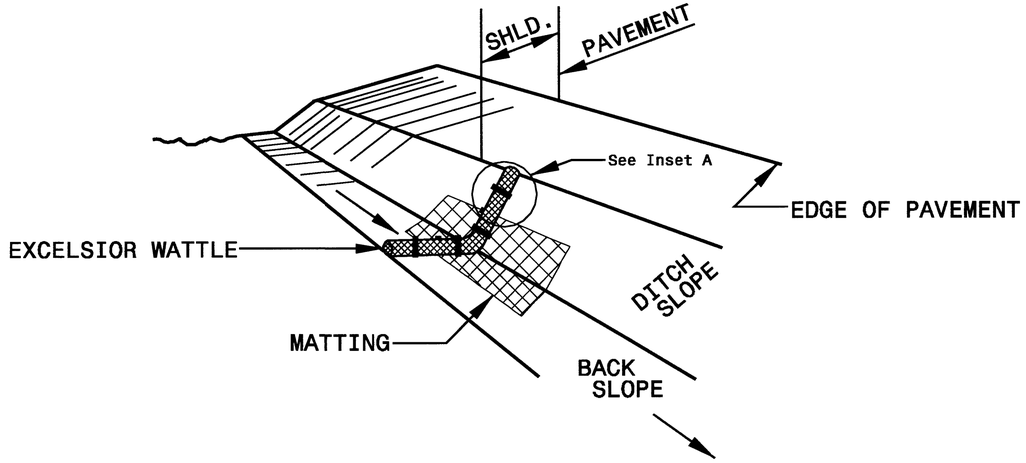
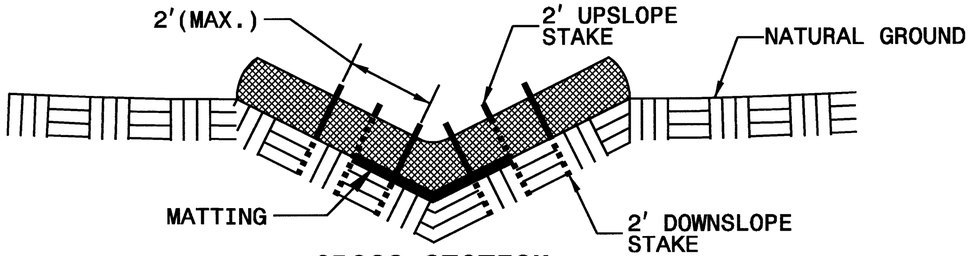
PROJECT REFERENCE NO.	SHEET NO.
W-5207D	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

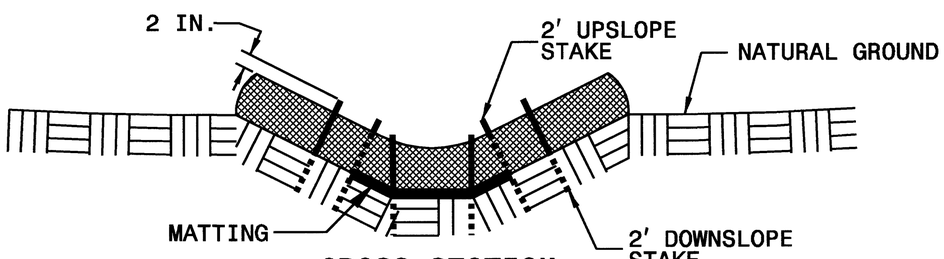
WATTLE DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

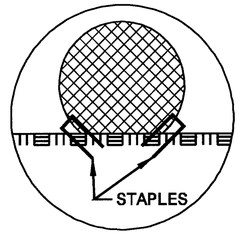
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

INSET A



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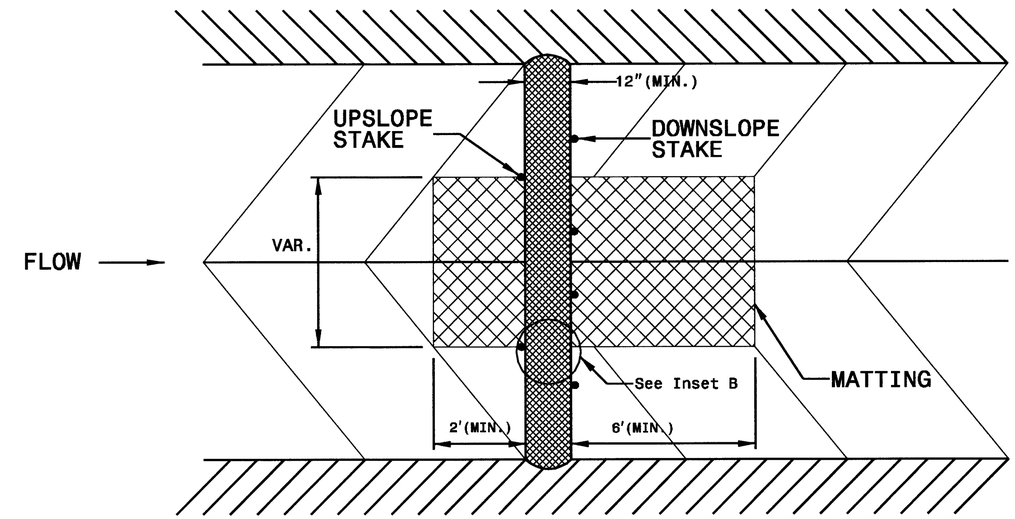


TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
W-5207D	EC-3

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	9+00	10+20	LT	170
4	-L-	17+00	17+50	LT	45
4	-L-	17+50	18+00	LT	30
4	-Y-	13+00	14+00	RT	185
			SUBTOTAL		430
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					9150
				TOTAL	9580
				SAY	9600

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	9+50	11+50	RT	245
4	-Y-	9+50	12+00	RT	380
4	-Y-	14+00	15+00	RT	210
			SUBTOTAL		835
	ADDITIONAL PSRM TO BE INSTALLED				0
				TOTAL	835
				SAY	850

PROJECT REFERENCE NO.	SHEET NO.
W-5207D	EC-3A

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

PROJECT REFERENCE NO.	SHEET NO.
W-5207D	EC-4/CONST.4
R/W SHEET NO.	

