

INDIANA

DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNS, HIGHWAY ILLUMINATION AND ROADWAY SAFETY UPGRADE

STATE HIGHWAY

STI-PROJECT NO. 94-2 (G) ( ) P.E.  
MAIM-PROJECT NO. 94-2 (081) ( ) CONST.

NO ADDITIONAL R/W REQUIRED FOR THIS PROJECT

NOTE:

Whenever the Project Number STI-PROJECT NO.94-2( )39 Appears on These Plans or Contract Documents, it shall be interpreted as MAIM-PROJECT NO.94-2(081)

PLANS PREPARED BY:  
**WOOLPERT CONSULTANTS**  
7140 WALDEMAR DRIVE  
INDIANAPOLIS, INDIANA 46268-2183  
(317)299-7500 FAX(317)291-5805

CERTIFIED July 17, 1992  
DATE

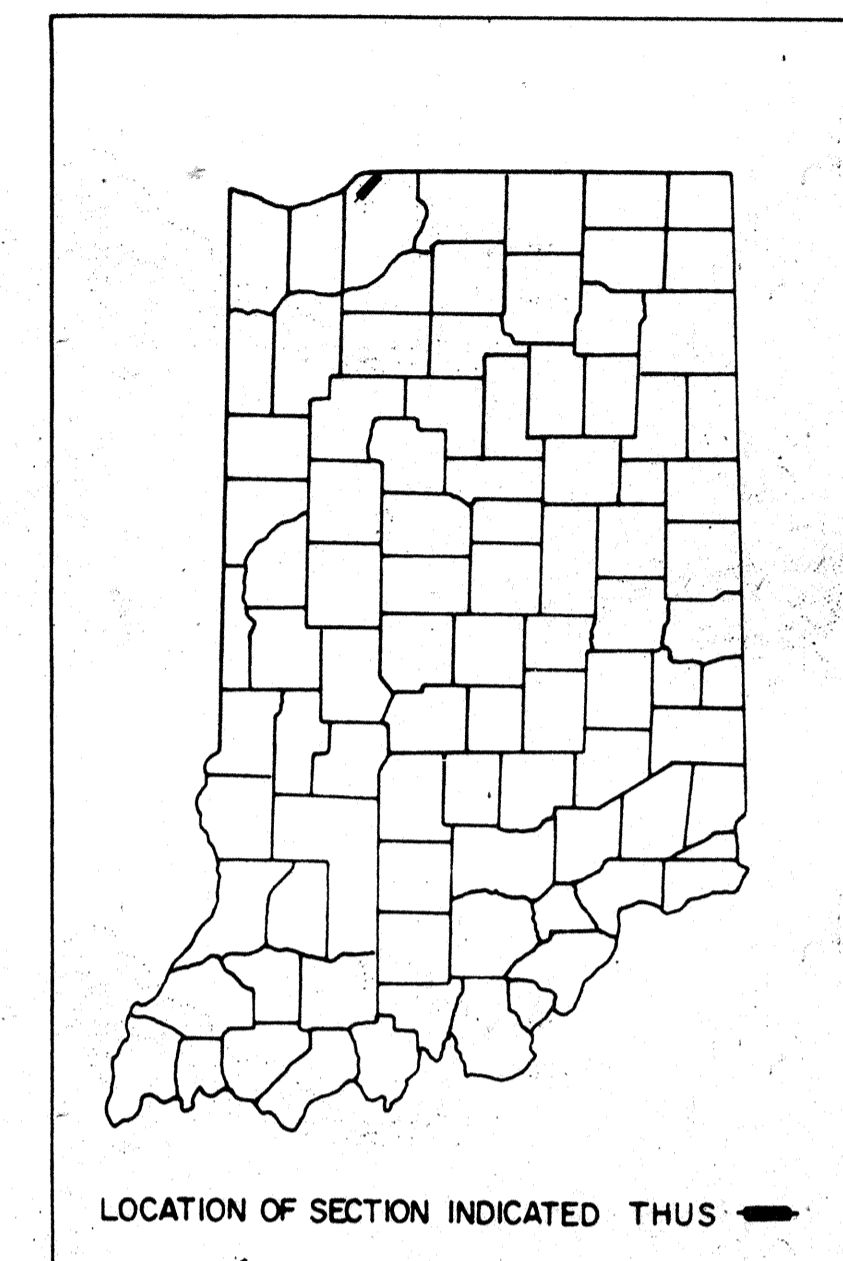
*Michael J. Keenan*



FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	MAIM-94-2(081)	1992	T1	T31

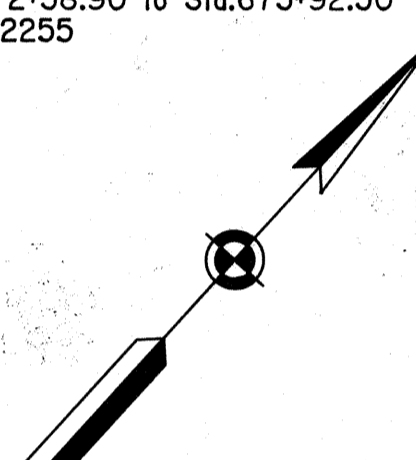
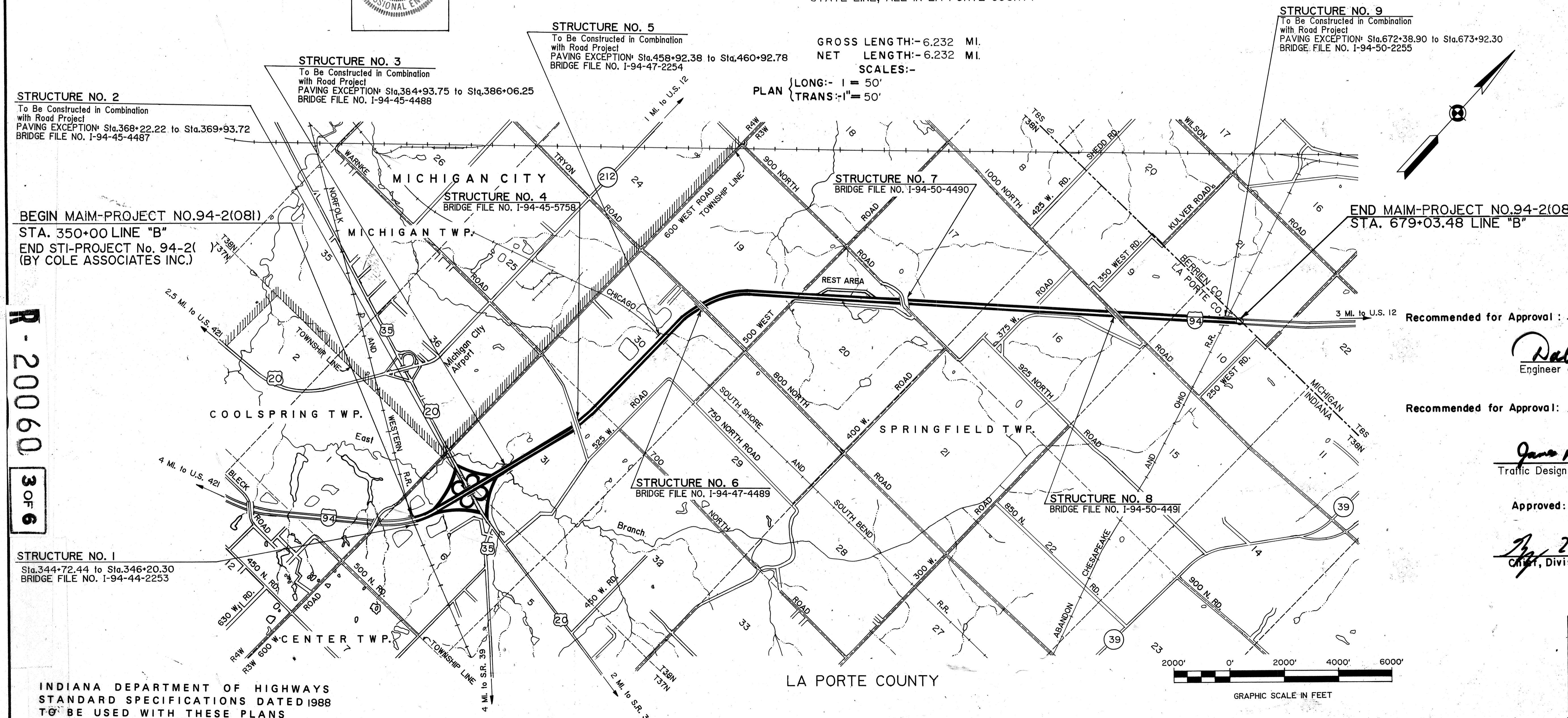
DESIGN DATA		
A.D.T. (1992)	51,790	V.P.D.
A.D.T. (2002) PROJECTED	63,440	V.P.D.
D.H.V. (2002)	3,717	V.P.H.
DIRECTIONAL DISTRIBUTION	WB	51 %
TRUCKS D.H.V.	A.D.T.	30 %
DESIGN SPEED	70	M.P.H.
ACCESS CONTROL	LIMITED	



LOCATION OF SECTION INDICATED THUS

I-94, FROM 0.40 MI. WEST OF U.S. 20 & U.S. 35 TO THE INDIANA-MICHIGAN STATE LINE, ALL IN LA PORTE COUNTY

GROSS LENGTH:-6.232 MI.  
NET LENGTH:-6.232 MI.  
SCALES:-  
PLAN LONG:- 1" = 50'  
TRANS:- 1" = 50'



STRUCTURE NO. 2  
To Be Constructed in Combination with Road Project  
PAVING EXCEPTION: Sta.368+22.22 to Sta.369+93.72  
BRIDGE FILE NO. I-94-45-4487

STRUCTURE NO. 3  
To Be Constructed in Combination with Road Project  
PAVING EXCEPTION: Sta.384+93.75 to Sta.386+06.25  
BRIDGE FILE NO. I-94-45-4488

STRUCTURE NO. 5  
To Be Constructed in Combination with Road Project  
PAVING EXCEPTION: Sta.458+92.38 to Sta.460+92.78  
BRIDGE FILE NO. I-94-47-2254

STRUCTURE NO. 7  
BRIDGE FILE NO. I-94-50-4490

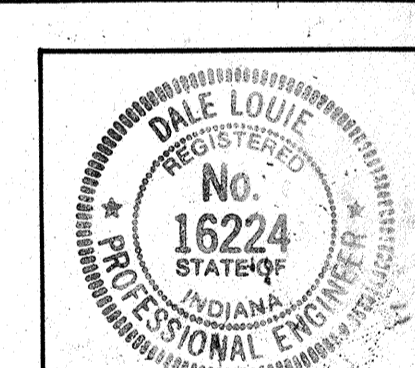
STRUCTURE NO. 9  
To Be Constructed in Combination with Road Project  
PAVING EXCEPTION: Sta.672+38.90 to Sta.673+92.30  
BRIDGE FILE NO. I-94-50-2255

BEGIN MAIM-PROJECT NO.94-2(081)  
STA. 350+00 LINE "B"  
END STI-PROJECT No. 94-2( )  
(BY COLE ASSOCIATES INC.)

END MAIM-PROJECT NO.94-2(081)  
STA. 679+03.48 LINE "B"

Recommended for Approval: 7-31-92  
Date

*Dale Louie*  
Engineer of Sign and Lighting Design



Recommended for Approval: 8-11-92  
Date

*Jane M. Poturalski*  
Traffic Design Manager



Approved: 8-20-92  
Date

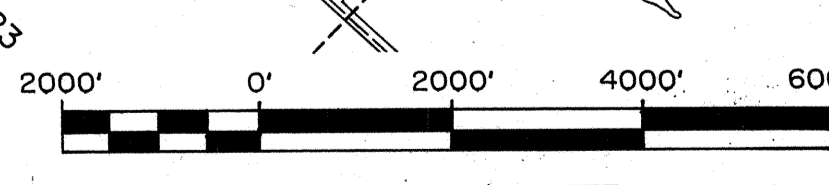
*John Z. Klu*  
Chief, Division of Design

FEDERAL HIGHWAY ADMINISTRATION  
DEPARTMENT OF TRANSPORTATION

APPROVED

DIVISION ADMINISTRATOR \_\_\_\_\_ DATE \_\_\_\_\_

ROAD FILE:-



INDIANA DEPARTMENT OF HIGHWAYS  
STANDARD SPECIFICATIONS DATED 1988  
TO BE USED WITH THESE PLANS

DESCRIPTION CODE 8350760

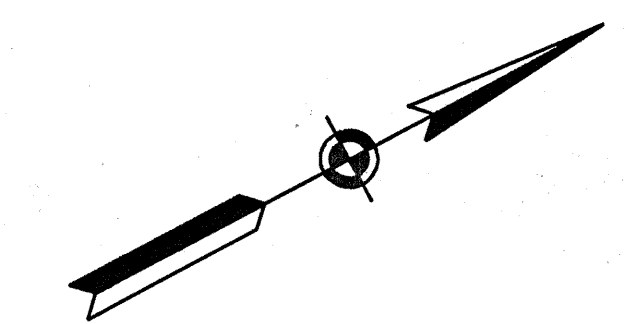
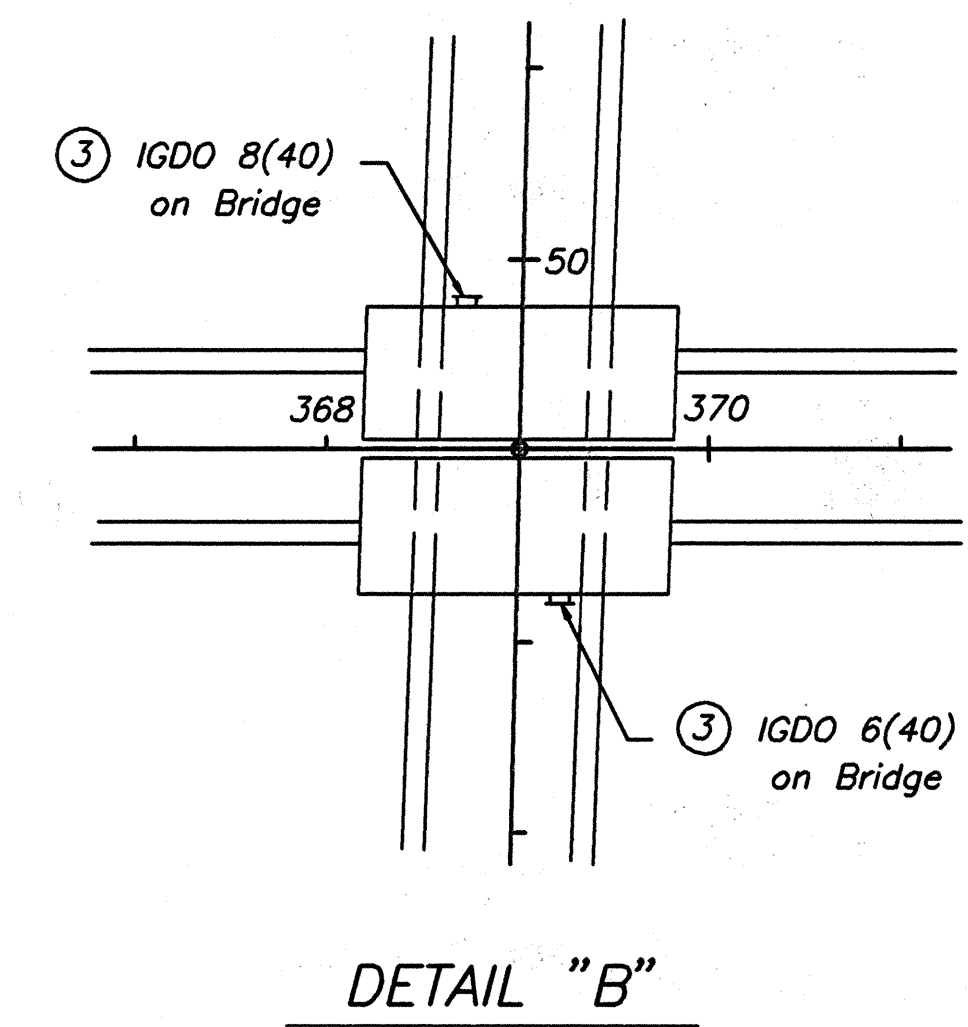
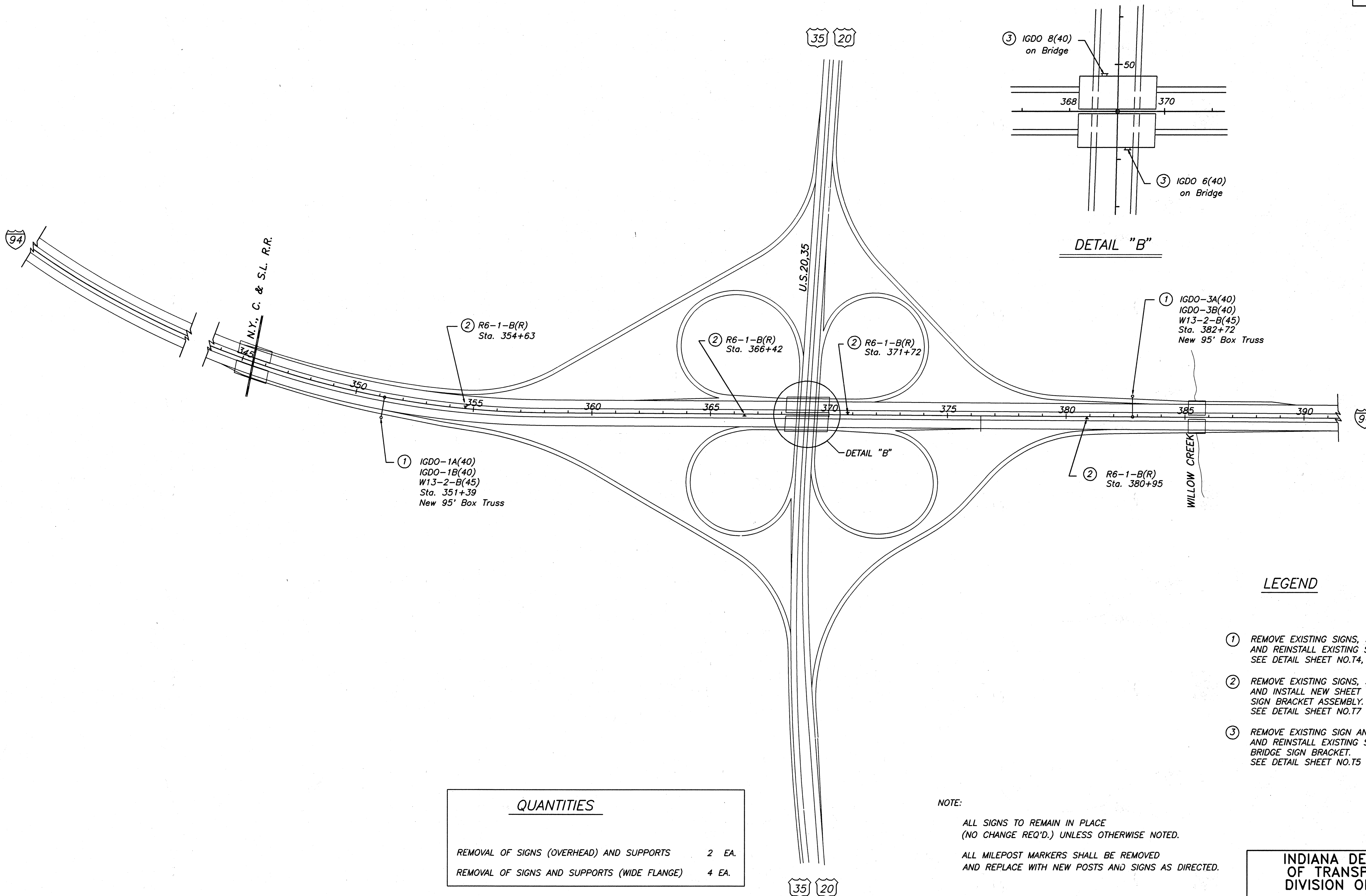
NOVEMBER 1986

