FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-70-7(12)193	

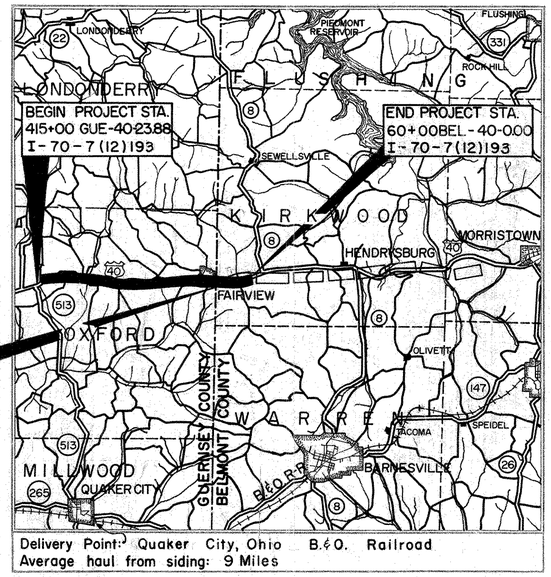
1/485

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
GUE - 40 - 23.88
BEL - 40 - 0.00
OXFORD & KIRKWOOD TOWNSHIPS
VILLAGE OF FAIRVIEW
GUERNSEY COUNTY
BELMONT COUNTY

GUERNSEY COUNTY & BELMONT COUNTY
GUE - 40 - 23.88
BEL - 40 - 0.00

I - 70 - 7 (12) 193
LIMITED ACCESS

This improvement is especially designed for through traffic and has been declared a limited access highway or freeway by action of the Director of Highways in accordance with the provisions of Section 5511.02 of the Revised Code of Ohio.



Delivery Point: Quaker City, Ohio B.&O. Railroad
Average haul from siding: 9 Miles

The following sheets were revised: 1, 13, 14, 15, 16 & 407Q Rev. 11-4-64 C.E.H.

LOCATION MAP

SCALE OF MILES
0 1 2 3 4 5 6

Portion to be improved
State Roads
Construction under other Contracts
Other Roads

SCALE

Plan 0' 50' 100'
Profile - Horizontal 0' 50' 100'
Profile - Vertical 0' 10' 20'
Cross Sections 0' 5' 10' 20'

CONVENTIONAL SIGNS

County Line
Existing Right of Way — R/W —
Existing Limited Access — LA —
Limited Access Only — LA —
Right of Way Only — R/W —
Limited Access and Right of Way — LA / R/W —
Township Line
Section Line
Center Line
Corporation Line
Fence Line
Guard Rail (existing)
Guard Rail (proposed)
Railroads
Power Poles
Telephone Poles
Trees or Stumps (existing)
Trees or Stumps (to be removed)
Delineators

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		Structures Span 20' & Under	408 - 430
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		Right of Way See R/W Engrs. File	454 - 485

LINE DATA

Begin Project Station 415+00
Equation 657+41.53 BK = 9+99.42 AH.
End Project Station 60+00
Net Length for Project 29,242.11 Lin. Ft. or 5.538 Miles
Add for Side Roads 25,944.18 Lin. Ft.
(See Sheet 12)
Add for West Approach 370.00 Lin. Ft.
Sta. 411+32 to Sta. 415+00

Net Length of Work 55,556.29 Lin. Ft. or 10.522 Miles

File No.			
	GUERNSEY COUNTY	I.R. 70	GUE 40-23.88
	BELMONT COUNTY	I.R. 70	BEL 40-0.00
	Date of Letting		196
	Contract No.		

1963 SPECIFICATIONS

The standard specifications of the State of Ohio, Department of Highways, including changes and supplemental specifications listed in the proposal shall govern this improvement.

The right of way for this improvement will be provided by the State of Ohio.

I hereby approve these plans and declare that the making of this improvement will not require the closing to traffic of the highway and that provisions for the maintenance and safety of traffic will be as set forth on these plans and estimates.

Approved _____
Date 12-7-64 Division 5 Deputy Director
Approved D. H. Overmyer
Date 4-24-64 Engineer of Bridges
Approved R. M. Richter
Date 4-30-64 Engineer of Location & Design
Approved R. E. Shultz
Date 4-30-64 Deputy Director of Design & Construction
Approved T. H. Boraw
Date 4-4-64 Deputy Director of Right of Way
Approved J. W. Wilson
Date 5-15-64 Deputy Director of Planning & Programming
Approved _____
Date _____ First Assistant Director
Approved P. E. Moehler
Date 5-15-64 Director of Highways

J-5

PLANS PREPARED BY
RACKOFF ASSOCIATES
ENGINEERS
COLUMBUS, OHIO
Melvin Rackoff
MELVIN RACKOFF

STATE OF OHIO REGISTERED PROFESSIONAL ENGINEER MELVIN RACKOFF

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED:

DIVISION ENGINEER DATE

Rev 11-4-64 C.E.H.
Rev 5-15-64

Supplemental Prints of Standard Construction Drawings

B-T-70-71	11-15-60	HW-A&B	7-15-57	I-8 C.B. NO.5	2-1-63					CS-2-54 Sht's 1 & 2	2-2-59
B-T-71 R.	3-2-53	HW-C	7-15-57	I-8 C.B. NO.8	2-1-63	I-15 NO.1	11-15-60	L.J. NO.1	7-1-55	AR-1-57	4-2-62
DR-1	1-3-55	HW-E	2-1-63	I-8 C.B NO.6	2-1-63	I-15 NO.2-A	8-17-60	RI-1	7-15-58	L-1	4-1-50
		I-1	11-15-60					T-35	1-2-56	L-3	4-1-50
				I-8 M.H. NO.1	2-1-63			T-J	9-12-60		
FAC I-1	2-25-64	I-8 C.B. 23 & 24	2-1-63	I-8 M.H. NO.1A	2-1-63	I-15 NO. 5A	2-1-63	AS-1-54	7-5-62		
FAC I-2	2-25-64	I-8 C.B. 25 & 26	2-1-63	I-8 M.H. NO.2	2-1-63	I-21-23	8-1-56	L-3 A	4-1-50		
G-7.07	4-1-64	I-8 C.B. NO.4	2-1-63	I-12	2-1-63			S P-53	6-30-6		

Supplemental Specifications

		I-125	REV. 6-26-61
		I-127	REV. 1-15-62
CE 101.04	5-22-56	S-101-	7-12-62
L-120	REV. 1-2-62	T-335	10-28-63
M-107.18	REV. 4-3-61		

SCHEMATIC LAYOUT PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

2 / 485

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00

SCALE IN FEET 0 400 800 1200 1600

NOTE
FOR ADDITIONAL WORK ON C.R. 286, C.R. 25, TR 81, & C.R. 254, SEE SHEETS #407A THRU 407Q

MAINLINE CURVE DATA
P.I. Sta. 443+75.60
Δ = 45°45' 15" Rt.
D = 01° 51' 00"
R = 3097.07'
L = 2473.20'
T = 1306.79'
E = 264.41'

MAINLINE CURVE DATA
P.I. Sta. 490+56.12
Δ = 16° 34' 33" Lt.
D = 00° 23' 58"
R = 14343.87'
L = 4149.72'
T = 2089.45'
E = 151.38

CURVE DATA
C.H. 286 CONN.
P.I. STA. 0+88.86
Δ = 24° 30' 00" Lt.
D = 14° 00' 00"
R = 409.26'
L = 175'
T = 88.86'
E = 9.54'

CURVE DATA FOR C.H. #27 RELOCATION

CURVE NO. 6	CURVE NO. 7	CURVE NO. 8	CURVE NO. 9
CURVE DATA	CURVE DATA	CURVE DATA	CURVE DATA
P.I. STA. 1+26+36.18	P.I. Sta. 17+21.79	P.I. Sta 24+32.39	P.I. Sta. 30+04.70
Δ = 13°59'30" Lt.	Δ = 17° 20' 00" Lt.	Δ = 80° 00' 00" Rt.	Δ = 28°42'00" Lt.
D = 4° 00' 00"	D = 7° 00' 00"	D = 14° 00' 00"	D = 14° 00' 00"
T = 175.77'	T = 124.76'	R = 409.26'	R = 409.26'
L = 349.79'	L = 247.62'	T = 343.41'	L = 205.00'
E = 10.74'	R = 818.50'	L = 571.43'	T = 104.70'
R = 1432.39'	E = 9.45'	E = 124.99'	E = 13.18'

CURVE NO. 10	CURVE NO. 1	CURVE NO. 2	CURVE NO. 3
CURVE DATA	CURVE DATA	CURVE DATA	CURVE DATA
P.I. Sta. 34+08.34	P.I. STA. 1+19+32.82	P.I. STA. 1+34+46.12	P.I. STA. 1+41+75.79
Δ = 41° 11' 30" Rt.	Δ = 34° 42' 15" Lt.	Δ = 5° 47' 45" Rt.	Δ = 12° 27' 25" Rt.
D = 15° 00' 00"	D = 10° 00' 00"	D = 2° 30' 00"	D = 2° 30' 00"
R = 381.97'	T = 179.39'	T = 116.02'	T = 250.13'
L = 274.61'	L = 347.71'	L = 231.33'	L = 498.28'
T = 143.54'	R = 572.96'	R = 2291.83'	R = 2291.83'
E = 26.08'	E = 27.43'	E = 2.35'	E = 13.21'

CURVE NO. 4
CURVE DATA
P.I. STA. 1+53+17.45
Δ = 27° 10' 50" Rt.
D = 2° 00' 00"
T = 692.59'
L = 1359.11'
R = 2864.79'
E = 82.55'

CURVE NO. 5
CURVE DATA
P.I. STA. 1+72+92.75
Δ = 9° 23' 22" Rt.
D = 4° 00' 00"
T = 117.63'
L = 234.74'
R = 1432.39'
E = 4.82'

BEGIN WORK C.H. 27
STA. 1+14+18

POT. STA. 1+14+10.00 & RELOC. C.H. 27 =
POC. STA. 22+11.50 & RELOC. TWP. RD. 35

TWP. RD. 35 RELOC. (BY OTHERS)

TWP. 35

BEGIN PROJECT
GUE. 40 - 23.88
BEL. 40 - 00.00
STA. 415+00.00

RELOC. C.H. 27

N. 62° 09' 06" E.

℄ SURVEY STA. 410+70
℄ CROSSOVER

CODE 9766

OLD U.S. 40

P.C. STA. 430+09.81

BEGIN WORK
STA. 411+30

℄ SURVEY STA. 415+82
℄ TEMPORARY CROSSOVER

I-70-7(10)187 I-70-7(12)103

P.C. STA. 0+00 C.H. 286 BEGIN WORK
STA. 0+08.06

P.C. STA. 1+74+00 RELOC. C.H. 27

Dead End

P.T. STA. 455+82.01

S. 72° 35' 09" E.

TWP. 286

C.R. 286

℄ C.H. 286 CONN.

P.C. STA. 469+66.67

TWP. 213

END WORK
STA. 37+00

P.T. STA. 1+78+10.20 & C.H. 27 BK. =
P.O.T. STA. 10+33.11 & C.H. 27 AH.

BEGIN WORK TWP. 213
STA. 0+08.5

RELOC. C.H. 27

BRIDGE Nos.
GUE. 40-25.27 Lt & Rt.

P.T. STA. 5+11+16.38

Dead End

END WORK
STA. 35+80

SEC. 26 | SEC. 20
SEC. 25 | SEC. 19
SEC. 14
SEC. 13

UTILIZE EXISTING PAVEMENT

SEE NOTE ABOVE

C.H. 254

CURVE DATA FOR C.H. 254

CURVE NO. 1	CURVE NO. 2	CURVE NO. 3
P.I. STA. 10+66.86	P.I. STA. 13+44.08	P.I. STA. 39+79.95
Δ = 86°16'06" Lt.	Δ = 17° 07' 30" Rt.	Δ = 21° 00' 00" Lt.
D = 31° 07' 54"	D = 5° 00' 00"	D = 1° 30' 00"
R = 184.04'	R = 1,145.92'	R = 3819.72'
T = 172.43'	T = 172.54'	T = 707.95'
L = 277.11'	L = 342.50'	L = 1400.0'
E = 68.16'	E = 12.92'	E = 65.05'

P.T. STA. 5+11+16.38

BEGIN NEW PAVEMENT LT.
P.O.T. STA. 5+18+00.00

CURVE DATA
P.I. Sta. 550+48.95
Δ = 22° 44'06" Lt
D = 01° 29' 29"
R = 3841.77'
L = 1524.42'
T = 772.37'
E = 76.87'

P.C. STA. 5+42+76.58

℄ SURVEY STA. 523+25
℄ CROSSOVER

Dead End
TWP. 480

Dead End

S. 88° 40' 12" E.

CODE 9766

TWP. 296

TWP. 296

P.T. STA. 5+56+01.00

END NEW PAVEMENT LT.
P.O.C. STA. 5+70+60.00

B + 34.43 Ahead = 2+06+12.20 Back

P.C. STA. 5+66+96.06

N. 68° 35' 42" E.

CODE 9766

CURVE DATA
P.I. Sta. 5+77+74.54
Δ = 31° 50' 42" Rt.
D = 01° 30' 31"
R = 3797.92'
L = 2110.88'
T = 1083.48'
E = 151.53'

WINTERS RD.

Dead End

CODE 7221

SEC. 14 | SEC. 8
SEC. 13 | SEC. 7

BEGIN NEW PAVEMENT LT.
P.O.C. STA. 5+84+50.00

P.T. STA. 5+84+01.94

RELOC. C.H. 254

P.C. STA. 5+98+96.84

S. 79° 33' 36" E.

CURVE DATA
P.I. Sta. 6+05+79.98
Δ = 19° 50' 17" Lt
D = 01° 28' 00"
R = 3906.53'
L = 1352.60'
T = 683.14'
E = 59.28'

END WORK
STA. 1+70.00

Dead End

BEGIN WORK
STA. 0+00.00

CODE 7221

C.H. 202

SERVICE RD. NO. 4

P.T. STA. 6+12+49.44

P.C. STA. 6+22+43.90

N. 80° 36' 07" E.

SEC. 8 | SEC. 2
SEC. 7 | SEC. 1

Rev 5-14-64

SCHEMATIC LAYOUT PLAN

SCHEMATIC LAYOUT PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

3
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

SCALE IN FEET
0' 400' 800' 1200' 1600'

UTILIZE EXISTING PAVEMENT

TWP 78

END NEW PAVEMENT STA. 623+00.00 Lt.

P.C. STA. 621+88.35

BEGIN WORK STA. 23+00

RELOC. C.H. 254

P.C. STA. 623+70.00

FAIRVIEW CORP. LINE STA. 629+49.26

END WORK C.H. 254 RELOC. STATION 66+00

P.C.C. STA. 34+41.21

TWP 237

P.T. STA. 42+00.00

P.O.C. STA. 10+00.00 C.H. 40-A = P.O.T. STA. 6+62.00 C.H. 114 (NORTH)

C.H. 40-A
BEGIN WORK STA. 8+55
END WORK STA. 11+25
C.H. 114 NORTH SUSPEND WORK STA. 6+53

GUERNSEY CO. OXFORD TWP. T 10 E 7
BELMONT CO. ERLEWOOD TWP. T 9 E 6

Sta. 647+41.53 GUE. CO. BACK = Sta. 11+44.46 BEL. CO. AHEAD

Sta. 649+99.42 BEL. CO. BACK = Sta. 11+44.46 GUE. CO. AHEAD

FAIRVIEW CORP. LINE

P.T. STA. 4+97.89

P.O.C. STA. 649+53.15

C.H. 114 NORTH

CURVE DATA
P.I. Sta. 8+09.85
Δ = 25° 40' 00" RT.
D = 10° 00' 00"
R = 572.96'
T = 130.52'
L = 256.67'
E 14.68'

P.O.T. STA. 5+39.35

END NEW PAVEMENT STA. 5+00.00 Lt.

I-70-7(12)193

I-70-8(6)202

SLM 0.096

END PROJECT & END WORK-
GUE-40-23.88
BEL-40-00.00
STA. 60+00.00

SR 8

CH 40-A

℄ SURVEY STA. 45+00 ℄ CROSSOVER

℄ SURVEY STA. 58+00 ℄ TEMPORARY CROSSOVER

S 83° 58' 33" E

CURVE DATA
P.I. Sta. 65+75.66
Δ = 30° 06' 17" RT.
D = 01° 12' 38" ±
R = 4732.65'
L = 2486.66'
T = 1272.75'
E = 168.15'

P.T. STA. 77+89.57

C-4

Dead End

625 630 635 640 645 650 655

RAMP "A"

RAMP "B"

RAMP "C"

RAMP "D"

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

CODE 7221

CH 202

S-2 S-3 S-4 S-5

CEMETERY RD. RELOCATION

END WORK STA. 12+24.13

BEGIN WORK STA. 6+25.00

S 69° 59' 24" E

CO. HWY. 202

CO. HWY. 114

CODE 9766

P.T. STA. 6+41+93.20

P.C. STA. 625+43.90

P.C. STA. 625+30.24

℄ SURVEY STA. 627+83.50 ℄ CROSSOVER

END WORK STA. 61+41.51 C.H. 202 RELOC.

BEGIN WORK STA. 12+97.91 C.H. 114 (NORTH)

A-1

C.H. "114 RELOCATION.

BRIDGE Nos. BEL. 40-00.05 Lt & Rt.

CURVE DATA
P.I. Sta. 665+08.86 Back = Sta. 17+66.61 Ahead
Δ = 44° 05' 26" Lt
D = 01° 29' 29"
R = 3841.77'
L = 2956.34'
T = 1555.71'
E = 303.03'

P.C.C. STA. 61+41.51

P.C. STA. 53+17.31

N. 65° 55' 10" E

CODE 9766

P.C. STA. 53+02.21

Dead End

CODE 7221

END WORK STA. 93+82

A-2

P.C. STA. 89+28.87

P.I. STA. 93+56.35

SEC. 32 SEC. 26
SEC. 31 SEC. 25

SEC. 2
SEC. 1

CEMETERY RD. RELOCATION

CURVE C-4
RELOC. C.H. 254

CURVE DATA
P.I. STA. 63+48.37
Δ = 29° 03' 00" Lt.
D = 8° 00' 00"
R = 716.20'
T = 186.22'
L = 364.375'
E = 23.81'

CURVE DATA
P.I. Sta. 632+40.55
Δ = 29° 24' 29" Rt.
D = 01° 30' 31"
R = 3797.92'
L = 1949.35'
T = 996.65'
E = 128.60'

CURVE DATA
P.I. = STA. 11+44.00
Δ = 59° 40' 40" Lt.
D = 38° 11' 50"
R = 150.00'
T = 156.24'
L = 86.04'
E = 22.93'

CO. HWY. 202 & CO. HWY. 114 RELOCATION CURVE DATA

S-2 CURVE DATA
P.I. Sta. 25+89.85
Δ = 24° 11' 16" RT.
D = 06° 00' 00"
R = 954.93'
T = 204.61'
L = 403.13'
E = 21.68'

S-3 CURVE DATA
P.I. Sta. 31+18.01
Δ = 19° 35' 07" RT.
D = 03° 00' 00"
R = 1909.86'
T = 329.64'
L = 652.84'
E 28.24'

S-4 CURVE DATA
P.I. Sta. 38+21.80
Δ = 11° 07' 44" RT.
D = 01° 28' 00"
R = 3906.53'
T = 380.59'
L = 758.79'
E = 18.50'

S-5 CURVE DATA
P.I. Sta 57+30.95
Δ = 12° 05' 18" LT.
D = 01° 28' 00"
R = 3906.53'
T = 413.64'
L = 824.20'
E = 21.84'

A-1 CURVE DATA
P.I. Sta. 63+19.99
Δ = 07° 57' 45" LT.
D = 2° 14' 03"
R = 2564.38'
T = 178.48'
L = 356.38'
E = 6.20'

A-2 CURVE DATA
P.I. Sta. 91+83.39
Δ = 54° 44' 00" RT.
Dc = 14° 30' 00"
R = 395.14'
T = 204.52'
L = 377.48'
E = 49.67'

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

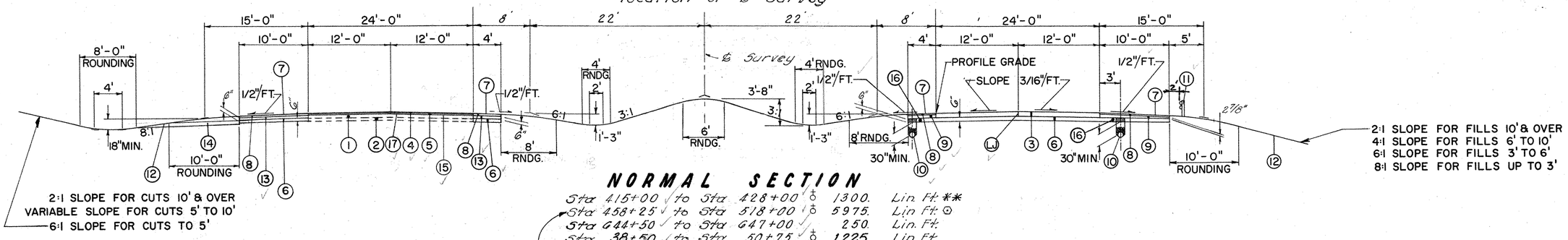
4
485

GUERNSEY COUNTY
BELMONT COUNTY
GUE.-40-23.88
BEL.-40- 0.00

TYPICAL SECTIONS

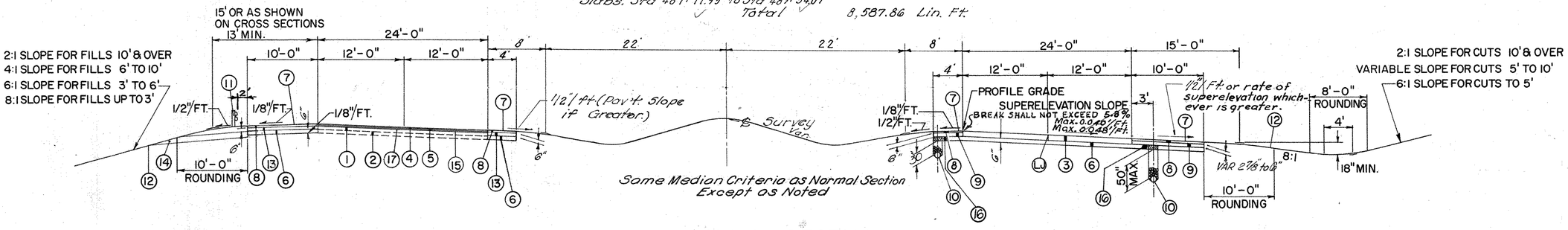
TYPE T-35

Sta. 415+00 to Sta. 458+00 See Sheet 9 for location of ℄ Survey



NORMAL SECTION

Sta 415+00 ✓	to Sta 428+00 ♁	1300.	Lin. Ft. **
Sta 458+25 ✓	to Sta 518+00 ♁	5975.	Lin. Ft. ⊙
Sta 644+50 ✓	to Sta 647+00 ✓	250.	Lin. Ft.
Sta 38+50 ✓	to Sta 50+75 ♁	1,225	Lin. Ft.
	Subtotal	8,750	Lin. Ft.
Deduct for Bridge & Approach Slabs. Sta 487+71.93	to Sta 489+34.07	−162.14	Lin. Ft.
	Total ✓	8,587.86	Lin. Ft.



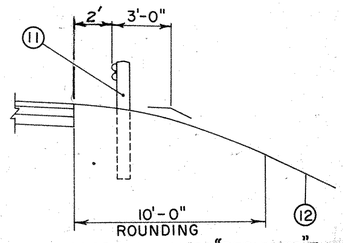
SUPERELEVATION SECTION

Sta. 428+00	To Sta. 429+50 ♁	=	150	Lin. Ft. **
Sta. 456+75	To Sta. 458+25 ♁	=	150	" " **
Sta 570+50	To Sta 584+50 ♁	=	1,450.	" "
Sta 623+00	To Sta 644+50 ♁	=	2,150.	" "
Sta 647+00	To Sta 657+41.53 (BL) ♁	=	1041.53	" "
Sta 9+99.42 (Ahd)	To Sta 18+50	=	850.58	" "
Sta 50+75	To Sta 60+00	=	925.	" "
	Subtotal	=	6,717.11	" "
Deduct Bridge & Approach Slab Sta 12+43.25	To Sta 14+06.75	=	−163.50	" "
	Total	=	6,553.61	Lin. Ft.

** For Median Detail See Sheet 9

⊙ Existing Pavement (Left Lanes) shall be replaced by 9" B-71 on 6" I-22 from Sta. 487+06 to 490+07, excluding bridge and approach slabs.

GUARD RAIL DETAIL



⑯ Shaded Area:

Remove Subbase for width of Item I-1 Trench and replace with Type 3 Backfill material immediately prior to placing the Item B-19 Aggregate Base Course. Cost shall be included in the unit price bid for Item I-1.
See note on Sheet No. 10 Sequence of Construction Operations.

⊙ THICKNESSES SHOWN ARE "DESIGNED" THICKNESSES AS DESCRIBED IN SECTIONS T-35.01, B-35.01 AND B-21.01.

♁ FOR SECTIONS IN ROCK CUT SEE SHEET NO. 5

① EXISTING 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT

② EXISTING CLASSIFIED SUBBASE MATERIAL

③ T-71 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT

④ T-35 1¼" ASPHALTIC CONCRETE SURFACE COURSE TYPE C(70-85) ⊙

⑤ B-35 1¼" ASPHALTIC CONCRETE LEVELING COURSE (70-85) ⊙

⑥ I-22 Subbase (6" Thickness or as noted) Grading "A" or "B" Modified as per General Note.

⑦ T-31 BITUMINOUS SURFACE TREATMENT USING 0.008 CU. YDS. NO. 6 AGGREGATE PER SQ. YD. AND 0.25 GAL. BITUMINOUS MATERIAL PER SQ. YD. (SEE NOTE IN PROPOSAL).

⑧ B-21 3" WATERPROOFED AGGREGATE BASE COURSE (TYPE "A" T-35 OR T-33S MAY BE USED IN CONSTRUCTION OF THIS COURSE - SEE NOTE IN PROPOSAL)

⑨ B-19 AGGREGATE BASE COURSE

⑩ I-1 6" PIPE, CLASS I-3

⑪ I-15 GUARD RAIL, STEEL BEAM STANDARD TYPE (DEEP)

⑫ L-9 SEEDING AND PROTECTING

⑬ I-18 STABILIZED CRUSHED AGGREGATE SHOULDERS AND APPROACHES

⑭ I-9 STONE UNDERDRAIN NO. 2 (LOCATE AT EXISTING JOINTS) SEE GENERAL NOTES

⑮ T-30 BITUMINOUS TACK COAT SEC M-5.5, MS-2 OR RS-1, OR SEC M-5.2, RC-1 OR RC-2, AS PER SEC T-30.02; APPLIED AT THE RATE OF 0.10 GALS. PER SQ. YD.

⑰ B-35 0" Minimum Thickness Asphaltic Concrete Pre-leveling Course (70-85). (See Note in Proposal)

LJ Standard Longitudinal Joint

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

5
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GUERNSEY COUNTY
BELMONT COUNTY
GUE.-40-23.88
BEL.-40-0.00

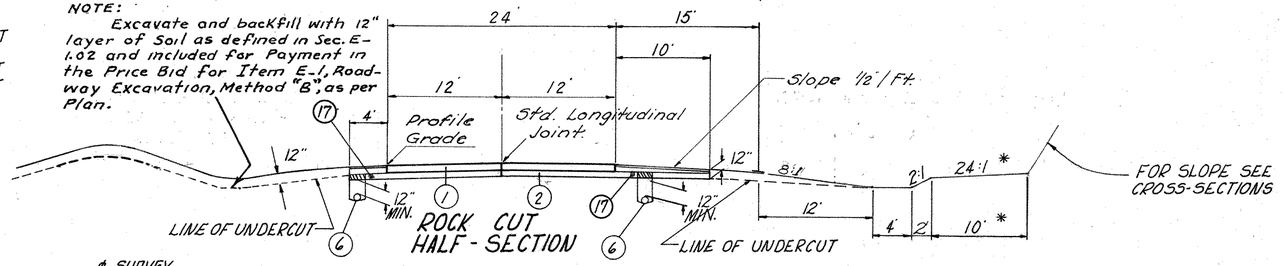
TYPICAL SECTIONS

TYPE T-71

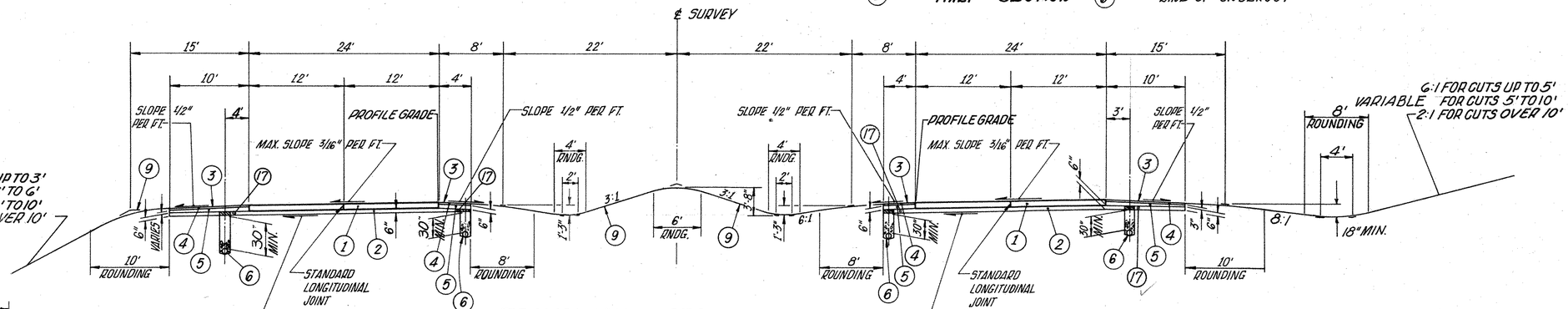
LIMITING STATIONS FOR ROCK CUT

419+00 RT	-	431+50 RT	558+50	-	565+00 LT
450+00 RT	-	457+00 RT	572+00 RT	-	583+00 RT
462+00 RT	-	468+00 RT	596+00 RT&LT	-	608+50 RT&LT
514+00 RT	-	518+00 RT	615+80 LT	-	620+00 LT
527+00 RT&LT	-	530+00 RT&LT	630+50 RT	-	639+13 RT
530+00 LT	-	532+50 LT	649+00 RT	-	652+65 RT
532+50 RT&LT	-	535+50 RT&LT	18+95 RT	-	25+95 RT
535+50 LT	-	536+80 LT	47+96 RT	-	50+96 RT
554+00 RT&LT	-	558+50 RT&LT	60+96 RT	-	72+97 RT

NOTE: Excavate and backfill with 12" layer of Soil as defined in Sec. E-1.02 and included for Payment in the Price Bid for Item E-1, Roadway Excavation, Method "B", as per Plan.



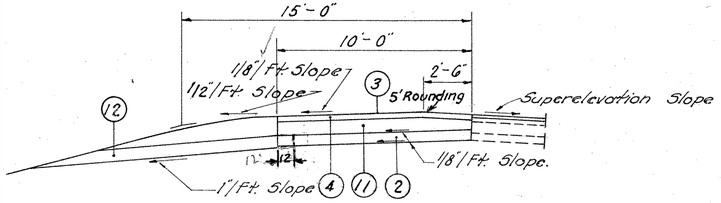
8:1 FOR FILLS UP TO 3'
6:1 FOR FILLS 3' TO 6'
4:1 FOR FILLS 6' TO 10'
2:1 FOR FILLS OVER 10'



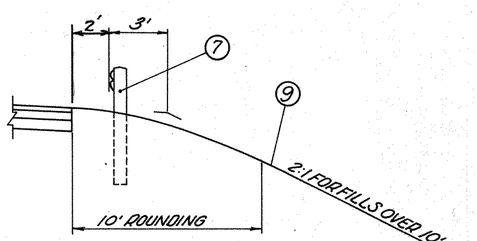
TRANSITION SECTION

LIMITING STATIONS

Sta 540+25	to	Sta 541+75	= 150	Lin. Ft.
Sta 559+00	to	Sta 560+50	= 150	Lin. Ft.
Sta 564+50	to	Sta 566+00	= 150	Lin. Ft.
Sta 589+00	to	Sta 590+50	= 150	Lin. Ft.
Sta 596+50	to	Sta 598+00	= 150	Lin. Ft.
Sta 613+50	to	Sta 615+00	= 150	Lin. Ft.
Sta 620+00	to	Sta 621+50	= 150	Lin. Ft.
Sta 32+75	to	Sta 34+25	= 150	Lin. Ft.
		Total	= 1,200	Lin. Ft.

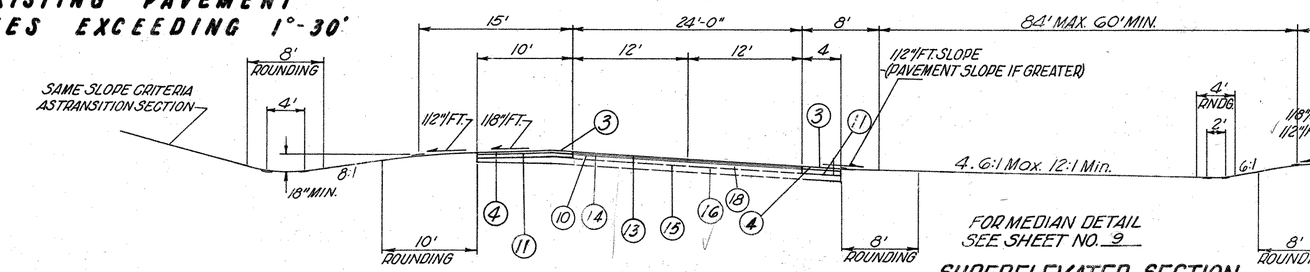


SHOULDER TREATMENT FOR EXISTING PAVEMENT CURVES EXCEEDING 1°-30'

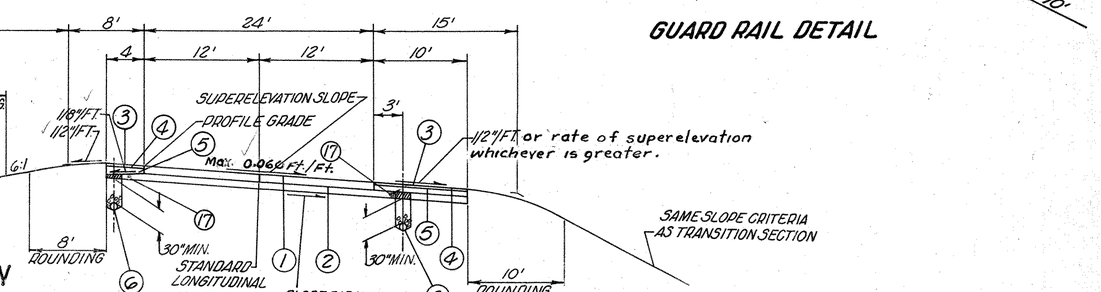


GUARD RAIL DETAIL

TYPE T-35



TYPE T-71



SUPERELEVATED SECTION

LIMITING STATIONS

Sta. 429+50 to Sta 456+75 = 2725 Lin Ft ♂

(1) T-71 9" Reinforced Portland Cement Concrete Pavement

(2) I-22 Subbase (6" Thickness or as noted), Grading "A" or "B", Modified as per General Note.

(3) T-31 BITUMINOUS SURFACE TREATMENT USING 0.008 CU. YDS. No 6. AGGREGATE PER SQ. YD. AND 0.25 GAL. BITUMINOUS MATERIAL PER SQ. YD. (SEE NOTE IN PROPOSAL)

(4) B-21 3" WATERPROOFED AGGREGATE BASE COURSE (TYPE "A" T-35 OR T-335 MAY BE USED IN CONSTRUCTION OF THIS COURSE SEE NOTE IN PROPOSAL)

(5) B-19 AGGREGATE BASE COURSE

(6) I-1 6" PIPE, CLASS I-3

(7) I-15 GUARD RAIL, STEEL BEAM STANDARD TYPE (DEEP)

(9) L-9 Seeding and Protecting

(10) B-35 0" Minimum Thickness Asphaltic Concrete Pre-leveling Course (70-85). (See Note in Proposal)

(11) I-18 STABILIZED CRUSHED AGGREGATE SHOULDERS AND APPROACHES

(12) I-9 Stone Underdrains No. 2

(13) T-35 1¼" Asphaltic Concrete Surface Course Type C (70-85) Δ

(14) B-35 1¼" Asphaltic Concrete Leveling Course (70-85) Δ

(15) Existing 9" Reinforced Portland Cement Concrete Pavement

(16) Existing Classified Subbase Material

(17) See Sheet No. 4 Item (16)

(18) Bituminous Tack Coat, Sec. M-5.5, M-5.2 or RS-1, or Sec. M-5.2, RC-1 or RC-2, as per Sec. T-30.02; Applied at the rate of 0.10 gals. per sq. yd.

1. IN FILL SECTION ALL UNDERDRAINS TO BE 30"
2. IN ROCK CUT SECTIONS UNDERDRAINS TO BE 12"

Δ THICKNESSES SHOWN ARE "DESIGNED" THICKNESSES AS DESCRIBED IN SECTIONS T-35.01, B-35.01 AND B-21.01.

* OR AS SHOWN IN THE PLANS

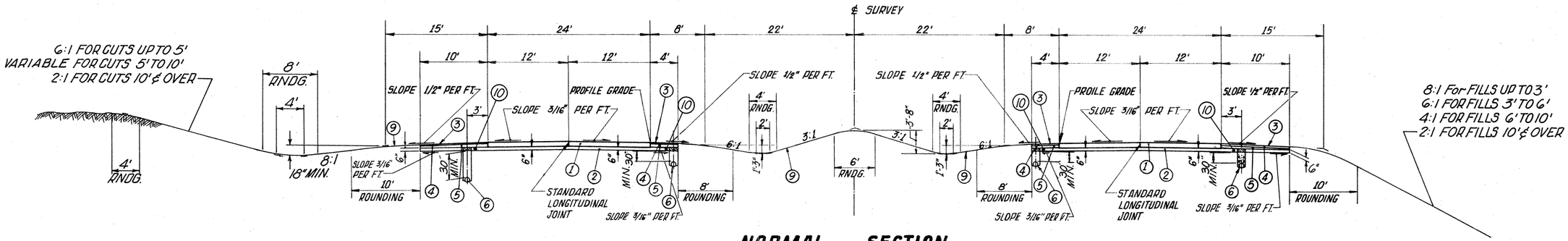
♂ FOR SECTIONS IN ROCK CUT SEE THIS SHEET

TYPICAL SECTIONS

TYPE T-71

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

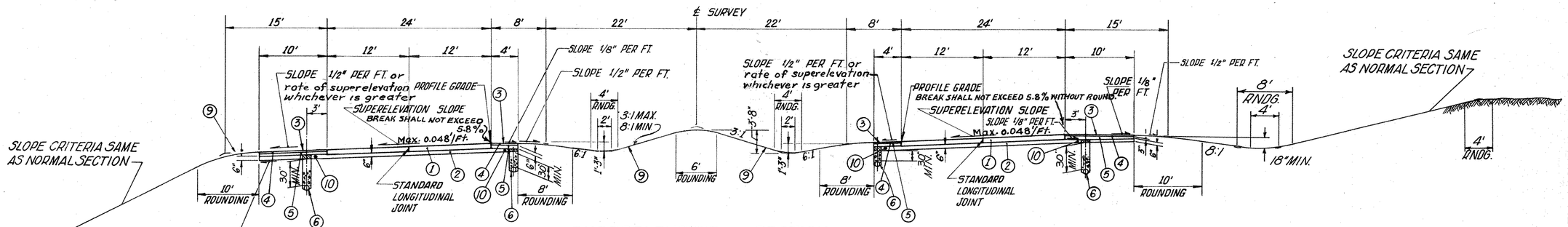
GUERNSEY COUNTY
BELMONT COUNTY
GUE.- 40-23.88
BEL.- 40- 0.00



NORMAL SECTION

LIMITING STATIONS

Sta	518+00 ✓ to	Sta	540+25 ♂ ✓	= 2,225	Lin. Ft.
Sta	560+50 ✓ to	Sta	564+50 ♂ ✓	= 400	Lin. Ft.
Sta	590+50 ✓ to	Sta	596+50 ♂ ✓	= 600	Lin. Ft.
Sta	615+00 ✓ to	Sta	620+00 ♂ ✓	= 500	Lin. Ft.
Sta.	34+25 ✓ to	Sta	38+50 ✓	425	Lin. Ft.
			Total	= 4,150	Lin. Ft.



SUPERELEVATED SECTION

LIMITING STATIONS

Sta	541+75 To	Sta	559+00 ♂	= 1725	Lin. Ft.
Sta	566+00 To	Sta	570+50 ♂	= 450	Lin. Ft.
Sta	584+50 To	Sta	589+00 ✓	= 450	Lin. Ft.
Sta	598+00 To	Sta	613+50 ✓ ♂	= 1,550	Lin. Ft.
Sta	621+50 To	Sta	623+00 ✓	= 150	Lin. Ft.
Sta	18+50 To	Sta	32+75 ♂	= 1425	Lin. Ft.
			Total	= 5,750	Lin. Ft.

ITEM		DESCRIPTION
(1)	T-71	9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT.
(2)	I-22	Subbase (6" Thickness or as noted) Grading "A" or "B" Modified as per General Note.
(3)	T-31	BITUMINOUS SURFACE TREATMENT USING 0.008 CU. YDS. NO. 6 AGGREGATE PER SQ. YD. AND 0.25 GAL. BITUMINOUS MATERIAL PER SQ. YD. (SEE NOTE IN PROPOSAL)
(4)	ΔB-21	3" WATERPROOFED AGGREGATE BASE COURSE. (TYPE "A" T-35 OR T-335 MAY BE USED IN CONSTRUCTION OF THIS COURSE - SEE NOTE IN PROPOSAL)
(5)	B-19	AGGREGATE BASE COURSE
(6)	I-1	6" PIPE, CLASS I-3.
(7)	I-15	GUARD RAIL, STEEL BEAM STANDARD TYPE (DEEP).
(9)	L-9	SEEDING AND PROTECTING.

NOTE:

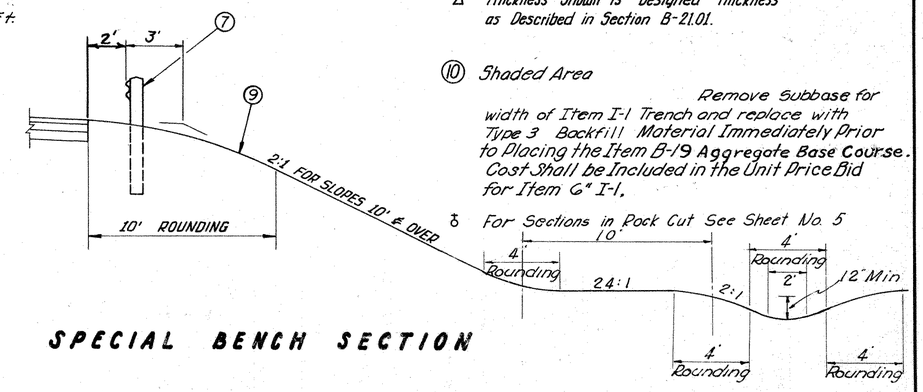
1. In Fill Sections All Underdrains to be 30"
2. In Rock Cut Sections Underdrains to be 12"

Δ Thickness Shown is "Designed" Thickness as Described in Section B-21.01.

(10) Shaded Area

Remove Subbase for width of Item I-1 Trench and replace with Type 3 Backfill Material Immediately Prior to Placing the Item B-19 Aggregate Base Course. Cost Shall be Included in the Unit Price Bid for Item 6" I-1.

♂ For Sections in Rock Cut See Sheet No. 5



SPECIAL BENCH SECTION

TYPICAL SECTIONS

TYPE T-71

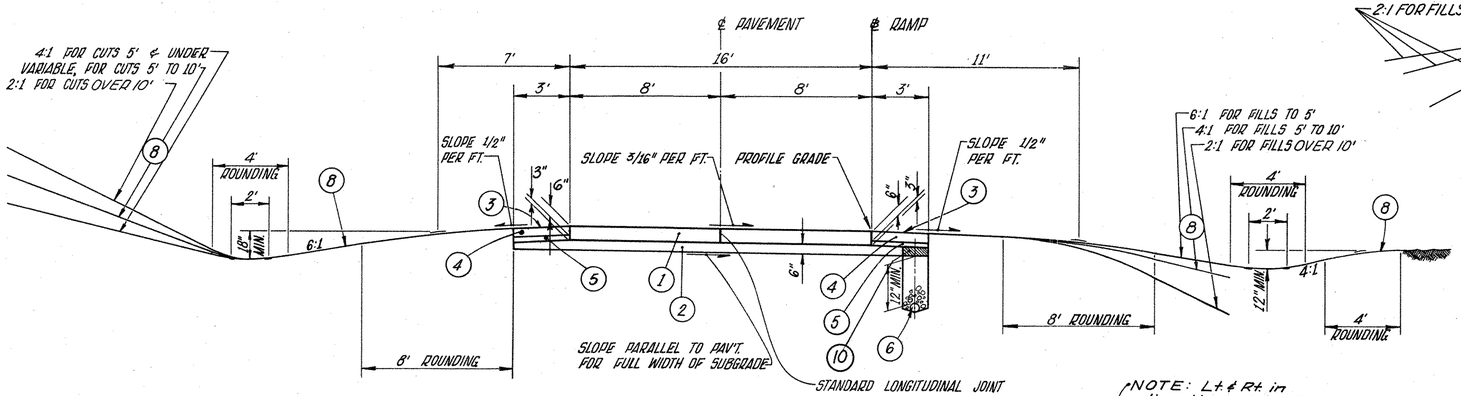
SCALE: 1/4" = 1'

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
BELMONT COUNTY
GUE.-40-23.88
BEL.-40- 0.00

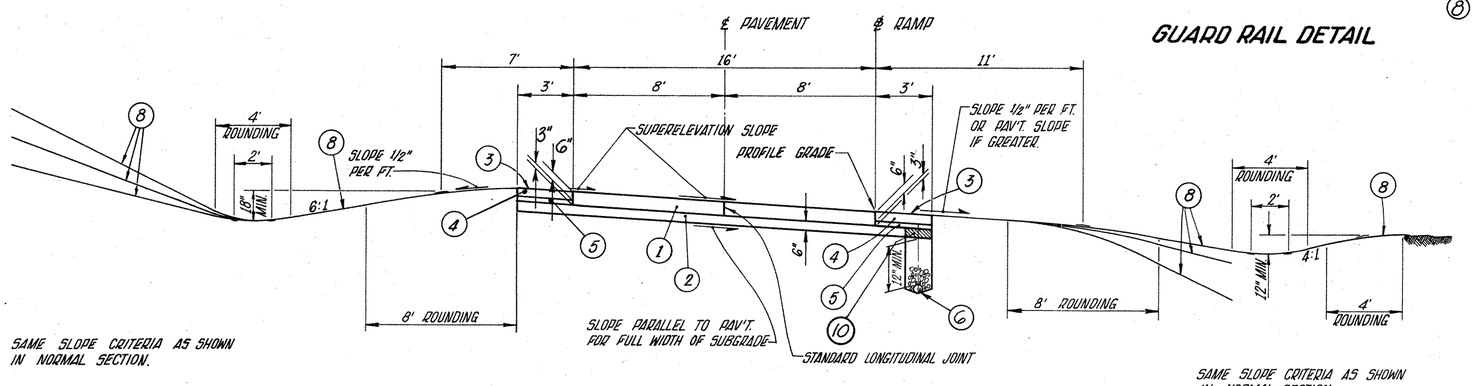
ONE-WAY RAMP
DIRECTIONAL ROADWAY



NORMAL SECTION

Ramp "B" Sta. 14+24.92 to Sta. 18+75 = 450.08 Lin. Ft.
Ramp "C" Sta. G58+50 to Sta. G60+40.18 = 190.18 Lin. Ft.
Ramp "D" Sta. 13+87.89 to Sta. 16+75 = 287.11 Lin. Ft.

Total 927.37 Lin. Ft.



SAME SLOPE CRITERIA AS SHOWN IN NORMAL SECTION.

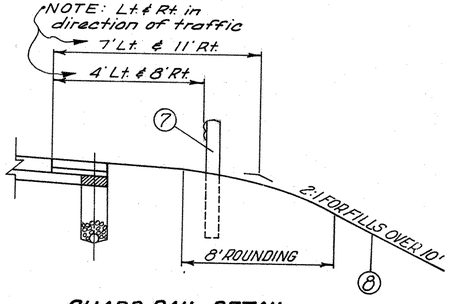
SAME SLOPE CRITERIA AS SHOWN IN NORMAL SECTION.

SUPERELEVATED SECTION

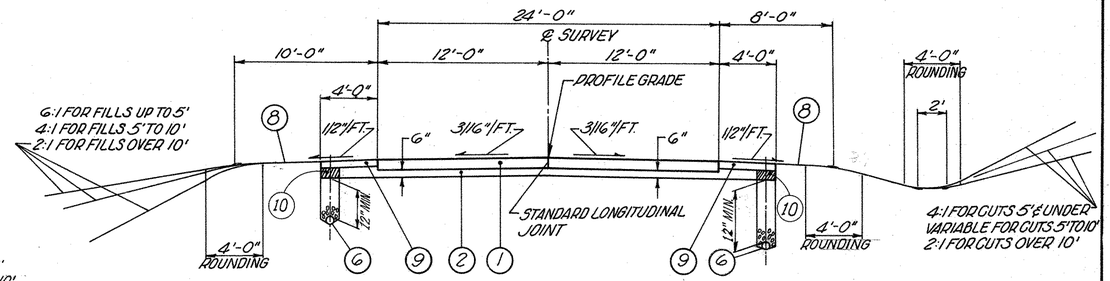
Ramp A Sta. G55+52.42 to Sta. G59+27.16 = 374.74 Lin. Ft.
Ramp B Sta. 18+75 to Sta. 22+62.52 = 387.52 Lin. Ft.
Ramp C Sta. G52+52.82 to Sta. G58+50 = 597.18 Lin. Ft.
Ramp D Sta. 16+75 to Sta. 21+50 = 475.00 Lin. Ft.

Totals 1,834.44 Lin. Ft.

GUARD RAIL DETAIL



CH-114 (NORTH)



Sta. 7+27.88 to Sta. 12+24.80 = 496.92 Lin. Ft.

ITEM		DESCRIPTION
(1)	T-71	9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT.
(2)	I-22	Subbase (6" Thickness or as noted) Grading "A" or "B" Modified as per General Note.
(3)	T-31	BITUMINOUS SURFACE TREATMENT USING 0.008 CU. YDS. NO. 6 AGGREGATE PER SQ. YD. AND 0.25 GAL. BITUMINOUS MATERIAL PER SQ. YD. (SEE NOTE IN PROPOSAL)
(4)	△B-21	6" WATERPROOFED AGGREGATE BASE COURSE (TYPE "A" T-35 OR T-335 MAY BE USED IN CONSTRUCTION OF THIS COURSE - SEE NOTE IN PROPOSAL) 2-3" Courses
(5)	B-19	AGGREGATE BASE COURSE
(6)	I-1	6" PIPE, CLASS I-3.
(7)	I-15	GUARD RAIL, STEEL BEAM STANDARD TYPE (DEEP).
(8)	L-9	SEEDING AND PROTECTING.
(9)	I-18	6" CRUSHED AGGREGATE SHOULDERS AND APPROACHES WITH CALCIUM CHLORIDE INCORPORATED IN THE UPPER 3" (SEE NOTE IN PROPOSAL)
(10)		SEE SHEET No. 4 ITEM (16)

NOTE:
1. FOR TOE OF FILL DITCHES SEE CROSS-SECTIONS.
2. IN FILL SECTIONS ALL UNDERDRAINS TO BE SHALLOW.
3. IN CUT SECTIONS OUTSIDE UNDERDRAINS TO BE DEEP.

△ THICKNESS SHOWN IS "DESIGNED" THICKNESS AS DESCRIBED IN SECTION B-21.01.

✱ AS SHOWN IN THE PLANS.

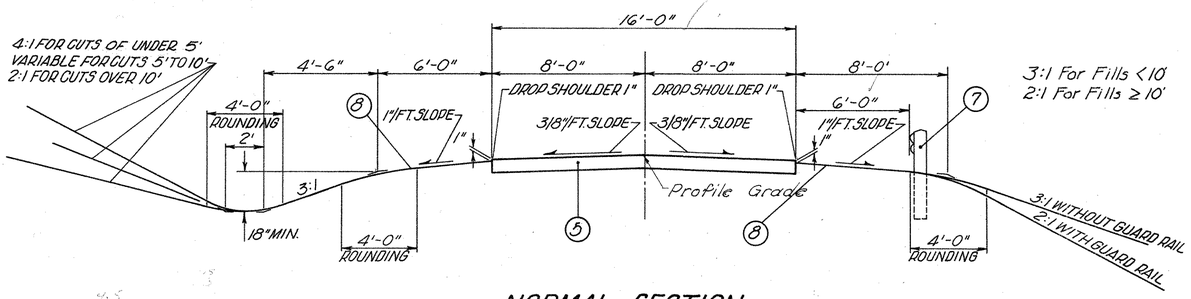
TYPICAL SECTIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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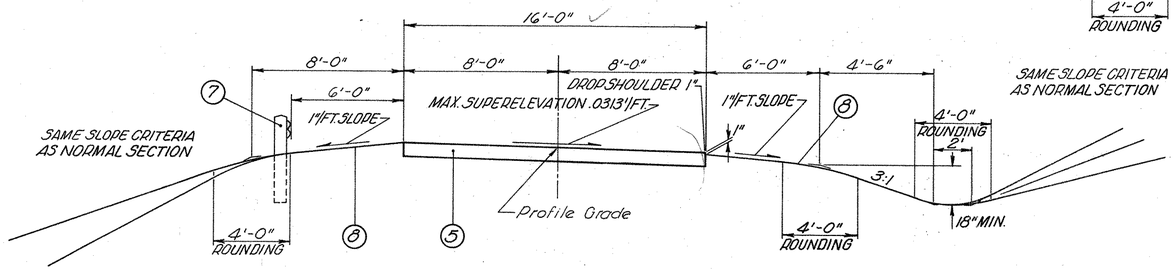
GUERNSEY COUNTY
BELMONT COUNTY
GUE.-40-23.88
BEL.-40- 0.00

TWP. RD. 213
CEMETERY ROAD
TYPE B-19



NORMAL SECTION

Cemetery Rd. Sta. 6+50 to Sta. 9+75 = 325 Lin. Ft.
Twp. Road 213 Sta. 0+56 to Sta. 2+50 = 194 Lin. Ft.
TOTAL 519 Lin. Ft.

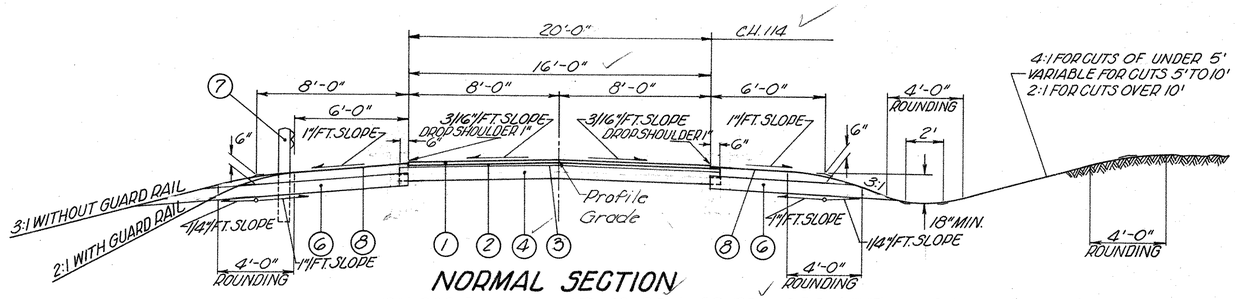


SUPERELEVATED SECTION

Cemetery Rd. Sta. 9+75 to Sta. 11+68.60 = 193.60 Lin. Ft.

(1)	T-35	1¼" ASPHALTIC CONCRETE SURFACE COURSE TYPE "C" (85-100) Δ	Total = 193.60 Lin. Ft.
(2)	B-35	1¾" ASPHALTIC CONCRETE LEVELING COURSE (85-100) Δ	
(3)	T-30	BITUMINOUS PRIME COAT SEC. M-3.7, RT-2 or RT-3 APPLIED AT THE RATE OF 0.4 GAL. PER SQ. YD.	
(4)	B-19	8" AGGREGATE BASE COURSE	
(5)	B-19	8" AGGREGATE BASE COURSE WITH CALCIUM CHLORIDE INCORPORATED IN UPPER 3" (See note in proposal)	
(6)	I-9	STONE UNDERDRAINS (No 2)	
(7)	I-15	GUARD RAIL, STEEL BEAM STANDARD TYPE (DEEP)	
(8)	L-9	SEEDING AND PROTECTING	

C.H. 254 RELOCATION
C.H. 286 CONNECTION
C.H. 114-202 & 27 RELOCATIONS
TYPE T-35 ON B-19



NORMAL SECTION

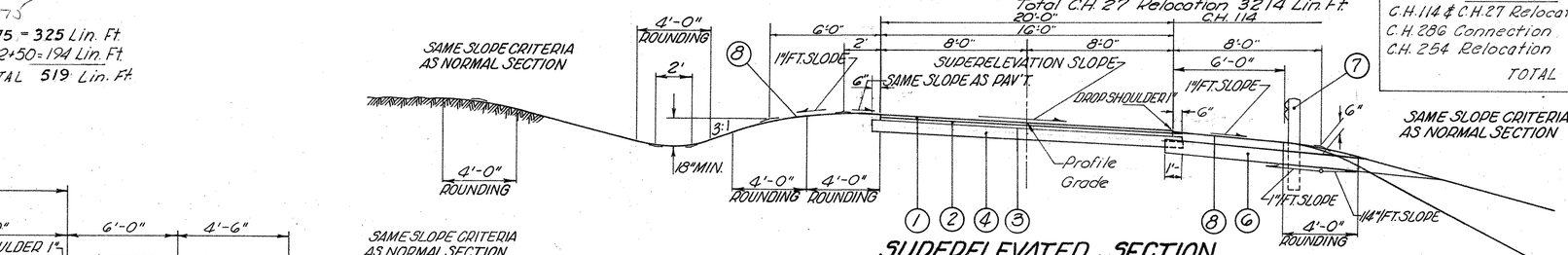
3:1 FOR FILLS < 10'
2:1 FOR FILLS ≥ 10'

C.H. 202 Relocation Sta. 42+75 to 52+25	950 Lin. Ft.
C.H. 114 Relocation Sta. 65+50 to 89+25	2375 Lin. Ft.
C.H. 27 Relocation Sta. 114+59 to 117+16	257 Lin. Ft.
C.H. 27 Relocation Sta. 122+38 to 132+89	1051 Lin. Ft.
C.H. 27 Relocation Sta. 136+03 to 138+85	282 Lin. Ft.
C.H. 27 Relocation Sta. 144+65 to 145+87	122 Lin. Ft.
C.H. 27 Relocation Sta. 160+23 to 171+31	1108 Lin. Ft.
C.H. 27 Relocation Sta. 10+81 to 14+75	394 Lin. Ft.
Total C.H. 27 Relocation	3214 Lin. Ft.

C.H. 286 Connection
STA. 0+57 TO STA. 6+50 = 593 Lin. Ft.

C.H. 254 Relocation
Sta. 16+25 to 41+50 = 2525 Lin. Ft.
Sta. 47+25 to 60+00 = 1275 Lin. Ft.
Total C.H. 254 Reloc. = 3800 Lin. Ft.

TOTALS	
C.H. 114 & C.H. 27 Relocations	3214 Lin. Ft.
C.H. 286 Connection	593 " "
C.H. 254 Relocation	3800 " "
TOTAL	7607 Lin. Ft.



SAME SLOPE CRITERIA AS NORMAL SECTION

SUPERELEVATED SECTION

C.H. 202 Relocation Sta. 23+50 to Sta. 42+75	1925 Lin. Ft.
C.H. 202 Relocation Sta. 52+25 to Sta. 58+25	600 Lin. Ft.
C.H. 202 Relocation Sta. 58+25 to Sta. 59+25	100 Lin. Ft. *
C.H. 202 Relocation Sta. 59+25 to Sta. 60+59.88	134.88 Lin. Ft. **
Total C.H. 202 Relocation	2759.88 Lin. Ft.
C.H. 114 Relocation Sta. 62+11.77 to Sta. 65+50	= 338.23 Lin. Ft.
C.H. 114 Relocation Sta. 89+25 to Sta. 93+56.35	= 431.35 Lin. Ft.
Total C.H. 114 Relocation	= 769.58 Lin. Ft.
C.H. 27 Relocation Sta. 117+16 to 122+38	522 Lin. Ft.
C.H. 27 Relocation Sta. 132+89 to 136+03	314 Lin. Ft.
C.H. 27 Relocation Sta. 138+85 to 144+65	580 Lin. Ft.
C.H. 27 Relocation Sta. 145+87 to 160+23	1436 Lin. Ft.
C.H. 27 Relocation Sta. 171+31 to 10+81	627 Lin. Ft.
C.H. 27 Relocation Sta. 14+75 to 35+50	2075 Lin. Ft.
Total C.H. 27 Relocation	5554 Lin. Ft.
C.H. 254 Relocation Sta. 8+94 to 16+25	731.00 Lin. Ft.
C.H. 254 Relocation Sta. 41+50 to 47+25	575.00 Lin. Ft.
C.H. 254 Relocation Sta. 60+00 to 65+26.52	526.52 Lin. Ft.
Total C.H. 254 Relocation	1832.52 Lin. Ft.

TOTALS	
C.H. 202 Relocation	2759.88 Lin. Ft.
C.H. 114 Relocation	769.58 " "
C.H. 27 Relocation	5554.00 " "
C.H. 254 Relocation	1832.52 " "
Total	10,915.98 Lin. Ft.

* 100' Transition from 16' to 20' width
** C.H. 202 in Belmont County 20' wide
*** C.H. 254 Sta. 8+50 to 8+94.43, Transition from 12' to 16'
*** C.H. 254 Sta. 65+26.52 to 66+00, Transition from 16' to 12'

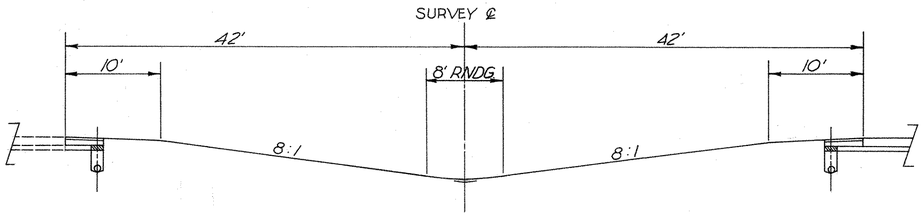
Δ Thickness shown are "designed" thicknesses as described in Sections T-35.01 & B-35.01

TYPICAL SECTION SIDE ROADS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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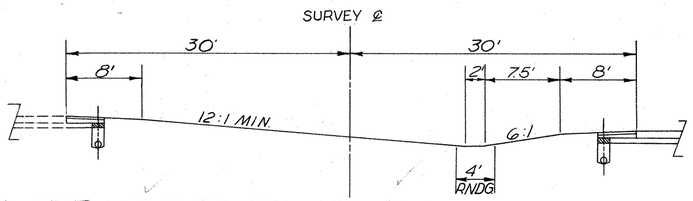
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



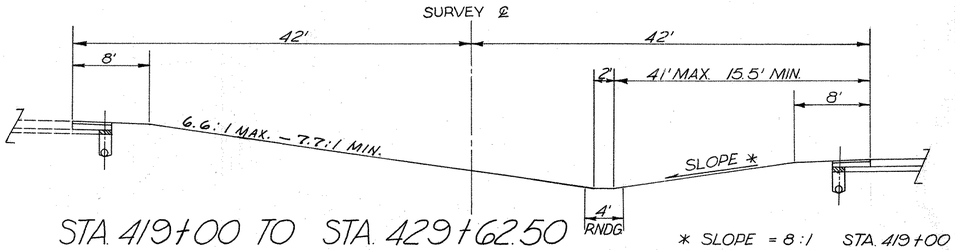
ADJACENT PROJECT

STA. 415+00 TO STA. 419+00

STA. 429+62.50 TO STA. 455+42.01



STA. 455+42.01 TO STA. 458+00



STA. 419+00 TO STA. 429+62.50

* SLOPE = 8:1 STA. 419+00 TO STA. 428+58.23
SLOPE = VAR. 8:1 TO 6:1 STA. 428+58.23 TO STA. 429+62.50

MEDIAN DETAIL

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

10
485

GUERNSEY COUNTY
BELMONT COUNTY
GUE 40-2.88
BEL 40-0.00

GENERAL NOTES

DESIGN SPEED

THE GEOMETRICS FOR THIS PROJECT HAVE BEEN PLANNED FOR A DESIGN SPEED AS FOLLOWS: 70 M.P.H.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.

CONSTRUCTION LAYOUT STAKES

SEE NOTE IN PROPOSAL DESCRIBING THE WORK INCLUDED IN THIS LUMP SUM PAY ITEM.

SUPERELEVATION

SUPERELEVATED CURVES SHALL BE BUILT WITHOUT CROWN. THE CROWN SHALL BE WORKED OUT OF THE PAVEMENT IN THE PORTION BETWEEN THE BEGINNING OF THE TRANSITION AND THE POINT WHERE THE SUPERELEVATION EQUALS TWICE THE CROWN.

NON-RIGID PAVEMENT REMOVAL

REMOVAL AND DISPOSAL OF EXISTING NON-RIGID PAVEMENT, UNLESS OTHERWISE INDICATED ON THESE PLANS, SHALL BE MEASURED AND PAID FOR AS ITEM E-1, ROADWAY EXCAVATION.

ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS

THE ROUNDED CORNERS SHOWN ON STANDARD DRAWING RI-1, AS MODIFIED BY THE TYPICAL SECTIONS, APPLY TO ALL CROSS SECTIONS, EVEN THOUGH OTHERWISE SHOWN ON THESE PLANS.

FIELD OFFICE

THE CONTRACTOR SHALL, IN ACCORDANCE WITH SEC. S-0.01 (B), PROVIDE FOR THE EXCLUSIVE USE OF THE STATE'S EMPLOYEES, A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 500 SQ. FT. OF FLOOR SPACE. THE FIELD OFFICE SHALL BE CONSTRUCTED WITHIN TEN(10) WORKING DAYS AFTER THE CONTRACTOR STARTS WORK. THE CONTRACTOR SHALL HAVE A TELEPHONE INSTALLED AND MAINTAINED IN THIS FIELD OFFICE DURING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL ALSO PROVIDE AND INSTALL WIRING AND OUTLETS SUITABLE FOR CONNECTING ELECTRIC LIGHTS AND OFFICE EQUIPMENT IN THE FIELD OFFICE AND PROVIDE 110-VOLT ALTERNATING CURRENT TO THE OFFICE DURING THE ENTIRE PERIOD OF CONSTRUCTION OF THIS PROJECT!

CONTRACTION AND EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN EXPANSION AND CONTRACTION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF SPECIFICATIONS IS INTENDED. PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES AND THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS SHALL IN ALL CASES BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING T.J.

SPECIAL DITCH ELEVATIONS

FOR ELEVATIONS OF SPECIAL DITCHES SEE CROSS SECTIONS.

ESTIMATED QUANTITIES

SPECIFIC LOCATIONS AND USAGE OF ESTIMATED QUANTITIES SET UP ON THIS PLAN TO BE USED "AS DIRECTED BY THE ENGINEER" SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

EXISTING STRUCTURE AT STATION 37+50

WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC THE EXISTING STRUCTURE SHALL BE REMOVED, THE STEEL BEAMS AND BEARING PLATES SHALL BE CAREFULLY REMOVED AND STORED ON THE R.O.W. FOR DISPOSAL BY THE STATE FORCES.

TEMPORARY PAVEMENT

TEMPORARY PAVEMENT SHALL BE PAID FOR AS ITEM T-70 BUT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM S-15. REMOVAL OF THE TEMPORARY PAVEMENT WHEN NO LONGER NEEDED FOR MAINTAINING TRAFFIC SHALL BE MEASURED AND PAID FOR UNDER ITEM E-8.

FENCE WORK TYPE 47

THE QUANTITIES OF ITEM I-25 WOVEN WIRE FENCE WHICH ARE TABULATED ON SHEET NO. 480 WILL NOT BE PERFORMED UNDER THIS CONTRACT.

SEEDING

QUANTITIES FOR SEEDING ARE CALCULATED FOR THE SOIL AREAS BETWEEN THE RIGHT-OF-WAY FENCE LINES, BETWEEN THE RIGHT OF WAY LINES IN UNFENCED AREAS AND WITHIN THE WORK LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OF SLOPE EASEMENT. QUANTITIES FOR SEEDING ON SIDEROADS ARE CALCULATED FOR THE SOIL AREAS BETWEEN THE WORK LIMITS.

SEEDING FORMULA AS PER PLAN.

THE FOLLOWING SEED MIXTURE SHALL, IN LIEU OF THE MIXTURE LISTED IN SECTION L-9.11, BE USED THROUGHOUT THE LIMITS OF THIS PROJECT:

10% CREEPING RED FESCUE
65% KENTUCKY 31 FESCUE
20% KENTUCKY BLUEGRASS
5% ALSIKE CLOVER

L-9 COMMERCIAL FERTILIZER

ALL AREAS TO BE SEEDED OR SODDED SHALL HAVE COMMERCIAL FERTILIZER (12-12-12 MIX), APPLIED AT THE RATE OF 20 POUNDS PER 1000 SQ. FT.

OLD MINE ENTRY

THIS AREA IN THE VICINITY OF THE CAVED IN MINE ENTRY RIGHT OF STATION 530+75 SHALL BE EXCAVATED DOWN TO THE FLOOR OF THE ENTRY AND SHALL BE REPLACED WITH EMBANKMENT MATERIAL. EMBANKMENT CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTION 1-1.08. THE COST OF THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM E-1 ROADWAY EXCAVATION.

SCARIFICATION OF EXISTING FLEXIBLE PAVEMENT

WITHIN THE LIMITS OF CONSTRUCTION WHERE THE EXISTING FLEXIBLE PAVEMENT WILL HAVE LESS THAN SIX (6) INCHES OF FILL PLACED UPON IT, THE PAVEMENT SHALL BE THOROUGHLY SCARIFIED FOR ITS FULL DEPTH, MIXED WITH SUFFICIENT SOIL AND PROPERLY RECOMPACTED TO INSURE THE ELIMINATION OF ANY PLANES OF SEPARATION BETWEEN IT AND THE EMBANKMENT PLACED THEREON. PAYMENT FOR SCARIFICATION AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM E-1, ROADWAY EXCAVATION.

REMOVAL OF TREES AND STUMPS

ALL TREES AND STUMPS 12" AND OVER LYING WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE REMOVED UNDER THE LUMP SUM PRICE BID FOR ITEM E-9 REMOVAL OF TREES AND STUMPS, EXCEPT THAT THOSE TREES AND STUMPS FOR WHICH PROTECTION AND PRESERVATION WORK IS INDICATED ELSEWHERE IN THESE PLANS SHALL NOT BE REMOVED.

THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED:

SIZES	TREES	STUMPS
12" to 18"	747	65
18" to 24"	236	28
24" to 30"	84	5
30" to 36"	36	
36" to 42"	14	
42" to 48"	1	
48" & Over	2	1

THE ABOVE ESTIMATE IS APPROXIMATE AND THE STATE OF OHIO RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES OR STUMPS OUTSIDE THE LIMITS OF CONSTRUCTION BUT WITHIN THE RIGHT-OF-WAY AND/OR EASEMENT LINES. PAYMENT FOR THE REMOVAL OF THESE ADDITIONAL TREES OR STUMPS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM E-9, REMOVAL OF TREES AND STUMPS.

PAVEMENT REMOVAL OUTSIDE NORMAL CONSTRUCTION LIMITS

AFTER THE EXISTING PAVEMENT HAS BEEN REMOVED, THE OLD ROADWAY SHALL BE PLOWED, HARROWED, AND DRAGGED TO A SMOOTH GRADE. THE OLD DITCHES FILLED, AND THE ENTIRE AREA SLOPED TO DRAIN AND LEFT IN A NEAT CONDITION READY FOR SEEDING. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PAVEMENT REMOVAL, ITEM E-8 AS PER PLAN. SEEDING SHALL BE MEASURED AND PAID FOR IN ACCORDANCE WITH ITEM L-9.

CENTERLINE REFERENCE MONUMENTS, AS PER PLAN

MONUMENTS SHALL BE CONSTRUCTED OF CLASS C CONCRETE, CAST-IN-PLACE IN A CIRCULAR BOLE, EIGHT INCHES IN DIAMETER AND FORTY-FOUR INCHES IN DEPTH. TOP OF CONCRETE SHALL BE FINISHED AT A DEPTH OF TWO INCHES BELOW GROUND LEVEL AND THE UPPER SIX INCH PORTION OF THE CONCRETE SHALL BE FORMED. A 3 INCH STEEL ROD SHALL BE IMBEDDED IN THE WET CONCRETE AS DIRECTED BY THE ENGINEER TO MARK CENTERLINE AND STATION. (SEE SHEET NO. 437 FOR DETAIL).

SEQUENCE OF CONSTRUCTION OPERATIONS

UNDERDRAINS SHALL BE INSTALLED AND BACKFILLED TO SUBGRADE ELEVATION IMMEDIATELY PRIOR TO CONSTRUCTION OF THE SUBBASE, EXCEPT THAT, WHERE SUBSURFACE CONDITIONS ARE SUCH THAT IMPROVEMENT OF AN UNSTABLE SUBGRADE CAN BE ACCOMPLISHED THROUGH THE DRYING ACTION OF DEEP UNDERDRAINS, THE PROJECT ENGINEER MAY AUTHORIZE OR REQUIRE THE CONTRACTOR TO DELAY THE CONSTRUCTION OF THE SUBBASE AS NECESSARY.

THE SUBBASE SHALL THEN BE CONSTRUCTED UNDER THE CONCRETE PAVEMENT AREA AND EXTENDED OUT TO COVER THE POROUS BACKFILL FOR THE UNDERDRAIN.

PAVEMENT SHALL THEN BE CONSTRUCTED

AFTER THE SUBBASE IN THE SHOULDER AREAS IS IN PLACE AND COMPACTED AS SPECIFIED, AND IMMEDIATELY PRIOR TO PLACING THE [illegible] AGGREGATE BASE COURSE THE MATERIAL LOCATED ABOVE AND WITHIN THE UNDERDRAIN TRENCH SHALL BE REMOVED TO THE DEPTH NECESSARY TO EXPOSE CLEAN TYPE 3 BACKFILL. THE TRENCH SO EXCAVATED SHALL BE BACKFILLED WITH NEW TYPE 3 BACKFILL MATERIAL.

IF, AFTER TESTING THE SUBBASE MATERIAL FOR COMPOSITION IN THE SHOULDER AREA, IT IS FOUND THAT REMOVAL OF CONTAMINATED MATERIAL FROM THE SURFACE IS NECESSARY, SUCH MATERIAL SHALL BE REPLACED WITH MATERIAL MEETING THE REQUIREMENTS OF "ITEM 3-19 AGGREGATE BASE COURSE AT THE EXPENSE OF THE CONTRACTOR.

AGGREGATE BASE COURSE SHALL THEN BE CONSTRUCTED AND CONSTRUCTION OF THE WATERPROOFED AGGREGATE COURSE SHALL FOLLOW IMMEDIATELY.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE PERTINENT ITEMS AFFECTED.

BASE FAILURE OF EXISTING PAVEMENT

THE LOCATIONS OF OBVIOUS BASE FAILURE OF THE EXISTING PAVEMENT OF U.S. ROUTE 40 HAVE BEEN SHOWN ON THE PLANS AND QUANTITIES HAVE BEEN CALCULATED FOR REPLACEMENT OF THESE AREAS. HAND FINISHING OF B-71 REPLACEMENT WILL BE PERMITTED.

ITEM 1-9 STONE UNDERDRAINS, NO. 2

STONE UNDERDRAINS SHALL BE PLACED AT FIFTY (50) FOOT INTERVALS ON EACH SIDE OF NORMAL CROWNED SECTIONS AND AT TWENTY-FIVE (25) FOOT INTERVALS ON THE LOW SIDE ONLY OF SUPERELEVATED SECTIONS, EXCEPT WHERE CLASS 1-3 UNDERDRAINS HAVE BEEN PROVIDED. ALONG EXISTING RIGID PAVEMENT, THE UNDERDRAINS SHALL BE SPACED AT THE EXISTING JOINTS.

CONNECTIONS TO EXISTING PIPE

AT PLACES WHERE THE PLANS PROVIDE FOR PROPOSED DRAINAGE PIPE TO BE CONNECTED TO EXISTING PIPES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE HE STARTS TO LAY THE PROPOSED PIPE. THE COST OF THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT PIPE ITEM!

MAINTENANCE OF SEWER FLOWS

THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO AS TO MAINTAIN AT ALL TIMES SEWER FLOWS THROUGH EXISTING FACILITIES TO REMAIN IN PLACE AND THROUGH EXISTING FACILITIES TO BE REPLACED UNTIL NEW FACILITIES ARE COMPLETED AND PLACED INTO USE.

PAYMENT FOR ANY ADDITIONAL COSTS INVOLVED IN MAINTAINING THESE FLOWS BY PUMPING OR BY ANY OTHER MEANS APPROVED BY THE ENGINEER SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE RESPECTIVE PIPE ITEMS.

ITEM 1-22 SUBBASE, GRADING "A" OR "B" AS PER PLAN

MATERIAL FOR THIS ITEM SHALL MEET THE REQUIREMENTS OF GRADING "A" OR "B" OF SECTION 1-22.02 EXCEPT THAT FOR EITHER GRADING, NO MORE THAN 10% OF THE MATERIAL SHALL PASS A NO. 200 SIEVE AFTER ALL OPERATIONS OF PLACING AND COMPACTING HAVE BEEN COMPLETED.

ITEM 1-4 DUST CONTROL

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR DUST CONTROL, FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 1-4 "WATER FOR DUST CONTROL" 50 M. GALS.
ITEM 1-4 CALCIUM CHLORIDE FOR DUST CONTROL 10 TONS

RAISED MEDIAN

This Line shall be considered Void and disregarded wherever it appears throughout the Plans.

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

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485

GUERNSEY COUNTY
BELMONT COUNTY
GUE. 40 - 23.88
BEL. 40 - 0.00

GENERAL NOTES

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE STATE OF OHIO MAKES NO GUARANTEES AS TO THEIR ACCURACY OR COMPLETENESS.

UTILITIES

THE CONTRACTOR SHALL NOTIFY, AT LEAST TWO(2) WORKING DAYS BEFORE BREAKING GROUND, ALL PUBLIC SERVICE CORPORATIONS HAVING WIRE, POLES, PIPE, CONDUITS, MANHOLES OR OTHER STRUCTURES WHICH MAY BE AFFECTED BY THIS OPERATION, INCLUDING ALL STRUCTURES WHICH ARE AFFECTED AND NOT SHOWN ON THESE PLANS. HE SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO AVOID DAMAGES TO ANY AND ALL UTILITIES, AND ALL WORK REQUIRED FOR PUBLIC OR PRIVATE UTILITIES WILL BE DONE BY AND AT THE EXPENSE OF THEIR RESPECTIVE OWNERS, UNLESS OTHERWISE NOTED ON THESE PLANS.

ROCK SUBGRADE

THE CONTRACTOR SHALL BE PAID FOR THE THICKNESS OF I-22 MATERIAL SHOWN ON THE TYPICAL SECTIONS IN ROCK EXCAVATION AREAS. ANY POCKETS IN THE ROCK BELOW THE PLAN SUBGRADE ELEVATION SHALL DRAIN EITHER LONGITUDINALLY OR LATERALLY AND ALL IRREGULARITIES IN THE ROCK BELOW THIS ELEVATION SHALL BE FILLED WITH I-22 MATERIAL AT NO ADDITIONAL COST TO THE STATE.

REMOVAL OF EXISTING PIPE

THE REMOVAL OF ALL EXISTING PIPES, HEADWALLS AND/OR APPURTENANCES WITHIN THE LIMITS OF PROPOSED EXCAVATION ITEMS SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICES BID FOR THE RESPECTIVE EXCAVATION ITEMS, UNLESS OTHERWISE ITEMIZED BY THE PLANS.

LOCATION AND SIZE OF PIPES

THE LOCATION, TYPE, DEPTH AND SIZE OF ALL EXISTING PIPES ARE SHOWN AS NEAR EXACT AS THE AVAILABLE INFORMATION WILL PERMIT. THE STATE WILL NOT BE RESPONSIBLE FOR ANY VARIATIONS FOUND DURING CONSTRUCTION.

ITEM I-1, CLASS I-3 PIPE, AS PER PLAN

THE CLASS I-3 PIPE (FOR SPRING DRAINAGE) SHALL BE COVERED WITH TYPE 3 POROUS BACKFILL MATERIAL TO A HEIGHT OF ONE (1) FOOT ABOVE THE TOP OF THE PIPE. THE REMAINDER OF THE BACKFILL FOR THIS ITEM SHALL MEET THE SPECIFICATION REQUIREMENTS FOR TYPE 2 BACKFILL. SEC. M-6.4(h)

PLUGGING PIPE

THE UPSTREAM ENDS OF ALL PIPE OR TILE LINES INTERCEPTED BY EARTHWORK OPERATIONS AND, WHERE INDICATED, THE ENDS OF PIPE LINES TO BE ABANDONED IN PLACE SHALL BE EFFECTIVELY BLOCKED AND COVERED. BROKEN PIECES AND PORTIONS OF PIPE OR TILE SHALL BE REMOVED UNTIL A WHOLE LENGTH IS ENCOUNTERED WHICH SHALL BE BLOCKED WITH CONCRETE, FLAT STONE OR BRICK LAID IN MORTAR, OR A PRECAST CLAY OR CONCRETE STOPPER. PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM E-1, ROADWAY EXCAVATION.

EROSION CONTROL

ITEMS I-10 , L-10 & L-120 ARE PROVIDED IN THESE PLANS FOR EROSION CONTROL. ROCK OF A STABLE NATURE WILL NOT BE REMOVED IN ORDER TO PLACE ANY OF THESE ITEMS. THE ENGINEER SHALL CHECK AND NON-PERFORM QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES FOR THESE ITEMS WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION.

SODDING

AN 18" WIDTH OF SOD SHALL BE PLACED AROUND THE BACK AND BOTH SIDES OF ALL HEADWALLS, AND ALONG THE EDGES OF ALL PAVED GUTTERS, (AND RIPRAP WHERE SHOWN ON THE PLANS). THE COST OF THE SODDING SHALL BE PAID FOR AT THE UNIT PRICE BID PER SQUARE YARD FOR ITEM L-10 SODDING.

PRIVATE SEWER TAPS

THIS PLAN MAKES NO PROVISION FOR CONNECTING, NOR SHALL THE ENGINEER OR CONTRACTOR CONNECT, ANY EXISTING OR NEW PRIVATE DRAINAGE TO THE NEW HIGHWAY DRAINAGE SYSTEM WHEN SUCH PRIVATE DRAINS CARRY EFFLUENT OR DRAINAGE FROM LEACHING BED OUTLETS, CELLAR DRAINS, OR SINK DRAINS, OR POLLUTED WATER OF ANY KIND. CONNECTIONS MAY BE MADE TO THE EXISTING OR NEW HIGHWAY DRAINAGE SYSTEM WHEN THE WATER CARRIED TO THE PROJECT DRAINAGE SYSTEM DOES NOT COME WITHIN THE CATEGORY OUTLINED ABOVE. ACCEPTABLE WATER INCLUDES FLOW FROM ROOF DRAINS, FIELD DRAINS, AND ENCLOSED NATURAL DRAINAGE SOURCE WHICH WOULD REACH THE ROAD THROUGH NATURAL CHANNELS IF SUCH WATER WAS NOT CONDUCTED ARTIFICIALLY. EXISTING SEWER TAPS WHICH DO NOT CARRY ACCEPTABLE WATER AS DEFINED ABOVE SHALL BE PLUGGED AT THE RIGHT-OF-WAY LINE. PLUGGING SPECIFIED SHALL BE BY MEANS OF CLASS "E" CONCRETE AND PAYMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM E-1, ROADWAY EXCAVATION.

GUARD RAIL FLARES

WHERE PROPOSED GUARD RAIL FLARES ARE CONSTRUCTED OR RAIL ELEMENTS WHICH HAVE NOT BEEN FABRICATED EXACTLY TO FIT THE CURVATURE SHOWN ON THE PLANS. THE TWO END POSTS OF EACH FLARED SECTION SHALL BE ENCASED IN A MINIMUM 4 INCH THICKNESS OF CLASS "E" CONCRETE FOR THE FULL DEPTH OF THE POST BELOW THE GROUND LINE. PAYMENT FOR ENCASEMENT, IF REQUIRED, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE GUARD RAIL.

REPLACEMENT

THE CONTRACTOR SHALL REPLACE AT HIS OWN EXPENSE ANY ITEM NOT SPECIFICALLY LISTED FOR REMOVAL THAT IS DAMAGED OR DESTROYED BY HIS OPERATIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND PRESERVATION OF CORNERSTONES AND MONUMENTS WITHIN THE CONSTRUCTION AREA AS REQUIRED BY SECTION G-7.09. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM E-1.

REINFORCED ENDS ON CORRUGATED METAL PIPE

REINFORCED ENDS WILL BE REQUIRED ON ALL CORRUGATED METAL CLASS F-4, SEC. M-6.4 (C) PIPE FOR DRIVEWAYS AND UNDERDRAIN OUTLETS IF THE PIPE ENDS ARE UNPROTECTED BY HEADWALLS, CATCH BASINS, OR MANHOLES.

HOT LONGITUDINAL JOINT

SEE NOTE IN PROPOSAL FOR PLACING ASPHALTIC CONCRETE SURFACE AND LEVELING COURSES ON MAIN LINE WESTBOUND LANES.

FEDERAL AID CONSTRUCTION IDENTIFICATION SIGNS

THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN, AND SUBSEQUENTLY REMOVE FEDERAL AID CONSTRUCTION IDENTIFICATION SIGNS AT EACH OF THE FOLLOWING LOCATIONS:

RIGHT OF STATION 415+00
LEFT OF STATION 60+00

SIGN DETAILS SHALL BE AS SPECIFIED ON STANDARD DRAWING FACI-1, "CODE N-55(2)-120(2), AND THE SIGNS SHALL BE ERECTED IN ACCORDANCE WITH STANDARD DRAWING FACI-2. ADDITIONAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH NOTES IN THE PROPOSAL.

DRAINAGE BASE MATERIAL

WHERE THE BASE MATERIAL IS DRAINED BY I-9 STONE UNDERDRAINS OR BY EXTENSIONS OF THE SUBBASE THROUGH THE SHOULDERS TO THE FILL SLOPE OR THE DITCH LINE, THE CONTRACTOR SHALL FINISH, SEED, AND MULCH THE SLOPES SO AS NOT TO IMPEDE DRAINAGE OF THE BASE MATERIAL.

ITEM B-35 0" MINIMUM THICKNESS ASPHALTIC CONCRETE PRE-LEVELING COURSE (70-85)

ON THIS PROJECT, AN ADDITIONAL QUANTITY OF 330 CUBIC YARDS HAS BEEN CALCULATED TO BE USED AT THE DIRECTION OF THE ENGINEER TO CORRECT ALL IRREGULARITIES IN AREAS WHERE RESURFACING OF THE EXISTING PAVEMENT OCCURS.

LIMITING STATION:

415+00 - 518+00	=	10300
570+50 - 584+50	=	1400
623+00 - 657+41.53	=	3441.53
9+99.42 - 18+50	=	850.58
38+50 - 60+00	=	2200
		18192.11
Deduct on Bridges & Approaches	=	325.64
Total	=	17866.47 LIN.FT.
17866.47 x 24 x 0.0208/27	=	330 CU. YDS.

REMOVAL OF EXISTING RIGID PAVEMENT

EXISTING RIGID TYPE PAVEMENTS SHALL BE REMOVED UNDER ITEM E-8 WHEN THEY ARE LOCATED LESS THAN THREE (3) FEET BELOW THE PROPOSED PAVEMENT SUBGRADE IN PROPOSED PAVEMENT AREAS OR LESS THAN THREE (3) FEET BELOW THE PROPOSED FINISHED SURFACE IN AREAS OUTSIDE THE PROPOSED PAVEMENT.

WHEN EXISTING RIGID TYPE PAVEMENTS LIE BELOW THE ABOVE LIMITS, THEY SHALL NOT BE REMOVED. IN LIEU THEREOF, THEY SHALL BE BROKEN UP IN PLACE INTO PORTIONS NOT TO EXCEED ONE SQUARE FOOT IN AREA PRIOR TO PLACEMENT OF PROPOSED EMBANKMENT. PAYMENT FOR THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICE BID ROADWAY EXCAVATION, ITEM E-1.

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS SECTIONS ON THIS PLAN INDICATE SPECIFIC WIDTHS AND DEPTHS OF PROPOSED BENCHING OF THE EMBANKMENT FOUNDATION IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED AND ALL OTHER SLOPED FOUNDATION AREAS SHALL BE BENCHED AS SET FORTH IN SECTION E-1.04. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED BY THE PROVISIONS OF SECTION E-1.04.

ITEM T-10, MODIFIED, AS PER PLAN

ALL PROVISIONS OF "ITEM T-10, TRAFFIC COMPACTED SURFACE COURSE" SHALL BE MET EXCEPT THAT NO. 3 OR NO. 34 AGGREGATE SHALL BE USED.

THE WEIGHTS TO BE USED IN CALCULATING THE YARDAGE OF NO. 3 OR NO. 34 AGGREGATE TO BE PAID FOR UNDER THIS ITEM SHALL BE THE SAME AS THOSE INDICATED IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS FOR CRUSHER RUN OR BANK RUN MATERIALS.

ITEM I-10 RIPRAP, AS PER PLAN

PAYMENT FOR CUT-OFF WALLS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM I-10 RIPRAP, USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN. (SEE DETAIL-SHEET NO. 438)

ITEM I-15 GUARD RAIL, REMOVED AND REBUILT

GUARD RAIL REMOVED UNDER THIS ITEM SHALL BE RE-ERECTED AT LOCATIONS SPECIFIED BY THE ENGINEER. THE QUANTITY OF GUARD RAIL REMOVED SHALL BE RE-ERECTED AT SIDEROAD LOCATIONS AS FAR AS POSSIBLE. ONLY AFTER ALL SIDEROAD LOCATIONS ARE COMPLIED WITH SHALL REBUILT RAIL BE USED ON THE MAINLINE.

ITEM SPECIAL, DRILLED WELLS ABANDONED

THE EXISTING CONCRETE OR STONE SLAB WELL COVER AND PUMPING EQUIPMENT SHALL BE REMOVED AND DISPOSED OF.

THE CASINGS SHALL BE CUT OFF AT LEAST TWO FEET BELOW THE PROPOSED FINISHED GRADE OUTSIDE PROPOSED PAVEMENT AREAS OR AT LEAST TWO FEET BELOW THE PROPOSED SUBGRADE ELEVATION INSIDE PROPOSED PAVEMENT AREAS AND CAPPED WITH CLASS "E" CONCRETE OR A STANDARD THREADED PIPE CAP.

THE UNIT PRICE BID FOR EACH "DRILLED WELL ABANDONED" SHALL INCLUDE PAVEMENT FOR ALL LABOR, TOOLS, MATERIAL AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM.

AGRICULTURAL LIMING MATERIAL AS PER PLAN

THE LOCATION AND NEED FOR AGRICULTURAL LIMING MATERIAL WILL BE DETERMINED BY LABORATORY TEST AFTER ROUGH GRADING HAS BEEN PERFORMED. QUANTITIES OF AGRICULTURAL LIMING MATERIAL AS SHOWN ON THE PLANS ARE SUFFICIENT FOR THE ENTIRE PROJECT, BUT WILL BE NON-PERFORMED FOR AREAS WHERE THE TESTS SHOW THAT LIMING MATERIAL IS NOT NEEDED.

DRIVE LOCATION

THE LOCATION OF DRIVES ON THIS PROJECT MAY BE VARIED AT THE DIRECTION OF THE ENGINEER, PROVIDING THERE IS NO ADDITIONAL COST TO THE STATE AND PROVIDING THE DRIVES ARE IN AREAS NOT DESIGNATED FOR LIMITED ACCESS.

CONSTRUCTION AT BEGINNING OF PROJECT

IN ORDER TO FACILITATE CONSTRUCTION BETWEEN THIS PROJECT AND THE ADJOINING SECTION TO THE WEST, THE CULVERT AT STATION 415+47 AND THE FILL BETWEEN STATION 415+00 AND STATION 419+00 SHALL BE CONSTRUCTED FIRST.

EXTRA DEPTH CATCH BASINS

STANDARD MANHOLE STEPS SHALL BE PROVIDED AT ANY CATCH BASIN DEEPER THAN SIX (6) FEET. COST OF STEPS TO BE INCLUDED IN THE PRICE BID FOR ITEM I-8 CATCH BASINS. SEE DETAIL-SHEET NO. 437.

TEMPORARY PAVEMENT (CONTINUED FROM 3RD COLUMN)

(1) ITEM T-70 9"PORTLAND CEMENT CONCRETE PAVEMENT, AS PER PLAN, SHALL BE BUILT IN ACCORDANCE WITH REQUIREMENTS OF SECTION S-15.06.

GUARD RAIL REMOVED AND REBUILT

IF THE GUARD RAIL STEEL BEAM STANDARD TYPE (DEEP) RAIL ELEMENTS WHEN NO LONGER NEEDED ON THE TEMPORARY PAVEMENT LANES (STA. 599+00 TO STA. 607+00) IS IN THE OPINION OF THE ENGINEER SUITABLE FOR USE AS PERMANENT GUARD RAIL ON THE PROJECT, THE CONTRACTOR SHALL USE ALL OR PART OF THE SAME IN PLACE OF A LIKE AMOUNT OF NEW GUARD RAIL OF THE SAME TYPE AS CALLED FOR IN THE PLANS. THE COST OF REMOVING, REBUILDING AND RE-INSTALLING THE RAIL SHALL BE PAID FOR UNDER ITEM I-15, "GUARD RAIL REMOVED AND REBUILT."

LIGHTS AND SIGNS AT ADJACENT ROAD INTERSECTIONS

THE CONTRACTOR SHALL, IN ADDITION TO THE GENERAL REQUIREMENTS OF ITEM I-3 ON THIS PROJECT PERFORM THE FOLLOWING:

PROVIDE, ERECT, AND MAINTAIN STANDARD 40" x 24" SIZE "ROAD CLOSED" SIGNS, SIGN SUPPORTS, AND LIGHTS FOR ALL ROADS CLOSED TO TRAFFIC DURING CONSTRUCTION. SIGN SUPPORTS AND LIGHTS FOR "ROAD CLOSED" SIGNS SHALL BE AS DETAILED IN THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."

PAYMENT FOR PROVIDING, ERECTING, MAINTAINING, AND REMOVING LIGHTS, SIGNS, AND SIGN SUPPORTS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM I-3 MAINTAINING TRAFFIC.

ALTERNATE METHODS

IF THE CONTRACTOR SO ELECTS, HE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED, IN WRITING, BY THE DIRECTOR.

TEMPORARY ROADWAYS

TEMPORARY ROADWAYS SHALL BE SURFACED WITH ITEM T-10 AGGREGATE AND STABILIZED WITH ITEM I-4 CALCIUM CHLORIDE. ITEMS I-4 AND T-10 SHALL BE APPLIED WHERE DIRECTED AND IN AMOUNTS REQUESTED BY THE ENGINEER.

(SEE SHEET NO. 17) ITEM T-10 562 C.Y. TRAFFIC COMPACTED SURFACE COURSE
ITEM I-4 12 TONS CALCIUM CHLORIDE MAINT. TRAFFIC

TRAFFIC MAINTENANCE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY USE OF EITHER THE EXISTING PAVEMENT, THE PROPOSED PAVEMENT, OR TEMPORARY ROADWAYS SURFACED WITH T-10 AGGREGATE AND STABILIZED WITH ITEM I-4 CALCIUM CHLORIDE.

USE OF TEMPORARY PAVEMENT

THE LIMITS AND DURATION OF USE OF TEMPORARY ROADWAYS SHALL BE HELD TO AN ABSOLUTE MINIMUM, AND SHALL BE IN ALL CASES SUBJECT TO THE APPROVAL OF THE ENGINEER.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE PERFORMED ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH TEMPORARY GUIDE MARKERS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND THE EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

COOPERATION WITH OTHER CONTRACTORS

IN ADDITION TO THE PROVISIONS AS SET FORTH IN SEC. G-5.05 OF THE SPECIFICATIONS, THE CONTRACTOR SHALL COOPERATE WITH THE CONTRACTOR OR CONTRACTORS, AS THE CASE MAY BE, ENGAGED IN CONSTRUCTION OF ANY ADJOINING SECTION OF THIS PROJECT.

PART WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY OF BUILDING PORTIONS OF THIS PROJECT UNDER TRAFFIC AND CONSTRUCTING THE PAVEMENT PART AT A TIME, EXTREME CARE SHALL BE TAKEN TO PREVENT THE CONSTRUCTION OF A BUTT JOINT ON CENTERLINE IN THE B-19 COURSE. THIS SHALL BE ACCOMPLISHED BY BUILDING THE B-19 COURSE, PLACED WITH THE FIRST PORTION OF THE PAVEMENT BUILT, AT LEAST EIGHTEEN (18) INCHES BEYOND THE CENTERLINE AND BY SURFACING NO CLOSER THAN EIGHTEEN (18) INCHES TO THIS EDGE OF THE ABOVE COURSE. WHEN THE SECOND PORTION OF THE PAVEMENT IS BUILT, AT LEAST TWELVE (12) INCHES OF THESE PROJECTING COURSE SHALL BE BROKEN DOWN AND THOROUGHLY KEYED IN WITH THE NEWLY PLACED CORRESPONDING COURSE IN THE SECOND PORTION OF THE PAVEMENT BUILT. PAYMENT FOR THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE PERTINENT PAVEMENT ITEMS.

MAINLINE TRAFFIC

TWO WAY TRAFFIC WILL BE MAINTAINED ON EXISTING U.S. ROUTE 40 WHILE THE PROPOSED I.R. 70 EASTBOUND LANES ARE BEING CONSTRUCTED. TRAFFIC WILL THEN BE ROUTED ONTO THE NEWLY CONSTRUCTED EASTBOUND LANES WHILE CONSTRUCTION IS BEING DONE ON THE WESTBOUND LANES BY MEANS OF TEMPORARY CROSSOVERS AT EACH END OF PROJECT. TEMPORARY CROSSOVERS AS PER PLAN WILL BE MAINTAINED DURING THE CONSTRUCTION OF THE REMAINDER OF THE PROJECT.

GENERAL NOTES
TRAFFIC

MAINTAINING TRAFFIC ON LOCAL ROADS

ATTENTION IS CALLED TO SECTION G4-05 OF THE SPECIFICATIONS REGARDING MAINTAINING INGRESS AND EGRESS OF LOCAL ROADS.

COUNTY HIGHWAY 27

TRAFFIC SHALL BE MAINTAINED ON EXISTING COUNTY HIGHWAY 27 DURING CONSTRUCTION OF RELOCATED COUNTY HIGHWAY 27. ONE LANE TRAFFIC AND HALF WIDTH CONSTRUCTION WILL BE USED WHEN CONNECTING THE RELOCATED ROAD TO THE EXISTING ROAD.

COUNTY HIGHWAY 114

TRAFFIC WILL BE MAINTAINED ON EXISTING COUNTY HIGHWAY 114 DURING CONSTRUCTION OF COUNTY HIGHWAY 114 NORTH AND RELOCATED COUNTY HIGHWAY 114. ONE LANE TRAFFIC AND HALF WIDTH CONSTRUCTION WILL BE USED WHEN CONNECTING THE RELOCATED ROAD TO THE EXISTING ROAD.

COUNTY HIGHWAY 202

TRAFFIC WILL BE MAINTAINED ON EXISTING COUNTY HIGHWAY 202 DURING CONSTRUCTION OF THE SERVICE ROAD FROM EXISTING COUNTY HIGHWAY 202 TO COUNTY HIGHWAY 114 NORTH. THIS PHASE OF CONSTRUCTION SHOULD FOLLOW OR BE CORRELATED WITH THE COUNTY HIGHWAY 114 NORTH CONSTRUCTION. ONE LANE TRAFFIC AND HALF WIDTH CONSTRUCTION WILL BE USED WHEN CONNECTING THE SERVICE ROAD TO THE EXISTING COUNTY HIGHWAY 202.

CEMETERY ROAD

TRAFFIC WILL BE MAINTAINED ON EXISTING CEMETERY ROAD DURING CONSTRUCTION OF THE SERVICE ROAD AND RELOCATED CEMETERY ROAD. ONE WAY TRAFFIC AND HALF WIDTH CONSTRUCTION WILL BE UTILIZED WHEN CONNECTING THE RELOCATED ROAD TO THE EXISTING ROAD AND THE PROPOSED SERVICE ROAD.

TOWNSHIP ROAD 295

TRAFFIC WILL BE MAINTAINED ON EXISTING TOWNSHIP ROAD 295 DURING CONSTRUCTION OF THE SERVICE ROAD. ONE LANE TRAFFIC AND HALF WIDTH CONSTRUCTION WILL BE USED WHEN CONNECTING THE TOWNSHIP ROAD 295 APPROACH TO THE PROPOSED SERVICE ROAD.

COUNTY HIGHWAY 254

TRAFFIC WILL BE MAINTAINED ON EXISTING COUNTY HIGHWAY 254 DURING CONSTRUCTION OF COUNTY HIGHWAY 254 RELOCATED. ONE WAY TRAFFIC AND HALF WIDTH CONSTRUCTION WILL BE UTILIZED WHEN CONNECTING THE RELOCATED ROAD TO THE EXISTING ROAD.

COUNTY HIGHWAY 40-A

TRAFFIC WILL BE MAINTAINED ON EXISTING COUNTY HIGHWAY 40-A DURING CONSTRUCTION OF COUNTY HIGHWAY 254 RELOCATED. ONE WAY TRAFFIC AND HALF WIDTH CONSTRUCTION WILL BE UTILIZED WHEN CONNECTING RELOCATED COUNTY HIGHWAY 254 TO THE EXISTING COUNTY HIGHWAY 40-A.

FOR QUANTITIES FOR ITEM I-4 & T-10 FOR MAINTAINING TRAFFIC, SEE SHEET NO. 17.

LENGTH OF WORK SIDEROADS

RELOCATED C.H. 27
STATION 27+42 to STATION 35+80 838.00 LIN. FT.

C.H. 286, CR 25, TR 81, & CR 254
Sta. 0+08.06 to 117+14.00 11,705.94 LIN. FT.
EQUA. 94+45.65 Bk = 33+35.65 Ahead +50.00 Lin. Ft.
Sta. 117+20.49 to 206+12.20 8,891.71 Lin. Ft.

CH 114 North — STATION 6+72 to STATION 12+87.91 615.91 LIN. FT.

C.H. 114 RELOCATION
STATION 61+41.51 TO STATION 93+85 3243.49 LIN. FT.

CEMETERY ROAD
STATION 6+25 to STATION 12+24.13 599.13 LIN. FT.

TOTAL LENGTH OF WORK - SIDEROADS 5963.47 LIN. FT.

PLACEMENT OF ASPHALTIC CONCRETE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALTIC CONCRETE COURSES.

TEMPORARY PAVEMENT

THE FOLLOWING QUANTITIES TO BE USED AS DIRECTED BY THE ENGINEER HAVE BEEN PROVIDED FOR TEMPORY TRAFFIC LANES WHICH MAY BE REQUIRED ALONG THE NORTH SIDE OF THE EXISTING PAVEMENT BETWEEN STATION 599+00 AND STATION 607+00 WITH APPROPRIATE TRANSITION TAPERS CONNECTING AT EACH END. TEMPORARY GUARD RAIL SHALL BE PROVIDED ALONG THE SOUTH SIDE OF THE EXISTING PAVEMENT IN ACCORDANCE WITH SECTION S-15.05.

(1) ITEM T-70 9"PORTLAND CEMENT CONC. PAVEMENT, AS PER PLAN	650 S.Y.
(2) ITEM E-8 REMOVAL AND DISPOSAL OF EXIST. PAVEMENT	650 S.Y.
(3) ITEM I-15 TEMP. GUARD RAIL STEEL BEAM STANDARD TYPE (DEEP), AS PER PLAN	1,200 LIN. FT.

(NOTES CONTINUED 1ST COLUMN)

FED. RD. DIVISION	STATE	PROJECT	
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GUERNSEY COUNTY
BELMONT COUNTY
GUE. 40 - 23.88
BEL. 40 - 0.00

ITEM E-8 RIGID PAVEMENT AND SUBBASE REMOVAL, AS PER PLAN

DEFINITE BASE FAILURE HAS OCCURRED IN THE EXISTING U.S. ROUTE 40 PAVEMENT (PROPOSED WEST BOUND LANES). THE FULL DEPTH OF CONCRETE AND SUBBASE SHALL BE REMOVED AND REPLACED WITH 9" B-71 AND 6" I-22.

BOTH LANES	LIN. FT.	SINGLE LANES	LIN. FT.
STA. 426+17 TO STA. 426+48 =	30	STA. 440+16 TO STA. 440+46 E.B.L. =	30
STA. 434+09 TO STA. 435+42 =	133	STA. 443+00 TO STA. 443+45 E.B.L. =	45
STA. 451+60 TO STA. 452+10 =	50	STA. 444+90 TO STA. 445+22 W.B.L. =	32
STA. 494+94 TO STA. 495+27 =	33	STA. 464+81 TO STA. 465+19 E.B.L. =	38
STA. 581+26 TO STA. 582+88 =	162	STA. 466+82 TO STA. 467+15 W.B.L. =	33
STA. 623+00 TO STA. 628+69 =	569	STA. 478+76 TO STA. 479+07 E.B.L. =	31
		STA. 480+68 TO STA. 481+08 W.L.B. =	40
		STA. 633+66 TO STA. 633+97 E.B.L. =	31
		STA. 633+97 TO STA. 634+40 W.B.L. =	43
TOTAL LIN. FT.	977	TOTAL LIN. FT.	323

$\frac{977 \times 24}{9}$ = 2605 S.Y. B-71 $\frac{323 \times 12}{9}$ = 431 S.Y. B-71

$\frac{977 \times 24 \times 0.5}{27}$ = 434 C.Y. I-22 $\frac{323 \times 12 \times 0.5}{27}$ = 72 C.Y. I-22

864 x 24 ÷ 9 = 2304 S.Y. E-1 COMPACTED SUBGRADE

GRADE SHEET 18, THE ESTIMATED QUANTITY OF 3036 S.Y. of B-71 AND E-8 PAVEMENT REMOVAL & 2304 S.Y. E-1 COMPACTED SUBGRADE, 506 C.Y. OF I-22 IS CARRIED TO SHEETS 13 & 16 ALTHOUGH THIS LIST IS MEANT TO BE COMPLETE THE CONTRACTOR MAY BE DIRECTED TO ADD TO, OR NON-PERFORM ANY PART THEREOF BY THE ENGINEER.

FOR DETAILS OF PAVEMENT REPLACEMENT IN AREAS OF FAILURES SEE SHEET NO. 438.

SPRING DRAINS

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR SPRING DRAINS TO BE USED AS DIRECTED BY THE ENGINEER (SEE DETAIL ON SHEET NO. 438).

ITEM I-1 PIPE, 6" CLASS I-3 SEC. M-6.4(h), AS PER PLAN	350 LIN. FT.
ITEM I-1 PIPE, 6" CLASS F-4	25 LIN. FT.
ITEM I-1 PIPE, 8" CLASS F-4 SEC. M-6.4(c)	50 LIN. FT.
ITEM I-9 STONE UNDERDRAIN NO. 1, AS PER PLAN	50 LIN. FT.

REMOVAL & STORAGE OF EXISTING CUMBERLAND MILESTONES

THE CUMBERLAND MILESTONES SHALL BE CAREFULLY REMOVED AND STORED NEAR THE RIGHT-OF-WAY LINE. PAYMENT FOR THIS OPERATION SHALL BE AT THE UNIT PRICE BID FOR ITEM E-8 REMOVAL AND STORAGE OF EXISTING CUMBERLAND MILESTONES.

THE 6 EXISTING LOCATIONS ARE STA. 474+45, 67' LT; 526+54, 79' LT; 576+65, 82' LT; 622+18, 68' LT -- STA 25+50, 75' LT; and STA. 418+87, 87' LT.

ITEM S.S. CE-101.04 COMPACTION USING HEAVY PNEUMATIC TIRED ROLLER

AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE IN PROOF ROLLING OF SUBGRADE ON THE MAINLINE AND RAMP PAVEMENTS AS DIRECTED BY THE ENGINEER. PROOF ROLLING WILL NOT BE REQUESTED WHERE ROCK OR SHALE OCCURS IN SUBGRADE AND IN AREAS WHERE SUBBASE HAS BEEN THICKENED TO REPLACE FROST SUSCEPTIBLE SILTS. IN LIEU OF THE REQUIREMENTS OF CE-101.04, A MINIMUM OF ONE COVERAGE WILL BE REQUIRED TO CHECK THE SUBGRADE. MOISTURE CONTENT OF THE TOP 12" OF SUBGRADE SHALL NOT EXCEED OPTIMUM AT THE TIME OF PROOF ROLLING. TIRE PRESSURE AND TOTAL LOAD SHALL BE VARIED AS DIRECTED BY THE ENGINEER WITH THE LIMITS PROVIDED IN SUPPLEMENTAL SPECIFICATION NO. CE 101.04.

ITEM I-15 TEMPORARY GUARD RAIL

STEEL 55 GAL. DRUMS SHALL BE USED IN LIEU OF POSTS FOR THIS ITEM. THE DRUMS SHALL BE PAINTED YELLOW AND SHALL BE HALF FILLED WITH SAND IN ORDER TO HOLD THEM IN POSITION. THE RAIL ELEMENTS SHALL BE STEEL BEAM TYPE MEETING THE REQUIREMENTS OF EITHER SECTION I-15.11 (DEEP) OR SECTION I-15.12 (SHALLOW), EXCEPT THAT IN LIEU OF FURNISHING NEW RAIL, USED RAIL WHICH IS IN GOOD CONDITION AND APPROVED BY THE ENGINEER MAY BE FURNISHED. THE RAIL SHALL BE SECURELY BOLTED TO THE TRAFFIC SIDE OF THE DRUMS IN A MANNER SATISFACTORY TO THE ENGINEER AND THE CENTER OF THE RAIL ELEMENT SHALL BE APPROXIMATELY 2 FEET ABOVE THE SURFACE OF THE PAVEMENT OR GROUND.

AN ESTIMATED QUANTITY OF 600 LIN. FT. HAS BEEN PROVIDED FOR THIS ITEM TO BE USED AS DIRECTED BY THE ENGINEER.

PROTECTION OF TRAFFIC

THE CONTRACTOR SHALL SAFEGUARD THE TRAVELING PUBLIC ON C.H. 27 (RELOCATED) AND C.H. 114 NORTH BY PROVIDING PLATFORMS, NETS, OR OTHER SUITABLE PROTECTION ABOVE THE TRAVELED LANES. PAYMENT FOR THIS PROTECTION SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM I-3, MAINTAINING TRAFFIC.

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GENERAL SUMMARY

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GUERNSEY COUNTY – BELMONT COUNTY
GUE-40-23.66 BEL-40-0.00

CODE 7221 &
CODE 9766

* See Sheet No. 18

| UNIT | SHEET NUMBER | | |

GENERAL SUMMARY

CODE 7221 & CODE 9766

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GUERNSEY COUNTY — BELMONT COUNTY
GUE-40-23.83 BEL-40-0.00

| UNIT | SHEET NUMBER | | |

GENERAL SUMMARY

CODE 7221
CODE 9766

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

UNIT	SHEET NUMBER 11	12	17	13	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	54	55	56	57	58	59	60	276	408	438	480	ITEM	TOTALS FROM SHEET 407Q. 100% STATE	TOTALS NORMAL PARTICIP.	GRAND TOTAL	UNIT	DESCRIPTION
																																									DRAINAGE (Continued)
I-1					1030		1609	1589	221	712	1995	1782	600	2006	766	2471	1112	4008	2196	2749		2433	1980	239	6542	7712			3676	1527	1636					I-1		50651	50651	Lin.Ft.	6" Pipe, Class I-3
I-1						2000	332	409	1784	1292			1332		1636	1554	2884		1788	1154	2074	700	1970	5784	2562	2867	311	4622		500	300					I-1		35975	35975	Lin.Ft.	6" Pipe, Class I-3, Sec. M-6.4(h)
I-1		350																																		I-1		350	350	Lin.Ft.	6" Pipe, Class I-3, Sec. M-6.4(h) as per plan.
I-2					0.26		0.26	0.52		0.26	0.26			0.26	0.26	0.52	0.26	0.26		6.86		0.26	0.52	0.26	0.52	0.93		0.26		0.26	0.26	1130	16199			I-2	23.5	186.5	210.0	Cu Yds.	Masonry
I-5								2			2					2				2			2		2	2				2	2	1				I-5		19	19	Each	15" Pipe Specials, Class F-4
I-5					2												2				6		4	2		9	2	4	2						I-5		33	33	Each	6" Pipe Specials, Class B-1
I-5																																	1			I-5		1	1	Each	30" Pipe Specials, Class A-1, Sec. M-6.4(d) 10 Gage
I-5																																	1			I-5		1	1	Each	60" Pipe Specials, Class A-1, Sec. M-6.4(g) 10-8 Gage
I-5					2		2	4	2	2	2	2		2	2	10	2	4		3		6		2	8	12		2		4	2					I-5		75	75	Each	6" Pipe Specials, Class I-3
I-8																																	1			I-8		1	1	Each	Standard No. 2-4 Catch Basin, Modified as per plan
I-8																																	1			I-8		1	1	Each	Standard No. 2-6 Catch Basin
I-8					1		1													2					1										I-8		5	5	Each	Standard No. 4 Catch Basin
I-8											1															7						2	4			I-8		14	14	Each	Standard No. 5 Catch Basin
I-8																										1										I-8		1	1	Each	Standard No. 6 Catch Basin
I-8								2	2	2	2	1	2	2	2	4	2	2			2	4	5	3	5	5		2		2						I-8		51	51	Each	Standard No. 8 Catch Basin
I-8																																1				I-8		1	1	Each	Standard No. 5 Catch Basin Modified as per plan
I-8																									2											I-8		2	2	Each	Catch Basin Adjusted to Grade
I-8																										2							4			I-8		6	6	Each	Standard No. 1 Manhole
I-8																																1	1			I-8		2	2	Each	Standard No. 2 Manhole
I-9	50																								6	3										I-9		59	59	Lin.Ft.	Stone Underdrains No. 1, as per plan.
I-9		17854																														260				I-9		18114	18114	Lin.Ft.	Stone Underdrains No. 2
I-10					82		235	94		35	76			128	61	118	2	82		2		284	38		199	91		2		178	144	587	361			I-10	36	2799	2835	Cu. Yds.	Dumped Rock Channel Protection
I-10																																48	248			I-10		296	296	Sq. Yds.	Rip-Rap Using 6" Reinforced Concrete Slab, as per plan
I-16									1							1			1			1			2	6		3							I-16		15	15	Each	Catch Basin Abandoned
I-16												1																								I-16		1	1	Each	Inlets Abandoned
S-23																																	34			S-23		34	34	Each	Dowel Holes
S-24					Lump			Lump																				Lump								S-24	LUMP	LUMP	LUMP	LUMP	Removal of Existing Structures.
I-1																																				I-1	10		10	Lin.Ft.	10" Pipe, Class F-4
I-1																																				I-1	90		90	Lin.Ft.	12" Pipe, Class F-4
I-1																																				I-1	140		140	Lin.Ft.	12" Pipe, Class A-1, Sec. M-6.4(d)
I-1																																				I-1	70		70	Lin.Ft.	60" Pipe, Class A-1, Sec. M-6.6(a) or M-6.8(b)
I-1																																				I-1	88		88	Lin.Ft.	91" x 58" Pipe, Class G-1, Sec. M-6.7(a) Rev. 11-9-68 C.E.H.
I-1																																				I-1	50		50	Lin.Ft.	106" x 68" Pipe, Class G-1, Sec. M-6.7(a) Rev. 5-14-64

GENERAL SUMMARY

CODE 7221
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FED. RD. DIVISION	STATE	PROJECT	
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GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.83 BEL–40–0.00

UNIT	SHEET NUMBER	ITEM	TOTALS FROM SHEET 407 Q 100% STATE	TOTALS NORMAL PARTICIP.	GRAND TOTAL	UNIT	DESCRIPTION
							PAVEMENT
T-71	11: 123962; 24: 80; 25: ✓; 26: 107; 27: 133; 60: 507 ✓	T-71		123,562	123,562	Sq.Yds.	9" Reinforced Portland Cement Concrete Pavement
T-70	24: 600 ✓; 60: 507 ✓	T-70		1107	1107	Sq.Yds.	9" Portland Cement Concrete Pavement.
T-70	12: 650	T-70		650	650	Sq.Yds.	9" Portland Cement Concrete Pavement, as per Plan
T-35	17: 1506 ✓; 55: 26 ✓; 286: 45 ✓	T-35		1,577	1,577	Cu.Yds.	Asphaltic Concrete Surface Course Type "C" (85-100)
T-35	17: 1645 ✓; 286: 27 ✓	T-35		1,672	1,672	Cu.Yds.	Asphaltic Concrete Surface Course Type "C" (70-85)
T-30	17: 16213 ✓; 55: 58 ✓; 286: 736 ✓	T-30	17,765	17,007	34,772	Gals.	Bituminous Prime Coat, Sec. M-5.1, RT-2 or RT-3
T-30	17: 4753 ✓; 55: 60 ✓	T-30		4,813	4,813	Gals.	Bituminous Tack Coat, Sec. M-5.5, MS-2 or RS-1, or Sec. M-5.2, RC-1 or RC-2, as per Section T-30.02
T-31	17: 775	T-31		775	775	Cu.Yds.	Bituminous Surface Treatment, No. 6 Aggregate
T-31	17: 23,744	T-31		23,744	23,744	Gals.	Bituminous Surface Treatment, Bituminous Material as per Plan
B-19	17: 18053 ✓; 27: 33; 55: 126 ✓; 58: 33; 286: 675 ✓	B-19	2,171	18,920	21,091	Cu.Yds.	Aggregate Base Course.
B-21	17: 8152 ✓	B-21		8152	8152	Cu.Yds.	Waterproofed Aggregate Base Course, as per plan.
B-35	17: 1676 ✓; 286: 68 ✓	B-35		1,744	1,744	Cu.Yds.	Asphaltic Concrete Leveling Course (85-100)
B-35	11: 330; 17: 1645 ✓; 55: 28 ✓	B-35		2003	2003	Cu.Yds.	Asphaltic Concrete Leveling Course (70-85)
B-71	12: 3036; 31: 352; 32: 19	B-71		3,407	3,407	Sq.Yds.	9" Reinforced Portland Cement Concrete Base Course.
I-7	17: 534 ✓	I-7		534	534	Sq.Yds.	Reinforced Concrete Approach Slab (T=13")
I-12	17: 212 ✓	I-12		212	212	Lin.Ft.	Standard Concrete Curb Type 2-A
I-12	17: 200 ✓	I-12		200	200	Lin.Ft.	Standard Concrete Curb Type 6
I-12	17: 324 ✓	I-12		324	324	Lin.Ft.	Standard Concrete Curb Type 7
I-12	17: 716 ✓	I-12		716	716	Lin.Ft.	Standard Concrete Curb Type 8
I-18	17: 4079 ✓	I-18	1584	4079	5663	Cu.Yds.	Stabilized Crushed Aggregate Shoulders and Approaches
I-21	17: 72 ✓	I-21		72	72	Sq.Yds.	4" Portland Cement Concrete Median Pavement Std. Type 1
I-22	12: 506; 17: 31,031 ✓; 24: 14; 26: 18; 27: 22; 31: 59; 32: 3	I-22		37,653	37,653	Cu.Yds.	Subbase, Grading "A" or "B", as per plan
							STRUCTURES OVER 20' SPAN
							BRIDGE NO. — FOR QUANTITIES SEE SHEET NO.
							GUE. 40-2527 L & R — 443
							BEL. 40-0005 L & R — 450
I-3				Lump	Lump		Construction Layout Stakes.
		I-3		Lump	Lump		Maintaining Traffic.
							PAVEMENT CONTINUED
T-32		T-32	21,672		21,672	Gals.	Road Mix Bituminous Material, Sec. M-5.3, MC-4 or MC-5
T-32		T-32	10,659		10,659	Gals.	Seal Coat Bituminous Material, Sec. M-5.3, MC-5
T-32		T-32	1,333		1,333	Cu.Yds.	No. 46 Aggregate for Road Mix, Sec. M-3.1
T-32		T-32	148		148	Cu.Yds.	No. 9 Aggregate for Choke, Sec. M-3.1
T-32		T-32	325		325	Cu.Yds.	No. 6 Aggregate for Seal Coat, sec. M-3.1

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QUANTITIES & SUBSUMMARIES

FED. RD. DIVISION	STATE	PROJECT		17 / 485
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GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

PAVEMENT - GUE. 40 - 23.88 BEL. 40 - 0.00 - MAINLINE

Sta.	to Sta.	Length	T-71 9" P.C.C. Pav't.	T-35 Asph. Conc Surface (85-100)(70-85)	T-31 #6 Aggregate	T-31 Bit. Material	T-30 Prime Coat	T-30 Tack Coat	B-35 Asph. Cond Lev. Course 70-85/85-100	B-21 Waterproofed Aggr. Base Course	B-19 Aggregate Base Course	B-19 Aggregate Base Course NO. 2	I-7 Rein. Conc. Appr. Slab T-13"	I-9 Stone Underdrain	I-12 Concrete Curb Type 2-A	I-12 Concrete Curb Type G	I-12 Concrete Curb Type-T	I-12 Concrete Curb Type-8	I-18 Stabilized Crushed Aggr. Shlds	I-21 Conc. Med. Pavement: Type 1	I-22 Subbase	T-10 Traff. Comp. Surface Course	I-4 Calcium Chlor. Maint. Traffic	NOTES
		Lin. Ft.	Sq. Yds.	Cu. Yds.	Cu. Yds.	Gals.	Gals.	Gals.	Cu. Yds.	Cu. Yds.	Cu. Yds.	Cu. Yds.	Sq. Yds.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.		Cu. Yds.	Sq. Yds.	Cu. Yds.	Cu. Yds.	Tons	
415+00	428+25	1325.00	3,534	123	38	1,190		354	123	398	269			689					371		1,382			Normal - Utilizing Exist. Pav't.
428+25	458+00	2975.00	7,934	275	74	2,312		793	275	774	833			1,547					625		2,802			Super - " " "
458+00	487+71.93	2971.93	7,926	275	74	2,312		793	275	773	603			1,545					654		2,862			Normal - " " "
487+71.93	489+34.07				1	39				13	10		267						11		70			Structure No. Gue. 40 - 2527 L & R
489+34.07	518+00	2865.93	7,643	265	71	2,229		764	265	745	582			1,490					631		2,759			Normal - Utilizing Exist. Pav't.
518+00	540+50	2250.00	11,999		62	1,895				620	879								86		3,241			Normal & U-Turn Median Opening
540+50	542+00	150.00	800		4	117				39	67										209			Transition
542+00	558+75	1675.00	8,933		42	1303				436	811										2318			Super
558+75	560+25	150.00	800		4	117				39	67										209			Transition
560+25	564+75	450.00	2,400		11	350				117	183										634			Normal
564+75	566+25	150.00	800		4	117				39	67										209			Transition
566+25	570+50	425.00	2,267		11	331				111	206										588			Super
570+50	584+50	1400.00	3,734	130	35	1,089		373	130	364	364			728					308		1,325			Super - Utilizing Exist. Pav't.
584+50	588+75	425.00	2,267		11	331				111	206										588			Super.
588+75	590+50	175.00	933		4	136				46	78										245			Transition
590+50	596+75	625.00	3,333		16	486				163	254										881			Normal
596+75	598+25	150.00	800		4	117				39	67										209			Transition
598+25	613+25	1,500.00	8,000		37	1,167				390	726										2,076			Super
613+25	615+00	175.00	933		4	136				46	78										245			Transition
615+00	620+25	525.00	2,800		13	408				137	213										740			Normal
620+25	621+75	150.00	800		4	117				39	67										209			Transition
621+75	623+00	175.00	933		4	136				46	86										243			Super
623+00	643+50	2050.00	5,755	189	61	4,716		546	189	579	578			806					459		2083			Ramp "A" Taper. Super - Util. Exist. Pav't.
643+50	647+75	425.00	2,334	38	9	286		113	38	95	121								27		578			Ramp "A" & "B" Tapers, Nor. " " "
647+75	649+75	200.00	1,439	18	4	133		54	18	44	62								13		329			Ramp "A" & "B" Tapers Trans. " " "
649+75	657+41.53	766.53	2,873	69	18	555		205	69	185	203			104					155		839			Ramp "A" & "B" Tapers. Super - " "
9+99.42	12+44	244.58	652	23	6	190		65	23	64	63			127					54		232			Super - Utilizing Exist. Pav't.
12+44	14+06				1	39				13	22		267								71			Structure No. Bel. 40 - 0.05 L & R
14+06	18+50	444.00	1,184	41	11	345		118	41	115	115			231							420			Super - Utilizing Exist. Pav't.
18+50	31+50	1300.00	9,740		30	912				304	569										2,223			Super & Tapers Ramps "B" & "D"
31+50	32+50	100.00	672		2	72				24	45										160			Transition & Taper Ramp "D"
32+50	38+50	600.00	3,550		15	439				146	275										884			Normal & Taper Ramp "D"
38+50	50+75	1225.00	3,267	113	40	1,102		327	113	369	248			637					356		1,284			Normal & U-Turn Med. Open. Util. Exist. Pav't.
50+75	52+25	150.00	400	14	4	117		41	14	39	35			78					33		145			Transition - Utilizing Exist. Pav't.
52+25	60+00	775.00	2,067	72	19	603		207	72	202	202			403					171		733			Super - Utilizing Exist. Pav't.
Subtotal			113,302	1645	748	22,944		4,753	1645	7,664	9,254	534		8,385					3,954		34,025			

PAVEMENT - GUE. 40 - 23.88 BEL. 40 - 0.00 - RAMPS

50+52.42	57+23	670.58	1,183		5	162					64		91				100	490			301			Ramp "A"
57+23	59+27.16	204.16	363		1	34					22		11								83			Ramp "A"
14+24.92	23+62.52	937.60	1,811		5	164					131		62		106	100			19	36	423			Ramp "B"
51+52.82	57+86	633.18	1,270		4	113					97		61		106	100				36	299			Ramp "C" & 100' Safety Lane
57+86	60+40.18	254.18	452		1	42					28		14								103			Ramp "C"
13+87.69	20+00	1,212.11	2,133		9	220					122		91				224	226			504			Ramp "D"
Subtotal			7,212		25	735					464		330		212	200	324	716	19	72	1,713			

PAVEMENT - GUE. 40 - 23.88 BEL. 40 - 0.00 SIDEROADS

8+50	66+00	5750.00		354				4,078			496		2,266				2,310							C.H. 254 Relocation
114+20	35+80	8937.09		555				6,389			775		3,756				4,209							C.H. 27 Relocation
0+19	1+70	151.00											61											Service RD. #4
6+25	11+68.60	543.60											215											Cemetery Road Relocation
6+71.48	12+24.80	553.32	2528			2	65					24		31					106		465	112	257	C.H.-114 (North) incl. Aprons to all Ramps
23+00	60+59.88	3759.88		281				2711			2		977				1579				828	375	750	C.H. 202 to Radius Pts @ Int.
60+59.88	93+00	3240.12		316				3035			403		1163				1,371					75	150	C.H.-114 Reloc.-incl. Apron to C.H. 202 Apron to C.H. 114 (North)
Subtotal			2,528	1506	1645	2	65	16,213		1	1645	1676	24	8438	31			9,469			106		1293	562	~~11.57~~
Grand total			123,242	1506	1645	775	23,744	16,213	4,753	1645	1676	8,152	8438	9,615	534		17,854	212	200	324	716	4,079	72	37,031	562	~~11.57~~ Use 12 Tons

QUANTITIES & SUB-SUMMARY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

18/485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

SHEET NO	ITEM I-15 GUARD RAIL STD. TYPE DEEP LIN. FT.	ITEM I-15 GUARD RAIL REM. & REBUILT LIN. FT.	ITEM E-1 EARTHWORK STATION TO STATION		EXCAVATION (C.Y.)	EMBANKMENT (C.Y.)	ITEM L-9 SEEDING SQ. YDS.
			MAINLINE				
24	275	388	410+00	420+00	2 688	45,079	15,721
25			420+00	430+00	135,142	591	33,440
26	862.5	725	430+00	440+00	52,743	129,180	40,676
27	825	GG2.5	440+00	450+00	17,154	36,289	34,210
28	300	262.5	450+00	460+00	195,429	1,704	25,572
29	673	693	460+00	470+00	56,982	7,311	26,860
30	1000	975	470+00	480+00	21,573	172,493	32,823
31	1811	1251	480+00	490+00	12,500	94,962	26,227
32	1128.5	712.5	490+00	500+00	22,875	13,175	25,014
33	750	GG2.5	500+00	510+00	15,246	58,949	31,700
34	437.5	215	510+00	520+00	78,373	27,420	30,850
35	1100	1125	520+00	530+00	41.018	60,307	32,005
36	525		530+00	540+00	81,500	9705 ✓	30,653
37	1050	104	540+00	550+00	17,606	55,412	31,720
38	400	162.5	550+00	560+00	52,627	11, 279	34,560
39	950	875	560+00	570+00	25,738	74,134	32,147
40			570+00	580+00	113,636	512	21,626
41	1300	1512.5	580+00	590+00	33,755	56,135 ✓	31,845
42	900	925	590+00	600+00	70.120	33,187	25,390
43	150	150	600+00	610+00	130,971	2,083	23,415
			610+00	625+00	34,712	139 919	53,554
54	3150	2665 ✓	625+00	640+00	236,662	16 938	47,875
55	4987.5	705 ✓	640+00	655+00	65,451	208,399	48,067
56	825 ✓	957.5 ✓	655+00	20+00	211, 309	135, 759	37,846
57	150		20+00	30+00	131,001	2,016	26,529
58	1700	1525	30+00	40+00	5,922	96,259	30,450
59	1075	1050	40+00	50+00	20,179	56,556	30,787
60	1325	1125	50+00	60+00	8131	76,903	28,653
			Add'l Exc. for Undercut in Rock		12,680	25,655 *	
	28,100	19,428.5	SUB TOTAL		1,903,693	1,627,811	890,215
			C.H. 27 RELOCATION				
277			114+10	120+00	20,649	0	5,774
278	50		120+00	130+00	37,226	15	8,929
279	800		130+00	140+00	7,390	706	5,675
280	550		140+00	150+00	36,364	578	10,233
281	775		150+00	160+00	14,259	334	8,249
282	1525		160+00	170+00	12,194	80169	15,209
283	200		170+00	178+10.20	45,773	4943	15,009
284	450		10+33.11	20+00	1813	13,565	6,992
285	575		20+00	27+00	7,519	20.564	7,537
286			27+00	38+00	32,651	90	7,006
362			Service Rd	#4	1,040	312	1,083
							92,296
			C.H. 202 RELOCATION				
324			23+50	25+00	266	486	829
325			25+00	30+50	18,982	633	3,166
336			49+00	61+00	31. 705	217,839	21.159
							25,154
			CEMETERY ROAD RELOCATION				
338-339			6+25	12+00	26,697	0	4,754
			C. H. 114 NORTH				
273-275			6+71	12+55.91	14,402	2,771	3,838
			C.H. 114 RELOC., TWP RD. 213, C.H. 286 CONN.				
340	250		61+00	70+00	71,432	4.564	14.412
341	800		70+00	80+00	37.710	18,318	15,510
342	800		80+00	90+00	6,565	22.944	13,593
343			90+00	93+85	1,821	378	2.594
319-320			TWP. RD. 213 -	0+65 ~ 3+00	156	1,142	1,664
322-323			C.H. 286 CONN.	-1+00 ~ 6+25	34,492	9	6,409
			Add for Temp. Pvt.	413+22 ~ 417+18	82	286	54,187
	34,875	19,428.5	SUB TOTAL		2,364,851	2,038,757	1,070,439 ✓

ITEM E-1 COMPACTED SUBGRADE

	LOCATION		SQ. YDS.	
#	Mainline	T-71	115,555	
#		T 31	110,470	
#		I-7	534	
		B-71	3838	
		Sub-total	230,397	
#	Ramps	T-71	7,212	
#		T-31	3,380	
		Sub-total	10,592	
#	Add For Ex. Pavt. Replacement, Mainline - Subtotal		2304	(See Sht. #12)
	Sideroads:	T-35		
	C.H. 202 Relocation		8,017	
	C.H. 114 Relocation & C.H. 114 North		11,363	
	C.H. 27 Reloc. & C.H. 286 & Twp. Rd. 213		20,538	
	C.H. 254 Reloc.		12, 140	
	Sub total		295,351	✓
	Deduct for Sections in Rock Cut		64,200	
	Total		231,151.0	

ITEM S.S. C.E. 101.04 239,455 SQ.YDS./2,000 SQ.YDS. Per Hour = 120 HOURS

ITEM E-4 BORROW

ITEMS	CU. YDS.
Embankment	2,286,485
12 % Shrinkage	274,378
Total	2,560,893
Less Excavation	2539,910
Total Borrow	20, 953

* Embankment for Rockcut and Median Barrier

VOLUME OF MEDIAN HUMP EMBANKMENT

* Average Half End Area:
Rocksection = 34 Sq. Ft.
Earthsection = ✓8.86 Sq. Ft.

Length:
Rocksection (See sheet No. 5) = 10077
Earthsection (See sheets Nos. 4, 5 & 6

Total Volume:
[34 x 10077)+(39509.59 x 8.86)]/27 = 25,655 Cu. Yds.

SHEET NO	I-15 GUARD RAIL STD TYPE DEEP LIN FT	I-15 GUARD RAIL REM & REBUILT LIN FT	ITEM E-1 EARTHWORK STATION TO STATION		EXCAVATION C.Y.	EMBANKMENT C.Y.	ITEM L-9 SEEDING SQ. YDS.
✓	34,875	19,428.5	SUB TOTAL		2,364,851	2,038,757	1070,439
			C.H. 254 RELOC.				
363	25		8+50	12+00	14,806	0	3,831
364	850		12+00	22+00	22,951	12, 507	11,971
365	1200		22+00	32+00	13, 323	29,206	11,322
366	200		32+00	42+00	73,653	1, 642	13,570
367	1300		42+00	52+00	22,651	118,616	18,458
368	950		52+00	62+00	27, 631	72, 018	17,384
369	500		62+00	66+00	544	13, 739	4,987
	5,025		Sub total		175,059	247,728	81,523
✓	39,900	19,428.5	Total		2,539,910	2,286,485	1,151,962 °

° 1,151,962 S.Y. Minus 11,050 S.Y. Sod. = 1,140,912 S.Y. To Be Seeded

I-125 PAVEMENT MARKING

See Sheet No. 439

ITEM L-9 COMMERCIAL FERTILIZER

*1,160,490 S.Y. @ 20 lbs./1000 ° ÷ 2,000 = 104.44 Tons

*1,140,912 Seeding
10,942 Sodding
216 Spec. Sod.
8,420 Jute Mat.
1,160,490 S.Y. Total

ITEM L-9 AGRICULTURAL LIMING MATERIAL

*1,160,490 S.Y. @ 100 lbs./1000 ° ÷ 2,000 = 522.22 Tons

ITEM E-11 WATER

LOCATION	GAL/CU.YD.	M GALS.
Embankment:	5	11,432
Compacted Subgrade	5	375
B-19	5	46
I-18	5	20
I-22	5	186
Total		12,059

ITEM SPECIAL - FURNISHING AND MIXING CALCIUM CHLORIDE WITH AGGREGATE

LOCATION		SQ. YDS.
Twp. Rd. 213		533
C.H. 114 (North)	I-18	611
Turnarounds	B-19	773
Cemetery Road	B-19	965
Total		2882

ITEM I-15 GUARDRAIL, STEEL BEAM, STANDARD TYPE (DEEP)

GUARDRAIL REQUIRED	REMOVED & REBUILT
39,900 L.F.	19,428.5 L.F. ✓
Deduct for Removed & Rebuilt 19,428.5 L.F. ✓	
Total 20,471.5 L.F. ✓	

I-127 DELINEATORS

STA. TO STA.	TYPE A-1	TYPE C-2	TYPE C-3
415+00 60+00	267		
Ramp A		25	1
Ramp B		21	
Ramp C		19	
Ramp D		24	1
Total	267	89	2

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

19
485

SUPERELEVATION CHARTS

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

LT. LANES		STATION	PROFILE GRADE	RT. LANES	
LT. E.P.	CTR.			CTR.	RT. E.P.
		P.I. STA. 443+75.60			
DC=1°51'			MAX. S.E.= 0.060 FT./FT.		
		428+00	1015.21	1015.39	1015.21
		428+25	1016.08	1016.25	1016.07
		428+50	1016.96	1017.07	1016.88
		428+75	1017.83	1017.88	1017.70
		429+00	1018.71	1018.70	1018.51
		429+25	1019.58	1019.51	1019.33
		429+50	1020.46	1020.32	1020.13
		429+75	1021.33	1021.13	1020.93
		430+00	1022.21	1021.95	1021.69
		430+25	1023.08	1022.75	1022.42
		430+50	1023.96	1023.57	1023.18
		430+75	1024.83	1024.38	1023.93
		431+00	1025.71	1025.19	1024.67
		431+25	1026.58	1026.00	1025.42
		431+50	1027.46	1026.82	1026.18
		431+75	1028.33	1027.63	1026.93
		432+00	1029.21	1028.49	1027.77
		432+25	1030.08	1029.36	1028.64
		432+50	1030.96	1030.24	1029.52
		432+75	1031.83	1031.11	1030.39
		433+00	1032.71	1031.99	1031.27
		433+25	1033.58	1032.86	1032.14
		433+50	1034.46	1033.74	1033.02
		433+75	1035.33	1034.61	1033.89
		434+00	1036.21	1035.49	1034.77
		434+25	1037.08	1036.36	1035.64
		434+50	1037.96	1037.24	1036.52
		434+75	1038.83	1038.11	1037.39
		435+00	1039.71	1038.99	1038.27
		435+25	1040.58	1039.86	1039.14
		435+50	1041.46	1040.74	1040.02
		435+75	1042.33	1041.61	1040.69
		436+00	1043.21	1042.49	1041.77
		436+25	1044.08	1043.36	1042.64
		436+50	1044.96	1044.24	1043.52
		436+75	1045.83	1045.11	1044.39
		437+00	1046.71	1045.99	1045.27
		437+25	1047.58	1046.86	1046.14
		437+50	1048.46	1047.74	1047.02
		437+75	1049.33	1048.61	1047.89
		438+00	1050.21	1049.49	1048.77
		438+25	1051.08	1050.36	1049.64
		438+50	1051.96	1051.24	1050.52
		438+75	1052.83	1052.11	1051.39
		439+00	1053.71	1052.99	1052.27
		439+25	1054.58	1053.86	1053.14
		439+50	1055.46	1054.74	1054.02
		439+75	1056.33	1055.61	1054.89
		440+00	1057.21	1056.49	1055.77
		440+25	1058.08	1057.36	1056.64
		440+50	1058.96	1058.24	1057.52
		440+75	1059.83	1059.11	1058.39
		441+00	1060.71	1059.99	1059.27
		441+25	1061.58	1060.86	1060.14
		441+50	1062.46	1061.74	1061.02
		441+75	1063.33	1062.61	1061.89
		442+00	1064.21	1063.49	1062.77
		442+25	1065.08	1064.36	1063.64
		442+50	1065.96	1065.24	1064.52
		442+75	1066.83	1066.11	1065.39
		443+00	1067.71	1066.99	1066.27
		443+25	1068.58	1067.86	1067.14
		443+50	1069.46	1068.74	1068.02
		443+75	1070.33	1069.61	1068.89
		444+00	1071.21	1070.49	1069.77
		444+25	1072.08	1071.36	1070.64
		444+50	1072.96	1072.24	1071.52
		444+75	1073.83	1073.11	1072.39
		445+00	1074.71	1073.99	1073.27
		445+25	1075.58	1074.86	1074.14
		445+50	1076.46	1075.74	1075.02
		445+75	1077.33	1076.61	1075.89
		446+00	1078.21	1077.49	1076.77
		446+25	1079.08	1078.36	1077.64
		446+50	1079.96	1079.24	1078.52
		446+75	1080.83	1080.11	1079.39
		447+00	1081.71	1080.99	1080.27
		447+25	1082.58	1081.86	1081.14
		447+50	1083.46	1082.74	1082.02
		447+75	1084.33	1083.61	1082.89
		448+00	1085.21	1084.49	1083.77
		448+25	1086.08	1085.36	1084.64
		448+50	1086.96	1086.24	1085.52
		448+75	1087.83	1087.11	1086.39
		449+00	1088.71	1087.99	1087.27
		449+25	1089.58	1088.86	1088.14
		449+50	1090.46	1089.74	1089.02
		449+75	1091.33	1090.61	1089.89
		450+00	1092.21	1091.49	1090.77
		450+25	1093.08	1092.36	1091.64
		450+50	1093.96	1093.24	1092.52
		450+75	1094.83	1094.11	1093.39
		451+00	1095.71	1094.99	1094.27
		451+25	1096.58	1095.86	1095.14
		451+50	1097.46	1096.74	1096.02
		451+75	1098.33	1096.61	1096.89
		452+00	1099.21	1098.49	1097.77
		452+25	1100.08	1099.36	1098.64
		452+50	1100.96	1100.24	1099.52
		452+75	1101.83	1101.11	1100.39
		453+00	1102.71	1101.99	1101.27
		453+25	1103.59	1102.87	1102.15
		453+50	1104.46	1103.74	1103.02
		453+75	1105.34	1104.62	1103.90
		454+00	1106.21	1105.49	1104.77
		454+25	1107.09	1106.37	1105.65
		454+50	1107.96	1107.26	1106.56
		454+75	1108.84	1108.20	1107.56
		455+00	1109.71	1109.13	1108.55
		455+25	1110.59	1110.07	1109.55
		455+50	1111.46	1111.01	1110.56
		455+75	1112.34	1111.95	1111.56
		456+00	1113.21	1112.88	1112.55
		456+25	1114.09	1113.83	1113.57
		456+50	1114.96	1114.76	1114.56
		456+75	1115.84	1115.70	1115.51
		457+00	1116.71	1116.64	1116.46
		457+25	1117.59	1117.58	1117.39
		457+50	1118.46	1118.51	1118.33
		457+75	1119.34	1119.45	1119.26
		458+00	1120.21	1120.38	1120.20
		458+25	1121.09	1121.27	1121.09

LT. LANES		STATION	PROFILE GRADE	RT. LANES	
LT. E.P.	CTR.			CTR.	RT. E.P.
		P.I. STA. 550+48.95			
DC=1°29'29"			MAX. S.E.= 0.048 FT./FT.		
1157.83	1158.02	540+25	1157.83	1158.02	1157.83
1157.91	1158.10	540+50	1157.92	1158.11	1157.94
1157.95	1158.14	540+75	1158.01	1158.20	1158.08
1157.97	1158.16	541+00	1158.10	1158.29	1158.24
1158.00	1158.19	541+25	1158.19	1158.38	1158.39
1158.03	1158.22	541+50	1158.28	1158.47	1158.54
1158.06	1158.25	541+75	1158.37	1158.56	1158.69
1158.07	1158.27	542+00	1158.46	1158.66	1158.86
1158.04	1158.30	542+25	1158.55	1158.81	1159.07
1158.01	1158.33	542+50	1158.64	1158.96	1159.28
1157.98	1158.36	542+75	1158.73	1159.11	1159.49
1157.93	1158.38	543+00	1158.82	1159.27	1159.72
1157.89	1158.40	543+25	1158.91	1159.42	1159.93
1157.89	1158.45	543+50	1159.00	1159.56	1160.12
1157.94	1158.52	543+75	1159.09	1159.67	1160.25
1158.03	1158.61	544+00	1159.18	1159.76	1160.34
1158.12	1158.70	544+25	1159.27	1159.85	1160.43
1158.21	1158.79	544+50	1159.36	1159.94	1160.52
1158.30	1158.88	544+75	1159.45	1160.03	1160.61
1158.39	1158.97	545+00	1159.54	1160.12	1160.70
1158.48	1159.06	545+25	1159.63	1160.21	1160.79
1158.57	1159.15	545+50	1159.72	1160.30	1160.88
1158.66	1159.24	545+75	1159.81	1160.39	1160.97
1158.75	1159.33	546+00	1159.90	1160.48	1161.06
1158.84	1159.42	546+25	1159.99	1160.57	1161.15
1158.93	1159.51	546+50	1160.08	1160.66	1161.24
1159.02	1159.60	546+75	1160.17	1160.75	1161.33
1159.11	1159.69	547+00	1160.26	1160.84	1161.42
1159.20	1159.78	547+25	1160.35	1160.93	1161.51
1159.29	1159.87	547+50	1160.44	1161.02	1161.60
1159.38	1159.96	547+75	1160.53	1161.11	1161.69
1159.47	1160.05	548+00	1160.62	1161.20	1161.78
1159.56	1160.14	548+25	1160.71	1161.29	1161.87
1159.65	1160.23	548+50	1160.80	1161.38	1161.96
1159.74	1160.32	548+75	1160.89	1161.47	1162.05
1159.83	1160.41	549+00	1160.98	1161.56	1162.14
1159.92	1160.50	549+25	1161.07	1161.65	1162.23
1160.01	1160.59	549+50	1161.16	1161.74	1162.32
1160.10	1160.68	549+75	1161.25	1161.83	1162.41
1160.19	1160.77	550+00	1161.34	1161.92	1162.50
1160.28	1160.86	550+25	1161.43	1162.01	1162.59
1160.37	1160.95	550+50	1161.52	1162.10	1162.68
1160.46	1161.04	550+75	1161.61	1162.19	1162.77
1160.55	1161.13	551+00	1161.70	1162.28	1162.86
1160.64	1161.22	551+25	1161.79	1162.37	1162.95
1160.73	1161.31	551+50	1161.88	1162.46	1163.04
1160.82	1161.40	551+75	1161.97	1162.55	1163.13
1160.91	1161.49	552+00	1162.06	1162.64	1163.22
1161.00	1161.58	552+25	1162.15	1162.73	1163.31
1161.09	1161.67	552+50	1162.24	1162.82	1163.40
1161.18	1161.76	552+75	1162.33	1162.91	1163.49
1161.27	1161.85	553+00	1162.42	1163.00	1163.58
1161.36	1161.94	553+25	1162.51	1163.09	1163.67
1161.45	1162.03	553+50	1162.60	1163.18	1163.76
1161.54	1162.12	553+75	1162.69	1163.27	1163.85

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

20
485

SUPERELEVATION CHARTS

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

LT. LANES		STATION	PROFILE GRADE	RT. LANES	
LT. E.P.	CTR.			CTR.	RT. E.P.
1161.63	1162.21	554+00	1162.78	1163.36	1163.94
1161.72	1162.30	554+25	1162.87	1163.45	1164.03
1161.81	1162.38	554+50	1162.96	1163.54	1164.12
1161.89	1162.47	554+75	1163.04	1163.62	1164.20
1161.96	1162.54	555+00	1162.11	1163.69	1164.27
1162.02	1162.60	555+25	1163.17	1163.75	1164.33
1162.06	1162.64	555+50	1163.21	1163.79	1164.37
1162.09	1162.67	555+75	1163.25	1163.83	1164.41
1162.11	1162.69	556+00	1163.26	1163.84	1164.42
1162.11	1162.69	556+25	1163.27	1163.85	1164.43
1162.11	1162.68	556+50	1163.26	1163.84	1164.42
1162.08	1162.66	556+75	1163.24	1163.82	1164.40
1162.05	1162.63	557+00	1163.20	1163.78	1164.36
1162.05	1162.61	557+25	1163.16	1163.72	1164.28
1162.07	1162.58	557+50	1163.09	1163.61	1164.12
1162.13	1162.58	557+75	1163.02	1163.47	1163.92
1162.18	1162.56	558+00	1162.93	1163.31	1163.70
1162.20	1162.52	558+25	1162.83	1163.15	1163.47
1162.21	1162.47	558+50	1162.72	1162.98	1163.24
1162.20	1162.40	558+75	1162.59	1162.79	1163.00
1162.14	1162.33	559+00 ✓	1162.45	1162.64	1162.77
1162.05	1162.24	559+25	1162.30	1162.49	1162.56
1161.94	1162.13	559+50	1162.13	1162.32	1162.33
1161.82	1162.01	559+75	1161.96	1162.14	1162.09
1161.70	1161.89	560+00	1161.76	1161.95	1161.83
1161.55	1161.73	560+25	1161.56	1161.75	1161.58
1161.34	1161.53	560+50	1161.34	1161.53	1161.34

LT. LANES		STATION	PROFILE GRADE	RT. LANES	
LT. E.P.	CTR.			CTR.	RT. E.P.
P.I. STA. 577+74.54					
DC = 1°-30'-31"			MAX. S.E. 0.048 FT./FT.		
1156.06	1156.25	564+50	1156.06	1156.25	1156.06
1155.64	1155.81	564+75	1155.62	1155.79	1155.60
1155.23	1155.35	565+00	1155.16	1155.29	1155.10
1154.84	1154.89	565+25	1154.70	1154.75	1154.56
1154.42	1154.41	565+50	1154.22	1154.21	1154.02
1153.98	1153.91	565+75	1153.72	1153.65	1153.47
1153.53	1153.40	566+00 ✓	1153.21	1153.09	1152.90
1153.10	1152.90	566+25	1152.69	1152.49	1152.29
1152.68	1152.42	566+50	1152.16	1151.90	1151.64

LT. LANES		STATION	PROFILE GRADE	RT. LANES	
LT. E.P.	CTR.			CTR.	RT. E.P.
1152.25	1151.93	566+75	1151.61	1151.29	1150.98
1151.81	1151.43	567+00	1151.05	1150.67	1150.29
1151.38	1150.93	567+25	1150.48	1150.03	1149.58
1150.92	1150.41	567+50	1149.90	1149.39	1148.88
1150.41	1149.85	567+75	1149.30	1148.74	1148.18
1149.85	1149.27	568+00	1148.68	1148.11	1147.53
1149.22	1148.64	568+25	1148.06	1147.48	1146.90
1148.58	1148.00	568+50	1147.42	1146.84	1146.26
1147.93	1147.35	568+75	1146.77	1146.19	1145.61
1147.27	1146.69	569+00	1146.10	1145.53	1144.95
1146.59	1146.01	569+25	1145.43	1144.85	1144.27
1145.90	1145.32	569+50	1144.74	1144.16	1143.58
1145.19	1144.61	569+75	1144.03	1143.45	1142.87
1144.48	1143.90	570+00 ✓	1143.31	1142.74	1142.16
1143.74	1143.16	570+25	1142.58	1142.00	1141.43
		570+50 ✓	1141.84	1141.26	1140.68
		570+75	1141.09	1140.51	1139.93
		571+00	1140.34	1139.76	1139.18
		571+25	1139.59	1139.01	1138.43
		571+50	1138.84	1138.26	1137.68
		571+75	1138.09	1137.51	1136.93
		572+00	1137.34	1136.76	1136.18
		572+25	1136.59	1136.01	1135.43
		572+50	1135.84	1135.26	1134.68
		572+75	1135.09	1134.51	1133.93
		573+00	1134.34	1133.76	1133.18
		573+25	1133.59	1133.01	1132.43
		573+50	1132.84	1132.26	1131.68
		573+75	1132.09	1131.51	1130.93
		574+00	1131.34	1130.76	1130.18
		574+25	1130.59	1130.01	1129.43
		574+50	1129.84	1129.26	1128.68
		574+75	1129.09	1128.51	1127.93
		575+00	1128.34	1127.76	1127.18
		575+25	1127.59	1127.01	1126.43
		575+50	1126.84	1126.26	1125.68
		575+75	1126.09	1125.51	1124.93
		576+00	1125.34	1124.76	1124.18
		576+25	1124.59	1124.01	1123.43
		576+50	1123.84	1123.26	1122.68
		576+75	1123.09	1122.51	1121.93
		577+00	1122.34	1121.76	1121.18
		577+25	1121.59	1121.01	1120.43
		577+50	1120.84	1120.26	1119.68
		577+75	1120.09	1119.51	1118.93
		578+00	1119.34	1118.76	1118.18
		578+25	1118.59	1118.01	1117.43

LT. LANES		STATION	PROFILE GRADE	RT. LANES	
LT. E.P.	CTR.			CTR.	RT. E.P.
		578+50	1117.84	1117.26	1116.68
		578+75	1117.09	1116.51	1115.93
		579+00	1116.34	1115.76	1115.18
		579+25	1115.59	1115.01	1114.43
		579+50	1114.84	1114.26	1113.68
		579+75	1114.09	1113.51	1112.93
		580+00	1113.34 ✓	1112.76	1112.18
		580+25	1112.59	1112.01	1111.43
		580+50	1111.84	1111.26	1110.68
		580+75	1111.09	1110.51	1109.93
		581+00	1110.34	1109.76	1109.18
		581+25	1109.59	1109.01	1108.43
		581+50	1108.84	1108.26	1107.68
		581+75	1108.09	1107.51	1106.93
		582+00	1107.34	1106.76	1106.18
		582+25	1106.59	1106.01	1105.43
		582+50	1105.84	1105.26	1104.68
		582+75	1105.09	1104.51	1103.93
		583+00	1104.34	1103.76	1103.18
		583+25	1103.59	1103.01	1102.43
		583+50	1102.84	1102.26	1101.68
		583+75	1102.09	1101.51	1100.93
		584+00	1101.34	1100.76	1100.18
		584+25	1100.59	1100.01	1099.43
		584+50 ✓	1099.84	1099.26	1098.68
1110.27	1099.69	584+75	1099.11	1098.53	1097.95
1099.57	1098.99	585+00	1098.41	1097.83	1097.25
1098.91	1098.33	585+25	1097.75	1097.17	1096.59
1098.29	1097.71	585+50	1097.13	1096.55	1095.97
1097.70	1097.12	585+75	1096.54	1095.96	1095.38
1097.15	1096.57	586+00	1095.98	1095.41	1094.83
1096.63	1096.05	586+25	1095.47	1094.89	1094.31
1096.15	1095.57	586+50	1094.99	1094.41	1093.83
1095.70	1095.12	586+75	1094.54	1093.96	1093.38
1095.29	1094.71	587+00	1094.13	1093.55	1092.97
1094.87	1094.31	587+25	1093.76	1093.20	1092.64
1094.45	1093.94	587+50	1093.42	1092.91	1092.40
1094.02	1093.57	587+75	1093.12	1092.67	1092.22
1093.61	1093.23	588+00	1092.85	1092.47	1092.09
1093.26	1092.94	588+25	1092.62	1092.30	1091.91
1092.94	1092.68	588+50	1092.43	1092.17	1091.91
1092.67	1092.47	588+75	1092.27	1092.07	1091.87
1092.47	1092.34	589+00 ✓	1092.15	1092.02	1091.83
1092.32	1092.25	589+25	1092.06	1091.99	1091.80
1092.21	1092.20	589+50	1092.01	1092.00	1091.81
1092.13	1092.18	589+75	1091.99	1092.04	1091.86

LT. LANES		STATION	PROFILE GRADE	RT. LANES	
LT. E.P.	CTR.			CTR.	RT. E.P.
1092.08	1092.20	590+00	1092.01	1092.13	1091.95
1092.09	1092.26	590+25	1092.07	1092.24	1092.05
1092.16	1092.35	590+50	1092.16	1092.35	1092.16

LT. LANES		STATION	PROFILE GRADE	RT. LANES	
LT. E.P.	CTR.			CTR.	RT. E.P.
P.I. STA. 605+79.98					
DC 1°-28'			MAX. S.E. 0.048 FT./FT.		
1094.81	1094.99	596+50	1094.80	1094.99	1094.80
1094.90	1095.09	596+75	1094.91	1095.10	1094.93
1094.96	1095.15	597+00	1095.02	1095.21	1095.09
1095.00	1095.19	597+25	1095.13	1095.32	1095.27
1095.05	1095.24	597+50	1095.24	1095.43	1095.44
1095.10	1095.29	597+75	1095.35	1095.54	1095.61
1095.15	1095.34	598+00 ✓	1095.46	1095.65	1095.78
1095.17	1095.37	598+25	1095.57	1095.77	1095.97
1095.17	1095.43	598+50	1095.68	1095.94	1096.20
1095.16	1095.48	598+75	1095.79	1096.11	1096.43
1095.15	1095.53	599+00	1095.90	1096.28	1096.66
1095.12	1095.57	599+25	1096.01	1096.46	1096.91
1095.10	1095.61	599+50	1096.12	1096.63	1097.14
1095.12	1095.68	599+75	1096.23	1096.79	1097.35
1095.19	1095.77	600+00	1096.34	1096.92	1097.50
1095.30	1095.88	600+25	1096.45	1097.03	1097.61
1095.41	1095.99	600+50	1096.56	1097.14	1097.72
1095.52	1096.10	600+75	1096.67	1097.25	1097.83
1095.63	1096.21	601+00	1096.78	1097.36	1097.94
1095.74	1096.32	601+25	1096.89	1097.47	1098.05
1095.85	1096.43	601+50	1097.00	1097.58	1098.16
1095.96	1095.54	601+75	1097.11	1097.69	1098.27
1096.07	1096.65	602+00	1097.22	1097.80	1098.38
1096.18	1096.76	602+25	1097.33	1097.91	1098.49
1096.29	1096.87	602+50	1097.44	1098.02	1098.60
1096.40	1096.98	602+75	1097.55	1098.13	1098.71
1096.51	1097.09	603+00	1097.66	1098.24	1098.82
1096.62	1097.20	603+25	1097.77	1098.35	1098.93
1096.73	1097.31	603+50	1097.88	1098.46	1099.04
1096.84	1097.42	603+75	1097.99	1098.57	1099.15
1096.95	1097.53	604+00	1098.10	1098.68	1099.26
1097.06	1097.64	604+25	1098.21	1098.79	1099.37
1097.17	1097.75	604+50	1098.32	1098.90	1099.48
1097.28	1097.86	604+75	1098.43	1099.01	1099.59

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

21/485

SUPERELEVATION CHARTS

GUERNSEY COUNTY – BELMONT COUNTY
GUE-40-23.88 BEL-40-0.00

LT. LANES LT. E.P.	LT. LANES CTR.	STATION	PROFILE GRADE	RT. LANES CTR.	RT. LANES RT. E.P.
1097.39	1097.97	605+00	1098.54	1099.12	1099.70
1097.50	1098.08	605+25	1098.65	1099.23	1099.81
1097.61	1098.19	605+50	1098.76	1099.34	1099.92
1097.72	1098.30	605+75	1098.87	1099.45	1100.03
1097.83	1098.41	606+00	1098.98	1099.56	1100.14
1097.94	1098.52	606+25	1099.09	1099.67	1100.25
1098.05	1098.63	606+50	1099.20	1099.78	1100.36
1098.16	1098.74	606+75	1099.31	1099.89	1100.47
1098.27	1098.85	607+00	1099.42	1100.00	1100.58
1098.38	1098.96	607+25	1099.53	1100.11	1100.69
1098.49	1099.07	607+50	1099.64	1100.22	1100.80
1098.60	1099.18	607+75	1099.75	1100.33	1100.91
1098.71	1099.29	608+00	1099.86	1100.44	1101.02
1098.82	1099.40	608+25	1099.97	1100.55	1101.13
1098.93	1099.51	608+50	1100.08	1100.66	1101.24
1099.04	1099.62	608+75	1100.19	1100.77	1101.35
1099.15	1099.73	609+00	1100.30	1100.88	1101.46
1099.26	1099.84	609+25	1100.41	1100.99	1101.57
1099.37	1099.95	609+50	1100.52	1101.10	1101.68
1099.48	1100.06	609+75	1100.63	1101.21	1101.79
1099.59	1100.17	610+00	1100.74	1101.32	1101.90
1099.70	1100.28	610+25	1100.85	1101.43	1102.01
1099.81	1100.39	610+50	1100.96	1101.54	1102.12
1099.92	1100.50	610+75	1101.07	1101.65	1102.23
1100.03	1100.61	611+00	1101.18	1101.76	1102.34
1100.14	1100.72	611+25	1101.29	1101.87	1102.45
1100.25	1100.83	611+50	1101.40	1101.98	1102.56
1100.40	1100.96	611+75	1101.51	1102.07	1102.63
1100.60	1101.11	612+00	1101.62	1102.13	1102.64
1100.84	1101.29	612+25	1101.73	1102.18	1102.63
1101.09	1101.47	612+50	1101.84	1102.22	1102.60
1101.32	1101.64	612+75	1101.95	1102.27	1102.59
1101.55	1101.81	613+00	1102.06	1102.32	1102.58
1101.77	1101.97	613+25	1102.17	1102.37	1102.57
1101.97	1102.16	613+50 ✓	1102.28	1102.47	1102.60
1102.15	1102.34	613+75	1102.40	1102.59	1102.66
1102.36	1102.55	614+00	1102.55	1102.74	1102.75
1102.60	1102.78	614+25	1102.73	1102.92	1102.87
1102.87	1103.06	614+50	1102.93	1103.12	1103.00
1103.15	1103.34	614+75	1103.16	1103.35	1103.18
1103.42	1103.61	615+00	1103.42	1103.61	1102.42

P.I. STA. 632+40.05
DC = 1°-30'-31" MAX. S.E. 0.048 FT./FT.

LT. LANES LT. E.P.	LT. LANES CTR.	STATION	PROFILE GRADE	RT. LANES CTR.	RT. LANES RT. E.P.
1140.10	1114.29	620+00	1114.10	1114.29	1114.10
1114.87	1115.04	620+25	1114.85	1115.02	1114.84
1115.67	1115.79	620+50	1115.60	1115.72	1115.54
1116.49	1116.54	620+75	1116.35	1116.40	1116.22
1117.30	1117.29	621+00	1117.10	1117.09	1116.91
1118.11	1118.04	621+25	1117.85	1117.78	1117.60
1118.92	1118.79	621+50 ✓	1118.60	1118.47	1118.29
1119.76	1119.56	621+75	1119.35	1119.15	1118.95
1120.62	1120.36	622+00	1120.10	1119.84	1119.58
1121.49	1121.17	622+25	1120.85	1120.53	1120.21
1122.36	1121.98	622+50	1121.60	1121.22	1120.84
1123.25	1120.80	622+75	1122.35	1121.90	1121.45
		623+00 ✓	1123.10	1122.59	1122.08
		623+25	1123.85	1123.29	1122.73
		623+50	1124.60	1124.02	1123.44
		623+75	1125.35	1124.77	1124.19
		624+00	1126.10	1125.52	1124.94
		624+25	1126.85	1126.27	1125.69
		624+50	1127.60	1127.02	1126.44
		624+75	1128.35	1127.77	1127.19
		625+00	1129.10	1128.52	1127.94
		625+25	1129.85	1129.27	1128.69
		625+50	1130.60	1130.02	1129.44
		625+75	1131.35	1130.77	1130.19
		626+00	1132.10	1131.52	1130.94
		626+25	1132.85	1132.27	1131.69
		626+50	1133.60	1133.02	1132.44
		626+75	1134.35	1133.77	1133.19
		627+00	1135.10	1134.52	1133.94
		627+25	1135.85	1135.27	1134.69
		627+50	1136.60	1136.02	1135.44
		627+75	1137.35	1136.77	1136.19
		628+00	1138.10	1137.52	1136.94
		628+25	1138.85	1138.27	1137.69
		628+50	1139.60	1139.02	1138.44
		628+75	1140.35	1139.77	1139.19
		629+00	1141.10	1140.52	1139.94
		629+25	1141.85	1141.27	1140.69
		629+50	1142.60	1142.02	1141.44
		629+75	1143.35	1142.77	1142.19
		630+00	1144.10	1143.52	1142.94
		630+25	1144.85	1144.27	1143.69
		630+50	1145.60	1145.02	1144.44
		630+75	1146.35	1145.77	1145.19
		631+00	1147.10	1146.52	1145.94
		631+25	1147.85	1147.27	1146.69

LT. LANES LT. E.P.	LT. LANES CTR.	STATION	PROFILE GRADE	RT. LANES CTR.	RT. LANES RT. E.P.
		631+50	1148.60	1148.02	1147.44
		631+75	1149.35	1148.77	1148.19
		632+00	1150.10	1149.52	1148.94
		632+25	1150.85	1150.27	1149.69
		632+50	1151.60	1161.02	1150.44
		632+75	1152.35	1151.77	1151.19
		633+00	1153.10	1152.52	1151.94
		633+25	1153.85	1153.27	1152.69
		633+50	1154.60	1154.02	1153.44
		633+75	1155.35	1154.77	1154.19
		634+00	1156.10	1155.52	1154.94
		634+25	1156.85	1156.27	1155.69
		634+50	1157.60	1157.02	1156.44
		634+75	1158.35	1157.77	1157.19
		635+00	1159.10	1158.52	1157.94
		635+25	1159.85	1159.27	1158.69
		635+50	1160.60	1160.02	1159.44
		635+75	1161.35	1160.77	1160.19
		636+00	1162.10	1161.52	1160.94
		636+25	1162.85	1162.27	1161.69
		636+50	1163.60	1163.02	1162.44
		636+75	1164.35	1163.77	1163.19
		637+00	1165.10	1164.52	1163.94
		637+25	1165.85	1165.27	1164.69
		637+50	1166.60	1166.02	1165.44
		637+75	1167.35	1166.77	1166.19
		638+00	1168.10	1167.52	1166.94
		638+25	1168.85	1168.27	1167.69
		638+50	1169.60	1169.02	1168.44
		638+75	1170.35	1169.77	1169.19
		639+00	1171.10	1170.52	1169.94
		639+25	1171.85	1171.27	1170.69
		639+50	1172.60	1172.02	1171.44
		639+75	1173.35	1172.77	1172.19
		640+00	1174.10	1173.52	1172.94
		640+25	1174.85	1174.27	1173.69
		640+50	1175.60	1175.02	1174.44
		640+75	1176.35	1175.77	1175.19
		641+00	1177.10	1176.52	1175.94
		641+25	1177.85	1177.29	1176.73
		641+50	1178.60	1178.09	1177.68
		641+75	1179.35	1178.90	1178.45
		642+00	1180.10	1179.72	1179.34
		642+25	1180.85	1180.53	1180.21
		642+50	1181.60	1181.34	1181.08
		642+75	1182.34	1182.14	1181.94
		643+00	1183.07	1182.94	1182.75
		643+25	1183.77	1183.71	1183.52

LT. LANES LT. E.P.	LT. LANES CTR.	STATION	PROFILE GRADE	RT. LANES CTR.	RT. LANES RT. E.P.
		643+50	1184.47	1184.46	1184.27
		643+75	1185.14	1185.19	1185.01
		644+00	1185.80	1185.92	1185.73
		644+25	1186.44	1186.61	1186.43
	✓	644+50	1187.07	1187.25	1187.07

LT. LANES LT. E.P.	LT. LANES CTR.	STATION	PROFILE GRADE	RT. LANES CTR.	RT. LANES RT. E.P.

P.I. STA. 665+08.68
DC = 1°-29'-29" MAX. S.E. 0.048 FT./FT

		647+00 ✓	1192.40	1192.99	1192.40
		647+25	1192.84	1193.03	1192.86
		647+50	1193.27	1193.45	1193.33
		647+75	1193.68	1193.86	1193.81
		648+00	1194.07	1194.25	1194.26
		648+25	1194.44	1194.63	1194.70
		648+50	1194.80	1194.99	1195.12
		648+75	1195.15	1195.35	1195.55
		649+00	1195.50	1195.76	1196.02
		649+25	1195.85	1196.17	1196.49
		649+50	1196.20	1196.58	1196.96
		649+75	1196.55	1197.00	1197.45
		650+00	1196.90	1197.41	1197.92
		650+25	1197.25	1197.81	1198.37
		650+50	1197.60	1198.18	1198.76
		650+75	1197.95	1198.53	1199.11
		651+00	1198.30	1198.88	1199.46
		651+25	1198.65	1199.23	1199.81
		651+50	1199.00	1199.58	1200.16
		651+75	1199.35	1199.93	1200.51
		652+00	1199.70	1200.28	1200.86
		652+25	1200.05	1200.63	1201.21
		652+50	1200.40	1200.98	1201.56
		652+75	1200.75	1201.33	1201.91
		653+00	1201.10	1201.68	1202.26
		653+25	1201.45	1202.03	1202.61
		653+50	1201.80	1202.68	1202.96
		653+75	1202.15	1202.73	1203.31
		654+00	1202.50	1203.08	1203.66
		654+25	1202.85	1203.43	1204.01
		654+50	1203.20	1203.78	1204.36
		654+75	1203.55	1204.13	1204.71
		655+00	1203.90	1204.48	1205.06

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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485

SUPERELEVATION CHARTS

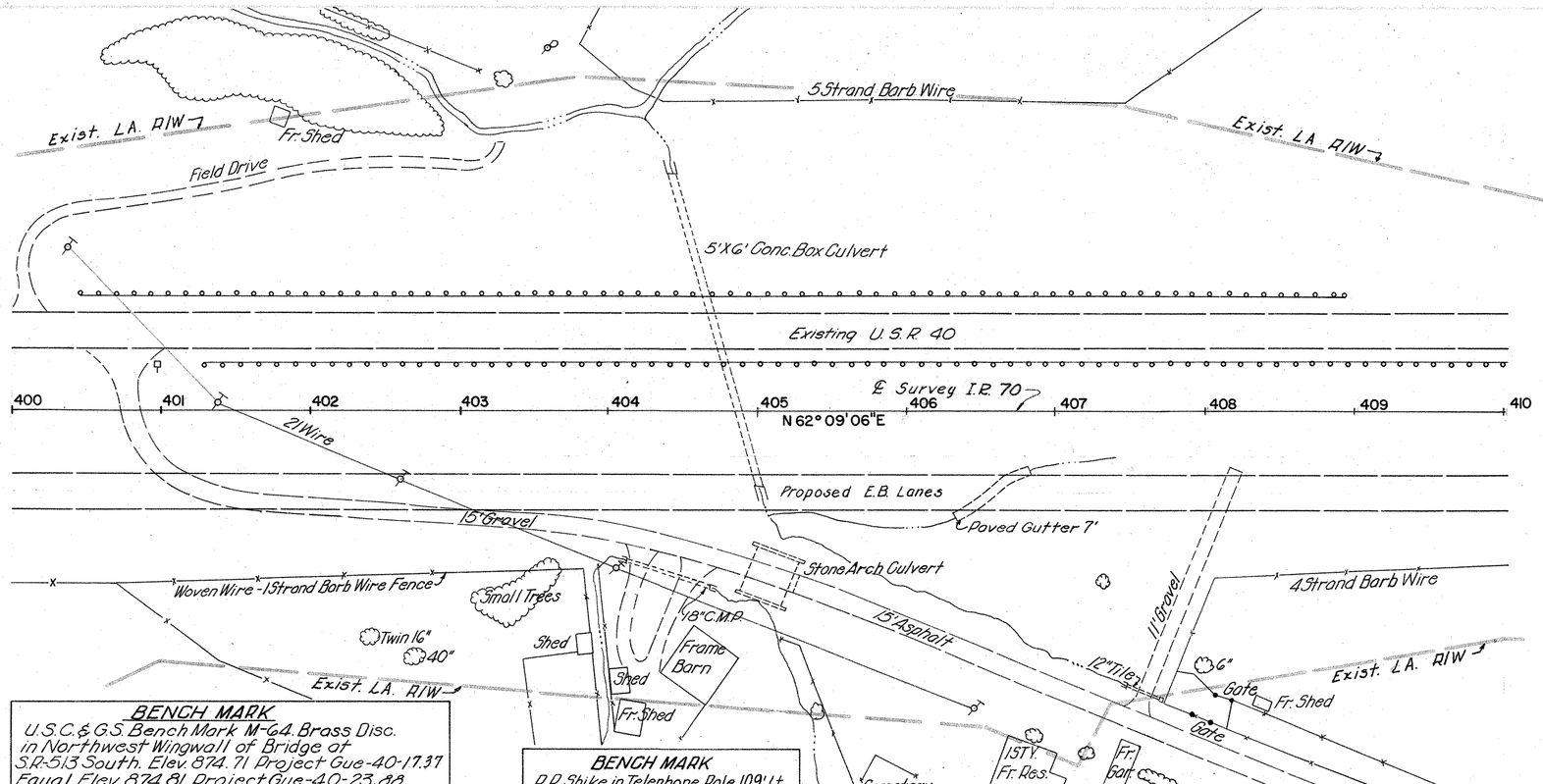
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

LT. LANES		STATION	PROFILE GRADE	RT. LANES	
LT. E.P.	CTR.			CTR.	RT. E.P.
		655+25	1204.25	1204.83	1205.41
		655+50	1204.60	1205.18	1205.76
		655+75	1204.95	1205.53	1206.11
		656+00	1205.30	1205.88	1206.46
		656+25	1205.65	1206.23	1206.81
		656+50	1206.00	1206.58	1207.16
		656+75	1206.35	1206.93	1207.51
		657+00	1206.70	1207.28	1207.86
		657+25	1207.05	1207.63	1208.21
		657+41.53	1207.28	1207.86	1208.44
		9+99.42	1207.28	1207.86	1208.44
		10+00	1207.28	1207.86	1208.44
		10+25	1207.63	1208.21	1208.79
		10+50	1207.98	1208.56	1209.14
		10+75	1208.33	1208.91	1209.49
		11+00	1208.68	1209.26	1209.84
		11+25	1209.04	1209.62	1210.20
		11+50	1209.41	1209.99	1210.57
		11+75	1209.80	1210.38	1210.96
		12+00	1210.21	1210.79	1211.37
		12+25	1210.64	1211.22	1211.80
		12+50	1211.08	1211.66	1212.24
		12+75	1211.54	1212.12	1212.70
		13+00	1212.01	1212.59	1213.17
		13+25	1212.50	1213.08	1213.66
		13+50	1213.01	1213.59	1214.17
		13+75	1213.54	1214.12	1214.70
		14+00	1214.08	1214.66	1215.24
		14+25	1214.64	1215.22	1215.80
		14+50	1215.21	1215.79	1216.37
		14+75	1215.80	1216.38	1216.96
		15+00	1216.41	1216.99	1217.57
		15+25	1217.04	1217.62	1218.20
		15+50	1217.68	1218.26	1218.84
		15+75	1218.34	1218.92	1219.50
		16+00	1219.01	1219.59	1220.17
		16+25	1219.70	1220.28	1220.86
		16+50	1220.41	1220.99	1221.57
		16+75	1221.14	1221.72	1222.30
		17+00	1221.88	1222.46	1223.04
		17+25	1222.63	1223.21	1223.79
		17+50	1223.38	1223.96	1224.54
		17+75	1224.13	1224.71	1225.29
		18+00	1224.88	1225.46	1226.04
		18+25	1225.63	1226.21	1226.79
1225.63	1226.21	18+50	1226.38	1226.96	1227.54
1226.26	1226.84	18+75	1227.12	1227.70	1228.28
1226.89	1227.47	19+00	1227.85	1228.43	1229.01
1227.51	1228.09	19+25	1228.57	1229.15	1229.73
1228.11	1228.69	19+50	1229.27	1229.85	1230.43
1228.80	1229.38	19+75	1229.96	1230.54	1231.12
1229.40	1230.06	20+00	1230.64	1231.22	1231.80
1230.14	1230.72	20+25	1231.30	1231.88	1232.46
1230.79	1231.37	20+50	1231.95	1232.53	1233.11
1231.43	1232.01	20+75	1232.59	1233.17	1233.75
1232.06	1232.64	21+00	1233.22	1233.80	1234.38
1232.67	1233.25	21+25	1233.83	1234.41	1234.99
1233.26	1233.84	21+50	1234.42	1235.00	1235.58
1233.85	1234.43	21+75	1235.01	1235.59	1236.17
1234.42	1235.00	22+00	1235.58	1236.16	1236.74
1234.97	1235.55	22+25	1236.13	1236.71	1237.29
1235.52	1236.10	22+50	1236.68	1237.26	1237.84
1236.05	1236.63	22+75	1237.21	1237.79	1238.37
1236.57	1237.15	23+00	1237.73	1238.31	1238.89
1237.12	1237.70	23+25	1238.23	1238.81	1239.39
1237.56	1238.14	23+50	1238.72	1239.30	1239.88
1238.04	1238.62	23+75	1239.20	1239.78	1240.36
1238.50	1239.08	24+00	1239.66	1240.24	1240.82
1238.95	1239.53	24+25	1240.11	1240.69	1241.27
1239.39	1239.97	24+50	1240.55	1241.13	1241.71
1239.82	1240.40	24+75	1240.98	1241.56	1242.14
1240.23	1240.81	25+00	1241.39	1241.97	1242.55
1240.63	1241.21	25+25	1241.79	1242.37	1242.95
1241.01	1241.59	25+50	1242.17	1242.75	1243.33
1241.38	1241.96	25+75	1242.54	1243.12	1243.70
1241.74	1242.32	26+00	1242.90	1243.48	1244.06
1242.08	1242.66	26+25	1243.24	1243.82	1244.40
1242.42	1243.00	26+50	1243.58	1244.16	1244.74
1242.73	1243.31	26+75	1243.89	1244.47	1245.05
1243.04	1243.62	27+00	1244.20	1244.78	1245.36
1243.33	1243.91	27+25	1244.49	1245.07	1245.65
1243.61	1244.79	27+50	1244.77	1245.35	1245.93
1243.87	1244.45	27+75	1245.03	1245.61	1246.19
1244.13	1244.71	28+00	1245.28	1245.86	1246.44
1244.36	1244.94	28+25	1245.52	1246.10	1246.68
1244.59	1245.17	28+50	1245.75	1246.33	1246.91
1244.80	1245.38	28+75	1245.96	1246.54	1247.12
1245.00	1245.58	29+00	1246.16	1246.74	1247.32
1245.18	1245.76	29+25	1246.34	1246.92	1247.50
1245.36	1245.94	29+50	1246.52	1247.10	1247.68
1245.51	1246.09	29+75	1246.67	1247.25	1247.83
1245.66	1246.24	30+00	1246.82	1247.40	1247.98
1245.79	1246.37	30+25	1246.95	1247.53	1248.11
1245.91	1246.49	30+50	1247.07	1247.65	1248.23
1246.02	1246.60	30+75	1247.18	1247.76	1248.34
1246.15	1246.71	31+00	1247.27	1247.83	1248.39
1246.33	1246.84	31+25	1247.35	1247.86	1248.37
1246.51	1246.96	31+50	1247.41	1247.86	1248.32
1246.70	1247.08	31+75	1247.46	1247.85	1248.23
1246.86	1247.18	32+00	1247.50	1247.82	1248.14
1247.01	1247.27	32+25	1247.53	1247.79	1248.05
		32+50	1247.54	1247.74	1247.94
1247.22	1247.41	32+75	1247.54	1247.73	1247.86
1247.27	1247.47	33+00	1247.53	1247.71	1247.78
1247.31	1247.50	33+25	1247.50	1247.69	1247.70
1247.33	1247.52	33+50	1247.46	1247.65	1247.60
1247.33	1247.52	33+75	1247.40	1247.99	1247.47
1247.32	1247.51	34+00	1247.34	1247.53	1247.36
1247.26	1247.45	34+25	1247.26	1247.44	1247.27

LT. LANES		STATION	PROFILE GRADE	RT. LANES	
LT. E.P.	CTR.			CTR.	RT. E.P.
		P.I. STA. 65+75.66			
		DC = 1°-12'-38"		MAX. S.E. 0.040 FT./FT.	
		50+75	1247.46	1247.65	1247.46
		51+00	1248.22	1248.39	1248.20
		51+25	1248.97	1249.09	1248.90
		51+50	1249.73	1249.79	1249.60
		51+75	1250.48	1250.47	1250.28
		52+00	1251.24	1251.17	1250.98
		52+25	1251.99	1251.86	1251.67
		52+50	1252.75	1252.56	1252.35
		52+75	1253.50	1253.24	1252.99
		53+00	1254.26	1253.94	1253.63
		53+25	1255.01	1254.63	1254.25
		53+50	1255.77	1255.33	1254.89
		53+75	1256.52	1256.04	1255.57
		54+00	1257.28	1256.80	1256.32
		54+25	1258.03	1257.55	1257.07
		54+50	1258.79	1258.31	1257.83
		54+75	1259.54	1259.06	1258.58
		55+00	1260.30	1259.82	1259.34
		55+25	1261.05	1260.57	1260.09
		55+50	1261.81	1261.33	1260.85
		55+75	1262.56	1262.08	1261.60
		56+00	1263.32	1262.84	1262.36
		56+25	1264.07	1263.59	1263.11
		56+50	1264.83	1264.35	1263.87
		56+75	1265.58	1265.10	1264.62
		57+00	1266.34	1265.86	1265.38
		57+25	1267.09	1266.61	1266.13
		57+50	1267.85	1263.37	1266.89
		57+75	1268.59	1268.11	1267.63
		58+00	1269.33	1268.85	1268.37
		58+25	1270.05	1269.57	1269.09
		58+50	1270.76	1270.28	1269.80
		58+75	1271.44	1270.96	1270.48
		59+00	1272.12	1271.64	1271.16
		59+25	1272.78	1272.30	1271.82
		59+50	1273.43	1272.95	1272.47
		59+75	1274.06	1273.58	1273.10
1275.53	1275.41	60+00	1274.69	1274.21	1273.73

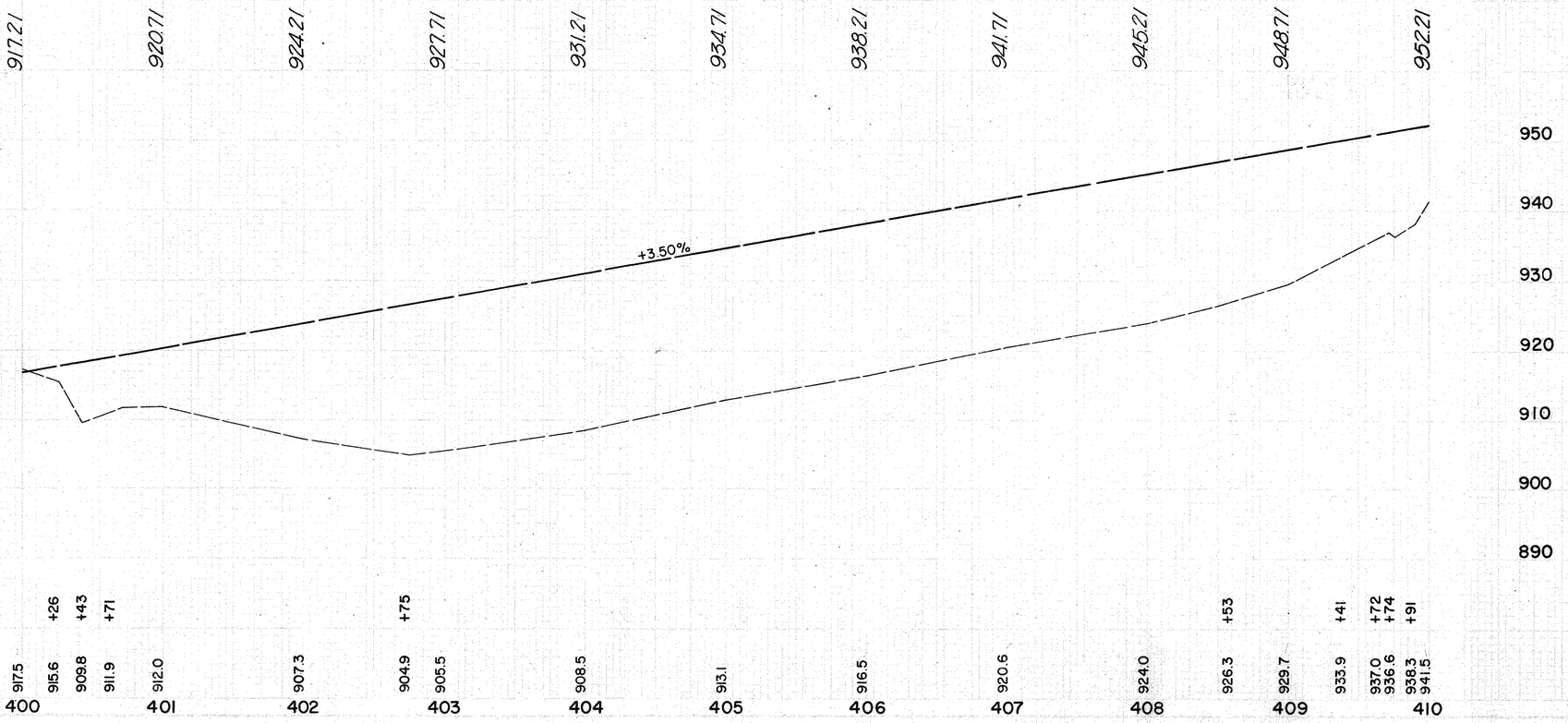
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

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BENCH MARK
U.S.C.&G.S. Bench Mark M-64. Brass Disc. in Northwest Wingwall of Bridge at S.R.-513 South. Elev. 874.71 Project Gue-40-17.37 Equal Elev. 874.81 Project Gue-40-23.88

BENCH MARK
R.R. Spike in Telephone Pole 109' Lt. Sta. 400+35 Elev. 905.69



STA. 400+00 TO STA. 410+00

UTILITY OWNERSHIP
Guernsey - Muskingum Elec. Co.
New Concord, Ohio
The Home Telephone Co.
Fairview, Ohio
Ohio Power Co.
Steubenville, Ohio

NOTES: Typical section for adjoining section will be the same as on this project (see Sh. No. 4).
All elevations are based on U.S.G.S. Datum.

XXX Jute Matting

BEGIN PROJECT STA. 415+00

℄ Survey I.P. 707
Ø 85.14
1702
57.25
Hub
Aerial Marker 3
Hub
REF. P.O.T. STA. 411+75.29

TWP. RD-35
12' 12'
9" T-71
Existing U.S. 40 Typical Section

Exist. L.A. R/W
5 Strand Wire
L/A
Gate
R/W
S.L.M. 23.88
Construction Limits
Sod 9' Wide
Mileage Marker
15" C.M.P. (Plug & Abandon)

⊗ Delineators
The Typical Section for the Temp. Pavement will be 24' of 9" T-70 with 4' Earth Shoulders.

Existing U.S. 40
℄ SURVEY STA. 418+70
℄ CROSSOVER
200' Taper
7' Paved Gutter
75' wide
Plug & Abandon
P.T. +18
200' Taper
2 Wire
410 411 412 413 414 415 416 417 418 419 420
P.C. +22
TEMP. PVT.
BEGIN
℄ Survey I.P.-70
N 62° 09' 06" E
36"
22"
R=400'
R=400'
Proposed E.B. Lanes
FACI SIGN
Gate
BEGIN WORK STA. 411+30
Exist. L.A. R/W
For Reloc. C.H. 27 See Sheet Nos. 277-283.

Culvert No. Gue 40-2389
Sta. 415+47
Skew 0°-00'
24ø-30' C1A-1 Sec M61(c) 1392
See Sheet No. 409

7' Wide Dumped Rock Ch. Prot.
Construction Limits
Sod 6' Wide
NOTE: For U-Turn Median Opening at Sta. 418+70.00 See Sheet No. 435 Quan. on Sh. #17
LA

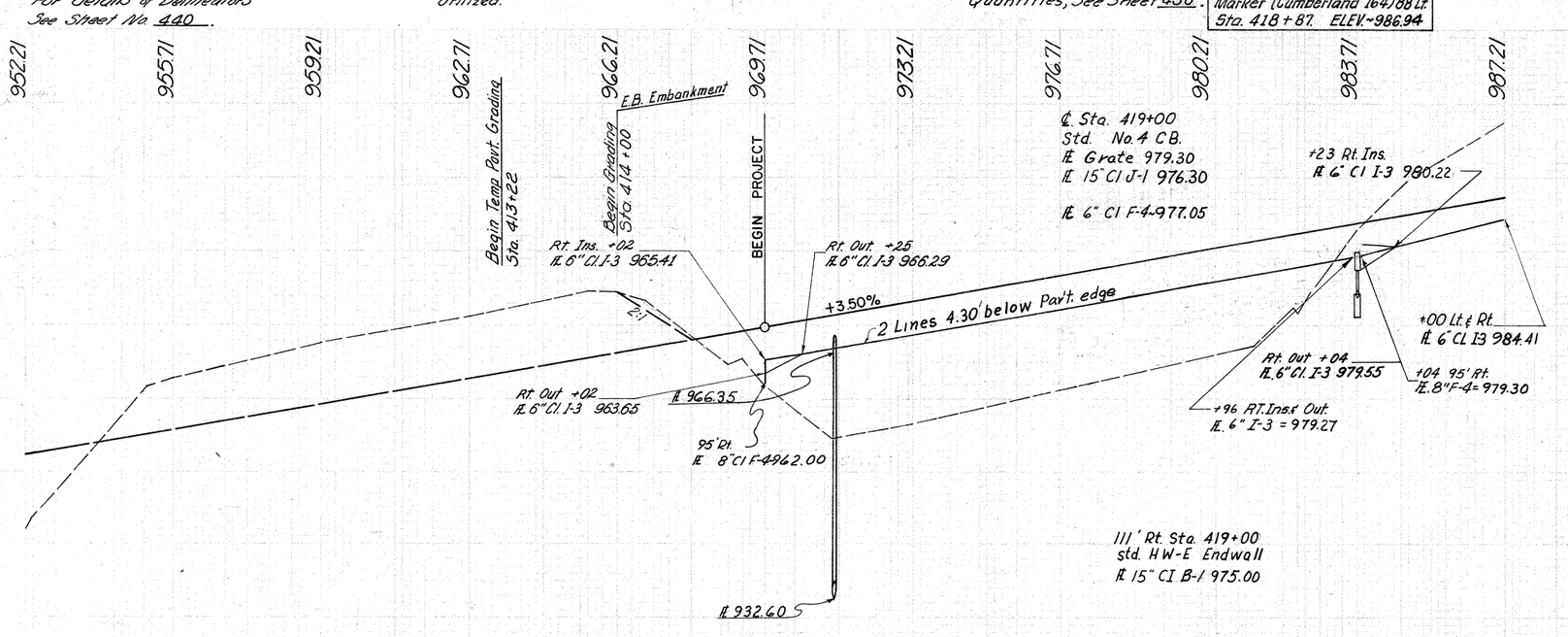
For details of underdrain outlets see Sheet No. 436.
For details of Delineators See Sheet No. 440.

*Note: Cl. I-3 Outlets to be non-performed if adjoining section is completed and existing I-3 outlets utilized.

I-70-7(10)-187 I-70-7(12)193

Note: For Pavement Marking Quantities, See Sheet 438.

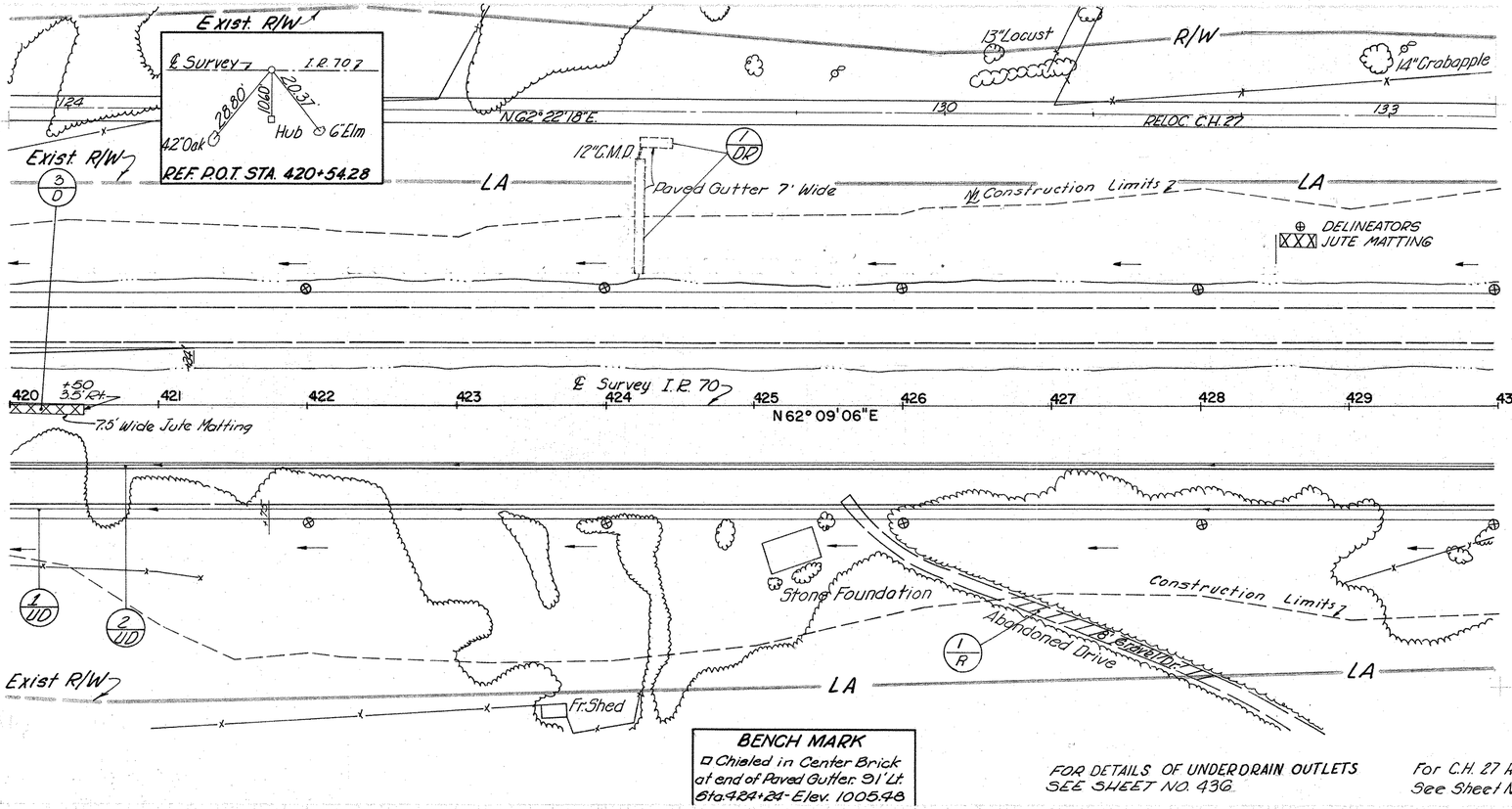
BENCH MARK
□ Chiseled in Top Stone Mileage Marker (Cumberland 164) 88' Lt.
Sta. 418+87. ELEV.-986.94



| | | |

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

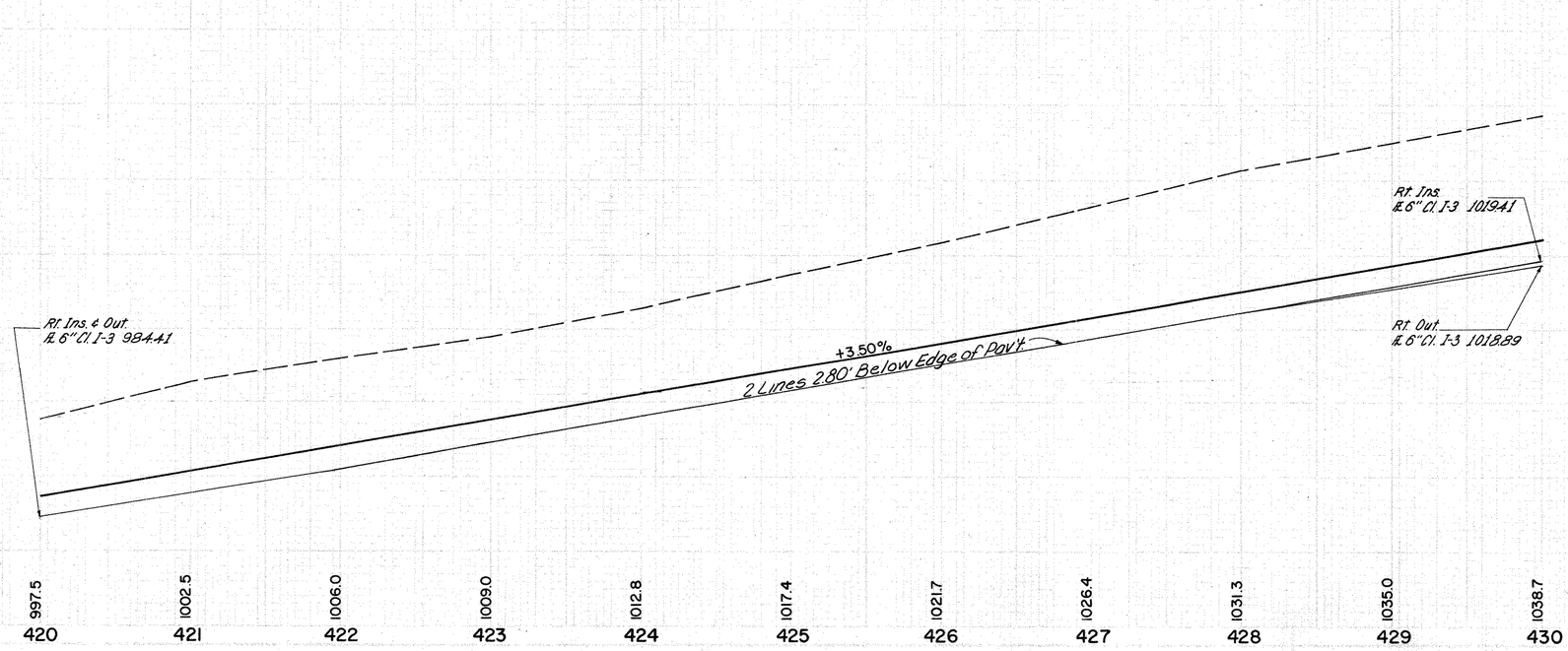
25
485



BENCH MARK
□ Chisled in Center Brick at end of Paved Gutter. 91' Lt. Sta. 424+24 - Elev. 1005.48

FOR DETAILS OF UNDERDRAIN OUTLETS SEE SHEET NO. 436.

For C.H. 27 Reloc. See Sheet Nos. 277-283



SEQ. NO.	STATION TO STATION	SIDE	E-8 Removal of Paved Gutter Lin. Ft.	E-12 Pipe Removal 15" E. Under Lin. Ft.	E-8 Removal of Unpaved Gutter & Ret. Item Sq. Yds.
1.00	420+00 ~ 430+00	RT.			
2.00	420+00 ~ 430+00	RT.			
3.0	420+00 ~ 420+57	LT.			
1.R	427+00 ~ 428+00	RT.	125		
1.02	424+15	LT.	100	10	
			100	10	125

E-12 Pipe Removal 6" Lin. Ft. 1000 1000 2000

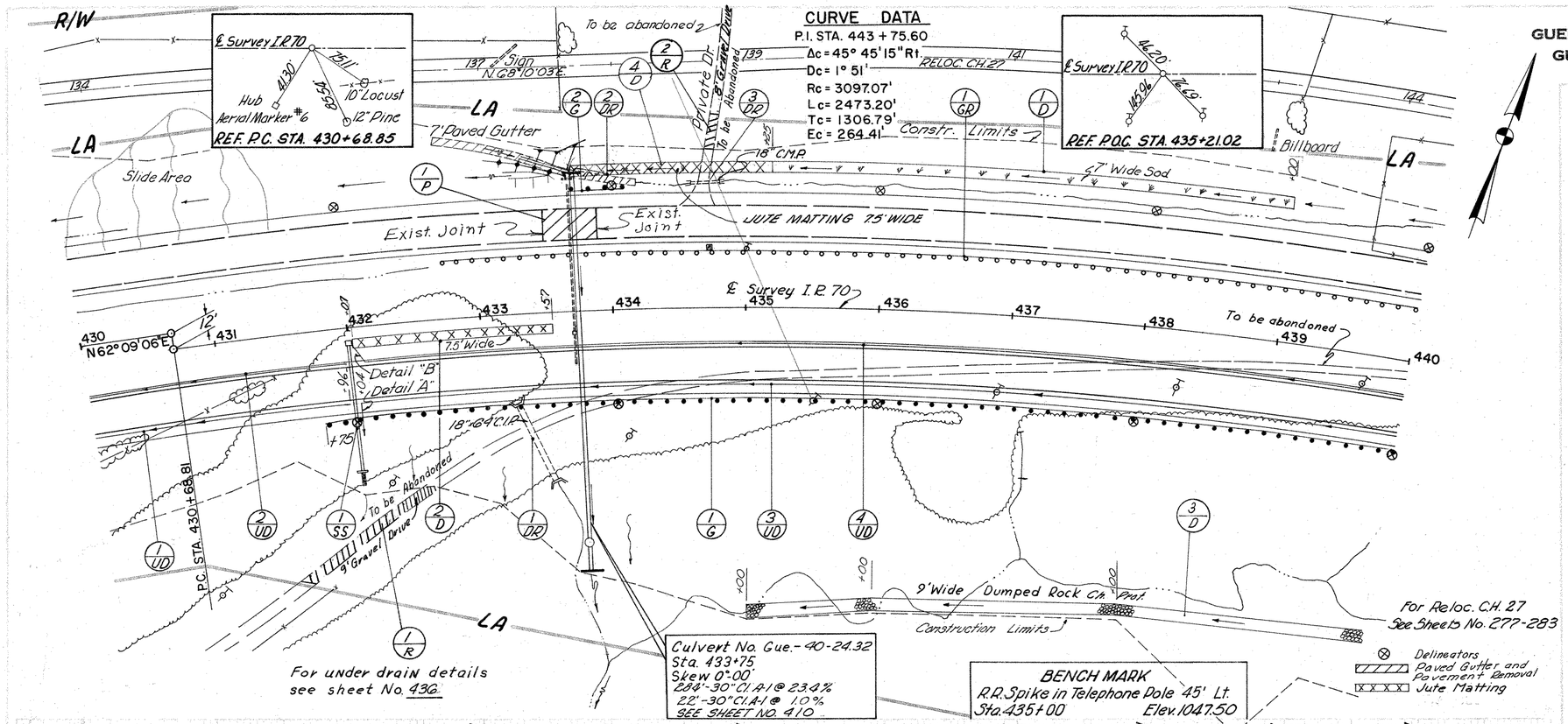
L-120 Jute Matting Sq. Yds. 50 50

STA. 420+00 TO STA. 430+00

GUERNSEY COUNTY – BELMONT COUNTY

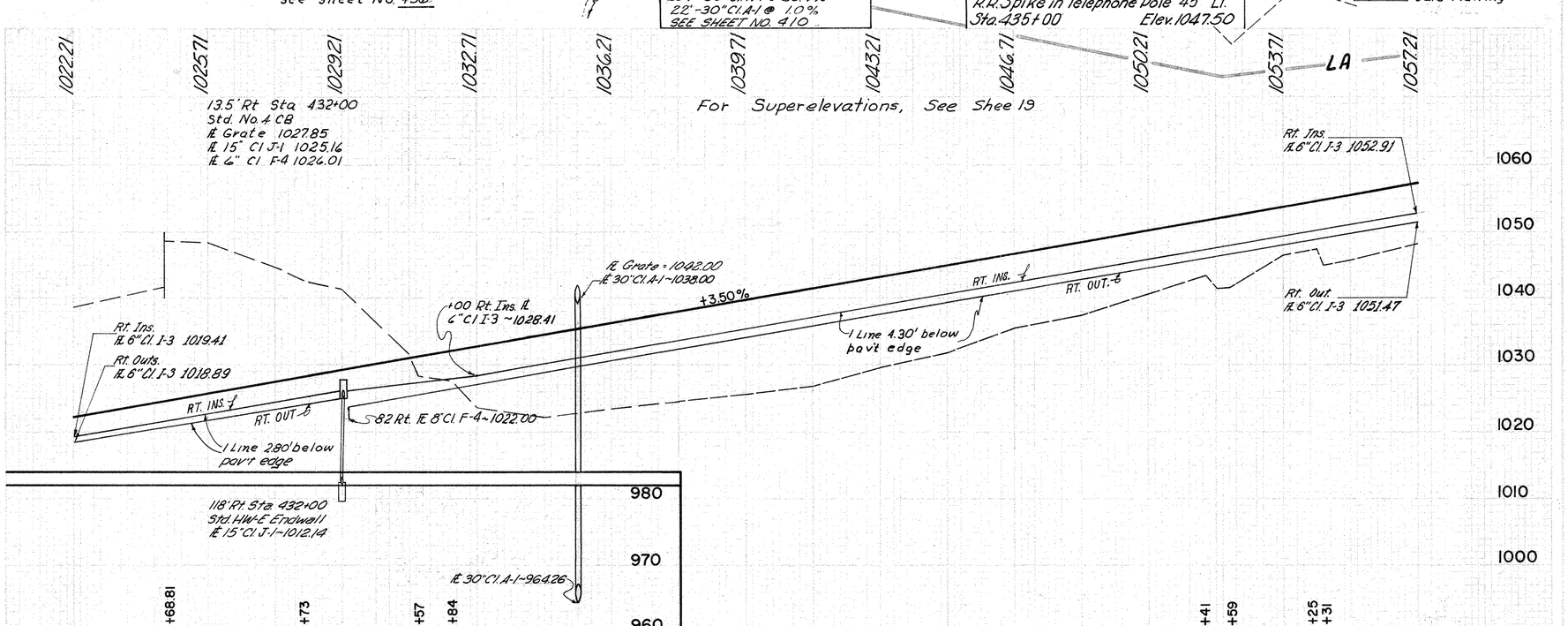
GUE–40–23.88 BEL–40–0.00

26
485



CURVE DATA

P.I. STA. 443 + 75.60
Δc = 45° 45' 15" Rt.
Dc = 1° 51'
Rc = 3097.07'
Lc = 2473.20'
Tc = 1306.79'
Ec = 264.41



ESTIMATED QUANTITIES

| | | |

R/W
Delineators
Jute matting
Paved Gutter Removal and Pav't Removal

CURVE DATA
P.I. STA. 443 + 75.60
Δc = 45°45'15" Rt.
Dc = 1° 51'
Rc = 3097.07'
Lc = 2473.20'
Tc = 1306.79'
Ec = 264.41'

℄ SURVEY I.R. 70
REF. P.O.C. STA. 441+47.43
34.5 Hub 20.42 206 18"

N 80°37'28" E. 146
RELOC. C.H. 27
2 Sty. Fr. Res.
Fr. Barn
Cistern
2 Wires
L.A
R/W
Construction Limit
10' Wide Sod
Paved Gutter 7' wide
Exist Pav't Joint
15" C.M.P.
Concrete
Private Drive
14' Gravel
To-Be-Removed Under E-1
14' Bit. Surface
24" C.M.P.
18" Conc. Pipe (Plug & Abandon)
75' wide
Detail "A"
Detail "B"
℄ Survey I.R. 70
6' WIDE DUMPED ROCK
8' Wide Sod
Construction Limits
Fr. Barn
To Be Abandoned
Ex. 24" C.M.P. to remain & Function
Ex. 5' Paved Gutter Remove under Prop. Pipe
Constr. Limits.
8' Wide dumped rock

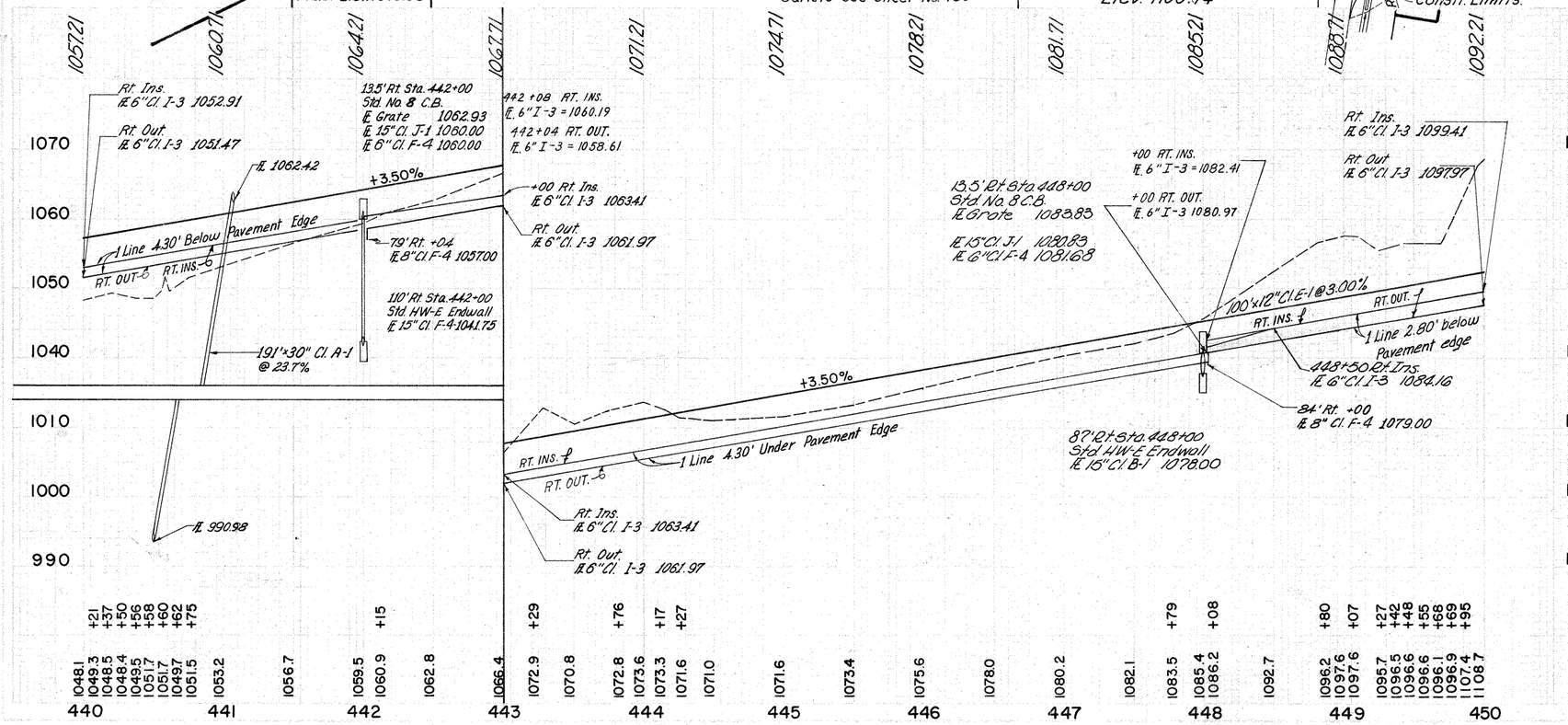
Culvert No. Gue-2448
Sta. 440+86, Skew 11° L.F.
298' x 30" Cl. A-1 @ 23.7 %
19' x 30" Cl. A-1 @ 1.0 %
See Sheet No. 411

For Reloc. C.H. 27 See Sheets 277-283

For Details of Underdrain Outlets See Sheet No. 436

BENCH MARK
R.R. Spike in G.R. Post. 37.5' Lt. Sta. 442+81 Elev. 1075.98

BENCH MARK
R.R. Spike in Tree 154' Lt. Sta. 447+06 Elev. 1100.74



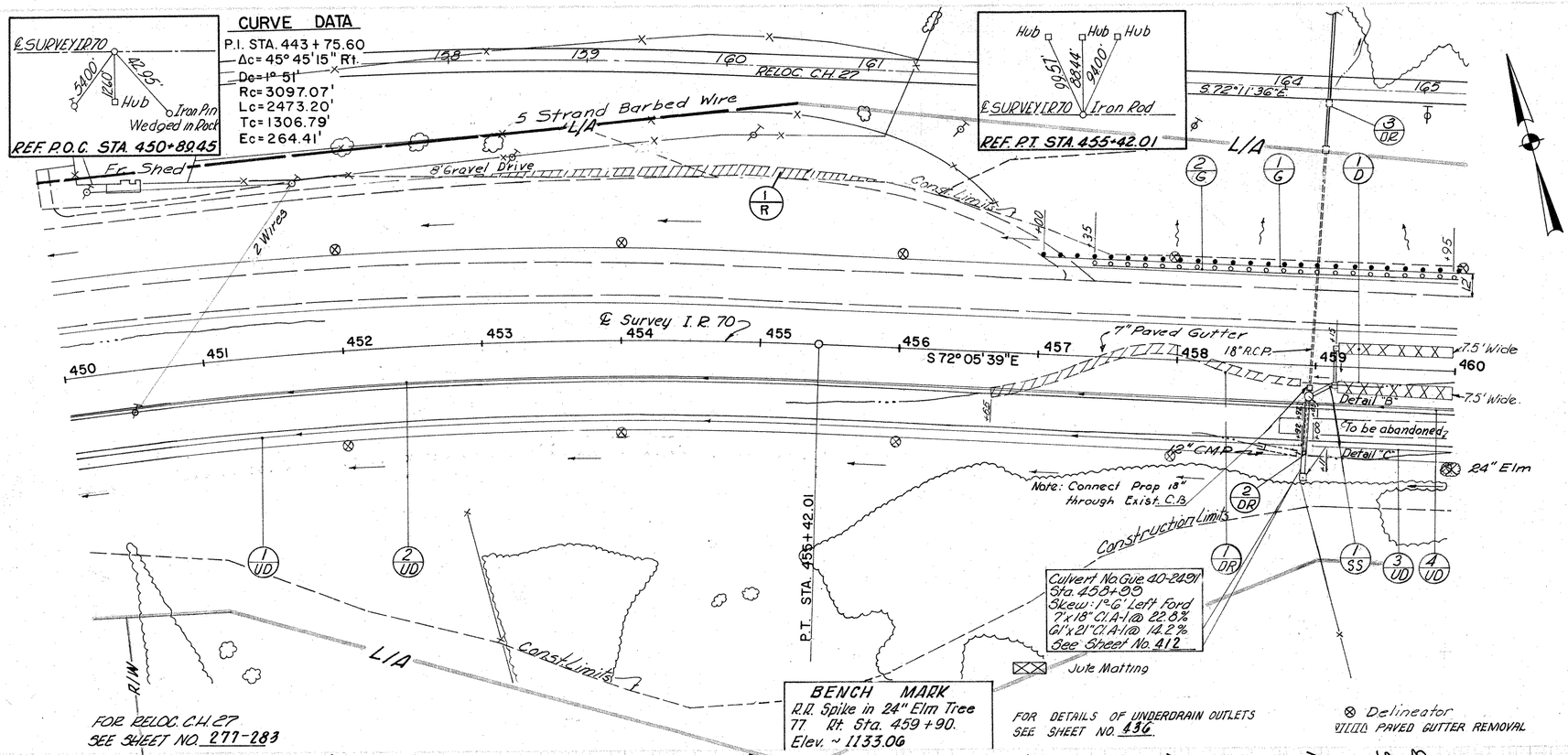
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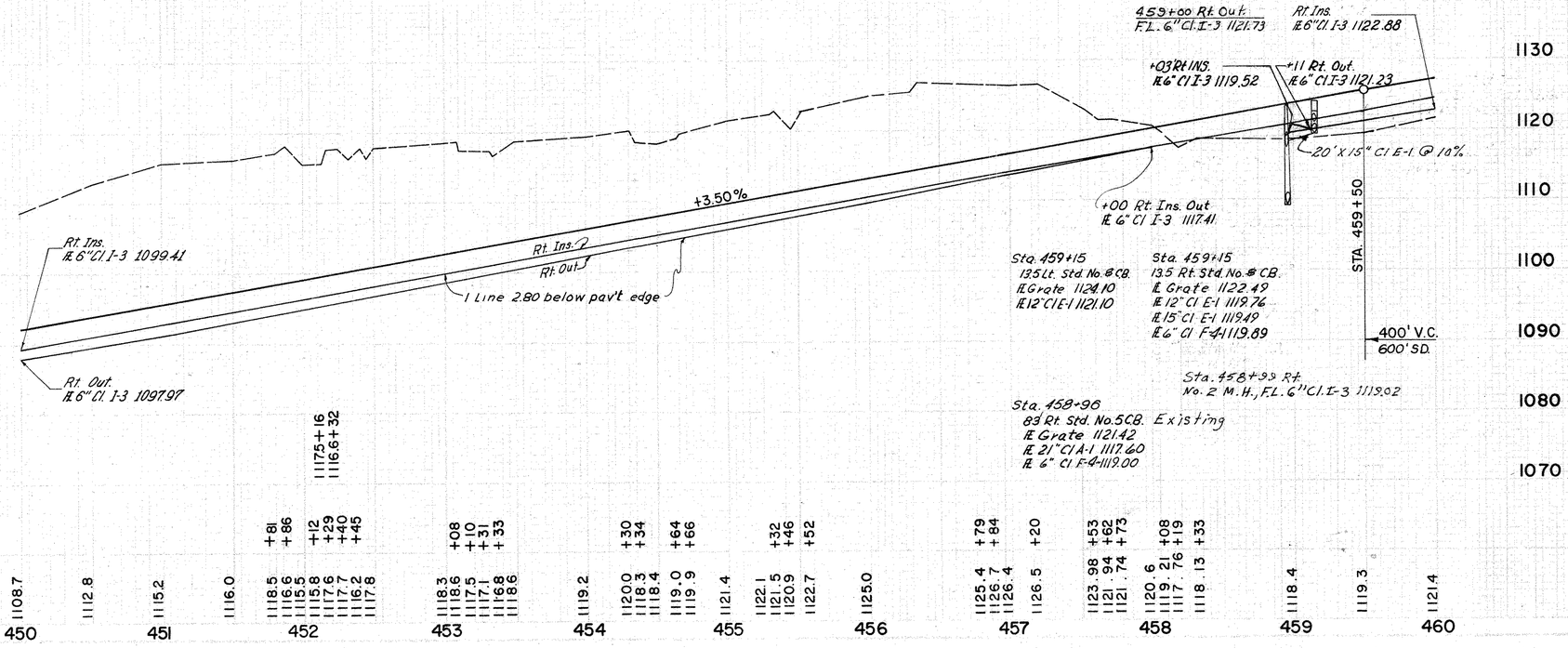
GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00

28

485





I-8	I-120 I-16				
STD NO.	JUTE	C.B.			
8	MATTING ABANDON.	ED			
C.B.		EA.	SQ YD.	EA.	
I-5					
PIPE SPECIAL					
6"x60° G"	WYE TEE	CI I-3	CI I-3		
G"	6"				
L.F.	L.F.	EA.			
		892	892		
			120	101	
	CI I-3				
	CI I-4				
I-1					
	CI E-1				
	12"	15"	6"		
	L.F.	L.F.	L.F.		
			10	10	
			27	18	
			155		
			300	262.5	
				230	LUMP

FOR RELOC. C.H 27
See Sheets Nos 277-283.

RELOC. C.H 27
Tg.G

R/W

Construction Limits

Single Rail

12'

7.5' wide

Gravel

C.M.P.

TO BE ABANDONED 12' Gravel Dr.

℄ Survey I.R. 70 S 72°05'39"E

To be Abandoned

8' Gravel Drive

DETAIL "A"

DETAIL "B"

Brush & Trees

Construction Limits

Delineators

PAV'T REMOVAL AND PAVED GUTTER REMOVAL

JUTE MATTING

LA

BENCH MARK
R.R. Spike in G.R. Post. 20' Lt. Sta. 469+01. Elev. 1151.48

FOR DETAILS OF UNDERDRAIN OUTLETS SEE SHEET NO. 436.

CURVE DATA
P.I. STA. 490+56.12
Δc = 16°34'33" Lt.
Dc = 0°23'58"
Rc = 14,343.87'
Lc = 4,149.72'
Tc = 2,089.45'
Ec = 151.38'

Hub 82.97 Guard Rail Post
℄ SURVEY I.R. 70
40.25 26.55
30" Tree Nail & Shiner in Root
18" Tree
REF. P.O.T. STA. 468+18.77

Guard Rail Post
℄ SURVEY 69.90
Hub
30" Tree Nail & Shiner in Root
133.45 118.83
12" Stump
REF. P.C. STA. 469+66.73

Conc. Blk. Chicken House
Sheds
Fr. Shed
Guy Wire
8' Wide Sod
Exist Paved Gutters
Hedge
3 Wire
Dirt Field Drive
Gravel
Fr. Shed
2 Story Fr. Res.
Fr. Barn
Gue Co. Rd. # 286
CONN
20"x12" CMP
20"x12" CMP
45"x12" Pipe
12"x12" CMP
Tank
Silv. Stoke Blk. Stoke & Ser. Sta.
Pump Island
2-1000 gal Tanks
P.C. STA. 469+66.67
G.R.
DUMPED ROCK CHAN. PROT. 6' WIDE
8' Gravel Drives

460 461 462 463 464 465 466 467 468 469 470

1121.4	1127.18	1128.02	1128.84	1129.65	1130.45	1131.23	1131.99	1132.74	1133.48	1134.20	1134.90	1135.59
1123.6	1126.1	1128.8	1130.1	1130.3	1129.7	1127.2	1126.3	1126.8				
+54	+64	+71	+81	+04	+13	+37			+87	+25	+38	+54

1135.27	1136.93	1137.58	1138.86	1141.42	1143.98	1146.54	1149.10	1149.74	1150.37	1150.99	1151.61	1152.22	1152.83	1153.43	1154.02
1135.7	1140.8	1142.5	1143.7	1144.8	1146.8	1149.5	1152.2	1151.0	1148.8	1149.4	1149.5	1149.4	1146.8	1145.7	1145.4
			+60	+42				+30	+41	+50	+66	+71		+66.73	

P.V.I. STA. 461+50
ELEV. 1132.46

+3.50%

6" CL. I-3 (2 LINES) 4.90' BELOW PAV'T EDGE

+00 RT. INS. & OUTS. IE 6" CL. I-3 ~ 1122.88

+00 RT. INS. & OUTS. IE 6" CL. I-3 ~ 1129.18

+50 RT. INS. & OUTS. IE 6" CL. I-3 ~ 1132.10

+50 RT. INS. & OUTS. IE 6" CL. I-3 ~ 1134.78

+2.56%

6" CL. I-3 (2 LINES) 2.80' BELOW PAV'T EDGE

STA. 463+50

STA. 468+00

+00 RT. INS. & OUTS. IE 6" CL. I-3 ~ 1146.30

+96 RT. INS. & OUTS. IE 6" CL. I-3 ~ 1148.76

+08 RT. INS. IE 6" CL. I-3 ~ 1147.51

13.5' LT. STA. 469+00
STD. NO. 8 C.B.
IE GRATE ~ 1149.50
IE 12" CL. E-1 ~ 1146.50

13.5' RT. STA. 469+00
STD. NO. 8 C.B.
IE GRATE ~ 1149.86
IE 12" CL. E-1 ~ 1146.25
IE 15" CL. B-1 ~ 1145.98
IE 6" CL. F-4 ~ 1146.73

94' RT. STA. 469+00
STD. TYPE HW-E ENDWALL
IE 15" CL. B-1 ~ 1144.10

+04 RT. OUTS. IE 6" CL. I-3 ~ 1147.41

+04, 85' RT. IE 6" CL. F-4 ~ 1147.16

+00 RT. INS. & OUTS. IE 6" CL. I-3 ~ 1149.72

P.V.I. STA. 470+00
ELEV. 1154.22

6" CL. I-3 (2 LINES) 4.3' BELOW PAV'T EDGE

400' V.C.
600' S.D.

600' S.D.
400' V.C.

1170 1160 1150 1140 1130 1120 1110

| | | | | | | | | | | | | | |

GUERNSEY COUNTY — BELMONT COUNTY
GUE-40-23.88 BEL-40-0.00

30
485

Note: For C.H. 27 See Sheet Nos 277 & 283

CURVE DATA
P.I. STA. 490+56.12
Δc = 16°34'33" Lt.
Dc = 0°23'58"
Rc = 14,343.87'
Lc = 4,149.72'
Tc = 2,089.45'
Ec = 151.38'

PAVEMENT REMOVAL.
JUTE MATTING
⊗ Delineators

R/W 12"x12" C.M.P. Dirt Field Drive Twp. Rd. 213 Gravel No Outlet
5 Strand Barbed Wire Shed R/W
℄ C.H. 27 RELOCATION
Guernsey County Road 286 15 Asphalt Surface
Fr. Shed 177 11
Gravel C.H. 286 LA
12"x12" C.M.P. Approach
7.5' Wide
202'-10"
B.M. #7 Cumberland 163 Mile Marker
House Trlr. Sheds Construction Limit Shed
Pole w. Trans. 2 wire xing
Stop
℄ Survey I.R. 70
SLIDE AREA
7.5' wide
Detail "B"
Detail "A"
CONSTRUCTION LIMITS
Brush
DUMPED ROCK C.H. PROT. 6' WIDE
Construction Limits
Guard Rail Post
℄ SURVEY I.R. 70
105'
88.24'
56.41'
Iron Pins
REF. P.O.C. STA. 474+45.77

CULVERT NO. GUE-40-2525
STA. 473+52, SKEW 6° L.F.
146'-15" CL. A-1 @ 19%
SEE SHEET NO. 413

BENCH MARK
R.R. Spike in P.P. #2047/38
1.5 Rt. Sta. 479.29
Elev. 1168.35

FOR DETAILS OF UNDERDRAIN OUTLETS SEE SHEET NO. 436.

BENCH MARK
#7 ▭ Chisled in top Stone Mileage Marker (Cumberland 163) 67 Lt. 474+45 Elev. 1166.38

P.V.I. STA. 470+00
ELEV. 1154.22

+2.16%

6" CL. I-3 (2 LINES) 4.30 BELOW PAV'T EDGE

+00 RT. INS. & OUTS.
I.E. 6" CL. I-3 ~ 1149.72

STA. 472+00

400' V.C.
600' S.D.

