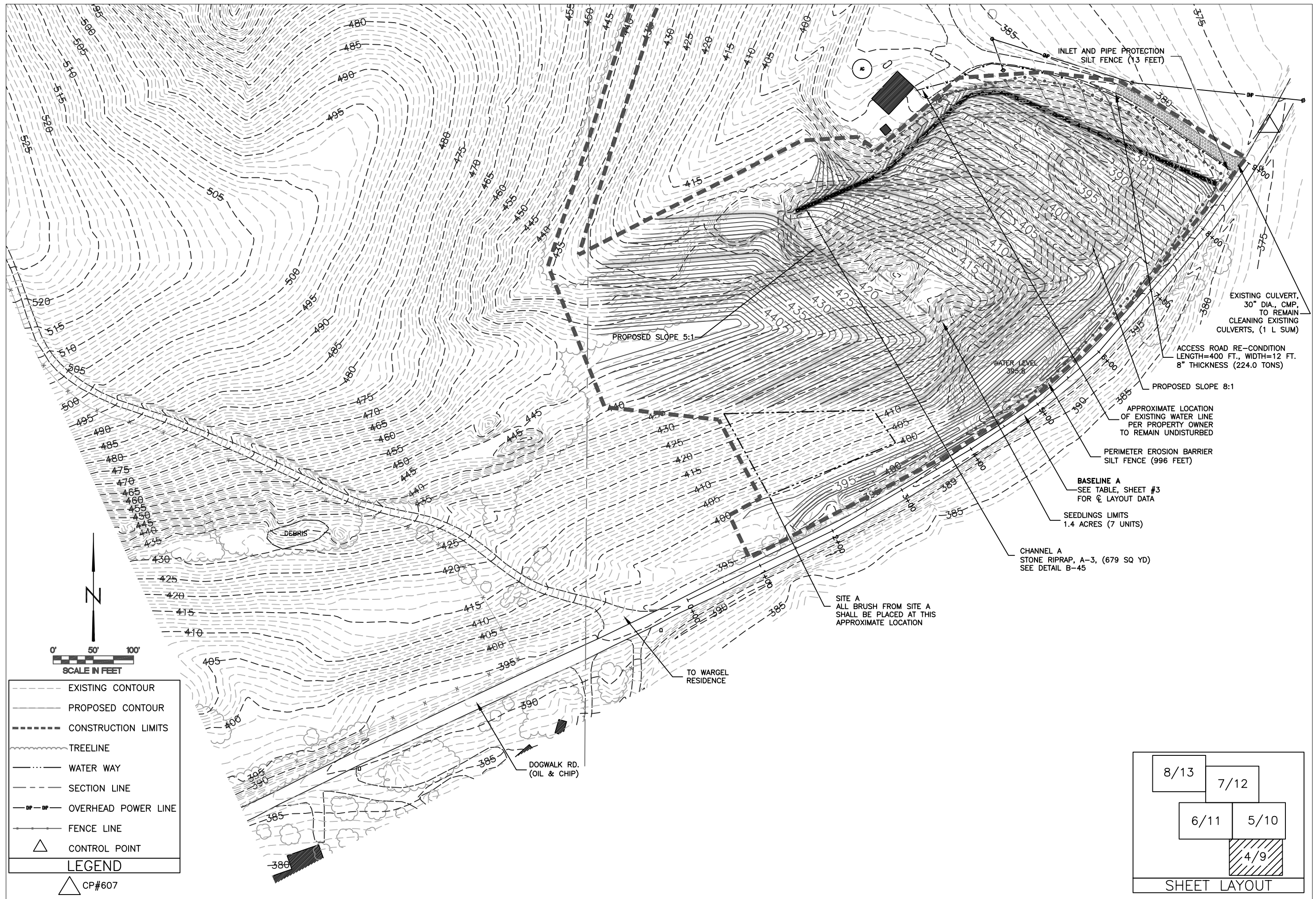








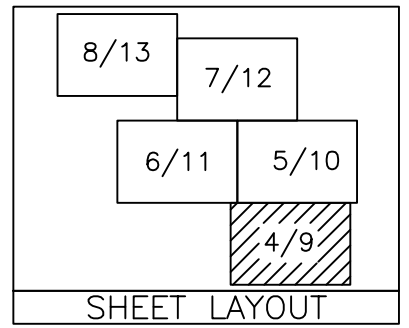


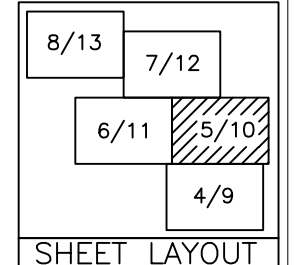
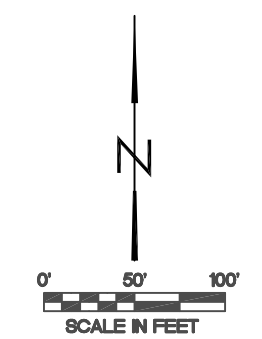
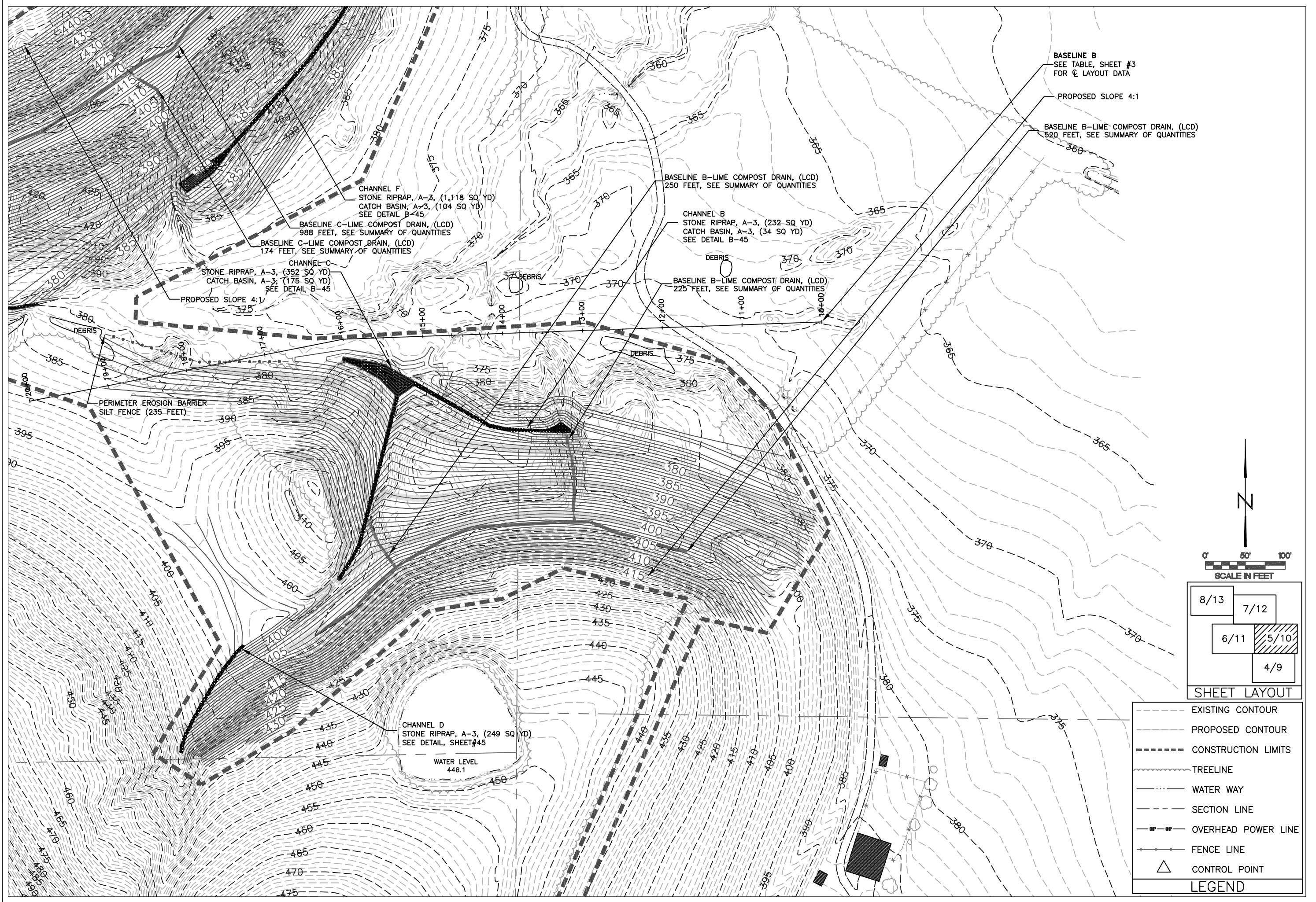


- LEGEND**
- EXISTING CONTOUR
  - PROPOSED CONTOUR
  - - - CONSTRUCTION LIMITS
  - ~ TREELINE
  - WATER WAY
  - - - SECTION LINE
  - OVERHEAD POWER LINE
  - FENCE LINE
  - △ CONTROL POINT
  - △ CP#607

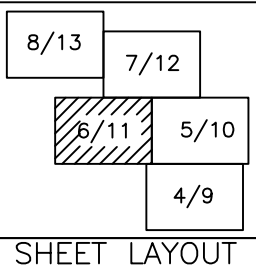
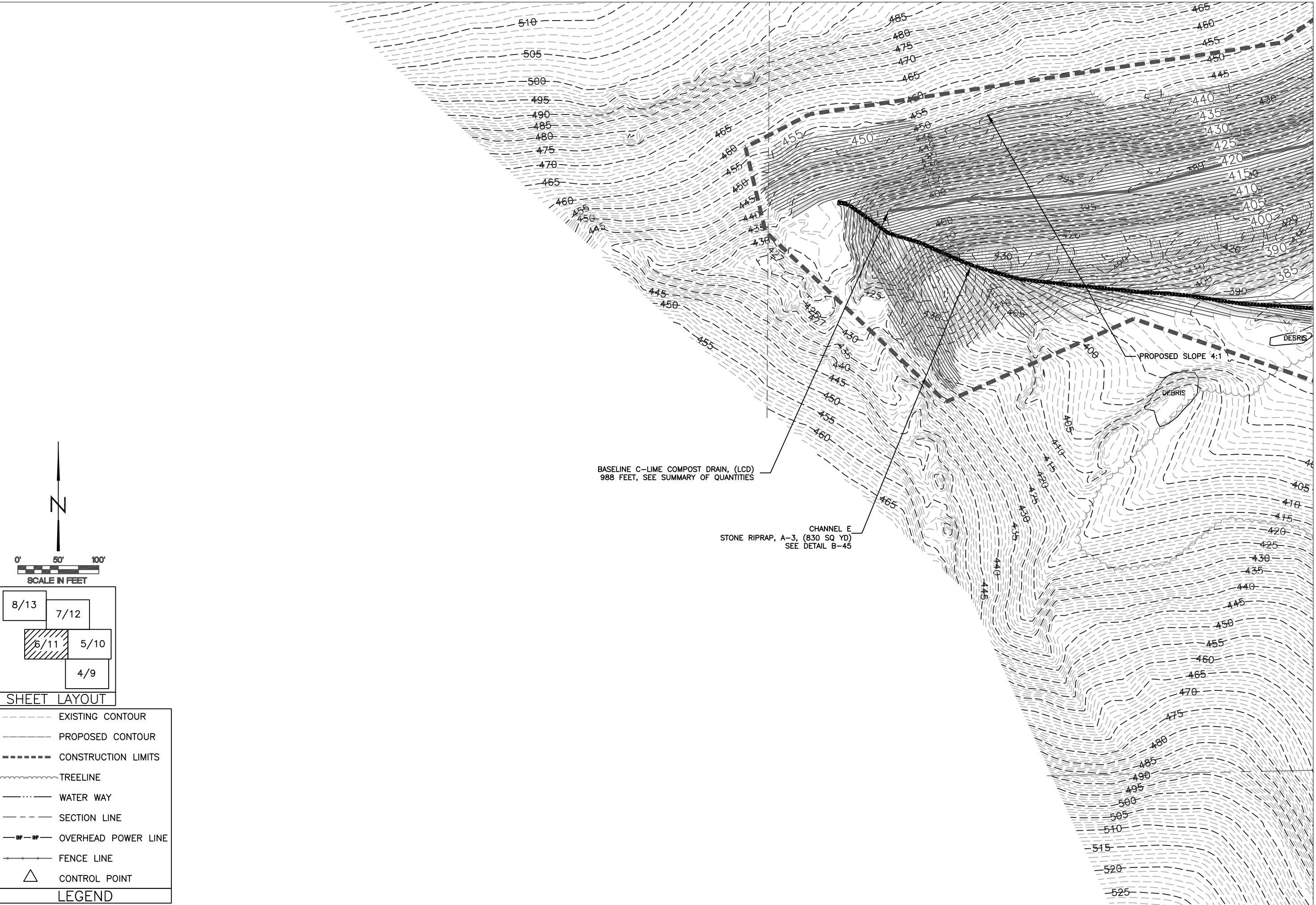


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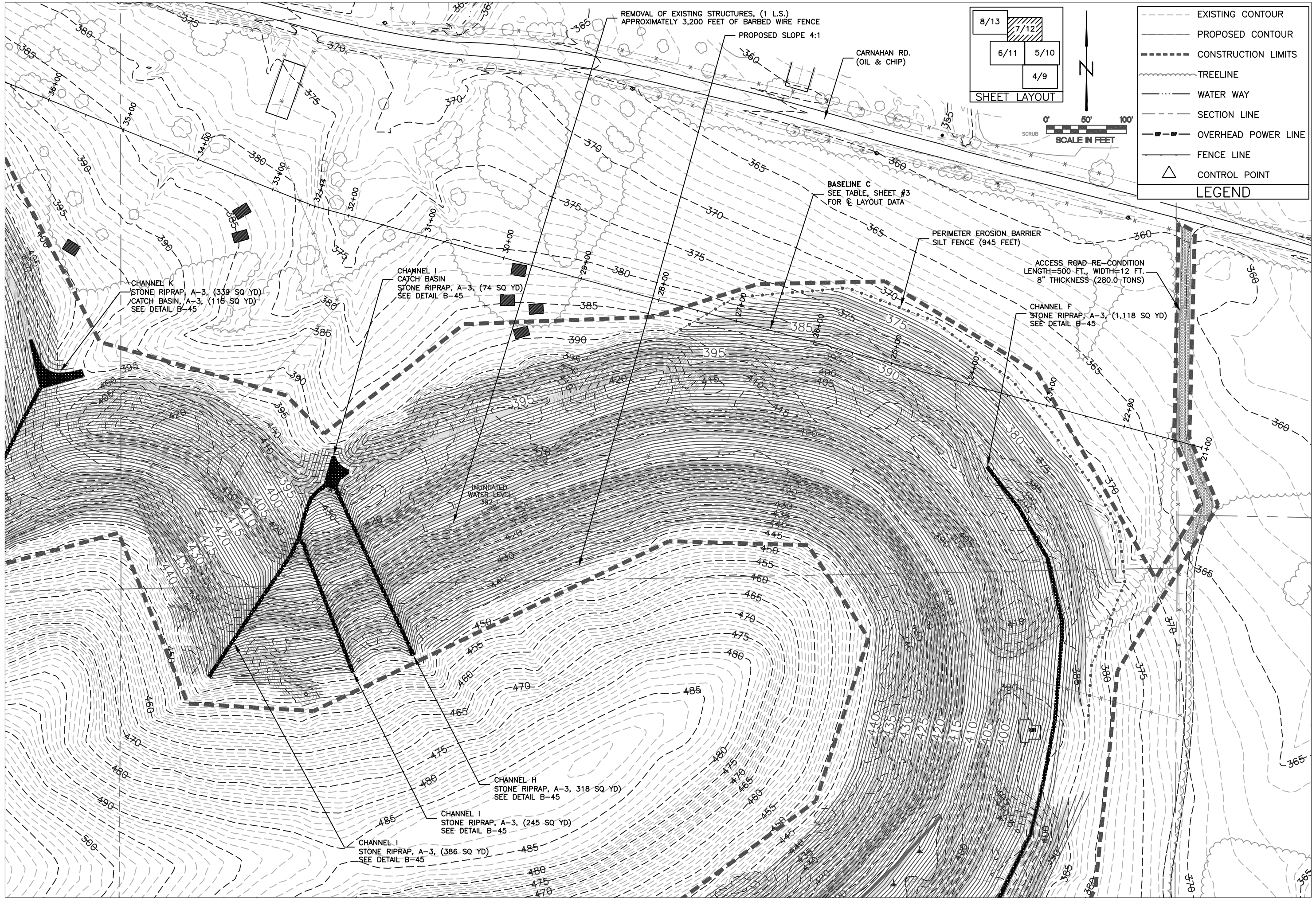




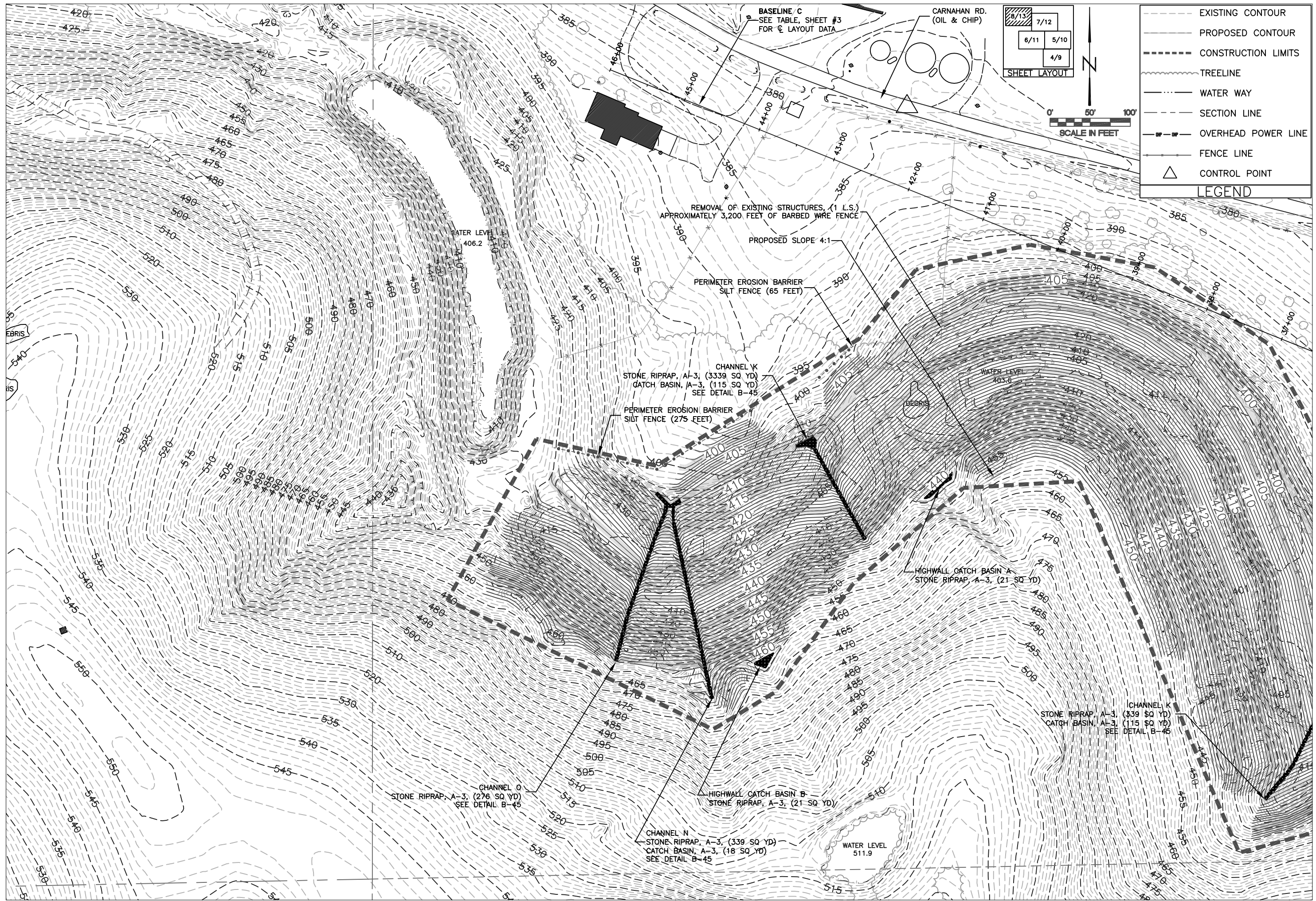


	EXISTING CONTOUR
	PROPOSED CONTOUR
	CONSTRUCTION LIMITS
	TREELINE
	WATER WAY
	SECTION LINE
	OVERHEAD POWER LINE
	FENCE LINE
	CONTROL POINT
<b>LEGEND</b>	

