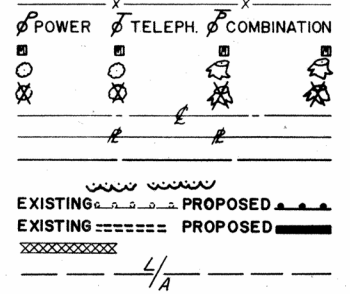


FENCE LINE  
UTILITY POLES  
MAIL BOX  
TREES & STUMPS  
TREES & STUMPS TO BE REMOVED  
CENTER LINE OF ROAD  
PROPERTY LINE  
EXISTING RIGHT-OF-WAY  
WOODED AREA  
GUARD RAIL  
DRAIN PIPE  
JUTE MATTING  
EXISTING LIMITED ACCESS



MICROFILMED  
JUN 28 1979  
REPRODUCTION

STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION

10-26-73 EBL  
Sheet No. 83,86,87,91,93,94, & 95  
revised 1-25-74 EBL

REGION	STATE	PROJECT
5	OHIO	F-665 (18)

TRUMBULL COUNTY  
TRU-11-(15.35)(16.04)

IMPROVEMENT OF  
**TRU-11-(15.35)(16.04)**  
FOWLER TWP.  
TRUMBULL CO.

F-665 (18)

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 Transportation in accordance with the provisions of Section 5311.02 of the revised Code of Ohio.

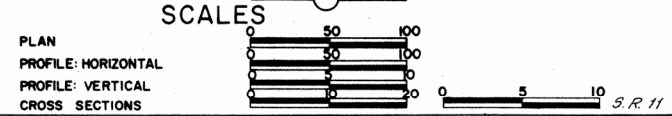
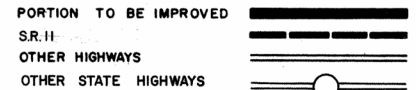
INDEX OF SHEETS

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GENERAL NOTES	6,7
CALCULATIONS	8,9
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LINE DATA

S.R.11 S.R.305  
 BEGIN WORK - STA. 762+50 BEGIN WORK - STA. 5+13.05  
 END WORK - STA. 869+00 END WORK - STA. 34+75  
 LENGTH OF WORK = 10,650 LIN.FT. LENGTH OF WORK = 2,961.95 LIN. FT.

C.H. 194-A  
 BEGIN WORK - STA. 1+50 TOTAL LENGTH OF PROJECT-0.00 LIN. FT. or 0.000 MILES  
 END WORK - STA. 21+50 TOTAL LENGTH OF WORK-15,611.95 LIN. FT. or 2.956 MILES  
 LENGTH OF WORK = 2,000 LIN. FT.



PROJECT  
STA. 851+7022

PROJECT  
STA. 815+3177

1973 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, 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, EXCEPT AS NOTED ON SHEET 7, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

- APPROVED Francis V. Fisher  
DATE 5-30-73 DISTRICT DEPUTY DIRECTOR OF TRANSPORTATION
- APPROVED Robert B. Pfeifer  
DATE 6-22-73 ENGINEER, BUREAU OF BRIDGES
- APPROVED C. J. Schaefer  
DATE 6-26-73 ENGINEER, BUREAU OF ROADWAY DESIGN
- APPROVED W. E. Schell  
DATE 7-5-73 ASS'T. DEPUTY DIRECTOR OF HIGHWAY DESIGN
- APPROVED L. J. Geary  
DATE 7-5-73 ASS'T. DEPUTY DIRECTOR OF REAL ESTATE
- APPROVED William Smalley  
DATE 7-5-73 ASS'T. DEPUTY DIRECTOR OF PROGRAM DEVELOPMENT
- APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_ CHIEF ENGINEER, DIVISION OF HIGHWAYS
- APPROVED William W. White  
DATE 7-5-73 DEPUTY DIRECTOR, DIVISION OF HIGHWAYS
- APPROVED William L. McKenna  
DATE 7-5-73 ASS'T. DIRECTOR, DEPARTMENT OF TRANSPORTATION
- APPROVED Philip Brubly  
DATE 7/9/73 DIRECTOR, DEPARTMENT OF TRANSPORTATION

PREPARED AND RECOMMENDED BY  
MOSURE-FOK AND SYRAKIS CO; LTD.  
CONSULTING ENGINEERS  
YOUNGSTOWN, OHIO

FILE NO.	TRU-11-(15.35)(16.04)
DATE OF LETTING	197
CONTRACT NO.	

