PROJECT REFERENCE NO.	SHEET NO.
B-4660	X-1
RW SHEET NO.	

ROADWAY DESIGN ENGINEER

SEAL 35016

7/21/11

421 FAYETTEVILLE ST
SUITE 400
RALEIGH, NC 27601
T 919.380.8750
F 919.380.8752
www.stewart-eng.com
FIRM NO.: C-1051
STEWART

CROSS SECTION SUMMARY

NOTE: EMBANKMENT COLUMN DOES NOT INCLUDE BACKFILL FOR UNDERCUT

STATION L	UNCL. EXC. (CU. YD.)	EMBT. (CU. YD.)
19+65.00	–	–
20+15.00	6	0
20+65.00	40	0
21+00.00	84	12
21+50.00	166	45
22+00.00	145	32
22+50.00	64	59
23+00.00	10	134
23+50.00	10	243
24+00.00	0	349
24+20.00	0	147

STATION L	UNCL. EXC. (CU. YD.)	EMBT. (CU. YD.)
29+00.00	–	–
29+50.00	27	40
30+00.00	27	6

Y1	UNCL. EXC. (CU. YD.)	EMBT. (CU. YD.)
11+50.00	–	–
12+00.00	16	8
12+30.00	8	10

STATION Y2	UNCL. EXC. (CU. YD.)	EMBT. (CU. YD.)
10+75.00	–	–
11+00.00	12	0
11+50.00	42	34
11+63.38	9	23

STATION Y2 & MUP1	UNCL. EXC. (CU. YD.)	EMBT. (CU. YD.)
11+63.38	–	–
12+00.00	8	23
12+50.00	3	132
13+00.00	3	215

STATION MUP2	UNCL. EXC. (CU. YD.)	EMBT. (CU. YD.)
10+00.00	–	–
10+32.78	5	70
10+81.21	13	80
11+00.00	45	9

STATION MUP2	UNCL. EXC. (CU. YD.)	EMBT. (CU. YD.)
12+00.00	–	–
12+45.00	80	16

STATION MUP2	UNCL. EXC. (CU. YD.)	EMBT. (CU. YD.)
13+05.00	–	–
13+50.00	17	9
14+00.00	45	9
14+50.00	55	4
14+97.52	46	1

CROSS SECTION INDEX

SHEET	BEGIN STATION	END STATION
X-2	-L- 19+65.00	-L- 21+00.00
X-3	-L- 21+50.00	-L- 22+50.00
X-4	-L- 23+00.00	-L- 23+50.00
X-5	-L- 24+00.00	-L- 24+50.00
X-6	-L- 25+00.00	-L- 25+50.00
X-7	-L- 26+00.00	-L- 26+50.00
X-8	-L- 27+00.00	-L- 28+00.00
X-9	-L- 28+50.00	-L- 30+00.00
X-10	-Y1- 11+25.00	-Y1- 12+00.00
X-11	-Y2- 10+75.00	-Y2- 11+50.00
X-12	-Y2- 11+63.38	-Y2- 12+00.00
X-13	-Y2- 12+50.00	
X-14	-MUP2- 11+00.00	-MUP2- 12+00.00
X-15	-MUP2- 12+45.00	-MUP2- 13+05.00
X-16	-MUP2- 13+50.00	-MUP2- 14+97.52

Note:

Approximate quantities only. Unclassified Excavation, Borrow Excavation, Fine Grading, Clearing and Grubbing, and Removal of Existing Pavement will be paid for at the contract lump sum price for "Grading."

Earthwork quantities are calculated by the Roadway Design Unit. These earthwork quantities are based in part on subsurface data provided by the Geotechnical Engineering Unit.