HYDRAULICS ENGINEER

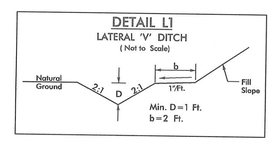
NORTH CAROLINA PROFESSIONAL SEAL 21656 ENGINEER ROGER S. WEADON

11/4/13

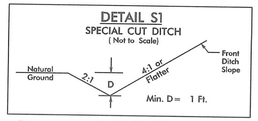
M A Engineering Consultants, Inc.
598 East Chatham Street Suite 137 Cary, NC 27511
Phone: 919.297.0220 Fax: 919.297.0221

REVISIONS

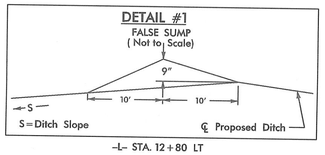
8/17/99



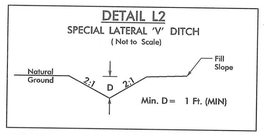
FROM -Y- STA. 13+00 TO STA. 14+16 LT
FROM -Y- STA. 13+00 TO STA. 14+00 RT



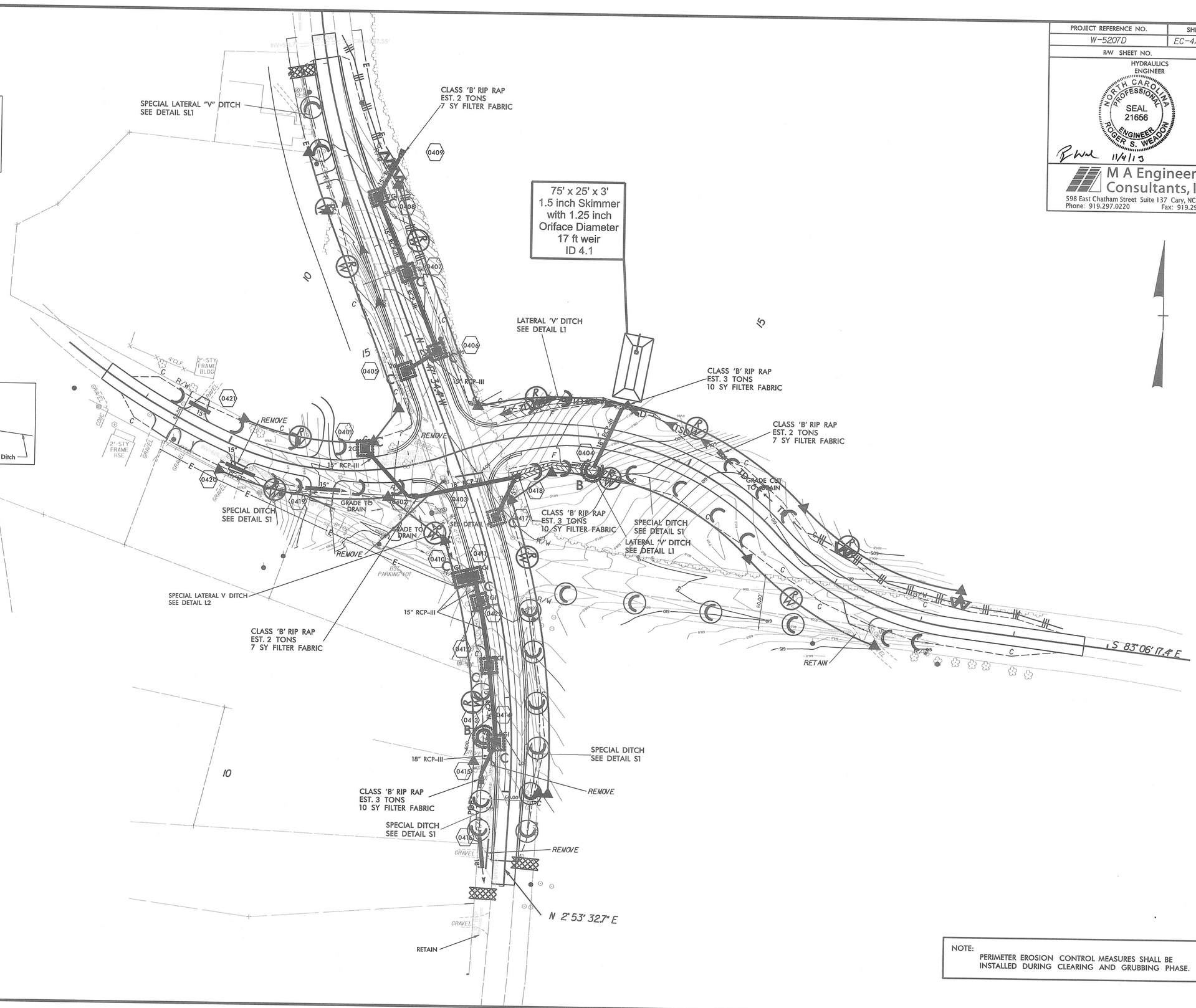
FROM -L- STA. 9+00 TO STA. 10+20 LT
FROM -L- STA. 9+50 TO STA. 11+50 RT
FROM -L- STA. 17+00 TO STA. 18+00 LT
FROM -Y- STA. 9+50 TO STA. 12+00 RT
FROM -Y- STA. 14+00 TO STA. 15+00 RT