STANDARD DRAWINGS				Supplemental Specifications	
BP-1	6-1-65	FACI-2	4-20-71	MC-7	10-1-68
BP-2	12-1-68	GR-2B	11-9-71	AS-1-72 Sh. 142	6-30-72
BP-3	1-1-71	GR-3	11-9-71	BR-1-67 Sh. 1	10-15-71
BP-4	1-1-71	GR-4	11-9-71	RB-1-55	2-2-59
BP-5	6-1-72	GR-2A	1-1-71	SD-1-69 Sh. 1-4	6-12-69
BP-6	6-1-65	GR-6	1-1-71	CB-2-2-A & B	6-1-65
BP-7	1-1-66	HW-4	1-1-70	F-5	3-10-69
BP-9	1-1-71	L-1	6-1-73	F-6	10-1-66
F-2	1-1-71	MC-1	6-13-69	GR-2A	1-1-71
F-3	3-10-69	MC-3	6-1-73	MC-8	12-1-68
FACI-1	4-20-71	MC-4	6-13-69		

DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

APPROVED \_\_\_\_\_  
DIVISION ENGINEER

DATE \_\_\_\_\_

TRUMBULL COUNTY  
TRU-11-(15.35)(16.04)

ESTIMATED QUANTITIES			
See Ref. Sh't. No.	Station to Station	Side	Type
F-1	807+98.34 - 25+10	RT.	607
F-2	25+20 - 25+40	RT.	617
Totals			837

RAMP 'U'  
CURVE DATA  
PI. Sta. 820+53.89  
Δ = 26°-00'-00" RT.  
D = 8°-00'-00"  
T = 165.35'  
L = 325.00'  
R = 716.20'  
E = 18.84'

See Sheet No. 50 for  
Superelevation Tables

\* or 33" Conduit, Type A, 707.05  
\* or 66" Conduit, Type A, 707.07  
\* or 27" Conduit, Type A, 707.05

See Ref. Sh't. No.	Station to Station	Side	ESTIMATED QUANTITIES												
			606 Guard Rail, Type 5	606 Bridge Term. Ass'my, Type A	606 S't.d. Anchor Ass'my	603 21" Conduit, Type A, 706.02 CI.IV *	603 54" Conduit, Type A, 706.02 CI.III *	603 24" Conduit, Type A, 706.01, 706.08 #	602 Canc- rete Invas- ion Prot., Type B	601 Rock Chan- nel Prot., Type B	607 Steering Jute Matting	600 Sodding for Special Shape Pat.	202 Pipe Rem'd. Under	604 Monument Assembly	
			Lin. Ft.	Each	Each	Lin. Ft.	Lin. Ft.	Lin. Ft.	Cu. Yd.	Cu. Yd.	Sq. Yd.	Sq. Yd.	Lin. Ft.	Each	
R-1	22+68 - 22+90	RT												22	
R-2	22+62 -	L-R												32	
63	810+00 (RAMP T)	L-R						82	1.1	3					
64	22+62	L-R				144			1.4	4					
65	25+15	L-R					132		4.1	77					
E-1	25+20.5 - 30+00	LT									400				
E-2	25+20.5 - 30+00	RT									400				
E-3	21+50.25	RT										42			
E-4	21+50.25	LT										42			
E-5	22+00 - 22+59.25	RT										49			
E-6	22+64.75 - 23+00	RT										20			
E-7	22+64.75 - 816+50	LT										98			
6R-1	21+22.25 - 23+22.25	RT	175.00	1	1										
6R-2	21+22.25 - 23+22.25	LT	175.00	1	1										
6R-3	27+50 - 815+20.41	LT	306.25			2									
6R-4	27+50 - 815+21.66	RT	306.25			2									
M-1	22+50	E												1	
Totals			962.50	2	6	144	132	82	6.6	24	976	84	54	1	