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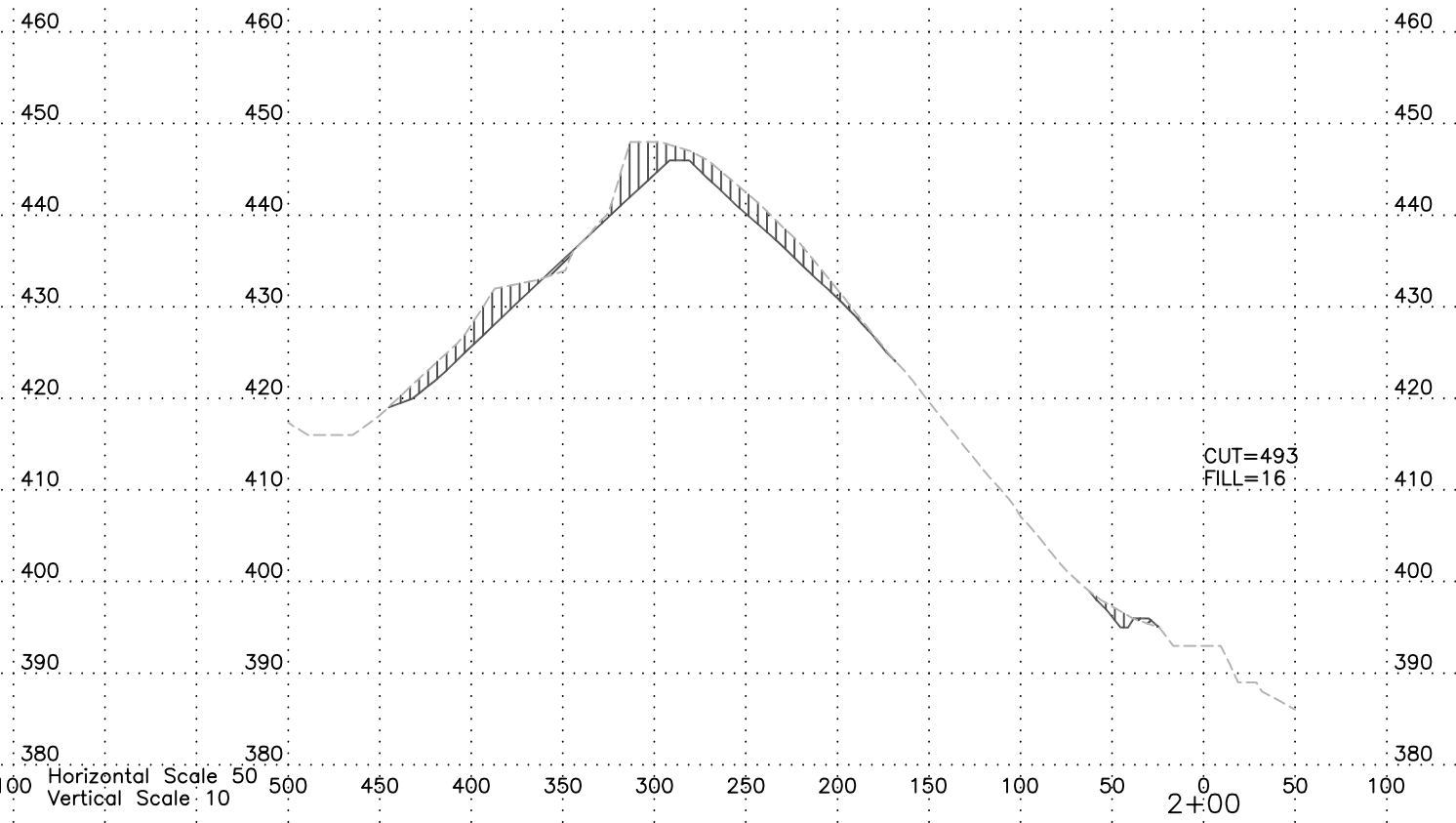
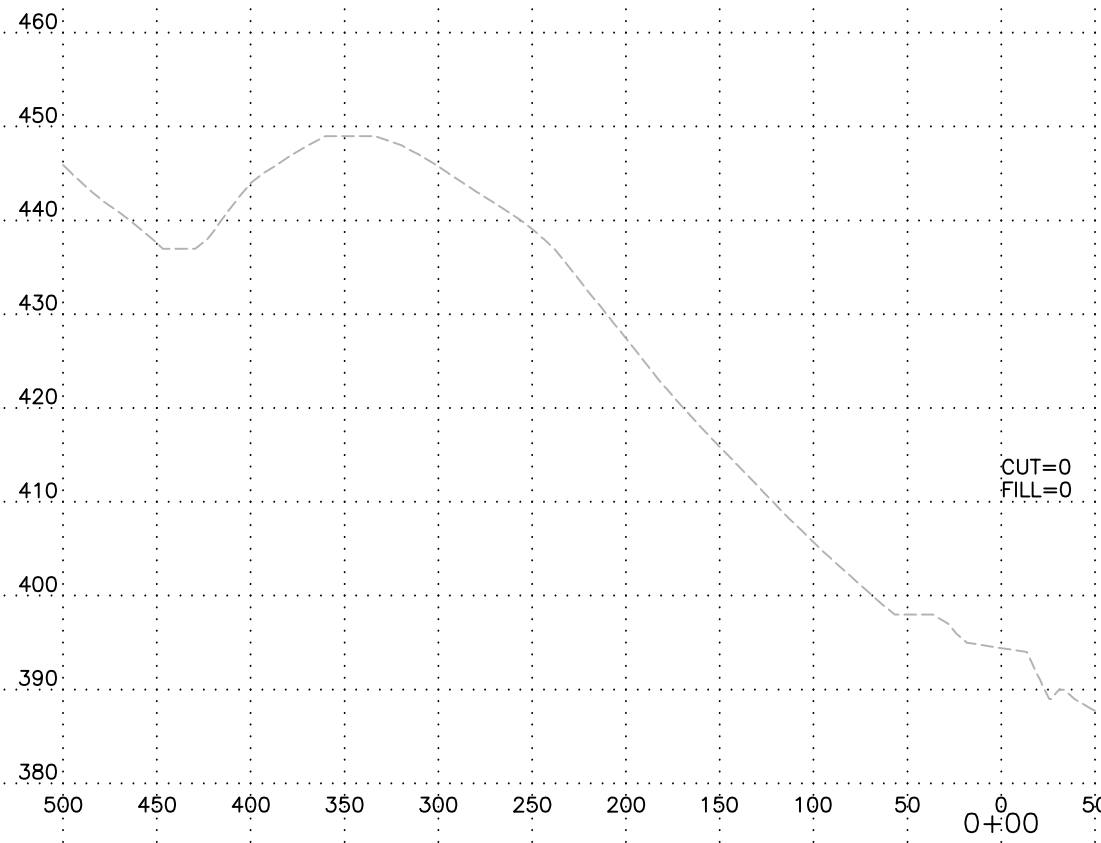
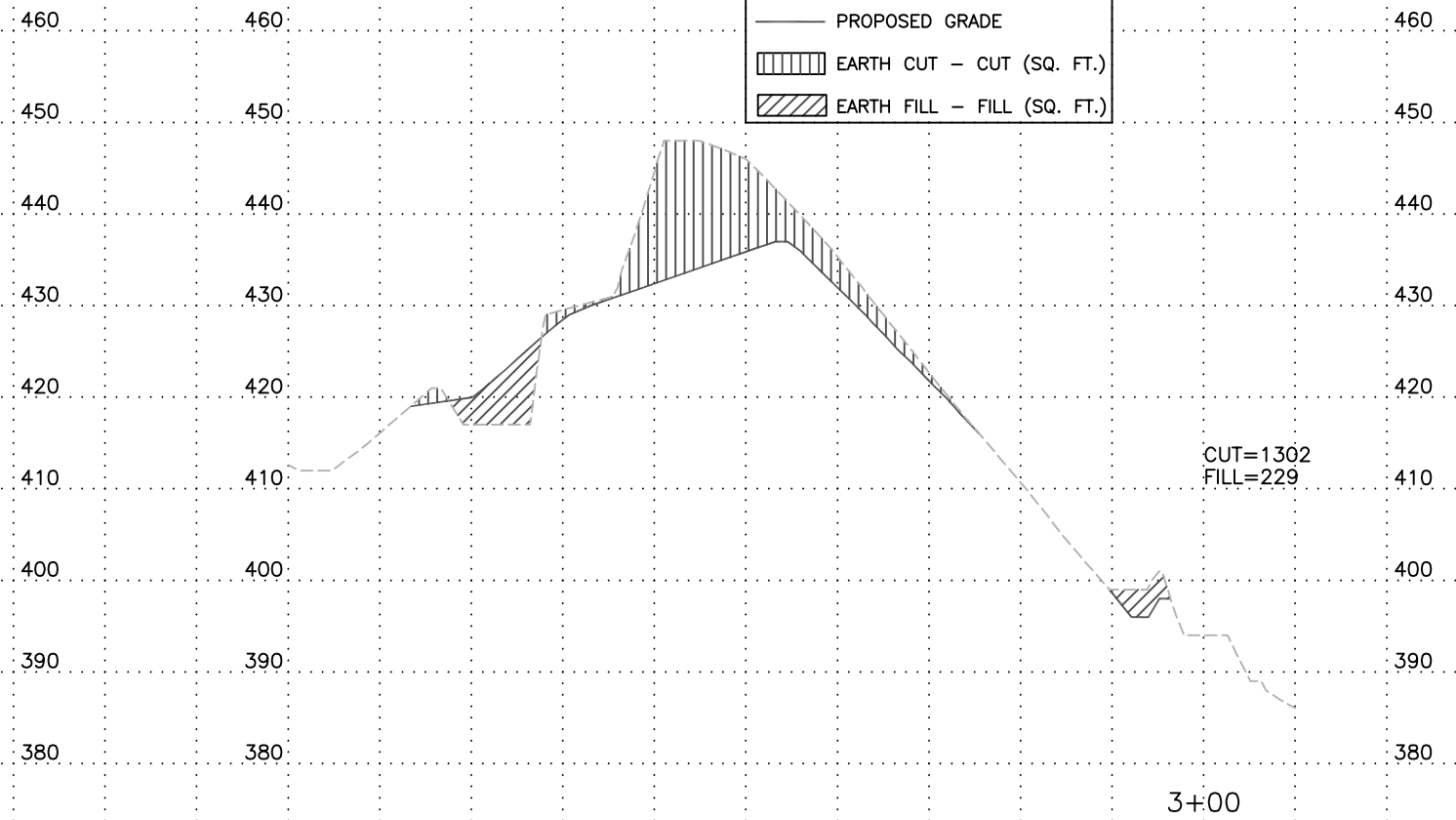
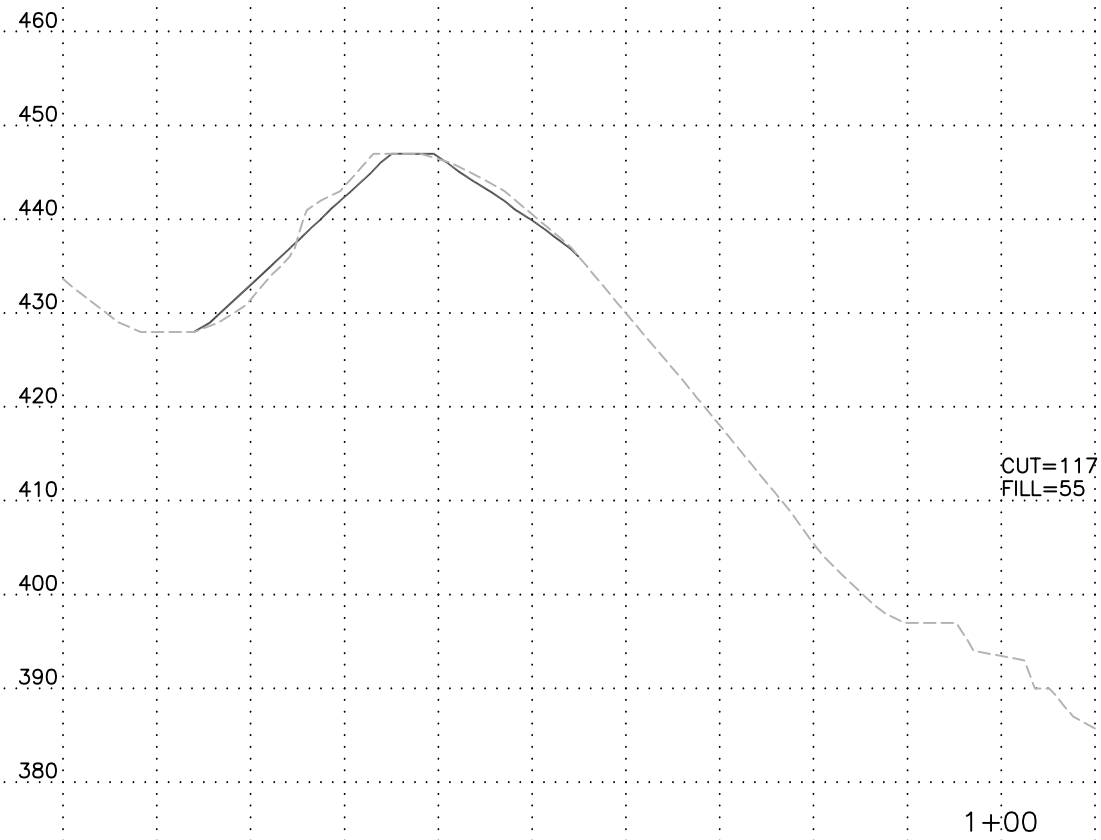




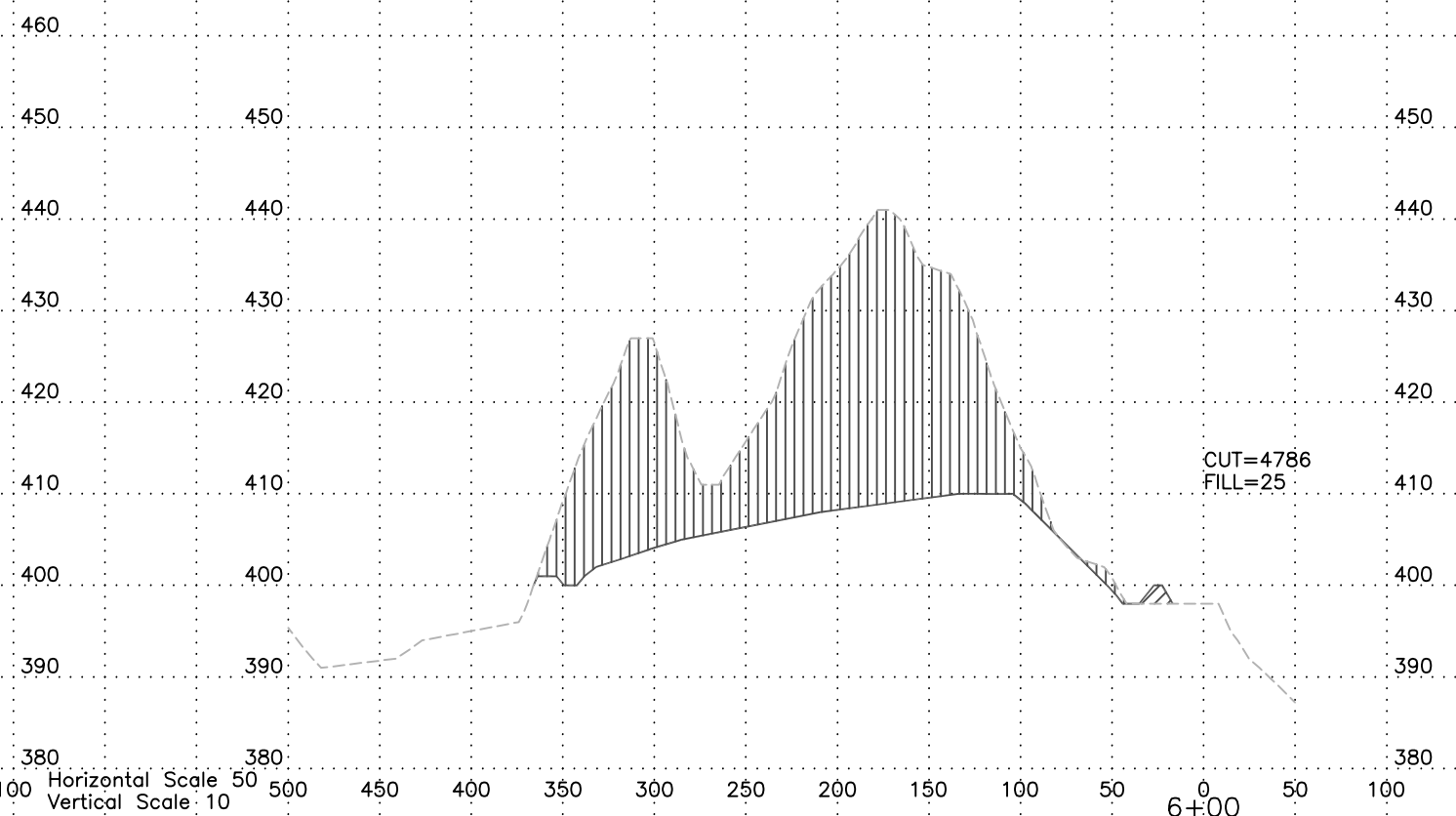
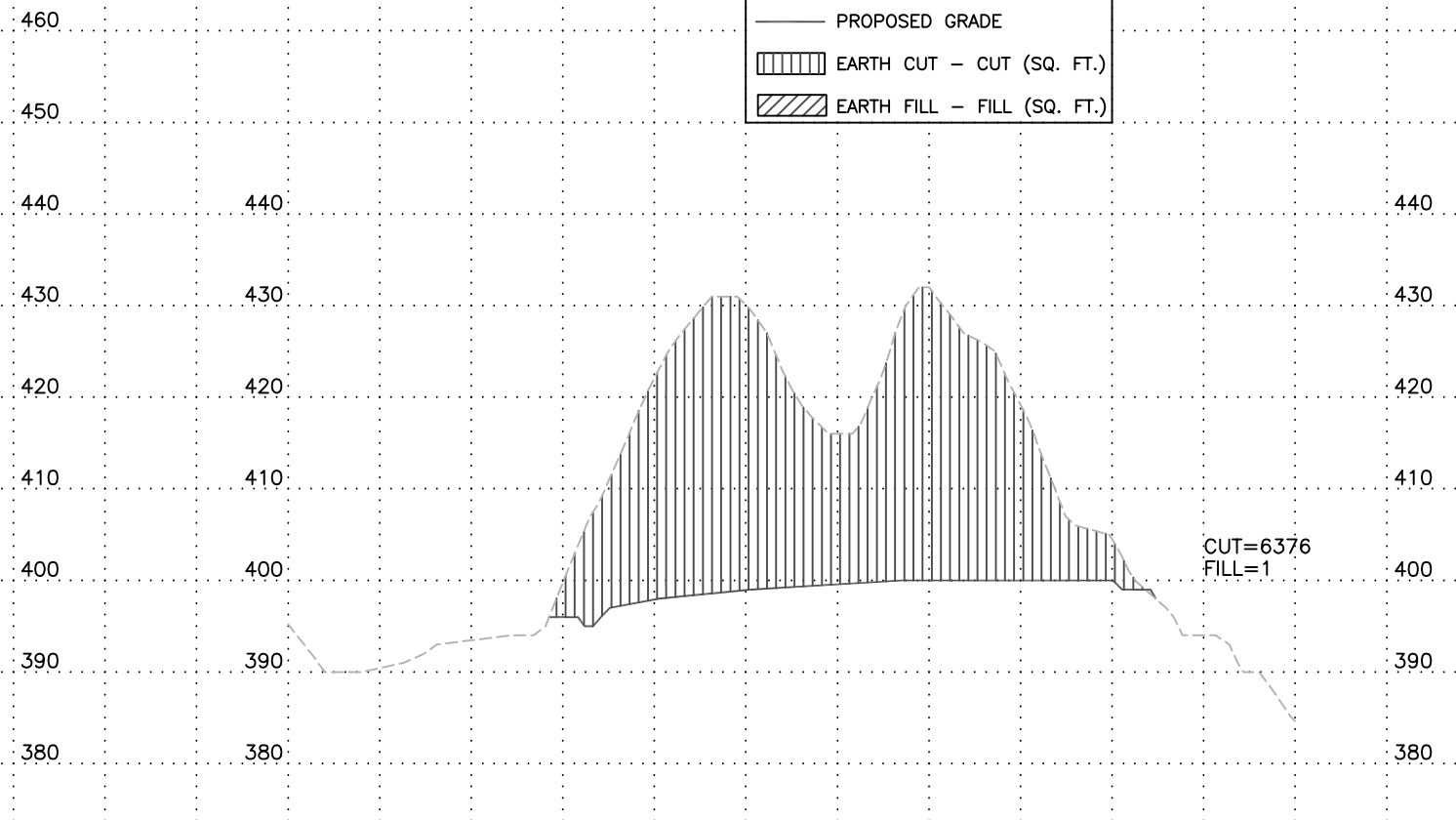
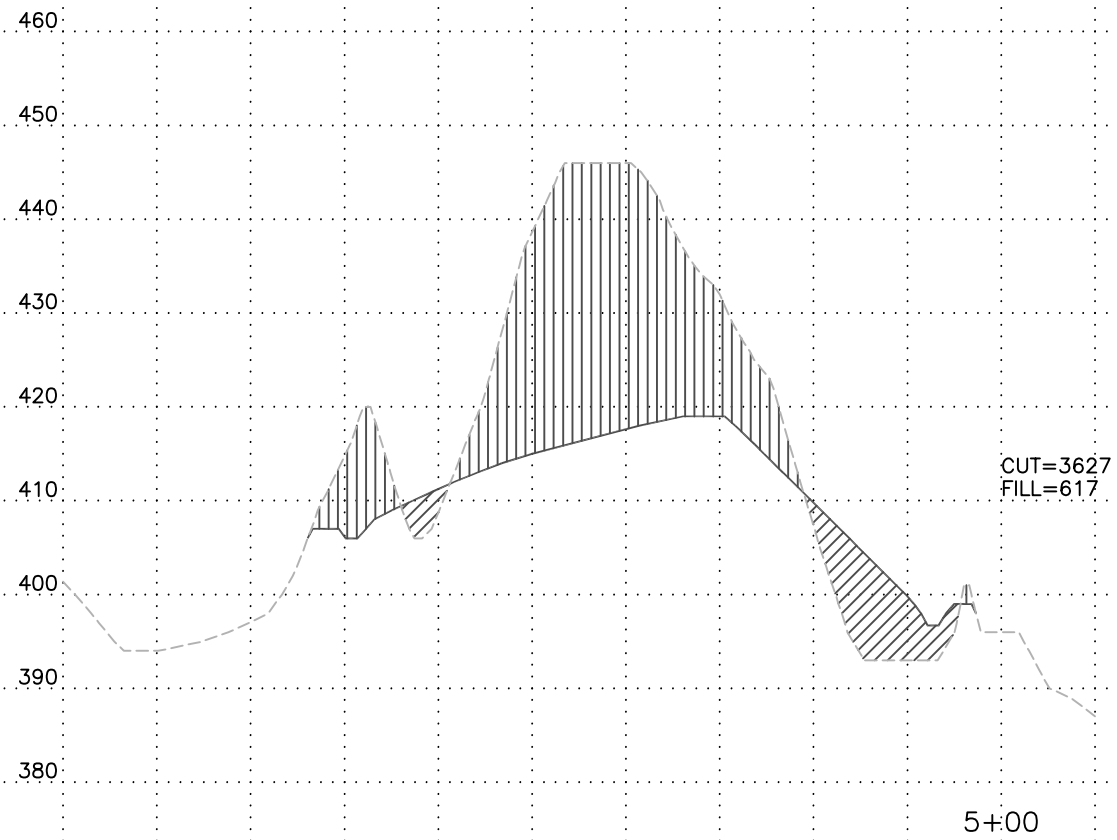
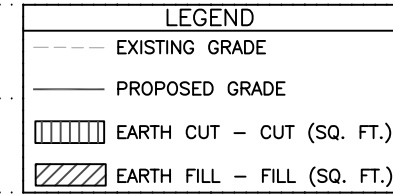