I.E. 1146.72

118' Lt. Sta. 473+68
Std. No. 5 C.B.
I.E. Grate ~ 1157.80
I.E. Exist. 15" ~ 1146.72

I.E. 1076.52
Not drawn to proper elevation

+48 RT. INS. & OUTS.
I.E. 6" CL. I-3 ~ 1168.24

+57 RT. INS.
I.E. 6" CL. I-3 ~ 1168.43
+55 RT. OUTS.
I.E. 6" CL. I-3 ~ 1168.39
+55 ~ 77' RT.
I.E. 8" CL. F-4 ~ 1168.19

160' RT. STA. 478+50
STD. TYPE HW-E ENDWALL
I.E. 15" CL. F-4 ~ 1126.80

13.5' LT. STA. 478+50
STD. NO. 8 C.B.
I.E. GRATE ~ 1170.10
I.E. 12" CL. E-1 ~ 1167.10

13.6' RT. STA. 478+50
STD. NO. 8 C.B.
I.E. GRATE ~ 1170.83
I.E. 12" CL. E-1 ~ 1166.83
I.E. 15" CL. B-1 ~ 1166.58
I.E. 6" CL. F-4 ~ 1167.33

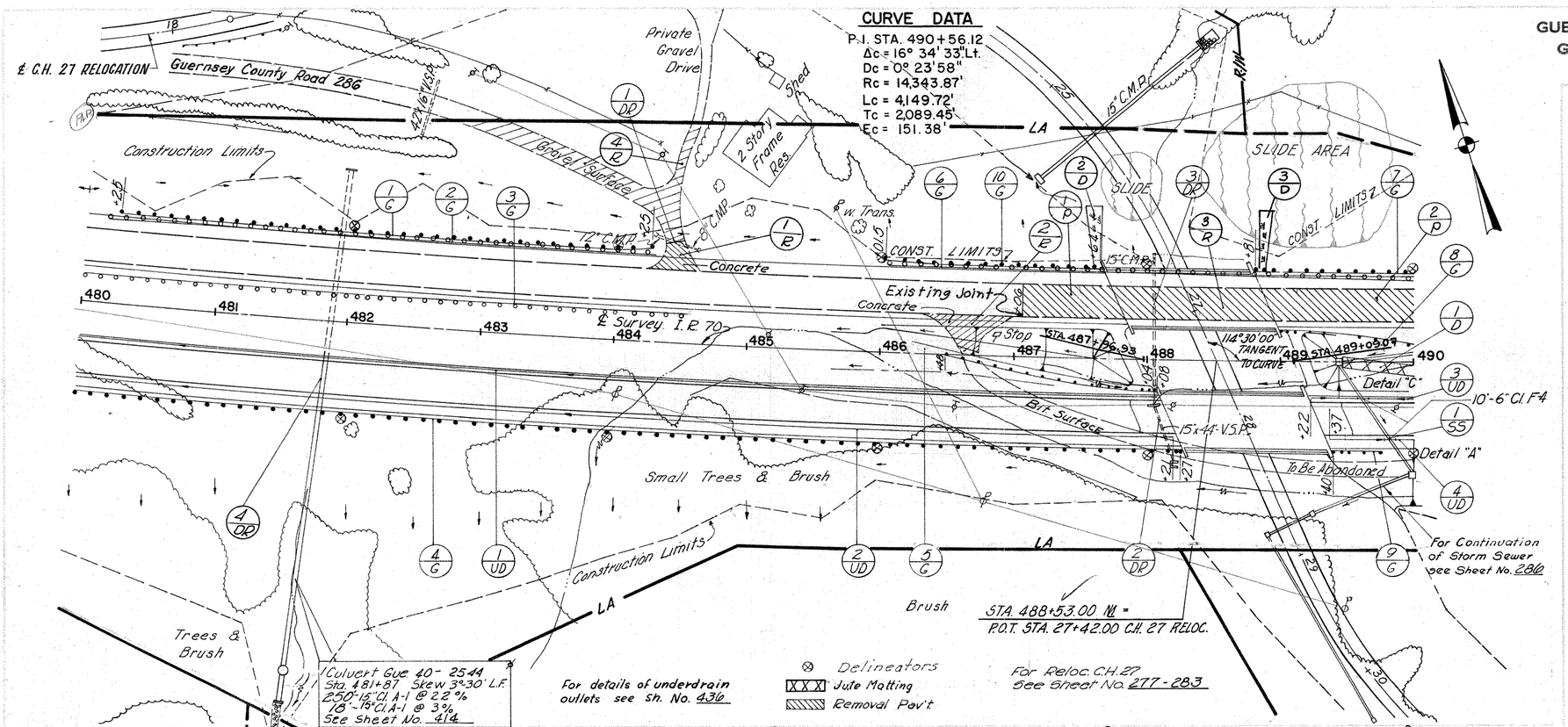
+00 RT. INS. & OUTS.
I.E. 6" CL. I-3 ~ 1171.52

6" CL. I-3 (2 LINES) 4.30' BELOW PAV'T EDGE

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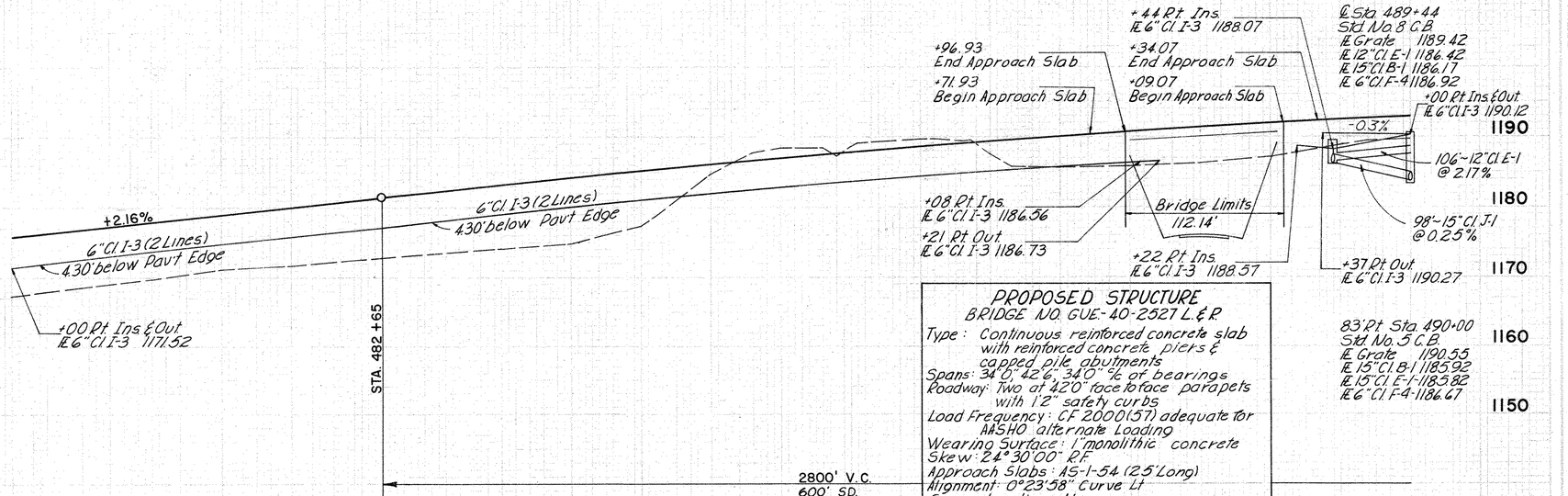
GUERNSEY COUNTY — BELMONT COUNTY
GUE-40-23.88 BEL-40-0.00

FED. AID PROJECT NUMBER		STATE	PROJECT		SHEET NO.	TOTAL SHEETS
	2	OHIO			31	485



CURVE DATA

P.I. STA. 490+56.12
Δc = 16° 34' 33" Lt.
Dc = 0° 23' 58"
Rc = 14,343.87'
Lc = 4,149.72'
Tc = 2,089.45'
Ec = 151.38'



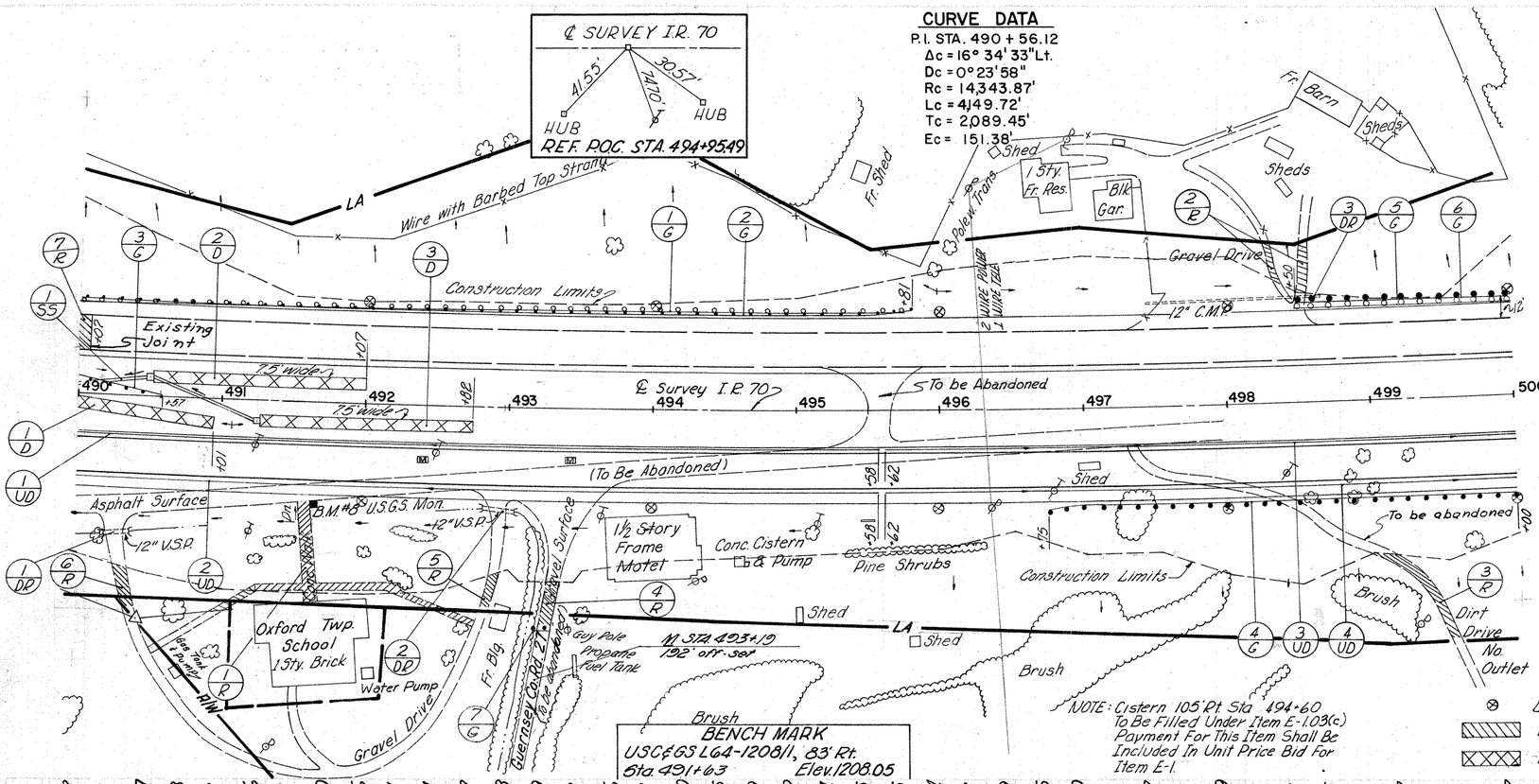
PROPOSED STRUCTURE
BRIDGE NO. GUE-40-2527 L & R

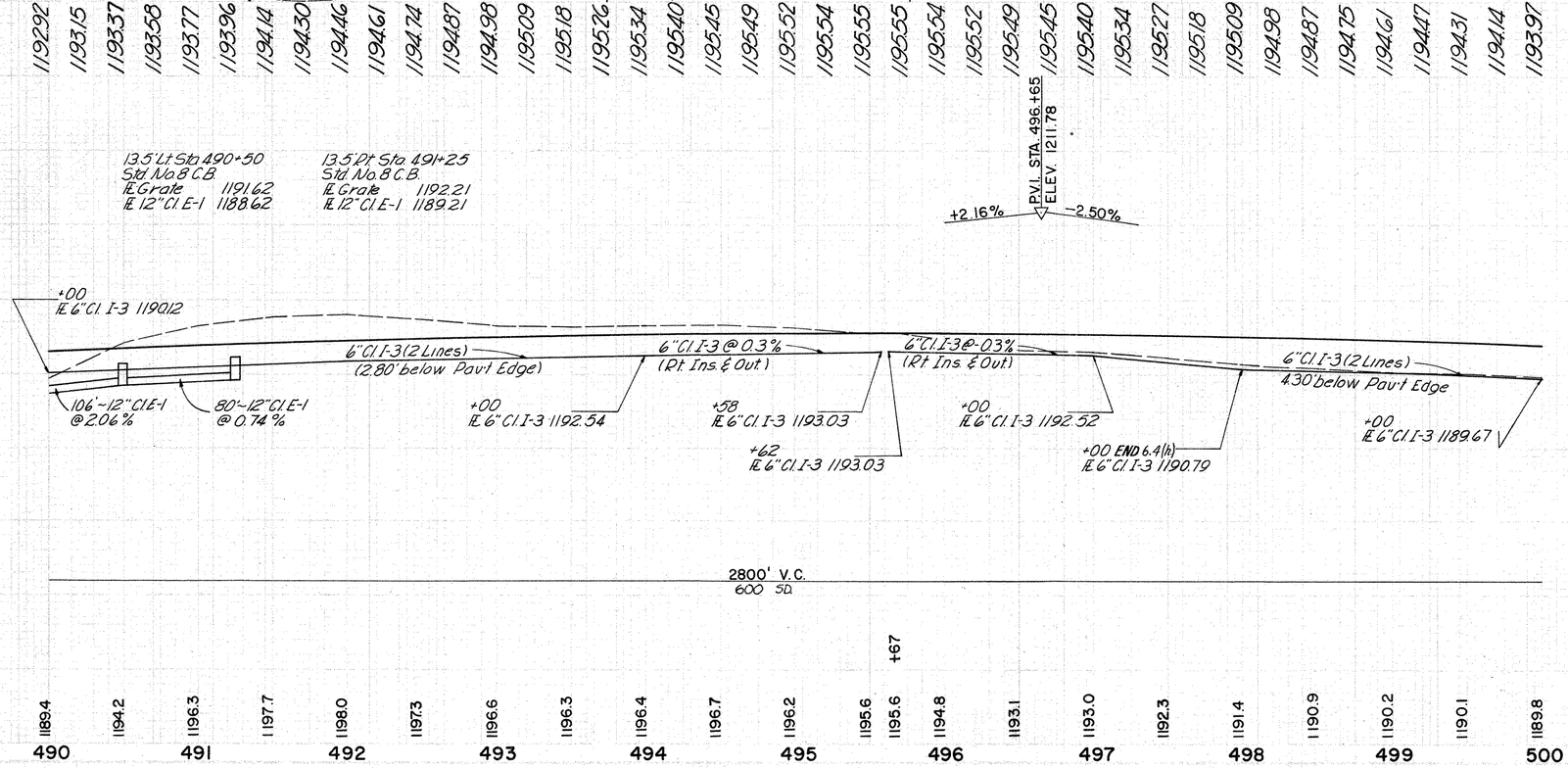
Type: Continuous reinforced concrete slab with reinforced concrete piers & capped pile abutments
Spans: 34'0", 42'6", 34'0" ℄ of bearings
Roadway: Two at 42'0" face to face parapets with 1'2" safety curbs
Load Frequency: CF 2000(57) adequate for AASHO alternate Loading
Wearing Surface: 1" monolithic concrete
Skew: 24°30'00" RF
Approach Slabs: AS-1-54 (25' Long)
Alignment: 0°23'58" Curve Lt
Superelevation: None

| | | |

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL.–40–0.00

FED. ROAD	STATE	PROJECT		SHEET NO.	TOTAL SHEETS
2	OHIO			32	485

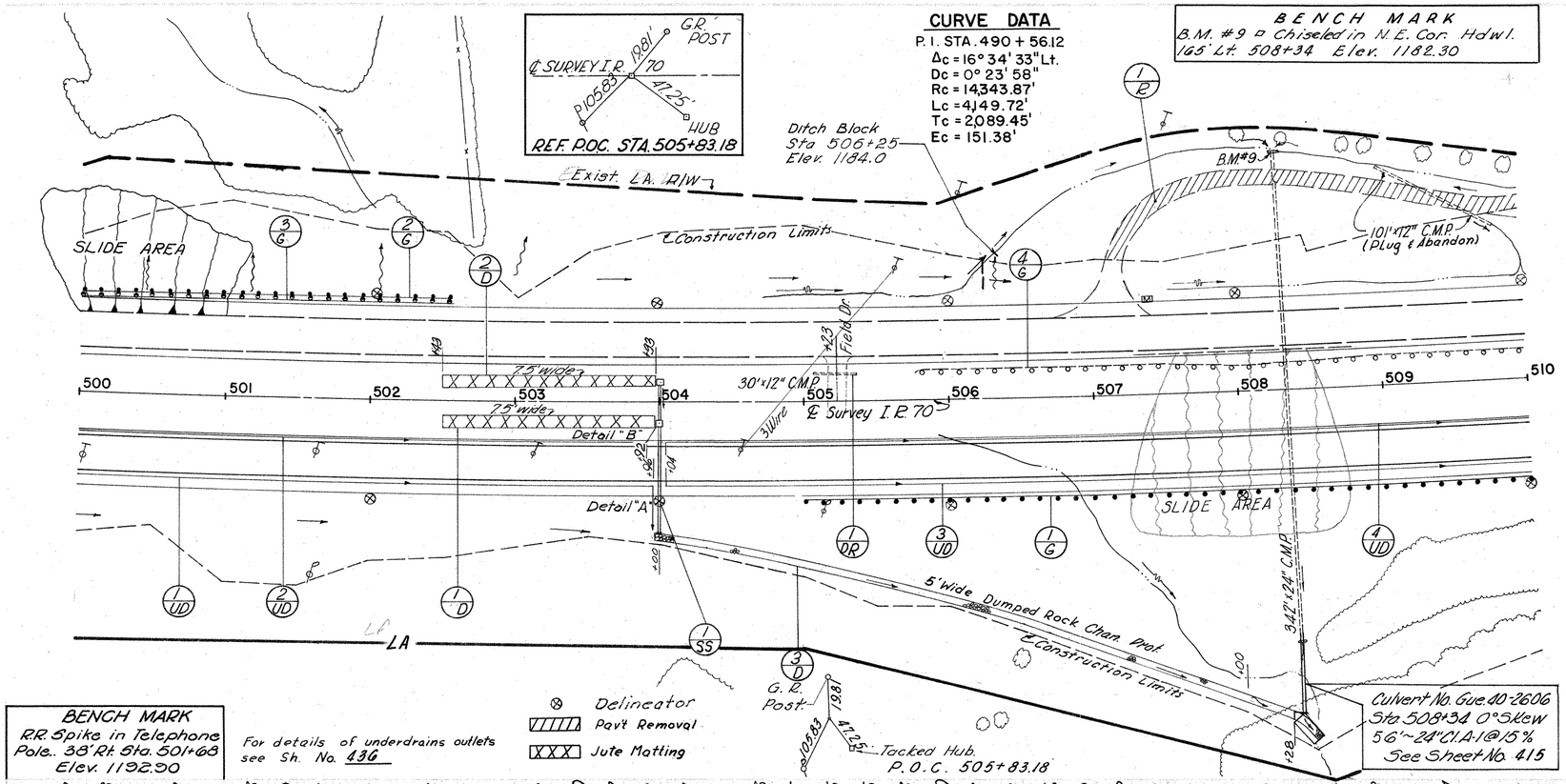


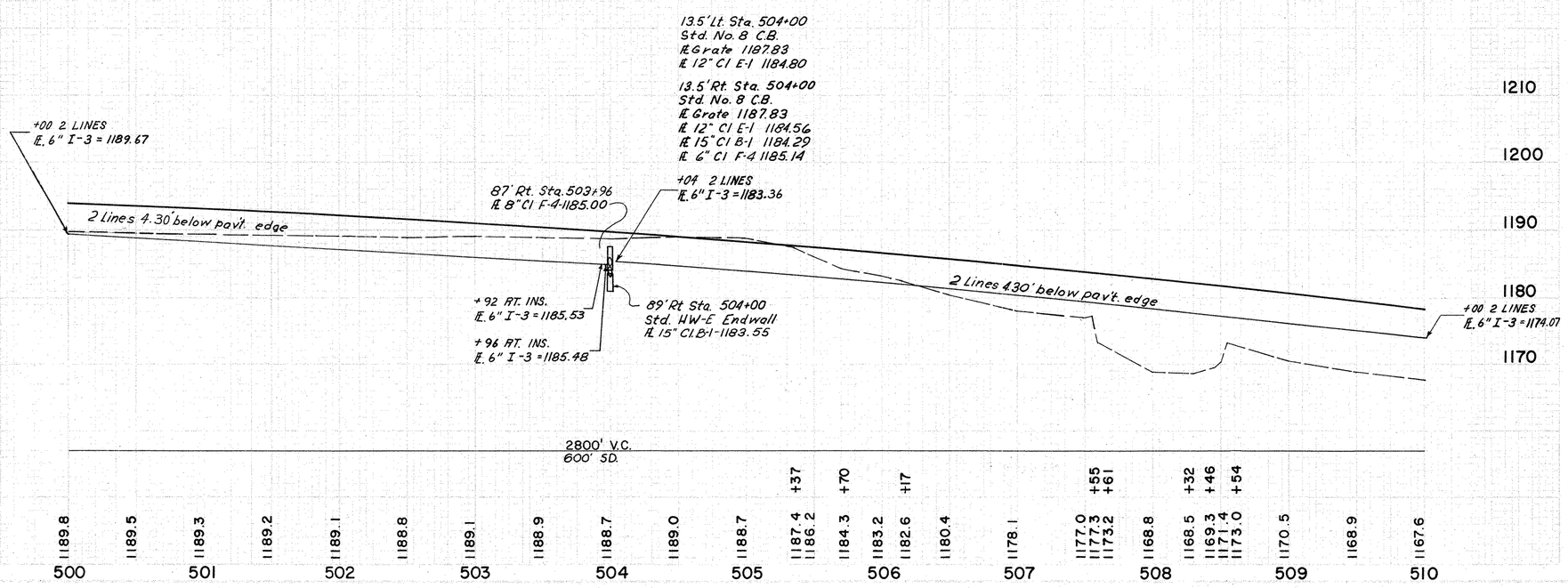


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GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

33
485





| | | |

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL.–40–0.00

DESIGN	STATE	PROJECT		SHEET NO.
2	OHIO			34 485

CURVE DATA

P.I. STA. 490+56.12
Δc = 16° 34' 33" LT.
Dc = 0° 23' 58'
Rc = 14343.87'
Lc = 4149.72'
Tc = 2089.45'
Ec = 151.38'

Jute Matting
Delineator
Pavt. Removal

Fr. Shed
Fr. Shed
Block Bldg.
1½ Sty. Fr. Res.
Fr. Barn
8' GRAVEL DRIVE
8' GRAVEL DRIVE
P.T. STA. 511+16.38
LA
2 Wires
Construction Limits
9' Wide Sod
7.5' Wide
7.5' Wide
Detail "B"
Detail "A"
5' Wide Dump Rock Ch. Proof
Construction Limits
5' Wide Dumped Rock
LA
Sign
℄ Survey I.R. 70
S 88° 40' 12" E
510 511 512 513 514 515 516 517 518 519 520

BENCH MARK
Pole on Line Sta. 519+24
Elev. 1158.05

REF. P.T. STA. 511+16.38
HUB 3.44' HUB 2.23' HUB 10.35'

REF. P.O.T. STA. 519+34.81
10.5' P.K. Nails in poles 17.14' HUB 19.94'

For details of underdrain outlets see Sh. No. 436

117837 117776 117715 117678 117590 117340 117090 116840 116590 116340 116090 115840 115779 115721 115666 115614 115565 115519 115476 115435

600' V.C.
600' S.D.

1210 1200 1190 1180 1170 1160 1150

+74 Rt. Out.
℄ 6" Cl. I-3 1167.25

+74 81' Rt.
℄ 8" Cl. F-4 1167.18

+00 Ins. & Out.
℄ 6" Cl. I-3 1174.07

13.5' Lt. Sta. 512+78
Std. No. 8 C.B.
℄ Grate 1169.67
℄ 12" Cl. E-1 1166.92

13.5' Rt. Sta. 512+78
Std. No. 8 C.B.
℄ Grate 1169.67
℄ 12" Cl. E-1 1166.38
℄ 15" Cl. B-1 1166.13
℄ 6" Cl. F-4 1166.88

STA. 518+00

2 Lines 4.30' below pavement edge
STA. 510+69
+70 Rt. Ins.
℄ 6" Cl. I-3 1167.35
– 2.50%
2 Lines 2.80' below pavement edge
+50 4 Lines END 6.4(R)
℄ 6" Cl. I-3 1152.31
4 Lines 2.80' below pavement edge
+00 4 Lines
℄ 6" Cl. I-3 1150.05
2800' V.C.
600' S.D.

84' Rt. Sta. 512+78
Std. HW-E Endwall
℄ 15" Cl. B-1 1165.42

1167.6 1166.9 1167.7 1167.4 1168.1 1168.4 1168.2 1167.3 1167.7 1168.6 1170.4 1171.5 1172.2 1172.9 1175.2 1175.0 1173.0 1170.1 1168.0 1165.3 1164.7 1162.0 1158.9 1157.4 1148.55 1146.25 1145.78

+76 +78 +80 +27 +36 +71 +01 +30 +39 +51 +78 +01 +01 +01 +01 +01 +01 +53 +01 +28 +77 +85 +93

510 511 512 513 514 515 516 517 518 519 520

SEE SHEET NO.										
	I-1	I-5	I-8	I-2	I-10	L-10	L-120			
	CL. F-4 W.O.446	PIPE SPECIAL 6"x60°x90° CL I-3 CL I-3 BEND BEND	STD. No. 8 C.B.	MASONRY	18" THICK DUMPED ROCK CHANNEL PROT.	SODDING MATTING	JUTE			
	6" 8"	6" 6"								
	L.F. L.F.	L.F. E.A. E.A.	E.A.	CU. YD.	CU. YD.	SQ. YD.	SQ. YD.			
	10 10	288 1 1 270 50 668 50 668 50 150 50 150 50	2	0.26	17	4	830 42 17	125 125		
1UD 510+00 ~ 512+74								RT.		
2UD 510+00 ~ 512+70								RT.		
3UD 512+82 ~ 520+00								RT.		
4UD 512+82 ~ 520+00								LT.		
5UD 519+00 ~ 520+00								LT.		
6UD 519+00 ~ 520+00								LT.		
1SS 512+78							27			
1G 510+00 ~ 511+13								LT.		
2G 510+00 ~ 512+75								RT.		
3G 519+38 ~ 520+00								LT.		
4G 519+60 ~ 520+00								LT.		
5G 519+60 ~ 520+00								LT.		
6G 519+870 ~ 520+00								RT.		
1D 510+00 ~ 519+30								LT.		
2D 511+50 ~ 512+78								RT.		
3D 519+50 ~ 520+00								RT.		
4D 511+29 ~ 512+71								LT.		
5D 511+23 ~ 512+71								RT.		
1R 510+00 ~ 511+25								Lt.		
2R 519+00 ~ 520+00								Lt.		
3R 511+25 ~ 514+25								Lt.		
4R 519+60 ~ 520+00								Lt.		
	I-15 E-8 REMOVAL REMOVAL GUARD RAIL	I-15 E-8 DISPOSAL DISPOSAL 2157'	I-15 STD. TYPE PAVT. 1522.2 SQ. YDS.	I-15 REMOVED & DEEP REBUILT						
	L.F.	L.F.	SQ. YDS.	L.F.						
		275		150 125						
				62 40						

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

FED. AID PROJECT | STATE | SHEET 35 | TOTAL SHEETS 485

For details of median Cross over see sheet # 434
Quantities on Sh. 17

Jute Matting
Removal Paved Gutter & Removal Pavt.
Delineators

CULVERT No. Gue-40-2638
Sta. 522+09 Skew 11° L.F.
1-24"x24" CI-A-I @ 47.7%
See Sheet No. 416

BENCH MARK
B.M. #10 □ Chiseled in top Stone Milage Marker (Cumberland 162) @ 526+54 79' Lt. Elev. 1157.24

BENCH MARK
R.R. Spike in T.P. N. edge Old 40 133' Lt. Sta. 523+27.5 Elev. 1124.66

For details of underdrain outlets see sheet # 430

For Quantities See Sht. № 36

Place Dumped Rock Along Toe of Slope

Construction Limits

Milage Marker

Detail "A" Detail "B" Detail "C"

Concrete

5' Paved Gutter

3' Paved Gutter

5' Wide Dumped Rock Ch.

5' Wide Sod

Wooded Area

Connect 24" C.M.P. Thru Exist. Abond. C.B.

To be abandoned TWP RD 296

1½ Sty. Fr. Res.

Fr. Garage

Fr. Shed

4 Wires

Survey Sta. 523+29 ℄ Crossover

Survey I.R. 70 ℄

S 88° 40' 12" E

LA

+00 4 Lines
℄ E G" I-3 El. 1150.05

+50 Rt. Out.
℄ E 6" Cl. I-3 1147.68

+00 Rt. Ins.
℄ E 6" Cl. I-3 1147.56

-2.50%

4 Lines 4.30' below ℄ Pavement edge

+25' Lt. Out.
℄ E 2-6" Cl. I-3 1147.28

80' Lt. Sta. 523+25
℄ E 8" Cl. F-4 1145.00

-0.3%

88' 12" Cl. E-1 @ 1%

+0.3%

21' Rt. +72. +64
℄ E 8" Cl. F-4 1145.00

104' Rt. Sta. 523+68
Std. HW-E Endwall
℄ E 15" Cl. F-4 1133.38

+00 Lt. Ins.
℄ E 6" Cl. I-3 1148.04

+00 77' Lt.
℄ E 8" F-4 El. 1149.20

+96 Lt Outside
℄ E G" I-3 El. 1149.89

+00 4 Lines
℄ E 6" Cl. I-3 1149.90

+0.36%

4 Lines 2.80' under pavement edge

+76 Rt. 2 Lines
℄ E G" I-3 El. 1151.25

+84 Rt. Outside
℄ E G" I-3 El. 1149.78

+88 Rt. Ins.
℄ E G" I-3 El. 1151.30

+84 Lt. Ins.
℄ E G" I-3 El. 1151.28

+00 Lt. 2 Lines
℄ E G" I-3 El. 1151.31

+00 Rt. 2 Lines
℄ E G" I-3 El. 1149.84

+84 77' Rt.
℄ E 8" F-4 El. 1147.45

13.5' Lt. Sta. 522+82
Std. No. 8 C.B.
℄ E. Grate 1150.20
℄ E. 12" Cl. E-1 1146.70
℄ E. 2-6" Cl. F-4 1147.28

13.5' Rt. Sta. 523+68
Std. No. 8 C.B.
℄ E. Grate 1150.15
℄ E. 12" Cl. E-1 1145.82
℄ E. 15" Cl. B-1 1145.55
℄ E. 2-6" Cl. F-4 1146.40

13.5' Lt. Sta. 529+80
Std. No. 8 Catch Basin
℄ E. Grate El. 1152.27
℄ E. 12" E-1 El. 1149.52
℄ E. G" F-4 El. 1150.02

13.5' Rt. Sta. 529+80
Std. No. 8 Catch Basin
℄ E. Grate El. 1152.27
℄ E. 15" B-1 El. 1148.73
℄ E. 12" E-1 El. 1148.98
℄ E. G" F-4 El. 1149.48

77' Rt. Sta. 529+80
Std. HWE Headwall
℄ E. 15" B-1 El. 1146.70

℄ E. 24" C.M.P. 1093.16

℄ E. 24" C.M.P. 1063.25

600' V.C.
600' S.D.

P.V.I. STA. 521+00
ELEV. 1150.90

1160
1150
1140
1130
1120
1110
1100
1090
1080
1070

520 521 522 523 524 525 526 527 528 529 530

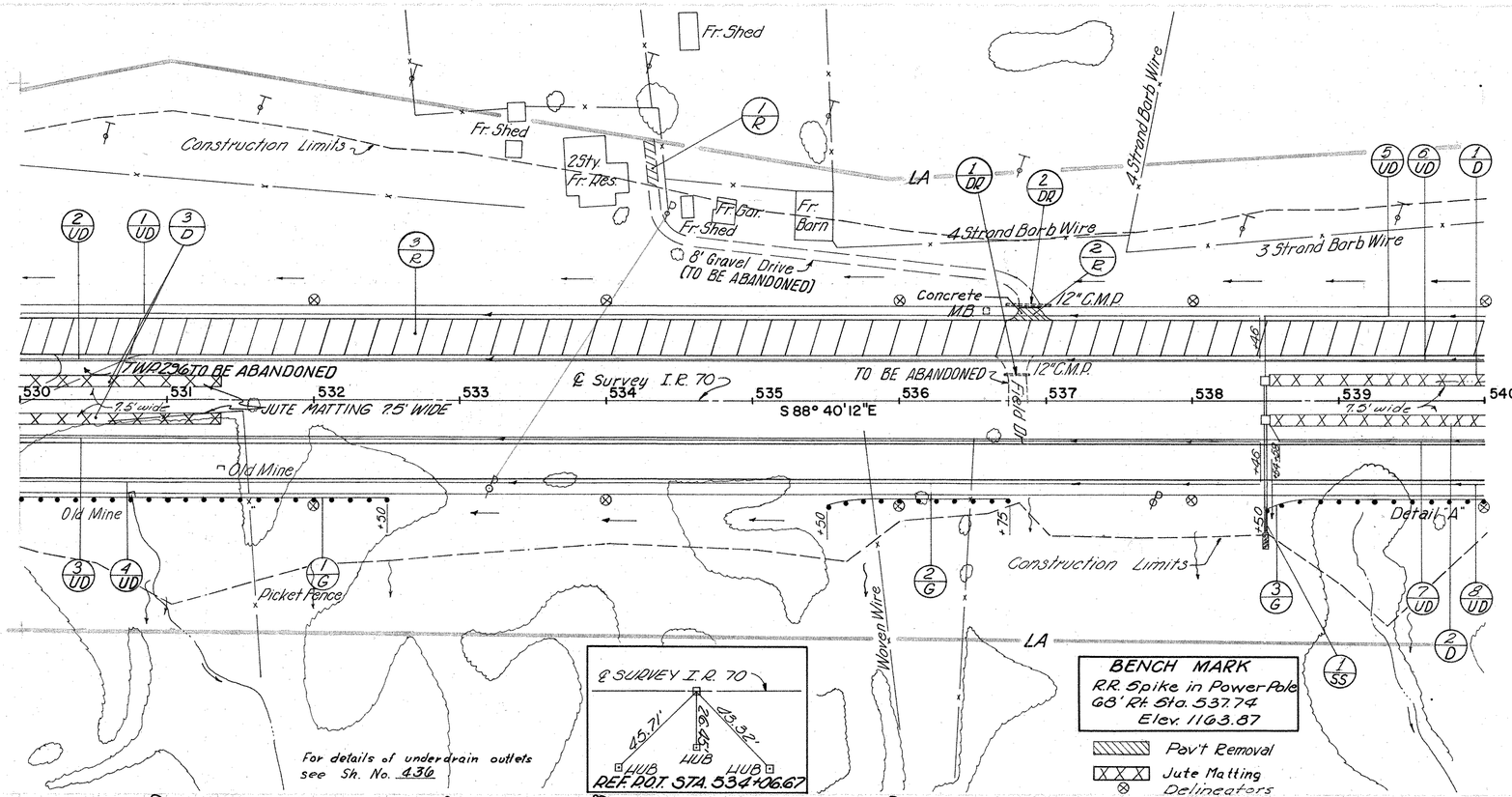
STA. 520+00 TO STA. 530+00

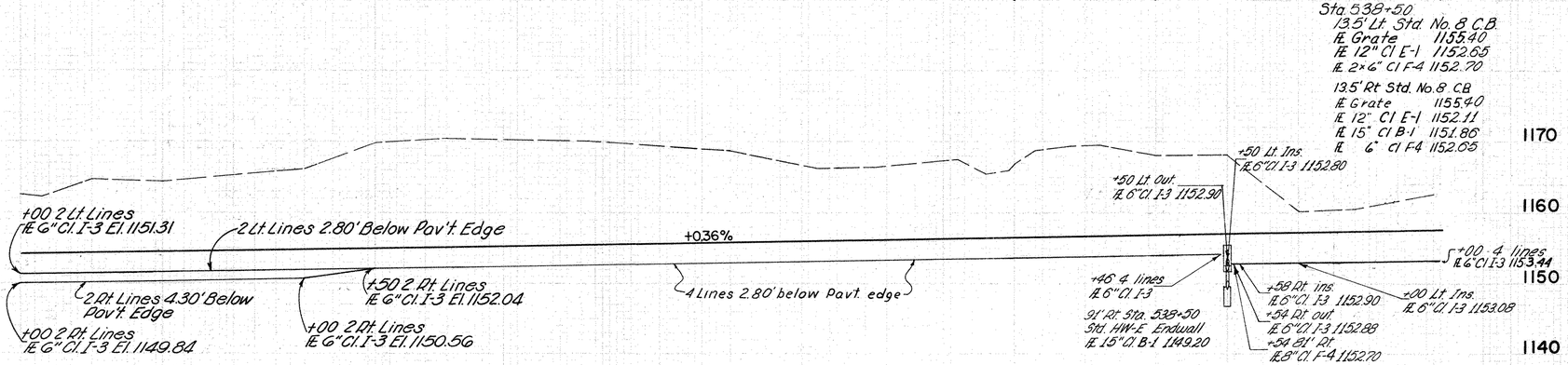
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GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

SHEET NO.	STATE	PROJECT	
2	OHIO		

36
485





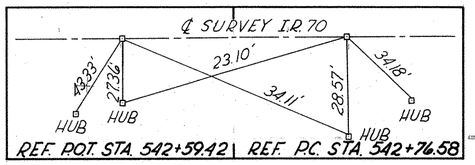
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	1154.14	1154.50	1154.86	1155.22	1155.58	1155.94	1156.30	1156.66	1157.02	1157.38	1157.74
	1162.6 +01	1164.7 +51	1166.1 +01	1169.9 +51	1170.0 +01	1168.7 +01	1166.4 +61	1167.5 +58	1165.7 +80	1169.3 +38	1168.1 +01	1165.0 +51	1161.3 +01	1160.6 +37	1162.8 +01
	1162.3 +14								1166.0 +97	1169.4 +60					
									1166.9 +01						
									1168.7 +13						

CODE	ITEM	UNIT	TOTAL	530	531	532	533	534	535	536	537	538	539	540	

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00

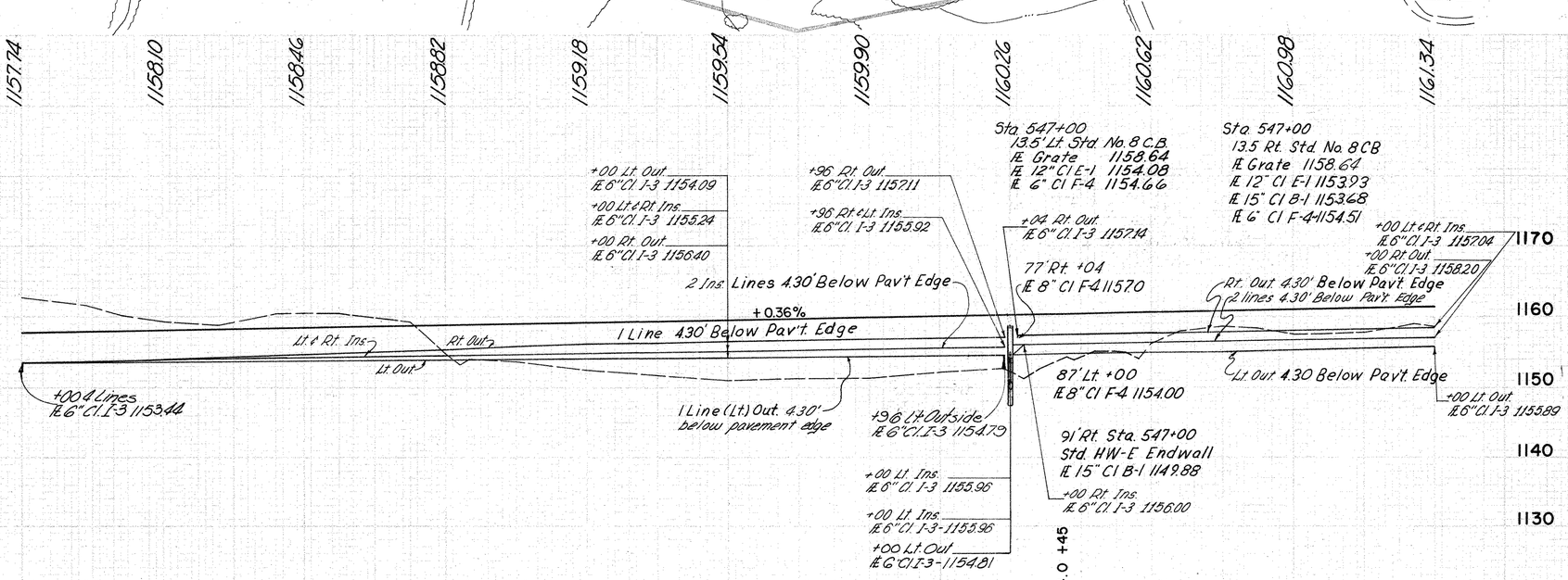
FED. NO. | STATE | PROJECT | | 37
2 | OHIO | | | 485



Paved Gutter Removal
Pav't Removal
Jute Matting
Delineators

BENCH MARK
B.M. #11 R.R. Spike in ∮ 118'
Lt. 548+00 Elev. 1150.74

CURVE DATA
P.I. STA. 550+48.95
Δc = 22° 44'06" Lt.
Dc = 1° 29'29"
Rc = 3841.77'
Lc = 1524.42'
Tc = 772.37'
Ec = 76.87'



| | | |

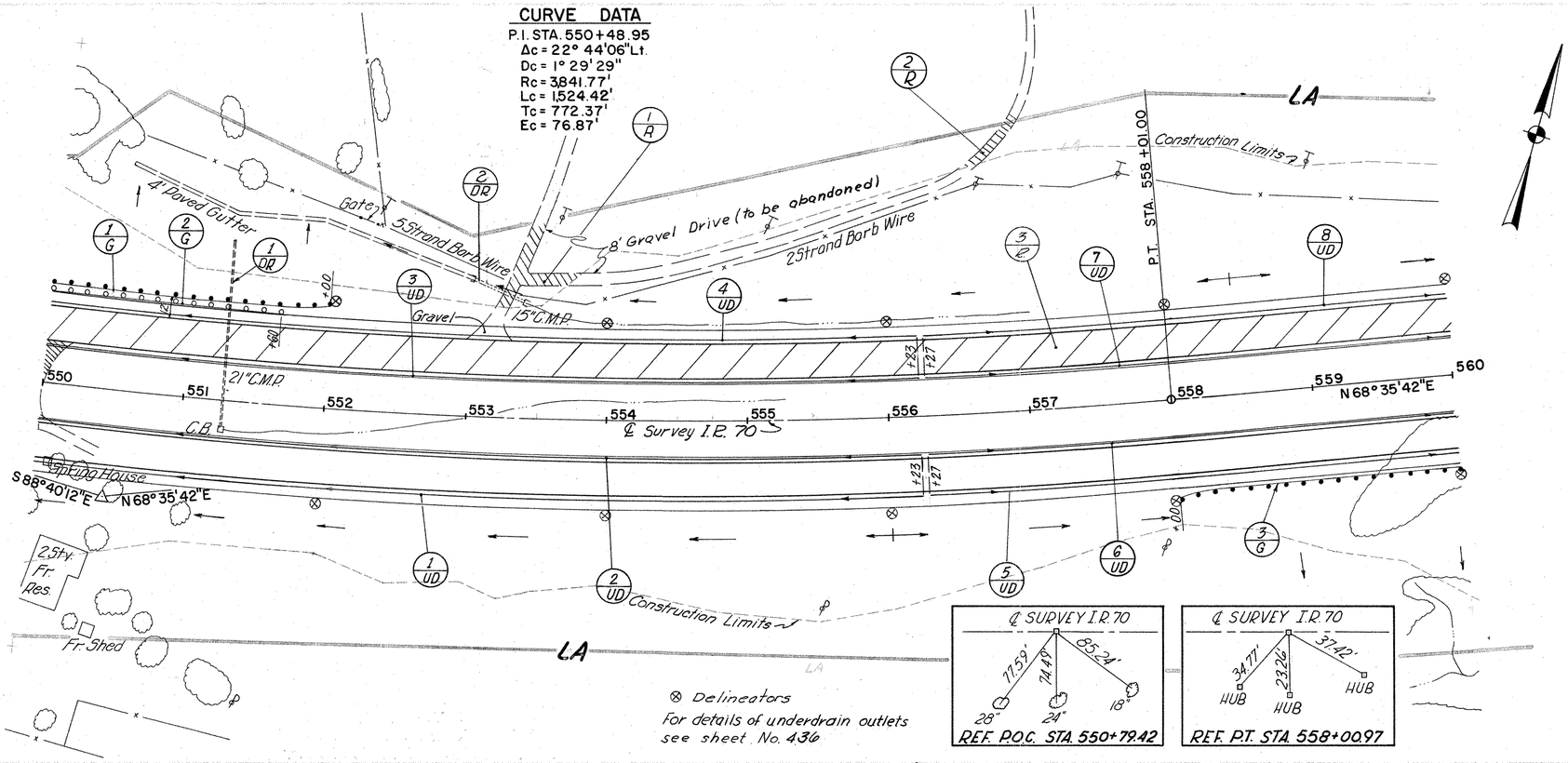
GUERNSEY COUNTY — BELMONT COUNTY

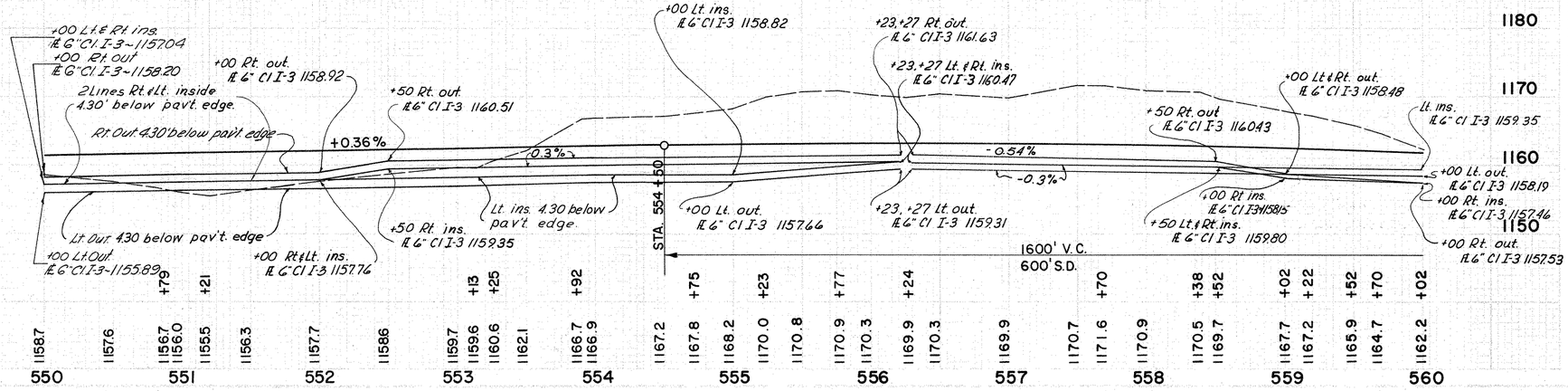
GUE — 40 — 23.88 BEL — 40 — 0.00

SHEET NO.	STATE	PROJECT		38
2	OHIO			485

CURVE DATA

P.I. STA. 550+48.95
Δc = 22° 44'06" Lt.
Dc = 1° 29' 29"
Rc = 3841.77'
Lc = 1524.42'
Tc = 772.37'
Ec = 76.87'





	550	551	552	553	554	555	556	557	558	559	560
	1161.34	1161.70	1162.06	1162.42	1162.78	1162.96	1163.04	1163.11	1163.17	1163.21	1163.25
	1163.26	1163.27	1163.26	1163.24	1163.20	1163.16	1163.09	1163.02	1162.93	1162.83	1162.72
	1162.59	1162.45	1162.30	1162.13	1161.96	1161.76					
	1158.7	1157.6	1156.7 / 1156.0	1155.5	1156.3	1157.7	1158.6	1159.7 / 1159.6	1160.6	1162.1	1166.7 / 1166.9
	+79	+21		+13	+25	+92					
	1167.2	1167.8	1168.2	1170.0	1170.8	1170.9	1170.3	1169.9	1170.3	1169.9	1170.7
	+75	+23	+77	+24	+70	+38	+52	+02	+22	+52	+70
	1171.6	1170.9	1170.5	1169.7	1167.7	1167.2	1165.9	1164.7	1162.2		
	+02										

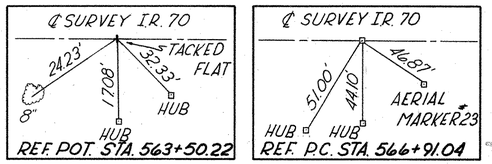
QUANTITIES

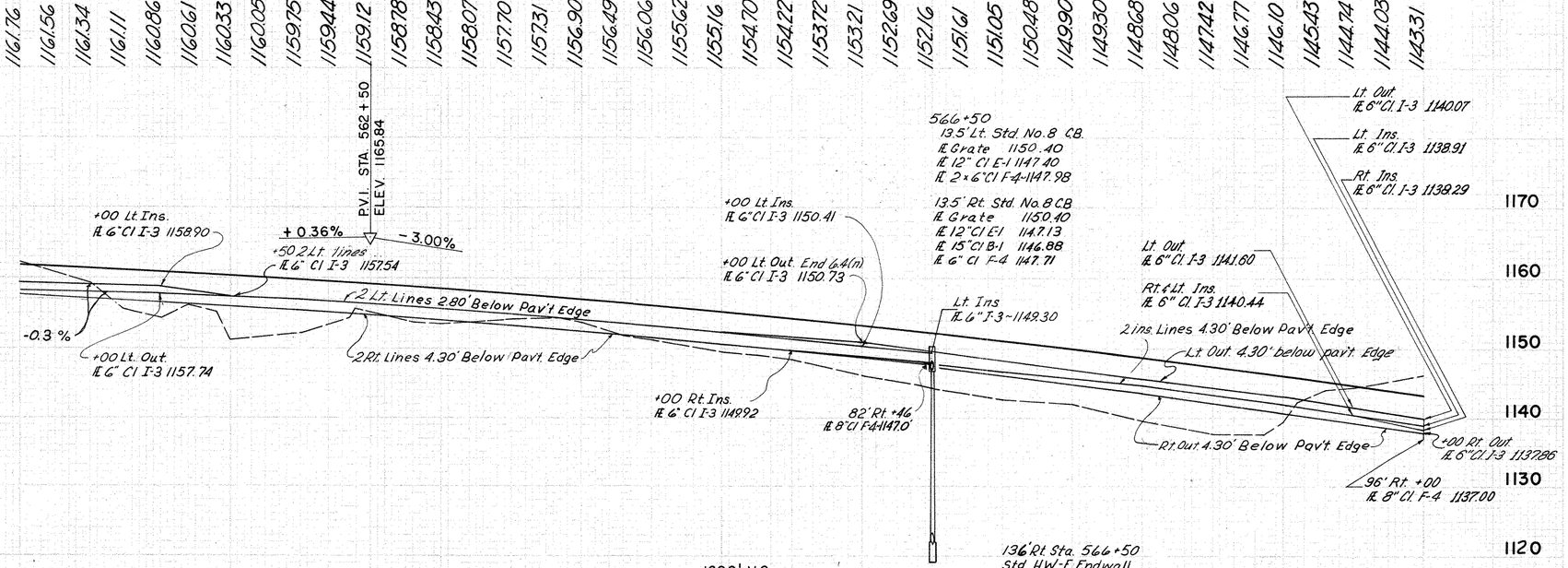
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GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00

SHEET NO. 39 | TOTAL SHEETS 485 | STATE OHIO





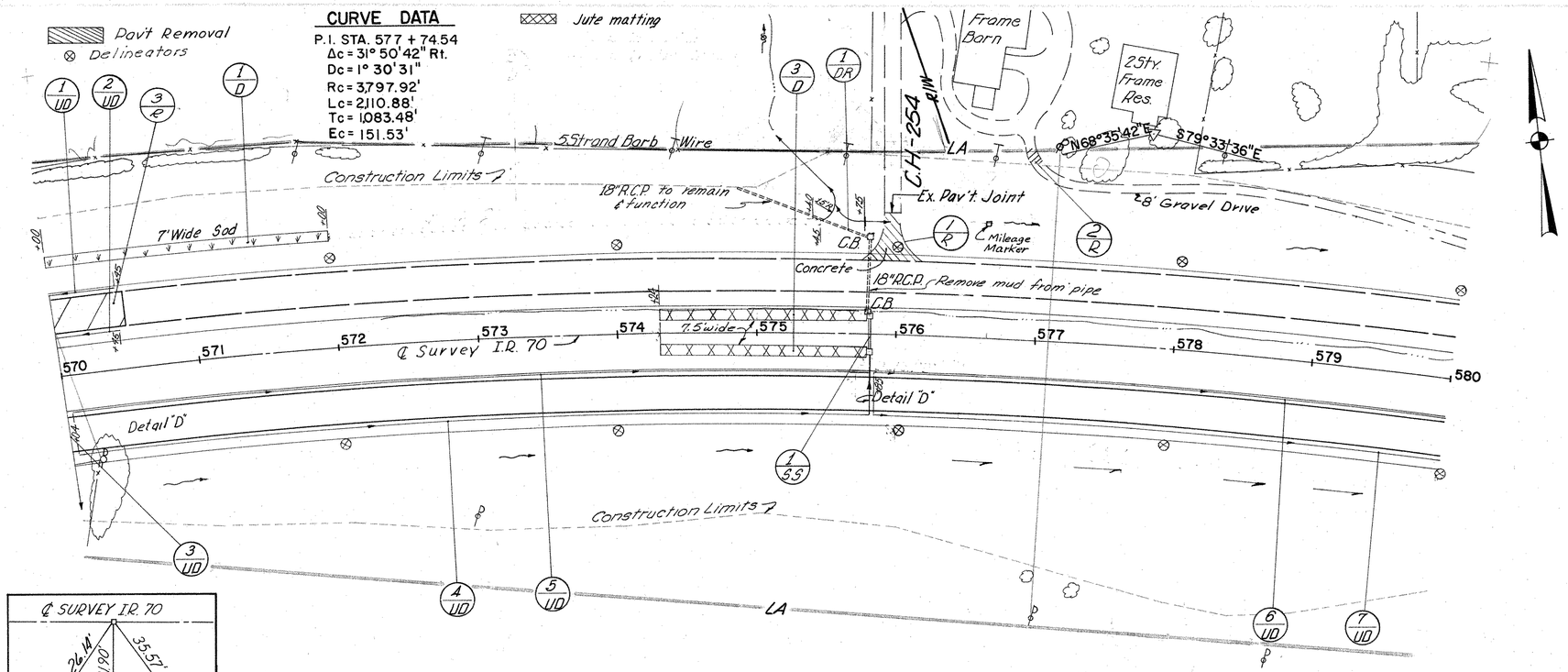
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GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

40
485

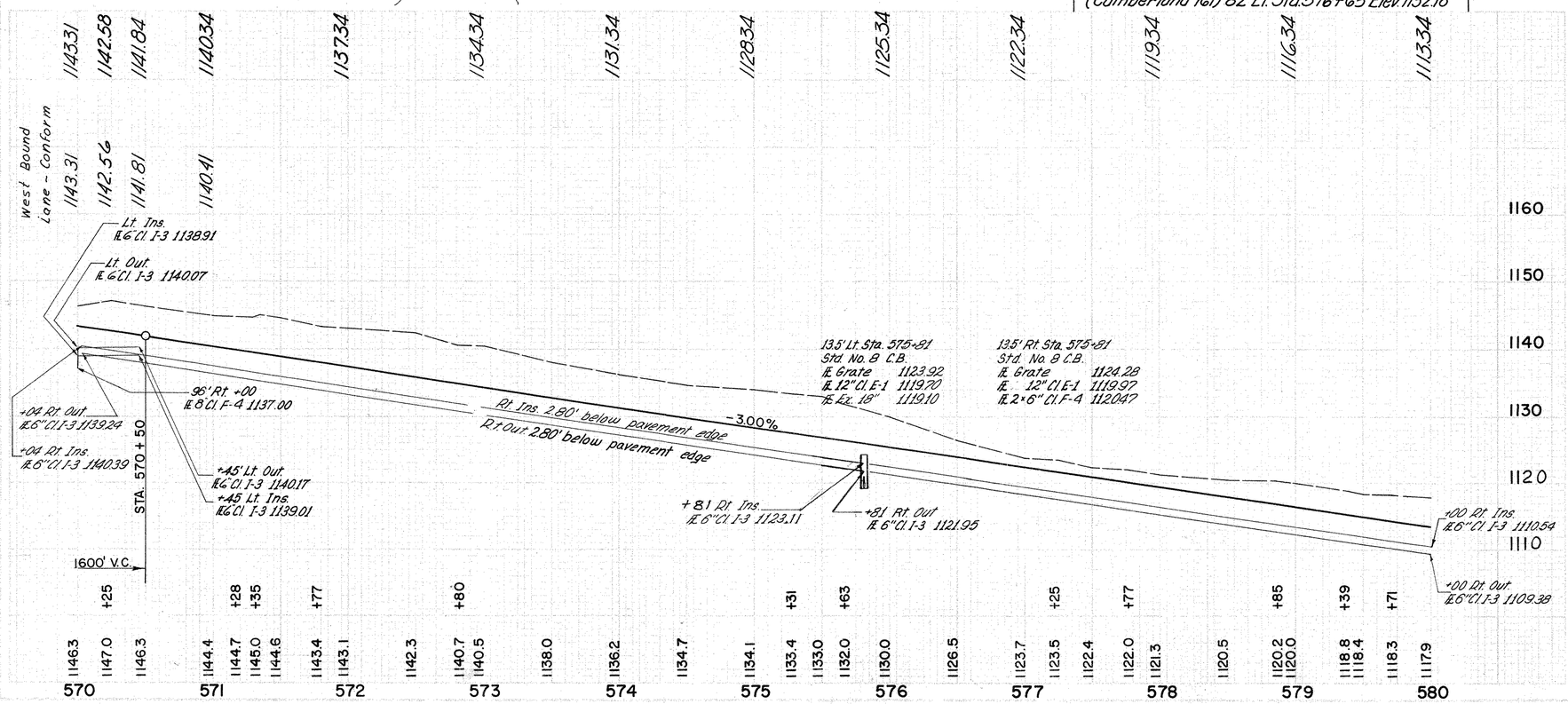
Pavt Removal
⊗ Delineators
Jute matting

CURVE DATA
P.I. STA. 577 + 74.54
Δc = 31° 50' 42" Rt.
Dc = 1° 30' 31"
Rc = 3,797.92'
Lc = 2,110.88'
Tc = 1,083.48'
Ec = 151.53'



For details of underdrain outlets see sheet No. 436

BENCH MARK
Chiseled in Top of Stone Mileage Marker
(Cumberland 161) 82' Lt. Sta. 576+65 Elev. 1132.18



ESTIMATED QUANTITIES

| | | |

CURVE DATA

P.I. STA. 577+74.54
Δc = 31° 50' 42" Rt.
Dc = 1° 30' 31"
Rc = 3797.92'
Lc = 2,110.88'
Tc = 1,083.48'
Ec = 151.53'

Block Spring House

Jute Matting
Pav't. Removal

7' Wide Dumped Rock Ch Prot
6' Wide Dumped Rock Ch Prot
LA
SLIDE AREA
32 WIRE
C.H. 254 RELOCATION
60" C.M.P.
Detail "D"
Asphalt Surface
24" R.C.P. - Plug & Abandon
C.B.
12" C.M.P.
24" C.M.P. (Plug & Abandon)
℄ Survey I.R. 70
7.5' wide
Detail "B"
Detail "A"
9' Wide Sod
Detail "C"
S 79° 33' 36" E
Woods
8' Wide Dumped Rock Ch Prot
Old U.S. 40
Construction Limits
Fr Barn
R/W
P.T. STA. 588+01.94
Bridge
NOTE: FOR C.H. 254 RELOCATION DETAILS SEE SH. NO. 364 & 365

℄ SURVEY I.R. 70
40.04' 39.54' 61.04'
HUB HUB AERIAL MARKER #27 HUB
REF. PT. STA. 588+01.94

BENCH MARK
R.R. Spike Guard Rail Post. 19' Lt. Sta. 583+09
Elev. 1103.56

BENCH MARK
□ Chiseled on N.W. Cor. Cap Stone W. End S. Rail of Bridge 200' Rt.
Sta. 589+00. Elev. ~1054.68

⊗ Delineators
For details of underdrain outlets see sheet No. 430

Culvert No. Gue 40-2717
Sta 588+74, Skew 25° Rt.F.
98" x 60" Cl. A-1 @ 10%
18" x 42" Cl. A-1 @ 7%
See Sheet No. 418

THE MEDIAN DITCH SHALL BE BUILT UP TO ELEV. 1091.16 AT STA. 589+25 FORMING A DIVIDE AT THIS POINT. MEDIAN DRAINAGE WILL FLOW FROM THIS DIVIDE TO CATCH BASINS AT STA. 589+25 AND STA. 590+25.

WEST BOUND PROFILE GRADE
1113.34 1110.34 1107.34 1104.34 1101.34 1099.84 1099.11 1098.41 1097.75 1097.13 1096.54 1095.98 1095.47 1094.99 1094.54 1094.13 1093.76 1093.42 1093.12 1092.85 1092.62 1092.43 1092.27 1092.15 1092.06 1092.01 1091.99 1092.01
1099.42 1098.79 1098.19 1097.64 1097.13

Sta. 585+00
13.5' Lt. Std. No. 8 C.B.
I.E. Grate 1096.52
I.E. 12" Cl. E-1 1093.52
13.5' Rt. Std. No. 8 C.B.
I.E. Grate 1096.82
I.E. 12" Cl E-1 1093.28
I.E. 15" Cl. B-1 1093.00
I.E. 6" Cl. F-4 1093.86

I.E. 1050.28 Not drown to proper elev.
600' V.C.
600' S.D.

Sta. 589+25
13.5' Lt. Std. No. 8 C.B.
I.E. Grate 1090.31
I.E. 2-12" Cl. E-1 1087.06
I.E. 6" Cl. F-4 1087.50
13.5' Rt. Std. No. 8 C.B.
I.E. Grate 1090.31
I.E. 12" Cl E-1 1087.31
I.E. 6" Cl. F-4 1087.50

+00 Rt. Ins. I.E. 6" Cl. I-3 1097.04
Rt. Ins. 2.80' below pavt. edge
500' x 12" Cl. E-1 @ 3%
-3.00%
Rt. Out 2.80' below Pavt Edge
+50 Lt. Out I.E. 6" Cl. I-3 1096.28
+50 Rt. & Lt. Ins. I.E. 6" Cl. I-3 1095.54
+04 Rt. Ins. I.E. 6" Cl. I-3 1093.89
+00 Lt. Out I.E. 6" Cl. I-3 1088.17
+00 Lt. & Rt. Ins. I.E. 6" Cl. I-3 1087.85
79' Rt. +50 I.E. 8" Cl. F-4 1086.0
+50 Rt. Out I.E. 6" Cl. F-4 1087.31
+50 Rt. Ins. I.E. 6" Cl. I-3 1100.04
+00 Rt. Out. I.E. 6" Cl. I-3 1095.88
+96 - 90° Rt. I.E. 8" Cl. F-4 1092.50
Lt. Out 4.30' below Pavt Edge
Lt. & Rt. Ins 4.30' below Pavt Edge
Rt. Out 4.30' below pavt. Edge
+50 Rt. Out. I.E. 6" Cl. I-3 110888
95' Rt. Sta. 585+00 Std. HW-E Endwall I.E. 15" Cl B-1 - 1090.60
+04 Rt. Out I.E. 6" Cl. I-3 1092.83
P.V.I. STA. 587+50 ELEV. 1090.84
+0.44%
-0.5%
-0.3%
+00 & Lines I.E. 6" Cl. I-3 1087.90
+50 Rt. Out I.E. 6" Cl. I-3 1087.61
78' Lt. +75 I.E. 8" Cl. F-4 1086.0
+25 Rt. & Lt. Ins. I.E. 6" Cl. I-3 1087.66
+75 Lt. Out I.E. 6" Cl. I-3 1087.80
100 x 12" Cl E-1 @ 0.3%
I.E. 1037.94 Not drown to proper elev.

1117.9 1117.5 1117.1 1117.3 1116.0 1114.3 1113.3 1109.3 1107.1 1104.2 1105.0 1104.7 1101.2 1100.3 1095.5 1091.7 1088.6 1086.6 1085.9 1087.6 1086.7 1085.5 1083.0 1086.6 1087.0 1086.2 1086.2 1085.6 1085.0 1084.6 1084.0 1084.6
+70 +82 +40 +75 +28 +57 +77 +92 +95 +08 +47 +32
580 581 582 583 584 585 586 587 588 589 590
1140 1130 1120 1110 1100 1090 1080 1070

STA. 580+00 TO STA. 590+00

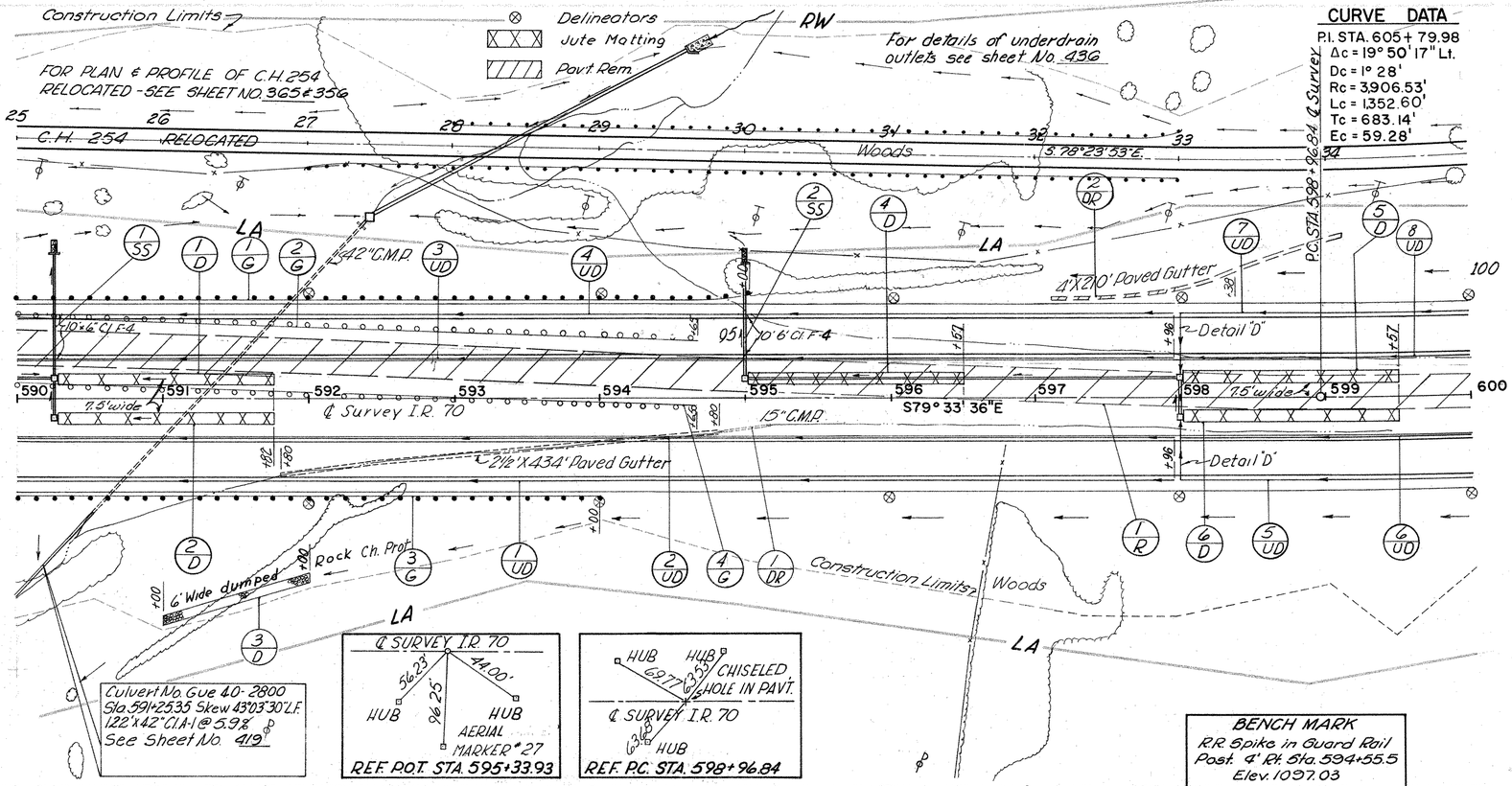
ESTIMATED QUANTITIES

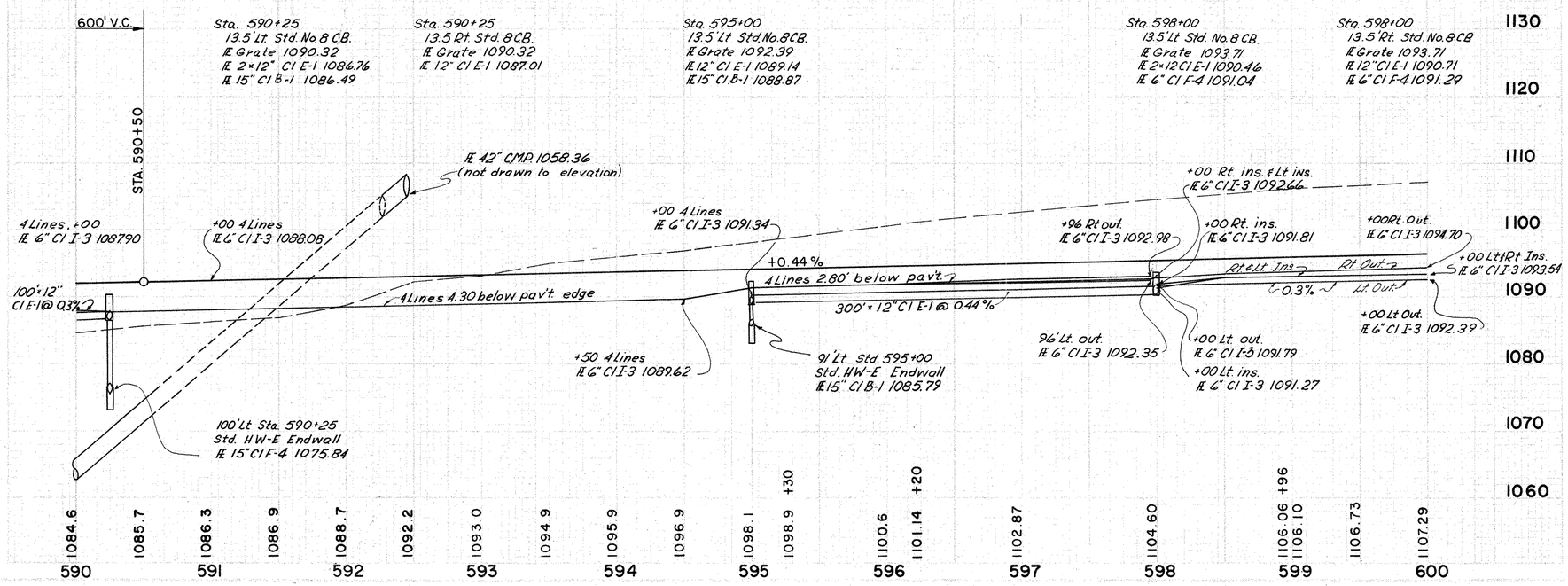
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GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00

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485





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GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

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485

RW
Construction Limits
Note: For C.H. 254 Relocated See Sheets No. 366 & 367
⊗ Delineators
Pavt Removal
Jute Matting
Woods
LA
Billboard
℄ Survey I.R. 70
S 79°33'36"E
N 80°36'07"E
15" Tile
Construction Limits
℄ SERVICE RD. 1
Concrete C.H. 202
For PLAN PROFILE OF SERVICE RD. NO. 4 SEE SHEET NO. 362
Construction Limits
Detail "A"
Detail "B"
Detail "D"
7.5' wide ?
3"x400' Paved Gutter
For details of under drain outlets see sheet no. 436

CURVE DATA
P.I. STA. 605+79.98
Δc = 19° 50' 17" Lt.
Dc = 1° 28'
Rc = 3,906.53'
Lc = 1,352.60'
Tc = 683.14'
Ec = 59.28'

BENCH MARK
R.R. Spike ℑ 45' Rt.
Sta. 602 + 87
Elev. ~ 1109.41

13.5 Lt. Sta. 609+50
Std. No. 8 C.B.
℄ Grate 1098.90
℄ 12" C.I. E-1 1094.35
℄ 15" C.I. B-1 1094.08
℄ 24" C.I. F-4 1094.93

13.5 Lt. Sta. 608+00
Std. No. 8 C.B.
℄ Grate 1098.24
℄ 12" C.I. E-1 1094.80

13.5 Rt. Sta. 608+00
Std. No. 8 C.B.
℄ Grate 1098.05
℄ 12" C.I. E-1 1095.05

+00 Rt Out
℄ 6" C.I. I-3 1094.70
Rt ℄ Lt Ins. 2.80' below Pavt Edge
Rt Out 2.80' below Pavt Edge
+0.44%
Lt Out 2.80' below Pavt Edge
+00 Rt ℄ Lt
℄ 6" C.I. I-3 1093.54
+00 Lt Out
℄ 6" C.I. I-3 1092.39
Rt ℄ Lt Out 430' below Pavt Edge
+46' Rt. out
℄ 6" C.I. I-3 1098.88
+00 Rt ℄ Lt Ins.
℄ 6" C.I. I-3 1096.44
+00 Rt Out
℄ 6" C.I. I-3 1097.60
℄ 150' × 12" C.I. E-1 @ -0.3%
+46 Lt ℄ Rt Ins.
℄ 6" C.I. I-3 1097.72
+46 Lt Out
℄ 6" C.I. I-3 1096.57
+00 Lt Out
℄ 6" C.I. I-3 1095.29
+50.87' Lt
℄ 8" C.I. F-4 1094.00
87' Lt Sta 609+50
Std. Type HW-E Endwall
℄ 15" C.I. B-1 1092.02

	1096.34	1096.78	1097.22	1097.66	1098.10	1098.54	1098.98	1099.42	1099.86	1100.30	1100.74
	1107.29	1107.73	1108.10	1108.35	1108.54	1108.64	1108.62	1108.52	1108.34	1108.13	1107.73	1107.33	1106.72	1106.05	1105.31	1104.47	1103.51	1102.54	1101.39	1100.34	1099.40
	600	601	602	603	604	605	606	607	608	609	610

1130 1120 1110 1100 1090

ESTIMATED QUANTITIES

REF NO.	STATION TO STATION	SIDE	I-1 C1 B-1 15"	I-1 C1 E-1 12"	I-1 C1 F-4 24"	I-2 L-120 JUTE MATTING SQ YD.	I-5 PIPE SPECIALS C1 I-3 6"×90°	I-5 PIPE SPECIALS C1 I-3 6"×30°	I-5 PIPE SPECIALS C1 I-3 6"×45°	I-5 PIPE SPECIALS C1 I-3 6"×90°	I-8 MASONRY STD. NO. 8 C.B. EA.	I-8 MASONRY CU YD.	I-10 SIGNS SQ YDS	E-8 REMOVAL DISPOSAL EXIST PAVT SQ YD.	E-8 REMOVAL DISPOSAL EXIST GUTTER L.F.	I-15 GUARD RAIL REMOVED STD. TYPE DEEP L.F.	I-15 GUARD RAIL REBUILT STD. TYPE DEEP L.F.	L.F.
			15"	12"	24"	LF	LF	LF	LF	LF	EA.	CU YD.	SQ YDS					
1UD	600+00 ~ 609+46	RT.																
2UD	600+00 ~ 609+46	RT.																
3UD	600+00 ~ 609+46	LT.																
4UD	600+00 ~ 609+46	LT.																
5UD	609+50 ~ 610+00	RT.		30														
6UD	609+50 ~ 610+00	RT.																
7UD	609+54 ~ 610+00	LT.																
8UD	609+50 ~ 610+00	LT.																
1G	609+50 ~ 610+00	RT.																
2G	609+25 ~ 610+00	RT.														50	75	
3G	609+25 ~ 610+00	LT.															75	
4G	@ 03+50	RT.														25		
1G	609+57 ~ 610+00	LT.																
2G	608+07 ~ 609+57	RT.																
1SS	608+00 ~ 609+50	Rt.																
1R	600+00 ~ 610+00	LT.																
1DR	609+00 ~ 610+00	RT.																
			15"	12"	24"	LF	LF	LF	LF	LF	EA.	CU YD.	SQ YDS					
			6	6	8	34	1	1	1	1	3	0.26	161					
						125												
						946												
						946												
						946												
							80	50	62	47								
				30														

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

44
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL.–40–0.00

CURVE DATA
℄ SURVEY
P.I. STA. 605+79.98
Δc = 19°50'17" LT.
Dc = 1°28'00"
Rc = 3,906.53'
Lc = 1,352.60'
Tc = 683.14'
Ec = 59.28'

FOR C.H. 254 RELOC.
SEE SHT NO. 367 & 368

CULVERT NO. GUE 40-28.46
Sta. 611+92 SKEW 20° R.F.
90'-60" CL. A-1 @ 5%
SEE SHEET NO. 420

P.K. Nail in Guard Rail Posts
76.32
56.16'
℄ SURVEY
Chisled Hole in Pavt
55.19'
P.K. Nail in Guard Rail Post
REF. P.T. STA. 612+49.44

JUTE MATTING
Pavt Removal
Delineators

R/W
Construction Limits
FOR PAY ITEMS SEE SHT NO. 54

Guard Rail Posts 36"x8"x74"
℄ SURVEY
8.34'
Hub
REF. P.C. STA. 622+43.90

CURVE DATA
℄ SURVEY
P.I. STA. 632+40.55
Δc = 29°24'29" RT.
Dc = 1°30'31"
Rc = 3,797.92'
Lc = 1,949.35'
Tc = 996.65'
Ec = 128.60'

P.T. STA. 612+49.44
P.C. STA. 622+43.90
L.A.
3' Paved Gutter
DETAIL "A"
Curve C 5
115
75' WIDE
Det. "B"
Det. "A"
N. 80°36'07" E.
℄ Survey I.R. 70
10'6" C.I. F-4
2 Cisterns (See Note)
Plug & Abandon 4" Tile
Spring
Brick Foundation
Stone Foundation (Drilled Well)
6' Gravel Road
Stone Mileage Marker
3' Paved Gutter
6' WIDE DUMPED ROCK Ch. Prof.
3X400' Paved Gutter
Dug Well 28' Deep (See Note)
Construction Limits
For Spring Drain Detail See Sheet No. 357
Well
Frame Shed
Oil Pump & Well
Fr. Shed
Oil Storage Tank
12" CMP
Corn Crib
Silo
Frame Barn
Dug Well 18" Tile 12' Deep
Fr. Shed
30"
Hay Stack
1½'X4' Box Culvert
4'X6' Stone Arch Culvert
15
S. 87°35'01" E.
C.H. 202
Gravel Road C.H. 202
16' to 18'
12' to 14'
Aggregate Surface Typical Section Existing C.H. 202
28"
14"
36"
2 Sty. Fr. Res.
15" Tile W/Headwalls
Gate
Gravel Drive
Fr. Barn
12" Tile
14" Tile
Wooded
Blacktop Surface
12" Tile
15" Tile
CURVE ST-2
3' WIDE SHOULDER
Match Line Sta. 25+70
6' Grading
Hedge
2 Sty. Fr. Res.
Dirt Drive
Fr. Sheds
Fr. Shed
Fr. Barn
Fr. Shed
P.C. STA. 623+85.24
P.C. STA. 622+43.90

Culvert No. Gue 40-28.76
Sta. 624+68 Skew 43° L.F.
116'-42" Cl. A-1 @ 6.5%
See Sheet No. 421

NOTE:
The dug well 146' Rt. of Sta. 611+50 and the 2 cisterns 70' Rt. of Sta. 618+50 to be filled under Item E-108. Payment for this Item to be included in the unit price bid for Item E-1.

BENCH MARK
U.S.C. & G.S. Std. Disk Stamped "U-64-1934" 359' Rt. Sta. 611+62. Elev. ~ 1034.62

BENCH MARK
□ Chiseled Top Stone Mileage Marker (Cumberland 160) 68' Lt. Sta. 622+18. Elev. ~ 1124.03

Tacked GR. Post
Tacked ℄ Pole
41.82'
33.64'
24'
℄
Service Rd.
32.25'
℄ P.C.
Tacked M.B. Post.
REF. P.C. Sta. 23+85.24 - C.H. 202

For typical section of C.H. 202 See sheet No. 8

STA. 610+00 TO STA. 625+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

W. BOUND PROFILE GRADE
LANE CON FORM TO EXISTING

1100.74 1101.18 1101.62 1102.06 1102.28 1102.40 1102.55 1102.73 1102.93 1103.16 1103.42 1103.70 1104.01 1104.35 1104.71 1105.10 1105.52 1105.96 1106.43 1106.93 1107.45 1108.00 1108.58 1109.18 1109.81 1110.47 1111.15 1111.86 1117.60 1114.10 1117.10 1117.10 1117.85 1118.60 1119.35 1120.00 1120.10 1120.65 1121.30 1121.95 1122.58 1123.10 1126.10 1129.10

E 1049.00

600' V. C.
600' S.D.

+0.44%

+3.00%

+00 Rt Outside
E 1097.60

+00 Lt & Rt Inside
E 1096.44

+00 Lt Outside
E 1095.29

E 1091.80
Not drawn to
proper elevation

+96 Lt Outside
E 1097.19

+00 Lt Outside
E 1097.25

+00 77' Lt.
E = 1097.00

+00 (4 Lines)
E 1099.12

P.V.I. STA. 616+50
ELEV. 1103.60

+04 Lt Inside
E 1104.38

+26 Rt Outside
E 1104.91

+30 Rt Outside
E 1105.01

+96 Rt Inside
E 1103.79

+08 Rt Inside
E 1105.08

+00 Lt Inside
E = 1105.06

+04 30' Rt.
E 8" Class F-4 1097.45

13.5' Lt. Sta. 618+00
Std. No. 8 C.B.
E Grate 1106.83
E 12" Cl. E-1 = 1103.83
E 6" Cl. F-4 = 1104.33

13.5' Rt. Sta. 618+00
Std. No. 8 C.B.
E Grate 1106.83
E 12" Cl. E-1 = 1103.29
E 15" Cl. B-1 = 1103.04
E 6" Cl. F-4 = 1103.79

13.2' Rt. Sta. 618+00
Std. HW-E Endwall
E 15" Cl. F-4 = 1097.70

4 lines 6" I-3 4.30' below E.P.

+00 (4 Lines)
E 1109.80

+00 Lt (2 Lines)
E 1118.28

Rt. Ins. 2.80' below pavt. edge

Rt. Out. 2.80' below pavt. edge

+00 Rt Inside
E 1124.80

+00 Rt Outside
E 1123.62

E 1055.32
Not drawn to
Proper elevation

℄ SURVEY

610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625

1039.4 1038.6 1037.9 1037.1 1036.7 1036.8 1036.9 1038.1 1100.0 1101.8 1102.1 1104.8 1105.6 1107.0 1108.3 1107.0 1107.4 1108.1 1109.9 1108.3 1106.2 1108.5 1109.0 1111.4 1111.5 1108.9 1111.4 1111.6 1109.8 1112.6 1112.7 1114.8 1115.1 1118.0 1119.3 1121.3 1123.9

LEFT EDGE PROFILE GRADE RIGHT EDGE

Conform to Existing Surface
1083.58 1083.46 1083.33
1085.93 1085.73 1085.53
1088.29 1088.00 1087.71
1090.65 1090.27 1089.89
1092.92 1092.54 1092.16
1095.19 1094.81 1094.43
1097.46 1097.08 1096.70

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

1040 1030 1020 1010 1100 1090 1080 1070 1060 1050

+9.08%
50'
Feathering

1058.1 1061.8 1064.7 1069.2 1072.8 1076.0 1079.8 1083.4 1085.9 +86 1090.7 1094.4

C.H. 202 RELOCATION

PROFILES: ℄ SURVEY, STA. 610+00 TO STA. 625+00 AND C.H. 202 RELOC. STA. 23+00 TO STA. 25+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

46/485

Guard Rail Posts
20.0'
27.2'
20.0'
℄ SURVEY I.R.70
Aerial Marker #31
REF. P.O.C. STA. 626+92.11

Jute Matting
Pav't. Removal
Delineators

FOR PAY ITEMS SEE SHT. NO. 54 & 55

12' Asphaltic Surface Road
Sign
R/W
Construction Limits
3' Paved Gutter
8' WIDE SOD
℄ Survey Sta. 627+83.50
℄ Crossover
7.5' Wide
DETAIL "B"
Existing Three Wire Rope Guard Rail
30" RCP
3' Paved Gutter
C.H. 202
10'-6" Cl. A-1
DETAIL "A"
Spring
9' WIDE SOD
7' WIDE DUMPED ROCK Ch. Prot.
15" Tile
6' wide
20' Conc. Pav't.
6" WIDE SOD
L.A.Z.
N.80°26'30"E.
S.79°58'23"E.
C.H. 202 RELOCATION L.A.Z.
CURVE S-2
CURVE S-3
5' WIDE SOD
Match Line Sta. 25+70
P.C.C. STA. 27+88.37
Culvert
Sta. 27+00 0° Skew
55' 21" Cl A-1@ 1.82%
See Sht. No. 426
Asphalt Pav't.
Fr. Shed
Fr. Gar.
15'x 11' Brick Res.
30" R.C.P.
30" C.M.P.
Fr. Gar.
Asphalt Pav't.
Frome School (Abandoned)
24" RCP TO REMAIN AND FUNCTION
Concrete Pav't.
10' Wide
1 Sty. Fr. Res.
4" Paved Gutter
15" Tile
TO REMAIN & FUNCTION
END TAPER 638+52.42
11' Wide
Wooded Area
P.O.C. STA. 37+25.00 ℄ CO. HWY. 202
P.O.T. STA. 12+32.13 CEMETERY RD.
CEMETERY ROAD END WORK STA. 12+24.13
N. 14°11'21"E. 90° TO TANGENT
℄ Construction Limits
S.68°50'39"E.
CURVE S-4
L.A.Z.
40' R
50' R
EXISTING CEMETERY ROAD (TO BE ABANDONED)
GRAVEL SURFACE
Fr. Shed
CEMETERY RD. RELOCATION
N. 73°52'01" E.
FIELD DRIVE
EXISTING CEMETERY ROAD
GROUP OF HEADSTONES
CEMETERY
CEMETERY RD. BEGIN WORK STA. 6+25
P.C.C. STA. 34+41.21
Fairview Corporation Line
FOR PLAN & PROFILE OF CEMETERY RD. RELOCATION~ SEE SHEET NUMBER 337.

NOTE: For U-Turn Median Opening at Sta. 627+83.50 ~ See Sheet No. 434
Note: For Spring Drain Detail See Sheet No. 436

CURVE DATA
CURVE S-2
P.I. = STA. 25+89.85 = 206.23' RT.
℄ SURVEY STA. 625+12.73'
Δc = 24°11'16" RT.
Dc = 06°00'
Rc = 954.93'
Tc = 204.61'
Lc = 403.13'
Ec = 21.68'

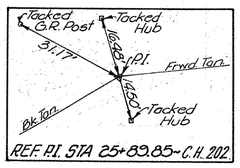
CURVE DATA
℄ SURVEY
P.I. = STA. 632+40.55
Δc = 29°24'29" RT.
Dc = 01°30'31"
Rc = 3797.92'
Lc = 1949.35'
Tc = 996.65'
Ec = 128.60'

CURVE DATA
CURVE S-3
P.I. = STA. 31+18.01 = 128.07' RT.
℄ SURVEY STA. 630+66.07
Δc = 19°35'07" RT.
Dc = 03°00'
Rc = 1909.86'
Tc = 329.64'
Lc = 652.84'
Ec = 28.24'

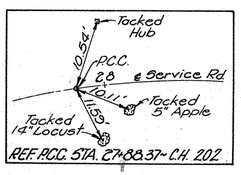
CURVE DATA
CURVE S-4
P.I. = STA. 38+21.80 = 146.21' RT.
℄ SURVEY STA. 638+03.83
Δc = 11°07'44" RT.
Dc = 01°28'
Rc = 3906.53'
Tc = 380.59'
Lc = 758.79'
Ec = 18.50'

BENCH MARK
R.R. Spike in Telephone Pole, 18.5' Rt. Sta. 627+69
Elev. 1135.16

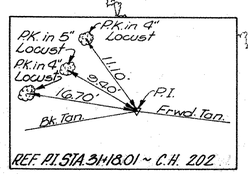
BENCH MARK
X Chiseled on Conc. @ Catch Basin (U.E. 1156/1) 193' Lt. Sta. 635+15. Elev.~1156.07



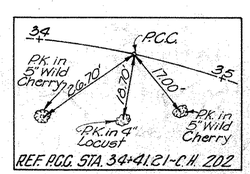
REF. P.I. STA. 25+89.85 ~ C.H. 202



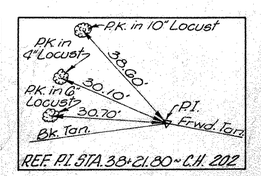
REF. P.C.C. STA. 27+88.37 ~ C.H. 202



REF. P.I. STA. 31+18.01 ~ C.H. 202



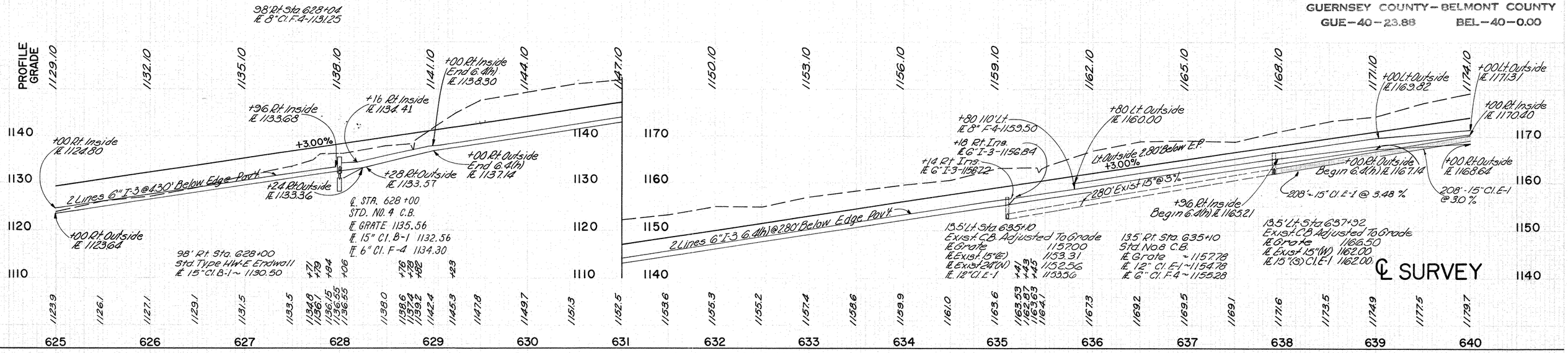
REF. P.C.C. STA. 34+41.21 ~ C.H. 202



REF. P.I. STA. 38+21.80 ~ C.H. 202

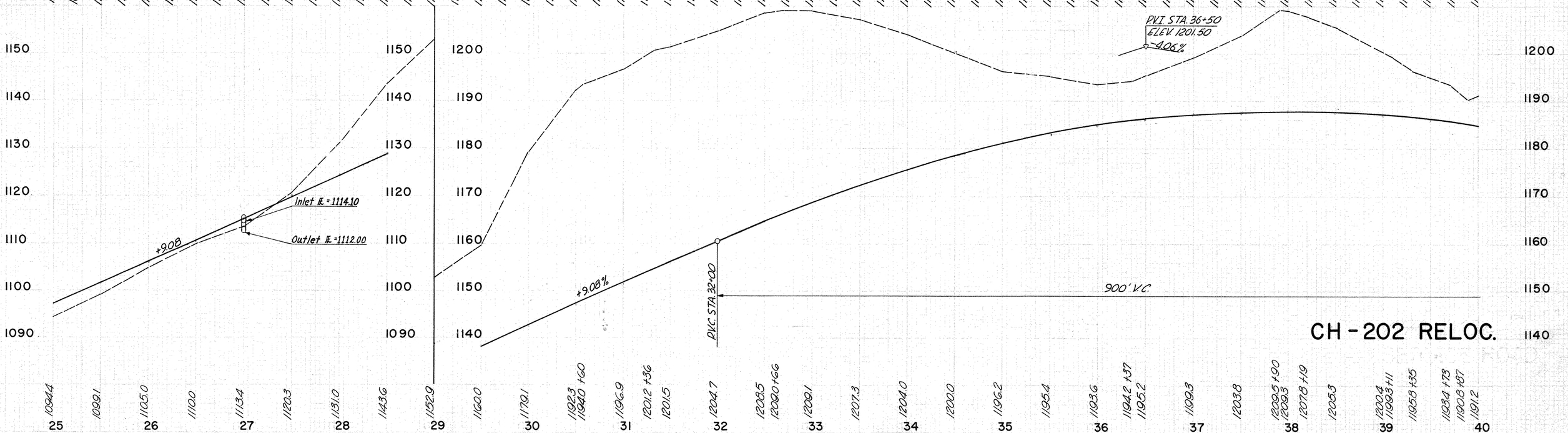
STA. 625+00 TO STA. 640+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640
1123.9	1126.1	1127.1	1129.1	1131.5	1133.5	1134.0 / 1136.1 / 1136.15 / 1136.55 / 1136.65	1138.0	1138.6 / 1137.4 / 1139.2 / 1142.4	1145.3	1147.8	1149.7	1151.3	1152.5	1153.6	1155.3	1155.2	1157.4	1158.6	1159.9	1161.0	1163.6	1163.53 / 1162.87 / 1163.83 / 1164.1	1166.73	1169.2	1169.5	1169.1	1171.6	1173.5	1174.9	1177.5	1179.7

RIGHT EDGE	PROFILE GRADE	LEFT EDGE
1096.70	1097.08	1097.46
1098.97	1099.35	1099.73
1101.24	1101.62	1102.00
1103.51	1103.89	1104.27
1105.78	1106.16	1106.54
1108.05	1108.43	1108.81
1110.32	1110.70	1111.08
1112.59	1112.97	1113.35
1114.86	1115.24	1115.62
1117.13	1117.51	1117.89
1119.40	1119.78	1120.16
1121.67	1122.05	1122.43
1124.03	1124.32	1124.61
1126.40	1126.59	1126.78
1128.67	1128.86	1129.05
1130.94	1131.13	1131.32
1133.21	1133.40	1133.59
1135.48	1135.67	1135.86
1137.75	1137.94	1138.13
1140.02	1140.21	1140.40
1142.29	1142.48	1142.67
1144.56	1144.75	1144.94
1146.83	1147.02	1147.21
1149.10	1149.29	1149.48
1151.37	1151.56	1151.75
1153.64	1153.83	1154.02
1155.91	1156.10	1156.29
1158.18	1158.37	1158.56
1160.45	1160.64	1160.83
1162.67	1162.86	1163.05
1164.80	1164.99	1165.18
1166.83	1167.02	1167.21
1168.77	1168.96	1169.15
1170.61	1170.80	1170.99
1172.36	1172.55	1172.74
1174.01	1174.20	1174.39
1175.57	1175.76	1175.95
1177.03	1177.22	1177.41
1178.46	1178.59	1178.72
1179.73	1179.86	1179.99
1180.91	1181.04	1181.17
1181.99	1182.12	1182.25
1182.98	1183.11	1183.24
1183.87	1184.00	1184.13
1184.67	1184.80	1184.93
1185.37	1185.50	1185.63
1185.98	1186.11	1186.24
1186.49	1186.62	1186.75
1186.91	1187.04	1187.17
1187.23	1187.36	1187.49
1187.46	1187.59	1187.72
1187.59	1187.72	1187.85
1187.63	1187.76	1187.89
1187.57	1187.70	1187.83
1187.42	1187.55	1187.68
1187.17	1187.30	1187.43
1186.83	1186.96	1187.09
1186.39	1186.52	1186.65
1185.86	1185.99	1186.12
1185.23	1185.36	1185.49
1184.51	1184.64	1184.77



25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1084.1	1099.1	1105.0	1110.0	1113.4	1120.3	1131.0	1143.6	1152.9	1160.0	1179.1	1192.3 / 1194.0 +60	1196.9	1201.2 +36	1201.5	1204.7	1208.5 / 1209.0 +66	1209.1	1207.3	1204.0	1200.0	1196.2	1195.4	1193.6	1194.2 +37 / 1195.2	1199.3	1203.8	1209.5 +90 / 1209.3	1207.8 +19	1205.3	1200.4 / 1199.3 +11	1195.8 +35	1193.4 +73 / 1190.8 +87	1191.2

PROFILES: ℄ SURVEY, STA. 625+00 TO STA. 640+00 AND CH-202 RELOC. STA. 25+00 TO STA. 40+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

48
105

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL.–40–0.00

CURVE DATA

P.I. STA. 632+40.55
Δc = 29°24'29" RT.
Dc = 1°30'31"
Rc = 3,797.92'
Lc = 1,949.35'
Tc = 996.65'
Ec = 128.60'

℄ SURVEY I.R.70 — 19.80' Hub, 8.88', 22.71' Hub, Hub — REF. P.O.C. STA. 640+68.03

℄ SURVEY I.R.70 — Guard Rail Posts, 13.46', 32.29', Guard Rail Post — REF. P.T. STA. 641+93.25

Guard Rail Posts, 20.55', 25.60', ℄ SURVEY I.R.70, Hub — REF. P.O.T. STA. 642+11.03

℄ SURVEY I.R.70 — 38.90', 31.73', 37.14', Hub, Hub — REF. P.O.T. STA. 647+96.22

℄ SURVEY I.R.70 — 10.82', 25.31', 40.65', Aerial Marker, Hub, Iron Pin — REF. P.O.C. STA. 650+85.16

U.S.G.S. Marker

1½ Sty. Fr. Res. · 1½ Sty. Fr. Res. · 1½ Sty. Fr. Res. · 2 Sty. Fr. Res. · 2 Sty. Fr. Res. · 1½ Sty. Fr. Res. · Patio · Fr. Gar. · Fr. Gar. · 4" Tile · 12" C.M.P. · D.I. · 12" Tile · 15" Tile · CB · 15" Tile · Stone gutter 15" Tile · 15" Tile · Fr. Filling Station · 130' Lt. M. STA. 648+06.5 = 0+00 ℄ V.F.D. DRIVE · 1 Sty. Fr. Res. · 2 Sty. Fr. Res. · 2 Sty. Fr. Res. · 1 Sty. Brick Home Tele. Co. · Concrete Rd. · NOTE: FOR PROFILE OF DRIVE SEE SHEET NO. 227 · NOTE: FOR TYP. ICAL SEE MISCELLANEOUS DETAIL SEE SHEET NO. 437 · 8" Tile · 4" Tile · 12" C.M.P. 9" C.M.P. · 1 Sty. Fr. · 1½ Sty. Fr. Res. · 1 Sty. Brick Res. · Fairview V.F.D. Fire Dept. · 1+26 MEET EXIST. · 1½ Sty. Fr. Res. · 1½ Sty. Frame Church · 2 Sty. Brick Res. · 1½ Sty. Fr. Res. · 12" C.M.P. · Old Foundation · Fr. Gar. · Fr. Privey · House Trailer · L/A7 · Fr. Privey · 12" C.M.P. · Stone Foundation · 4" Tile · 8" Tile Alley to be abandoned · 12" C.M.P. · P.C. STA. 649+53.15 · P.C.S. STA. 653+52.42

CURVE DATA

P.I. STA. 665+08.86 Bk. 17+66.61 Ahd.
Δc = 44°05'26" LT.
Dc = 1°29'29"
Rc = 3,841.773'
Lc = 2,956.34'
Tc = 1,555.71
Ec = 303.03'

Construction Limits ℄ · 10" Gravel · L/A7 · Oil & Gravel · Phone Booth · PLUG 12" 11' WIDE SOD · 12" Tile · 21" Tile Under · DI · Gravel · To be abandoned · CB · 15" Tile · Plug · 6" Tile · M STA. 648+62.5 135.56 LT. · 12" C.M.P. · REMOVE EX. CONC. TO PAVT. JOINT · C.B. · RAMP "A" · 652.42

640 · 7.5' Wide · 641 · 642 · 643 · 644 ℄ Survey I.R.70 · 645 · S. 69°59'24" E. · 646 · 647 · 648 · 649 · 650 · 651 · 652 · 653 · 654 · 655

P.C. STA. 646+35.65 · M.L. STA. 646+35.65 · 66' R.

CURVE C-1

Plug & Abandoned · Curb Line · 650 · 10-6" Cl. F-4 · RAMP "C" · CURVE C-2 · 655

SPRING ℄ See Note. · 50 Type C-2 · 27" C.M.P. · 1/DR · 1/G · 2/G · 7/D · 1/55 · 4/UD · 5/D · 3/UD · 8/D · 5/UD · 6/UD · A-1

TO BE ABANDONED Gravel · 68°45' TANGENT TO CURVE · TO BE ABANDONED · STA. 41+44 ℄ C.H. 202 RELOC. · STA. 0+00 ℄ 6 RES. DR. · WIDE SOD · P.T. STA. 641+93.25 · L/A7 · 45 · S. 65°50'39" E. · P.O.T. · 5' WIDE SOD · D.R. · 15' Fr. Res. · P.T. STA. 648+35.65 · STA. 52+20 ℄ C.H. 202 Reloc. · STA. 0+00 ℄ RES. DR. · 3" WIDE SOD · P.C. STA. 653+11.64 · P.T. STA. 654+03.93 · L/A7 · CURVE S-5 · 55

CURVE S-4 · 25' R. · 12' · 1½ Sty. Fr. Res. · 25' R. · Garage · Block Gar. · 7/G · 1/DW · Shed · Shed · Shed · R/W ℄ · P.T. STA. 642+00.00 · NOTE: FOR RES. DR. TYPICAL SEE MISCELLANEOUS DETAIL SEE SHEET NO. 437 · NOTE: FOR PROFILE OF RES. DR. RT. STA. 41+44 SEE SHEET NO. 218 · C.H. 202 RELOCATION · 1st. Fr. Storage · Construction Limits · 25' R. · 40' · 12' · 3" WIDE DUMPED ROCK CH. PROT. · Gravel Drive · R/W ℄ · Garage · NOTE: FOR PROFILE OF RES. DR. RT. STA. 52+20 SEE SHEET NO. 328 · NOTE: FOR RES. DR. TYPICAL SEE MISCELLANEOUS DETAIL SEE SHEET NO. 437. · 2/P · Sta. 47+62.50 C.H. 202 RELOCATION ℄ C.H. 295 · C.H. 295 Gravel · Fr. Shed · Well · Barn · 2/DW · 5/G · 6/D

CURVE DATA
CURVE C-1
P.I. STA. 647+35.67
Δc = 03° 00' 00" RT.
Dc = 01°30'00"
Rc = 3819.72'
Lc = 200.00'
Tc = 100.02
Ec = 1.31'

CURVE DATA
CURVE C-2
P.I. STA. 654+92.57
Δc = 12° 36' 49"
Dc = 03° 00' 00"
Rc = 1637.02'
Lc = 360.39'
Tc = 180.93'
Ec = 9.97'

Tacked Hub · 22.00' · P.T. · 48 · 12.00' · 76.10' · P.K. in 4" Elder · P.K. in 3" Elder
REF. P.T. STA. 42+00 ~ C.H. 202

Culvert No. GUE 40-2923
Sta. 644+01 9° R.F. Skew
278' 30" Cl. A-1 @ 8.5%
See Sheet No. 122.

BENCH MARK
R.R. Spike in Guard Rail Post, 3.5' Lt. Sta. 641+84
Elev. 1179.43

Note: For Spring Drain Detail See Sheet No. 436.

Tacked G.R. Post · 34.67' · 48 · 11.02' · P.O.T. · 22.14' · Tacked 'F' Pole
REF. P.O.T. STA. 47+64.01 ~ C.H. 202

BENCH MARK
R.R. Spike in O.P.Co. ℄ # 51A4/28
120.4' Lt. Sta. 647+72.
Elev. ~ 1196.85

FOR PAY ITEMS SEE SHT. NO. 55.

⊗ DELINEATOR
JUTE MATTING

S.W. Corner of Bottom Siding · 51A4 · 40.39' · P.O.T. · 50 · 40.39' · T.V. Antenna Pole
REF. P.O.T. STA. 49+53.29 ~ C.H. 202

N.E. Corner · Tacked 8" Elm · House · 39.39' · 31.21' · S.W. Corner · P.O.T. · 50
REF. P.O.T. STA. 50+36.99 ~ C.H. 202

Tacked Hub · Tacked 20" Apple · P.O.T. · 52 · Tacked Hub
REF. P.O.T. STA. 51+80.43 ~ C.H. 202

BENCH MARK
U.S.G.S. "1238 Steubenville" Town of Fairview, So. Side of Main St. in Horse Block in Front of Church, 325' Lt. Sta. 651+90. Elev. ~ 1237.51

BENCH MARK
Bolt, 1.2' G.R. Post West of Co. Line Sign. 20' Lt. Sta. 651+21 Elev. 1207.85

Tacked Hub · 21.42' · P.O.T. · 52 · Tacked Hub · 40.02' · Tacked 22" Apple
REF. P.O.T. STA. 52+43.35 ~ C.H. 202

Tacked Hub · 42.23' · 15.40' · P.C. · 54 · 15.04' · Tacked Hub
REF. P.C. STA. 53+17.31 ~ C.H. 202

FOR DETAILS OF UNDERDRAIN OUTLETS ~ SEE SHEET NO. 436
FOR C.H. 202 TYPICALS ~ SEE SHEET NO. 8
For Quant this Sheet See Sheet No. 55.
FOR PROFILE OF ℄ SURVEY ~ SEE SHEET NO. 49.
FOR PROFILE OF C.H. 202 RELOC: SEE SHEET NO. 50.
FOR RAMP "A" PAVEMENT DETAILS ~ SEE SHEET NO. 68
FOR RAMP "C" PAVT DETAILS ~ SEE SHEET NO 69

STA. 640+00 TO STA. 655+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

PROFILE GRADE

1174.10 1177.10 1180.00 1181.60 1182.34 1183.07 1183.77 1184.47 1185.14 1185.80 1186.44 1187.07 1187.67 1188.27 1188.84 1189.40 1189.94 1190.47 1190.98 1191.47 1191.94 1192.40 1192.84 1193.27 1193.68 1194.07 1194.44 1194.80 1195.50 1196.90 1198.30 1199.70 1201.10 1202.50 1203.90

Note: All 6" I-3 U.D. are 4.30' Below Pav't Edge from 640+00 to 655+00

P.V.I. STA. 645+50
ELEV. 1190.60

+00 Lt. Outside
E 1171.31

+3.00%

+00 Rt. Outside
E 1175.02

Rt. Inside

Rt. Outside

Lt. Outside

+35.65 Rt. Outside
E 1186.74

Lt. Outside
E 1181.72

+36 Rt. Outside
E 1174.82

+00 Rt. Outside
E 1168.64

110' Rt. Sta 642+00
E 8" C.I. F-4 1173.00

+00 Rt. Inside
E 1170.40

+04 Rt. Ins.
E 6" I-3 = 1170.52

+08 Rt. Ins.
E. 6" I-3 = 1170.64

13.5' Rt. Sta. 640+00
Std. No. 8 C.B.
E. Grate = 1172.48
E. 12" E-1 = 1169.48
E. 6" F-4 = 1169.98
E. 15" C.I. E-1 = 1169.23

13.5' Lt. Sta. 640+00
Std. No. 8 C.B.
E. Grate = 1172.48
E. 15" E-1 = 1169.04
E. 12" E-1 = 1169.21

600' V.C.
600' S.D.

+96 Rt. Inside
E. = 1192.54

+08 Rt. Inside
E. = 1192.66

6" C.I. I-3 Rt. Inside 4.30' Below Edge Pav't

6" C.I. I-3 Lt. Outside 4.30' Below Edge Pav't

74' ~ 15" B-1 @ 1.8%

+52.42 Lt. Outside
E 1191.58

Cont. from Sheet No. 65.

13.5' Rt. Sta. 650+00
Std. No. 8 C.B.
E. Grate 1195.14
E. 15" C.I. E-1 = 1191.35
E. 15" C.I. B-1 = 1191.35
E. 6" C.I. F-4 = 1192.10

63' Lt. Sta. 650+53
Std. No. 6 C.B.
E. Grate = 1196.23
E. 15" B-1 = 1193.23

13.5' Lt. 650+00
Std. No. 8 C.B.
E. Grate = 1195.14
E. 15" E-1 = 1191.89
E. 15" C.I. B-1 = 1191.89

164' Rt. Sta. 650+00
Std. H.W.E. hdwl
E. 15" F-4 = 1173.45

+1.40%

+56 Rt. Outside
E 1197.37

+00 Rt. Outside
E 1200.76

+00 Rt. Inside
E 1199.60

1210 1200 1190 1180 1170 1160 1150 1140 1130 1120 1110 1100 1090 1080 1070 1060

1179.7 1180.6 1181.9 1180.9 +29 1177.2 +40 1177.7 +55 1177.8 +76 1178.2 +82 1178.3 +99 1178.3 +11 1178.1 +23 1177.0 +41 1173.5 1173.5 +99 1174.6 +28 1176.2 +99 1177.0 +99 1179.5 +99 1180.2 +49 1186.0 +99 1189.6 +21 1190.53 +42 1190.64 +57 1190.2 +87 1192.0 +39 1194.7 +99 1200.8 +49 1202.0 1203.0 1203.1 +18 1202.4 1200.1 1199.0 1196.1 +43 1195.5 1191.5 1191.7 1192.6 1194.4 1195.5

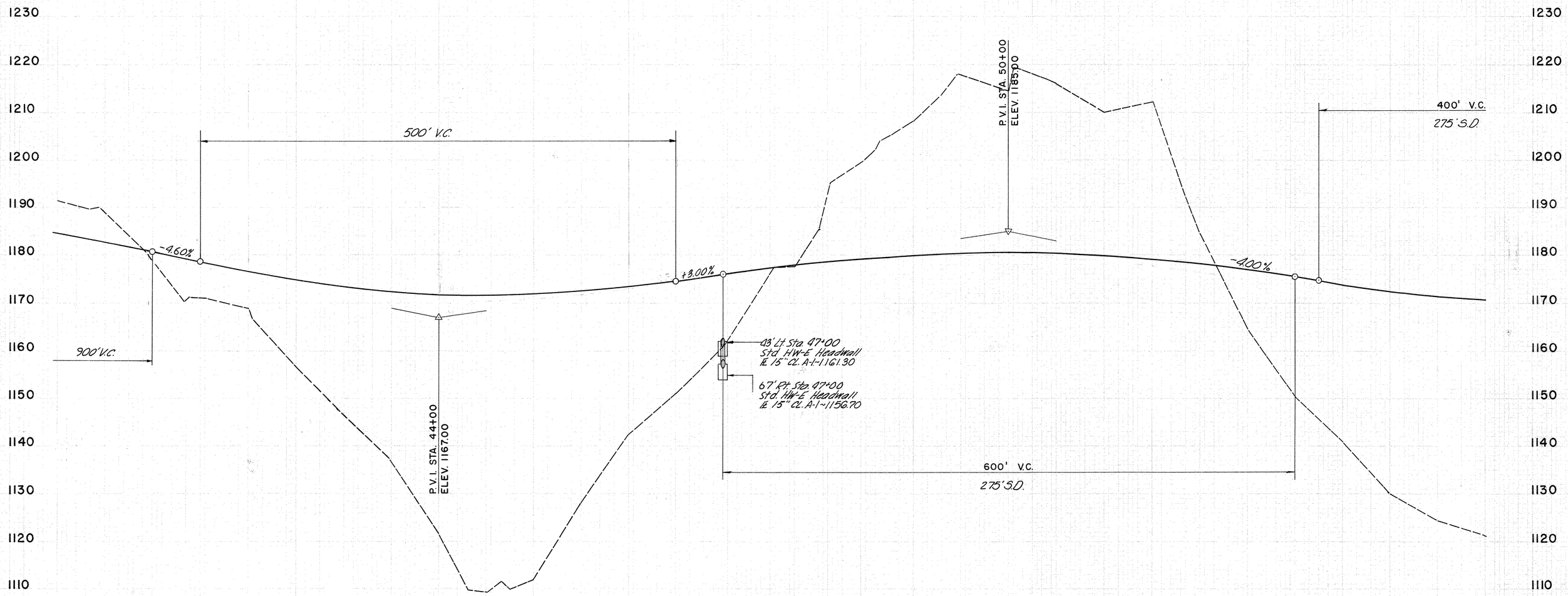
640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655

℄ SURVEY

PROFILE: ℄ SURVEY, STA. 640+00 TO STA. 655+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

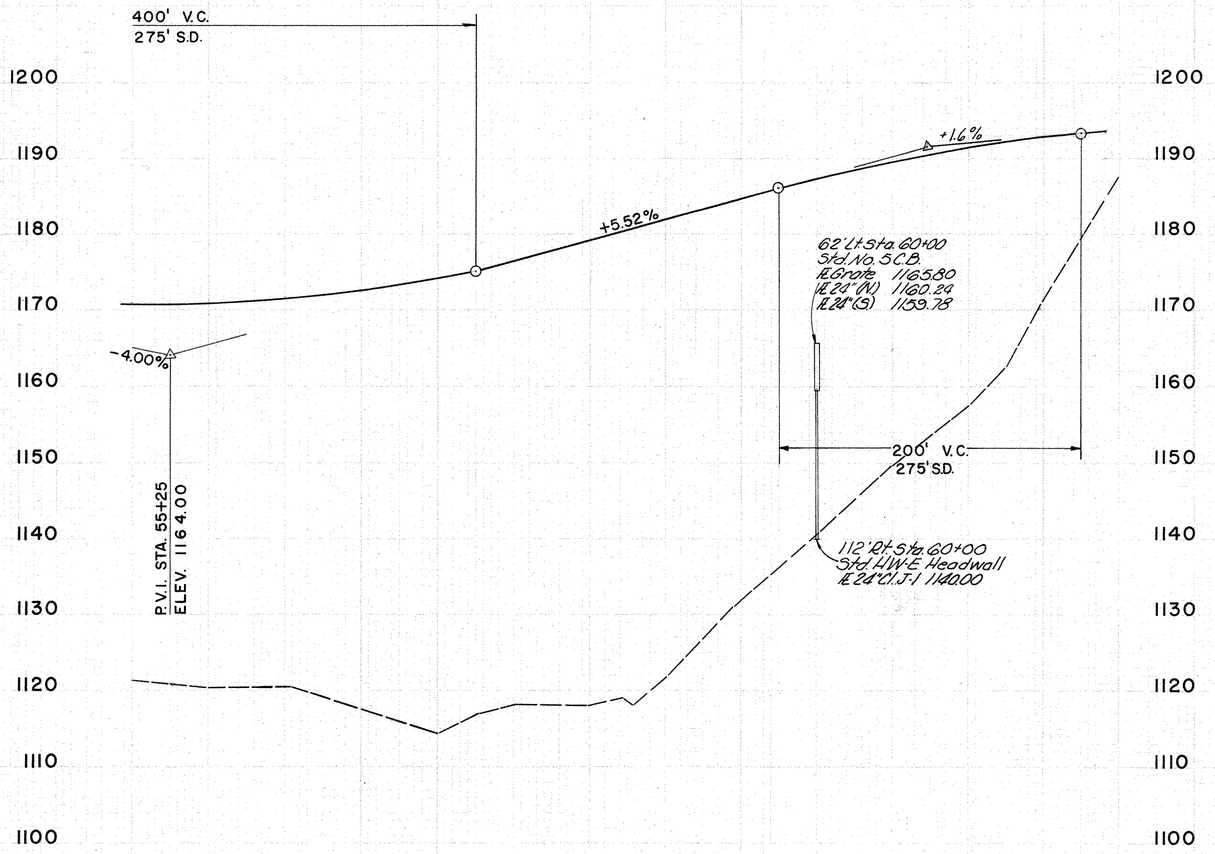
	RIGHT EDGE	PROFILE GRADE	LEFT EDGE
40	1184.51	1184.64	1184.77
	1183.69	1183.82	1183.95
	1182.78	1182.91	1183.04
	1181.77	1181.90	1182.03
	1180.67	1180.80	1180.93
41	1179.52	1179.65	1179.78
	1178.37	1178.50	1178.63
	1177.27	1177.40	1177.53
	1176.25	1176.39	1176.52
	1175.35	1175.48	1175.55
42	1174.53	1174.66	1174.71
	1173.81	1173.94	1173.87
	1173.18	1173.31	1173.18
43	1172.65	1172.78	1172.65
	1172.21	1172.34	1172.21
	1171.87	1172.00	1171.87
44	1171.62	1171.75	1171.62
	1171.47	1171.60	1171.47
	1171.41	1171.54	1171.41
45	1171.45	1171.58	1171.45
	1171.58	1171.71	1171.58
46	1171.81	1171.94	1171.81
	1172.19	1172.26	1172.13
47	1172.55	1172.68	1172.55
	1173.06	1173.19	1173.06
48	1175.87	1176.00	1175.87
	1176.59	1176.72	1176.59
	1177.24	1177.37	1177.24
49	1177.83	1177.96	1177.83
	1178.35	1178.48	1178.35
	1178.81	1178.94	1178.81
50	1179.21	1179.34	1179.21
	1179.54	1179.67	1179.54
	1179.81	1179.94	1179.81
51	1180.01	1180.14	1180.01
	1180.15	1180.28	1180.15
	1180.22	1180.35	1180.22
52	1180.24	1180.37	1180.24
	1180.17	1180.30	1180.17
	1180.06	1180.19	1180.06
53	1179.88	1180.01	1179.88
	1179.64	1179.77	1179.64
	1179.52	1179.45	1179.32
54	1178.95	1179.08	1178.95
	1178.51	1178.64	1178.51
	1178.01	1178.14	1178.01
55	1177.43	1177.57	1177.43
	1176.81	1176.94	1176.87
	1176.12	1176.25	1176.25
	1175.36	1175.49	1175.55
	1174.56	1174.69	1174.82
	1173.77	1173.90	1174.03
	1172.98	1173.11	1173.24
	1172.26	1172.39	1172.52
	1171.66	1171.79	1171.92
	1171.21	1171.34	1171.47
	1170.89	1171.02	1171.15
	1170.72	1170.85	1170.98



| | | |

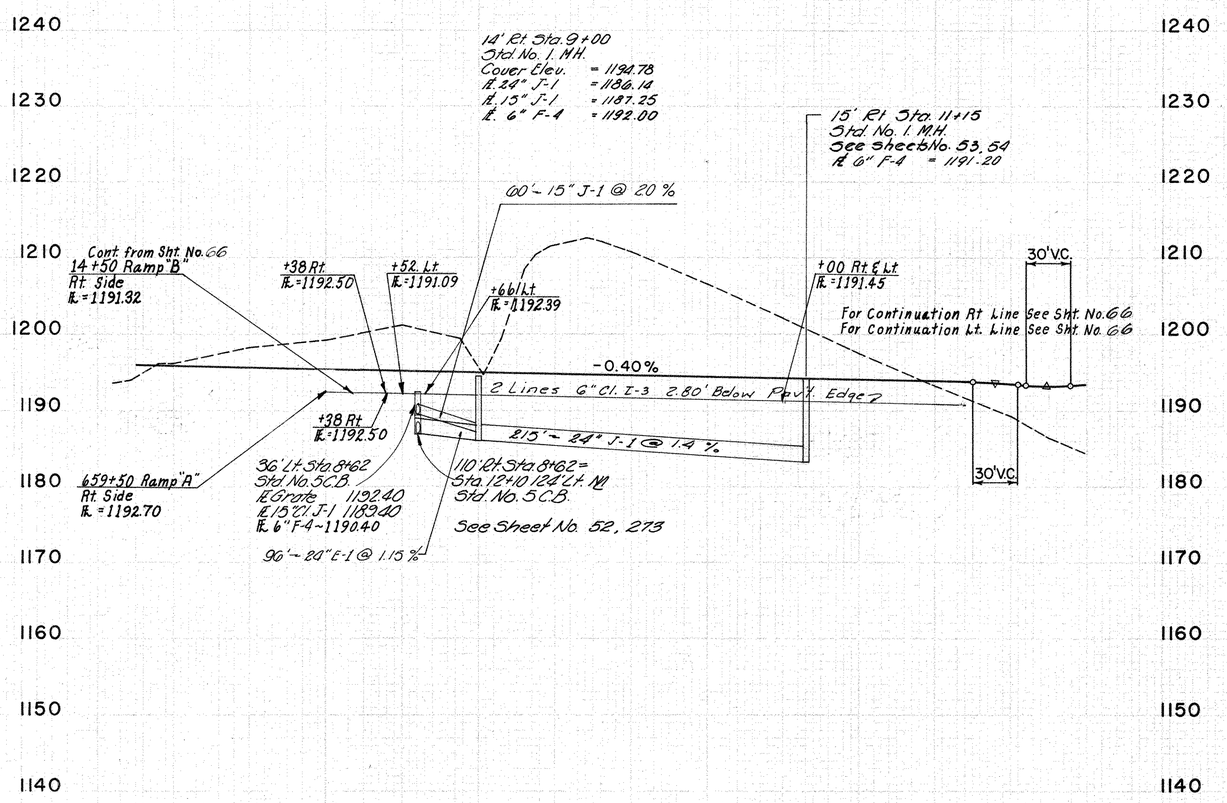
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL.–40–0.00

	LEFT EDGE	PROFILE GRADE	RIGHT EDGE
	1170.72	1170.85	1170.98
	1170.66	1170.79	1170.92
	1170.79	1170.92	1171.05
	1170.97	1171.10	1171.23
	1171.37	1171.50	1171.63
	1171.83	1171.96	1172.09
	1172.47	1172.60	1172.73
	1173.23	1173.36	1173.49
	1174.14	1174.27	1174.40
	1175.18	1175.31	1175.44
	1176.36	1176.49	1176.62
	1177.67	1177.80	1177.93
	1179.05	1179.18	1179.31
	1180.40	1180.56	1180.69
	1181.80	1181.94	1182.08
	1183.17	1183.32	1183.47
	1184.55	1184.70	1184.85
	1185.92	1186.08	1186.24
	1187.24	1187.40	1187.56
	1188.43	1188.59	1188.75
	1189.51	1189.67	1189.83
	1190.46	1190.62	1190.78
	1191.30	1191.45	1191.62
		1192.15	1192.36
		1192.74	1192.95
		1193.20	1193.36
		1193.46	1193.65
+41.51			



C.H. 202 RELOCATION

1121.3	1120.4	1120.5	1117.6	1114.3	1116.8 +24	1118.0	1118.1	1190 +20	1121.8	1132.0	1140.8	1149.4	1157.5	1162.4 +73	1171.4	1184.5 +40
55		56		57		58			59		60			61		



C. H. 114 (NORTH)

1193.6 +60	1194.0 +73	1196.1 +90	1196.1	1198.2	1199.2	1201.1	1199.5 +88	1195.7	1194.8 +03	1199.3 +15	1208.7 +30	1210.2 +37
7				8			9					10

1211.6 +47	1212.0 +59	1212.4 +71	1212.0 +83	1210.8	1206.7	1202.1	1197.6	1193.3	1189.4	1186.6 +75	1184.5 +98
				11			12			13	

PROFILES: C.H. 202 RELOC. STA. 55+00 TO STA. 61+50 AND CO. HWY. 114 (NORTH), STA. 6+97.66 TO STA. 12+97.91

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

52
485

GUERNSEY COUNTY — BELMONT COUNTY

GUE — 40 — 23.88 BEL — 40 — 0.00

FOR DETAILS OF UNDERDRAIN OUTLETS ~ SEE SHEET NO. 436
FOR DETAILS OF DELINEATORS SEE SHEET NO. 440

FOR PAVEMENT DETAILS OF CONNECTION OF CO. HWY. 114 (NORTH), CO. HWY. 40 A, & RAMPS "A" & "B" ~ SEE SHEET NO. 67

FOR PROFILE OF CO. HWY. 114 (NORTH) ~ SEE SHEET NO. 51

FOR CO. HWY. 114 (NORTH) TYPICALS ~ SEE SHEET NO. 7.

FOR RAMP TYPICALS ~ SEE SHEET NO. 7.

FOR PROFILE OF RAMP "A" ~ SEE SHEET NO. 64.

FOR PAVEMENT DETAILS OF RAMP "A" ~ SEE SHEET NO. 67 & 68.

FOR PAY ITEMS SEE SHT. NO. 55 & 56.

FOR PROFILE OF ℄ SURVEY ~ SEE SHEET NO. 53.

FOR PROFILE OF RAMP "C" ~ SEE SHEET NO. 64.

FOR PAVEMENT DETAILS OF RAMP "C" ~ SEE SHEET NO. 69 & 71.

FOR PROFILE OF C.H. 202 RELOC. SEE SHEET NO. 51.

FOR PAVEMENT DETAILS OF CONNECTION OF CO. HWY. 114 (NORTH), C.H. 202 RELOC. & RAMPS "C" & "D" ~ SEE SHEET NO. 71.

FOR TYPICAL SECTIONS FOR C.H. 202 RELOC. ~ SEE SHEET NO. 8.

FOR PROFILE OF RAMP "B" ~ SEE SHEET NO. 65.

FOR RAMP "B" PAVEMENT DETAILS ~ SEE SHEET NO. 67 & 69.

FOR PROFILE OF RAMP "D" ~ SEE SHEET NO. 66.

FOR RAMP "D" PAVEMENT DETAILS ~ SEE SHEET NO. 70 & 71.

FOR BRIDGE SITE PLANS ~ SEE SHEET NO. 448

FOR CO. HWY. 114 RELOCATION PLAN & PROFILE ~ SEE SHEET NO. 340.

FOR GRADING PLANS SEE SHEETS 62 & 63.

For Co. HWY. 114 Relocation Typical Section See Sheet No. 8

CURVE DATA
SPIRAL A-1

θ_a = 4° 27' 46"
D_1 = 1° 32' 14"
D_2 = 6° 00' 00"
R_1 = 3727.00'
R_2 = 954.93'
L_s = 200.00'
T_1 = 119.89'
T_2 = 80.39'
P_a = 1.2971'

CURVE DATA
CURVE 114

P.I. STA. 8+09.85
Δc = 25°40'00" RT.
Dc = 10°00'
Rc = 572.96'
Tc = 130.52'
Lc = 256.67'
Ec = 14.68'

CURVE DATA
℄ SURVEY

P.I. STA. 665+08.86 Bk = STA. 17+66.61 Ahd.
Δc = 44°05'26" LT.
Dc = 1°29'29"
Rc = 3,841.77'
Lc = 2,956.34'
Tc = 1,555.71'
Ec = 303.03'

CURVE DATA
CURVE B

P.I. STA. 24+10.38
Δc = 26° 05' 22" LT.
Dc = 2° 30' 00"
Rc = 2291.83'
Lc = 1043.59'
Tc = 531.00'
Ec = 60.71'

CURVE DATA
CURVE D

P.I. STA. 19+85.70
Δc = 12° 42' 54" LT.
Dc = 3° 00' 00"
Rc = 1909.86'
Lc = 423.83'
Tc = 212.79'
Ec = 11.82'

CURVE DATA
CURVE S-5

P.I. = STA. 57+30.95 = 277.65' RT.
℄ SURVEY STA. 656+82.61
Δc = 12°05'18" LT.
Dc = 01°28'
Rc = 3906.53'
Tc = 413.64'
Lc = 824.20'
Ec = 21.84'

Guard Rail Posts
℄ SURVEY I.R. ⊙
10.16
27.05
10.23
Hub
REF. P.O.C. STA. 10+84.78

BENCH MARK
Spike in ø 289' Lt.
Sta. 12+20
Elev. ~ 1197.45

Note: For C.H. 40A, Resurface Exist. Pvmt. With: 1½" T-35 Surface Course 1½" B-35 Leveling Course T-30 Bituminous Tack Coat Applied at 0.1 Gal. per sq. yd.

P.O.C. Sta. 10+00.00 C.H. 40A = P.O.T. STA. 61+62.00 C.H. 114 (N)

DENOTES 25' FEATHERING

DENOTES SAME TYPE PVMT. CONSTR. AS USED ON C.H. 202 & C.H. 114 RELOCATION. SEE SHEET NO. 67 & 71.

P.O.C. STA. 7+76.51 C.H. 114 (NORTH)
P.O.T. STA. 60+33.86 RAMP A

P.O.T. STA. 13+49.34 RAMP B
P.O.C. STA. 7+83.00 C.H. 114 (NORTH)

P.O.C. STA. 13+25.00 SURVEY ℄
P.O.T. STA. 10+00.00 C.H. 114 (NORTH)

P.O.T. STA. 661+08.38 RAMP C
P.O.T. STA. 11+70.00 C.H. 114 (NORTH)

P.O.T. STA. 12+80.32 RAMP D
P.O.T. STA. 11+70.00 C.H. 114 (NORTH)

P.O.T. STA. 12+97.91 C.H. 114 (N) =
P.O.C. STA. 61+41.53 C.H. 202 RELOCATION BK. =
P.O.C. STA. 61+41.53 C.H. 114 ℄ EQ. AHEAD

Tacked 20" Pine, P.C. 33.98', 49.15', 40.73', Tacked, Tacked 24" Pine
REF. P.C. STA. 6+79.33 ~ C.H. 114 (NORTH)

Tacked 8" Stump, Tacked 7" Plum, 8.00', 4.63', P.I., 10.65', Tacked 12" Stump
REF. P.I. STA. 8+09.95 ~ C.H. 114 (NORTH)

Tacked G.R. Post, 12.91', P.T., 12.13', Tacked G.R. Post, Nail in North Edge Pavement, 10.80'
REF. P.T. STA. 9+36.00 ~ C.H. 114 (N)

Tacked 7" Locust, Tacked 15 28°, Tacked 4" Elm, 11.47', P.O.T., 12.03', 12.15', Tacked 6" Ash
REF. P.O.T. STA. 12+50.05 ~ C.H. 114 (N)

Tacked 5" Locust, P.I., Bk. Tan, Frwd. Tan, Tacked 4" Walnut, Tacked 5" Walnut, 22.24', 14.47', 7.95'
REF. P.I. STA. 57+30.95 ~ C.H. 202

Penny Royal Grange; 1 Sty. Fr. Res.; Garage; Bk. Bldg.; 2½ Sty. Fr. Res.; Fr. Barn; 2 Sty. Fr. Res.; Shed; Privey; Grape Arbor; Barn; 36" M.; 1 Sty. Fr. Res.; Asphalt Surface; Box Culvert; END WORK Sta. 11+25; 30" Spruce; 24" Spruce; 10" Spruce; Stone Walk; 12"; 2 Sty. Fr. Res.; 28" Spruce; Tank; Wall; Fruit Trees; Apple Trees; 20" Apple; 10"; 12"; Billboard; Woods; Fr. Barn; Field Rd.; 1st Fr. Garage; Plug & Abandon 30" C.M.P.; 260' x 30"; 114' x 18"; 108' x 18"; 200' x 18"; 492' x 15"; 712' x 12"; 10'-6" F.A.; C.B.; Fairview Corporation Line; RW; CONSTR. LIMITS; CONSTRUCTION LIMITS; 7' WIDE SOD; RAMP "A"; RAMP "B"; RAMP "C"; RAMP "D"; CURVE A-1; CURVE B; CURVE C-2; CURVE D; CURVE S-5; C.H. 114 RELOCATION; C.H. 202 RELOCATION; CO. HWY. 114 (NORTH); CO. HWY. 40 A; Conc. Walk; Asphalt Surface; BEGIN WORK Sta. 8+55; GUERNSEY CO. STA. 657+41.53 BACK = BELMONT CO. STA. 3+99.42 AHEAD; P.C. STA. 6+79.33; P.C. STA. 18+79.38; P.T. STA. 9+36.00; P.T. STA. 658+61.72; P.T. STA. 656+52.72; P.T. STA. 655+52.42; P.T. STA. 656+52.72; P.C. STA. 17+72.91; P.O.T. STA. 64+97.80; Sta. 58+25 Begin Transition; Sta. 59+25 End Transition; End Typical C.H. 114 (N.); GUERNSEY COUNTY; BELMONT COUNTY; LA

DENOTES PAVEMENT REMOVAL

DENOTES JUTE MATTING 7.5' WIDE

⊗ DELINEATORS

STA. 655+00 TO STA. 20+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

W BOUND PROFILE LANE CON- GRADE FORM TO EXISTING

1203.90 1205.30 1206.70 1207.28 1208.68 1209.04 1209.41 1209.80 1210.21 1210.64 1211.08 1211.54 1212.01 1212.50 1213.01 1213.54 1214.08 1214.64 1215.21 1215.80 1216.41 1217.04 1217.68 1218.34 1219.01 1219.70 1220.41 1221.14 1221.88 1224.88 1226.38 1227.12 1227.85 1228.57 1229.27 1229.96 1230.64

1226.77 1227.42 1228.05 1228.67 1229.27

1240 1230 1220 1210 1200 1190 1180 1170 1160

Rt. Outside E. 1200.76
+00 Rt. Inside E. 1199.60
+1.40%
(2 Lines) 6" I-3 4.30' Below Edge Pav't.

STATION EQUATION:
Sta. 657+41.53 ℄ Survey Guernsey Co. =
Sta. 9+99.42 ℄ Survey Belmont Co.

600' V.C.
600' S.D.
BRIDGE LIMITS
113.5'
+1.40%
(2 Lines) 6" I-3 4.30' Below Edge Pav't.
+65 Rt. Outside E. 1208.22
+65 Rt. Inside E. 1207.06
End Approach Slab Sta. 12+68.25
Begin Approach Slab Sta. 12+43.25
End Approach Slab Sta. 14+06.75
Begin Approach Slab Sta. 13+81.75
+00 Rt. Outside E. 1210.94
+35 Rt. Inside E. 1210.57
℄ Sta. 14+20 Std. No. 8 C.B.
E. Grade 1211.39
E. 12" C.I. E-1 1207.90
E. 15" C.I. B-1 1207.80
F-4 1208.65
+00 90' Rt. E. 8" C.I. F-4 1204.11
P.V.I. STA. 14+00
ELEV. 1212.88
102'-24" C.I. J-1 @ 4.5%
112' Rt. Sta. 12+10 Std. No. 5 C.B. E. Grade 1190.50 E. 24" C.I. J-1 1178.53
115'-24" C.I. J-1 @ 1.97%
115' Rt. Sta. 13+10 Std. No. 1. M.H. Cover Elev. ~ 1193.90 E. 24" C.I. J-1 ~ 1183.13
122' Rt. Sta. 14+20 Std. No. 5 C.B. E. Grade 1190.69 E. 24" C.I. J-1 1185.39 E. 15" C.I. F-4 1186.53 E. 15" C.I. B-1 1186.14 E. 6" F-4 ~ 1186.89
120' x 12" @ 3.9%
72' x 12" @ 1.74%
13.5' Lt. Sta. 16+10 Std. No. 8 C.B. E. Grade 1217.49 E. 12" C.I. E-1 1213.86
13.5' Lt. Sta. 15+40 Std. No. 8 C.B. E. Grade 1215.61 E. 12" C.I. E-1 1212.61
+00 Rt. Inside E. 1219.08
+00 Rt. Outside E. 1220.24
6" C.I. I-3 (2 Lines) 2.80' Below Edge Pav't.
+3.00%
+00 Rt. Outside E. 1229.00
+00 Lt. Out E. 1226.60
+00 Lt. & Rt. Inside E. 1227.84
+50 Lt. Ins. E. 1223.97
+50 Lt. Out E. 1222.70
+50 78' Lt. E. 8" C.I. F-4 1222.50
1900' V.C.
600' S.D.

PROPOSED STRUCTURE
Bridge No. Bel.-40-0005
TYPE: Continuous reinforced concrete slab with reinforced concrete piers and capped pile abutments
SPANS: 34'-6", 43'-0" & 34'-6" ℄ bearings along Reference Chord
ROADWAY: Two at 42'-5" F/F Parapets
LOAD FREQUENCY: CF 2000 (57) adequate for AASHO alternate loading
WEARING SURFACE: 1" Monolithic concrete
SKEW: None
APPROACH SLABS: AS-1-54 (25' long)
ALIGNMENT: 1°-29'-29"
SUPERELEVATION: .048 ft/ft

1100 1090 1080 1070 1060 1050

1955 1960 1956 1940 +24 1886 +32 1940 1937 1960 +18 1980 +22 1973 +38 1974 +07 1992 +95 2023 +95 2083 +70 2098 +95 2112 +25 2122 +75 2123 +95 2120 +26 2178 +25 2210 +95 2225 +95 2249 +95 2286 +56 2299 +95 2327 +95 2352 +45 2348 +95

℄ SURVEY

655 656 657 10 11 12 13 14 15 16 17 18 19 20

PROFILE: ℄ SURVEY, STA. 655+00 TO STA. 20+00

SUB — SUMMARY STA. 610 + 00 TO STA. 20 + 00

FED. RD. DIVISION 2 | STATE OHIO | PROJECT | 54 485

GUERNSEY COUNTY — BELMONT COUNTY

GUE-40-23.88 BEL-40-0.00

SHEET NO.	REF.	STATION	SIDE	L-10 Sodding Sq. Yds.	L-120 Jute Matting Sq. Yds.	E-8 Removal & Disposal of Exist. Paved Gut. Lin. Ft.	E-8 Removal & Disposal of Exist. Pavmt. AS PER PLAN Sq. Yds.	E-12 Pipe Removed 15" & Under Lin. Ft.	E-12 Pipe Removed Over 15" Lin. Ft.	I-2 Masonry Cu. Yds.	I-8 Std. No. 3 Catch Basin Ea.	I-8 Std. No. 4 Catch Basin Ea.	I-8 Catch Basin Adjusted To Grade Ea.	I-9 Stone Under Drains No. 1 as per plan Lin. Ft.	I-15 Guard Rail Std. Type Deep L.F.	I-15 Rem. & Reinst. L.F.	I-15 Rem. Bridge Rail L.F.	I-1 Class B-1 15" L.F.	I-1 Class F-1 12" L.F.	I-1 Class F-1 15" L.F.	I-1 Class F-4 8" L.F.	I-1 Class F-4 6" L.F.	I-1 Class F-4 15" L.F.	I-1 Class F-3 6" L.F.	I-1 Class F-3 6" L.F.	I-5 6" Class F-3 60° Bend Ea.	I-5 6" Class F-3 90° Bend Ea.	I-5 F-4 15" Bend Ea.	SPECIAL Drilled Wells Abandoned Ea.	I-10 Dumped Rock Channel Prot. Cu. Yds.	I-16 Catch Basin Abandoned Ea.
	1UD	610+00~612+96	Lt.																				64c 296	64h						
	2UD	610+00~617+96	Lt.																				796							
	3UD	610+00~617+96	Rt.																				796							
	4UD	610+00~618+26	Rt.																			10	816							
	5UD	613+00~623+00	Lt.																			10	1010			1				
	6UD	618+00~623+00	Lt.																			10	503			1				
	7UD	618+00~625+00	Rt.																			10	697		1					
	8UD	618+04 625+00	Rt.																			10	700		1					
	1SS	618+00	Rt.	4						.26	2							57	27		G3						2		2	
			Lt.																											
	2G	621+50~625+00	Lt.												350															
	3G	610+00~625+00	Rt.												1500															
	4G	610+00~614+75	Lt.													475														
	5G	610+00~614+75	Rt.													475														
	6G	618+45~625+00	Lt.													655														
	7G	621+20~625+00	Lt.													380														
	1DR	611+50~615+00	Lt.			376																								
	2DR	610+00~612+50	Rt.			270																								
	3DR	623+70~625+00	Rt.			130																								
	4DR	613+65	Rt.						8																					
	1R	624+00~625+00	Rt.				222																							
	1SD	619+90	Rt.																									1		
	2D	618+07~619+57	℄		250																									
	3D	622+60~625+00	Rt.																										82	
	5D	23+70~25+70 (C.H. 202)	Rt.	111																										
	6D	616+80	Rt.											3								20								
	7D	610+00~611+07	Lt.		89																									
	2R	618+30~619+15	Rt.				60																							
	3R	610+00~623+00	L&R				3467																							
	1UD	625+00~627+36	Rt.																				296							
	2UD	625+00~628+24	Rt.																			10	314							
	3UD	628+00~635+14	Rt.																			10	114	614	1					
	4UD	628+04~640+00	Rt.																			10	204	1000	1					
	5UD	635+10~640+00	Rt.																			10		488	1					
	6UD	635+80~640+00	Lt.																			10		460		1				
	1SS	635+10	Lt.		250						1		1						27											
	2SS	637+92~640+00	℄		125						2		1						27	208										
	3SS	628+00	℄	4						.26		1						98											2	
	1R	625+00~628+00	Rt.				958																							
	1DR	625+00~626+80	Rt.			180																								
	2DR	626+50~626+80	Rt.					65																						
	3DR	626+80~628+75	Rt.						203																					
	2R	635+50	Lt.				280																							
	3R	628+66~628+78	Lt.				45																							
	4DR	635+45	L&R			25																								
	1G	625+00~628+50	Lt.												350															
	2G	625+00~627+25	Rt.												225															
	3G	31+00-38+00 (C.H. 202)	Lt.												700															
	4G	635+50	L&R												25															
	5G	625+00~628+80	Lt.													380														
	6G	625+00~627+70	Lt.													300														
	7G	625+00~627+70	Rt.														340													
	1D	628+45	Rt.											3								10								
	2D	628+90~629+75	Lt.	77																										
	3D	623+07~629+57	℄		228																									
	4D	625+00~628+00	Rt.																										113	
	5D	628+00~630+50	Rt.	247																										
	6D	25+70-26+00 (C.H. 202)	Rt.	17																										
	7D	27+00-29+00 (C.H. 202)	Lt.	111																										
	TOTAL to GENERAL SUMMARY			571	942	981	4927	105	65	211	0.52	5	1	2	6	3150	2663	340	155	81	208	40	90	63	6542	2562	5	3	2	1	199	2

FED HD DIVISION	STATE	PROJECT	
2	OHIO		

55/485

SUB — SUMMARY STA. 610 + 00 TO STA. 20 + 00

GUERNSEY COUNTY — BELMONT COUNTY

GUE — 40 — 23.88 BEL — 40 — 0.00

SHEET NO.	REF.	STATION	SIDE	B-19	L-10	L-120	E-8		E-12		I-2	I-8			I-9	I-15		B-35	I-30	I-1																						I-5										I-10	I-16	T-30	T-35	I-15
				8" Agg. Base Course	Sodding	Jute Matting	Removal & Disposal of Exist. Paved Gut	Removal & Disposal of Exist. Pavmnt. AS PER PLAN	Pipe Removed 15" & Under	Pipe Removed Over 15"	Masonry	Std. No. 3 Catch Basin	Std. No. 5 Catch Basin	STD. NO. 6 CATCH BASIN	STD. No. 1 M.H.	Stone under-drains	Guard Rail Std. Type	Rem. & Reset	Asph. Conc. Leveling & Wedging	BIT. TACK COAT	Class B-1		J-1	A-1 M (GAB) 12G	J-1 M (GAB)	A-1 M (GAB)	CLB-1 M (GAB)	Class E-1			Class F-1			Class I-3		6" Class B1		6" Class I-3		6" CLB-1	F-4		Dumped Rock Channel Prot.	Catch Basin Abandoned	Bituminous Prime Coat	Asphaltic Concrete Surface Course		GUARD RAIL REMOVED & DISPOSED
															No. 1					6"	15"	24"	24"	24"	15"	24"	24"	12"	15"	8"	6"	15"	6"	6"	90° BEND	TEE	60° BEND	90° BEND	TEE	BEND						TYPE A	of
				Cu. Yds.	Sq. Yds.	Sq. Yds.	Lin. Ft.	Sq. Yds.	Lin. Ft.	Lin. Ft.	Cu. Yds.	Ea.	Ea.	Ea.	Ea.	L.F.	L.F.	L.F.	Cu. Yd.	Gal.							L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	EA.	EA.	EA.	EA.	EA.	EA.		Cu. Yds.	Ea.	Gals.	Cu. Yds.		L.F.
48	7UD	640+00 ~ 654+98	Lt																												498																
46	8D	27+00 - 31+00 (C.H. 202)	Rt.		328																																										
	10D	635+82 ~ 636+00	Lt.		33																																										
46	12D	639+00 ~ 640+00	Lt.		122																																										
48	1DW	41+44 (C.H. 202)	RT	27																																										
	2DW	52+20 (C.H. 202)	RT	29																											60																
	1P	47+50 (C.H. 202)	Rt.	32														7													52												38	5		
	2P	640+50 ~ 649+00	Lt.	38																											34																
	1UD	640+00 ~ 649+96	Rt.																											10	999			1												
	2UD	640+00 ~ 641+96	Rt.																												196																
	3UD	650+00 ~ 655+00	Rt.																											10	498			1												
	4UD	652+00 ~ 652+52 (Ramp C)	Rt.																											10	10	1085				1											
	5UD	652+56 ~ 655+00	Rt.																	22										10		287		1		1											
	6UD	651+56 ~ 655+00 (Ramp C)	Lt.																												346																
	1SS	650+00	℄		4							2		1							166						27			65							2		2						
	1R	647+25 ~ 647+50	Lt.					428																																						
	2R	49+20 ~ 50+04 (C.H. 202)	Rt.							89																																				
	3R	643+30 ~ 644+20	Lt.							49																																				
	1DR	644+05	Rt.								63																																				
	2DR	647+22 ~ 650+85	Lt.						310	72																																		2			
	4R	650+52	Lt.					18																																							
	3DR	650+40	Lt.						30																																						
	4DR	653+50	Lt.						25																																						
	1G	643+00 ~ 647+50														450																																
	2G	42+50 - 47+25 (C.H. 202)	Lt													475																																
	3G	42+00 - 46+50 (C.H. 202)	Rt.													450																																
	4G	650+50 ~ 655+00	Rt.													450																																
	5G	52+40 - 55+00 (C.H. 202)	Rt.													260																																
	6G	640+30 ~ 642+30	Lt.																																													215
	7G	640+00 ~ 641+80	Rt.																																												210
	8G	641+85 ~ 647+36	Lt & Rt.														580																															140
	9G	650+55	LT.													12.5																																
	10G	653+83	LT.													12.5																																
	1D	640+00 ~ 648+00	Lt.		978																																										
	2D	42+00 ~ 45+00 (C.H. 202)	Lt.		200																																									
	3D	640+07 ~ 641+57	℄			250																																									
	4D	47+00 ~ 49+00 (C.H. 202)	Lt.																																										
	5D	52+00 ~ 52+50 (C.H. 202)	Lt		16																																									
	6D	52+50 ~ 55+00 (C.H. 202)	Rt																																											
	7D	47+00 (C.H. 202)	℄								0.52																																				
	8D	650+07 ~ 651+57	℄			250																																									
	9D	643+80	Rt.												3																186																
48	5R	653+70	Lt.					18																																							
52	1UD	655+00 ~ 660+10 (Ramp A)	Lt.																											20	525			2												
	2UD	655+00 ~ 12+65	Rt.																												507																
	3UD	655+00 ~ 12+65	Rt.																												507																
	4UD	655+00 ~ 660+50 (Ramp C)	Lt & Rt.																	22										10		630	2	1													
	5UD	8+00 ~ 11+40 (C.H. 114 N)	Rt.																	23										20		410	1														
	6UD	14+00 ~ 20+15 (Ramp B)	Lt.																	22										10		805	1			1	1									
	7UD	14+20 ~ 20+00	Rt.																											10	280	300			1											
	8UD	14+00 ~ 20+00	Rt.																											10	10	334	300			1										
	9UD	13+00 ~ 19+85 (Ramp D)	Rt.																	22										20		722	2		2											
	10UD	8+80 ~ 11+25 (C.H. 114 N)	Lt.																											10		330			1											
	1P	8+55 ~ 11+25	Lt.																21	60																										21		
	1SS	12+10 ~ 16+10	℄		4						0.41	3	7		2						275	432	174	106		96	192			45											11					
	1R	11+85 ~ 14+07	Lt.					662																																						
	2R	11+50 ~ 13+00	Lt.					440																																						
	3DR	13+00 ~ 14+50	Lt.				150																																							
	1DR	11+95 ~ 20+00	Lt.						539	251																																		3			
	2DR	12+70 ~ 20+00	Lt & Rt.						540	200																																		1			
	1G	10+08 ~ 12+57.3	Lt.													250																															
	2G	655+50 11 ~ 12+57.3	Rt.													450																															
	3G	55+00 (RAMP C) ~ 57+90 (C.H. 202)	Rt.													975																															
	4G	55+00 ~ 61+40 (C.H. 202)	Rt.													640																															
52	5G	13+92.7 ~ 19+94	Lt.													600	125																														
	TOTAL to GENERAL SUMMARY			126	1685	500	150	1530	1744	1444	586	0.93	5	7	1	2	3	4975	705	28	60	111	441	432	174	106	110	96	192	27	40	316	256	7712	2867	6	2	8	12	1	2	91	6	58	26		565

SUB — SUMMARY STA. 610 + 00 TO STA. 20 + 00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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485

GUERNSEY COUNTY — BELMONT COUNTY

GUE — 40 — 23.88 BEL — 40 — 0.00

SHEET NO.	REF.	STATION	SIDE	L-10 SODDING Sq. Yds.	L-120 JUTE MATTING Sq. Yds.	E-8 REMOVAL & DISPOSAL OF EXIST. PAVEMENT Sq. Yds.	I-15 GUARD RAIL STD. TYPE DEEP Lin. Ft.	I-15 GUARD RAIL REMOVE & REBUILT Lin. Ft.	I-1 CLASS B-1 6" L.F.	I-1 CLASS F-4 M-6.4 (c) 8" L.F.	I-1 CL. I-3 M-6.4 (h) 6" L.F.	I-5 6" CL. B-1 90° Bend Tee Eq. Eq.	L-10 SPECIAL SLOPE & BERM PROT. Sq. Yds.	I-15 GUARD RAIL REMOVED & DISPOSED Lin. Ft.
52	6G	13+92.7 ~ 18+94	RT.				500							
	7G	11+08 ~ 12+57.3	RT. & LT.				162.5	✓						
	8G	13+94 ~ 15+51	RT. & LT.				162.5	✓						
	9G	656+00 ~ 12+50	LT.					395						
	10G	655+00 ~ 13+13	LT.					5625						
	11G	9+90 ~ 11+90 C.H.-114	RT.											200
	12G	9+80 ~ 11+18 C.H.-114	LT.											220
52	13G	7+28 ~ 9+00 C.H.-114	RT.											290
52	1D	657+69 ~ 659+19 RAMP-A	LT.		125									
	2D	10+53 ~ 12+03	LT.		125									
	3D	10+53 ~ 12+03	RT.		125									
	4D	658+33 ~ 659+83 RAMP-C	RT.		125									
	5D	15+00 ~ 19+00 RAMP-B	LT.	312										
	6D	12+54	LT. & RT.										108	
	7D	14+00 ~ 15+35 RAMP-B	RT.		125									
	8D	15+52 ~ 17+72	℄		250									
52	9D	13+92 ~ 15+42 RAMP-D	LT.		125									
52	3R	18+50 ~ 20+00	LT.			400								
52	11UD	18+50 ~ 20+00	LT.						30		150	1		
52	12UD	18+50 ~ 20+00	LT.							10	161	1		
TOTAL to GENERAL SUMMARY				312 ✓	1000 ✓	400 ✓	825 ✓	957.5 ✓	30 ✓	10 ✓	311 ✓	1 1 2 ✓	108 ✓	710 ✓

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

FED. DIV. 5 | STATE OHIO | PROJECT | | SHEET 57 TOTAL SHEETS 485

FOR RAMP TYPICALS~ SEE SHEET NO. 7 . FOR DETAILS OF UNDERDRAIN OUTLETS~ SEE SHEET NO. 436

CURVE DATA
P.I. STA. 17+66.61 Ahd • Sta. GC5+08.86 Bk
Δc = 44° 05' 26" Lt.
Dc = 1° 29' 29"
Rc = 3,841.77'
Lc = 2,956.34'
Tc = 1,555.71'
Ec = 303.03'

For Details of Delineators See Sheet No. 440

P.T. STA. 29+22.97 RAMP "B" = 66.00' LT. P.O.C. STA. 29+21.97 & SURVEY

LA

Construction Limits

RAMP "B"

12" R.C.P.

DETAIL "A"

DETAIL "B"

DETAIL "D"

℄ Cumberland Marker

EX. 12" V.S.P.

C.B.

12" R.C.P.

Sod Strip 5' Wide

RAMP "D"

P.T. STA. 21+96.74

P.O.T. STA. 26+00 RAMP "D" = 79.00' RT. P.O.C. STA. 26+00 & SURVEY

FOR RAMP "D" PAVEMENT DETAILS~ SEE SHEET NO. 70 & 71

FOR RAMP "B" PAVEMENT DETAILS~ SEE SHEET NO. 67 & 69

FOR RAMP "D" PROFILE~ SEE SHEET NO. 66.

FOR RAMP "B" PROFILE~ SEE SHEET NO. 65

⊗ DELINEATORS

PAVEMENT REMOVAL

JUTE MATTING 7.5 WIDE

BENCH MARK
□ Cut on Top of Cumberland Marker (159), 75 Lt. Sta. 25+50 Elev. 1248.49

1230.64 1231.30 1231.95 1232.59 1233.22 1233.83 1234.42 1235.01 1235.58 1236.13 1236.68 1237.21 1237.73 1238.23 1238.72 1239.20 1239.66 1240.11 1240.55 1240.98 1241.39 1241.79 1242.17 1242.54 1242.90 1243.24 1243.58 1243.89 1244.20 1244.49 1244.77 1245.03 1245.28 1245.52 1245.75 1245.96 1246.16 1246.34 1246.52 1246.67 1246.82

135' RT. STA. 23+00
STD. NO. 8 C.B.
IE. GRATE ~ 1235.92
IE. 12" CL. E-1 ~ 1233.19
IE. 6" CL. F-4 ~ 1233.69

13.5' LT. STA. 23+00
STD. NO. 8 C.B.
IE. GRATE ~ 1235.92
IE. 12" CL. E-1 ~ 1232.65
IE. 15" CL. B-1 ~ 1232.48
IE. 6" CL. F-4 ~ 1233.15

132' Lt. Sta. 23+00
Std. type HWE-ENDWALL
IE. 15" CL. B-1 ~ 1228.94

P.V.I. STA. 28+00
ELEV. 1254.88

+3.00%

-1.04%

1260
1250
1240
1230

+00 Lt. outs
IE. 6" cl. I-3 1226.60

+00 Lt. & Rt. ins.
IE. 6" cl. I-3 1227.84

+00 Rt outs
IE. 6" cl. I-3 1229.00

RT. OUTS., 2.80' BELOW PAV'T. EDGE

Lt. & Rt. INS., 2.80' BELOW PAV'T. EDGE

LT. OUTS., 2.80' BELOW PAV'T. EDGE

Rt out

+48 LT. OUTS.
IE. 6" CL. I-3 ~ 1232.72

+00 RT. OUTS.
IE. 6" CL. I-3 ~ 1236.09

+72 LT. INS. RAMP "D", IE. 6" CL. I-3 ~ 1237.86

+96 RAMP "D"
IE. 6" CL. I-3 ~ 1241.66

+50 RT. OUTS. (TAPER)
IE. 6" CL. I-3 ~ 1243.60

+00 RT. OUTS. (TAPER)
IE. 6" CL. I-3 ~ 1244.10

+00 LT. INS.
IE. 6" CL. I-3 ~ 1244.02

+00 RT. INS.
IE. 6" CL. I-3 ~ 1242.52

+00 LT. OUTS. (TAPER)
IE. 6" CL. I-3 ~ 1242.28

+96 RT. OUTS.
IE. 6" CL. I-3 ~ 1241.26

+50 LT. & RT. INS.
IE. 6" CL. I-3 ~ 1241.97

LT. & RT. INS., 2.80' BELOW PAV'T. EDGE

LT. OUTS. RAMP "B" (TAPER), 2.80' BELOW PAV'T. EDGE

+19 LT. OUTS.
IE. 6" CL. I-3 ~ 1232.90

+19' ~ 150' LT.
IE. 6" CL. F-4 ~ 1232.00

+00 RT. INS.
IE. 6" CL. I-3 ~ 1234.93

1 LINE 2.80' BELOW LT. EDGE RAMP "D"

1 LINE 2.80' BELOW LT. EDGE RAMP "B"

Ramp "B" 20+15 Lt. Edge
IE. 6" cl. I-3 1219.73

Ramp "D" 19+85 Lt. Edge
IE. 6" cl. I-3 1221.57

1900' V.C.
600' S.D.

1234.8 +95 | 1238.4 +95 | 1240.6 +95 | 1243.9 +95 | 1248.5 +79 | 1247.3 +95 | 1248.6 +06 | 1249.4 +95 | 1251.6 +95 | 1253.2 +95 | 1254.4 +95 | 1255.0 +43 | 1252.5 +95 | 1250.9 +27 | 1246.2 +95

20 21 22 23 24 25 26 27 28 29 30

ESTIMATED QUANTITIES

REF NO	STATION TO STATION	SIDE	I-1 CL. E-1 12" LIN. FT.	I-1 CL. F-4 6" LIN. FT.	I-1 CL. F-4 8" M-6.4(C) 6.4(C)	I-1 CL. I-3 6"	I-5 CL. B-1 6" TEE BEND	I-5 CL. B-1 6" 60° BEND	I-5 CL. I-3 6" 90° BEND	I-5 CL. B-1 6" 90° BEND EACH	I-10 DUMPED ROCK CHANNEL PROT. C.Y.	I-2 MONOLITHIC C.Y.	I-16 CATCH BASINS ABAND'D EA.	I-120 JUTE MATTING S.Y.	I-8 STD. NO. 8 C.B. EACH	I-15 Temp. Ditch Std Type (Ditch) Lin.Ft.	E-12 PIPE REMOVED 15" & UNDER L.F.	E-8 REMOVAL of INDIVIDUAL PAV'T. S.Y.	I-10 SODDING S.Y.
1UD	20+00 ~ 22+96	RT.		296															
2UD	20+00 ~ 22+96	RT.		296															
3UD	19+85 ~ 23+12(Romo)RT.	RT.		387															
4UD	23+00 ~ 30+00	RT.		700		1			3										
5UD	20+00 ~ 22+48	LT.		248															
6UD	20+00 ~ 22+96	LT.		296															
7UD	20+15 ~ 23+11 (Romo)BLT	LT.		296															
8UD	23+00 ~ 30+00	LT.		700															
9UD	23+19 ~ 30+00(Ramp)LT	LT.		703															
10UD																			
1SS	23+00	LT.&RT.																	
1D	23+07 ~ 24+57	Lt.&Rt.																	
2D	21+00 ~ 21+50	Rt.																	
1DR	20+00 ~ 21+50	LT.&RT.																	
2DR	20+00 ~ 24+75	LT.																	
1R	20+00 ~ 30+00	LT.																	
1G	28+50 ~ 30+00	RT.																	

REF NO	STATION TO STATION	SIDE	I-1 CL. E-1 12" LIN. FT.	I-1 CL. B-1 15" LIN. FT.	I-1 CL. B-1 6" LIN. FT.	I-1 CL. F-4 6" LIN. FT.	I-1 CL. F-4 8" M-6.4(C) 6.4(C)	I-1 CL. I-3 6"	I-5 CL. B-1 6" TEE BEND	I-5 CL. B-1 6" 60° BEND	I-5 CL. I-3 6" 90° BEND	I-5 CL. B-1 6" 90° BEND EACH	I-10 DUMPED ROCK CHANNEL PROT. C.Y.	I-2 MONOLITHIC C.Y.	I-16 CATCH BASINS ABAND'D EA.	I-120 JUTE MATTING S.Y.	I-8 STD. NO. 8 C.B. EACH	I-15 Temp. Ditch Std Type (Ditch) Lin.Ft.	E-12 PIPE REMOVED 15" & UNDER L.F.	E-8 REMOVAL of INDIVIDUAL PAV'T. S.Y.	I-10 SODDING S.Y.
1UD	20+00 ~ 22+96	RT.						230													
2UD	20+00 ~ 22+96	RT.						450													
3UD	19+85 ~ 23+12(Romo)RT.	RT.																			
4UD	23+00 ~ 30+00	RT.						2667													
5UD	20+00 ~ 22+48	LT.																			
6UD	20+00 ~ 22+96	LT.																			
7UD	20+15 ~ 23+11 (Romo)BLT	LT.																			
8UD	23+00 ~ 30+00	LT.																			
9UD	23+19 ~ 30+00(Ramp)LT	LT.																			
10UD																					
1SS	23+00	LT.&RT.																			
1D	23+07 ~ 24+57	Lt.&Rt.																			
2D	21+00 ~ 21+50	Rt.																			
1DR	20+00 ~ 21+50	LT.&RT.																			
2DR	20+00 ~ 24+75	LT.																			
1R	20+00 ~ 30+00	LT.																			
1G	28+50 ~ 30+00	RT.																			

REF NO	STATION TO STATION	SIDE	I-1 CL. E-1 12" LIN. FT.	I-1 CL. B-1 15" LIN. FT.	I-1 CL. B-1 6" LIN. FT.	I-1 CL. F-4 6" LIN. FT.	I-1 CL. F-4 8" M-6.4(C) 6.4(C)	I-1 CL. I-3 6"	I-5 CL. B-1 6" TEE BEND	I-5 CL. B-1 6" 60° BEND	I-5 CL. I-3 6" 90° BEND	I-5 CL. B-1 6" 90° BEND EACH	I-10 DUMPED ROCK CHANNEL PROT. C.Y.	I-2 MONOLITHIC C.Y.	I-16 CATCH BASINS ABAND'D EA.	I-120 JUTE MATTING S.Y.	I-8 STD. NO. 8 C.B. EACH	I-15 Temp. Ditch Std Type (Ditch) Lin.Ft.	E-12 PIPE REMOVED 15" & UNDER L.F.	E-8 REMOVAL of INDIVIDUAL PAV'T. S.Y.	I-10 SODDING S.Y.
1UD	20+00 ~ 22+96	RT.																			
2UD	20+00 ~ 22+96	RT.																			
3UD	19+85 ~ 23+12(Romo)RT.	RT.																			
4UD	23+00 ~ 30+00	RT.					

CURVE DATA

P.I. STA. 17+66.61
Δc= 44° 05' 26" Lt.
Dc= 1° 29' 29"
Rc= 3,841.77'
Lc= 2,956.34'
Tc= 1,555.71'
Ec= 303.03'

FOR DETAILS OF UNDERDRAIN OUTLETS ~ SEE SHEET NO. 436

FOR PAVEMENT DETAILS - RAMP "B" ~ SEE SHEET NO. 67-69

EXISTING STRUCTURE BEL-40-0051
TYPE: Continuous steel beams with concrete deck & substructure
SPANS: 40'-50'-40' ℄ bearings.
ROADWAY: 28' with two 1'-9" safety corbs.
LOADING: 5-20-46
SKEW: 20° left forward
SURFACE COURSE: Bituminous.
APPROACH SLABS: AS-1-47 EAS-2-47

N STA. 38+50
245' OFF-SET

Const. Limits

Re-Graded

Type C-2

-50 BEGIN DECELERATION LANE

-100 TAPER

P.T. STA. 31+67.24

CONSTRUCTION LIMITS

Paved Gutter

Detail "D"

18" RCP (Plug & Abandon)

℄ Survey I.R. 70

N65° 55' 10" E

Culvert No. Gue 40-056
Sta 34+09, Skew 8°9" R.F.
94" X 42" CIA-1 @ 3.14%
See Sheet No. 432

END ACCELERATION LANE STA. 38+00

FOR PAVEMENT DETAILS OF RAMP "D" ~ SEE SHEET NO. 70-71

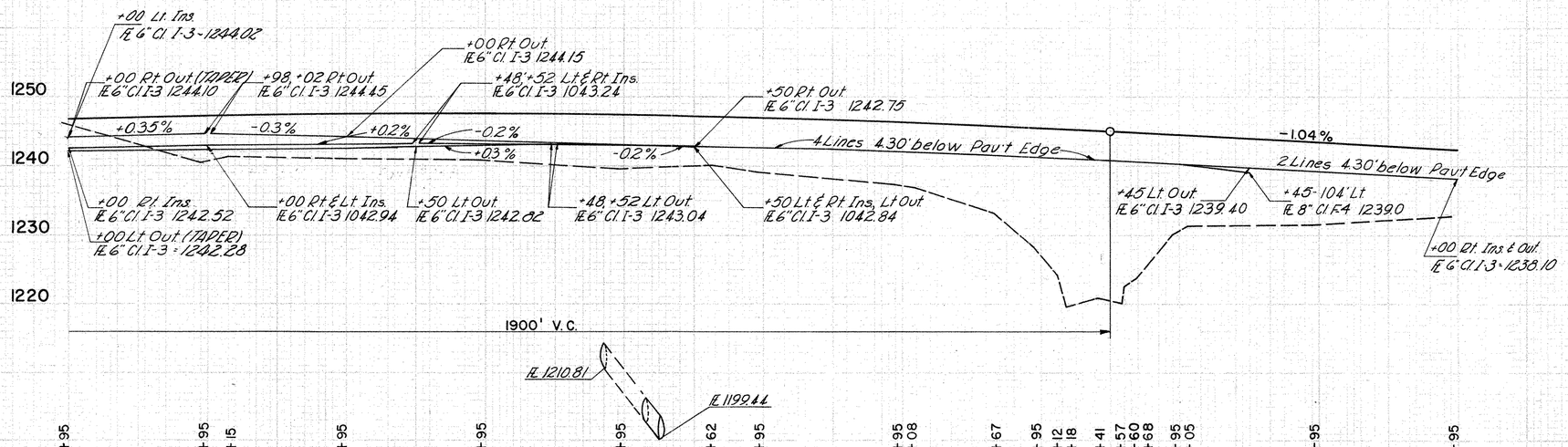
FOR DETAILS OF DELINEATORS SEE SHEET NO. 440

⊗ DELINEATORS
▨ PAVEMENT REMOVAL

BENCH MARK

Chiseled "D" on S.W. Wingwall of Bridge over Co. Rd. 114 21.6' Lt. Sta. 36+79.4. Elev. ~ 1246.04

1246.82 1246.95 1247.01 1247.18 1247.27 1247.35 1247.41 1247.46 1247.50 1247.53 1247.54 1247.54 1247.53 1247.50 1247.46 1247.40 1247.34 1247.26 1247.16 1247.06 1246.94 1246.80 1246.65 1246.49 1246.32 1246.13 1245.93 1245.72 1245.49 1245.25 1245.00 1244.48 1243.44 1242.40



1246.2 +95 | 1240.5 +95 | 1241.4 +15 | 1241.0 +95 | 1240.9 +95 | 1239.6 +95 | 1240.1 +62 | 1239.2 +95 | 1237.3 +95 | 1236.9 +08 | 1233.2 +67 | 1228.4 +95 | 1224.1 +12 | 1219.7 +18 | 1220.9 +41 | 1220.1 +57 | 1222.5 +60 | 1222.8 +68 | 1230.1 +95 | 1231.4 +05 | 1231.6 +95 | 1232.9 +95

30 31 32 33 34 35 36 37 38 39 40

STA. 30+00 TO STA. 40+00

ESTIMATED QUANTITIES

| REF NO | STATION TO STATION | SIDE | | |

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

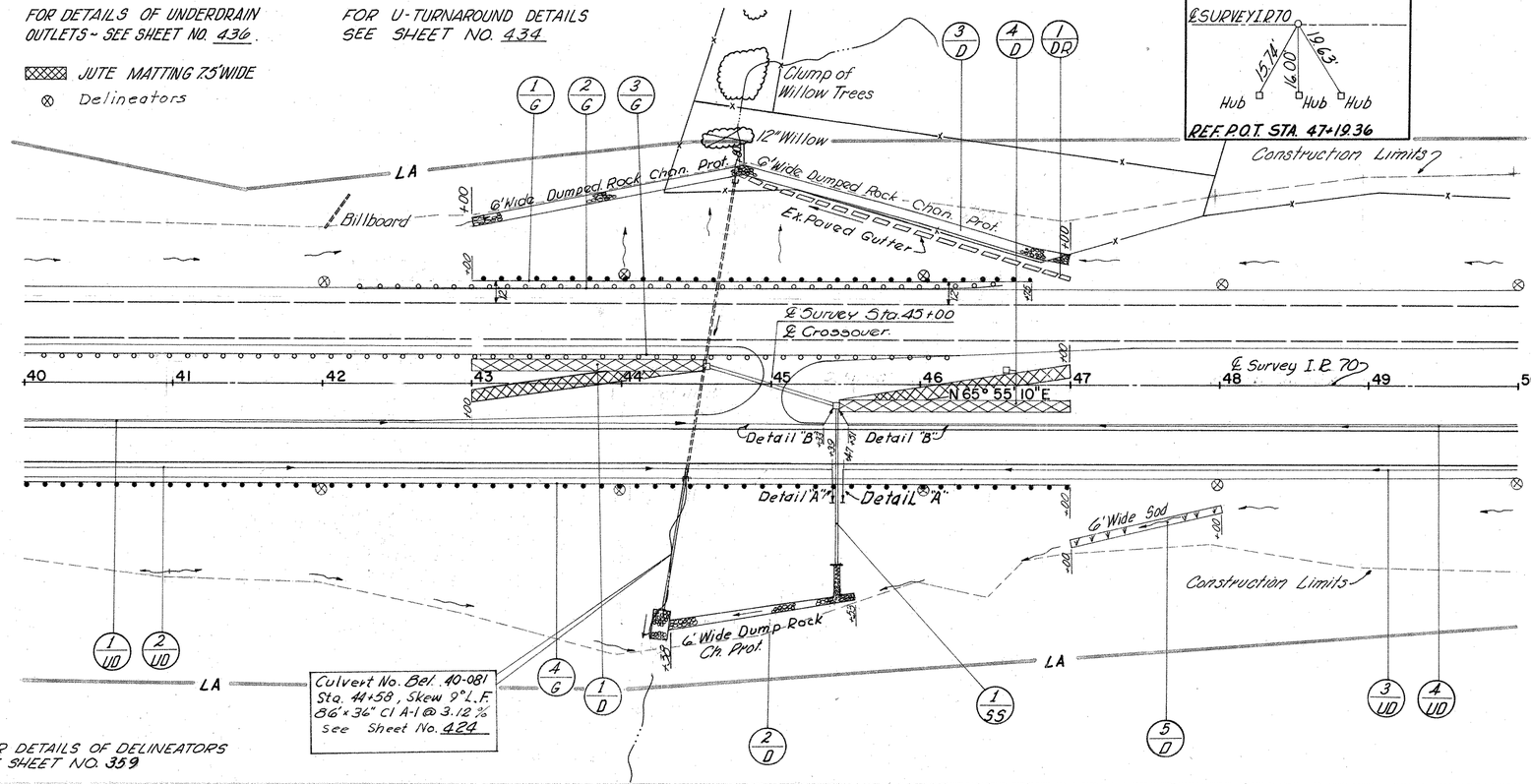
FED. ROAD NO. | STATE | PROJECT | | SHEET NO. 59 / TOTAL SHEETS 485
2 | OHIO

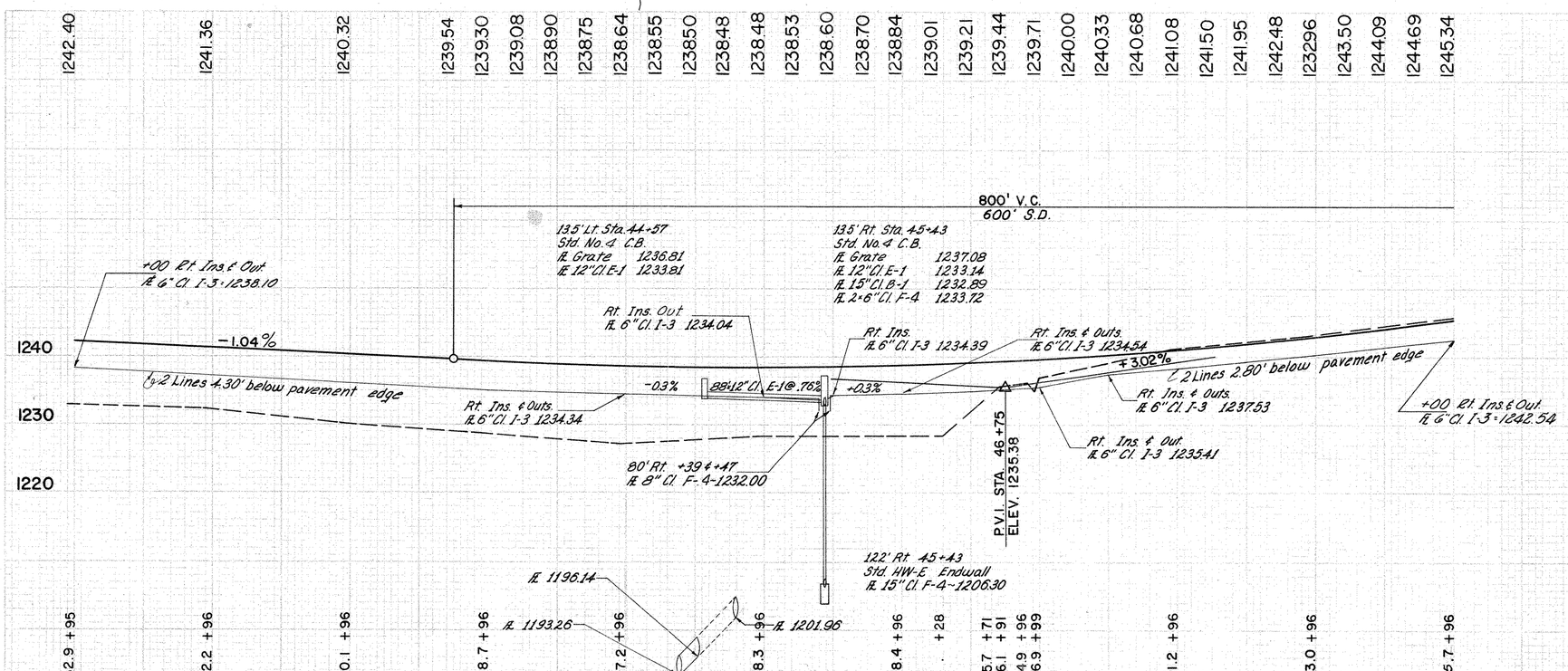
FOR DETAILS OF UNDERDRAIN OUTLETS - SEE SHEET NO. 436

FOR U-TURNAROUND DETAILS SEE SHEET NO. 434

JUTE MATTING 7.5' WIDE

⊗ Delineators





	1242.40	1241.36	1240.32	1239.54	1239.30	1239.08	1238.90	1238.75	1238.64	1238.55	1238.50	1238.48	1238.48	1238.53	1238.60	1238.70	1238.84	1239.01	1239.21	1239.44	1239.71	1240.00	1240.33	1240.68	1241.08	1241.50	1241.95	1242.48	1243.96	1243.50	1244.09	1244.69	1245.34
	1232.9 + 95	1232.2 + 96	1230.1 + 96	1228.7 + 96	1228.3 + 96	1227.2 + 96	1228.4 + 96	122 . + 28	1235.7 + 71	1236.1 + 91	1234.9 + 96	1236.9 + 99	1241.2 + 96	1243.0 + 96	1245.7 + 96
	40	41	42	43	44	45	46	47	48	49	50

ESTIMATED QUANTITIES

REF NO.	STATION TO STATION	SIDE	I-1 CI. F-4 Welded 8" LF	I-1 CI. F-4 Welded 6" LF	I-1 CI. F-4 Welded 12" LF	I-5 CI. B-1 15" LF	I-5 GUARD RAIL STD. TYPE DEEP LF	I-5 REMOVED & REBUILT GUARD RAIL LF	I-8 STD. NO. 4 C.B. EA	I-10 DUMPED ROCK Ch. Prot. 18" Thick CU. YD.	I-10 DUMPED ROCK Ch. Prot. CU. YD.	I-120 JUTE MATTING SQ. YD.	E-3 CONCRETE DITCH OR GUTTER LF
1UD	40+00 ~ 45+43	RT.	10										
2UD	40+00 ~ 45+39	RT.		10									
3UD	45+47 ~ 50+00	RT.		10									
4UD	45+43 ~ 50+00	RT.			10								
1SS	44+57 ~ 45+43	RT.		66	88	38		4	2	17	43		
1D	43+00 ~ 44+50	LT.										228	
2D	44+38 ~ 45+53	RT.											
3D	43+00 ~ 47+00	LT.										228	
4D	45+50 ~ 47+00	RT.											
5D	47+00 ~ 48+00	RT.										70	
1G	43+00 ~ 46+75	LT.					375						
2G	42+25 ~ 46+50	LT.					425						
3G	40+00 ~ 46+25	LT.					625						
4G	40+00 ~ 47+00	RT.					700						
1DR	43+00 ~ 47+00	LT.											235
			10	66	88	38	1525	4	2	17	43	456	235
			10	500	88	58	1050	72	2	1777	133	456	235
			20	2	20	2	2	2	4	0.26			

* TOTALS TO SHEET 43

STA. 40+00 TO STA. 50+00

FOR DETAILS OF UNDERDRAIN OUTLETS – SEE SHEET NO. 436
⊗ Delineators
JUTE MATTING
Pavt. Removal

Hub Hub 42" Oak Stump-tacked
11.46' 13.34'
℄ SURVEY I.R. 70
REF. P.O.S.T. STA. 53+08.92

FOR DETAILS OF DELINEATORS SEE SHEET NO. 440

CURVE DATA
P.I. STA. 65+75.66
Δc = 30° 06' 17" Rt.
Dc = 1° 12' 38"
Rc = 4,732.65'
Lc = 2,486.66'
Tc = 1,272.75'
Ec = 168.15

NOTE: The Typical Section for the Temporary Cross-over is as follows: 24' wide pavement (T-70 9" thick, 3' wide earth shoulders, fill slopes 1½:1)

Gar. 15'x Fr. Res
Gravel Dr.
Chicken House
Frame Barn
Milk House
25'x Fr. Res
Sign
Construction Limits
LA
4' Paved Gutter
12" C.M.P.
To Be Abandoned
I-70-7(12)-193 I-70-8(6).202
6' Sod
FACI SIGN
Ex. 15" R.C.P.
60" Walnut
60" Stump
N 65° 55' 10" E
75' WIDE
℄ I.R. 702
Dc = 14°
Detail "A"
Detail "B"
P.T. STA. 60+00
P.C. STA. 53+02.91
6' Wide Dumped Rock Ch. Prot.
Sodding 9' Wide
S. L. M.
0.95
CULVERT NO. BEL-40-0107
STA. 55+98.50, SKEW 13°30' LT.
106'-24" CI. A-1 @ 6.07 %
SEE SHEET NO. 425

BENCH MARK
Spike in N. Side 48" Oak Tree
6.9' Lt. Sta. 52+65.2
Elev. ~ 1253.17

TYPICAL SECTION
EXISTING U.S.R. 40
12' ℄ 12'
9" 7-71

NOTE: TYPICAL SECTION FOR ADJOINING PROJECT, SAME AS ON THIS PROJECT – SEE SHEET NO. 6.

END PROJECT & END WORK-BEL–40–00.00 STA. 60+00.00

1245.34 1246.01 1246.73 1247.46 1248.22 1251.24 1254.26 1257.28 1260.30 1263.32 1266.34 1267.85 1268.59 1269.33 1270.05 1270.76 1271.44 1272.12 1272.78 1273.43 1274.06 1274.69

NOTE: The time and necessity for the construction of this Cross-over shall be determined by the Engineer. The quantities for the Temporary Cross-over may be non-performed all or in part.

13.5' Lt. Sta. 54+00
Std. No. 8 CB.
IE Grate 1255.16
IE 12" Cl E-1 1252.16

13.5' Rt. Sta. 54+00
Std. No. 8 CB.
IE Grate 1255.53
IE 12" Cl E-1 1251.89
IE 15" Cl B-1 1251.64
IE 6" Cl F-4 1252.63

+00 Rt. inside
IE 6" Cl I-3 1270.39

+50 Rt. inside
IE 6" Cl I-3 1254.36

+3.02%

1 line – 4.30' below pavt. edge

+00 Rt. outside
IE 6" Cl I-3 1269.43

800' V.C.
600' S.D.

Rt. ins. & out.
IE 6" Cl I-3 1242.54

2 lines – 2.80' below pavt. edge

+00 Rt. outside
IE 6" Cl I-3 1246.80

+00 Lt. inside
IE 6" Cl I-3 1246.67

+50 Rt. outside
IE 6" Cl I-3 1247.92

+50 Rt. inside
IE 6" Cl I-3 1248.32

+00 72' Rt.
IE 8" Cl F-4 1251.00

1500' V.C.
600' S.D.

148' Rt. Sta. 54+00
Std. HW-E Endwall
IE 15" Cl F-4 1215.50

IE 1226.85

IE 1205.85

1270
1260
1250
1240

1248.7 +96 | 1247.7 +96 | 1248.6 +56 | 1248.3 +96 | 1249.8 +96 | 1252.3 +66 | 1250.7 +96 | 1247.6 +96 | 1252.8 +96 | 1257.0 +96 | 1260.8 +96 | 1264.4 +96 | 1272.5 +96

50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60

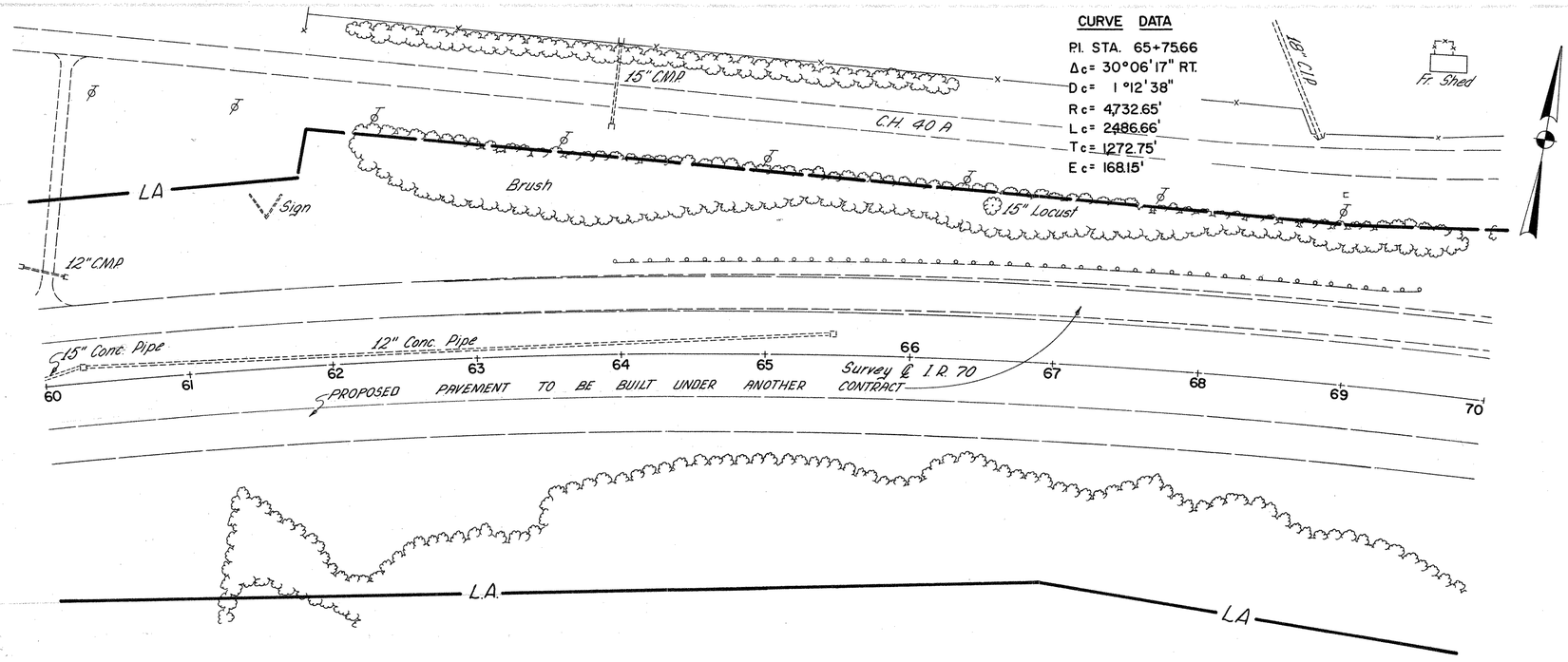
QUANTITIES

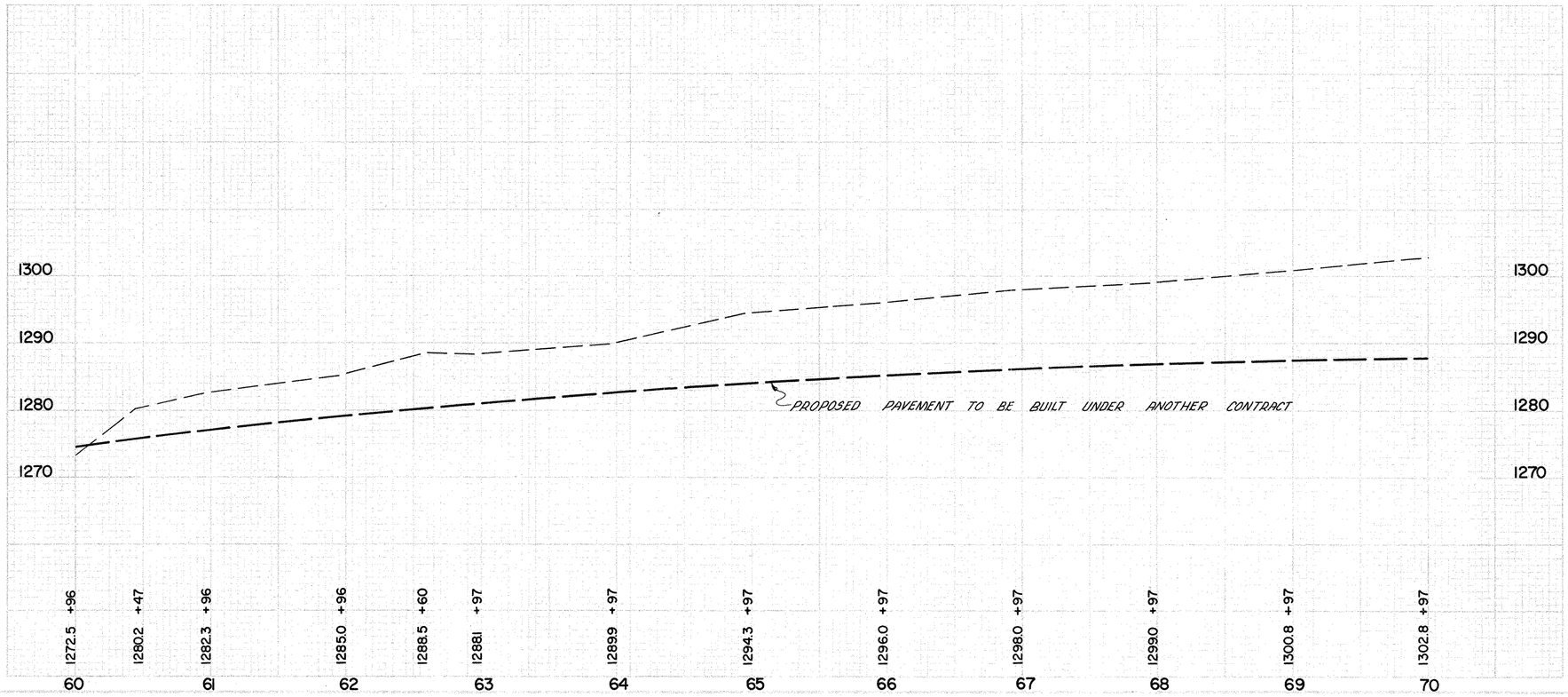
| ITEM | | |

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.68 BEL – 40 – 0.00

DIV. OF HIGHWAYS DIVISION	STATE	PROJECT		SHEET NO.
2	OHIO			61
				TOTAL SHEETS 485





ESTIMATED QUANTITIES

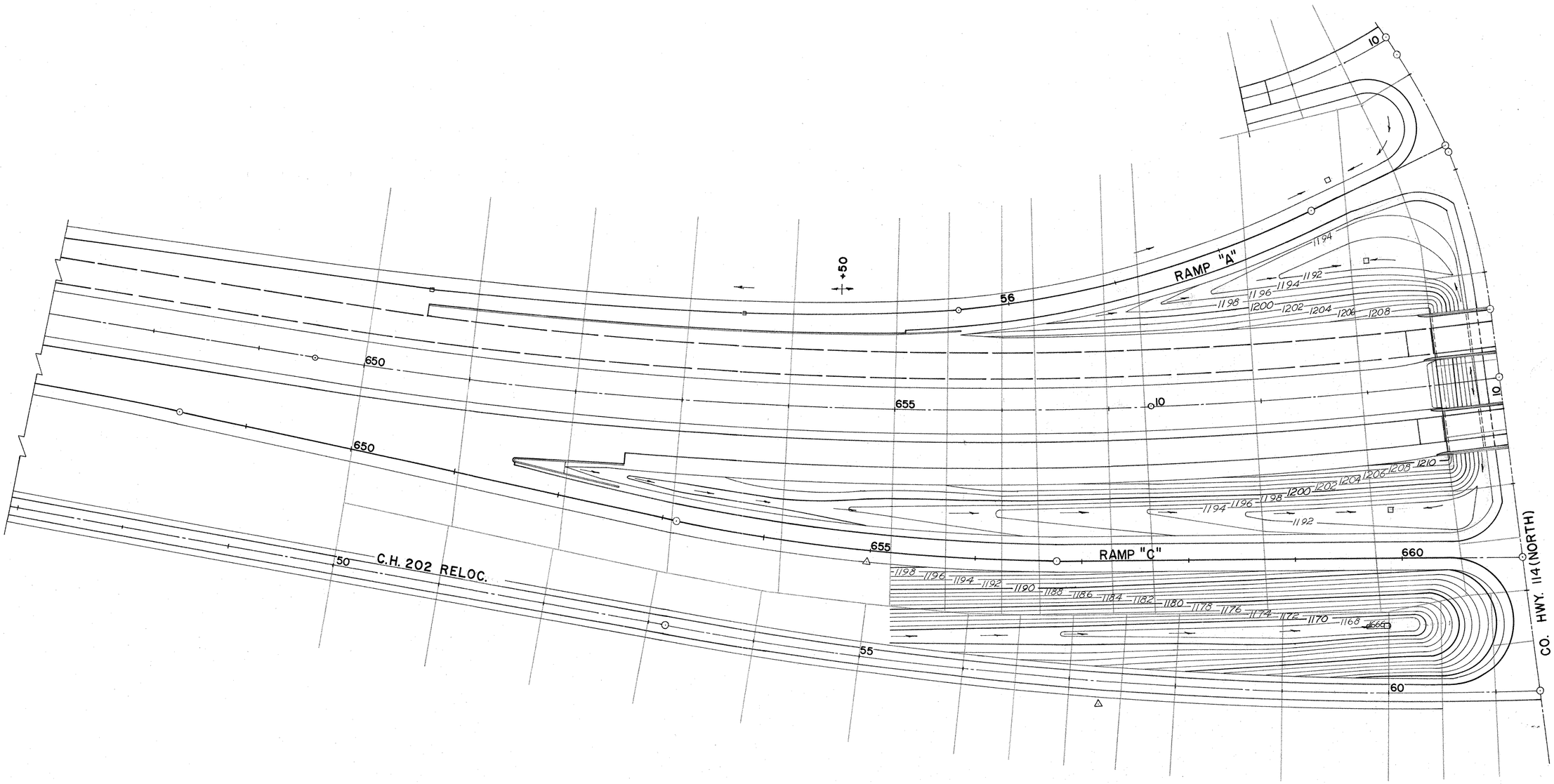
REF. NO.	STATION TO STATION	SIDE	ITEM	UNIT	QUANTITY

STA. 60+00 TO STA. 70+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

62
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

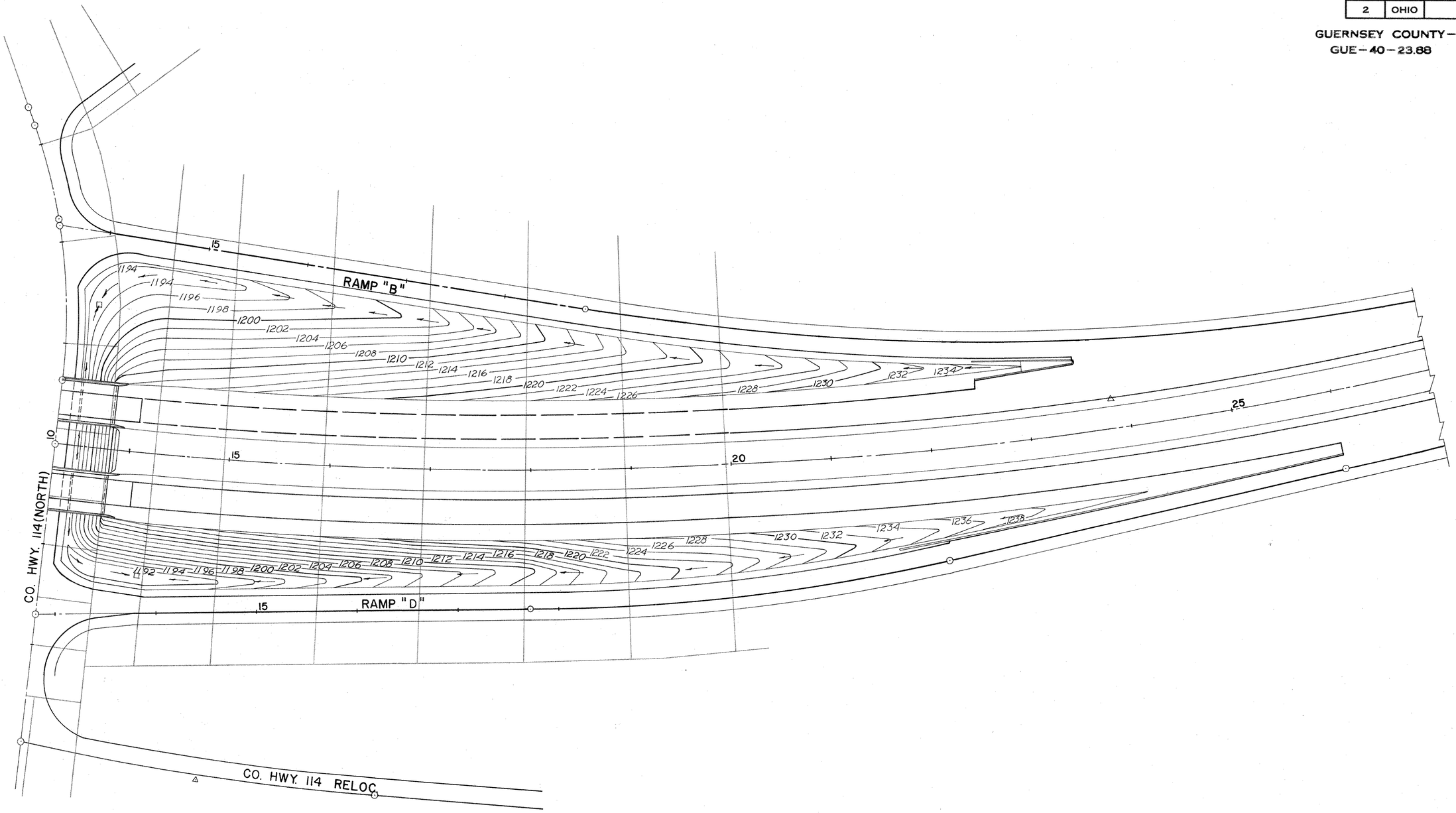


MATCHLINE DIAGRAM & GRADING PLAN RAMPS "A" & "C" AND C.H. 202 RELOC. FAIRVIEW INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

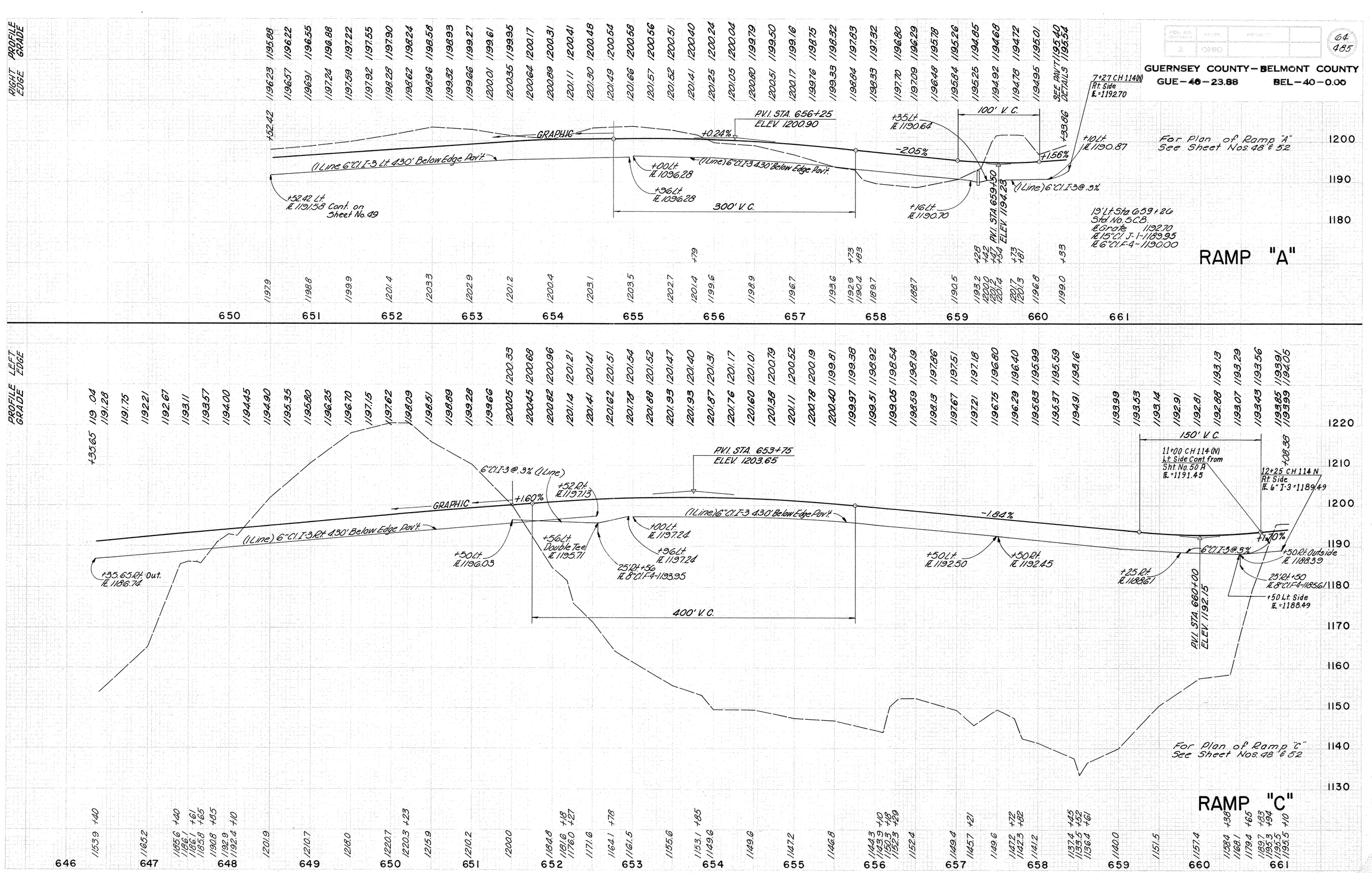
63
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



MATCHLINE DIAGRAM AND GRADING PLAN RAMPS "B" & "D" AND CO. HWY. 114 RELOC. FAIRVIEW INTERCHANGE

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 46 – 23.88 BEL – 40 – 0.00



PROFILES: RAMP "A", STA. 650+52.42 TO STA. 660+33.86 & RAMP "C", STA. 646+35.65 TO STA. 661+08.38

FED. OR STATE DIVISION | STATE | PROJECT
2 | OHIO |

65
485

GUERNSEY COUNTY — BELMONT COUNTY
GUE — 40 — 23.88 BEL — 40 — 0.00

LEFT EDGE
PROFILE GRADE
RIGHT EDGE

RIGHT EDGE	PROFILE GRADE	LEFT EDGE
1201.48	1201.04	1200.48
+80.15 1200.42	1200.00	1199.40
1193.33	1199.00	1198.40
1196.98	1196.30	1195.90
1194.38	1193.80	1193.20
1191.97	1191.30	1190.50
1189.84	1189.04	1188.24
1188.63	1187.93	1187.23
1188.03	1187.03	1186.43

25' Feathering
Graphic Grade
25' Feathering
Beam Work Sta 8+35
End Work Sta 11+25

1220
1210
1200
1190

CO. HWY. 40 A

3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

RIGHT EDGE	PROFILE GRADE	LEFT EDGE
+49.34	1195.52	1194.73
+20.37	1194.41	1194.34
	1194.12	1194.12
+20.37	1194.32	1194.74
	1194.85	1195.57
	1196.52	1197.71
+20.37	1198.85	1203.63
	1209.63	1214.13
	1214.39	1215.63
	1215.92	1217.13
	1217.45	1218.63
	1219.00	1220.13
	1220.53	1221.63
+12.00	1222.05	1222.35
	1222.77	1223.12
	1223.54	1224.55
	1224.97	1225.90
	1226.32	1227.19
	1227.61	1228.40
	1228.82	1229.54
	1229.96	1230.61
PVI. STA. 21+87	1231.03	1231.10
ELEV. 1232.85	1231.52	1231.61
	1232.03	1232.54
	1232.96	1233.39
	1233.81	1234.18
	1234.60	1234.69
	1235.34	1235.53
	1236.03	1236.10
+62.00	1236.65	1236.35
	1236.92	1236.61
	1237.10	1237.59
	1237.59	1238.06
	1238.53	1239.00
	1239.42	1239.84
	1230.23	1230.67
	1231.11	1232.52
	1231.91	1232.27
	1232.60	1233.89
	1233.16	1233.38
	1233.76	1234.00
	1234.22	1234.42
+22.97	1234.59	

1250
1240
1230
1220
1210
1200
1190

GRAPHIC
+2.00%
+6.00%
Ramp "B" +15 Lt. Edge
El. 6" Cl. I-3 1219.73
For Continuation of Underdrains, See Sheet No. 57
For Plan of Ramp "B" See Sheet Nos. 52 & 57
36' Lt. Sta 8+62 C.H. 114-
70' Rt. Sta. 10+00
Std. No. 5 C.B.
El. Grate 1192.45
El. 15" CI. I-1 1189.40
El. 6" CI. I-4 1189.88
7+27 C.H. 114 (N)
Lt. Side
El. = 1192.70
PVC. STA. 14+2.03
200' V.C.
PVT. STA. 16+20.37
(1 Line) 6" CI. I-3 Lt 2.80' Below Edge Pav't
PVC. STA. 20+12
PVT. STA. 23+62
350' V.C.
(1 Line) 6" CI. I-3 @ 3%
+00 Lt. El. = 1191.57
+50 Rt. El. = 1191.32
+50 Lt. El. = 1191.42
For Cont. See Sht. No. 52
PVI. STA. 15+20.37
ELEV. 1192.85

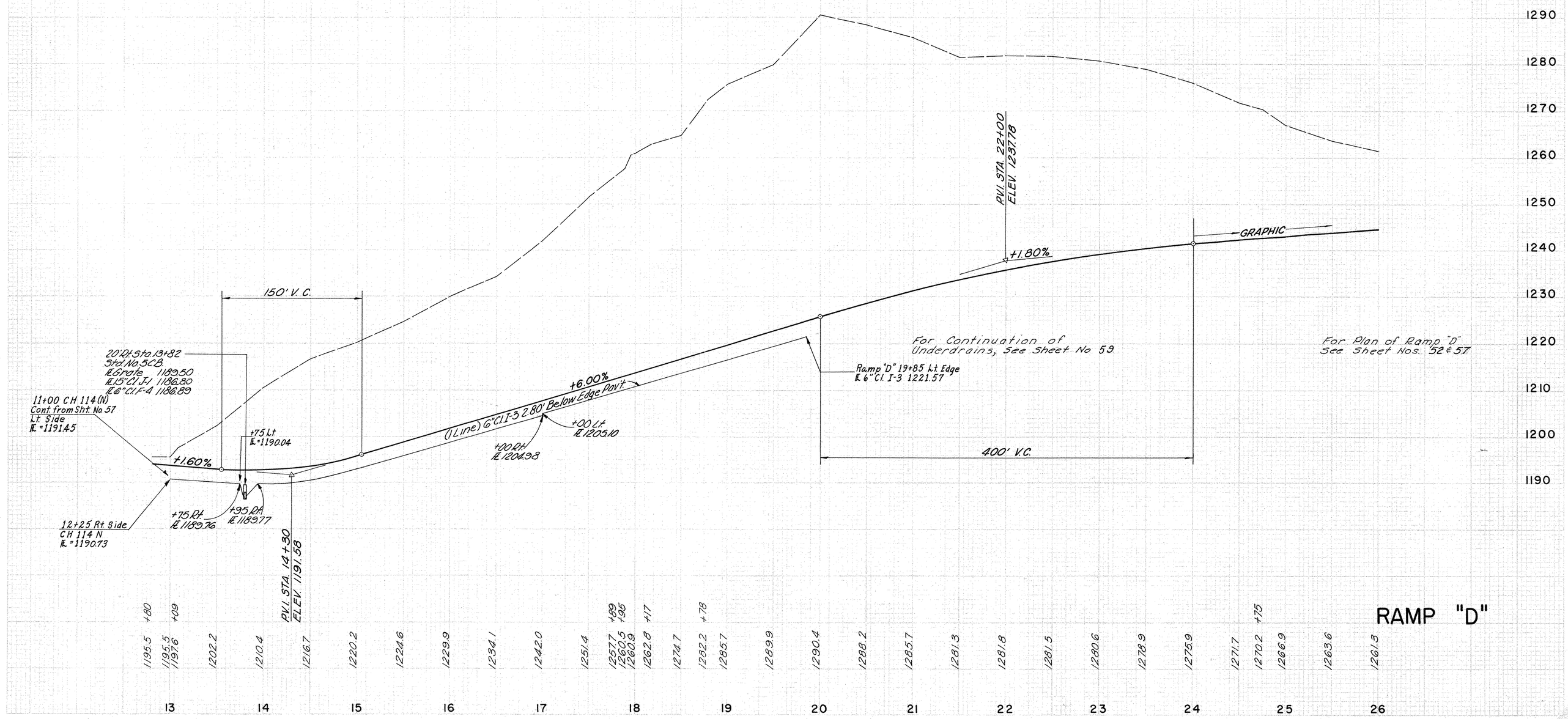
RAMP "B"

1199.1	1202.5	1205.1	1206.1	1210.6	1214.7	1217.4	1219.9	1222.5	1225.8	1227.2	1229.0	1230.5	1230.7	1231.2	1230.2	1229.7	1228.9	1231.2	1232.9	1234.7	1237.5	1241.6	1246.1	1247.1	1246.6	1246.5	1246.1	1245.3	1244.7	1245.6	1246.5	1247.2	1247.8	1248.2	1248.4
		+37	+58														+23											+64						+20
14				15			16			17		18		19		20		21		22		23		24		25		26		27		28		29	

PROFILES: CO. HWY. 40 A, STA. 8+85 TO STA. 11+25 & RAMP "B", STA. 13+49.34 TO STA. 29+22.97

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

PROFILE GRADE		1193.97	1193.66		1192.78	1192.56	1192.57	1192.90	1193.00	1193.55	1194.51	1195.79	1196.08	1201.78	1206.28	1207.78	1209.28	1210.78	1212.28	1213.78	1215.28	1216.78	1218.28	1219.78	1221.28	1222.78	1223.77	1225.78	1227.25	1228.65	1229.98	1231.25	1232.46	1233.60	1234.67	1235.68	1236.62	1237.50	1238.31	1239.05	1239.73	1240.35	1240.90	1241.38	1241.80	1242.22	1242.61	1243.02	1243.40	1243.78	1244.13	1244.46
LEFT EDGE																																																			
	+80.32				+55				+30				+05																																							



		1195.5	1195.5	1197.6		1202.2		1210.4			1216.7		1220.2		1224.6		1229.9		1234.1		1242.0		1251.4		1257.7	1260.5	1260.9	1262.0	1264.7	1282.2	1285.7		1289.9		1290.4		1288.2		1285.7		1281.3		1281.8		1281.5		1280.6		1278.9		1275.9		1271.7	1270.2	1266.9		1263.6		1261.3
		+80	+09																						+89	+95	+17		+78																					+75					
		13				14							15				16				17				18						19				20				21				22				23				24				25				26	

RAMP "D"

PROFILE: RAMP "D", STA. 12+80.32 TO STA. 26+00

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

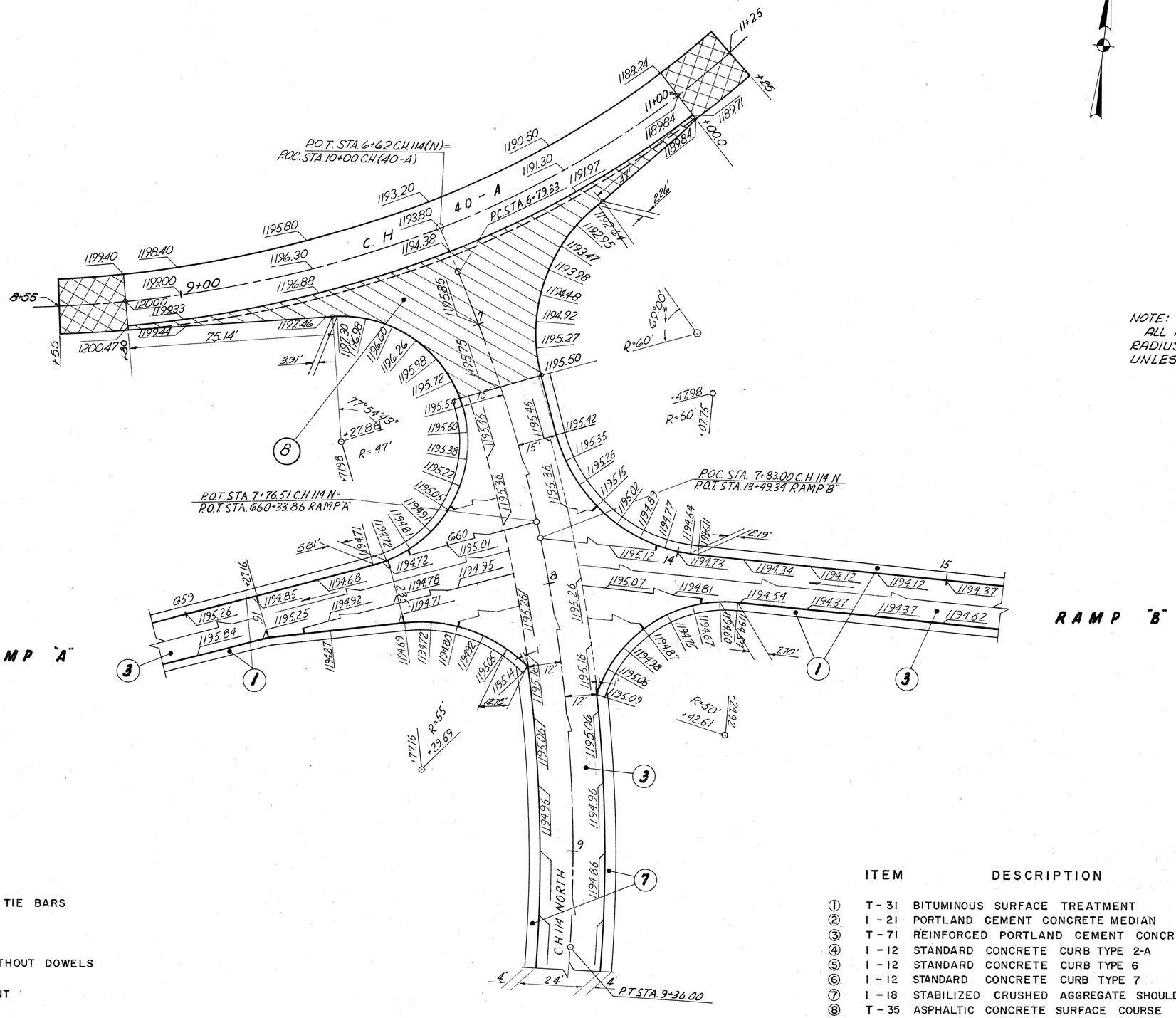
GT 485

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00

Denotes Feathering

Denotes same type pav't composition as Relocated C.H. 114 See Sheet No. 8



NOTE:
ALL PAVEMENT ELEVATIONS ON RADIUS RETURNS ARE AT 10' INTERVALS, UNLESS OTHERWISE SHOWN.

LEGEND

- STANDARD KEY JOINT WITHOUT TIE BARS
- STANDARD LONGITUDINAL JOINT
- STANDARD EXPANSION JOINT
- STANDARD KEY JOINT
- STANDARD EXPANSION JOINT WITHOUT DOWELS
- STANDARD CONTRACTION JOINT
- STANDARD EXPANSION BOLT JOINT

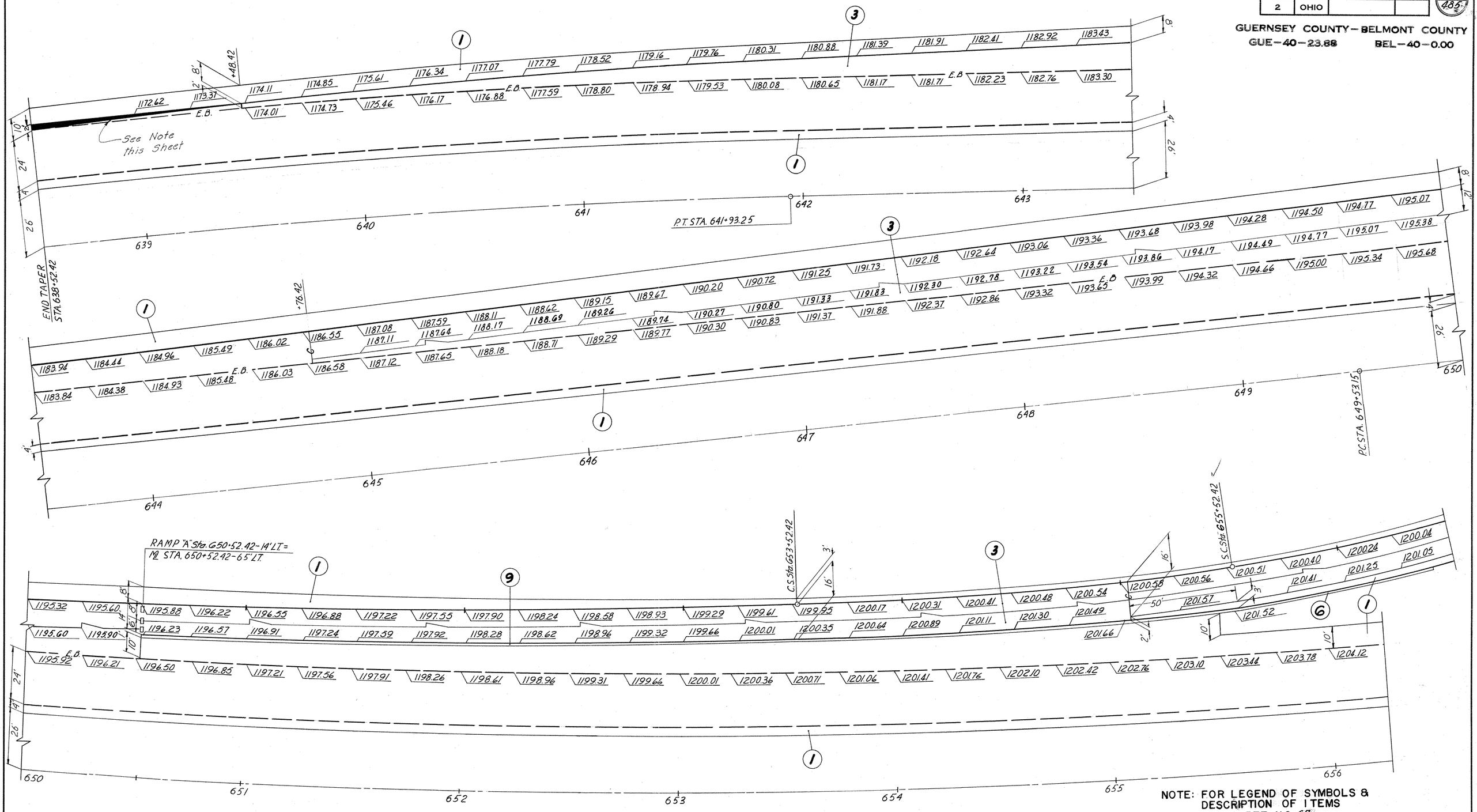
ITEM	DESCRIPTION
①	T – 31 BITUMINOUS SURFACE TREATMENT
②	I – 21 PORTLAND CEMENT CONCRETE MEDIAN
③	T – 71 REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
④	I – 12 STANDARD CONCRETE CURB TYPE 2-A
⑤	I – 12 STANDARD CONCRETE CURB TYPE 6
⑥	I – 12 STANDARD CONCRETE CURB TYPE 7
⑦	I – 18 STABILIZED CRUSHED AGGREGATE SHOULDERS
⑧	T – 35 ASPHALTIC CONCRETE SURFACE COURSE
⑨	I – 12 STANDARD CONCRETE CURB TYPE 8

PAVEMENT DETAILS RAMPS "A" & "B" FAIRVIEW INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

68
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



NOTE: FOR LEGEND OF SYMBOLS & DESCRIPTION OF ITEMS SEE SHEET NO. 67

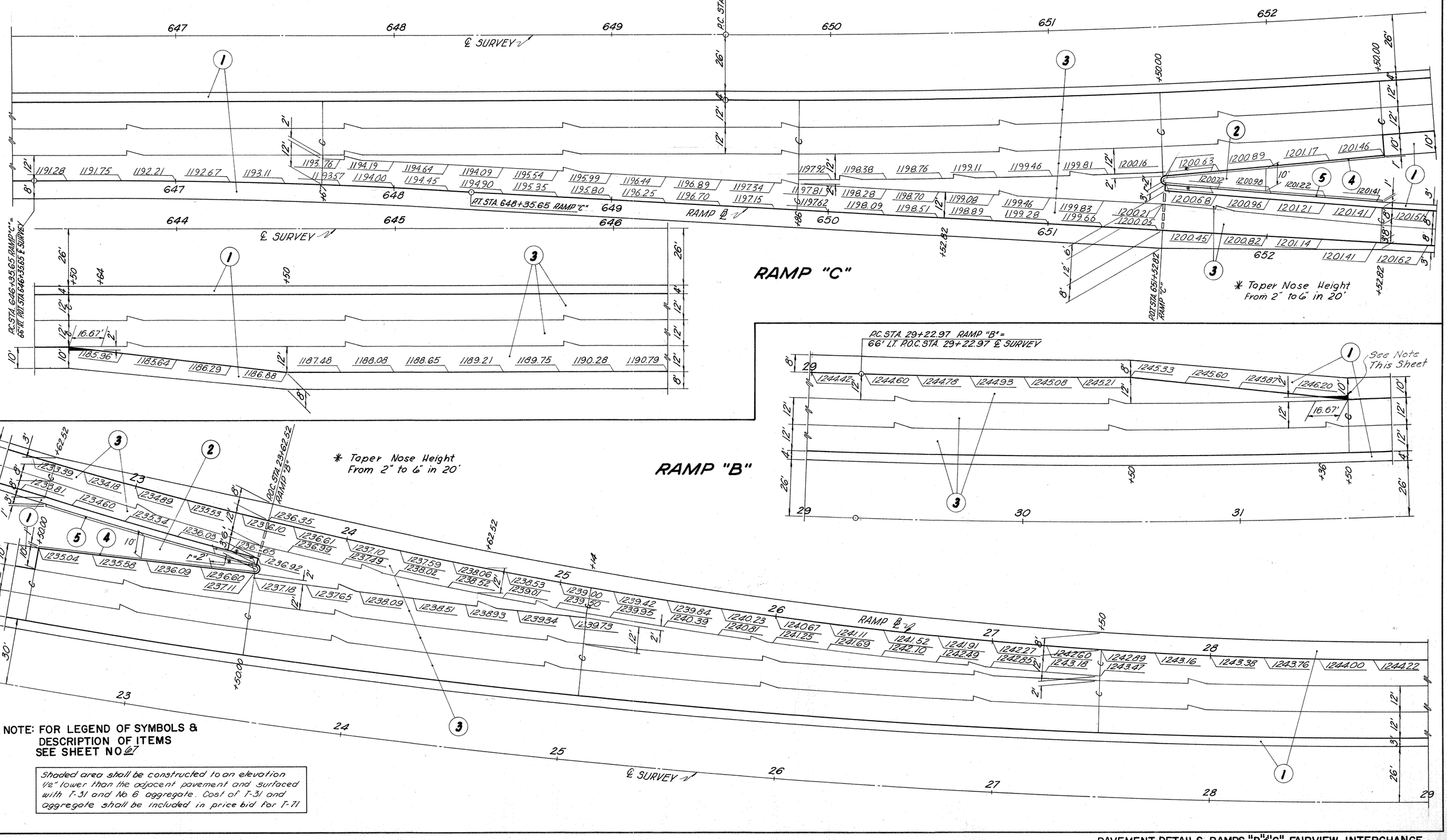
Shaded area shall be T-71 constructed to an elevation ½" lower than the adjacent pavement and surfaced with T-31 and No. 6 aggregate. Cost of T-31 and aggregate shall be included in price bid for T-71.

PAVEMENT DETAILS RAMP "A" FAIRVIEW INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

69
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



NOTE: FOR LEGEND OF SYMBOLS & DESCRIPTION OF ITEMS SEE SHEET NO 67

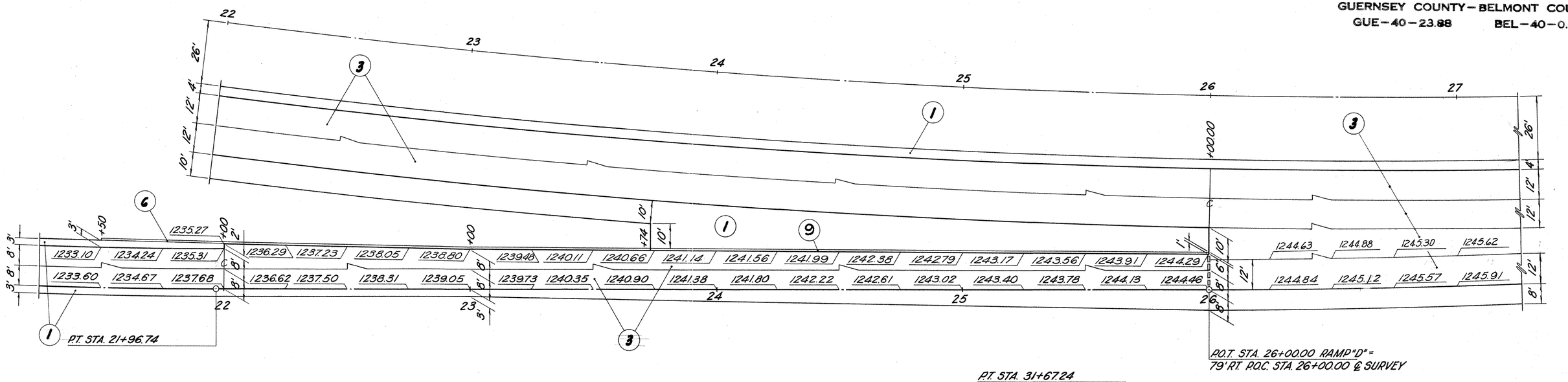
Shaded area shall be constructed to an elevation 1/2" lower than the adjacent pavement and surfaced with T-31 and No 6 aggregate. Cost of T-31 and aggregate shall be included in price bid for T-71

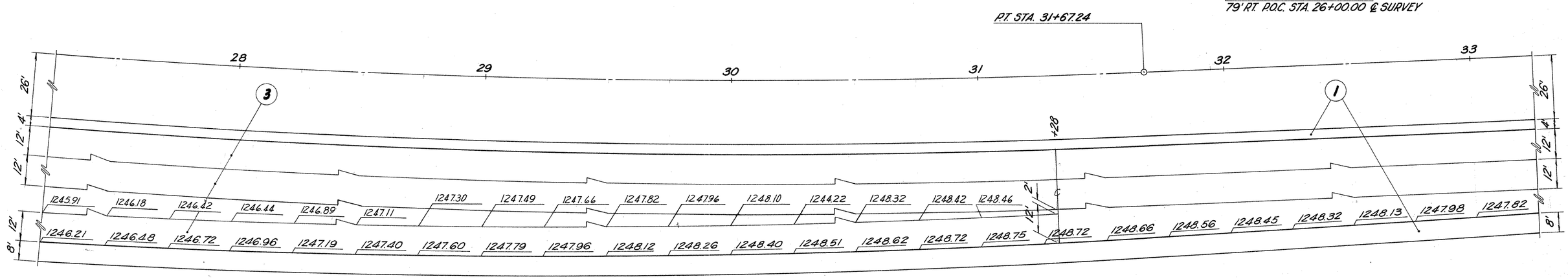
PAVEMENT DETAILS RAMPS "B" & "C" FAIRVIEW INTERCHANGE

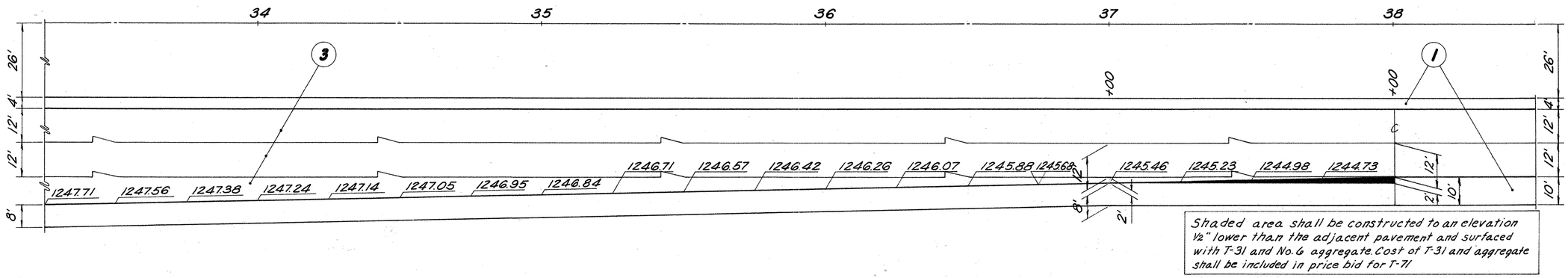
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

70
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00







Shaded area shall be constructed to an elevation ½" lower than the adjacent pavement and surfaced with T-31 and No. 6 aggregate. Cost of T-31 and aggregate shall be included in price bid for T-71

NOTE: FOR LEGEND OF SYMBOLS & DESCRIPTION OF ITEMS SEE SHEET NO. 67

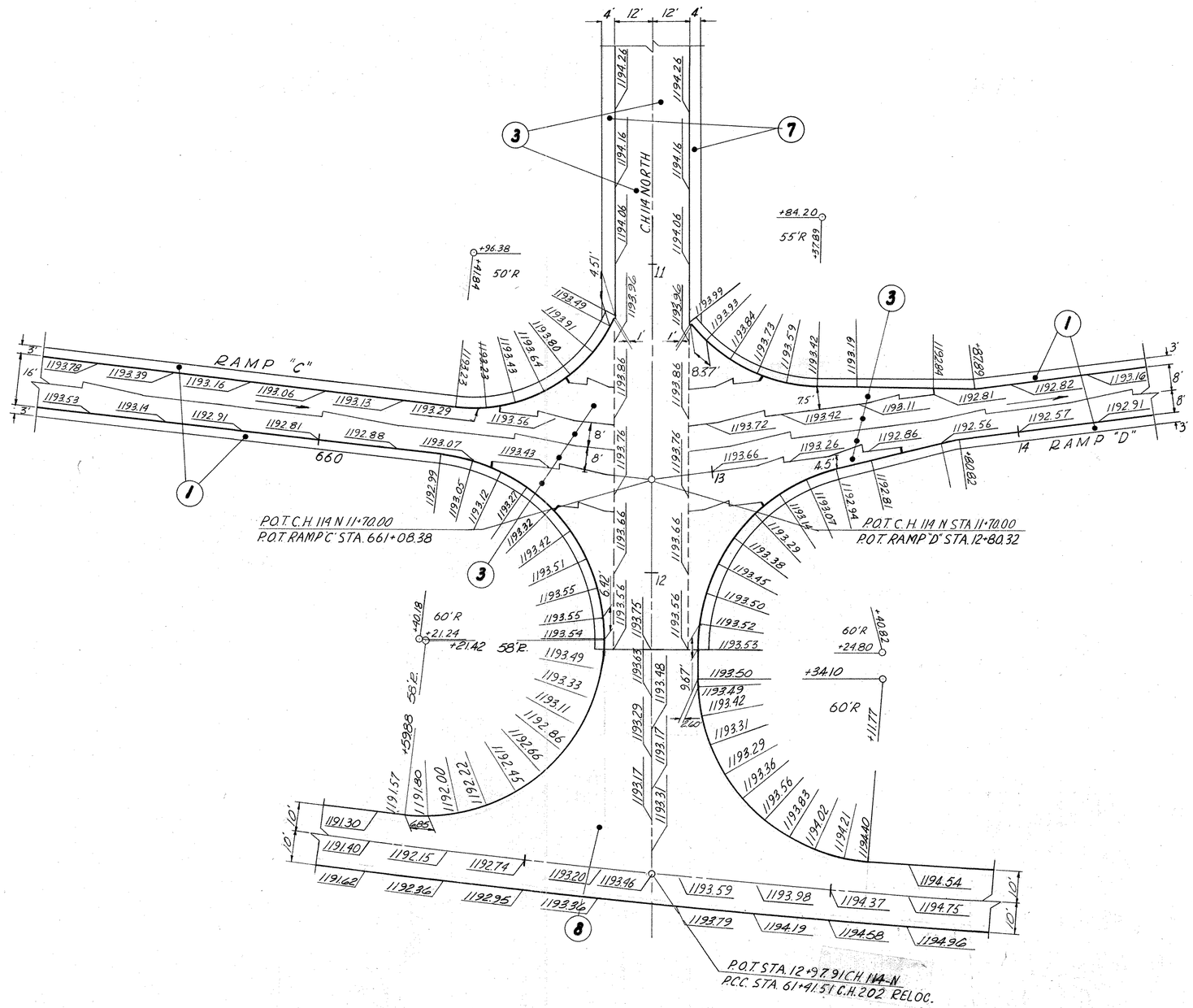
PAVEMENT DETAILS RAMP "D" FAIRVIEW INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

71
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00

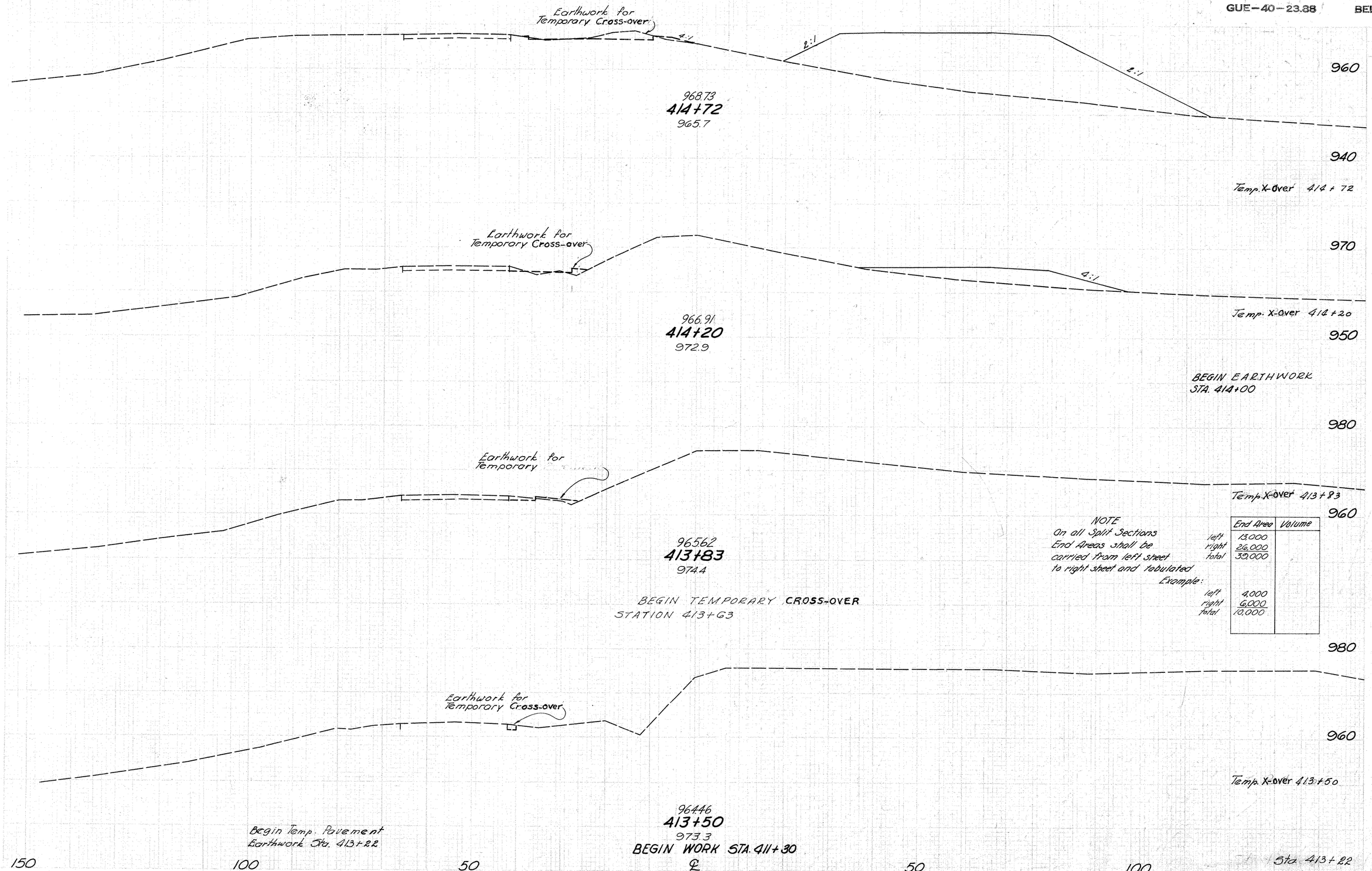


NOTE: ALL PAVEMENT ELEVATIONS ON RADIUS RETURNS ARE AT 10' INTERVALS, UNLESS OTHERWISE NOTED.

NOTE: FOR LEGEND OF SYMBOLS & DESCRIPTION OF ITEMS SEE SHEET NO. 67

PAVEMENT DETAILS RAMPS "C" & "D"; C.H. 114 N. FAIRVIEW INTERCHANGE

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



		END AREA		MID AREA	
		CUT	FILL	CUT	FILL
960					
	Temp. X-over 414+72	21	0		
		0	884		
940					0 975
		0	129		
	Temp. X-over 414+20	2	5		
950				0	48
	BEGIN EARTHWORK STA. 414+00	0	0		
				4	7
980					
	Temp. X-over 413+83	4	6		
960					
				4	4
980					
960					
	Temp. X-over 413+50	2	0		
				11	6
	Sta. 413+22	0	0		

NOTE
On all Split Sections End Areas shall be carried from left sheet to right sheet and tabulated

Example:

	End Area	Volume
left	13.000	
right	26.000	
total	32.000	
left	4.000	
right	6.000	
total	10.000	

STA. 413+50 TO STA. 414+72

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

278

9670
Sod

4:1 4:1

Earthwork for Temp. Cross-over

4:1

969.81

2:1

960

940

23 4670

97402
416+23
957.3

712

A

A

930

150

966.9
Sod

4:1 4:1

Earthwork for Temp. Cross-over

4:1

969.00

2:1

Temp. X-over 417+18 0 0

970

932.5

4:1

2:1

16 6

Temp. X-over 416+23 9 3

18 3338

280

950

10 5

97321
416+00
955.8

B

B

930

20 3637

1650

415+50 Begin Sod 9' wide

Earthwork for Temp. Cross-over

6:1

4:1

967.15

246'-30" Cl. A-1 @ 1.39%

10'

12:1

2:1

2:1

931.0

B

B

Temp. X-over 416+00 14 9 51 6453

950

14 93

279

97136
415+47
954.5

1,448

930

32 2938

Temp. X-over 415+47 0 86

Earthwork for Temp. Cross-over

24:1

4:1

965.5

2:1

For Culvert Details
See Sheet No. 332.

960

42 4059

0 132

276

96971
415+00
961.7

BEGIN PROJECT
STA. 415+00

Note: For median slopes between Sta. 415+00 & Sta 458+00 See Sheet No. 9

16 1725

Temp. X-over 415+00 0 66

940

8 1208

Temp. X-over 414+72 21 0 11 32

STA. 414+75 0 884

150

100 50 ℄ 50 100

STA. 415+00 TO STA. 416+23

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

End Sod. Begin
Jute Matting +00

4:1 8:1 Sod 982.8

98371
419+00
982.9

STA. 419+00
STD. No. 4 C B
IE. GRATE = 979.30
IE. 18" B-1 = 976.30

111' – 15" CL. B-1 @ 3.88%

4:1 2:1 975.0

111' RT. STA. 419+00
STD. H.W. END W'L
IE. 18" B-1 = 975.00

6:1 7:1 Sod 980.8 977.8 3:1 2:1 969.0

98211
418+54
972.2

4:1 6:1 Sod 976.0 975.0 2:1

97934
417+75
964.8

4:1 5:1 Sod 971.0 2:1

97671
417+00
961.2

B
8:1 24:1 2:1 8:1
950 953.3
120 150

A
8:1 24:1 2:1 8:1
940 941.5
140 160

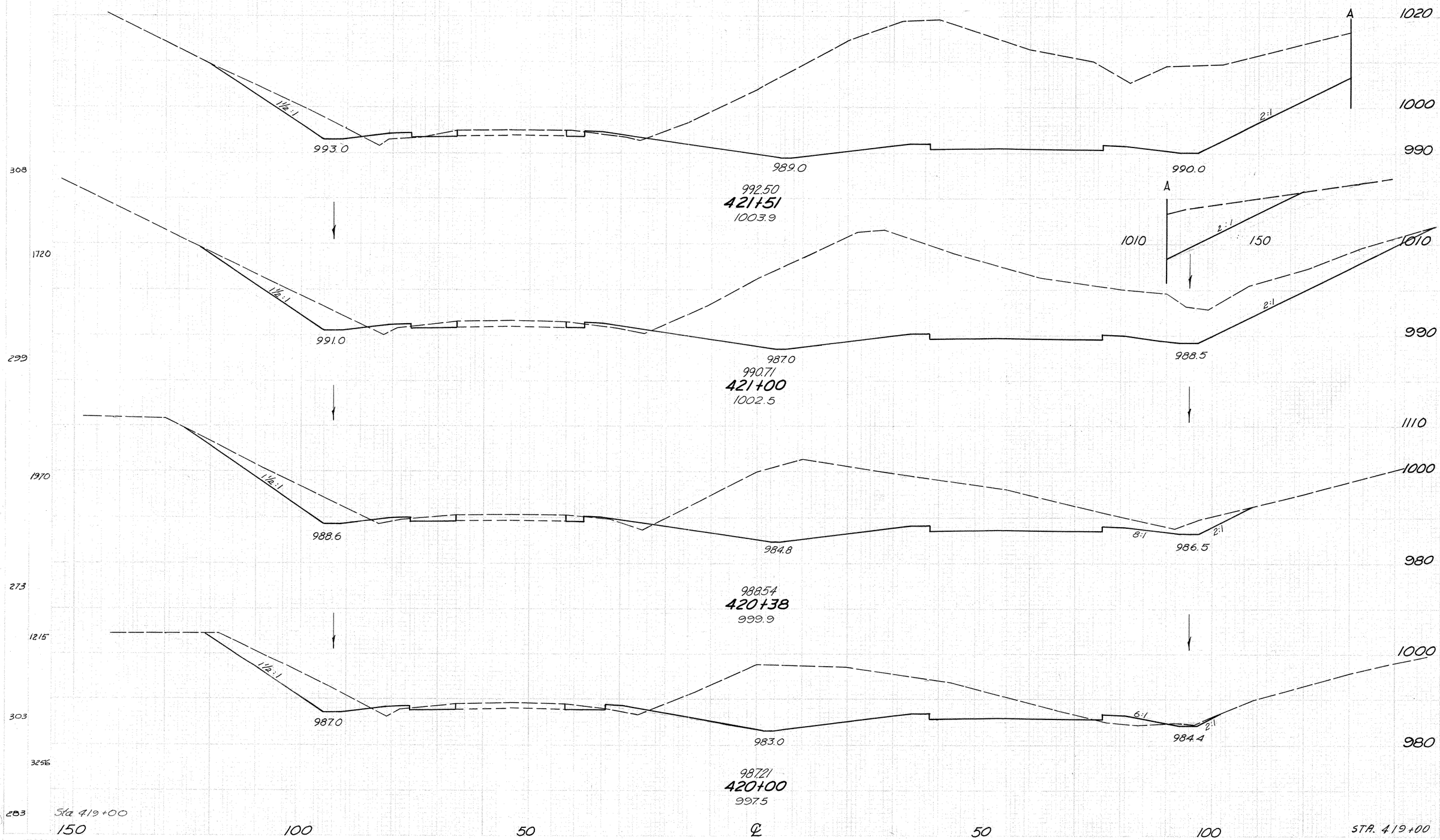
Sta 416+23

150 100 50 ℄ 50 100 STA. 416 + 23

STA. 417+00 TO STA. 419+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

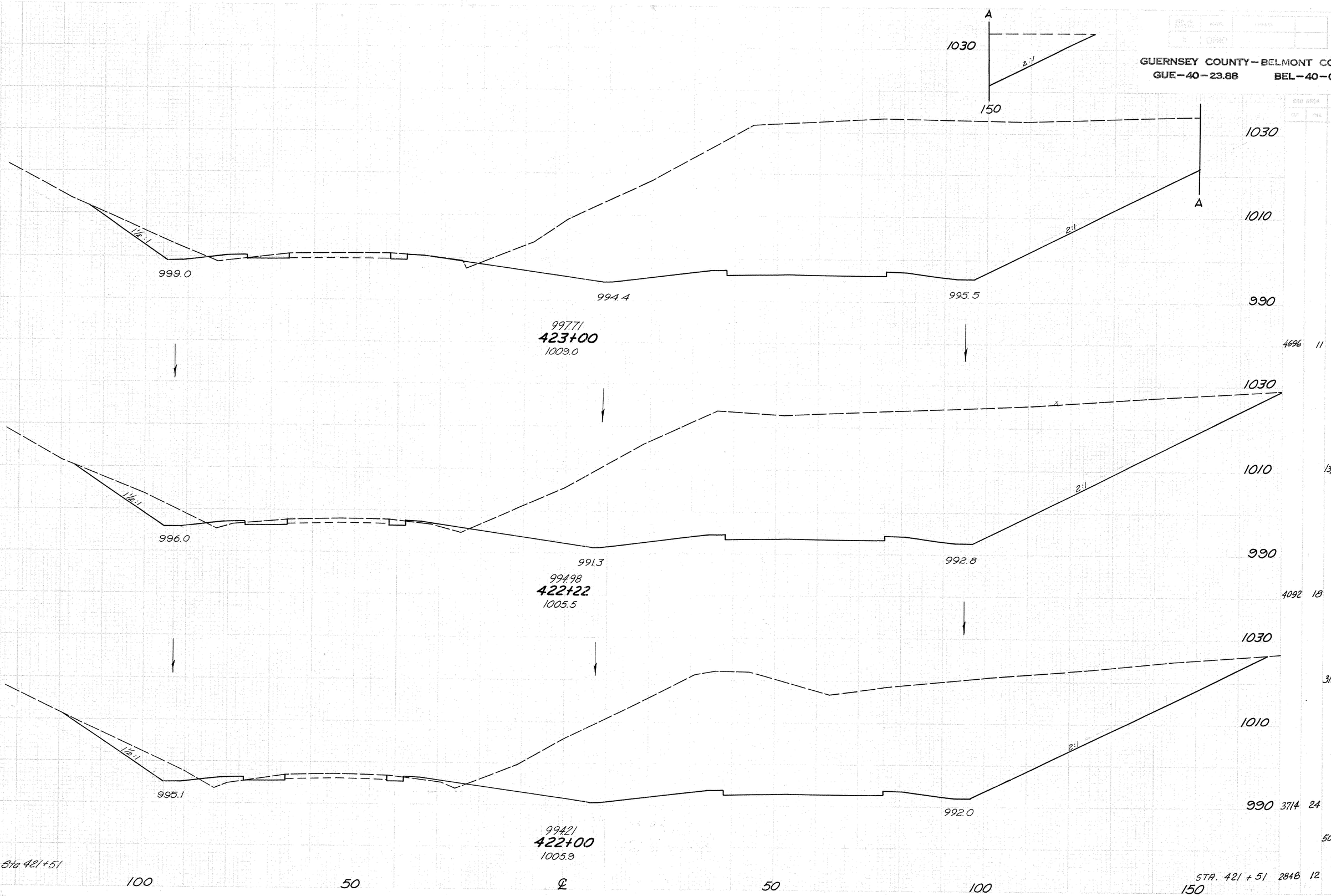
END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 420+00 TO STA. 421+51

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

70
485



319
2740
312
760
310
1680
308

4696 11
13,006 42
4092 18
3180 17
3714 24
5047 33
2848 12

77
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA | VOLUME
CUT | FILL | CUT | FILL

1040
1020
1000

1½:1
1006.9
1002.2
2:1
1002.6

307
100471
425+00
1017.4

4618 9

1040
1020
1000

3417
1½:1
1003.0
998.2
2:1
999.1

308
100121
424+00
1012.8

5064 13

1040
1020
1000

2790
1½:1
999.4
995.5
2:1
996.0

312
998.38
423+19
1008.7

4821 17

660
319
Sta 423+00

100 50 ℄ 50 100 150
STA. 423+00

4696 11

STA 423+19 TO STA 425+00

14,828 45
3350 10
18,930 41

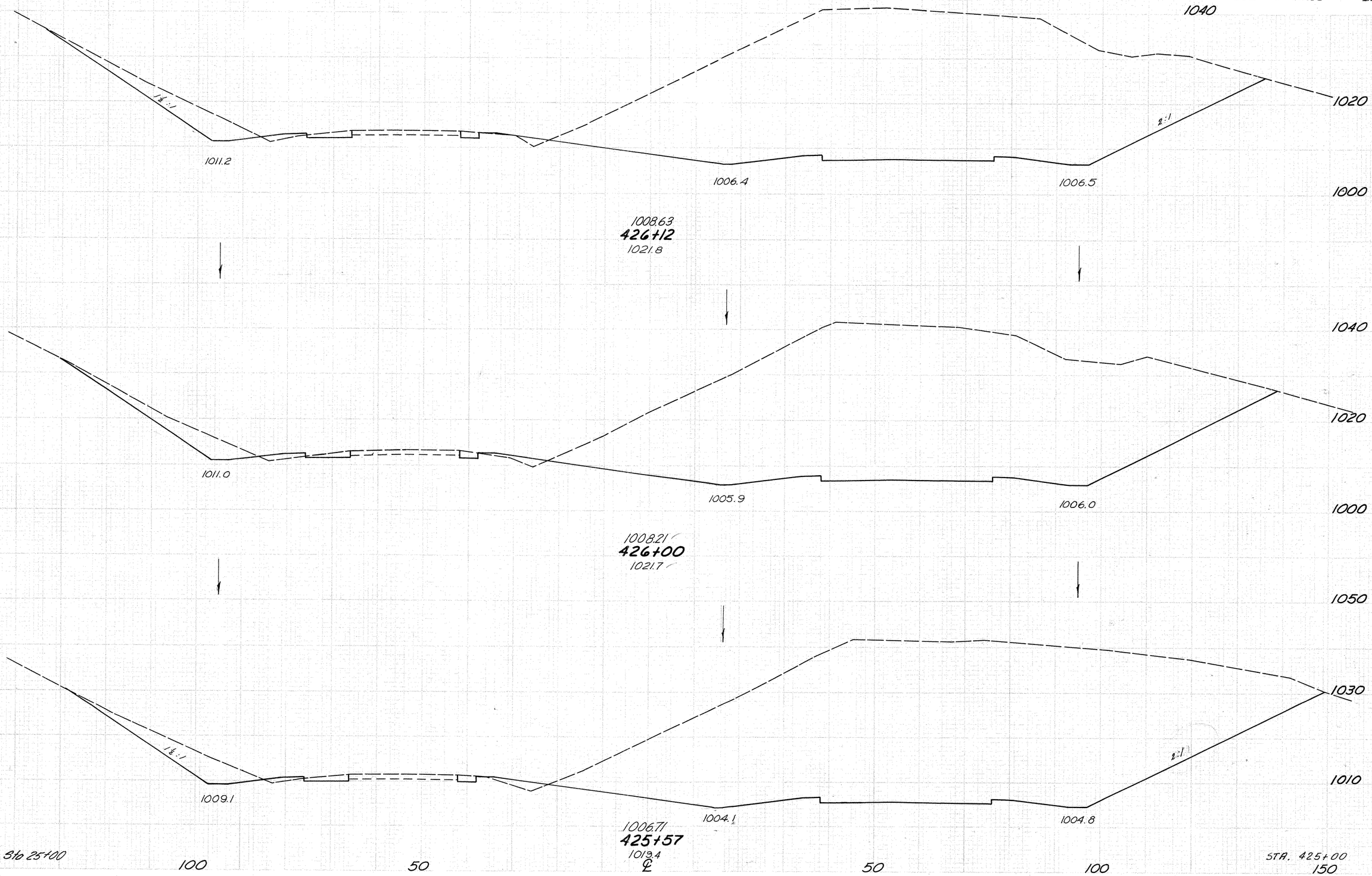
SEEDING

SHT. NUMB.	NO. SHTS.