REVISIONS 8/17/99

7/20/2011
\Proj\B4660_RDY_PLANSHEETS.dgn
USER: RefFanc

8/23/99

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	B-4660	X-2

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

235 230 225 220

S.S. 232.12

2:1

4:1

223.41

6:1

0.001

0.020

225.44

3:1

S.S. 220.76

21+00.00

235 230 225

0.080

0.014

0.020

227.34

0.044

S.S. 226.98

S.S. 226.15

20+65.00

240 235 230

S.S. 230.52

0.080

0.019

0.020

229.71

230.17

=DRIVEWAY=

20+15.00

240 235 230

232.94

19+65.00

—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

7/20/2011
\Proj\B4660_RDY_PLANSHEETS.dgn
USER: hefner

8/23/99

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	B-4660	X-3

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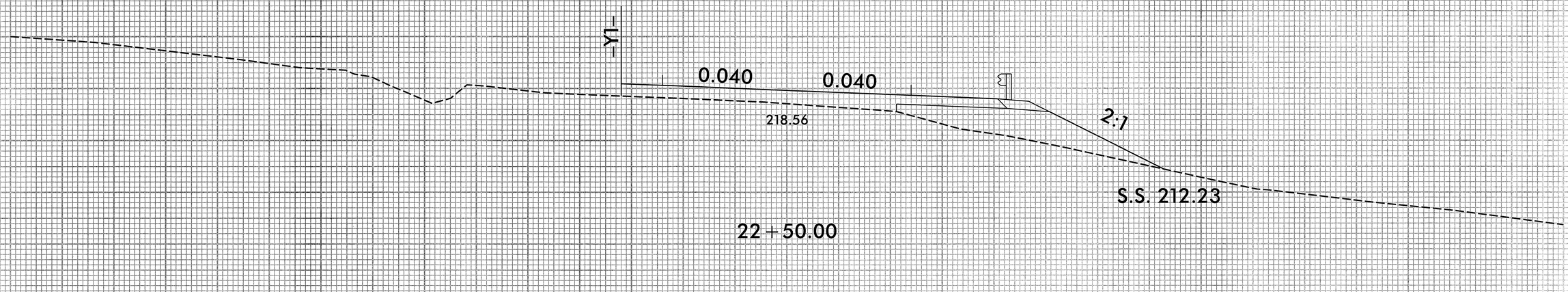
225 220 215 210



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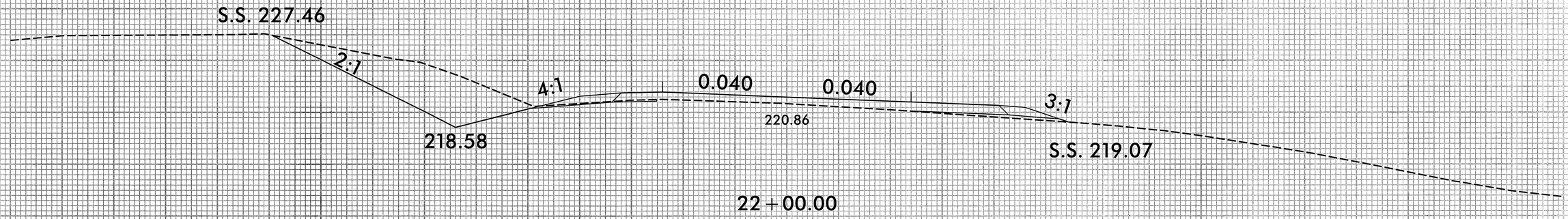

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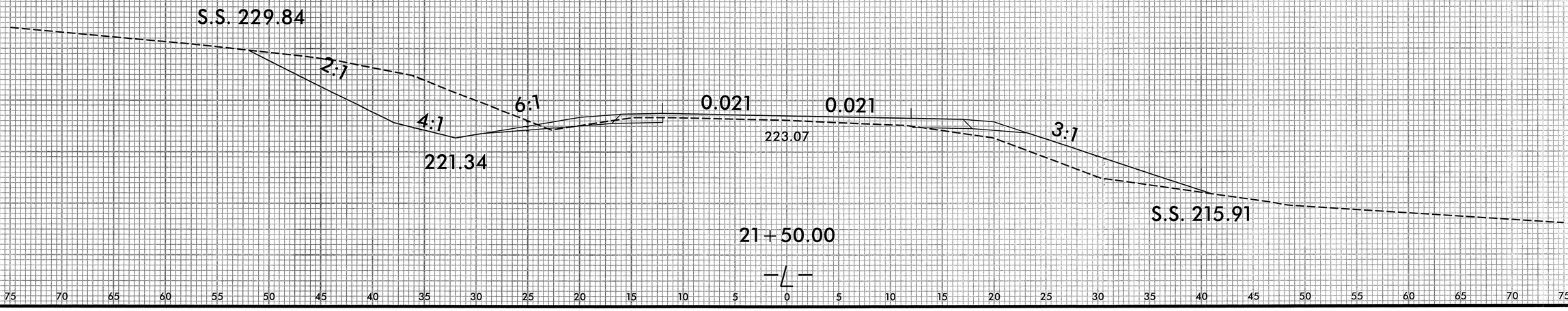

