CALC. BY D.M. DATE 4-11-91 CHKD. BY I.D. DATE 4-23-91	LIC-16-23.27	OHIO	FHWA REGION 5	1 / 134
	F-29-(55)	FEDERAL PROJECT		

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
LIC-16-23.27
CITY OF NEWARK
MADISON AND HANOVER TOWNSHIPS
LICKING COUNTY

F-29(55)

DESIGN DESIGNATION

Current Year ADT (1991)	= 15,760
Design Year ADT (2011)	= 22,060
D H V (2011)	= 1,890
D(Directional Distribution)	= Equal
T(Percent B & C Trucks)	= 7%
V(Design Speed)	= 55 M.P.H.
Legal Speed	= 55 M.P.H.
Functional Classification	= Urban/Rural Expressway
Design Exceptions	= None

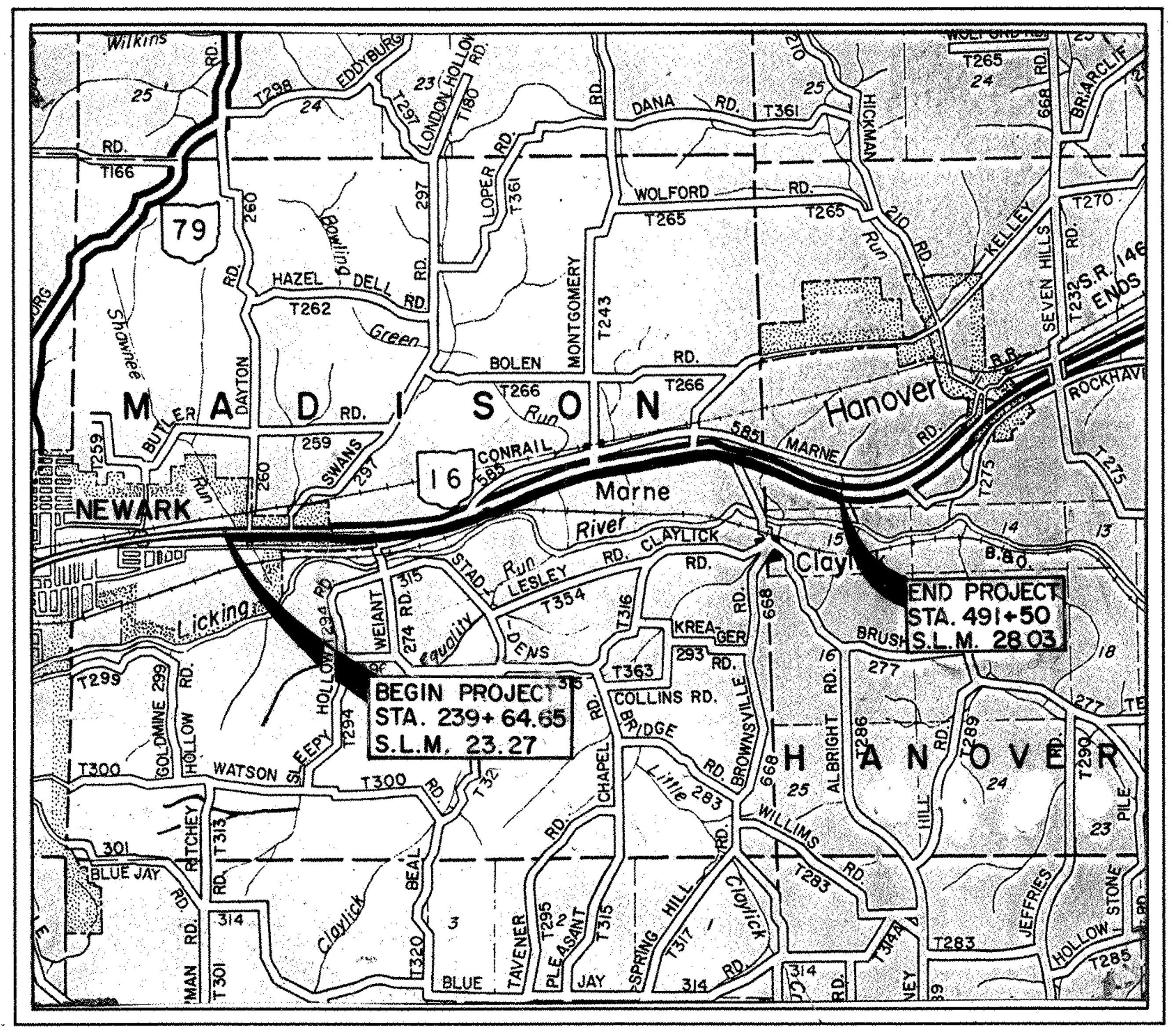
LIMITED ACCESS

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

CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line ——or
Fence Line(existing) 352 (proposed) 353
Center Line
Trees, Stumps, (to be removed)
Utility Poles: Telephone Ø, Power Ø, Light Ø
Limited Access (only) ——LA——
Right of Way (only) ——RW——
Limited Access & Right of Way ——LA&RW——
Existing Right of Way
Property Line ——P̸—— (in existing fence) -×-P̸-×-
Railroad ——or
Guardrail (existing) (proposed)

INDEX OF SHEETS



LOCATION MAP
SCALE IN MILES
0 1 2 3 4

N-7

Portion to be Improved
State & Federal Routes
Other Roads

SCALES

Plan 0' 50' 100'
Cross Section Horzt. 0' 5' 10', Vertical 0' 5' 10'

1991 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.

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 the plans and estimates.

"Under authority of Section 4511.21, Division (I) of the Revised Code of Ohio, the revised Prima Facie Speed Limits as indicated herein are determined to be reasonable and safe, and are hereby established for the duration of this project. The Prima Facie Speed Limit or Limits hereby established shall become effective when appropriate signs giving notice thereof are erected."

LINE DATA

BEGIN PROJECT: STA.239+64.65 E.B.LANES
EQUATION: P.T. STA.250+82.33 BACK = STA.250+84.06 AHEAD
EQUATION: P.T. STA.366+82.69 BACK = STA.366+82.25 AHEAD
END PROJECT: STA.491+50 E.B.LANES
NET LENGTH OF PROJECT = 25,184.06 LIN.FT. OR 4.769 MILES

BEGIN WORK: STA.229+55 E.B.LANES
EQUATION: P.T. STA.250+82.33 BACK = STA.250+84.06 AHEAD
EQUATION: P.T. STA.366+82.69 BACK = STA.366+82.25 AHEAD
END WORK: STA.494+25 E.B.LANES
NET LENGTH OF WORK = 26,468.71 LIN.FT. OR 5.013 MILES

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
Call 800-362-2764 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

SUPPLEMENTAL SPECIFICATIONS	
802 4-13-90	
944 5-13-91	
942 11-27-89	
850 5-31-88	
862 12-16-88	
962 1-23-90	
931 5-13-91	
852 6-10-87	
952 12-14-88	

Approved Cash Misel
Date 5-21-91 District Deputy Director of Transportation

FFE Approved B. D. Hoskinson FFE
Date 6-17-91 Engineer, Bureau of Bridges and Structural Design

Approved George L. Butz
Date 7/2/91 Chief Engineer, Planning & Design

Approved Jerry Wray
Date 7-2-91 Director, Department of Transportation

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS

BP-3	12-6-76	CB-3	5-1-79	GR-1.1	5-6-91	TC-35.10	8-29-84	MT-95.30	10-10-88
BP-4	10-1-87	CB-3A	5-1-79	GR-1.2	5-6-91	TC-41.20	3-26-79	MT-99.10	11-14-86
BP-5	10-1-87	CB-5	11-10-83	GR-2.1	5-6-91	TC-41.50	3-26-79	MT-99.20	4-29-88
BP-7	10-1-87	CB-8	11-10-83	GR-3.4	5-6-91	TC-42.20	3-26-79	MT-101.60	4-1-90
BP-10	1-30-84			GR-2.2	5-6-91	TC-51.10	1-20-84	TC-83.10	1-20-84
BP-13	1-23-90	HW-4B	4-1-80	GR-5	2-5-82	TC-52.10	4-3-79	TC-84.20	1-20-84
BP-2	1-11-85	MH-1	12-18-84	GR-6	2-5-82	TC-52.20	4-3-79	TC-85.20	1-20-84
F-1	11-10-83	MH-3	12-18-84	LA-1	6-1-79	TC-61.10	4-5-82	TC-31.21	3-6-79
F-2	5-1-76					TC-65.10	2-1-90	HL-20.11	5-1-87
F-3	5-1-76	DBR-2-73	4-10-73	MC-4	7-26-76	TC-22.20	3-1-79	HL-30.11	5-1-87
F-5	5-1-76	AS-1-81	11-27-81	MC-9.2	5-6-91	TC-81.10	1-20-84	HL-30.22	5-1-87
F-6	5-1-76			MC-11	8-1-78	TC-21.20	1-20-84	HL-50.11	5-1-87
				GR-4.1	5-6-91	TC-41.41	8-2-79	HL-10.11	5-1-87
CB-2-2A&B	5-1-79			GR-4.2	5-6-91	TC-82.10	8-29-84	HL-10.13	5-1-87

REVISED 7-17-91

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED

DIVISION ADMINISTRATOR DATE

Plan Prepared By:
DISTRICT NO.5
OHIO DEPARTMENT OF TRANSPORTATION

Project LIC-16-23.27
Date of Letting ______19__Contract No.______

L0162301 4/4/91

69

SCHEMATIC PLAN

CALC. BY D.M. DATE 4-11-91	LIC-16-23.27	OHIO	2/134
CHKD. BY T.D. DATE 5-03-91		FHWA REGION 5	

0' 200' 400' 600' 800' 1000'

Scale in Feet

PROJECT DESCRIPTION

(EASTBOUND):

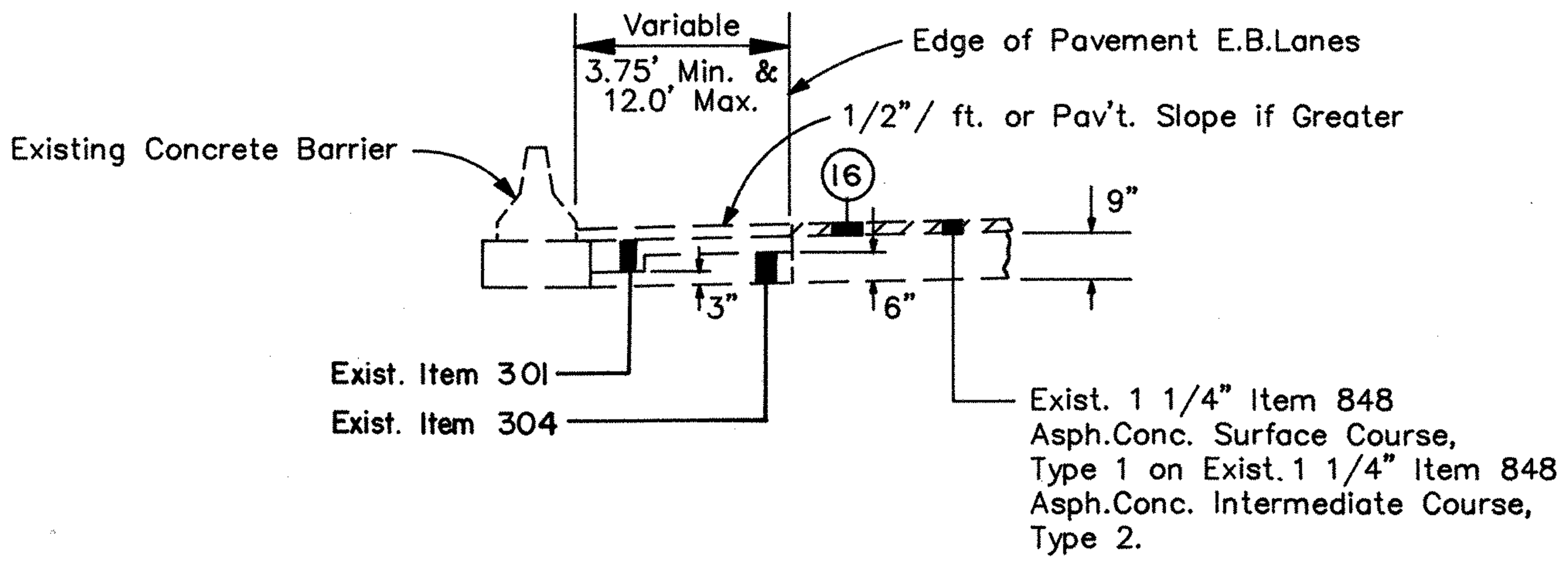
THIS PROJECT SHALL CONSIST OF REMOVING THE EXISTING ASPHALT CONCRETE SURFACE COURSE. THE EXISTING CONCRETE PAVEMENT SHALL BE REPAIRED AS PER ITEM 255, FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT AND RESURFACING WITH 1 3/4" ITEM 446 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20 AND 1 1/4" ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20. THE APPROACH TO THE EXISTING OVERPASS SHALL BE REPLACED WITH 6" ITEM 304 AGGREGATE BASE, AS PER PLAN, 9" ITEM 451 REINFORCED CONCRETE PAVEMENT, AS PER PLAN, 1 3/4" ITEM 446 INTERMEDIATE COURSE, TYPE 2, AC-20 AND 1 1/4" ITEM 446 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20. THE EXISTING BERMS SHALL BE REPLACED WITH ITEM 304 AGGREGATE BASE, 9" ITEM 305 CONCRETE BASE, AS PER PLAN AND RESURFACED THE SAME AS THE PAVEMENT. THIS PROJECT WILL ALSO INCLUDE PLACING ITEM 605 6" UNDERDRAINS AND REPLACING THE EXISTING GUARDRAIL. THE SHOULDER SLOPES SHALL BE CONSTRUCTED TO THE GRADES AS SHOWN AND SEEDED. OFFSET LEFT TURN LANES SHALL BE CONSTRUCTED BOTH EASTBOUND AND WESTBOUND AT DAYTON ROAD, C.R.585 AND C.R.668.

EXISTING BRIDGE EASTBOUND SHALL BE PLANED, BRIDGE DECK REPAIRED AS PER ITEM 850 SUPERPLASTICIZED DENSE CONCRETE OVERLAY, EXISTING APPROACH SLABS REPLACED AND GUARDRAIL ON THE BRIDGE REPLACED.

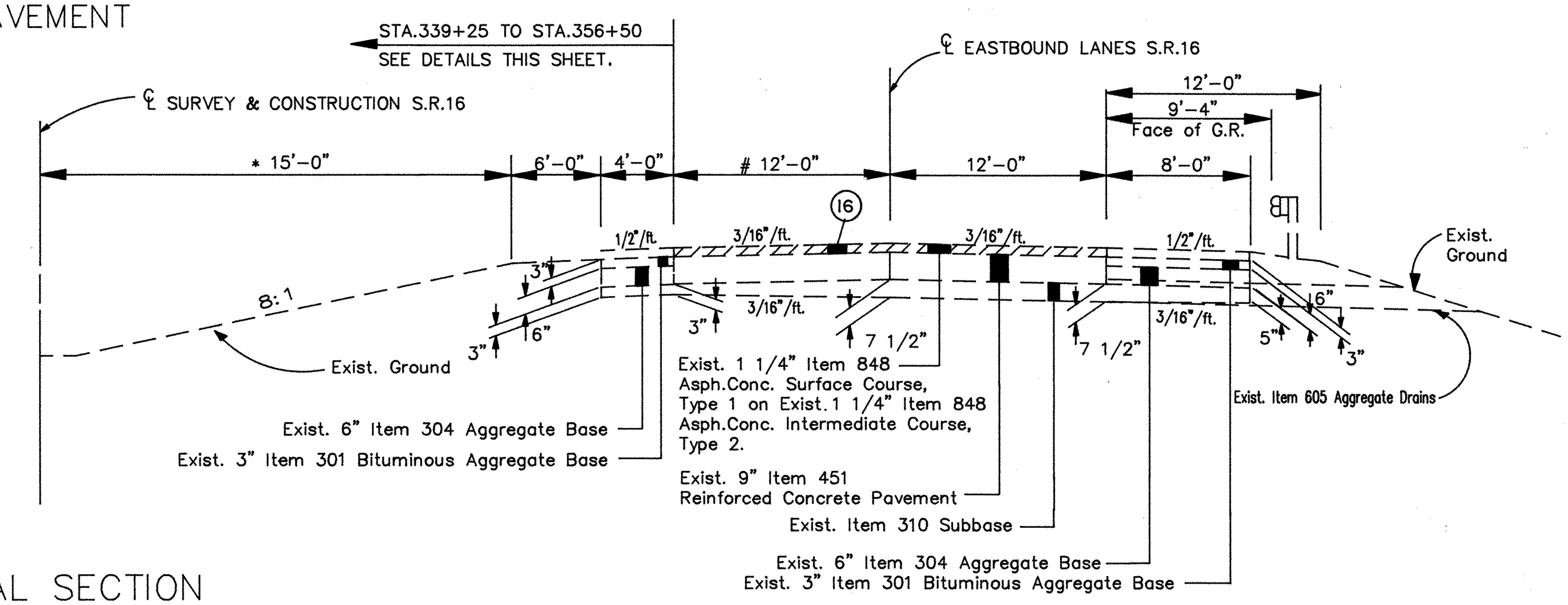
THE AREA AT DAYTON RD, DAYTON RD. APPROACH RT. AND OFFSET LEFT TURN LANE AT DAYTON ROAD SHALL BE CONSTRUCTED WITH 12" ITEM 451 REINFORCED CONCRETE PAVEMENT, AS PER PLAN AND SHALL BE CONSTRUCTED BEFORE NOVEMBER 15, 1991. (SEE SHEET 12)

TYPICAL SECTIONS

EXISTING PAVEMENT



STA.239+64.65 TO STA.245+25
STA.336+75 TO STA. 365+00



NORMAL SECTION

STA.252+75 TO STA.288+25
STA.307+75 TO STA.326+50
STA.339+25 TO STA.356+50
STA.368+25 TO STA.379+13.21
STA.379+92.79 TO STA.424+75
STA.457+25 TO STA.477+25

BRIDGE LIMITS
STA.379+13.21 TO STA.379+92.79

EASTBOUND LANES

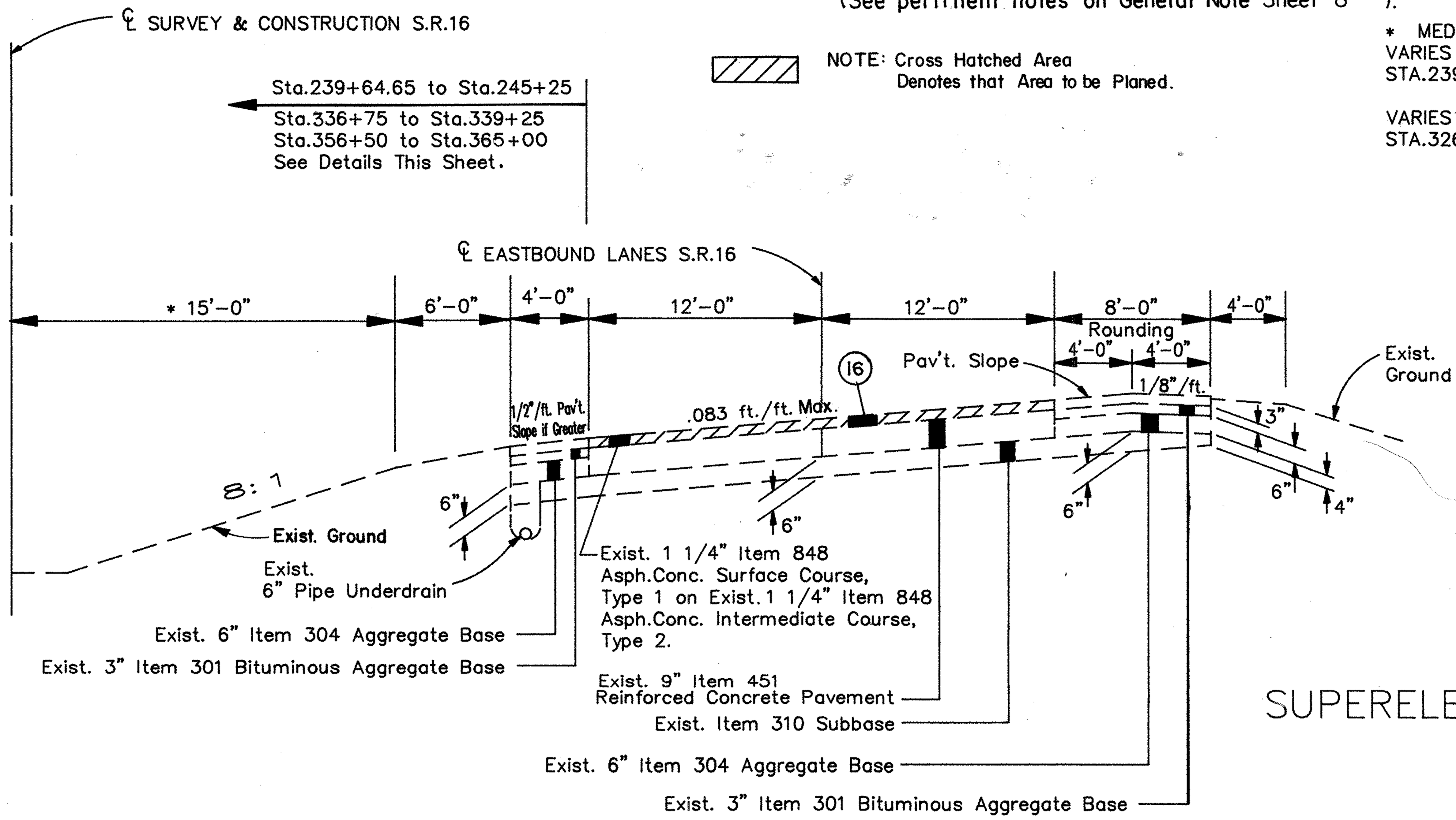
MARK	ITEM	DESCRIPTION
16	254	PAVEMENT PLANING, BITUMINOUS (See pertinent notes on General Note Sheet 8).

NOTE: Cross Hatched Area Denotes that Area to be Planed.

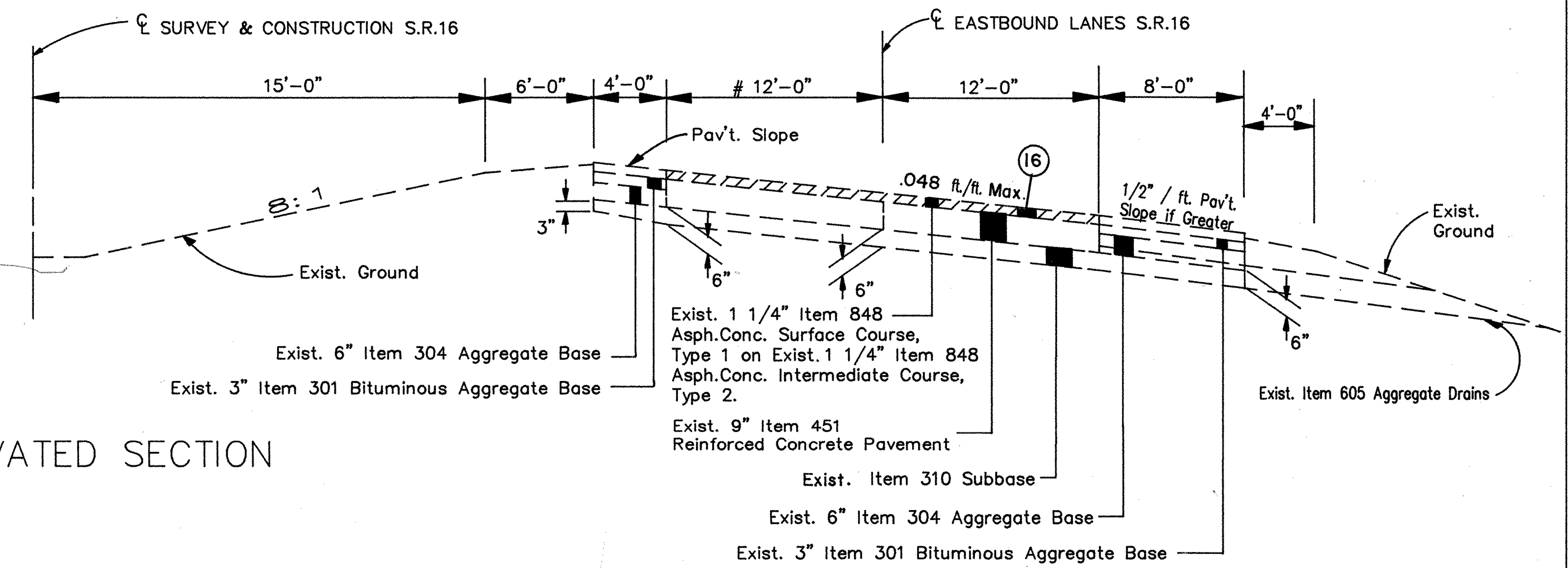
* MEDIAN TRANSITION
VARIES FROM 10' MIN. TO 50' MAX.
STA.239+64.65 TO STA.252+75

VARIES FROM 50' MAX. TO 16' MIN.
STA.326+50 TO STA.369+75

12' MIN. & 24' MAX. AT CROSSOVERS



SUPERELEVATED SECTION



EASTBOUND LANES

STA.239+64.65 TO STA.250+82.33
EQUATION: STA.250+82.33 BACK=
STA.250+84.06 AHEAD
STA.250+84.06 TO STA.252+75
STA.326+50 TO STA.339+25

STA.356+50 TO STA.366+82.69
EQUATION: STA.366+82.69 BACK=
STA.366+82.25 AHEAD
STA.366+82.25 TO STA.368+25
STA.477+25 TO STA.491+50

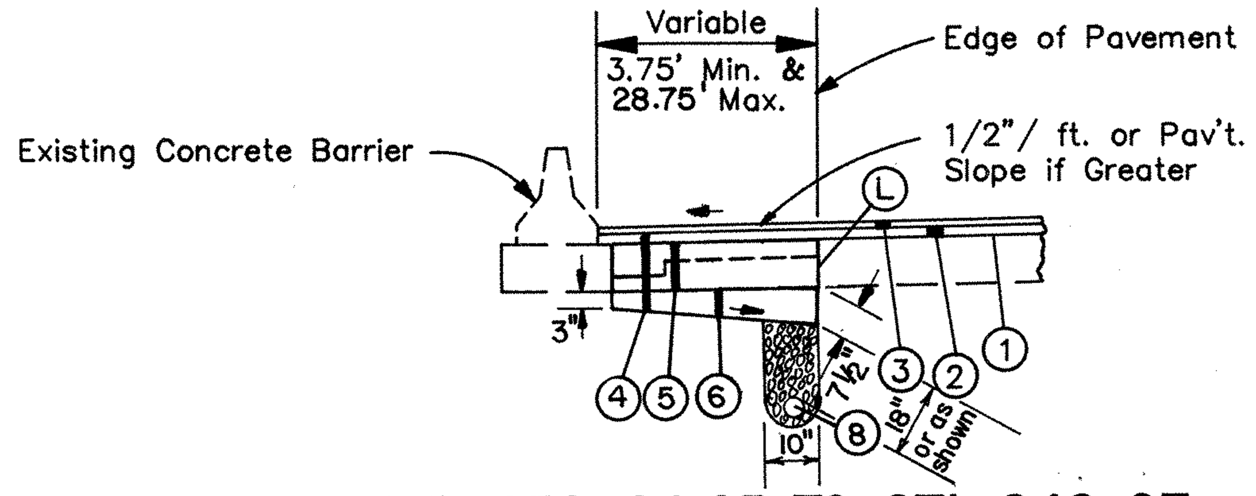
EASTBOUND LANES
STA. 288+25 TO STA. 307+75
STA. 424+75 TO STA. 457+25

L0162803 9/1/90

TYPICAL SECTIONS

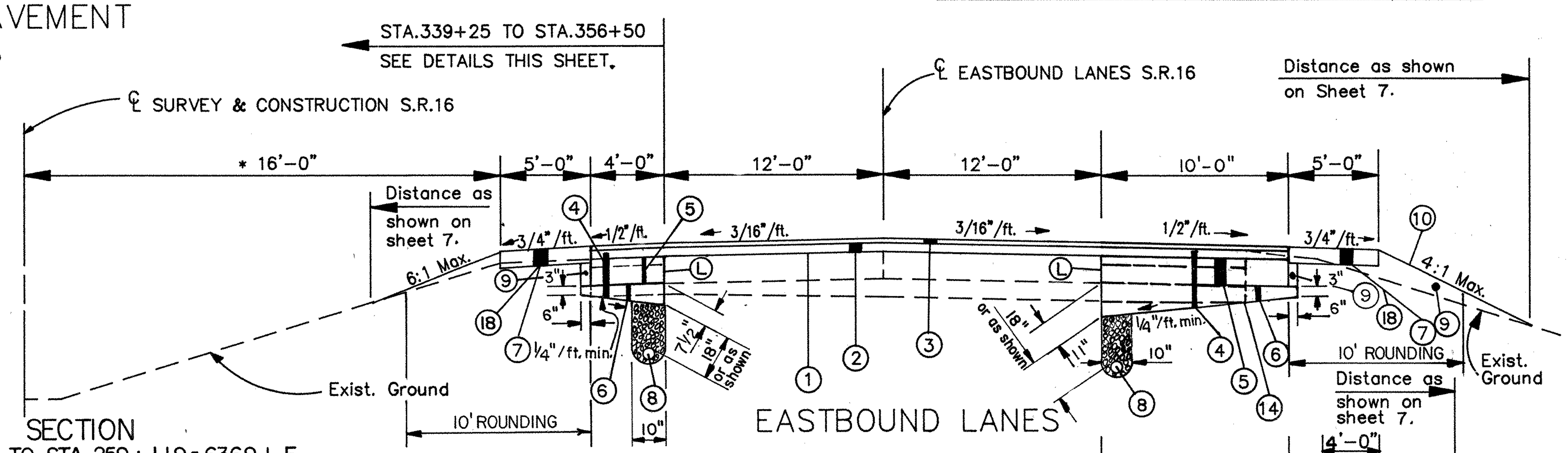
PROPOSED PAVEMENT

TYPE 446



STA. 239+64.65 TO STA. 248+97
STA. 333+54 TO STA. 365+00

NOTE:
FOR TYPICAL SECTION OF APPROACH SLABS SEE SHEET 134.

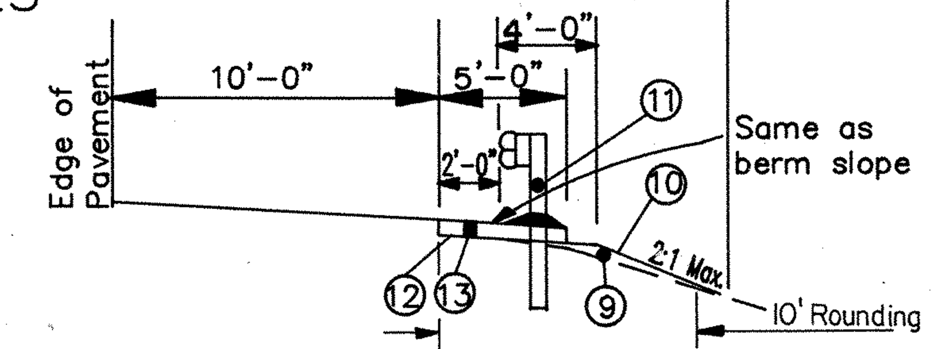


NORMAL SECTION
STA.252+75 TO STA.259+11.9 = 6369 L.F.
STA.265+81.7 TO STA.288+25 = 2243.3 L.F.
STA.307+75 TO STA.326+50 = 1875.0 L.F.
STA.339+25 TO STA.356+50 = 1725.0 L.F.
STA.368+25 TO STA.378+11.19 = 986.19 L.F.
STA.380+70.77 TO STA.424+75 = 4404.23 L.F.
STA.457+25 TO STA.477+25 = 2000.0 L.F.
TOTAL 13,870.62 L.F.

BRIDGE & APPROACH SLAB LIMITS
STA.378+76.19 TO STA.380+05.77 = 129.58 LIN.FT

TYPICAL SECTION FOR OVERPASS SHEET 6.
STA.378+11.19 TO STA.378+76.19 = 65 L.F.
STA.380+05.77 TO STA.380+70.77 = 65 L.F.
TOTAL 130 L.F.

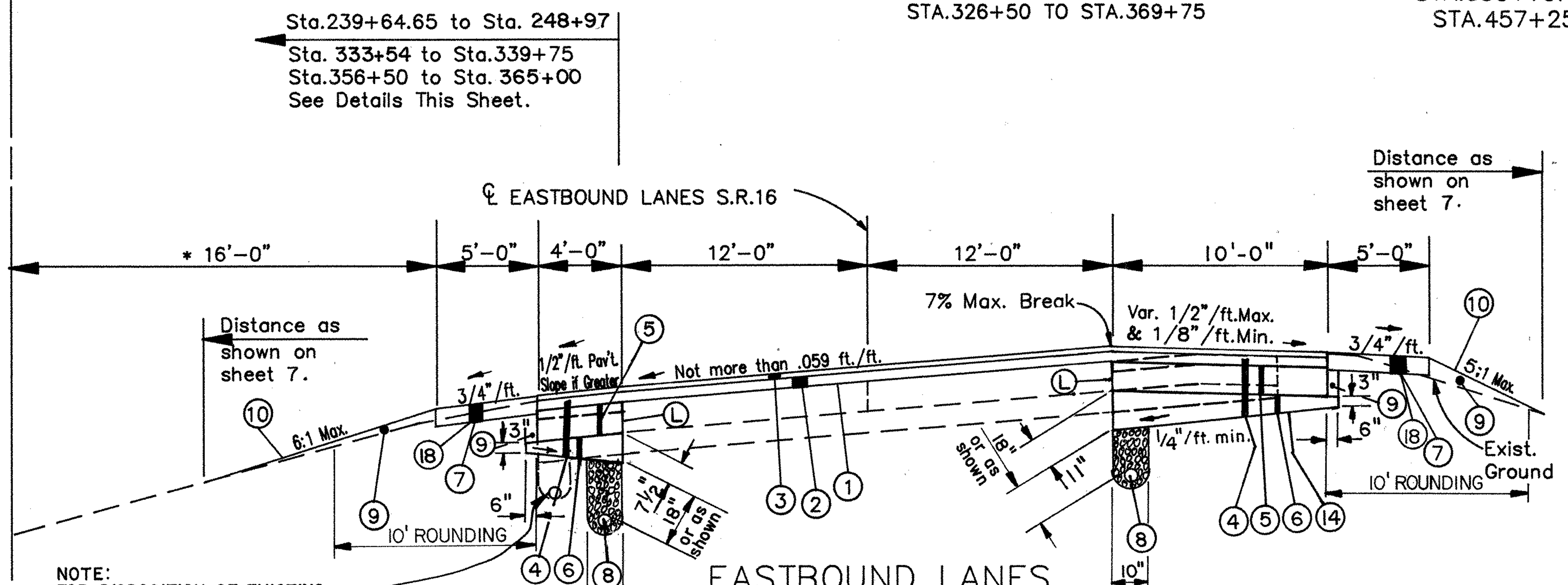
For Normal Section Sta. 259+11.9 to Sta. 265+81.7 see sheet 4-A.



TYPICAL PLACEMENT OF GUARDRAIL
(For locations see sheet 76).

* MEDIAN TRANSITION
VARIES FROM 10' MIN. TO 50' MAX.
STA.239+64.65 TO STA.252+75

VARIES FROM 50' MAX. TO 16' MIN.
STA.326+50 TO STA.369+75

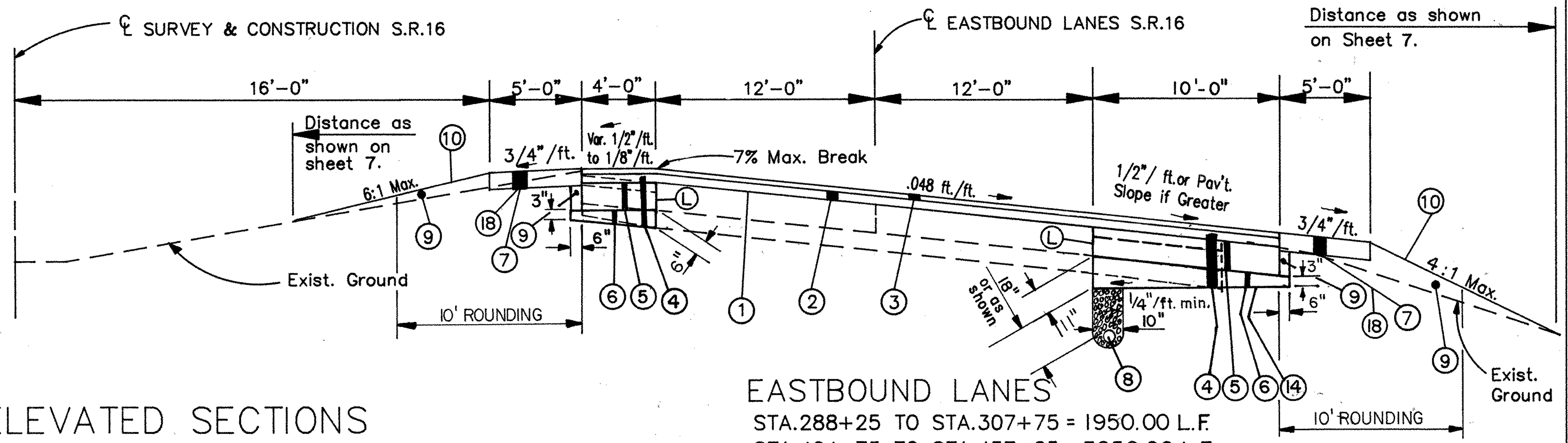


NOTE:
FOR DISPOSITION OF EXISTING UNDERDRAINS SEE DRAINAGE DETAIL SHEETS.

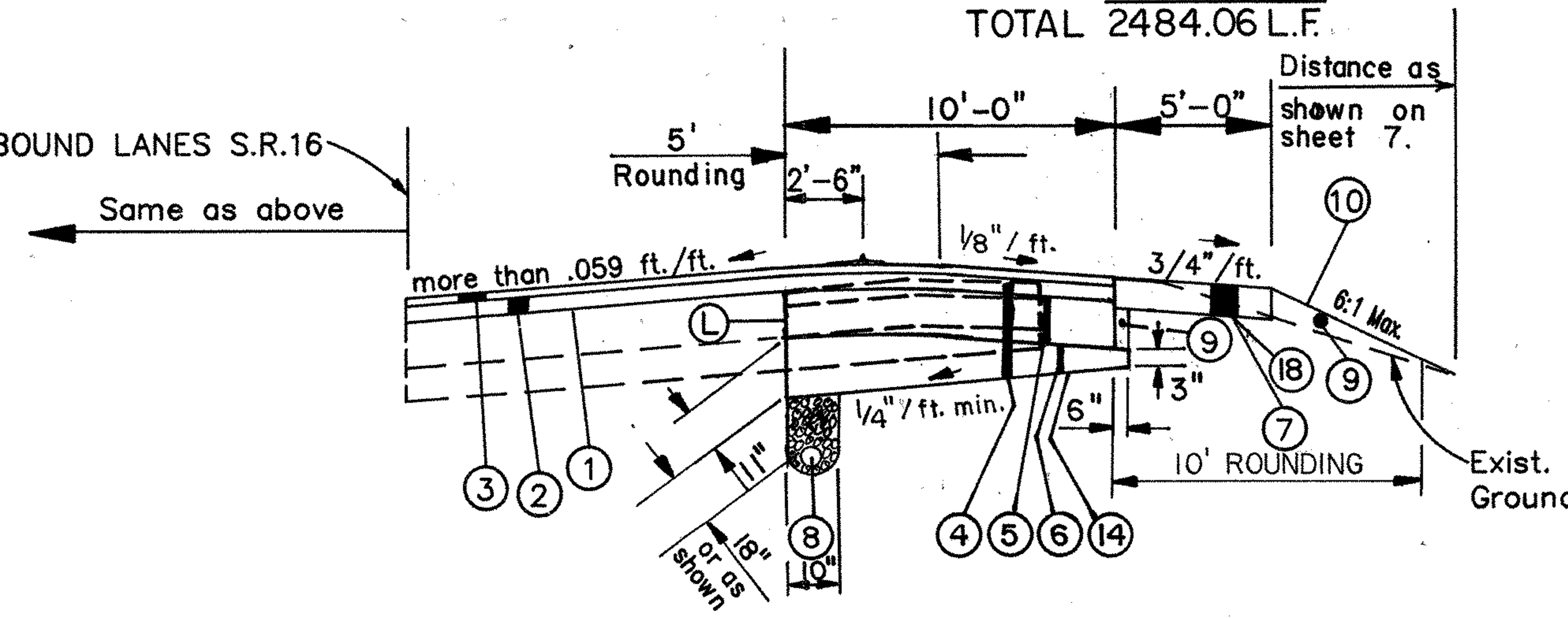
STA.239+64.65 TO STA.250+82.33
EQUATION: STA.250+82.33 BACK = STA.250+84.06 AHEAD
STA.250+84.06 TO STA.252+75 = 1308.62 L.F.

STA.356+50 TO STA.366+82.69
EQUATION: STA.366+82.69 BACK = STA.366+82.25 AHEAD
STA.366+82.25 TO STA.368+25 = 1175.44 L.F.
TOTAL 2484.06 L.F.

SUPERELEVATED SECTIONS



STA.288+25 TO STA.307+75 = 1950.00 L.F.
STA.424+75 TO STA.457+25 = 3250.00 L.F.
TOTAL 5200.00 L.F.



EASTBOUND LANES
STA.326+50 TO STA.339+25 = 1275.00 L.F.
STA.477+25 TO STA.493+25 = 1600.00 L.F.
TOTAL 2875.00 L.F.

LEGEND

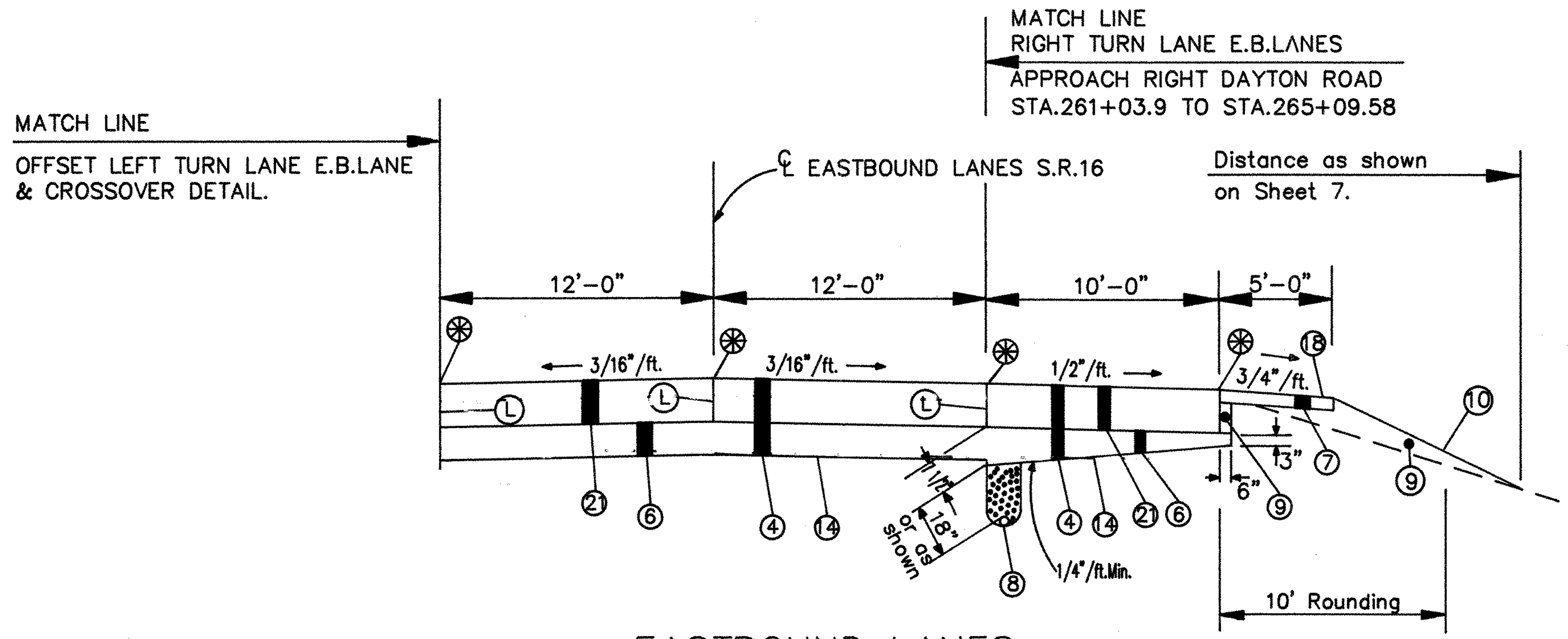
MARK	ITEM	DESCRIPTION
1	407	TACK COAT (SEE SHEET 8).
2	446	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20.
3	446	1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20.
4	203	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION (SEE SHEET 9).
5	305	9" CONCRETE BASE, AS PER PLAN (SEE SHEET 9).
6	304	AGGREGATE BASE, AS PER PLAN (SEE SHEET 9).
7	617	4" COMPACTED AGGREGATE, TYPE A
8	605	4" SHALLOW PIPE UNDERDRAIN
9	203	EMBANKMENT
10	659	SEEDING AND MULCHING
11	606	GUARDRAIL TYPE 5
12	203	LINEAR GRADING (SEE SHEET 8).
13	448	3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1 (UNDER GUARDRAIL), AS PER PLAN (SEE SHEET 8).
14	203	SUBGRADE COMPACTION
18	617	WATER (SEE SHEET 9).
L		LONGITUDINAL JOINT (SEE SHEET 14).

L01628A3 9/4/90

CALC. BY D.M. DATE 4-11-91 CHKD. BY T.D. DATE 5-23-91	LIC-16-23.27	OHIO FHWA REGION 5	4-A 134

TYPICAL SECTIONS

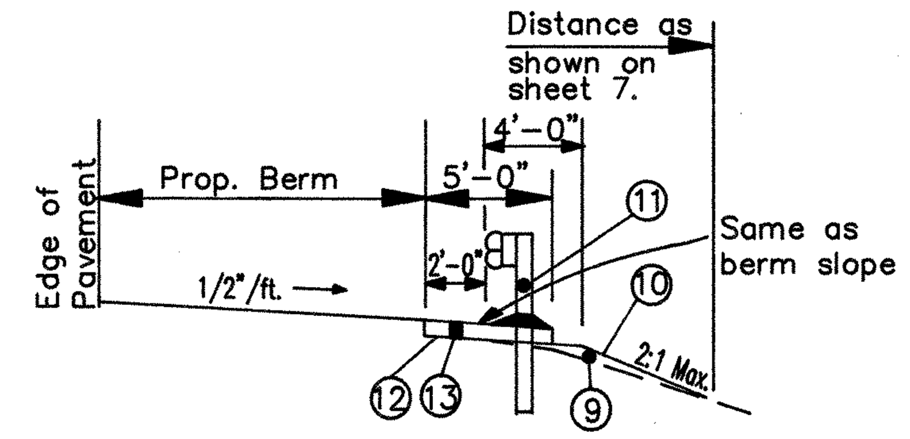
PROPOSED PAVEMENT



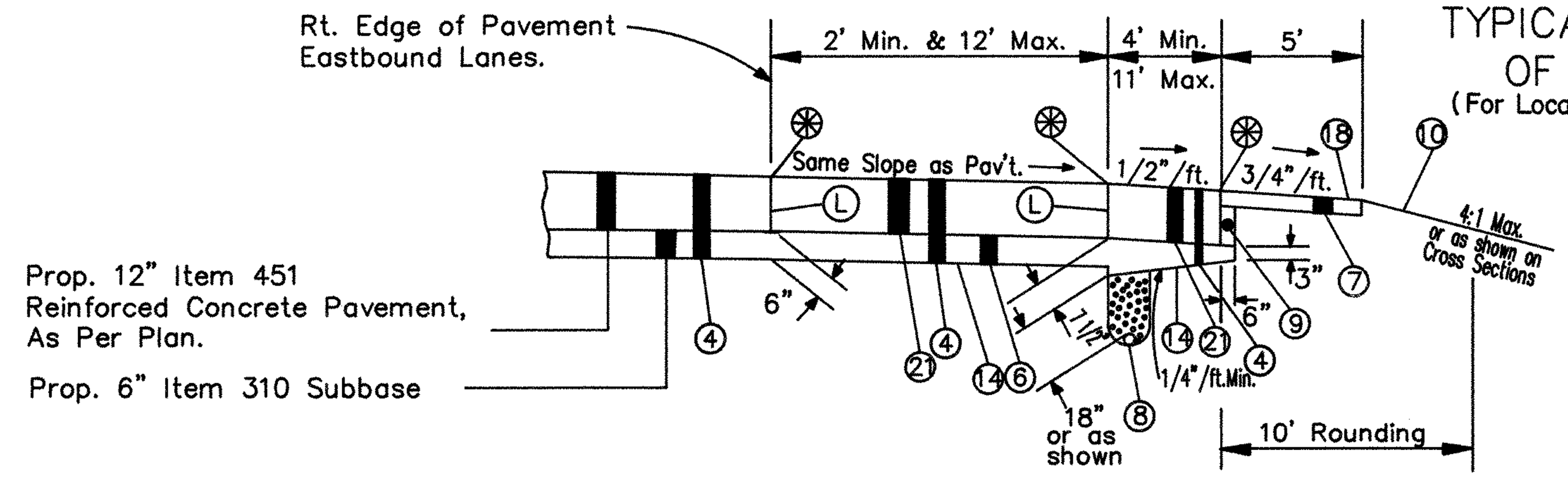
EASTBOUND LANES

STA.259+11.9 TO STA.265+81.7 = 669.80 LIN.FT.

⊛ ELEVATIONS SHOWN ON APPROACH DETAIL SHEETS 30 & 31.

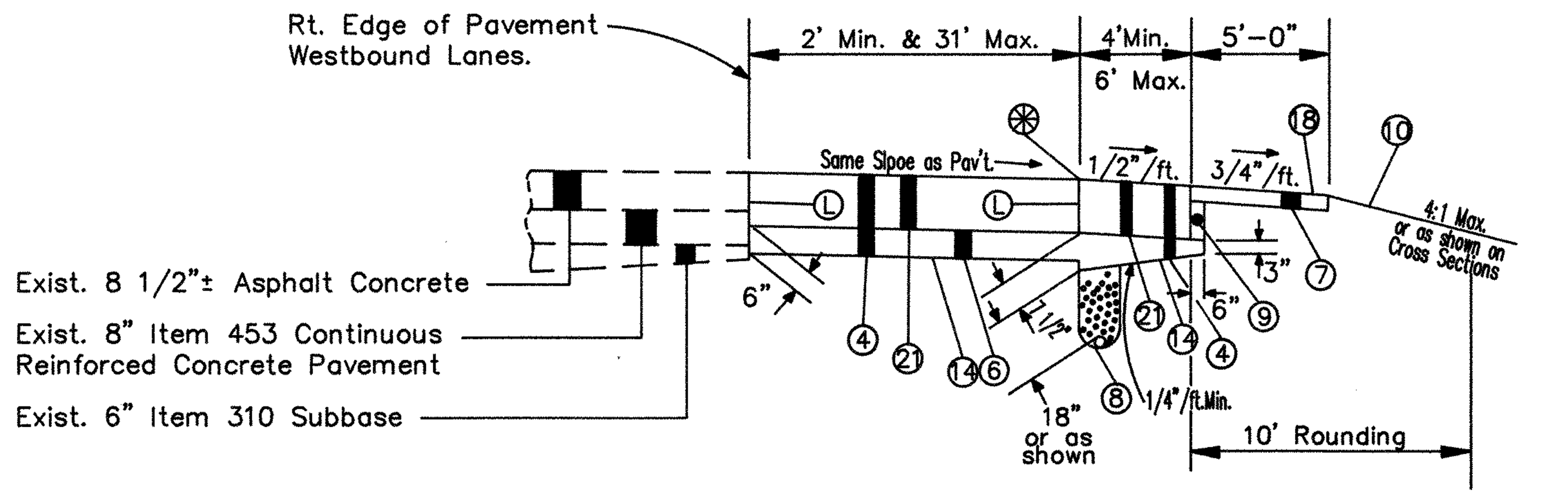


TYPICAL PLACEMENT OF GUARDRAIL
(For Locations of Guardrail See Sheet 76)



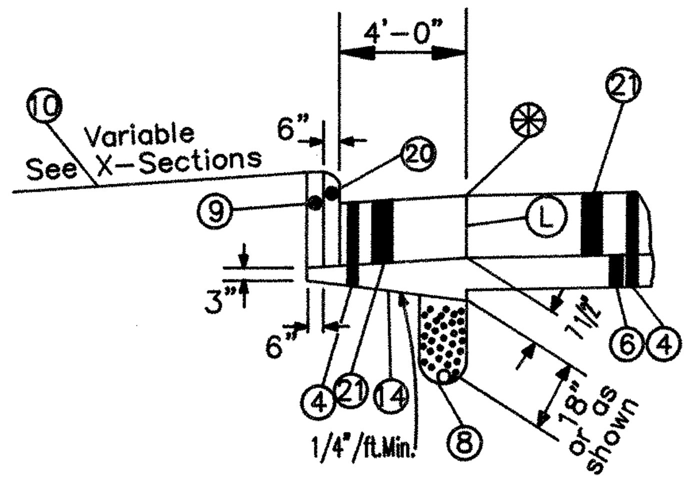
RIGHT TURN LANE EASTBOUND LANES

STA.261+03.9 TO STA.263+88.9 = 285.0 LIN.FT.

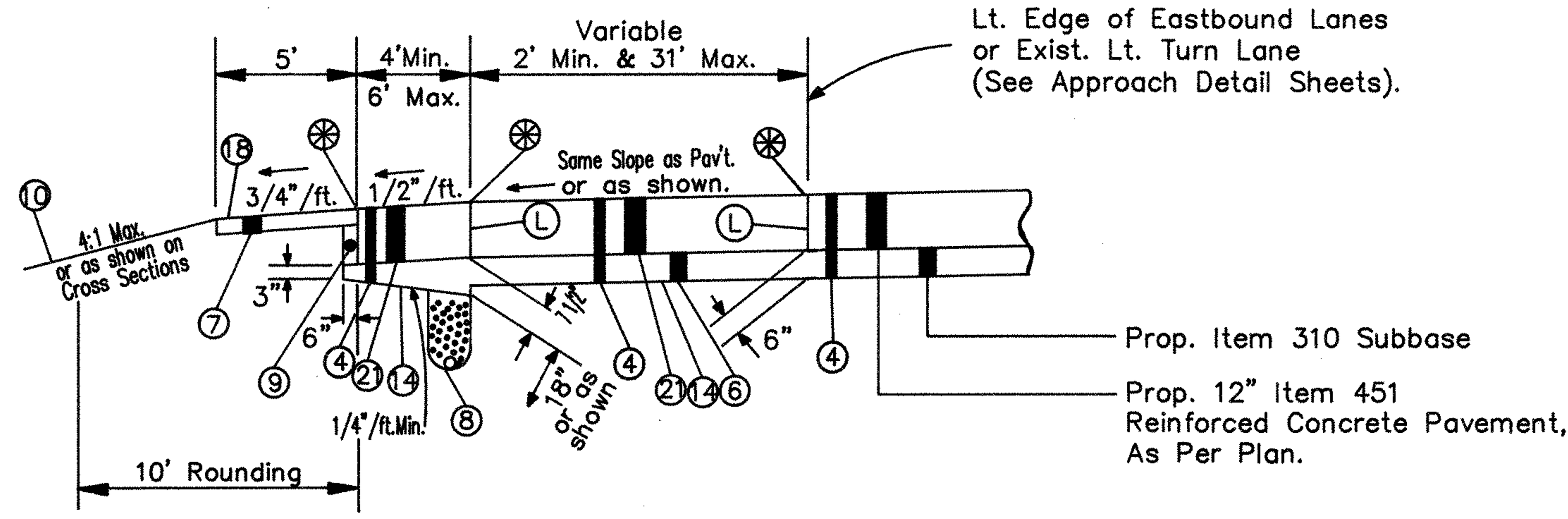


OFFSET LEFT TURN LANE WESTBOUND LANES

STA.265+38.74 TO STA.270+31.24 = 492.5 LIN.FT.

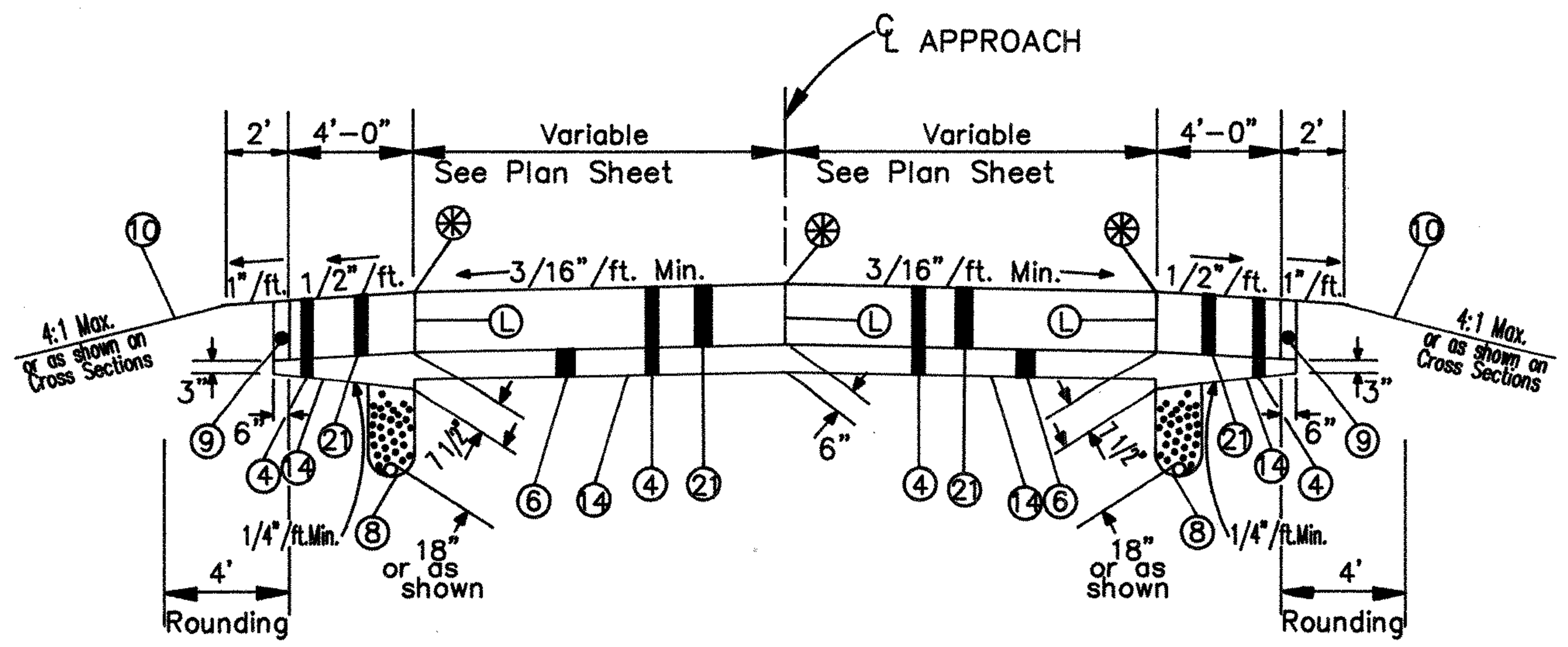


CURB DETAIL OFFSET LT. TURN LANE E.B. & W.B. (DAYTON ROAD)



OFFSET LEFT TURN LANE EASTBOUND LANES

STA.259+11.91 TO STA. 264+04.41 = 492.5 LIN.FT.

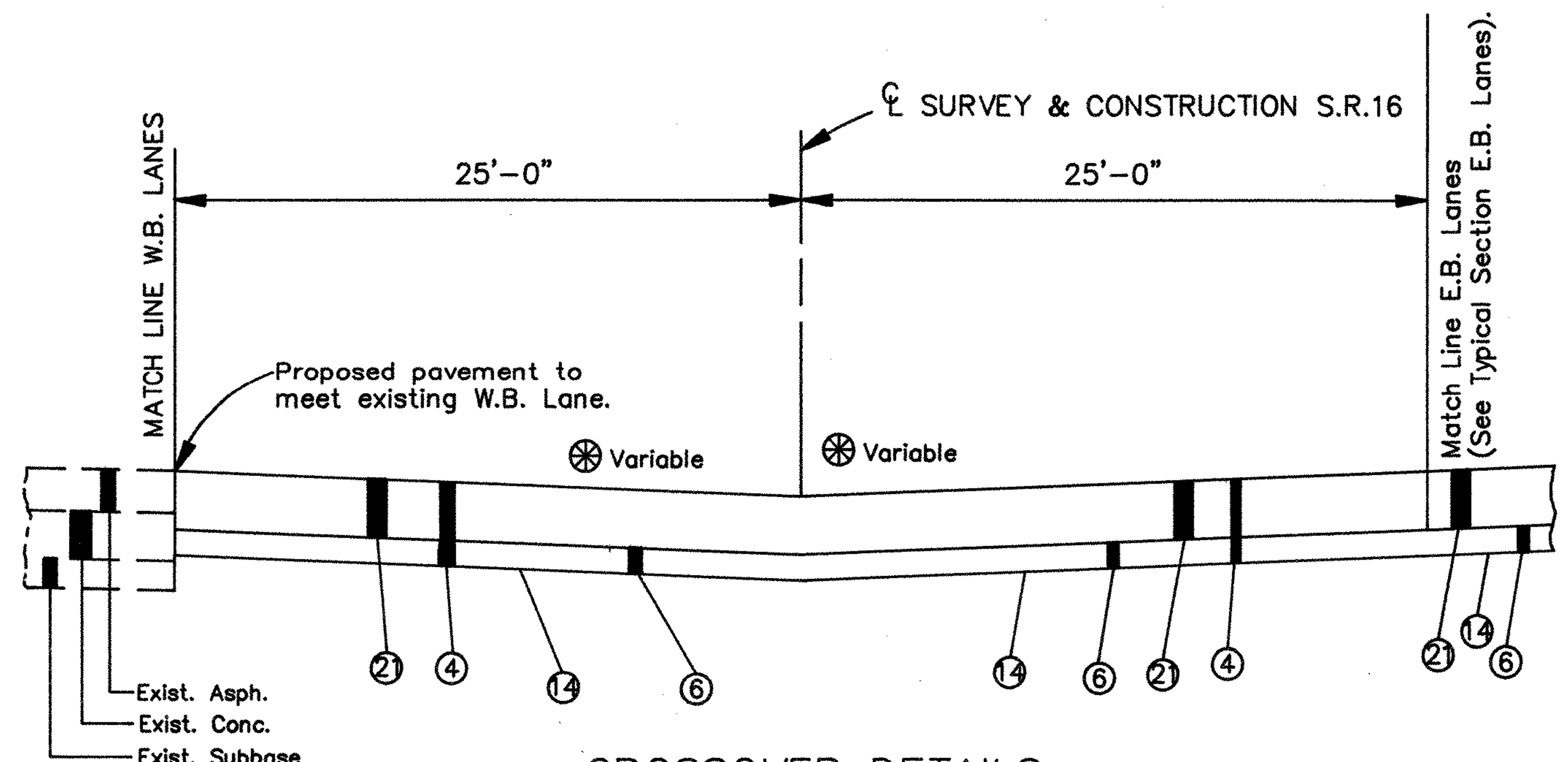


TYPICAL SECTION APPROACH

STA.8+82.8 TO STA.9+49.8 (DAYTON ROAD RT.) = 67.0 LIN.FT.

LEGEND

MARK	ITEM	DESCRIPTION
4	203	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION (SEE SHEET 9).
6	304	6" OR AS SHOWN AGGREGATE BASE, AS PER PLAN (SEE SHEET 9).
7	617	4" COMPACTED AGGREGATE, TYPE A.
8	605	4" SHALLOW PIPE UNDERDRAINS
9	203	EMBANKMENT
10	659	SEEDING AND MULCHING
11	606	GUARDRAIL, TYPE 5
12	203	LINEAR GRADING (SEE SHEET 8).
13	448	3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1 (UNDER GUARDRAIL), AS PER PLAN (SEE SHEET 8).
14	203	SUBGRADE COMPACTION
18	617	WATER (SEE SHEET 9).
20	609	CURB, TYPE 2-A.
21	451	12" REINFORCED CONCRETE PAVEMENT, AS PER PLAN (SEE SHEET 11).
L		LONGITUDINAL JOINT (SEE SHEETS 32 & 33).



CROSSOVER DETAILS

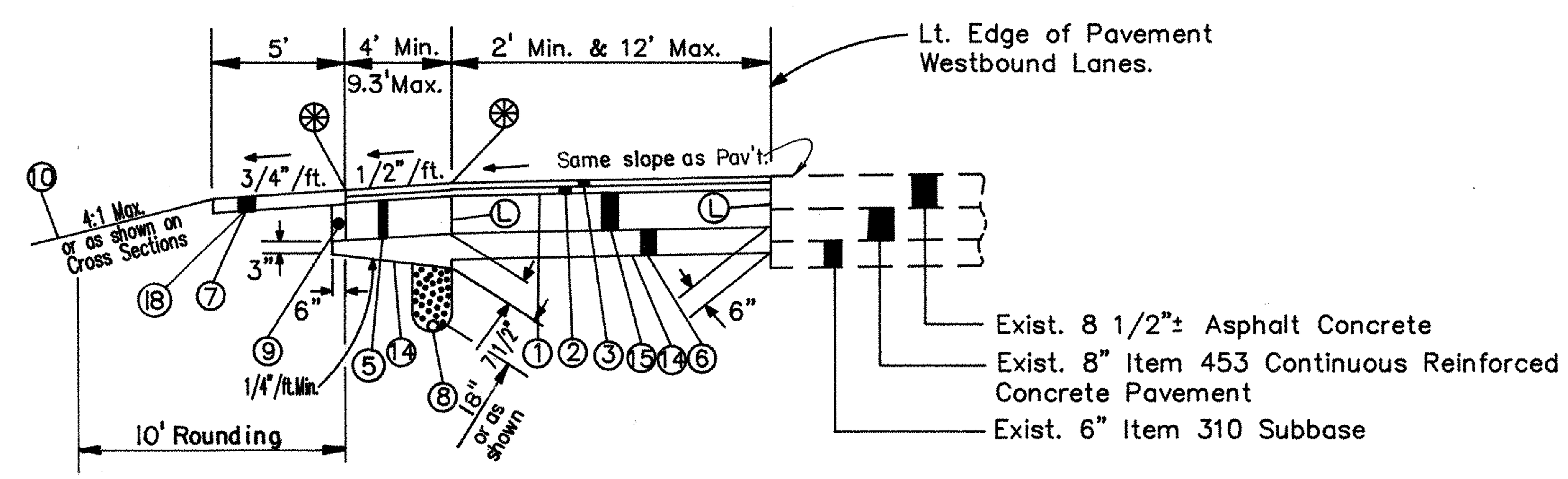
STA.264+04.41 TO STA.265+38.74 = 134.33 LIN.FT.

L01623A6 5/15/91

TYPICAL SECTIONS

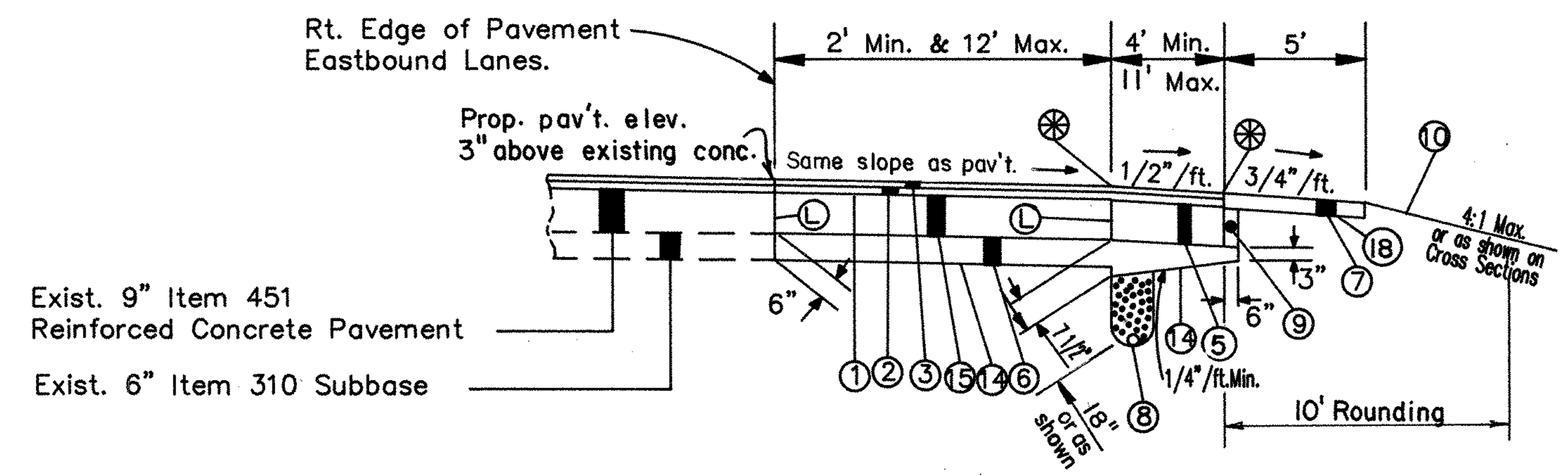
PROPOSED PAVEMENT

TYPE 446



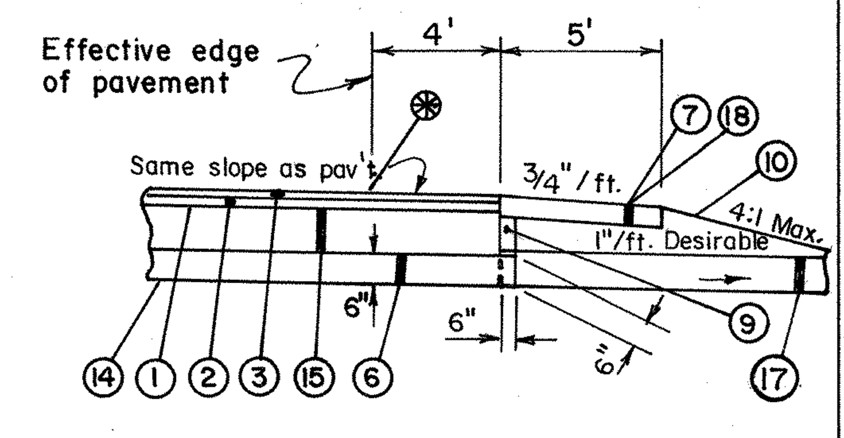
RIGHT TURN LANE WESTBOUND LANES

STA. 265+51.7	TO	STA. 268+36.7 =	285.0 LIN. FT.
STA. 327+99.2	TO	STA. 330+84.2 =	285.0 LIN. FT.
STA. 439+48.8	TO	STA. 442+33.8 =	285.0 LIN. FT.
		TOTAL	855.0 LIN. FT.



RIGHT TURN LANE EASTBOUND LANES

STA. 323+15.8	TO	STA. 326+00.8 =	285.0 LIN. FT.
STA. 436+19.7	TO	STA. 439+04.7 =	285.0 LIN. FT.
		TOTAL	570.0 LIN. FT.



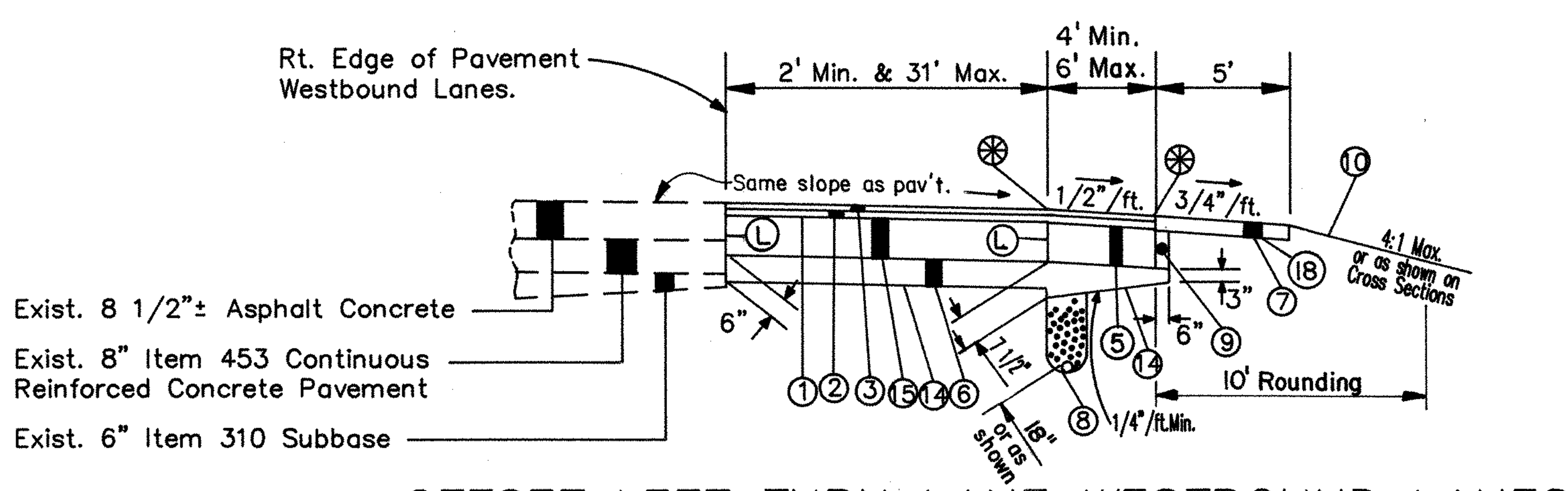
SHOULDER DETAILS AT RADIUS

(Without Longitudinal Joint See Sht. 47,59)

STA. 326+00.8 TO STA. 25+12.9 C.R. 585 (Rt.) = 80.5 L.F.
STA. 439+04.7 TO STA. 31+85.4 C.R. 668 (Rt.) = 55.0 L.F.
TOTAL 135.5 L.F.

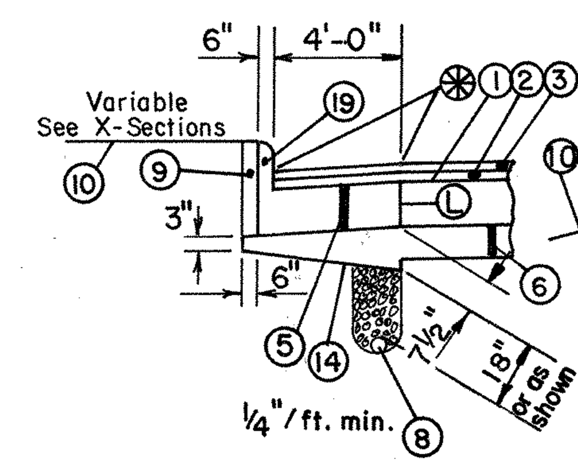
STA. 27+69.2 TO STA. 327+99.2 C.R. 585 (Lt.) = 81.5 L.F.
STA. 30+01.2 TO STA. 439+48.8 C.R. 668 (Lt.) = 55.5 L.F.
TOTAL 137.0 L.F.

⊛ ELEVATIONS SHOWN ON APPROACH DETAIL SHEETS 44, 45, 56 & 57.

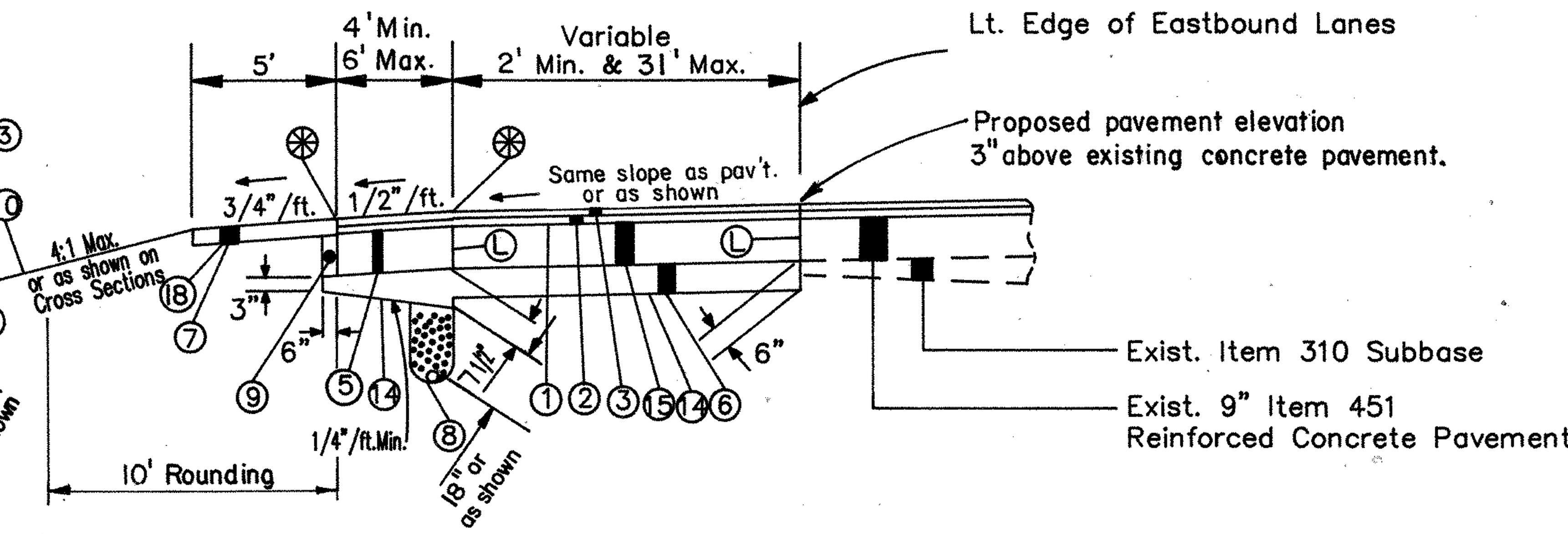


OFFSET LEFT TURN LANE WESTBOUND LANES

STA. 327+74.38	TO	STA. 332+66.88 =	492.5 LIN. FT.
STA. 440+11.5	TO	STA. 445+04 =	492.5 LIN. FT.
		TOTAL	985.0 LIN. FT.

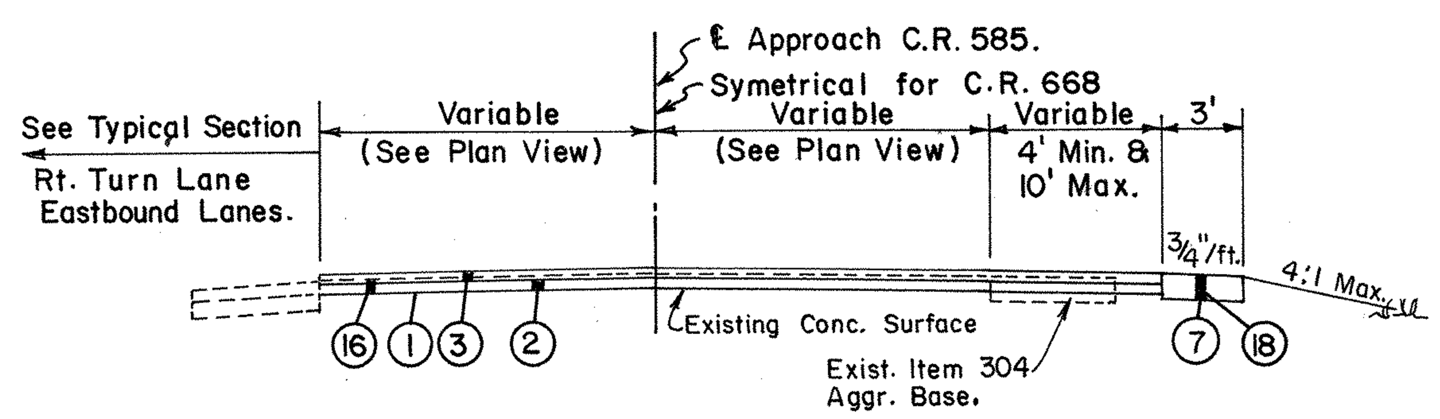


CURB DETAIL OFFSET LT. TURN LANE E.B. & W.B.



OFFSET LEFT TURN LANE EASTBOUND LANES

STA. 321+33.12	TO	STA. 326+25.62 =	492.5 LIN. FT.
STA. 433+54	TO	STA. 438+46.5 =	492.5 LIN. FT.
		TOTAL	985.0 LIN. FT.



TYPICAL SECTION APPROACH EASTBOUND

STA. 25+12.9 TO STA. 25+88.4 C.R. 585 Rt. = 75.5 L.F.
STA. 31+45.4 TO STA. 32+31.1 C.R. 668 Rt. = 85.7 L.F.
TOTALS 161.2 L.F.

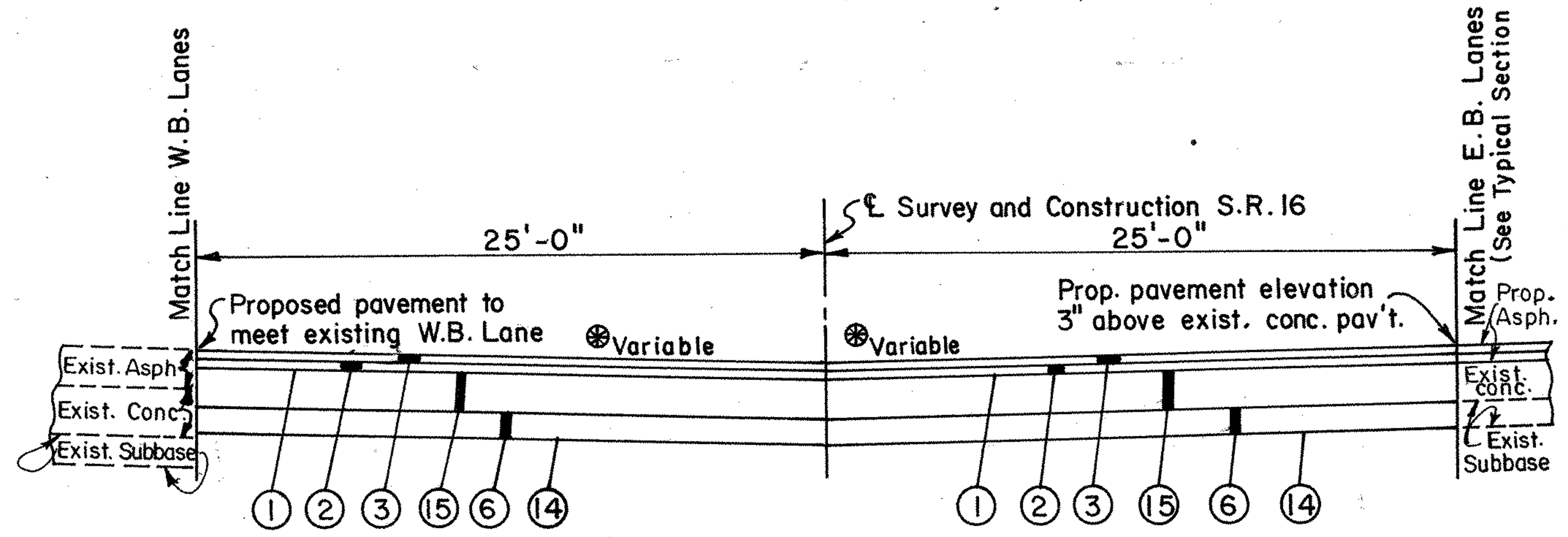
NOTE:

STA. 24+62.9 TO STA. 25+12.9 C.R. 585 Rt. = 50.0 L.F.
STA. 32+31.1 TO STA. 32+81.1 C.R. 668 Rt. = 50.0 L.F.
TOTAL 100.0 L.F.

Mark ② and ③ to be as shown on detail sheets 45 & 57 and feathered as per Standard Drawing BP-5.

LEGEND

MARK	ITEM	DESCRIPTION
1	407	TACK COAT (SEE SHEET 8).
2	446	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20.
3	446	1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20.
5	305	9" CONCRETE BASE, AS PER PLAN (SEE SHEET 9).
6	304	6" OR AS SHOWN AGGREGATE BASE, AS PER PLAN (SEE SHEET 9).
7	617	4" COMPACTED AGGREGATE, TYPE A
8	605	4" SHALLOW PIPE UNDERDRAIN
9	203	EMBANKMENT.
10	659	SEEDING AND MULCHING.
14	203	SUBGRADE COMPACTION.
15	451	9" REINFORCED CONCRETE PAVEMENT, AS PER PLAN (SEE SHEET 8).
16	254	PAVEMENT PLANING, BITUMINOUS. (SEE NOTES SHEET 8)
17	605	AGGREGATE DRAINS
18	617	WATER (SEE SHEET 9)
L		LONGITUDINAL JOINT (SEE SHEETS 46, 47, 58 & 59)
19	609	CURB, TYPE 2-B.



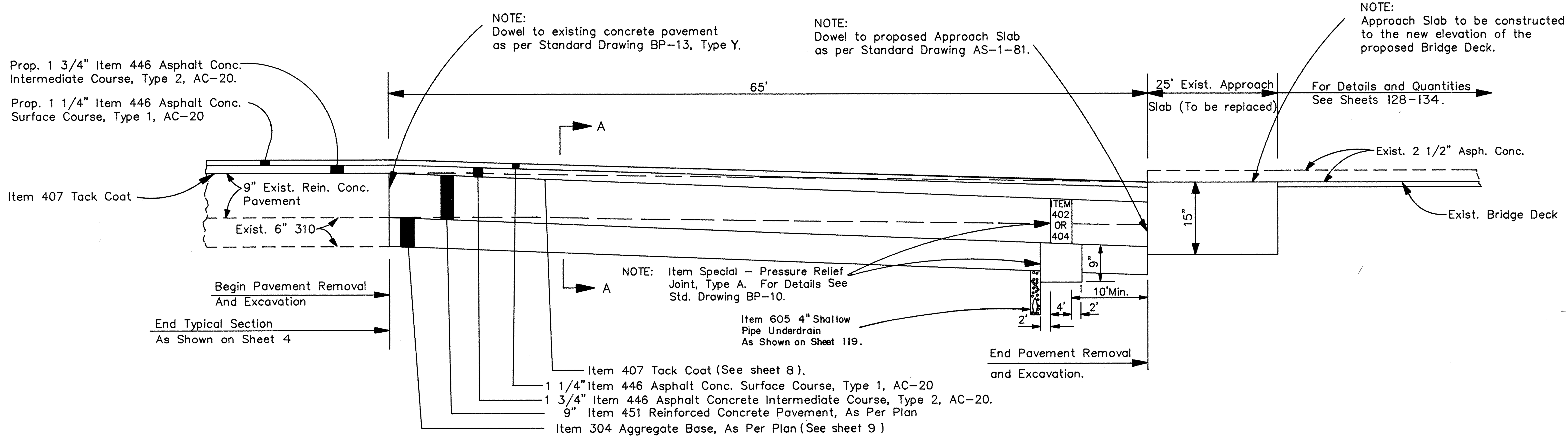
CROSSOVER DETAILS

STA. 326+25.62 TO STA. 327+74.38 = 148.76 L.F.
STA. 438+46.5 TO STA. 440+11.5 = 165.00 L.F.
TOTAL 313.76 L.F.

9/10/90
L0162363

OVERPASS DETAIL

SECTION A-A TRANSVERSE SECTION FOR OVERPASS



OVERPASS - LONGITUDINAL SECTION

STATION TO STATION

EASTBOUND

378+11.19 - 378+76.19 = 65 Lin.Ft.

380+05.77 - 380+70.77 = 65 Lin.Ft.

L0162351 2/26/91

CALC. BY D.M. DATE 4-11-91 / CHKD. BY T.D. DATE 5-23-91	LIC–16–23.27	OHIO / FHWA REGION 5	7 / 134

TYPICAL PLACEMENT OF EMBANKMENT MEDIAN SIDE & OUTSIDE EDGE OF PAVEMENT (SEE SHEETS 4,5 & 6)

NOTE: THE FOLLOWING DIMENSIONS ARE APPROXIMATE AND THE PROJECT ENGINEER RESERVES THE RIGHT TO MAKE ADJUSTMENTS AT THE TIME OF CONSTRUCTION.

		STATION ℄ SURVEY	EASTBOUND LANES DISTANCE RIGHT	DISTANCE RIGHT
		240+00		60
		242+50		65
		245+00		63
		247+50		52
		250+00	12	68
		252+50		75
		255+00	15	77
		257+50		88
		258+00	13	84
		CROSS–SECTIONS (DAYTON ROAD)		
		267+50	13	68
		270+00	7	68
		272+50		80
		275+00	14	80
		277+50		71
		280+00	9	71
		282+50		76
		285+00	9	80
		287+50		86
		290+00	15	76
		292+50		74
		295+00	14	78
		297+50		91
		300+00	8	77
		302+50		70
		305+00	13	70
		307+50		81
		310+00	6	81
		312+50		80
		315+00	10	94
		317+00		101
		320+00	9	94
		322+50		81
		CROSS–SECTIONS (C.R.585)		
		330+20.63	9	108
		332+50	2	100
		365+00	7	63
		367+50		68
		370+00	16	69
		372+50		69
		375+00	11	69
		377+50		69
		380+00		69
		382+50		92
		385+00	10	68
		387+50		68
		390+00	12	75
		392+50		72
		395+00	6	68
		397+50		67
		400+00	5	78
		402+50		68
		405+00	13	70
		407+50		69
		410+00	11	77
		412+50		89
		415+00	6	75
		417+50		86
		420+00	10	98
		422+50		96
		425+00	5	82
		427+50		78

		STATION ℄ SURVEY	EASTBOUND LANES DISTANCE RIGHT	DISTANCE RIGHT
		430+00	14	90
		432+50		109
		435+00		107
		CROSS–SECTIONS (C.R.668)		
		442+50	14	103
		445+00	14	75
		447+50		74
		450+00	14	79
		452+50		85
		455+00	8	83
		457+50		99
		460+00	14	96
		462+50		83
		465+00	3	101
		467+50		87
		470+00	14	82
		472+50		85
		475+00	14	86
		477+50		84
		480+00	6	95
		482+50		74
		485+00	8	80
		487+00		79
		490+00	10	67

L0162300 4/3/91

GENERAL NOTES

PROJECT DESCRIPTION

(EASTBOUND):
THIS PROJECT SHALL CONSIST OF REMOVING THE EXISTING ASPHALT CONCRETE SURFACE COURSE. THE EXISTING CONCRETE PAVEMENT SHALL BE REPAIRED AS PER ITEM 255, FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT AND RESURFACING WITH 1 3/4" ITEM 446 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20 AND 1 1/4" ITEM 446 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20.
THE APPROACH TO THE EXISTING OVERPASS SHALL BE REPLACED WITH 6" ITEM 304 AGGREGATE BASE, AS PER PLAN, 9" ITEM 451 REINFORCED CONCRETE PAVEMENT, AS PER PLAN, 1 3/4" ITEM 446 INTERMEDIATE COURSE, TYPE 2, AC-20 AND 1 1/4" ITEM 446 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20
THE EXISTING BERMS SHALL BE REPLACED WITH ITEM 304 AGGREGATE BASE, 9" ITEM 305 CONCRETE BASE, AS PER PLAN AND RESURFACED THE SAME AS THE PAVEMENT.
THIS PROJECT WILL ALSO INCLUDE PLACING ITEM 605 6" UNDERDRAINS AND REPLACING THE EXISTING GUARDRAIL. THE SHOULDER SLOPES SHALL BE CONSTRUCTED TO THE GRADES AS SHOWN AND SEEDED. OFFSET LEFT TURN LANES SHALL BE CONSTRUCTED BOTH EASTBOUND AND WESTBOUND AT DAYTON ROAD, C.R.585 AND C.R.668.

EXISTING BRIDGE EASTBOUND SHALL BE PLANED, BRIDGE DECK REPAIRED AS PER ITEM 850 SUPERPLASTICIZED DENSE CONCRETE OVERLAY, EXISTING APPROACH SLABS REPLACED AND GUARDRAIL ON THE BRIDGE REPLACED. (SEE ADDITIONAL PARAGRAPH SHT. 2)

EXAMINATION OF PROJECT

THE EXISTING THICKNESS SHOWN IN THE TYPICAL SECTIONS AND DETAILS ARE NOMINAL ONLY AND MAY VARY.
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE THE PROJECT SITE AND VERIFY THE ACTUAL PAVEMENT THICKNESS PRIOR TO SUBMITTING HIS BID PROPOSAL AS PER SECTION 102.05 OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.
THE CONTRACTOR SHALL PROVIDE HIS OWN TRAFFIC CONTROL IN ACCORDANCE WITH ALL REQUIREMENTS OF O.M.U.T.C.D. AND SHALL NOTIFY THE DISTRICT OPERATIONS ENGINEER AT LEAST FIVE WORKING DAYS IN ADVANCE OF SETTING UP TRAFFIC CONTROL FOR THE PURPOSE OF EXAMINING THE PAVEMENT AS STATED ABOVE.