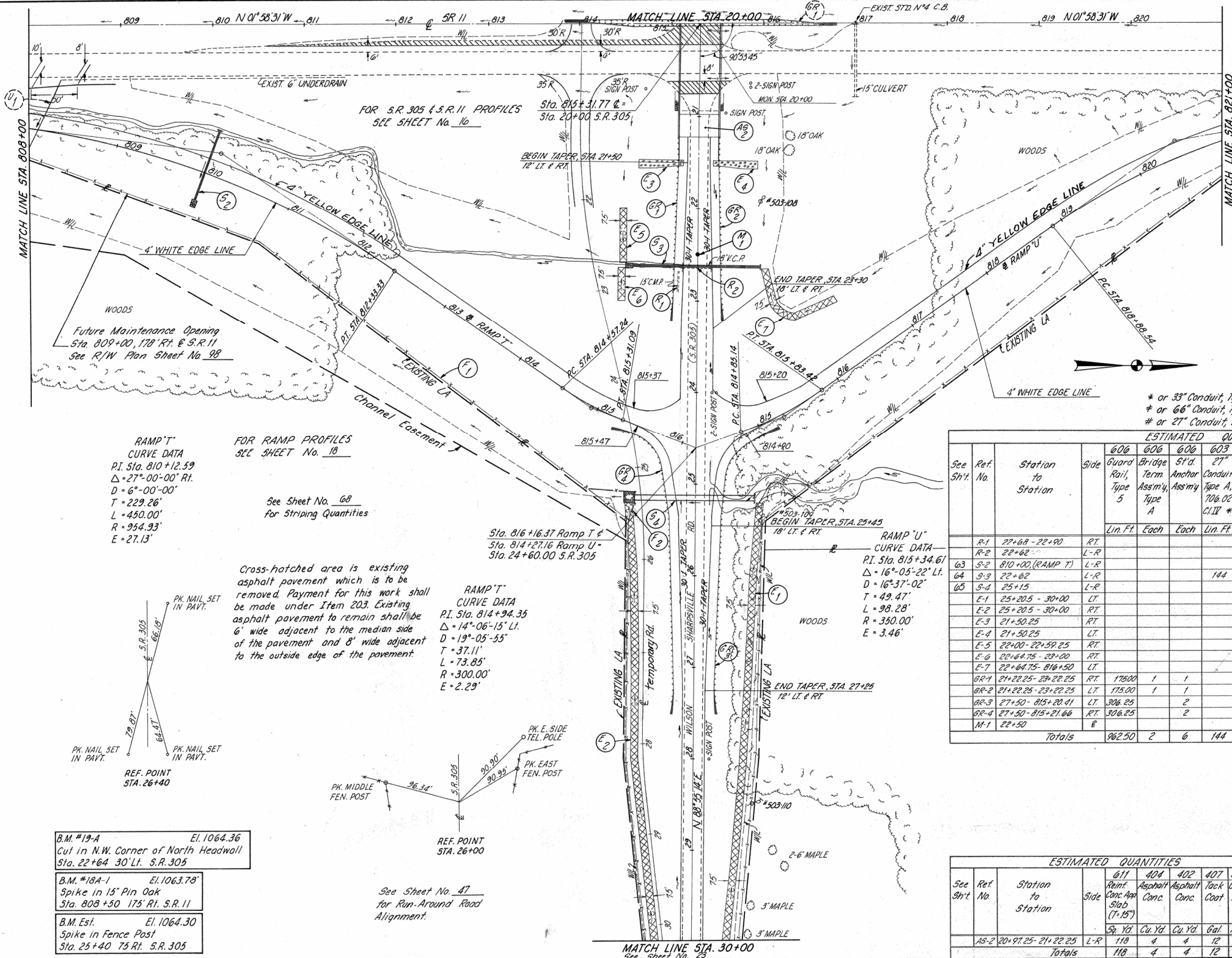
See Ref. Sh't. No.	Station to Station	Side	ESTIMATED QUANTITIES				
			611 Paint Conc. App. Slab (7'-15") Sq. Yd.	404 Asphalt Conc. Cu. Yd.	402 Asphalt Conc. Cu. Yd.	407 Tack Coat Gal.	407 Cover App. Tons
AS-2	20+97.25 - 21+22.25	L-R	119	4	4	12	0.5
Totals			119	4	4	12	0.5

NOTE: Price bid for Item 611 shall include cost of Item 609, Curb, Type C.

COMPUTED BY M.V.B. DATE 3-22-73

CHECKED BY D.S. DATE 5-11-73

Rev. 7-16-73



RAMP 'T'  
CURVE DATA  
PI. Sta. 810+12.59  
Δ = 27°-00'-00" RT.  
D = 6°-00'-00"  
T = 229.26'  
L = 450.00'  
R = 954.93'  
E = 27.13'

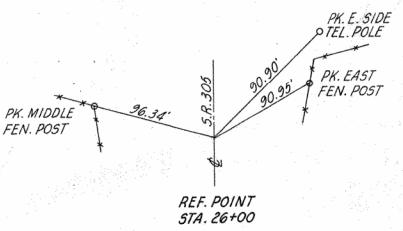
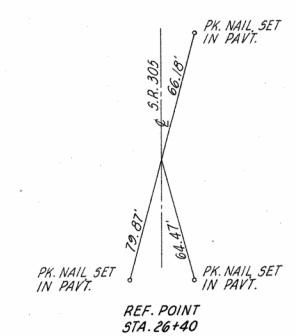
FOR RAMP PROFILES  
SEE SHEET No. 18

See Sheet No. 68  
for Striping Quantities

Sta. 816+16.37 Ramp T &  
Sta. 814+27.16 Ramp U -  
Sta. 24+60.00 S.R.305

RAMP 'U'  
CURVE DATA  
PI. Sta. 815+34.61  
Δ = 16°-05'-22" LT.  
D = 16°-37'-02"  
T = 49.47'  
L = 98.28'  
R = 350.00'  
E = 3.46'

Cross-hatched area is existing asphalt pavement which is to be removed. Payment for this work shall be made under Item 203. Existing asphalt pavement to remain shall be 6' wide adjacent to the median side of the pavement and 8' wide adjacent to the outside edge of the pavement.