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B4660_RDY_PLANSHEETS.dgn

8/23/99

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	B-4660	X-4

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

220 215 210 205 200 195

4:1 0.020 0.040 0.040 2:1

S.S. 214.46

214.96

S.S. 202.12

–MUP2–

STA. 12+75.00

EX. EL. 199.80

PROP. EL. 202.47

23+50.00

6:1 0.020 0.040 0.040 2:1

2:1

S.S. 216.58

216.52

S.S. 207.13

23+00.00

–℄–

7/20/2011
\\Pr01\NB4660_RDY_PLANSHEETS.dgn
USER:jhefner

8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-4660	X-5

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

220 215 210 205

0.020 0.040 0.040

213.75

24+50.00

220 215 210 205 200

0.020 0.040 0.040

213.65

RETAINING WALL # 3

–MUP2–
STA. 11+95.53
EX. EL. 204.64
PROP. EL. 200.86

2.0% 2.0%

200.51

195

24+20.00

℄ –MUP1–
STA. 11+27.32

220 215 210 205

0.020 0.040 0.040 0.040

213.68

3:1

RETAINING WALL # 3

–MUP2–
STA. 12+18.42
EX. EL. 201.39
PROP. EL. 200.99

2:1

1.4%

2:1

198.33

200 195

24+00.00

℄

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

7/20/2011
USER: jhefner
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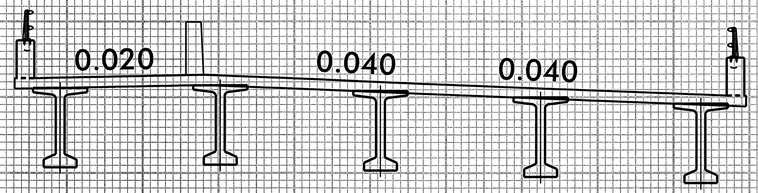
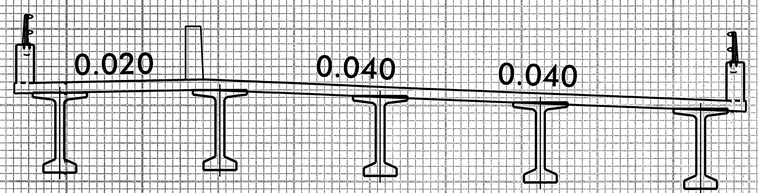
8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-4660	X-6



193.16

25+50.0000



194.61

25+00.0000

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12:03:34
USER: Hefner

B4660_RDY_PLANSHEETS.dgn

8/23/99

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	B-4660	X-7

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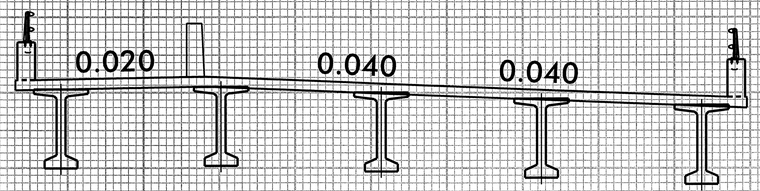
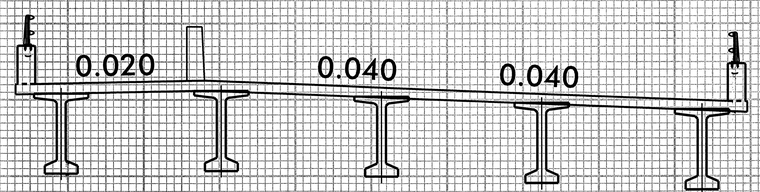
220 215 210 205 200 195