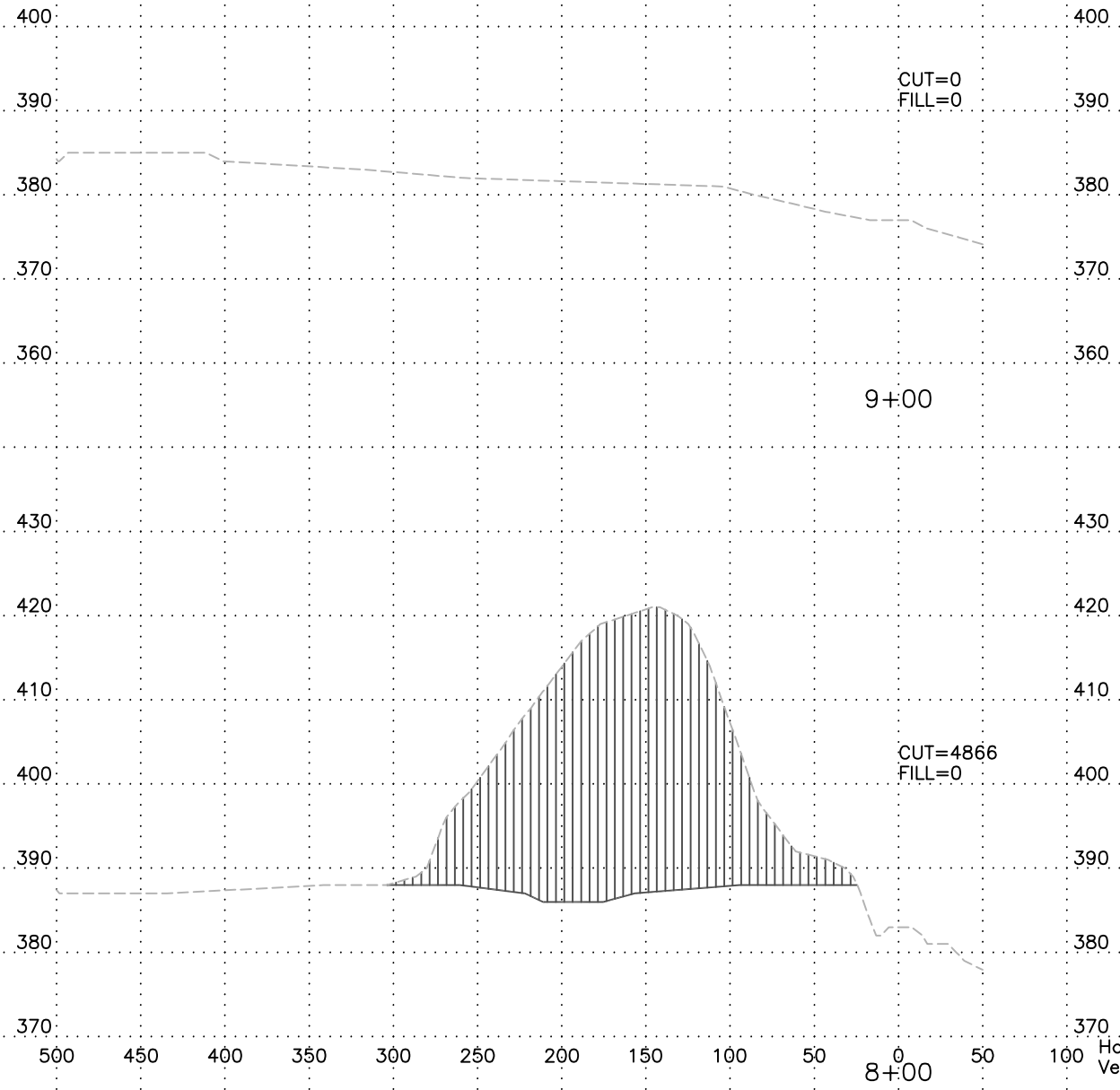
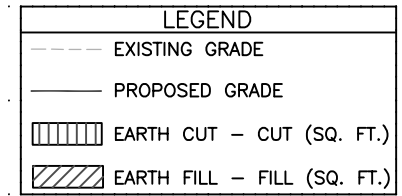
LEGEND	
---	EXISTING GRADE
—	PROPOSED GRADE
▨	EARTH CUT - CUT (SQ. FT.)
▩	EARTH FILL - FILL (SQ. FT.)



Horizontal Scale 50  
 Vertical Scale 10

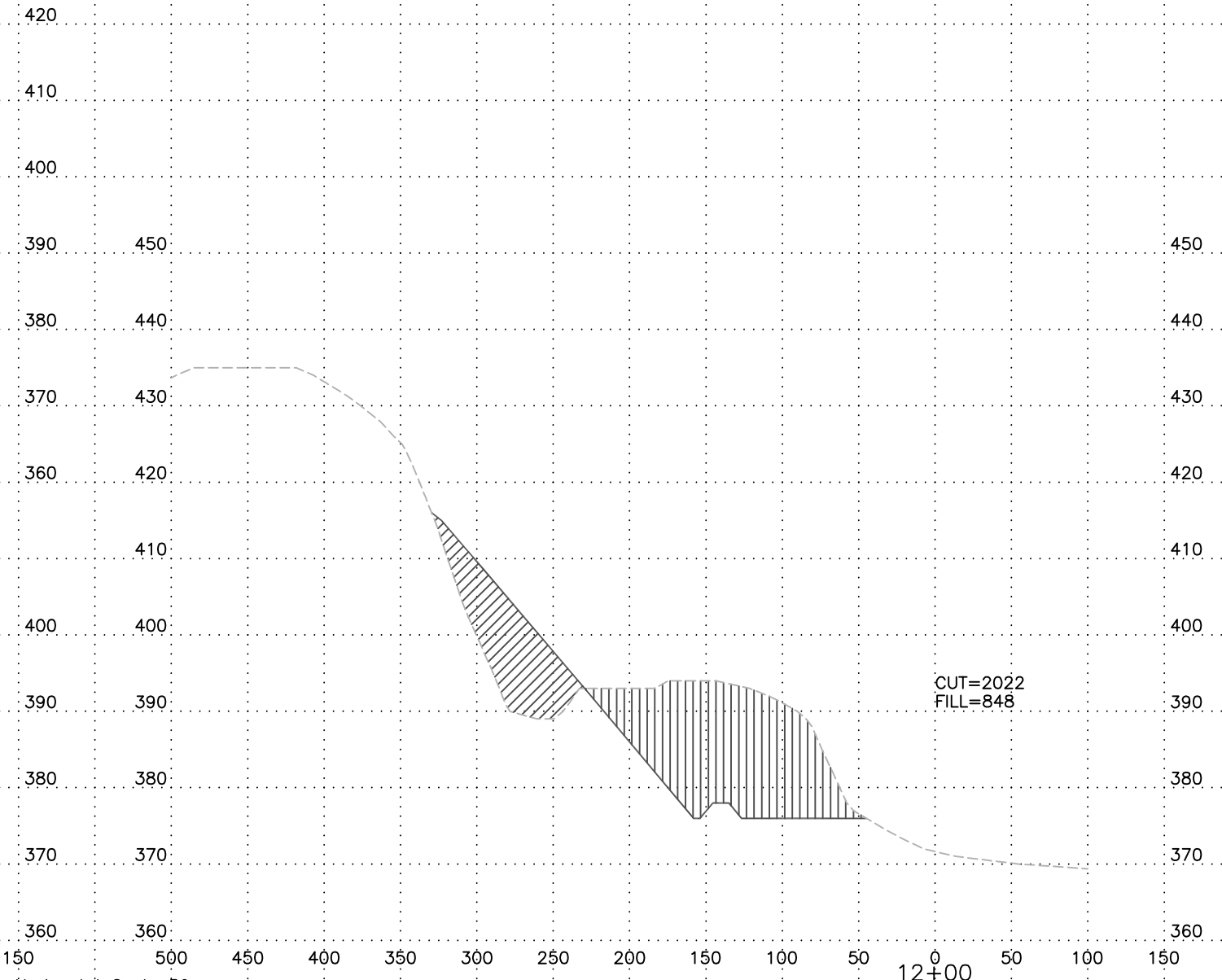
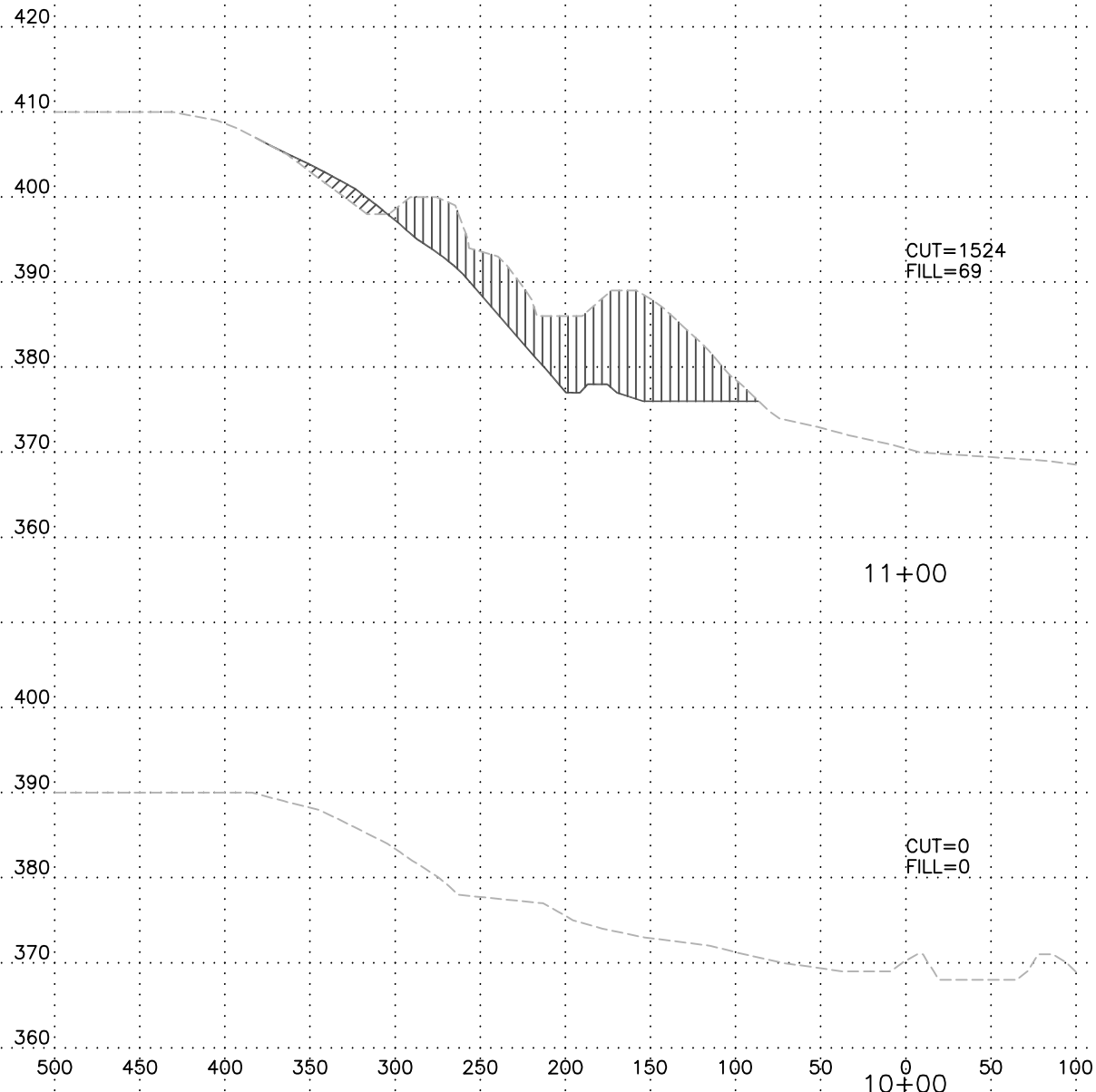
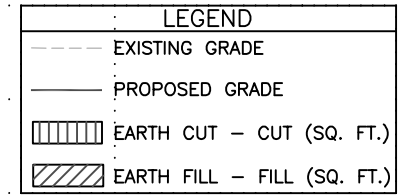


Horizontal Scale 50  
 Vertical Scale 10



Horizontal Scale 50  
Vertical Scale 10

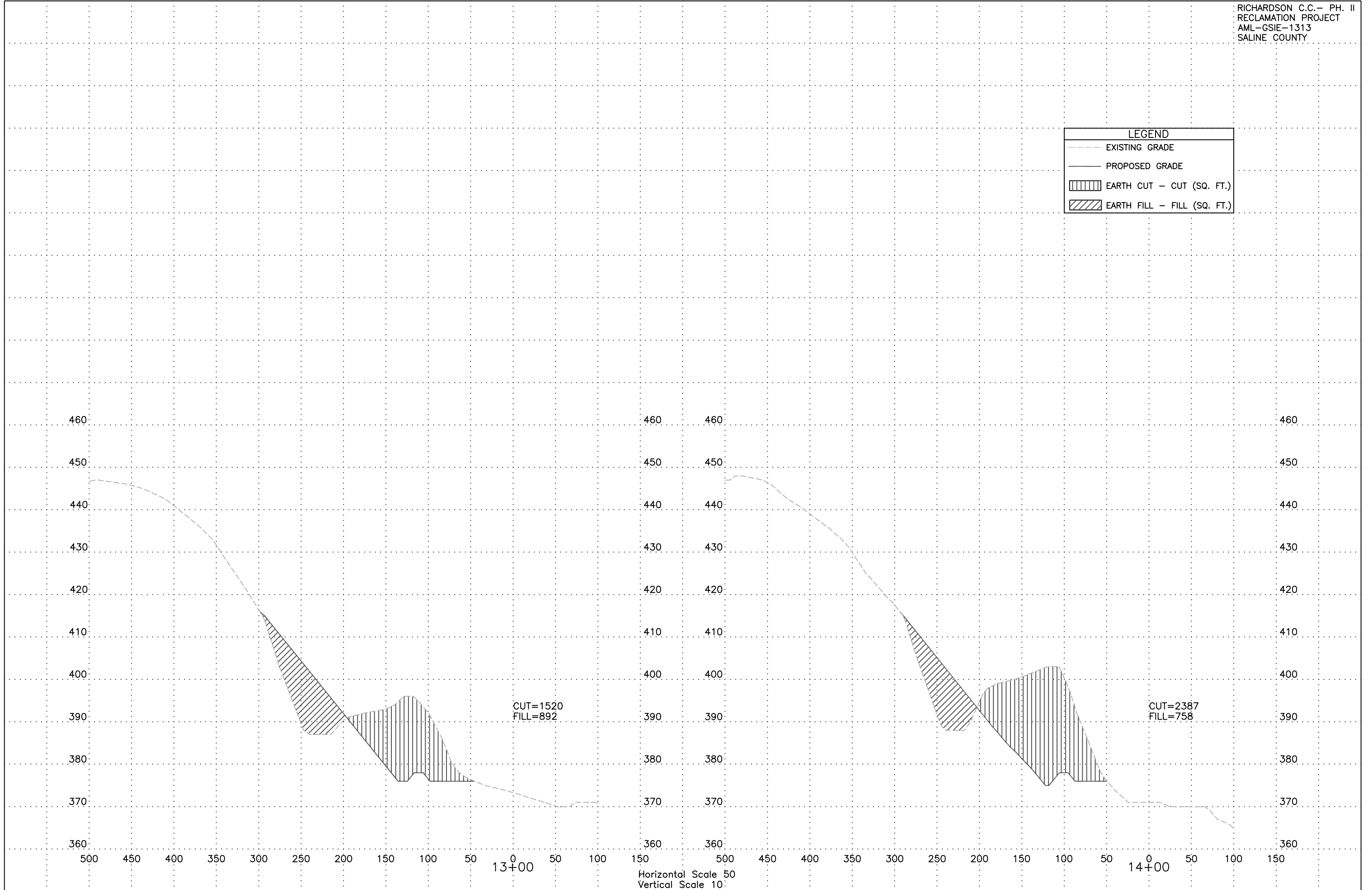




Horizontal Scale 50  
 Vertical Scale 10

**LEGEND**

- EXISTING GRADE
- PROPOSED GRADE
- ▨ EARTH CUT - CUT (SQ. FT.)
- ▩ EARTH FILL - FILL (SQ. FT.)



CUT=1520  
FILL=892

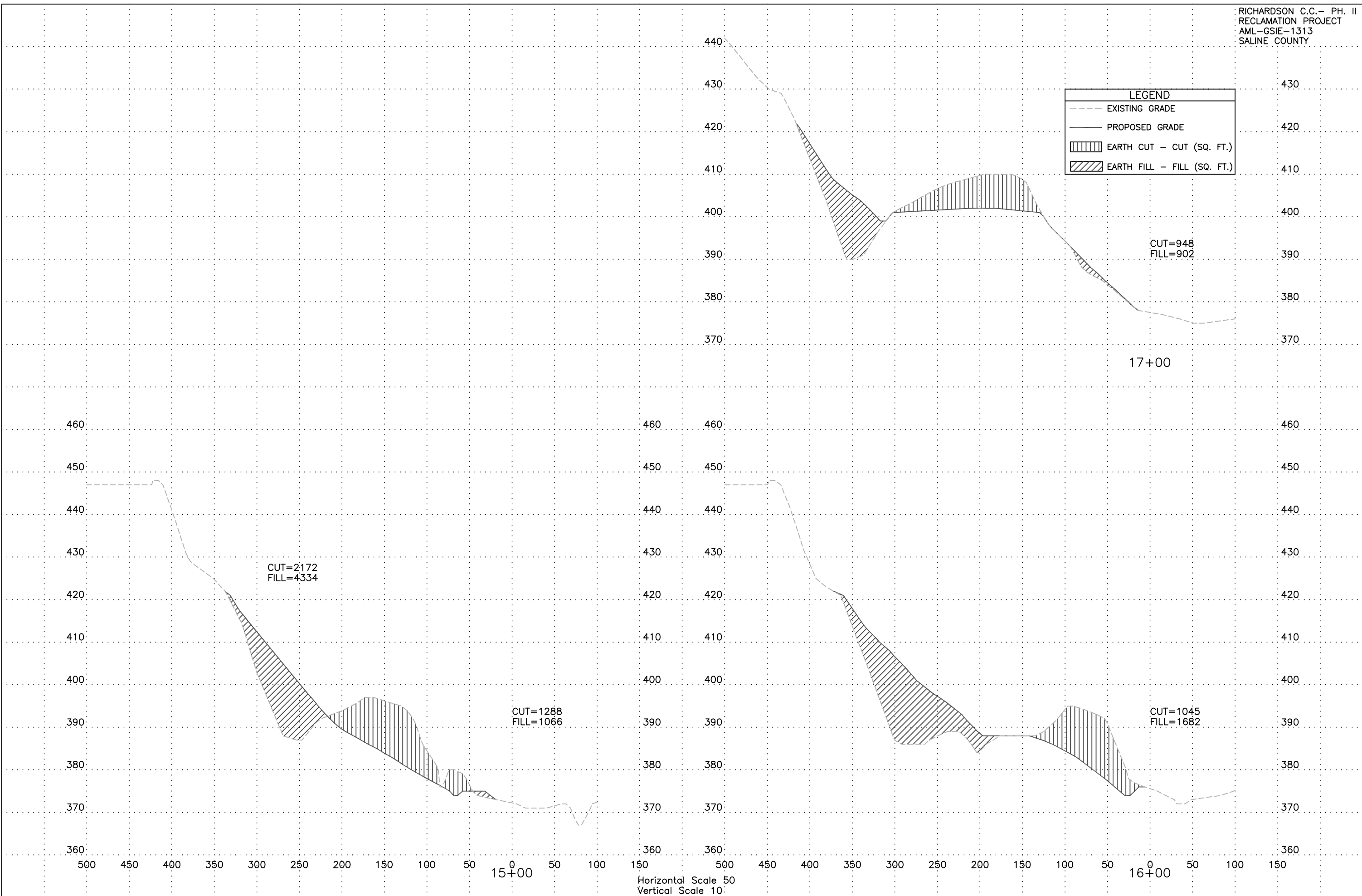
CUT=2387  
FILL=758

Horizontal Scale 50  
Vertical Scale 10



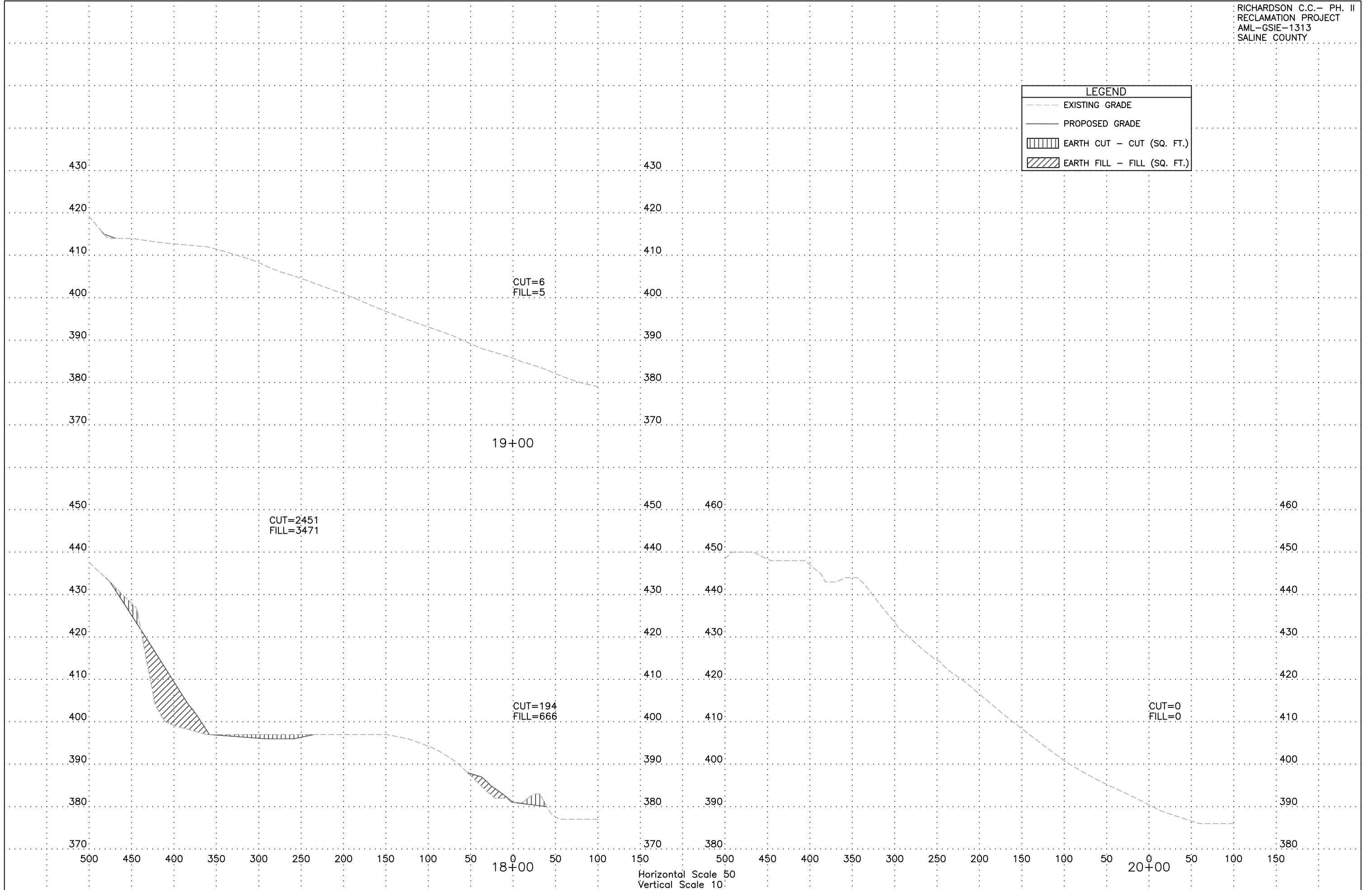
**LEGEND**

- EXISTING GRADE
- PROPOSED GRADE
- ▨ EARTH CUT - CUT (SQ. FT.)
- ▩ EARTH FILL - FILL (SQ. FT.)