PAVEMENT PLANING INTENT

IT IS THE INTENT OF THIS PLAN TO PLANE OFF THE EXISTING ASPHALT WEARING SURFACE AND EXPOSE THE ORIGINAL CONCRETE SURFACE. THE PLAN INDICATES A NOMINAL PLANING THICKNESS; HOWEVER, THIS THICKNESS SHALL BE ADJUSTED ACCORDINGLY SO THAT THE SAID INTENT CAN BE ACCOMPLISHED.
PAYMENT FOR ANY ADJUSTMENTS TO THE PAVEMENT PLANING THICKNESS SHALL BE INCLUDED IN THE UNIT PRICE BID OF SQ.FT. FOR ITEM 254 PAVEMENT PLANING, BITUMINOUS.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK LIST IN THE GENERAL SUMMARY FOR ITEM DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DISCRETION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

PROFILE AND ALIGNMENT

THE PROPOSED PAVEMENT RESURFACING COURSES SHALL FOLLOW THE ALIGNMENT AND PROFILE OF THE ORIGINAL PAVEMENT IN THE AREAS OF PAVEMENT REPAIR.
THE PROPOSED ASPHALT CONCRETE OVERLAYS SHALL HAVE A UNIFORM THICKNESS OF APPROXIMATELY 3".
THE PROFILE GRADES, STOPPING SIGHT DISTANCES AND HORIZONTAL ALIGNMENTS ALL MEET THE CURRENT DESIGN STANDARDS.
PREVIOUS CONSTRUCTION PLANS SHOWING THE ORIGINAL ALIGNMENT AND PROFILE GRADE ARE ON FILE FOR INSPECTION IF NECESSARY AT THE O.D.O.T. DISTRICT 5 OFFICE AS PROJECTS SHOWN ON THIS SHEET.

CONSTRUCTION PLAN

REFERENCE IS HEREBY MADE TO THE FOLLOWING DESIGNATED PLAN FOR FORMER CONSTRUCTION PROJECTS, PORTIONS OF WHICH COVER AREAS INCLUDED IN THIS PROPOSED IMPROVEMENT.

LIC-16-(23.48 - 28.41)
LIC-16-23.67 PROJECT NO. 465 (79)

COPIES OF THESE PLANS ARE ON FILE EITHER AT THE DISTRICT 5 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION OR AT THE OFFICE OF THE ADMINISTRATOR OF CONTRACT SALES COLUMBUS, OHIO.

ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS

THE ROUNDED CORNERS SHOWN ON THE TYPICAL SECTIONS, APPLY TO ALL CROSS SECTIONS EVEN THOUGH OTHERWISE SHOWN ON THESE PLANS.

ITEM 404 BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC.

A QUANTITY OF ITEM 404 BITUMINOUS CONCRETE, AC-20 HAS BEEN INCLUDED IN THE PLANS TO REPAIR PAVEMENT OR BERMS DAMAGED WHEN MAINTAINING TRAFFIC AS DESCRIBED AS PER ITEM 614 MAINTAINING TRAFFIC.
THIS ITEM SHALL ALSO BE USED TO CONSTRUCT TEMPORARY FEATHERS AT LOCATIONS DESIGNATED BY THE PROJECT ENGINEER.
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE PURPOSE.

	CITY, STATE & FEDERAL	STATE & FEDERAL
ITEM 404 BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC.	25 C.Y.	175 C.Y.

UNDERGROUND UTILITIES

THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 ORC.

UTILITY OWNERSHIP

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT:

OHIO DEPARTMENT OF TRANSPORTATION
9600 JACKSONTOWN ROAD
P.O. BOX 306
JACKSONTOWN, OHIO 43030
PHONE (614) 323-4400

NATIONAL GAS & OIL CORP.
1500 GRANVILLE ROAD
P.O. DRAWER AF
NEWARK, OHIO 43055-0693
PHONE (614) 344-2102

ITEM 407 TACK COAT

THE RATE OF APPLICATION OF 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT, AS DIRECTED BY THE ENGINEER.
PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.075 GALLONS PER SQUARE YARD OF TACK COAT FOR ESTIMATING PURPOSES ONLY.

ADDITIONAL TACK COAT

IN ADDITION TO THE REQUIREMENTS OF 407.05, A TACK COAT SHALL BE APPLIED, AS DESCRIBED ABOVE ON ITEM 446 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20 IMMEDIATELY AHEAD OF THE PAVING OPERATION FOR THE ITEM 446 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20. (PASSING LANE ONLY).
THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO PERFORM THE WORK AS DESCRIBED ABOVE.

	CITY, STATE & FEDERAL	STATE & FEDERAL
ITEM 407 TACK COAT	925 GALLONS	2,500 GALLONS

ITEM 451 9" REINFORCED CONCRETE PAVEMENT, AS PER PLAN

IN LIEU OF THE REQUIREMENTS OF ITEM 451 REINFORCED CONCRETE PAVEMENT AND STANDARD DRAWING BP-4 THE MAXIMUM JOINT SPACING SHALL BE 20' AND THE TEXTURING, CURING, JOINT SEALING AND SMOOTHNESS REQUIREMENTS SHALL BE AS PER ITEM 305.

LOCATION OF GUARDRAIL

STATIONS AS SHOWN ON THESE PLANS WERE TAKEN FROM PREVIOUS CONSTRUCTION PLANS, AND ARE ASSUMED TO BE CORRECT. THE STATIONS, AS SHOWN IN THESE PLANS ARE SUBJECT TO ADJUSTMENT PRIOR TO FINAL ACCEPTANCE.
THE ENGINEER SHALL BE SATISFIED THAT ALL INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

ITEM 203 LINEAR GRADING

THIS ITEM SHALL CONSIST OF EXCAVATING TOPSOIL, PLACING GRANULAR MATERIAL AND APPLYING HERBICIDE AS SPECIFIED IN THE PLANS AND IN ACCORDANCE WITH THE FOLLOWING:

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN SECTION 203.05 OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 203.05 AND SHALL BE PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.
HERBICIDE SHALL BE TREFLAN E.C., SPIKE OR AN APPROVED EQUAL AND SHALL BE APPLIED TO THE PREPARED AREA AFTER FINAL LEVELING AND GRADING HAS BEEN COMPLETED THE APPLICATION SHALL BE JUST PRIOR TO PAVING AND SHALL STRICTLY ADHERE TO THE MANUFACTURE'S LABEL INSTRUCTIONS.
ONLY PROPERLY LICENSED PERSONNEL SHALL APPLY HERBICIDES AS REQUIRED BY THE OHIO REVISED CODE.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 203 LINEAR GRADING.

ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1 (UNDER GUARDRAIL), AS PER PLAN

THIS ITEM SHALL CONSIST OF PAVING UNDER GUARDRAIL AS SPECIFIED IN THE PLANS AND IN ACCORDANCE WITH THE FOLLOWING:

PAVING SHALL CONSIST OF PLACING ITEM 448 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

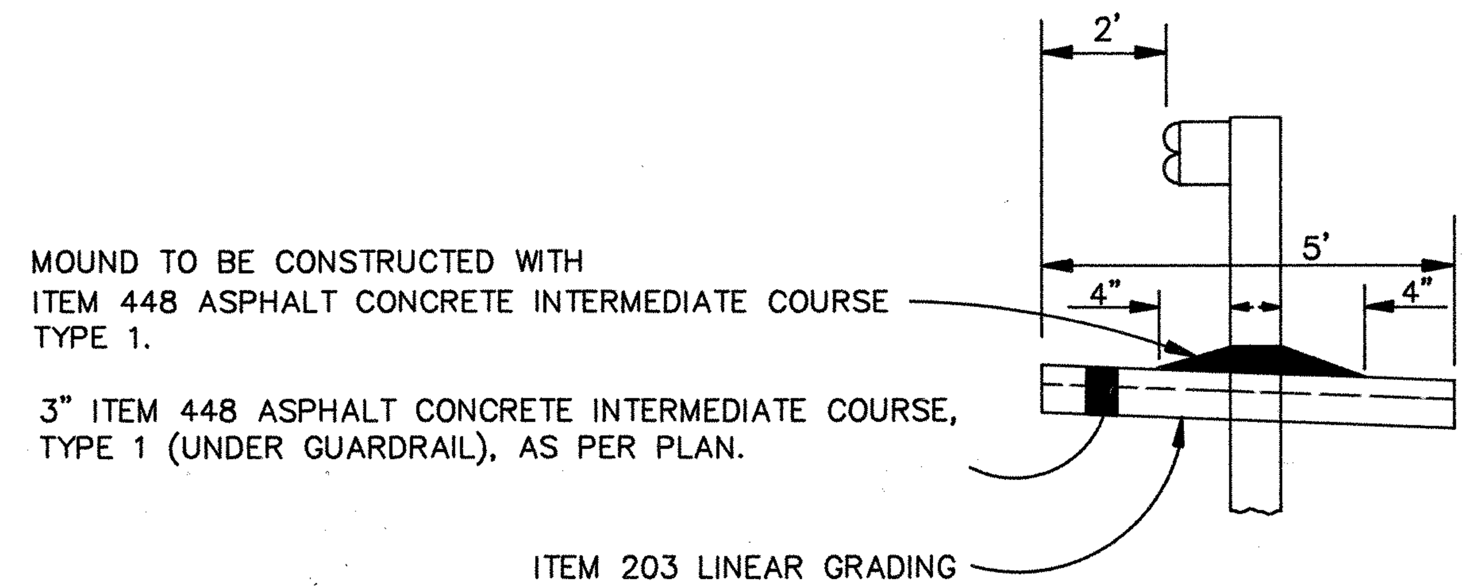
METHOD A:
1) SET GUARDRAIL POSTS
2) PLACE ITEM 448

METHOD B:
1) PLACE ITEM 448
2) BORE 9" HOLE IN THE ASPHALT AT POST LOCATIONS (SEE NOTE 1)
3) SET GUARDRAIL POSTS
4) PATCH AROUND POSTS (SEE NOTE 2)

NOTE 1: BORING OF ASPHALT MAY BE EXCLUDED IF STEEL POSTS ARE TO BE USED.

NOTE 2: THE MATERIAL USED FOR PATCHING SHALL BE A BITUMINOUS CONCRETE APPROVED BY THE ENGINEER. PATCHING AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALTERNATE METHODS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.
ALL EQUIPMENT, MATERIALS, AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1 (UNDER GUARDRAIL), AS PER PLAN.



REVISED: 7/17/91

L0162384 4/10/91

GENERAL NOTES

③NOTE: FOR ESTIMATING PURPOSES ONLY:
THIS QUANTITY INCLUDES 600 S.Y. FOR REPAIRS 10' OR GREATER. THE STATE OF OHIO RESERVES THE RIGHT TO INCREASE OR DECREASE THIS QUANTITY TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION. IT IS THE INTENT OF THIS PLAN TO REPLACE 100% OF THE EXISTING TRANSVERSE JOINTS AND ADDITIONAL AREAS AS DIRECTED BY THE PROJECT ENGINEER.

ITEM 255 FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS "C":

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO PERFORM THE WORK AS DESCRIBED IN ITEM 255, AS PER STANDARD DRAWING BP-13 AND AS SHOWN ON SHEET 13.

	(CITY, STATE & FED.)	(STATE & FED.)
ITEM 255 FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS "C".	2,500 SQ. YD.	③ 8,000 SQ. YD.
ITEM 255 FULL DEPTH PAVEMENT SAWING.	8,000 LIN. FT.	20,000 LIN. FT.

SUBBASE/SUBGRADE FAILURES

IF, AFTER REMOVAL OF THE RIGID PAVEMENT, THE ENGINEER DETERMINES THAT THE SUBBASE OR SUBGRADE HAS FAILED OR IS PUMPING, HE SHALL DIRECT THE CONTRACTOR TO EXCAVATE THE UNSUITABLE MATERIAL AND REPLACE IT WITH ITEM 304 AGGREGATE BASE, AS PER PLAN.

	(CITY, STATE & FED.)	(STATE & FED.)
ITEM 203 EXCAVATION, NOT INCLUDING EMBANKMENT CONST.	20 CU. YD.	80 CU. YD
ITEM 304 AGGREGATE BASE, AS PER PLAN	20 CU. YD.	80 CU. YD

ITEM 203 EXCAVATION, NOT INCLUDING EMBANKMENT CONSTRUCTION:

(FINAL MEASUREMENT FOR EXCAVATION AS SHOWN TYPICAL SECTION)

PAYMENT FOR "ITEM 203 EXCAVATION, NOT INCLUDING EMBANKMENT CONSTRUCTION" SHALL BE BASED ON CUBIC YARDS OF MATERIAL EXCAVATED WITHIN THOSE LIMITS AS ESTABLISHED BY THE ELEVATIONS FOR FINISHED PAVEMENT. PAVEMENT ELEVATION FOR THE UPPER LIMITS AND ACTUAL FIELD CHECK MEASUREMENTS RELATIVE TO THE REQUIREMENTS FOR DEVELOPEMENT OF THE NEW PAVEMENT STRUCTURE SHALL BE USED FOR BOTH THE HORIZONTAL AND LOWER LIMITS.
PAYMENT FOR ANY ADDITIONAL MATERIAL TO BE EXCAVATED FROM THE SHOULDER AREA BECAUSE OF DIFFERENCES IN EXISTING AREAS AND THE AREAS DESCRIBED BY THE TYPICAL SECTION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203 EXCAVATION, NOT INCLUDING EMBANKMENT CONSTRUCTION.

ITEM 305 9" CONCRETE BASE, AS PER PLAN:

THIS ITEM SHALL CONSIST OF CONSTRUCTING CONCRETE BERMS AT LOCATIONS SHOWN IN THE PLANS. THE CONTRACTION JOINTS AS SHOWN ON SHEET 14 SHALL BE CONSTRUCTED WITHOUT DOWELS.

THE LONGITUDINAL JOINT SHALL BE SEALED AND TIEBARS PLACED AS SHOWN ON SHEET 14. IN LIEU OF STANDARD DRAWING BP-4 THE TRANSVERSE JOINTS SHALL BE SEALED USING MATERIAL REQUIREMENTS OF 705.04.

THE COST OF ALL OF THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 305 9" CONCRETE BASE, AS PER PLAN.

UNSUITABLE SUBGRADE:

DUE TO POOR SOILS IN THE AREA OF THE PAVEMENT REPLACEMENT AN ESTIMATED QUANTITY OF ITEM 203 EXCAVATION AND ITEM 203 EMBANKMENT USING GRANULAR MATERIAL AS PER 203.02 HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

THE STATE OF OHIO RESERVES THE RIGHT TO NONPERFORM UP TO 100% OF THIS

	(STATE & FED.)
ITEM 203 EXCAVATION, NOT INCLUDING EMBANKMENT CONSTRUCTION	100 C.Y.
ITEM 203 EMBANKMENT USING GRANULAR MATERIAL	100 C.Y.

ITEM 203 EMBANKMENT:

ITEM 203 EMBANKMENT SHALL CONSIST OF PLACING EMBANKMENT AT THE OUTSIDE EDGES OF THE PAVEMENT AS SHOWN ON SHEETS 4-7.
THE EXISTING BERM SHALL BE PREPARED AS REQUIRED IN SPEC. 201.04.
ALL EMBANKMENT SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH SPEC. 203.09, EXCEPT THAT REQUIREMENTS FOR MOISTURE, DENSITY CONTROL, AND BENCHING ARE HEREBY WAIVED FOR WIDENED SHOULDERS WHICH DO NOT SUPPORT ANY PORTION OF THE NEW PAVEMENT OR SHOULDER.
CARE SHALL BE EXERCISED WHEN PLACING EMBANKMENT AROUND EXISTING DRAINAGE SYSTEMS. EMBANKMENT AROUND EXISTING DRAINAGE SYSTEMS SHALL BE PLACED AT THE DIRECTION OF THE PROJECT ENGINEER.
THE CONTRACTOR WILL PROVIDE STAKES AT 250' INTERVALS AT THE OUTSIDE EDGE OF PAVEMENT AND 500' INTERVALS AT THE MEDIAN EDGE OF PAVEMENT TO INSURE THAT SLOPES ARE CONSTRUCTED TO PLAN. (SEE SHEET 7).
COST OF THE STAKES TO BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 623 CONSTRUCTION LAYOUT STAKES.
COPIES OF CROSS SECTIONS ARE AVIABLE AT DISTRICT 5 OF THE O.D.O.T.
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY, AND IS AN ESTIMATED QUANTITY TO PERFORM THE WORK AS SHOWN ON SHEETS 4-7.

	(CITY, STATE & FED.)	(STATE & FED.)
ITEM 203 EMBANKMENT	2019 CU. YD.	9411 CU. YD.
ITEM 203 EXCAVATION, NOT INCLUDING EMBANKMENT CONSTRUCTION	537 CU. YD.	1648 CU. YD.

ITEM SPECIAL SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS, 705.04:

(SEE PROPOSAL NOTE)
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO PERFORM THE WORK AS DESCRIBED IN THE PROPOSAL NOTE FOR ITEM SPECIAL SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS, 705.04 AND AS DETAILED ON SHEET 14.

NOTE: AS PER SEQUENCE OF OPERATIONS THE CONTRACTOR WILL BE REQUIRED TO SAW ITEM 446 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20.

	(CITY, STATE & FED.)	(STATE & FED.)
ITEM SPECIAL SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS, 705.04	5,500 LIN. FT.	14,000 LIN. FT.

ITEM 617 WATER:

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO PERFORM THE WORK AS DESCRIBED IN SECTION 617.05 OF THE SPECIFICATIONS.
ITEM 617 WATER 8 M. GAL. (CITY, STATE & FED.) 18 M. GAL. (STATE & FED.)

ITEM 304 AGGREGATE BASE, AS PER PLAN:

MATERIALS FURNISHED FOR THIS ITEM SHALL EXCLUDE ALL SLAG EXCEPT GRANULATED SLAG OR CRUSHED AIR-COOLED BLAST FURNACE SLAG. THE MAXIMUM TOTAL PERCENT PASSING THE NO.200 SIEVE FOR 304 SHALL BE 8 PERCENT.
AT THE CONTRACTOR'S OPTION, CRUSHED CONCRETE OBTAINED FROM CONCRETE PAVEMENT ON THIS PROJECT OR PROJECTS CONSTRUCTED UNDER O.D.O.T. SPECIFICATIONS MAY BE USED FOR ITEM 304 CRUSHED AGGREGATE BASE. ALL CRUSHED CONCRETE PASSING THE NO. 4 SIEVE SHALL BE REPLACED BY MATERIAL OBTAINED FROM APPROVED SOURCES. THE RECYCLED CONCRETE PAVEMENT SHALL NOT CONTAIN MORE THAN 1.0% RECYCLED ASPHALT PAVEMENT. ALL OTHER REQUIREMENTS OF 304 AND 703.04 SHALL APPLY.

ITEM 201 CLEARING AND GRUBBING, AS PER PLAN:

IN ADDITION TO THE REQUIREMENTS OF ITEM 201, THE FOLLOWING REQUIREMENTS SHALL APPLY. THE EXISTING SLOPE AREAS WHERE EMBANKMENT IS TO BE MADE SHALL REQUIRE DISKING, OR A METHOD APPROVED BY THE ENGINEER, PRIOR TO PLACEMENT OF THE EMBANKMENT.

ALTHOUGH THERE ARE NO TREES AND/OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF EMBANKMENT, A LUMP SUM QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING, AS PER PLAN. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING, AS PER PLAN.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THIS PURPOSE.

	(CITY, STATE & FED.)	(STATE & FED.)
ITEM 201 CLEARING AND GRUBBING, AS PER PLAN	LUMP	LUMP

TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS:

REFERENCES TO SUPPLEMENTAL SPECIFICATIONS 857, 858, 861, 957, 958 AND 961 ON THE TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS IN THESE PLANS SHALL BE CONSIDERED TO READ AS RESPECTIVE REFERENCES TO ITEMS 630, 631, 633, 730, 731 AND 733 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS MANUAL.

ITEM 202 RAISED PAVEMENT MARKERS REMOVED FOR STORAGE:

THE RAISED PAVEMENT MARKERS REMOVED ON THIS JOB SHALL BE STORED ON THE JOB SITE, AND REMOVED BY STATE FORCES.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE PURPOSE.

	(STATE & FED.)
ITEM 202 RAISED PAVEMENT MARKERS REMOVED FOR STORAGE	240 EACH

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL:

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER, FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES:

		CITY, STATE & FEDERAL	STATE & FEDERAL
207	TEMPORARY SEEDING AND MULCHING	6,000 SQ. YD.	17,000 SQ. YD.
207	STRAW OR HAY BALES	65 EACH	170 EACH
659	COMMERCIAL FERTILIZER (AS PER ITEM 207.03)	0.27 TON	0.77 TON
659	WATER	13 M. GAL.	37 M. GAL.

ITEM 659 SEEDING AND MULCHING:

THE FOLLOWING QUANTITY WAS USED TO ESTIMATE THE AREAS FOR SEEDING AND MULCHING. THE FINAL AREA SHALL BE DETERMINED BY THE PROJECT ENGINEER.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

		CITY, STATE & FEDERAL	STATE & FEDERAL
ITEM 659 SEEDING AND MULCHING		29,703 SQ. YD.	83,647 SQ. YD.
ITEM 659 COMMERCIAL FERTILIZER	① (2.7 T. + 1.3 T. = 4.0 T.)	4.00 TON	11.30 TON
ITEM 659 AGRICULTURAL LIMING	② (7.5 T. + 3.8 T. = 11.3 T.)	13.37 TON	37.64 TON

CALCULATED FROM THE TOTAL SEEDING AND MULCHING ON THE GENERAL SUMMARY

ADD ① 1.3 ② 3.8 TONS FOR SECOND APPLICATION FOR TWO CONSTRUCTION SEASONS, AS PER 659.08.

SEEDING:

QUANTITIES FOR SEEDING ARE CALCULATED FOR THE SOIL AREAS FIVE (5) FEET OUTSIDE THE WORK LIMITS, AS SHOWN ON SHEET 7.

WATERING AND MOWING PERMANENT SEEDED AREAS:

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER TO PROMOTE THE GROWTH AND TO CARE FOR THE PERMANENT SEEDED AREA, AS PER 659.09.

	CITY, STATE & FEDERAL	STATE & FEDERAL
659 WATER	64 M. GAL.	180 M. GAL.
659 MOWING	70 M. SQ. FT.	190 M. SQ. FT.

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GENERAL NOTES

CONNECTION TO EXISTING PIPE

WHERE THE PLANS PROVIDE FOR PROPOSED CONDUIT TO BE CONNECTED TO, OR TO CROSS EITHER OVER OR UNDER AN EXISTING SEWER. 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 CONDUIT.

ITEM 630 REMOVAL OF GROUND MOUNTED SIGNS AND STORAGE, AS PER PLAN

THIS PAY ITEM IS USED FOR SIGNS TO BE RETURNED TO THE CITY OF NEWARK OR LICKING COUNTY AFTER REMOVAL. SIGNS INDICATED FOR REMOVAL AND STORAGE SHALL BE CAREFULLY DISMANTLED AND STORED ON THE PROJECT SITE BY THE CONTRACTOR FOR PICKUP BY THE PROPER JURISDICTION WHEN SIGNS ARE READY FOR PICKUP. DOCUMENTATION OF THESE TRANSFERS SHALL BE RETAINED FOR PROJECT RECORDS.

CITY OF NEWARK:	LICKING COUNTY:
CITY OF NEWARK ENGINEER MUNICIPAL BUILDING 40 WEST MAIN STREET NEWARK, OHIO 43055	LICKING COUNTY ENGINEER LICKING COUNTY ADMINISTRATION BUILDING 20 SOUTH 2ND STREET NEWARK, OHIO 43055
SIGNS: 3-S,A,B, 4-S, 5-S, 8-S, 9-S, 10-S, 11-S, 16-S, 17-S, 18-S 19-S, 22-S, 23-S, 24-S,A,B & 25-S.	SIGNS: 35-S,B, 44-S, 50-S,B, 51-S,B 64-S,B & 72-S.

603 4" CONDUIT TYPE B, 707.17 NON-PERFORIATED, ASTM 3034 SDR 35 OR SUPPLEMENTAL SPECIFICATION 931, AS PER PLAN.

AS A PART OF THIS CONTRACT, IT WILL BE NECESSARY TO INSTALL A 4" CONDUIT UNDER THE EXISTING PAVEMENT AT STA. 268+30 BY THE METHOD OF BORING. AN 8" STEEL CASING PIPE SHALL BE PROVIDED FOR THE FULL 28'. THE STEEL CASING PIPE SHALL MEET THE REQUIREMENTS OF SUPPLEMENTAL SPECIFICATION 915 SECTION 6. NO TRENCH EXCAVATION OR EQUIPMENT SHALL BE CLOSER THAN 2 FEET TO THE EDGE OF PAVEMENT. TRENCHES SHALL BE ADEQUATELY SUPPORTED AND THE SPECIFICATION REQUIREMENT FOR FOR CLASS B BEDDING SHALL BE DISREGARDED.

ITEM 605 AGGREGATE DRAINS

AGGREGATE DRAINS SHALL BE PLACED AT THE MIDPOINT OF THE RADII AND AT THE DOWN GRADE END OF THE TURN LANE.

DAYTON ROAD LEFT - MIDPOINT AND STA.265+51 LT. =	18 LIN.FT.
C.R.585 (E. MAIN ST.) - MIDPOINT AND STA.25+14 LT. =	18 LIN.FT.
C.R.585 (MARNE ROAD) - MIDPOINT AND STA.327+98 LT. =	18 LIN.FT.
C.R.668 (BROWNSVILLE ROAD) - MIDPOINT AND STA.31+84 RT. =	18 LIN.FT.
C.R.668 (BROWNSVILLE ROAD) - MIDPOINT AND STA.439+48 LT. =	18 LIN.FT.

	CITY, STATE & FEDERAL	STATE & FEDERAL
ITEM 605 AGGREGATE DRAINS	18 LIN.FT.	72 LIN.FT.

THE ABOVE QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 202 PAVEMENT EDGE DRAIN REMOVED:

WORK UNDER THIS ITEM SHALL BE FOR THE REMOVAL OF THE EXISTING PAVEMENT EDGE DRAIN MEETING ALL THE REQUIREMENTS OF ITEM 202.04 OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

ITEM SPECIAL, LAW ENFORCEMENT OFFICER WITH PATROL CAR

IN ADDITION TO THE REQUIREMENTS OF ITEM 614, A UNIFORMED OFF DUTY STATE HIGHWAY PATROLMAN OR CITY OF NEWARK PATROL OFFICER WITH OFFICIAL PATROL CAR WITH EMERGENCY FLASHIER OPERATING,SHALL BE PROVIDED DURING ANY INTERMITTENT FIRST DAY SET-UP PERIOD AND LAST DAY TEARDOWN PERIOD. THIS REQUIREMENT DOES NOT PRECLUDE THE CONTRACTORS USE OF STATE HIGHWAY PATROLMAN FOR OTHER PURPOSES IN THE PROJECT AREA. HOWEVER WHERE SUCH USAGE IS AT THE OPTION OF THE CONTRACTOR, PAYMENT FOR THE STATE HIGHWAY PATROLMAN'S SERVICES INVOLVED SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC.
INFORMATION REGARDING ARRANGEMENTS AND PAYMENTS BY THE CONTRACTORS FOR SPECIAL DUTY PATROL SERVICES MAY BE OBTAINED BY CONTACTING THE OHIO HIGHWAY PATROL, 660 EAST MAIN STREET, COLUMBUS, OHIO, TELEPHONE (614) 466-2660 OR THE CITY OF NEWARK, 40 WEST MAIN STREET, NEWARK, OHIO, TELEPHONE (614) 349-6717.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS PURPOSE.

ITEM SPECIAL LAW ENFORCEMENT OFFICER WITH PATROL CAR

CITY, STATE & FEDERAL	STATE & FEDERAL
32 HOURS	68 HOURS

ITEM 616 DUST CONTROL

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO PERFORM THE WORK AS DESCRIBED IN ITEM 616 DUST CONTROL.

	CITY, STATE & FEDERAL	STATE & FEDERAL
ITEM 616 WATER	10 M.GAL.	50 M.GAL.
ITEM 616 CALICUM CHLORIDE	2 TON	8 TON

REPLACEMENT DRUMS

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER, AND SHALL BE PAID FOR UNDER ITEM SPECIAL REPLACEMENT DRUMS.
PAYMENT FOR EACH DRUM SHALL INCLUDE: (1) THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM AND (2) PROVIDING; MAINTAINING AND REMOVING THE REPLACEMENT DRUMS IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS OF THE ORIGINAL DRUMS.
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO PERFORM THE WORK AS DESCRIBED ABOVE.

	CITY, STATE & FEDERAL	STATE & FEDERAL
ITEM SPECIAL REPLACEMENT DRUMS	10 EACH	30 EACH

COOPERATION BETWEEN CONTRACTORS

THE STATE MAY HAVE CONTRACTS TO IMPROVE THE ROADWAY WITHIN THE LIMITS OF THIS PROJECT. IT IS PERTINENT THAT THIS CONTRACTOR COOPERATE FULLY WITH THESE CONTRACTORS AS OUTLINED IN SECTION 105.07 OF THE SPECIFICATIONS.

JOINT SEALERS

ALL REFERENCES TO 705.01 OR 705.02, APPEARING ON STANDARD DRAWINGS OR ON THE PLANS, SHALL BE CONSIDERED TO READ 705.04.

FENCE LENGTHS

THE LENGTH OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENT FOR THE FINAL QUANTITIES SHALL BE MADE IN ACCORDANCE WITH ITEM 607.

ITEM 614 WORK ZONE SPEED LIMIT SIGN

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO PERFORM THE WORK AS DESCRIBED IN THE PROPOSAL NOTE FOR ITEM 614 WORK ZONE SPEED LIMIT SIGN.

	CITY, STATE & FEDERAL	STATE & FEDERAL
ITEM 614 WORK ZONE SPEED LIMIT SIGN	4 EACH	22 EACH

ITEM 201 CLEARING AND GRUBBING

WORK UNDER THIS ITEM SHALL BE WITHIN THE LIMITS OF THE RIGHT OF WAY UP TO TWO (2') OUTSIDE AND THREE (3') INSIDE OF THE NEW FENCE AND SHALL CONSIST OF THE FOLLOWING:

(1) THE REMOVAL OF ALL TREES, STUMPS, AND BRUSH TO GROUND LEVEL.
(2) THE REMOVAL OF ALL LITTER.
(3) MOWING OF ALL VEGETATION TO A HEIGHT BETWEEN 3" AND 5".
(4) THE REMOVAL OF ANY PRIVATE FENCE LINES THAT ARE WITHIN THE CONSTRUCTION LIMITS OF THE PROPOSED RIGHT OF WAY FENCE. WHERE A PRIVATE FENCE LINE CROSSES THE RIGHT OF WAY LINE, IT SHALL BE CUT AND ENOUGH REMOVED TO PERMIT THE NEW FENCE TO BE BUILT.
(5) ALL REMOVED MATERIALS SHALL BE DISPOSED OF AS PER 201.01 OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS PURPOSE.
ITEM 201 CLEARING AND GRUBBING (CITY, STATE & FEDERAL) LUMP (STATE & FEDERAL) LUMP

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

TREE SIZES	CITY, STATE & FEDERAL	STATE & FEDERAL
18"	72 EACH	99 EACH
30"	1 EACH	6 EACH
12" STUMPS	19 EACH	

THE ABOVE IS APPROXIMATE AND THE STATE OF OHIO RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES OR STUMPS OUTSIDE OF 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 201, CLEARING AND GRUBBING.

LOCATING PROPOSED RIGHT-OF-WAY FENCE

ALL LOCATIONS OF EXISTING AND PROPOSED RIGHT OF WAY FENCE AS SHOWN ON SHEET 104 WITH A Ⓛ MARK SHALL BE REFERENCED BEFORE REMOVAL.
THE EXISTING FENCE POSTS SHALL BE REFERENCED BY A METHOD SATISFACTORY TO THE PROJECT ENGINEER TO ASSURE THAT THE PROPOSED FENCE POST WILL BE ERECTED AT THE SAME LOCATION AS THE EXISTING.
ALL WORK AS DESCRIBED ABOVE SHALL BE INCLUDED IN WITH THE LUMP SUM BID FOR ITEM 623 CONSTRUCTION LAYOUT STAKES.

ITEM 202 FENCE REMOVED FOR STORAGE, AS PER PLAN

ALL EXISTING CHAIN LINK FENCE REMOVED WITHIN THE CITY LIMITS OF NEWARK BY THE CONTRACTOR SHALL BE REMOVED AND STORED ON THE PROJECT SITE BY HIM TO BE PICKED UP BY THE CITY OF NEWARK FORCES.

ITEM 202 FENCE REMOVED

ALL EXISTING FENCE REMOVED OUTSIDE THE CITY LIMITS OF NEWARK SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED BY HIM.

STREAM CROSSINGS (TYPE 1, TYPE 2 OR TYPE 3)

ALL STREAM CROSSINGS AS SHOWN ON SHEETS 99 TO 110 AS TYPE 1, TYPE 2 OR TYPE 3 MAY BE ADJUSTED TO MEET FIELD CONDITIONS.
THE FINAL TYPE OF STREAM CROSSING SHALL BE DETERMINED BY THE PROJECT ENGINEER AT THE TIME OF CONSTRUCTION.

END POST ASSEMBLY, INTERMEDIATE POST ASSEMBLY, CORNER POST ASSEMBLY, AND BRACE AND TRUSS ASSEMBLY

THE STATIONS SHOWN ON THE PLAN FOR END POST ASSEMBLY, INTERMEDIATE ANCHOR POST ASSEMBLY, CORNER POST ASSEMBLY, AND BRACE AND TRUSS ASSEMBLY MAY BE ADJUSTED TO MEET THE EXISTING FIELD CONDITIONS, AS DIRECTED BY THE PROJECT ENGINEER.

FENCE GROUNDING

OVERHEAD ELECTRIC POWER LINES OR TRANSMISSION LINES WHICH CROSS THE RIGHT OF WAY FENCE SHALL BE GROUNDED IN ACCORDANCE WITH STANDARD DRAWING HL-50.11.
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO PERFORM THE WORK AS DESCRIBED ABOVE.

ITEM 625 GROUND ROD	12 EACH (CITY, STATE & FEDERAL) 20 EACH (STATE & FEDERAL

GENERAL NOTES

ITEM 451 12" REINFORCED CONCRETE PAVEMENT, AS PER PLAN (SEE PROPOSAL NOTE)

IN LIEU OF THE REQUIREMENTS OF 451.08 (d) AND STANDARD DRAWING BP-4 THE WIDTH OF THE CONTRACTION JOINTS SHALL BE 1/2"± 1/16"± AND THE DEPTH OF THE JOINT SHALL BE A MINIMUM OF 2 1/4".

PREFORMED ELASTIC JOINT SEALER SHALL BE USED AND SHALL MEET THE REQUIREMENTS OF 705.11 AND HAVE A MINIMUM WIDTH OF 1 1/4". DRAWINGS AND SPECIFICATIONS OF THE MATERIAL PROPOSED FOR USE SHALL BE SUBMITTED TO THE DIRECTOR FOR REVIEW AND APPROVAL.

IN LIEU OF THE REQUIREMENTS OF ITEM 451 REINFORCED CONCRETE PAVEMENT AND STANDARD DRAWING BP-4 THE MAXIMUM JOINT SPACING SHALL BE 21'.

DOWEL INSTALLING MACHINES WILL NOT BE PERMITTED ON THIS PROJECT. PROPORTIONING AND AGGREGATE SIZE SHALL MEET THE REQUIREMENTS OF THE PROPOSAL NOTE FOR ITEM 451 PORTLAND CEMENT CONCRETE PAVEMENT.

MESH SHALL BE RECTANGULAR AND CENTERED IN EACH PANEL SO AS TO MAINTAIN A CLEARANCE OF 3(± 1/2) INCHES FROM THE END OF THE NEAREST DOWEL. THE MESH SHALL CONSIST OF W8.5 OR D8.5 LONGITUDINAL WIRES SPACED AT 6" CENTER TO CENTER AND W4 OR D4 TRANSVERSE WIRES SPACED AT 12" CENTER TO CENTER.

THE COST OF ALL OF THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR: ITEM 451 REINFORCED CONCRETE PAVEMENT, AS PER PLAN.

604 NO.3-A CATCH BASIN, AS PER PLAN

THE REQUIREMENTS OF ITEM 604 SHALL GOVERN THE CONSTRUCTION OF THE CATCH BASIN, EXCEPT THAT THE CATCH BASIN SHALL BE PRECAST OR CAST-IN-PLACE CONCRETE. BRICK OR CONCRETE BLOCK WILL NOT BE PERMITTED.

604 NO.5 & 8 CATCH BASIN, AS PER PLAN

FOR DETAILS OF THE AS PER PLAN PORTION OF THIS ITEM SEE SHEET 125.

STANDARDS

THE STANDARD CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION DATED JANUARY 1, 1991, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS AND STANDARD CONSTRUCTION DRAWING LISTED BELOW SHALL GOVERN THIS IMPROVEMENT.

OHIO DEPARTMENT OF TRANSPORTATION STANDARDS:

TC 21.20	1-20-84	HL 20.11	5-01-87
TC 41.41	8-02-79	HL 30.11	5-01-87
TC 42.20	3-26-79	HL 30.22	5-01-87
TC 52.20	4-03-79	HL 50.11	5-01-87
TC 81.10	1-20-84		
TC 82.10	8-29-84		
TC 83.10	1-20-84		
TC 84.20	1-20-84		
TC 85.20	1-20-84		

POWER SUPPLY FOR TRAFFIC SIGNALS

ELECTRIC POWER SHALL BE OBTAINED FROM THE OHIO POWER COMPANY AT THE LOCATION INDICATED ON THE PLANS. POWER SUPPLIED SHALL BE 120 VOLTS.

ITEM 632 SIGN FLASHER ASSEMBLY, PTSWF, AS PER PLAN

THE PTSWF SIGN SHALL BE A COMPLETE WORKING ASSEMBLY INCLUDING:

18' GALVANIZED STEEL LUMINAIRE POLE.
AT X BASE.
TWO (2) 12" SIGNAL SECTIONS WITH 60 WATT LAMPS AND HARDWARE.
100 WATT SIGN LIGHTING MERCURY VAPOR LUMINAIRE WITH LAMP AND MOUNTING HARDWARE.
ALL WIRING FROM CONNECTOR KITS UPWARD.
72" DIAMOND SHAPED PLYWOOD SIGN, 730.25, 3/4" THICK, WITH MOUNTING HARDWARE AND BRACKETS.
TYPE VIII CONNECTOR KITS.

COVERING OF "PTSWF" SIGNS

THE "PREPARE TO STOP WHEN FLASHING" (PTSWF) SIGNS SHALL BE COVERED WHEN NOT CONNECTED TO AN OPERATING TRAFFIC SIGNAL.

PAYMENT FOR ITEM 621 SIGN FLASHER ASSEMBLY, AS PER PLAN SHALL BE MEASURED AS A COMPLETE UNIT, IN PLACE, TESTED AND ACCEPTED.

633 CONTROLLER, ACTUATED, 4 PHASE, SOLID STATE, DIGITAL MICROPROCESSOR, AS PER PLAN.

IN ADDITION TO THE REQUIREMENTS OF ODOT SPECIFICATION 633, AUXILIARY EQUIPMENT SHALL BE PROVIDED TO OPERATE THE "PTSWF" SIGNS, AS PER PLAN. THIS AUXILIARY EQUIPMENT SHALL BE SET TO HAVE THE "PTSWF" SIGNS START FLASHING 11 SECONDS WITH VARIABLE ADJUSTMENT CAPABILITY FROM 0 TO 20 SECONDS BEFORE THE TERMINATION OF PHASE 1 GREEN. THE TWO BEACONS OF EACH SIGN SHALL FLASH SIMULTANEOUSLY. SEPARATE FLASH UNITS SHALL BE PROVIDED FOR THE "PTSWF" CIRCUITS THAT ARE INDEPENDENT OF THE FLASHIER UNIT INCIDENTAL TO THE CONTROLLER. THE BEACONS FOR THE "PTSWF" SIGNS SHALL NOT BE ACTIVATED WHEN THE SIGNAL IS IN A FLASH MODE.

THE CONTOLLER AND CABINET FURNISHED SHALL BE A FULL 4 PHASE UNIT ALTHOUGH ONLY 3 PHASES ARE SHOWN FOR USAGE AT THIS TIME. IT IS THE INTENT OF THIS SPECIFICATION THAT WHEN ADDITIONAL PHASES ARE NEEDED ONLY NEW FIELD WIRING WILL NEED TO BE INSTALLED TO THE CONTROLLER TO MAKE THE PHASE OPERATIONAL. ALL PHASE MODULES, LOAD SWITCHES, RELAYS, CONFLICT MONITOR, LOOP DETECTOR AMPLIFIER AND HARNESSES, ETC., FOR A 4 PHASE OPERATION SHALL BE SUPPLIED AND WIRED INTO THE CABINET SUPPLIED.

PAYMENT FOR ITEM 633 CONTROLLER ACTUATED, 4 PHASE, SOLID STATE DIGITAL, MICROPROCESSOR, AS PER PLAN WILL BE AT THE CONTRACT BID PRICE PER EACH, COMPLETE AND IN PLACE INCLUDING ALL CONNECTIONS, TESTED AND ACCEPTED.

ITEM 631 SIGN FLASHER ASSEMBLY, AS PER PLAN.

THE SIGN FLASHER ASSEMBLY SHALL INCLUDE A PAIR OF FLASHING BEACONS FOR PLACEMENT ABOVE AND BELOW THE "PREPARE TO STOP WHEN FLASHING", SIGN, MERCURY VAPOR LUMINAIRE WITH SUPPORT ARM AND ALL MOUNTING HARDWARE AS SHOWN ON SHEET 97. A BEACON SHALL CONSIST OF A SINGLE 12 INCH SIGNAL HEAD AND YELLOW LENS WITH NOMINAL 60 WATT LAMP COMPLYING WITH THE REQUIREMENTS OF ITEM 632. ITEM 631 SIGN FLASHER ASSEMBLY, AS PER PLAN SHALL BE MEASURED AS A COMPLETE UNIT IN PLACE, TESTED AND ACCEPTED.

GUARDRAIL REPLACEMENT

NO HAZARD SHALL BE LEFT UNPROTECTED EXCEPT FOR THE ACTUAL TIME NECESSARY TO REMOVE, GRADE AND REINSTALL GUARDRAIL IN A CONTINUOUS OPERATION. THE REMOVAL OF ALL GUARDRAIL SHALL AT ALL TIMES BE AS DIRECTED BY THE PROJECT ENGINEER. NO GUARDRAIL SHALL BE REMOVED UNTIL THE REPLACEMENT MATERIAL IS ON THE PROJECT SITE, READY FOR INSTALLATION. FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE DEEMED SUFFICIENT CAUSE TO ORDER WORK SUSPENDED ON THIS PROJECT UNTIL SUCH TIME THAT THE PROJECT ENGINEER IS ASSURED OF SAID COMPLIANCE.

ITEM 614 MAINTAINING TRAFFIC

TRAFFIC SHALL BE MAINTAINED AS PER THE DETAIL SHEETS AND SPECIFICATIONS AND AS OUTLINED IN THE CONSTRUCTION AND MAINTENANCE OPERATIONS SECTIONS OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. LATEST REVISION. IN ADDITION, THE FOLLOWING REQUIREMENTS SHALL APPLY:

THE CONTRACTOR SHALL SUBMIT, IN WRITING A SCHEDULE OF OPERATIONS TO THE DISTRICT DEPUTY DIRECTOR AND RECEIVE APPROVAL BEFORE WORK IS STARTED ON THE PROJECT.

BEFORE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF A PERSON OR PERSONS WHO CAN BE CONTACTED 24 HOURS A DAY BY THE OHIO DEPARTMENT OF TRANSPORTATION AND ALL INTERESTED POLICE AGENCIES. THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR REPLACING NECESSARY TRAFFIC CONTROL DEVICES IMMEDIATELY, AS PER 614.03 (C).

THE CONTRACTOR SHALL ARRANGE HIS OPERATIONS SO THAT NO WORK WHICH COULD DISRUPT THE NORMAL FLOW OF TRAFFIC SHALL BE PERFORMED ON THE PROJECT FROM NOVEMBER 15 TO APRIL 15. DURING THIS TIME TRAFFIC SHALL BE RETURNED TO BOTH EASTBOUND AND WESTBOUND LANES AND ALL TEMPORARY TRAFFIC CONTROL SHALL BE REMOVED.

ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC BETWEEN NOVEMBER 15 AND APRIL 15. NOVEMBER 15 SHALL BE CONSIDERED TO CONSTITUTE AN INTERIM COMPLETION DATE AND LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH SECTION 108.07 OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS FOR EACH CALENDAR DAY THAT ALL LANES ARE NOT OPEN AND AVAILABLE TO TRAFFIC.

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR THE PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL REQUIRED TRAFFIC CONTROL DEVICES SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES. THE LENGTH AND DURATION OF RESTRICTED TRAFFIC ZONES SHALL BE KEPT TO A MINIMUM CONSISTENT WITH THE SPECIFICATION REQUIREMENTS FOR PROTECTION OF COMPLETED COURSES AND AS OUTLINED IN THE SEQUENCE OF OPERATIONS.

PROSECUTION OF WORK ON DAYTON ROAD
(OFFSET LEFT TURN LANE & RIGHT TURN LANE BOTH EASTBOUND & WESTBOUND)
(TRAFFIC CONTROL SIGNAL AND ALL OTHER INCIDENTAL ITEMS)

OFFSET LEFT TURN LANE AND RIGHT TURN LANE BOTH EASTBOUND AND WESTBOUND AT DAYTON ROAD SHALL BE CONSTRUCTED BEFORE NOVEMBER 15,1991. SHOULD THE CONTRACTOR FAIL TO COMPLETE THE REQUIRED WORK RELATIVE TO EACH TURN LANE WITHIN THE ALLOTTED TIME HE SHALL BE SUBJECT TO LIQUIDATED DAMAGES AS PER CONSTRUCTION AND MATERIALS SPECIFICATION 108.07 PER DAY FOR EACH CALENDAR DAY THAT THE TURN LANE AND TRAFFIC CONTROL IS NOT COMPLETE AS A RESULT OF UNFINISHED WORK.

IT IS OF PARAMOUNT IMPORTANCE THAT THE CONTRACTOR EXPEDITE HIS WORK TO MEET THESE DATES USING WHATEVER MEASURES THAT ARE NECESSARY INCLUDING BUT NOT LIMITED TO: PERFORMING WORK BY MULTIPLE CREWS, MULTIPLE SHIFTS, OVERTIME AND PREMIUMS FOR OVERTIME, ETC. THERE SHALL NOT BE ANY EXTENSIONS DUE TO WEATHER OR MATERIAL DELAYS WHATSOEVER.

DRUMS FOR CLOSING ANY LANES TO TRAFFIC SHALL BE PROPERLY REFLECTORIZED PLASTIC DRUMS AND WEIGHTED.

ALL WORK SHALL BE COMPLETED ON THE CLOSED LANE, AS DESCRIBED IN THE SEQUENCE OF OPERATIONS, BEFORE IT IS OPENED TO TRAFFIC UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL ARRANGE HIS OPERATIONS SO AS TO PREVENT ANY INTERFERENCE TO THE CONTINUOUS FLOW OF TRAFFIC. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL DEVICES TO CLOSE THE VARIOUS CROSSOVERS. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE DETOUR SIGNING OF ALL COUNTY ROUTES AND THE CITY OF NEWARK WILL BE RESPONSIBLE FOR ALL DETOUR SIGNING OF THE CITY STREETS.

AFTER WORK ON THE CROSSOVERS HAS BEEN COMPLETED AND TRAFFIC RETURNED TO ITS ORIGINAL PATTERN THE CONTRACTOR SHALL REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES. THE CONTRACTOR SHALL ARRANGE THE CROSSOVER CLOSURES AS PER SEQUENCE OF CONSTRUCTION. DURING THE TIME OF THE CROSSOVER CLOSURE THE CONTRACTOR SHALL COMPLETE ALL WORK AS DESCRIBED IN THE PLANS. UNTIL THE DETOURS ARE PLACED INTO EFFECT, TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO THE CITY OF NEWARK SAFETY DIRECTOR, PHONE NO. 614-349-6658 AND THE LICKING COUNTY HIGHWAY SUPERINTENDENT, PHONE NO. 614-349-6530 AT LEAST 14 CALENDAR DAYS PRIOR TO THE CLOSING OF A CROSSOVER.

FOR SAFETY PURPOSES NO EQUIPMENT OR MATERIAL SHALL BE PARKED OR STORED WITHIN THIRTY (30) FEET FROM THE EDGE OF THE PAVEMENT OF THE TRAVELING LANES.

TEMPORARY FEATHERS, USING ITEM 404 WILL BE REQUIRED AT INTERSECTIONS, BRIDGES, END OF RUNS OR AT OTHER POINTS DESIGNATED BY THE ENGINEER. THEY SHALL BE INSTALLED ACCORDING TO BP-5 AND REMOVED WHEN NO LONGER REQUIRED. THE COST OF THESE SHALL BE INCLUDED IN ITEM 404 BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC, SEE SHEET 8.

TRAFFIC SHALL NOT BE EXPOSED TO PAVEMENT DROP OFFS WITHOUT APPROPRIATE CHANNELIZING DEVICES.

ANY CONFLICTING SIGNS WHETHER INSIDE OR OUTSIDE THE WORK LIMITS SHALL BE REMOVED OR COVERED AND TEMPORARY SIGNS ERECTED WHEN APPLICABLE BY THE CONTRACTOR.

THE METHOD USED TO COVER ANY EXISTING SIGNS SHALL NOT BE ATTACHED BY TYPE OR ANY OTHER METHOD THAT WILL MAR THE FACE OF THE EXISTING SIGNS.

THE ENGINEER SHALL RECORD INSTALLATION AND REMOVAL OF PROPOSED SIGNS, COVERED OR REMOVED AND UNCOVERED OR REERECTED SIGNS IN THE PROJECT DIARY.

IF THE CONTRACTOR SO ELECTS, HE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS ARE 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.

ALL TEMPORARY OR PERMANENT PAVEMENT MARKINGS SHALL BE IN PLACE BEFORE ANY PAVEMENT IS OPENED TO TRAFFIC.

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE PURPOSE.

ITEM 614 MAINTAINING TRAFFIC (CITY, STATE & FEDERAL) LUMP, (STATE & FEDERAL) LUMP

SEQUENCE OF OPERATIONS:

PHASE 1

EASTBOUND & WESTBOUND

DAYTON ROAD

STEP (1) INSTALL NECESSARY UNIFORM TRAFFIC CONTROL DEVICES FOR CLOSING PASSING LANES BOTH EASTBOUND AND WESTBOUND MAINTAINING TRAFFIC IN THE DRIVING LANES.
CROSSOVER SHALL BE CLOSED TO TRAFFIC.

STEP (2) CONSTRUCT OFFSET LEFT TURN LANES AND CROSSOVERS FOR DAYTON ROAD EASTBOUND AND WESTBOUND AS PER TYPICAL SECTION AND PLAN DETAIL SHEETS.
CONSTRUCT TEMPORARY FEATHER AS DIRECTED BY THE PROJECT ENGINEER.

PHASE 2

DAYTON ROAD

EASTBOUND & WESTBOUND

STEP (1) ADJUST NECESSARY UNIFORM TRAFFIC CONTROL DEVICES FOR CLOSING DRIVING LANE, CLOSE DRIVING LANE AND MAINTAIN TRAFFIC IN THE PASSING LANE.

STEP (2) COMPLETE DEVELOPMENT OF RIGHT TURN LANE, SHOULDERS AND OTHER INCIDENTALS AS PER TYPICAL SECTIONS AND PAVEMENT DETAIL SHEETS.
CONSTRUCT TEMPORARY FEATHERS AS DIRECTED BY THE PROJECT ENGINEER.
APPROACHES SHALL BE CLOSED TO TRAFFIC.
NOTE: AFTER PHASE 2 CONSTRUCTION DAYTON ROAD CROSSOVER AND APPROACHES SHALL BE OPEN TO TRAFFIC FOR THE REMAINDER OF THE PROJECT.

PHASE 3

EASTBOUND

BEGIN PROJECT TO END PROJECT

STEP (1) ADJUST NECESSARY UNIFORM TRAFFIC CONTROL DEVICES FOR CLOSING PASSING LANE, CLOSE PASSING LANE AND MAINTAIN TRAFFIC IN THE DRIVING LANE.

STEP (2) PLANE PASSING LANE AS DETAILED. WORK IN THE PASSING LANE SHALL BE SUSPENDED, AT THE DIRECTION OF THE PROJECT ENGINEER, IN ORDER TO MAINTAIN TRAFFIC AT THE CROSSOVERS. AFTER COMPLETION OF STEP 5 AND TEMPORARY FEATHERS CONSTRUCTED, THE CONTRACTOR SHALL ADJUST TRAFFIC AND COMPLETE ALL WORK ON THE PASSING LANE.

STEP (3) REPAIR EXISTING PAVEMENT AS PER ITEM 255, FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT.

STEP (4) INSTALL NEW ITEM 605 6" PIPE UNDERDRAINS AS CALLED FOR IN THE PLANS FOR THE PASSING LANE.

STEP (5) COMPLETE DEVELOPMENT OF PASSING LANE, SHOULDERS AND OTHER INCIDENTALS AS PER TYPICAL SECTIONS AND PAVEMENT DETAIL SHEETS, EXCLUDING 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20 AND FINAL 1 1/4" ITEM 617 COMPACTED AGGREGATE, TYPE A.

NOTE: AFTER ALL NECESSARY TRAFFIC CONTROL DEVICES HAVE BEEN INSTALLED AND TRAFFIC MOVED TO THE DRIVING LANE, WORK ON THE STRUCTURE AND THE APPROACH WORK TO THE STRUCTURE MAY BE PERFORMED AT THE OPTION OF THE CONTRACTOR. FOR CLOSURE DETAILS SEE SHEET 77.

EASTBOUND & WESTBOUND:

NOTE: AFTER ALL NECESSARY TRAFFIC CONTROL DEVICES HAVE BEEN INSTALLED AND TRAFFIC MOVED TO THE DRIVING LANE BOTH EASTBOUND AND WESTBOUND, WORK ON THE OFFSET LEFT TURN LANES AT C.R.585 AND C.R.668 MAY BE PERFORMED AT THE OPTION OF THE CONTRACTOR.

CROSSOVERS SHALL BE CLOSED TO TRAFFIC WHEN CONSTRUCTING THE OFFSET LEFT TURN LANE. AFTER THE OFFSET LEFT TURN LANE HAS BEEN CONSTRUCTED, EXCLUDING 1 1/4" ITEM 446 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20 AND ITEM 617 COMPACTED AGGREGATE, TYPE A (EASTBOUND ONLY). THE CONTRACTOR SHALL RETURN TRAFFIC TO THE CROSSOVER, AND TRAFFIC CONTROL DEVICES REMOVED FROM THE WESTBOUND LANES.

PHASE 4

BEGIN PROJECT TO END PROJECT

EASTBOUND:

STEP (1) ADJUST NECESSARY UNIFORM TRAFFIC CONTROL DEVICES FOR CLOSING DRIVING LANE, CLOSE DRIVING LANE AND MAINTAIN TRAFFIC IN THE PASSING LANE.

STEP (2) PLANE DRIVING LANE AS DETAILED. WORK IN THE DRIVING LANE SHALL BE SUSPENDED, AT THE DIRECTION OF THE PROJECT ENGINEER, IN ORDER TO MAINTAIN TRAFFIC AT THE INTERSECTING APPROACHES.
AFTER COMPLETION OF STEP 5 AND TEMPORARY FEATHERS CONSTRUCTED, THE CONTRACTOR SHALL ADJUST TRAFFIC AND COMPLETE ALL WORK ON THE DRIVING LANE.

STEP (3) REPAIR EXISTING PAVEMENT AS PER ITEM 255, FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT.

STEP (4) INSTALL NEW ITEM 605 6" PIPE UNDERDRAINS AS CALLED FOR IN THE PLANS FOR DRIVING LANE.

STEP (5) COMPLETE DEVELOPMENT OF DRIVING LANE, SHOULDERS AND OTHER INCIDENTALS AS PER TYPICAL SECTIONS AND PAVEMENT DETAIL SHEETS, INCLUDING 1 1/4" ITEM 446 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20 AND ITEM 617 COMPACTED AGGREGATE, TYPE A.
TRAFFIC AT THE APPROACHES SHALL BE MAINTAINED AT ALL TIMES.

NOTE: AFTER ALL NECESSARY TRAFFIC CONTROL DEVICES HAVE BEEN INSTALLED AND TRAFFIC MOVED TO THE PASSING LANE, WORK ON THE STRUCTURE AND THE APPROACH WORK TO THE STRUCTURE MAY BE PERFORMED AT THE OPTION OF THE CONTRACTOR. FOR CLOSURE DETAILS SEE SHEET 77.

EASTBOUND LANES: AFTER ALL NECESSARY TRAFFIC CONTROL DEVICES HAVE BEEN INSTALLED AND TRAFFIC MOVED TO THE PASSING LANE WORK ON THE RIGHT TURN LANES AT THE INTERSECTING APPROACHES MAY BE PERFORMED AT THE OPTION OF THE CONTRACTOR, INCLUDING 1 1/4" ITEM 446 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20 AND ITEM 617 COMPACTED AGGREGATE, TYPE A.

WESTBOUND LANES: AFTER ALL NECESSARY UNIFORM TRAFFIC CONTROL DEVICES HAVE BEEN INSTALLED AND TRAFFIC MOVED TO THE PASSING LANE, WORK ON THE RIGHT TURN LANE AT INTERSECTING APPROACHES MAY BE PERFORMED AT THE OPTION OF THE CONTRACTOR, INCLUDING 1 1/4" ITEM 446 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20 AND ITEM 617 COMPACTED AGGREGATE, TYPE A. AT NO TIME SHALL WORK ON THE RIGHT TURN LANES BE PERFORMED IN CONJUNCTION WITH THE WESTBOUND OFFSET LEFT TURN LANES. TRAFFIC AT THE APPROACHES SHALL BE MAINTAINED AT ALL TIMES.

PHASE 5

BEGIN PROJECT TO END PROJECT

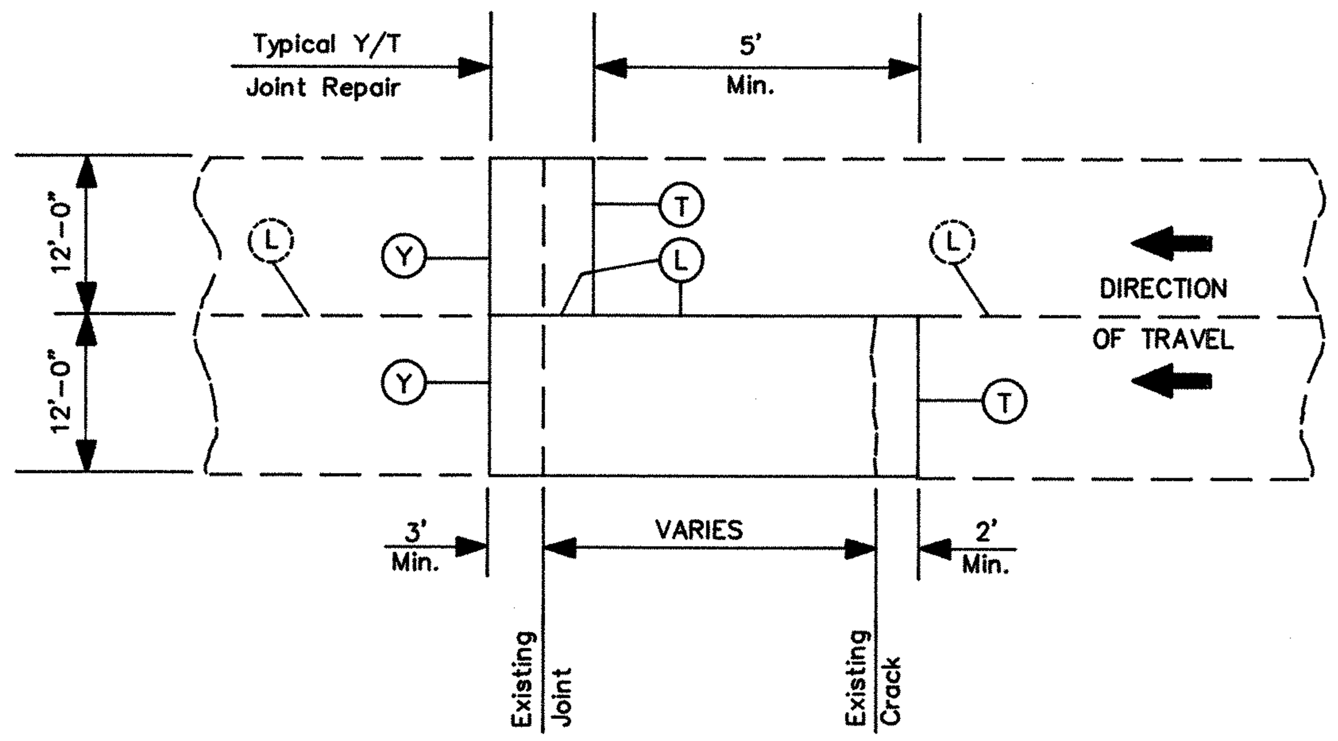
EASTBOUND:

STEP (1) ADJUST NECESSARY UNIFORM TRAFFIC CONTROL DEVICES FOR CLOSING PASSING LANE, CLOSE PASSING LANE AND MAINTAIN TRAFFIC IN THE DRIVING LANE.

STEP (2) CONSTRUCT FINAL 1 1/4" ITEM 446 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20 AND 1 1/4" ITEM 617 COMPACTED AGGREGATE, TYPE A IN THE PASSING LANE.

SPECIAL DETAILS

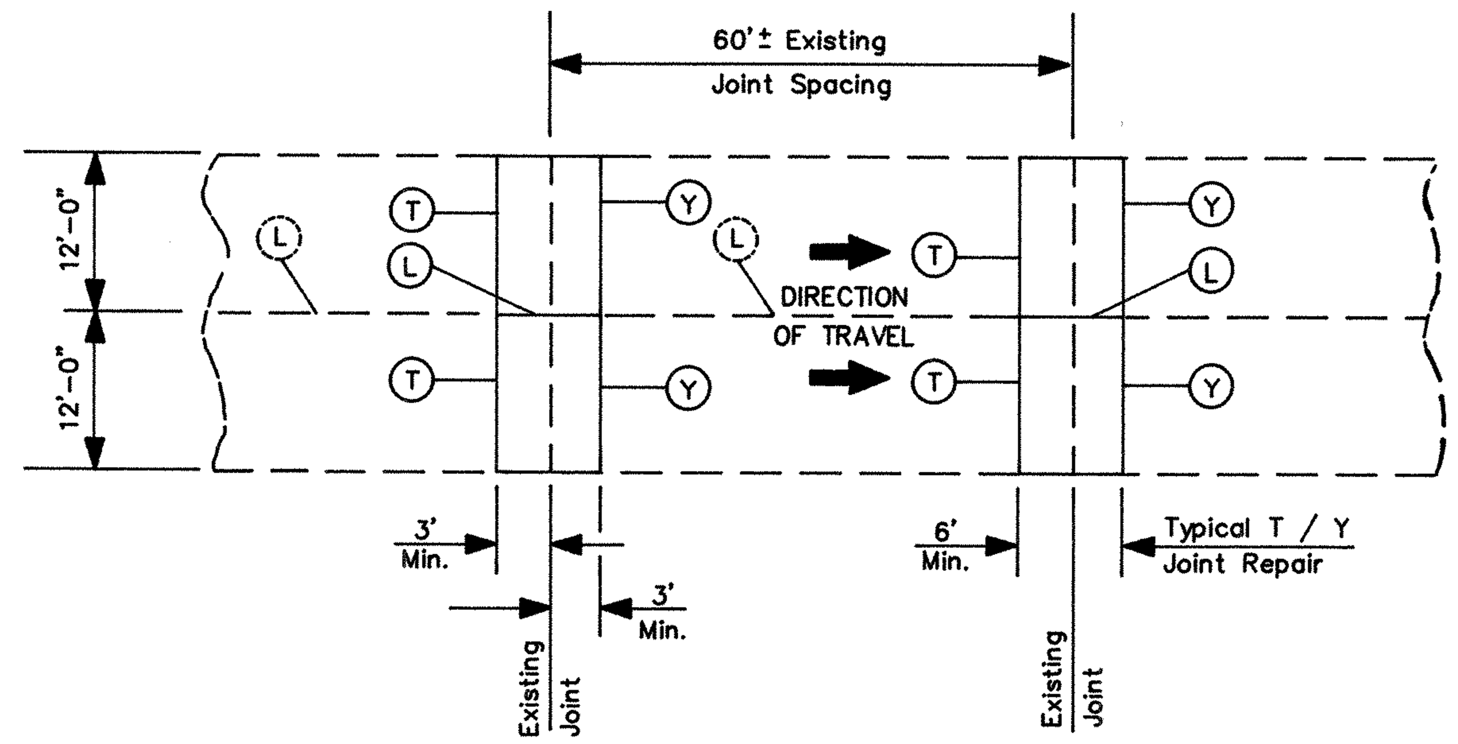
ITEM 255 – FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS C



CRACK / JOINT REPAIR (TYPE T / Y)

(CRACK / JOINT REPAIR WITH A TYPICAL JOINT REPAIR IN ONE LANE ONLY).

NOTE: T / Y REPAIR MAY BE IN EITHER THE TRAVEL LANE OR THE PASSING LANE.



TYPICAL JOINT REPAIR (TYPE T / Y)

JOINT TYPE LEGEND
(Y) TYPE Y (CONTRACTION)
(T) TYPE T (TIED)
(N) TYPE N (CONTRACTION)
(L) LONGITUDINAL JOINT ⚠2
(L) EXISTING LONGITUDINAL JOINT

NOTE: ⚠1

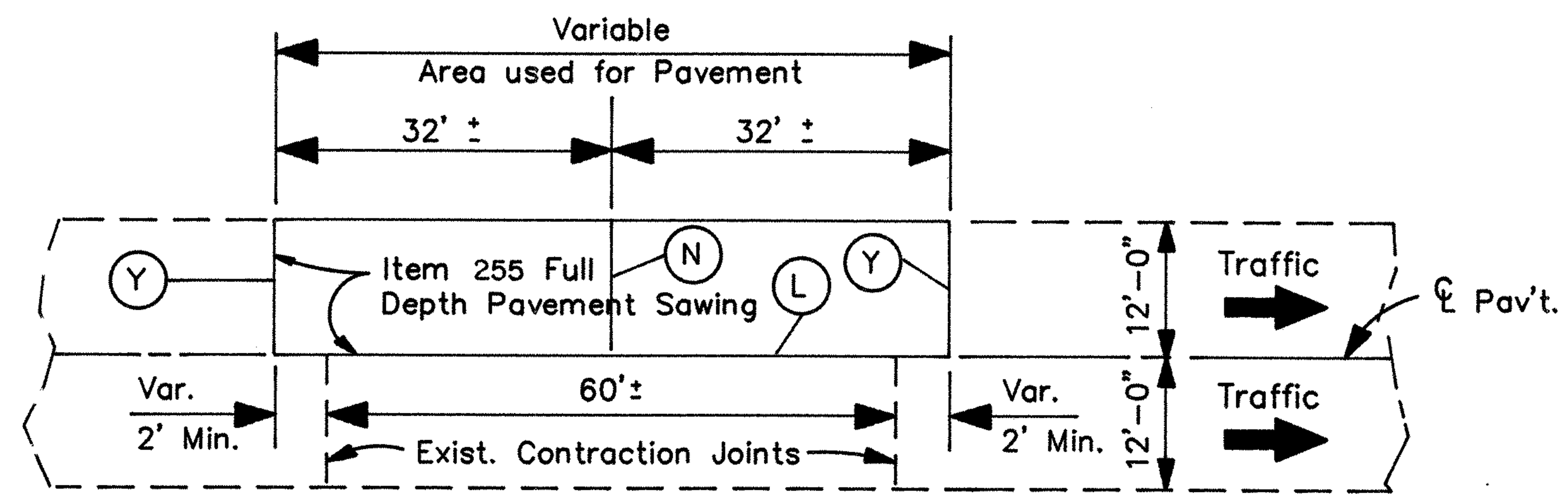
If the patch length 'W' exceeds 10 Lin.Ft. then the (T) Joint shall be replaced with a (Y) Joint.

NOTE: ⚠2

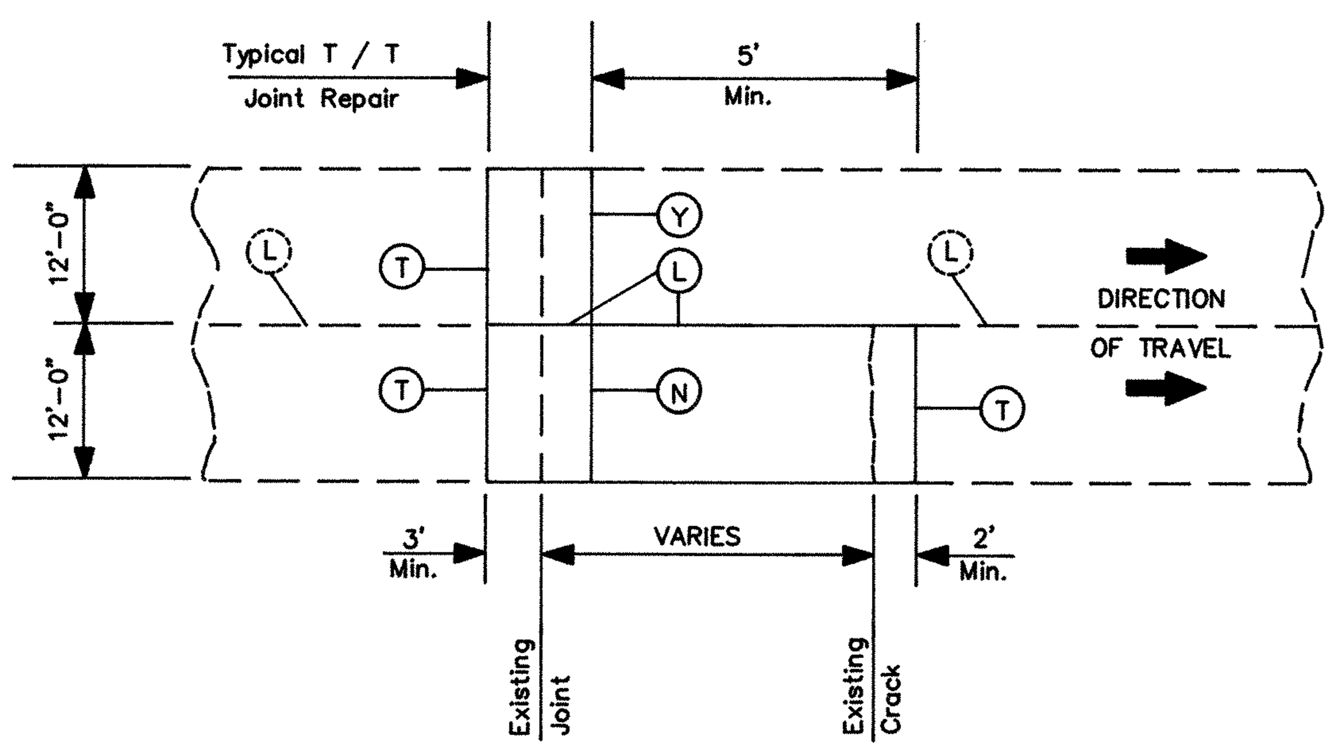
In lieu of Standard Drawing BP-13 the Longitudinal Joint for patches 10 feet or greater in length shall be constructed with 24" long #5 Tie Bars at 30" c/c placed into a 3/4" drilled hole using grout meeting the requirements of Item 255 and Supplemental Specification 952.

NOTE:

For Details not shown see Standard Drawing BP-13 & Supplemental Specification 952.



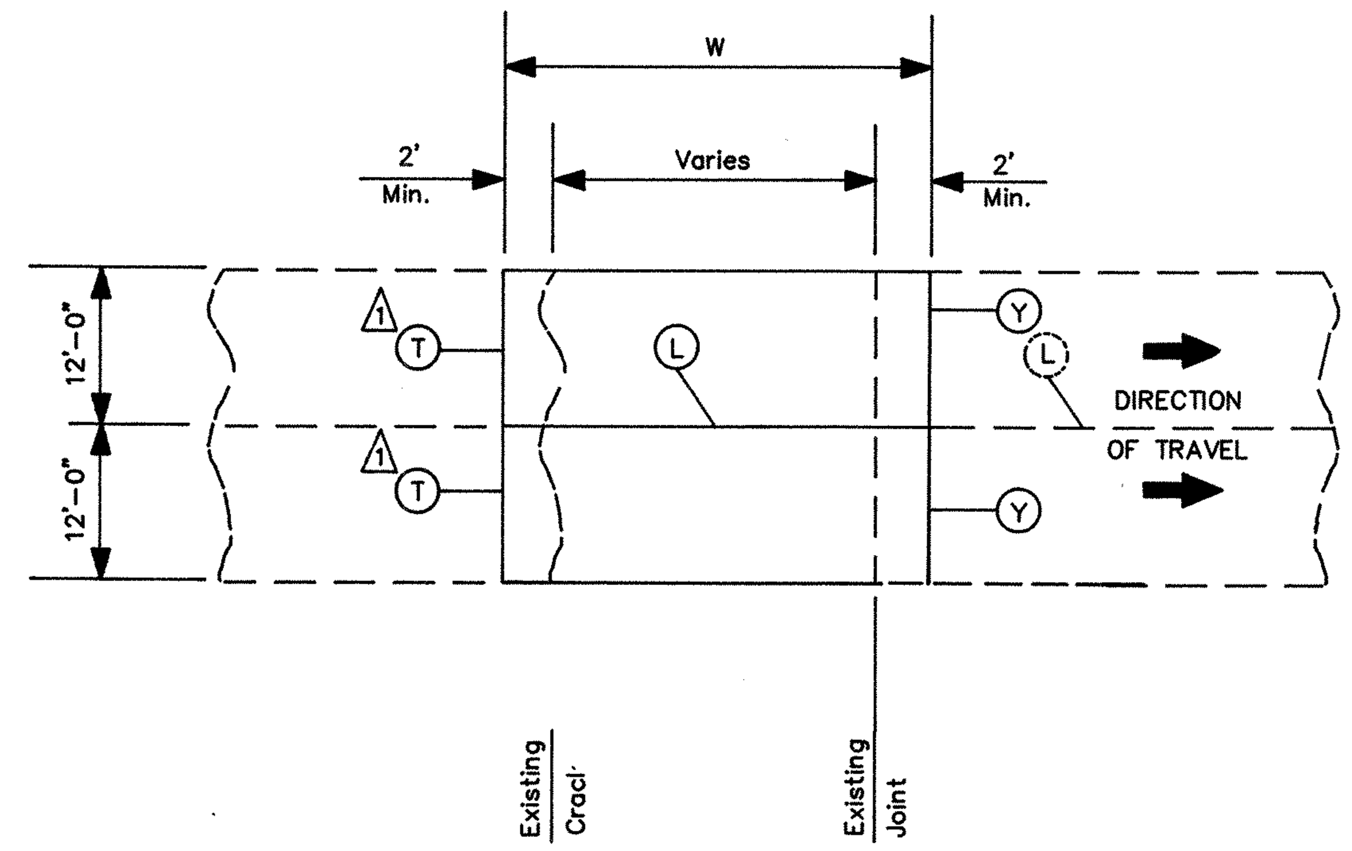
SLAB REPLACEMENT (TYPE Y / N /Y)



CRACK / JOINT REPAIR (TYPE T / N / T)

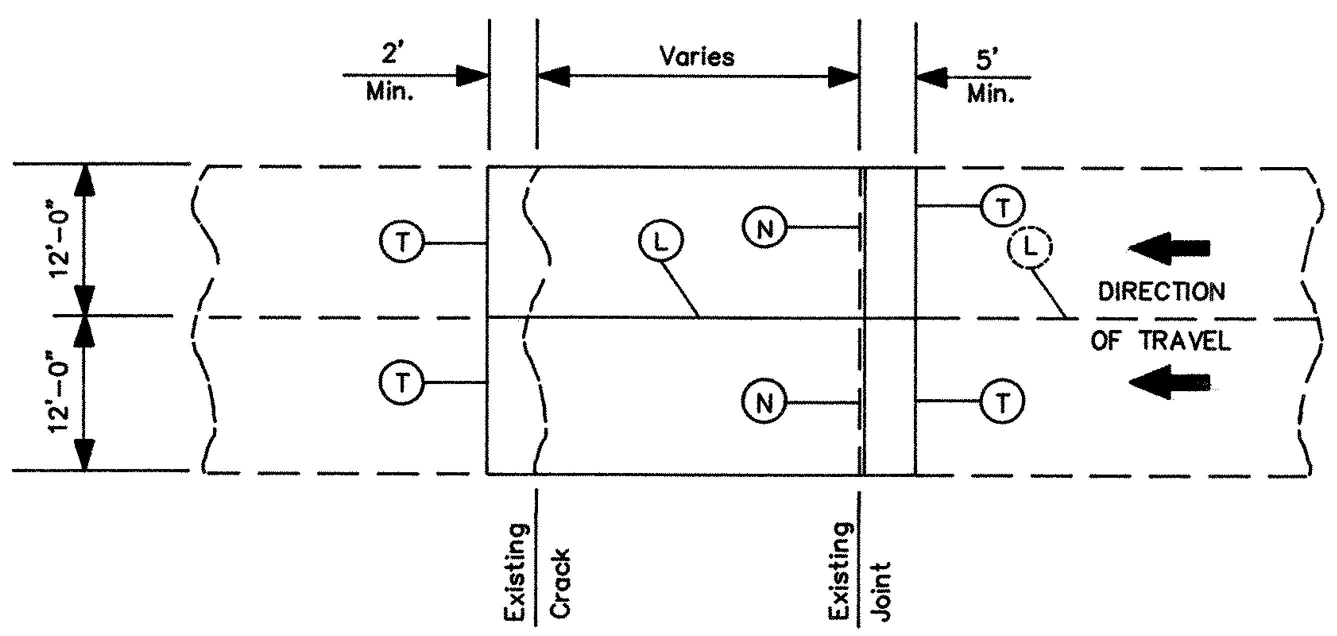
(CRACK / JOINT REPAIR WITH A TYPICAL JOINT REPAIR IN ONE LANE ONLY).

NOTE: T / N / T REPAIR MAY BE IN EITHER THE TRAVEL LANE OR THE PASSING LANE.



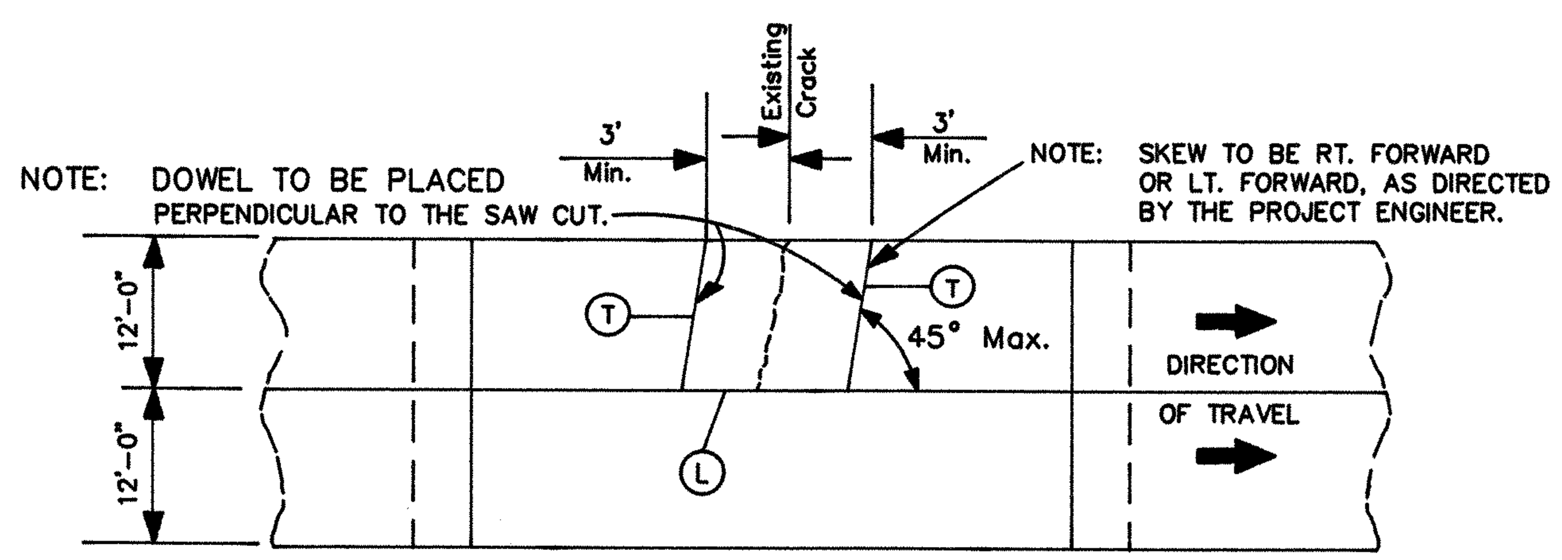
CRACK / JOINT REPAIR (TYPE T / Y)

(CRACK / JOINT REPAIR WITH A TYPICAL JOINT REPAIR IN BOTH LANES).



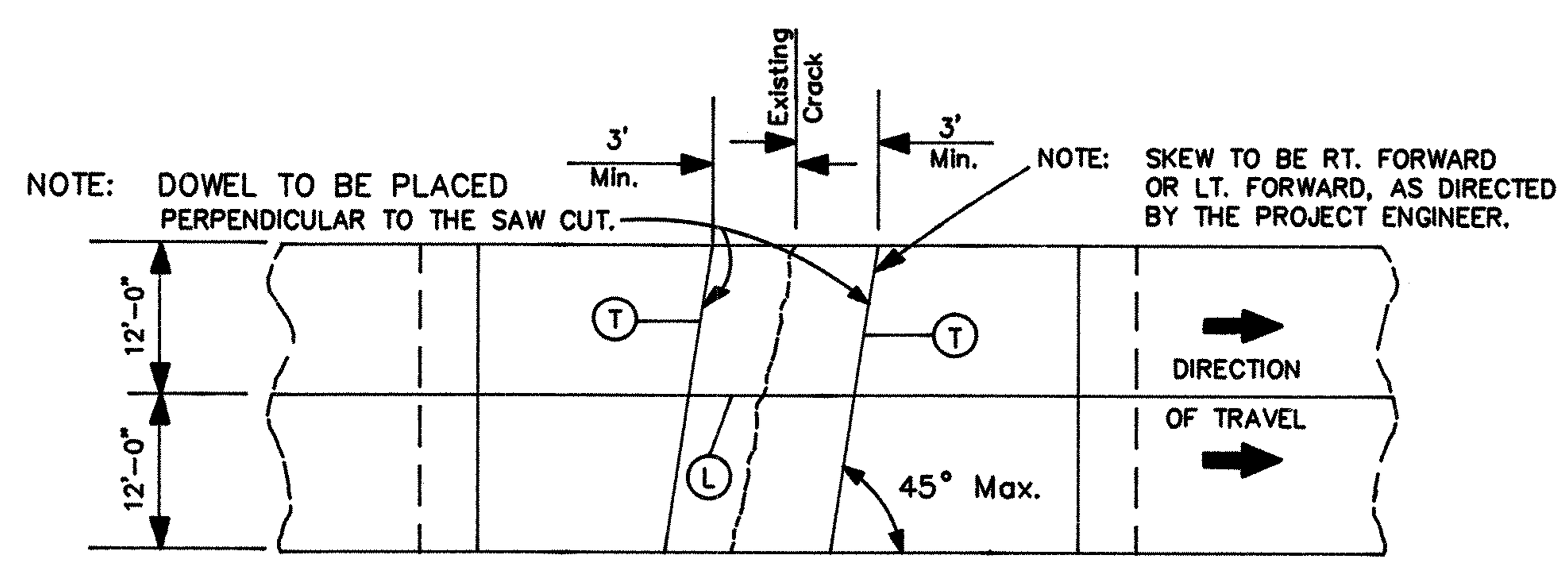
CRACK / JOINT REPAIR (TYPE T / N / T)

(CRACK / JOINT REPAIR WITH A TYPICAL JOINT REPAIR IN BOTH LANES).



TYPICAL CRACK REPAIR (TYPE T / T)

(CRACK REPAIR IN ONE LANE ONLY).

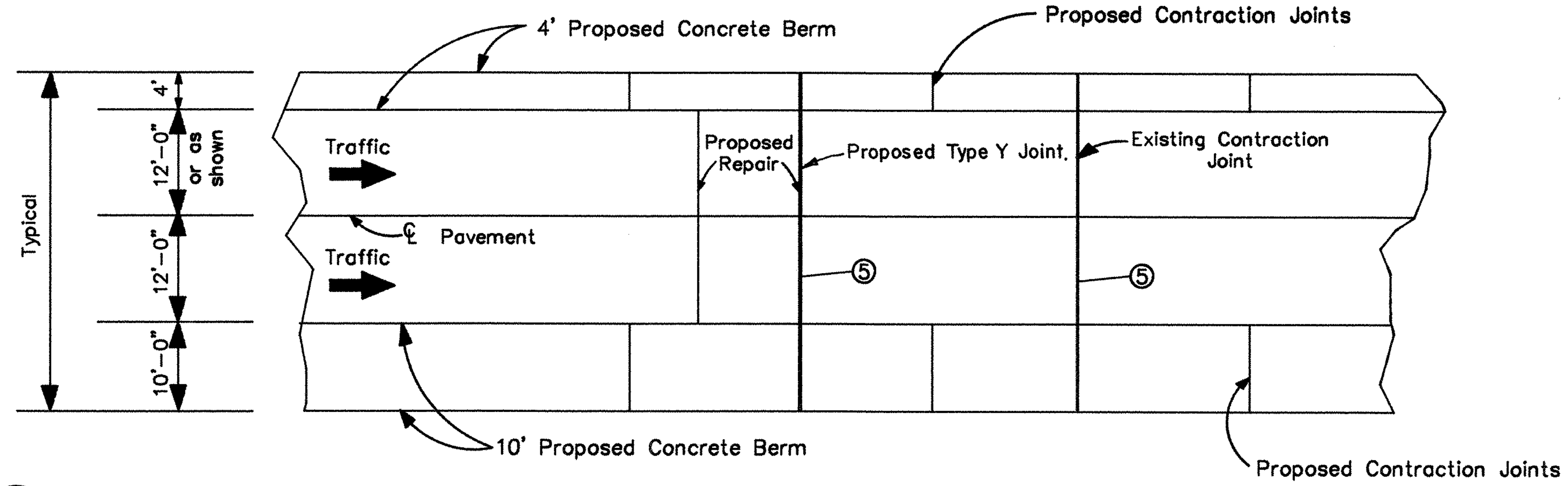


TYPICAL CRACK REPAIR (TYPE T / T)

(CRACK REPAIR IN BOTH LANES)

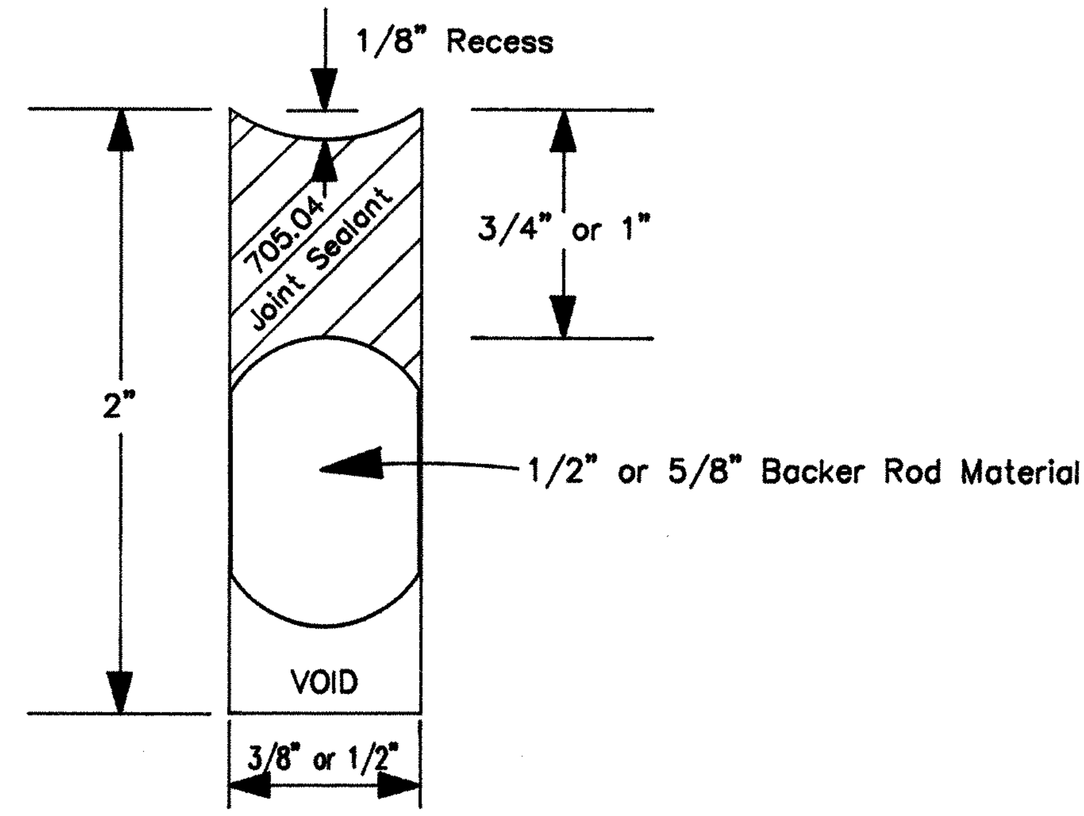
L016231O 3/22/91

SPECIAL DETAILS

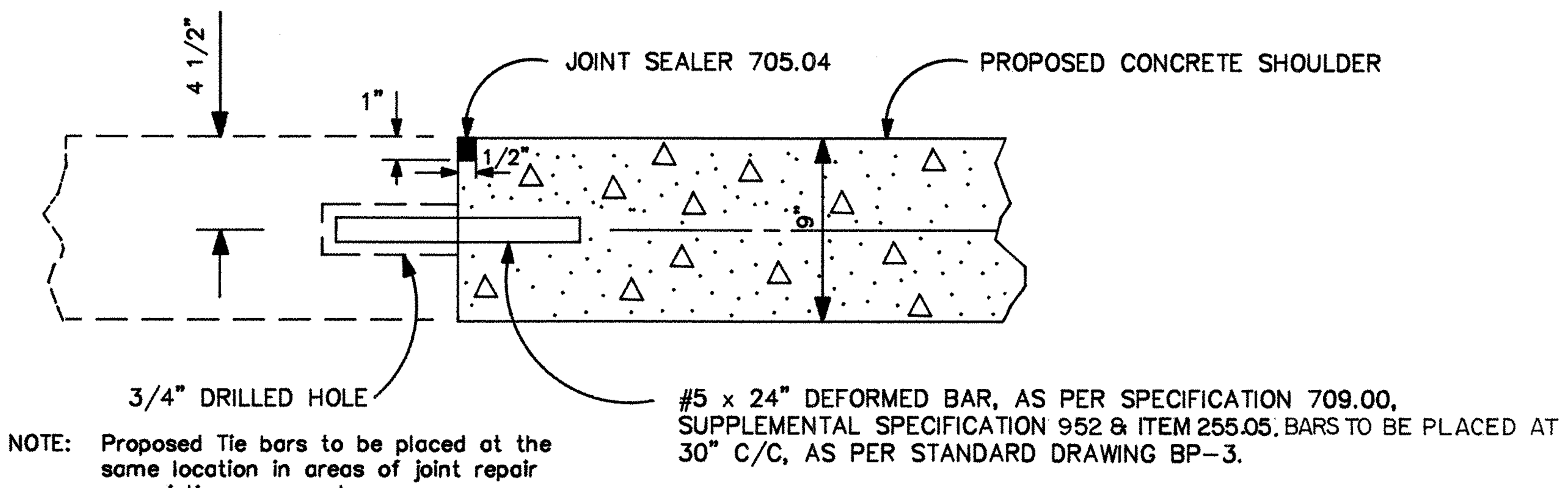


⑤ TYPICAL PLACEMENT OF ITEM SPECIAL SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS, 705.04

(SEE SHEET 9 & PROPOSAL NOTE)



SAW AND SEAL ABOVE EXISTING JOINTS AND REPAIRS



NOTE: Proposed Tie bars to be placed at the same location in areas of joint repair as existing pavement.