191.88
26+50.0000



193.81
26+00.0000

—℄—

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

7/20/2011
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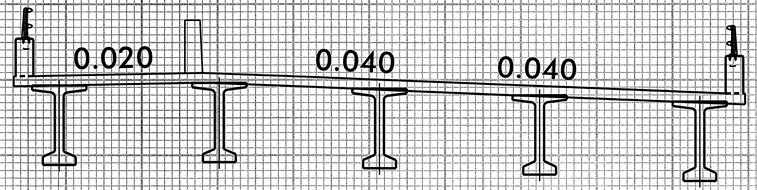
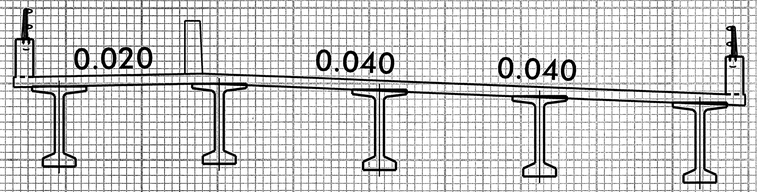
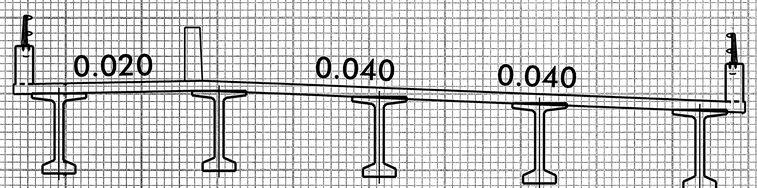


193.68
28+00.0000



194.74
27+50.0000



194.74
27+00.0000

7/20/2011
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USER: jhenson

8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-4660	X-9

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

215 210 205

0.005

S.S. 214.89

214.37

30+00.0000

0.028 0.048 0.048

S.S. 213.59

214.01

S.S. 213.42

29+50.0000

0.020 0.040 0.040

213.80

215 210 205 200

29+00.0000

0.020 0.040 0.040

215 210 205 200 195

195.20

28+50.0000

—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

7/20/2011
\\Prov\B4660_RDY_PLANSHEETS.dgn
USER: fhefner

8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-4660	X-10

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

225
220

0.014 0.014 0.014 4:1

222.88

S.S. 222.148

12+00.00

235
230
225

S.S. 227.446 0.030 0.030 2:1 S.S. 226.78 2:1

227.12

224.00

11+50.00

235
230
225

228.78

11+25.00

–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

7/20/2011
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USER:jpfenner

8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-4660	X-11

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

220 215 210

–Y2–
STA. 11+50.00
EX. EL. 211.69
PROP. EL. 212.32

0.020 0.028 0.017 0.073 S.S. 212.77

RETAINING WALL # 1

11+50.00

220 215 210 205 200

–Y2–
STA. 11+00.00
EX. EL. 212.82
PROP. EL. 212.90

S.S. 212.02 0.069 0.059 S.S. 211.56

11+00.00

225 220 215 210 205

–Y2–
STA. 10+75.00
EX. EL. 213.67
PROP. EL. 213.67

EXIST EXIST

10+75.00

–Y2–

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

7/20/2011
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USER: jhammond
B4660_ROY_PLANSHEETS.dgn