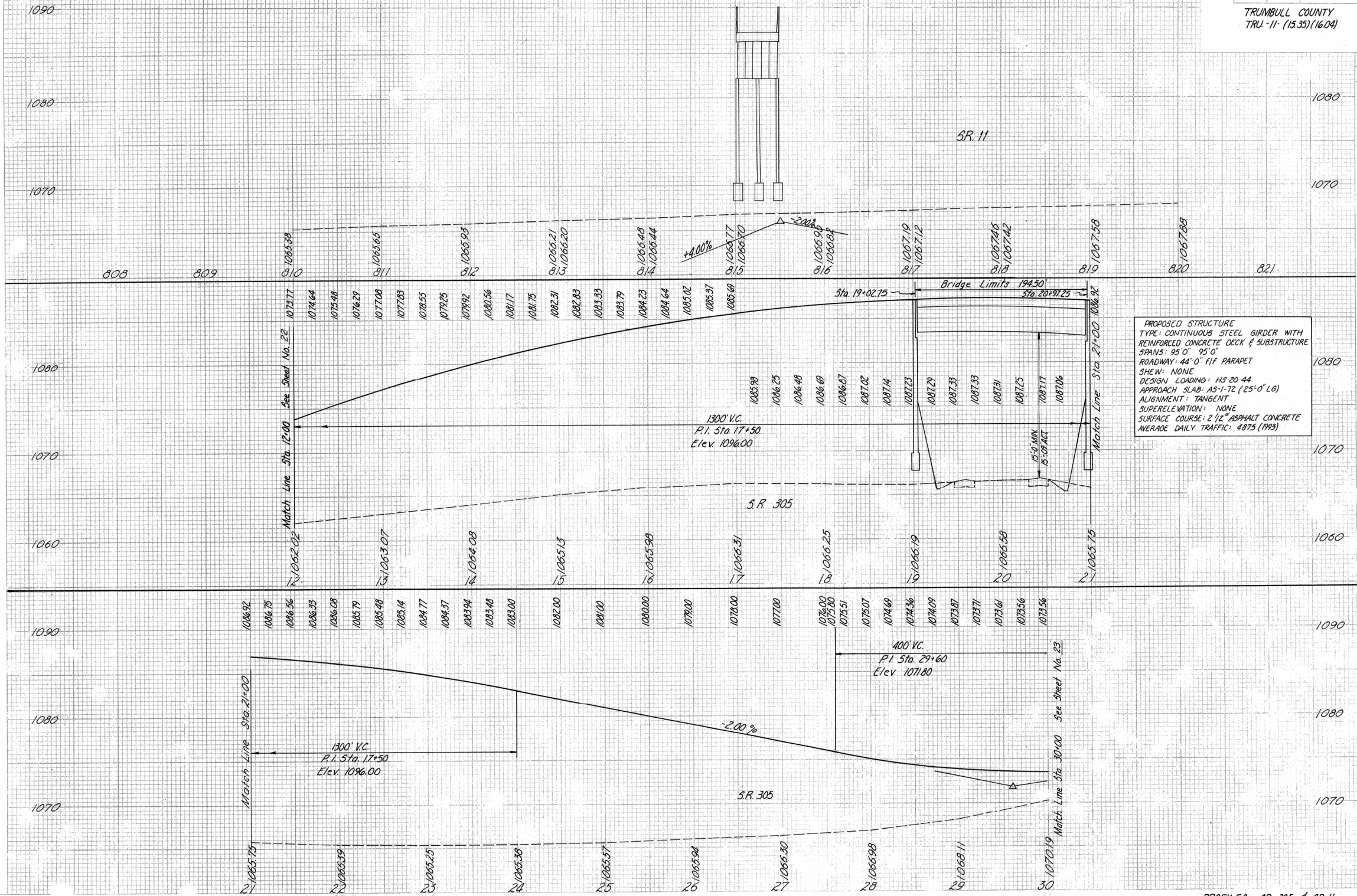
- B.M. #19-A El. 1064.36  
Cul in N.W. Corner of North Headwall  
Sta. 22+64.30 Lt. S.R.305
- B.M. #19A-1 El. 1063.78  
Spike in 15" Pin Oak  
Sta. 808+50 175' Rt. S.R.11
- B.M. Est. El. 1064.30  
Spike in Fence Post  
Sta. 25+40 75' Rt. S.R.305

See Sheet No. 47  
for Run-Around Road  
Alignment.

SEEDING  
END WORTH CD. YRS.

