

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
WOO-75-15.35 (VARIOUS)

**UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY**

CONVENTIONAL SIGNS

County Line _____ LA _____
Township Line _____ RW _____
Section Line _____
Corporation Line _____ or
Fence Line (existing) (proposed)
Center Line
Trees Stumps , (to be removed)
Utility Poles: Telephone , Power , Light
Limited Access (only) _____ LA _____
Right of Way (only) _____ RW _____
Limited Access & Right of Way _____ LA & RW _____
Existing Right of Way _____
Property Line (in existing fence)
Railroad _____ or _____
Guardrail (existing) (proposed)

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LINE DATA

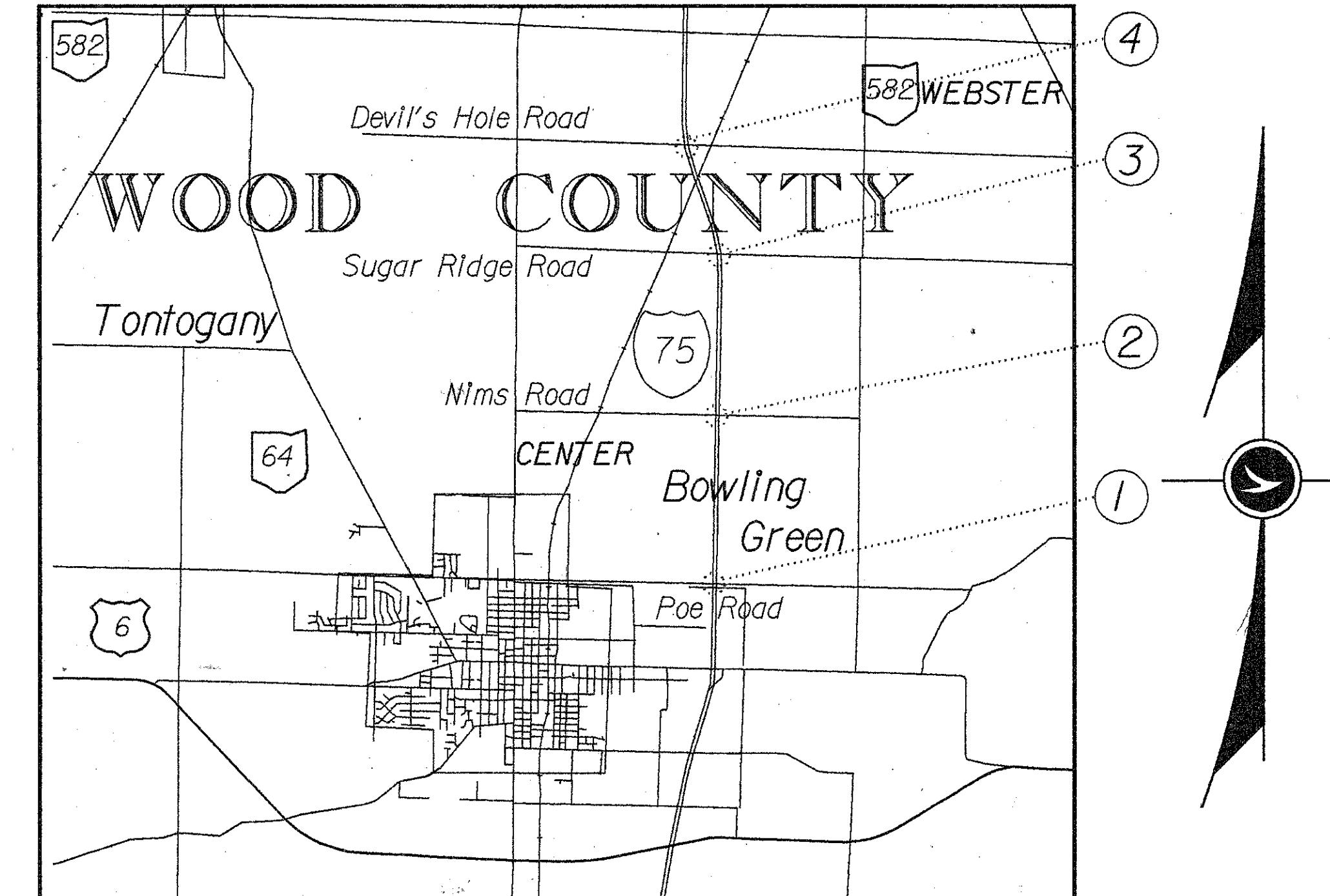
REF. NO.	LOCATION	BRIDGE NO.	BEGIN OR RESUME WORK	END OR SUSPEND WORK	LENGTH OF WORK	BEGIN OR RESUME PROJECT	END OR SUSPEND PROJECT	LENGTH PROJE
①	Poe Road	WOO-75-1535	16+00	39+00	230.0	16+00	39+00	2300
②	Nims Road	WOO-75-1710	10+06	32+00	2194	11+00	31+25	2025
③	Sugar Ridge Road	WOO-75-1836	9+50	34+03.30	2453.3	10+25	31+75	2150
④	Devil's Hole Road	WOO-75-1941	19+00	40+00	2100	19+75	39+25	1950

Net Length of Work 9047.3 LIN. FT. Net Length of Project 8,425 Lin. F
= 1.7 Miles = 1.6 Miles

Plan Prepared By:
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT No. 2

Project : W00-75-15.35(VARIOUS)

Date of Letting _____ 19_____, Contract No. _____



LOCATION MAP

SCALE IN MILES

Portion to be improved _____
State and Federal Routes _____
Other Roads _____

SCALES

Approved James M. McCarthy
Date 11-12-92 District Deputy Director of Transportation

Approved B. D. Hanhilammi DFT
Date 11-27-92 Engineer, Bureau of Bridges and Structural
Design

(initials) Approved Alexander H. Hynds
Date 12-18-92 Deputy Director, Operations

Approved Jerry Wray
Date 1-18-92 Director, Department of Transportation

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS						
AS-1-81	II-27-81	GR-4.1	5-6-91	MT-95.30	10-10-88	
BR-1	5-29-79	GR-4.2	5-6-91	MT-97.10	4-29-88	
EXJ-4-87	I-5-89	MC-1	6-13-69	MT-97.11	10-4-89	
F-2	5-1-76					
F-3	5-1-76					
BP-3.1	2-21-92					
BP-4.1	2-21-92	TC-35.10	8-29-84			
GR-1.1	5-6-91	TC-41.20	3-26-79			
GR-1.2	5-6-91	TC-42.20	3-26-79			
GR-1.3	2-21-92	TC-52.10	4-3-79			
GR-2.1	5-6-91	TC-52.20	4-3-79			
GR-3.1	5-6-91					

**DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION**

APPROVED

DIVISION ADMINISTRATOR

DATE

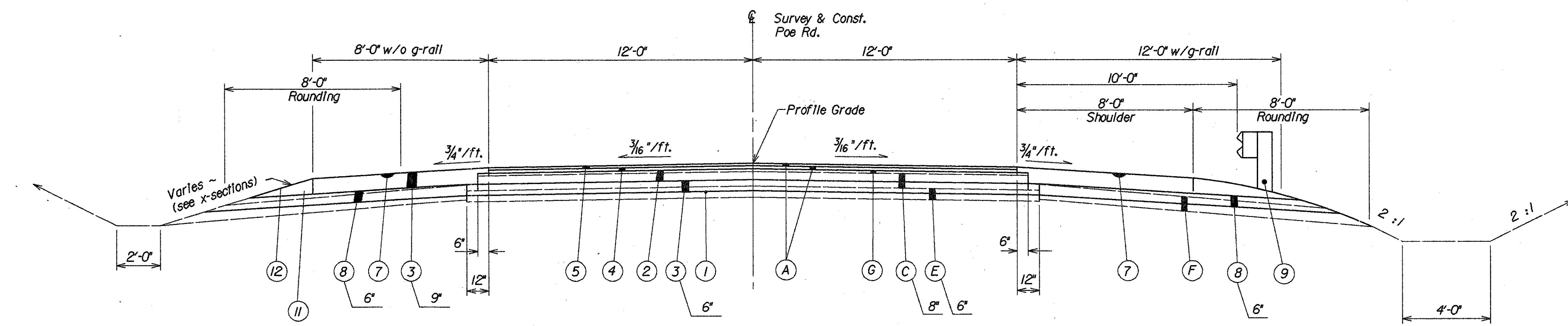
FHWA REGION	STATE	PROJECT	
5	OHIO		

3
66

WOO-75-15.35 (VARIOUS)

TYPICAL SECTION

TYPE 404



Poe Road:

NORMAL SECTION

Sta.16+00.0 To Sta.26+31.0 = 1031.0 Lin.Ft.
Sta.29+63.1 To Sta.39+00.0 = 956.9 Lin.Ft.

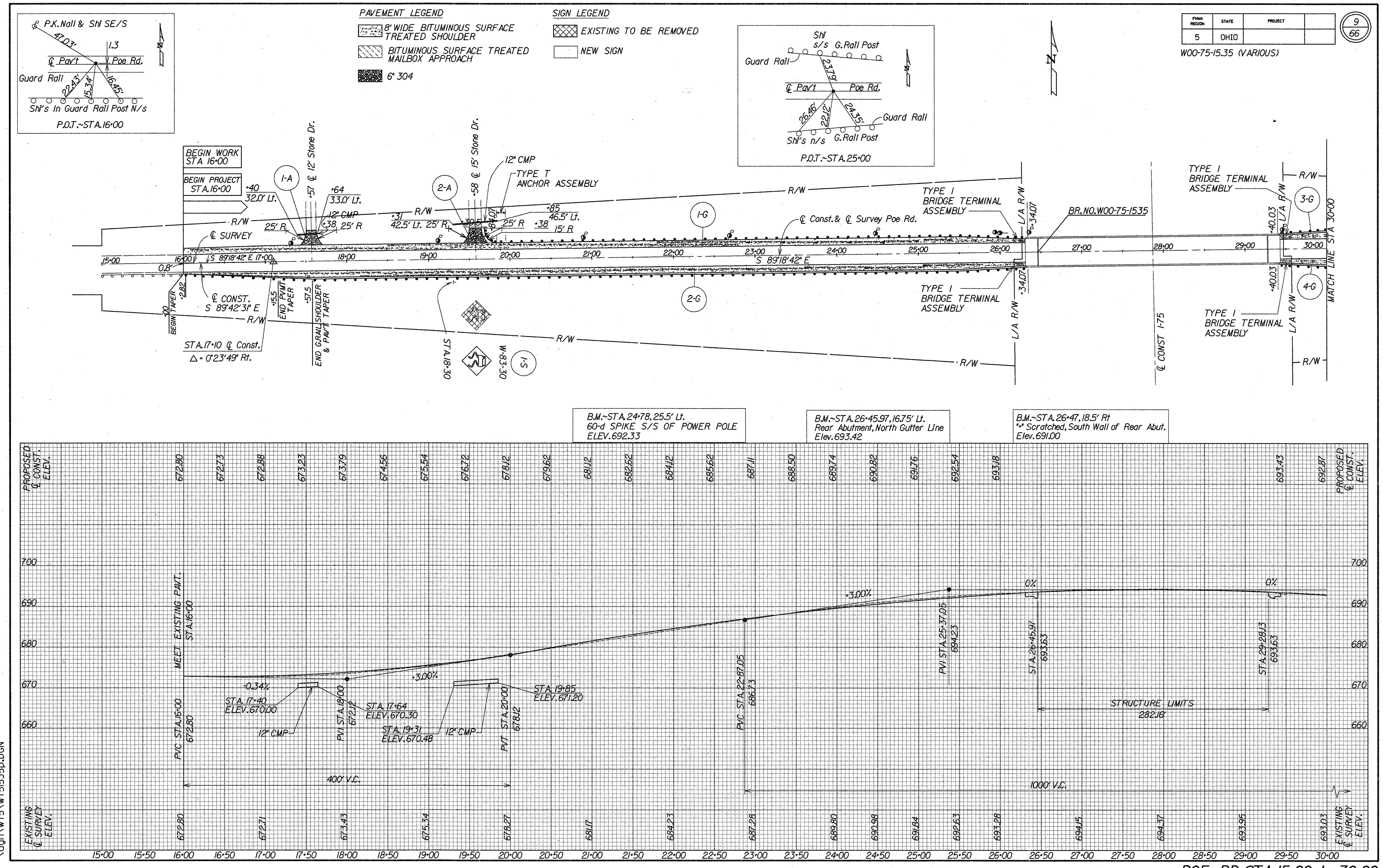
Total = 1987.9 Lin.Ft.

PROPOSED LEGEND

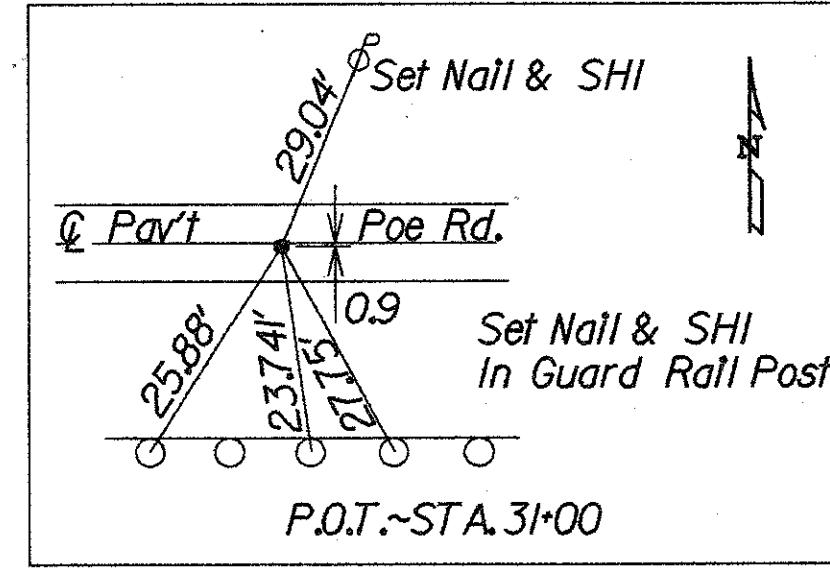
- (1) Item 203, Subgrade Compaction
- (2) Item 301, 6" Bituminous Aggregate Base, AC-20
- (3) Item 304, Aggregate Base, As Per Plan
(Thickness as shown on Typicals)
- (4) Item 402, 1 3/4" Asphalt Concrete, AC-20
- (5) Item 404, 1/4" Asphalt Concrete, AC-20
- (6) Item 407, Tack Coat
- (7) Item 409, Seal Coat Bituminous Material and Cover Aggregate No.8 (2 Applications)
- (8) Item 605, Aggregate Drains
- (9) Item 606, Guardrail, Type 5
- (10) Item 611, Approach Slab (Thickness = 12")
- (11) Item 617, Compacted Aggregate, Type A
- (12) Item 659, Seeding and Mulching

EXISTING LEGEND

- (A) 1/4" Asphalt Concrete
- (B) 1 3/4" Asphalt Concrete
- (C) Aggregate Base
(Thickness as shown on Typicals)
- (D) 13" Approach Slab
- (E) Subbase
(Thickness as shown on Typical)
- (F) 8" Aggregate Drain
- (G) 1/2" Asphalt Concrete



FHWA REGION	STATE	PROJECT	
5	OHIO	WOO-75-15.35 (VARIous)	(10 66)

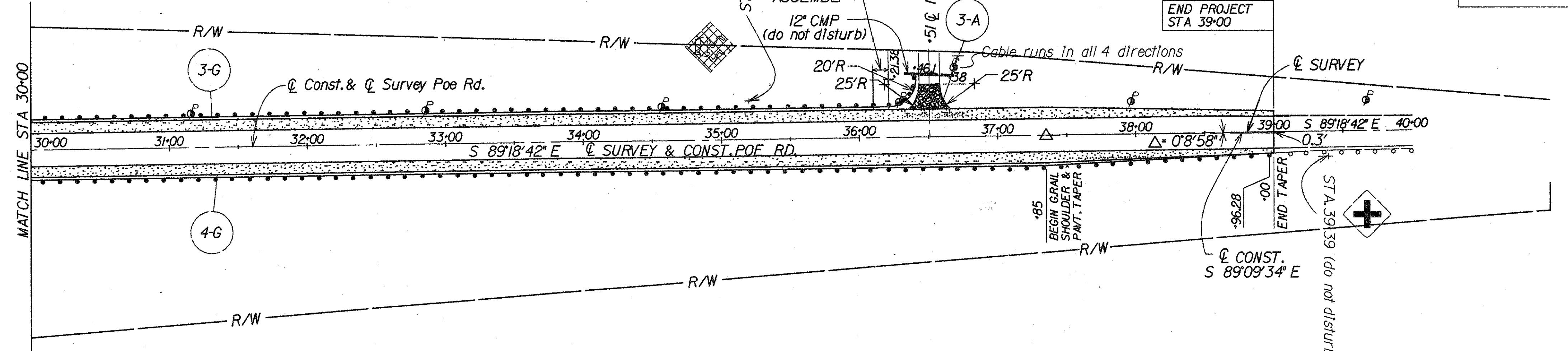
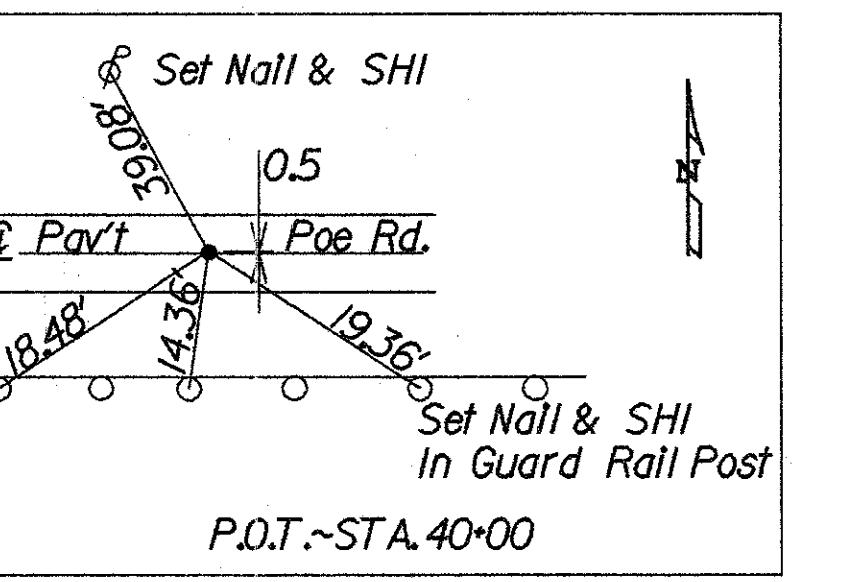


PAVEMENT LEGEND

- 8' WIDE BITUMINOUS SURFACE TREATED SHOULDER
- BITUMINOUS SURFACE TREATED MAILBOX APPROACH
- 6" 304

SIGN LEGEND

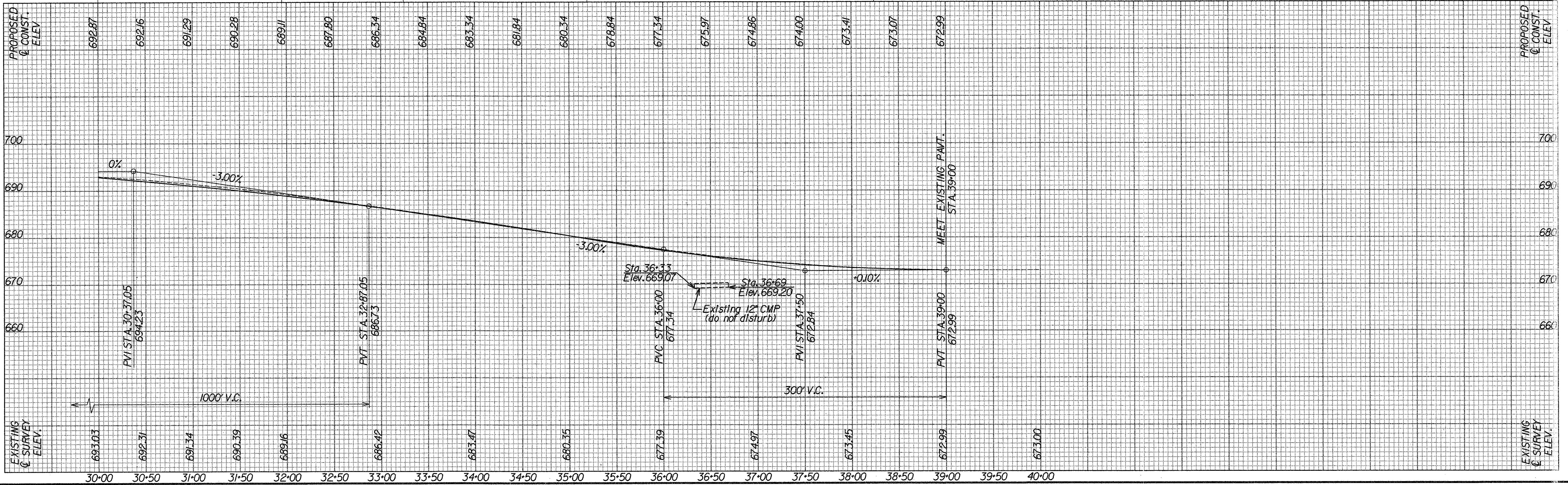
- EXISTING TO BE REMOVED
- NEW SIGN



BM~STA.31-16, 24.5' Lt.
60-d spike set s/s power pole
Elev.692.74

BM~STA.34-57, 24.5' Lt.
60-d spike set s/s power pole
Elev.683.23

BM~STA.37-97, 23.5' Lt.
60-d spike set s/s power pole
Elev.674.91



WOO-75-15.35 (Various)