78
486

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 425+57 TO STA. 426+12

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

GRADING
AREA WIDTH | CU. YDS.

END AREA | VOLUME
CUT | FILL | CUT | FILL

302
1022.9
1:1
1017.0
2:1
1016.2
1040
1020
1000
3567 17

1018.71
429+00
1035.0

3306
1019.0
1:1
1013.5
1013.0
2:1
1050
1030
1010
12,831 56

293
1015.21
428+00
1031.3

3362 13

3261
1015.1
1:1
1009.8
1009.5
2:1
1050
1030
1010
12,826 65
3564 22

294
2880
1011.71
427+00
1026.4
11,782 59

295
Sta 426+12
STA. 426+12 3666 14

150 100 50 ℄ 50 100

STA. 427+00 TO STA. 429+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

1060
1040
1020

293
1031.8
1:1
1024.5
2:1
1022.6
1025.71
431+00
1048.5
2960 8

1060
1040
1020

297
1030.2
1023.1
1021.8
102462
430+68.81
1041.9
3273 15

1060
1040
1020

2035
1027.0
1:1
1020.8
2:1
1019.6
1022.21
430+00
1038.7
3698 13
13454 56

287
3072
302
Sta 429+00
STA. 429+00 3567 17

150 100 50 ℄ 50 100

STA. 430+00 TO STA. 431+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA: CUT / FILL — VOLUME: CUT / FILL

1050
1030
1010
990
1050
1030
1010
1060
1040
1020

341
1875
2:1
1030.96
432+50
1031.4
2:1
1:1
25'
516 1355
1421 1465

334
2:1
1029.21
432+00
1041.1
93'-15" Cl. B-1 @ 14.01%
var.
1:1
25'
135' Rt. Sta. 432+00
Std. No. 4 C.B.
℄ Grate ≈ 1027.85
℄ 15" Cl. B-1 1025.16
108' Rt. Sta. 432+00
Std. HW-E Endwall
℄ 15" Cl. B-1 1012.14
1025 227

1803
1½:1
4:1
2644 224

315
1689
1027.46
431+50
1044.3
1830 15
4435 22

293
3:1 to 431+00
150
100
50
℄
50
100
STA. 431+00
2960 8

STA. 431+50 TO STA. 432+50

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

4:1
1043.3
1035.1
2:1
B
980
200
1030
1:1
A
1000
1010
351
980
150
200
1036.21
434+00
1023.4
2:1
B
990
1:1
16945344
1/2:1
80'
1950
4:1
DIKE
1033.7
2142 9890
107' Lt. Sta. 433+75
Std. No. 5 C.B.
IE 30" I-1 1038.00
1020
351
103446
433+50
1021.5
(1021.2)
1000
6194342
A
1:1
27'
980
879 6298
1925
2:1
1038.8
1040
1031.4
1020
2:1
342
330 2460
1032.71
433+00
1023.7
783 3532
1000
1897
STA. 432+50
516 1355
341
3 to 432+50
1:1
25'
100
50
℄
50
100
150

STA. 433+00 TO STA. 434+00

GUERNSEY COUNTY - BELMONT COUNTY
GUE-40-23.88 BEL-40-0.00

END AREA | VOLUME
CUT | FILL | CUT | FILL

412

1054.5

2:1

1045.4

1046.71
437+00
1035.5

990
C
1:1
2:1
24:1
10'
2:1
2:1
28'
200
976.0

1040
1020 1366 4550
C
2:1
1:1
1000
1:2
64'
1:1
5165 17,313
1040

9939

1051.0

1042.0

990
B
1:1
2:1
25'
200

1020
1043.21
436+00
1029.6

B
1423 4799
1:1
1:2
72'
1000
1040
6063 19,517

387

1020
1:1
2:1
1047.0

4122

1038.3

2:1
A

1000
2:1

1020

980
1:1
1:2
85'
1:1

1039.71
435+00
1025.4
965.0 on (ravine)

1000 1689 5740

355

A

3922

100 150 200

1:1

5665 20,428

351

Sta 434+00
0

100 50 ℄ 50 100 150

STA. 434+00 1694 6091

STA. 435+00 TO STA. 437+00

SEEDING

SEED WIDTH	SQ YDS

REF. NO.	STATE	SHEET		
2	OHIO			

84
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

418

1062.0

2:1

1052.4

2:1

1053.71
439+00
1046.3

B

1000

990

2:1

24:1

10'

2:1

var.

200

985.0

1010

A

200

B

1060

1040

1020

1000

980

736 4120

4137 16,811

4650

990

2:1

10'

1:1

20'

24:1

2:1

2:1

980.8

1060

1040

419

1058.0

2:1

1049.0

105021
438+00
1040.4

2:1

1020 1498 4958

4617

1:1

1:2

61'

1000

5304 17,608

412

Sta 437+00

100

50

℄

50

100

150 STA. 437+00 1366 4550

STA. 438+00 TO STA. 439+00

85
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA | VOLUME
CUT | FILL | CUT | FILL

B
1010
990
2:1
24:1
10'
2:1
2:1
990.8
200
1070
1050
1030 360 4478
1010
990 636 8152
1070
1050
1030 327 4380
1010
990 984 7871
STA. 439+00 736 4120

3:1
6:1
1064.7
105721
440+00
1048.0
2:1

A
1010
990
2:1
12:1
10'
2:1
2:1
990.5

2:1
8:1
1064.0
105546
439+50
1045.7
2:1

400
207
291
418
Sta 439+00

100 50 ℄ 50 100 150

STA. 439+50 TO STA. 440+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA | VOLUME
CUT | FILL | CUM | FINAL

SEEDING
SIZE WIDTH | NO. PCS

B
1010
990
2:1
24:1
10'
2:1
2:1
996.00
200

107' Lt 441+07
Std Type B Hdw'l
IE 30" 1062.42
4:1
1059.7
1060.71
441+00
1053.2
2:1
1:1
26'
B
1020
1000
1060
1040
303 2115
371

A
1010
990
5:1
2:1
990.98
195' Rt Sta. 440+49
Std. Type B, Hdw'l
IE = 990.98
200
353 1991

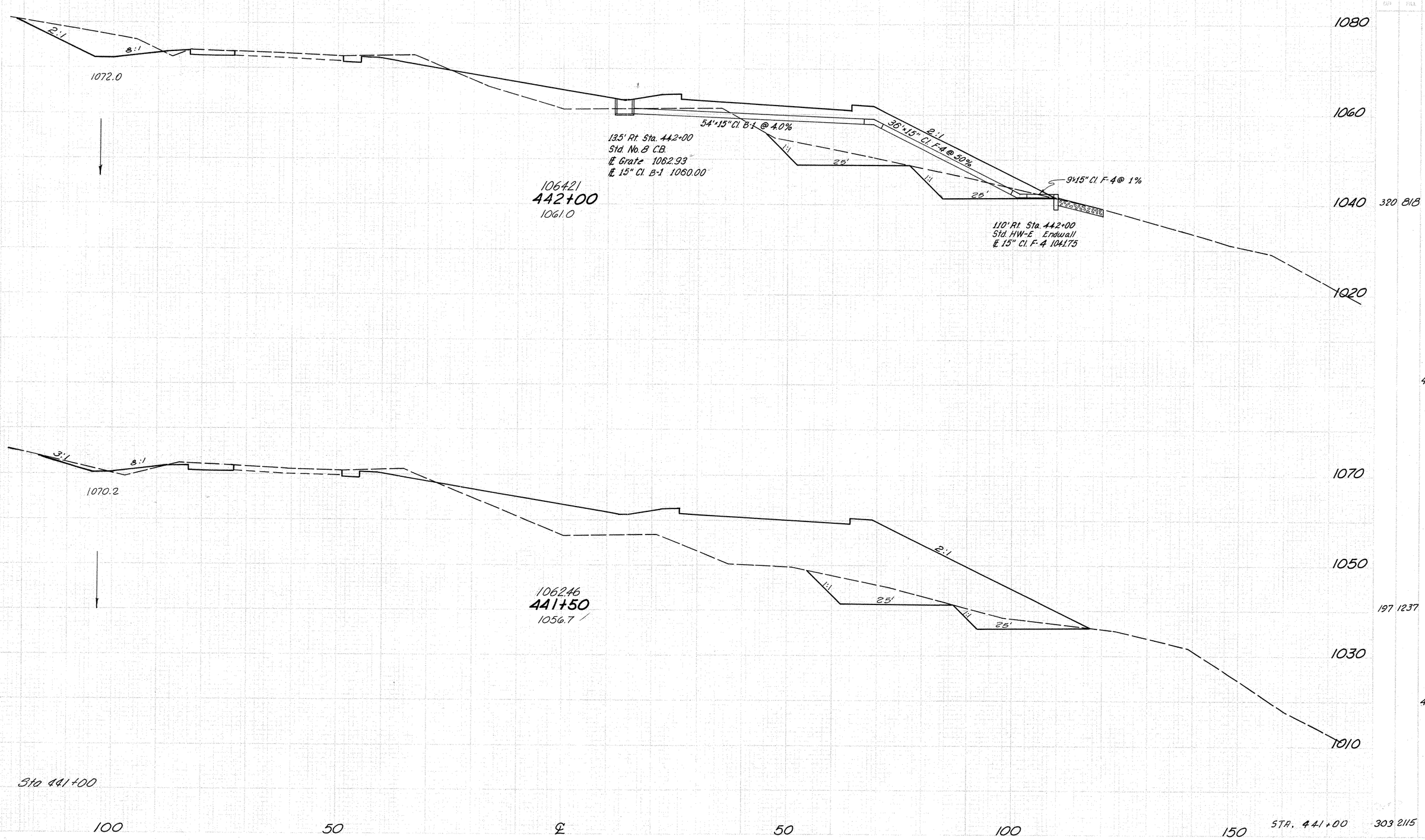
2097
2:1
6:1
1064.2
1057.9
105896
440+50
1048.3
5:1
384
2178
1060
1040
1020
120 3275
A
1000
351 7268
400
Sta 440+00

100 50 ℄ 50 100 150 STA 440+00 259 4575

STA. 440+50 TO STA. 441+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA CUT FILL | VOLUME CUT FILL



STA. 441+50 TO STA. 442+00

SEEDING

END WIDTH	SY YDS.

FED. AID PROJECT	STATE	PROJECT

88
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

1090
1070
1050
1030
1010
1080
1060
1040
1020

2:1
1075.2
1066.4
1:1
25'
4:1
25'
2:1

106771
443+00
1066.4

327

541 505

1841
2:1
1074.0
1064.9
1:1
25'
4:1
25'
2:1

106596
442+50
10628

336

405 631

1883

671 1341

342 Sta 442+00

876 1057

STA. 442+00 320 818

100 50 ℄ 50 100 150

STA. 442+50 TO STA. 443+00

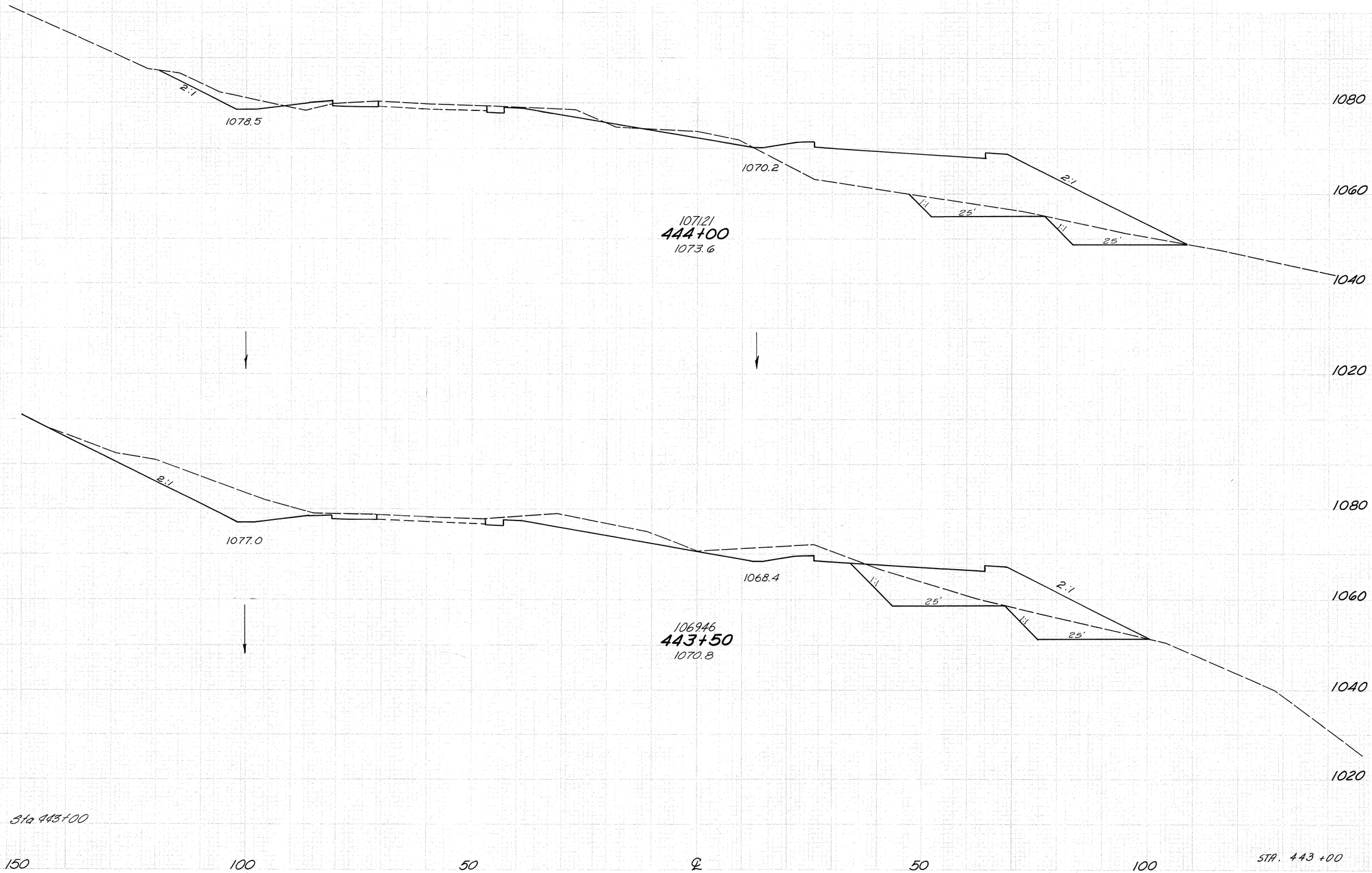
SEEDING

ENG.	SQ. FT.
COPY	

89
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

ENG. AREA		VOLUME	
CUT	FILL	CUT	FILL



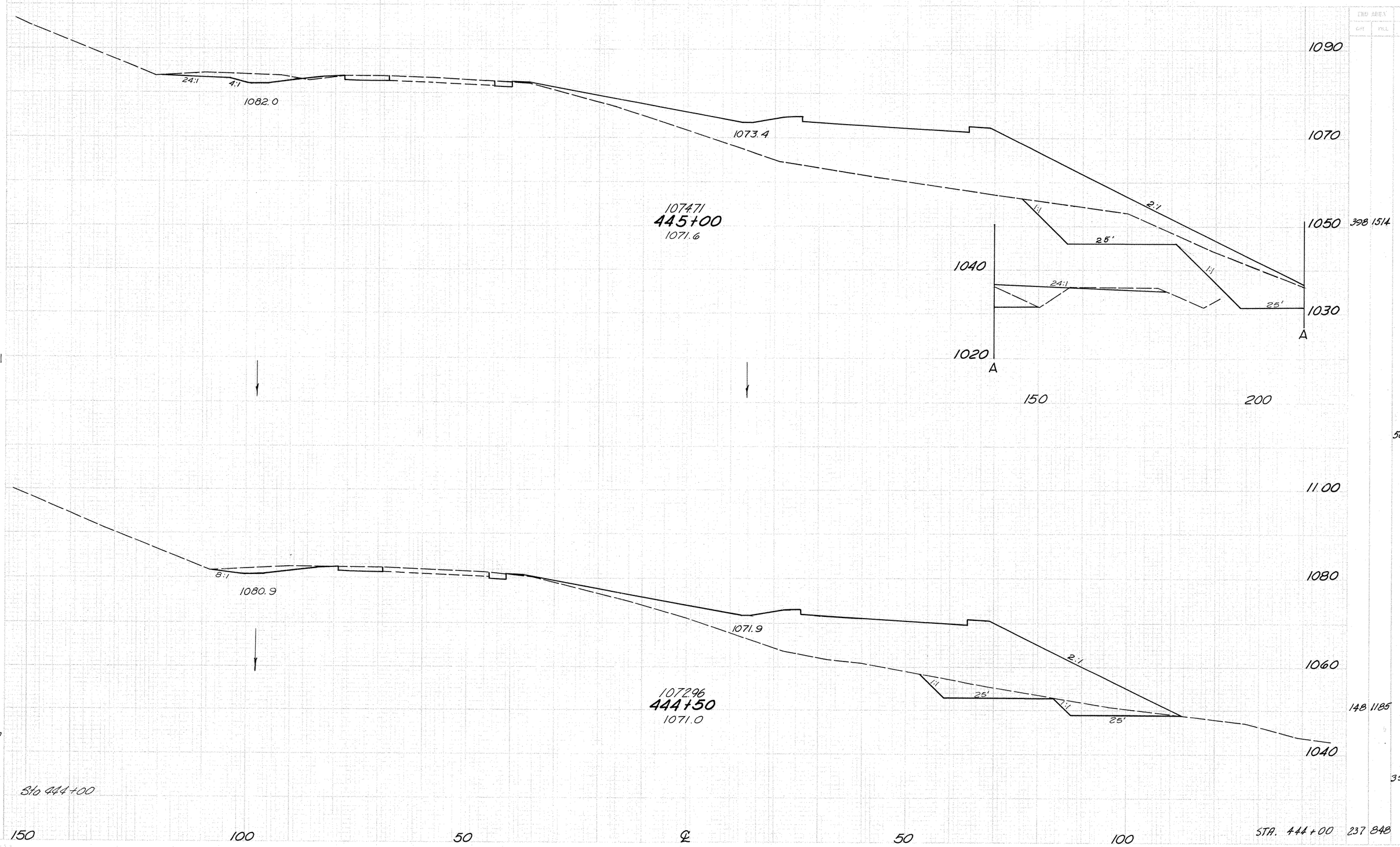
STA. 443+50 TO STA. 444+00

SECTIONS

END AREA: CUT | FILL — VOLUMES: CUT | FILL

90
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



337 1911 398 1514

351 1910 148 1185

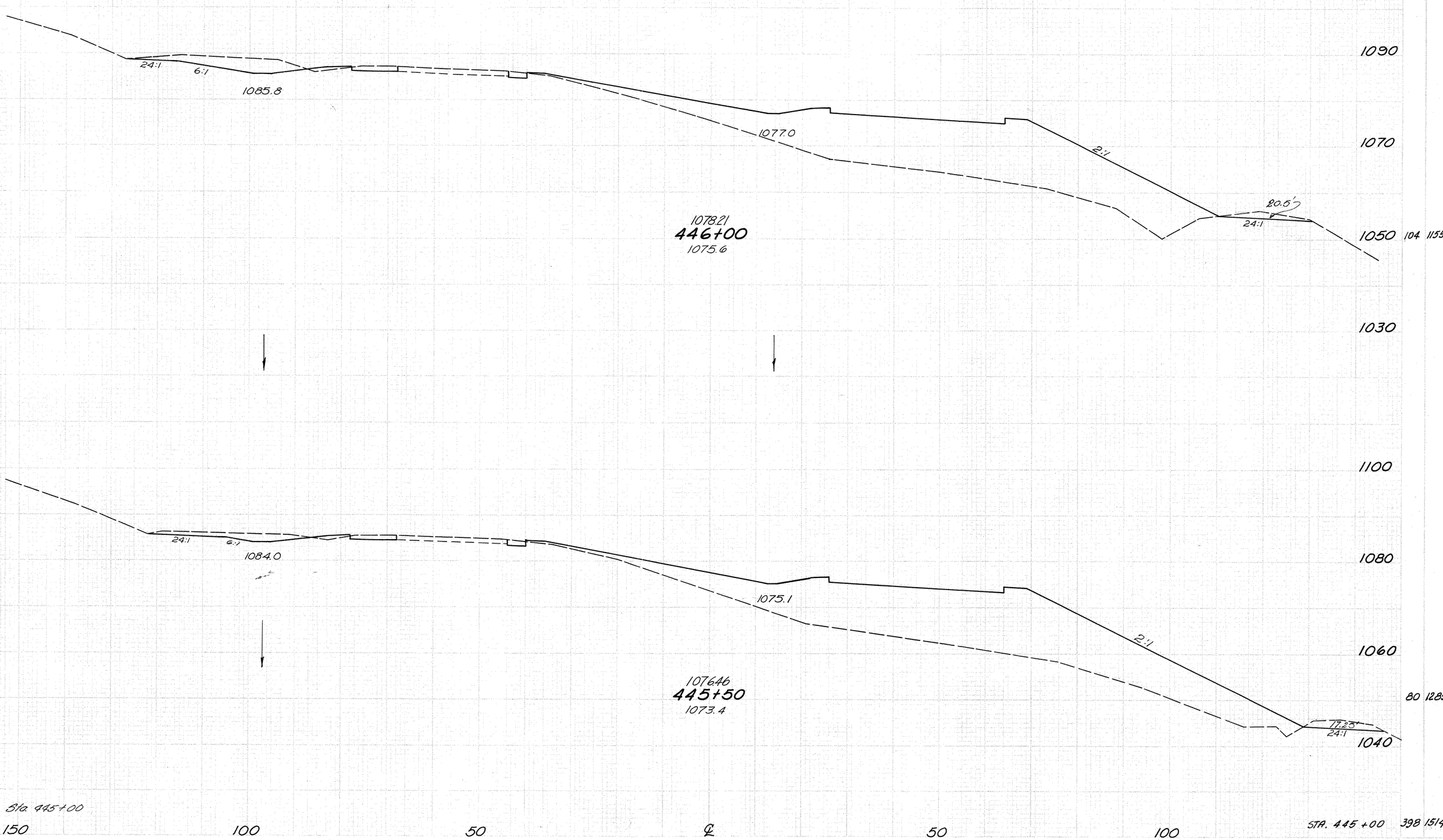
339 357 1883

506 2499

237 848

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

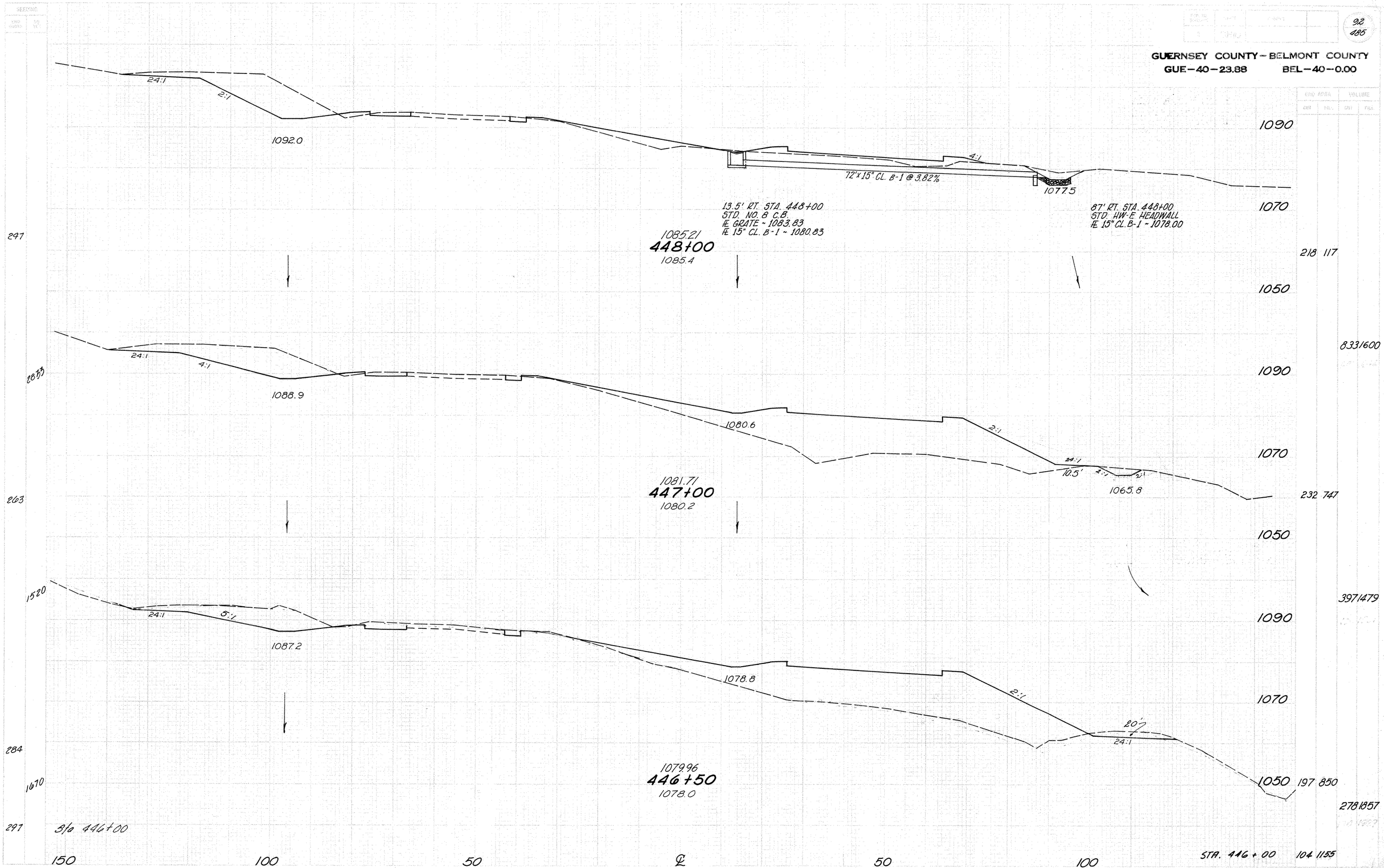
END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 445+50 TO STA. 446+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL

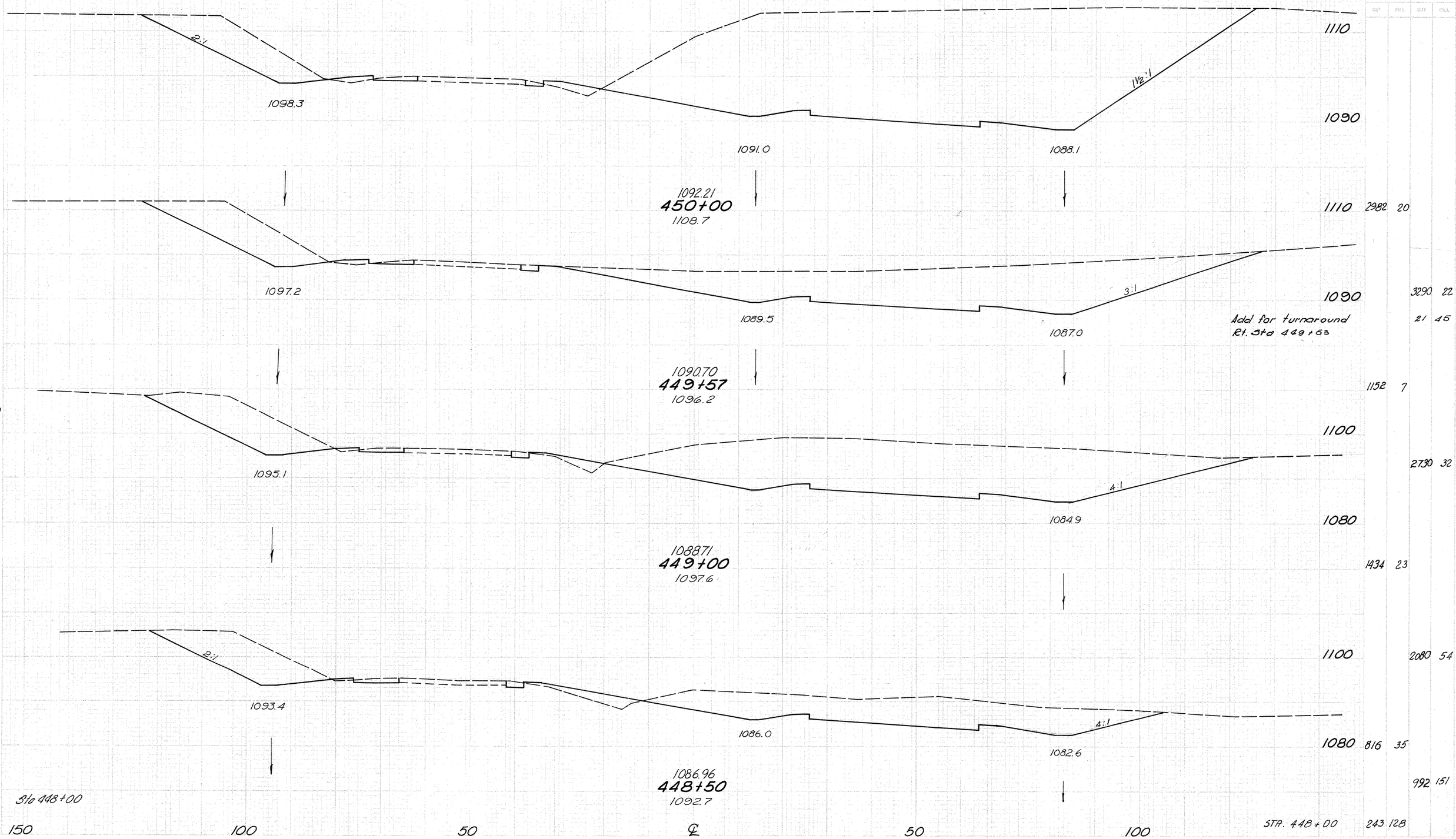


833 1600
3971479
278 1857
104 1155

STA. 446+50 TO STA. 448+00

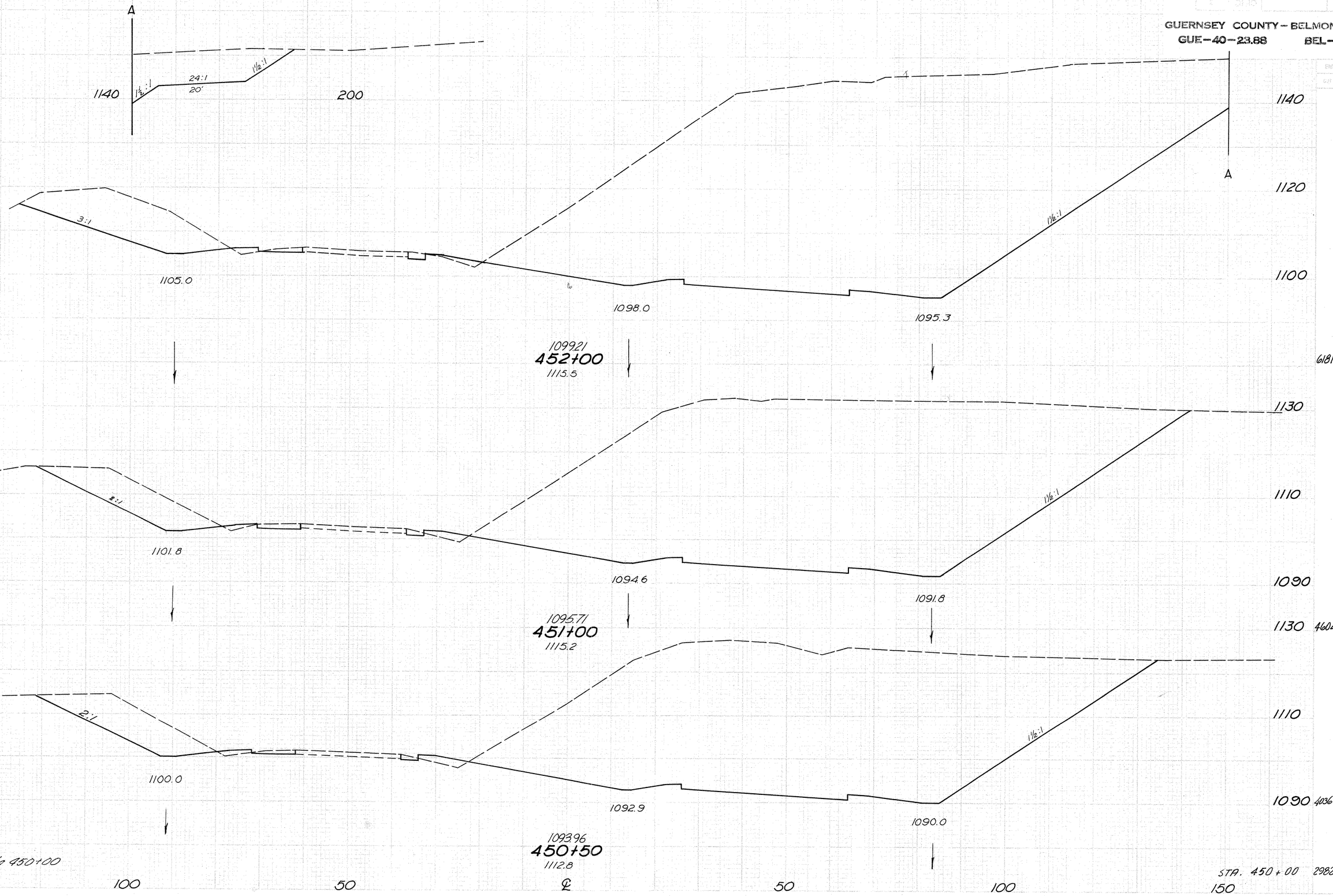
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 448+50 TO STA. 450+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



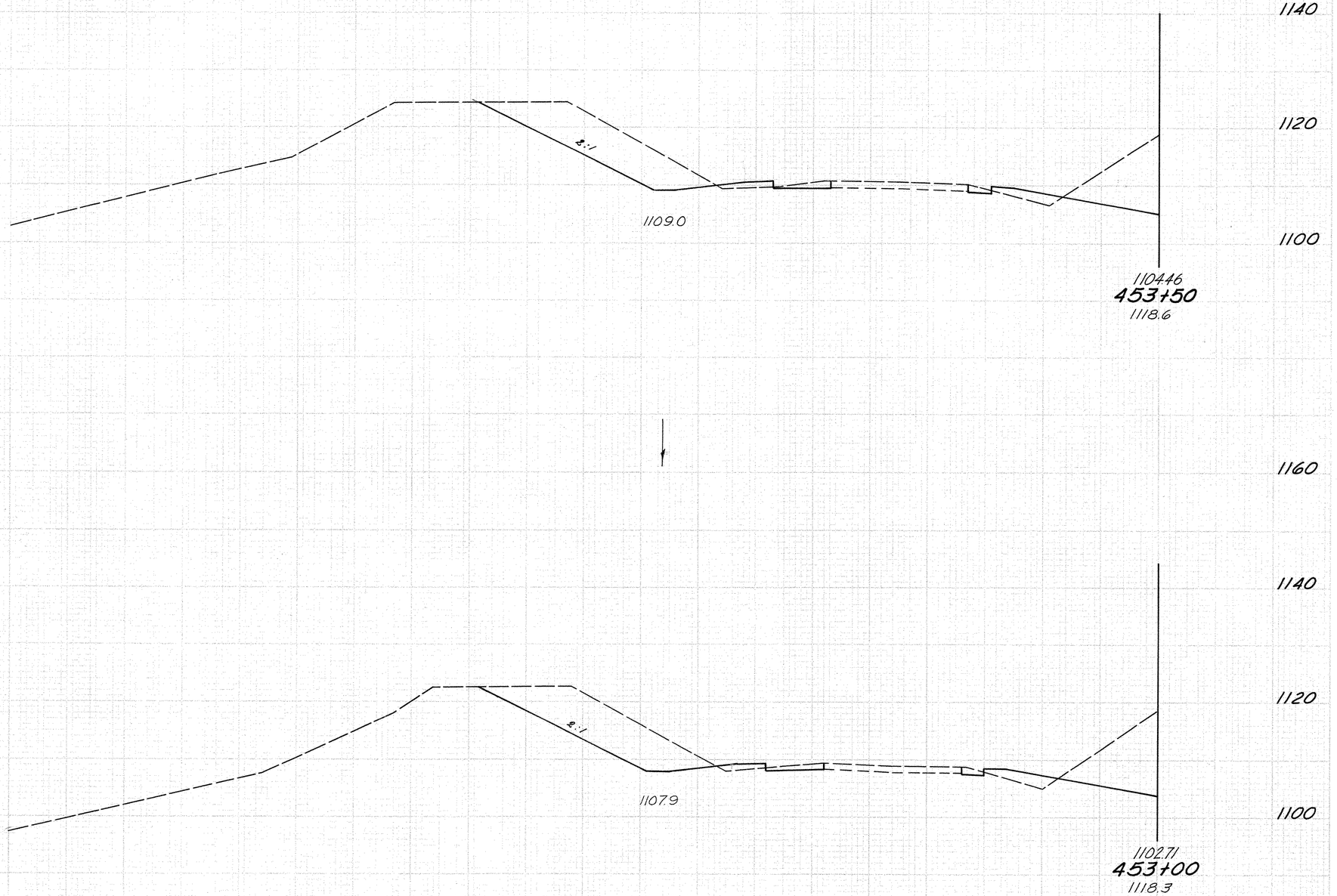
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL

SHEET NO. 95 TOTAL SHEETS 485

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00

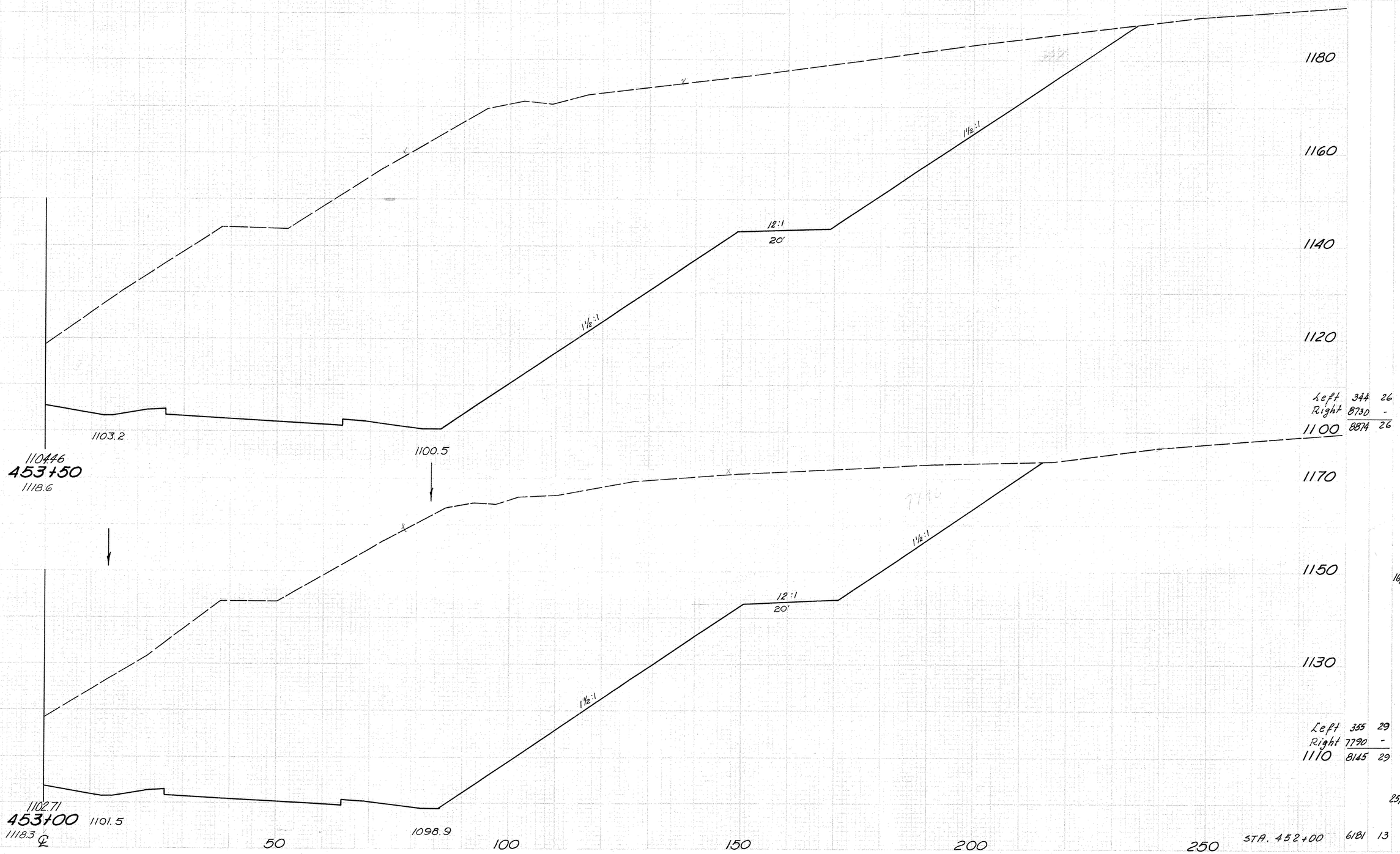
END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 453+00 TO STA. 453+50 LEFT

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA | VOLUME
CUT | FILL | CUT | FILL



Left	344	26	
Right	8730	-	
1100	8874	26	
		16,037	51
Left	355	29	
Right	7790	-	
1110	8145	29	
		25,926	78
STA. 452+00	6181	13	

STA. 453+00 TO STA. 453+50 RIGHT

SCORING

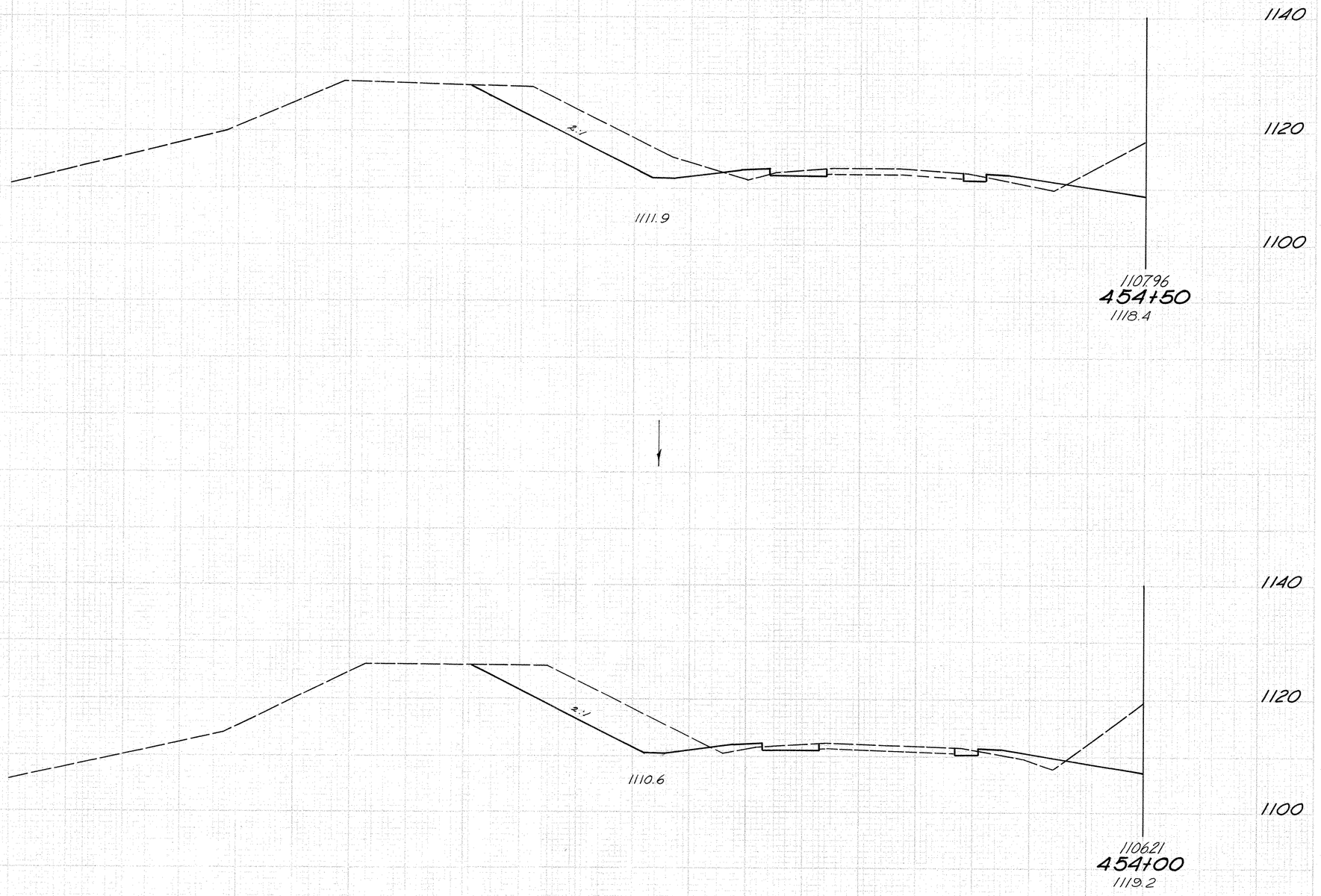
END AREA	CU YDS

	STATE	PROJECT	
	OHIO		

97
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



212
1164
207
1156
209
Sta 453+50

200 150 100 50 ℄

STA. 454+00 TO STA. 454+50 LEFT

SEEDING

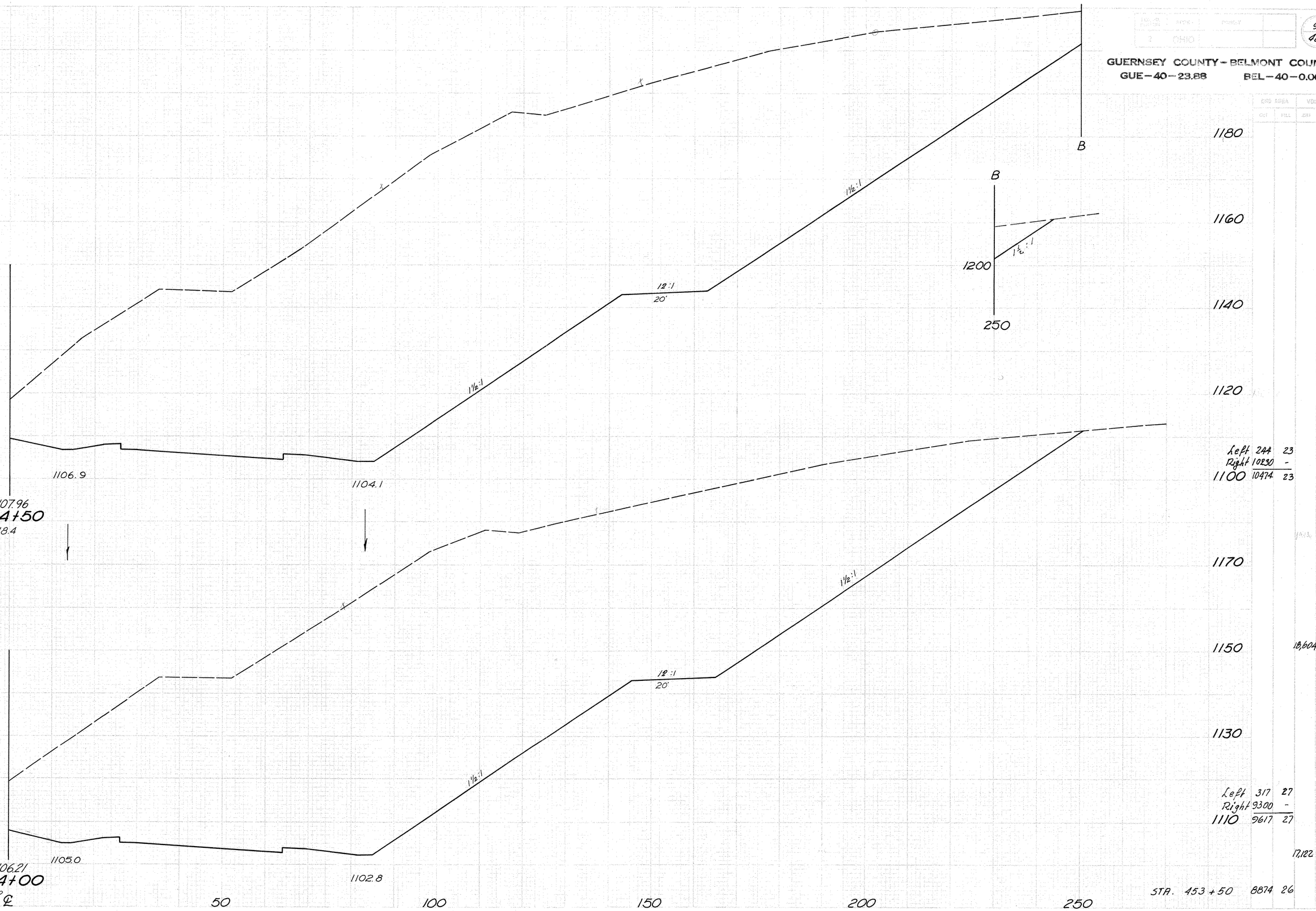
SEED (WATER)	SEED (DRY)

PROJECT	ROUTE	SHEET	
2	OHIO		

98
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



Left 244 23
Right 10230 -
10474 23

18,604 47

Left 317 27
Right 9300 -
9617 27

17,122 49

STA. 453+50 8874 26

STA. 454+00 TO STA. 454+50 RIGHT

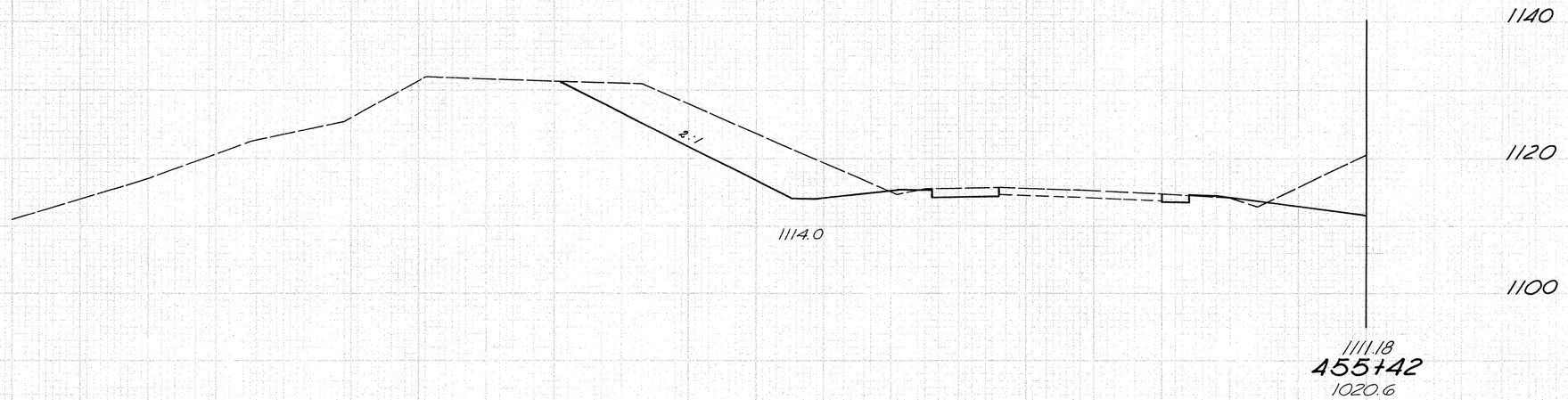
SEEDING

END STATION	NO. YDS

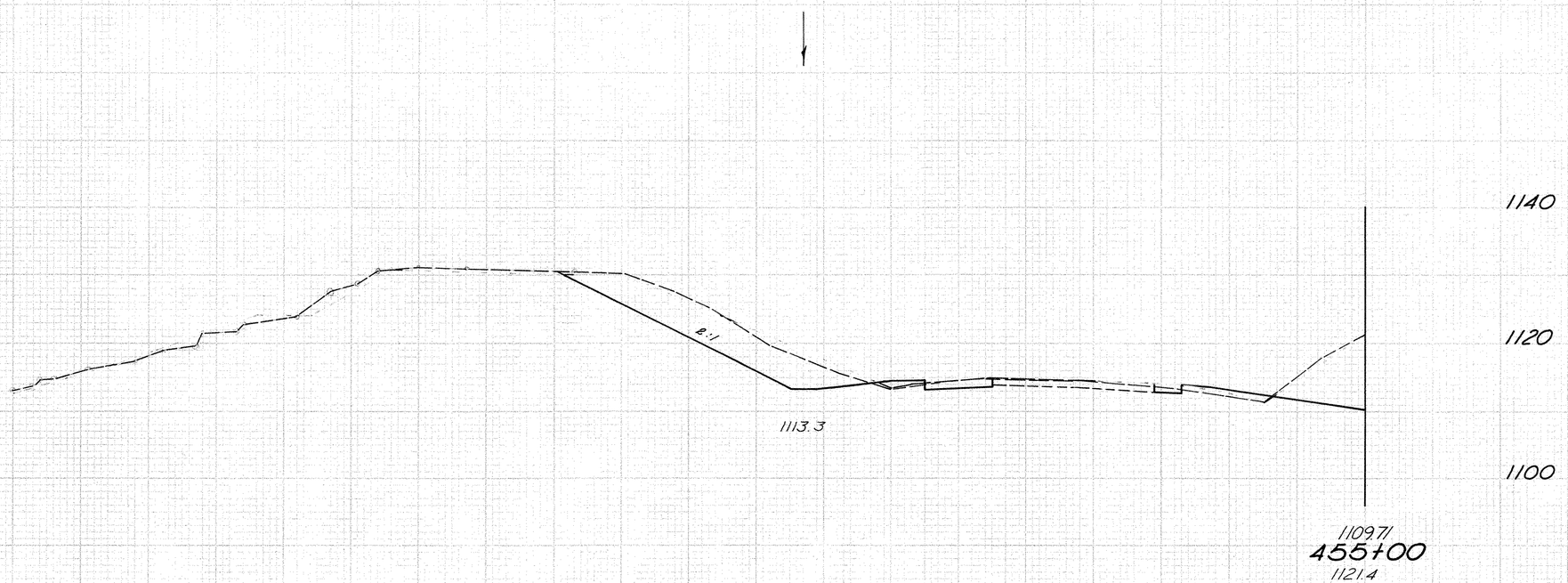
99
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



248



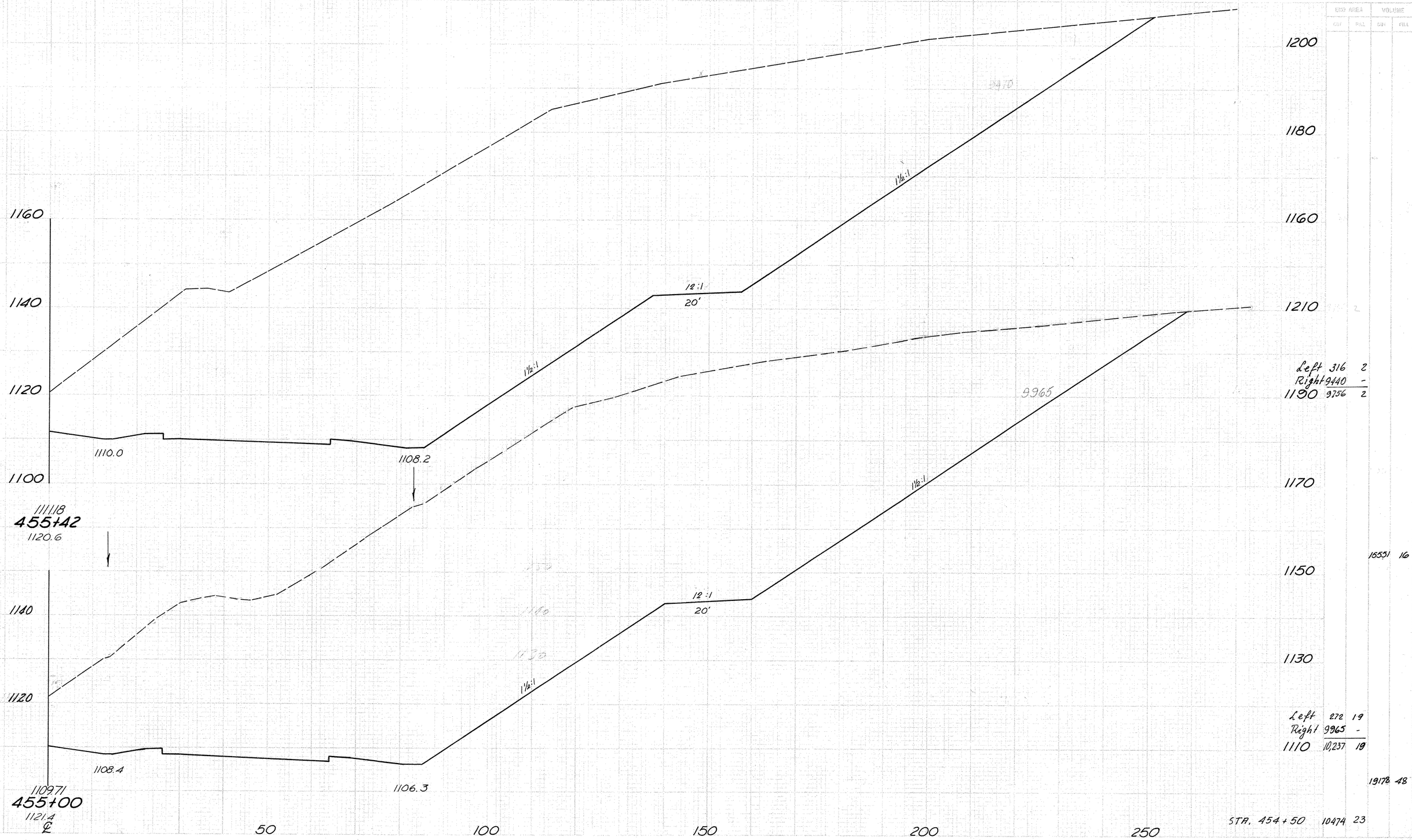
STA. 455+00 TO STA. 455+42 LEFT

SEEDING
END WIDTH | SQ YDS

100
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

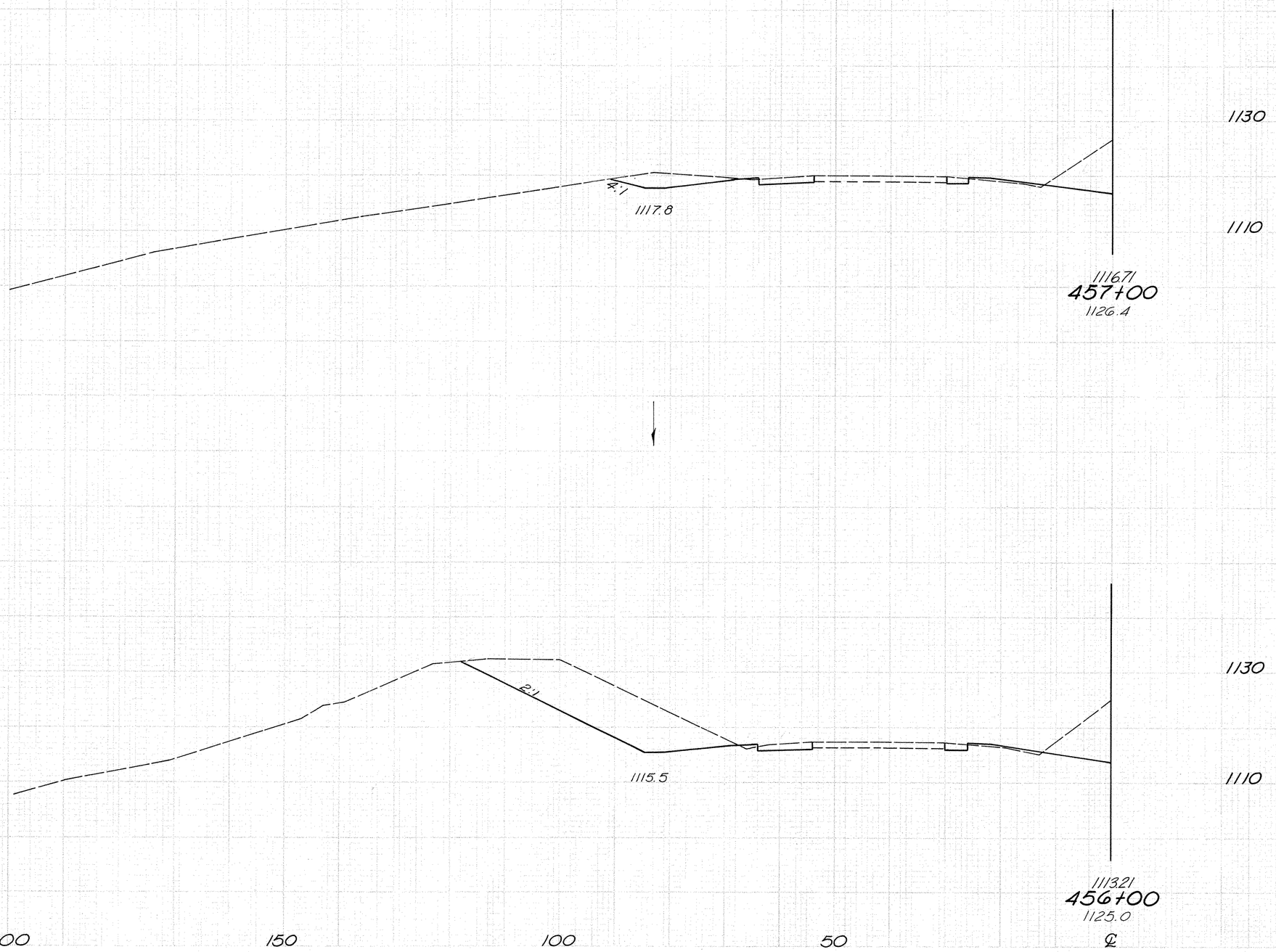
END AREA | VOLUME
CUT | FILL | CUT | FILL



STA. 455+00 TO STA. 455+42 RIGHT

PRINTED IN U. S. A.
DM 650. (MADE 01/69)

GUERNSEY COUNTY - BELMONT COUNTY
GUE-40-23.88 BEL-40-0.00



STA. 456+00 TO STA. 457+00 LEFT

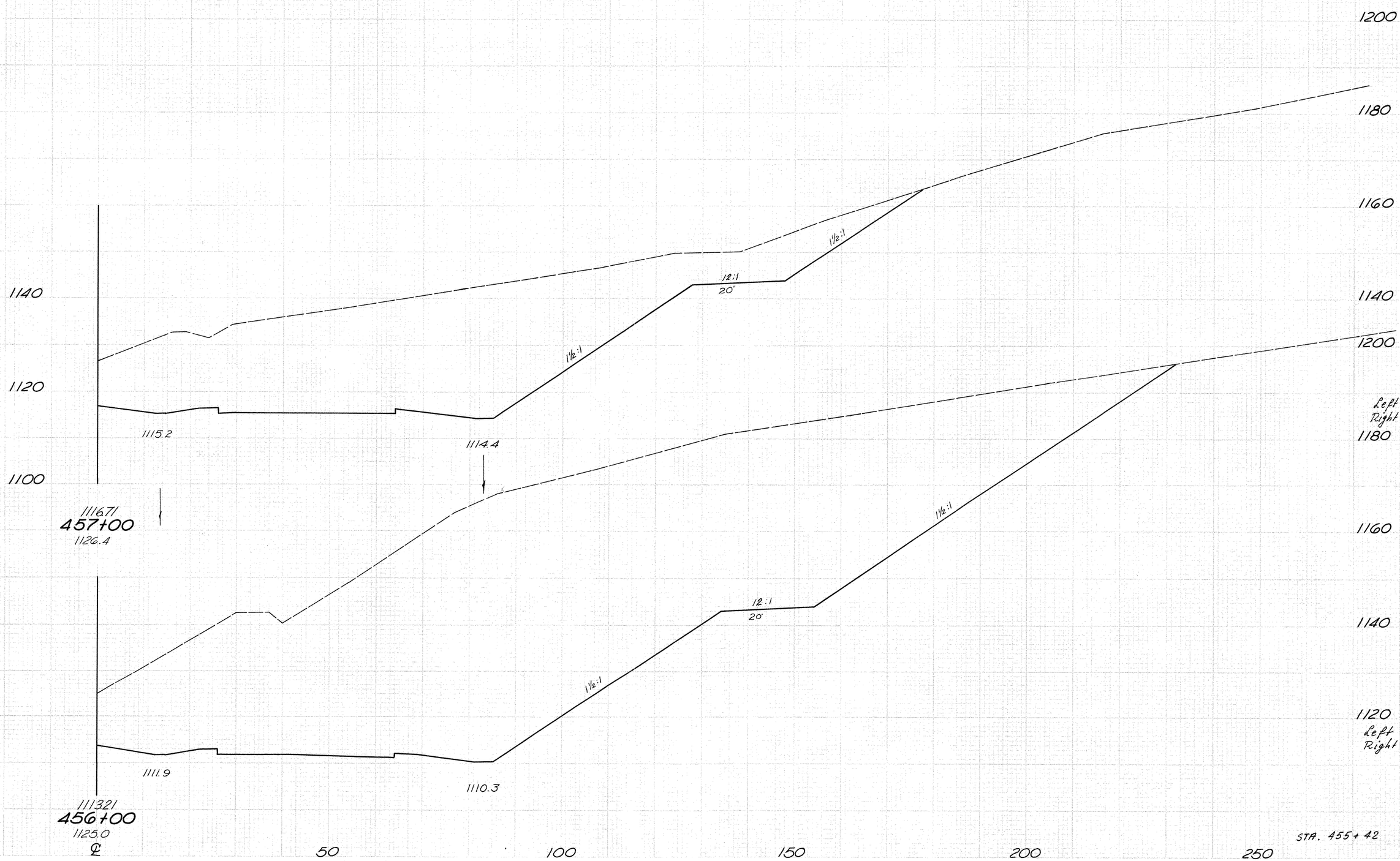
SEEDING

RAD WIDTH	SQ YDS

SHT. NO.	TOTAL SHTS.	PROJECT	
2	OHIO		

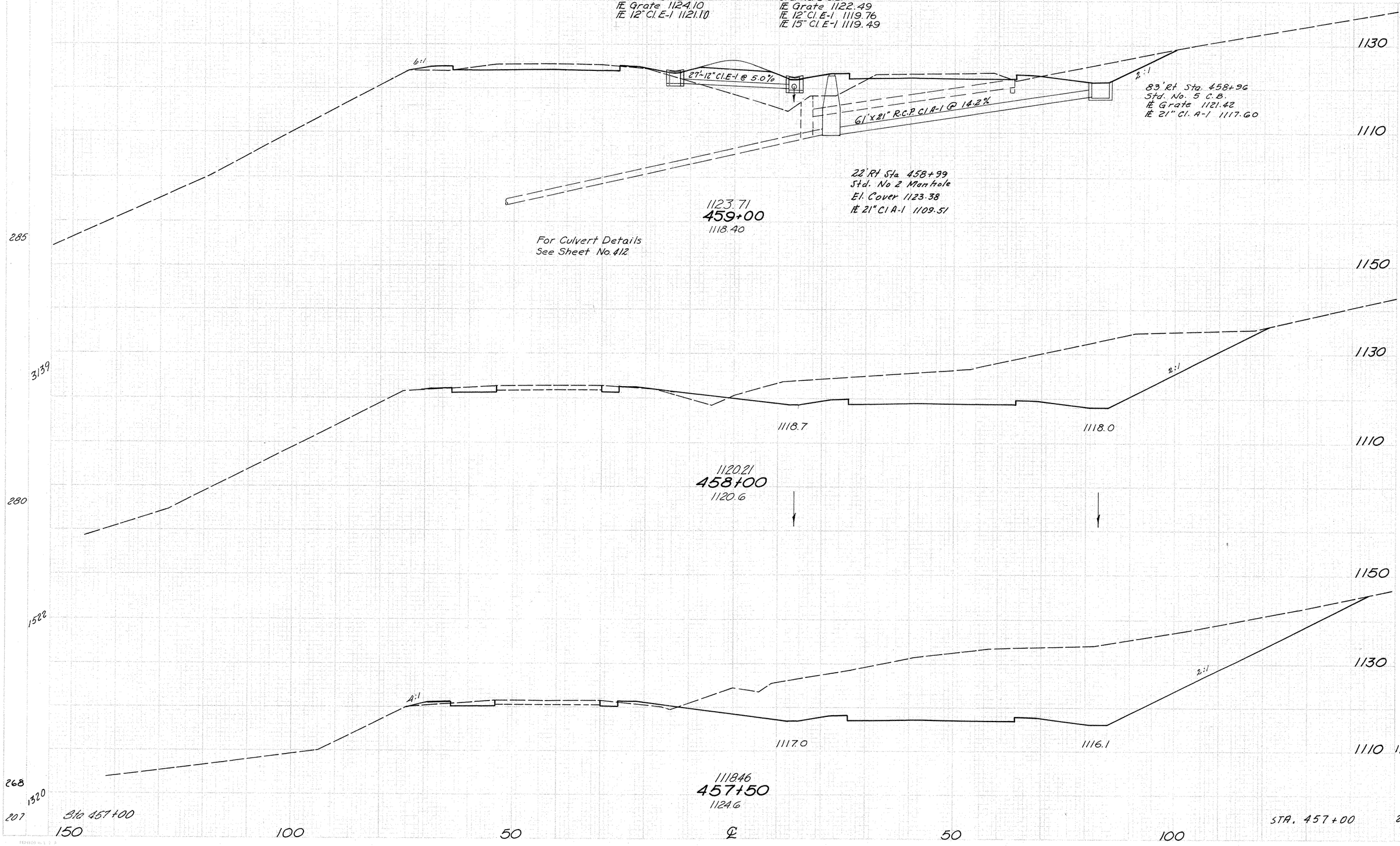
102
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

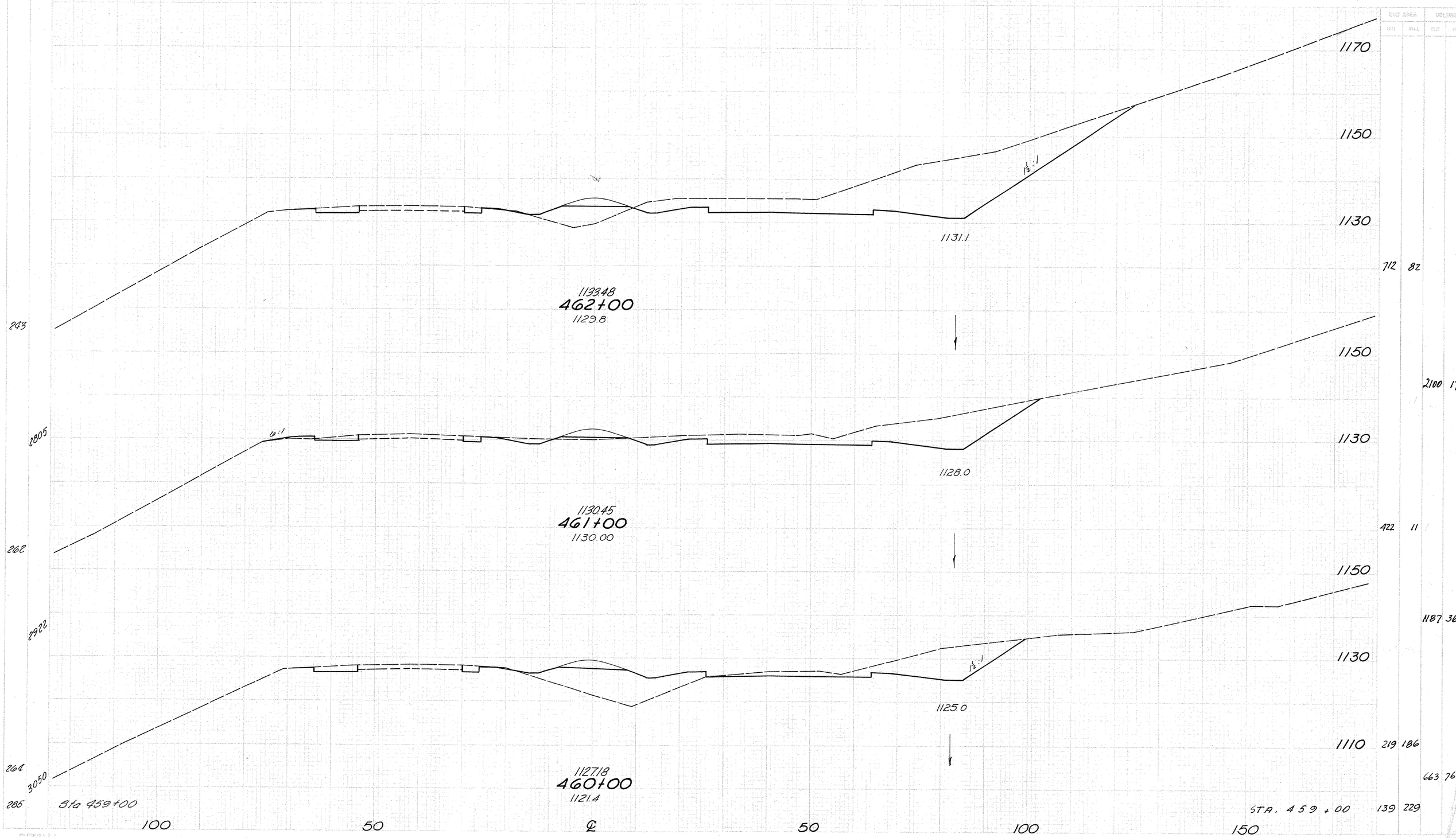


STA. 457+50 TO STA. 459+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

SEEDING

END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 460+00 TO STA. 462+00

SEEDING

END WIDTH	SQ. YDS.

FILE NUMBER	SHEET	TOTAL SHEETS
2	ONLY	

105
485

GUERNSEY COUNTY - BELMONT COUNTY
GUE-40-23.88 BEL-40-0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

1190
1170
1150
1130
1110

6:1

1035.8

1½:1

1137.37
463+42
1140.4

817

89.4 11

1020

1525 25

1170
1150
1130

1½:1

1034.0

1136.27
463+00
1135.7

1110 1066 21

3293 191

220

257.0

285

Sta 462+00

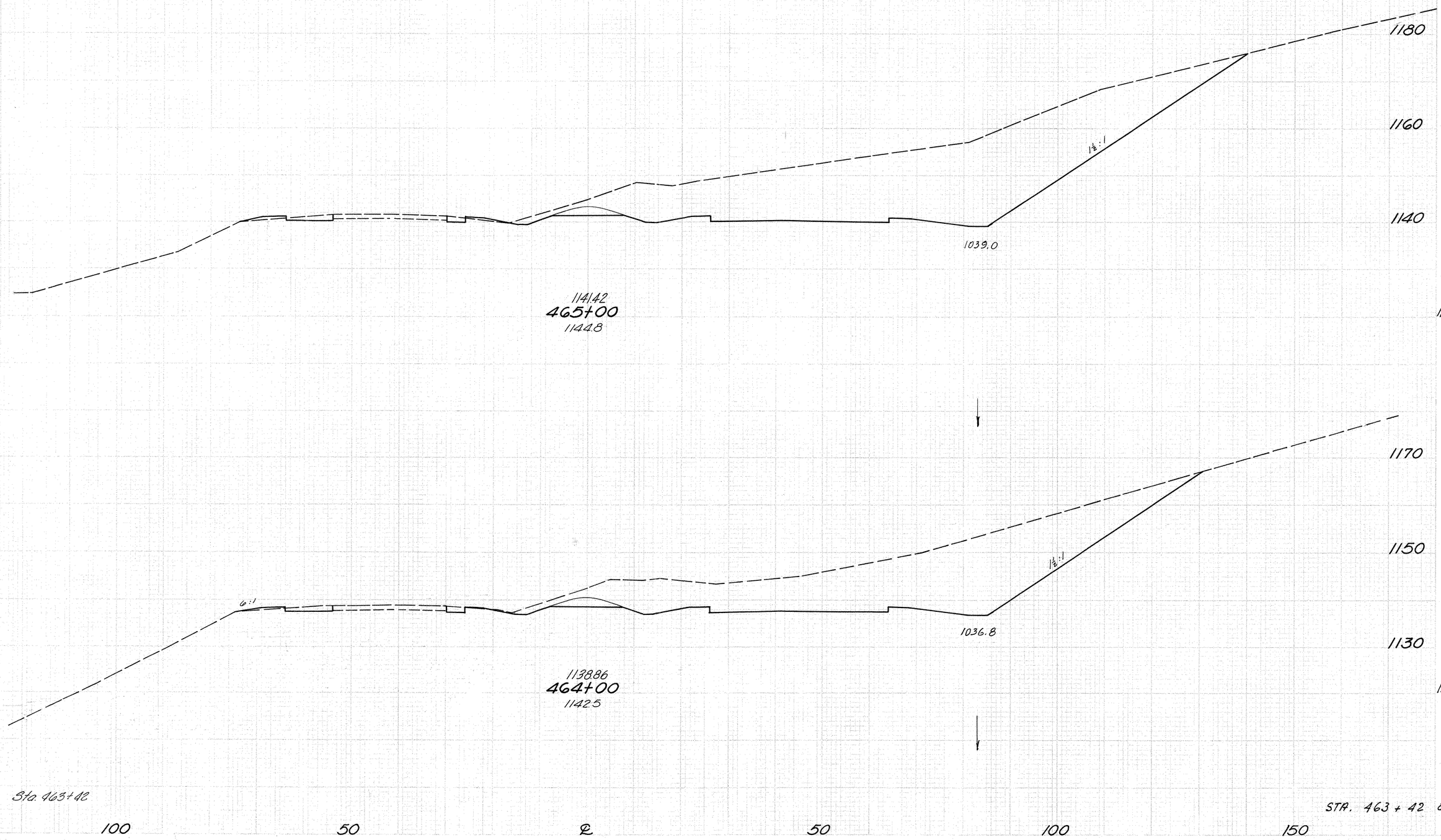
STA. 462+00 712 82

100 50 ℄ 50 100 150

STA. 463+00 TO STA. 463+42

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA | VOLUME
CUT | FILL | CUT | FILL

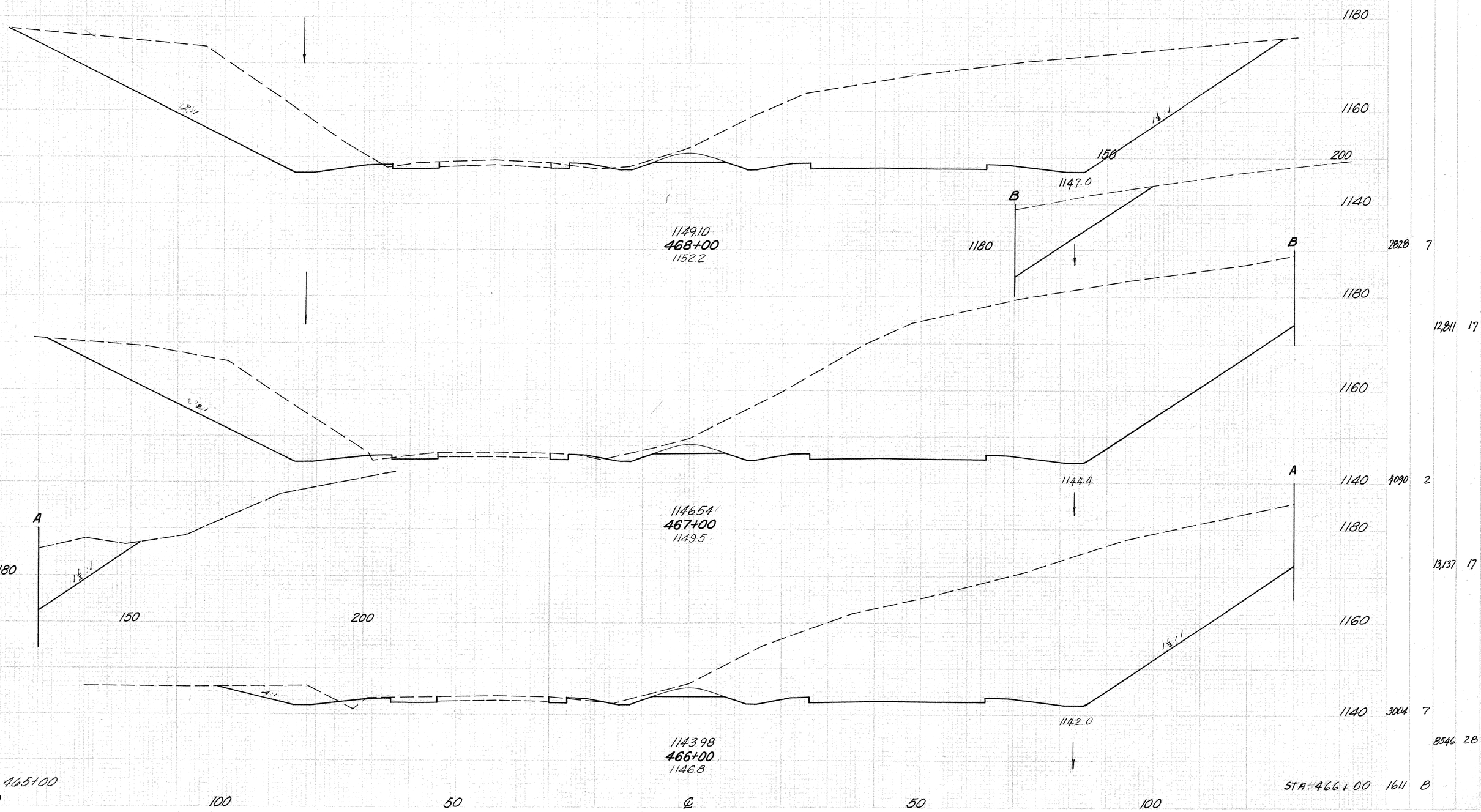


1611 8
5197 18
1191 2
2239 14
STA. 463 + 42 894 11

STA. 464+00 TO STA. 465+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

SEEDING		END AREA		VOLUME	
SYM.	SQ. YDS.	CUT	FILL	CUT	FILL


1180
1160
1140
1180
1160
1140
1180
1160
1140

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL

312

1155.19
470+50
1147.5

2:1
1:1
30'
1:1
30'
24:1
11'
2:1
2:1
1112.5

1150
1130 362 3123
679 5044

1161

1154.02
470+00
1145.4

24:1
11'
2:1
2:1
1124.4

1150
1130 371 2325

315

B
B
1180
1170
1160
B

3456

27' ~ 12" CL. E-1 @ 1.0%
80' ~ 15" CL. B-1 @ 2.34%
4:1
1144.0

13.5' LT. STA. 469+00
STD. NO. 8 C.B.
I.E. GRATE ~ 1149.50
I.E. 12" CL. E-1 ~ 1146.50

1151.61
469+00
1146.8

13.5' RT. STA. 469+00
STD. NO. 8 C.B.
I.E. GRATE ~ 1149.86
I.E. 12" CL. E-1 ~ 1146.23
I.E. 15" CL. B-1 ~ 1145.98

94' RT. STA. 469+00
STD. TYPE HW-E ENDWALL
I.E. 15" CL. B-1 ~ 1144.10

1160 1909 5637

307

1140

660 719

2000

A
A
1180
1170
1160
A

2:1
2:1
1147.4

1972 808

1160

303

1270

1150.14
468+41
1148.8

1140 1145 19
3016 19

255

3/a 468+00

STA. 468+00 2828 7

100 50 ℄ 50 100 150

STA. 468+41 TO STA. 470+50

109
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL.–40–0.00

CRO SECS | VOLUME
CUT | FILL | CUT | FILL

B

1120
1100
160

5'
1:1
2:1
29.75'
2:1
2:1

1170
1150
1130
1110

2:1
1:1
30'
1:1
30'
1:1
25'

B

799.5637

308

1158.54
472+00
1150.8

A

1110
160

9'
2:1
2:1
1103.7

1170
1150
1130
1110

2:1
1:1
30'
1:1
30'
1:1
30'
1:1
21'

A

2457.7645

5333891

8296495

3394
311
1708
312

1156.33
471+00
1148.1

Sta. 470+50

100 50 ℄ 50 100 150 Sta. 470+50 3623123

STA. 471 +00 TO STA. 472 +00

110
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

CH. 27 RELOC.

118' Lt Sta. 473+68
Std. No. 5 C.B
IE Grate ~ 1157.80

1150 IE ~ 1146.72

1140 Exist. 15" C.M.P. @ 19.0 %
@ E. Sta. 473+52
See Sheet No. 413

1162.86
474+00
1154.0

B
1110
1090
160
2:1
1:1
30'

1160
1140
1120
1100
499.6227
1826.30420

A
1110
1090
160
30'
1:1
2:1
TO CULVERT
1080.0

Ex. 12" Pipe
Plug & Abandon

1160.70
473+00
1152.5

Sta. 472+00

100 50 ℄ 50 100 150 Sta. 472+00 799.5637

487.6501
2382.22479

STA. 473 +00 TO STA. 474 +00

111
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA | VOLUME
CUT | FILL | CUT | FILL

C.H. 27 RELOC.

B

1120
1100
160
2:1
12'
1:1
30'

1160
1140
1120
1100

2:1
1:1
30'
1:1
30'
1:1
18'

B

1165.02
475+00
1146.9

303

471 6164

C.H. 27 RELOC.

A

1120
160
1100
2:1
16.25'
1:1
30'

1160
1140
1120
1100

2:1
1:1
30'
1:1
30'
1:1
14'

A

1010 12484

1165.85
474+46
1154.1

1840
1605
311
317
Sta 474+00

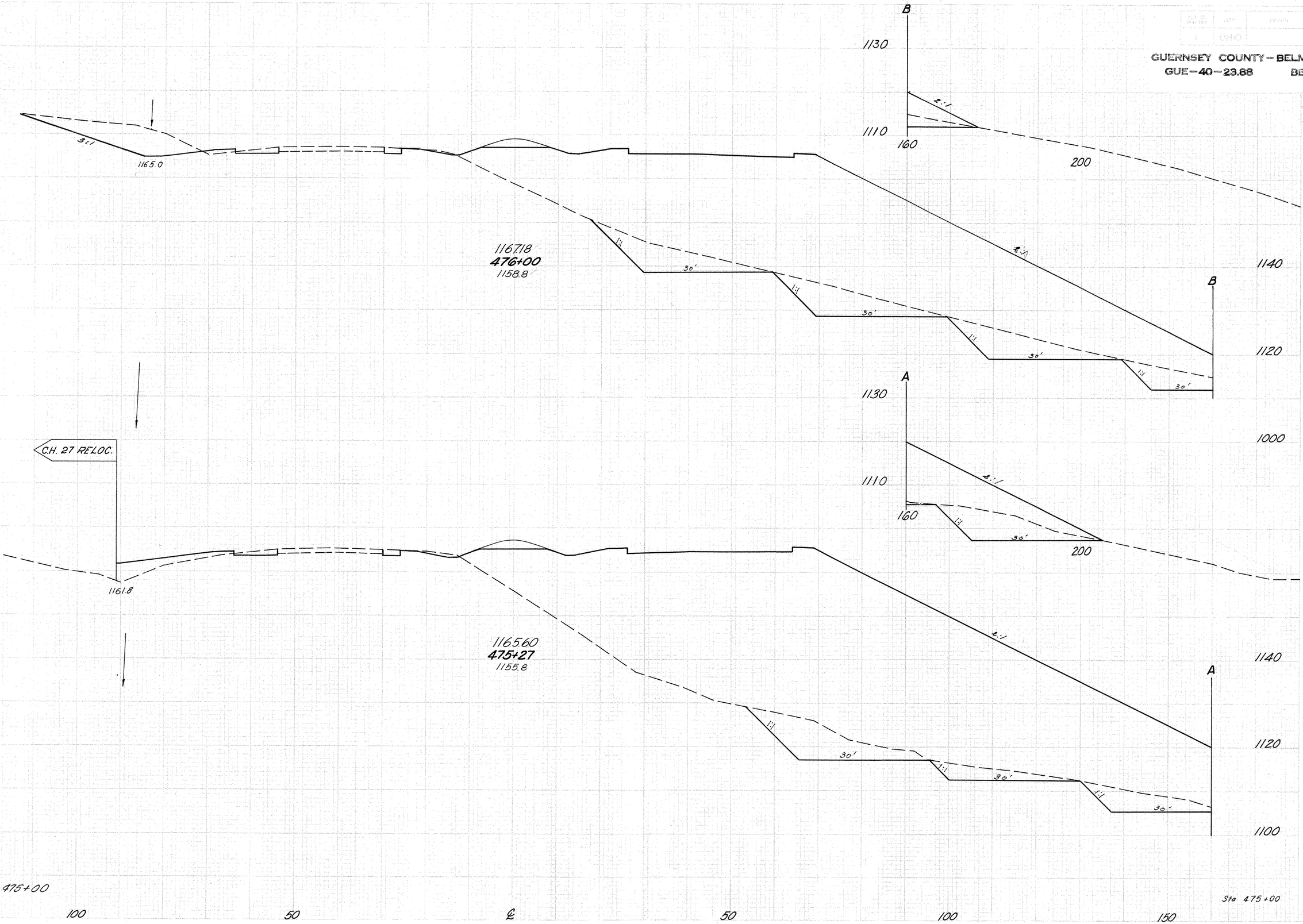
539 6320
885 10690
Sta 474+00 499 6227

100 50 ℄ 50 100 150

STA. 474 + 46 TO STA. 475 + 00

112
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



STA. 475 +27 TO STA. 476 +00

SHEDING

EXC.	SS
OTHER	ROCK

SHEET NO.	TOTAL SHEETS	STATE	
		OHIO	

113
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

160 200

B

1120

2:1

1166.9

1:1 30' 1:1 30' 1:1 30' 1:1 30'

2:1

B

1140

1120

1169.34
477+00
1161.1

283

857 3403

160 200

A

1120

2:1

1165.9

1:1 30' 1:1 30' 1:1 30' 1:1 30'

2:1

A

1140

1120

1100

1552 6314

1583

1166.26
476+50
1160.2

287

819 3416

1433 6620

1602

290 Sta 476+00

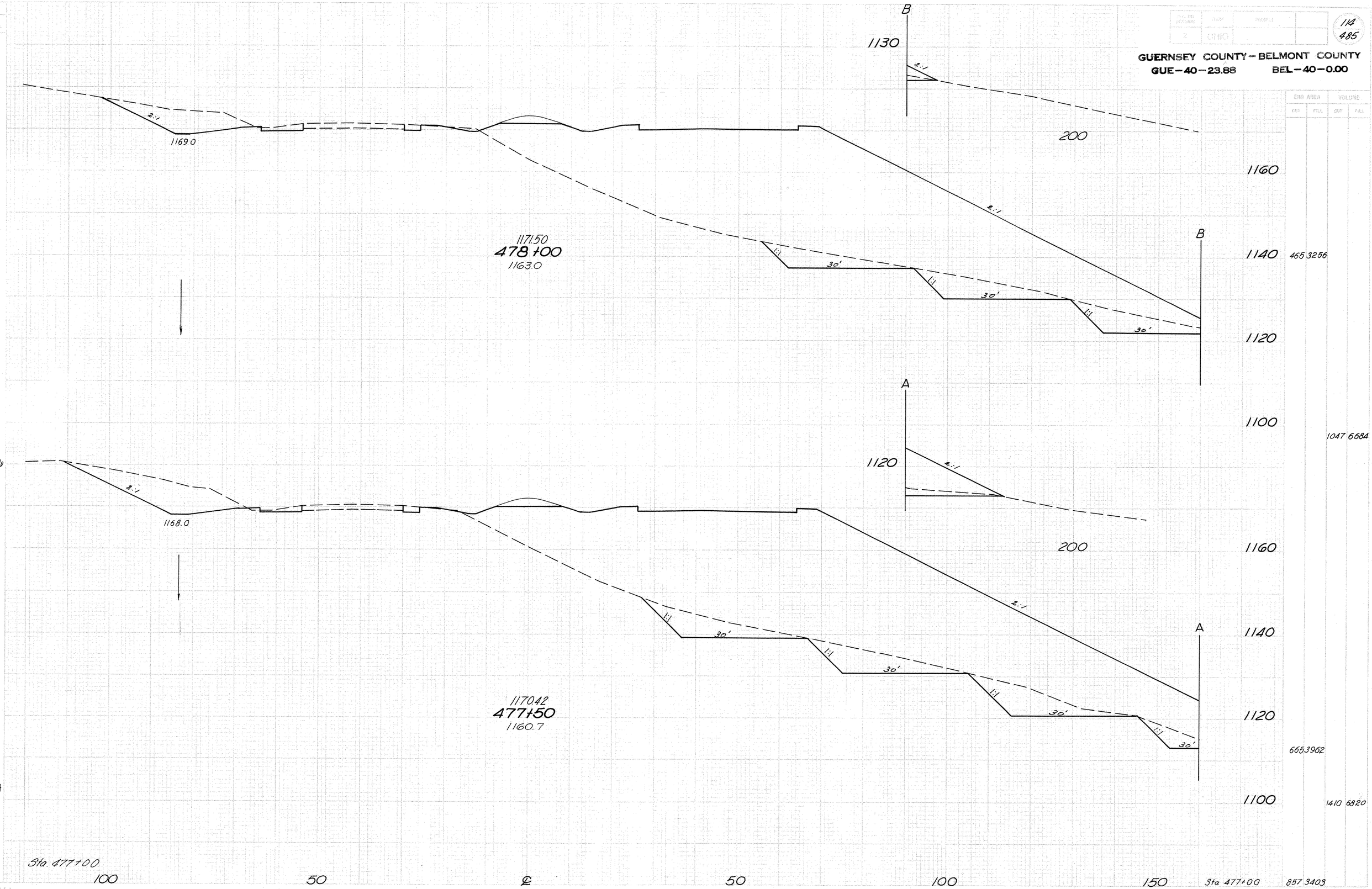
Sta 476+00

728 3733

100 50 ℄ 50 100 150

STA. 476 + 50 TO STA. 477 + 00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



STA. 477 + 50 TO STA. 478 + 00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
283				
1170				
1150	465	3448		
1130				1028	5695
1170				
1150				
1130				645	2702
1170				1084	4762
1150				
1130				525	2441
1582				
1483				
1506				917	5275
278				

C

1130

2:1

200

1170

1150

1130

B

1130

2:1

1170

200

1150

B

1130

2:1

1:1

30'

1:1

30'

1:1

30'

1172.8

1171.0

1170.1

1167.5

1170.2

1166.0

117474
479+50
1166.0

117366
479+00
1167.5

117258
478+50
1170.2

2T~12" C1.E-T@1.0%

58~15" C1.B-1 @1.0%

88~15" C1.F-4

8~15" C1.F-4@1.0%

13.5' Lt Sta. 478+50
Std. No. 8 C.B.
I.E. Grate 1170.10
I.E. 12" C1.E-1 1167.10

13.5' Rt Sta. 478+50
Std. No. 8 C.B.
I.E. Grate 1170.83
I.E. 12" C1.E-1 1166.83
I.E. 15" C1.B-1 1166.58

160' Rt Sta. 478+50
Std. Type HW-E Endwall
I.E. 15" C1.F4 1126.80

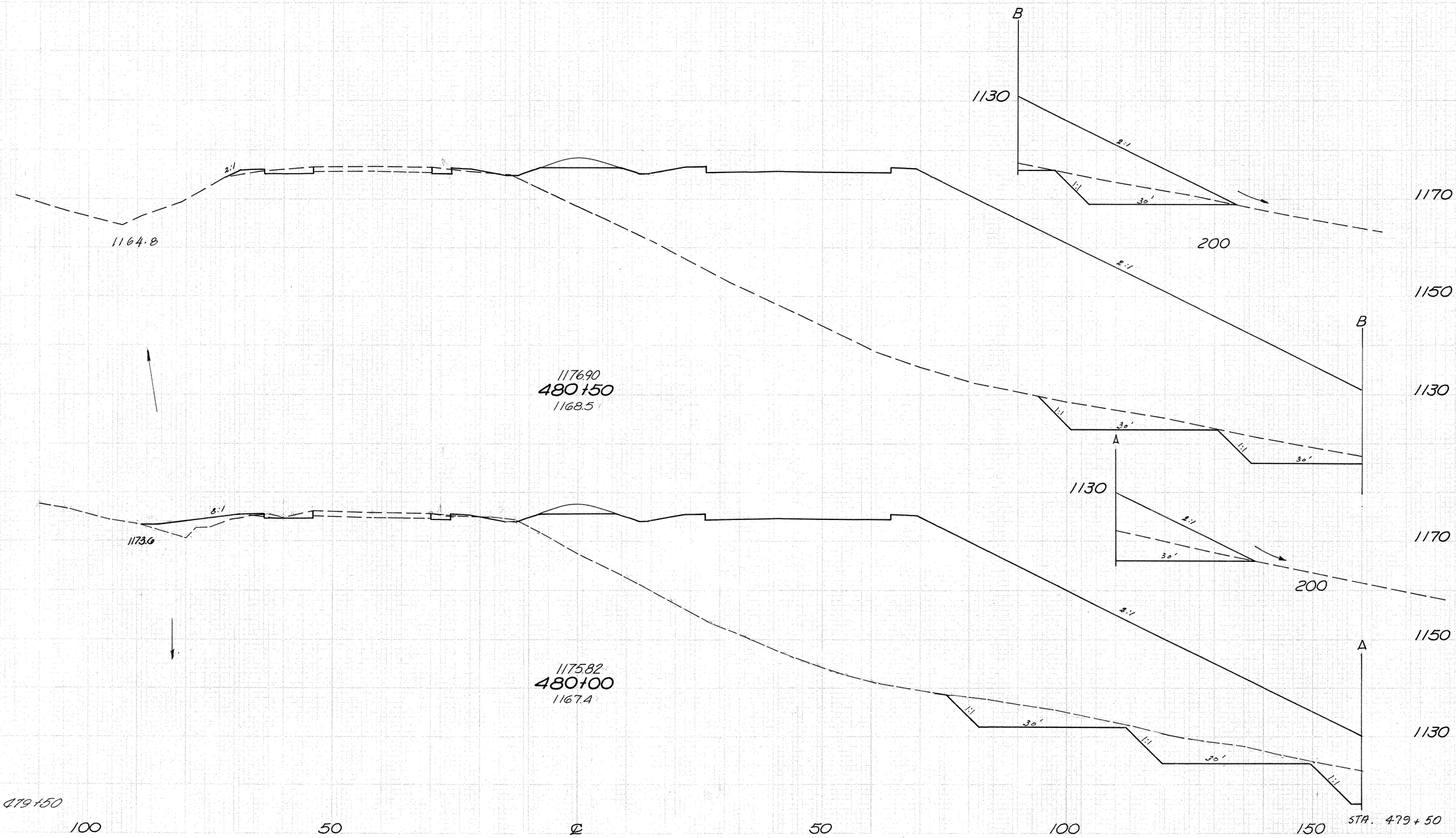
Sta 478+00

100 50 ℄ 50 100 150 Sta. 478+00

STA. 478 + 50 TO STA. 479 + 50

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 480+00 TO STA. 480+50

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL

363

1956

1838

341

321

1157.3

1160.5

1169.8

117906
481+50
1171.1

117798
481+00
1169.8

STA. 480+50

STA. 481+00 TO STA. 481+50

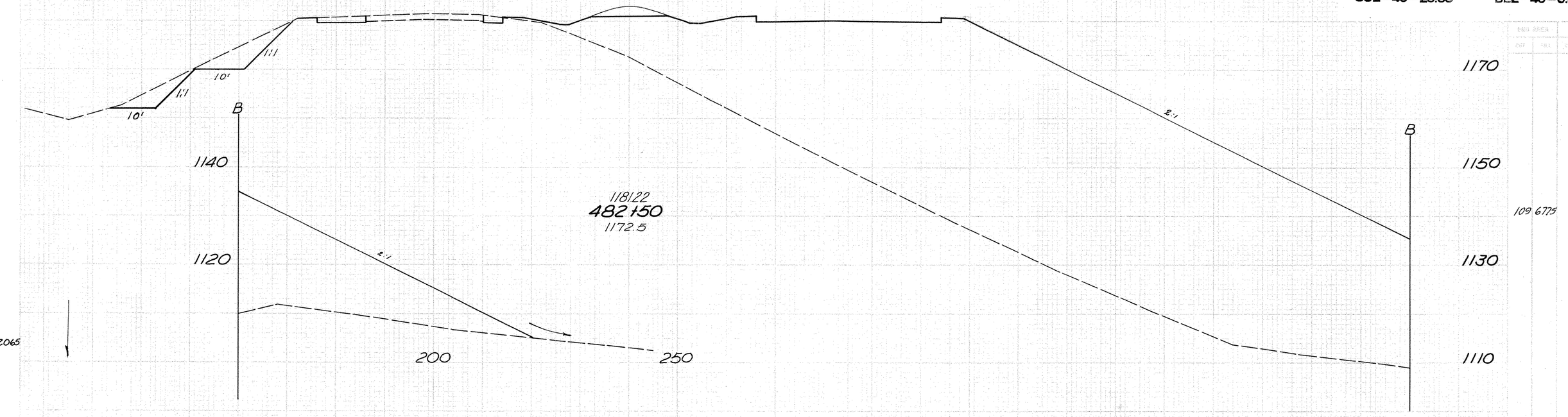
1170
1150
1130
1110
1090

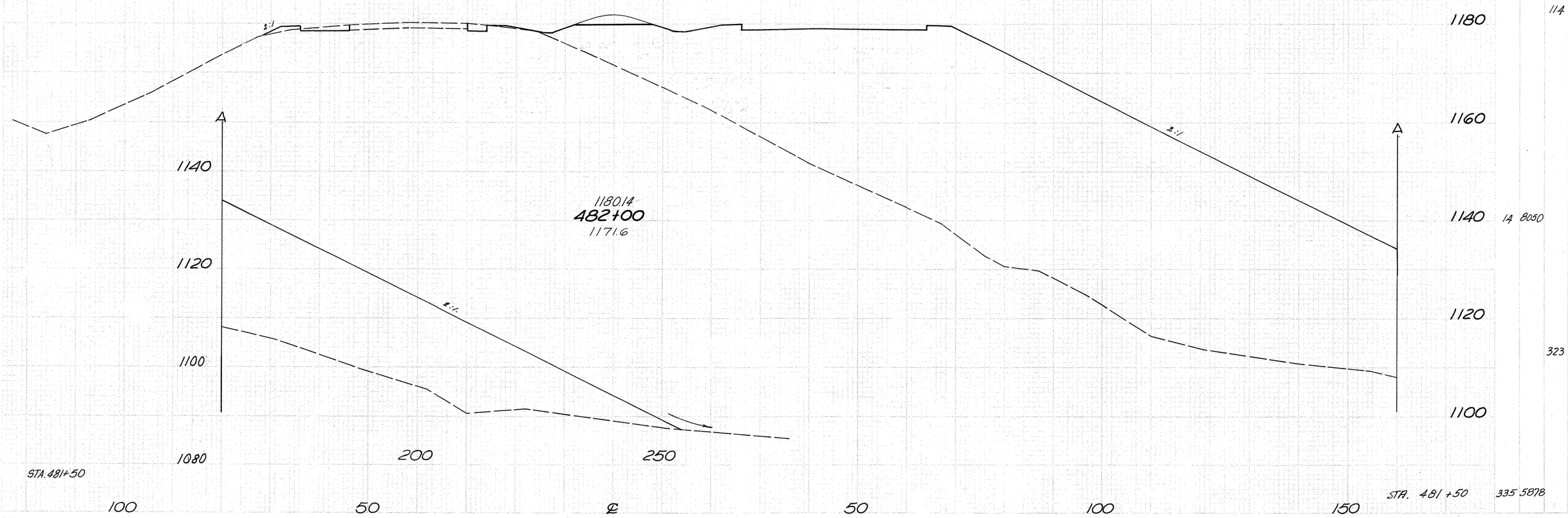
2:1
1:1
10'
30'
200
250
100
50
50
100
150

335 5878
593 10210
305 5148
680 9623
429 5244

118
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00





STA. 482+00 TO STA. 482+50

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA | VOLUME
CUT | FILL | CUT | FILL

1180
1160
1140
1120
1130
1150
1170
1180
1160
1140
1120

2:1
1:1
30'

1184.31
484+00
1174.9

1183.32
483+50
1172.5

1182.29
483+00
1173.4

B
A
℄

200

294 261 3407
1691 484 7224
315 261 4395
1814 490 9087
338 268 5418
1938 349 11,592
360 109 6775

STA. 482+50

100 50 50 100 150

STA. 483+00 TO STA. 484+00

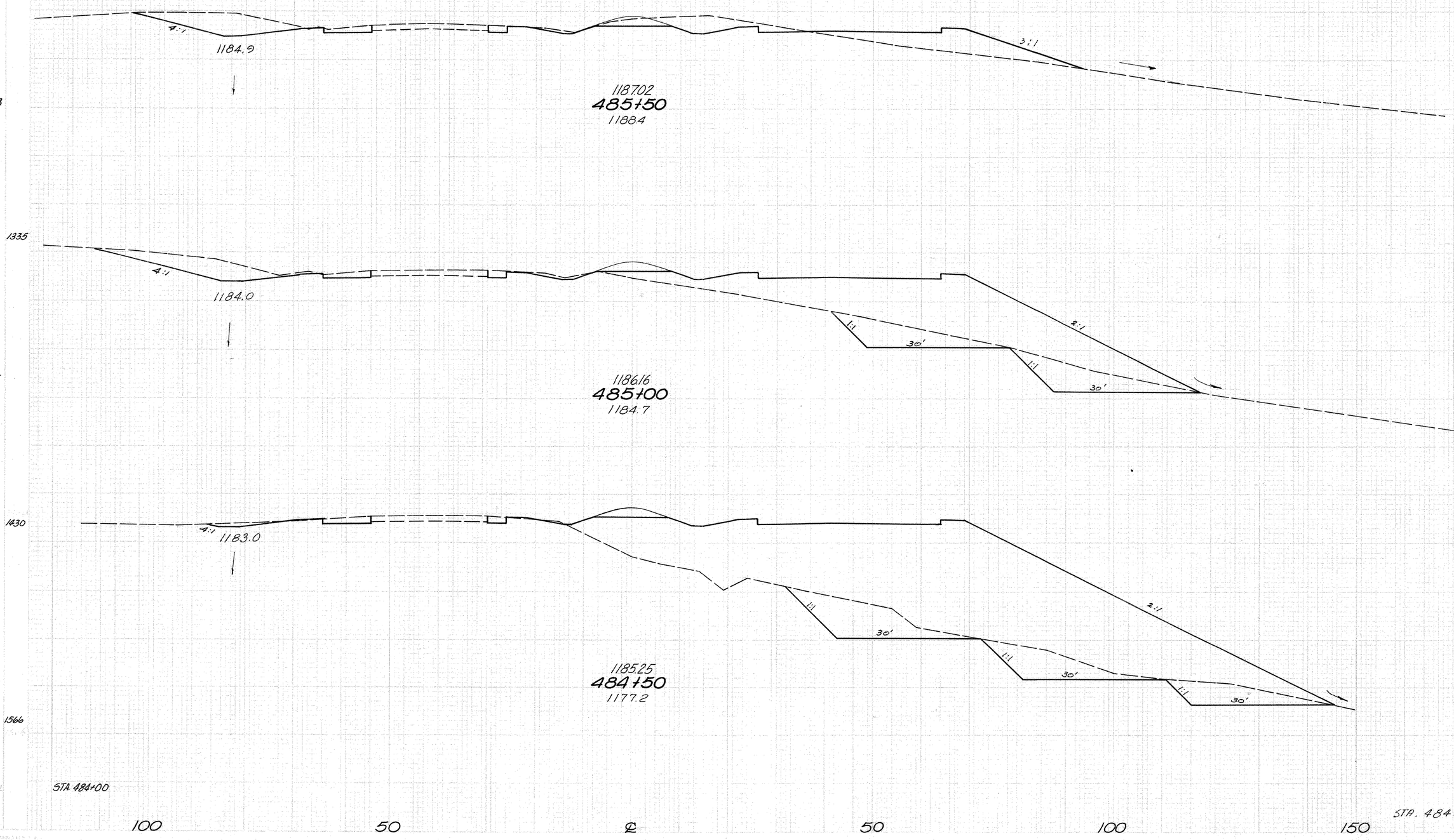
SEEDING

CUT SLOPES	SIDE DITCHES

FED. ROAD DIST. NO.	STATE	PROJECT	
2	OHIO		

120
485

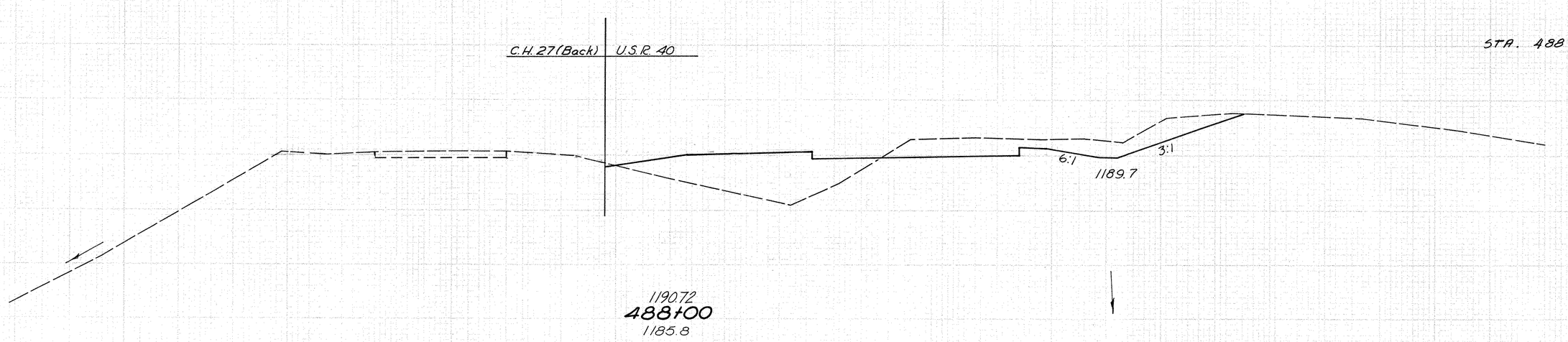
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1200				
1180				
283	184	145		
1160				
1200				
1335			507	1061
1180				
245				
1160	363	1001		
1190				
1430			714	3113
1170				
270				
1150	408	2360		
1566				
			620	5340
294				
STA. 484+00	261	3407		

STA. 484 + 50 TO STA. 485 + 50

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



Begin Bridge Sta. 487+96.63
Begin Approach Slab Sta. 487+71.93

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		0	0
			98
			136
		183	253
		1161	469
		463	
		1500	
		347	0
			492
			135
		184	145

248
247
238
243

STA. 486+00 TO STA. 488+00

SEEDING

EXIST. WIDTH	PROP. WIDTH

STATE	PROJECT
OHIO	

122
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

231

1350

257

1298

0

1503

248

1200

1:1

10'

1:1

10'

1:1

10'

135 Lt. Sta. 490+50
Std. No. 8 C. B.
℄ Grade 1191.62
℄ 12" C.I.E-1 1188.62

1193.37
490+50
1194.2

1180

1200

2:1

100

1160

1210

1116 208

2018 626

98'x15" C.I. B-1 @ 0.25%

2:1

83' Rt. Sta 490+00
Std. N. S. C.B.
℄ Grade – 1190.55
℄ 15"C.I. B-1 – 1185.92
℄ 15"C.I. F-4 – 1185.82

℄ Sta 489+44
Standard No.8 C.B.
℄ Grade 1189.42
℄ 12" C.I. E-1 1186.42
℄ 15" C.I. B-1 1186.17

1192.92
490+00
1189.4

1190

1170

1064 448

End Approach Slab Sta 489+34.07
Begin Approach Slab Sta 489+09.07

U.S.R. 40 C.H. 27

2:1

489+09.07
1187.0

1210

3583 1509

1190

1170

1064 448

1150

109 46

STA. 488+00

Begin ℄ Earthwork.
Sta 489+03.55

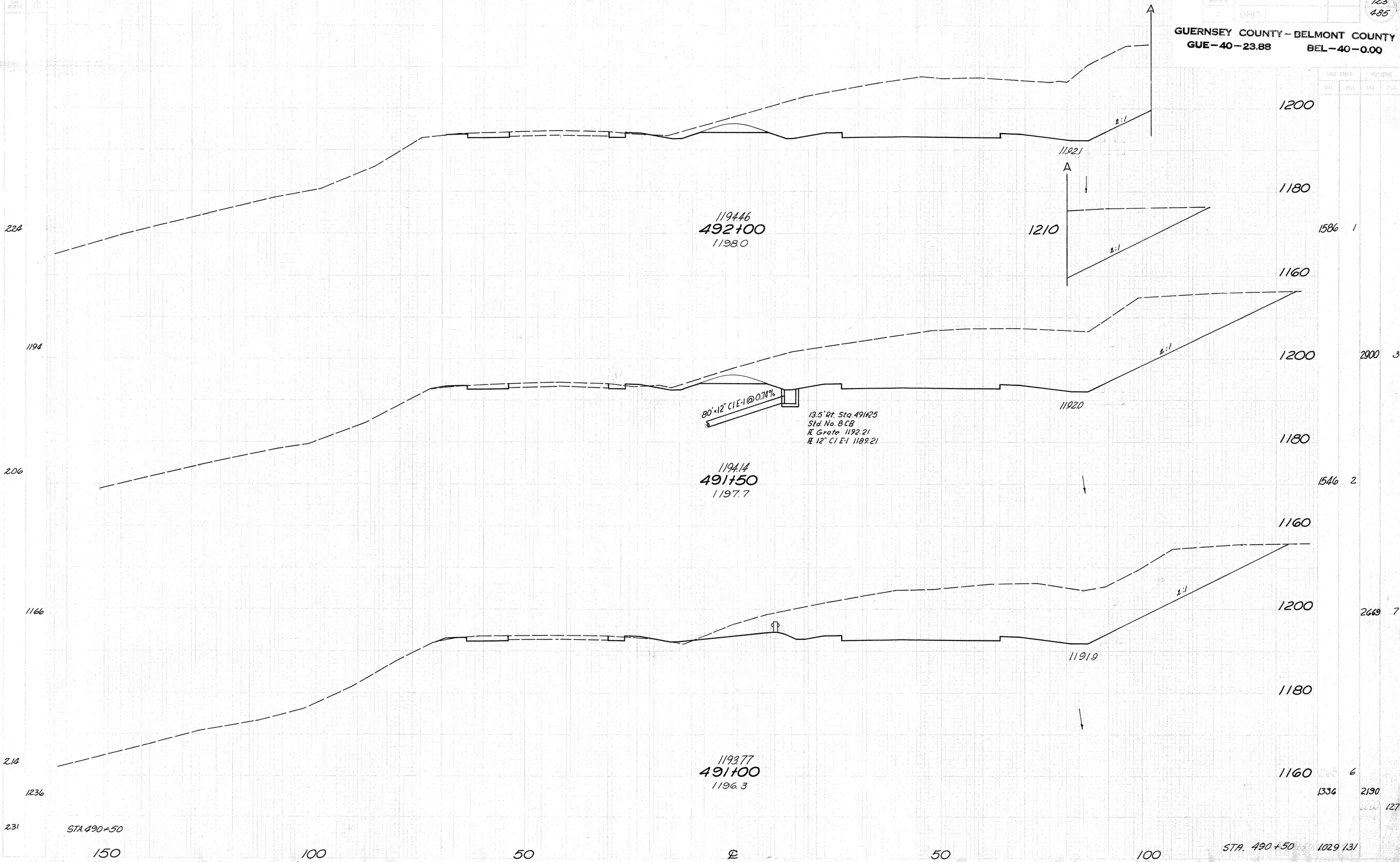
0 0

150 100 50 ℄ 50 100

STA. 489+00 TO STA. 490+50

123
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



224 1586 1

206 1546 2

214 2669 7

231 1336 2190 127

1029 131

STATE	PROJECT
OHIO	

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		808	0
1620	8		
941	8		
2146	12		
1376	5		
2750	6		
1586	1		

283

1513

262

1394

240

1289

224

1200

1180

1210

1190

1170

1210

1190

1170

3:1

1193.0

119518
493+50
1196.3

6:1

4:1

1192.9

119498
493+00
1196.6

4:1

4:1

1192.7

119474
492+50
1197.3

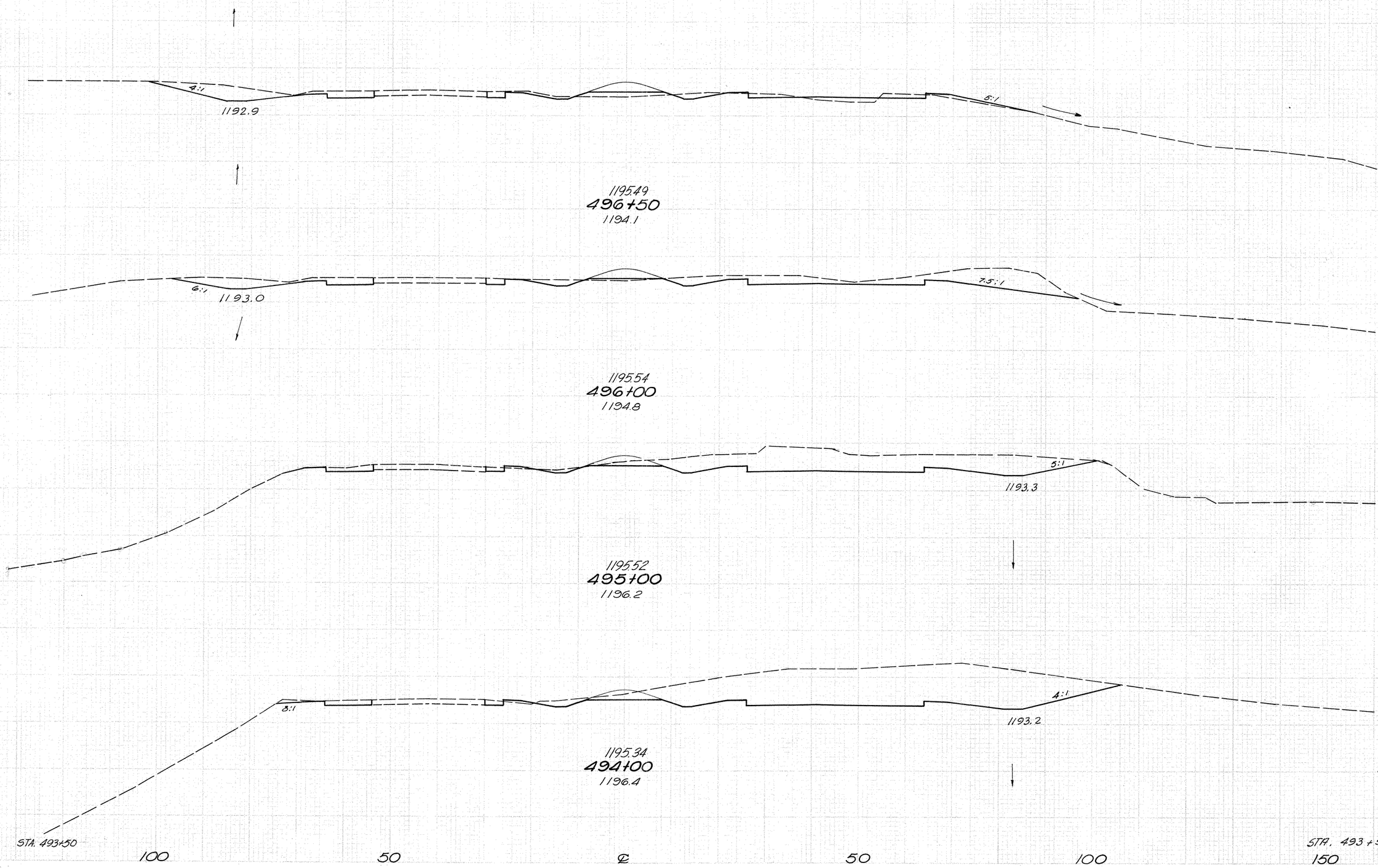
STA. 492+00

100 50 ℄ 50 100 150

STA. 492+00

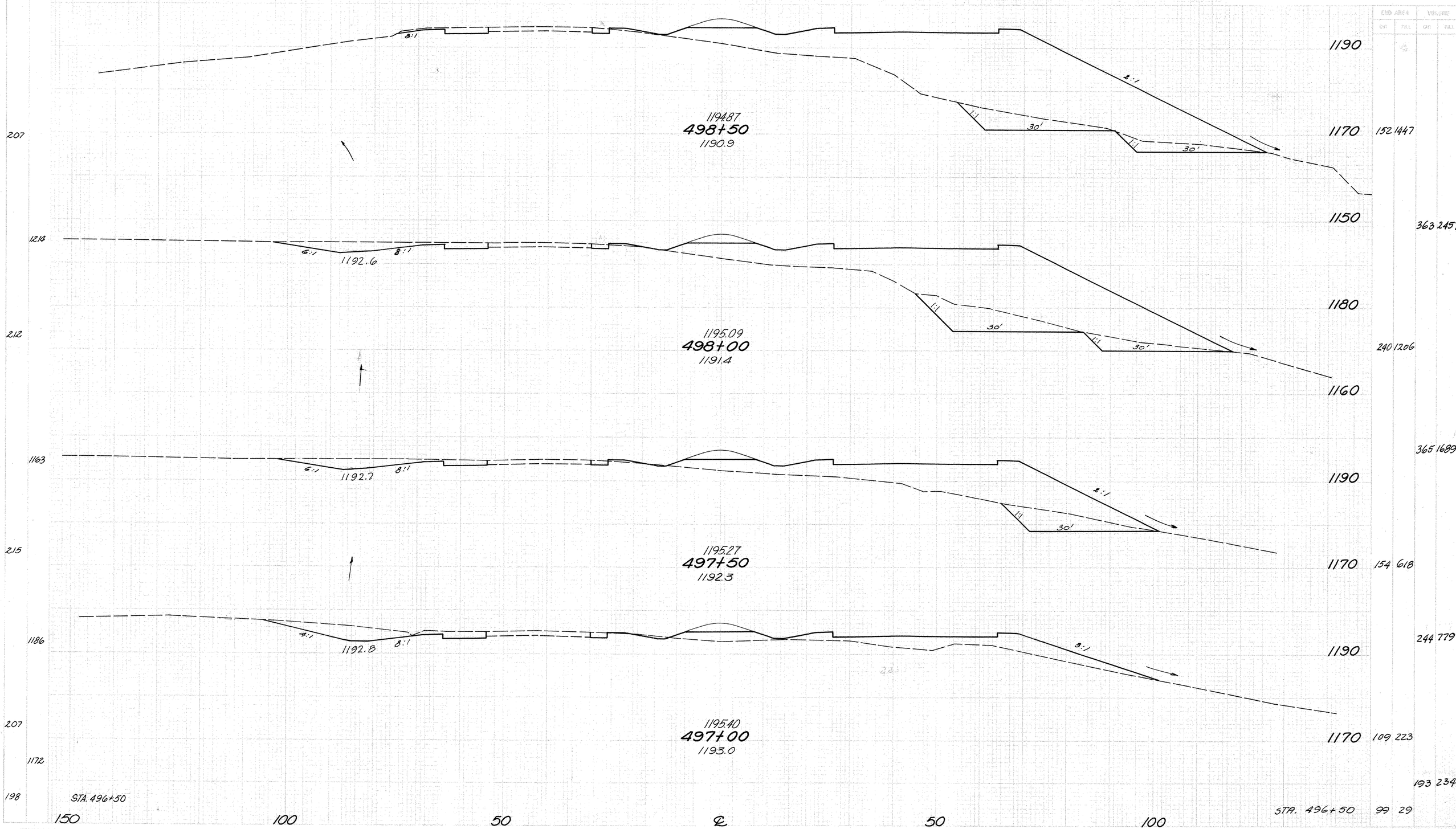
STA. 492+50 TO STA. 493+50

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1190			
1170	99	29	
1190		306	27
1170	231	0	
1190		1052	0
1170	337	0	
1200		1883	6
1180	680	3	
		1378	3
STA. 493+50	808	0	

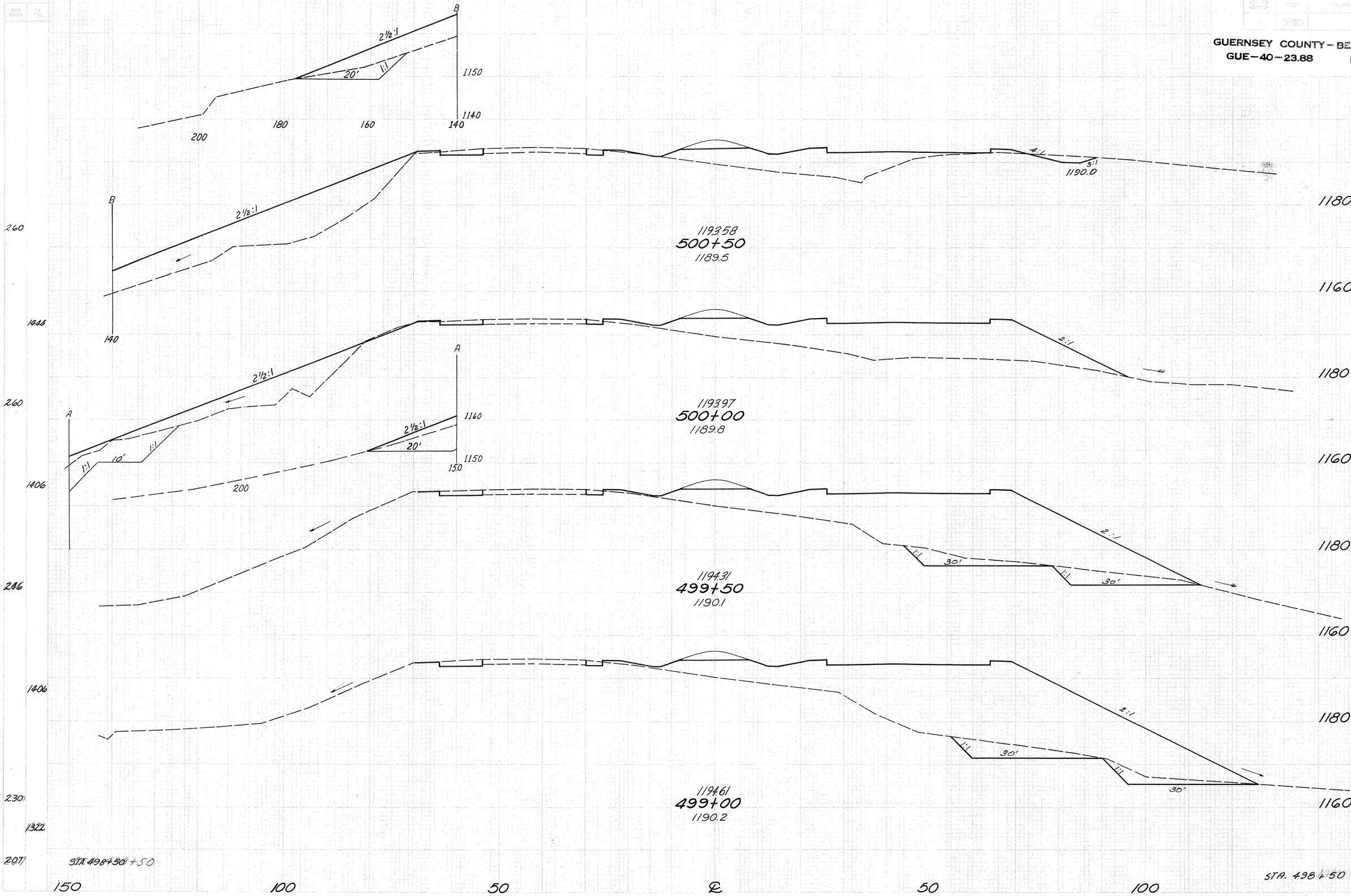
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



STA. 497+00 TO STA. 498+50

127
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

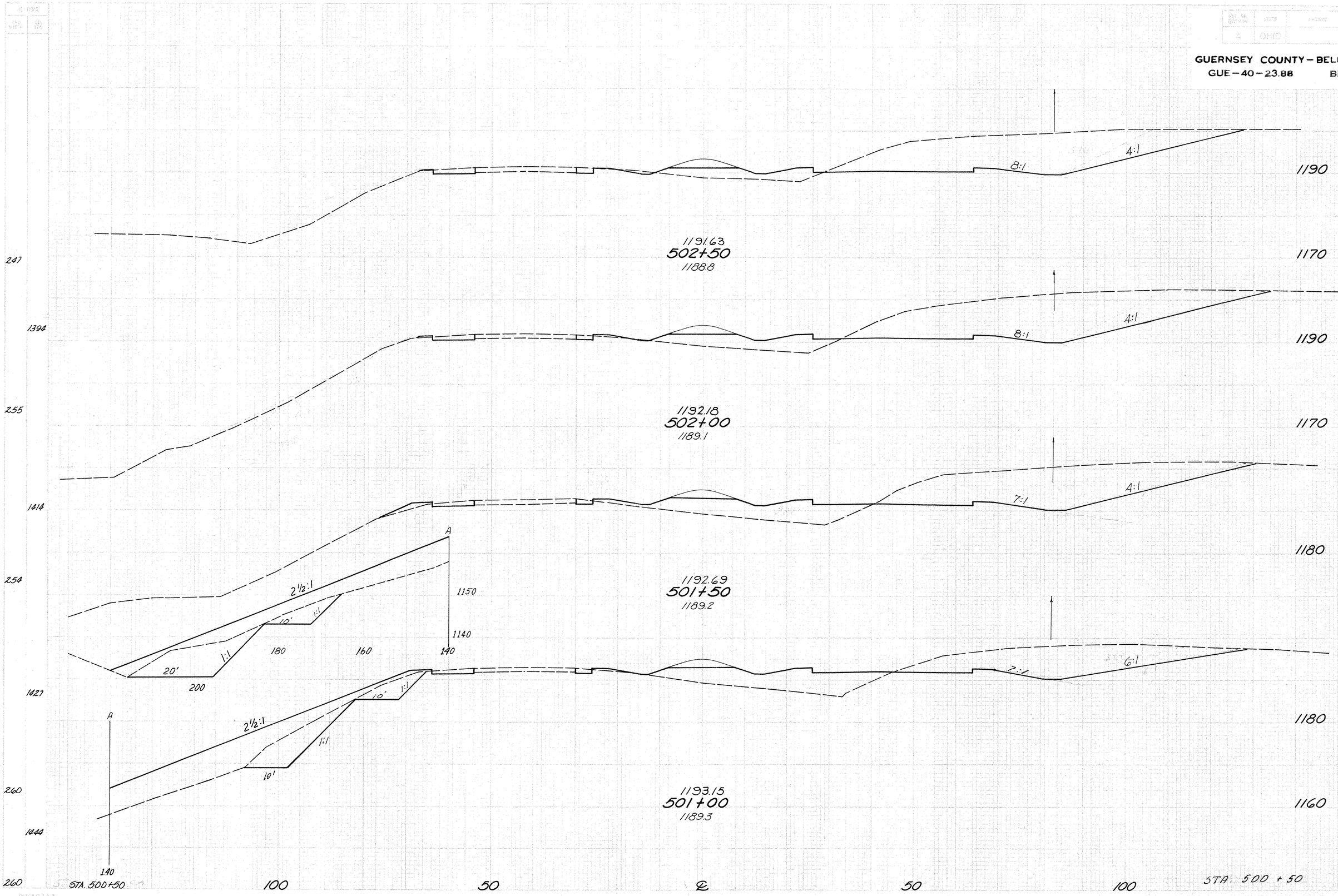


	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
80	978			
184		1838		
118	1007			
250		2010		
152	1163			
274		2459		
144	1492			
274		2722		
STA. 498+50	152	1447		

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1190		616		82
1170			1222	192
1190		703		125
1170			1165	315
1180		550		215
1180			998	1110
1180		528		983
1160			563	1816
		80		978



STA. 501+00 TO STA. 502+50

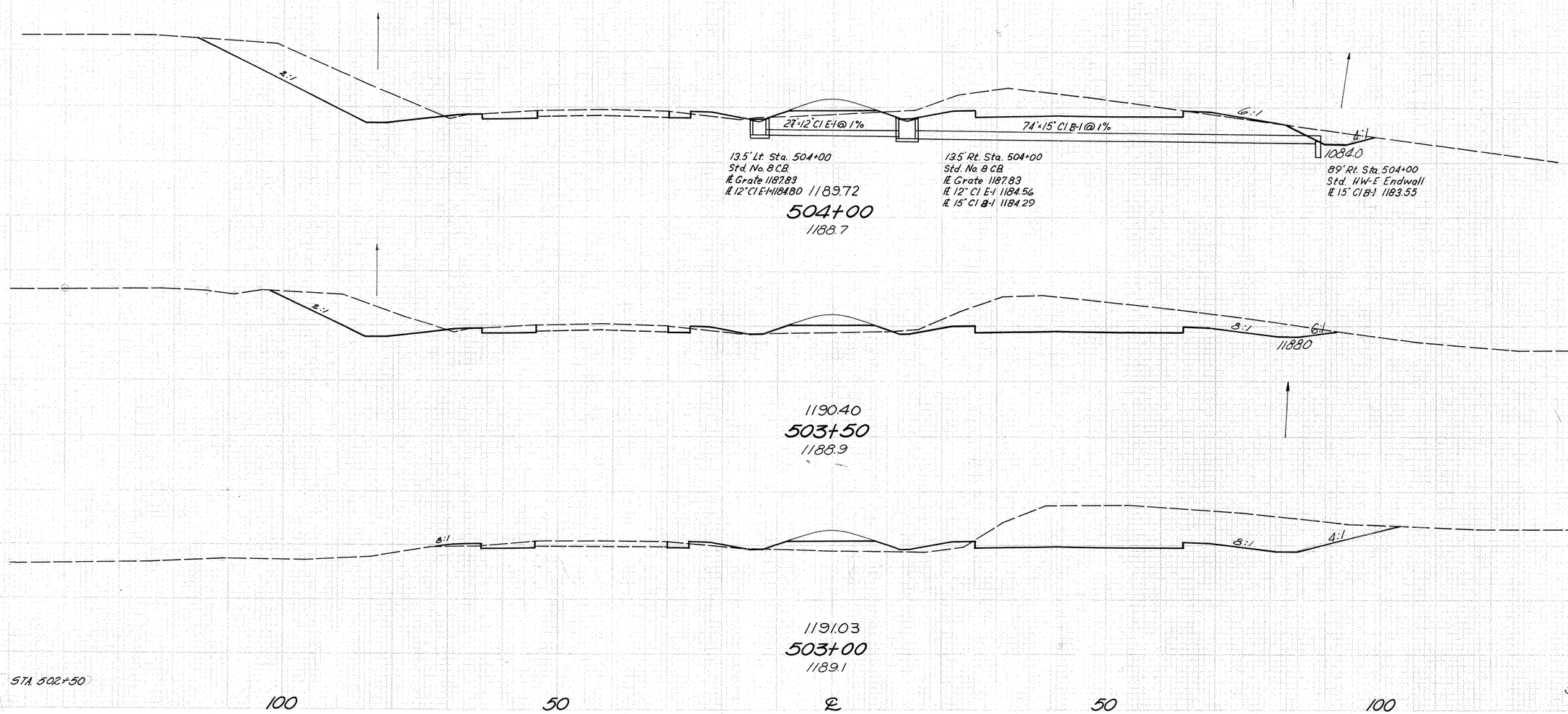
SHEETING
CUT | FILL

PLAN NO.	SHEET	TOTAL SHEETS

129
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 503+00 TO STA. 504+50

SHEET NO. 130
TOTAL SHEETS 485
STATE OHIO

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL

259

1210
1190
1170

10'
2:1
3:1
2:1
1:1
30'
1:1
30'
2:1
2:1
2:1

1186.60
506+00
1183.2

244 1169

1116.0

1419
252

1210
1190
1170

2:1
3:1
1:1
30'
2:1
2:1

1187.45
505+50
1186.2

481 1570
276 527

1166.4

1350
234
2628
239

1210
1190
1170

2:1
4:1
2:1
1:1

1188.25
505+00
1188.7

595 565
366 83
713 104

1176.0

STA. 504+00

Sta. 504+00 404.29

150 100 50 ℄ 50 100

STA. 505+00 TO STA. 506+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA VOLUME
CUT FILL CUT FILL

358

1181.0
8:1 8:1
C
1150
1130
2:1
2:1 2:1 2:1
150
1123.5

1183.83
507+50
1177.0

2:1
1:1 30' 1:1 30'
C
1170
1150 299 3975
1130 885 6638
1180

1914

331

1182.1
8:1 8:1
1184.79
507+00
1178.1
B
1160 333 3194
1140
1160 B
1140
30' 30'
2:1 2:1
1136.8
1190
150

612 4961

1780

Begin Ditch Sta. 506+75

24:1
2:1 2:1
2:1
1:1 30' 1:1 30' 1:1 30'
A
1170
1150 328 2164

310

Ditch Block
Sta. 506+25
Elev 1184.0

1185.72
506+50
1180.4

1580

A
1150
130
2:1 2:1 2:1
1146.0

259

STA. 506+00
Sta. 506+00 244 1169
530 3086

150 100 50 ℄ 50 100

STA. 506+50 TO STA. 507+50

SCORING

RDWY WIDTH	SQ YDS

END AREA		VOLUME	
CUT	FILL	CUT	FILL

132
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23 88 **BEL – 40 – 0.00**

B

1130

1110

2:1

30'

1:1

30'

200

2:1

2:1

1100.0

2:1

1160

2:1

1180

Ex. 24" C.M.P.

℄ 1178.92

1170 24" C.M.P. – 166' Lt. Sta. 508+34

See Sheet No. 415

6:1 1178.5

395

1181.85

508+46

1169.2

B

1140

1:1

30'

1:1

1120

1100

℄ 1098.19

1090 PROPOSED 24" C.M.P.

232' Lt. Sta. 508+34

See Sheet No. 415

1980

6:1 1179.4

1180

1160

3870

2:1

A

1140

1120

1:1

30'

1:1

30'

380

1182.82

508+00

1168.8

2050

160

200

2:1

1112.0

2:1

A

1140

1120

358

STA. 507+50

100 50 ℄ 50 100 150

Sta. 507+50

STA. 508+00 TO STA. 508+46

780 5745

1061 8777

466 4559

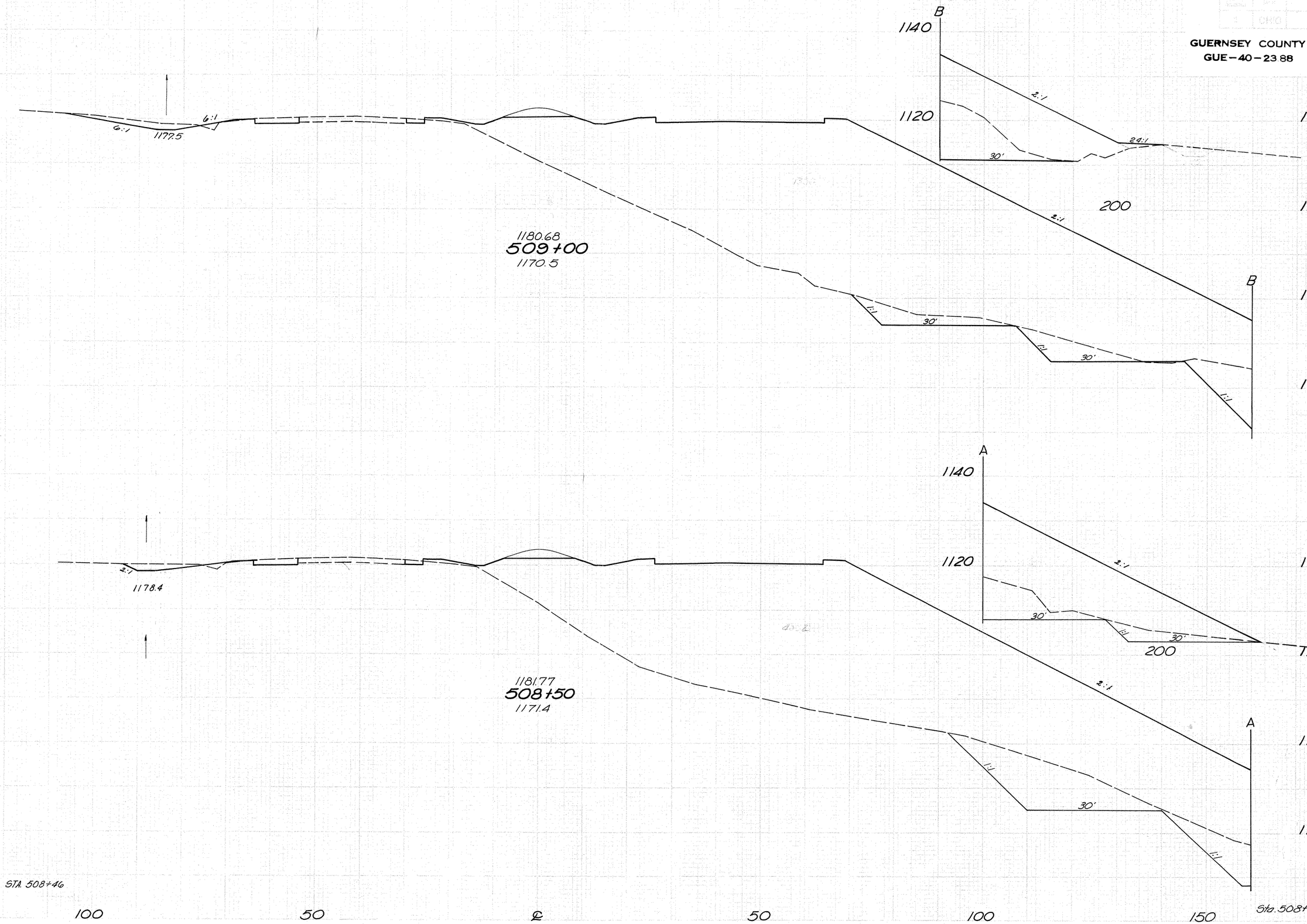
708 7902

299 3975

133
485

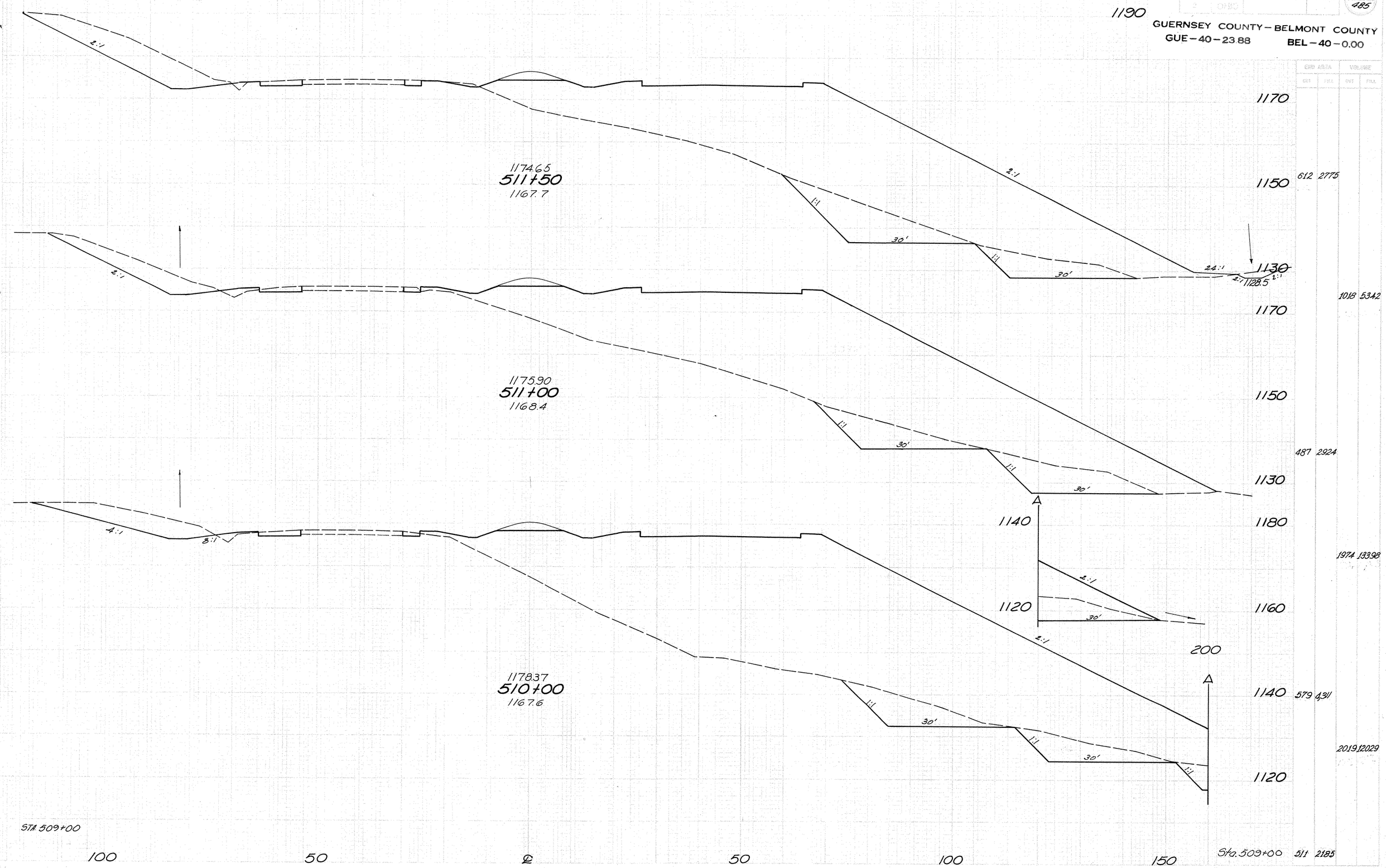
GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23 88 BEL – 40 – 0.00

END AREA VOLUME
CUT FILL CUT FILL



372
1861
1046 696
618 5280
104 816
398
170
395
780 5745

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



STA. 510+00 TO STA. 511+ 50

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
784	16			
552	31			
513	57			
742	963			
322	1026			
361	1606			
351	1965			
909	4476			
612	2775			

256 657 260 1392 263 845 262 1485 263

1180 1160 1140

2:1 3:1 6:1 2:1 24:1 10' 2:1 2:1

1170.88
513+01
1174.9

27' 12" E-1 @ 2%
71' - 15" B-1 6.6 @ or 6.86 @ 1%
12:1 2:1 6:1 100 1163.0

13.5' LT. STA. 512+78
STD. NO. 8 C.B.
F.E. GRATE = 1169.67
F.E. 12" E-1 = 1166.92

13.5' RT. STA. 512+78
STD. NO. 8 C.B.
F.E. GRATE = 1169.67
F.E. 15" B-1 = 1166.13
F.E. 12" E-1 = 1166.38

84' RT. STA. 512+78
STD. HWE ENDWALL
F.E. 15" B-1 = 1165.42

1171.45
512+78
1175.2

1172.90
512+30
1171.4

1145.0

1173.37
512+01
1170.4

1136.0

STA. 511+50

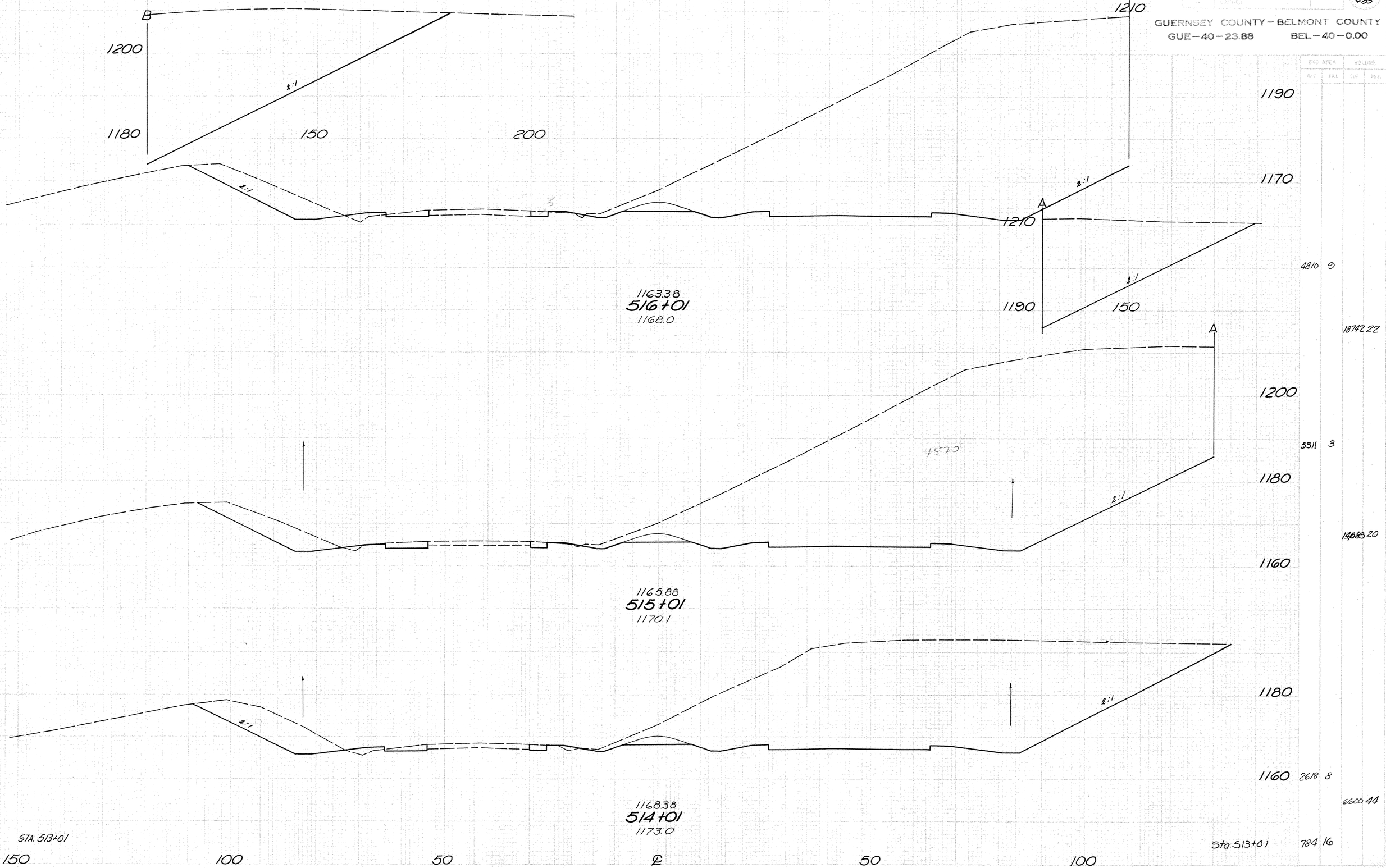
100 50 ℄ 50 100 150

Sta. 511+50

STA. 512+00 TO STA. 513+01

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

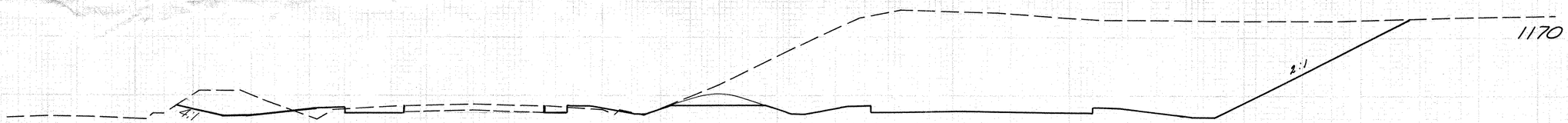
END AREAS CUT FILL | VOLUMES CUT FILL



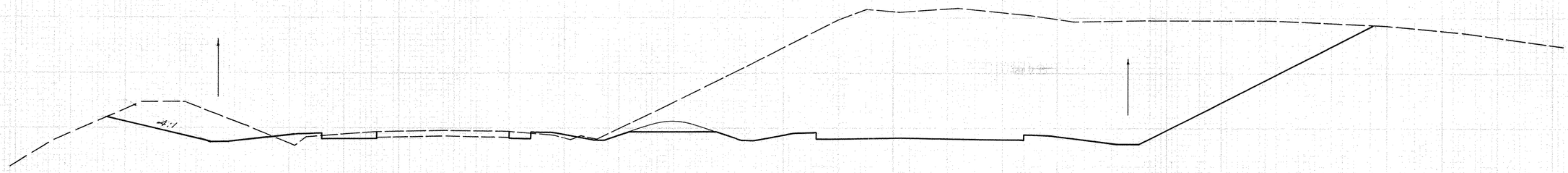
STA. 514+01 TO STA. 516+01

FED. AID DIVISION	STATE	PROJECT		137
5	OHIO			485

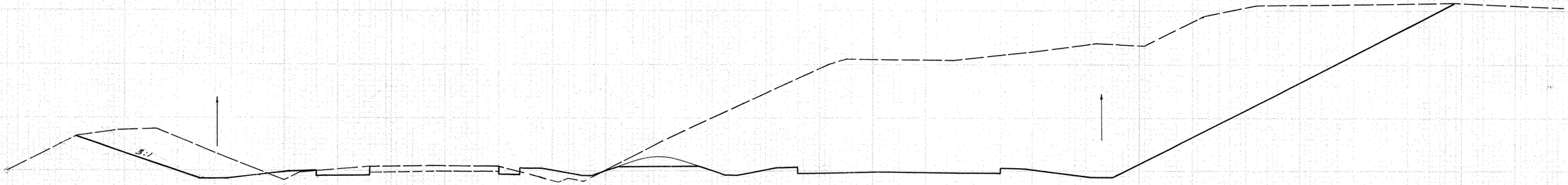
GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



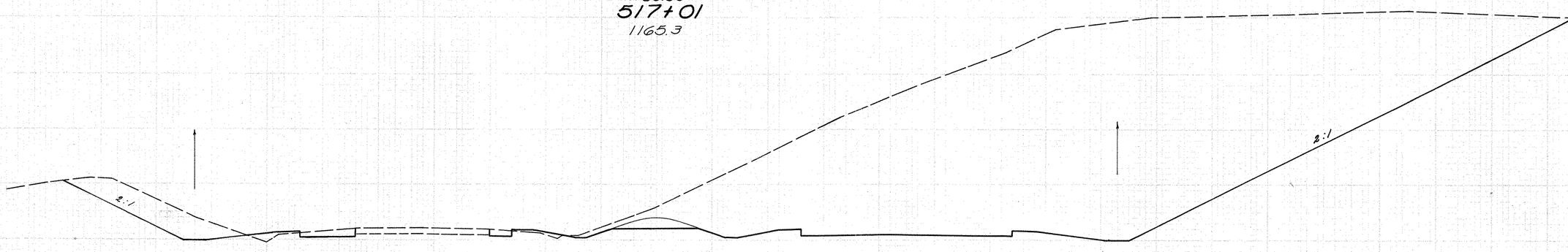
1158.38
518+01
1162.0



1159.58
517+53
1164.7



1160.88
517+01
1165.3



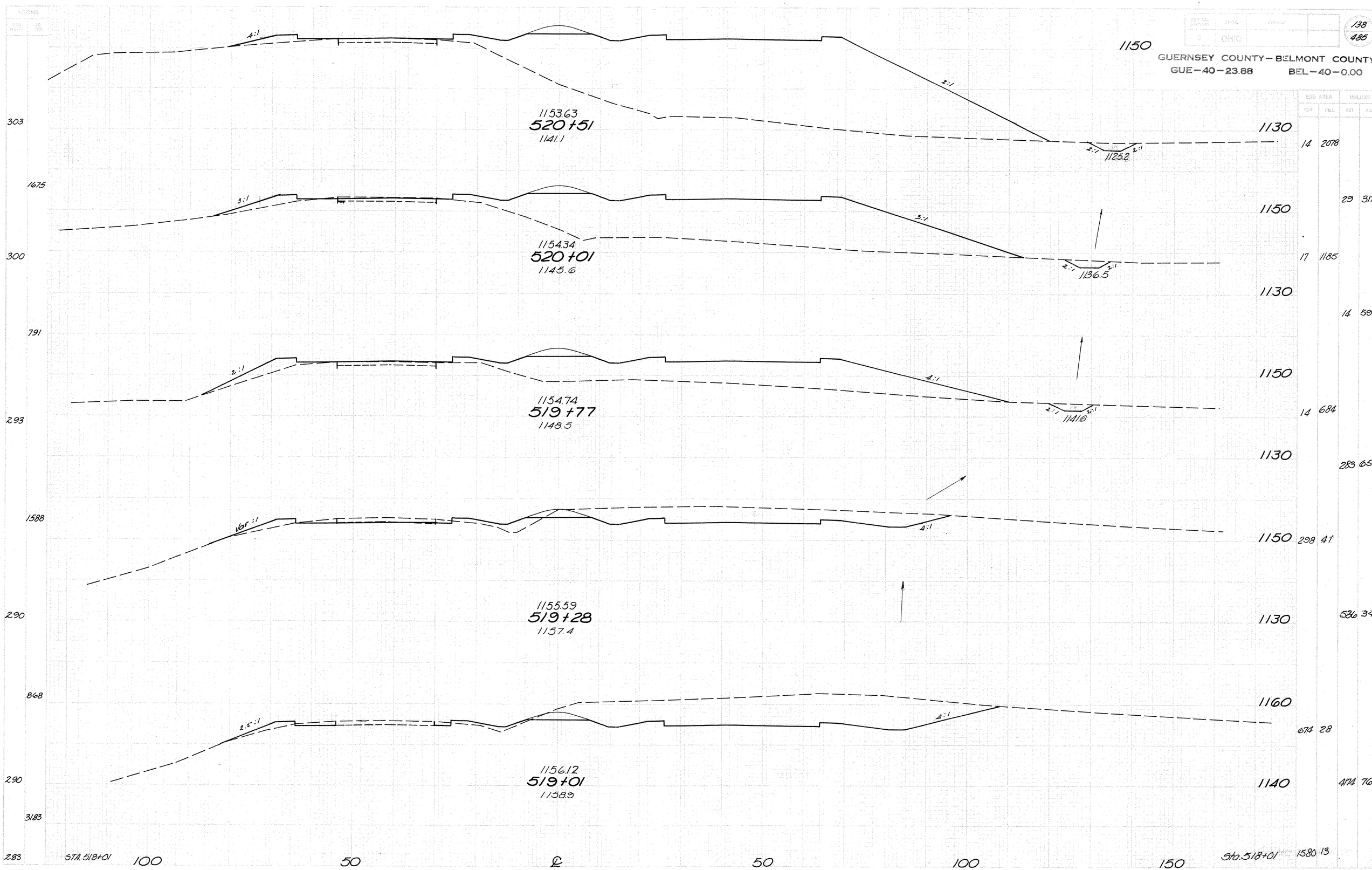
1162.15
516+50
1165.8

	FEET	AREA CUT	AREA FILL	VOLUME CUT	VOLUME FILL
1150	1580	13		3604	22
1180	2312	12		4835	36
1160					
1200	2709	25		5208	48
1180					
1160					
1200	2700	25		6234	35
1180					
1160					
	3901	12		7304	19
	Sta. 516+01	4810	9		

STA. 516+50 TO STA. 518+01

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
303				
1675				
300				
791				
293				
1588				
290				
868				
290				
3183				
283				

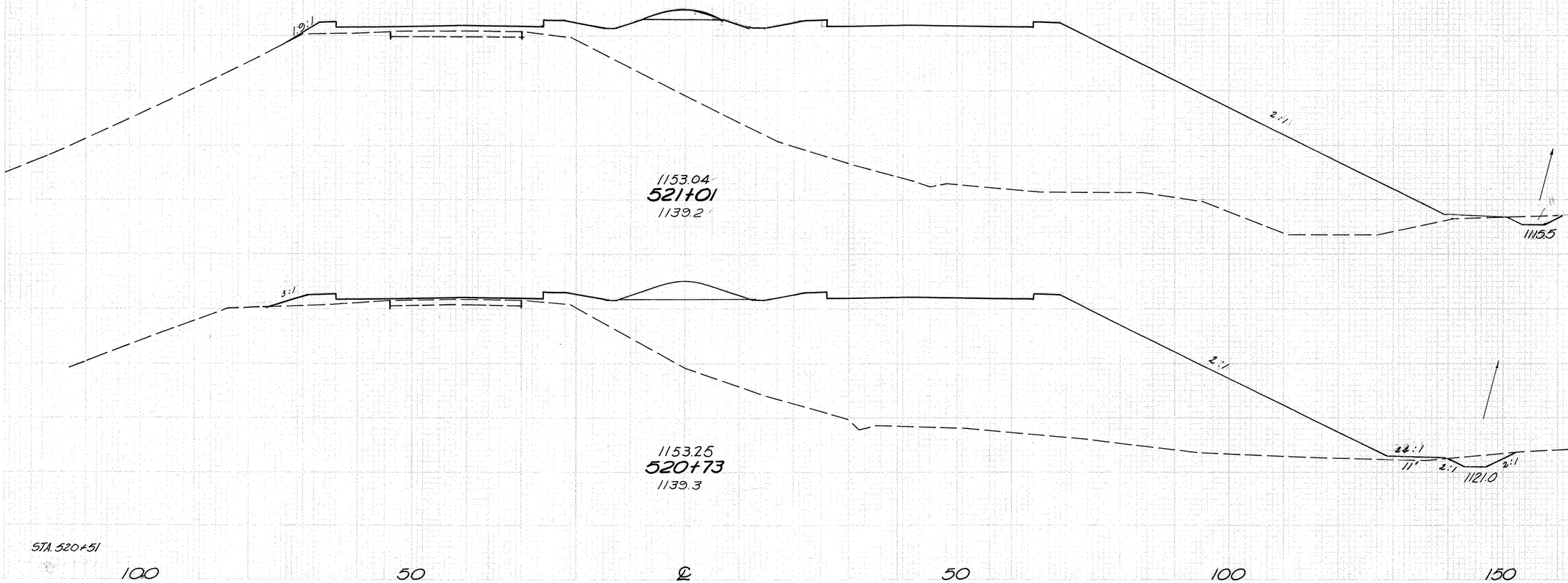


	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1130	14	2078		
1150			29	3172
1130	17	1185		
1150			14	501
1130	14	684		
1130			283	657
1150	298	41		
1130			536	34
1160	674	28		
1140			474	76
			1580	13

STA. 519+01 TO STA. 520+51

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00





STA. 520+73 TO STA. 521+61

SECTIONS

ROAD WIDTH	SLOPE
348	2:1
1512	981
386	2:1
4344	2:1
396	2:1
1275	2:1
378	

STA. 521+61

250 200 150 100 50 ℄

88' ~12" CL. E-1 @ 0.1%

13.5' LT. STA. 522+82
STD. NO. 8 C.B.
℄ GRATE ~ 1150.20
℄ 12" CL. E-1 ~ 1146.70

1151.85
523+38
1140.2

1151.86
523+01
1137.7

1152.20
522+01
1136.9

1140
1120
1150
1130
1110
1140
1120
1100
1080

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

FED. PROJ. | STATE | FOLDER
OHIO

140
485

END AREA | VOLUME
CUT | FILL | CUT | FILL

STA. 522 + 01 TO STA. 523 + 38 LEFT

SEEDING

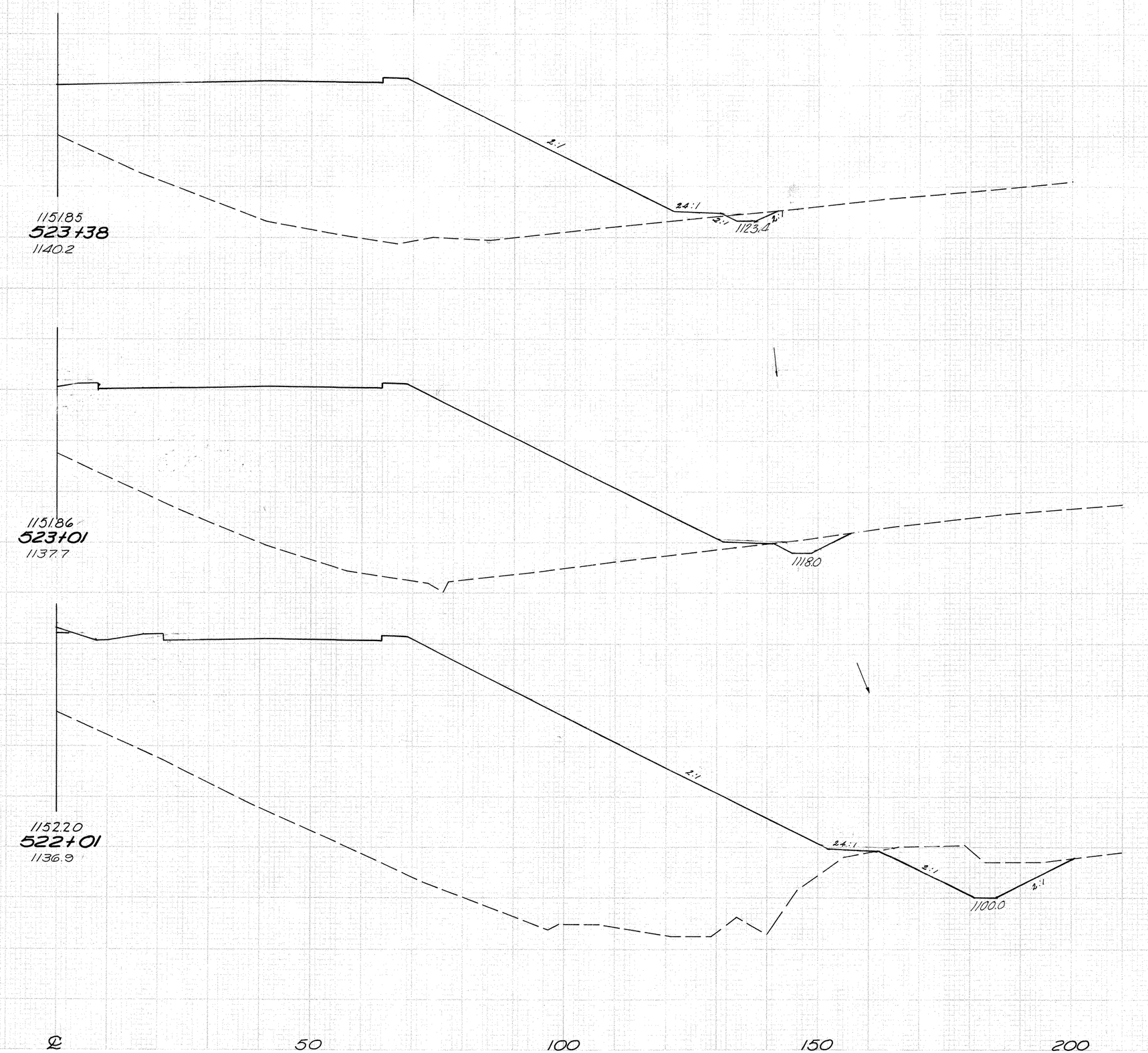
KIND	LBS. PER
KIND	LBS. PER

SHEET	STATE	PROJECT	
2	OHIO		

141
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00



	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1140				
1120 Lt. –		800		
Rt.	8	3357		
Tot.	8	4157		
1100				
1150			20	6395
1130				
1130 Lt. –		980		
Rt.	21	4196		
Tot.	21	5176		
1110				
1150				
			391	18044
1130				
1110 Lt. –		907		
Rt.	120	3661		
Tot.	190	4568		
			182	7768
1090				
Sta. 521+61			55	5019

STA. 522 +01 TO STA. 523+38 RIGHT

PREPARED BY U. S. A.
GPO 1962 TRACE 37 OH

SEEDING

EXP. WIDTH	SQ. YDS.
269	
1323	
298	
1000	
323	
1270	
348	

FED. ROAD SECTION	STATE	PROJECT	
2	OHIO		

142
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
21	1327		
		72	1702
72	862		
49	1334		
19	1623		
17	3638		
8	4167		

STA 523+72 TO STA 524+43

SEEDING

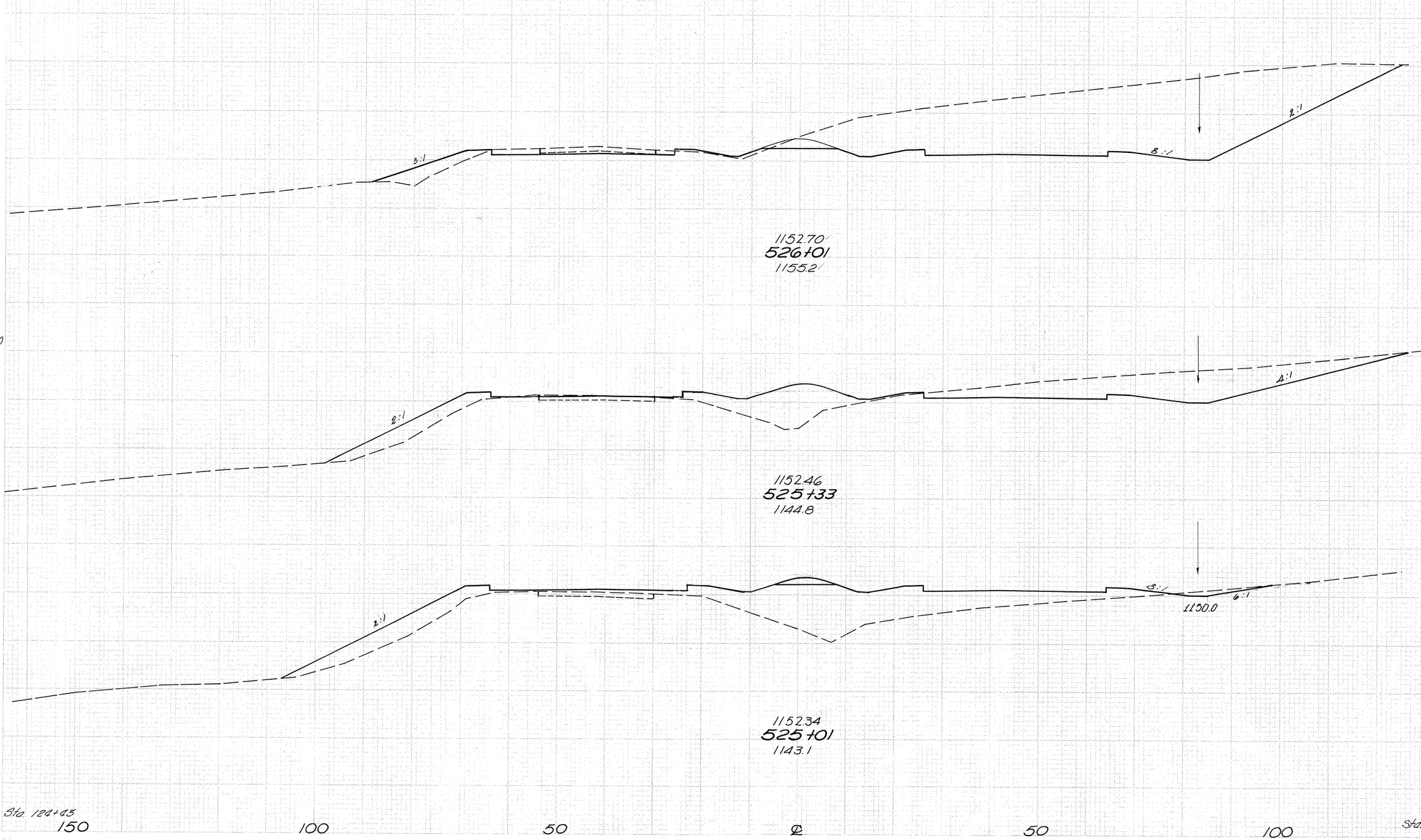
BEG STA	SEC TYP
118	
1590	
203	
757	
218	
1582	
269	

FED. ROAD DESIGNATION	STATE	PROJECT	
	OHIO		

123
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		1368	54
		2162	379
		349	247
		214	523
		13	636
		37	2108
		21	1327



STA 525+01 TO STA 526+01

144
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

SEEDING

END AREA		VOLUME	
CUT	FILL	CUT	FILL

1190

2:1

A

A

1190

2:1

298

B

1190

1154.00
529+61
1162.7

B

1190

170 150 130

1170

1960

1170

2:1

280

1150 2439 0

1190 4927 0

0

1170

1150 2882 0

1153.78
529+01
1160.9

2912

1180

1160

10,724 0

2908 0

255

1153.42
528+01
1160.3

1180

10686 0

2717

2:1

2:1

1160

2823 0

234

7772 100

1153.06
527+01
1158.1

2511

218

B/o 526+01

150 100 50 ℄ 50 100

Sta. 526+01 1368.54

STA. 527+01 TO STA. 529+61

| SECTION | | |

SEEDING

FND WIDTH	SQ. YDS.

STATE	PROJECT
OHIO	

146
485

1200

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.83 BEL – 40 – 0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

1180
1160
1140
1170
1150
1130
1180
1160
1140
1120

C C

B

2:1

296

1155.04
532+51
1169.9

2795 0

B

1689

A

1190

1154.86
532+01
1166.1

1:1 25' 1:1 25' 2:1

4965 611

312

2:1

3561

A

2:1

200

1190

1154.50
531+01
1164.3

1:1 25' 1:1 25' 2:1

9544 2889

329

1797

2587 900

4237 1133

316

B/o 130+51

Sta. 530+57 2613 490

150 100 50 ℄ 50 100

STA. 531+01 TO STA. 532+51

PRINTED IN U. S. A.
GR GIBS TRACE PLOTS

SEEDING

SHD WIDTH	SQ. YDS.

TRACT OR SECTION	STATE	PROJECT	
	OHIO		

147
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

SHD AREA		VOLUME	
CUT	FILL	CUT	FILL
		1792	110
		4658	122
		2400	0
		10,255	0
		3138	0
		12,478	0
		3600	0
		5921	0
		2795	0

246 1650 250 2689 270 3094 287 1619 296

1170 1150 1130 1170 1150 1180 1160 1140 1190 1170 1150

1156.16
535+61
1166.4

1155.94
535+01
1168.7

1155.58
534+01
1170.0

1155.22
533+01
1170.4

2:1 3:1 6:1 3:1 2:1 3:1 5:1 2:1 2:1 1190

A A

Sta. 532+51

150 100 50 ℄ 50 100

Sta. 532+51

STA. 533+01 TO STA. 535+61

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

148
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
241					
		1170			
		1150			
		1156.59			
		536+80			
		1165.7			
			1569	0	
590		1130			
					1271 3
		1170			
242		1150			
		1156.51			
		536+58			
		1167.5			
			1550	7	
		1130			
1522					
		1170			3325 60
		1156.30			
		536+01			
		1166.4			
		1150			
259					
		1130	1600	50	
1076					2513 118
246			1792	110	

Sta. 535+61

150 100 50 ℄ 50 100

STA. 536+01 TO STA. 536+80

SEEDING	
END WIDTH	SQ YDS
247	
1115	
243	
592	
241	
992	
242	
563	
241	

123 SHEET NO.	STATE	PROJECT	
	OHIO		

149
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1160				
1743	0			
1140				
2723	0			
1160				
1843	0			
1140				
1496	0			
1160				
1829	0			
1140				
2395	0			
1160				
1140	1666	C		
	1258			
Sta. 536+80	1569	0		

3:1
8:1
4:1

115702
538+01
1168.1

1156.88
537+60
1169.4

1156.80
537+38
1169.3

1156.66
537+01
1166.9

Sta 536+80
150 100 50 ℄ 50 100

STA. 537+01 TO STA. 538+01

SEEDING
END BODY | SQ. YDS

270

256

255

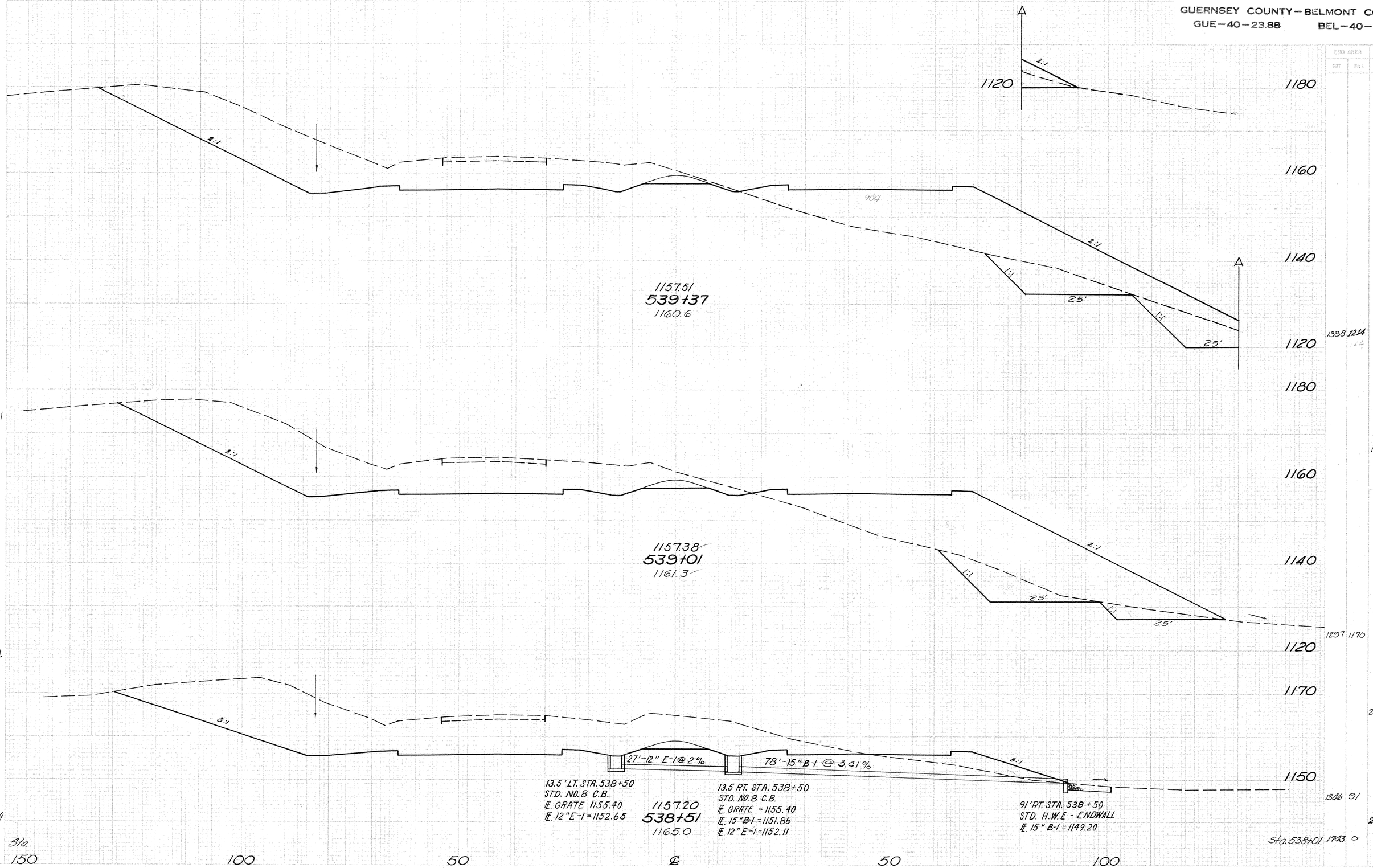
247

1461

1414

1389

3½



GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA: CUT | FILL
VOLUMES: CUT | FILL

150
485

STA. 538+51 TO STA. 539+37

SECTIONS

END STATION	CU. YDS.
282	90
278	82
270	131
268	191
270	

END AREA		VOLUMES	
CUT	FILL	CUT	FILL
		989	1738
		1021	1464
		912	998
		950	681
		989	364
		1683	202
		1077	95
		2863	1551
		1338	1214

SHEET NO.	STATE	PROJECT	
2	OHIO		

151
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

1155.85
1158.10
541+01
1159.3
1155.82
1158.01
540+72
1160.1
1155.78
1157.90
540+45
1161.6
1155.62
1157.74
540+01
1162.8

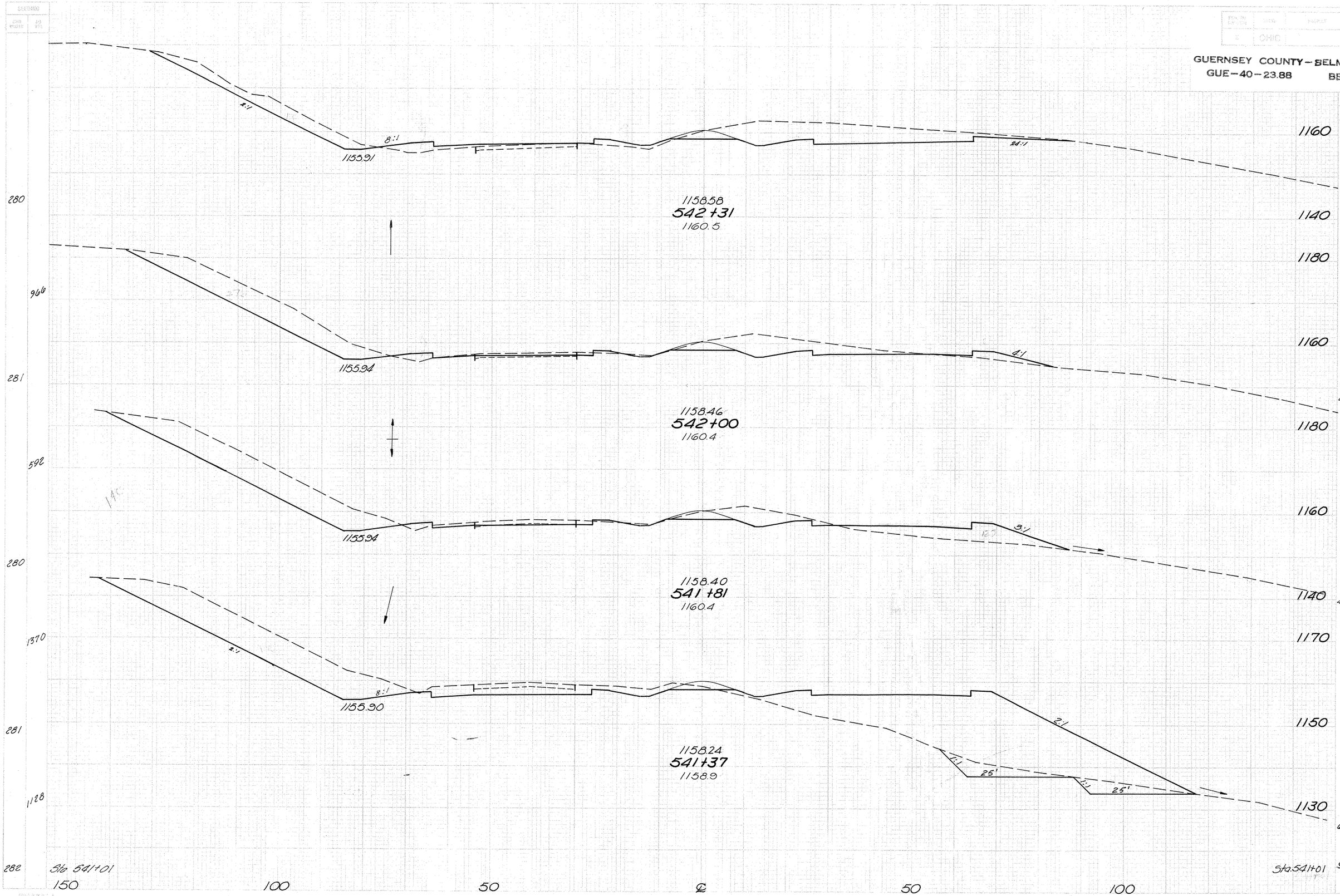
2:1
3:1
1:1
25'

1170
1150
1130
1150
1130
1160
1140
1170
1150
1130

Sta. 539+37
150 100 50 ℄ 50 100
Sta. 539+37

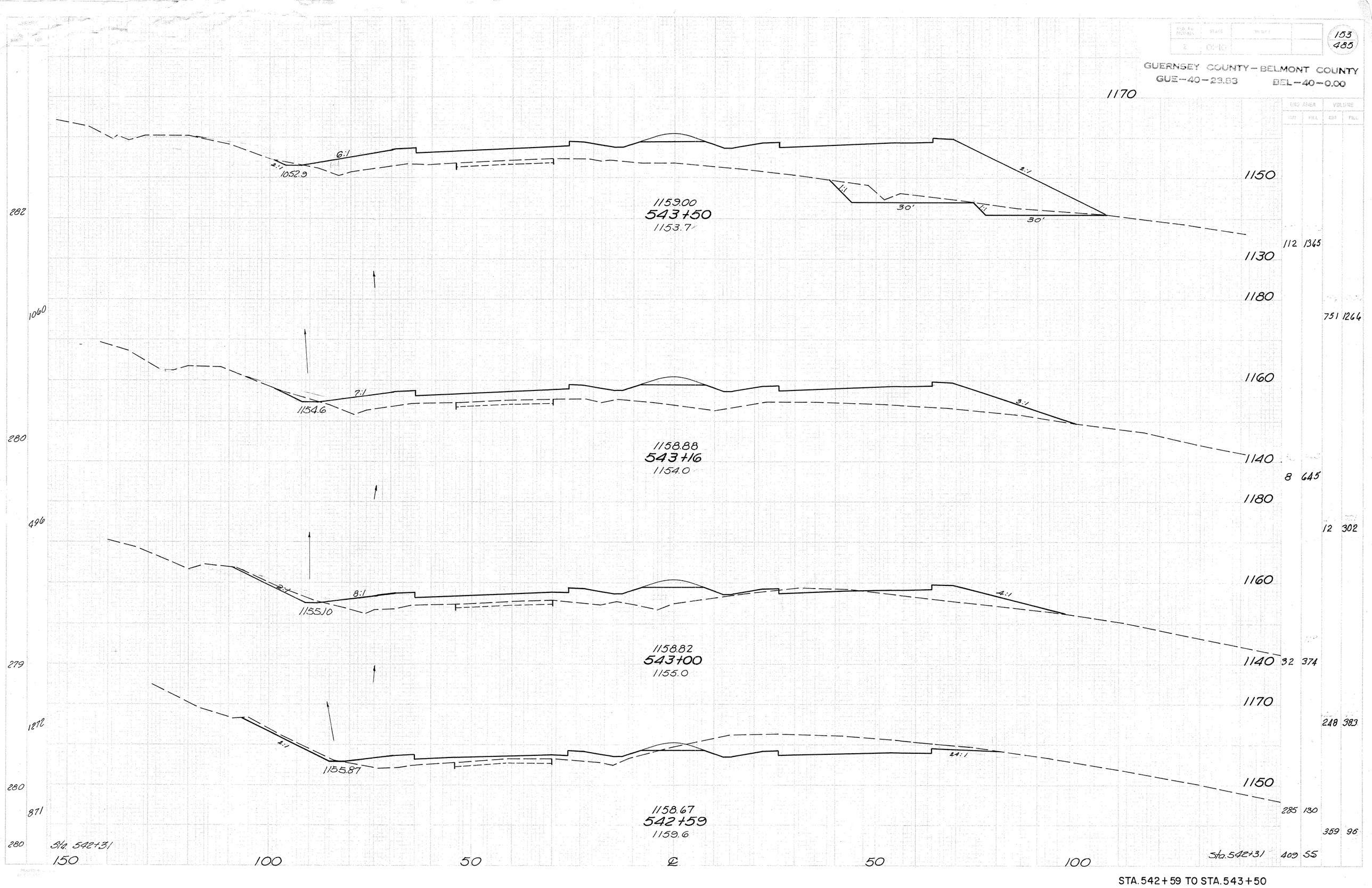
STA. 540 +01 TO STA. 541 +01

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



STA. 541+37 TO STA. 542+31

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.83 BEL–40–0.00



SEEDING

END WIDTH	SQ. FDS.

PROJECT			
FED. ROAD DIVISION	STATE	PROJECT	
5	OHIO		

154
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

330
1817
318
1787
307
1627
282

1159.54
545+00
1151.0

1159.36
544+50
1151.7

1159.18
544+00
1152.6

1150.2
1151.0

4:1
2:1
1:1
30'
150
B
A

1150
1130
1120
1110
1100
1090
1160
1140

734 4480
1080 7373
432 3483
601 5328
2271
217
305 3367
112 1365

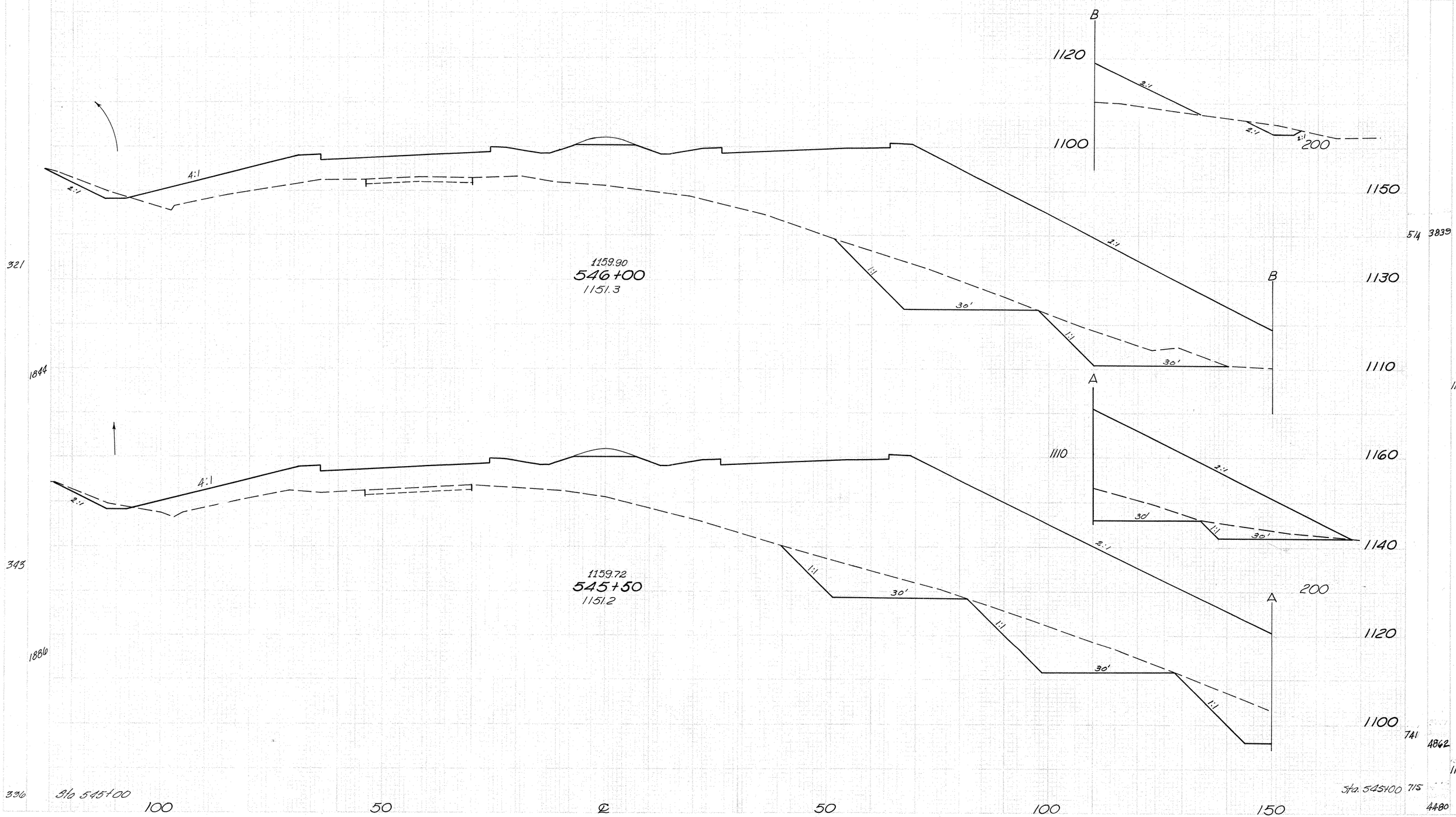
Sta. 543+50
150 100 50 ℄ 50 100
Sta. 543+50

STA. 544 +00 TO STA. 545 +00

155
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA | VOLUME
CUT | FILL | CUY | FILL



321 1844 393 1886 336

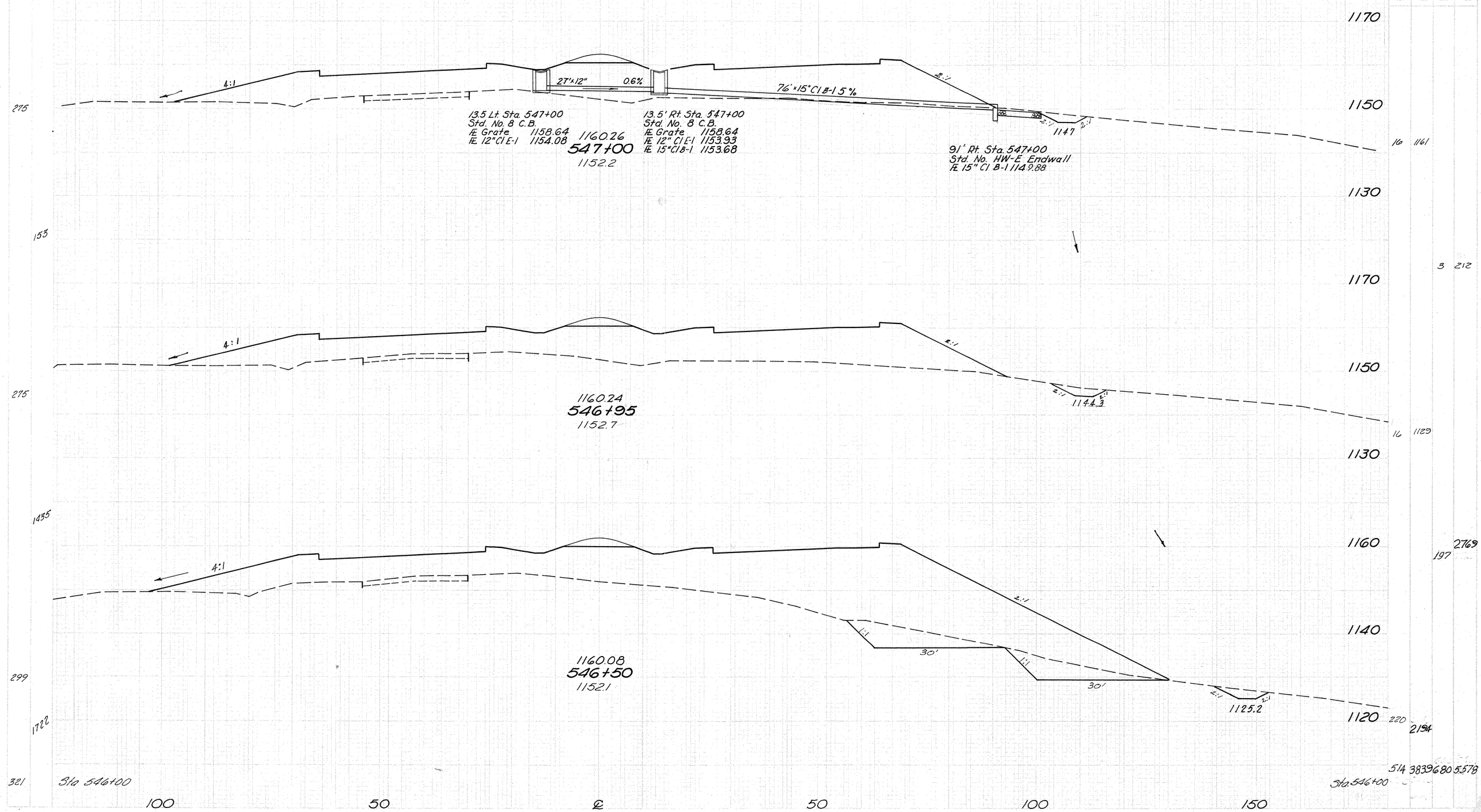
514 3839 1162 8057 741 4862 1162 8535 715 4480

STA. 545+50 TO STA. 546+00

156
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA | VOLUME
CUT | FILL | CUT | FILL

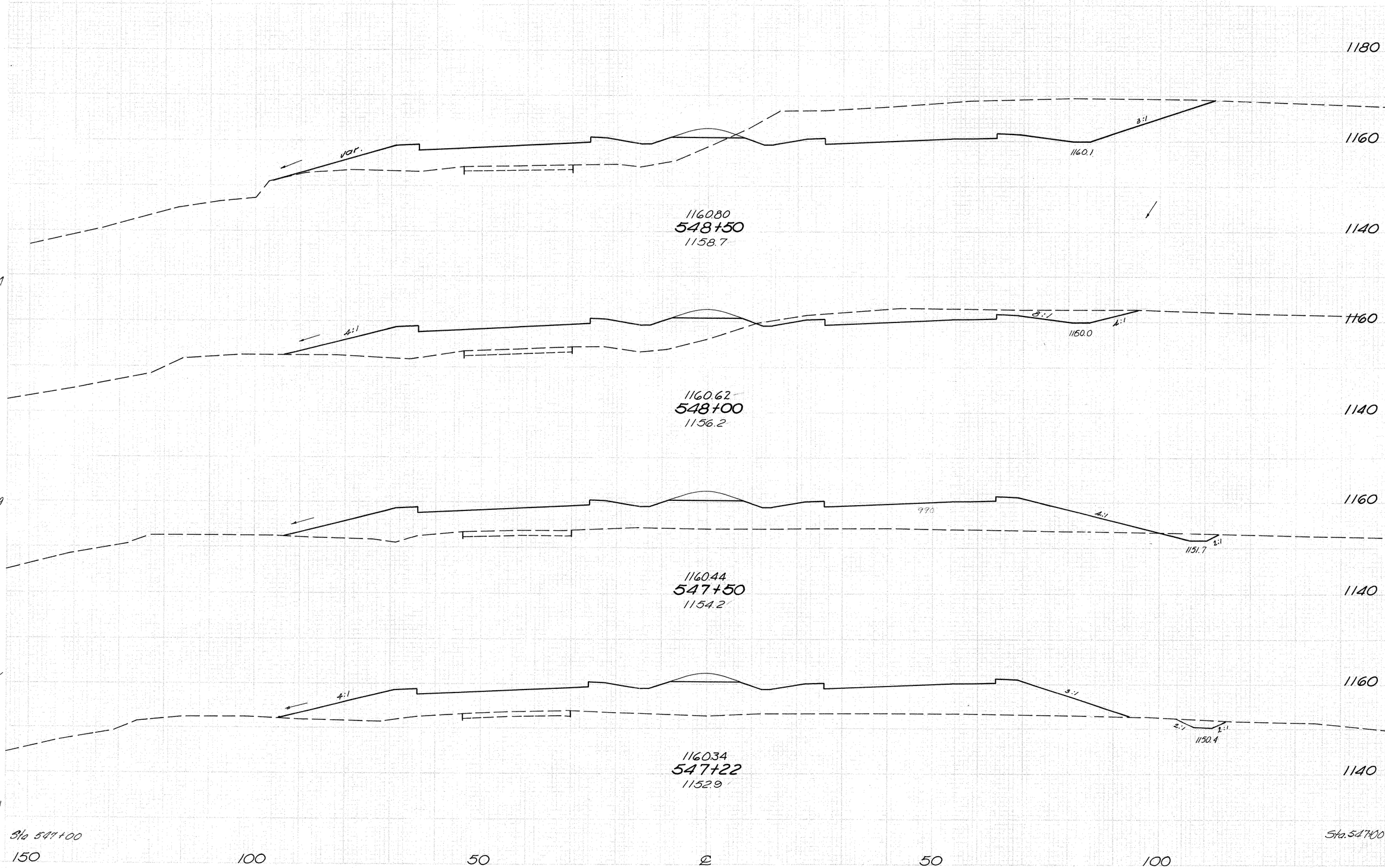


STA. 546 + 50 TO STA. 547 + 00

157
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
257				
1417				
253				
1419				
258				
815				
266				
661				
275				



STA. 547+22 TO STA. 548+50

158
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA | VOLUME
CUT | FILL | CUT | FILL

1170
1150
1130
1170
1150
1130
1170
1150
1130

482 736
2211 2385
712 552
601 406
700 401
714 345
728 410

270
296
263
669
261
774
257

4:1
2:1
10'
1:1
1160.4
1161.34
550+00
1158.7

2:1
1:1
20'
1160.2
1160.98
549+00
1157.7

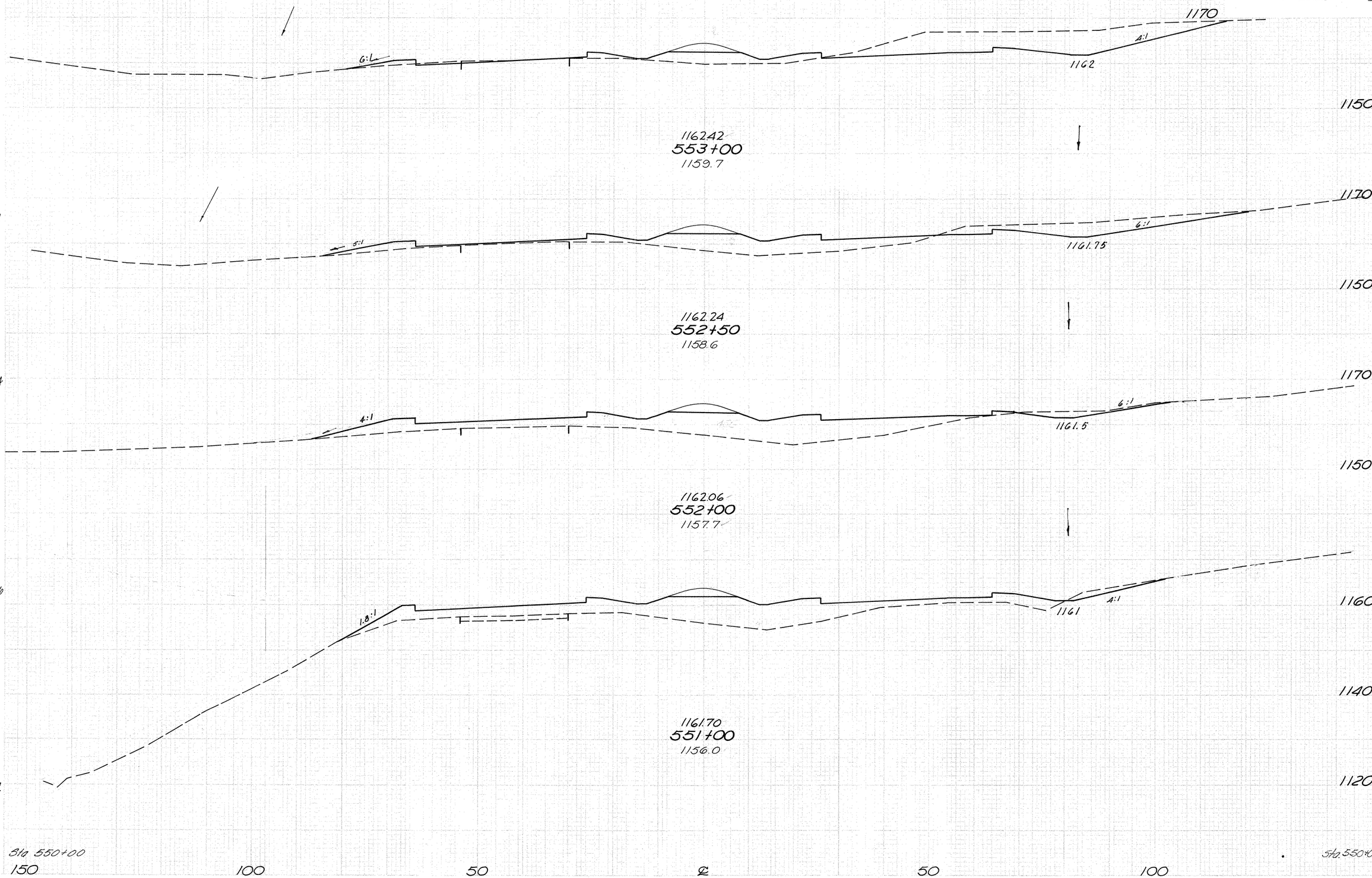
Var.
2:1
1160.2
1160.90
548+77
1158.3

Sta 548+50
150 100 50 ℄ 50 100
Sta. 548+50

STA. 548+77 TO STA. 550+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

SECTION		END AREA		VOLUME	
CUT	FILL	CUT	FILL	CUT	FILL
223	1267	306	112	397	356
233	1364	122	272	193	682
258	3156	21	465	72	2272
310	3822	18	491	926	2272
270		482	736		



STA. 551+00 TO STA. 553+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

160
485

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1170	2322	3		
			1997	3
1180				
	1991	4		
			3258	16
1160				
1180	1365	13		
1160			1921	47
1180				
	709	37		
1160			573	48
1180				
	528	66		
1160			386	83
Sta. 553+00	306	112		

1190 A — A 1180

150

2:1

2:1

8:1

1153.4

860

1163.04
554+75
1167.9

710

2:1

1159.3

251

1162.96
554+50
1167.2

350

4:1

1159.2

2:1

235

1162.78
554+00
1166.9

1275

6:1

1158.8

3:1

224

1162.60
553+50
1162.1

614

3:1

4:1

218

1162.51
553+25
1160.6

618

223

Sta. 553+00

150 100 50 ℄ 50 100

STA. 553+25 TO STA. 554+75

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL

1200
150
1180
C
C
2:1
1159.8
6:1
2:1
1162.0
1180
1160
2627
1163.20
557+00
1169.9
316
1200
150
1180
1133
B
B
1159.6
8:1
1162.6
1180
1160
9322
10016
6134
1163.26
556+00
1170.3
290
1190
1200
1580
130
1170
A
A
2:1
1159.5
1162.5
3263.0
1180
7778.5
279
1160
1163.21
555+50
1170.9
749
260
Sta 554+75
Sta.554+75
2327.3
100
50
℄
50
100
150

STA.555+50 TO STA.557+00

SEEDING

AREA WIDTH	SQ. YDS.
336	
1867	
336	
1950	
331	
1847	
327	
1786	
316	

SHEET NO.	STATE	STATE PROJECT NO.		TOTAL SHEETS
2	OHIO			162 485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1304	751		
2660	1031		
1458	321		
3194	309		
1697	0		
3631			
2062			
4342			
2627			

1190
1170
1150
1180
1160
1140
1180
1160
1200
1180
1160

1160.0 — 1:1 — 25' — 1:1 — 25' — 2:1
1162.44
559+02
1167.7

1160.1 — 2:1 — 1:1 — 25' — 2:1
1162.71
558+52
1169.7

1160.0 — 2:1 — 1:1 — 1160.3
1162.93
558+00
1170.9

1159.9 — 2:1 — 5:1 — 2:1 — 1161.5
1163.09
557+50
1170.3

1210 — 1200 — 2:1

B — B — A — A

Sta 557+00

150 100 50 ℄ 50 100

Sta. 557+00

STA. 557+50 TO STA. 559+02

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL



STA. 559+52 TO STA 560+02

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL
326	1040		
330	756	1115	2653
332	1828	1180	2554
330		1093	2419
		871	1750
		1146	2050
		2285	3264
		1227	1975

C
1158.8
2:1
1200
1180
150
4:1
B
1158.9
1200
1180
150
4:1
A
1159.1
1200
1180
150
4:1
Sta 560+08
1160.86
561+02
1154.3
1161.13
560+73
1155.8
1161.32
560+52
1159.2
1:1
25'
2:1
1180
1160
1140
1120
Sta. 560+02
100
50
℄
50
100
150
STA. 560+53 TO STA. 561+03

SEEDING
END WIDTH | SQ. YDS.

STATE | STATE | PROJECT | | 165
OHIO | | | | 485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA | VOLUME
CUT | FILL | CUT | FILL

304
3433
314
2260
322
1290
326

1160
1140
1120
1130
1110
1150

1156.2
1158.40'
563+02
1153.5
1157.7
1159.73
562+02
1152.2
1158.2
1160.56
561+38
1155.3
1120
1100
200

1:1
2:1
30'

B
A

1034 2293
4063 9466
1162 2819
3010 7649
1377 3635
1662 4190
1115 2659

Sta 561+08
Sta. 561+02

100 50 ℄ 50 100 150

STA. 561 + 38 TO STA. 563 + 02

SEEDING
END AREA
SQ. YDS.