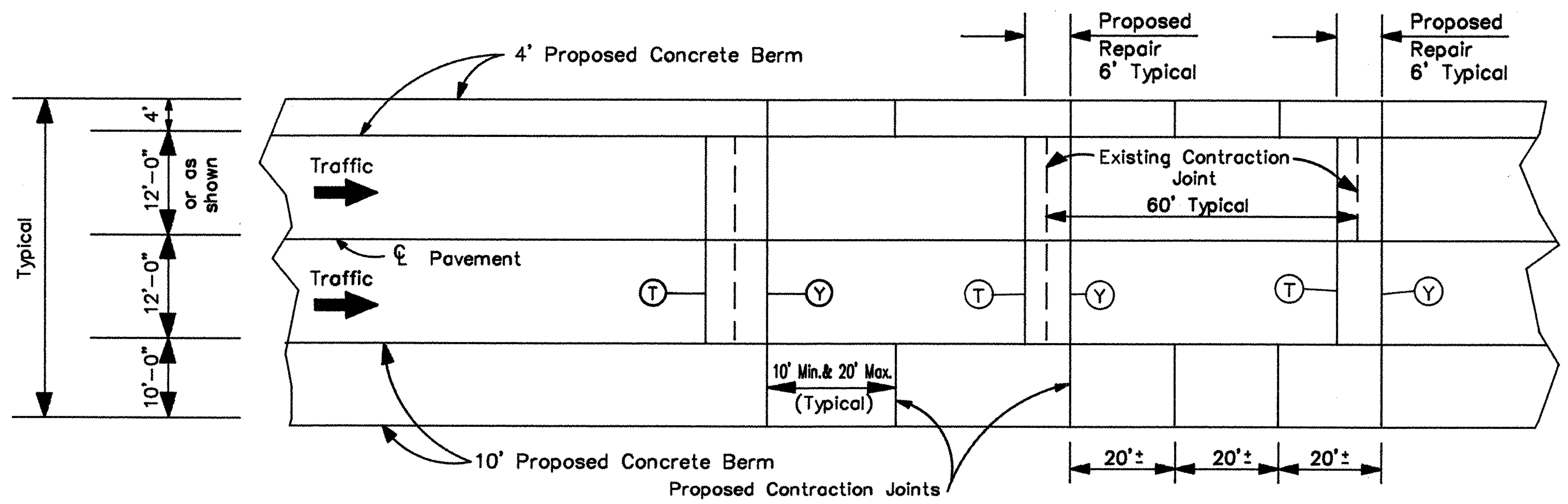
PAVEMENT / SHOULDER DETAIL FOR ITEM 305 9" CONCRETE BASE, AS PER PLAN

NOTE: GROUT SHALL MEET THE REQUIREMENTS OF SUPPLEMENTAL SPECIFICATION 952. THE MANUFACTURES OF THE GROUT SHALL FURNISH CERTIFIED TEST DATA ANNUALLY TO THE LABORATORY, OR AT THE REQUEST OF THE LABORATORY. A LETTER OF CERTIFICATION STATING THAT THE MATERIAL COMPLIES WITH SPECIFICATION REQUIREMENTS SHALL BE FURNISHED WITH EACH SHIPMENT.

THE GROUT SHALL BE PNEUMATICALLY INJECTED INTO THE REAR PORTION OF THE HOLE. ENOUGH MATERIAL SHALL BE INJECTED TO PROVIDE COMPLETE COVERAGE AROUND THE TIEBARS TO ENSURE THEY ARE PERMANENTLY ANCHORED INTO THE EXISTING PAVEMENT. TIEBARS SHALL BE PLACED AT LEAST 12" FROM A TRANSVERSE SHOULDER JOINT. A CAPSULE ANCHOR SYSTEM WILL ALSO BE PERMITTED. TIEBARS SHALL BE REPLACED PERPENDICULAR TO PAVEMENT/SHOULDER JOINT.

EXPANSION ANCHORS

IN LIEU OF THE ABOVE PAVEMENT/SHOULDER DETAIL, THE CONTRACTOR MAY USE "DROP-IN" ANCHORS, FLUSH TYPE WHICH CONFORM TO FEDERAL SPECIFICATIONS FF-S-325, GROUP VIII, TYPE I OR EXTERNALLY THREADED, STUD-TYPE EXPANSION BOLT ANCHORS WHICH CONFORM TO FEDERAL SPECIFICATION FF-S-325, GROUP II. SPACING SHALL BE 30" MAXIMUM, CENTER TO CENTER. SELF-DRILLING ANCHORS WILL NOT BE PERMITTED.



TYPICAL PLACEMENT OF CONTRACTION JOINTS IN PROPOSED ITEM 305 9" CONCRETE BASE, AS PER PLAN

L0162311 4/2/91

GENERAL SUMMARY

CALC. BY D.M DATE 4-11-91
CHKD. BY T.D DATE 5-23-91

LIC-16-23.27

OHIO
FHWA REGION 5

15 / 134

CITY, STATE & FEDERAL												STATE & FEDERAL															ITEM	ITEM EXT.	TOTALS CITY, STATE & FEDERAL	TOTALS STATE & FEDERAL	GRAND TOTAL	UNIT	DESCRIPTION
8	9	10	40	71	72	73	74	75	76	98	111	8	9	10	54	68	71	72	73	74	75	76	98	111	113	128							
																																	ROADWAY
		LUMP												LUMP													201	11000	LUMP	LUMP	LUMP		CLEARING AND GRUBBING
	LUMP												LUMP														201	11001	LUMP	LUMP	LUMP		CLEARING AND GRUBBING, AS PER PLAN (SEE SHEET 9)
																										134	202	22900		134	134	SQ.YD.	APPROACH SLAB REMOVED
				2,824	4												1,917	7									202	23000	2,828	1,924	4,752	SQ.YD.	PAVEMENT REMOVED
					881																					354	202	23500	881	354	1,235	SQ.YD.	WEARING COURSE REMOVED
											18													5	150		202	35100	18	155	173	LIN.FT.	PIPE REMOVED, 24" AND UNDER
									400													5,077					202	38000	400	5,077	5,477	LIN.FT.	GUARDRAIL REMOVED
													240														202	54100		240	240	EACH	RAISED PAVEMENT MARKERS REMOVED FOR STORAGE
											2													2	4		202	58100	2	6	8	EACH	CATCH BASIN REMOVED
																							20,177				202	75000		20,177	20,177	LIN.FT.	FENCE REMOVED (SEE SHEET 10)
										11,353																	202	75101	11,353		11,353	LIN.FT.	FENCE REMOVED FOR STORAGE, AS PER PLAN (SEE SHEET 10)
											255													276	250		202	98200	255	526	781	LIN.FT.	PAVEMENT EDGE DRAIN REMOVED (SEE SHEET 10)
	557		2,263	366		1,566	3,946						1,828		1,589	1,923	65		4,495	10,475						36	203	12000	8,698	20,411	29,109	CU.YD.	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION (SEE SHEET 9)
	2,019		846			82	96	13					9,411		1,406	955			207	253	25						203	20000	3,056	12,257	15,313	CU.YD.	EMBANKMENT
													100														203	21000		100	100	CU.YD.	EMBANKMENT, USING GRANULAR MATERIAL
				4,261	1,274	242	237	237									3,889	2,556	477		478					215	203	50000	6,251	7,615	13,866	SQ.YD.	SUBGRADE COMPACTION
									2													48					203	60000	2	48	50	STATION	LINEAR GRADING (SEE SHEET 8)
									525													4,950					606	13000	525	4,950	5,475	LIN.FT.	GUARDRAIL, TYPE 5
																						25					606	15500		25	25	LIN.FT.	GUARDRAIL, BARRIER DESIGN, TYPE 5
									2													3					606	25000	2	3	5	EACH	ANCHOR ASSEMBLY, TYPE A
																						1					606	25500		1	1	EACH	ANCHOR ASSEMBLY, BARRIER DESIGN, TYPE A
									2													4					606	26500	2	4	6	EACH	ANCHOR ASSEMBLY, TYPE T
																						4					606	35140		4	4	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4
																							27,998				607	15000		27,998	27,998	LIN.FT.	FENCE, TYPE 47
										14,795													9,250				607	23000	14,795	9,250	24,045	LIN.FT.	FENCE, TYPE CLT
																																	EROSION CONTROL
	6,000												17,000														207	10000	6,000	17,000	23,000	SQ.YD.	TEMPORARY SEEDING AND MULCHING
	65												170														207	70000	65	170	235	EACH	STRAW OR HAY BALES
										65													119				601	32100	65	119	184	CU.YD.	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER
	24,858		4,845										76,430		3,772	3,445											659	10000	29,703	83,647	113,350	SQ.YD.	SEEDING AND MULCHING
	4.24												12.09														659	20000	4.24	12.09	16.33	TON	COMMERCIAL FERTILIZER
	13.37												37.64														659	30000	13.37	37.64	51.00	TON	AGRICULTURAL LIMING
	77												220														659	35000	77	220	297	M.GAL.	WATER
	70												190														659	40000	70	190	260	M.SQ.FT.	MOWING
																																	PAVEMENT
				16,866													49,177			135							254	01000	16,866	49,312	66,178	SQ.YD.	PAVEMENT PLANING, BITUMINOUS (SEE SHEET 8)
	2,500												8,000														255	10000	2,500	8,000	10,500	SQ.YD.	FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS "C"
	8,000												20,000														255	20000	8,000	20,000	28,000	LIN.FT.	FULL DEPTH PAVEMENT SAWING
	20			710	213	511	1,525	67					80				641	426	1,458	4,026	134						304	20001	3,046	6,765	9,811	CU.YD.	AGGREGATE BASE, AS PER PLAN (SEE SHEET 9)
						3,070	7,256	173											9,366	19,747	817						305	13001	10,499	29,930	40,429	SQ.YD.	9" CONCRETE BASE, AS PER PLAN (SEE SHEET 9)
925				1,277	30	235	545	13				2,500					4,007	192	710	1,493	61						407	10000	3,025	8,963	11,988	GAL	TACK COAT (SEE SHEET 8)

L0162306 4/16/91

GENERAL SUMMARY

CITY, STATE & FEDERAL									STATE & FEDERAL												ITEM	ITEM EXT.	TOTALS CITY, STATE & FEDERAL	TOTALS STATE & FEDERAL	GRAND TOTAL	UNIT	DESCRIPTION
9	10	71	72	73	74	75	76	111	9	10	71	72	73	74	75	76	111	112	113	128							
																											PAVEMENT (CONTINUED)
		824	20	152	353	9					2,631	125	467	984	40						446	01200	1,358	4,247	5,605	CU.YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20
		589	14	109	252	6					1,849	89	329	691	29						446	01400	970	2,987	3,957	CU.YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE I, AC-20
							6									217					448	14101	6	217	223	CU.YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, (UNDER GUARDRAIL), TYPE 1, AC-20, AS PER PLAN (SEE SHEET 8)
5,500									14,000												SPECIAL	45014000	5,500	14,000	19,500	LIN.FT.	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS (SEE SHEET 9) SEE PROPOSAL NOTE
			393								3,867	2,556									451	14001	393	6,423	6,816	SQ.YD.	9" REINFORCED CONCRETE PAVEMENT, AS PER PLAN (SEE SHEET 8)
		4,261		242	237	237															451	16001	4,977		4,977	SQ.YD.	12" REINFORCED CONCRETE PAVEMENT, AS PER PLAN (SEE SHEET 11)
											48		8	20							SPECIAL	45130000		76	76	LIN.FT.	PRESSURE RELIEF JOINT, TYPE A (SEE STANDARD DRAWING BP-10)
				100																	609	14000	100		100	LIN.FT.	CURB, TYPE 2-A
				100									75		90						609	16000	100	165	265	LIN.FT.	CURB, TYPE 2-B
																				223	611	25000		223	223	SQ.YD.	REINFORCED CONCRETE APPROACH SLAB (T=15")
				350	429	55							903	839	96						617	10100	834	1,838	2,672	CU.YD	COMPACTED AGGREGATE, TYPE A
8									18												617	25000	8	18	26	M.GAL	WATER
																											DRAINAGE
								0.3										1.9			602	20000	0.3	1.9	2.2	CU.YD.	CONCRETE MASONRY
								28													603	00101	28		28	LIN.FT.	4" CONDUIT, TYPE B, 707.17 NON-PERFORATED ASTM 3034, SDR 35 OR S.S.931, AS PER PLAN (SEE SHT. 10)
								632									318	776	326		603	00406	632	1,420	2,052	LIN.FT.	4" CONDUIT, TYPE F, 707.17 NON-PERFORATED ASTM 3034, SDR 35 OR S.S.931
								36										159	25		603	00100	36	184	220	LIN.FT.	4" CONDUIT, TYPE B, 707.17 NON-PERFORATED ASTM 3034, SDR 35 OR S.S.931
								18										18	37		603	01500	18	55	73	LIN.FT.	6" CONDUIT, TYPE F, 707.17 NON-PERFORATED ASTM 3034, SDR 35 OR S.S.931
								397											263		603	04400	397	263	660	LIN.FT.	12" CONDUIT, TYPE B
																			270		603	04600		270	270	LIN.FT.	12" CONDUIT, TYPE C
								21									4				603	05900	21	4	25	LIN.FT.	15" CONDUIT, TYPE B, 706.02
																			22		603	10400		22	22	LIN.FT.	24" CONDUIT, TYPE B, 706.02
																		12			603	23600		12	12	LIN.FT.	60" CONDUIT, TYPE A, 706.02
								1											2		604	00801	1	2	3	EACH	CATCH BASIN, NO. 3-A, AS PER PLAN (SEE SHEET 11)
																			1		604	01601		1	1	EACH	CATCH BASIN NO.5, AS PER PLAN (SEE SHEET 11)
								8									5	6	7		604	02801	8	18	26	EACH	CATCH BASIN, NO.8, AS PER PLAN (SEE SHEET 11)
								1													604	31510	1		1	EACH	MANHOLE, NO.3 USING FLAT SLAB TOP
																		2			604	04500		2	2	EACH	CATCH BASIN, NO. 2-2-B
								11,678									5,214	20,805	6,657		605	05100	11,678	32,676	44,354	LIN.FT.	4" SHALLOW PIPE UNDERDRAIN
																		70			605	05100		70	70	LIN.FT.	4" SHALLOW PIPE UNDERDRAIN, 707.17 ASTM 3034, SDR 35 OR S.S.931 PERFORATED AS PER 707.15
								938									541	355	716		605	05200	938	1,612	2,550	LIN.FT.	4" UNCLASSIFIED PIPE UNDERDRAIN
	18									72											605	31100	18	72	90	LIN.FT.	AGGREGATE DRAINS
								14									5	22	7		SPECIAL	60436600	14	34	48	EACH	PRECAST REINFORCED CONCRETE OUTLET (SEE SHEET 125)

L0I623A6 4/16/91

GENERAL SUMMARY

CITY, STATE & FEDERAL 10	80	84	92	93	94	95	STATE & FEDERAL		10	81	82	85	92	93	94			ITEM	ITEM EXT.	TOTALS CITY, STATE & FEDERAL	TOTALS STATE & FEDERAL	GRAND TOTAL	UNIT	DESCRIPTION
																								TRAFFIC CONTROL
					17										34			620	10500	17	34	51	EACH	DELINEATOR, TYPE C, DESIGN 2, POST MOUNTED
					1										12			620	10700	1	12	13	EACH	DELINEATOR, TYPE C, DESIGN 4, POST MOUNTED
					18										28			620	31000	18	28	46	EACH	DELINEATOR REMOVED FOR STORAGE
		0.01										0.02						642	00290	0.01	0.02	0.03	MILE	CENTER LINE
		284										568						642	00910	284	568	852	SQ.FT.	ISLAND MARKING
						1												625	14000	1		1	EACH	LIGHT POLE FOUNDATION 24"x 6' DEEP
						1868												625	25500	1868		1868	LIN.FT.	CONDUIT, 3" 713.04
						1665												625	29000	1665		1665	LIN.FT.	TRENCH
						201												625	29600	201		201	LIN.FT.	TRENCH IN PAVED AREA, TYPE B
						10												625	30700	10		10	EACH	PULL BOX, 713.08, 18"
12						2			20									625	32000	14	20	34	EACH	GROUND ROD
	368									392	336							630	03100	368	728	1096	LIN.FT.	GROUND MOUNTED SUPPORTS, NO. 3 POST
	61									165	165							630	04100	61	330	391	LIN.FT.	GROUND MOUNTED SUPPORTS, NO. 4 POST
						1												630	79000	1		1	EACH	SIGN HANGER ASSEMBLY, SPAN WIRE
	171					10				260	246							630	80102	181	506	687	SQ.FT.	SIGNS, FLAT SHEET TYPE G (SEE PROPOSAL NOTE)
	12									12	12							630	80204	12	24	36	SQ.FT.	SIGNS, EXTRUSHEET TYPE G (SEE PROPOSAL NOTE)
	6									29	15							630	84900	6	44	50	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL
	17									6	2							630	85001	17	8	25	EACH	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE, AS PER PLAN (SEE SHEET 10)
	24									36	19							630	86002	24	55	79	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL
						2												631	92001	2		2	EACH	SIGN FLASHER ASSEMBLY, AS PER PLAN (SEE SHEET 11)
						10												632	00300	10		10	EACH	VEHICULAR SIGNAL HEAD, 3-SECTION, 12" LENS, 1-WAY
						10												632	25000	10		10	EACH	COVERING OF VEHICULAR SIGNAL HEAD
						2												632	27004	2		2	EACH	LOOP DETECTOR UNIT
						326												632	27500	326		326	LIN.FT.	LOOP DETECTOR PAVEMENT CUTTING
						188												632	30300	188		188	LIN.FT.	MESSENGER WIRE, 7-STRAND, 7/16" DIAMETER, WITH ACCESSORIES
						2861												632	40500	2861		2861	LIN.FT.	SIGNAL CABLE, 5 CONDUCTOR, NO.14 AWG
						818												632	64900	818		818	LIN.FT.	LOOP DETECTOR WIRE, TYPE E
						838												632	65200	838		838	LIN.FT.	LOOP DETECTOR LEAD-IN CABLE
						103												632	67200	103		103	LIN.FT.	POWER CABLE, 2 CONDUCTOR, NO.8 AWG
						1												632	70000	1		1	EACH	POWER SERVICE
						2												632	71000	2		2	EACH	CABLE SUPPORT ASSEMBLY
						6.4												632	72000	6.4		6.4	CU.YD.	CONCRETE FOR ANCHOR BASE FOUNDATION
						2												632	83200	2		2	EACH	STRAIN POLE, TYPE TC-81.10, DESIGN 12, 36 FT.
						1												633	34001	1		1	EACH	CONTROLLER ACTUATED, 4-PHASE, SOLID STATE DIGITAL, MICROPROCESSOR, AS PER PLAN (SEE SHT. 11)
						8.3												633	70500	8.3		8.3	SQ.FT.	CONTROLLER WORK PAD
		3.2										7.3						644	00100	3.2	7.3	10.5	MILE	EDGE LINE
		1.6										3.5						644	00200	1.6	3.5	5.1	MILE	LANE LINE
		1,460										2,680						644	00400	1,460	2,680	4,140	LIN.FT.	CHANNELIZING LINE
		140										77						644	00500	140	77	217	LIN.FT.	STOP LINE
		500										1,000						644	00700	500	1,000	1,500	LIN.FT.	TRANSVERSE LINES
		6										13						644	01300	6	13	19	EACH	LANE ARROW
		4										9						644	01410	4	9	13	EACH	WORD ON PAVEMENT, 96 INCHES
				8										53				802	00100	8	53	61	EACH	BARRIER REFLECTORS, TYPE A
			176										536					862	00100	176	536	712	EACH	RAISED PAVEMENT MARKERS

L0162386 4/16/91

GENERAL SUMMARY

CITY, STATE & FEDERAL 8	10	12	77	78	79	93-A	STATE & FEDERAL 12	8	10	77	78	79	ITEM	ITEM EXT.	TOTALS CITY, STATE & FEDERAL	TOTALS STATE & FEDERAL	GRAND TOTAL	UNIT	DESCRIPTION
																			MAINTENANCE OF TRAFFIC
25								175					404	35000	25	175	200	CU.YD.	BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC (SEE SHEET 8)
	4								22				614	12470	4	22	26	EACH	WORK ZONE SPEED LIMIT SIGN (SEE PROPOSAL NOTE)
	32								68				SPECIAL	61411100	32	68	100	HOURS	LAW ENFORCEMENT OFFICER WITH PATROL CAR (SEE SHEET 10)
	10								30				SPECIAL	61412600	10	30	40	EACH	REPLACEMENT DRUMS (SEE SHEET 10)
						1,461							614	12900	1,461		1,461	EACH	TEMPORARY RAISED PAVEMENT MARKERS, TYPE A
				9							108		614	13200	9	108	117	EACH	BARRIER REFLECTORS, TYPE A (SEE SHEET 78)
				64							94		614	13300	64	94	158	EACH	BARRIER REFLECTORS, TYPE B (SEE SHEET 78)
					1.5							3.5	614	20400	1.5	3.5	5.0	MILE	TEMPORARY LANE LINES, CLASS II
					0.01							0.04	614	21000	0.01	0.04	0.05	MILE	TEMPORARY CENTER LINES, CLASS I
					8.8							21.1	614	22000	8.8	21.1	29.9	MILE	TEMPORARY EDGE LINE, CLASS I
					1,285							4,760	614	23000	1,285	4,760	6,045	LIN.FT.	TEMPORARY CHANNELIZING LINES, CLASS I
					620							2,480	614	25000	620	2,480	3,100	LIN.FT.	TEMPORARY TRANSVERSE LINE, CLASS I
					23							77	614	26000	23	77	100	LIN.FT.	TEMPORARY STOP LINES, CLASS I
	10								50				616	10000	10	50	60	M.GAL.	WATER
	2								8				616	20000	2	8	10	TON	CALICUM CHLORIDE
			2140							1,160			622	40020	2140	1160	3,300	LIN.FT.	PORTABLE CONCRETE BARRIER, 32" (SEE SHEET 77)
										160			622	40040		160	160	LIN.FT.	PORTABLE CONCRETE BARRIER, BRIDGE MOUNTED, 32" (SEE SHEET 77)
																			FOR STRUCTURE 20' AND OVER SEE SHEET 128.
		LUMP					LUMP						614	11000	LUMP	LUMP	LUMP		MAINTAINING TRAFFIC (SEE SHEET 12)
													619	15010	LUMP	LUMP	LUMP		FIELD OFFICE, TYPE B
													623	10000	LUMP	LUMP	LUMP		CONSTRUCTION LAYOUT STAKES
													624	10000	LUMP	LUMP	LUMP		MOBILIZATION

CALC. BY D.M. DATE 4-11-91
CHKD. BY T.D. DATE 5-23-91

LIC-16-23.27

OHIO
FHWA REGION 5

19
134

STA. 239+00 — STA. 264+00

CALC. BY D.M. DATE 11-11-91	LIC - 16 - 23.27	OHIO	20/134
CHKD. BY T.D. DATE 5-23-91		FHWA REGION 5	

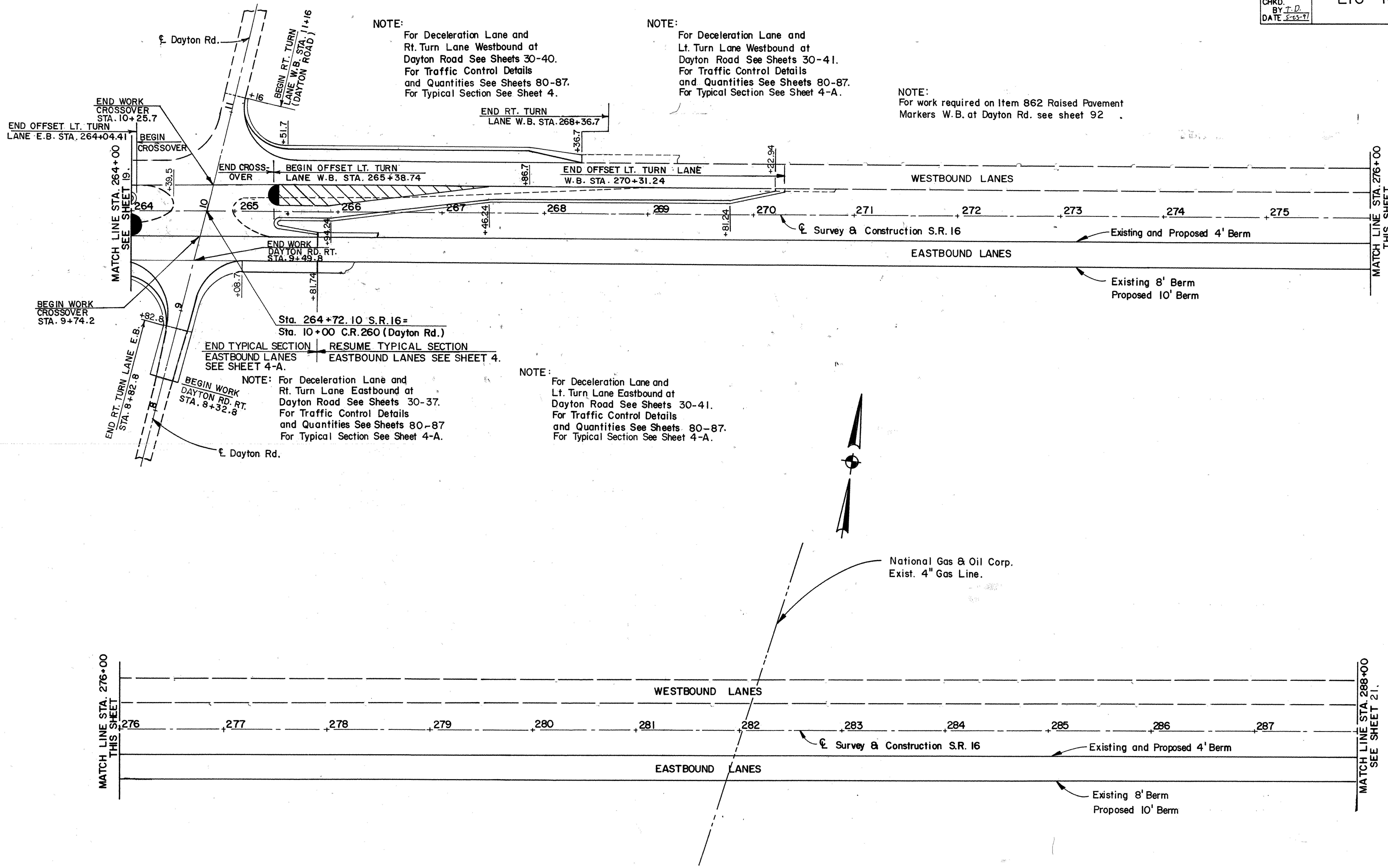
NOTE:
For Deceleration Lane and Rt. Turn Lane Westbound at Dayton Road See Sheets 30-40.
For Traffic Control Details and Quantities See Sheets 80-87.
For Typical Section See Sheet 4.

NOTE:
For Deceleration Lane and Lt. Turn Lane Westbound at Dayton Road See Sheets 30-41.
For Traffic Control Details and Quantities See Sheets 80-87.
For Typical Section See Sheet 4-A.

NOTE:
For work required on Item 862 Raised Pavement Markers W.B. at Dayton Rd. see sheet 92.

NOTE: For Deceleration Lane and Rt. Turn Lane Eastbound at Dayton Road See Sheets 30-37.
For Traffic Control Details and Quantities See Sheets 80-87
For Typical Section See Sheet 4-A.

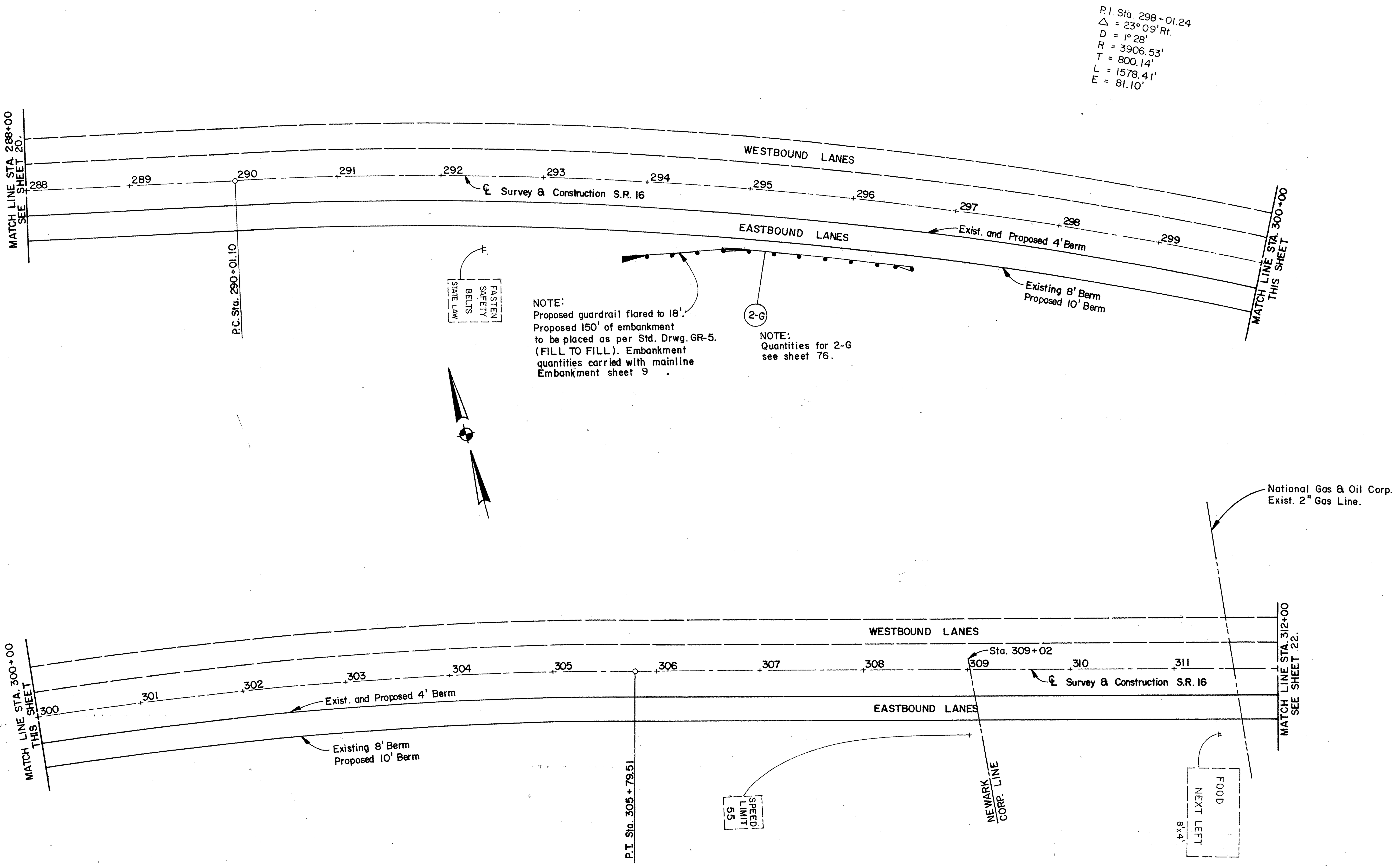
NOTE:
For Deceleration Lane and Lt. Turn Lane Eastbound at Dayton Road See Sheets 30-41.
For Traffic Control Details and Quantities See Sheets 80-87.
For Typical Section See Sheet 4-A.



REVISED: 7/17/91

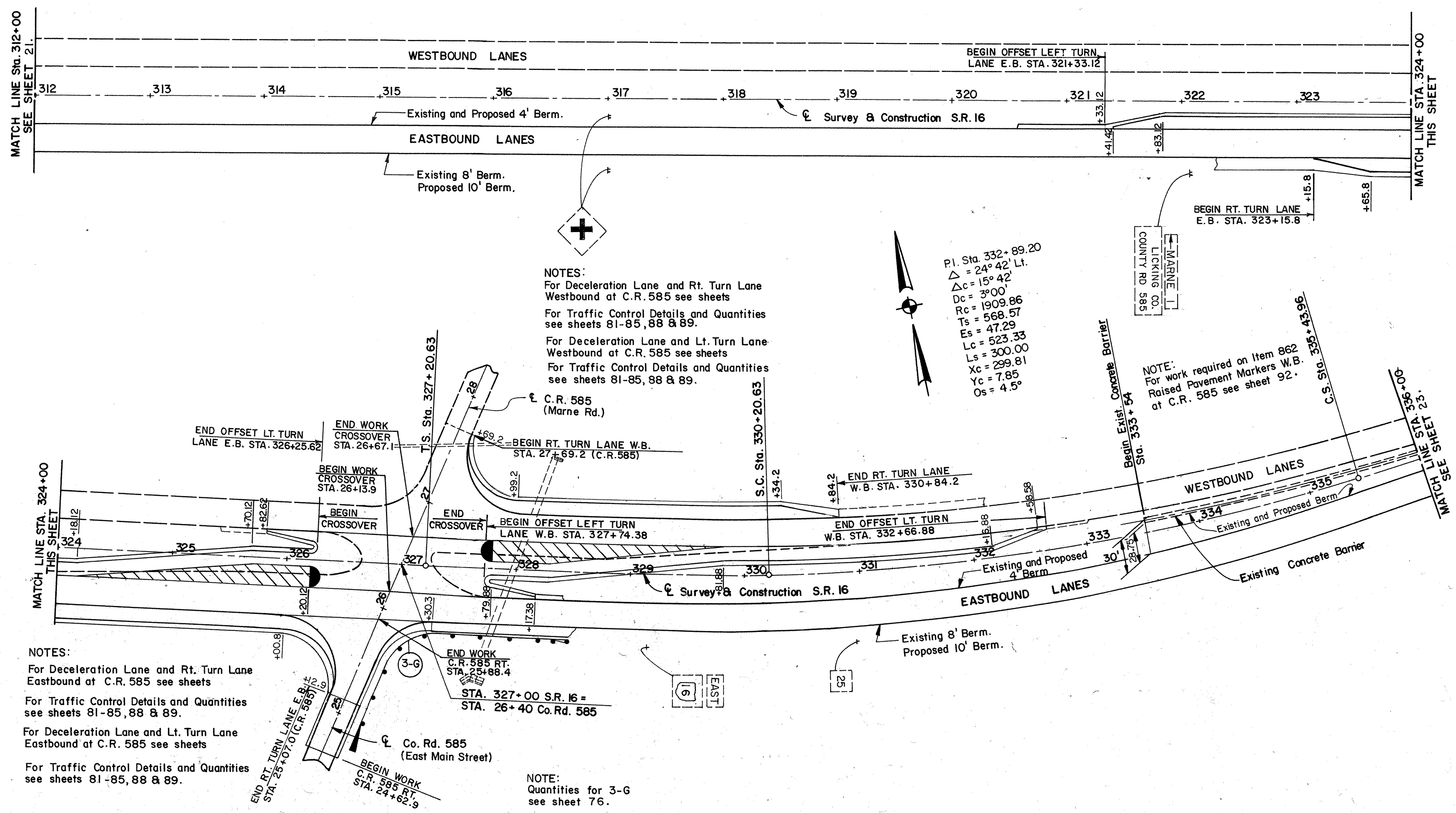
STA. 264+00 — STA. 288+00

CALC. BY D.M. DATE 4-11-91 CHKD. BY T.D. DATE 5-29-91	LIC-16-23.27	OHIO FHWA REGION 5	21 / 134



REVISED: 7/17/91

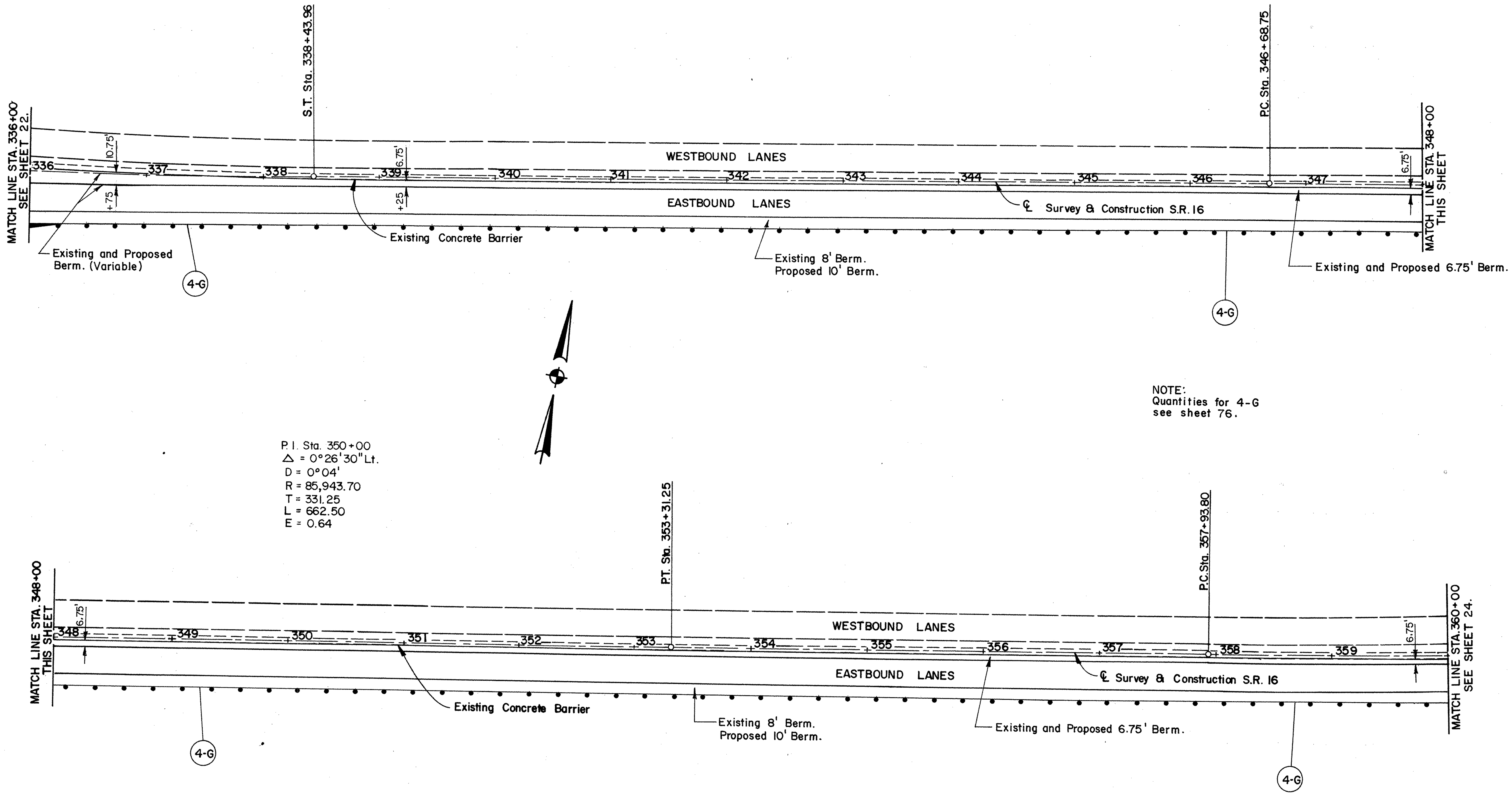
STA. 288+00 – STA. 312+00

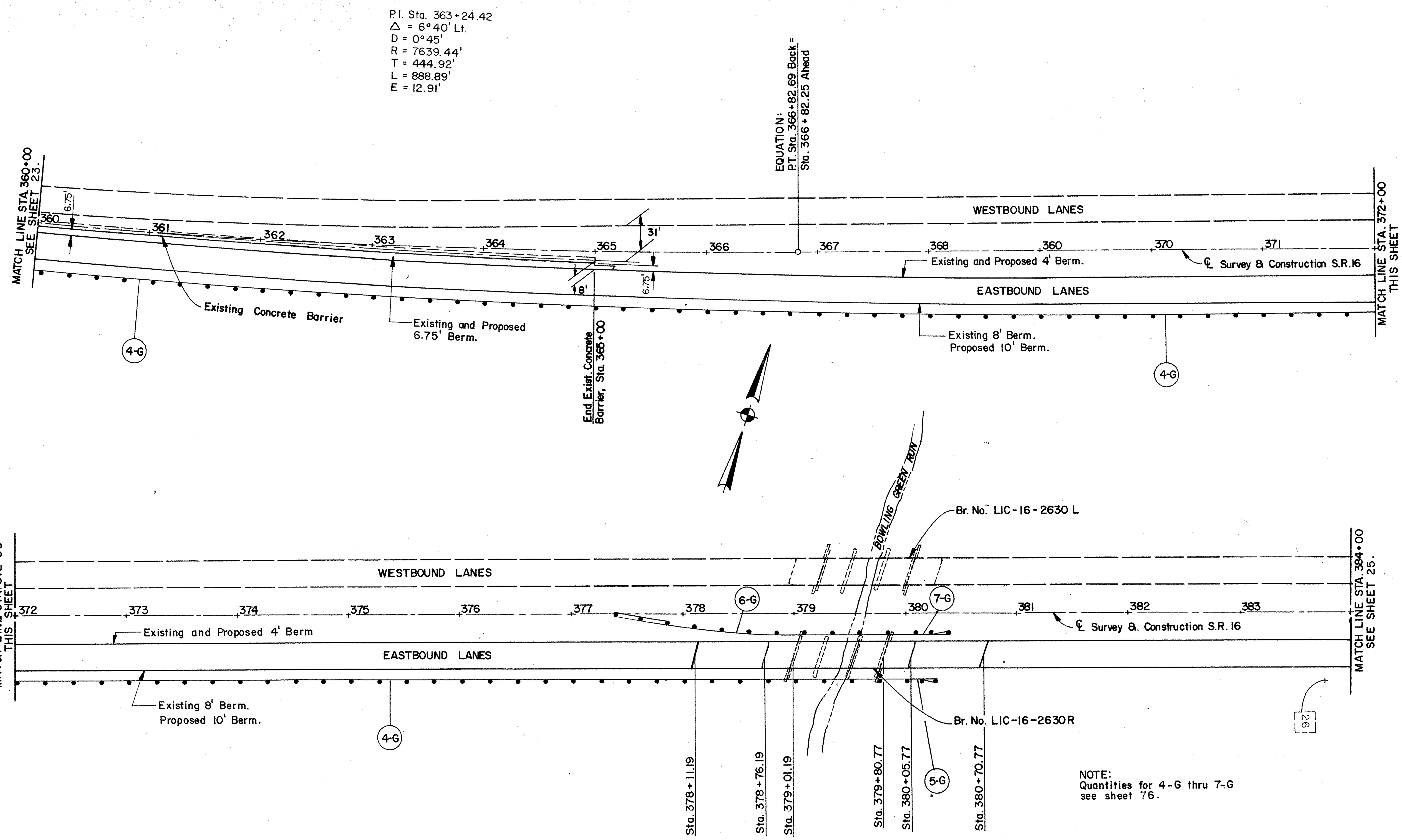


NOTES:
For Deceleration Lane and Rt. Turn Lane Westbound at C.R. 585 see sheets
For Traffic Control Details and Quantities see sheets 81-85, 88 & 89.
For Deceleration Lane and Lt. Turn Lane Westbound at C.R. 585 see sheets
For Traffic Control Details and Quantities see sheets 81-85, 88 & 89.

NOTES:
For Deceleration Lane and Rt. Turn Lane Eastbound at C.R. 585 see sheets
For Traffic Control Details and Quantities see sheets 81-85, 88 & 89.
For Deceleration Lane and Lt. Turn Lane Eastbound at C.R. 585 see sheets
For Traffic Control Details and Quantities see sheets 81-85, 88 & 89.

NOTE:
Quantities for 3-G see sheet 76.

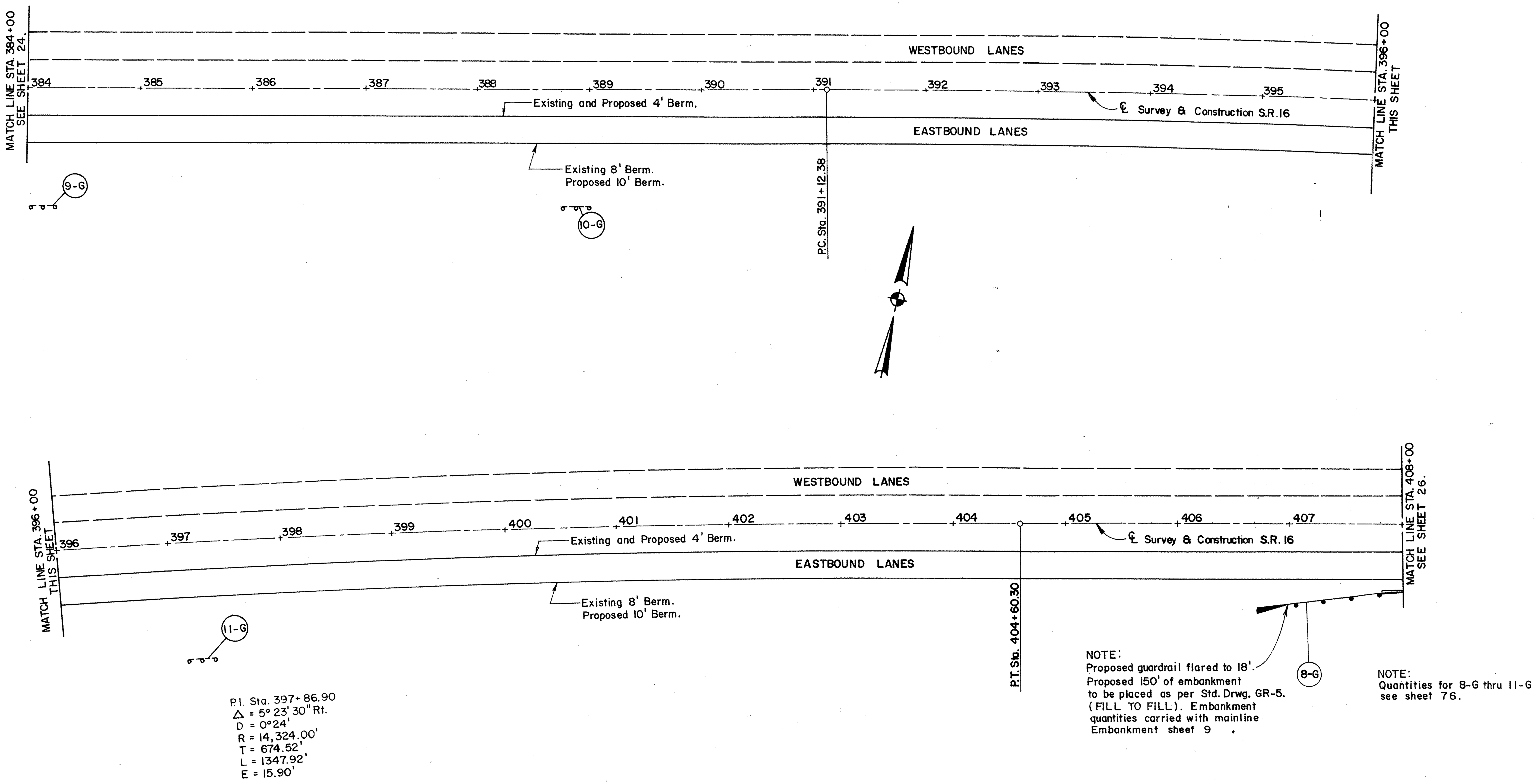

MATCH LINE STA. 336+00 SEE SHEET 22.
S.T. Sta. 338+43.96
P.C. Sta. 346+68.75
MATCH LINE STA. 348+00 THIS SHEET
WESTBOUND LANES
EASTBOUND LANES
336
337
338
339
340
341
342
343
344
345
346
347
10.75'
6.75'
+.75
+.25
6.75'
℄ Survey & Construction S.R. 16
Existing and Proposed Berm. (Variable)
Existing Concrete Barrier
Existing 8' Berm. Proposed 10' Berm.
Existing and Proposed 6.75' Berm.
4-G
4-G
NOTE: Quantities for 4-G see sheet 76.
P.I. Sta. 350+00
△ = 0°26'30"Lt.
D = 0°04'
R = 85,943.70
T = 331.25
L = 662.50
E = 0.64
MATCH LINE STA. 348+00 THIS SHEET
P.T. Sta. 353+31.25
P.C.Sta. 357+93.80
MATCH LINE STA. 360+00 SEE SHEET 24.
WESTBOUND LANES
EASTBOUND LANES
348
349
350
351
352
353
354
355
356
357
358
359
6.75'
6.75'
℄ Survey & Construction S.R. 16
Existing Concrete Barrier
Existing 8' Berm. Proposed 10' Berm.
Existing and Proposed 6.75' Berm.
4-G
4-G

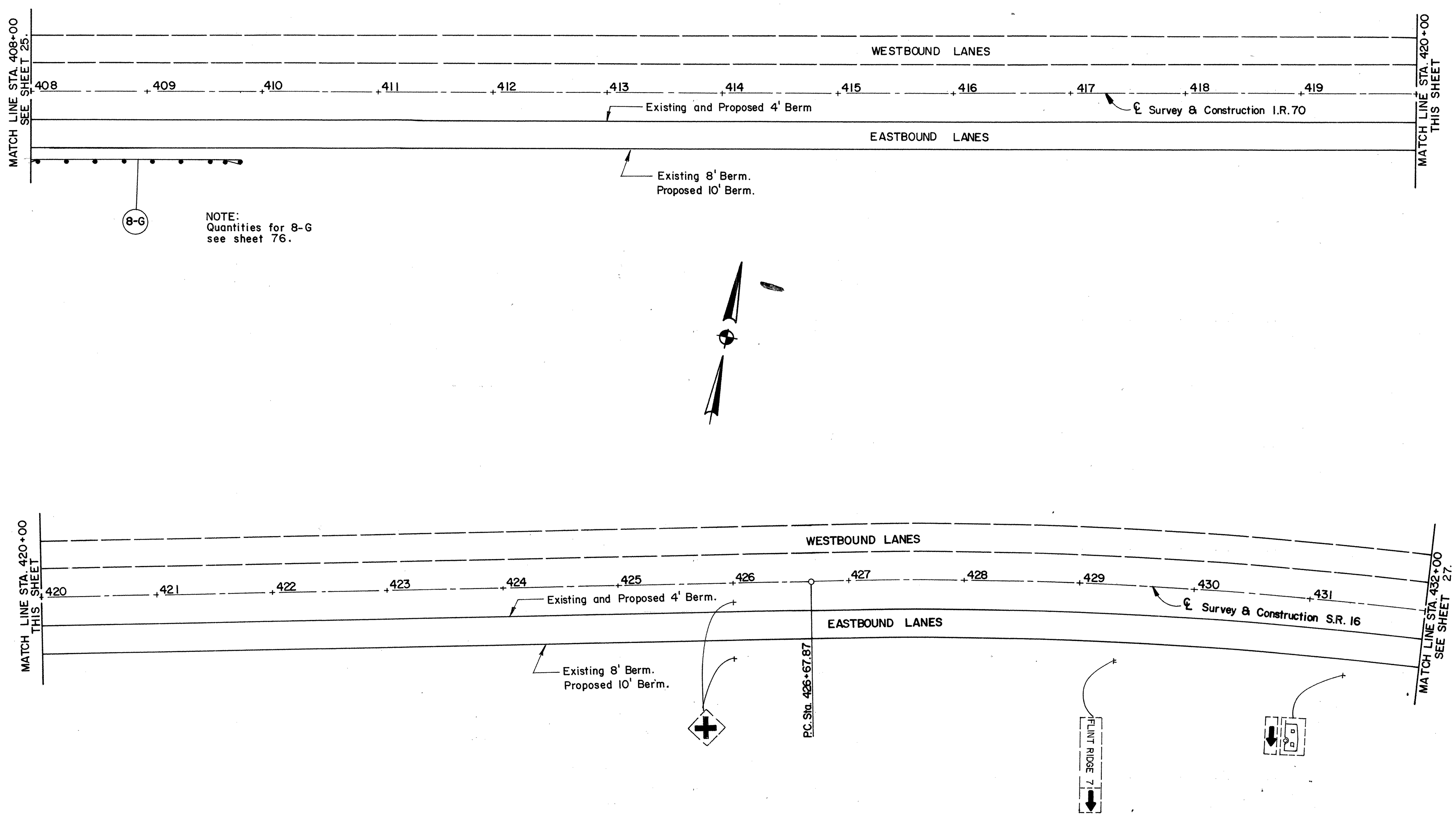


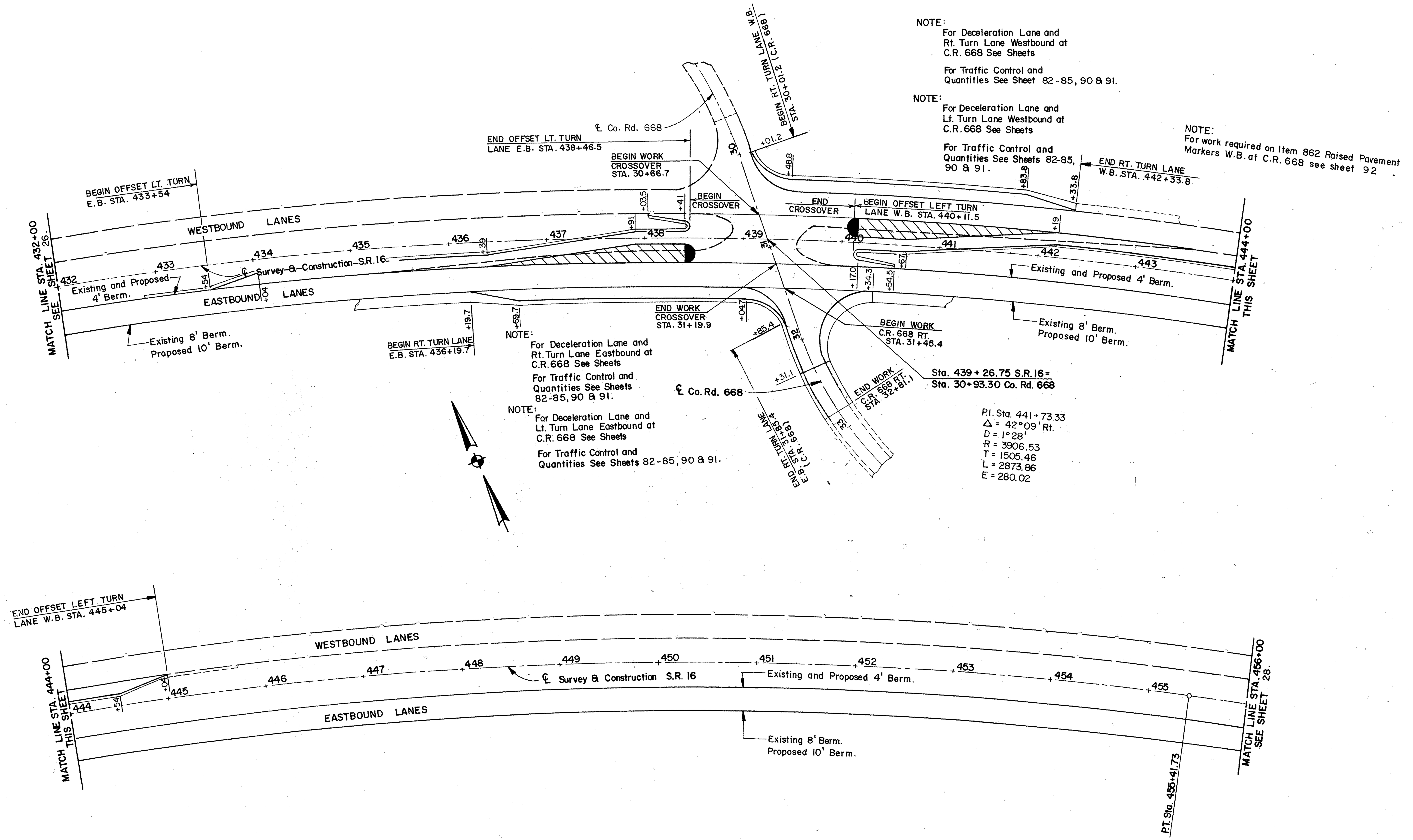
NOTE:
Quantities for 4-G thru 7-G see sheet 76.

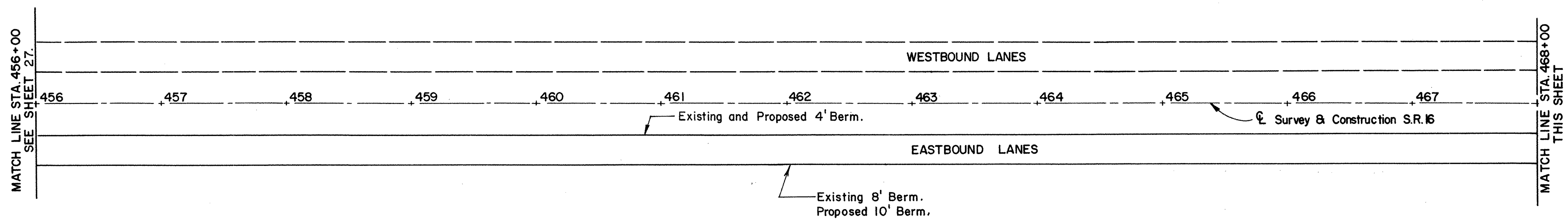
NOTE:
For Details of Bridge Overpass:
Sta. 378+11.19 to Sta. 378+76.19 &
Sta. 380+05.77 to Sta. 380+70.77
See Sheet 6 .

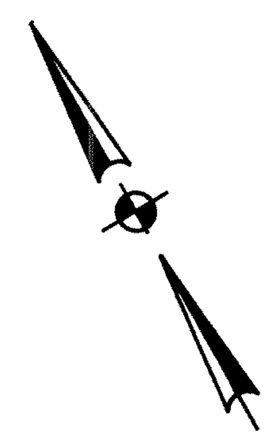
NOTE:
For Details of Bridge Approaches:
Sta. 378+76.19 to Sta. 379+01.19 &
Sta. 379+80.77 to Sta. 380+05.77
See Sheets 128-134.

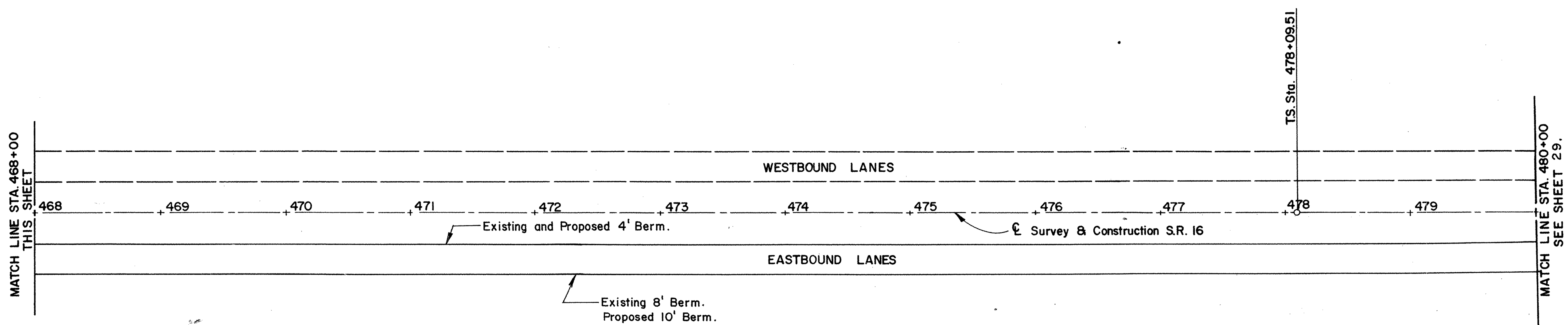

MATCH LINE STA. 384+00 SEE SHEET 24.
WESTBOUND LANES
384
385
386
387
388
389
390
391
392
393
394
395
Existing and Proposed 4' Berm.
℄ Survey & Construction S.R. 16
EASTBOUND LANES
Existing 8' Berm.
Proposed 10' Berm.
P.C. Sta. 391+12.38
9-G
10-G
MATCH LINE STA. 396+00 THIS SHEET
MATCH LINE STA. 396+00 THIS SHEET
WESTBOUND LANES
396
397
398
399
400
401
402
403
404
405
406
407
Existing and Proposed 4' Berm.
℄ Survey & Construction S.R. 16
EASTBOUND LANES
Existing 8' Berm.
Proposed 10' Berm.
P.T. Sta. 404+60.30
MATCH LINE STA. 408+00 SEE SHEET 26.
11-G
8-G
P.I. Sta. 397+86.90
△ = 5° 23' 30" Rt.
D = 0°24'
R = 14,324.00'
T = 674.52'
L = 1347.92'
E = 15.90'
NOTE:
Proposed guardrail flared to 18'.
Proposed 150' of embankment
to be placed as per Std. Drwg. GR-5.
(FILL TO FILL). Embankment
quantities carried with mainline
Embankment sheet 9 .
NOTE:
Quantities for 8-G thru 11-G
see sheet 76.


MATCH LINE STA. 408+00 SEE SHEET 25.
WESTBOUND LANES
408
409
410
411
412
413
414
415
416
417
418
419
Existing and Proposed 4' Berm
℄ Survey & Construction I.R. 70
EASTBOUND LANES
Existing 8' Berm.
Proposed 10' Berm.
MATCH LINE STA. 420+00 THIS SHEET
8-G
NOTE:
Quantities for 8-G
see sheet 76.
MATCH LINE STA. 420+00 THIS SHEET
WESTBOUND LANES
420
421
422
423
424
425
426
427
428
429
430
431
Existing and Proposed 4' Berm.
℄ Survey & Construction S.R. 16
EASTBOUND LANES
Existing 8' Berm.
Proposed 10' Berm.
P.C. Sta. 426+67.87
FLINT RIDGE 7
MATCH LINE STA. 432+00 SEE SHEET 27.

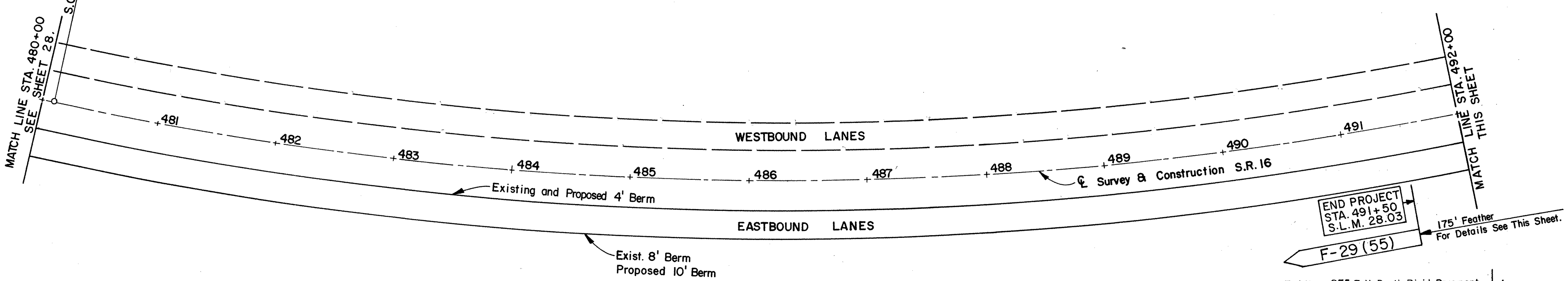

NOTE:
For Deceleration Lane and Rt. Turn Lane Westbound at C.R. 668 See Sheets
For Traffic Control and Quantities See Sheet 82-85, 90 & 91.
NOTE:
For Deceleration Lane and Lt. Turn Lane Westbound at C.R. 668 See Sheets
For Traffic Control and Quantities See Sheets 82-85, 90 & 91.
NOTE:
For work required on Item 862 Raised Pavement Markers W.B. at C.R. 668 see sheet 92.
BEGIN RT. TURN LANE W.B. STA. 30+01.2 (C.R. 668)
℄ Co. Rd. 668
END OFFSET LT. TURN LANE E.B. STA. 438+46.5
BEGIN WORK CROSSOVER STA. 30+66.7
BEGIN OFFSET LT. TURN E.B. STA. 433+54
BEGIN CROSSOVER
END CROSSOVER
BEGIN OFFSET LEFT TURN LANE W.B. STA. 440+11.5
END RT. TURN LANE W.B. STA. 442+33.8
WESTBOUND LANES
EASTBOUND LANES
MATCH LINE STA. 432+00 SEE SHEET 26.
MATCH LINE STA. 444+00 THIS SHEET
Existing and Proposed 4' Berm.
℄ Survey & Construction S.R. 16
Existing 8' Berm. Proposed 10' Berm.
BEGIN RT. TURN LANE E.B. STA. 436+19.7
END WORK CROSSOVER STA. 31+19.9
BEGIN WORK C.R. 668 RT. STA. 31+45.4
Sta. 439+26.75 S.R. 16 = Sta. 30+93.30 Co. Rd. 668
END WORK C.R. 668 RT. STA. 32+81.1
℄ Co. Rd. 668
END RT. TURN LANE E.B. STA. 31+85.4 (C.R. 668)
NOTE:
For Deceleration Lane and Rt. Turn Lane Eastbound at C.R. 668 See Sheets
For Traffic Control and Quantities See Sheets 82-85, 90 & 91.
NOTE:
For Deceleration Lane and Lt. Turn Lane Eastbound at C.R. 668 See Sheets
For Traffic Control and Quantities See Sheets 82-85, 90 & 91.
P.I. Sta. 441+73.33
Δ = 42°09' Rt.
D = 1°28'
R = 3906.53
T = 1505.46
L = 2873.86
E = 280.02
END OFFSET LEFT TURN LANE W.B. STA. 445+04
MATCH LINE STA. 444+00 THIS SHEET
MATCH LINE STA. 456+00 SEE SHEET 28.
P.T. Sta. 455+41.73

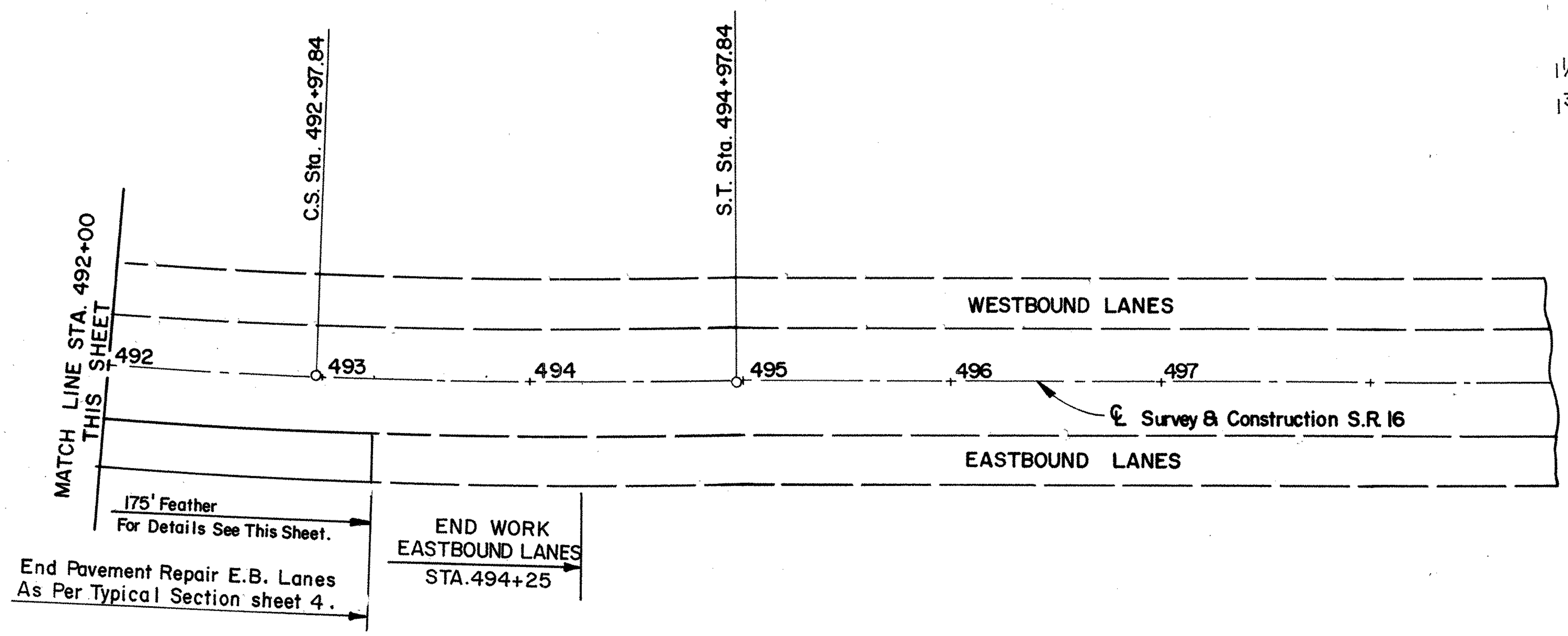

MATCH LINE STA. 456+00
SEE SHEET 27.
WESTBOUND LANES
456
457
458
459
460
461
462
463
464
465
466
467
Existing and Proposed 4' Berm.
℄ Survey & Construction S.R. 16
EASTBOUND LANES
Existing 8' Berm.
Proposed 10' Berm.
MATCH LINE STA. 468+00
THIS SHEET

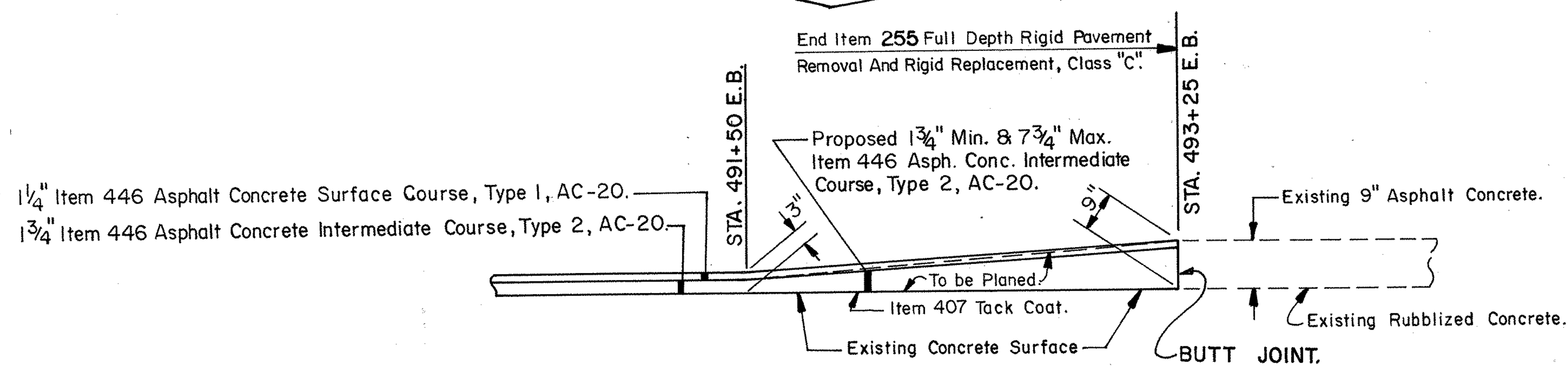



MATCH LINE STA. 468+00
THIS SHEET
T.S. Sta. 478+09.51
WESTBOUND LANES
468
469
470
471
472
473
474
475
476
477
478
479
Existing and Proposed 4' Berm.
℄ Survey & Construction S.R. 16
EASTBOUND LANES
Existing 8' Berm.
Proposed 10' Berm.
MATCH LINE STA. 480+00
SEE SHEET 29.

P.I. Sta. 486+71.04
△ = 29°46' Lt.
△c = 25°46'
Dc = 2°00'
Rc = 2864.79'
Ts = 861.53'
Es = 100.11'
Lc = 1288.33'
Ls = 200.00'
Xc = 199.98'
Yc = 2.33'
Os = 2°00'







FEATHER DETAILS STA. 491+50 TO STA. 493+25 EASTBOUND

NOTE:
End Temporary and Permanent Pavement Marking Sta. 494+25 E.B.
(See Std. Drwg. MT-95.30)

CALC. BY D.M. DATE 4-11-91
CHKD. BY T.D. DATE 4-23-91

LIC-16-23.27

OHIO | FHWA-REGION 5

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(PAVEMENT ELEVATION AND DETAIL) DAYTON ROAD RT. & LT.

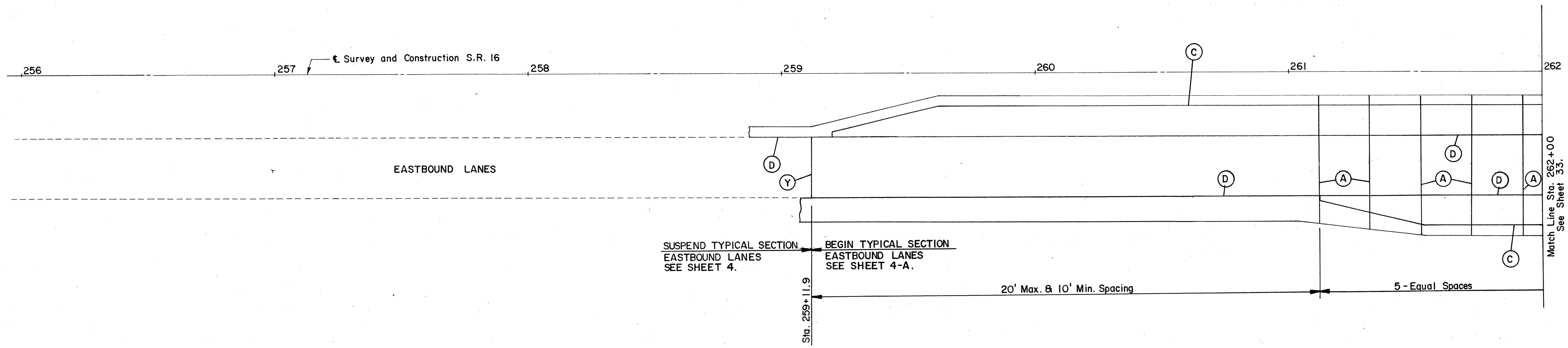
CALC. BY D.M. DATE 4-11-91 CHKD. BY T.D. DATE 5-23-91	LIC-16-23.27	OHIO FHWA REGION 5	31/134

* Taper proposed curb from 0" to 6" in 10'.

CROSS-HATCHED AREA DENOTES THAT AREA TO BE PLANED, CONCRETE REPAIRED AS PER ITEM 255 FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT AND RESURFACE AS PER PERTINENT TYPICAL SECTIONS SHEET 5.

CROSS-HATCHED AREA DENOTES THAT AREA TO BE PLANED AND RESURFACED AS PER PERTINENT TYPICAL SECTION SHEET 5.

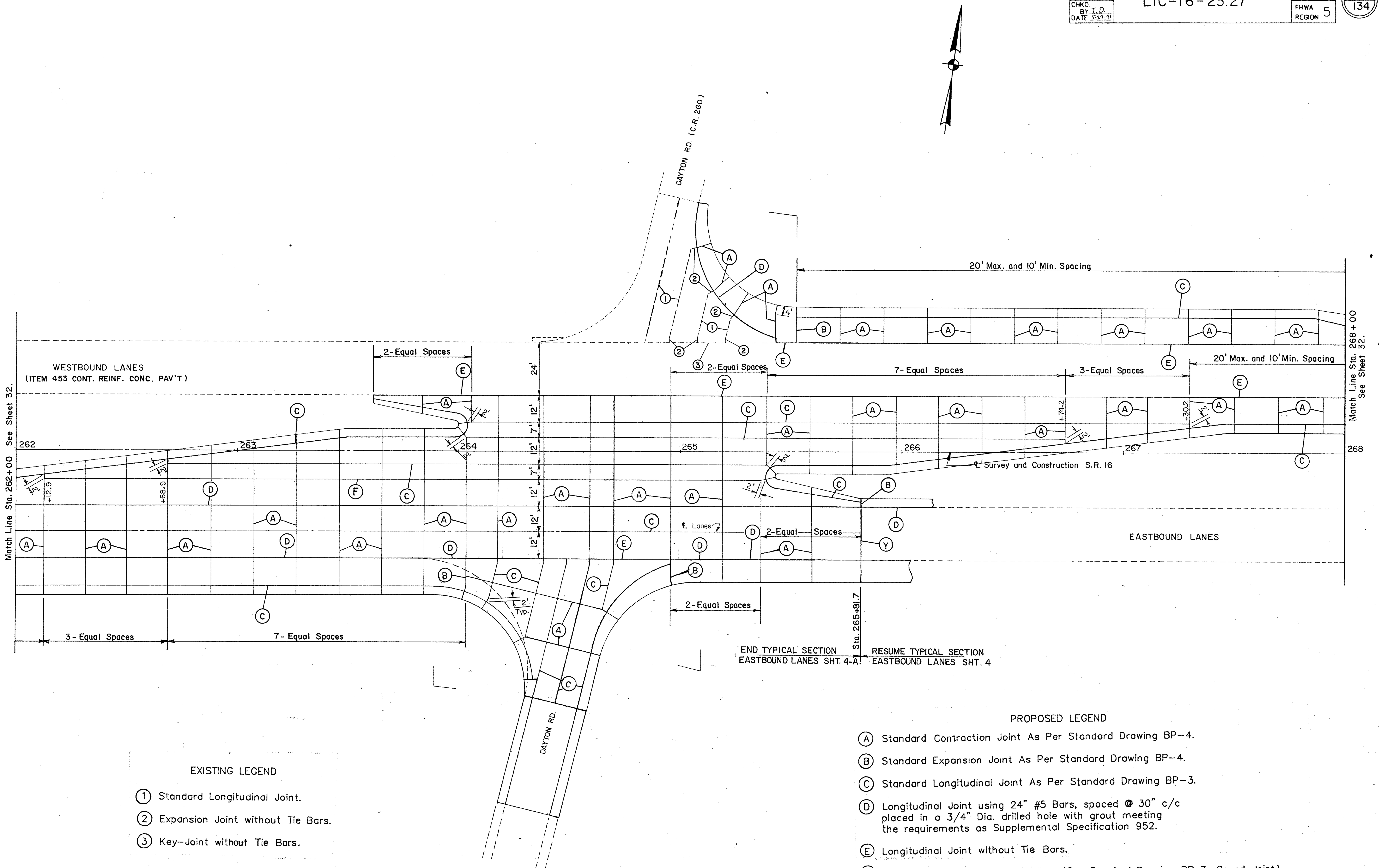
(PAVEMENT ELEVATION AND DETAILS) DAYTON ROAD RT. & LT.



PROPOSED LEGEND

- (A) Standard Contraction Joint As Per Standard Drawing BP-4.
- (B) Standard Expansion Joint As Per Standard Drawing BP-4.
- (C) Standard Longitudinal Joint As Per Standard Drawing BP-3.
- (D) Longitudinal Joint using 24" #5 Bars, spaced @ 30" c/c placed in a 3/4" Dia. drilled hole with grout meeting the requirements as Supplemental Specification 952.
- (E) Longitudinal Joint without Tie Bars
- (Y) Dowel to existing concrete pavement as per Std. Drwg. BP-13, Type Y.

(JOINT DETAIL) DAYTON ROAD RT. & LT.



EXISTING LEGEND

1. Standard Longitudinal Joint.
2. Expansion Joint without Tie Bars.
3. Key–Joint without Tie Bars.

PROPOSED LEGEND

- (A) Standard Contraction Joint As Per Standard Drawing BP–4.
- (B) Standard Expansion Joint As Per Standard Drawing BP–4.
- (C) Standard Longitudinal Joint As Per Standard Drawing BP–3.
- (D) Longitudinal Joint using 24" #5 Bars, spaced @ 30" c/c placed in a 3/4" Dia. drilled hole with grout meeting the requirements as Supplemental Specification 952.
- (E) Longitudinal Joint without Tie Bars.
- (F) Longitudinal Joint without Tie Bars, (See Standard Drawing BP-3, Sawed Joint).
- (Y) Dowel to existing concrete pavement as per Std. Drwg. BP-13, Type Y.

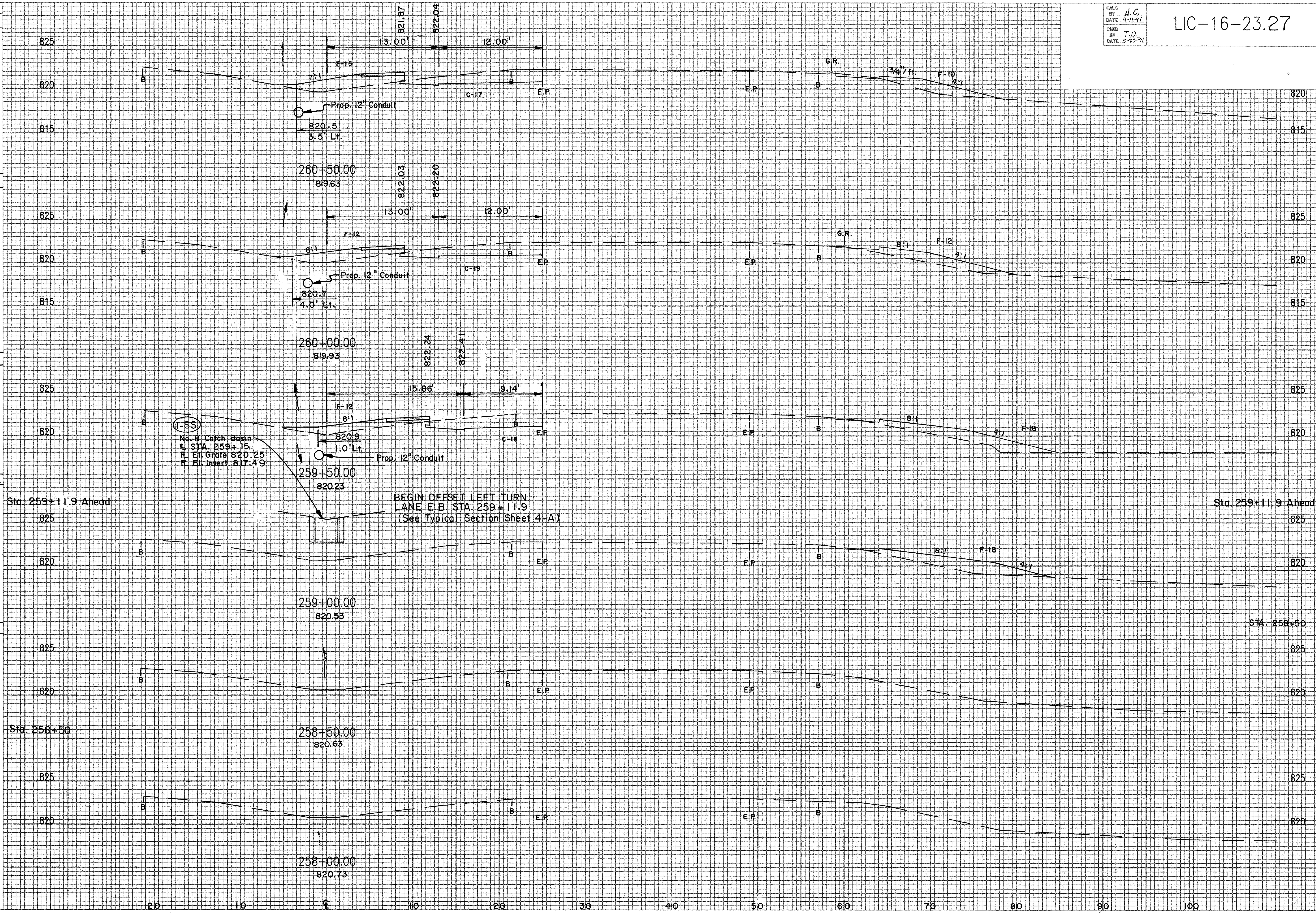
(JOINT DETAIL) DAYTON ROAD RT & LT

CALC BY	H.C.	DATE	4-11-91
CHKD BY	T.D.	DATE	5-23-91

LIC-16-23.27

OHIO FHWA REGION 5

SEEDING END WIDTH	SQ. YDS.
16	
20	
	89
	114
16	
21	
	94
	131
18	
26	
	59
	142
10	
25	
	111
15	



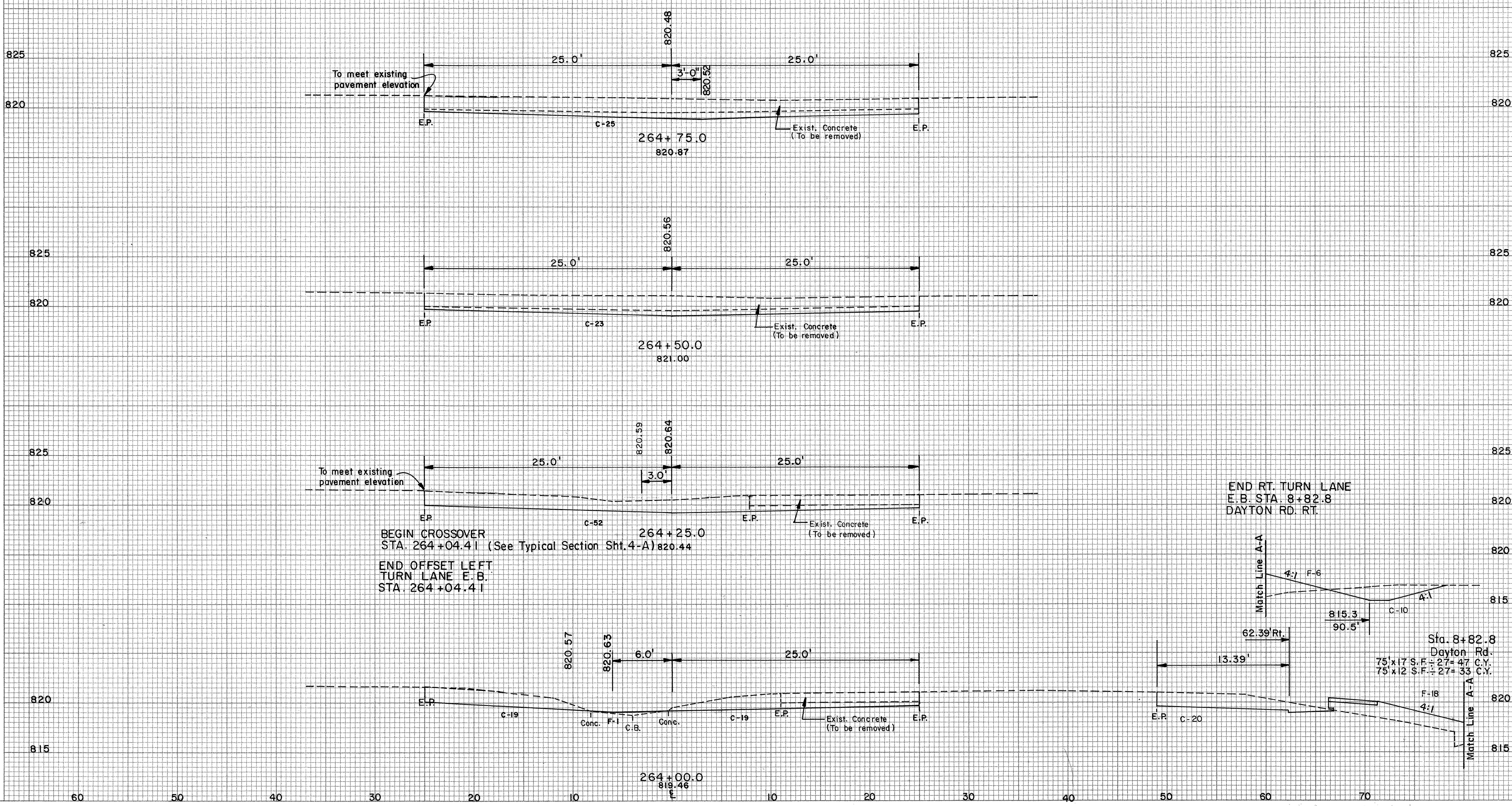
STA. 258+00 — STA. 260+50

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
17	15		
0	10		
		33	25
		0	20
19	12		
0	12		
		34	22
		0	28
18	12		
0	18	16	12
5	1		
		0	33
0	18		
		0	17
0	0		

LIC-16-23.27
OHIO
FHWA REGION 5
35/134
CALC BY J.C DATE 4-11-91
CHKD BY T.D. DATE 5-23-91
SEEDING
END WIDTH
SQ. YDS.
END AREA
CUT
FILL
VOLUME
CUT
FILL
Ahead
Sta. 263+41
Back
Sta. 263+41 Ahead
Back
263+50
820.2
263+25.00
820.24
263+00.00
820.24
262+50.00
820.34
262+00.00
820.34
261+50.00
820.14
261+00.00
819.19
Prop. 12" Conduit Type B
No. 8 Catch Basin
3.5' Lt. Sta. 262+00
℞ El. Grate 819.90
℞ El. Invert 817.42
Existing Concrete (To be removed)
STA. 261+25
Sta. 261+03.9 Ahead
Sta. 261+03.9 Ahead
Back
BEGIN RT. TURN LANE
E.B. STA. 261+03.9 (See Typical Section Sheet 4-A)
No. 8 Catch Basin
4.4' Lt. Sta. 260+98.5
℞ El. Grate 819.83
℞ El. Invert 816.50
℞ El. 12" 816.75
Exist. C.B. Removed
℄ Sta. 260+98.5
603 9' x 15" Conduit, Type B
Conc. Collar
See Std. Drwg. MC-4
Exist. 15" Conduit
(To remain in service).
61.0' Rt.
60.06' Rt.
12.0'
11.06'
25.0'
25.00'
24.89'
18.64'
6.36'
12.61'
12.39'
13.0'
12.0'
6.00'
3.01'
0.11'
815.1
92.0'
815.0
92.7'
814.8
93.8'
814.6
95.3'
814.4
96.7'
STA. 261+00 — STA. 263+50

CALC BY J.C. DATE 6-11-91
CHKD BY T.D. DATE 5-23-91
LIC-16-23.27
OHIO
FHWA REGION 5
36
134
SEEDING
END WIDTH
SQ. YDS.
END AREA
VOLUME
CUT
FILL
CUT
FILL
Exist. C.B.
To be Removed
4.5' Lt. Sta 263+98.3
1/2"/ft.
821.21
820.57
820.63
E.P.
2-SS
No. 3-A Catch Basin A.P.P.
10' Lt. Sta. 263+86
℄ El. Grate 820.32
℄ El. 4" U.D. 817.3
℄ El. Invert 816.3
202 Pipe
Removed 24"
& Under 18 L.F.
263+98.3
3-SS
No. 3 Manhole Using Flat Slab Top
15' Rt. Sta. 263+98.3
℄ El. Cover 820.95
℄ El. Invert 815.78
℄ El. 12" 816.03
Existing 15" Conduit
(To remain in service).
Conc. Collar
See Stand. Drwg. MC-4
6.03' 15"x12' Conduit
Type B, 706.02
℄ 815.4
℄ El. 815.31
HW-4 Headwall
Remove 4 Lin. Ft. of exist.
Conduit and exist. Headwall.
Cost to be included with Item 603.
4-SS
815.3
90.5'
4:1
6.57'
3.52'
821.11
820.49
820.66
6.0'
25.0'
F-1
1/2"/ft.
C-17
C-20
Existing Concrete
(To be removed)
Sta. 8+82.8
Dayton Rd.
75'x11' = 9+92 S.Y.
263+90.00
819.84
4.97'
2.99'
821.38
820.52
820.69
F-2
1/2"/ft.
C-13
C-26
Prop. 12" Conduit
Type B
263+80.00
819.94
4.17'
2.72'
821.52
821.42
820.54
820.71
C-9
C-28
Existing Concrete
(To be removed)
263+75.00
820.04
61.0' Rt.
12.0'
821.00
820.83
C-17
F-31
C-11
815.2
91.3'
5
7
9
92
9
33
96
8
6
36
12
103
35
820
815
825
38 1
12 1
37 1
12 1
26 2
5 1
28 31
28 2
27 30
26 2
30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110
STA. 263+75 — STA. 263+98.3

CALC. BY d.C DATE 4-11-91 / CHKD. BY T.D. DATE 5-23-91	LIC-16-23.27	OHIO FHWA REGION 5	37 / 134



SEEDING END WIDTH	SEEDING SQ. YDS.