-L- STA. 12+80 LT



FROM -L- STA. 12+38 TO STA. 13+35 LT



NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

11/4/2013
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4:08:06 PM

PROJ. REFERENCE NO.	SHEET NO.
W-5207D	X-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CROSS-SECTION SUMMARY

NOTE: EMBANKMENT COLUMN DOES NOT INCLUDE BACKFILL FOR UNDERCUT

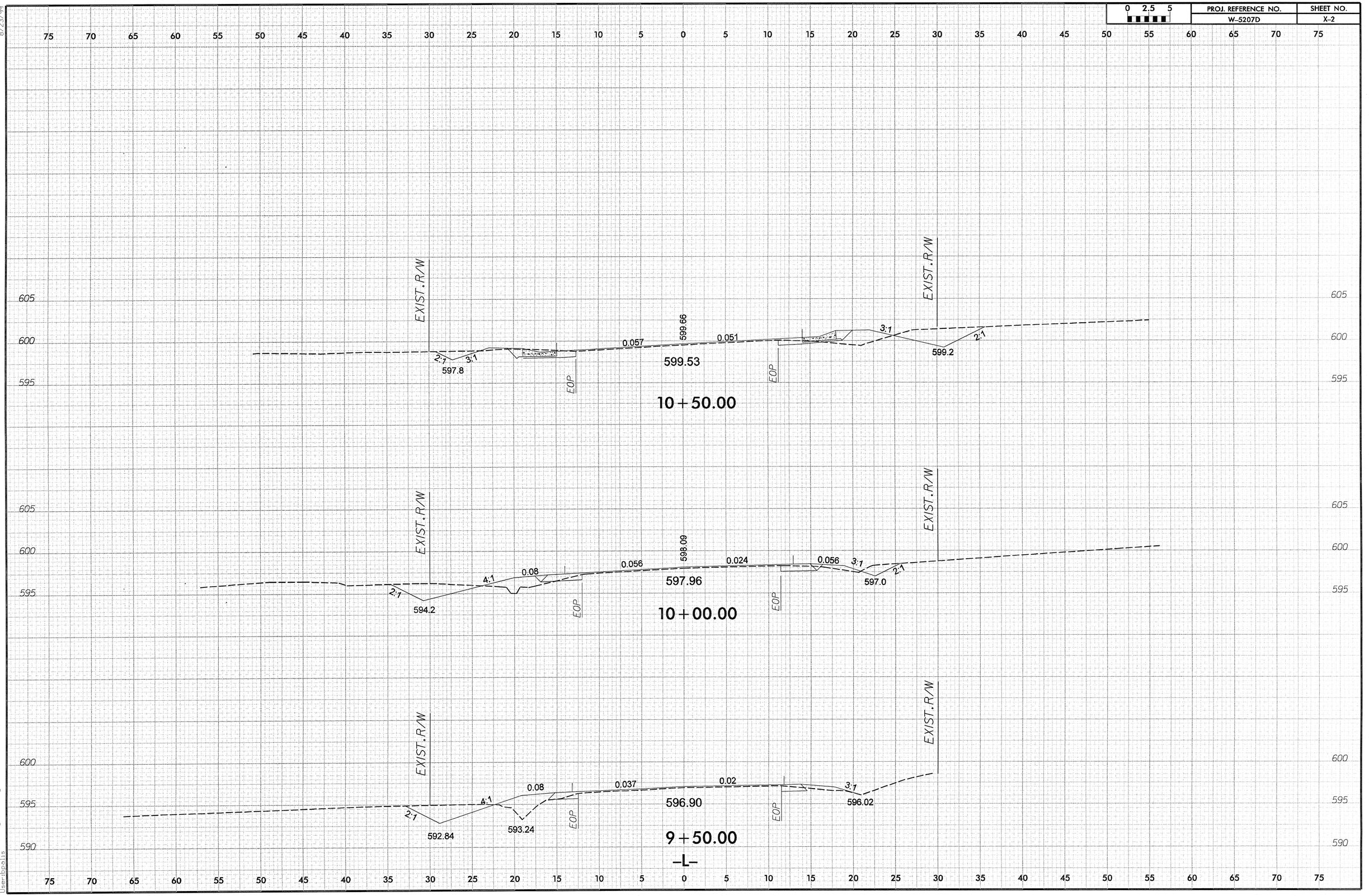
Station	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)	Station	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)
-L-			-Y-		
9+26.85	0	0	8+75.00	0	0
10+00.00	12	8	9+00.00	41	0
10+50.00	27	19	9+50.00	66	4
11+00.00	22	26	10+00.00	85	18
11+50.00	24	28	10+50.00	110	28
12+00.00	31	22	11+00.00	120	38
12+50.00	33	20	11+50.00	93	58
13+00.00	29	25	12+00.00	41	31
13+50.00	14	16	12+50.00	18	16
14+00.00	17	1	13+00.00	18	184
14+50.00	45	1	13+50.00	0	509
15+00.00	62	0	14+00.00	15	526
15+50.00	79	2	14+50.00	156	191
16+00.00	65	12	15+00.00	470	7
16+50.00	25	38	15+50.00	506	0
17+00.00	24	37	16+00.00	215	28
17+50.00	23	23	16+50.00	43	77
18+00.00	2	7	17+00.00	17	74
18+05.35	0	0	17+50.00	17	36
		0	18+00.00	4	23
		0	18+50.00	1	17
		0	19+00.00	1	6
		0	19+50.00	0	0
TOTAL	534	287	TOTAL	2036	1862

Approximate quantities only. Clearing and Grubbing, Unclassified excavation, grading, and removal of existing pavment will be paid for at the contract lump sum price of "grading.