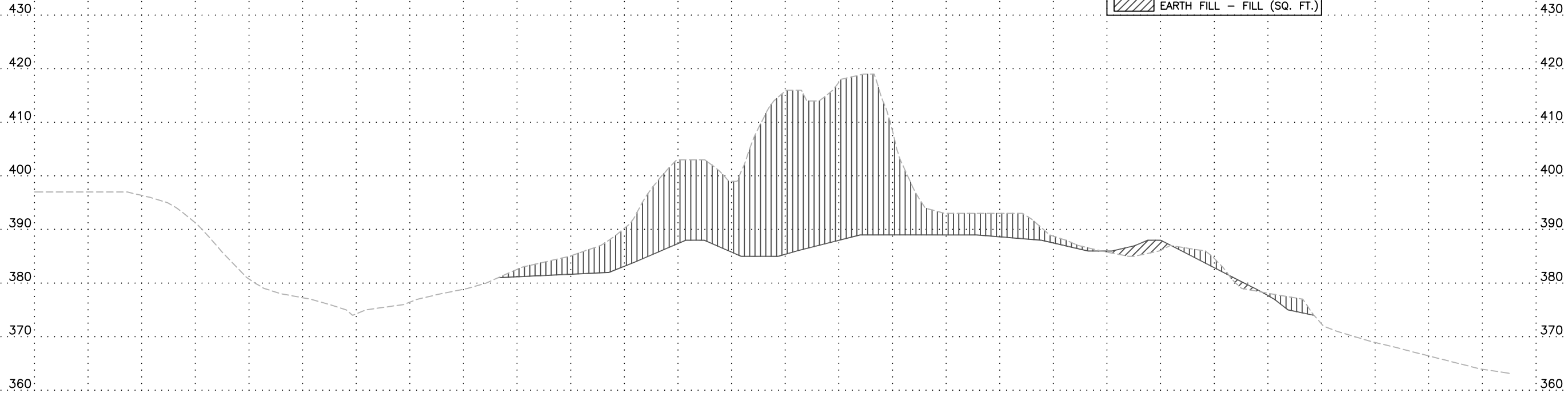
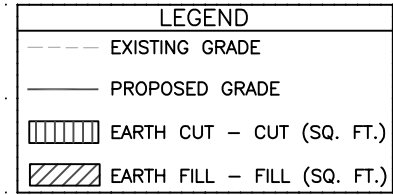


**LEGEND**

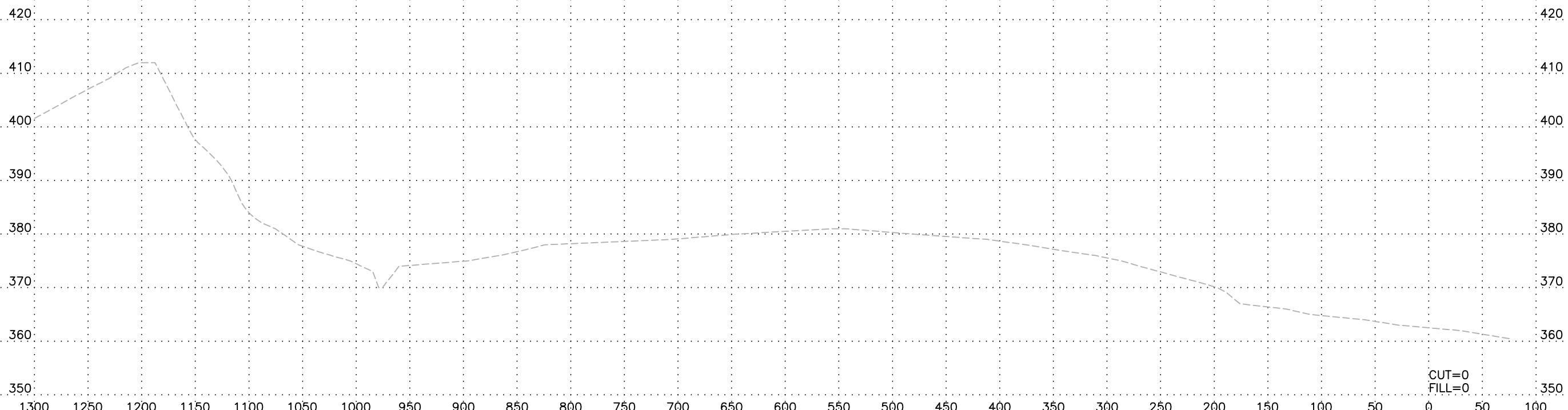
- EXISTING GRADE
- PROPOSED GRADE
- ▤ EARTH CUT - CUT (SQ. FT.)
- ▨ EARTH FILL - FILL (SQ. FT.)







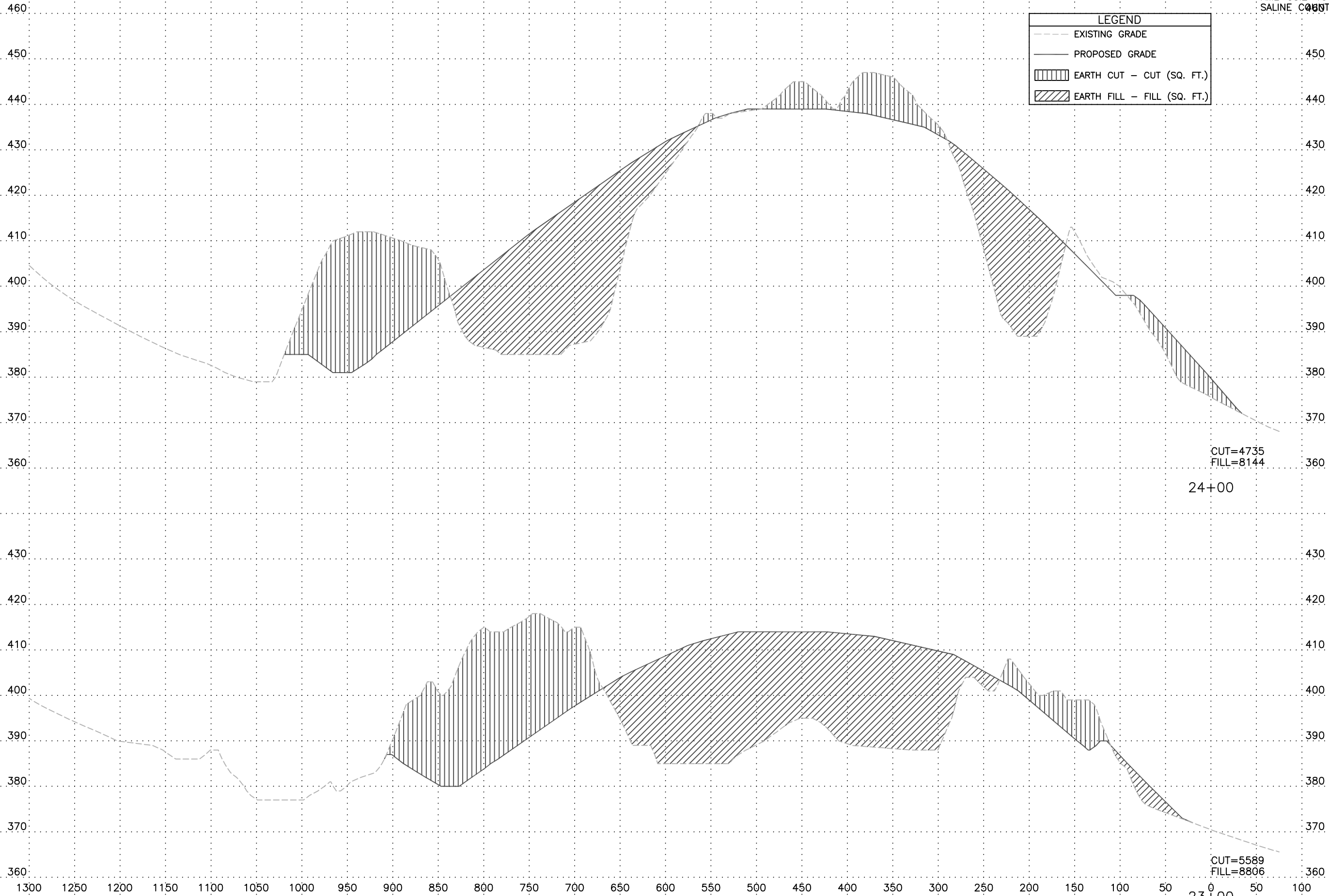
CUT=6670  
 FILL=112  
 22+00



CUT=0  
 FILL=0  
 21+00

Horizontal Scale 50  
 Vertical Scale 10

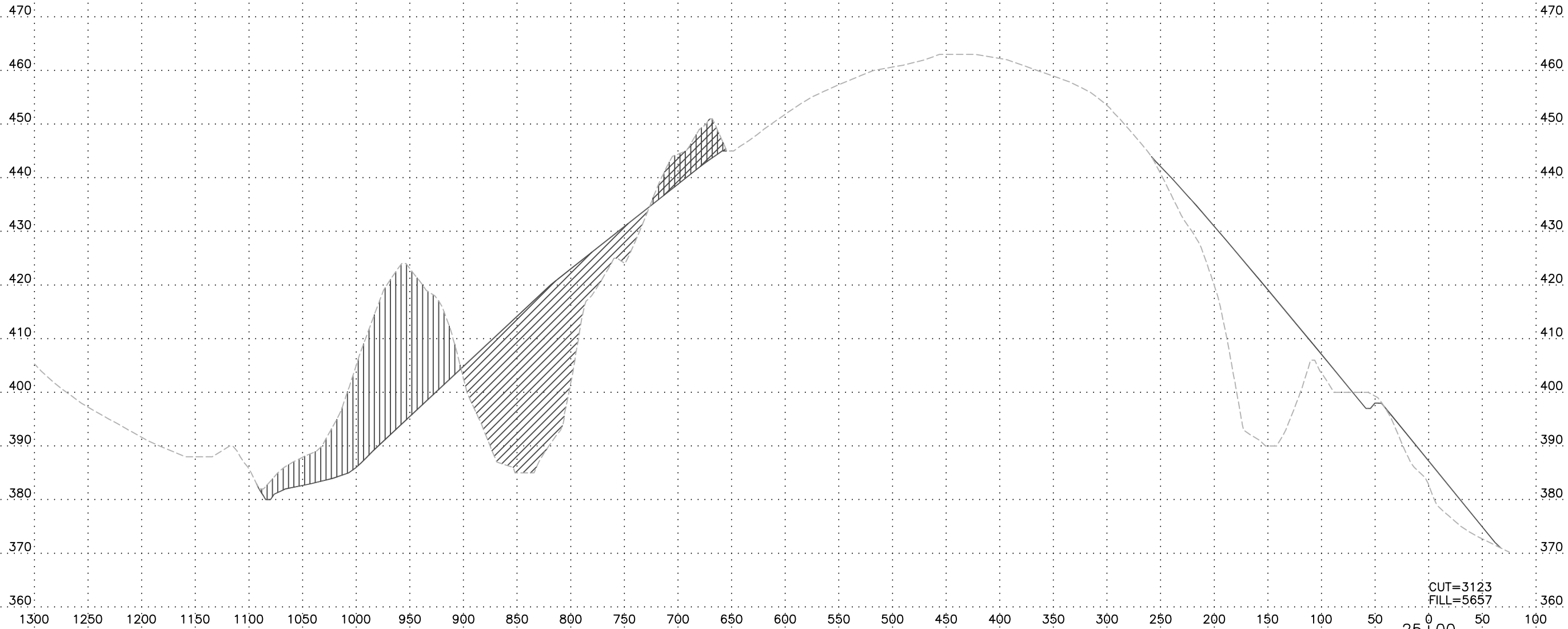
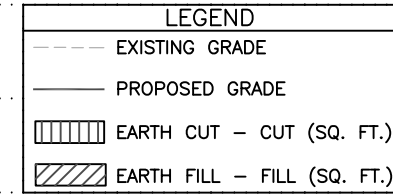
LEGEND	
---	EXISTING GRADE
—	PROPOSED GRADE
▨	EARTH CUT - CUT (SQ. FT.)
▩	EARTH FILL - FILL (SQ. FT.)



CUT=4735  
 FILL=8144  
 24+00

CUT=5589  
 FILL=8806  
 23+00

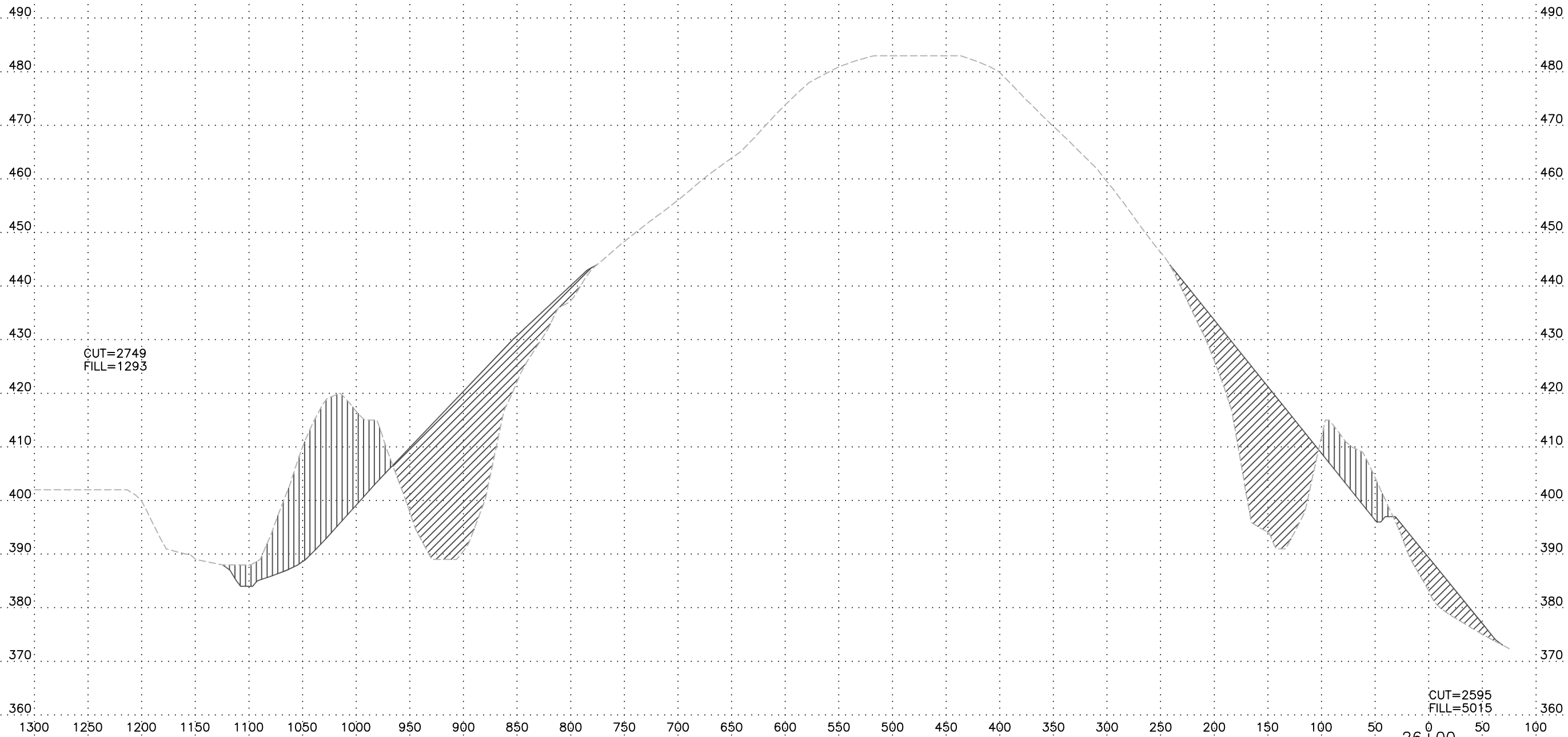
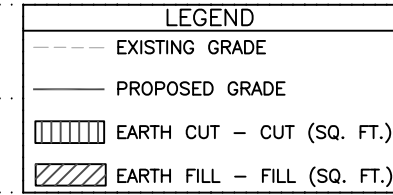
Horizontal Scale 50  
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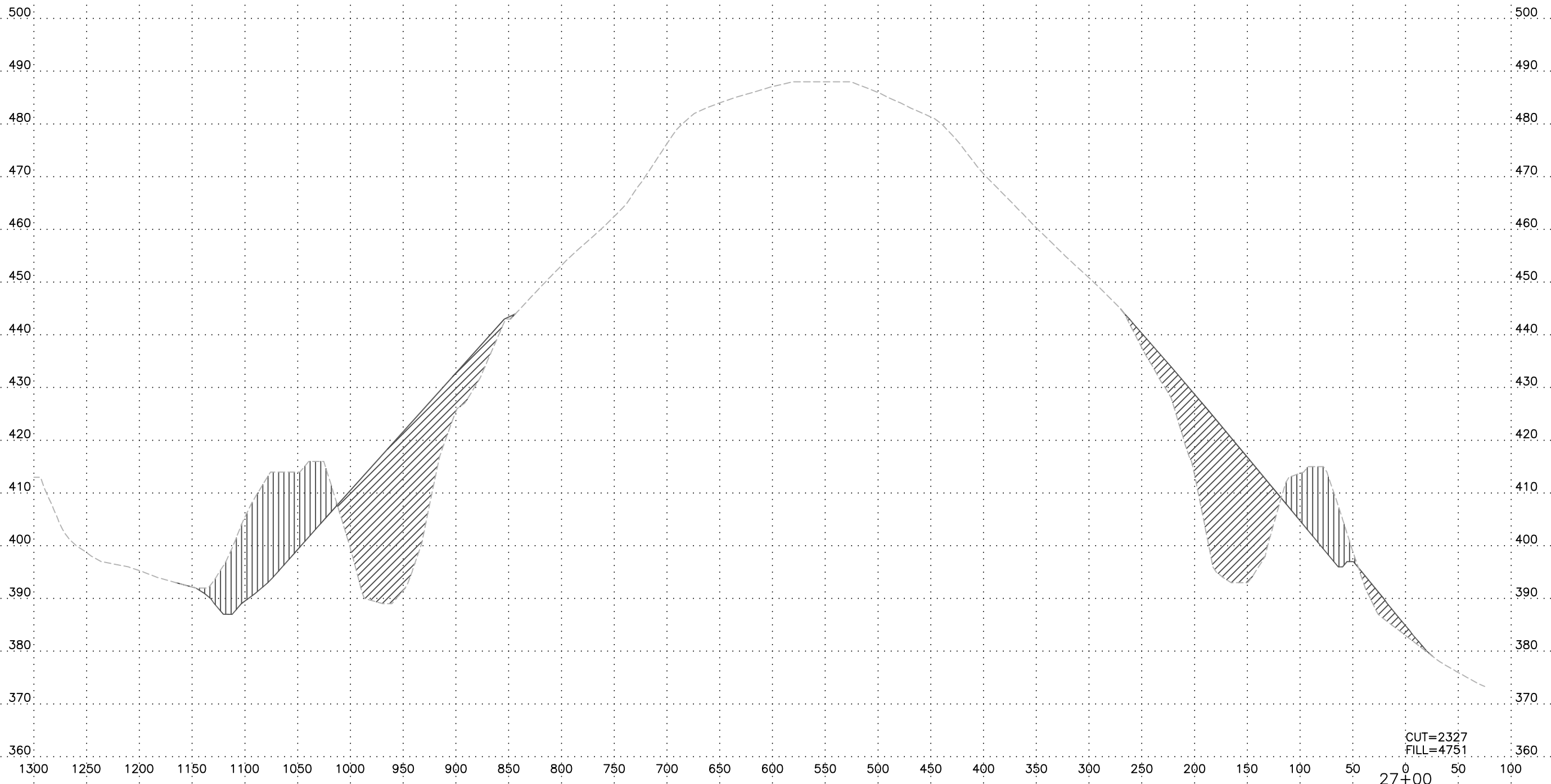
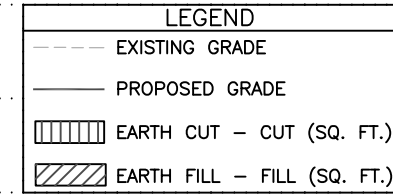