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
25	0		
		22	0
23	0		
		35	0
52	0		
		42	1
		47	33
30	24		
38	1		
		27	25
		2	1

STA. 264+00 – STA. 264+75.0

CALC. BY J.C. DATE 4-11-91
CHKD. BY T.D. DATE 5-23-91

LIC-16-23.27

OHIO FHWA REGION 5

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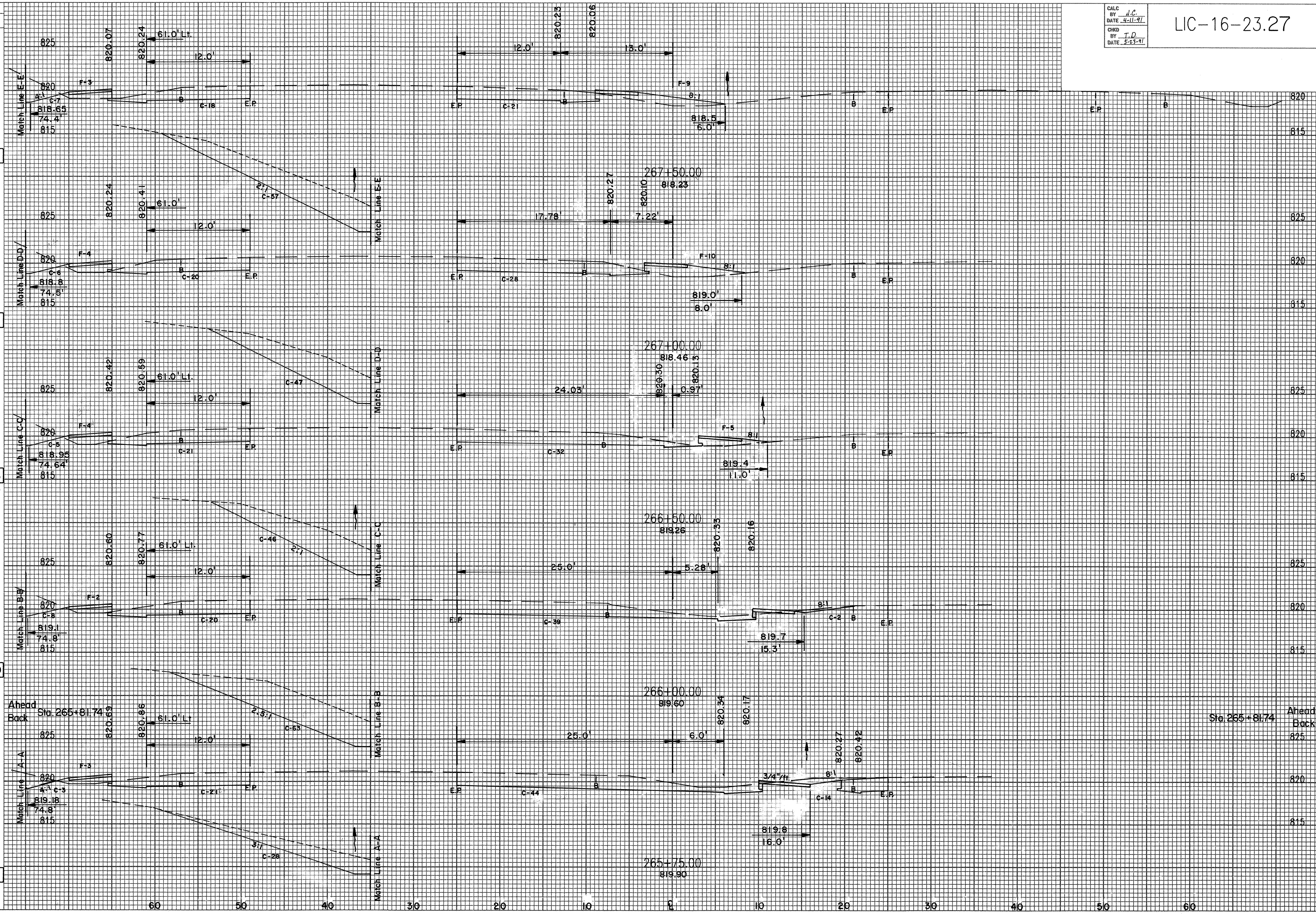
STA. 265+25.0 — STA. 265+50.0

CALC BY J.C. DATE 4-11-91	LIC-16-23.27	OHIO FHWA REGION 5	39/134
CHKD BY T.D. DATE 5-23-91			



SEEDING END WIDTH	SEEDING SQ. YDS.
38	15
192	75
31	12
172	56
31	8
186	56
36	12
100	24
12	9
	7
36	9
87	25

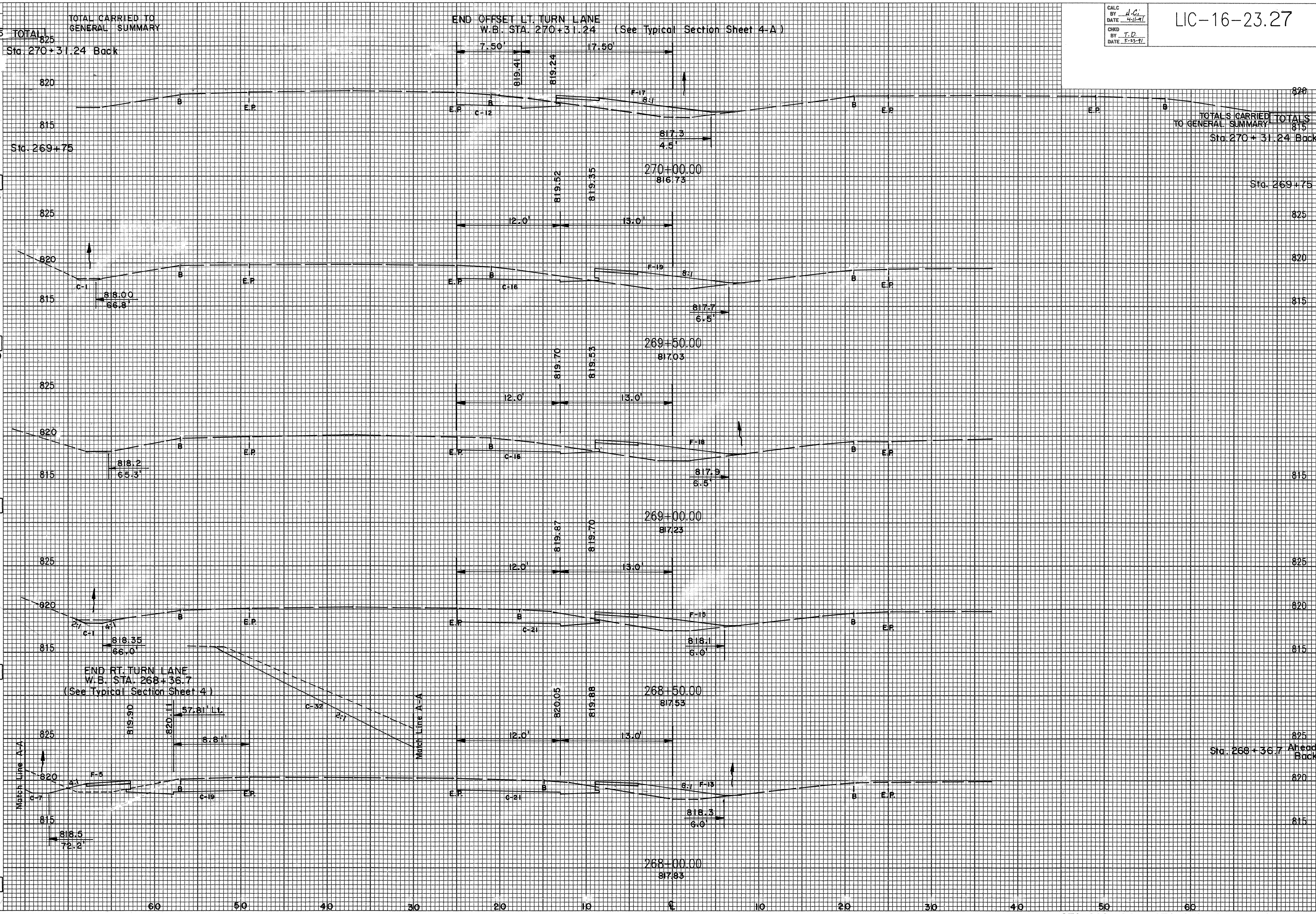
	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	82	3		
	21	9		
			144	6
			45	18
	73	4		
	28	10		
			134	7
			56	14
	72	4		
	32	5		
			151	6
			68	5
	91	2		
	41	0		
			66	2
			32	0
Ahead	52	0		
Back	58	0		
			14	0
	52	3		
	58	0		
			41	2
			56	0

LIC-16-23.27

OHIO — FHWA REGION 5 — 40/134

CALC BY H.Ci. DATE 4-11-91
CHKD BY T.D. DATE 5-23-91

SEEDING END WIDTH	SQ. YDS.
TOTAL	4845
21	73
21	
5	36
	108
8	36
18	100
5	42
18	97
10	136
17	94
39	214
17	89



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
TOTALS		2263	846
Sta. 270+31.24 Back 5	0		
12	17	10	10
Sta. 269+75 0	0		
		1	0
		26	33
1	0		
16	19		
		2	0
		30	34
1	0		
16	18		
		2	0
		34	31
1	0		
21	15		
		10	0
		39	26
Sta. 268+36.7 Ahead 39	0		
Back 49	0		
		73	3
58	5		
21	13		
		130	7
		39	20

STA. 268+00 — STA. 270+00

CALC BY	H.C.
DATE	4-11-91
CHKD BY	T.D.
DATE	5-23-91

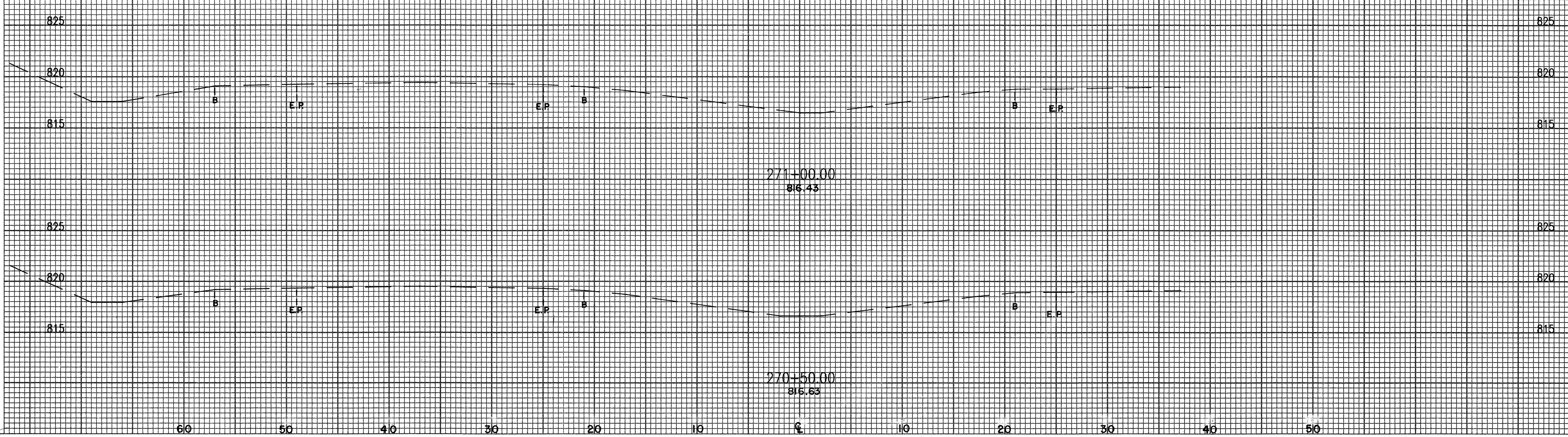
LIC-16-23.27

OHIO

FHWA REGION 5

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 270+50 — STA. 271+00

SEEDING	
END WIDTH	SQ. YDS.

CALC. BY J.C. DATE 4-11-91
CHKD. BY T.D. DATE 5-23-91

LIC-16-23.27

OHIO
FHWA REGION 5

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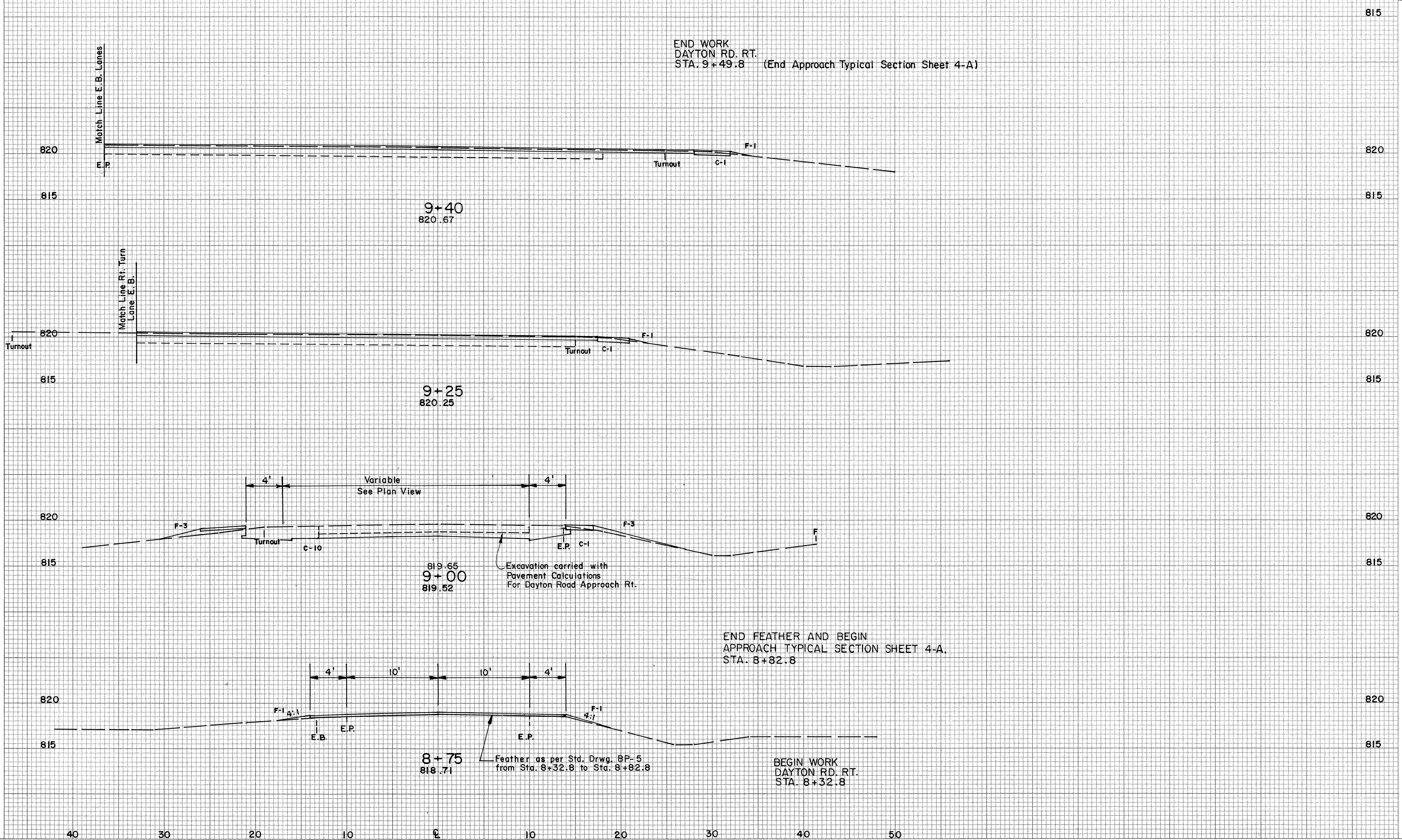
134

END AREA		VOLUME	
CUT	FILL	CUT	FILL



DAYTON ROAD STA. 8+75 — STA. 9+60

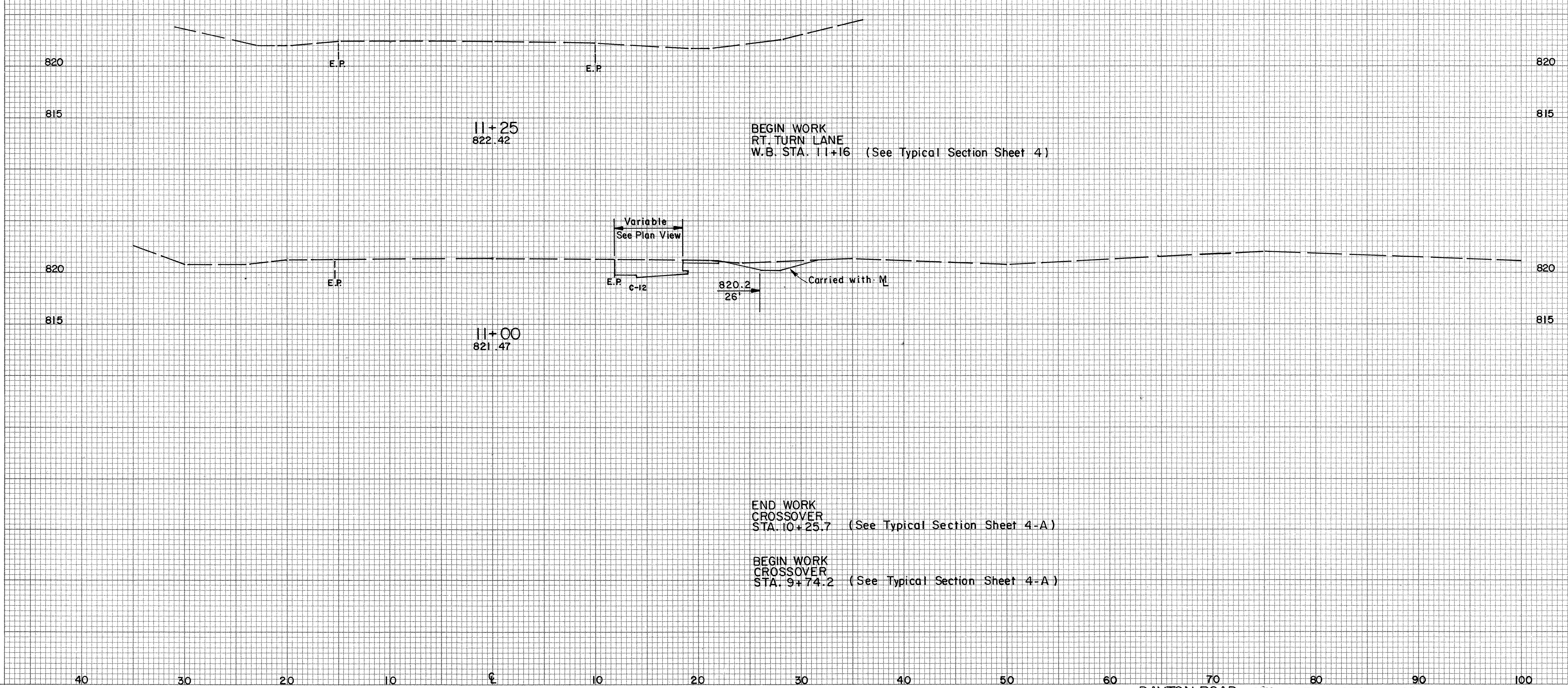
CALC. BY J.C. DATE 4-11-91
CHKD. BY T.O. DATE 5-23-91

LIC-16-23.27

OHIO
FHWA REGION 5

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



DAYTON ROAD STA. 9+75 — STA. 11+25

CALC. BY D.M. DATE 4-11-91 CHKD. BY T.D. DATE 5-23-91	LIC-16-23.27	OHIO FHWA REGION 5	44/134

(PAVEMENT ELEVATION AND DETAILS) C.R. 585 (EAST MAIN ST.) RT. & C.R. 585 (MARNE RD.) LT.

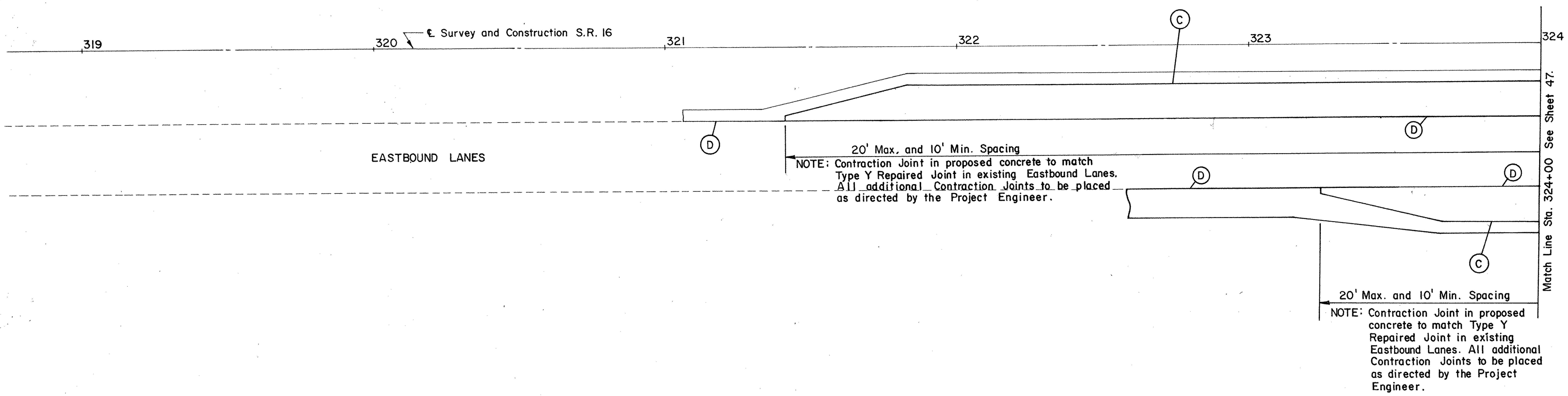
CALC. BY D.M. DATE 4-11-91 CHKD. BY T.D. DATE 5-23-91	LIC-16-23.27	OHIO FHWA REGION 5	45 / 134

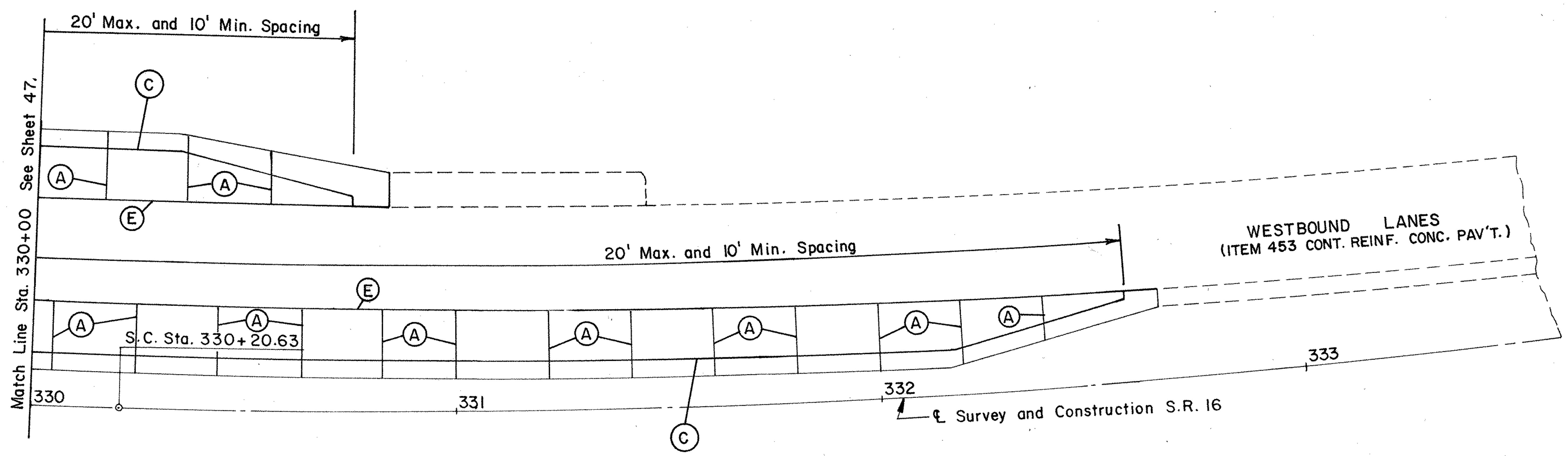
CROSS-HATCHED AREA DENOTES THAT AREA TO BE PLANED, CONCRETE REPAIRED AS PER ITEM 255 FULL DEPTH RIGID PAVEMENT REMOVAL AND RIGID REPLACEMENT AND RESURFACE AS PER PERTINENT TYPICAL SECTIONS SHEET 5.

CROSS-HATCHED AREA DENOTES THAT AREA TO BE PLANED AND RESURFACED AS PER PERTINENT TYPICAL SECTIONS SHEET 5.

B.M. S.E. Cor. Conc. Base For Strain Pole C.R. 585 Elev. 801.48

(PAVEMENT ELEVATION AND DETAILS) C.R. 585 (EAST MAIN ST.) RT. & C.R. 585 (MARNE RD) LT.





PROPOSED LEGEND

(A) Standard Contraction Joint As Per Standard Drawing BP-4.

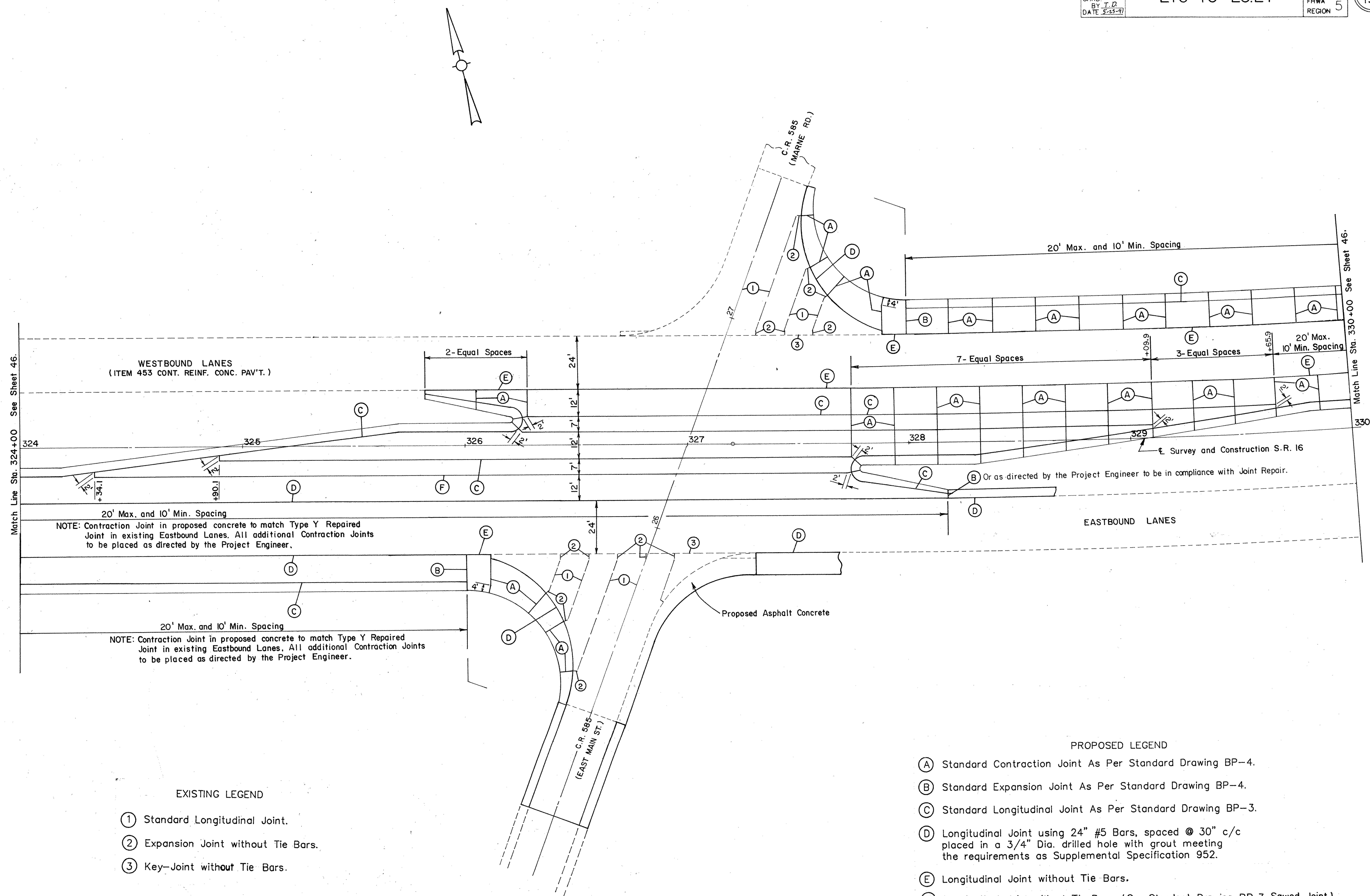
(B) Standard Expansion Joint As Per Standard Drawing BP-4.

(C) Standard Longitudinal Joint As Per Standard Drawing BP-3.

(D) Longitudinal Joint using 24" #5 Bars, spaced @ 30" c/c placed in a 3/4" Dia. drilled hole with grout meeting the requirements as Supplemental Specification 952.

(E) Longitudinal Joint without Tie Bars

(JOINT DETAIL) C.R. 585 (EAST MAIN ST.) RT. & C.R. 585 (MARNE RD.) LT.



EXISTING LEGEND

1. Standard Longitudinal Joint.
2. Expansion Joint without Tie Bars.
3. Key–Joint without Tie Bars.

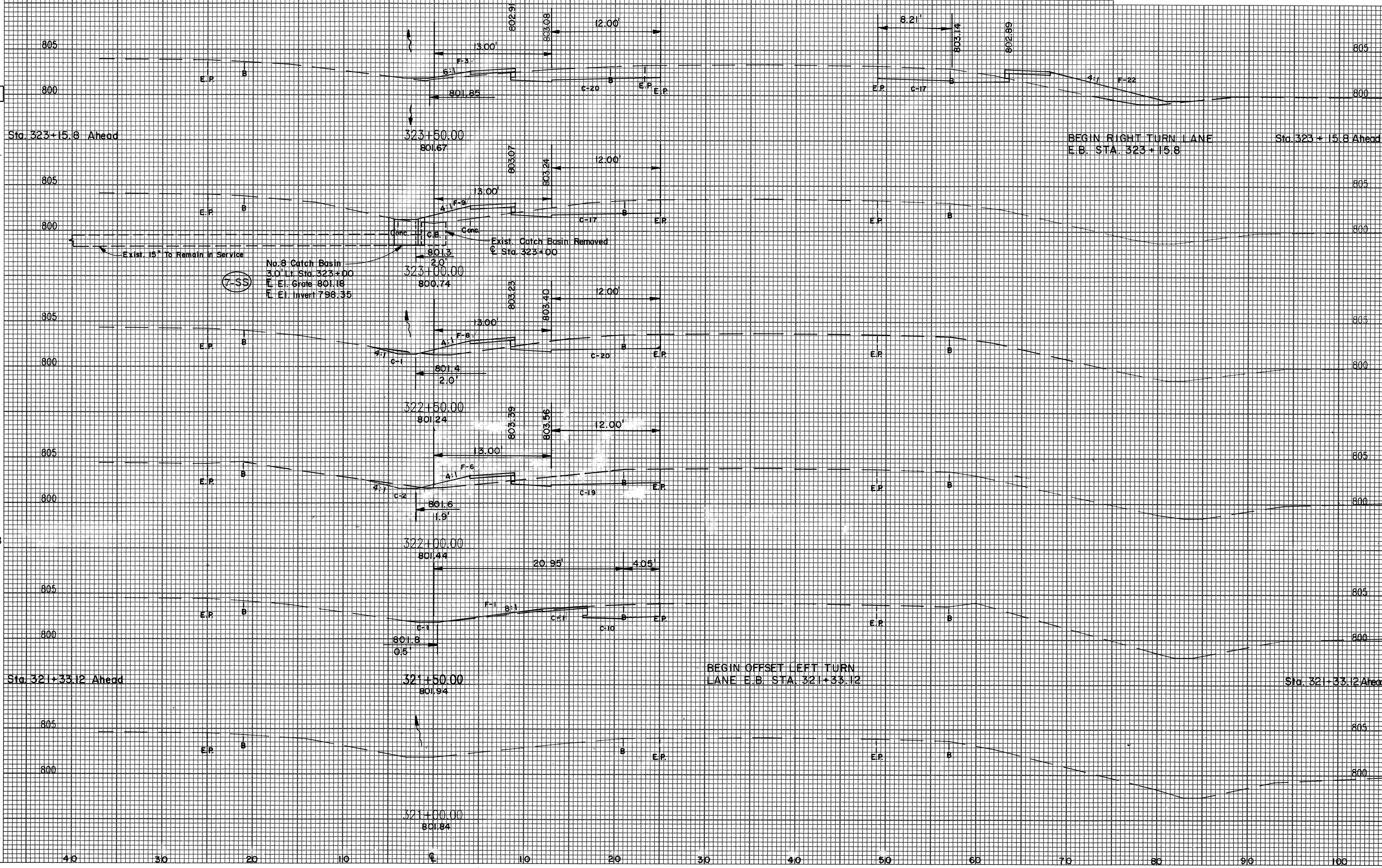
PROPOSED LEGEND

- (A) Standard Contraction Joint As Per Standard Drawing BP–4.
- (B) Standard Expansion Joint As Per Standard Drawing BP–4.
- (C) Standard Longitudinal Joint As Per Standard Drawing BP–3.
- (D) Longitudinal Joint using 24" #5 Bars, spaced @ 30" c/c placed in a 3/4" Dia. drilled hole with grout meeting the requirements as Supplemental Specification 952.
- (E) Longitudinal Joint without Tie Bars.
- (F) Longitudinal Joint without Tie Bars, (See Standard Drawing BP-3, Sawed Joint).

(JOINT DETAIL) C.R. 585 (EAST MAIN ST.) RT. & C.R. 585 (MARNE RD.) LT.

CALC BY J.C. DATE 4-11-91	CHKD BY T.D. DATE 5-23-91	LIC-16-23.27	OHIO FHWA REGION 5	48/134

SEEDING END WIDTH	SEEDING SQ. YDS.
21	
13	
	67
14	
	64
10	
	75
17	
	97
18	
	108
21	
	15
5	



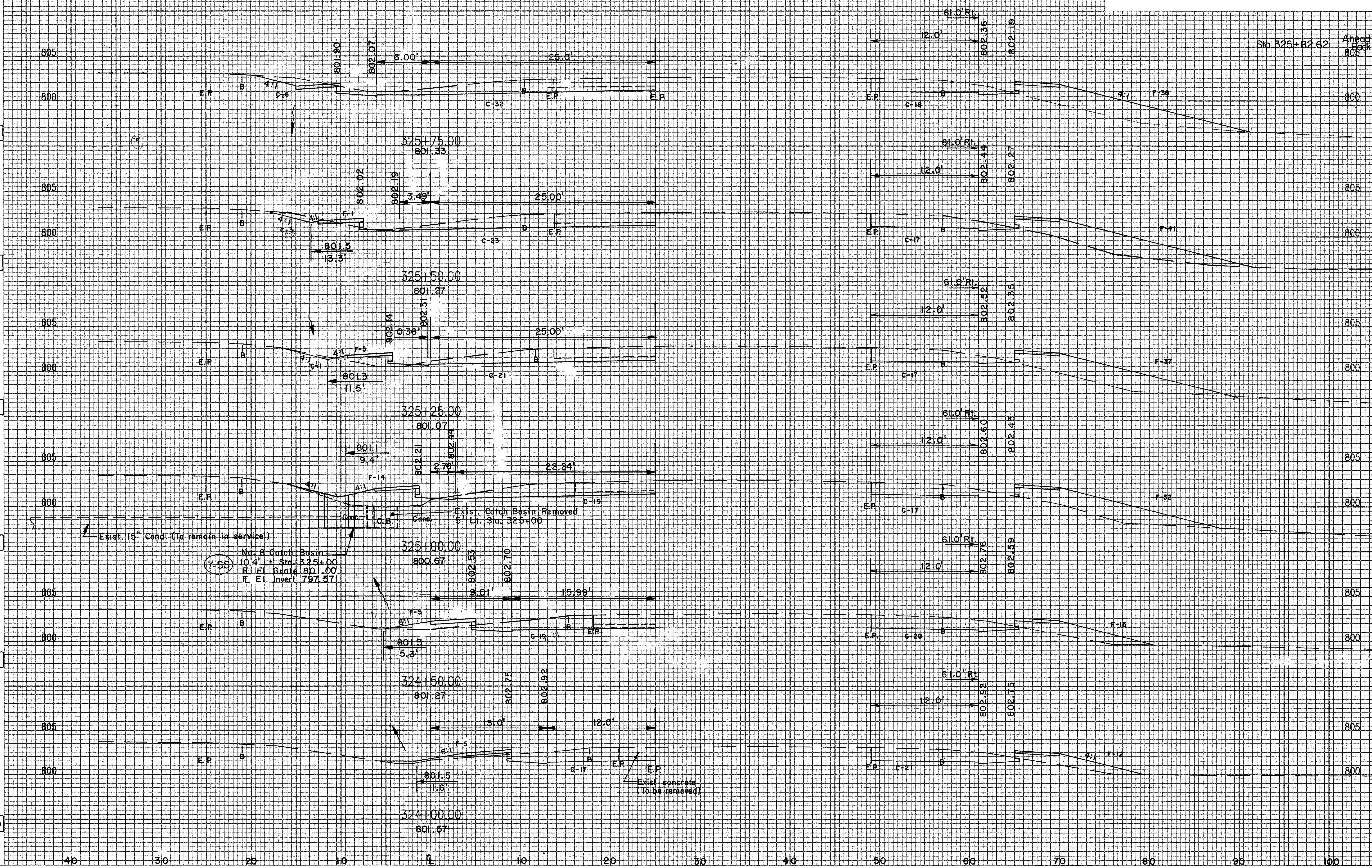
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
17	22		
20	3		
		20	28
14	22		
		34	11
17	9		
		35	16
21	8		
		39	13
21	6		
		31	6
12	1		
		5	1
5	1		

STA. 321+00 — STA. 323+50

CALC BY	J.C.
DATE	4-11-91
CHKD BY	T.D.
DATE	5-23-91

LIC-16-23.27

OHIO — FHWA REGION 5



STA. 324+00 — STA. 325+75

SEEDING

END WIDTH	SQ. YDS.
27 / 10	
	75 / 29
27 / 11	
	72 / 33
25 / 13	
	68 / 35
24 / 12	
	111 / 64
16 / 11	
	86 / 72
15 / 15	
	100 / 78

END AREA / VOLUME

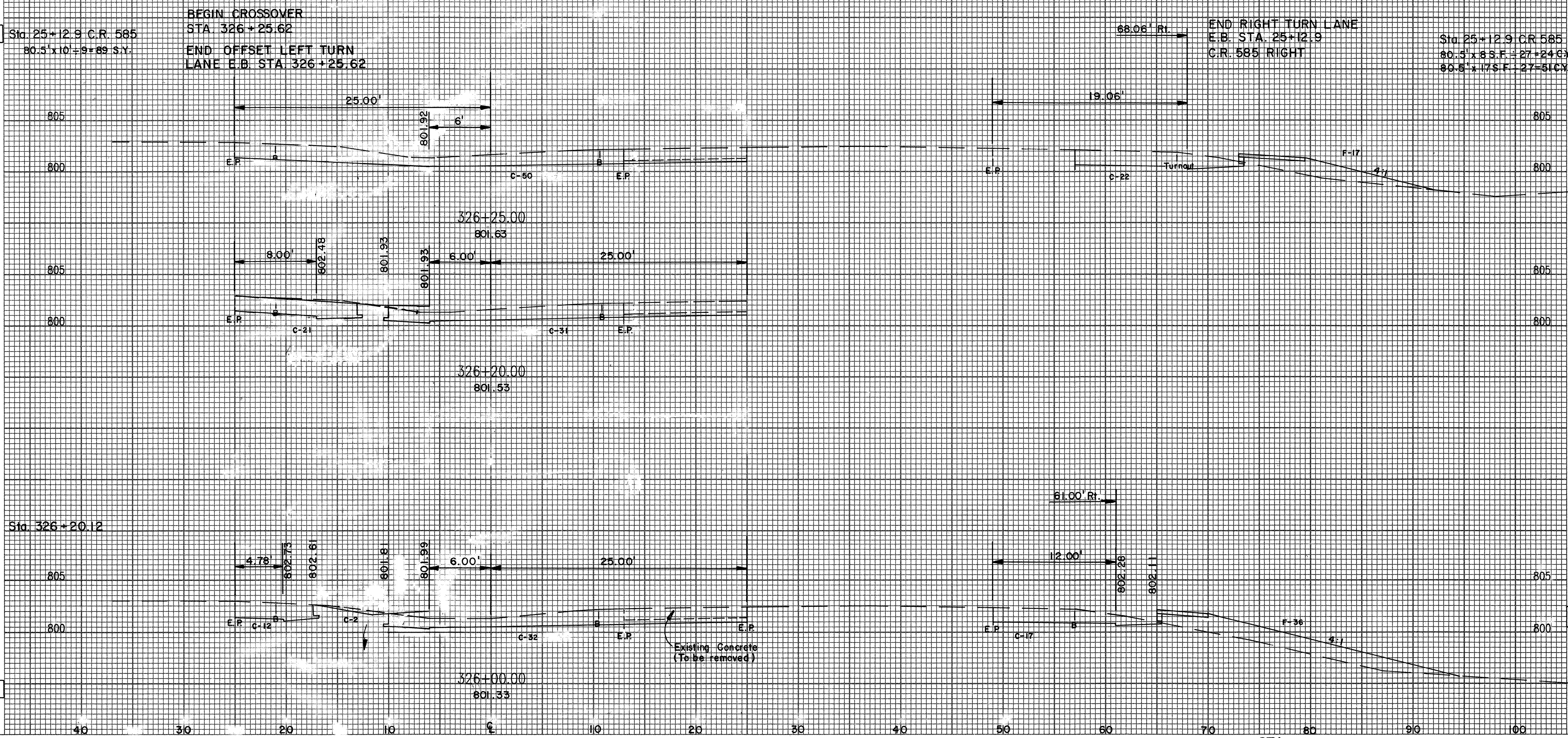
Station	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
Sta. 325+82.62 Ahead	44	0		
Back	38	0		
			11	0
325+75.00	18	38		
	38	0		
			16	37
			30	1
325+50.00	17	41		
	26	1		
			16	36
			22	3
325+25.00	17	37		
	22	5		
			16	32
			19	9
325+00.00	17	32		
	19	14		
			34	44
			35	18
324+50.00	20	15		
	19	5		
			38	25
			33	9
324+00.00	21	12		
	17	5		
			35	31
			44	7

CALC BY	J.C.	DATE	4-11-91
CHKD BY	T.D.	DATE	5-23-91

LIC-16-23.27

OHIO FHWA REGION 5

50/134



SEEDING

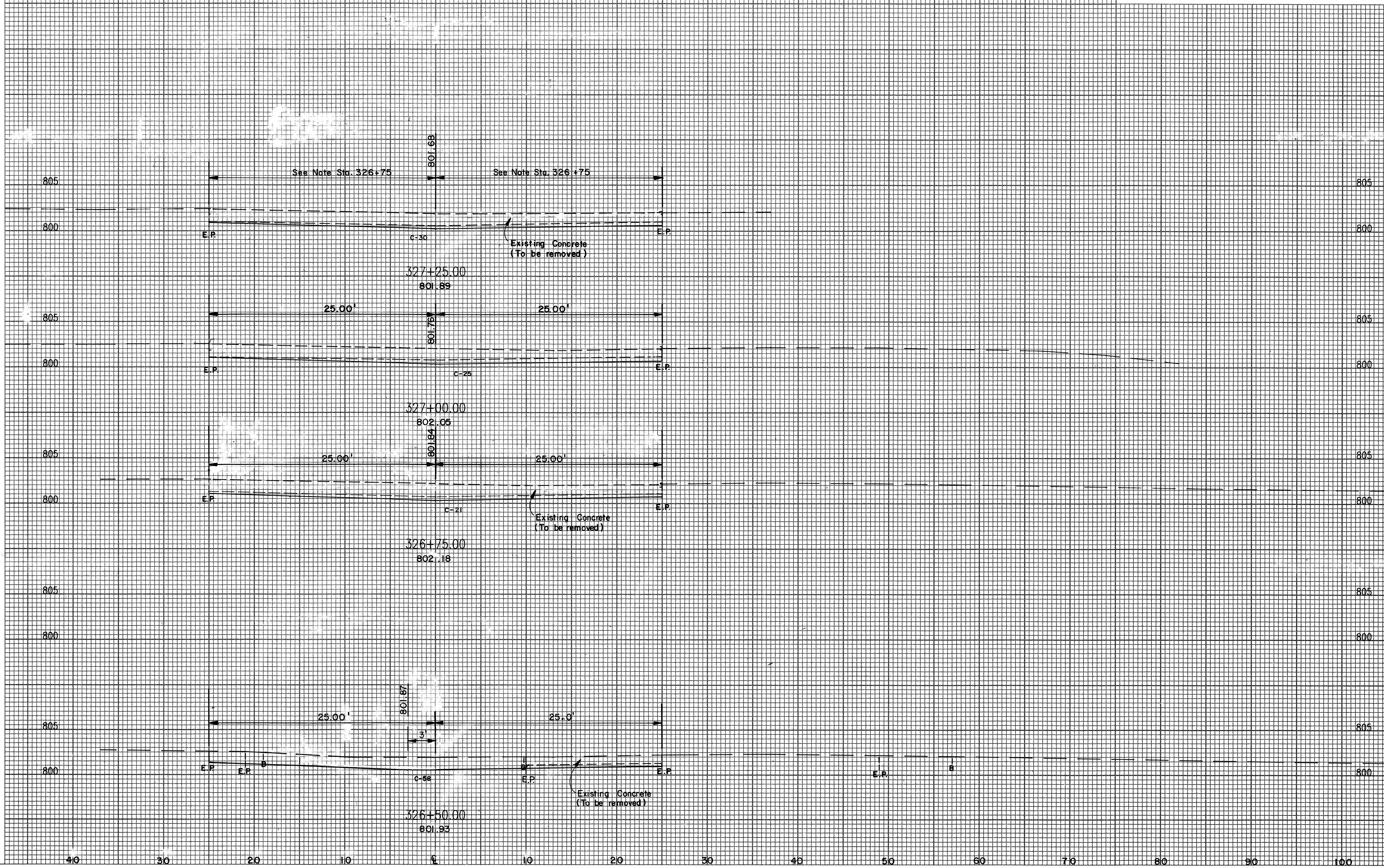
END WIDTH	SQ. YDS.
	89
8	22
30	
12	
	79
	31

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		24	51
50	0		
		9	0
52	0		
		36	0
17	36		
46	0		
		16	34
		29	0

STA. 326+00 — STA. 326+40

CALC BY	J.C.	LIC-16-23.27	OHIO	51 / 134
DATE	4-11-91		FHWA REGION 5	
CHKD BY	T.D.			
DATE	5-13-91			

SEEDING END WIDTH	SQ. YDS.



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
30	0		
		25	0
25	0		
		21	0
21	0		
		37	0
58	0		
		50	0

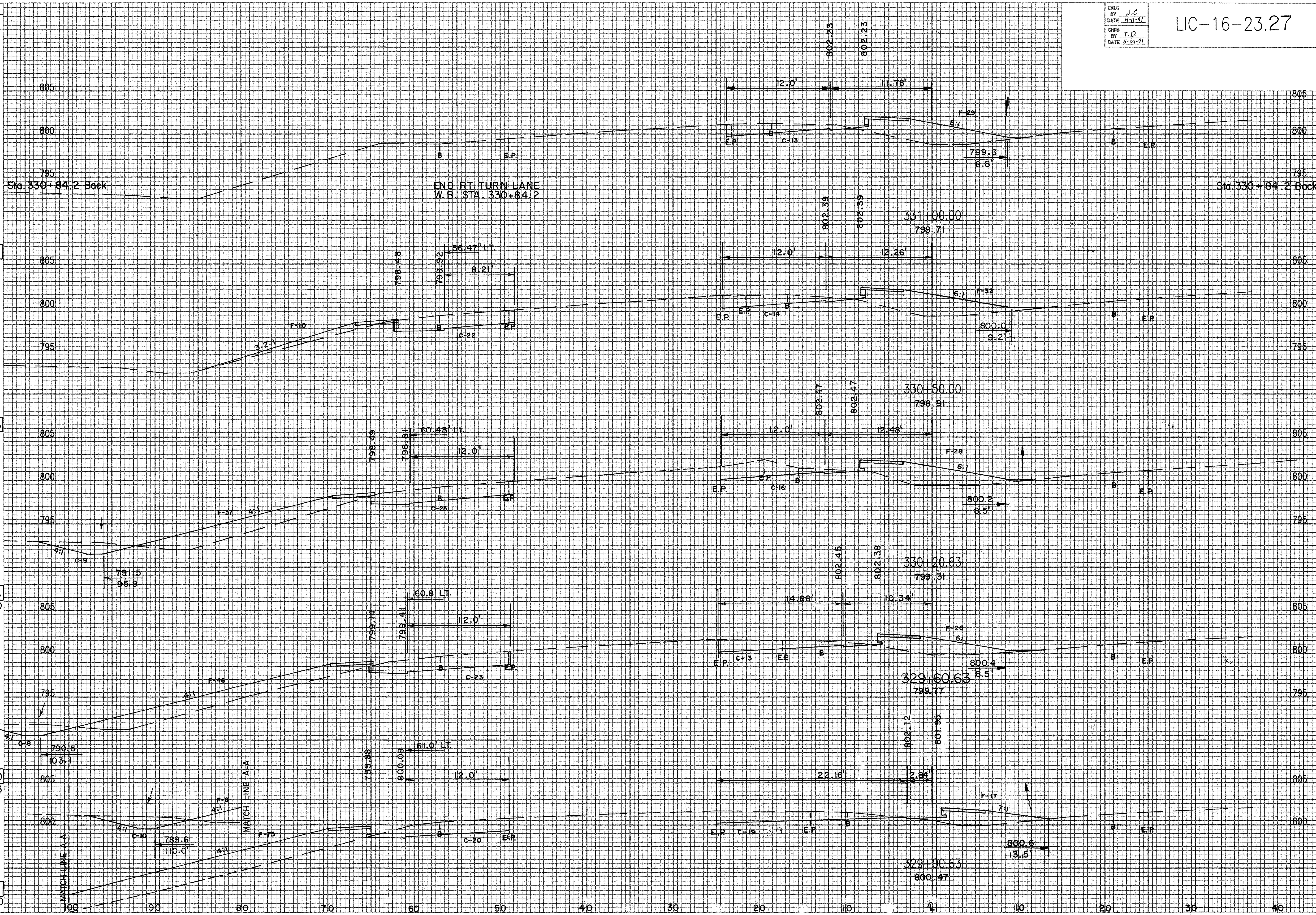
STA. 326+50 — STA. 327+40


SEEDING
END WIDTH
SQ. YDS.
56
17
165
53
43
15
88
38
10
8
45
3
0
45
F-47 4:1
MATCH LINE A-A
120
110
100
805
800
61.0' Lt.
12.00'
800.62
800.79
F-85 4:1
B
C-21
E.P.
25.0'
4.66'
801.59
801.42
F-4
8:1
C-31
C-1
800.86
15.66'
328+40.63
800.67
801.46
801.29
Sta. 328+17.38
Ahead
Back
800.95
801.12
25.00'
6.00'
801.57
801.67
3.08'
F-1
C-22
C-45
C-8
801.0
15.0'
F-43
4:1
328+10.63
800.97
65.30' Lt.
16.30'
801.49
801.32
801.39
801.56
7.88'
F-2
C-20
C-51
C-16
801.2
11.5'
327+80.63
801.27
Sta. 27+69.2
C.R. 585
81.5' x 22 S.F. ÷ 27 = 66 C.Y.
81.5' x 1 S.F. ÷ 27 = 3 C.Y.
BEGIN OFFSET LEFT TURN
LANE W.B. STA. 327+74.38
END CROSSOVER
STA. 327+74.38
Sta. 327+74.38 Ahead
Sta. 27+69.2
81.5' x 5' ÷ 9 = 45 S.Y.
CARRIED FROM
SHEET 126
801.60
25.0'
C-71
Turnout
BEGIN RIGHT TURN LANE
W.B. STA. 27+69.2
C.R. 585 LEFT
327+50.00
801.47
100
90
80
70
60
50
40
30
20
10
℄
10
20
30
40
END AREA
VOLUME
CUT
FILL
CUT
FILL
21 132
33 4
35 2
48 1
54 1
24 97
14 1
22 43
54 1
23 25
68 1
20 2
69 1
66 3
16 1
69 1
13 0
63 1
71 0
47 0

CALC BY	J.C.	DATE	4-11-91
CHKD BY	T.D.	DATE	5-23-91

LIC-16-23.27

OHIO — FHWA REGION 5



SEEDING END WIDTH	SEEDING SQ. YDS.
20	
5	
	57
	117
25	
22	
	106
	70
40	
21	
	196
	130
48	
18	
	340
	103
54	
13	
	367
	100

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
13	29		
10	0		
		20	6
		25	56
22	10		
14	32		
		30	26
		16	33
34	37		
16	28		
		48	61
		32	53
31	46		
13	20		
		68	141
		36	41
30	81		
19	17		
		57	237
		58	23

STA. 329+00.63 — STA. 331+00

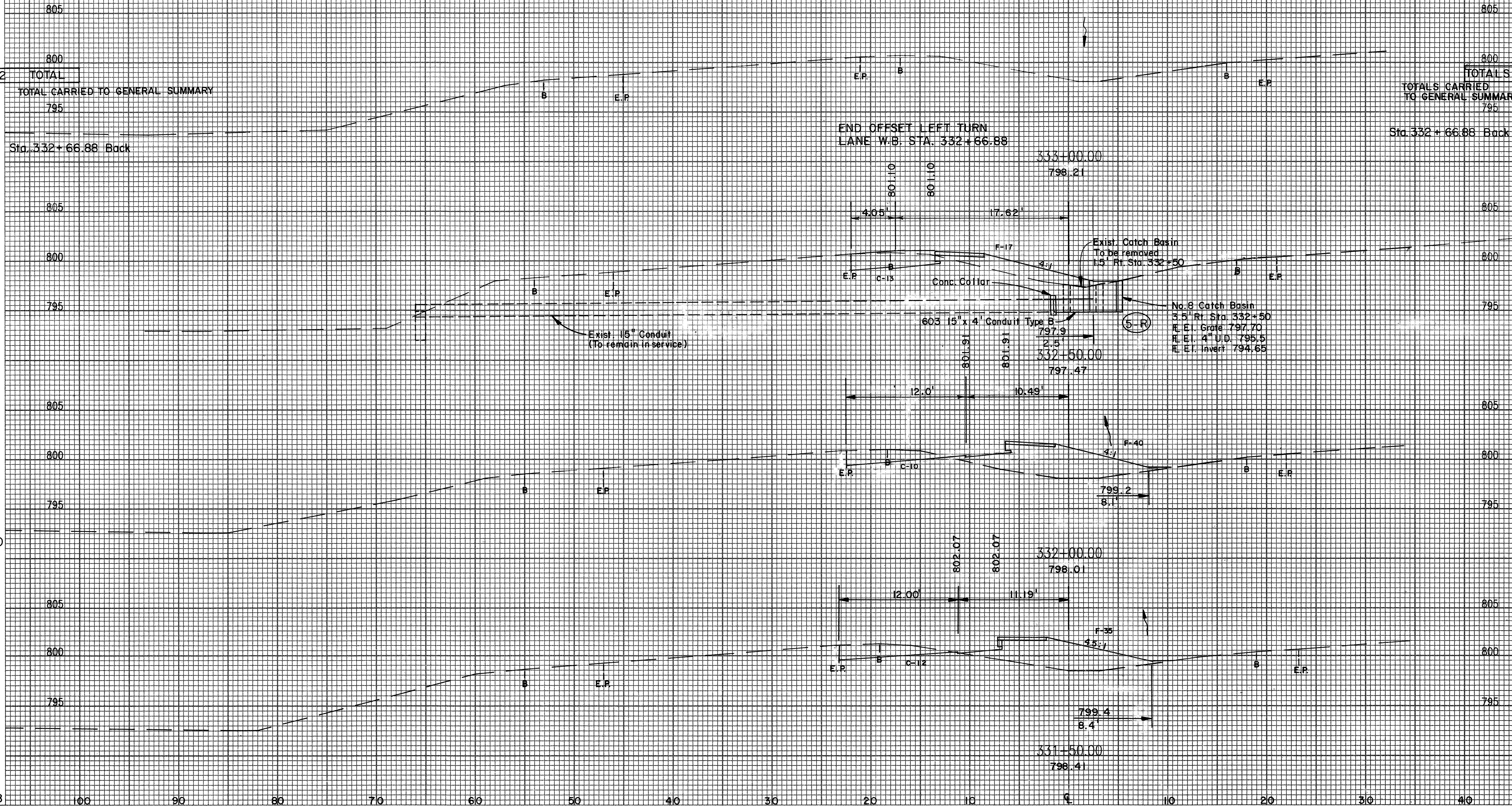
CALC BY	J.C.	DATE	4-11-91
CHKD BY	T.D.	DATE	5-23-91

LIC-16-23.27

OHIO · FHWA REGION 5

SEEDING END WIDTH	SEEDING SQ. YDS.
	3772 TOTAL
10	
	24
16	
	92
17	
	100
19	
	108

TOTAL CARRIED TO GENERAL SUMMARY



TOTALS CARRIED TO GENERAL SUMMARY

Station	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
TOTALS			1589	1406
Sta. 332+66.88 Back	5	0		
			6	5
333+00.00	13	17		
			21	53
332+50.00	10	40		
			20	69
332+00.00	12	35		
			23	59

STA. 331+50 — STA. 333+00

SEEDING	
END WIDTH	SQ. YDS.

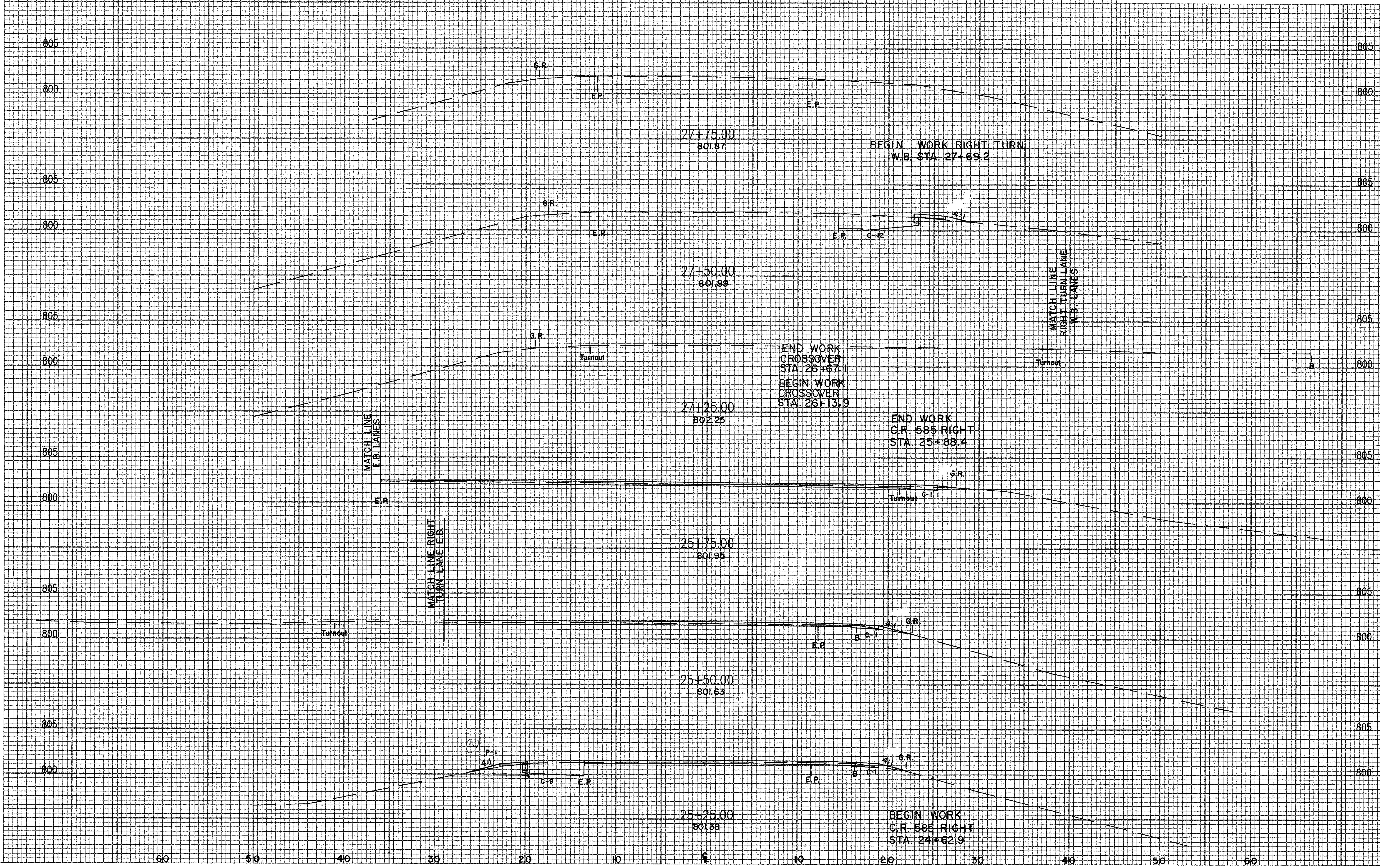
CALC BY J.C. DATE 4-11-91
CHKD BY T.D. DATE 5-23-91

LIC-16-23.27

OHIO
FHWA REGION 5

55/134

END AREA		VOLUME	
CUT	FILL	CUT	FILL

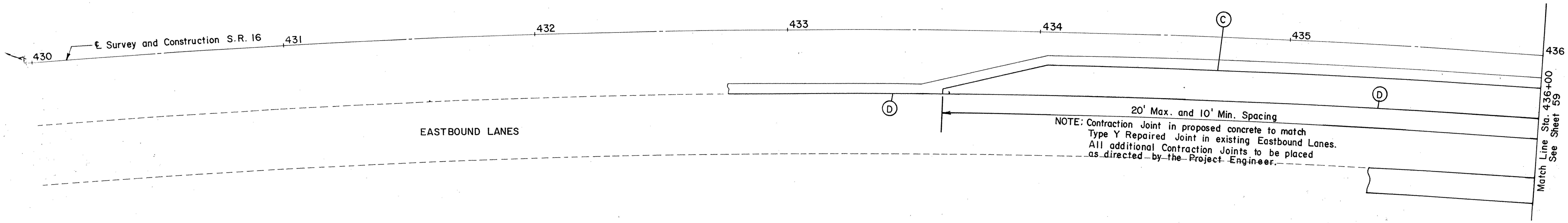


CO. RD. 585 STA. 25+25 — STA. 27+75

(PAVEMENT ELEVATION AND DETAILS) C.R. 668 (BROWNSVILLE RD.) RT. & C.R. 668 (LICKING VALLEY RD.) LT.

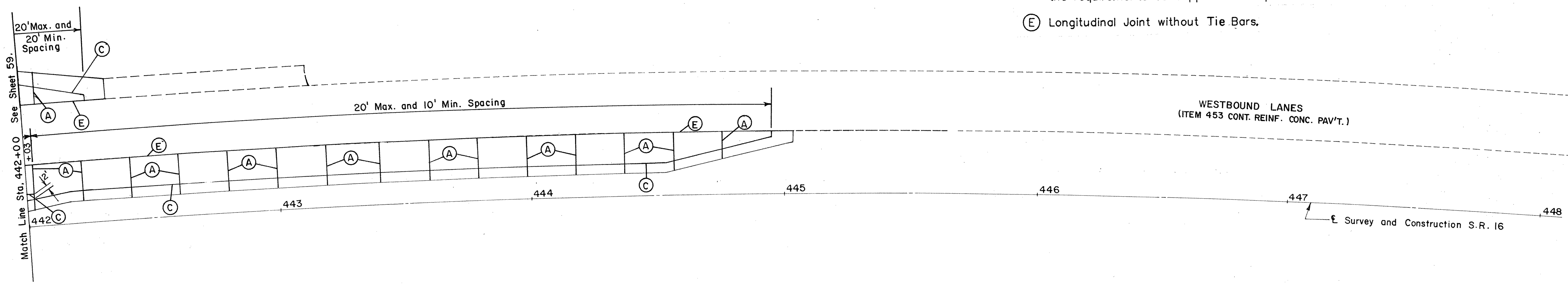
CALC. BY D.M. DATE 4-11-91
CHKD. BY T.D. DATE 5-25-91

(PAVEMENT ELEVATION AND DETAILS) C.R. 668 (BROWNSVILLE RD. RT. & C.R. 668 (LICKING VALLEY RD) LT.

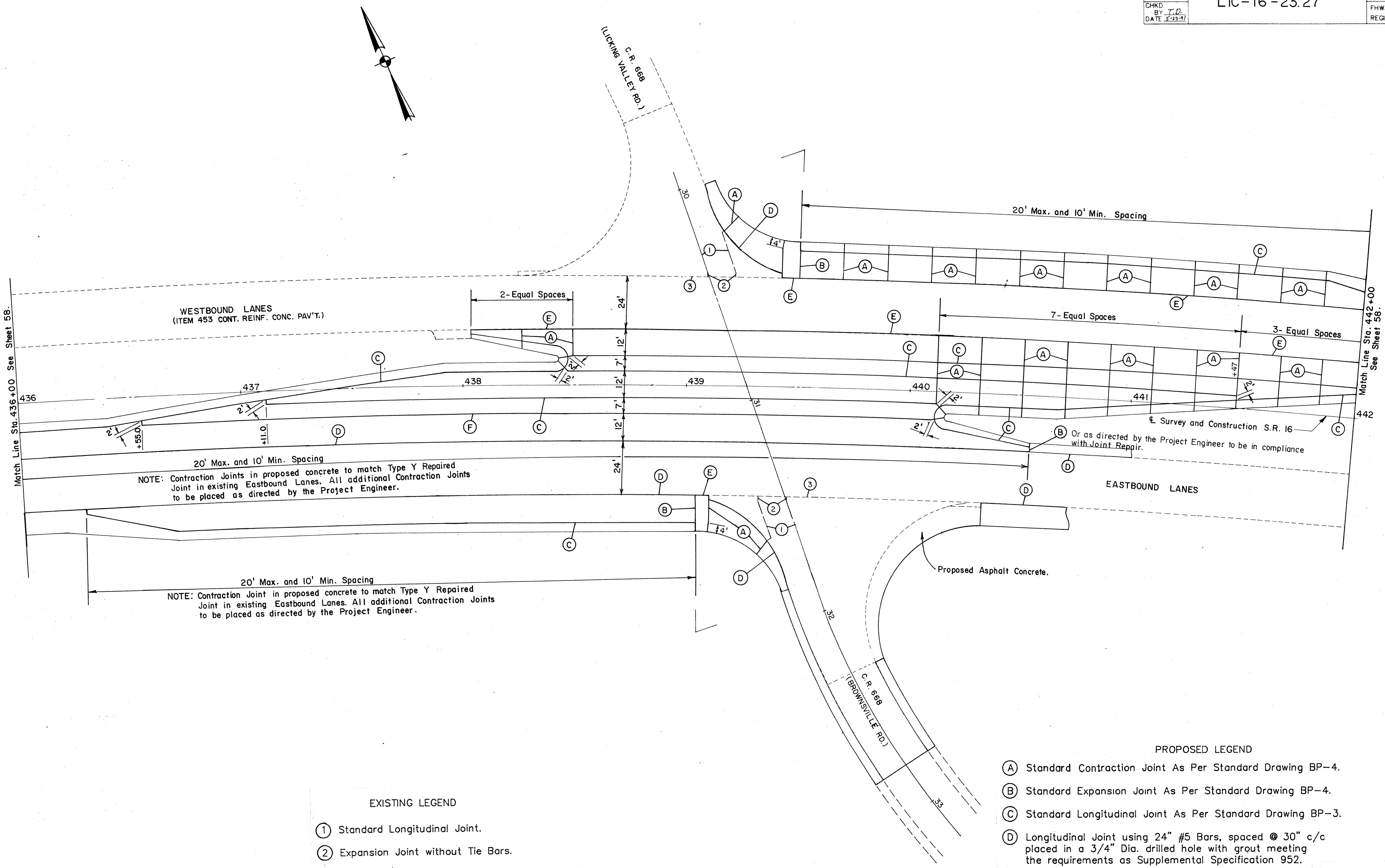


PROPOSED LEGEND

- (A) Standard Contraction Joint As Per Standard Drawing BP-4.
- (B) Standard Expansion Joint As Per Standard Drawing BP-4.
- (C) Standard Longitudinal Joint As Per Standard Drawing BP-3.
- (D) Longitudinal Joint using 24" #5 Bars, spaced @ 30" c/c placed in a 3/4" Dia. drilled hole with grout meeting the requirements as Supplemental Specification 952.
- (E) Longitudinal Joint without Tie Bars.



(JOINT DETAIL) C.R. 668 (BROWNSVILLE RD.) RT. & C.R. 668 (LICKING VALLEY RD.) LT.



EXISTING LEGEND

1. Standard Longitudinal Joint.
2. Expansion Joint without Tie Bars.
3. Key-Joint without Tie Bars.

PROPOSED LEGEND

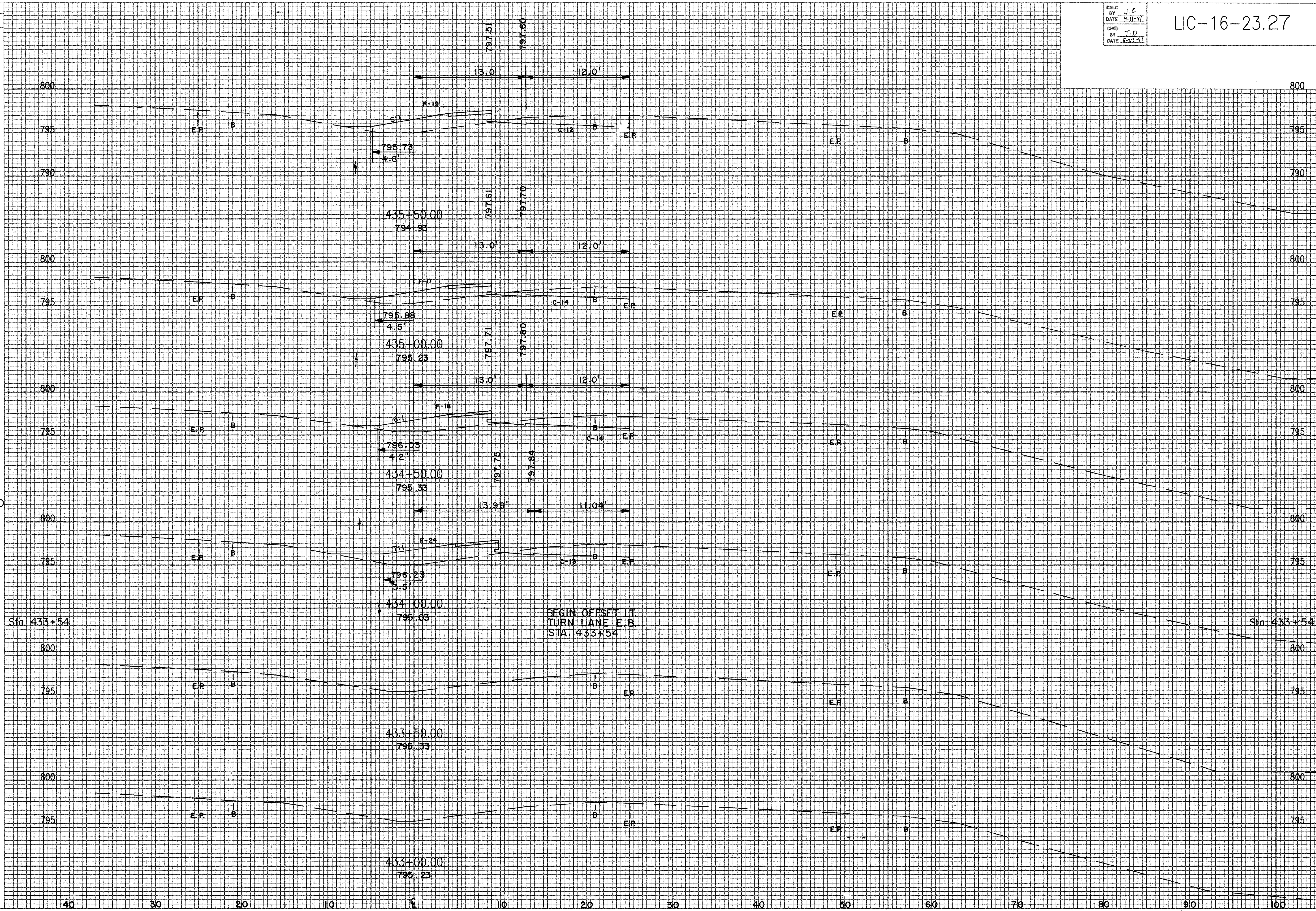
- (A) Standard Contraction Joint As Per Standard Drawing BP-4.
- (B) Standard Expansion Joint As Per Standard Drawing BP-4.
- (C) Standard Longitudinal Joint As Per Standard Drawing BP-3.
- (D) Longitudinal Joint using 24" #5 Bars, spaced @ 30" c/c placed in a 3/4" Dia. drilled hole with grout meeting the requirements as Supplemental Specification 952.
- (E) Longitudinal Joint without Tie Bars.
- F Longitudinal Joint without Tie Bars, (See Standard Drawing BP-3, Sawed Joint)

(JOINT DETAIL) C.R. 668 (BROWNSVILLE RD.) RT. & C.R. 668 (LICKING VALLEY RD.) LT.

CALC BY	J.C.	DATE	4-11-91
CHKD BY	T.D.	DATE	5-23-91

LIC-16-23.27

OHIO FHWA REGION 5



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
18		12	19		
	97			24	33
17		14	17		
	92			26	32
16		14	18		
	100			25	39
20		13	24		
	89			15	20
15		5	0		

STA. 433+00 — STA. 435+50

CALC BY H.C. DATE 4-11-91
CHKD BY T.D. DATE 5-23-91

LIC-16-23.27

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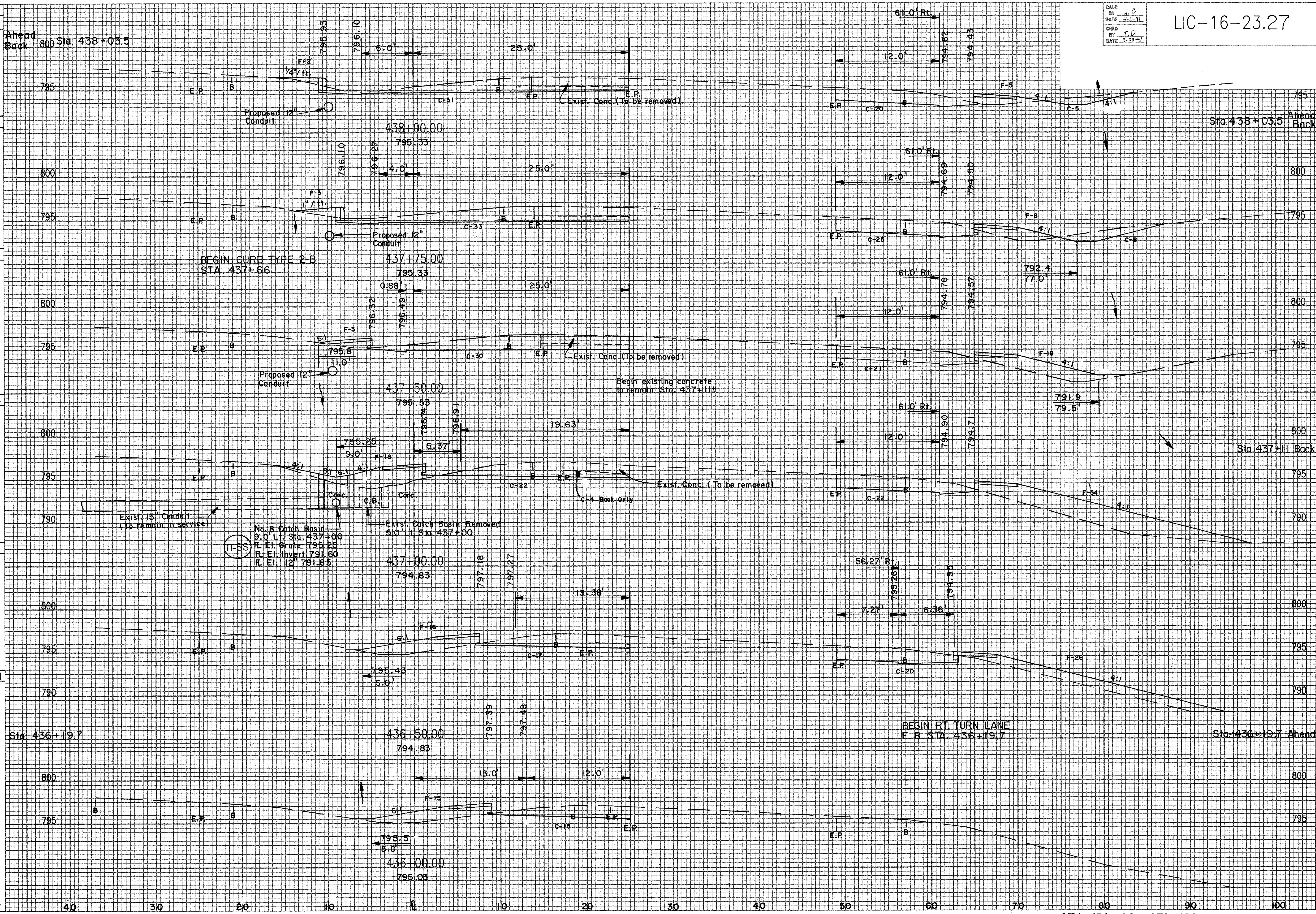
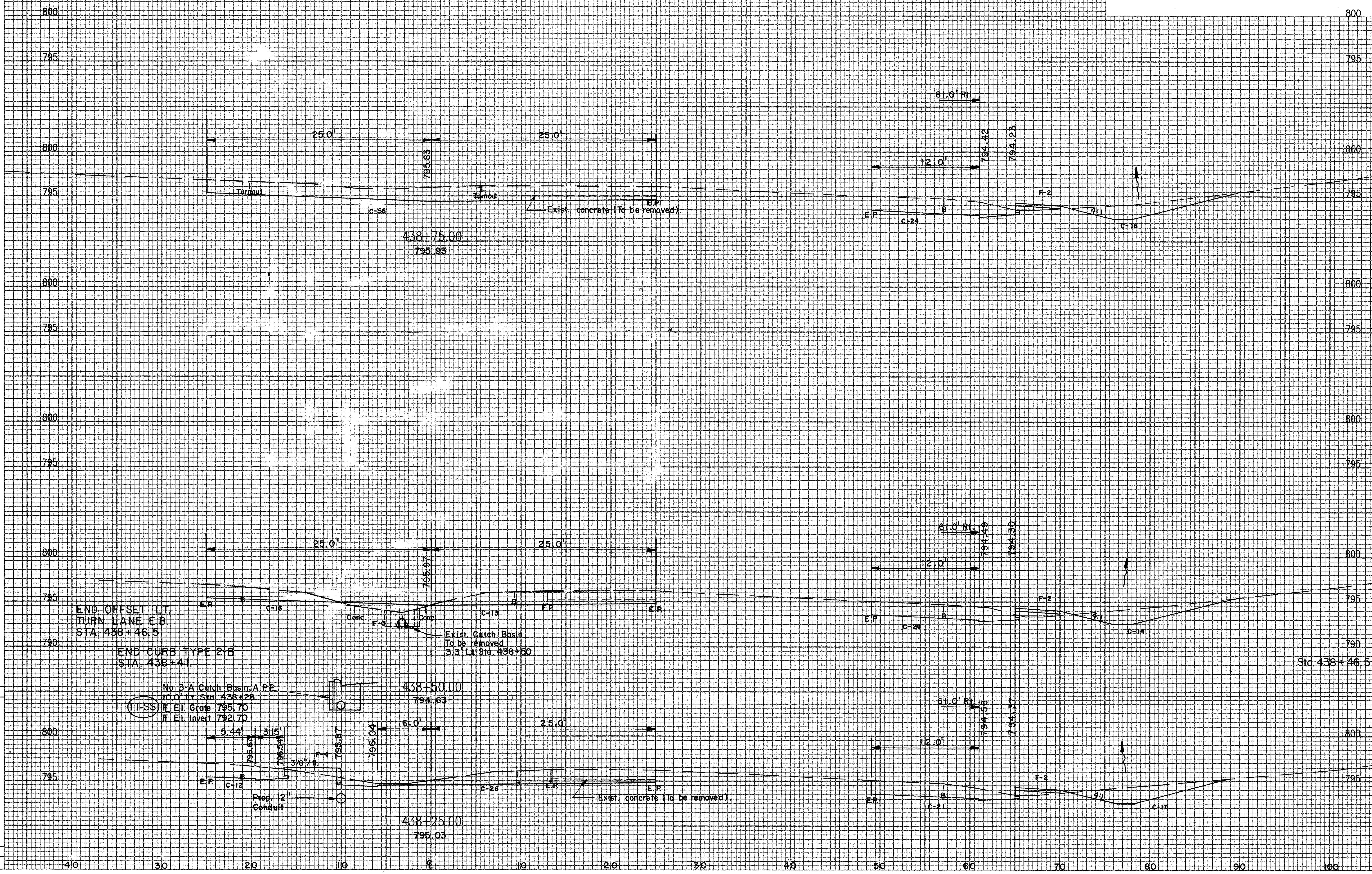
SEEDING END WIDTH	SEEDING SQ. YDS.
10	
10	
19	4
10	
58	
29	
23	
11	
58	
24	
19	
6	
144	
53	
33	
13	
181	
81	
32	
16	
101	
	89
28	
	16
	94



Station	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
Sta. 438+03.5 Ahead	37	2		
Back	31	2		
	25	5		
	31	2	4	1
			27	6
			30	2
	33	8		
	33	3		
			25	12
			29	3
	21	18		
	30	3		
			40	67
			35	12
Sta. 437+11 Back	18	13		
	22	54		
	22	13	8	5
			39	74
			36	27
	20	26		
	17	16		
			19	29
Sta. 436+19.7 Ahead	14'	26		
			30	29
	15	15		
			25	31

SEEDING	
END WIDTH	SQ. YDS.
26	
	71
25	
5	
68	
	18
24	
10	
	60
	24



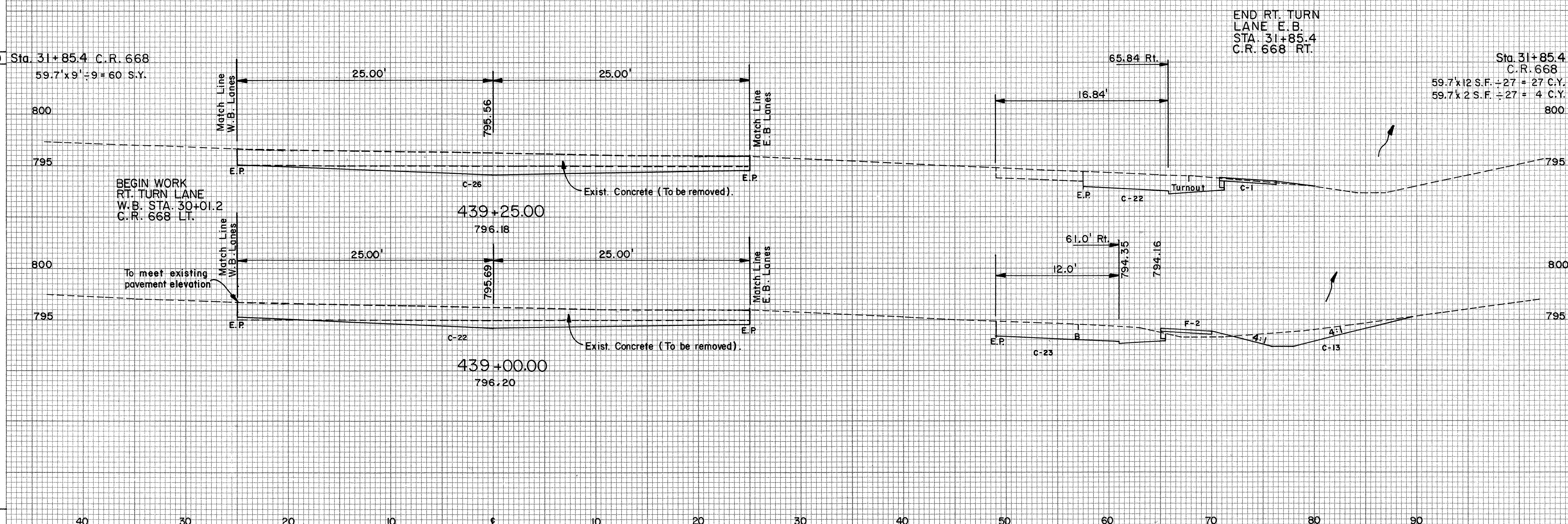
END AREA		VOLUME	
CUT	FILL	CUT	FILL
40	2		
56	0		
		36	2
		39	1
38	2		
29	3		
		4	1
Sta. 438+46.5 38	4		
		35	2
		30	3
38	2		
38	4		
		29	3
		30	2

STA. 438+25 — STA. 438+80

CALC. BY D.C DATE 4-11-91	LIC-16-23.27	OHIO	63 / 134
CHKD. BY T.D. DATE 5-29-91		FHWA REGION 5	

SEEDING	
END WIDTH	SQ. YDS.
	60
	25
	71

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		27	4
26	0		
		22	0
26	2		
22	0		
		31	2
		36	0



439+00 — 439+25

CALC. BY J.C. DATE 4-11-91
CHKD. BY T.D. DATE 5-23-91

LIC-16-23.27

OHIO
FHWA REGION 5

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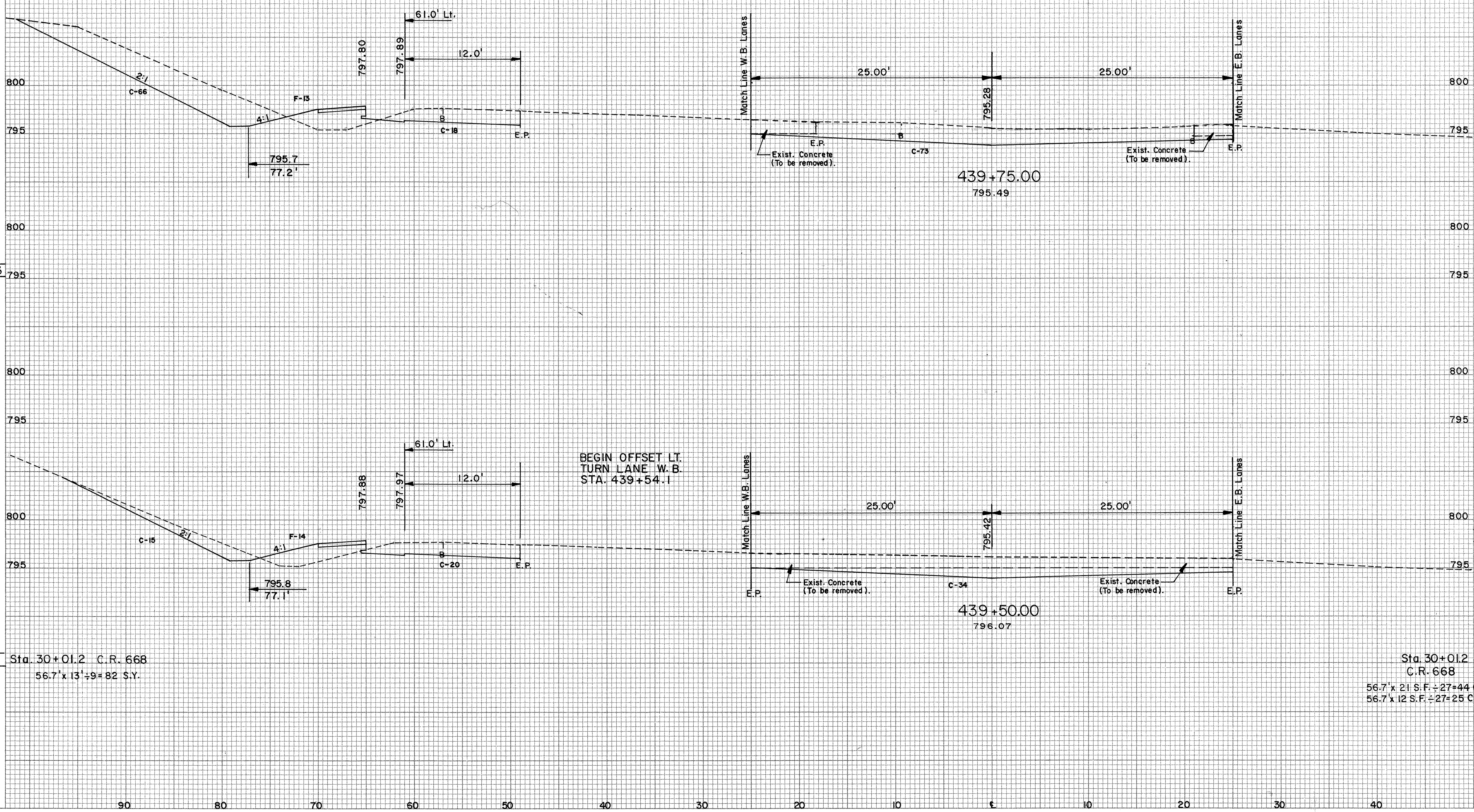
SEEDING END WIDTH	SEEDING SQ. YDS.
40	
	103
34	
	82



Sta. 30+01.2 C.R. 668
56.7'x 13'÷9= 82 S.Y.