RAMEY KEMP & ASSOCIATES

8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5207D	X-2



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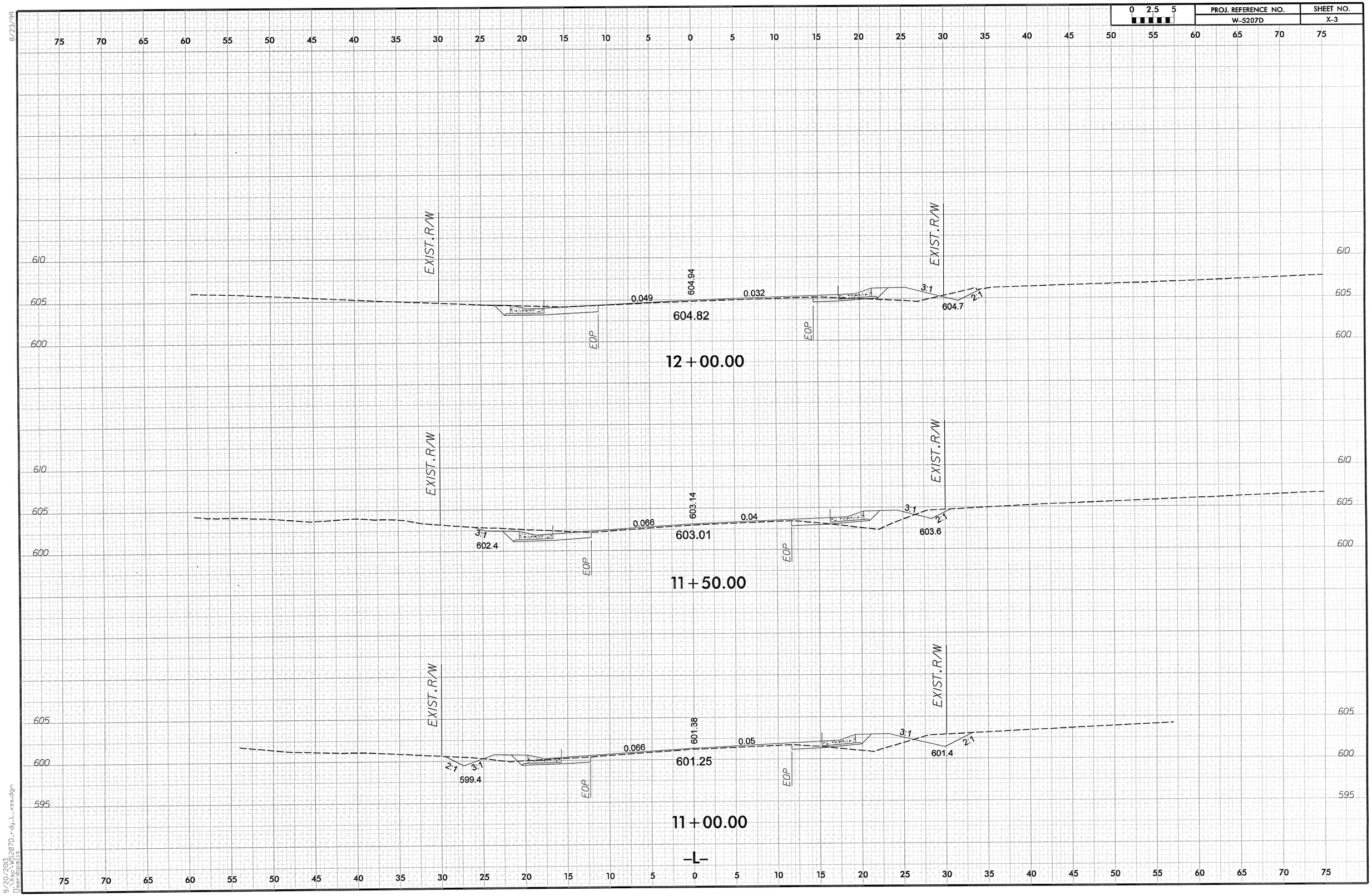