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
MAIM-94-2(081)	B	T1	T31	

R-20060  
3 OF 6



FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	ST-94-2( )39	1992	73	731



**LEGEND**

- ① REMOVE EXISTING SIGNS, SUPPORTS AND FOUNDATIONS AND REINSTALL EXISTING SIGNS ON NEW SUPPORTS. SEE DETAIL SHEET NO. T4, T5, T6
- ② REMOVE EXISTING SIGNS, SUPPORTS AND FOUNDATIONS AND INSTALL NEW SHEET SIGN ON BARRIER WALL SIGN BRACKET ASSEMBLY. SEE DETAIL SHEET NO. T7
- ③ REMOVE EXISTING SIGN AND BRIDGE BRACKET AND REINSTALL EXISTING SIGN ON NEW BRIDGE SIGN BRACKET. SEE DETAIL SHEET NO. T5

<u>QUANTITIES</u>	
REMOVAL OF SIGNS (OVERHEAD) AND SUPPORTS	2 EA.
REMOVAL OF SIGNS AND SUPPORTS (WIDE FLANGE)	4 EA.

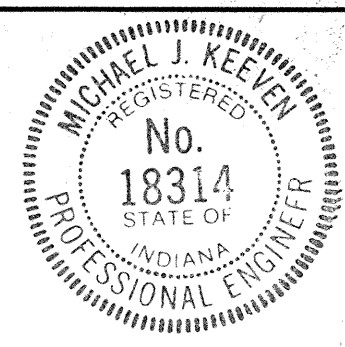
NOTE:  
 ALL SIGNS TO REMAIN IN PLACE (NO CHANGE REQ'D.) UNLESS OTHERWISE NOTED.  
 ALL MILEPOST MARKERS SHALL BE REMOVED AND REPLACE WITH NEW POSTS AND SIGNS AS DIRECTED.

**INDIANA DEPARTMENT OF TRANSPORTATION  
 DIVISION OF TRAFFIC**

EXISTING SIGNS UPGRADE  
 EXIT 40  
 U.S. 35 at I-94

LaPorte District, LaPorte County

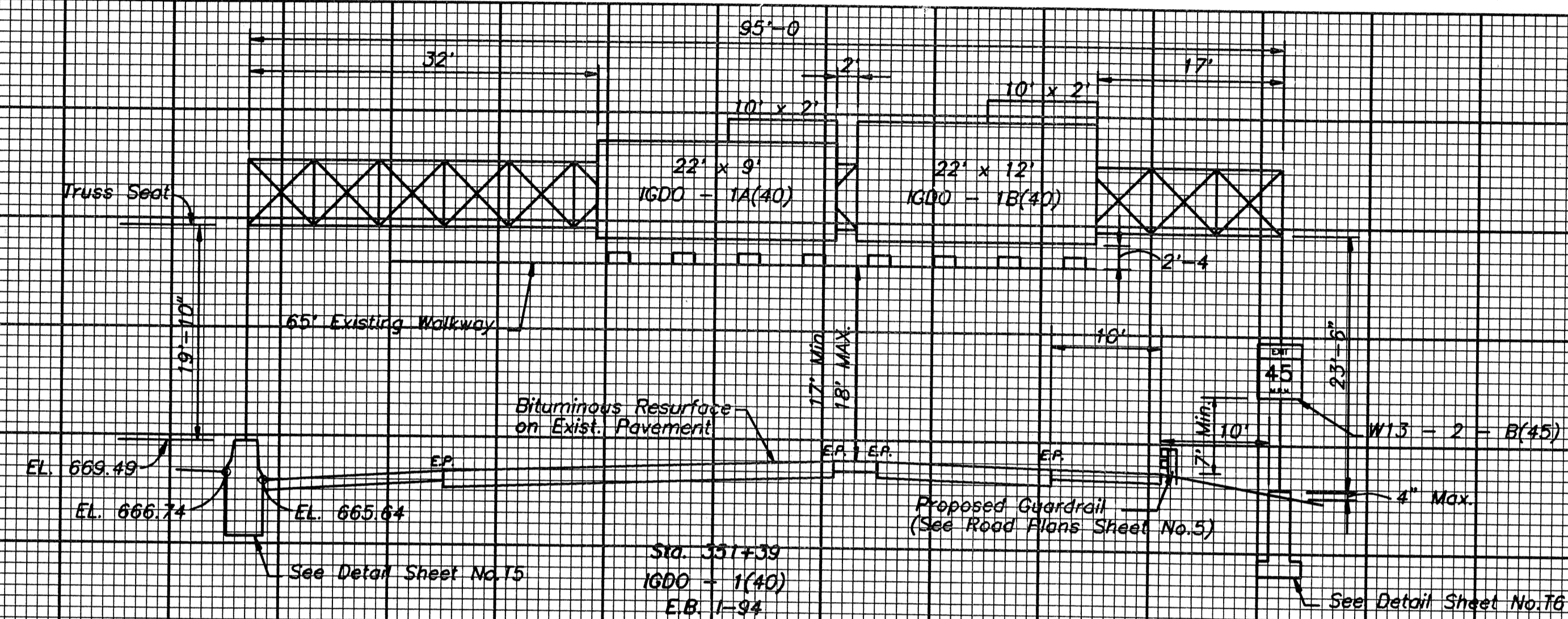
SCALE: 1"=200'    DRAWN BY: WRD    REV. DATE:



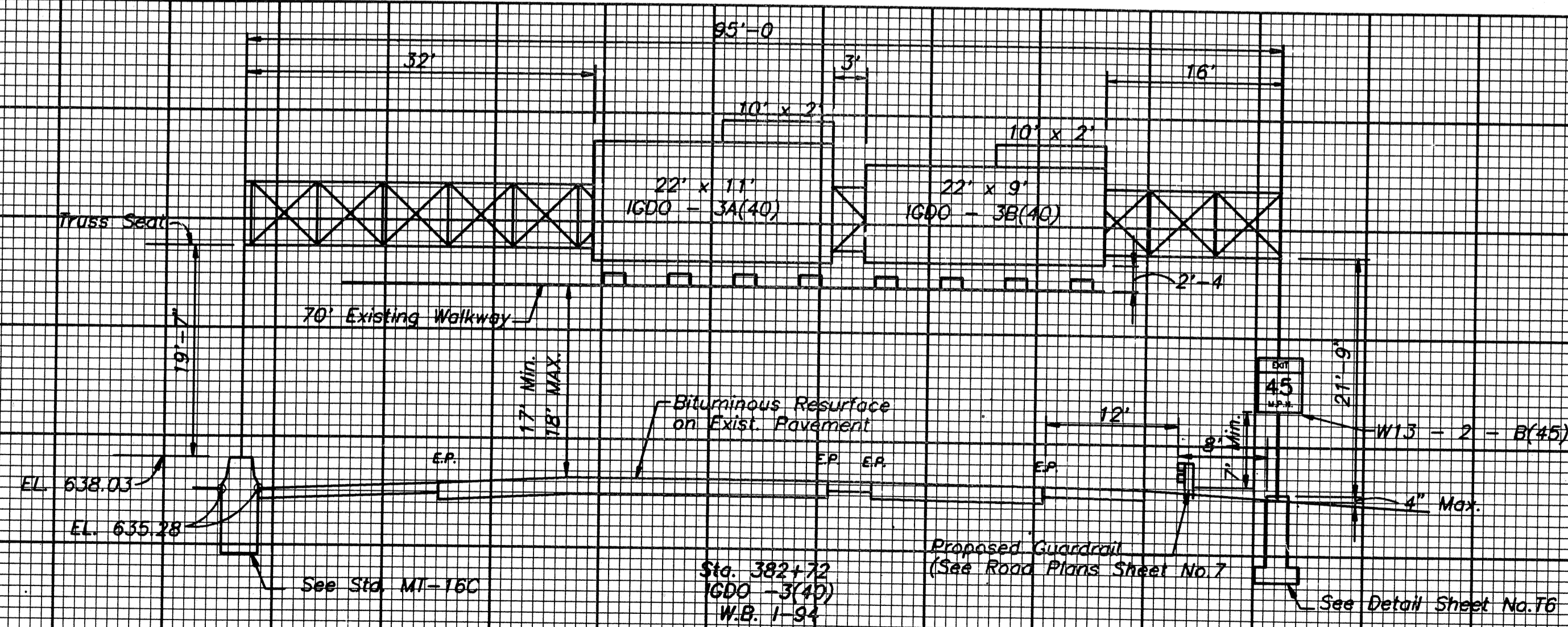
1945IGN

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	571-94-2( )39	1992	T4	T30

Install Existing Signs, Luminaires, Walkway  
with Handrail and Lighting Support Assembly  
on to New 95' Box Truss Span and Supports.



Install Existing Signs, Luminaires, Walkway  
with Handrail and Lighting Support Assembly  
on to New 95' Box Truss Span and Supports



INDIANA DEPARTMENT  
OF TRANSPORTATION  
DIVISION OF TRAFFIC

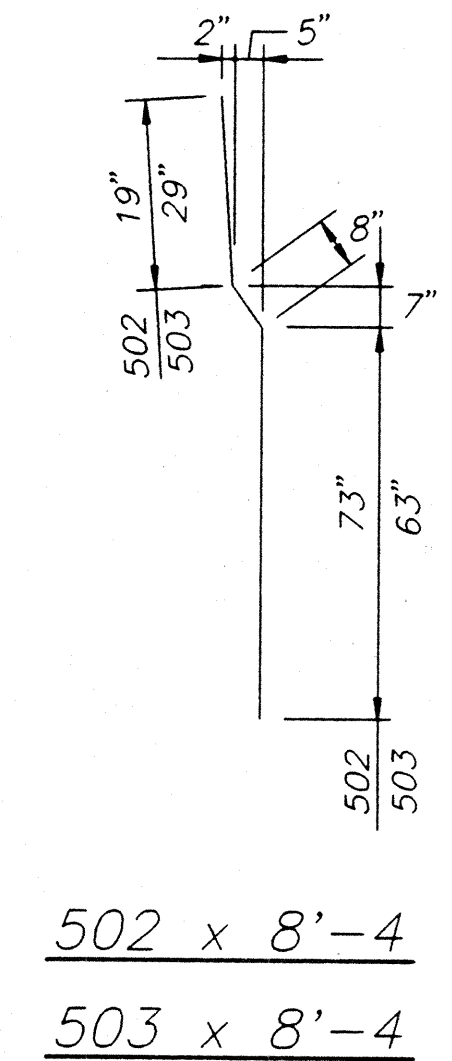
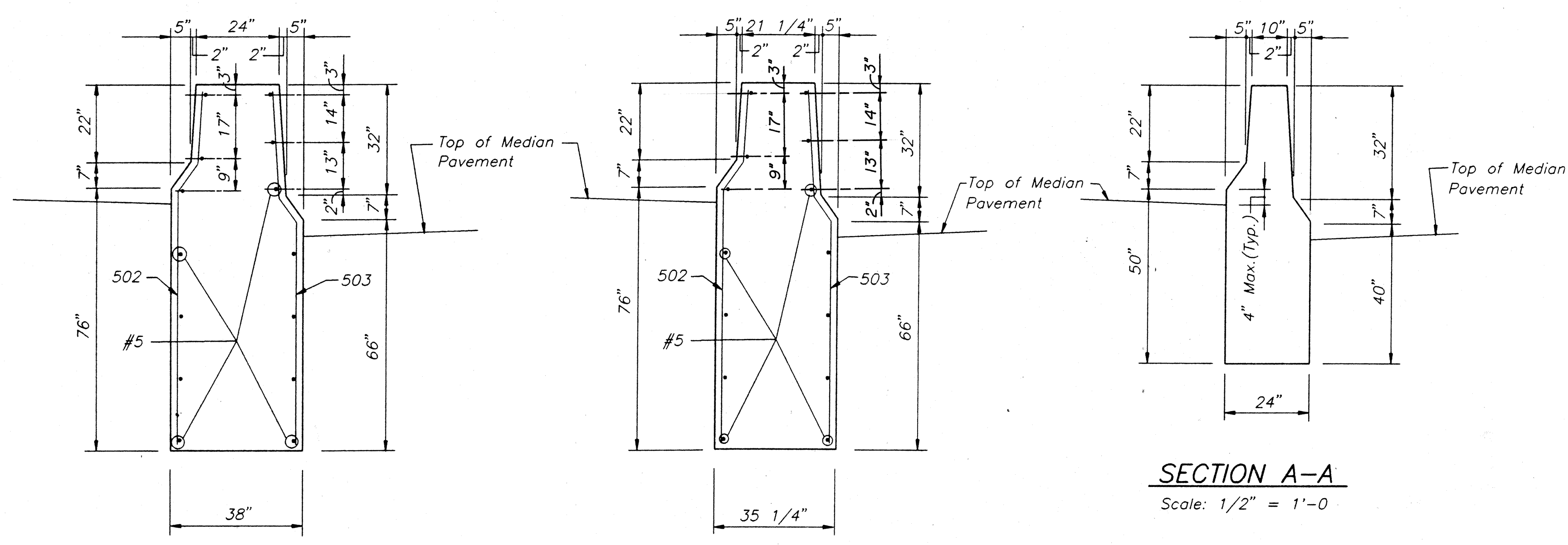
CROSS SECTIONS &  
SIGN LAYOUT DETAILS  
U.S. 35 at I-94

LaPorte District, LaPorte County

SCALE: 1"=1' DRAWN BY: FJ REV. DATE:



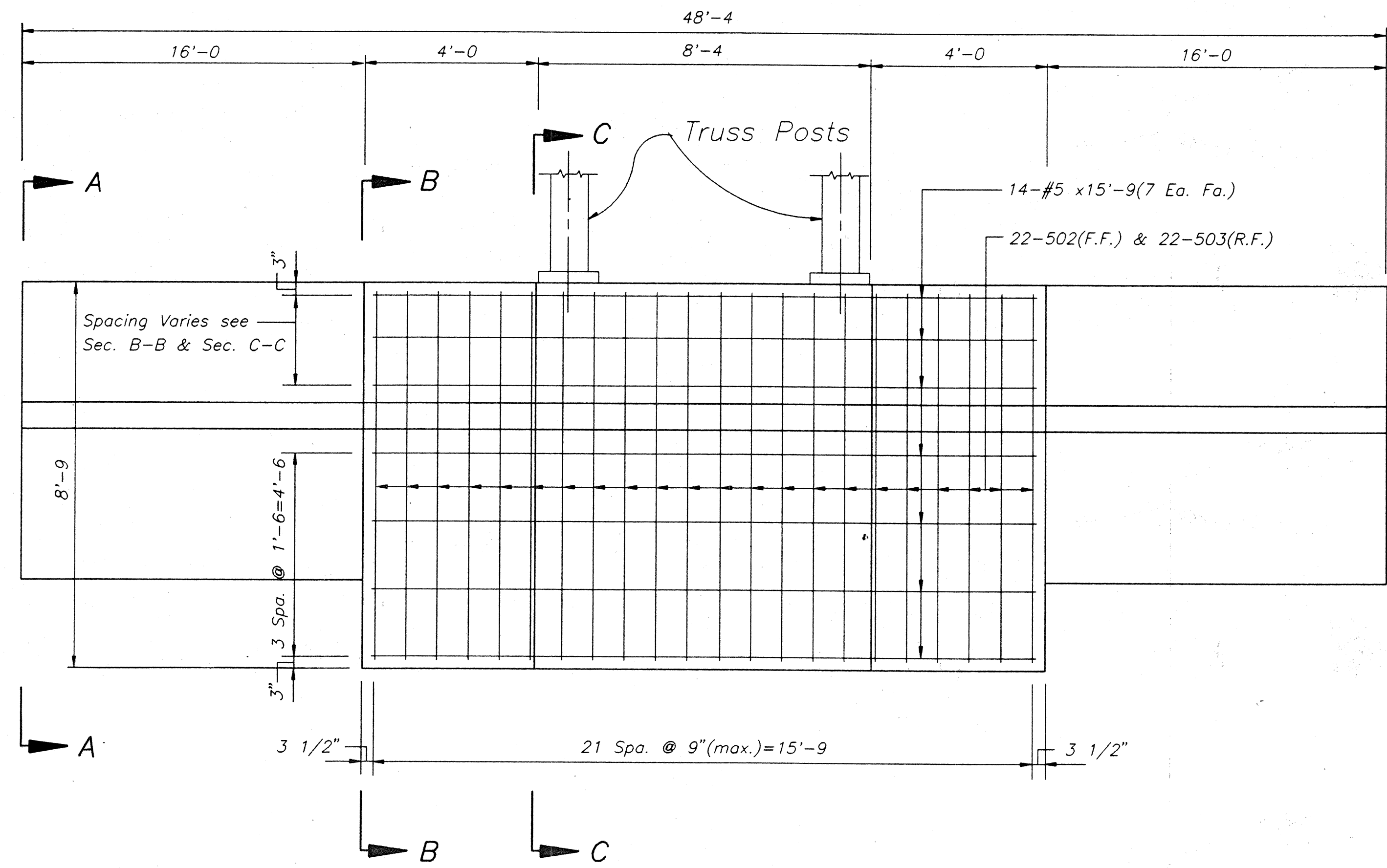
BASED BY: F.J.