STATE OF OHIO — PROJECT — SHEET NO. 166 — TOTAL SHEETS 485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA: CUT | FILL — VOLUME: CUT | FILL

289

1170

2:1

1153.8

1156.02
564+52
1151.2

1150

2:1

433 1064

1130

1600

1154.9

973 2074

1160

1156.87
564+02
1153.7

1:1 30' 1:1 30'

1140

287

618 1176

1608

1120

2:1

1153.6

1160

1246 2545

292

1157.67
563+52
1154.2

2:1 1:1 30' 1:1 30'

1140

1650

1120

728 1672

1632 3822

304

Sta. 563+02

1034 2293

100 50 ℄ 50 100 150

Sta. 563+02

STA. 563+52 TO STA. 564+52

SECOND

ENG WORKS	CO. ROAD

FED. AID OR PROJECT	STATE	PROJECT	
	OHIO		

167
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

1151.2
2:1
1153.16
566+02
1146.0
2:1
1170
1110
150
2:1
24:1
10'
2:1
2:1
1150
1130
1110
1160
306
1692
265 3056
1152.1
1154.18
565+52
1148.4
461 5279
303
1140
24:1
10'
1120
233 2645
B
1664
1170
560 3811
1153.1
2:1
2:1
2:1
B
1150
1155.13
565+02
1149.5
2:1
286
372 1471
1130
1635
746 2348
289
Sta. 564+52
433 1064
150
100
50
℄
50
100
Sta. 564+52

STA. 565+02 TO STA. 566+02

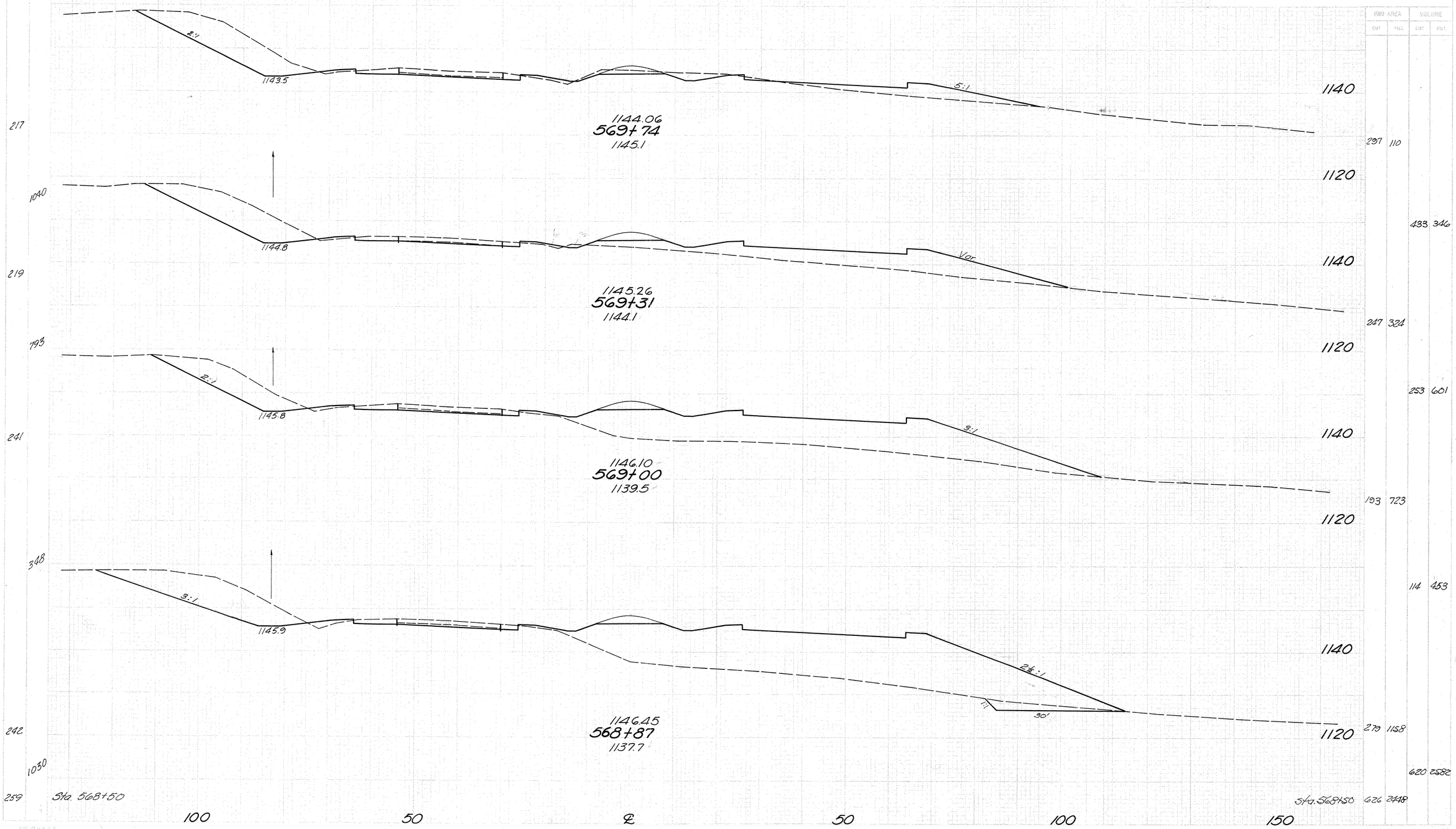
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA CUT | END AREA FILL | VOLUME CUT | VOLUME FILL



STA. 567+00 TO STA. 568+50

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

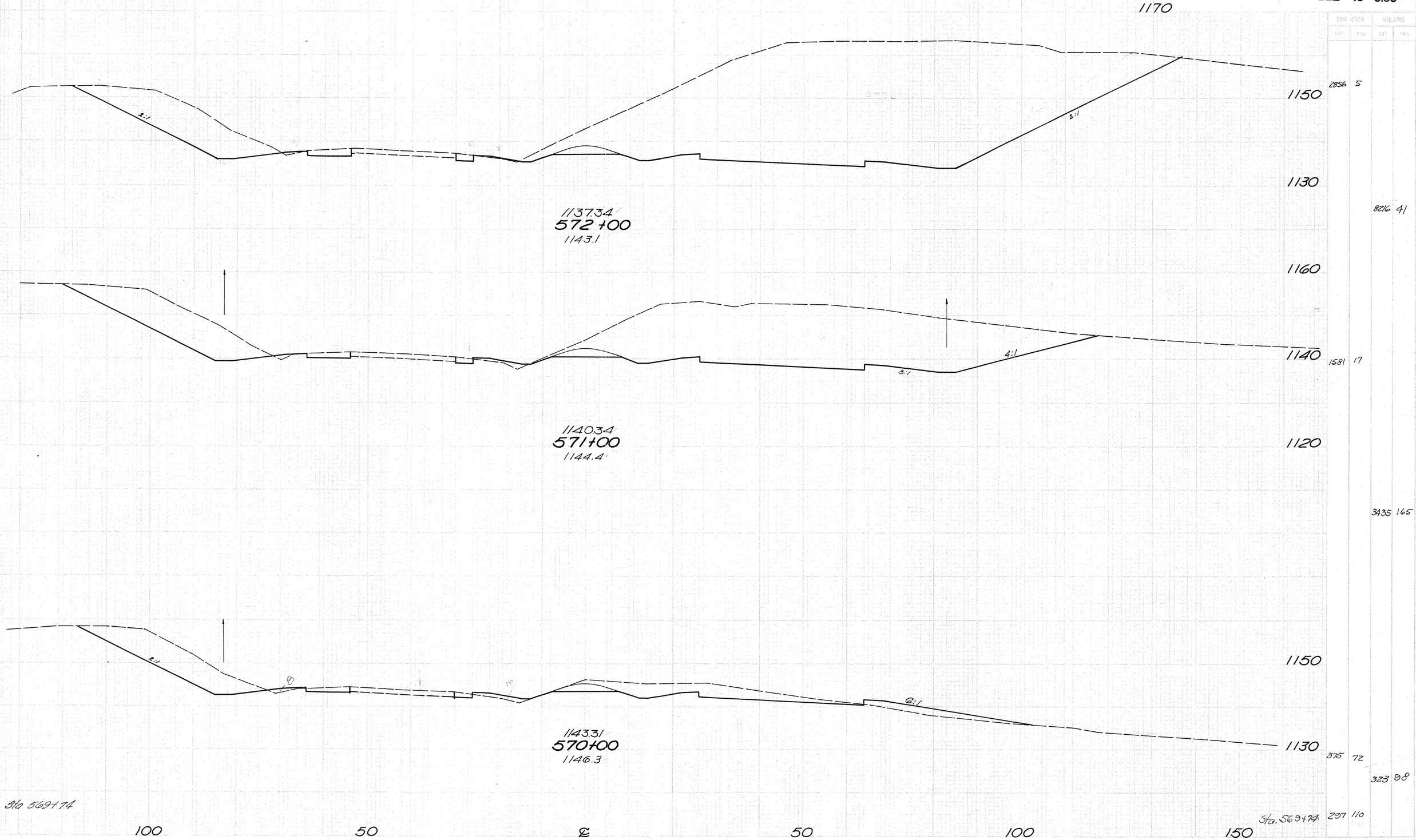


STA. 568+87 TO STA. 569+74

170
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA | VOLUME
CUT | FILL | CUT | FILL



191 2294 222 2400 210 217

2856 5
8216 41
1581 17
3435 165
375 72
323 98
297 110

616

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

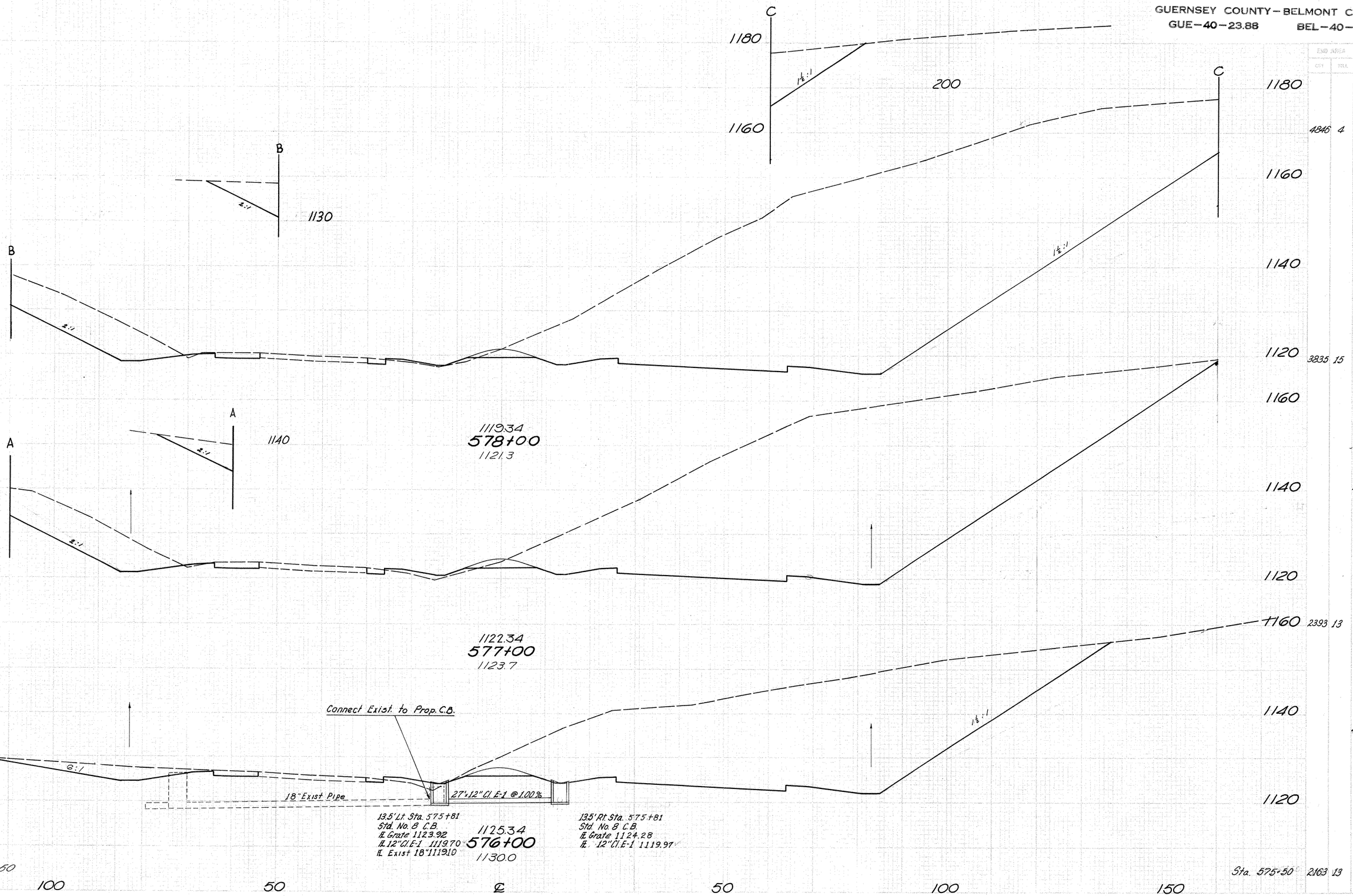
Ditch Block
Sta. 575+75
Elev. 1125.94



END AREA		VOLUME	
CUT	FILL	CUT	FILL
2163	13		
		4086	20
2250	8		
		9196	46
2716	17		
		11517	59
3503	15		
		11776	37
2856	5		

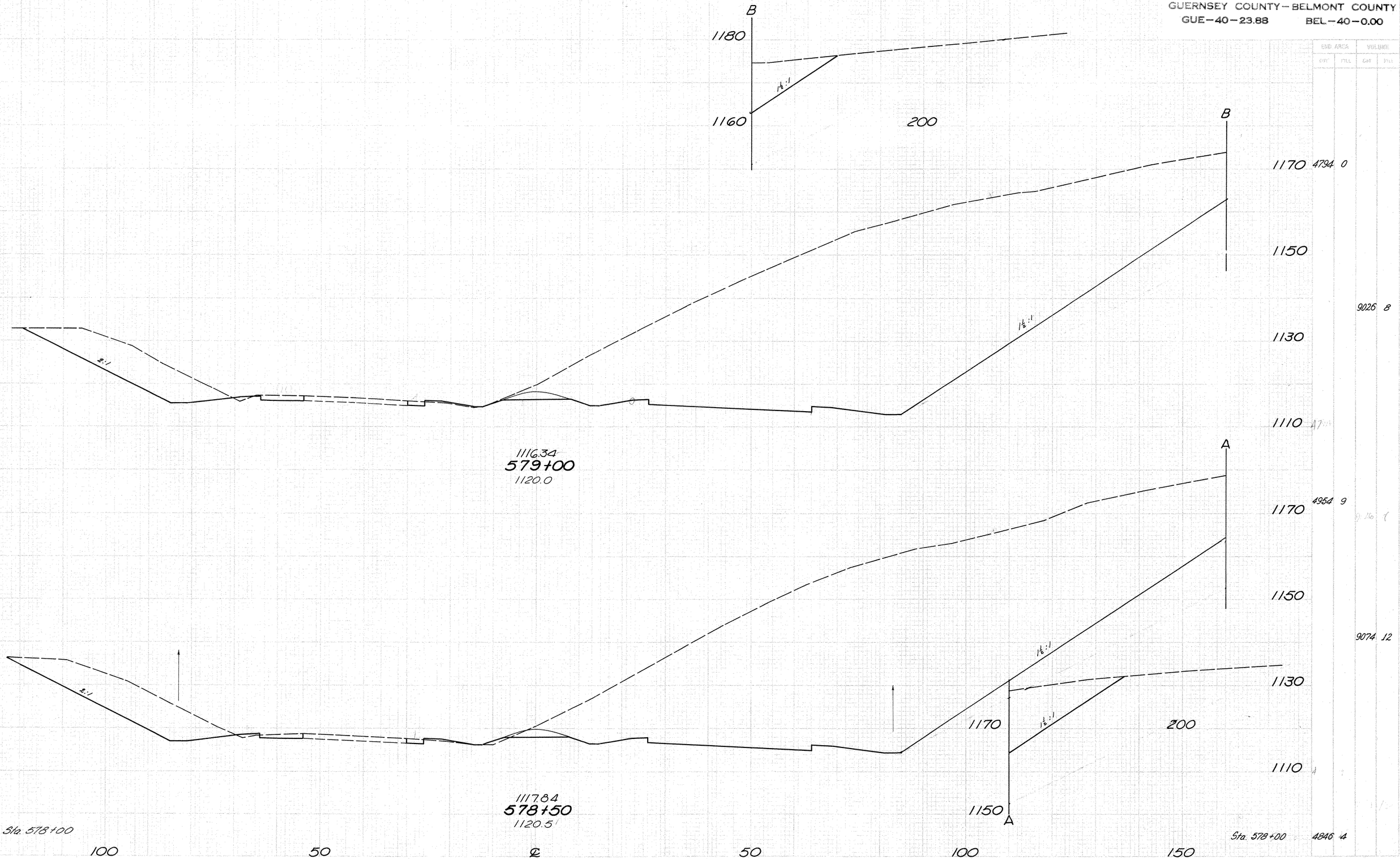
STA. 573+00 TO STA. 575+52

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



STA. 576+00 TO STA. 578+00

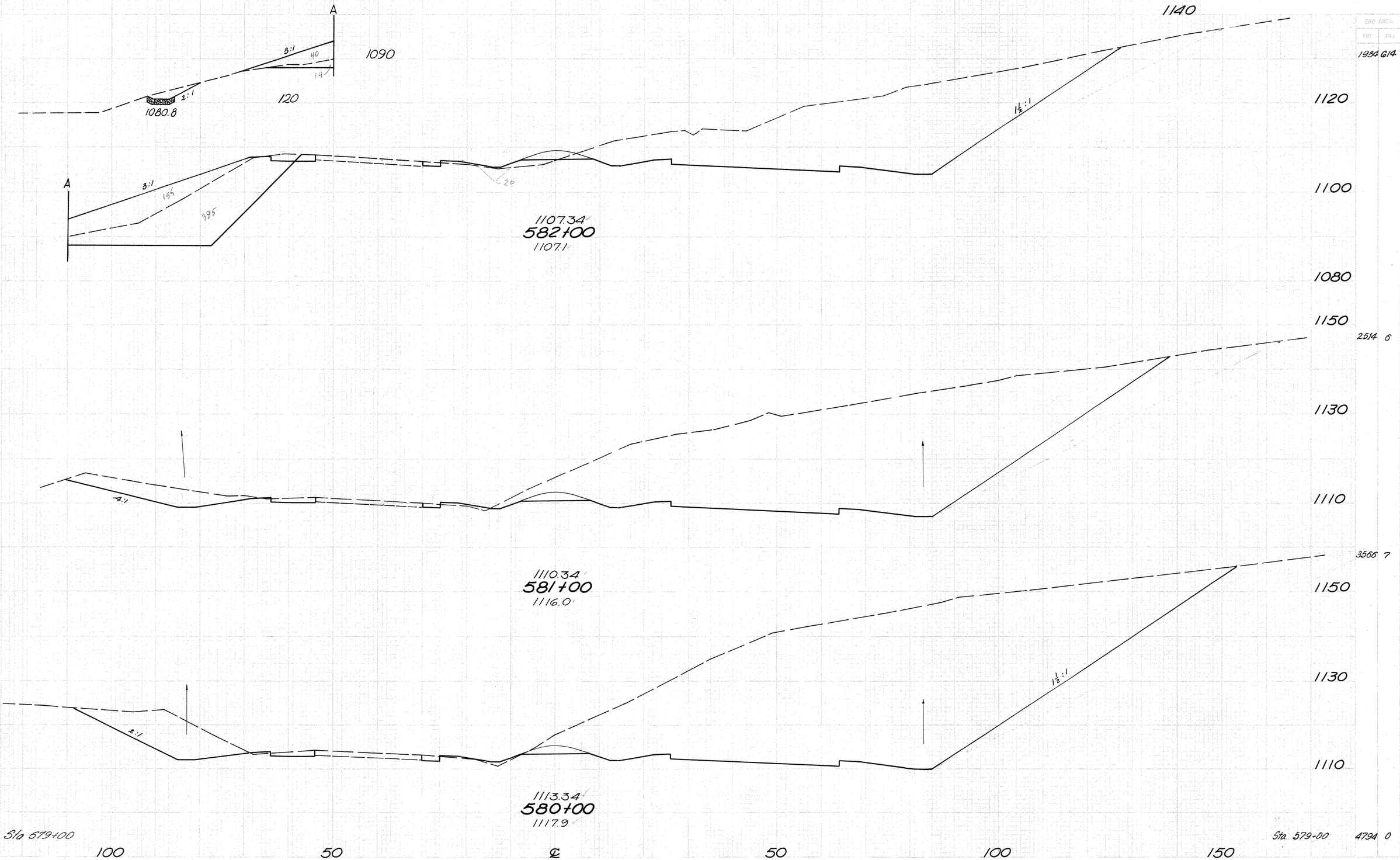
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



STA. 578+50 TO STA. 579+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL
1934	614		
8237	1148		
11259	24		
3566	7		
15482	13		
4794	0		



256
2728
235
6444
205
2150
182

STA. 580+00 TO STA. 582+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

SEDIMENT		EXCAVATION		EMBANKMENT		EXCESS	
CUT	FILL	CUT	FILL	CUT	FILL	CUT	FILL

EXCAVATION		EMBANKMENT	
CUT	FILL	CUT	FILL

EXCESS	
CUT	FILL

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

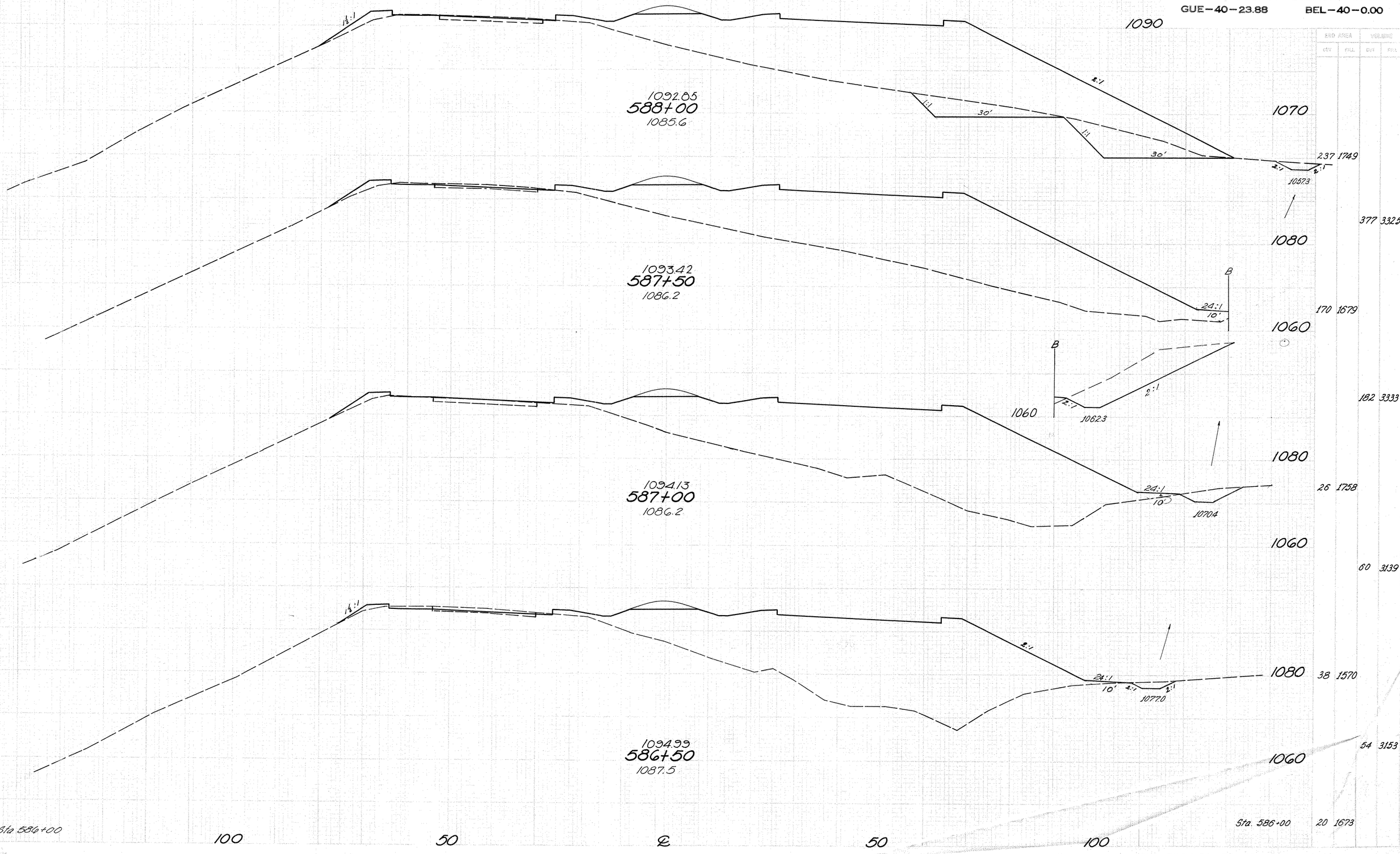
END AREA		VOLUME	
CUT	FILL	CUT	FILL

D
1060
150
1½:1
3:1
1100
20
1673
24:1
10'
2:1
2:1
1082.8
1080
D
302
109598
586+00
1083.0
43
2749
C
1644
2:1
2:1
1067.5
1060
150
1½:1
4:1
1100
26
1285
2:1
1086.0
1080
109713
585+50
1085.5
691
3237
C
B
1608
1070
3:1
23.5'
1:1
1060.0
27"x 12" Cl. E-1 @ 1%
80'x 15" Cl. B-1 @ 3%
5:1
1100
720
2211
B
3:1
24.5'
1:1
29.5'
1:1
1090.4
1080
1038
3579
13.5' Lt Sta. 585+00
Std. No. 8 C.B.
I.E. Grate 1096.52
I.E. 12" Cl. E-1 1093.52
1098.41
585+00
1085.9
13.5' Rt Sta. 585+00
Std. No. 8 C.B.
I.E. Grate 1096.82
I.E. 12" Cl. E-1 1093.28
I.E. 15" Cl. B-1 1093.00
95' Rt Sta. 585+00
Std. HW-E Endwall
I.E. 15" Cl. B-1 1090.6
289
A
1080
150
401
1438
1627
2:1
2:1
1063.0
5:1
1:1
3:1
1:1
1095.4
1100
1082
1338
A
297
33.5'
1:1
20'
1080
1683
099.84
584+50
1088.6
309
Sta. 584+00
100
50
℄
50
100
Sta. 584+00
768
1007

STA. 584+50 TO STA. 586+00

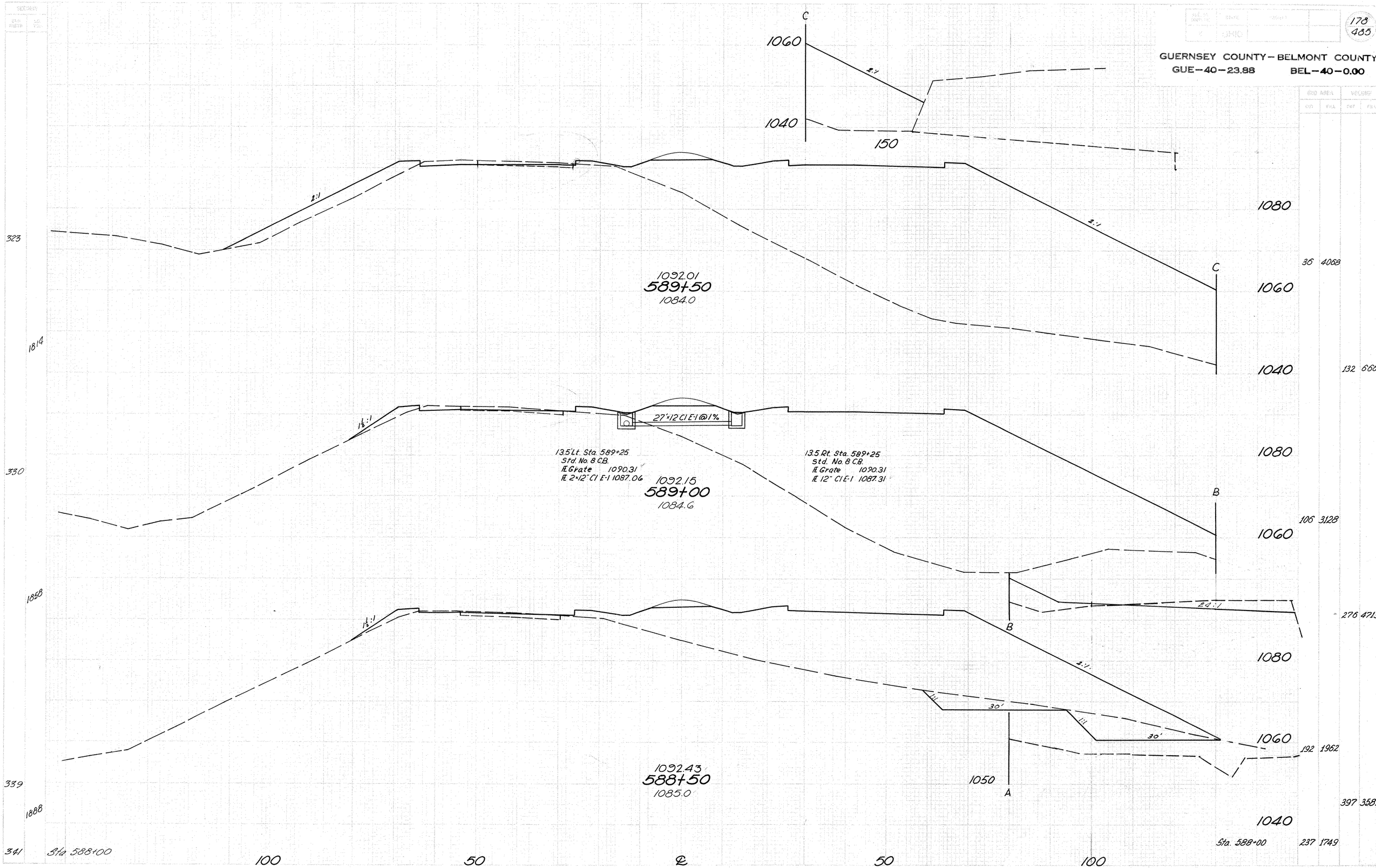
GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA | VOLUME
CUT | FILL | CUT | FILL



STA. 586 + 50 TO STA. 588 + 00

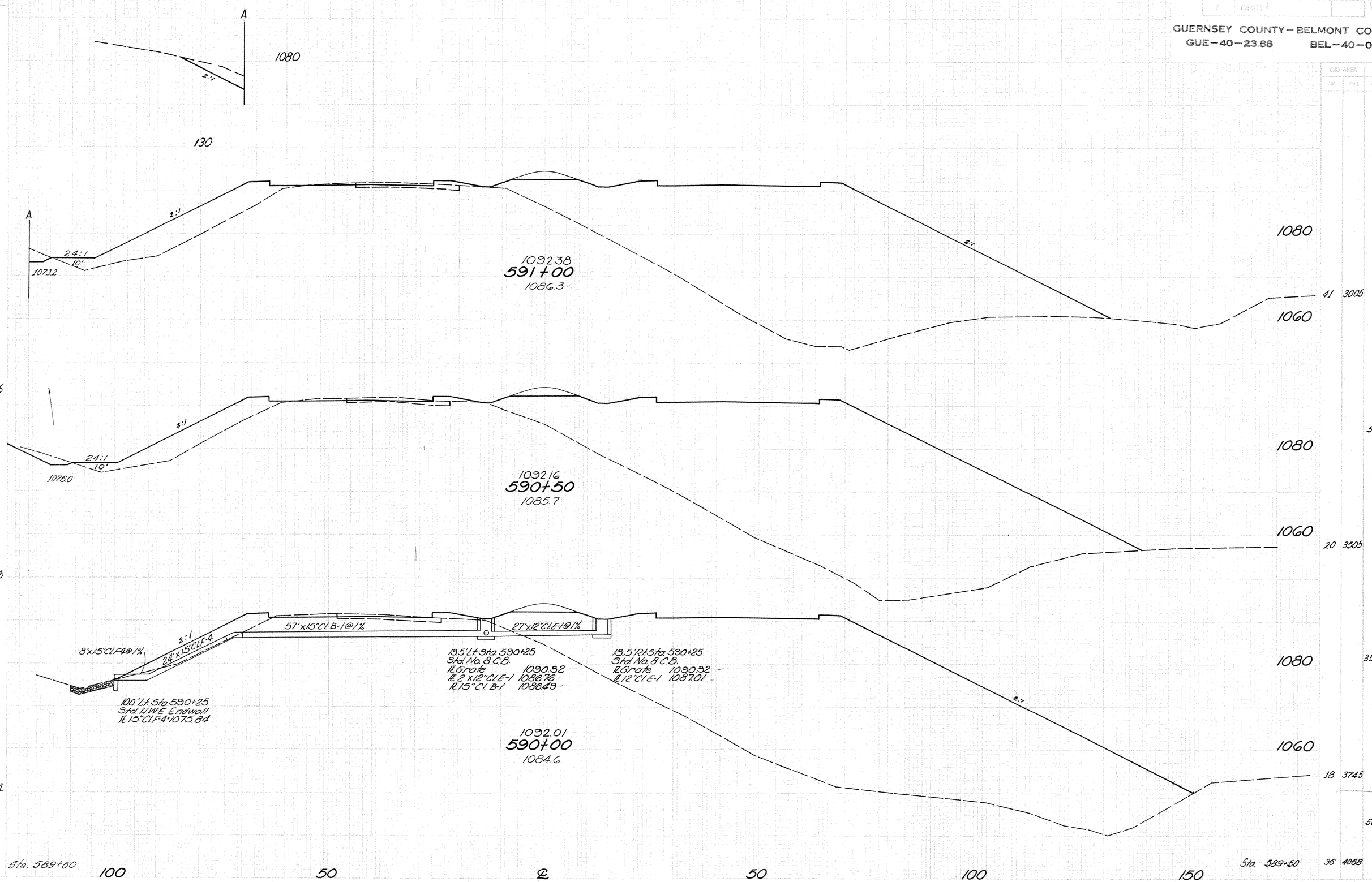
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



STA. 588 + 50 TO STA. 589 + 50

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

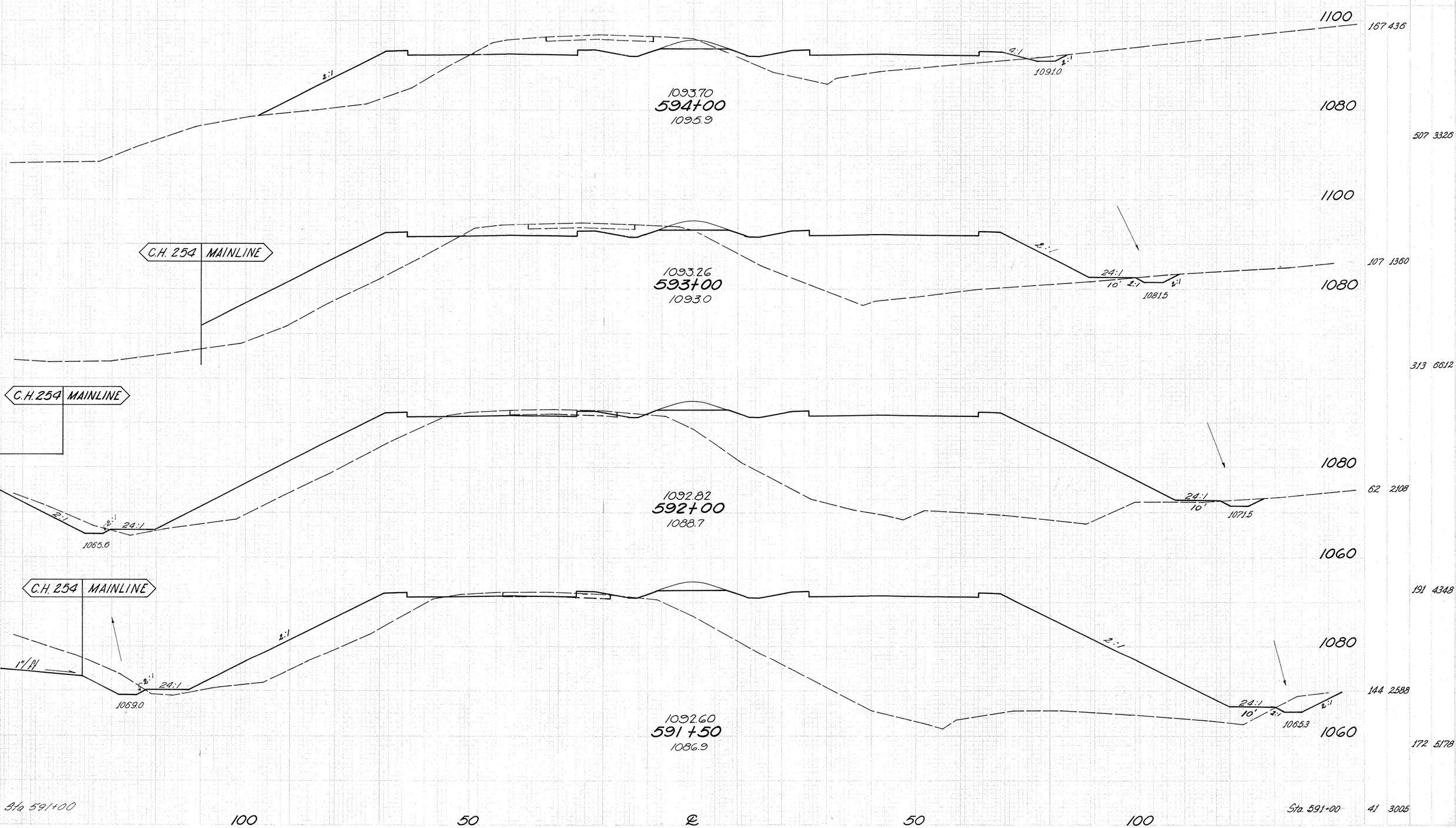
END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 590+00 TO STA. 591+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA FILL | VOLUME CUT | VOLUME FILL



167	436
507	3326
107	1360
313	6612
62	2108
191	4348
144	2588
172	5178
41	3005

STA. 591+50 TO STA. 594+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA: CUT | FILL
VOLUME: CUT | FILL



STA. 595+00 TO STA. 596+20

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

C.H. 254 | MAINLINE

150

1:1

2:1

1120

1100

4988

17886

4670

1095.90
599+00
1106.1

1120

1100

15315

2278

2:1

1:1

27'x12"C.I.E-1@1.0%

13.5' Lt. Sta 598+00
Std. No. 8 C.B.
℄ Grate 1093.71
℄ 12"C.I.E-1 1090.46

1095.46
598+00
1104.6

13.5' Rt. Sta 598+00
Std. No. 8 C.B.
℄ Grate 1093.71
℄ 12"C.I.E-1 1090.71

3600

2:1

1:1

1120

1100

8830

C.H. 254 | MAINLINE

2283

2:1

1:1

1095.02
597+00
1102.9

1764

Sta. 596+20

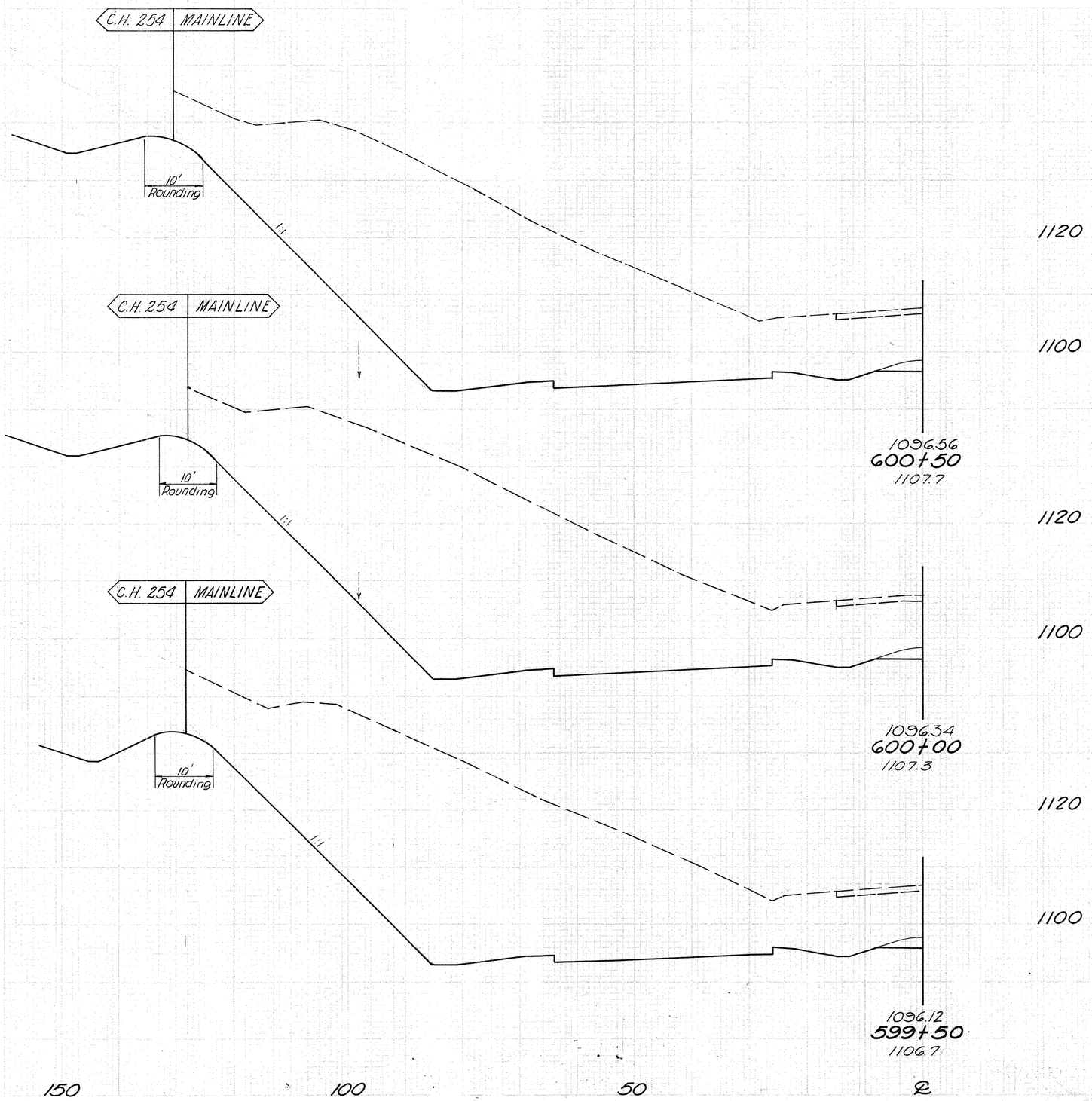
2360

203 207 204 193

100 50 ℄ 50 100 150

STA. 597+00 TO STA. 599+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



210 1278 196 1081 193 1100 203

℄ sta. 599+00

250 200 150 100 50 ℄

STA. 599+50 TO STA. 600+50 LEFT

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

1120 Lt. 2720 Rt. 1520 Tot. 4240

1100

8741

Lt. 2714 Rt. 1824 Tot. 4538

1120

1100

8774

Lt. 2628 Rt. 2260 Tot. 4938

1120

1100

9191

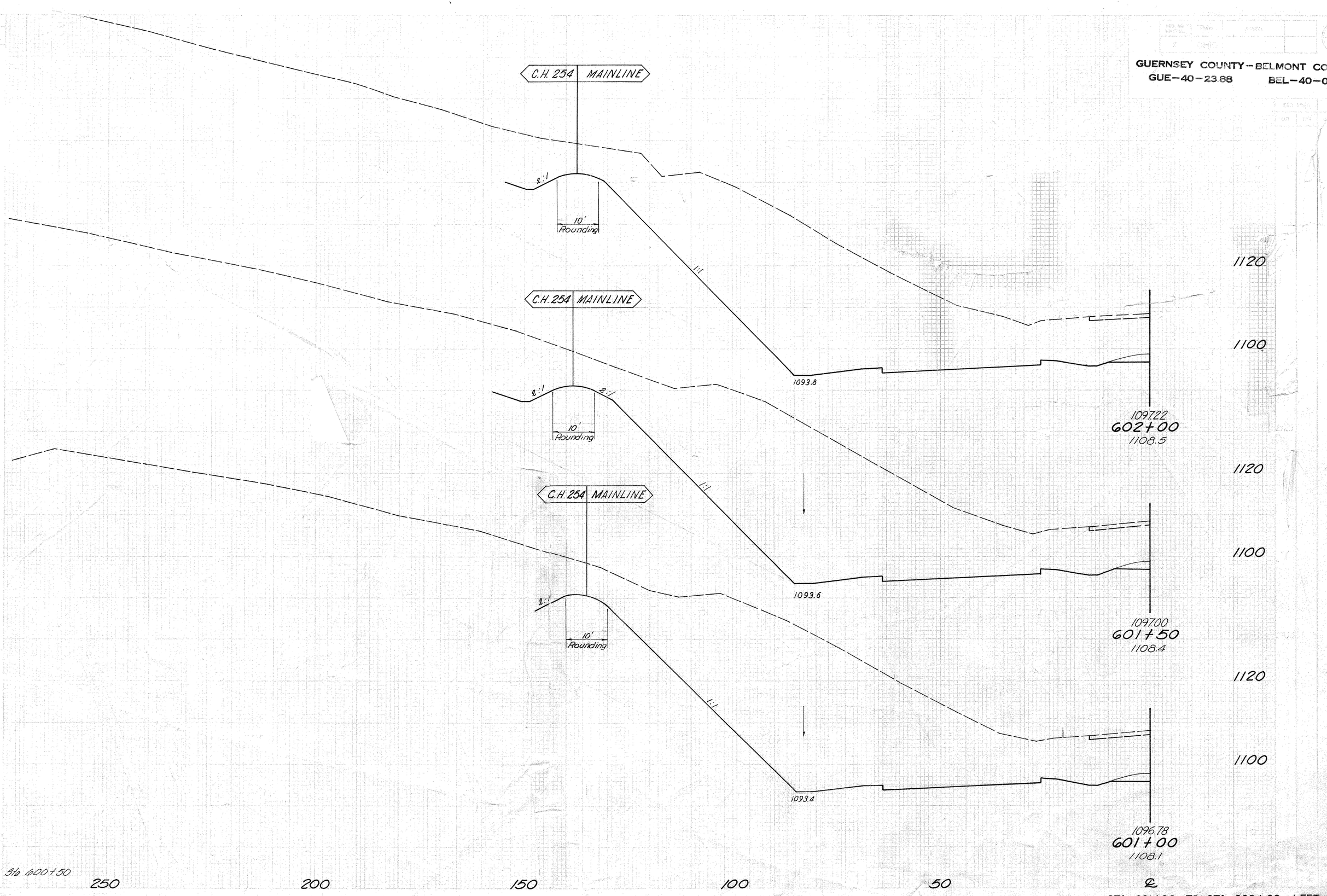
Sta. 599+00

4988

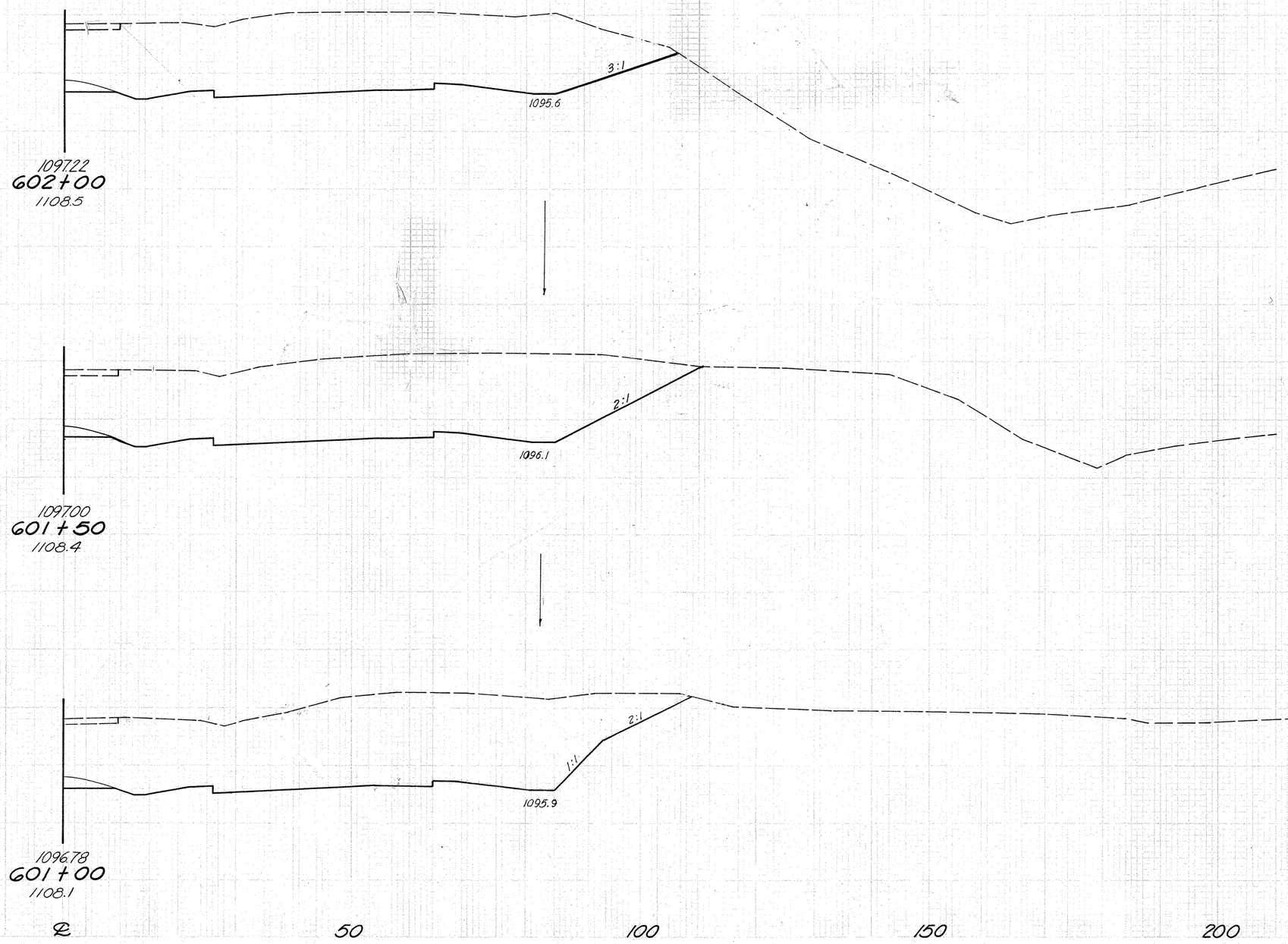
STA. 599+50 TO STA. 600+50 RIGHT

185
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

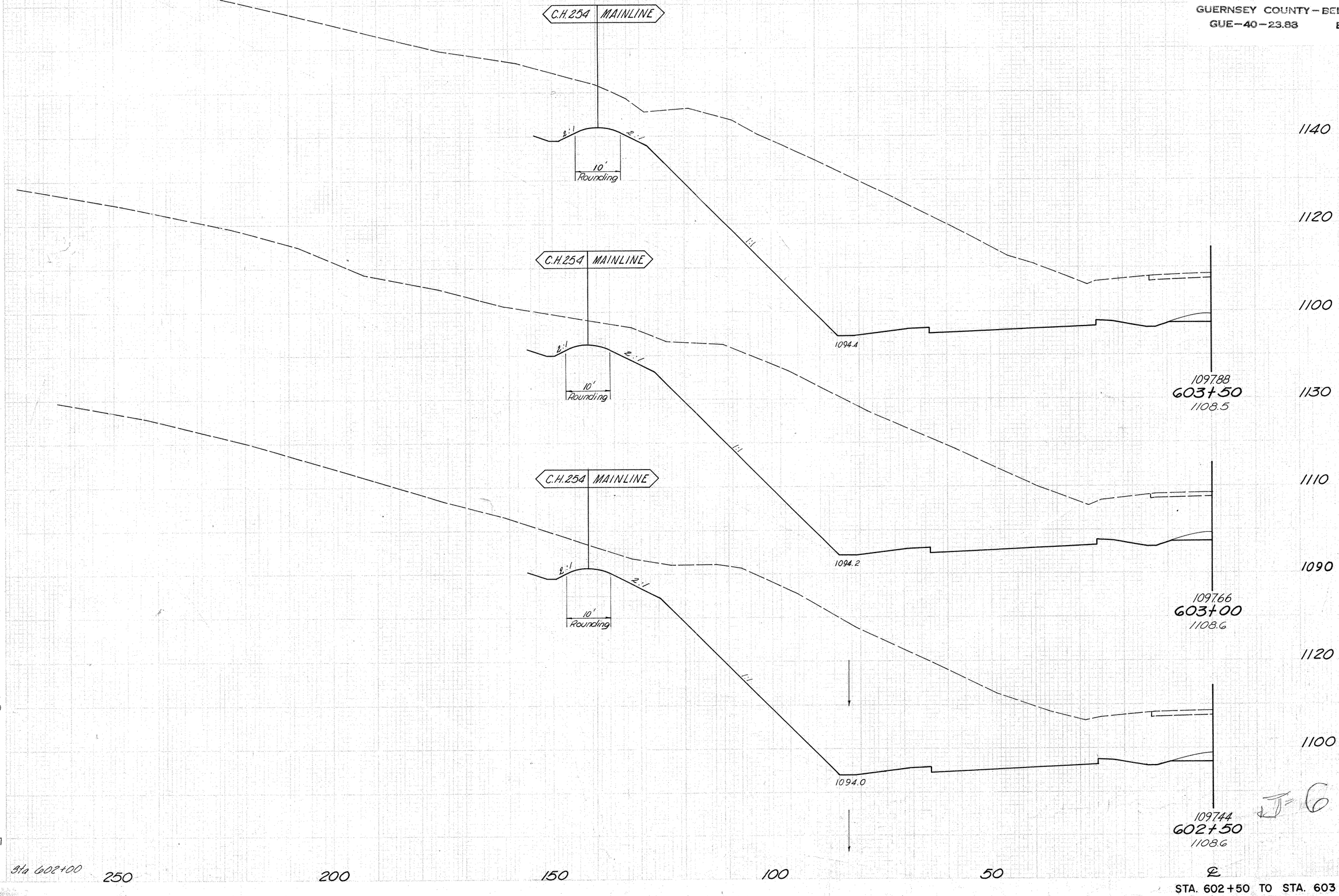


GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



STA. 601+00 TO STA. 602+00 RIGHT

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



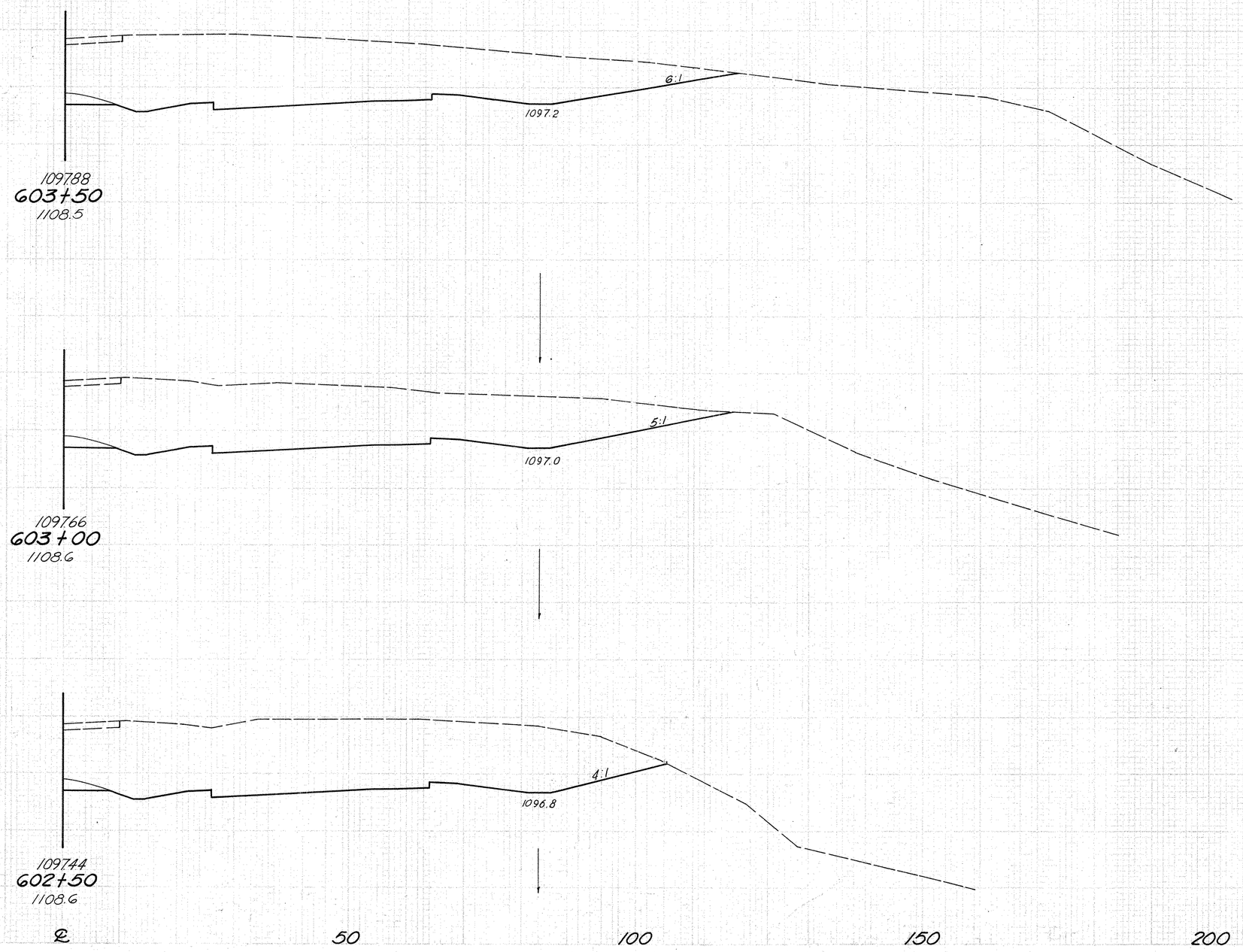
STA. 602+50 TO STA. 603+50 LEFT

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00

SHEDDING	
ENG. WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 602+50 TO STA. 603+50 RIGHT

SEEDING

SEED MIXTURE	RATE LBS.

SEC. NO.	STATE	PROJECT	
	OHIO		

139
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

EXC. AREA		VOLUME	
CUT	FILL	CUT	FILL

1140
1120
1100
1130
1110
1090

2:1
1:1
2:1
1:1

1055.0
1098.32
604+50
1108.1
1094.8
1098.10
604+00
1108.3

188
1058
193
1017
173

3% 603+50

250 200 150 100 50 ℄

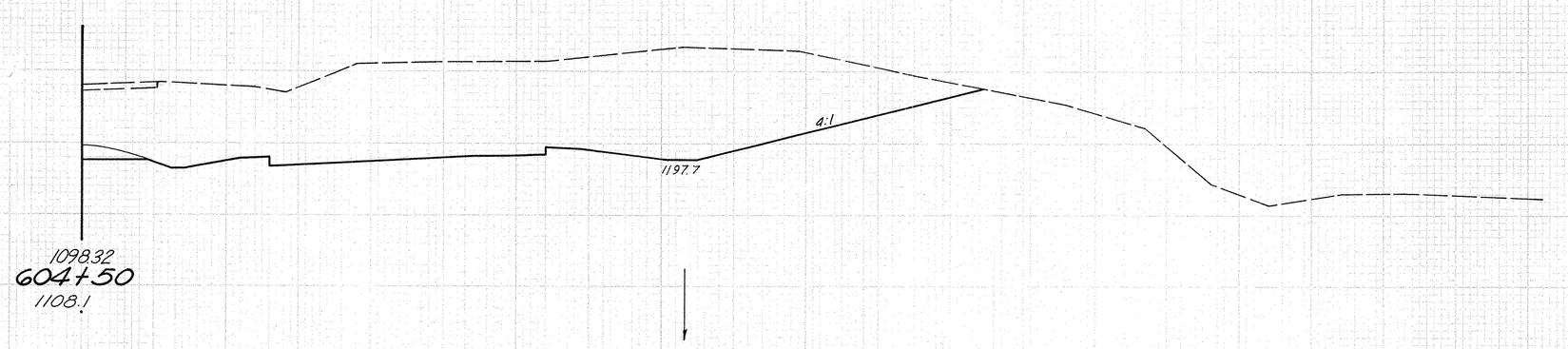
STA. 604+00 TO STA. 604+50 LEFT

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

190
485

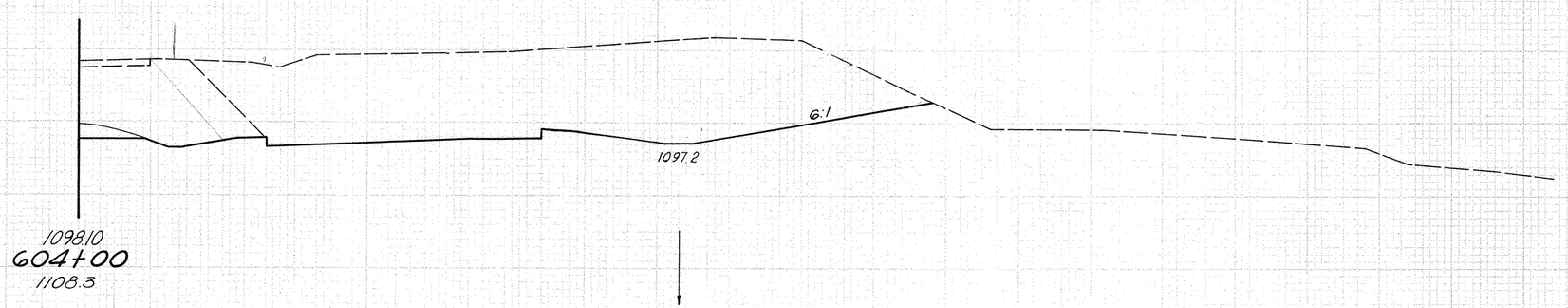
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



1110
1090
1070

Right 1171
Left 3000
4171



1110
1090
1070

Right 1130
Left 2951
4081

7641

7865

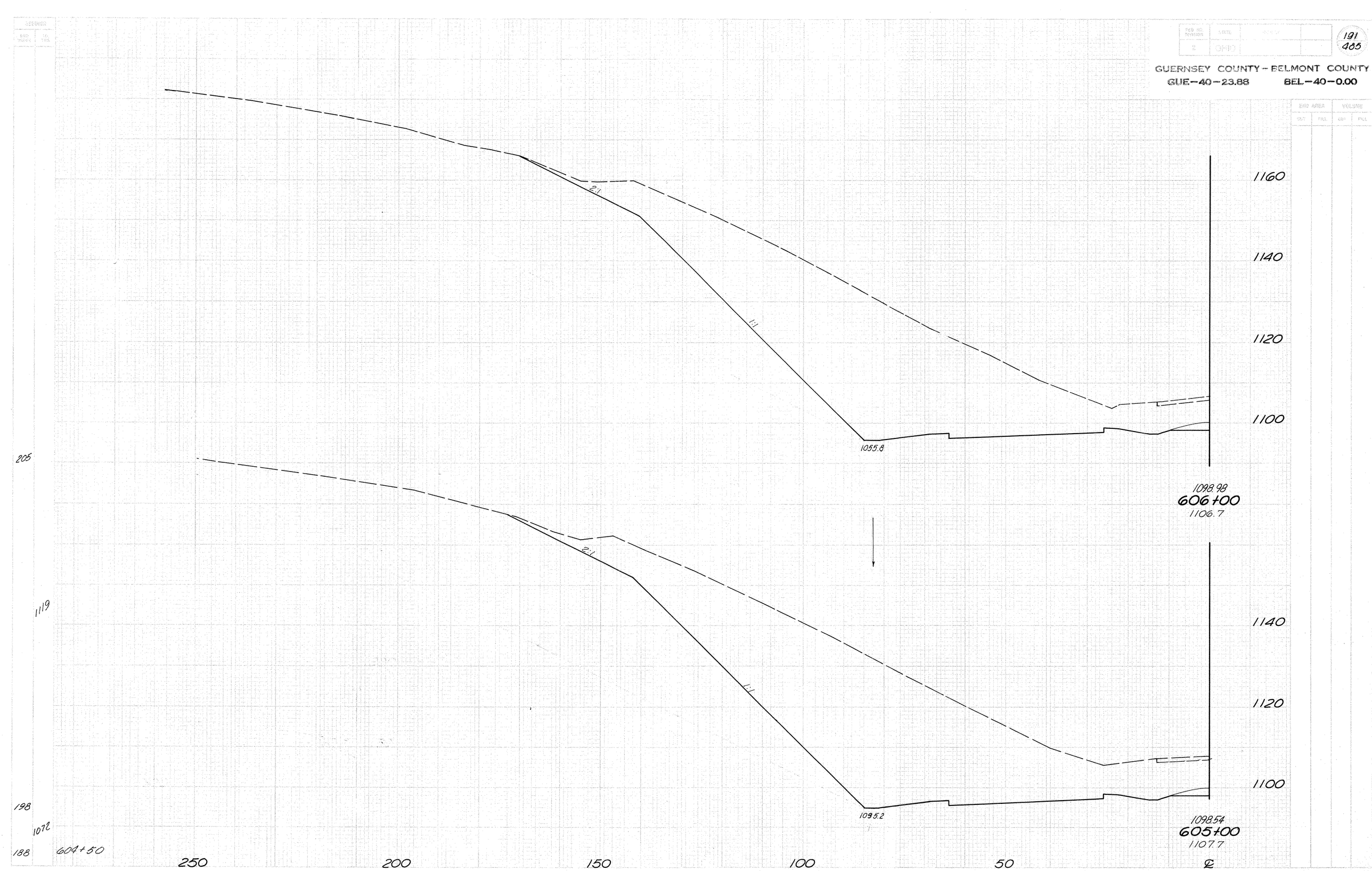
℄ 50 100 150 200 250 Sta. 603+50 3765

STA. 604+00 TO STA. 604+50 RIGHT

FED. RD. DIVISION | STATE | PROJECT | SHEET NO.
2 | OHIO | | 191 / 485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA: CUT | FILL — VOLUME: CUT | FILL



STA. 605+00 TO STA. 606+00 LEFT

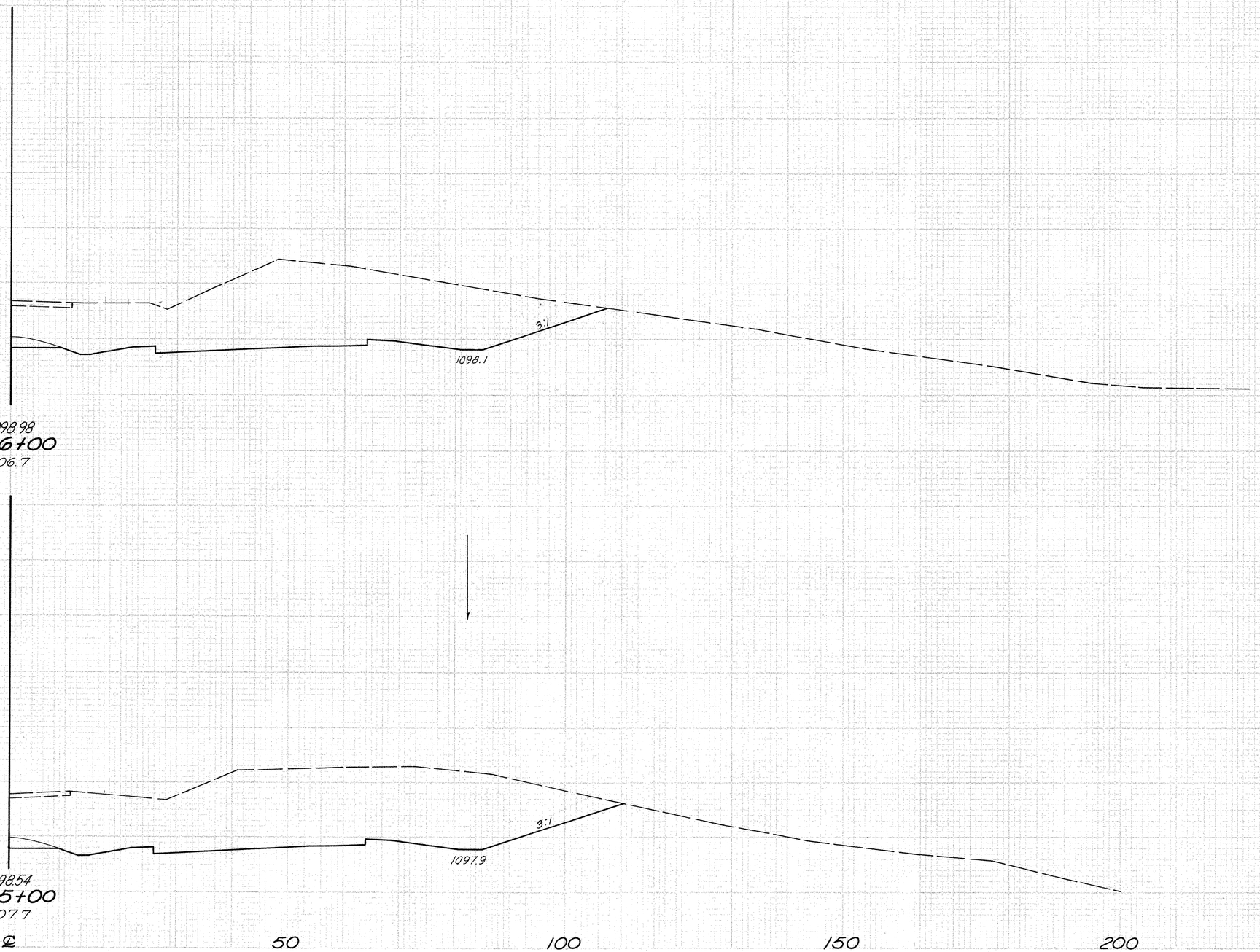
REVISIONS				
ENG WORK	JR YES			

FED. ROAD DIVISION	STATE	PROJECT	
5	OHIO		

192
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA 605+00 TO STA 606+00 RIGHT

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

193
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00

SECTION

END POINTS	SQ. FEET
256	
1352	
231	
1236	
214	
2328	
205	

END AREA		VOLUME	
CUT	FILL	CUT	FILL

1140

1120

1100

2:1

1:1

1096.5

22½° CI E-1 @ 0.93%

13.5 Lt. Sta. 608+00
Std. No. 8 CB
IE Grate 1098.24
IE 2-12" CI E-1 1094.80

109986
608+00
1103.5

1140

1120

1100

2:1

1:1

1096.3

109964
607+50
1104.5

1140

1120

1100

2:1

1:1

1096.1

109942
607+00
1105.3

4190

Sta. 606+00

250 200 150 100 50 ℄

STA. 607+00 TO STA. 608+00 LEFT

SCREENING

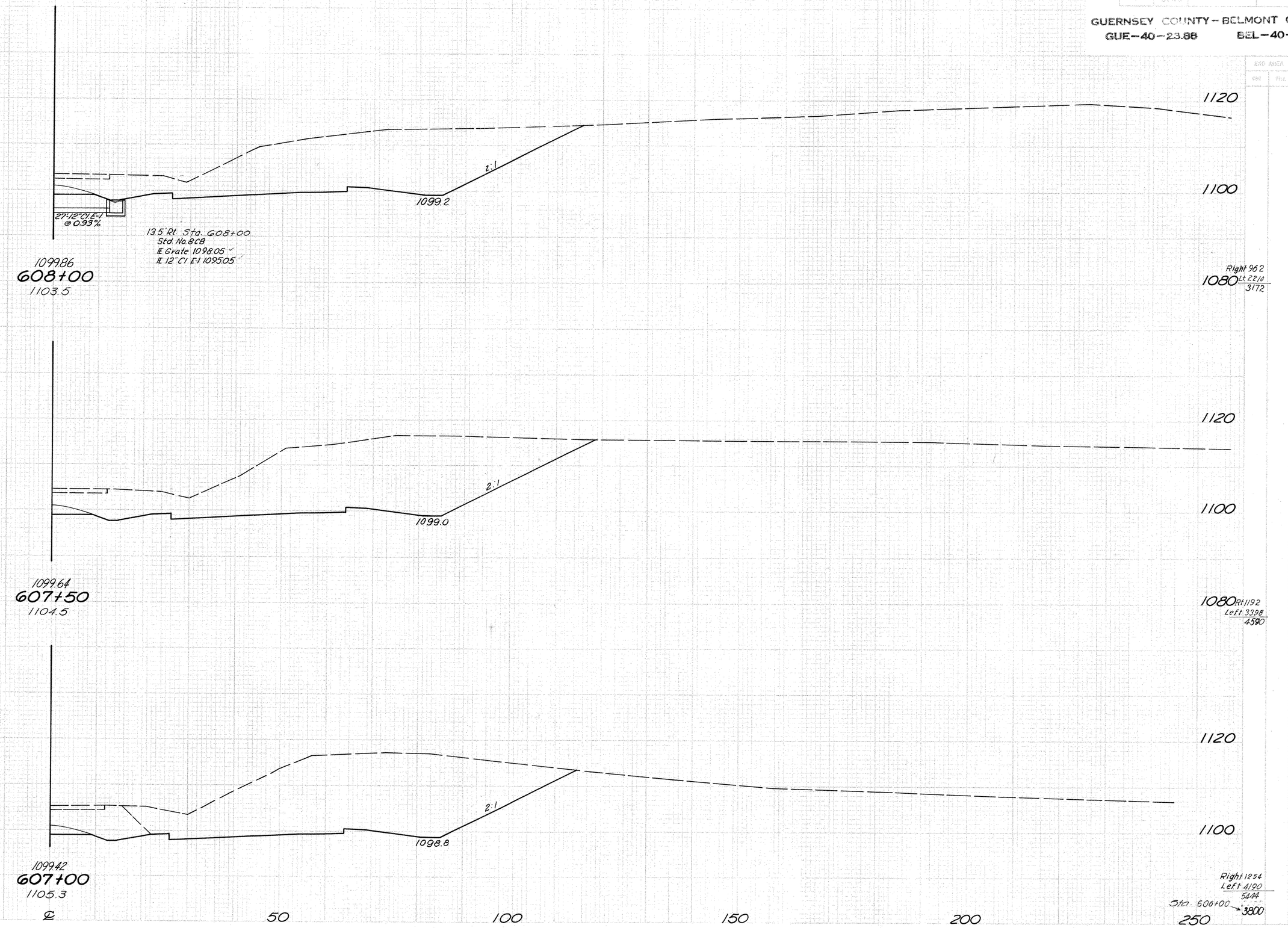
END AREA	SD PIPE

DIST NO	STATE	FEDERAL		194
2	OHIO			485

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 607+00 TO STA. 608+00 RIGHT

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.58 BEL–40–0.00

C.H. 254 MAINLINE

1100.96
610+50
1098.6

1100
1080
2:1
24:1
10'
2:1
2:1
1074.6

C.H. 254 MAINLINE

1100.74
610+00
1099.4

1100
1080
3:1
24:1
10'
1087.5

C.H. 254 MAINLINE

11920
3:1
74'×15" C1B-1 @ 2.8%
4:1
24:1
10'
2:1
2:1
1096.5

87' Lt. Sta. 609+50
Std. HW-E Endwall
IE 15" C1 B-1 1092.02

13.5' Lt. Sta. 609+50
Std. No. 8 CB
RE Grate 1098.90
IE 12" C1E-1 1094.35
IE 15" C1. B-1 1094.08

1100.52
609+50
1100.3

1100
1080
1120

2:1
8:1
1097.1
8:1
8:1
1099.7
4:1

1100.30
609+00
1101.5

1120
1100

2:1
1:1
1096.8
8:1
1099.4
3:1

1100.08
608+50
1102.5

Sta. 608+00
150 100 50 ℄ 50 100 Sta. 608+00

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
10	1876			
18	2880			
9	1234			
26	1608			
19	502			
736	470			
776	5			
2469	5			
1890				
4687				
3172				

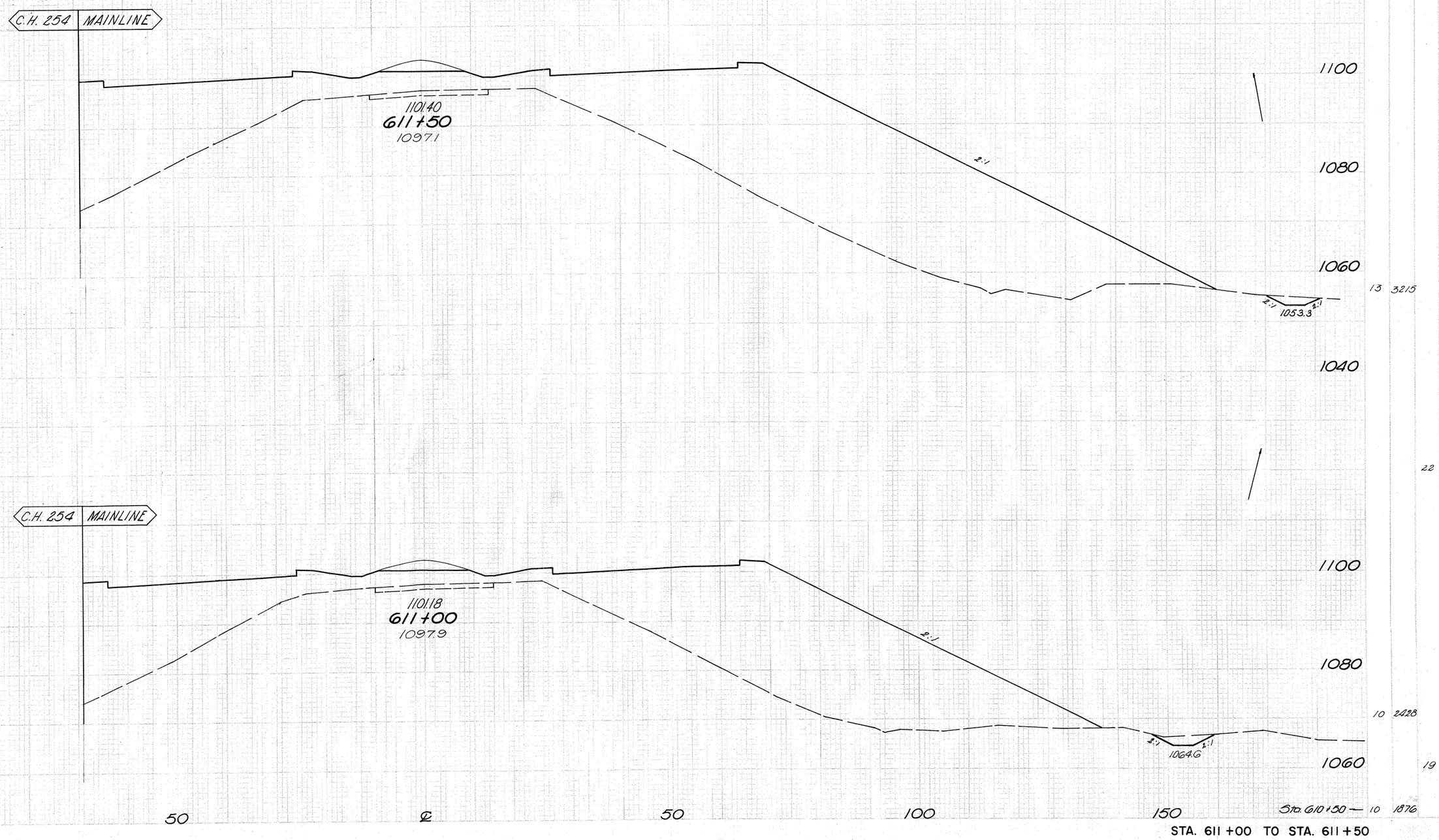
STA. 608+50 TO STA. 610+50

FED. ROAD PROJECT	STATE	COUNTY		196 435
2	OHIO			

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

Sta. 611+90 = Culvert

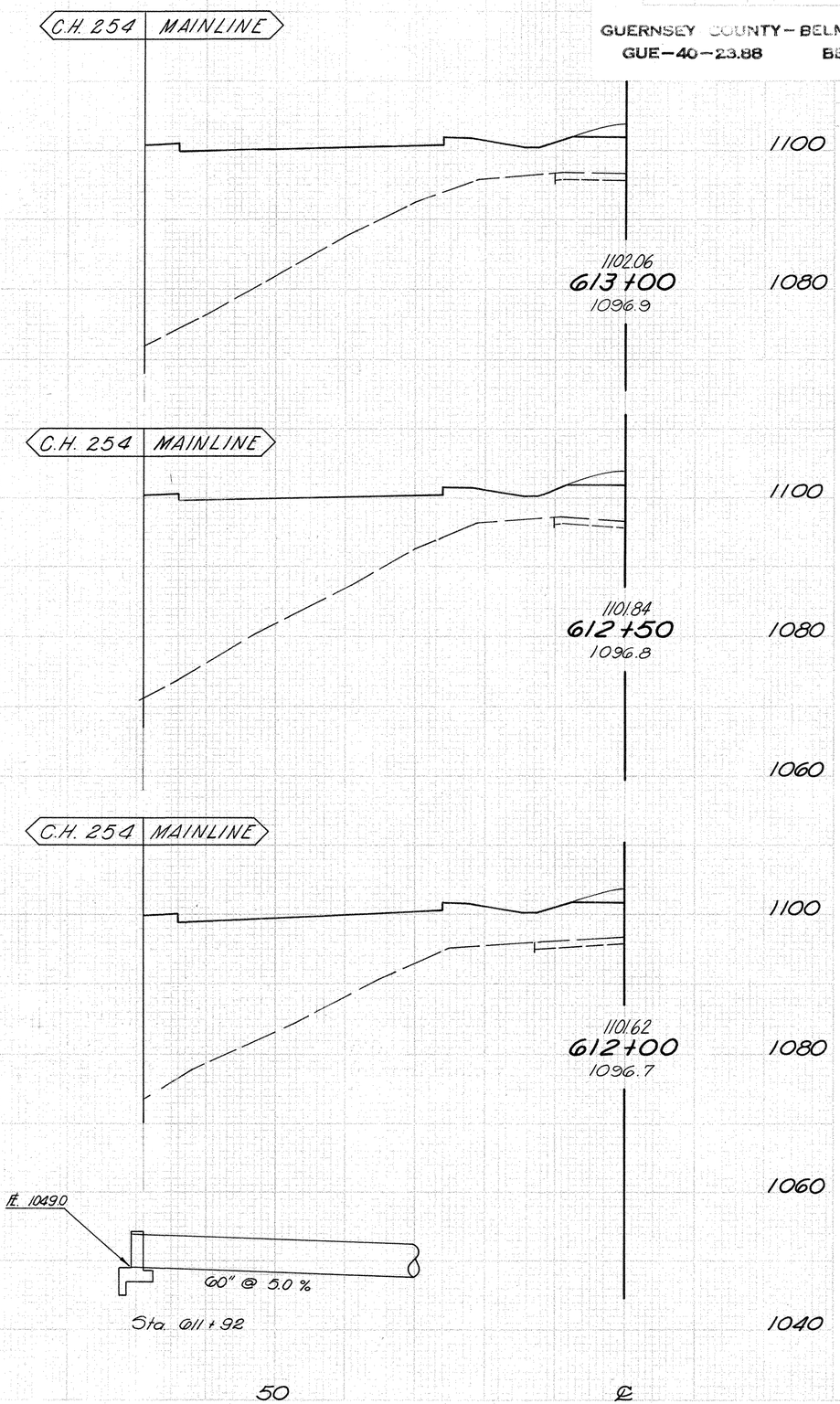


STA. 611+00 TO STA. 611+50

SHEET NO.	STATE	PROJECT		197 / 485
8	OHIO			

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
308					
1618					
296					
1642					
277					
1564					
286	Sta. 611+50				



250 200 150 100 50 ℄

STA. 612+00 TO STA. 613+00 LEFT

GUERNSEY COUNTY – BELMONT COUNTY
GUE-40-23.88 BEL-40-0.00

1102.06
613+00
1096.9

1101.84
612+50
1096.8

1101.62
612+00
1096.7

2:1

24:1
10'
2:1
1027.0
2:1

24:1
10'
1028.3

24:1
10'
2:1
1037.4
2:1

℄ 1031.80
60" @ 5.0 %
1030
100
120
140
Sta. 611+92

Sta. 611+50

℄
50
100
150
200
250

1100
1080
1060
1040
1080
1060
1040
1020
1070
1050

END AREA		VOLUME	
CUT	FILL	CUT	FILL
Right 30	3488		
Left 0	868		
30	4356		
		47	8080
Right 15	3530		
Left 0	840		
Stream. 15	4370		
		28	7962
Right 15	3435		
Left 0	794		
15	4229		
		26	6893
		13	3215

STA. 612+00 TO STA. 613+00 RIGHT

SHEET NO.	STATE	PROJECT	
2	OHIO		

200
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

B

B

342

200

2:1

2:1

1140

1140

1120

1100

1080

1105.2

183

110745
617+50
1105.6

1:1
30'
1:1
30'
2:1

2134 898

A

A

1160

317

200

1140

3405

11042

2:1

296

110643
617+00
1104.8

1:1
30'
2:1
5:1
10'
2:1
2:1
1095.3

3091 1210

1120

1100

2068 408

1120

2775

11028

2:1

110471
616+00
1101.8

4:1
2:1
2:1
1094.5

7365 1054

1100

1909 161

870 79

288

Sta. 615+87

Sta. 615+87

1704 166

150 100 50 ℄ 50 100

STA. 616+00 TO STA. 617+50

| SEGMENT | | |

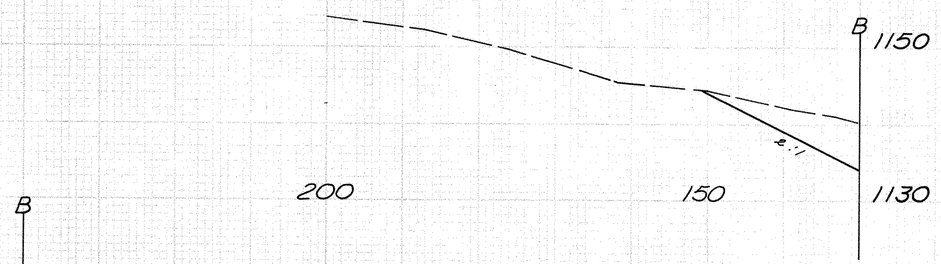
SPACING

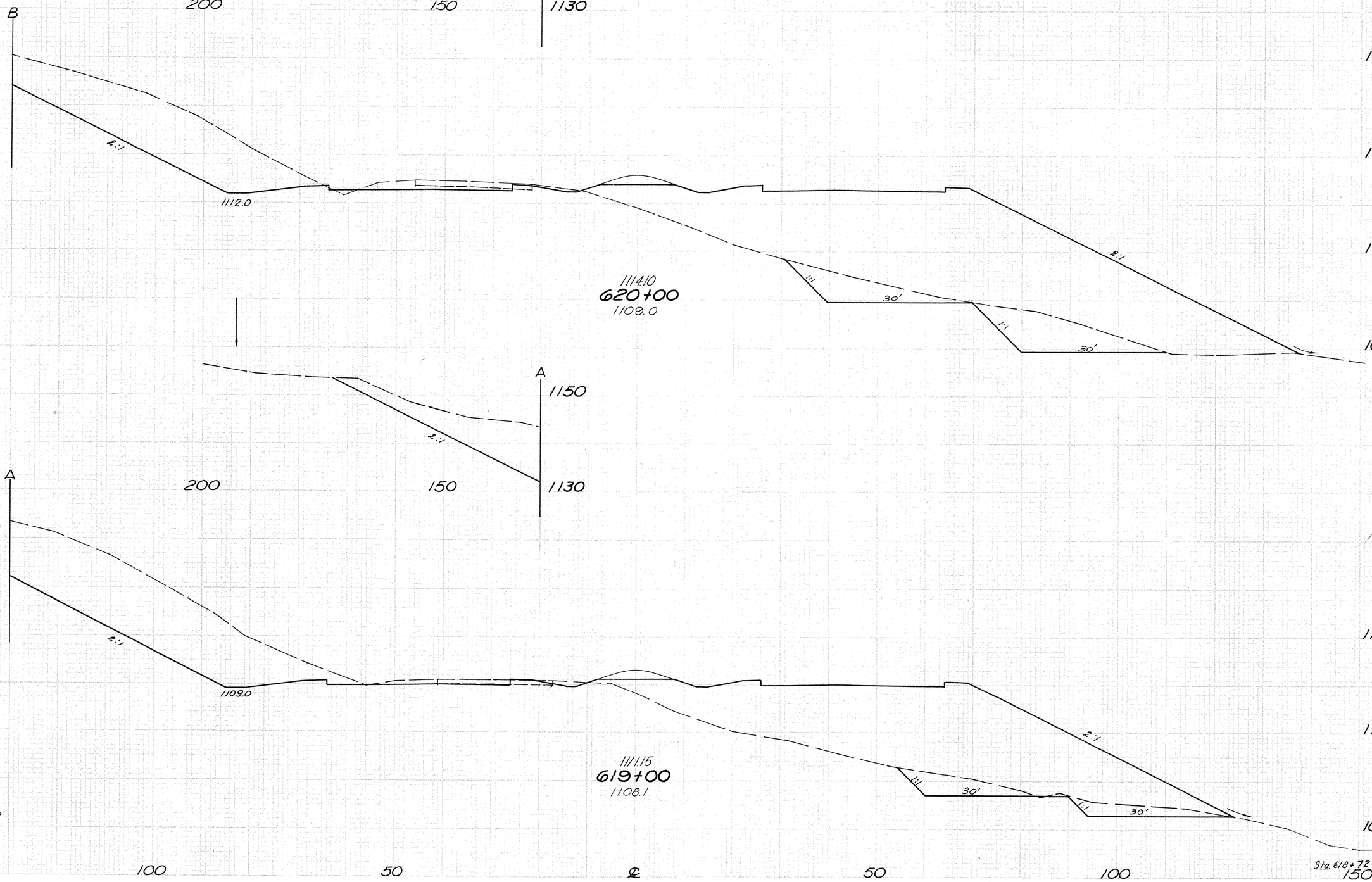
END AREA		VOLUME	
CUT	FILL	CUT	FILL

REGION DIVISION	STATE	PROJECT	
2	OHIO		

202
485

GUERNSEY COUNTY - BELMONT COUNTY
GUE-40-23.88 BEL-40-0.00





328
3672
333
1042
337

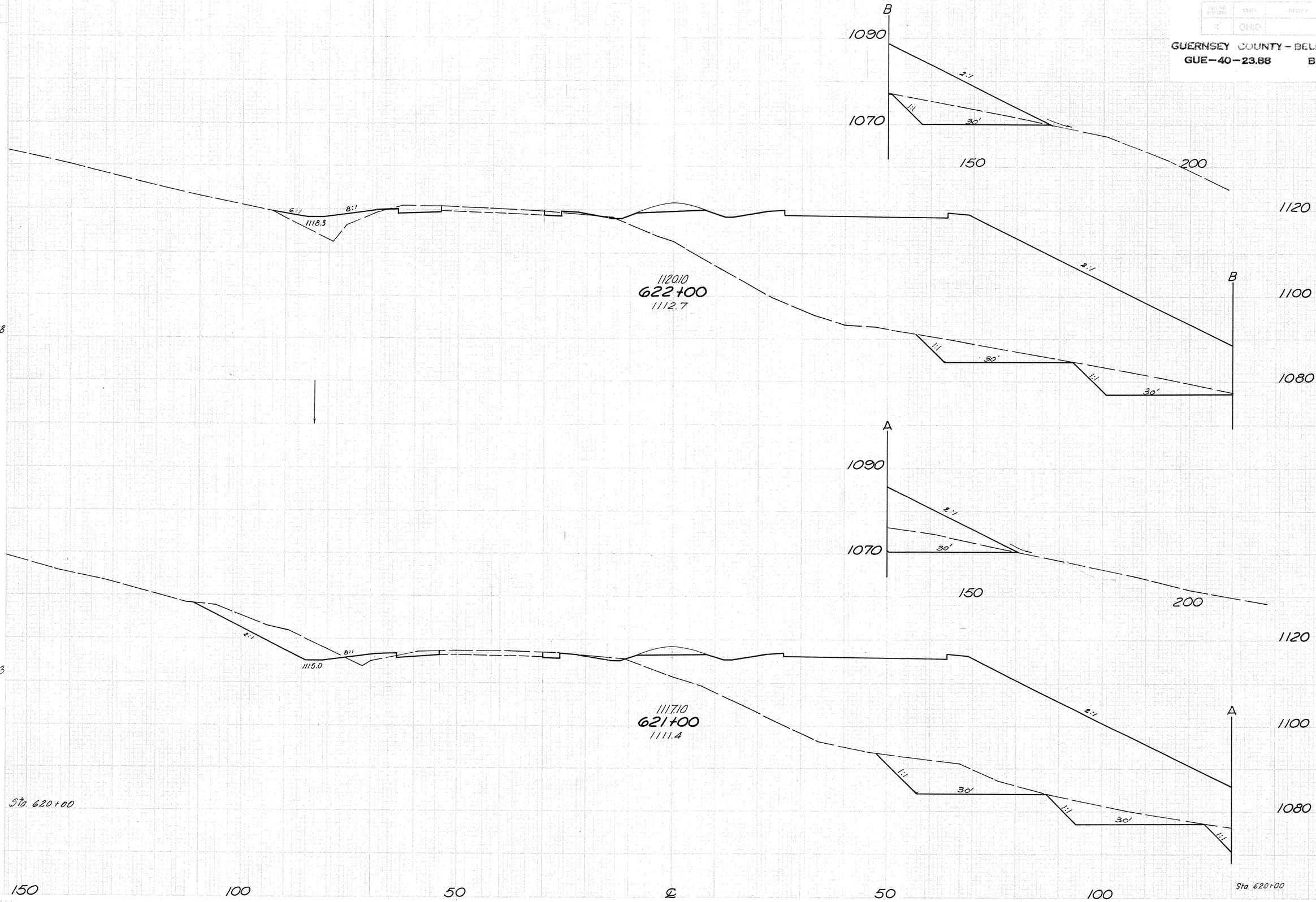
STA. 619+00 TO STA. 620+00

ROUTE SYSTEM	STATE	PROJECT		203 485
2	OHIO			

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00

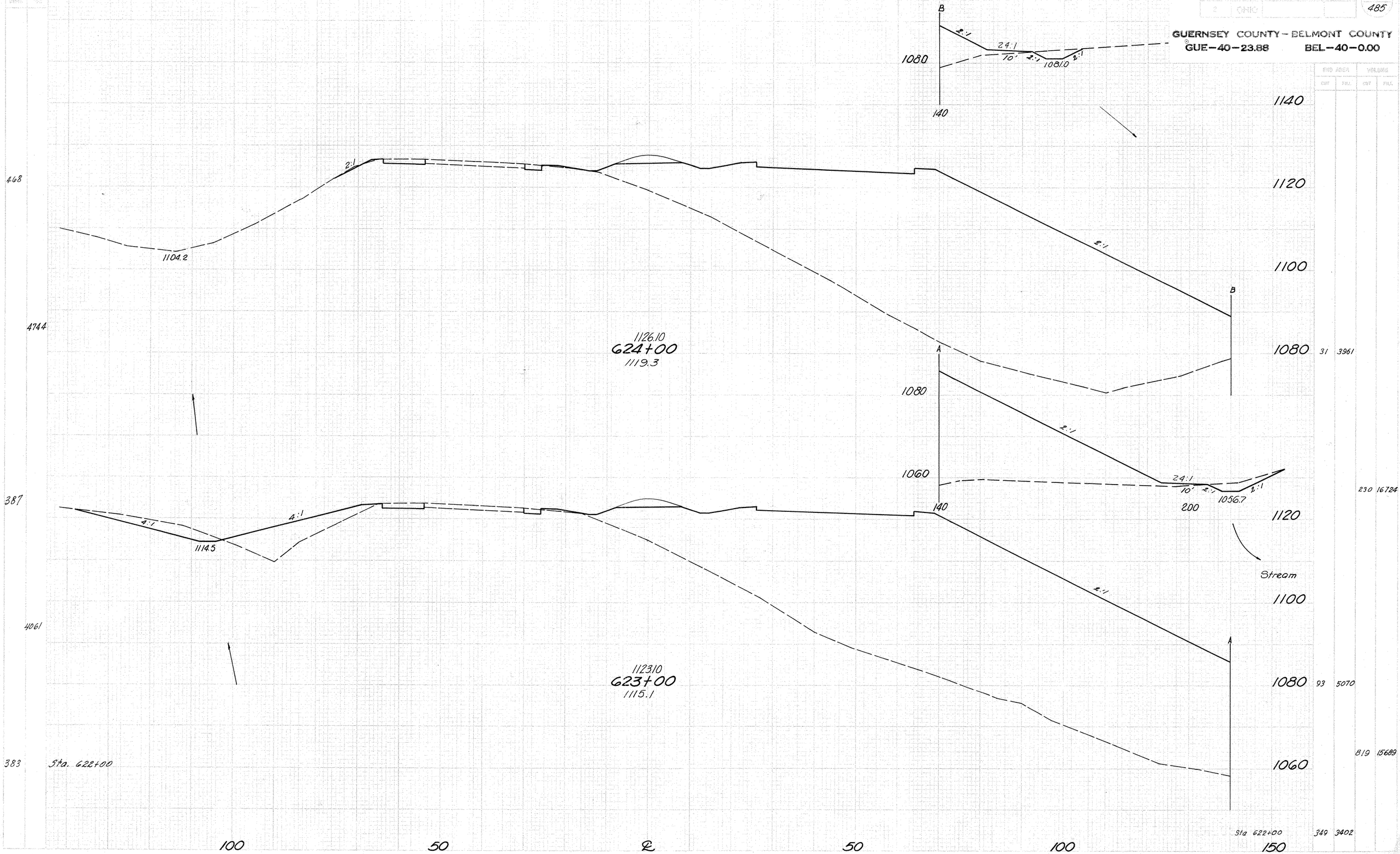
END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 621+00 TO STA. 622+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1140				
1120				
1100				
1080	31	3961		
1120			230	16724
1100				
1080	93	5070		
1060			819	15689
Sta 622+00	349	3402		

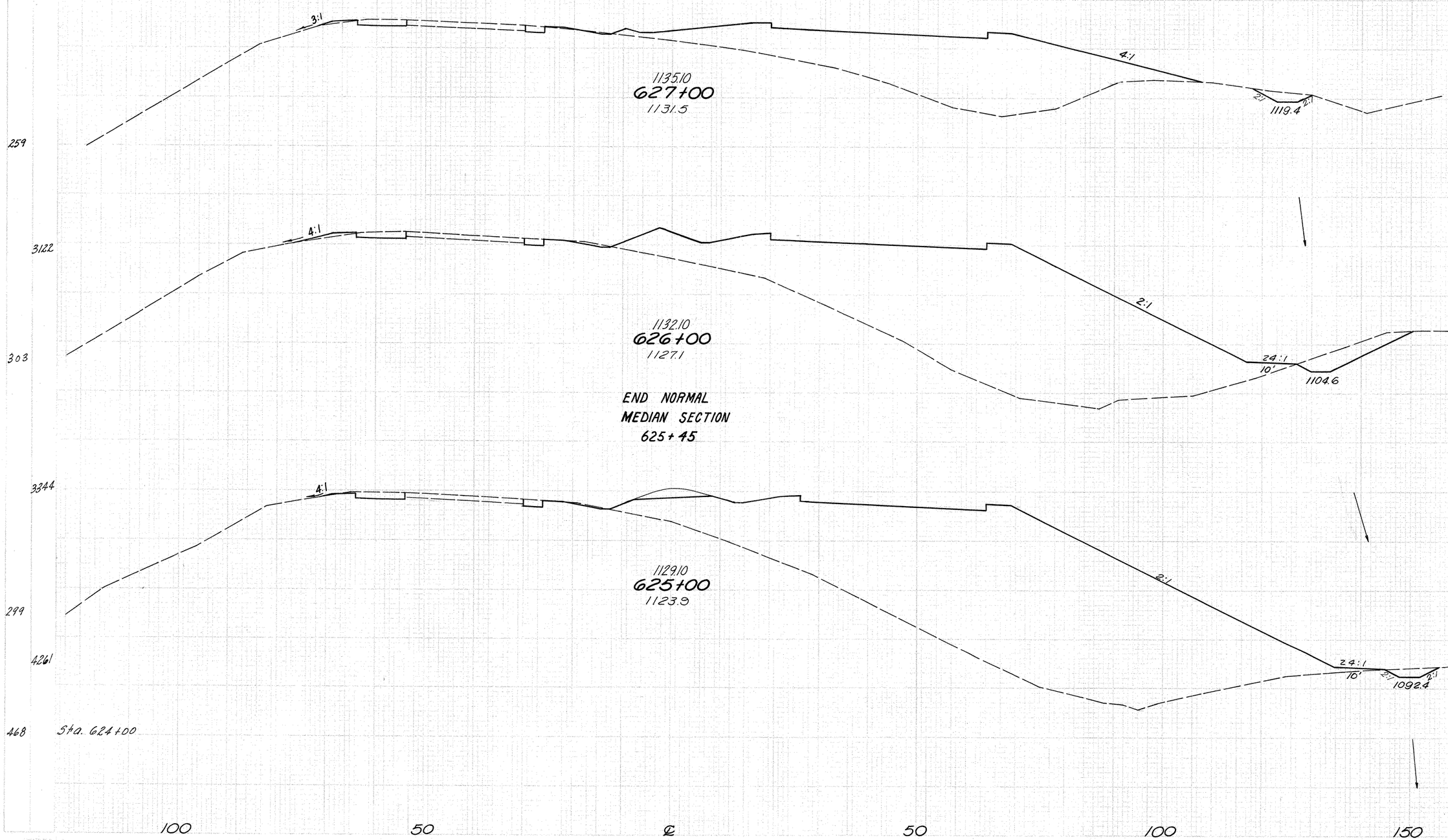


STA. 623+00 TO STA. 624+00

SHEET NO. | TOTAL SHEETS

STATE	DIST.	COUNTY	PROJECT	SHEET NO.
	2	OHIO		205 485

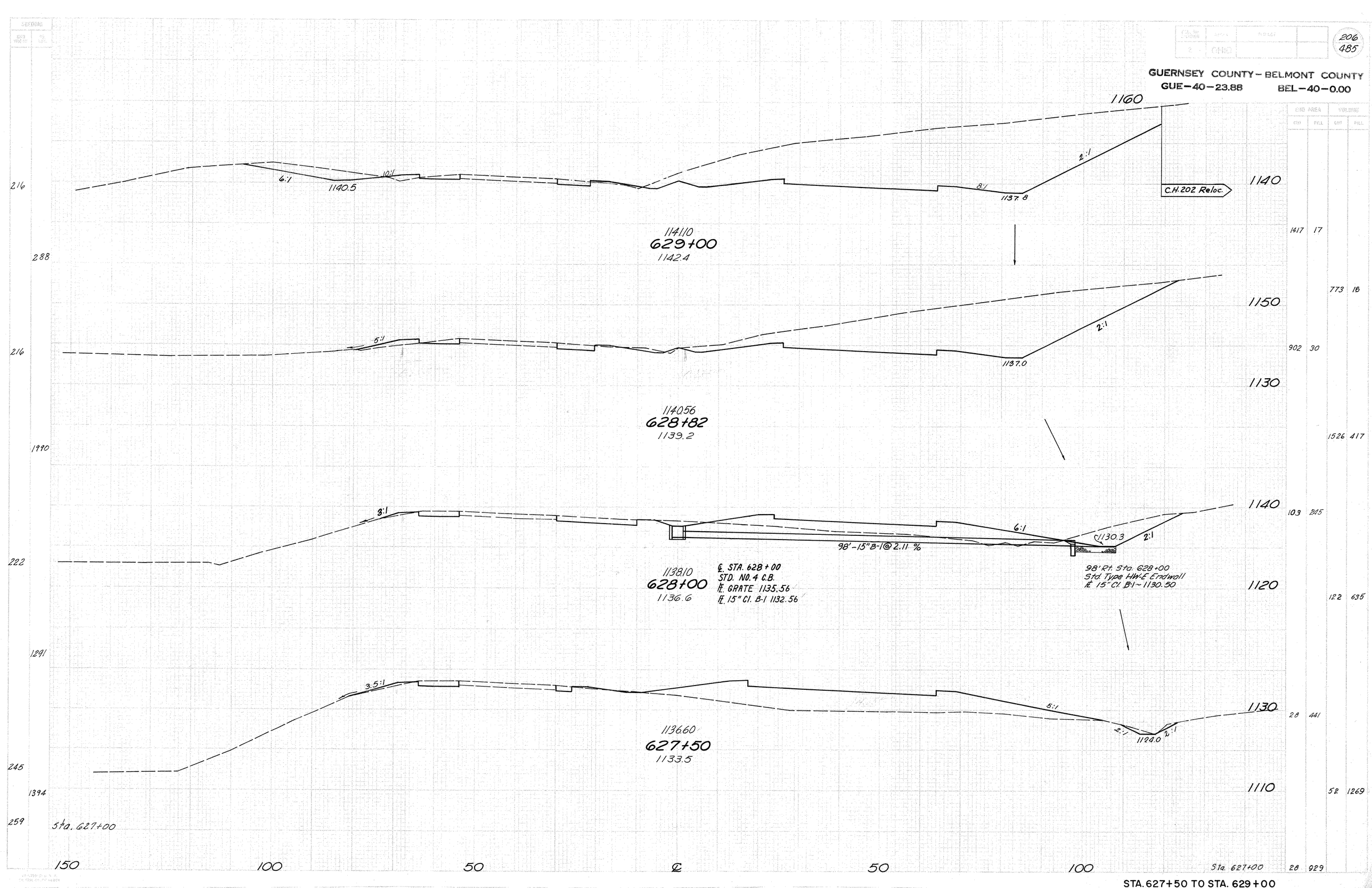
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



END AREA		VOLUME	
CUT	FILL	CUT	FILL
		28	929
		198	5493
		79	2037
		194	8755
		26	2691
		106	12318
		31	3961

STA. 625+00 TO STA. 627+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



END AREA		VOLUME	
CUT	FILL	CUT	FILL
1417	17		
		773	16
902	30		
		1526	417
103	245		
		122	635
28	441		
		52	1269
28	929		

STA. 627+50 TO STA. 629+00

DIST. NO.	STATE	PROJECT	SHEET NO.
11	OHIO		207 485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

299

3294

2:1

1146.2

1160

1140

1147.10
631+00
1152.5

BEGIN NORMAL
MEDIAN SECTION
630 + 25

294

4:1

1143.0

1160

1140

2833

1144.10
630+00
1149.7

216 Sta. 629+00

250 200 150 100 50 ℄

STA. 630+00 TO STA. 631+00 LEFT

SEEDING

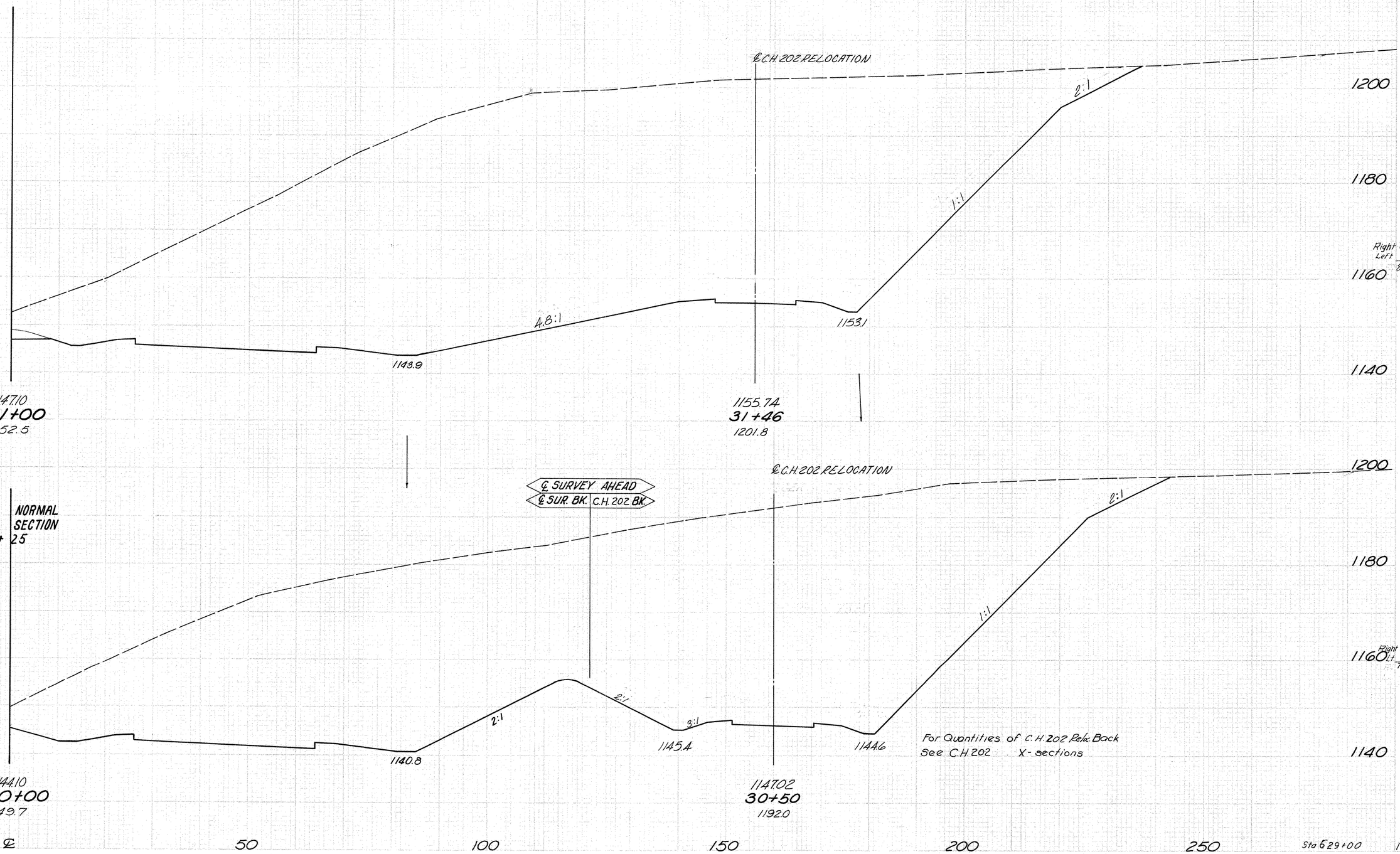
SEED WIDTH	SQ YDS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

208
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 630+00 TO STA. 631+00 RIGHT

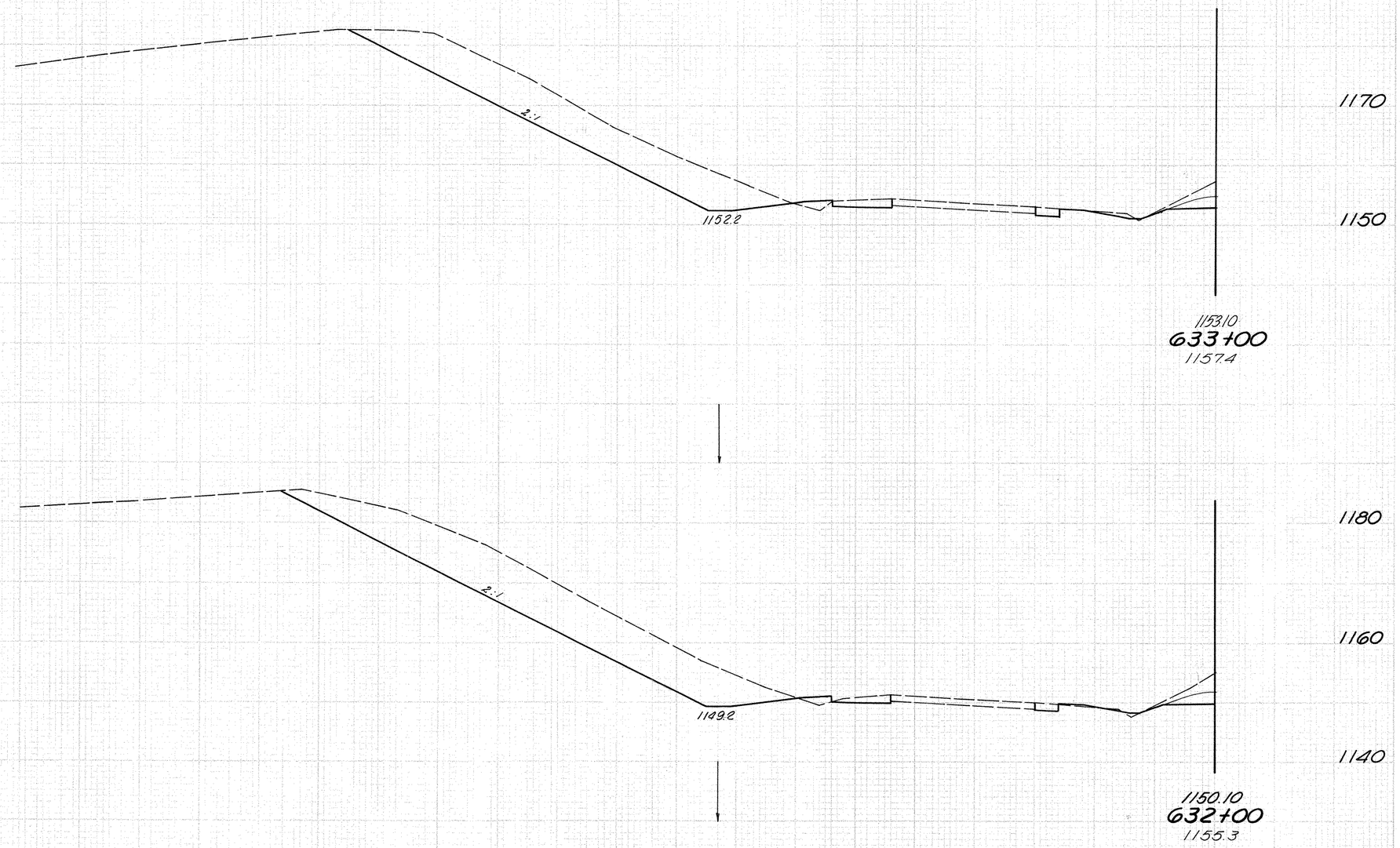
SECTIONS	
END WIDTH	SQ. YDS
279	
	3217
301	
	3333
299	Sta. 631+00

FED. ROAD DIV. NUM.	STATE	PROJECT	
2	OHIO		

209
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



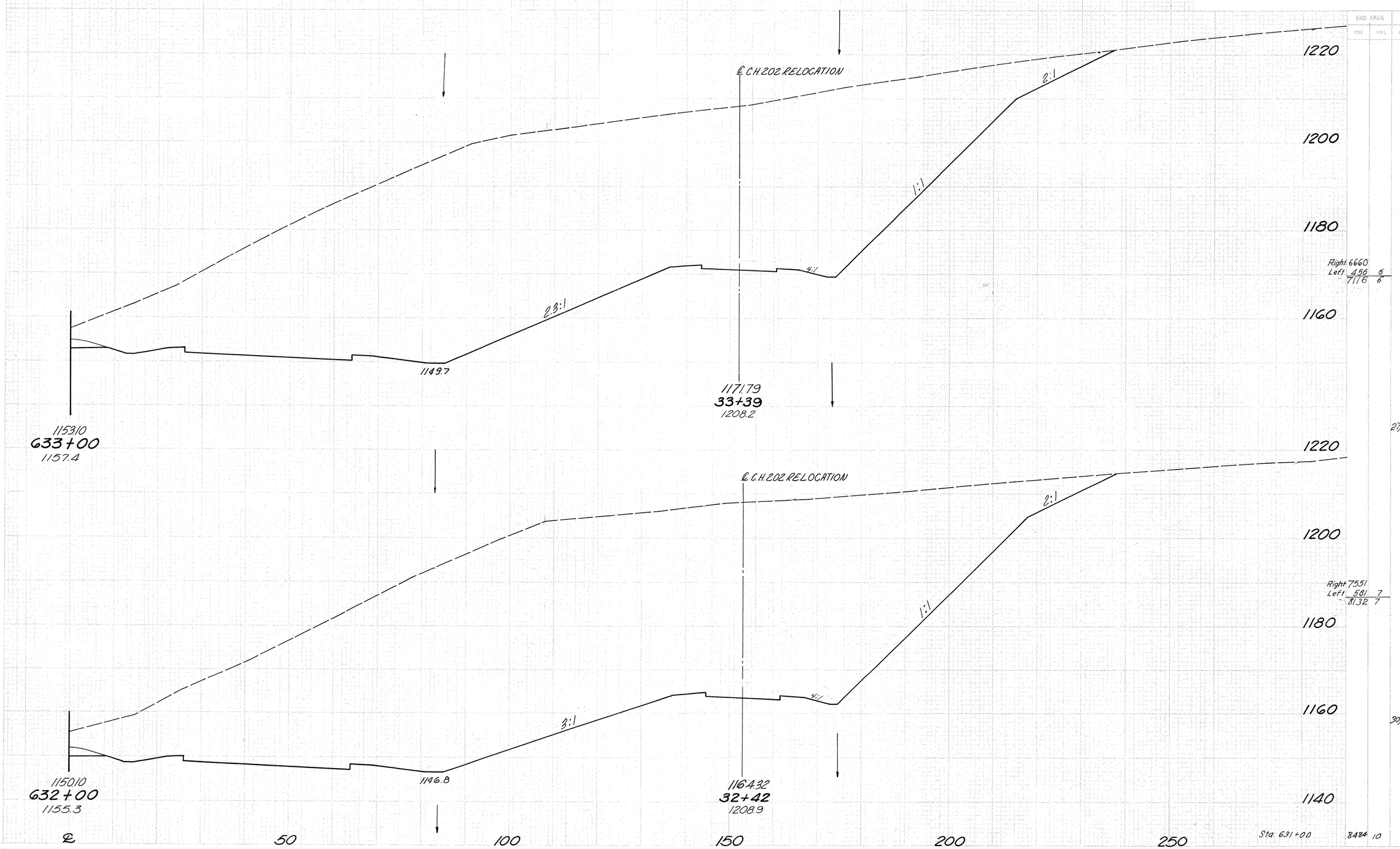
STA. 632+00 TO STA. 633+00 LEFT

FED. ROAD SYSTEM	STATE	PROJECT	
2	OHIO		

210
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 632+00 TO STA. 633+00 RIGHT

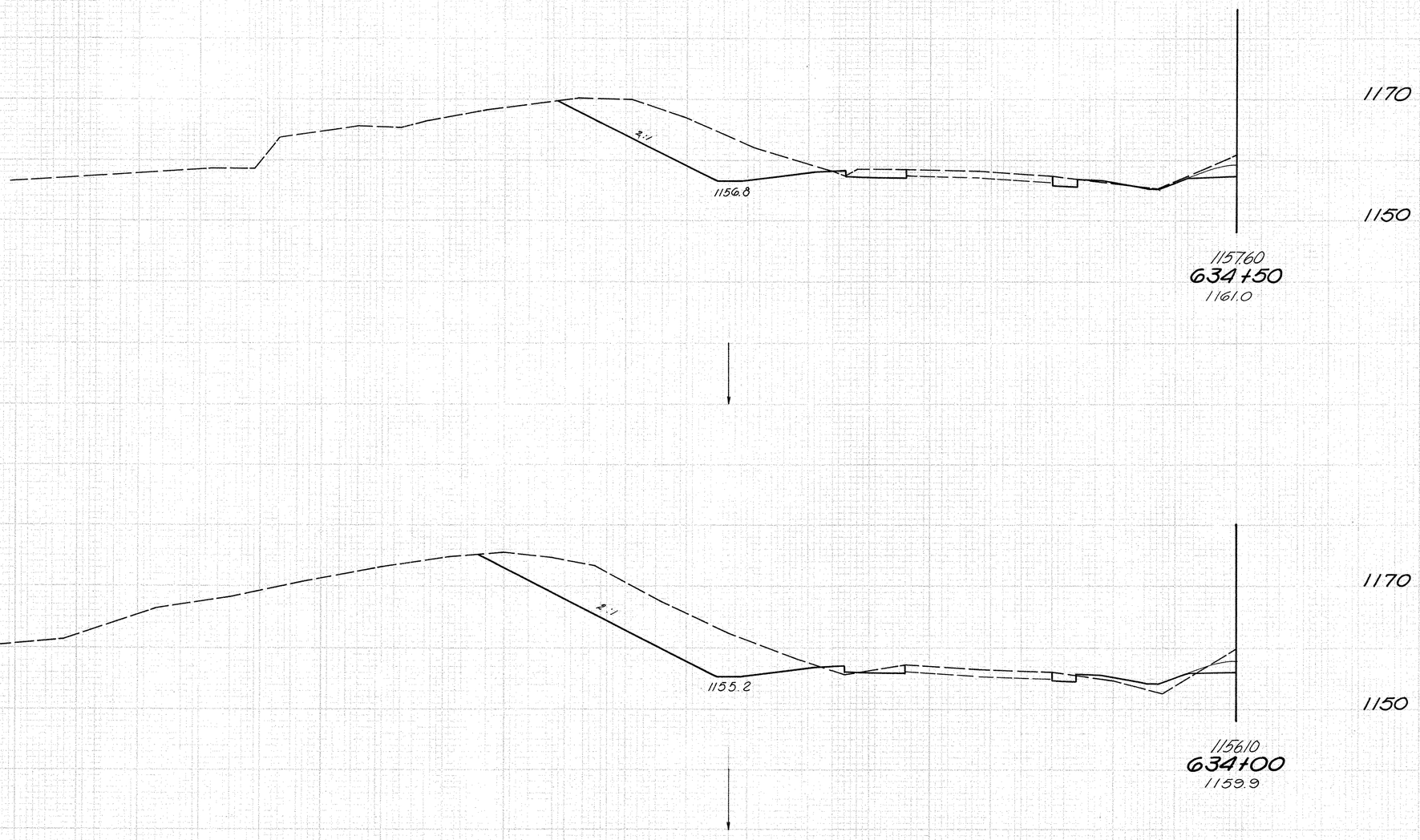
SECTIONS	
CUT AREA	FILL AREA

PROJECT	STATE		
2	OHIO		

211
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL
263	1522		
285	3133		
279			



STA. 634+00 TO STA. 634+50 LEFT

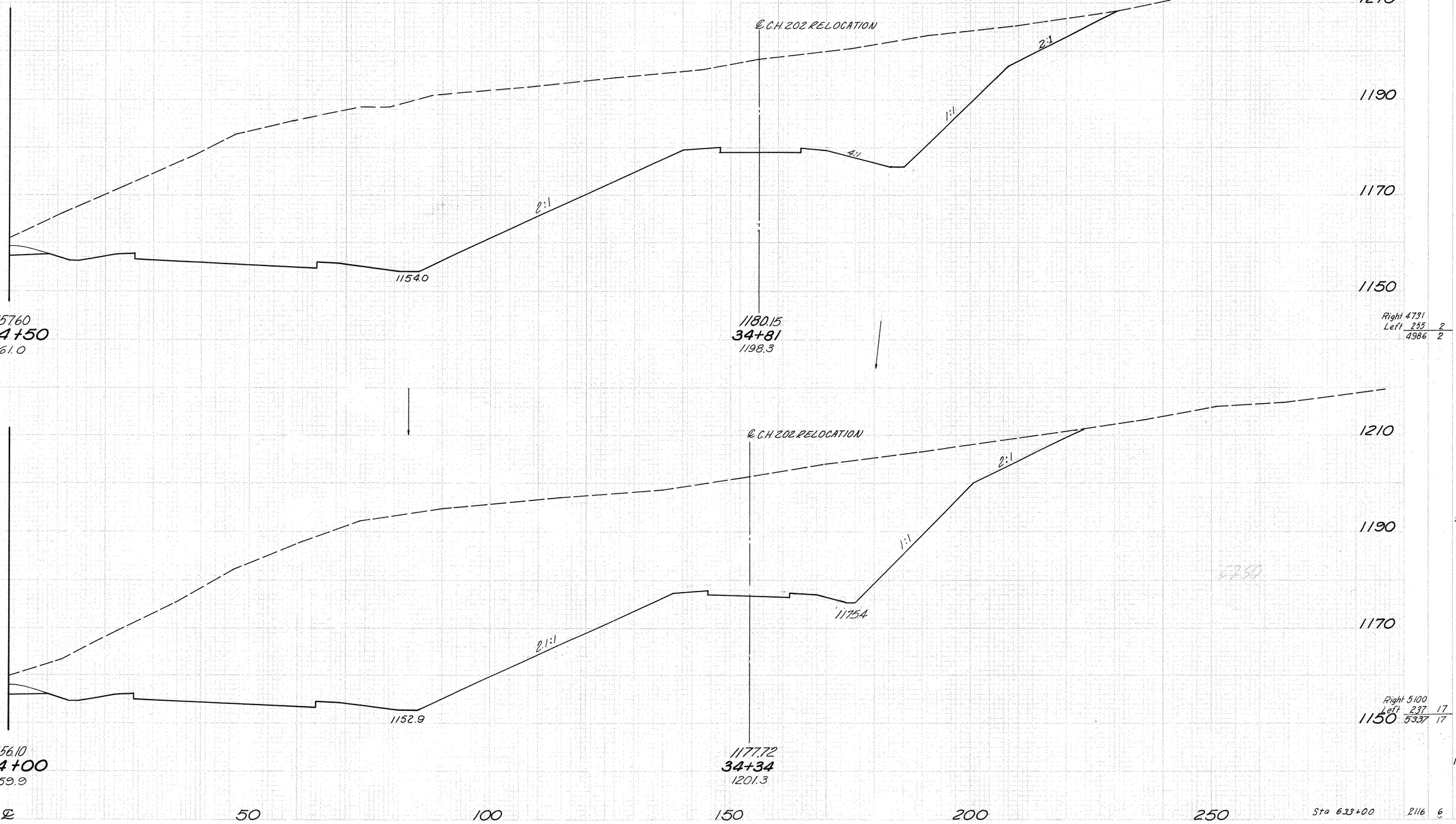
SHEETS	
SHEET NO.	NO. SHTS.

FED. PROJECT	STATE	PROJECT	
2	OHIO		

212
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

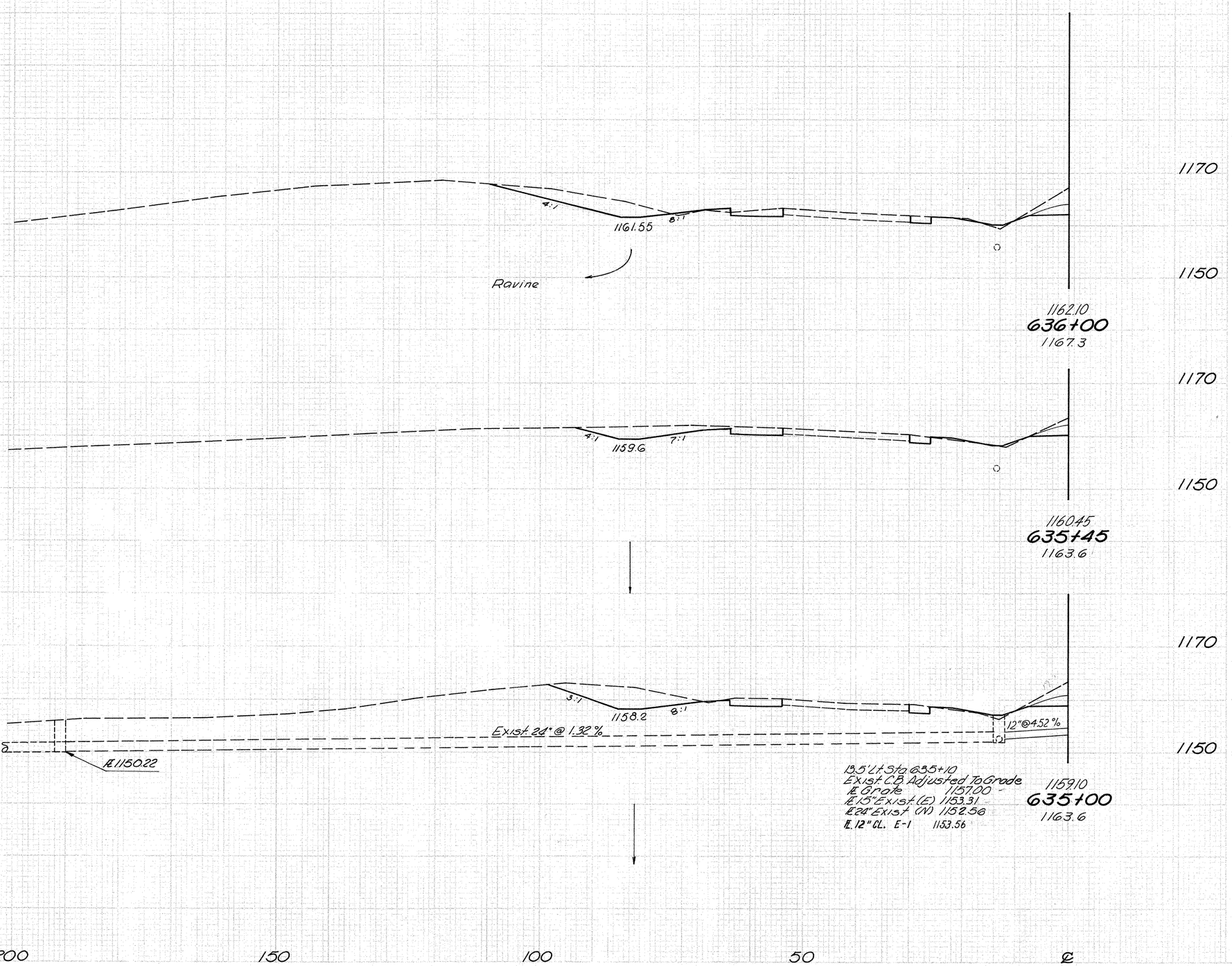


STA. 634+00 TO STA. 634+50 RIGHT

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA CUT FILL | VOLUME CUT FILL

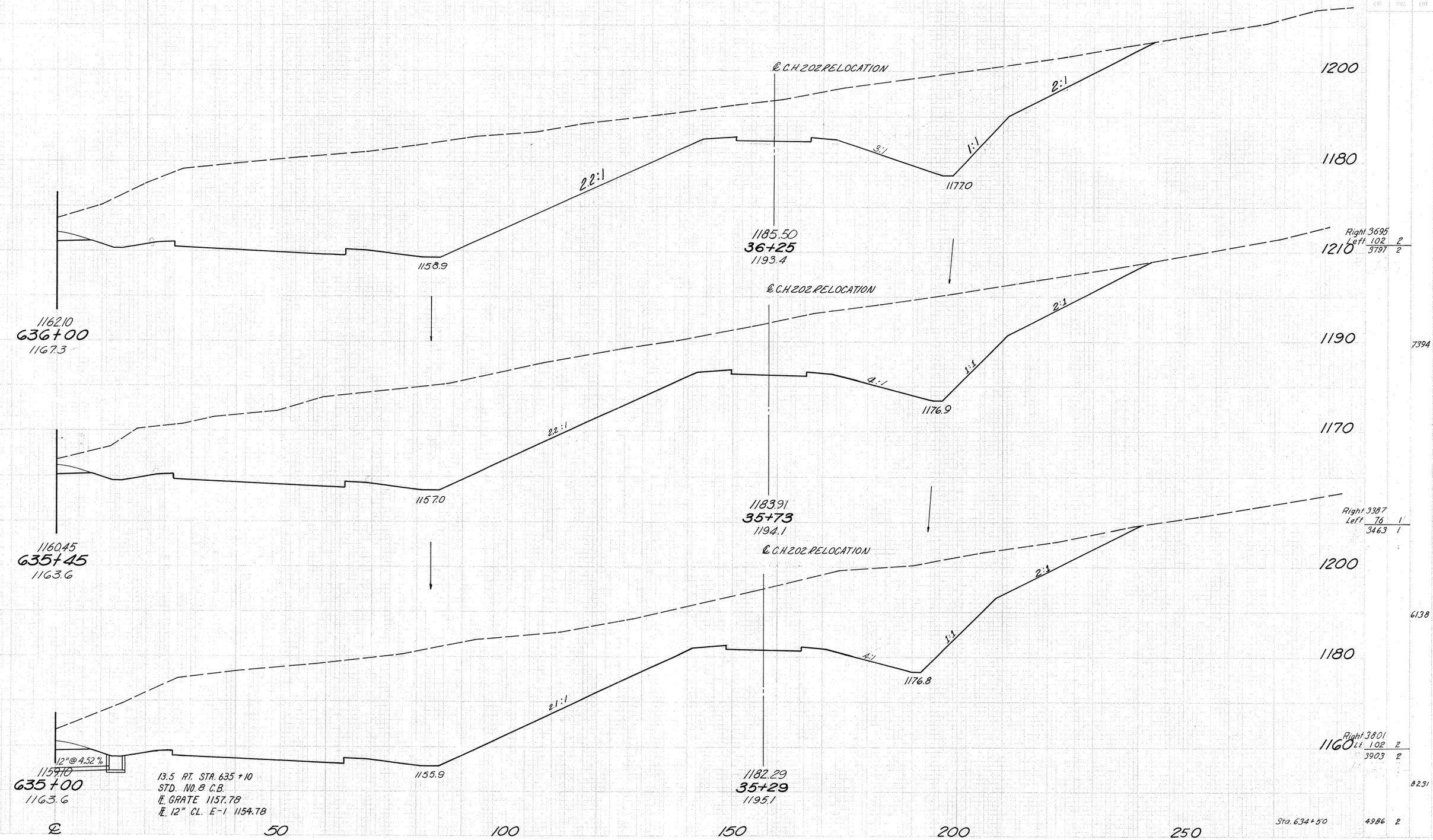
299
1785
285
1382
268
1496
263



Sta. 634+50

STA. 635+00 TO STA. 636+00 LEFT

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



STA. 635+00 TO STA. 636+00 RIGHT

215
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUMES	
CUT	FILL	CUT	FILL
342			
1852			
325			
3483			
302			
3340			
299			

1210
1190
1170
1190
1170
1180
1160

2:1
1169.0
8:1

1169.69
638+50
1173.5

2:1
1167.8
8:1

13.5' Lt Sta. 637+92
Exist. C.B. Adjust to Grade
℄ Grate 1166.50
℄ Ex. 15"(W) 1162.00
℄ 15" (S) C.I.E-1 1162.00

1168.10
638+00
1171.6

2:1
1164.55
8:1

1165.10
637+00
1169.5

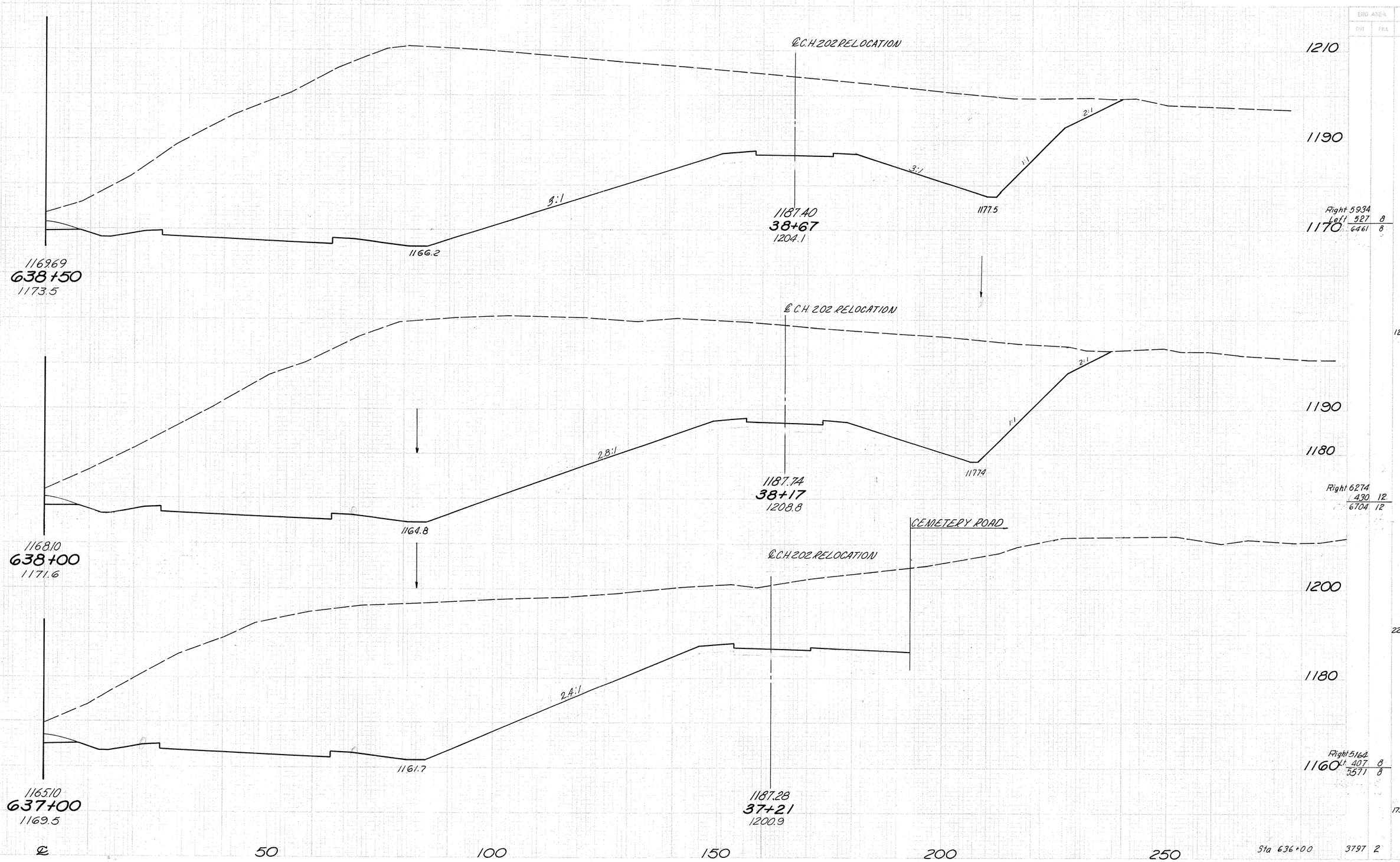
Sta. 636+00

200 150 100 50 ℄

STA. 637+00 TO STA. 638+50 LEFT

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA CUT FILL | VOLUME CUT FILL



STA. 637+00 TO STA. 638+50 RIGHT

SEISMIC

END WIDTH	SQ. YDS.

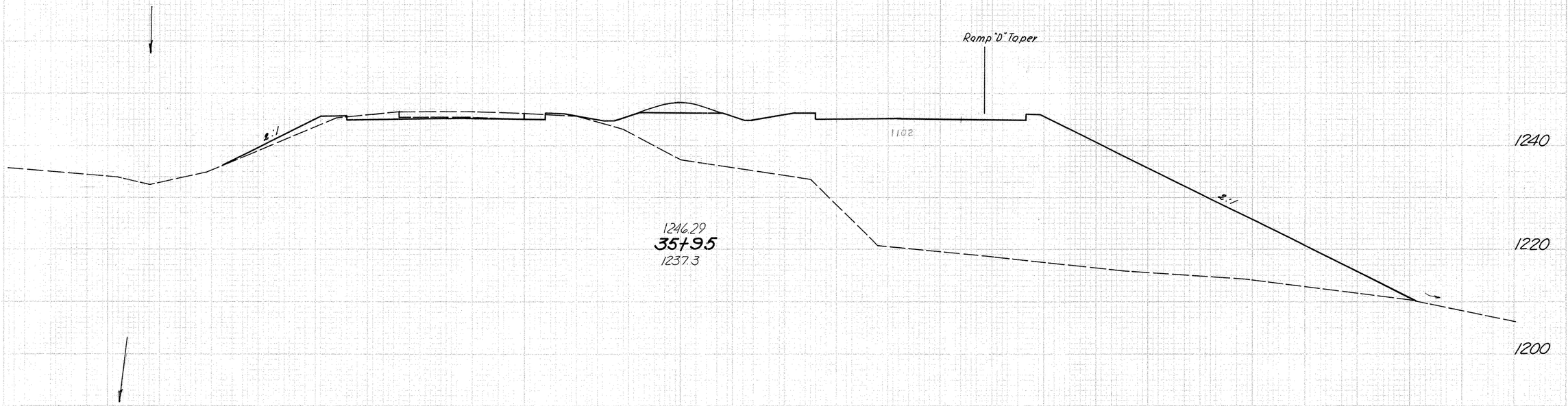
FED. AID DIVISION	STATE	PROJECT	
5	OHIO		

260
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 34+95 TO STA. 35+95

SEEDING

END AREA		SQ. YDS.
CUT	FILL	

FED. RD. DIVISION	STATE	PROJECT	
5	OHIO		

261
485

GUERNSEY COUNTY - BELMONT COUNTY

GUE-40-23.88 BEL-40-0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

282

Ramp "D" Taper

2:1

24:1

10'

3:1

2:1

2:1

1234.2

1240

1220

1245.79

36+67

1233.2

61 2427

1788

1200

263

Ramp "D" Taper

2:1

2:1

1232.6

1240

1220

106 5439

1246.26

36+08

1236.9

378

35 2551

20 1190

261

Sta. 35+95

STA. 35+95 46 2390

100 50 ℄ 50 100 150

STA. 36+08 TO STA. 36+67

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

262
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

SEEDING		END AREA		VOLUME	
RND WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
299					
202					
			51		4522
296					4 978
554			46		4283
291			41		2384
890			86		3289
			76		2964
282	Sta. 36+67		61		2427

Ramp "D" Taper

4:1

3:1

1234.3

Existing C.H. 114

1245.32
37+18
1219.7

1240
1220
1200

Ramp "D" Taper

4:1

3:1

1234.3

Existing C.H. 114

1245.37
37+12
1224.1

1240
1220
1200

Ramp "D" Taper

4:1

4:1

1234.3

2:1

1245.54
36+95
1228.4

1240
1220

STA. 36+67

100 50 ℄ 50 100 150

STA. 36+95 TO STA. 37+18

SEEDING

SEED MULCH	SEED YDS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

263
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

316 — 2:1 — 1234.5 — 7:1 — B — 1230 — 7:1 — B — Existing CH. 114 — Ramp "D" Taper — 2:1 — 1240 — 1220 — 2:1 — 2:1 — 1200 — 1204.0 — 112 4940

384 — 124482 — 37+68 — 1222.8 — 2:1 — 150 — 1230 — A

312 — 6:1 — 1234.5 — A — Existing CH. 114 — Ramp "D" Taper — 1240 — 1220 — 2:1 — 2:1 — 1200 — 1202.5 — 36 1946 — 67 4613

549 — 124493 — 37+57 — 1220.1

305 — 5:1 — 2:1 — 1239.4 — Existing CH. 114 — Ramp "D" Taper — 1240 — 1220 — 2:1 — 1200 — 40 4628 — 32 2738

784 — 124509 — 37+41 — 1220.9

299 — Sta. 37+18 — STA. 37+18 — 39 3897 — 51 4522

100 50 ℄ 50 100 150

STA. 37+41 TO STA. 37+68

SLOPING

END WIDTH	SQ YDS

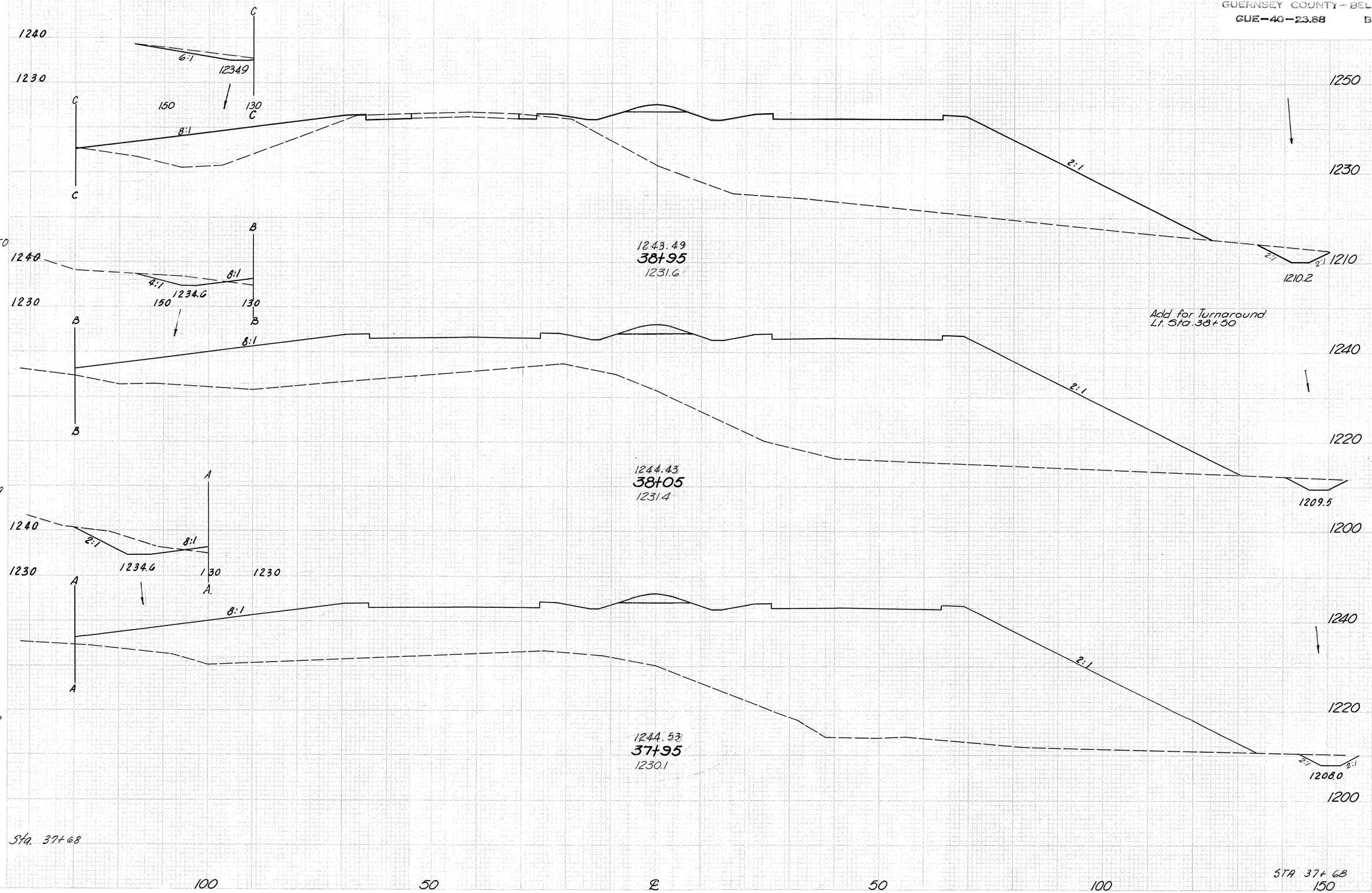
PROJ NO	STATE	PROJECT	
2	OHIO		

264
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.68 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 37+95 TO STA. 38+95

FED. REG. DIVISION	STATE	PROJECT	
2	OHIO		

265
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00

SECTIONS		END AREA		VOLUME	
END WIDTH	NO. SECS.	CUT	FILL	CUT	FILL
268					
	1250				
	1240				
	1230				
	1220				
3011	1210				
				35	1419
274					
	1250				
	1240				
3105	1230				
	1220				
	1210				
				304	4682
285					
	1250				
	1240				
3300	1230				
	1220				
304	Sta. 38+95				
				322	4498
				129	1109
				45	1320
				183	6099
				53	2261

3:1 6:1 1236.7

2:1 2:1 1215.0

1240.36
41+96
1230.1

2:1 8:1 1239.2

2:1 2:1 1217.0

1241.40
40+96
1232.2

4:1 8:1 1240.0

2:1 2:1 1210.5

1242.44
39+96
1232.9

STA. 38+95

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 39+96 TO STA. 41+96

PRINTED IN U. S. A.
THE KELLY-FRANCIS CO.,OTR

SEEDING

END WIDTH	SQ. YDS.
299	
3328	
300	
3261	
287	
3083	
268	

FED. AID PROJECT	STATE	PROJECT	
2	OHIO		

266
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

88'-12" Cl. E @ 0.76%

13.5' Lt. Sta. 44+57
Std. No. 4 C.B.
℄ Grate 1236.81
℄ 12" Cl. E-1 1233.81

Inlet 36" Exist. Culvert
Sta. 44+79.40

1238.48
44+96
1228.3

1238.65
43+96
1223.2

1239.33
42+96
1228.7

Sta. 41+96

END AREA		VOLUME	
CUT	FILL	CUT	FILL
166	3437		
504	13,735		
106	3980		
269	11,800		
39	2392		
137	7058		
35	1419		

STA. 42+96 TO STA. 44+96

PRINTED IN U.S.A.
ON KEUFFEL & ESSER CLOTH

SEEDING

END WIDTH	SQ. YDS.

FED. ED. DIVISION	STATE	PROJECT	
2	OHIO		

267
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL
32	834		
		64	1628
		99	1735
48	1211		
		119	1716
		52	89542
		166	3437

270
1310
277
1000
286
3250
299

4:1 4:1 1234.0 3:1 2:1 6' 2:1 2:1 1226.0

1239.40
46+71
1235.7

1240
1230
1220

3:1 2:1 10' 2:1 1227.5 2:1 10' 2:1 2:1

1240
1230
1220
1219.8

1210

1239.03
46+28
1228.4

2:1 10' 1:1 10' 2:1 2:1 1222.5 2:1 10' 2:1

88'-12" Cl. E-1 @ 0.76%
58'-15" Cl. B-1 @ 1%

1240
1230
1220

2:1 2:1 7' 2:1 1214.5 2:1 8'-15" Cl. F-4 @ 1%
58'-15" Cl. F-4

1210

1238.82
45+96
1228.4

13.5' Rt Sta 45+43
Std. No. 4 C.B.
Grate 1237.08
12" Cl. E-1 1233.14
15" Cl. B-1 1232.89

122' Rt Sta. 45+43
Std. HW-E Endwall
15" Cl. F-4 1206.30

Sta. 44+96

STA. 44+96

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 45+96 TO STA. 46+71

PRINTED IN U. S. A.
DE KOL, TOLEDO, O., OHIO

SEEDING	
END WIDTH	SQ. YDS

FED. ROAD DESIGN	STATE	PROJECT	
2	OHIO		

268
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL
1515	10		

SEEDING

END WIDTH	NO. TONS
237	
1040	
231	
1595	
247	
2805	
258	
2872	
259	

CAD OD ENV DIR	STATE	PROJECT	
2	OHIO		

269
485

GUERNSEY COUNTY -- BELMONT COUNTY

GUE-40-23.88 BEL-40-0.00

1260

2:1

1240

2:1

2:1

1235.6

125111
51+96
1248.3

1260

8:1

6:1

1247.6

1240

124909
51+56
1248.6

1260

2:1

1245.9

1240

124809
50+96
1247.7

1260

2:1

8:1

1243.5

1240

124523
49+96
1245.7

Sta. 48+96

150 100 50 ℄ 50 100

STA. 48+96

STA. 49+96 TO STA. 51+96

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
128	872		
		472	696
509	67		
		1873	88
1176	12		
		5308	44
1690	12		
		5936	41
1515	10		

GRADING	
END AREA	VOL. YDS.

FED. ROAD SECTION	STATE	PROJECT	
2	OHIO		

270
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL.–40–0.00

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
304			
3139		274	4154
261		1652	12,081
853		618	2341
251		6322	578
1910		520	2271
241		1269	5859
2656		459	2249
237		1087	5780
		128	872

1260

CULVERT OUTLET

1240

A

1220

1260.17
54+96
1247.6

54+20

1255.6

27'-12" Cl E-1 @ 1%

56.5'-15" Cl B-1 @ 1%

79'-15" Cl F-4

RAVINE

1210

1240

1203.0

170

135' Lt. Sta. 54+00
Std. No. 8 C.B.
IE Grate 1255.16
IE 12" Cl E-1 1252.16

1257.16
53+96
1250.7

Std. No. 8 C.B.
135' Rt. Sta. 54+00
IE Grate 1255.53
IE 12" Cl E-1 1251.89
IE 15" Cl B-1 1251.64

1:1
30'
2:1
4:1

1220

7'-15" Cl F-4 @ 1%

1209.6

1255.2

148' Rt. Sta. 54+00
Std. HW-E Endwall
IE 15" Cl F-4 1215.50

1256.24
53+66
1252.3

1240

1220

1251.9

1210.0

1240

1254.14
52+96
1249.8

1220

1211.0

Sta. 51+96

100 50 ℄ 50 100 150 STA. 51+96

STA. 52+96 TO STA. 54+96

SEEDING	
END WIDTH	SQ. YDS.
243	
2972	
292	
3450	
329	
3517	
304	

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

271
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL
	37		2280
	135		10,278
	36		3270
	128		14,113
	33		4351
	611		15826
	297		4195

1269.22
57+96
1260.8

2:1
2:1
10'
2:1
2:1
1243.3

1266.22
56+96
1257.0

1228.2

A
1220
2:1
2:1
8"
2:1
2:1
1213.1
150

1263.19
55+96
1252.8

2:1

B
B
B
B
Ex. 24" @ 6.25%
Ex. 24" @ 6.25%
1230
1220
Sta. 54+96

A
STA. 54+96

1270
1250
1230
1260
1240
1220
1260
1240
1220

100 50 ℄ 50 100 150

STA. 55+96 TO STA. 57+96

SEDIMENT

END WIDTH	SQ. YDS.

FED. AID DIVISION	STATE	PROJECT	
2	OHIO		

272
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

BEGIN PROJECT BEL.-40-0.95

END WORK & END PROJECT.
STA. 60+00

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		9	9
122	120		
		57	208
		32	442
		87	2659
		27	1353
		119	6728
STA. 57+96		37	2280

199
405
206
1805
200
2461
243

1290
1270
1280
1260
1270
1250

5:1
4:1
1270.0
1274.59
59+96
1272.5
3:1
4:1
1271.5

3.5:1
1267.2
1274.10
59+76
1266.4
6:1
4:1
1270.5

2.5:1
1258.7
1272.02
58+96
1264.3
2:1
24:1
10:1
2:1
2:1
1257.5

Sta. 57+96

150 100 50 ℄ 50 100

STA. 58+96 TO STA. 59+96

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

U.S.R. 40(ahead) C.H. 114 (North)

2:1

1193.2

2:1

C.H. 114 (North) U.S.R. 40(back)

1194.72
9+83
1212.0

U.S.R. 40(ahead) C.H. 114(North)

2:1

1193.0

2:1

C.H. 114(North) U.S.R. 40(back)

1194.90
9+37
1210.2

U.S.R. 40(ahead) C.H. 114(North)

36'Lt. Sta 8+62 CH. 114
Std. No. 5 C.B.
Rt. Grate 1192.40
Rt. 18" A-1 1189.40

4:1

1192.7

60'-15" @ .042 %

To Mt. Ditch

8:1

96'-24" Cl. E-1 @ .896 %

12.4' Lt. Sta. 12+10 Nt. =
109.12 Lt. Sta. 8+62 CH. 114
Std. No. 5 C.B.
Rt. Grate = 1190.00
Rt. 24" I.E.-1 = 1187.00
Rt. 15" I.E.-1 = 1187.50

1195.05
9+00
1195.7

14' Rt. Sta. 9+00
Std. No. 1 M.H.
Rt. Grate = 1194.78
Rt. 24" I.E.-1 = 1186.14
Rt. 15" I.E.-1 = 1186.89

To Mt. Ditch.

CH. 114 (North) U.S.R. 40 Back

U.S.R. 40(Ahead) CH. 114 (North)

Ramp "B" Flow

Meeting of Intersection

Meeting of Intersection

1195.45
8+00
1199.2

To Mt. Ditch.

U.S.R. 40(Ahead) CH. 114 (North)
40a (Ahead)

CH. 114 (North) U.S.R. 40 Back
40a. (back)

3:1

1191.5

3:1

1193.6

1195.85
7+00
1196.1

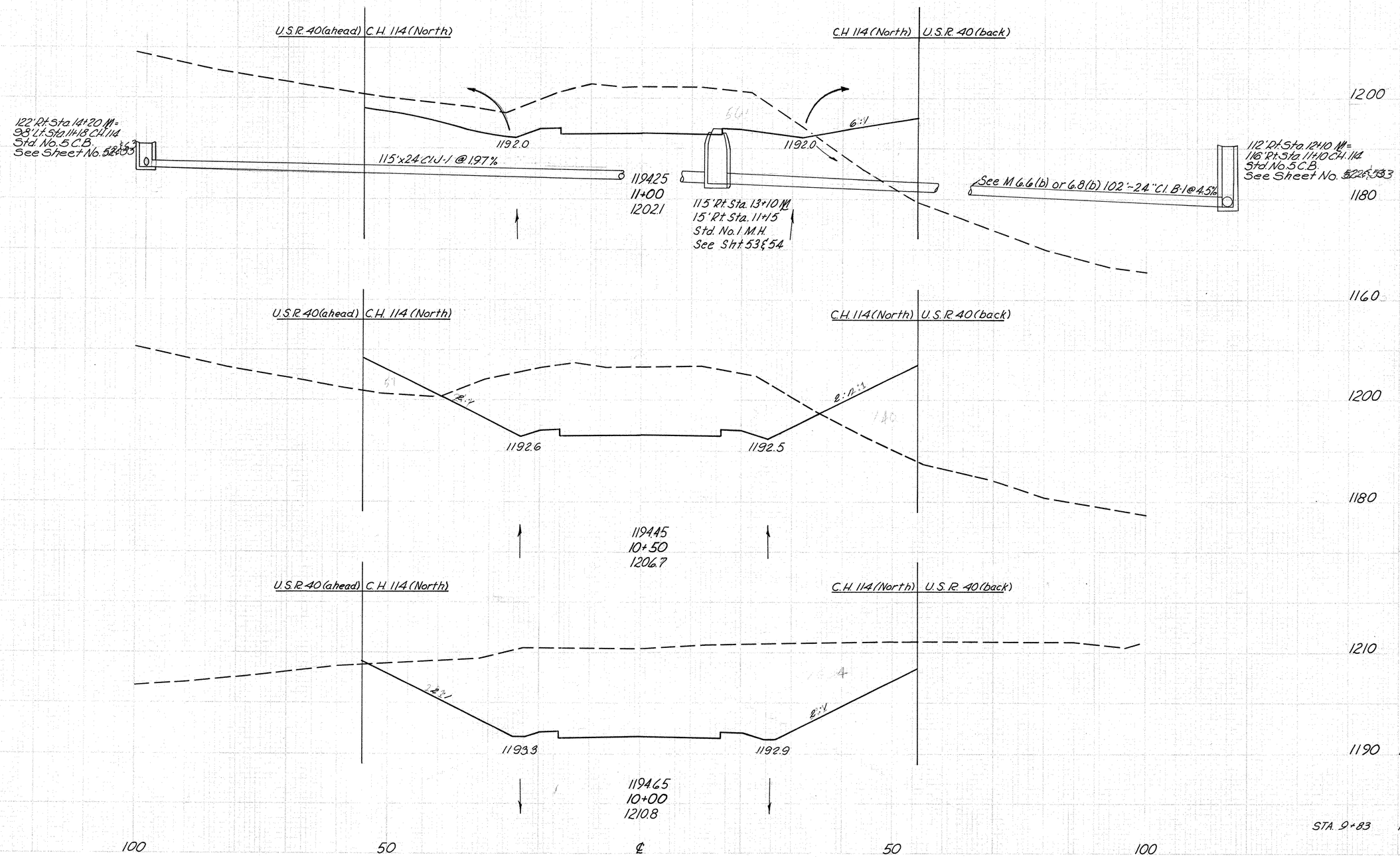
CH 114 North
For Plan, See Sh. 52
For Profile, See Sh. 51
For Prmt Details, See Sh. 67, 71

	EXC. AREA CUT	EXC. AREA FILL	VOLUME CUT	VOLUME FILL
1210	1579			
1190		2574		
1210	1442			
1190		1498		
1210				
1190	744			
1210				
1190		2641		
1210				
1190	682			
1210				
1190		1359		
1190	160			
		86	0	
STA. 6 + 71			0	0

150 100 50 ℄ 50 100

CH 114 North STA. 7+00 TO STA. 9+8 3

CUT AREA | CUT VOLUME | FILL AREA | FILL VOLUME



SEEDING
END WIDTH | SLOPE

FED. ROAD DIVISION	STATE	COUNTY		SHEET NO.
5	OHIO			275 485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

Ditch from CH 114 Relocation

U.S.R.40 Ahead | CH.114 (North)

END WORK
STA. 12+89.78

CH.114 (North) | U.S.R.40 Back

3:1
3:1
1191.2
3:1
680

1193.48
12+50
1189.4

STA.	EXCAVATION CUT	EXCAVATION FILL	EMBANKMENT CUT	EMBANKMENT FILL
STA. 12+55.91	10	680		
1190				2 151
1170	10	680		

U.S.R.40 Ahead | CH. 114 (North)

CH.114 (North) | U.S.R.40. Back

3:1
1191.0
150
A14

To Ramp "D" Ditch

1193.85
12+00
1193.3

1190				148 1017
1170			150	418

U.S.R.40 Ahead | CH.114 (North)

CH.114 (North) | U.S.R.40 Back

A35
CT

1194.05
11+50
1197.6

1200			537	665
1180				
			430	300
1160			918	425
STA. 11+00			561	159

STA 11+00
STA 11+00

150 100 50 ℄ 50 100

CH 114 North STA. 11+50 TO STA. 12+50

SIDEROADS SUB-SUMMARY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

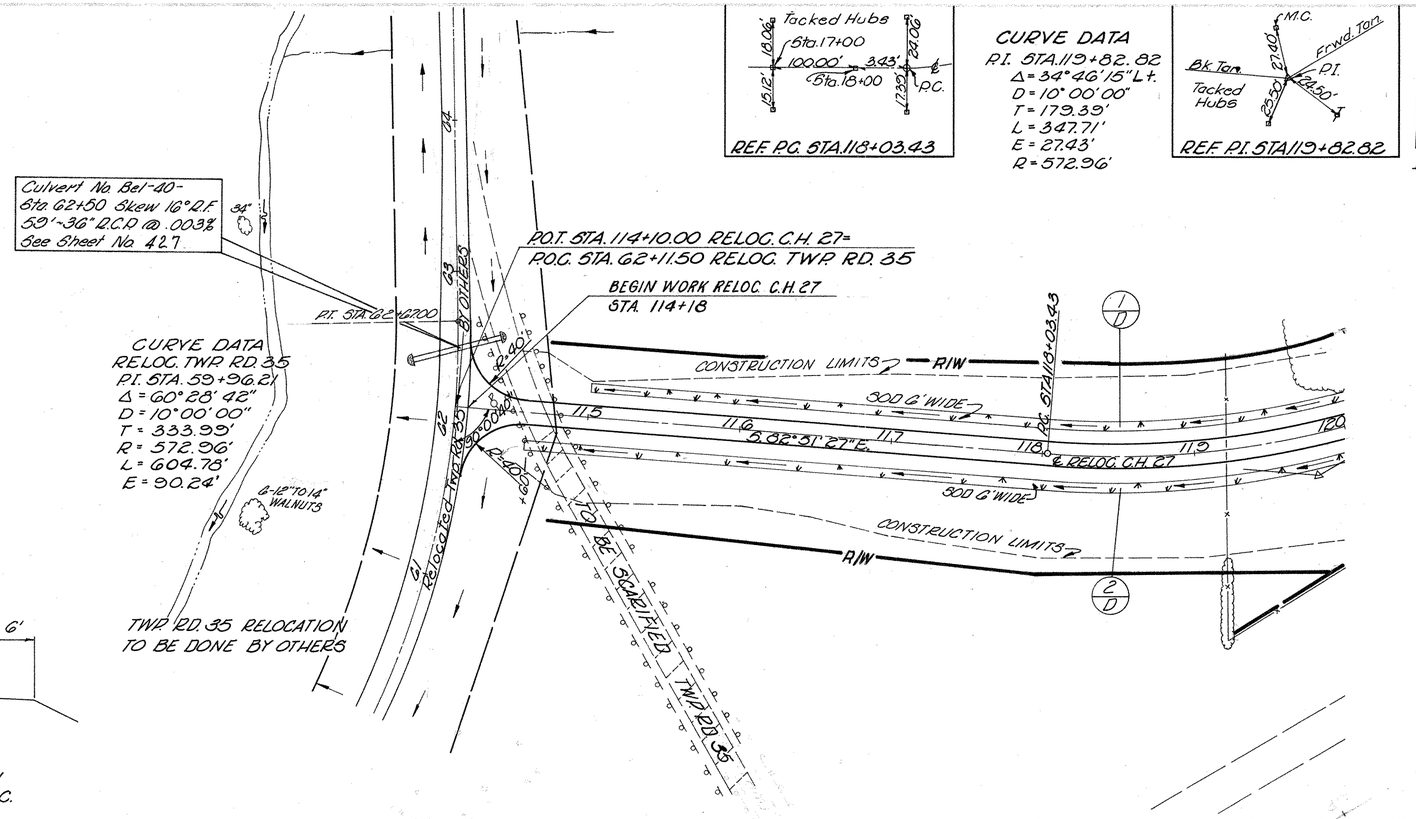
276
485

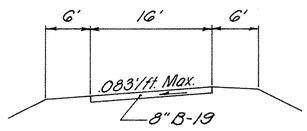
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

ITEM	SHEET NUMBER 277	278	279	280	281	282	283	284	285	286	321	337	340	341	342	343	363	364	365	366	367	368	369	ITEM	QUANTITIES	UNIT	DESCRIPTION
																											ROADWAY
E-8								190	124			107				60							103	E-8	584 ✓	Sq. Yds.	Removal and Disposal of Existing Pavement, as per plan
E-12							35																	E-12	35 ✓	Lin. Ft.	Pipe Removed, 15" and Under
E-12																						2		E-12	2 ✓	Lin. Ft.	Pipe Removal Over 15"
L-10	693	1000	372	633		353	367		26	4	514			4				100		178	189	229	83	L-10	4745 ✓	Sq. Yds.	Sodding
I-4								2																I-4	2 ✓	Tons	Calcium Chloride, For Dust Control
																											DRAINAGE
I-1														117										I-1	117 ✓	Lin. Ft.	15" Pipe, Class A-1, Sec. M-6.6 (c)
I-1									158												151			I-1	309 ✓	Lin. Ft.	15" Pipe, Class A-1, Sec. M-6.4 (d)
I-1										160														I-1	160 ✓	Lin. Ft.	15" Pipe, Class E-1,
I-1										46														I-1	46 ✓	Lin. Ft.	15" Pipe, Class E-1, Sec. M-6.6 (b) or 6.8 (b)
I-1										44												18		I-1	62 ✓	Lin. Ft.	18" Pipe, Class B-1
I-1								40		35			76			54								I-1	205 ✓	Lin. Ft.	15" Pipe, Class F-4
I-1												66												I-1	66 ✓	Lin. Ft.	12" Pipe, Class C-1
I-1			100																					I-1	100 ✓	Lin. Ft.	18" Pipe, Class F-4
I-1										39														I-1	39 ✓	Lin. Ft.	15" Pipe, Class B-1
I-1																						174		I-1	174 ✓	Lin. Ft.	42" Pipe, Class A-1 Sec. M-6.4 (d) Shop strutted as per plan
I-2									0.52	0.26				0.52							6	4		I-2	11.30 ✓	Cu. Yds.	Masonry
I-5										1														I-5	1 ✓	Each	15" Pipe Specials, Class F-4
I-8										2												1		I-8	1 ✓	Each	Standard Number 2 Man Hole
I-8										1														I-8	2 ✓	Each	Standard Number 5 Catch Basin
I-10						33			11	2				2			200	33			191	87	28	I-8	1 ✓	Each	Standard Number 5 Catch Basin, Modified as per Plan
I-1																					5	43		I-10	587 ✓	Cu. Yds.	Dumped Rock Channel Protection
																								I-10	48 ✓	Sq. Yds.	Rip Rap, 6" Reinforced Concrete Slab
																											PAVEMENT
T-35											45													T-35	45 ✓	Cu. Yds.	Asphaltic Concrete Surface Course Type "A" (85-100)
T-35			4					11					7			5								T-35	27 ✓	Cu. Yds.	Asphaltic Concrete Surface Course Type "C" (70-85)
T-30			40					80			511		53			52								T-30	736 ✓	Gals.	Bituminous Prime Coat, Sec. M-5.7, RT-2, or RT-3
B-19			57					174			300	33	53			58								B-19	675 ✓	Cu. Yds.	Aggregate Base Course
I-9											260													I-9	260 ✓	Lin. Ft.	Stone Underdrain, No. 2
B-35											62					6								B-35	68 ✓	Cu. Yds.	Asphaltic Concrete Leveling Course (85-100)

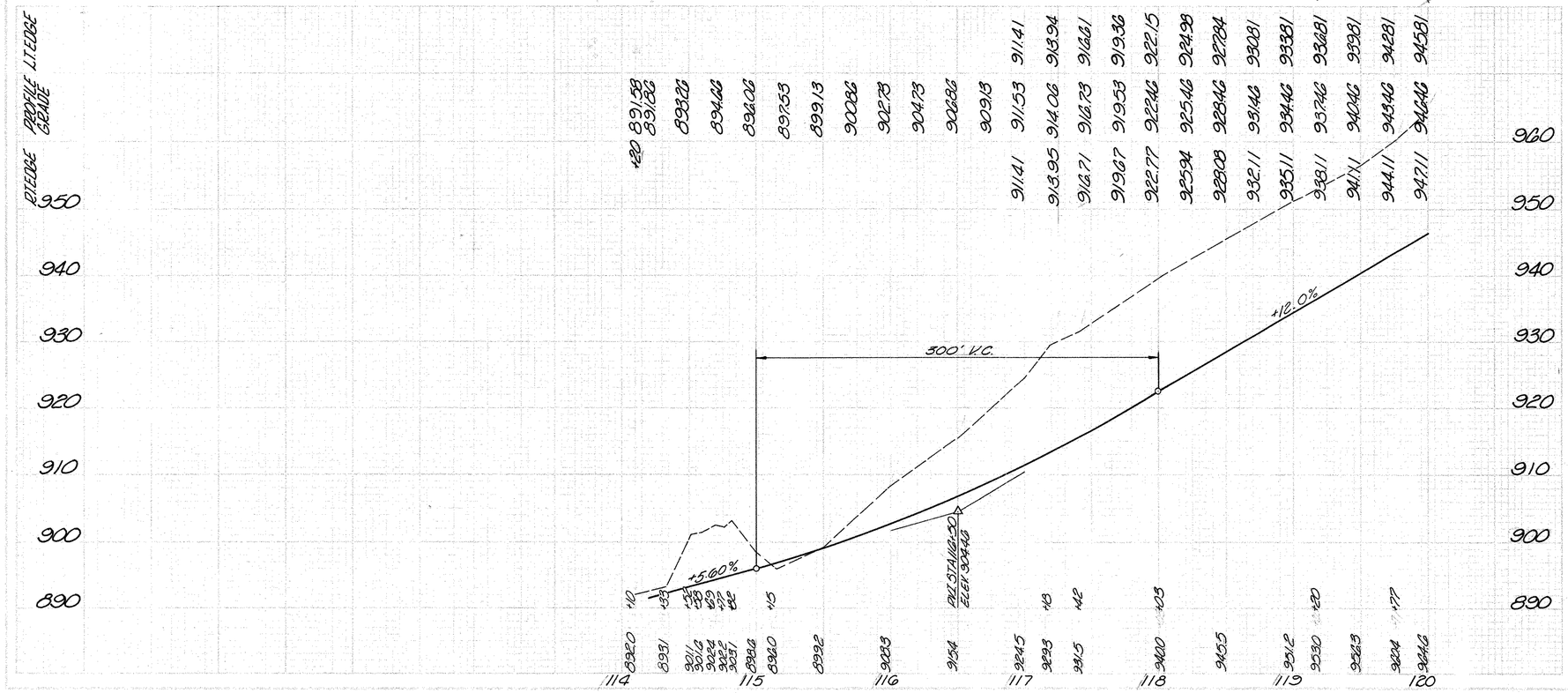
GUERNSEY COUNTY GUE – 40–23.88 BELMONT COUNTY BEL.–40– 0.00

FED. RD. DIVISION 2 | STATE OHIO | PROJECT | | 277 485





EX. TYPICAL SECTION
TWP. RD. 35 RELOC.



ESTIMATED QUANTITIES

CONDITIONS	C-10
Sq. Yds.	3,168
	333
	320

REF. NO.	STATION TO STATION	SIDE
1.0	115+00 ~ 120+00	LT.
2.0	114+60 ~ 120+00	RT.

RELOCATED C.H. 27 STA 114+10.00 TO STA. 120+00

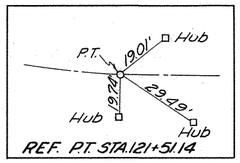
277

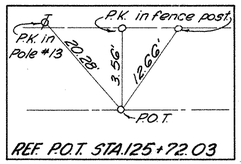
GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

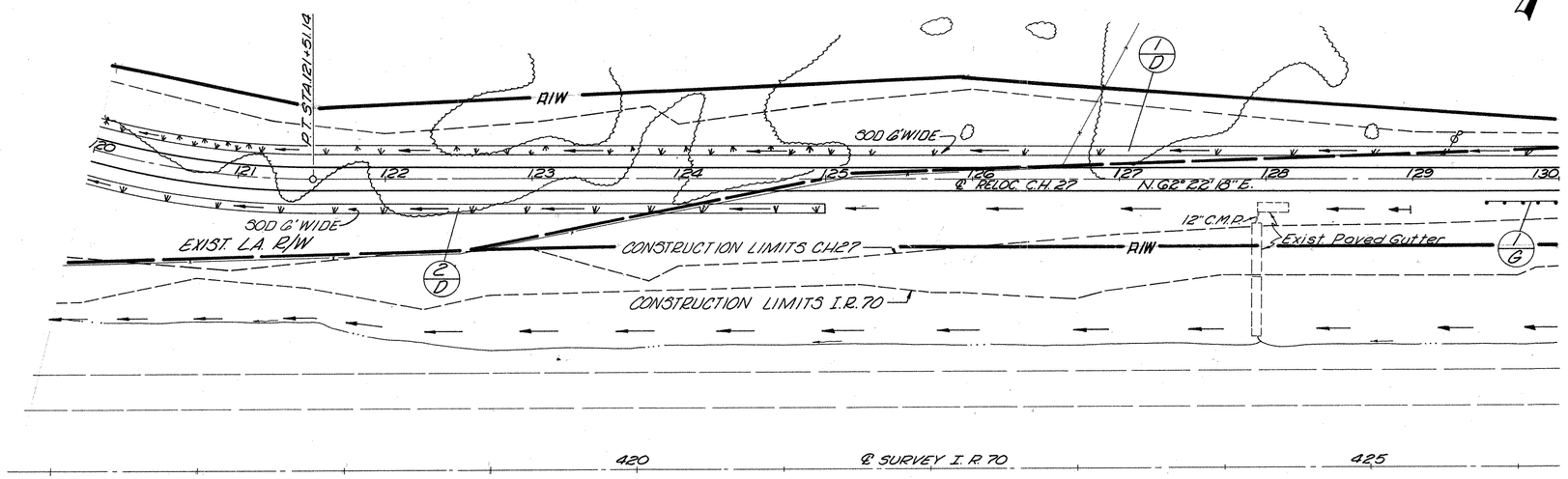
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

278
485

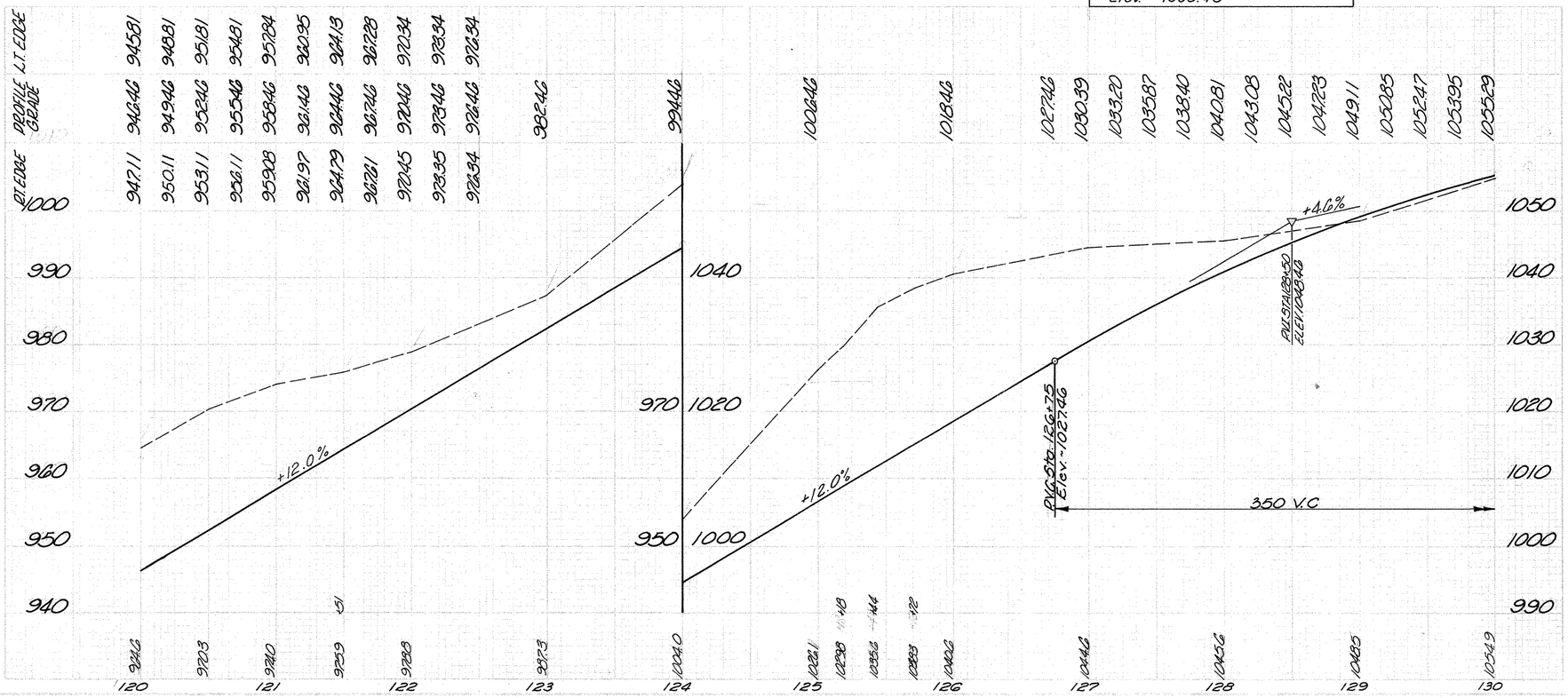
CURVE DATA
P.I. STA. 119+82.82
Δ = 34°46'15" Lt.
D = 10°00'00"
T = 179.39'
L = 347.71'
E = 27.43'
R = 572.96'







BENCH MARK #3A
Center Brick end pavt. gutter
Chisled ▫ 31' Lt. Sta. 424+24.
Elev. ~ 1005.48



ESTIMATED QUANTITIES

7-10	GOODLINE	S.Y.	627
			333
T-15	QUAD	EA.	1
	EAIL	STATION	128+50
	SLOTTE	DEPT.	2'-6"
		L.F.	50

REF. NO.	STATION TO STATION	SIDE
1G	129+50 ~ 130+00	RT.
1D	120+00 ~ 130+00	LT.
2D	120+00 ~ 130+00	RT.

*50 1000

RELOCATED C.H. 27 STA. 120+00 TO STA. 130+00

CONTINUED TO SHEET NO. 8

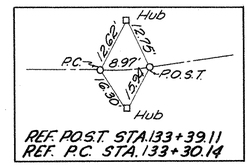
27754

GUERNSEY COUNTY — BELMONT COUNTY

GUE — 40 — 23.58 BEL — 40 — 0.00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

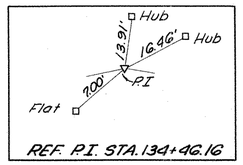
279
485



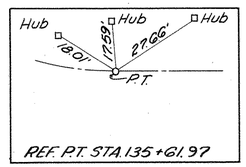
REF. P.O.S.T. STA. 133+39.11
REF. P.C. STA. 133+30.14

CURVE DATA

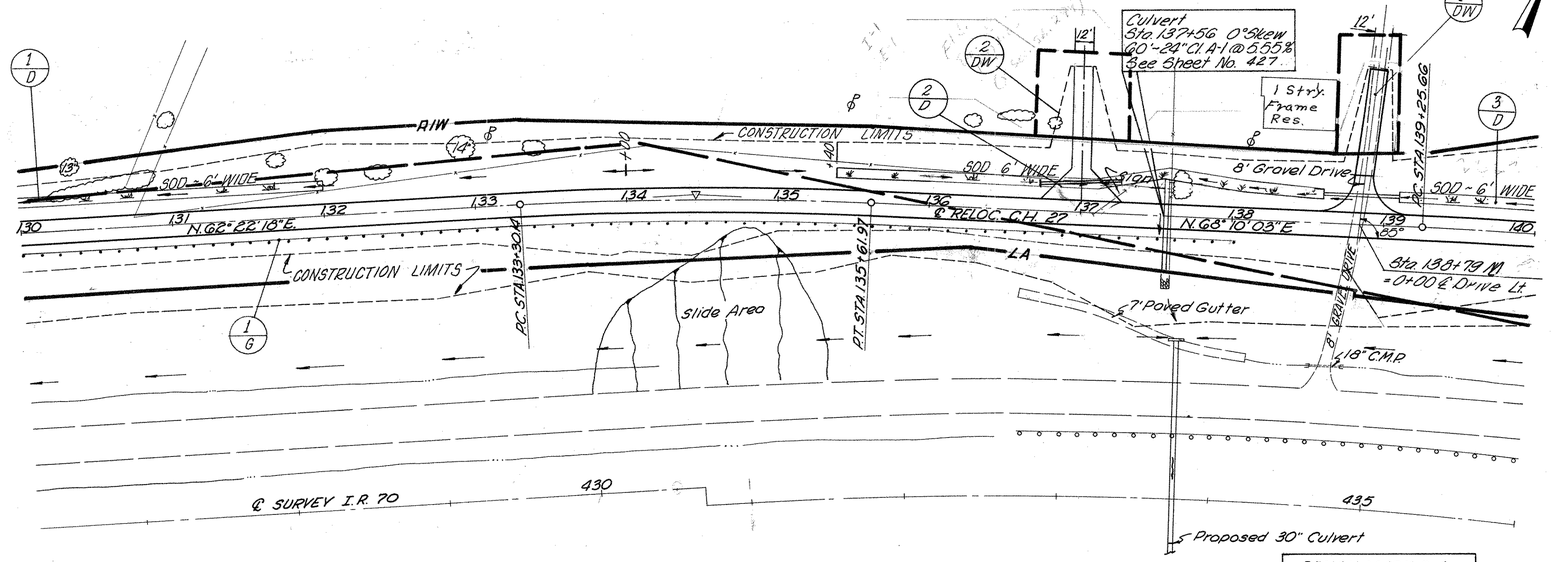
P.I. STA. 134+46.16
Δ = 5° 47' 45" Rt.
D = 2° 30' 00"
T = 116.02'
L = 231.83'
E = 2.93'
R = 2291.83'



REF. P.I. STA. 134+46.16

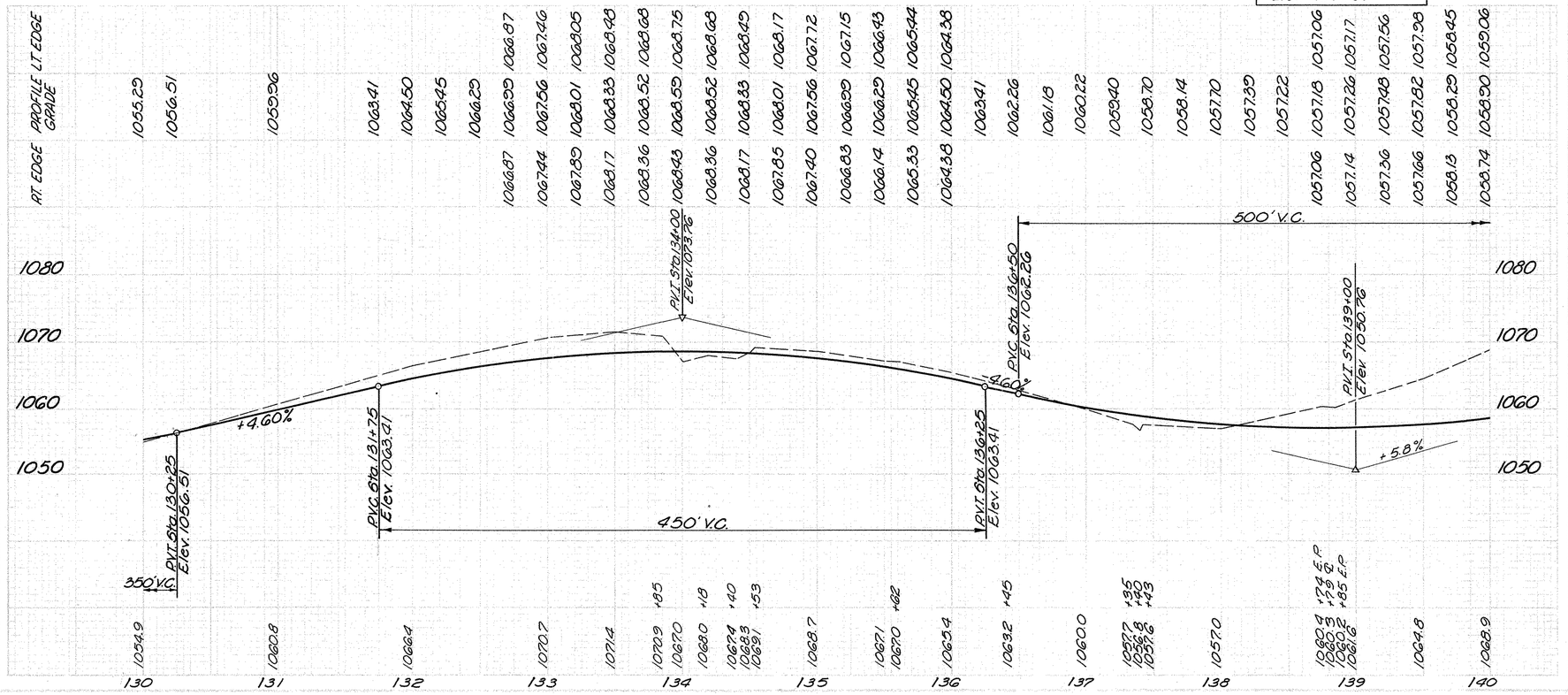


REF. P.T. STA. 135+61.97



BENCH MARK # 4

R.R. Spike in T.P.
45' Lt. Sta. 435+00
Elev. 1047.50



ESTIMATED QUANTITIES

SEE SHEET NO	STATION TO STATION	SIDE							
			8-19	T-30	T-1	T-15	L-10	T-35	
			AGGREGATE BASE COURSE	BITT PRIME COAT	CLASS F-4 PIPE W=4.46(S)	GUARD RAIL STD. 710.01	SODDING	ASPHALTIC CONC. SURF. FACE COURSE TYPE "C"	
			T=5" C.Y.	T=8" C.Y.	18" L.F.	(DEED) L.F.	S.Y.	C.Y.	
	1-G 130+00 ~ 138+00	R			14 Gage				
					800				
	1-DW 138+79	L.	9	* 21	40	50		4	
	2-DW 137+00			* 27		50			
	1-D 130+00 ~ 132+00	L.					133		
	2-D 135+40 ~ 138+60	L.					180		
	3-D 139+12 ~ 140+00	L.					59		
	SUB-TOTALS		9	48	40	100	*800	372	4
	TOTAL			57					

* TOTAL TO SHEET NO 18

RELOCATED C.H. 27 STA. 130+00 TO STA. 140+00

Z 77 - B

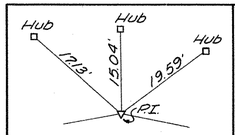
GUERNSEY COUNTY – BELMONT COUNT

GUE–40–23.88 BEL–40–0.00

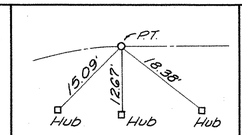
FED. RD DIVISION	STATE	PROJECT	
5	OHIO		

280
485

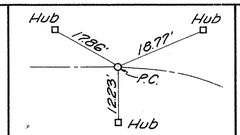
CURVE DATA
P.I. STA. 141+75.79
Δ = 12°27'25" Rt.
D = 2°30'00"
T = 250.13'
L = 498.28'
E = 13.61'
R = 2291.83'



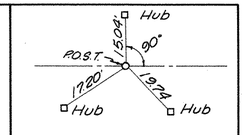
REF. P.I. STA. 141+75.79



REF. P.T. STA. 144+23.94

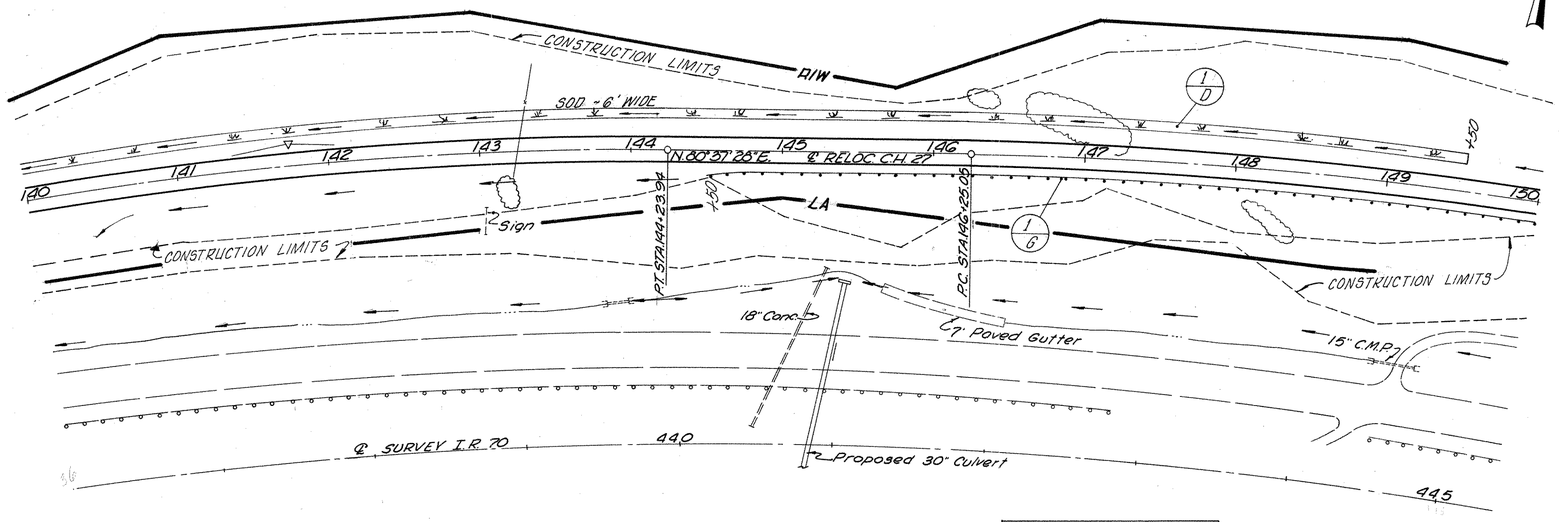


REF. P.C. STA. 146+25.05

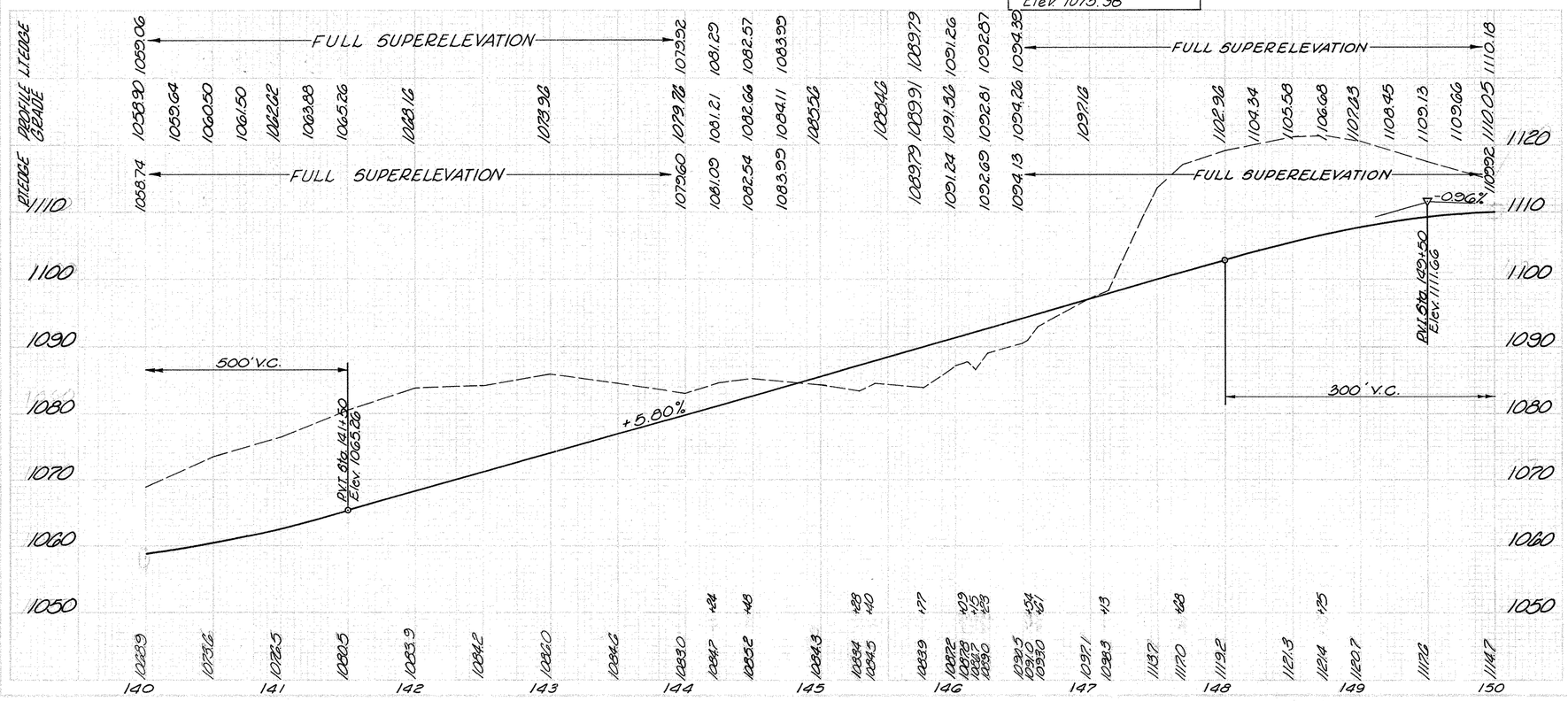


REF. P.O.S.T STA. 148+72.95

CURVE DATA
P.I. STA. 153+17.65
Δ = 27°10'56"
D = 2°00'00"
T = 692.59'
L = 1359.11'
E = 82.53'
R = 2864.79'



BENCH MARK #4A
R.R. Spike G/R Post 37,
5' Lt. Sta. 442+61
Elev. 1075.98



ESTIMATED QUANTITIES

REF NO	STATION TO STATION	SIDE		
L-10	SODDING		S.Y.	633
I-15	6" H.T. STEEL POST (DEEP)		L.F.	550
1-G	144+50 ~ 150+00	R.		
1-D	140+00 ~ 149+50	L.		

*550 633

*TOTAL TO SHEET 18

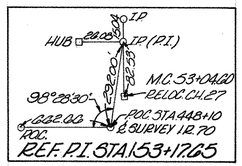
RELOCATED C.H. 27 STA. 140+00 TO STA. 150+00

277-C

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

FED. ID DIVISION	STATE	PROJECT		
2	OHIO			

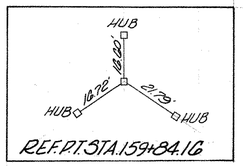
281
485

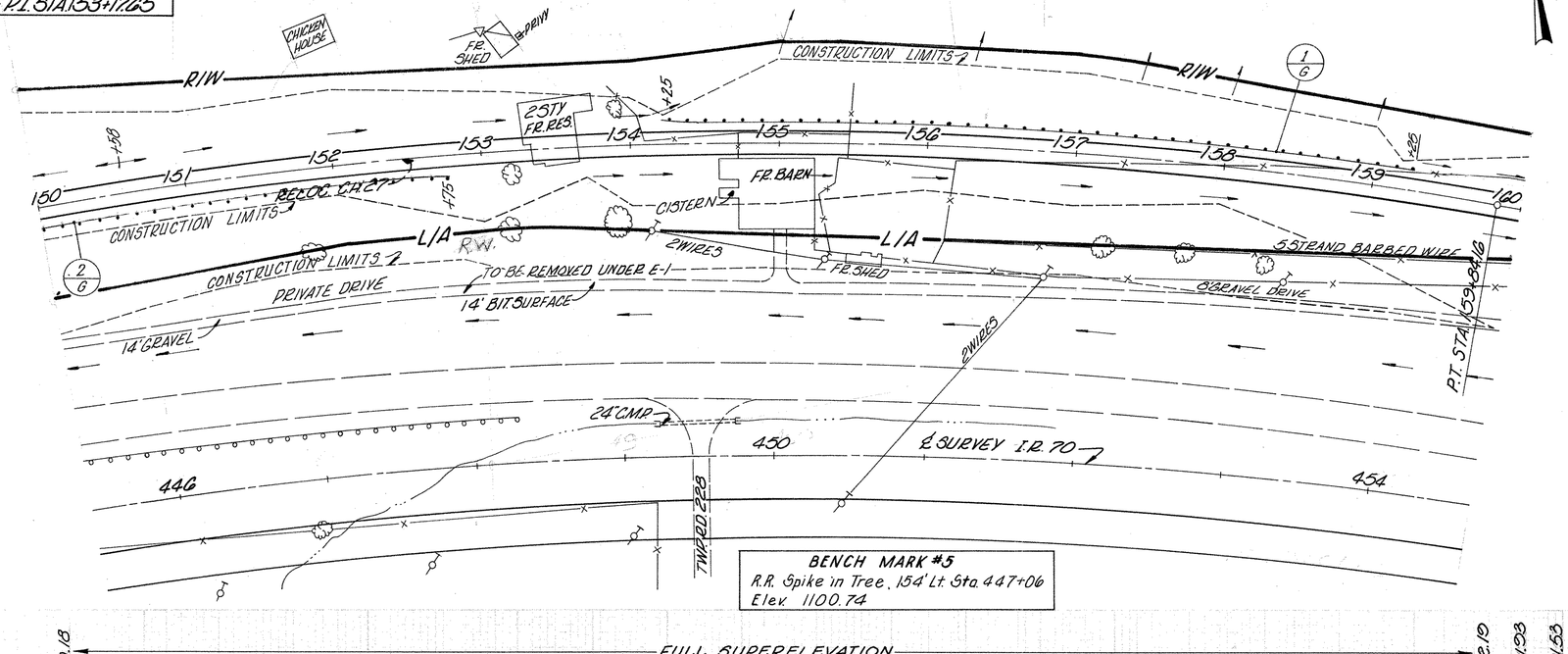


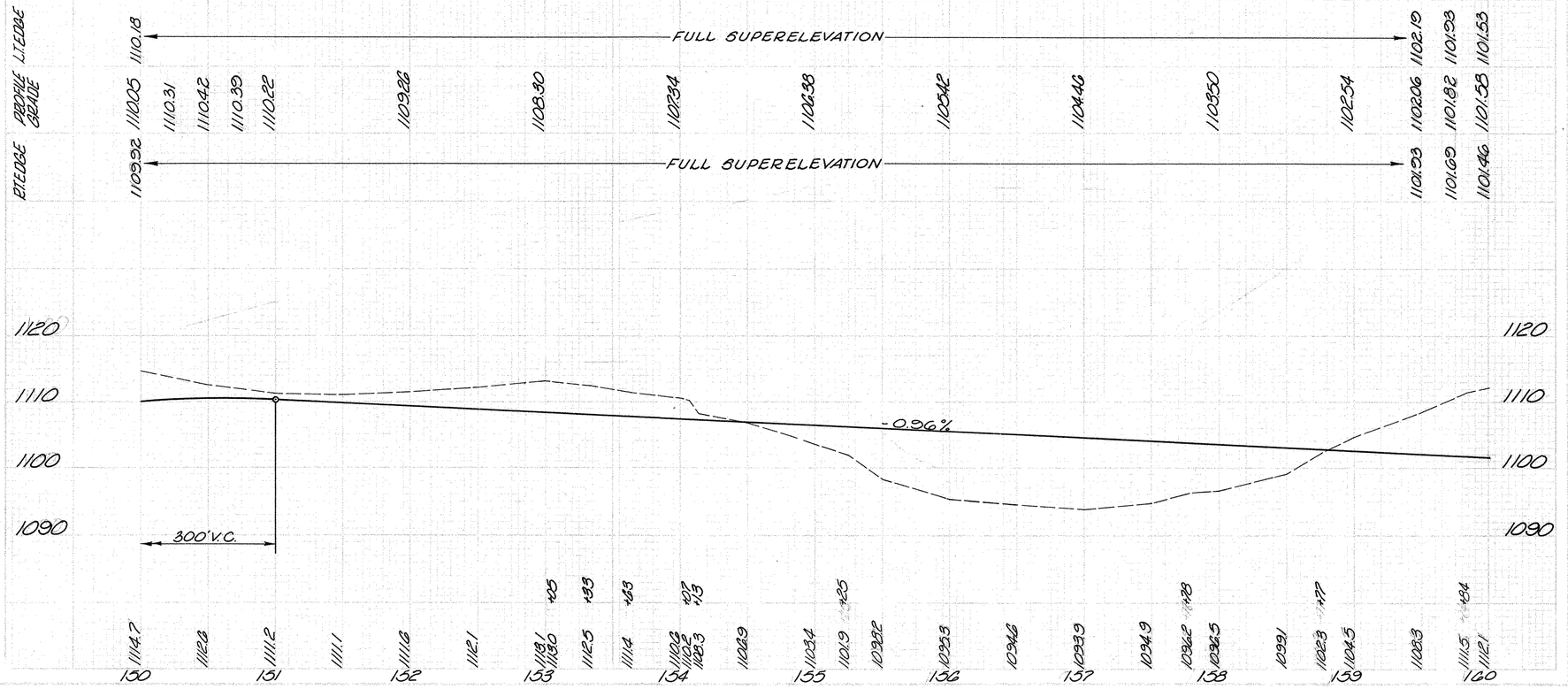
CURVE DATA

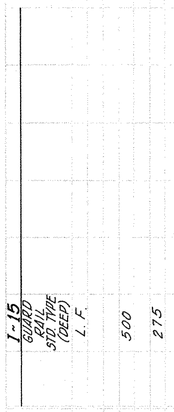
P.I. STA. 153+17.65
Δ = 27°10'56" Rt.
D = 2°00'00"
T = 692.59'
L = 1359.11'
E = 82.53'
R = 2864.79'

Note: Cistern 35' Rt. Sta. 154+70 to be filled under Item E-108 Payment for this item shall be included in the unit price bid for Item E-1.









REF	STATION TO STATION	SIDE	L.F.
1-6	154+25 ~ 159+25	L.	500
2-6	150+00 ~ 152+75	R.	275

*175

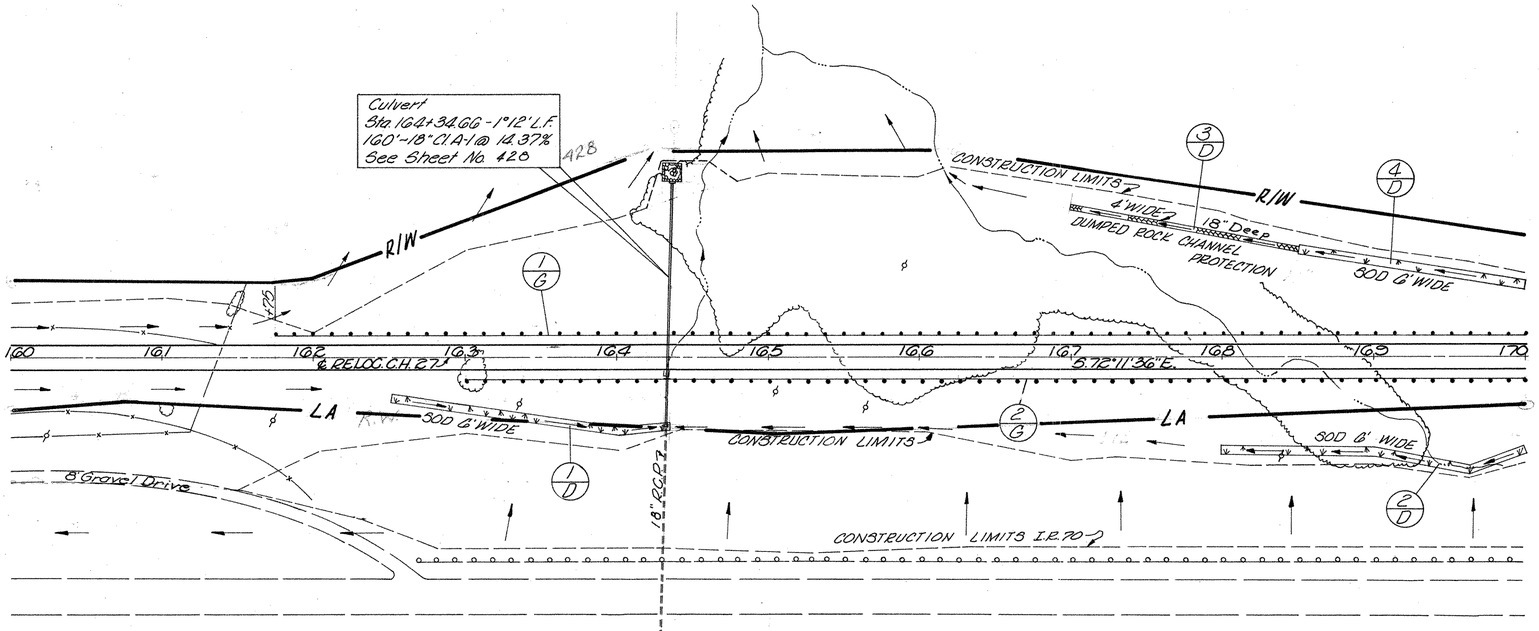
* TOTAL TO SHEET 18

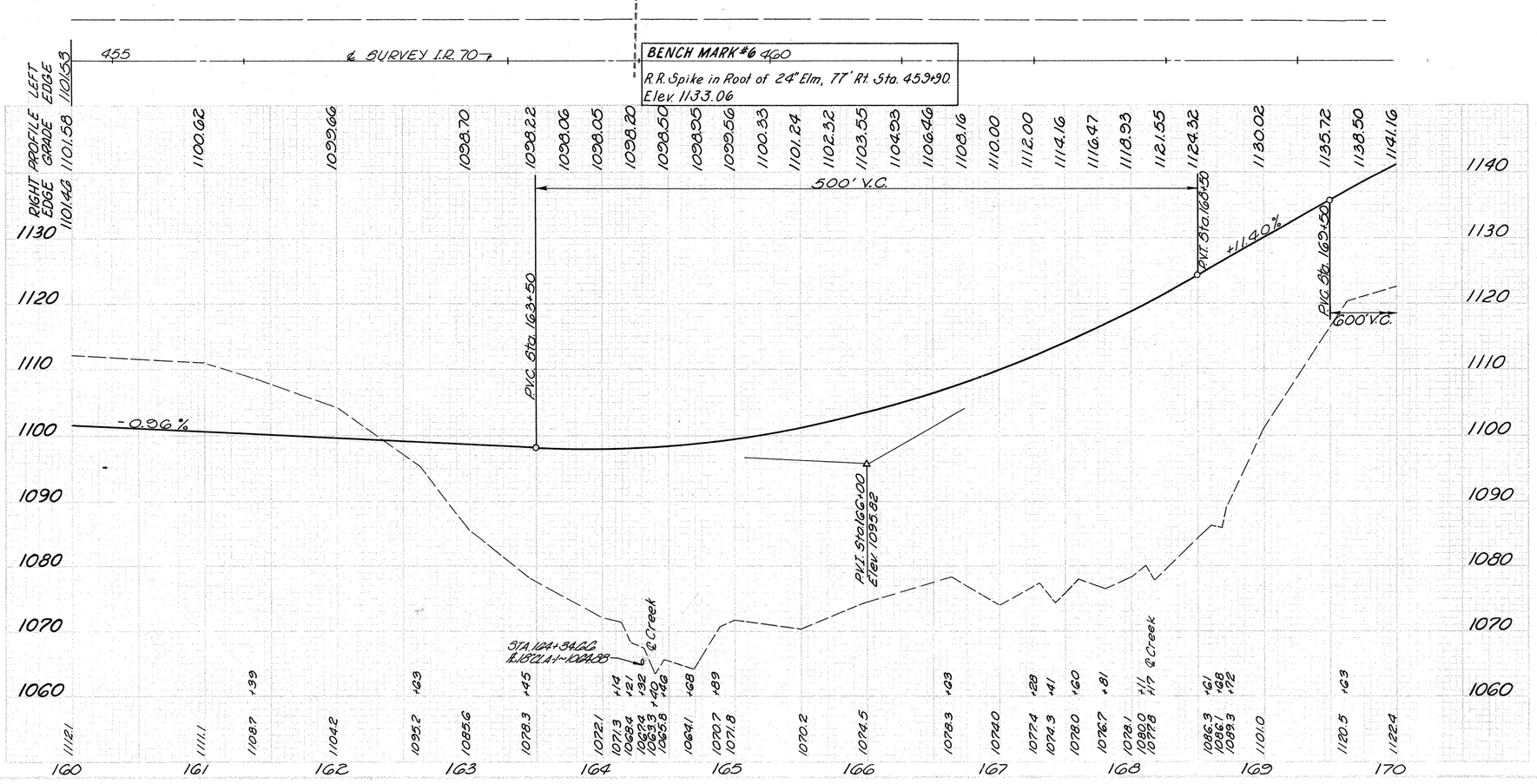
RELOC. C.H. 27 STA. 150+00 TO STA. 160+00

GUERNSEY COUNTY GUE.-40-23.88 BELMONT COUNTY BEL.-40-0.00

FED. AID DIVISION	STATE	PROJECT	
2	OHIO		

282
485





ESTIMATED QUANTITIES

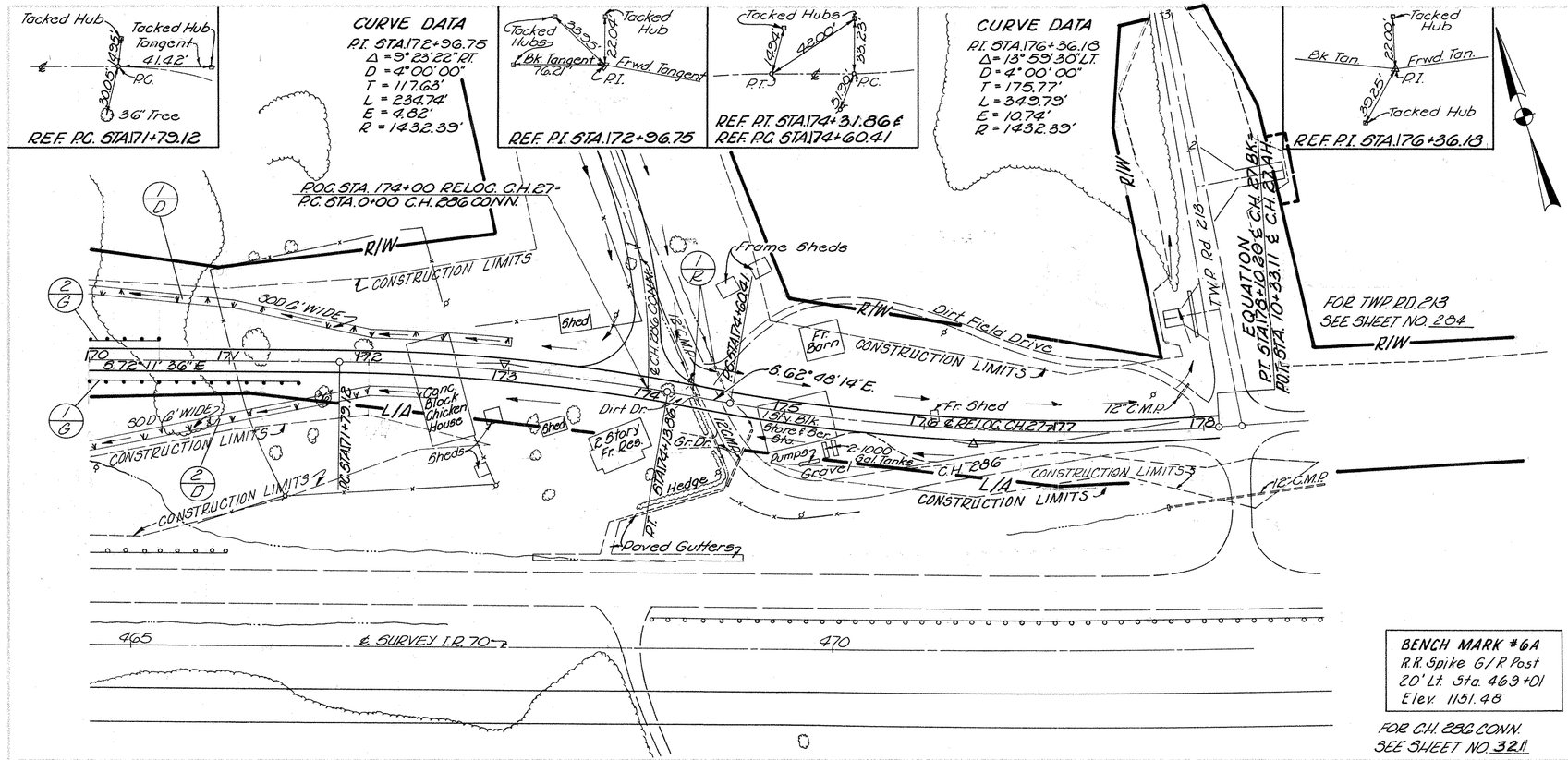
REF. NO.	STATION TO STATION	SIDE	T-10 DUMPED BLK. CHANK PROT. CY.	T-10 GRADING CY.	T-15 SEED & MULCH TYPE DEEP L.F. 825 700	
1G	161+25 ~ 170+00	LT.		120		
2G	163+00 ~ 170+00	RT.		133		
1D	162+50 ~ 164+50	RT.				
2D	165+00 ~ 170+00	RT.		100		
3D	167+00 ~ 168+50	LT.	33			33
4D	168+50 ~ 170+00	LT.				
				353	*525	

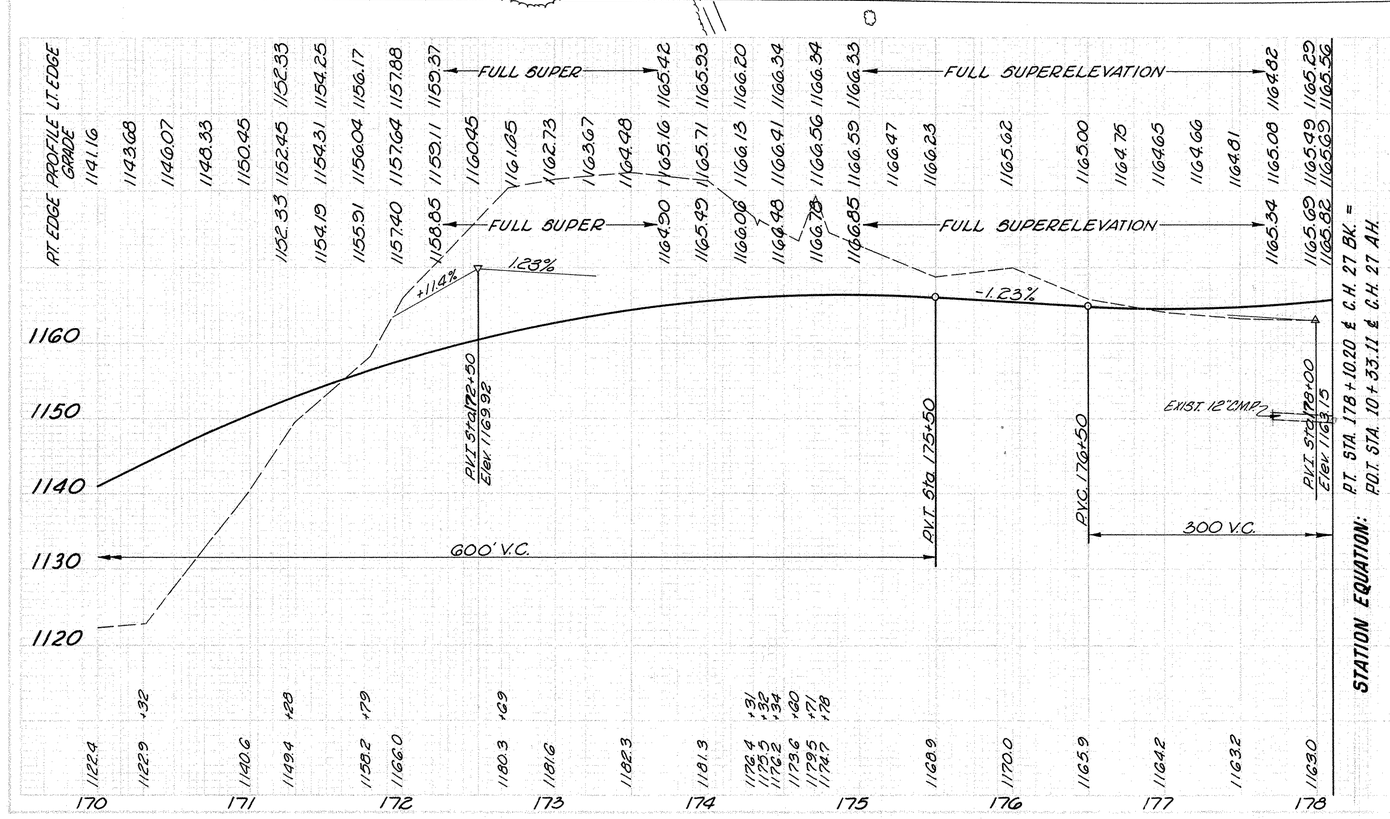
* TOTAL TO SHEET 18

RELOCATED C.H. 27 STA. 160+00 TO STA. 170+00

GUERNSEY COUNTY GUE.-40-23.88 BELMONT COUNTY BEL.-40-0.00

FED. ROAD DIVISION	STATE	PROJECT		SHEET NO.	TOTAL SHEETS
3	OHIO			283	485





ESTIMATED QUANTITIES

STATION	SIDE	E-12 REMOVAL OF PIPE & UNDER L.F.	T-15 QUARRY EXC. STRIPPING DEEP L.F.	L-10 EMBANKMENT C.Y.
170+00 ~ 178+00	LT.		150	200
170+00 ~ 172+50	RT.		50	167
170+00 ~ 171+30	RT.		150	
170+00 ~ 170+30	LT.		50	
170+00 ~ 178+00	LT.	35		
174+35				
TOTALS		35	*200	367

* TOTAL TO SHEET 18

RELOCATED C.H. 27 STA. 170+00 TO STA. 178+10.20

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

FED. AID DIVISION	STATE	PROJECT		SHEET NO.
2	OHIO			284 485

END WORK 3+00

* Denotes same type pavit. construction as in typical section.

For Typical of Twp Rd. 213 See Sheet No. 8

For ℄ Typical Section See Sheet No. 5

For C.H. 27 Typical Section See Sheet No. 8

FOR TYPICAL OF DRIVES, SEE SHEET No. 437

End Typical Construction Limits

+50 16' Width

STA. 1+73 (213) = STA. 0+00 DR.

Shed 2 DW 1 Str. Fr. Shed

Const. Twp. 20' 12" Gravel

STA. 0+65 END WORK

T.W.P. 0+85 = ℄ Field Dr.

1 DW 1 P

Begin Typical

Aggregate Surface 16'±

Exist. Typical TWP. Rd. 213

1 6

BEGIN WORK STA. 0+085

FOR X-SECTION OF TWP. RD. 213 SEE SHEET NO. 319

CURVE DATA
P.I. Sta. 17+21.79
Δc = 17° 20' 00" Lt.
Dc = 7° 00' 00"
Tc = 124.76'
Lc = 247.62'
Rc = 818.50
Ec = 9.45'

FOR PROFILE OF DR. P.T. STA. 1+73 TWP. 213 SEE SHEET No. 320.

P.K. in Telephone Pole 5.7 90°
℄ C.H. 27
49.36' 40.0'
P.K. 16+19 P.K.
REF. P.C. STA. 15+96.79

℄ C.H. 27
42.50' 41.30'
34.30'
P.K. in 6" Ash
P.K. in 4" Twin Elms
P.K. in 4" Elm
REF. P.I. STA. 17+21.55

Tack Hub
Tack Hub 29' 28' Tack Hub 28'
℄ C.H. 27
REF. P.T. STA. 18+44.41

2 6

1 R

P.C. Sta. 15+96.79

P.T. Sta. 18+44.41

Construction Limits

20 19 18 17 16

RIW

5 Strand Barbed Wire

Shed

12" C.M.P. Plug & Abandoned

S 76° 47' 44" E

℄ C.H. 27 Relocation

Asphalt Surface

Guernsey County Road 286 To Be Abandoned

N 85° 52' 16" E

42" C.M.P. 1.5%

10+50 C.H. 27 = 0+00 TWP. RD 213

12" C.M.P.

LA

House Trlr.

Sheds

Pole w. Trans.

Shed

Conc. Approach

Stop

202' x 15"

Construction Limits

B.M. #7 Cumberland 183 Mile Marker

2 wire Xing

CONSTR. LIMITS

℄ Survey I.R. 70

Slide Area

Note: For U.S. 40 Sta. 472+50 to Sta. 483+10 See Sheets No. 30 & 31

BENCH MARK #7A
R.R. Spike in P.P. #2047/38
1.5' Rt. Sta. 479+29
Elev. 1168.35

2 wires

EQUATION
P.T. STA. 78+10.20 ℄ C.H. 27 BK. =
P.O.T. STA. 10+33.11 ℄ C.H. 27 AH.

RT. EDGE PROFILE LT. EDGE GRADE

STATION EQUATION: P.T. STA. 78+10.20 ℄ C.H. 27 BK. = 1165.82
P.O.T. STA. 10+33.11 ℄ C.H. 27 AH. 1165.69

300' V.C.

P.V.T. Sta. 14+72.91 Elev. 1170.66

+5.0%

600' V.C.

P.V.I. Sta. 18+25 Elev. 1203.25

P.V.I. Sta. 0+40 Elev. 1165.45

P.V.C. Sta. 15+25

P.V.T. 2+25 ELEV. 1136.21

50' Vc.

-2.72%

-12.44%

60' V.C.

EXIST. 12" C.M.P.

Profile Twp. Rd. 213

℄ TWP. RD. 213 = ℄ C.H. 27

0+00 10+50

1200 1180 1160 1140 1130

10	11	12	13	14	15	16	17	18	19	20											
1163.7	1164.4	1171.1	1173.9	1183.1	1183.3	1187.2	1183.2	1183.5	1187.2	1185.6	1189.8										
1135.2	1137.2	1141.5	1147.0	1152.8	1158.4	1160.84	1162.34	1164.20	1168.07												
3+00	2+00	1+00	0+00	10+50																	
1135.53	1136.82	1139.32	1145.54	1151.76	1157.98																

1165.82	1165.69	1165.56	1166.09	1166.07	1165.95	1166.70	1166.75	1166.63	1167.44	1167.55	1167.43	1168.37	1168.45	1168.37	1162.55	1172.00	1177.00	1182.00	1184.38	1184.50	1184.38	1185.65	1185.75	1185.63	1186.96	1187.00	1186.88	1188.28	1188.25	1188.13	1189.45	1189.33	1189.33	1190.75	1190.57	1190.38	1191.89	1191.59	1191.29	1192.96	1192.53	1192.10	1193.93	1193.37	1192.81	1194.72	1194.13	1193.54	1195.38	1194.79	1194.20	1195.95	1195.36	1194.77	1196.43	1195.84	1195.25	1196.83	1196.24	1195.65	1197.05	1196.54	1196.02	1197.18	1196.75	1196.36	1197.14	1196.87	1196.60	1197.05	1196.91	1196.77	1196.91	1196.84	1196.72	1196.70	1196.70	1196.58	1196.40	1196.46	1196.36	1196.02	1196.14	1196.05	1195.59	1195.71	1195.74

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	T-30 Bit. Pavement Surface Course	E-8 Removal Diagonal Exist. Pvmt.	6" Aggr. Base Course C.Y.	8" Aggr. Base Course C.Y.	B-19 Guard Rail Steel Beam Type (Dbl.) L.F.	T-16 Guard Rail Steel Beam Cl. F-4 Type (Dbl.) L.F.	I-1 PIPE 15" L.F.	I-4 Conc. Cmt. Toms
			Ton	S.Y. AS REMOVED						
16	17+77 to 12+50	Rt.								
26	18+00 to 20+00	Rt.								
1P	10+50	Lt.	11	80		82	100			2
1R	19+00 ~ 20+00	Lt.			190					
1-DW	0+85 (TWP. RD. 213)	Lt.					20		40	
2DW	1+73 (TWP. RD. 213)	Rt.					27			
			11	80	190	82	147	*150	40	2
							27	174		

*TOTAL TO SHEET 18

C.H. 27 STA. 10+00 TO STA. 20+00

Good

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL.–40–0.00

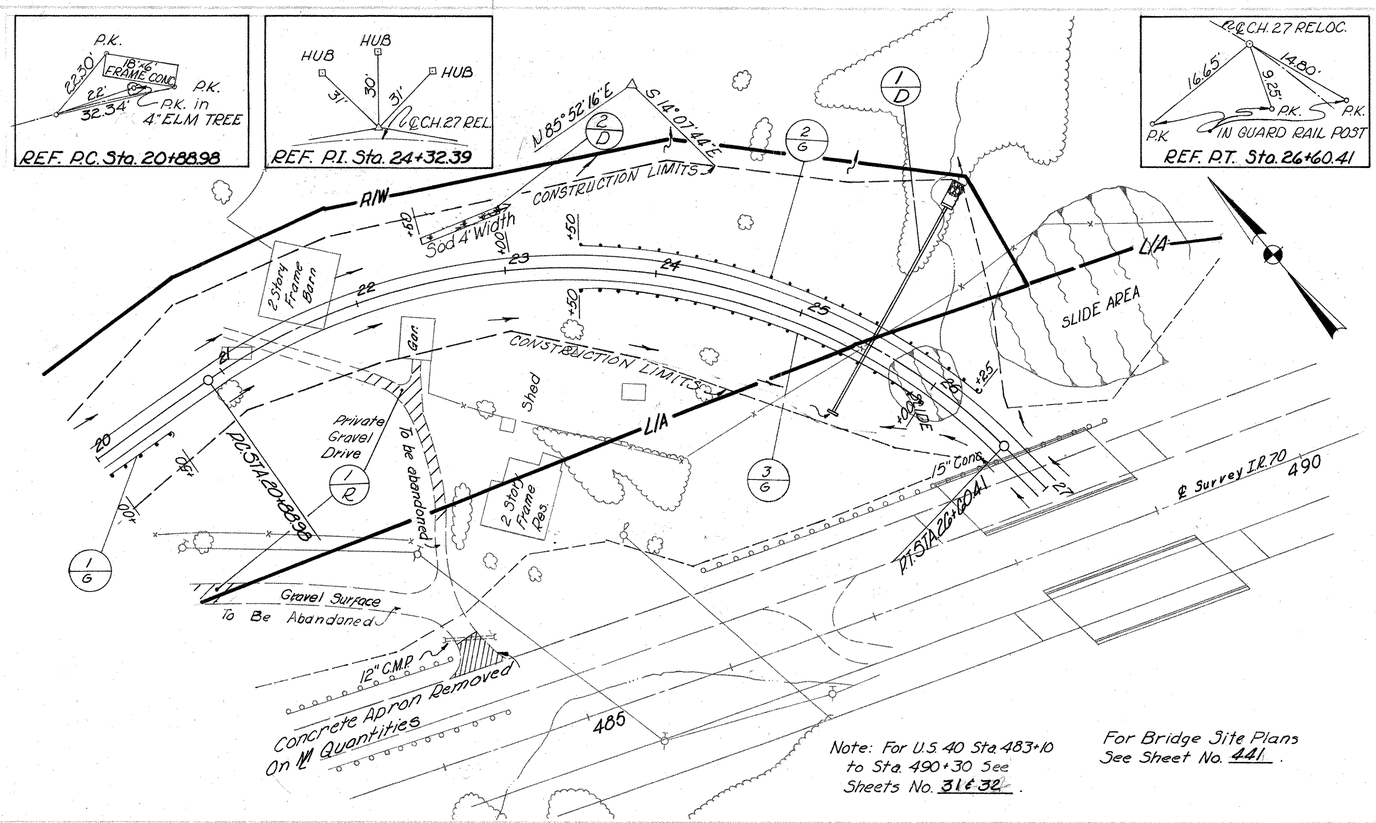
FED. RD. DIVISION	STATE	PROJECT		
2	OHIO	-		

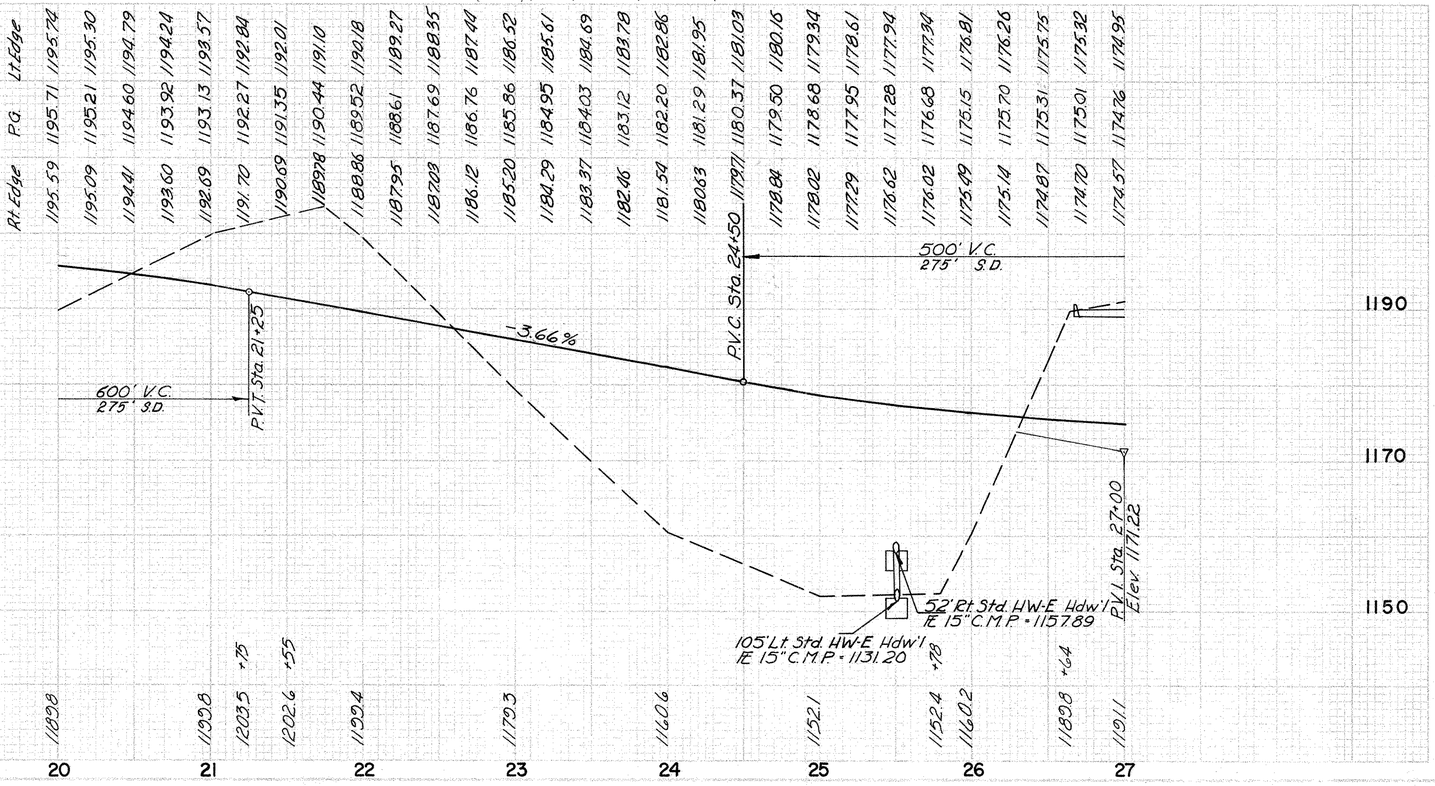
485 / 485

CURVE DATA

P.I. Sta. 24+32.39

Δ = 80° 00' 00" RT.
D = 14° 00' 00"
R = 409.26'
T = 343.41'
L = 571.43'
E = 124.99'





ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	E–8 Removal/Disposal Exist. Par. Sy.	L–10 Sodding S.Y.	L–15 Guard Rail Steel Beam Type (Deep) L.F.	L–10 Dumped Rock Ch. Prot. C.Y.	I–2 Masonry C.Y.	I–1 Ct. A–1 Sec. M6.4 15" L.F.
16	20+00 to 20+50	Rt.			50			
26	23+50 to 26+85	Lt.			275			
36	23+50 to 26+00	Rt.			250			
10	25+50 to 23+00	Lt.		4		11	0.52	158
20	22+50 to 23+00	Lt.		22				
1R	20+00 ~ 22+00	Rt.	124					
TOTALS			124	26	575	11	0.52	158

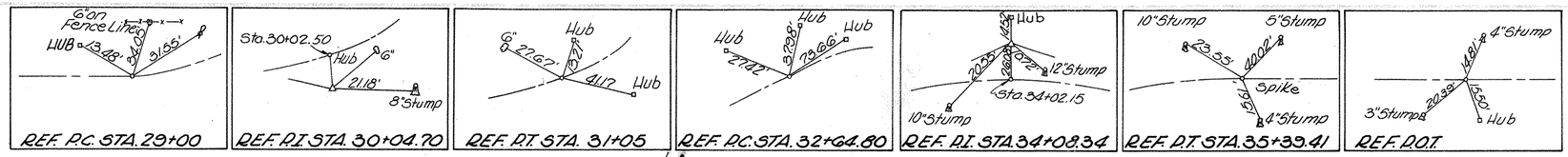
* TOTAL TO SHEET 18

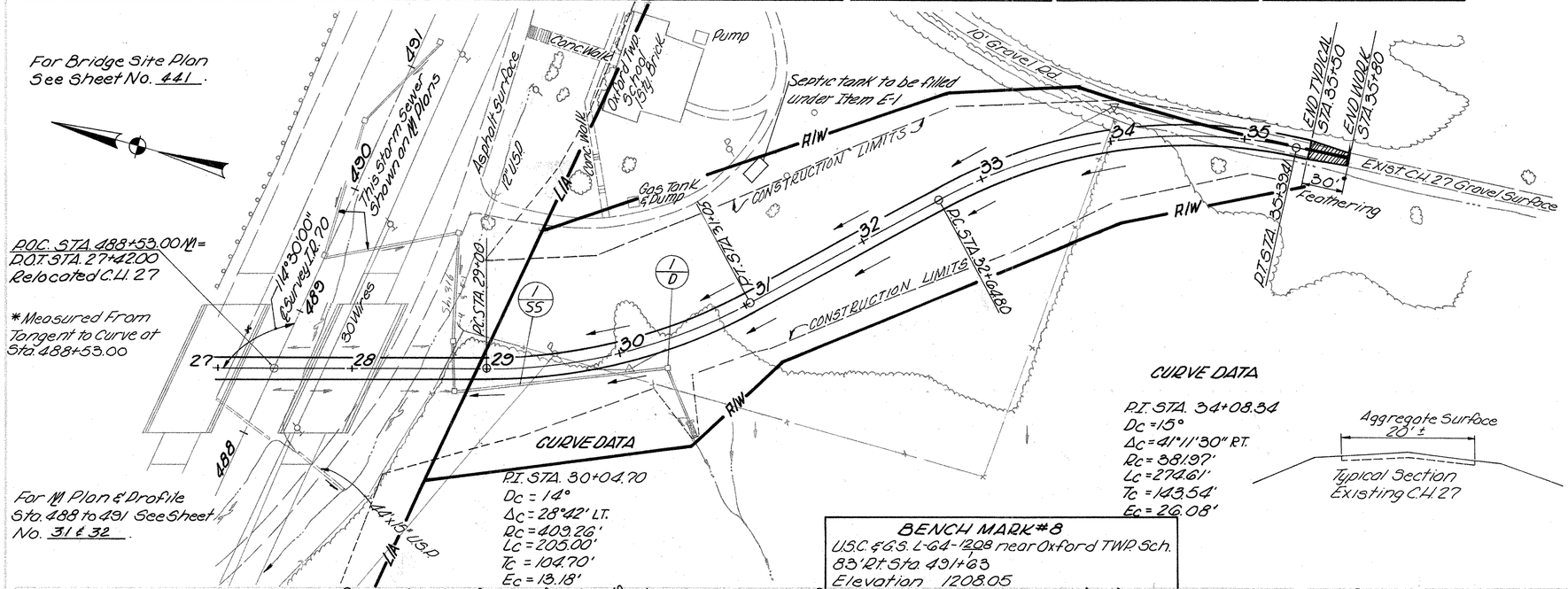
C.H. 27 STA. 20+00 TO STA. 27+00

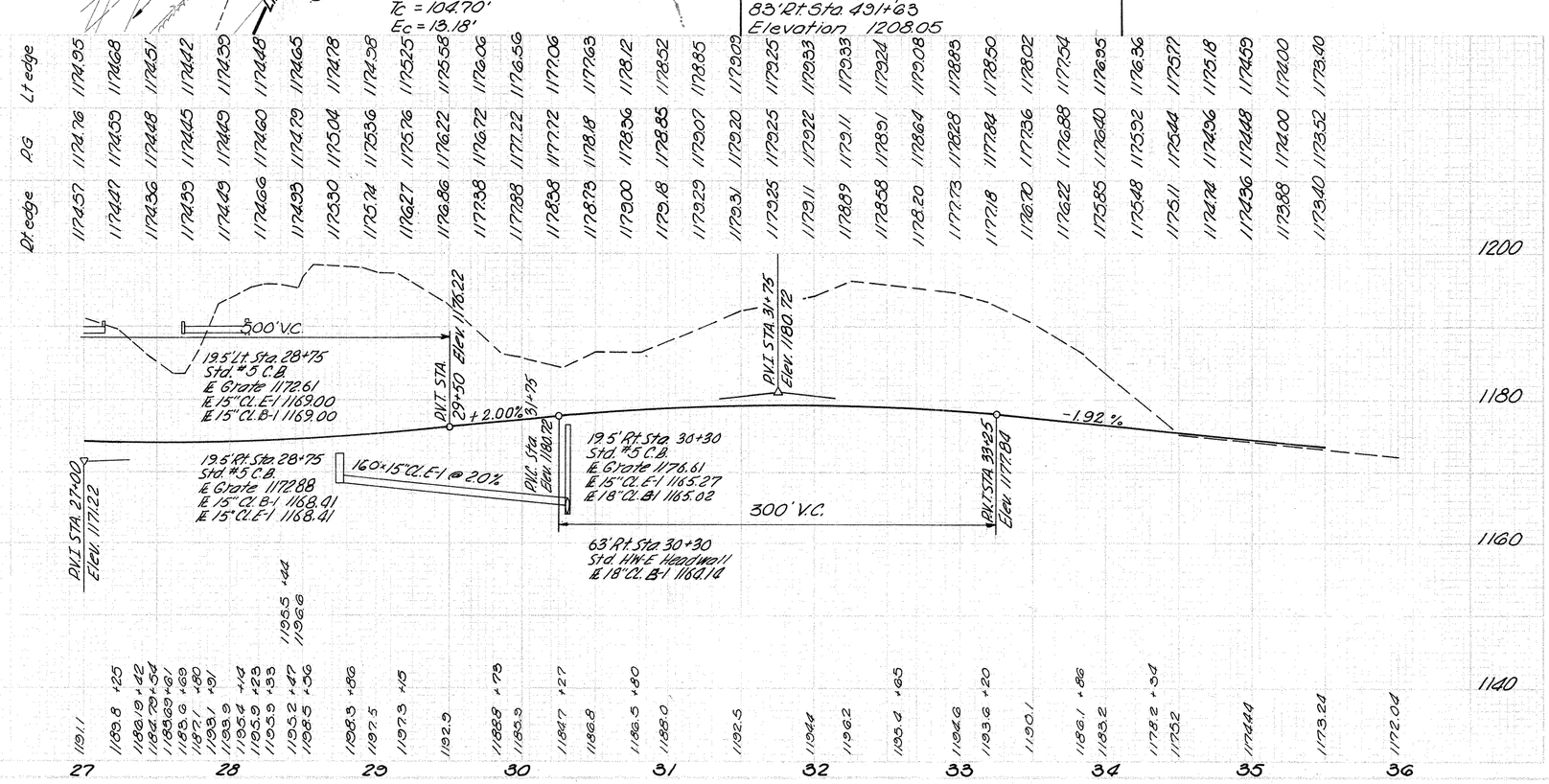
GUERNSEY COUNTY — BELMONT COUNTY
GUE.-40-23.88 BEL.-40-0.00

FED. TO DIVISION	STATE	PROJECT		
2	OHIO			

286
485







ESTIMATED QUANTITIES

| | | |

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

287
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40--23.88 BEL–40–0.00

SCALE: 1" = 5'	
CUT AREA	CUT VOLUME
FILL AREA	FILL VOLUME

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
67		890	
		570	
			255
95		910	
		558	
65		890	
			305
117		910	
		410	
59		890	
			319
304			
		890	
102		Sta 114+18	0
		870	
			81

910

4:1

2:1

895.05
114 + 82
903.1

3:1

2:1

894.32
114 + 69
902.4

3:1

3:1

893.37
114 + 52
901.1

BEGIN WORK
STA. 114+18

114 + 10
892.0

Add for E-1 Excavation
From Sheet No. 427.

150 100 50 ℄ 50 100

RELOC. C.H. 27 STA. 114+10 TO STA. 114+82

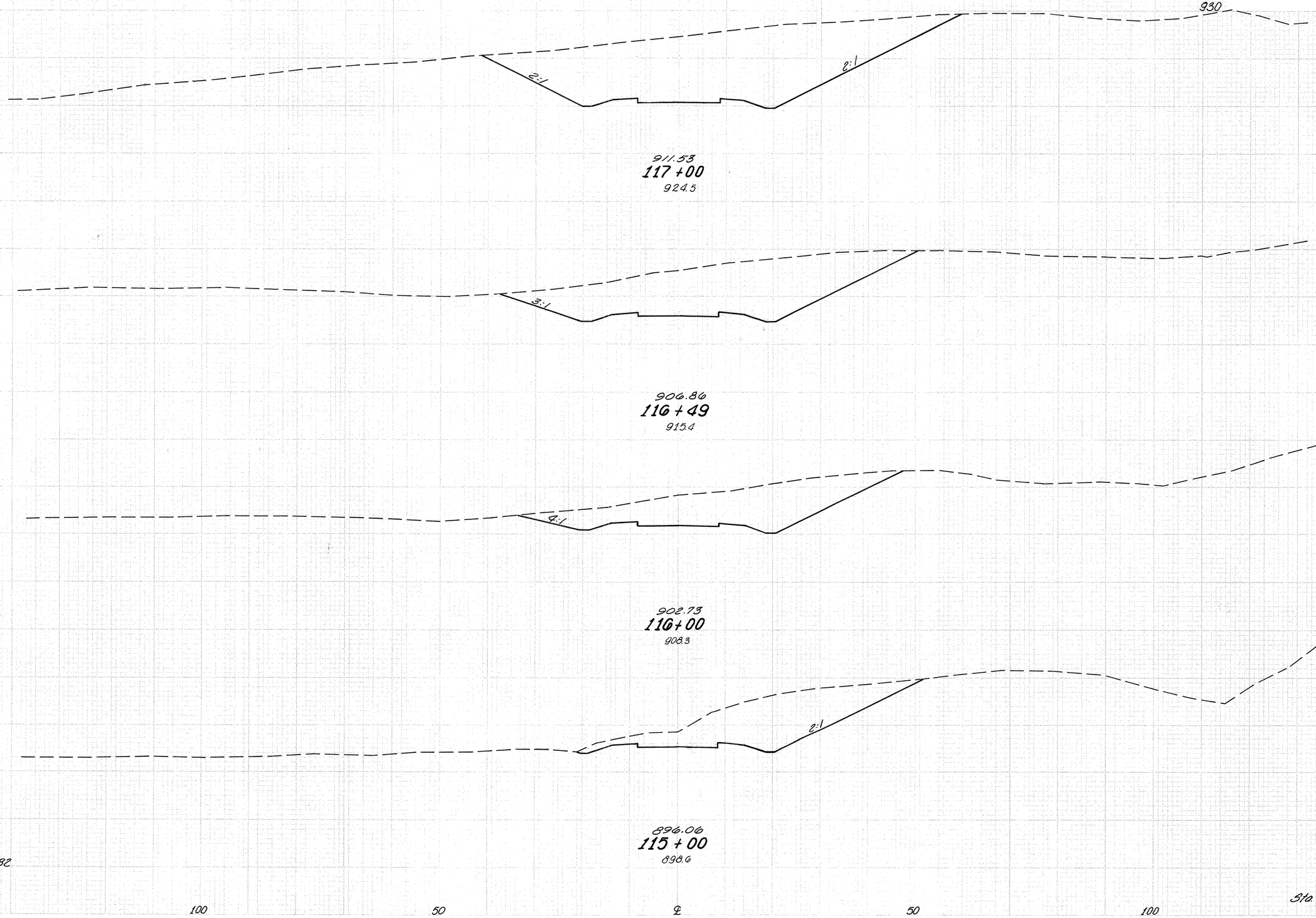
280-81

CROSS SECTIONS	
CU YDS WIDTH	CU YDS
93	
485	
78	
400	
69	
728	
62	
129	
67	

FED. ROAD DIVISION	STATE	PROJECT		288 485
2	OHIO			

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00



END AREA		VOLUME	
CUT	FILL	CUT	FILL
1021			
910		1604	
677			
920			
900		998	
422			
910		1530	
890			
910		404	
890		325	
570			

RELOC. C.H. 27 STA. 115+00 TO STA. 117+00

270 - 3

FED RD DIVISION	STATE	PROJECT	
2	OHIO		

289
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

SECOND END BWDH	SQ. FEET
98	1178
114	1222
106	1183
107	1111
93	

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1306			
		5382	
1600			
		5454	
1401			
		5241	
1429			
		4537	
1021			

970
950
970
950
960
940
940
920

958.96
121+00
974.0

946.96
120+00
964.5

934.46
119+00
951.2

922.96
118+00
939.2

2:1
2:1
2:1
2:1

Sta. 117+00
Sta. 117+00

150 100 50 ℄ 50 100

RELOC. C.H. 27 STA. 118+00 TO STA. 121+00

2 RA - 2

FED RD DIVISION	STATE	PROJECT	
2	OHIO		

290
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

SECOND		EMB AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
86		1010			
		990	721		
				3720	
216		1010			
		990	1393		
108					3551
751		990	526		
					8098
61		970			
828		980	606		
88					
1033		960			3591
98					
			1306		

994.96
124+00
1004.0

984.86
123+80
1001.0

982.46
123+00
989.3

970.46
122+00
978.8

Sta. 121+00

Sta. 121+00

150 100 50 ℄ 50 100

RELOC. C.H. 27 STA. 122+00 TO STA. 124+00

SECTIONS

END POSITION	NO. PGS

YEAR	STATE	PROJECT	
0	OHIO		

291
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

78
70

1050

2:1

2:1

1030.39
127+00
1044.6

1030

1010

985

972

1040

4980

1020

1704

97

1018.96
126+00
1040.8

6025

1030

1056

1010

1549

93

2:1

2:1

4204

994

1006.96
125+00
1026.1

86

Sta. 124+00

Sta. 124+00

721

150 100 50 ℄ 50 100

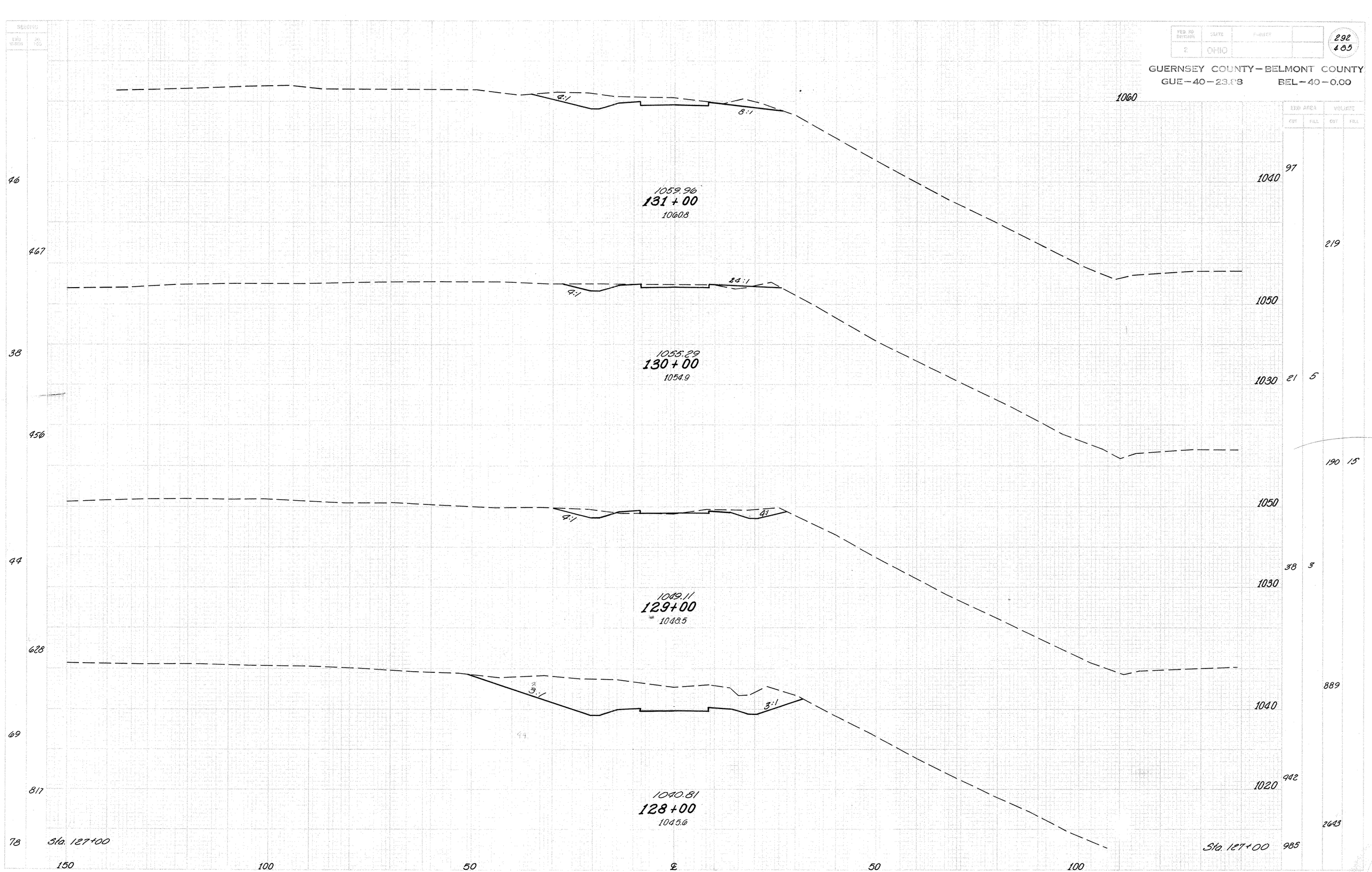
RELOC. C.H. 27 STA. 125+00 TO STA. 127+00

FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

292
465

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.83 BEL – 40 – 0.00



RELOC. C.H. 27 STA. 128+00 TO STA. 131+00

SECTION	
END AREA	SQ. YDS.
68	
	108
62	
	491
42	
	539
55	
	561
46	Sta 131+00

FED. AID DIVISION	STATE	PROJECT	
5	OHIO		

293
185

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

2:1
3:1
1068.59
134+00
1067.0

2:1
3:1
1068.56
133+85
1070.9

2:1
12:1
1067.56
133+00
1070.7

3:1
12:1
1064.50
132+00
1066.4

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1070			
1050	102	61	
			500
1070			194
	168	44	
1050			
1070			744
			81
1050	235	0	
1060			791
1040	192	0	
			535
Sta 131+00	97		

150 100 50 ℄ 50 100

RELOC. C.H. 27 STA. 132+00 TO STA. 134+00

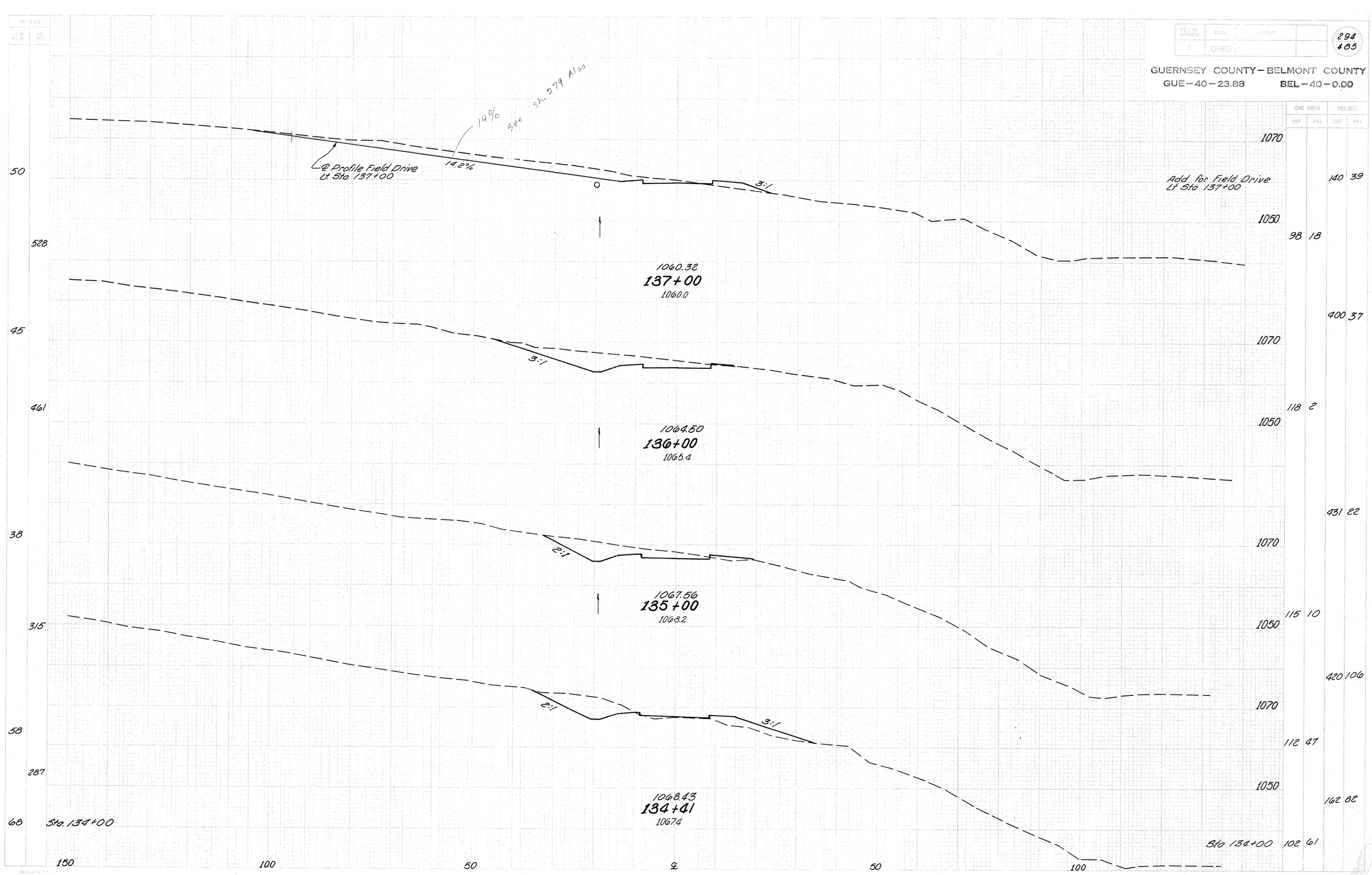
2-20-4

FED. AID DIVISION	STATE	PROJECT	
2	OHIO		

294
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
			140	39
	98	18		
			400	37
	118	2		
			431	22
	115	10		
			420	106
	112	47		
			162	82
	102	61		

RELOC. C.H.27 STA.134+41 TO STA.137+00

SHEETS	
ENG. INDEX	SUR. TOT.

FED. AID DIVISION	STATE	PROJECT	
5	OHIO		

295
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1070				
772	0			
1050				
			2059	0
1060				
340	0			
1040				
193	0			
1060				
257	0			
1040				
481	56			
1060				
72	30			
1040				
315	89			
Sta 137+00	98	18		

41

728

Replot

2:1

2.5:1

1058.90
140+00
1068.9

90

2:1

12:1

1057.26
139+00
1061.6

168

END WORK 103' L.T.
OF STA. 138+79

12%
Drive Profile

2:1

18"CI F.A.