CUT=3123  
FILL=5657

Horizontal Scale 50  
Vertical Scale 10

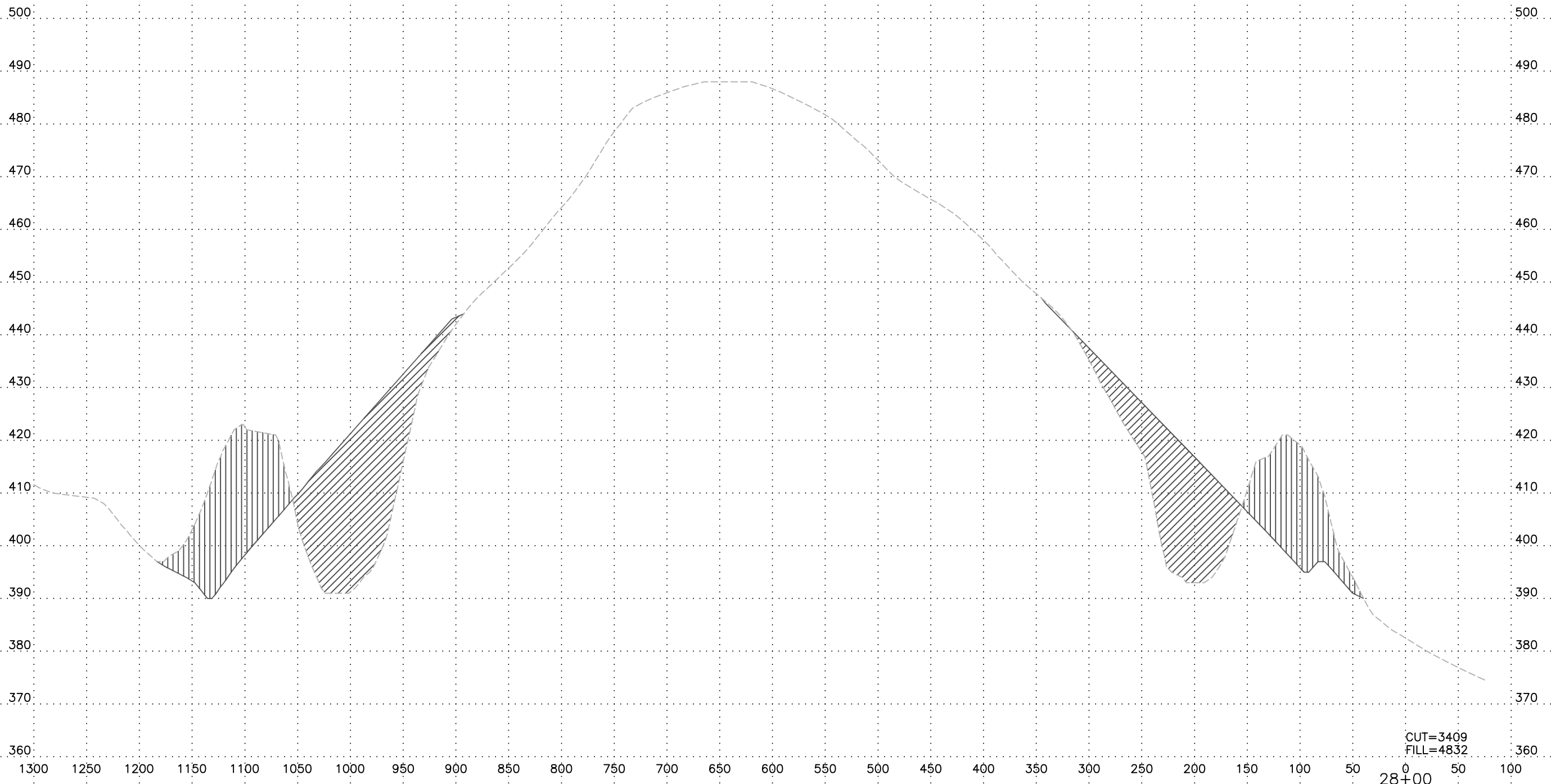
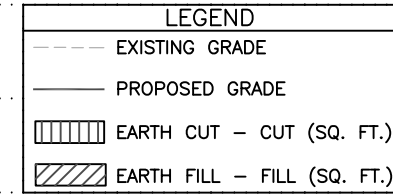






CUT=2327  
FILL=4751

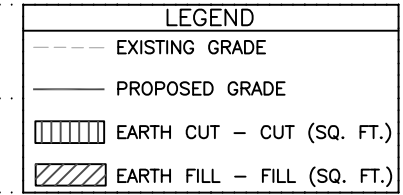
Horizontal Scale 50  
Vertical Scale 10



CUT=3409  
FILL=4832

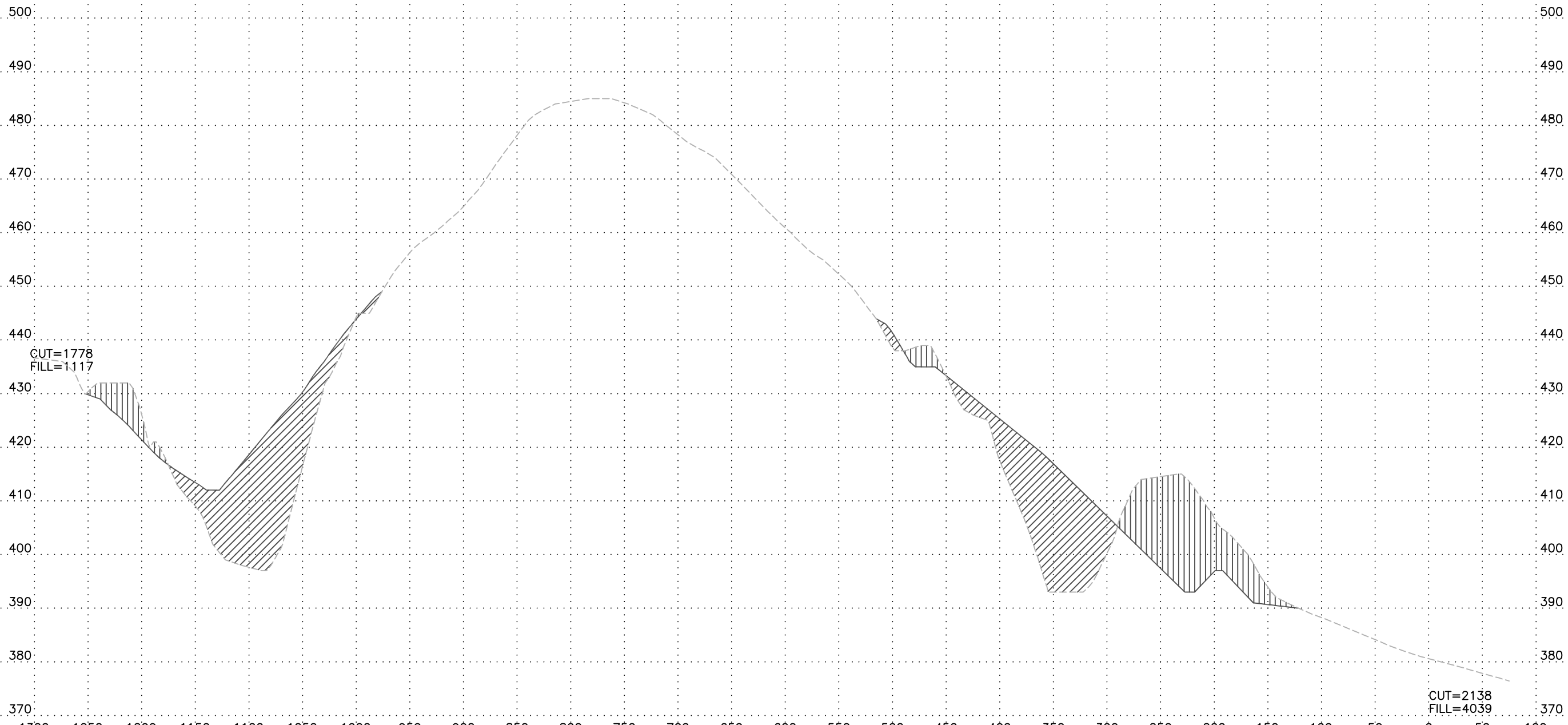
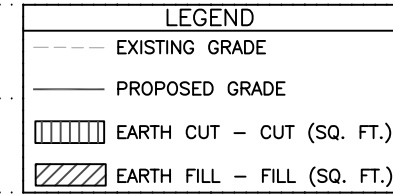
28+00  
Horizontal Scale 50  
Vertical Scale 10





CUT=4521  
FILL=4665

Horizontal Scale 50  
Vertical Scale 10



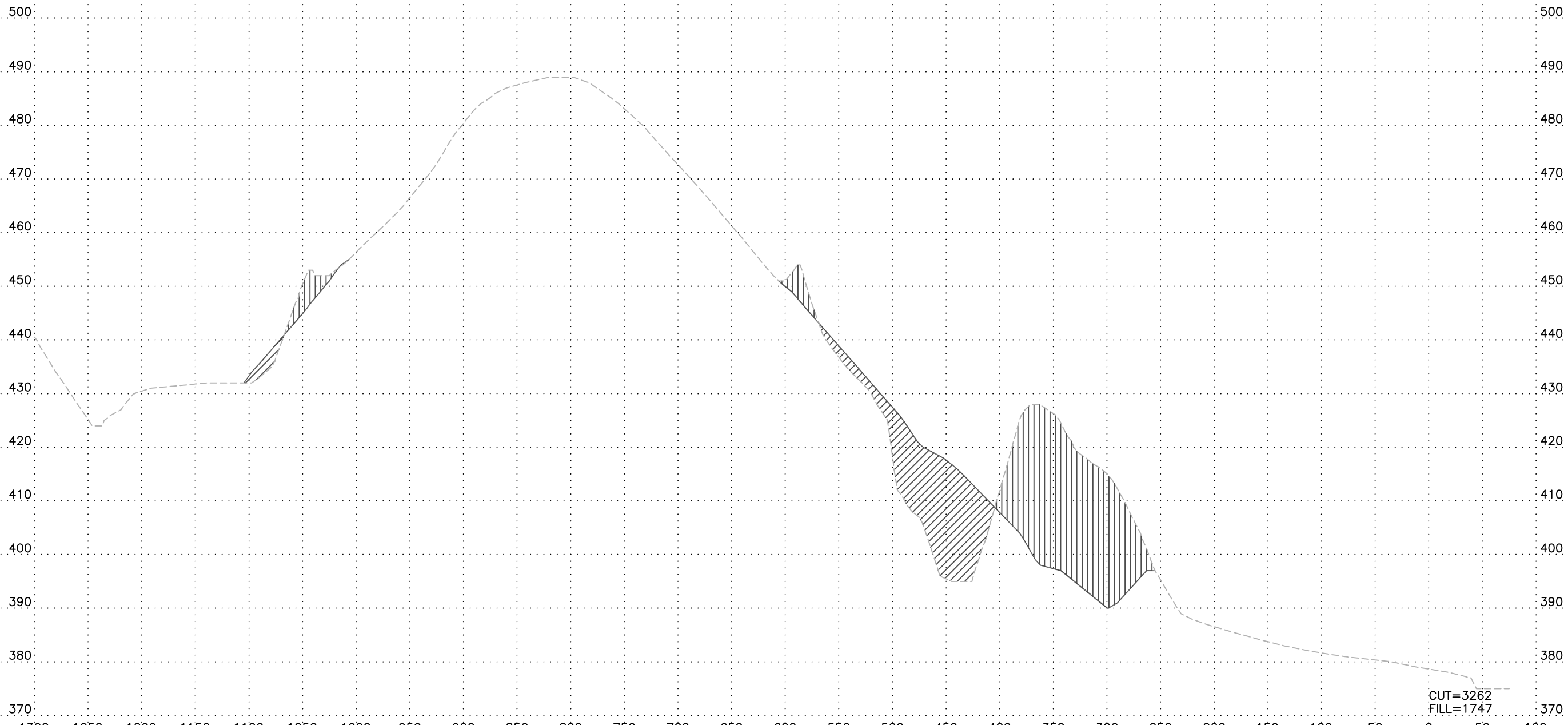
CUT=1778  
FILL=1117

CUT=2138  
FILL=4039

Horizontal Scale 50  
Vertical Scale 10

**LEGEND**

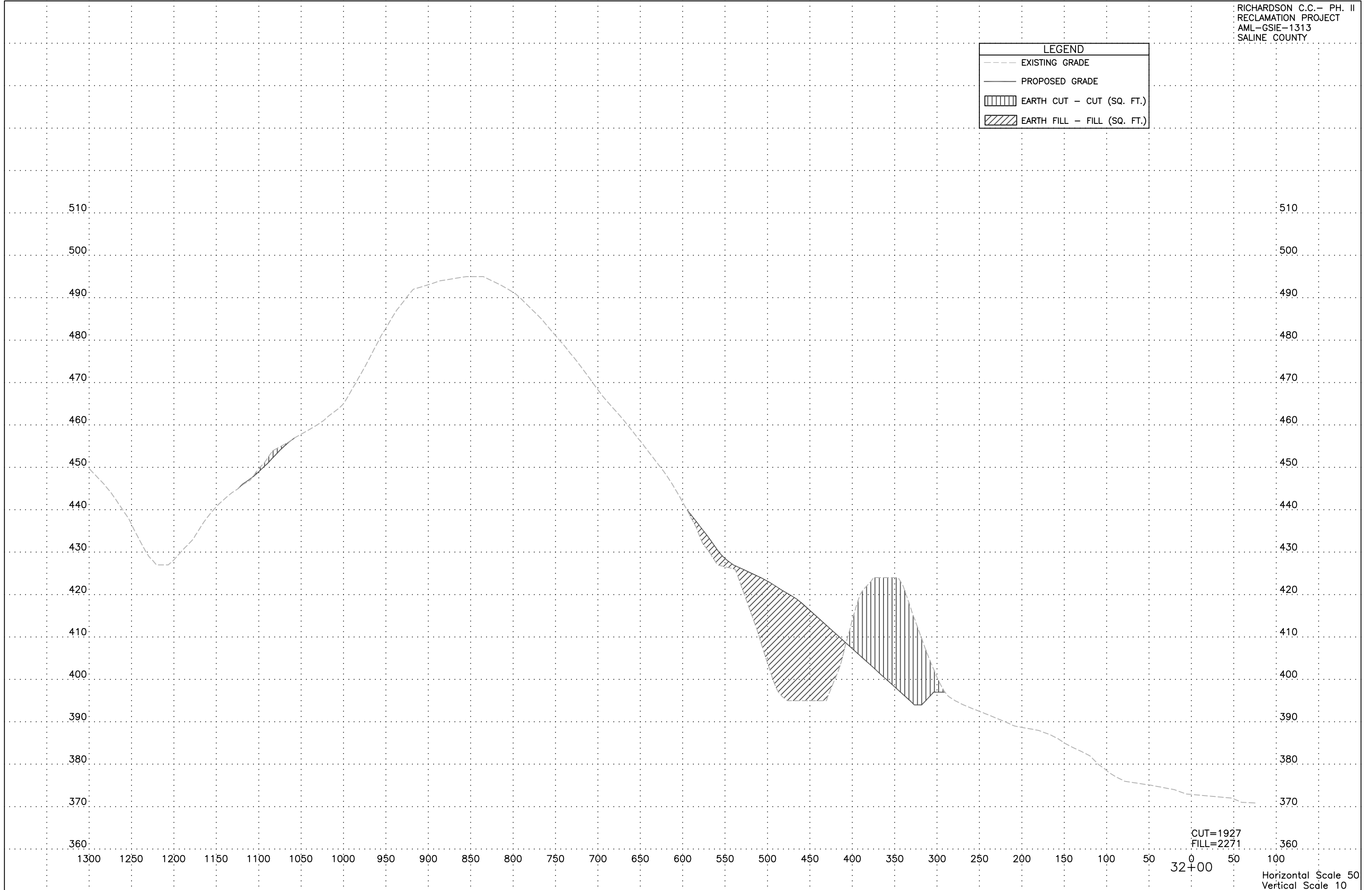
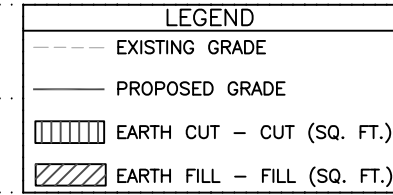
- EXISTING GRADE
- PROPOSED GRADE
- ▨ EARTH CUT - CUT (SQ. FT.)
- ▩ EARTH FILL - FILL (SQ. FT.)



CUT=3262  
FILL=1747

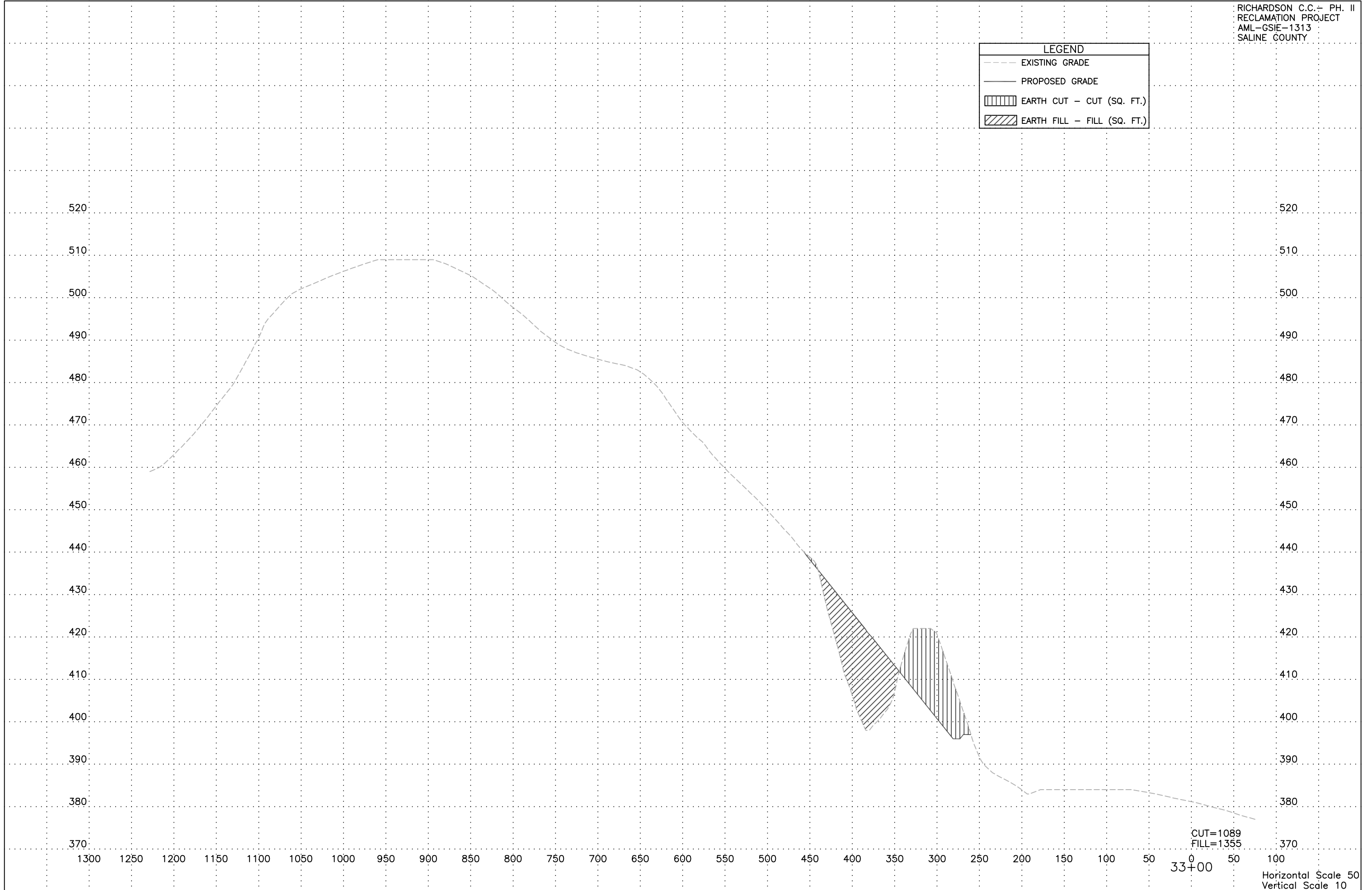
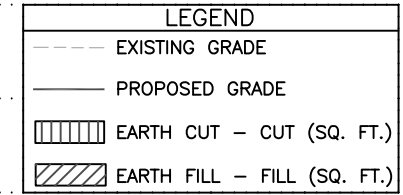
Horizontal Scale 50  
Vertical Scale 10