SUBSUMMARY

ITEM	EXT.	TOTAL	UNIT	DESCRIPTION
-ROADWAY-				
202	22900	184	SQ.YD.	APPROACH SLAB REMOVED (T = 13")
202	38000	3352	LIN.FT.	GUARDRAIL REMOVED
203	12000	3107	CU.YD.	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
203	20000	61	CU.YD.	EMBANKMENT
203	50000	5836	SQ.YD.	SUBGRADE COMPACTION
301	10002	918	CU.YD.	BITUMINOUS AGGREGATE BASE, AC-20
603	05100	78	LIN.FT.	12" CONDUIT, TYPE D
605	3100	790	LIN.FT.	AGGREGATE DRAINS
606	13000	3375	LIN.FT.	GUARDRAIL, TYPE 5
606	26500	2	EACH	ANCHOR ASSEMBLY, TYPE T
606	35000	4	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE I
802	00300	35	EACH	BARRIER REFLECTOR, TYPE A2 (WHITE)
802	00400	6	EACH	BARRIER REFLECTOR, TYPE B2 (WHITE)
-TRAFFIC CONTROL-				
630	03100	33	LIN.FT.	GROUND MOUNTED SUPPORT, NO.4 POST
630	80100	12.50	SO.FT.	SIGN, FLAT SHEET
630	84900	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL
630	86002	2	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL
-EROSION CONTROL-				
659	10000	3073	SQ.YD.	SEEDING AND MULCHING
659	20000	0.28	TON	COMMERCIAL FERTILIZER
659	65000	6.6	MGAL.	WATER
-PAVEMENT-				
304	20001	1800	CU.YD.	AGGREGATE BASE, AS PER PLAN
402	20000	256	CU.YD.	ASPHALT CONCRETE, AC-20
404	20000	183	CU.YD.	ASPHALT CONCRETE, AC-20
409	12500	57	CU.YD.	SEAL COAT COVER AGGREGATE NO.8 FOR SHOULDERS
409	21000	2048	GALLON	SEAL COAT BITUMINOUS MATERIAL FOR SHOULDERS
611	25000	121	SQ.YD.	REINFORCED CONCRETE APPROACH SLAB (T=12")
642	00290	0.44	MILE	CENTERLINE

EARTH WORK AND SEEDING TABLE

From	To	203	203	659
		Excavation Not Including Embankment	Embankment	Seeding And Mulching
16-00	17-57	139	2	127
17-57	19-58	247	8	341
19-58	22-00	468	12	350
22-00	24-50	416	10	408
24-50	26-00	240	3	214
26-00	29-28J	65	2	68
29-28J	30-50	159	5	161
30-50	32-50	254	5	256
32-50	35-00	506	4	511
35-00	37-00	315	4	309
37-00	39-00	298	6	328
Total to Subsummary		3107	61	3073

ITEM 659, COMMERCIAL FERTILIZER
SEEDING FROM ABOVE-2047TOTAL = $\frac{3073 \times 20 \times 9}{1000 \times 2000}$ = 0.28 TONITEM 659, WATER
SEEDING FROM ABOVE-3073TOTAL = $\frac{3073 \times 120 \times 9}{1000 \times 1000}$ = 3.3 MGAL * 2 APPLICATIONS
= 6.6 MGAL

DRIVEWAY TABLE

	Ref.	Station	Side	304	603
				Aggregate Base As Per Plan	12" Conduit, Type D
	1-A	17-57	Lt.	5.6	24
	2-A	19-58	Lt.	6.6	54
	3-A	36-51	Lt.	6.6	
Carried to Subsummary				18.8	78

GUARDRAIL TABLE "G"

Ref.	Station		Side	202	606	606	802	802
	From	To		Guardrail Removed	Guardrail Type 5 Lin.Ft.	Anchor Assembly Type T	Bridge Terminal Assembly Type I	Barrier Reflect. Type A2 (White)
1-G	19-69.07	26-51	Lt.	653.00	650.00	31.25'	1	7
2-G	15-97.18	26-51	Rt.	1048.18	1031.25		1	11
3-G	29-24	36-41.38	Lt.	678.00	681.25	25'	1	7
4-G	29-24	38-96.38	Rt.	972.38	956.25		1	10
Totals to Subsummary				3352	3375		2	6

SIGN TABLE

Ref.	Station	Side	Sign Code Number	Sign in Inches	630	Removal of Ground Mounted Sign And Disposal Each	Removal of Ground Mounted Support And Disposal Each
					Flat Sheet Sign		
1-S	18-30	Rt.	W-83-30	30 x 30	6.25	16	1
2-S	35-20	Rt.	W-83-30	30 x 30	6.25	17	1
Totals to Subsummary					12.50	33	2
							2

PAVEMENT MARKING TABLE

	Station	Length	Item	Description	
				From	To
	16-00	18-30	0.044	642	4" Yellow Centerline, Dashed
	18-30	25-60	0.138	642	4" Yellow Centerline, Solid-Dashed
	25-60	31-80	0.117	642	4" Yellow Centerline, Double-Solid
	31-80	37-10	0.100	642	4" Yellow Centerline, Solid-Dashed
	37-10	39-00	0.036	642	4" Yellow Centerline, Dashed
Totals to Subsummary				0.435	

SEEDING

END
WIDTHSO.
YDS.

70 60 50 40 30 20 10 10 20 30 40

C
SURVEY
POE RD.QUANTITIES
CALC BY JML DATE 9-17-92
CKD BY MTG DATE 9-18-92FIRM
REGION STATE PROJECT
5 OHIO12
66

WOO-75-15.35 (VARIOUS)

END AREA VOLUME
CUT FILL CUT FILL

680

675

670

DEDUCT FOR DRIVE
@ STA 17+57

665

ADD ENG. EST. FOR
DRIVE @
STA. 17+57

665

6

C CONST.

C Dr. Lt.

673.30

17+57

672.91

C CONST.

672.88

17+00

672.71

C CONST.
=> < 0.80'

672.80

16+00

672.79

C
SURVEY
POE RD.

-34

19

161

10

660

127

675

670

665

660

133

4

35

1

675

37

670

665

660

133

2

680

680

675

670

ADD ENG. EST. FOR
DRIVE @
STA. 17+57

665

6

675

675

670

DEDUCT FOR DRIVE
@ STA 17+57

665

6

665

670

665

6

675

675

670

670

665

660

133

4

665

665

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660

133

4

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675

670

37

665

660

133

2

665

670

660

660

133

2

660

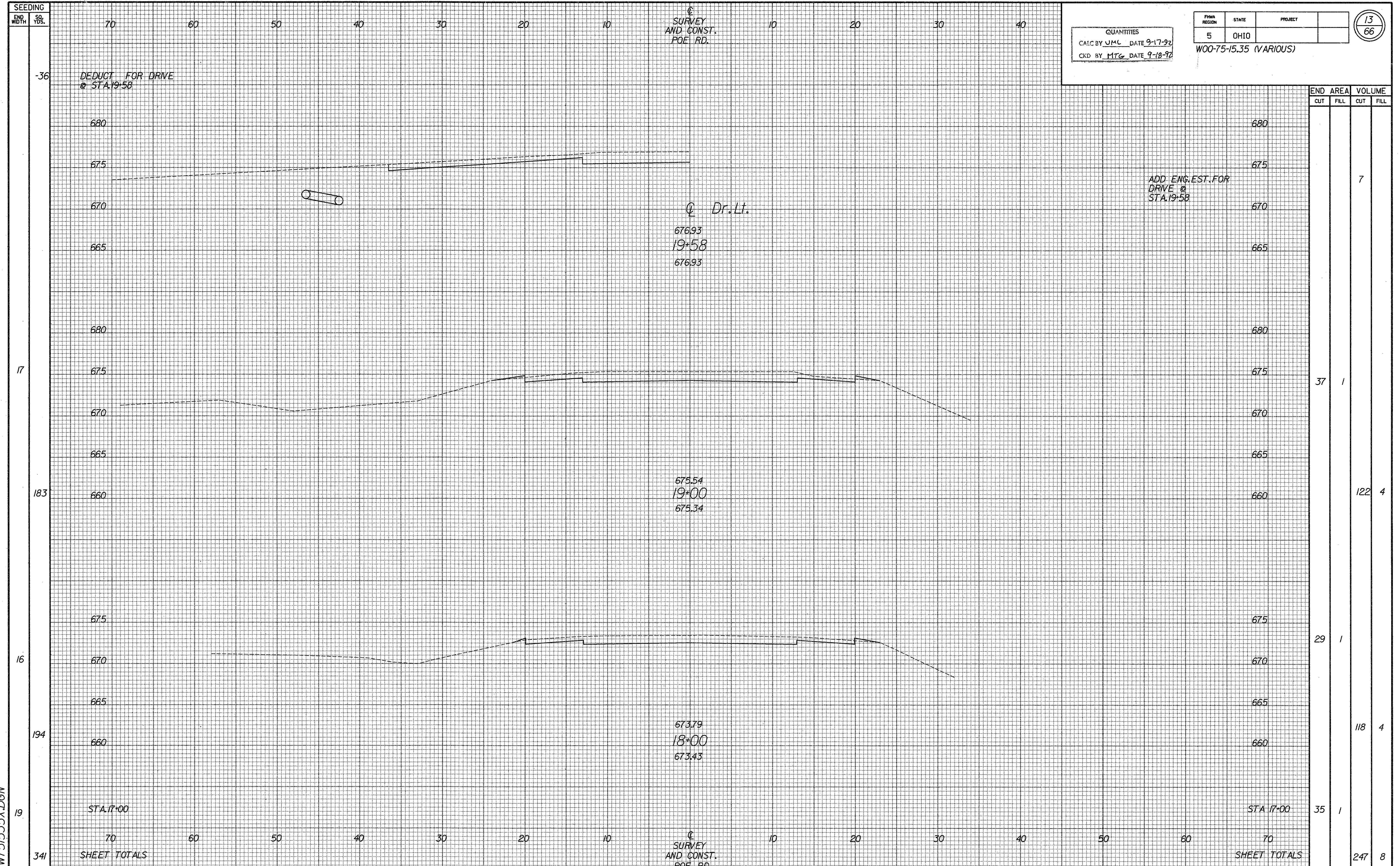
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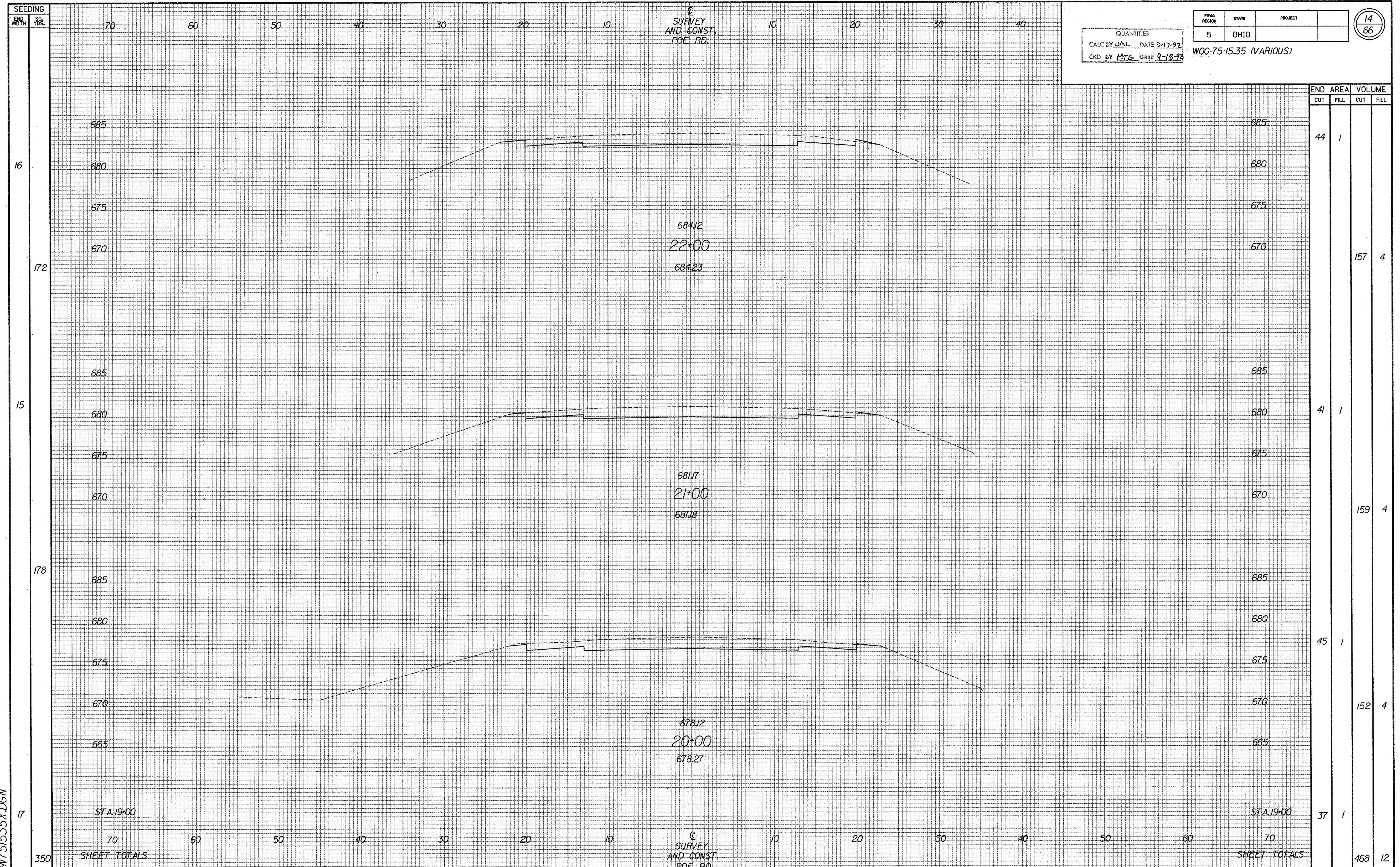
133

2

SHEET TOTALS

SHEET TOTALS





SEEDING

END WIDTH	SO. YDS.
70	60
50	40
30	20
10	10

C
SURVEY
AND CONST.
POE RD.

FIRM REGION	STATE	PROJECT	
5	OHIO		

(15
66)

QUANTITIES
CALC BY JML DATE 9-17-92
CKD BY MTG DATE 9-18-92

W00-75-15.35 (VARIOUS)

695

15 690

685

86 680

695

16 690

685

680

161 675

13 690

685

161 680

675

16 STA 22+00

408 SHEET TOTALS

690.82
24+50
690.98

689.74
24+00
689.80

687.11
23+00
687.28

C
SURVEY
AND CONST.
POE RD.

695

690

44 1

685

680

80 2

695

690

45 1

685

680

675

690

685

46 1

680

675

STA 22+00

44 1

416 10

NEXT PAGE

V75/535X07

END AREA VOLUME
CUT FILL CUT FILL

SEEDING	
END. WIDTH	SO. YDS.

70 60

40 30

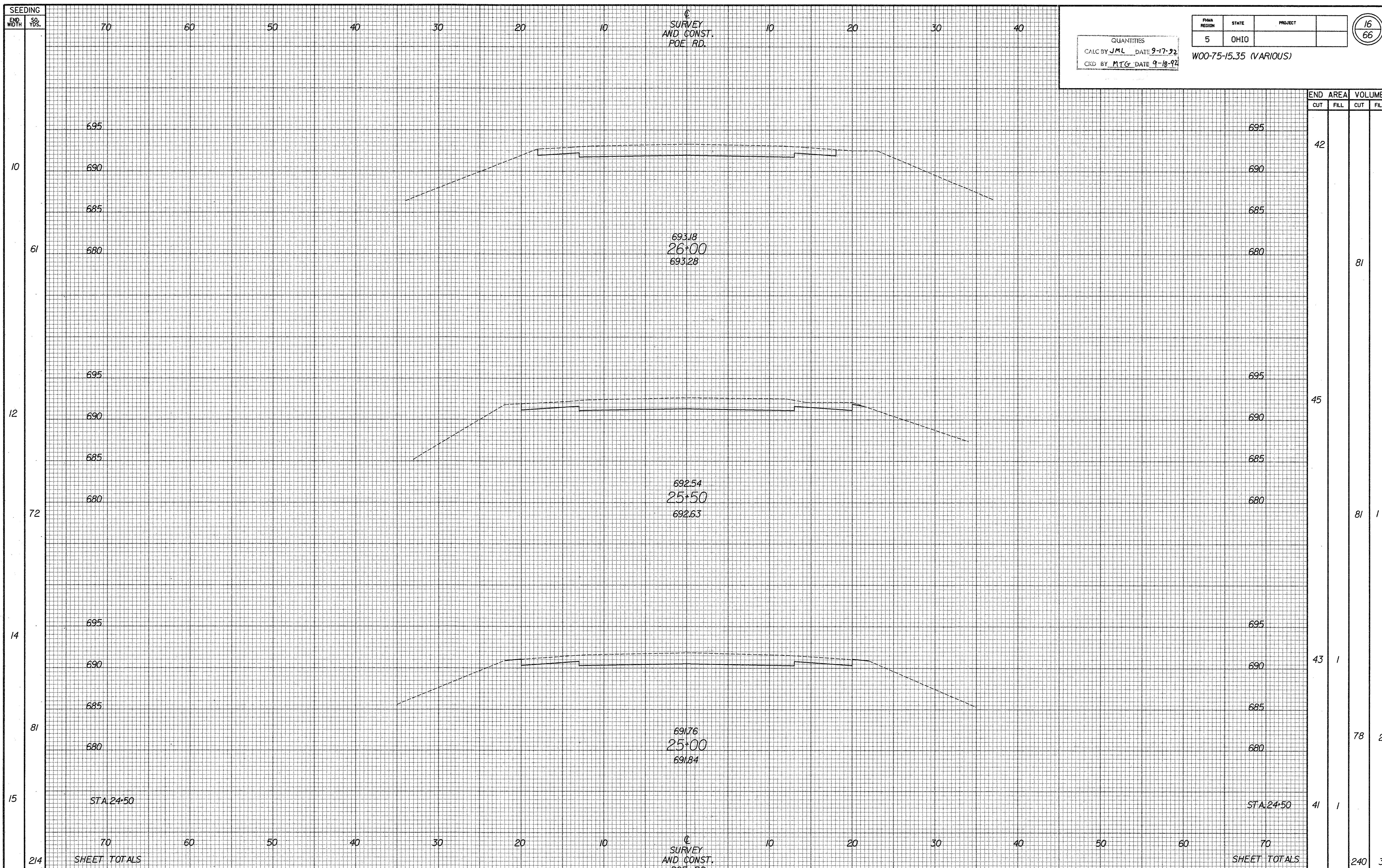
20 10 SU AND

10 1 20

URVEY
D CONST.
OF RD.

QUANTITIES
CALC BY JML DATE 9-17-92
CKD BY MTG DATE 9-18-92

WOO-75-15.35 (VARIOUS)



W75/535X.D6N

SEEDING

END

WIDTH

50

YDS.

70

60

50

40

30

20

10

10

20

30

40

C
SURVEY
AND CONST.
POE RD.

QUANTITIES
CALC BY JML DATE 9-17-92
CKD BY MTG DATE 9-18-92

WOO-75-15.35 (VARIOUS)

11
66END AREA VOLUME
CUT FILL CUT FILL

700

695

690

685

ADD FOR ENG. EST.
FOR FWD. APPROACH SLAB
FROM STA.29+28.1
TO STA.29+43.1

17

700

695

690

685

ADD FOR ENG. EST.
FOR REAR APPROACH SLAB
FROM STA.26+21.0
TO STA.26+46.0

17

700

695

690

685

ADD FOR ENG. EST.
FROM STA.26+00
TO STA.26+31.0

34

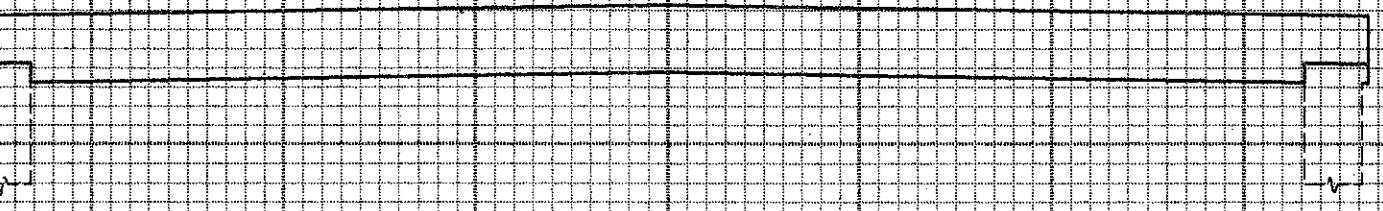
STA.26+00

42 2

SHEET TOTALS

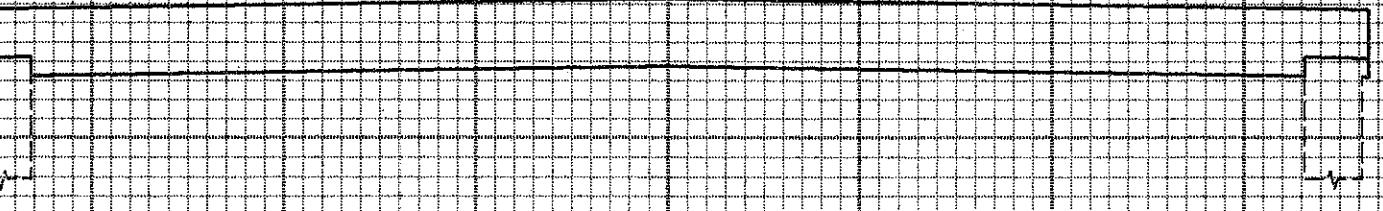
65 2

68



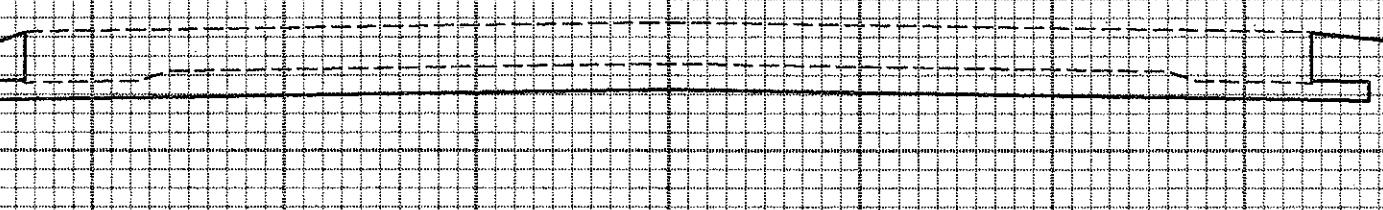
693.63
29+28.1

693.68



693.63
26+16.0

693.65



693.50
26+31.0

693.48

C
SURVEY
AND CONST.
POE RD.