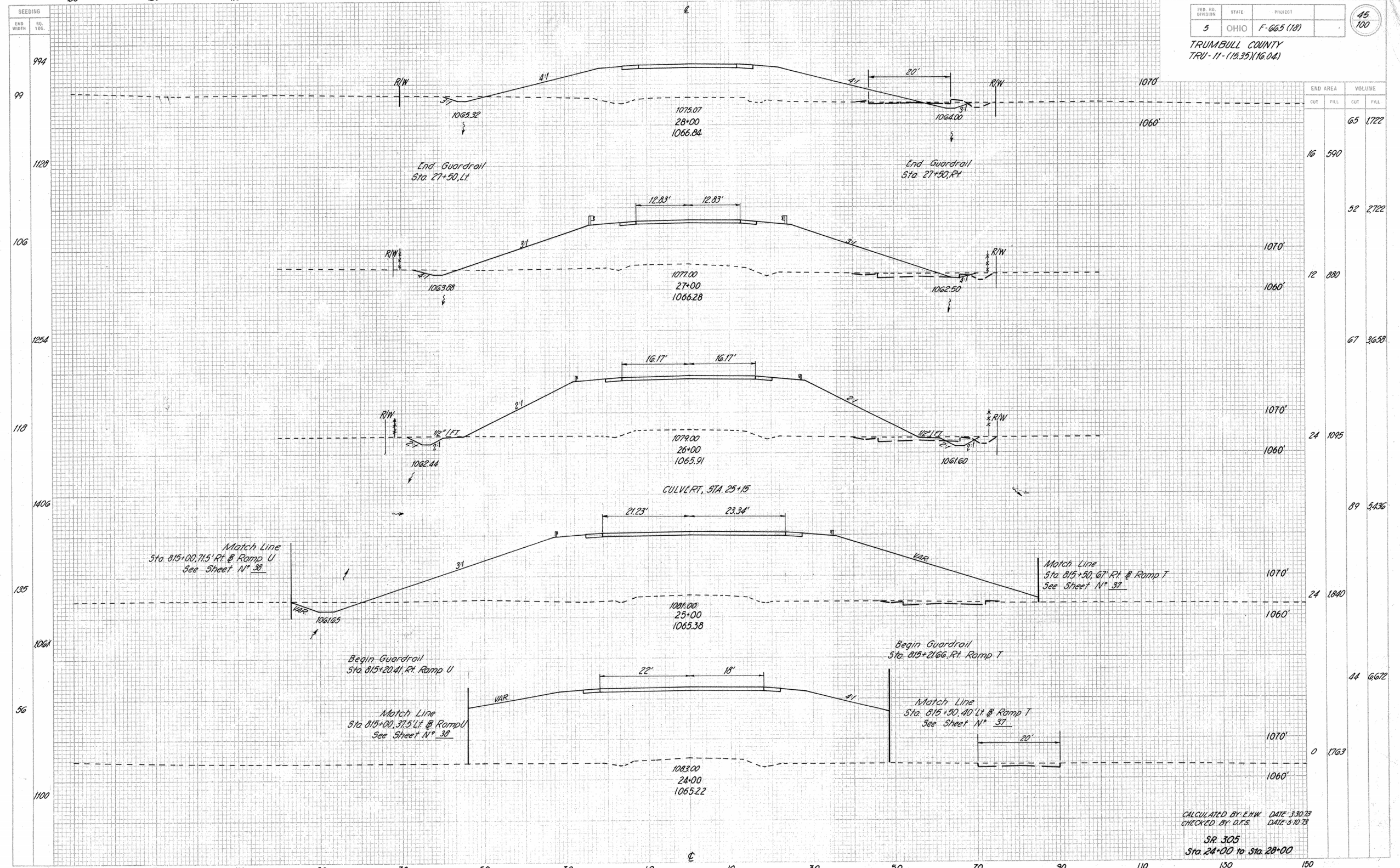
TRUMBULL COUNTY  
TRU-11 (15.35) (16.04)

END AREA		VOLUME	
CUT	FILL	CUT	FILL



PROFILES SR 305 & SR 11

TRUMBULL COUNTY  
TRU-11-(15.35)(16.04)