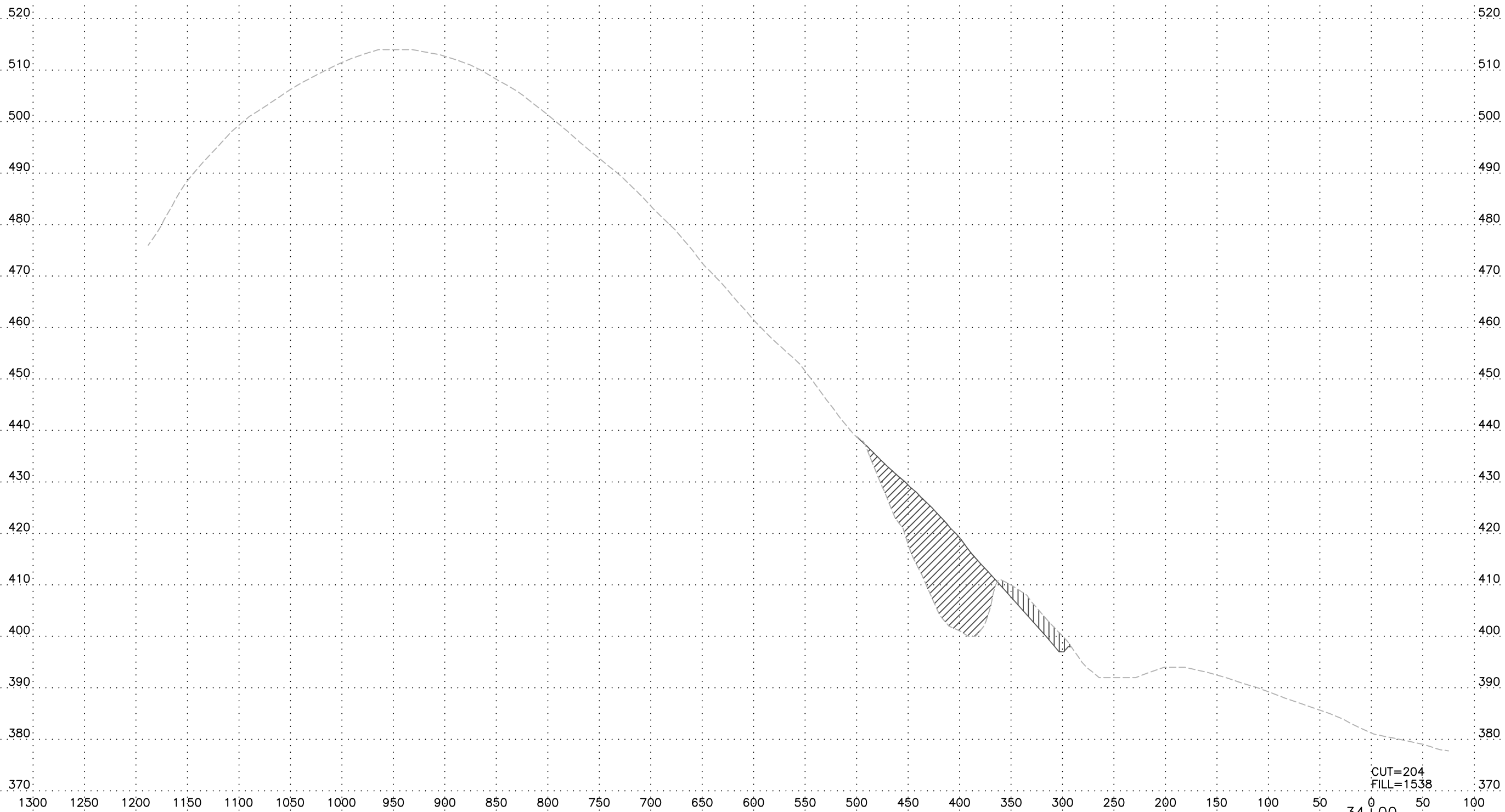
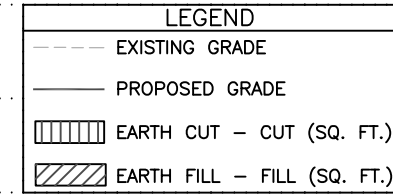
CUT=1927  
FILL=2271

Horizontal Scale 50  
Vertical Scale 10



CUT=1089  
FILL=1355

Horizontal Scale 50  
Vertical Scale 10



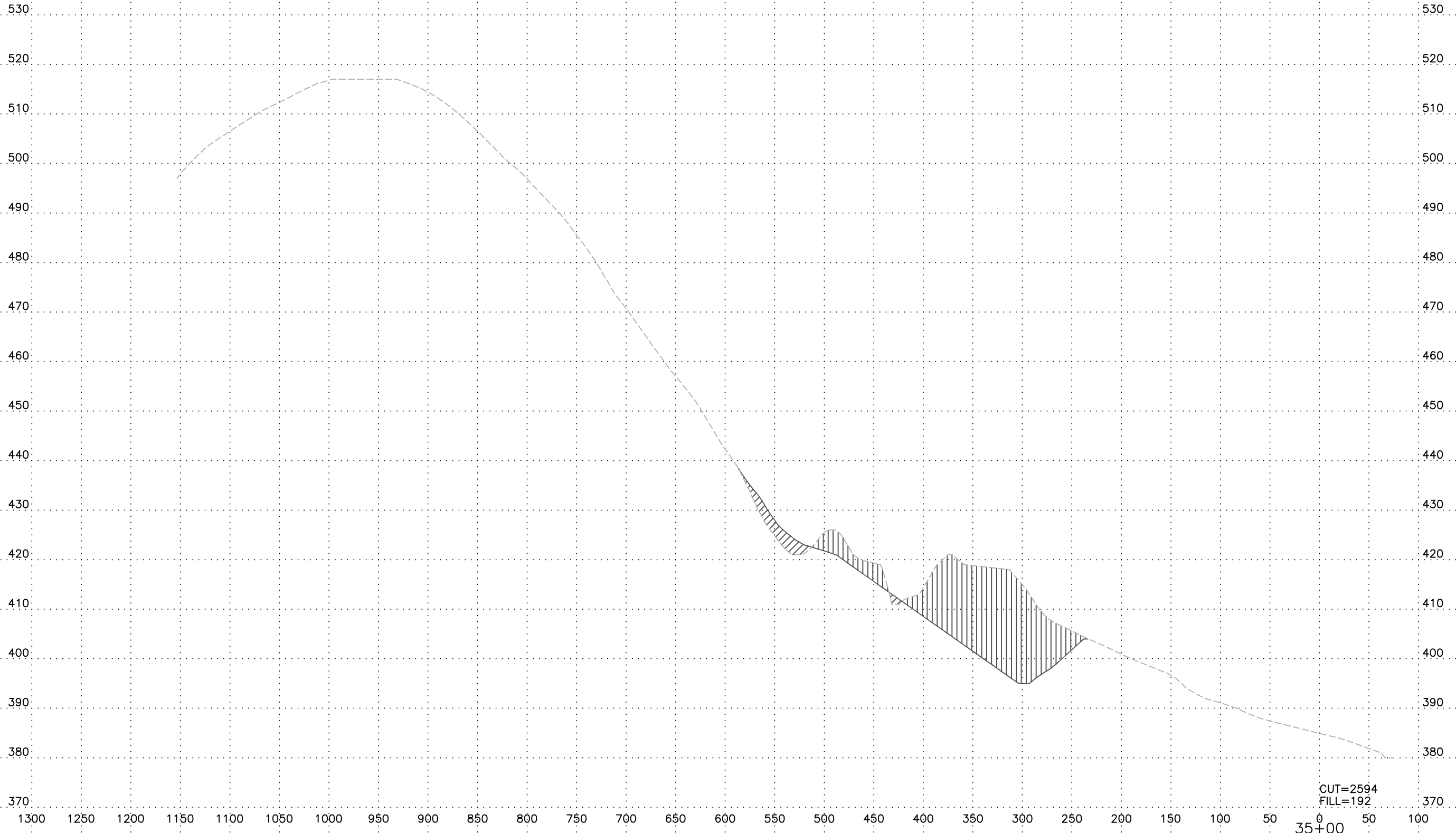
CUT=204  
FILL=1538

Horizontal Scale 50  
Vertical Scale 10



**LEGEND**

- EXISTING GRADE
- PROPOSED GRADE
- ▨ EARTH CUT - CUT (SQ. FT.)
- ▩ EARTH FILL - FILL (SQ. FT.)

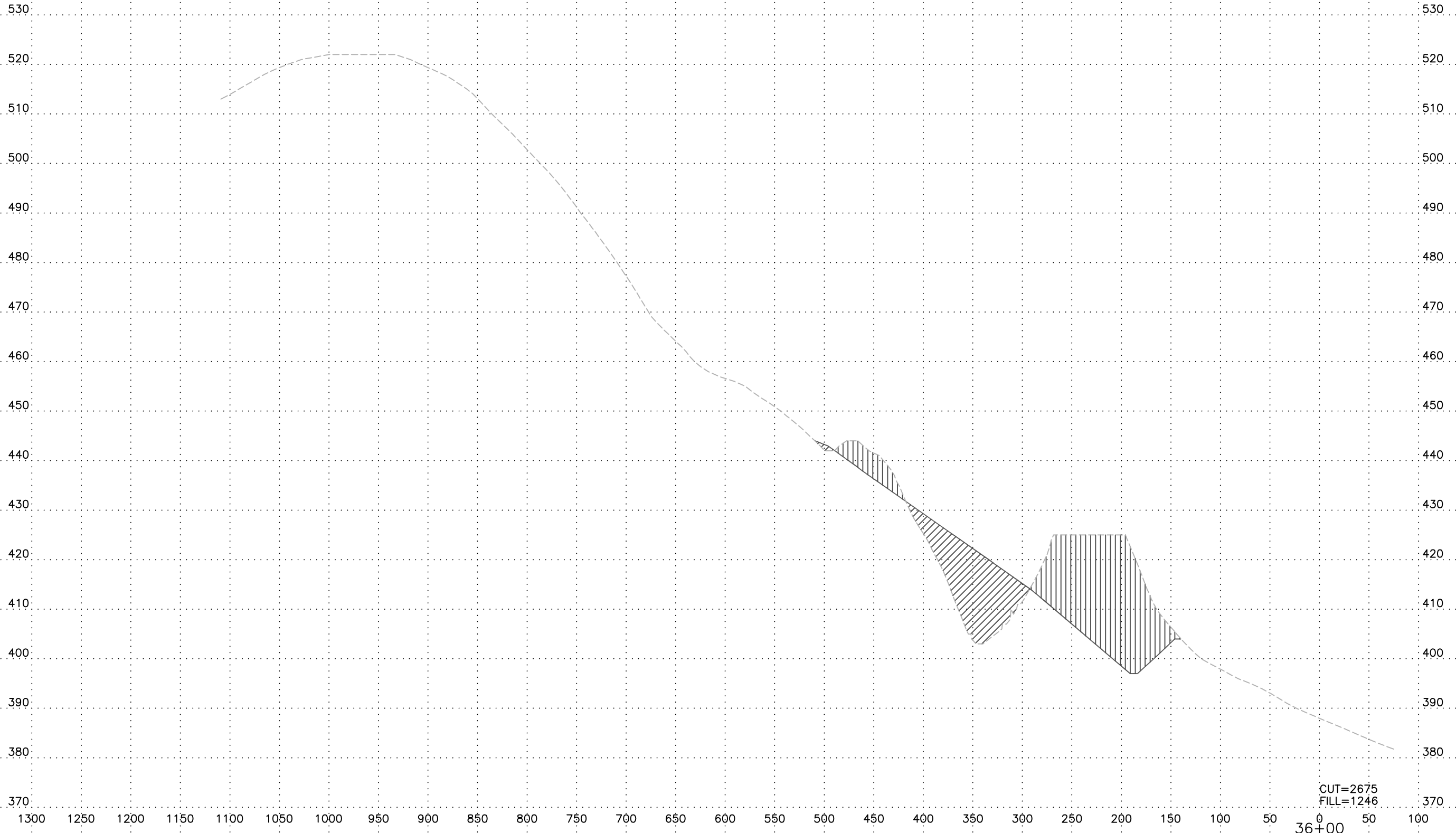


CUT=2594  
FILL=192

Horizontal Scale 50  
Vertical Scale 10

**LEGEND**

- EXISTING GRADE
- PROPOSED GRADE
- ▨ EARTH CUT - CUT (SQ. FT.)
- ▩ EARTH FILL - FILL (SQ. FT.)

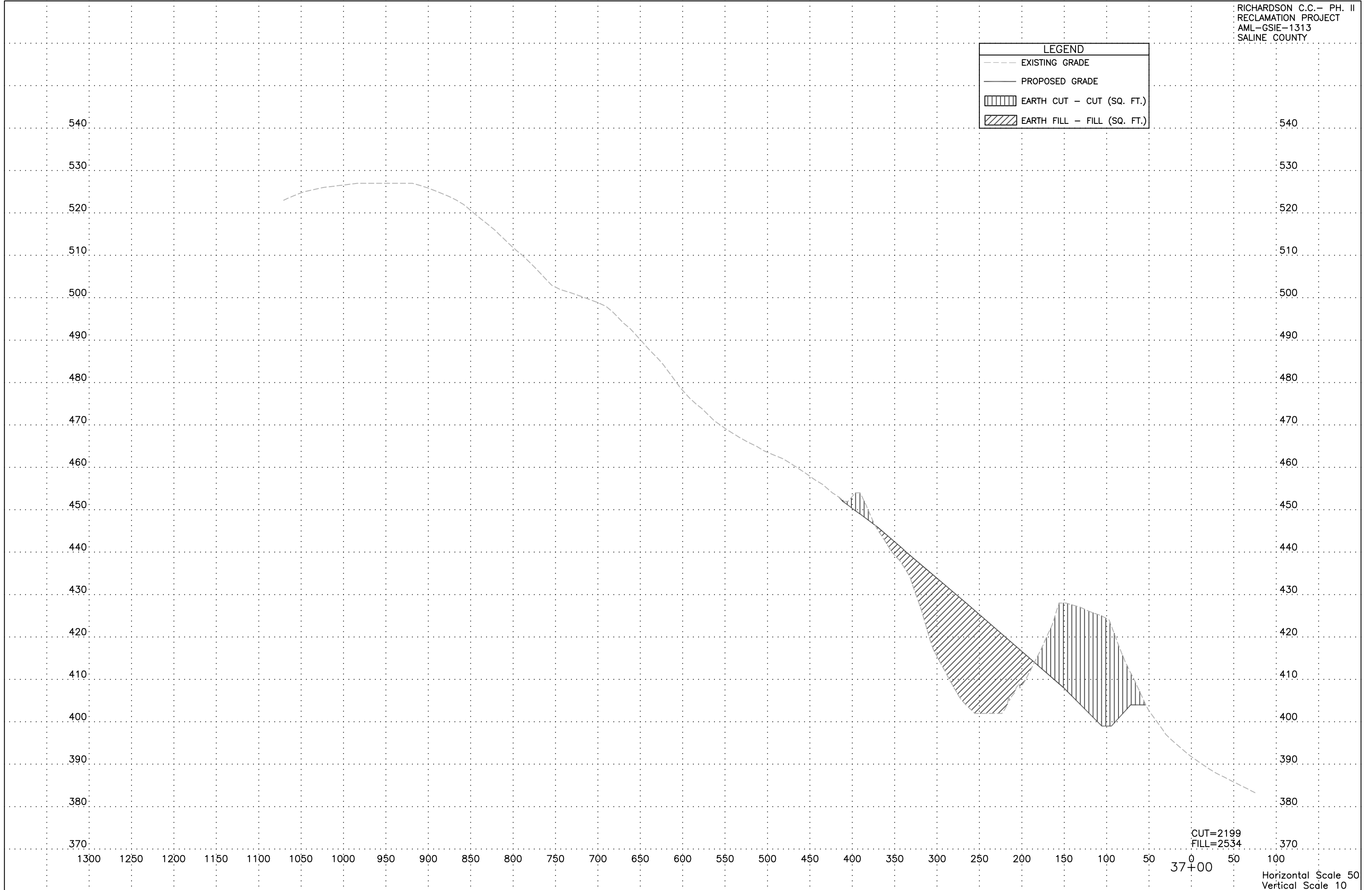


CUT=2675  
FILL=1246

Horizontal Scale 50  
Vertical Scale 10

**LEGEND**

- EXISTING GRADE
- PROPOSED GRADE
- ▨ EARTH CUT - CUT (SQ. FT.)
- ▩ EARTH FILL - FILL (SQ. FT.)

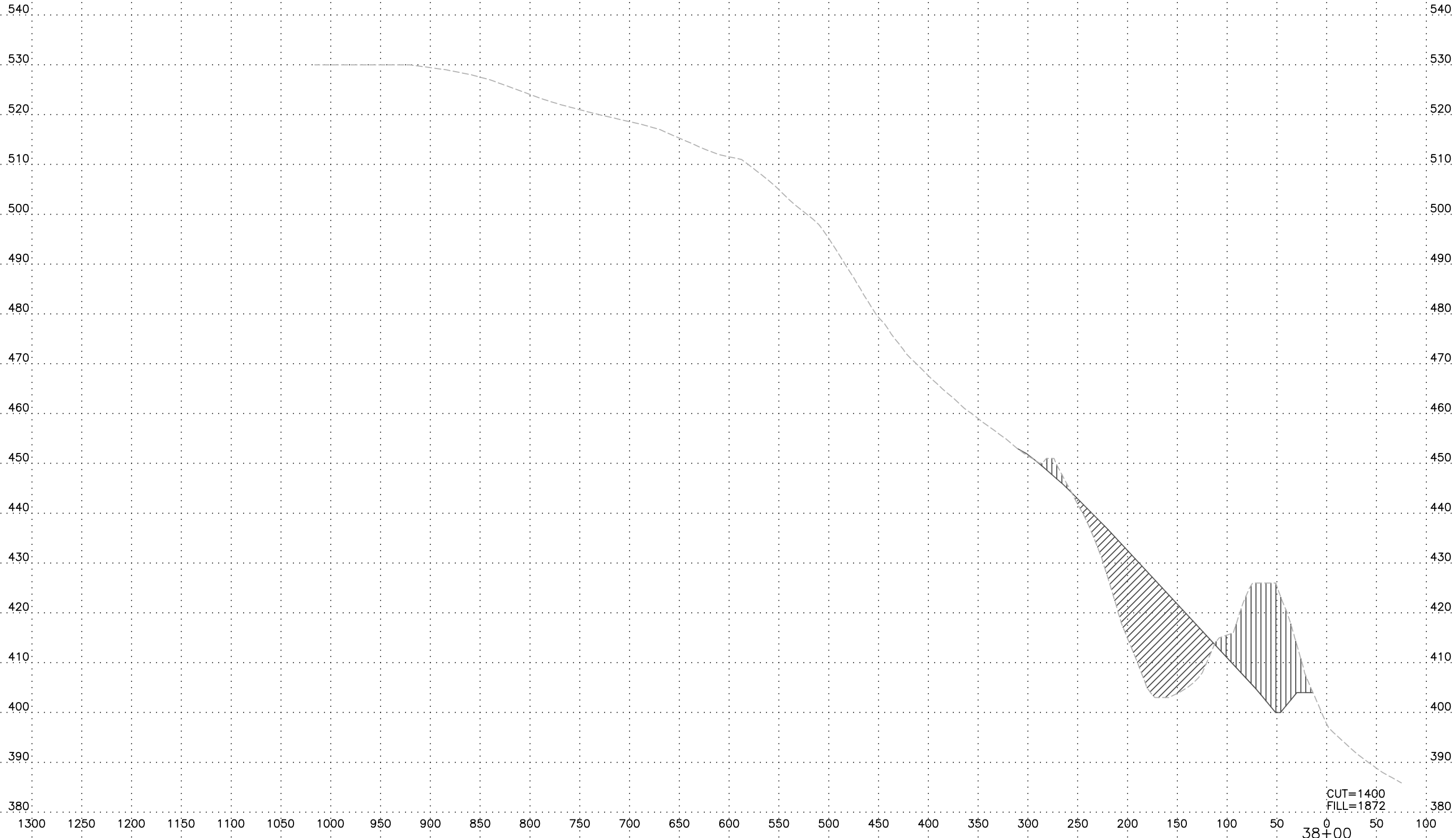


CUT=2199  
FILL=2534

Horizontal Scale 50  
Vertical Scale 10

**LEGEND**

- EXISTING GRADE
- PROPOSED GRADE
- ▨ EARTH CUT - CUT (SQ. FT.)
- ▩ EARTH FILL - FILL (SQ. FT.)