SEEDING		END WIDTH	SO. YDS.	70	60	50	40	30	20	10	10	20	30	40

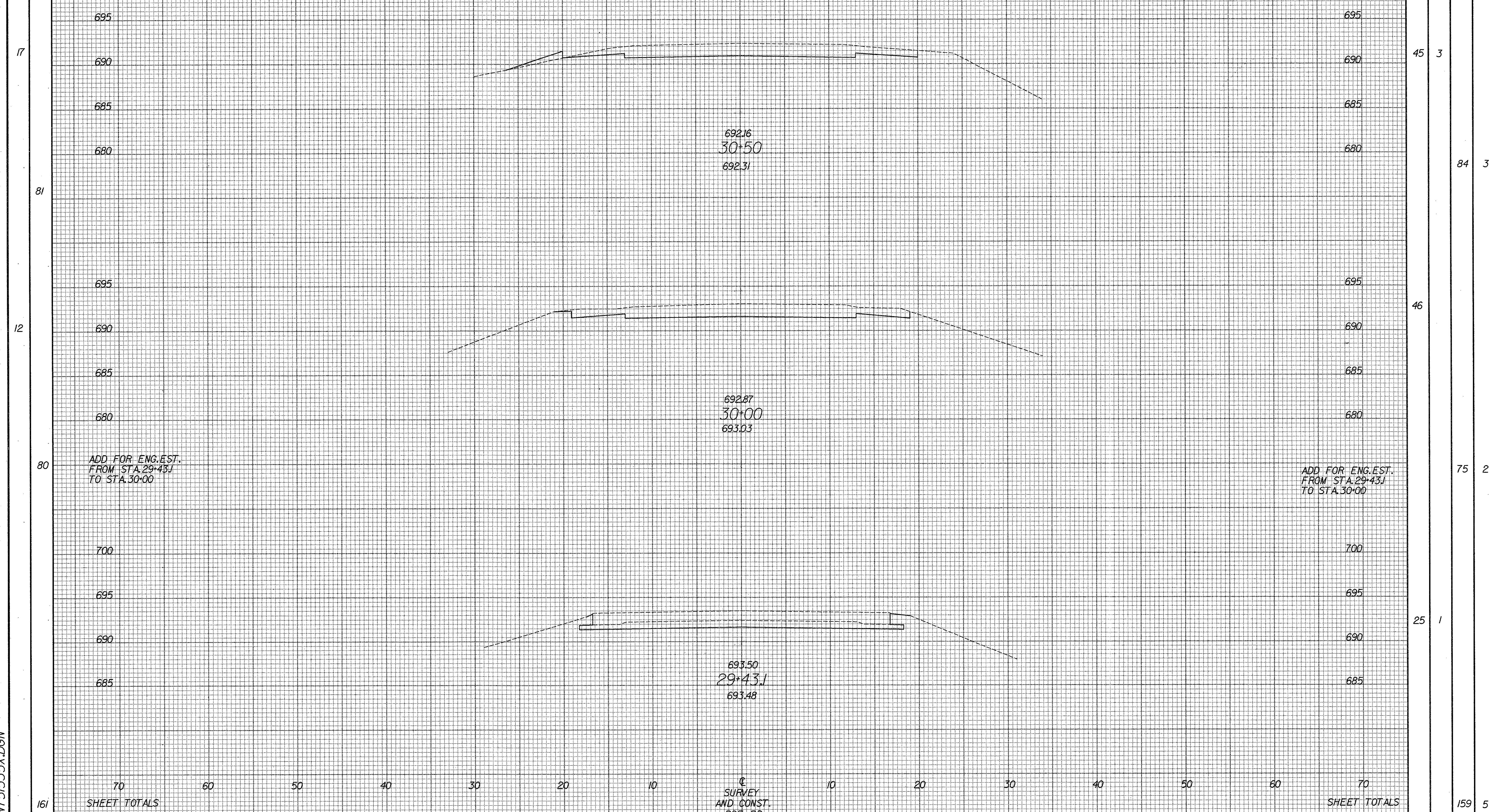
SURVEY
AND CONST.
POE RD.

FMWA REGION	STATE	PROJECT	
5	OHIO		

QUANTITIES
CALC BY JML DATE 9-17-92
CKD BY MTG DATE 9-18-92

W00-75-15.35 (VARIOUS)

18
66



SEEDING

END
WIDTHSO.
YDS.

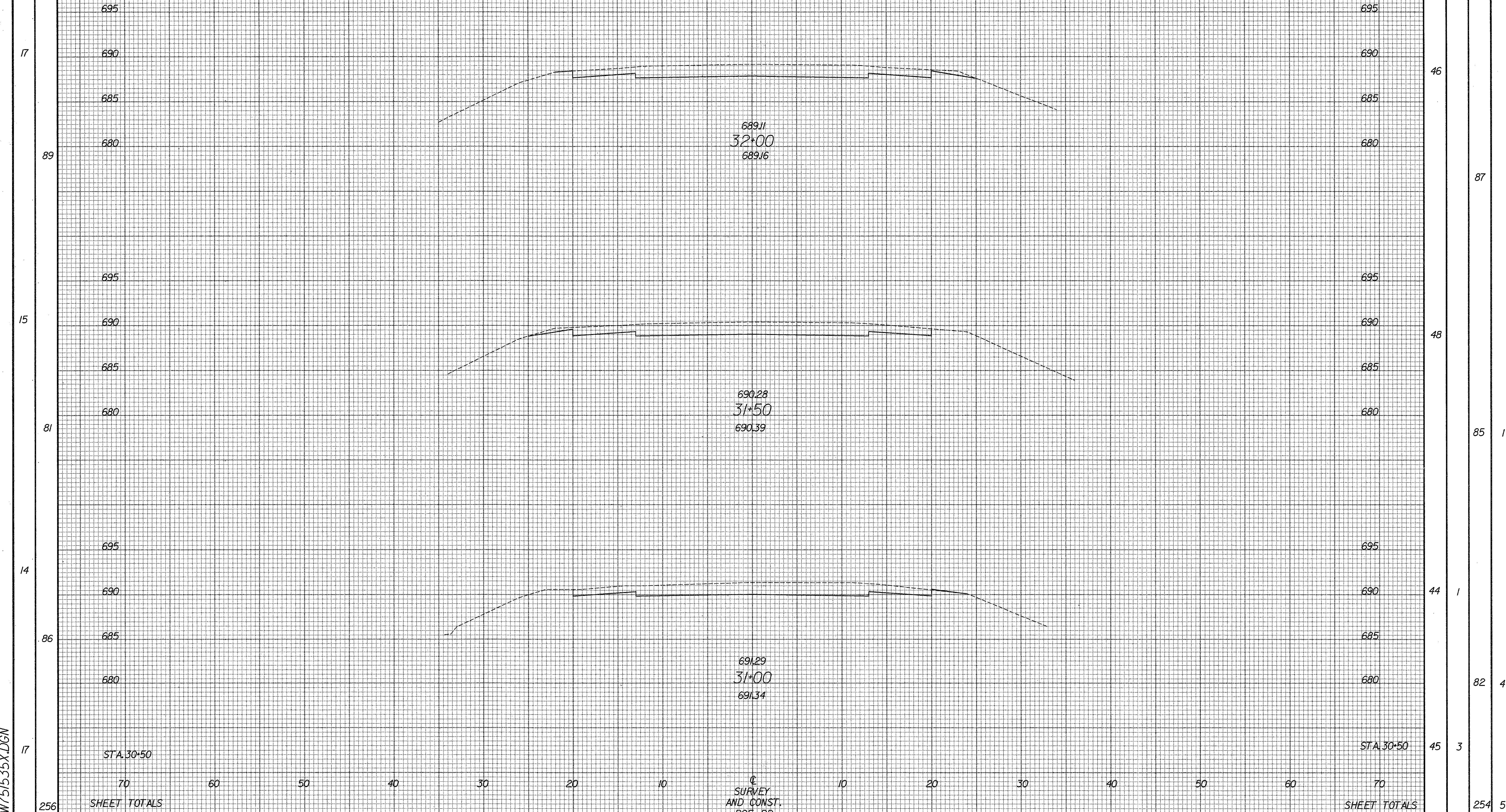
70 60 50 40 30 20 10 10 20 30 40

C
SURVEY
AND CONST.
POE RD.

FWA REGION	STATE	PROJECT	
5	OHIO		

19
66QUANTITIES
CALC BY JML DATE 9-17-92
CKD BY MTG DATE 9-18-92

W00-75-15.35 (VARIOUS)



C
SURVEY
AND CONST.
POF RD.

SEEDING	END WIDTH	SO. YDS.
	70	60
	50	40
	30	20
	10	
		10
		20
		30
		40

13

685
680
675
670
665
690
685
680
675
690
685
680
675
690
685
680
675
STA 3200

17

172

14

172

17

SEEDING	END WIDTH	SO. YDS.
	70	60
	50	40
	30	20
	10	
		10
		20
		30
		40

511 SHEET TOTALS

SEEDING	END WIDTH	SO. YDS.
	70	60
	50	40
	30	20
	10	
		10
		20
		30
		40

QUANTITIES

CALC BY JML DATE 9-17-92

CKD BY MTG DATE 9-19-92

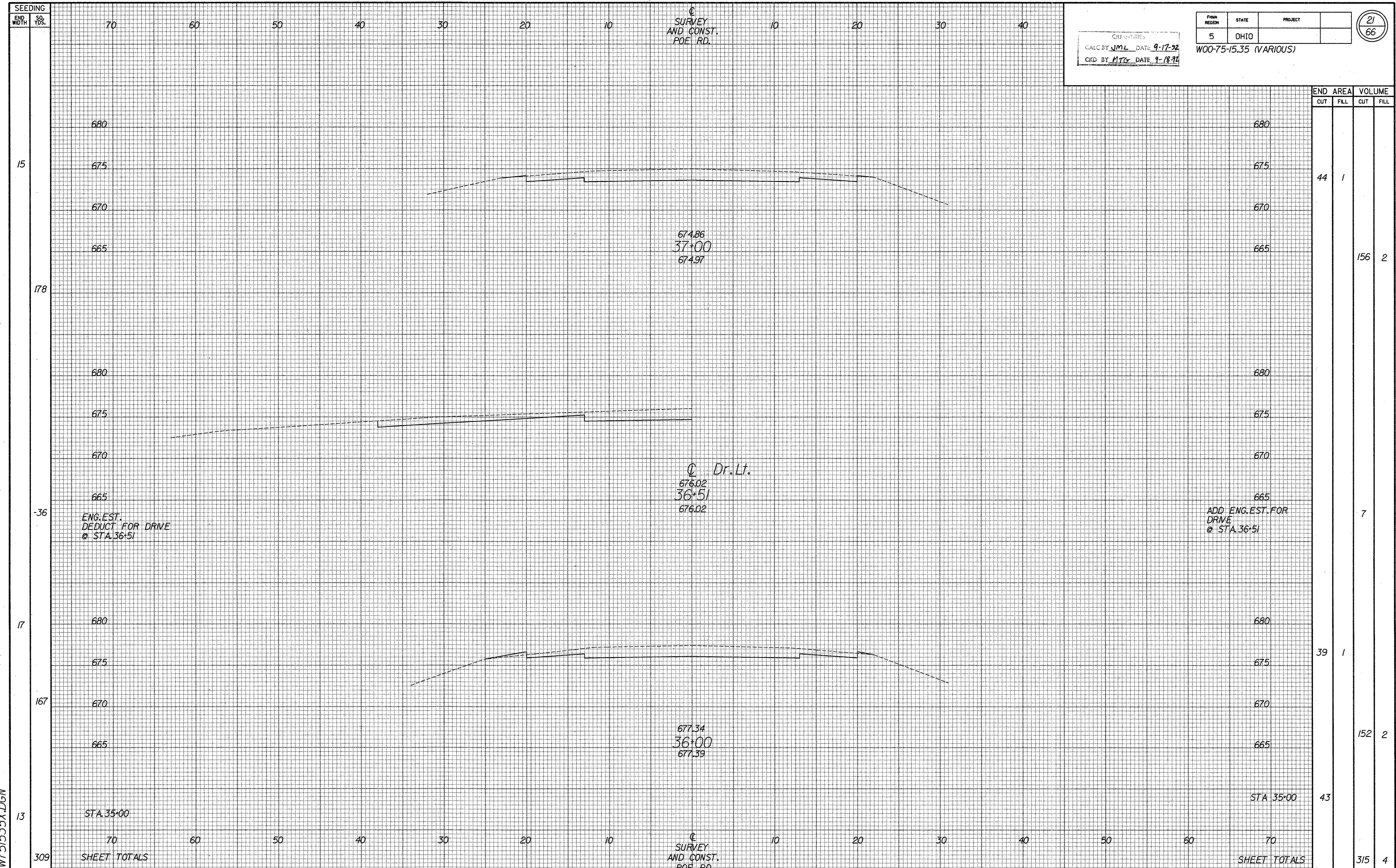
WOO

WA TION	STATE	PROJECT	
5	OHIO		

20
66

Q
SURVEY
AND CONST.
POF RD.

X-SECTIONS STA. 32+50 TO STA. 35+00 POE RD.



SEEDING

END
WIDTHSO.
YDS.

70 60 50 40 30 20 10

SURVEY
POE RD.

10 20 30 40

QUANTITIES
CALC BY JML DATE 9-17-92
CKD BY MTG DATE 9-18-92

FIRM REGION	STATE	PROJECT	
5	OHIO		

W00-75-15.35 (VARIOUS)

(22
66)

END AREA VOLUME

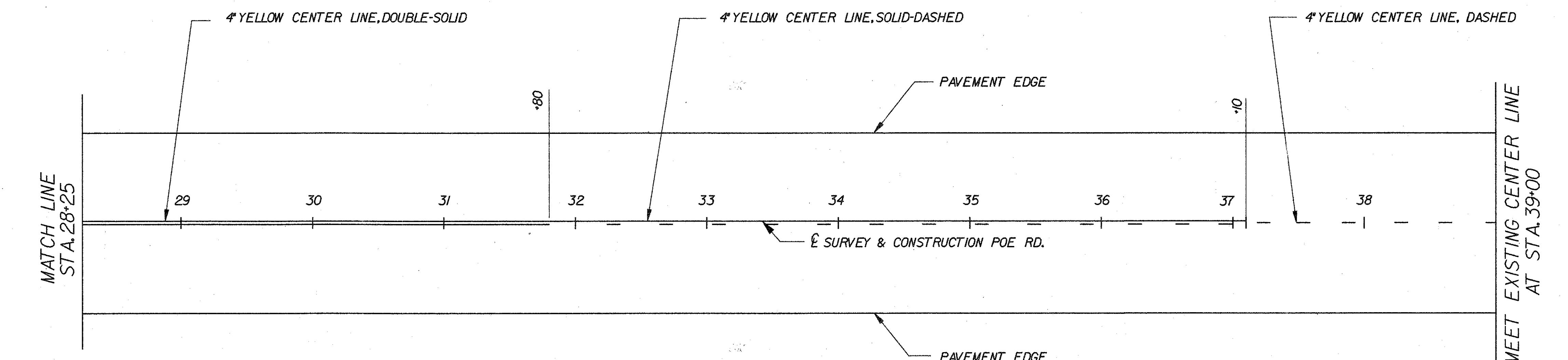
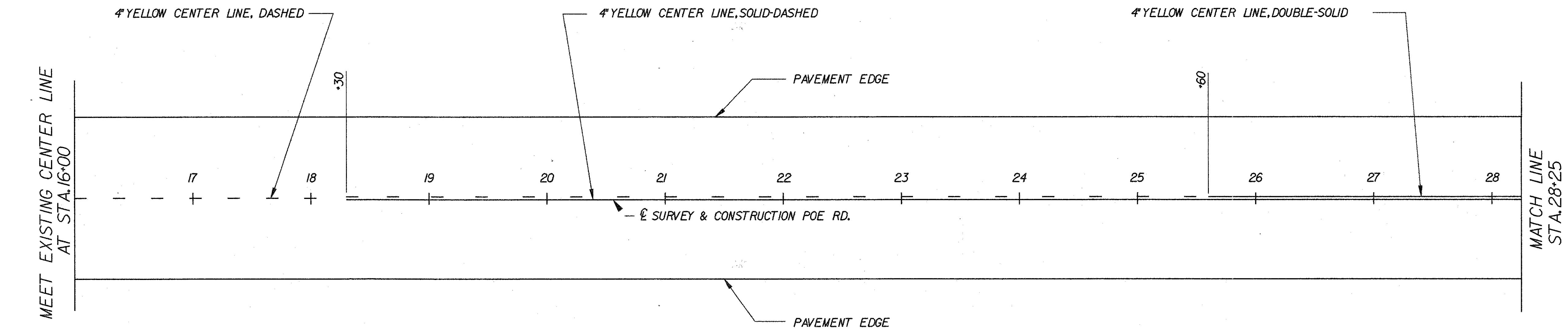
CUT FILL CUT FILL

FHWA REGION	STATE	PROJECT	
5	OHIO		

23
66

PAVEMENT MARKING

WOO-75-15.35 (VARIOUS)



BRIDGE GENERAL SUMMARY

37
66

FMVA REGION	STATE	PROJECT	
5	OHIO		

QUANTITIES
CALC BY *L3* DATE *10/19/93*
CKD BY *MTC* DATE *10/16/93*

WOO-75-15.35(VARIOUS)

ITEM	WOO-75-I535 POE RD.	WOO-75-I710 NIMS RD.	WOO-75-I836 SUGAR RIDGE RD.	WOO-75-I941 DEVIL'S HOLE RD.			MISCELLANEOUS		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
202	LUMP	LUMP	LUMP	LUMP					202	I120I	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
509	I4706	I3752	I4584	I4056			1,000		509	I5800	58,098	LB.	EPOXY COATED REINFORCING STEEL, GRADE 60
510	496	446	484	452			100		510	I2200	1,978	LIN.FT.	DOWEL HOLES
511	LUMP	LUMP	LUMP	LUMP					511	33410	LUMP	LUMP	CLASS S CONCRETE, USING SHRINKAGE COMPENSATING, FOR PRE-PLACEMENT TESTING ALTERNATE
511	I25	I16	I23	I15					511	34400	479	CU.YD.	CLASS S CONCRETE, SUPERSTRUCTURE
511	I25	I16	I23	I15					511	33404	479	CU.YD.	CLASS S CONCRETE, SUPERSTRUCTURE (USING TYPE K SHRINKAGE COMPENSATING CEMENT) ALTERNATE
511	I0	8	9	8					511	45700	35	CU.YD.	CLASS C CONCRETE, ABUTMENT
SPECIAL	22	17	22	17					SPECIAL	I51267200	78	SQ.YD.	MEMBRANE WATERPROOFING (SHEET TYPE 2) (SEE PROPOSAL NOTE)
SPECIAL	920	898	899	910					SPECIAL	I51267502	3,627	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY) (SEE PROPOSAL NOTE)
SPECIAL	88	88	88	88					SPECIAL	I51400500	352	LIN.FT.	CAULKING
SPECIAL	LUMP	LUMP	LUMP	LUMP					SPECIAL	I51425650	LUMP	LUMP	SURFACE PREPARATION OF EXISTING STEEL (EEU) (SEE PROPOSAL NOTE)
SPECIAL	LUMP	LUMP	LUMP	LUMP					SPECIAL	I51425656	LUMP	LUMP	SPOT PRIME COAT (EPOXY) (SEE PROPOSAL NOTE)
SPECIAL	LUMP	LUMP	LUMP	LUMP					SPECIAL	I51425660	LUMP	LUMP	FULL PRIME COAT (EPOXY) (SEE PROPOSAL NOTE)
SPECIAL	LUMP	LUMP	LUMP	LUMP					SPECIAL	I51425666	LUMP	LUMP	COMPLETE COAT FINISH (URETHANE) (SEE PROPOSAL NOTE)
516	22	22	22	22					516	I3600	88	SQ.FT.	1" PREFORMED EXPANSION JOINT FILLER
516	266	220	250	220					516	I4500	956	SQ.FT.	2½" POLYSTYRENE JOINT FILLER, AS PER PLAN
516	8	8	8	8					516	I43200	32	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (9½" *15" *2½")
516	LUMP	LUMP	LUMP	LUMP					516	I47000	LUMP	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN
518	I2	I2	I2	I2					518	I280I	48	EACH	SCUPPER MODIFICATION, AS PER PLAN
SPECIAL	I,050	863	996	882					SPECIAL	I51922000	3,791	SQ.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY (1.25" THICK) (SEE PROPOSAL NOTE)
SPECIAL	24	18	18	22					SPECIAL	I51922100	82	CU.YD.	MICRO-SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS) (SEE PROPOSAL NOTE)
SPECIAL	2	1	1	1					SPECIAL	I51922200	5	CU.YD.	FULL-DEPTH REPAIR (SEE PROPOSAL NOTE)
601	8	8	I2	8					601	I20500	36	CU.YD.	CRUSHED AGGREGATE SLOPE PROTECTION
601	34	34	34	34					601	I21100	136	SQ.YD.	SLOPE PROTECTION GROUT, AS PER PLAN
603	60	50	40	60					603	I01400	210	LIN.FT.	6" CONDUIT, TYPE E (707.19)
603	10	20							603	I01401	30	LIN.FT.	6" CONDUIT, TYPE E (707.19), AS PER PLAN
607	4	4	4	4					607	I98100	16	EACH	FENCE ABUTMENT CONNECTION, REMOVE AND REBUILT, AS PER PLAN
SPECIAL	I050	863	996	882					SPECIAL	I84550000	3791	SQ.YD.	CONCRETE BRIDGE DECK SURFACE PREPARATION USING HYDRO DEMOLITION (SEE PROPOSAL NOTE)

BRIDGE GENERAL NOTES

FHWA REGION	STATE	PROJECT	
5	OHIO		

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WOO-75-15.35 (VARIOUS)

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM THE PLANS OF THE EXISTING STRUCTURES AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS I02.05, I05.02, AND 5I3.02.

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:

WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC THE DESIGNATED PORTIONS OF THE BRIDGE, AS SHOWN IN THE PLANS, SHALL BE REMOVED. THIS ITEM SHALL INCLUDE THE REMOVAL AND DISPOSAL OF PORTIONS OF THE EXISTING BRIDGE DECKS IN ADDITION TO THE REMOVAL OF THE PARAPETS, EXPANSION JOINTS, EXISTING EXPANSION JOINT SEALER AND EXISTING ROCKERS. THIS ITEM SHALL ALSO INCLUDE THE REMOVAL AND DISPOSAL OF BARRIER REFLECTORS ATTACHED TO CONCRETE PIERS ALONG I-75. THE LIMITS OF THIS ADDITIONAL REMOVAL SHALL BE DIRECTED BY THE ENGINEER. CARE SHALL BE EXERCISED DURING REMOVAL TO AVOID DAMAGE TO I-75 AND TO ADJACENT PORTIONS OF THE BRIDGE WHICH ARE NOT TO BE REPAIRED UNDER THIS CONTRACT. BACKHOE MOUNTED RAMS OR JACKHAMMERS LARGER THAN 45 LBS ARE NOT PERMITTED. SAW CUTTING IS NOT PERMITTED.