Sta. 30+01.2
C.R. 668
56.7'x 21 S.F.÷27=44 C.Y.
56.7'x 12 S.F.÷27=25 C.Y

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
84	13		
73	0		
		55	13
		50	0
35	14		
34	0		
		28	0
		44	25

439+50 — 439+75

CALC. BY L.C. DATE 4-11-91
CHKD. BY T.D. DATE 5-23-91

LIC-16-23.27

OHIO
FHWA REGION 5

65
134


SEEDING
END WIDTH
SQ. YDS.
CALC BY U.C DATE 11-11-91
CHKD BY T.D. DATE 5-13-91
LIC-16-23.27
OHIO
FHWA REGION 5
66
134
END AREA
VOLUME
CUT
FILL
442+00.00
792.40
441+50.00
793.79
441+00.00
794.19
440+75.00
794.29
440+50.00
794.39
Remove 6" and 4" Pipe to be removed under 603.
Exist. Edge Drain
Exist. 6" C.M.P.
Exist. 4"
603 4"x 34' Conduit Type F
603 4"x 9' Type B.
Exist. Tee Plug Back Station End of Edge Drain.
4"x4" Tee, 57.5' Lt. Sta. 442+00, 793.8
Exist. Catch Basin to be removed 83' Lt. Sta. 442+00
Exist. 21" Conduit
Item 603 24"x 12' Conduit Type B
Concrete Collar
Exist. 24" Conduit (To remain in service).
No. 5 Catch Basin 92.0' Lt. Sta. 442+00
℄ El. Grate 790.90
℄ El. Invert 786.30
℄ El. 4" U.D. 789.50
15-SS
Exist. Catch Basin to be removed 0.7' Lt. Sta. 442+00
No. 8 Catch Basin 6.1' Rt. Sta. 442+00
℄ El. Grate 793.42
℄ El. E. 788.90
℄ El. W. 789.64
℄ El. Invert 786.00
Exist. 24" Conduit
Prop. Item 603 24"x 10' Conduit Type B
13-SS
Prop. 12" Conduit
END CURB TYPE 2-B STA. 441+07.
No. 3-A Catch Basin, A.P.P. 10' Rt. Sta. 440+65
℄ El. Grate 794.37
℄ El. Invert 790.99
12-SS
Ahead Back Sta. 440+54.5
STA. 440+50 — STA. 442+00

CALC BY H.C DATE 4-11-91
CHKD BY T.D DATE 5-15-91

LIC-16-23.27

OHIO
FHWA REGION 5

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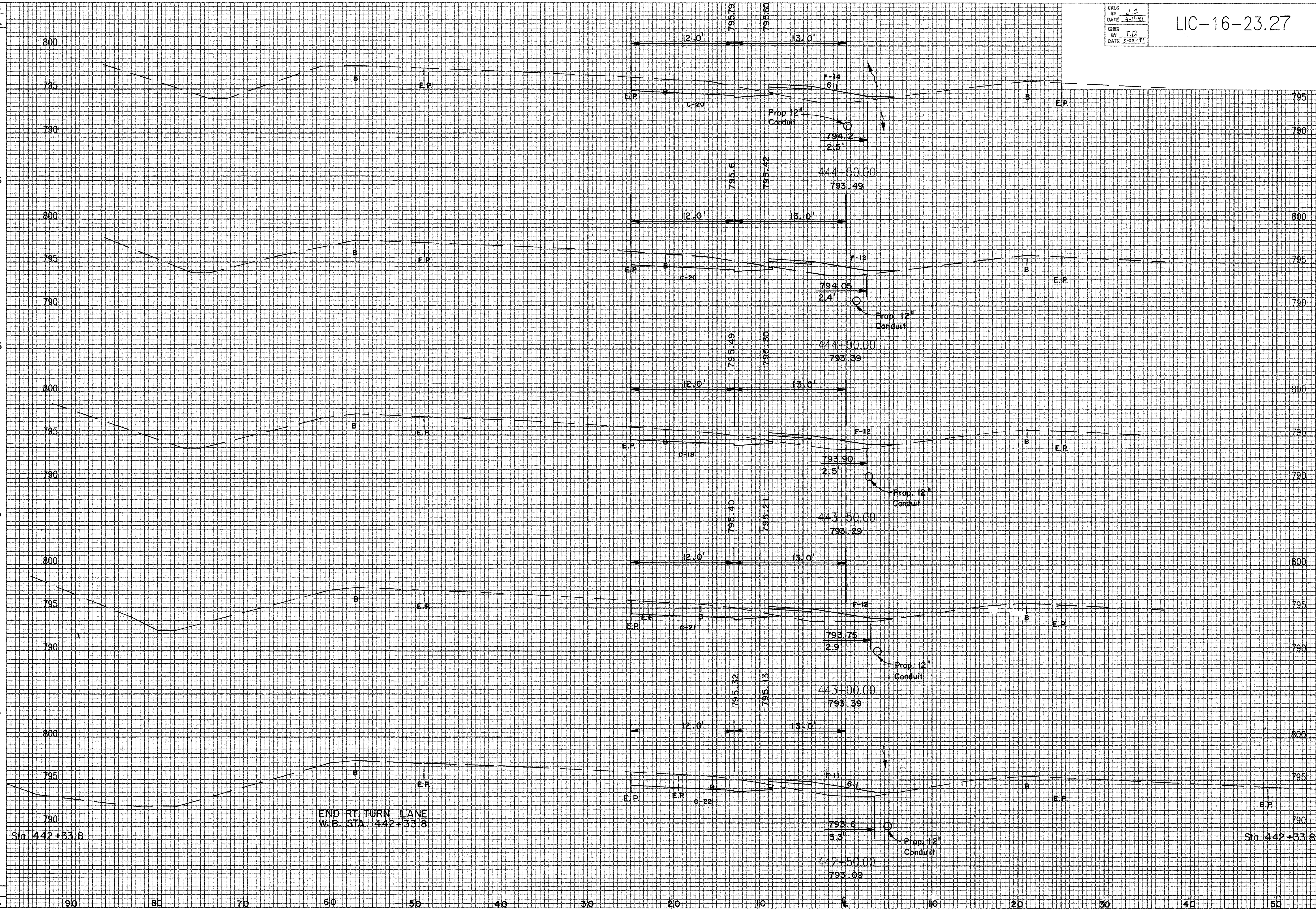


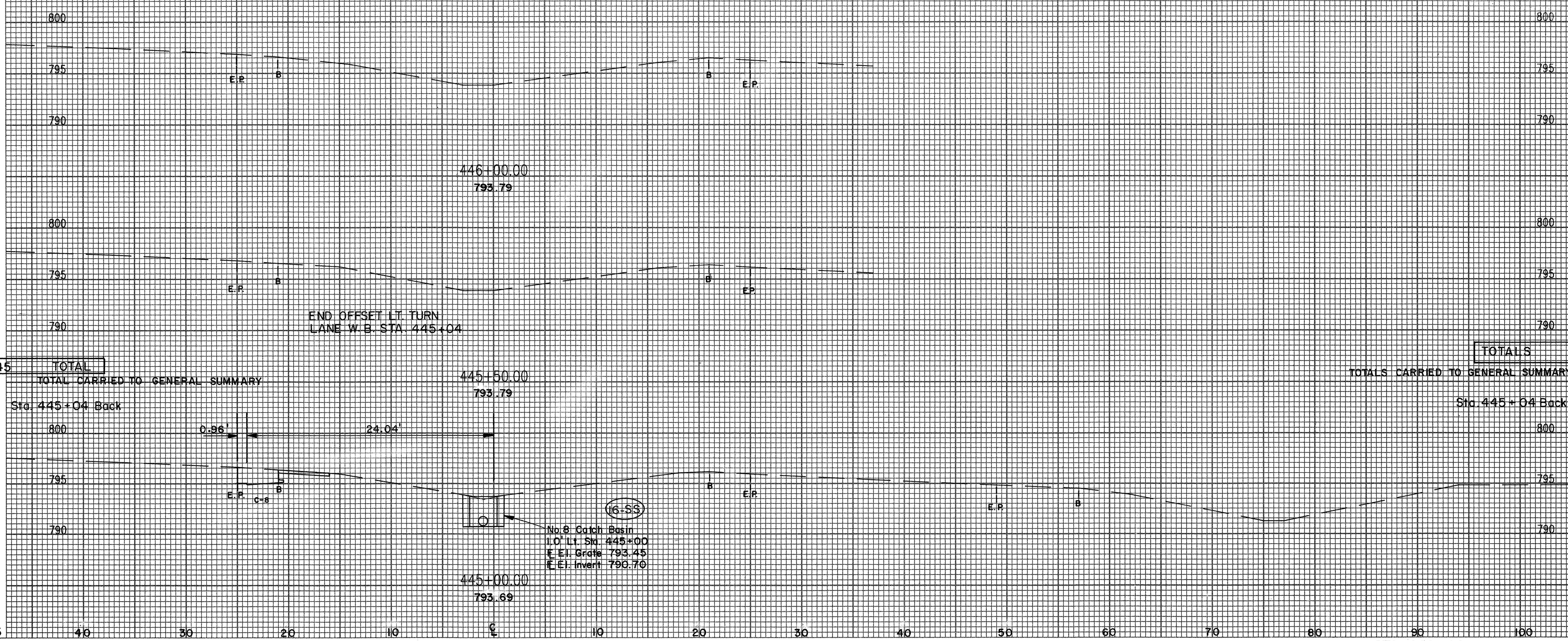
SEEDING END WIDTH	SQ. YDS.
15	
	86
16	
	86
15	
	83
15	
	86
16	
5	
	75
	78

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
20	14		
		37	24
20	12		
		35	22
18	12		
		36	22
21	12		
		40	21
22	11		
10	0		
		20	36
		41	29

STA. 442+50 – STA. 444+50

SEEDING	
END WIDTH	SQ. YDS.
5	
	2
5	
3445	TOTAL
	56

TOTAL CARRIED TO GENERAL SUMMARY



TOTALS CARRIED TO GENERAL SUMMARY

END AREA		VOLUME	
CUT	FILL	CUT	FILL
5	0		
		1	0
8	0		
TOTALS		1923	955
		26	13

CALC BY	DATE	CHKD BY	DATE
J.C.	4-11-91	T.D.	5-23-91

LIC-16-23.27

OHIO

FHWA REGION 5

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CO. RD 668 STA. 29+50 — STA. 30+60

CALC BY H.C DATE 4-11-91
CHKD BY T.D. DATE 5-23-91

LIC-16-23.27

OHIO
FHWA REGION 5

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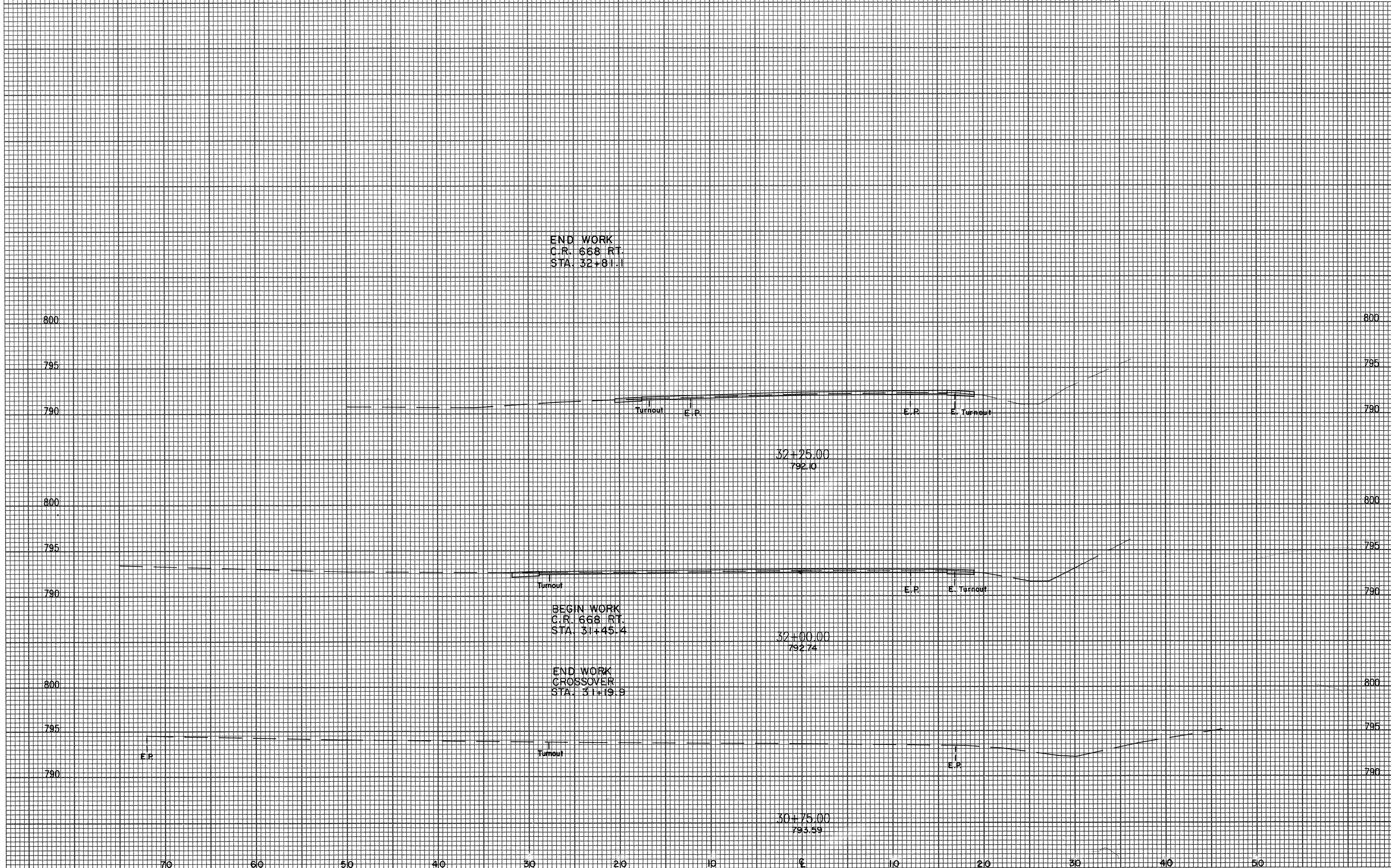
SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CO. RD. 668 STA. 30+75 — STA. 32+25

PAVEMENT DATA TABLE

PAVEMENT DATA

STATION TO STATION (EASTBOUND) CITY, STATE & FEDERAL	W.P. FEET	LENGTH LIN. FEET	PAVEMENT AREA SQ. YD.	407 TACK COAT at 0.075 Gal./S.Y. GAL'S	254 PAVEMENT PLANING BITMINOUS SQ.YD.		446 ASPH.CONC. SURFACE COURSE, TYPE 1, AC-20 1 1/4" OR AS SHOWN CU.YD.	446 ASPH.CONC. INTERMEDIATE COURSE, TYPE 2, AC-20 1 3/4" OR AS SHOWN CU.YD.	202 PAVEMENT REMOVED (INCLUDING ASPH.CONC.) SQ.YD.	451 9" REINFORCED CONCRETE PAVEMENT, AS PER PLAN SQ.YD.	304 AGGREGATE BASE AS PER PLAN 6" CU.YD.	SPECIAL PRESSURE RELIEF JOINT TYPE A LIN.FT.	203 EXCAVATION 6 3/4" AVE. or as shown CU.YD.	203 SUBGRADE COMPACTION SQ.	451 12" REINFORCED CONCRETE PAVEMENT AS PER PLAN SQ.YD.		
239+64.65 – 250+82.33B	24	1117.68	2980.5	223.5	2980.5		103.5	144.9									
250+84.06A - 259+11.9	24	827.84	2207.6	165.6	2207.6		76.7	107.3									
259+11.9 – 265+81.7	24	669.8	1786.1						1786.1		297.7		6" 297.7	1786.1	1786.1		
265+81.7 - 309+02	24	4320.3	11,520.8	864.1	11,520.8		400.0	560.0									
239+64.65 – 243+00	4.2	335.35	156.5	11.7	156.5		5.4	7.6									
RT. TURN LANE (DAYTON RD.)																	
261+12.2 – 261+53.9	7 AVE.	41.7	32.4								5.4			32.4	32.4		
261+53.9 – 263+88.9	12	235.0	313.3								52.2			313.3	313.3		
DAYTON RD. APPROACH RT.																	
8+82.8 – 9+49.8	VAR.	67	(5) 409						(14)(9) 288.8		68.2		6" 68.2	409	409		
(FEATHER) 8+82.8 – 8+32.8	28	50	155.6	11.7			5/8 2.7	7/8 3.8									
LT.TURN LANE (DAYTON RD.)																	
259+20.2 – 259+61.9	7 AVE.	41.7	32.4								5.4			32.4	32.4		
259+61.9 – 261+96.9	12	235.0	313.3						(15) 35.5		52.2			313.3	313.3		
261+96.9 – 263+48.91	21.5 AVE.	152.0	363.1						(16) 148.8		60.5			363.1	363.1		
263+48.91 – 263+98.91	31	50	172.2						(7) 68.7		28.7			172.2	172.2		
263+98.91 – 265+44.24 (CROSSOVER)	50	145.33	(3) 796.8						(5) 496		132.8			796.8	796.8		
EXTRA AREA			(4) 41.6								6.9			41.6	41.6		
TOTALS (CARRIED TO THE GENERAL SUMMARY)				1276.6	16,865.4		588.3	823.6	2823.9		710.0		365.9	4260.2	4260.2		
STATE & FEDERAL																	
309+02 – 366+82.69B	24	5780.69	15415.2	1156.1	15415.2		535.2	749.3									
366+82.25A – 378+11.19	24	1128.94	3010.5	225.8	3010.5		104.5	146.3									
378+11.19 – 378+76.19	24	65.0	173.3	13.0			6.0	8.4	173.3	(2) 162.6	(1) 25.3	24	32.5	173.3			
378+76.19 – 380+05.77		FOR BRIDGE AND APPROACH SLAB DETAILS AND QUANTITIES SEE SHEETS 128-134.															
380+05.77 – 380+70.77	24	65.0	173.3	13.0			6.0	8.4	173.3	(2) 162.6	(1) 25.3	24	32.5	173.3			
380+70.77 – 491+50	24	11079.23	29544.6	2215.8	29544.6		1025.9	1436.2									
491+50 – 493+25	24	175.0	466.7	35	466.7		16.2	4 3/4 AVE. 61.6									
RT.TURN LANE (C.R.585)																	
323+24.1 – 323+65.8	7 AVE.	41.7	32.4	2.4			1.1	1.6		32.4	5.4			32.4			
323+65.8 – 326+00.8	12	235	313.3	23.5			10.9	15.2		313.3	52.2			313.3			
326+00.8 – 25+12.9 C.R.585	VAR.		(6) 62	4.7			2.2	3.0	(14) 3.1	62.0	10.3			62.0			
C.R.585 APPROACH RT.	VAR.	75.5	(10) 356.2	26.7	356.2		12.4	17.3									
(FEATHER) 25+12.9 – 24+62.9	32	50	177.8	13.3			5/8 3.1	7/8 4.3									
LT.TURN LANE (C.R.585)																	
321+41.42 – 321+83.12	7 AVE.	41.7	32.4	2.4			1.1	1.6		32.4	5.4			32.4			
321+83.12 – 324+18.12	12	235.0	313.3	23.5			10.9	15.2	(17) 32.7	313.3	52.2			313.3			
324+18.12 – 325+70.12	21.5 AVE.	152.0	363.1	27.2			12.6	17.7	(11) 145.1	363.1	60.5			363.1			
325+70.12 – 326+20.12	31	50	172.2	12.9			6.0	8.4	(8) 66.7	172.2	28.7			172.2			
326+20.12 – 327+79.88 (CROSSOVER)	50	159.76	(12) 877	65.8			30.5	42.6	(5) 530	877.0	146.2			877.0			
EXTRA AREA			(4) 41.6	3.1			1.4	2.0		41.6	6.9			41.6			
RT.TURN LANE (C.R.668)																	
436+28 – 436+69.7	7 AVE.	41.7	32.4	2.4			1.1	1.6		32.4	5.4			32.4			
436+69.7 – 439+04.7	12	235.0	313.3	23.5			10.9	15.2		313.3	52.2			313.3			
439+04.7 – 31+85.4 (C.R.668)	VAR.		(6) 34	2.6			1.2	1.7	(14) 3.1	34.0	5.7			34.0			
C.R.668 APPROACH RT.	VAR.	85.7	(13) 383.4	28.8	383.4		13.3	18.6									
(FEATHER) 32+31.1 – 32+81.1	32	50.0	177.8	13.3			5/8 3.1	7/8 4.3									
LT.TURN LANE (C.R.668)																	
433+62.3 – 434+04	7 AVE.	41.7	32.4	2.4			1.1	1.6		32.4	5.4			32.4			
434+04 – 436+39	12	235	313.3	23.5			10.9	15.2	(18) 31.3	313.3	52.2			313.3			
436+39 – 437+91	21.5 AVE.	152.0	363.1	27.2			12.6	17.7	(19) 142.7	363.1	60.5			363.1			
437+91 – 438+41	31	50	172.2	12.9			6.0	8.4	(8) 66.7	172.2	28.7			172.2			
438+41 – 440+17 EXTRA AREA (CROSSOVER)		176	(6) 32	2.4			1.1	6"Ave 5.3	(5) 549	32	5.3			32			
EXTRA AREA			(4) 41.6	3.1			1.4	2.0		41.6	6.9			41.6			
TOTALS (CARRIED TO THE GENERAL SUMMARY)				4006.3	49,176.6		1848.7	2630.7	1917.0	3866.8	640.7	48	65	3888.2			

(1) DEDUCT 8' x 24' x .5 ÷ 27 = 3.6 C.Y.

(2) DEDUCT 4' x 24' ÷ 9 = 10.7 S.Y.

(3) 145.33' x 50' – (5.5' x 5.5' x π = 95.0 ft.^{2}) = 7171.5 ft.^{2} ÷ 9 = 769.8 S.Y.

(4) 37.5' x 5 AVE. ÷ 9 = 20.8 S.Y. x 2 = 41.6 S.Y.

(5) PLANIMETER

(6) PLANIMETER (AREA SHOWN UNDER PAVEMENT AREA).

(7) (40.7' x 12') + (9.3' x 14') ÷ 9 = 68.7 S.Y.

(8) 50' x 12' ÷ 9 = 66.7 S.Y.

(9) (67' x 20') + (50'^{2} x .1167) + (50'^{2} x .3759) ÷ 9 = 285.7 S.Y.

(10) (75.5' x 24') + (50'^{2} x .0894) + (50'^{2} x .4682) ÷ 9 = 356.2 S.Y.

(11) (148.08' x 8.5') + (3.92' x 12') ÷ 9 = 145.1 S.Y.

(12) 159.76' x 50' – (5.5' x 5.5' x π = 95.0 ft.^{2}) = 7893 ft.^{2} ÷ 9 = 877 S.Y.

(13) (85.7' x 24') + (50'^{2} x .0894) + (50'^{2} x .4682) ÷ 9 = 383.4 S.Y.

(14) 14' x 2' ÷ 9 = 3.1 S.Y.

(15) (41.7' x 2') + (65.7 x 3.6' AVE.) ÷ 9 = 35.5 S.Y.

(16) (142.6' x 8.6' AVE.) + (9.4 x 12) ÷ 9 = 148.8 S.Y.

(17) (41.7' x 2') + (60.2' x 3.5' AVE.) ÷ 9 = 32.7 S.Y.

(18) (41.7' x 2') + (58.3' x 3.4' AVE.) ÷ 9 = 31.3 S.Y.

(19) (2' x 12') + (150' X 8.4' AVE.) ÷ 9 = 142.7 S.Y.

PAVEMENT DATA TABLE

PAVEMENT DATA

STATION TO STATION (WESTBOUND)	W.P. FEET	LENGTH LIN. FEET	PAVEMENT AREA SQ. YD.	407 TACK COAT at 0.075 Gal./S.Y. GAL.	254 PAVEMENT PLANING BITUMINOUS SQ.YD.		446 ASPH.CONC. SURFACE COURSE, TYPE 1, AC-20 1 1/4" OR AS SHOWN CU.YD.	446 ASPH.CONC. INTERMEDIATE COURSE, TYPE 2, AC-20 1 3/4" OR AS SHOWN CU.YD.	202 PAVEMENT REMOVED (INCLUDING ASPH.CONC.) SQ.YD.	451 9" REINFORCED CONCRETE PAVEMENT, AS PER PLAN SQ.YD.	304 AGGREGATE BASE AS PER PLAN 6" CU.YD.	SPECIAL PRESSURE RELIEF JOINT TYPE A LIN.FT.	203 EXCAVATION CU.YD.	203 SUBGRADE COMPACTION SQ.YD.	202 WEARING COURSE REMOVED SQ.YD.	451 12" REINFORCED CONCRETE PAVEMENT AS PER PLAN SQ.YD.
CITY, STATE & FEDERAL																
RT.TURN LANE (DAYTON RD.)																
11+16 DAYTON RD. 265+51.7	VAR.		(2) 47	3.5			1.6	2.3	(1) 3.1	47.0	7.8			47.0		
265+51.7 – 267+86.7	12	235	313.3	23.5			10.9	15.2		313.3	52.2			313.3		
267+86.7 – 268+28.4	7 AVE.	41.7	32.4	2.4			1.1	1.6		32.4	5.4			32.4		
LT.TURN LANE (DAYTON RD.)																
265+44.24 – 265+94.24	31	50.0	172.2								28.7			172.2	172.2	
265+94.24 – 267+46.24	21.5 AVE.	152.0	363.1								60.5			363.1	363.1	
267+46.24 – 269+81.24	12	235	313.3								52.2			313.3	313.3	
269+81.24 – 270+22.94	7 AVE.	41.7	32.4								5.4			32.4	32.4	
TOTALS (CARRIED TO THE GENERAL SUMMARY)				29.4			13.6	19.1	3.1	392.7	212.2			1273.7	881.0	
STATE & FEDERAL																
RT.TURN LANE (C.R.585)																
27+69.2 C.R.585 – 327+99.2	VAR.		(2) 59	4.4			2.0	2.9	(1) 3.1	59	9.8			59		
327+99.2 – 330+34.2	12	235.0	313.3	23.5			10.9	15.2		313.3	52.2			313.3		
330+34.2 – 330+75.9	7 AVE.	41.7	32.4	2.4			1.1	1.6		32.4	5.4			32.4		
LT.TURN LANE (C.R.585)																
327+79.88 – 328+29.88	31	50.0	172.2	12.9			6.0	8.4		172.2	28.7			172.2		
328+29.88 – 329+81.88	21.5	152.0	363.1	27.2			12.6	17.7		363.1	60.5			363.1		
329+81.88 – 332+16.88	12	235.0	313.3	23.5			10.9	15.2		313.3	52.2			313.3		
332+16.88 – 332+58.58	7 AVE.	41.7	32.4	2.4			1.1	1.6		32.4	5.4			32.4		
RT.TURN LANE (C.R.668)																
30+01.2 C.R.668 – 439+48.8	VAR.		(2) 43	3.2			1.5	2.1	(1) 3.1	43	7.2			43		
439+48.8 – 441+83.8	12	235.0	313.3	23.5			10.9	15.2		313.3	52.2			313.3		
441+83.8 – 442+25.5	7 AVE.	41.7	32.4	2.4			1.1	1.6		32.4	5.4			32.4		
LT.TURN LANE (C.R.668)																
440+17 – 440+67	31	50.0	172.2	12.9			6.0	8.4		172.2	28.7			172.2		
440+67 – 442+19	21.5	152	363.1	27.2			12.6	17.7		363.1	60.5			363.1		
442+19 – 444+54	12	235	313.3	23.5			10.9	15.2		313.3	52.2			313.3		
444+54 – 444+95.7	7 AVE.	41.7	32.4	2.4			1.1	1.6		32.4	5.4			32.4		
TOTALS (CARRIED TO THE GENERAL SUMMARY)				191.4			88.7	124.4	6.2	2555.4	425.8			2555.4		

(1) 14' x 2' ÷ 9 = 3.1 S.Y.

(2) PLANIMETER

L0162326 4/2/91

SHOULDER DATA TABLE

CALC. BY D.M. DATE 4-11-91 CHKD. BY T.D. 5-23-91	LIC-16-23.27	OHIO FHWA REGION 5	73/134

STATIONS FROM ℄ LANE.

SHOULDER DATA

STATION TO STATION	LT. SIDE W.B. FEET	LT. SIDE LIN. FEET	RT. SIDE W.B. FEET	RT. SIDE LIN. FEET	AREA SQ. YDS.	407 TACK COAT ● 0.075 GAL./S.Y. GAL'S.	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION L x (W.B.+.5) x1.3958 ÷ 27 CU.YD.	304 AGGREGATE BASE AS PER PLAN L x (W.B.+.5) x.4375 ÷ 27 CU.YD.	305 9" CONC. BASE AS PER PLAN SQ.YD.	446 ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2, AC-20 1 3/4" CU.YD.	446 ASPHALT CONCRETE SURFACE COURSE TYPE 1, AC-20 1 1/4" CU.YD.	203 EMBANKMENT L x .5 x .75 ÷ 27 CU.YD.	617 COMPACTED AGGREAGTE TYPE A L x 5' x .3333 ÷ 27 CU.YD.	609 CURB, TYPE 2-B LIN.FT.	SPECIAL PRESSURE RELIEF JOINT TYPE A LIN.FT.	203 SUBGRADE COMPACTION SQ.YD.	609 CURB TYPE 2-A LIN.FT.	451 12" REINFORCED CONCRETE PAVEMENT, AS PER PLAN SQ.YD.
EASTBOUND																		
CITY, STATE & FEDERAL																		
239+64.65 – 245+25	6.25 AVE.	560.35			389.1	29.2	① 166.6	② 52.2	③ 358.0	18.9	13.5							
245+25 – 248+97	8.75 AVE.	372.0			361.7	27.1	④ 158.7	㉓ 49.7	㉔ 341.0	17.6	12.6							
248+97 – 250+82.33 B	4	185.33			82.4	6.2	43.1	13.5	82.4	4.0	2.9	2.6	11.4					
250+84.06 A – 259+11.9	4	827.84			367.9	27.6	192.6	60.4	367.9	17.9	12.8	11.5	51.1					
259+11.9 – 259+61.9	4	51.9			㉕ 24.0			㉖ 3.9				0.7	3.2			24.0		24.0
259+61.9 – 261+96.9	4	235.0			104.4			17.1				3.3	14.5			104.4		104.4
261+96.9 – 263+48.9	4	153.4			68.2			㉛ 11.4				2.1		50		㉙ 71.0	50	㉙ 71
263+48.9 – 263+98.9	4	50.0			22.2			㉛ 3.8				0.7		50		㉙ 25.0	50	㉙ 25
EXTRA FOR RADIUS & TAPER		38' & 11'			㉘ 17.6			㉗ 3.0				0.7	㉑ 2.3			17.6		17.6
265+81.7 – 309+02	4	4320.3			1920.1	144.0	1005.0	⑮ 295.2	1920.1	93.3	66.7	60.0	266.7					
TOTALS (CARRIED TO THE GENERAL SUMMARY)						234.1	1566.0	510.2	3069.4	151.7	108.5	81.6	349.2	100		242.0	100	242.0
STATE & FEDERAL																		
309+02 – 321+33.12	4	1231.12			547.2	41.0	286.4	89.8	547.2	26.6	19.0	17.1	76.0					
321+33.12 – 321+83.12	4	51.9			㉕ 24.0	1.8		㉖ 3.9	24.0	1.2	0.8	0.7	3.2			24.0		
321+83.12 – 324+18.12	4	235.0			104.4	7.8		17.1	104.4	5.1	3.6	3.3	14.5			104.4		
324+18.12 – 325+70.12	4	153.4			68.2	5.1		11.2	68.2	3.3	2.4	2.1	9.5			68.2		
325+70.12 – 326+20.12	4	50.0			22.2	1.7		3.6	22.2	1.1	0.8	0.7	3.1			22.2		
EXTRA FOR RADIUS & TAPER		38' & 11'			㉘ 17.6	1.3		㉗ 3.0	17.6	0.9	0.6	0.7	㉑ 2.3			17.6		
328+17.38 – 333+54	4	536.62			238.5	17.9	124.8	39.1	238.5	11.6	8.3	7.5	33.1					
333+54 – 336+75	19.75 AVE.	321.0			704.4	52.8	⑤ 319.4	⑥ 100.1	⑦ 686.6	34.2	24.5							
336+75 – 339+25	8.75 AVE.	250.0			243.1	18.2	⑧ 106.6	⑨ 33.4	⑩ 229.2	11.8	8.4							
339+25 – 365+00	6.75	2575.0			1931.3	144.8	⑪ 865.3	⑫ 271.2	⑬ 1859.7	93.9	67.1							
365+00 – 366+82.69 B	4	182.69			81.2	6.1	42.5	13.3	81.2	3.9	2.8	2.5	11.3					
366+82.25 A – #378+11.19	4	1128.94			501.8	37.6	262.6	82.3	501.8	24.4	17.4	15.7	69.7					
#378+11.19 – #378+76.19	4	65.0			28.9	2.2	⑳ 15.8	⑲ 4.1	⑱ 27.1	1.4	1.0	0.9	4.0		4			
#378+76.19 – #380+05.77		FOR BRIDGE AND APPROACH SLAB DETAILS AND QUANTITIES SEE SHEETS 128-134.																
#380+05.77 – #380+70.77	4	65.0			28.9	2.2	⑳ 15.8	⑲ 4.1	⑱ 27.1	1.4	1.0	0.9	4.0		4			
#380+70.77 – 433+54	4	5283.23			2348.1	176.1	1229.1	⑯ 376.0	2348.1	114.1	81.5	73.4	326.1					
433+54 – 434+04	4	51.9			㉕ 24.0	1.8		㉖ 3.9	24.0	1.2	0.8	0.7	3.2			24.0		
434+04 – 436+39	4	235.0			104.4	7.8		17.1	104.4	5.1	3.6	3.3	14.5			104.4		
436+39 – 437+91	4	153.4			68.2	5.1		㉚ 11.3	㉒ 69.6	3.3	2.4	2.1		25		㉒ 69.6		
437+91 – 438+41	4	50			22.2	1.7		㉛ 3.8	㉙ 25.0	1.1	0.8	0.7		50		㉙ 25.0		
EXTRA FOR RADIUS & TAPER		38' & 11'			㉘ 17.6	1.3		㉗ 3.0	17.6	0.9	0.6	0.7	㉑ 2.3			17.6		
440+54.5 – 491+50	4	5095.5			2264.7	169.9	1185.4	⑰ 353.6	2264.7	110.1	78.6	70.8	314.5					
491+50 – 493+25	4	175.0			77.8	5.8	40.7	12.8	77.8	⑭ 10.3	2.7	2.4	10.8					
TOTALS (CARRIED TO THE GENERAL SUMMARY)						710.0	4494.4	1457.7	9366.0	466.9	328.7	206.2	902.1	75	8	477.0		

① 560.35' x 5.75' x 1.3958 ÷ 27 = 166.6 C.Y.
② 560.35' x 5.75' x .4375 ÷ 27 = 52.2 C.Y.
③ 560.35' x 5.75' ÷ 9 = 358.0 S.Y.
④ 372' x 8.25' x 1.3958 ÷ 27 = 158.7 C.Y.
⑤ 321' x 19.25' x 1.3958' ÷ 27 = 319.4 C.Y.
⑥ 321' x 19.25' x .4375 ÷ 27 = 100.1 C.Y.
⑦ 321' x 19.25' ÷ 9 = 686.6 S.Y.
⑧ 250' x 8.25' x 1.3958 ÷ 27 = 106.6 C.Y.
⑨ 250' x 8.25' x .4375 ÷ 27 = 33.4 C.Y.
⑩ 250' x 8.25' ÷ 9 = 229.2 S.Y.
⑪ 2575' x 6.5' x 1.3958 ÷ 27 = 865.3 C.Y.
⑫ 2575' x 6.5' x .4375 ÷ 27 = 271.2 C.Y.
⑬ 2575' x 6.5' ÷ 9 = 1859.7 C.Y.
⑭ 77.8 S.Y. x .1319 AVE. = 10.3 C.Y.
⑮ DEDUCT 1900' x 4.5' x .0625 ÷ 27 = 19.8 C.Y.
⑯ DEDUCT 879' x 4.5' x .0625 ÷ 27 = 9.2 C.Y.
⑰ DEDUCT 1720' x 4.5' x .0625 ÷ 27 = 17.9 C.Y.
⑱ DEDUCT 4' x 4' ÷ 9 = 1.8 S.Y.
⑲ DEDUCT 4.5' x 8' x .4375 ÷ 27 = 0.6 C.Y.
⑳ 65' x 4.5' x 1.4583 AVE. ÷ 27 = 15.8 C.Y.
㉑ 38'x 5' x .3333 ÷ 27 = 2.3 C.Y.
㉒ ADD 25' x .5 ÷ 9 = 1.4 S.Y.
㉓ 372' x 8.25' x .4375' ÷ 27 = 49.7 C.Y.
㉔ 372' x 8.25' ÷ 9 = 341.0 S.Y.
㉕ ADD 8.3' x 1' ÷ 9 = 0.9 S.Y.
㉖ S.Y. + (L x 0.5 ÷ 9) x 0.1458
㉗ 11' + 38' = 49' x .5 ÷ 9 = 2.7 S.Y. + 17.6 S.Y. x .1458 = 3.0 C.Y.
㉘ (11' x 4') + (38' x 3' AVE.) ÷ 9 = 17.6 S.Y.
㉙ ADD 50' x .5 ÷ 9 = 2.8 S.Y.
㉚ ADD 25' x .5 x .25 ÷ 27 = 0.1 C.Y.
㉛ ADD 50' x .5 x .25 ÷ 27 = 0.2 C.Y.

4/2/91

L0162327

SHOULDER DATA TABLE

STATIONS FROM ℄ LANE.

* ITEM 617 COMPACTED AGGREGATE TO BE OMITTED IN THE AREA OF ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE (UNDER GUARDRAIL) TYPE 1, AC-20, AS PER PLAN

CALC. BY D.M. DATE 4-11-91 CHKD. BY T.D. 5-23-91	LIC-16-23.27	OHIO FHWA REGION 5	74 / 134

SHOULDER DATA

STATION TO STATION	LT. SIDE W.B. FEET	LT. SIDE LIN. FEET	RT. SIDE W.B. FEET	RT. SIDE LIN. FEET	AREA SQ. YDS.	407 TACK COAT ● 0.075 GAL./S.Y. GAL'S.	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION L x (W.B.+.5) x1.5417 ÷ 27 CU.YD.	304 AGGREGATE BASE AS PER PLAN L x (W.B.+.5) x.5833 ÷ 27 CU.YD.	305 9" CONC. BASE AS PER PLAN SQ.YD.	446 ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2, AC-20 1 3/4" CU.YD.	446 ASPHALT CONCRETE SURFACE COURSE TYPE 1, AC-20 1 1/4" CU.YD.	203 EMBANKMENT L x .5 x .75 ÷ 27 CU.YD.	* 617 COMPACTED AGGREAGTE TYPE A L x 5' x .3333 ÷ 27 CU.YD.	254 PAVEMENT PLANING BITUMINOUS SQ.YD.	SPECIAL PRESSURE RELIEF JOINT TYPE A LIN.FT.	451 12" REINFORCED CONCRETE PAVEMENT, AS PER PLAN SQ.YD.	203 SUBGRADE COMPACTION SQ.YD.
EASTBOUND																	
CITY, STATE & FEDERAL																	
239+64.65 – 250+82.33 B			10	1117.68	1241.9	93.1	670.1	253.5	1241.9	60.4	43.1	15.5	69.0				
250+84.06 A – 261+03.9			10	1019.84	1133.2	85.0	611.4	231.3	1133.2	55.1	39.3	14.2	62.9				
261+03.9 – 261+53.9			7 AVE.	50.7	(16) 40.3			(15) 6.3				0.7	3.1			40.3	40.3
261+53.9 – 263+88.9			4	235.0	104.4			(2) 22.8				3.2	14.5			104.4	104.4
263+88.9 – 8+82.8 (DAYTON RD.)			4	73	32.4			(15) 5.3				1.0	4.5			32.4	32.4
8+82.8 (DAYTON RD.) –265+09.58			VAR.	96.1	(6) 59.0		(17) 30.8	(15) 9.4					(7) 3.1			59	59
265+09.58– 309+02			10	4392.42	4881.4	366.0	2633.5	996.4	4880.5	237.2	169.5	61.0	271.1				
								(125' x 5' x .3333 + 27 = 7.7 C.Y.)				* DEDUCT	7.7				
TOTALS (CARRIED TO THE GENERAL SUMMARY)						544.1	3945.8	1525.0	7255.6	352.7	251.9	95.6	428.2			236.1	236.1
STATE & FEDERAL																	
309+02 – 323+15.8			10	1413.8	1570.9	117.8	847.6	320.7	1570.9	76.4	54.5	19.6	87.3				
323+15.8 – 323+65.8			7 AVE.	50.7	(16) 40.3	3.0		(15) 6.3	40.3	2.0	1.4	0.7	3.1				
323+65.8 – 326+00.8			4	235.0	104.4	7.8		(2) 22.8	104.4	5.1	3.6	3.2	14.5				
326+00.8 – 25+12.9 (C.R.585)			4	76.7	(13) 35.5	2.7		(15) 5.8	35.5	1.7	1.2	1.1	4.7				
25+12.9 – 327+30.3			VAR.	97.3	(9) 63.8	4.8				3.1	2.2		(7) 3.6	(10) 57.7			
327+30.3 – 366+82.69 B			10	3952.39	4391.5	329.4	2369.7	896.6	4391.5	213.5	152.3	54.9	244.0				
366+82.25 A – #378+11.19			10	1128.94	1254.4	94.1	676.9	256.1	1254.4	61.0	43.6	15.7	69.7				
#378+11.19 – #378+76.19			10	65.0	72.2	5.4	(3) 40.5	(4) 12.9	(5) 67.8	3.5	2.5	0.9	4.0		10		
#378+76.19 – #380+05.77	FOR BRIDGE AND APPROACH DETAILS AND QUANTITIES SEE SHEETS 128-134.																
#380+05.77 – #380+70.77			10	65.0	72.2	5.4	(3) 40.5	(4) 12.9	(5) 67.8	3.5	2.5	0.9	4.0		10		
#380+70.77 – 436+19.7			10	5548.93	6165.5	462.4	3326.9	1258.7	6165.5	299.7	214.1	77.1	342.5				
436+19.7 – 436+69.7			7 AVE.	50.7	(16) 40.3	3.0		(15) 6.3	40.3	2.0	1.4	0.7	3.1				
436+69.7 – 439+04.7			4	235.0	104.4	7.8		(2) 22.8	104.4	5.1	3.6	3.2	14.5				
439+04.7 – 31+85.4 (C.R.668)			4	53	(14) 24.8	1.9		(15) 4.0	24.8	1.2	0.9	0.7	3.3				
31+85.4 C.R.668 – 32+31.1 C.R.668			4	45.7	20.3	1.5				1.0	0.7		(7) 1.7	20.3			
32+31.1 C.R.668 – 440+34.3			7 AVE.	84.8	66.0	5.0				3.2	2.3		(7) 3.1	(11) 56.6			
440+34.3 – 491+50			10	5115.7	5684.1	426.3	3067.1	1160.4	5684.1	276.3	197.4	71.1	315.7				
491+50 – 493+25			10	175.0	194.4	14.6	104.9	39.7	194.4	(1) 25.6	6.7	2.4	10.8				
								(4712.5' x 5' x .3333 ÷ 27 = 291 C.Y.)				* DEDUCT	291				
TOTALS (CARRIED TO THE GENERAL SUMMARY)						1492.9	10,474.1	4026.0	19,746.2	983.9	690.9	252.2	838.6	134.6	20		

(1) 194.4 S.Y. x .1319 = 25.6 C.Y.

(2) L x (W.B. + .5) x .4375 ÷ 27 =

(3) 65' x 10.5 x 1.6042 ÷ 27 = 40.5 C.Y.

(4) DEDUCT 8' x 10.5' x .5833 ÷ 27 = 1.8 C.Y.

(5) DEDUCT 4' x 10' ÷ 9 = 4.4 S.Y.

(6) PLANIMETER

(7) L x 3' x .3333 ÷ 27 =

(8) NOT USED

(9) (39' x 4') + (55' x 7' Ave.) + (3.3' x 10') = 574.0 S.F. ÷ 9 = 63.8 S.Y.

(10) DEDUCT 55' x 1' AVE. ÷ 9 = 6.1 S.Y.

(11) DEDUCT 84.8' x 1' AVE. ÷ 9 = 9.4 S.Y.

(12) NOT USED

(13) ADD 1.4 S.Y.

(14) ADD 1.2 S.Y.

(15) S.Y. + (L x 0.5 ÷ 9) x 0.1458

(16) ADD 8.3' x 1' ÷ 9 = 0.9 S.Y.

(17) S.Y. + (L x .5 ÷ 9) x .4791

4/2/91

L0162427

CALC. BY D.M. DATE 4-11-91 CHKD. BY T.D. DATE 5-?-91	LIC-16-23.27	OHIO FHWA REGION 5	75/134

SHOULDER DATA TABLE

SHOULDER DATA

STATION TO STATION	LT. SIDE W.B. FEET	LT. SIDE LIN. FEET	RT. SIDE W.B. FEET	RT. SIDE LIN. FEET	AREA SQ. YDS.	407 TACK COAT ● 0.075 GAL./S.Y. GAL'S.	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION L x (W.B.+.5) x1.5417 ÷ 27 CU.YD.	304 AGGREGATE BASE AS PER PLAN L x (W.B.+.5) x.4375 ÷ 27 CU.YD.	305 9" CONC. BASE AS PER PLAN SQ.YD.	446 ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 2, AC-20 1 3/4" CU.YD.	446 ASPHALT CONCRETE SURFACE COURSE TYPE 1, AC-20 1 1/4" CU.YD.	203 EMBANKMENT L x .5 x .75 ÷ 27 CU.YD.	617 COMPACTED AGGREAGTE TYPE A L x 5' x .3333 ÷ 27 CU.YD.	609 CURB TYPE 2-B LIN.FT.	203 SUBGRADE COMPACTION SQ.YD.	451 12" REINFORCED CONCRETE PAVEMENT AS PER PLAN SQ. YD.
WESTBOUND																
CITY, STATE & FEDERAL																
11+16 DAYTON RD. – 265+51.7	4	72			(1) 33.8	2.5		(2) 5.5	33.8	1.6	1.2	1.0	4.4			
265+51.7 – 267+86.7	4	235.0			104.4	7.8		17.1	104.4	5.1	3.6	3.3	14.5			
267+86.7 – 268+36.7	6 AVE.	50.6			(3) 34.6	2.6		(2) 5.5	34.6	1.7	1.2	0.7	3.1			
EXTRA FOR RADIUS & TAPER				38' & 11'	(6) 17.6			(7) 3.0				0.7	(8) 2.3		17.6	17.6
265+44.24± – 265+94.24			4	50.0	22.2			3.6				0.7	3.1		22.2	22.2
265+94.24 – 267+46.24			4	153.4	68.2			11.2				2.1	9.5		68.2	68.2
267+46.24 – 269+81.24			4	235.0	104.4			17.1				3.3	14.5		104.4	104.4
269+81.24 – 270+31.24			4	51.9	(3) 24.0			(2) 3.9				0.7	3.2		24.0	24.0
TOTALS (CARRIED TO THE GENERAL SUMMARY)						12.9		66.9	172.8	8.4	6.0	12.5	54.6		236.4	236.4
STATE & FEDERAL																
27+69.2 C.R.585 – 327+99.2	4	77			(4) 35.9	2.7		(2) 5.9	35.9	1.7	1.2	1.1	4.8			
327+99.2 – 330+34.2	4	235.0			104.4	7.8		17.1	104.4	5.1	3.6	3.3	14.5			
330+34.2 – 330+84.2	6 AVE.	50.6			(3) 34.6	2.6		(2) 5.5	34.6	1.7	1.2	0.7	3.1			
EXTRA FOR RADIUS & TAPER				38' & 11'	(6) 17.6	1.3		(7) 3.0	17.6	0.9	0.6	0.7	(8) 2.3		17.6	
327+79.88± – 328+29.88			4	50.0	22.2	1.7		3.6	22.2	1.1	0.8	0.7	3.1		22.2	
328+29.88 – 329+81.88			4	153.4	68.2	5.1		11.2	68.2	3.3	2.4	2.1	9.5		68.2	
329+81.88 – 332+16.88			4	235.0	104.4	7.8		17.1	104.4	5.1	3.6	3.3	14.5		104.4	
332+16.88 – 332+66.88			4	51.9	(3) 24.0	1.8		(2) 3.9	24.0	1.2	0.8	0.7	3.2		24.0	
30+01.2 C.R.668 – 439+48.8	4	52.5			(5) 24.7	1.9		(2) 4.0	24.7	1.2	0.9	0.7	3.2			
439+48.8 – 441+83.8	4	235.0			104.4	7.8		17.1	104.4	5.1	3.6	3.3	14.5			
441+83.8 – 442+33.8	6 AVE.	50.6			(3) 34.6	2.6		(2) 5.5	34.6	1.7	1.2	0.7	3.1			
EXTRA FOR RADIUS & TAPER				38' & 11'	(6) 17.6	1.3		(7) 3.0	17.6	0.9	0.6	0.7	(8) 2.3		17.6	
440+17 – 440+67			4	50	22.2	1.7		(11) 3.8	(9) 25.0	1.1	0.8	0.7		50	(9) 25.0	
440+67 – 442+19			4.	153.4	68.2	5.1		(12) 11.4	(10) 70.4	3.3	2.4	2.1		40	(10) 70.4	
442+19 – 444+54			4	235.0	104.4	7.8		17.1	104.4	5.1	3.6	3.3	14.5		104.4	
444+54 – 445+04			4	51.9	(3) 24.0	1.8		(2) 3.9	24.0	1.2	0.8	0.7	3.2		24.0	
TOTALS (CARRIED TO THE GENERAL SUMMARY)						60.8		133.1	816.4	39.7	28.1	24.8	95.8	90	477.8	

(1) ADD 1.8 S.Y.

(2) S.Y. + (L x 0.5 ÷ 9) x 0.1458

(3) ADD 8.3' x 1' ÷ 9 = 0.9 S.Y.

(4) ADD 1.7 S.Y.

(5) ADD 1.4 S.Y.

(6) (11' x 4') + (38' x 3'AVE.) ÷ 9 = 17.6 S.Y.

(7) 11' + 38' = 49' x .5 ÷ 9 = 2.7 S.Y. + 17.6 S.Y. x .1458 = 3.0 C.Y.

(8) 38' x 5' x .3333 ÷ 27 = 2.3 C.Y.

(9) ADD 50' x .5 ÷ 9 = 2.8 S.Y.

(10) ADD 40' x .5 ÷ 9 = 2.2 S.Y.

(11) ADD 50' x .5 x .25 ÷ 27 = 0.2 C.Y.

(12) ADD 40' x .5 x .25 ÷ 27 = 0.2 C.Y.

4/2/91

L0162B27

CALC. BY	DATE	CHKD. BY	DATE	LIC-16-23.27	OHIO	FHWA REGION 5	76 / 134

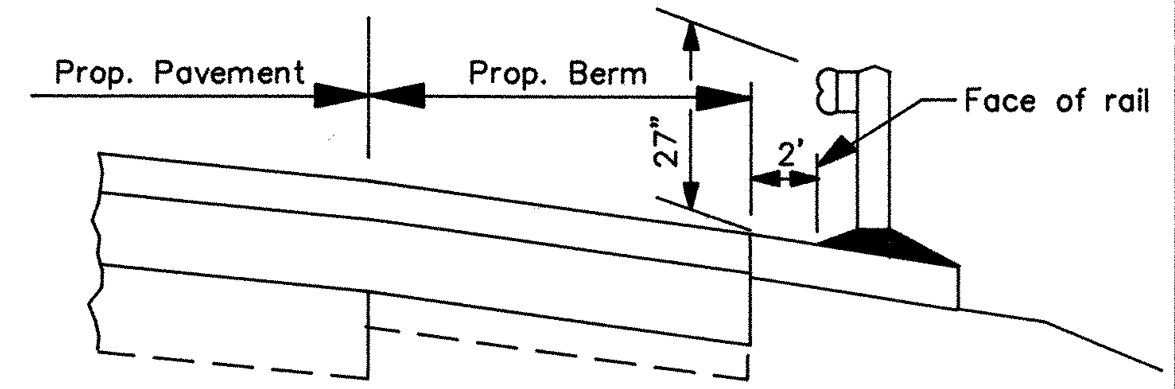
GUARDRAIL DETAILS

GUARDRAIL POST HOLES:
ALL HOLES REMAINING AFTER REMOVAL OF GUARDRAIL POSTS SHALL BE FILLED WITH GRANULAR MATERIAL, EXCESS MATERIAL RESULTING FROM GUARDRAIL RECONSTRUCTION. FILL MATERIAL CONTAINING SOD SHALL NOT BE USED.
ALL FILL MATERIAL SHALL BE APPROVED BY THE ENGINEER.
MATERIAL PLACED IN THE HOLES SHALL BE THOROUGHLY COMPACTED AND LEVELED OFF AS DIRECTED BY THE ENGINEER. PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPLICABLE GUARDRAIL ITEM.

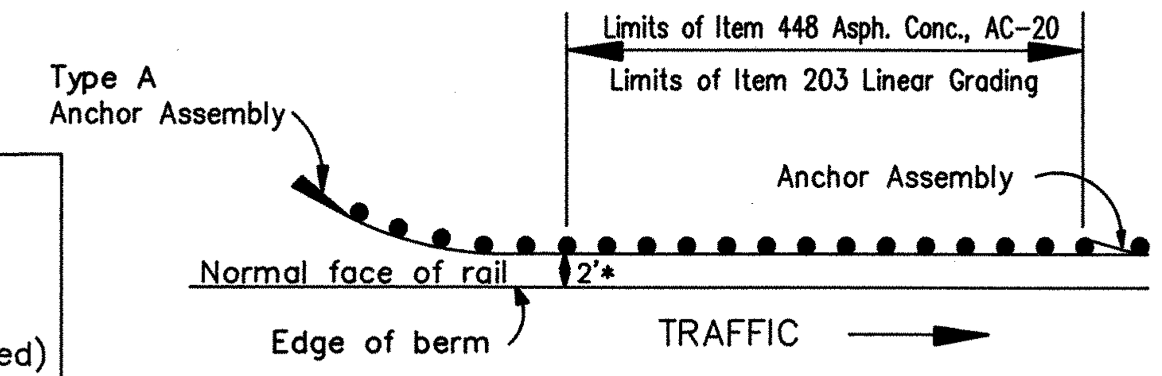
MEDIAN GUARDRAIL:
ALL EXCAVATION AND EMBANKMENT NECESSARY TO CONSTRUCT THE MEDIAN GUARDRAIL AS PER STANDARD DRAWING GR-6 SHALL BE CONSIDERED INCIDENTIAL TO THE VARIOUS GUARDRAIL ITEMS.

BRIDGE APPROACH GUARDRAIL:
BRIDGE APPROACH GUARDRAIL STATION AS SHOWN SHALL BE ADJUSTED BY THE PROJECT ENGINEER TO CONFORM TO STD. DRWG. GR-3.4 TYPE 4.

* 1-G TO BE PLACED AS SHOWN ON SHEET 19.
ITEM 617 TO BE PLACED AS PER TYPICAL SECTION WITHOUT GUARDRAIL.

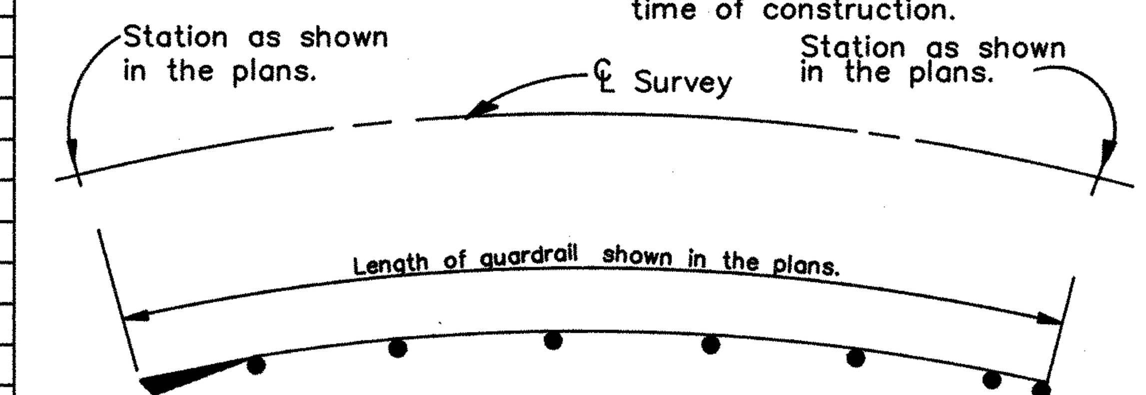


TYPICAL PLACEMENT OF GUARDRAIL (MAINLINE)



TYPICAL PLACEMENT OF ITEM 448 FOR GUARDRAIL SECTIONS

NOTE: The stations as shown in the plans shall be adjusted at the time of construction.



NOTE: Guardrail to be located before placement of Item 448 Asphalt Concrete for Item 606 Guardrail Type 5.

GUARDRAIL ADJUSTMENT FOR CURVES

EXISTING STATION TO STATION EASTBOUND FROM	TO	MARK	202 GUARDRAIL REMOVED LIN.FT.	606 GUARDRAIL TYPE 5 LIN.FT.	606 ANCHOR ASSEM. TYPE A SEE STAND. DRWG.GR-4.1 EACH Single	Barr.	606 BRIDGE TERMINAL ASSEMBLY TYPE 4 SEE STAND. DRWG.GR-3.4 EACH		606 GUARDRAIL BARRIER DESIGN TYPE 5 SEE STAND. DRWG.GR-6 LIN.FT.	606 ANCHOR ASSEM. TYPE T SEE STAND DRWG.GR-4.2 EACH		ITEM 203 LINEAR GRADING SEE GENERAL NOTE STATION		448 ASPHALT CONCRETE INTERMEDIATE COURSE (UNDER GUARDRAIL) TYPE 1, AC-20 AS PER PLAN (SEE GENERAL NOTE CU.YD.	GUARDRAIL FLARE OFFSET DISTANCE SEE STAND. DRWGS.GR-5 OR GR-6		SEE SHEET	PROPOSED STATION TO STATION (Same as existing except as noted) FROM	TO
CITY, STATE & FEDERAL																			
259+97.5	262+10	1-G	212.5	275.0	1					1					8.31'		19	258+97.5	262+10
294+77.0	296+64.5	2-G	187.5	250.0	1					1		1.3		5.8	18.0'		21	293+77.0	296+64.5
TOTALS (CITY, STATE & FEDERAL)			400.0	525.0	2					2		1.3		5.8					
STATE & FEDERAL																			
24+75 Co.Rd.585	328+48.4	3-G	250.0	212.5	1					1		2.1		9.8	1.5'		22		
336+00	378+90.08	4-G	4,290.1	4275.0	1		1					42.8		197.9	1.5'		23 & 24	335+90.08	378+90.08
379+77.58	380+27.0	5-G	49.4	37.5			1			1		0.4		1.7			24	379+77.58	380+27.58
377+39.75	379+03.08	6-G	163.3	112.5		1	1		25.0						19.89'		24	377+40.58	379+03.08
379+90.58	380+39.75	7-G	49.2	37.5			1			1		0.4		1.7			24	379+90.58	380+40.58
407+82	409+82	8-G	200.0	275.0	1					1		1.5		5.8	18.0'		25 & 26	406+69.5	409+82
384+00	384+25	9-G	25.0														25		
388+75	389+00	10-G	25.0														25		
397+10	397+35	11-G	25.0														25		
TOTALS (STATE & FEDERAL)			5,077.0	4,950.0	3	1	4		25.0	4		47.2		216.9					

TOTALS CARRIED TO THE GENERAL SUMMARY

L0162353 4/1/91

ITEM 622 PORTABLE CONCRETE BARRIER & ITEM 622 PORTABLE CONCRETE BARRIER, BRIDGE MOUNTED

LOCATION	ITEM 622 PORTABLE CONCRETE BARRIER, 32" LIN.FT.	ITEM 622 PORTABLE CONCRETE BARRIER, BRIDGE MOUNTED, 32" LIN.FT.
LEFT LANE CLOSURE E.B. LANES		
STA. 375+11 TO STA. 381+71	580	80
RIGHT LANE CLOSURE E.B. LANES		
STA. 375+11 TO STA. 381+71	580	80
TOTALS (STATE & FEDERAL)	1,160	160
LEFT LANE CLOSURE E.B. LANES		
STA. 256+11.7 TO STA. 266+81.7	1,070	
RIGHT LANE CLOSURE E.B. LANES		
STA. 256+11.7 TO STA. 266+81.7	1,070	
TOTAL (CITY, STATE & FEDERAL)	2,140	

ITEM 622 PORTABLE CONCRETE BARRIER, 32"

THE CONTRACTOR SHALL INSTALL A PORTABLE CONCRETE BARRIER, AS PER STANDARD DRAWING MC-9.2.
ITEM 622 PORTABLE CONCRETE BARRIER HAS BEEN PROVIDED FOR MAINTAINING TRAFFIC AS SHOWN THIS SHEET.
FLAGMEN SHALL BE UTILIZED FOR PROTECTION OF VEHICULAR TRAFFIC UNTIL MOVEMENT OF THE BARRIERS IS COMPLETE AND TRAFFIC IS MAINTAINED.
AFTER THE PROJECT HAS BEEN COMPLETED THE PORTABLE CONCRETE BARRIER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED BY HIM.
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE PURPOSE.

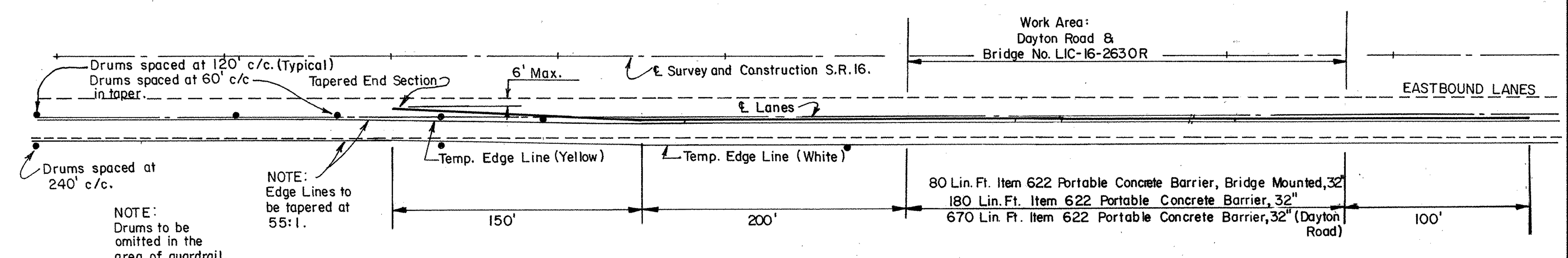
ITEM 622 PORTABLE CONCRETE BARRIER, 32" 1,160 LIN.FT. (STATE & FEDERAL)
ITEM 622 PORTABLE CONCRETE BARRIER, 32" 2,140 LIN.FT. (CITY, STATE & FEDERAL)

ITEM 622 PORTABLE CONCRETE BARRIER, BRIDGE MOUNTED, 32"

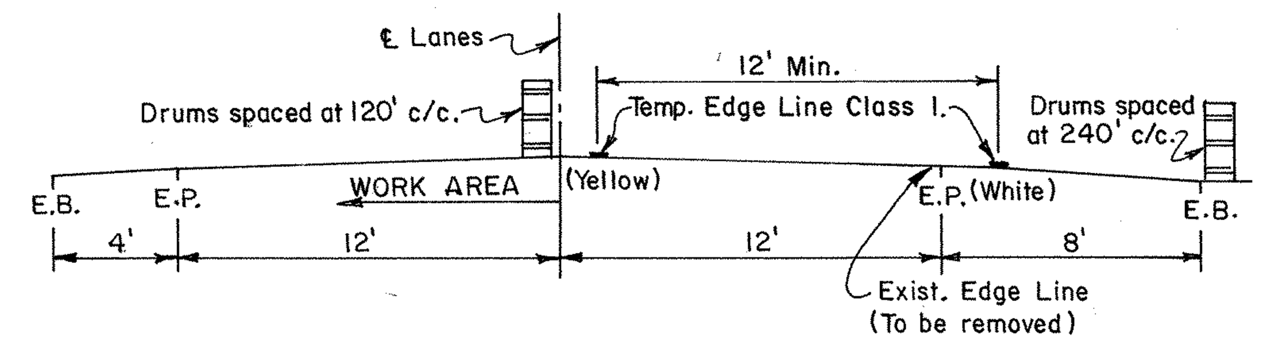
THE CONTRACTOR SHALL INSTALL A PORTABLE CONCRETE BARRIER, BRIDGE MOUNTED, AS PER STANDARD DRAWING MC-9.2 AND SHEET 130 .
CONNECTIONS OF THE PARAPETS SHALL BE ACCOMPLISHED BY USING 1 1/4" DIA. HIGH STRENGTH BOLTS. ANCHORING OF ALL PORTABLE CONCRETE BARRIER BARRIER ON THE BRIDGE SHALL NOT BE REQUIRED.
ITEM 622 PORTABLE CONCRETE BARRIER, BRIDGE MOUNTED HAS BEEN PROVIDED FOR MAINTAINING TRAFFIC AS SHOWN THIS SHEET.
FLAGMEN SHALL BE UTILIZED FOR PROTECTION OF VEHICULAR TRAFFIC UNTIL MOVEMENT OF THE BARRIERS IS COMPLETE AND TRAFFIC IS MAINTAINED.
AFTER THE PROJECT HAS BEEN COMPLETED THE PORTABLE CONCRETE BARRIER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED BY HIM.
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE PURPOSE.

ITEM 622 PORTABLE CONCRETE BARRIER, BRIDGE MOUNTED, 32" 160 LIN.FT. (STATE & FEDERAL)

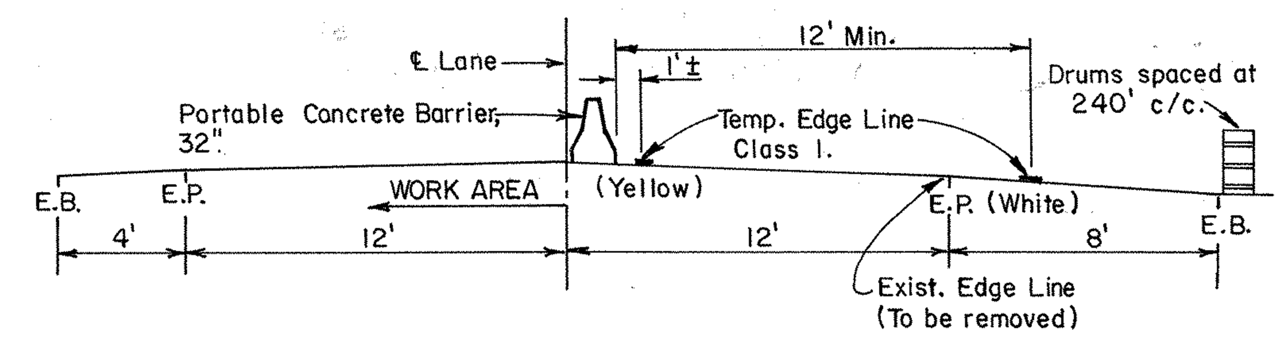
TYPICAL LANE CLOSURE



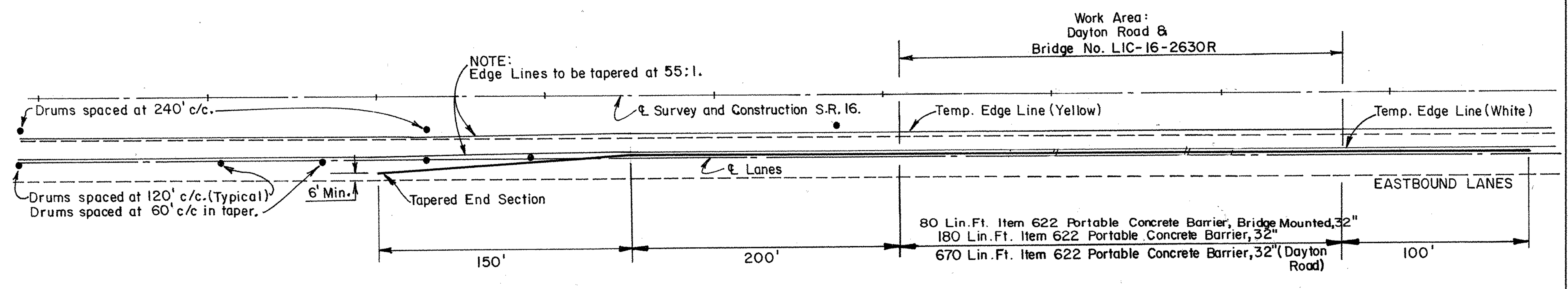
TYPICAL LEFT LANE CLOSURE AT OVERPASS



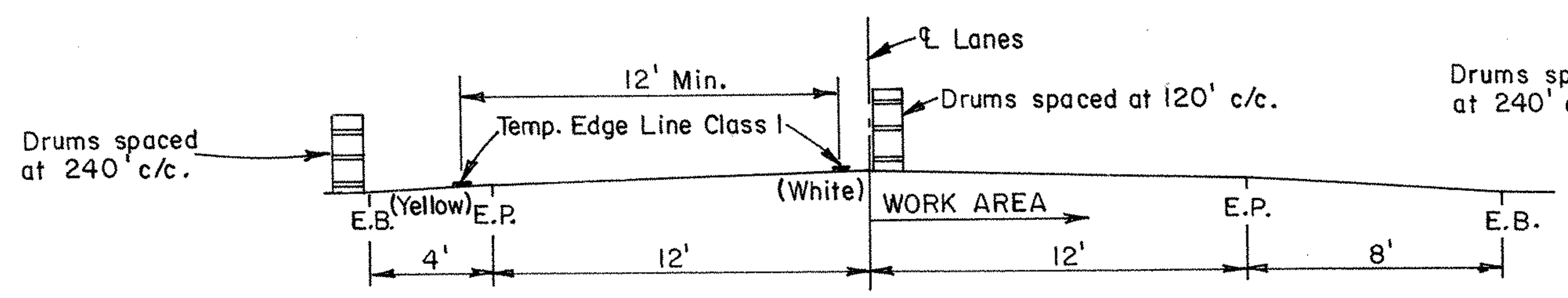
TYPICAL LEFT LANE CLOSURE WITH DRUMS



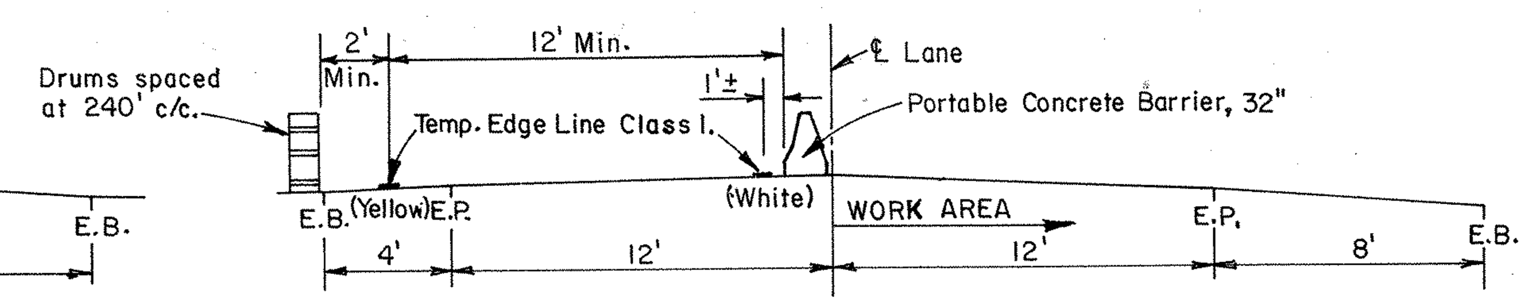
TYPICAL LEFT LANE CLOSURE WITH PORTABLE CONCRETE BARRIER



TYPICAL RIGHT LANE CLOSURE AT OVERPASS



TYPICAL RIGHT LANE CLOSURE WITH DRUMS



TYPICAL RIGHT LANE CLOSURE WITH PORTABLE CONCRETE BARRIER

L0162331 10/16/90

614 BARRIER REFLECTORS

LOCATION	SPACING	TYPE A W	TYPE A Y	TYPE B W	TYPE B Y	TYPE B W	TYPE B Y	TYPE A W		SPACING	LOCATION
CITY, STATE & FEDERAL											
E.B. GUARDRAIL DRIVING LANE											
1-G	50'	5									
2-G	50'	4									
PORTABLE CONC. BARRIER											
STA. 256+11.7-STA. 266+81.7	50'			22	22						
STATE & FEDERAL											
E.B. GUARDRAIL DRIVING LANE											
3-G	50'	6									
4-G, BR.NO. LIC-16-2630 & 5-G	50'	90									
8-G	50'	5									
PORTABLE CONCRETE BARRIER											
STA.375+00 - STA.381+80	50'				15						
CITY, STATE & FEDERAL											
EXISTING CONCRETE BARRIER											
STA.239+60 - STA.248+97	50'				20						
STATE & FEDERAL											
EXISTING CONCRETE BARRIER											
STA.333+54 - STA.365+00	50'				64						
6-G, BR.NO. LIC-16-2630 & 7-G	50'		7								
PORTABLE CONCRETE BARRIER											
STA.375+00 - STA.381+80	50'			15							
TOTALS CITY, STATE & FEDERAL		9		22	42						
TOTALS STATE & FEDERAL		101	7	15	79						

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

	CITY STATE & FEDERAL	STATE & FEDERAL
ITEM 614 BARRIER REFLECTORS, TYPE A	9 EACH	108 EACH
ITEM 614 BARRIER REFLECTORS, TYPE B	64 EACH	94 EACH

614 BARRIER REFLECTORS:

THESE REFLECTORS AND THEIR MOUNTING SHALL CONFORM TO SUPPLEMENTAL SPECIFICATION 802, EXCEPT THAT SPACING SHALL BE AS SHOWN IN THE SUB-SUMMARY TABLE.

NOTE:
FOR GUARDRAIL LOCATIONS SEE SHEET 76.

NOTE:
EXISTING BARRIER REFLECTORS ON THE EXISTING CONCRETE MEDIAN BARRIER SHALL BE REMOVED BEFORE INSTALLING ITEM 614 BARRIER REFLECTORS. PAYMENT FOR THE REMOVAL OF THESE BARRIER REFLECTORS SHALL BE INCIDENTAL TO THE PAYMENT FOR ITEM 614 BARRIER REFLECTORS.

W = WHITE

Y = YELLOW

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT FIVE

614 BARRIER REFLECTORS

STANDARD NO. D3-2E
E

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
					9/19/88

L0162A30 10/18/90

ITEM 614 TEMPORARY PAVEMENT MARKINGS

(SEE STANDARD DRAWING MT-99.10)

STATION TO STATION CITY, STATE & FEDERAL	ITEM 614 TEMPORARY CENTER LINE CLASS I MILE	EDGE LINE (WHITE) CLASS I MILE	EDGE LINE (YELLOW) CLASS I MILE	LANE LINE CLASS II MILE	CHANNELIZING LINE CLASS I MILE	STOP LINE CLASS I LIN.FT.	TRANSVERSE LINE CLASS I LIN.FT.
PHASE 3 (EXISTING PAVEMENT)							
STA.239+64.15 E.B. – STA.309+02 E.B. (Deduct Dayton Rd.)			1.19				
STA.239+64.15 E.B. – STA.309+02 E.B. (Deduct Dayton Rd.)		1.19					
PHASE 4							
(Proposed Item 446 Intermediate Course)							
STA.239+64.15 E.B. – STA.309+02 E.B. (Deduct Dayton Rd.)		1.19					
STA.239+64.15 E.B. – STA.309+02 E.B. (Deduct Dayton Rd.)			1.19				
(Proposed Item 446 Surface Course)							
STA.239+64.65 E.B. – STA.309+02 E.B. (Deduct Dayton Rd.)		1.19					
STA.239+64.65 E.B. – STA.309+02 E.B. (Deduct Dayton Rd.)				1.19			
PHASE 5							
STA.239+64.65 E.B. – STA.309+02 E.B. (Deduct Dayton Rd.)			1.19				
PHASE 1							
STA. 249+00 E.B. – STA. 266+82 E.B.			0.34				
PHASE 2							
STA. 249+00 E.B – STA. 259+11.5 E.B.		0.19	0.19				
STA. 265+81.7 E.B. – STA. 266+82 E.B.		0.02	0.02				
STA. 249+00 E.B. – STA. 266+82 E.B.		0.34	0.34	0.34			
OFFSET LEFT TURN LANES (EASTBOUND)							
DAYTON ROAD					520		310
					520		310
RIGHT TURN LANE (EASTBOUND)							
DAYTON ROAD	0.01	.02			123	23	
OFFSET LEFT TURN LANES (WESTBOUND)							
(Proposed Item 446 Intermediate Course)							
DAYTON ROAD			.09		520		310
			.09		520		310
RIGHT TURN LANE (WESTBOUND)							
(Proposed Item 446 Surface Course)							
DAYTON ROAD		.07			122		
SUB-TOTALS		4.21	4.55				
(Totals carried to General Summary)							
TOTALS (CITY, STATE & FEDERAL)	0.01	8.76		1.53	1285.0	23.0	620.0

STATION TO STATION STATE & FEDERAL	ITEM 614 TEMPORARY CENTER LINE CLASS I MILE	EDGE LINE (WHITE) CLASS I MILE	EDGE LINE (YELLOW) CLASS I MILE	LANE LINE CLASS II MILE	CHANNELIZING LINE CLASS I MILE	STOP LINE CLASS I LIN.FT.	TRANSVERSE LINE CLASS I LIN.FT.
PHASE 3 (EXISTING PAVEMENT)							
STA.309+02 E.B. – STA.317+70 E.B.			0.16				
STA.332+02 E.B. – STA.494+25 E.B.			3.07				
STA.309+02 E.B. – STA.317+70 E.B.		0.16					
STA.332+02 E.B. – STA.494+25 E.B.		3.07					
PHASE 4							
(Proposed Item 446 Intermediate Course)							
STA.309+02 E.B. – STA.494+25 E.B.		3.51					
STA.309+02 E.B. – STA.494+25 E.B.			3.51				
(Proposed Item 446 Surface Course)							
STA.309+02 E.B. – STA.494+25 E.B.		3.51					
STA.309+02 E.B. – STA.494+25 E.B.				3.51			
PHASE 5							
STA.309+02 E.B. – STA.493+25 E.B.			3.49				
OFFSET LEFT TURN LANES (EASTBOUND)							
(Proposed Item 446 Intermediate Course)							
C.R.585					520		310
C.R.668					520		310
OFFSET LEFT TURN LANES (EASTBOUND)							
(Proposed Item 446 Surface Course)							
C.R.585					520		310
C.R.668					520		310
RIGHT TURN LANE (EASTBOUND)							
(Proposed Item 446 Surface Course)							
C.R.585	0.02	.05			150	22	
C.R.668	0.02	.05			150	55	
OFFSET LEFT TURN LANES (WESTBOUND)							
(Proposed Item 446 Intermediate Course)							
C.R.585			0.09		520		310
C.R.668			0.09		520		310
OFFSET LEFT TURN LANES (WESTBOUND)							
(Proposed Item 446 Surface Course)							
C.R.585			0.09		520		310
C.R.668			0.09		520		310
RIGHT TURN LANE (WESTBOUND)							
(Proposed Item 446 Surface Course)							
C.R.585		.07			150		
C.R.668		.06			150		
Sub-Totals		10.48	10.59				
(Totals carried to General Summary)							
TOTALS STATE & FEDERAL	0.04	21.07		3.51	4760.0	77.0	2480.0

L0162359 3/12/91

SIGNING SUB-SUMMARY

** SEE PROPOSAL NOTE
* SEE GENERAL NOTES

DAYTON ROAD & S.R.16

ITEM 630

LOCATION	MARK	SIDE	STATION	SHEET NO. 86 & 87	SIGN REFERENCE NUMBER	SIZE	** SIGNS, FLAT SHEET TYPE G	SIGNS, EXTRUSHEET** TYPE G	GROUND MOUNTED SUPPORTS, NO. 3 POST	GROUND MOUNTED SUPPORTS, NO. 4 POST	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND* STORAGE, AS PER PLAN
						FT. x FT.	SQ.FT.	SQ.FT.	LIN.FT.	LIN.FT.	EACH	EACH	EACH
E.B.	1-S,A	RT.	262+50		R-41A-36	3' x 2'	6.00		13-13				
E.B.	1-S,B	MED.	262+50		R-41A-36	3' x 2'	6.00		13-13				
E.B.	2-S,A	RT.	263+55		R-41A-36	3' x 2'					1	1	
E.B.	2-S,B	MED.	263+55		R-41A-36	3' x 2'					1	1	
E.B.	3-S,A	RT.	263+85		R-41B-36	3' x 3'					1		1
E.B.	3-S,B	MED.	263+85		R-41B-36	3' x 3'					1		1
E.B.	4-S	RT.	264+06		R-43L-48	4' x 1.5'					1		1
E.B.	5-S	MED.	264+13		R-43R-48	4' x 1.5'					1		1
E.B.	6-S	RT.	264+00		R-31T-54	4.5' x 2.5'	11.25		13-13				
E.B.	7-S		NOT USED										
DAYTON RD.	8-S	RT.	9+22		R-1-48	4' x 4'					1		1
E.B.	9-S	RT.	264+70		SPECIAL	1' x 1.5'							1
E.B.	9-S,A	RT.	264+70		R-107A-24	2' x 1.5'	3.00		12				
E.B.	10-S	MED.	265+07		R-37R-36	3' x 4'					1		1
E.B.	11-S	MED.	265+04		R-2-48	4' x 4' x 4'					1		1
DAYTON RD	12-S	RT.	9+44		R-3L-36	3' x 4.5'	13.50		15-15				
E.B.	13-S,A	RT.	264+85		M-24-24	2' x 1.5'	3.00			15			
E.B.	13-S,B	RT.	264+85		M-2-30-2	2.5' x 2.5'	6.25						
E.B.	13-S,C	RT.	264+85		M-39-30	2.5' x 1.25	3.13						
E.B.	14-S	RT.	264+80		D-7-96	8' x 1.5'		12.00	12-12				
E.B.	15-S,A	MED.	265+17		M-24-24	2' x 1.5'	3.00			15			
E.B.	15-S,B	MED.	265+17		M-2-30-2	2.5' x 2.5'	6.25						
E.B.	15-S,C	MED.	265+17		M-39-30	2.5' x 1.25	3.13						
DAYTON RD.	16-S	LT.	14+89		W-45-36	3'x3'					1		1
W.B.	16-S,A	LT.	263+90		M-24-24	2' x 1.5'	3.00			15			
W.B.	16-S,B	LT.	263+90		M-2-30-2	2.5' x 2.5'	6.25						
W.B.	16-S,C	LT.	263+90		M-40-30	2.5' x 1.25	3.13						
W.B.	17-S	MED.	264+20		R-37R-36	3' x 4'					1		1
W.B.	18-S	MED.	264+29		R-2-48	4' x 4' x 4'					1		1
W.B.	19-S	LT.	264+71		R-1-48	4' x 4'					1		1
W.B.	19-S,A	LT.	264+71		R-107A-24	2' x 1.5'	3.00		12				
W.B.	20-S	LT.	264+56		R-3L-36	3' x 4.5'	13.50		15-15				
DAYTON RD.	21-S	LT.	18+25		W-47-36	3' x 3'	9.00			16			
W.B.	22-S	MED.	265+11		R-43R-48	4' x 1.5'					1		1
W.B.	23-S	LT.	265+31		R-43L-48	4' x 1.5'					1		1
W.B.	24-S,A	MED.	265+38		R-41B-36	3' x 3'					1		1
W.B.	24-S,B	LT.	265+48		R-41B-36	3' x 3'					1		1
W.B.	25-S	LT.	265+19		SPECIAL	2.5' x 2.5'					1		1
W.B.	26-S,A	LT.	265+76		R-41A-36	3' x 2'					1	1	
W.B.	26-S,B	MED.	265+74		R-41A-36	3' x 2'					1	1	
W.B.	27-S	LT.	265+52		R-31T-54	4.5' x 2.5'	11.25		13-13				
W.B.	28-S,A	LT.	266+54		R-31C-48	4' x 2.5'					2	1	
W.B.	28-S,B	MED.	266+53		R-31C-48	4' x 2.5'					2	1	
W.B.	29-S,A	LT.	267+00		R-41A-36	3' x 2'	6.00		13-13				
W.B.	29-S,B	MED.	267+00		R-41A-36	3' x 2'	6.00		13-13				
E.B.	30-S,A	RT.	259+20		R-31T-54	4.5' x 2.5'	11.25		13-13				
E.B	30-S,B	MED.	259+20		R-31T-54	4.5' x 2.5'	11.25		13-13				
W.B.	31-S,A	LT.	270+23		R-31T-54	4.5' x 2.5'	11.25		13-13				
W.B.	31-S,B	MED.	270+23		R-31T-54	4.5' x 2.5'	11.25		13-13				
TOTALS CITY, STATE & FEDERAL							170.64	12.00	368	61	24	6	17

TOTALS CARRIED TO THE GENERAL SUMMARY.

L0162320 1/23/91

SIGNING SUB-SUMMARY

** SEE PROPOSAL NOTE
* SEE GENERAL NOTES

COUNTY ROAD 585 & S.R.16

ITEM 630

LOCATION	MARK	SIDE	STATION	SHEET NO. 88 & 89	SIGN REFERENCE NUMBER	SIZE	** SIGNS, FLAT SHEET TYPE G	** SIGNS, EXTRUSHEET* TYPE G	GROUND MOUNTED SUPPORTS, NO. 3 POST	GROUND MOUNTED SUPPORTS, NO. 4 POST	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND* STORAGE, AS PER PLAN
						FT. x FT.	SQ.FT.	SQ.FT.	LIN.FT.	LIN.FT.	EACH	EACH	EACH
E.B.	32-S	RT.	325+90		R-31T-54	4.5' x 2.5'	11.25		13-13				
E.B.	33-S,A	RT.	321+41		R-41A-36	3' x 2'	6.00						
E.B.	34-S,A	RT.	325+13		R-41A-36	3' x 2'					1	1	
E.B.	34-S,B	MED.	325+14		R-41A-36	3' x 2'					1	1	
E.B.	35-S,A	RT.	325+95		R-41B-36	3' x 3'	9.00			14	1	1	
E.B.	35-S,B	MED.	325+95		R-41B-36	3' x 3'						1	1
E.B.	36-S	RT.	326+13		R-43L-48	4' x 1.5'	6.00		12-12		1	2	
E.B.	37-S	MED.	326+42		R-43R-48	4' x 1.5'	6.00		12-12		1	1	
E.B.	38-S	RT.	326+29		R-1-48	4' x 4'	16.00			15-15	1	1	
E.B.	39-S	RT.	327+05		R-1-48	4' x 4'	16.00			16-16	1	1	
E.B.	40-S	RT.	327+05		R-107A-24	2' x 1.5'	3.00				1	1	
E.B.	41-S,A	RT.	327+16		M-2-30-2	2.5' x 2.5'	6.25			15	1	1	
E.B.	41-S,B	RT.	327+16		M-24-24	2' x 1.5'	3.00				1		
E.B.	41-S,C	RT.	327+16		M-39-30	2.5' x 1.25'	3.13				1		
E.B.	42-S	MED.	327+46		R-2-48	4' x 4' x 4'	6.93		14-14		1	1	
E.B.	43-S	MED.	327+48		R-37R-36	3' x 4'	12.00		15-15		1	2	
E.B.	44-S	RT.	327+28		D-14							2	2
E.B.	45-S	RT.	327+25		D-7-96	8' x 1.5'		12.00	12-12				
E.B.	46-S,A	MED.	327+51		M-2-30-2	2.5' x 2.5'	6.25			15	1	1	
E.B.	46-S,B	MED.	327+51		M-39-30	2.5' x 1.25'	3.13				1		
E.B.	46-S,C	MED.	327+51		M-24-24	2' x 1.5'	3.00				1		
E.B.	33-S,B	MED.	321+41		R-41A-36	3' x 2'	6.00						
W.B.	47-S,A	MED.	326+45		M-2-30-2	2.5' x 2.5'	6.25			15	1	1	
W.B.	47-S,B	MED.	326+45		M-24-24	2' x 1.5'	3.00				1		
W.B.	47-S,C	MED.	326+45		M-40-30	2.5' x 1.25'	3.13				1		
W.B.	48-S	MED.	326+51		R-37R-36	3' x 4'	12.00		15-15		1	2	
W.B.	49-S	MED.	326+56		R-2-48	4' x 4' x 4'	6.93		14-14		1	2	
W.B.	50-S,A	LT.	327+65		R-1-48	4' x 4'	16.00			15-15	1	1	
W.B.	50-S,B	LT.	327+72		D-14							1	2
W.B.	51-S,A	LT.	327+90		R-41B-36	3' x 3'	9.00			14	1	1	
W.B.	51-S,B	MED.	327+39		R-41B-36	3' x 3'						1	1
W.B.	52-S	MED.	327+53		R-43R-48	4' x 1.5'	6.00		12-12		1	2	
W.B.	53-S	LT.	327+93		R-43L-48	4' x 1.5'	6.00		12-12		1	2	
W.B.	54-S,A	LT.	328+57		R-41A-36	3' x 2'					1	1	
W.B.	54-S,B	MED.	328+57		R-41A-36	3' x 2'					1	1	
W.B.	55-S,A	LT.	328+66		R-31C-48	4' x 2.5'					1	2	
W.B.	55-S,B	MED.	328+67		R-31C-48	4' x 2.5'					1	2	
W.B.	56-S,A	LT.	332+58		R-41A-36	3' x 2'	6.00						
W.B.	57-S	LT.	328+10		R-31T-54	4.5' x 2.5'	11.25		13-13				
E.B.	58-S,A	RT.	323+25		R-31T-54	4.5' x 2.5'	11.25		13-13				
E.B.	58-S,B	MED.	323+25		R-31T-54	4.5' x 2.5'	11.25		13-13				
W.B.	59-S,A	LT.	332+58		R-31T-54	4.5' x 2.5'	11.25		13-13				
W.B.	59-S,B	MED.	332+58		R-31T-54	4.5' x 2.5'	11.25		13-13				
W.B.	56-S,B	MED.	332+58		R-41A-36	3' x 2'	6.00						
TOTALS STATE & FEDERAL							259.50	12.00	392	165	29	36	6

TOTALS CARRIED TO THE GENERAL SUMMARY.

SIGNING SUB-SUMMARY

** SEE PROPOSAL NOTE
* SEE GENERAL NOTES

COUNTY ROAD 668 & S.R.16

ITEM 630

LOCATION	MARK	SIDE	STATION	SHEET NO. 90 & 91	SIGN REFERENCE NUMBER	SIZE FT. x FT.	** SIGNS, FLAT SHEET TYPE G SQ.FT.	SIGNS, EXTRUSHEET** TYPE G SQ.FT.	GROUND MOUNTED SUPPORTS, NO. 3 POST LIN.FT.	GROUND MOUNTED SUPPORTS, NO. 4 POST LIN.FT.	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	REMOVAL OF GROUND MOUNTED SIGN AND* STORAGE, AS PER PLAN EACH
E.B.	60-S.A	RT.	433+54		R-31T-54	4.5' x 2.5'	11.25		13-13				
E.B.	60-S.B	MED.	433+54		R-31T-54	4.5' x 2.5'	11.25		13-13				
E.B.	61-S	RT.	438+85		R-31T-54	4.5' x 2.5'	11.25		13-13				
E.B.	62-S.A	RT.	433+54		R-41A-36	3' x 2'	6.00						
E.B.	63-S.A	RT.	437+10		R-41A-36	3' x 2'					1	1	
E.B.	63-S.B	MED.	437+07		R-41A-36	3' x 2'					1	1	
E.B.	64-S.A	RT.	438+47		R-41B-36	3' x 3'	9.00			14	1	1	
E.B.	64-S.B	MED.	438+47		R-41B-36	3' x 3'						1	1
E.B.	65-S	RT.	438+70		R-43L-48	4' x 1.5'	6.00		12-12		1	1	
E.B.	66-S	MED.	438+37		R-43R-48	4' x 1.5'	6.00		12-12		1	1	
E.B.	67-S	RT.	440+04		R-1-48	4' x 4'	16.00			16-16	1	1	
E.B.	68-S	RT.	440+04		R-107A-24	2' x 1.5'	3.00				1		
E.B.	69-S	RT.	440+15		D-7-96	8' x 1.5'		12.00	12-12				
E.B.	70-S	MED.	440+18		R-37R-36	3' x 4'	12.00		15-15		1	2	
E.B.	71-S.A	RT.	440+30		M-2-30-2	2.5' x 2.5'	6.25			15			
E.B.	71-S.B	RT.	440+30		M-24-24	2' x 1.5'	3.00						
E.B.	71-S.C	RT.	440+30		M-39-30	2.5 x 1.25'	3.13						
E.B.	72-S.A	MED.	440+25		M-2-30-2	2.5' x 2.5'	6.25			15			
E.B.	72-S.B	MED.	440+25		M-24-24	2' x 1.5'	3.00						
E.B.	72-S.C	MED.	440+25		M-39-30	2.5' x 1.25'	3.13						
E.B.	62-S.B	MED.	433+54		R-41A-36	3' x 2	6.00						
E.B.	68-S.A	LT.	439+35		R-1-48	4' x 4'	16.00			15-15			
W.B.	73-S.A	MED.	438+35		M-2-30-2	2.5' x 2.5'	6.25			15			
W.B.	73-S.B	MED.	438+35		M-24-24	2' x 1.5'	3.00						
W.B.	73-S.C	MED.	438+35		M-40-30	2.5' x 1.25'	3.13						
W.B.	74-S	MED.	438+39		R-37R-36	3' x 4'	12.00		15-15		1	1	
C.R. 668	75-S	LT.	30+25		R-1-48	4' x 4'	16.00			15-15	1	1	
W.B.	76-S	MED.	439+45		R-41B-36	3' x 3'						1	1
W.B.	77-S	MED.	440+20		R-43R-48	4' x 1.5'	6.00		12-12				
W.B.	78-S	LT.	439+55		R-43L-48	4' x 1.5'	6.00		12-12		1	1	
W.B.	79-S.A	LT.	445+04		R-41A-36	3' x 2'	6.00						
W.B.	80-S	LT.	445+04		R-31T-54	4.5' x 2.5'	11.25		13-13				
W.B.	81-S.A	LT.	440+74		R-41A-36	3' x 2'					1	1	
W.B.	81-S.B	MED.	440+99		R-41A-36	3' x 2'					1	1	
W.B.	82-S.A	LT.	441+08		R-31C-48	4' x 2.5'					1	2	
W.B.	82-S.B	MED.	441+09		R-31C-48	4' x 2.5'					1	2	
W.B.	83-S.A	LT.	445+04		R-31T-54	4.5' x 2.5'	11.25		13-13				
W.B.	83-S.B	MED.	445+04		R-31T-54	4.5' x 2.5'	11.25		13-13				
W.B.	76-S.A	LT.	439+45		R-41B-36	3' x 3'	9.00			14			
W.B.	79-S.B	MED.	445+04		R-41A-36	3' x 2'	6.00						
TOTALS STATE & FEDERAL							245.64	12.00	336	165	15	19	2

TOTALS CARRIED TO THE GENERAL SUMMARY.