14:1

54

461

1057.18
138+79
1060.3

3:1

3:1

51

561

1057.70
138+00
1057.0

CULVERT @ STA. 137+56

50

Sta 137+00

150 100 50 ℄ 50 100

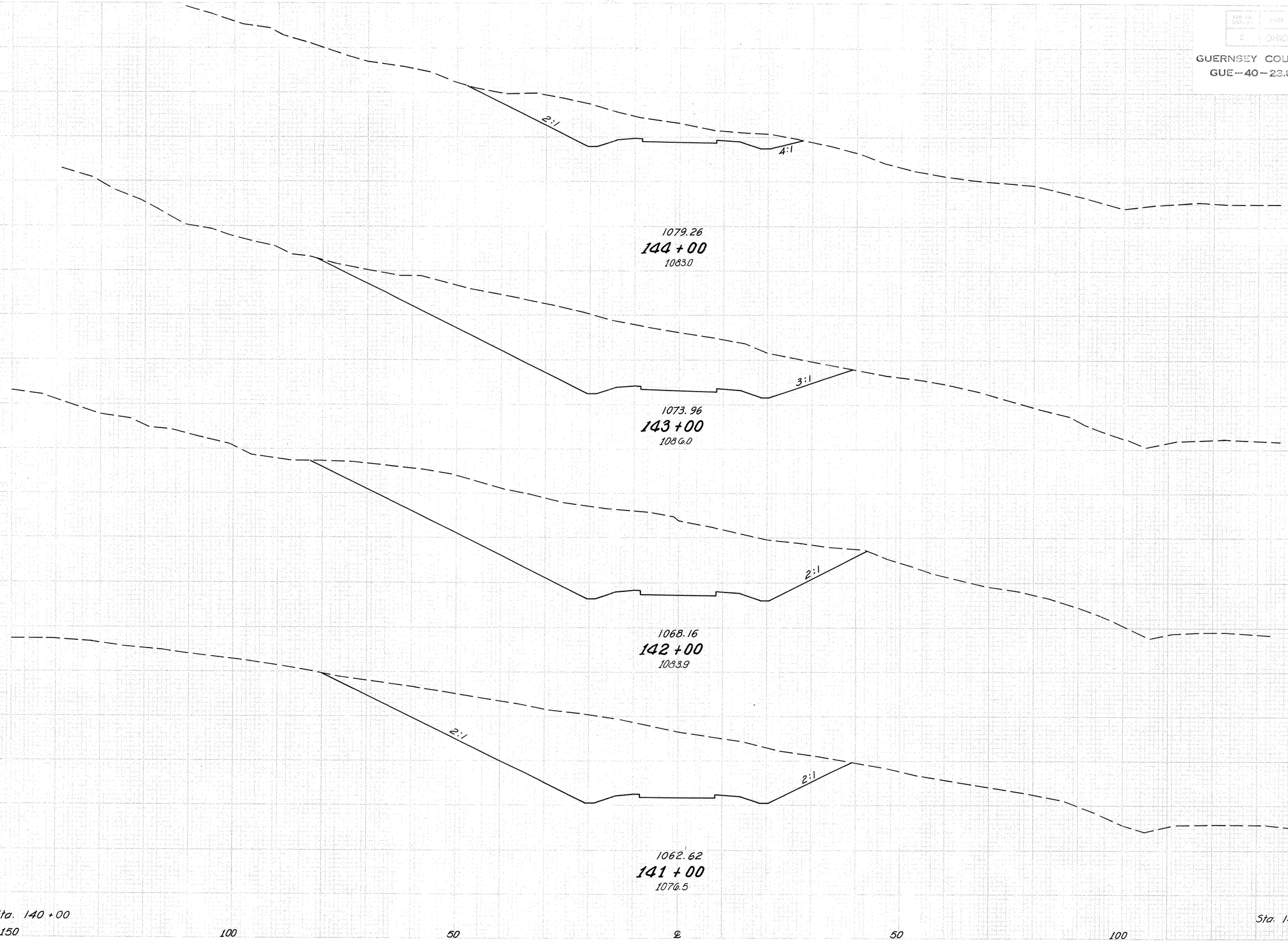
RELOC. C.H. 27 STA. 138+00 TO STA. 140+00

SEEDING	
SEED WIDTH	SQ. YDS.
64	
989	
114	
1306	
121	
1294	
112	
850	
41	

FED. AID PROJECT	STATE	PROJECT	
	OHIO		

296
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



END AREA		VOLUME	
CUT	FILL	CUT	FILL
1080			
1060		330	
1090		2763	
1070		1162	
1090		5371	
1070		1545	
1080		5343	
1000		1340	0
		3911	0
Sta. 140 + 00		772	0

RELOC. C.H. 27 STA. 141 + 00 TO STA. 144 + 00

SLEEMAR

CUT YDS	FILL YDS
59	
101	
63	
189	
85	
663	
70	
744	
64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

297
185

GUERNSEY COUNTY — BELMONT COUNTY

GUE — 40 — 23.83 BEL — 40 — 0.00

1092.23
146 + 15
1086.7

1091.36
146 + 00
1087.2

1090.03
145 + 77
1083.6

1085.56
145 + 00
1084.3

3:1

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1090			
1070	249	6	
1090			
1070	200	6	
			831 22
1090			
1070	312	6	
			948 22
1090			
1070	77	98	
			720 211
1090			
1070	330	0	
			754 181

Sta. 144 + 00

150 100 50 ℄ 50 100

RELOC. C.H. 27 STA.145 + 00 TO STA.146 + 16

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

298
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
Sta. 146+15				
	581		1403 0	
	656		3471 22	
	263 26		1359 70	
Sta. 146+15	299 6		798 50	

114
76
113
80
59

2:1
12:1
3:1
2:1
3:1

1101.10
147+68
1117.0

1097.91
147+13
1098.3

1097.16
147+00
1097.1

1120
1100
1100
1080
1100
1080

150 100 50 ℄ 50 100

RELOC. C.H.27 STA.147+00 TO STA.147+68

SEC. DIVISION	STATE	DISTRICT		299 / 165
2	OHIO			

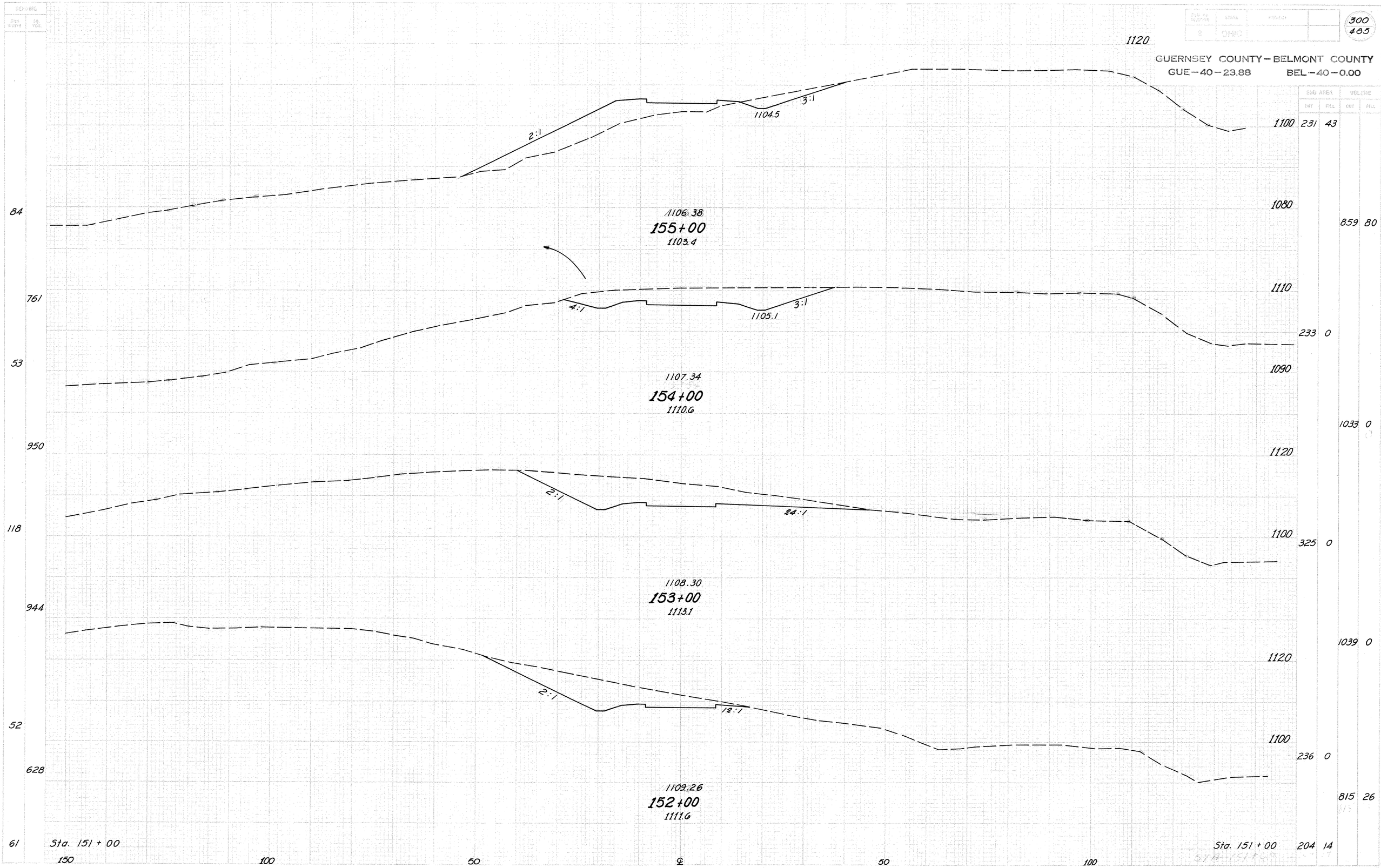
GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00

SECTIONS		GRID AREA		VOLUME	
CUT WIDTH	FILL SLOPE	CUT	FILL	CUT	FILL
61	2:1				
733	3:1	1120			
		1100	204	14	
	151+00				
	1111.2			1198	26
		1120			
71	12:1	443			
1044	1110.05	1100			
	150+00			3232	
	1114.7				
		1120		1302	
117	12:1				
	1107.63	1100			
	149+00				
	1120.7				
1294	2:1	1120		5154	
	12:1		1481	0	
116		1100			
409	1102.96			1709	
	148+00				
	1119.2	1080			
114	Sta. 147+68		Sta. 147+68	1403	0
150	100 50 ℄ 50 100				

RELOC. C.H.27 STA.148+00 TO STA.151+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1100	231	43		
1080			859	80
1110				
	233	0		
1090			1033	0
1120				
1100	325	0		
1120			1039	0
1100				
	236	0		
			815	26
	204	14		

RELOC. C.H. 27 STA. 152+00 TO STA. 155+00

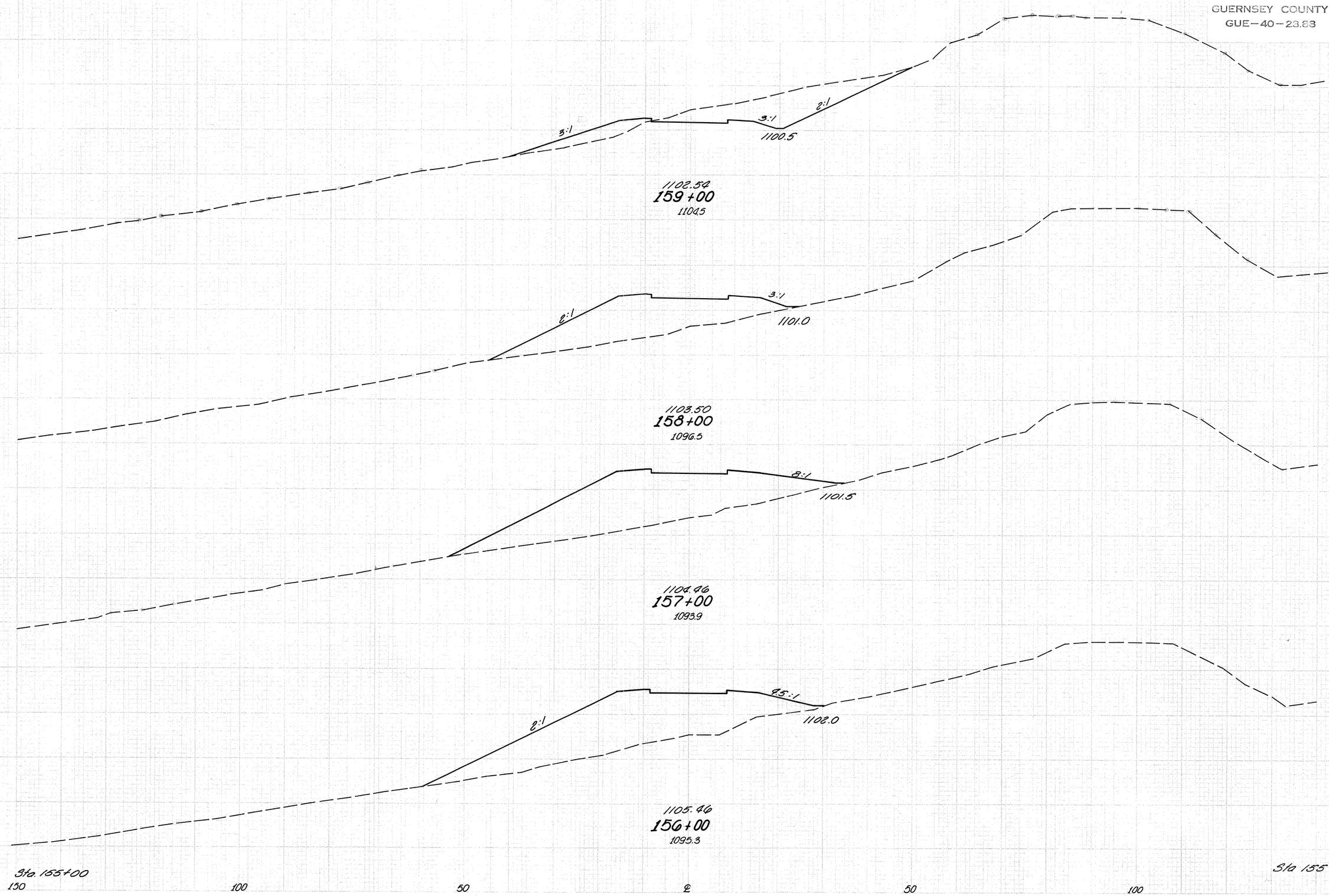
SECTIONS

CUT AREA	FILL AREA
79	
739	
54	
722	
76	
844	
76	
889	
84	

STATE OF OHIO — DEPT. OF HIGHWAYS — 301 / 485

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.83 BEL–40–0.00



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
210	60		
		1098	11
383	0		
		1826	0
603	0		
		2296	0
643	0		
		1619	80
231	43		

1100 1080 1100 1080 1100 1080 1100 1080 1100 1080

RELOC. C.H. 27 STA. 156+00 TO STA. 159+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.83 BEL – 40 – 0.00

SECTIONS		END AREA		VOLUME	
END WIDTH	60 FEET	CUT	FILL	CUT	FILL
60		1120	442		
	Main Line Slope				
	2:1	1100		2650	
580					
	1099.66				
	162+00				
	1104.2				
	Main Line Slope	1120	992		
	4:1				
113		1100		4021	
	1100.25				
	161+39				
	1108.7				
485	Main Line Slope	1120	1180		
				4273	
111	1100.62				
	161+00				
	1111.1				
1217	Main Line Slope	1120	1027	0	
	4:1				
	2:1	1100		2476	111
108					
1039	1101.58				
	160+00				
	1112.1				
79	Sta 159+00		Sta 159+00	210	60

150 100 50 ℄ 50 100

RELOC. C.H. 27 STA. 160+00 TO STA. 162+00

SEEDING

FIRE WIDTH	SQ. YDS.

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

303
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1100				
1080	0	2933		
1060			19	3896
1100				
1080			74	5683
1100			15	870
1080			848	1611
Sta. 162+00	442	0		

153
680
2:1
2:1
1082.5
1.4G RT. STA. 164+34.66
STD. NO. 5 CB
RIM ELEV. 1083.13
INV. ELEV. A-1 - 1071.30
1.4 LT. STA. 164+34.66
STD. 1.1 W-E ENDWALL
INV. ELEV. A-1 - 1048.50
1098.08
164 + 40
1063.3

153
1467
2:1
2:1
1080.5
1098.05
164 + 00
1072.1

111
950
2:1
3:1
3:1
1092.0
1098.70
163 + 00
1085.6

60
Sta. 162+00
150
100
50
℄
50
100

RELOC. C.H. 27 STA. 163+00 TO STA. 164+40

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		2987	
			11,267
		3097	
			6700
		6935	



RELOC. C.H. 27 STA.165+00 TO STA.165+53

SECTION

SLOPE RATIO	SQ. FT.

FED. RD. DIVISION	STATE	PROJECT	
5	OHIO		

305
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

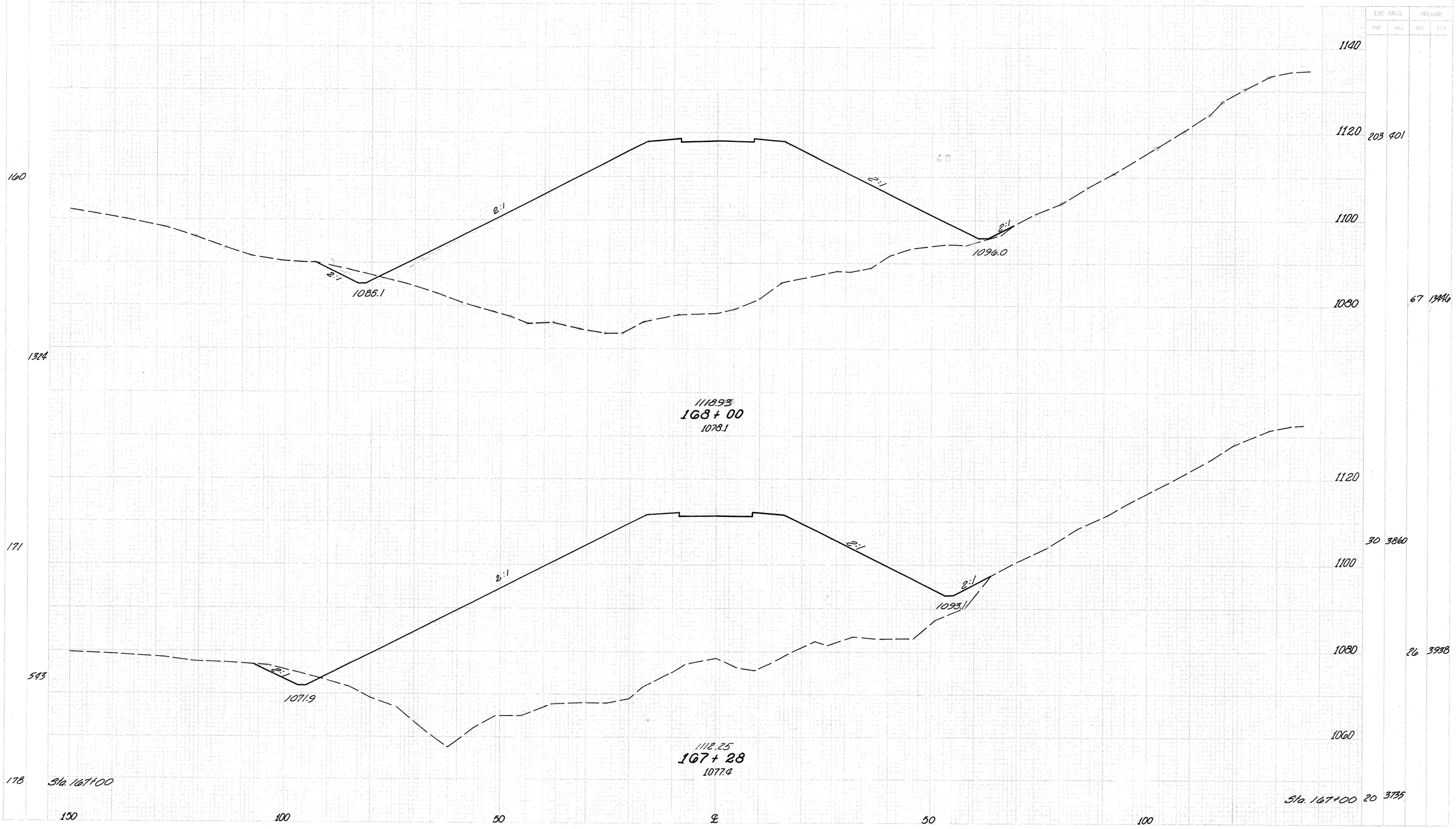
END AREA		VOLUME	
CUT	FILL	CUT	FILL



RELOC. C.H. 27 STA. 166 + 00 TO STA. 167 + 00

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00



RELOC. C.H. 27 STA. 167+28 TO STA. 168+00

SEEDING

ROC WIDTH	SD YDS

PUBLIC INVOLVED	STATE	PROJECT	
2	OHIO		

307
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		13	2307
		82	8715
		40	3363
		19	2129
		20	3401

146

1323

2:1

3:1

1106.5

2:1

1106.0

1140

1120

1100

1130.02

169+00

1101.8

141

284

2:1

3:1

1090.0

2:1

1097.0

1120

1100

1080

1060

1120.82

168+17

1077.8

160

Sta. 168+00

150 100 50 ℄ 50 100

Sta. 168+00

RELOC. C.H. 27 STA. 168+17 TO STA. 169+00

780-U

SEEDING	
KIND	LBS PER
WIDTH	1000 SQ YDS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

308
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
83				
950	716	0		
88			1331	851
1139	25	483		
117			111	3152
514	35	1203		
133			98	1447
977	35	1317		
146			24	4229
	13	2307		

1180

1160

1160

1140

1140

1120

1140

1120

1120

Sta 169+00

Sta 169+00

2:1

2:1

3:1

3:1

1156.0

1155.6

1157.64

172+00

1166.0

3:1

3:1

3:1

1142.0

1136.1

1150.45

171+00

1140.6

2:1

2:1

3:1

3:1

1124.5

1118.0

1141.16

170+00

1122.4

2:1

2:1

3:1

1118.4

1108.1

1137.70

169+63

1120.5

150 100 50 ℄ 50 100

RELOC. C.H. 27 STA. 169+63 TO STA. 172+00

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

309
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

SEEDING

END WIDTH	SQ. YDS.
66	646
105	5808
39	950
132	1194
83	

Add for C.H. 286 Conn.

C.H. 286 CONN | RELOC. C.H. 27

Sta. 172+00

1166.59
175+00
1171.7

1166.21
174+32
1175.5

1165.71
174+00
1181.3

1162.73
173+00
1181.6

2:1 4:1 2:1 2:1 2:1

STA. 173+50

Add for C.H. 286 Conn.

Sta. 172+00

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		3288	9
676			
		1968	
888			
		1910	
2335			
		2929	
828			
		1534	
828			
		2859	
716			

1180 1160 1190 1170 1150 1180 1160 1180 1160 1180

150 100 50 ℄ 50 100

RELOC. C.H. 27 STA.173+00 TO STA.175+00

FED. ROAD DIV. NO.	STATE	PROJECT	
5	OHIO		

310
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.83 BEL–40–0.00

SEEDING

SQ. METR.	SQ. YDS.
1826	
39	
46	
44	
533	
52	
600	
56	
678	
66	

Match Line
Twp 213

1166.07
10+50

Add for Twp Rd 213

3:1

3:1

3:1

1165.69
178+10.20 = 10+33.11
1163.0

3:1

3:1

1165.49
178+00
1163.0

2:1

1164.65
177+00
1164.2

2:1

4:1

1165.2

1165.62
176+00
1170.0

Sta. 175+00

150 100 50 ℄ 50 100

Add for Twp Rd. 213

Sta. 175+00

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1160				
1150				
1180		400		106
			1410	156
1160	0	226		
			0	733
1180				
1160	0	170		
			322	198
1180				
1160	175	0		
			1576	0
1180				
1160				
	676	0		

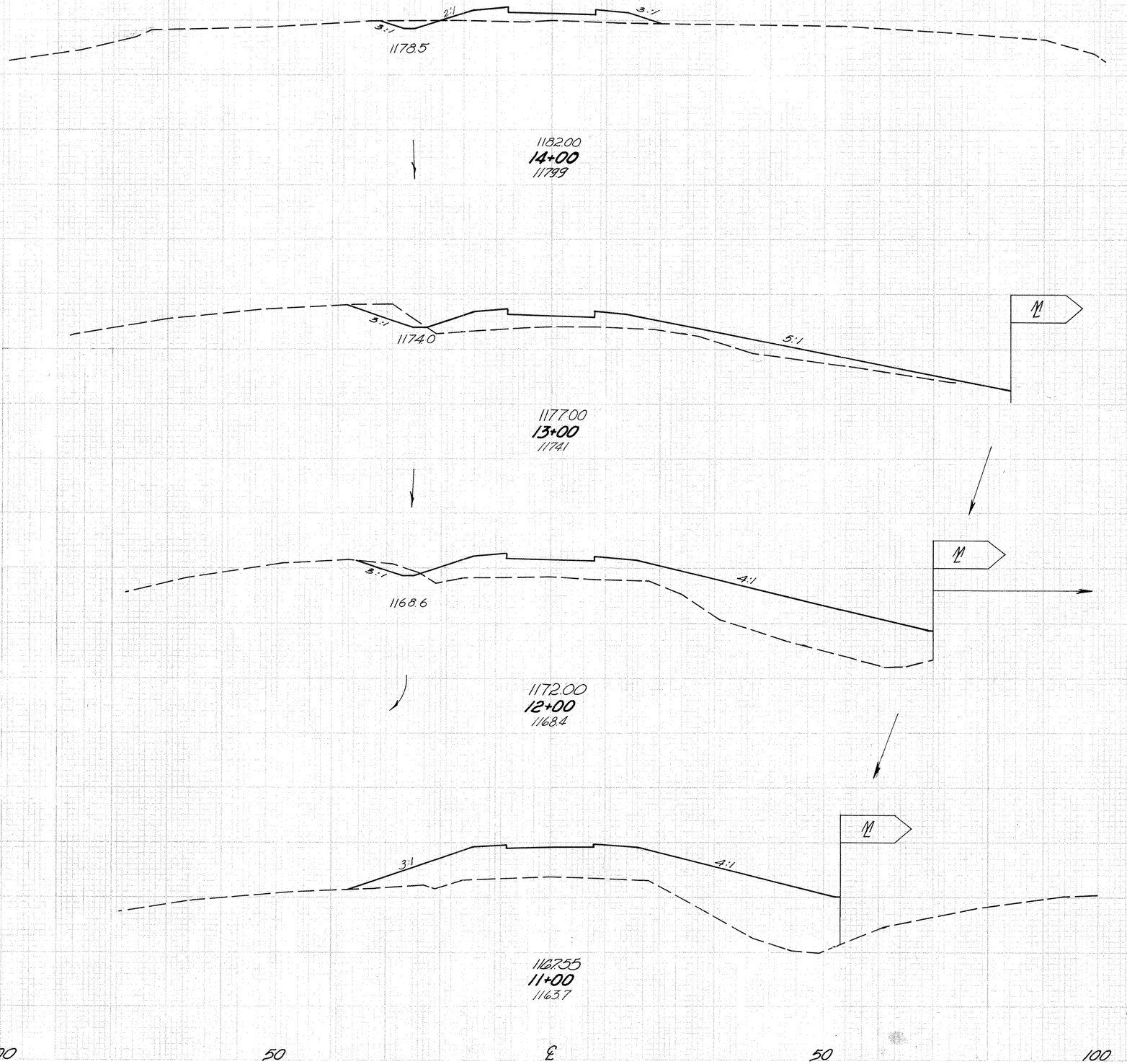
RELOC. C.H. 27 STA.176+00 TO STA.178+10

SCEDMR	
END WIDTH	SQ. YDS.
35	
789	
107	
1089	
89	
911	
75	
424	
39	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

311
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1170				
	9	60		
				57 476
1170				
	22	197		
				63 1359
1170				
1150	12	307		
				33 2152
1160		625		
Add For T.W.P. 213 Lt @ Sta. 10+50				19 1972
STA 10+00	10	440		

Sta. 10+33

RELOCATED C.H. 27 STA. 11+00 TO STA. 14+00

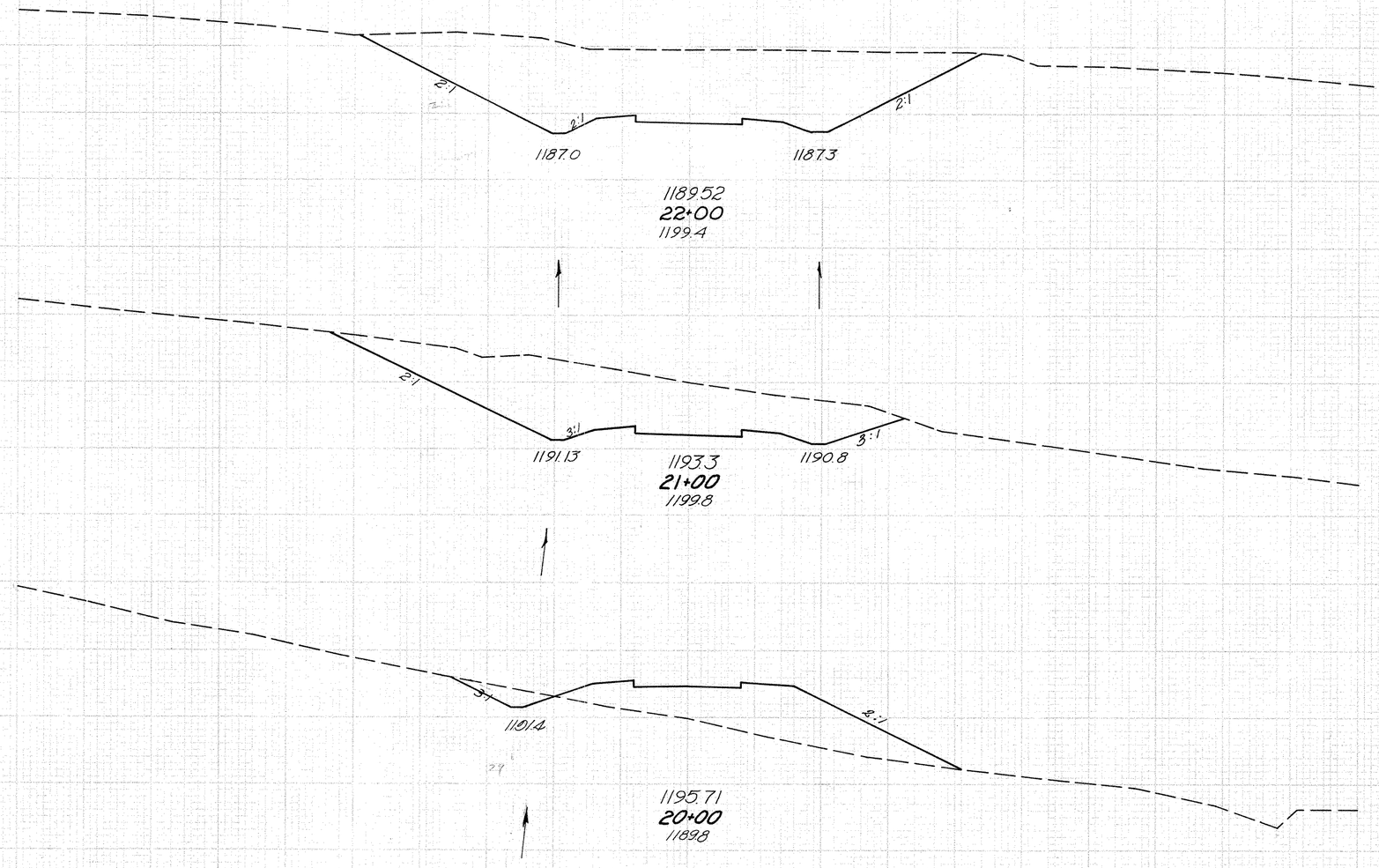
| SECTION | | |

SEEDING	
SQ. YDS.	LBS.
84	
883	
75	
778	
65	
778	
75	
828	
74	

FED. AID DIVISION	STATE	PROJECT	
2	OHIO		

313
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



END AREA		VOLUME	
CUT	FILL	CUT	FILL
1200			
1180	812	0	
1210			2578
1190			
		580	0
1200		1119	537
1180	24	290	
1200			48 1722
1180	2	640	
			28 2537
STA. 18+00		13	730

Sta. 18+00

100 50 ℄ 50 100

RELOCATED C.H. 27 STA. 19+00 TO STA. 22+00 Good

SCREENING
END WIDTH | SCL VERS

DESIGN DIVISION	STATE	PROJECT	
2	OHIO		

314
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1180				
1160				
	15	1200		
1170			43	6556
1160				
	8	2340		
1140				
			43	7295
1170				
1150	15	1599		
			54	3458
1180				
	14	268		
			1530	496
STA. 22+00	812	0		

1178.68
25+00
1152.1

1176.15
26+00
1160.2

1182.20
24+00
1160.6

1185.86
23+00
1179.3

1166.2

1165.3

1177.0

1179.0

1159.0

2:1

3:1

4:1

5:1

12:1

Slope @ Sta. 25+50

29' Cover

Ground Line @ Sta. 25+50

158' – 15" C.M.P. @ 17% @ Sta. 25+50

FE = 1157.89

52' Rt Std. HW-E Hdw'l

FE = 1131.20

105' Lt Std HW-E Hdw'l

3' 2' 3'

30"

Section A-A

A

15'

117
1489
151
1567
131
1128
72
867
84

Sta. 22+00

100 50 ℄ 50 100

RELOCATED C.H. 27 STA. 23+00 TO STA. 26+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

			EARTHWORK AREA		EARTHWORK VOLUME	
EST. WIDTH	SLOPES		CUT	FILL	CUT	FILL
		To. C. B.				
		U.S.R. 40 (Back) C.H. 27 — C.H. 27 U.S.R. 40 (Ahead)				
82		2:1 — 2:1				
		1173.21 — 1173.13				
	273		1190			
			1197			
			1170			
		1174.79				
		28+50				
		1195.1				
		U.S.R. 40 (Back) C.H. 27 — C.H. 27 U.S.R. 40 (Ahead)				
82	Sta 28+20					
			1190			2961
		1173.36 — 1173.28				
			1400			
			1170			
		1174.49				
		28+00				
		1193.9				
		U.S.R. 40 (Back) C.H. 27 — C.H. 27 U.S.R. 40 (Ahead)				
						1326
			1190			
		1173.46 — 1173.38			706	0
		1174.47				
		27+66				
		1182.6				
		U.S.R. 40 (Back) C.H. 27 — C.H. 27 U.S.R. 40 (Ahead)				2330
			1190			
		2:1 — 2:1				
117	Sta. 26+65	1173.26 — 1173.18	1170		1200	0
	825					2152 2222
		1174.76				
		27+00				
117	Sta 26+00	1191.11			STA. 26+00	15 1200
		℄				
		100 50 50 100				

RELOCATED C.H. 27 STA. 27+00 TO STA. 28+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

316
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00

SEEDING	
ENG. WIDTH	SQ. YDS.
101	1078
93	1250
132	592
82	Sta 28+50

END AREA		VOLUME	
CUT	FILL	CUT	FILL
1170			
	991		
1150			
1200			
			3385
1180			
1160		837	0
			5587
1200			
1180		2180	
			3682
STA. 28+50		1797	

2:1

4:1

1178.85
31+00
1188.0

30+27

2:1

1177.22
30+00
1185.9

44' x 18" @ 2.0%

Ground Line Sta. 30+30

10'

D.R.C.P. 10'X3'X18"
63' Rt. Sta. 30+30
Std. H.W. "E" Hdwl.
I.E. 18" Cl. B-1 1164.14

19.5 Rt. Sta. 30+30
Std. No. 8 C.B.
I.E. Grate 1176.61
I.E. 15" Cl. E-1 1165.27
I.E. 18" Cl. B-1 1165.02

Mainline C.H. 27

M. Ditch

46' Cl. E-1 See M.6.6(b) or 6.8(b) @ 2.0%

2:1 From 83' Rt. Sta. 490+00

35' - 15" Cl. F-4

53' Lt.
I.E. I-5 = 1184.88

1175.36
29+00
1197.7

39" 15" @ 1.5%

Class B-1

2:1

100' Lt. Sta. 28+75
= 83' Rt. 490+00
Std. No. 5 C.B.
I.E. Grate = 1190.55
I.E. 15" J-1 = 1185.92
I.E. 15" F-4 = 1185.82

Sta. 28+75 19.5' Lt.
Std. No. 8 C.B.
I.E. Grate = 1172.61
I.E. 15" Cl. F-4 – 1169.00
I.E. 15" Cl. B-1 1169.00

Sta. 28+75
19.5' Rt.
Std. No. 8 C.B.
I.E. Grate 1172.88
I.E. 15" Cl. B-1 1168.41
I.E. 15" Cl. E-1 1168.41

100 50 ℄ 50 100

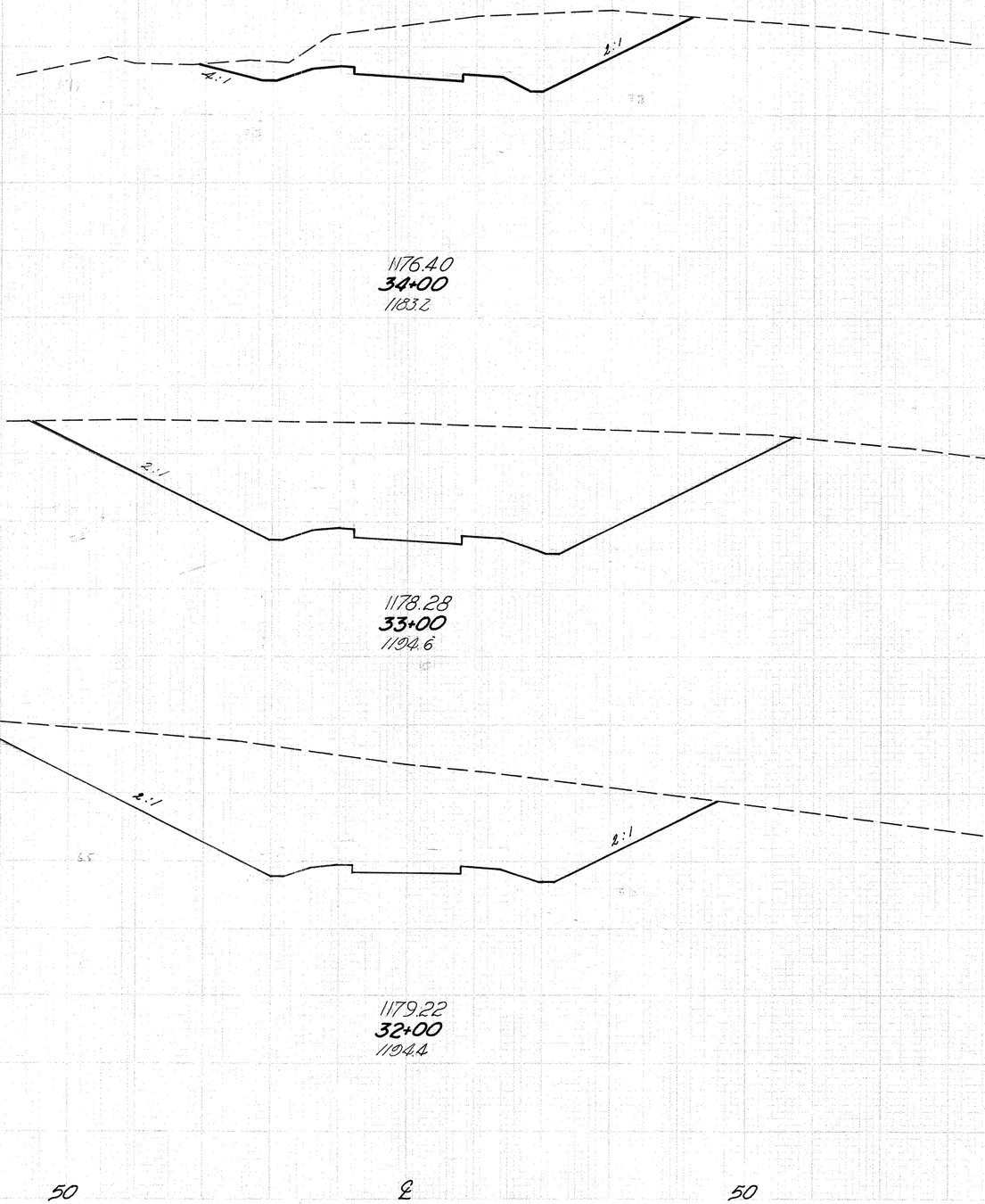
RELOCATED C.H. 27 STA. 29+00 TO STA. 31+00

SEEDING	
END WIDTH	SQ. YDS.
61	
922	
105	
1167	
105	
1144	
101	
Sta. 32+00	

FED. RD. DIVISION	STATE	PROJECT		SHEET NO.
2	OHIO			317 485

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00



END AREA		VOLUME	
CUT	FILL	CUT	FILL
1200			
1180			
1160		440 —	
1190			3346 —
1170			1367 —
1150			
1190			4956 —
1170			
1150			1309 —
1150			4259 —
STA. 31+00		991	991 —

100 50 ℄ 50 100

RELOCATED C.H. 27 STA. 32+00 TO STA. 34+00

FED. DIV. DIVISION	STATE	PROJECT	
2	OHIO		

318
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

1140

37+00
1168.74

1120

1160

1140

End Work
Sta. 35+80

36+00
1172.04

1120

1150

1130

1178.76
35+00
1174.44

Sta. 35+80

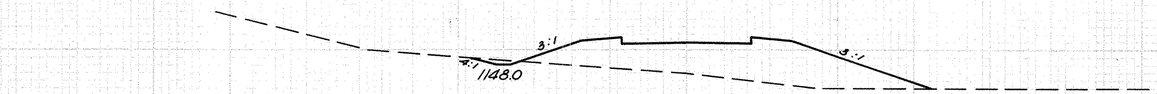
Sta. 34+00

100 50 ℄ 50 100

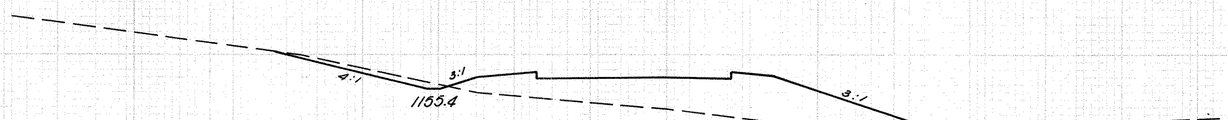
RELOCATED C.H. 27 STA. 35+00 TO STA. 37+00

SECTIONS

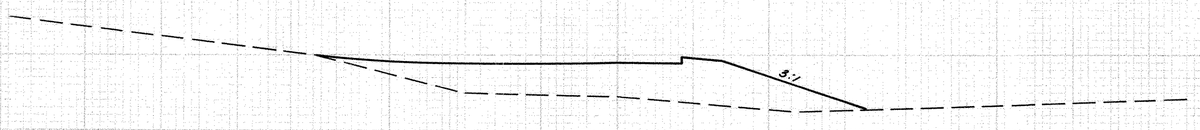
END AREAS CUT	END AREAS FILL
47	
306	
63	
73	
25	
80	
47	



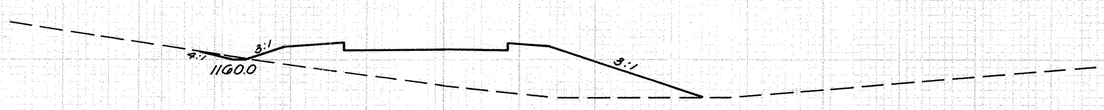
1151.76
1 + 50
1147.0



1157.98
1 + 00
1152.8



1159.85
0 + 85
1154.5



1162.34
0 + 65
1156.7

FED. OR DISTRICT	STATE	COUNTY	
2	OHIO		

319
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1160				
1140	3	195		
			18	400
1160				
	16	257		
1140				
	5	139		
1160				
	0	262		
1140				
	1	184		
1170				
	1	235		
1150				

100 50 ℄ 50 100

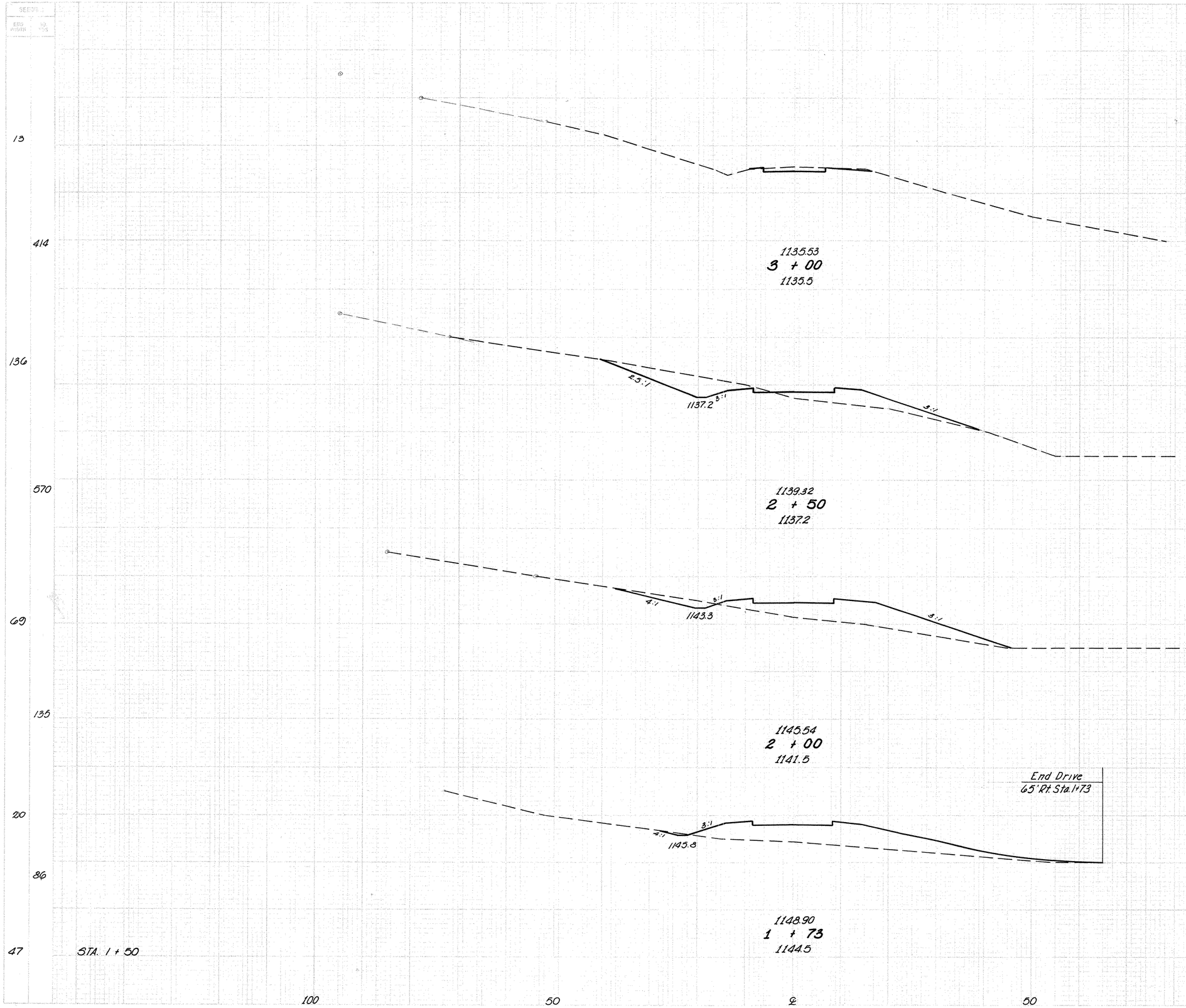
TWP. RD 213 STA. 0 + 65 TO STA. 1 + 50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

320
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00



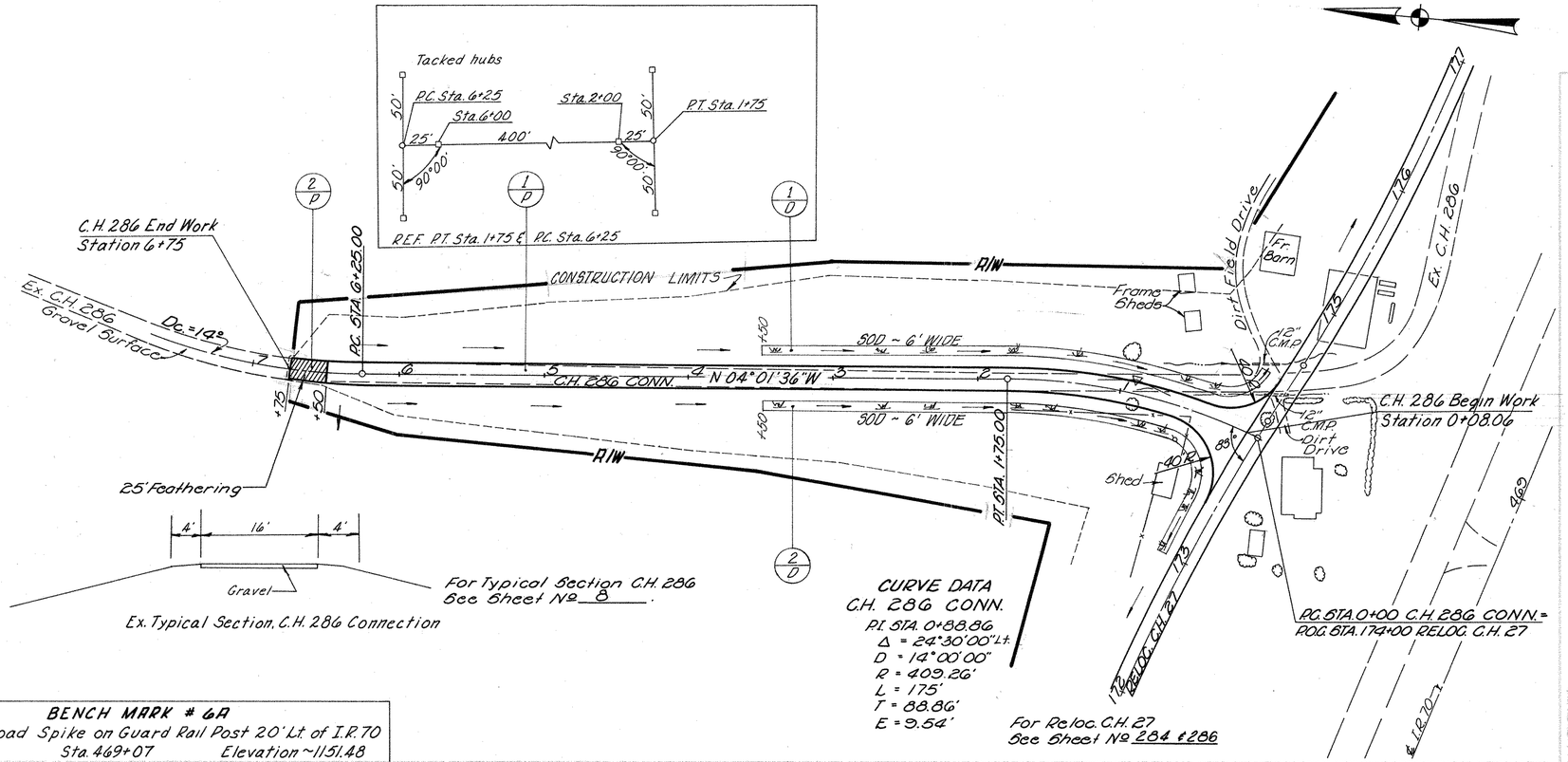
		END AREA		VOLUME	
		CUT	FILL	CUT	FILL
13	1140				
	BACK ONLY	1	12		
414	1120				
				76	84
136	1140				
570	1120				
		81	78		
69	1150			43	230
135	1130				
		19	177		
				11	194
20	1150				
	Add for Drive Sta. 1+73 Rt.				32
86		2	210		
	1130				
				2	173
47	STA. 1+50	3	195		

TWP. RD. 213 STA. 1+73 TO STA. 3+00

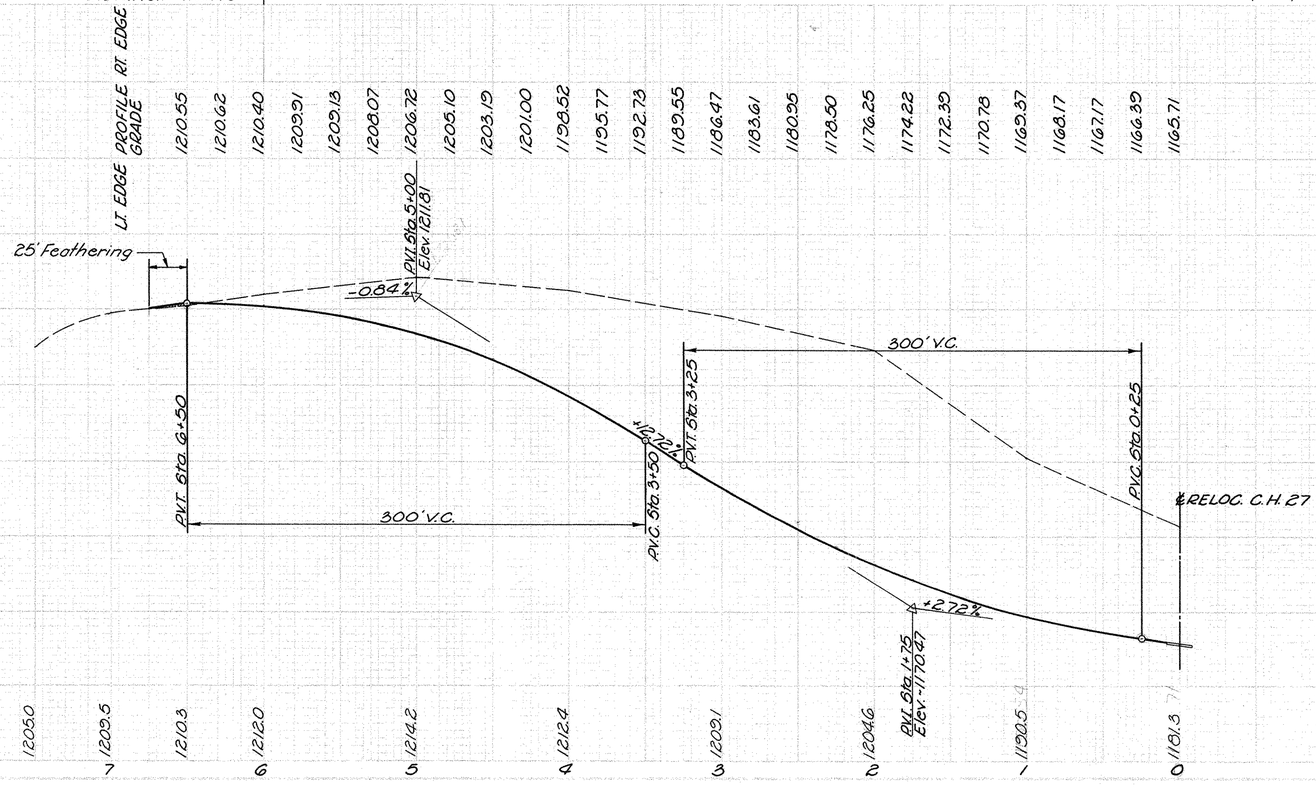
GUERNSEY COUNTY GUE.-40-23.88 | BELMONT COUNTY BEL.40-0.00

FED. RD. DIVISION	STATE	SHEET	
2	OHIO		

321
485



BENCH MARK # 6A
Railroad Spike on Guard Rail Post 20' Lt. of I.R.70
Sta. 469+07 Elevation ~1151.48



ESTIMATED QUANTITIES

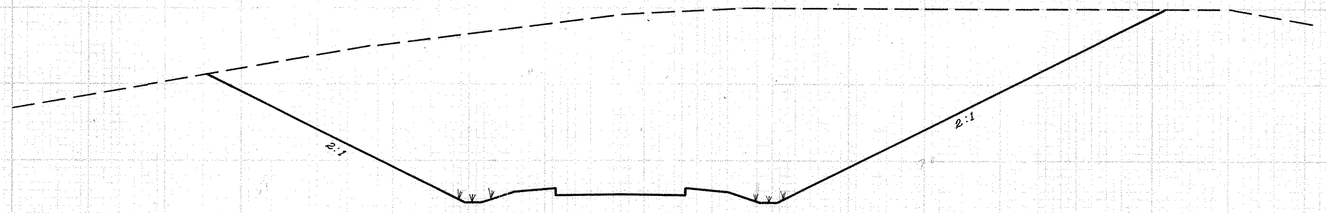
* (65-100)

DEF. HOR.	STATION TO STATION	SIDE	B-19 AGGREGATE BASE COURSE C.Y.	*B-35 ASPHALTIC CONCRETE LEVELING COURSE C.Y.	T-30 BITUMINOUS PRIME COAT GALS.	T-35 ASPHALTIC CONC SURFACE TYPE "A" C.Y.	T-9 STONE UNDER-DRAINS NO. 2 L.F.	L-10 SODDING S.Y.
1-D	0+08	~ 6+50	Lt. 290	80	4.91	43	260	
2-D	6+50	~ 6+75	Lt. 10	2	17	2		
1-D	0+04	~ 3+50	Rt.					220
2-D	0+20	~ 3+50	Lt.					274
			300	82	511	45	260	514

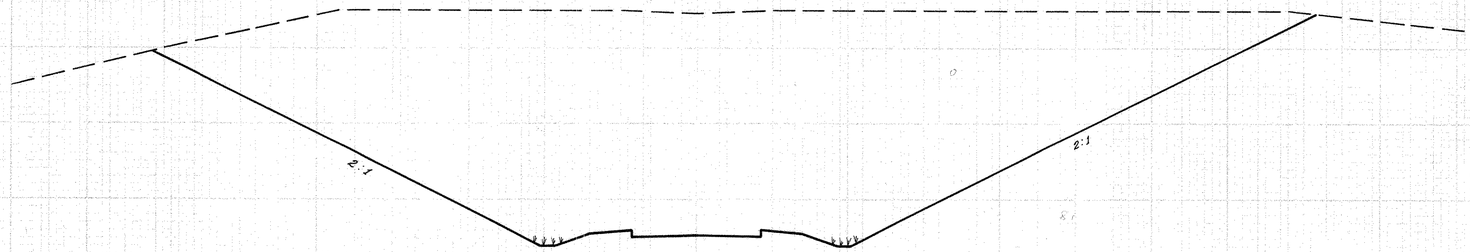
C.H. 286 CONNECTION

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

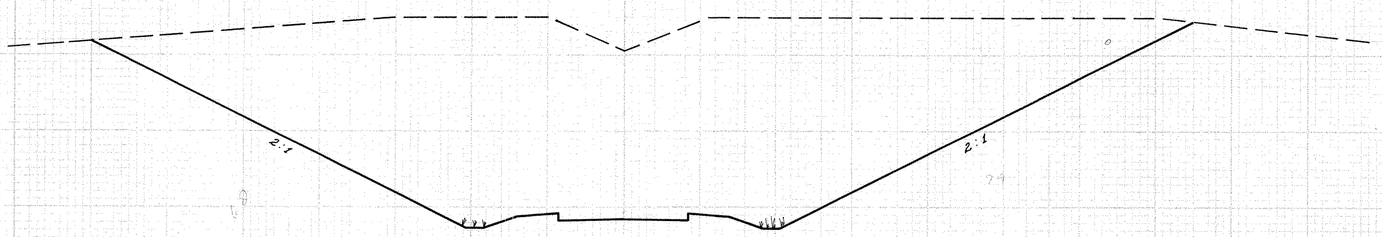
END AREA | VOLUME
CUT | FILL | CUT | FILL



1186.47
3 + 00
1209.1



1176.25
2 + 00
1204.6



1169.37
1 + 00
1190.5

STA. 0+20, 100' LT.
BEGIN 6' WIDE SODDING

STA. 0+04, 44' RT.
BEGIN 6' WIDE SODDING

100 50 ℄ 50 100

C.H. 286 CONNECTION STA. 1+00 TO STA. 3+00

1210
2000
1190
9552
1200
3052
1180
10329
1200
2528
1180

121
151
1511
1673
142

SEEDING

SQ. YDS.	SQ. YDS.
0	
	53
38	
	256
54	
	733
78	
	972
97	
	1211
121	

STA. G+75

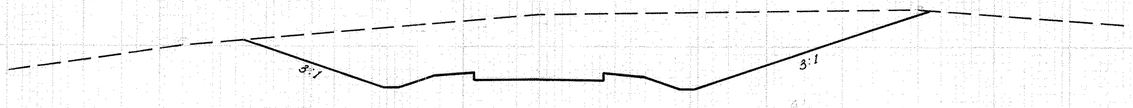
END WORK STA. G + 75.



1210.55
G + 50
1210.3



1210.40
6 + 00
1212.3



1209.72
5 + 00
1214.2

STA. 4+50, L.T. & RT.
END 6' WID SODDING.



1198.52
4 + 00
1212.4

STA. 3+00

100 50 ℄ 50 100

STATE	COUNTY	SHEET NO.	TOTAL SHEETS
OHIO		323	485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

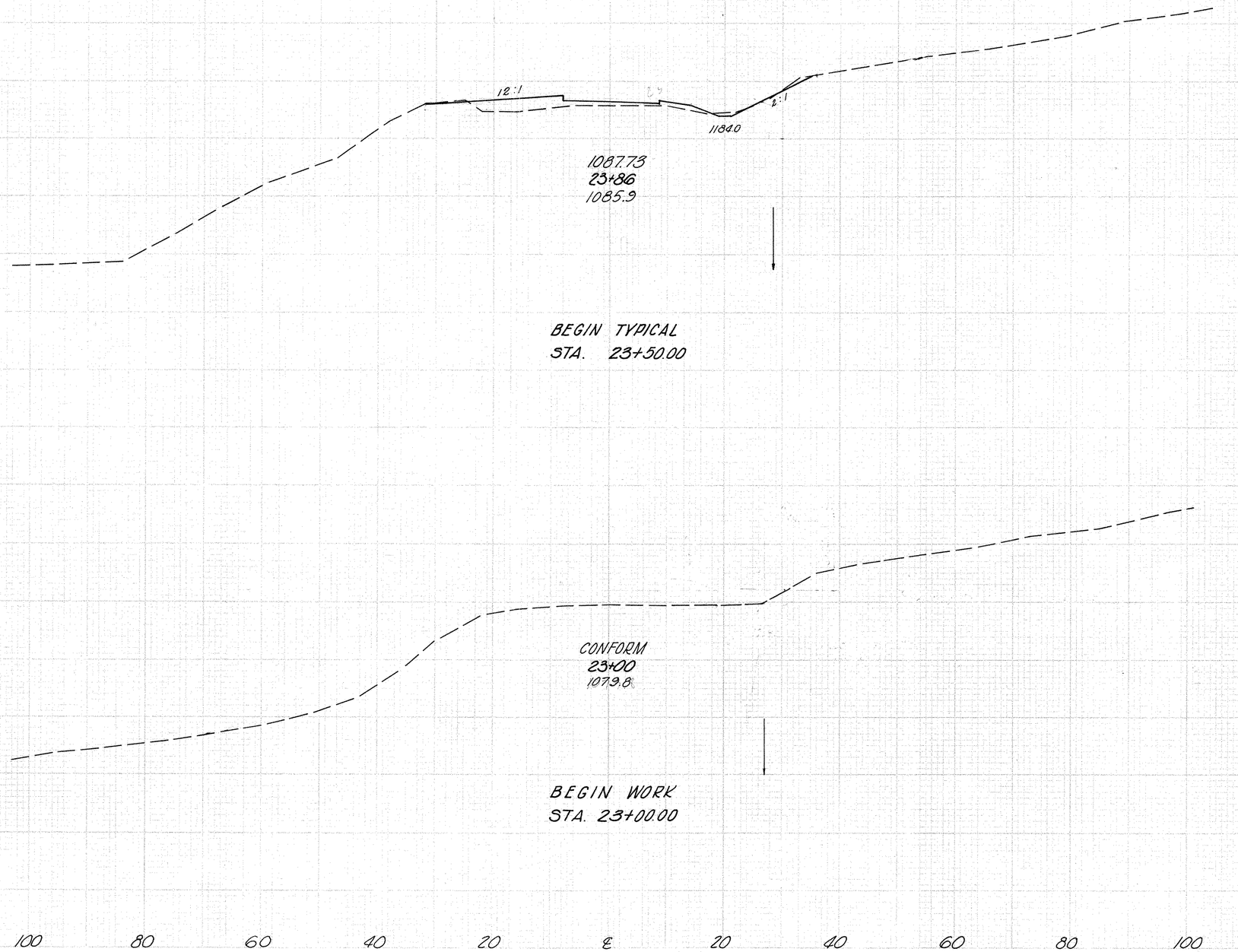
1210

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
STA. G+75 —	0	0		
1190			57	3
	61	3		
			493	6
1210				
	205	0		
1190				
			3254	0
1210				
	573	0		
1190				
			3259	
1210				
	1184	0		
1190				
			7748	0
STA. 3+00 —	2000	0		

C.H. 286 CONNECTION STA. 4+00 TO STA. 6+50

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL
8	49		
13	78		
0	0		



C.H. 202 RELOC. STA. 23+00 TO STA. 23+86

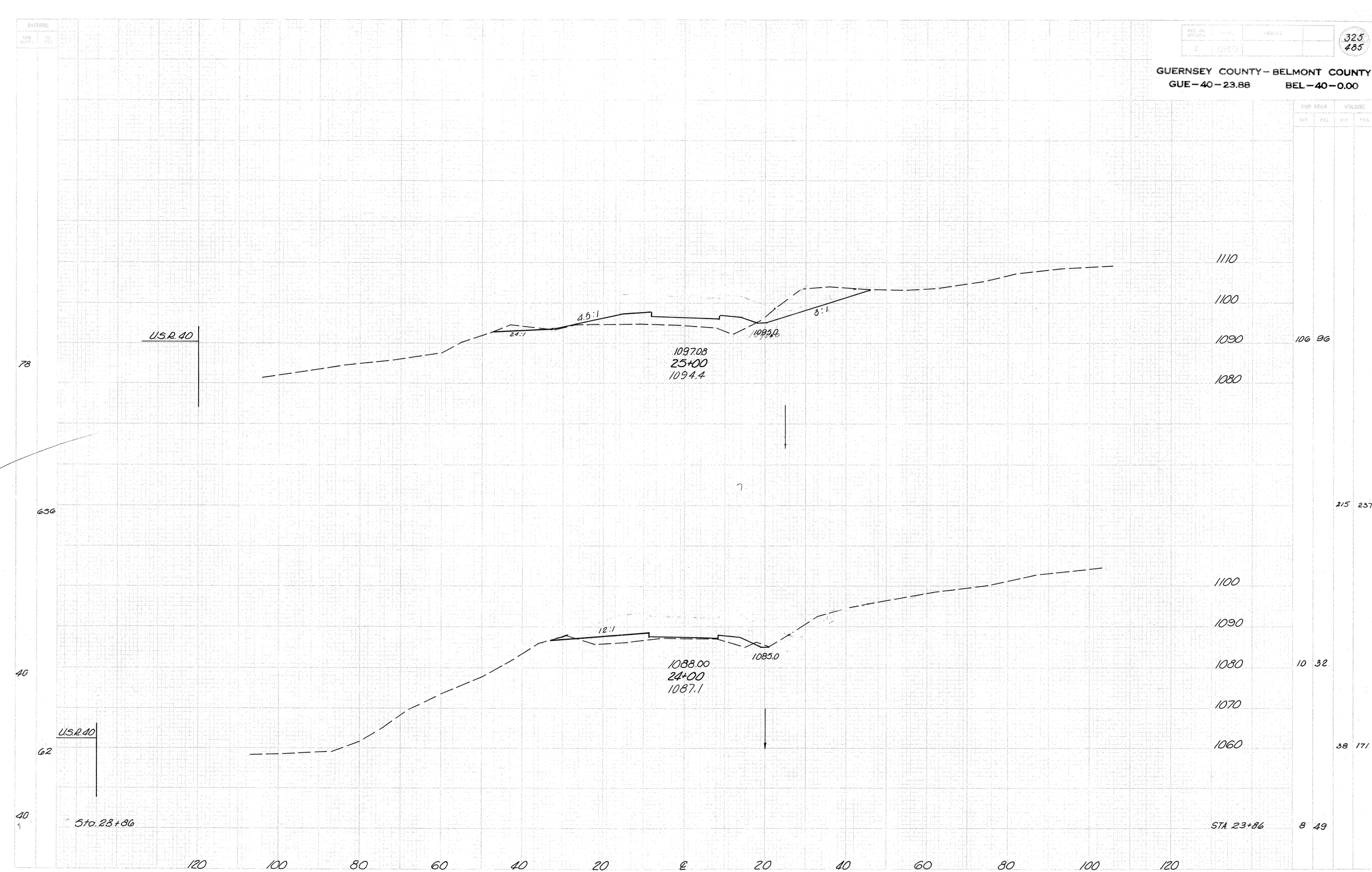
SHEETING

END AREA		VOLUMES	
CUT	FILL	CUT	FILL

PROJECT			
SHEET NO.	TOTAL SHEETS	STATE	
2	CARD		

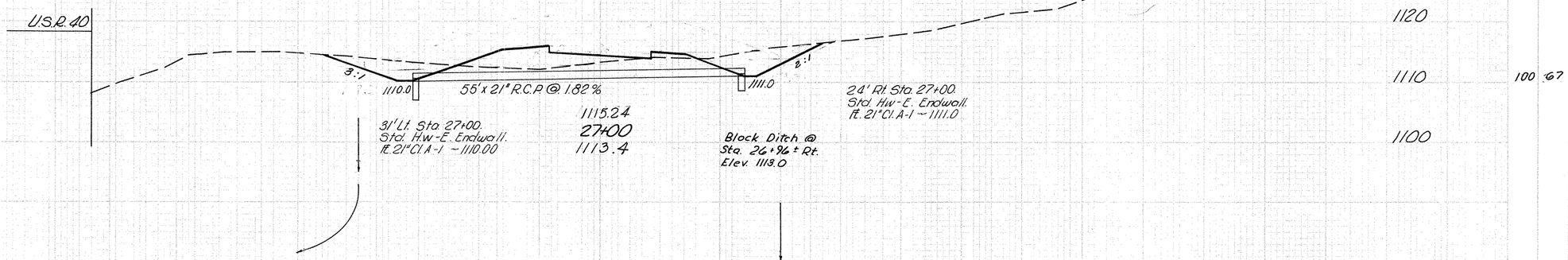
325
485

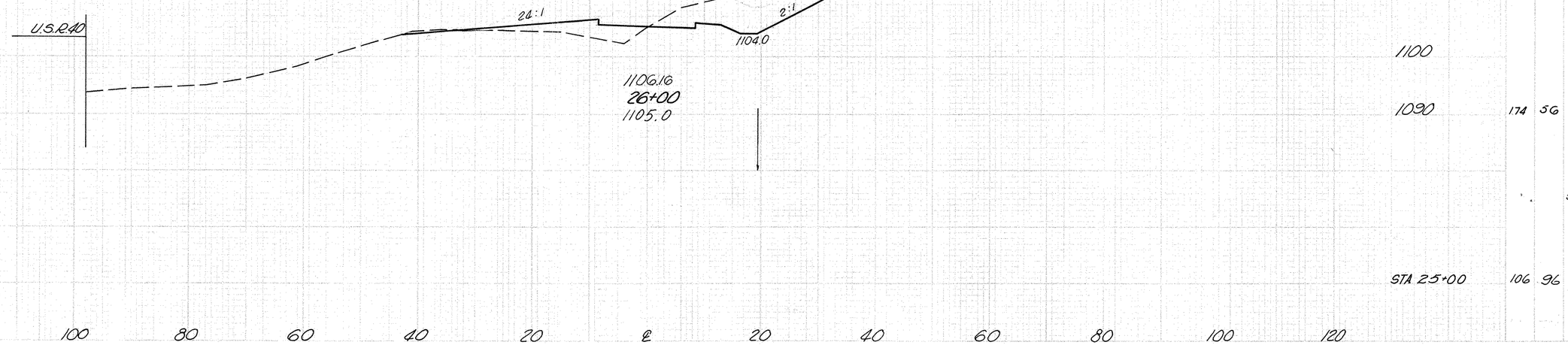
GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



C.H. 202 RELOC. STA. 24+00 TO STA. 25+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

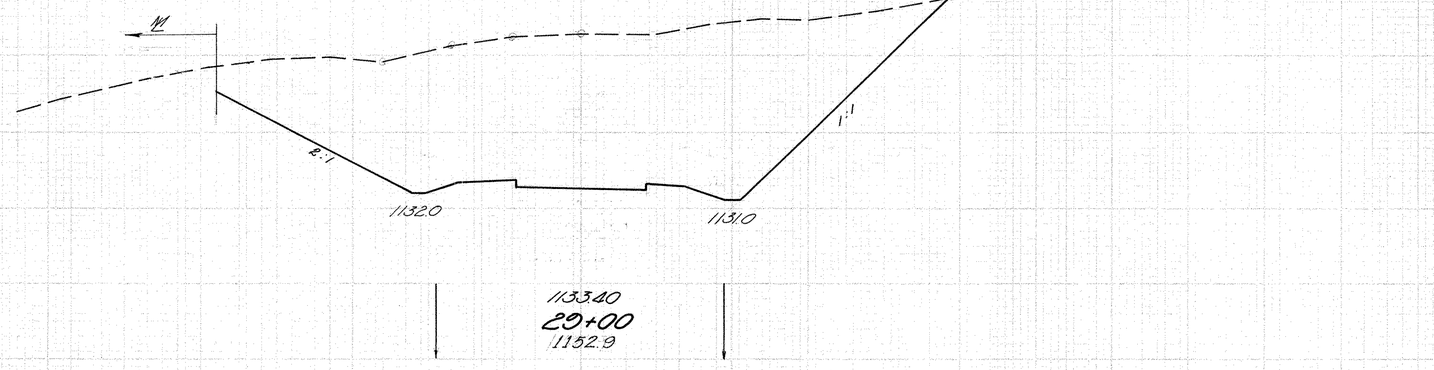


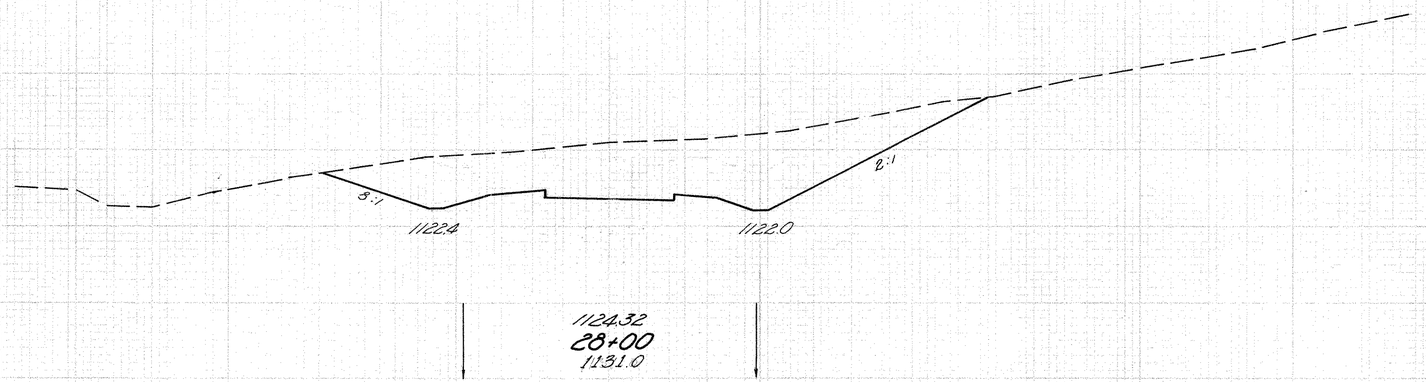


C.H. 202 RELOC. STA. 26+00 TO STA. 27+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

For Quantities Ahead
See ℄ X-Sections





STA. 30+50 STA. 30+50 3278 0

1160
1150
1140
1130
1140
1130
1120

STA. 27+00 STA. 27+00 100 67

120 100 80 60 40 20 ℄ 20 40 60 80 100 120

C.H. 202 RELOC. STA. 28+00 TO STA. 29+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

32.8
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

SEEDING
END WIDTH 39 YDS

80
867
76
883
83

End Work
Sta. 1+05

0+85

0+50

0+20

52+20
℄ Profile Drive Rt.
PVC STA. 0+25
Elev. 1176.01
1" / ft
8.60%
PVT STA. 0+30
Elev. 1173.98
PVT STA. 0+75
Elev. 1176.08

USR.40 | C.H. 202 Reloc.

1178.14
52+00
1184.8

1179.77
51+00
1210.1

1180.37
50+00
1214.5

Add for Res. Drive Rt

Res. Dr Rt. C.H. 202 Reloc.
Sta. 52+00

Sta. 49+00

52' x 15" Cl. F4 @ 19.15% @ 0+27

Rt. 15" ~ 1164.5
34' Lt. Sta. 0+41.50

20' Rt. Sta. 0+12.50
Rt. – 1176.0

151' Rt
NM

50' x 15" Cl F-4 @ 25%

4:1

15" x 15" Cl F-4 @ 2%

℄ 1178.76

℄ Rt. 1173.45

Std. HWE Endwall

For Quantities Back
see NM X-Section

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		865	181
555	6		
		6321	11
2858	0		
		11,774	
		11,565	
2745	0		
		3500	

C.H. 202 RELOC. STA. 50+00 TO STA. 52+00

SEEDING

LINE WIDTH	SIZE

SHEET NO.	STATE	PROJECT	
2	OHIO		

329
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

U.S.R.40 | C.H. 202 Reloc.

2:1
2:1
1170.5
2:1
2:1
1136.0
1173.90
53+50
1141.2

1180
1170
1160
1150
1140

9 3152

U.S.R.40 | C.H.202 Reloc.

2:1
1170.7
1175.49
53+00
1150.1
1150.5

1180
1170
1160
1150

13 4826
5 2060

U.S.R.40 | C.H.202 Reloc.

2:1
2:1
1170.9
2:1
2:1
1166.5
1176.94
52+50
1164.8

1180
1170
1160

10 2783
5 945
519 880

STA. 52+00 555 6

122
611
98
472
72
422
80

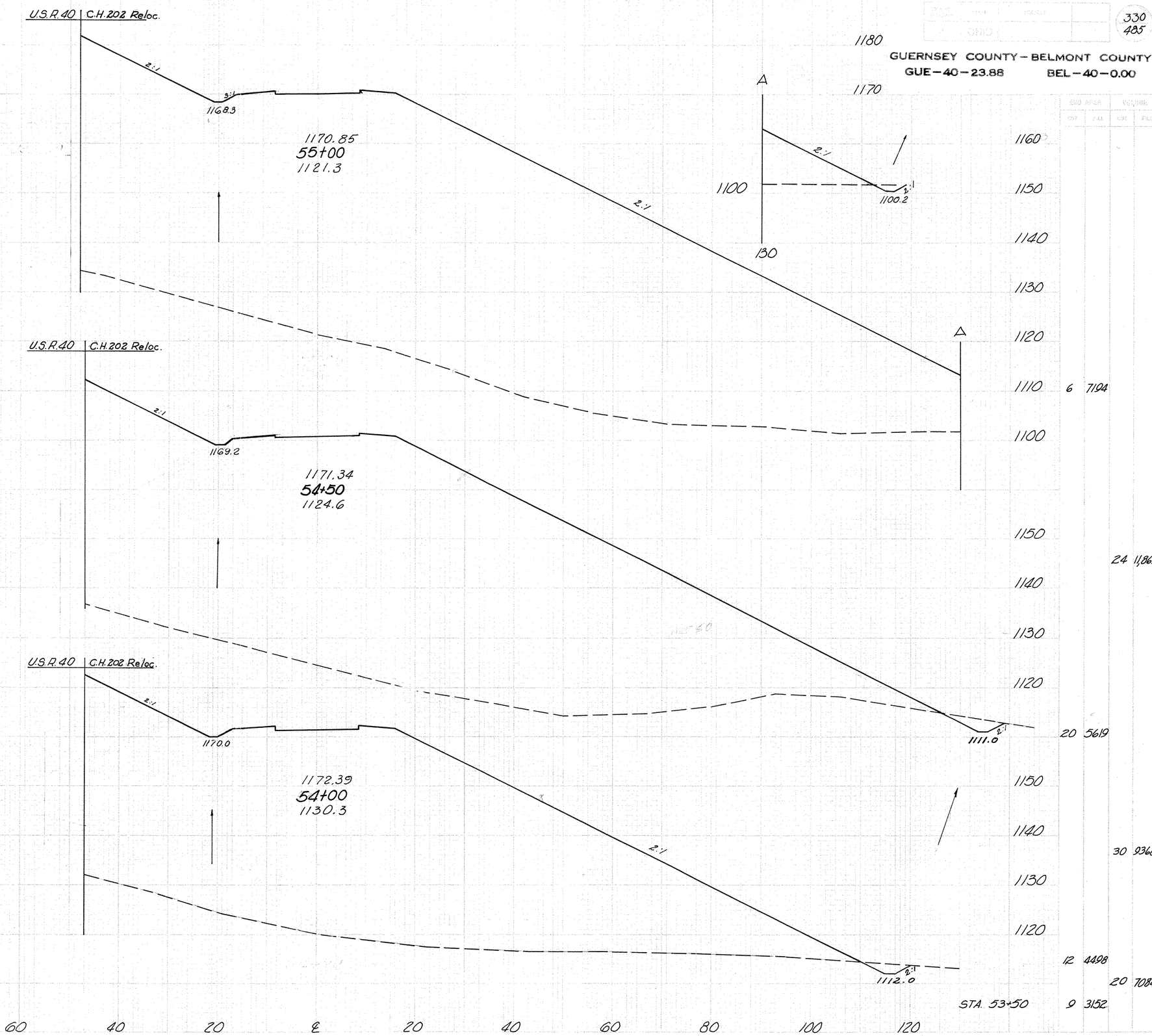
STA. 524+00.0

120 100 80 60 40 20 ℄ 20 40 60 80 100 120

C.H. 202 RELOC. STA. 52+50 TO STA. 53+50

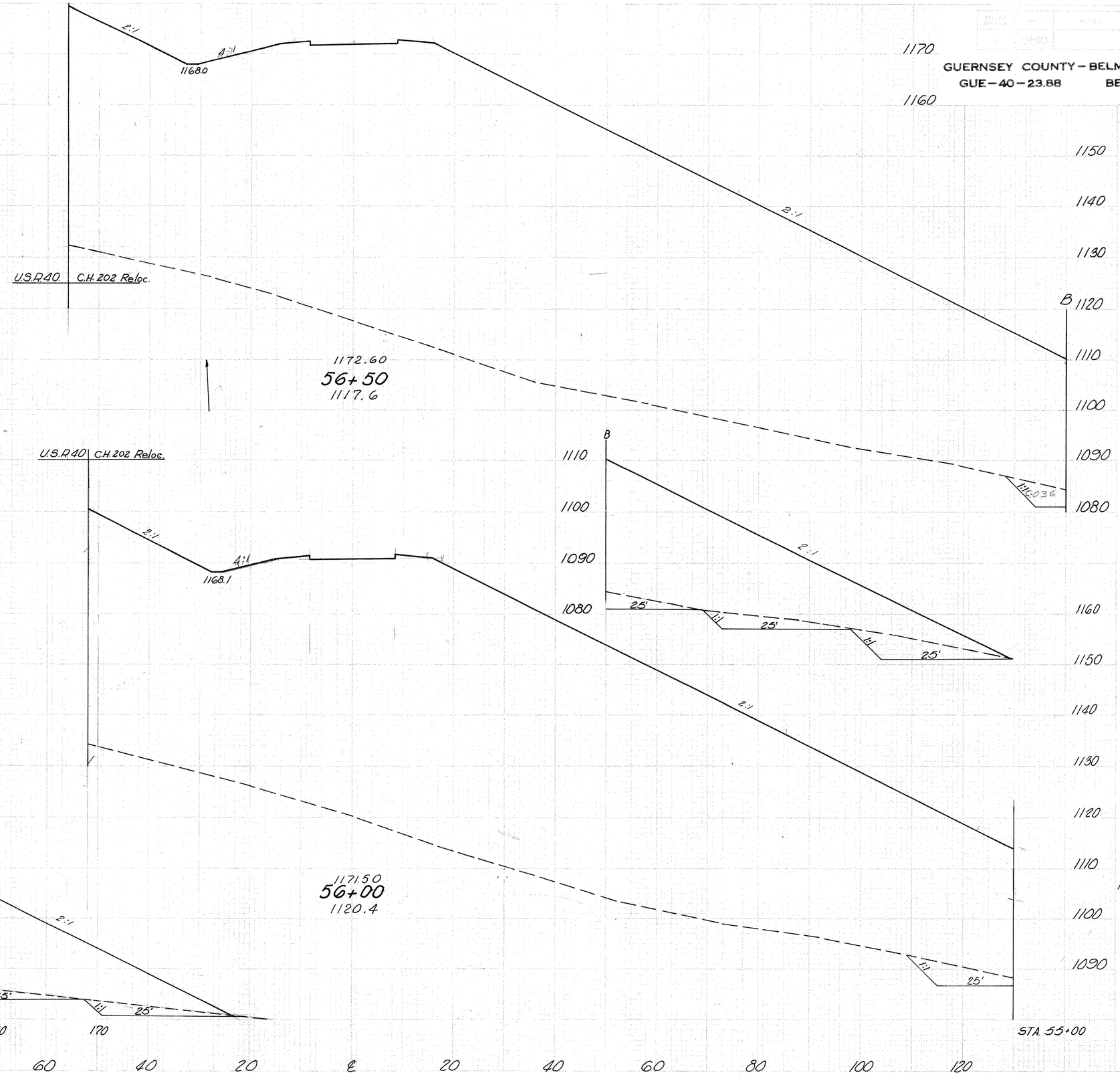
330
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



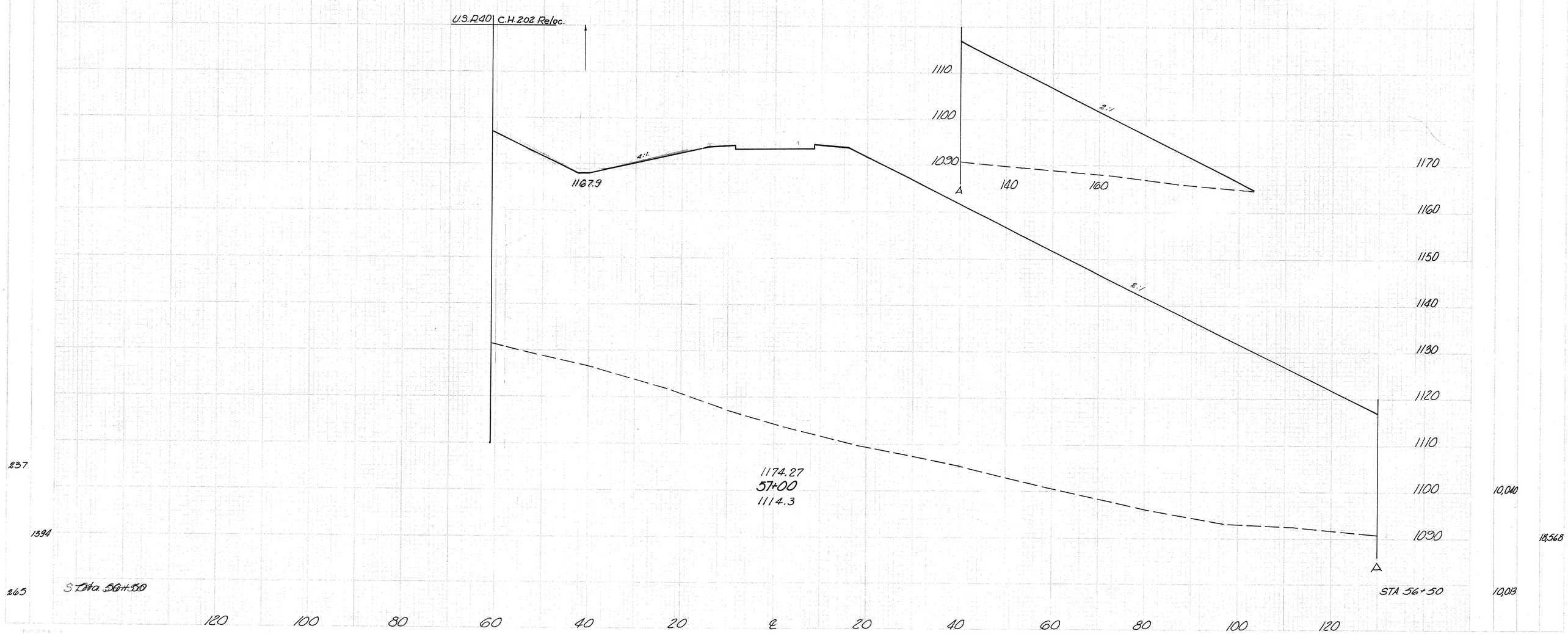
C.H. 202 RELOC. STA. 54+00 TO STA. 55+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



C.H. 202 RELOC. STA. 56+00 TO STA. 56+50

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



C.H. 202 RELOC. STA. 57+00

SEEDING

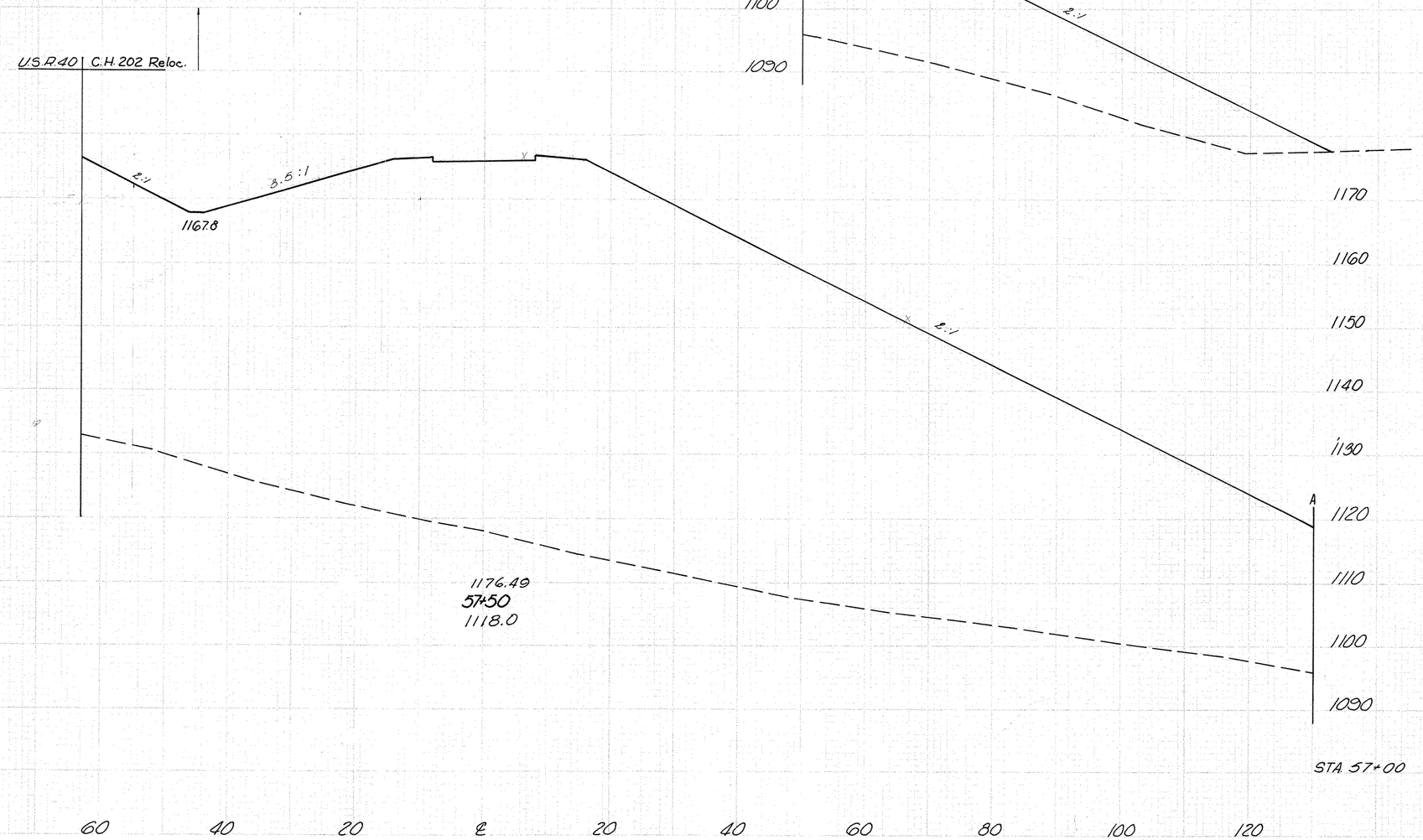
END WIDTH	CY YDS

END AREA		VOLUME	
CUT	FILL	CUT	FILL

STATE	PROJECT
OHIO	

333
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

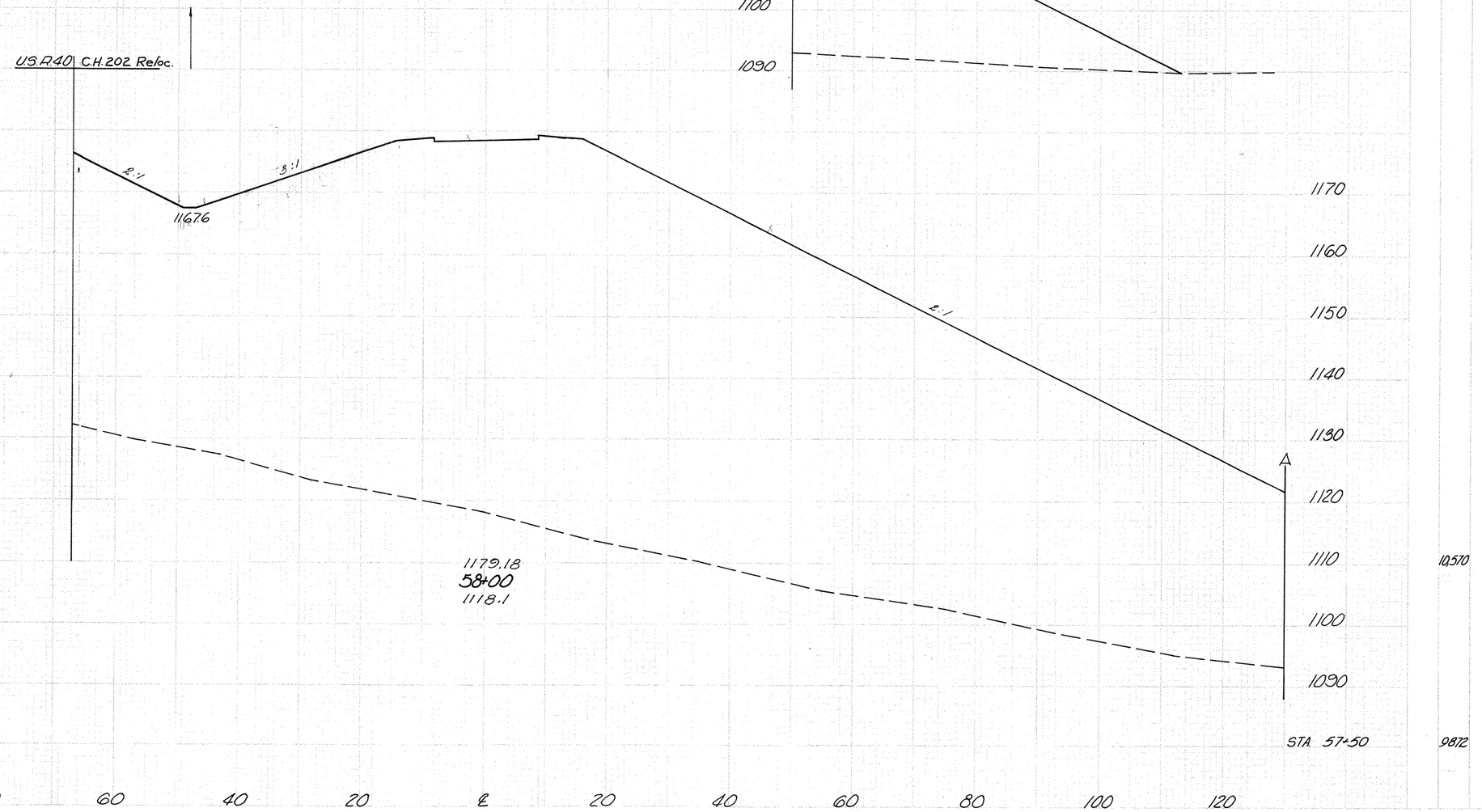


C.H. 202 RELOC. STA. 57+50

334
485

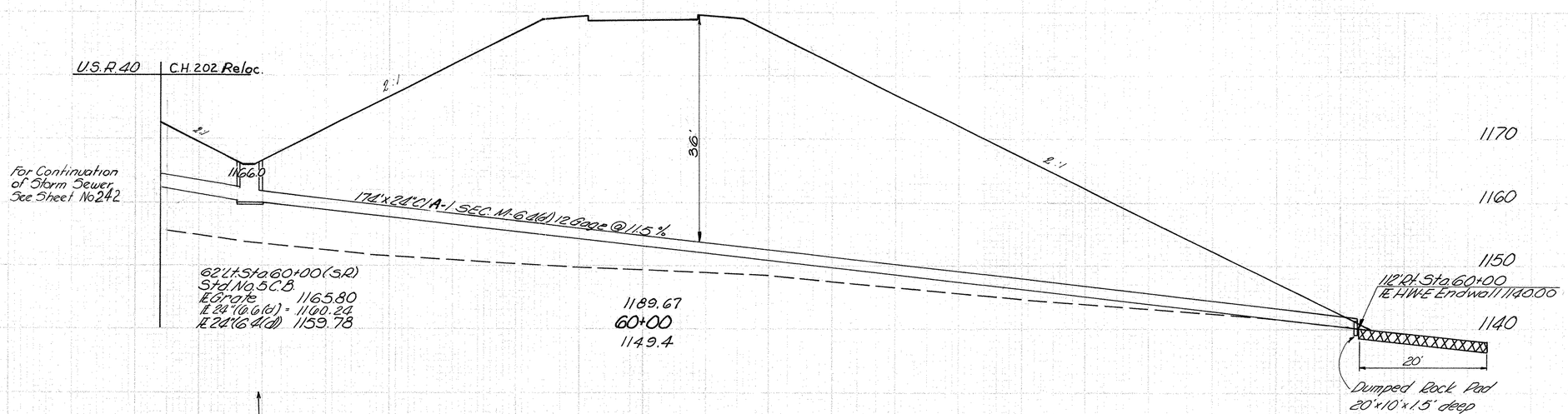
GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

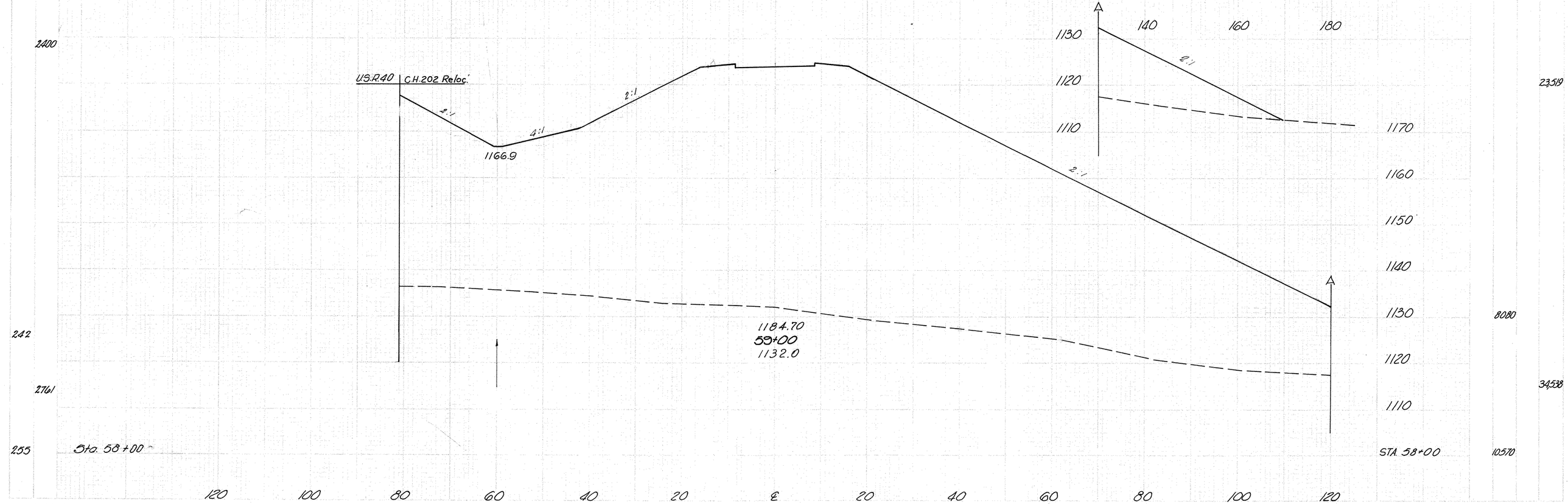
U.S. 40 C.H. 202 Reloc.



C.H. 202 RELOC. STA. 58+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

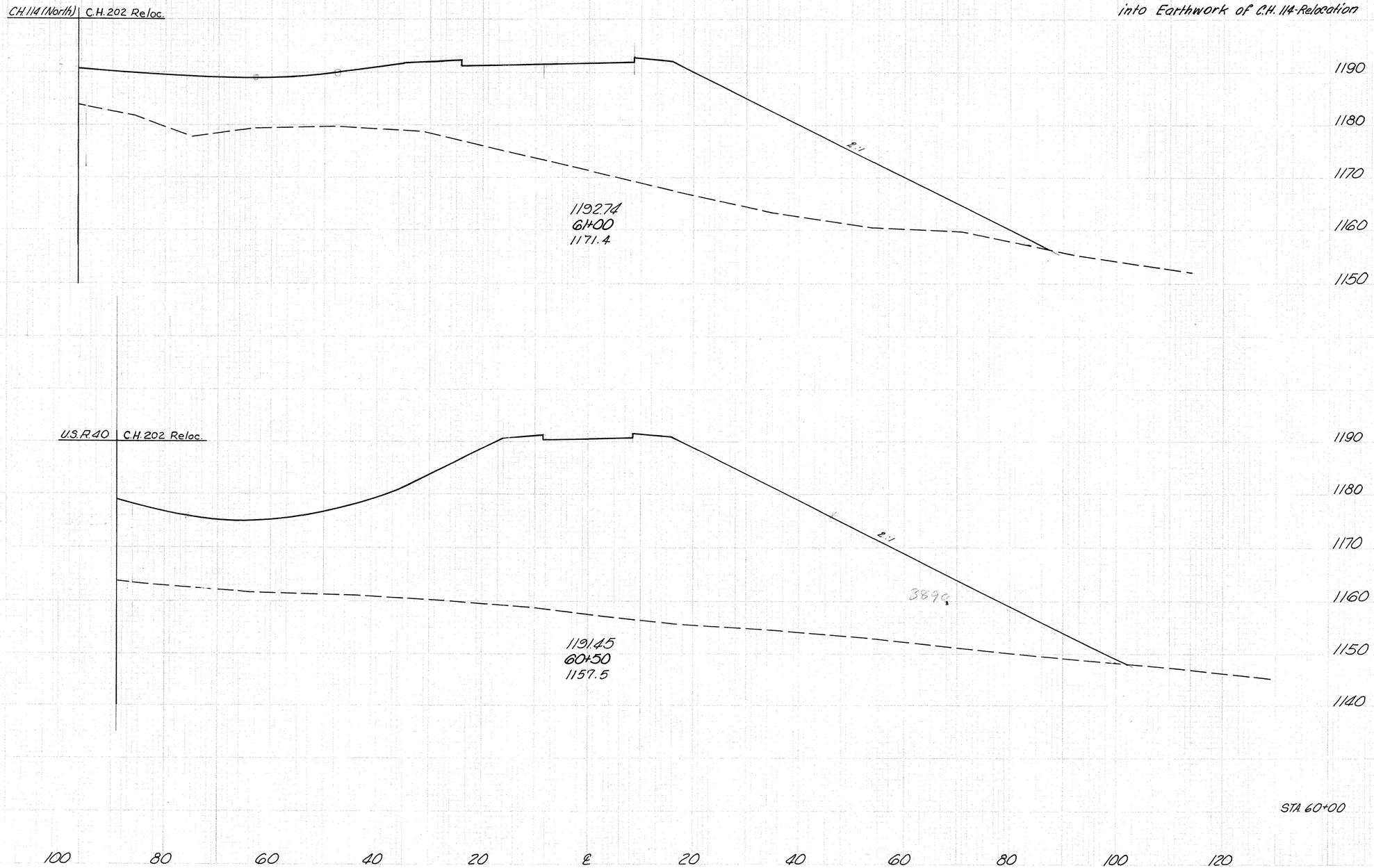




C.H. 202 RELOC. STA. 59+00 TO STA. 60+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

NOTE;
Earthwork between STA. 61+00
and STA. 61+41.51 included
into Earthwork of C.H. 114-Relocation



C.H. 202 RELOC. STA.60+50 TO STA.61+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE-40-23.88 BEL-40-0.00

337
485

P.K. IN 12" LOCUST — 11.30' — P.K. IN 3" ASH — 23.00' — 21.30' — P.O.T. — P.K. IN 10" LOCUST
REF. P.O.T. STA. 6+24.00

P.K. IN 8" WILD CHERRY — 24.00' — 29.31' — P.K. IN 6" LOCUST — P.C. — 38.29' — P.K. IN 6" LOCUST
REF. P.C. STA. 10+57.96

P.K. IN 10" LOCUST — 31.27' — P.K. IN 10" LOCUST — P.I. — 21.06' — P.K. IN 4" WILD CHERRY
REF. P.I. STA. 11+44.00

P.K. IN 4" LOCUST — 6.34' — P.T. — P.K. IN 5" LOCUST — 12.35' — 18.90' — P.K. IN 4" LOCUST
REF. P.T. STA. 12+14.20

P.K. IN 5" LOCUST — P.K. IN 4" LOCUST — 23.64' — 43.59' — P.K. IN 6" LOCUST — 32.22' — POT.
REF. P.O.T. STA. 12+32.13

CO. HWY. 202 — R/W — P.C.C. STA. 34+41.21 — P.T. STA. 12+14.20 — P.C. STA. 10+57.96

P.O.C. STA. 37+25.00 ℄ CO. HWY. 202 = P.O.T. STA. 12+32.13 ℄ CEMETERY RD.

N 14° 11' 21" E.

90° TO TANGENT.

CEMETERY ROAD END WORK STA. 12+24.13

BEGIN WORK STA. 6+25.00.

+50 END 25' TAPER BEGIN TYPICAL.

P.O.T. STA. 8+00 ℄ CEMETERY RD. = P.O.T. STA. 0+00 ℄ RES. DRIVE, RT.

N 73° 52' 01" E.

RELOCATION — CEMETERY ROAD RELOCATION — EXISTING CEMETERY ROAD (TO BE ABANDONED)

BEGIN T-35 & END B-19 TYPICAL

FIELD DRIVE TO BE ABANDONED

GRAVEL SURFACE

EXISTING CEMETERY ROAD

HEADSTONES

CEMETERY

SHED

GARAGE

SHED

END WORK STA. 0+77

- FOR TYPICAL SECTION OF RES. DR~ SEE MISC. DETAIL SHEET NO. 437.
- FOR PROFILE OF RES. DRIVE~ SEE SHEET NO. 338

▨ INDICATES PAVT. REMOVAL

- FOR TYPICAL SECTIONS OF CEMETERY RD. & CO. HWY. 202 RELOC. SEE SHEET NO. 8
- FOR PLAN OF CO. HWY. 202 RELOC.~ SEE SHEET NO. 44.
- FOR PROFILE OF CO. HWY. 202 RELOC.~ SEE SHEET NO. 45.

TYPICAL SECTION
EXISTING CEMETERY ROAD
14'
AGGREGATE SURFACE

CURVE DATA
P.I. = STA. 11+44.00
Δ = 59° 40' 40" LT.
D = 38° 11' 50"
R = 150.00'
L = 156.24'
T = 86.04'
E = 22.93'

BENCH MARK #16
CHISELED × ON CONC. @ C.B. (U.E. 1156/1)~193' LT. STA. 165+15 ~ ELEV. 1156.07

✡ INDICATES ELEVATION ARE 8'0" RT. OR LT. OF ℄

	RT. EDGE OF PAVT.	PROFILE GRADE	LT. EDGE OF PAVT.
6	CONFORM	1214.85	CONFORM
7	CONFORM	1216.60	CONFORM
8	1217.84	1218.57	1218.79
9	1218.32	1217.73	1216.43
10	1214.63	1210.52	1202.05
11	1202.09	1202.30	1199.99
12	1200.17	1200.24	1197.94
13	1198.26	1198.19	1195.89
	1196.35	1196.14	1194.03
	1194.33	1194.08	1191.77
	1192.27	1192.02	1189.72
	1190.22	1189.97	1187.85
	1188.35	1188.10	1186.97
	1187.37	1187.17	1186.24 / 1185.36

P.V.I. STA. 7+50
ELEV. ~ 1222.85
+8.00%
-8.22%
+1.64%
P.V.C. STA. 6+50
P.V.T. STA. 8+50
200' V.C.
60' V.C.
P.V.C. STA. 11+60
ELEV. ~ 1189.15
P.V.T. STA. 12+20
ELEV. ~ 1187.16
℄ CO. HWY. 202 RELOCATION
+32.13
P.V.I. STA. 11+90
ELEV. ~ 1186.68

1220 / 1210 / 1200 / 1190 / 1180

1205.9 — 1208.0 — 1210.6 — 1212.7 +25 — 1215.3 — 1220.3 — 1225.0 — 1228.0 — 1229.1 +41 — 1226.6 — 1222.4 — 1218.2 — 1214.7 — 1214.1 +72 — 1213.8 +86 — 1213.0 — 1212.2 +15 — 1211.0 — 1205.5 — 1201.89 +33

6 7 8 9 10 11 12 13

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE			
			B-19	E-8	I-1
			8" AGG. BASE COURSE	PAVT. REMOVAL AS PER PLAN SQ. YD.	PIPE CLASS C-1 12" LIN. FT.
1-DW	6+00	RT.	33		
1-55	11+88	RT&LT		66	
1-R	11+50	RT.		107	
			33	107	66

CEMETERY ROAD RELOCATION STA. 6+25.00 TO STA. 12+32.13

SHEET NO.	TOTAL SHEETS
2	OHIO

330
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA		VOLUMES	
CUT	FILL	CUT	FILL
1877	0		
		4119	0
		670	
		347	0
		483	0
0	0		

68

739

65

271

0

STA. 6+25

1240
1220
1200
1220
1200
1200
1210
1190

2:1 +10% PROFILE GRADE RES. DR. P.T. STA. 8+00

1217.73
8+00
1228.0

0+77
END WORK
RES. DR. ℄
2:1 2:1 1220
1222.00
0+60
1225.4

Add For Drive Sta. 8+00 R.t.

2:1 3:1

1217.84
7+00
1220.3

BEGIN WORK
STA. 6+25

℄
2:1 2:1
20 20
1218.50
0+25
1227.2

STA. 6+50 Begin Typical Section

Sta. 6+25

6+00
1210.6

Sta. 6+25 Begin Work

5+00
1205.9

120 100 80 60 40 20 ℄ 20 40 60 80 100 120

RELOC. CEMETERY RD. STA. 5+00 TO STA. 8+00

FED. HWY. DIVISION	STATE	COUNTY		339 485
2	OHIO			

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00

END WORK
12+24.13

C.H. 202 RELOC.

3:1

3:1

66'x12" CL C-1 @ 0.2%

C.H. 202 RELOC.

STA. 11+88
LT & RT.
FL. 12" CL F-4
1177.40

FOR QUANTITIES OF CEMETERY RD. RELOC.
AHEAD SEE X-SECTIONS C.H. 202 RELOC.

1187.17
12+00
1205.5

2:1

2:1

1194.08
11+00
1213.0

2:1

2:1

1202.30
10+00
1218.2

2:1

2:1

1210.52
9+00
1226.6

STA. 8+00

SEEDING END WIDTH	SEEDING SQ. YDS.		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		1200	1332	0		
		1190				
		1180				
					5248	0
50		1220				
			1502	0		
80		1200				
					5354	0
94		1230				
	1044		1389	0		
		1210				
					4960	0
94		1240				
	1022					
		1220	1289	0		
					5863	0
90		1200				
	878		1877	0		
68						

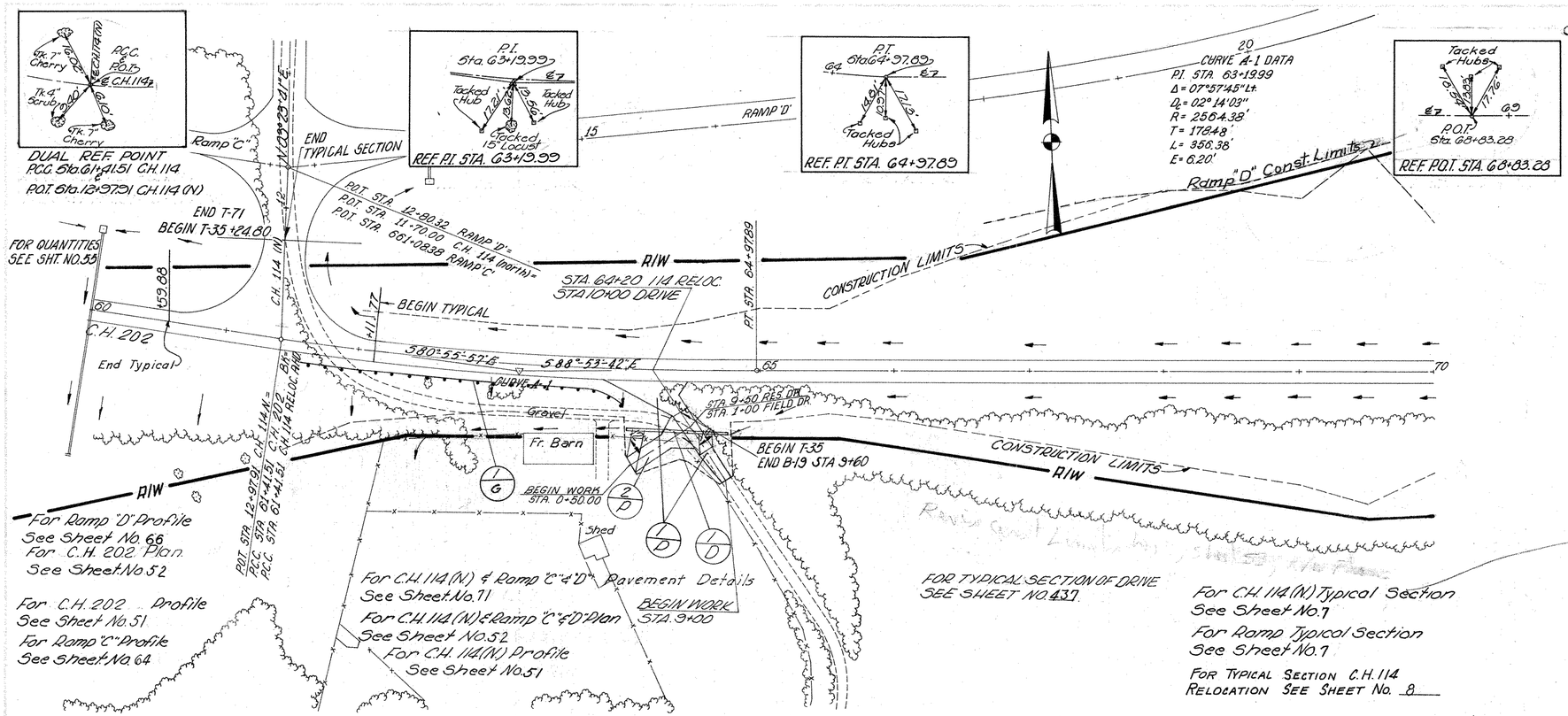
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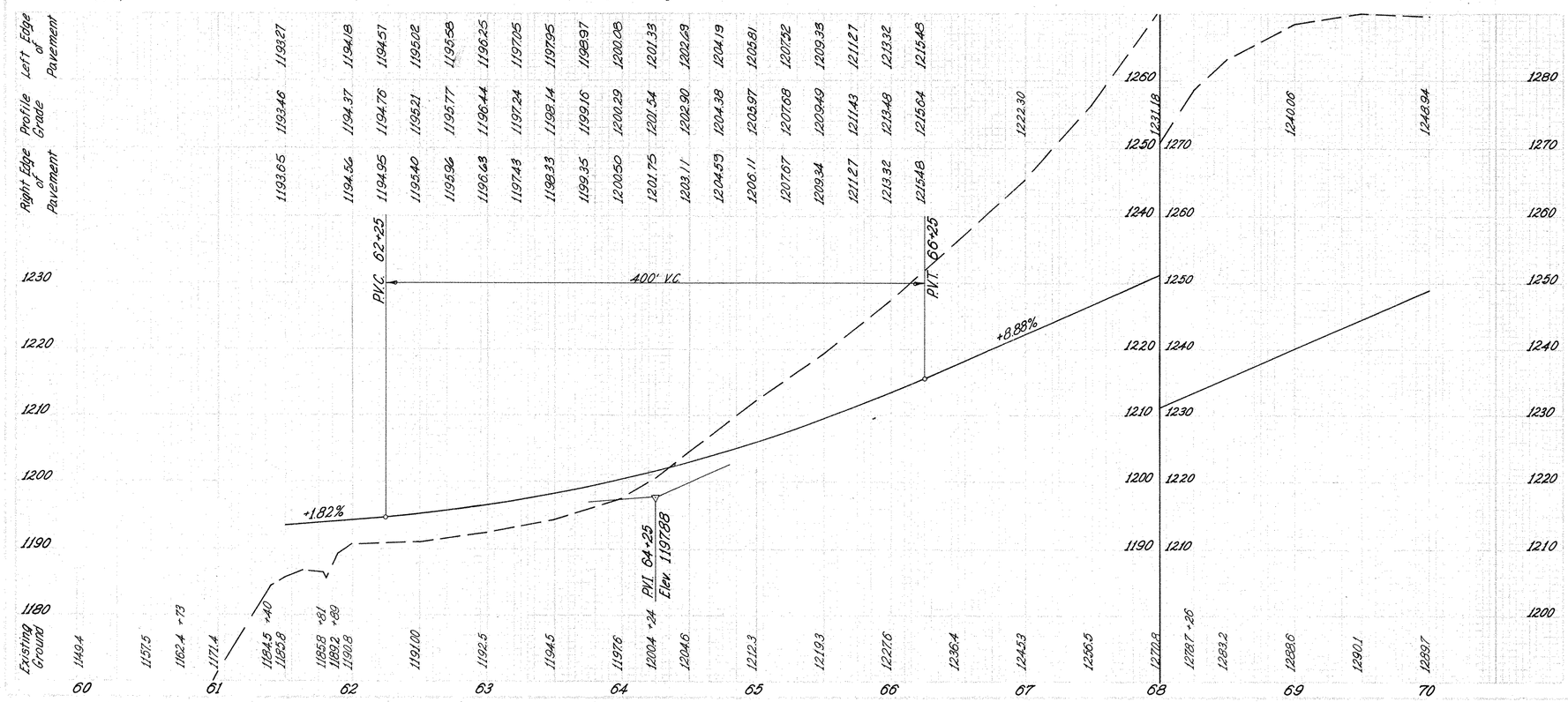
RELOC. CEMETERY RD. STA. 9+00 TO STA. 12+00

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00

340
485





ESTIMATED QUANTITIES

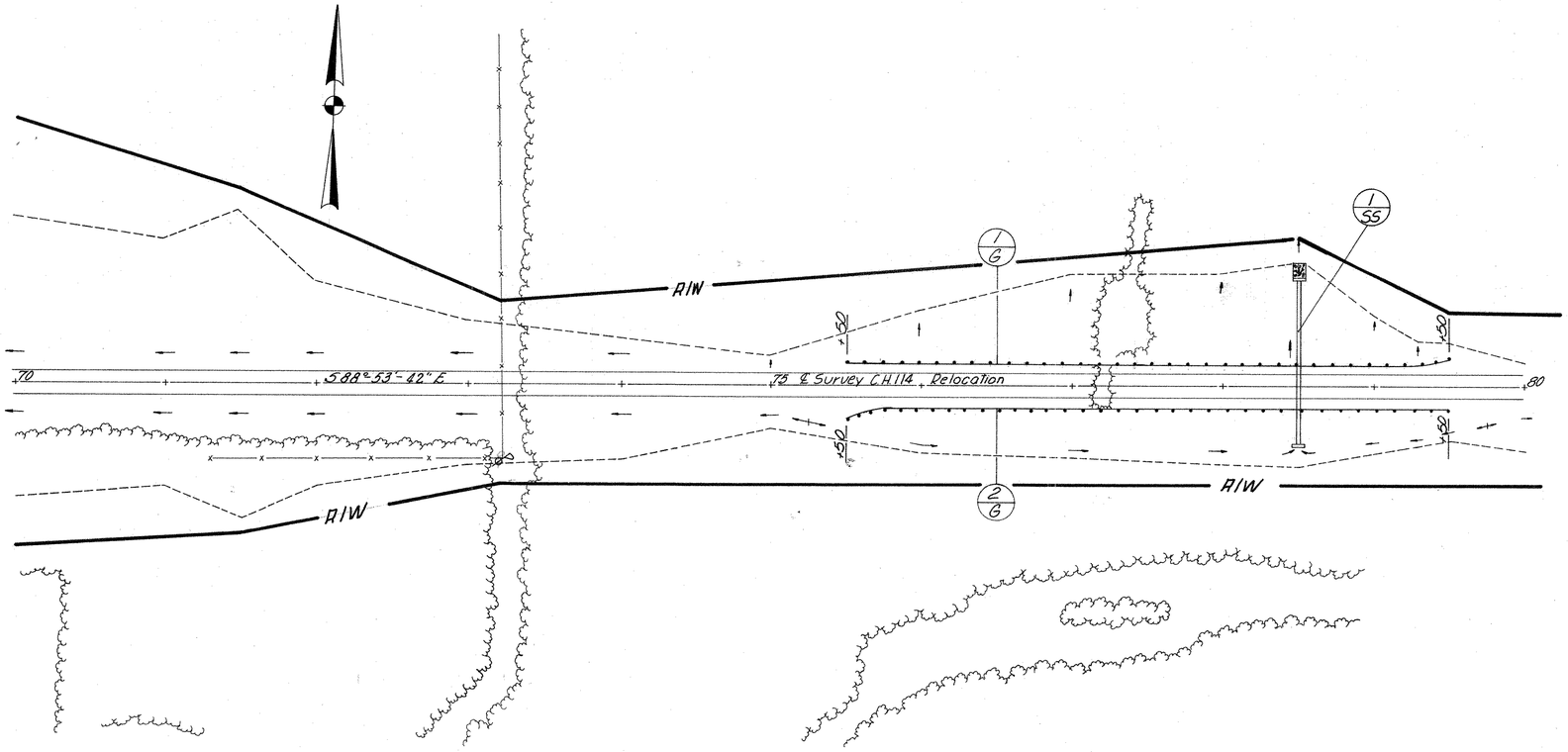
ITEM	EXT	8-19	8-19	8-19	T-71
	T-35	ASPHALTIC CONCRETE BASE	ASPH. CONCRETE BASE	ASPH. CONCRETE BASE	C.H. 114
B/T PRIME COAT	T-35	BITUMINOUS MATERIAL (TYPE 2)	BITUMINOUS MATERIAL (TYPE 2)	BITUMINOUS MATERIAL (TYPE 2)	15" COURSE
GALS.		2.7 TYPE 2	5" COURSE	6" COURSE	
		LIN. FT. CURVES	CURVES	CURVES	CURVES
		2.7	5	6	25 LF
1-P	60+20		53		
2-P	64+00				
1-D	64+00 ~ 64+76	P.T.		P.T.	76'
1-G	61+50 ~ 64+00	P.T.		P.T.	250
Subtotals		53	7	19	1.7
		19	17	17	76
		53	250	17	76

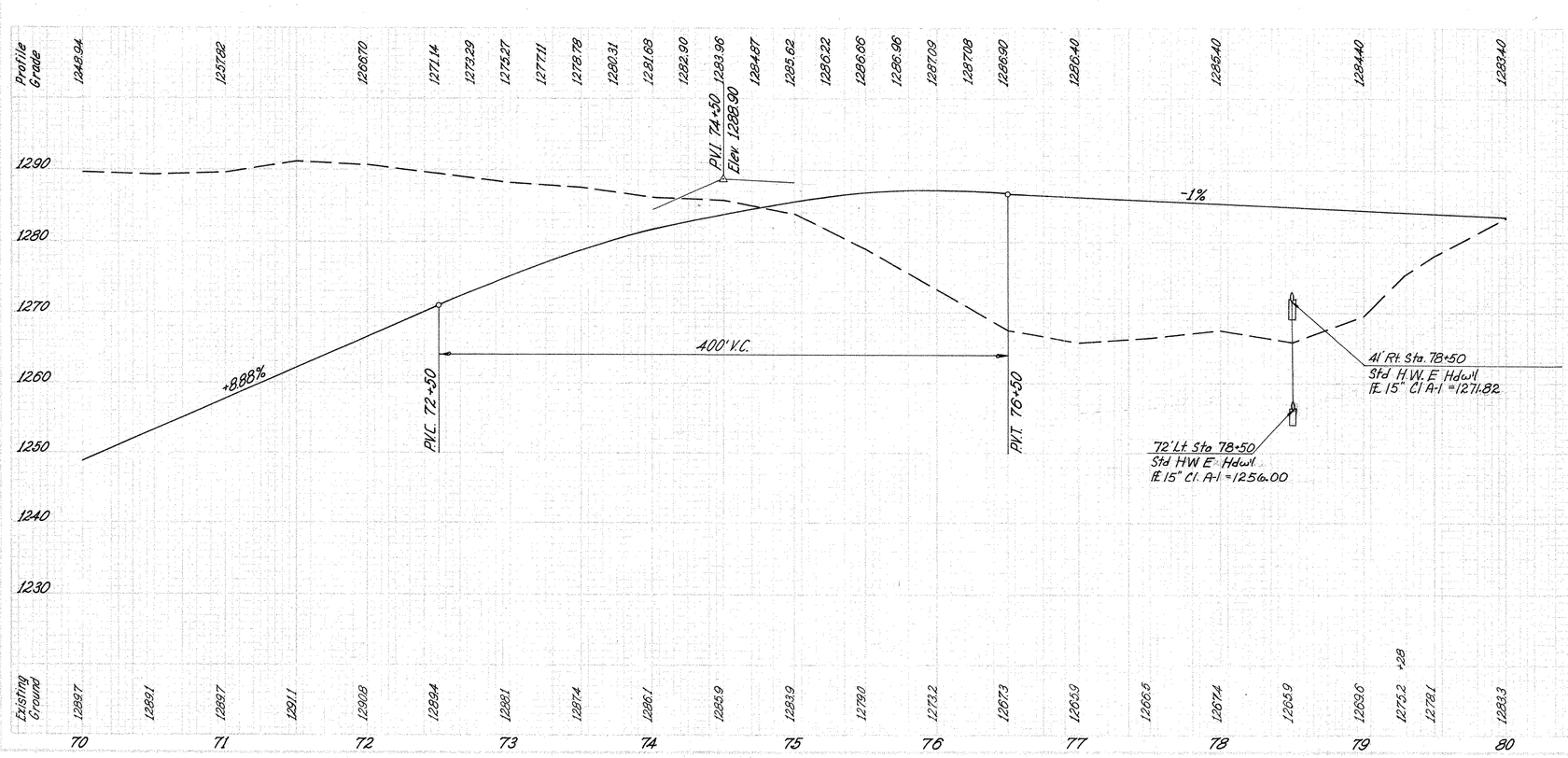
C.H. 114 Relocation Sta. 61+41.51 to Sta. 70+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

INDEX DIVISION	SHEET	PROJECT	
2	29+10		

341
485





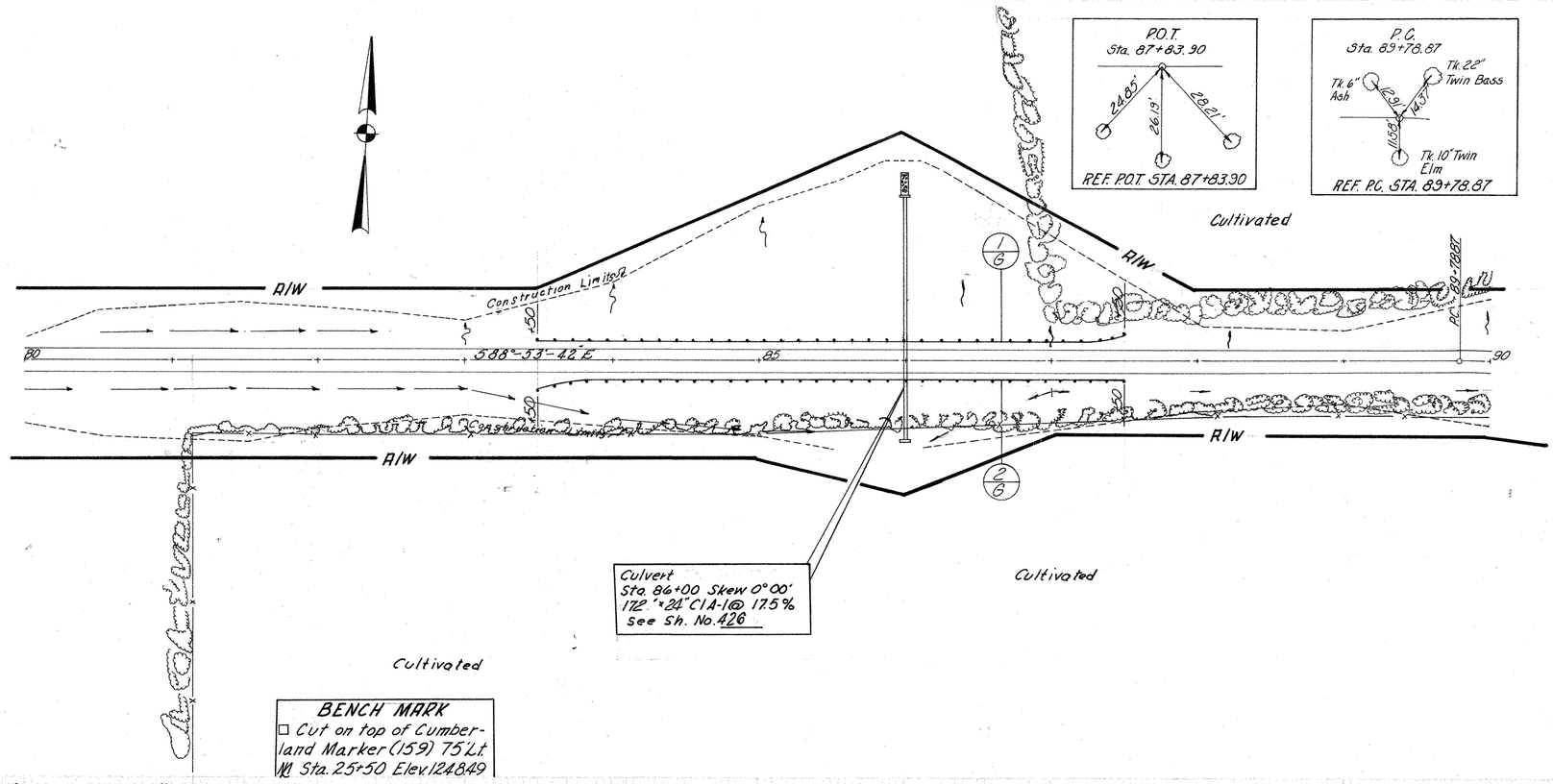
ESTIMATED QUANTITIES

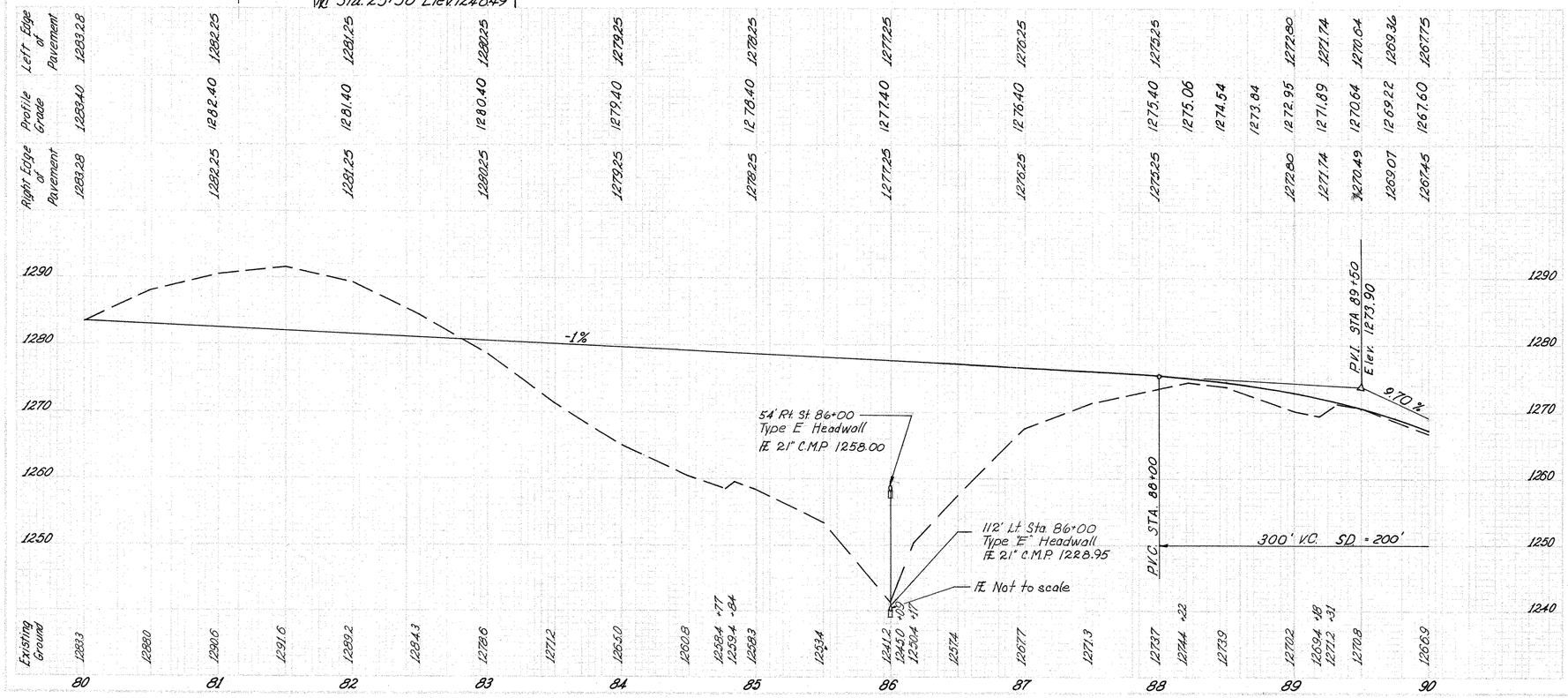
SEQ	STATION TO STATION	SIDE	ITEM	DESCRIPTION	UNIT	TOTAL
155	78+30	LT&RT	832	MISCMPT F-1 CL. A-1 M6.6(C) 15"	LF	117
18	75+50 ~ 79+50	LT	832	MISCMPT I-15 GUARD RAIL STD. TYPE DEP	LF	400
28	75+50 ~ 79+50	RT	832	MISCMPT I-15 GUARD RAIL STD. TYPE DEP	LF	400
			832	MISCMPT I-10 CONCRETE	SY	4
			832	MISCMPT I-10 DUMPED ROCK CHANNEL PROT.	CY	2

C.H. 114 Relocation Sta. 70+00 to Sta. 80+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

342
485



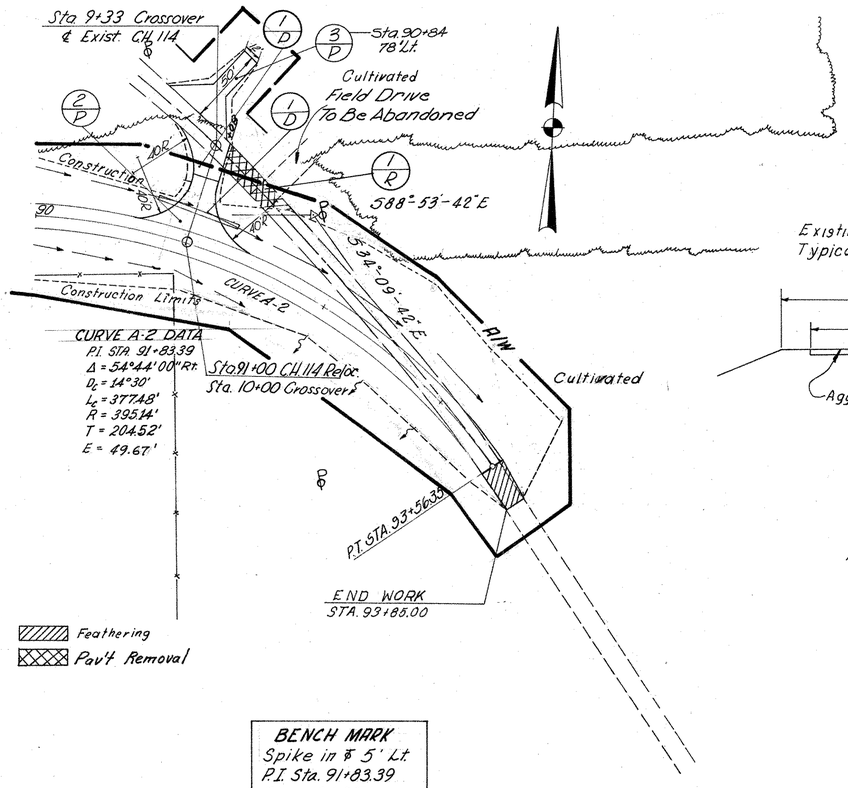


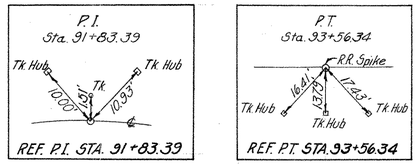
ESTIMATED QUANTITIES

ITEM	EXT.	DESCRIPTION
203 10	L.F.	1.15 GUARD RAIL SD TYPE DEEP
203 10	400	
203 10	400	
18	83+50–87+50	
28	83+50–87+50	
		800

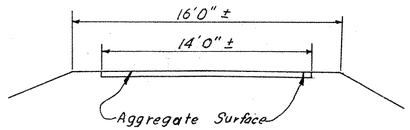
REF. NO. | STATION TO STATION | SIDE

C.H. 114 Relocation Sta. 80+00 to Sta. 90+00



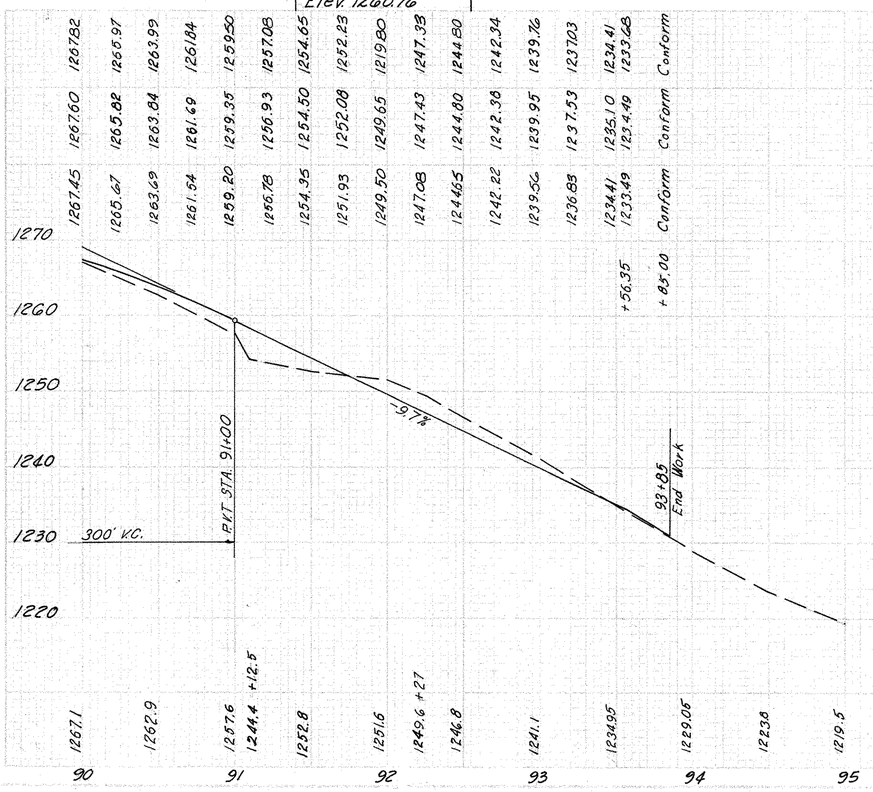


Existing C.H. 114
Typical Section



Note: Composition of Pavt for x-over at Sta 91+00 same as for C.H. 114 Reloc.

BENCH MARK
Spike in ℄ 5' Lt.
P.I. Sta. 91+83.39
Elev. 1260.76



ESTIMATED QUANTITIES

*(85-100)

STATION TO STATION			T-35 ASPHALTIC CONCRETE SURFACE COURSE 1½" TYPE C" CU.YDS.	T-35 *8.35 ASPHALTIC CONCRETE LEVELING COURSE C.Y.	T-20 BITUMINOUS PRIME COAT GALS	8.19 AGG BASE COURSE 6" CU.YD	E-8 REMOVAL OF EXIST. PAVT. 15" ASPHALT CU.YD	E-1 CI.54 15" LF
10	90+75 ~ 91+30	Lt.		5	6	52	19	54
1D	91+00	Lt.					10	
2D	90+00	Lt.					29	
3D	90+84	Lt.					19	
1Q	91+08 ~ 91+54	Lt.					60	
	Subtotal			5	6	52	137	54
							58	
							60	
							-	
							54	

CH. 114 Relocation Sta. 90+00 to Sta. 93+85

SEEDING

END WIDTH	SQ. YDS.

PUB. NO.	STATE	PROJECT	
2	OHIO		

344
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREAS		VOLUMES	
CUT	FILL	CUT	FILL
187	492		
289	1291		
125	902		
18	170		
0	245		

C.H. 114 NORTH | C.H. 114. Relocation

1191.3

1194.37
62+00
1190.8

2:1
1:1
25'

To C.H. 114 (North) ditch.

C.H. 114 (North) | C.H. 114 Relocation & C.H. 202 Reloc.

1193.59
61+50
1185.8

2:1
1:1
25'

1190
1180
1170
1160
1150
1180
1170
1160

116
694
134

120 100 80 60 40 20 ℄ 20 40 60 80 100 120

STA. 61+42

C.H. 114 RELOCATION STA. 61+50 TO STA. 62+00

SEED/MU

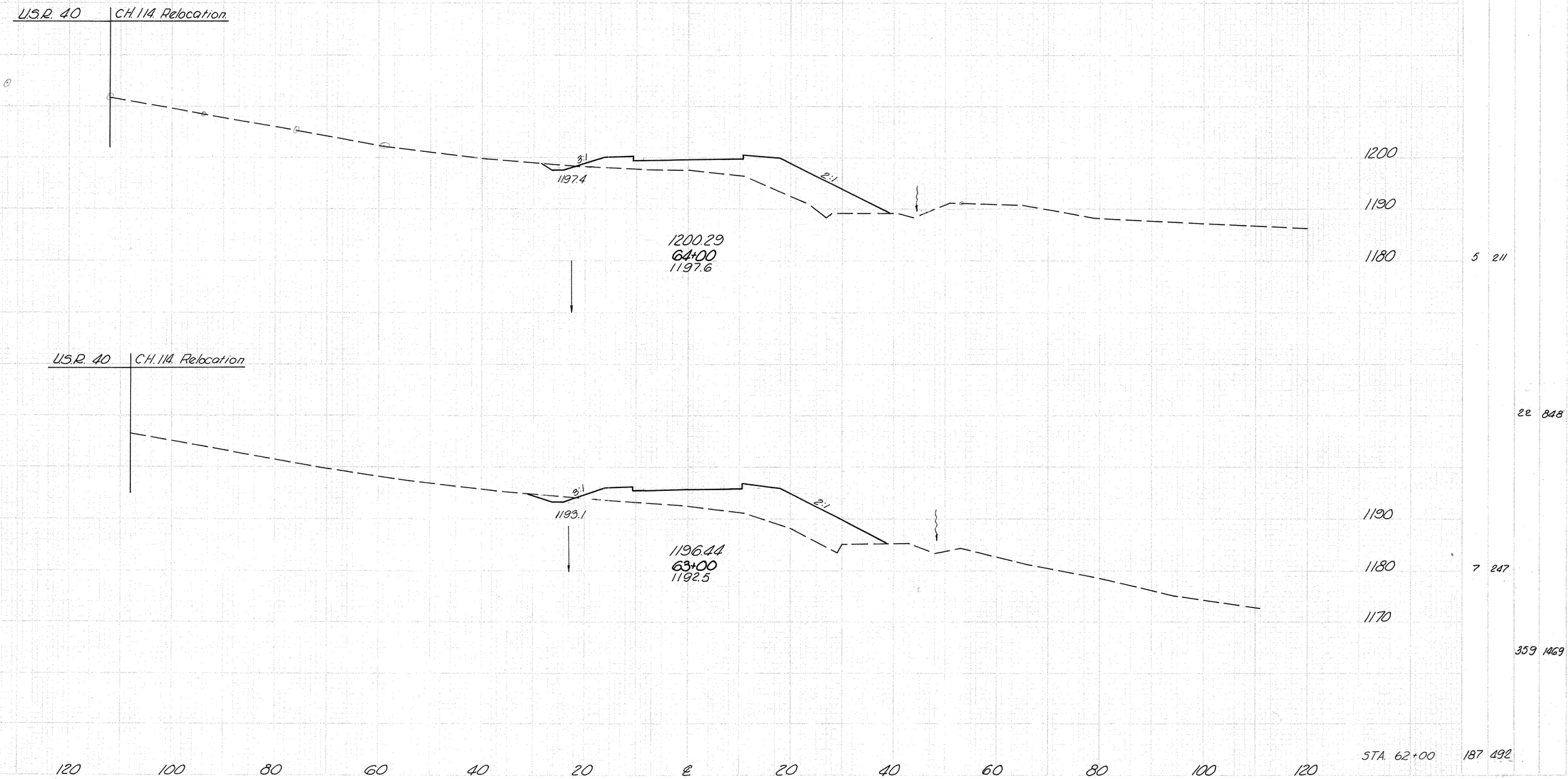
PAID SHEETS	NO. TYPE

SHEET NO.	STATE	PROJECT	
2	OHIO		

345
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



C.H. 114 RELOCATION STA. 63+00 TO STA. 64+00

SEEDING

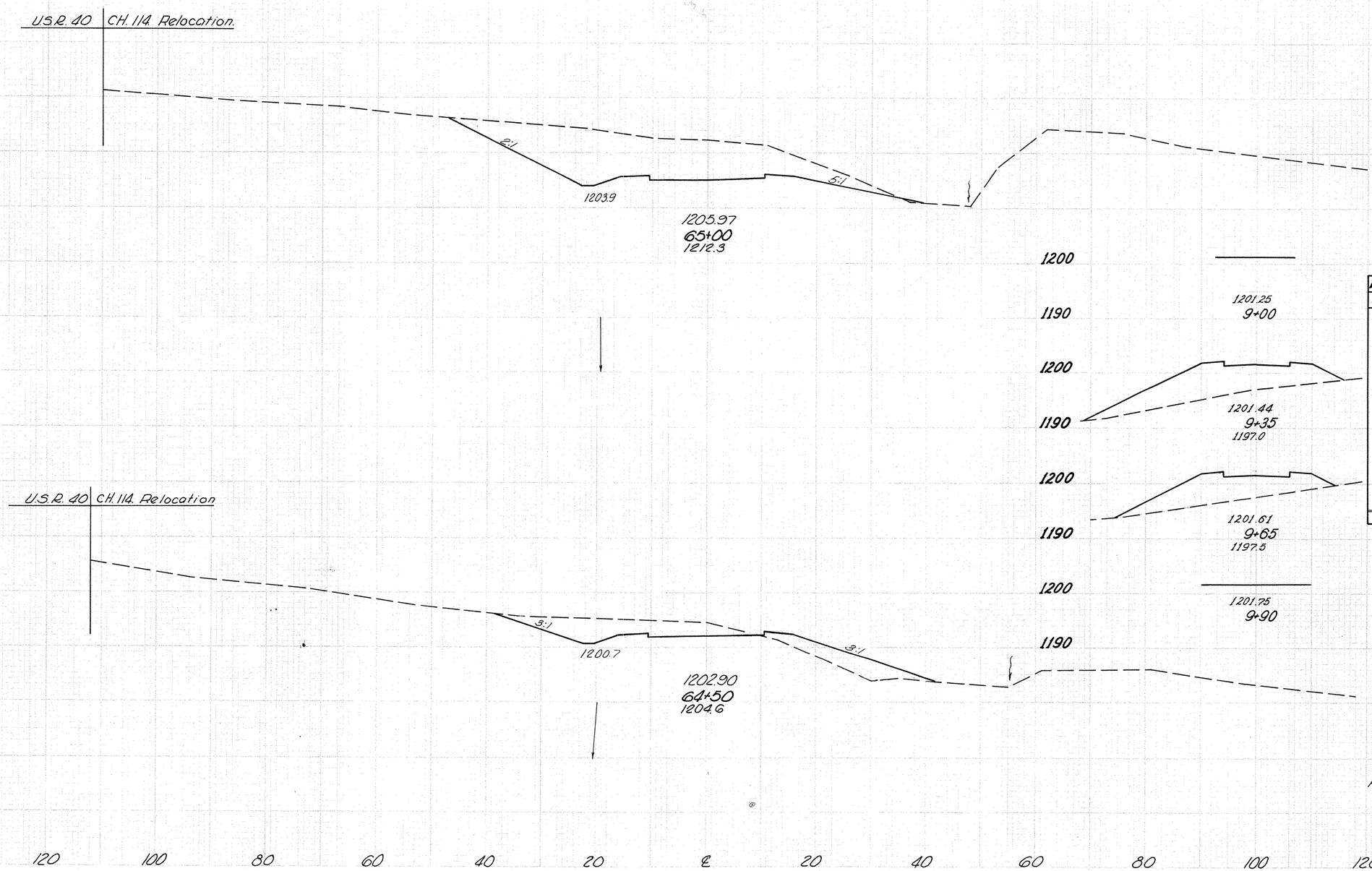
ENG. PROJ.	EST.

SEC. NO.	SHEET	PROJECT	
2	GRID		

346
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

U.S.R. 40 | CH. 114 Relocation



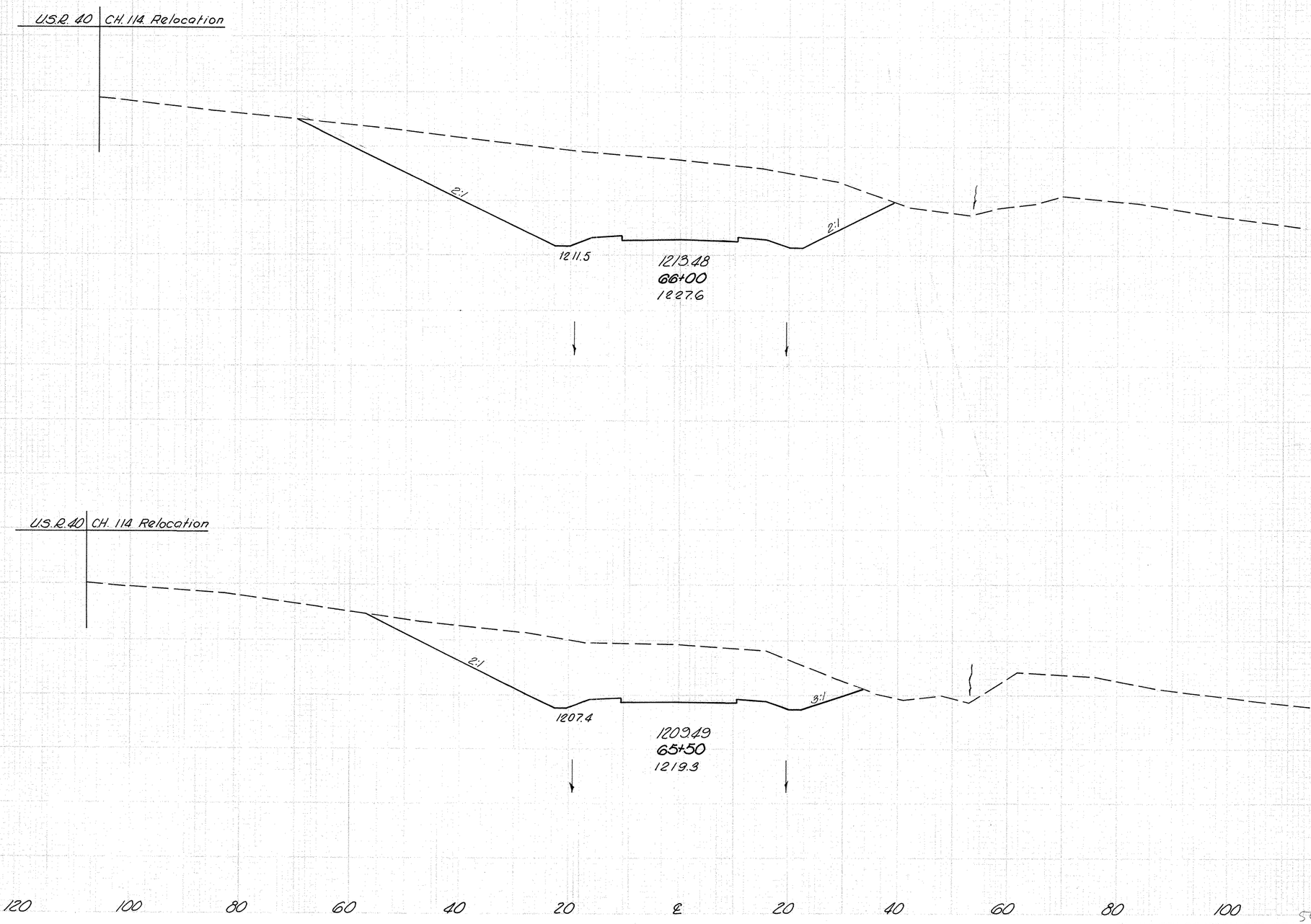
END AREA		VOLUME	
Cut	Fill	Cut	Fill
0	0		
		0	124
0	192		
		0	214
0	192		
		0	124
0	0		
0	384	0	462

Add for Drive At. 64+50

445 1
478 64
116 68
112 259
462
5 211
STA 64+00

C.H. 114 RELOCATION STA. 64+50 TO STA. 65+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



C.H. 114 RELOCATION STA. 65+00 TO STA. 66+00

FED. ROAD DIVISION	STATE	PROJECT		348 485
2	OHIO			

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		1270			
		1260			
		1250			
		1240			
				6521	
214		123562			
		68+50			
		12832			
		1270			
		1260			11225
869		1250			
		1240			
		1231.18			
199		68+00		5601	
		1270.8			
1983		1240			15315
		1230			
		1220		2669	7202
158	541	122230			
123		67+00			
		12453			
		STA 66+00		1220	

Sta 66+00 140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120

C.H. 114. RELOCATION STA. 67+00 TO STA. 68+50

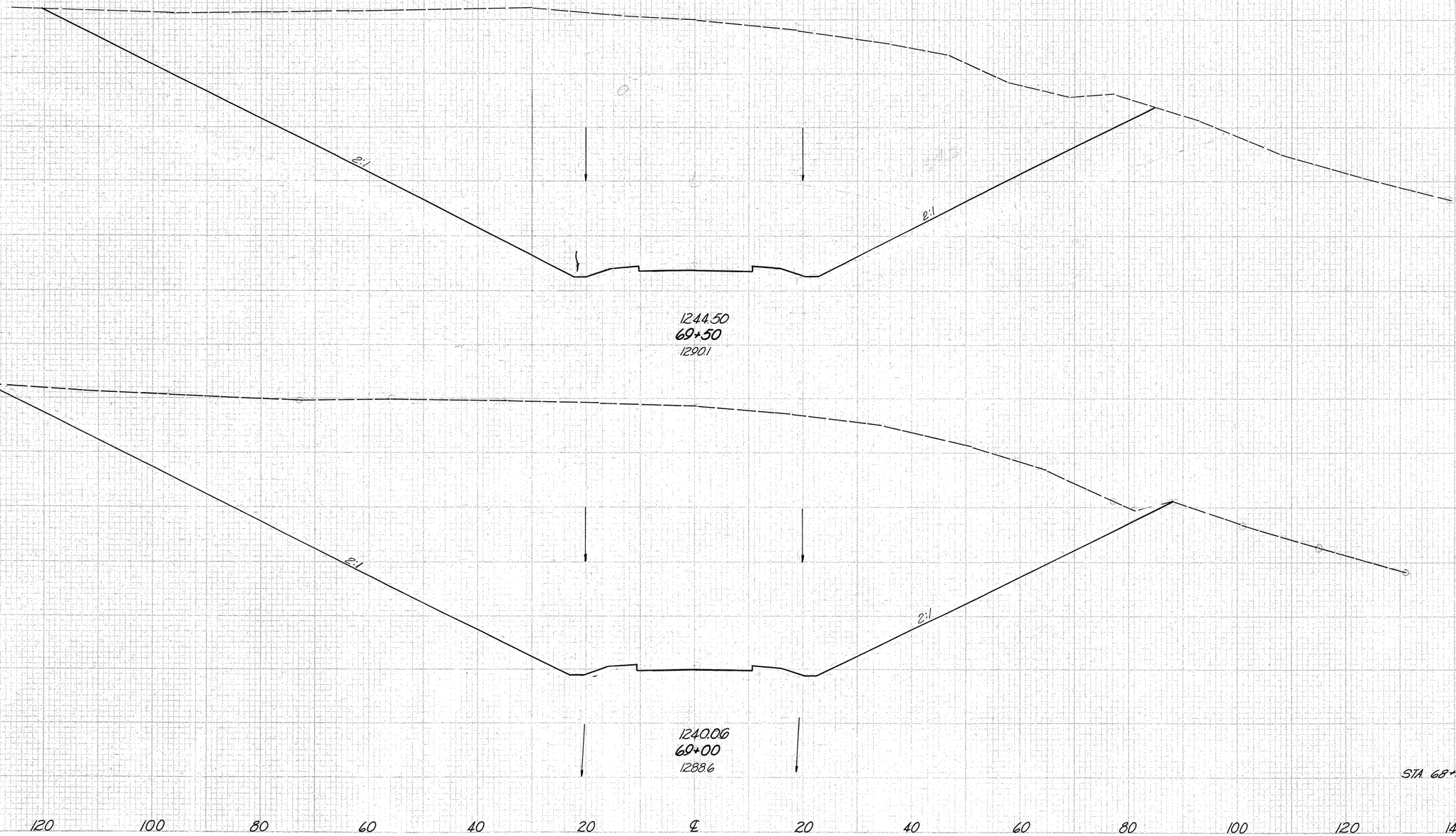
SEEDING	
END WIDTH	SQ YDS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

349
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



2662
1430
2531297
214 Sta. 68+50

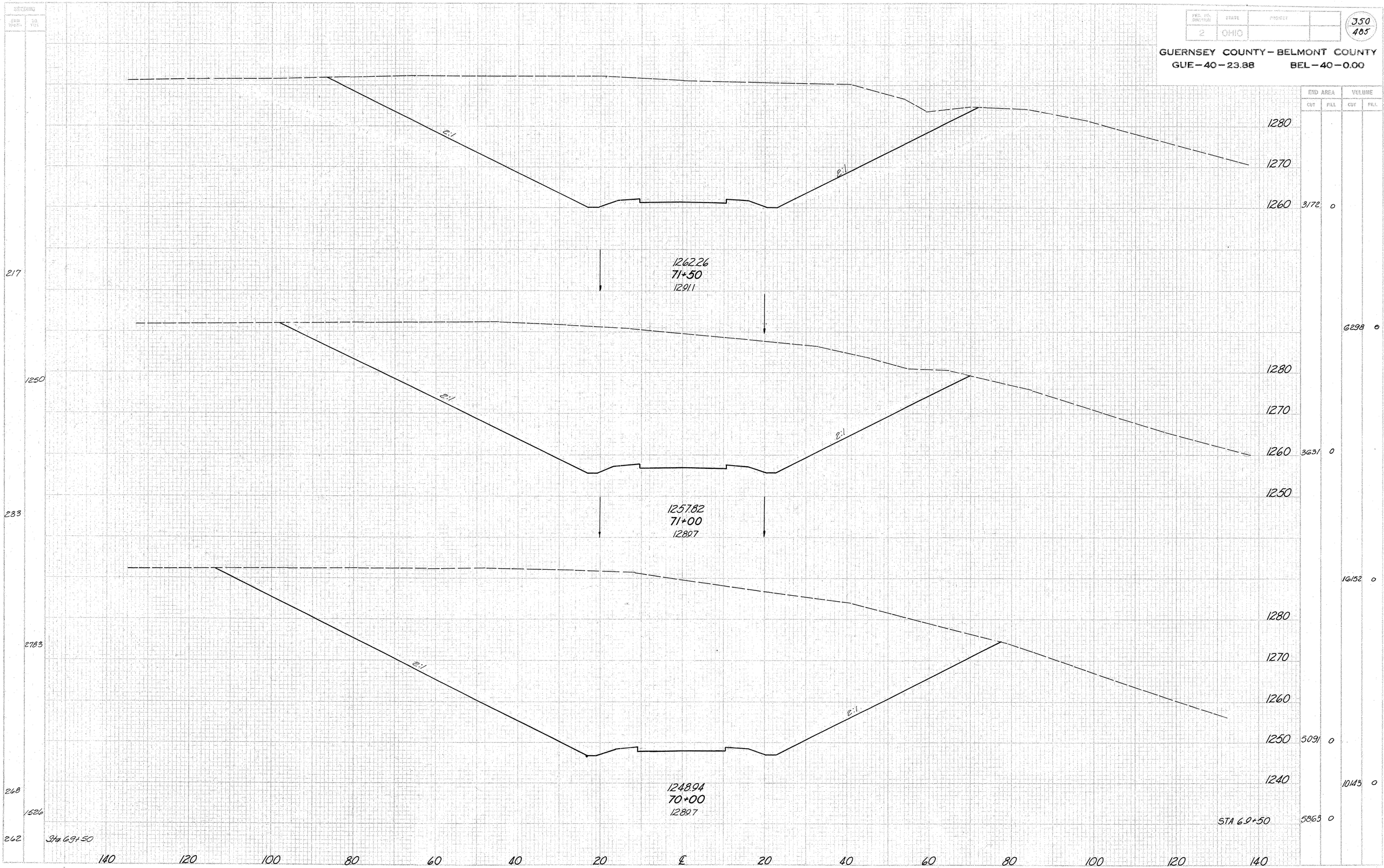
5863
11377
6424
11987
STA. 68+50 6521

C.H.114 RELOCATION STA. 69+00 TO STA. 69+50

FED. HIS. DIVISION	STATE	PROJECT		350 485
2	OHIO			

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00



C.H. 114 RELOCATION STA. 70+00 TO STA. 71+50

SEEDING

CHS POINTS	SQ. YDS.
112	
1200	
109	
1211	
114	
822	
182	
1108	
217	

FED. ROAD DIVISION	STATE	PROJECT		3511 485
2	OHIO			

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00



END AREA		VOLUME	
CUT	FILL	CUT	FILL
14	60		
		743	111
387			
		2619	
		1022	
		6356	
		2410	
		5169	
STA. 71+50		3172	

C.H. 114 RELOCATION STA. 72+00 TO STA. 75+00

| SECTIONS | | |

FED. HY. DIVISION	STATE	PROJECT	
2	OHIO		

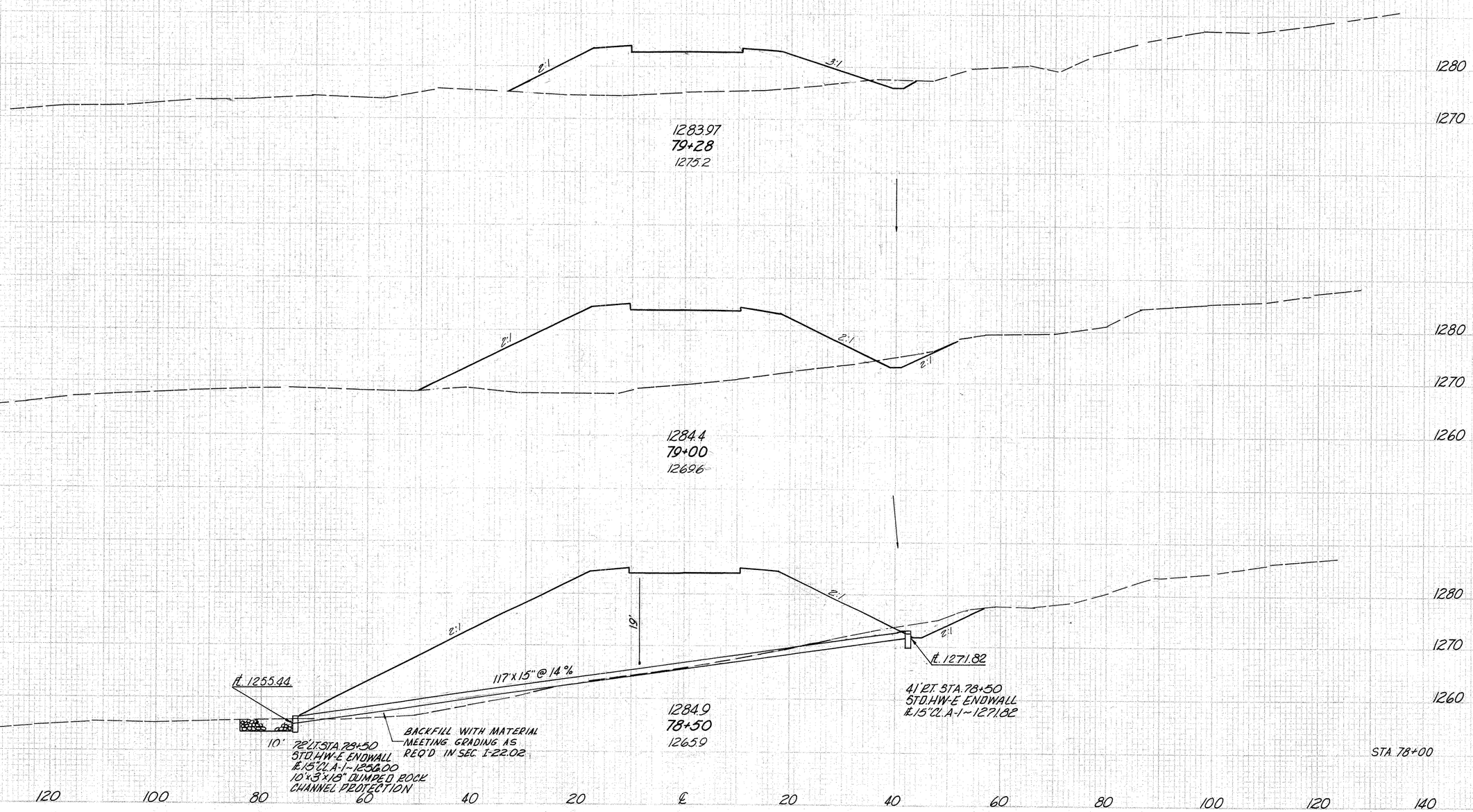
353
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00

SEEDING

END WIDTH	NO. YDS.
109	
362	
124	
767	
152	
839	
150	



END AREA		VOLUME	
CUT	FILL	CUT	FILL
1280			
1270	9		431
		11	687
1280			
1270			
1260	13		894
		45	2504
1280			
1270			
1260	35		1497
		54	2789
STA. 78+00	23		1450

C.H 114 RELOCATION STA. 78+50 TO STA. 79+28

DIST. NO.	STATE	PROJECT		
2	OHIO			

354
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

SEEDING			END AREA		VOLUME	
END WIDTH	SQ. YDS.		CUT	FILL	CUT	FILL
		1300				
		1290				
		1280				
		1282.40				
		81+00				
		1280.6				
98			744	0		
		1300				
	533	1290			1108	0
		1280				
		1282.90				
		80+50				
		1288.0				
94			452	0		
	522	1290			513	15
		1280				
		1283.40				
		80+00				
		1283.3				
		STA. 79+75				
94			102	6		
		1290				
	528	1280			105	243
		1270				
		1283.90				
		79+50				
		1278.1				
96			11	256		
	251				8	280
109		STA. 79+28	9	431		

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

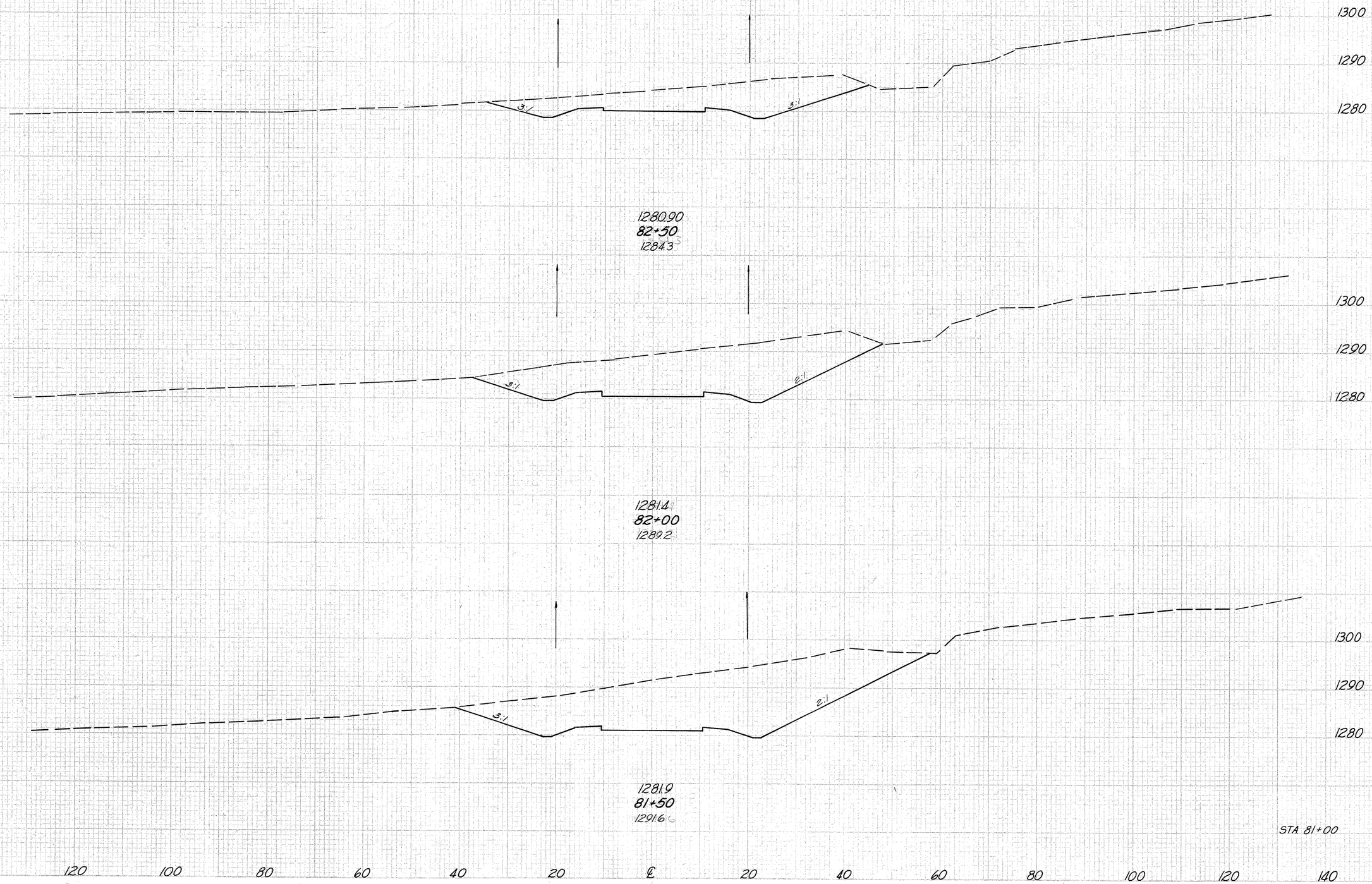
C.H.114 RELOCATION STA. 79+50 TO STA. 81+00

FED. RD. DIVISION	STATE	PROJECT		355 485
2	OHIO			

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00

SEEDING		END AREA		VOLUME	
END AREA	VOL YDS	CUT	FILL	CUT	FILL
		345	0		
96					
				914	0
533					
		644	0		
98					
				1385	0
544					
		851	0		
98				1477	0
544					
		744	0		
98					



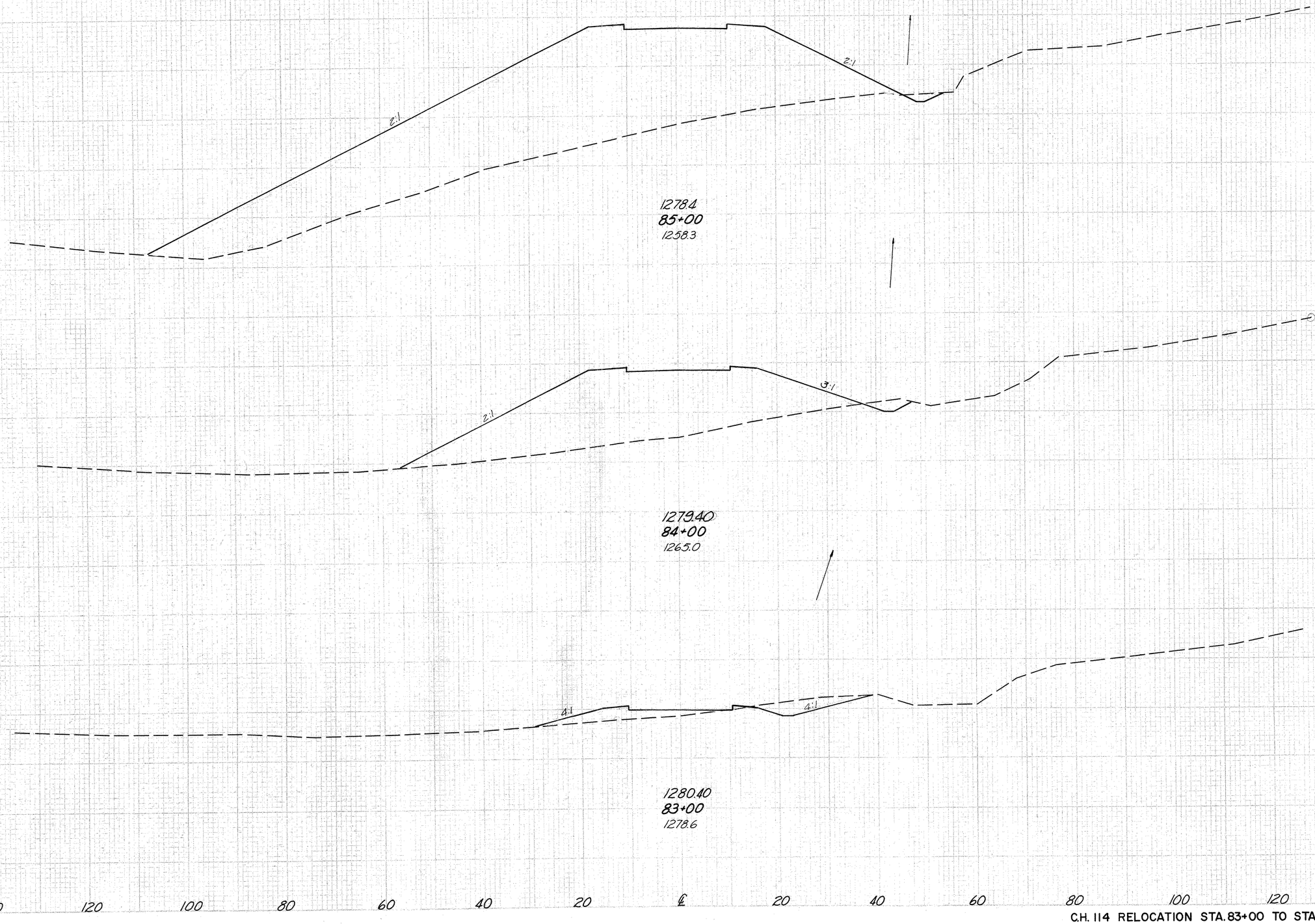
C.H.U.4 RELOCATION STA 81+50 TO STA 82+50

FED. AID DIVISION	STATE	PROJECT	
2	OHIO		

356
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

FED. WATER	SQ. YDS.
175	
1656	
123	
1205	
94	
528	
36	



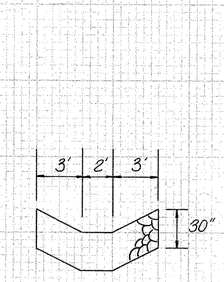
END AREA		VOLUME	
CUT	FILL	CUT	FILL
1270			
1260			
1250			
10	2166		
		48	5GG
1270			
1260			
16	890		
		107	1759
1280			
1270			
42	60		
		357	56
STA 82+50			
343	0		

C.H. 114 RELOCATION STA. 83+00 TO STA. 85+00

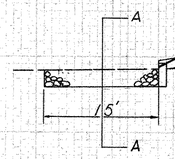
SEEDING
END AREA | VOLUME
CUT | FILL | CUT | FILL

END OF DIVISION	STATE	PROJECT		357 / 495
2	OHIO			

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



Section A-A



114 Lt. Sta. 86+00
Type E-Headwall
℄ 21" C.M.P. 1228.25

FOR CULVERT DETAIL
SEE SHEET NO. 426

29'
172' x 21" C.M.P @ 17.5 %

2:1
2:1
2:1
2:1
2:1
2:1
2:1
2:1

50 Rt. Sta. 86+00
Type E-Headwall
℄ 21" C.M.P. 1258.00

127.740
86+00
1241.2

127.751
85+89
1250.2

127.790
85+50
1253.4

1260
1240
1280
1260
1270
1250
1230
STA 85+00

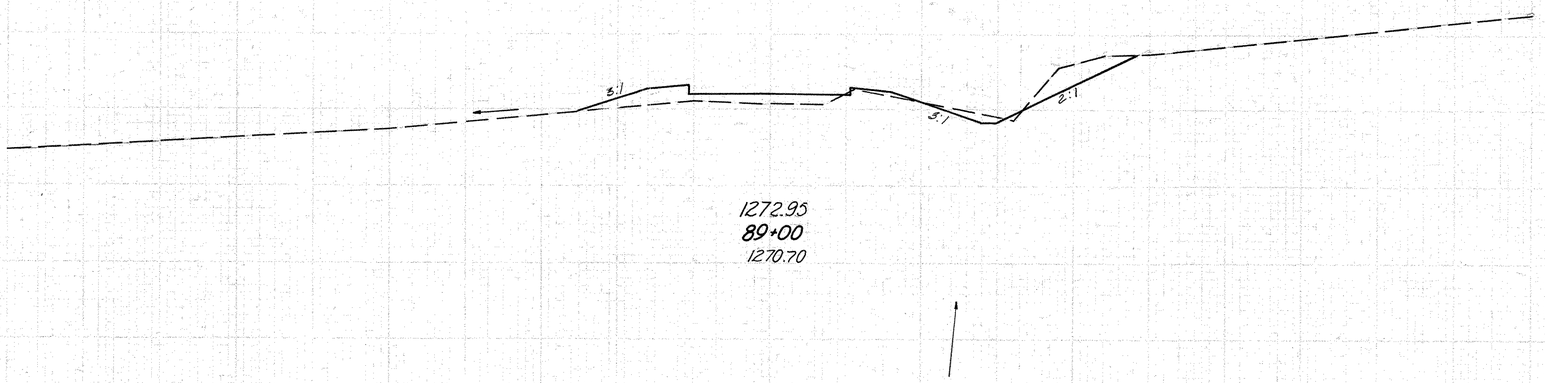
	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
247			141	3496
298			38	1376
242			45	3318
982			56	4380
212			33	2216
1025			40	4548
175			10	2166

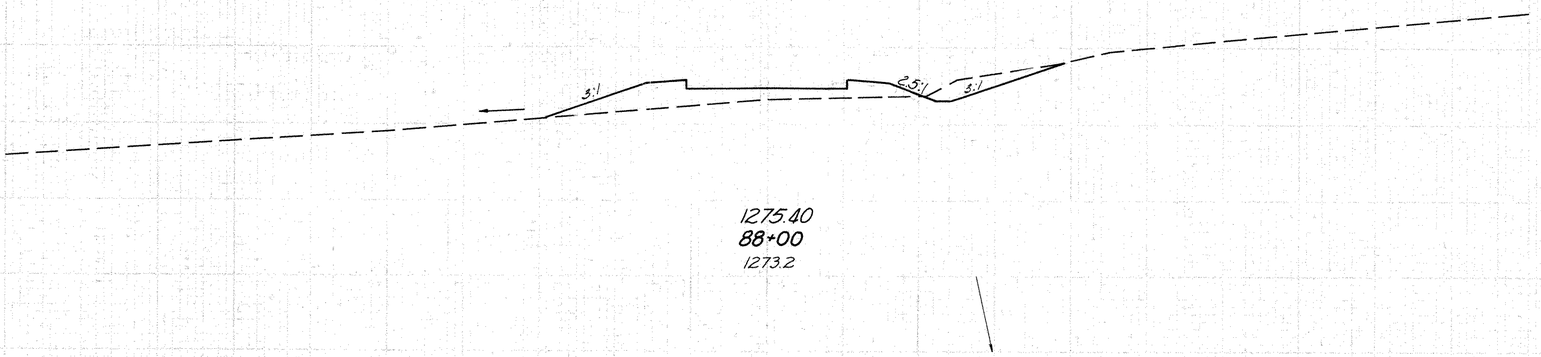
100 50 ℄ 50 100 150

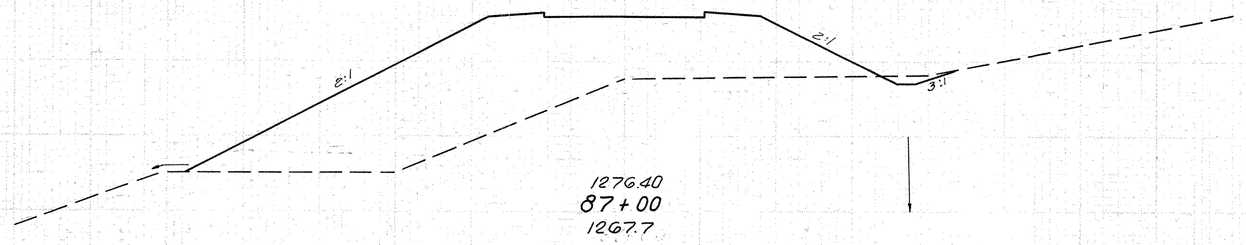
C.H.114 RELOCATION STA. 85+50 TO STA.86+00

358
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00







END AREA

	GUE	BEL	GUE	BEL
1280				
1270				
1260				
	10	53		
			72	291
1280				
1270				
1260	29	104		
			67	1711
1270				
1260				
1250	7	820		
			274	7992
STA 86+00	121	3496		

81
906
82
1244
142
2161
249
Sta. 86+00

100 80 60 40 20 ℄ 20 40 60 80 100

C.H. 114 RELOCATION STA. 87+00 TO STA. 89+00

359
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

End Area		Volume	
Fill	Cut	Fill	Cut
0	0		
			18
0	120		
			40
0	0		
		24	
182	0		
		58	
0	0		

Add for crossover Lt. 82 58
sta. 91+00

87 Sta. 91+00

480

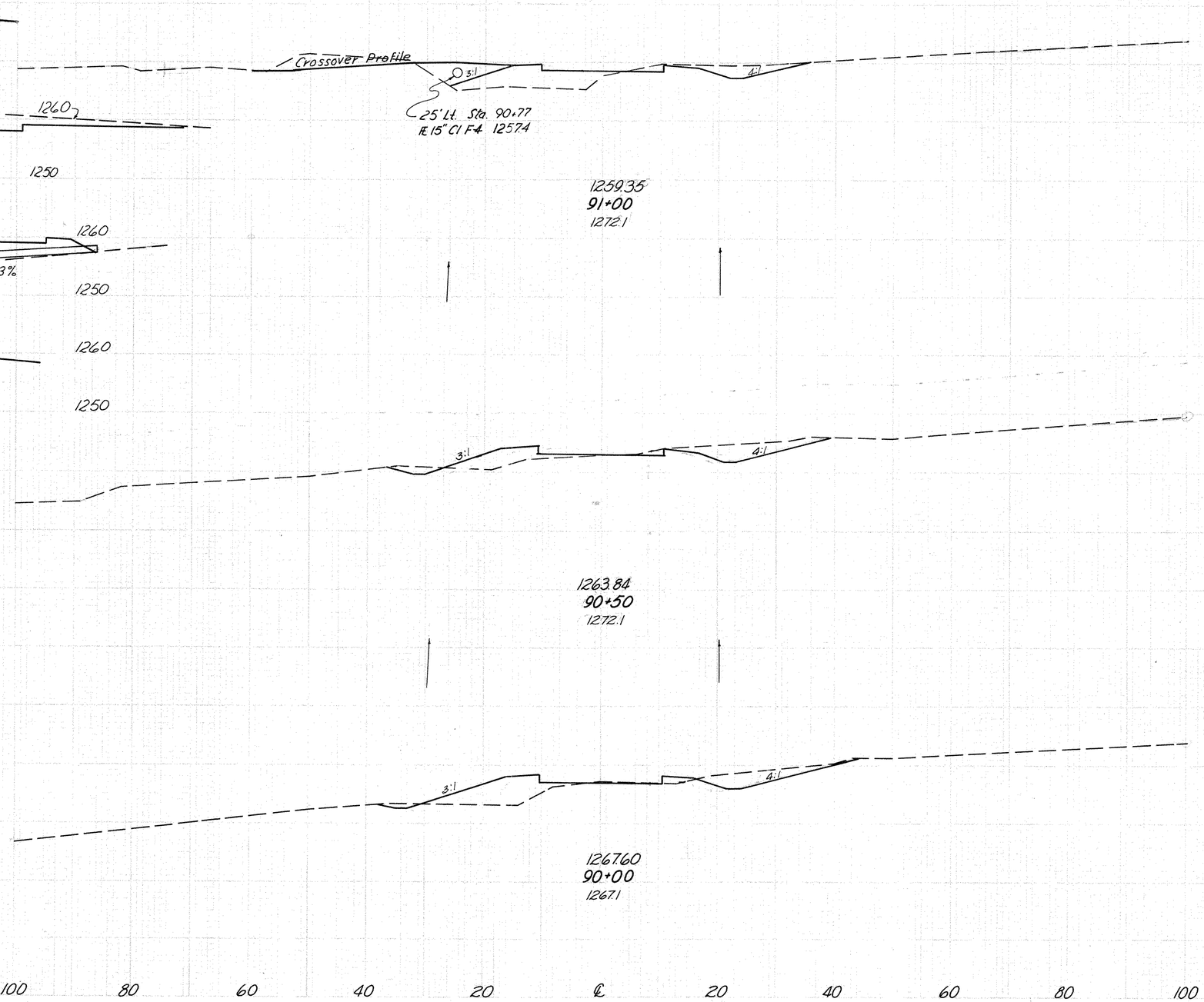
86

466

82

906

81 Sta. 89+00



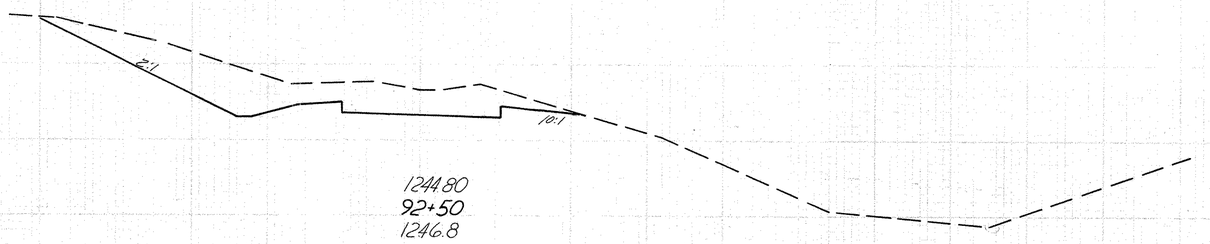
	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1270				
1260				
Add for drive Lt. Sta. 90+84				5 0
			34 79	
				78 110
Add for crossover left sta. 91+00				82 58
1270				
1260				
			55 40	
				97 113
1270				
1260				
			49 82	
				109 250
STA. 89+00			10 53	

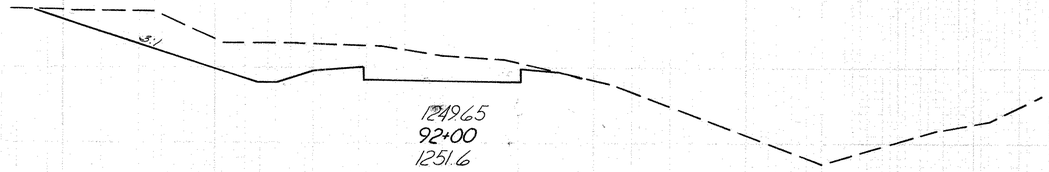
100 80 60 40 20 ℄ 20 40 60 80 100

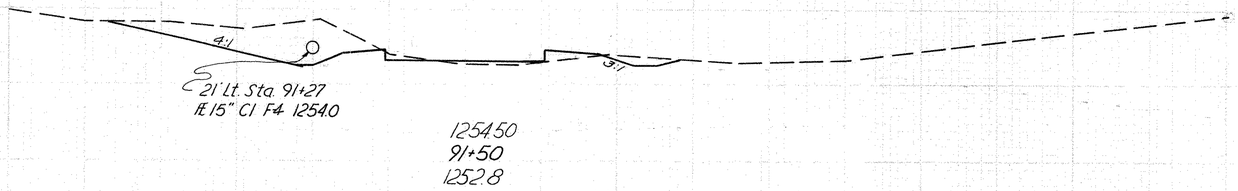
C.H. 114 RELOCATION STA. 90+00 TO STA. 91+00

360
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00







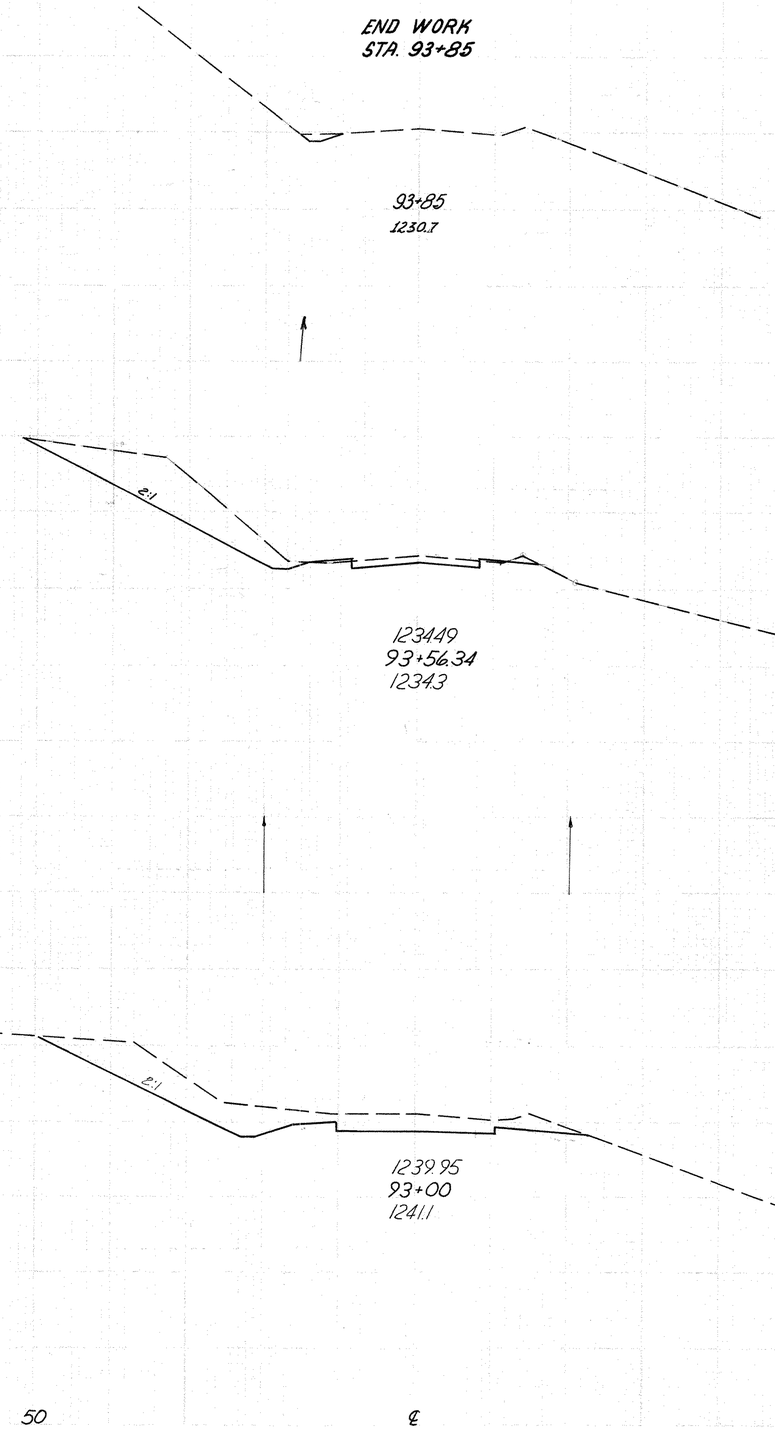
1250
1230 252 0
451 0
1250
235 0
1230
322 12
1250
112 13
1230
135 85
STA 91+00 34 79

76
411
72
375
63
417
87 Sta. 91+00

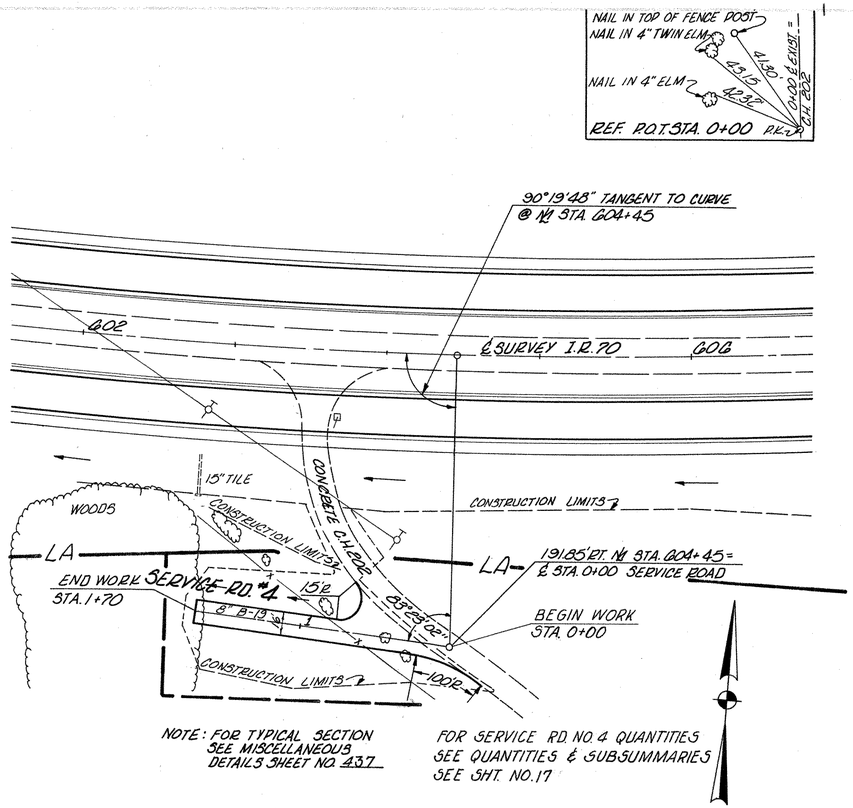
150 100 50 ℄ 50 100 150

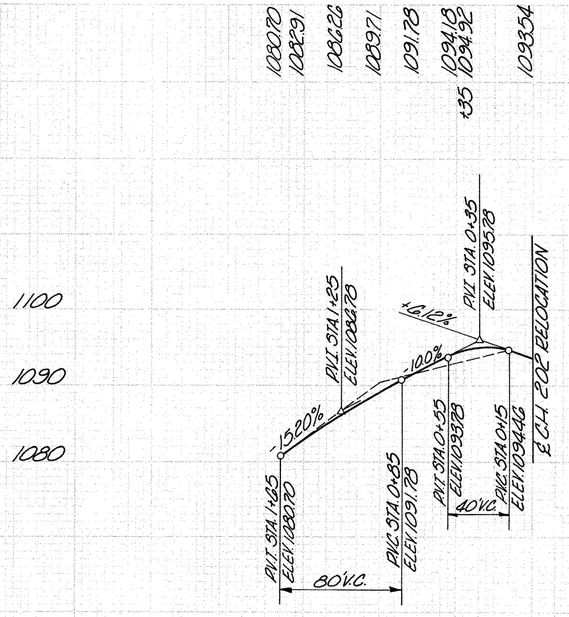
CH114 RELOCATION STA. 91+50 TO STA. 92+50

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



C.H. 114 RELOCATION STA. 93+00 TO STA. 93+85

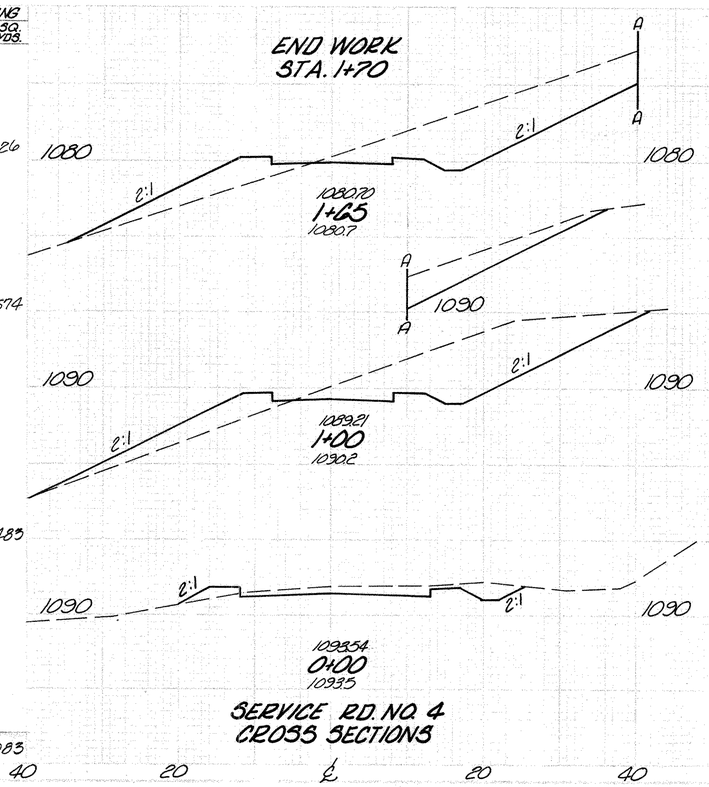




SERVICE RD. NO. 4 PROFILE

1080.70	1082.91	1086.26	1089.71	1091.78	1094.18	1093.54
					+35	
2	1080.7		1090.2		1	1093.45	0

SEEDING END WIDTH	SQ. YDS.
0	
26	
94	
574	
65	
483	
22	



SERVICE RD. NO. 4 CROSS SECTIONS

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
260	66		
		603	175
205	69		
		437	137
31	6		

ESTIMATED QUANTITIES

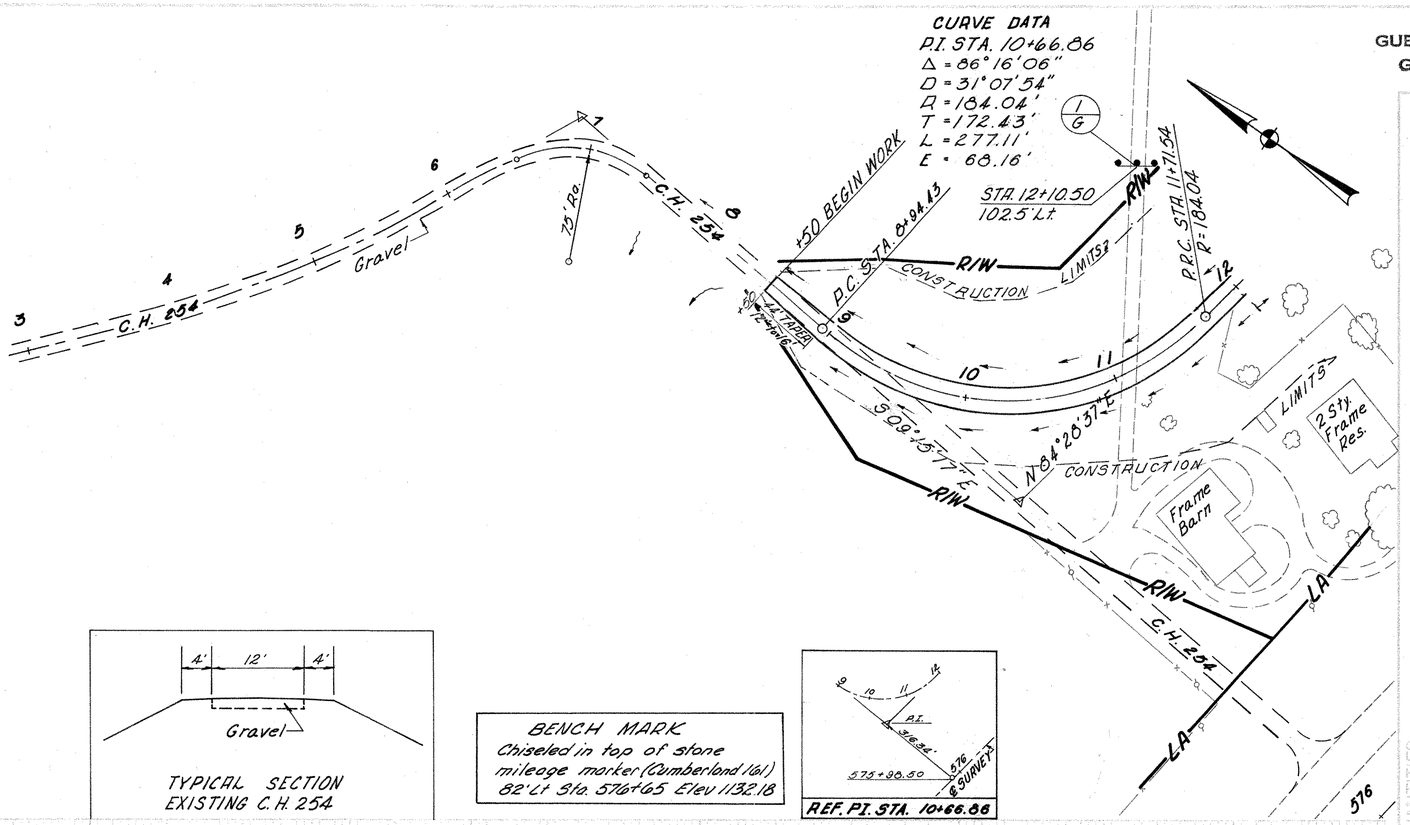
REF. STATION TO STATION SIDE

SERVICE RD. NO. 4

GUERNSEY COUNTY — BELMONT COUNTY
GUE—40—23.88 BEL—40—0.00

363
485

CURVE DATA
P.I. STA. 10+66.86
Δ = 86°16'06"
D = 31°07'54"
R = 184.04'
T = 172.43'
L = 277.11'
E = 68.16'



TYPICAL SECTION
EXISTING C.H. 254

BENCH MARK
Chiseled in top of stone
mileage marker (Cumberland 161)
82' Lt Sta. 576+65 Elev 1132.18

RIGHT EDGE PAV'T.	PROFILE GRADE	LEFT EDGE PAV'T.
1104.83	1104.92	1104.83
1106.76	1106.81	1106.70
1108.56	1108.56	1108.43
1110.30	1110.17	1110.04
1111.85	1111.64	1111.43
1113.32	1112.97	1112.69
1114.50	1114.15	1113.88
1115.62	1115.20	1114.78
1116.46	1116.11	1115.76
1117.16	1116.88	1116.60
1117.70	1117.50	1117.30
1118.12	1117.99	1117.86
1118.39	1118.33	1118.27
1118.53	1118.54	1118.55
1118.69	1118.61	1118.53

PVI. STA. 12+00
ELEV. 1132.36
+7.84%
700' V.C.
PVC. STA. 8+30
1104.9

| | | |

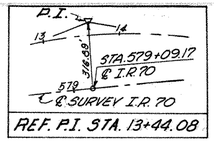
GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00

FED. RD. DIV. NO.	STATE	PROJECT	
2	OHIO		

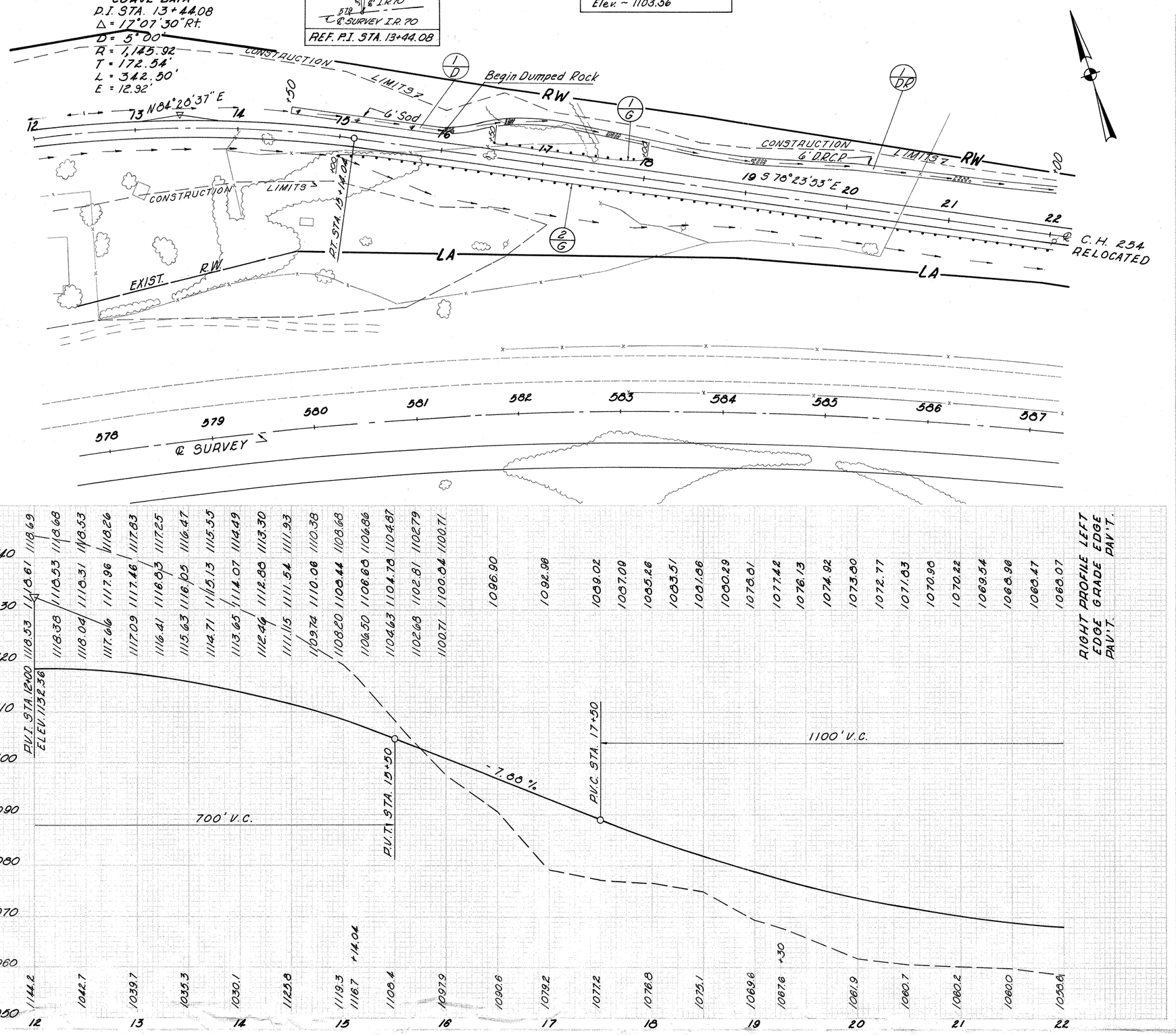
364
485

CURVE DATA
D.I. STA. 13+44.08
Δ = 17°07'30" Rt.
D = 5°00'
R = 1,145.92'
T = 172.54'
L = 342.30'
E = 12.92'



REF. P.I. STA. 13+44.08

BENCH MARK
R.R. Spike Guard Rail Post
19'Lt. Sta. 583+09
Elev. ~ 1103.56



ESTIMATED QUANTITIES

REF NO.	STATION TO STATION	SIDE	T-15 GUARD RAIL STEEL TYPE DEF L.F.	
1-G	16+50 ~ 18+00	LT		150
2-G	15+00 ~ 22+00	RT		700
1-D	14+50 ~ 16+00	Lt.		
1-DR	16+00 ~ 22+00	Lt.		
TOTALS				*850

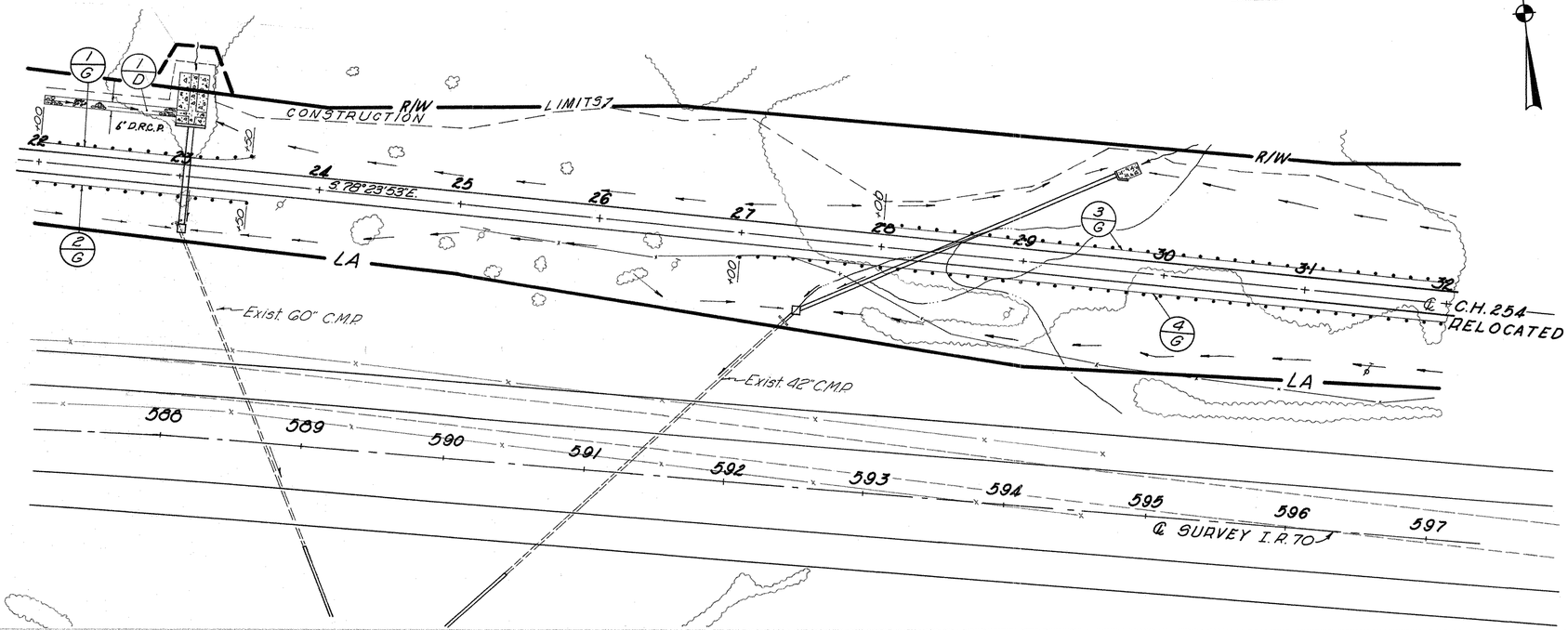
SEE SHEET NO.	T-10 DUMPED ROCK CHANNEL FROM CUT	L-10 SODDING SQ. YDS.	
			100
			200
			100
			200

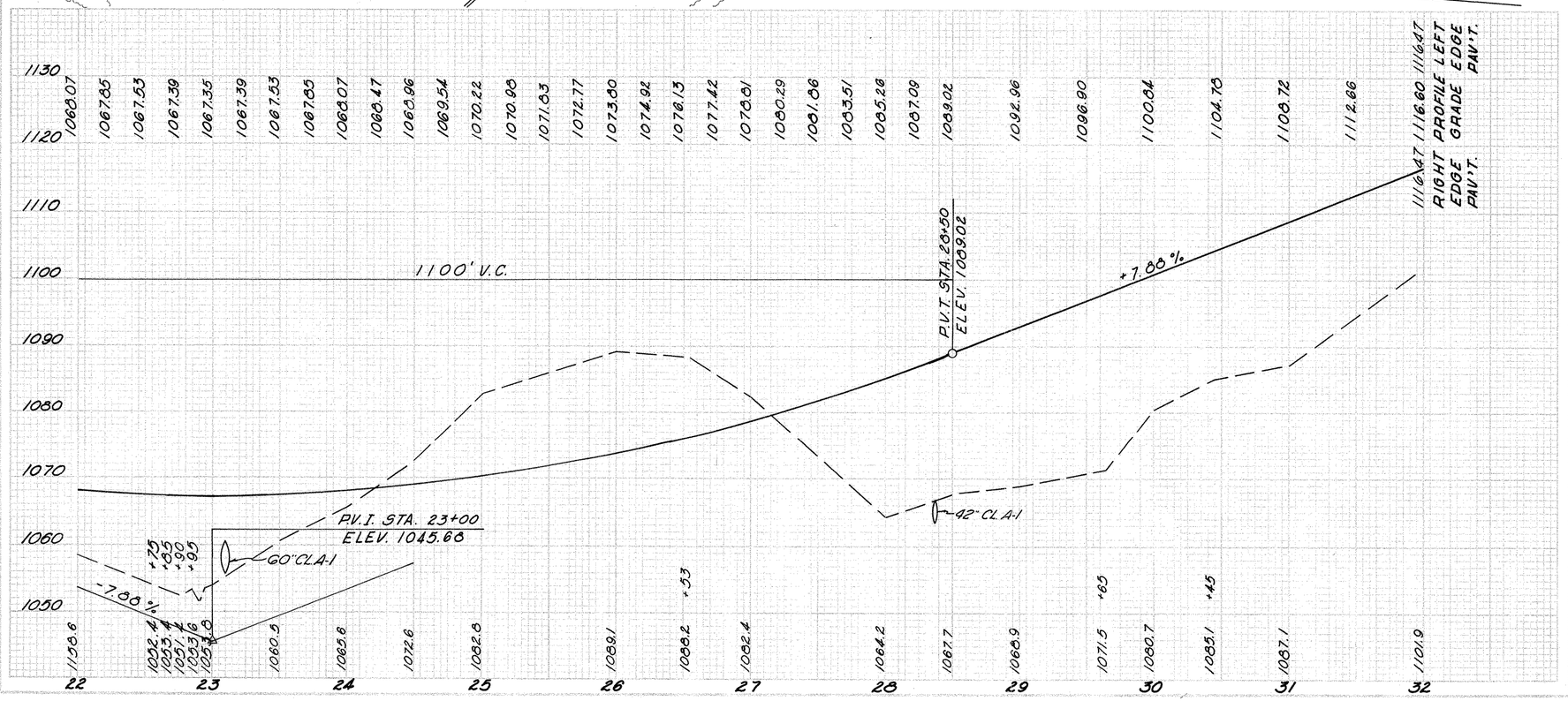
RELOC. C.H. 254 STA. 12+00 to STA. 22+00

BENCH MARK
▫ Chiseled on N.W. Cor. Cap
Stone W. End S. Rail of Bridge
200' Rt Sta. 589+00
Elev. ~ 1054.68

FOR CULVERT DETAILS - STA. 23+09.51 - SEE SHEET NO. 418

FOR CULVERT DETAILS - STA. 28+37.10 - SEE SHEET NO. 429





GUERNSEY COUNTY — BELMONT COUNTY
GUE-40-23.88 BEL-40-0.00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

365
485

SEE SHEET NO.

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE		I-10 DUMPED ROCK CHANNEL PROT. 18" THICK C.Y.	I-15 GUARD RAIL STD. TYPE DEEP L.F.
1-G	22+00 ~ 23+50	LT.			150
2-G	22+50 ~ 23+50	RT.			150
3-G	29+00 ~ 32+00	LT.			400
4-G	27+00 ~ 32+00	RT.			500
1-D	22+00 ~ 22+95	LT.		33	
TOTALS				33	1200

RELOC. C. H. 254 STA. 22+00 to STA. 32+00

GUERNSEY COUNTY – BELMONT COUNTY

GUE-40-[illegible] BEL-40-0.00

FED. ROAD DIV. NO.	STATE	PROJECT		
2	OHIO			

366
485

BENCH MARK
R.R. Spike &
45' Rt. Sta. 602+87
Elev. ~1109.41

CURVE DATA
P.I. STA. 39+79.95
Δ = 21°00'00" Lt.
D = 1° 30'
R = 3819.72'
T = 707.95'
L = 1400.00'
E = 65.05'

P.C. STA. 32+72.00

R/W

R/W

CONSTRUCTION LIMITS

LA

LA

1/G

2/G

1/D

2/D

4' SODDING

5' SODDING

+.00

+.50

32 33 34 35 36 37 38 39 40 41 42

598 599 600 601 602 603 604 605 606 607

1170
1160
1150
1140
1130
1120
1110
1100
1090

1116.60 1120.38 1123.84 1126.98 1129.80 1132.30 1134.48 1136.33 1137.87 1139.03 1139.99 1140.57 1140.82 1140.76 1140.38 1139.68 1138.65 1137.31 1135.64 1133.66 1131.35 LEFT EDGE PAVT.

PROFILE GRADE

RIGHT EDGE PAVT.

+7.88%

-5.00%

P.V.I. STA. 37+00
ELEV. 1156.00

1000' V.C.

P.V.C. STA. 32+00

P.V.T. STA. 42+00

1101.9 1106.5 +35 1111.3 +47 1116.9 +72 1122.9 1130.9 1140.6 1153.3 1153.2 1154.8 1156.9 1157.5 1156.1 1155.6 +44 1153.7 +62 1151.4 1155.8 1160.1 1164.2 1167.3 1167.7 1166.6 1166.6 1164.1 1158.1 1151.9

32 33 34 35 36 37 38 39 40 41 42

ESTIMATED QUANTITIES

REF NO.	STATION TO STATION	SIDE	
L-10 SODDING			SQ. YD.
1-G	32+00 ~ 33+00	LT.	67
2-G	32+00 ~ 33+00	RT.	111
1-D	33+50 ~ 35+00	LT.	178
2-D	40+00 ~ 42+00	LT.	

T-15 QUAD RAIL STATTYNE DEEP L.F.	100
	100

TOTALS *200

RELOC. C.H. 254 STA. 32+00 to STA. 42+00

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00

FED. HWY. DIVISION	STATE	PROJECT	
2	OHIO		

367
485

CURVE DATA
P.I. STA. 39+79.95
Δ = 21°00'00" Lt.
D = 1°30'
R = 3,819.72'
T = 707.95'
L = 1400.00'
E = 65.05'

BENCH MARK
U.S.C. & G.S. Std. Disk
Stamped "K-64-1934"
359' Rt. Sta. 611+62
Elev. 1034.62

FOR DETAILS OF 15" CULVERT STA 44+04 SEE SHEET N° 390

CHANNEL EASEMENT

FOR DETAILS OF 60" CULVERT STA. 45+63 SEE SHEET NO. 430

R/W

LA

CONSTRUCTION LIMITS

C.H. 254 RELOCATED

P.T. STA. 46+72.00

Begin Dump Rock

Begin Sod

4' Dump Rock

4' Sod

5' Sod

48 N 80°36'07" E 49

Exist 60" C.M.P.

400' V.C.

-4.93%

+1.85%

P.V.I. STA. 43+00 ELEV. 1126.42

P.V.C. STA. 41+00 ELEV. 1126.50

P.V.I. STA. 45+00 ELEV. 1116.56

P.V.T. STA. 47+00 ELEV. 1120.26

15" CL.A-1

60" CL.A-1

	42	43	44	45	46	47	48	49	50	51	52
RIGHT EDGE PAVT.	1131.27	1129.99	1128.76	1127.52	1126.29	1125.11	1123.94	1122.81	1121.73	1120.69	1119.71
PROFILE GRADE	1131.35	1130.12	1128.89	1127.65	1126.42	1125.24	1124.04	1122.84	1121.58	1120.39	1119.25
LEFT EDGE PAVT.	1131.48	1130.25	1129.02	1127.78	1126.56	1125.37	1124.17	1122.97	1121.71	1120.52	1119.35

	42	43	44	45	46	47	48	49	50	51	52
RIGHT EDGE PAVT.	1131.27	1129.99	1128.76	1127.52	1126.29	1125.11	1123.94	1122.81	1121.73	1120.69	1119.71
PROFILE GRADE	1131.35	1130.12	1128.89	1127.65	1126.42	1125.24	1124.04	1122.84	1121.58	1120.39	1119.25
LEFT EDGE PAVT.	1131.48	1130.25	1129.02	1127.78	1126.56	1125.37	1124.17	1122.97	1121.71	1120.52	1119.35

	607	608	609	610	611	612	613	614	615	616	617	618
RIGHT EDGE PAVT.	1141.6	1140.4	1139.2	1138.1	1136.9	1135.7	1134.5	1133.3	1132.1	1130.9	1129.7	1128.5
PROFILE GRADE	1142.8	1141.7	1140.5	1139.3	1138.1	1136.9	1135.7	1134.5	1133.3	1132.1	1130.9	1129.7
LEFT EDGE PAVT.	1144.0	1142.8	1141.7	1140.5	1139.3	1138.1	1136.9	1135.7	1134.5	1133.3	1132.1	1130.9

	42	43	44	45	46	47	48	49	50	51	52
RIGHT EDGE PAVT.	1131.27	1129.99	1128.76	1127.52	1126.29	1125.11	1123.94	1122.81	1121.73	1120.69	1119.71
PROFILE GRADE	1131.35	1130.12	1128.89	1127.65	1126.42	1125.24	1124.04	1122.84	1121.58	1120.39	1119.25
LEFT EDGE PAVT.	1131.48	1130.25	1129.02	1127.78	1126.56	1125.37	1124.17	1122.97	1121.71	1120.52	1119.35

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

368
485

BENCH MARK
Chiseled Top Stone Mileage Marker (Cumberland 160)
69' Lt. Sta. 622+18
Elev.-1124.03

CONSTRUCTION LIMITS

R/W

LA

5' SODDING

5' DUMPED ROCK CHANNEL PROTECTION

PC STA. 61+62.15

TO BE REMOVED

FOR CULVERT DETAILS SEE SHEET Nº 403

* Sec. M&A(dl. 8 Gage Strutted & shop elongated As per plan, see sheet #403

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE
1-G	58+00 ~ 62+00	LT.
2-G	56+50 ~ 62+00	RT.
1-55	60+82 ~ 54+00	Left
1-D	52+00 ~ 61+00	Lt.
2-D	59+00 ~ 61+00	Lt.
3-D	61+00 ~ 62+00	Lt.

| | | |

GUERNSEY COUNTY — BELMONT COUNTY

GUE — 40 — 23.68 BEL — 40 — 0.00

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

369
485

CURVE DATA
P.I. STA. 63+48.37
Δ = 29°09'00" Lt.
D = 8°00'
R = 716.20'
T = 186.22'
L = 364.375'
E = 23.81'

P.I. STA. 63+10.37
℄ SURVEY
REF. PT. STA. 628+73.84

BENCH MARK
X Chiseled on Conc. @ Catch Basin (U.E. 1156/1) 193' Lt. Sta. 635+15
Elev. – 1156.07

P.T. STA. 65+26.52
Pav't. Removal
R/W
Constr. Limits
Begin Seeding
12' Asphalt Surface
END WORK STA. 66+00
73.5
Taper 16:12
146 Radius
C.H. 40A
N 51° 21' 07" E
N 80° 36' 07" E
Construction Limits
LA
℄ Survey I.R. 70

EXISTING TYPICAL C.H. 40A
12'
Asphalt Surface

RIGHT PROFILE
LEFT EDGE PAV'T.
GRADE
RIGHT EDGE PAV'T.

62	1148.45	1140.01	1147.57
63	1148.98	1148.47	1147.96
64	1149.52	1140.94	1148.36
65	1150.05	1149.40	1148.75
66	1149.51	1149.86	1149.21
67	1150.90	1150.32	1149.74
68	1151.24	1150.78	1150.29
69	1151.68	1151.25	1150.82
70	1152.07	1151.71	1151.35
71	1152.48	1152.24	1152.00
72	1153.13	1152.93	1152.71
	1153.92	1153.77	1153.62
	1154.83	1154.75	1154.67
	1155.88	1155.88	1155.88
		1157.16	
		1158.58	
		1160.16	

200' V.C.
P.V.C. STA. 64+00
P.V.T. STA. 66+00
+1.85 %
+6.6 %
P.V.I. STA. 65+00
ELEV. 1153.56

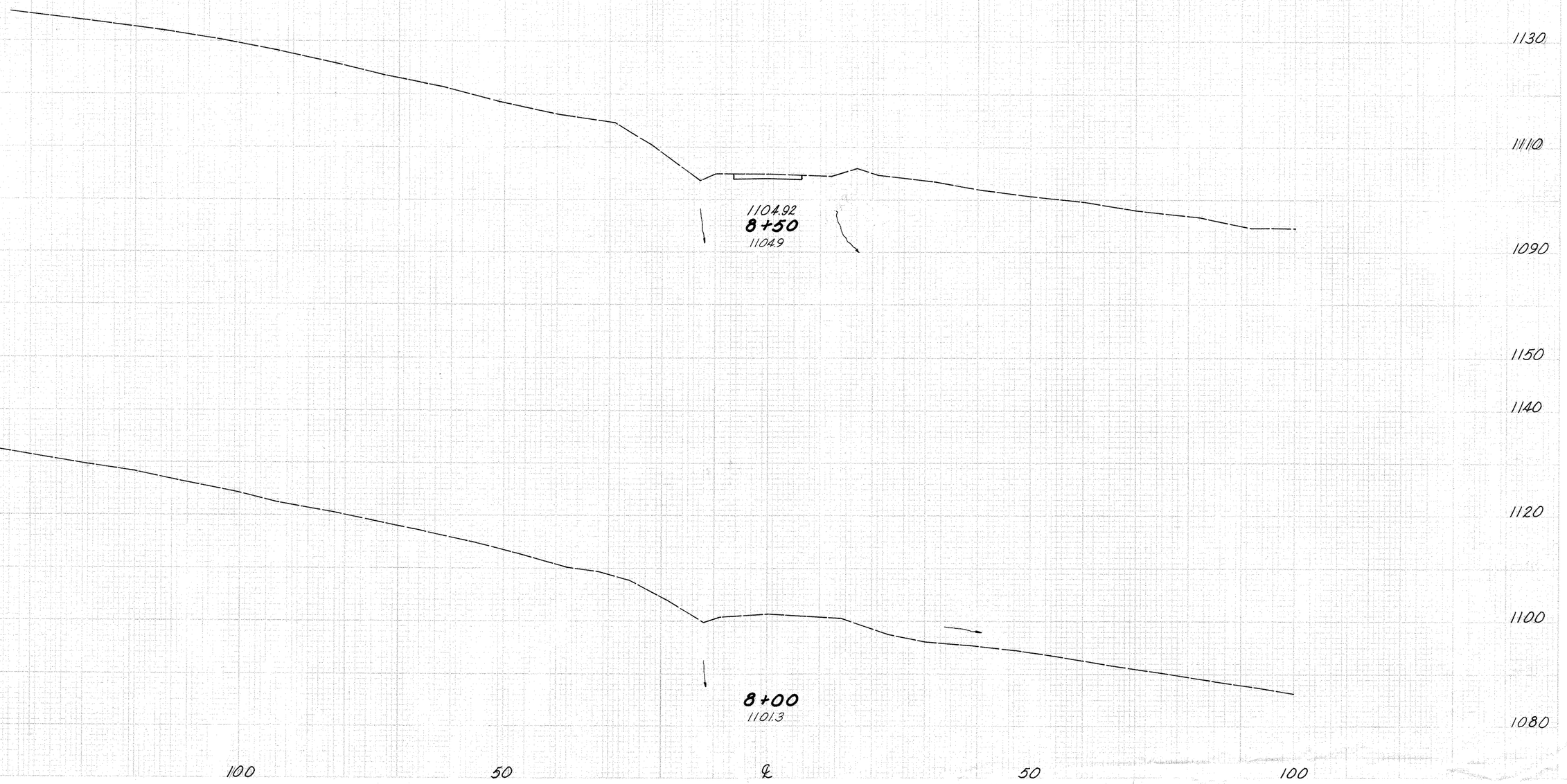
| | | |

SHEET NO.	TOTAL SHEETS
2	OHIO

370
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



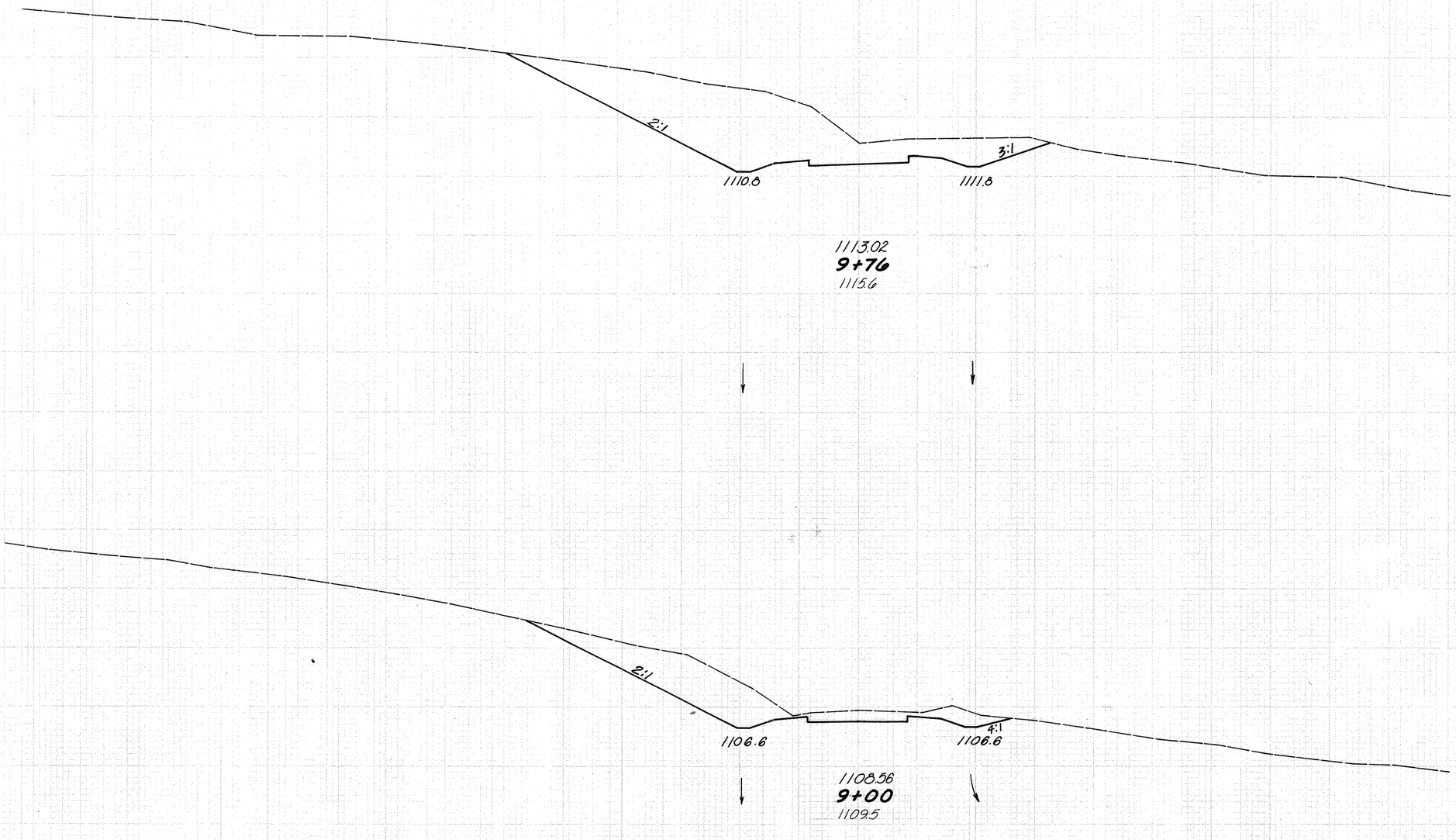
RELOC. C.H. 254 ~ STA. 8+00 TO STA. 8+50

SEEDING
SQ. YDS.