REPLACEMENT OF EXISTING REINFORCING STEEL:

ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND WHICH ARE MADE UNUSABLE BY THE CONTRACTOR'S CONCRETE REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW STEEL AT HIS COST. ANY EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION SHALL BE REPLACED WITH NEW STEEL. AN ALLOWANCE OF 1000 POUNDS IS INCLUDED UNDER ITEM 509 IN THE BRIDGE SUMMARY FOR THIS PURPOSE.

ITEM 510, DOWEL HOLE:

EACH DOWEL HOLE SHALL BE DRILLED TO A DEPTH AND AT SPACINGS AS SHOWN IN THE PLANS. EACH HOLE SHALL BE THOROUGHLY CLEANED OF ALL DUST AND OTHER DELETERIOUS MATERIAL.

THE GROUT SHALL CONSIST OF CEMENT AND WATER USING TYPE I, TYPE III OR SHRINKAGE COMPENSATING CEMENT. CLEAN HOLES SHALL BE SATURATED THOROUGHLY WITH WATER FOR A MINIMUM OF 5 MINUTES PRIOR TO PLACING GROUT. IMMEDIATELY PRIOR TO GROUTING, ALL FREE STANDING WATER SHALL BE REMOVED FROM THE HOLE. AFTER INITIAL MIXING, THINNING OR RETEMPERING OF GROUT WITH EXTRA WATER SHALL NOT BE ALLOWED. HARDENED OR SET GROUT WHICH HAS BECOME TOO STIFF OR DRY TO PROVIDE A GOOD BOND SHALL BE DISCARDED. DOWELS SHALL NOT BE INSTALLED IF THE MEAN AIR OR GROUT TEMPERATURES ARE LESS THAN 45°F. FURTHERMORE, AFTER PLACING, THE FRESH GROUT SHALL BE MAINTAINED AT A TEMPERATURE OF NOT LESS THAN 45°F FOR 72 HOURS, AND AT NOT LESS THAN 40°F FOR AN ADDITIONAL 4 DAYS. THE TEMPERATURE OF THE MIXED GROUT, IMMEDIATELY BEFORE PLACING, SHALL NOT BE LESS THAN 50°F NOR MORE THAN 90°F. THE CEMENT GROUT SHALL BE CURED CONTINUOUSLY WITH EITHER WET RAGS OR A SATISFACTORY CURING COMPOUND (WHICH MUST BE SUBSEQUENTLY REMOVED) FOR A MINIMUM PERIOD OF 3 DAYS WITHOUT DISTURBING THE DOWELS.

GROUT ANCHORING USING POLYESTER/VINYLESTER AS PER SS 852 MAY BE USED IN LIEU OF THE ABOVE REQUIREMENTS.

IN ADDITION TO THE QUANTITY OF DOWEL HOLES PROVIDED, AN ESTIMATED QUANTITY OF 100 LIN. FT. OF DOWEL HOLES HAS BEEN PROVIDED FOR ANCHORING OF REPLACEMENT REINFORCEMENT STEEL. THIS QUANTITY IS INCLUDED IN THE TOTAL FOR ITEM 510, DOWEL HOLE.

ITEM 516, 2 1/2" POLYSTYRENE JOINT FILLER, AS PER PLAN

MATERIAL SHALL MEET THE REQUIREMENTS OF ASTM 578-C85, TYPE 6.

ITEM 601, SLOPE PROTECTION GROUT, AS PER PLAN

THE EXISTING AND PROPOSED CRUSHED AGGREGATE SLOPE PROTECTION DIRECTLY UNDER THE BRIDGE DRAINAGE SCUPPERS SHALL BE PROTECTED FROM EROSION BY GROUTING A 5'X5' AREA OF AGGREGATE AS PER PLAN 601.03. AN ESTIMATED QUANTITY OF 2.8 SQ. YDS. PER SCUPPER SHALL BE USED AS DIRECTED BY THE ENGINEER.

ITEM 603, 6" CONDUIT, TYPE E (707.19)

THE EXISTING 6" BACKWALL DRAIN PIPES SHALL BE REPLACED USING THE FOLLOWING METHODS:

- 1.) IF THE ENGINEER DETERMINES THE EXISTING PIPE AT THE ABUTMENT IS IN GOOD CONDITION THEN THE PROPOSED 6" PLASTIC PIPE SHALL BE CONNECTED TO THE STUB OF THE EXISTING DRAIN PIPE.

AN ESTIMATED QUANTITY OF 210 LINEAR FEET OF ITEM 603, 6" CONDUIT, TYPE E (707.19), IS TO BE USED AS DIRECTED BY THE ENGINEER.

THE COST OF ALL LABOR, EQUIPMENT, AND MATERIAL NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID.

- 2.) IF THE ENGINEER DETERMINES THE EXISTING PIPE IS IN BAD CONDITION THE WEEPHOLE SHALL BE CORE DRILLED 6 1/2" IN DIAMETER TO ALLOW A 6" PLASTIC PIPE TO BE INSERTED AND ATTACHED TO THE BACKWALL USING AN EPOXY MORTAR.

AN ESTIMATED QUANTITY OF 30 LINEAR FEET OF ITEM 603, 6" CONDUIT, TYPE E (707.19), AS PER PLAN IS TO BE USED AS DIRECTED BY THE ENGINEER.

THE COST OF ALL LABOR, EQUIPMENT, AND MATERIAL NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID.

ITEM SPECIAL, CAULKING

CAULK USED SHALL CONSIST OF A TWO COMPONENT, 100% SOLIDS EPOXY MASTIC AS MANUFACTURED BY ONE OF THE FOLLOWING MANUFACTURERS:

MARK 24.4 POLY-CARB SOLON, OHIO 44139 216-248-1223	A-788 SPLASH ZONE COMPOUND KOPPERS COMPANY INC. MIDWESTERN DISTRICT SALES OFFICE 188 INDUSTRIAL DRIVE ELMHURST, IL 60126 312-530-6300	SIKADUR INJECTION GEL SIKA CHEMICAL CORP. LYNDHURST, NJ 07071 201-933-8801
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ITEM 607, FENCE ABUTMENT CONNECTION, REMOVED AND REBUILT, AS PER PLAN

ABUTMENT CONNECTIONS INCLUDING THE CONNECTING RODS, EYEBOLTS, AND ANCHORS FOR FENCES SHALL BE REMOVED DURING THE CONSTRUCTION OF INTEGRAL ABUTMENT AND REBUILT. NEW EYEBOLTS AND ANCHORS SHALL BE FURNISHED AND INSTALLED AS PER STD. DWG. F-3.

ITEM SPECIAL --- PAINTING BEAM ENDS --- LUMP SUM

THE BEAM ENDS SHALL BE PREPARED AND PAINTED IN ACCORDANCE WITH PROPOSAL NOTE "FIELD PAINTING OF EXISTING STEEL, USING EPOXY AND URETHANE (EEU)". THE AREA TO BE PAINTED SHALL EXTEND FROM THE END OF EACH BEAM AS SHOWN ON THE PLANS.

PAYMENT FOR ALL WORK UNDER THIS ITEM SHALL BE A LUMP SUM PAYMENT FOR SURFACE PREPARATION (EEU), SPOT PRIME (EPOXY), FULL PRIME (EPOXY), AND COMPLETE COAT FINISH (URETHANE).

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE

THIS ITEM SHALL BE FULL COMPENSATION FOR ALL SERVICES, MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO RAISE, SUPPORT AND LOWER THE SUPERSTRUCTURE WHILE CONSTRUCTING THE INTEGRAL ABUTMENTS. ALL BEAMS AT AN ABUTMENT SHALL BE JACKED AND LOWERED SIMULTANEOUSLY. THE BEAMS SHALL BE RAISED NO MORE THAN 1/2" ABOVE EXISTING ELEVATIONS. THE PROPOSED PROCEDURE TO JACK, SUPPORT, AND LOWER THE EXISTING STRUCTURE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL A MINIMUM OF TEN (10) DAYS PRIOR TO BEGINNING WORK ON THIS ITEM.

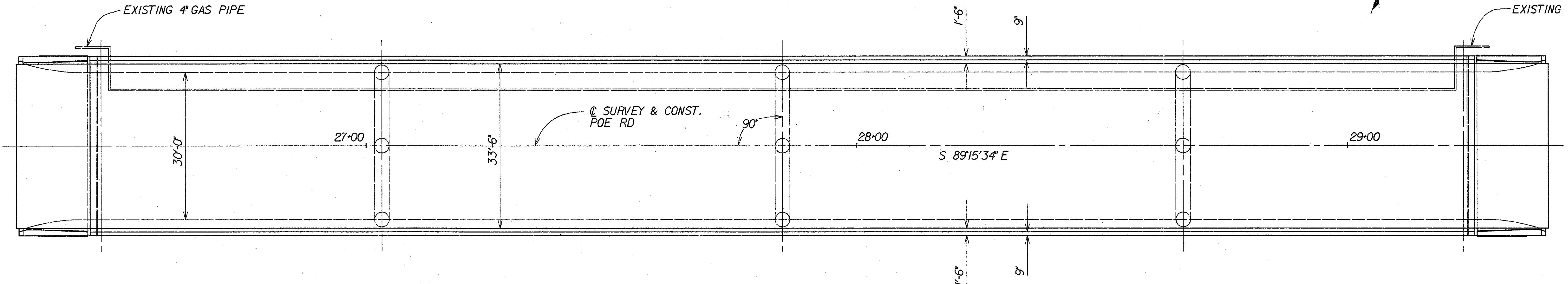
PAYMENT FOR ALL WORK UNDER THIS ITEM WILL BE ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE.

FWWA REGION	STATE	PROJECT	
5	OHIO		

W00-75-15.35 (VARIOUS)

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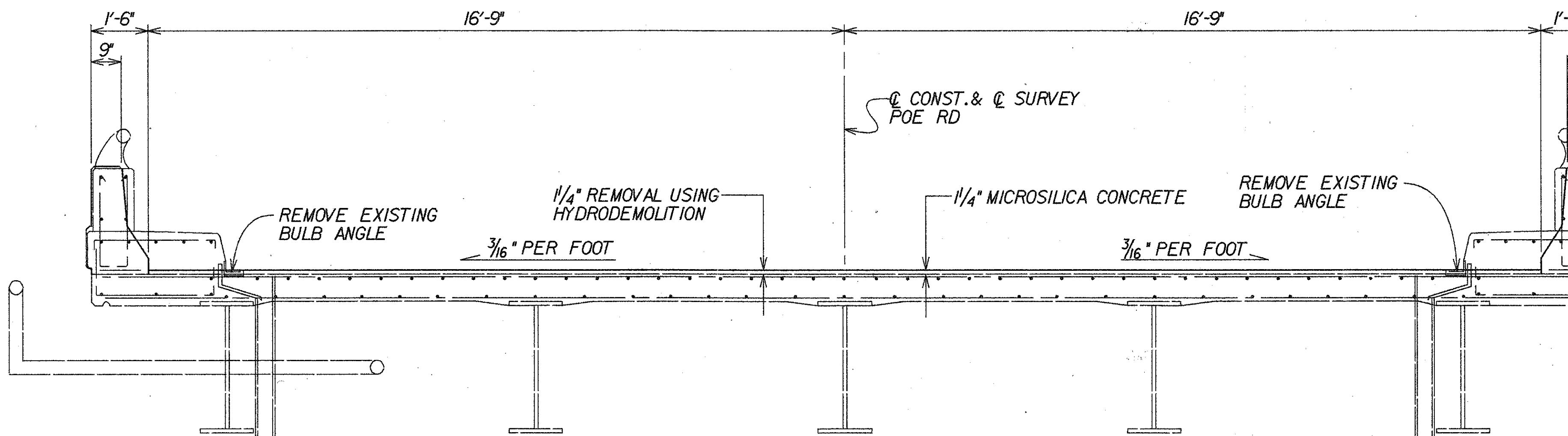
6



GENERAL PLAN

PROPOSED WORK

- 1) REMOVE $\frac{1}{4}$ " OF EXISTING DECK USING HYDRODEMOLITION
- 2) REMOVE EXISTING PARAPETS, STRUCTURAL EXPANSION JOINTS AND ABUTMENT BACKWALLS
- 3) BUILD INTEGRAL ABUTMENTS
- 4) BUILD BRIDGE PARAPETS
- 5) OVERLAY DECK WITH $\frac{1}{4}$ " MICROSILICA MODIFIED CONCRETE
- 6) SEAL ABUTMENTS, PARAPETS, WINGWALLS AND PIERS WITH EPOXY
- 7) EXTEND SCUPPER BELOW BRIDGE DECK



TRANSVERSE SECTION

EXISTING STRUCTURE DATA

TYPE: CONTINUOUS STEEL BEAM BRIDGE WITH REINFORCED CONCRETE DECK & SUBSTRUCTURE
 SPANS: 57'-2", 81'-8", 81'-8", 57'-2"
 ROADWAY: 30'-0" F/F CURBS
 LOAD FREQUENCY: H-20
 SKEW: 0°-00'-00"
 WEARING SURFACE: 1" MONOLITHIC CONCRETE
 APPROACH SLABS: 15' LONG
 ALIGNMENT: TANGENT
 CURBS: 2'-3", EACH SIDE

PROPOSED STRUCTURE DATA

ROADWAY: 33'-6" FACE TO FACE OF PARAPETS
 WEARING SURFACE: 1 1/4" MICROSILICA MODIFIED CONCRETE

STATE OF OHIO
 DEPARTMENT OF TRANSPORTATION
 DISTRICT 2 DESIGN & PLANNING OFFICE

GENERAL PLAN AND TRANSVERSE SECTION

BRIDGE NO.W00-75-1535

POE ROAD

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
L3				LLC	11/9/02

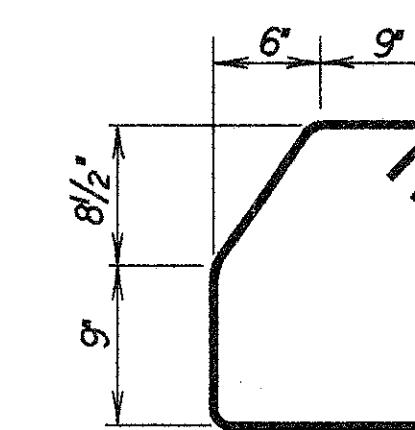
PHWA REGION	STATE	PROJECT	
5	OHIO		

WOO-75-15.35 (Various)

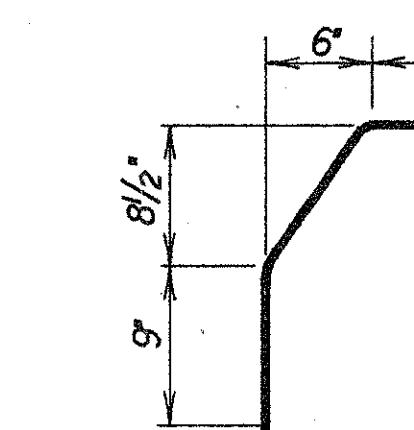
40
662
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REINFORCING STEEL LIST

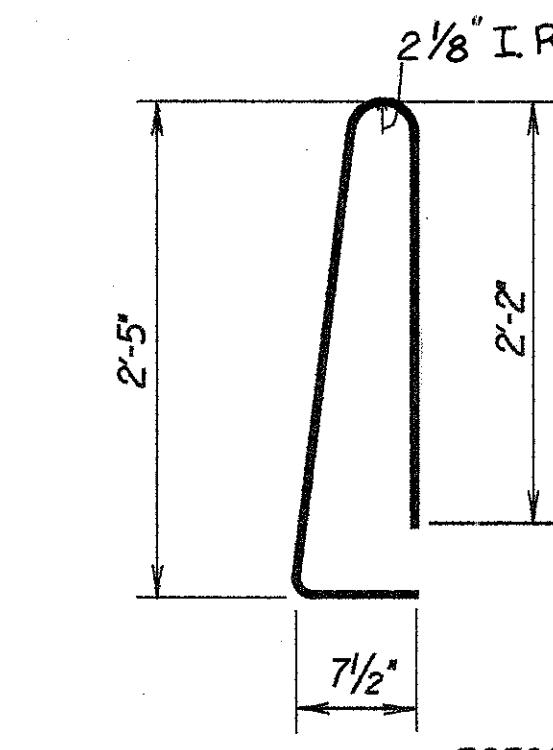
MARK	NO. IN STRUCTURE	LENGTH	WEIGHT	SHAPE	LAP LENGTH	DOWEL HOLES (LIN.FT.)
	LT.	RT.	TOTAL	(LBS.)		
<i>Superstructure</i>						
ES501	40	40	80	29'-0"	2489	S min.1'-8"
ES502	208	208	416	5'-3"	2278	B
ES503	8	8	16	14'-5"	241	S
ES504	200	200	400	2'-5"	1008	B
ES505	16	16	32	14'-0"	467	S
ES506	64	64	128	6'-2"	823	S
ES507	24	24	48	15'-2"	759	S
ES508	8	8	16	5'-8"	95	B
<i>Totals for Superstructure</i>			8160		200	