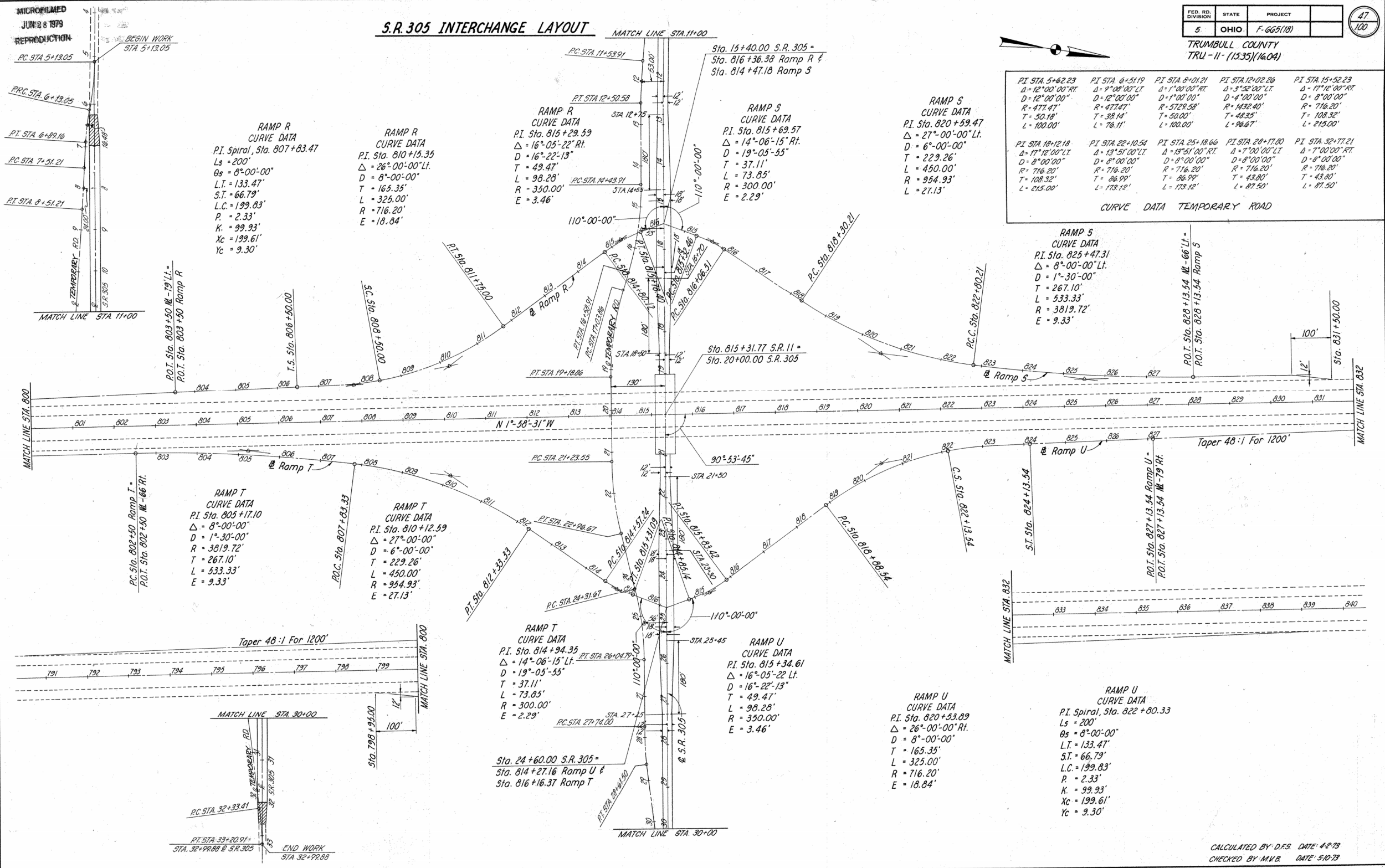
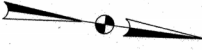
ELEVATION	END AREA		VOLUME	
	OUT	FILL	OUT	FILL
1070'				
1060'			65	1722
1070'			16	590
1060'			32	2722
1070'			12	880
1060'			67	3630
1070'			24	1095
1060'			89	5436
1070'			24	1840
1060'			44	6672
1070'			0	1763
1060'				

CALCULATED BY: E.H.W. DATE: 3-30-78  
CHECKED BY: D.F.S. DATE: 5-10-78

SR 305  
Sta. 24+00 to Sta. 28+00

**S.R. 305 INTERCHANGE LAYOUT**

TRUMBULL COUNTY  
TRU-11-(13.35)/(16.04)



PI STA	Δ	D	R	T	L
PI STA 5+62.23	Δ = 12°00'00" RT	D = 12'00'00"	R = 477.47'	T = 50.18'	L = 100.00'
PI STA 6+51.19	Δ = 9°00'00" LT	D = 12'00'00"	R = 477.47'	T = 38.14'	L = 76.11'
PI STA 8+01.21	Δ = 1°00'00" RT	D = 1'00'00"	R = 5728.58'	T = 50.00'	L = 100.00'
PI STA 12+02.26	Δ = 3°32'00" LT	D = 4'00'00"	R = 1432.40'	T = 48.35'	L = 96.67'
PI STA 15+52.23	Δ = 17°12'00" RT	D = 8'00'00"	R = 716.20'	T = 108.32'	L = 215.00'
PI STA 18+12.18	Δ = 17°12'00" LT	D = 8'00'00"	R = 716.20'	T = 108.32'	L = 215.00'
PI STA 22+10.54	Δ = 13°51'00" LT	D = 8'00'00"	R = 716.20'	T = 86.99'	L = 173.12'
PI STA 25+18.66	Δ = 1°00'00" RT	D = 8'00'00"	R = 716.20'	T = 86.99'	L = 173.12'
PI STA 28+17.80	Δ = 7°00'00" LT	D = 8'00'00"	R = 716.20'	T = 43.80'	L = 87.50'
PI STA 32+77.21	Δ = 7°00'00" RT	D = 8'00'00"	R = 716.20'	T = 43.80'	L = 87.50'