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8/23/99

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	W-5207D	X-4

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610
605
600

EXIST. R/W

SEE -Y- CROSS SECTIONS

0.02

608.13

608.01

EOP

EOP

0.031

EXIST. R/W

SEE -Y- CROSS SECTIONS

13 + 50.00

PROP. R/W

EXIST. R/W

2:1 2:1

606.13

607.69

0.02 0.02

607.57

EOP

EOP

EXIST. R/W

3:1

603.7

13 + 00.00

PROP. R/W

EXIST. R/W

2:1 2:1

605.50

606.70

0.03

0.022

606.57

3:1

EOP

EOP

EOP

12 + 50.00

–L–

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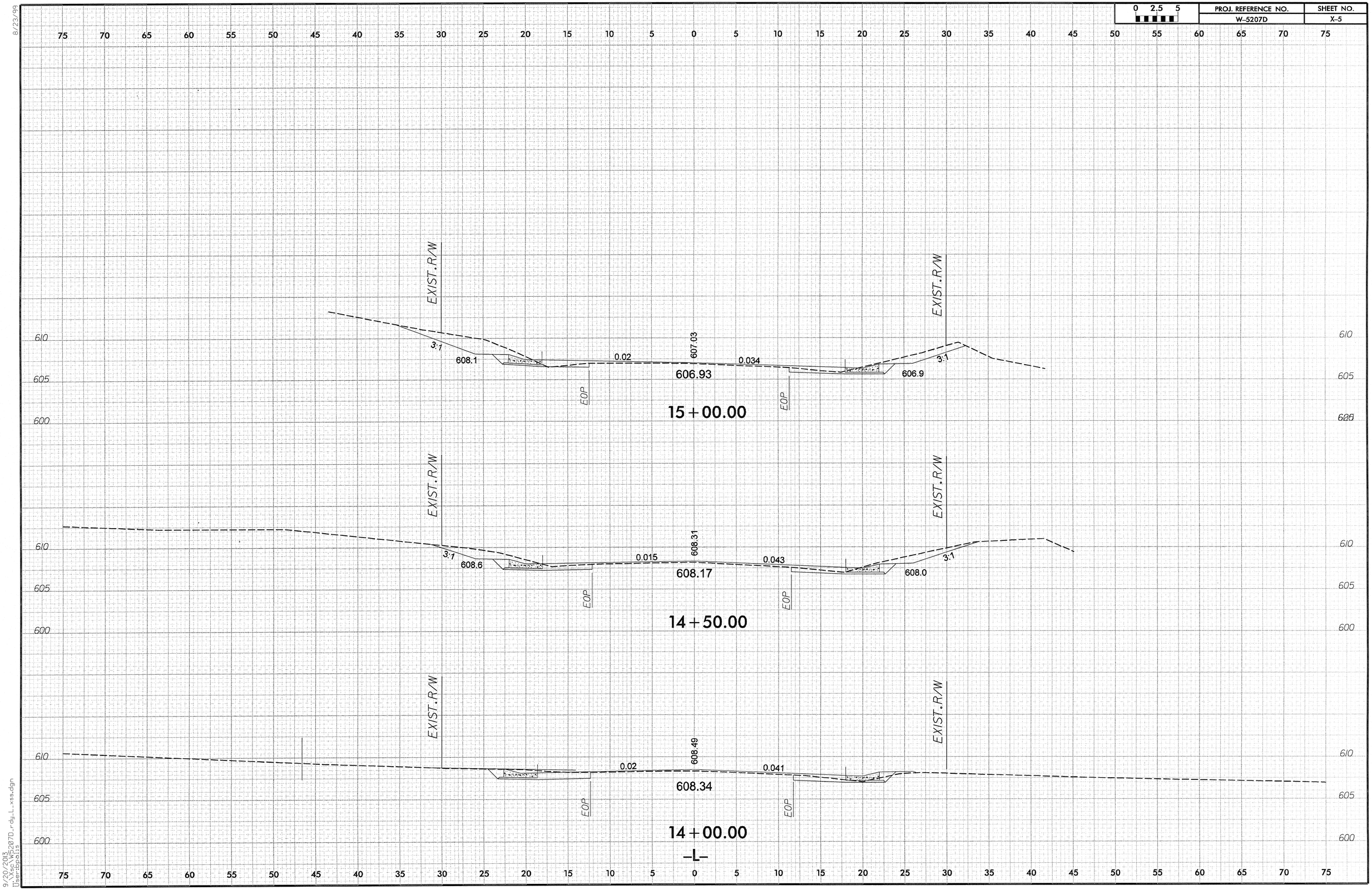

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605
600
595

EXIST. R/W

602.29

0.02

602.17

0.05

EXIST. R/W

3:1

597.6

EOP

EOP

16+50.00

610
605
600

EXIST. R/W

3:1

604.9

603.98

0.02

603.86

0.043

EXIST. R/W

EOP

EOP

16+00.00

605
600
595

EXIST. R/W

3:1

606.3

605.61

0.014

605.49

0.048

3:1

EXIST. R/W

EOP

EOP

15+50.00

–L–

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

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User:bpalis

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0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5207D	X-7

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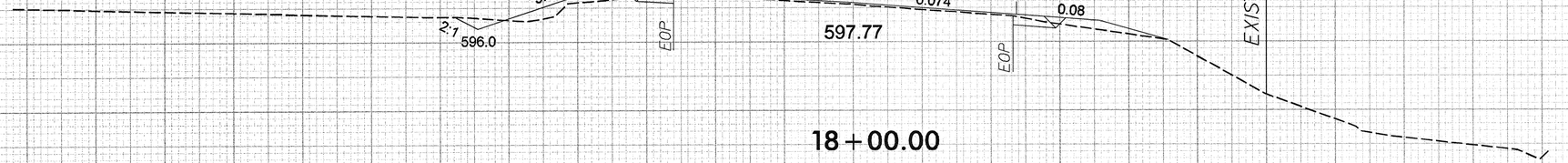
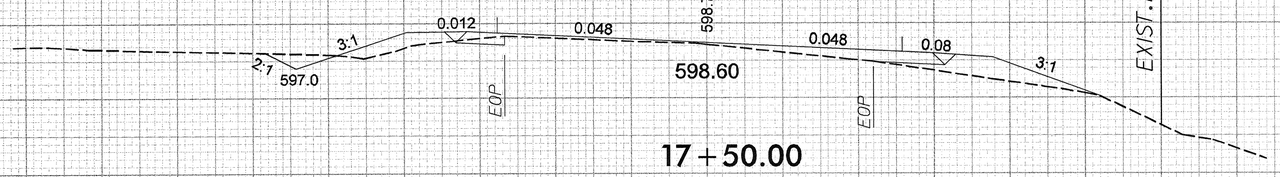
600
595
590



18+00.00



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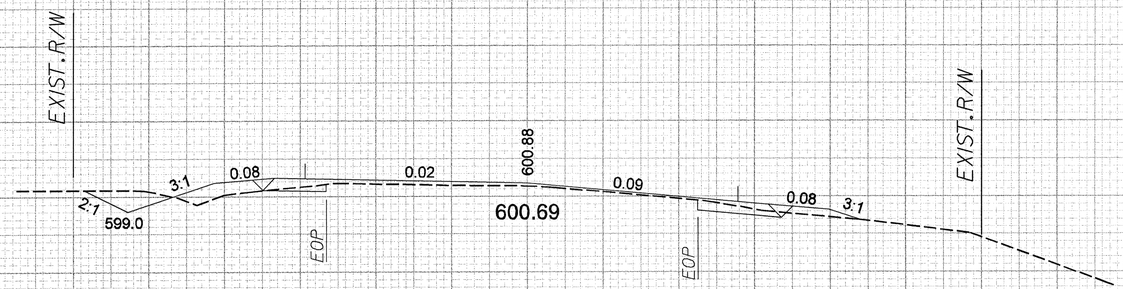