**BOX TRUSS**

STRUCTURE	LOCATION	CONCRETE "A" IN STRUCTURES (CYDS.) EA. FTG.	EPOXY COATED REINF. STEEL (LBS.) EA. FTG.	SIGN DIMENSIONS (FEET) EXISTING SIGNS	SIGN AREA (SFT.)	SPAN (FEET)	REMARKS
IGDO-1 (40)	STA. 351+39 E.B. 1-94	7.28 (1) 27.0 (3)	362 (1) 612 (3)	22'x9', 22'x12', 2-10'x2'	502	95'	
IGDO-3 (40)	STA. 382+72 W.B. 1-94	7.28 (1) 21.0 (2)	362 (1) 541 (2)	22'x11', 22'x9', 2-10'x2'	480	95'	
<b>TOTAL</b>		<b>62.56</b>	<b>1,877</b>				

(1) SEE SHEET NO.16 FOR DETAILS.  
 (2) SEE MT-16C FOR DETAILS. (ALL THE REINFORCING STEEL SHALL BE EPOXY COATED)  
 (3) SEE DETAILS THIS SHEET.



**MODIFIED SPECIAL FOOTING AT MEDIAN INSTALLATION**  
**BOX TRUSS FOUNDATION**

Not to Scale

**NOTE:** For further Details on Anchor Bolts see MT-14, MT-16 and Section 909.19 of the standard specifications.  
 For Plan View and Additional notes see MT-16C.

**BILL OF MATERIALS**  
**BOX TRUSS FOUNDATION**  
**REINFORCING STEEL**

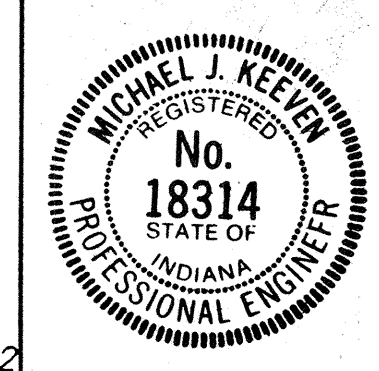
Mark or Size	No. of Bars	Length	Weight (Lbs.)
502	22	8'-4"	
503	22	8'-4"	
#5	14	15'-9"	
<b>Total Reinf. Steel =</b>			<b>612</b>

**NOTE:**  
 Reinforcing Steel to be Graded 40 (Fy = 40,000 psi).

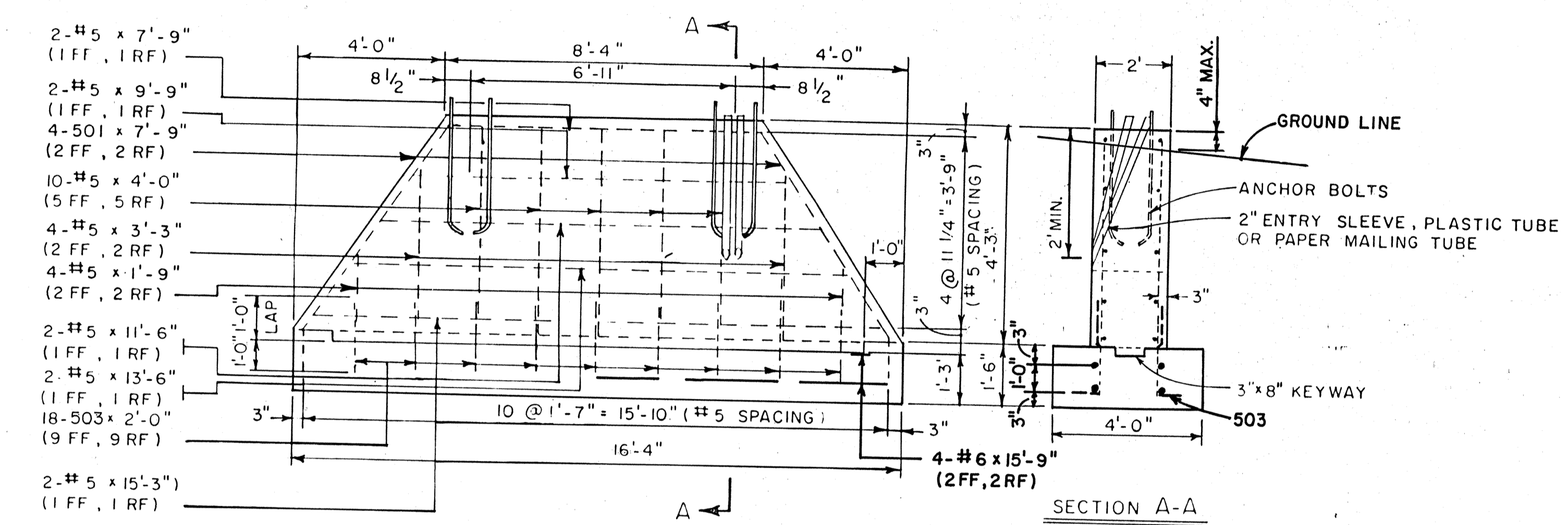
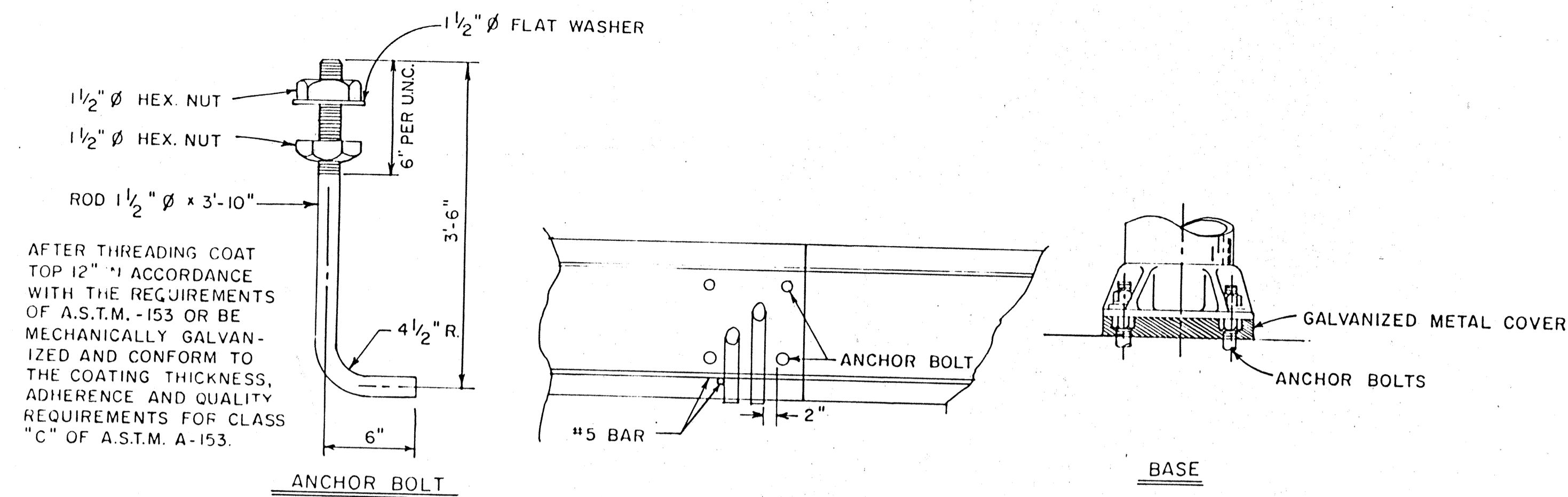
INDIANA DEPARTMENT OF TRANSPORTATION  
 DIVISION OF TRAFFIC

SIGN DETAILS  
 EXIT 40  
 U.S. 35 at 1-94

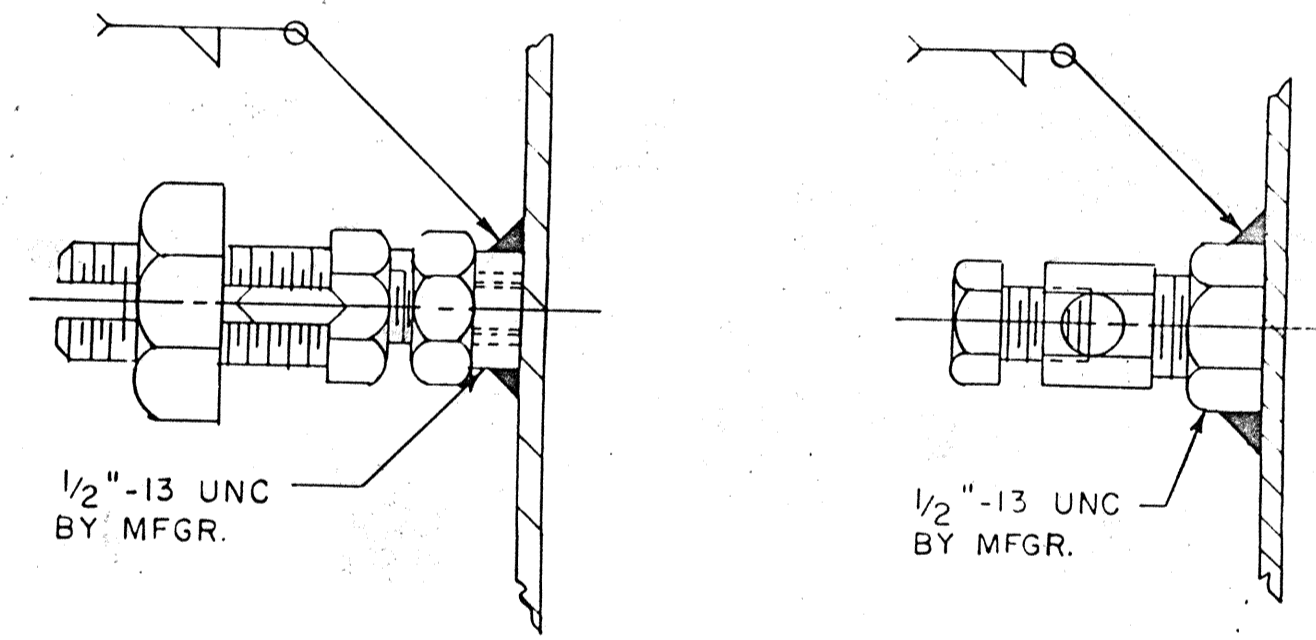
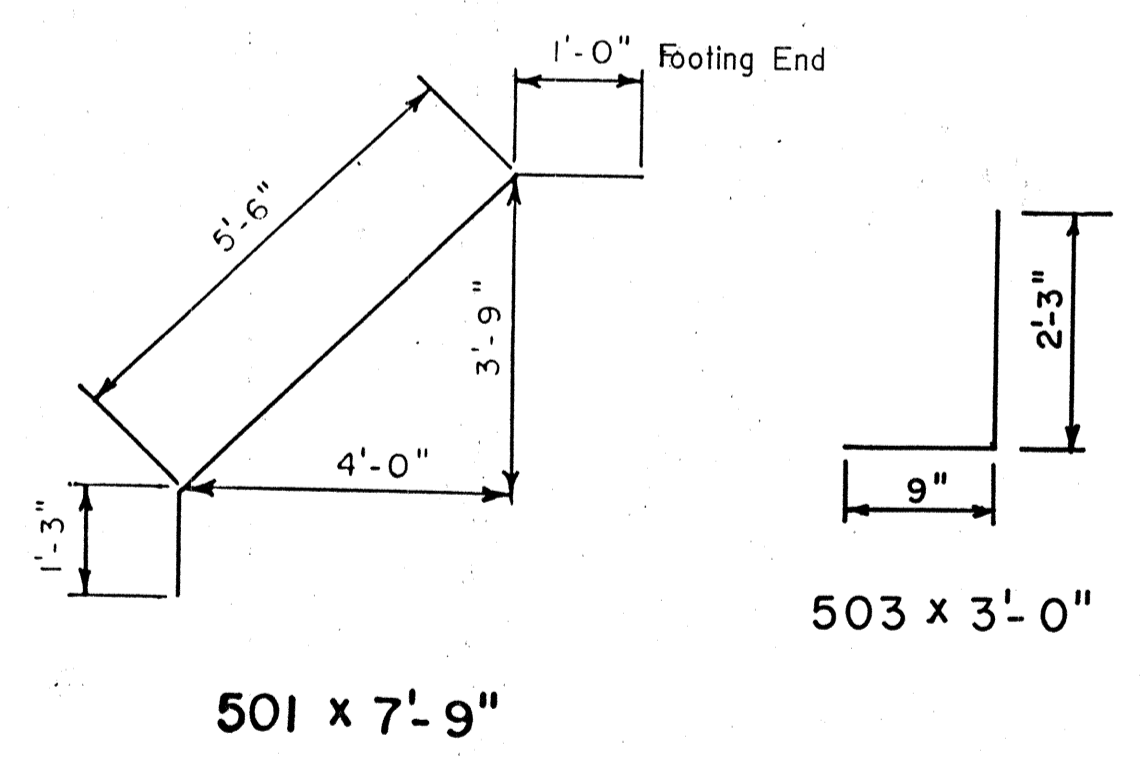
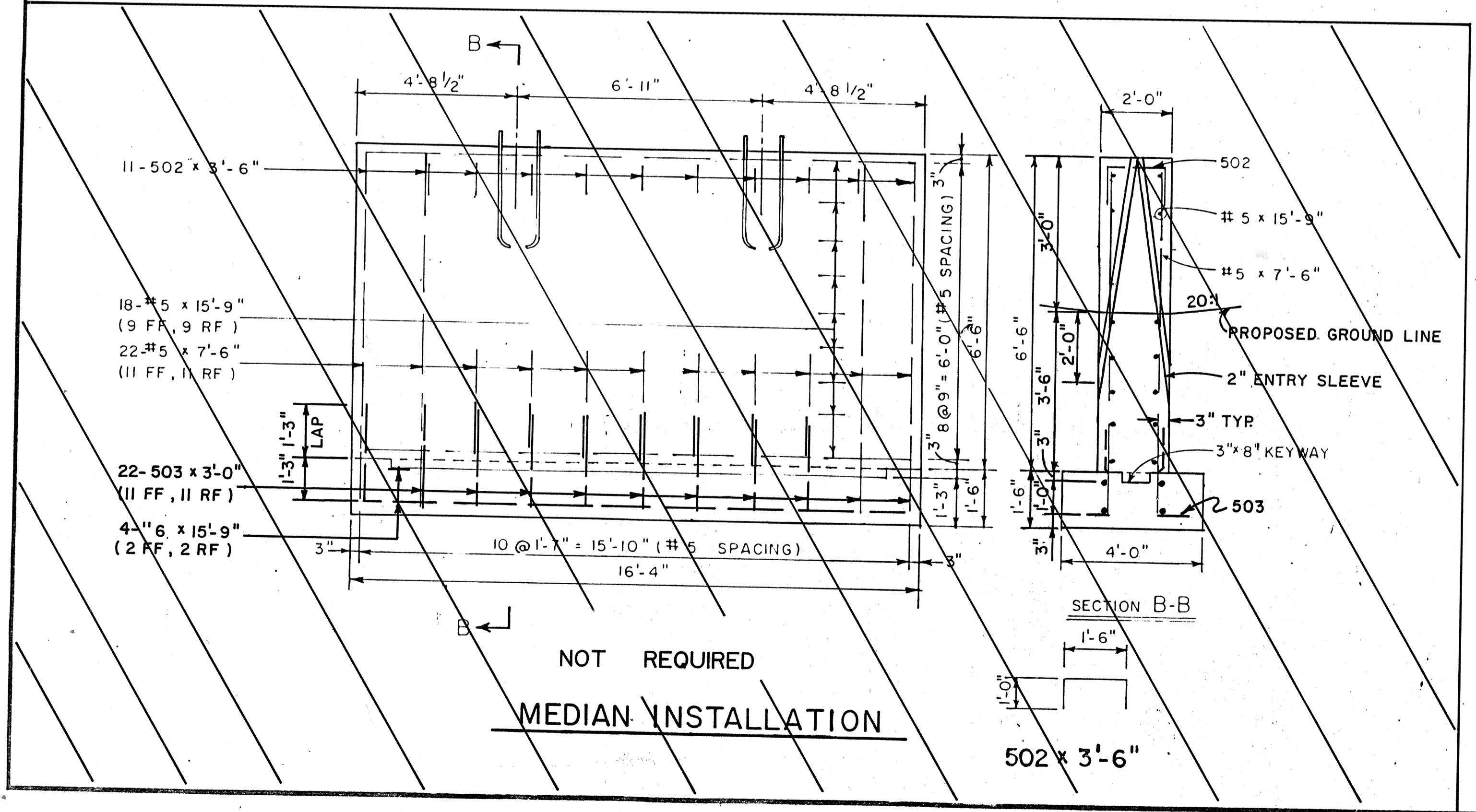
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FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	STI-94-2(139)	1992	76	131



**SHOULDER INSTALLATION**



**DETAIL OF GROUNDING CONNECTION**  
THE GROUNDING CONNECTION SHALL BE LOCATED 12" FROM THE BOTTOM OF THE SUPPORT, EASILY ACCESSIBLE FROM THE STRUCTURE MANHOLE.  
OXIDATION INHIBITOR SHALL BE LIBERALLY APPLIED TO ALL SURFACES THAT MATE WITH A DISSIMILAR MATERIAL.