L016232A 1/23/90

Ⓢ SIGNING DAYTON ROAD AND SR 16

MARK	SIGN CODE	WORK REQUIRED	CHECK TORQUE	QUANTITIES SEE SHEET	DESIGN LEVEL	SIGN SIZE
		DAYTON ROAD				
1-S,A	R-41A-36	INSTALL NEW SIGN AND SUPPORT		80		3 X 2
1-S,B	R-41A-36	INSTALL NEW SIGN AND SUPPORT				3 X 2
2-S,A	R-41A-36	REMOVE SIGN AND SUPPORT				3 X 2
2-S,B	R-41A-36	REMOVE SIGN AND SUPPORT				3 X 2
3-S,A	R-41B-36	REMOVE SIGN AND SUPPORT				3 X 3
3-S,B	R-41B-36	REMOVE SIGN AND SUPPORT				3 X 3
4-S	R-43L-48	REMOVE SIGN AND SUPPORT				4 X 1.5
5-S	R-43R-48	REMOVE SIGN AND SUPPORT				4 X 1.5
6-S	R-31T-54	INSTALL NEW SIGN AND SUPPORTS				4.5 X 2.5
7-S		NUMBER NOT USED				
8-S	R-1-48	REMOVE SIGN AND SUPPORT				4 X 4
9-S	SPECIAL	REMOVE SIGN				1 X 1.5
9-S,A	R-107A-24	INSTALL NEW SIGN AND SUPPORT				2 X 1.5
10-S	R-37R-36	REMOVE SIGN AND SUPPORT				3 X 4
11-S	R-2-48	REMOVE SIGN AND SUPPORT				4 X 4 X 4
12-S	R-3L-36	INSTALL NEW SIGN AND SUPPORTS				3 X 4.5
13-S,A	M-24-24	INSTALL NEW SIGN AND SUPPORT				2 X 1.5
13-S,B	M-2-30-2	INSTALL NEW SIGN AND ERECT WITH 13-S,A				2.5 X 2.5
13-S,C	M-39-30	INSTALL NEW SIGN AND ERECT WITH 13-S,A				2.5 X 1.25
14-S	D-7-96	INSTALL NEW SIGN AND SUPPORTS			D-3,E-8	8 X 1.5
15-S,A	M-24-24	INSTALL NEW SIGN AND SUPPORT				2 X 1.5
15-S,B	M-2-30-2	INSTALL NEW SIGN AND ERECT WITH 15-S,A				2.5 X 2.5
15-S,C	M-39-30	INSTALL NEW SIGN AND ERECT WITH 15-S,A				2.5 X 1.25
16-S	W-45-36	REMOVE SIGN AND SUPPORT				3 X 3
16-S,A	M-24-24	INSTALL NEW SIGN AND SUPPORT				2 X 1.5
16-S,B	M-2-30-2	INSTALL NEW SIGN AND ERECT WITH 16-S,A				2.5 X 2.5
16-S,C	M-40-30	INSTALL NEW SIGN AND ERECT WITH 16-S,A				2.5 X 1.25
17-S	R-37R-36	REMOVE SIGN AND SUPPORT				3 X 4
18-S	R-2-48	REMOVE SIGN AND SUPPORT				4 X 4 X 4
19-S	R-1-48	REMOVE SIGN AND SUPPORT				4 X 4
19-S,A	R-107A-24	INSTALL NEW SIGN AND SUPPORT				2 X 1.5
20-S	R-3L-36	INSTALL NEW SIGN AND SUPPORTS				3 X 4.5
21-S	W-47-36	INSTALL NEW SIGN AND SUPPORTS				3 X 3
22-S	R-43R-48	REMOVE SIGN AND SUPPORT				4 X 1.5
23-S	R-43L-48	REMOVE SIGN AND SUPPORT				4 X 1.5
24-S,A	R-41B-36	REMOVE SIGN AND SUPPORT				3 X 3
24-S,B	R-41B-36	REMOVE SIGN AND SUPPORT				3 X 3
25-S	SPECIAL	REMOVE SIGN AND SUPPORT				2.5 X 2.5
26-S,A	R-41A-36	REMOVE SIGN AND SUPPORT				3 X 2
26-S,B	R-41A-36	REMOVE SIGN AND SUPPORT				3 X 2
27-S	R-31T-54	INSTALL NEW SIGN AND SUPPORTS				4.5 X 2.5
28-S,A	R-31C-48	REMOVE SIGN AND SUPPORTS				4 X 2.5
28-S,B	R-31C-48	REMOVE SIGN AND SUPPORTS				4 X 2.5
29-S,A	R-41A-36	INSTALL NEW SIGN AND SUPPORT				3 X 2
29-S,B	R-41A-36	INSTALL NEW SIGN AND SUPPORT				3 X 2
30-S,A	R-31T-54	INSTALL NEW SIGN AND SUPPORTS				4.5 X 2.5
30-S,B	R-31T-54	INSTALL NEW SIGN AND SUPPORTS				4.5 X 2.5
31-S,A	R-31T-54	INSTALL NEW SIGN AND SUPPORTS				4.5 X 2.5
31-S,B	R-31T-54	INSTALL NEW SIGN AND SUPPORTS		80		4.5 X 2.5
COUNTY ROAD 585 (EAST MAIN ST) RT & CR 585 (MARNE RD) LT.						
32-S	R-31T-54	INSTALL NEW SIGN AND SUPPORTS		81		4.5 X 2.5
33-S,A	R-41A-36	INSTALL NEW SIGN AND ERECT WITH 58-S,A				3 X 2
33-S,B	R-41A-36	INSTALL NEW SIGN AND ERECT WITH 58-S,B				3 X 2
34-S,A	R-41A-36	REMOVE SIGN AND SUPPORT				3 X 2
34-S,B	R-41A-36	REMOVE SIGN AND SUPPORT				3 X 2
35-S,A	R-41B-36	REPLACE SIGN AND SUPPORT				3 X 3
35-S,B	R-41B-36	REMOVE SIGN AND SUPPORT				3 X 3
36-S	R-43L-48	REPLACE SIGN AND SUPPORTS				4 X 1.5
37-S	R-43R-48	REPLACE SIGN AND SUPPORTS				4 X 1.5
38-S	R-1-48	REPLACE SIGN AND SUPPORT				4 X 4
39-S	R-1-48	REPLACE SIGN AND SUPPORT				4 X 4
40-S	R-107A-24	REPLACE SIGN AND ERECT WITH 39-S				2 X 1.5
41-S,A	M-2-30-2	REPLACE SIGN AND SUPPORT				2.5 X 2.5
41-S,B	M-24-24	REPLACE SIGN AND ERECT WITH 41-S,A				2 X 1.5
41-S,C	M-39-30	REPLACE SIGN AND ERECT WITH 41-S,A				2.5 X 1.25
42-S	R-2-48	REPLACE SIGN AND SUPPORT				4 X 4 X 4
43-S	R-37R-36	REPLACE SIGN AND SUPPORTS				3 X 4
44-S	D-14	REMOVE SIGN AND SUPPORT				
45-S	D-7-96	INSTALL NEW SIGN AND SUPPORTS		81	D-3,E-8	8 X 1.5

Ⓢ SIGNING

MARK	SIGN CODE	WORK REQUIRED	CHECK TORQUE	QUANTITIES SEE SHEET	DESIGN LEVEL	SIGN SIZE
46-S,A	M-2-30-2	REPLACE SIGN AND SUPPORT		81		2.5 X 2.5
46-S,B	M-39-30	REPLACE SIGN AND ERECT WITH 46-S,A				2.5 X 1.25
46-S,C	M-24-24	REPLACE SIGN AND ERECT WITH 46-S,A				2 X 1.5
47-S,A	M-2-30-2	REPLACE SIGN AND SUPPORT				2.5 X 2.5
47-S,B	M-24-24	REPLACE SIGN AND ERECT WITH 47-S,A				2 X 1.5
47-S,C	M-40-30	REPLACE SIGN AND ERECT WITH 47-S,A				2.5 X 1.25
48-S	R-37R-36	REPLACE SIGN AND SUPPORTS				3 X 4
49-S	R-2-48	REPLACE SIGN AND SUPPORTS				4 X 4 X 4
50-S,A	R-1-48	REPLACE SIGN AND SUPPORT				4 X 4
50-S,B	D-14	REMOVE SIGNS AND SUPPORT				
51-S,A	R-41B-36	REPLACE SIGN AND SUPPORT				3 X 3
51-S,B	R-41B-36	REMOVE SIGN AND SUPPORT				3 X 3
52-S	R-43R-48	REPLACE SIGN AND SUPPORTS				4 X 1.5
53-S	R-43L-48	REPLACE SIGN AND SUPPORTS				4 X 1.5
54-S,A	R-41A-36	REMOVE SIGN AND SUPPORT				3 X 2
54-S,B	R-41A-36	REMOVE SIGN AND SUPPORT				3 X 2
55-S,A	R-31C-48	REMOVE SIGN AND SUPPORTS				4 X 2.5
55-S,B	R-31C-48	REMOVE SIGN AND SUPPORTS				4 X 2.5
56-S,A	R-41A-36	INSTALL NEW SIGN AND ERECT WITH 59-S				3 X 2
56-S,B	R-41A-36	INSTALL NEW SIGN AND ERECT WITH 59-S,B				3 X 2
57-S	R-31T-54	INSTALL NEW SIGN AND SUPPORTS				4.5 X 2.5
58-S,A	R-31T-54	INSTALL NEW SIGN AND SUPPORTS				4.5 X 2.5
58-S,B	R-31T-54	INSTALL NEW SIGN AND SUPPORTS				4.5 X 2.5
59-S,A	R-31T-54	INSTALL NEW SIGN AND SUPPORTS				4.5 X 2.5
59-S,B	R-31T-54	INSTALL NEW SIGN AND SUPPORTS		81		4.5 X 2.5
COUNTY ROAD 668 (BROWNSVILLE RD) RT. & C.R. 668 (LICKING VALLEY RD.) LT.						
60-S,A	R-31T-54	INSTALL NEW SIGN AND SUPPORTS		82		4.5 X 2.5
60-S,B	R-31T-54	INSTALL NEW SIGN AND SUPPORTS				4.5 X 2.5
61-S	R-31T-54	INSTALL NEW SIGN AND SUPPORTS				4.5 X 2.5
62-S,A	R-41A-36	INSTALL NEW SIGN AND ERECT WITH 60-S				3 X 2
62-S,B	R-41A-36	INSTALL NEW SIGN AND ERECT WITH 60-S,A				3 X 2
63-S,A	R-41A-36	REMOVE SIGN AND SUPPORT				3 X 2
63-S,B	R-41A-36	REMOVE SIGN AND SUPPORT				3 X 2
64-S,A	R-41B-36	REPLACE SIGN AND SUPPORT				3 X 3
64-S,B	R-41B-36	REMOVE SIGN AND SUPPORT				3 X 3
65-S	R-43L-48	REPLACE SIGN AND SUPPORT				4 X 1.5
66-S	R-43R-48	REPLACE SIGN AND SUPPORT				4 X 1.5
67-S	R-1-48	REPLACE SIGN AND SUPPORT				4 X 4
68-S	R-107A-24	INSTALL NEW SIGN AND ERECT WITH 67-S				2 X 1.5
68-S,A	R-1-48	INSTALL NEW SIGN AND SUPPORTS				4 X 4
69-S	D-7-96	INSTALL NEW SIGN AND SUPPORTS			3-D,8-D	8 X 1.5
70-S	R-37R-36	REPLACE SIGN AND SUPPORTS				3 X 4
71-S,A	M-2-30-2	INSTALL NEW SIGN AND SUPPORT				2.5 X 2.5
71-S,B	M-24-24	INSTALL NEW SIGN AND ERECT WITH 71-S,A				2 X 1.5
71-S,C	M-39-30	INSTALL NEW SIGN AND ERECT WITH 71-S,A				2.5 X 1.25
72-S,A	M-2-30-2	INSTALL NEW SIGN AND SUPPORT				2.5 X 2.5
72-S,B	M-24-24	INSTALL NEW SIGN AND ERECT WITH 72-S,A				2 X 1.5
72-S,C	M-39-30	INSTALL NEW SIGN AND ERECT WITH 72-S,A				2.5 X 1.25
73-S,A	M-2-30-2	INSTALL NEW SIGN AND SUPPORT				2.5 X 2.5
73-S,B	M-24-24	INSTALL NEW SIGN AND ERECT WITH 73-S,A				2 X 1.5
73-S,C	M-40-30	INSTALL NEW SIGN AND ERECT WITH 73-S,A				2.5 X 1.25
74-S	R-37R-36	REPLACE SIGN AND SUPPORTS				3 X 4
75-S	R-1-48	REPLACE SIGN AND SUPPORT				4 X 4
76-S	R-41B-36	REMOVE SIGN AND SUPPORT				3 X 3
76-S,A	R-41B-36	INSTALL NEW SIGN AND SUPPORT				3 X 3
77-S	R-43R-48	INSTALL NEW SIGN AND SUPPORTS				4 X 1.5
78-S	R-43L-48	REPLACE SIGN AND SUPPORT				4 X 1.5
79-S,A	R-41A-36	INSTALL NEW SIGN AND ERECT WITH 83-S,A				3 X 2
79-S,B	R-41A-36	INSTALL NEW SIGN AND ERECT WITH 83-S,B				3 X 2
80-S	R-31T-54	INSTALL NEW SIGN AND SUPPORTS				4.5 X 2.5
81-S,A	R-41A-36	REMOVE SIGN AND SUPPORT				3 X 2
81-S,B	R-41A-36	REMOVE SIGN AND SUPPORT				3 X 2
82-S,A	R-31C-48	REMOVE SIGN AND SUPPORTS				4 X 2.5
82-S,B	R-31C-48	REMOVE SIGN AND SUPPORTS				4 X 2.5
83-S,A	R-31T-54	INSTALL NEW SIGN AND SUPPORTS				4.5 X 2.5
83-S,B	R-31T-54	INSTALL NEW SIGN AND SUPPORTS		82		4.5 X 2.5

L0162362.DWG 02/15/91

TRAFFIC CONTROL SUB-SUMMARY

TABLE (1)

ITEM 644 TRANSVERSE LINE (WHITE) LIN.FT.	ITEM 644 CHANNELIZING LINE (WHITE) LIN.FT.	ITEM 644 4" LANE LINE MILE	ITEM 642 CENTER LINE MILE	ITEM 644 STOP LINE LIN.FT.	STATION FROM	STATION TO	ITEM 644 LANE ARROW (TURN) EACH	ITEM 644 WORD ON PAVEMENT 96 IN. (ONLY) EACH	ITEM 642 ISLAND MARKING (WHITE) SQ.FT.
					CITY, STATE & FEDERAL				
		0.40			229+55 E.B.	250+82.33 (B) E.B.			
		0.25			250+84.06 (A) E.B.	263+98.91 E.B.			
		0.83			265+08.7 E.B.	309+02 E.B.			
		0.05			234+75 E.B.	237+50 E.B.			
		1.53			SUB-TOTALS TABLE (1)				
500	1460.0		0.01	140	SUB-TOTALS CARRIED FROM TABLE (2)		6	4	284
500	1460.0	1.53	0.01	140	TOTALS (CARRIED TO THE GENERAL SUMMARY)		6	4	284

TABLE (2)

(A) See sheet 85-A for details.

ITEM 644 TRANSVERSE LINE (WHITE) LIN.FT.	ITEM 644 CHANNELIZING LINE LIN.FT.	ITEM 642 CENTER LINE MILE	ITEM 644 STOP LINE LIN.FT.	STATION FROM	STATION TO	(A) ITEM 644 LANE ARROW (TURN) EACH	(A) ITEM 644 WORD ON PAVEMENT 96 IN. (ONLY) EACH	ITEM 642 ISLAND MARKING (WHITE) SQ.FT.
				CITY, STATE & FEDERAL				
250	520			265+44.24 W.B.	268+63.74 W.B.			
				265+74.24 W.B.		2		
				266+54.24 W.B.			2	
			48	265+44.24 W.B.				
			22	10+61.1 DAYTON ROAD				
	122			265+44.24 W.B.	266+65.5 W.B.			
				268+33.74 W.B.		1		
				266+44.25 W.B.				142
	175			233+00 E.B.	234+75 E.B.			
250	520			260+79.4 E.B.	263+98.91 E.B.			
				262+88.91 E.B.			2	
				263+68.91 E.B.		2		
			48	264+98.91 E.B.				
	123			262+76.4 E.B.	263+98.91 E.B.			
				261+09.4 E.B.		1		
				263+98.91 E.B.				142
		0.01	22	8+82.8 DAYTON ROAD	9+39.8 DAYTON ROAD			
500	1460.0	0.01	140	TOTALS (CARRIED TO TABLE (1))		6	4	284

TABLE (3)

ITEM 644 EDGE LINE 4" WHITE EDGE LINE MILE	4" YELLOW EDGE LINE MILE		STATION FROM	STATION TO
			CITY, STATE & FEDERAL	
	0.09		265+44.24 W.B.	270+31.24 W.B.
0.06			265+44.24 W.B.	268+36.7 W.B.
	0.40		229+55 E.B.	250+82.33 (B) E.B.
	0.25		250+84.06 (A) E.B.	263+98.91 E.B.
	0.82		265+81.74 E.B.	309+02 E.B.
0.03			233+00 E.B.	234+75 E.B.
0.40			229+55 E.B.	250+82.33 (B) E.B.
0.25			250+84.06 (A) E.B.	263+98.91 E.B.
0.01			8+82.8 DAYTON ROAD	9+39.8 DAYTON ROAD
0.83			265+08.7 E.B.	309+02 E.B.
1.58	1.56		SUB-TOTALS	
3.14			TOTAL (CARRIED TO GENERAL SUMMARY)	

L0162A59 3/11/91

(CITY, STATE & FEDERAL)
TRAFFIC CONTROL SUB-SUMMARY

TRAFFIC CONTROL SUB-SUMMARY

TABLE (1)

ITEM 644 TRANSVERSE LINE (WHITE)	ITEM 644 CHANNELIZING LINE (WHITE)	ITEM 644 4" LANE LINE	ITEM 642 CENTER LINE	ITEM 644 STOP LINE	STATION	STATION	ITEM 644 LANE ARROW (TURN)	ITEM 644 WORD ON PAVEMENT 96 IN. (ONLY)	ITEM 642 ISLAND MARKING (WHITE)
LIN.FT.	LIN.FT.	MILE	MILE	LIN.FT.	FROM	TO	EACH	EACH	SQ.FT.
					STATE & FEDERAL				
		0.32			309+02 E.B.	326+00.8 E.B.			
		0.75			327+30.3 E.B.	366+82.69 (B) E.B.			
		1.37			366+82.25 (A) E.B.	439+04.7 E.B.			
		1.02			440+34.3 E.B.	494+25 E.B.			
		3.46			SUB-TOTALS TABLE (1)				
1000.0	2680.0		0.02	77.0	SUB-TOTALS FROM TABLE (2)		13	9	568
1000.0	2680.0	3.46	0.02	77.0	TOTALS (CARRIED TO THE GENERAL SUMMARY)		13	9	568

TABLE (2)

(A) See sheet 85-A for details.

ITEM 644 TRANSVERSE LINE (WHITE)	ITEM 644 CHANNELIZING LINE	ITEM 642 CENTER LINE	ITEM 644 STOP LINE	STATION	STATION	(A) ITEM 644 LANE ARROW (TURN)	(A) ITEM 644 WORD ON PAVEMENT 96 IN. (ONLY)	ITEM 642 ISLAND MARKING (WHITE)
LIN.FT.	LIN.FT.	MILE	LIN.FT.	FROM	TO	EACH	EACH	SQ.FT.
				STATE & FEDERAL				
250	520			327+79.88 W.B.	330+99.38 W.B.			
				328+09.88 W.B.		1		
				328+09.88 W.B.			1	
	150			327+99.2 W.B.	329+49.2 W.B.			
				328+29.2 W.B.		1		
				329+09.2 W.B.			1	
250	520			440+17 W.B.	443+36.5 W.B.			
				440+42 W.B.		1		
				441+22 W.B.			1	
	150			439+48.8 W.B.	440+98.8 W.B.			
				439+78.8 W.B.		1		
				440+58.8 W.B.			1	
				327+79.88 W.B.				142
				330+69.38 W.B.		1		
				435+51.5 W.B.		1		
				440+17 W.B.				142
				443+06.5 W.B.		1		
				323+30.6 E.B.		1		
				325+70.8 E.B.		1		
				324+90.8 E.B.			1	
	520			323+00.6 E.B.	326+20.12 E.B.			
250				325+90.12 E.B.		1		
				325+10.12 E.B.			1	
	150			324+50.8 E.B.	326+00.8 E.B.			
				325+30.8 E.B.			1	
				325+70.8 E.B.		1		
				326+20.12 E.B.				142
		0.01	22	25+12.9 C.R.585	25+78.4 C.R.585			
250	520			435+21.5 E.B.	438+41 E.B.			
				438+16 E.B.		1		
				437+36 E.B.			1	
	150			437+54.7 E.B.	439+04.7 E.B.			
				438+74.7 E.B.		1		
				437+94.7 E.B.			1	
				438+41 E.B.				142
		0.01	55	31+55.4 C.R.668	32+31.1 C.R.668			
1000.0	2680.0	0.02	77.0	SUB-TOTALS (CARRIED TO TABLE (1))		13	9	568

TABLE (3)

ITEM 644 EDGE LINE 4" WHITE EDGE LINE	ITEM 644 EDGE LINE 4" YELLOW EDGE LINE		STATION	STATION
MILE	MILE		FROM	TO
			STATE & FEDERAL	
	0.09		327+39.5 W.B.	332+26.5 W.B.
0.07			27+69.2 C.R.585	331+02 W.B.
0.06			30+01.2 C.R.668	442+33.8 W.B.
	0.09		440+17 W.B.	445+ 04 W.B.
	0.33		309+02 E.B.	326+20.12 E.B.
	0.73		328+17.38 E.B.	366+82.69 (B) E.B.
	1.36		366+82.25 (A) E.B.	438+41 E.B.
	1.02		440+54.5 E.B.	494+25 E.B.
0.32			309+02 E.B.	326+00.8 E.B.
0.02			326+00.8 E.B.	25+12.9 C.R.585
0.02			25+12.9 C.R.585	327+30.3 E.B.
0.75			327+30.3 E.B.	366+82.69 (B) E.B.
1.37			366+82.25 (A) E.B.	439+04.7 E.B.
0.02			439+04.7 E.B.	32+31.1 C.R.668
0.02			32+31.1 C.R.668	440+34.3 E.B.
1.02			440+34.3 E.B.	494+25 E.B.
3.67	3.62		SUB-TOTALS	
7.29			TOTAL (CARRIED TO GENERAL SUMMARY)	

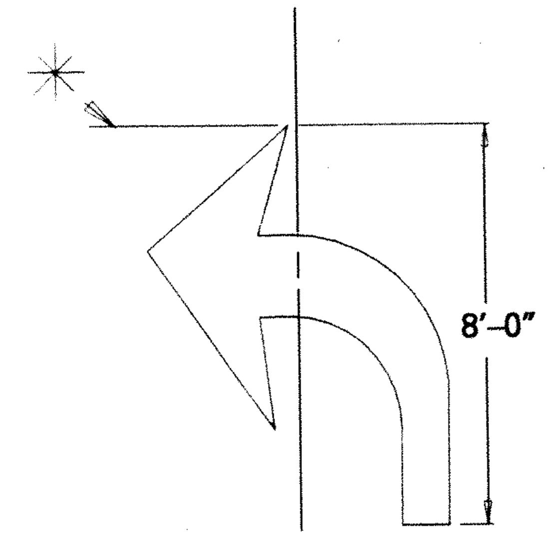
L0162859 3/12/91

FED RD DIVISION	STATE	PROJECT	
5	OHIO		

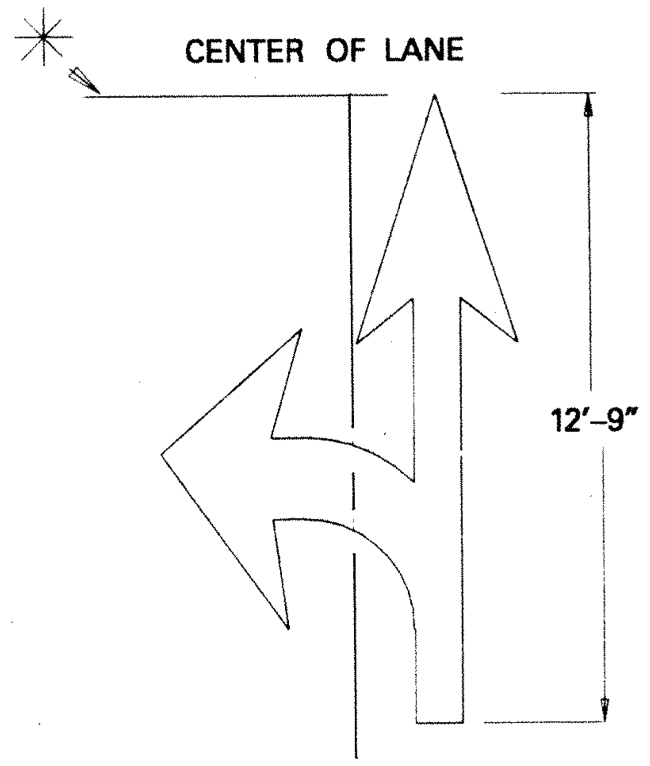
85-A
134

PLAN NO.
LIC-16-23.27

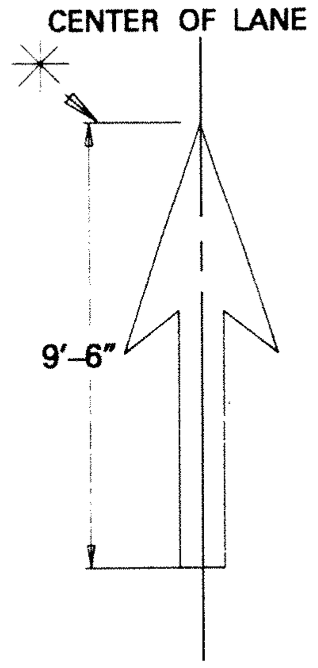
WORD AND SYMBOL MARKING DETAILS



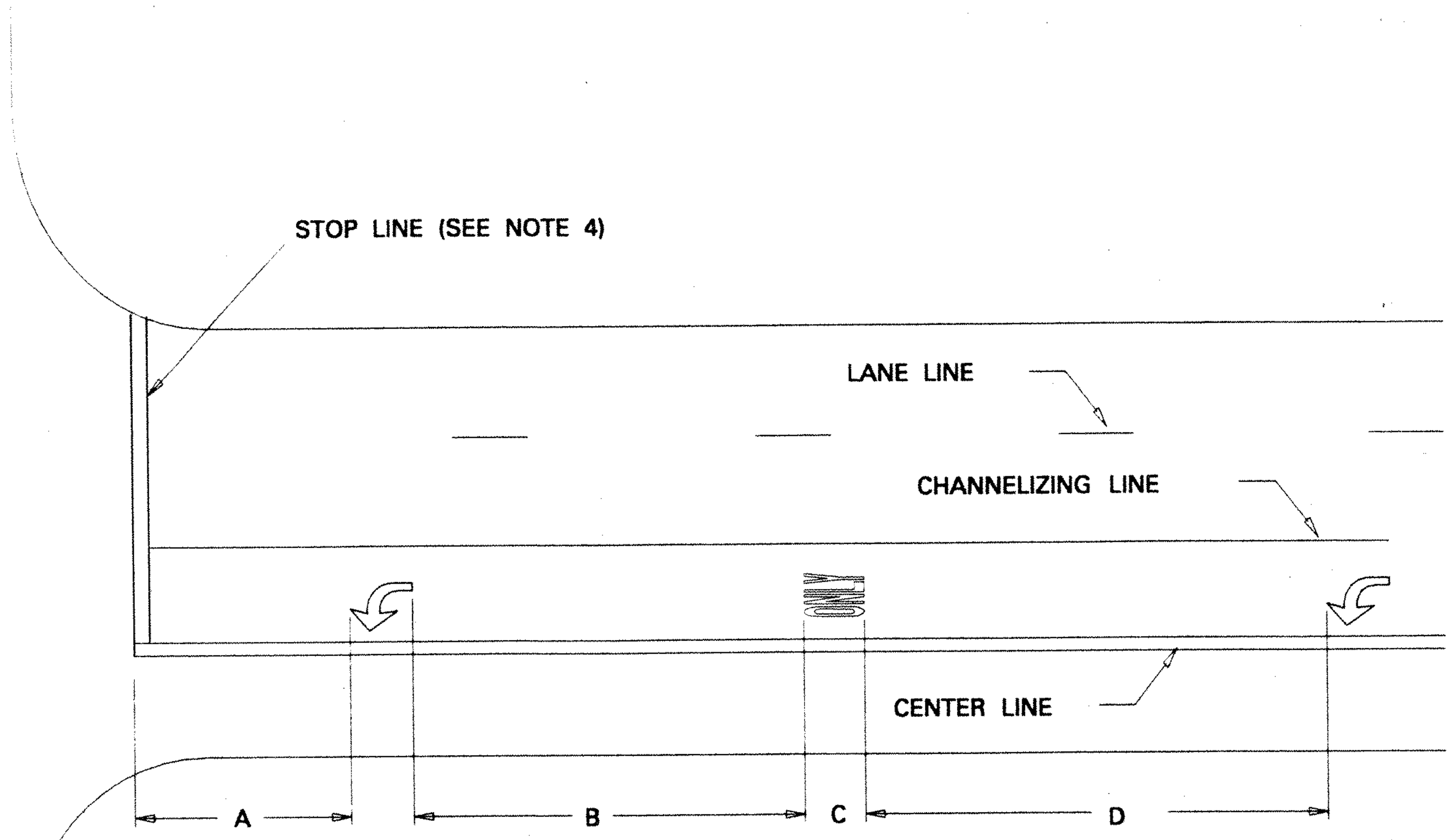
TURN ARROW
(LEFT ARROW SHOWN
RIGHT ARROW OPPOSITE)



COMBINED ARROW
(THREE HEAD DIRECTIONAL ARROWS
CAN BE ACHIEVED BY THE COMBINATION
OF TURN ARROWS.)



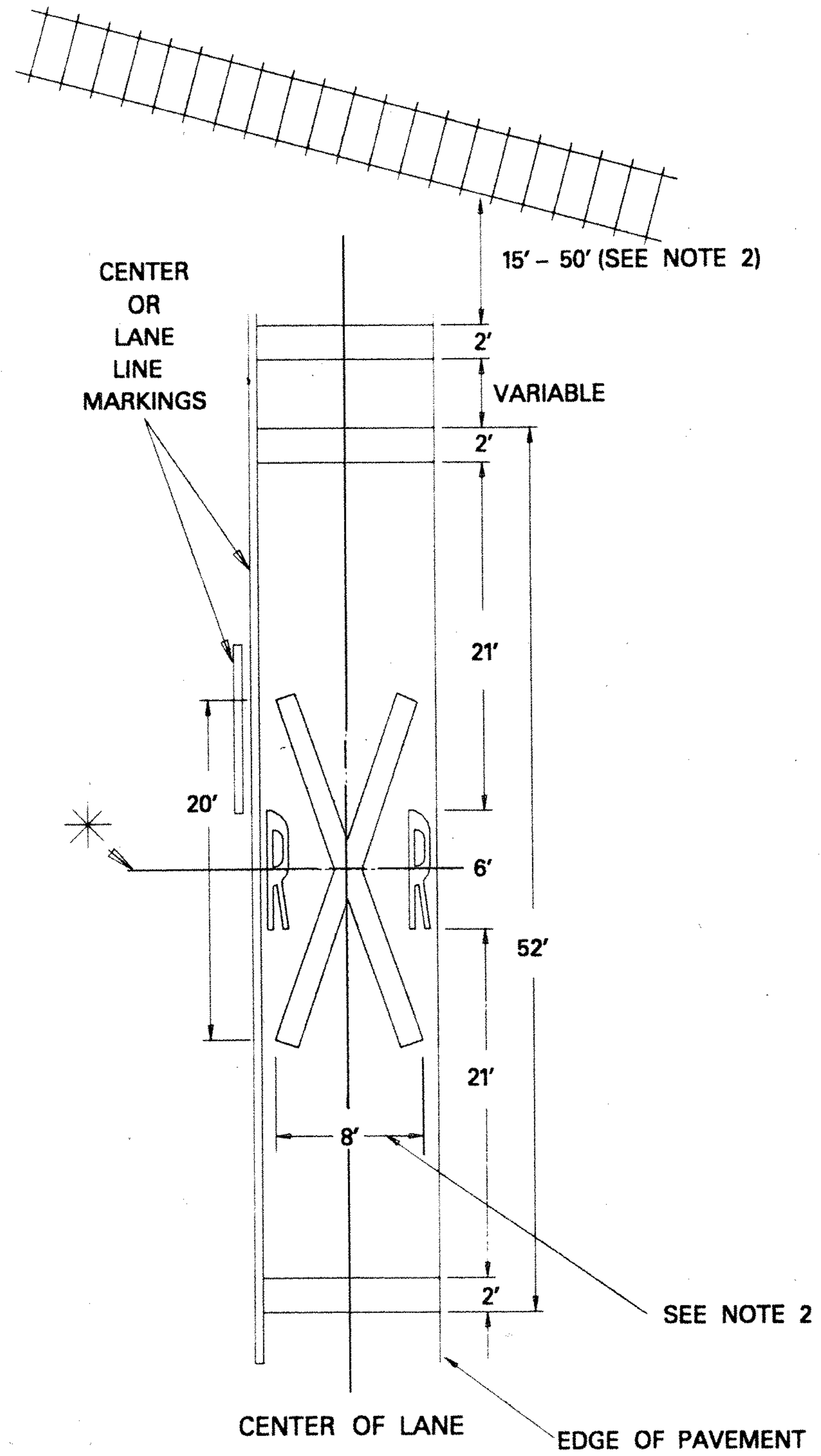
THROUGH ARROW

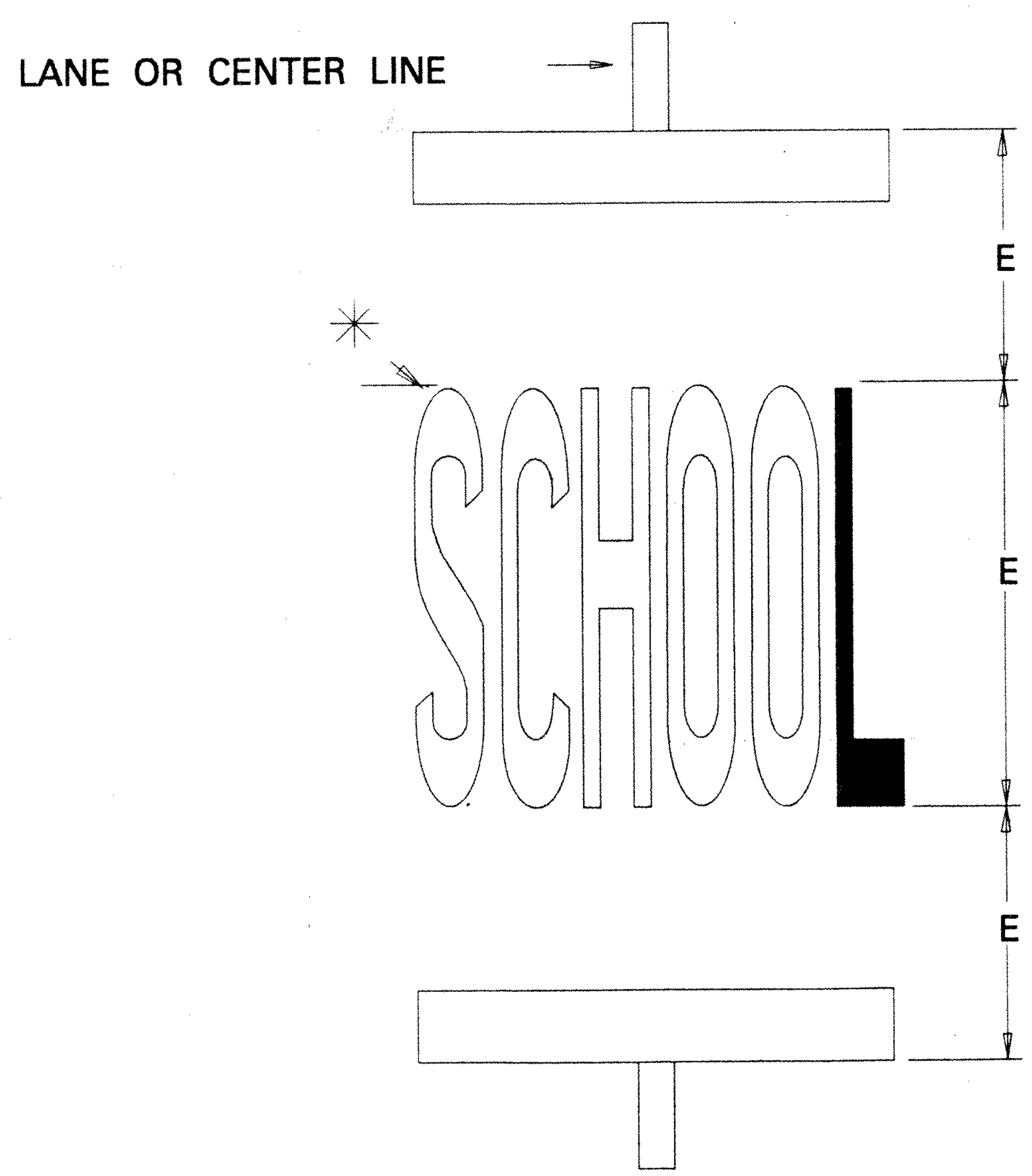


NOTE:

STOP LINE LOCATED MIN. 40' FROM
AT LEAST ONE SIGNAL HEAD WHICH APPLIES
TO THAT APPROACH

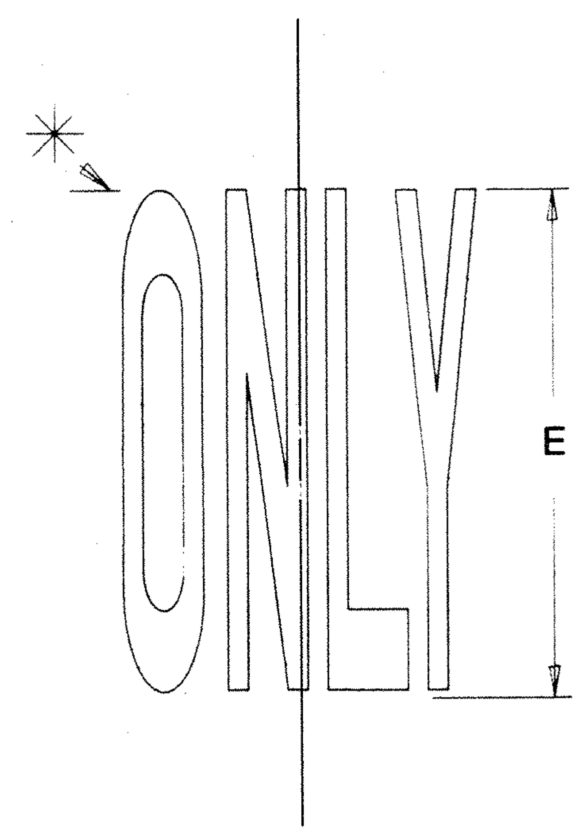
TYPE	DIMENSIONS (FEET)			
	A	B	C	D
RURAL	30 MIN.	32-80	8	32-80
URBAN	10 MIN.	32-80	6	24-60





TYPE	INCHES
	E
RURAL	96
URBAN	72

CENTER OF LANE



NOTES:

1. ON MULTI-LANE APPROACHES, THE TRANSVERSE LINES USED WITH THE RAILROAD SYMBOLS SHALL EXTEND ACROSS ALL APPROACH LANES AND SYMBOLS SHALL BE PLACED IN EACH APPROACH LANE.

2. THE RAILROAD SYMBOL SHALL BE LOCATED SO THAT THE W-94, "RAILROAD ADVANCE WARNING SIGN", IS WITHIN THE TWO TRANSVERSE BOUNDRY LINES OF THE RAILROAD SYMBOL. THE STOP LINE SHALL BE LOCATED FOR BEST SIGHT DISTANCE WITHIN 15 FEET TO 50 FEET OF THE NEAR EDGE OF THE TRACKS. STOP LINES SHALL BE PERPENDICULAR TO THE CENTER LINE OF THE ROADWAY. WIDTH OF "X" MAY VARY ACCORDING TO LANE WIDTH.

3. ON MULTI-LANE APPROACHES, THE TRANSVERSE LINES USED WITH THE WORD "SCHOOL" SHALL EXTEND ACROSS ALL APPROACH LANES WITH A SINGLE WORD "SCHOOL" CENTERED ACROSS THE APPROACH LANES. ON TWO LANE ROADWAYS, THE TRANSVERSE LINES SHALL EXTEND ACROSS THE ROADWAY WITH THE WORD "SCHOOL" CENTERED ACROSS THE ROADWAY. CENTER OR LANE LINES SHALL NOT PASS THROUGH THE "SCHOOL" MARKING.

4. THE STOP LINE SHOULD BE PLACED WHERE CROSS-CORNER VISION IS MAXIMUM, IN NO CASE MORE THAN 30 FEET OR LESS THAN 4 FEET FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY. FOR NORMAL INTER-SECTIONS A MAXIMUM DISTANCE OF 10 FEET IS RECOMMENDED.

   IF A MARKED CROSSWALK IS PRESENT, THE STOP LINE SHOULD BE PLACED 4 FEET IN ADVANCE OF AND PARALLEL TO THE NEAREST CROSSWALK.

5. FOR TRAFFIC PAINT AND POLYESTER APPLICATION, TEMPLATE GAPS SHALL BE FILLED WITH MARKING MATERIAL IN ACCORDANCE WITH 641.03. FOR EXTRUDED THERMOPLASTIC MATERIAL, THESE GAPS MAY REMAIN UNFILLED IN ACCORDANCE WITH 644.03.

6. USE STANDARD DIMENSIONS CONFORMING TO REQUIREMENTS OF OMUTCD SECTION 3B-40 THROUGH 3B-43 INCLUSIVE. (THAT IS THE 1977 METRIC EDITION STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING WITH ERRATA.)

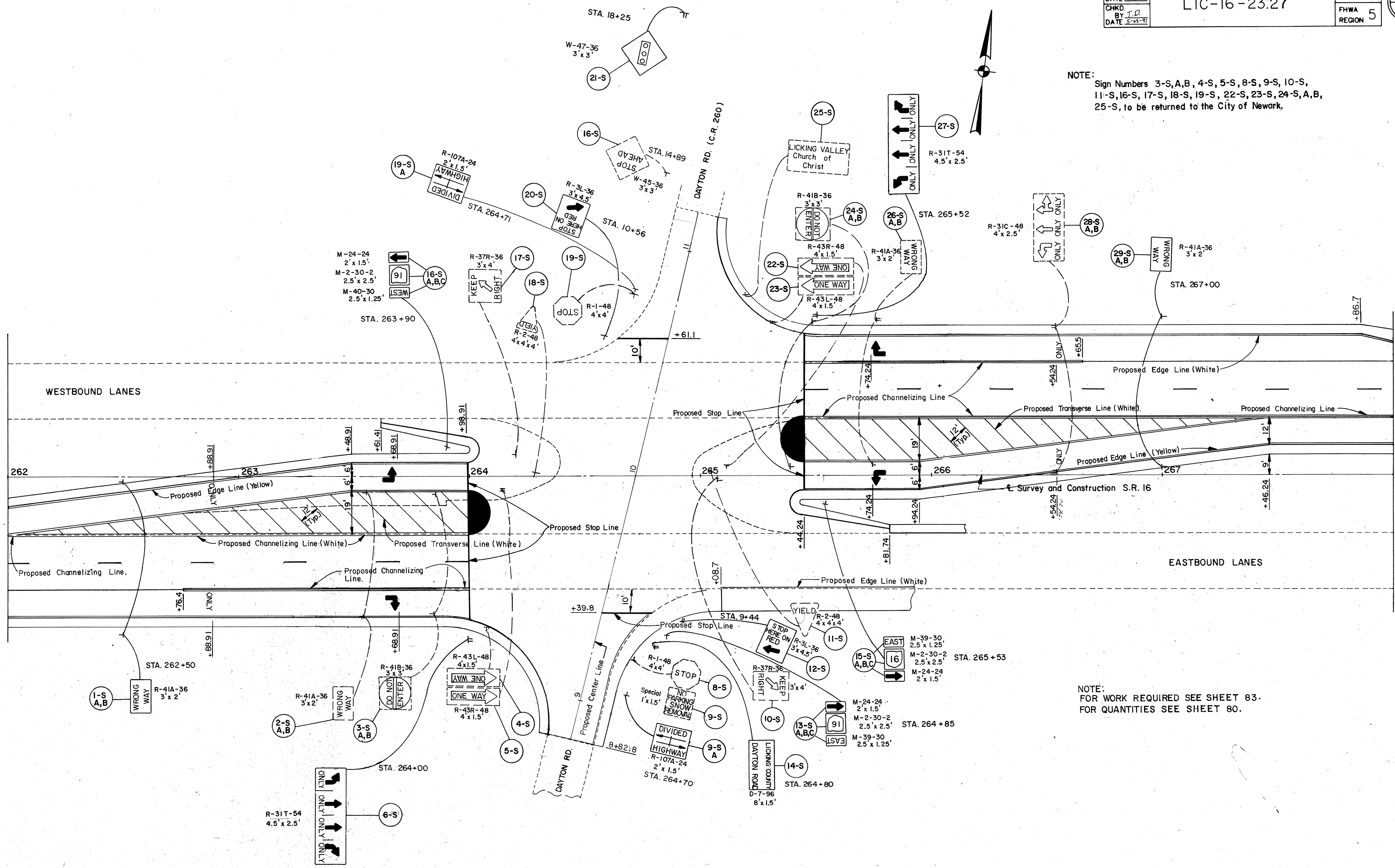
✳ INDICATES STATION REFERENCE POINT

REV.11-90

NOTE:
FOR WORK REQUIRED SEE SHEET 83.
FOR QUANTITIES SEE SHEET 80.

(TRAFFIC CONTROL) DAYTON ROAD RT. & LT.

NOTE:
Sign Numbers 3-S,A,B, 4-S, 5-S, 8-S, 9-S, 10-S, 11-S, 16-S, 17-S, 18-S, 19-S, 22-S, 23-S, 24-S,A,B, 25-S, to be returned to the City of Newark,



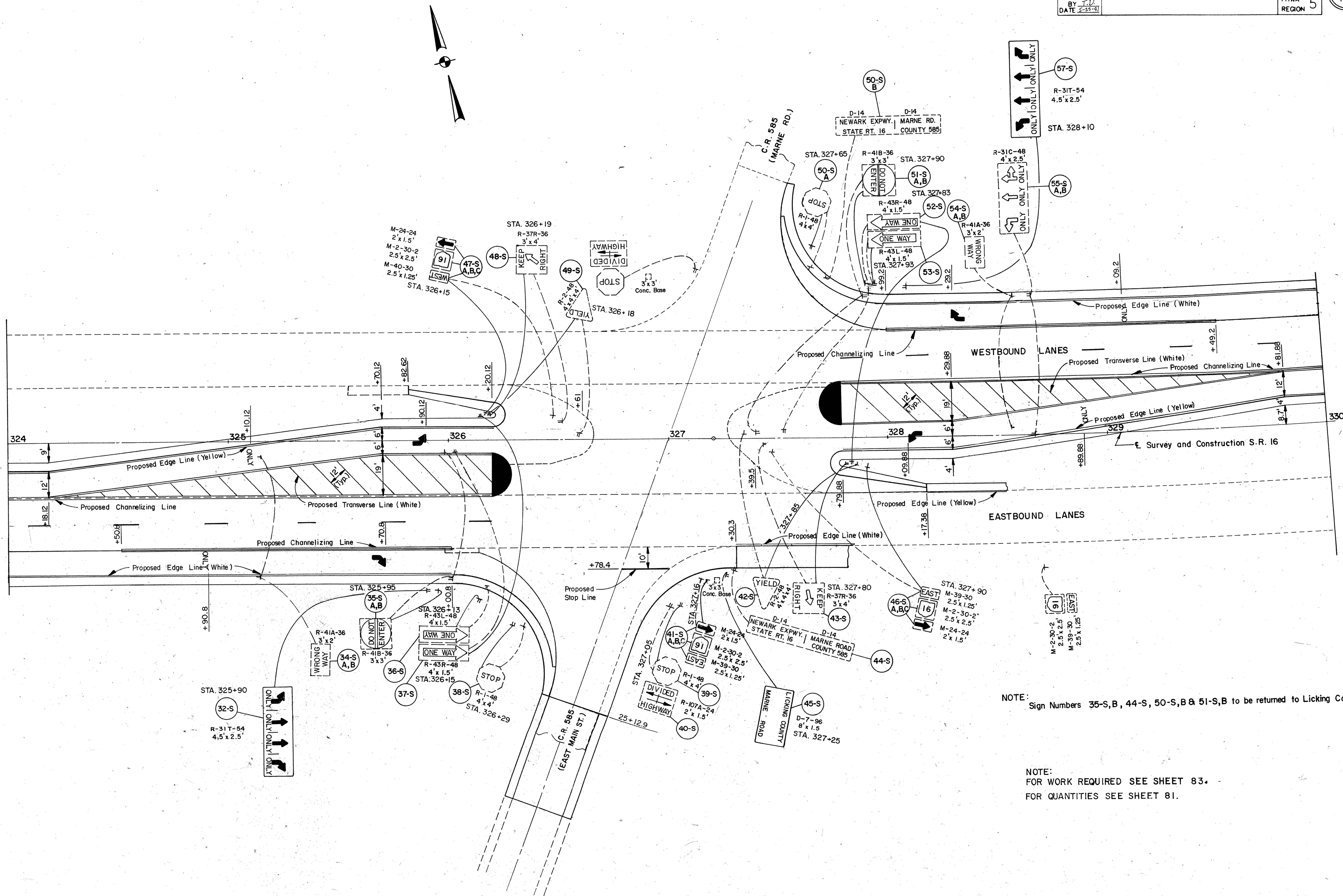
NOTE:
FOR WORK REQUIRED SEE SHEET 83.
FOR QUANTITIES SEE SHEET 80.

(TRAFFIC CONTROL) DAYTON ROAD RT. & LT.

CALC. BY J.C. DATE 4-11-91 CHKD. BY J.D. DATE 5-23-91	LIC-16-23.27	OHIO FHWA REGION 5	88/134

(TRAFFIC CONTROL) C.R. 585 (EAST MAIN ST.) RT. & C.R. 585 (MARNE RD.) LT.

CALC. BY	DATE	CHKD. BY	DATE			
U.C.	4-11-91	T.D.	5-23-91	LIC-16-23.27	OHIO FHWA REGION 5	89 / 134



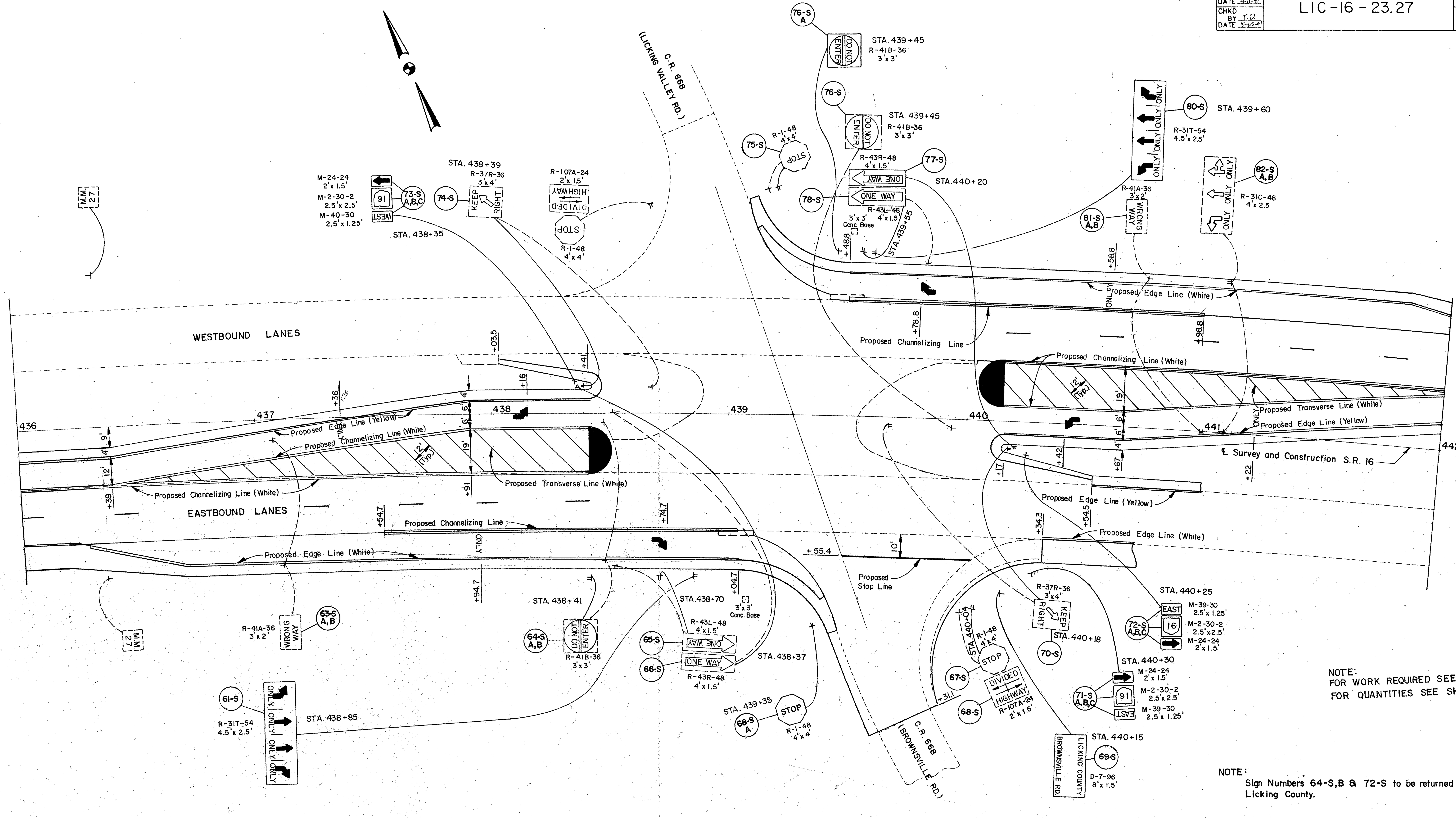
NOTE: Sign Numbers 35-S, B, 44-S, 50-S, B & 51-S, B to be returned to Licking County.

NOTE:
FOR WORK REQUIRED SEE SHEET 83.
FOR QUANTITIES SEE SHEET 81.

(TRAFFIC CONTROL) C.R. 585 (EAST MAIN ST.) RT. & C.R. 585 (MARNE RD.) LT.

CALC. BY J.C. DATE 4-11-91 / CHKD. BY T.D. DATE 5-23-91	LIC-16-23.27	OHIO / FHWA REGION 5	90/134

(TRAFFIC CONTROL) C.R. 668 (BROWNSVILLE RD.) RT. & C.R. 668 LICKING VALLEY RD.) LT.



NOTE:
FOR WORK REQUIRED SEE SHEET 83.
FOR QUANTITIES SEE SHEET 82.

NOTE:
Sign Numbers 64-S,B & 72-S to be returned to Licking County.

(TRAFFIC CONTROL) C.R. 668 (BROWNSVILLE RD.) RT. & C.R. 668 (LICKING VALLEY RD.) LT.

ITEM 862 RAISED PAVEMENT MARKERS

ITEM 862 RAISED PAVEMENT MARKERS

NOTE: FOR DETAILS NOT SHOWN SEE STANDARD DRAWING TC-65.10.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO PERFORM THE WORK AS DESCRIBED IN SUPPLEMENTAL SPECIFICATION 862.

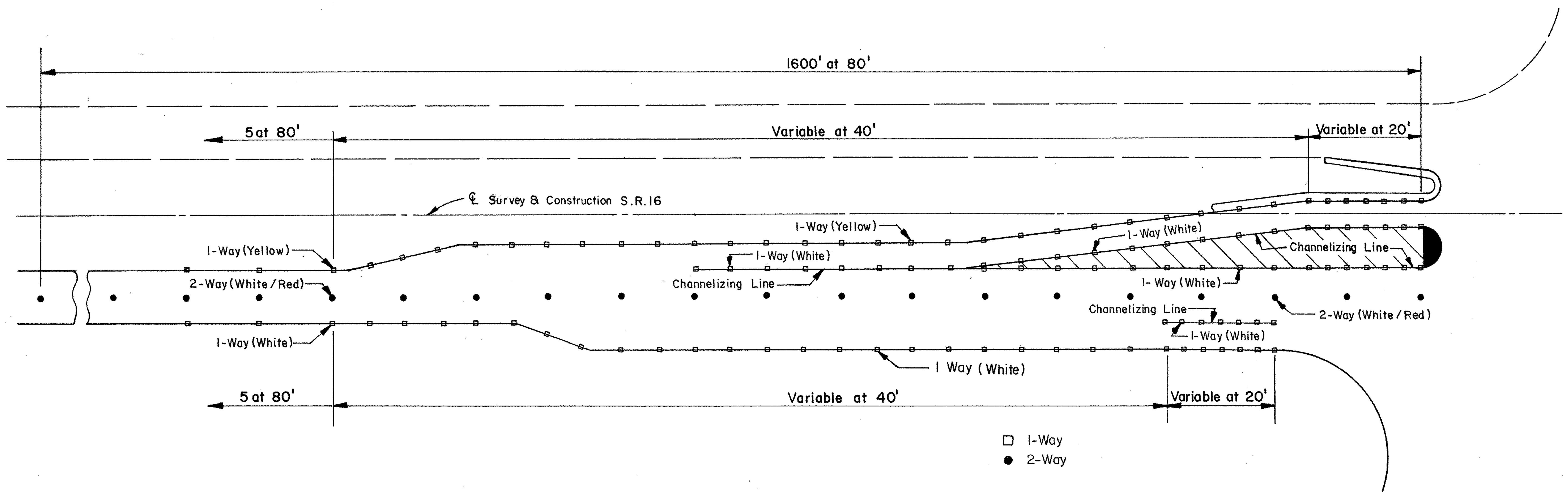
	CITY, STATE & FEDERAL	STATE & FEDERAL
ITEM 862 RAISED PAVEMENT MARKERS	176 EACH	536 EACH

1-WAY (WHITE)	CITY, STATE & FEDERAL	STATE & FEDERAL
EASTBOUND	10 EACH	212 EACH
OFFSET LEFT TURN LANE (DAYTON RD.)	43 EACH	
OFFSET LEFT TURN LANE (C.R. 585)		41 EACH
OFFSET LEFT TURN LANE (C.R. 668)		41 EACH
WESTBOUND		
OFFSET LEFT TURN LANE (DAYTON RD.)	43 EACH	
OFFSET LEFT TURN LANE (C.R. 585)		41 EACH
OFFSET LEFT TURN LANE (C.R. 668)		41 EACH
SUB-TOTALS	96 EACH	376 EACH

2-WAY (WHITE AND RED)	CITY, STATE & FEDERAL	STATE & FEDERAL
EASTBOUND (INTERSECTIONS):		
DAYTON ROAD	20 EACH	
CO.RD. 585		20 EACH
CO.RD. 668		20 EACH
WESTBOUND (INTERSECTIONS):		
DAYTON ROAD	20 EACH	
C.R. 585		20 EACH
C.R. 668		20 EACH
SUB-TOTALS	40 EACH	80 EACH

1-WAY (YELLOW)	CITY STATE & FEDERAL	STATE & FEDERAL
EASTBOUND		
OFFSET LEFT TURN LANE (DAYTON RD.)	20 EACH	
OFFSET LEFT TURN LANE (C.R. 585)		20 EACH
OFFSET LEFT TURN LANE (C.R. 668)		20 EACH
WESTBOUND		
OFFSET LEFT TURN LANE (DAYTON RD.)	20 EACH	
OFFSET LEFT TURN LANE (C.R. 585)		20 EACH
OFFSET LEFT TURN LANE (C.R. 668)		20 EACH
SUB-TOTALS	40 EACH	80 EACH

	CITY STATE & FEDERAL	STATE & FEDERAL
TOTALS	176 EACH	536 EACH



TYPICAL PLACEMENT OF RAISED PAVEMENT MARKERS
AT OFFSET LEFT TURN LANE
AND RIGHT TURN LANE

L0162304 3/12/91

ITEM 862 RAISED PAVEMENT MARKERS

802 BARRIER REFLECTORS

802 BARRIER REFLECTORS

THESE REFLECTORS AND THEIR MOUNTING SHALL CONFORM TO SUPPLEMENTAL SPECIFICATION 802.

LOCATION	SPACING	TYPE A		TYPE B		TYPE B		TYPE A		SPACING	LOCATION
		W	Y	W	Y	W	Y	W	Y		
PHASE 1											
STATE & FEDERAL											
E.B. PASSING LANE GUARDRAIL											
6-G, BR.NO. LIC-16-2630 & 7-G	100'		4								
PHASE 3											
CITY, STATE & FEDERAL											
E.B. DRIVING LANE GUARDRAIL											
1-G	100'	4									
2-G	100'	4									
STATE & FEDERAL											
3-G	100'	3									
4-G, BR.NO. LIC-16-2630 & 5-G	100'	46									
TOTALS CITY, STATE & FEDERAL		8									
TOTALS STATE & FEDERAL		49	4								

W = WHITE

Y = YELLOW

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

	CITY, STATE & FEDERAL	STATE & FEDERAL
ITEM 802 BARRIER REFLECTORS, TYPE A	8 EACH	53 EACH

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT FIVE

802 BARRIER REFLECTORS

STANDARD NO. D3-2E

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
					9/19/88

L0162330 10/18/90

614 TEMPORARY RAISED PAVEMENT MARKERS

CALC. BY [illegible]
DATE 4-11-91
CHECK. BY T.D.
DATE 5-23-91

LIC-16-23.27

93-A / 134

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING, INSTALLING, MAINTAINING, AND SUBSEQUENTLY REMOVING TEMPORARY RAISED PAVEMENT MARKERS (TRPM'S). THE TRPM'S SHALL BE YELLOW OR WHITE, AS DESCRIBED IN THE PLAN.

MATERIAL
ALL UNITS SHALL BE OF SUFFICIENT STRENGTH AND PROPERLY SHAPED SO AS NOT TO BE DISLODGED OR BROKEN, OR THE REFLECTOR DISLODGED OR BROKEN, OR THE REFLECTOR DISLODGED OR DAMAGED BY IMPACTS FROM VEHICLES TIRES, INCLUDING THOSE OF HIGH PRESSURE TRUCK TIRES LOADED TO 4500 POUNDS.

RETROREFLECTORS SHALL BE PROVIDED IN ONE OR TWO DIRECTIONS ON EACH UNIT AS REQUIRED BY THE USAGE AND SHALL RETURN WHITE OR YELLOW LIGHT AS IS APPROPRIATED FOR THE APPLICATION.

THE REFLECTOR SHALL HAVE AN EFFECTIVE AREA OF 0.35 SQUARE INCH FOR TYPE A OR 3.0 SQUARE INCH FOR TYPE B. ITS BRIGHTNESS OR SPECIFIC INTENSITY (WHEN TESTED AT 0.2 DEGREE ANGLE OF OBSERVATION AND THE FOLLOWING ANGLES OF INCIDENCE) SHALL MEET OR EXCEED THE FOLLOWING:

SPECIFIC INTENSITY

TYPE A

INCIDENCE ANGLE (DEGREES)	WHITE	YELLOW
0	1.0	0.6
20	0.4	0.24
45	–	–

TYPE B

INCIDENCE ANGLE (DEGREES)	WHITE	YELLOW
0	3.0	1.8
20	1.2	0.72
45	0.3	0.2

ANGLE OF INCIDENCE FORMED BY A RAY FROM LIGHT SOURCE TO THE MARKER AND THE NORMAL TO THE LEADING EDGE OF THE MARKER FACE (ALSO HORIZONTAL ENTRANCE ANGLE).

ANGLE OF OBSERVATION FORMED BY A RAY FROM LIGHT SOURCE TO THE MARKER AND THE RETURNED RAY FROM THE MARKER TO THE MEASURING RECEPTOR.

SPECIFIC INTENSITY IS THE MEAN CANDLEPOWER OF THE REFLECTED LIGHT (AT GIVEN INCIDENCE AND DIVERGENCE ANGLES) FOR EACH FOOT-CANDLE AT THE REFLECTOR (ON A PLANE PERPENDICULAR TO THE INCIDENT LIGHT).

TYPE A UNITS ARE INTENDED TO PROVIDE HIGH VISIBILITY BOTH AT NIGHT AND DURING DAYLIGHT. THEIR DAY TIME VISIBILITY SHALL BE ASSURED BY SIZE, SHAPE AND COLOR AS FOLLOWS:

1) THE UNITS SHALL BE A HIGH VISIBILITY YELLOW OR WHITE COLOR WHICH WILL NOT DEGRADE SUBSTANTIALLY DUE TO TRAFFIC WEAR AND WHICH WILL MATCH THE COLOR OF THE REFLECTOR.

2) WHEN VIEWED FROM ABOVE, THE UNITS SHALL HAVE A VISIBLE AREA OF NOT LESS THAN 14 SQUARE INCHES.

3) WHEN VIEWED FROM THE FRONT, PARALLEL TO THE PAVEMENT, AS FROM APPROACHING TRAFFIC, THE UNIT SHALL HAVE A WIDTH OF APPROXIMATELY 4 INCHES AND A VISIBLE AREA OF NOT LESS THAN 1.5 SQUARE INCHES.

TYPE B UNITS ARE INTENDED TO PROVIDE HIGH VISIBILITY AT NIGHT BY RETRO-REFLECTING AUTOMOTIVE HEADLIGHT BACK TO THE DRIVER.

INSTALLATION: THEY SHALL BE ATTACHED TO CLEAN, DRY PAVEMENT BY A BUTYL ADHESIVE PAD, A BITUMINOUS ADHESIVE OR OTHER CONSTRUCTION GRADE ADHESIVES (SUCH AS FRANKLIN PANEL AND METAL ADHESIVE) SUITABLE TO ANCHOR THE UNIT UNDER THE ABOVE CONDITIONS. WHEN IT IS NECESSARY TO ATTACH UNITS TO NEW CONCRETE WITH CURING COMPOUND REMAINING, THE CURING COMPOUND MEMBRANE SHALL BE REMOVED BY SANDBLASTING OR OTHER MECHANICAL CLEANING METHOD. THEY SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

THE CONTRACTOR SHALL IMMEDIATELY REPLACE, AT HIS COST, ANY UNITS WHICH FAIL (BROKEN HOUSING, HOUSING WORN TO THE EXTENT THAT DAYTIME VISIBILITY IS SIGNIFICANTLY DIMINISHED OR OF AN UNACCEPTABLE COLOR, DETACHED OR BROKEN REFLECTOR, HOUSING DETACHED FROM ADHESIVE).

TRPM'S ARE LIKELY TO BE REMOVED BY SNOW PLOWING OPERATIONS, THUS THEY ARE NOT CONSIDERED SUITABLE FOR USE DURING THE PERIOD FROM OCTOBER 15 UNTIL APRIL 30. THE CONTRACTOR IS ADVISED TO SCHEDULE HIS WORK AND/OR THE USE OF THESE DEVICES TO AVOID THIS PERIOD. SHOULD THE CONTRACTOR CHOOSE TO USE TRPM'S DURING THIS PERIOD AND THEY ARE SUBSEQUENTLY REMOVED OR DESTROYED BY SNOW AND ICE CONTROL ACTIVITIES, THE CONTRACTOR SHALL IMMEDIATELY, AT HIS COST, PROVIDE A SUBSTITUTE TRAFFIC GUIDANCE SYSTEM EFFECTIVE DURING LIGHT AND DARK AND WHICH IS ACCEPTABLE TO THE ENGINEER.

THE UNITS SHALL BE PLACED ACCURATELY TO DEPICT STRAIGHT OR UNIFORMLY CURVING LINES. WHEN USED TO SUPPLEMENT TEMPORARY PAVEMENT MARKINGS, THEY MAY BE PLACED ON OR IMMEDIATELY ADJACENT TO THE PAVEMENT MARKING. LOCATIONS SHALL BE ADJUSTED UP TO ONE FOOT LONGITUDINALLY OR SIX INCHES LATERALLY TO AVOID PLACEMENT ON JOINTS, CRACKED OR DETERIORATED PAVEMENT. THEY SHALL NOT BE PLACED DIRECTLY ON PAVEMENT MARKINGS IF THIS WILL DETRACT FROM THEIR ABILITY TO REMAIN ATTACHED TO THE PAVEMENT.

APPLICATION
1) WHEN REQUIRED TO SUPPLEMENT PAVEMENT MARKING; THEY SHALL BE PLACED AS FOLLOWS:

LINE	TYPE	SPACING
EDGE LINE	A OR B	20' C/C
LANE LINE	A OR B	40' C/C*
CENTER LINE (SINGLE/BROKEN)	A OR B	40' C/C *
CENTER LINE (DOUBLE/SOLID)	A OR B	2 UNITS SIDE BY SIDE 4 INCHES APART 20' C/C
CHANNELIZING LINE (INCLUDES EXIT GORE NOSE)	A OR B	10' C/C

* CENTERED IN GAP

2) WHEN USED TO SIMULATE (REPLACE) PAVEMENT MARKING THEY SHALL BE PLACED AS FOLLOWS:

LINE	TYPE	SPACING
EDGE LINE	A	5' C/C
LANE LINE	A	4@3.33' C/C 30' GAP (40' CYCLE)
CENTER LINE (DOUBLE SOLID)	A	2 UNITS SIDE BY SIDE 5' C/C
CENTER LINE (SINGLE BROKEN)	A	4@3.33' C/C 30' GAP (40' CYCLE)
CHANNELIZING LINE (INCLUDES EXIT GORE NOSE)	A	5' C/C
EDGE LINE (TWO COLOR) (WHITE/YELLOW)	A	BACK TO BACK 5' C/C

YELLOW TRPM'S USED TO SEPARATE OPPOSITE FLOWS OF TRAFFIC (CENTER LINES) SHALL INCLUDE REFLECTIONS FOR BOTH DIRECTIONS. ALL OTHER YELLOW TRPM'S AND WHITE TRPM'S SHALL PROVIDE RETROREFLECTIVITY FOR ONE DIRECTION.

REMOVAL
REMOVAL SHALL BE ACCOMPLISHED IN A MANNER THAT LITTLE OR NONE OF THE ADHESIVE REMAINS ON THE PAVEMENT AND PERMANENT PAVEMENT SURFACES SHALL NOT BE SCARRED, BROKEN OR ROUGHENED SIGNIFICANTLY.

PAYMENT
BASIS OF PAYMENT SHALL BE AT THE CONTRACT UNIT PRICE PER EACH TRPM AND SHALL INCLUDE ALL LABOR, EQUIPMENT, HARDWARE AND INCIDENTALS REQUIRED TO PERFORM THE WORK. IT SHALL ALSO INCLUDE REPLACEMENT AT NO ADDITIONAL COST OF ALL TRPM'S WHICH, IN THE JUDGEMENT OF THE ENGINEER, FAIL FOR ANY REASON, EXCEPT DUE TO FAILURE OF THE PAVEMENT TO WHICH THEY ARE ATTACHED.

ITEM	UNIT	DESCRIPTION
614	EACH	TEMPORARY RAISED PAVEMENT MARKERS

STATIONING (FROM-TO) (SIDE)	SPACING c/c	TYPE A W	TYPE A Y	TYPE A Y/Y	TYPE B W	TYPE B Y	TYPE B Y/Y	REMARKS (LINE TYPE)
PHASE 1								
262+60-280+50 WB.	5'		359					Edge
PHASE 2								
259+11.9-265+81.7 E.B.	5'	134	134					Edge
264+00-278+50 W.B.	5'	290						Edge
PHASE 3								
229+55-239+64.1 E.B.	5'		202					Edge
236+15-239+64.1 E.B	5'	70						Edge
PHASE 4								
229+55-239+64.1 E.B.	5'	202						Edge
236+15-239+64.1 E.B.	5'		70					Edge
TOTALS		696	765					Sub Totals
		1461						Totals

The following quantity has been included in the General Summary for the above purpose.

Item 614 Temporary Raised Pavement Markers, Type A 1461 Each

City, State and Federal

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

614 TEMPORARY RAISED PAVEMENT MARKERS

DESIGNED	DRAWN	CHECKED	DATE	REVISED
			5-12-87	

ITEM 620 DELINEATOR BY TYPE, POST MOUNTED

620 DELINEATOR BY TYPE, POST MOUNTED

THE CONTRACTOR SHALL FURNISH AND INSTALL FLEXIBLE POST MOUNTED DELINEATORS MANUFACTURED BY:

CARSONITE INTERNATIONAL
30 E. COLUMBUS ST.
OH SALES OFFICE
COLUMBUS, OHIO 43206
614-221-5987

OR APPROVED EQUAL

OF THE DESIGNS HEREIN.

DESIGN 2 POST MOUNTED DELINEATORS SHALL BE MANUFACTURED FROM FIBERGLASS WITH A T CROSS-SECTION. THE POST SHALL BE 72 INCHES LONG AND SHALL BE DRIVEN TO AN INSTALLATION DEPTH OF 18 INCHES INTO THE GROUND.

DESIGN 4 POST MOUNTED DELINEATORS SHALL BE BOOSTER POSTS 27 INCHES IN LENGTH, MANUFACTURED OF FIBERGLASS, WITH A T CROSS-SECTION. DESIGN 4 POST MOUNTED DELINEATORS SHALL BE INSTALLED ON THE FRONT OF WOODEN GUARDRAIL BLOCKOUTS FACING APPROACHING TRAFFIC. THE DESIGN 4 POST MOUNTED DELINEATOR SHALL BE ATTACHED BY HAMMERING INTO THE BLOCKOUT EITHER TWO 1/8 INCH DIAMETER BY 1.25 INCH LONG, ZINC COATED LAG SCREWS WITH ZINC COATED 3/16 INCH FLAT WASHER OR TWO 1/8 INCH DIAMETER BY 1.25 INCH LONG, ZINC COATED INDENTED HEX WASHER-HEAD LAG SCREWS. ZINC COATED INDENTED HEX WASHER-HEAD LAG SCREWS MAY BE OBTAINED FROM:

TENNESSEE BOLT AND SCREW COMPANY
MEMPHIS TENN.
901-452-7491

-OR-

MID STATE BOLT AND NUT COMPANY
COLUMBUS OH
614-253-8631

EIGHT WEEKS SHOULD BE ALLOWED FOR DELIVERY FROM THESE FASTNER SUPPLIERS. THE LAG SCREWS AND WASHERS SHALL BE FURNISHED BY THE CONTRACTOR.

BRACKET MOUNTED DELINEATORS SHALL BE MANUFACTURED FROM FIBERGLASS WITH A T CROSS-SECTION. THE POST SHALL BE 16" LONG AND SHALL BE ATTACHED TO THE PROPOSED BRIDGE PARAPET AS PER STANDARD DRAWING TC-61.10.

THE POST MOUNTED DELINEATORS SHALL BE FURNISHED WITH REFLECTORS ATTACHED. THE REFLECTORS SHALL CONSIST OF 3 INCH WIDE BY 6 INCH LONG REFLECTIVE SHEETING CONFORMING TO 730.19 ADHERED TO THE FLEXIBLE POST. THE REFLECTOR COLORS SHALL BE COLORLESS OR YELLOW AS SPECIFIED BY TYPE IN CONFORMANCE WITH 620.01.

INSTALLATION: DELINEATORS SHALL BE INSTALLED FACING TRAFFIC.
THE PROTECTIVE PAPER COVERING THE FACE OF THE FLEXIBLE POST MOUNTED REFLECTORS SHALL NOT BE REMOVED UNTIL AFTER INSTALLATION. POSTS SHALL BE INSTALLED SO THAT THE FACE OF THE REFLECTOR IS 90 DEGREES TO THE CENTERLINE FACING APPROACHING TRAFFIC AND TO SUCH A DEPTH THAT THE TOPS OF THE INSTALLED REFLECTORS SHALL BE 48 INCHES PLUS OR MINUS 1 INCH ABOVE THE ELEVATION OF THE ADJACENT EDGE OF PAVEMENT. POSTS SHALL BE ERECTED VERTICALLY AND SHALL NOT BE MORE THAN 1/4 INCH PER FOOT OUT OF PLUMB POSITION IN ANY DIRECTION. DELINEATOR POSTS SHALL BE INSTALLED BY DRIVING USING ONLY MANUAL TECHNIQUES.

IF SOIL CONDITIONS WOULD CAUSE THE POST TO BE OUT OF PLUMB, THE CONTRACTOR MAY DRIVE A PILOT SHAFT BEFORE INSTALLATION.

POSTS INSTALLATION METHODS AND EQUIPMENT SHALL COMPLY WITH THE POST MANUFACTURE'S RECOMMENDATIONS ON FILE WITH THE DIRECTOR UNLESS PRIOR WRITTEN APPROVAL OF ALTERNATE TECHNIQUES ARE OBTAINED FROM THE DIRECTOR.

DELINEATORS TO BE MOUNTED AS BOOSTER POSTS ON THE FRONT OF WOODEN GUARDRAIL BLOCKOUTS SHALL BE ATTACHED BY HAMMERING INTO THE BLOCKOUT EITHER TWO 1/8 INCH DIAMETER BY 1 1/4 INCH LONG, ZINC COATED LAG SCREWS WITH ZINC COATED 3/16 INCH FLAT WASHERS OR TWO 1/8 INCH DIAMETER BY 1 1/4 INCH LONG, ZINC COATED INDENTED HEX WASHER-HEAD LAG SCREWS.

DELINEATOR POSTS PLACED IN CONCRETE MEDIANS MAY BE INSTALLED BY PLACING THEM IN 4 INCH SLEEVES OR CORE DRILLED HOLES. THE HOLES SHALL BE FILLED WITH ASPHALTIC CONCRETE AFTER THE POST IS IN PROPER POSITION.

LAYOUT: THE CONTRACTOR SHALL LAYOUT ALL DELINEATOR LOCATIONS TO ASSURE THEIR PROPER PLACEMENT. THE LAYOUT SHALL BE APPROVED BY THE ENGINEER BEFORE INSTALLATION OPERATIONS ARE STARTED. THE LAYOUT SHALL BE INCIDENTAL TO THE INSTALLATION OPERATIONS.

THIS WORK SHALL CONSIST OF LOCATING AND MARKING ON THE ROADWAY THE FOLLOWING DELINEATOR FEATURES AS DETERMINED FROM THE LOCATION INFORMATION IN THE PLANS OR FROM SCHEMATICS OF HORIZONTAL CURVES AND RAMPS PROVIDED IN THE PLANS.

1) BEGINNING OF EACH RUN WITH CONSTANT SPACING OF DELINEATORS SPECIFYING DELINEATOR TYPE, COLOR, SIDE OF ROAD AND SPACING.
2) END OF EACH RUN WITH CONSTANT SPACING.
3) BEGINNING OF EACH RUN WITH VARIABLE SPACING SPECIFYING DELINEATOR TYPE, COLOR, SIDE OF ROAD AND SPACING.
4) END OF EACH RUN WITH VARIABLE SPACING.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE PURPOSE.

		CITY, STATE & FEDERAL	STATE & FEDERAL
ITEM 620 DELINEATOR REMOVED FOR STORAGE		18 EACH	28 EACH
ITEM 620 DELINEATOR, TYPE C, DESIGN 2,	POST MOUNTED	17 EACH	34 EACH
ITEM 620 DELINEATOR, TYPE C, DESIGN 4,	POST MOUNTED	1 EACH	12 EACH

NOTE: EXISTING DELINEATORS REMOVED ON THIS PROJECT SHALL BE STORED AT THE PROJECT SITE AS DIRECTED BY THE ENGINEER, AND REMOVED BY STATE FORCES.

* ON EXISTING GUARDRAIL

SEE STANDARD DRAWING TC-61.10

LOCATION	ITEM 620 DELINEATOR REMOVED FOR STORAGE EACH	ITEM 620 DELINEATOR, TYPE C DESIGN 2, POST MOUNTED EACH	ITEM 620 DELINEATOR, TYPE C DESIGN 4, POST MOUNTED EACH				
EASTBOUND							
CITY, STATE & FEDERAL	17 *1	17	1				
STATE & FEDERAL	16 *12	34	12				

L0162332 9/10/90

SIGNAL SUB-SUMMARY

NOTE: QUANTITIES CARRIED TO GENERAL SUMMARY.

SHEET NUMBER	ITEM	ITEM EXT.	TOTAL (CITY, STATE & FEDERAL)	UNIT	DESCRIPTION
	625	14000	1	EACH.	LIGHT POLE FOUNDATION, 24"x6' DEEP
	625	25500	1,868	LIN.FT.	CONDUIT, 3" 713.04
	625	29000	1665	LIN.FT.	TRENCH
	625	29600	201	LIN.FT.	TRENCH IN PAVED AREA, TYPE B
	625	30700	10	EACH	PULL BOX, 713.08, 18"
	625	32000	2	EACH	GROUND ROD
	630	79000	1	EACH	SIGN HANGER ASSEMBLY, SPAN WIRE
	630	80102	10	SQ.FT.	SIGN, FLAT SHEET, TYPE G
	631	92001	2	EACH	SIGN FLASHER ASSEMBLY, AS PER PLAN (SEE SHEET 11)
	632	00300	10	EACH	VEHICULAR SIGNAL HEAD, 3-SECTION, 12" LENS, 1-WAY
	632	25000	10	EACH	COVERING OF VEHICULAR SIGNAL HEAD
	632	27004	2	EACH	LOOP DETECTOR UNIT
	632	27500	326	LIN.FT.	LOOP DETECTOR PAVEMENT CUTTING
	632	30200	188	LIN.FT.	MESSENGER WIRE, 7-STRAND, 7/16" DIAMETER, WITH ACCESSORIES
	632	40500	2861	LIN.FT.	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG.
	632	64800	818	LIN.FT.	LOOP DETECTOR WIRE, TYPE E
	632	65200	838	LIN.FT.	LOOP DETECTOR LEAD-IN CABLE
	632	67200	103	LIN.FT.	POWER CABLE, 2 CONDUCTOR, NO. 8 AWG.
	632	70000	1	EACH	POWER SERVICE
	632	71000	2	EACH	CABLE SUPPORT ASSEMBLY
	632	72000	6.4	CU.YD.	CONCRETE FOR ANCHOR BASE FOUNDATION
	632	83200	2	EACH	STRAIN POLE, TYPE TC 81.10, DESIGN 12, 36 FT.
	633	24000	1	EACH	CONTROLLER, ACTUATED, 4-PHASE, SOLID STATE DIGITAL, MICROPROCESSOR, AS PER PLAN (SEE SHT. 11)
	633	70500	8.3	SQ.FT.	CONTROLLER WORK PAD

CALC. BY	DLS
DATE	4-16-91
CHECK. BY	K.G.
DATE	4-16-91

LIC-16-23.27

OHIO
FHWA REGION 5

SIGNAL TIMING			
PHASE NUMBER	Ø1	Ø2	Ø3
MINIMUM INITIAL	15	7	7
PASSAGE TIME		3	3
MAXIMUM GREEN		15	10
VEHICLE CLEARANCE	4	4	4
ALL RED CLEARANCE	1	1	1
RECALL	ON	OFF	OFF
MEMORY		N.L.	N.L.

POLE ATTACHMENT ELEVATION

Pole Designation	Pole Height (Ft.)	Foundation Elevation (Ft.)	Span Wire Attachment Elevation (Ft.)
A	36	821.17	851.62
B	36	817.39	851.62

	SIGNAL SUPPORT	FOUNDATION			ORIENTATION ANGLE (DEG.) ⟶ ℄ S.R. 16 ⟶ 0°						
I.D.	POLE SIZE	DIA. (IN.)	DEPTH (FT.)	CONC. (CU.YD.)	ANCHOR BOLTS	CONTROLLER	2" CONDUIT ELLS	POWER SERVICE	WEATHER HEADS	PED. HEADS	PED. PUSH BUTTONS
A	TC-81.10 DESIGN 12	36"	12	3.18	0°, 90°, 180°, 270°	180°	0°, 90°*	270°	45°	–	–
B	TC-81.10 DESIGN 12	36"	12	3.18	0°, 90°, 180°, 270°	–	180°, 270°*	–	225°	–	–

* SPARE

* 10-SECOND DELAY

LOOP DETECTOR SCHEDULE

LOOP NO.	AMPLIFIER NO.	CHANNEL NO.	CONTROLLER PHASE	MODE	REMARKS
L-1	1	1	3	PRESENCE	CONNECT TO L-2
L-2	1	1	3	PRESENCE	CONNECT TO L-1
L-3	2	1	2	PRESENCE*	CONNECT TO L-4
L-4	2	1	2	PRESENCE*	CONNECT TO L-3

SIGNAL DISPLAY SCHEDULE

SIGNALS	Ø1			Ø2			Ø3			FLASH
	R/W.	CLR 1	CLR 2	R/W.	CLR 1	CLR 2	R/W.	CLR 1	CLR 2	
1, 2, 3, 4	G	Y	R	R	R	R	R	R	R	Y
5, 6, 7, 8	R	R	R	G	Y	R	R	R	R	R
9, 10	R	R	R	R	R	R	←G	←Y	R	Y

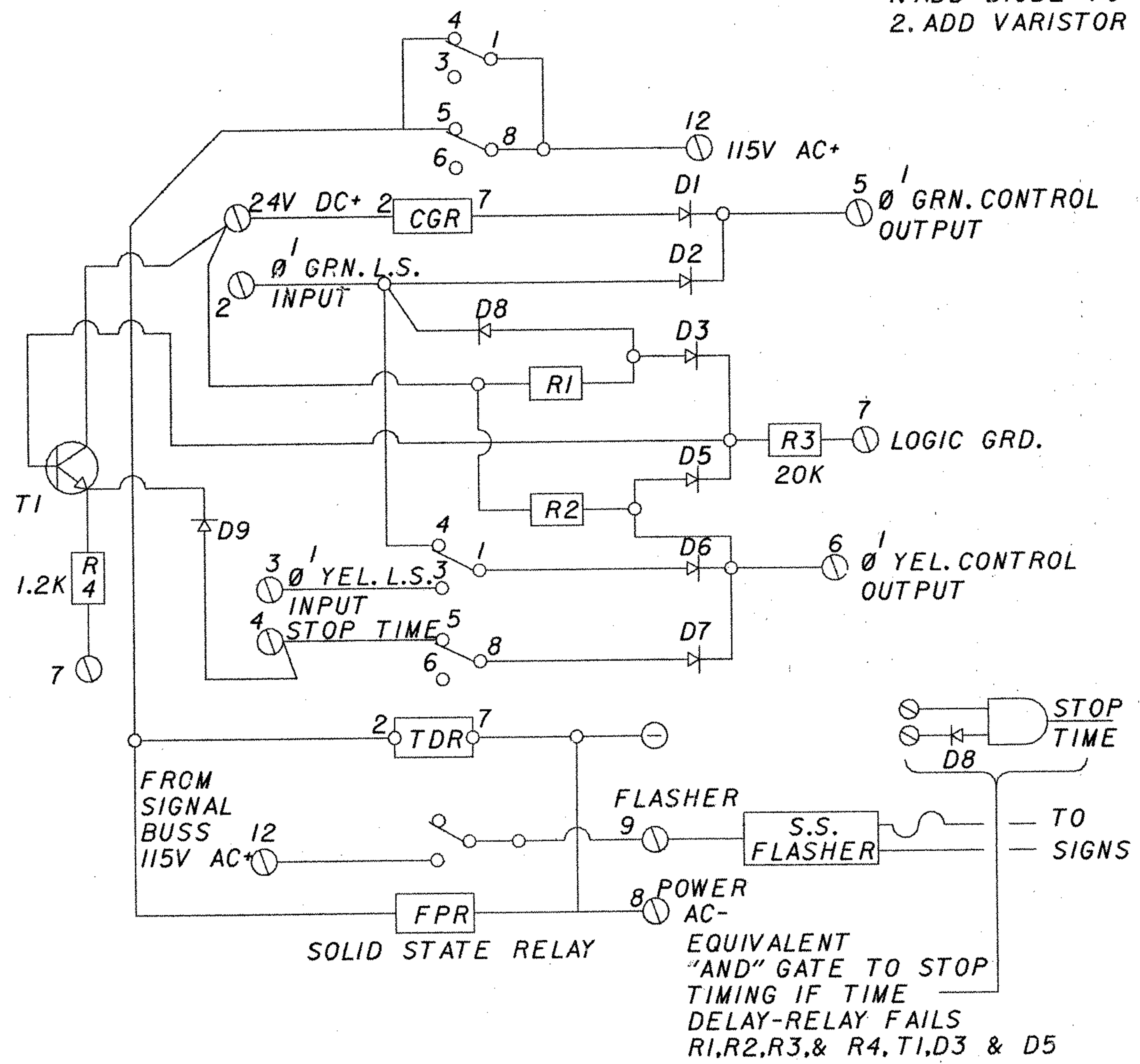
File Name: 91108SP1

SIGNAL PLAN

SIGN FLASHER ASSEMBLY, AS PER PLAN

"PTSWF" RELAY ASSEMBLY WITH NEMA CONTROLLER

NOTE:
1. ADD DIODE TO COIL OF CGR
2. ADD VARISTOR TO COIL OF TDR & FLR PP



1 24V DC+
2 Ø GRN. L.S. INPUT
3 Ø YEL. L.S. INPUT
4 STOP TIME
5 Ø GRN. CONT. OUT
6 Ø YEL. CONT. OUT

7 LOGIC GRD.
8 AC-
9 FLASHER POWER
10 FP NO. 1
11 FP NO. 2
12 115V AC+

R1-R2 - 2K
D1-D9 - IN2071
D8 - BLOCKING DIODE
R3-20K, R4-1.2K
T1 - 2N1711

CGR=CONTROL GREEN RELAY ——— KRP11DG 24V
TDR=TIME DELAY RELAY ——— .1-10 SEC. 120AC (SET FOR 7.5)
FPR=FLASH POWER RELAY ——— SOLID STATE RELAY-SPST CRYDON MODEL TA-1225
T1=EMITTER FOLLOWER ——— 2N1711 ADDED 4-1-83

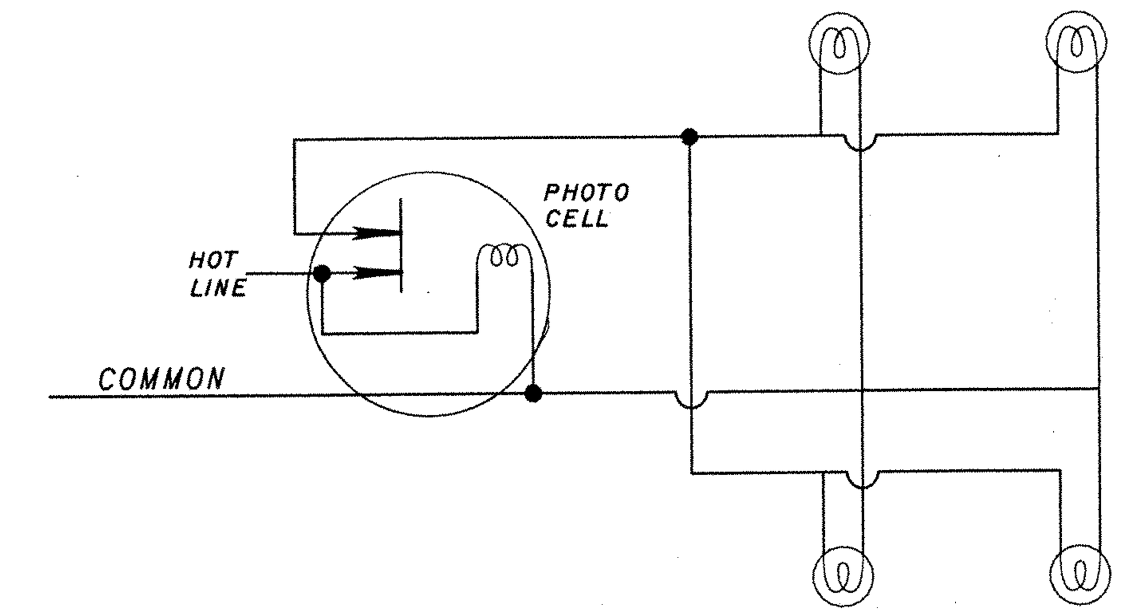
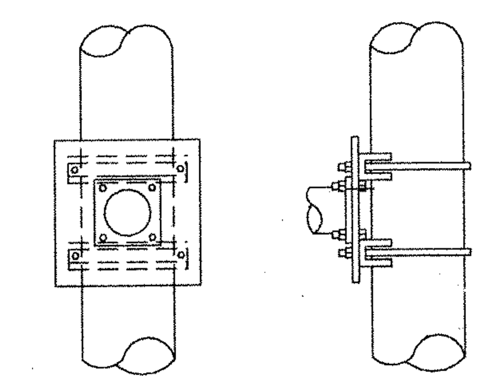
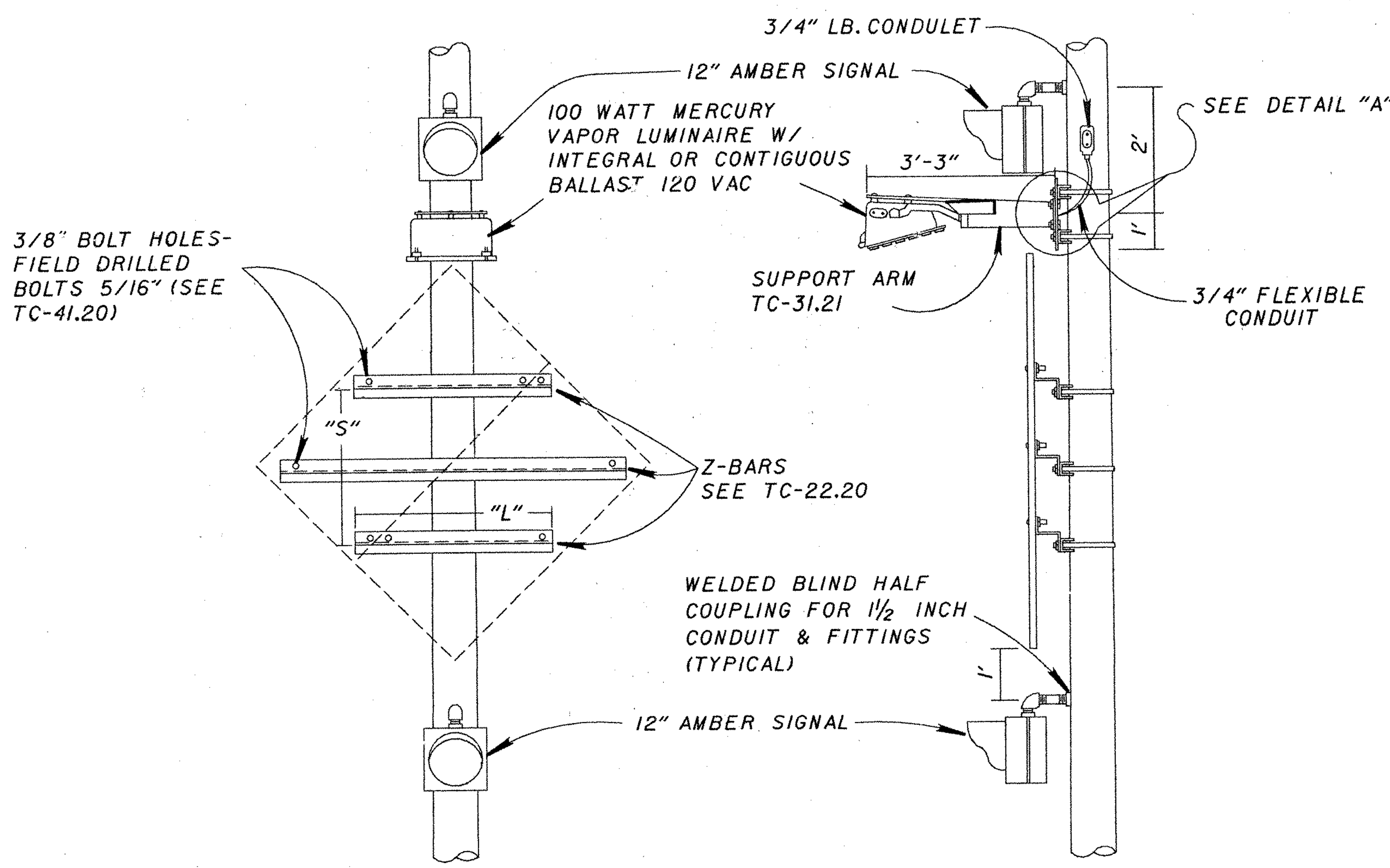


PHOTO CELL HOOK-UP

SUPPORT ARM BRACKET AS PER "RIGID SIGNAL HEAD MOUNTING" OF TC-85.20



DETAIL "A"

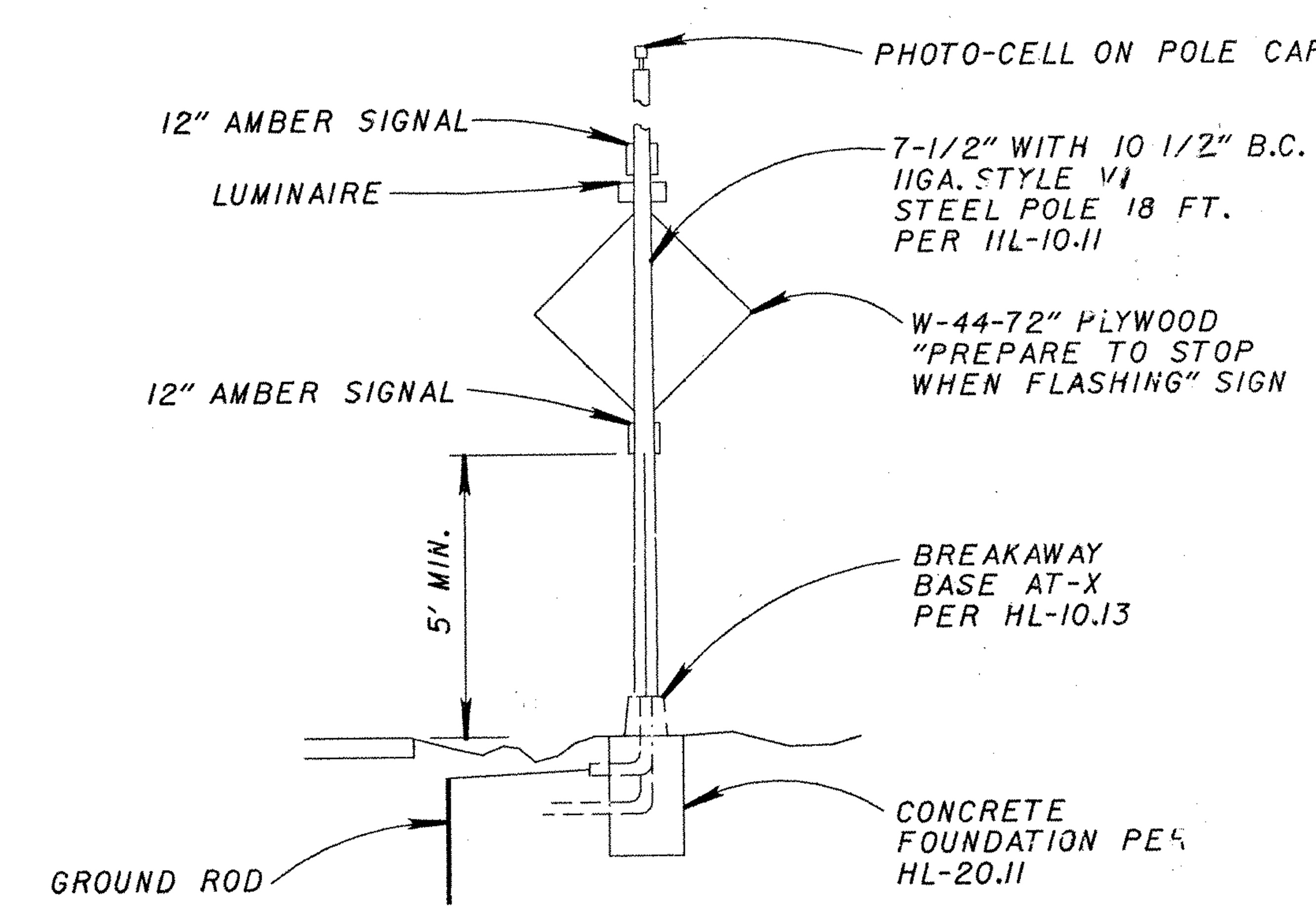


SIGN SIZE	NO. OF BRACKETS	SPACING "S"	LENGTH OF BRACKETS "L"
54"	2	32"	40"
60"	2	36"	46"
72"	3	42"	54(2), 90

TYPICAL

NOTES

1. MAKE ELECTRICAL CONNECTIONS INSIDE AT-X BASE WITH 15 AMP FUSED 713.15 TYPE VIII CONNECTOR KITS (GROUND RETURN-UNFUSED).
2. CONTACT BETWEEN ALUMINUM AND GALVANIZED PARTS SHALL BE PREVENTED WITH A MINIMUM 1/16" THICK CHLOROPRENE GASKET OR APPROVED SUBSTITUTE. GASKETS ARE NOT REQUIRED BETWEEN STAINLESS STEEL AND ALUMINUM.