17+00.00

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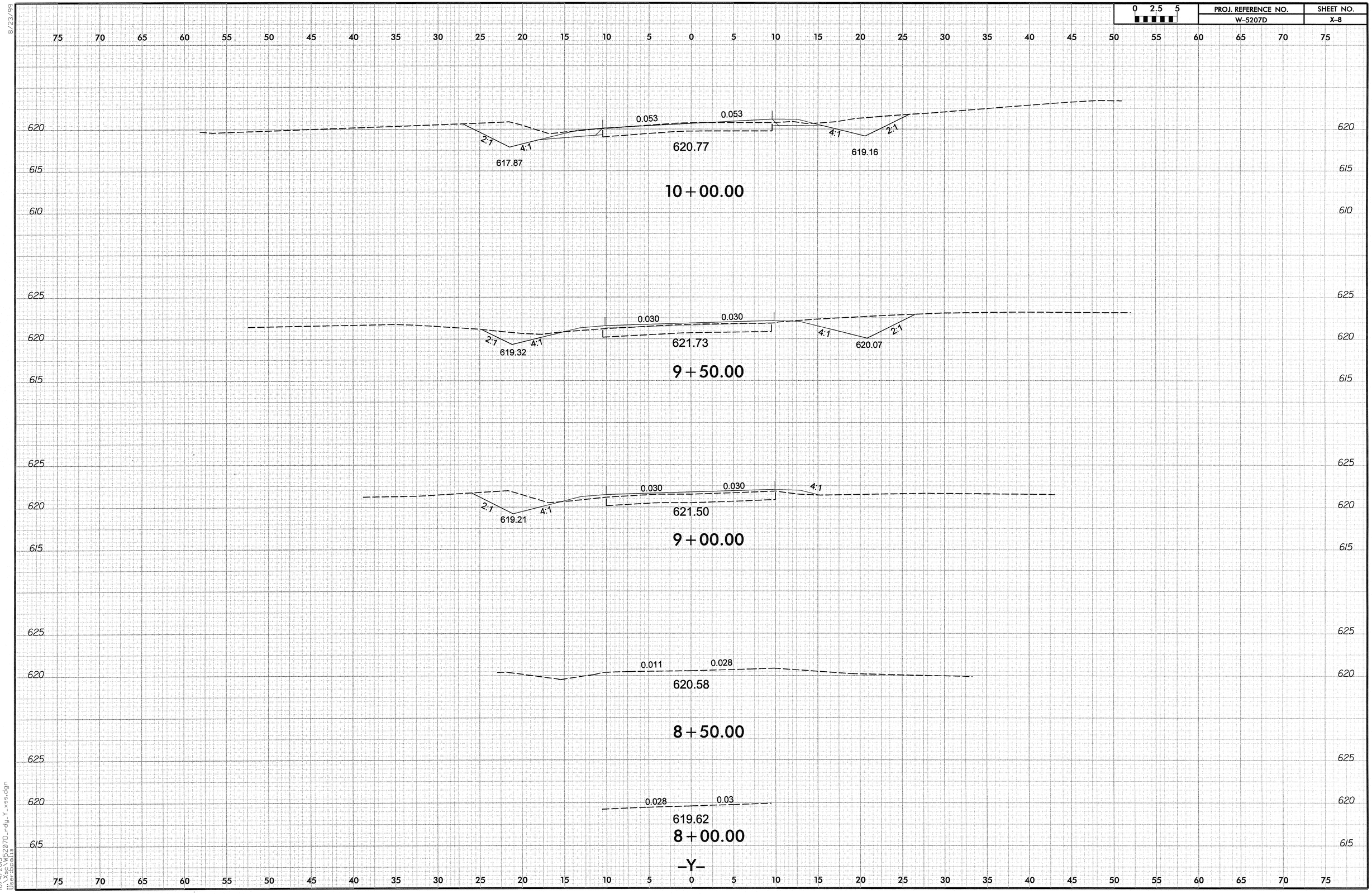

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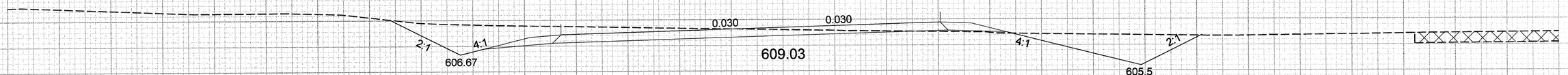
615
610
605



12+00.00

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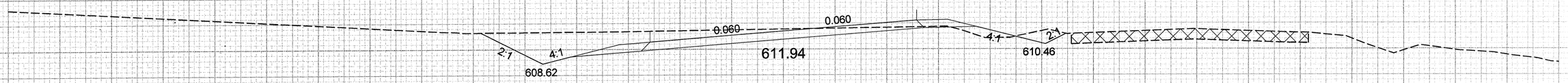
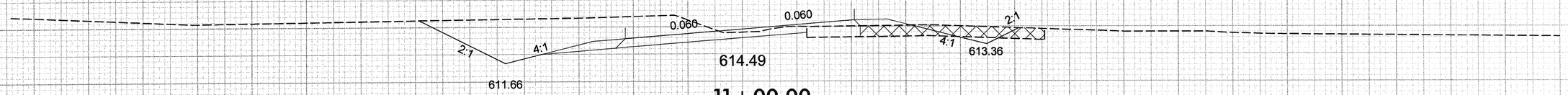