**BOX TRUSS SIGN STRUCTURE FOUNDATION DETAILS**

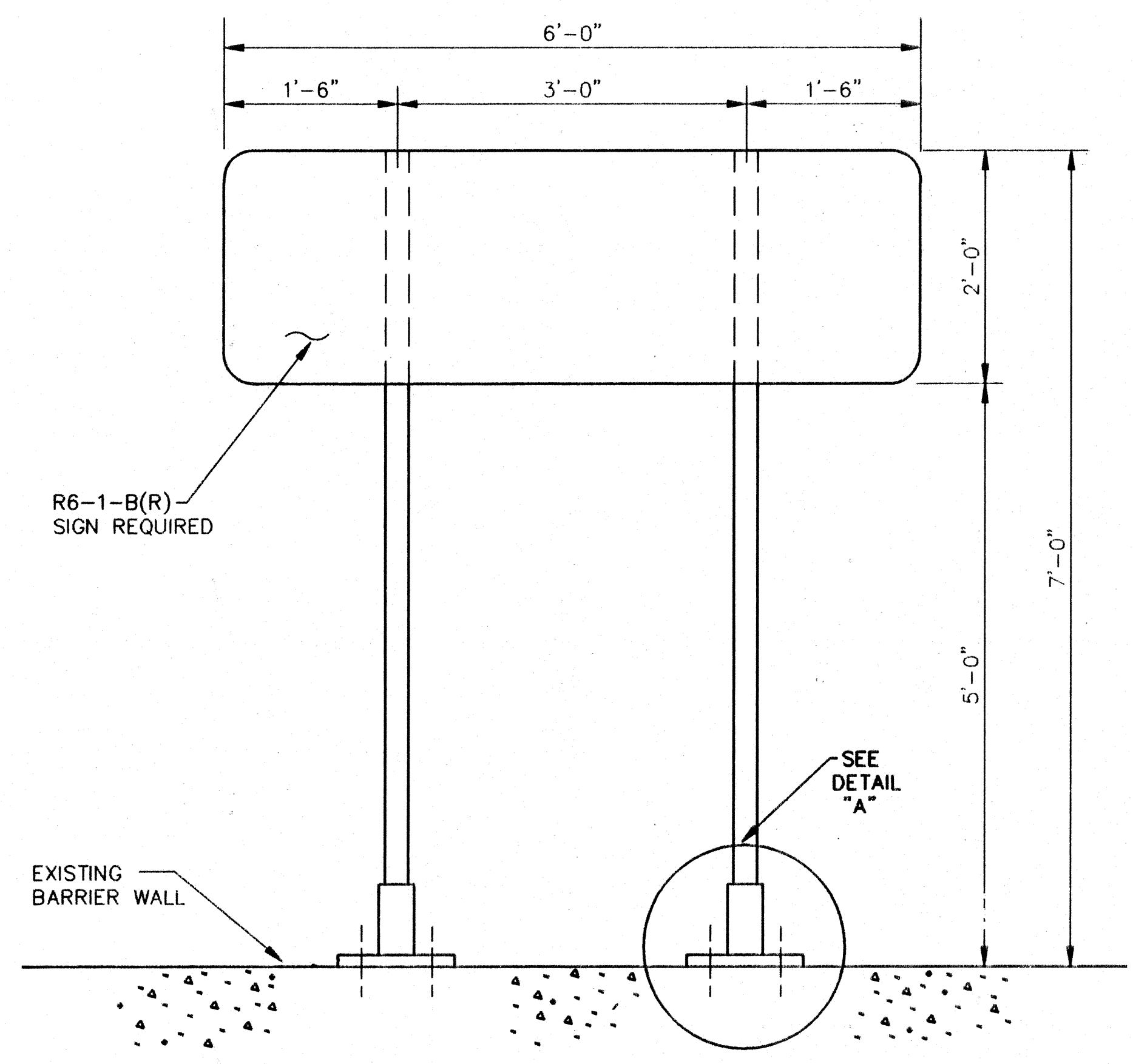
INDIANA DEPARTMENT OF TRANSPORTATION  
DIVISION OF TRAFFIC  
SIGN DETAIL  
EXIT 40  
U.S. 35 at I-94



SCALE: AS NOTED DRAWN BY: F.J. REV.: DATE:

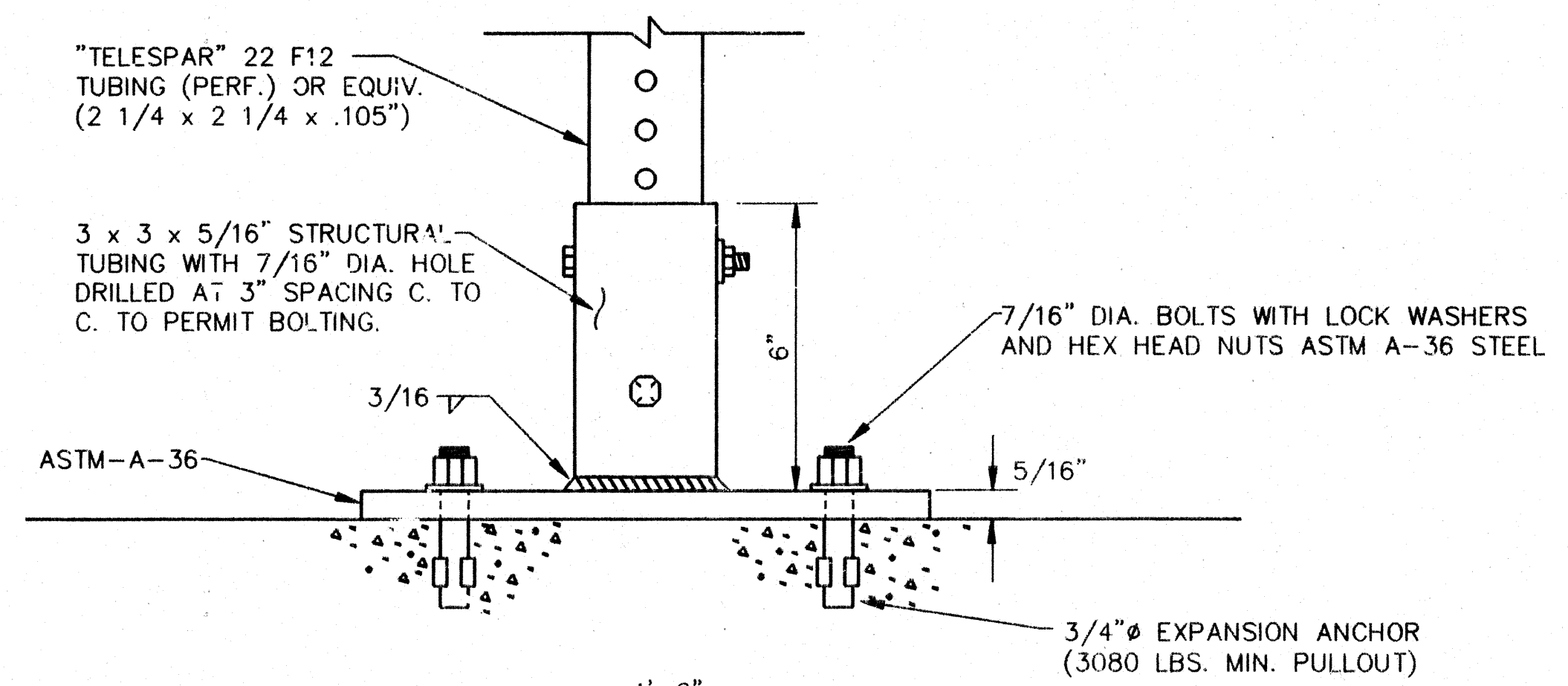
R-20060

FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	572-94-2(7)39	1992	77	731



**BARRIER WALL SIGN BRACKET ASSEMBLY (MEDIAN)**

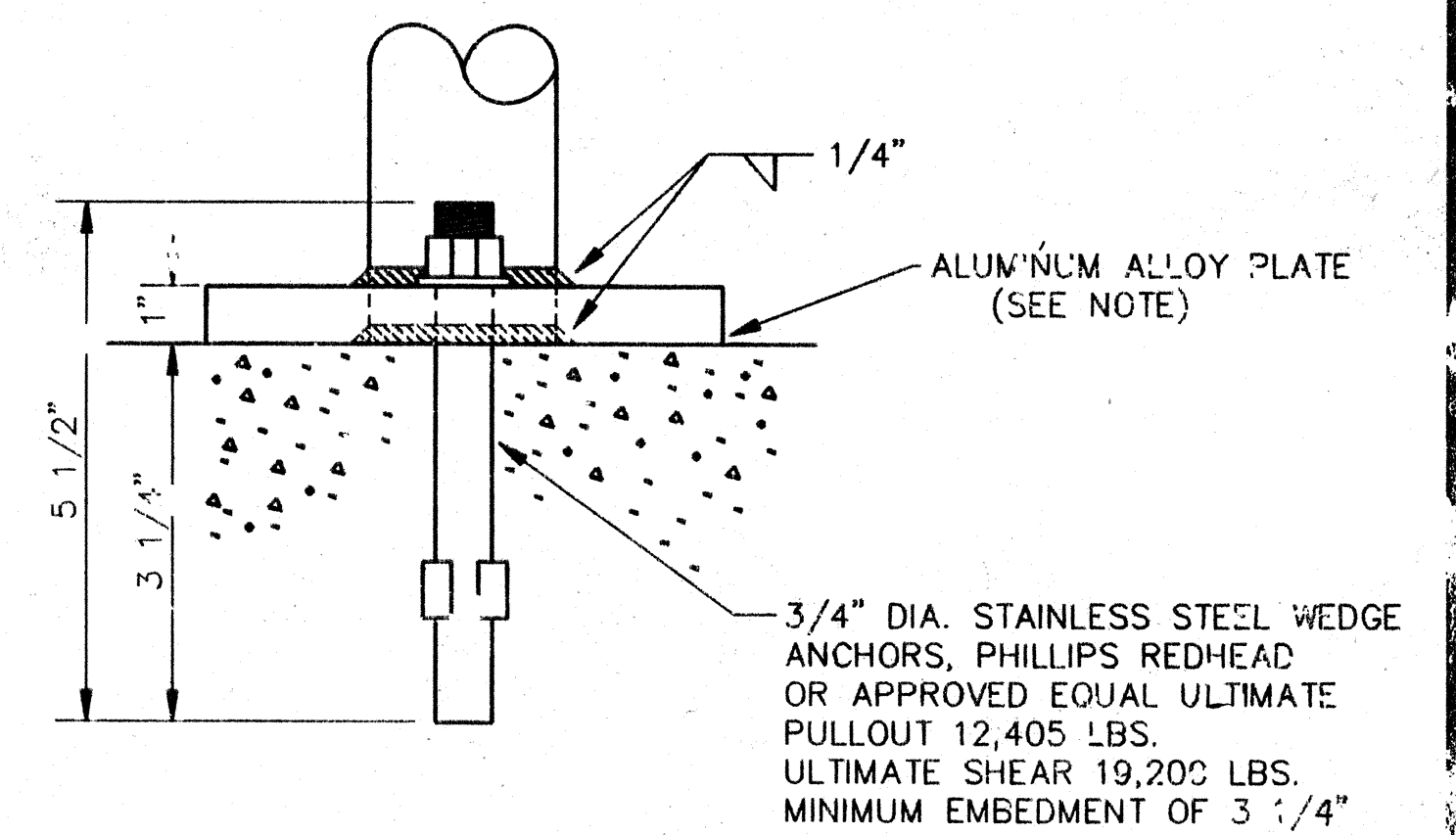
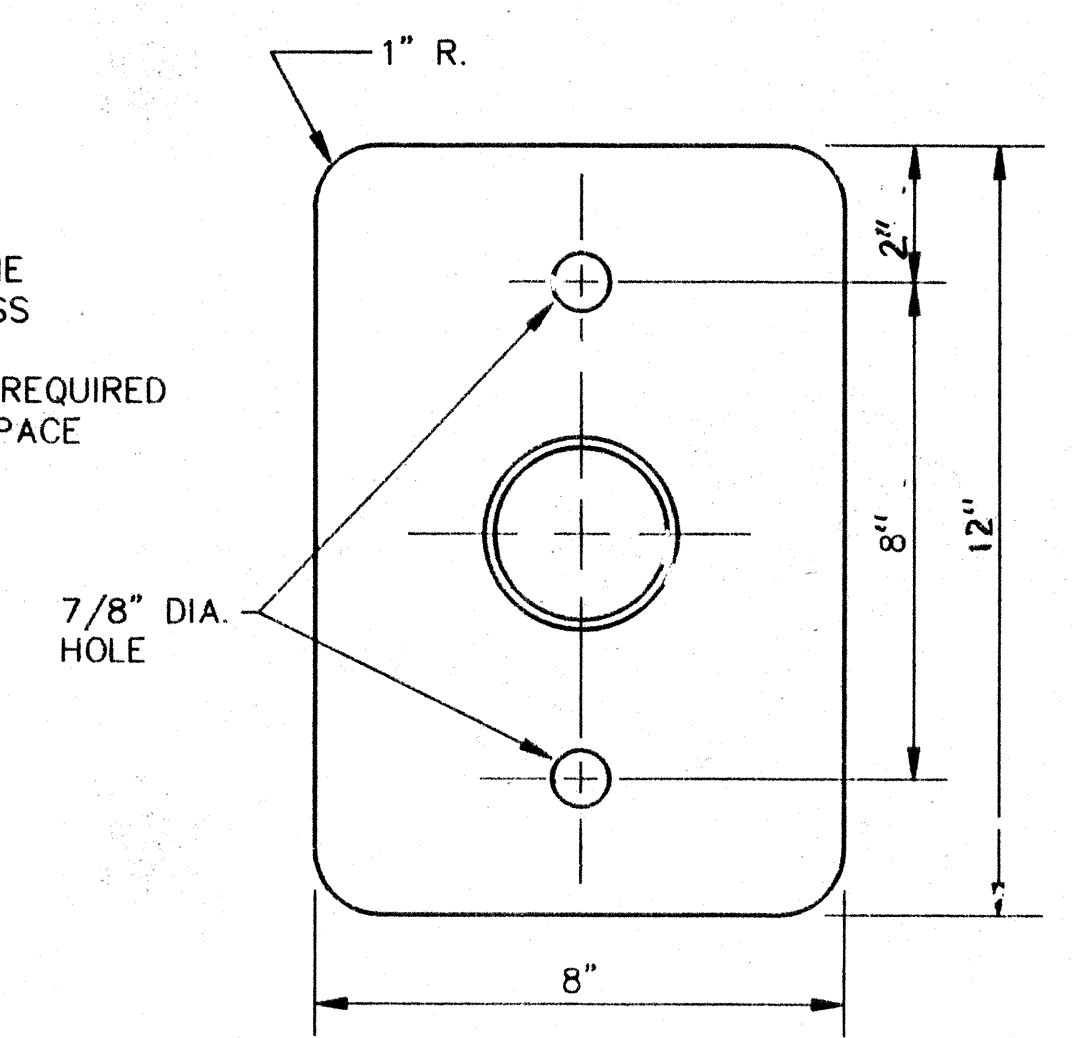
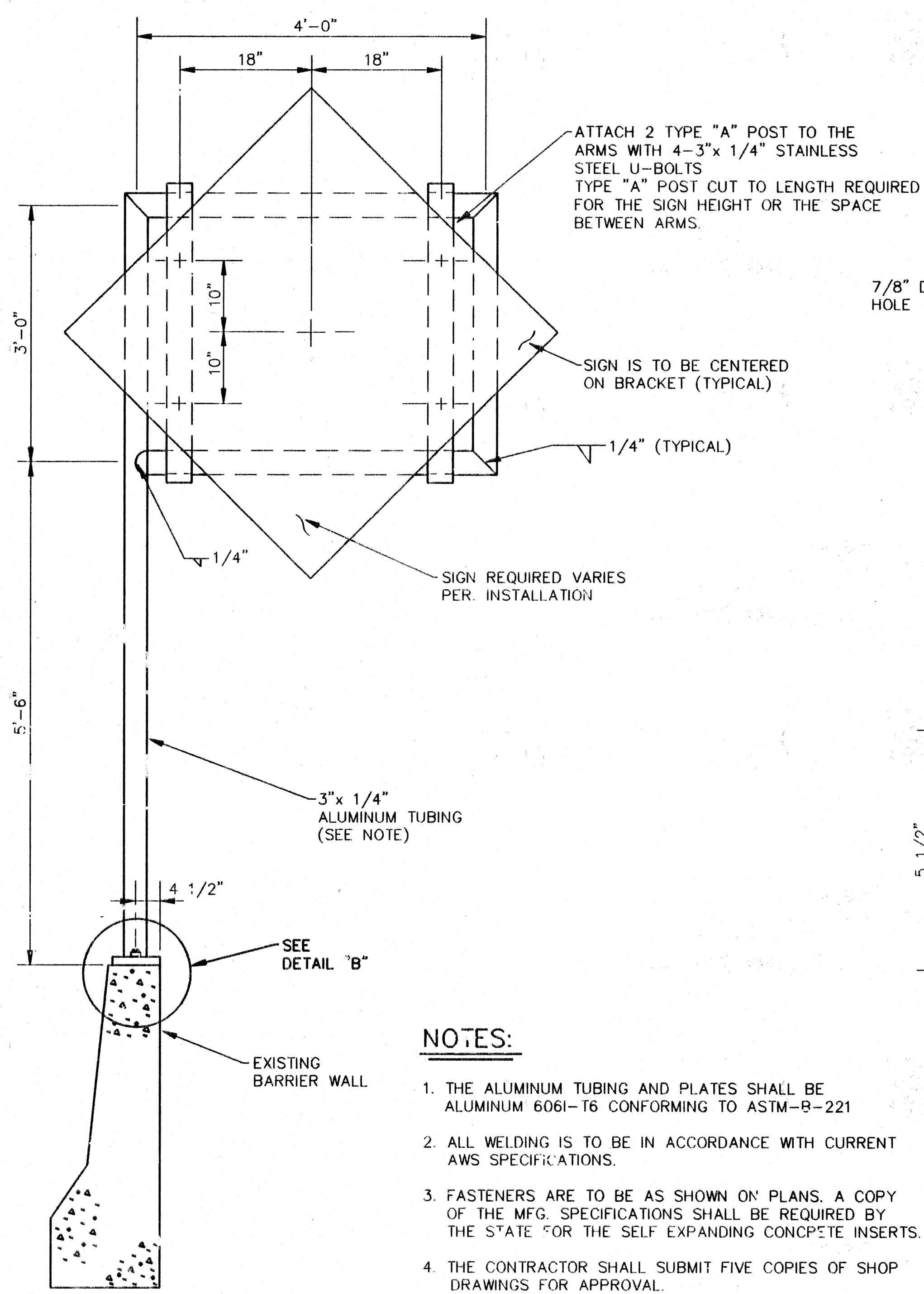
—NO SCALE—