NOTE: FOR DISPOSITION OF EXISTING FENCE, SEE GENERAL NOTE SHEET 10.

FENCE SUB-SUMMARY

FENCE QUANTITIES: (WESTBOUND LANES)

MARK	SHEET(S) 99-110	STATION FROM	STATION TO	SIDE	202 Fence, Removed For Storage As Per Plan Lin. Ft.	202 Fence, Removed For Storage Lin. Ft.	607 Fence, Type 47 Lin. Ft.	607 Fence, Type CLT Lin. Ft.	Fence Terminals Type A,B or C Each A	B	C	I.A.P.A. Each	C.P.A. Each	E.P.A. Each	B.T.A. Each	601 Rock Channel Protection Type B, with Filter Cu.Yd.
1-F		239+16.2 S.R.16	260+93± S.R.16	LT.	2,164			2,209		1			2	1	1	
2-F		261+21± S.R.16	264+37 S.R.16	LT.	302			347		1			2	1		
3-F		265+58 S.R.16	295+69± S.R.16	LT.	2,275			3,057		1			2	1	2	14.7
4-F		295+96± S.R.16	28+40 T.R.315	LT.	900			3,223		1		1	4	1		
SUB-TOTALS CITY, STATE & FEDERAL (WESTBOUND LANES)					5,641			8,836		4		1	10	4	3	14.7
5-F		329+50 S.R.16	379+58 S.R.16	LT.		5,930	6,060				1	3	7	1		
5A-F	BRIDGE NO. LIC-2630 R&L (WEST END)			MED.			38				2					
6-F		380+15 S.R.16	408+50± S.R.16	LT.		2,813	55	2,867		1	1		3			14.7
6A-F	BRIDGE NO. LIC-2630 R&L (EAST END)			MED.			38				2					
7-F		408+74± S.R.16	436+79.9 S.R.16	LT.		2,825	1,820	1,059		1		2	2	1		14.7
8-F		439+24 S.R.16	495+64 S.R.16	LT.		4,290	2,950	2,730				4		2		
SUB-TOTALS STATE & FEDERAL (WESTBOUND LANES)						15,858	10,961	6,656		2	6	9	12	4		29.4

FOR INFORMATION ONLY

FENCE QUANTITIES: (EASTBOUND LANES)

MARK	SHEET(S) 99-110	STATION FROM	STATION TO	SIDE	202 Fence, Removed For Storage As Per Plan Lin. Ft.	202 Fence, Removed For Storage Lin. Ft.	607 Fence, Type 47 Lin. Ft.	607 Fence, Type CLT Lin. Ft.	Fence Terminals Type A,B or C Each A	B	C	I.A.P.A. Each	C.P.A. Each	E.P.A. Each	B.T.A. Each	601 Rock Channel Protection Type B, with Filter Cu.Yd.
9-F		239+24.2 S.R.16	261+31± S.R.16	RT.	2,229			2,322		1			2	1	1	14.7
10-F		261+59± S.R.16	264+13 S.R.16	RT.	238			292		1			2	1		20.0
11-F		264+82 S.R.16	295+69± S.R.16	RT.	3,245			3,345		1			2	1		14.7
SUB-TOTALS CITY, STATE & FEDERAL (EASTBOUND LANES)					5,712			5,959		3			6	3	1	49.4
12-F		296+26± S.R.16	321+13 S.R.16	RT.		2,454		2,594		1			2	1	2	14.7
13-F		327+74.2 S.R.16	370+09.5± S.R.16	RT.			4,375					6	1	1		
14-F		370+09.5 S.R.16	379+00 S.R.16	RT.			934				1	1				
15-F		379+30 S.R.16	390+27.8 S.R.16	RT.			1,115				1	1	1			20.0
16-F		390+27.8 S.R.16	401+00.4 S.R.16	RT.			1,074					1				20.0
17-F		401+00.4 S.R.16	409+40 S.R.16	RT.			903				1	1	1			
18-F		410+25 S.R.16	433+75 S.R.16	RT.			2,405				1	3	2			20.0
19-F		433+75 S.R.16	437+52.1 S.R.16	RT.			551							1		
20-F		441+00 S.R.16	460+84± S.R.16	RT.		1,865	2,036			1		2	1	1		14.7
21-F		461+00± S.R.16	495+38.1 S.R.16	RT.			3,644			1		4	3	1		
SUB-TOTALS STATE & FEDERAL (EASTBOUND LANES)						4,319	17,037	2,594		3	4	19	11	5	2	89.4
SUB-TOTALS CITY, STATE & FEDERAL (EASTBOUND LANES)					5,712			5,959		3			6	3	1	49.4
SUB-TOTALS CITY, STATE & FEDERAL (WESTBOUND LANES)					5,641			8,836		4		1	10	4	3	14.7
TOTALS CITY, STATE & FEDERAL (WESTBOUND & EASTBOUND LANES)					11,353			14,795		7		1	16	7	4	64.1
SUB-TOTALS STATE & FEDERAL (EASTBOUND LANES)						4,319	17,037	2,594		3	4	19	11	5	2	89.4
SUB-TOTALS STATE & FEDERAL (WESTBOUND LANES)						15,858	10,961	6,656		2	6	9	12	4		29.4
TOTALS STATE & FEDERAL (WESTBOUND & EASTBOUND LANES)						20,177	27,998	9,250		5	10	28	23	9	2	118.8

TOTALS CARRIED TO THE GENERAL SUMMARY.

FOR INFORMATION ONLY

L01623FQ 4\10\91

CALC. BY H.C. DATE 4-11-91 CHKD. BY T.D. DATE 5-23-91	LIC-16-23.27	OHIO FHWA REGION 5	99 / 134

NOTE:
FOR FENCE QUANTITIES SEE SHEET 98.

LEGEND

C.P.A. — CORNER POST ASSEMBLY

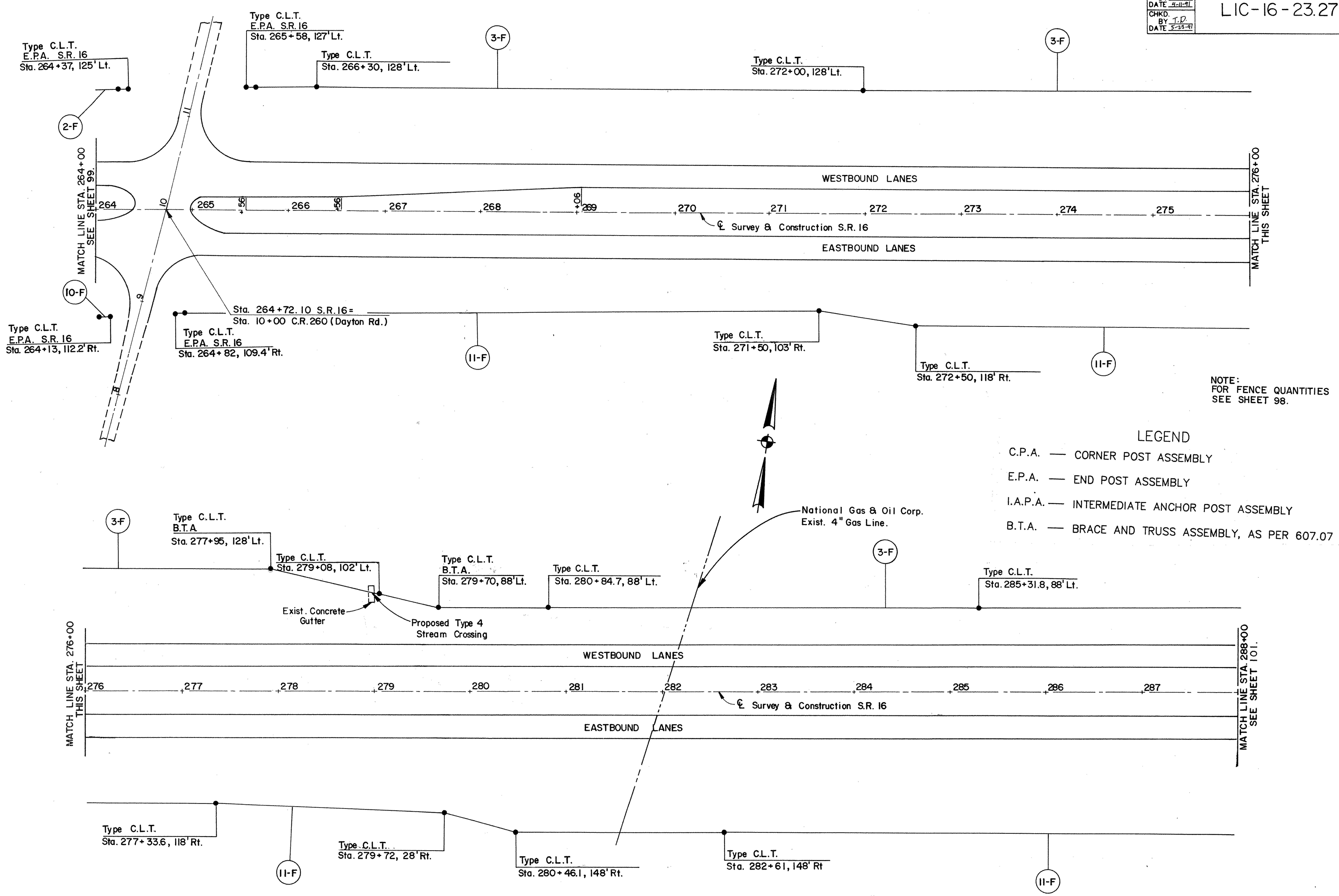
E.P.A. — END POST ASSEMBLY

I.A.P.A. — INTERMEDIATE ANCHOR POST ASSEMBLY

B.T.A. — BRACE AND TRUSS ASSEMBLY, AS PER 607.07

STA. 239+00 — STA. 264+00

CALC. BY J.C. DATE 4-11-91 CHKD. BY T.D. DATE 5-23-91	LIC-16-23.27	OHIO FHWA REGION 5	100/134



NOTE:
FOR FENCE QUANTITIES
SEE SHEET 98.

LEGEND

C.P.A. — CORNER POST ASSEMBLY

E.P.A. — END POST ASSEMBLY

I.A.P.A. — INTERMEDIATE ANCHOR POST ASSEMBLY

B.T.A. — BRACE AND TRUSS ASSEMBLY, AS PER 607.07

REVISED: 7/17/91

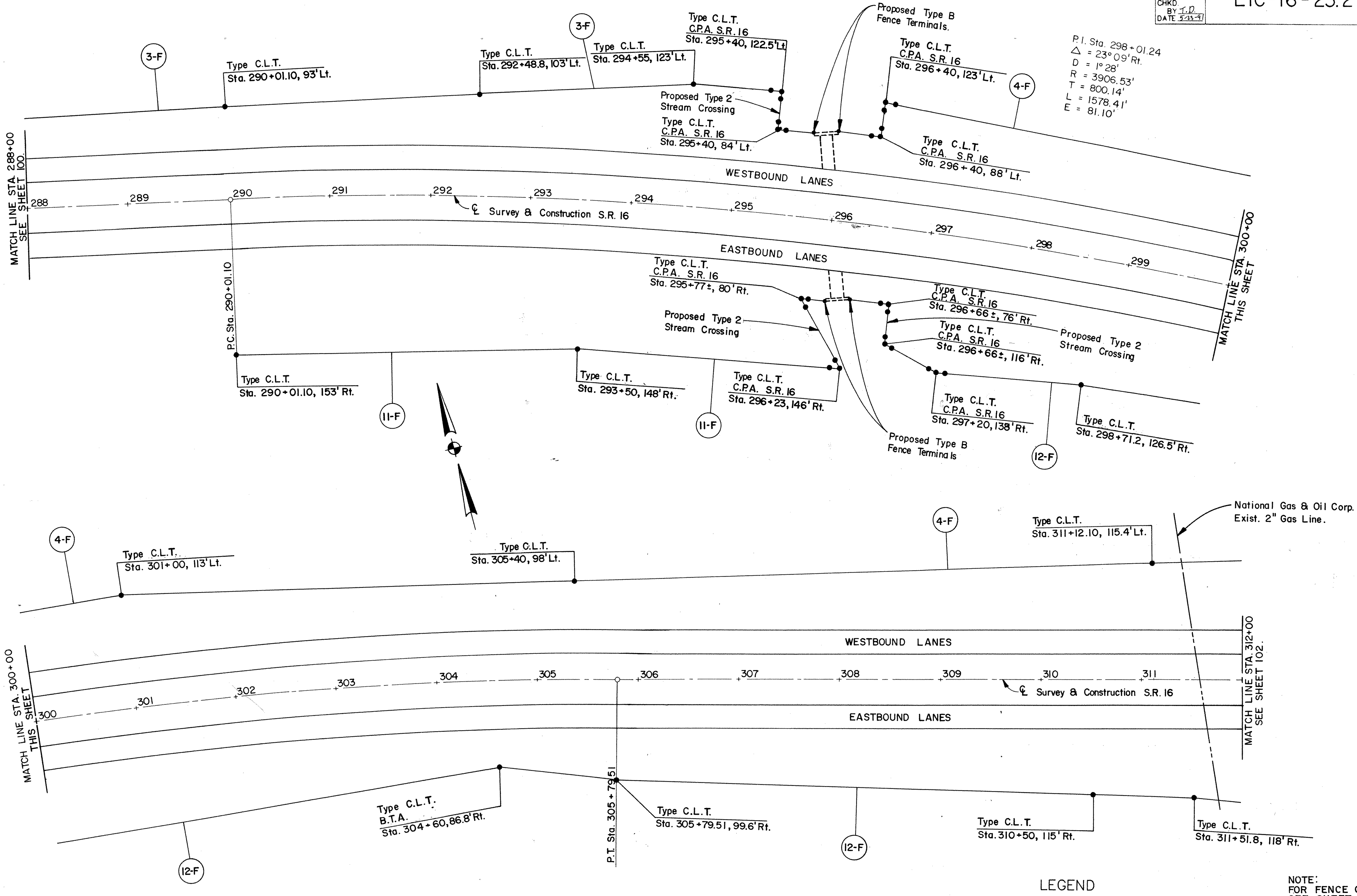
STA. 264+00 — STA. 288+00

CALC. BY J.C. DATE 4-11-91
CHKD. BY T.D. DATE 5-13-91

LIC-16-23.27

OHIO FHWA REGION 5

101/134



LEGEND

C.P.A. — CORNER POST ASSEMBLY

E.P.A. — END POST ASSEMBLY

I.A.P.A. — INTERMEDIATE ANCHOR POST ASSEMBLY

B.T.A. — BRACE AND TRUSS ASSEMBLY, AS PER 607.07

NOTE:
FOR FENCE QUANTITIES SEE SHEET 98.

REVISED: 7/17/91

STA. 288+00 — STA. 312+00


CALC. BY J.C. DATE 4-11-91
CHKD BY J.D. DATE 5-23-91
Type C.L.T
I.A.P.A. S.R. 16
Sta. 312+00
4-F
Type C.L.T.
C.P.A. S.R. 16
Sta. 315+11.10, 127.4' Lt.
MATCH LINE Sta. 312+00
SEE SHEET 101.
WESTBOUND LANES
312
313
314
315
316
317
318
319
320
321
322
323
℄ Survey & Construction S.R. 16
EASTBOUND LANES
MATCH LINE STA. 324+00
THIS SHEET
12-F
Type C.L.T.
Sta. 315+12.9, 138' Rt.
LEGEND
C.P.A. — CORNER POST ASSEMBLY
E.P.A. — END POST ASSEMBLY
I.A.P.A. — INTERMEDIATE ANCHOR POST ASSEMBLY
B.T.A. — BRACE AND TRUSS ASSEMBLY, AS PER 607.07
NOTE:
FOR FENCE QUANTITIES
SEE SHEET 98.
Type C.L.T.
B.T.A. S.R. 16
Sta. 320+00, 258' Rt.
12-F
Type C.L.T.
E.P.A. S.R. 16
Sta. 321+13, 382' Rt.
5-F
5-F
Type 47
C.P.A. S.R. 16
Sta. 335+54, 107' Lt.
C.S. Sta. 335+43.96
Begin Exist. Concrete Barrier
Sta. 333+54
T.S. Sta. 327+20.63
S.C. Sta. 330+20.63
NOTE:
For Details of Fence
at the Intersection see sheet 103.
Type 47
E.P.A. S.R. 16
Sta. 329+50, 158' Lt.
MATCH LINE STA. 324+00
THIS SHEET
324
325
+66.2
326
327
+79
328
+79
329
330
331
+29
332
333
334
335
8'
30'
WESTBOUND LANES
EASTBOUND LANES
℄ Survey & Construction S.R. 16
Existing Concrete Barrier
MATCH LINE STA. 336+00
SEE SHEET 104.
28
27
26
25
STA. 327+00 S.R. 16 =
STA. 26+40 Co. Rd. 585
℄ Co. Rd. 585
Type 47
Sta. 335+63.3, 80.7' Rt.
13-F
Type 47
I.A.P.A. S.R. 16
Sta. 334+00
Type 47
Sta. 332+11.4, 133.9' Rt.

LEGEND

C.P.A. — CORNER POST ASSEMBLY

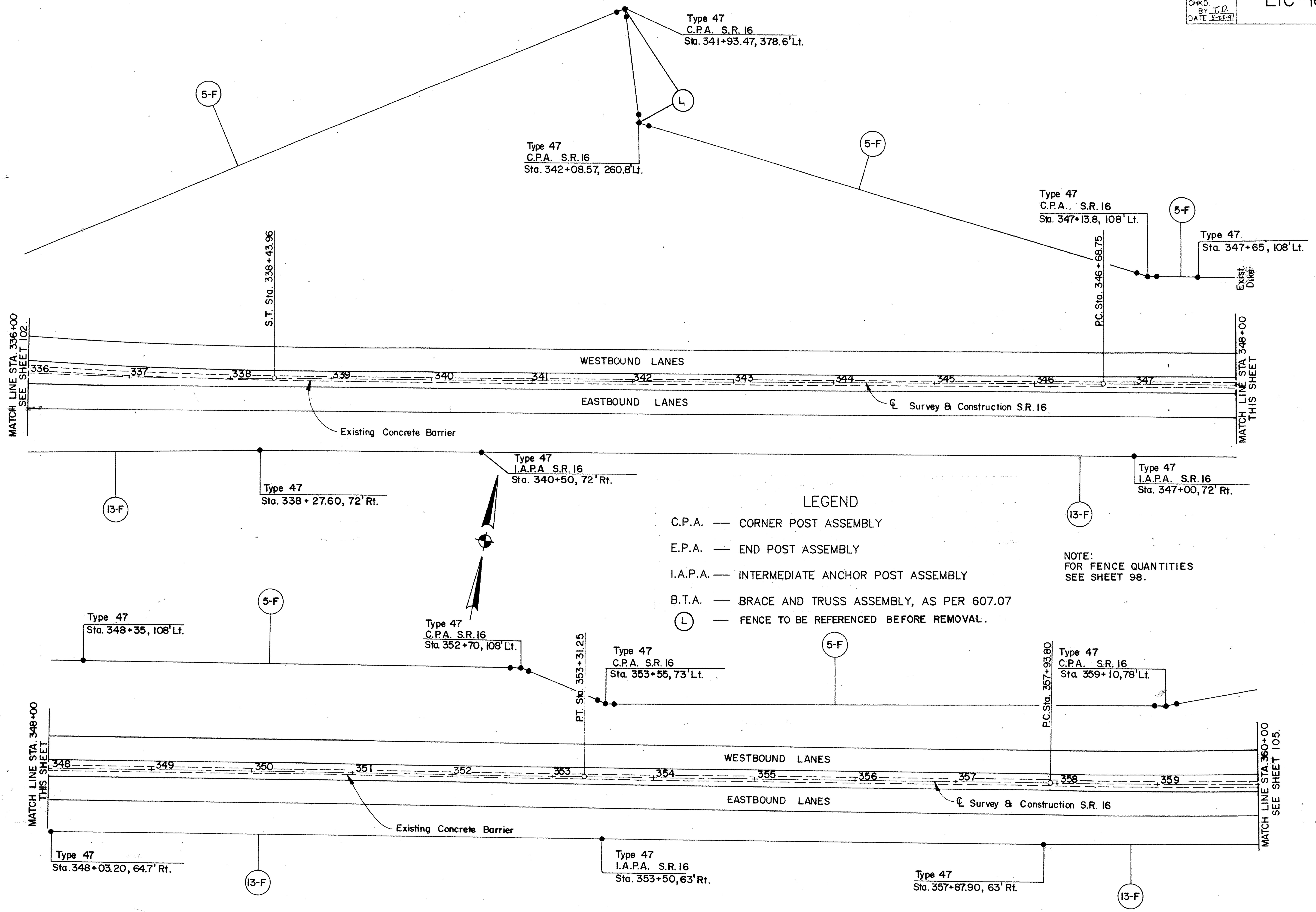
E.P.A. — END POST ASSEMBLY

I.A.P.A. — INTERMEDIATE ANCHOR POST ASSEMBLY

B.T.A. — BRACE AND TRUSS ASSEMBLY, AS PER 607.07

NOTE:
FOR FENCE QUANTITIES
SEE SHEET 98.

CALC. BY J.C. DATE 4-11-91 CHKD BY T.D. DATE 5-23-91	LIC-16-23.27	OHIO FHWA REGION 5	104 134



LEGEND

C.P.A. — CORNER POST ASSEMBLY

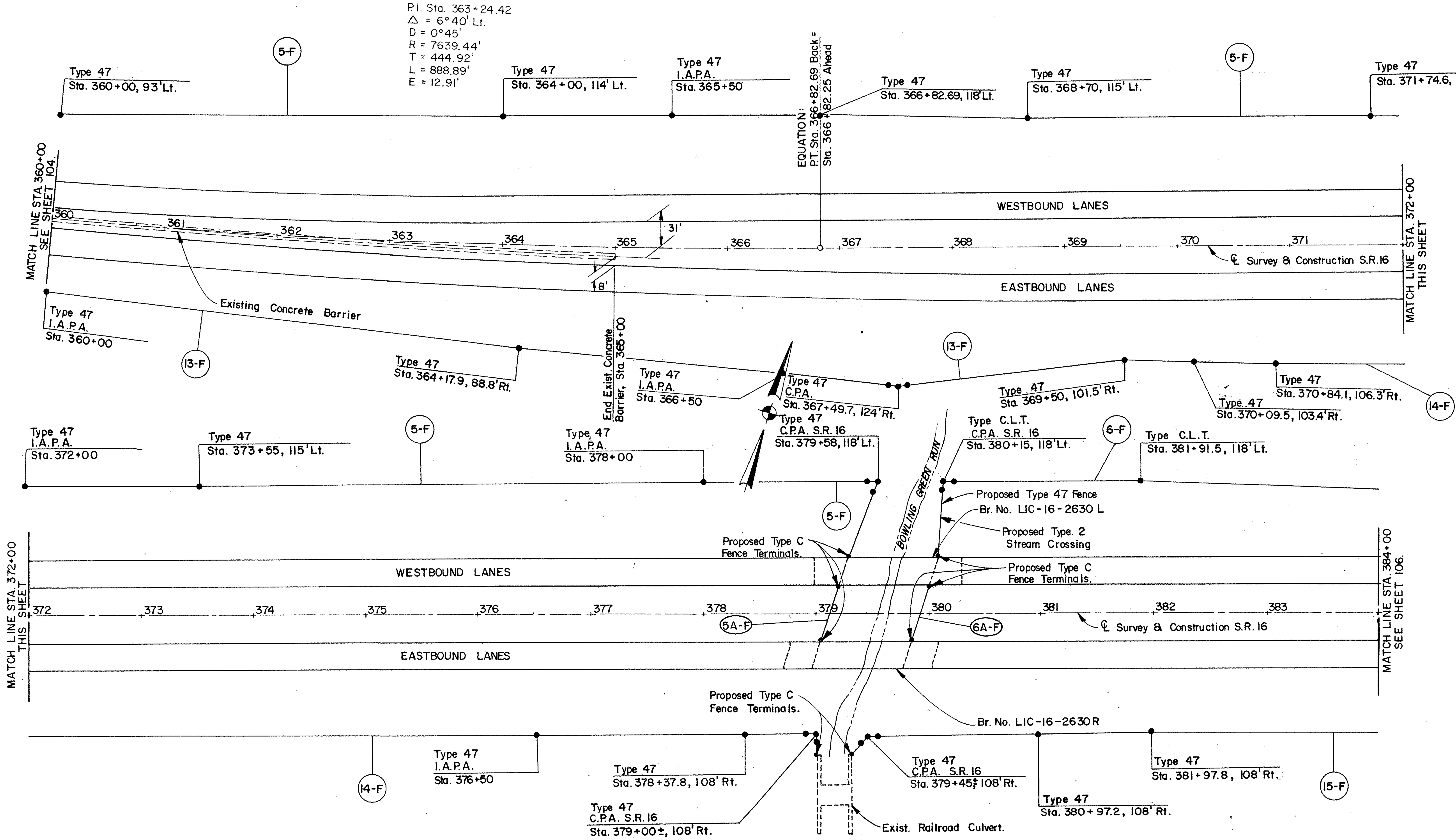
E.P.A. — END POST ASSEMBLY

I.A.P.A. — INTERMEDIATE ANCHOR POST ASSEMBLY

B.T.A. — BRACE AND TRUSS ASSEMBLY, AS PER 607.07

(L) — FENCE TO BE REFERENCED BEFORE REMOVAL.

NOTE:
FOR FENCE QUANTITIES
SEE SHEET 98.



LEGEND

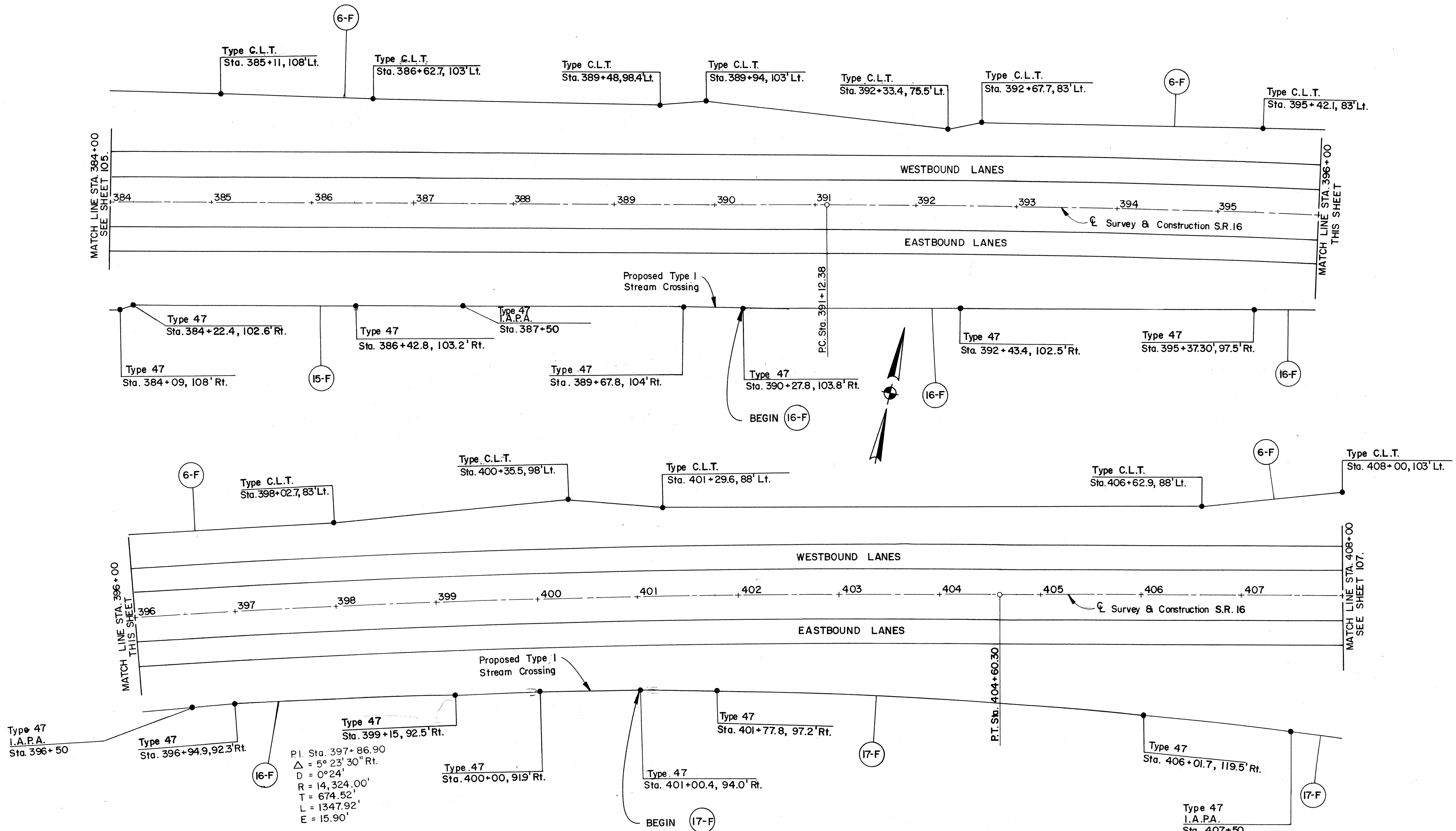
C.P.A. — CORNER POST ASSEMBLY

E.P.A. — END POST ASSEMBLY

I.A.P.A. — INTERMEDIATE ANCHOR POST ASSEMBLY

B.T.A. — BRACE AND TRUSS ASSEMBLY, AS PER 607.07

NOTE:
FOR FENCE QUANTITIES SEE SHEET 98.



LEGEND

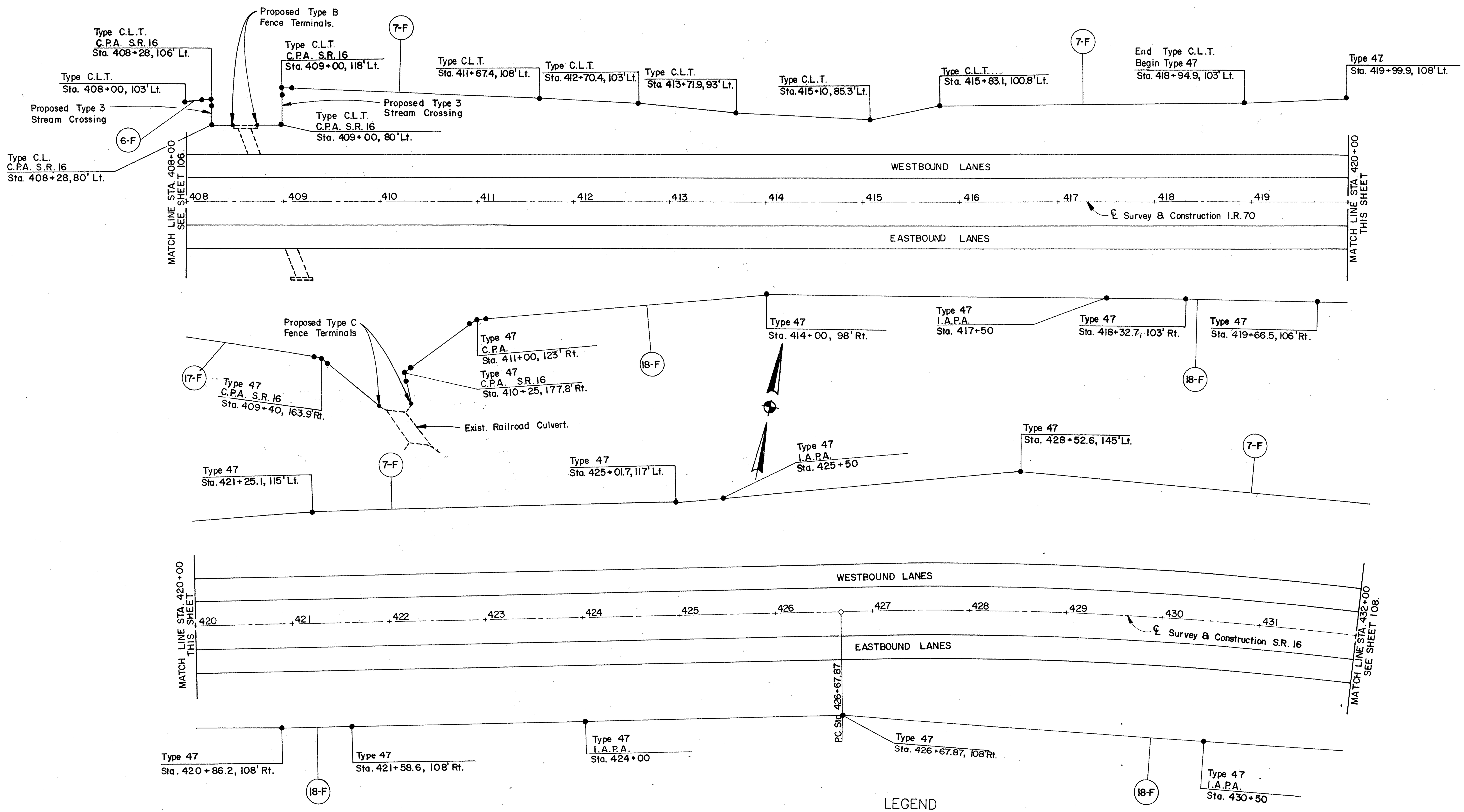
C.P.A. — CORNER POST ASSEMBLY

E.P.A. — END POST ASSEMBLY

I.A.P.A. — INTERMEDIATE ANCHOR POST ASSEMBLY

B.T.A. — BRACE AND TRUSS ASSEMBLY, AS PER 607.07

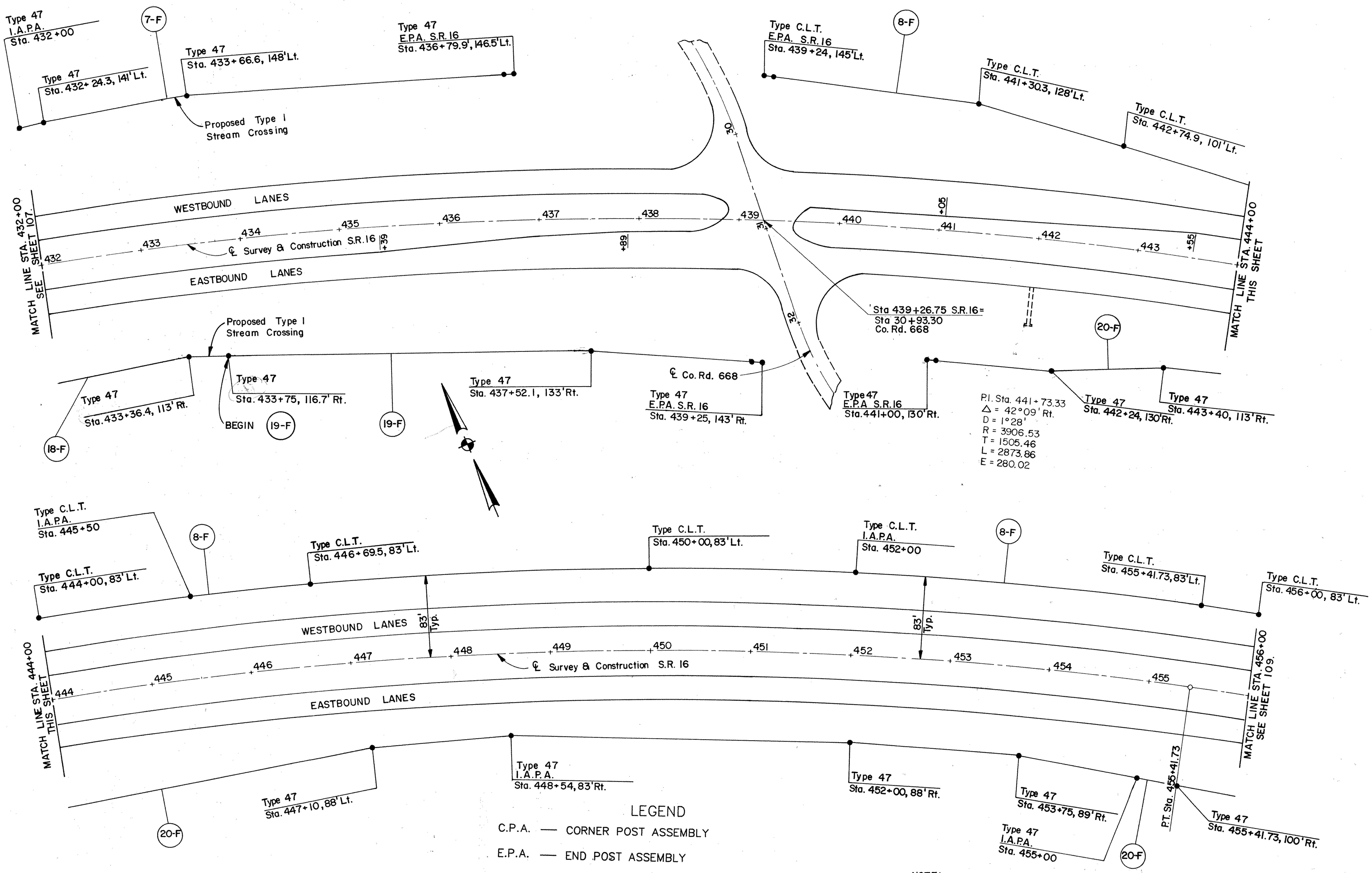
NOTE:
FOR FENCE QUANTITIES
SEE SHEET 98.



LEGEND

C.P.A. — CORNER POST ASSEMBLY
E.P.A. — END POST ASSEMBLY
I.A.P.A. — INTERMEDIATE ANCHOR POST ASSEMBLY
B.T.A. — BRACE AND TRUSS ASSEMBLY, AS PER 607.07

NOTE:
FOR FENCE QUANTITIES SEE SHEET 98.



LEGEND

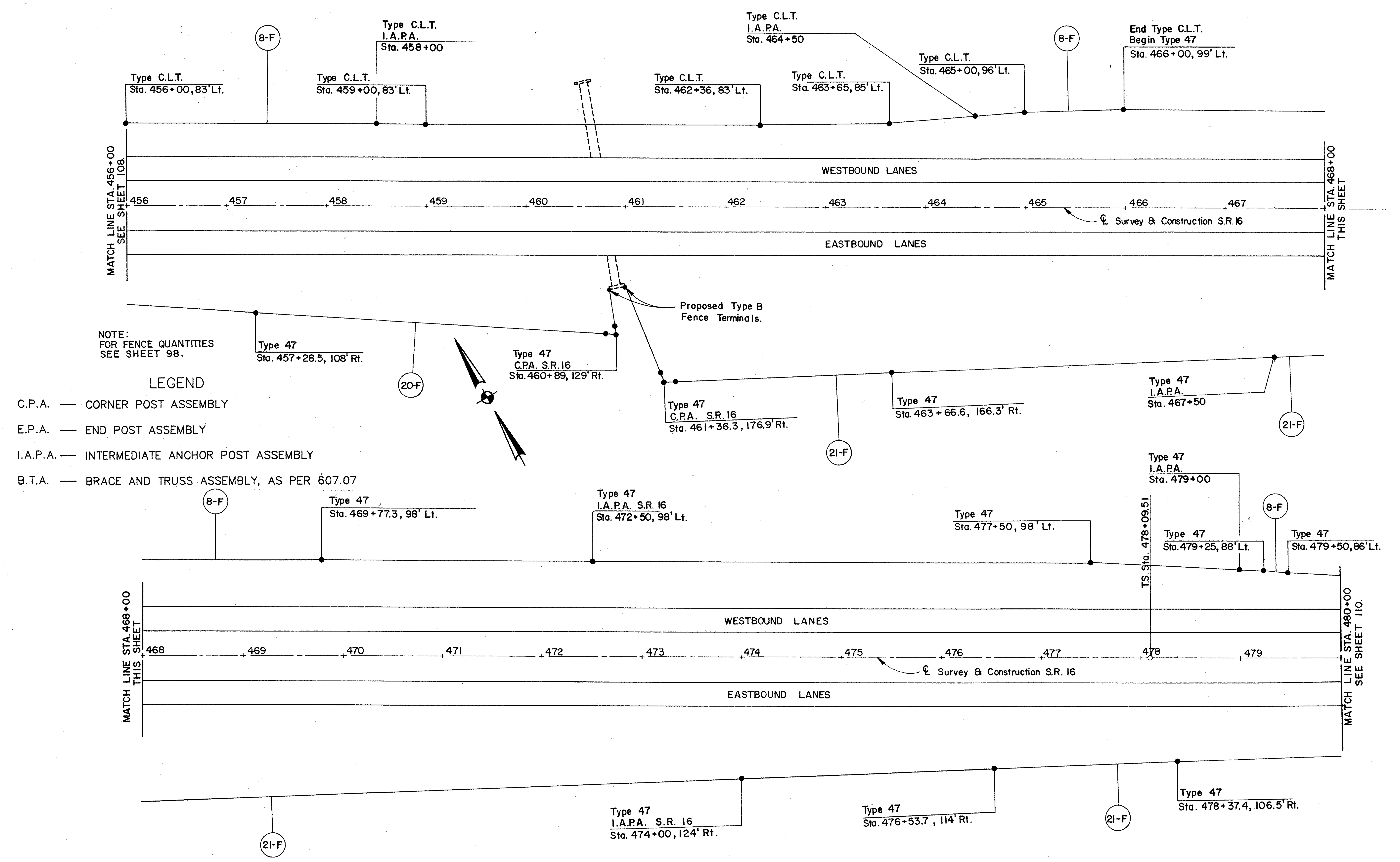
C.P.A. — CORNER POST ASSEMBLY

E.P.A. — END POST ASSEMBLY

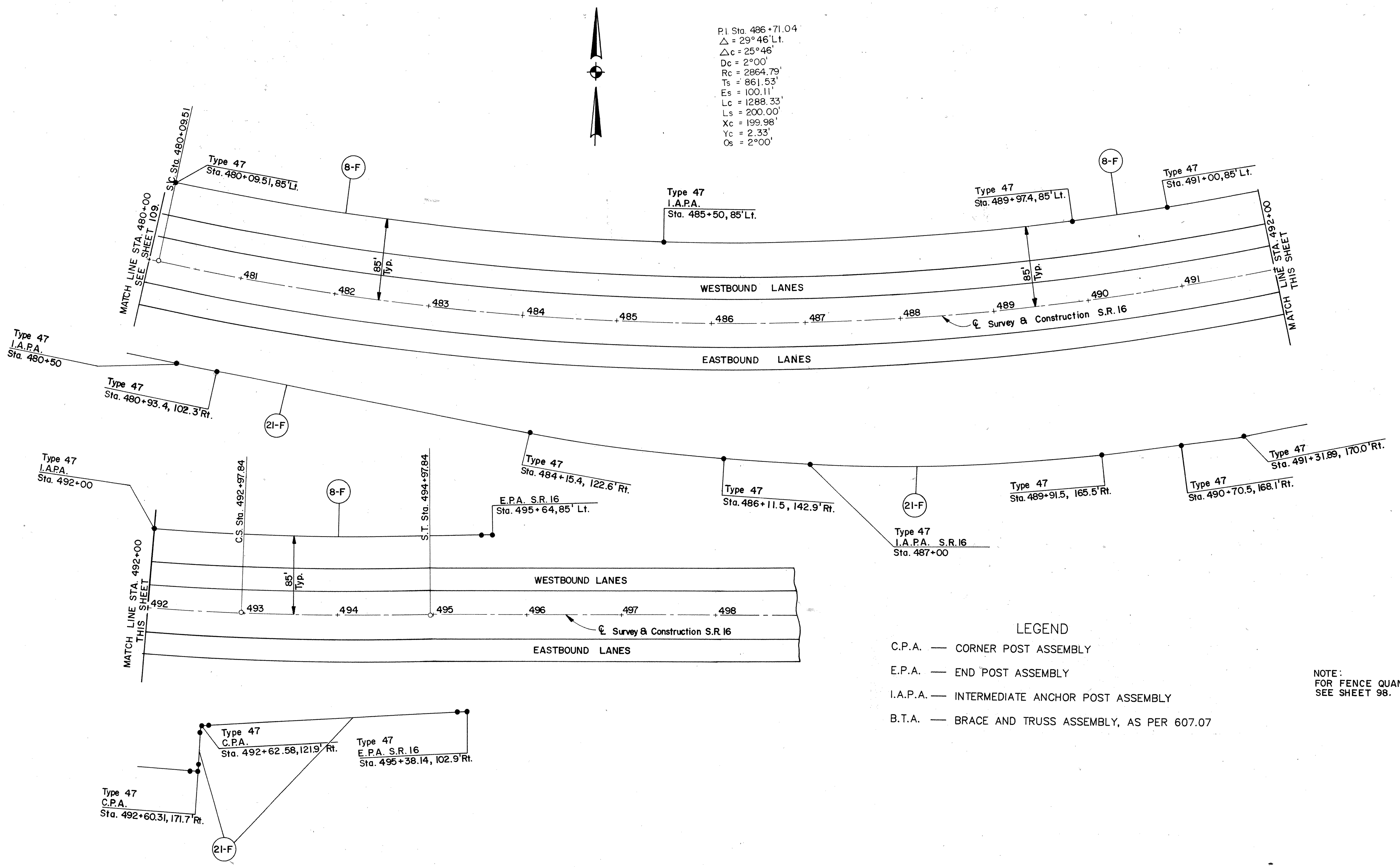
I.A.P.A. — INTERMEDIATE ANCHOR POST ASSEMBLY

B.T.A. — BRACE AND TRUSS ASSEMBLY, AS PER 607.07

NOTE:
FOR FENCE QUANTITIES
SEE SHEET 98.


Type C.L.T.
Sta. 456+00, 83' Lt.
8-F
Type C.L.T.
I.A.P.A.
Sta. 458+00
Type C.L.T.
Sta. 459+00, 83' Lt.
Type C.L.T.
I.A.P.A.
Sta. 464+50
Type C.L.T.
Sta. 462+36, 83' Lt.
Type C.L.T.
Sta. 463+65, 85' Lt.
Type C.L.T.
Sta. 465+00, 96' Lt.
End Type C.L.T.
Begin Type 47
Sta. 466+00, 99' Lt.
MATCH LINE STA. 456+00 SEE SHEET 108
WESTBOUND LANES
456 457 458 459 460 461 462 463 464 465 466 467
℄ Survey & Construction S.R. 16
EASTBOUND LANES
MATCH LINE STA. 468+00 THIS SHEET
Proposed Type B Fence Terminals.
NOTE:
FOR FENCE QUANTITIES
SEE SHEET 98.
Type 47
Sta. 457+28.5, 108' Rt.
20-F
Type 47
C.P.A. S.R. 16
Sta. 460+89, 129' Rt.
Type 47
C.P.A. S.R. 16
Sta. 461+36.3, 176.9' Rt.
21-F
Type 47
Sta. 463+66.6, 166.3' Rt.
Type 47
I.A.P.A.
Sta. 467+50
LEGEND
C.P.A. — CORNER POST ASSEMBLY
E.P.A. — END POST ASSEMBLY
I.A.P.A. — INTERMEDIATE ANCHOR POST ASSEMBLY
B.T.A. — BRACE AND TRUSS ASSEMBLY, AS PER 607.07
Type 47
Sta. 469+77.3, 98' Lt.
Type 47
I.A.P.A. S.R. 16
Sta. 472+50, 98' Lt.
Type 47
Sta. 477+50, 98' Lt.
T.S. Sta. 478+09.51
Type 47
I.A.P.A.
Sta. 479+00
Type 47
Sta. 479+25, 88' Lt.
Type 47
Sta. 479+50, 86' Lt.
MATCH LINE STA. 468+00 THIS SHEET
WESTBOUND LANES
468 469 470 471 472 473 474 475 476 477 478 479
℄ Survey & Construction S.R. 16
EASTBOUND LANES
MATCH LINE STA. 480+00 SEE SHEET 110
Type 47
I.A.P.A. S.R. 16
Sta. 474+00, 124' Rt.
Type 47
Sta. 476+53.7, 114' Rt.
Type 47
Sta. 478+37.4, 106.5' Rt.

CALC. BY J.C. DATE 4-11-91 / CHKD. BY T.D. DATE 5-23-91	LIC-16-23.27	OHIO / FHWA REGION 5	110 / 134



LEGEND

C.P.A. — CORNER POST ASSEMBLY

E.P.A. — END POST ASSEMBLY

I.A.P.A. — INTERMEDIATE ANCHOR POST ASSEMBLY

B.T.A. — BRACE AND TRUSS ASSEMBLY, AS PER 607.07

NOTE:
FOR FENCE QUANTITIES SEE SHEET 98.

DRAINAGE SUB-SUMMARY

C-S-F: CITY-STATE-FEDERAL
S-F: STATE-FEDERAL

*** FOR AS PER PLAN SEE SHEET NO.125.

* 707.17 NON-PERFORATED ASTM 3034, SDR 35 OR S.S. 931

** FOR DETAILS SEE SHEET No.125.

REF. NO.	STATIONING	LOCATION	605 4" SHALLOW PIPE UNDER-DRAIN LIN.FT. C-S-F	S-F	605 4" UNCLASSIFIED PIPE UNDER-DRAIN LIN.FT. C-S-F	S-F	605 4" SHALLOW PIPE UNDERDRAIN 707.17 ASTM 3034 SDR 35 OR S.S.931 PERFORATED AS PER 707.15 LIN.FT. C-S-F	S-F	202 PAVEMENT EDGE DRAIN REMOVED LIN.FT. C-S-F	S-F	604 CATCH BASIN EACH No.8 AS PER PLAN *** C-S-F	S-F	604 CATCH BASIN EACH 2-2B C-S-F	S-F	604 CATCH BASIN EACH No.3-A AS PER PLAN C-S-F	S-F	604 No. 3 MANHOLE USING FLAT SLAB TOP EACH C-S-F	S-F	603 CONDUIT TYPE B LIN.FT. 4" * C-S-F	S-F	603 CONDUIT TYPE B LIN.FT. 12" C-S-F	S-F	603 CONDUIT TYPE B LIN.FT. 15" 706.02 C-S-F	S-F	603 CONDUIT TYPE B LIN.FT. 4" * AS PER PLAN C-S-F	S-F
SHEET No.114 EASTBOUND																										
1-UD	239+65 – 245+10	MEDIAN	545																							
2-UD	245+28 – 252+00	MEDIAN	622		50																					
3-UD	239+65 – 252+00	OUTSIDE	1235																							
4-UD	252+00 – 260+98.5	MEDIAN	883								1															
5-UD	261+50 – 263+86	MEDIAN	237																							
6-UD	252+00 – 260+90	OUTSIDE	890																							
7-UD	261+53.9 – 264+00	OUTSIDE	246																							
1-SS	259+15 – 260+98.5	MEDIAN									2										184		9			
2-SS	262+00 – 263+86	MEDIAN									1				1						186					
3-SS	263+86 – 263+98.3	MEDIAN															1				27					
4-SS	263+98.3	OUTSIDE RT.																					12			
1-R	263+98.3	MEDIAN																								
SHEET No.115 WESTBOUND																										
8-UD	265+51.7 – 286+30	OUTSIDE			279																					
9-UD	268+36 –	Lt & Rt																	11						28	
10-UD	265+45 – 270+20	MEDIAN			473																					
2-R	265+75 – 268+30	OUTSIDE LT.							255																	
EASTBOUND																										
11-UD	265+84 – 276+00	MEDIAN	1016								1															
12-UDA	264+00 8+84 DAYTON RD.LT.	OUTSIDE	19		45																					
12-UD	265+10 – 8+84 DAYTON RD.RT.	OUTSIDE	1090		91																					
13-UD	276+00 – 279+00	MEDIAN	290								1															
14-UD	279+00 – 288+00	MEDIAN	890																							
15-UD	276+00 – 278+90	OUTSIDE	290																							
16-UD	279+10 – 288+00	OUTSIDE	890																							
SHEET No.116 EASTBOUND																										
17-UD	288+00 290+11	MEDIAN	211																							
18-UD	290+11	Lt. to Rt.																	25							
19-UD	288+00 – 295+95	OUTSIDE	795																							
20-UD	296+25 – 300+00	OUTSIDE	375																							
21-UD	306+50 – 312+00	MEDIAN	252	298								2														
22-UD	300+00 – 312+00	OUTSIDE	902	298																						
4-SS	296+50										1															
5-SS	301+00										1															
SHEET No.117 EASTBOUND																										
23-UD	312+00 – 324+00	MEDIAN		1201																						
24-UD	312+00 – 324+00	OUTSIDE		1201																						
25-UD	324+00 – 326+20	MEDIAN		101		120																				
26-UD	328+20 – 336+00	MEDIAN		580		200						1												4		
27-UD	324+00 – 326+00.8	OUTSIDE		201																						
28-UD	327+35 – 336+00	OUTSIDE		865																						
6-SS	323+00	MEDIAN										1														
7-SS	325+00	MEDIAN										1														
3-R	325+00	MEDIAN																								
SHEET No.117 WESTBOUND																										
29-UD	327+99.2 – 330+34	OUTSIDE		235																						
30-UD	327+80 – 332+50	MEDIAN		234		221																				
4-R	328+00 – 330+76	OUTSIDE								276																
5-R	332+50	MEDIAN																								
CITY-STATE-FEDERAL		TOTAL	11678		938				255		8				1		1		36		397		21		28	
STATE-FEDERAL		TOTAL		5214		541				276		5												4		

REF. NO.	603 CONDUIT TYPE F 707.17 NON-PERFORATED ASTM 3034 SDR 35 or SS931 LIN. FT. 4" C-S-F	S-F	603 CONDUIT TYPE F 6" C-S-F	S-F	602 CONCRETE MASONRY CU. YD. C-S-F	S-F	SPECIAL PRECAST REINFORCED CONCRETE OUTLET ** EACH C-S-F	S-F	202 PIPE REMOVED 24" AND UNDER LIN. FT. C-S-F	S-F	202 CATCH BASIN REMOVED EACH C-S-F	S-F	BENDS AND BRANCHES EACH 4" x 90° C-S-F	S-F	4" X 45° C-S-F	S-F	4" X 4" TEE C-S-F	S-F	6" X 4" TEE C-S-F	S-F	4" X 4" WYE C-S-F	S-F	4" X 4" CROSS C-S-F	S-F
1-UD	4												1						1					
2-UD																								
3-UD	89						2										2							
4-UD	57														1						1			
5-UD	5														1									
6-UD	92						2						1				1							
7-UD																								
1-SS											1													
2-SS																								
3-SS			18												1									
4-SS					0.25																			
1-R									18		1													
8-UD													1											
9-UD																								
10-UD	17						1						1				1							
2-R																								
11-UD	35																				1			
12-UDA	18						1										1							
12-UD	67						3																	
13-UD	35																				1			
14-UD	35																				1			
15-UD	36						1						1											
16-UD	36						1						1											
17-UD													1											
18-UD																								
19-UD	85						2						1										1	
20-UD																								
21-UD		70																				2		
22-UD	21	22					1	1									1	1						
4-SS																								
5-SS																								
23-UD		35																				1		
24-UD		22						1										1						
25-UD		12																1						
26-UD		17																1						
27-UD		20												1										
28-UD		80						3						1										
6-SS																								
7-SS																								
3-R										5		1												
29-UD		23												1										
30-UD		17														1								
4-R																								
5-R												1												
CITY-STATE-FEDERAL TOTAL	632		18		0.25		14		18		2		9		3		7	1	1		3	2	1	
STATE-FEDERAL TOTAL		318						5		5		2		3		1		5				1		

(TOTALS CARRIED TO GENERAL SUMMARY)

FOR INFORMATION ONLY

DRAINAGE SUB-SUMMARY

DRAINLIC 05\09\91

DRAINAGE SUB-SUMMARY

C-S-F: CITY-STATE-FEDERAL
S-F: STATE-FEDERAL

*** FOR AS PER PLAN SEE SHEET NO.125.

* 707.17 NON-PERFORATED ASTM 3034, SDR 35 OR S.S. 931

* * FOR DETAILS SEE SHEET No.125.

REF. NO.	STATIONING		LOCATION	605 4" SHALLOW PIPE UNDER-DRAIN LIN.FT. C-S-F	S-F	605 4" UNCLASSIFIED PIPE UNDER-DRAIN LIN.FT. C-S-F	S-F	605 4" SHALLOW PIPE UNDERDRAIN 707.17 ASTM 3034 SDR 35 OR S.S.931 PERFORATED AS PER 707.15 LIN.FT. C-S-F	S-F	202 PAVEMENT EDGE DRAIN REMOVED LIN.FT. C-S-F	S-F	604 CATCH BASIN EACH No.8 *** AS PER PLAN C-S-F	S-F	2-2B C-S-F	S-F	No.3-A AS PER PLAN C-S-F	S-F		603 CONDUIT TYPE B LIN.FT. 4" * C-S-F	S-F	12" C-S-F	S-F	15" 706.02 C-S-F	S-F	C-S-F	S-F	603 60" CONDUIT TYPE A 706.02 LIN. FT. S-F	603 CONDUIT TYPE F 707.17 NON-PERFORATED ASTM 3034 SDR 35 or SS931 LIN. FT. 4" C-S-F	S-F	6" C-S-F	S-F	602 CONCRETE MASONRY CU. YD. C-S-F	S-F	SPECIAL PRECAST REINFORCED CONCRETE OUTLET * * EACH C-S-F	S-F			BENDS AND BRANCHES EACH 4" x 90° C-S-F	S-F	4" X 45° C-S-F	S-F	4" X 4" TEE C-S-F	S-F	6" X 4" TEE C-S-F	S-F	4" X 4" WYE C-S-F	S-F	4" X 4" CROSS C-S-F	S-F
SHEET No.117 EASTBOUND CONT.																																																	
8-SS	327+98		OUTSIDE																								12						1.9																
SHEET No.118 EASTBOUND																																																	
31-UD	336+00 -	348+00	MEDIAN		1200																																						1						
32-UD	346+91		Lt. to Rt.																	25																													
33-UD	336+00 -	348+00	OUTSIDE		1200																								36						2								1						1
34-UD	348+00 -	360+00	MEDIAN		1200																																						2						
35-UD	352+87		Lt. to Rt.																	25																													
36-UD	357+00		Lt. to Rt.																	25																													
37-UD	348+00 -	360+00	OUTSIDE		1200																								54						3								1						2
SHEET No.119 EASTBOUND																																																	
38-UD	360+00 -	372+00	MEDIAN		1200								1																34		18																2		
39-UD	360+00 -	372+00	OUTSIDE		1200																								78						4								4						
40-UD	372+00 -	378+80	MEDIAN		655										1														35												1								
41-UD	380+15 -	384+00	MEDIAN		385								1																70																		2		
42-UD	372+00 -	378+60	OUTSIDE		660																								28						1				1										1
43-UD	380+10 -	384+00	OUTSIDE		390																								48						2								2						1
9-SS	377+20		MEDIAN										1																																				
10-SS	380+50		MEDIAN												1																																		
1-PRS	378+		Lt. to Rt.						35																																								
2-PRS	380+		Lt. to Rt.						35																																								
SHEET No.120 EASTBOUND																																																	
44-UD	384+00 -	389+90	MEDIAN		590																																												
45-UD	390+00 -	396+00	MEDIAN		575								1																35												1								
46-UD	384+00 -	389+90	OUTSIDE		590																																												
47-UD	390+10 -	396+00	OUTSIDE		590																								28										1										
48-UD	396+00 -	408+00	MEDIAN		1200																																						1						
49-UD	405+80		Lt. to Rt.																	25																													
50-UD	396+00 -	408+00	OUTSIDE		1200																								51						2								1						
SHEET No.121 EASTBOUND																																																	
51-UD	408+00 -	408+85	MEDIAN		85																																		1										
52-UD	409+10 -	420+00	MEDIAN		1090								1																25										1										
53-UD	408+85		Lt. to Rt.																	25																													
54-UD	408+00 -	408+85	OUTSIDE		85																								23						1								1						
55-UD	409+35 -	420+00	OUTSIDE		1065																								23						1				1										
56-UD	420+00	426+50	MEDIAN		625								1																35												1		1						
57-UD	420+79		Lt. to Rt.																	25																													
58-UD	420+00 -	426+40	OUTSIDE		640																								47						2				1				1						
59-UD	426+60 -	432+00	OUTSIDE		540																								24						1				1										
SHEET No.122 EASTBOUND																																																	
60-UD	432+00 -	439+05	OUTSIDE		501		205																						20						1								1						
61-UD	440+40 -	444+00	OUTSIDE		360																								44						2								2						
62-UD	444+00	456+00	OUTSIDE		1050		150													9																													
WESTBOUND																																																	
63-UD	439+50 -	442+00	OUTSIDE		290																								34														1						
64-UD	439+80 -	444+00	MEDIAN		385																								4														1						
65-UD	444+00 -	444+54	MEDIAN		54																																												
STATE-FEDERAL			TOTALS		20805		355		70				6		2					159							12		776		18		1.9		22				7		3		21				4		5

(TOTALS CARRIED TO GENERAL SUMMARY)

FOR INFORMATION ONLY

DRAINAGE SUB-SUMMARY

DRAIN.12 05\20\91

DRAINAGE SUB-SUMMARY

C-S-F: CITY-STATE-FEDERAL
S-F: STATE-FEDERAL

*** FOR AS PER PLAN SEE SHEET NO.125.

* 707.17 NON-PERFORATED ASTM 3034, SDR 35 OR S.S.931.

** FOR DETAILS SEE SHEET NO.125.

REF. NO.	STATIONING		LOCATION	605 4" SHALLOW PIPE UNDERDRAIN LIN.FT.		605 4" UNCLASSIFIED PIPE UNDERDRAIN LIN.FT.		605 4" SHALLOW PIPE UNDERDRAIN 707.17 ASTM 3034 SDR 35 OR S.S.931 PERFORATED AS PER 707.15 LIN.FT.		202 PIPE REMOVED 24" & UNDER LIN.FT.		604 CATCH BASIN AS PER PLAN *** EACH No. 5		No.8		No. 3-A		603 12" CONDUIT TYPE C LIN. FT.		603 CONDUIT TYPE B LIN.FT. 4" *		12"				24" 706.02				603 CONDUIT TYPE F 707.17 NON-PERFORATED ASTM 3034 SDR 35 or SS931 LIN. FT. 4"		6"				SPECIAL PRECAST REINFORCED CONCRETE OUTLET ** EACH		202 PAVEMENT EDGE REMOVED LIN. FT.		202 CATCH BASIN REMOVED EACH		BENDS AND BRANCHES EACH 4" x 90°		4" X 45°		4" X 4" TEE		6" X 4" TEE		4" X 4" WYE		4" X 4" CROSS	
				C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F			C-S-F	S-F	C-S-F	S-F			C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F
66-UD	437+00 -		MEDIAN W.B.																														10																				
67-UD	437+00 -		MEDIAN E.B.																														7																				
11-SS	437+00 -	438+28	MEDIAN												1		1						128																												
12-SS	440+65	442+00	MEDIAN														1						135																												
13-SS	442+00		MEDIAN RT.												1												10														1												
14-SS	442+00	444+00	MEDIAN																135																																
15-SS	442+00		OUTSIDE LT.										1														12														1												
16-SS	444+00	445+00	MEDIAN												1				135																																
6-R	437+00 -	438+50	MEDIAN								150																														2												
7-R	439+50	442+00	OUTSIDE LT.																																				250														
	SHEET No.123 EASTBOUND																																																				
68-UD	456+25 -	468+00	MEDIAN		1175										2																50																						
69-UD	456+00 -	468+00	OUTSIDE		800		400																								79						3										2						
70-UD	468+00 -	478+09.5	MEDIAN		984										1																35														1		3						
71-UD	478+09.5	480+00	MEDIAN		174																												20												1								
72-UD	468+97 -		LT. TO RT.																		25																																
73-UD	468+00 -	480+00	OUTSIDE		1200																										44						2										1						1
	SHEET No.124 EASTBOUND																																																			
74-UD	480+00	492+00	MEDIAN		1174		26								1																66																				2		
75-UD	480+00	492+00	OUTSIDE		1150		50																								24						1										1						
76-UD	492+00	493+20	MEDIAN				120																																														
77-UD	492+00	493+20	OUTSIDE				120																								28						1						1										
STATE-FEDERAL			TOTALS		6657		716				150		1		7		2		270		25		263				22				326		37				7		250		4		1		2		7				2		1

(TOTALS CARRIED TO GENERAL SUMMARY)

FOR INFORMATION ONLY

DRAINAGE SUB-SUMMARY

DRAINLIC 03/21/91 RJG

CALC. BY DATE
CHKD. BY T.D. DATE

LIC - 16 - 23.27

OHIO
FHWA REGION 5

114
134

NOTE: For Details of 1-SS, See Sheets 34 & 35. For Details of 2-SS, 3-SS and 4-SS See Sheets 35 & 36.

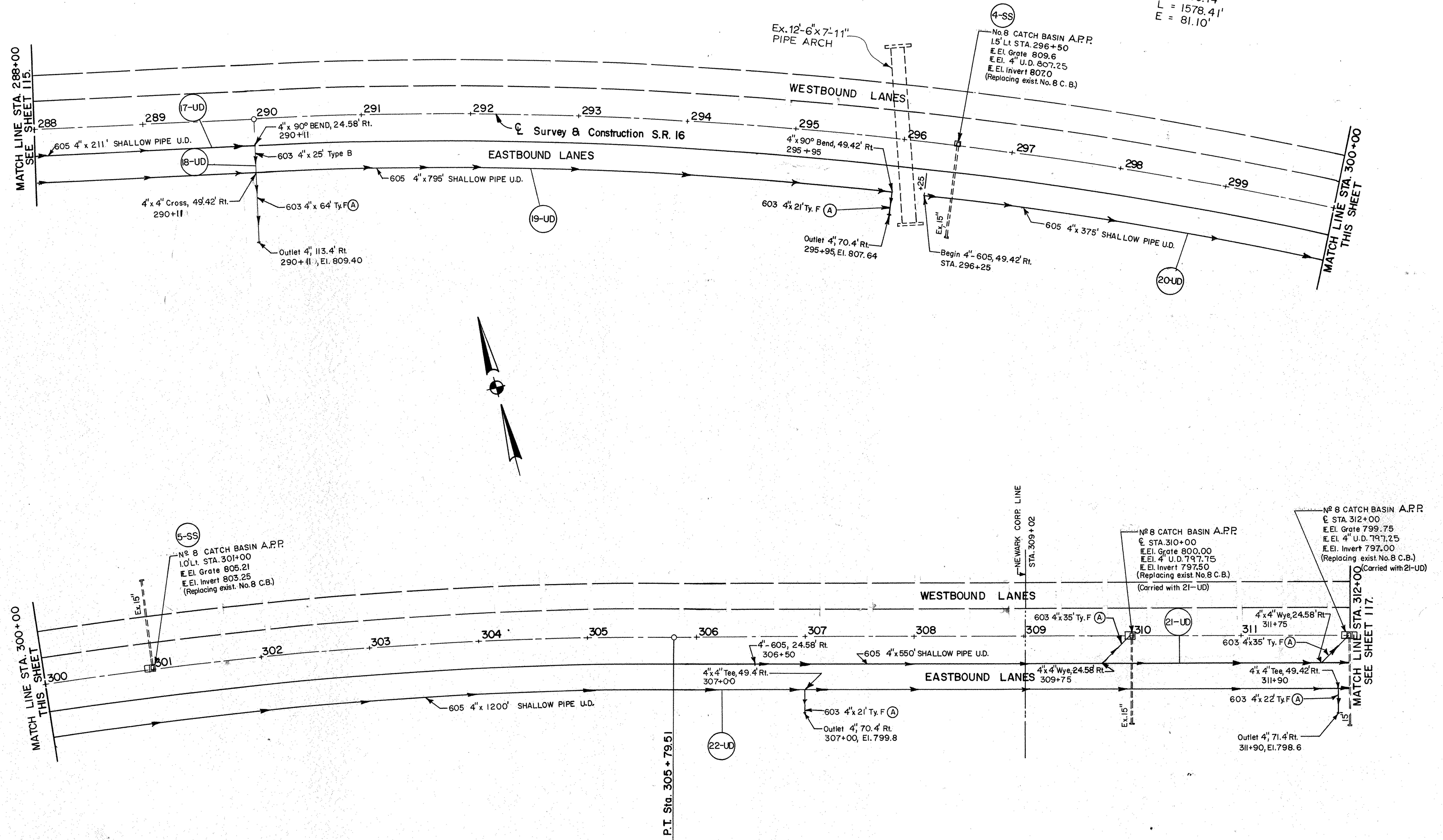
Ⓘ NOTE: Connect Existing 6" Pipe Underdrain into Proposed Manhole. Quantities provided below.
603 6"x 16' CONDUIT TYPE F Ⓐ
6"x 45° Bend
CARRIED WITH 3-SS

STA. 239 + 00 — STA. 264 + 00

CALC. BY	DATE	CHKD. BY	DATE				
[illegible]	[illegible]	T.D.	5-23-91	LIC - 16 - 23.27	OHIO	FHWA REGION 5	115 / 134

STA. 264+00 — STA. 288+00

(A) 707.17 Non-Perforated ASTM 3034 SDR 35 or Supplemental Spec. 931.

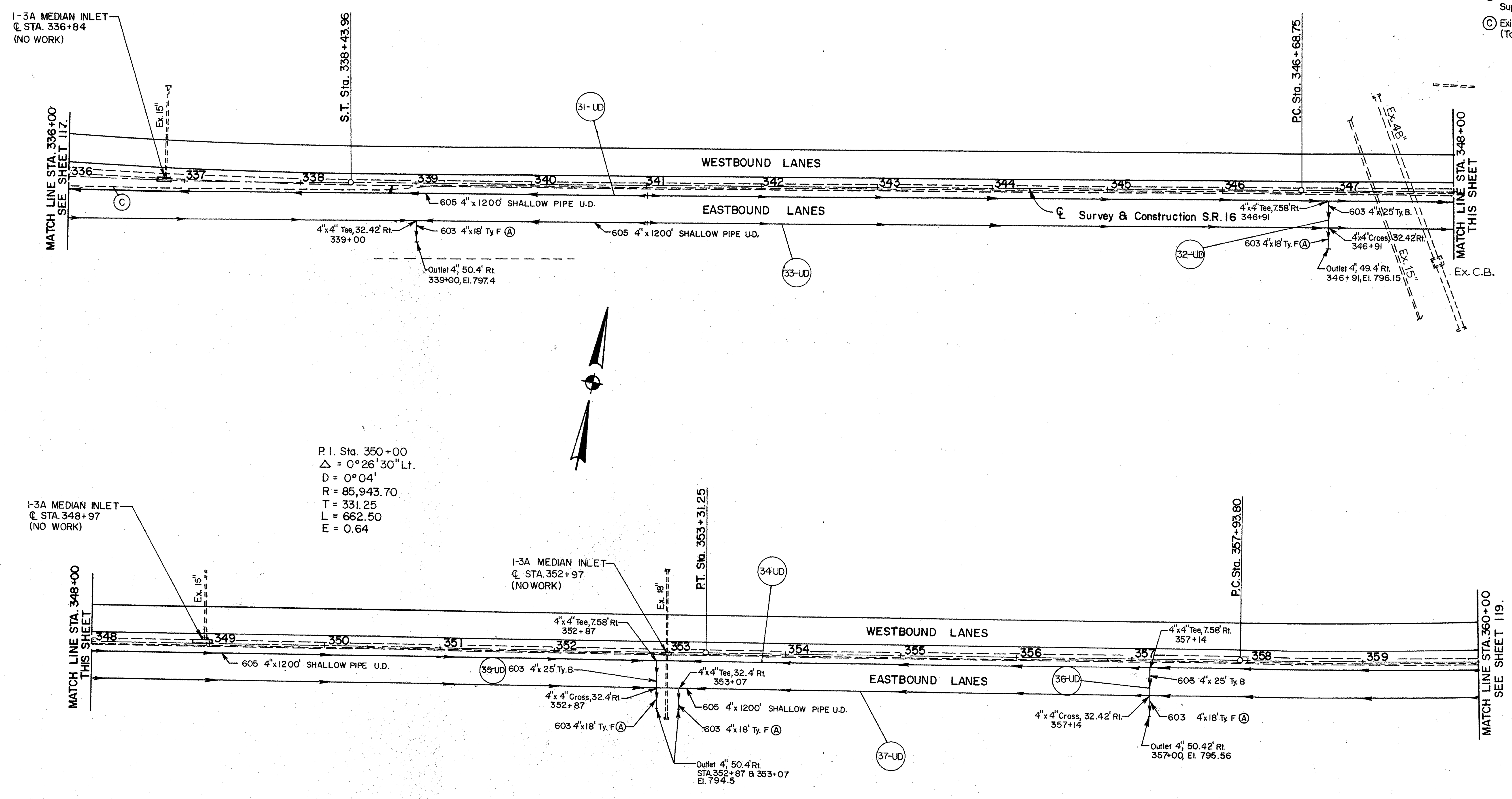


Ⓐ 707.17 Non-Perforated ASTM 3034 SDR 35 or Supplemental Spec. 931.
Ⓒ Existing 6" Pipe Underdrain (To Remain in Service)

4-R 202 PAVEMENT EDGE DRAIN REMOVED STA. 328+00 TO STA. 330+76 = 276 LIN. FT.

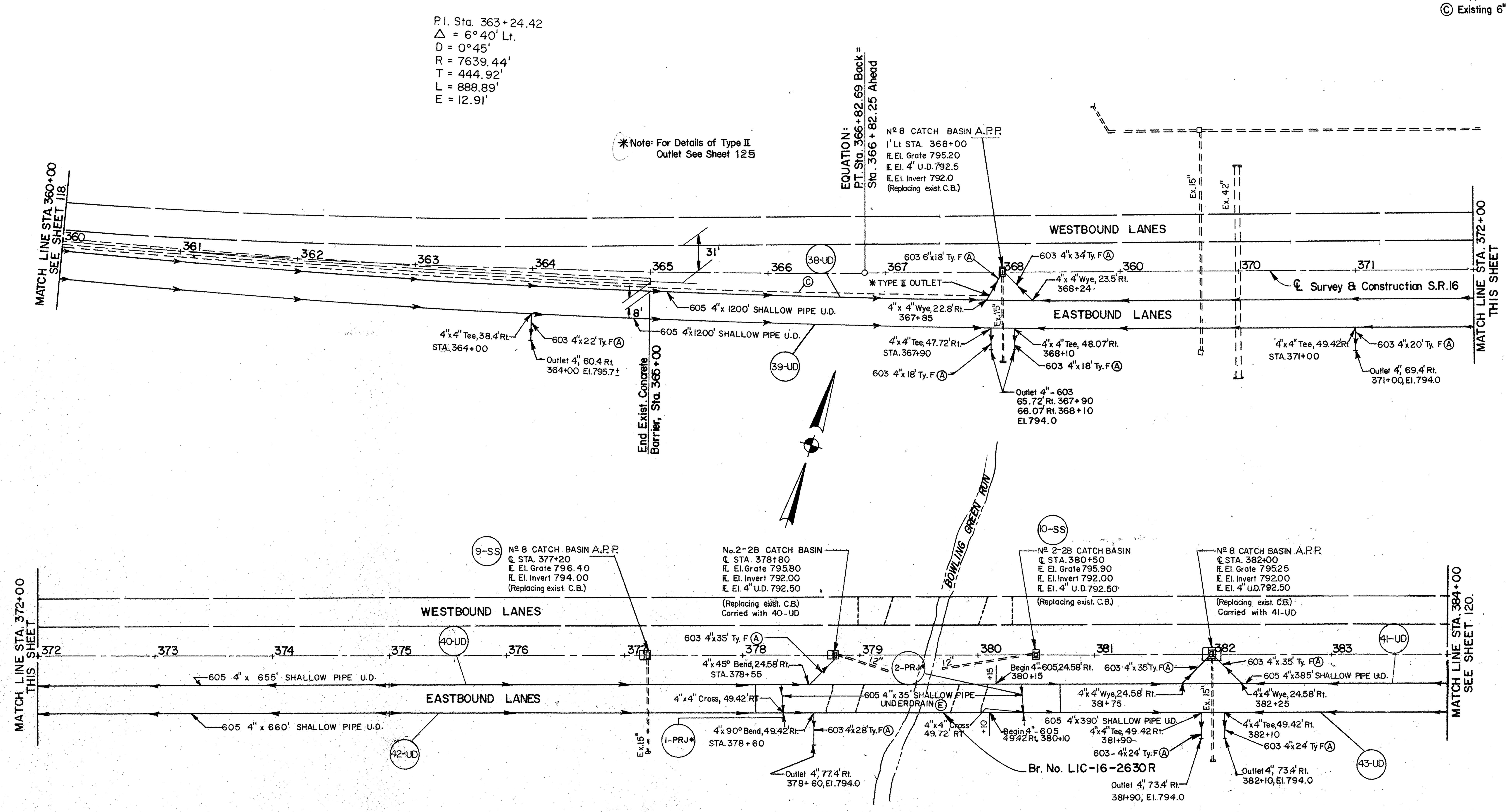
Ⓐ 707.17 Non-Perforated ASTM 3034 SDR 35 or Supplemental Spec. 931

Ⓒ Existing 6" Pipe Underdrain (To Remain in Service)



CALC. BY / DATE	LIC - 16 - 23 . 27	OHIO	119 / 134
CHKD. BY TD / DATE 5-23-91		FHWA REGION 5	

Ⓐ 707.17 Non-Perforated ASTM 3034 SDR 35 or Supplemental Spec. 931
Ⓒ Existing 6" pipe Underdrain (To Remain in Service)

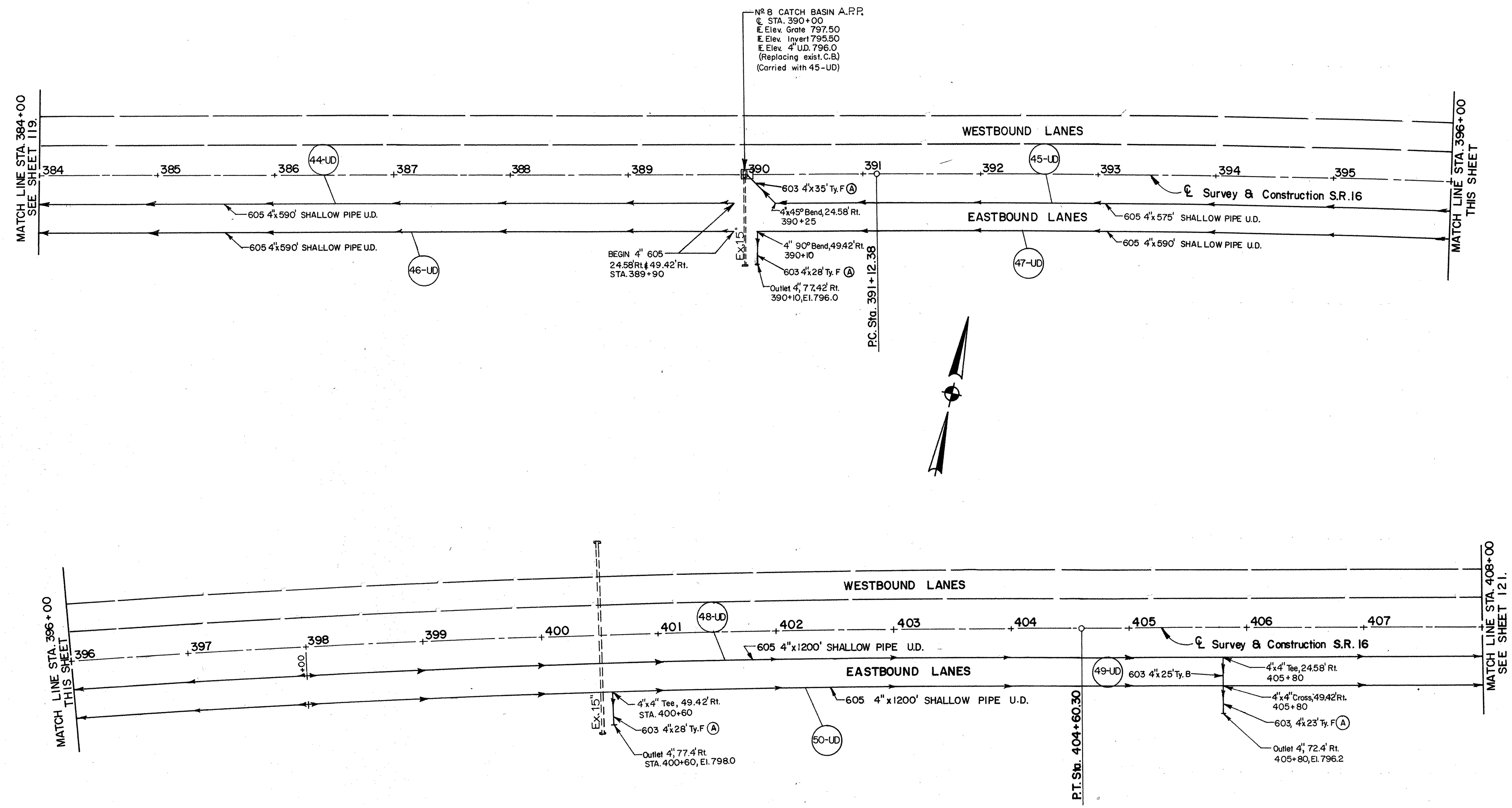


✱ NOTE: Outlet Pressure Relief Joint Conduit into proposed 4" Underdrain by use of the 4"x4" Cross

Ⓔ NOTE: 707.17 ASTM 3034 SDR 35 or Supplemental Spec. 931, perforated as per 707.15

CALC. BY / DATE	LIC-16-23.27	OHIO	120 / 134
CHKD. BY T.D. / DATE		FHWA REGION 5	

Ⓐ 707.17 Non Perforated ASTM 3034 SDR 35 or Supplemental Spec. 931



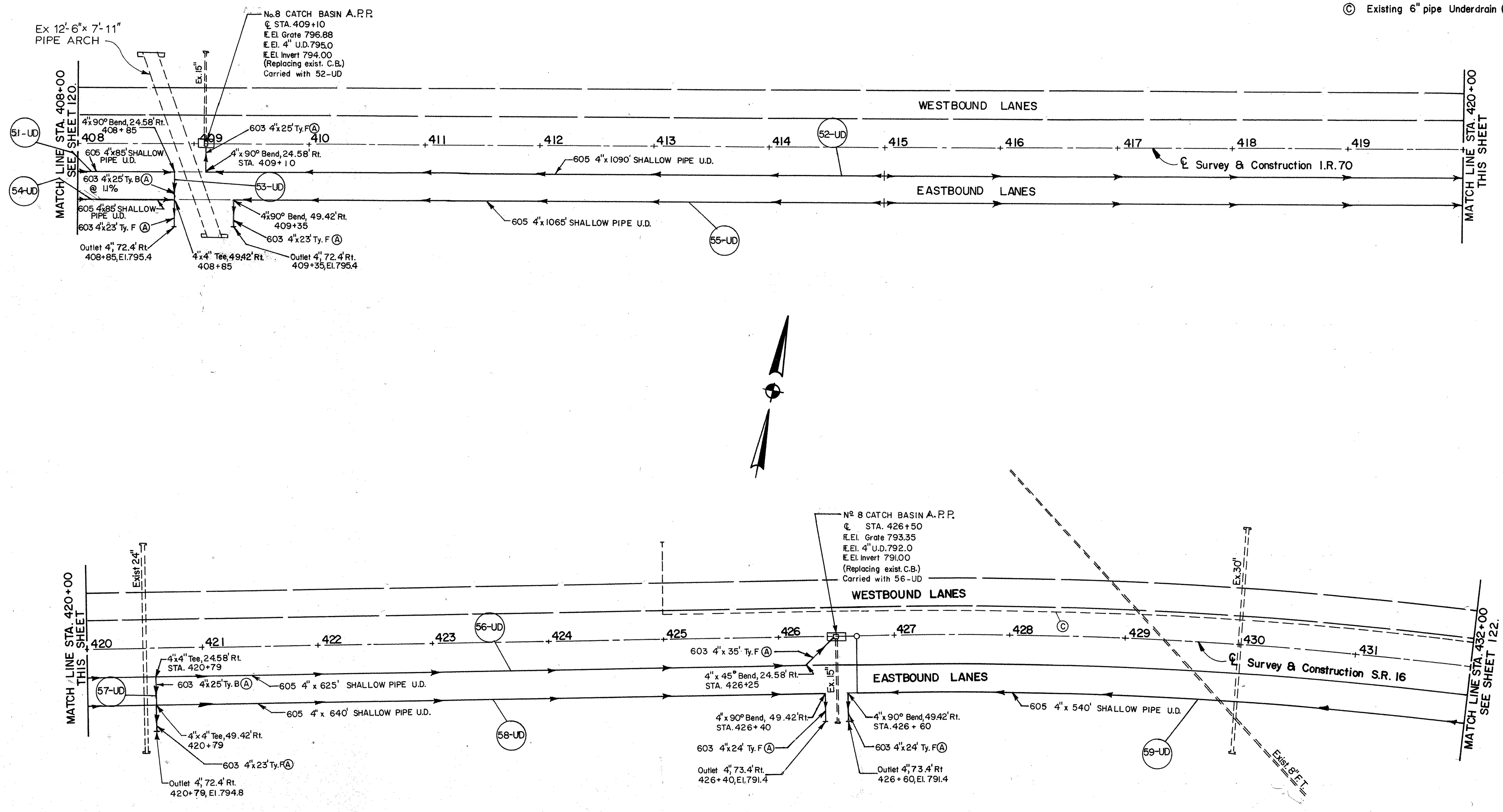
P.I. Sta. 397+86.90
Δ = 5° 23' 30" Rt.
D = 0°24'
R = 14,324.00'
T = 674.52'
L = 1347.92'
E = 15.90'

STA. 384+00 — STA. 408+00

CALC. BY [illegible] DATE [illegible] CHKD. BY T.D. DATE 5-23-91	LIC-16-23.27	OHIO FHWA REGION 5	121 / 134

Ⓐ 707.17 Non Perforated ASTM 3034 SDR 35 or Supplemental Spec. 931

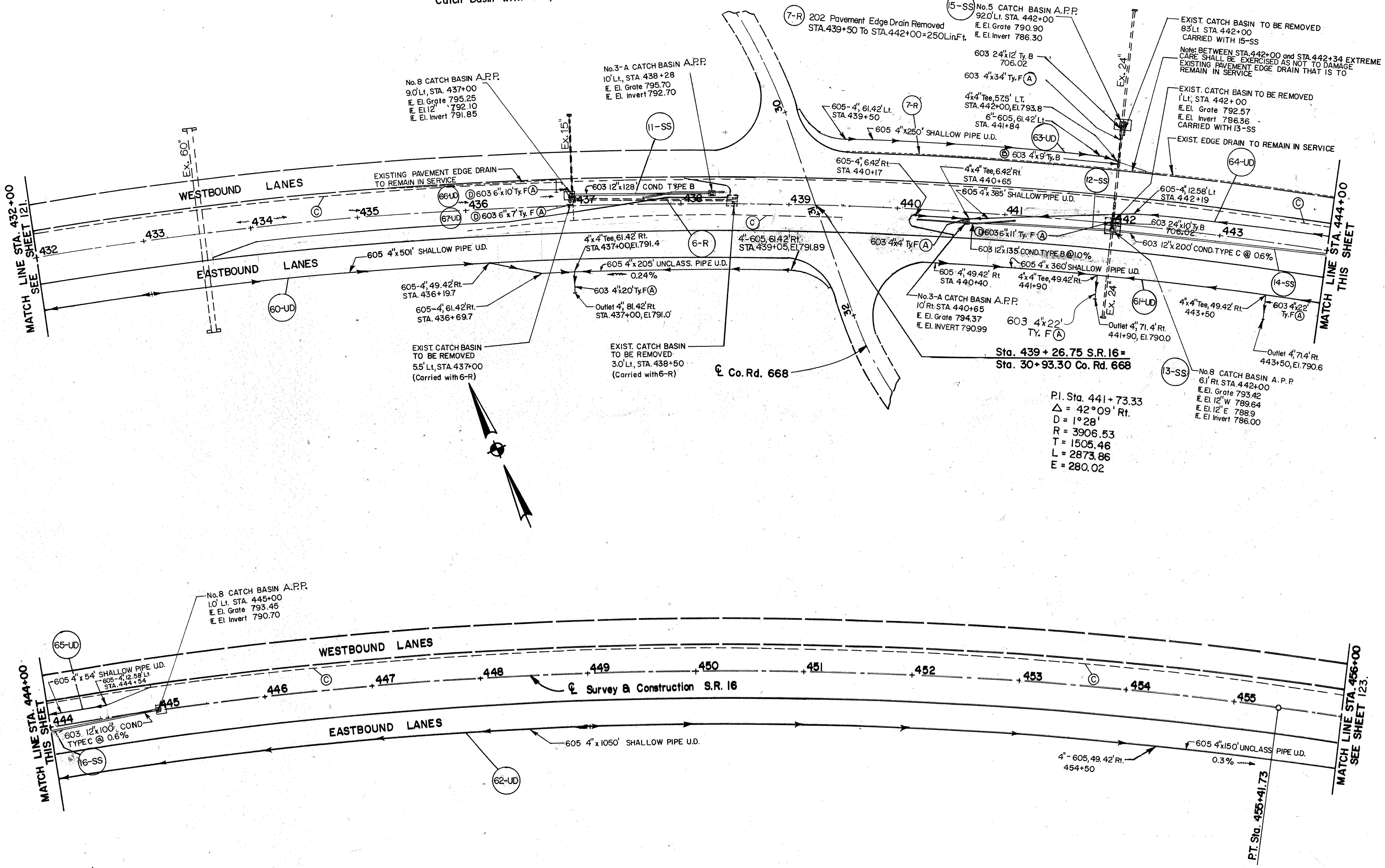
Ⓒ Existing 6" pipe Underdrain (To Remain In Service)



Note: For Details of 11-SS See Sheets 61 & 62.
For Details of 12-SS, 13-SS, 14-SS and 15-SS See Sheets 66 & 67.