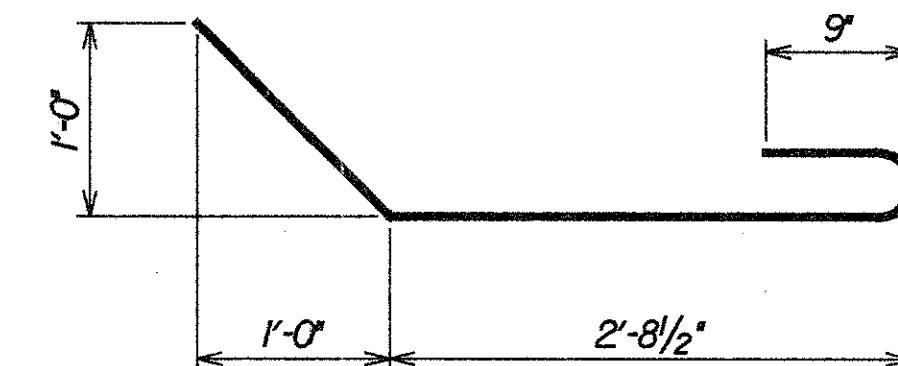
ES508



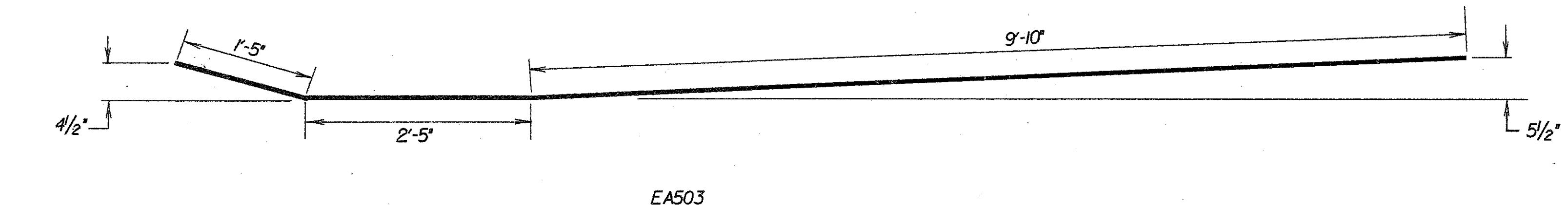
ES504



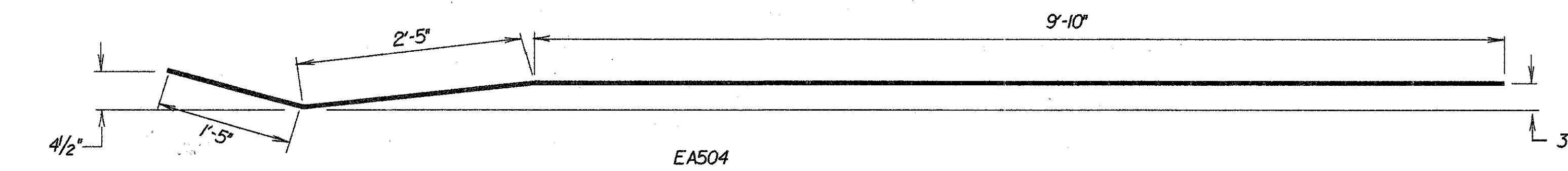
ES502



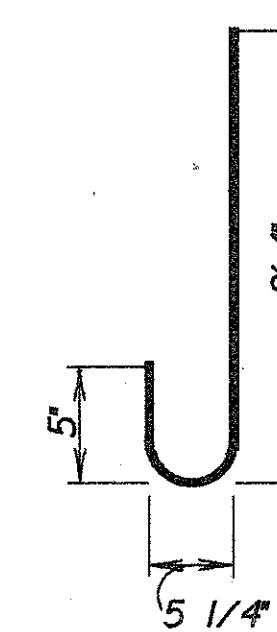
EA801



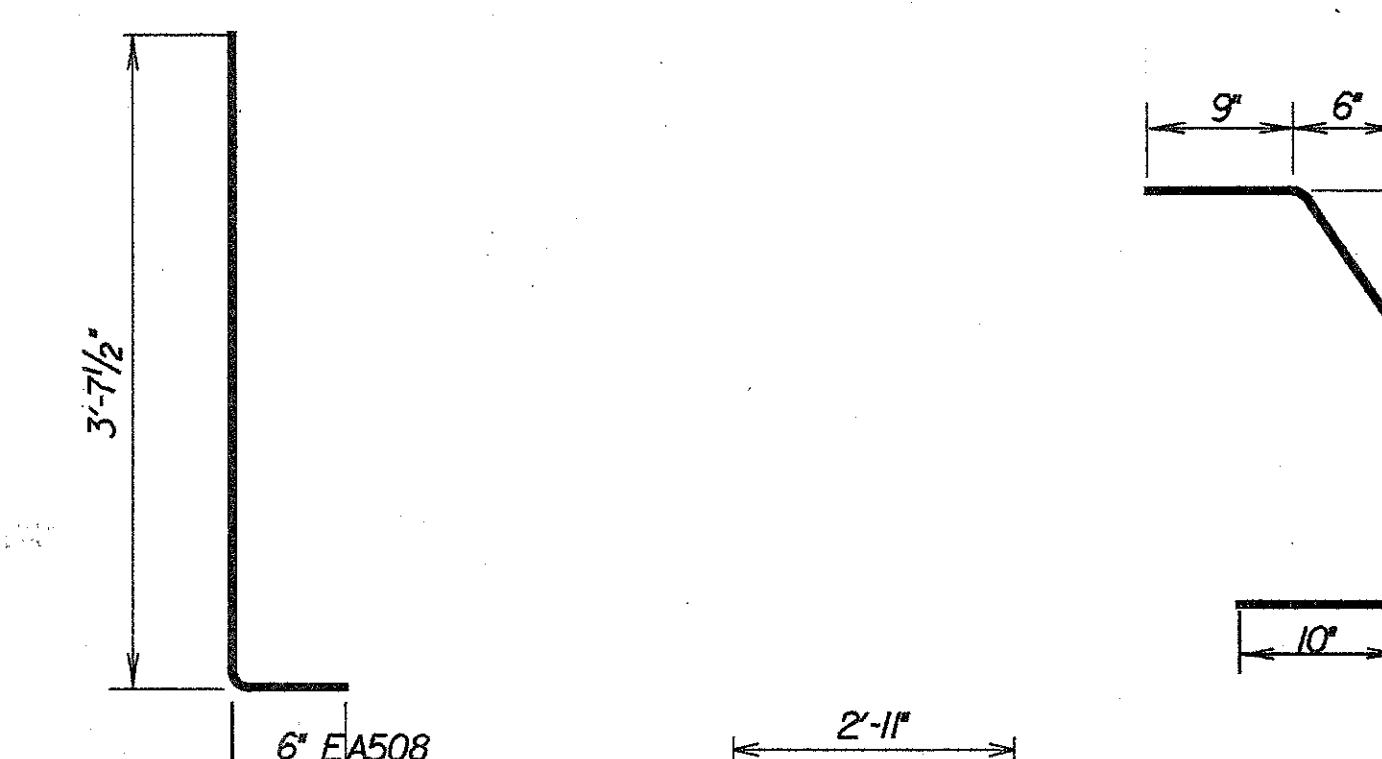
EA503



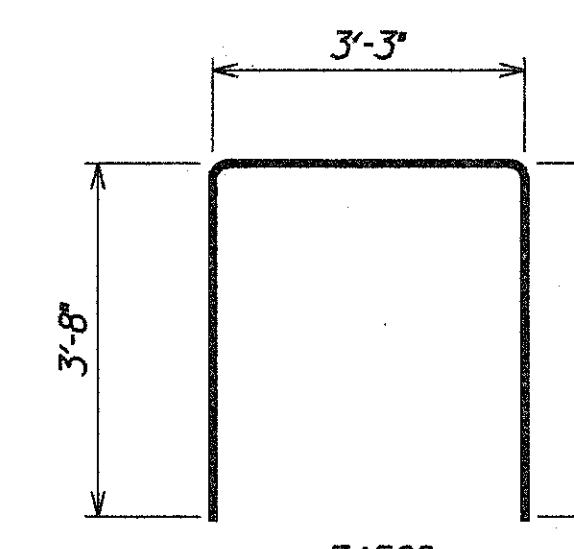
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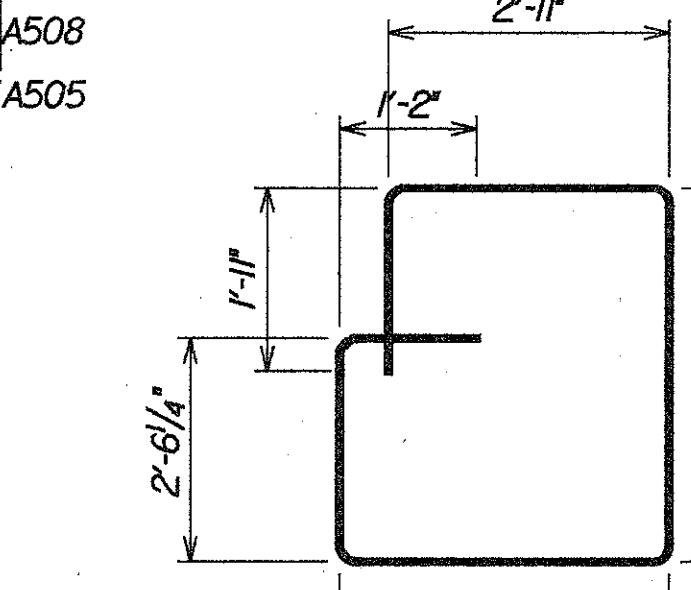
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EA506



EA509

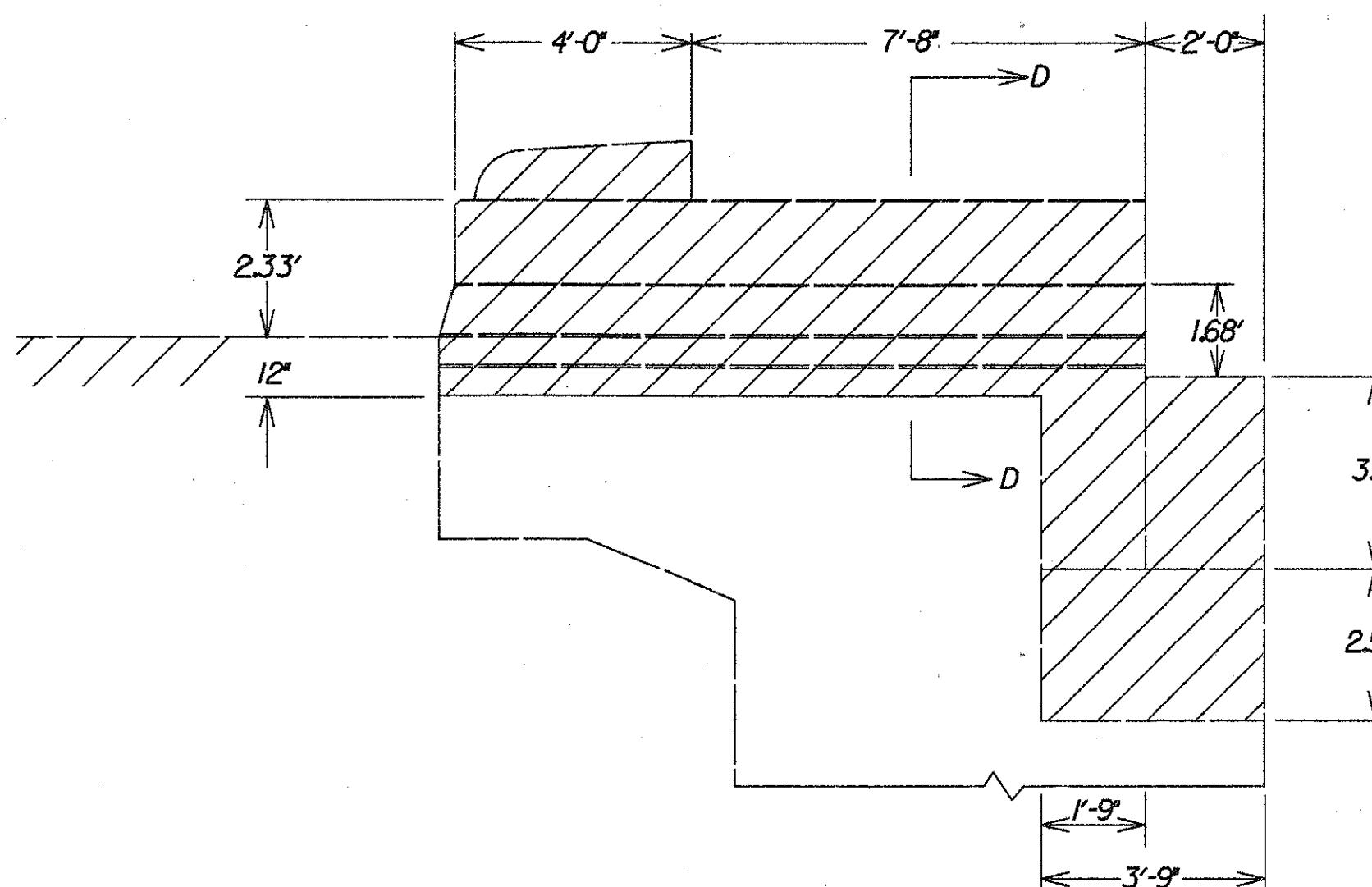
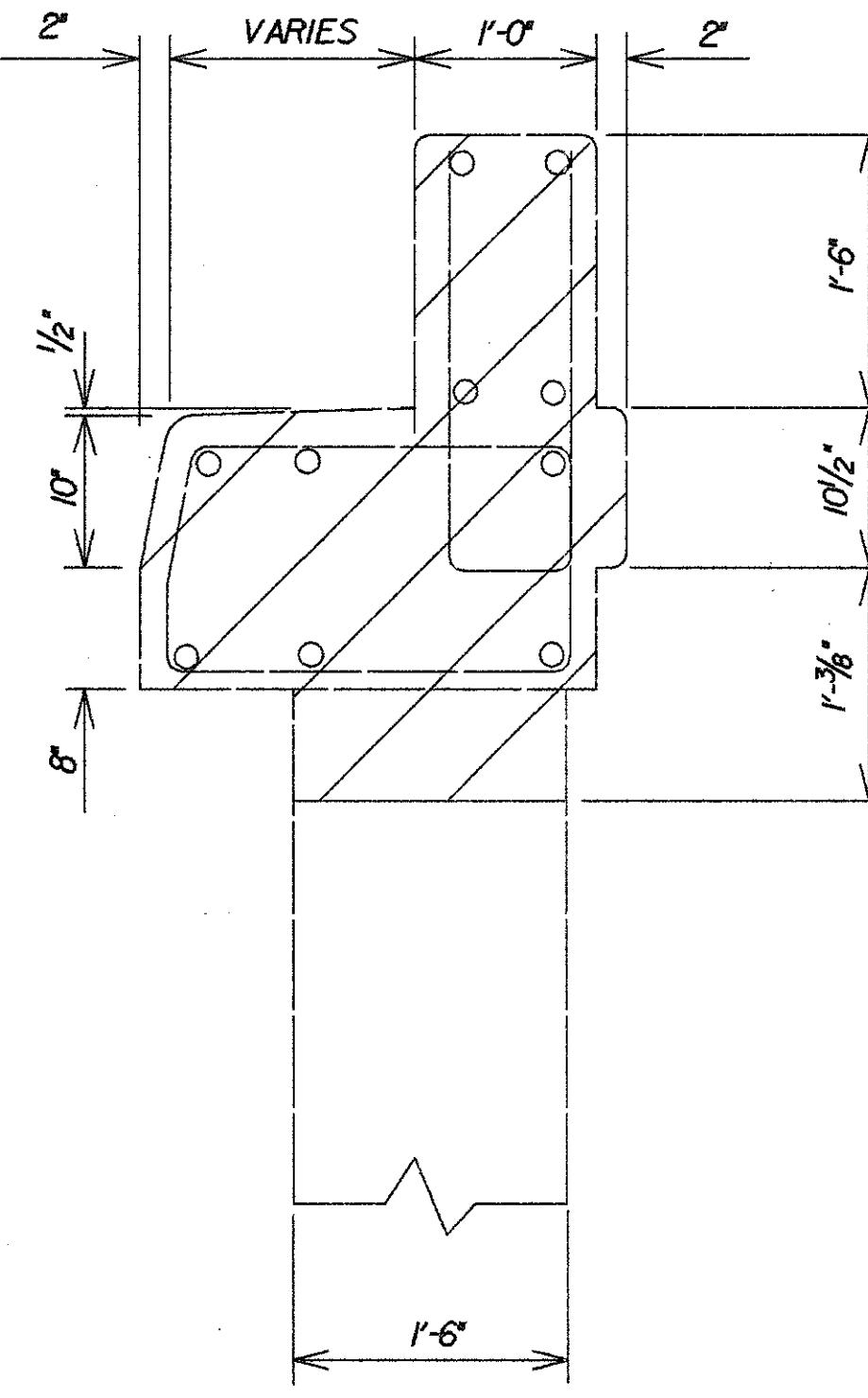
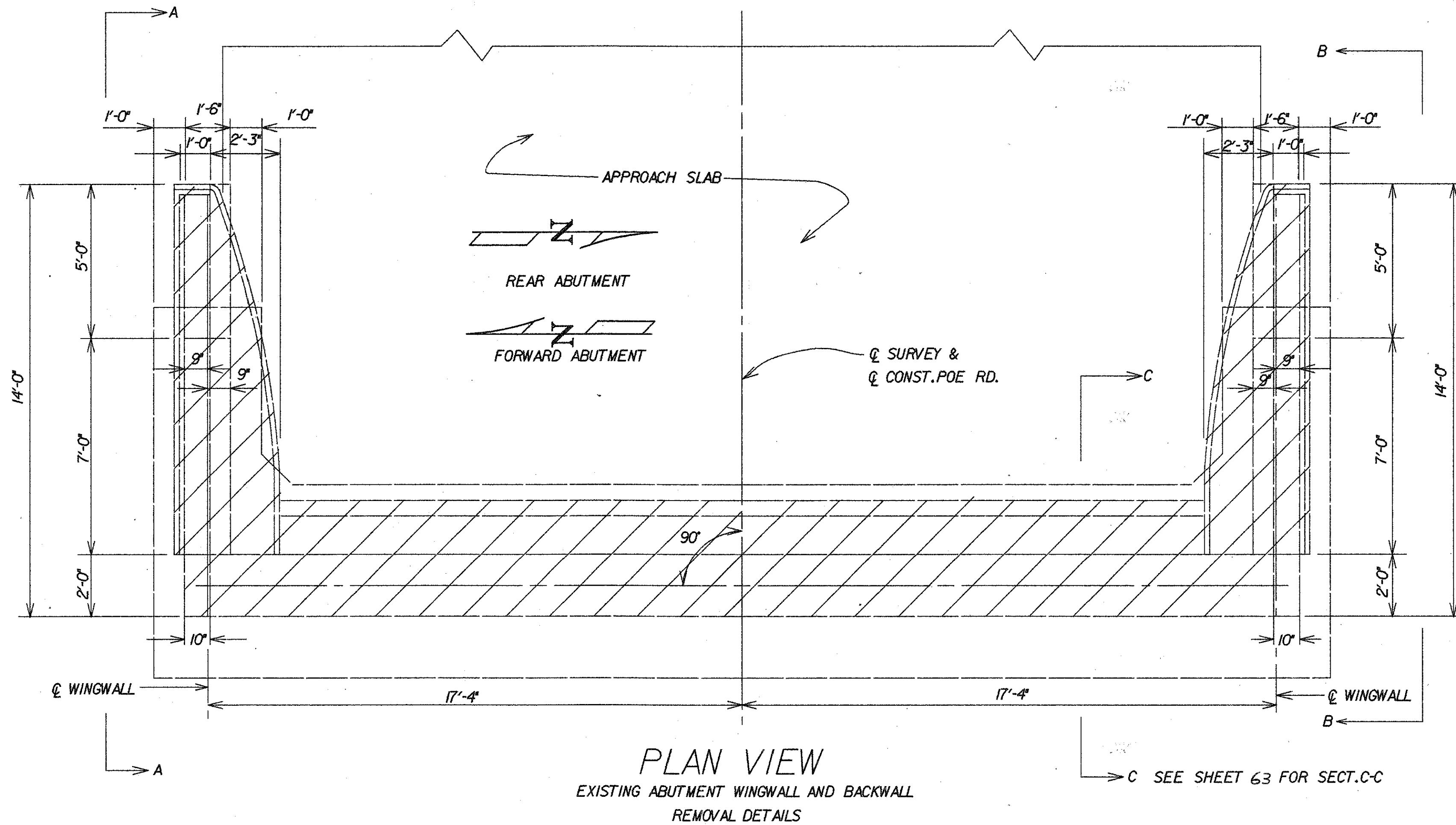


ESA501

PHWA REGION	STATE	PROJECT	
5	OHIO		

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WOO-75-1535 (VARIOUS)

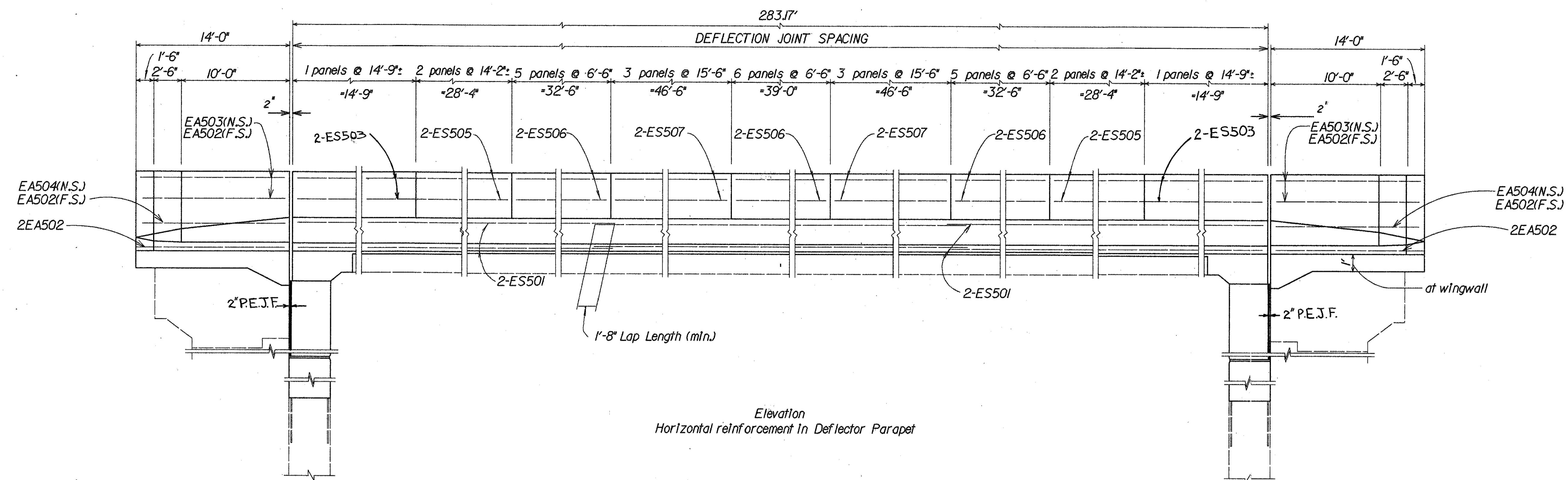
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WINGWALL ELEVATION
SECT.A-A
SECT.B-B REVERSED

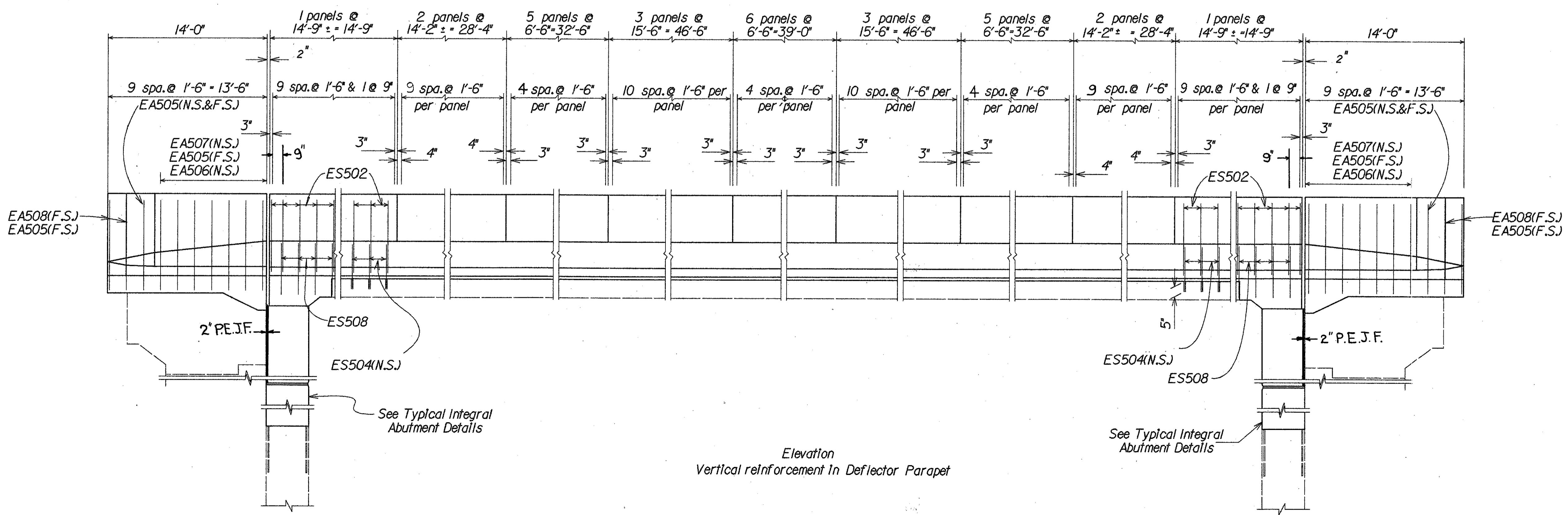
REMOVAL AREA

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES			
EXISTING ABUTMENT AND WINGWALL REMOVAL DETAILS BRIDGE NO. WOO-75-1535 POE RD.			
DESIGNED	DRAWN	TRACED	CHECKED
1/3	LCC	MTG	REVIEWED
DATE	1/1/92	REVISED	