371
485

GUERNSEY COUNTY -- BELMONT COUNTY
GUE-40-23.03 BEL-40-0.00

END AREA VOLUME
CUT FILL CUT FILL



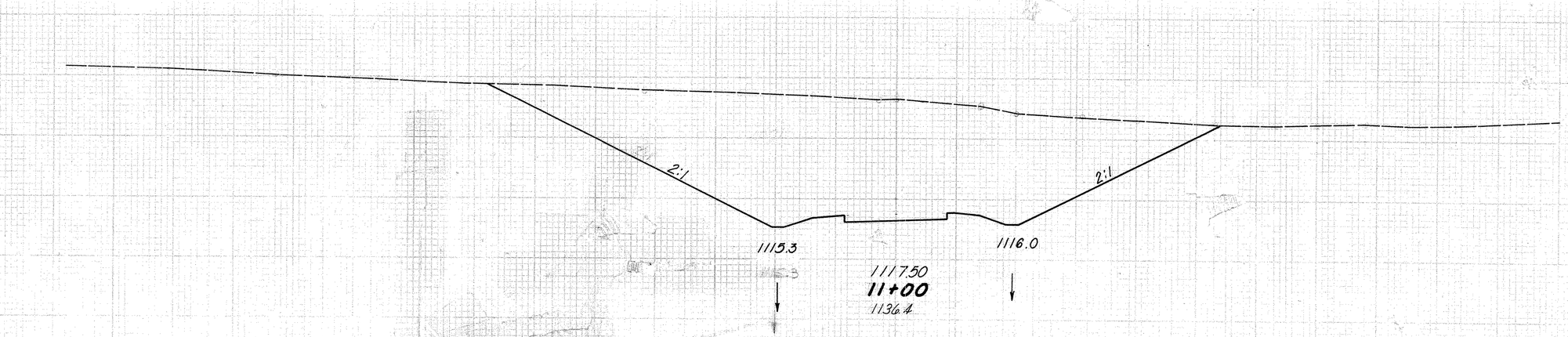
RELOC. C.H. 254 ~ STA. 9+00 TO STA. 9+76

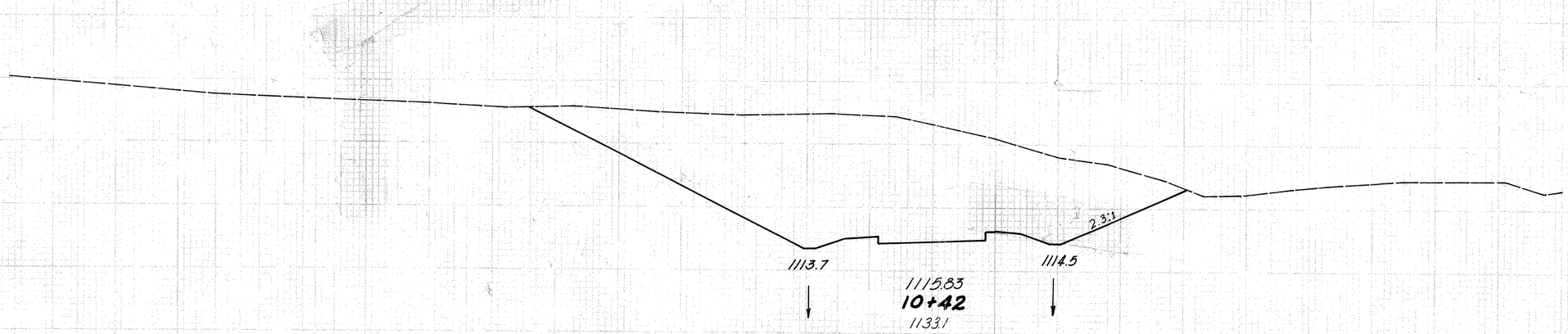
G07 0

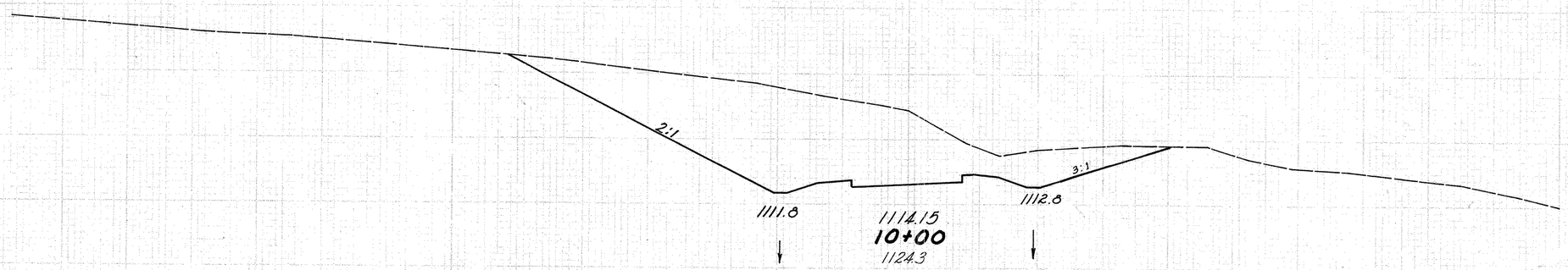
SEEDING
END WIDTH 2 ft

372
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00







1150
1140
1130
1120
1110
1631

1150
1140
1130
1120
1110
3180
1329

1150
1140
1130
1120
1110
1651
793
622

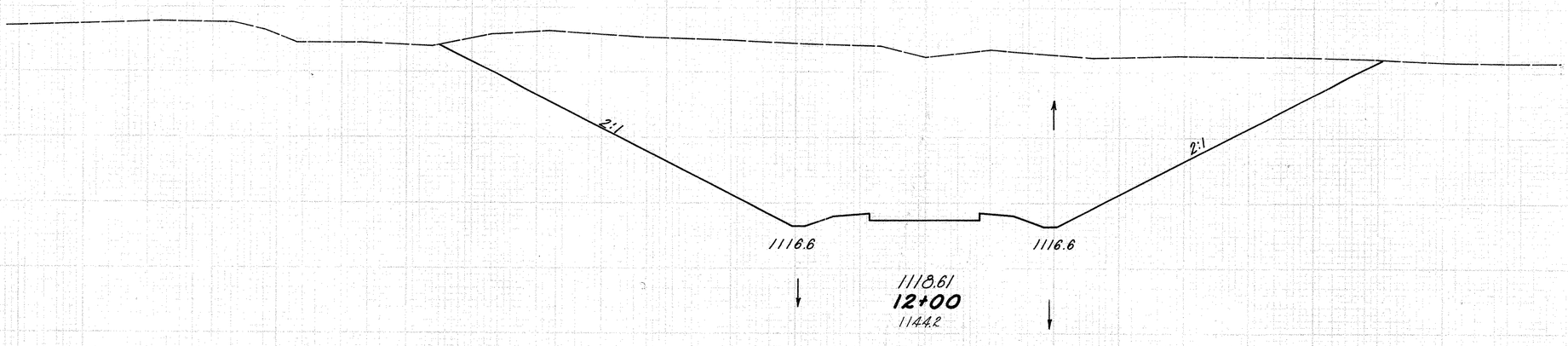
150 100 50 ℄ 50 100

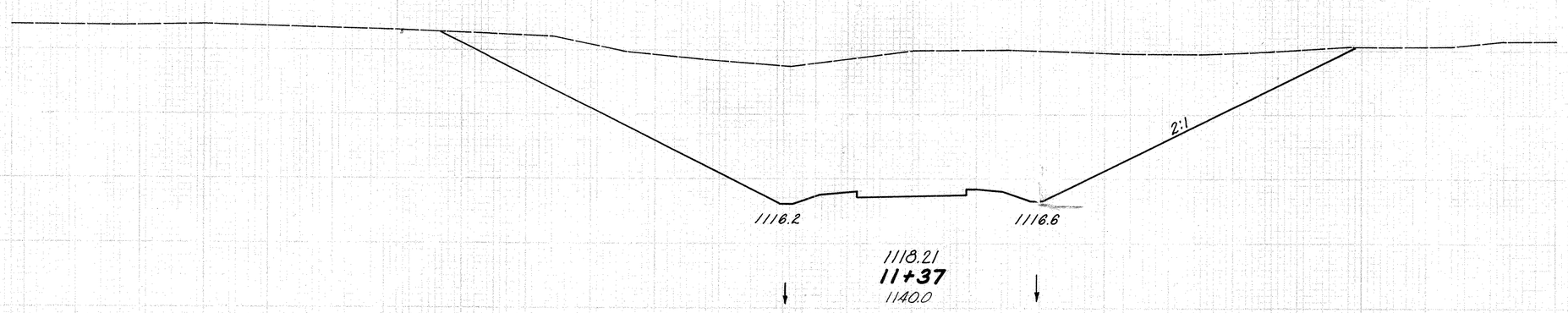
Sta. 9+76 607

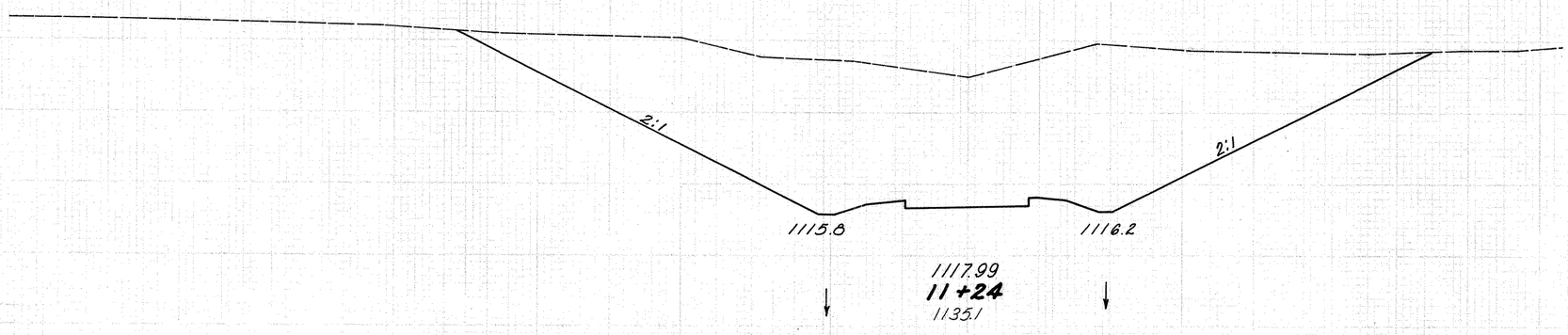
RELOC. C.H. 254 ~ STA. 10+00 TO STA. 11+00

373
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL.–40–0.00







1140
1130
1120
1110
2546

1140
5328
1130
1120
1110
2021

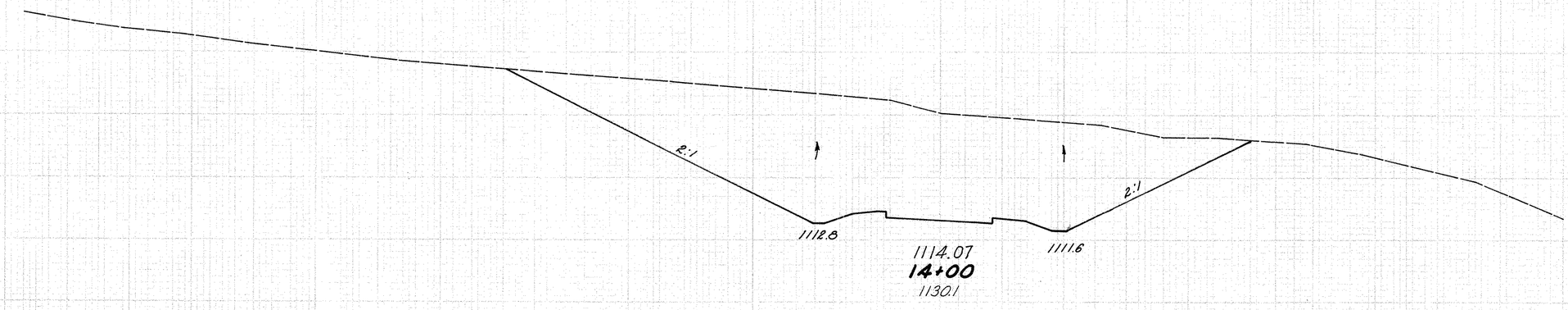
943
1140
1130
1120
1110
1896
1568

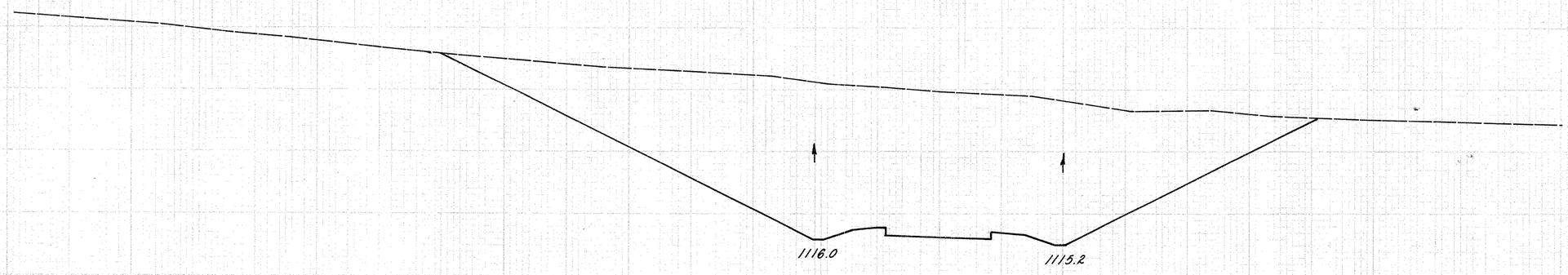
150 100 50 ℄ 50 100

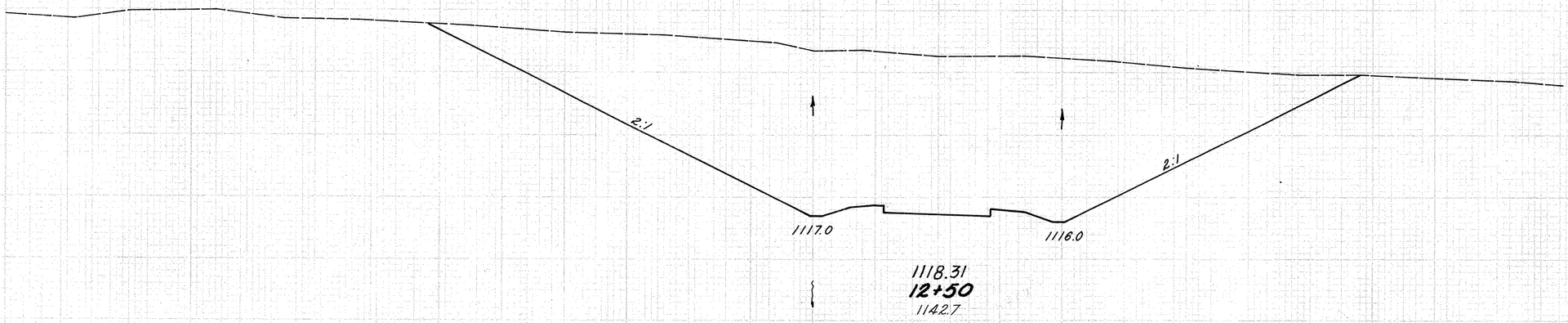
Sta. 11+00 1631

RELOC. C.H. 254 ~ STA. 11+24 TO STA. 12+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00







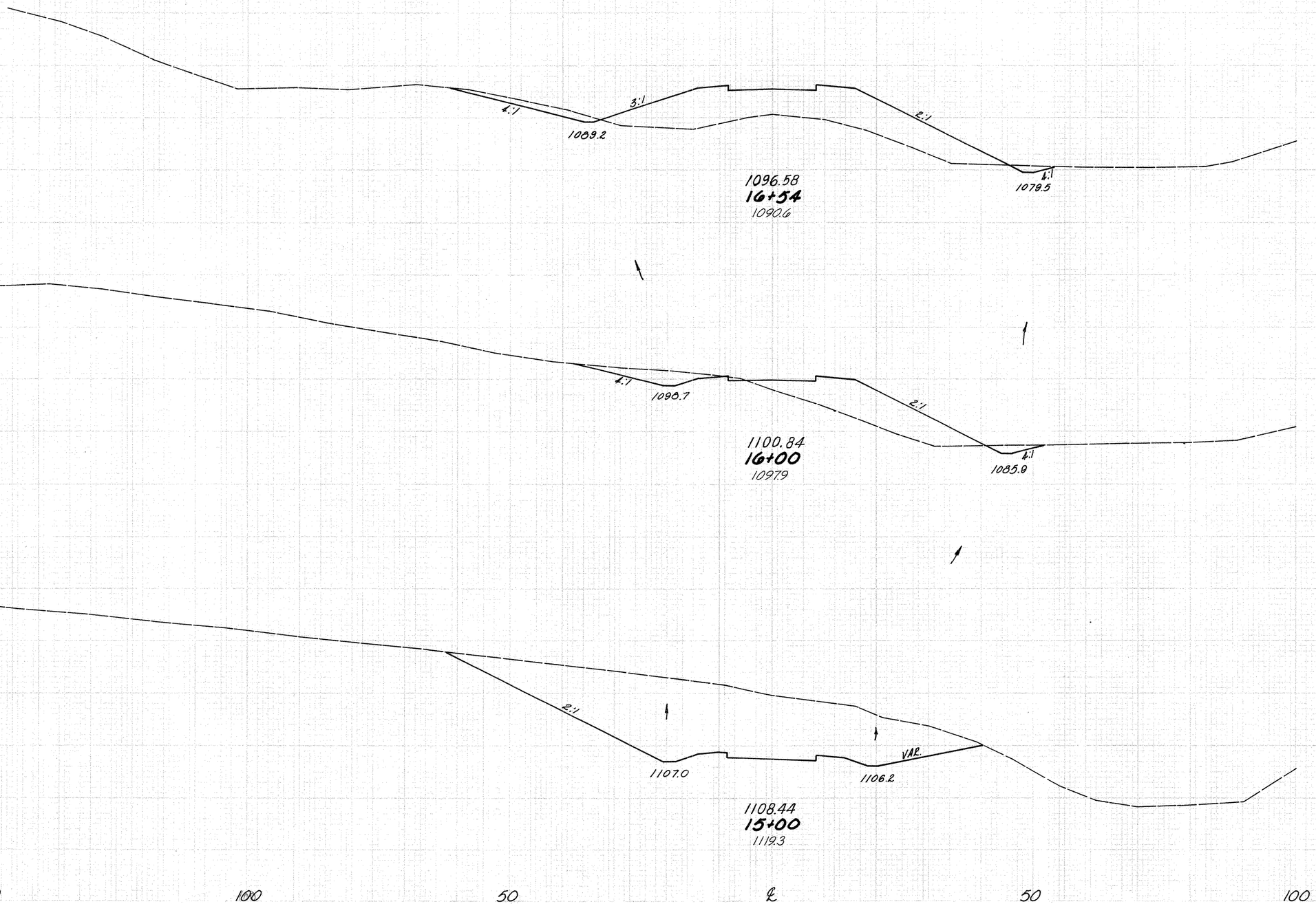
1140
1130
1120
1110
1487
1150
1140
6802
1130
1120
1110
2186
1150
1140
4335
1130
1120
1110
2496
4662

J-7

150 100 50 ℄ 50 100 Sta. 12+00 2546

RELOC. C.H. 254 ~ STA. 12+50 TO STA. 14+00

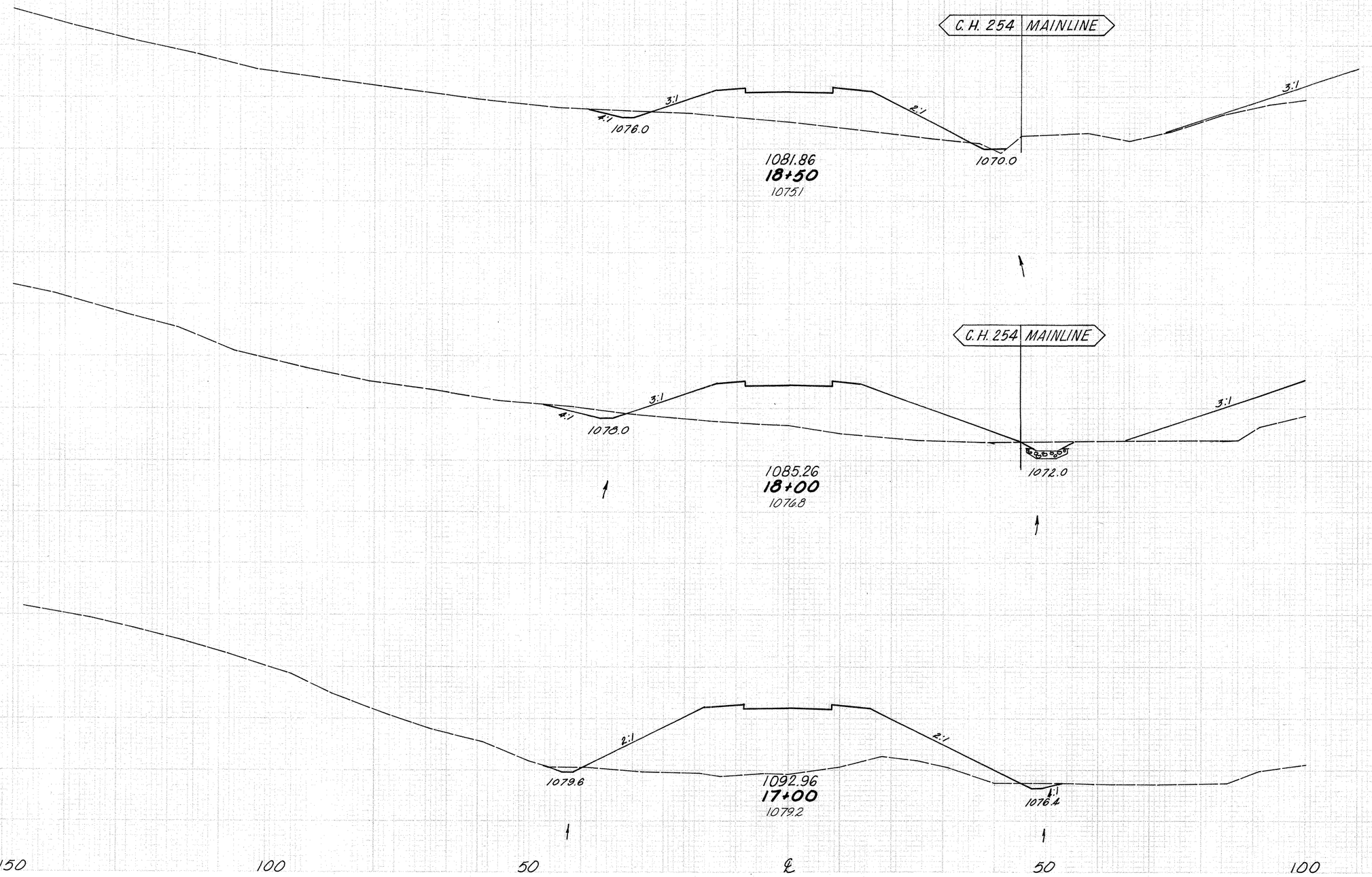
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1110				
1100				
1090				
1080				
	32	418		
1120				
1110			72	623
1100				
1090				
	40	205		
1140				
1130			1815	380
1120				
1110				
1100				
	940	0		
			4095	
Sta. 14+00	1487			

RELOC. C.H. 254 ~ STA. 15+00 TO STA. 16+54

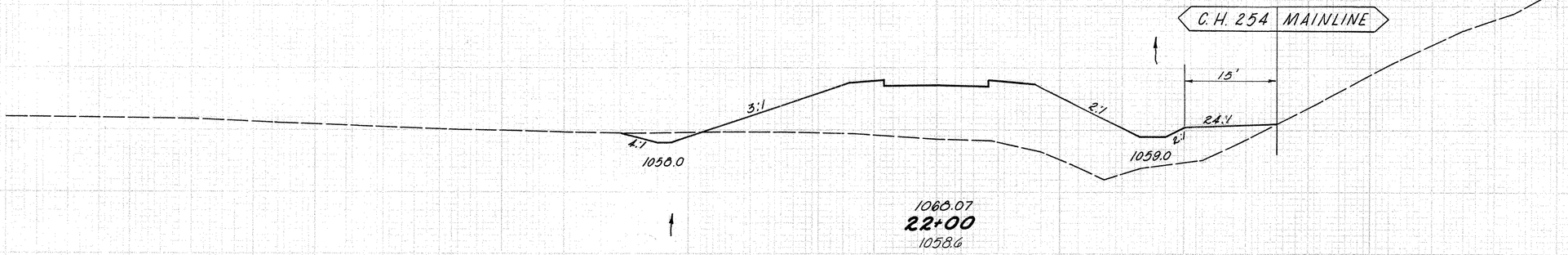
GUERNSEY COUNTY - BELMONT COUNTY
GUE-40-25.85 BEL-40-0.00

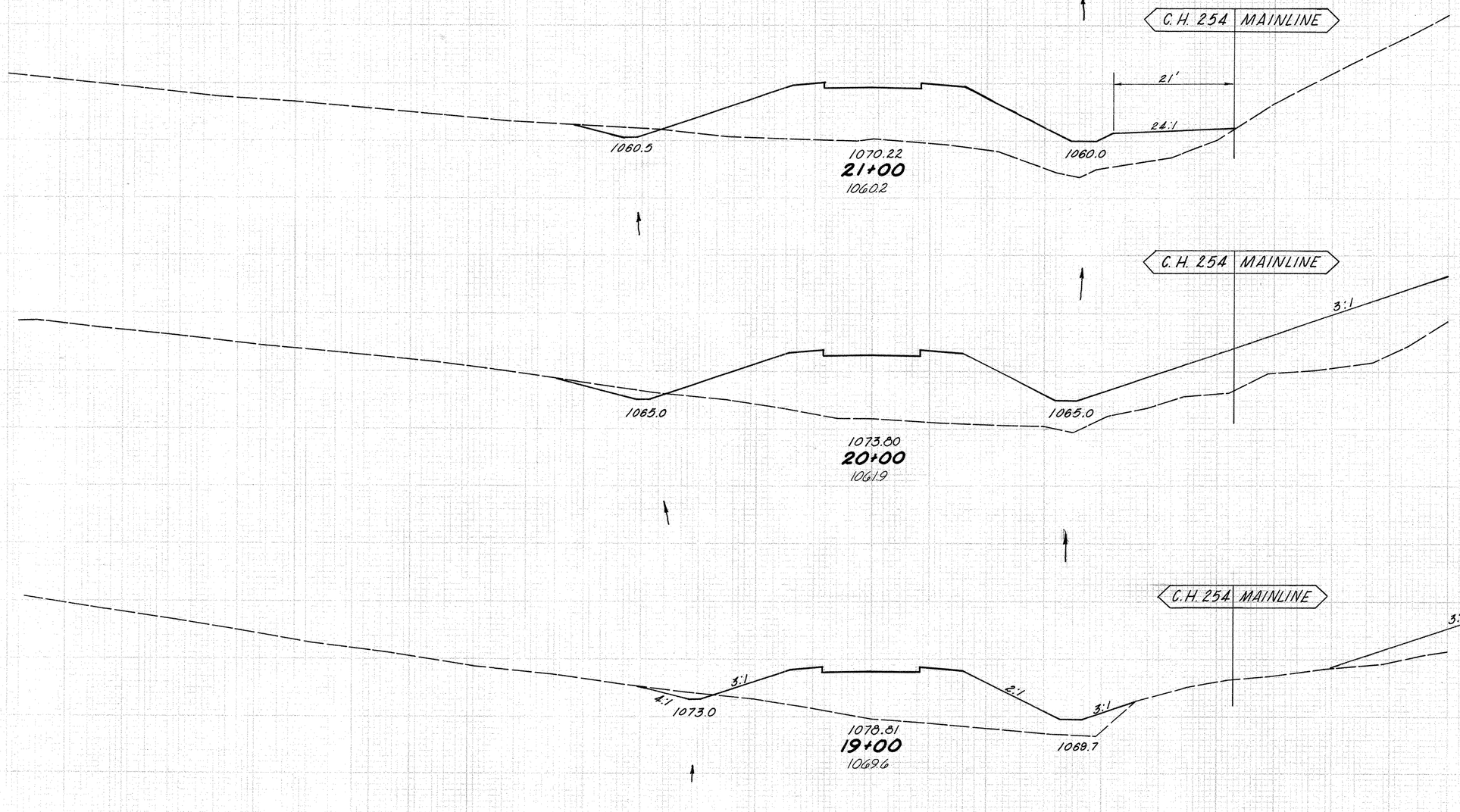


1090			
1080			
1070			
	8	292	
1100			
			21 687
1090			
1080			
1070			
	14	450	
1110			
			44 2102
1100			
1090			
1080			
	10	685	
1070			
			36 940
Sta	16+54	32	418

RELOC. C.H. 254 ~ STA. 17+00 TO STA. 18+50

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



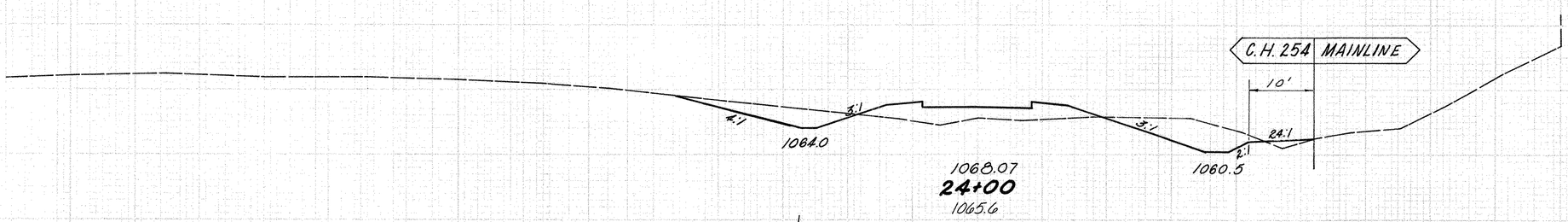


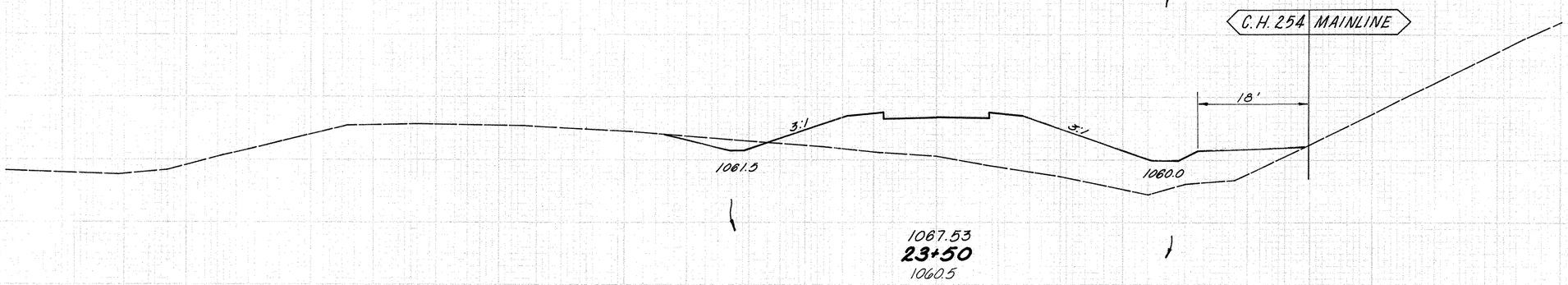
END AREA		VOLUME	
CUT	FILL	CUT	FILL
		10	596
		46	2350
		15	673
		57	2617
		16	740
		44	2148
		8	420
		15	660
		Sta. 18+50	8 292

150 100 50 ℄ 50 100

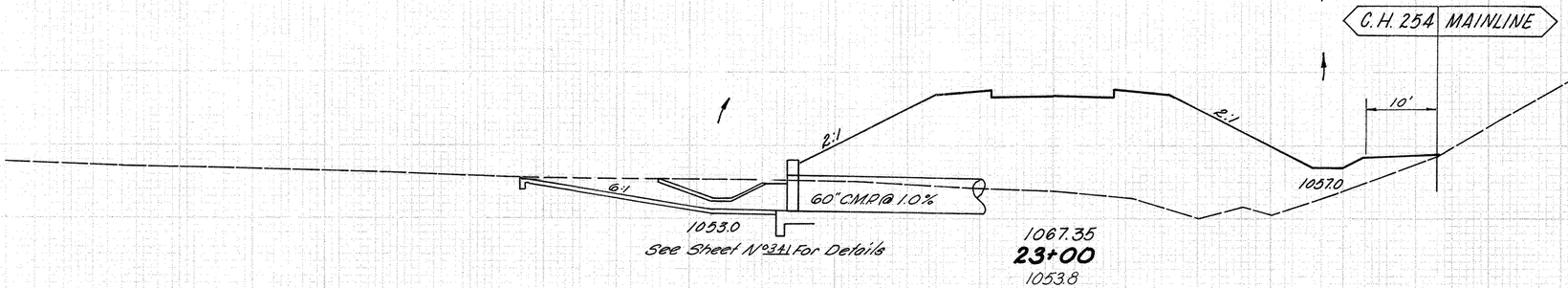
RELOC. C.H. 254 ~ STA. 19+00 TO STA. 22+00

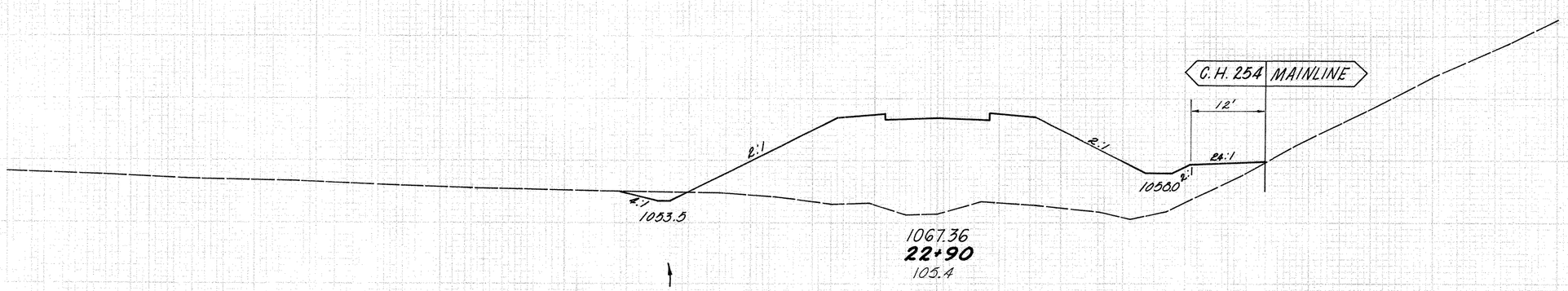
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00





CULVERT @ STA. 23+09.5
(For Details See Sheet No. 341)





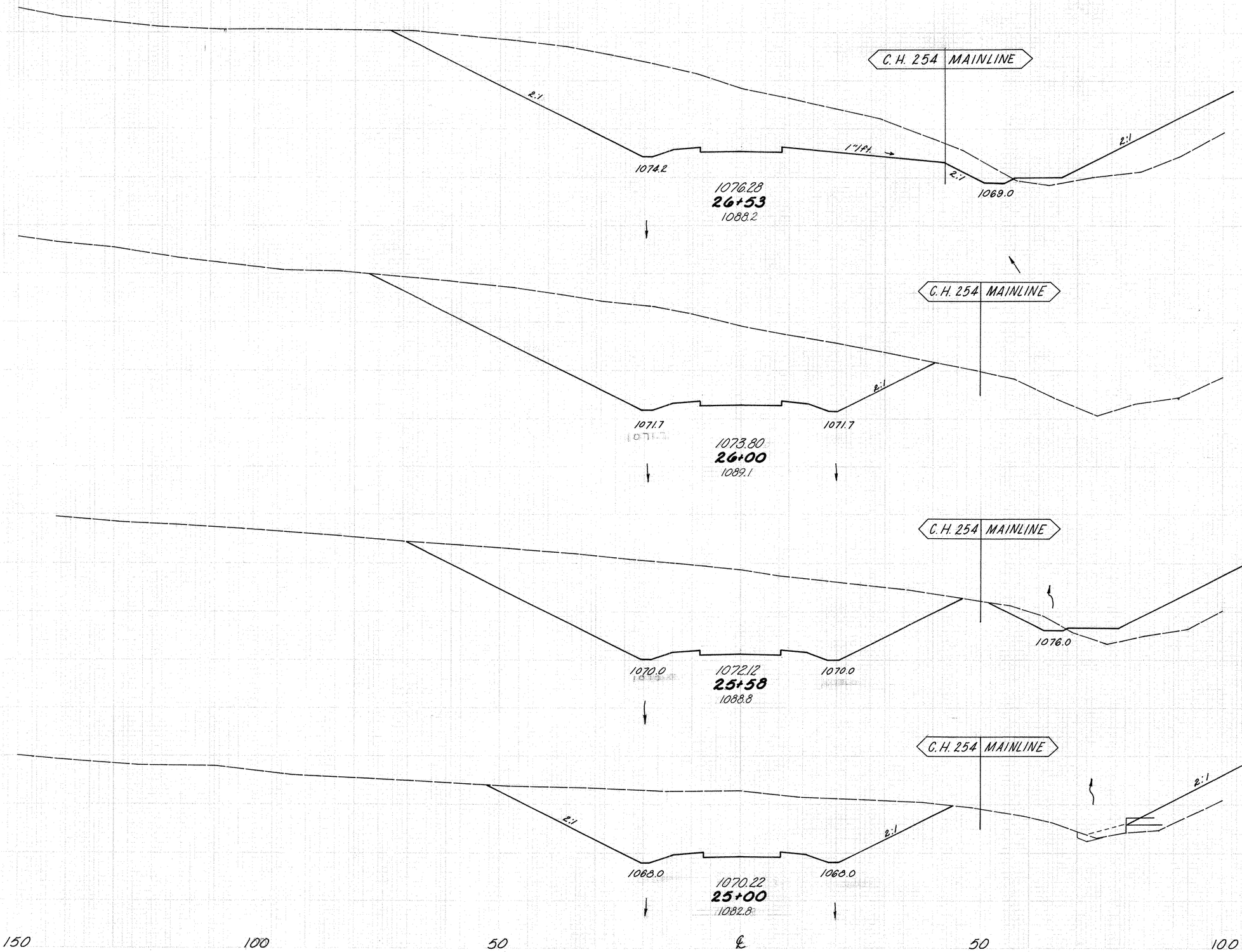
	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1080				
1070				
1060				
	105	79		
1080				
1070			111	497
1060				
1050				
	15	458		
1080				
1070			43	1186
1060				
1050				
	31	822		
1080				
1070			7	318
1060				
1050				
	9	893		
			32	2482
	3/a 22+00		10	596

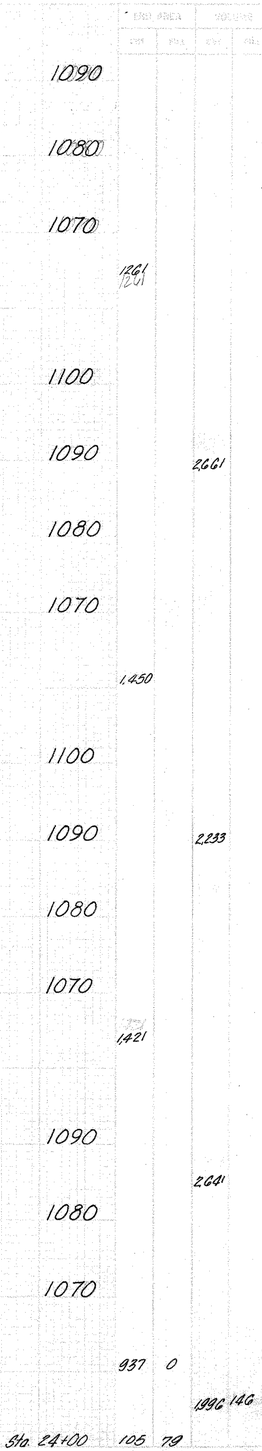
150 100 50 ℄ 50 100

RELOC. C.H. 254 ~ STA. 22+90 TO STA. 24+00

GUERNSEY COUNTY - BELMONT. COUNTY

GUE-40-23.88 BEL-40-0.00



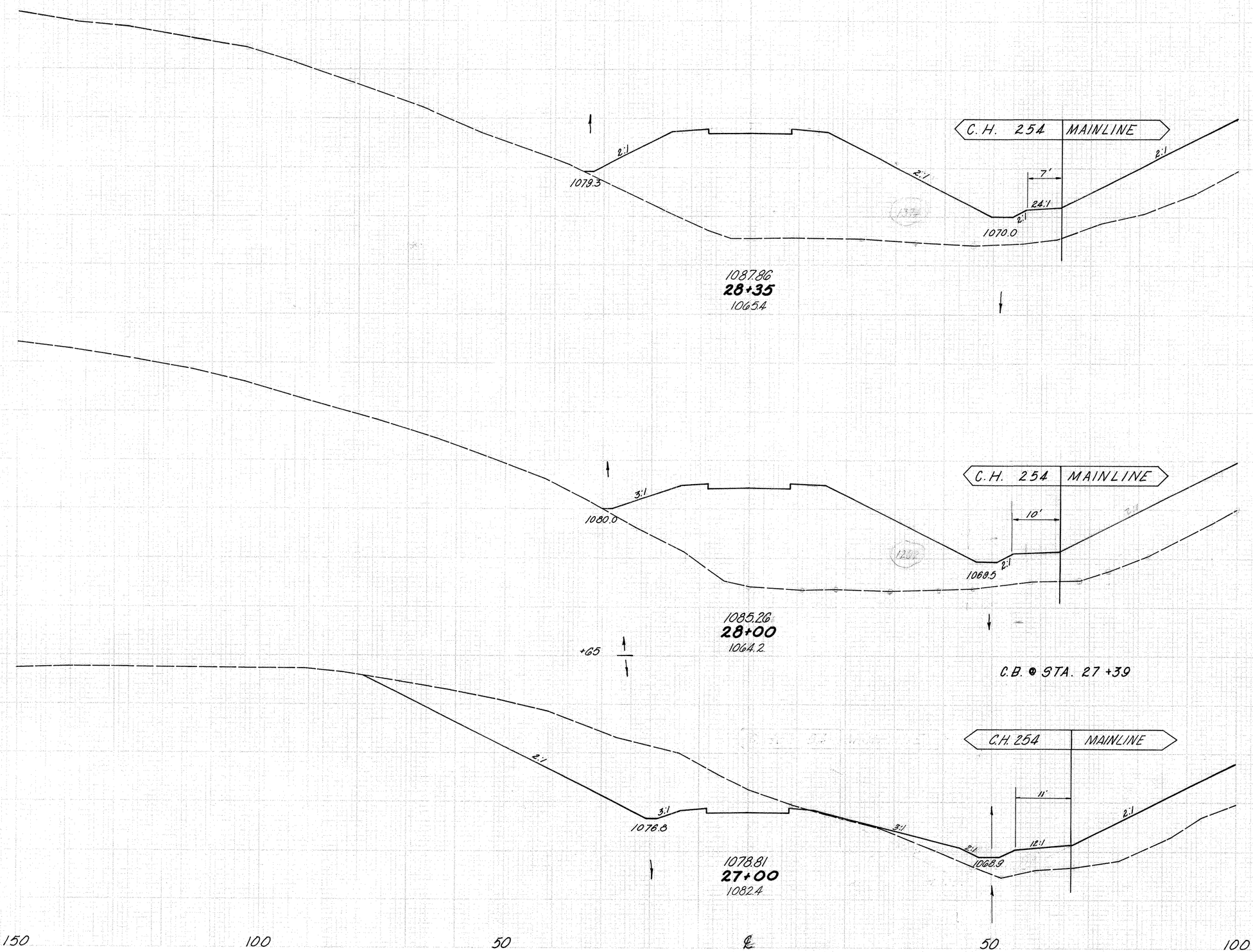


RELOC. C.H. 254 ~ STA. 25+00 TO STA. 26+53

FHWA DIVISION	STATE	PROJECT
5	OHIO	

380
485

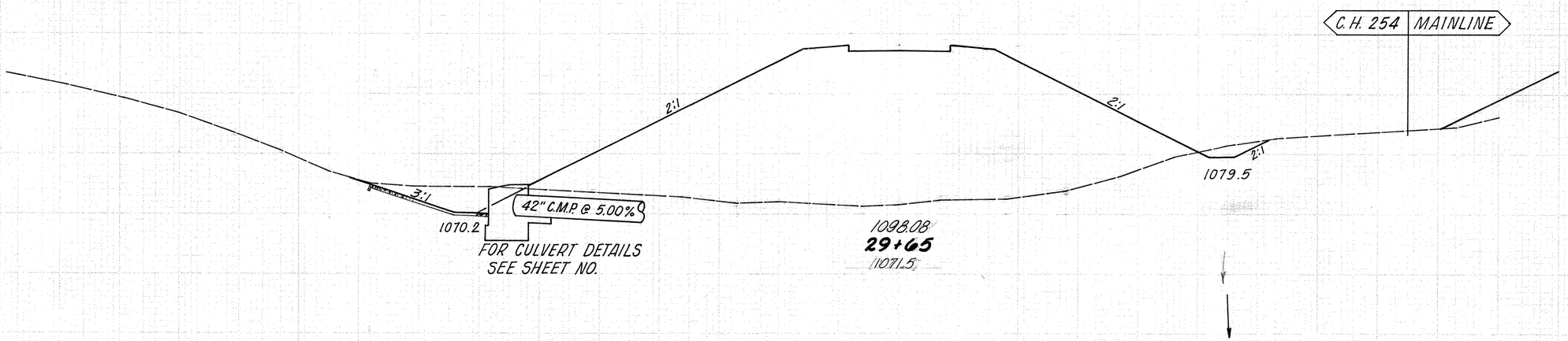
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

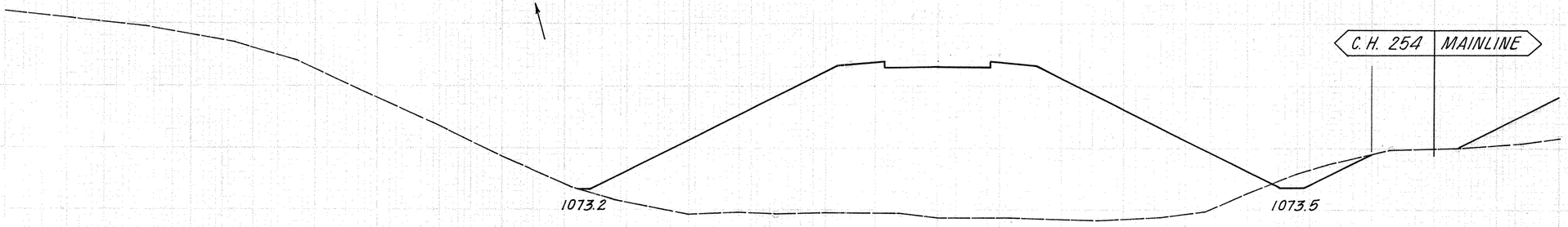


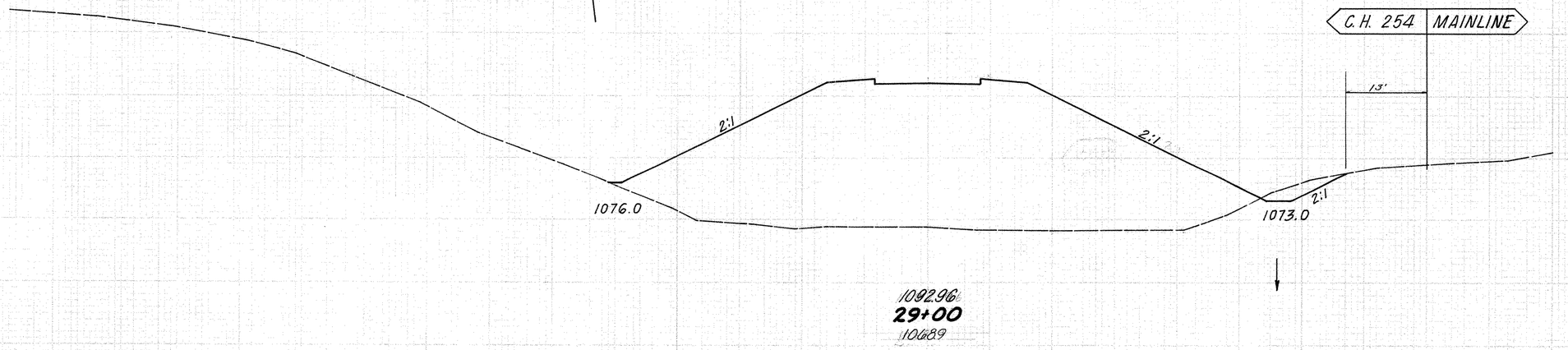
	END AREA		VOLUME	
	CUT	FILL	CUT	FILL

STATE: OHIO
381
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE-40-23.83 BEL-40-0.00







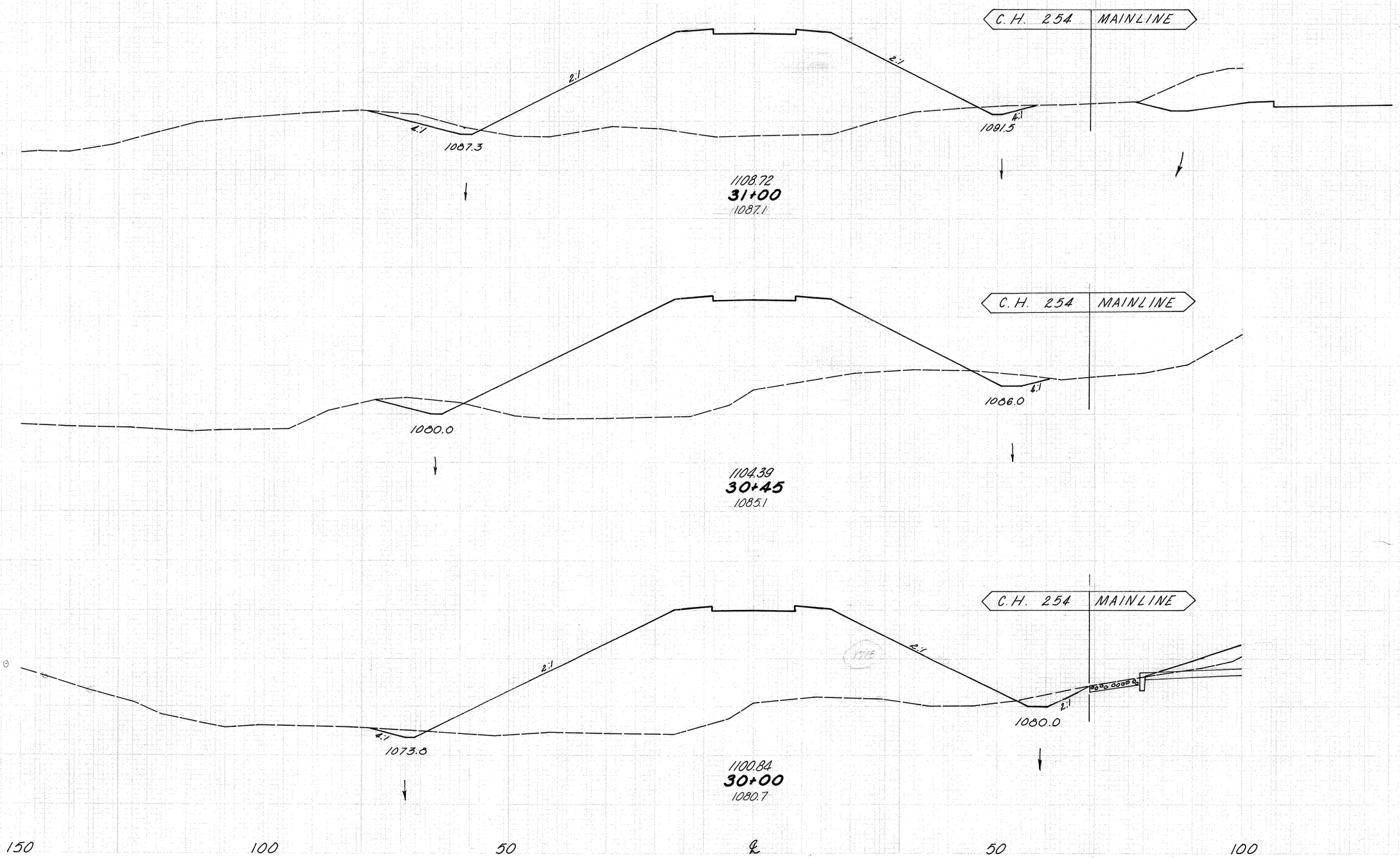
	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1100				
1090				
1080				
1070				
			76	1,892
1100				
			96	3598
1080				
1060				
			24	1844
1100				
			11	862
1080				
1060				
			21	1,737
			25	3745
			0	1,374

150 100 50 ℄ 50 100

Sta. 28+35

RELOC. C.H. 254 ~ STA. 29+00 TO STA. 29+65

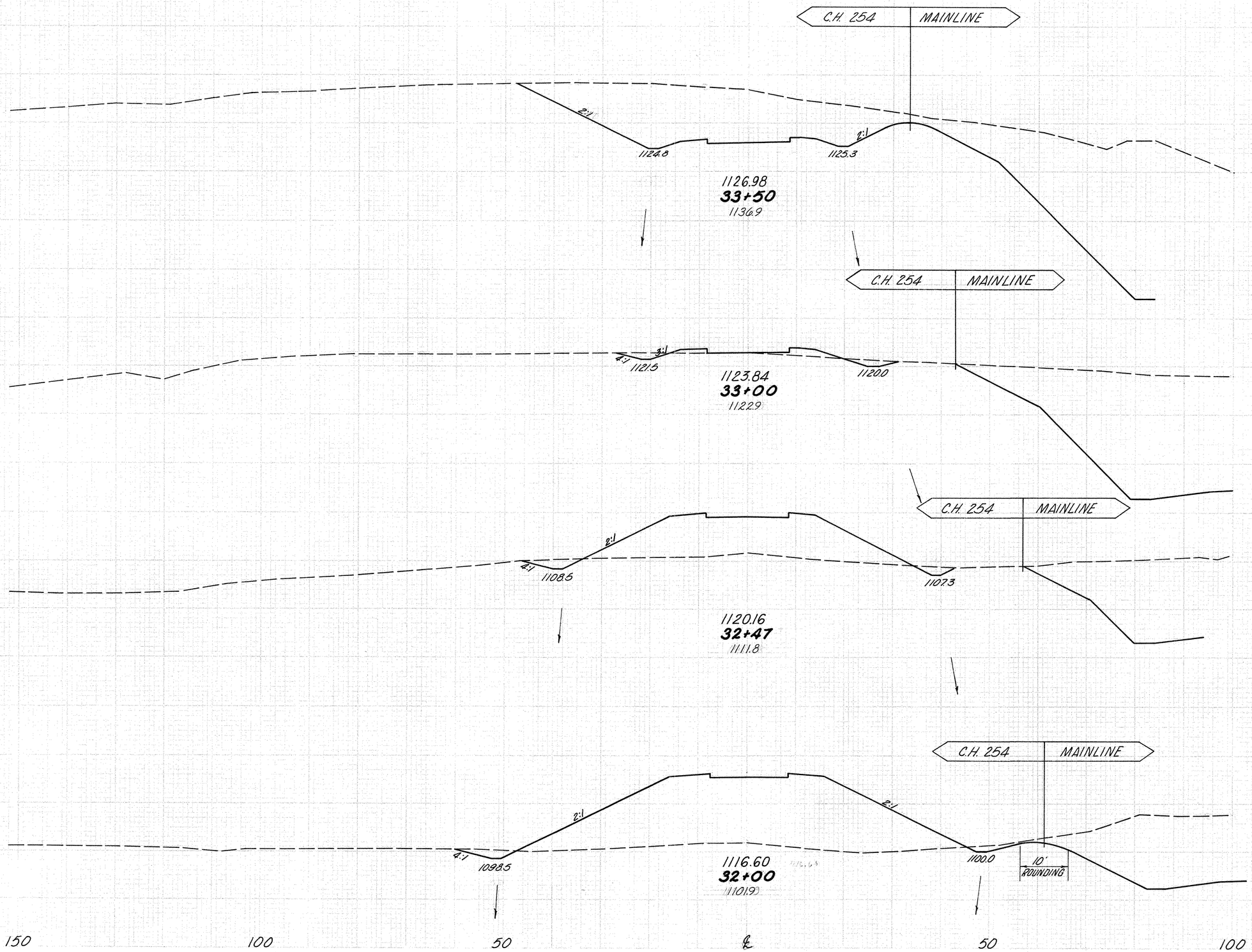
GUERNSEY COUNTY – DELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



END AREA		VOLUME	
CUT	FILL	CUT	FILL
36	1,391		
91	2,883		
53	1,439		
71	2,631		
32	1,718		
70	2,340		
Sta. 29+65	76	1,892	

RELOC. C.H. 254 ~ STA. 30+00 TO STA. 31+00

GUERNSEY COUNTY – DELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1130				
1120	670	0		
			636	19
1130				
1120				
1110	17	20		
1120			38	440
1110				
1100				
	22	428		
			39	1183
1120				
1110				
1100				
	23	931		
			109	4300
Sta. 31+00	36	1391		

RELOC. C.H. 254 ~ STA. 32+00 TO STA. 33+50

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 + 0.00

END AREA VOLUME
CUT FILL CUT FILL

C.H. 254 MAINLINE

2:1
1132.6
4:1
1132.8
10' ROUNDING
1134.48
35+00
1153.2

C.H. 254 MAINLINE

2:1
11295
4:1
11296
10' ROUNDING
1131.43
34+32
1152.5

C.H. 254 MAINLINE

2:1
11276
1129.80
34+00
1148.6
2:1
11280
10' ROUNDING

1170
1160
1140
1120
2,100
1150
1140
1130
1120
5,163
2,000
1150
1140
1130
1120
2,110
1,561
2,066

150 100 50 ℄ 50 100 Sta. 33+50 670

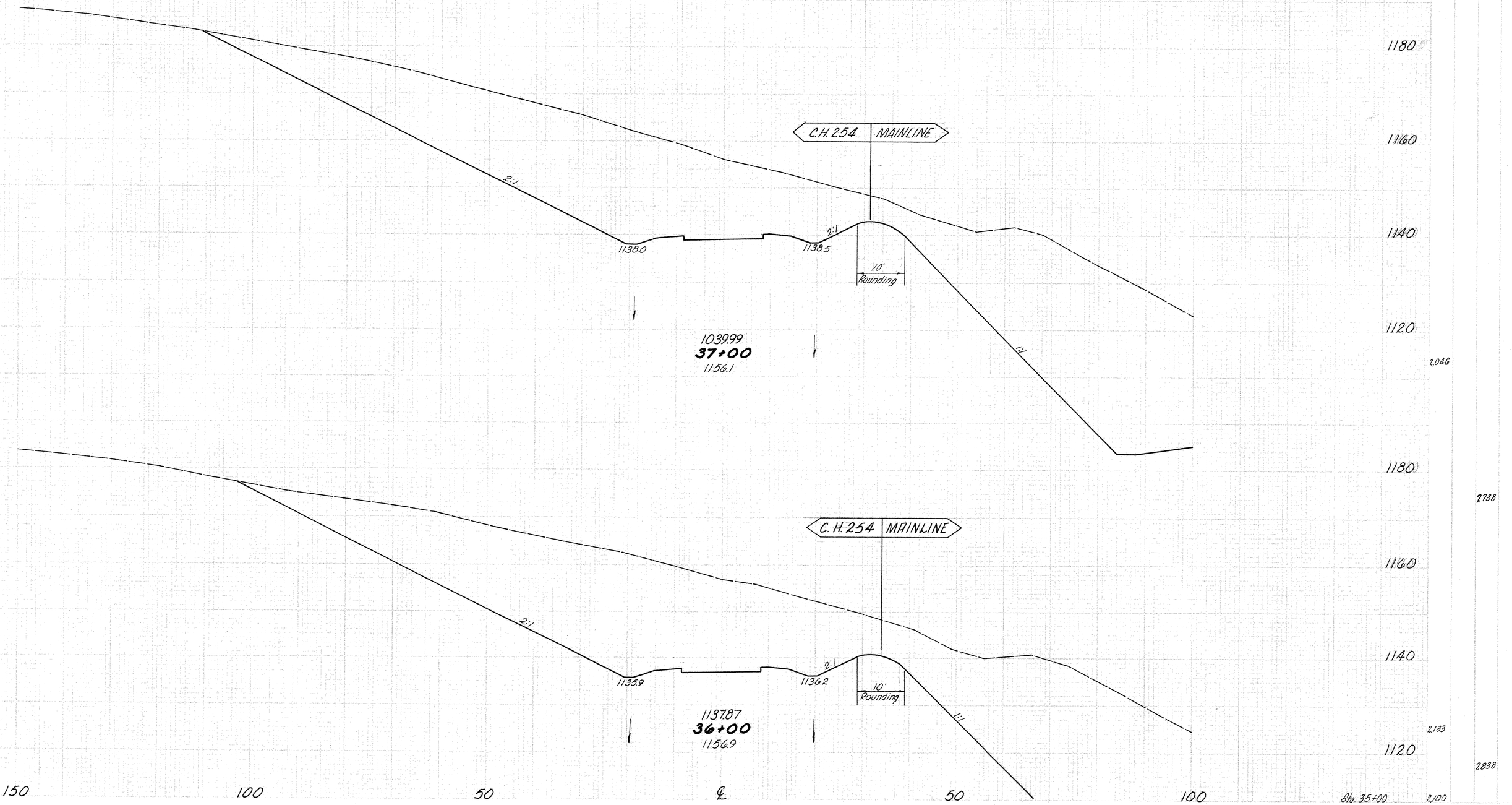
RELOC. C.H. 254 ~ STA. 34+00 TO STA. 35+00

385
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE-40-23.82 BEL-40-0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



RELOC. C.H. 254 ~ STA. 36+00 TO STA. 37+00

386
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

EXIST. GROUND

C.H. 254 | MAINLINE

2:1
1138.8
2:1
1139.2
10' ROUNDING
2:1
1:1

1140.74
37+77
1152.7

EXIST. GROUND

C.H. 254 | MAINLINE

2:1
1138.3
2:1
1139.0
10' ROUNDING
2:1
1:1

1140.60
37+54
1152.7

1180
1160
1140
1120
1180
1160
1140
1120

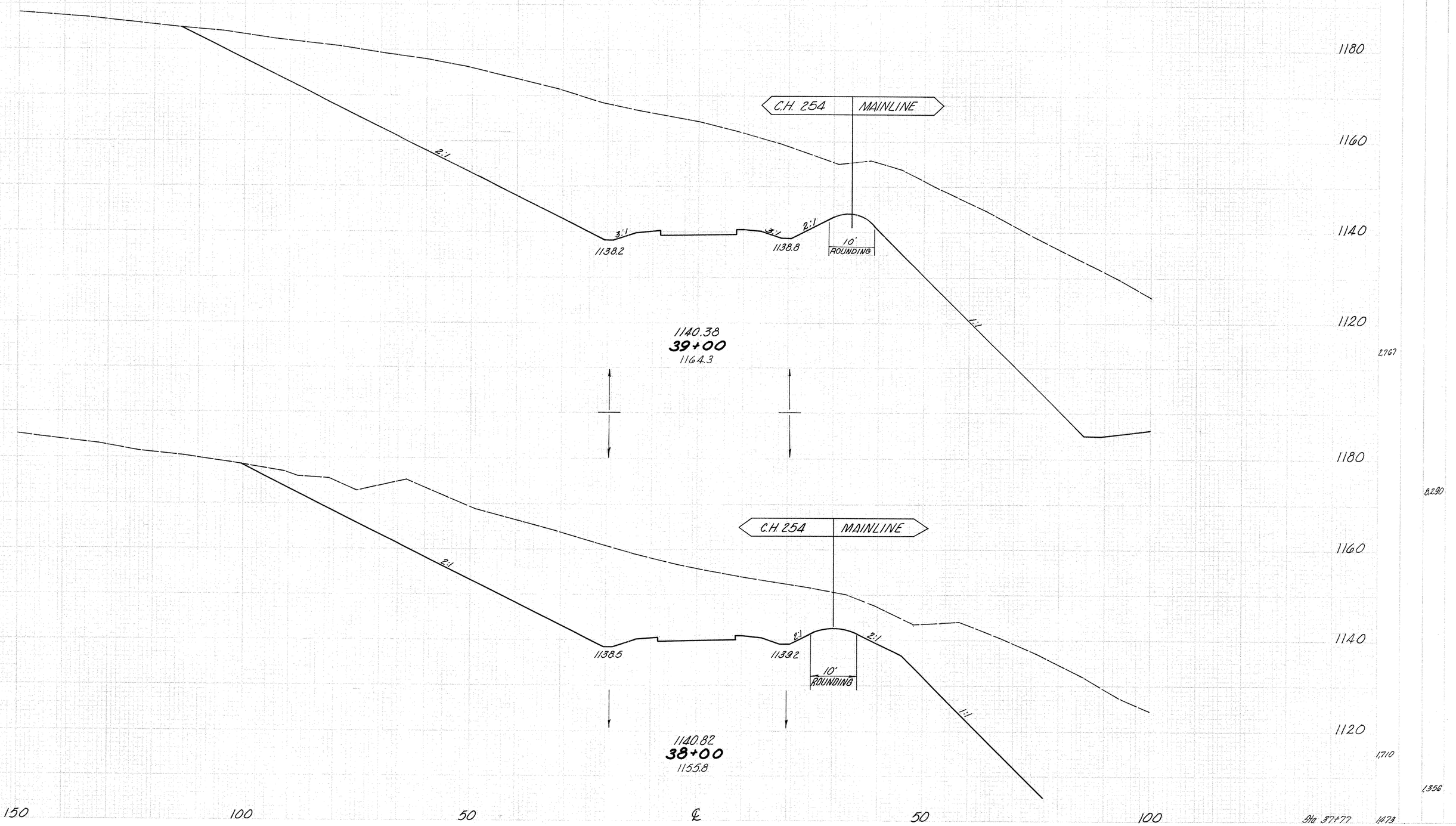
1.473
1.218
1.387
3.433
2.046

150 100 50 ℄ 50 100 Sta. 37+00

RELOC. C.H. 254 ~ STA. 37+54 TO STA. 37+77

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA | VOLUME
CUT | FILL | CUT | FILL

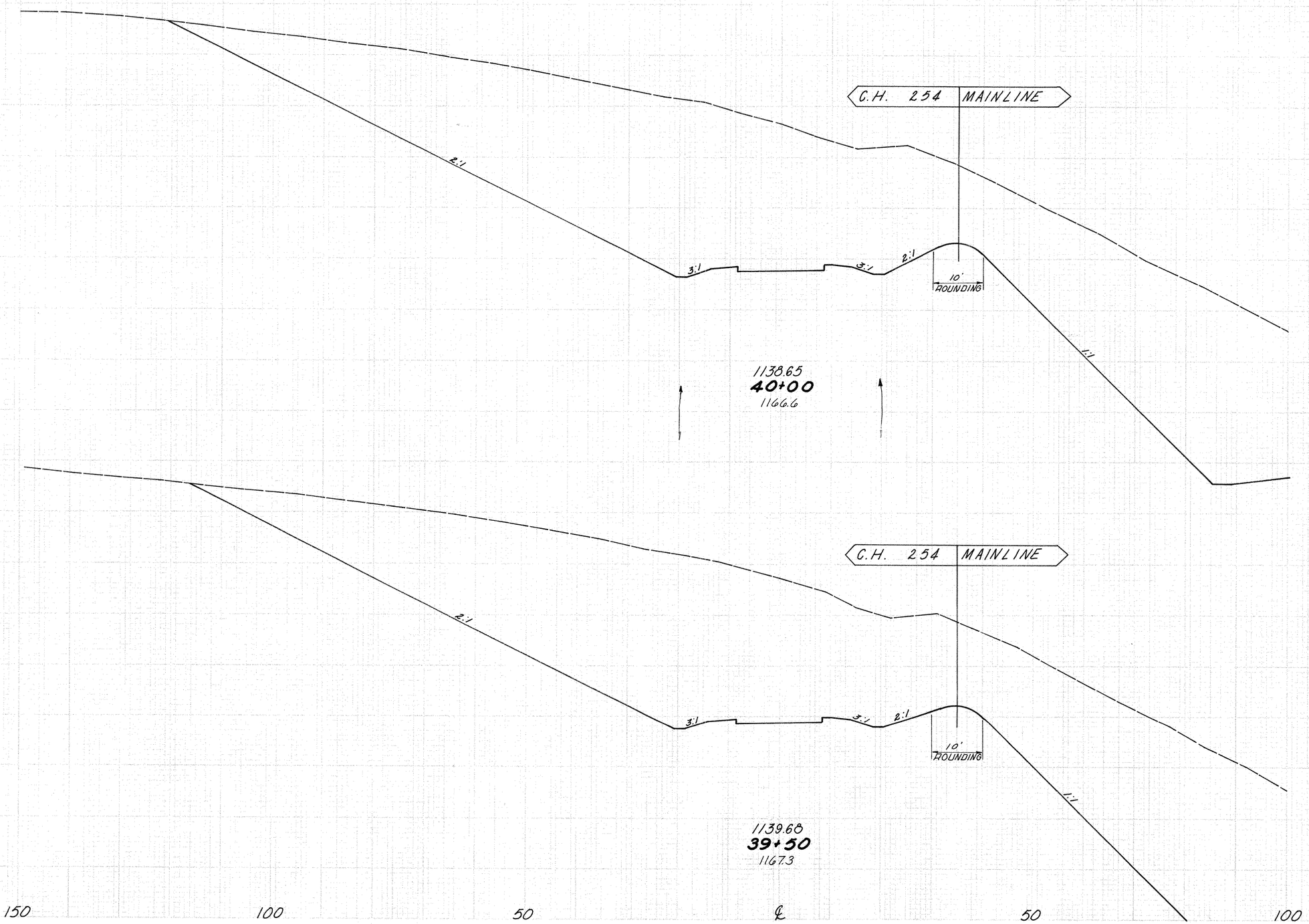


RELOC. C.H. 254 ~ STA. 38+00 TO STA. 39+00

388
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.80 BEL–40–0.00

END AREA | VOLUME
CUT | FILL | CUT | FILL

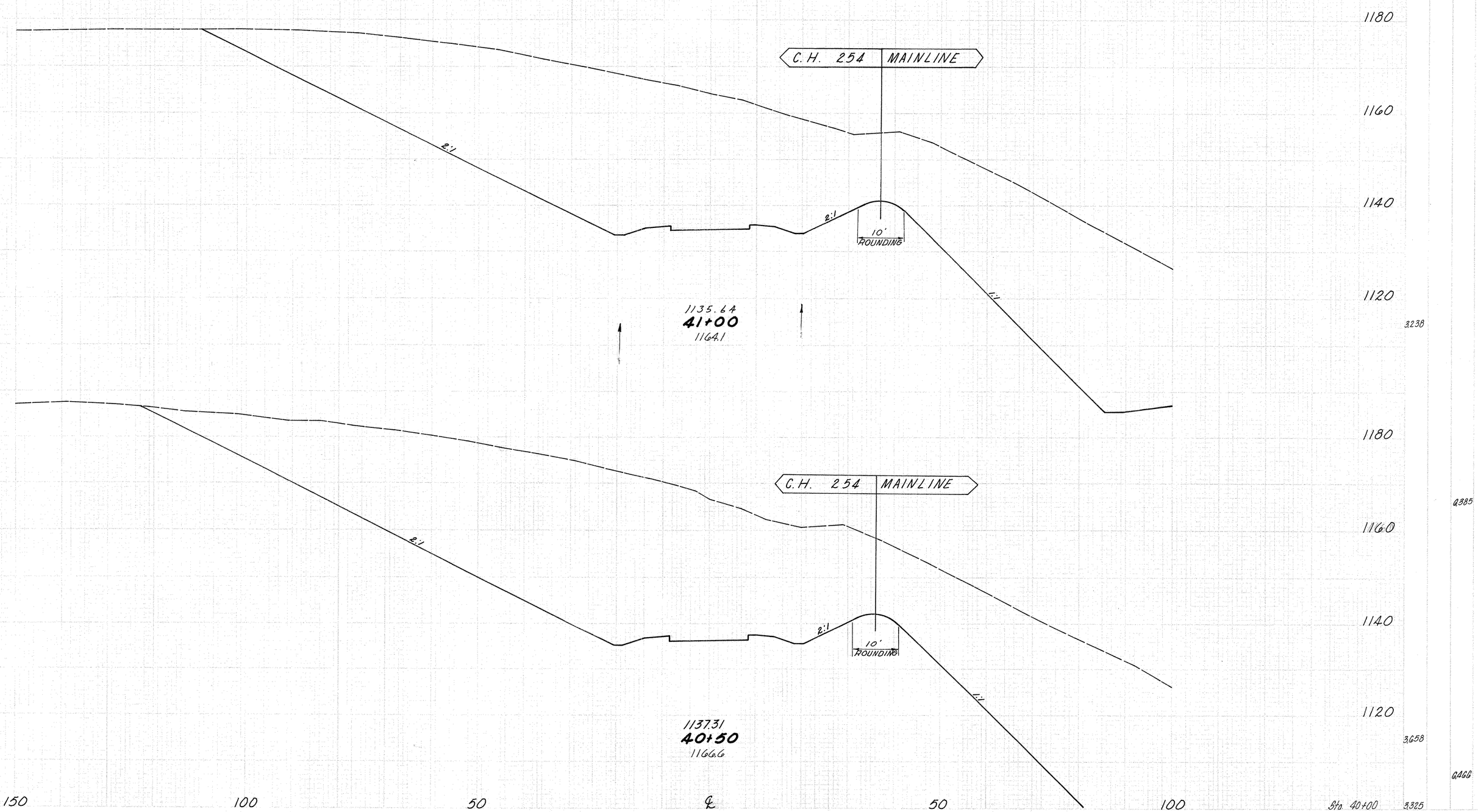


3,325
6,039
3,197
5,522
2,767

RELOC. C.H. 254 ~ STA. 39+50 TO STA. 40+00

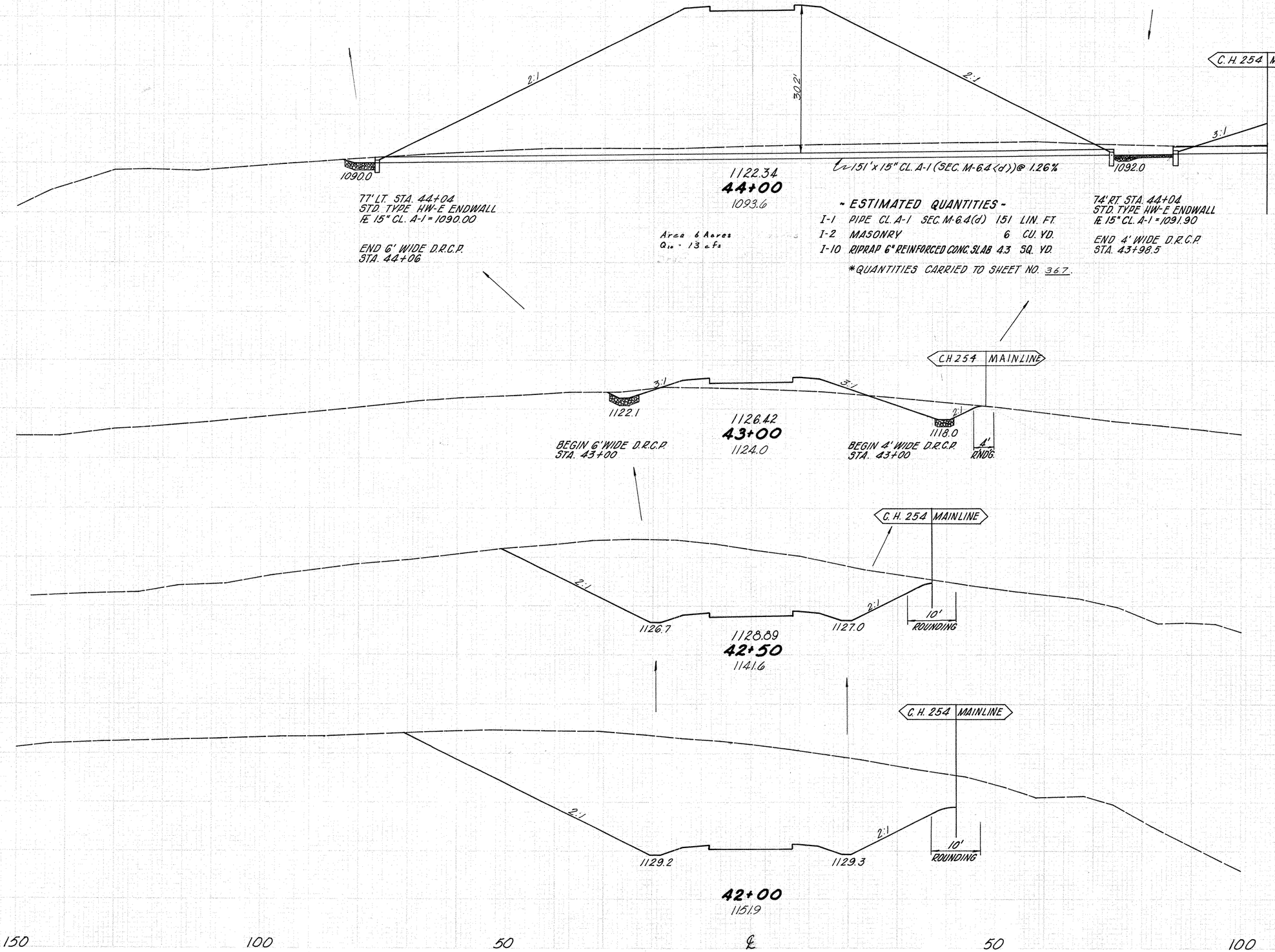
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

END AREA VOLUME
CUT FILL CUT FILL



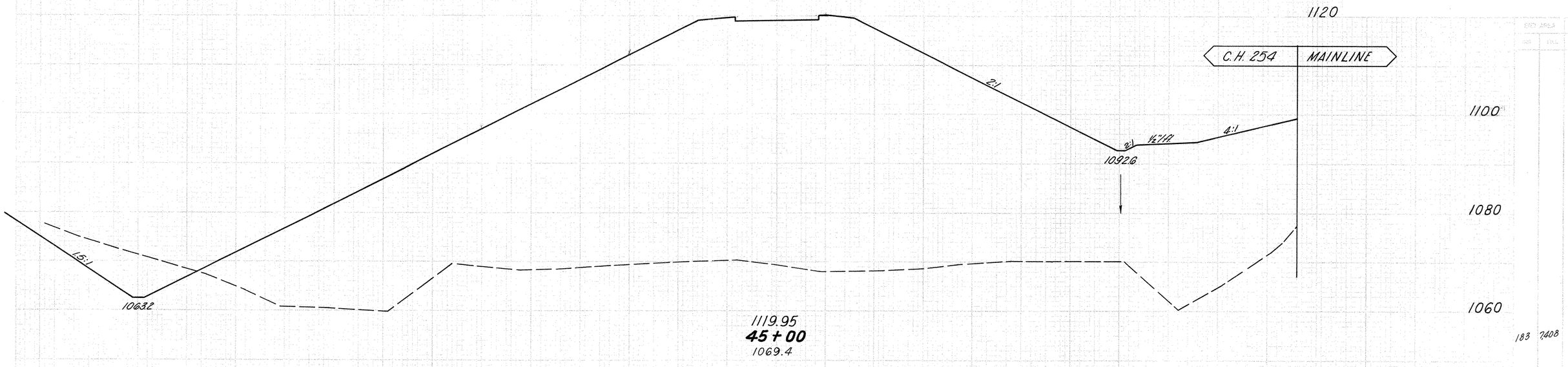
RELOC. C.H. 254 ~ STA. 40+50 TO STA. 41+00

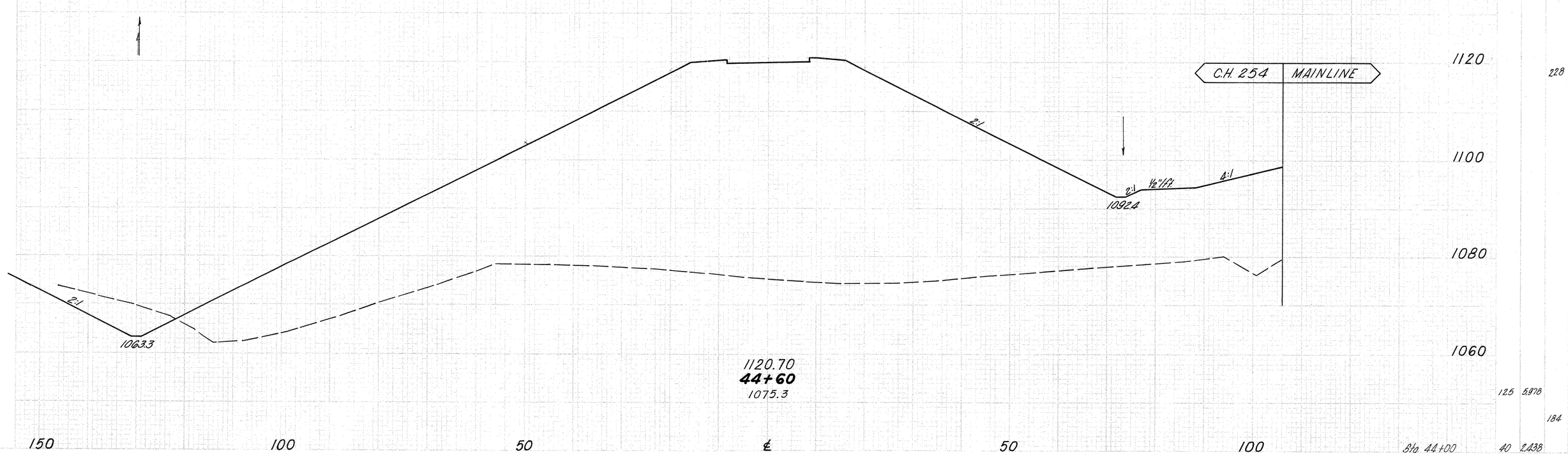
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



391
485

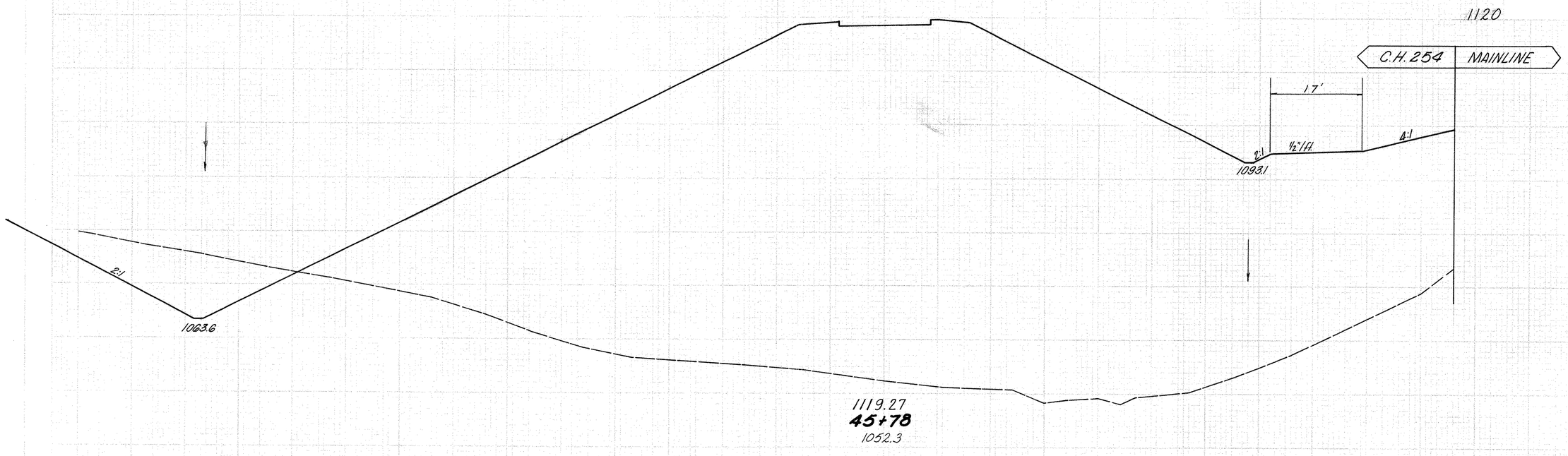
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

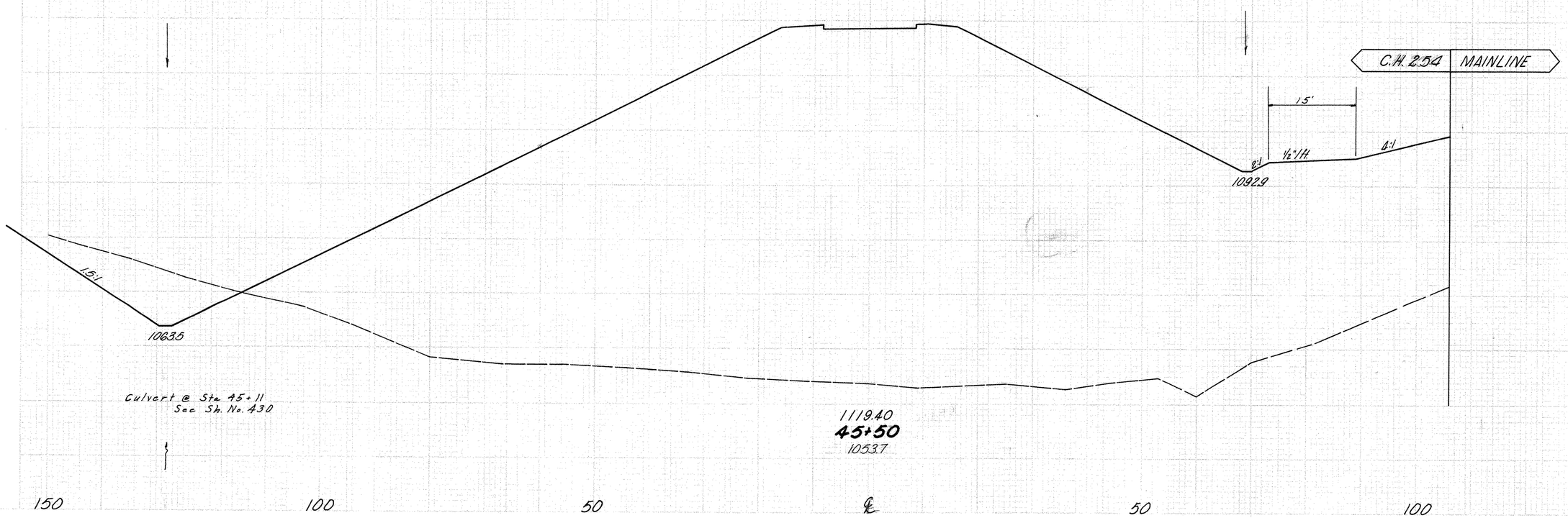




RELOC. C. H. 254 ~ STA. 44 + 60 TO STA. 45 + 00

GUERNSEY COUNTY - BELMONT COUNTY
GUE-40-23.03 BEL-40-0.00

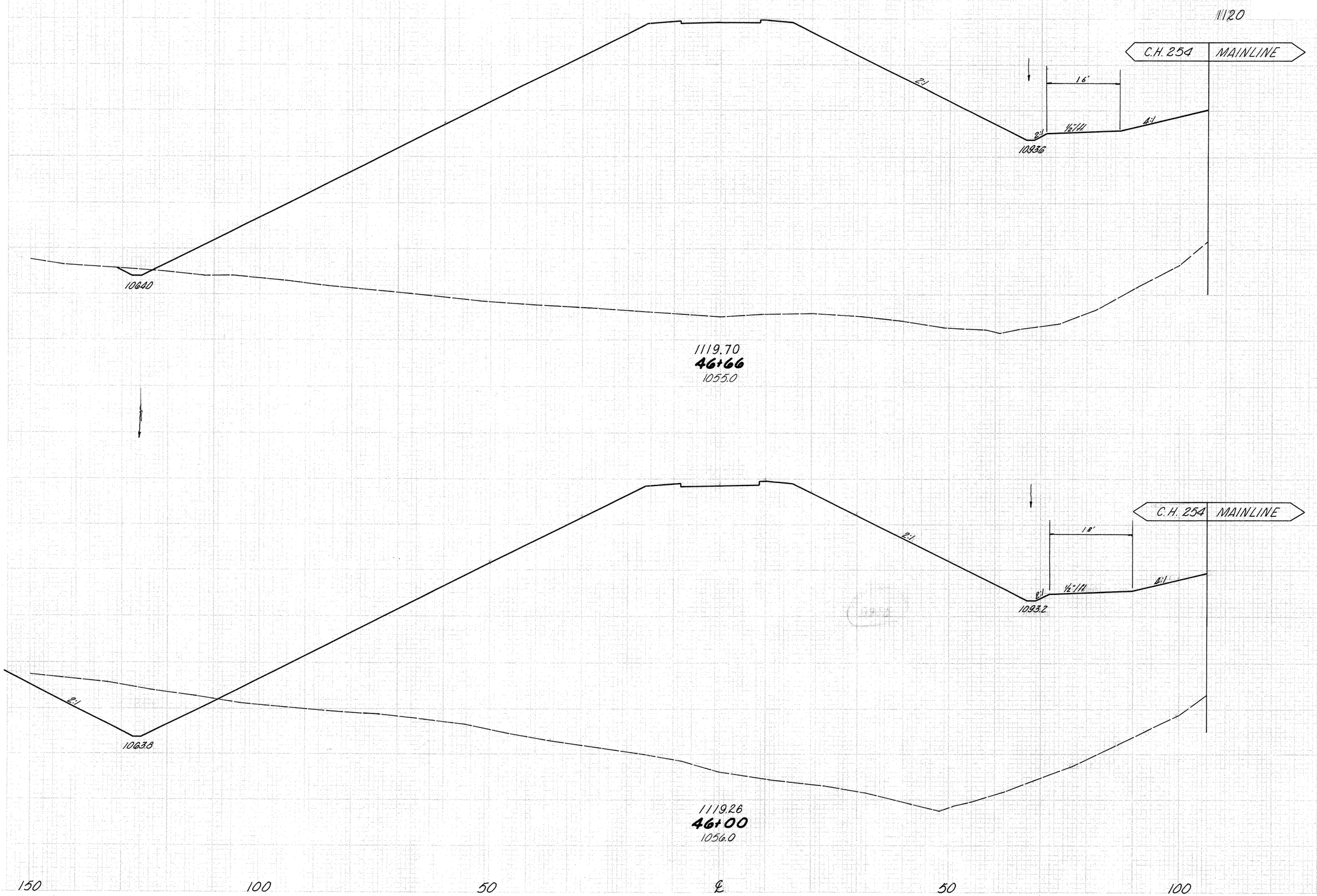




DIVISION	STATE		
2	OHIO		

393
485

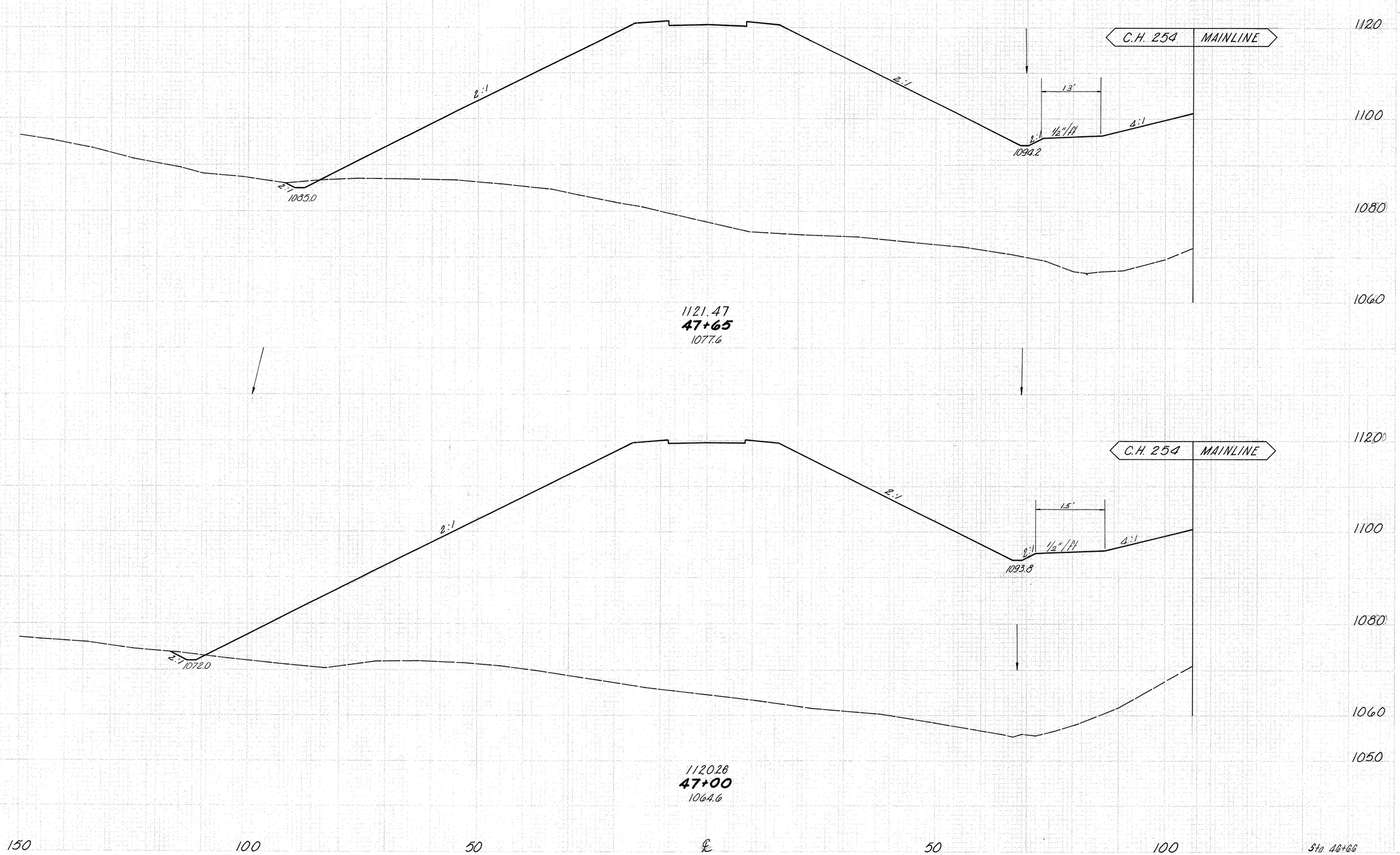
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.66 BEL–40–0.00



END AREA VOLUME

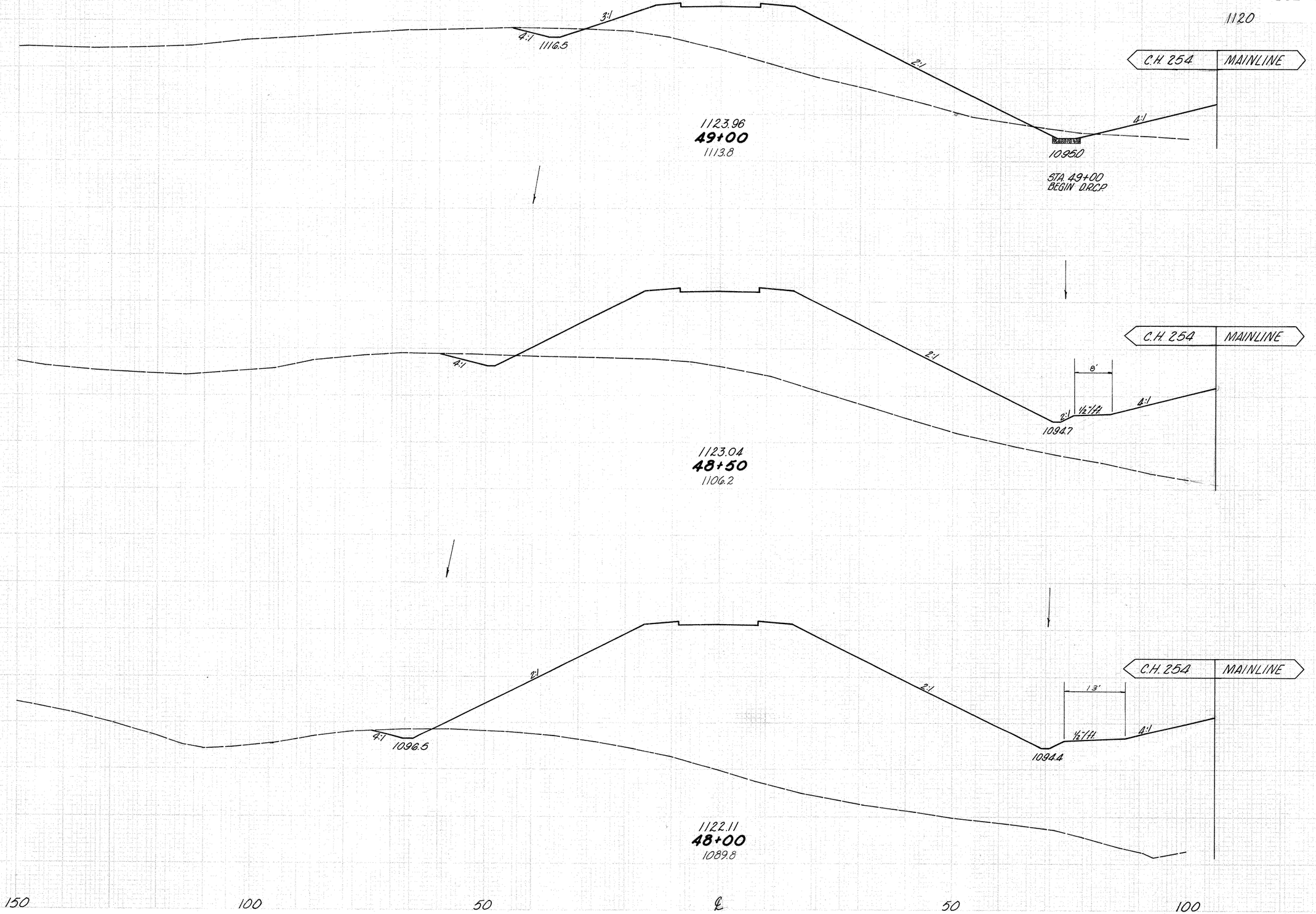
CUT	FILL	CUT	FILL

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



RELOC. C.H. 254 ~ STA. 47+00 TO STA. 47+65

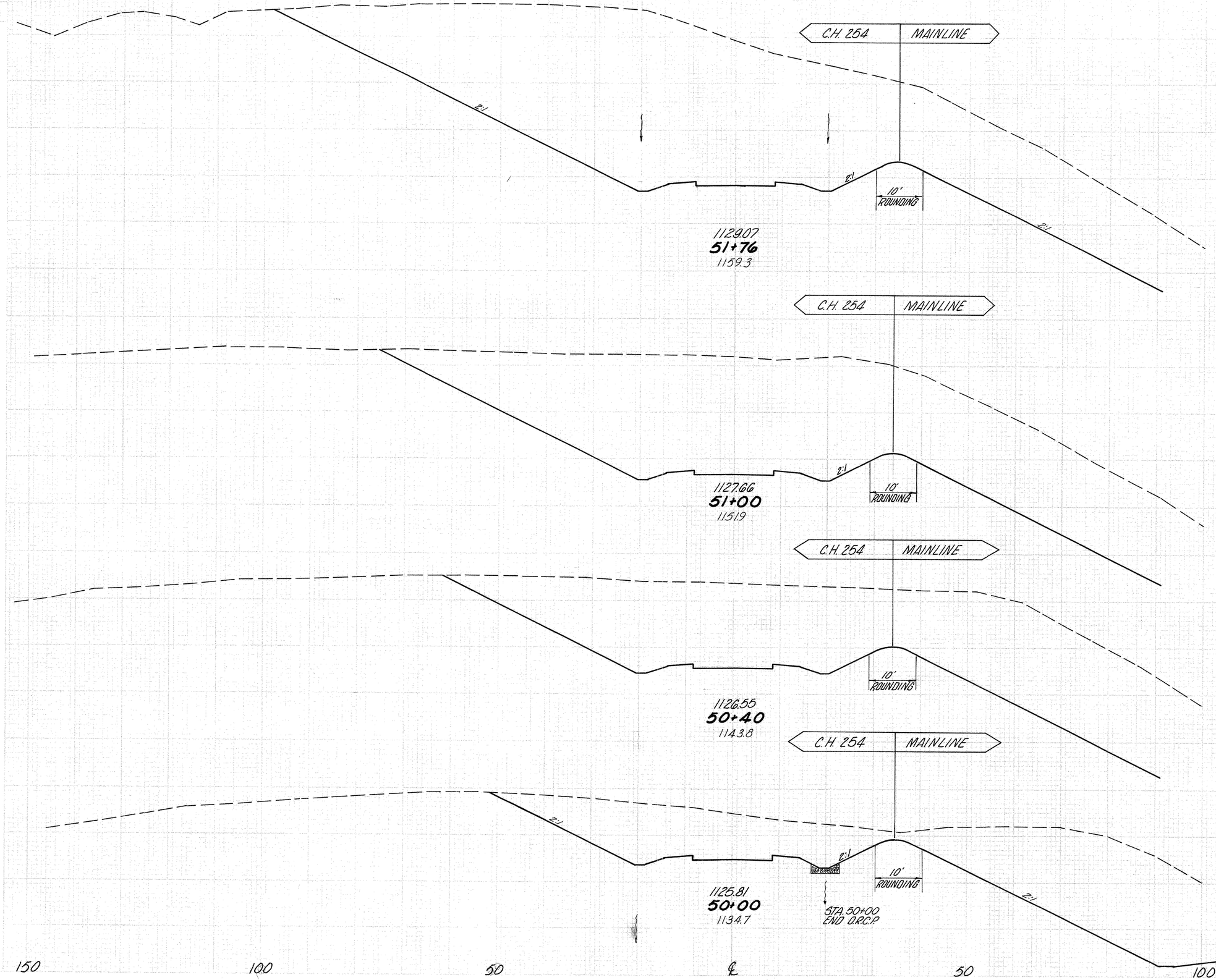
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



RELOC. C.H. 254 ~ STA. 48+00 TO STA. 49+00

GUERNSEY COUNTY – BELMONT COUNTY

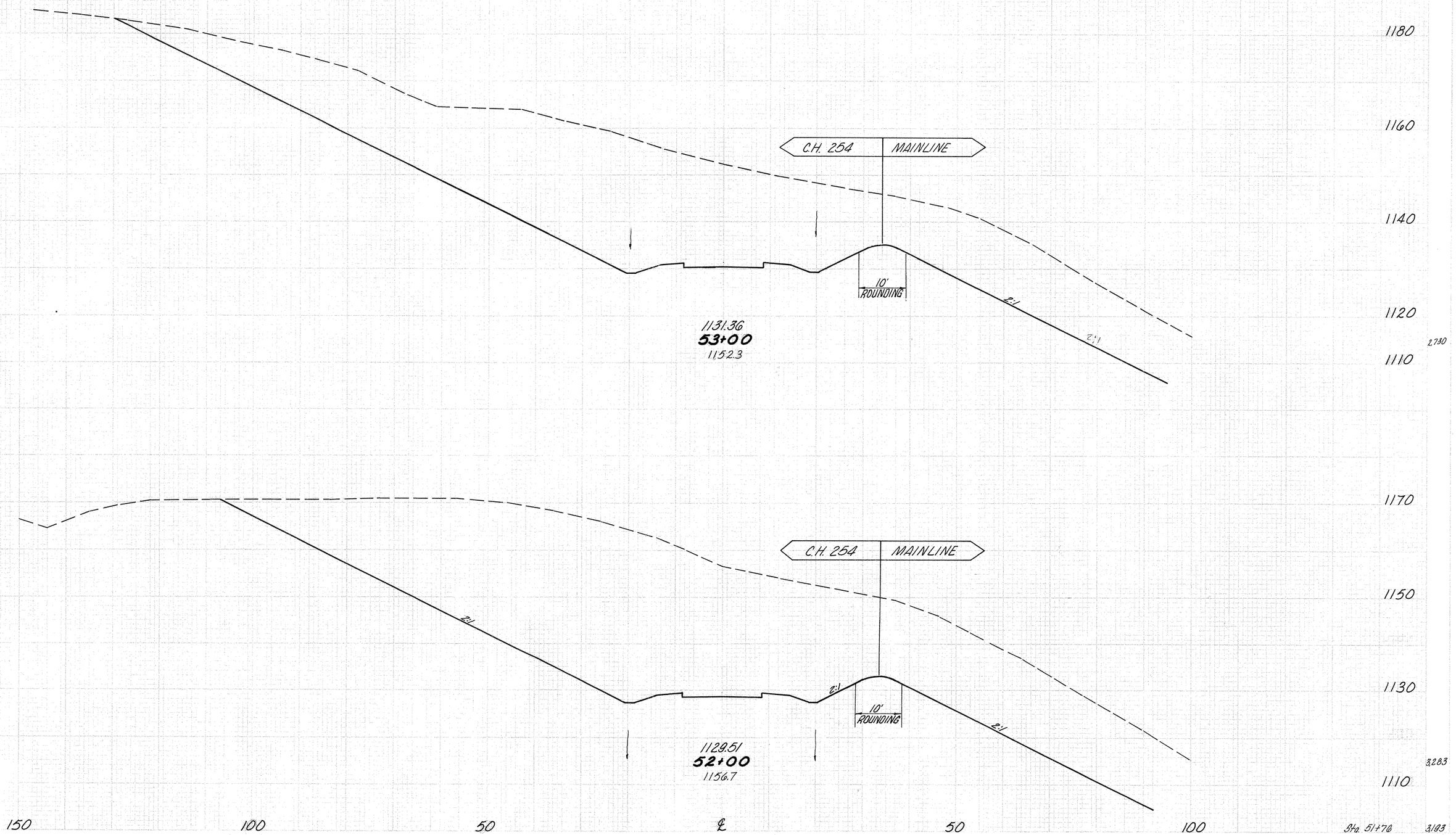
GUE–40–23.88 BEL–40–0.00



Sta. 49+00

RELOC. C.H. 254 ~ STA. 50+00 TO STA. 51+76

CUYAHOGA COUNTY - PIEDMONT COUNTY
R.O.W.=40-0.00 PAVE=40-0.00

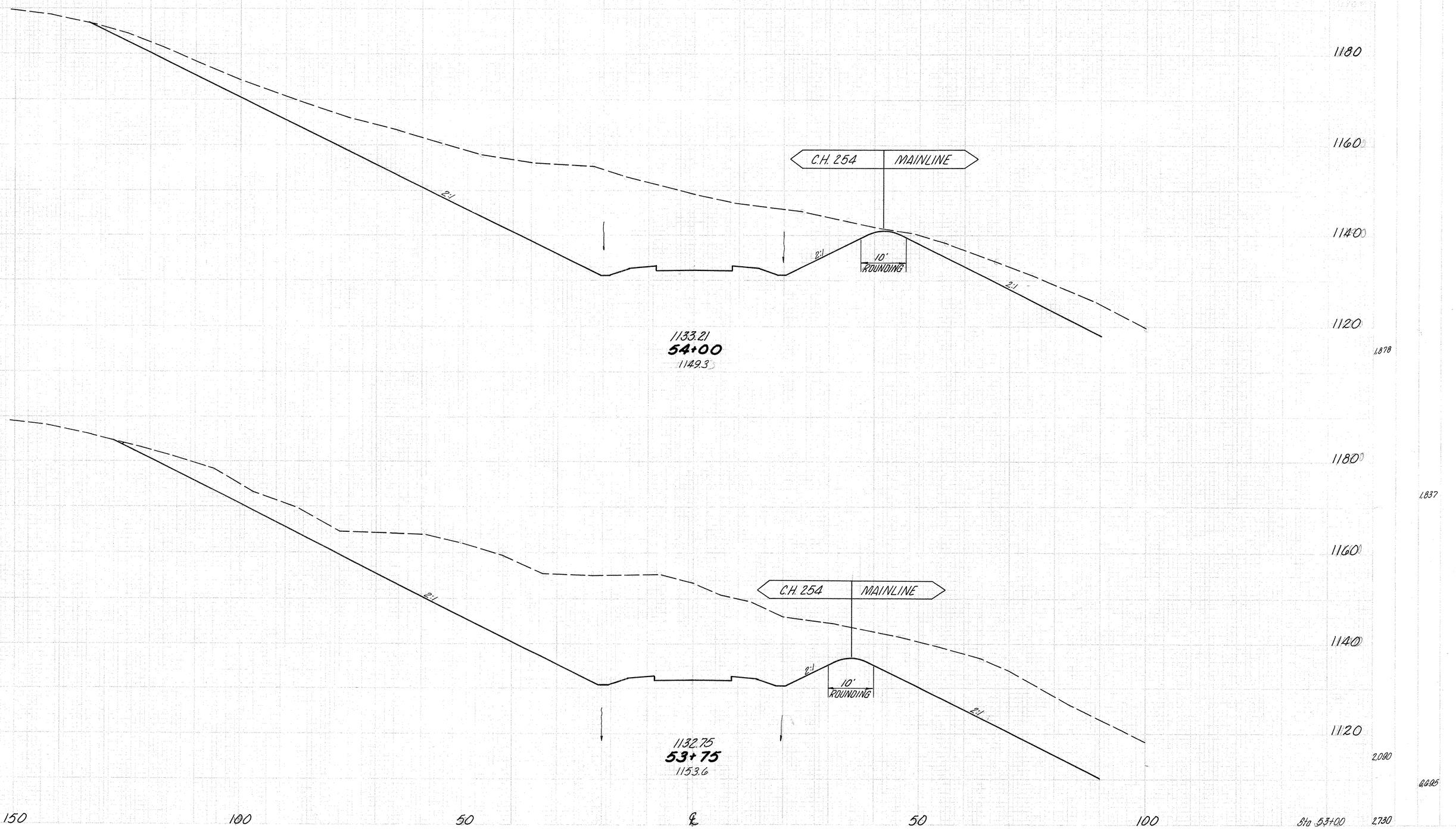


RELOC. C.H. 254 ~ STA. 52+00 TO STA. 53+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE-40-29.03 BEL-40-0.00

DIST	COUNTY	ROUTE	SECTION
11	OHIO		

DISTRICT AREA		VOLUME	
CUT	FILL	CUT	FILL



1878
1837
2090
6695
2730

RELOC. C.H. 254 ~ STA. 53+75 TO STA. 54+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

1180
1160
1140
1120
1110

1136.91
56+00
1139.7

2:1

1135.06
55+00
1145.2

2:1
2:1

150 100 50 ℄ 50 100

234
2,146
925
5,191
1878

Sta. 54+00

RELOC. C.H. 254 ~ STA. 55+00 TO STA. 56+00

SECOND

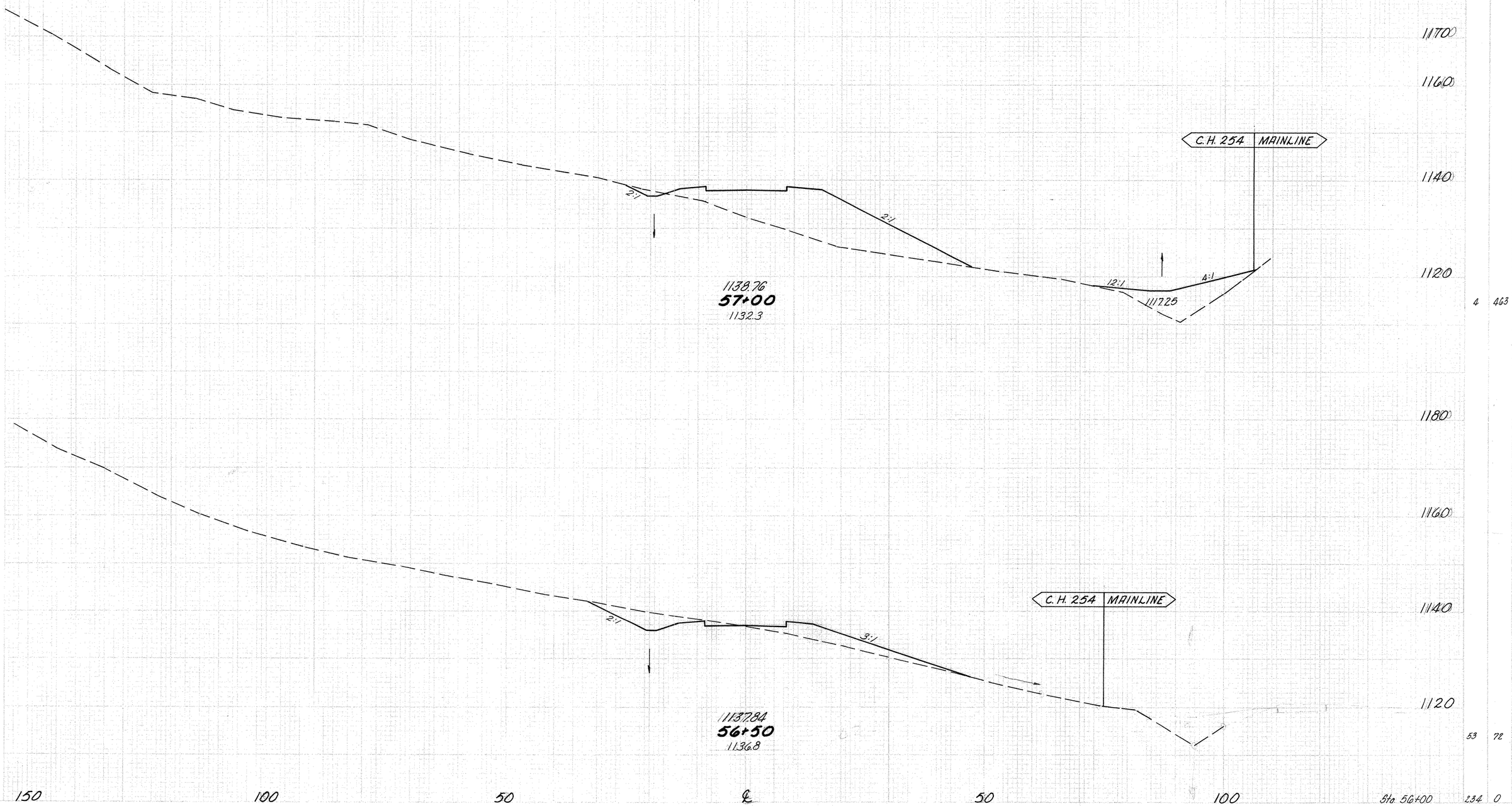
LIN. FEET	SQ. YDS.

FED. ROAD SYSTEM	STATE	PROJECT	
0	OHIO		

400
485

GUERNSEY COUNTY - BELMONT COUNTY
GUE-40-23.88 BEL-40-0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL



4 463

53 496

53 72

266 67

234 0

RELOC. C.H. 254 ~ STA. 56+50 TO STA. 57+00

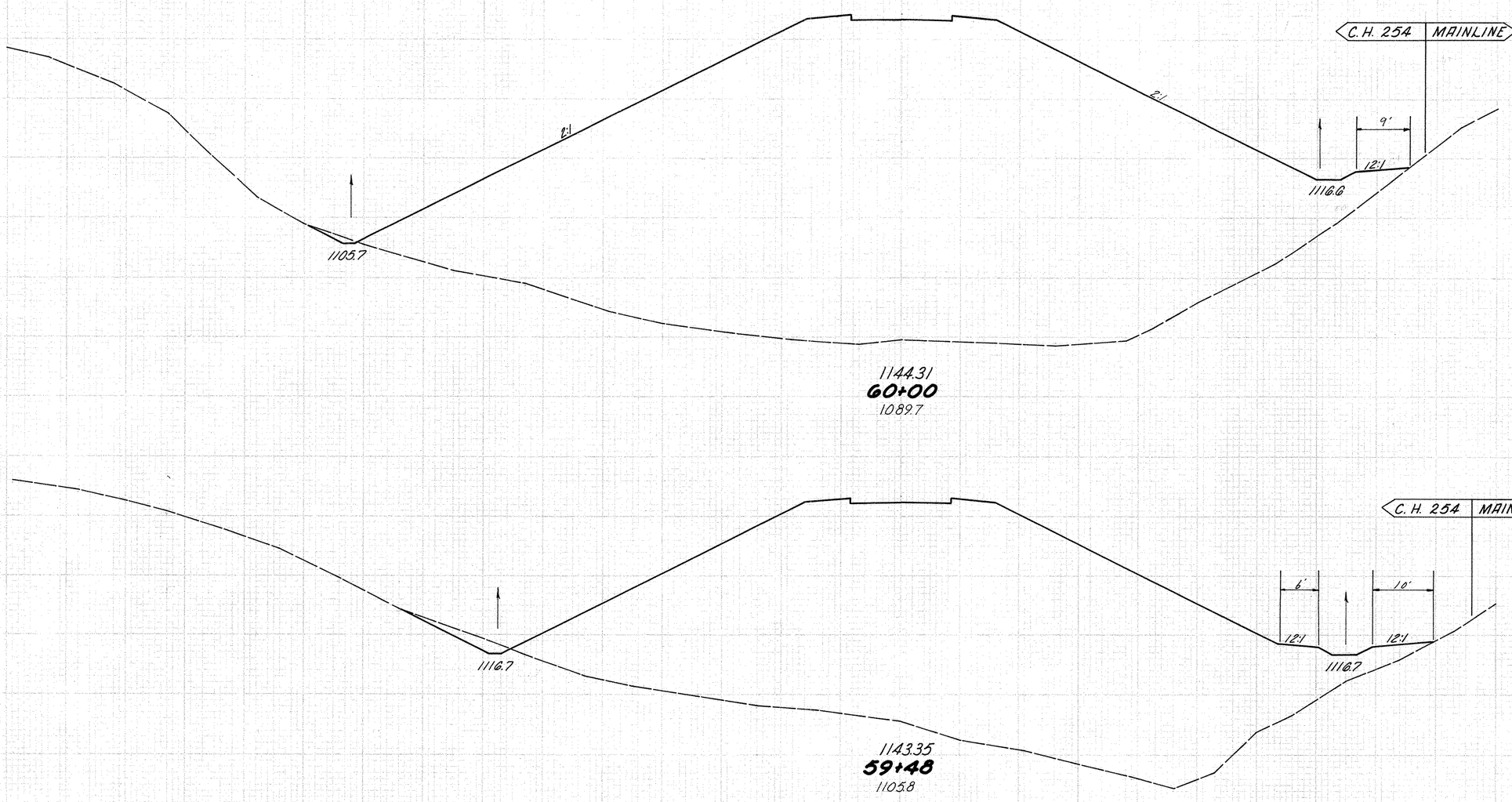
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

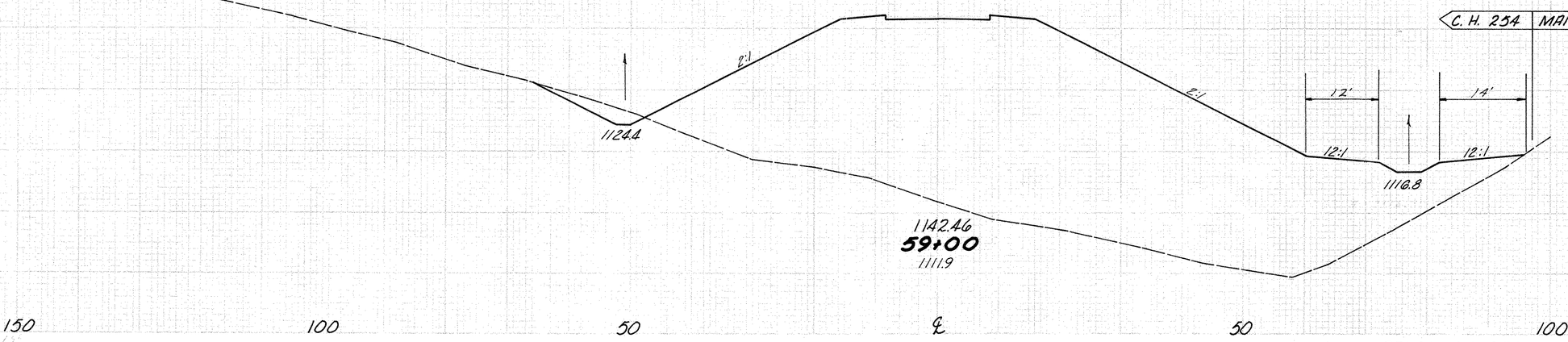
	SIDE AREA		VOLUME	
	CUT	FILL	CUT	FILL
1G			1,728	
1G			1,445	
19			1393	
54			2834	
20			647	
11			514	
Sta 57+00			4	463

RELOC. C.H. 254 ~ STA. 57+25 TO STA. 58+25

402
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



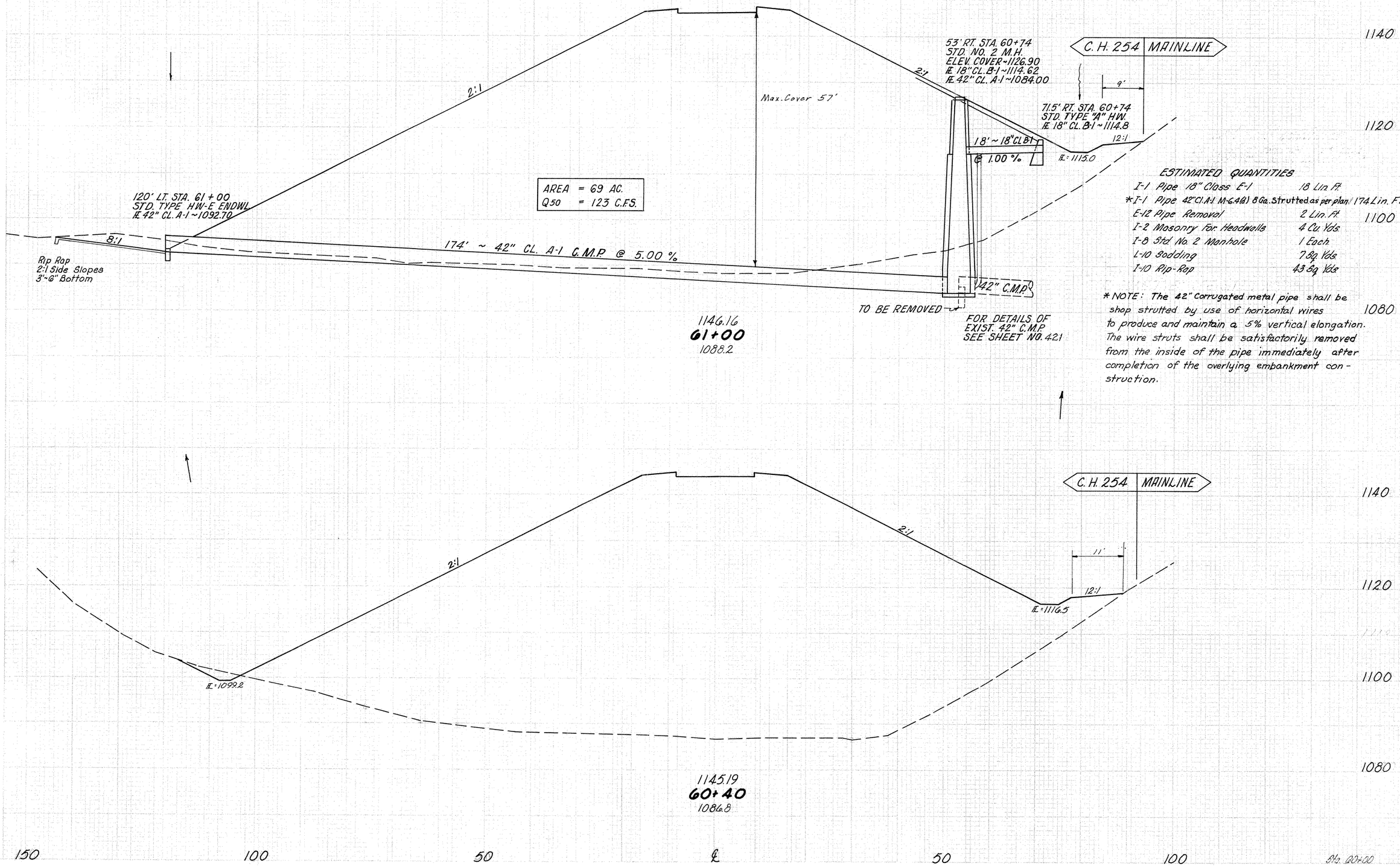


		4	5891
		25	9327
		22	3795
		41	5950
		24	2899
		56	6426
Sta. 58+25		16	1728

150 100 50 ℄ 50 100

RELOC. C.H. 254 ~ STA. 59+00 TO STA. 60+00

GUERNSEY COUNTY – BELMONT COUNTY
GUE-40-23.68 BEL-40-0.00



ESTIMATED QUANTITIES

I-1 Pipe 18" Class E-1	18 Lin. Ft.
*I-1 Pipe 42" Cl. A-1 M-64.1(B) 8 Ga. Strutted as per plan	174 Lin. Ft.
E-12 Pipe Removal	2 Lin. Ft.
I-2 Masonry for Headwalls	4 Cu. Yds.
I-8 Std. No. 2 Manhole	1 Each
L-10 Sodding	78 Sq. Yds.
I-10 Rip-Rap	43 Sq. Yds.

*NOTE: The 42" Corrugated metal pipe shall be shop strutted by use of horizontal wires to produce and maintain a 5% vertical elongation. The wire struts shall be satisfactorily removed from the inside of the pipe immediately after completion of the overlying embankment construction.

RELOC. C.H. 254 ~ STA. 60+40 TO STA. 61+00

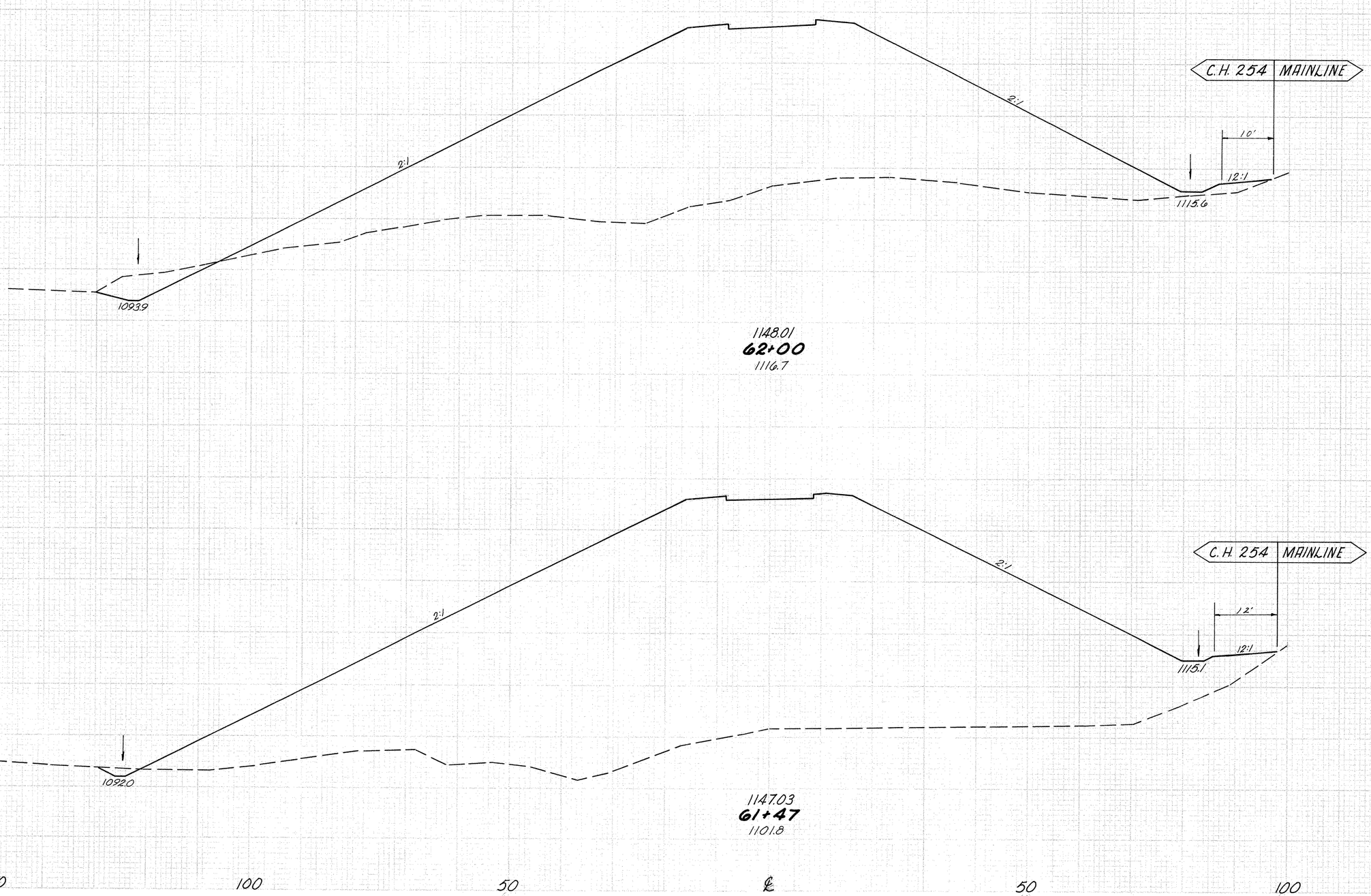
SEQ. NO. DIVISION	STATE	PROJECT	
2	OHIO		

404
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		G3 3500	
		G2 9315	
		8 5991	
		7 11,320	
Sta 61+00		0 7015	



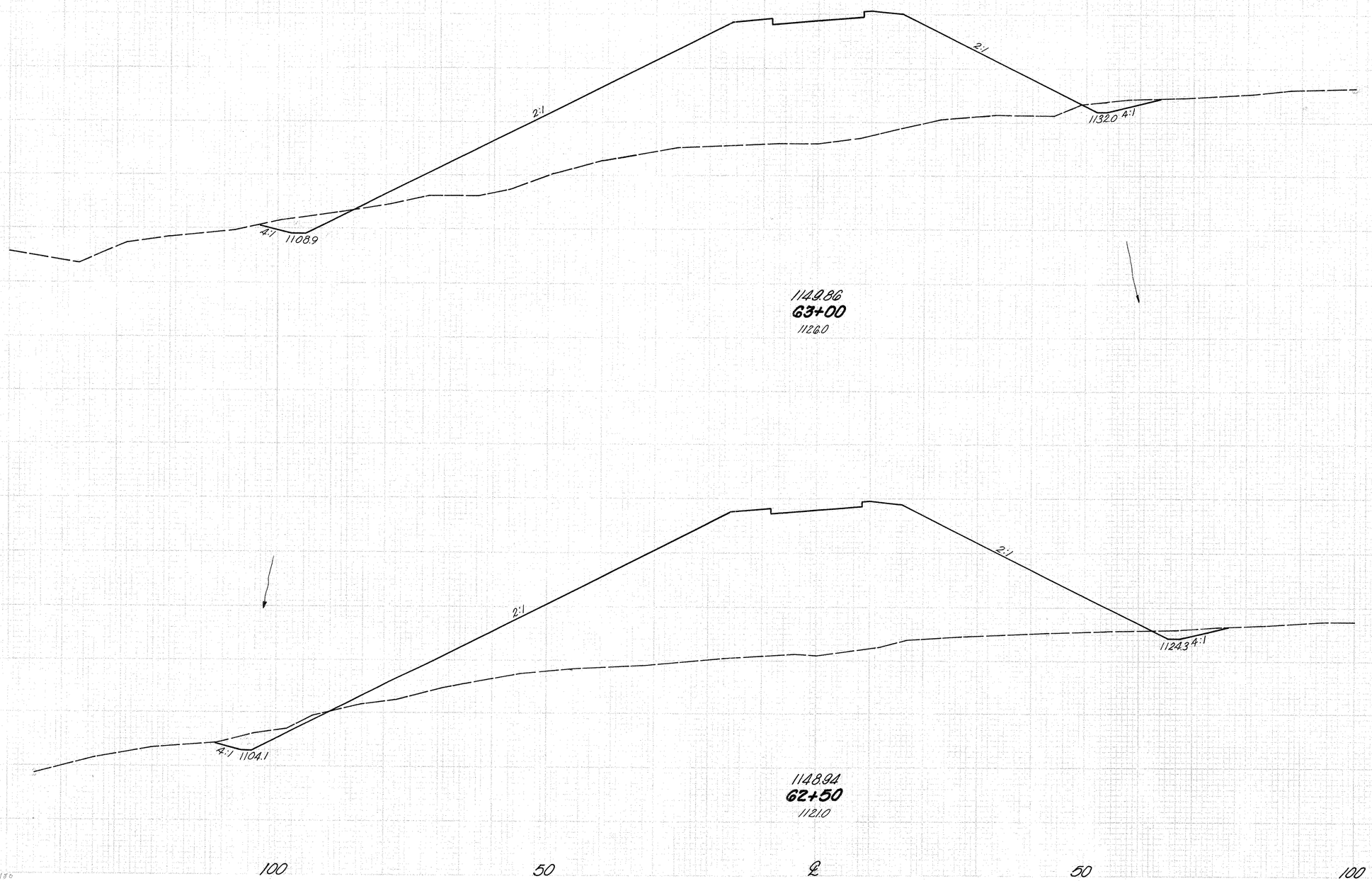
RELOC. C.H. 254 ~ STA. 61+47 TO STA. 62+00

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

405
485

GUERNSEY COUNTY - BELMONT COUNTY
GUE-40-23.88 BEL-40-0.00

END AREA		VOLUME	
CUT	FILL	CUT	FILL

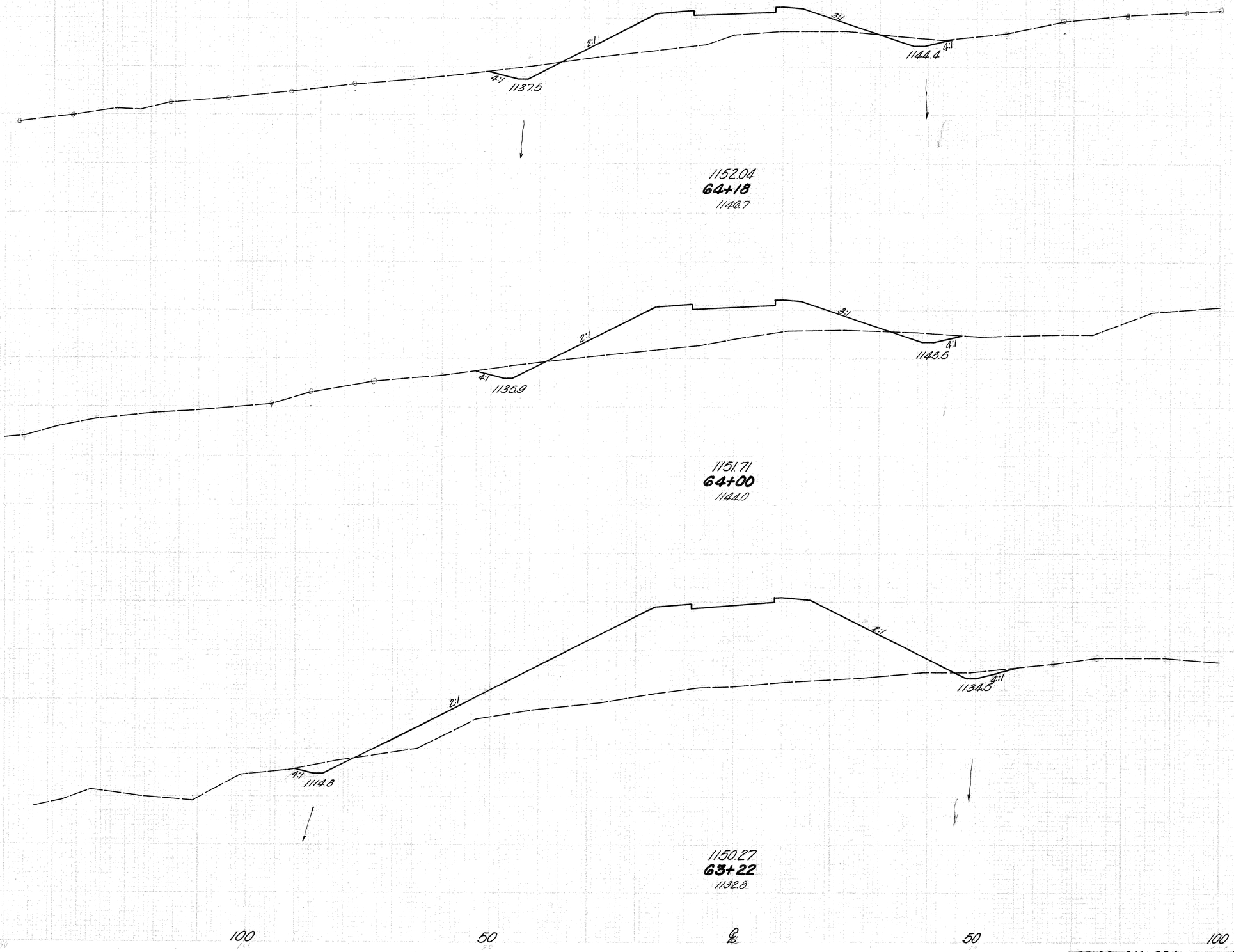


48 1868
84 3906
42 2350
97 5417
Sta. 62+00 63 3500

RELOC. C.H. 254 ~ STA. 62+50 TO STA. 63+00

406
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

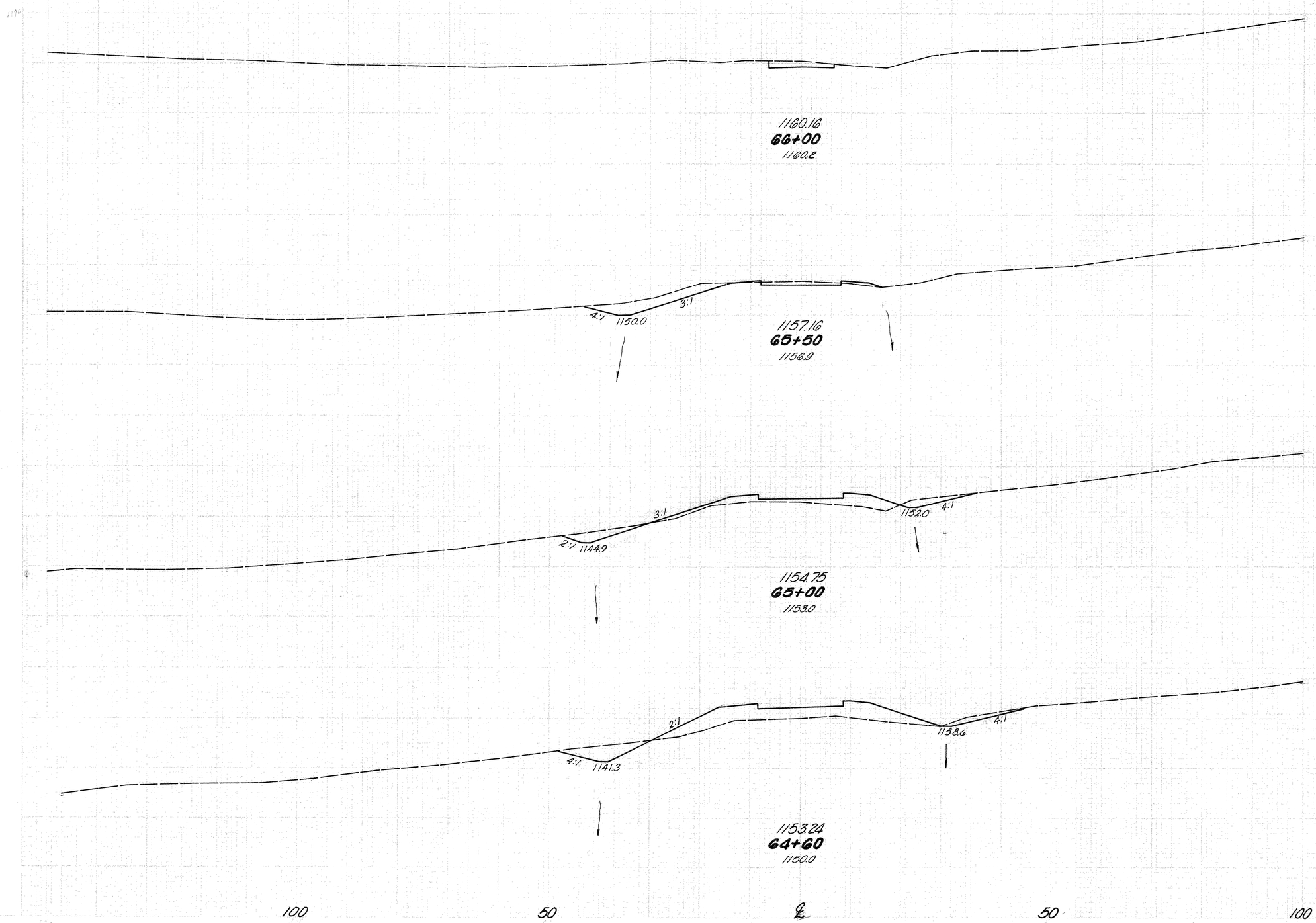


Sta	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1150				
1140				
1120			29	276
1140			20	215
1120			32	370
1140			73	2388
1120				
1100			19	1284
			27	1284
Sta 63+00			48	1868

RELOC. C.H. 254 ~ STA. 63+22 TO STA. 64+18

407
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.83 BEL–40–0.00



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1170				
1160				
1150	0	0		
			53	4
1160				
1150	57	4		
			82	69
1160				
1150				
1140	31	70		
			53	144
1150				
1140				
1130	41	125		
			55	312
Sta 64+18	29	276		

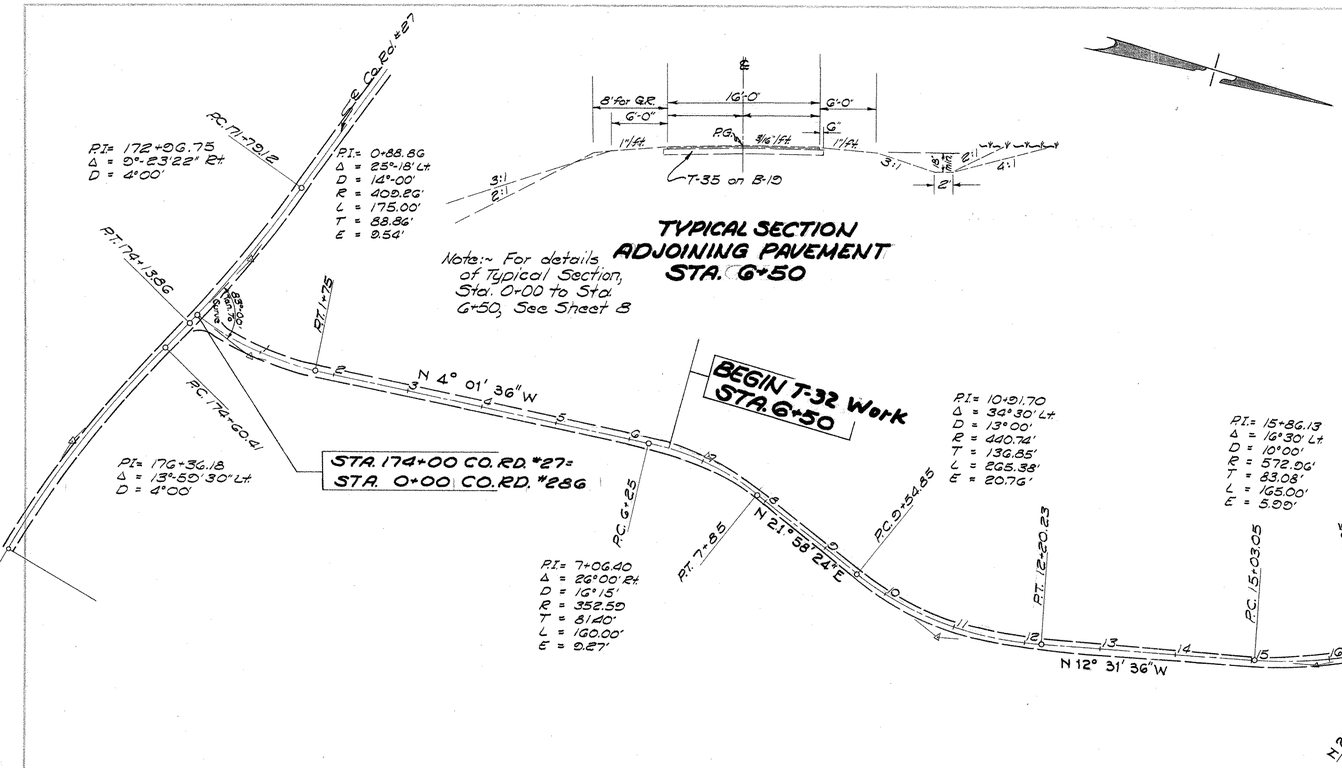
RELOC. C.H. 254 ~ STA. 64+60 TO 66+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

407-A
485

GUE-40-23.88

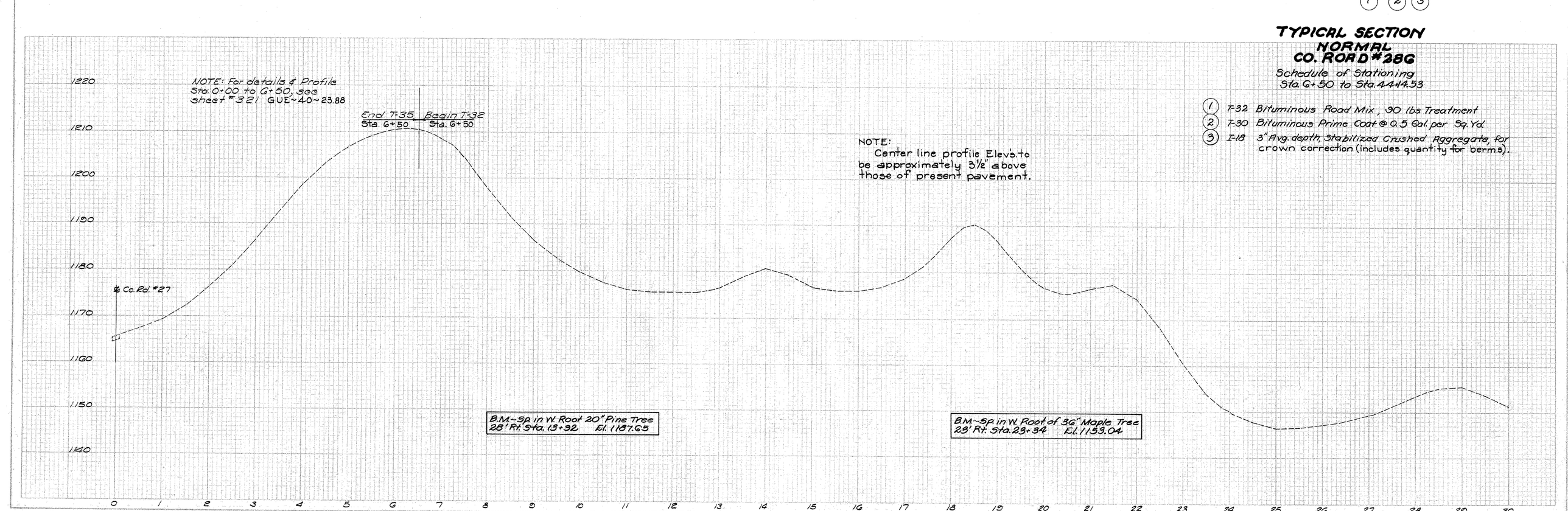
1-X



TYPICAL SECTION NORMAL CO. ROAD #286

Schedule of Stationing
Sta. G+50 to Sta. 4414.53

1. T-32 Bituminous Road Mix, 90 lbs Treatment
2. T-30 Bituminous Prime Coat @ 0.5 Gal. per Sq. Yd.
3. I-18 3" Avg. depth, Stabilized Crushed Aggregate, for crown correction (includes quantity for berms).



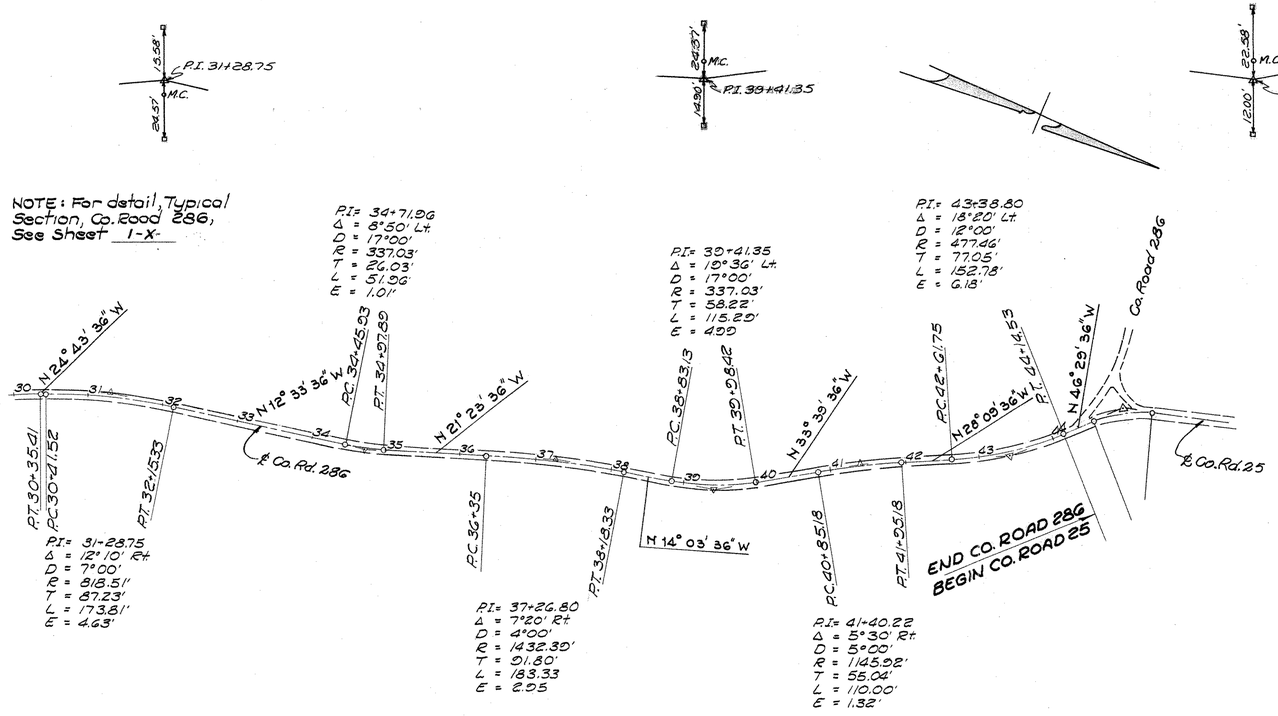
G+50-30+00

FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

407B
485

GUE-40-23.88

2-X

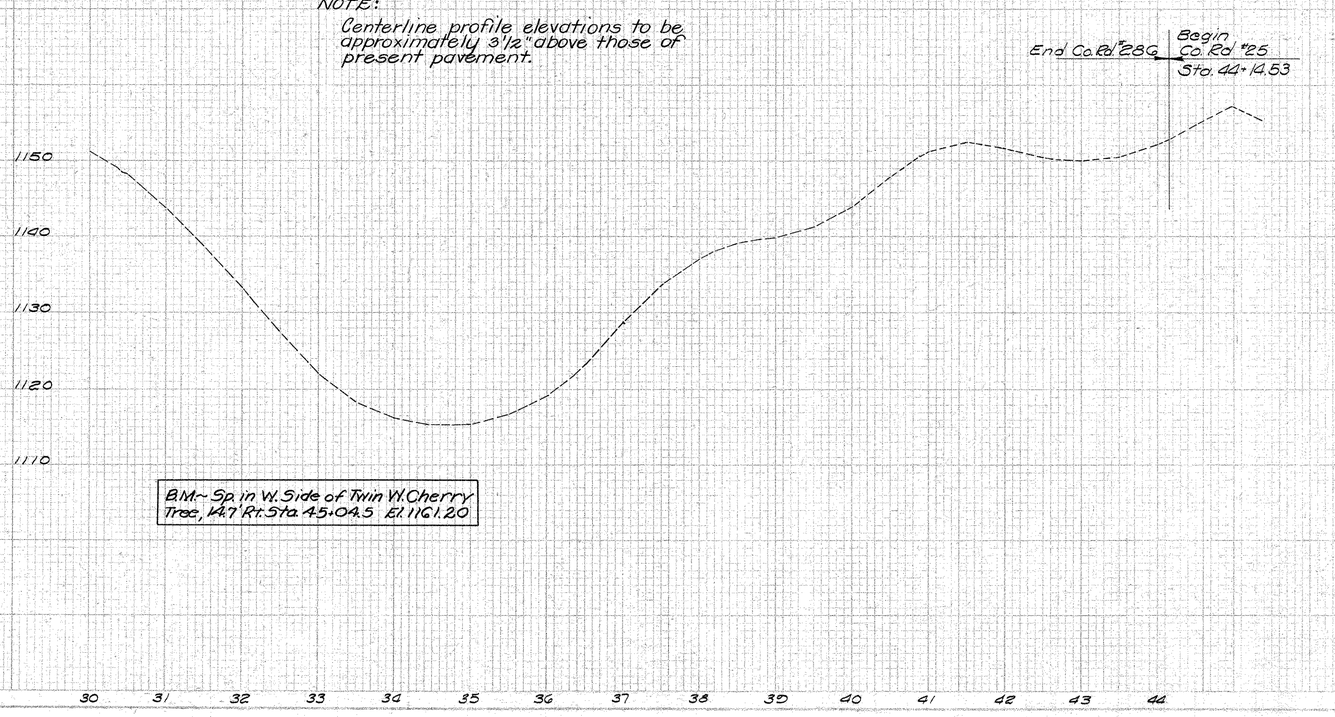


CALCULATIONS
CO. ROAD 286

Surface Area:
Sta. 6+50 to Sta. 44+14.53 = 3764.53 Lin. Ft. × 16' Width = 60,232.48 Sq. Ft. ÷ 9 = 6692.50 Sq. Yds.

T-30	Prime Coat using 0.5 gal/sq.yd. (Sec. M-5.7, RT-2 or RT-3) (PRIME) 6692.50 Sq. Yds. × 0.5 gal./sq. yds.	= 3346 Gals.	Use	3346 Gals.
T-32	Bituminous Material, MC-4 or 5, Sec. M-5.3 (MIX) 6692.50 sq. yds. × 0.61 gal./sq. yds.	= 4082.4 Gals.	Use	4082 Gals.
T-32	No. 46 Aggregate, Sec. M-3.1 6692.50 sq. yds. × 90 lbs./sq. yd ÷ 2400 (CHOKE)	= 250.9 Cu. Yds.	Use	251 Cu. Yds.
T-32	No. 9 Aggregate, Sec. M-3.1 6692.50 sq. yds. × 10 lbs./sq. yd) ÷ 2400 (SEAL COAT)	= 27.9 Cu. Yds.	Use	28 Cu. Yds.
T-32	Bituminous Material MC-5, Sec. M-5.3 6692.50 sq. yds. × 0.30 gals./sq. yd.	= 2007.75 Gals.	Use	2008 Gals.
T-32	No. 6 Aggregate, Sec. M-3.1 6692.50 sq. yds. × 22 lbs./sq. yd. ÷ 2400 (BERM & CROWN CORRECTION)	= 61.3 Cu. Yds.	Use	61 Cu. Yds.
I-18	Stabilized Crushed Aggregate for Crown and Berm Correction (3" Ave.) 6692.50 sq. yds. × 0.0833 yd.	= 557.5 Cu. Yds.	Use	558 Cu. Yds.

NOTE: Quantities carried to Sub-Summary, Sheet No. 17-X.



CALCULATIONS
CO. RD. NO. 25

Surface Area:
Sta. 44+14.53 to Sta. 75+00 = 3085.47 Lin. Ft × 16' Width = 49,367.52 Sq. Ft ÷ 9 = 5485.28 Sq. Yds.

T-30	Prime Coat using 0.5 gal/Sq. Yd (Sec. M-5.7, RT-2 or RT-3) (PRIME) 5485.28 × 0.5 Gal./Sq. Yd	= 2742.64 gals.	Use	2743 Gals
T-32	Bituminous Material MC-4 or 5, Sec. M-5.3 5485.28 sq. yds. × 0.61 gal/sq. yd.	= 3346.02 gals.	Use	3346 Gals.
T-32	No. 46 Aggregate, Sec. M-3.1 5485.28 sq. yds. × 90 lbs./sq. yd. ÷ 2400 (CHOKE)	= 205.7 cu. yds.	Use	206 Cu. Yds.
T-32	No. 9 Aggregate, Sec. M-3.1 5485.28 sq. yds. × 10 lbs./sq. yd ÷ 2400 (SEAL COAT)	= 22.9 cu. yds.	Use	23 Cu. Yds.
T-32	Bituminous Material MC-5, Sec. M-5.3 5485.28 sq. yds × 0.30 gals./sq. yd	= 1645.58 gals.	Use	1646 Gals.
T-32	No. 6 Aggregate, Sec. M-3.1 5485.28 sq. yds. × 22 lbs./sq. yd ÷ 2400 (BASE COURSE)	= 50.3 cu. yds.	Use	50 Cu. Yds.
B-19	6" Crushed Aggregate Base Course, (incl. 6" Subgrade Compaction) 5485.28 sq. yds. × .1667 yd.	= 914.4 cu. yds.	Use	914 Cu. Yds.

NOTE: Quantities carried to Sub-Summary, Sheet No. 17-X.

30+00 ~ 44+14.53
CO. ROAD 286

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

407-C
485

GUE-40-23.88

3-X

P.I. 46+95.36
19.04'
19.21'
M.C.

P.I. 51+34.35
16.58'
21.75'
M.C.

P.I. = 51+36.35
Δ = 11°-00' Lt.
D = 13°-00'
R = 440.74'
T = 42.44'
L = 84.62'
E = 2.04

16.07'
P.I. 58+89.78
18.76'
M.C.

12"x44'Cl. A-1 Pipe
12"CMP-to be Removed

P.I. 57+47.55
6.46'
31.75'

P.I. = 60+64.33
Δ = 3°-08' Lt.
D = 4°-00'
R = 1432.39'
T = 38.75'
L = 77.50'
E = 0.52'

19.05'
P.I. 66+04.22
12.12'
M.C.

P.I. 68+19.15
19.51'
M.C.
11.43'

NOTE:
Fill existing channel and slope to drain

End Channel 0+60 Lt.

Dumped Rock Channel Prot. 3'x12'x2.5'

PLAN
0 10' 20' HOR.
0 5' 10' VER.

Sta. 61+12

12'

6'

3'

20.8'

12

56°00'

61

Elevation

34'-0"

36'-0"

℄

Ft. El. 988.00

Exist. Channel

El. 989.0

0.6% →

Ft. El. 987.58

Exist. Channel

60"x70' Cl. A-1 M-6.6(a) or M-6.8(b)

5'-6"

Std. SP-53

1'-10"

Dumped Rock Channel Prot. 2.5' Thick

Longitudinal Section

P.I. 46+35.36
Δ = 6°-30' Lt.
D = 13°-00'
R = 440.74'
T = 25.07'
L = 50.03'
E = 1.55

P.I. 51+78.55
N 5° 29' 36" W

R.C. 50+39.91

& CO. RD. № 25

18"x46' Cl. A-1 Pipe

N 5° 30' 24" E

P.I. 52+37.18
R.C. 52+37.18

P.I. 53+42.18

P.I. = 52+55.78
Δ = 6°-24' Rt.
D = 6°-00'
R = 716.20'
T = 80.20'
L = 160.00'
E = 1.93

N 2° 54' 24" E

P.I. = 57+47.55
Δ = 36°-30' Rt.
D = 40°-00'
R = 143.24'
T = 76.57'
L = 101.25'
E = 19.37'

P.I. 57+47.55
R.C. 56+10.58
P.T. 58+11.83

N 59° 24' 24" E

R.C. 60+25.58
P.T. 61+09.08

N 56° 18' 24" E

15"CMP-to be Removed
15"x42'Cl. A-1 Pipe

R.C. 63+30.58

N 61° 58' 24" E

P.I. = 64+22
Δ = 61°-40' Rt.
D = 19°-00'
R = 301.93'
T = 190.61'
L = 324.44'
E = 47.97'

P.I. = 64+29
Δ = 63°-00' Rt.
D = 19°-00'
R = 301.93'
T = 190.61'
L = 332.00'
E = 49.15'

P.I. = 64+29
Δ = 63°-00' Rt.
D = 19°-00'
R = 301.93'
T = 190.61'
L = 332.00'
E = 49.15'

P.T. 65+25.02
P.C. 65+83.15

N 73° 41' 24" E

R.C. 67+15.75

P.T. 66+24.61

P.T. 69+22.42

24"x40'Cl. A-1 Pipe
24"CMP-to be Removed

& CO. RD. № 25

N 69° 33' 24" E

18"x40'Cl. A-1 Pipe
18"CMP-to be Removed

P.I. = 46+35.36
Δ = 6°-30' Lt.
D = 13°-00'
R = 440.74'
T = 25.07'
L = 50.03'
E = 1.55

P.I. = 42+09.37
Δ = 21°-00' Rt.
D = 21°-00'
R = 272.84'
T = 80.82'
L = 157.16'
E = 11.72

Co. Rd. 286

18"x52' Cl. A-1
Sec. M-6.4(d)

P.T. 47+35.44
P.C. 46+55.13
N 27° 29' 36" W
P.C. 43+28.89
P.T. 42+86.03
N 18° 38' 36" W

P.T. 44+14.53
P.C. 44+57.62
N 46° 29' 36" W

BEGIN CO. ROAD #25 STA. 44+14.53

2'± 10'-0"± 2'±
3/16"/Ft.
6" Earth & Gravel

TYPICAL SECTION ADJOINING PAV'T. CO. RD. #25

2' for G.R.
4' 8' ℄ 8' 4'
1"/Ft. 3/8"/Ft. 1"/Ft.
3:1 Under 5'
2:1 Over 5'
3:1
18" min.
1½:1 or to meet E/W
1'
2'

TYPICAL SECTION NORMAL CO. ROAD #25

SCHEDULE OF STATIONING
Sta. 44+14.53 to Sta. 75+00

(1) T-32 Bituminous Road Mix, 90 lb. Treatment.
(2) T-30 Bituminous Prime Coat @ 0.5 Gal. Per Sq. yd.
(3) B-15 6" Crushed Aggr. Base Course, (incl. 6" subgrade compaction.)

NOTE: For Drive Typical See Sheet No. 5-X.

NOTE:
For Detail of Pipes see Cross Section Sheets Nos. 10-X & 11-X

NOTE:
For detail of Pipes, see Cross Section Sheets Nos. 10-X & 11-X.

CULVERT DATA

Type : Pipe Culvert Std Drwg. I-1 & SP-53
Size : 60"x 70'
Work : Required: Install pipe culvert as shown using 60" pipe. Excavate channel at inlet as shown. Place dumped rock channel protection at inlet and outlet. Construct Std. SP-53 Endwalls.

ESTIMATED QUANTITIES

I-1 60" Reinforced Concrete Pipe Class A-1 Sec. M-6.6(a) or M-6.8(b)	70 Lin. Ft.
I-2 Masonry	6.1 Cu. Yds.
I-10 Dumped Rock Channel Prot.	10 Cu. Yds.
I-15 Guard Rail, Steel Beam Deep	100 Lin. Ft.
S-24 Removal of Existing Structures	Lump Lump
E-3 Channel Excavation	2 Cu. Yds.

EARTHWORK

Excavation	6081	Cu. Yds.
Embankment	2288	Cu. Yds.
Emb. +11%	2540	Cu. Yds.

18"x52' Cl. A-1 Sec. M-6.4(d)
℄ El. 1134.12
19.5' Rt., 47+00
0.5%
℄ El. 1131.0
18' Lt., 47+36

℄ El. 1079.52
18"x46'Cl. A-1 Pipe
℄ El. 1077.50

℄ El. 1053.82
12"x44'Cl. A-1 Pipe
℄ El. 1032.10

60"x70'Cl. A-1 Pipe
℄ El. 988.0
℄ El. 987.58

℄ El. 993.1
15"x42'Cl. A-1 Pipe
℄ El. 989.7

24"x40'Cl. A-1 Pipe
℄ El. 1000.50
℄ El. 997.80

18"x40'Cl. A-1 Pipe
℄ El. 976.52
℄ El. 973.10

P.C. 73+32.21
END CO. ROAD 25
BEGIN TWP. RD. 81
STA. 75+00

44+14.53 - 75+00

FED. RD. DIV.NO.	STATE	PROJECT	
2	OHIO		

407D
485

GUE-40-23.88

4-X

P.I. 75+86.05
28.92'
63.61' M.C.

P.I. 81+94.72
13.84'
11.31' M.C.

2'± 10'-0" ± 2'±
3/16"/Ft.
6" Earth & Gravel

TYPICAL SECTION ADJOINING PAVEMENT
TWP. RD. Nº 81

P.I. 91+91.39
20.45' M.C.
14.11'

P.I. 102+81.46
34.63' M.C.
17.25'

P.I. = 91+91.39
Δ = 6°-30' Lt.
D = 2°-00'
R = 2864.79'
T = 171.04'
L = 341.67'
E = 5.10'

P.I. = 100+49.33
Δ = 14°-40' Lt.
D = 5°-00'
R = 1145.92'
T = 147.47'
L = 293.33'
E = 9.45'

P.I. = 102+81.46
Δ = 24°-21' Lt.
D = 15°-00'
R = 381.97'
T = 82.41'
L = 162.33
E = 8.78'

END CO. RD. 25 (Twp. Rd. 81) BEGIN TWP. RD. 00
STA. 75+00

Co. Rd. 25

℄ Twp. Rd. 81

Note: For drive typical see Sheet No. 5-X.

15" CMP to be removed

12"x52' Cl. A-1 Pipe

15" CMP to be removed

12" Conc. Pipe to be removed

12"x44' Cl. A-1

EQUATION
P.C. 94+45.65 Back
P.C. 93+95.65 Ahead

Note: For detail of Pipe Culvert Sta. 102+16, See Sht. Nº 5-X.

P.I. = 75+86.05
Δ = 17°-24' Rt.
D = 4°-30
R = 1273.24'
T = 194.84'
L = 386.67'
E = 14.82'

P.I. = 73+46.79
Δ = 7°-56' Rt.
D = 7°-00'
R = 818.51'
T = 56.76'
L = 113.33'
E = 1.97'

P.I. = 81+94.72
Δ = 3°-00' Rt.
D = 4°-00'
R = 1432.39'
T = 37.50'
L = 75.00'
E = 0.50'

P.I. = 84+70.76
Δ = 4°-50' Rt.
D = 5°-00'
R = 1145.92'
T = 48.36'
L = 96.67'
E = 1.02'

P.I. = 86+97.65
Δ = 11°-14' Rt.
D = 14°-00'
R = 409.26'
T = 40.26'
L = 80.24'
E = 1.97'

P.I. = 94+73.47
Δ = 4°-40' Rt.
D = 3°-00'
R = 1909.86'
T = 77.82'
L = 155.56'
E = 1.58'

P.I. = 97+41.34
Δ = 5°-04' Rt.
D = 5°-30'
R = 1041.74'
T = 46.09'
L = 92.12'
E = 1.02'

NOTE:
For detail of Pipes, See Cross Section Sheets Nº 11-X to 15X.

TREE REMOVAL

SIZES	12"~18"	18"~24"	24"~36"	36"~42"
TREES	89	14	3	1
STUMPS				

16'
2' 4' 8' ℄ 8' 4'
for G.R.
1"/Ft. 3/8"/Ft. 1"/Ft.
3:1 18" min. 1½:1 or to meet R/W
18"
3:1 Under 5'
2:1 Over 5'
1 2 3

TYPICAL SECTION NORMAL TWP. ROAD 81
SCHEDULE OF STATIONING
Sta. 75+00 to Sta. 117+14

(1) T-32 Bituminous Road Mix, 90 lb. Treatment
(2) T-30 Bituminous Prime Coat @ 0.5 Gal. Per Sq. Yd.
(3) B-19 6" Crushed Aggr. Base Course, (incl. 6" subgrade compaction)

End Channel 0+64 Lt.
End Channel 0+70 Rt.
Tang. to curve
Sta. 76+36
℄ El. 990.56
℄ El. 989.50
15"x52' Cl. A-1 Pipe
12"x52' Cl. A-1 Pipe
℄ El. 988.54
℄ El. 980.50
℄ El. 985.62
El. 977.0

PLAN

℄ El. 959.44
91"x58"x88'
℄ El. 958.56
Existing Channel
El. 959.0
El. 958.48
Dumped Rock Channel Prot. 2.5' Thick
8'
SP. 53 Endwall
47'
41'
12'±
℄ El. 959.44
Existing Channel
El. 962.4
91"x58" Eliptical Pipe Cl. G-1 Sec. M-G.7(a)
1.0%
5'-5"
1'-9¾"

CULVERT DATA
TYPE: Pipe Culvert Std. Drwg I-1, SP-53
SIZE: 91"x58"x88'
WORK REQUIRED: Install Pipe Culvert as shown using 91"x58"x88' Concrete Pipe Class A-1, Sec. M-G.7(a). Excavate channels at inlet and outlet as shown. Place Dumped Rock Channel Protection as shown at outlet.

ESTIMATED QUANTITIES

I-1	91"x58" Eliptical Pipe Cl. G-1 Sec. M-G.7 (a)	88	Lin. Ft.
I-2	Masonry	10.0	Cu. Yds.
I-10	Dumped Rock Channel Prot.	9.0	Cu. Yds.
I-15	Guard Rail Steel Beam Deep	250	Lin. Ft.
S-24	Removal of Existing Struct.	Lump	Lump
E-3	Channel Excavation	4	Cu. Yds.

EARTHWORK

Excavation	4550	Cu. Yds.
Embankment	6481	Cu. Yds.
Emb+11%	7194	Cu. Yds.

B.M.~Sp in N. Root 20" Elm Tree 19.5' Rt. Sta. 76+07 El. 963.16

B.M.~Sp in W. Cherry Tree, 1.0' Lt. Sta. 88+06 El. 993.19

B.M.~Sp in Trunk of 5" Sapling 40' Rt. Sta. 102+30 El. 939.71

℄ El. 932.58 Inlet
℄ El. 932.13 Outlet

LONGITUDINAL SECTION
0 20 Horiz. & Plan View
0 10 Vert.
Scale in Feet

EQUATION
P.C. 94+45.65 Back =
P.C. 93+95.65 Ahead

75+00 ~ 104+00
TWP ROAD 81

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

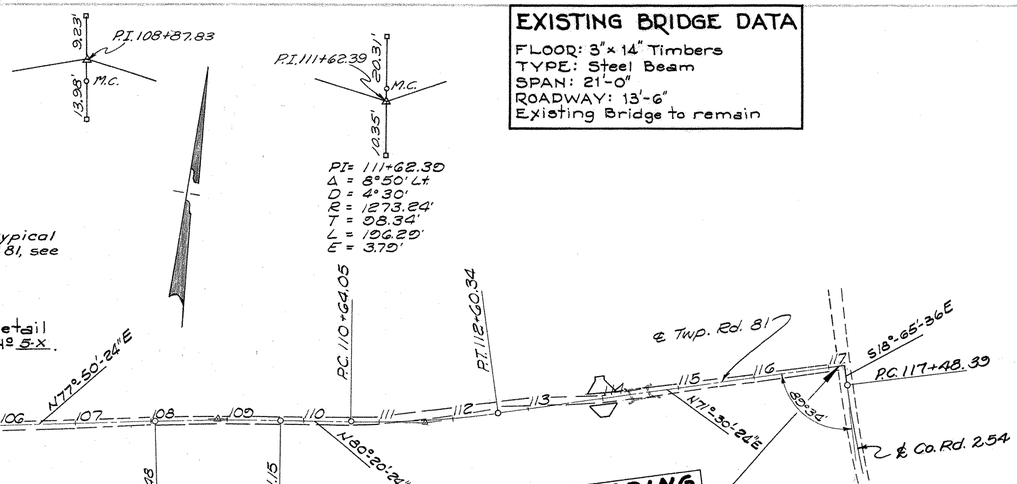
407-E 485

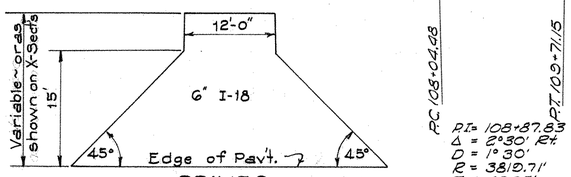
5-X

GUE-40-23.88

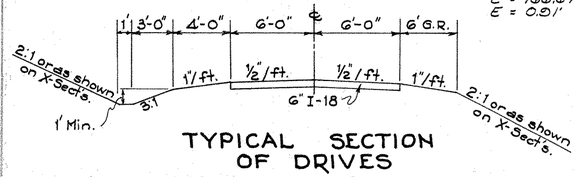
EXISTING BRIDGE DATA

FLOOR: 3"x 14" Timbers
TYPE: Steel Beam
SPAN: 21'-0"
ROADWAY: 13'-6"
Existing Bridge to remain

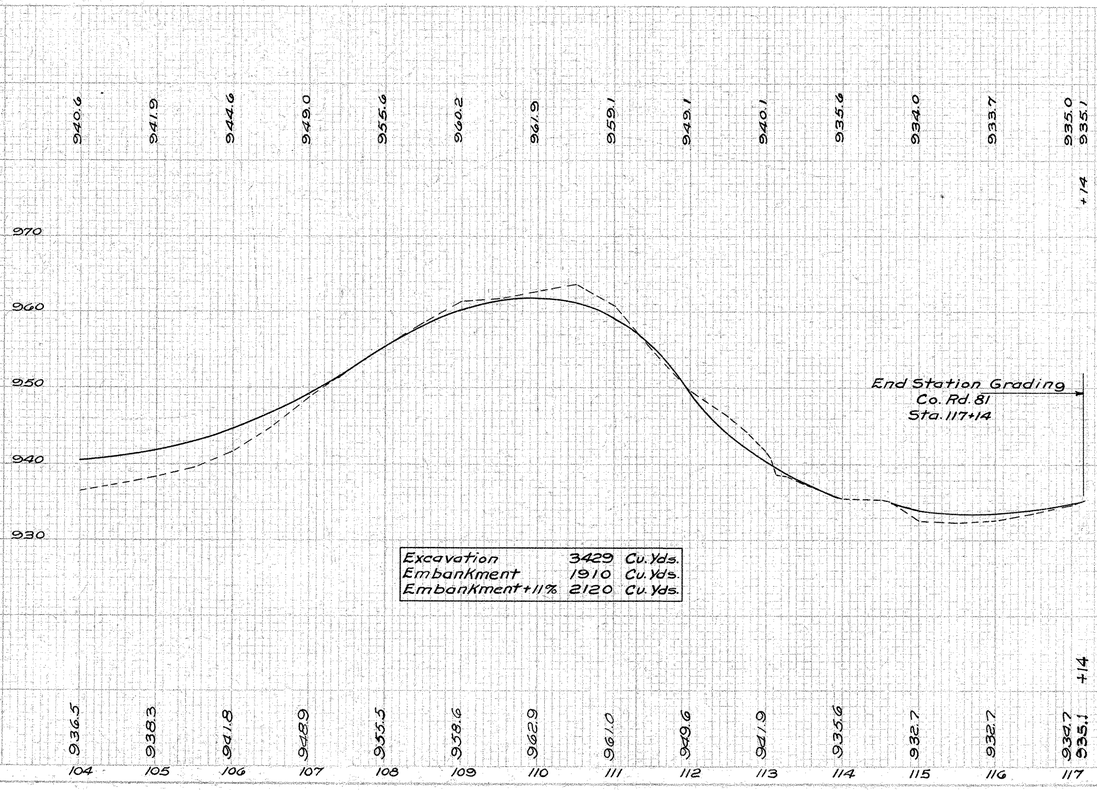




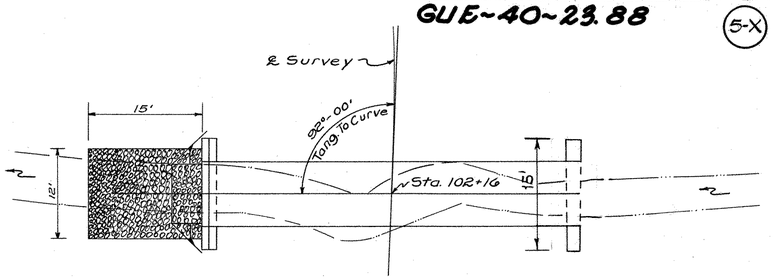
DRIVES

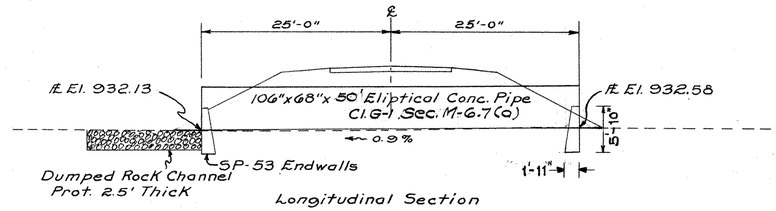


TYPICAL SECTION OF DRIVES



Excavation	3429	Cu.Yds.
Embankment	1910	Cu.Yds.
Embankment+11%	2120	Cu.Yds.





Longitudinal Section

CULVERT DATA

Type : Pipe Culvert, Std Drwg. I-1, SP-53
Size : 106"x68"x 50'
Work Required: Install pipe culvert as shown using 106"x 68" eliptical pipe culvert. Construct SP-53 endwalls. Place dumped rock channel prot. at outlet.

ESTIMATED QUANTITIES

I-1	106"x 68" Eliptical Concrete Pipe Class G-1, Sec. M-6.7(a)	50	Lin. Ft.
I-2	Masonry	7.4	Cu. Yds.
I-10	Dumped Rock Channel Prot.	17	Cu. Yds.
I-15	Guard Rail Steel Beam Deep.	100	Lin. Ft.
S-24	Removal of Exist Structure	Lump	Lump

CALCULATIONS
TWP. RD. NO. 81

SURFACE AREA:
Equation: Sta. 94+45.65 Back = Sta. 93+95.65 Ahead
Sta. 75+00 to 94+45.65 = 1945.65 Lin. Ft.
Sta. 93+95.65 to 117+14 = 2318.35 Lin. Ft.
4264.00 Lin. Ft.
Bridge Deduction - 21.00 Lin. Ft.
4243.00 Lin. Ft.
4243.00 Lin. Ft. x 16' (Width) = 67,888 Sq. Ft. ÷ 9 = 7543.11 Sq. Yds.

(PRIME)

T-30 Prime Coat using 0.5 gal/sq. yd
7543.11 sq. yds x 0.5 gal/sq. yd = 3771.56 Gals. Use 3772 Gals.

(MIX)

T-32 Bituminous Material MC-4 or 5, Sec. M-5.3
7543.11 sq. yds x 0.61 Gal./sq. yd. = 4601.30 Gals. Use 4601 Gals.

T-32 Nº 4G Aggregate Sec. M-3.1
7543.11 sq. yds. x 90 lbs/sq. yd ÷ 2400 = 282.9 Cu.Yds. Use 283 Cu. Yds.

(CHOKE)

T-32 Nº 9 Aggregate, Sec. M-3.1
7543.11 sq. yds. x 10 lbs/sq. yd ÷ 2400 = 31.4 Cu.Yds Use 31 Cu. Yds.

(SEAL COAT)

T-32 Bituminous Material MC-5, Sec. M-5.3
7543.11 sq. yds x 0.30 Gals/sq. yd. = 2262.93 Gal. Use 2263 Gals.

T-32 Nº 6 Aggregate, Sec. M-3.1
7543.11 sq. yds. x 22 lbs/sq. yd ÷ 2400 = 69.2 Cu.Yds. Use 69 Cu. Yds.

(BASE COURSE)

B-19 6" Crushed Aggregate Base Course incl. 6" Subbase Compaction
7543.11 sq. yds. x .1667 = 1257.4 Cu.Yds. Use 1257 Cu. Yds.

NOTE: Quantities carried to Sub-Summary, Sheet Nº 17-X.

104+00 - 117+14
TWP RD 81

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

407-F
485

GUE-40-23.88

G-X

P.I. 118+28.52
N 25.67'
M.C.
15.48'

P.I. 120+03.74
22.0'
M.C.
17.65'

P.I. = 118+28.52
Δ = 8°00' Lt.
D = 5°00'
R = 1145.92'
T = 80.13'
L = 160.00'
E = 2.80'

P.I. = 120+03.74
Δ = 7°30' Lt.
D = 4°00'
R = 1432.39'
T = 93.85'
L = 187.50'
E = 3.07'

4.0' ± | 16.0' ± | 4.0' ±
3/16 / Ft.
6" Gravel

TYPICAL SECTION
ADJOINING PAVEMENT
CO. RD. 254

P.I. 137+01.19
N 49.32'
15°00'
Forward Tang.
25.38'

P.I. = 137+01.19
Δ = 15°20' Lt.
D = 10°00'
R = 572.96'
T = 77.13'
L = 153.33'
E = 5.17'

P.I. 140+73.94
15.79'
20.23'
M.C.

P.I. 142+96.89
12.99'
12.99'
M.C.

Co. Rd. 254
P.C. 117+48.30
S 18° 55' 36" E
P.T. 119+08.30
P.C. 119+09.85
S 26° 55' 36" E
P.T. 120+97.35
℄ Co. Road 254
S 34° 25' 36" E
P.C. 136+24.06
P.T. 137+77.39
S 49° 46' 36" E
S 34° 15' 36" E
S 22° 05' 36" E
℄ Twp. Rd. 81
BEGIN CO. ROAD 254
STA. 117+20.49

P.C. 135+62.55
P.I. = 140+73.04
Δ = 15°30' Rt.
D = 7°00'
R = 818.51
T = 111.39
L = 221.43
E = 7.55

P.T. 141+83.98
P.C. 142+02.05
P.I. = 142+96.80
Δ = 12°10' Rt.
D = 6°30'
R = 881.47'
T = 93.04'
L = 187.13'
E = 4.99'

P.T. 143+90.13
P.C. 145+77.75

℄ Survey
16'-0"
3'-0" | 8'-0" | 8'-0" | 3'-0"
3/8" / Ft.
1" / Ft.
1" ave.
Exist. Gravel
① ② ③

TYPICAL SECTION
NORMAL
CO. ROAD #254
STA. 117+20.49 to STA. 206+12.20

① T-32 Bituminous Road Mix, 90lb. Treatment
② T-30 Bituminous Prime Coat @0.5 Gal. per sq. yd.
③ I-18 2" Avg. depth, Stabilized Crushed Aggregate, for crown correction. (Includes quant. for berms)

NOTE: Centerline profile Elev's. to be approximately 2½' above those of present pavement.

950
940
930

B.M.~ Sp in Telephone Pole 20' Lt. Sta. 128+90 El. 940.17

B.M.~ □ in S.E. Corner E. Hdwl. 10' Lt. Sta. 146+10 El. 975.07

117+20.49	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147
935.4	934.2	933.9	934.2	935.6	936.6	936.7	937.5	938.5	938.6	939.1	939.6	940.6	941.5	942.7	944.9	945.1	945.1	945.4	946.6	949.1	951.6	956.0	962.9	970.4	976.3	978.8	977.8	976.6	975.5	976.9

117+20.49 ~ 147+00
CO. ROAD 254

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

407-G
485

GUE-40-23.88

7-X

P.I. 149+19.57
Δ = 24°40' Lt.
D = 13°30'
R = 424.41'
T = 92.80'
L = 182.72'
E = 10.03'

P.I. 150+38.03
Δ = 8°00' Lt.
D = 7°00'
R = 818.51'
T = 57.24'
L = 114.29'
E = 2.0'

P.I. = 146+52.77
Δ = 3°-00' Rt.
D = 2°-00'
R = 2864.79'
T = 75.02'
L = 150.00'
E = 0.98'

P.I. 152+51.57
Δ = 3°48' Rt.
D = 2°00'
R = 2864.79'
T = 95.04'
L = 190.00'
E = 1.58'

P.I. 156+38.06
Δ = 10°18' Rt.
D = 3°18'
R = 1736.24'
T = 156.48'
L = 312.12'
E = 7.04'

P.I. 162+92.20
Δ = 43°18' Lt.
D = 14°30'
R = 395.14'
T = 156.85'
L = 298.62'
E = 29.55'

P.I. 166+05.17
Δ = 25°06' Lt.
D = 10°30'
R = 545.67'
T = 121.47'
L = 239.05'
E = 13.36'

P.I. 170+24.78
Δ = 22°06' Rt.
D = 11°00'
R = 520.87'
T = 135.19'
L = 264.55'
E = 17.25'

P.I. 173+23.50
Δ = 13°00' Rt.
D = 6°00'
R = 954.93'
T = 108.80'
L = 216.67'
E = 6.18'

P.I. 149+19.57
Δ = 24°40'
D = 13°30'
R = 424.41'
T = 92.80'
L = 182.72'
E = 10.03'

P.I. 152+51.57
Δ = 3°48'
D = 2°00'
R = 2864.79'
T = 95.04'
L = 190.00'
E = 1.58'

P.I. 156+38.06
Δ = 10°18'
D = 3°18'
R = 1736.24'
T = 156.48'
L = 312.12'
E = 7.04'

P.I. 162+92.20
Δ = 43°18'
D = 14°30'
R = 395.14'
T = 156.85'
L = 298.62'
E = 29.55'

P.I. 166+05.17
Δ = 25°06'
D = 10°30'
R = 545.67'
T = 121.47'
L = 239.05'
E = 13.36'

P.I. 170+24.78
Δ = 22°06'
D = 11°00'
R = 520.87'
T = 135.19'
L = 264.55'
E = 17.25'

P.I. 173+23.50
Δ = 13°00'
D = 6°00'
R = 954.93'
T = 108.80'
L = 216.67'
E = 6.18'

M.C. 13.00' 32.74'

P.I. 149+19.57 — 25.20' M.C. — 11.47'

P.I. 152+51.57 — 11.47' — 29.66' M.C.

P.I. 156+38.06 — 19.20' — 21.86' M.C.

P.I. 170+24.78 — 14.80' — 40.80' M.C.

P.I. 173+23.50 — 19.83' — 17.21' M.C.

Note: For details, Typical Section, Co. Road 254, See Sheet No. G-X.

P.T. 147+27.75

S 19°-05'-36"E

P.C. 148+26.77

P.T. 150+03.49

P.C. 150+40.79

P.T. 151+55.08

S 51°-45'-36"E

S 43°-45'-36"E

P.C. 151+56.53

P.T. 153+46.53

P.C. 154+81.53

S 47°-57'-36"E

℄ Co. Road 254

P.T. 157+53.70

S 37°-39'-36"E

P.C. 161+35.35

P.T. 164+33.67

P.C. 165+73.70

S 80°-57'-36"E

P.T. 168+12.75

N 73°-56'-24"E

P.C. 169+68.89

S 76°-57'-36"E

P.T. 171+54.14

P.C. 172+14.70

S 63°-57'-36"E

P.T. 174+31.37

P.C. 175+77.98

NOTE:
Centerline profile Elev's. to be approx. 2 1/2" above those of present pavement.

1010
1000
990
980
970

147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176

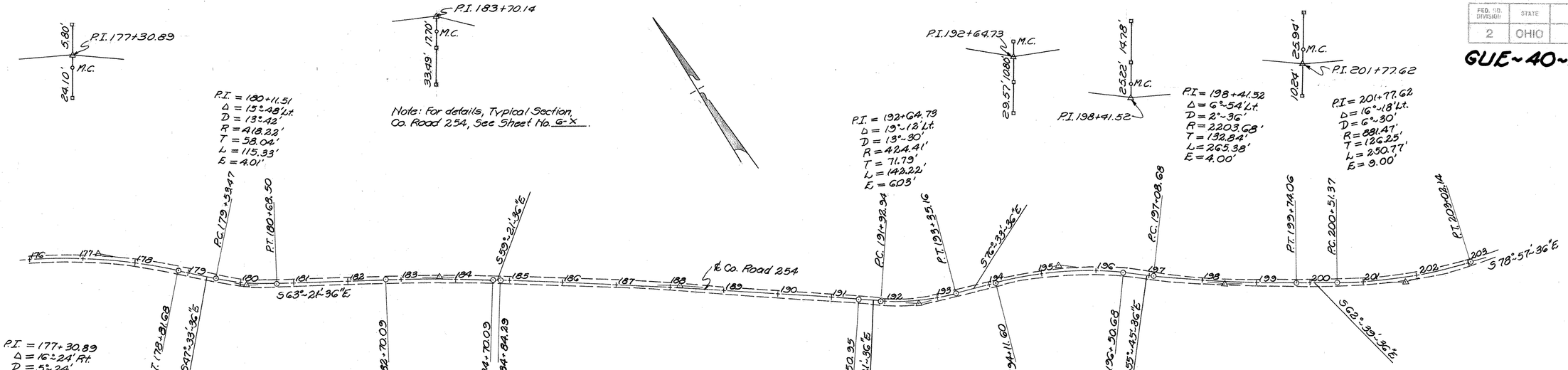
147+00 ~ 176+00
CO. ROAD 254

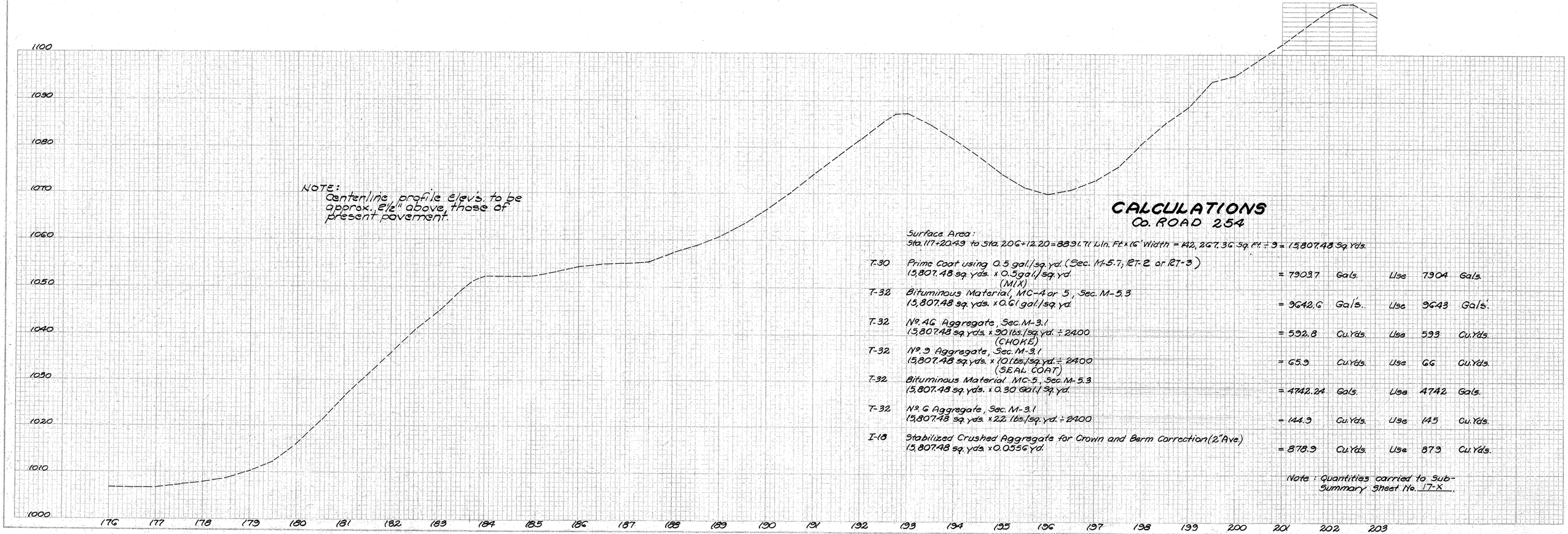
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

407-H
485

GUE-40-23.88

8-X





NOTE:
Centerline profile elevs. to be approx. 2 1/2" above those of present pavement.

CALCULATIONS
Co. ROAD 254

Surface Area:
Sta. 117+20.43 to Sta. 206+12.20 = 8891.77 Lin. Ft. x 16' Width = 142,267.36 Sq. Ft. ÷ 9 = 15,807.48 Sq. Yds.

T-30	Prime Coat using 0.5 gal./sq. yd. (Sec. M-5.7, RT-2 or RT-3) 15,807.48 sq. yds. x 0.5 gal./sq. yd. (MIX)	= 7903.7	Gals.	Use	7904	Gals.
T-32	Bituminous Material, MC-4 or 5, Sec. M-5.3 15,807.48 sq. yds. x 0.61 gal./sq. yd.	= 9642.6	Gals.	Use	9643	Gals.
T-32	No. 4G Aggregate, Sec. M-3.1 15,807.48 sq. yds. x 90 lbs./sq. yd. ÷ 2400 (CHOKE)	= 592.8	Cu. Yds.	Use	593	Cu. Yds.
T-32	No. 9 Aggregate, Sec. M-3.1 15,807.48 sq. yds. x 10 lbs./sq. yd. ÷ 2400 (SEAL COAT)	= 65.9	Cu. Yds.	Use	66	Cu. Yds.
T-32	Bituminous Material MC-5, Sec. M-5.3 15,807.48 sq. yds. x 0.30 Gal./sq. yd.	= 4742.24	Gals.	Use	4742	Gals.
T-32	No. 6 Aggregate, Sec. M-3.1 15,807.48 sq. yds. x 2.2 lbs./sq. yd. ÷ 2400	= 144.9	Cu. Yds.	Use	145	Cu. Yds.
I-18	Stabilized Crushed Aggregate for Crown and Berm Correction (2" Ave.) 15,807.48 sq. yds. x 0.0556 yd.	= 878.9	Cu. Yds.	Use	879	Cu. Yds.

Note: Quantities carried to Sub-Summary Sheet No. 17-X.

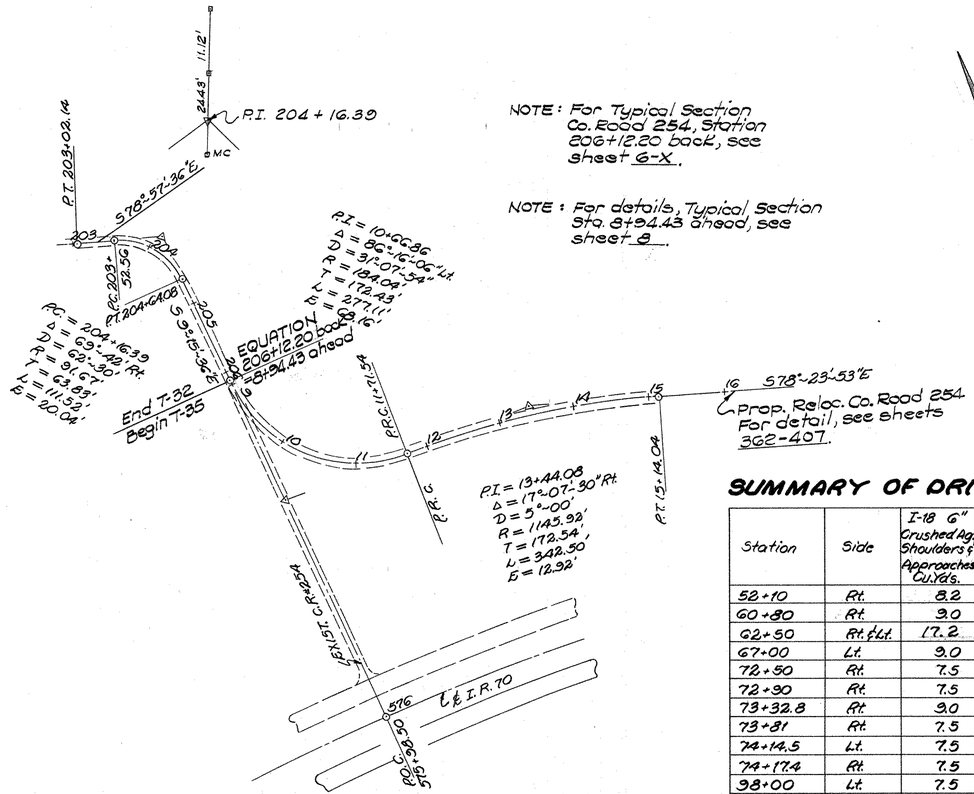
176+00 ~ 203+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

407-I
485

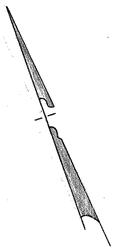
GUE~40~23.88

9-X



NOTE: For Typical Section Co. Road 254, Station 206+12.20 back, see sheet 6-X.

NOTE: For details, Typical Section Sta. 8+94.43 ahead, see sheet 8.



SUMMARY OF DRIVES

Station	Side	I-18 6" Crushed Ag. Shoulders & Approaches Cu.Yd's.	12" Pipe for Drives Class F-4 Lin. Ft.	10" Pipe Class F-4 Lin. Ft.	Details on Sheet
52+10	Rt.	8.2			10-X
60+80	Rt.	9.0			10-X
62+50	Rt. & Lt.	17.2	30		10-X
67+00	Lt.	9.0			10-X
72+50	Rt.	7.5			11-X
72+90	Rt.	7.5			11-X
73+32.8	Rt.	9.0			11-X
73+81	Rt.	7.5	30		11-X
74+14.5	Lt.	7.5		10	11-X
74+17.4	Rt.	7.5			11-X
98+00	Lt.	7.5			14-X
101+00	Lt.	9.0			15-X
101+50	Rt.	9.0			15-X
114+00	Lt.	9.0			16-X
114+00	Rt.	7.5	30		16-X
		*15.0			
	TOTALS	147	90	10	

*Includes 15 Cu. Yds. I-18 for North-East intersection Co. Road 286 & Co. Road 25.

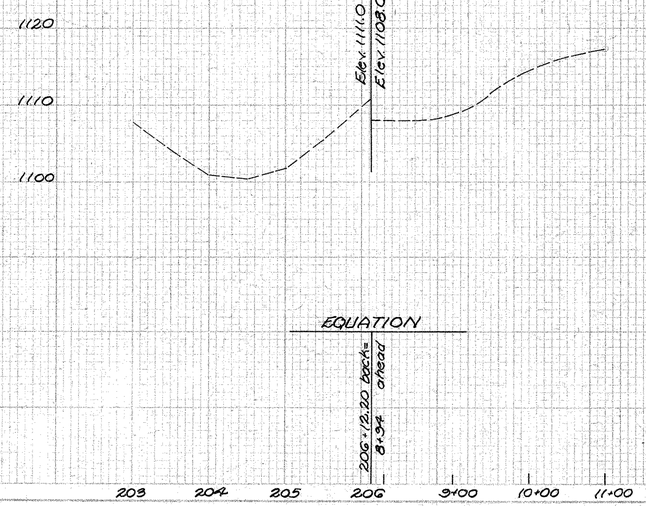
NOTE: Summary of Drive quantities Carried to Sub-Summary Sheet No. 17-X.

PIPE REMOVAL

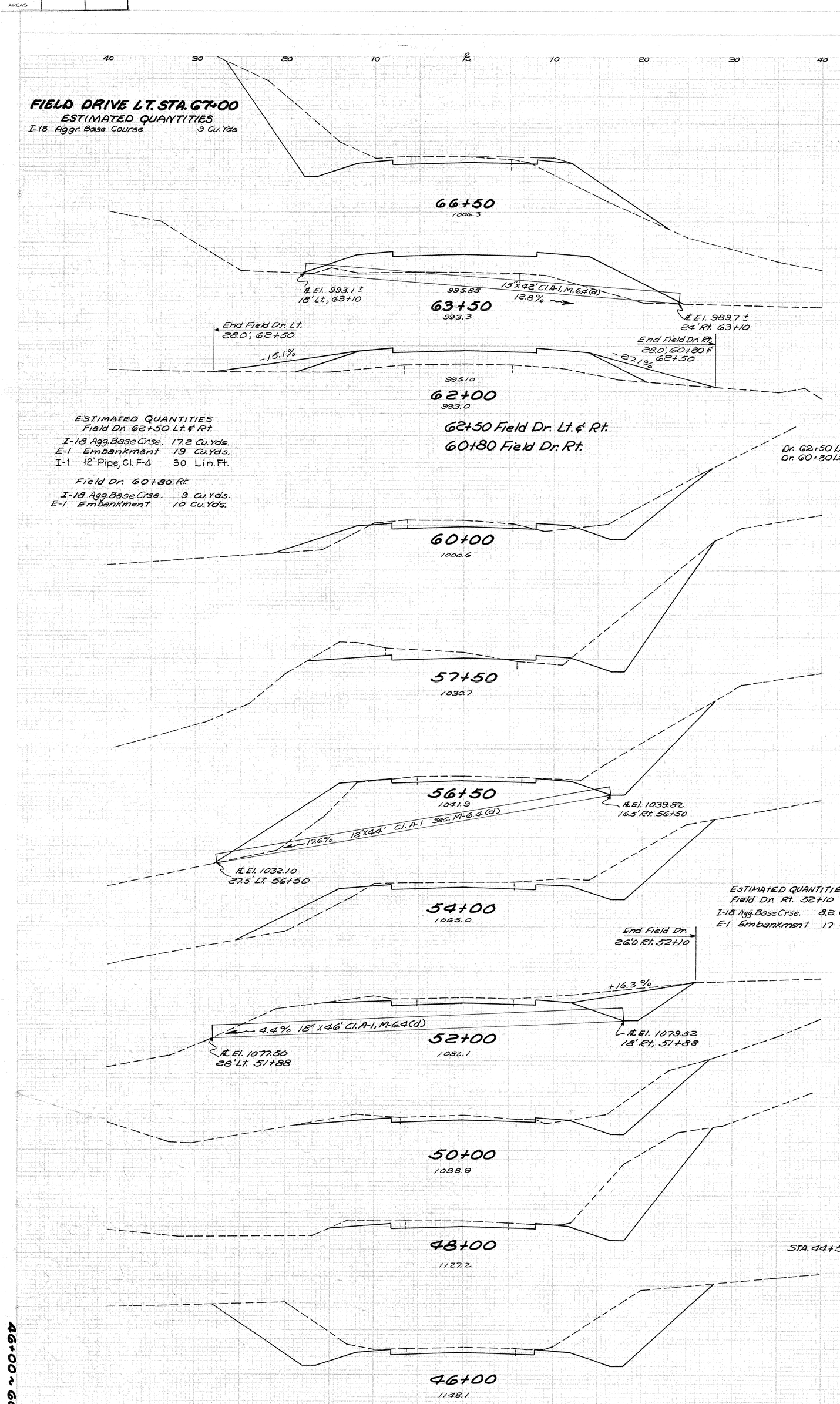
Station	E-12 Removal of Pipe	
	Under 15"	15" & over
56+20	20	
68+78		18
72+40		24
77+00		22
91+50	18	
*TOTALS	38	64

*Carried to Sub-Summary, Sheet No. 17-X.

NOTE: For details & profile Sta. 8+94.43 Ahead See Sheet No. 363.



203+00 ~ 206+12.20
CO. ROAD 254



END AREA CU. YDS.			
CUT	FILL	CUT	FILL
		920	149
73	21		
		406	622
0	91		
		0	431
0	64		
		126	278
34	11		
			19
			10
		495	69
73	4		
		230	65
51	31		
		505	241
58	21		
		359	78
			17
39	0		
		322	7
48	2		
		519	7
92	0		
		852	0
138	0		
		383	0
0	0		

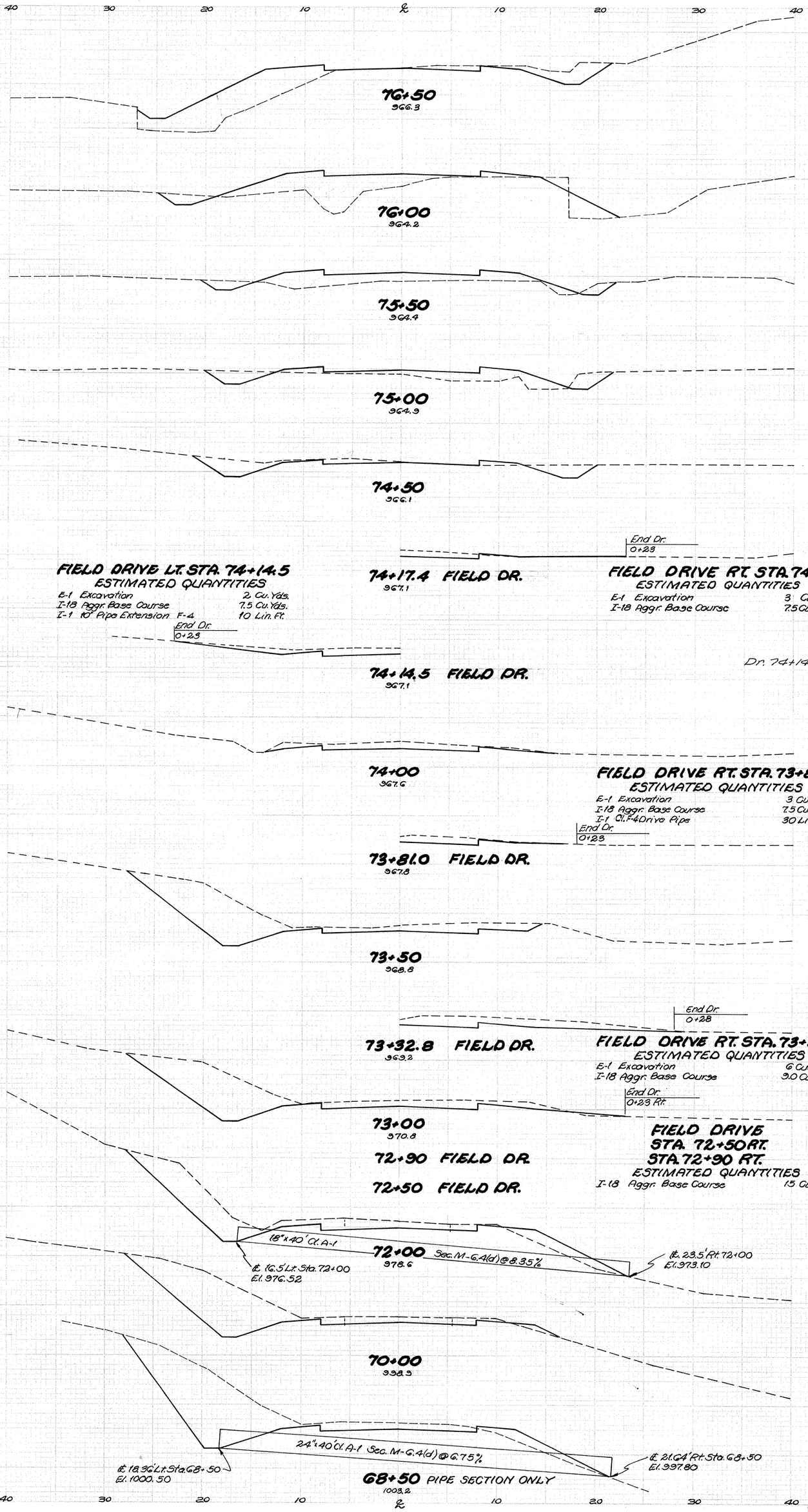
GUE-40-23.88

10X

4074
485

46+00 ~ 66+50

AREAS



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
		56	72
15	48		
		19	89
6	48		
		10	71
5	29		
		15	45
11	20		
		29	20
20	2		
		3	
		34	2
		2	
17	0		
		3	
		77	0
66	0		
		122	0
		6	
66	0		
		213	20
49	11		
		437	48
69	2		

Dr. 74+14.5 Lt.

70+00 ~ 76+50

GUE ~ 40~23.88

11x17

4072K 485

END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
	68	68	234
59			
	64	132	100
51			
	86	183	168
45			
	70	199	233
39			
	39	394	606
48			
	0	616	181
85			
	1	493	4
48			
	2	115	3
76			
	30	112	30
45			

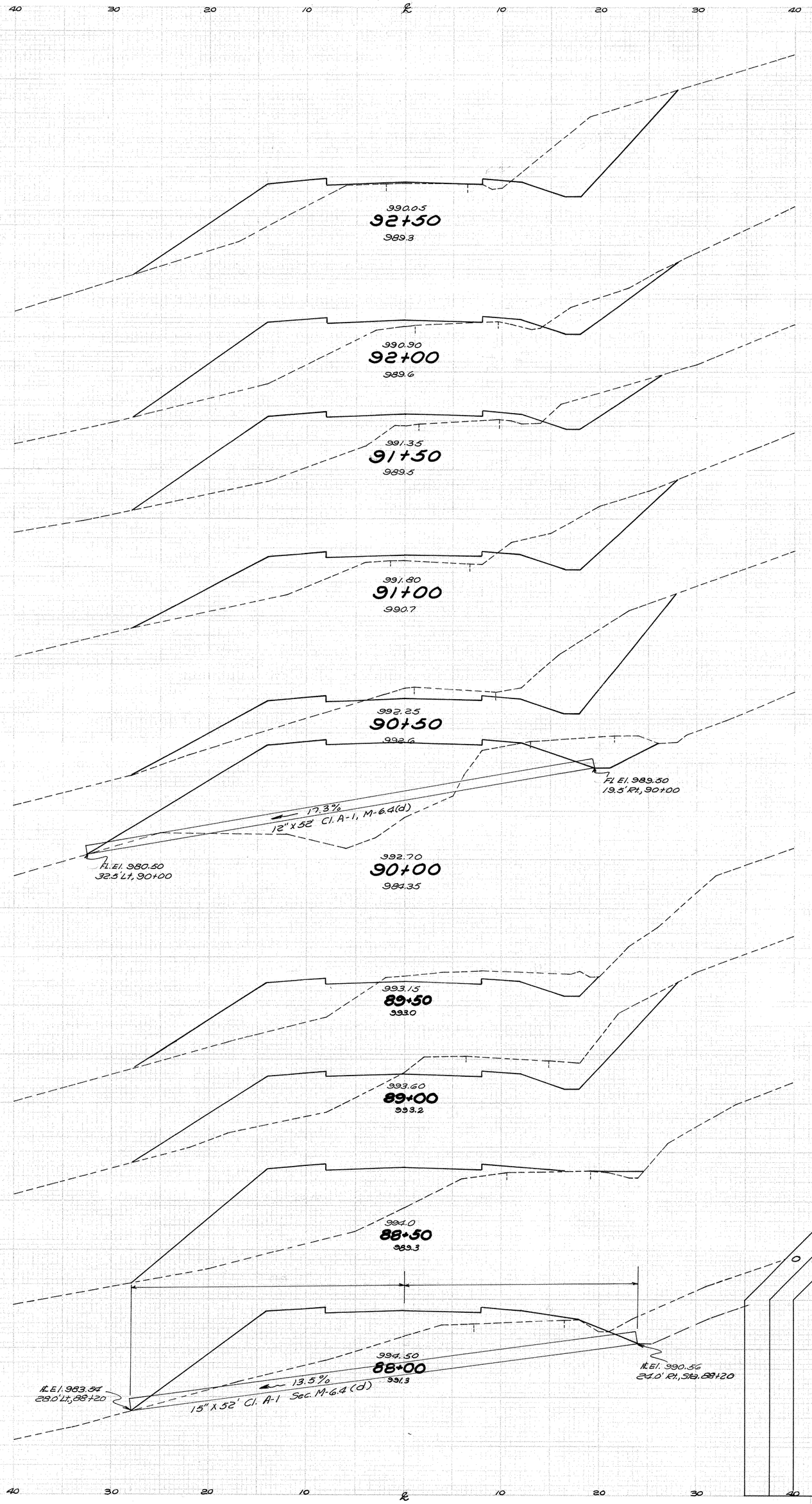
END AREA		VOLUME	
CUT	FILL	CUT	FILL

407-L 485

GUE~40~23.88

12-X

77+00 ~ 87+37.63



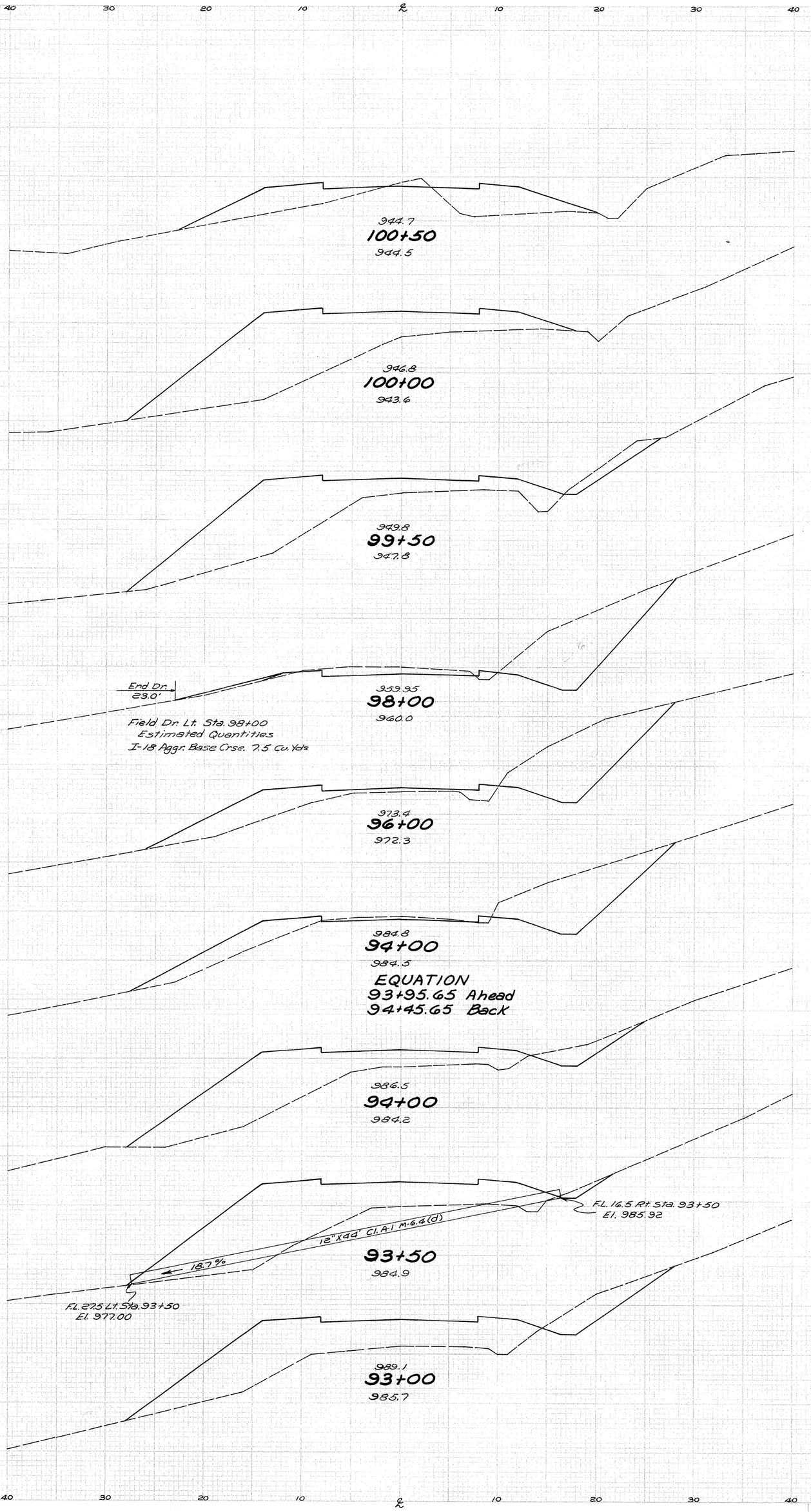
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
		85	183
69	58		
		83	142
21	95		
		41	96
23	117		
		71	171
54	68		
		129	99
85	39		
		90	269
12	252		
		37	302
28	74		
		82	140
61	77		
		56	242
0	184		
		0	295
0	135		

GUE-40-23.88

13-X

407M
485

88+00 ~ 92+50



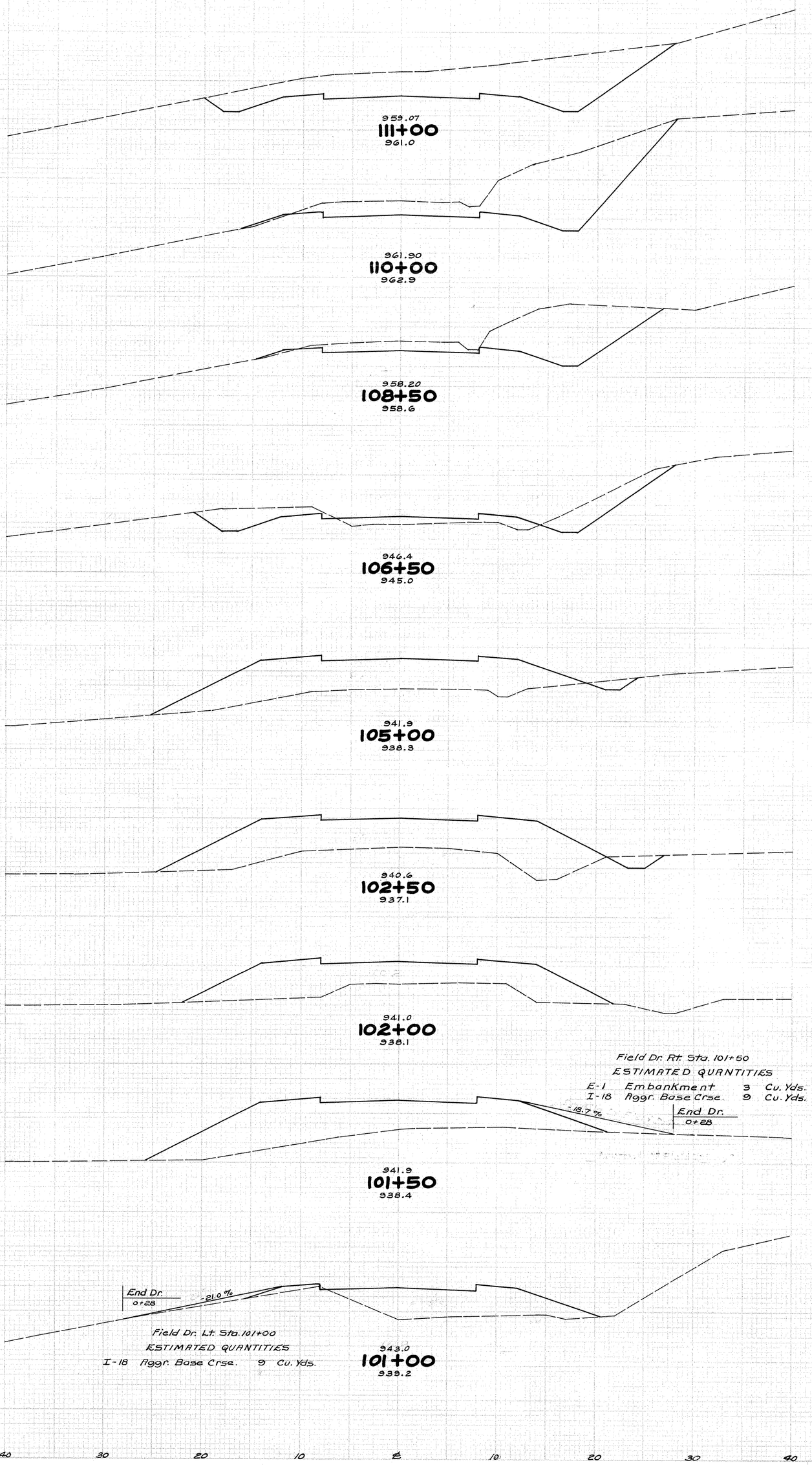
END AREA		C.U. YDS.	
CUT	FILL	CUT	FILL
		3	119
3	67		
		3	219
0	170		
		9	287
10	140		
		250	392
80	1		
		567	170
73	45		
		515	278
66	30		
		73	144
13	125		
		15	266
3	162		
		24	280
23	140		

GUE-40-23.88

14-X

93+00 - 100+50

AREAS



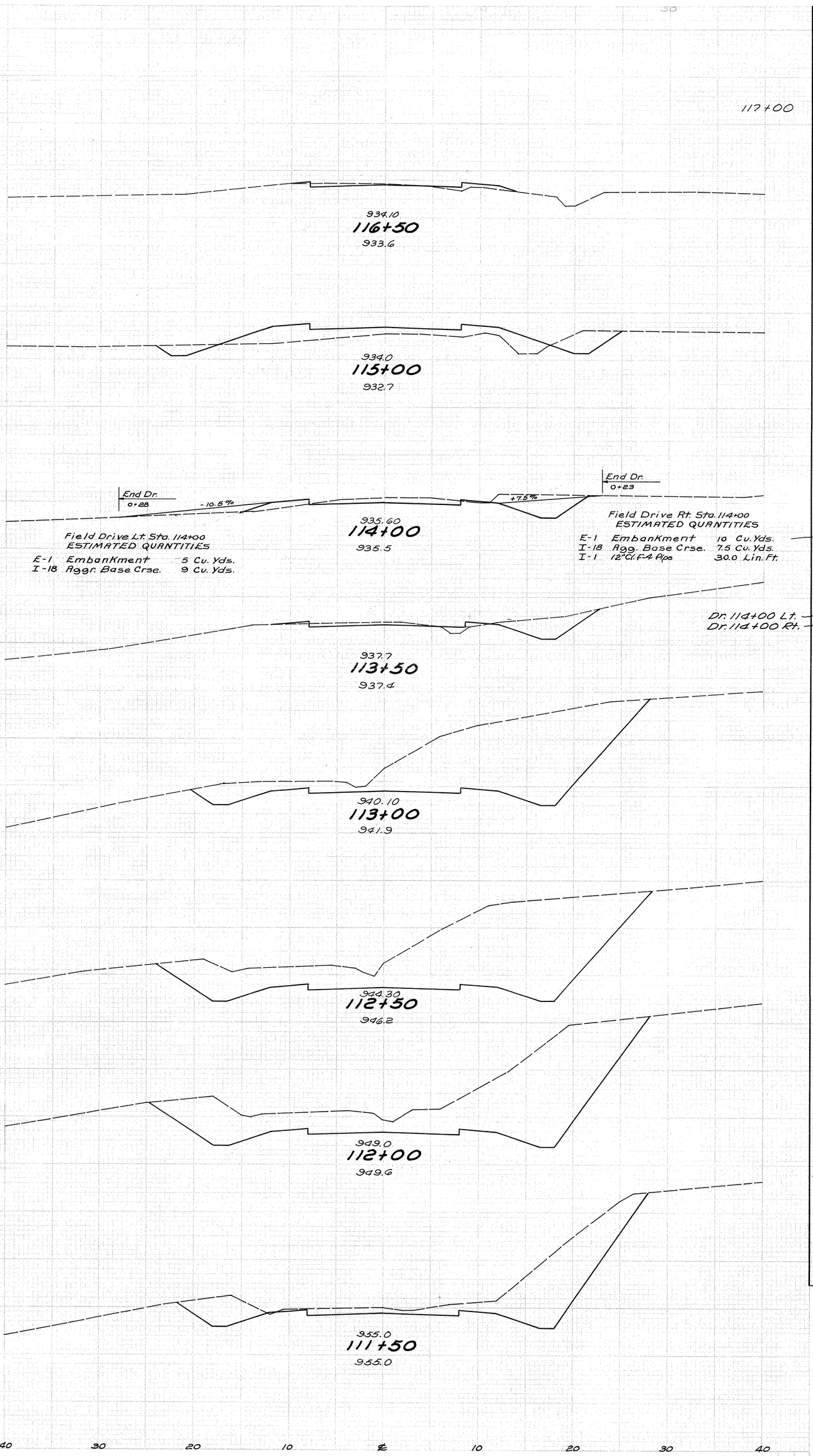
End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
		224	0
132	0		
		459	2
116	1		
		569	6
89	1		
		485	56
42	14		
		128	375
4	121		
		46	1250
6	149		
		6	236
0	106		
		0	219
			3
0	130		
		0	178
0	62		

00+111~00+101

GUE-40-23.88

15-X

407.0
485



END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
0	0		
		3	3
3	3		
		50	114
15	38		
		80	78
28	4		
		44	7
		10	
20	4		
			5
			10
		200	4
196	0		
		408	0
245	0		
		426	0
215	0		
		301	0
110	0		

GUE-40-23.88

(GEX)

407-P
485

111+50 to 116+50

SUB-SUMMARY

COUNTY ROADS 286, 25, 254 – TOWNSHIP ROAD 81

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

GUE-40-23.88

407Q

17X

ITEM NO.	ESTIMATED QUANTITIES SHEET NUMBERS 2-X	3-X	4-X	5-X	8-X	9-X	ITEM	TOTAL QUANTITY	UNIT	100% State DESCRIPTION
										ROADWAY
E-1		6081	4550	3429			E-1	14,060	Cu.Yds.	Roadway Excavation, Method "B"
I-15		100	250	100			I-15	450	Lin. Ft.	Guard Rail, Steel Beam Standard Type (Deep)
E-9			Lump				E-9	Lump	Lump	Removal of Trees and Stumps
E-12						38	E-12	38	Lin. Ft.	Pipe Removed, 15" and under
E-12						64	E-12	64	Lin. Ft.	Pipe Removed, over 15"
										DRAINAGE
I-1						10	I-1	10	Lin. Ft.	10" Pipe, Class F-4
I-1						30	I-1	30	Lin. Ft.	12" Pipe, Class F-4
I-1		44	96				I-1	140	Lin. Ft.	12" Pipe, Class A-1, Sec. M-6.4 (d)
I-1		42	52				I-1	94	Lin. Ft.	15" Pipe, Class A-1, Sec. M-6.4 (d)
I-1		138					I-1	138	Lin. Ft.	18" Pipe, Class A-1, Sec. M-6.4 (d)
I-1		40					I-1	40	Lin. Ft.	24" Pipe, Class A-1, Sec. M-6.4 (d)
I-1		70					I-1	70	Lin. Ft.	60" Pipe, Class A-1, Sec. M-6.6 (a) or M-6.8 (b)
I-1			88				I-1	88	Lin. Ft.	91" x 58" Pipe, Class G-1, Sec. M-6.7 (a)
I-1				50			I-1	50	Lin. Ft.	106" x 68" Pipe, Class G-1, Sec. M-6.7 (a)
I-2		6.1	10	7.4			I-2	23.5	Cu.Yds.	Masonry
I-10		10	9	17			I-10	36	Cu.Yds.	Dumped Rock Channel Protection
S-24		Lump	Lump	Lump			S-24	Lump	Lump	Removal of Existing Structures
E-3		2	4				E-3	6	Cu.Yds.	Channel Excavation
										PAVEMENT
I-18	558				879	147	I-18	1584	Cu.Yds.	Stabilized Crushed Aggregate Shoulders and Approaches
B-19	914			1257			B-19	2171	Cu.Yds.	Aggregate Base Course
T-30	6,089			3772	7904		T-30	17,765	Gals.	Bituminous Prime Coat : Sec M-5.7, RT-2 or RT-3
T-32	7428			4601	9643		T-32	21,672	Gals.	Road Mix Bituminous Material, MC-4 or 5, Sec. M-5.3
T-32	3654			2263	4742		T-32	10,659	Gals.	Seal Coat Bituminous Material, MC-5, Sec. M-5.3
T-32	457			283	593		T-32	1,333	Cu.Yds.	No. 4G Aggregate for Road Mix, Sec. M-3.1
T-32	51			31	66		T-32	148	Cu.Yds.	No. 9 Aggregate for Choke, Sec. M-3.1
T-32	111			69	145		T-32	325	Cu.Yds.	No. 6 Aggregate for Seal Coat, Sec. M-3.1

Rev. 11-4-64 C.E.H.

SUB-SUMMARY
COUNTY ROADS 286, 25, 254 ~ TOWNSHIP ROAD 81

CULVERT SUB-SUMMARY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

408
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

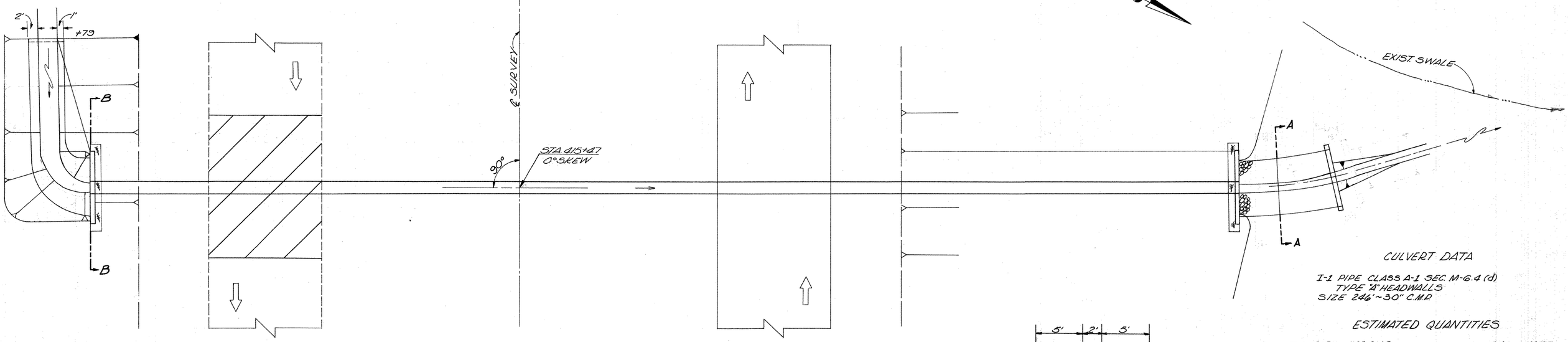
STATION	SKEW	I-1 PIPE (CLASS (A-1))																			E-3	I-2	E-12	I-5		I-8					S-23	I-10		L-10	See Sheet No.
		SEC. M G.4 (d)											SEC. G.4 (g)			M-6.6(a)		class	M G.6(b)															
		8 Ga.	10 Gage		12 Gage		14 Gage						T-8 Ga. B-7 Ga.	T-10 Ga. B-8 Ga.		M-6.8(b)		J-1	M G.8(b)		Channel Exc.	Masonry	Pipe Removed Over 15"	Pipe Specials Class A-1 Bend		Std. C.B.	Std. Manholes		No 2-4 C.B. Modified as per plan		Dowel Holes	Dumped Rock Ch. Prot.	Rip-Rap 6" R.C. Slab As Per Plan	Sodding	
		42"	30"	36"	24"	30"	15"		24"	30"	15"	18"	60"	60"		42"	36"	21"	24"	21"				30"	60"	No 5	No 2-6	No 1	No 2						
		Lin. Feet																			Cu. Yds.	Cu. Yds.	L.F.	Each		Each					Each	Cu. Yds.	Sq. Yds.	Sq. Yds.	
415+47	0°-0'									246											40	17.1										23	36	7	409
433+75	0°-0'					284				22												7.7				1		1						4	410
440+86	11° L.F.					298				19											11	11.6						1					51	6	411
458+99	1°-6' L.F.											7								61						1			1						412
473+52	6° L.F.						146														25	4.93				1					3	22.		3	413
481+87	3°-30' L.F.						250				18										3	3.3					1							3	414
508+34	0°-0'								56												83	5.59									3	19		3	415
522+09	11° L.F.				92																43	4.2										33	57	6	416
565+71	0°-0'								100													5.59									3	22		3	417
588+74	25° R.F.													172	18							29.0	6		1		1						86	7	418
591+25	43°-03'-30" L.F.	112																			16	0.70						1			3			4	419
611+92	20° R.F.													46								15.5									5	26		5	420
624+68	47° L.F.	116																				11.35									3	23		5	421
644+01	9° R.F.		278																			52.0		1								29		4.	422
34+09	8°-9' R.F.	94																				8.65									3	33		8	423
44+58	9° L.F.			86																		6.59									3	35		3	424
55+98	13°-30' L.F.				106																	3.89									3	32		4	425
C.H. 27																																			
104+34.66	1°12' L.F.											160										0.30				1						17		4	428
137+56	0° Skew																	60				0.82										33		4	427
C. H. 114																																			
86+00	0° Skew								172												7	0.8										6		2	426
C.H. 202																																			
27+00	0° Skew																	55				0.7										8		2	426
Twp. Rd. 35																																			
62+50	16° R.F.																59					1.18												4	427
C.H. 254																																			
28+37	62°32'00" L.F.	254																				13.5							1				18	4	429
45+63	21°45'00" R.F.												194									3.8									5			4	430
Totals to Gen. Summary		576	278	86	198	582	396		328	287	18	167	194	218	18	59	55	60	61	228	161.99	6	1	1	4	1	4	1	1	34	361	248	99	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

409
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

CUTOFF WALL FOR I-10
RIPRAP SEE SHEET NO. 438



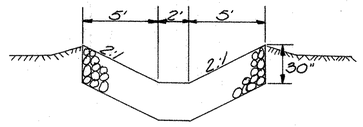
CULVERT DATA

I-1 PIPE CLASS A-1 SEC. M-6.4 (d)
TYPE "A" HEADWALLS
SIZE 246'~30" C.M.P.

ESTIMATED QUANTITIES

I-1 PIPE 30" C.M.P.	246 LIN.FT.
I-2 MASONRY	17.1 CU.YDS.
I-10 DUMPED ROCK CHANNEL PROTECTION	23 CU.YDS.
I-10 RIPRAP USING 6" REINF. CONC. SLAB	36 SQ.YDS.
L-10 SODDING	7.5 SQ.YDS.
E-3 CHANNEL EXCAVATION	40 CU. YDS.

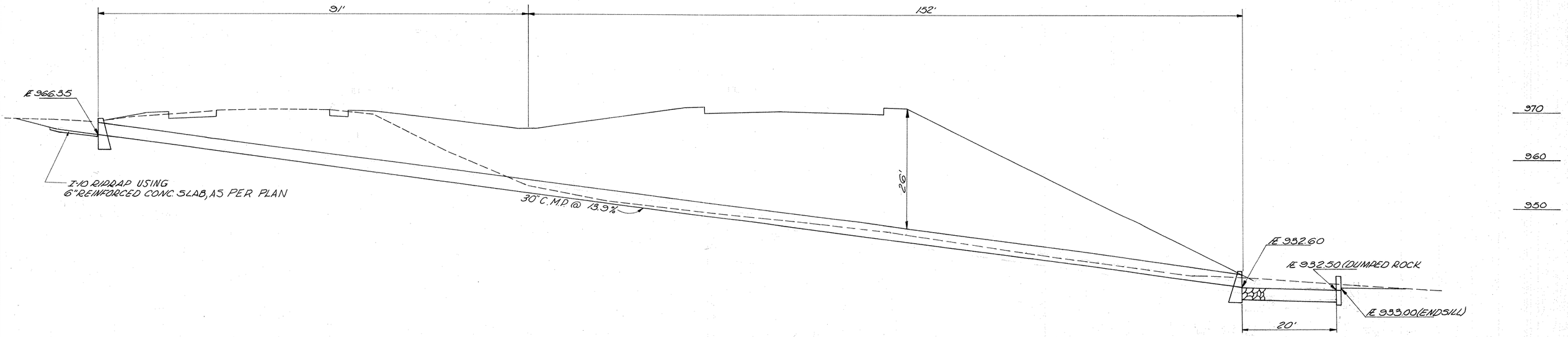
SECTION B-B



SECTION A-A

AREA = 7 ACRES
Q50 25 CFS.

Scale: 1" = 10'



SEE SHEET NO. 438 FOR ENDSILL DETAILS

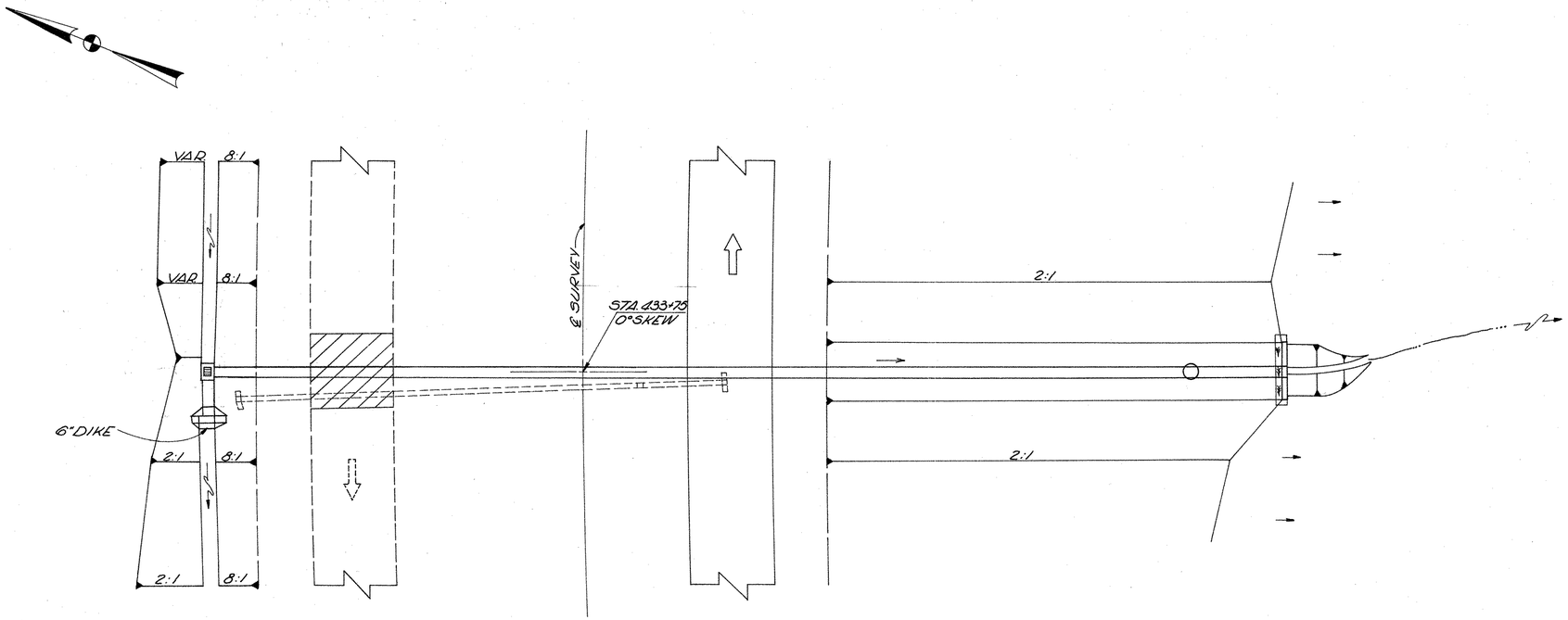
CULVERT ~ STA 415+47

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

410
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00



CULVERT DATA

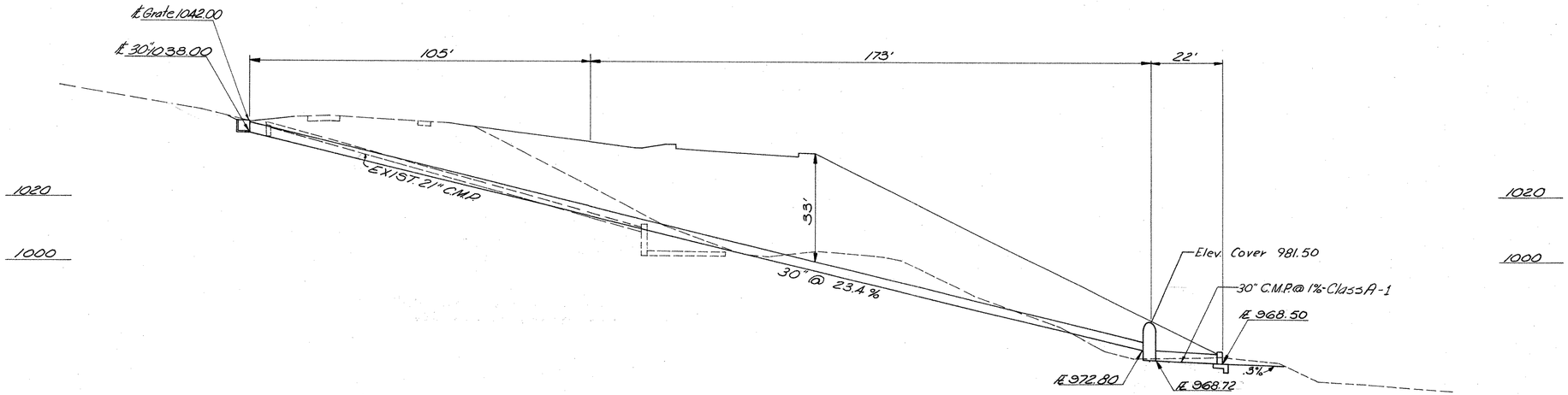
PIPE: CLASS A-1 SEC. M-6.4(D)

TYPE: "A" HEADWALL
SIZE: 284'-30" C.M.P. (12 GAGE)
22'-30" C.M.P.

ESTIMATED QUANTITES

I-1 PIPE 30" C.M.P. (12 GAGE)	284' LIN.FT.
I-1 PIPE 30" C.M.P.	22' LIN.FT.
I-2 MASONRY	7.7 CU.YDS.
I-8 STD. TYPE NO.1 MANHOLES	1 EACH
I-8.5 STD. TYPE NO.5 CATCH BASIN	1 EACH
L-10 SODDING	4 SQ.YDS.