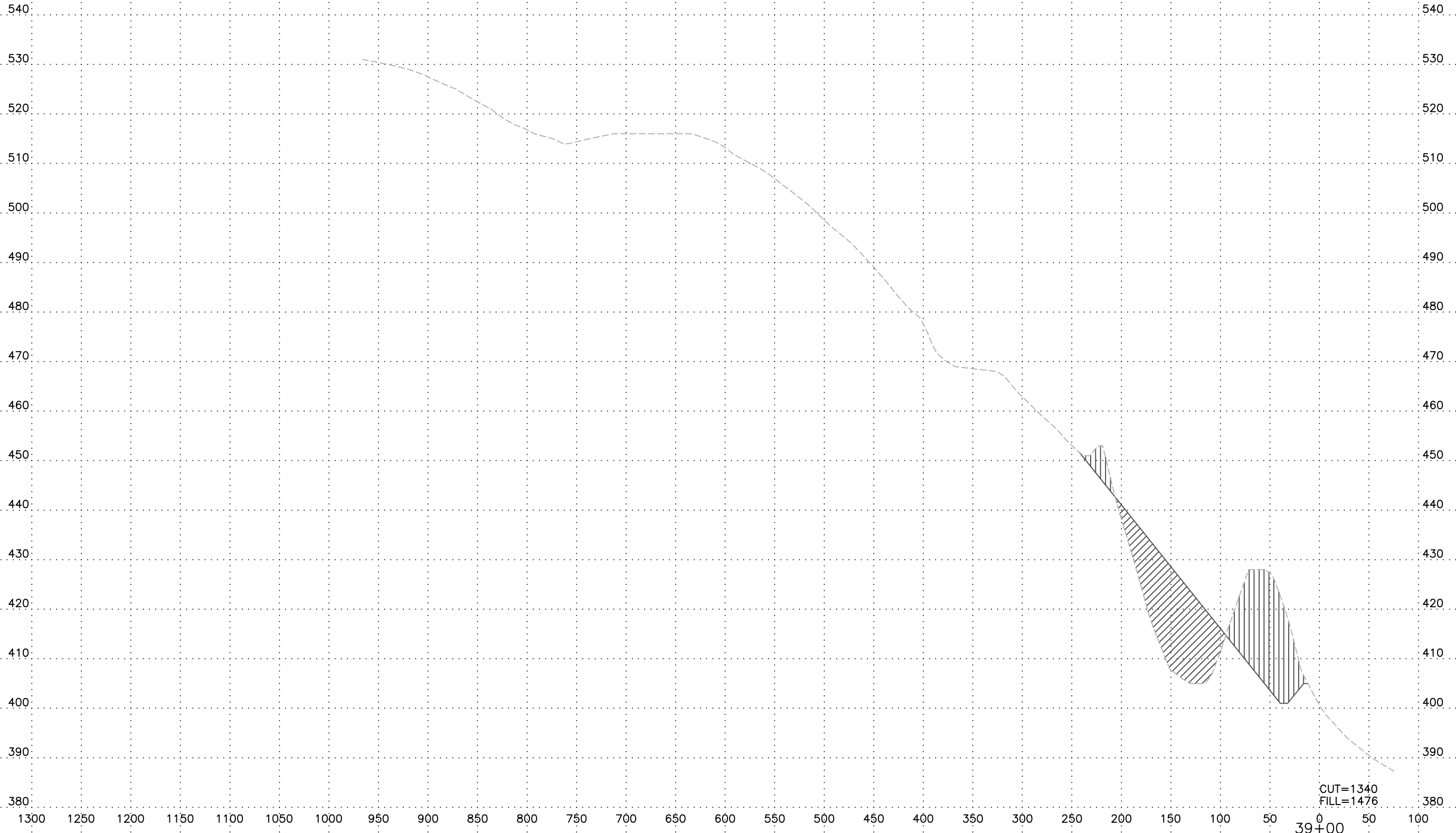
CUT=1400  
FILL=1872

Horizontal Scale 50  
Vertical Scale 10



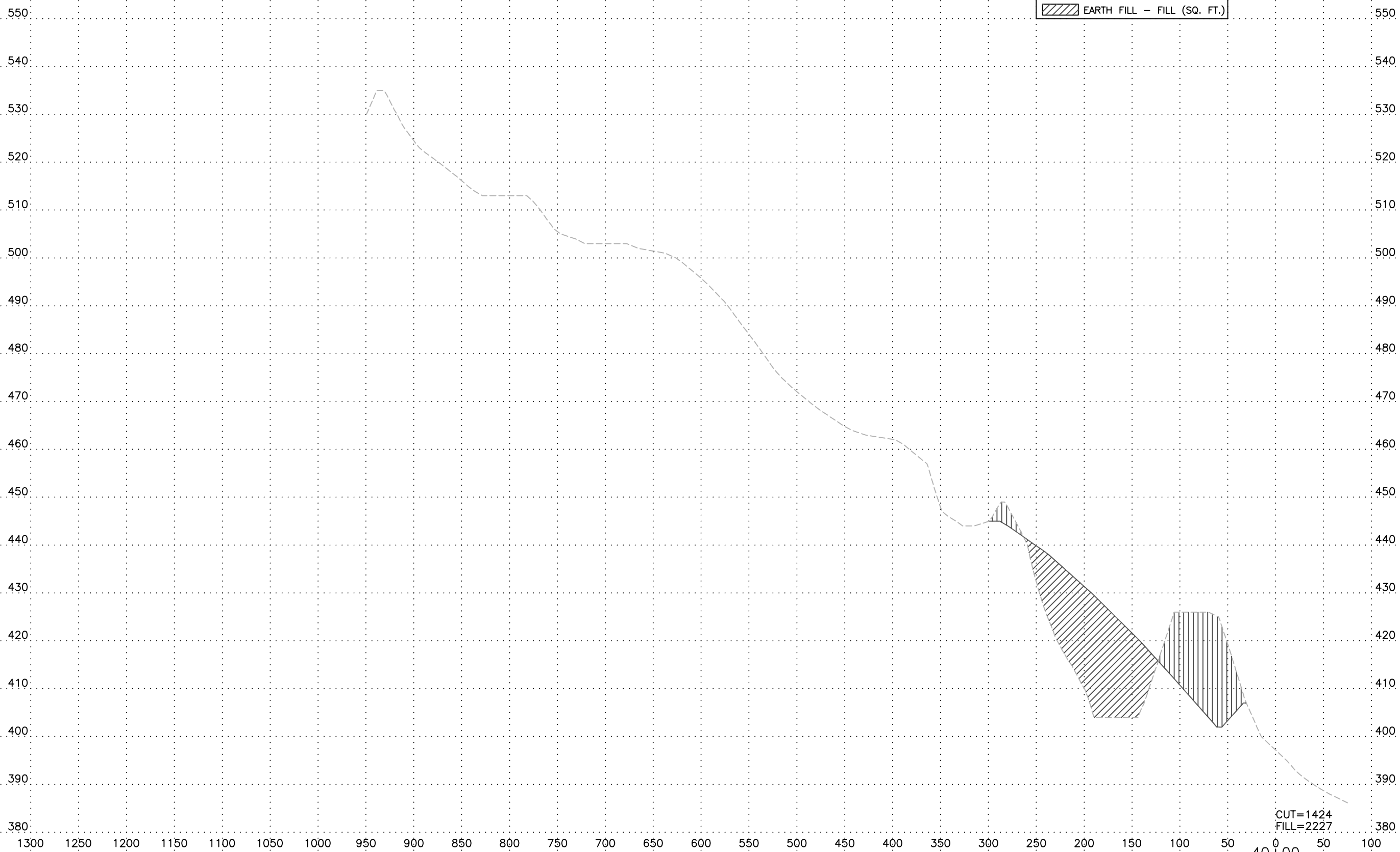
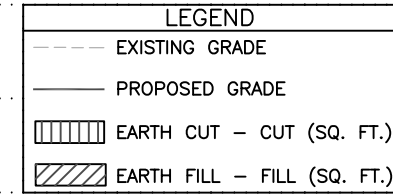
**LEGEND**

- EXISTING GRADE
- PROPOSED GRADE
- ▨ EARTH CUT - CUT (SQ. FT.)
- ▩ EARTH FILL - FILL (SQ. FT.)



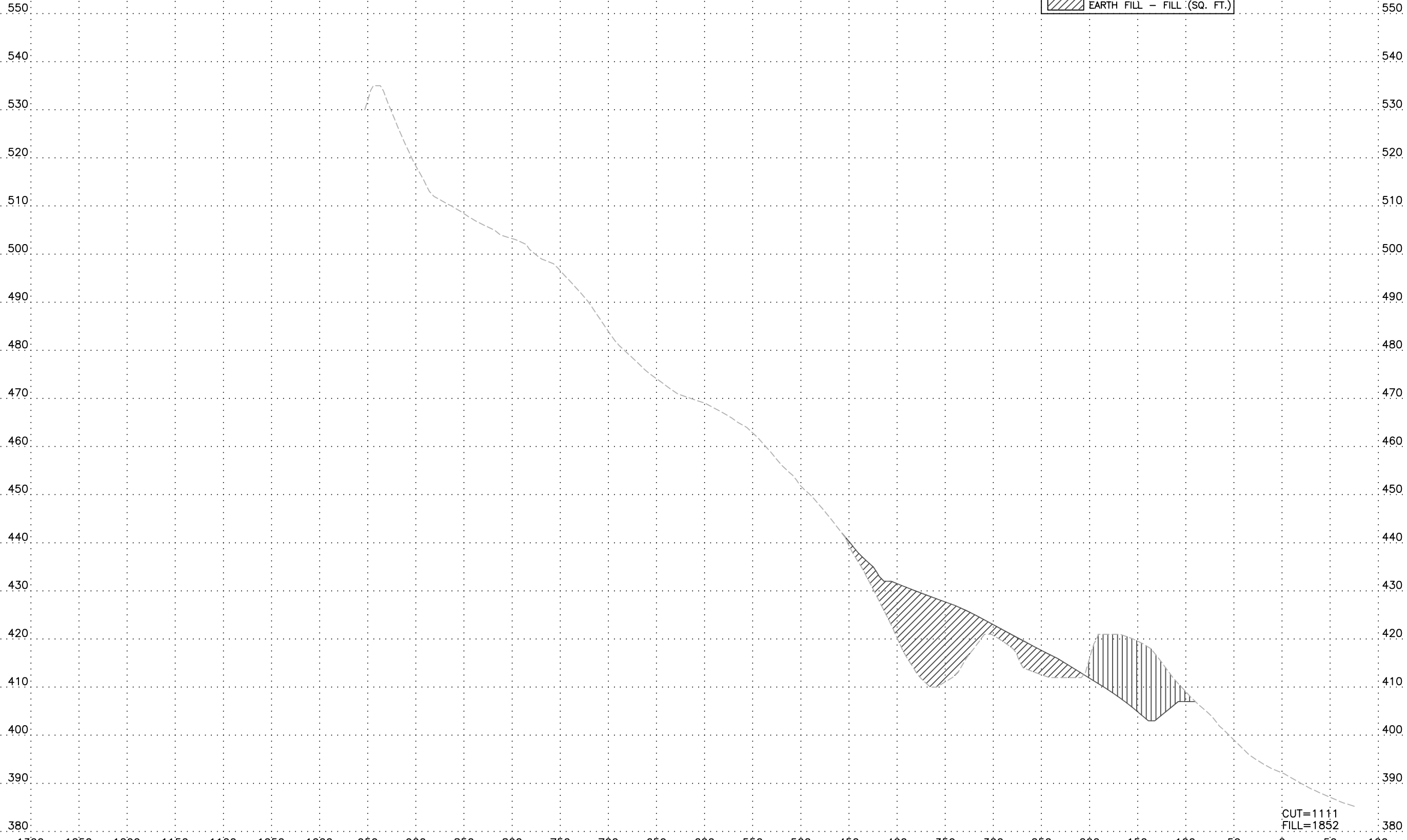
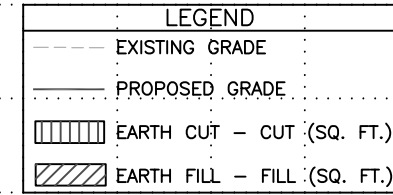
CUT=1340  
FILL=1476

Horizontal Scale 50  
Vertical Scale 10



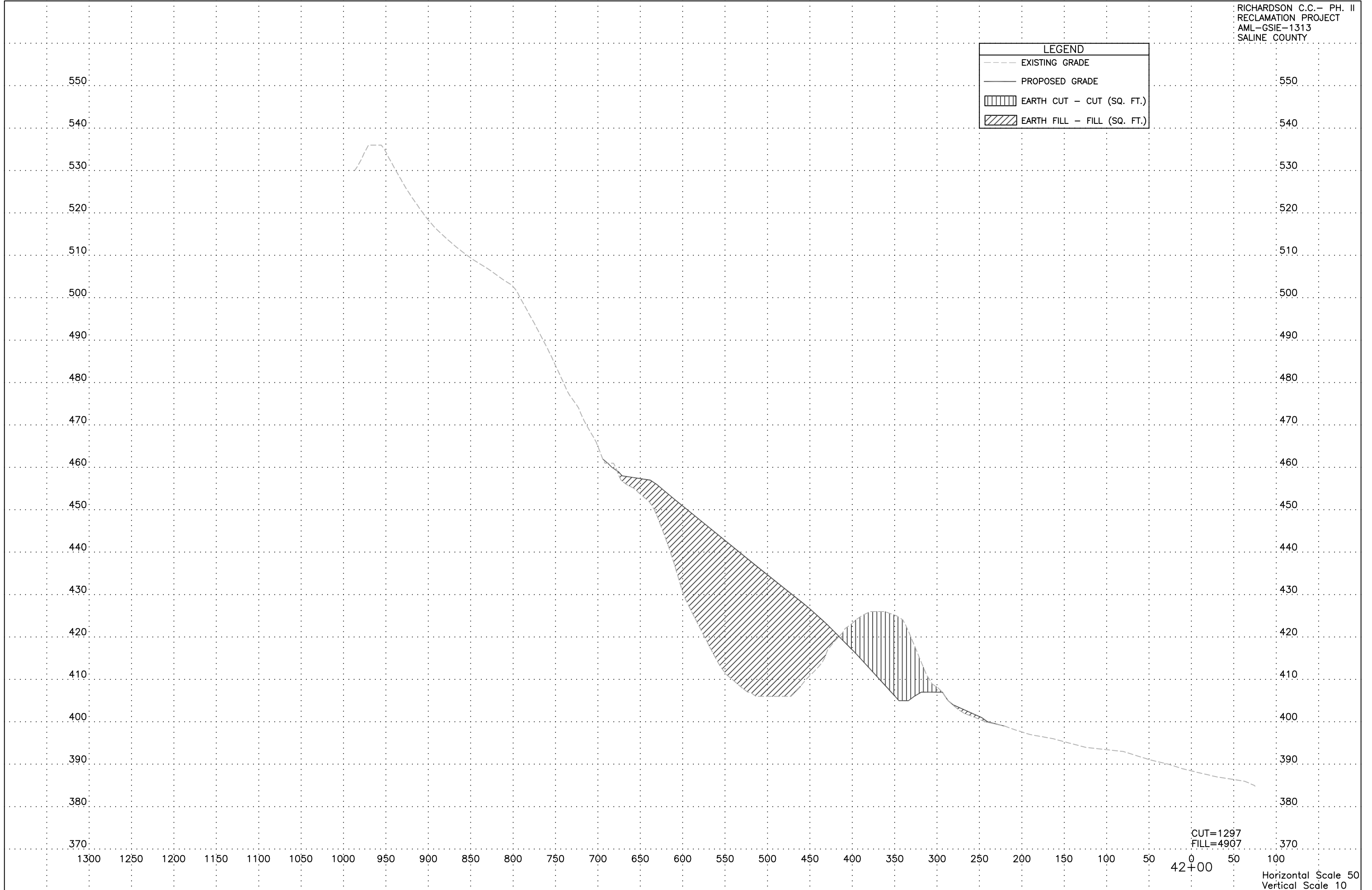
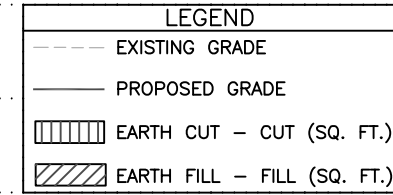
CUT=1424  
FILL=2227

Horizontal Scale 50  
Vertical Scale 10



CUT=1111  
FILL=1852

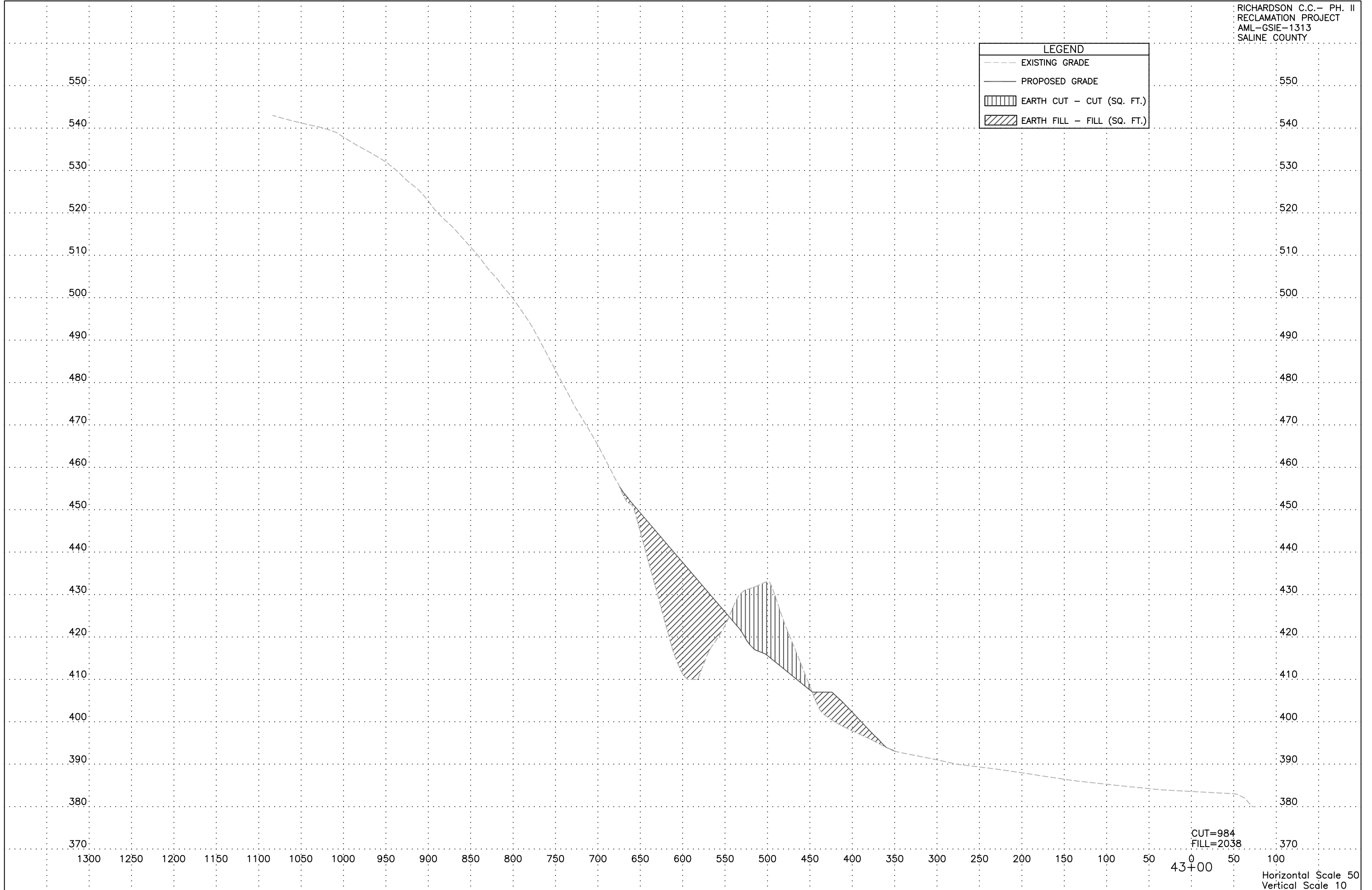
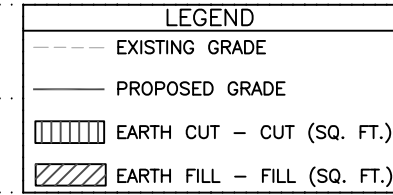
Horizontal Scale 50  
Vertical Scale 10



CUT=1297  
FILL=4907

Horizontal Scale 50  
Vertical Scale 10



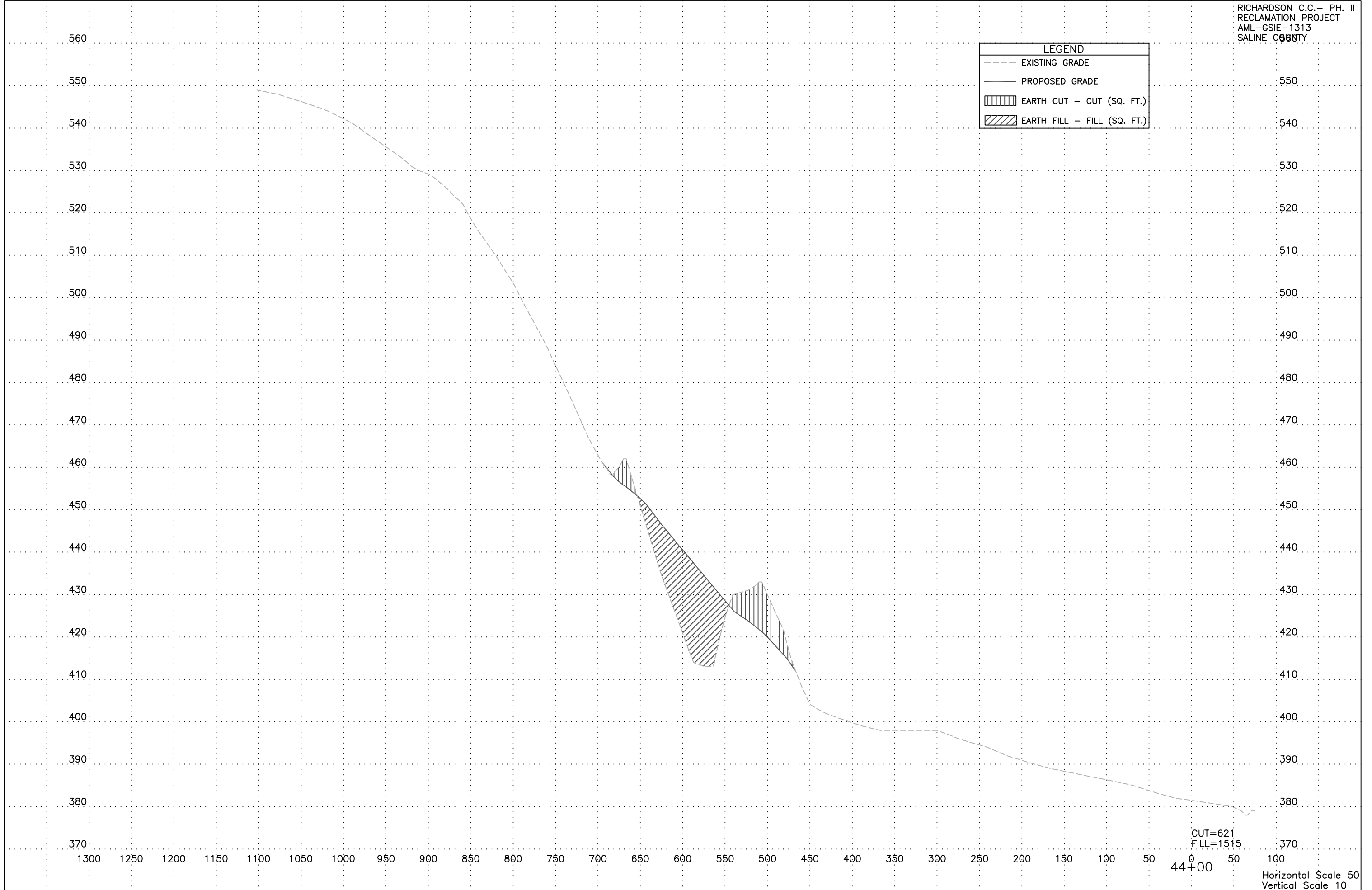


CUT=984  
FILL=2038

Horizontal Scale 50  
Vertical Scale 10

**LEGEND**

- EXISTING GRADE
- PROPOSED GRADE
- ▨ EARTH CUT - CUT (SQ. FT.)
- ▩ EARTH FILL - FILL (SQ. FT.)