8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-4660	X-12

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

225 220 215 210 205 200

-MUP2-
STA. 10+32.78
EX. EL. 207.24
PROP. EL. 210.52

-Y2-
STA. 12+00.00
EX. EL. 211.87
PROP. EL. 213.14

48" RAIL
48" RAIL
0.020
0.020
.02
0.020
0.020
0.020
RETAINING WALL # 1
RETAINING WALL # 2
S.S. 213.07

12+00.00

-MUP2-
STA. 10+00.00
EX. EL. 208.95
PROP. EL. 211.79

-Y2-
STA. 11+63.38
EX. EL. 211.63
PROP. EL. 212.41

48" RAIL
0.020
0.020
0.009
0.032
RETAINING WALL # 1
S.S. 212.81

225 220 215 210 205 200 195

11+63.38

-Y2-

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

7/20/2011
USER: Planner
B4660_RDY_PLANSHEETS.dgn

8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-4660	X-13

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

225
220
215
210
205
200

–Y2–
STA. 12+50.00
EX. EL. 212.63
PROP. EL. 215.30

–MUP2–
STA. 10+81.21
EX. EL. 205.21
PROP. EL. 206.41

48" RAIL
48" RAIL
2:1
0.020
.02
0.020
0.020
0.020
212.63
S.S. 215.18
NG WALL # 1
RETAINING WALL # 2

12+50.00

–Y2–

7/20/2011
VP: ON\B4660_RDY_PLANSHEETS.dgn
USER: lhefner

8/23/99

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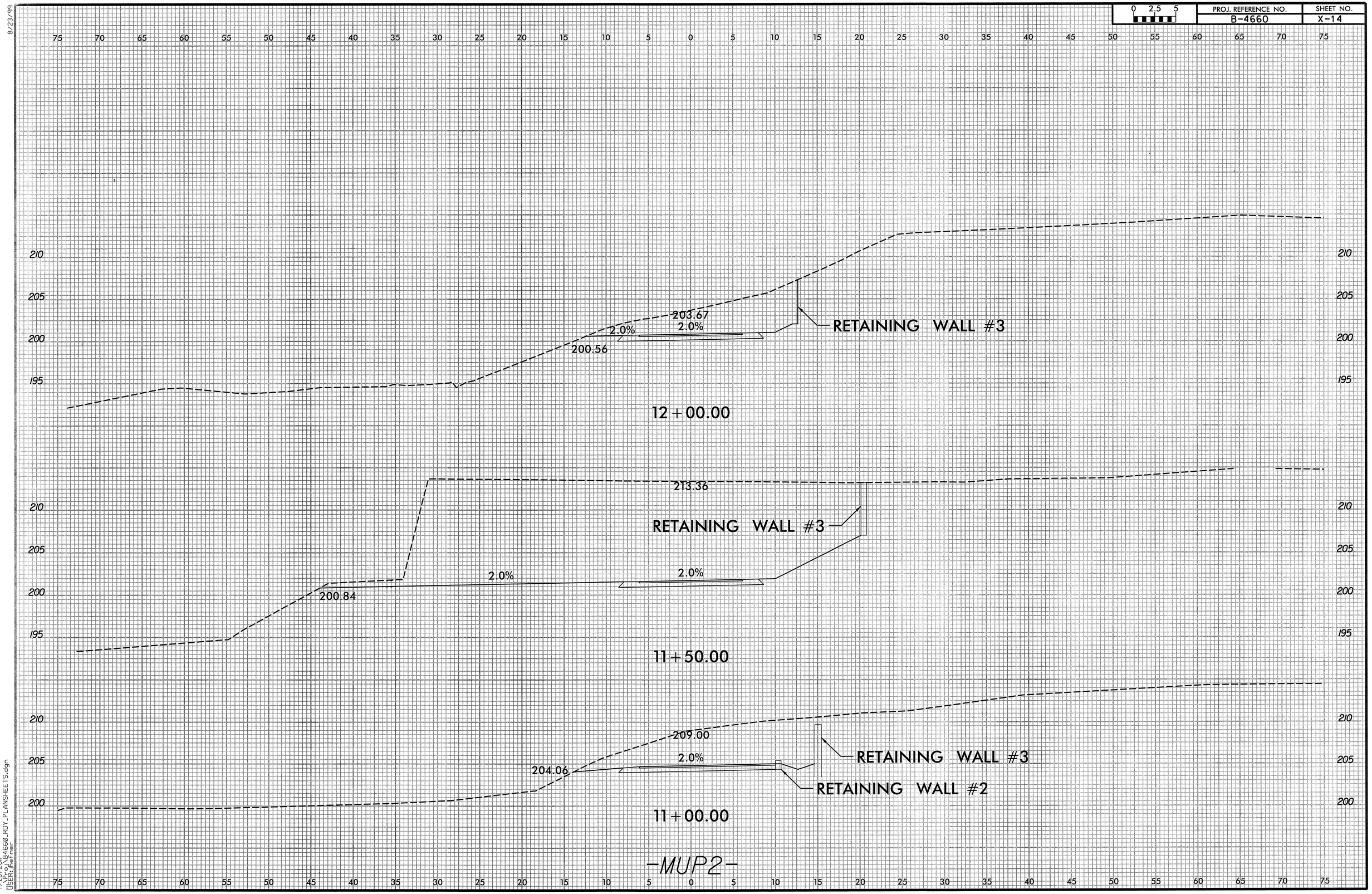