AREA = 7.5 ACRE
Q50 = 27 CFS.
SCALE 1"=20'



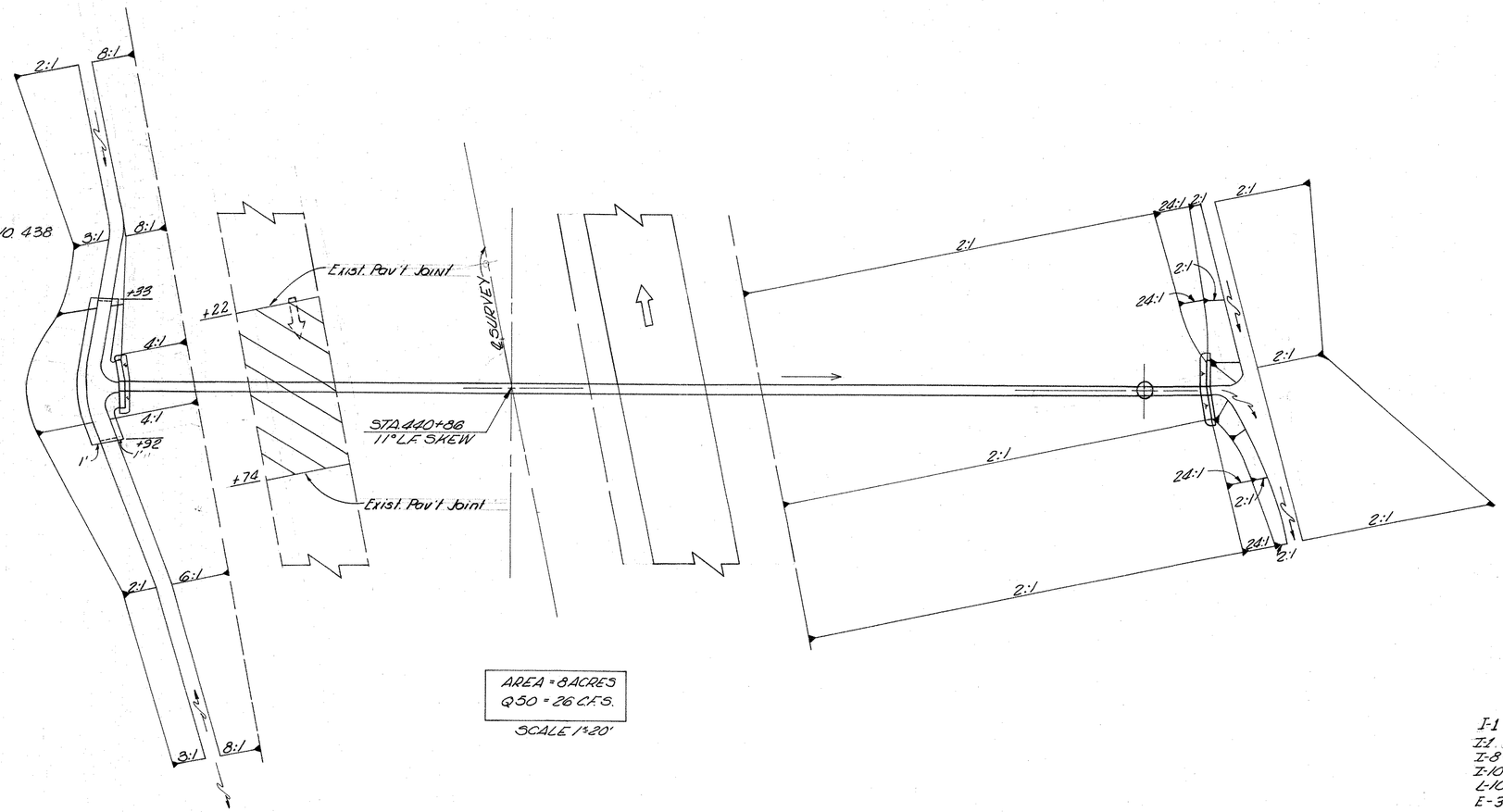
CULVERT ~ STA. 433+75

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

411
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

FOR STD. DETAILS OF CUTOFF WALLS FOR RIPRAP SEE SHEET NO. 438



AREA = 8 ACRES
Q50 = 26 C.F.S.

SCALE 1"=20'

CULVERT DATA

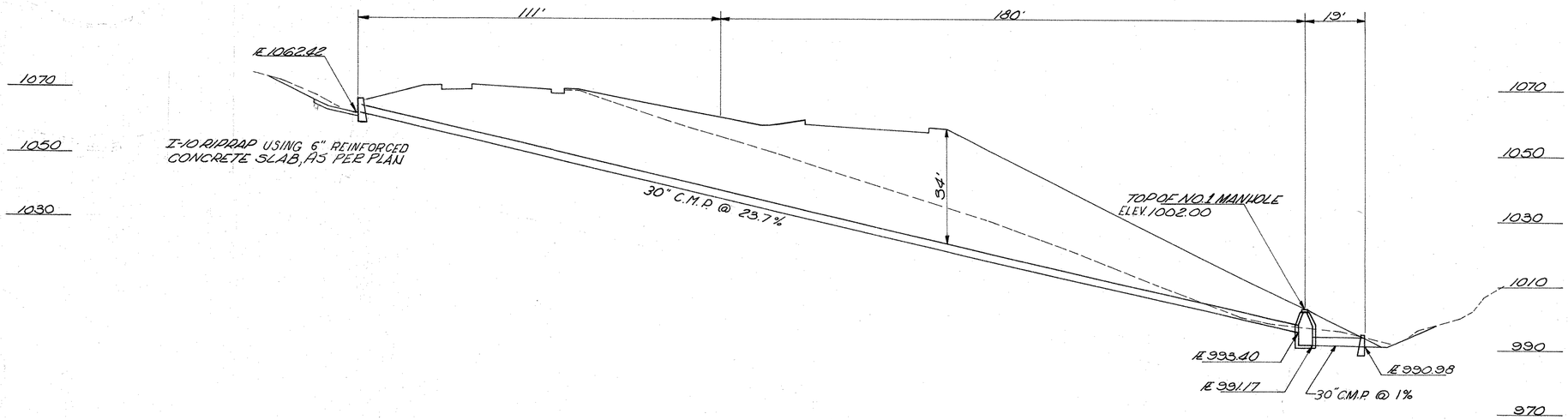
I-1 PIPE CLASS A-1 SEC. M-6.4(d)

SIZE: 298' X 30" CMP (12 GAGE)
19' ~ 30" CMP
TYPE: B-2 HEADWALL

ESTIMATED QUANTITES

I-1 PIPE 30" C.M.P. (12 GAGE)	298 L.F.
I-1 PIPE 30" C.M.P.	19 LIN. FT.
I-8 STD. NO. 1 MANHOLE	1 Ea.
I-10 RIPRAP USING 6" REINF. CONC. SLAB	51 SQ. YDS.
L-10 SODDING	6 SQ. YDS.
E-3 CHANNEL EXCAVATION	11 CU. YDS.

I-2 MASONRY FOR B-2 HEADWALLS
SEE SHEET NO. 431

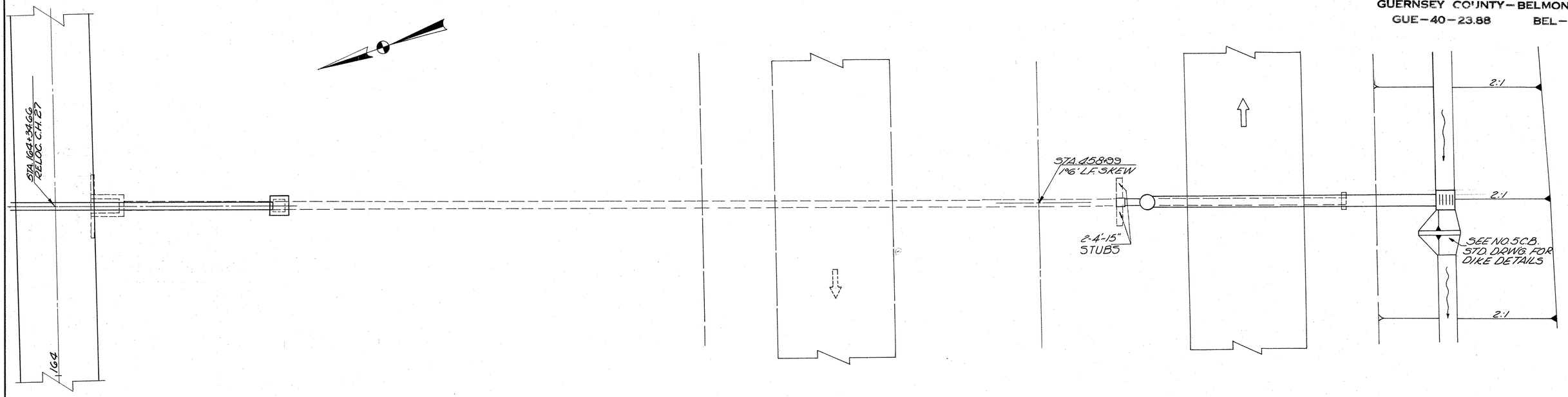


CULVERT ~ STA. 440+86

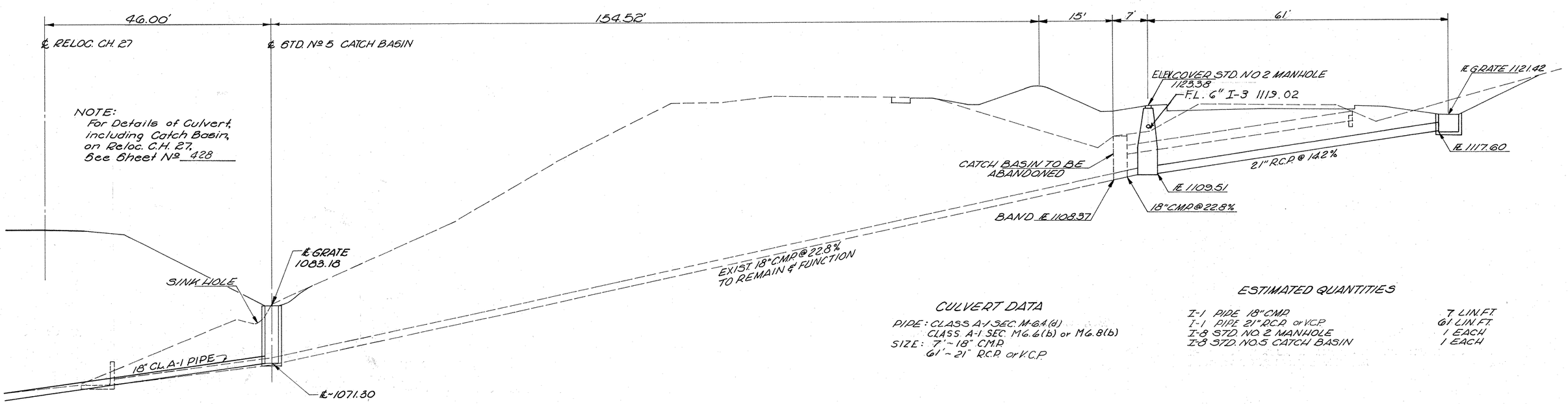
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

412
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



AREA = 6 ACRES
Q50 = 22 C.F.S.
SCALE = 1"=10'



CULVERT DATA

PIPE: CLASS A-1 SEC. M-6.4 (d)
CLASS A-1 SEC. M6.6 (b) or M6.8 (b)
SIZE: 7'-18" C.M.P.
61'-21" R.C.P. or V.C.P.

ESTIMATED QUANTITIES

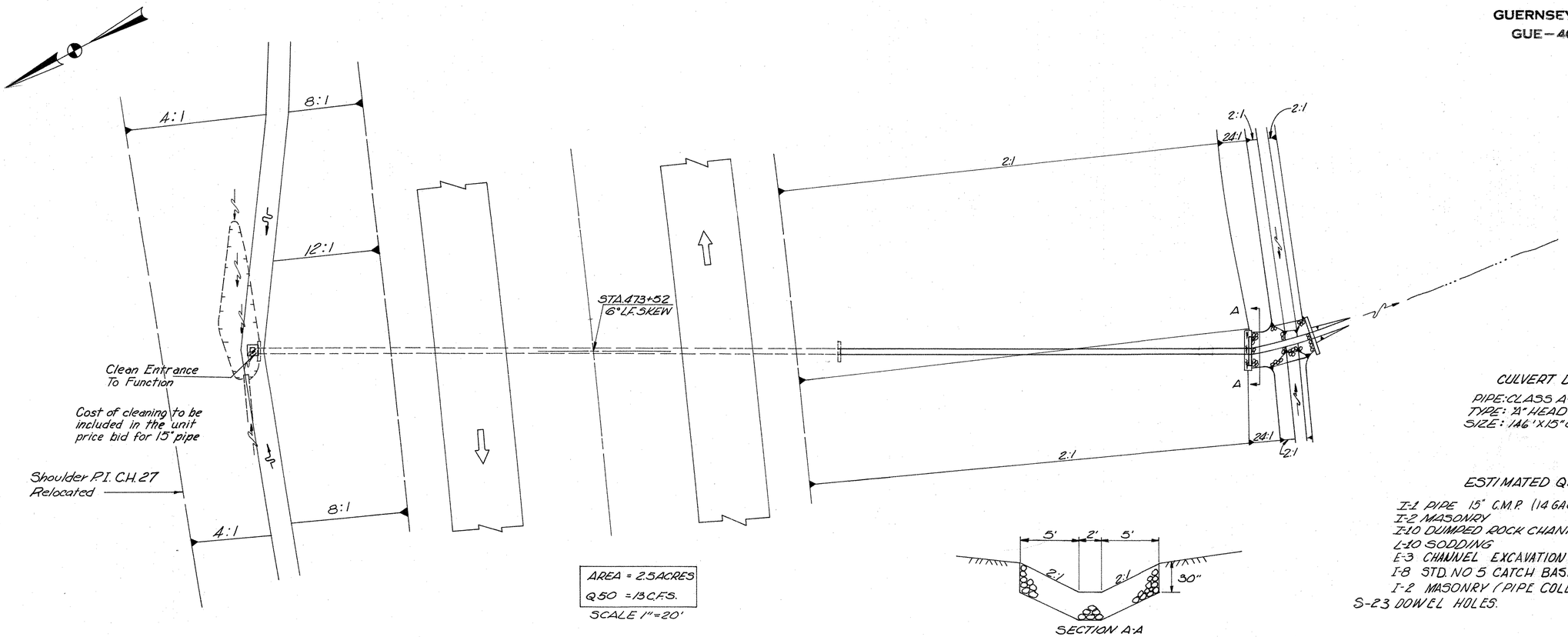
I-1 PIPE 18" CMP	7 LIN. FT.
I-1 PIPE 21" R.C.P. or V.C.P.	61 LIN. FT.
I-8 STD. NO 2 MANHOLE	1 EACH
I-8 STD. NO. 5 CATCH BASIN	1 EACH

CULVERT ~ STA. 458+99

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

413
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

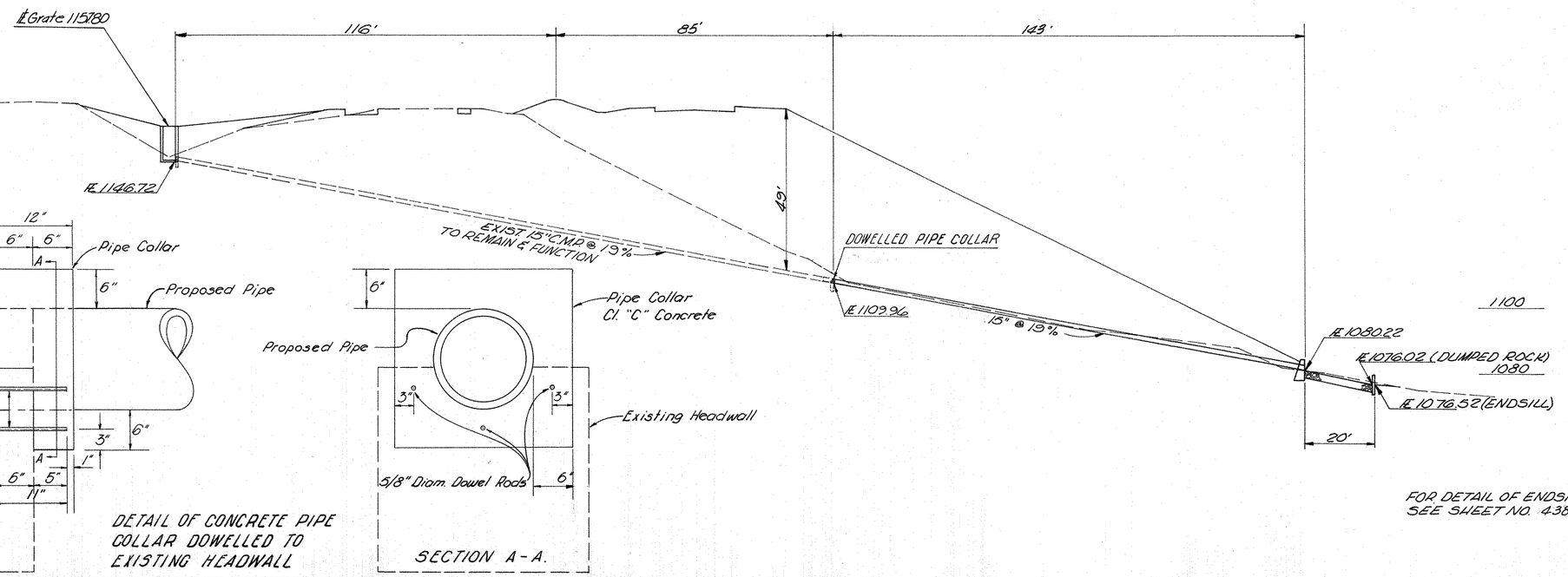


CULVERT DATA

PIPE: CLASS A-1 SEC. M-6.4(d) (14 GAGE)
TYPE: "A" HEADWALL
SIZE: 1.46' X 1.15" C.M.P.

ESTIMATED QUANTITIES

I-1 PIPE 15" C.M.P. (14 GAGE)	146 LIN. FT.
I-2 MASONRY	4.8 CU. YDS.
I-10 DUMPED ROCK CHANNEL PROTECTION	22 CU. YDS.
L-10 SODDING	3 SQ. YDS.
E-3 CHANNEL EXCAVATION	25 CU. YDS.
I-8 STD. NO. 5 CATCH BASIN	1 EACH
I-2 MASONRY (PIPE COLLAR)	0.13 CU. YDS.
S-23 DOWEL HOLES.	3 EACH.



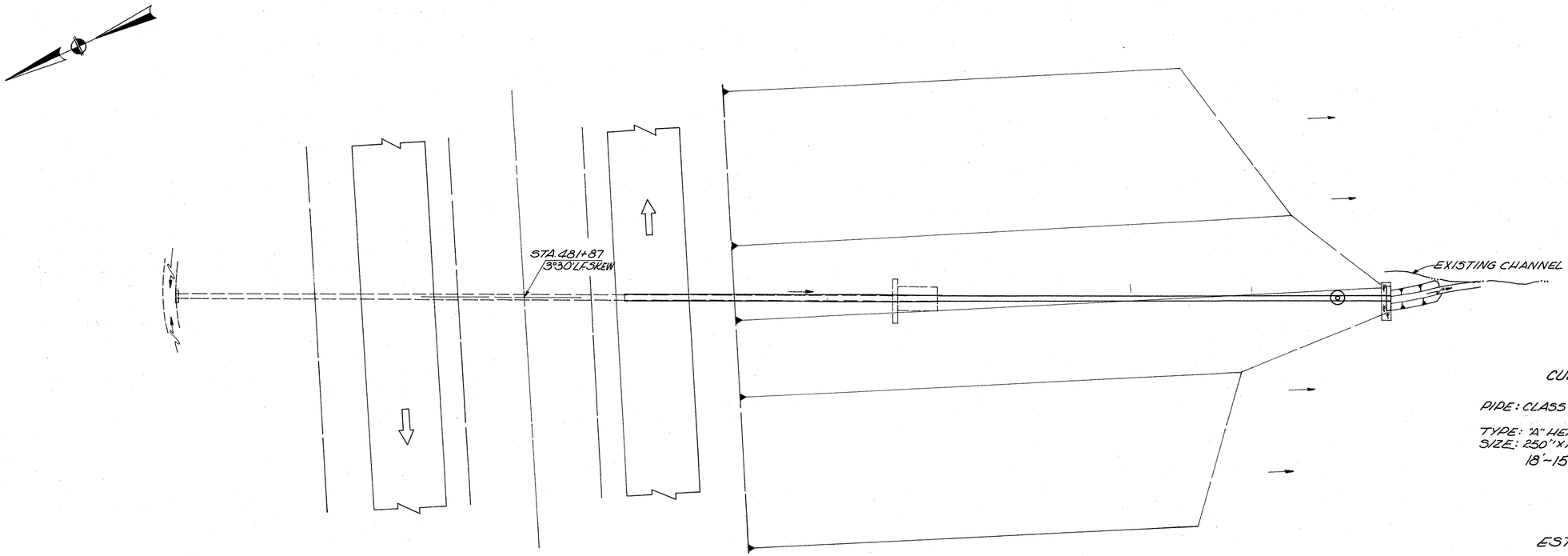
FOR DETAIL OF ENDSILL
SEE SHEET NO. 438

CULVERT ~ STA. 473+52

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

414
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



AREA = 4.0 ACRE
Q50 = 20 C.F.S.

SCALE 1"=20'

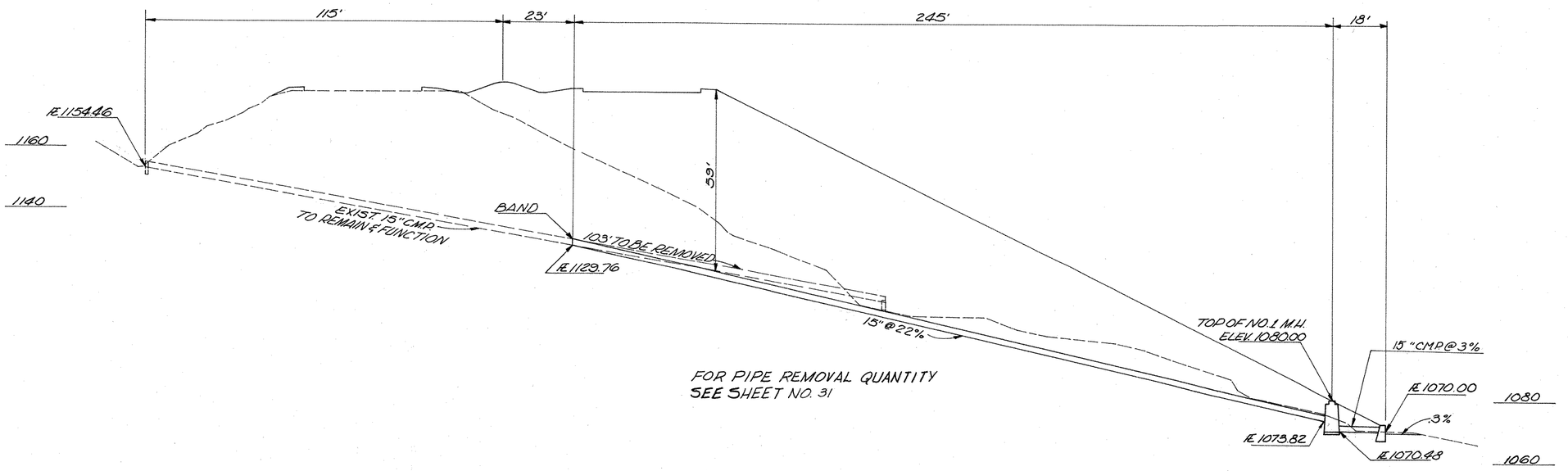
CULVERT DATA

PIPE: CLASS A-1 SEC. M64.1(d)

TYPE: "A" HEADWALL
SIZE: 250"x15" CMP (14Gage)
18'-15" CMP

ESTIMATED QUANTITIES

I-1 PIPE 15" C.M.P.	18 LIN.FT.
I-1 PIPE 15" C.M.P.(14 GAGE)	250 LIN.FT.
I-2 MASONRY	3.3 CU.YDS.
I-8 STD NO. 1 MANHOLE	1 EACH
L-10 SODDING	3 SQ.YDS.
E-3 CHANNEL EXCAVATION	3 CU.YDS.



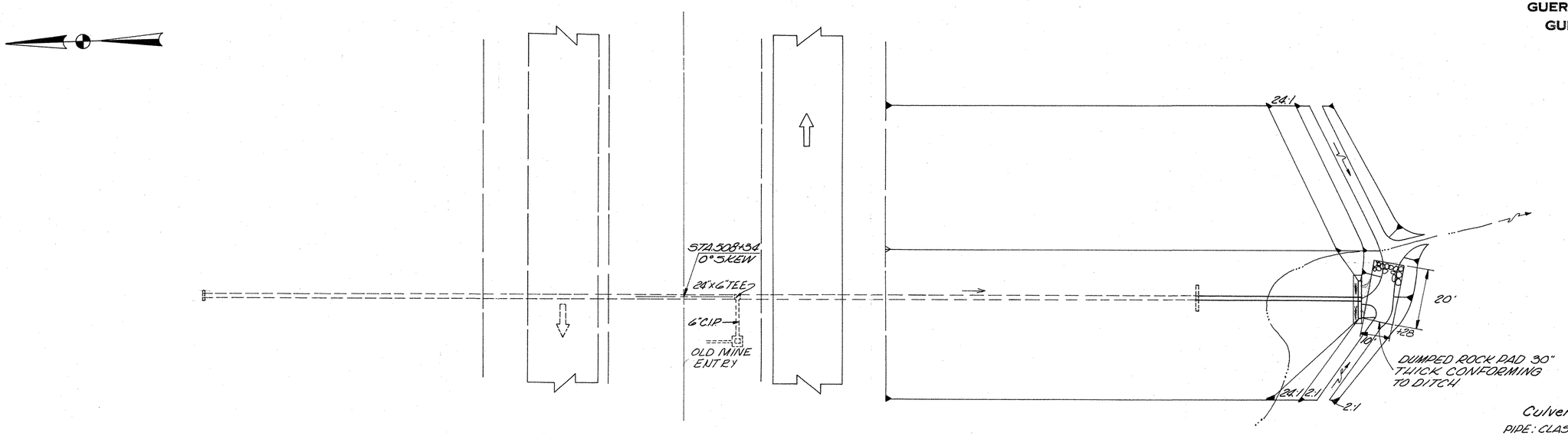
FOR PIPE REMOVAL QUANTITY
SEE SHEET NO. 31

CULVERT – STA. 481+87

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

415
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



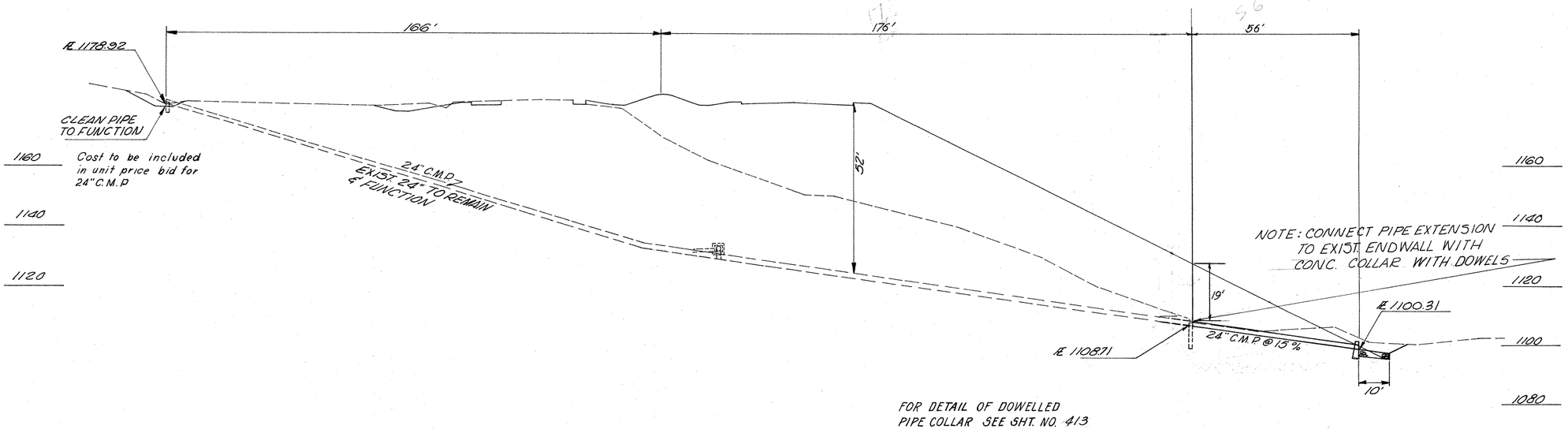
AREA = 3.5 ACRES
Q50 = 15 C.F.S.
SCALE 1" = 20'

Culvert Data

PIPE: CLASS A-1 SEC. M-6.4(d)
SIZE: 56'X24"
TYPE: "A" HEADWALL

Estimated Quantities

I-1 PIPE, 24"	56 LIN.FT.
I-2 MASONRY	54 CU.YDS.
I-10 DUMPED ROCK CHANNEL PROTECTION	19 CU.YDS.
L-10 SODDING	3 SQ.YDS.
E-3 CHANNEL EXCAVATION	83 CU.YDS.
I-2 MASONRY (PIPE COLLAR)	0.19 CU.YDS.
S-23 DOWEL HOLES	3 EACH



FOR DETAIL OF DOWELLED PIPE COLLAR SEE SHT. NO. 413

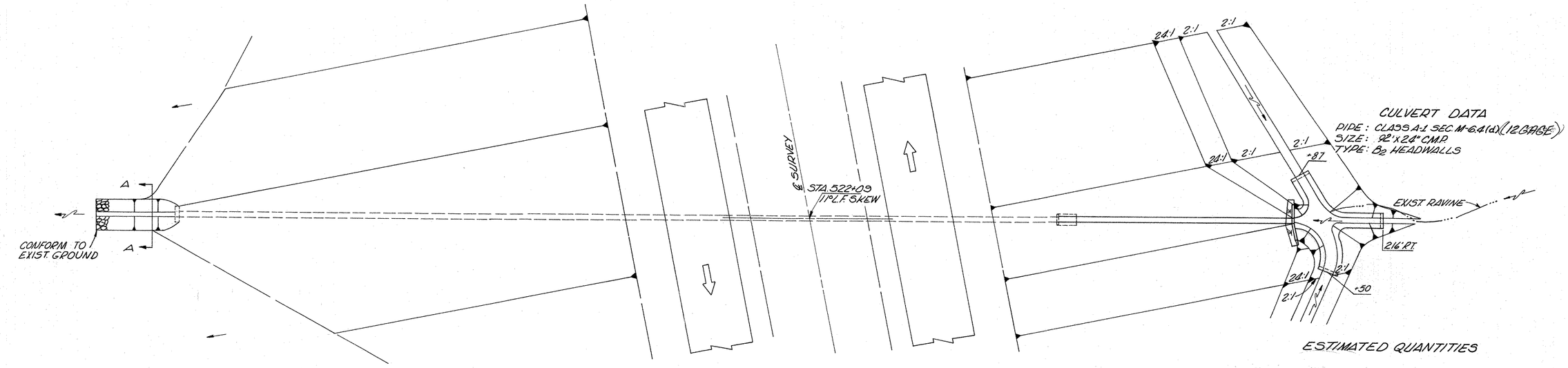
CULVERT ~ STA. 508+34

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

416
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

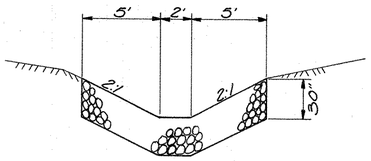
FOR DETAILS OF CUTOFF WALLS FOR RIPRAP SEE SHEET NO. 438



CULVERT DATA
PIPE : CLASS A-1 SEC M-6.41(d)(12 GAGE)
SIZE: 92'x24" C.M.P.
TYPE: B_2 HEADWALLS

ESTIMATED QUANTITIES

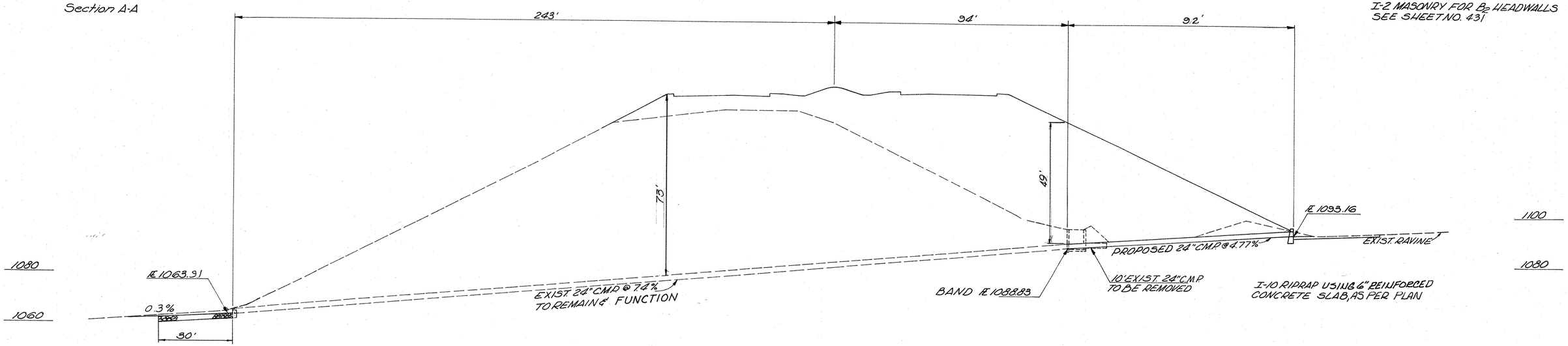
I-1 PIPE, 24" C.M.P. (12 GAGE)	92 LIN. FT.
I-10 DUMPED ROCK CHANNEL PROTECTION	33 CU. YDS.
I-10 PAVED RIPRAP ON 6" REINFORCED CONCRETE SLAB	57 SQ. YDS.
L-10 SODDING	6 SQ. YDS.
E-3 CHANNEL EXCAVATION	43 CU. YDS.



Section A-A

AREA = 16 ACRES
Q 50 = 48 C.F.S.
SCALE 1" = 20'

I-2 MASONRY FOR B_2 HEADWALLS
SEE SHEET NO. 431

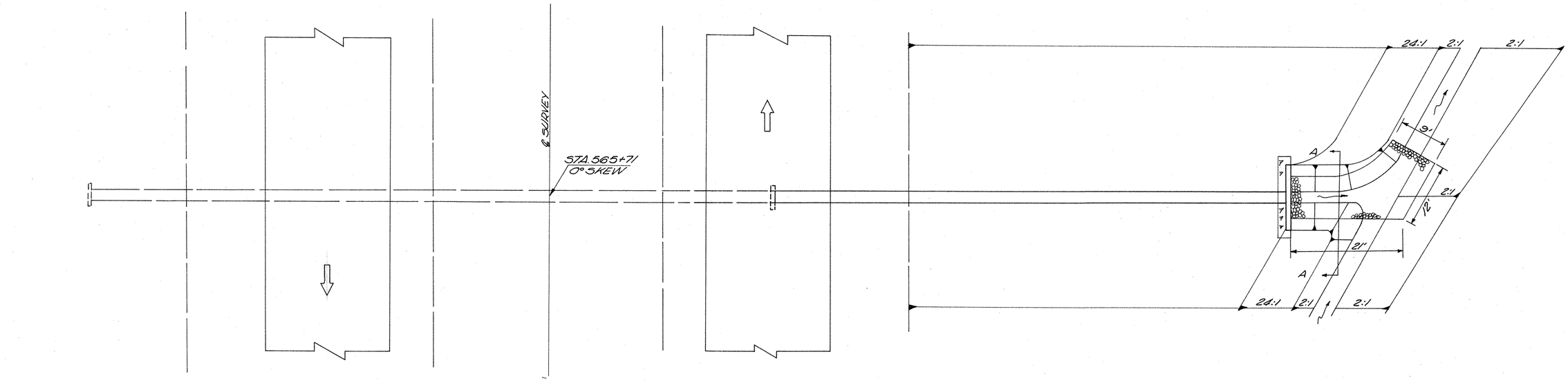


CULVERT ~ STA. 522+09

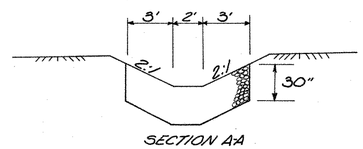
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

417
485

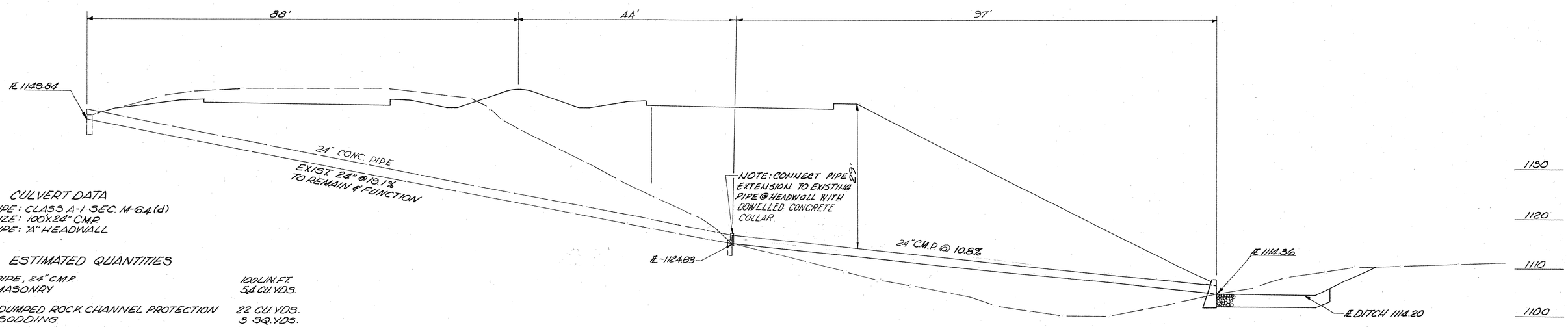
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



AREA = 4.5 ACRES
Q 50 = 19 C.F.S.
SCALE 1"=10'



SECTION A-A



CULVERT DATA
PIPE: CLASS A-1 SEC. M-6.4 (d)
SIZE: 100'x 24" CMP
TYPE: "A" HEADWALL

ESTIMATED QUANTITIES

I-1 PIPE, 24" C.M.P.	100 LIN. FT.
I-2 MASONRY	5.4 CU. YDS.
I-10 DUMPED ROCK CHANNEL PROTECTION	22 CU. YDS.
L-10 SODDING	3 SQ. YDS.
I-2 MASONRY (PIPE COLLAR)	0.19 CU. YDS
3-.23 DOWEL HOLES	3 EACH.

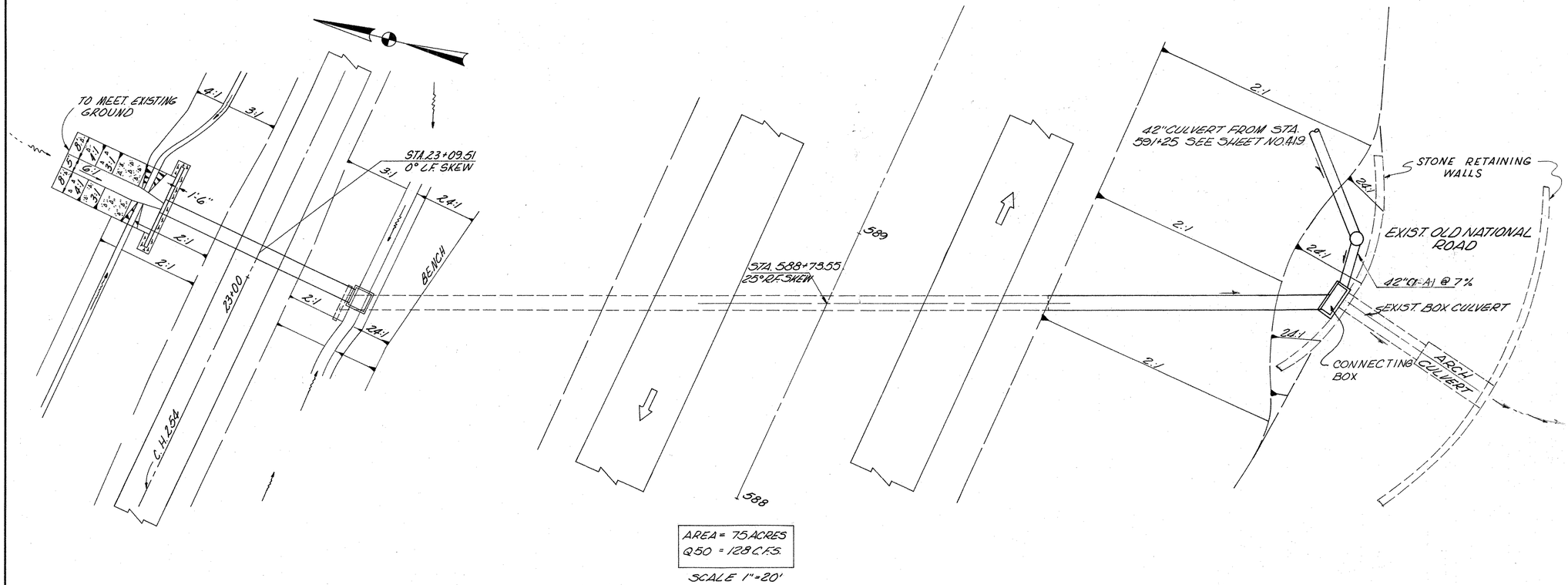
FOR DETAILS OF PIPE COLLAR
SEE SHEET NO 413

CULVERT ~ STA. 565+71

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

418
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



AREA = 7.5 ACRES
Q50 = 128 C.F.S.

SCALE 1"=20'

CULVERT DATA

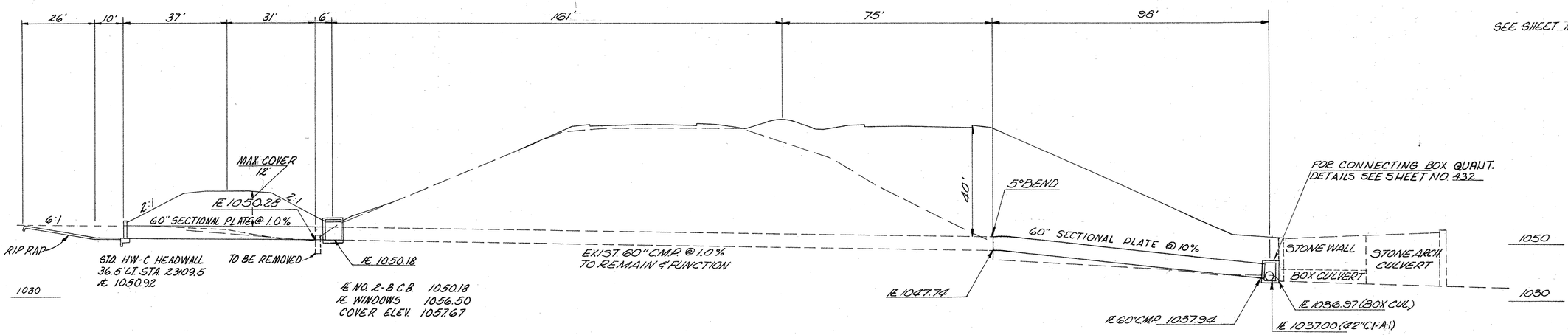
PIPE: CLASS A-1 SEC. M-6.4(g) 8 GAGE BOTTOM ROW SEC. R
10 GAGE TOP ROW SEC. R

PIPE: CLASS A-1 SEC. M-6.4(d)

SIZE: 172' X 60" SEC. R
18' X 42" C.M.A.

ESTIMATED QUANTITIES

I-1	PIPE 60" SEC. R	172	LIN. FT.
I-1	PIPE 42" CL. A-1	18	LIN. FT.
I-5	PIPE SPECIAL (5° BEND) 60"	1	EACH
I-2	MASONRY FOR JUNCTION BOX	6.6	CU. YDS.
I-2	MASONRY FOR HEADWALL	22	CU. YDS.
I-8	NO. 2-G CATCH BASIN (MOD.)	1	EACH
I-10	R.I.P. RAP 6" REINFORCED CONCRETE SLAB	86	SQ. YDS.
E-12	PIPE REMOVAL (OVER 15")	6	LIN. FT.
L-10	SODDING	7	SQ. YDS.



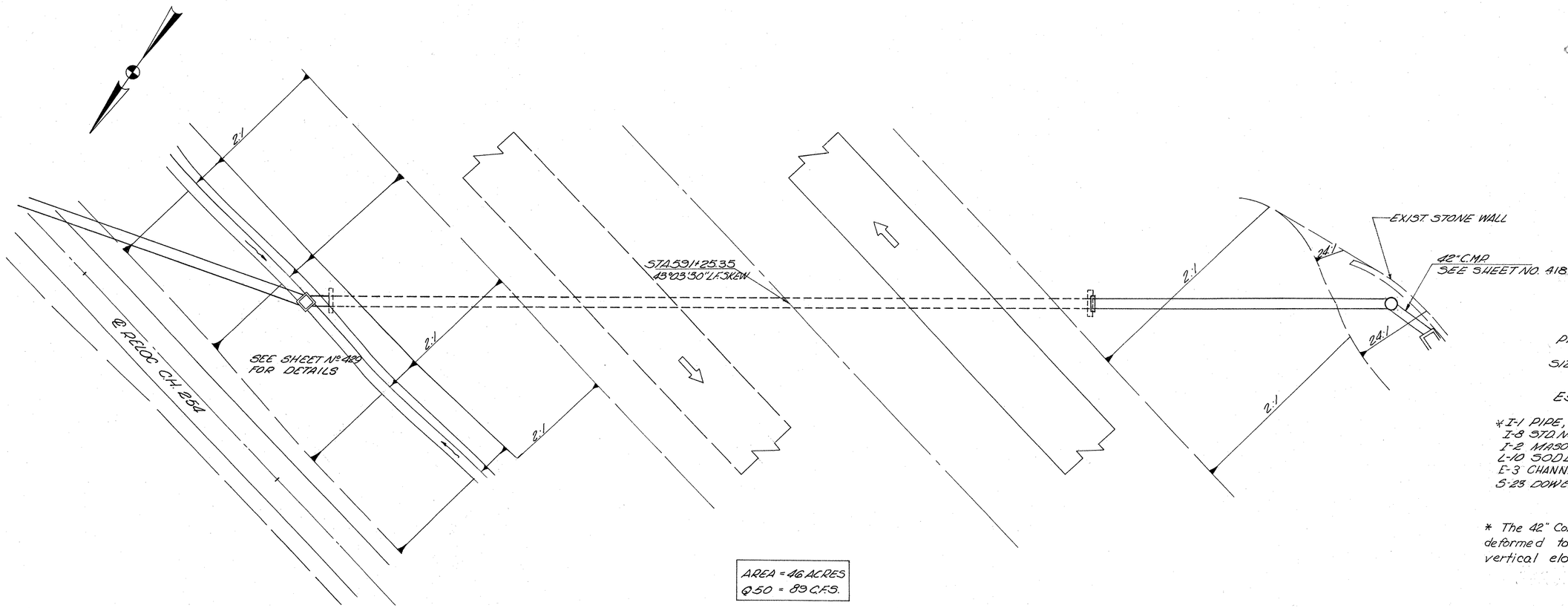
SEE SHEET NO. 438 FOR NO. 2-6 C.B. MOD.

CULVERT ~ 588+74

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

419
485

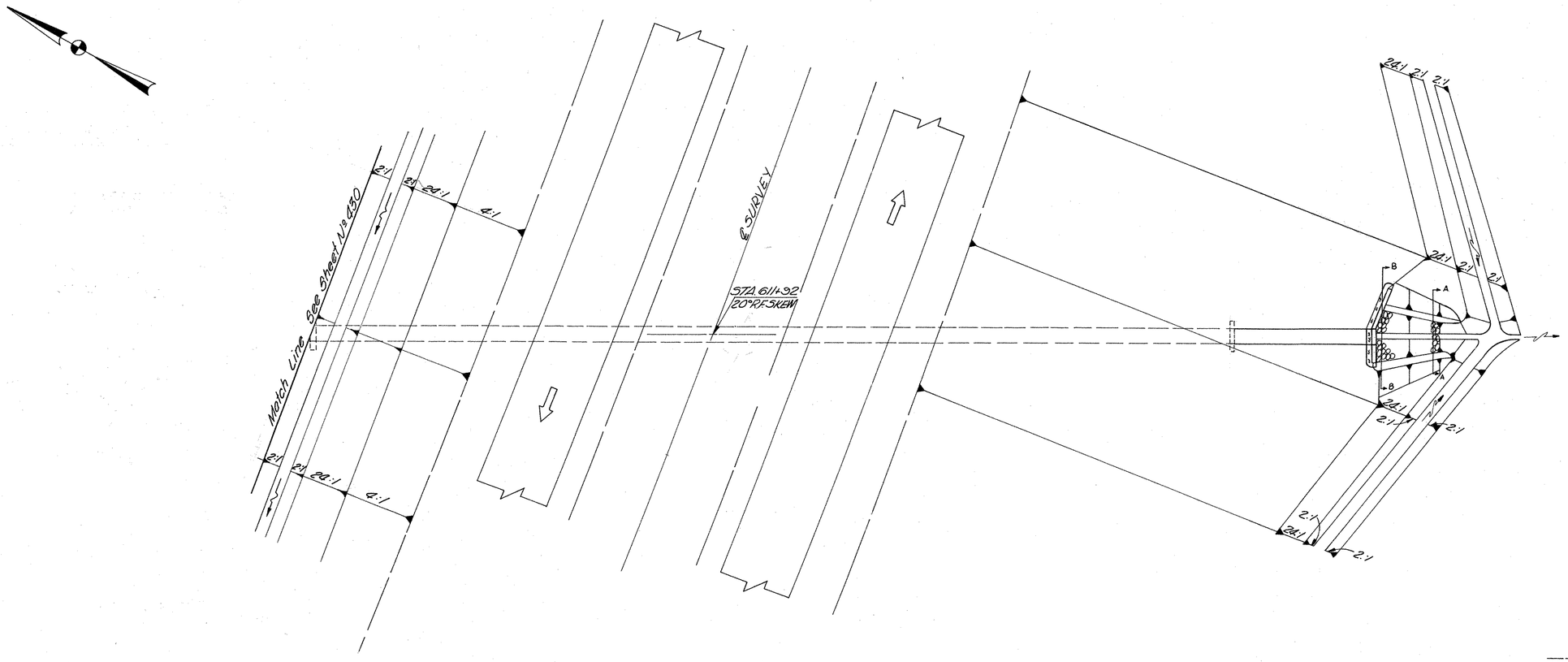
GUERNSEY COUNTY - BELMONT COUNTY
GUE-40-23.88 BEL-40-0.00


2:1
2:1
2:1

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

420/485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



CULVERT DATA

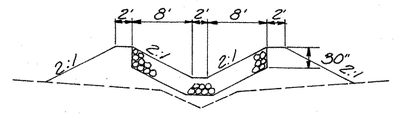
PIPE: CLASS A-1 SEC. M-6.4(g)
TOP ROW SEC. Ⓡ 10 GAGE
BOTTOM ROW SEC. Ⓡ 8 GAGE
TYPE: B1 HEADWALLS
SIZE: 90°X60" SEC. Ⓡ, Sec. M-6.4(g)

ESTIMATED QUANTITIES

I-1	PIPE 60" M-6.4(g) 10-8 Ga.	46 LIN. FT.
I-10	DUMPED ROCK CHANNEL PROTECTION	26 CU. YDS.
L-10	SODDING	5 SQ. YDS.
I-2	MASONRY FOR PIPE COLLAR	1.1 CU. YDS.
S-23	DOWEL HOLES	5 E.A.

I-2 MASONRY FOR B1 HEADWALLS
SEE SHEET NO. 431

SECTION A-A



SECTION B-B

AREA = 37 ACRES
Q50 = 82 C.F.S.
SCALE 1"=20'

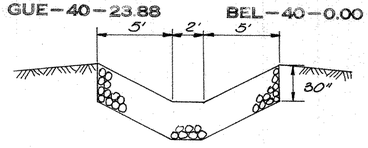
CULVERT – STA. 611+92

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

421
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE – 40 – 23.88 BEL – 40 – 0.00



SECTION A-A

Culvert Data

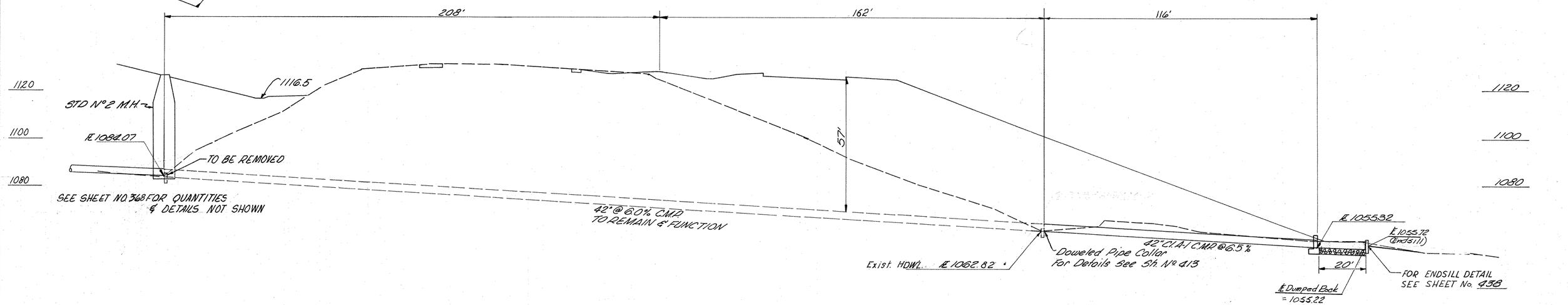
PIPE: CLASS A-1 SEC. M-6.4(d) 8 GAGE *
TYPE: B) HEADWALL
SIZE: 116' x 42" Cl. A-1 CMP

Estimated Quantities

* I-1 PIPE 42" C.M.P. Shop Elongated As per plan.	116' LIN. FT.
I-10 DUMPED ROCK CHANNEL PROTECTION	25 CU. YDS.
L-10 SODDING	3 SQ. YDS.
I-2 MASONRY FOR ENDSILL	2.8 CU. YDS.
I-2 MASONRY FOR PIPE COLLAR	0.35 CU. YDS.
S-23 DOWEL HOLES	3 EACH

I-2 MASONRY FOR B) HEADWALLS SEE SHEET NO. 431

* The 42" corrugated metal pipe shall be shop deformed to produce and maintain a 5% vertical elongation.

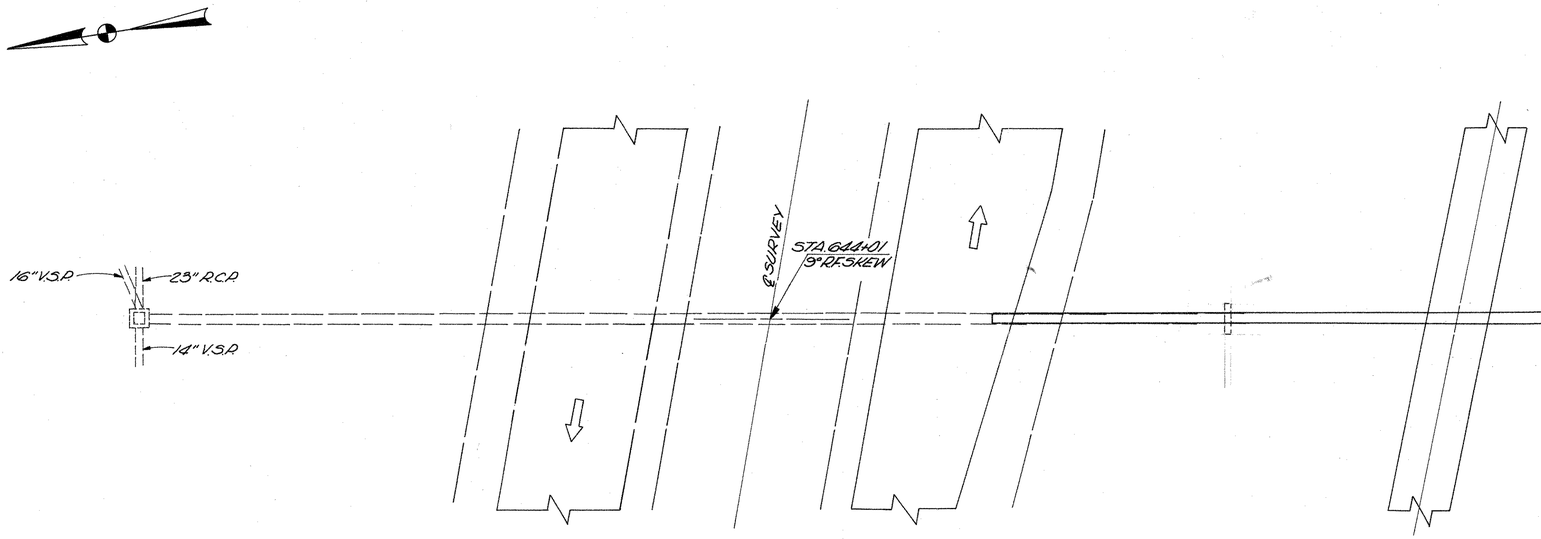


CULVERT ~ STA. 624+68

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

422
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

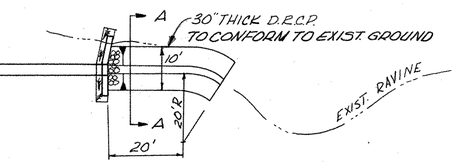


AREA = 9 ACRES
Q 50 = 34 C.F.S.

SCALE 1" = 20'

CULVERT DATA

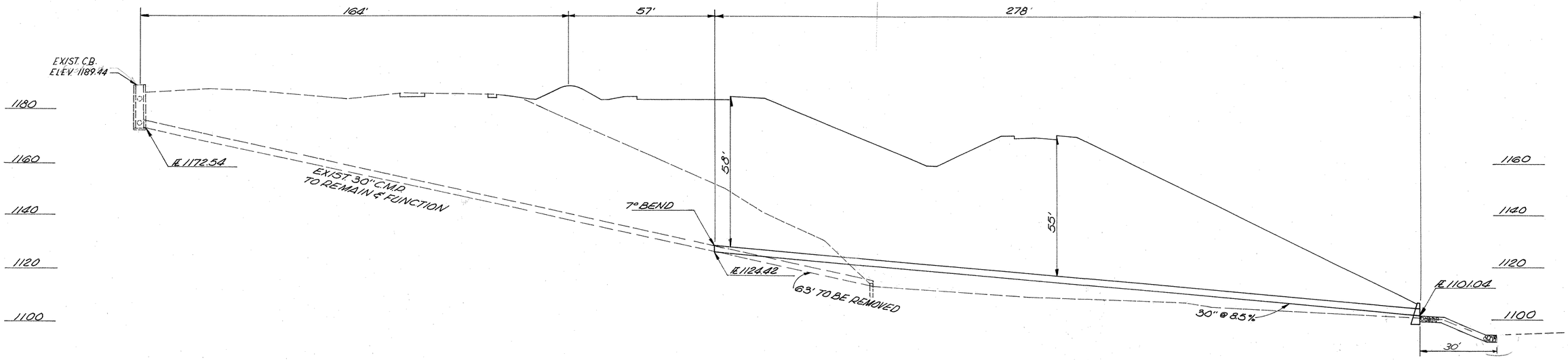
PIPE: CLASS A-1 SEC. M-6.4(D) (10 GAGE)
TYPE: B2 HEADWALL
SIZE: 278' x 30" C.M.P.



ESTIMATED QUANTITIES

I-1 PIPE, 30" C.M.P.	278 L.IN.FT.
I-10 DUMPED ROCK CHANNEL PROTECTION	29 CU.YDS.
L-10 SODDING	4 SQ.YDS.
I-5 PIPE SPECIAL	1 EA.

I-2 MASONRY FOR TYPE B2 HEADWALLS SEE SHEET NO. 431



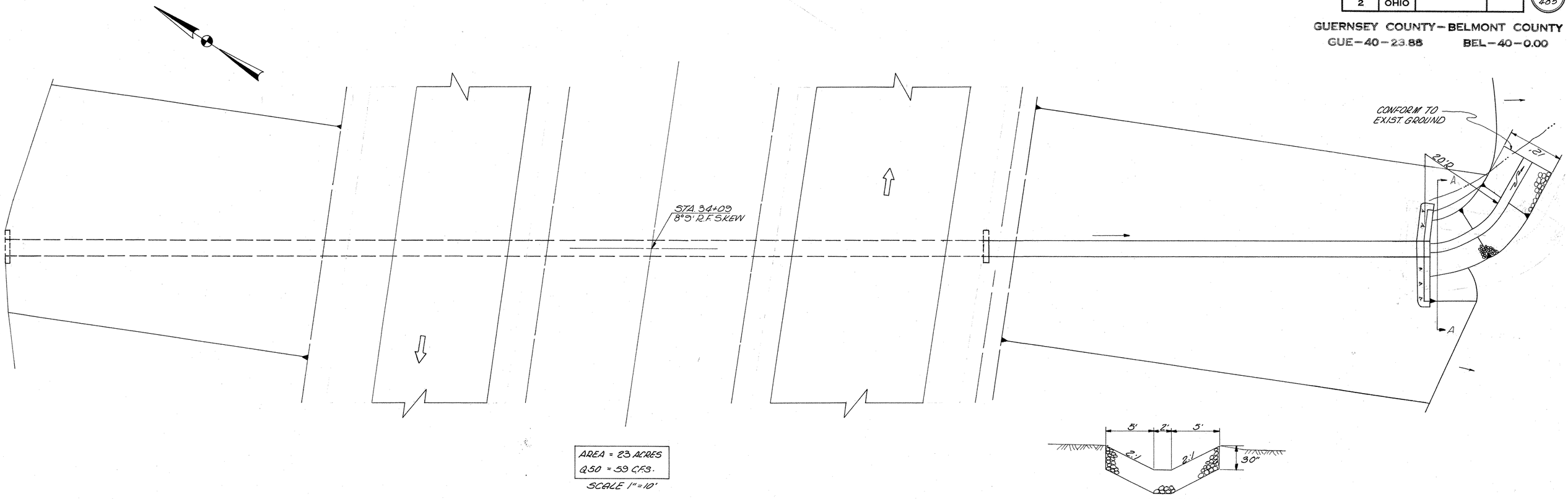
CULVERT ~ STA. 644+01

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

423
485

GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00



Culvert Data

PIPE: CLASS A-1 SEC. M-6.01(1)(8 GAGE)*
SIZE: 34' x 42" C.M.P.
TYPE: B1 HEADWALLS

* The 42" Corrugated metal pipe shall be shop deformed to produce and maintain a 5% Vertical Elongation.

Estimated Quantities

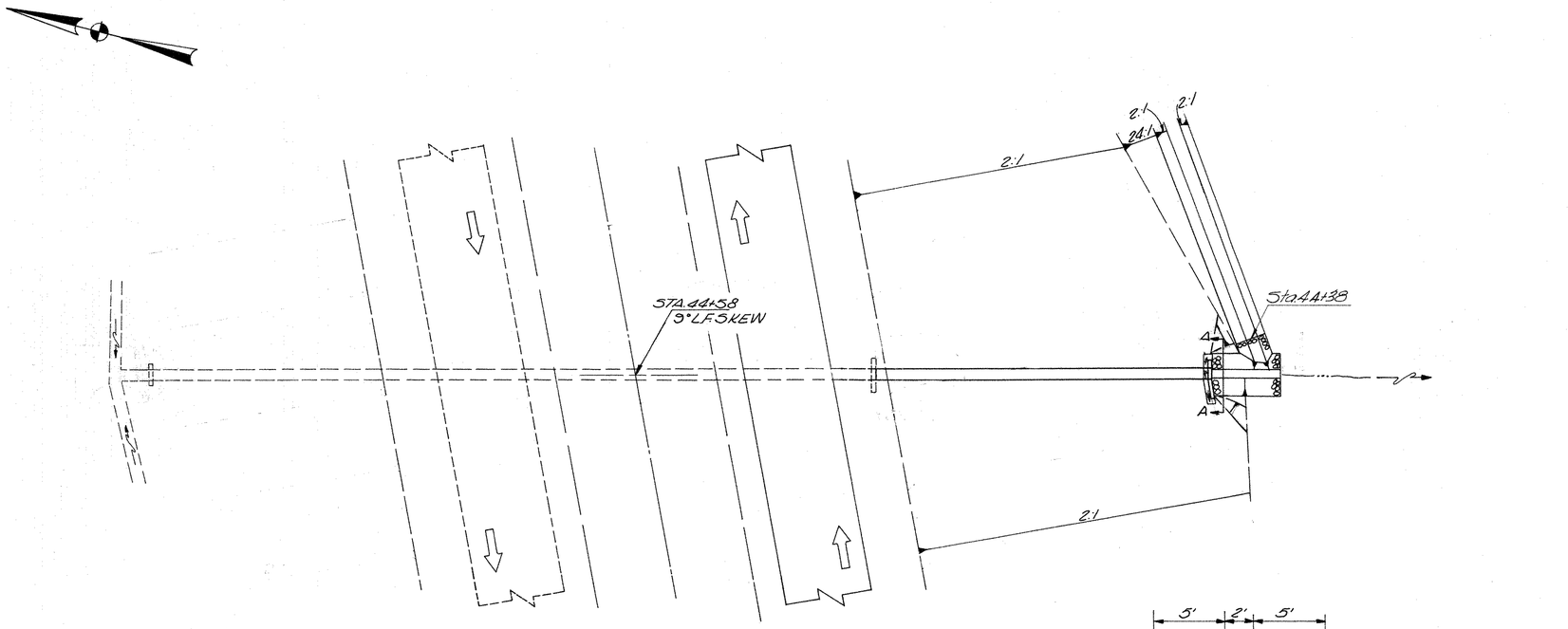
* I-1 PIPE 42" C.M.P. Shop Elongated As per plan.	34 L.F.
I-10 DUMPED ROCK CHANNEL PROTECTION	33 CU.YD.
I-10 SODDING	8 SQ.YD.
I-2 MASONRY (PIPE COLLAR)	0.35 CU. YD.
3-23 DOWEL HOLES	3 EA.
I-2 MASONRY FOR B1 HEADWALLS	
SEE SHEET NO. 431	

CULVERT STA. 34+09

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

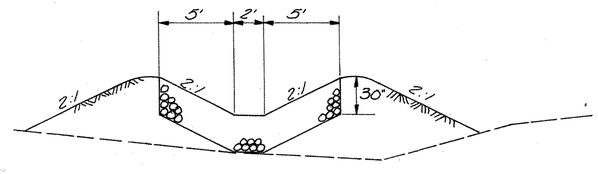
424
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



AREA = 13 ACRES
Q50 = 41 C.F.S.

SCALE 1"=20'



SECTION A-A

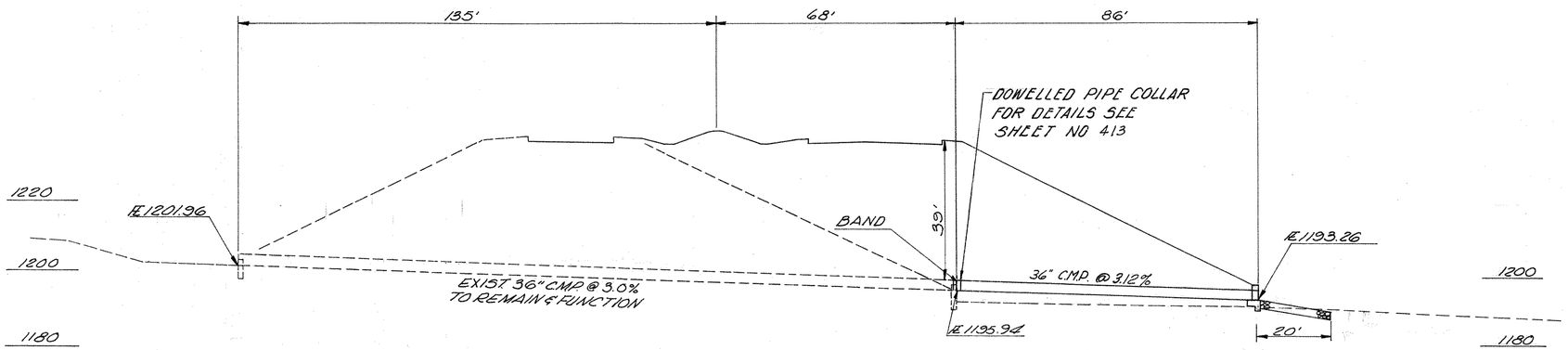
CULVERT DATA

PIPE : I-1 CL. A-1 SEC. M-6.4(d)(10 GAGE)
TYPE B1 HEADWALL
SIZE : 86"x36" CM.P.

ESTIMATED QUANTITIES

I-1 PIPE 36" SEC. M-6.4(G) 10 GAGE	86 LIN. FT.
I-10 DUMPED ROCK CH. PROT.	35 CU. YDS.
L-10 SODDING	3 SQ. YDS.
I-2 MASONRY (PIPE COLLAR)	0.29 CU. YDS.
S-23 DOWEL HOLES	3 EACH.

I-2 MASONRY FOR B1 HEADWALLS
SEE SHEET NO. 431

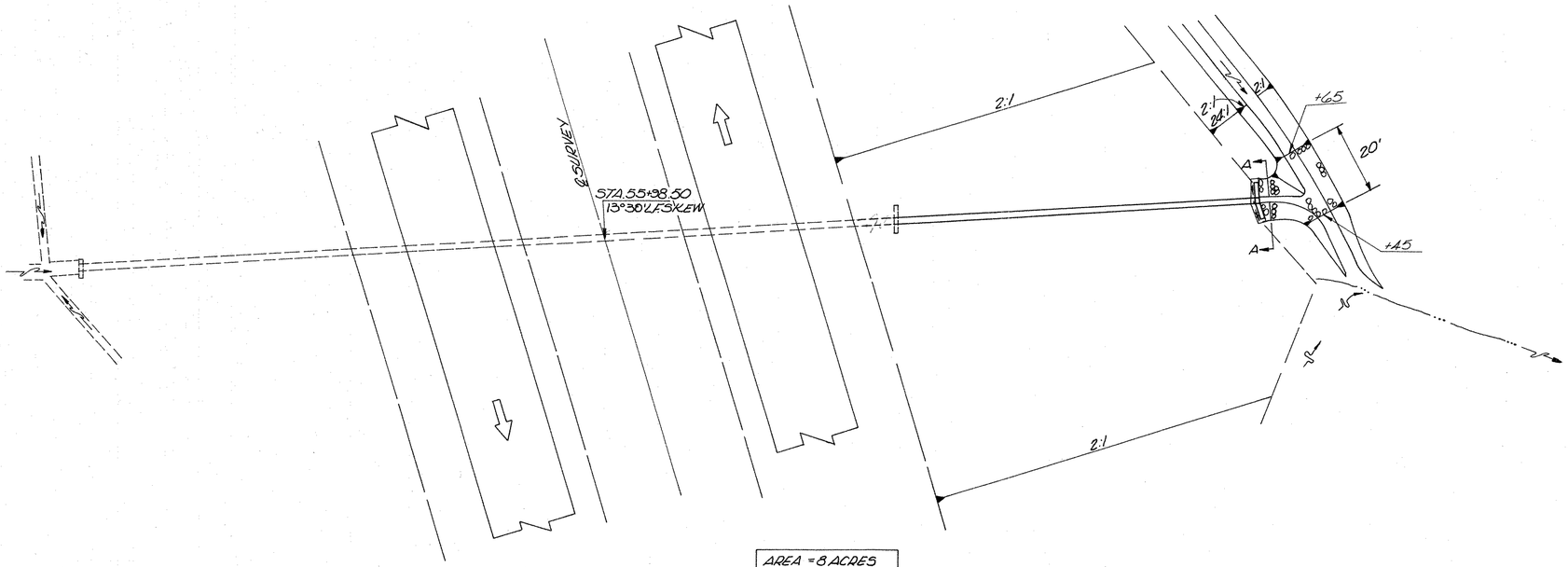


CULVERT ~ STA. 44+58

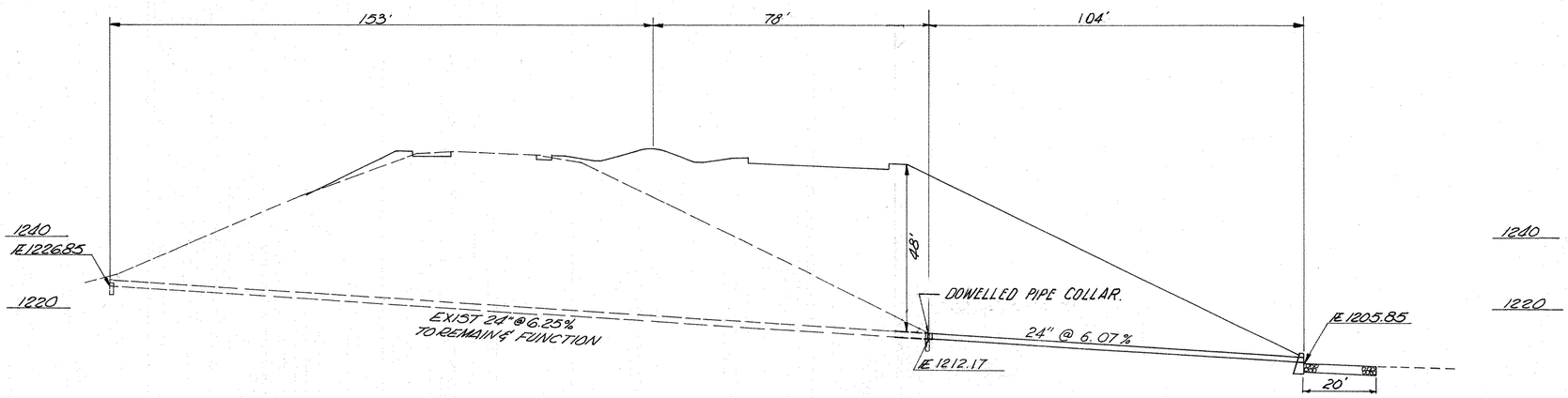
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

425
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



AREA = 8 ACRES
Q50 = 31 CFS.
SCALE 1"=20'



FOR DETAILS OF DOWELLED PIPE COLLAR
SEE SHEET NO. 413

CULVERT DATA

I-1 PIPE: CLASS A-1 SEC. M-64(d) (12 GAGE)
TYPE: B_2 HEADWALL
SIZE: 106'X24" CMP

ESTIMATED QUANTITIES

I-1 PIPE 24" C.M.P.	106' LIN. FT.
I-10 DUMPED ROCK CHANNEL PROTECTION	32 CU.YDS.
L-10 SODDING	4 SQ.YDS.
I-2 MASONRY (PIPE COLLAR)	0.19 CU YDS
S-23 DOWEL HOLES	3 EACH.

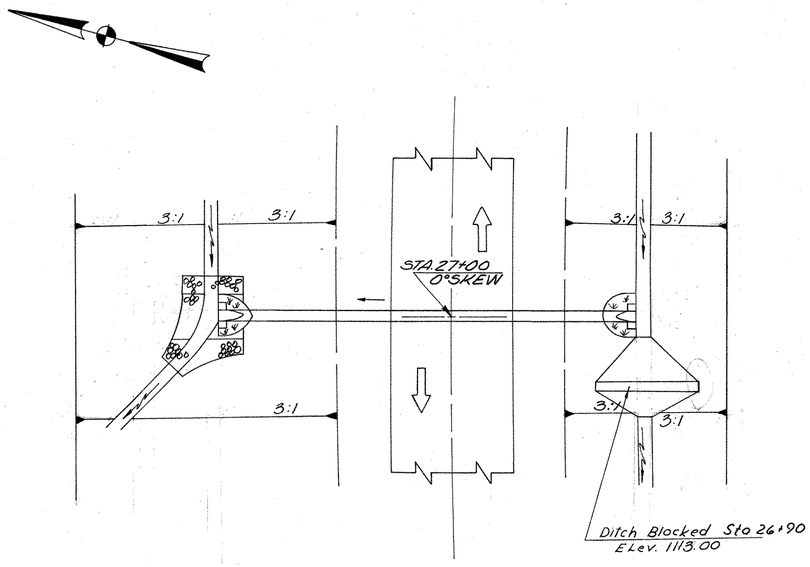
I-2 MASONRY FOR TYPE B_2 HEADWALL
SEE SHEET NO. 431

CULVERT ~ STA. 55+98.50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

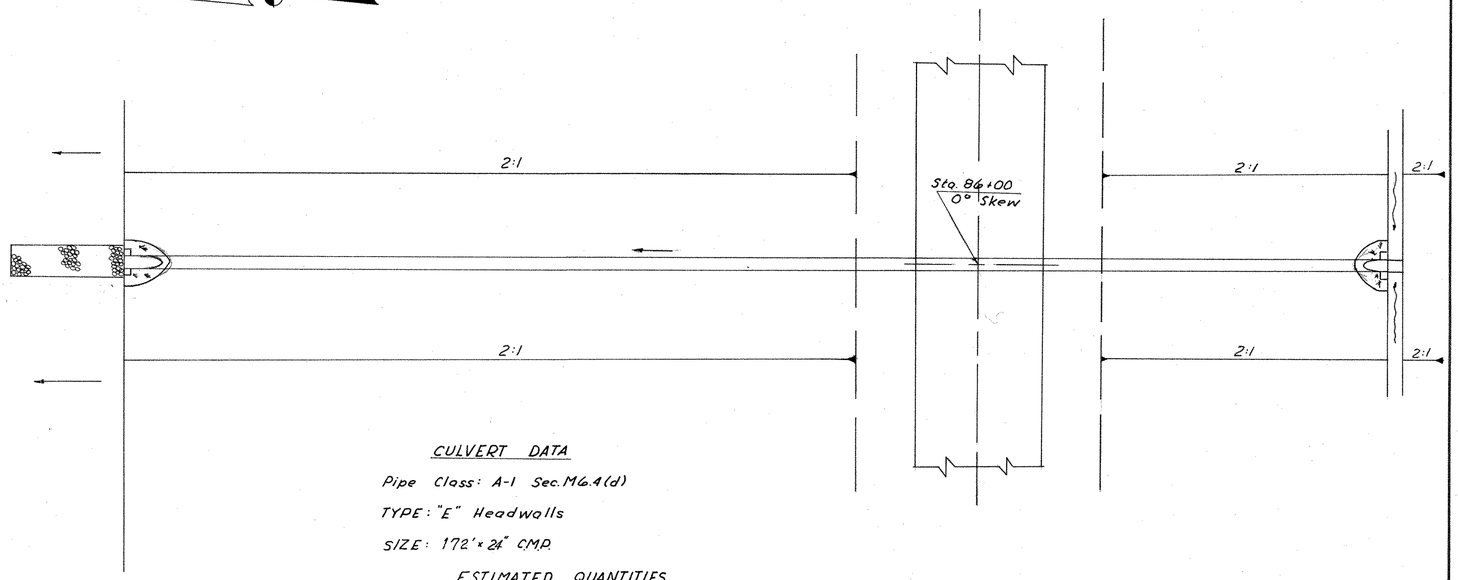
426
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.38 BEL–40–0.00



AREA = 54 ACRES
Q 10 = 15 C.F.S.

SCALE 1" = 10'



CULVERT DATA

Pipe Class: A-1 Sec. M6.4(d)

TYPE: "E" Headwalls

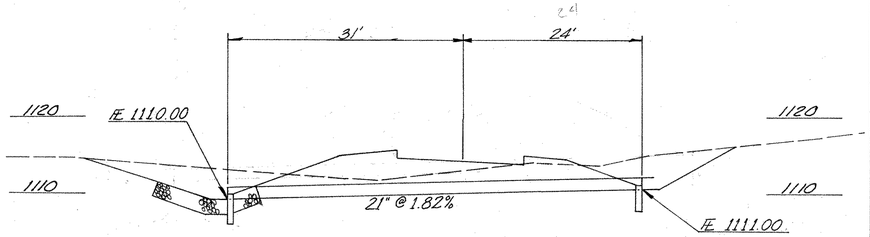
SIZE: 172' × 24" C.M.P.

ESTIMATED QUANTITIES

I-1 Pipe, 24" C.M.P.	172 L.F.
I-2 Masonry	0.82 Cu. Yds.
I-10 Dumped Rock Ch. Prot.	6 Cu. Yds.
L-10 Sodding	2 Sq. Yds.
E-3 Channel Excavation	7 Cu. Yds.

AREA = 5 ACRES
Q 10 = 9 C.F.S.

SCALE: 1" = 10'

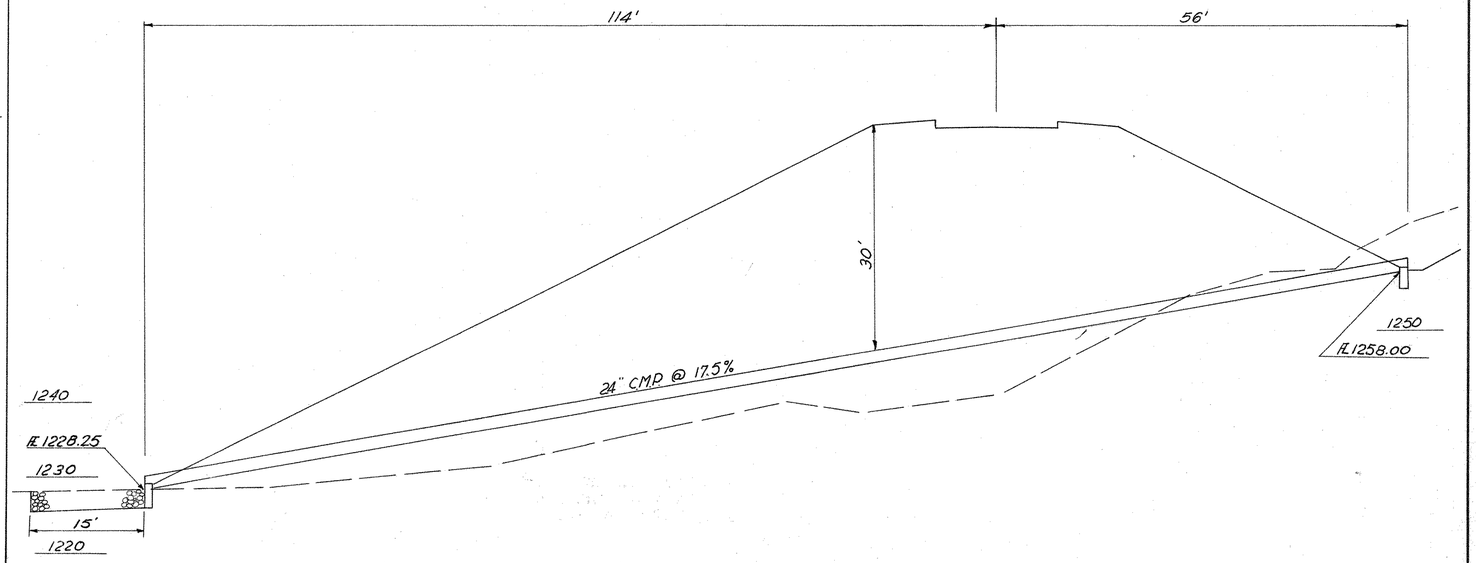


Culvert Data

PIPE: CLASS A-1 SEC. M-6.6(a.) OR SEC. M-6.8(b)
TYPE: "E" HEADWALLS
SIZE: 55'x21"

Estimated Quantities

I-1 PIPE, 21"	55 LIN FT.
I-2 MASONRY	0.72 CUYDS.
I-10 DUMPED ROCK CHANNEL PROTECTION	8 CUYDS.
L-10 SODDING	2 SQ. YDS.



CO. HWY. 202 RELOCATION
CULVERT – STA. 27+00

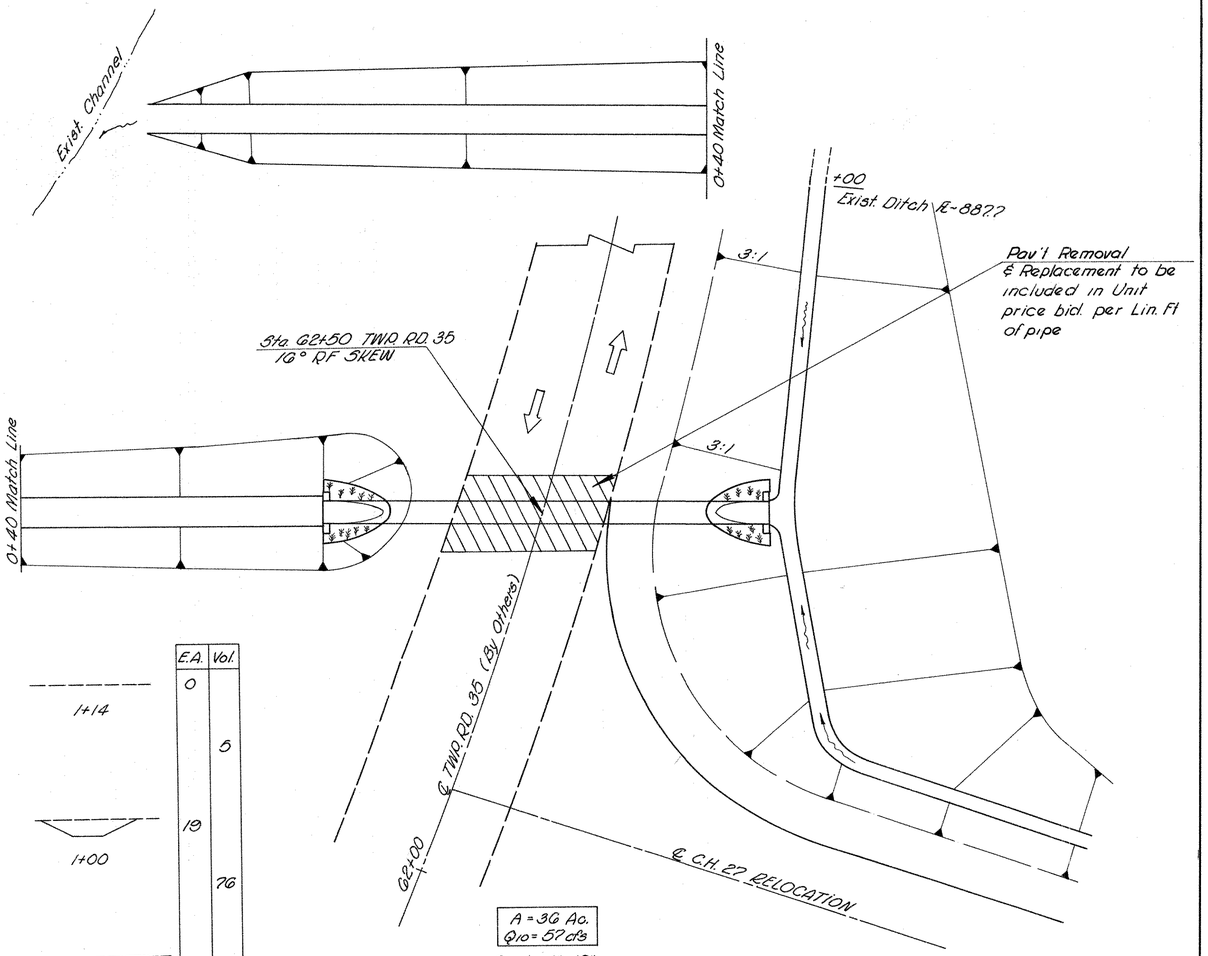
C.H. 114
CULVERT – STA. 86+00

CULVERT S.R. STA. 27+00 , CULVERT C.H. 114 STA. 86+00

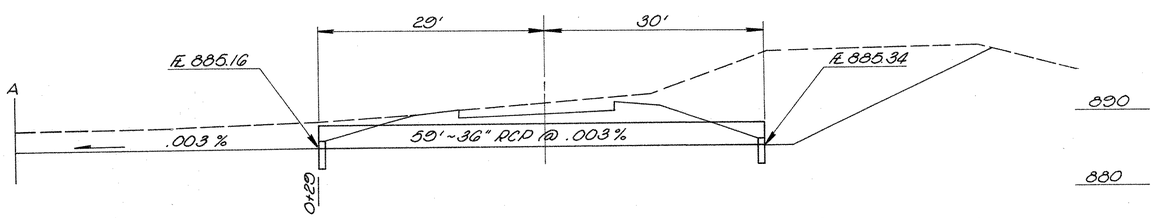
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

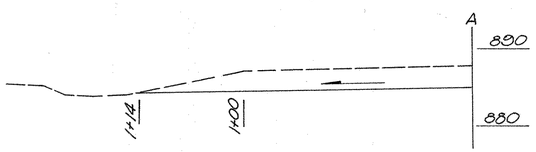
427
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 **BEL–40–0.00**



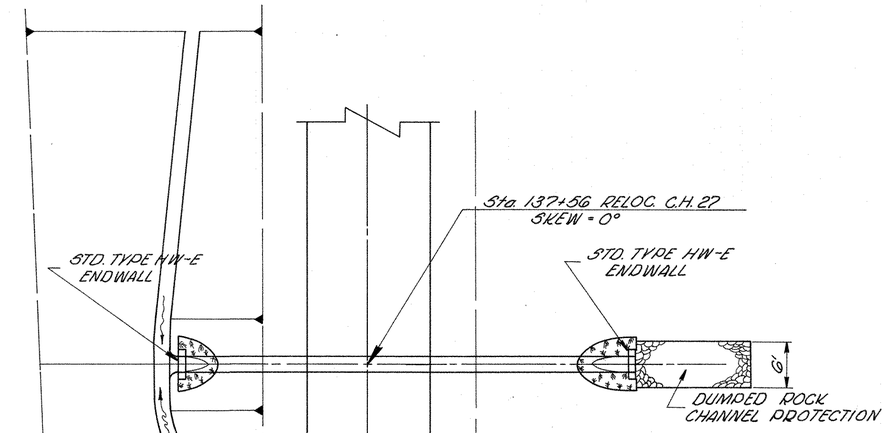
Total E-1 = 81 C.Y. to Sht. No. 287





ESTIMATED QUANTITIES

I-1 PIPE 36" CL. A-1 Sec. M 6.6(a) OR 6.8(b)	59 Lin. Ft.
I-2 MASONRY	1.18 Cu. Yds.
L-10 SODDING	4 Sq. Yds.

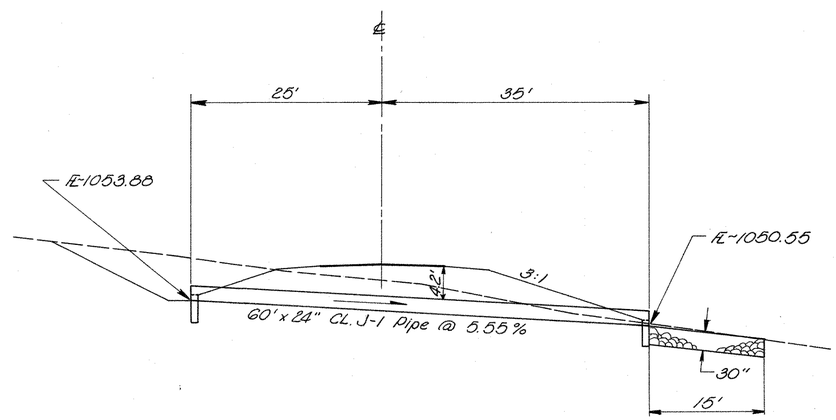


ESTIMATED QUANTITIES

I-1 PIPE, 24" CL. J-1.	60 L.F.
I-2 MASONRY	0.82 C.Y.
I-10 DUMPED ROCK CHANNEL PROTECTION	33 C.Y.
L-10 SODDING	45 S.Y.

D.A. = 7 ACRES
Q10 = 20 c.f.s.

SCALE ~ 1" = 10'

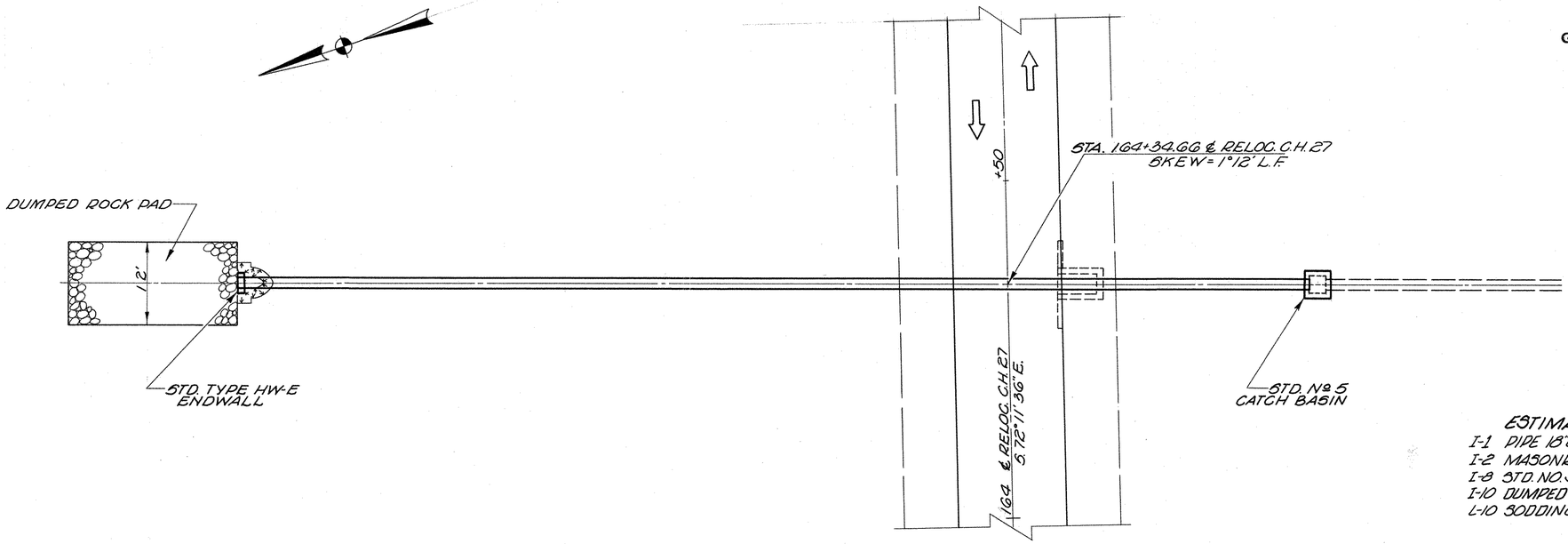


CULVERT SECTION ~ 137+56 RELOC. C.H. 27 & 62+50 ~ TWP RD. 35

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

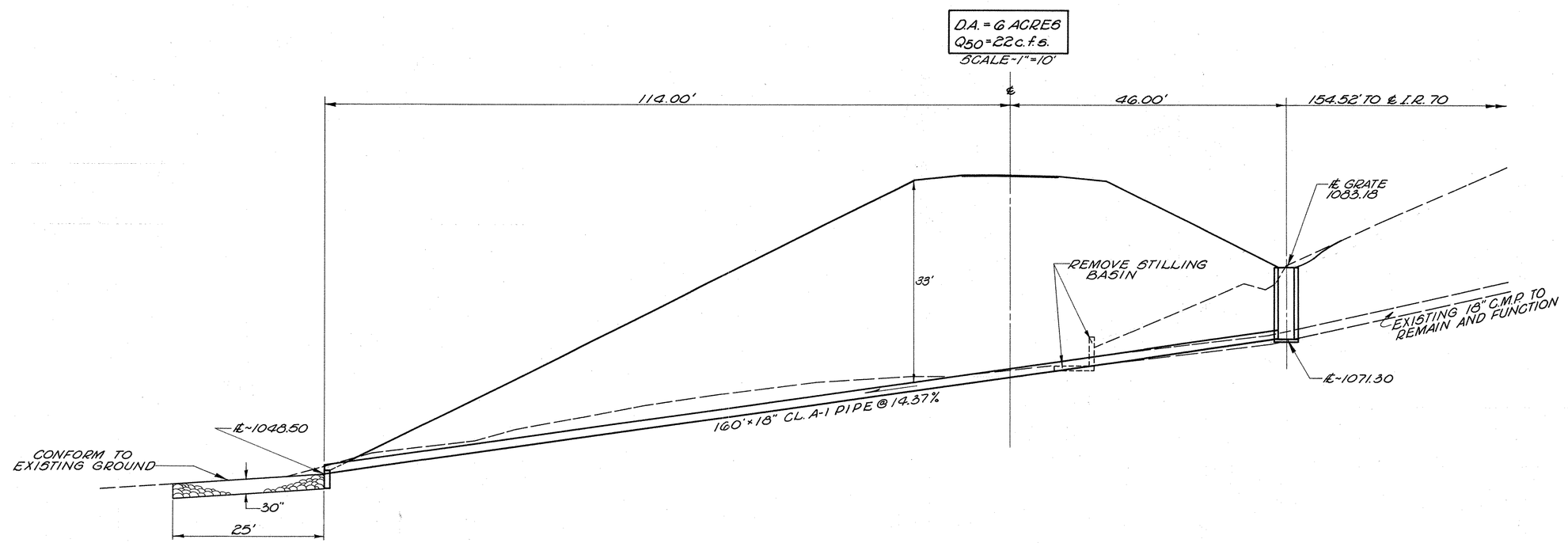
428
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



ESTIMATED QUANTITIES

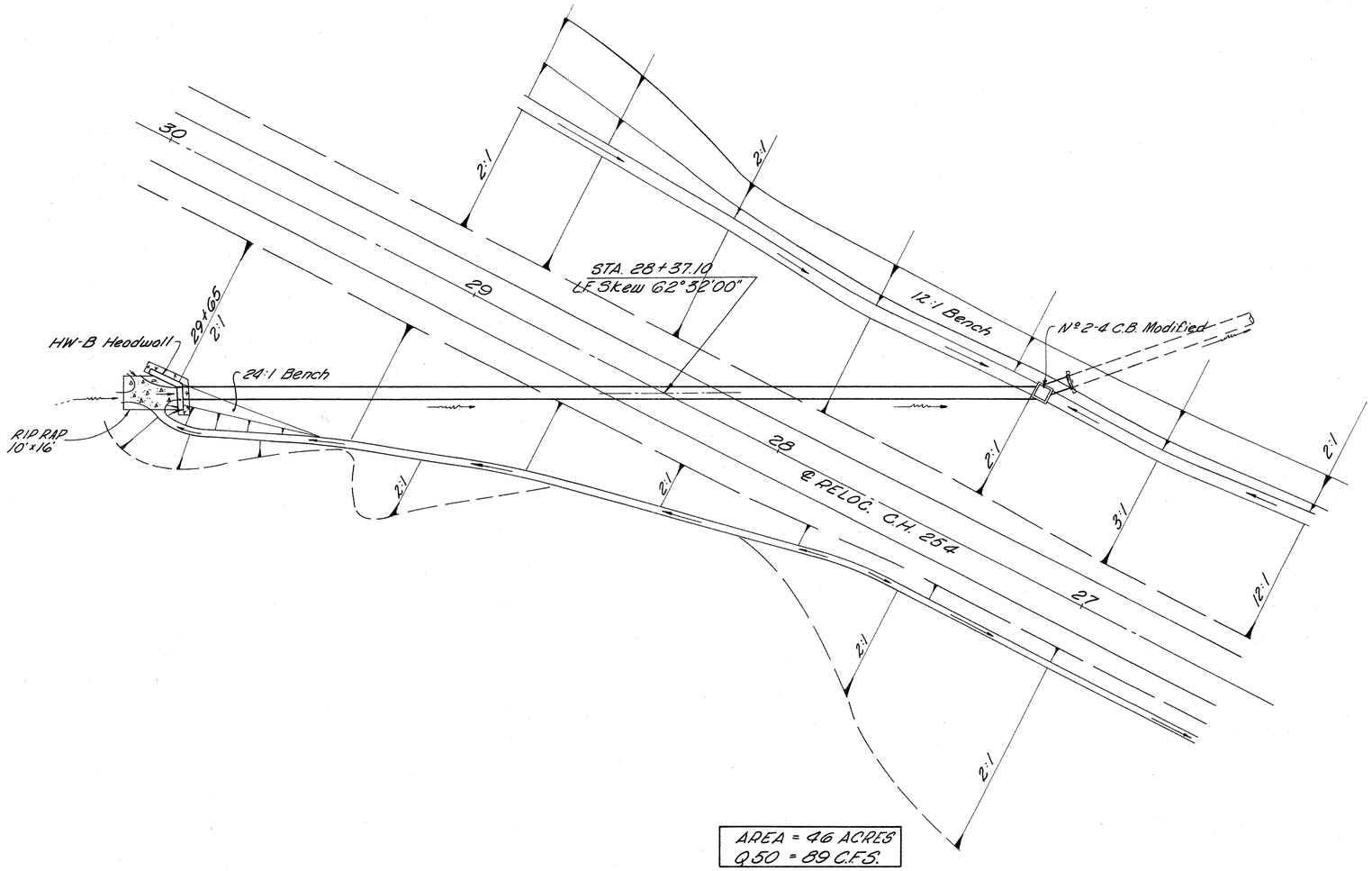
I-1	PIPE 18" CL. A-1 SEC. M 2.4 (d)	160	LIN. FT.
I-2	MASONRY	0.30	CU. YD.
I-8	STD. NO. 5 C.B.	1	EA.
I-10	DUMPED ROCK CHANNEL PROT.	17	CU. YD.
L-10	SODDING	4	SQ. YD.



CULVERT SECTION STA. 164+34.66 RELOC. C.H. 27

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

429
485



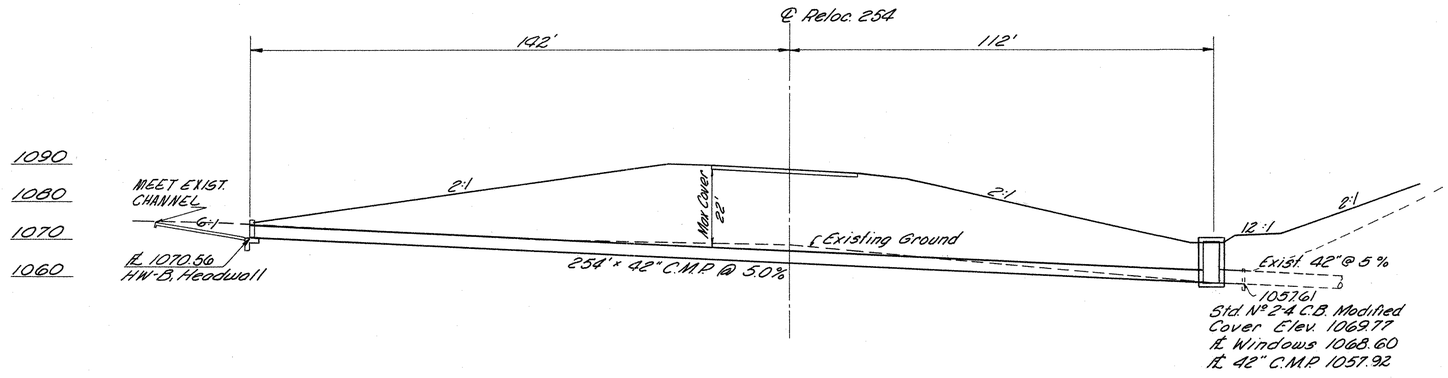
AREA = 46 ACRES
Q.50 = 89 C.F.S.

CULVERT DATA
PIPE: CLASS A-1 Sec M-6.4(d) 8 Gage
TYPE B, Headwall
N° 2-4 Catch Basin Modified
SIZE 254'x 42" C.M.P.

ESTIMATED QUANTITIES

I-1	PIPE 42" C.M.P.	254	LIN. FT.
I-2	MASONRY FOR HEADWALL	13.5	CU. YDS.
I-8	NO 2-4 CATCH BASIN MODIFIED	1	EACH
I-10	RIP RAP 6" REINFORCED CONCRETE SLAB	18	SQ. YDS.
L-10	SODDING	4	SQ. YDS.

I-2 MASONRY FOR B, HEADWALLS SEE SHEET NO. 431



SEE SHEET NO. 419 FOR DETAILS OF EXIST. 42" PIPE UNDER MAINLINE

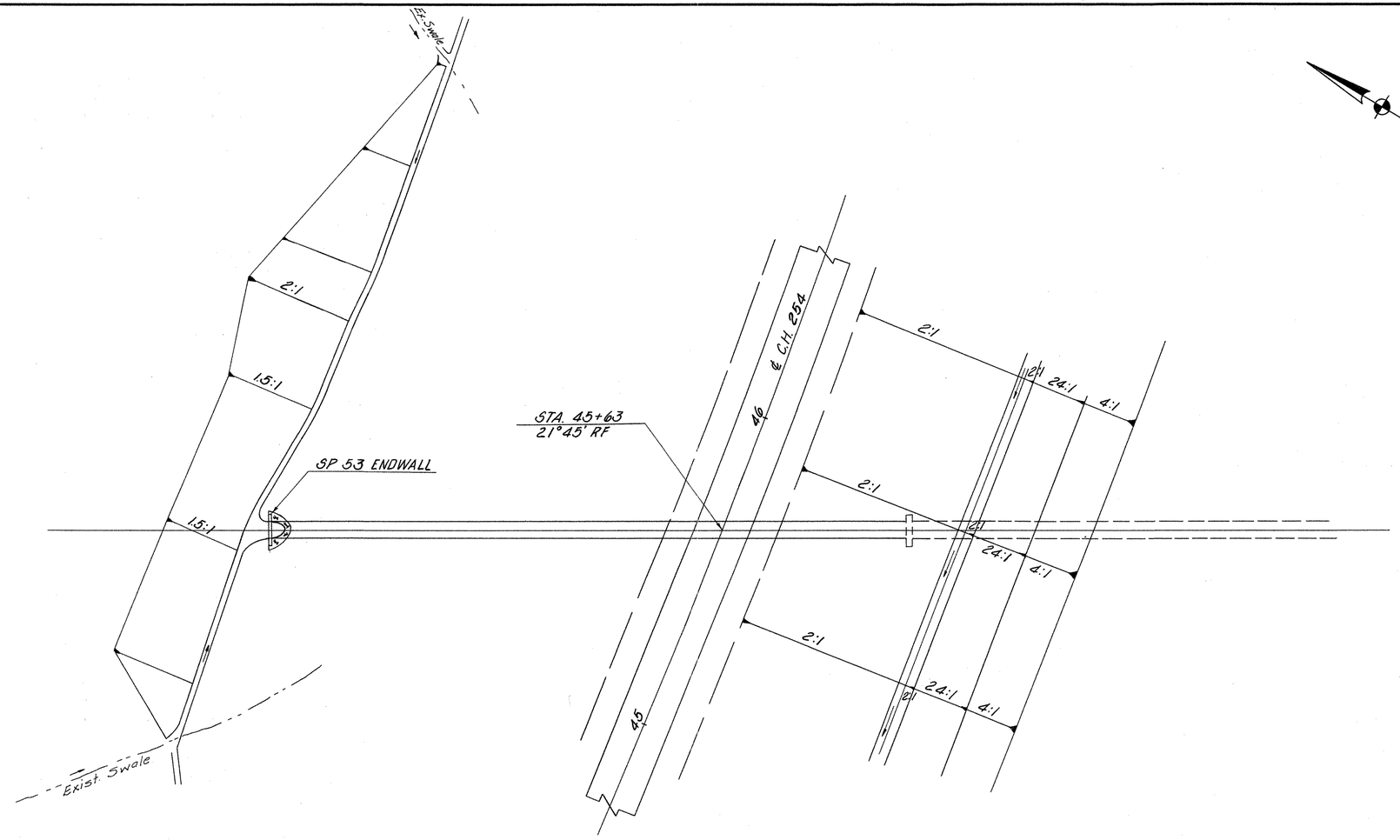
SEE SHEET NO 438 FOR MODIFICATION OF N° 2-4 C.B.

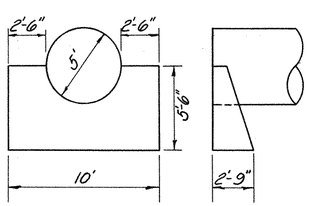
CULVERT - STA 28+37.10 - RELOC. C.H. 254

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

430
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.83 BEL–40–0.00

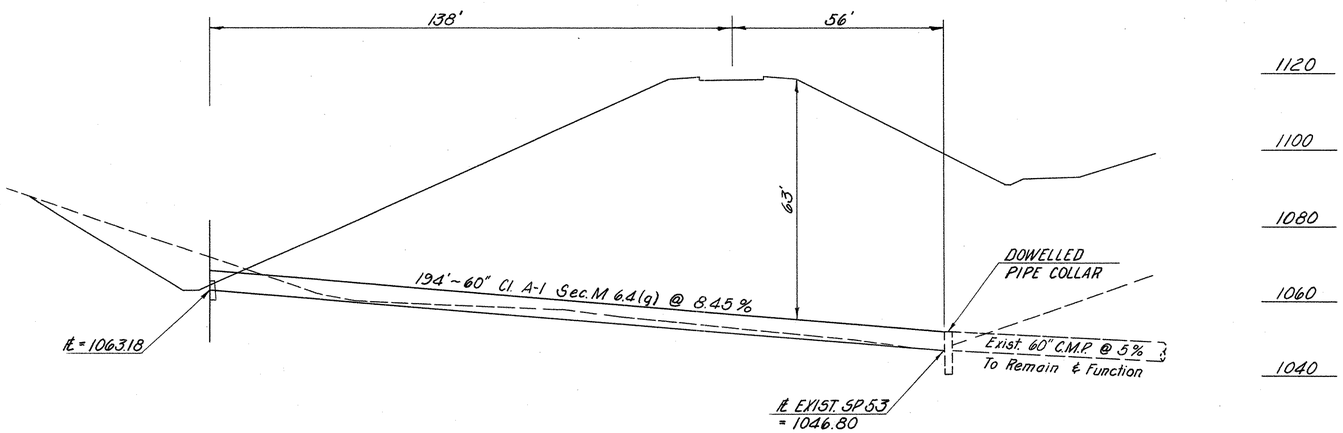




SP 53 ENDWALL DETAIL
1"=5'

A = 37 ACRES
Q_{50} = 82 cfs.

SCALE 1"=20'



FOR DETAIL OF DOWELLED PIPE
SEE SHEET NO. 413

FOR CONTINUATION
SEE SHEET NO. 420

ESTIMATED QUANTITIES

I-1 PIPE CL. A-1 SEC. M 6.4(g) 60" TOP 8 GAGE BOTTOM 7GAGE	194	LIN. FT.
I-2 MASONRY FOR ENDWALL	2.7	CU. YDS.
MASONRY FOR PIPE COLLAR	1.1	CU. YDS.
S-23 DOWEL HOLES	5	EACH
L-10 SODDING	4	S.Y.

CULVERT ~ STA. 45+63 C.H. 254 RELOC.

TYPE B HEADWALLS

GUERNSEY COUNTY - BELMONT COUNTY
GUE-40-23.88 BEL-40-0.00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

431/485

HEADWALL DIMENSIONS

STATION	ANGLE θ	PIPE SIZE	TYPE	H	W	A	B	C	D	E
34+09 R	8°-9'	42"	B-1	4-3	4-0	1-3	6-6	9-0	5-3	0-7
44+58 R	9°-0'	36"	B-1	3-10	3-6	1-0	5-7	7-6	4-3	0-7
55+98.50 R	13°-30'	24"	B-2	5-10	–	–	4-2	5-0	2-10	0-7
440+86 L	11°00'	30"	B-2	6-4	–	–	5-7	7-6	–	–
440+86 R	11°00'	30"	B-2	6-5	–	–	5-3	6-9	4-0	0-8
522+09 R	11°00'	24"	B-2	5-10	–	–	4-1	6-2	–	–
591+25.35 L	43° 03' 30"	42"	B-1	4-4	4-0	1-3	8-11	6-0	2-5	2-3
611+92 L&R	20°00'	60"	B-1	5-10	5-3	1-10½	10-1	10-11	5-9	1-11
624+68.00 R	43°00'	42"	B-1	4-4	4-0	1-3	8-11	6-0	2-5	2-3
644+01.00 R	13°09'	30"	B-2	6-4	–	–	5-2	6-3	3-7	0-9
C.H.254 28+37.10 L	62°32'	42"	B-1	4-3	4-0	1-3	13-9	9-11	–	–

REINFORCING STEEL LIST

	a bars		b bars		c bars		d bars		e bars		f bars		g bars		h bars		j bars		k bars		l bars		m bars		n bars		p bars		q bars		r bars		s bars		t bars			u bars		
STATION	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	Dim.T	No	Length	Dim.U
34+09 R	6	4-2	3	7-11	3	8-8	2	8-0	2	8-9	3	8-1	1	8-10	3	8-3	1	9-0	6	8-1	5	7-6 to 8-1 l each-vary by 1¾	3	6-3	3	5-9 to 6-4 l each-vary by 3½	3	6-5	4	5-0	3	6-4	–	–	2	8-11	3-10	2	8-10	3-9
44+58 R	6	4-2	3	7-1	3	7-3	2	7-2	2	7-4	3	7-2	1	7-4	3	7-3	1	7-5	5	7-5	4	6-10 to 7-4 l each-vary by 2	3	6-0	3	5-4 to 5-10 l each-vary by 3	3	5-6	4	4-0	3	5-5	–	–	2	7-6	3-3	2	7-4	3-3
55+98.50 R	3	5-9	3	5-5	5	5-9	3	4-10	1	4-0	2	2-6	–	–	1	6-2	1	5-4	1	6-1	3	5-2 to 5-8 l each-vary by 3	1	5-4	3	4-10 to 5-4 l each-vary by 3	1	6-0	1	5-3	1	4-3	2	5-10	2	5-0	2-3	2	4-11	2-8
440+86 L	4	6-3	4	5-11	5	7-2	3	7-4	1	5-5	2	4-6	–	–	1	7-5	1	7-8	1	7-4	3	6-3	1	7-8	3	5-11	1	7-4	1	7-7	1	5-7	2	7-3	2	7-6	–	2	7-5	–
440+86 R	4	6-4	4	6-0	5	6-10	3	6-7	1	5-1	2	3-9	–	–	1	7-2	1	7-0	1	7-2	3	5-8 to 6-1 l each-vary by 2½	1	7-0	3	5-4 to 5-9 l each-vary by 2½	1	7-1	1	6-11	1	5-3	2	6-10	2	6-8	2-10	2	6-7	2-9
522+09 R	3	5-9	3	5-5	5	5-8	3	6-0	1	3-11	2	3-8	–	–	1	5-11	1	6-5	1	5-11	3	5-9	1	6-5	3	5-5	1	5-10	1	6-4	1	4-1	2	5-9	2	6-1	–	2	6-0	–
591+25.35 L	6	4-2	3	10-1	3	5-5	2	10-5	2	5-9	3	10-6	1	5-10	3	10-11	1	6-3	7	8-2	3	5-11 to 7-11 l each-vary by 1'-0"	4	6-5	2	4-2 to 6-2 l each-vary by 2-0"	3	9-3	4	2-0	3	8-9	2	1-1	2	7-2	4-1	2	6-9	3-7
611+92 L&R	8	4-2	3	11-4	3	10-5	2	11-5	2	10-7	3	11-8	1	10-9	3	11-11	1	10-11	8	10-5	5	8-6 to 10-5 l each-vary by 5¾	5	7-11	3	6-2 to 8-1 l each-vary by 11½	4	10-1	6	5-5	4	9-11	2	3-0	2	11-3	5-4	2	11-1	5-2
624+68.00 R	6	4-2	3	10-1	3	5-5	2	10-5	2	5-9	3	10-6	1	5-10	3	10-11	1	6-3	7	8-2	3	5-11 to 7-11 l each-vary by 1-0	4	6-5	2	4-2 to 6-2 l each-vary by 2-0	3	9-3	4	2-0	3	8-9	2	1-1	2	7-2	4-1	2	6-9	3-7
644+01.00 R	4	6-3	4	5-11	5	6-9	3	6-1	1	5-0	2	3-3	–	–	1	7-1	1	6-7	1	7-1	3	5-6 to 6-2 l each-vary by 4	1	6-7	3	5-2 to 5-10 l each-vary by 4	1	7-0	1	6-6	1	5-2	2	6-10	2	6-3	2-9	2	6-2	2-8
C.H.254 28+37.10 L	9	4-2	3	14-7	3	9-0	2	14-11	2	9-4	3	15-4	1	9-9	3	16-0½	1	10-6	11	8-1½	6	8-1½	6	6-4½	3	6-4½	3	14-3½	6	6-1	3	13-7	–	–	2	10-6	10-8	2	9-9	9-11

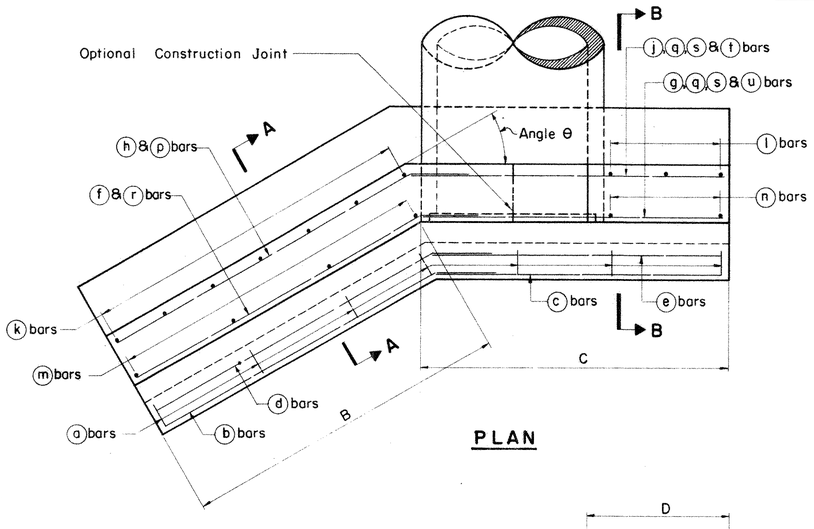
ESTIMATED QUANTITIES

REINF. STEEL Lbs.	CONCRETE Cu. Yds.
410	8.3
348	6.3
195	3.7
263	6.0
248	5.6
209	4.2
403	8.2
675*	14.4*
403	8.2
241	5.2
654	13.5

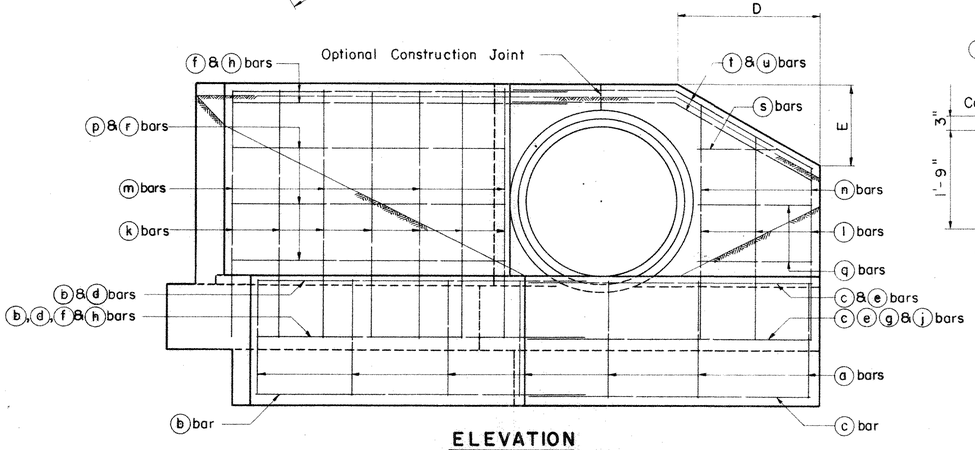
NOTE: All reinforcing steel shall be #5 bars except (k) and (l) bars for Type B-1 headwalls shall be #6 bars for "H" of 5'-9" thru 7'-6"; #7 bars for "H" of 7'-7" thru 8'-6" and #8 bars for "H" of 8'-7" thru 9'-9". Lengths given in the steel list are in feet and inches.

* Quantities shown on this sheet are for one headwall.

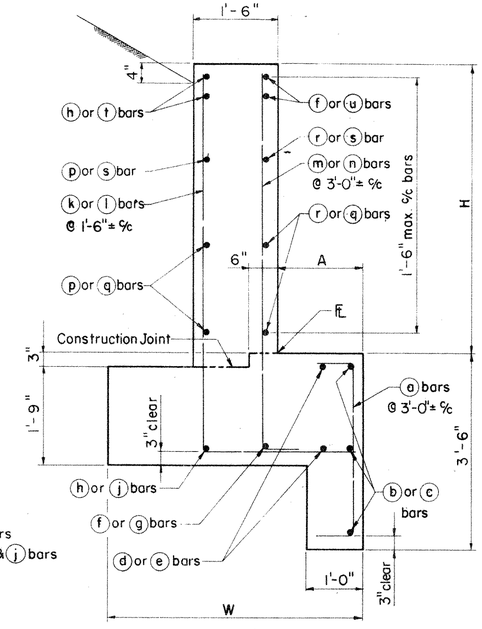
All other notes and details not shown on this sheet shall conform to standard headwalls A and C.



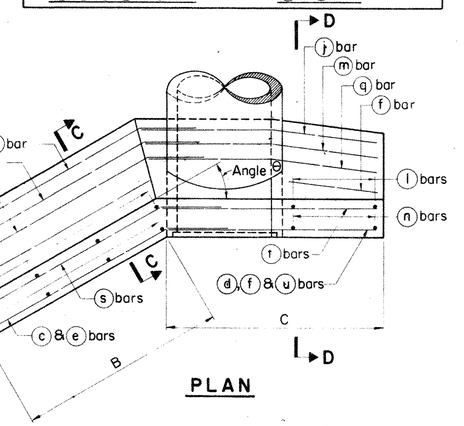
PLAN



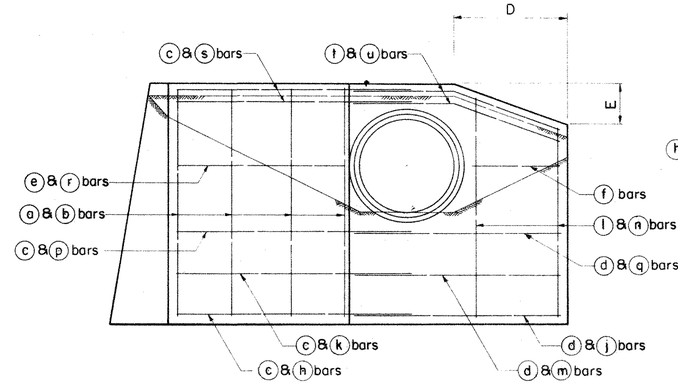
ELEVATION
TYPE B-1 HEADWALL



SECTION A-A & B-B

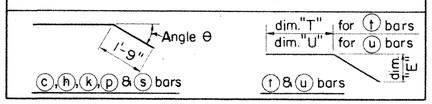


PLAN

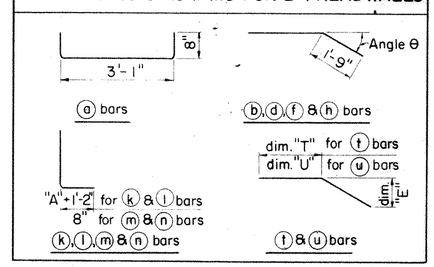


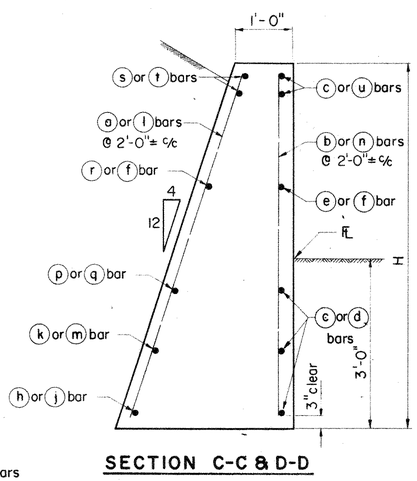
ELEVATION
TYPE B-2 HEADWALL

BAR BENDING DIAGRAMS FOR B-2 HEADWALLS



BAR BENDING DIAGRAMS FOR B-1 HEADWALLS





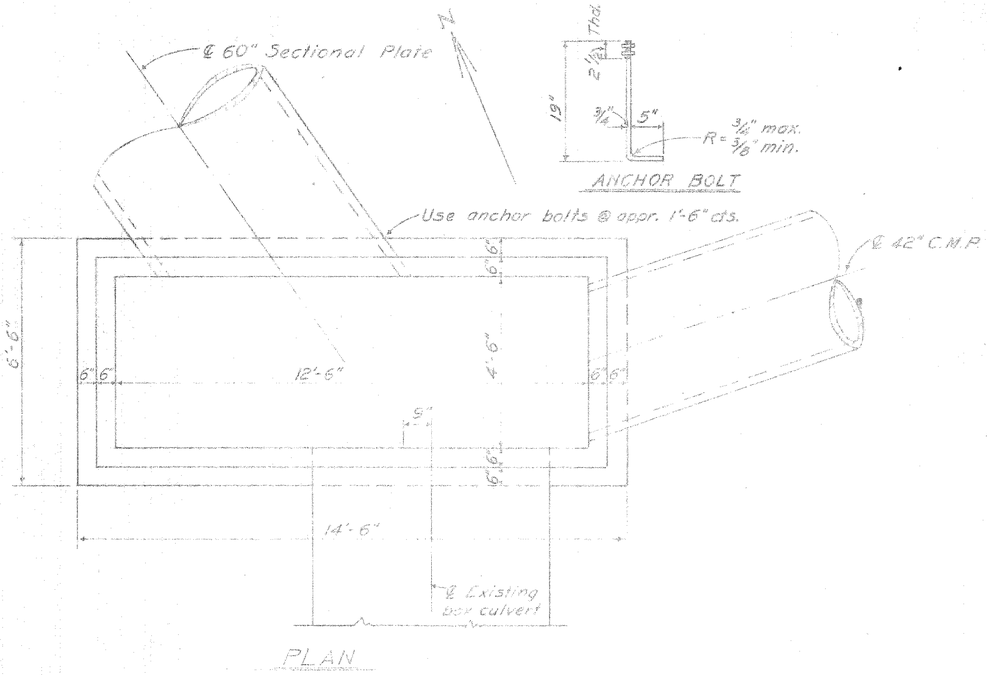
SECTION C-C & D-D

TYPE B HEADWALL DETAILS

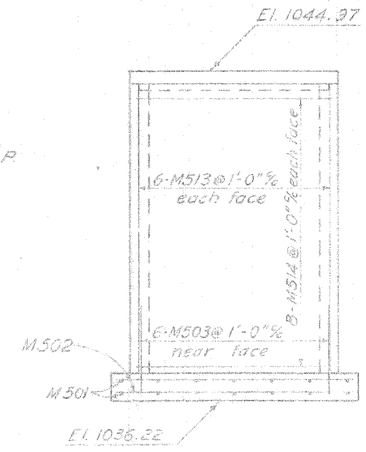
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

432
485

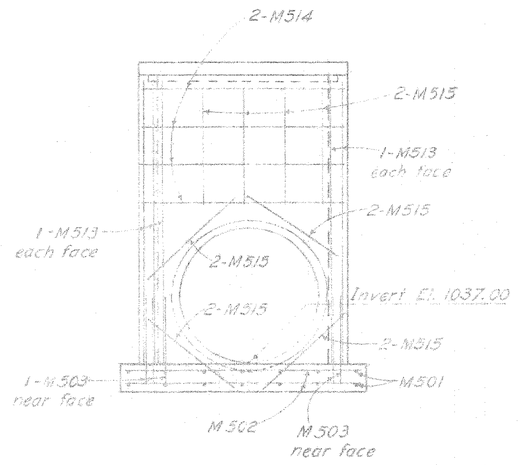
GUERNSEY COUNTY - BELMONT COUNTY
GUE - 40 - 23.88 BEL - 40 - 0.00



PLAN



VIEW OF WEST SIDE WALL



VIEW OF EAST SIDE WALL

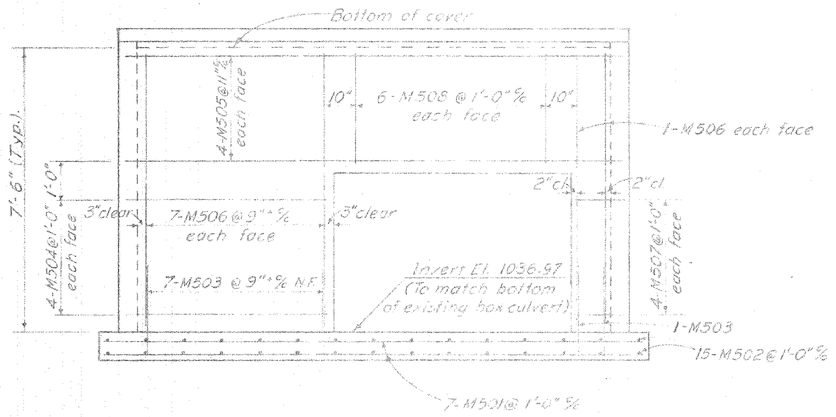
REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B
M501	14	14-2	207	S		
M502	30	6-2	193	S		
M503	29	3-6	106	1	1-7	2-1
M504	8	5-5	45	S		
M505	8	13-2	110	S		
M506	36	7-4	275	S		
M507	8	1-2	10	S		
M508	12	2-10	35	S		
M509	16	5-3	88	S		
M510	8	4-6	38	S		
M511	8	9-9	81	S		
M513	22	7-6	172	S		
M514	24	5-2	129	S		
M515	16	3-3	54	S		
M516	14	4-10	71	S		
M517	6	13-4	83	S		
		Total	1,697			
Anchor bolts: 12						
Concrete: 6.6 Cu. Yds.						

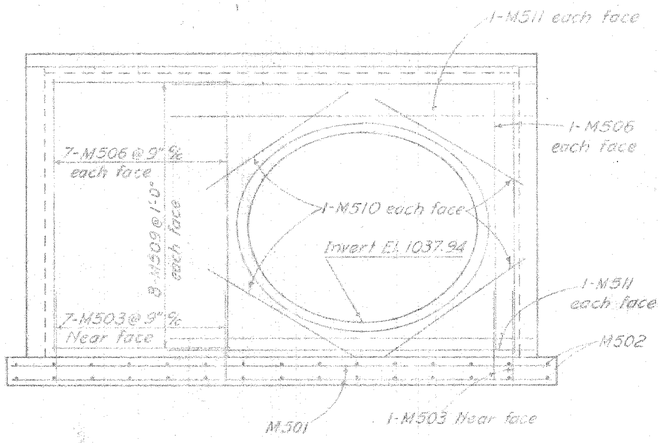
16.6 Cu. Yds. I-2 Masonry carried to Sheet No. 41



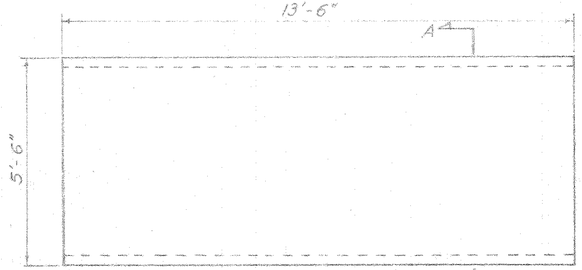
NOTE:
S in the column for "TYPE" indicates straight bars.



VIEW OF SOUTH SIDE WALL

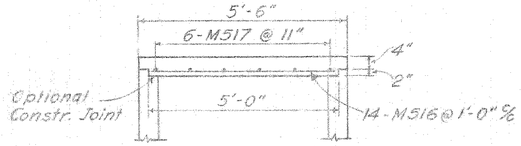


VIEW OF NORTH SIDE WALL



PLAN OF TOP COVER

NOTES:
Concrete for the junction box shall be class "C".
Reinforcing steel shall be in accordance with steel details shown hereon and conforming to Item 5-4 of the construction materials specifications.



SECTION A-A

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

JUNCTION BOX
Sta. 589+46.66
GUERNSEY COUNTY - BELMONT COUNTY

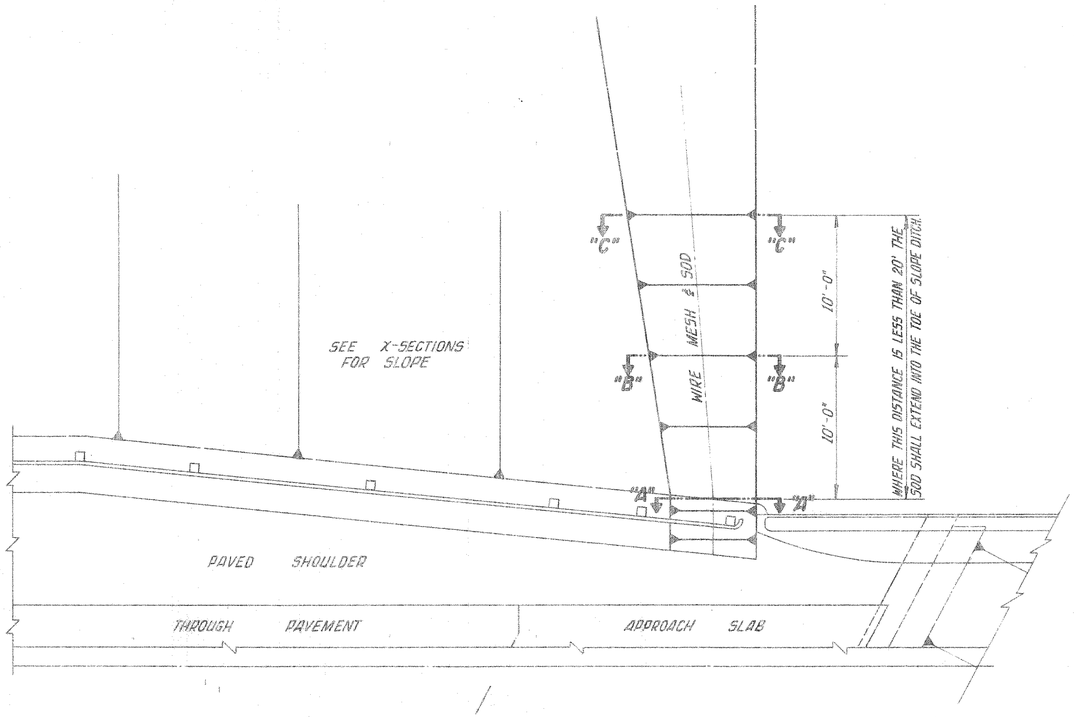
Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
R.V.R.	M.R.		F.A.			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

433
485

GUERNSEY COUNTY — BELMONT COUNTY

GUE — 40 — 23.88 BEL — 40 — 0.00



SPECIAL BERM & SLOPE PROTECTION

PRIOR TO PLACEMENT OF SOD IN THE BERM AND SLOPE, GALVANIZED POULTRY FENCE SHALL BE PLACED ON THE FINISHED GRADE IN STRANDS WHICH SHALL BE AT RIGHT ANGLES TO THE DIRECTION OF FLOW. EACH STRAND SHALL BE STAKED SECURELY ON TOP AND BOTTOM WITH STAKES PLACED AT FOUR FOOT INTERVALS.

STAKES SHALL BE OF WOOD 1"x1"x8" AND SHALL BE PERPENDICULAR TO THE GROUND AND FLUSH WITH THE TOP OF THE SOD.

THE FENCE SHALL BE STRAIGHT LINE POULTRY FENCE OR EQUIVALENT WITH STRAND WIDTH OF FOUR FEET, HAVING A TWO INCH MESH AND ALL WIRES NO. 20 GAUGE.

THE STRANDS OF FENCING SHALL BE FASTENED TOGETHER AT TWELVE INCH INTERVALS BY MEANS OF HOG RINGS.

THE FENCE SHALL BE SECURED TO THE WOOD STAKES BY METAL STAPLES.

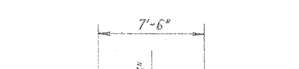
SOD SHALL BE LAID IN ACCORDANCE WITH CONSTRUCTION AND MATERIALS SPECIFICATIONS SECTION L-10.07.

THIS ITEM IS REQUIRED ONLY WHERE RATE OF SIDE SLOPE IS STEEPER THAN 6:1

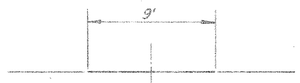
PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM L-10 SODDING FOR SPECIAL BERM AND SLOPE PROTECTION.



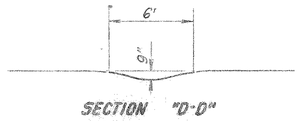
SECTION "A-A"



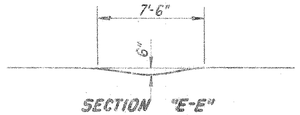
SECTION "B-B"



SECTION "C-C"



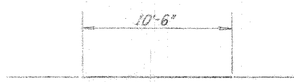
SECTION "D-D"



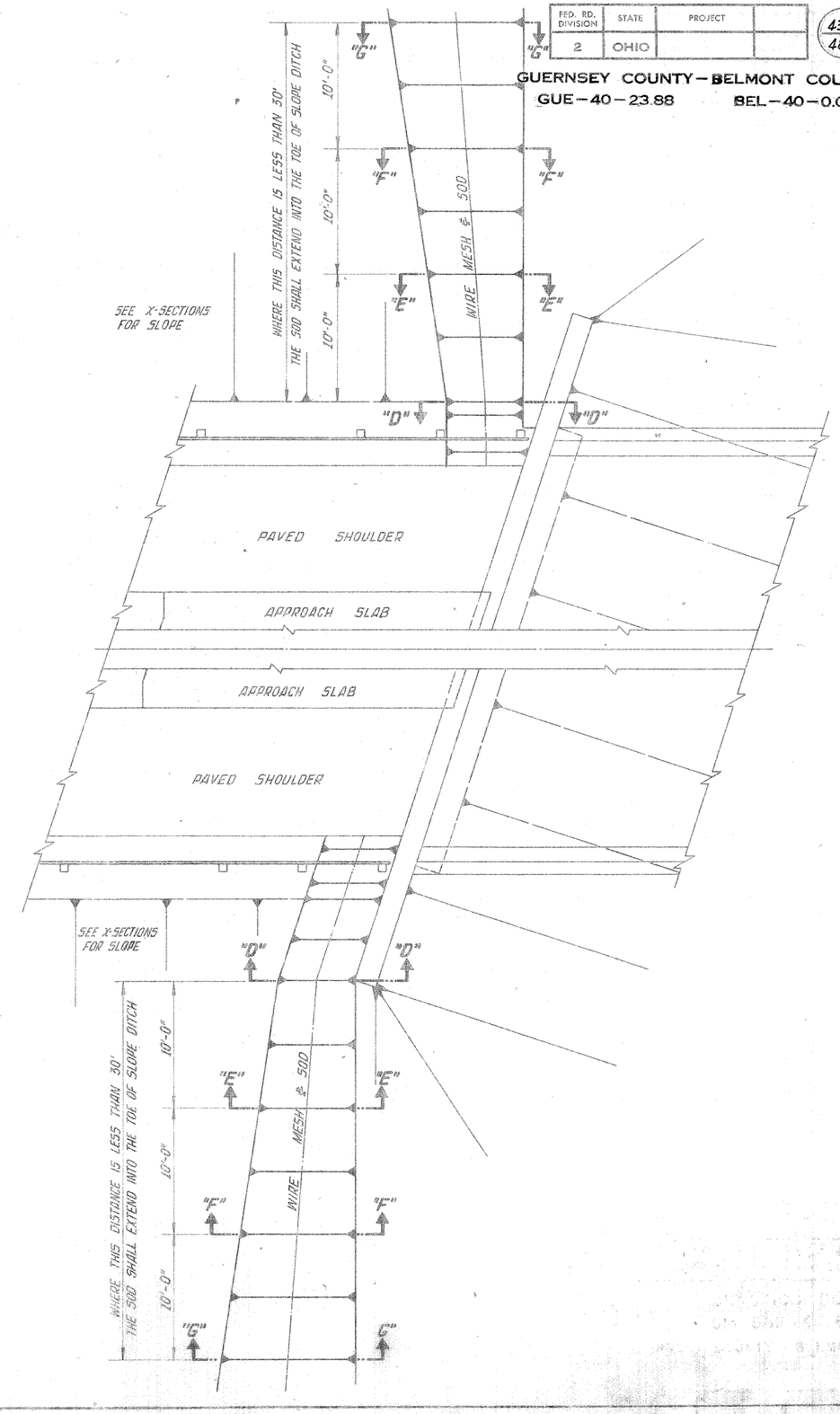
SECTION "E-E"



SECTION "F-F"



SECTION "G-G"



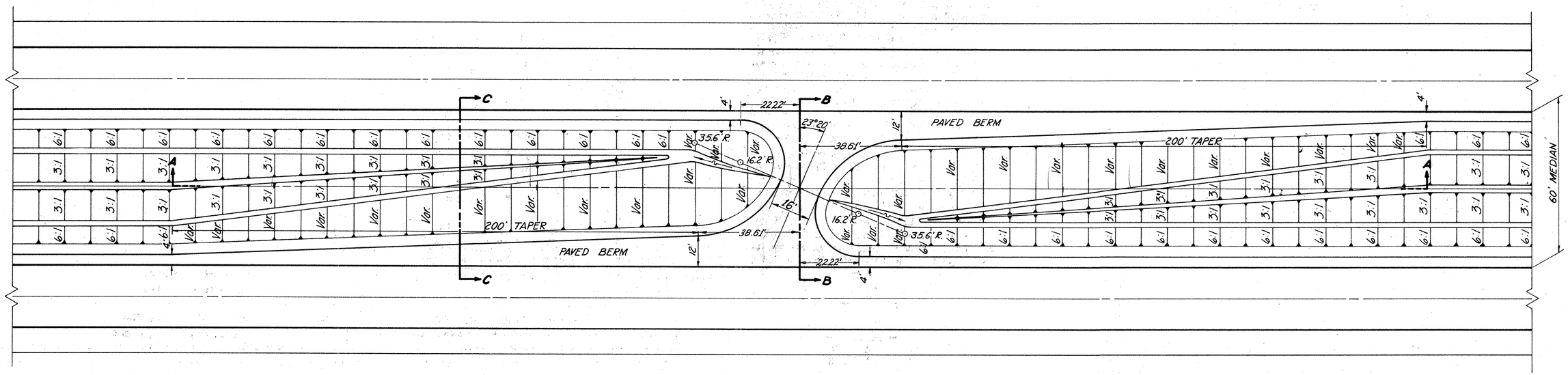
SPECIAL BERM & SLOPE PROTECTION DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

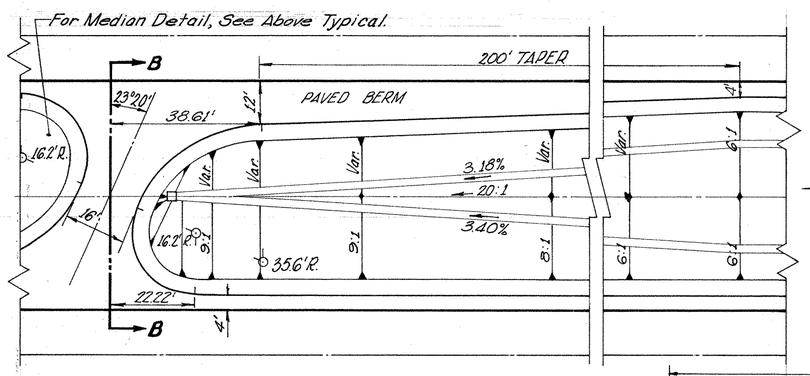
434
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

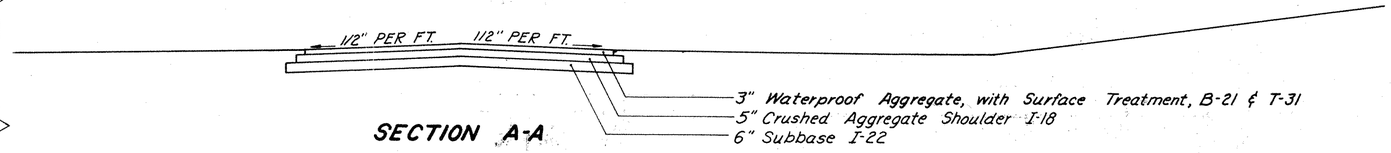
U-TURN MEDIAN OPENING



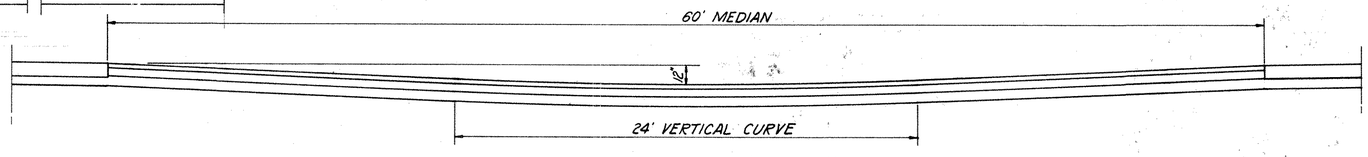
TYPICAL CROSSOVER



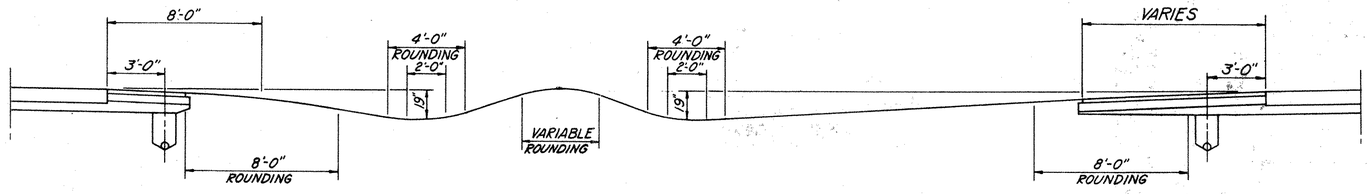
TYPICAL CROSSOVER STA. 627+83.50



SECTION A-A



SECTION B-B



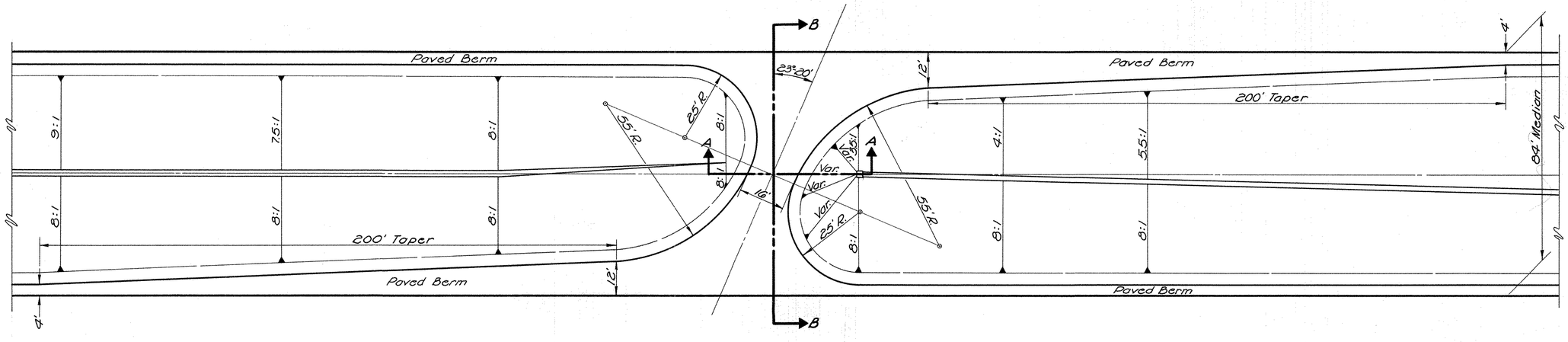
SECTION C-C

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

435
485

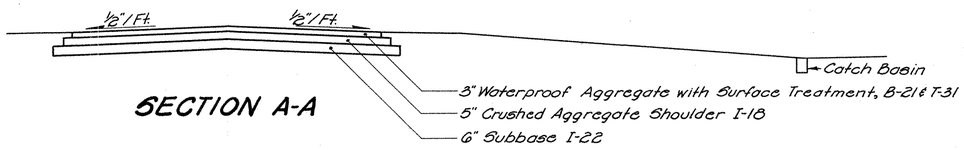
GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

U-TURN MEDIAN OPENING

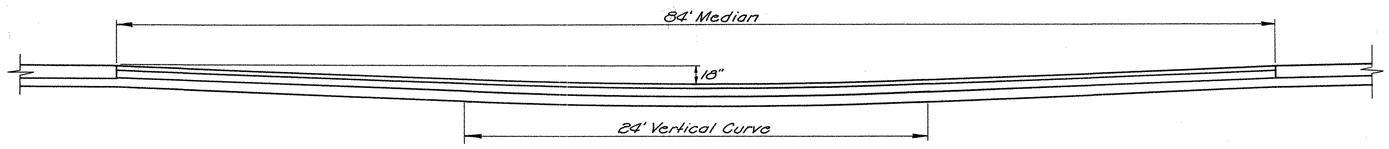


TYPICAL CROSSOVER

Sta. 418+70.00



SECTION A-A



SECTION B-B

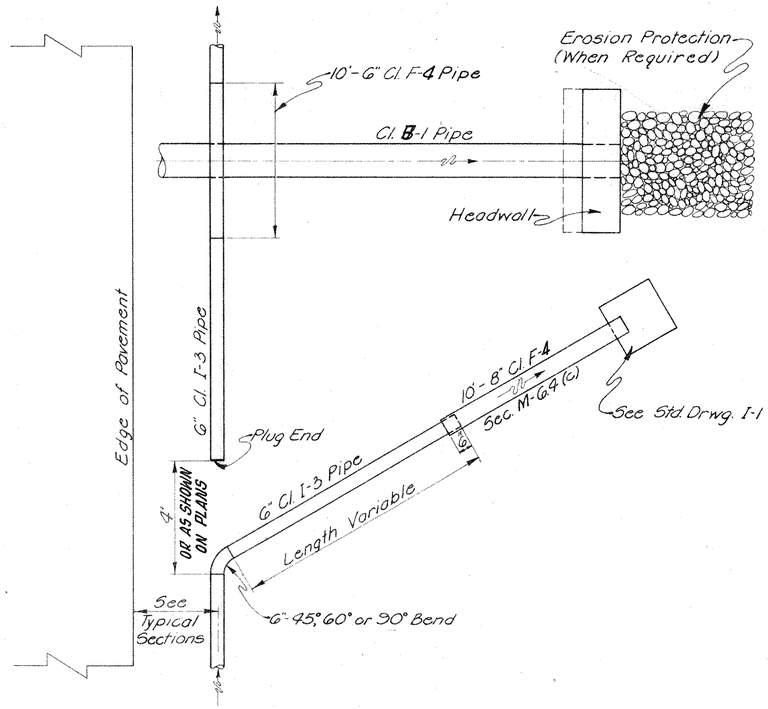
MISCELLANEOUS DETAILS – U-TURN MEDIAN OPENING

TYPICAL DETAILS OF UNDERDRAIN OUTLETS

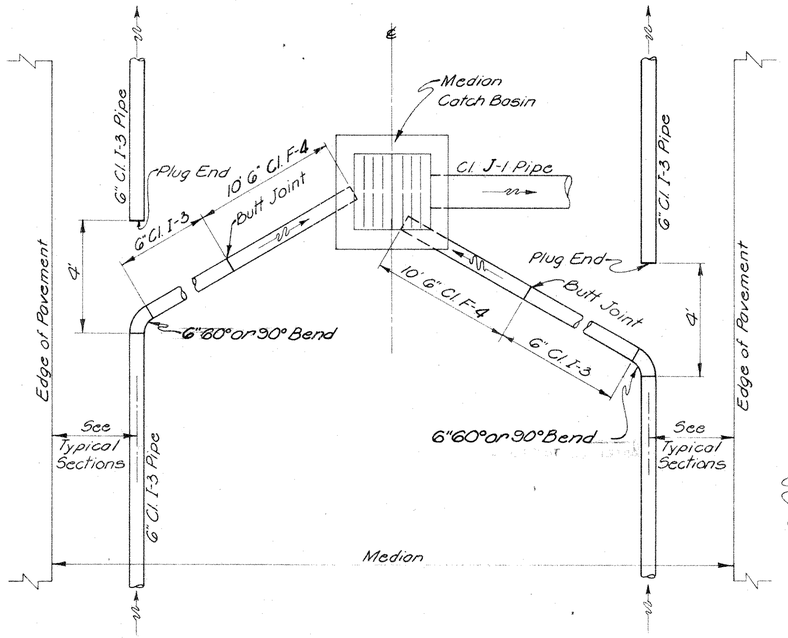
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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485

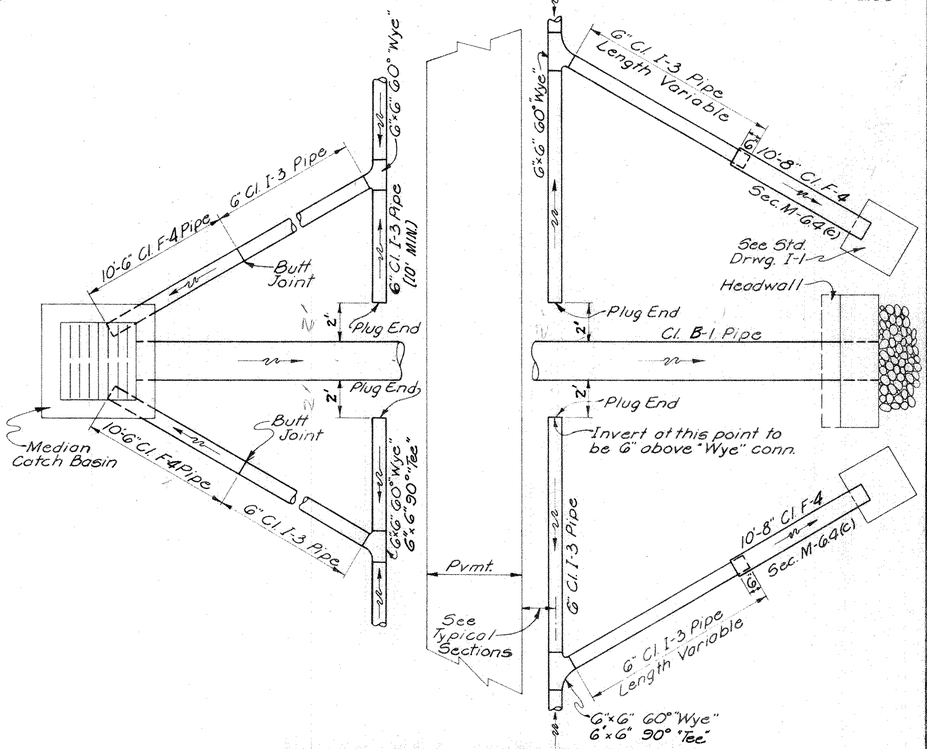
GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



UNDERDRAIN OUTLET DETAIL "A"

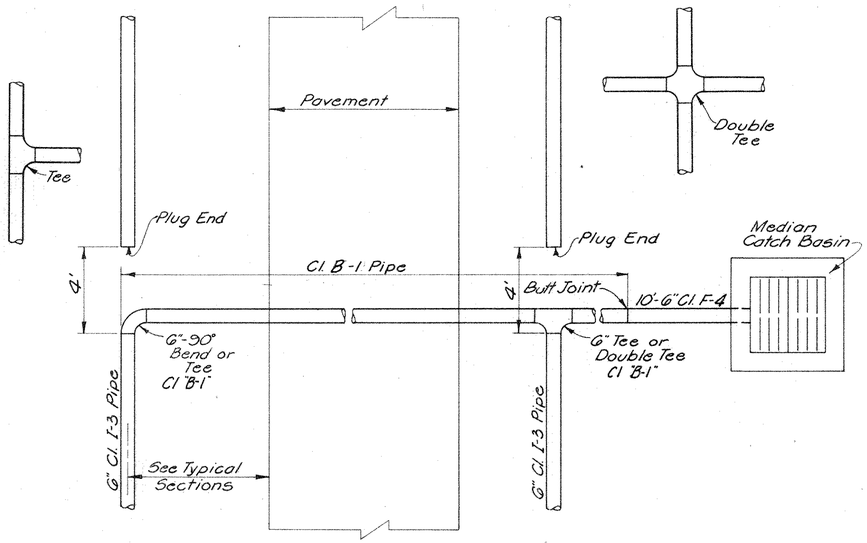


UNDERDRAIN OUTLET DETAIL "B"

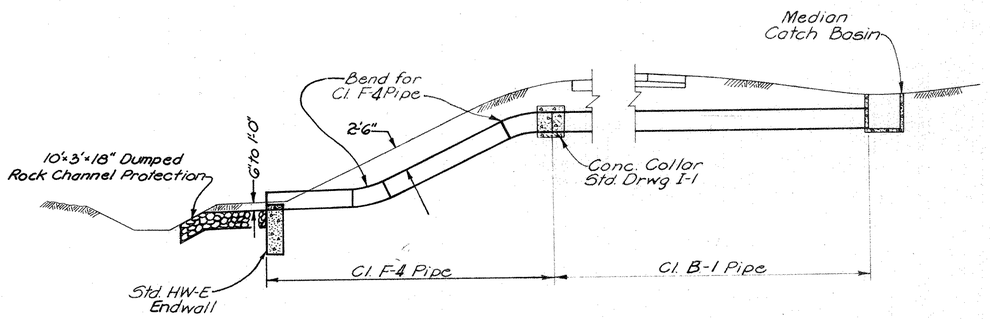


UNDERDRAIN OUTLET DETAIL "C"

NOTES:
1. Where 8" Cl. F-4 Pipe (Sec. M-6.4 (c) is shown it shall be furnished with one rolled end.
2. All fitting shall be Cl I-3" unless otherwise shown.



UNDERDRAIN OUTLET DETAIL "D"

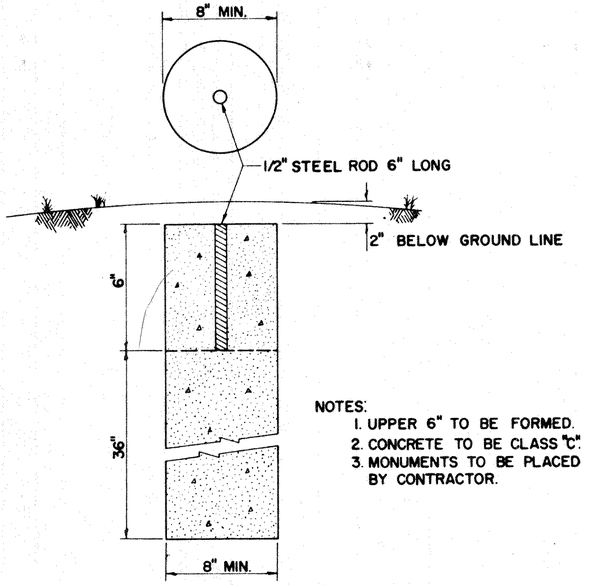


MEDIAN OUTLET DETAIL IN HIGH FILL

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

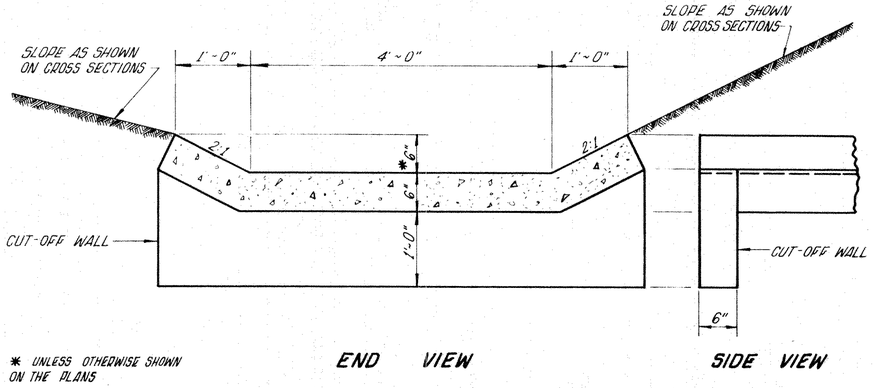
437
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00



NOTES:
1. UPPER 6" TO BE FORMED.
2. CONCRETE TO BE CLASS "C".
3. MONUMENTS TO BE PLACED BY CONTRACTOR.

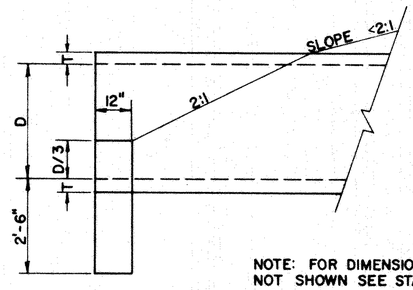
CENTERLINE REFERENCE MONUMENT DETAIL



* UNLESS OTHERWISE SHOWN ON THE PLANS

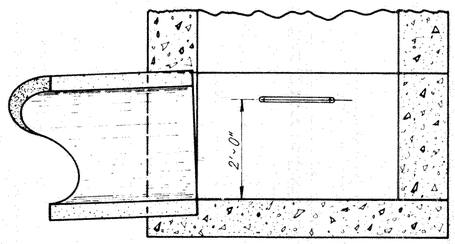
END VIEW SIDE VIEW

MODIFIED TYPE 1 PAVED GUTTER



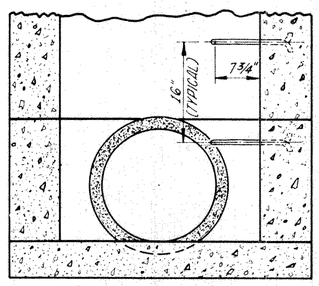
NOTE: FOR DIMENSIONS & DETAILS NOT SHOWN SEE STANDARD DRAWING HW-E.

DETAIL OF SLOPE TREATMENT AT HW-E ENDWALLS

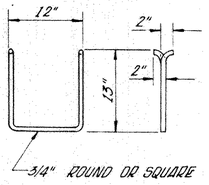


DETAIL OF I-8 NO. 5 CATCH BASIN C.H. 27 STA. 30+30 RT. (SEE SHEET NO. 280)

SIDE VIEW



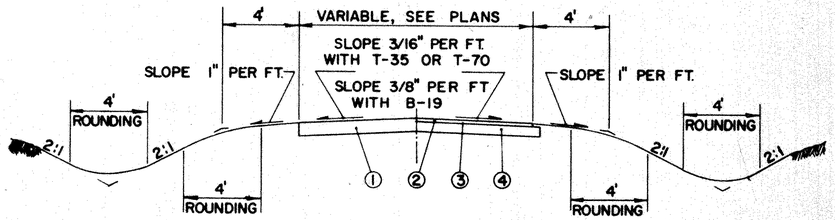
END VIEW



STEP DETAIL

STEPS SHALL BE WROUGHT IRON OR MODULAR IRON MEETING THE REQUIREMENTS OF ITEM I-8

STEP DETAILS FOR I-8 NO. 5 CATCH BASIN WITH A DEPTH MORE THAN 6'



NOTE: FOR DIMENSIONS & DETAILS NOT SHOWN SEE STANDARD DWG. DR-1.

① ITEM B-19 8" CRUSHED AGGREGATE BASE COURSE FOR RESIDENCE DRIVES.
6" CRUSHED AGGREGATE BASE COURSE FOR FIELD DRIVES.

② ITEM T-35 2-1" ASPHALTIC CONCRETE SURFACE COURSES, TYPE AS PER PLAN.

③ ITEM T-30 BITUMINOUS PRIME COAT, SEC. M-5.7, RT-2 OR RT-3 OR SEC. M-5.2, RC-1 OR RC-2 APPLIED AT THE RATE OF 0.40 GAL. PER SQ. YD.

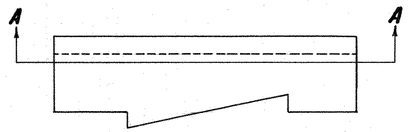
④ ITEM B-19 5" CRUSHED AGGREGATE BASE COURSE FOR RESIDENTIAL.
7" CRUSHED AGGREGATE BASE COURSE FOR COMMERCIAL.

TYPICAL HALF SECTION FOR DRIVEWAYS & SERVICE ROADS

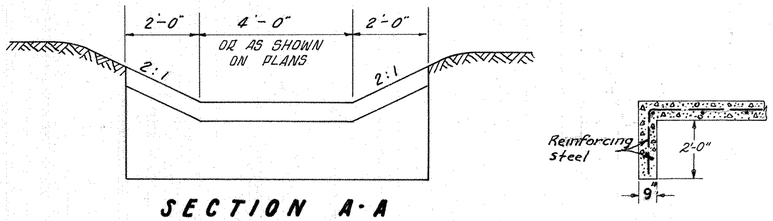
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

438
485

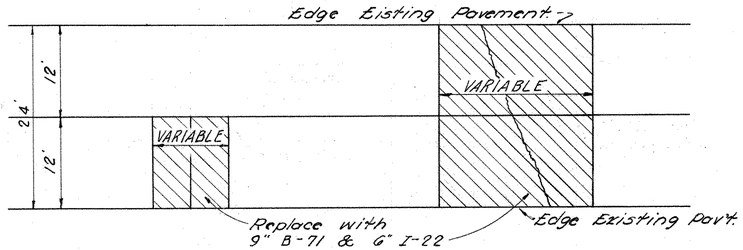
GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



PLAN

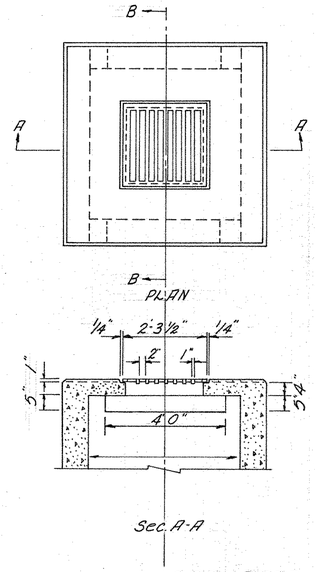


SECTION A-A
CUTOFF WALL DETAIL
FOR I-10 PAVED RIP-RAP
USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN



PAVEMENT REPLACEMENT IN AREAS OF FAILURE

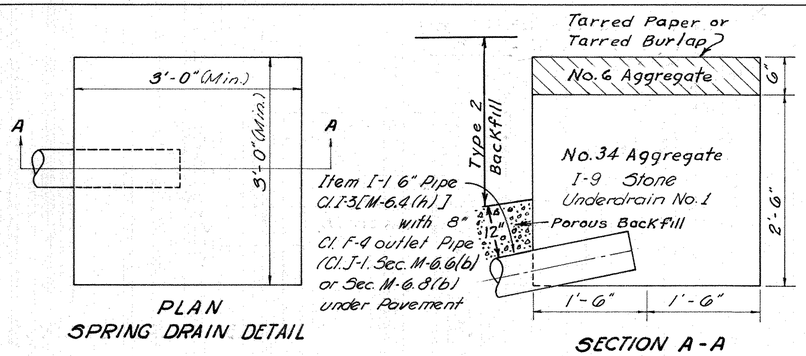
FOR STATIONING OF REPLACEMENT AREA SEE SHT. NO. 12



NOTES:

1. FOR DETAILS AND DIMENSIONS NOT SHOWN, SEE STANDARD CONSTRUCTION DRAWING I-8 C.B. 2-4 & 2-6
2. WHEN CATCH BASIN IS USED ON CONTINUOUS SLOPE, OMIT WINDOW ON DOWNSTREAM SIDE OF CATCH BASIN

STANDARD NO. 2-4 C.B.
STANDARD NO. 2-6 C.B.
(MODIFIED)
NOT TO SCALE



PLAN
SPRING DRAIN DETAIL

SECTION A-A

NOTE;

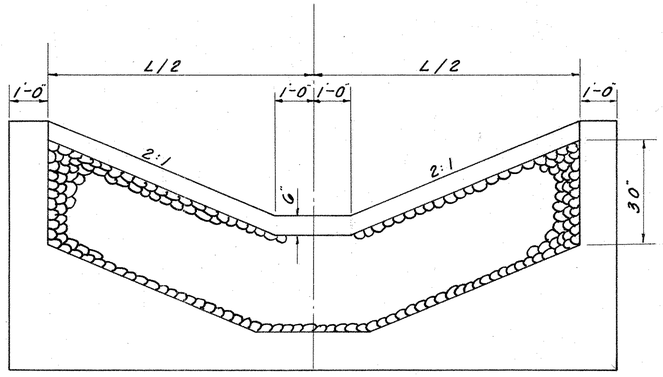
No. 34 Aggregate shall be used with a 6" layer of No. 6 Aggregate over the top and sealed with Tarred Paper or Tarred Burlap.

Aggregates, Tarred Paper or Tarred Burlap and Necessary Excavation for Spring Drains Shall Be Paid for at the Unit Price Bid Per Lin. Ft of Item I-9, Stone Underdrains, No. 1, As Per Plan. Spring Drains are to be Placed as shown on plan or at Locations Designated By The Engineer.

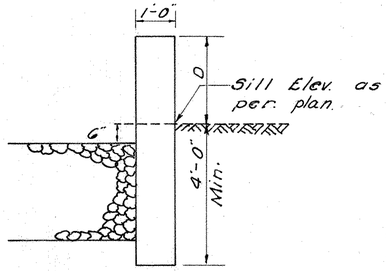
Quantities of I-9, Stone Underdrains, No. 1, as per plan, and of I-1 Pipe are carried in the General Notes (Sheet No. 12) for Spring Drains
This item shall be non-performed in the event that none are encountered.
The size of the Spring Drains shall be determined by the Engineer.

Payment shall be based on final measurement.

DETAIL SECTION SPRING DRAIN
Scale 1" = 1'-0"



ENDSILL DETAIL



D	L (ft)	Conc. Cu. Yds.
15"	7.0	1.5
30"	12.	2.7
42"	16.	3.8

I-125 PAVEMENT MARKING

STATION TO STATION	LENGTH	4" EDGE LINE	4" LANE LINE	6" LANE LINE	8" CHAN LINE	CURB PAINT	DIAG. LINE	REMARKS
	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LUMP	LUMP	
415+00 657+41.53	24,241.5	48,483		18,181				℄ PAV'T & 2 MED. EDGES
9+99.42 ~ 60+00	3,000.6	10,001		3,750				℄ PAV'T & 2 MED. EDGES
415+00 ~ 651+50	23,650	23,650						RT. EDGE TO CURB NOSING
415+00 ~ 650+52	23,552	23,552						LT. EDGE TO CURB NOSING
652+50 ~ 657+41.53	491.5	492						RT. EDGE
9+99.42 ~ 26+00	1600.6	1601						RT. EDGE TO CURB NOSING
26+00 ~ 60+00	3400	3400						RT. EDGE TO END PROJECT
644+76.4 ~ 657+41.53	1265	1265						LT. EDGE
9+99.42 ~ 22+50	1250.6	1251						LT. EDGE TO CURB NOSING
23+62.5 ~ 60+00	3631.5	3638						LT. EDGE TO END PROJECT
50+52 ~ 59+75	923	1246						RAMP "A" - EDGE
14+00 ~ 23+63	1926	1826						RAMP "B" - EDGE
65+53 ~ 660+50	807	1694						RAMP "C" - EDGE
13+50 ~ 26+00	2500	2050						RAMP "D" - EDGE
644+76.4 ~ 650+52.42	576		68		396			RAMP "A"
22+50 Nℓ ~ 26+00 Nℓ	595				595			RAMP "B"
26+00 Nℓ ~ 30+50 Nℓ			84					RAMP "B"
648+75 Nℓ ~ 652+50	650				650			RAMP "C"
644+50 Nℓ ~ 648+75 Nℓ	42.5		255					RAMP "C"
26+00 Nℓ ~ 31+28 Nℓ	528		76		325			RAMP "D"
SUBTOTALS (FT.)		124,149	483	21,931	1966	LUMP	LUMP	
SUBTOTALS (MILES)		23.51	0.09	4.15	0.37			
TOTALS TO GEN. SUM		23.51	0.09	4.15	0.37	LUMP		

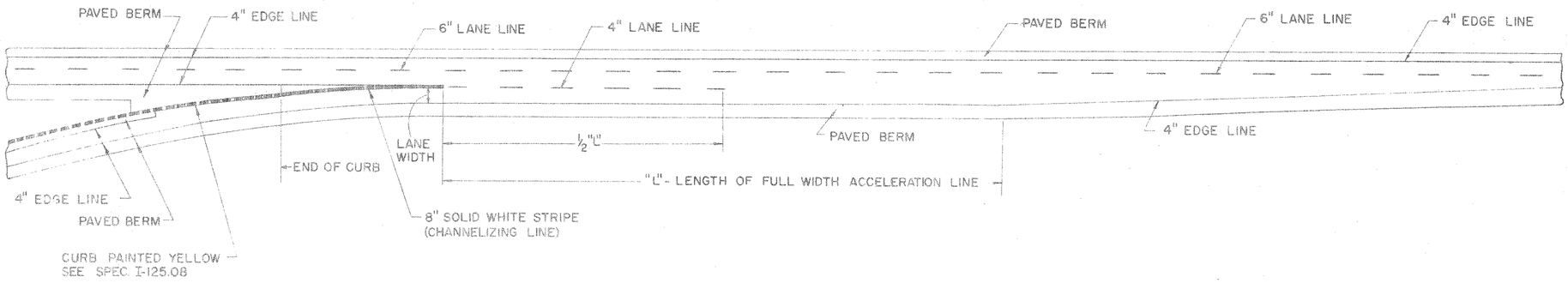
MISCELLANEOUS DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

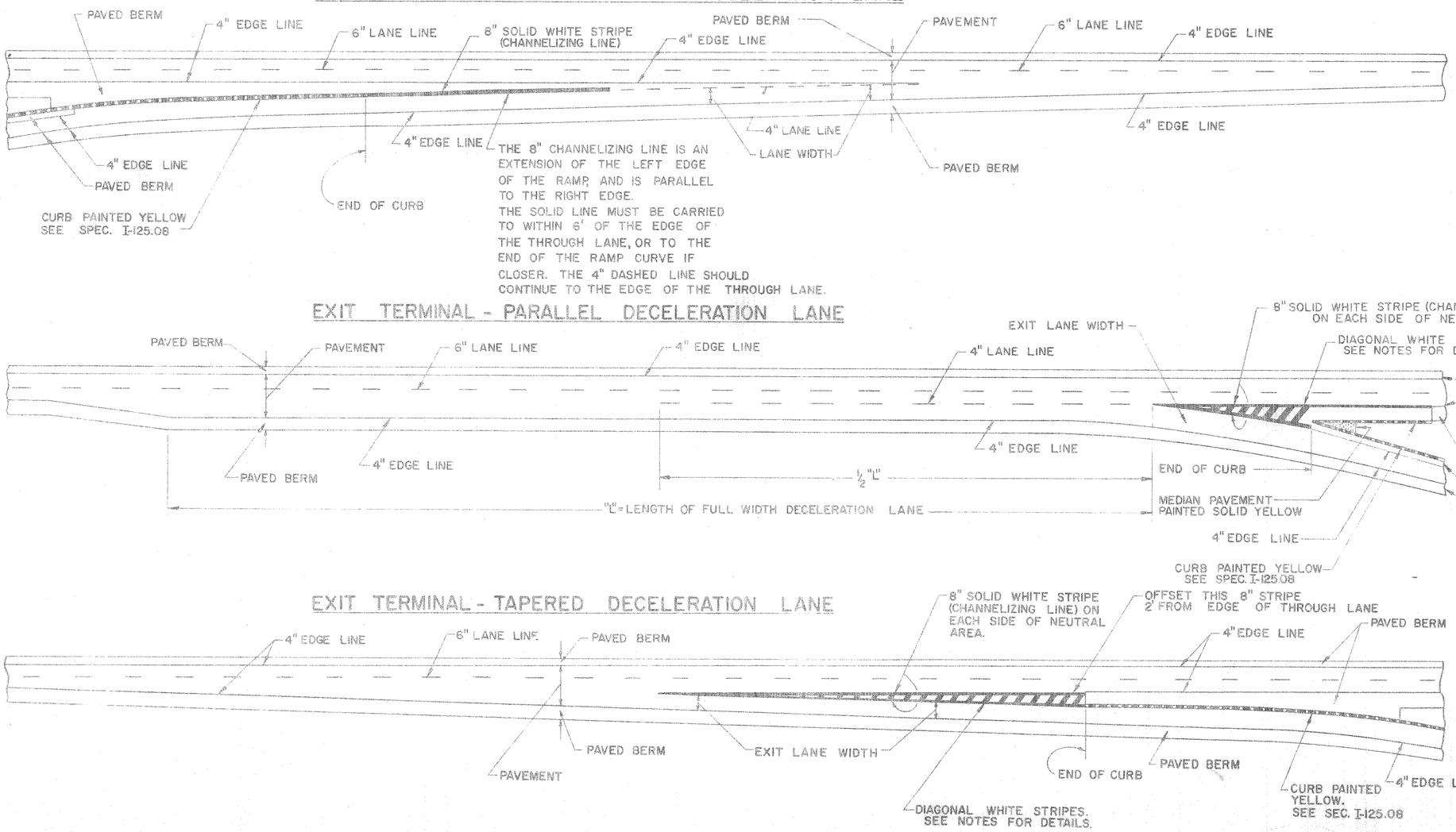
439
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE–40–23.88 BEL–40–0.00

ENTRANCE TERMINAL - PARALLEL ACCELERATION LANE



ENTRANCE TERMINAL - TAPERED ACCELERATION LANE



EXIT TERMINAL - PARALLEL DECELERATION LANE

EXIT TERMINAL - TAPERED DECELERATION LANE

NOTES

EDGE LINES SHALL BE PLACED IN THE LOCATIONS AS SHOWN TO CONFORM TO SUPPLEMENTAL SPECIFICATION No. I-125 AND DEFINED IN SECTION I-125.06.

LANE LINES SHALL BE PLACED IN THE LOCATIONS AS SHOWN TO CONFORM TO SUPPLEMENTAL SPECIFICATION No. I-125 AND DEFINED IN SECTION I-125.07.

CHANNELIZING LINES SHALL BE CONTINUOUS WHITE BEADED STRIPES 8" IN WIDTH PLACED IN THE LOCATIONS AS SHOWN TO CONFORM TO SUPPLEMENTAL SPECIFICATION No. I-125 AND DEFINED IN SECTION I-125.07b.

DIAGONAL STRIPES IN EXIT RAMP MARKINGS SHALL BE 2' WIDE WHITE BEADED STRIPES SET AT A 45° ANGLE TO THE CENTER LINE OF THE THROUGH PAVEMENT AND SLANTED IN THE DIRECTION OF THE FLOW OF TRAFFIC ON SAID PAVEMENT. SPACE BETWEEN THE 2' DIAGONAL STRIPES SHALL BE 6' AS MEASURED PARALLEL TO THE CENTER LINE OF THE THROUGH PAVEMENT. PAINT ON THE DIAGONAL STRIPES SHALL BE APPLIED AT THE RATE OF ONE GALLON TO EACH 100 SQUARE FEET AND GLASS BEADS SHALL BE APPLIED AT THE RATE OF SIX POUNDS PER GALLON OF PAINT. DIAGONAL WHITE STRIPES SHALL BE PLACED BETWEEN THE TWO 8" WHITE CHANNELIZING LINES AT EXIT RAMPS AS SHOWN TO CONFORM TO SUPPLEMENTAL SPECIFICATION No. I-125 AND DEFINED IN SECTION I-125.07c.

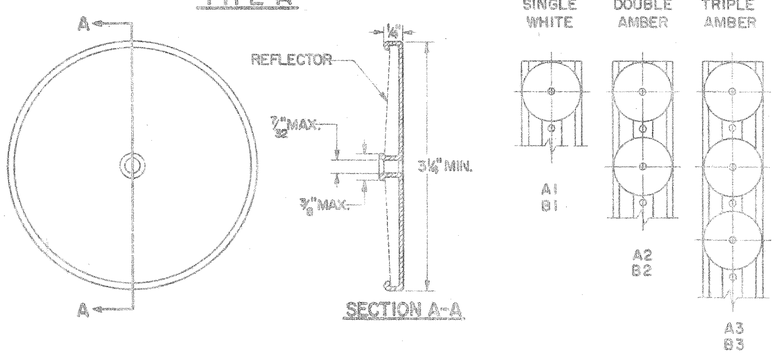
MISCELLANEOUS DETAILS PAVEMENT MARKING

FED. RD. DIVISION	STATE	PROJECT		440 / 485
2	OHIO			

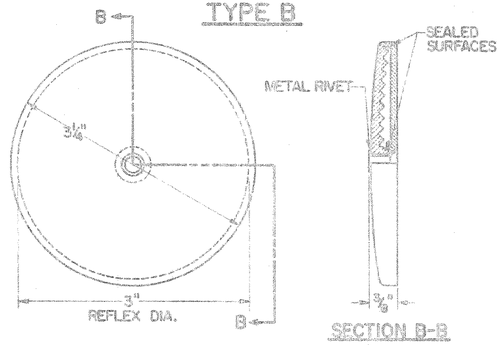
GUERNSEY COUNTY – BELMONT COUNTY

GUE–40–23.88 BEL–40–0.00

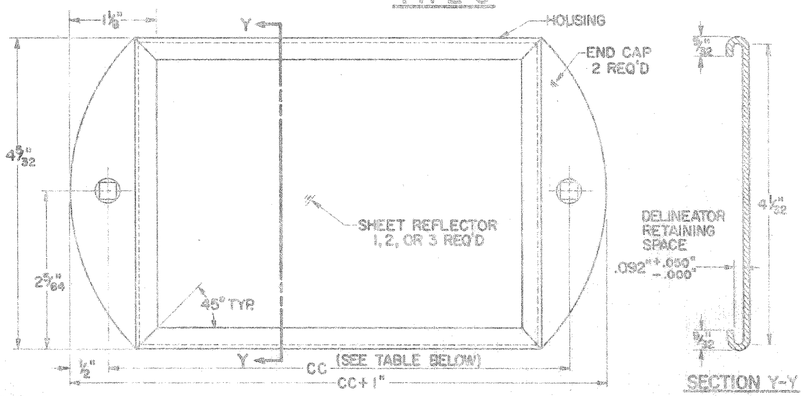
TYPE A



TYPE B

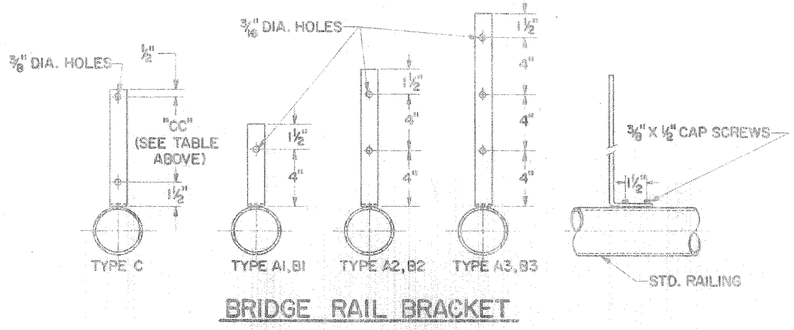


TYPE C

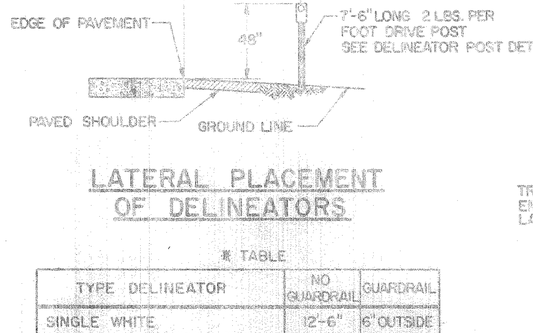


TYPE	DIM. CC
C1–SINGLE WHITE	6"
C2–DOUBLE AMBER	11"
C3–TRIPLE AMBER	16"

ALL BRACKETS 1/4" X 1 1/4" STAINLESS STEEL.



BRIDGE RAIL BRACKET

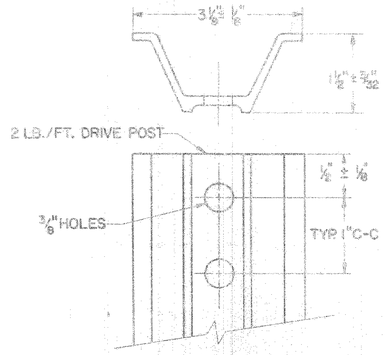


LATERAL PLACEMENT OF DELINEATORS

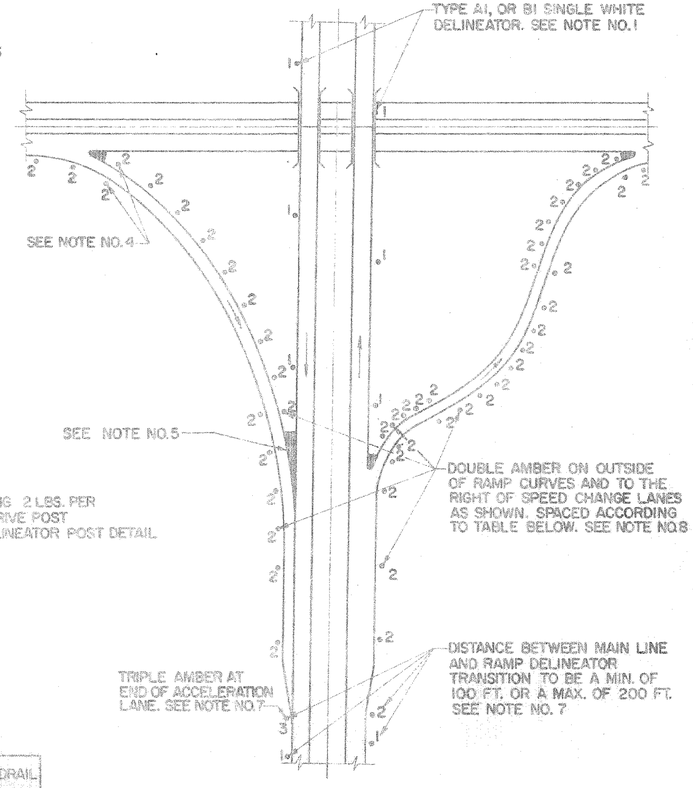
* TABLE

TYPE DELINEATOR	NO GUARDRAIL	GUARDRAIL
SINGLE WHITE	12'-6"	6" OUTSIDE
DOUBLE AMBER RIGHT SIDE	** 8'-6"	6" OUTSIDE
DOUBLE AMBER LEFT SIDE	4'-6"	6" OUTSIDE
TRIPLE AMBER	12'-6"	6" OUTSIDE

** THIS DIMENSION SHALL VARY ON SPEED CHANGE LANES TO MAINTAIN MINIMUM DISTANCE OF 2'-6" FROM EDGE OF PAVED SHOULDER.



DELINEATOR POST



TYPICAL DELINEATOR PLACEMENT

NOTES

1. TYPE A1 OR B1 DELINEATORS ON THE RIGHT OF THE THROUGH ROADWAY ARE TO BE SPACED AT 200 FT. INTERVALS THROUGHOUT, REGARDLESS OF CURVES, BEGINNING AT STA. +00, +25, +50, OR +75.
2. DELINEATORS SHALL BE FURNISHED AND ERECTED IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION NO. I-127, (1-15-62).
3. PAYMENT FOR SUPPORTS (DRIVEPOST OR BRACKET) SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH FOR "ITEM I-127 DELINEATORS".
4. WHEN CROSSING FROM LEFT TO RIGHT OR FROM RIGHT TO LEFT ON THE RAMPS THE DELINEATORS AT THE POINT OF CROSSOVER ARE TO BE AT THE SAME STATION ON EACH SIDE.
5. NO DELINEATORS ARE TO BE PLACED IN PAVED BERM
6. WHEN RADII OF CURVE ON RAMPS REQUIRE 100' SPACING THE DELINEATORS SHALL BE PLACED ON THE RIGHT IN RELATION TO THE FLOW OF TRAFFIC.
7. RAMP DELINEATOR AT END OF ACCELERATION & BEGINNING OF DECELERATION LANES TO BE A MAXIMUM OF 5' FROM POINT OF TANGENCY AT MAIN LINE.
8. ALL RAMP DELINEATORS SHALL BE PLACED TO THE NEAREST 5' INCREMENTS, SUCH AS +05, +10, +15, +20 AND SO ON.

DELINEATOR SPACING ON RAMP HORIZONTAL CURVES

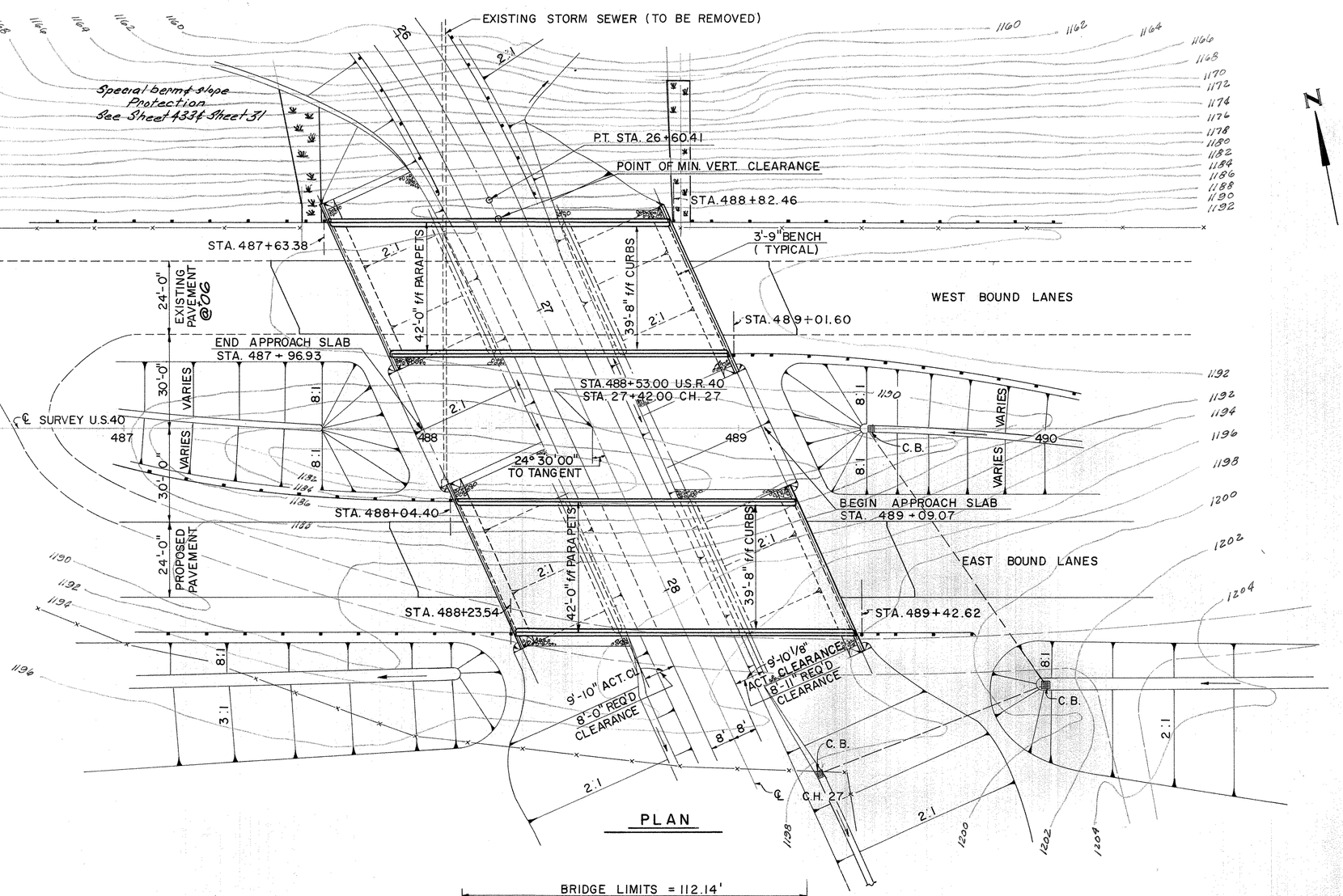
RADII, FT. FROM	RADII, FT. TO	SPACING ON CURVE	* TRANSITION SPACING		
TANGENT	1,801	100'	100'	100'	
1,800	1,401	80'	100'	100'	
1,400	1,001	70'	100'	100'	
1,000	751	60'	100'	100'	
750	551	50'	80'	100'	
550	326	40'	70'	100'	
325	———	30'	60'	100'	

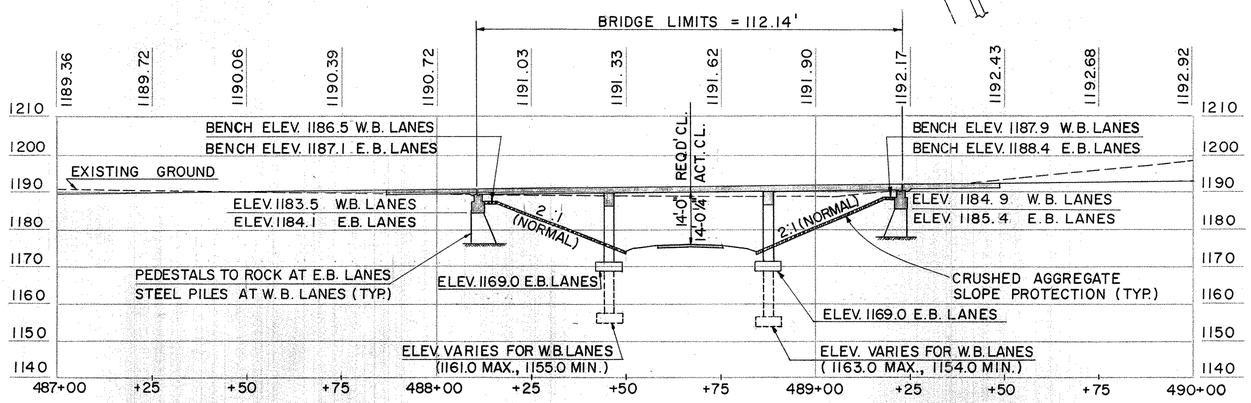
* SUCH AS 40' TO 70' TO 100' OR 100' TO 80' TO 50' OR ANY OTHER COMBINATION SHOWN ABOVE.

DELINEATOR DETAILS I-127

FED. RD. DIVISION	STATE	PROJECT		441 / 485
2	OHIO			

GUERNSEY COUNTY - BELMONT COUNTY
GUE - 40 - 23.88 BEL - 40 - 0.00





PROFILE
(ALONG E.B. LANES P.G. LINE)

Piles for abutments #1 and #3 shall be 10BP42 steel piles:
Estimated average pay length for piles
Abutment #1 = 21'
Abutment #3 = 27'

FOUNDATION SOUNDINGS:

Foundation design and foundation quantities are based on a study of rod soundings and soil-sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division office, but the State does not guarantee the accuracy thereof.

HORIZONTAL CURVE DATA = U.S.R.40

P.I STA. 490+56.12
Δc = 16° 34' 33" LT.
Dc = 0° 23' 58"
Rc = 14,343.87'
Lc = 4,149.72'
Tc = 2,089.45'
Ec = 151.38'

VERTICAL CURVE DATA = U.S.R. 40

G_1 = + 2.16 % G_2 = - 2.50 %
P.V.I. STA. 496+65 ELEV. 1211.78
V.C. 2800 CORRECTION = 16.31

PROPOSED STRUCTURE

TYPE: Continuous reinforced concrete slab with reinforced concrete piers and capped pile abutments.

SPANS: 34'-0", 42'-6", 34'-0" center to center of bearings, measured along ℄ survey.

ROADWAY: Two at 42'-0" face to face parapets.

LOAD FREQUENCY: C.F. 2000(57), adequate for A.A.S.H.O. alternate loading.

WEARING SURFACE: 1" monolithic concrete.

SKEW: 24° 30' 00" R.F.

APPROACH SLABS: AS-1-54 (25' long)

ALIGNMENT: 0° 23' 58" Curve left.

SUPERELEVATION: None.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

SITE PLAN

BRIDGE NO. GUE - 40 - 2527 L & R.
U.S. 40 OVER C.H. 27

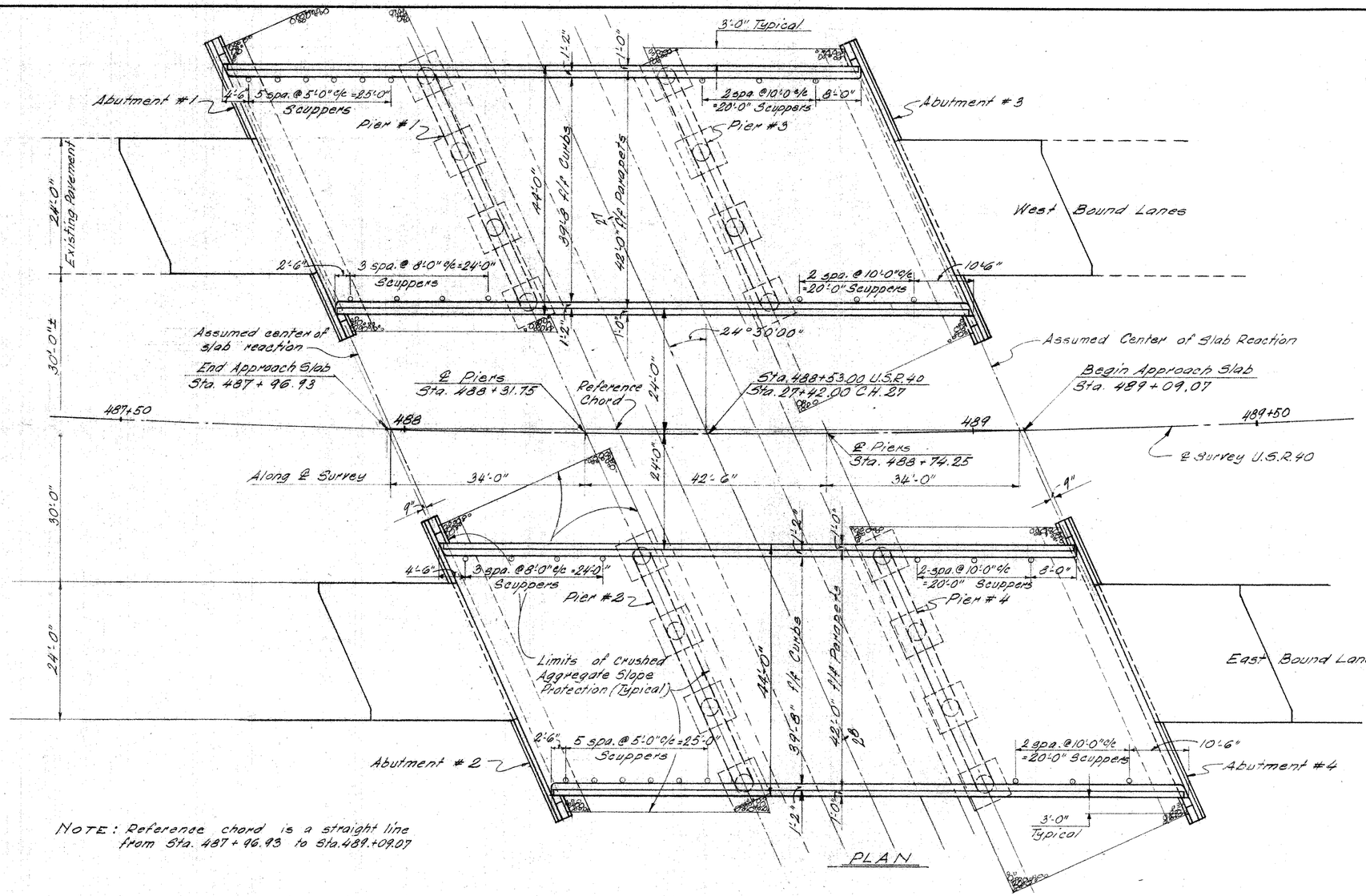
GUERNSEY COUNTY STA. 487 + 96.93
STA. 489 + 09.07

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
P.M.	E.D.A.	G.M.	N.U.	666	8-1 62	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

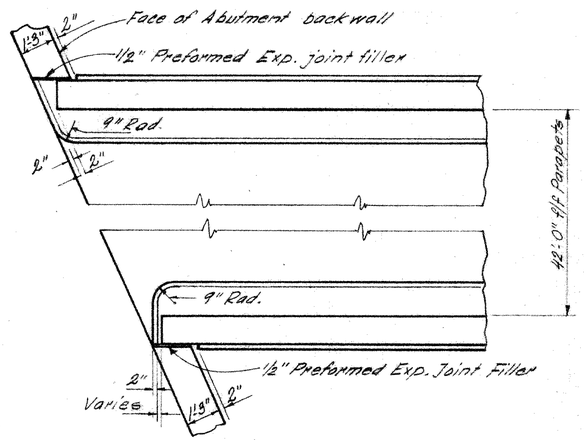
442
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



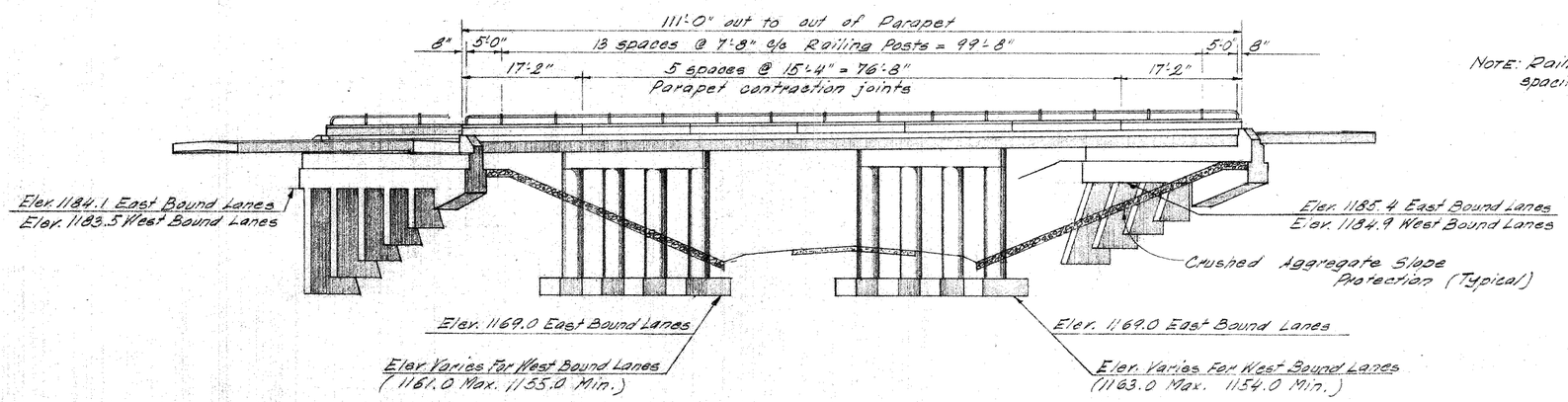
PLAN

NOTE: Reference chord is a straight line from Sta. 487 + 96.93 to Sta. 489 + 09.07



PARTIAL PLAN AT ENDS OF CURBS

NOTE: See sheet #444 for substructure location plan.



ELEVATION

NOTE: Railing post and parapet joint spacings typical for all parapets.

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ENGINEERS COLUMBUS, OHIO

GENERAL PLAN

BRIDGE NO. GUE-40-2527 L & R
U.S. 40 OVER CH. 27
GUERNSEY COUNTY
STA. 487 + 96.93
STA. 489 + 09.07

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
P. M.	G.M.		N.U.	666	8-1 62	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

443
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

GENERAL NOTES

REFERENCE SHALL BE MADE TO:
Supplemental Specification S-101, dated 7-12-62
Standard Drawing CS-2-54, revised 2-2-59
Standard Drawing AR-1-57, revised 4-2-62

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 together with current revisions thereof.

EXCAVATION QUANTITY for the abutments, in addition to that outlined in Sec. E-2.09, includes the removal of material bounded by the proposed bench, by the front vertical plane described in Sec. E-2.09 and by the finished slope of the cut.

PILES for abutments # 1 and # 3 shall be driven with a hammer of not less than 11,000 ft. lbs. per blow to firm contact with shale. If the length of penetration is approximately equal to the depth to rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. S-18.05 is not less than the following value for a pile hammer of the indicated energy rating:

For abutment # 1 piles
40 tons per pile using an 11,000 ft. lb. hammer
36 tons per pile using a 15,000 ft. lb. or greater hammer
For abutment # 3 piles
36 tons per pile using an 11,000 ft. lb. hammer
32 tons per pile using a 15,000 ft. lb. or greater hammer

If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 30 tons per pile.

PIER FOOTINGS shall extend a minimum of three inches into undisturbed shale or to elevation 1169.0, whichever is lower.

PEDESTALS for abutments # 2 and # 4 shall extend a minimum of six inches into undisturbed shale.

OPEN EXCAVATIONS: Before construction of the footings and abutment pedestals the open excavations shall be inspected by the Engineer, in order to insure that the excavations have been extended to shale throughout the entire founding area. The excavations shall be kept well drained at all times and prolonged atmospheric exposure shall be avoided.

FOUNDATION BEARING PRESSURE: Pier footings are designed for a maximum bearing pressure of 6.2 tons per sq. ft. Abutment pedestals are designed for a maximum bearing pressure of 6.2 tons per sq. ft.

SURFACE FINISH OF CONCRETE. The requirements of Sec. S-1.22, Rubbed Finish, shall apply to the following exposed concrete surfaces:

a) The entire superstructure except the top and bottom surfaces of sidewalks and roadways.

b) The entire surface of piers and abutments except the face of abutments between edges of superstructure.

MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.

SLAB THICKNESS of concrete deck is 18 3/4", which includes 1" monolithic wearing surface.

ESTIMATED QUANTITIES (2 BRIDGES)

ITEM	TOTAL	UNIT	DESCRIPTION	SUPER	ABUT.	PIER	GEN.	AS BUILT	
E-2	lump	sum	Cofferdams, cribs and sheeting						
E-2	716	cu. yds.	Unclassified excavation		344	372			
E-2	100	cu. yds.	Shale excavation		4	96			
S-1	605	cu. yds.	Class "C" concrete, superstructure	605					
S-1	139	cu. yds.	Class "C" concrete, piers above footings			139			
S-1	73	cu. yds.	Class "E" concrete, pier footings			73			
S-1	155	cu. yds.	Class "E" concrete, abutments		155				
S-4	213,581	lbs.	Reinforcing steel	155,080	14,384	44,117			
S-9	17	sq. ft.	1/2" preformed expansion joint filler		17				
S-14	444.00	lin. ft.	Railing (aluminum rail and supports, concrete parapet)	444.00					
S-16	lump	sum	First test pile						
S-18	427	lin. ft.	10 BP 42 steel piles		427				
S-29	114	cu. yds.	Porous backfill	114					
S-29	32	each	Scuppers (4" ϕ cast or wrought iron pipe)	32					
I-10	975	sq. yds.	Crushed aggregate slope protection				975		
S-101	605	each	Water-reducing, set-retarding admixture	605					

Design Loading - C F 2000 (57)

Concrete Class C - basic unit stress 1,333 p.s.i.
Concrete Class E - basic unit stress 1,133 p.s.i.

Structural Steel (except piling) ASTM A36 - basic unit stress 20,000 p.s.i. (ASTM A7 and A373 steel not permitted)
Reinforcing Steel - ASTM A15, A16, A160, Deformed, Intermediate or Hard Grade. Basic unit stress 20,000 p.s.i. Except, spiral reinforcement may be plain, Structural Grade with basic unit stress of 18,000 p.s.i.

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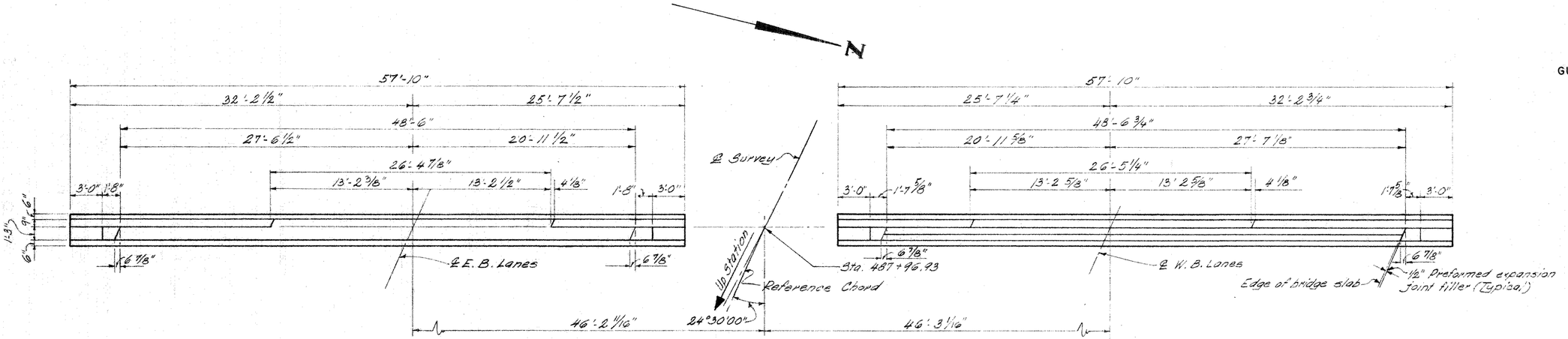
GENERAL NOTES
AND ESTIMATED QUANTITIES
BRIDGE NO. GUE-40-2527 L & R
U.S. 40 OVER CH. 27
GUERNSEY COUNTY STA. 487 + 96.93
STA. 489 + 09.07

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
P. M.	E.D.A.		N.U.	666	8-1	
N. U.	M. R.		M.R.		62	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

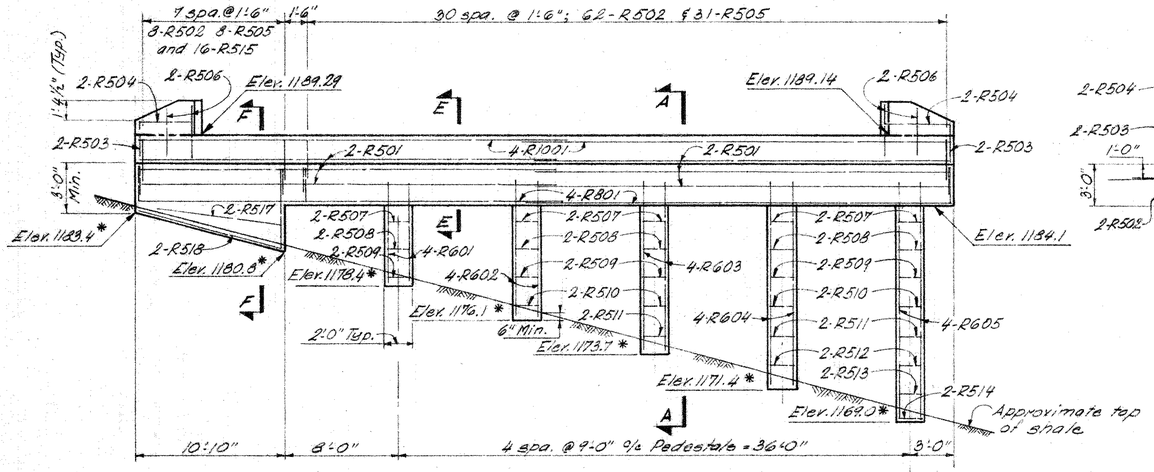
444
485

GUERNSEY COUNTY — BELMONT COUNTY
GUE - 40 - 23.88 BEL - 40 - 0.00



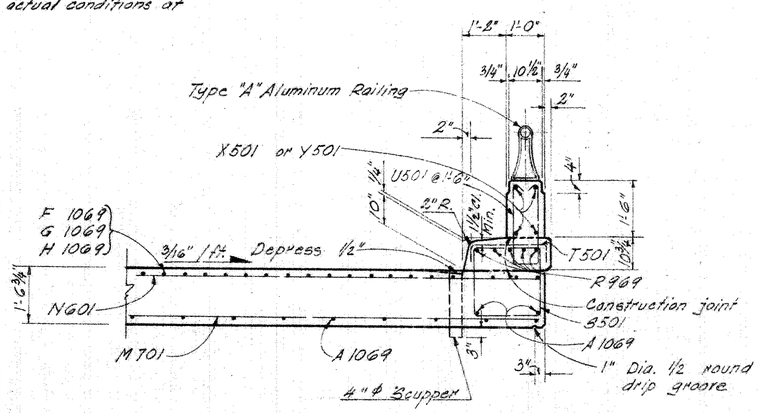
PLAN - ABUTMENT # 2

PLAN - ABUTMENT # 1

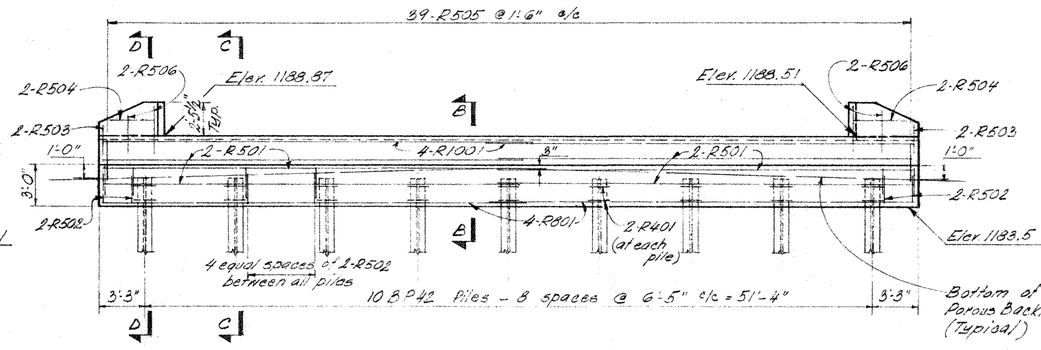


* These are approximate elevations and shall be adjusted to fit the actual conditions at the site.

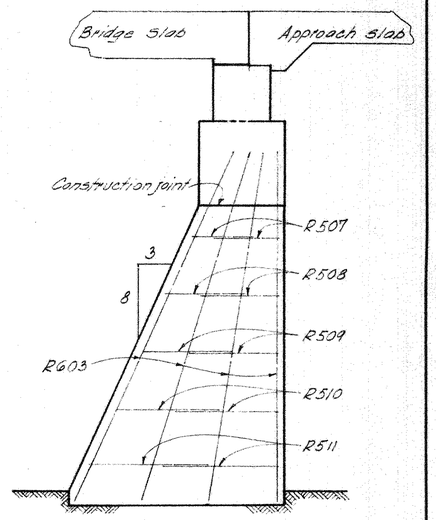
ELEVATION - ABUTMENT # 2



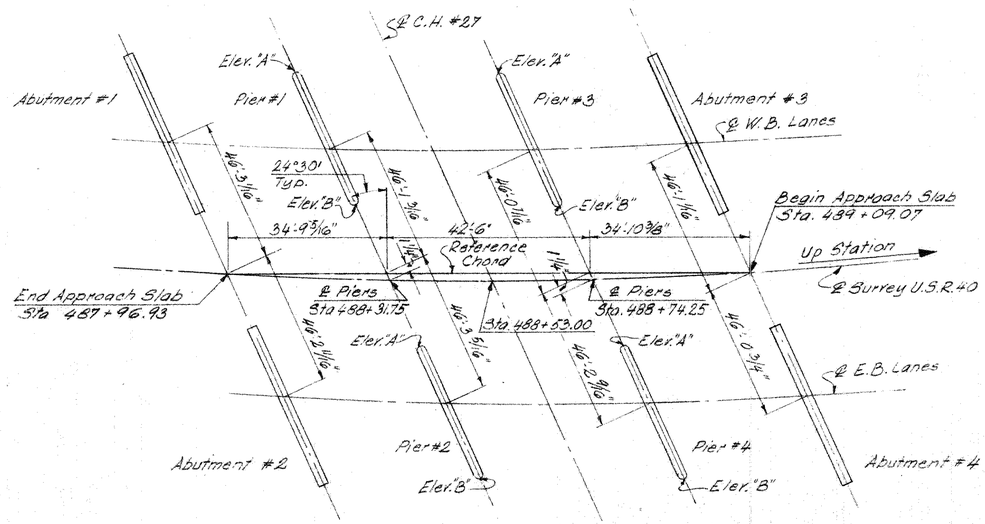
SUPERSTRUCTURE SECTION THROUGH CURB AT PIER
For details not shown see Standard Drawing CS-2-54



SECTION A-A
Showing pedestal reinforcing



ELEVATION - ABUTMENT # 1



SUBSTRUCTURE LOCATION PLAN

NOTES:

PROCEDURE: After the pedestals have been constructed the backfill shall be placed and compacted up to the top of the pedestals, after which the abutment crossbeam shall be constructed.

POROUS BACKFILL shall extend upward to the approach slab and to the surface of the earth shoulders, and outward to the surface of the embankment slopes. Excavation thereof, in excess of that required for construction of the abutment, shall be considered as paid for in the bid price per cu. yd. paid for porous backfill.

See sheet #445 for Sections B-B, C-C, D-D, E-E & F-F.

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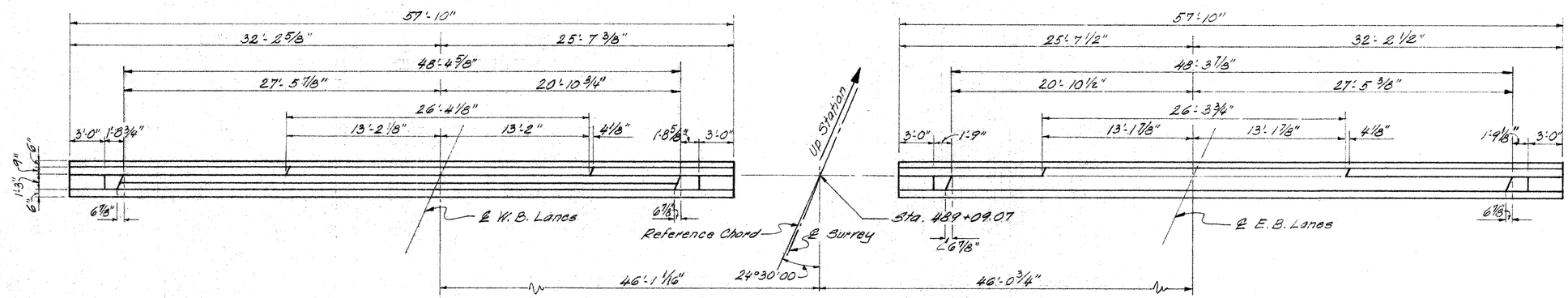
ABUTMENT AND SUPERSTRUCTURE DETAILS
BRIDGE NO. GUE-40-2527 L & R
U.S. 40 OVER CH. 27
GUERNSEY COUNTY STA. 487+96.93 STA. 489+09.07

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
P. M.	G.M.		N.U.	666	8-1 62	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

445
485

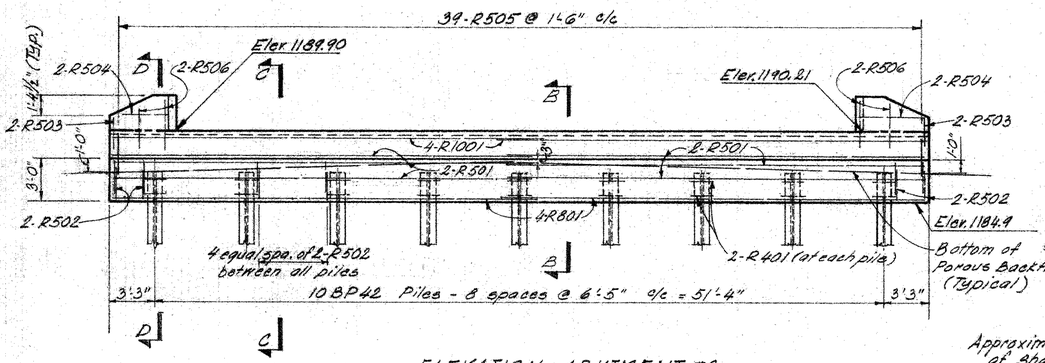
GUERNSEY COUNTY — BELMONT COUNTY
GUE - 40 - 23.88 BEL - 40 - 0.00



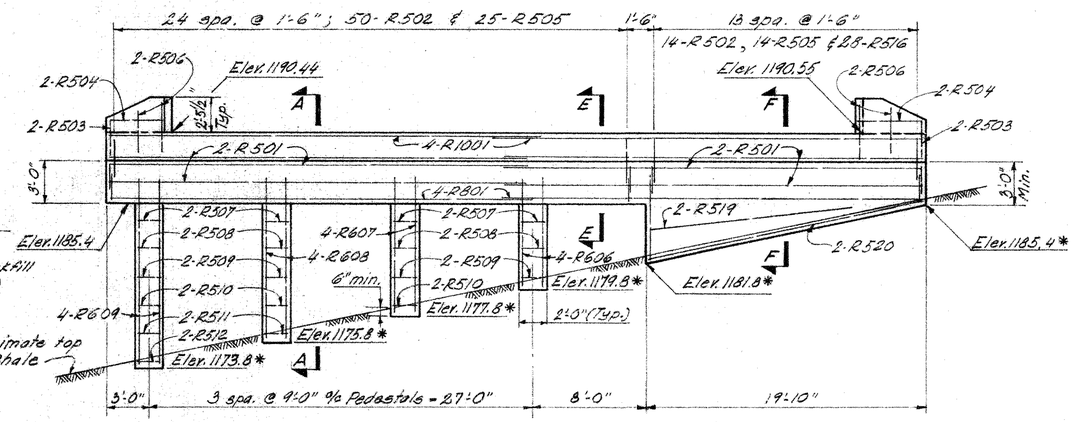
PLAN - ABUTMENT # 3

PLAN - ABUTMENT #4

NOTE:
See sheet #444 for Section A-A and additional notes.

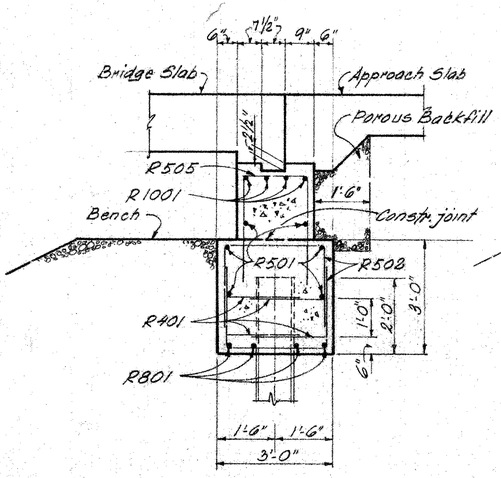


ELEVATION - ABUTMENT #3

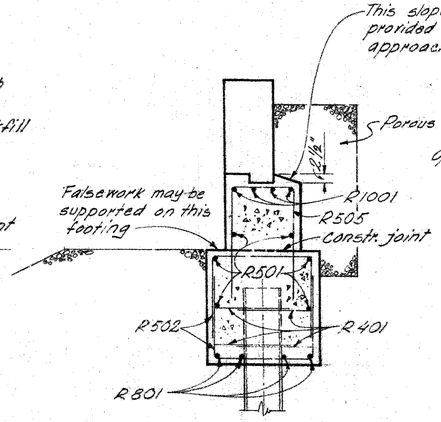


ELEVATION - ABUTMENT #4

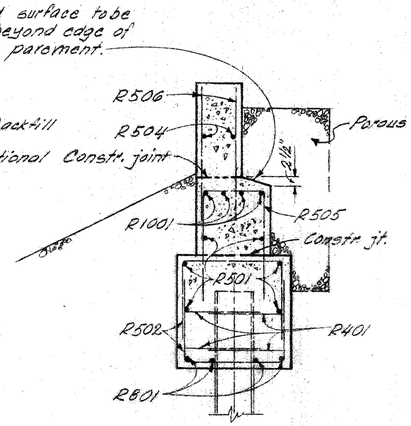
* These are approximate elevations and shall be adjusted to fit the actual conditions at the site.



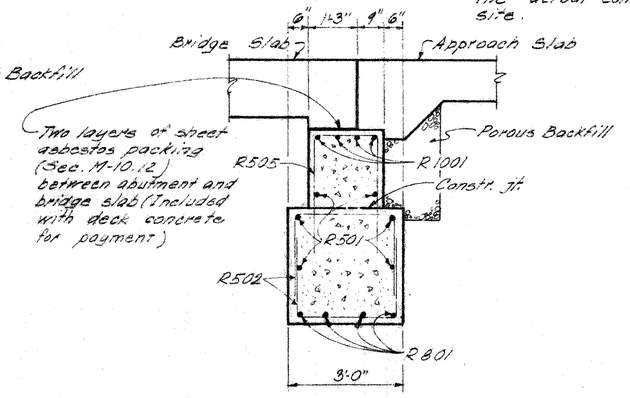
SECTION B-B



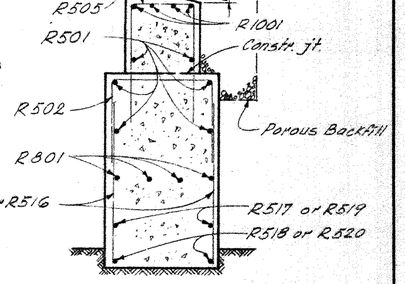
SECTION C-C



SECTION D-D



SECTION E-E



SECTION F-F

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ENGINEERS COLUMBUS, OHIO

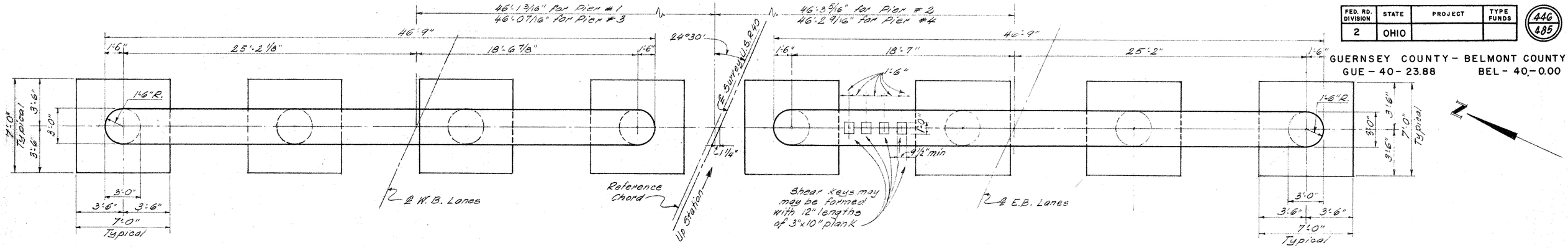
ABUTMENT DETAILS
BRIDGE NO GUE-40-2527 L & R
U.S. 40 OVER CH. 27
GUERNSEY COUNTY
STA. 487 + 96.93
STA. 489 + 09.07

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
P.M.	G.M.		N.U.	666	8-1 62	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

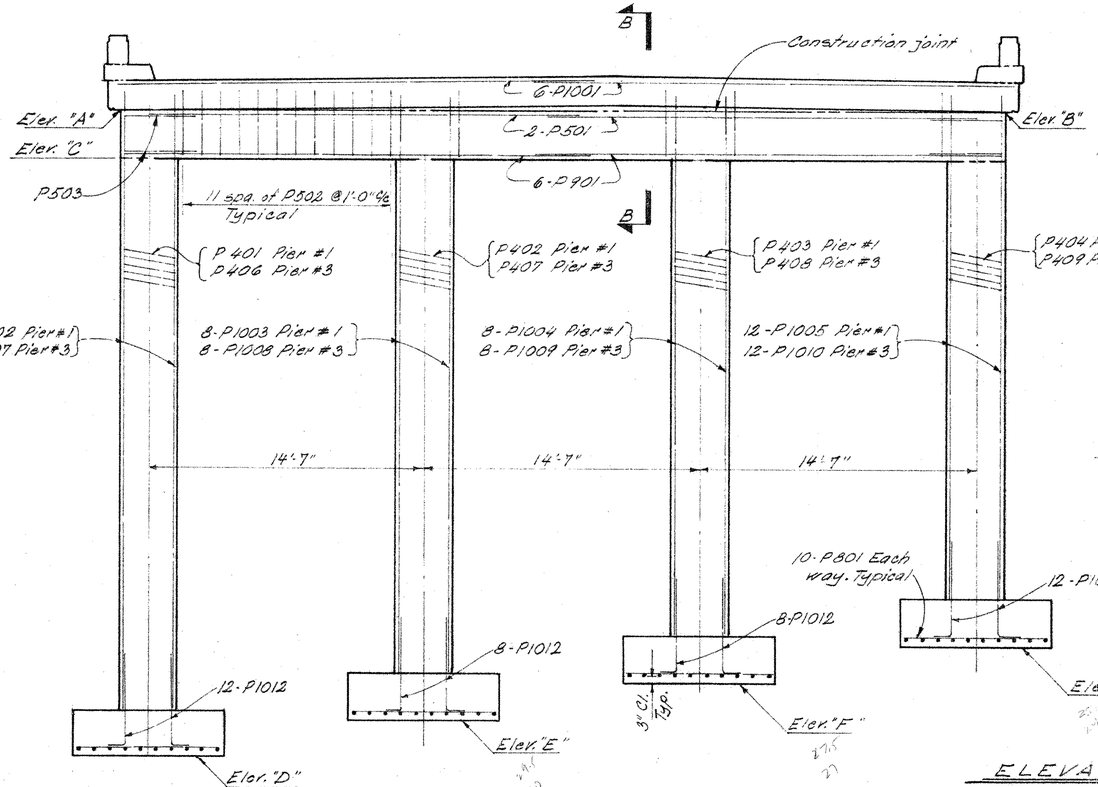
446
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

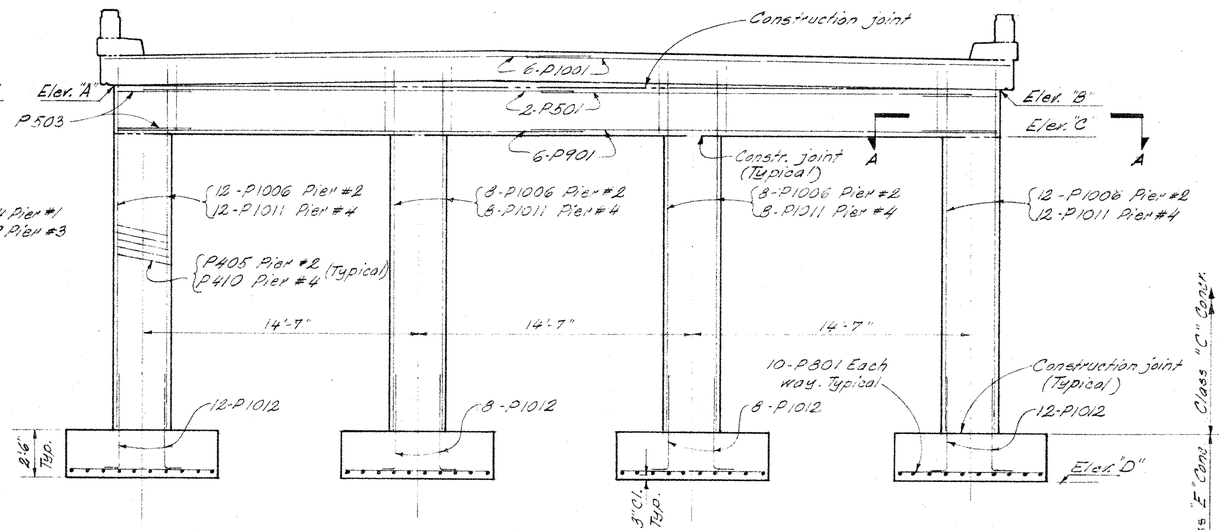


PLAN

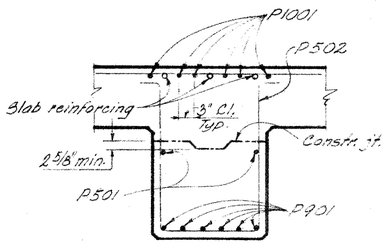
NOTE:
The pier cap shall not be used to support falsework for the deck slab.



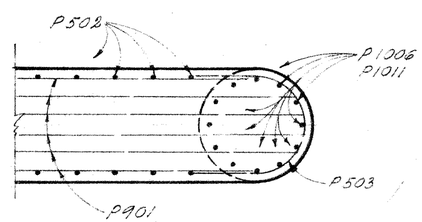
ELEVATION



ELEVATIONS							
LOCATION	"A"	"B"	"C"	"D"	"E"	"F"	"G"
Pier # 1	1188.93	1189.32	1186.43	1155.0	1157.0	1159.0	1161.0
Pier # 2	1189.53	1189.71	1187.08	1189.0	—	—	—
Pier # 3	1189.50	1189.33	1187.00	1154.0	1157.0	1160.0	1163.0
Pier # 4	1190.07	1190.19	1187.57	1169.0	—	—	—



SECTION B-B



SECTION A-A

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

PIER DETAILS

BRIDGE NO. GUE-40-2527 L & R
U.S. 40 OVER CH. 27
GUERNSEY COUNTY
STA. 487 + 96.93
STA. 489 + 09.07

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
N.U.	G.M.		P.M.	666	8-1-62	

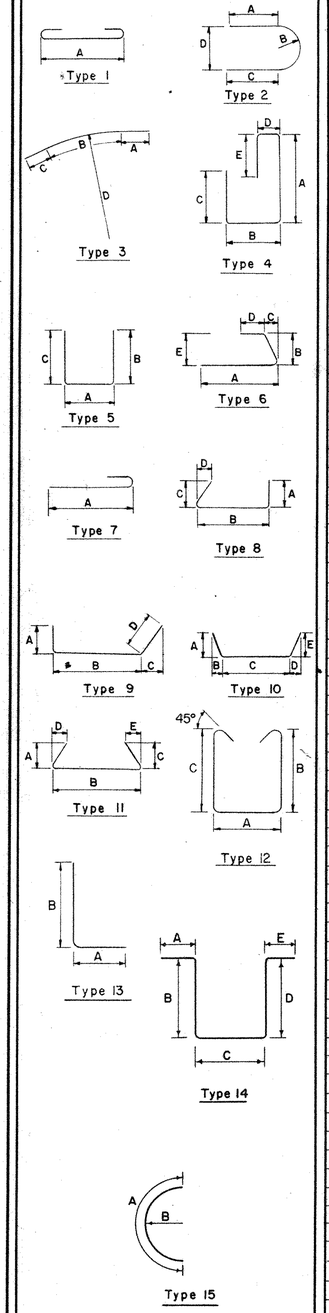
REINFORCING STEEL LIST

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

447
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00

BENDING DIAGRAM



S IN THE COLUMN FOR "TYPE" INDICATES STRAIGHT BARS.

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	F
ABUTMENTS										
R 401	72	5-5	260	5	1-9	1-11	1-11			
R 501	48	29-7	1,481	S						
R 502	310	6-7	2,128	5	2-8	2-1	2-1			
R 503	16	2-3	38	S						
R 504	16	3-6	58	S						
R 505	156	7-11	1,288	5	1-8	3-3	3-3			
R 506	32	3-6	117	S						
R 507	18	6-1	114	5	1-8	2-4	2-4			
R 508	18	6-11	130	5	1-8	2-9	2-9			
R 509	18	7-7	142	5	1-8	3-1	3-1			
R 510	14	8-5	123	5	1-8	3-6	3-6			
R 511	10	9-1	95	5	1-8	3-10	3-10			
R 512	6	9-11	62	5	1-8	4-3	4-3			
R 513	2	10-7	22	5	1-8	4-7	4-7			
R 514	2	11-5	24	5	1-8	5-0	5-0			
R 515	16	2-11 to 5-10	74	S	2 each, vary by 5"					
R 516	28	2-3 to 5-6	114	S	2 each, vary by 3"					
R 517	2	9-0	19	S						
R 518	2	10-6	22	S						
R 519	2	14-0	29	S						
R 520	2	19-6	41	S						
R 601	8	7-9	93	S						
R 602	8	10-0	120	S						
R 603	8	12-5	149	S						
R 604	8	14-9	177	S						
R 605	8	17-1	205	S						
R 606	8	7-7	91	S						
R 607	8	9-7	115	S						
R 608	8	11-7	139	S						
R 609	8	13-7	163	S						
R 801	32	30-0	2,563	S						
R 1001	32	30-5	4,188	S						
		TOTAL	14,384							

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	F
PIERS										
P 501	16	22-8	378	S						
P 502	144	10-0	1,502	14	0-6	3-5	2-8	3-5	0-6	
P 503	16	7-3	121	2	1-7	1-3½	1-7	2-8¼		
P 801	320	6-8	5,696	S						
P 901	48	24-8	4,026	S						
P 1001	48	24-10	5,129	S						
P 1002	12	32-3	1,665	S						
P 1003	8	30-3	1,041	S						
P 1004	8	28-3	972	S						
P 1005	12	26-3	1,355	S						
P 1006	40	18-10	3,242	S						
P 1007	12	33-9	1,743	S						
P 1008	8	30-9	1,059	S						
P 1009	8	27-9	955	S						
P 1010	12	24-9	1,278	S						
P 1011	40	19-4	3,328	S						
P 1012	160	6-6	4,475	13	1-6	5-4				
			37,965							
		SPIRAL	6,152							
		TOTAL	44,117							

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	F
SUPERSTRUCTURE										
A 1069	264	39-4	44,682	S						
B 1069	76	28-4	9,266	7	27-1					
C 1069	80	24-9	8,520	7	23-6					
D 1069	38	25-10	4,224	S						
E 1069	40	18-4	3,156	S						
F 1069	176	34-7	26,191	S						
G 1069	88	19-0	7,195	S						
H 1069	88	14-7	5,522	S						
J 601	88	22-1	2,919	S						
K 601	44	12-9	842	S						
M 701	412	25-2	21,194	S						
N 601	280	25-0	10,514	S						
O 501	12	22-3	278	S						
P 501	24	24-6	613	S						
R 969	40	23-5	3,185	S						
S 501	528	6-1	3,350	4	1-8	2-0	0-6	2-0	0-6	
T 501	528	2-11	1,606	5	1-10	0-8	0-8			
U 501	304	5-9	1,823	12	0-8	2-3	2-3			
		TOTAL	155,080							
X 501	32	16-10	—	S						
Y 501	80	15-0	—	S						
REPLACEMENT BARS										
RE 401	1	5-5	—	5	1-9	1-11	1-11			
RE 402	1	5-3	—	15	5-3	1-3½				
RE 501	1	5-7	—	S						
RE 601	1	5-11	—	S						
RE 701	2	6-3	—	S						
RE 801	1	6-6	—	S						
RE 901	1	6-10	—	S						
RE 1001	7	7-3	—	S						

SPIRAL REINFORCEMENT							
MARK	NO.	LENGTH	CORE	PITCH	TURNS	SPACERS	WEIGHT
P 401	1	28.98	32"	4½	83	4	539
P 402	1	26.98	32"	4½	75	4	487
P 403	1	24.98	32"	4½	70	4	454
P 404	1	22.98	32"	4½	65	4	422
P 405	4	15.58	32"	4½	45	4	1,164
P 406	1	30.50	32"	4½	85	4	552
P 407	1	27.50	32"	4½	77	4	500
P 408	1	24.50	32"	4½	69	4	448
P 409	1	21.50	32"	4½	61	4	396
P 410	4	16.07	32"	4½	46	4	1,190
						TOTAL	6,152

NOTES

BAR SIZE is indicated in bar mark. The first digit where three digits are used, and the first two where four are used indicate the bar size number.