**DETAIL "A"**

**BARRIER WALL SIGN BRACKET (SHOULDER)**

—NO SCALE—



**DETAIL "B"**

**NOTES:**

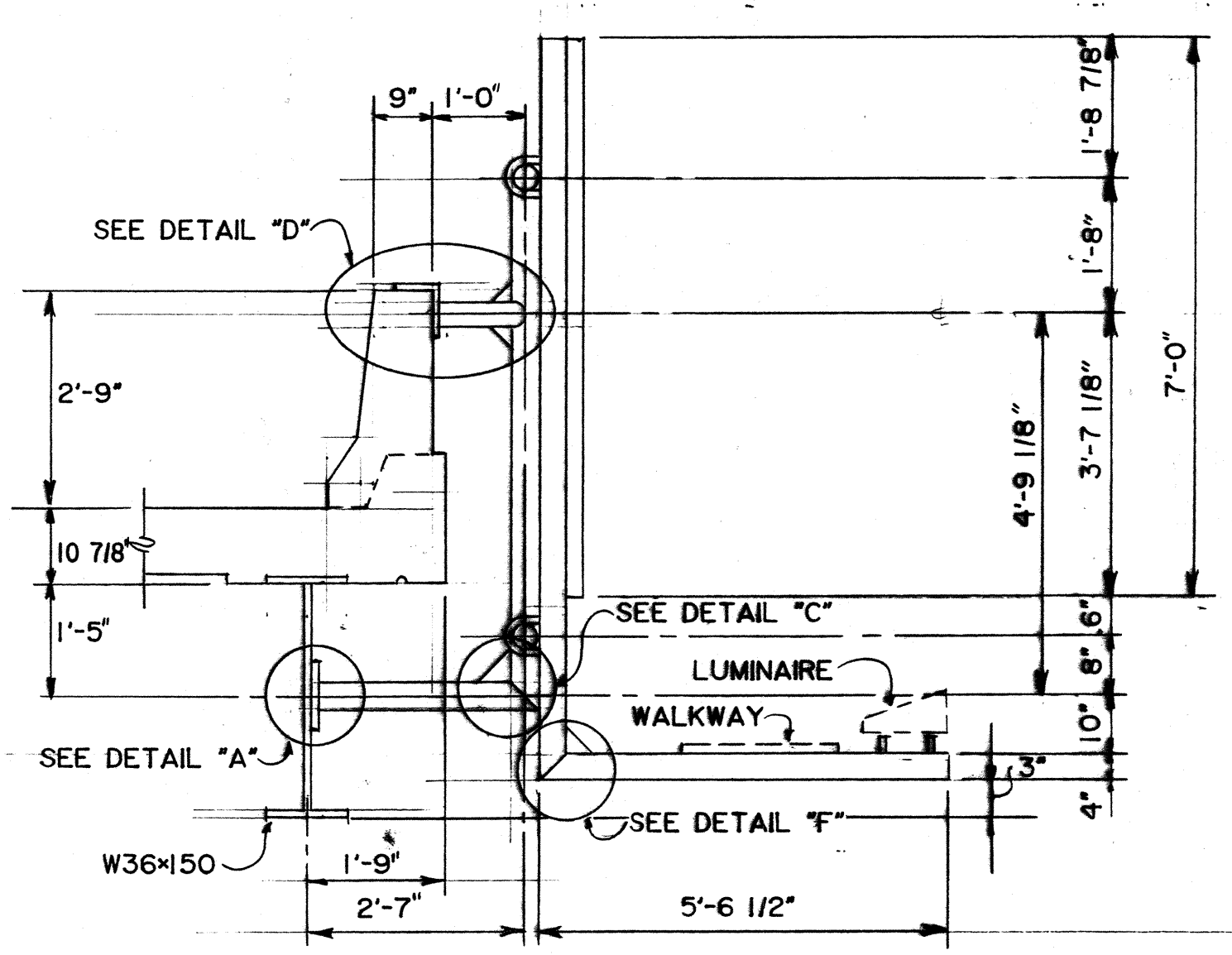
1. THE ALUMINUM TUBING AND PLATES SHALL BE ALUMINUM 6061-T6 CONFORMING TO ASTM-B-221
2. ALL WELDING IS TO BE IN ACCORDANCE WITH CURRENT AWS SPECIFICATIONS.
3. FASTENERS ARE TO BE AS SHOWN ON PLANS. A COPY OF THE MFG. SPECIFICATIONS SHALL BE REQUIRED BY THE STATE FOR THE SELF EXPANDING CONCPETE INSERTS.
4. THE CONTRACTOR SHALL SUBMIT FIVE COPIES OF SHOP DRAWINGS FOR APPROVAL.
5. BEFORE PLACING ANY ALUMINUM IN CONTACT WITH CONCRETE, THE CONCRETE SHALL BE COATED WITH AN ALUMINUM IMPREGNATE COUCKING COMPOUND SUCH AS ALUMILASTIC "C" GRADE
6. ALUMINUM SURFACES TO BE PLACED IN CONTACT WITH THE TYPE "A" STEEL POST SHALL BE GIVEN ONE COAT OF ZINC CHROMATE BEFORE PLACING.
7. THE ITEMS SHALL INCLUDE THE FURNISHING AND INSTALLATION OF THE BRACKETS AS DETAILED. ALL WORK AND HARDWARE, INCLUDING TYPE "A" POST WHERE REQUIRED, SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR EACH BRACKET.

**INDIANA DEPARTMENT OF TRANSPORTATION**  
**BARRIER WALL SIGN BRACKET DETAILS**

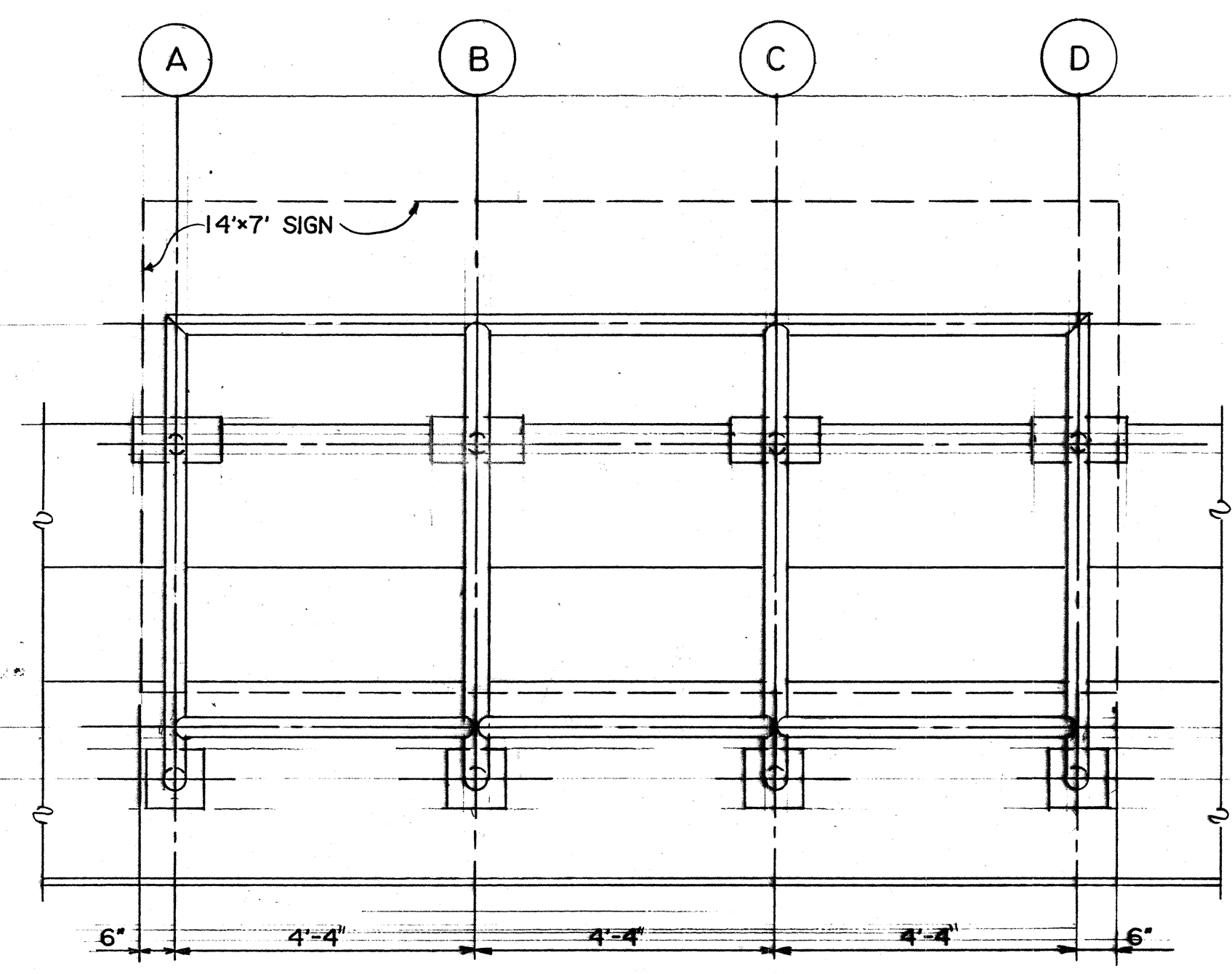


SCALE: None

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND	ST-94-2(139)	1992	TB	T31



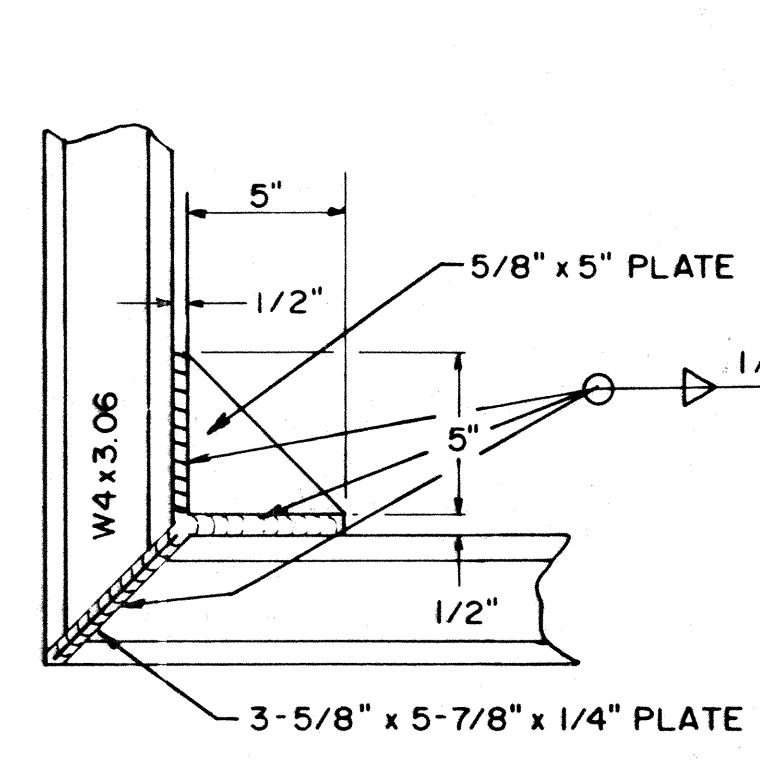
**BRIDGE BRACKET LATERAL SECTION**



**ELEVATION**

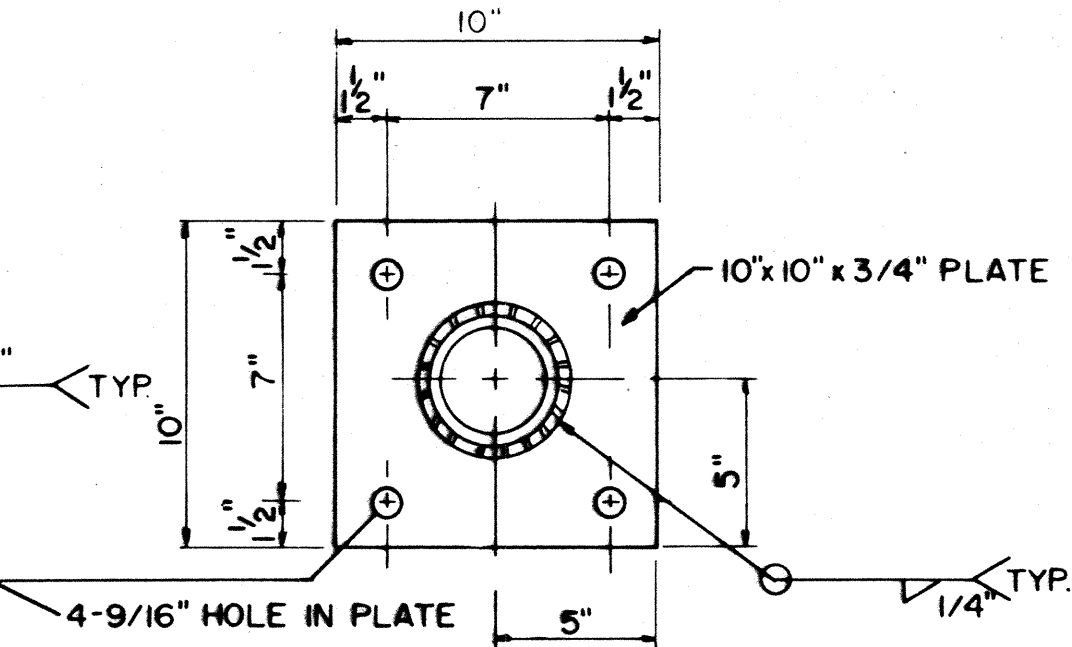
**NOTES:**

1. ALL WELDING IS TO BE IN ACCORDANCE WITH CURRENT LAWS SPECIFICATIONS.
2. ALL FASTENERS TO BE AS SHOWN ON PLANS. A COPY OF THE MFG. SPECIFICATIONS SHALL BE REQUIRED BY THE STATE FOR THE SELF EXPANDING CONCRETE INSERTS.
3. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS TO ASSURE A PROPER FIT.
4. BEFORE PLACING ANY ALUMINUM IN CONTACT WITH STEEL, IT SHALL BE GIVEN ONE COAT OF ZINC CHROMATE. THE SURFACE SHALL BE COATED WITH AN ALUMINUM IMPREGNATED CAULKING COMPOUND. AFTER THE BOLTS HAVE BEEN TIGHTENED, THE EXCESS CAULKING COMPOUND SHALL BE REMOVED AND ALL OPENINGS AROUND THE FLANGES PAINTED FULL AND FLUSH WITH CAULKING COMPOUND.
5. METHOD OF INSTALLING INSERTS SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER OF THE SELF-EXPANDING ANCHOR.
6. FOR STEEL BEAM INSTALLATION, THE CONTRACTOR SHALL USE 1/2" x 2" STAINLESS STEEL BOLTS, SELF LOCKING NUTS, AND WASHERS.
7. FOR CONCRETE BRIDGE COPING INSTALLATION, THE CONTRACTOR SHALL USE 3/4" Ø STAINLESS STEEL WEDGE ANCHORS, PHILLIPS READHEAD OR APPROVED EQUAL. IT'S ULTIMATE PULLOUT AND SHEAR LOADS ARE 12000# AND 19000# RESPECTIVELY. IT SHALL BE EMBEDDED IN CONCRETE 4-1/4" MINIMUM.
8. FOR BRACKET INSTALLATION ON 4" WIDE FLANGE, IT SHALL BE 5/8" HOLE, 1/2" STAINLESS STEEL U-BOLT, WASHER, AND SELF-LOCKING HEX HEAD NUT.
9. FOR ANGLE INSTALLATION, THE CONTRACTOR SHALL DRILL 11/16" HOLE IN GUSSET AND 11/16" x 1-1/4" SLOT IN ANGLE. STAINLESS STEEL BOLT SHALL BE 5/8" Ø WITH HEAD, SELF-LOCKING NUT, AND TWO FLAT WASHERS.
10. DESIGN DATA = ALUMINUM ALLOY 6061-T-6 CONFORMING TO ASTM B-221.  
ALUMINUM TUBING = O.D. : 4"  
THICKNESS : 3/8"