283.17' →
DEFLECTION JOINT SPACIN



Elevation
Horizontal reinforcement in Deflector Parapet



Elevation
Vertical reinforcement in Deflector Parapet

See Typical Inter Abutment Details

REV

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

STRUCTURE UPGRADING

RECTOR PARAPET

00-75-1535

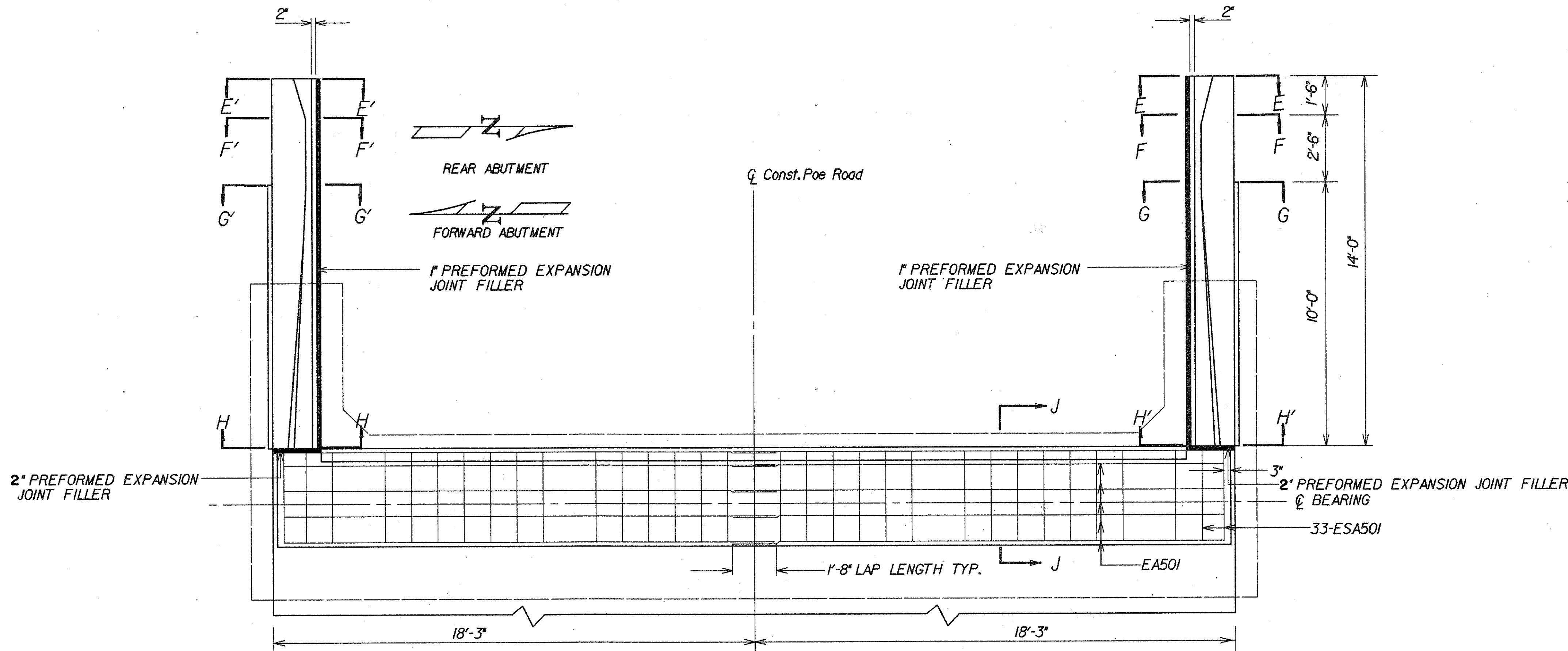
DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	REVISED
L ³			MTG	LLC	11/8/02	

5	OHIO		
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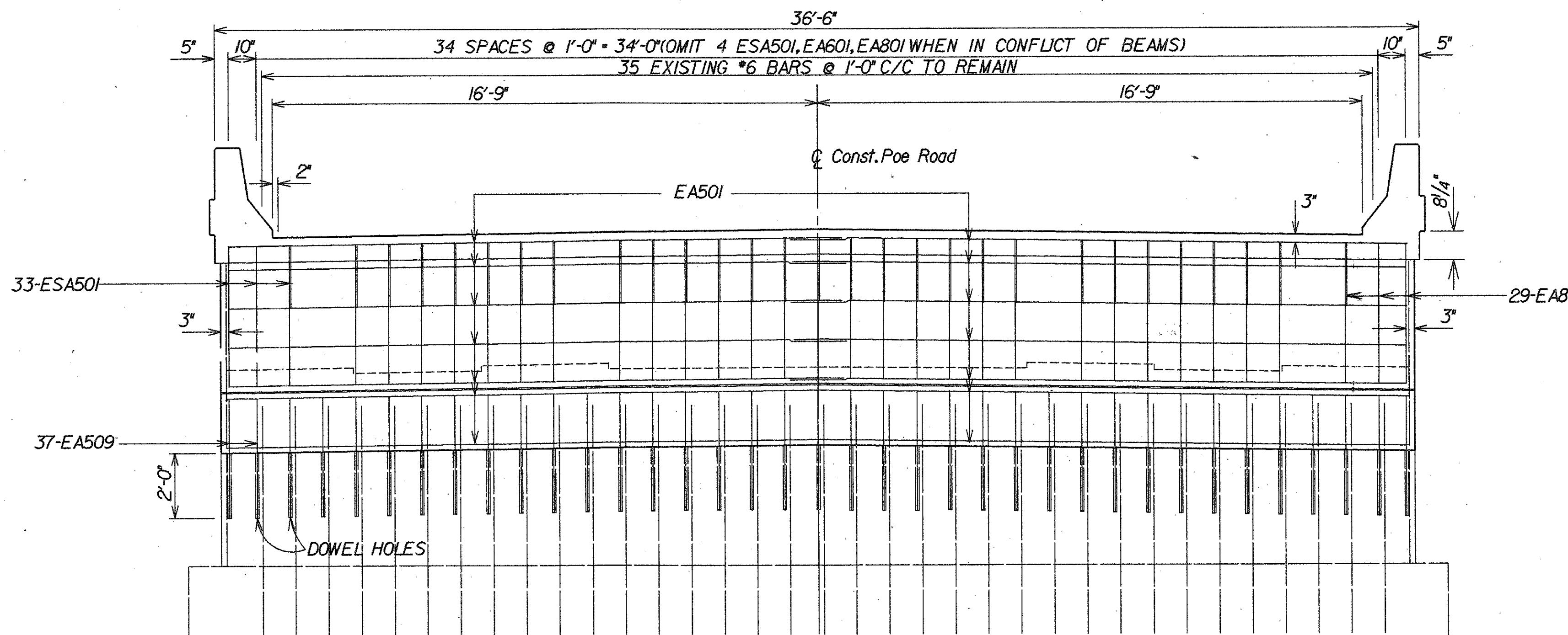
WOO-75-15.35(VARIOUS)

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PLAN VIEW



ELEVATION VIEW

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

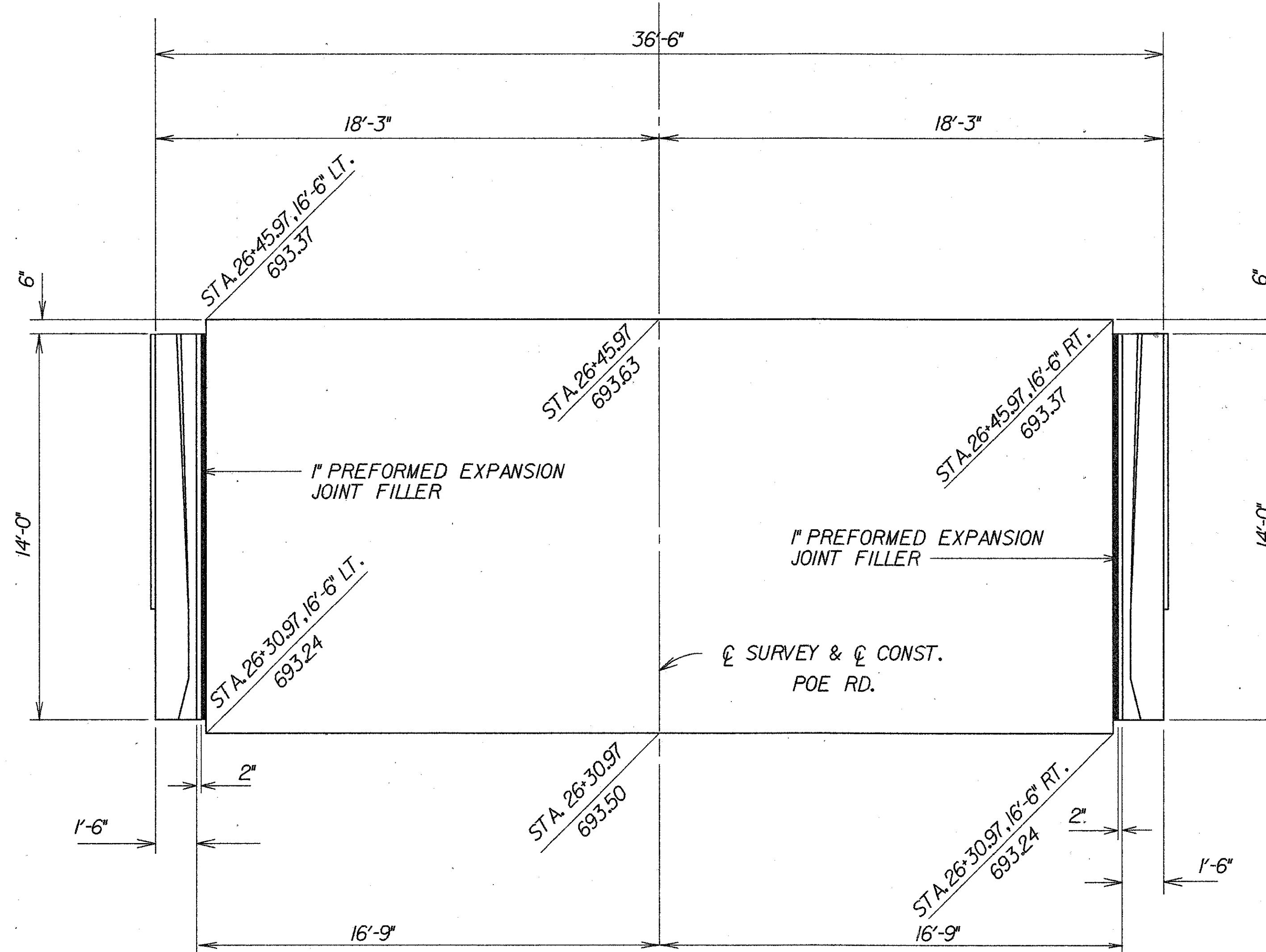
ABUTMENT AND WINGWALL
REHABILITATION DETAILS
BR. NO. WOO-75-1535
POE ROAD

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
L3					11/1/82	

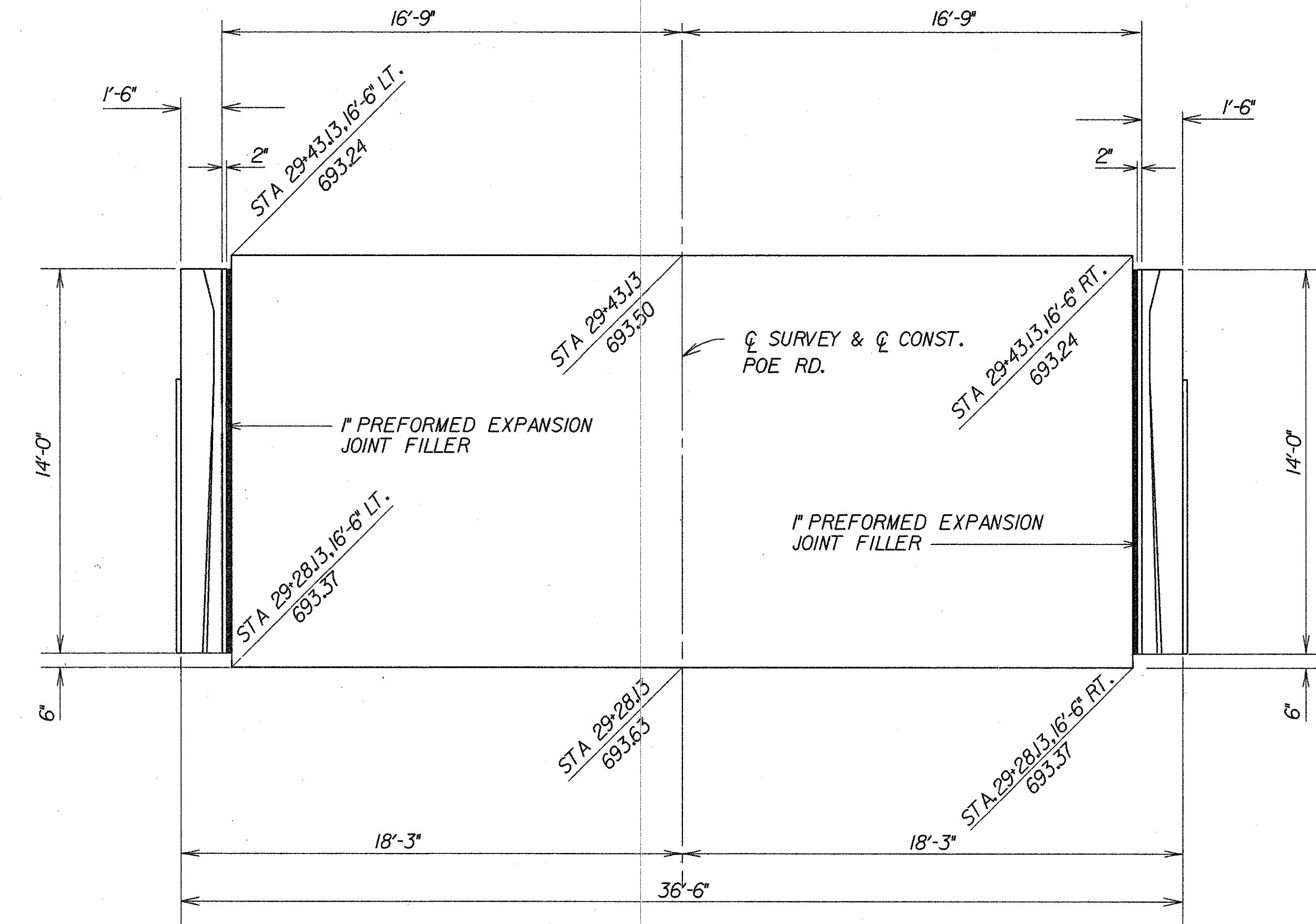
FRMA REGION	STATE	PROJECT	
5	OHIO		

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REAR APPROACH SLAB

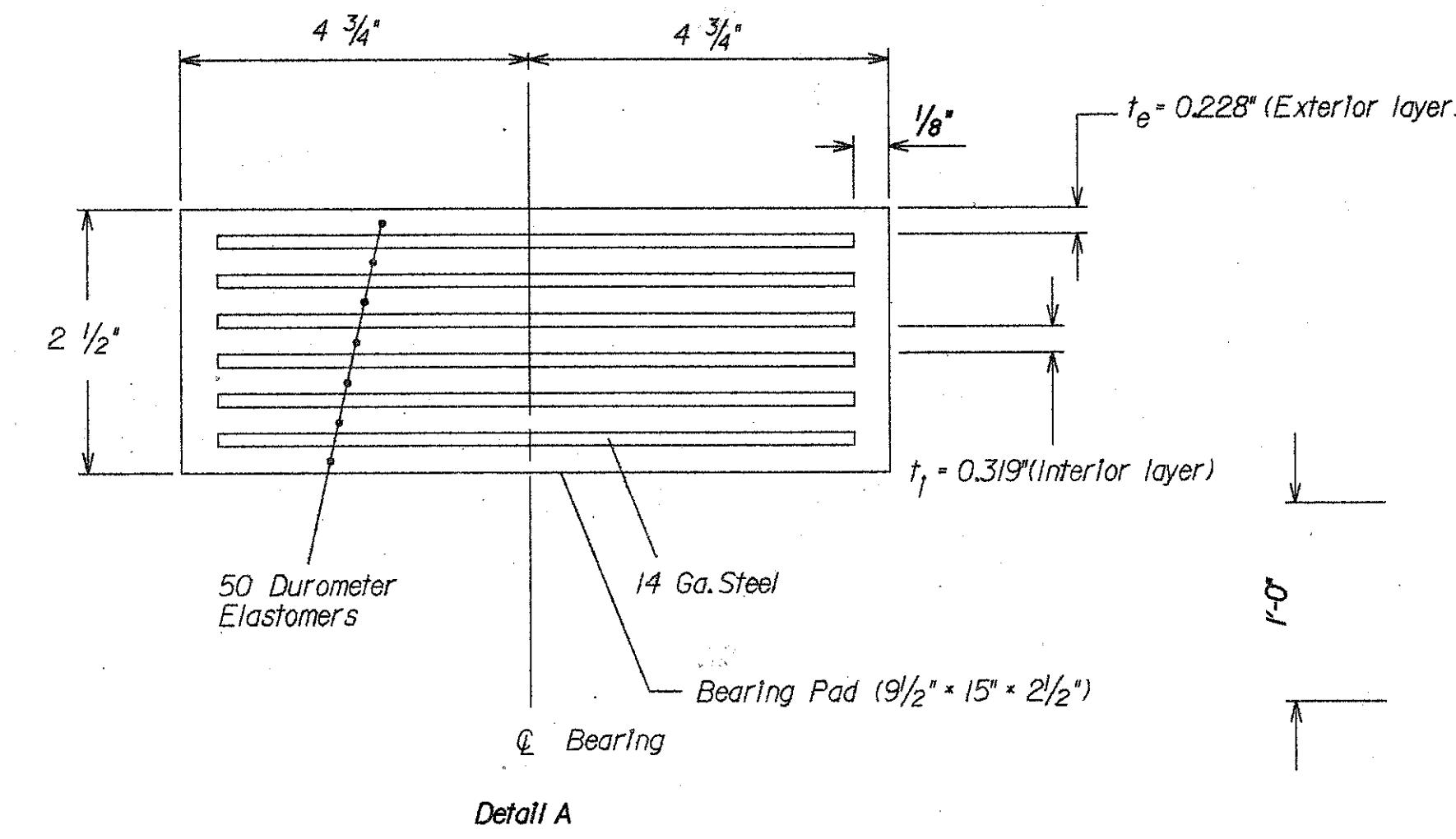
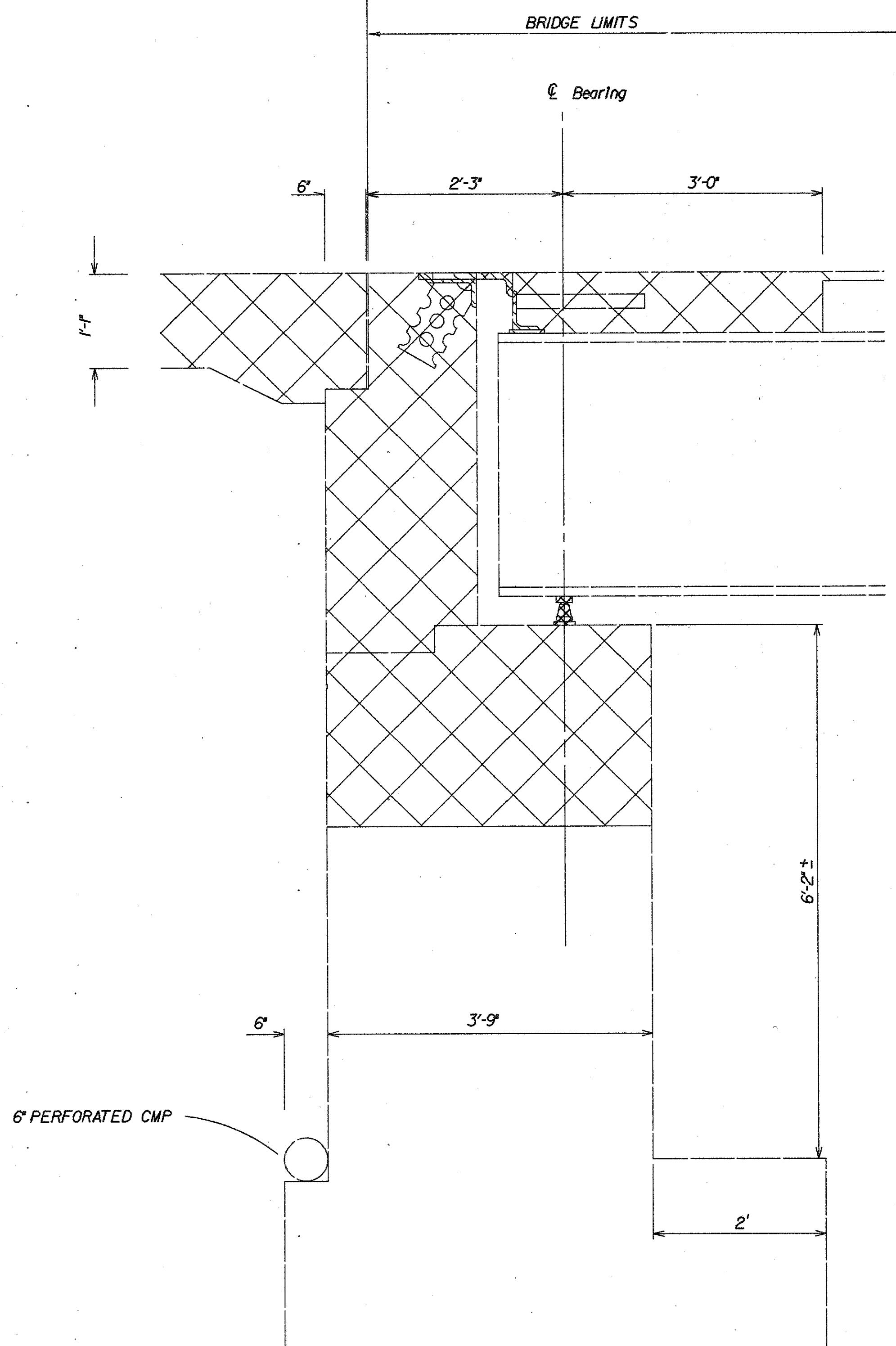


FORWARD APPROACH SLAB

FWHA REGION	STATE	PROJECT	
5	OHIO		

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Woo-75-15.35(various)