SPIRAL REINFORCING BARS; The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap. The "No. of Turns" shown is the "Length" divided by the pitch, plus three turns (total number of closed coils), expressed as the nearest whole number.

Spiral reinforcing bars shall not have deformations but shall in other respects conform to item S-4. 1½ closed coils shall be provided at the ends of each spiral unit. Four steel channel, tee or angle spacers, weighing approximately 0.68 lb. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 lb. per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

RACKOFF ASSOCIATES
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REINFORCING STEEL LIST

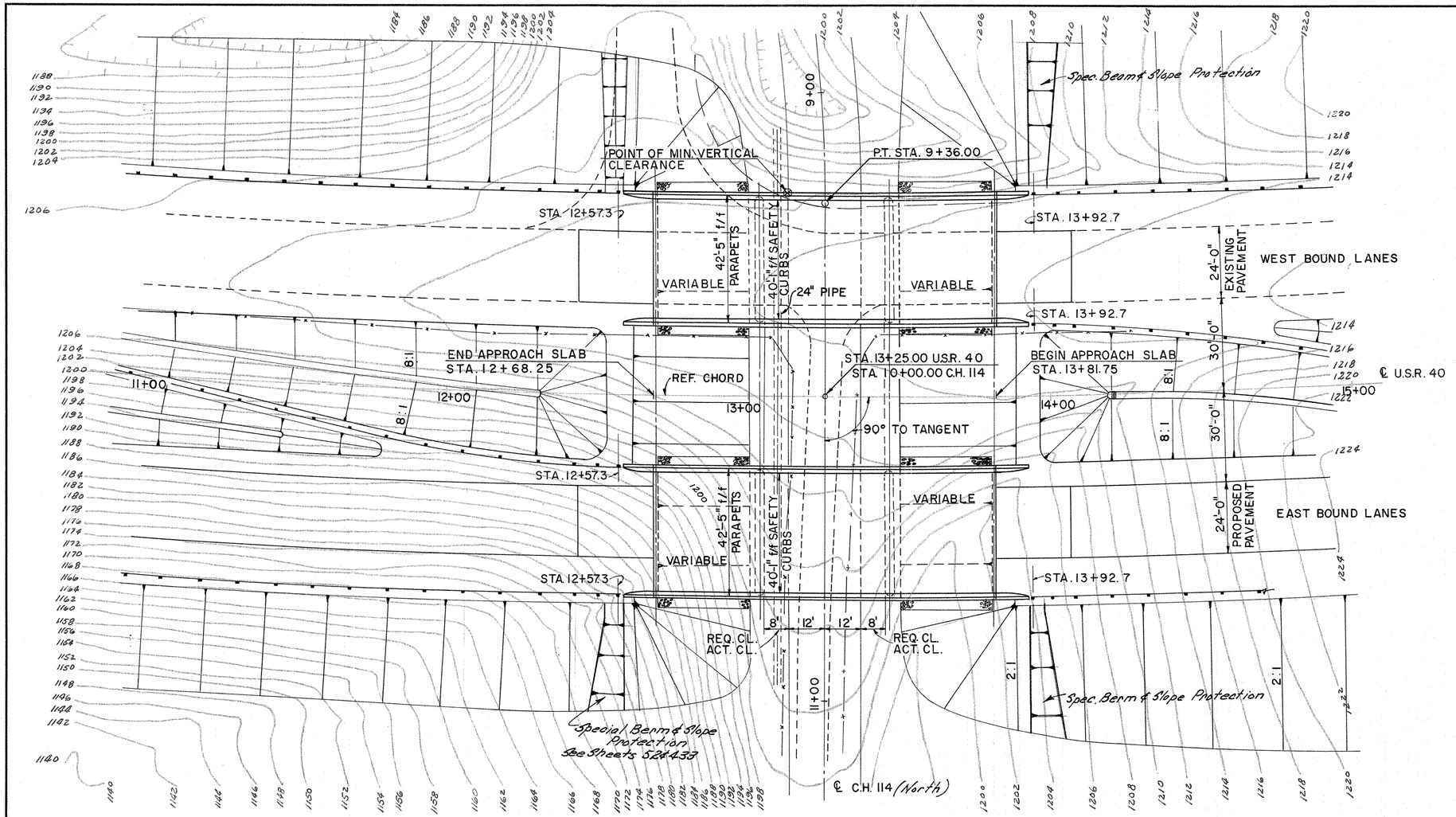
BRIDGE NO GUE-40-2527 L&R
U.S. 40 OVER CH. 27
GUERNSEY COUNTY STA. 487 + 96.93
STA. 489 + 09.07

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
N.U. P.M.	G.M. M.R.		H.H N.U.	66	8-1 62	

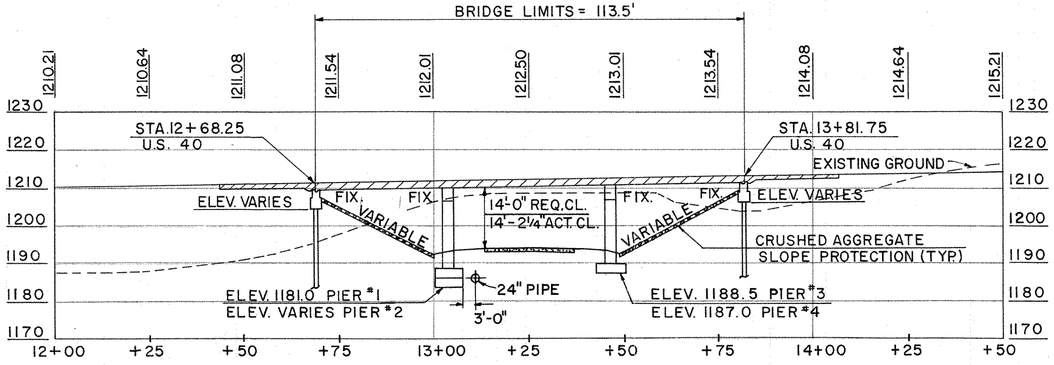
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

448
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40 – 0.00



PLAN



PROFILE
ALONG E.B. LANES P.G. LINES

HORIZONTAL CURVE DATA – U.S.R. 40

P.I. Sta. 665+08.86 = Sta. 17+66.75
Δc = 44°05'26" LT.
Dc = 1°29'29"
Rc = 3,841.77'
Lc = 2,956.34'
Tc = 1,555.71'
Ec = 303.03'

VERTICAL CURVE DATA – U.S.R. 40

G1 = +1.40% G2 = +3.00%
P.V.I. Sta. 14+00 ELEV. 1212.88
V.C. = 600' Corr. = 1.20'

ABUTMENT PILES SHALL BE 10 BP 42 STEEL PILES.
ESTIMATED AVERAGE PAY LENGTH FOR PILES
ABUTMENT 1 AND 2 – 32'
ABUTMENT 3 AND 4 – 15'

FOUNDATION SOUNDINGS:

Foundation design and foundation quantities are based on a study of rod soundings and soil-sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division office, but the State does not guarantee the accuracy thereof.

PROPOSED STRUCTURE

TYPE: Continuous reinforced concrete slab with reinforced concrete piers and capped pile abutments.
SPANS: 34'-6", 43'-0" and 34'-6" center to center of bearings, measured along ref. chord.
ROADWAY: Two at 42'-5" face to face of parapets
LOAD FREQUENCY: CF 2000 (57) adequate for AASHO alternate loading.
WEARING SURFACE: 1" monolithic concrete
SKEW: None
APPROACH SLABS: AS-1-54 (25' long)
ALIGNMENT: 1°29'29" curve, left
SUPERELEVATION: 0.048 ft./ft.

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SITE PLAN

BRIDGE NO. BEL.-40-0005 L AND R
USR OVER C.H. 114

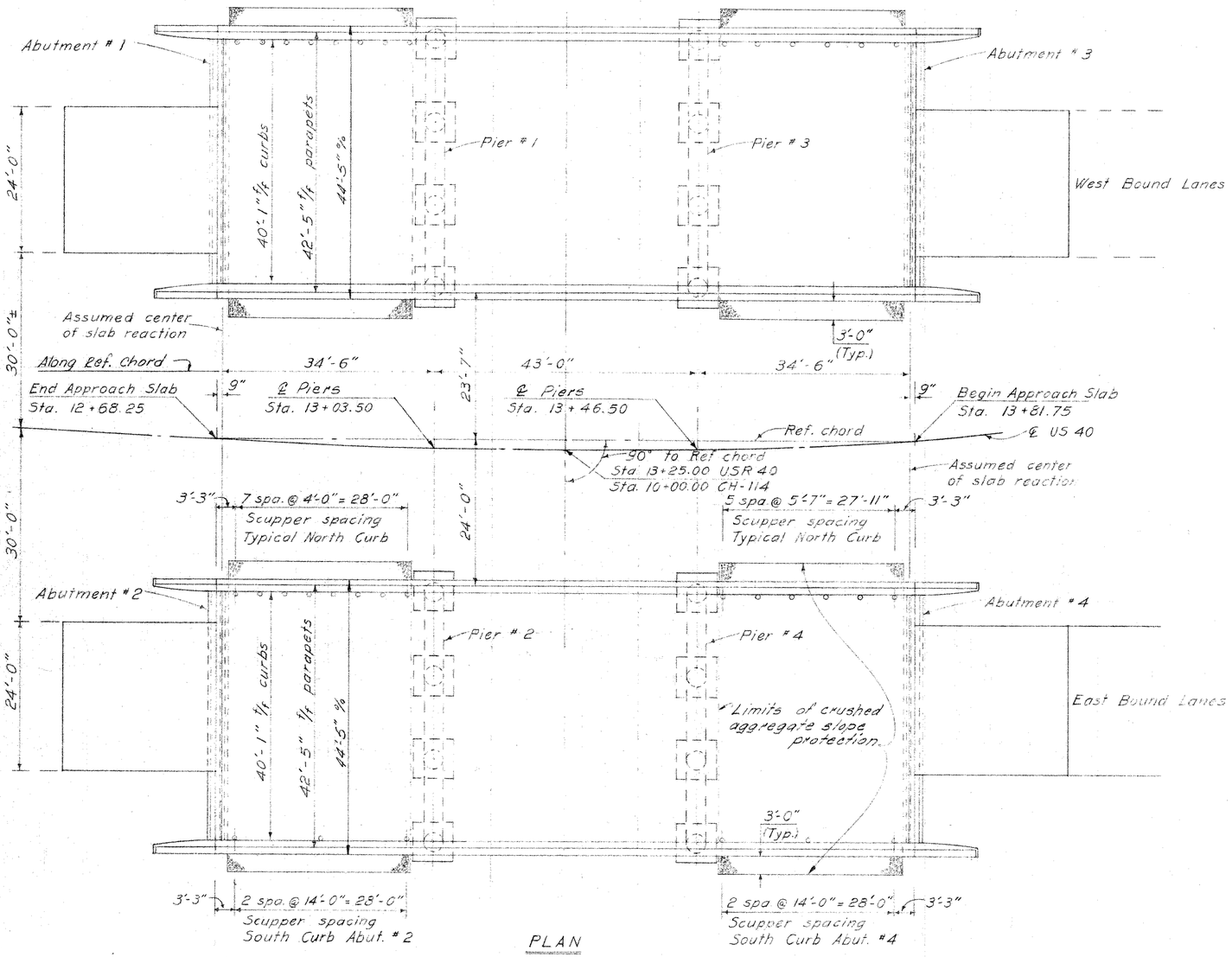
BELMONT COUNTY STA. 12+68.25
STA. 13+81.75

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FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

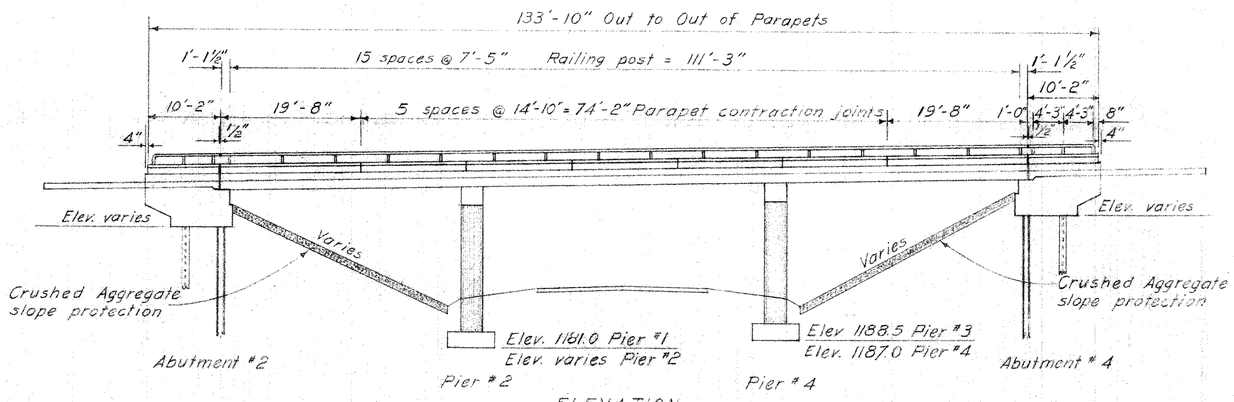
449
485

GUERNSEY COUNTY - BELMONT COUNTY
GUE - 40 - 23.88 BEL - 40 - 0.00



PLAN

Note : Reference chord is straight line from Sta. 12+68.25 to Sta. 13+81.75



ELEVATION

Note: Railing post and parapet contraction joint spacings typical for all parapets.

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GENERAL PLAN

BRIDGE NO. BEL-40-0005 L AND R
USR OVER C.H. 114

BELMONT COUNTY STA. 12+68.25
STA. 13+81.75

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
N.W.U.	M.R.		H.H.	666	8-1 62	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

450
485

GUERNSEY COUNTY – BELMONT COUNTY
GUE – 40 – 23.88 BEL – 40–0.00

GENERAL NOTES

REFERENCE SHALL BE MADE TO:
Standard Drawing CS-2-54, revised 2-2-59
Standard Drawing AR-1-57, revised 4-2-62
Supplemental Specification S-101 dated 7-12-62

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 together with current revisions thereof.

EXCAVATION QUANTITY includes the removal of fill material required for construction of the abutments.

PILES for abutments shall be driven to firm contact with rock. If the length of penetration is approximately equal to the depth to rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. S-18.05 is not less than the following value for a pile hammer of the indicated energy rating:

For abutment # 1 and # 2 piles
32 tons per pile using a 7,000 ft. lb. hammer
27 tons per pile using a 11,000 ft. lb. hammer
27 tons per pile using a 15,000 ft. lb. or greater hammer

For abutment # 3 and # 4 piles
39 tons per pile using a 7,000 ft. lb. hammer
32 tons per pile using a 11,000 ft. lb. hammer
29 tons per pile using a 15,000 ft. lb or greater hammer

If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 27 tons per pile.

PIER FOOTINGS shall extend a minimum of three inches into undisturbed rock or to elevation 1188.5, whichever is lower. Before construction of the footings the open excavations shall be inspected by the Engineer, in order to insure that the excavations have been extended to rock throughout the entire founding area.

FOUNDATION BEARING PRESSURE: Pier footings are designed for a maximum bearing pressure of 6.2 tons per sq. ft.

SURFACE FINISH OF CONCRETE. The requirements of Sec. S-1.22, Rubbed Finish, shall apply to the following exposed concrete surfaces:

a) The entire superstructure except the top and bottom surfaces of sidewalks and roadways.

b) The entire surface of piers and abutments except the face of abutments between edges of superstructure.

MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.

SLAB THICKNESS of concrete deck is 19", which includes 1" monolithic wearing surface.

ESTIMATED QUANTITIES (2 BRIDGES)

ITEM	TOTAL	UNIT	DESCRIPTION	SUPER	ABUT.	PIER	GEN.	AS BUILT	
E-2	614	cu.yds.	Unclassified excavation		200	414			
E-2	20	cu.yds.	Rock excavation			20			
S-1	623	cu.yds.	Class "C" concrete, superstructure	623					
S-1	138	cu.yds.	Class "C" concrete, piers above footings			138			
S-1	73	cu.yds.	Class "E" concrete, pier footings			73			
S-1	135	cu.yds.	Class "E" concrete, abutments		135				
S-4	203,013	lbs.	Reinforcing steel	144,917	14,679	43,417			
S-9	44	sq. ft.	½" preformed expansion joint filler		44				
S-14	535.33	lin. ft.	Railing (aluminum rail and supports, concrete parapet)	535.33					
S-16	lump	sum	First test pile						
S-18	846	lin. ft.	10 BP 42 steel piles		846				
S-29	32	cu.yds.	Porous backfill		32				
S-29	34	each	Scuppers (4" ϕ cast or wrought iron pipe)	34					
I-10	817	sq.yds.	Crushed aggregate slope protection				817		
S-101	623	each	Water-reducing, set-retarding admixture	623					

Design Loading - CF 2000(57)

Concrete Class E - basic unit stress 1,333
Concrete Class E - basic unit stress 1,133

Structural Steel (except pilings) ASTM A36 - basic unit stress 20,000 p.s.i. (ASTM A7 and A373 steel not permitted)
Reinforcing Steel - ASTM A15, A16, A160, Deformed, Intermediate or Hard Grade. Basic unit stress 20,000 p.s.i. Except, spiral reinforcement may be plain, Structural Grade with basic unit stress of 18,000 p.s.i.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

GENERAL NOTES
AND ESTIMATED QUANTITIES
BRIDGE NO. BEL.-40-0005 L & R
U.S. 40 OVER C.H.-114
BELMONT COUNTY STA. 12+68.25
STA. 13+81.75

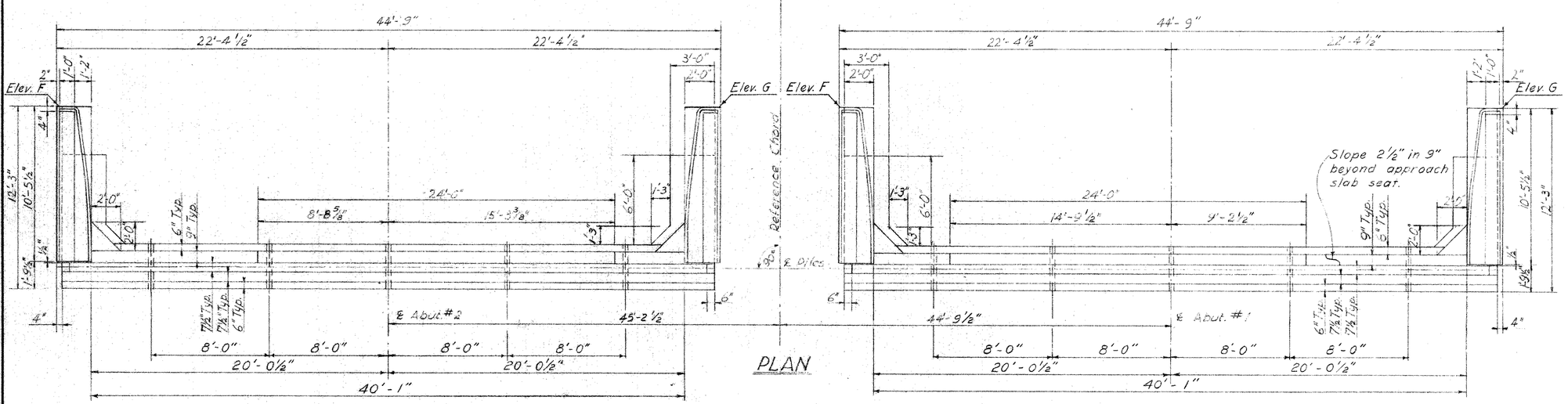
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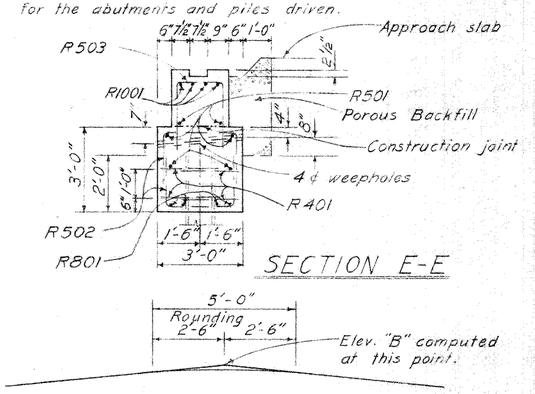
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

451
485

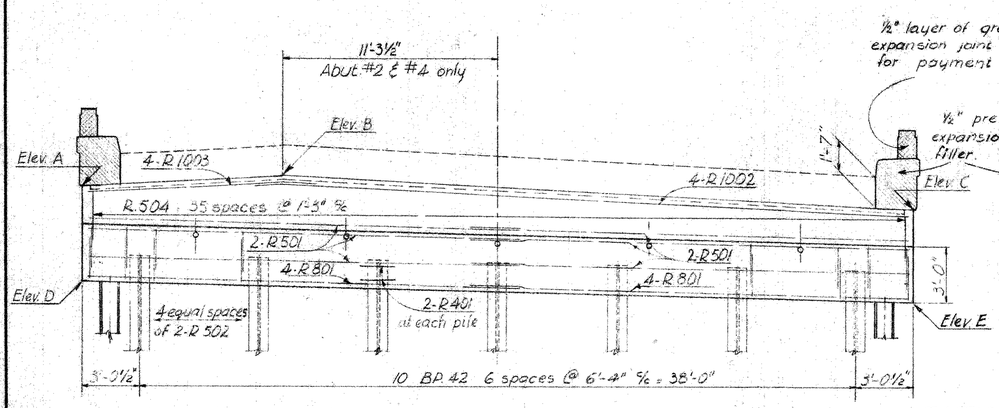
GUERNSEY COUNTY — BELMONT COUNTY
GUE - 40 - 23.88 BEL - 40 - 0.00

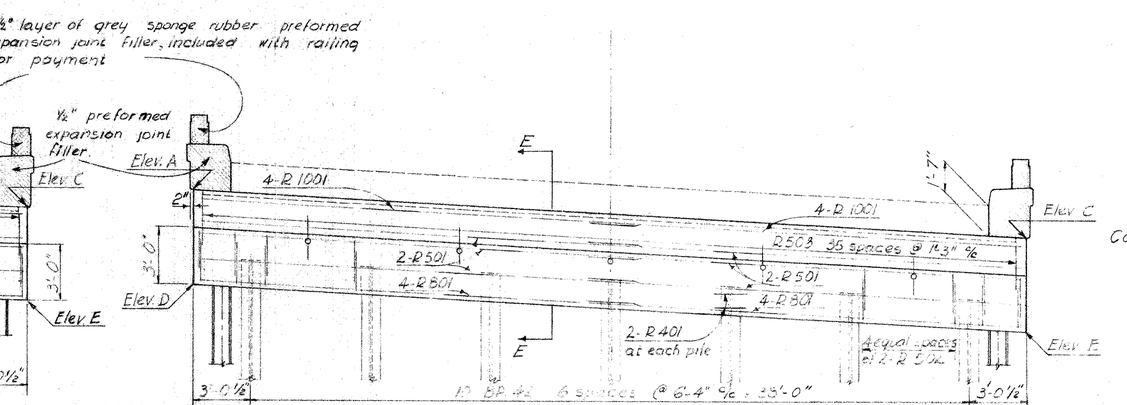
NOTES:
Porous backfill shall extend upward to the approach slab or finished ground surface.
The embankment shall be placed and compacted up to the finished spill thru slope after which excavation shall be made for the abutments and piles driven.



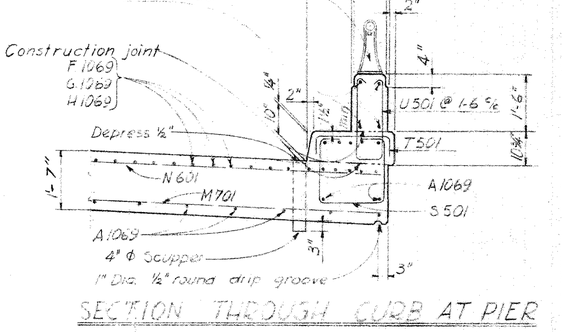


Elev. Diagram Abut. ℄ Pier #2 ℄ #4 only



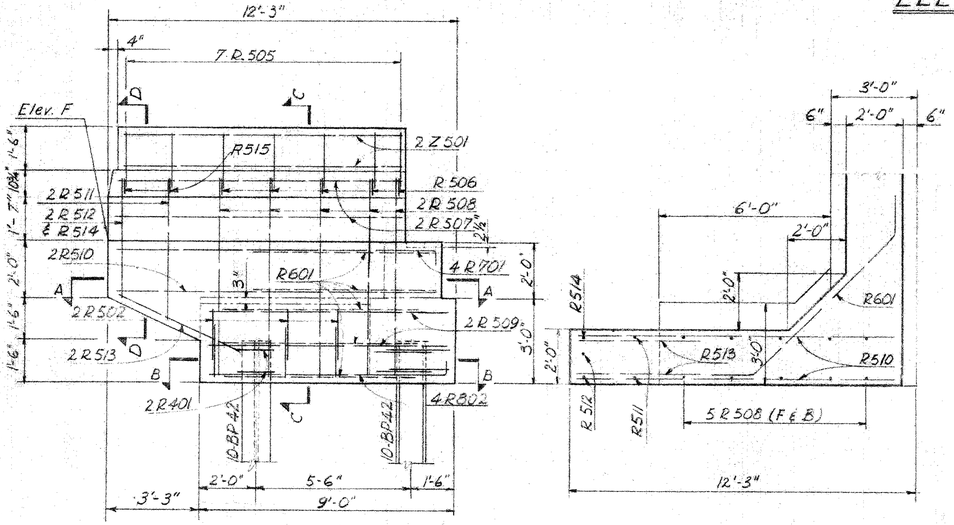


ELEVATION



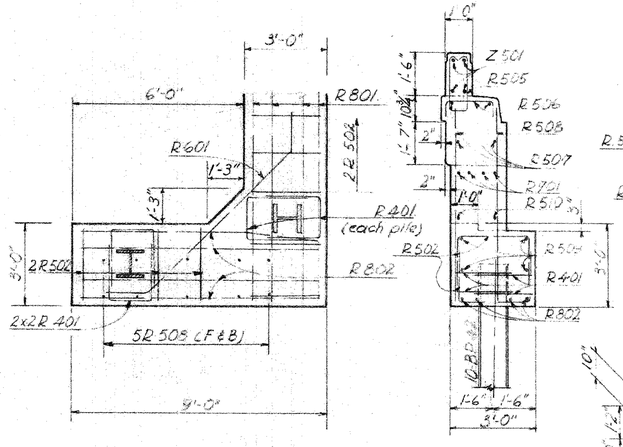
SECTION THROUGH CURB AT PIER

NOTE: Except for slab depth & length, Bridge slab same as shown for spans of 34 - 42.5 - 34 shown on CS-2-54.



WINGWALL ELEVATION

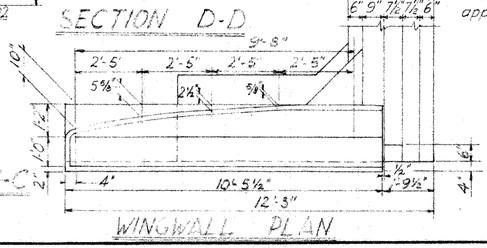
SECTION A-A



SECTION B-B

SECTION C-C

SECTION D-D



ELEVATIONS

Location	A	B	C	D	E	F	G
Abut. # 1	1210.17	—	1208.03	1205.2	1203.0	1209.98	1207.84
Abut. # 2	1210.68	1211.12	1209.51	1205.7	1204.5	1210.49	1209.31
Abut. # 3	1210.34	—	1212.46	1205.3	1207.5	1210.57	1212.68
Abut. # 4	1211.76	1213.36	1212.91	1206.8	1207.9	1211.99	1213.14

Slab seat elevations computed at end and begining approach slab.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

ABUTMENT AND SUPERSTRUCTURE DETAIL

BRIDGE NO. BEL-40-0005-L & R
U.S. 40 OVER CH 114
STA. 12 + 69.00
BELMONT COUNTY
STA. 13 + 81.00

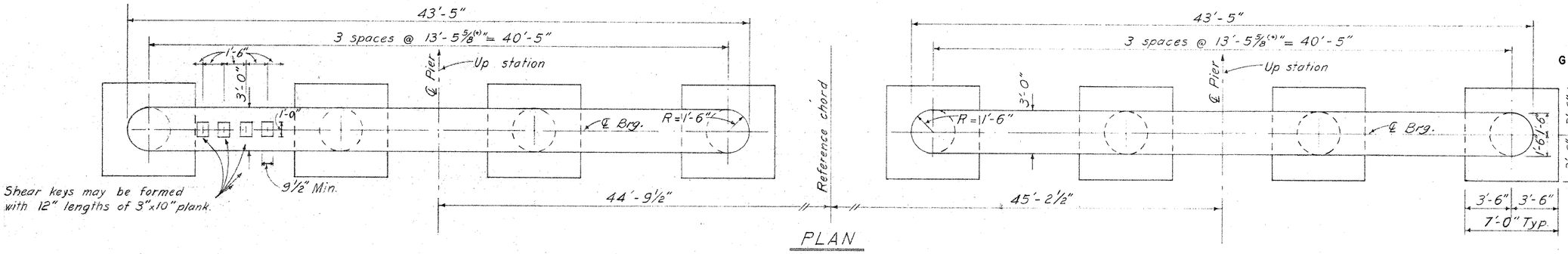
Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
H.H.	H.H.		N.W.U.	666	8-1 62	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

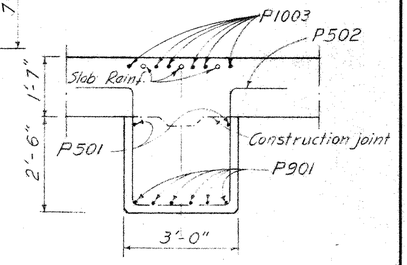
452
485

GUERNSEY COUNTY - BELMONT COUNTY

GUE - 40 - 23.88 BEL - 40 - 0.00

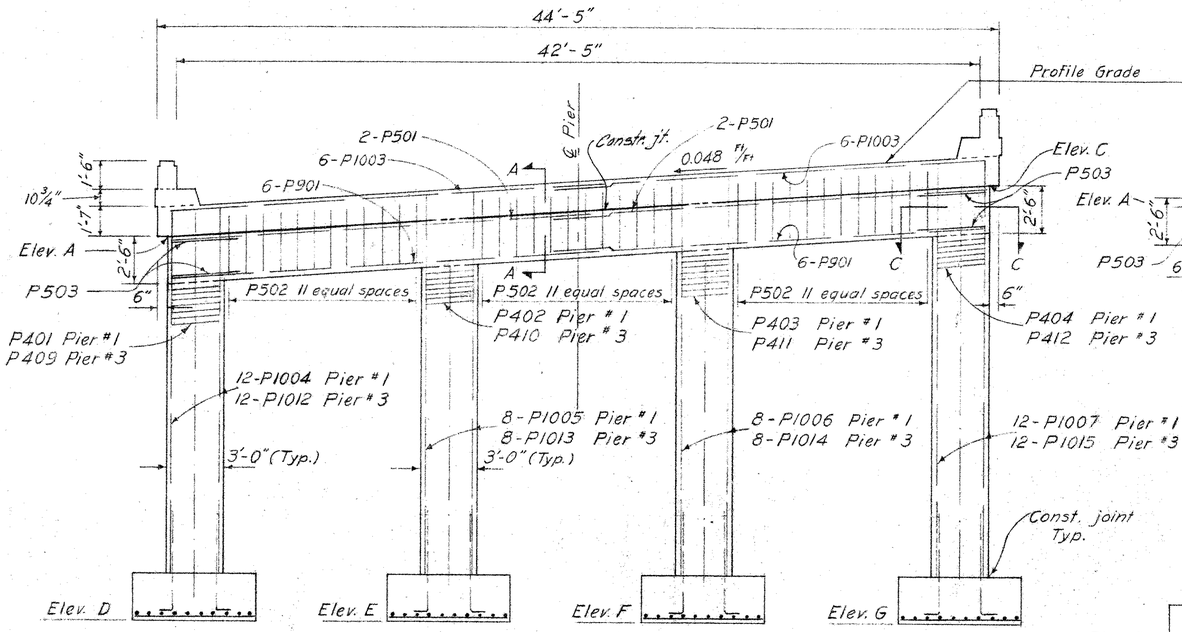


PLAN

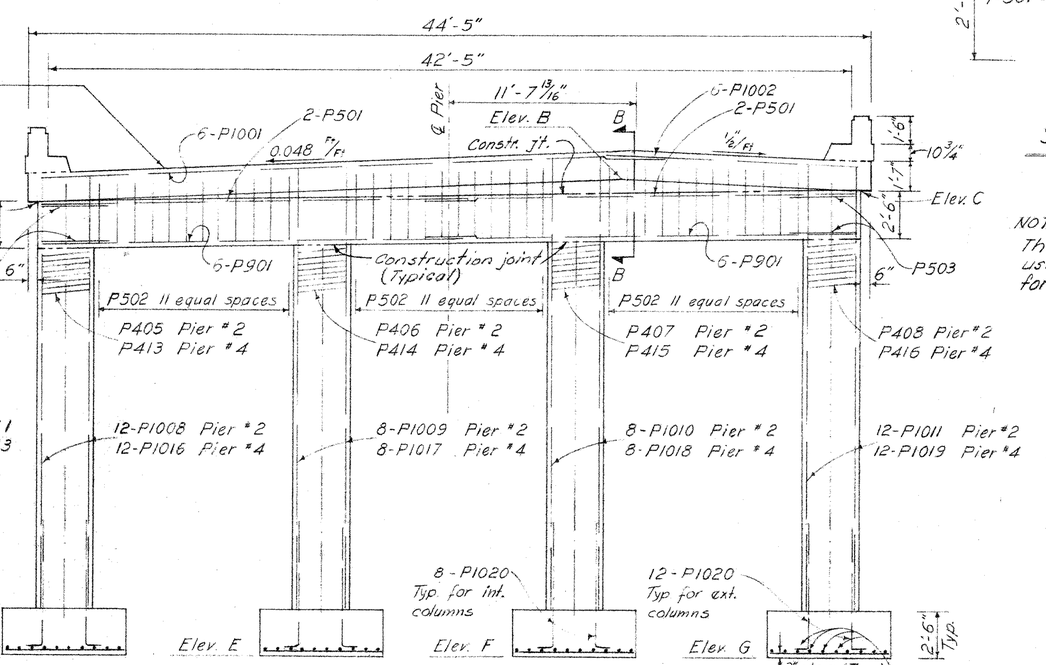


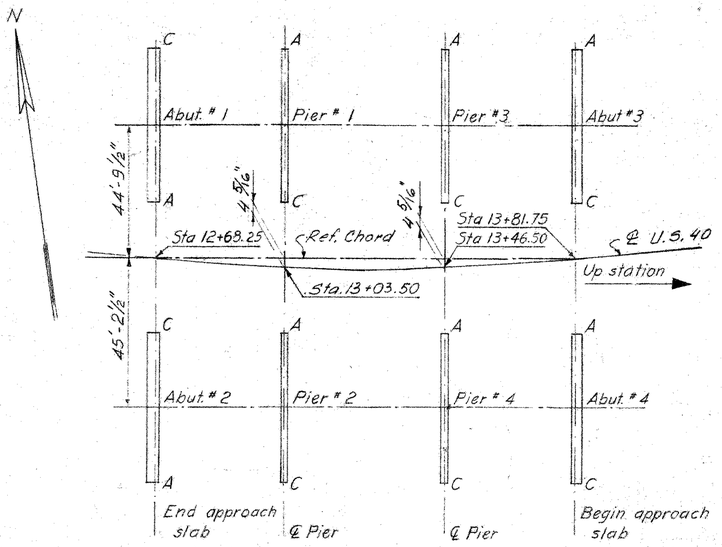
SECTION A-A

NOTE:
The pier cap shall not be used to support falsework for the deck slab.

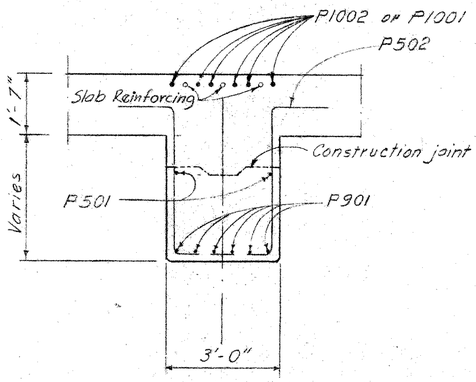


ELEVATION

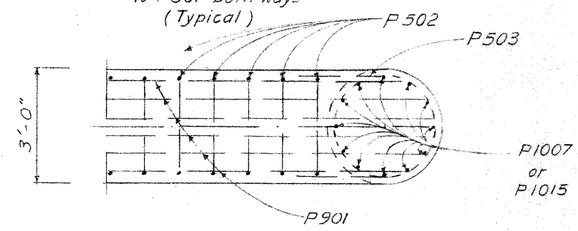




LOCATION PLAN



SECTION B-B



SECTION C-C

ELEVATIONS							
LOCATION	A	B	C	D	E	F	G
PIER #1	1208.73	—	1210.83	1181.0	1181.0	1181.0	1181.0
PIER #2	1210.17	1211.78	1211.40	1183.0	1184.0	1184.0	1184.0
PIER #3	1209.60	—	1211.70	1188.5	1188.5	1183.5	1183.5
PIER #4	1211.02	1212.63	1212.21	1187.0	1187.0	1187.0	1187.0

Slab seat Elevations computed at centerline Pier.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

PIER DETAILS
BRIDGE NO. BEL-40-0005 L AND R
USR OVER C.H. 114
BELMONT COUNTY STA. 12 + 68.25
STA. 13 + 81.75

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
N.W.U.	M.R.		H.H.	666	8-1 62	

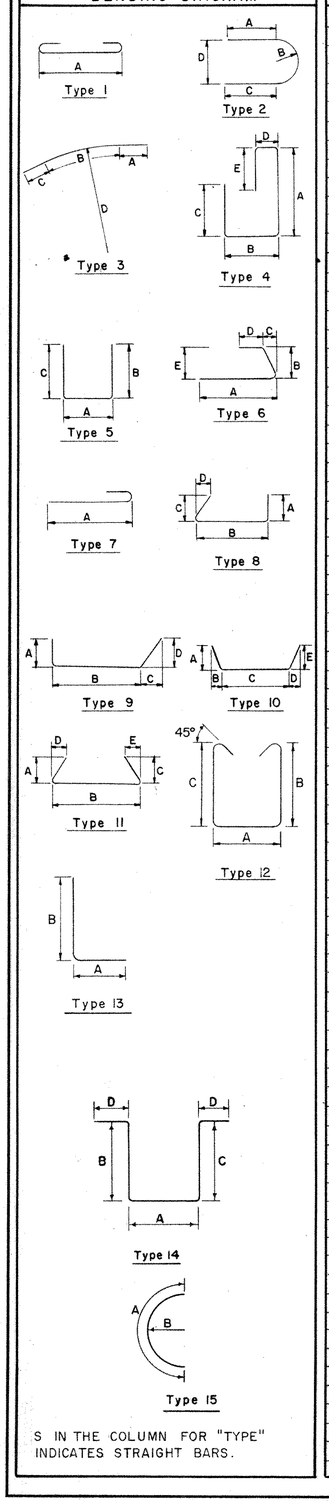
REINFORCING STEEL LIST

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

453
485

GUERNSEY COUNTY - BELMONT COUNTY
GUE - 40 - 23.88 BEL - 40 - 0.00

BENDING DIAGRAM



S IN THE COLUMN FOR "TYPE" INDICATES STRAIGHT BARS.

ABUTMENTS

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	F
R1001	16	23-6	1,618	S						
R1002	8	34-9	1,196	S						
R1003	8	12-2	419	S						
R 801	32	23-2	1,979	S						
R 802	32	9-0	769	13	8-6	0-9				
R 701	32	12-1	790	13	11-6	0-9				
R 601	40	9-4	561	10	0-10	0-10	7-0	0-10	0-10	
R 501	48	22-9	1,139	S						
R 502	320	6-7	2,197	5	2-8	2-1	2-1			
R 503	72	7-11	595	5	1-8	3-3	3-3			
R 504	72	8-9	657	5	1-8	3-8	3-8			
R 505	56	6-3	365	12	0-8	2-1	2-1			
R 506	40	2-11	122	5	1-8	0-9	0-9			
R 507	32	10-0	334	S						
R 508	80	7-7	632	13	0-6	7-2				
R 509	32	8-6	284	S						
R 510	16	11-6	192	S						
R 511	16	5-5	90	13	0-6	5-2				
R 512	16	4-3	71	S						
R 513	16	4-9	79	S						
R 514	8	3-6	29	S						
R 515	16	2-5	40	5	1-2	0-9	0-9			
R 401	144	5-5	521	5	1-9	1-11	1-11			
		TOTAL	14,679							

PIERS

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	F
P1001	12	34-9	1,794	S						
P1002	12	11-6	594	S						
P1003	24	23-2	2,392	S						
P1004	12	26-0	1,343	S						
P1005	8	26-9	921	S						
P1006	8	27-5	944	S						
P1007	12	28-1	1,450	S						
P1008	12	25-5	1,312	S						
P1009	8	24-10	855	S						
P1010	8	25-3	869	S						
P1011	12	25-8	1,325	S						
P1012	12	19-4	998	S						
P1013	8	20-1	691	S						
P1014	8	21-9	749	S						
P1015	12	21-5	1,106	S						
P1016	12	22-3	1,149	S						
P1017	8	22-8	780	S						
P1018	8	23-1	795	S						
P1019	12	23-6	1,213	S						
P1020	160	6-6	4,475	13	1-6	5-4				
P 901	48	23-2	3,781	S						
P 801	320	6-8	5,696	S						
P 501	16	21-0	350	S						
P 502	144	11-0	1,652	14	2-8	3-8	3-8	0-6		
P 503	16	7-3	121	2	1-7	1-3½	1-7	2-8¼		
			37,355							
		SPIRAL	6,062							
		TOTAL	43,417							

SUPERSTRUCTURE

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	F
A1069	264	39-7	44,966	S						
B1069	76	30-0	9,811	7	28-4					
C1069	76	26-5	8,639	7	24-9					
D1069	38	26-1	4,265	S						
E1069	38	18-7	3,039	S						
F1069	176	28-7	21,647	S						
G1069	88	13-6	5,112	S						
H1069	88	9-1	3,440	S						
J 601	88	22-4	2,952	S						
K 601	44	18-9	1,239	S						
M 701	412	23-1	19,439	S						
N 601	284	22-11	9,776	S						
O 501	12	22-6	282	S						
P 501	24	24-9	620	S						
R 969	40	23-8	3,219	S						
S 501	532	5-10	3,237	4	1-5	2-0	0-6	2-0	0-6	
T 501	532	2-6	1,387	5	1-5	0-8	0-8			
U 501	308	5-9	1,847	12	0-8	2-3	2-3			
		TOTAL	144,917							
X 501	80	14-6	—	S	} included with railing for payment.					
Y 501	32	18-2	—	S						
Z 501	32	9-9	—	S						

REPLACEMENT BARS

RE 401	1	5-5	—	5	1-9	1-11	1-11			
RE 402	1	5-3	—	15	5-3	1-3½				
RE 501	1	5-7	—	S						
RE 601	1	5-11	—	S						
RE 701	2	6-3	—	S						
RE 801	1	6-6	—	S						
RE 901	1	6-10	—	S						
RE1001	7	7-3	—	S						

SPIRAL REINFORCEMENT

MARK	NO.	LENGTH	CORE	PITCH	TURNS	SPACERS	WEIGHT
P401	1	22.73	32"	4½	64	4	415
P402	1	23.43	32"	4½	66	4	428
P403	1	24.13	32"	4½	68	4	441
P404	1	24.83	32"	4½	70	4	454
P405	1	22.17	32"	4½	63	4	409
P406	1	21.58	32"	4½	61	4	396
P407	1	21.99	32"	4½	62	4	402
P408	1	22.40	32"	4½	63	4	409
P409	1	16.10	32"	4½	46	4	298
P410	1	16.80	32"	4½	48	4	311
P411	1	17.50	32"	4½	50	4	324
P412	1	18.20	32"	4½	52	4	337
P413	1	19.02	32"	4½	54	4	350
P414	1	19.42	32"	4½	55	4	356
P415	1	19.82	32"	4½	56	4	363
P416	1	20.22	32"	4½	57	4	369
							TOTAL 6,062

NOTES:

SPIRAL REINFORCING BARS; The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap. The " No. of Turns" shown is the "Length" divided by the pitch, plus three turns (total number of closed coils), expressed as the nearest whole number.

Spiral reinforcing bars shall not have deformations but shall in other respects conform to item S-4. 1½ closed coils shall be provided at the ends of each spiral unit. Four steel channel, tee or angle spacers, weighing approximately 0.68 lb. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 lb. per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two where four are used indicate the bar size number.

RACKOFF ASSOCIATES
ENGINEERS COLUMBUS, OHIO

REINFORCING STEEL LIST
BRIDGE NO. BEL.-40-0005 L AND R
USR OVER C.H. 114

BELMONT COUNTY STA. 12 + 68.25
STA. 13 + 81.75

Designed	Drawn	Traced	Checked	Reviewed	Date	Revised
H.H. N.W.U.	M.R.		N.W.U. H.H.	666	8-1 62	

GENERAL INFORMATION

INTRODUCTION

The project consists of an addition of the Eastbound lane of US# 40 and a slight realignment, widening and resurfacing of the Westbound lane of US# 40. The project begins 1550 feet east of SR 513, extends eastward, and terminates at the Guernsey and Belmont County lines, immediately east of Fairview. Also included in this report is the US# 40 and Co. Rd. 1111 Interchange and associated ramps and service road.
The proposed grade indicates cuts, ranging between 0 and 60 feet in depth, and fill embankments, ranging between 0 and 30 feet in height.

GEOLOGY OF THE PROJECT

The project is entirely located on the highly dissected Upland Peneplain Region, where thin residual soil overlyerites shale, sandstone, indurated clay, limestone, and associated coal and under clay of the Conemaugh formation, Pennsylvanian age. Several areas of unstable embankment foundation and unstable slope conditions were observed. Stratigraphic rock sections were observed and measured along the entire project.

EXPLORATION

The exploration was made by means of truck-mounted mechanical earth auger, hand auger (in areas of difficult access), and rotary type drill rigs, between December 11, 1961 and March 13, 1962. Also included in this report are the logs of borings made for the soil profile investigation, designated SUF-40-22.07; SUF-BEL-40-(28.10)+(7.06)(0.70); and SUF-40-25.21, Supplement between 1-11-62 and August 11, 1962.

INVESTIGATIONAL DISCLOSURES

Borings disclose that materials occurring immediately below proposed grade consist predominantly of silt clays and clays, in the A-6 and A-7-6 classifications, as well as bedrock. The following are general comments regarding the embankment foundation materials and areas where bedrock is anticipated to be encountered.

Stations 418+50 to 431+50, both grades, ditchlines and backslopes in shale and sandstone bedrock.

Stations 450+00 to 457+00, both grades and ditchlines in indurated clay and shale, backslopes in shale, indurated clay, coal and limestone bedrock.

Stations 455+50 to 460+00, right ditchline, grade and backslope in shale, indurated clay, sandstone, limestone and coal bedrock.

Stations 470+50 to 472+50, right ditchline, grade and lower portion of backslope in shale bedrock.

Station 501+50 to 502+50, right ditchline, grade and lower portion of backslope in shale bedrock.

Stations 513+00 to 516+00, right ditchline, grade and backslope in shale and indurated clay bedrock.

Stations 520+00 to 527+00, right ditchline, grade and backslope in very weathered bedrock.

Stations 527+00 to 530+00, both grades, ditchline and backslopes in shale bedrock.

Stations 530+00 to 532+00, left ditchline, grade and backslope in shale bedrock.

Stations 532+00 to 534+00, both grades, ditchlines and backslopes in shale bedrock.

Stations 534+00 to 536+00, left ditchline, grade and backslope in shale bedrock.

Stations 536+00 to 538+00, lower portion of right ditchline, grade and backslope in shale bedrock.

Stations 538+00 to 540+00, both grades, ditchlines and lower portion of backslopes in indurated clay bedrock, shale in the upper portions of the backslope.

Stations 571+50 to 576+00, right ditchline, grade and backslope in shale, sandstone, indurated clay and limestone bedrock.

Stations 605+50 to 607+00, lower portion right ditchline grade and backslope in shale bedrock.

Stations 607+00 to 620+00, both grades, ditchlines and backslopes in shale, sandstone and coal bedrock.

Stations 619+00 to 620+00, left ditchline and lower portion of the backslope in shale bedrock.

Stations 622+00 to 626+00, both grades, ditchlines and backslopes in shale, indurated clay, coal and limestone bedrock.

Stations 647+50 to 652+00, right ditchline, grade and backslope in shale bedrock.

Embankment foundation materials are largely comprised of silt clays and clays, in the A-6a and A-7-6 classifications, having moisture contents within the plastic range. It may be noted that embankment foundation requires shallow soil cover overlying clayey bedrock surface between approximately stations 447+00 and 448+00, 462+50 and 467+00, 470+00 and 472+50, 493+00 and 500+00, 503+00 and 511+00, 521+00 and 522+00, 528+50 and 532+50, 533+00 and 534+50, 550+00 and 554+00, 572+00 and 576+00, 594+00 and 603+00, 610+00 and 618+00, 619+00 and 627+00, 642+00 and 647+00, and 652+00 and 657+00.

CUT/FILL

Service Road - cuts, maximum 15 feet in depth; fill embankments, maximum 10 feet in height.

Ramp A - cuts, maximum 7 feet in depth; fill embankments, maximum 10 feet in height.

Ramp B - cuts, maximum 10 feet in depth.

Ramp C - cuts, maximum 7 feet in depth; fill embankments, maximum 10 feet in height.

Ramp D - cut, maximum 17 feet in depth.

Co. Rd. 1111 (A) - cuts, maximum 15 feet in depth.

Relocated Co. Rd. 1111 - cuts, maximum 15 feet in depth; fill embankments, 35 feet in height.

INVESTIGATIONAL DISCLOSURES

Service Road - Materials occurring immediately below proposed grade consist predominantly of silt clay, and clays, in the A-6a and A-7-6 classifications, as well as shale, sandstone, indurated clay and coal bedrock, anticipated to be encountered at grade between approximately stations 13+00 to 15+00, 23+50 to 29+00 and 48+00 to 52+00.

LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS- 583 SAMPLES TESTED

DESCRIPTION	A.A.S.H.O. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
Gravel and/or stone fragments with sand	A-1-b(0)	A-1-b	56	7	19	10	12	21	5	21	6
Coarse and fine sand	---	A-3a	7	76	10	7	21	NP	NP	10	1
Gravel and/or stone fragments with sand and silt	A-2-4(0)	A-2-4	51	16	12	15	16	26	5	14	13
Stone fragments with sand, silt, and clay	A-2-6(0)	A-2-6	66	3	11	13	14	35	12	17	6
Sandy silt	A-4 (5)	A-4a	24	8	10	27	28	30	6	18	27
Silt	A-4 (8)	A-4b	1	3	7	53	36	32	7	24	10
Elastic silt and clay	A-5 (9)	A-5	0	8	9	38	37	45	0	33	6
Silt and Clay	A-6 (7)	A-6a	19	5	6	30	38	36	12	16	227
Silty clay	A-6 (11)	A-6b	13	6	7	26	10	33	17	18	26
Elastic clay	A-7-5(4)	A-7-5	9	4	5	27	54	62	19	35	29
Clay	A-7-6(8)	A-7-6	8	2	4	32	56	70	32	23	129
Underclay			VISUAL CLASSIFICATION								1
Coal			VISUAL CLASSIFICATION								
Coal blossom			VISUAL CLASSIFICATION								
Weathered indurated clay			VISUAL CLASSIFICATION								17
Weathered shale			VISUAL CLASSIFICATION								15
Indurated clay			VISUAL CLASSIFICATION								5
Shale			VISUAL CLASSIFICATION								46
Sandstone			VISUAL CLASSIFICATION								9
Limestone			VISUAL CLASSIFICATION								
Various other materials			VISUAL CLASSIFICATION								

Bed and/or Topsoil - X' - Approximate depth.

Peat material

Auger boring - plan view.

Drive sample and/or core boring - plan view.

Auger boring plotting to vertical scale only.

Drive sample and/or core boring plotted to vertical scale only.

Number of blows for "Standard Penetration" test.
X=number of blows for the first 6 inches.
X=number of blows for the second 6 inches.

Water content nearly equal to or greater than liquid limit.

Indicates a non-plastic material with high water content.

Free water

Indicates broken rock interval.

NOTE: Figures beside borings indicate water content in percent, e.g. 15

INVESTIGATIONAL DISCLOSURES (Cont'd)

Embankment foundation materials are comprised largely of silt clays and clays, in the A-6 and A-7-6 classifications, having moisture contents within the plastic range, as well as shale, sandstone and indurated clay bedrock.

Ramp A - Materials occurring immediately below proposed grade and in the embankment foundation consist of sandstone bedrock.

Ramp B - Materials occurring immediately below proposed grade consist of sandy silts, silt clays and clays, in the A-4b, A-5 and A-7-6 classifications, having moisture contents in the lower portion of the plastic range, as well as shale and indurated clay bedrock, anticipated to be encountered between approximately stations 11+00 and 17+00 and 23+70 to 25+00.

Ramp C - Materials occurring immediately below proposed grade consist of sandstone and shale bedrock.

Embankment foundation materials consist of sandy silts, silt clays and clays, in the A-4a, A-5 and A-7-6 classifications, having moisture contents in the lower portion of the plastic range.

INVESTIGATIONAL DISCLOSURES (Cont'd)

Ramp D - Materials occurring immediately below grade and in the backslopes consist of shale, sandstone, indurated clay and possibly coal bedrock.

Co. Rd. 1111(A) - Materials occurring immediately below proposed grade consist of gravels and frost susceptible silt, in the A-2-6 and A-4b classifications.

Relocated Co. Rd. 1111 - Materials occurring immediately below proposed grade consist of silt clays and clays, in the A-6a and A-7-6 classifications having moisture contents in the lower portion of the plastic range, as well as shale and indurated clay bedrock, anticipated to be encountered between approximately stations 8+00 and 19+00.

Embankment foundation materials are comprised of silt clays and clays, in the A-6 and A-7-6 classifications, having moisture contents in the lower portion of the plastic range, as well as shale, indurated clay, sandstone and coal bedrock.

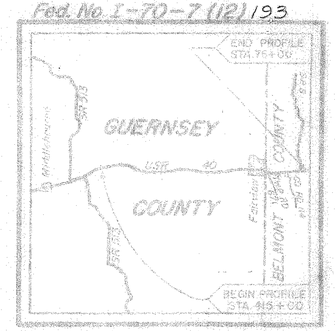
Revised - 9/6/62
REVISED-10/8/62

SOIL PROFILE
GUERNSEY - BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY TESTING LABORATORY
COLUMBUS, OHIO

1 / 79

NOTE. INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS OBTAINED SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. THE STATE OF OHIO DOES NOT GUARANTEE THE ACCURACY OF THIS DATA AND IT IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT.

Fed. No. I-70-7 (12) 193



LOCATION MAP

Recon. - F.L.H. - 1/15/62

Drafting - Auger - W.A.G., R.M.R., T.R.S. - 12/19/61 to 3/7/62
Cores - M.R.B., C.A.P., A.W., J.W. - 2/24/62 to 3/13/62

Drafting - D.M., W.H.H., L.J.H., D.A., S.M.S., K.M.S., C.L.S. - 4/19/62.

Supplement - 8/ /62

Recon. - J.K.M. - 7/24/62

Drafting - Auger - P.C.E. ; B.D.L. - 7/25/62 - 7/31/62
and - 8/13/62 - 8/14/62

Cores - W.L.T. - 7/31/62 - 8-1-62

Drafting - R.D.S. - 9/6/62

Revised - 10/8/62

REVISED-10/8/62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY TESTING LABORATORY
COLUMBUS, OHIO

2/79

SUMMARY OF SOIL TEST DATA

NOTE: NP shown in Liquid Limit and Plasticity Index columns indicates that the material is non-plastic.
*Denotes sample taken at or near grade.

STATION & OFFSET	DEPTH From-To	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SOIL CLASS.
503+00 140'Rt	0.0-2.0	0	6	5	39	50	42	16	24	A-7-6
	2.0-4.0	0	10	6	33	51	51	24	23	A-7-6
	4.0-7.0	3	3	3	31	60	50	30	17	A-6a
	7.0-10.0	Red Weathered Indurated Clay							10	Visual
	10.0-12.0	Red Weathered Indurated Clay							9	Visual
	12.0-15.0	Red Weathered Indurated Clay							9	Visual
503+45 100'Rt	0.0-1.5	0	2	7	52	29	33	17	20	A-7-6
	1.5-4.0	0	0	4	35	61	57	29	24	A-7-6
	4.0-7.0	Brown Weathered Indurated Clay							12	Visual
	7.0-11.0	Brown Weathered Indurated Clay							10	Visual
503+60 130'Rt	0.0-1.5	0	2	6	29	51	50	16	31	A-7-6
	1.5-3.0	0	1	5	27	67	56	33	33	A-7-6
	3.0-4.0	0	0	4	32	64	45	21	36	A-7-6
	4.0-5.0	0	0	4	27	69	43	21	35	A-7-6
503+70 170'Rt	0.0-2.0	0	4	17	28	51	35	14	22	A-6a
	2.0-3.0	0	4	15	32	49	37	15	20	A-6a
503+85 CL	0.0-1.5	33	5	20	21	21	25	5	10	A-1a
503+00 CL	0.0-2.0	32	4	11	24	29	34	11	20	A-6a
502+00 150'Rt	0.0-6.0	0	1	2	27	70	63	35	32	A-7-6
	6.0-8.0	0	0	2	30	68	53	33	20	A-7-6
	8.0-9.0	10	4	3	27	56	53	28	15	A-7-6
	9.0-13.0	Red Broken Indurated Clay							11	Visual
	13.0-15.0	Red Broken Indurated Clay							6	Visual
	15.0-17.0	Gray Broken Shale							0	Visual
502+00 CL	0.0-5.0	15	4	10	32	41	31	11	17	A-6a
	5.0-6.0	35	6	6	30	23	30	11	12	A-6a
	6.0-11.0	25	6	6	30	33	36	16	16	A-6b
	11.0-12.5	10	3	3	29	55	40	17	13	A-7-6
	12.5-13.0	Brown Weathered Shale							6	Visual
502+00 CL	0.0-3.0	35	5	10	23	27	20	0	10	A-1a
502+00 CL	0.0-1.5	0	0	1	9	90	60	30	30	A-7-6
502+00 140'Rt	0.0-6.0	0	6	7	36	51	52	20	25	A-7-6
502+00 100'Rt	0.0-5.0	10	2	7	30	53	45	16	25	A-7-6
501+00 400'Rt	0.0-5.0	0	0	1	17	82	72	35	32	A-7-6
	5.0-9.0	22	3	10	27	38	37	17	13	A-6a
	9.0-14.0	0	1	5	39	55	40	18	15	A-7-6
	14.0-19.0	0	1	5	34	60	38	14	11	A-6a
	19.0-20.0	0	0	3	32	65	36	11	11	A-6a
	20.0-30.0	0	1	1	32	66	30	13	12	A-6a
500+00 75'Rt	0.0-1.0	5	2	1	19	73	51	26	10	A-7-6
499+00 CL	0.0-2.0	56	5	2	15	30	23	12	10	A-6a
498+00 CL	0.0-1.0	0	5	12	35	37	51	18	32	A-7-5 *
	1.0-12.0	0	0	8	35	40	32	12	22	A-6a
497+00 150'Rt	0.0-1.0	14	7	11	23	45	101	11	26	A-7-6
	1.0-10.0	1	5	20	35	39	36	11	19	A-6a
	10.0-15.0	9	3	9	29	50	35	12	18	A-6a
	15.0-21.0	7	2	7	32	51	30	10	13	A-6a
	21.0-25.0	Brown Weathered Indurated Clay							6	Visual
497+00 CL	0.0-3.0	15	4	1	32	48	38	12	19	A-6a *
	3.0-10.0	7	3	11	27	52	43	17	28	A-7-6
495+00 150'Rt	0.0-5.0	Brown Broken Sandstone							8	Visual *
	5.0-9.0	Brown Broken Sandstone							9	Visual *
495+00 CL	0.0-2.0	15	19	9	12	45	32	10	21	A-1a *
	2.0-5.0	Black Coal								Visual
494+00 CL	0.0-5.0	0	4	10	35	34	33	12	18	A-6a *
	5.0-10.0	6	13	6	35	30	39	17	18	A-6b
493+00 25'Rt	0.0-5.0	2	3	7	22	60	46	25	21	A-7-6
	5.0-10.0	2	2	6	21	70	39	12	17	A-6a
	10.0-15.0	6	1	8	31	60	32	16	12	A-6a
	15.0-20.0	Brown Broken Indurated Clay							10	Visual
492+00 150'Rt	0.0-5.0	5	0	8	36	50	30	12	11	A-6a
	5.0-10.0	1	3	6	30	60	46	20	20	A-7-6
	10.0-11.0	0	3	3	21	73	37	23	16	A-7-6
	11.0-15.0	0	1	1	27	71	42	16	14	A-7-6
	15.0-21.0	0	1	1	32	66	45	17	14	A-7-6
	21.0-25.0	Gray Broken Indurated Clay							5	Visual
492+00 100'Rt	0.0-5.0	0	4	6	27	63	34	23	18	A-7-6
	5.0-9.0	0	1	2	17	80	51	28	19	A-7-6
	9.0-12.0	0	0	1	17	82	42	15	19	A-7-6
	12.0-20.0	Gray Broken Shale							6	Visual

STATION & OFFSET	DEPTH From-To	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SOIL CLASS.
512+00 200'Rt	0.0-6.0	0	8	13	33	46	36	18	20	A-6a
475+00 CL	0.0-2.0	15	6	8	29	42	37	12	20	A-6a
	2.0-5.0	3	5	5	35	50	35	13	20	A-6a
475+00 70'Rt	0.0-5.0	0	3	3	40	54	35	11	15	A-6a
473+00 110'Rt	0.0-2.0	7	2	4	38	49	30	15	16	A-6a
	2.0-4.5	0	2	5	35	58	42	18	21	A-7-6
475+00 220'Rt	0.0-2.0	13	1	3	32	51	48	25	20	A-7-6
	2.0-5.0	9	2	2	32	54	39	15	21	A-6a
471+00 70'Rt	0.0-4.0	47	6	9	21	17	20	7	13	A-1a
470+00 100'Rt	0.0-4.0	6	7	3	31	60	51	22	25	A-7-6
469+00 100'Rt	0.0-6.0	Brown Broken Shale							9	Visual
128+00 100'Rt	0.0-5.0	17	10	4	23	46	43	21	22	A-7-6
481+00 200'Rt	0.0-5.0	1	5	6	32	56	41	16	21	A-7-6
482+00 25'Lt	0.0-2.0	21	2	2	25	51	45	17	17	A-7-6 *
	2.0-5.0	20	3	4	27	46	38	11	10	A-6a *
	5.0-8.0	Gray Broken Shale							7	Visual
482+00 130'Rt	0.0-4.0	32	7	6	17	38	30	15	10	A-6a
480+00 110'Rt	0.0-3.5	11	5	5	37	42	48	19	21	A-7-6
480+00 200'Rt	0.0-1.5	0	0	1	20	79	67	27	26	A-7-6
479+00 CL	0.0-3.0	0	1	2	19	78	65	29	22	A-7-6 *
	3.0-9.0	Gray Broken Shale							7	Visual
	9.0-15.0	Brown Broken Shale							8	Visual
478+00 75'Rt	0.0-5.0	23	3	3	30	41	31	12	21	A-6a
475+00 150'Rt	0.0-4.0	20	2	3	33	42	40	14	14	A-6a
477+00 60'Rt	0.0-5.0	0	3	2	21	74	48	21	27	A-7-6 *
	5.0-11.0	0	2	2	24	72	37	11	15	A-6a
	11.0-16.0	0	3	2	25	70	33	15	11	A-6a
477+00 30'Lt	0.0-3.0	Brown Silty Clay								Visual
100+00 75'Rt	0.0-5.0	15	7	4	17	57	35	14	27	A-6a
	5.0-10.0	22	4	4	26	44	35	11	18	A-6a
	10.0-12.0	Brown Broken Shale							9	Visual
100+00 30'Lt	0.0-3.0	Red Clay								Visual
	3.0-4.0	Brownish-Red Clay								Visual
100+00 50'Rt	0.0-5.0	10	5	5	13	67	46	23	13	A-7-6
	5.0-10.0	0	0	5	15	80	41	17	11	A-7-6
	10.0-13.0	Gray Broken Shale							10	Visual
100+00 100'Rt	0.0-4.0	29	12	3	22	30	38	19	21	A-7-6 *
100+00 160'Rt	0.0-7.0	21	3	8	30	38	39	11	23	A-6a
100+00 100'Rt	0.0-5.0	11	2	4	32	47	46	21	36	A-7-6
99+00 150'Rt	0.0-4.0	0	0	2	31	62	33	11	23	A-6a
	4.0-5.0	0	1	3	25	67	37	11	20	A-6a
502+00 100'Rt	0.0-3.0	0	1	1	18	79	42	16	17	A-7-6
	3.0-6.0	10	11	6	33	31	31	11	9	A-6a
501+50 CL	0.0-4.0	21	2	7	31	38	36	11	19	A-6a *
	4.0-10.0	20	7	14	30	29	40	13	11	A-6a
	10.0-12.0	Gray Weathered Shale							9	Visual
500+00 110'Rt	0.0-1.0	59	2	10	15	14	31	9	12	A-2-5
507+50 70'Rt	0.0-5.0	38	4	2	22	29	35	21	22	A-7-6
507+50 130'Rt	0.0-4.0	23	4	3	27	43	41	15	23	A-7-6
507+50 190'Rt	0.0-5.0	36	4	5	23	33	51	22	26	A-7-6
506+50 90'Rt	0.0-5.0	12	1	2	32	53	34	16	26	A-7-6
506+50 130'Rt	0.0-4.0	25	2	2	34	37	50	20	30	A-7-6
	4.0-8.0	Black Coal Blossom								Visual
506+50 190'Rt	0.0-5.0	29	1	3	24	43	47	21	32	A-7-6
506+50 70'Rt	0.0-5.0	8	2	3	16	72	38	11	16	A-6a
506+50 130'Rt	0.0-5.0	4	2	2	22	53	34	16	16	A-7-6
506+50 190'Rt	0.0-5.0	10	3	9	10	34	35	11	15	A-6a
510+20 30'Lt	0.0-2.5	Brown Clay								Visual
	2.5-4.0	Red Clay								Visual
	4.0-5.0	Red and Gray Clay								Visual
511+00 70'Rt	0.0-5.0	36	1	2	36	35	38	12	19	A-6a
511+00 110'Rt	0.0-4.0	20	2	3	37	57	52	23	27	A-7-6
	4.0-5.0	Black Coal Blossom								Visual

STATION & OFFSET	DEPTH From-To	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SOIL CLASS.
511+00 180'Rt	0.0-6.0	0	2	2	25	71	51	23	24	A-7-6
512+80 10'Rt	0.0-1.0	0	0	2	23	75	61	35	25	A-7-6
	1.0-3.0	0	3	5	28	67	43	15	17	A-7-6 *
	3.0-5.5	23	9	8	19	39	31	11	10	A-6a *
	5.5-12.0	Gray Broken Shale							7	Visual
516+00 130'Lt	0.0-5.0	36	8	7	25	29	31	11	9	A-6a *
	5.0-10.0	33	12	8	23	30	33	11	8	A-6a
	10.0-17.0	32	7	4	28	29	30	12	8	A-6a
	17.0-20.0	Black Coal								Visual
	20.0-25.0	Gray Under Clay								Visual
516+00 170'Lt	0.0-6.0	29	8	5	20	37	31	16	10	A-6a
	6.0-12.0	0	2	7	32	59	39	23	25	A-7-6
	12.0-18.0	Gray Broken Shale							9	Visual
510+40 10'Lt	0.0-5.0	51	6	9	21	13	30	11	9	A-6a *
	5.0-10.0	24	8	6	25	20	31	8	10	A-1a
	10.0-16.0	33	9	5	21	29	35	11	10	A-6a
	16.0-20.0	Black Coal							9	Visual
	20.0-22.0	Gray Under Clay							9	Visual
521+00 150'Rt	0.0-5.0	17	8	11	30	39	31	11	21	A-6a
521+50 125'Rt	0.0-4.5	53	4	3	20	33	31	11	22	A-6a
522+00 190'Lt	0.0-5.0	8	14	9	20	53	40	15	25	A-6a
522+00 70'Rt	0.0-6.0	37	2	0	10	37	30	14	21	A-6a
522+00 150'Rt	0.0-5.0	31	6	2	20	35	45	21	38	A-6a
523+00 190'Lt	0.0-5.5	32	9	3	9	51	40	21	22	A-7-6
523+00 150'Rt	0.0-5.0	6	2	0	34	55	30	15	16	A-6a
525+00 190'Lt	0.0-5.0	0	5	5	32	59	34	11	25	A-6a
525+00 CL	0.0-5.0	0	1	2	28	69	47	21	22	A-7-6
525+00 30'Lt	0.0-3.0	Yellowish-Brown Clay								Visual
	3.0-4.5	Brown Clay								Visual
	4.5-7.0	Gray Silty Clay								Visual
526+00 120'Rt	0.0-5.0	0	5	3	21	70	51	21	26	A-7-6
	5.0-11	Gray Broken Shale								Visual
530+00 CL	0.0-11.0	51	3	3	17	26	31	11	11	A-6a
529+00 150'Rt	0.0-5.0	21	7	11	22	39	32	9	5	A-6a
	5.0-10.0	12	10	6	22	50	45	19	8	A-6a
	10.0-16.0	22	8	1	31	38	33	11	10	A-6a
	16.0-21.0	17	11	7	31	34	37	11	10	A-6a
	21.0-25.0	10	9	7	37	37	35	11	12	A-6a
	25.0-27.0	Black Coal								Visual
531+00 110'Rt	0.0-6.5	32	9	3	22	35	39	20	21	A-7-6
531+00 130'Rt	0.0-3.0	31	9	10	22	27	36	12	16	A-7-6
	3.0-5.0	0	3	5	27	65	46	15	12	A-7-6
531+00 150'Rt	0.0-3.0	7	17	25	25	26	25	NP	10	A-1a
	3.0-5.0	18	18	11	27	26	34	11	29	A-4a
532+00 100'Rt	0.0-6.0	13	2	3	23	59	40	17	22	A-7-6
529+70 175'Rt	0.0-5.0	10	12	7	33	30	33	11	16	A-6a
	5.0-10.0	0	0	2	31	67	41	13	12	A-7-6
533+00 CL	0.0-5.0	0	2	3	31	64	52	27	23	A-7-6
	5.0-10.0	Gray Broken Shale							10	Visual
533+10 30'Lt	0.0-2.5	Brown Clay								Visual
	2.5-3.5	Black Clay								Visual
	3.5-7.0	Brown Silty Clay								Visual
535+50 100'Rt	0.0-4.0	0	3	3	24	70	50	30	17	A-7-6
	4.0-9.0	Gray Broken Shale							9	Visual
	9.0-11.0	Gray Broken Shale							9	Visual
539+00 100'Rt	0.0-5.0	11	10	6	21	35	36	21	21	A-7-6
533+10 30'Lt	1.0-2.0	Red Clay								Visual
	3.0-4.0	Gray Silty Clay								Visual
541+00 100'Rt	0.0-6.0	10	6	6	30	38	39	16	17	A-6a
542+20 17'Rt	0.0-2.0	50	1	2	19	28	36	12	26	A-7-6
	2.0-4.0	50	1	2	17	30	33	11	22	A-6a
	4.0-7.0	61	1	1	18	18	37	12	11	A-6a *
	7.0-10.0	Gray Broken Shale							9	Visual *
541+00 100'Rt	0.0-6.0	16	5	7	33	39	34	10	23	A-7-6
	6.0-8.0	35	6	6	30	23	30	12	21	A-6a
	8.0-13.5	50	5	10	22	13	30	11	12	A-6a
	13.5-10.0	Gray Weathered Shale							10	Visual
545+00 CL	0.0-5.0	0	6	4	31	59	38	17	24	A-6a
	5.0-11.0	22	3	3	34	38	38	15	26	A-7-6
	11.0-16.0	19	10	3	35	33	35	15	12	A-7-5
	16.0-20.0	Black Coal								Visual
	20.0-24.0	Gray Under Clay								Visual
	24.0-31.0	Gray Broken Shale							12	Visual

STATION & OFFSET	DEPTH From-To	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SOIL CLASS.
545+00 150'Rt	0.0-3.0	7	6	11	31	45	43	11	10	A-6a
	3.0-8.0	26	3	5	10	56	36	6	12	A-1-b
	8.0-13.0	38	2	4	16	40	32	12	20	A-6a
	13.0-18.0	32	1	4	16	47	36	14	13	A-6a
	18.0-22.0	29	1	4	29	37	38	11	38	A-6a
545+00 200'Rt	0.0-4.0	50	1	4	10	35	32	9	12	A-6a
	4.0-8.0	36	2	3	20	39	47	18	27	A-7-6
	8.0-12.0	45	3	4	24	23	42	18	20	A-7-6
	12.0-16.0	24	7	9	31	17	43	14	29	A-7-6
546+00 75'Rt	0.0-11.0	11	1	6	21	34	34	11	13	A-6a
547+50 110'Lt	0.0-5.0	33	11	6	33	26	32	11	9	A-6a
	5.0-11.5	23	10	10	31	21	27	11	11	A-1a
547+00 CL	0.0-5.0	Gray Broken Shale							5	Visual
	5.0-10.0	Gray Broken Shale							4	Visual
548+50 100'Rt	0.0-5.0	0	2	3	35	60	33	11	16	A-6a
	5.0-10.0	0	6	14	37	43	41	15	17	A-7-6
@@@ 548+55 30'Lt	0.5-2.5	Brown Silty Clay								Visual
550+32 150'Lt	0.0-3.0	68	5	6	13	11	35	6	17	A-1-b
550+00 120'Lt	0.0-5.0	23	1	9	15	52	37	11	15	A-6a
	5.0-8.0	22	3	11	13	31	35	11	15	A-6a
	8.0-15.0	15	4	15	31	35	33	11	18	A-6a
553+00 CL	0.0-6.0	2	3	7	36	52	39	15	17	A-6a
	6.0-12.0	28	1	4	30	42	41	13	11	A-7-6
553+00 CL	0.0-4.0	0	0	2	30	68	35	11	17	A-6a
	4.0-7.0	0	1	2	31	66	38	13	19	A-6a *
	7.0-10.0	0	2	7	32	59	39	12	16	A-6a *
554+00 100'Rt	0.0-5.0	10	3	3	21	34	32	25	30	A-7-6
@@@ 555+25 30'Lt	1.0-3.5	Brownish-Gray Clay								Visual
557+00 70'Rt	0.0-5.0	1	6	7	31	52	30	10	30	A-6a
557+00 100'Rt	0.0-4.0	16	3	6	32	40	35	11	24	A-6a
559+00 CL	0.0-6.0	0	0	3	23	73	37	13	19	A-6a
	6.0-7.0	0	2	7	21	69	33	13	19	A-6a *
	7.0-10.0	0	2	7	19	72	34	12	17	A-6a *
560+00 100'Rt	0.0-6.0	10	2	3	21	64	32	25	30	A-7-6
560+50 CL	0.0-3.0	0	2	3	16	78	40	11	17	A-6a *
	3.0-5.0	Gray Broken Shale								Visual *
@@@ 562+15 30'Lt	1.0-3.5	Brown Clay								Visual
	3.5-4.5	Brown Silty Clay								Visual

@@@ – Borings taken from GUE-BEL-40-(25)9(27.96)0.00

REVISED-10/ 9 /62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY TESTING LABORATORY
COLUMBUS, OHIO

3/79

SUMMARY OF SOIL TEST DATA(AASHO)

NP,NP shown in Liquid Limit and Plasticity Index columns indicates that the material is non-plastic.
*Denotes sample taken at or near grade.

STATION & OFFSET		DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS
@@581+05	30'Lt.	0.6- 3.0	Brown Clay								Visual
		3.0- 11.0	Grey Broken Shale								Visual
		11.0 -11.5	Brown Broken Sandstone								Visual
@@582+05	30'Lt.	0.2- 4.0	Brown Silty Clay								Visual *
		4.0- 5.0	Brown Silty Clay								Visual
598+00	15'Rt.	0.3-3.0	18	5	8	28	35	37	15	15	A-6b
		3.0-7.0	0	0	1	50	49	35	16	17	A-7-6
		7.0-16.0	0	1	2	39	58	36	20	19	A-7-6
600+00	40'Rt.	0.3-3.0	28	5	6	16	45	31	11	13	A-6b
602+00	0.0'Rt.	0.3-2.0	36	2	1	19	42	37	17	17	A-6b
		2.0-6.0	18	1	3	28	50	36	15	15	A-6b
		6.0-16.0	Gray Broken Shale							17	Visual
604+50	170'Rt.	0.3-3.0	10	2	5	36	46	30	10	21	A-6a
		3.0-5.0	21	15	10	23	31	NP	NP	15	A-4b
		5.0-7.0	Gray Broken Shale							9	Visual
606+00	150'Rt.	0.3-3.0	12	1	7	33	47	31	11	20	A-6a
608+00	25'Rt.	0.3-3.0	17	1	12	29	41	32	14	22	A-6b
610+00	105'Rt.	0.3-2.0	0	12	3	55	30	23	7	20	A-4b
		2.0-5.0	11	5	7	36	41	32	11	21	A-6a
		5.0-11.0	0	1	5	35	59	33	11	16	A-6a
		11.0-13.5	0	1	4	36	59	37	15	20	A-6a
612+00	135'Rt.	0.3-3.0	0	1	10	59	30	28	11	25	A-6a
		3.0-7.0	0	5	5	54	36	29	11	17	A-6a
		7.0-13.0	0	2	4	54	40	31	7	25	A-6a
		13.0-15.0	0	2	4	54	40	31	8	24	A-6b
		15.0-15.5	Gray Broken Shale							10	Visual
614+00	150'Rt.	0.3-3.0	0	2	4	51	43	35	0	20	A-4b
		3.0-5.0	11	6	12	36	35	28	11	17	A-6a
		5.0-8.0	0	1	5	34	60	32	12	16	A-6a
		8.0-15.0	Gray Broken Shale							10	Visual
616+00	130'Lt.	0.3-3.0	0	5	8	37	50	35	9	20	A-6b
		3.0-5.5	0	2	11	49	38	25	12	22	A-7-6
		5.5-7.5	20	3	20	40	31	NP	NP	12	A-4b
618+00	165'Lt.	0.3-3.0	0	7	10	46	37	32	11	23	A-6a
620+00	70'Rt.	0.3-1.5	10	2	15	30	43	32	11	18	A-6a
		1.5-7.0	0	3	5	43	51	43	9	20	A-7
		7.0-9.0	Gray Broken Shale							16	Visual *
		9.0-11.0	Gray Broken Shale							12	Visual *
@@@ 623+20	30'Lt.	0.6-2.5	Brown Clay								Visual
		2.5-5.0	Brown Clay								Visual
624+00	115'Lt.	0.3-3.0	24	2	10	20	21	24	8	17	A-7-5
		3.0-5.0	0	3	5	50	42	30	5	16	A-4b *
		5.0-8.0	0	2	7	46	45	35	15	16	A-6b
		8.0-10.0	24	1	11	32	32	30	9	17	A-6a
		10.0-13.0	0	1	13	39	47	33	11	21	A-6a
		13.0-15.0	0	1	13	39	47	33	11	21	A-6a
		15.0-21.0	0	1	5	45	49	35	14	21	A-6a
		21.0-22.0	0	1	7	45	47	32	12	25	A-6a

STATION & OFFSET		DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS
500+00	130'Rt.	0.0-6.0	12	5	12	31	20	38	5	12	A-6a
		6.0-11.0	Black Dual								Visual
		11.0-11.0	Black Dual W/Shale Fragments								Visual
@@@ 600+05	27'Lt.	0.0-2.5	Brown Clay								Visual
		2.5-3.2	Black Dual Diposor								Visual
		3.2-5.0	Brown Plastic Clay								Visual
		5.0-6.0	Brown Plastic Clay W/Dual Diposor								Visual
		6.0-7.5	Brown to Gray Clay								Visual
		7.5-8.2	Brown Clay								Visual
		8.2-10.3	Gray Clay								Visual
601+00	135'Rt.	0.0-5.0	15	12	11	27	34	35	7	21	A-6
		5.0-7.0	21	12	13	30	24	32	11	20	A-6
		7.0-11.0	Black Dual Fragments								Visual
		11.0-13.0	0	0	15	39	46	32	11	20	A-6a *
		13.0-15.0	2	5	17	39	37	29	6	21	A-6a *
		15.0-20.0	57	2	16	9	17	19	5	25	A-1-b *
602+00	30'Rt.	0.0-7.0	Gray Broken Shale							0	Visual
		7.0-9.0	Gray Broken Shale							0	Visual
@@@ 605+00	33'Lt.	0.0-2.5	Brown Silt Clay								Visual
@@@ 608+00	30'Lt.	4.5-3.0	Brown Silt Clay								Visual
604+00	230'Rt.	0.0-5.0	29	3	15	19	34	34	11	21	A-6a
		5.0-11.0	Gray Broken Shale							0	Visual
606+00	190'Lt.	0.0-5.0	7	4	16	30	43	31	11	22	A-6a
608+00	70'Rt.	0.3-3.0	18	7	12	29	34	33	9	16	A-4a
		3.0-10.0	36	4	9	23	28	31	15	15	A-6a
		10.0-15.6	29	4	12	35	20	30	11	16	A-6a
610+00	100'Rt.	0.0-2.0	0	5	11	51	33	34	10	15	A-4b
		2.0-6.0	4	5	15	51	25	30	5	15	A-4b
612+00	110'Lt.	0.0-5.0	3	6	13	31	31	36	11	20	A-6a
614+00	135'Rt.	0.0-2.0	5	4	13	30	30	30	15	31	A-6a
		2.0-6.0	0	3	21	30	30	33	11	22	A-6a
		6.0-12.0	Gray Broken Shale							0	Visual
		13.0-15.0	Gray Broken Shale							0	Visual
616+00	200'Rt.	0.3-5.0	18	1	6	25	55	32	11	22	A-6a
		5.0-7.0	33	4	10	23	30	30	6	18	A-1a
		7.0-12.5	Gray Broken Shale							12	Visual
618+00	150'Lt.	0.0-6.0	0	1	2	27	70	48	20	22	A-7-6
620+25	185'Rt.	0.3-2.0	0	1	5	28	66	38	21	28	A-7-6
		2.0-7.0	0	1	14	34	50	35	20	21	A-7-6
		7.0-10.5	0	1	12	45	42	34	11	17	A-6a
		10.5-12.0	18	1	5	7	49	32	11	18	A-6a
623+25	200'Rt.	0.3-3.0	7	5	5	16	59	35	12	15	A-6a
		5.0-11.5	65	6	11	12	26	28	11	15	A-6a
		11.5-12.5	Gray Broken Shale							16	Visual

@@@—Borings taken from GUE-BEL-40-(2519)(2758)0.00

STATION & OFFSET		DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS
610+00	65'Rt.	0.0-1.5	0	0	2	24	74	66	40	27	A-7-6
		1.5-8.0	Gray Broken Shale							13	Visual
610+00	150'Rt.	0.0-3.0	0	0	0	13	77	52	31	25	A-7-6
		3.0-5.0	0	1	1	9	62	36	13	A-6a	
		5.0-6.5	0	3	2	16	29	41	19	10	A-7-6
610+00	110'Lt	0.0-5.0	13	3	3	6	62	13	2	A-6-6	
		5.0-8.0	13	3	3	21	60	13	2	36	A-6a
610+25	130'Rt	0.0-1.0	0	1	3	24	70	57	13	32	A-7-6
		1.0-9.0	0	0	1	13	86	57	13	32	A-7-6
		9.0-13.0	0	0	1	13	86	57	13	32	A-6a
		13.0-15.0	0	2	5	26	67	38	13	18	A-6a
610+00	180'Rt	0.0-1.5	0	0	0	16	84	57	17	23	A-7-6
		1.5-10.0	0	0	1	13	86	57	17	23	A-7-6
		10.0-16.0	0	0	1	20	79	57	17	23	A-7-6
		16.0-18.0	0	1	2	20	77	57	17	23	A-7-6
612+00	80'Rt	0.0-5.0	0	12	2	23	63	36	11	23	A-6a
		5.0-9.0	0	2	1	23	74	36	11	23	A-6a
		9.0-11.0	0	2	1	23	74	36	11	23	A-6a
		11.0-16.0	0	2	1	23	74	36	11	23	A-6a
612+00	21'Lt	0.0-5.0	3	7	7	15	68	28	6	16	A-6a *
		5.0-8.0	0	17	7	9	67	28	6	16	A-6a
		8.0-13.0	0	17	7	10	66	28	6	16	A-6a
		13.0-16.0	0	2	1	17	80	28	6	16	A-6a
		16.0-18.0	0	2	1	17	80	28	6	16	A-6a
		18.0-20.0	26	2	1	17	54	28	6	16	A-6a
		20.0-23.5	0	2	1	17	80	28	6	16	A-6a
		23.5-26.5	0	1	1	22	76	28	6	16	A-6a
		26.5-30.0	33	1	1	15	50	23	6	17	A-7-6
612+00	70'Rt	0.0-1.0	0	5	11	21	31	37	16	19	A-6b
		1.0-10.0	0	1	2	30	67	37	16	19	A-6b
		10.0-12.5	Gray Weathered Shale								Visual
614+00	65'Rt	0.0-2.5	11	5	12	31	41	48	18	28	A-7-6
		2.5-5.0	10	5	25	12	39	39	18	21	A-6b
614+00	120'Rt	0.0-2.0	27	10	21	12	18	NP	NP	14	A-2-4
614+00	210'Rt	0.0-2.0	3	5	16	25	30	35	11	23	A-6a
615+00	100'Rt	0.0-1.0	13	9	21	22	33	30	11	21	A-6a
616+00	180'Rt	0.0-4.0	20	12	22	10	19	26	6	A-2-4	
		4.0-10.0	0	12	22	29	37	28	8	22	A-6a
		10.0-13.0	1	9	20	19	30	35	14	15	A-6a
		13.0-17.0	5	6	13	20	55	50	21	17	A-7-6
		17.0-19.0	0	2	16	31	41	30	13	20	A-6a
		19.0-20.0	Gray Weathered Shale							8	Visual
617+00	OL	0.0-3.0	16	3	28	18	35	32	10	26	A-6a *
		3.0-8.0	13	3	15	31	38	35	11	16	A-2-4
		8.0-10.0	9	3	15	29	39	32	14	23	A-6a
@@@ 620+20	30'Lt	1.0-4.0	Brown Clay								Visual
		4.0-6.5	Brown-Gray Clay W/Dark Diposor								Visual *
		6.5-8.0	Brown Silty Clay W/Dual Diposor								Visual *
		8.0-10.0	Brown-Gray Clay								Visual

STATION & OFFSET		DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS
632+00	CL	0.3-3.0	22	4	5	21	48	35	11	18	A-6a *
		3.0-9.5	16	2	11	17	54	30	10	20	A-7-6
632+00	100'Rt	0.3-3.0	8	2	7	16	67	45	21	22	A-7-6
		3.0-7.0	33	4	7	10	46	31	11	17	A-6a
		7.0-12.0	6	0	3	20	70	47	25	17	A-7-6
		12.0-16.5	6	0	3	20	70	47	25	17	A-7-6
634+00	150'Rt	3.0-5.0	0	0	1	17	82	33	12	15	A-7-6
		5.0-7.0	0	0	1	17	82	33	12	15	A-7-6
		7.0-9.0	0	0	1	17	82	33	12	15	A-7-6
		9.0-12.0	0	0	1	28	71	41	20	17	A-7-6
		12.0-15.0	0	0	1	28	71	41	20	17	A-7-6
		15.0-18.5	32	1	1	10	56	30	12	15	A-6a
		18.5-21.0	Brown Weathered Shale							0	Visual
635+00	20'Lt	0.3-3.5	25	3	9	20	43	31	11	16	A-6a *
635+00	130'Rt	3.3-5.0	0	0	28	32	40	30	11	13	A-6a
		5.0-7.0	31	10	21	21	17	19	19	23	A-2-4
635+00	150'Rt	0.0-3.0	2	2	20	24	52	32	12	17	A-6a
635+00	180'Rt	0.0-3.5	0	1	2	21	76	35	9	21	A-7-6
635+00	130'Rt	2.0-4.0	0	2	1	20	77	47	17	31	A-7-6
		4.0-7.0	30	1	1	17	51	35	12	20	A-7-6
635+00	150'Rt	0.0-3.0	3	2	15	30	50	32	12	17	A-6a
		3.0-5.0	23	2	17	28	30	31	12	18	A-6a
635+00	100'Rt	0.0-4.0	0	2	23	31	45	32	11	23	A-6a
		4.0-7.0	0	3	15	32	50	33	11	19	A-6a
636+00	CL	0.3-3.5	Gray Broken Sandstone							8	Visual *
638+00	CL	0.3-1.5	Gray Broken Sandstone							6	Visual *
650+00	70'Rt	0.3-1.0	51	5	20	5	15	25	5	23	A-2-4
		1.0-3.0	0	1	2	52	45	30	11	21	A-6a
		3.0-3.5	0	1	2	52	45	30	11	21	A-6a
652+00	300'Rt	0.0-3.5	16	5	20	24	30	25	7	18	A-6a
654+00	70'Rt	0.0-3.0	13	8	25	20	21	30	10	20	A-6a
		3.0-7.0	16	7	17	18	41	31	11	21	A-6a
		7.0-10.0	0	1	1	10	88	50	18	24	A-7-6
		10.0-15.5	40	5	5	16	34	25	12	17	A-6a
		15.5-17.5	15	7	10	22	46	31	10	21	A-6a
		17.5-20.5	35	5	5	35	23	30	11	10	A-6a
655+00	150'Rt	0.0-3.5	27	5	21	17	30	NP	NP	-	A-4a
657+00	100'Rt	0.3-4.0	0	2	5	27	66	30	13	25	A-6a
		4.0-10.0	25	1	8	20	46	33	11	20	A-6a
		10.0-15.0	6	2	11	20	61	35	15	25	A-6a

DRIVE SAMPLE SOIL TEST DATA

663+10	22'Lt	5.0-5.5	Brown Silty Sand and Stone Fragments								Visual
@@@ 607+05	7'Rt	5.0-6.0	18	4	14	37	37	46	17	21	A-7-6
		10.0-11.0	7	2	14	45	42	45	19	29	A-7-6
		15.0-16.0	0	3	14	40	53	47	22	28	A-7-6
		20.0-21.0	0	0	7	55	43	35	15	16	A-6a
		25.0-26.0	0	4	9	55	33	30	18	12	A-6b
@@@ 607+05	30'Lt	5.0-6.0	30	5	14	33	18	31	11	15	A-6a
		10.0-11.0	20	4	7	30	39	32	12	21	A-6a
		15.0-16.0	19	14	6	30	31	37	15	15	A-6a
		20.0-21.0	0	1	3	57	39	34	12	20	A-6a
		25.0-26.0	27	6	7	28	32	27	11	16	A-6a
		30.0-31.0	49	8	17	25	9	25	13	18	A-2-6
@@@@ 500+13	10'Lt	5.0-6.0	61	6	5	10	8	32	13	21	A-2-6
		10.0-11.0	22	14	5	30	30	39	18	20	A-6a
		15.0-16.0	11	9	6	36	36	39	18	21	A-6a
		20.0-21.0	24	5	5	36	33	37	15	20	A-6a
		25.0-26.0	19	4	6	34	37	37	15	15	A-6a
		30.0-31.0	32	7	4	32	25	35	16	21	A-6b
		35.0-36.0	21	9	5	10	21	34	10	14	A-6a
		40.0-41.0	0	15	10	21	36	32	12	20	A-7-6
		45.0-46.0	20	17	5	25	33	39	16	13	A-6b
@@@@ 500+71	81'Rt	5.0-8.0	0	5	14	30	51	45	19	21	A-7-6
		10.0-11.0	0	0	2	39	59	38	21	25	A-7-6

@@@@—Borings taken from GUE-40-23.24

REVISED 9/6/62
REVISED 10/8/62

SOIL PROFILE
GUERNSEY-BELMONT CNTY
GUE-40-25.88
BEL-40-0.00
OHIO STATE HIGHWAY TESTING LABORATORY
COLUMBUS, OHIO

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SUMMARY OF SOIL TEST DATA

NOTE: NP shown in Liquid Limit and Plasticity Index columns indicates that the material is non-plastic.
*Denotes sample taken at or near grade

STATION	& OFFSET	DEPTH FROM-TO	% A.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% M.C.	SOIL CLASS.
		GUE-BEL-40 (23.88)(C100)									
10+00	150'Rt	0.0-3.5	85	5	20	18	20	NP	NP	-	A-1-b
11+00	140'Rt	0.0-3.5	16	6	16	32	32	16	12	31	A-7-6
		3.5-8.5	11	5	10	32	32	21	11	35	A-6b
12+00	130'Rt	0.0-3.0	19	0	22	26	33	35	17	13	A-6b
		3.0-5.0	16	3	20	25	36	29	9	17	A-6a
13+10	120'Rt	0.0-0.0	Gray Stone Fragments							-	Visual
13+15	CL	0.0-1.0	62	5	7	20	17	25	11	10	A-2a
11+50	CL	0.0-3.0	1	0	3	35	37	32	12	33	A-7-5*
		3.0-6.0	0	0	2	34	39	36	13	16	A-6b
		6.0-12.0	16	1	2	19	31	28	12	11	A-6a
13+00	110'Lt	0.0-2.5	16	0	1	10	43	45	20	10	A-2-6
12+00	0'Rt	0.0-2.0	16	3	10	16	41	33	11	15	A-6b*
		2.0-4.5	Gray Broken Shale								Visual*
10+50	30'Lt	0.0-1.0	Gray Broken Shale							-	Visual
25+30	115'Lt	0.0-5.0	33	2	6	29	30	35	11	18	A-6b
		5.0-7.0	Black Coal							-	Visual
		7.0-58.0	Gray Broken Shale							8	Visual
		58.0-84.0	Gray Broken Shale							-	Visual
		84.0-87.0	Gray Broken Shale							-	Visual
25+12	20'Lt	0.0-2.0	21	2	3	14	17	36	11	16	A-6b
10+20	CL	0.0-5.0	15	5	12	25	31	28	11	15	A-6b*
		5.0-6.0	9	4	8	35	40	35	11	18	A-6b*
		6.0-10.5	0	0	2	16	77	64	34	18	A-7-5
		10.5-12.0	Gray Broken Shale							-	Visual
31+00	20'Rt	0.0-3.0	2	1	6	39	10	14	19	28	A-7-6
		3.0-6.5	Gray Broken Shale							15	Visual
31+00	105'Rt	0.0-3.5	0	1	1	17	75	67	33	28	A-8-5
		3.5-5.0	Black Coal							-	Visual
		5.0-6.0	Gray Under Clay							-	Visual
33+00	60'Rt	0.0-6.5	13	1	1	31	31	54	35	28	A-7-6
		6.5-7.0	11	6	1	3	18	50	33	25	A-7-6
		7.0-11.5	7	2	2	21	37	30	11	23	A-6b
33+00	130'Rt	0.0-3.0	0	0	1	16	51	35	19	23	A-7-6
		3.0-11.5	0	1	1	53	45	41	17	22	A-7-6
		11.5-16.5	33	2	2	10	30	47	21	28	A-7-6
31+25	100'Rt	0.0-2.0	0	1	1	53	45	82	12	51	A-7-5
		2.0-5.0	3	1	3	48	39	82	16	47	A-7-5
		5.0-10.0	7	0	5	43	28	33	11	21	A-6a
35+30	A-9'Rt	0.0-1.0	0	0	2	28	40	38	18	29	A-6b
		1.0-4.0	18	1	11	27	31	40	20	29	A-6b
		4.0-7.0	2	0	0	30	35	32	11	26	A-6a
38+80	140'Rt	0.0-3.0	0	0	2	67	31	44	18	27	A-7-5
		3.0-6.0	0	0	5	47	53	52	19	28	A-7-6
		6.0-9.0	21	5	6	25	43	34	10	23	A-7-6
36+75	70'Lt	0.0-2.0	48	5	11	25	11	30	5	12	A-1b
		2.0-5.0	46	3	7	23	21	27	7	12	A-2-4
		5.0-7.0	38	3	5	28	26	30	3	15	A-4b
		7.0-12.0	38	3	5	28	26	30	3	15	A-4b
		12.0-17.0	30	3	9	31	27	33	6	21	A-4b
		17.0-20.0	30	4	10	32	24	31	11	16	A-6a
36+75	60'Rt	0.0-3.0	6	2	6	31	55	46	20	25	A-7-6
		3.0-5.5	11	1	5	33	50	76	33	55	A-7-5
		5.5-6.5	21	1	6	28	43	82	13	38	A-7-5
39+75	130'Rt	0.0-5.0	0	0	1	51	48	41	16	25	A-7-6
		5.0-8.5	6	2	2	22	68	61	29	30	A-7-5
39+00	170'Rt	0.0-3.0	6	1	17	12	16	32	11	21	A-6a
		3.0-5.0	10	1	5	17	45	43	21	25	A-7-6
		5.0-12.0	10	1	4	17	33	50	12	15	A-6a
		12.0-16.5	Gray Broken Shale							11	Visual
33+45	90'Rt	0.0-3.0	1	1	13	29	30	32	11	22	A-6a
		3.0-5.0	37	5	17	16	25	34	11	17	A-6a
		5.0-10.5	52	5	5	15	23	31	11	11	A-7-5
32+00	15'Rt	0.0-1.5	2	1	2	31	62	50	23	31	A-7-5
		1.5-5.0	32	2	2	12	50	62	17	23	A-7-5
		5.0-7.0	Gray Broken Shale							15	Visual
32+00	140'Rt	0.0-3.5	11	1	8	17	41	16	21	26	A-7-5
		3.5-5.0	Black Coal Blossom							-	Visual
		5.0-6.5	21	0	12	35	30	20	7	32	A-5-5
31+00	70'Lt	0.0-2.0	11	1	10	41	36	32	15	23	A-7-6
		2.0-5.0	6	1	5	37	51	51	15	28	A-7-6
		5.0-12.0	0	1	5	47	38	46	19	26	A-7-6
		12.0-16.0	Gray Broken Shale							15	Visual
31+00	150'Rt	0.0-1.5	0	1	4	38	57	58	25	30	A-7-6
		1.5-3.0	0	1	3	35	61	58	25	30	A-7-6
		3.0-10.0	Gray Broken Shale							-	Visual

STATION	& OFFSET	DEPTH FROM-TO	% A.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% M.C.	SOIL CLASS.
32+00	150'Lt	0.0-2.0	2	1	2	45	50	48	23	28	A-7-6
		2.0-5.0	27	5	12	26	30	36	12	21	A-6a
		5.0-10.0	42	7	19	15	17	27	7	13	A-2-4
27+25	CL	0.0-5.0	62	4	4	10	21	NP	NP	11	A-2-4*
		5.0-7.0	47	6	10	15	20	30	12	13	A-2-6
		7.0-9.5	0	10	3	27	30	30	14	19	A-7-5
		9.5-11.0	0	2	5	32	61	62	20	17	A-7-5
		11.0-16.0	11	1	1	28	10	43	16	22	A-7-5
29+40	CL	0.0-5.0	63	3	10	18	27	28	11	25	A-6a*
		5.0-8.0	33	3	10	18	22	33	11	22	A-6a
		8.0-12.0	33	3	5	19	15	34	12	22	A-2-6
		12.0-18.0	Black Smoke Carbonaceous Shale							-	Visual
53+00	75'Rt	0.0-1.0	Brown & Gray Clayey Silt & Coal & Sandstone Fragments							-	Visual
53+00	120'Rt	0.0-2.5	16	6	8	34	36	52	23	29	A-7-5
		2.5-5.0	6	1	1	28	40	62	34	29	A-7-6
53+30	75'Lt	0.0-2.0	5	0	2	18	35	30	15	20	A-7-6
		2.0-3.0	Gray Clay							-	Visual
		3.0-5.0	15	3	3	24	16	36	20	23	A-2-6
		5.0-6.0	6	0	1	10	75	65	32	29	A-7-5
		6.0-10.5	Gray Broken Shale							12	Visual
55+00	150'Rt	0.0-2.5	0	6	6	31	31	31	11	20	A-6
		2.5-5.0	66	5	1	13	15	37	9	13	A-2-4
		5.0-8.0	Black Coal							-	Visual
		8.0-10.0	Gray Under Clay							-	Visual
55+30	185'Rt	0.0-2.0	5	3	7	37	48	40	11	25	A-6a
		2.0-3.0	2	1	2	37	57	51	20	33	A-7-5
		3.0-5.0	16	1	2	31	51	62	30	35	A-7-5
		5.0-10.5	0	0	2	32	66	60	30	31	A-7-5
		10.5-17.0	9	1	2	32	57	51	16	23	A-7-6
		17.0-18.5	Gray Broken Shale							13	Visual
57+00	80'Rt	0.0-2.0	11	3	5	34	48	34	13	23	A-6a
		2.0-3.0	30	3	8	32	27	34	12	19	A-6a
		3.0-10.0	7	1	10	35	47	37	13	22	A-7-6
		10.0-13.5	36	1	1	27	35	41	12	23	A-7-6
		13.0-16.5	Gray Broken Shale							15	Visual
57+00	140'Rt	0.0-1.0	16	3	4	36	41	30	11	20	A-6a
		1.0-6.5	0	1	1	41	56	58	26	26	A-7-6
		6.5-9.0	5	1	2	35	57	49	23	27	A-7-6
		9.0-13.0	0	0	2	32	66	60	30	31	A-7-6
		13.0-17.0	9	1	2	37	51	52	15	23	A-7-6
		17.0-18.5	Gray Broken Shale							13	Visual
60+00	CL	0.0-2.0	11	1	2	38	48	38	18	22	A-6a*
		2.0-8.0	0	0	1	30	69	63	28	33	A-7-6
		8.0-10.0	16	1	3	16	44	33	11	20	A-6a
		10.0-12.0	15	0	2	19	32	33	11	20	A-6a
61+00	75'Lt	0.0-3.0	22	2	2	17	33	38	15	16	A-6a*
		3.0-6.0	60	3	5	19	13	29	7	11	A-2-4*
		6.0-7.0	34	3	5	23	35	45	16	19	A-7-6
		7.0-10.0	18	2	5	28	31	31	11	17	A-6a
65+00	15'Lt	0.0-5.0	64	2	2	17	15	20	8	13	A-2-4*
70+00	70'Lt	0.0-3.0	77	1	5	7	9	-	-	13	A-2-4
		3.0-6.0	51	1	3	19	22	NP	NP	10	A-2-4
		6.0-9.0	14	2	5	37	32	41	16	24	A-7-6
		9.0-11.0	14	2	5	28	35	45	16	23	A-7-6
		11.0-16.0	22	3	3	21	30	36	13	18	A-6a
		16.0-21.0	0	2	5	31	46	37	11	17	A-6a
70+00	20'Lt	0.0-2.0	11	1	7	31	39	29	11	17	A-6a*
72+00	105'Lt	0.0-5.0	5	1	10	30	54	33	11	17	A-6a
		5.0-6.5	30	4	9	35	22	30	7	11	A-6a
74+00	CL	0.0-5.0	35	2	5	31	26	32	11	21	A-6a
		5.0-6.0	0	0	1	12	72	58	31	31	A-7-5
		6.0-9.6	24	0	1	29	46	38	12	20	A-6a
		9.6-10.0	7	1	1	27	36	38	12	20	A-6a
		10.0-11.0	7	1	1	33	55	51	20	24	A-7-6
77+00	20'Rt	0.0-6.0	0	1	3	19	77	50	17	21	A-7-6
		6.0-8.5	65	5	2	10	8	NP	NP	12	A-1-b
78+40	150'Rt	0.0-2.0	30	10	15	13	32	NP	NP	21	A-6a
		2.0-5.0	5	4	20	31	38	36	6	20	A-6a
		5.0-7.0	Gray Broken Sandstone							-	Visual
79+15	100'Rt	0.0-2.0	0	0	7	16	61	39	16	22	A-6b
		2.0-10.0	6	2	8	55	31	37	9	20	A-6a
		10.0-12.0	Gray Broken Sandstone							15	Visual
80+00	CL	0.0-3.0	22	1	3	28	37	41	19	24	A-7-6
		3.0-4.5	Black Coal Blossom							-	Visual
		4.5-6.5	21	0	1	19	39	51	25	27	A-7-6
		6.5-12.0	28	1	0	30	36	41	16	21	A-7-6
		12.0-16.5	13	1	1	35	28	33	11	19	A-6a

STATION	& OFFSET	DEPTH FROM-TO	% A.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% M.C.	SOIL CLASS.
00+00	110'Rt	0.0-3.0	3	3	6	30	48	42	21	21	A-7-6
		3.0-6.0	20	3	1	32	34	31	16	27	A-6b
		6.0-8.0	15	3	17	31	34	37	11	10	A-6a
		8.0-12.0	18	3	5	27	47	32	11	15	A-6a
		12.0-16.5	RI	2	2	32	21	33	11	16	A-6a
		16.5-17.5	Gray Broken Shale							11	Visual
00+00	100'Rt	0.0-2.0	1	1	3	55	40	35	IN	21	A-4a
		2.0-5.0	25	5	13	21	35	32	11	18	A-6a
		5.0-9.0	16	20	5	25	34	37	7	17	A-6a
		9.0-13.0	10	3	9	28	33	33	11	15	A-6a
		13.0-13.0	Gray Broken Shale							9	Visual
00+00	CL	0.0-2.0	3	1	4	38	30	33	9	20	A-6a
		2.0-7.0	0	1	2	19	20	25	8	16	A-6a
		7.0-9.0	33	2	5	30	21	23	11	15	A-4a
00+00	110'Rt	0.0-2.0	21	3	10	15	35	35	11	10	A-6a
		2.0-7.0	23	2	10	15	30	30	11	14	A-6a
		7.0-8.5	30	3	16	13	9	30	9	13	A-6a
00+00	100'Rt	0.0-1.5	25	9	21	21	24	30	6	12	A-4a
		1.5-5.0	62	3	13	13	9	22	5	11	A-1-a
05+00	100'Lt	0.0-3.0	3	0	11	19	11	NP	DP	13	A-3a
		3.0-5.5	16	3	1	21	19	34	11	13	A-7-5
		5.5-8.0	10	2	5	17	23	31	11	14	A-6a
00+00	CL	0.0-1.0	5	0	2	31	30	51	22	20	A-7-6
		1.0-4.0	0	1	1	31	38	37	14	32	A-7-5
		4.0-6.0	20	2	1	17	21	36	10	11	A-6a
		6.0-13.5	Gray Broken Shale							11	Visual
01+00	100'Rt	0.0-3.5	0	2	15	31	32	28	11	23	A-6a
		3.5-5.0	17	2	12	15	29	31	8	16	A-6a
		5.0-10.0	30	2	7	15	26	30	11	15	A-6a
		10.0-11.5	16	1	2	32	35	36	11	16	A-6a
00+00	CL	0.0-3.0	11	4	10	30	28	25	-	19	A-4a
		3.0-5.0	20	2	9	36	13	26	-	21	A-4a*
05+00	115'Rt	0.0-2.0	22	2	6	27	40	40	13	21	A-6a
		2.0-5.0	25	1	1	35	31	42	17	24	A-6b
		5.0-9.0	38	3	4	25	30	46	16	24	A-6b
		9.0-10.0	18	1	2	35	23	37	12	17	A-6a
		10.0-13.0	36	2	1	35	26	33	12	17	A-6a
		13.0-18.0	31	2	1	35	31	32	11	20	A-6a
00+00	CL	0.0-1.5	10	1	4	41	40	NP	NP	20	A-4a
		1.5-5.5	0	1	3	35	60	33	11	25	A-6a
03+25	68'Rt	0.0-3.0	25	2	5	32	36	31	11	20	A-6a
		3.0-5.0	25	2	6	30	36	34	5	15	A-6a
00+00	CL	0.0-6.5	Brown Broken Sandstone							10	Visual
00+75	10'Lt	0.0-4.0	0	5	14	22	32	NP	NP	31	A-4a
		4.0-6.0	0	6	68	13	11	NP	NP	31	A-3a
		6.0-10.0	0	3	51	23	24	30	10	25	A-2-5
		10.0-15.0	0	3	55	19	23	25	6	16	A-2-5
		15.0-18.0	0	2	5	25	67	47	11	30	A-8a
00+00	80'Lt	0.0-3.0	0	3	16	32	25	22	8	21	A-4a
		3.0-6.0	0	3	33	37	27	28	6	A-4a	
		6.0-11.5	10	4	2	30	10	24	6	20	A-6a
		11.5-13.0	0	0	1	37	62	72	41	28	A-7-5
		13.0-16.5	10	5	9	43	33	29	11	14	A-6a
00+00	60'Rt	0.0-3.5	10	5	33	10	21	NP	NP	15	A-3a
01+50	120'Lt	0.0-2.0	0	2	11	28	35	33	16	18	A-6a
		2.0-5.5	0	1	2	18	16	30	12	15	A-6a
		5.5-7.0	30	1	4	19	26	30	12	16	A-6a
		7.0-8.0	18	0	1	22	30	35	13	22	A-6a
		8.0-13.0	0	2	4	37	35	33	11	16	A-6a
		13.0-16.5	35	3	3	30	19	22	11	13	A-6a
01+50	5'Lt	0.0-2.5	0	11	54	16	15	NP	NP	16	A-3a
		2.5-5.5	0	7	30	32	31	NP	NP	21	A-4a
		5.5-11.5	0	4	17	18	31	29	8	20	A-4a*
		11.5-16.5	3	4	32	31	30	35	9	20	A-6a
01+50	150'Rt	0.0-1.0	1	10	55	8	23	NP	NP	16	A-3a
		1.0-8.0	0	1	7	41	51	45	16	26	A-7-6
		8.0-9.5	35	1	9	28	23	30	12	15	A-6a
02+30	70'Rt	0.0-3.5	0	4	14	27	28	NP	NP	24	A-4a*
		3.5-7.0	0	3	19	30	28	37	11	20	A-6a*
		7.0-11.5	0	2	7	18	39	33	11	28	A-6a
02+00	130'Lt	0.0-1.0	15	2	3	22	27	30	13	19	A-6a
		1.0-8.5	47	2	2	18	26	31	12	15	A-6a

STATION	& OFFSET	DEPTH FROM-TO	% A.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% M.C.	SOIL CLASS.
10+00	CL	0.0-3.0	37	2	5	10	12	32	11	13	A-6a
		3.0-5.5	0	0	2	29	29	40	20	23	A-7-6
		5.5-12.5	22	2	6	23	30	38	14	23	A-6a*
		12.5-15.0	12	0	3	37	16	29	11	16	A-6a*
		15.0-17.5	Gray Broken Shale							11	Visual
10+00	65'Rt	0.0-2.5	1	1	37	22	30	29	6	18	A-4a*
		2.5-5.0	26	3	8	30	32	37	11	29	A-6a*
		5.0-7.5	48	3	7	21	14	31	10	17	A-4a
10+00	130'Lt	0.0-3.0	0	1	3	15	62	59	28	27	A-7-6
		3.0-11.0	62	3	7	9	16	33	10	16	A-4a
		11.0-13.0	Gray Broken Shale							9	Visual
10+00	CL	0.0-2.0	3	5	13	31	30	32	11	20	A-6a
		2.0-5.5	50	4	5	20	19	33	11	15	A-6a
		5.5-7.0	76	2	3	10	9	-	-	14	A-1-a
		7.0-11.5	0	1	2	18	76	69	37	43	A-7-5
10+00	100'Rt	0.0-4.0	57	2	4	21	16	30	11	16	A-6a
		4.0-5.0	58	1	6	22	23	37	13	19	A-6a
		5.0-9.0	62	1	4	23	57	50	22	35	A-7-5
		9.0-15.0	72	1	1	15	11	34	11	15	A-2-4
11+00	CL	0.0-3.0	0	1	3	50	45	50	20	20	A-7-6
		3.0-9.0	0	0	1	57	42	48	19	20	A-6a
		9.0-11.0	Brown Broken Sandstone							10	Visual
11+00	CL	0.0-4.0	0	0	1	75	24	40	14	28	A-6a
		4.0-8.5	Brown Broken Sandstone							12	Visual
12+25	CL	0.0-1.0	0	7	14	30	30	32	6	21	A-4a
		1.0-2.0	Gray Broken Shale							12	Visual
12+00	32'Lt	0.0-3.0	34	9	5	9	43	80	19	21	A-7-5
		3.0-11.0	Black Coal Blossom							-	Visual
		11.0-16.0	23	7	13	21	35	42	16	27	A-7-6*
		16.0-18.0	37	7	16	15	31	27	11	17	A-6a*
12+00	80'Rt	0.0-1.5	86	5	4	10	17	30	11	27	A-7-6
		1.5-2.0	18	3	11	26	42	81	35	41	A-7-6
		2.0-5.0	15	4	8	27	46	62	21	37	A-7-6
		5.0-8.0	41	3	4	21	31	42	11	24	A-6a
		8.0-11.0	31	3	4	25	37	42	11	24	A-6a
		11.0-12.0	28	4	6	25	37	42	11	21	A-6a
		12.0-12.5	Gray Weathered Shale							11	Visual
12+00	CL	0.0-1.5	10	2	7	27	15	30	11	15	A-6a
		1.5-3.0	52	1	3	23	21	35	11	15	A-6a
		3.0-8.0	0	2	11	27	32	47	23	32	A-7-5
		8.0-11.5	18	3	2	15	31	40	24	27	A-6a
12+00	60'Rt	0.0-3.0	27	0	2	26	31	50	22	17	A-7-5
		3.0-5.5	0	1	2	18	31	51	10	18	A-7-5
12+00	170'Rt	0.0-2.0	21	1	3	32	31	51	22	15	A-7-6
		2.0-3.0	0	0	2	35	45	54	27	17	A-7-5
		3.0-4.5	0	0	3	30	27	45	18	22	A-7-6
		4.5-6.5	21	0	3	31	30	31	11	18	A-6a
		6.5-12.0	65	0	2	23	20	37	11	17	A-6a
12+00	120'Rt	0.0-3.0	Gray Clay							-	Visual
		3.0-9.0	0	2	1	15	72	82	38	34	A-7-5
		9.0-13.0	6	4	14	21	29	35	11	22	A-6a
		13.0-18.5	Gray Broken Shale							11	Visual
12+00	140'Rt	0.5-2.0	25	2	2	29	42	47	15	21	A-7-5
		2.0-4.0	12	6	3	35	30	38	12	20	A-6a
		4.0-6.0	1	2	2	33	57	62	25	16	A-6a
		6.0-7.0	10	3	4	23	60	51	15	18	A-6a
		7.0-9.0	22	1	7	20	31	32	11	12	A-6a
12+00	CL	0.5-2.0	0	0	5	30	63	58	24	32	A-7-6
		2.0-5.6	3	2	3	27	65	55	28	33	A-7-6
		5.0-11.5	12	1	5	27	51	55	13	29	A-6a
12+00	130'Rt	0.5-2.0	0	1	1	16	67	30	11	24	A-6a
		2.0-5.5	6	4	16	33	41	34	11	16	A-6a
		5.5-9.5	15	3	15	27	40	35	11	21	A-6a
12+00	200'Rt	0.2-1.5	11	4	11	30	30	33	11	23	A-6a
		1.5-3.0	42	8	9	17	24	33	10	18	A-2-4
		3.0-5.0	Black Coal							-	Visual
		5.0-6.0	Gray Under Clay							9	Visual
		6.0-7.0	Black Coal							-	Visual

SUPPLEMENTAL SUMMARY OF SOIL TEST DATA

NOTE: NP shown in Liquid Limit and Plasticity Index columns indicates that the material is non-plastic.
* Denotes sample taken at or near grade.

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
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Supplement - 9/6/62
REVISED-10/8/62

Station & Offset	Depth From To	% Agg	% C S	% F S	% Silt	% Clay	L L	P I	% W C	SHTL Class
			SUPPLEMENT							
Service Road										
20+00 10' Rt.	0.5-4.0		Brown Broken Shale						7	Visual *
	4.0-8.0		Brown Broken Shale						8	Visual
23+00 10' Rt.	0.5-4.0		Brown Shale Fragments							Visual
	4.0-10.0	0	3	36	13	48	28	12	16	A-6a
25+90 15' Lt.	0.5-4.0	0	3	23	13	56	33	13	23	A-6a
	4.0-8.0	0	11	17	13	49	32	13	23	A-6a
	8.0-10.0	0	3	3	24	70	41	21	19	A-7-6
27+30 CL	0.5-3.0	28	2	14	24	12	30	18	15	A-6a
	3.0-10.0	0	6	8	31	55	38	19	19	A-6a
30+00 45° Rt.	0.5-3.0		Brown Broken Sandy Shale						6	Visual
32+00 CL	0.5-4.0	18	0	0	25	57	32	28	16	A-7-6
	4.0-9.0		Brown Weathered Indurated Clay						8	Visual
34+00 CL	0.5-6.0	0	2	3	46	69	47	25	16	A-7-6
	6.0-8.0	35	7	1	21	42	39	14	14	A-6a
	8.0-13.0		Brown Brown Weathered Shale						13	Visual
36+00 CL	0.5-7.0	21	1	4	26	50	46	26	15	A-7-6
	7.0-8.0		Black Coal Blossom						-	Visual
	8.0-10.0	0	0	4	26	70	42	15	35	A-7-6 *
38+00 CL	0.5-3.0	0	4	24	18	46	28	11	10	A-6a
	3.0-8.0	0	5	6	22	67	40	20	19	A-5-b
	8.0-10.0	20	3	4	21	52	37	15	13	A-5-b
	10.0-15.0	0	3	5	20	72	43	18	15	A-7-6
40+00 CL	0.5-4.0		Brown Weathered Shale Fragments							Visual
	4.0-6.0	0	1	7	32	60	31	18	26	A-7-6
	6.0-12.0	0	4	8	41	47	32	21	12	A-6a *
41+30 CL	0.5-2.0	0	2	7	26	65	39	17	23	A-6-b
	2.0-8.0	41	4	3	14	38	36	13	12	A-6a
43+00 CL	0.5-4.0	10	4	6	31	49	44	20	16	A-7-6
	4.0-8.0	26	1	2	18	53	37	23	30	A-7-6
	8.0-12.0	35	2	1	27	36	42	15	22	A-7-6
	12.0-15.0	27	3	3	28	39	40	16	20	A-6a
	15.0-22.0	24	4	6	29	38	32	12	8	A-6a
	22.0-25.0	16	5	8	24	47	33	13	9	A-6a
44+50 CL	0.5-2.0	38	11	23	8	20	NP	NP	23	A-2-4
	2.0-3.0	49	10	17	8	16	NP	NP	21	A-1-b
46+00 CL	0.5-4.0	0	1	22	29	48	34	13	17	A-6a
	4.0-10.0	0	1	3	28	68	43	21	19	A-7-6
	10.0-13.0		Brown Weathered Indurated Clay						7	Visual
48+80 CL	0.5-4.0	38	1	7	15	39	36	18	18	A-6a
	4.0-6.0	0	1	3	36	60	49	25	25	A-7-6
	6.0-10.3		Brown Broken Shale						7	Visual
52+20 CL	0.5-1.5		Brown Broken Sandstone						6	Visual *
53+00 CL	0.3-5.0	39	6	6	25	24	38	14	14	A-6a
	5.0-12.0	54	1	3	17	25	36	11	11	A-6a
	12.0-13.0		Gray Broken Shale						13	Visual
54+00 50' Lt.	0.3-2.0	0	17	31	13	39	30	10	15	A-6a
	2.0-6.0	0	13	21	24	42	34	13	16	A-6a
	6.0-12.0	0	2	5	31	62	48	24	18	A-7-6
	12.0-18.0	0	1	1	27	70	60	33	23	A-7-6
	18.0-20.5	0	1	3	34	62	44	19	21	A-7-6
56+00 CL	0.5-5.0	0	8	19	29	44	33	14	20	A-6a
	5.0-10.3	0	7	34	28	31	26	10	15	A-4a
	10.0-14.0	0	2	6	45	47	40	17	20	A-6-b
54+00 50' Rt.	0.3-6.0	0	6	14	42	39	37	18	15	A-6-b
	6.0-11.0	0	3	8	37	53	43	17	23	A-7-6
	11.0-17.0	0	0	22	36	33	31	12	17	A-6a
	17.0-20.3	0	5	9	44	42	34	13	16	A-6a
	20.0-22.0		Gray Weathered Indurated Clay						5	Visual
56+00 50' Lt.	0.3-6.0	0	6	5	38	51	41	17	17	A-7-6
	6.0-11.0	0	2	6	42	51	40	15	20	A-6a
	11.0-18.3		Brown Weathered Indurated Clay						11	Visual
	18.0-21.0		Red Indurated Clay						9	Visual

Station & Offset	Depth From To	% Agg	% C S	% F S	% Silt	% Clay	L L	P I	% W C	SHTL Class
52+00 CL	0.4-3.0	0	12	9	34	45	30	15	10	A-6a
	3.0-10.0		Brown Weathered Indurated Clay						13	Visual
55+30 70° Rt.	0.3-3.0	18	8	6	35	32	38	15	10	A-6a
	3.0-10.0	30	2	3	33	36	42	20	13	A-7-6
	10.0-12.0	23	6	13	28	30	33	11	15	A-6a
58+00 70° Lt.	0.2-6.0	0	4	3	32	60	41	18	18	A-7-6
	6.0-12.0	26	6	5	32	28	35	14	17	A-6a
58+00 CL	0.2-3.0	0	35	19	29	37	34	13	18	A-6a
	3.0-8.0	0	1	2	46	51	38	14	18	A-6a
	8.0-16.0	0	1	2	49	48	36	13	17	A-6a
	16.0-21.0	0	1	4	54	39	32	9	16	A-4b
	21.0-27.0	58	2	4	7	40	39	15	17	A-6a
	27.0-28.0		Gray Weathered Indurated Clay						13	Visual
58+00 135° Rt.	0.2-3.0	0	1	9	42	48	34	17	17	A-6a
	3.0-8.0	0	1	2	44	53	33	15	10	A-6a
	8.0-13.0	0	3	8	39	50	32	11	17	A-6a
	13.0-25.0	31	2	4	32	31	34	12	18	A-6a
	25.0-29.0	0	3	12	47	38	28	11	16	A-6a
	29.0-25.0	24	3		42	31	31	11	14	A-6a
	25.0-30.0		Red Weathered Indurated Clay						10	Visual
59+00 CL	0.2-6.0	0	4	14	43	39	29	11	21	A-6a
	6.0-12.0	0	1	3	48	48	34	11	13	A-6a
60+00 70° Rt.	0.2-5.0	46	4	6	30	24	43	17	11	A-7-6
	5.0-10.0	0	1	3	36	60	42	18	23	A-7-6
	USE 40 AND COUNTY ROAD 114 INTERCHANGE									
Ramp A										
656+00 CL	0.3-3.0		Brown Broken Sandstone						10	Visual *
658+00 CL	0.3-5.0		Brown Broken Sandstone						8	Visual
	5.0-10.0		Brown Broken Sandstone						6	Visual
Ramp C										
646+30 35° Rt.	0.8-6.0	0	2	22	31	45	35	12	23	A-6a
	6.0-8.0	0	3	9	47	41	34	12	19	A-6a
653+00 40° Lt.	0.5-6.0	53	5	23	9	31	25	9	26	A-2-5
	6.0-7.0	0	1	3	27	69	48	22	26	A-7-6
	7.0-9.9	6	1	2	38	53	40	19	13	A-6b
655+25 18° Rt.	0.0-5.0	27	5	21	17	30	NP	NP	-	A-4a
657+65 8° Rt.	0.0-5.5	14	5	20	41	20	NP	NP	-	A-4a
659+00 CL	0.8-5.0	0	3	9	34	54	32	22	30	A-7-5
	5.0-13.0	0	3	8	39	48	46	19	23	A-7-6
	13.0-18.0		Gray Weathered Indurated Clay						13	Visual
Ramp B										
15+00 CL	0.3-3.0	30	0	1	33	36	49	27	21	A-7-6
	3.0-12.0		Light Brown Weathered Indurated Clay						6	Visual
17+00 CL	0.2-3.0	17	0	1	15	67	65	34	30	A-7-5
	3.0-9.0	38	1	6	40	20	31	5	7	A-4a
	9.0-13.0	36	1	10	23	28	33	11	15	A-6a
	13.0-19.0	22	1	7	32	38	33	11	14	A-6a *
	19.0-23.0		Gray Weathered Indurated Clay						5	Visual *
19+50 CL	0.0-3.0	16	3	6	32	46	41	12	18	A-7-6
	3.0-8.0	15	1	2	20	61	71	40	42	A-7-5
	8.0-13.0	21	10	6	10	43	45	22	27	A-7-6 *
	13.0-28.0	24	1	5	46	26	33	11	12	A-6a *
23+00 CL	0.4-5.0	26	8	6	16	44	30	13	26	A-6a *
	5.0-10.0	36	4	4	30	26	40	13	16	A-6a *
	10.0-12.0		Gray Broken Sandy Shale						7	Visual
24+95 30° Lt.	0.2-6.0	33	2	6	29	30	36	11	19	A-6a
	6.0-7.0		Black Coal						-	Visual
	7.0-13.0		Gray Broken Shale						14	Visual
	13.0-14.0		Gray Broken Shale						5	Visual
	14.0-17.0		Gray Broken Shale						-	Visual
Ramp D										
22+00 CL	0.3-2.0		Brown Weathered Shale						16	Visual
	2.0-6.0		Coal Blossom						-	Visual
	6.0-12.0		Brown Weathered Shale						10	Visual
	12.0-19.0		Gray Broken Shale						12	Visual
20+00 CL	0.3-6.0	56	3	6	19	16	33	15	9	A-2-6
	6.0-12.0	41	2	5	32	20	30	11	6	A-6a
	12.0-17.0	31	3	4	38	23	30	11	7	A-6a
	17.0-24.0	36	4	11	31	18	29	9	7	A-4a
	24.0-30.0	62	3	4	17	14	37	13	10	A-2-6

Station & Offset	Depth From To	% Agg	% C S	% F S	% Silt	% Clay	L L	P I	% W C	SHTL Class
24+00 CL	0.3-4.0	35	3	9	31	22	30	5	10	A-4a
	4.0-10.0	50	5	10	20	15	30	9	10	A-2-4
	10.0-19.0	22	4	4	41	29	33	11	8	A-6a
	19.0-22.0		Gray Weathered Clay Shale						5	Visual
Relocated County Road 114										
61+50 CL	0.5-7.0		Brown Broken Sandstone						7	Visual
64+55 CL	0.4-4.0	0	3	6	36	53	34	11	15	A-6a *
	4.0-10.0	0	2	1	30	65	56	12	18	A-6a *
67+50 CL	0.3-3.0	56	5	5	16	18	32	9	10	A-2-4
	3.0-8.0		Black Soft Coal Fragments						-	Visual
	8.0-15.0	48	4	3	21	24	40	12	13	A-6b
	15.0-19.0	25	4	4	27	40	47	21	23	A-7-6
	19.0-26.0	9	9	11	23	48	45	15	31	A-7-5
	26.0-30.0	25	2	3	41	29	37	13	15	A-6a *
69+00 CL	0.3-6.0	24	3	10	33	30	32	11	9	A-6a
	6.0-12.0	31	7	15	27	20	30	8	7	A-4a
	12.0-17.0	20	10	8	26	36	30	11	8	A-6a
	17.0-22.0		Brown Weathered Shale						7	Visual
	22.0-30.0		Gray Broken Shale						10	Visual
74+60 CL	0.3-6.0	39	4	8	31	18	31	6	8	A-4a *
	6.0-12.0		Brown Weathered Indurated Clay						10	Visual
77+00 CL	0.3-6.0	14	2	15	28	41	35	13	16	A-6a
	6.0-12.0	36	8	7	27	22	31	9	14	A-4a
	12.0-16.0	59	7	5	10	19	39	14	22	A-6a
	16.0-20.0		Black Coal						-	Visual
80+00 CL	0.4-5.0	36	5	18	9	32	28	5	4	A-4a *
	5.0-10.0	0	3	13	46	38	31	11	14	A-6a
83+00 CL	0.3-3.0	7	1	2	26	64	37	17	20	A-6b *
	3.0-10.0		Brown Broken Clay Shale						7	Visual
85+00 CL	0.3-5.0	11	2	7	36	44	30	11	16	A-6a
	5.0-11.0		Brown Weathered Shale						12	Visual
	11.0-23.0		Gray Weathered Shale						11	Visual
88+00 CL	0.5-3.0	0	0	3	29	68	42	16	14	A-7-6 *
	3.0-5.0	0	0	0	2	41	57	35	14	24	A-6a
	DRIVE SAMPLE SOIL TEST DATA									
Service Road										
33+00 10' Rt.	5.0-6.0	45	5	6	15	29	36	15	18	A-6a
	10.0-11.0	0	1	2	39	58	32	11	13	A-6a
	15.0-15.7	49	2	5	20	24	28	11	15	A-6a
Relocated County Road 114 (B)										
9+95 30° Rt.	5.0-5.0	38	5	7	26	44	44	19	28	A-7-6
	7.5-8.5	0	2	13	35	51	35	14	20	A-6a
	10.0-11.0	16	4	5	42	33	37	14	17	A-6a
	12.5-13.5	0	1	4	37	58	34	9	35	A-4b
10+70 17° Rt.	5.0-6.0	62	12	10	15	21	41	12	25	A-7-6
	7.5-8.5	55	11	7	10	17	36	12	20	A-2-6
	10.0-11.0	50	14	7	10	16	38	12	27	A-2-6
	15.0-15.5		Brown Sandstone Fragments w/Little Clay						-	Visual
Ramp A										
26+65 7° Rt.	5.0-6.0		Yellow Clay and Shale Fragments						-	Visual
Relocated County Road 114										
71+00 5° Rt.	5.0-6.0	36	3	6	29	30	37	11	18	A-6a
	10.0-11.0	34	7	17	23	17	30	6	11	A-4a
	20.0-21.0	0	4	7	30	39	33	8	16	A-4b
	25.0-25.9	35	2	5	32	27			15	A-4a

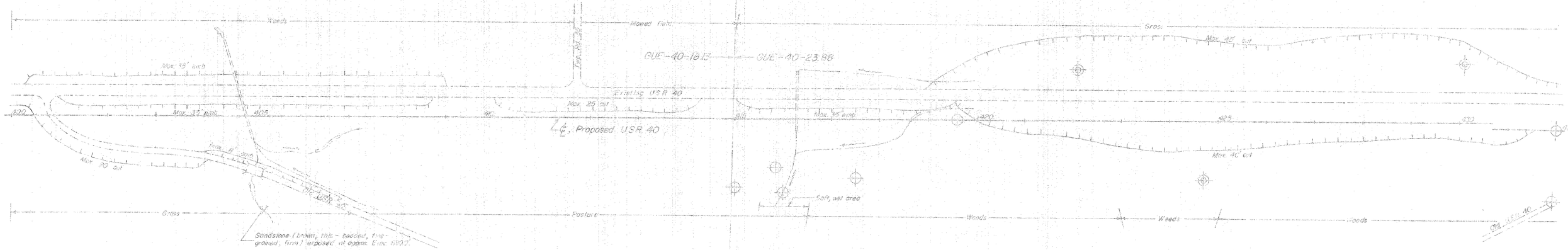
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SOIL PROFILE

GUERNSEY-BELMONT COS.
GUE 40-23.88
BEL - 40-0.00

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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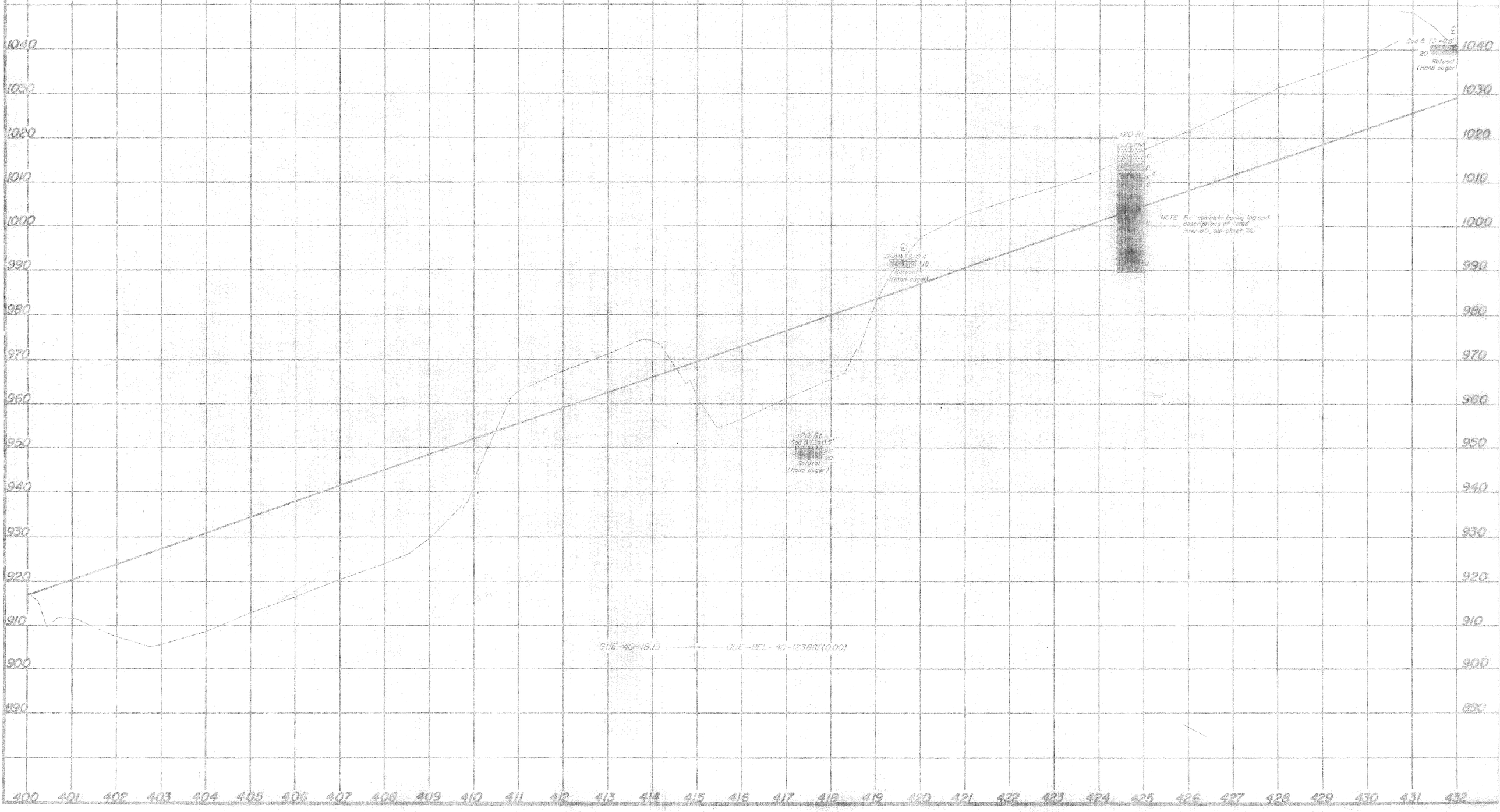


CROSS SECTION INDEX	
STATION	SHEET
416+00	25
418+00	25
422+00	26
428+00	26
430+00	27
432+00	27

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SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.89
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

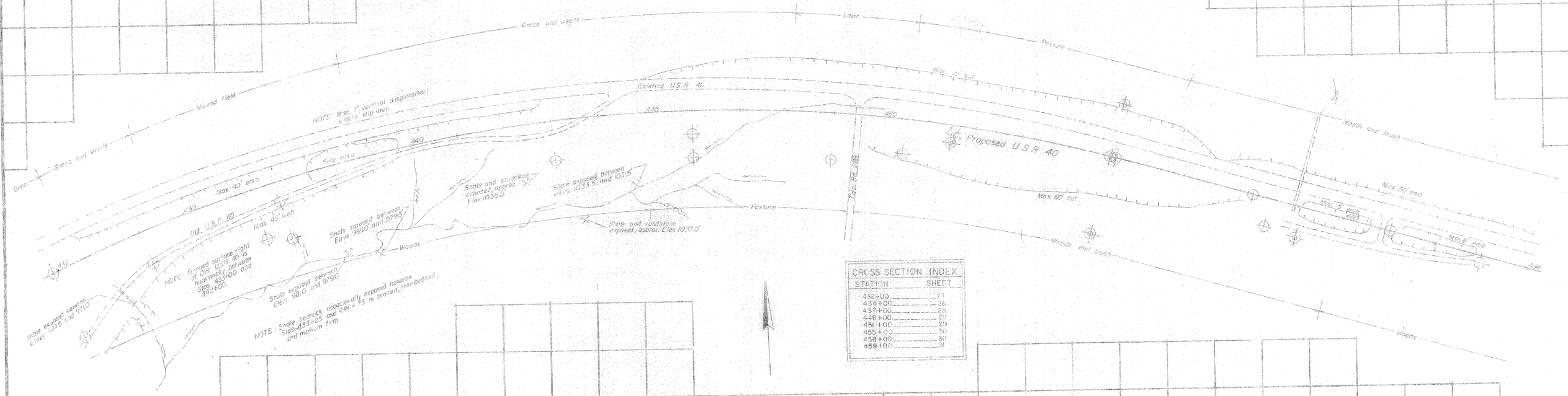
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SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE.-40-23.88
BEL.-40-0.00
OHIO STATE HIGHWAY
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CROSS SECTION INDEX	
STATION	SHEET
432+00	27
434+00	28
437+00	28
446+00	29
451+00	29
455+00	30
458+00	30
459+00	31

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SOIL PROFILE

GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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1140
1130
1120
1110
1100
1090
1080
1070
1060
1050
1040
1030
1020
1010

15' Rt.
Sod 8"
Fill
Rock
Refusal

NW

Parish Hand Auger

100' Rt.
35
27
16
11
15
12

85' Rt.
Sod & TS=0.5'
Refusal
(Hand auger)

45' Rt.
Sod & TS=0.4'
10
18
11
Refusal

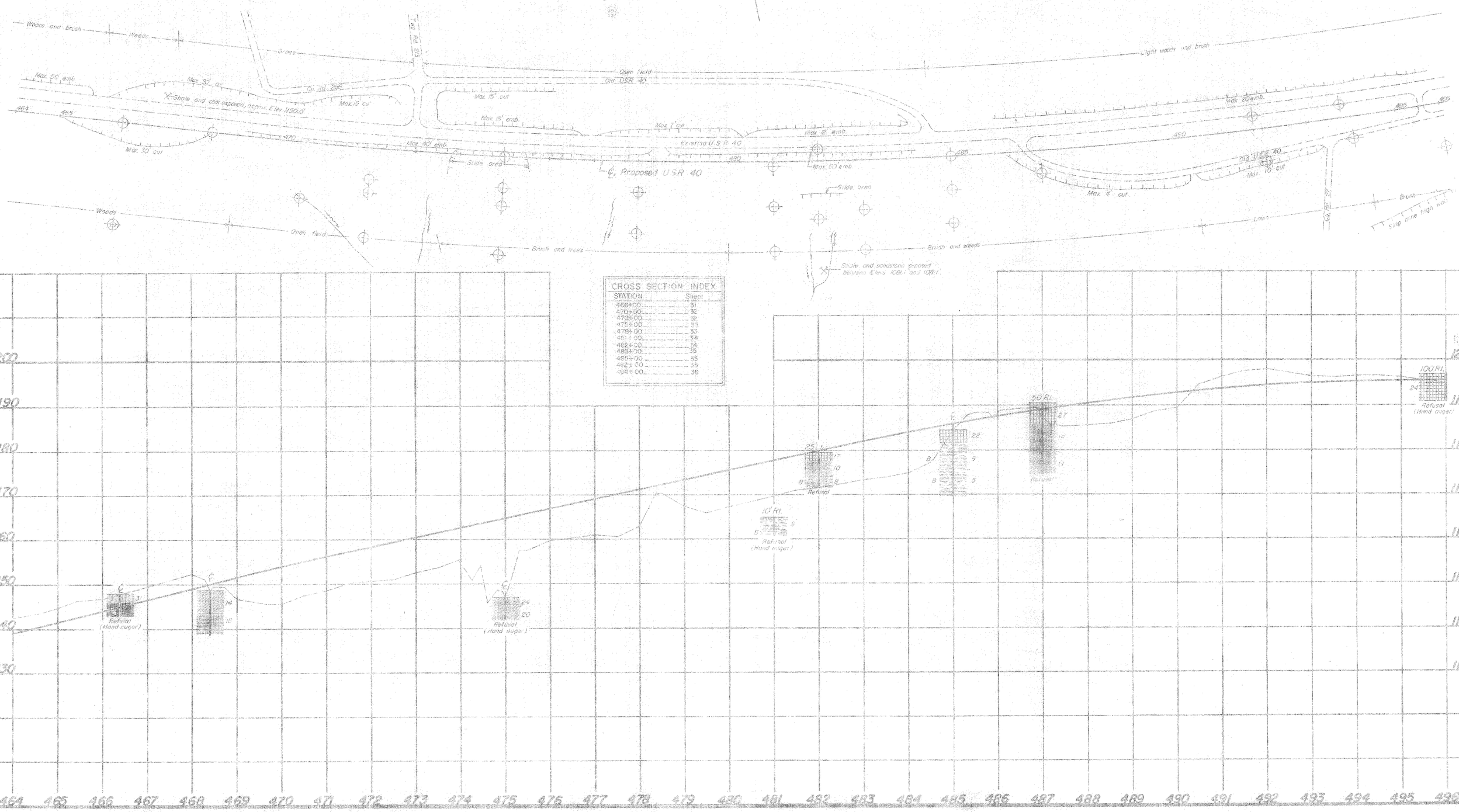
Sod & TS=0.6'
Refusal
(Hand auger)

432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464

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SOIL PROFILE

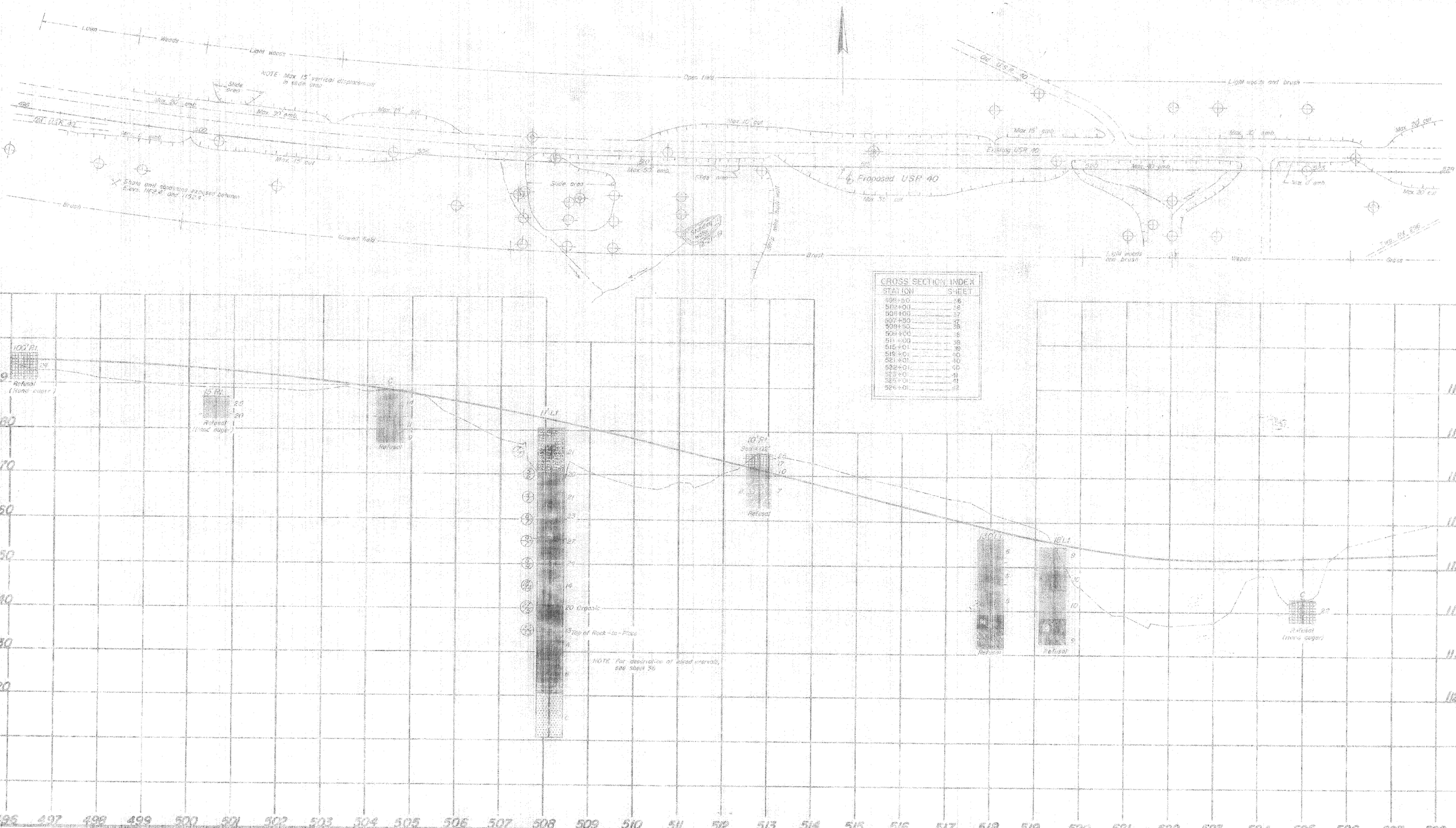
GUERNSEY-BELMONT COS. 10 79
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO



REVISED-10/8/62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE.-40-23.88
BEL.-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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79



CROSS SECTION INDEX

STATION	SHEET
498+50	26
500+00	26
501+50	27
503+50	27
504+50	28
505+00	28
506+00	28
511+00	28
515+01	29
519+01	30
521+01	30
522+01	30
523+01	31
525+01	31
526+01	32

REVISED-10/8/62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.06
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

12
75

Light woods and brush
Pasture
Open field
Max. 20' cut
Fill
Max. 20' cut
Type fill 2:6
Max. 10' cut
Max. 15' cut
Existing U.S.R. 40
540
Max. 4' cut
545
℄ Proposed U.S.R. 40
Gas
Weeds (area very soft and wet)
Brush and weeds
Mowed field
Brush
Hayfield
Brush and weeds
Slide area
Weeds
Pasture
Corn
Mowed field
Brush and weeds
Substrata (brown, fine-grained, shaly, broken, firm, with thin clay seams) exposed at elev. 1102.5
Mowed field
Max. 35' cut
Slide area
555
Max. 15' cut
Max. 15' emb.
Max. 5' emb.
Max. 10' cut
Max. 15' cut
Water line
Gas
Gas line in mine boring (approx. elev. 1145.)
Mining shaft

CROSS SECTION INDEX

STATION	SHEET
529+01	42
530+01	43
531+01	44
532+01	44
534+00	44
534+00	44
535+61	45
536+01	45
541+01	45
544+00	46
545+03	47
546+00	47
548+50	48
550+00	48
552+00	49
557+00	49

1170
1160
1150
1140

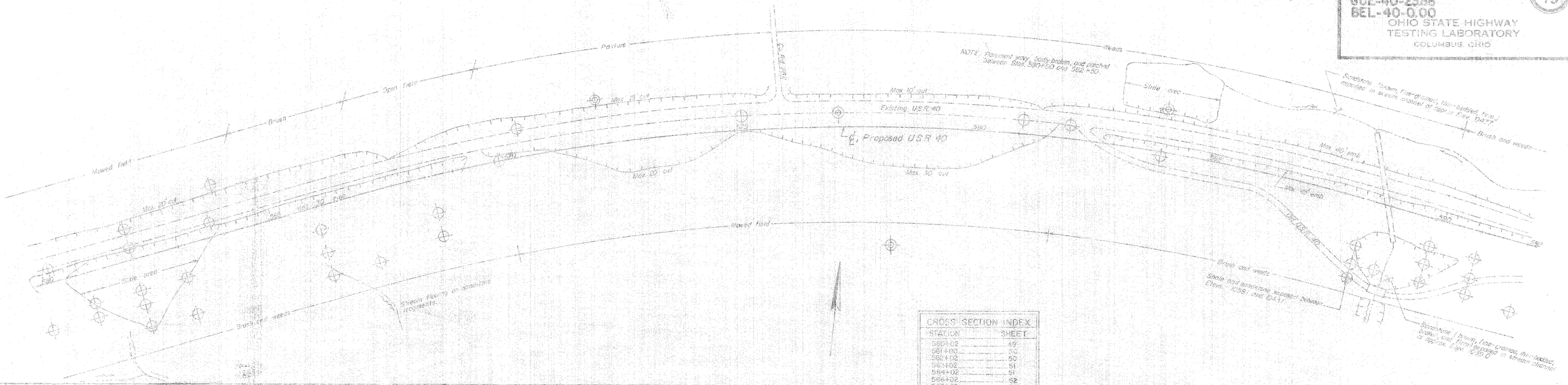
Refusal (Hard augar)
Refusal
Refusal
Sandstone
Refusal
Refusal
Refusal

528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560

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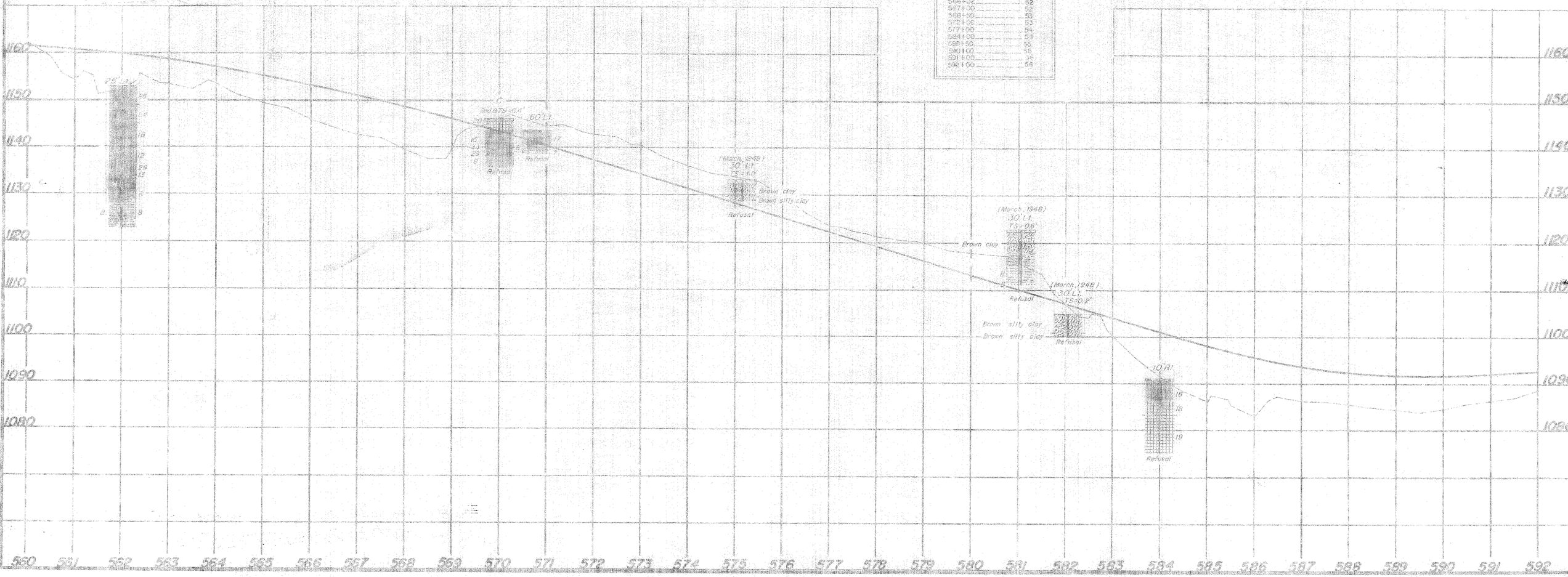
SOIL PROFILE
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GUE-40-23.85
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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CROSS SECTION INDEX

STATION	SHEET
560+02	49
561+00	50
562+02	50
563+02	51
564+02	51
566+02	52
567+00	52
568+50	53
572+00	53
577+00	54
581+00	54
582+50	55
590+00	56
591+00	56
592+00	56



SOIL PROFILE

GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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79

Revised - 9/6/62
REVISED - 10/8/62

Standing water (1'-6" D.)
Wet and soft
Wet and soft
Old USR 40
Brush and weeds
Bridge
Mowed field
Max. 35' cut
Shale mine high wall
Sandstone and shale outcropping between Elevs. 1142.0 and 1134.0
Spoil pile
Max. 40' cut
Max. 50' emb.
Proposed USR 40
Max. 60' emb.
Weeds
Corn
Trees, weeds, and brush
Weeds
Pasture
Woods
NOTE: Concrete pavement cracked, badly broken, and wavy between Stas. 618+00 and 622+00.
Max. 30' cut
Max. 35' emb.
Existing USR 40
Standing water
Max. 25' emb.
Max. 7' cut
NOTE: The existing embankment between Stas. 612+50 and 622+50 shows evidence of movement as much as 100' right of centerline.
Slide area
Pine trees, brush, and weeds
Sandstone (buff, fine grained, thin-bedded, and fissile) exposed at Elev. 1031.6
℄ Proposed Service Rd.
NOTE: For profile of Proposed Service Rd. see sheet

CROSS SECTION INDEX

STATION	SHEET
592+00	26
593+00	56
596+00	57
599+00	57
600+00	57
602+50	58
604+00	58
608+00	59
610+00	59
611+50	60
612+50	60
613+00	61
614+00	62
616+00	62
618+00	63
621+00	64
622+00	64
623+00	65

70' Rt. Sandstone
105' Rt. Sandstone
145' Rt. Sandstone
Refusal
Block cast iron pipe
30' Rt. Sandstone
Refusal
20' Lt.
Weathered Sandstone
Refusal
21' Lt.

1130 1120 1110 1100 1090 1080 1070

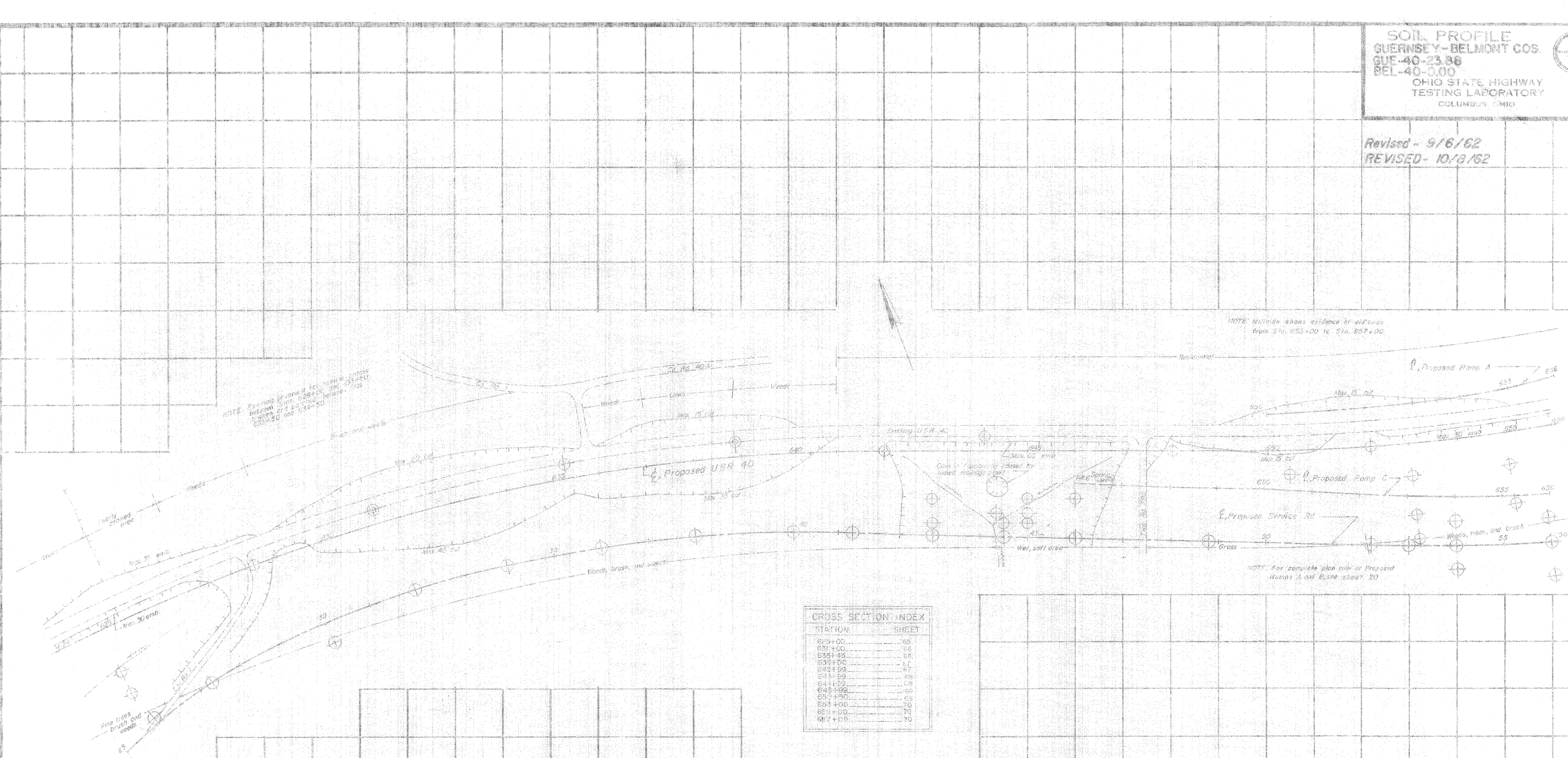
592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE.-40-23.80
BEL.-40-0.00

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

15
79

Revised - 9/6/62
REVISED - 10/8/62



CROSS SECTION INDEX

STATION	SHEET
625+00	65
631+00	66
635+45	66
639+00	67
642+99	67
643+50	68
644+00	68
645+99	69
650+50	69
651+00	70
651+05	70
657+00	70

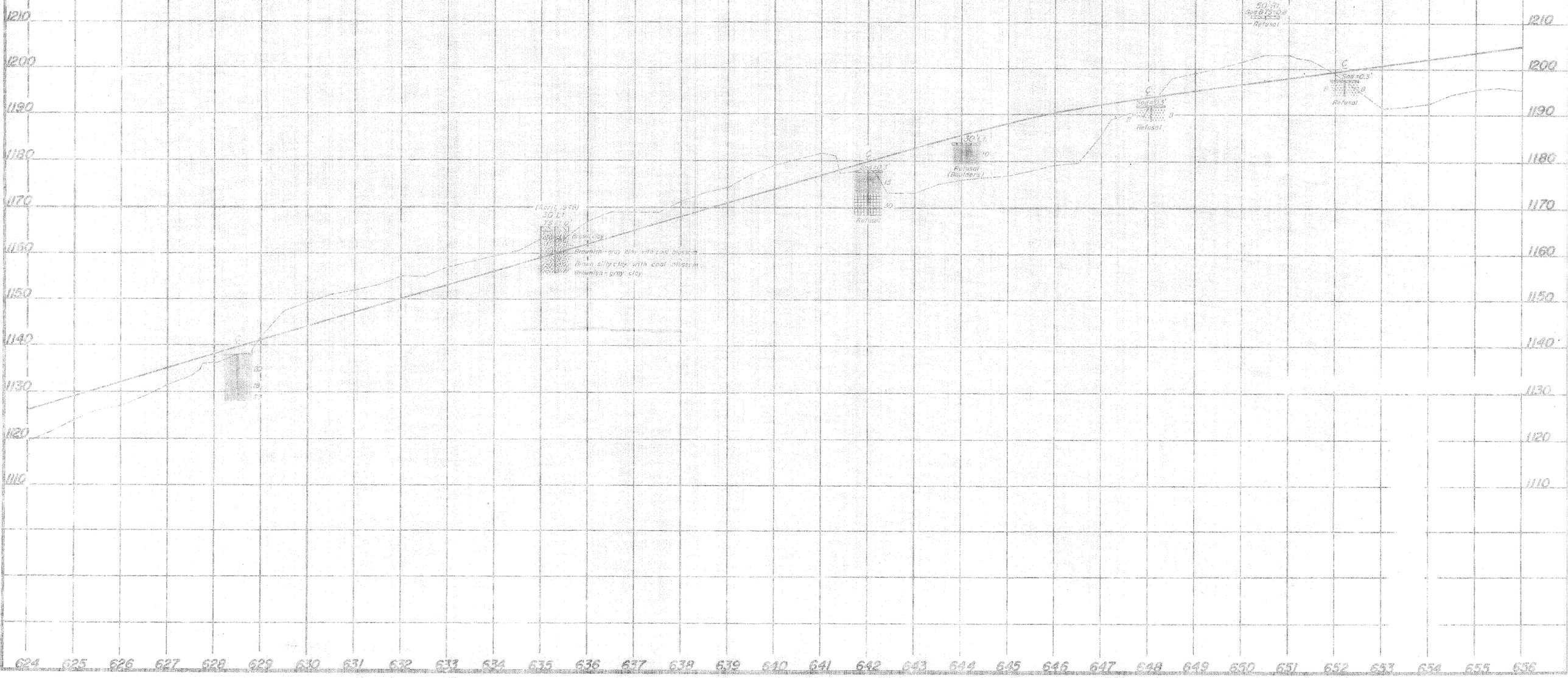
REVISED - 10/8/62

SOIL PROFILE

GUERNSEY - BELMONT COS.
GUE. - 40 - 22.88
BEL. - 40 - 0.00

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

16
79



SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.66
BEL-40-0.00

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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79

Revised-9/6/62
REVISED-10/8/62

CROSS SECTION INDEX

Section	Sheet
11+00	72
13+00	72
17+00	73
20+00	73
25+00	73
29+00	74
31+00	74
33+00	74
36+00	75
38+00	75

Sta. 657+37.58 (Guernsey County) Back =
Sta. 9+05.47 (Belmont County) Ahead

Existing Co. Rd. 10

℄ Proposed Ramp A

℄ Relocated Co. Rd. 114 (T)

℄ Proposed Ramp B

℄ Proposed Ramp C

℄ Proposed Service Rd. Z

℄ Proposed Ramp D

℄ Proposed U.S.R. 40

Existing pavement widths

Max. 30 cut

Max. 40 cut

Max. 15' emb

Max. 16' emb

Slip area

Weeds

Hay

Cultivated

Wooded

Abandoned field road

NOTE For roadside plan view of left shoulder see Sheet 60

(April, 1948)

67' Lt.

Yellow clay and shale fragments

Top of Rock in Place

Shale, yellow

Clay shale, gray

Coal

Clay shale, dray

Refusal

20' Lt.

20' Rt.

30' Lt.

Sta. 657+37.58 (Guernsey County) Back
Sta. 9+05.47 (Belmont County) Ahead

STATION LOCATION

1270
1260
1250
1240
1230
1220
1210
1200
1190

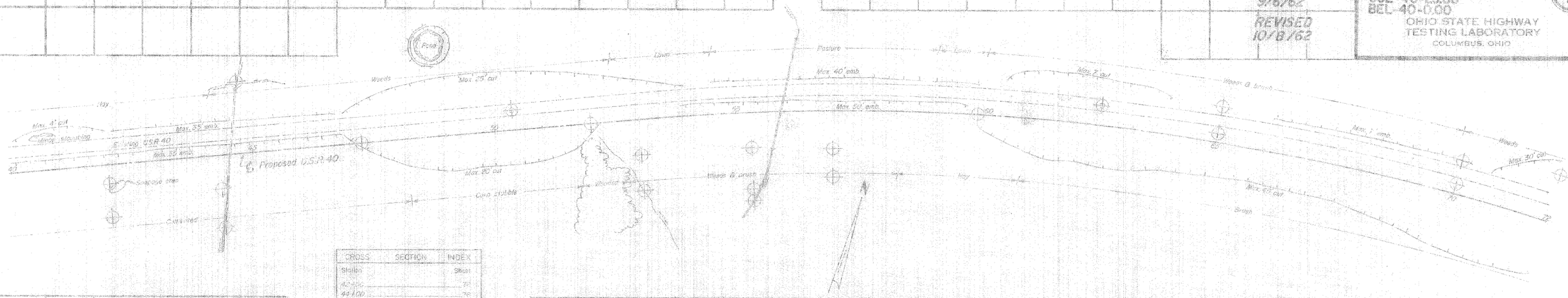
656 657 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

REVISED 9/6/62

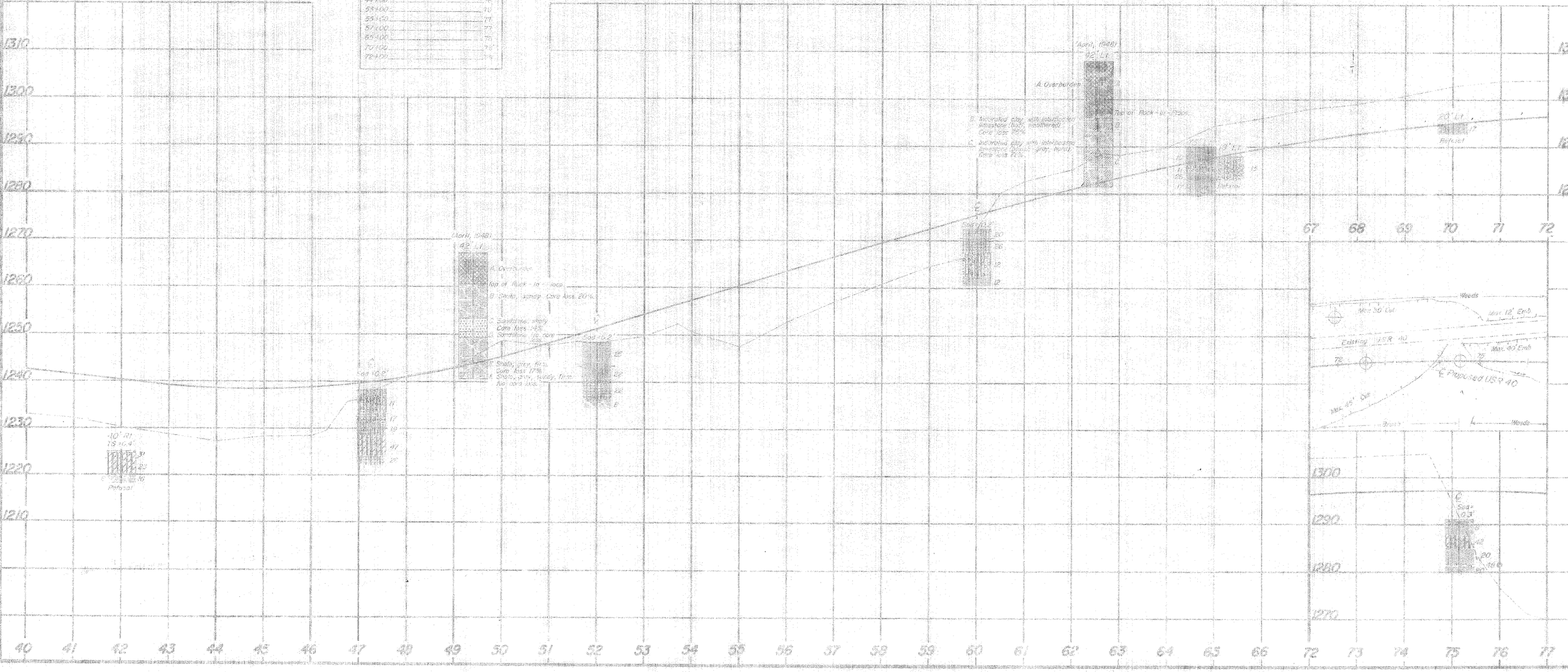
REVISED 10/8/62

SOIL PROFILE
GUERNSEY - BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY TESTING LABORATORY
COLUMBUS, OHIO

18/79



CROSS SECTION INDEX	
Station	Sheet
42+00	2
44+00	76
55+00	76
55+50	77
57+00	77
65+00	75
70+00	75
72+00	75



TE-88 (FORMERLY TE-64-B)
7209.10-62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
1920 W. BROAD ST., COLUMBUS 23, OHIO

19 / 79

Supplement - 9/6/62

REVISED-10/9/62

1220 1160 1150 1140 1130 1120 1110 1100 1090 1080 1070 1060 1050

1210 1200 1190 1180 1170 1160 1150 1140 1130 1120 1110 1100

10' Rl.
TS=0.5'
Refusal

45' Rt.
TS=0.5'
Refusal

TS=0.5'
Refusal

TS=0.5'
Refusal

TS=0.5'
Refusal

TS=0.5'
Refusal

TS=0.5'
Refusal

TS=0.5'
Refusal

10' Rt.
TS=0.5'
Refusal

10' Rt.
TS=0.5'
Refusal

Shale, brown to gray, argillaceous, slightly calcareous, slightly micaceous, laminated, thin to thick, badly broken, soft and crumbly zone between elevs. 1189.2 and 1183. Core loss 28 %.

Sandstone, light gray, fine-grained, micaceous, hard, thin bedded, badly broken with probable flat seams. Core loss 25 %.

Coal, black, dull luminous to part I, iron-stained, conchoidal fracture, hard, badly broken. Core loss 37 %.

Calcareous shale, gray, calcareous, slightly micaceous in part, slickensided, soft to firm, crumbly. Core loss 18 %.

Shale, gray, argillaceous, siliceous, slightly micaceous, massive, hard, badly broken. Core loss 5 %.

Brown fossiliferous shale fragments

Brown shale fragments

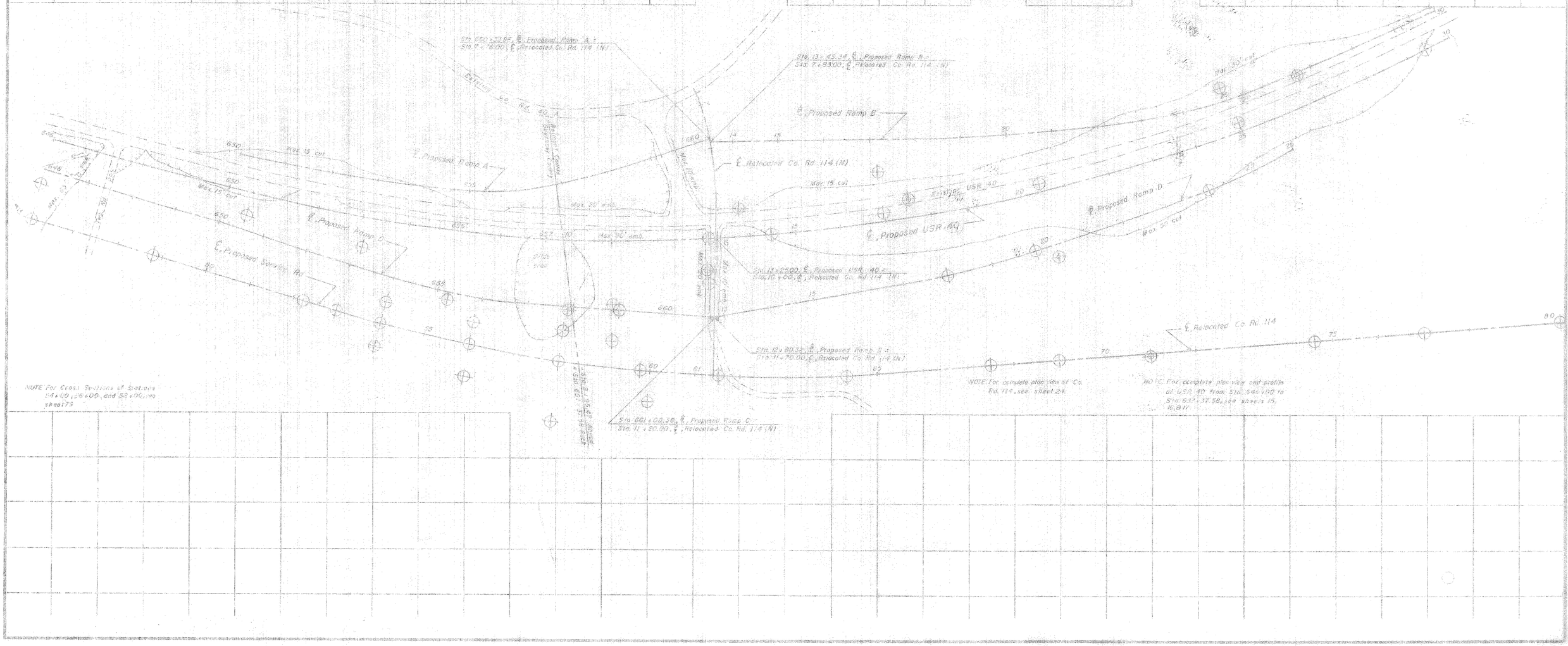
Service Road

19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51

SOIL PROFILE
GUERNSEY-BELMONT COS. 20/79
GUE.-40-23.68
BEL.-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
1627 W. BROAD ST., COLUMBUS 23, OHIO

Supplement - 9/6/62
REVISED-10/8/62

PROFILE INDEX	
Profile	Sheet
Service Rd.	19&21
Co. Rd. 114 (N)	21
Ramp A	22
Ramp B	24
Ramp C	23
Ramp D	23
Co. Rd. 114	24



SOIL PROFILE

GUERNSEY-BELMONT COS.

GUE-40-23.88

BEL-40-0.00

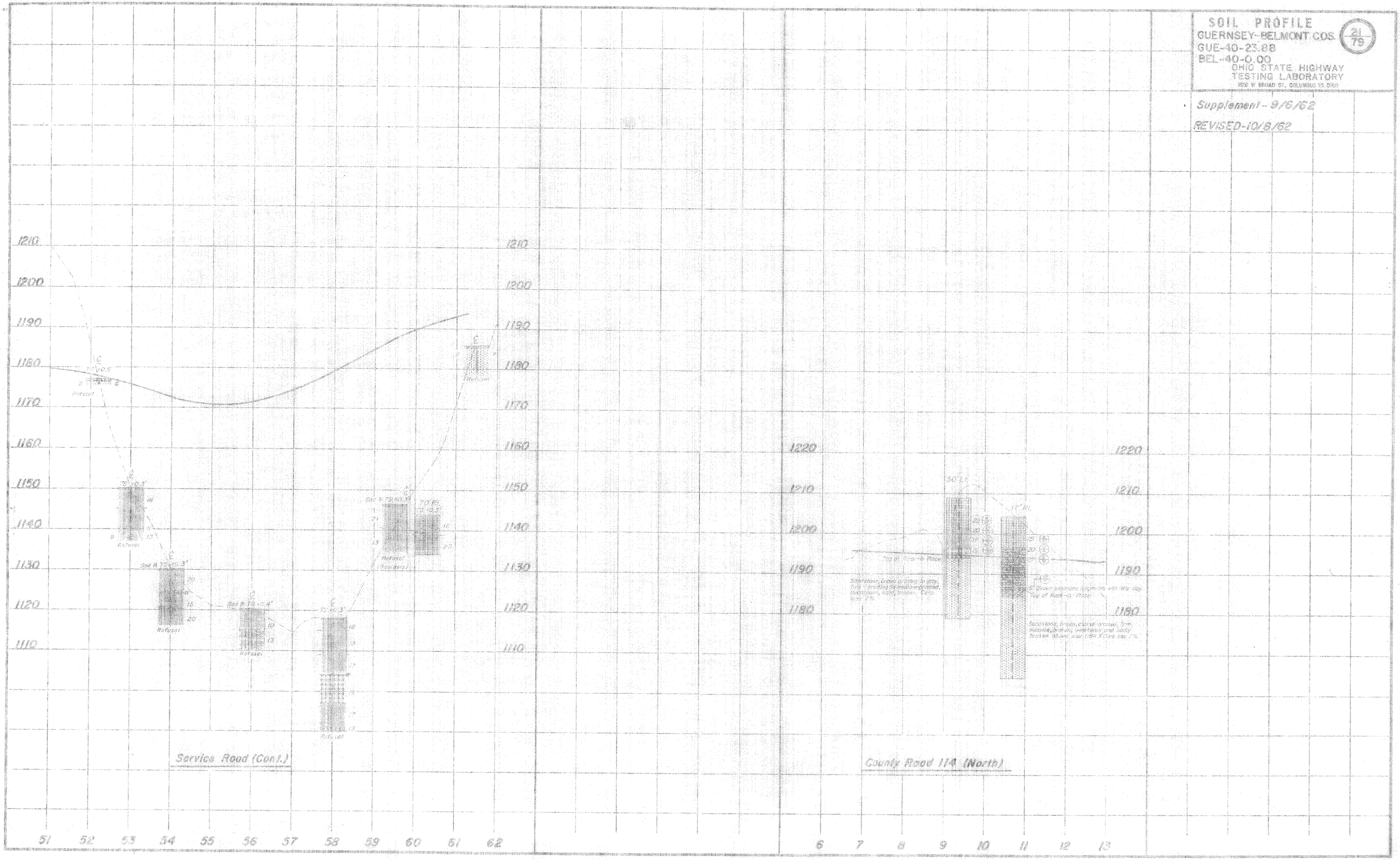
OHIO STATE HIGHWAY TESTING LABORATORY

1920 W. BROAD ST., COLUMBUS 23, OHIO

24/75

Supplement - 9/6/62

REVISED-10/8/62



B-55 (FORMERLY TB-54-B)
CPD-11-61

SOIL PROFILE
GUERNSEY-BELMONT COS
GUE-40-23.68
BEL-40-0.00
OHIO STATE HIGHWAY TESTING LABORATORY
1600 W. BROAD ST., COLUMBUS 23, OHIO

22
75

Supplement - 9/6/62

REVISED-10/8/62

(April, 1958)

Yellow clay and shale fragments
Top of Rock-to-Place
Shale, yellow
Clay shale, gray
Coal
Clay shale, gray
Refusal

1270
1260
1250
1240
1230
1220
1210
1200
1190
1180

Sta 25+00, 105 Lt.
Proposed USR 40

30" Lt.
Sta 10+0'

Black coal

Sod & Ts 10'

Refusal

Ramp A

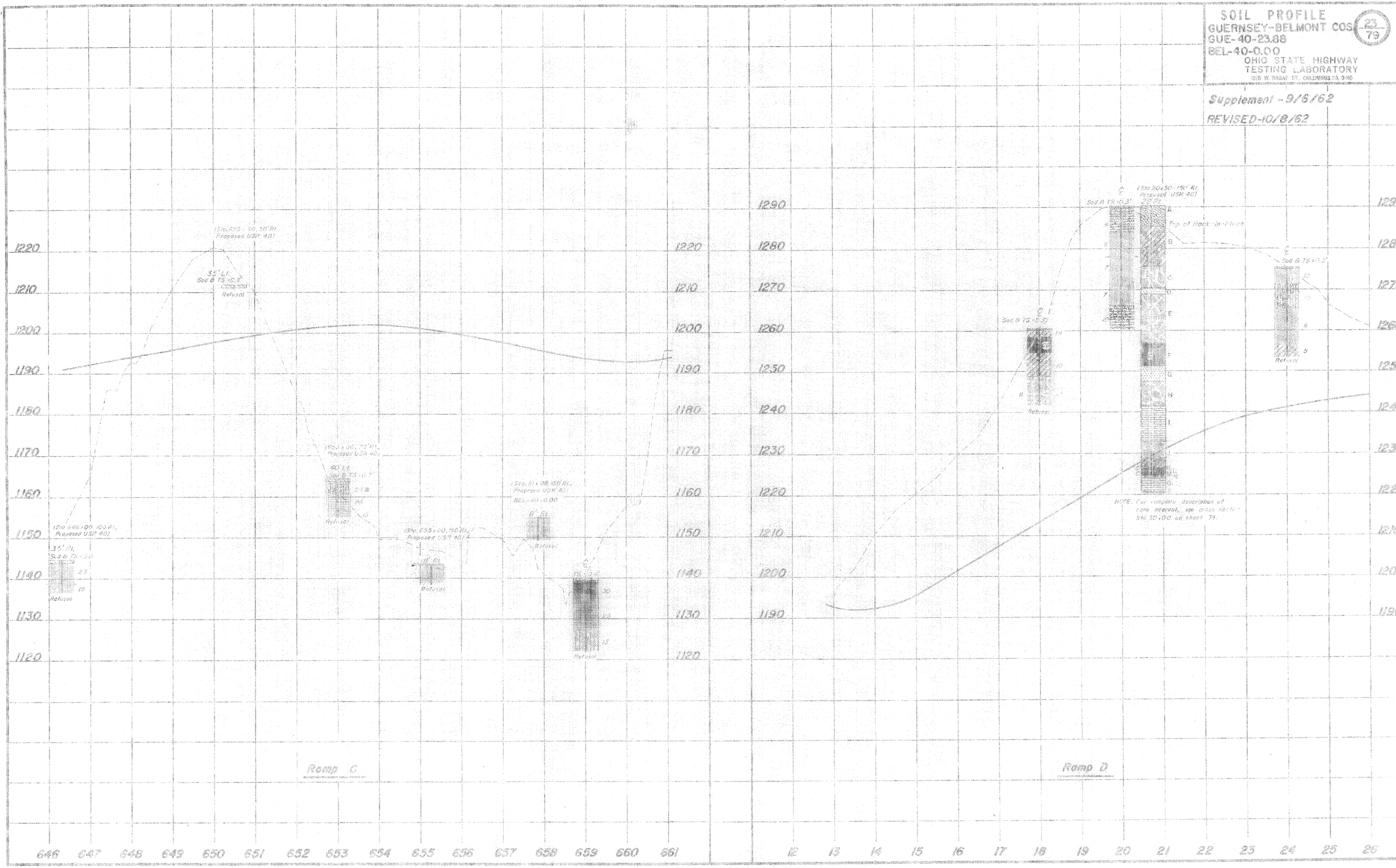
650 651 652 653 654 655 656 657 658 659 660 661

Ramp B

13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

SOIL PROFILE
GUERNSEY-BELMONT COS. 23/79
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY TESTING LABORATORY
1989 W. BROAD ST., COLUMBUS 23, OHIO

Supplement - 9/6/62
REVISED-10/8/62



SOIL PROFILE

GUERNSEY-BELMONT COS. 24/79

GUE-40-23.88

BEL-40-0.00

OHIO STATE HIGHWAY TESTING LABORATORY

1600 W. BROAD ST., COLUMBUS 23, OHIO

Supplement - 9/6/62

REVISED-10/8/62

℄ Relocated Co. Rd. 114 (N)

℄ Ramp D

℄ Relocated Co. Rd. 114

Existing Co. Rd. 114 (N)

Sta. 8 TS=0.2'

5' Fill

TS=0.3

TS=0.2

TS=0.1

TS=0.5

TS=0.5

Refusal

Refusal

Refusal

Refusal

Black soft coal fragments

Top of Rock - to - Place

Shale, gray, argillaceous, calcareous, firm, weathered, badly broken to crumbly, slickensided in lower 1.0', with a clay seam, from elev. 1253.2 to 1252.0

Coal, black, dull to vitreous, in parts, friable, hard, weathered, badly broken

Shale, gray, argillaceous, slightly arenaceous, calcareous below elev. 1228.0, friable, firm, slightly weathered, heavy broken to crumbly, with limestone, lenticular, (light-gray, slightly argillaceous), hard, loose, broken, from elev. 1237.0 to 1234.0, and with frequent clay seams throughout

Limestone, gray, slightly argillaceous, nodular, no. 3, fossiliferous, broken, with 0.3' thick shale interbeds gray, argillaceous, calcareous, friable, firm, broken) at elev. 1219.0, 1218.0 and 1217.7

Decomposed clay, gray, calcareous, slickensided, stem, cobbles

Shale, gray, argillaceous, calcareous, arenaceous, siliceous, slightly micaceous, hard, broken; soft and crumbly zone from elev. 1204.0 to 1203.0

Sandstone, gray, fine-grained, micaceous, siliceous hard, broken

Relocated Co. Rd. 114

1290 1280 1270 1260 1250 1240 1230 1220 1210 1200 1190 1180 1170

61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93

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SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

25
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Cross Section
Sta. 416+00

Proposed section

970
960
950
940
930
920

(Sta. 415+85)
Sod 8" Top Soil
Asphalt

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

Cross Section
Sta. 415+00

Proposed section

Sod 8" Top Soil
Asphalt

TE 84-B
1300-10-80

REVISED-10/8/62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

26
79

Cross Section
Sta. 425+00

(Sta. 423+70)

Top of Rock - In - Place

A - Brown shale fragments.
B - Sandstone, brown, medium-grained, firm, massive, weathered, broken, friable. Core loss: 92%.
C - Sandstone, brown, medium-grained, firm, massive, broken. Core loss: 21%.
D - Shale, gray, argillaceous, fissile, medium-firm, broken. Core loss: 21%.
E - Sandstone, gray, calcareous, hard, broken. Core loss: 4%.
F - Shale, gray, argillaceous, fissile, firm, broken. Core loss: 4%.
G - Shale, reddish-brown, argillaceous, fissile, medium-firm, weathered. Core loss: 4%.
H - Shale, reddish-brown, argillaceous, soft, extremely weathered. Core loss: 17%.
I - Shale, red and gray, argillaceous, fissile, medium-firm, weathered, broken. No core loss.

Proposed section

Cross Section
Sta. 422+00

(Sta. 422+10)

Approximate ground line - March, 1949

Brown silty clay and shale fragments.
Top of Rock - In - Place.
Shale, hard. Core loss, 80%.
Sandstone, fine grained. Core loss 81%.
Shale, gray, hard. Core loss 84%.
Clay shale, red and gray. Core loss 69%.

Proposed section

1040
1030
1020
1010
1000
990
980

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

REVISED-10/ /62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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Cross Section
Sta. 432+00

Soil & TS=0.5
50
Refusal
(Hand auger)

Proposed section

Cross Section
Sta. 430+00

(Sta. 430+10)

Approximate ground line March, 1949

Brown silty clay.

Brown silty clay with shale fragments.

Gray sandy silty clay with shale fragments.

Top of Rock in Place.

Shale, gray, micaceous, hard. Core loss 20%.

Sandstone, gray, shaly, firm. Core loss 20%.

Shale, gray, sandy, firm. Core loss 15%.

Sandstone, brown and gray, firm. Core loss 54%.

Proposed section

Indurated clay, gray. Core loss 94%.

Refusal

Cross Section
Sta. 457+00

REVISED-10/8/62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE.-40-23.88
BEL.-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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Cross Section
Sta. 434+00

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SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE.-40-23.88
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OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

29/79

Cross Section Sta. 451+00

Approximate ground line - March, 1949

Proposed section

(Sta. 451+50)

Brown sandy silty clay with stone fragments.

Brown silty clay with stone fragments.

Top of rock-in-place laminated clay, gray. Core loss: 93%

Limestone, white, hard, dense, 1/8" core loss.

Interbed: clay, gray, hard. Core loss: 66 %.

Laminated clay, red, soft. Core loss: 78%.

Laminated clay, grayish-green hard. Core loss: 42 %.

Shale, green, hard. Core loss: 50%.

(Sta. 450+50)

2.5

Refusal (Hand auger)

Cross Section Sta. 446+00

Proposed section

2.5

Refusal (Hand auger)

2.5

Refusal (Hand auger)

SOIL PROFILE

GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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79

REVISED-10/8/62

Cross Section Sta. 458+00

(Sta 458+40)

Proposed section

Vertical

Cross Section Sta. 455+00

(Sta 454+20)

Gray silty clay

Top of Rock-in-Place

Limestone, white, hard, dense
Core loss: 54%

Indurated clay, gray
Core loss: 92%

Clay shale and indurated clay, red, soft
Core loss: 100%

(Sta 455+00)

Brown sandy silty clay

Top of Rock-in-Place

Clay shale, yellow and gray
Core loss: 65%

Coal. Core loss: 93%

Indurated clay, gray
Core loss: 79%

Limestone, gray
Core loss: 79%

Shale, gray, sandy
Core loss: 56%

Approximate ground line - March, 1949

Vertical
(Hand auger)

Proposed section

(Sta 456+60)

Brown silty clay with shale fragments

Top of Rock-in-Place

Indurated clay, brown and yellow. Core loss: 68%

Indurated clay, yellow, with limestone interbeds. Core loss: 92%

Clay shale, gray, soft
Core loss: 77%

REVISED 10/8/62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.85
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

31
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Cross Section
Sta. 466+00

Cross Section
Sta. 459+00

(Sta 466+40)
Brown silty sand and stone fragments
Top of Rock-in-Place
Sandstone, brown, medium-grained, micaceous, firm, thin-bedded, broken. Core loss: 90%.
Shale, gray, argillaceous, soft, extreme weathered, badly broken. Core loss: 96%.
Shale, reddish brown, argillaceous, soft extremely weathered, badly broken Core loss: 100%.
Shale, gray, argillaceous soft, extremely weathered, badly broken. Core loss: 65%.
Shale, gray, argillaceous, medium-firm, weathered, broken Core loss: 35%.
Sandstone, brown, medium-grained, firm, massive, broken. Core loss: 30%.
Shale, brown, argillaceous, fissile, medium-firm, weathered, broken. Core loss: 16%.
Shale, dark gray, carbonaceous, fissile, firm, broken. Core loss: 16%.
Void - in mad interval
Indurated clay, argillaceous, slickensided, crumbly, with interbedded limestone comprising 10% of the interval. Core loss: 19%.
Sandstone, gray, medium-grained, firm, massive, broken, interbedded with shale layers, argillaceous, fissile, firm which comprises 50% of the interval. No core loss.

(Sta 459+40)
Approximate ground line - North, 13.5' Rt.
Brown silty clay
Grayish-brown silty clay
Top of Rock-in-Place
Indurated clay, red. Core loss: 89%.
Indurated clay, grayish-green. Core loss: 68%.
Clay shale, gray, soft. Core loss: 71%.

Proposed section

Approximate ground line - North, 13.5' Rt.
(Sta 466+40)

Proposed section

Existing
(Hand Auger)

90 50 ℄ 50 100 150 200 230

90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230

1200 1190 1180 1170 1160 1150 1140 1130 1120 1110 1100 1090

REVISED-10/6/62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.68
BEL-40-000
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

32
79

Cross Section
Sta. 472+00

Cross Section
Sta. 470+50

Refusal
(Hard spot)

Refusal

Refusal

REVISED-10/8/62

SOIL PROFILE

GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

33
79

Cross Section Sta. 478+00

Proposed section

Refusal (Hand auger)

Cross Section Sta. 475+00

Proposed section

Refusal (Hand auger)

Refusal (Hand auger)

Refusal (Hand auger)

Refusal (Hand auger)

REVISED-10/8/62

SOIL PROFILE

QUERNSEY-BELMONT COS.
GUE-40-23.86
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

34
79

Cross Section
Sta. 482+00

Proposed section

Refusal

Cross Section
Sta. 481+00

Proposed section

Refusal
(Hand auger)

Refusal
(Hand auger)

Refusal
(Hand auger)

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SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS OHIO

35
79

Cross Section Sta. 492+00

(March, 1949)
(Sta. 491+80)
B-1-0.0'
Brown silty clay
Refusal

Proposed section

27
7
10
Refusal

Cross Section Sta. 485+00

Proposed section

22
9
6

Cross Section Sta. 483+00

Proposed section

4
Refusal
(Hand auger)

24
Refusal
(Hand auger)

25
Refusal
(Hand auger)

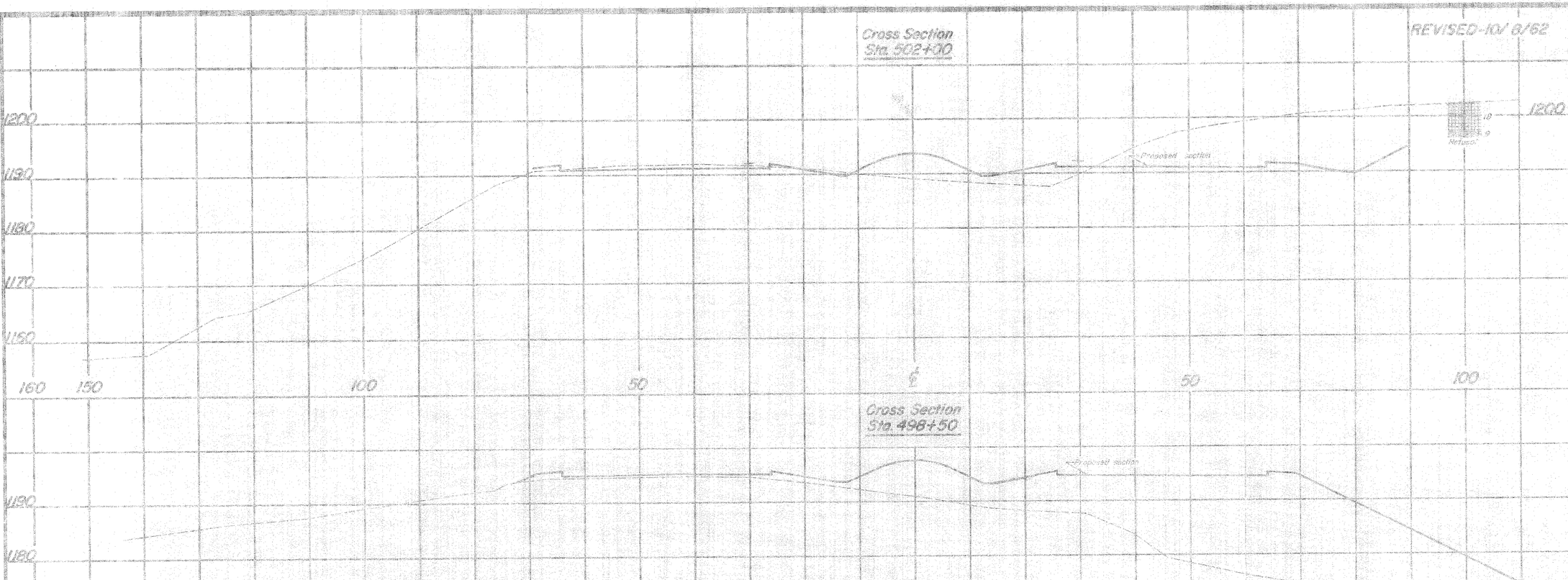
SOIL PROFILE

GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

36
79

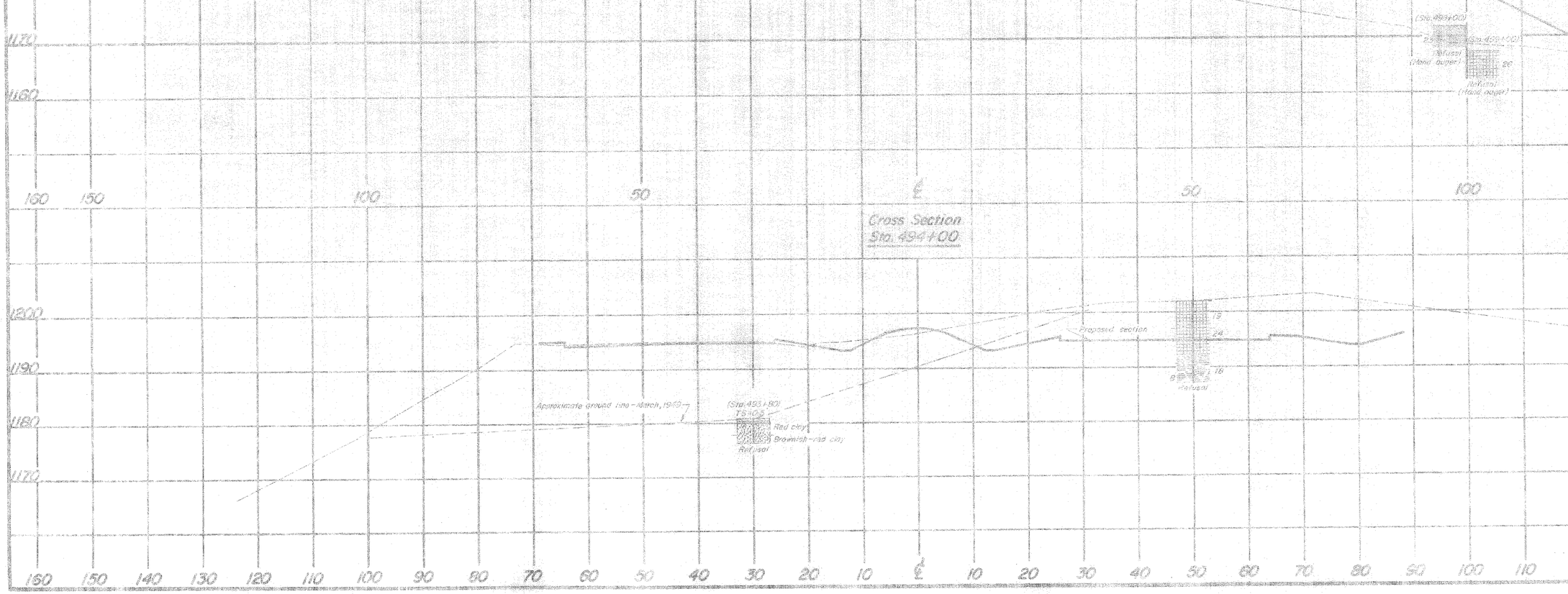
REVISED-NOV 8/62

Cross Section Sta. 502+00



Cross Section Sta. 498+50

Cross Section Sta. 494+00



REVISED-10/8/62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE.-40-25.88
BEL.-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

37
79

Cross Section Sta. 507+50

Proposed section

(Auger) (Rotary)
Sta. 507+63

A. Sandstone, light gray, hard, massive, fine-grained, micaceous, slightly calcareous, laminated, with occasional lens of clay inclusions. (Core loss 2%)

B. Shale, light brown, firm to medium-hard, siliceous, fissile, platy, planes very badly broken and crumbly. (Core loss 0%)

C. Shale, light gray, medium-hard to hard, massive, argillaceous, slightly siliceous in places, seam. (Core loss 0%)

D. Coal, bituminous, blocky, very badly broken and jointed, 0.0' to 0.3' interval light gray, firm, calcareous, at elevation 1134.0'. (Core loss 0%)

E. Limestone, dark gray, hard, dense, massive, very fine to coarse-grained, fossiliferous. (Core loss 2%)

F. Interbedded clay, slightly gray to gray, firm, sandy-micaceous, argillaceous, very badly broken, thin beds, calcareous, crumbly and shale, gray, medium-hard, approximately elevation 1133.0', with very dark gray, very hard, massive, very fine to coarse-grained, fossiliferous limestone at approximately elevation 1130.0'. (Core loss 0%)

Top of Rock-in-Place

(Auger) (Rotary)
Sta. 507+35

Refusal
(Hard auger)

A. Shale, light gray to gray, hard to medium-hard, very siliceous, slightly calcareous, laminated, brown to green, weathered. (Core loss 2%)

B. Sandstone, light brown to light gray, hard, massive, fine to medium-grained, very siliceous, a minor percentage of interbedded calcareous, argillaceous, broken, shaly zones, interbedded shale seams, 0.0' to 0.4' shale interval (gray, hard, dense, siliceous). Approximate elevation 1134.0'. (Core loss 0%)

C. Shale, gray, firm to medium-hard, very argillaceous, slightly calcareous and siliceous, fractured, broken, shaly, 1.0' bed; broken, crumbly; light brown, clay, 0.3' bed; broken, crumbly; light gray, clay, 0.2' bed; several orange, calcareous, at approximate elevation 1133.0'. Layer 0.3' soft, crumbly, dark brown. (Core loss 2%)

D. Limestone, light brown to gray, hard, micro-crystalline, massive, dense, very hard, broken; interbedded with thin shale seams. (Core loss 0%)

Top of Rock-in-Place

(Auger) (Rotary)
Sta. 507+35

Refusal
(Hard auger)

Cross Section Sta. 506+00

Proposed section

Top of Rock-in-Place
(Hand auger)

1190 1180 1170 1160 1150 1140 1130 1120 1110 1100 1090

120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

SOIL PROFILE

GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

38
79

REVISED 10/9/62

Cross Section Sta. 509+00

Proposed section

(Sta. 509+50)
Refusal (Hand auger)

(Sta. 509+90)
Refusal (Hand auger)

(Sta. 509+50)
Refusal (Hand auger)

Cross Section Sta. 508+50

(August, 1958)
(Sta. 508+13)

Proposed section

(August, 1958)
(Sta. 508+17)

Refusal (Hand auger)

Refusal (Hand auger)

Refusal (Hand auger)

A. Shale, clay, tan & medium hard, calcareous, with siltstones and calcareous, fractured, soft, broken, weathered layers (1' very badly broken, soft, crumbly, tan to light gray, silty, shaley clay interval at approximate elevation 1126.0'. Core loss 20%.

B. Indurated clay, light gray to gray, soft to firm, very argillaceous, broken; below approximate elevation 1118.5' becomes shale like & hard, nodular, very calcareous; lowest 1' consists of shaley, fossiliferous, brown, siltstone, interbedded with thin calcareous shale. Core loss 5%.

C. Sandstone, light gray, fine-grained, hard, calcareous, massive, very siliceous, somewhat argillaceous, slightly calcareous, broken, jointed, with thin (1/4") horizontal shale seams. No core loss.

Chalk, buffish gray-brown, firm to very, calcareous, siliceous, argillaceous, with irregular limestone, crumbly, badly broken. Core loss 8%.

Sandstone, gray, fine to medium-grained, firm, very calcareous, with thin irregular interbedded clay seams; broken & badly weathered, very siliceous, fine-bedded at elevation 1112.6'. No core loss.

Chalk, gray, medium hard, siliceous, argillaceous, thin-bedded, dense in lower half, broken and jointed. No core loss.

Indurated clay, very, soft to firm, calcareous, with irregular limestone, badly broken. No core loss.

Limestone, light gray, medium-hard, badly broken and jointed. Core loss 8%.

Indurated clay, gray, firm, broken. Core loss 2%.

REVISED-10/8/62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.68
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS OHIO

39
75

Cross Section Sta. 515+01

Approximate ground line - March, 1948

(Sta. 515+30)

Brown clay

Top of Rock-in-Place

Clay shale. Core loss 19%

Unfluoted clay. Core loss 57%

Clay shale, gray. Core loss 15%

Proposed section

Cross Section Sta. 511+00

Approximate ground line-March, 1948

(Sta. 510+91)
TS-0.5

Brown clay

Red clay

Red and gray clay

Refusal

Proposed section

Refusal
(Hand auger)

Refusal
(Hand auger)

Refusal
(Hand auger)

REVISED-10/8/62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

40
79

Cross Section
Sta. 521+01

← Proposed section

(Sta. 521+01)
21
Refusal
(Hand auger)

Cross Section
Sta. 513+01

(Sta. 513+40)
9
12
10
9

Proposed section →

Approximate ground line

(Sta. 519+00)
19
25
6-9

REVISED-10/8/62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

41
79

Cross Section
Sta. 523+01

Proposed section

(Sta. 523+00)
22
Refusal
(Hand auger)

(Sta. 523+62)
19
Refusal
(Hand auger)

Cross Section
Sta. 522+01

Proposed section

(Sta. 522+00)
23
Refusal
(Hand auger)

(Sta. 522+00)
21
Refusal
(Hand auger)

(Sta. 521+38)
22
Refusal
(Hand auger)

(Sta. 522+00)
25
Refusal
(Hand auger)

1160
1150
1140
1130
1120
1110
1100
1090

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

REVISED-10/8/62

SOIL PROFILE

GUERNSEY-BELMONT COS.
GUE.-40-23.88
BEL.-40-0.00

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

42
79

Cross Section Sta. 529 + 01

Approximate ground line - March, 1948

(March 1948)
(Sta. 529+70)

A
B
C
D

Top of Rock - in - Place

Proposed section

Cross Section Sta. 526 + 01

(March 1948)
(Sta. 526+10)
12
Refusal

Approximate ground line March, 1948

Yellowish - brown clay
Brown clay
Gray silty clay

Proposed section

March 1948
(Sta. 526+10)

Firm sandy clay soil with indurated clay

Weathered indurated clay, brown sandy clay silt and shale fragments

Limestone (shale) with little sandy clay silt.

Gray sandy shale clay.

Top of Rock - in - Place

Shale, (clay), argillaceous, micaceous, arenaceous, hard, broken
To Core Hole

Cross Section Sta. 525 + 01

(Sta. 525+00)
25
Refusal
(Hand auger)

(Sta. 525+00)
22
Refusal
(Hand auger)

Proposed section

1190 1180 1170 1160 1150 1140 1130 1120

180 150 100 50 ℄ 50 100 140

SOIL PROFILE

QUERNSEY-BELMONT COS.
QUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

43/75

REVISED-10/8/62

Cross Section
Sta. 531 + 01

Proposed section

Approximate ground line

(Sta. 531+30)
24
Refusal
(Hand auger)

(Sta. 531+70)
65
49
Traces of organics

(Sta. 531+60)
43
24
Refusal
(Hand auger)

Cross Section
Sta. 530+01

(Sta. 530+00)
11
Refusal
(Hand dozer)

Proposed section

Approximate ground line

(Sta. 530+00)
8
6
7
9
12
Refusal

REVISED-10/8/62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

44
79

Cross Section
Sta. 534+00

(Sta. 533+70)
3
18
Refusal

Proposed section

℄
Cross Section
Sta. 532+00

Proposed section

(Sta. 532+00)
28
Refusal
(Hand auger)

REVISED-10/8/62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

45
79

Cross Section Sta. 539+01

(March, 1948)
(Sta. 539+10)
T.S.=1.0'

Red clay
Grey silty clay
Refusal

Proposed Section

(Sta. 539+01)
ET
Refusal
(Hard auger)

1180
1170
1160
1150
1140
1130
1120

150 100 50 ℄ 50 100 150

Cross Section Sta. 535+61

(March, 1948)
(Sta. 535+10)
T.S.=1.0'

Brown clay
Black clay
Brown silty clay
Refusal

(Sta. 535+00)
24
8 10

Proposed Section

(Sta. 535+50)
27
3 5
6 Refusal

1180
1170
1160
1150
1140
1130

130 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

REVISED-10/8/62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

46/79

Cross Section
Sta. 544+00

Proposed section

Sod @ 75 ft²

Hand auger

Cross Section
Sta. 541+01

Proposed section

Sta. 541+20

Hand auger

REVISED-10/8/62

SOIL PROFILE

GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

47
79

Cross Section Sta. 546+00

Proposed section

Refusal

1160 1150 1140 1130 1120 1110 1100

120 100 50 ℄ 50 100 150 200

Cross Section Sta. 545+00

Proposed section

24 26 18 12

19 12 26 19 39 ft

27 28 27

Refusal

1160 1150 1140 1130 1120 1110 1100 1090 1080 1070

120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

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SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS OHIO

48
79

Cross Section
Sta. 550+00

Proposed section

(Sta. 550+32)
Refusal
(Hand auger)

Cross Section
Sta. 548+50

(March, 1948)
(Sta. 548+00)
Refusal
Brown silty clay

(Sta. 548+00)

Proposed section

Refusal

Refusal

1180
1170
1160
1150
1140
1130
1120
1110

150 100 50 ℄ 50 100 150

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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SOIL PROFILE

GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

49
79

Cross Section
Sta. 560+02

(March 1968)
(Sta. 560+21)

Brownish gray clay

Proposed section

Refusal

Cross Section
Sta. 557+00

(Sta. 556+70)

Approximate ground line - March, 1968

Brown silty clay

Gray clay

Shale, gray, shaly, hard. Core loss 5%

Interbedded gray shale. Core loss 51%

Top of Rock in Place

Proposed section

SOIL PROFILE

GUERNSEY-BELMONT COS. 50/79
GUE.-40-23.88
BEL.-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS OHIO

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Cross Section
Sta. 562+02

(Sta. 562+00)
10
22
22
24
12
8
8
12

(Sta. 563+00)
28
24
18
12
28
12
8
8
9
9

Proposed Section

(Sta. 562+00)
32
Refusal
(Hand auger)

(Sta. 562+00)
23
Refusal
(Hand auger)

(Sta. 562+00)
26
Refusal
(Hand auger)

1190 1180 1170 1160 1150 1140 1130 1120 1110 1100

160 150 100 50 ℄ 50 100 150 160

Cross Section
Sta. 561+00

1190 1180 1170 1160 1150 1140 1130 1120 1110

Proposed section

32
Refusal
(Hand auger)

24
Refusal
(Hand auger)

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

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SOIL PROFILE
GUERNSEY-BELMONT COS
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

5
79

Cross Section
Sta. 564+02

(Sta. 564+00)
Refusal

(March, 1948)
(Sta. 563+75)
TS=10'
Brownish gray clay
Brown clay
Refusal

Proposed section

Cross Section
Sta. 563+02

Proposed section

(Sta. 563+00)
Refusal
(Hand auger)

(Sta. 563+00)
Refusal
(Hand auger)

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SOIL PROFILE
GUERNSEY-BELMONT COS. 52/75
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

Cross Section
Sta. 567+00

Proposed section

Soil B.T.S.=0.5'
Refusal
(Hand auger)

℄

Cross Section
Sta. 566+02

Proposed section

(Sta. 566+00.)
Soil B.T.S.=0.3'
Refusal
(Hand auger)

(Sta. 566+00.)
Soil B.T.S.=0.5
Refusal
(Hand auger)

(Sta. 566+00.)
Soil B.T.S.=0.5
Refusal
(Hand auger)

1170
1160
1150
1140
1130
1120
1110
1100

150 100 50 ℄ 50 100 150

130 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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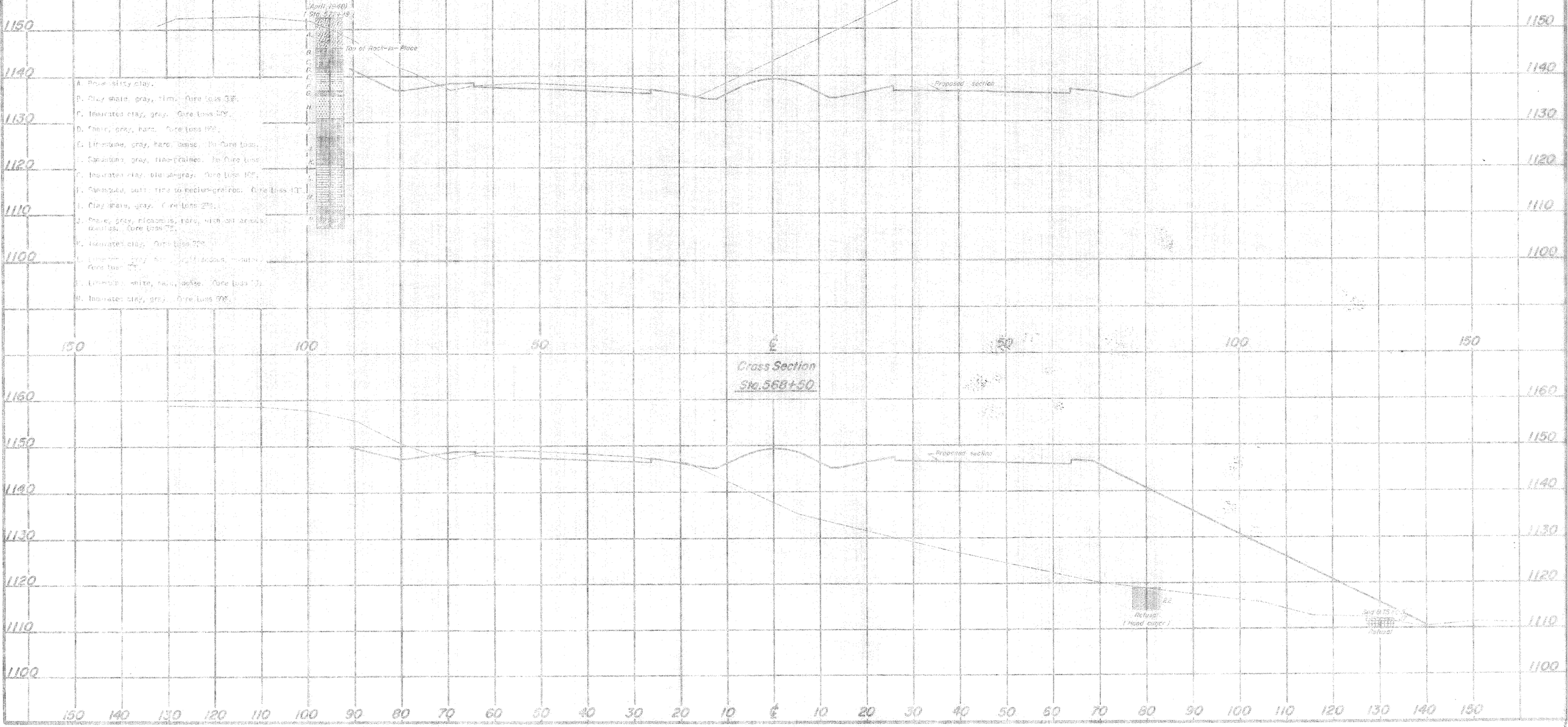
SOIL PROFILE

GUERNSEY-BELMONT COS.
GUE-40-23.66
BEL-40-0.00

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

53
79

Cross Section Sta. 572+00



A. Peat, silty clay.

B. Clay shale, gray, firm. Core loss 38%.

C. Laminated clay, gray. Core loss 10%.

D. Shale, gray, hard. Core loss 0%.

E. Limestone, gray, hard, dense. No core loss.

F. Sandstone, gray, fine-grained. No core loss.

G. Laminated clay, olive-gray. Core loss 10%.

H. Sandstone, buff, fine to medium-grained. Core loss 17%.

I. Clay shale, gray. Core loss 2%.

J. Shale, gray, micaceous, hard, with ort arenaceous laminae. Core loss 7%.

K. Laminated clay. Core loss 20%.

L. [illegible] Core loss 7%.

M. Limestone, white, hard, dense. Core loss 0%.

N. Laminated clay, gray. Core loss 50%.

Cross Section Sta. 568+50

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SOIL PROFILE
GUERNSEY-BELMONT COS
GUE-40-23.68
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

54
79

Cross Section
Sta 584+00

Proposed Section

December 1950

Refusal

Top of Rock-In-Place

Check, gray.

Cross Section
Sta 577+00

A. Clay.
B. Limestone, gray, hard. To Core Loss.
C. Fractured clay. Core Loss 17%.
D. Sandstone, shaly. To Core Loss.
E. Shale, gravish-brown, micaceous. Core Loss 75%.
F. Clay shale, brown. Core Loss 0%.
G. Clay, shale, mottled, gray, soft. Core Loss 0%.
H. Limestone, bluish-gray, argillaceous, hard. To Core Loss.
J. Clay shale, bluish-gray, soft. Core Loss 31%.
K. Limestone, bluish-gray, fissured, hard. To Core Loss.
L. Shale, bluish-gray, calcareous, firm. Core Loss 67%.
M. Shale, bluish-gray, calcareous, hard. To Core Loss.
N. Sandstone, fine to medium-grained. Core Loss 0%.

(May 1948)
(Sta 577+20)

Approximate ground line - May, 1948 -

Top of Rock - In - Place

Proposed section

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SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

55
79

Cross Section
Sta. 590+00

Proposed section

Sod 0.5'
15
24
Refusal
(Hand auger)

Sod @ 1.5'-0.5'
15
Refusal
(Hand auger)

Refusal

1100
1090
1080
1070
1060
1050
1040

150 100 50 ℄ 50 100 150 170

Cross Section
Sta. 590+50

Proposed section

Sod @ 1.5'-0.5'
15
Refusal

Sod @ 1.5'-0.5'

Approximate ground line

Sod @ 1.5'-0.5'
12
5
10
Sod @ 1.5'-0.5'
18
Refusal
Refusal

Sod @ 1.5'-0.5'
12
15
Refusal

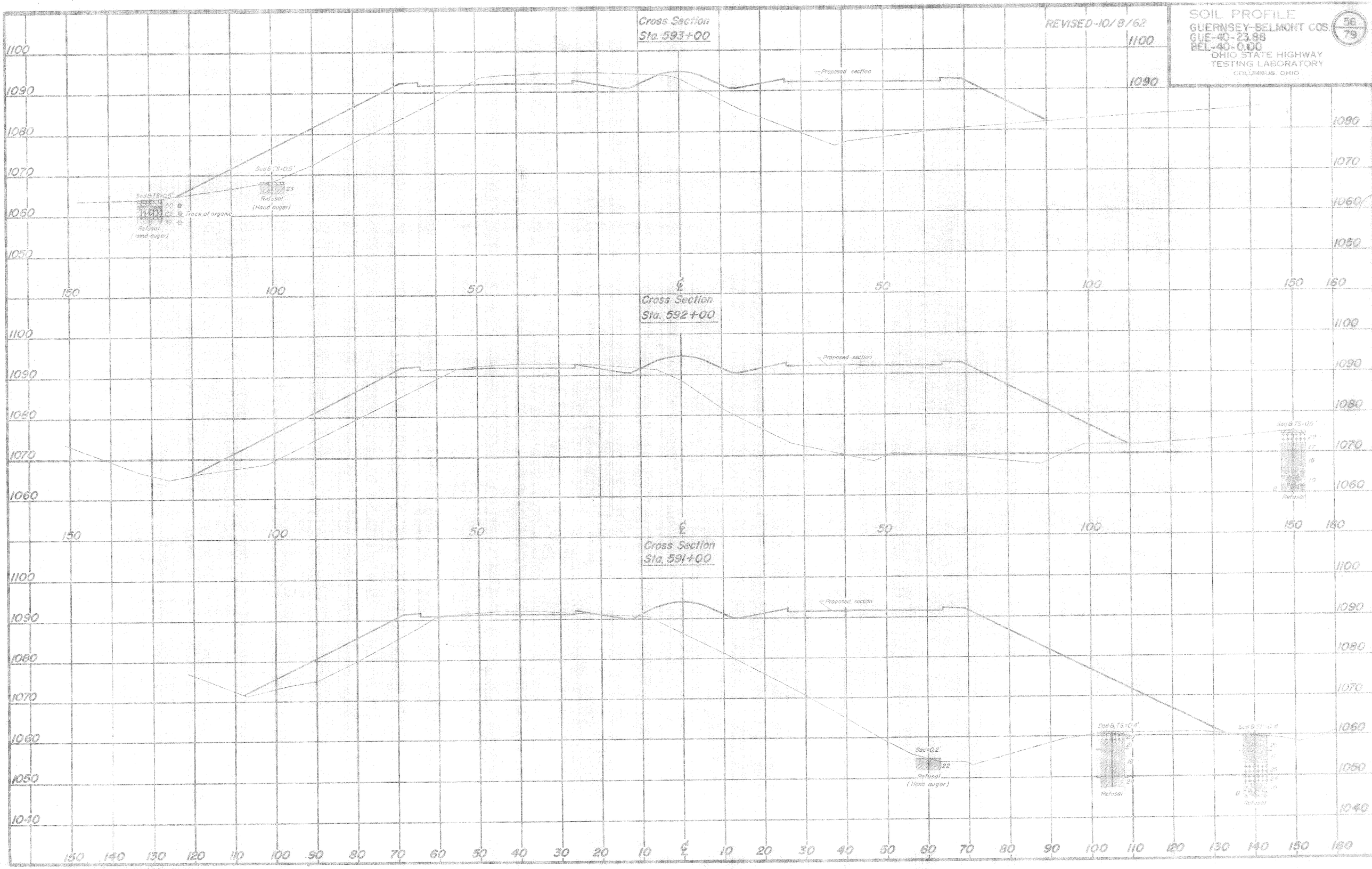
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SOIL PROFILE

GUERNSEY-BELMONT COS (56/79)
GUE.-40-23.88
BEL.-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

Cross Section Sta. 593+00



℄ Cross Section Sta. 592+00

℄ Cross Section Sta. 591+00

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SOIL PROFILE
GUERNSEY-BELMONT COS (37/79)
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

Cross Section Sta. 600+00

(March, 1948)

Top of rock in Flume

Approximate ground line (April, 1948)

Sta. 600+00 - 23' Lt.

Proposed section

℄ Cross Section Sta. 599+00

(March 1948)
(Sta. 598+95)

Refusal

Approximate ground line (March, 1948)

(Sta. 598+90)

Bldr. set with sink fragments

℄ Cross Section Sta. 596+00

(March, 1948)
(Sta. 595+60)

Sod & TS=0.5'

TS=0.6'

Brown clay

Brown clay

Refusal

Proposed section

Proposed section

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

1130 1120 1110 1100 1090 1080 1070

SOIL PROFILE
GUERNSEY-BELMONT COS. 58/79
GUE-40-23.88
BEL-40-000
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

REVISED-10/8/62

Cross Section
Sta. 605+00

Cross Section
Sta. 602+50

Brown clay silt and brown sandstone fragments.

Top of Rock-In-Place

Sandstone, gray and brown, micaceous, massive, firm, broken. Core Loss 18%.

Shale, gray, argillaceous, fissile, firm, broken, with interbedded sandstone comprising 10% of the interval. No Core Loss.

Shale, gray, argillaceous, fissile, firm, broken. Core Loss 2%.

Clay, gray. Core Loss 2%.

Coal, black, firm, broken. Core Loss 2%.

Shale, gray, argillaceous, fissile, firm, broken. Core Loss 8%.

Shale, gray, argillaceous, carbonaceous, fissile, firm, broken. Core Loss 1%.

Shale, gray, argillaceous, fissile, firm, broken, interbedded with sandstone, gray, medium-grained, comprised of 90% shale and 10% sandstone. Core Loss 5%.

Sandstone, gray, medium-grained, micaceous, firm, massive, broken. No Core Loss.

March 1948

Brown silty clay

Approximate ground line - March, 1948

(Sta 604+50
Pot 835+04)

Proposed section

Petrosil

Proposed section

REVISED-10/8/62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

55
75

Cross Section
Sta. 610+00

Proposed section

(Sta. 610+40)
Sod-CL

Refusal (Hand auger)

Cross Section
Sta. 608+00

Proposed section

Refusal

REVISED-10/8/62

SOIL PROFILE
GUERNSEY-BELMONT CO'S. 60 79
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS OHIO

Cross Section
Sta. 612+00

Proposed section

Perfect (Hand auger) 41

Refusal (Hand auger) 39

Slightly organic

1110 1100 1090 1080 1070 1060 1050 1040

180 150 100 50 ℄ 50 100 140

Cross Section
Sta. 611+50

Proposed section

Sta. 611+30
Soil
Refusal

180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140

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SOIL PROFILE
GUERNSET-BELMONT COS
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

61
79

Proposed section

Natural line

Cross Section
Sta. 612+50

Proposed section

Natural line

Sod=0.3'

Sod=0.3'

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SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

62
79

Cross Section
Sta. 614+00

Proposed section

Refusal

Cross Section
Sta. 613+00

Proposed section

Match line

Refusal
(Hand auger)

Match line

(Sta. 613+25)
Sod-0.3'
28
21
17
18

Sod-0.3'
15
16
16

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SOIL PROFILE
GUERNSEY-BELMONT CO'S
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

63
79

Cross Section
Sta. 619+00

Proposed section

Sod=0.4'
23
17
15
Refusal

Cross Section
Sta. 616+00

Proposed section

Refusal

Refusal

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SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

64
79

Cross Section
Sta. 622+00

← Proposed section

22
16
17
9
4
8
9
1

19
20
7
Refusal

1140
1130
1120
1110
1100
1090
1080
1070

160 150 100 50 ℄ 50 100 150 160

Cross Section
Sta. 621+00

← Proposed section

(Sta. 620+80)
20
28
W
15
14
Refusal

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

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SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

65
79

Cross Section
Sta. 625+00

Proposed section

Sod-0.2'
2'
Refusal
(Hand auger)

Sod-0.2'
2.6'
2.2'
1.8'
1.4'
1.0'
Refusal
(Hand auger)

Cross Section
Sta. 623+00

Proposed section

Sod-0.2'
2.6'
2.1'
Refusal
(Hand auger)

Refusal
(Hand auger)

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SOIL PROFILE
GUERNSEY-BELMONT COS
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS OHIO

ES 79

Cross Section
Sta. 633+45

(March 1948)
(Sta 633+30)
TS = 10'

Approximate ground line (April, 1948)

Proposed section

A. Brown clay.
B. Brown shale, clay with coal blossom.
C. Brown silty clay, with coal blossom.
D. Brown gray clay.

℄
Cross Section
Sta. 631+00

A. Brown clay.
B. Sandstone, fine to medium grained, Core Loss 18%.
C. Sandstone, buff and gray to brown, massive, No Core Loss.
D. Underclay, Core Loss 5%.
E. Coal. Core Loss 5%.
F. Sandstone, fine grained, tan. Core Loss 5%.
G. Interbedded clay, gray. Core Loss 5%.
H. Sandstone, gray, fine grained. No Core Loss.
I. Shale, gray, clayey soft. No Core Loss.
J. Interbedded clay, gray. No Core Loss.
K. Shale, gray, fissile. No Core Loss.
L. Shale, gray. Core Loss 10%.
M. Sandstone, gray, hard. No Core Loss.
N. Interbedded clay, gray. No Core Loss.
O. Sandstone, white, coarse, friable. No Core Loss.

(March 1948)
(Sta 631+20)

Approximate ground line (April, 1948)

Top of Rock-in-Place

Proposed section

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SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY TESTING LABORATORY
COLUMBUS OHIO

67
79

Cross Section
Sta. 642+99

Proposed section

Sta 643+90
Sc=40.3'

Sta 643+90
Sc=0.3'

Refusal (Boulders)

Cross Section
Sta 639+00

(More) (1948)
(Sta. 639+90)

Approximate ground line (April, 1962)

Top of Rock-in-Place

A. Shale, clay
B. Shale, clay and sandstone (5' seam)
C. Limestone, gray, hard, loose (No Core Loss)
D. Indurated clay (Core Loss 5%)
E. Limestone, nodular with clay seams (Core loss 6%)
F. Indurated clay with limestone nodules (Core Loss 10%)
G. Shale, clay, thin-bedded (Core Loss 7%)
H. Shale, clay, fissile, (Core Loss 12%)
I. Void - mined interval

Proposed section

1190 1180 1170 1160 1150 1140 1130 1120

160 150 100 50 ℄ 50 100 150 160

1210 1200 1190 1180 1170 1160

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE.-40-23.86
BEL.-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

68
79

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Cross Section
Sta.644+99

Proposed section

(Sta.645+00)
31
Refusal
(Hand auger)

(Sta.645+00)
TS=3.0'
31
23
Refusal
(Hand auger)

(Sta.645+00)
Sod=0.2
31
38
Refusal
(Hand auger)

Cross Section
Sta.643+99

(Sta.644+10)
10
Refusal
(Boulders)

Proposed section

(Sta.644+34)
Sod 5 TS=3.5'
43
23
Refusal
(Hand auger)

(Sta.644+50)
27
Refusal
(Hand auger)

REVISED-10/8/62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.98
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

SL 33

Cross Section
Sta. 650 + 50

Sod B.T.S.=0.8'
Refusal
Proposed section

Cross Section
Sta. 645 + 99

Proposed section
(Sta. 646+03)
Sod B.T.S.=0.8'
23
19
Refusal
(Hand auger)

Cross Section
Sta. 655+00

REVISED-10/8/62

SOIL PROFILE
GUERNSEY-BELMONT CO'S
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

1210
1200
1190
1180
1170
1160
1150
1140
1130
1120

Proposed section

Sod @ TS=0.6'
36
27
24
15
8
13
Refusal

Refusal
(Hand auger)

120 100 50 ℄ 50 100 150 200

Cross Section
Sta. 653+00

1210
1200
1190
1180
1170
1160
1150
1140

Proposed section

Sod @ TS=0.5'
24
26
3
Refusal

Refusal
(Hand auger)

Refusal
(Hand auger)

120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

REVISED-10/8/62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.98
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

Cross Section
Sta 657+00

Proposed section

Sod B.T.S=0.4

Refusal
(Boulders)

1210 1200 1190 1180 1170 1160 1150 1140 1130 1120

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

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9/6/62
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10/8/62

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-22.93
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

12
75

Cross Section
Sta. 13+00

(Sta. 13+15)
18
Refusal

Proposed section

(Sta. 13+10)
Gray stone fragments
Refusal

Cross Section
Sta. 11+00

Proposed section

(Sta. 10+08)
Refusal
(Hand auger)

31
36
Refusal
(Hand auger)

Sta. 0+?
22
Refusal
(Hand auger)

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9/6/62

SOIL PROFILE
GUERNSEY-BELMONT CDS
GUE-80-25.55
BEL-40-6.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

REVISED-10/8/62

Cross Section Sta. 25+00

Sod=0.2'

Refusal

(Sta. 25+12)

Refusal

Proposed section

Cross Section Sta. 20+00

(Sta. 20+50)

Refusal

Proposed section

A. Overburden.

B. Sandstone, shaly, fine-grained, hard. Core Loss 17%.

C. Shale, bluish-gray, carbonaceous. Core Loss 50%.

D. Limestone, dense, hard. No Core Loss.

E. Clay shale, soft. Core Loss 19%.

F. Limestone, dense, hard. No Core Loss.

G. Limestone and clay shale. Core Loss 10%.

Cross Section Sta. 17+00

(April, 1948)
(Sta. 17+60)

Approximate ground line (April 1949)

Sod=0.2'

Refusal
(Boulders)

A.

Top of Rock-In-Place.

B.

C.

D.

E.

F.

G.

Refusal

Proposed section

(Sta. 20+50)

Top of Rock-In-Place

A. Brown weathered clay shale fragments with sandstone lenses.

B. Shale, brown, argillaceous, fissile, medium-firm, weathered, broken. Core Loss 17%.

C. Shale, dark-gray, siliceous, carbonaceous, fissile, firm, broken. Core Loss 25.

D. Sandstone, gray, fine-grained, thin-bedded, firm, broken Core Loss 0%.

E. Shale, dark-gray, argillaceous, carbonaceous, fissile, firm, broken, with clay seams at elev. 1263.6' and elev. 1260.6'. Core Loss 8%.

F. Coal, black, medium-firm, badly broken. Core Loss 9%

G. Sandstone, gray, fine-grained, thin-bedded, broken, with shale laminae. No Core Loss.

H. Shale, dark-gray, carbonaceous, argillaceous, fissile, firm, broken. No Core Loss.

I. Limestone, gray, dense, hard, iron-stained vertical joints broken. No Core Loss.

J. Shale, gray, argillaceous, fissile, firm, broken, with a weathered zone from elev. 1229.2' to elev. 1227.2'.

K. Coal, black, firm, broken. Core Loss 20%.

L. Shale, gray, argillaceous, fissile, firm, broken. Core Loss 20%.

M. Coal, black, firm, broken. Core Loss 20%.

N. Shale, dark-gray, calcareous, carbonaceous, firm, broken Core Loss 20%.

O. Limestone, gray, dense, hard. Core Loss 20%.

P. Shale, gray, argillaceous, fissile, firm, broken. Core Loss 20%

Cross Section
Sta. 33+00

REVISED
9/6/62
REVISED
10/8/62

Proposed section

Sod=0.3'
28
49
23
Refusal

Sod=0.3'
28
23
26
Refusal

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-40-23.85
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

Cross Section
Sta. 31+00

Proposed section

Sod=0.3'
28
15
Refusal

Sod=0.2'
28
Refusal

Cross Section
Sta. 29+00

(Sta.29+50)
Sod=0.3'
19
42.0
42

Proposed section

REVISED 9/5/52
REVISED 10/8/52

SOIL PROFILE
QUERNSEY-BELMONT COS.
GUE-40-23.66
BEL-40-0.00
OHIO STATE HIGHWAY TESTING LABORATORY
COLUMBUS, OHIO

75
19

Cross Section
Sta. 39+00

(Sta. 39+15)
Sod=0.2
22
17
41
Refusal

Proposed section

TS=0.4
21
49
15
4
11
Refusal

Cross Section
Sta. 36+72

(Sta. 36+75)
12
14
15
21
18

Slip area

(Sta. 35+31)
Sod=0.2
75
46
29
Refusal

(Sta. 35+50)
Sod=0.2
25
Refusal
(Boulders)

Cross Section
Sta. 35+00

(Sta. 35+50)
Sod=0.2
24
52
32
Refusal

(Sta. 35+50)
Sod=0.2
22
29
Refusal

(Sta. 34+25)
Sod=0.2
Trace of organic
47
14
Refusal

REVISED 9/6/62

REVISED 10/8/62

SOIL PROFILE
QUERNSEY-BELMONT COS.
GUE-40-25.85
BEL-40-0.00
OHIO STATE HIGHWAY TESTING LABORATORY
COLUMBUS OHIO

TS 75

Cross Section Sta. 53+00

Proposed section

(Sta. 52+00
Sod=0.2'
25
22
22
B

Fill
Refusal

Brown and gray clay silt and coal and sandstone fragments.

Sod=0.5'
29
28
Refusal

1260 1250 1240 1230 1220 1210 1200

110 100 50 ℄ 50 100 150 160

Cross Section Sta. 44+00

Proposed section

(Sta. 44+50)
Sod=0.3'
28
21
19
Refusal

(Sta. 44+30)
23
39
32
B 16
Refusal

(Sta. 44+30
Sod=0.2'
45
19
B 5
Refusal

1240 1230 1220 1210 1200 1190 1180

150 100 50 ℄ 50 100 150 160

Cross Section Sta. 42+00

Proposed section

TS=0.1'
31
23
B 16
Refusal

TS=0.4'
25
32
Refusal

1240 1230 1220 1210

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

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9/6/62
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10/8/62

SOIL PROFILE
GUERNSEY-BELMONT CO'S.
GUE-40-23.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

11
13

Cross Section Sta. 57+00

Proposed section

Sod=0.3'
27
19
12
29
15
Refusal

Sod & TS=0.4'
24
20
27
38
22
13
Refusal

Cross Section Sta. 55+00

Proposed section

(Sta. 55+30)
Sod=0.3
29
Gray clay
28
37
18
Refusal

(Sta. 55+30)
38
13
Refusal

(Sta. 55+30)
Sod=0.3
26
38
43
Refusal

1270 1260 1250 1240 1230 1220 1210 1200 1190

130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190

Cross Section Sta. 72+00

(April 1948) → (Sta. 72+60)

Approximate ground line (April, 1948)

Sand and sandstone fragments.

Top of Rock-In-Place.

Sandstone: gray to buff, medium-grained, micaceous. Core loss 46%.

Indurated clay, gray, soft. Core loss 47%.

Clay shale, bluish-gray, with a thin coal seam at elev. 1317.7'. Core loss 47%.

Limestone, bluish-gray, hard, argillaceous to nodular, with some pyrite. Core loss 6%.

Limestone, gray, hard. Core loss 23%.

Clay shale, bluish-gray, firm. No core loss.

Shale, gray, sandy, micaceous. No core loss.

Sandstone, gray, hard. No core loss.

Shale, bluish-gray, hard. No core loss.

Proposed section

TS = 0.0"

24

0

Refusal

REVISED 9/6/62

1340 1330

130 100 50 ℄ 50 100 110

Cross Section Sta. 70+00

17
10
24
16
43
17

Refusal

Proposed section

130 100 50 ℄ 50 100 150

Cross Section Sta. 65+00

10
11
28
17

Refusal

13

Proposed section

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

SOIL PROFILE
GUERNSEY-BELMONT COS.
GUE-33-21.88
BEL-40-0.00
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

REVISED-10/8/62

Cross Section Sta. 58+00 Service Rd.

Cross Section Sta. 56+00 Service Rd.

Cross Section Sta. 54+00 Service Rd.

SOIL PROFILE
GREENEY-BELMONT CO. RTE.
SEC. 00-23.88
FED. ROAD STATE HIGHWAY
TESTING LABORATORY
Bureau of Public Roads Cooperation

SURVEYED 9/6/62