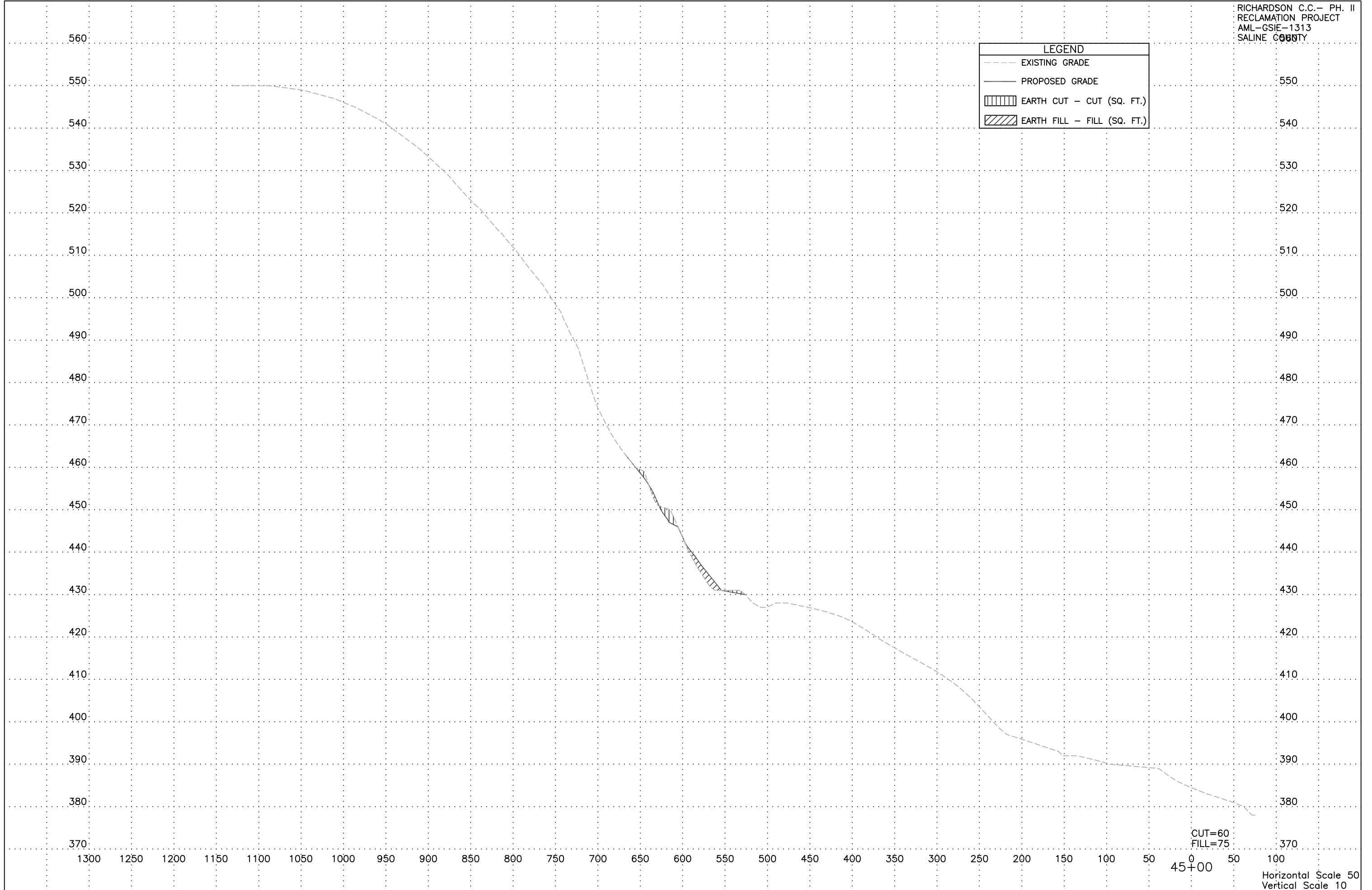


CUT=621  
FILL=1515

Horizontal Scale 50  
Vertical Scale 10

**LEGEND**

- EXISTING GRADE
- PROPOSED GRADE
- ▤ EARTH CUT - CUT (SQ. FT.)
- ▨ EARTH FILL - FILL (SQ. FT.)

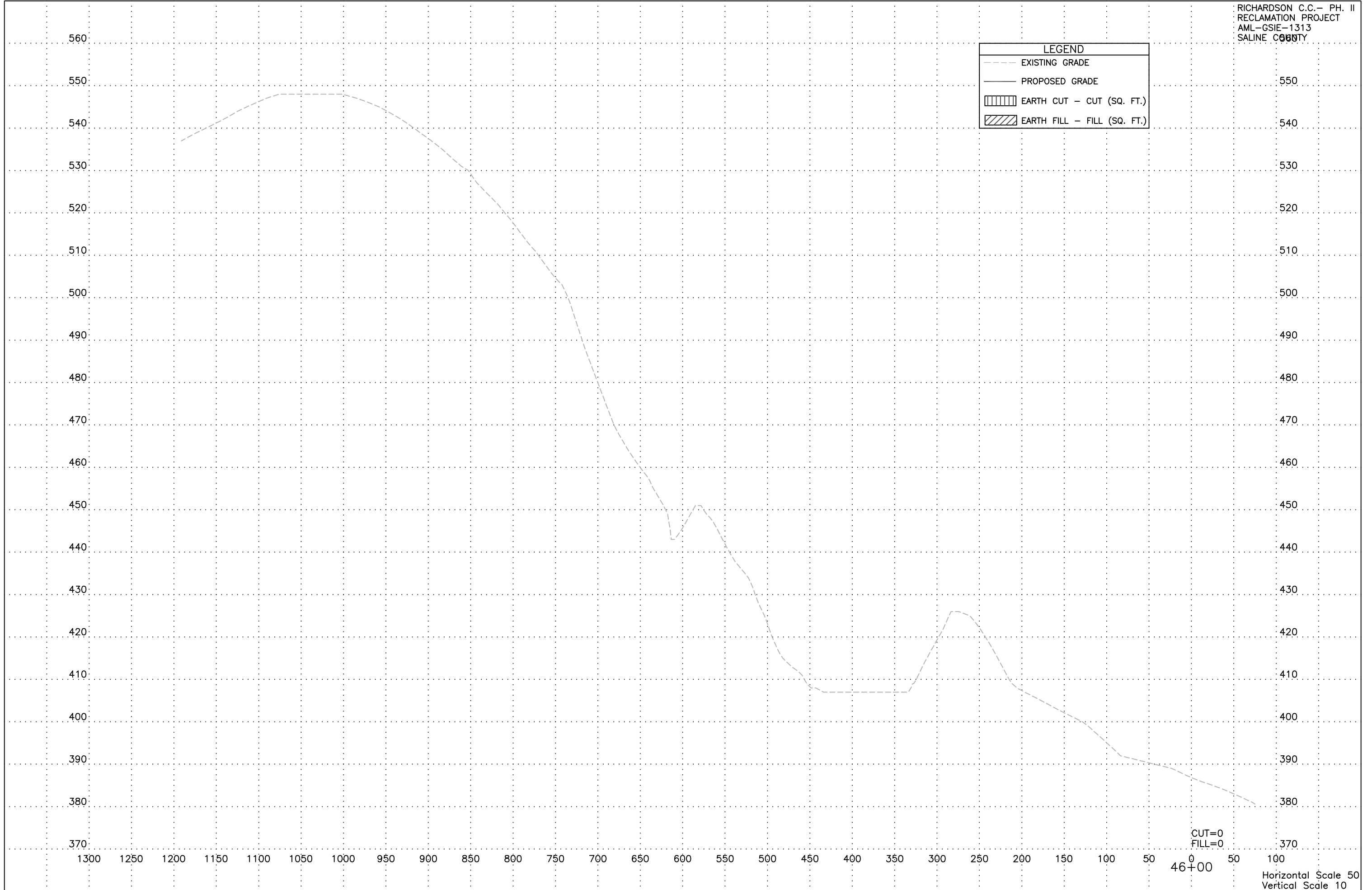


CUT=60  
FILL=75

Horizontal Scale 50  
Vertical Scale 10

**LEGEND**

- EXISTING GRADE
- PROPOSED GRADE
- ▨ EARTH CUT - CUT (SQ. FT.)
- ▩ EARTH FILL - FILL (SQ. FT.)



CUT=0  
FILL=0

Horizontal Scale 50  
Vertical Scale 10

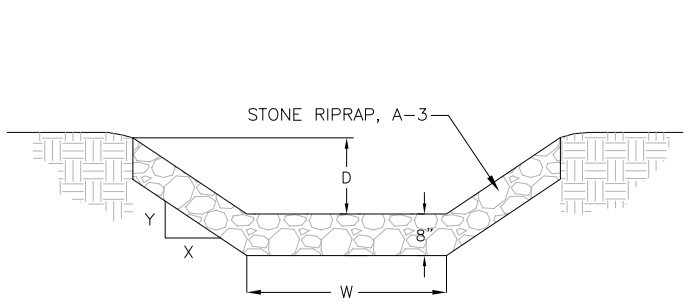


SPACING LETTERS	
2.0"	3.5"
1.5"	3.5"
1.5"	3.5"
1.5"	3.5"
3.5"	3.0"
3.5"	2.5"
1.5"	2.5"
3.5"	2.0"
1.5"	2.0"
2.0"	2.0"

RECLAMATION PROJECT  
of the  
DEPARTMENT OF NATURAL RESOURCES  
STATE OF ILLINOIS  
PAT QUINN, GOVERNOR  
Marc Miller, Director  
Illinois Dept. of Natural Resources  
In cooperation with the Office of Surface Mining  
United States Department of the Interior

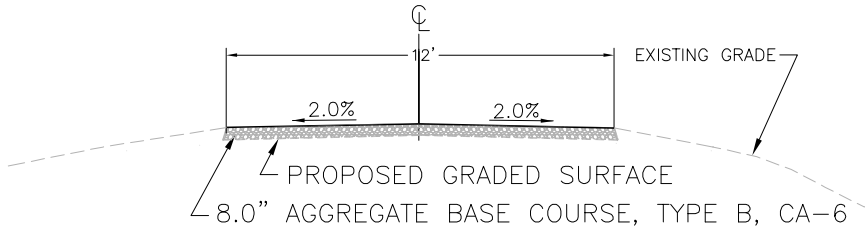
1. Furnishing, erecting and removing the sign shall be incidental to the contract.
2. The sign shall be painted on 1/2" or thicker exterior plywood (4' x 8'), color shall be black on white.
3. The posts shall be made of 4" x 4" wood or 2.5" metal pipe, and shall be 10' long. The sign shall be securely fastened to the posts with six 2.5" long, round head wood screws (for wood posts) or four 5" long, 3/8" diameter carriage bolts (for wood or metal posts).
4. The top of the sign shall be level with the top of the posts, and the posts shall be 1' from the edges of the sign. The posts shall be set in the ground 3', so that the bottom of the sign is 3' from the ground.

**CONSTRUCTION SIGN DETAIL**  
DETAIL A-45, NOT TO SCALE, EXACT LOCATION TO BE SET BY ENGINEER



CHANNEL	"W" DIMENSION	"D" DIMENSION	"X:Y" SLOPE	LENGTH	STONE RIPRAP A-3 (*BASIN QUANTITY)
A	4 FT.	1 FT.	3:1	592 FT.	679 SQ YD
B	4 FT.	1 FT.	4:1	170 FT.	232 (*34) SQ YD
*C	4 FT.	1 FT.	4:1	259 FT.	352 (*175) SQ YD
D	4 FT.	1 FT.	4:1	183 FT.	249 SQ YD
E	4 FT.	1 FT.	4:1	610 FT.	830 SQ YD
*F	4 FT.	1 FT.	4:1	822 FT.	1,118 (*104) SQ YD
H	4 FT.	1 FT.	4:1	234 FT.	318 SQ YD
*I	4 FT.	1 FT.	4:1	464 FT.	631 (*74) SQ YD
K	4 FT.	1 FT.	4:1	269 FT.	366 (*115) SQ YD
*M	4 FT.	1 FT.	4:1	135 FT.	184 (*27) SQ YD
*N	4 FT.	1 FT.	4:1	258 FT.	351 (*18) SQ YD
O	4 FT.	1 FT.	4:1	203 FT.	276 SQ YD

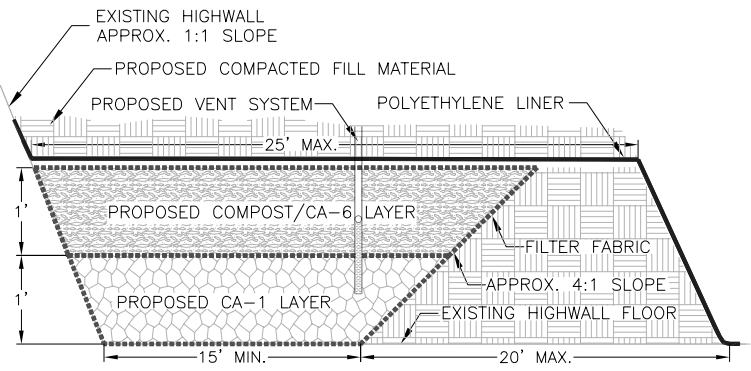
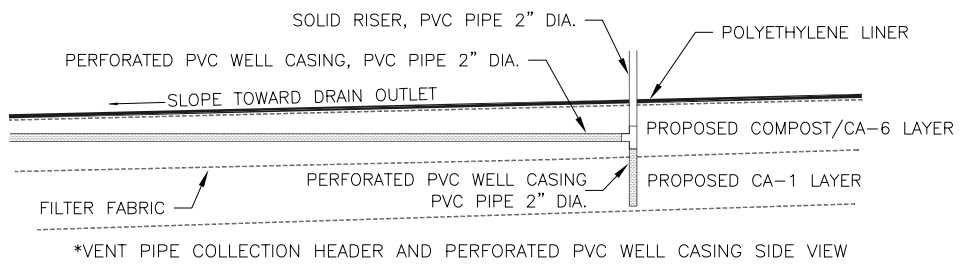
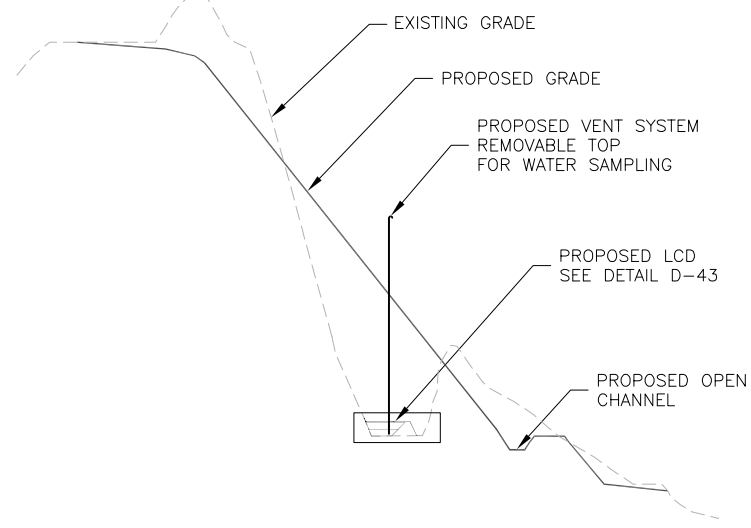
**STONE RIPRAP TRAPEZOIDAL CHANNEL**  
DETAIL B-45, TYPICAL SECTION, NOT TO SCALE



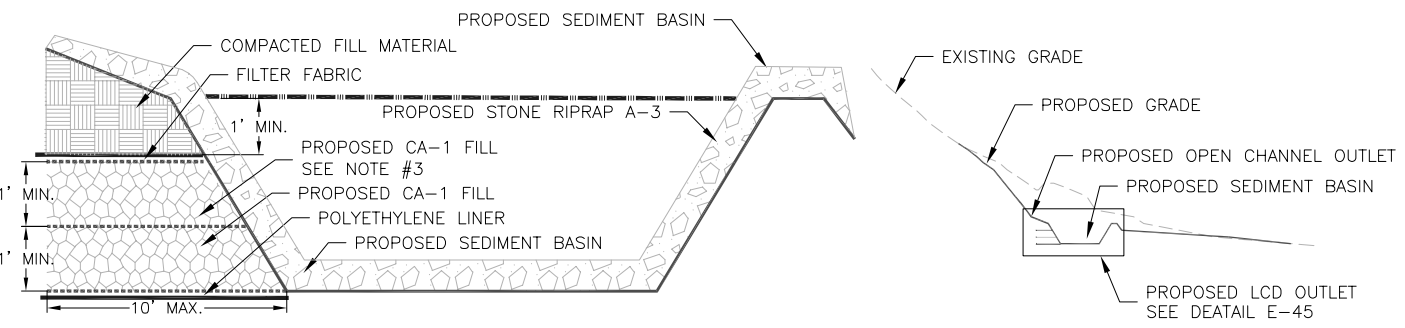
**TYPICAL SECTION DETAIL - ACCESS ROAD**  
SITE A & SITE B ACCESS ROAD DETAIL C-45 - NOT TO SCALE

- NOTES:
1. THE LIMESTONE/COMPOST DRAIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 615 OF THE SPECIAL PROVISIONS.
  2. THE HIGHWALL SIDE AND BASE MUST BE CLEAR OF ALL DEBRIS AND SEDIMENT, TO THE SATISFACTION OF THE ENGINEER, PRIOR TO THE LIMESTONE/COMPOST DRAIN INSTALLATION. NO UNSUITABLE MATERIAL WILL BE ALLOWED WITH IN THE LIMESTONE/COMPOST DRAIN CORRIDOR, AS DIRECTED BY THE ENGINEER. ANY COST ASSOCIATED WITH THE REMOVAL OF UNSUITABLE MATERIAL PRIOR TO THE LIMESTONE/COMPOST DRAIN PLACEMENT, SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT PRICE FOR EARTH EXCAVATION.
  3. COMPOST/CA-6 LAYER SHALL CONSIST OF A 5% MIXTURE, BY VOLUME. MIXING OF THESE MATERIALS SHALL BE DONE ON SITE, AND TO THE SATISFACTION OF THE ENGINEER.
  4. THE CA-6/COMPOST LAYER SHALL BE CEASED AT A MAXIMUM DISTANCE OF 10 FEET FROM THE PROPOSED DRAIN OUTLETS. FROM THE POINT WHERE THE CA-6/COMPOST LAYER STOPS, THE LIMESTONE/COMPOST DRAIN TRENCH SHALL BE FILLED WITH CA-1 TO THE PROPOSED OUTLETS.
  5. THE LIMESTONE/COMPOST DRAIN SHALL AT ALL TIMES BE COVERED BY A MINIMUM OF 4 FEET OF COMPACTED FILL MATERIAL. THIS MATERIAL SHALL BE COMPACTED ACCORDING TO SECTION 205 OF THE SPECIAL PROVISIONS.
  6. THE LIMESTONE/COMPOST DRAIN FLOW LINE MUST HAVE A SLIGHT FALL TOWARD THE PROPOSED OUTLETS, TO THE SATISFACTION OF THE ENGINEER.

*LCD - LIMESTONE COMPOST DRAIN SUMMARY OF QUANTITIES							
#	ITEM	SECTION	BASELINE B	BASELINE C	TOTAL	UNIT	RATES/REMARKS
19	*LCD - COARSE AGGREGATE CA-1	615	1,357.0	1,051.0	2,408.0	TON	>90% Calcium Carbonate
20	*LCD - COARSE AGGREGATE CA-6	615	1,116.0	865.0	1,981.0	TON	>90% Calcium Carbonate
21	*LCD - COMPOST	615	660	512	1,172	CU YD	
22	*LCD - FILTER FABRIC	615	15,167	11,749	26,916	SQ YD	
23	*LCD - POLYETHYLENE LINER	615	6,333	4,906	11,239	SQ YD	30 mils. Minimum - High Density
24	*LCD - PVC PIPE 2" DIA.	615	40	70	110	FOOT	Includes all collars, fittings, elbows and connections. Schedule 40
25	*LCD - PERFORATED WELL CASING 2" DIA.	615	1,500	1,162	2,662	FOOT	Includes all collars, fittings, elbows and connections. Schedule 40



**LIMESTONE COMPOST DRAIN**  
DETAIL D-45, TYPICAL CROSS SECTION & PROFILE, NOT TO SCALE



**LIMESTONE COMPOST DRAIN OUTLET**  
DETAIL E-45, TYPICAL PROFILE, NOT TO SCALE

State of Illinois  
Department of Natural Resources

Richardson C.C. - Phase II  
Reclamation Project  
AML-GSIE-1313  
Saline County

Drawn By: OMA  
Checked By:  
Date: 03-19-14

Details Sheet  
Sheet 45 of 45