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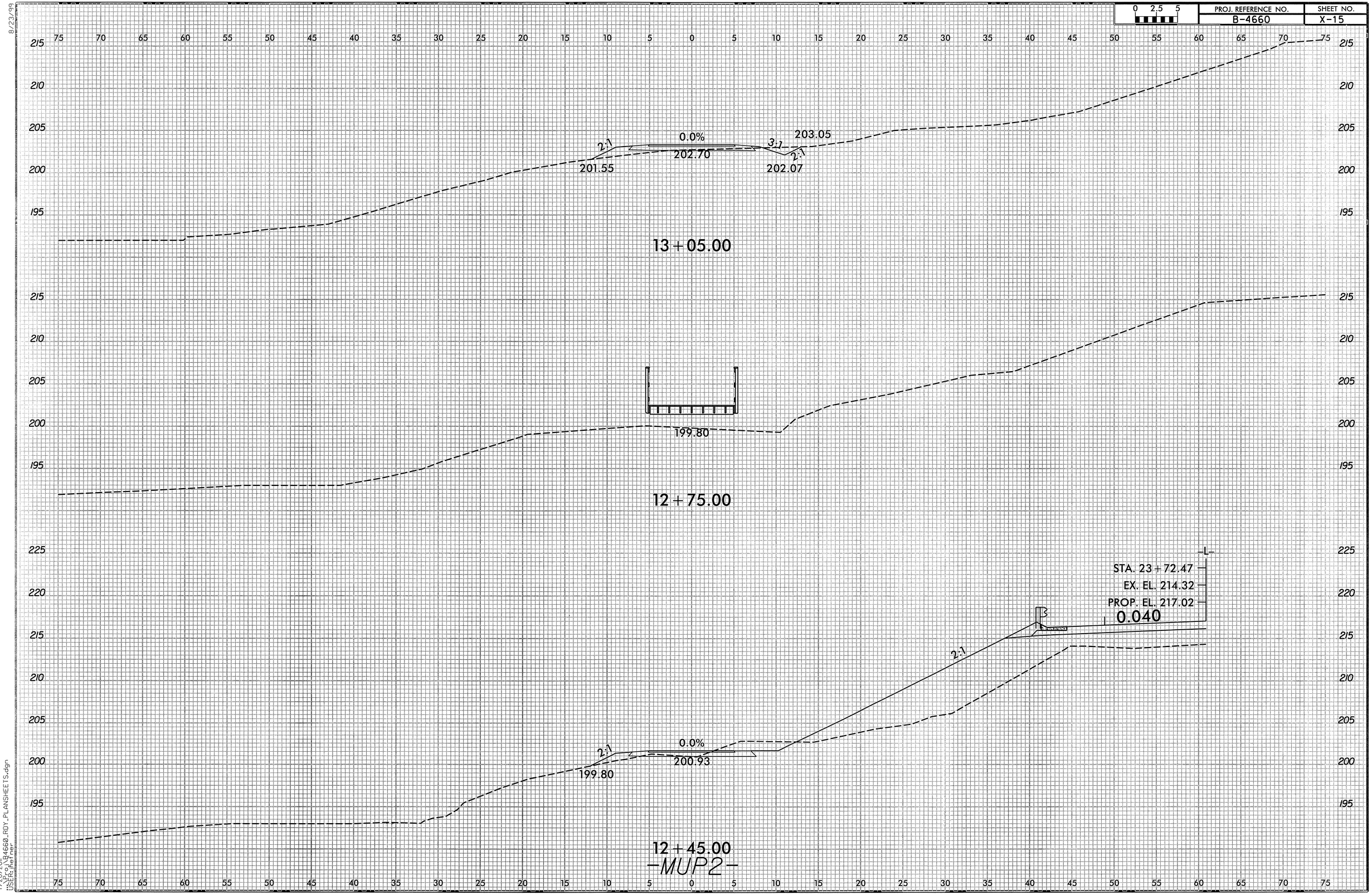