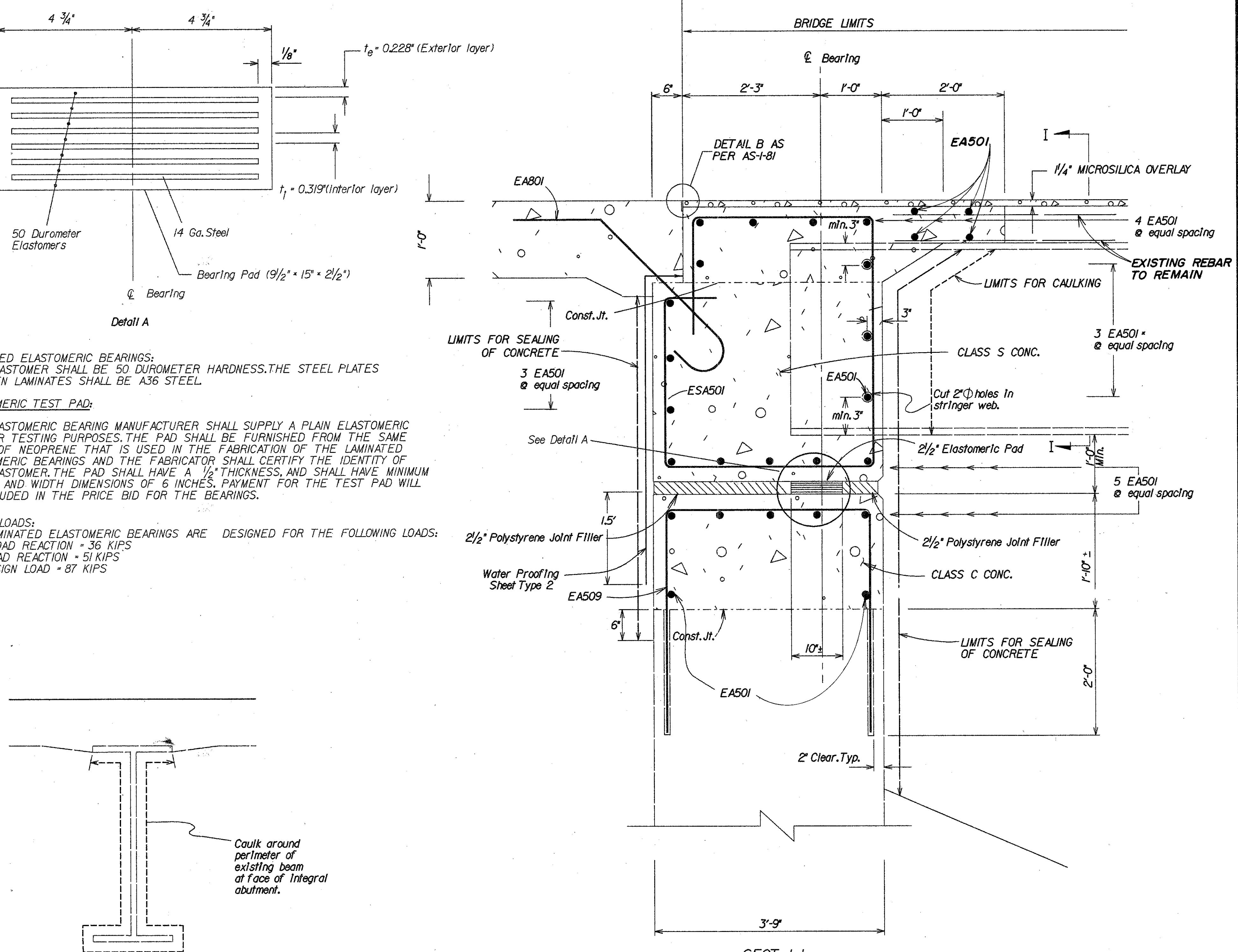


LAMINATED ELASTOMERIC BEARINGS:
THE ELASTOMER SHALL BE 50 DUROMETER HARDNESS. THE STEEL PLATES BETWEEN LAMINATES SHALL BE A36 STEEL

ELASTOMERIC TEST PAD:

THE ELASTOMERIC BEARING MANUFACTURER SHALL SUPPLY A PLAIN ELASTOMERIC PAD FOR TESTING PURPOSES. THE PAD SHALL BE FURNISHED FROM THE SAME BATCH OF NEOPRENE THAT IS USED IN THE FABRICATION OF THE LAMINATED ELASTOMERIC BEARINGS AND THE FABRICATOR SHALL CERTIFY THE IDENTITY OF THE ELASTOMER. THE PAD SHALL HAVE A $\frac{1}{2}$ " THICKNESS, AND SHALL HAVE MINIMUM LENGTH AND WIDTH DIMENSIONS OF 6 INCHES. PAYMENT FOR THE TEST PAD WILL BE INCLUDED IN THE PRICE BID FOR THE BEARINGS.

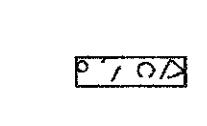
DESIGN LOADS:
THE LAMINATED ELASTOMERIC BEARINGS ARE DESIGNED FOR THE FOLLOWING LOADS:
DEAD LOAD REACTION = 36 KIPS
LIVE LOAD REACTION = 51 KIPS
MAX. DESIGN LOAD = 87 KIPS



REMOVAL AREA



5000 CONCRETE



1/4" MICROSILICA CONCRETE

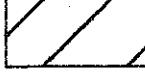
TYPICAL INTEGRAL ABUTMENT DETAILS					
STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 2 DESIGN AND PLANNING OFFICE					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE REVISED

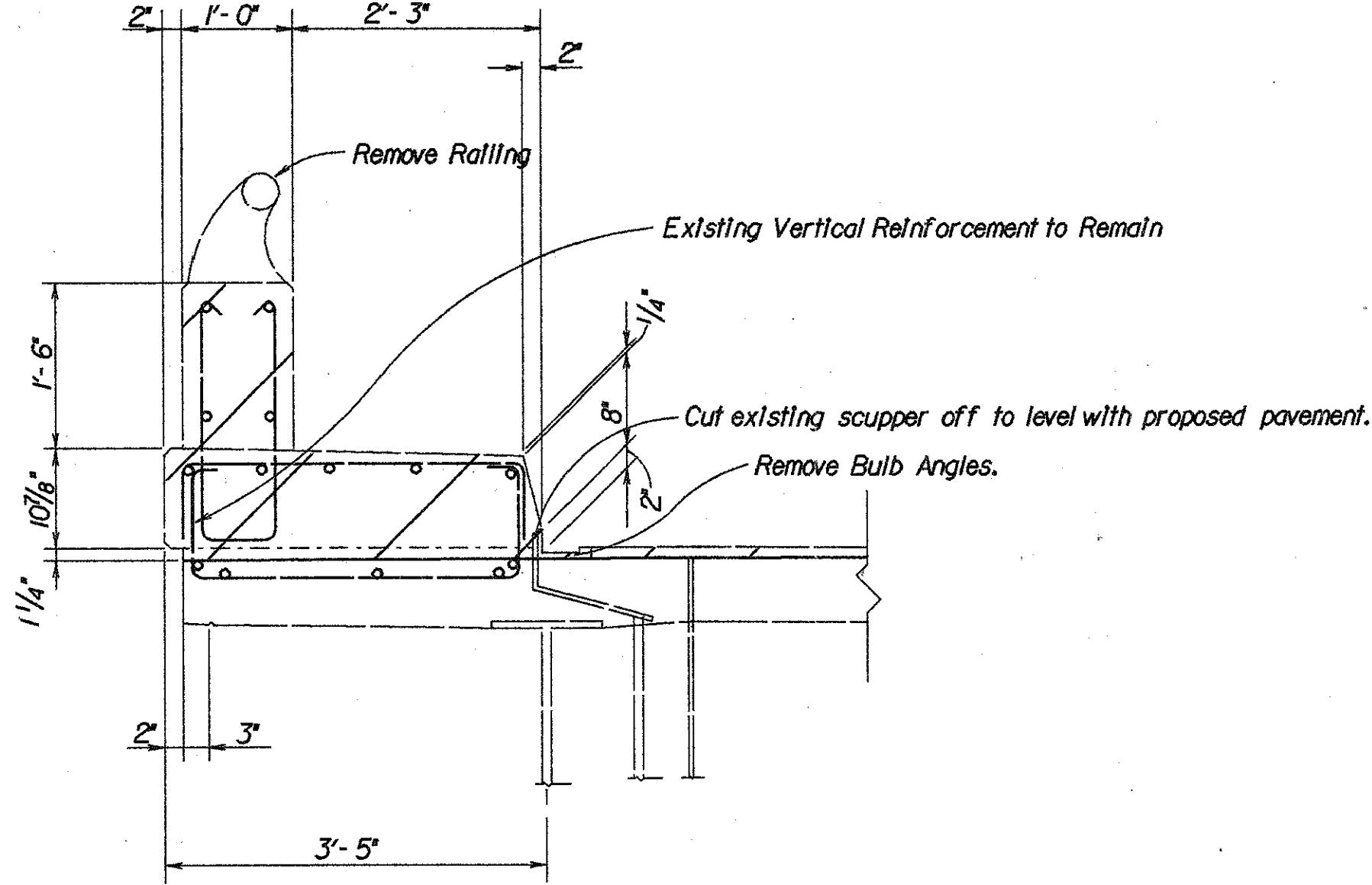
FINA REGION	STATE	PROJECT	
5	OHIO		

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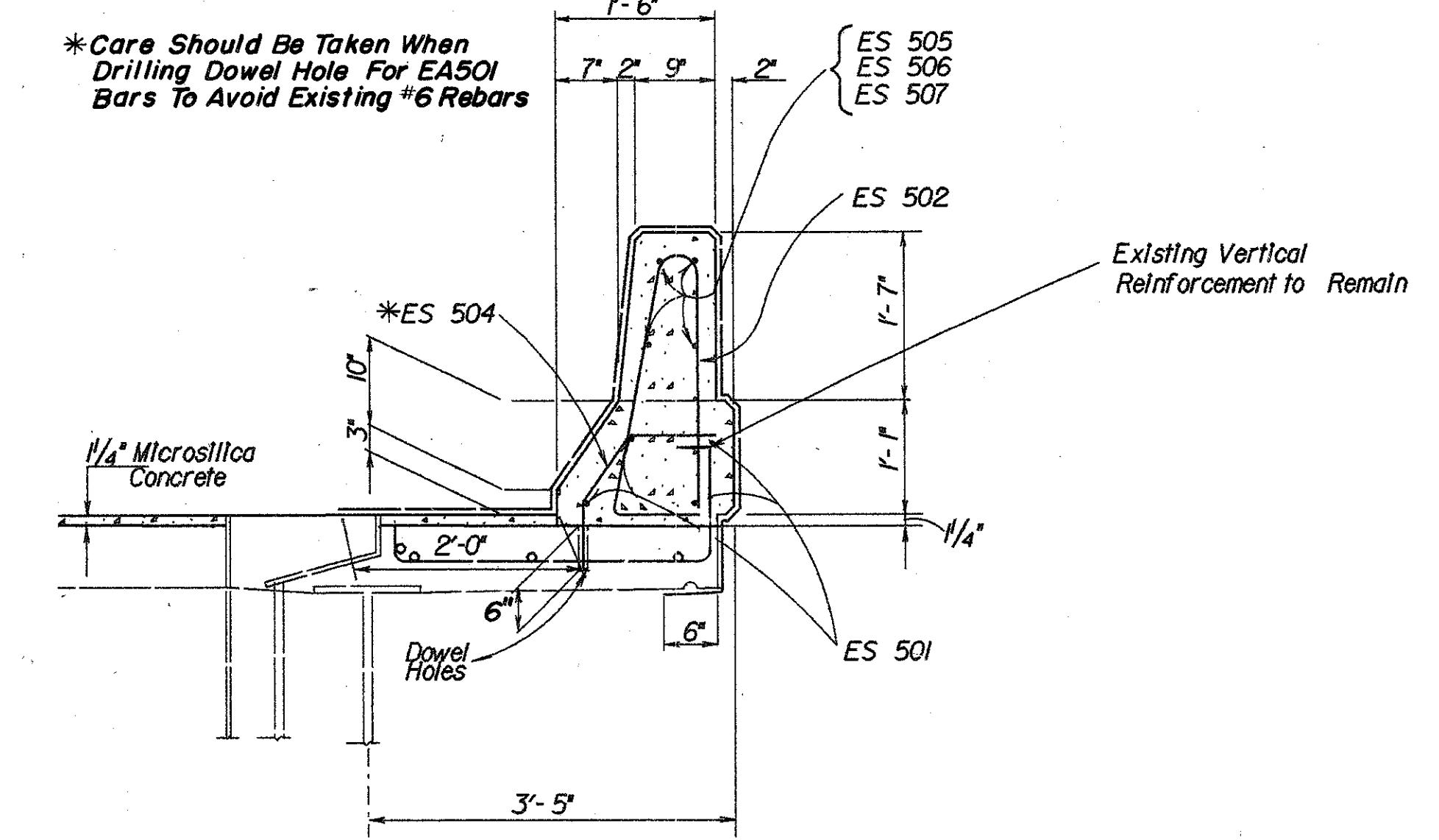
WOO-75-15.35 (VARIOUS)

LEGEND

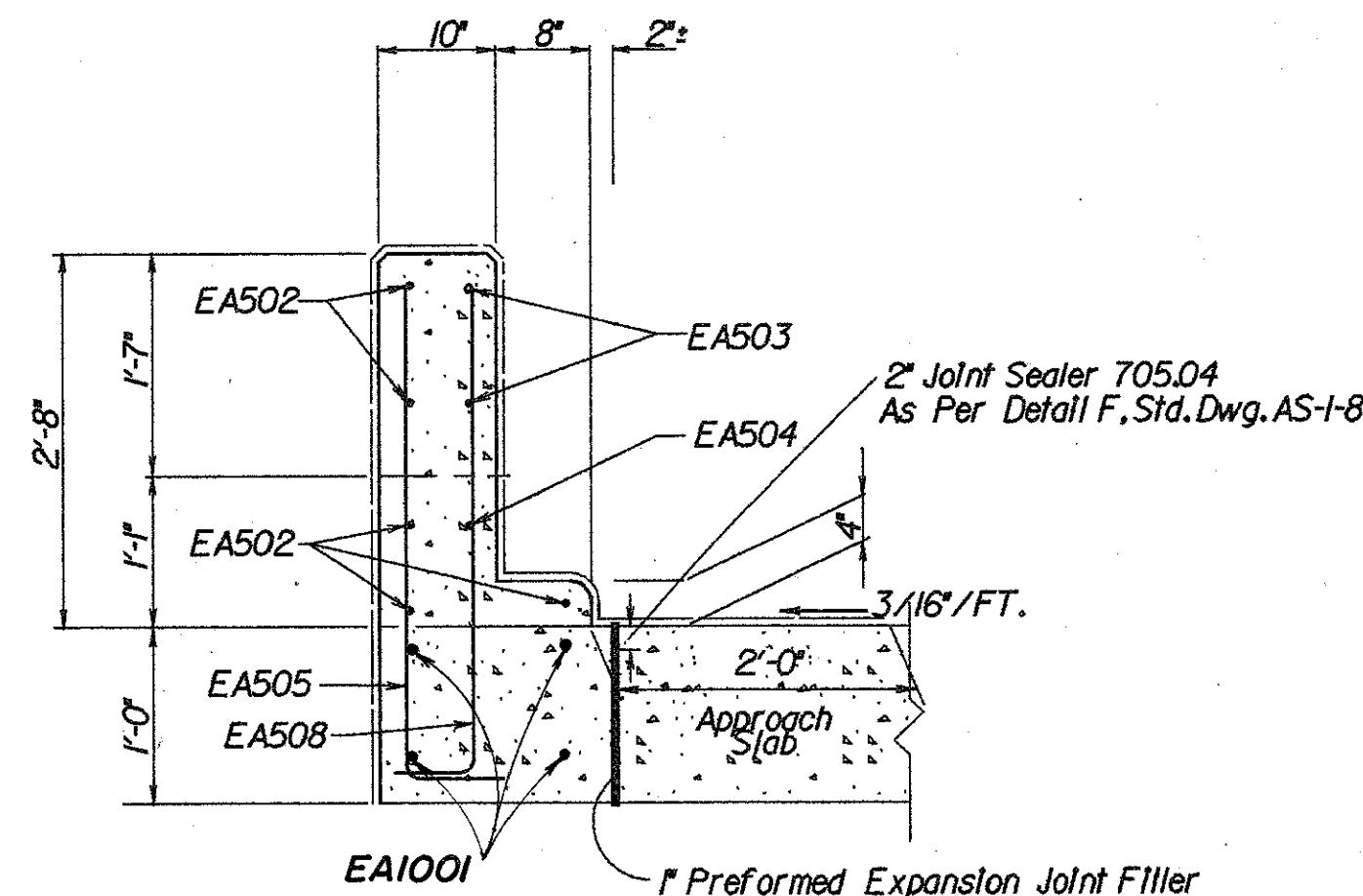
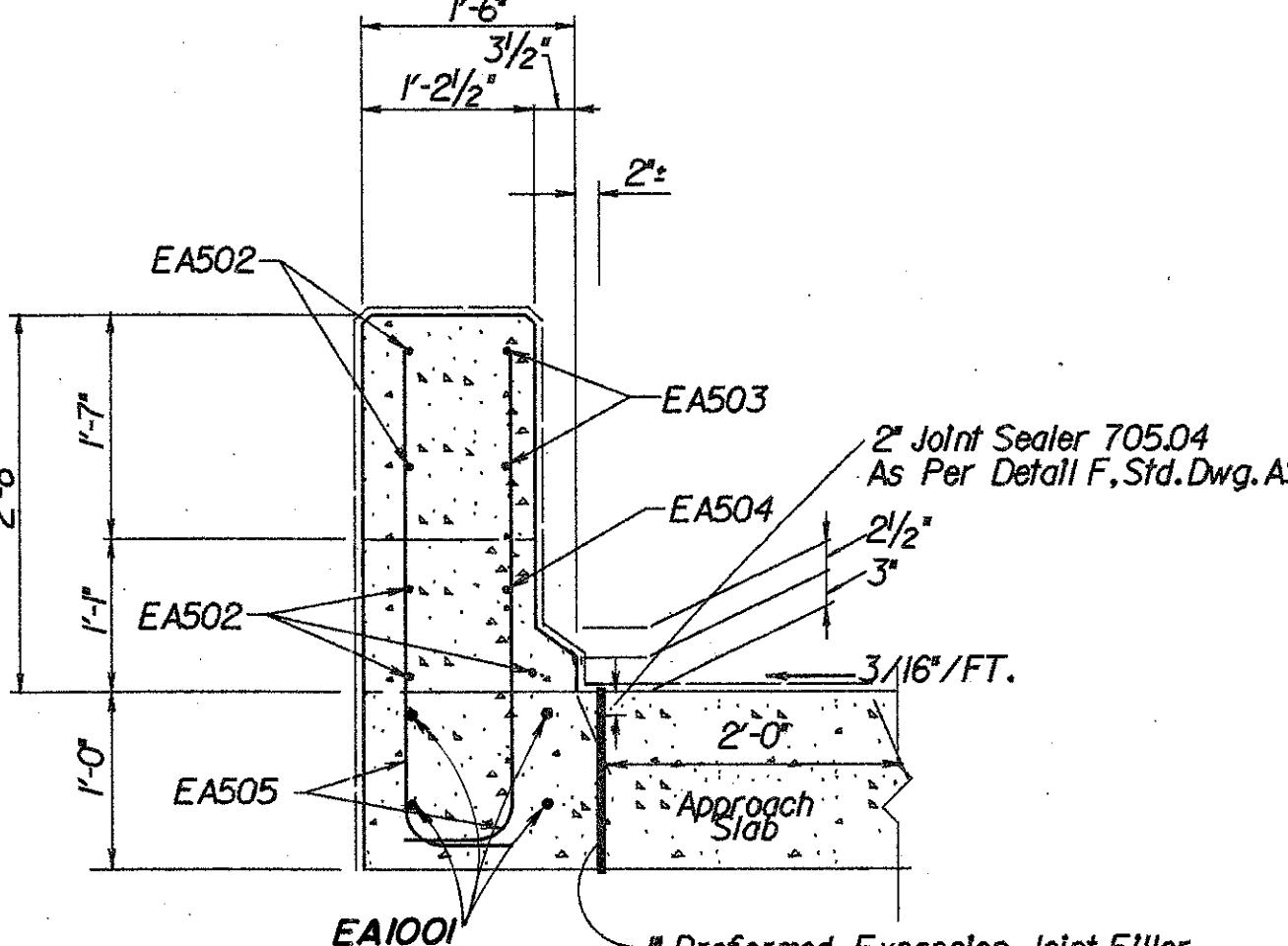
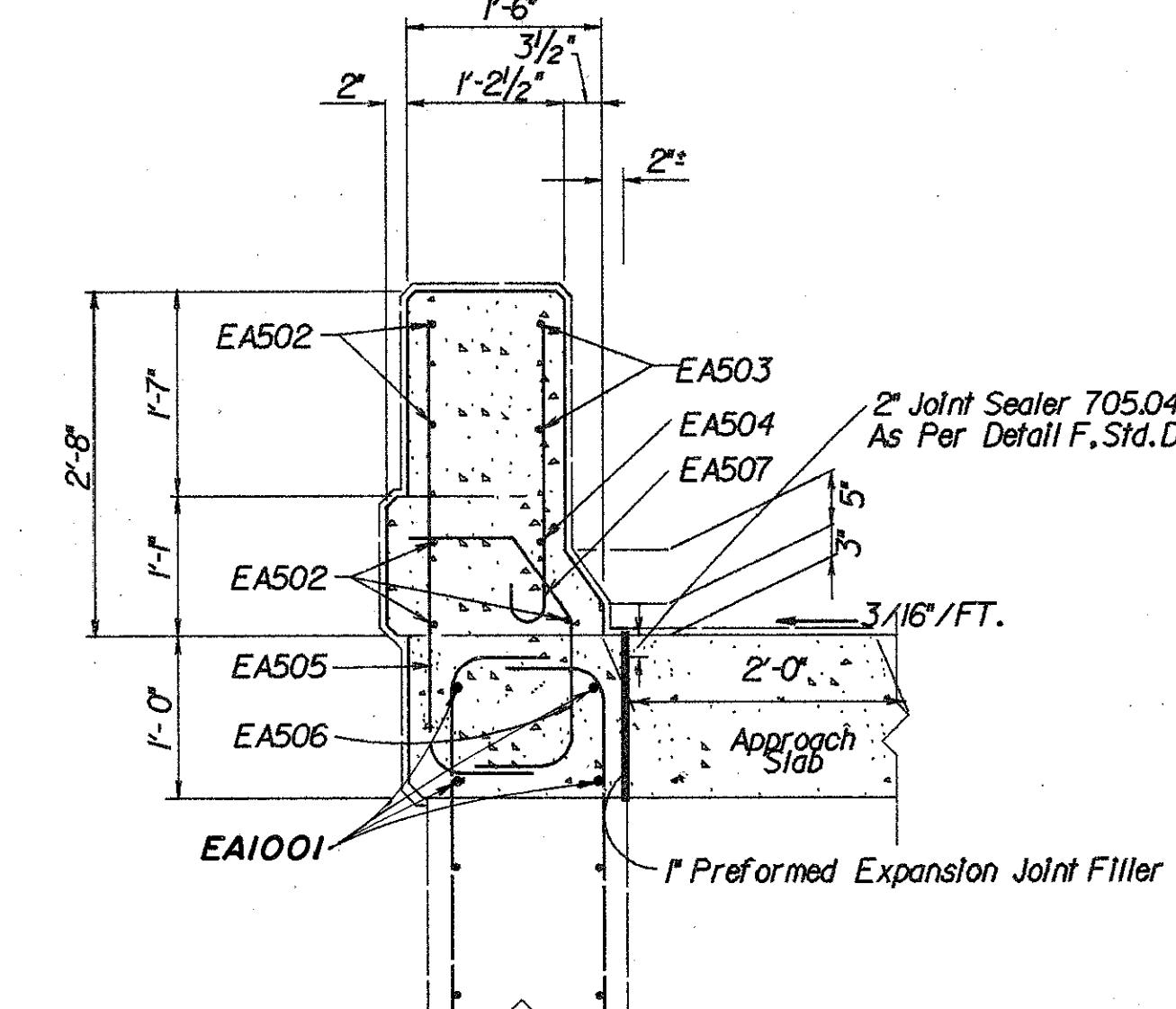
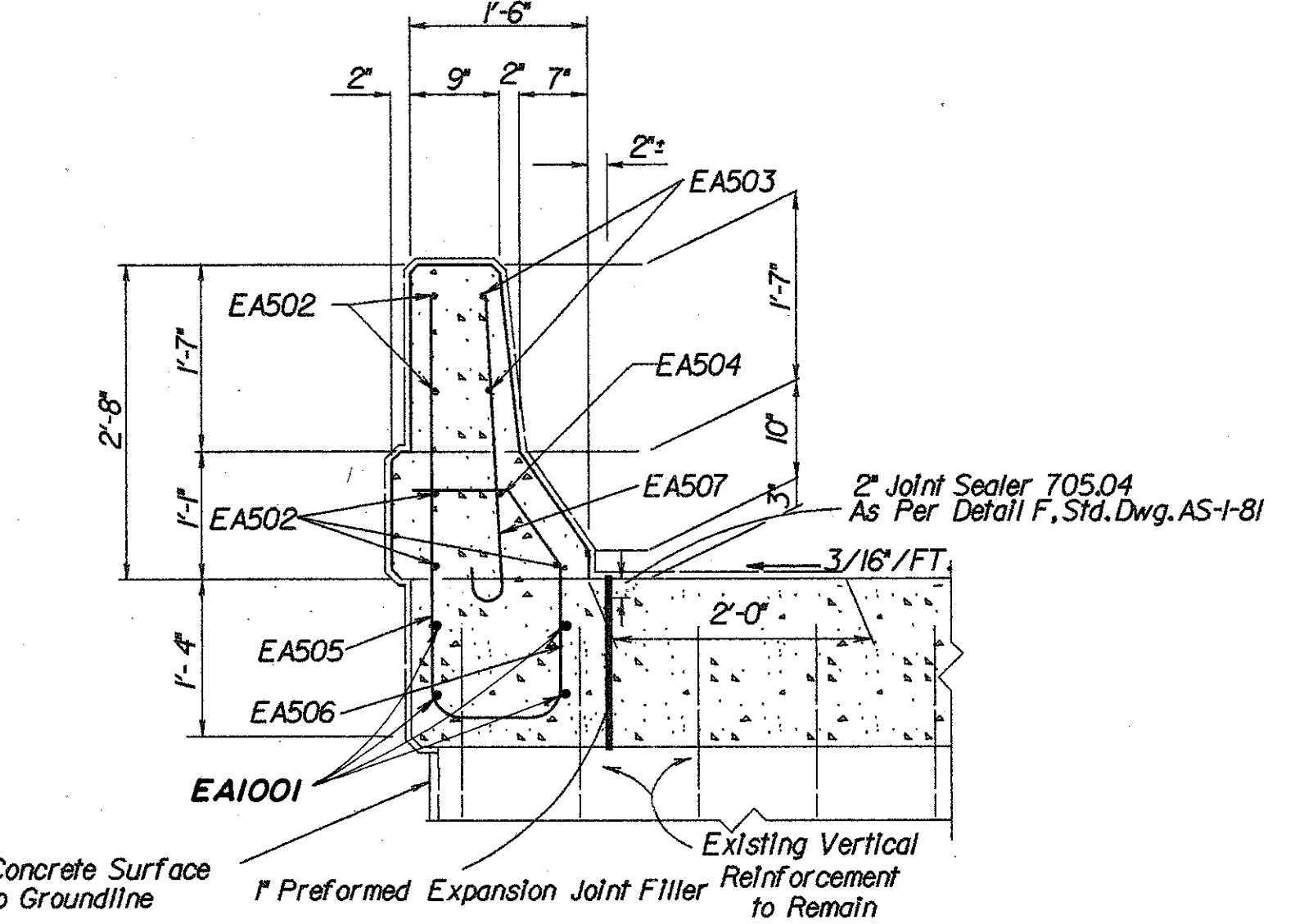
- Limits for Sealing of Concrete Surfaces
 Removal Limits