CURVE DATA TEMPORARY ROAD

PI STA	Δ	D	R	T	L
PI STA 825+47.31	Δ = 8°00'00" LT	D = 1'30'00"	R = 3819.72'	T = 267.10'	L = 533.33'

RAMP 5 CURVE DATA

**RAMP R CURVE DATA**  
PI Spiral, Sta. 807+83.47  
Ls = 200'  
θs = 8°00'00"  
L.T. = 133.47'  
S.T. = 66.79'  
L.C. = 199.83'  
P. = 2.33'  
K. = 99.93'  
Xc = 199.61'  
Yc = 9.30'

**RAMP R CURVE DATA**  
PI Sta. 810+15.35  
Δ = 26°00'00" LT  
D = 8°00'00"  
T = 165.35'  
L = 325.00'  
R = 716.20'  
E = 18.84'

**RAMP R CURVE DATA**  
PI Sta. 815+29.59  
Δ = 16°05'22" RT  
D = 16°22'13"  
T = 49.47'  
L = 98.28'  
R = 350.00'  
E = 3.46'

**RAMP S CURVE DATA**  
PI Sta. 815+69.57  
Δ = 14°06'15" RT  
D = 19°05'55"  
T = 37.11'  
L = 73.85'  
R = 300.00'  
E = 2.29'

**RAMP S CURVE DATA**  
PI Sta. 820+59.47  
Δ = 27°00'00" LT  
D = 6°00'00"  
T = 229.26'  
L = 450.00'  
R = 954.93'  
E = 27.13'

**RAMP T CURVE DATA**  
PI Sta. 805+17.10  
Δ = 8°00'00"  
D = 1°30'00"  
R = 3819.72'  
T = 267.10'  
L = 533.33'  
E = 9.33'

**RAMP T CURVE DATA**  
PI Sta. 810+12.59  
Δ = 27°00'00"  
D = 6°00'00"  
T = 229.26'  
L = 450.00'  
R = 954.93'  
E = 27.13'

**RAMP T CURVE DATA**  
PI Sta. 814+94.35  
Δ = 14°06'15" LT  
D = 19°05'55"  
T = 37.11'  
L = 73.85'  
R = 300.00'  
E = 2.29'

**RAMP U CURVE DATA**  
PI Sta. 815+34.61  
Δ = 16°05'22" LT  
D = 16°22'13"  
T = 49.47'  
L = 98.28'  
R = 350.00'  
E = 3.46'

**RAMP U CURVE DATA**  
PI Sta. 820+53.89  
Δ = 26°00'00" RT  
D = 8°00'00"  
T = 165.35'  
L = 325.00'  
R = 716.20'  
E = 18.84'

**RAMP U CURVE DATA**  
PI Spiral, Sta. 822+80.33  
Ls = 200'  
θs = 8°00'00"  
L.T. = 133.47'  
S.T. = 66.79'  
L.C. = 199.83'  
P. = 2.33'  
K. = 99.93'  
Xc = 199.61'  
Yc = 9.30'

REGION	STATE	PROJECT
5	OHIO	F-665 (18)

49  
100

TRUMBULL COUNTY  
TRU-11-(1535)(16.04)

RAMP U

RAMP I

RAMP S

RAMP R

ITEM 6562

ITEM 6562

ITEM 6562

ITEM 6562

EXIST. PROP.  
DAS 510.18' x 208'