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8/23/99

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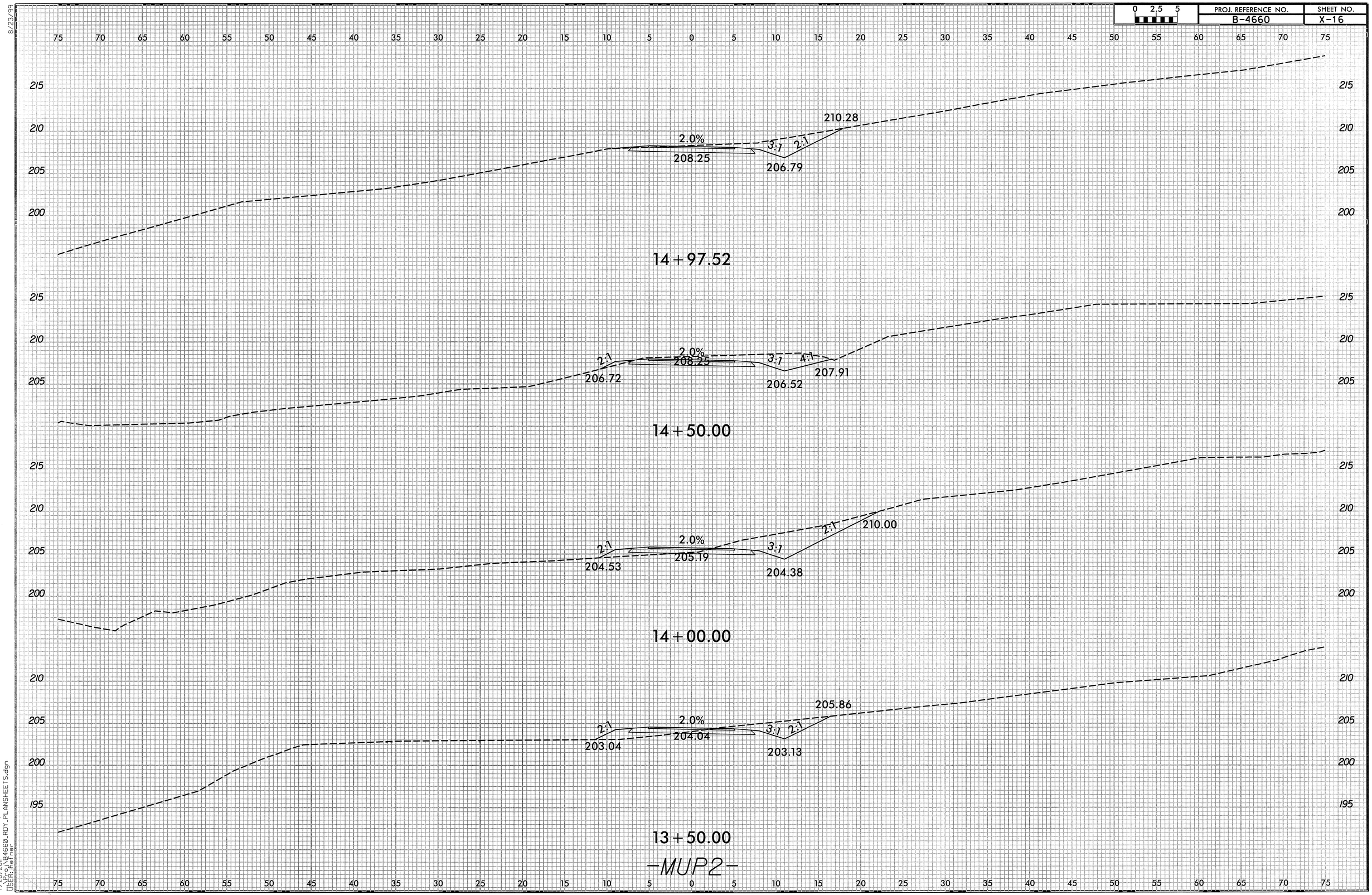

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