(D) NOTE: Reconnect existing 6" Underdrain into proposed Catch Basin with Proposed Quantities.

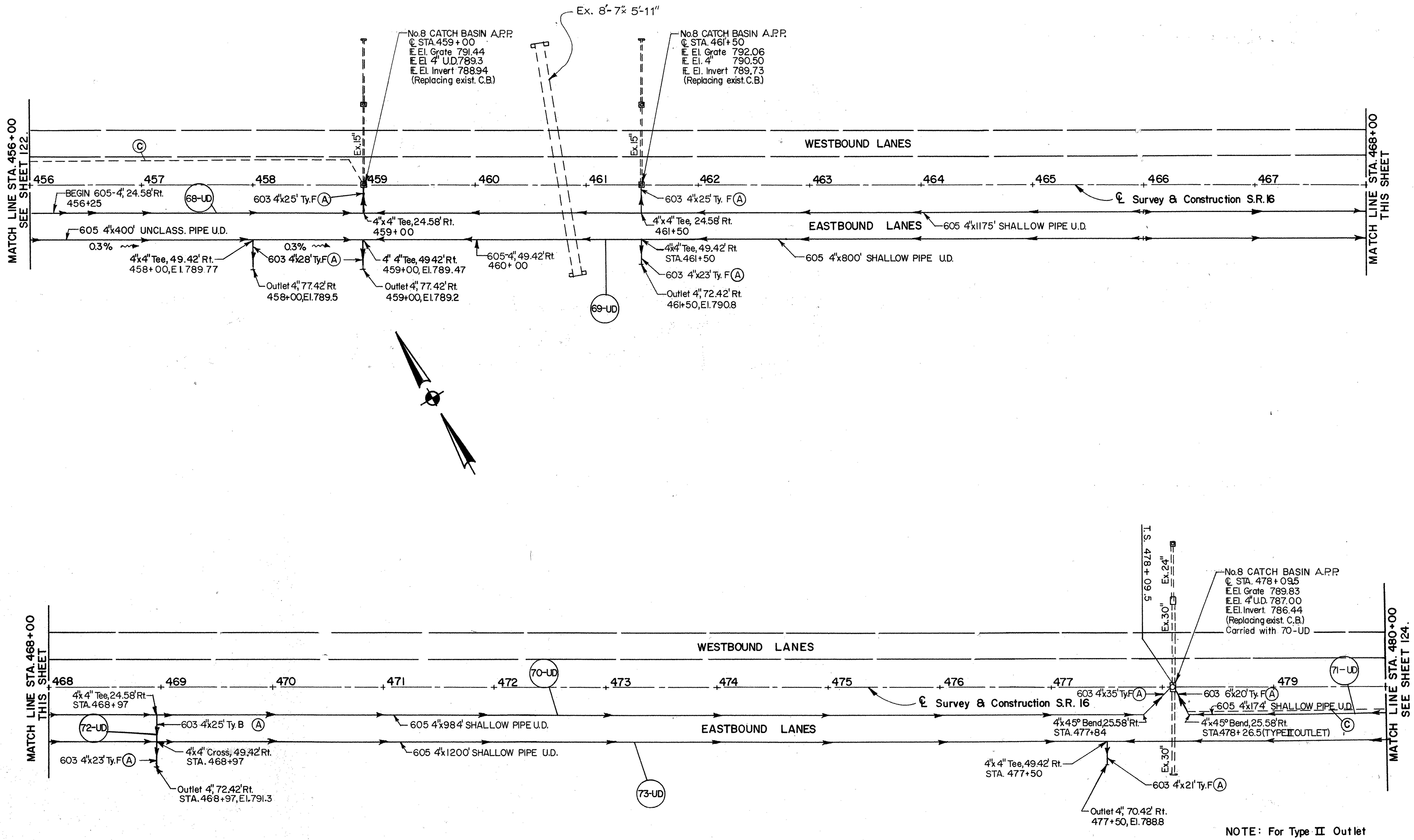
(A) 707.17 Non Perforated ASTM 3034 SDR 35 or Supplemental Spec. 931
(C) Existing 6" Pipe Underdrain (To Remain in Service)
(6) 202 Pipe Removed 24"Ø Under STA. 437+00 to STA. 438+50 = 150 Lin. Ft.
(B) Connect To Existing Underdrain



(A) 707.17 Non Perforated ASTM 3034 SDR 35 or Supplemental Spec. 931

(B) Connect Exist. 6" Underdrain

(C) Existing 6" Pipe Underdrain (To Remain in Service)

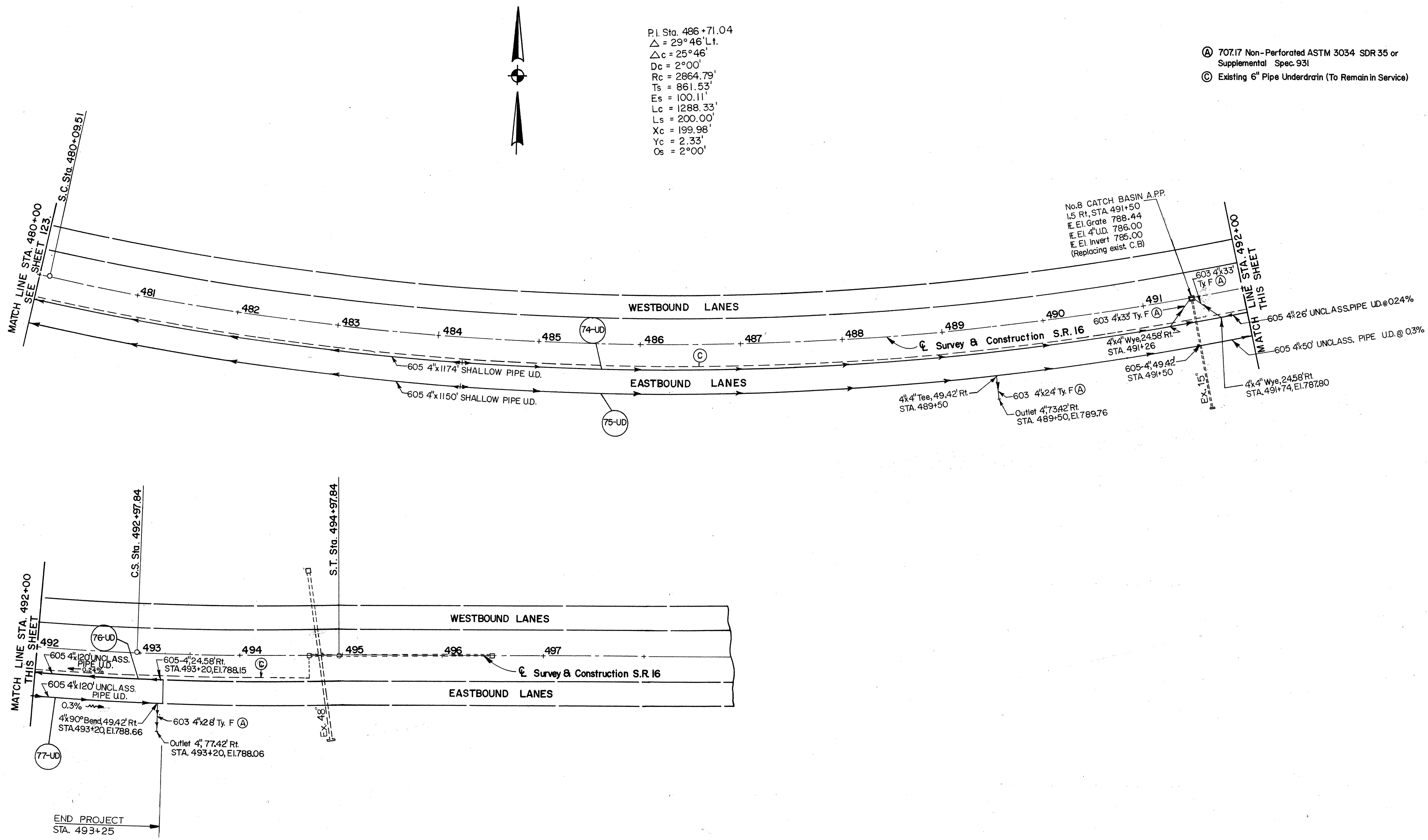


NOTE: For Type II Outlet See Sheet 126.

CALC. BY R.D.L. DATE 4/2/91 CHKD. BY T.D. DATE 5-23-91	LIC - 16 - 23.27	OHIO FHWA REGION 5	124 / 134

(A) 707.17 Non-Perforated ASTM 3034 SDR 35 or Supplemental Spec. 931

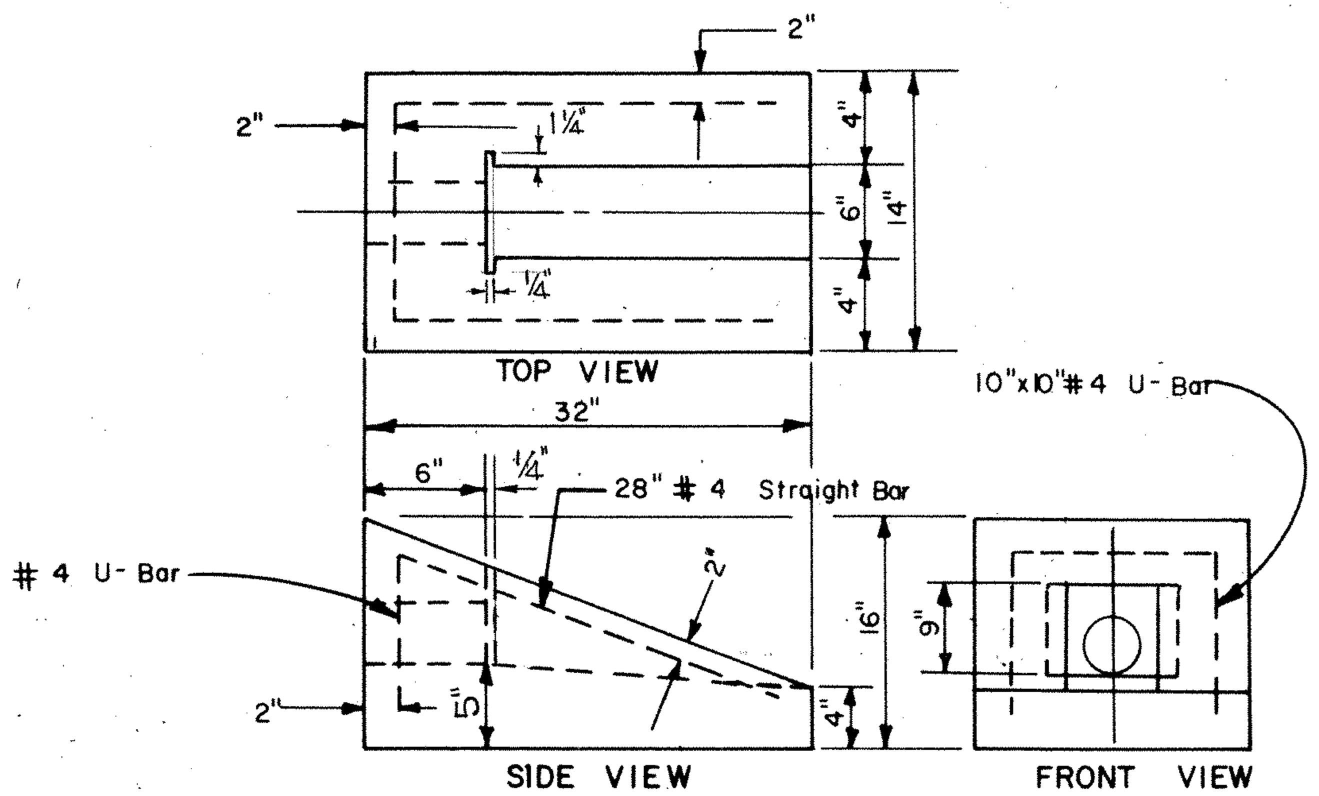
(C) Existing 6" Pipe Underdrain (To Remain in Service)

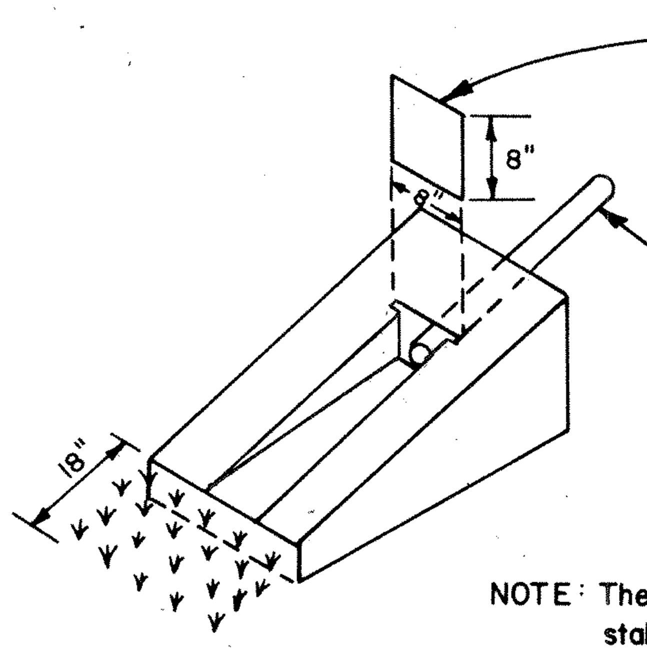


STA. 480+00 — STA. 498+00

ITEM SPECIAL - PRECAST REINFORCED CONCRETE OUTLET

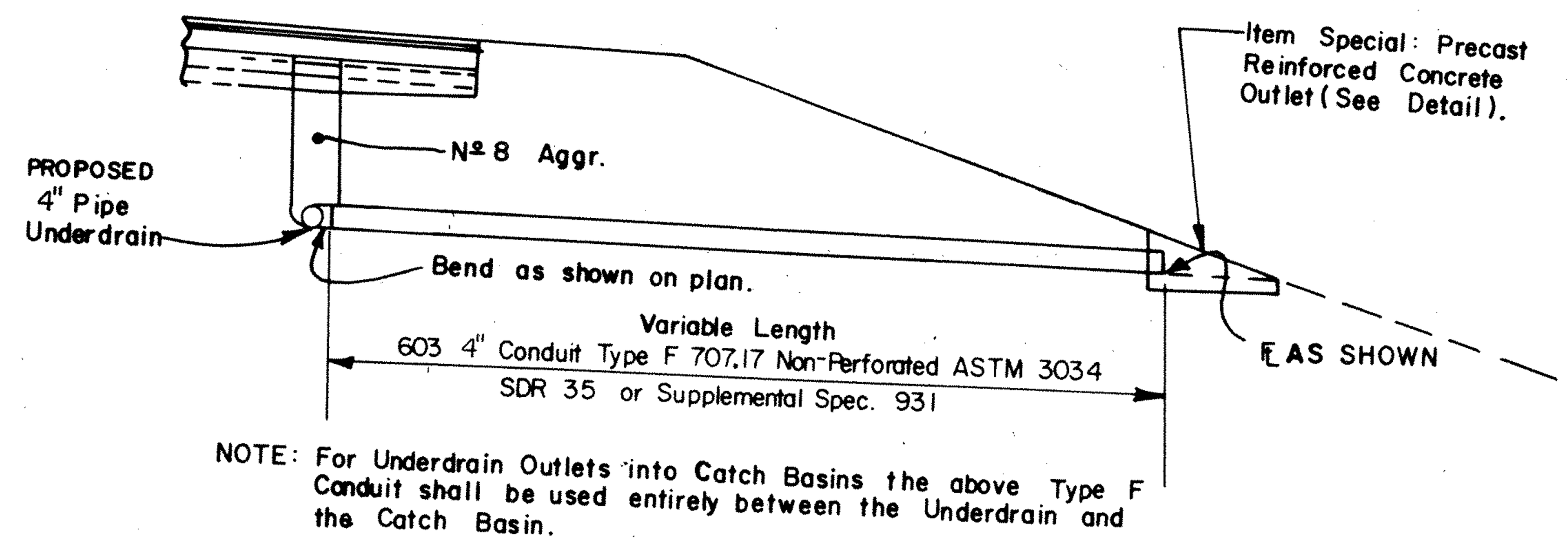
The Concrete Outlet shall meet the requirements of Item 604 in the Construction & Materials Specifications. Payment shall be made on an Each Basis. Payment shall include the cost of the Sod & Wire Cloth.





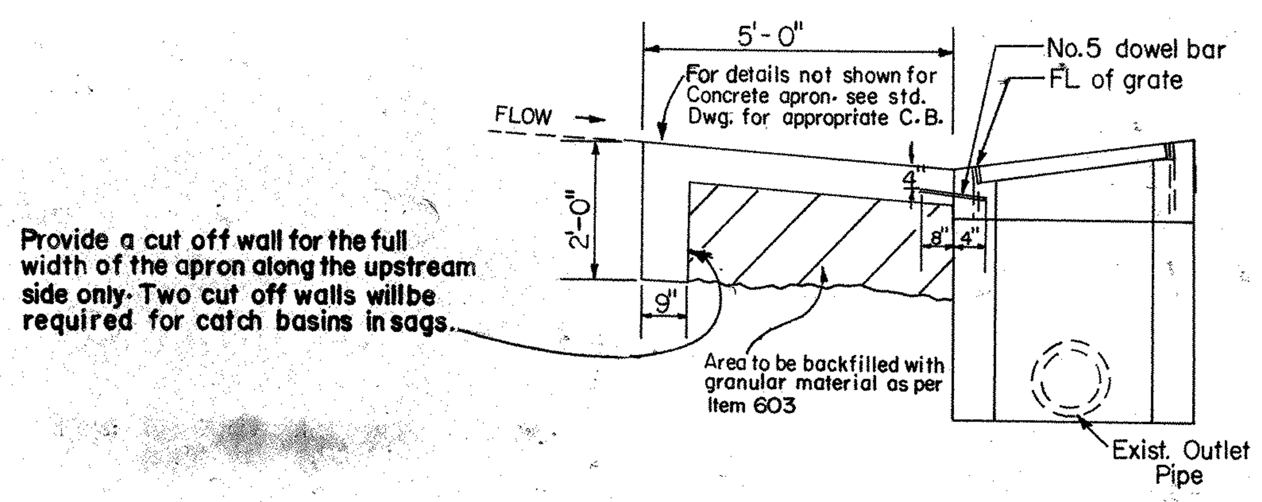
NOTE: The sod shall be in accordance with Item 660 and staked at each corner approximately 3 inches in from edge.

PIPE UNDERDRAIN OUTLET



NOTE: For Underdrain Outlets into Catch Basins the above Type F Conduit shall be used entirely between the Underdrain and the Catch Basin.

CATCH BASIN NO. 5 & 8 AS PER PLAN

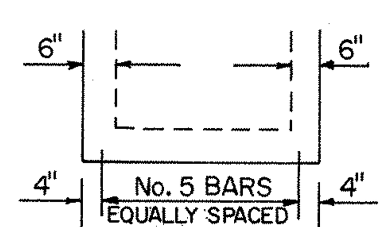


The requirements of Item 604 shall govern the replacement of the existing catch basin. The work shall include the removal and disposal of the existing catch basin and its subsequent replacement. The concrete apron shall be replaced and backfilled as shown here and in the Standard Drawing for the pertinent catch basin.

Payment for the above work shall be included in the unit bid price for Item 604 Catch Basin. No.5 or 8 as per plan and constitute full compensation for furnishing all material, labor, tools, and equipment incidental to complete this item of work.

Note: For details not shown see Std. Dwg. C.B.5 & C.B.8

BAR LOCATION DETAIL For No. 5 & 8 C.B.

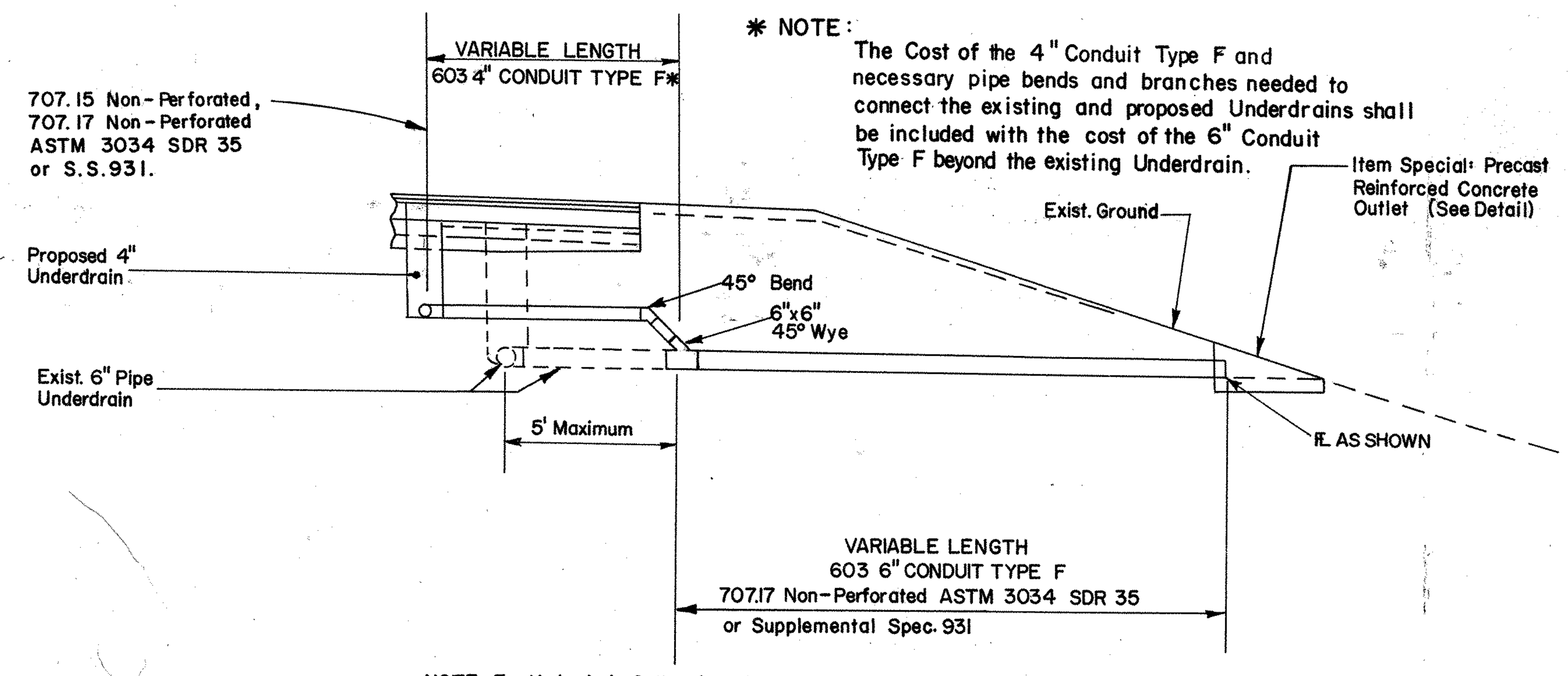


For a No. 5 & 8 catch basin, the number of bars needed along each side with a concrete apron is 4.

Catch Basin No.	Total # of bars for a Std. apron	Sag apron
5	12	16
8	12	16

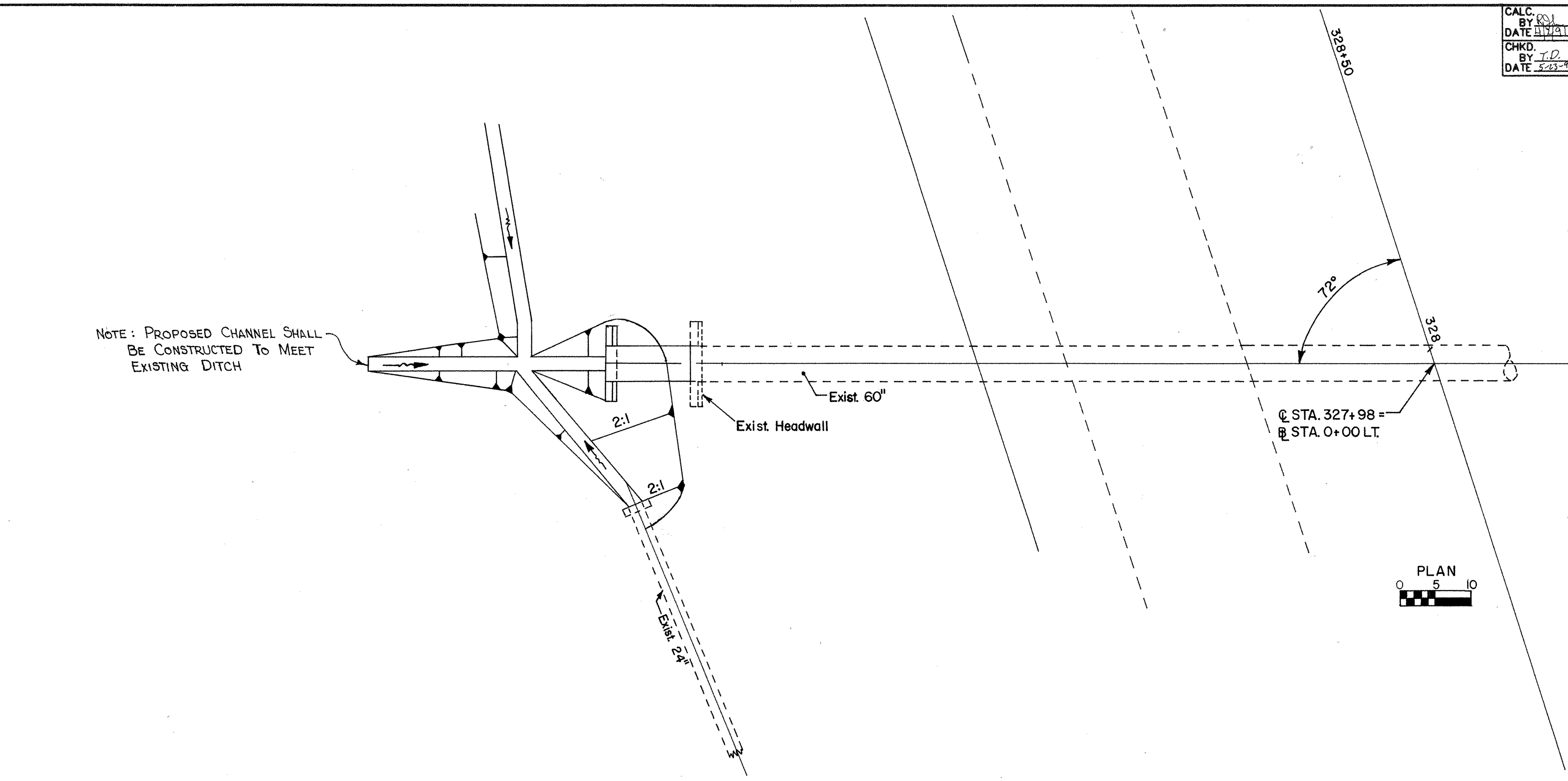
The furnishing and placing of steel for the 5/8" x 12" dowel bars shall be per 509 Reinforcing Steel. The dowel bars shall be epoxy coated per 509.10. The dowel bars shall be installed per 510 or cast into the basin. Bolt in inserts may be used. The catch basin shall be precast or cast-in-place concrete. Brick or concrete block will not be permitted. The 6" concrete apron shall be reinforced per 601.04(3).

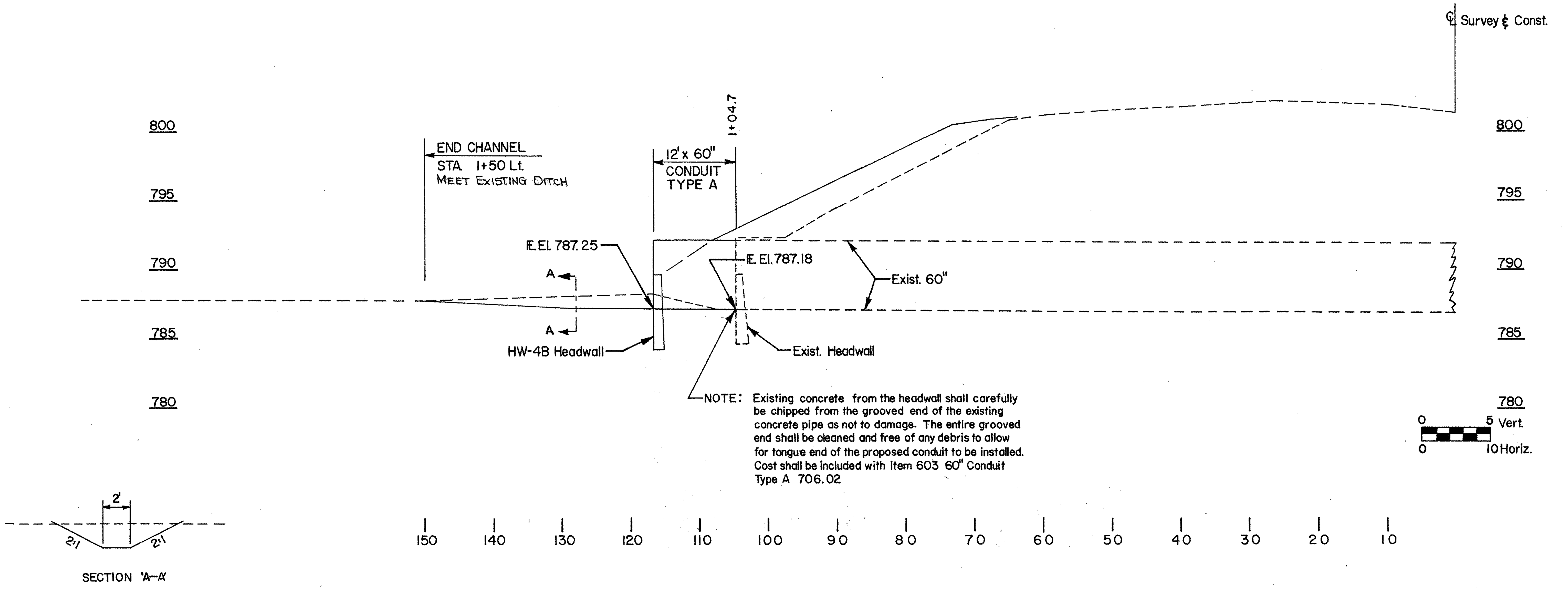
TYPE II PIPE UNDERDRAIN OUTLET



* NOTE: The Cost of the 4" Conduit Type F and necessary pipe bends and branches needed to connect the existing and proposed Underdrains shall be included with the cost of the 6" Conduit Type F beyond the existing Underdrain.

NOTE: For Underdrain Outlets into Catch Basins the above Type F Conduit shall be used entirely between the Underdrain and the Catch Basin.





NOTE: Existing concrete from the headwall shall carefully be chipped from the grooved end of the existing concrete pipe as not to damage. The entire grooved end shall be cleaned and free of any debris to allow for tongue end of the proposed conduit to be installed. Cost shall be included with item 603 60" Conduit Type A 706.02

E. A.	C. Y.	
0		1+50
	4	
9		1+29
	9	
11		1+04.7
	13	TOTAL

QUANTITIES

603 12 LIN.FT. 60" CONDUIT TYPE A, 706.02
602 1.9 CU. YD. CONCRETE MASONRY
203 13 CU. YD. EXCAVATION (Quantity carried to sht. 52)

QUANTITIES CARRIED TO SHEET 112.

BRIDGE NOTES

REFERENCE

DETAILED DRAWINGS OF THE EXISTING STRUCTURE MAY BE INSPECTED IN THE DISTRICT 5 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION, JACKSONTOWN, OHIO.

DESIGN SPECIFICATIONS

THESE STRUCTURE MODIFICATIONS CONFORM TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1983, INCLUDING 1984 AND 1985 INTERIM SPECIFICATIONS AND THE OHIO SUPPLEMENT TO THESE SPECIFICATIONS.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND/ OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERED TO CMS SECTIONS 102.05 AND 105.02.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

REMOVED MATERIALS

ALL REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE REMOVED BY HIM FROM THE JOB SITE.

ANCHOR BOLTS

EXISTING ANCHOR BOLTS SHALL NOT BE DISTURBED DURING THE REMOVAL OF THE BRIDGERAIL AND POSTS.

ESTIMATED QUANTITIES

AN ESTIMATED AMOUNT OF THE FOLLOWING QUANTITIES HAS BEEN INCLUDED IN THE BRIDGE SUMMARY FOR BIDDING PURPOSES, BUT FINAL QUANTITIES SHALL BE DETERMINED BY ACTUAL FIELD MEASUREMENTS AT THE COMPLETION OF THE WORK.

ITEM 850	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS)	16 CU. YD.

DECK OVERLAY LIMITATIONS (LIC–16–2630R)

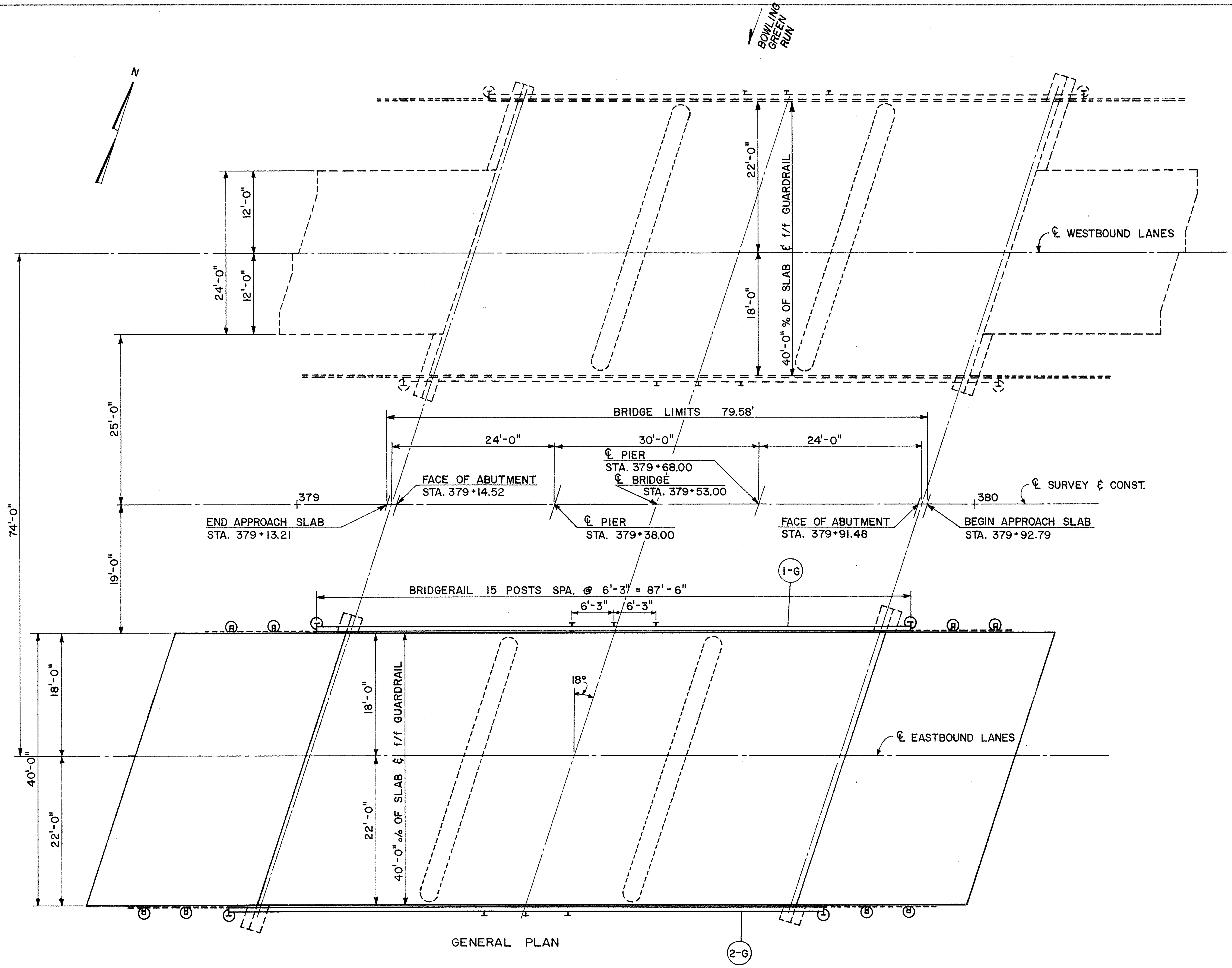
NO SCARIFICATION SHALL BE PERFORMED AFTER OCTOBER. DECKS THAT ARE SCARIFIED PRIOR TO OCTOBER 1, SHALL BE POURED NO LATER THAN OCTOBER 15. NO 24 HOUR LANE CLOSURES SHALL BE PERMITTED BETWEEN OCTOBER 15, AND MARCH 15. IF THE CONTRACTOR FAILS TO HAVE THE BRIDGE DECKS OPEN BY OCTOBER 15, HE SHALL PLACE ITEM 404 ASPHALT CONCRETE ON THE DECKS TO ALLOW THE SAFE TRAVEL OF OF THE PUBLIC. THIS WORK SHALL BE PERFORMED AT THE DIRECTION OF THE PROJECT ENGINEER AND AT THE CONTRACTOR'S EXPENSE.

BRIDGE DECK OVERLAY (VARIABLE THICKNESS) (LIC–16–2630R)

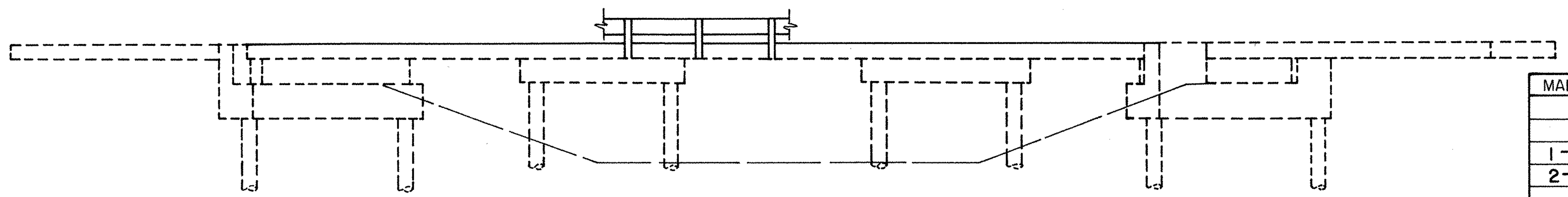
THE CONTRACTOR SHALL MAKE AVAILABLE TO THE ENGINEER SUFFICIENT SPRAY PAINT TO OUTLINE THE REMOVAL AREAS. THE COST OF THE SPRAY PAINT SHALL BE INCLUDED IN THE BRIDGE DECK OVERLAY (VARIABLE THICKNESS). IN THE EVENT OF RAIN, THE FINAL SOUNDING SHALL BE DONE NO SOONER THAN 24 HOURS AFTER THE RAIN, WHICH SHALL INCLUDE 8 HOURS OF GOOD DRYING WEATHER. IN NO CASE SHALL THE FINAL SOUNDING BE MADE IF THE DECK IS DAMP. FINAL SOUNDING MAY INCLUDE ONE OR MORE ATTEMPTS TO ASSURE THAT ALL DETERIORATED CONCRETE HAS BEEN REMOVED.

BRIDGE SUMMARY

BRIDGE NUMBER				PARTICIPATION			ITEM	ITEM EXT.	QUANT.	UNIT	DESCRIPTION
2630R											
175							202	38500	175	LIN.FT.	BRIDGE RAILING REMOVED
354							202	23500	354	SQ.YD.	WEARING COURSE REMOVED (CARRIED TO SHEET 15)
160							202	98200	160	LIN.FT.	STEEL DRIP STRIP REMOVED
1							202	11300	1	CU.YD.	PORTIONS OF STRUCTURE REMOVED, ABUTMENTS
134							202	22900	134	SQ.YD.	APPROACH SLAB REMOVED (CARRIED TO SHEET 15)
215							203	50000	215	SQ.YD.	SUBGRADE COMPACTION (CARRIED TO SHEET 15)
36							203	12000	36	CU.YD.	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION (CARRIED TO SHEET 15)
529							509	15800	529	POUND	EPOXY COATED REINFORCING STEEL, GRADE 60
58							510	11100	58	EACH	DOWEL HOLE (12")
175							517	72306	175	LIN.FT.	RAILING (DEEP BEAM RAIL WITH STEEL TUBULAR BACKUP AND TYPE 2 STEEL POSTS)
223							611	25000	223	SQ.YD.	REINFORCED CONCRETE APPROACH SLAB (T=15") (CARRIED TO SHEET 16)
354							850	12000	354	SQ.YD.	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (1 3/4" THICK)
16							850	20000	16	CU.YD.	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VAR. THICKNESS)
LUMP							850	40000	LUMP		TEST SLAB
160							SPEC.	51822300	160	LIN.FT.	STEEL DRIP STRIP
48							SPEC.	51267502	48	SQ.YD.	Sealing of Concrete Surfaces (Epoxy)



GENERAL PLAN



ELEVATION
(EASTBOUND LANES SHOWN)

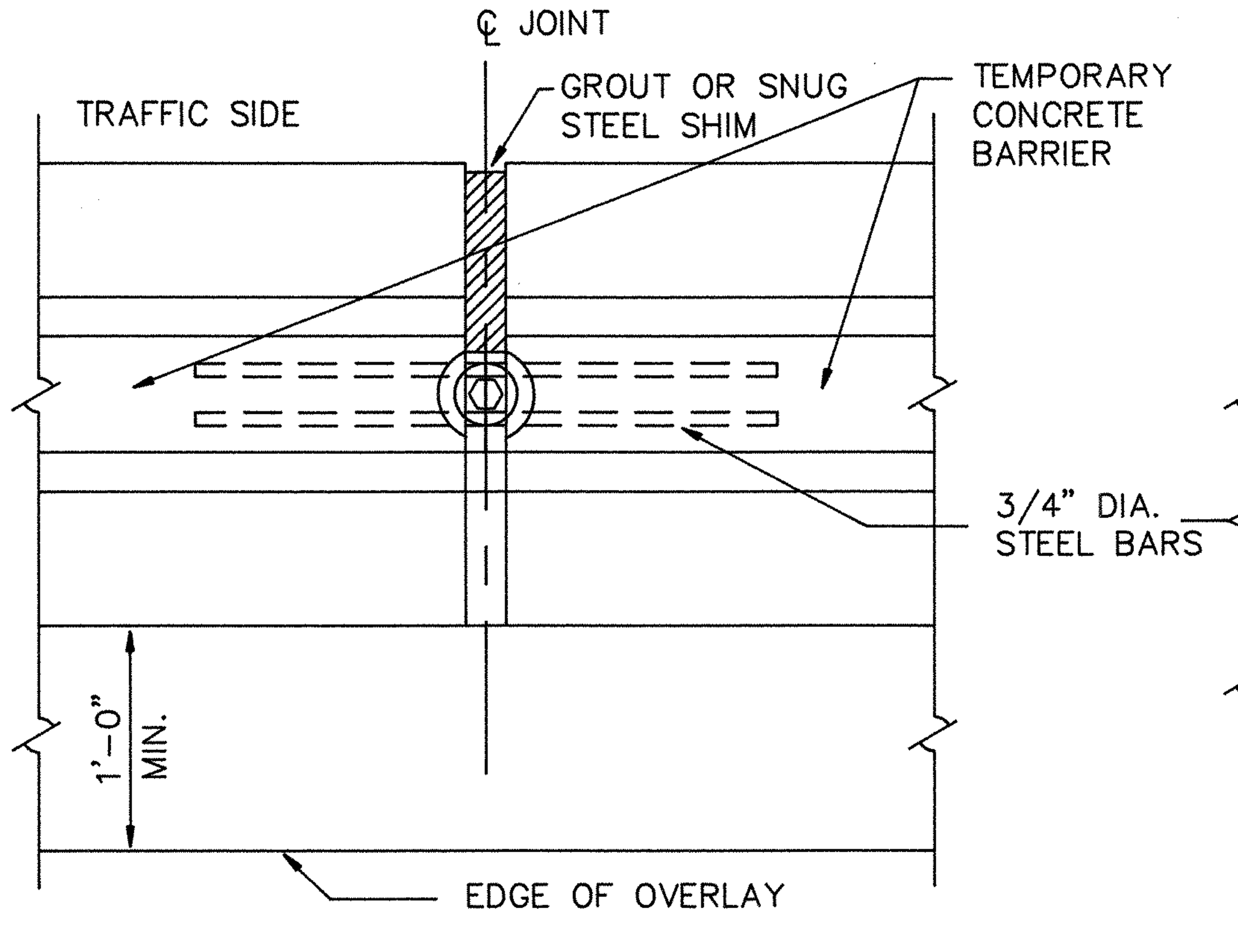
MARK	STATION TO STATION	202 BRIDGE RAILING REMOVED	517 RAILING (DEEP BEAM RAIL WITH STEEL TUBULAR BACKUP AND TYPE 2 STEEL POSTS)
		LIN. FT.	LIN. FT.
1-G	379-03.08 - 379+90.58	87.5	87.5
2-G	378+90.08 - 379+77.58	87.5	87.5
TOTAL		175	175

EXISTING BRIDGE DATA
BRIDGE Nº LIC-16-2630 L/R

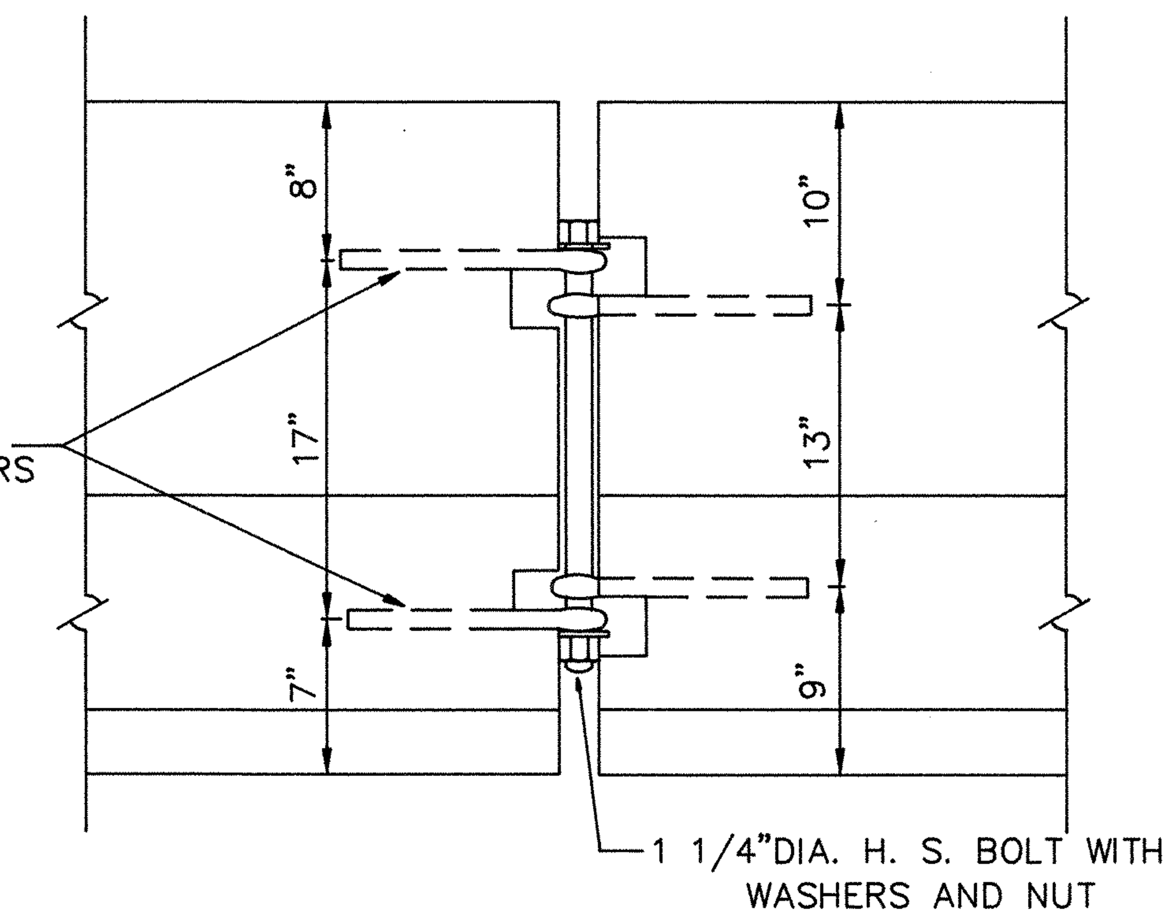
TYPE: CONTINUOUS CONCRETE SLAB
SPANS: 24'-0"; 30'-0"; 24'-0" c/c BRGS.
ROADWAY: 38'-8" f/f GUARDRAIL
40'-0" o/o DECK
LOAD FREQUENCY: CF=2000 (57) (2630R)
HS 19.5 (2630L)
SKEW: 18° L.F.
WEARING SURFACE: 3" SDC OVERLAY (2630L)
2½" ASPHALT (2630R)
APPROACH SLABS: AS-1-57 (25' LONG)
ALIGNMENT: TANGENT

REHABILITATED STRUCTURE

ROADWAY: 40'-0" f/f GUARDRAIL
WEARING SURFACE: 1¾" SDC OVERLAY (2630R)
BRIDGERAIL: DEEP BEAM RAIL WITH STEEL TUBULAR BACKUP AND TYPE 2 STEEL POSTS (2630R)
APPROACH SLABS: AS-1-81 (25' LONG) (2630R)



PLAN AT JOINT

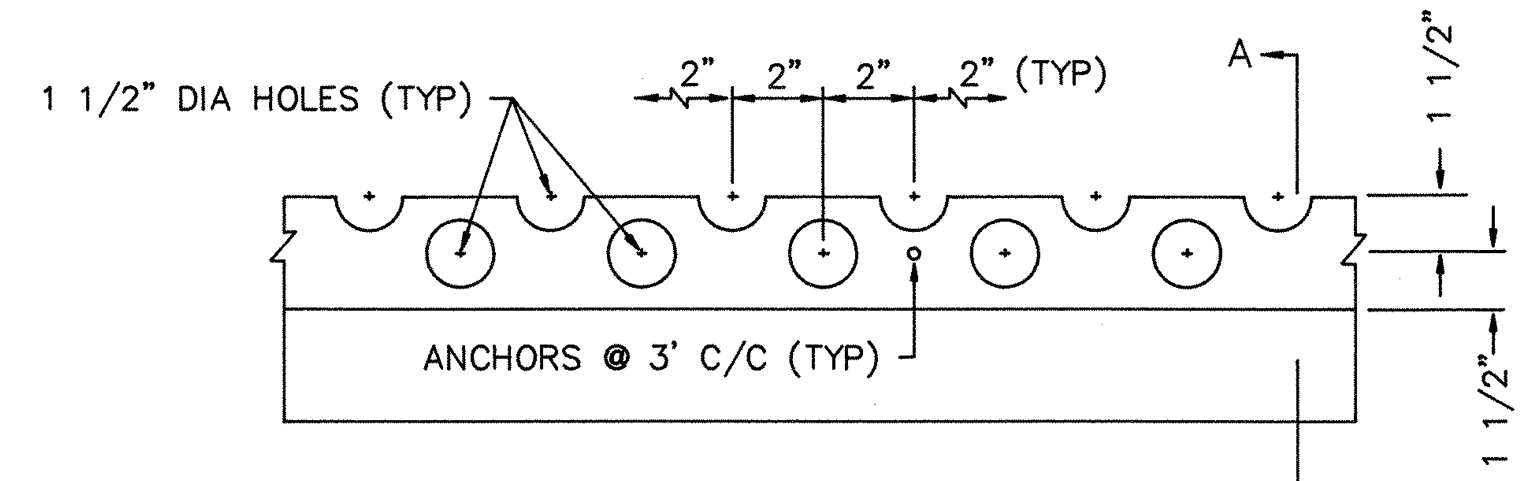


ELEVATION AT JOINT

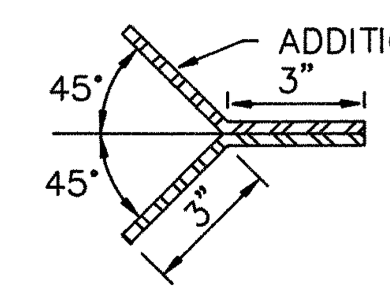
ITEM 622 – PORTABLE CONCRETE BARRIER, BRIDGE MOUNTED
(FOR NOTE AND QUANTITIES SEE SHEET 77)

DRIP STRIP FOR BRIDGES WITH CONCRETE OVERLAYS

AFTER THE DECK IS SCARIFIED AND BEFORE THE CONCRETE OVERLAY IS PLACED, A STEEL DRIP STRIP, AS DETAILED SHALL BE INSTALLED ALONG THE FULL LENGTH OF EACH SIDE OF THE BRIDGE. THE STRIPS SHALL BE FASTENED AT 3' C/C MAXIMUM WITH POWER DRIVEN PINS OR NO. 10 GALVANIZED SCREWS AND EXPANSION ANCHORS. WHERE SPLICES ARE REQUIRED, THE INDIVIDUAL PIECES SHALL BE BUTTED TIGHTLY TOGETHER, NOT LAPPED. STEEL FOR GALVANIZED STRIPS SHALL BE 0.105" THICK AND SHALL MEET THE REQUIREMENTS OF ASTM A568 WITH GALVANIZING IN ACCORDANCE WITH 711.02. STAINLESS STEEL SHALL BE 20 GAUGE ASTM A167, TYPE 304, MILL FINISH.
THE FINAL PAY QUANTITY SHALL BE THE ACTUAL OVERALL LENGTH OF THE DRIP STRIP. ALL LAPS AND ADDITIONAL STRIPS AT POSTS SHALL NOT BE MEASURED FOR PAYMENT. PAYMENT SHALL BE AT THE CONTRACT PRICE BID FOR ITEM SPECIAL, LIN. FT., STEEL DRIP STRIP, WHICH SHALL INCLUDE ALL MATERIALS, LABOR, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE ITEM.

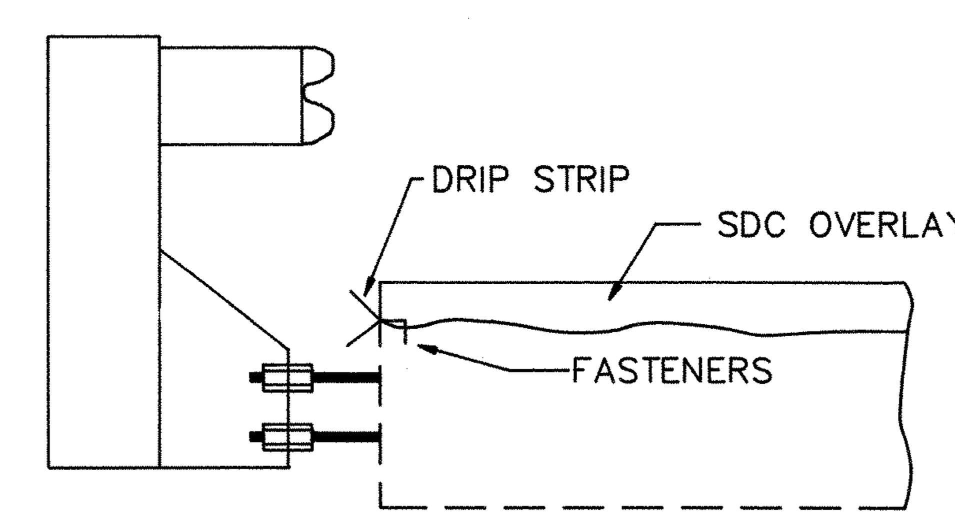


PLAN

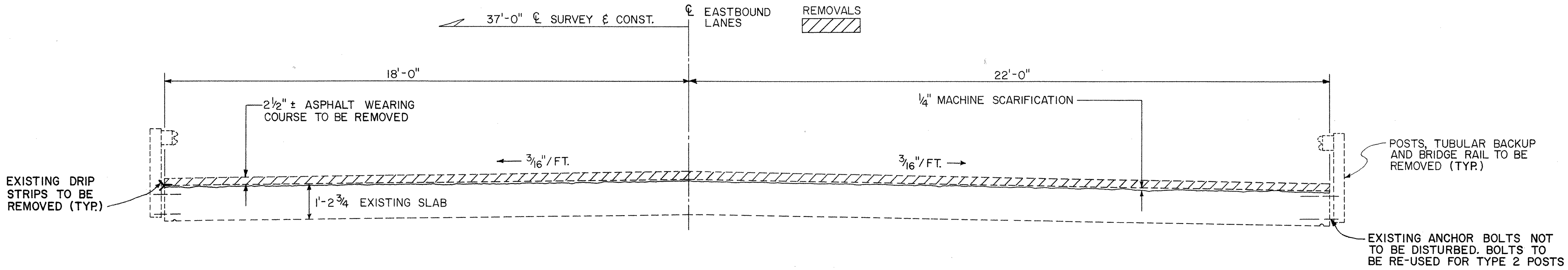


SECTION A–A

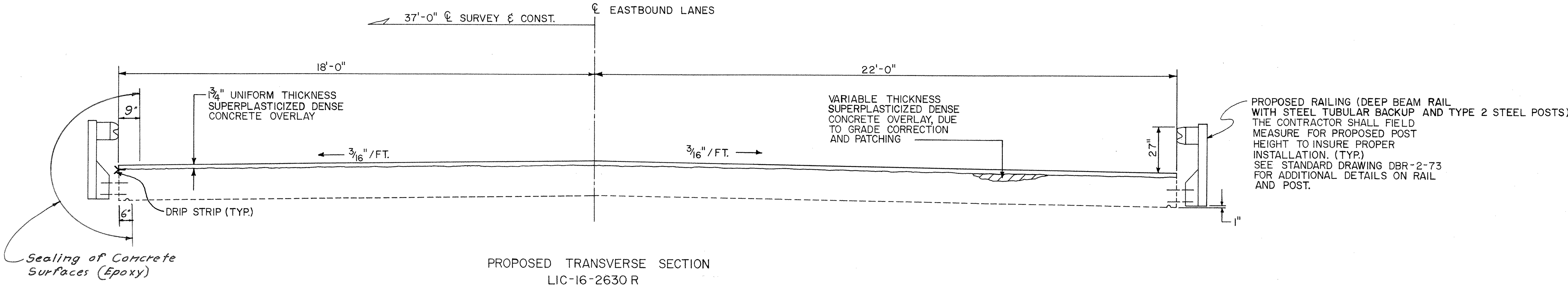
DRIP STRIP DETAIL FOR BRIDGE DECKS WITH CONCRETE OVERLAYS



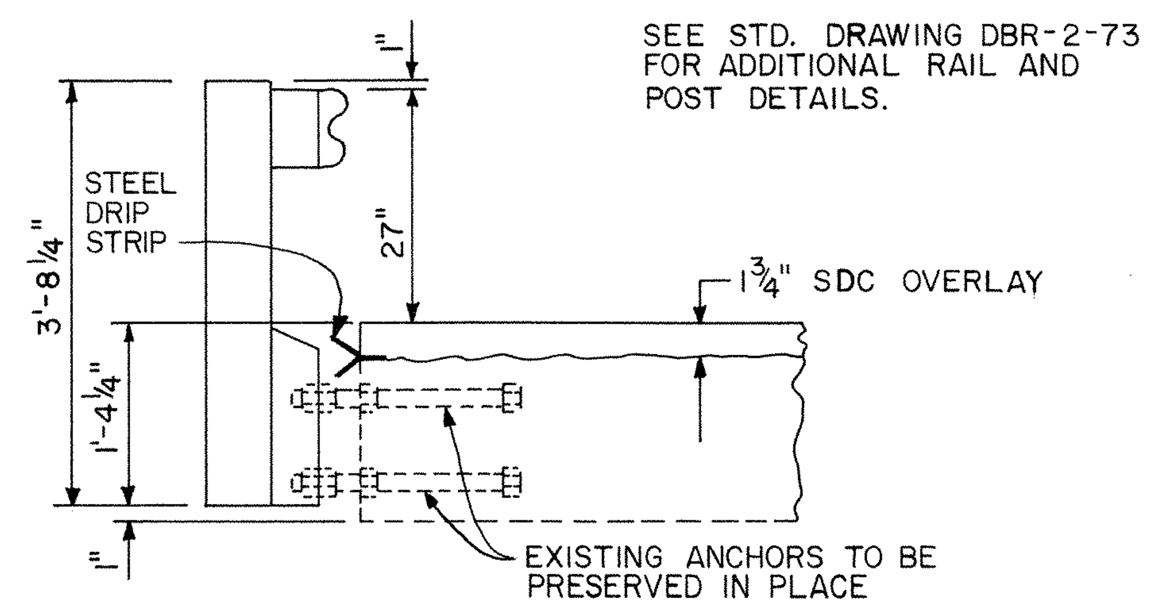
TYPICAL EDGE SECTION



EXISTING TRANSVERSE SECTION
LIC-16-2630 R

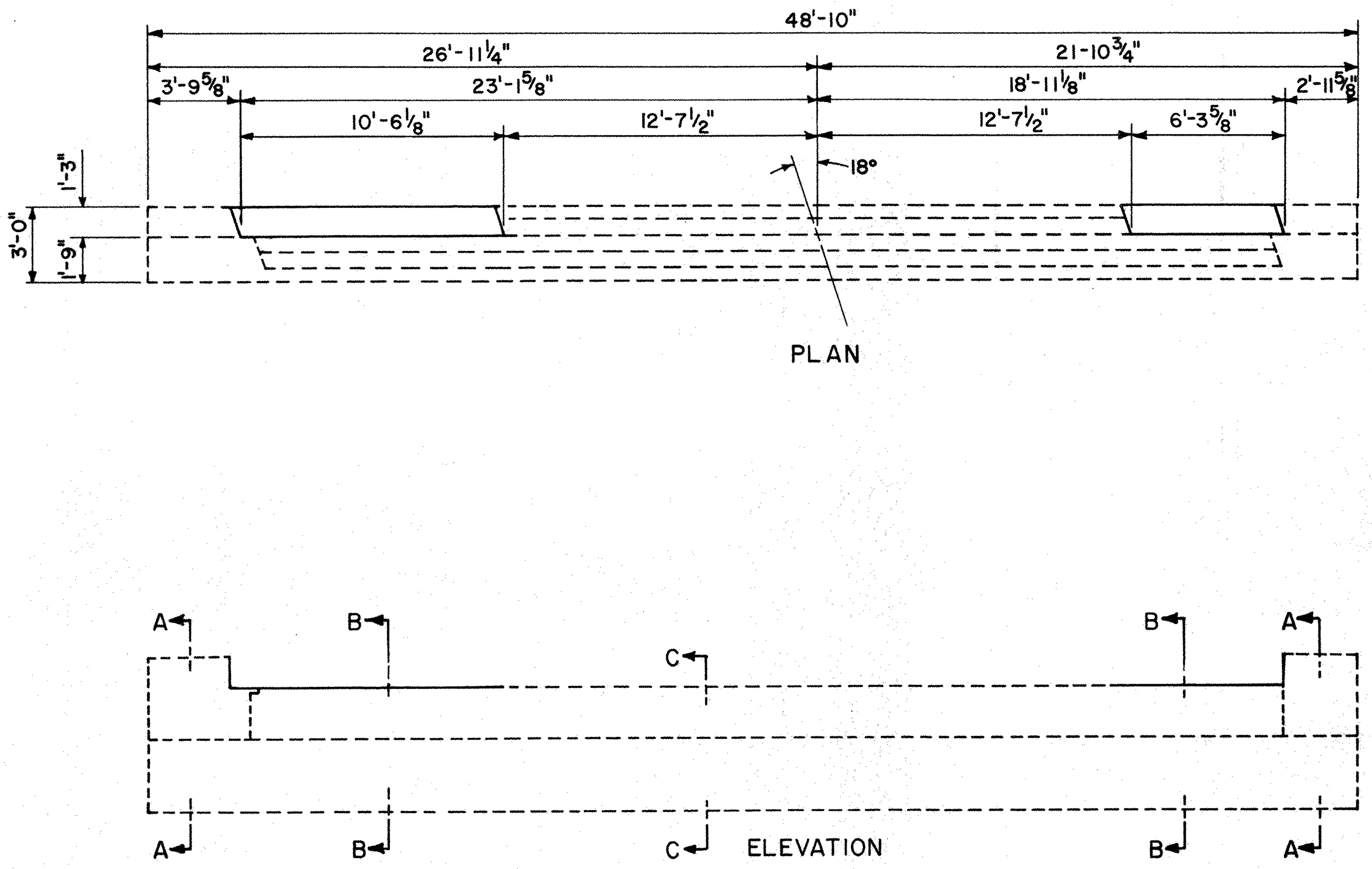


PROPOSED TRANSVERSE SECTION
LIC-16-2630 R

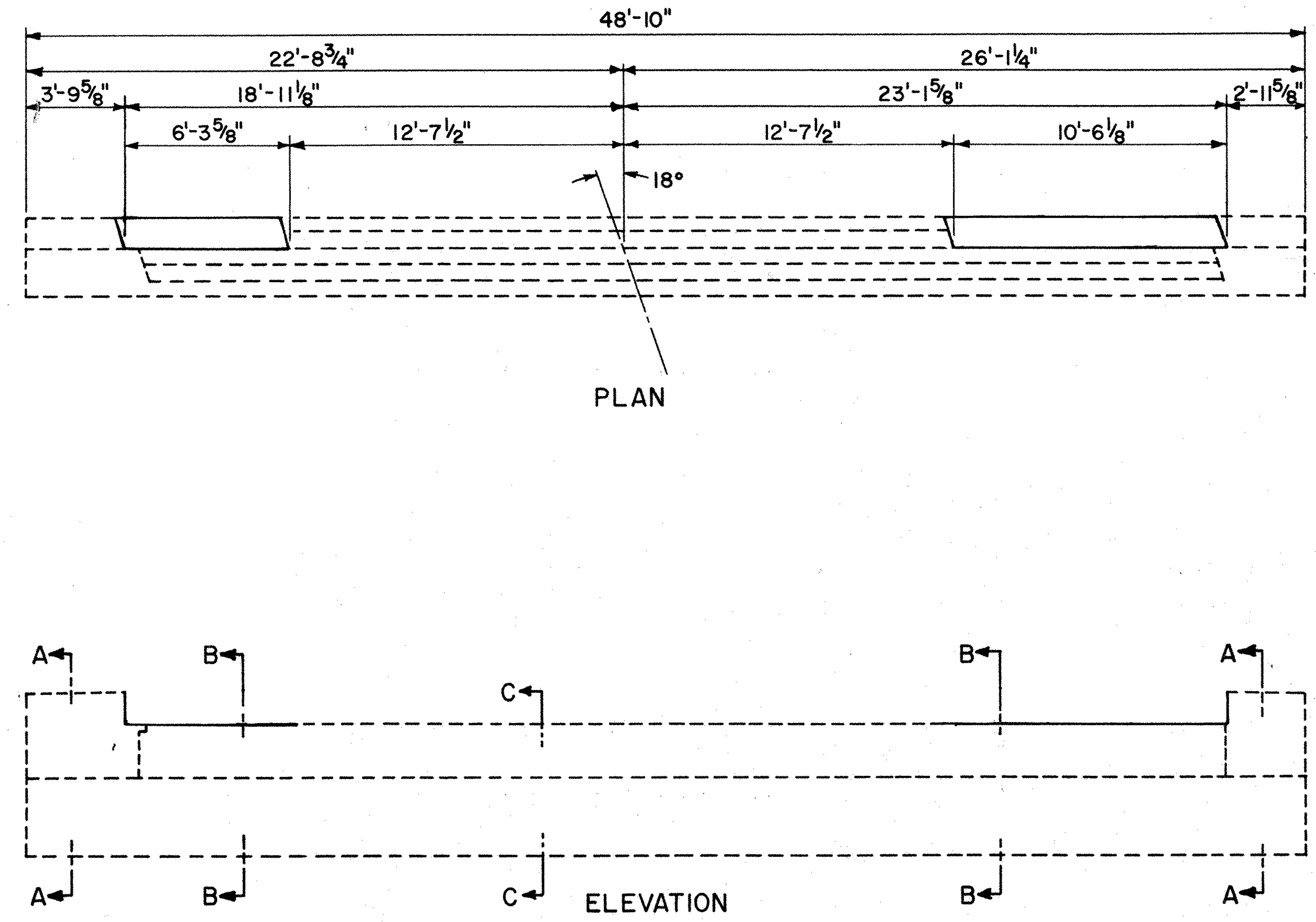


PROPOSED DECK EDGE
LIC-16-2630R

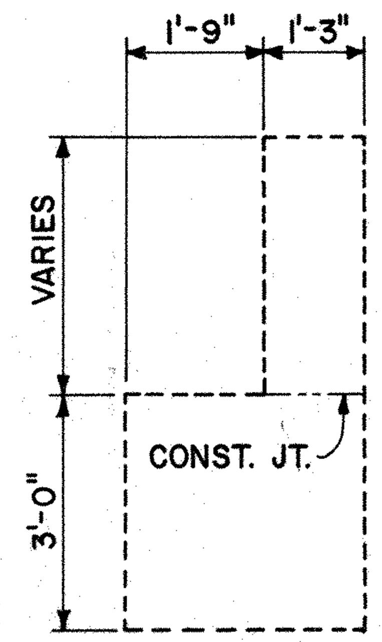

48'-10"
26'-11¼"
21-10¾"
3'-9⅝"
23'-1⅝"
18'-11⅛"
2'-11⅝"
10'-6⅛"
12'-7½"
12'-7½"
6'-3⅝"
18°
1'-3"
3'-0"
1'-9"
PLAN
48'-10"
22'-8¾"
26'-1¼"
3'-9⅝"
18'-11⅛"
23'-1⅝"
2'-11⅝"
6'-3⅝"
12'-7½"
12'-7½"
10'-6⅛"
18°
PLAN
REMOVALS
A A B B C C B B A A
ELEVATION
FORWARD ABUTMENT
(LIC-16-2630R)
A A B B C C B B A A
ELEVATION
REAR ABUTMENT
(LIC-16-2630R)
1'-9" 1'-3"
VARIES
3'-0"
CONST. JT.
SECTION A-A
6" 7½" 1'-3"
VAR.
2½"
2'-0"
3'-0"
RE-STEEL TO BE REMOVED AT SAW CUT
SAW CUT
CONST. JT.
SECTION B-B
6" 7½" 9" 6"
2½"
2'-0"
3'-0"
CONST. JT.
SECTION C-C



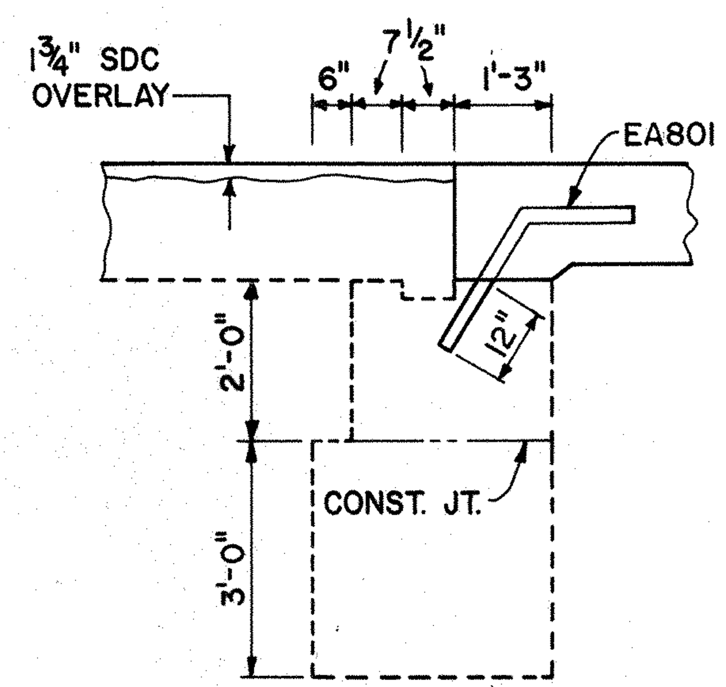
FORWARD ABUTMENT
(LIC-16-2630R)



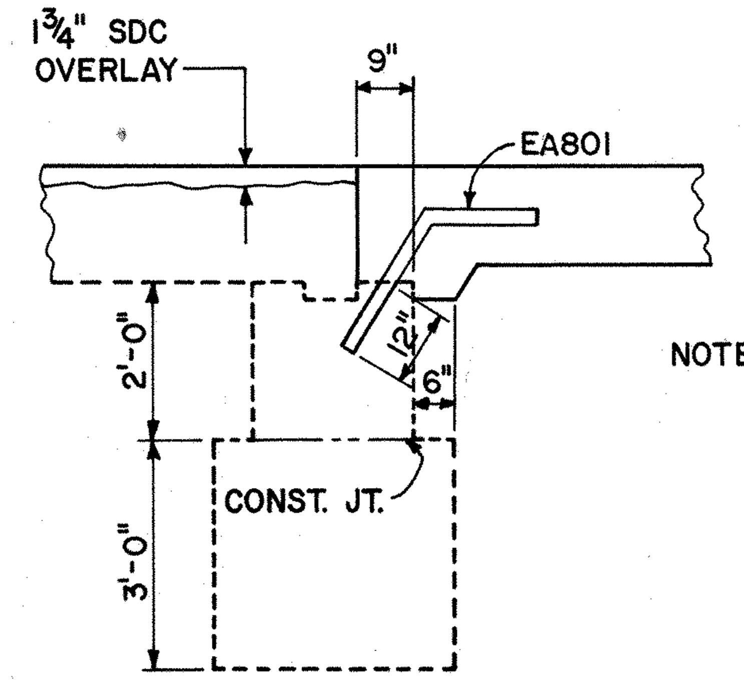
REAR ABUTMENT
(LIC-16-2630 R)



SECTION
A-A

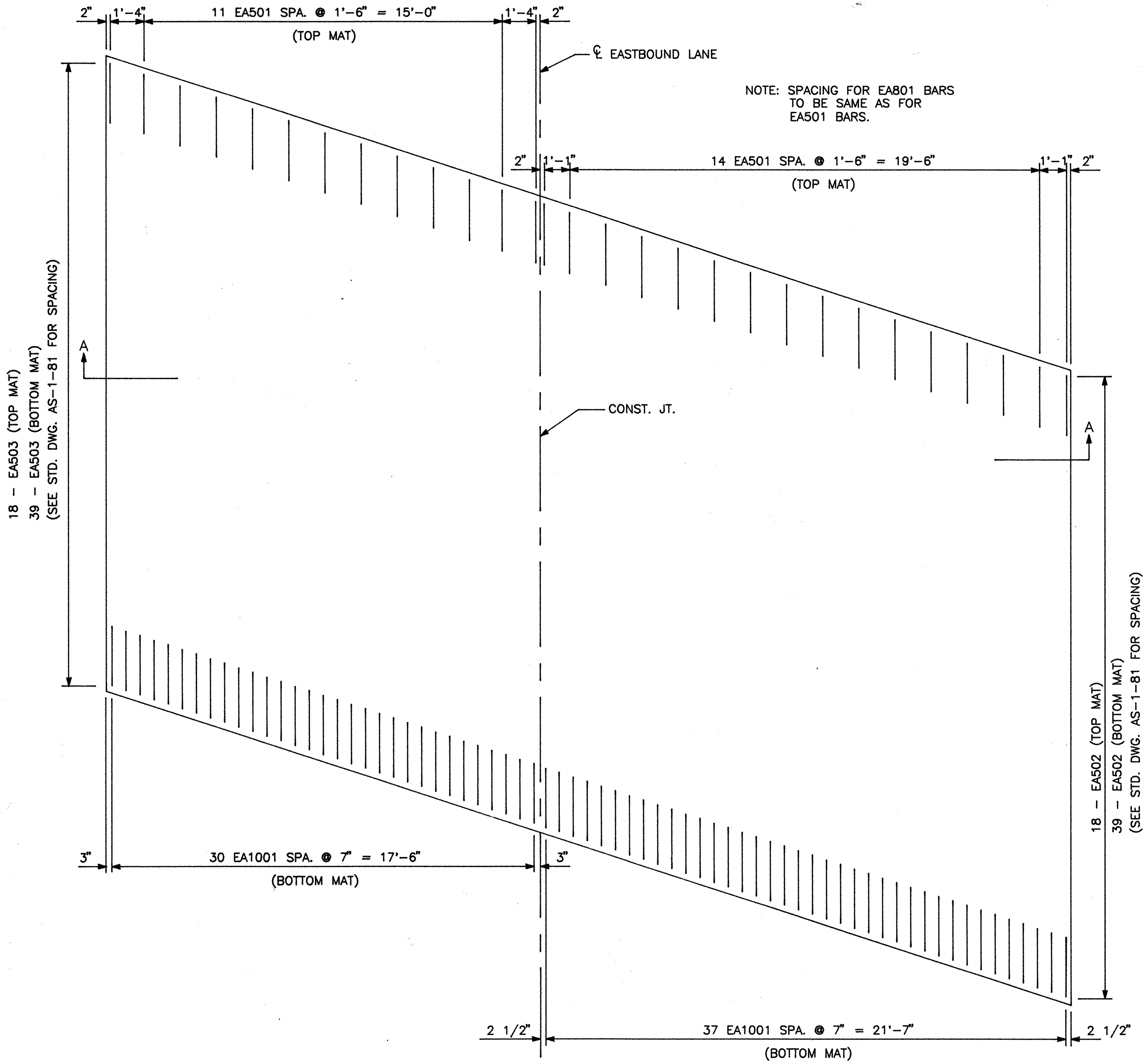


SECTION
B-B

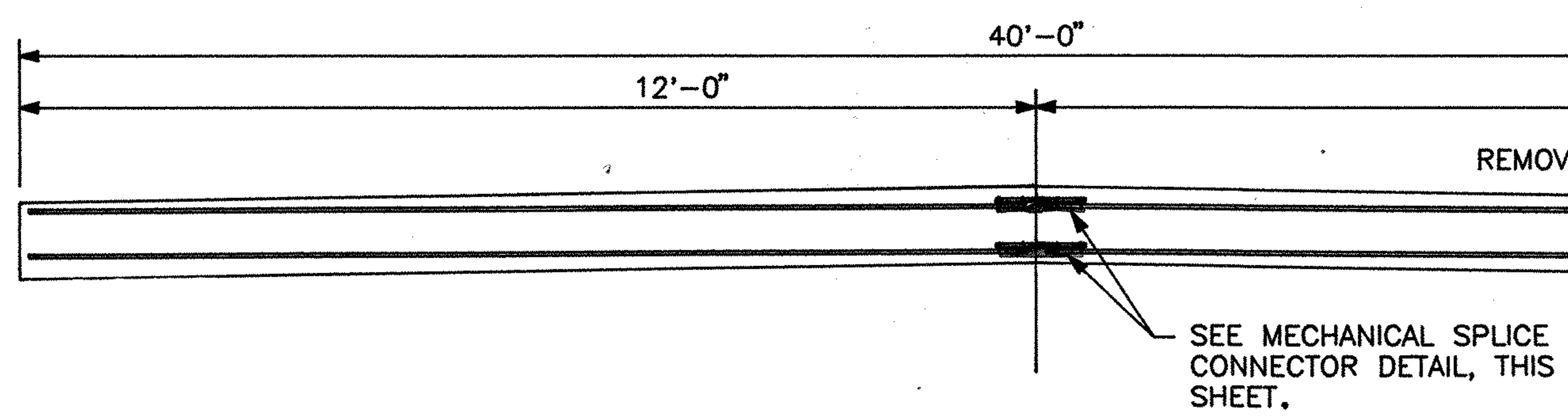


SECTION
C-C

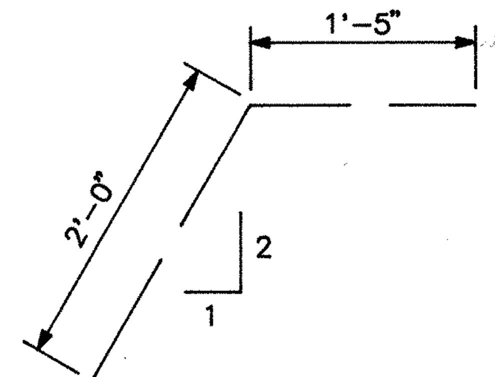
NOTE: FOR ADDITIONAL DETAILS
OF RE-STEEL, SEE SHEET 134.



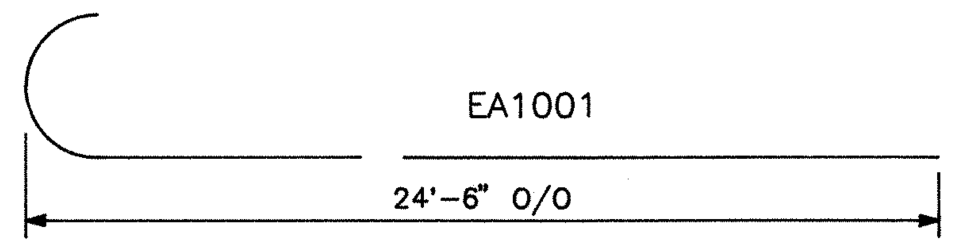
PLAN



SECTION A-A



EA801

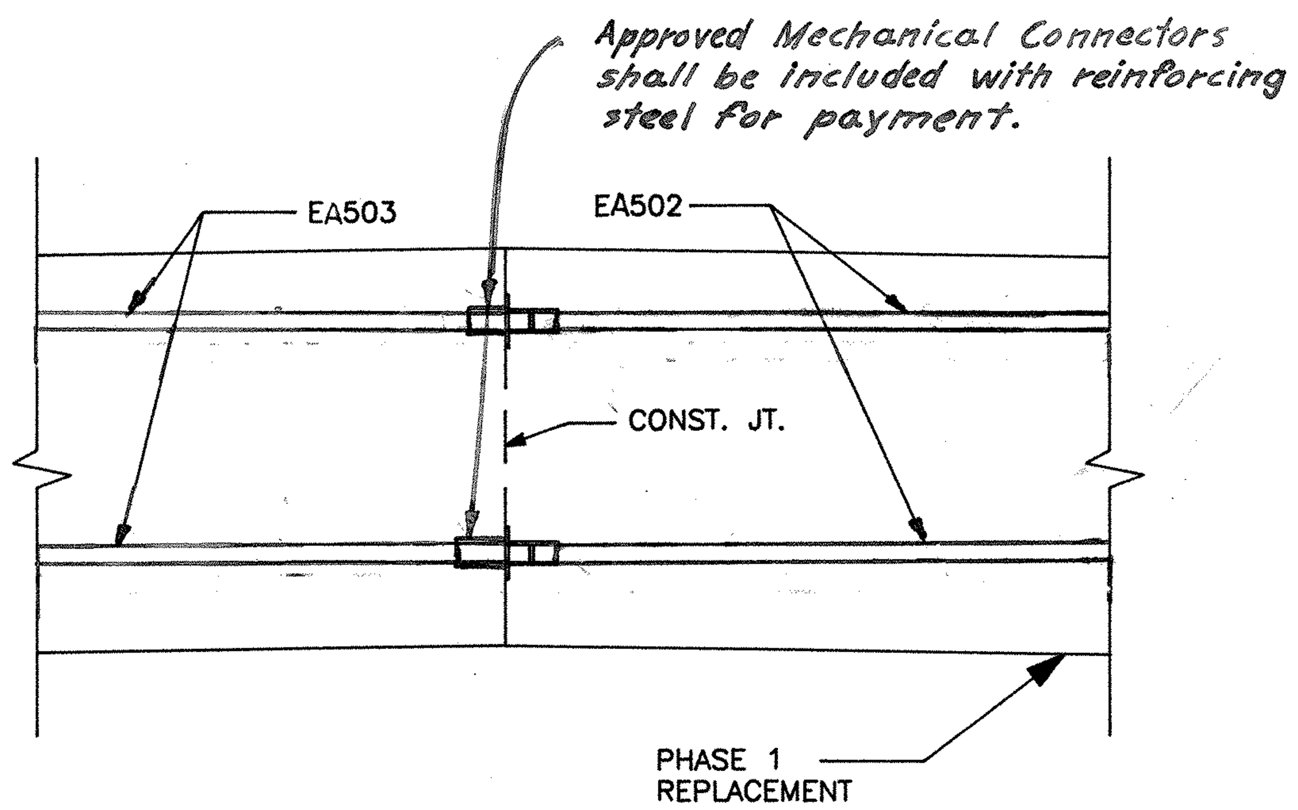


BENDING DIAGRAMS

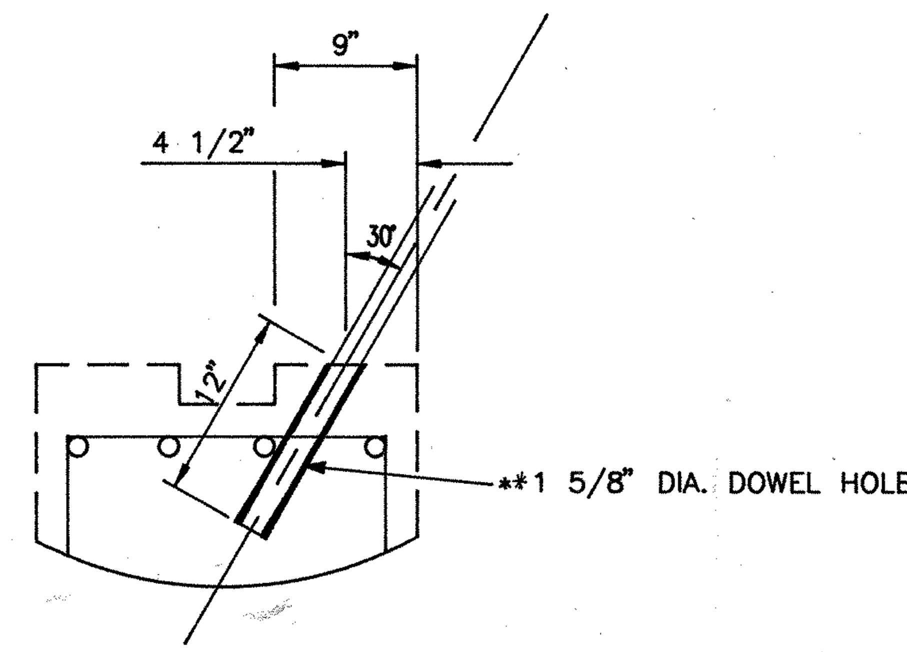
BAR SCHEDULE					
MARK	NO. REQD.	SHAPE	LENGTH	WEIGHT
* EA501	29	ST.	24'-6"	
* EA502	57	ST.	21'-8"	
* EA503	57	ST.	17'-8"	
* EA1001	67	BT.	25'-11"	
EA801	58	BT.	3'-5"	529

EA - DESIGNATES EPOXY STEEL
* BARS INCLUDED FOR PAYMENT IN ITEM 611

ITEM	DESCRIPTION	QUANTITY	UNIT
611	REINFORCED CONCRETE APPROACH SLAB (T=15")	223	S.Y.
509	REINFORCING STEEL, GRADE 60	529	POUND
510	DOWEL HOLE 12"	58	EACH

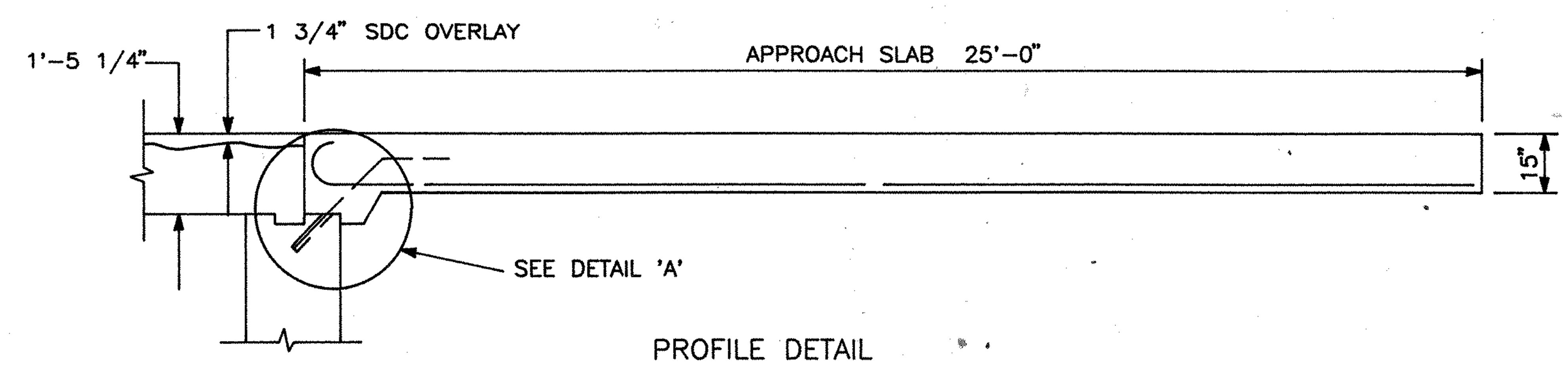


MECHANICAL SPLICE CONNECTOR DETAIL



DETAIL "A"

** NOTE: AT NO ADDITIONAL COST TO THE STATE AND AT THE OPTION OF THE CONTRACTOR THE USE OF EPOXY, POLYESTER OR VINYLESTER RESIN MAY BE USED, WHICH THE DOWEL HOLES SHALL BE 1/8" LARGER THAN THE DESIGNATED BAR SIZE FOR THE DOWEL HOLE OR DOWEL HOLE DIAMETERS SHALL BE AS SPECIFIED IN 510.02.



PROFILE DETAIL

L0162655