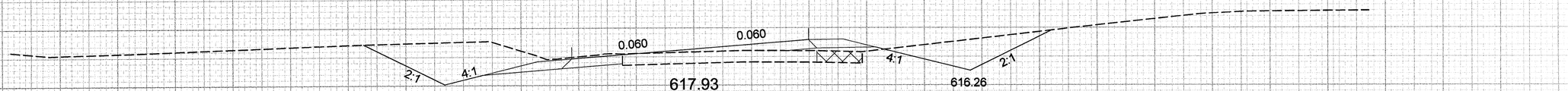
11+50.00

620
615
610



11+00.00

620
615
610



10+50.00

–Y–

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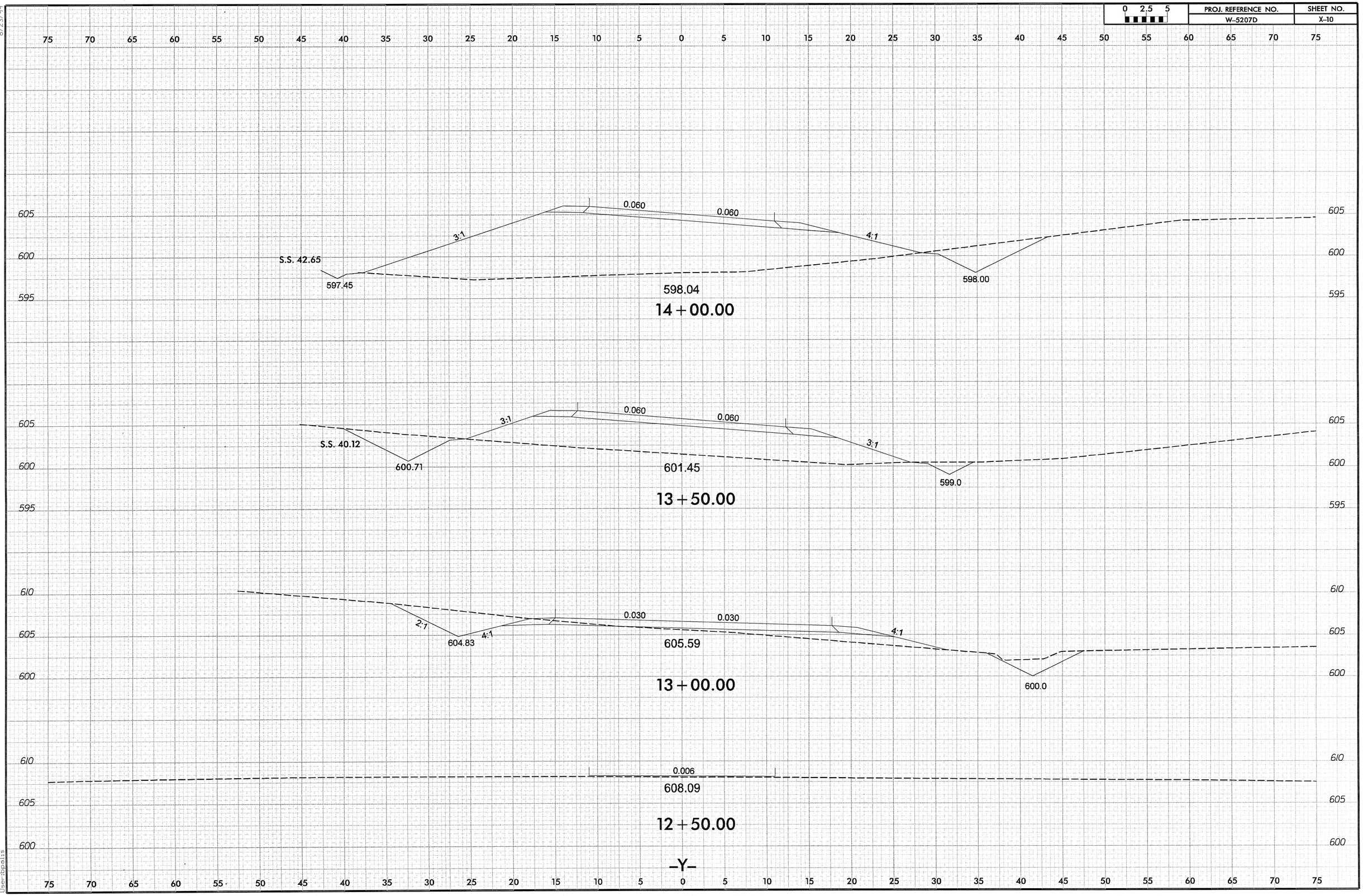
	W-5207D	X-10