32' 815 317 32 11'  
35 57A 20'00 5R 305 34



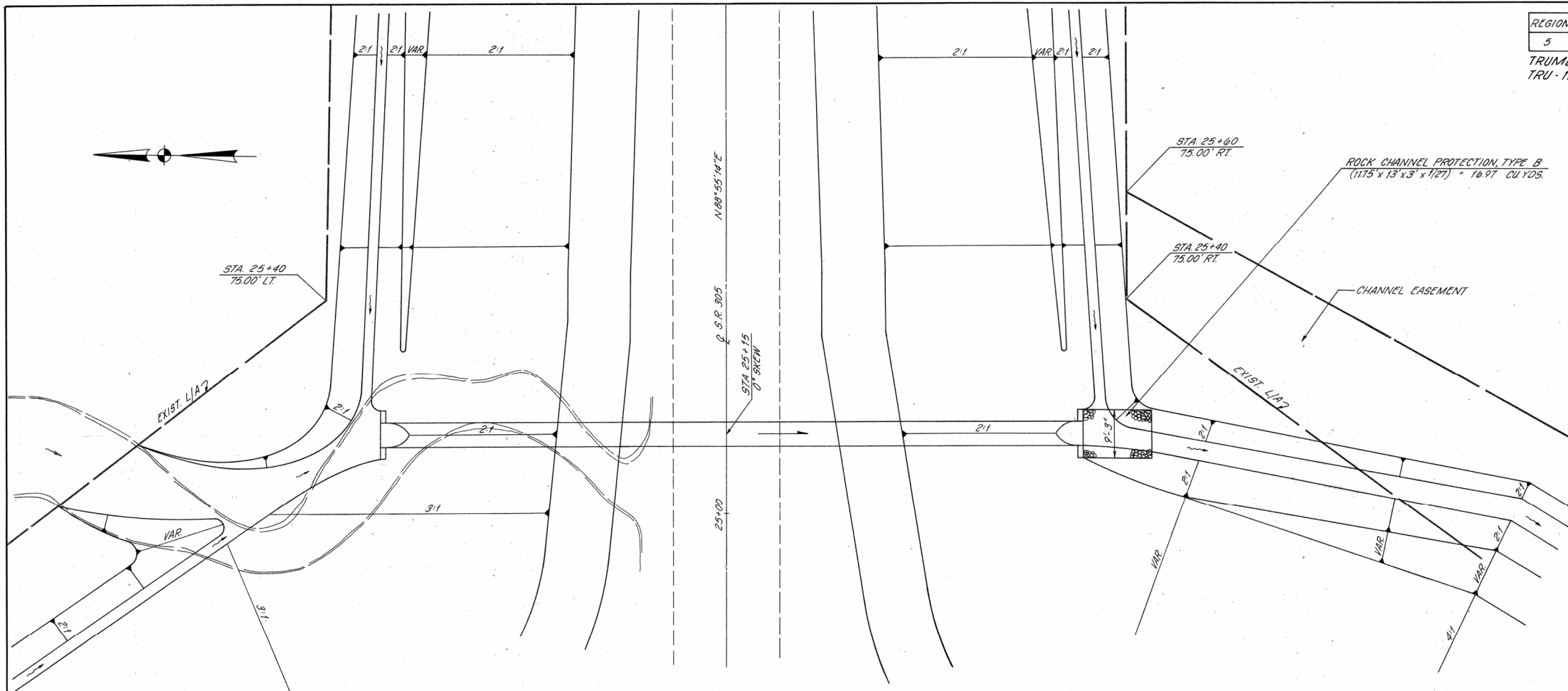
NOTE: No trees outside the work limits, but within the interchange shall be removed unless directed by the Engineer.

GRADING PLAN

REGION	STATE	PROJECT
5	OHIO	F-605(10)

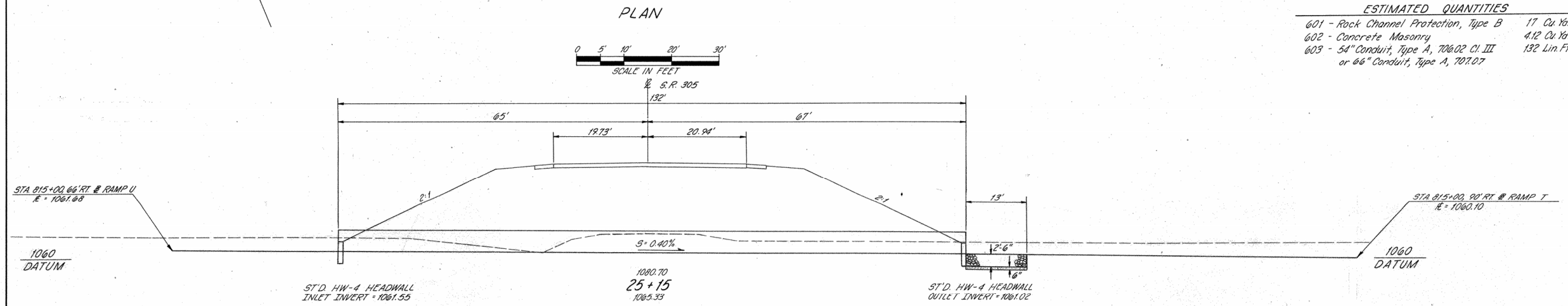
65  
100

TRUMBULL COUNTY  
TRU-11-115.35(16.04)



ESTIMATED QUANTITIES

601 - Rock Channel Protection, Type B	17 Cu Yd.
602 - Concrete Masonry	4.12 Cu Yd.
603 - 54" Conduit, Type A, 706.02 Cl. III or 66" Conduit, Type A, 707.07	132 Lin. Ft.



AREA = 90 Acres  
Q<sub>25</sub> = 112 c.f.s.

STA 25+15, S.R. 305  
CULVERT 3-4  
132 LIN. FT. 54" or 66" STD. PIPE CONDUIT

CULVERT DETAIL

COMPUTED BY N.C. DATE 3-6-73  
CHECKED BY D.S. DATE 4-27-73