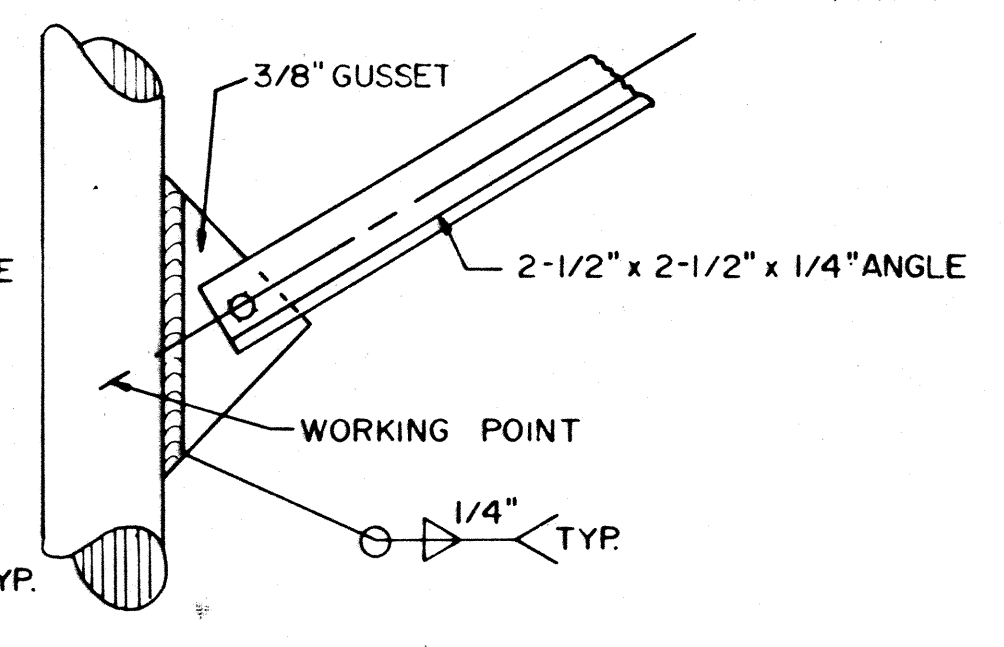
**DETAIL "A"**

SCALE: 1/8"=1"



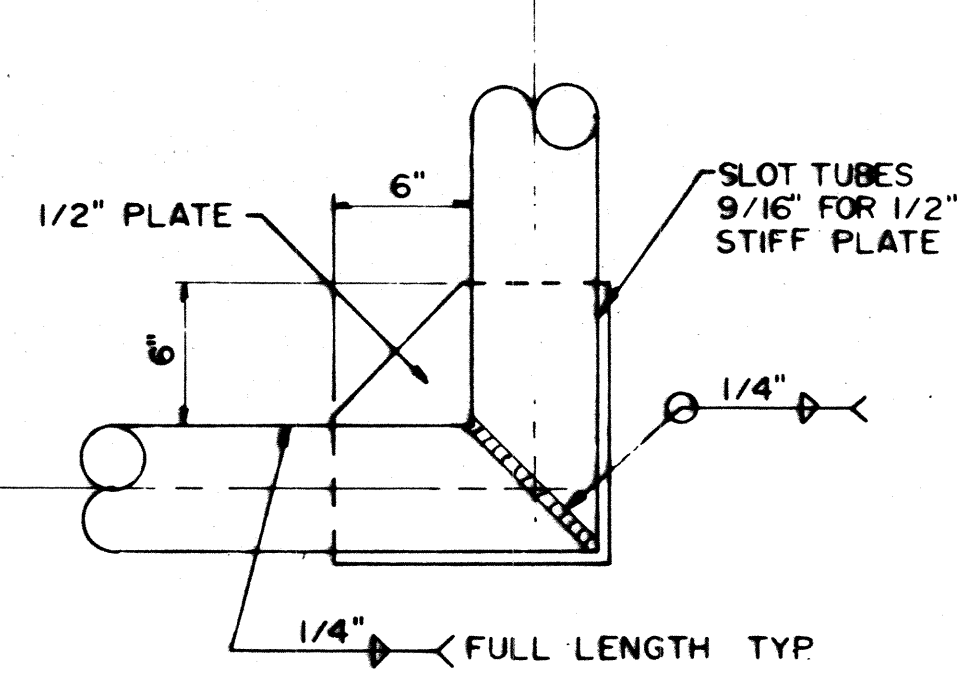
**DETAIL "B"**

SCALE: 1/8"=1"



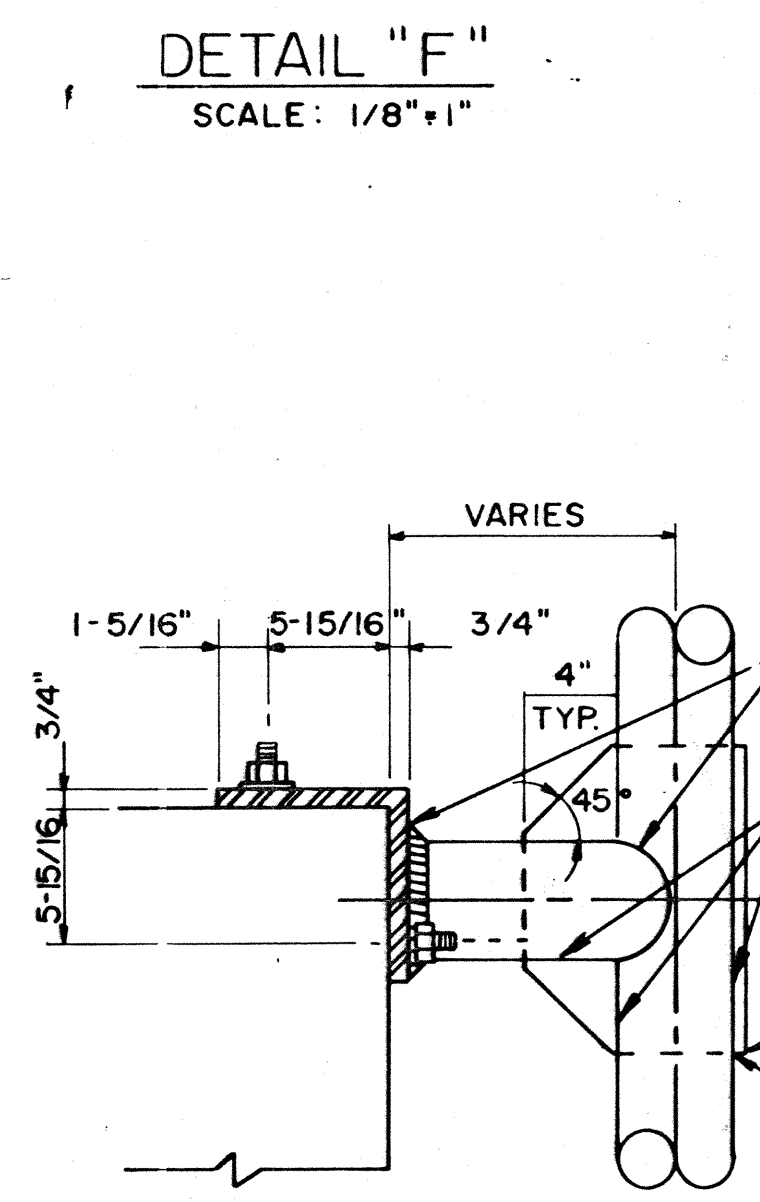
**DETAIL "C"**

SCALE: 1/8"=1"



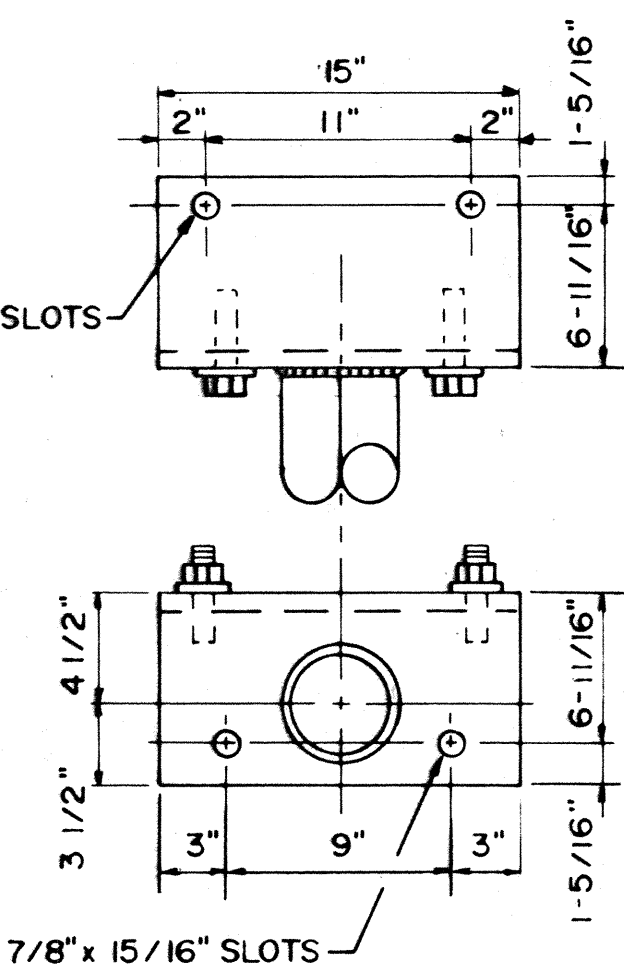
**NOTES:**

- 1) NEW LUMINAIRES SHALL BE PAID FOR SEPARATELY. THE SIGN CIRCUIT INSTALLATION SHALL INCLUDE ALL WORK NECESSARY TO CONNECT THE NEW BRIDGE BRACKET ASSEMBLY TO THE EXISTING UNDERPASS CIRCUITRY.
- 2) FOR LIGHTING SEE MISCELLANEOUS STANDARDS SHEET MT-10.



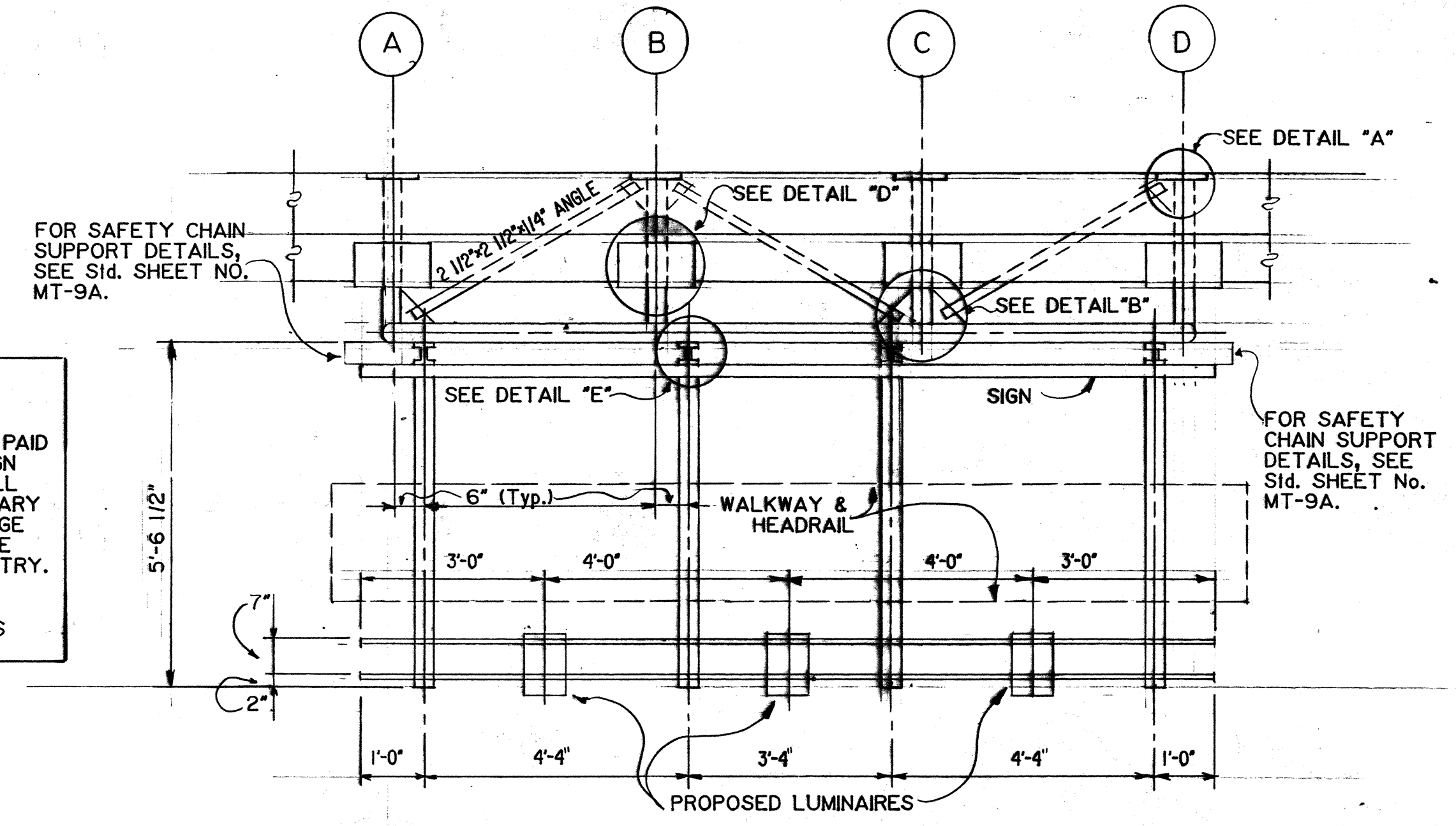
**DETAIL "D"**

SCALE: 1/8"=1"



**DETAIL "E"**

SCALE: 1/2"=1'-0"