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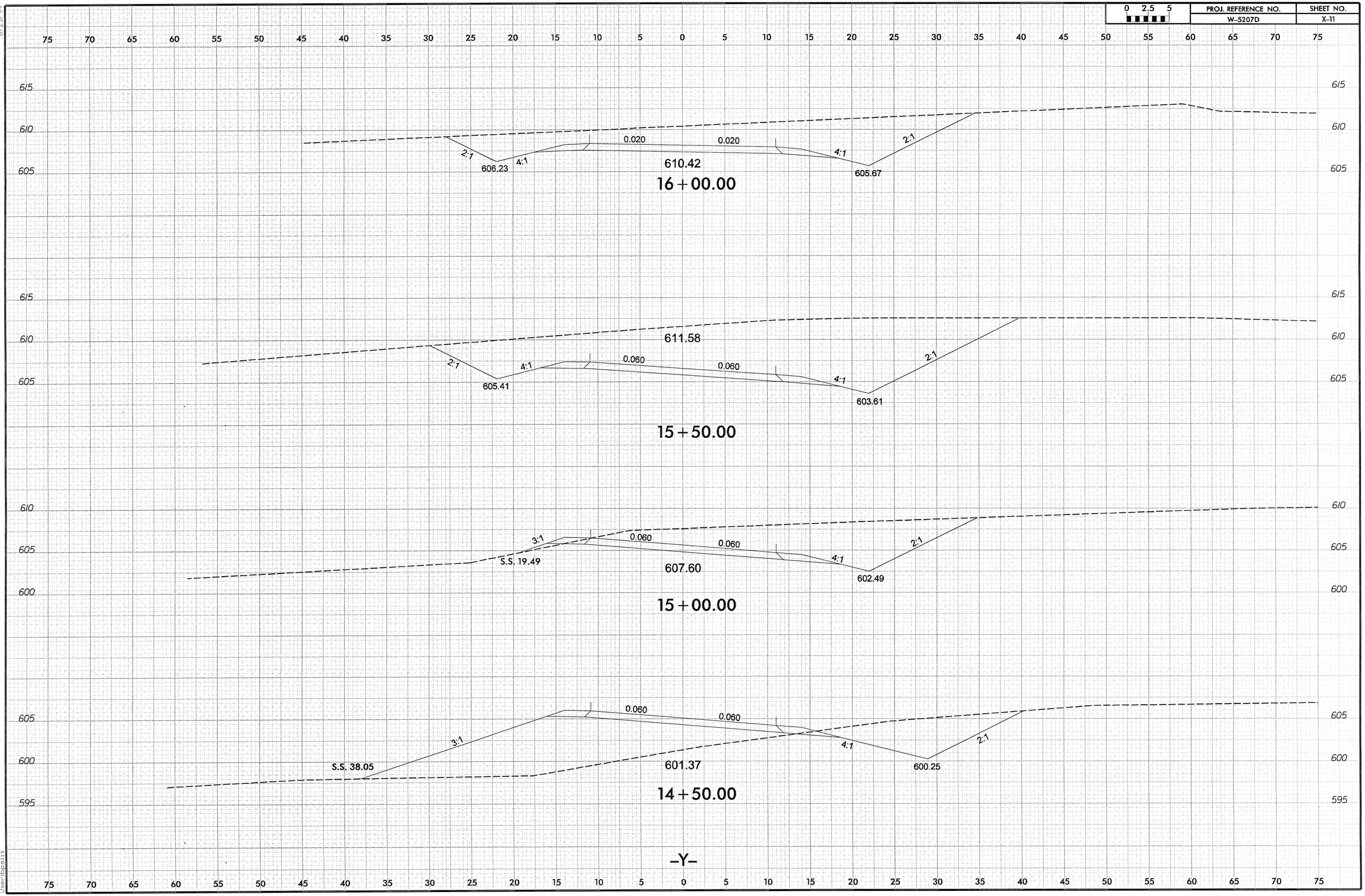

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615
610
605

0.060 0.060 3:2:1

613.55

18+00.00

615
610
605

0.060 0.060 4:1

612.86

driveway

17+50.00

615
610
605

4:1 0.060 0.060 4:1 2:1

610.97 610.92

17+00.00

615
610
605

4:1 0.030 0.030 4:1 2:1

609.88 608.37

16+50.00

–Y–

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

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8/23/99

0 2.5 5

PROJ. REFERENCE NO.	SHEET NO.
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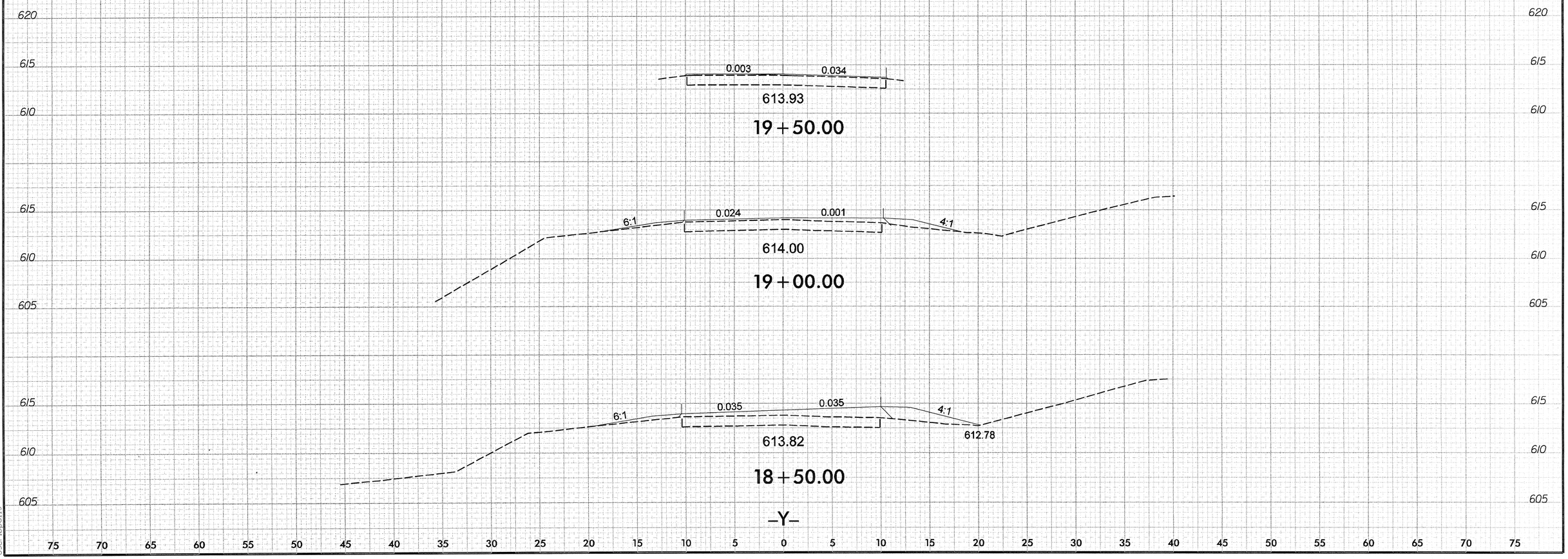
620
615
610
605



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