TYPICAL CROSS SECTION OF EXISTING PARAPET ON STRUCTURE



TYPICAL CROSS SECTION OF PROPOSED PARAPET ON STRUCTURE

SECTION E-E
SECTION E'-E' (REVERSED)SECTION F-F
SECTION F'-F' (REVERSED)SECTION G-G
SECTION G'-G' (REVERSED)SECTION H-H
SECTION H'-H' (REVERSED)

REV. 1-6-93

STATE OF OHIO DEPARTMENT OF TRANSPORTATION BUREAU OF LOCATION AND DESIGN			
DESIGNED	DRAWN	TRACED	CHECKED
L			MTG
REVIEWED DATE 4/19/92			
REVISED			

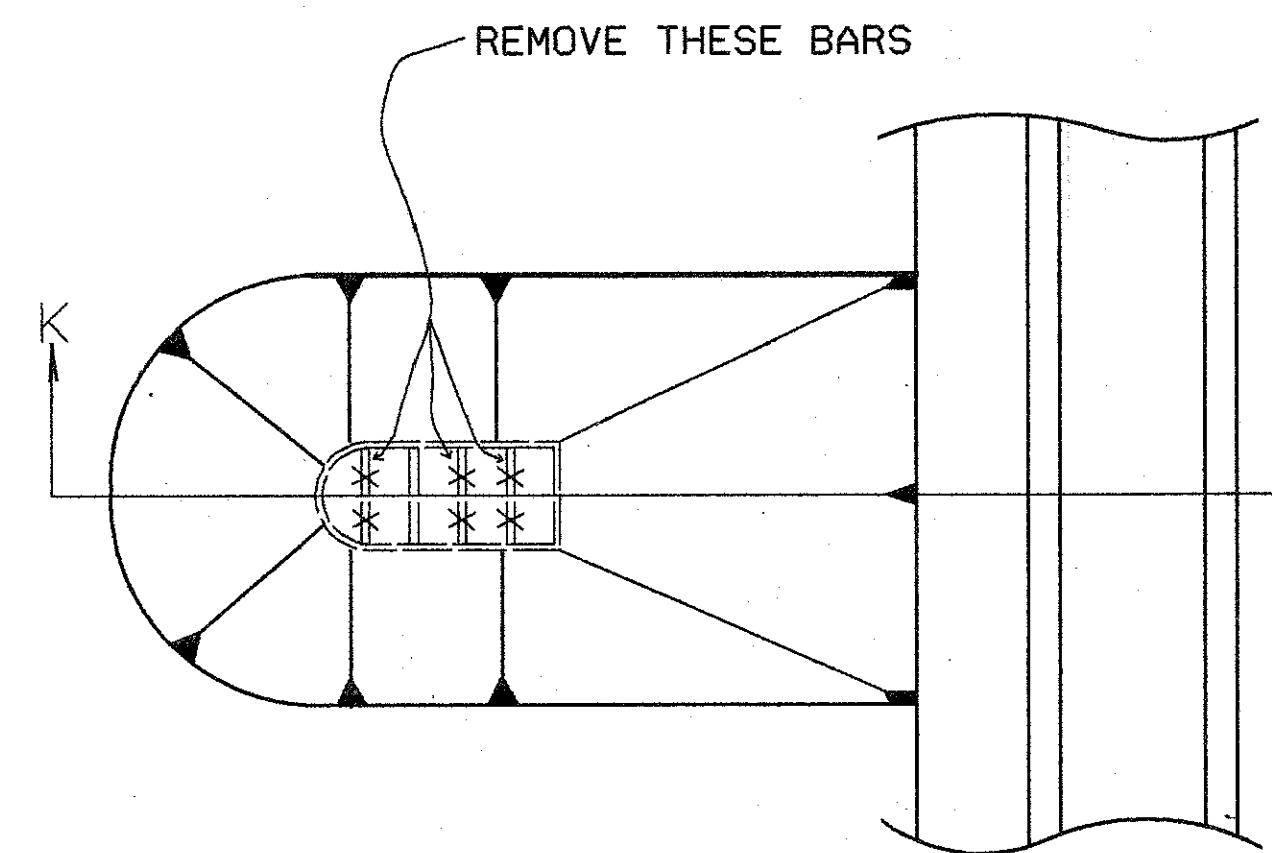
TYPICAL PROPOSED PARAPET DETAILS

FIRMA REGION	STATE	
5	OHIO	

65
66

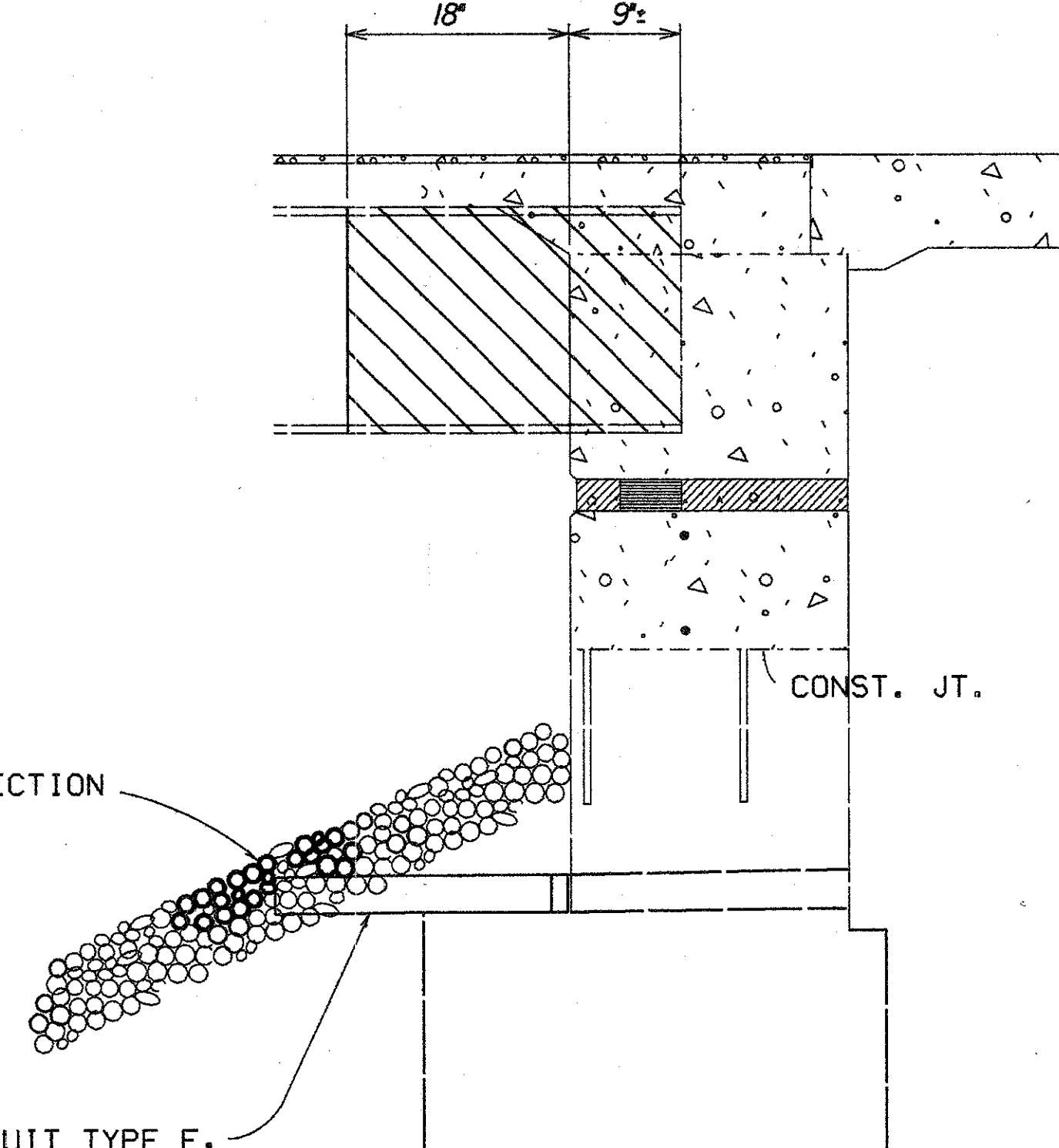
WOO-75-15.35 (VARIous)

SCUPPER MODIFICATION DETAIL



PLAN VIEW

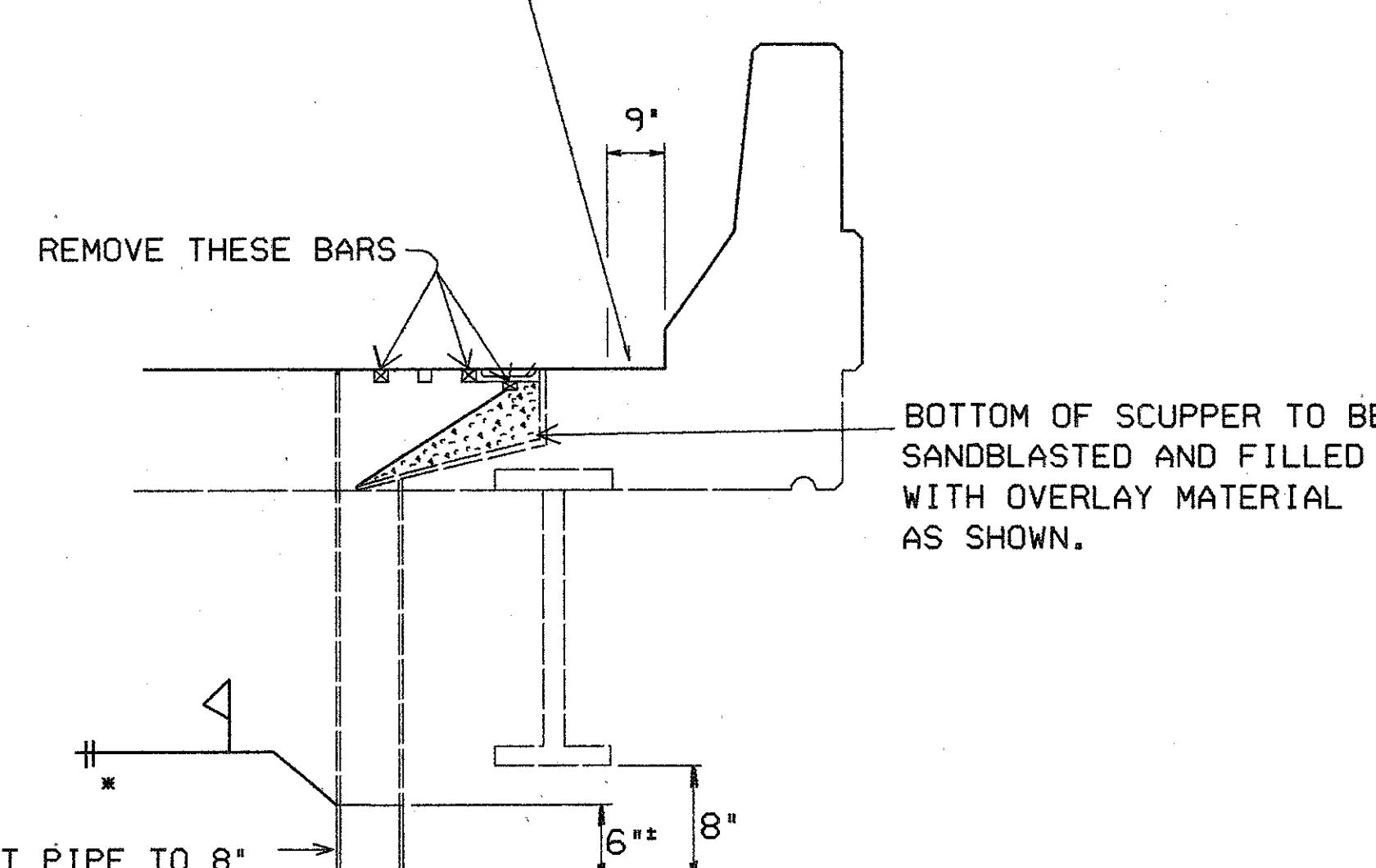
ESTIMATED QUANTITY OF ITEM 601,
CRUSHED AGGREGATE SLOPE PROTECTION TO
BE USED AS DIRECTED BY THE ENGINEER
FOR REPAIRING THE EXISTING SLOPE PROTECTION



6" CONDUIT, TYPE E OR 6" CONDUIT TYPE E,
AS PER PLAN (SEE GENERAL NOTES SHT.3)

ELEVATION

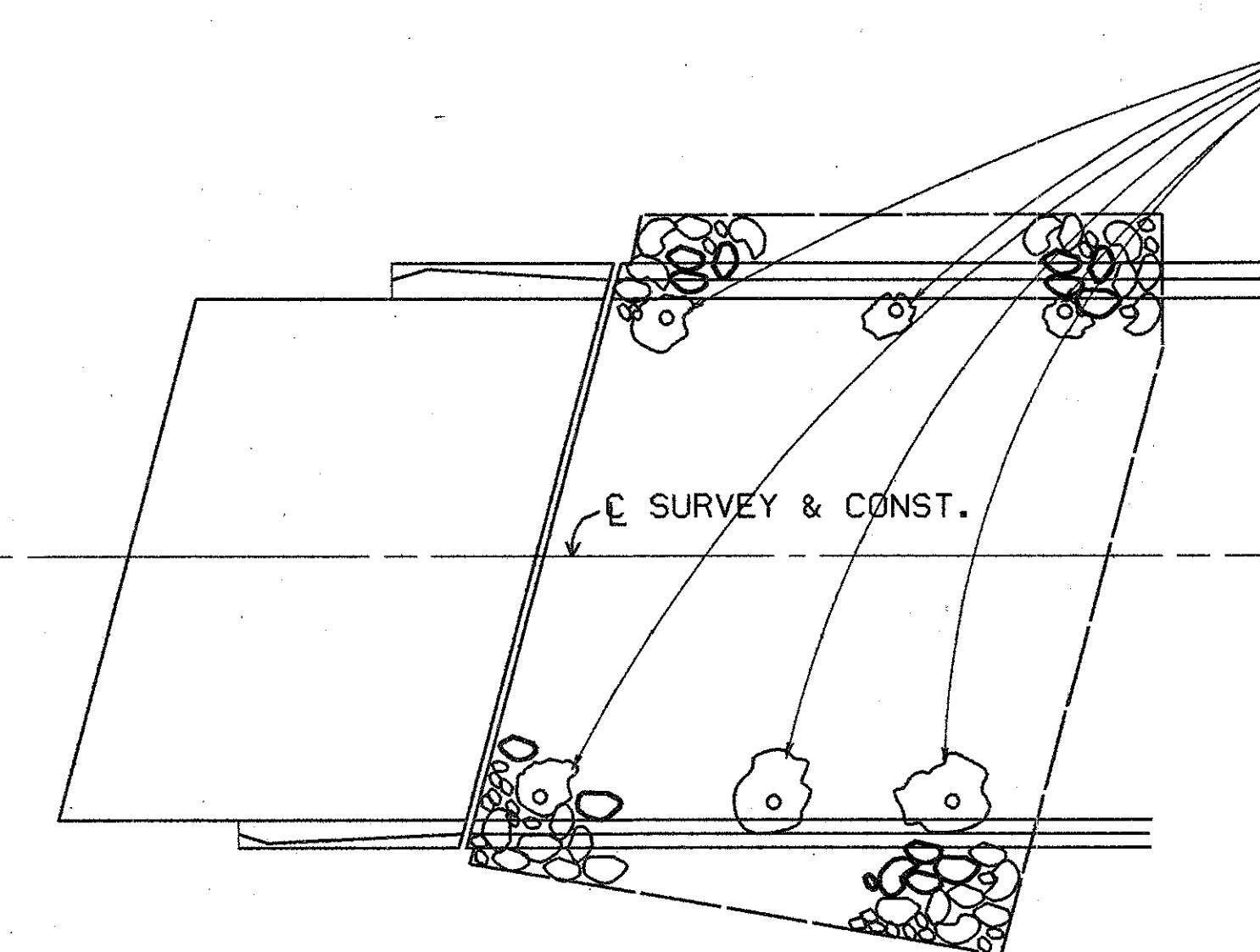
PROVIDE A SMOOTH TEXTURE ENTIRE LENGTH OF STRUCTURE (BOTH SIDES)



EXTEND EXISTING OUTLET PIPE TO 8"
BELOW BEAM LANGE WITH SAME SIZE STEEL
PIPE AS EXISTING. INCLUDE COST IN ITEM
518, SCUPPER MODIFICATION, AS PER PLAN.

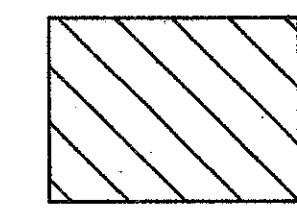
SECTION K-K

THE EXISTING AND PROPOSED CRUSHED AGGREGATE SLOPE PROTECTION DIRECTLY UNDER THE BRIDGE DRAINAGE SCUPPERS SHALL BE PROTECTED BY GROUTING A 5' X 5' AREA OF AGGREGATE AS PER 60103. AN ESTIMATED QUANTITY OF 34 SQ.YDS. SHALL BE USED AS DIRECTED BY THE ENGINEER FOR THIS PURPOSE.



PLAN

(REAR & FORWARD ABUTMENT)



ITEM SPECIAL, PAINTING BEAM ENDS

DGNW075\W75TSM.DGN4M1

STATE OF OHIO			
DISTRICT 2		DESIGN & PLANNING OFFICE	
TYPICAL SCUPPER MODIFICATION DETAILS, TYPICAL SLOPE PROTECTION DETAILS AND TYPICAL BEAM END PAINTING DETAIL			
DESIGNED <i>L3</i>	DRAWN	TRACED	CHECKED MTG
REVIEWED DATE <i>LLC 4/1/02</i>	REVISED		