**PLAN**

INDIANA DEPARTMENT OF TRANSPORTATION

**BRIDGE BRACKET DETAILS**

IGDO-8140

SCALE: AS NOTED DRAWN BY: B. FELLA REV. DATE: 4-17-90

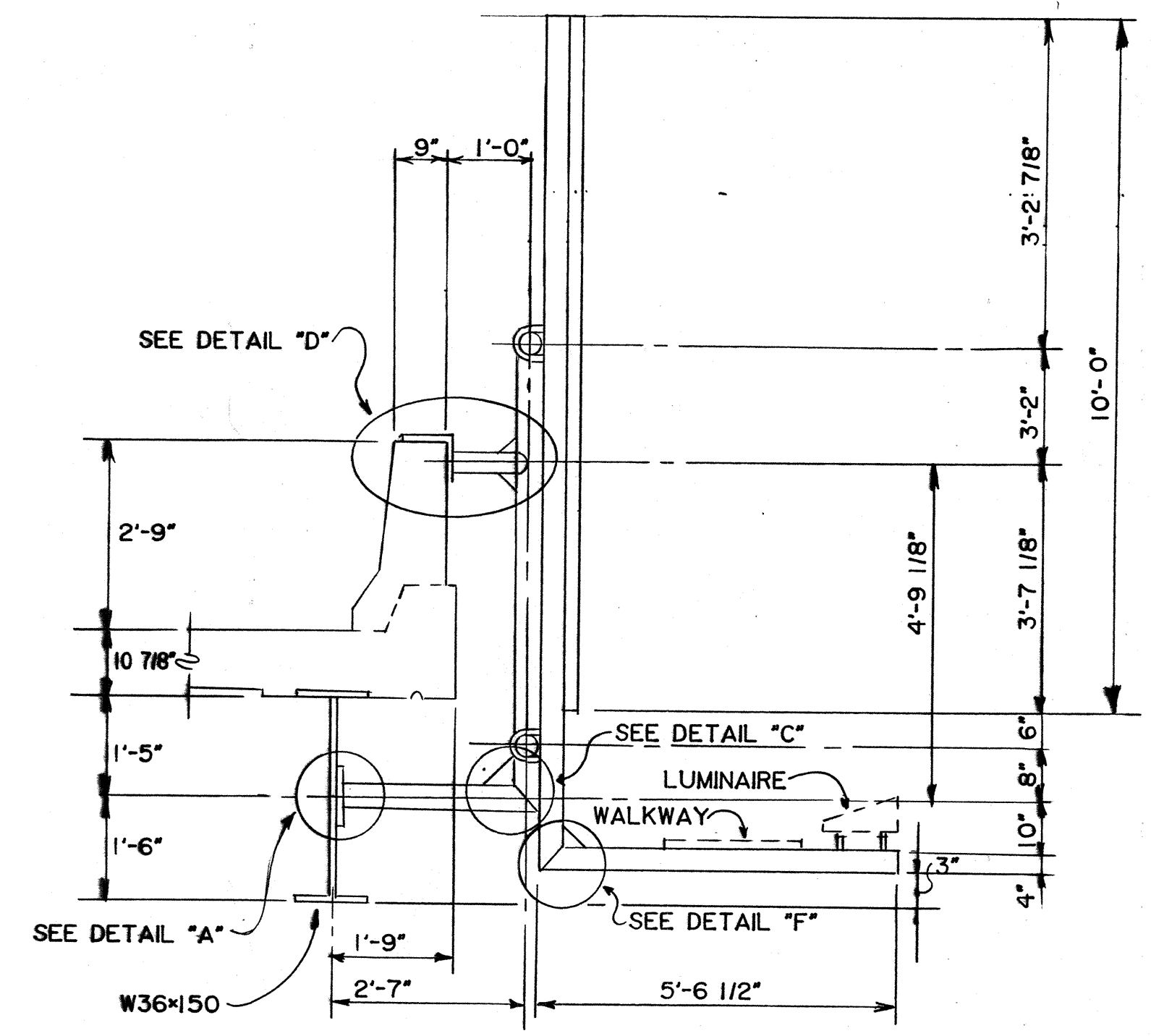




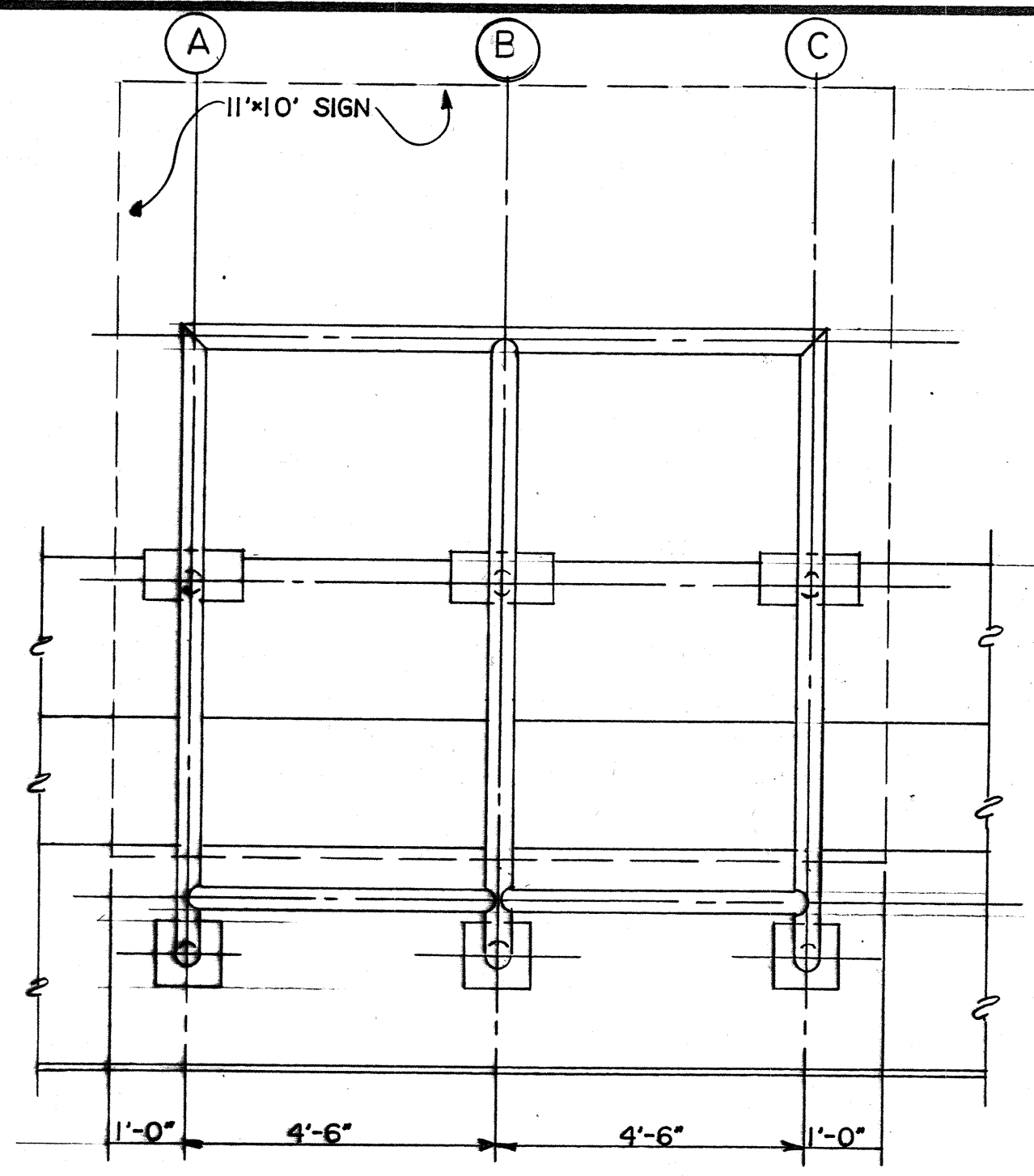
FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	STI-94-2( )39	1992	T9	T31

**NOTES:**

- ALL WELDING IS TO BE IN ACCORDANCE WITH CURRENT LAWS SPECIFICATIONS.
- ALL FASTENERS TO BE AS SHOWN ON PLANS. A COPY OF THE MFG. SPECIFICATIONS SHALL BE REQUIRED BY THE STATE FOR THE SELF EXPANDING CONCRETE INSERTS.
- THE CONTRACTOR SHALL CHECK ALL DIMENSIONS TO ASSURE A PROPER FIT.
- BEFORE PLACING ANY ALUMINUM IN CONTACT WITH STEEL, IT SHALL BE GIVEN ONE COAT OF ZINC CHROMATE. THE SURFACE SHALL BE COATED WITH AN ALUMINUM IMPREGNATED CAULKING COMPOUND. AFTER THE BOLTS HAVE BEEN TIGHTENED, THE EXCESS CAULKING COMPOUND SHALL BE REMOVED AND ALL OPENINGS AROUND THE FLANGES PAINTED FULL AND FLUSH WITH CAULKING COMPOUND.
- METHOD OF INSTALLING INSERTS SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER OF THE SELF-EXPANDING ANCHOR.
- FOR STEEL BEAM INSTALLATION, THE CONTRACTOR SHALL USE 1/2" x 2" STAINLESS STEEL BOLTS, SELF LOCKING NUTS, AND WASHERS.
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- FOR BRACKET INSTALLATION ON 4" WIDE FLANGE, IT SHALL BE 5/8" HOLE, 1/2" STAINLESS STEEL U-BOLT, WASHER, AND SELF-LOCKING HEX HEAD NUT.
- FOR ANGLE INSTALLATION, THE CONTRACTOR SHALL DRILL 11/16" HOLE IN GUSSET AND 1/16" x 1/4" SLOT IN ANGLE. STAINLESS STEEL BOLT SHALL BE 5/8" WITH HEAD, SELF-LOCKING NUT, AND TWO FLAT WASHERS.
- DESIGN DATA = ALUMINUM ALLOY 6061-T6 CONFORMING TO ASTM B-221.  
ALUMINUM TUBING = O.D.: 4"  
THICKNESS: 3/8"

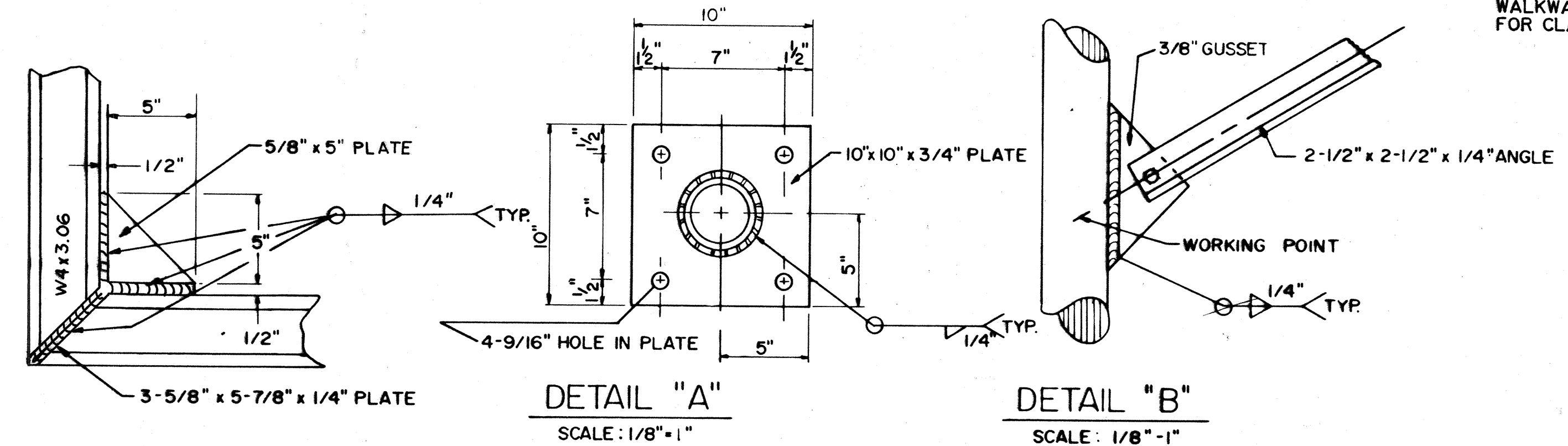


**BRIDGE BRACKET LATERAL SECTION**



**ELEVATION**

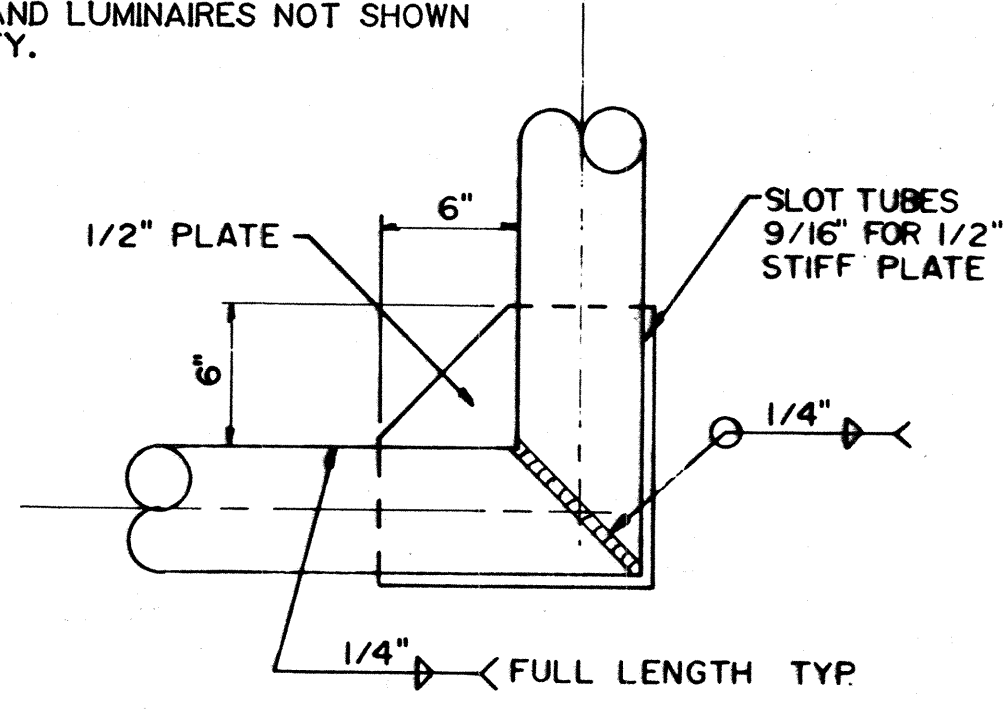
HANDRAIL, SIGN ASSEMBLY BRACKET, WALKWAY AND LUMINAIRES NOT SHOWN FOR CLARITY.



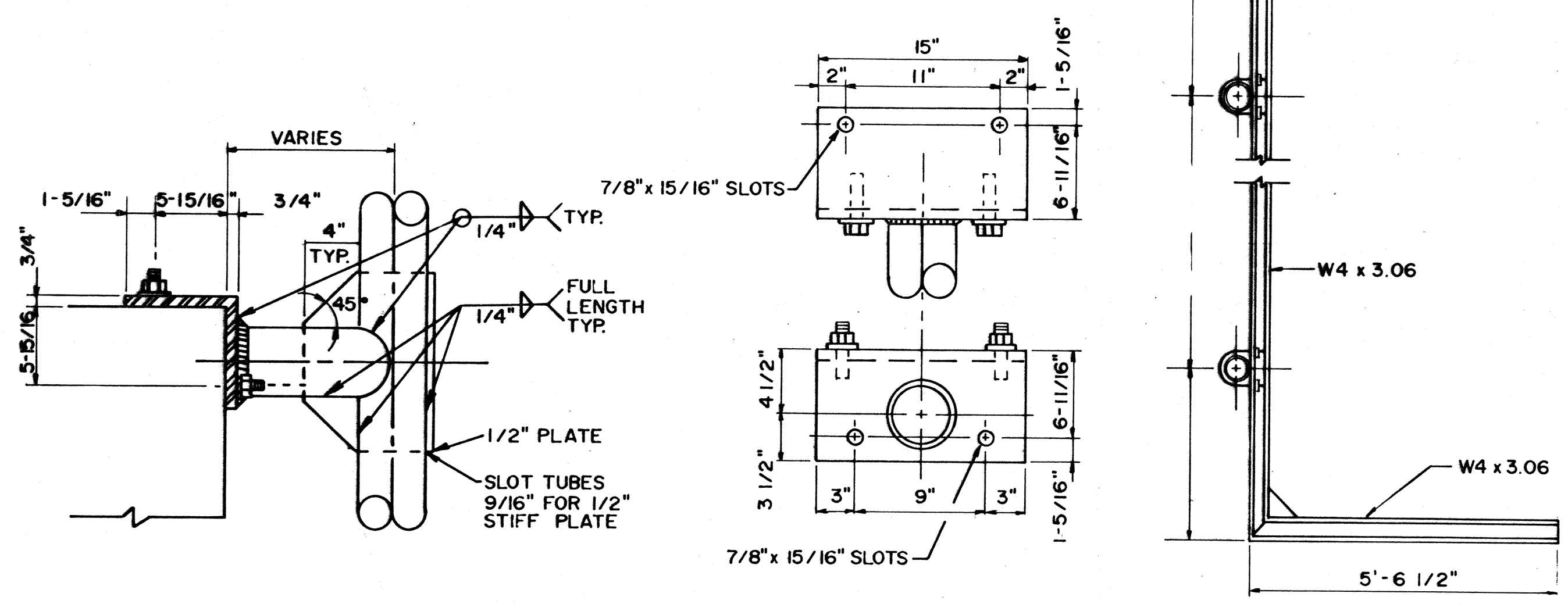
**DETAIL "F"**  
SCALE: 1/8"=1"

**DETAIL "A"**  
SCALE: 1/8"=1"

**DETAIL "B"**  
SCALE: 1/8"=1"



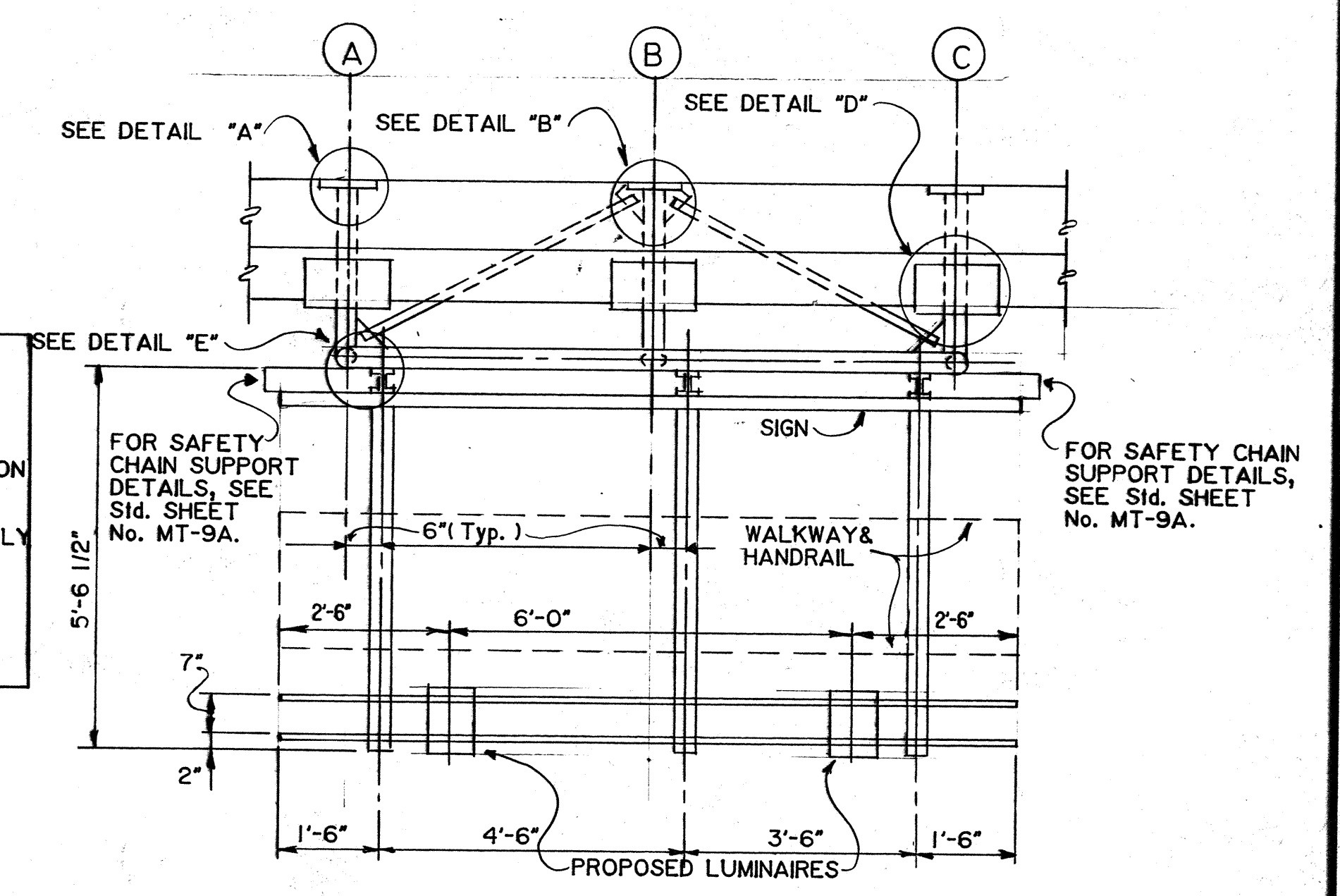
**DETAIL "C"**  
SCALE: 1/8"=1"



**DETAIL "D"**  
SCALE: 1/8"=1"

**DETAIL "E"**  
SCALE: 1/2"=1'-0"

- NOTES:**
- NEW LUMINAIRES SHALL BE PAID FOR SEPARATELY. THE SIGN CIRCUIT INSTALLATION SHALL INCLUDE ALL WORK NECESSARY TO CONNECT THE NEW BRIDGE BRACKET ASSEMBLY TO THE EXISTING UNDERPASS CIRCUITRY.
  - FOR LIGHTING SEE MISCELLANEOUS STANDARDS SHEET MT-10.



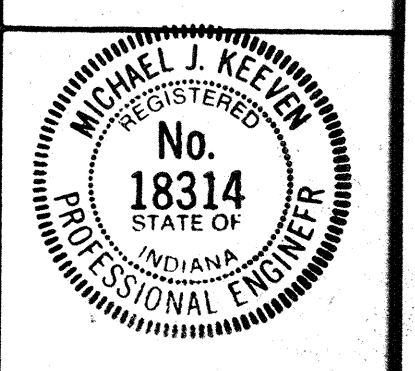
**PLAN**

INDIANA DEPARTMENT OF TRANSPORTATION

**BRIDGE BRACKET DETAILS**

IGDO-6(40)

SCALE: As NOTED DRAWN BY: B. FELLA REV. DATE: 4-17-90



BY: MP

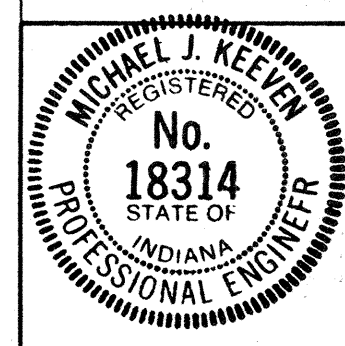
FEDERAL ROAD REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	ST1-94-2( )39	1992	T10	T31

EXIT NO.	LOCATION	SIGN CODE	SIGN SIZE	EXISTING SIGNS			SIGN SUMMARY						POSTS							REMARKS											
				RELOCATE EXISTING SIGN OR NEW POSTS	SIGN TO BE REMOVED	NO CHANGE REQ'D.	ENCLOSED LENS SHEET SIGN AREA (SFT.)			ENCAPSULATED LENS SHEET SIGN AREA (SFT.)			POST LENGTH (FT.)			TOTAL POST LENGTH (FT.)															
							THICKNESS OF METAL (IN.)			THICKNESS OF METAL (IN.)			POST			RECT. POST	WOOD POST				CONC. CLASS "B"										
							0.080	0.100	0.125	0.080	0.100	0.125	1	2	3		A	B	C			Abb	Bbb	4"x4"	4"x6"	6"x6"					
40	354+63±	R6-1-B(R)	6'x2'									12															Barrier Wall Sign Bracket Req'd.				
40	366+42±	R6-1-B(R)	6'x2'									12															Barrier Wall Sign Bracket Req'd.				
40	371+72±	R6-1-B(R)	6'x2'									12															Barrier Wall Sign Bracket Req'd.				
40	380+95±	R6-1-B(R)	6'x2'									12															Barrier Wall Sign Bracket Req'd.				
MILE POST																															
	375+70 E.B.	D10-5(40)																													
	375+70 W.B.	D10-5(40)																													
	424+75 E.B.	D10-5(41)																													
	424+75 W.B.	D10-5(41)																													
	476+75 E.B.	D10-5(45)																													
	476+75 W.B.	D10-5(45)																													
	530+70 E.B.	D10-5(43)																													
	530+70 W.B.	D10-5(43)																													
	584+00 E.B.	D10-5(44)																													
	584+00 W.B.	D10-5(44)																													
	636+30 E.B.	D10-5(45)																													
	636+30 W.B.	D10-5(45)																													
TOTALS																															

SIGN CODE	SIZE IN.XIN.	THICK. IN.	AREA SFT.
R1-1	30x30	0.080	6.25
R1-1-A	36x36	0.100	9.0
R1-1-B	48x48	0.100	16.0
R1-2-A	48x48x48	0.100	6.93
R1-2-B	60x60x60	0.100	10.83
R2-1	* 24x30	0.080	5.0
R2-1-A	* 36x48	0.100	12.0
R2-1-B	* 48x60	0.100	20.0
R3-1a	* 24x30	0.080	5.0
R3-1a-A	* 36x48	0.100	12.0
R3-2a	* 24x30	0.080	5.0
R3-2a-A	* 36x48	0.100	12.0
R3-4a	* 24x30	0.080	5.0
R3-4a-A	* 36x48	0.100	12.0
R3-4a-B	* 48x60	0.100	20.0
R3-4b	* 48x30	0.100	10.0
R4-1	* 24x30	0.080	5.0
R4-1-A	* 36x48	0.100	12.0
R4-7b	* 24x30	0.080	5.0
R4-7b-A	* 36x48	0.100	12
R5-1	30x30	0.080	6.25
R5-1-A	36x36	0.100	9.0
R5-1-B	48x48	0.100	16.0
R5-1a	36x24	0.100	6.0
R5-1a-A	42x30	0.100	8.75
R5-1a-B	48x36	0.100	12.0
R5-10f	72x36	0.125	18.0
R6-1(R-L)	36x12	0.100	3.0
R6-1-A(R-L)	48x16	0.100	5.33
R6-1-B(R-L)	72x24	0.125	12.0
R6-2(R-L)	18x24	0.080	3.0
R6-2-A(R-L)	24x30	0.080	5.0
R6-2-B(R-L)	30x36	0.080	7.5
R6-3	24x18	0.080	3.0
R6-3a	24x18	0.080	3.0
R8-7a	30x36	0.080	7.5
R8-7a-A	48x60	0.100	20.0
W4-1-B(R-L)	48x48	0.100	16.0
W4-2(R-L)	36x36	0.100	9.0
W4-2-A(R-L)	48x48	0.100	16.0
W9-1(R-L)	36x36	0.100	9.0
W9-1-A(R-L)	48x48	0.100	16.0
W12-1	24x24	0.080	4.0
W12-4	42x24	0.100	7.0
W13-2-B	48x60	0.100	20.0
W13-3-B	48x60	0.100	20.0
W14-3	36x48x48	0.100	5.56
W14-3-A	48x64x64	0.125	9.89
W16-6	36x36	0.100	9.0
W16-6-A	48x48	0.100	16.0
E10-1	72x12	0.125	6.0

\* ENCLOSED LENS REFLECTIVE SHEETING ALL OTHERS TO BE ENCAPSULATED LENS REFLECTIVE SHEETING.

INDIANA DEPARTMENT OF TRANSPORTATION  
SHEET SIGN & POST QUANTITIES



DRAWN BY: MP REV: \_\_\_\_\_  
DATE: 6-29-92 DATE: \_\_\_\_\_

7017SS01

FEDERAL ROAD DISTRICT NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IND.	ST-94-2(G)	1992	T11	T31

**DESIGN DATA**

Initial Lamp Lumen (LL) 27,500 Lumens (250 Watt H.P.S.)  
 Average Maintained Illuminance (Eh) 0.6 Foot-candles  
 Lamp Lumen Depreciation Factor (LLD) 0.9  
 Luminaire Dirt Depreciation Factor (LDD) 0.87  
 Uniformity Ratio 3:1  
 Mounting Height (MH) 40'  
 Luminaire Classification M-S-II

4-Underpass Luminaire  
 Wall Mounted 150 Watt,  
 HPS and Breaker Box-Req'd.

**UNDERPASS LIGHTING  
 DETAIL**

Existing Sign on New Foundations  
 IGDO-3(40)  
 (8 Luminaires)  
 4-Underpass Luminaire  
 Wall Mounted 150 Watt,  
 HPS and Breaker Box-Req'd.

**LEGEND**

- Proposed Roadway Light(250 Watt H.P.S.) Mounted on a Breakaway Transformer Base.
- 3-1/c No. 4 Cu. Conductors in Plastic Duct in Trench
- ==== 3-1/c No. 4 Cu. Conductors in Plastic Duct in 2" Galvanized Steel Conduit
- Handhole, Type "B" or Type "C"
- ⊠ Cable-Duct Marker
- Service Point
- ⊞ Underpass Light 150 Watt H.P.S.

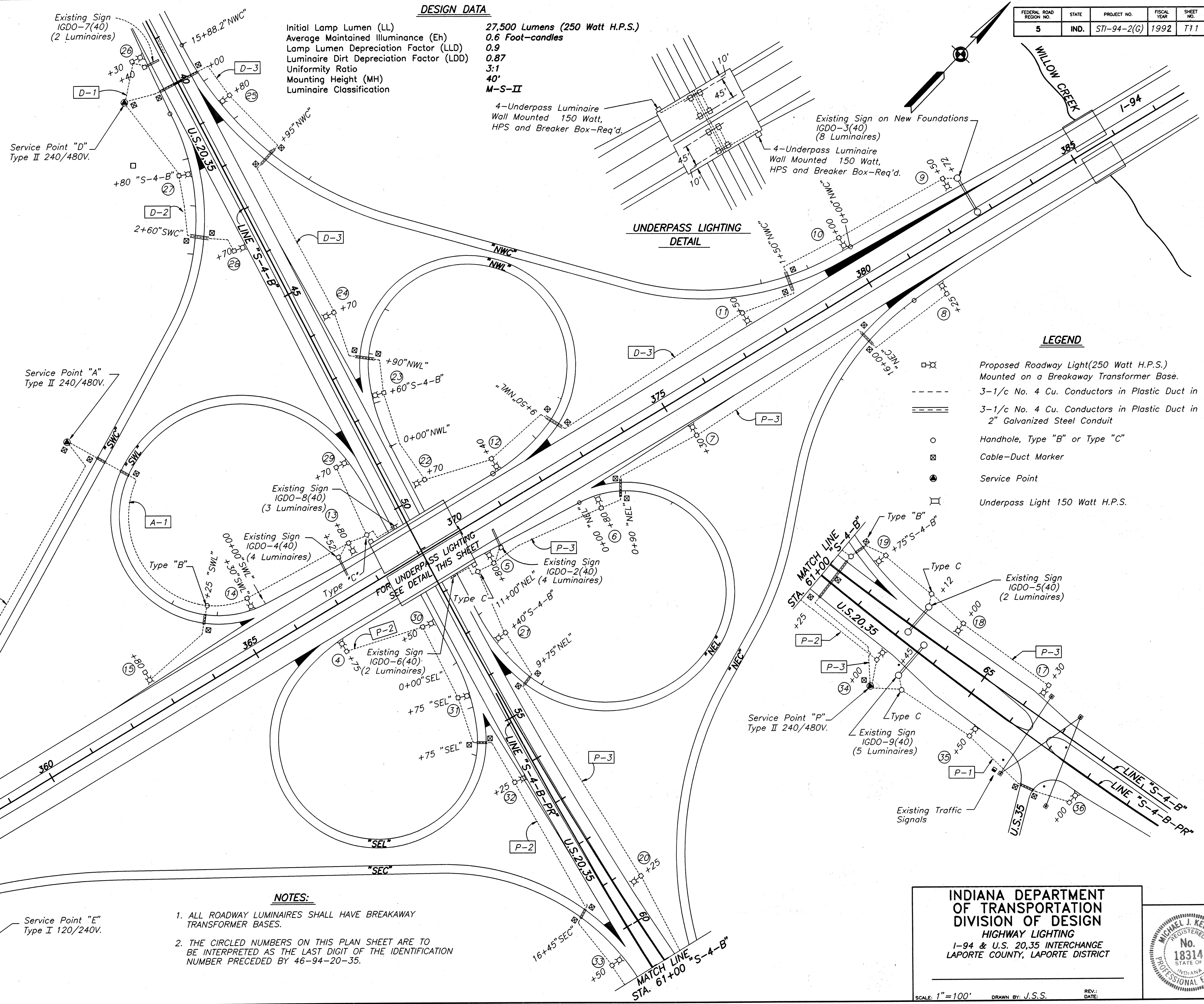
**SERVICE POINT AMP TABLE  
 240/480V SERVICE**

CIRCUIT	CIRCUIT BREAKER	MAIN BREAKER
A-1 RED	30A	CIRCUIT "A"
A-1 BLACK	30A	
A-2 RED	30A	100A
A-2 BLACK	30A	
D-1 RED	30A	CIRCUIT "D"
D-1 BLACK	30A	
D-2 RED	30A	100A
D-2 BLACK	30A	
D-3 RED	30A	CIRCUIT "P"
D-3 BLACK	30A	
P-1 RED	30A	100A
P-1 BLACK	30A	
P-2 RED	30A	CIRCUIT "P"
P-2 BLACK	30A	
P-3 RED	30A	CIRCUIT "P"
P-3 BLACK	30A	

**SERVICE POINT AMP TABLE  
 120/240V SERVICE**

CIRCUIT	CIRCUIT BREAKER	MAIN BREAKER
E-1 RED	30A	
E-1 BLACK	30A	

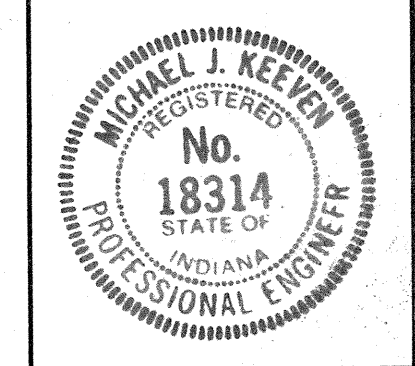
LUMINAIRE NO.	EFFECTIVE MOUNTING HEIGHT	CIRCUIT CONNECTION (RED OR BLACK)	CONNECTION TYPE	POLE SET BACK (FT.)	MAST ARM LENGTH (FT.)	TOP FOUNDATION ELEVATION WITH RESPECT TO EDGE OF PAVEMENT	SET BACK FROM EDGE OF P.V.M.T.
1	42	R	2	20	10	-2.0	X
2	42	B	2	9	5	-1.1	X
3	40	B	1	20	15	-1.0	X
4	42	R	1	13	5	-1.5	X
5	40	B	2	13	5	-0.7	X
6	40	R	2	20	15	-1.0	X
7	40	B	2	20	15	-1.0	X
8	40	R	1	16	10	-0.5	X
9	40	B	2	16	10	-0.4	X
10	42	R	2	20	10	-1.2	X
11	40	B	2	20	15	-1.0	X
12	40	R	2	13	5	-0.7	X
13	40	B	2	13	5	-0.4	X
14	42	R	2	20	15	-1.7	X
15	40	B	1	20	15	-1.0	X
16	40	R	1	13	5	-1.0	X
17	40	R	1	15	10	-1.0	X
18	40	B	2	15	10	-1.0	X
19	40	R	2	15	10	-1.0	X
20	42	B	2	20	15	-2.0	X
21	42	R	2	18	15	-1.2	X
22	40	B	2	20	15	-0.7	X
23	40	R	2	20	15	-1.0	X
24	40	B	2	20	15	-1.0	X
25	40	R	2	20	10	-1.7	X
26	40	R	1	14	5	-0.8	X
27	42	B	2	20	10	-1.7	X
28	40	R	1	20	15	-1.0	X
29	42	R	1	20	15	-1.6	X
30	40	B	2	20	15	-0.8	X
31	42	R	2	20	15	-1.2	X
32	40	B	2	20	15	-1.0	X
33	42	R	2	20	15	-2.0	X
34	42	B	2	20	15	-2.0	X
35	42	R	2	20	15	-2.0	X
36	42	B	1	18	15	-3.0	X



**NOTES:**

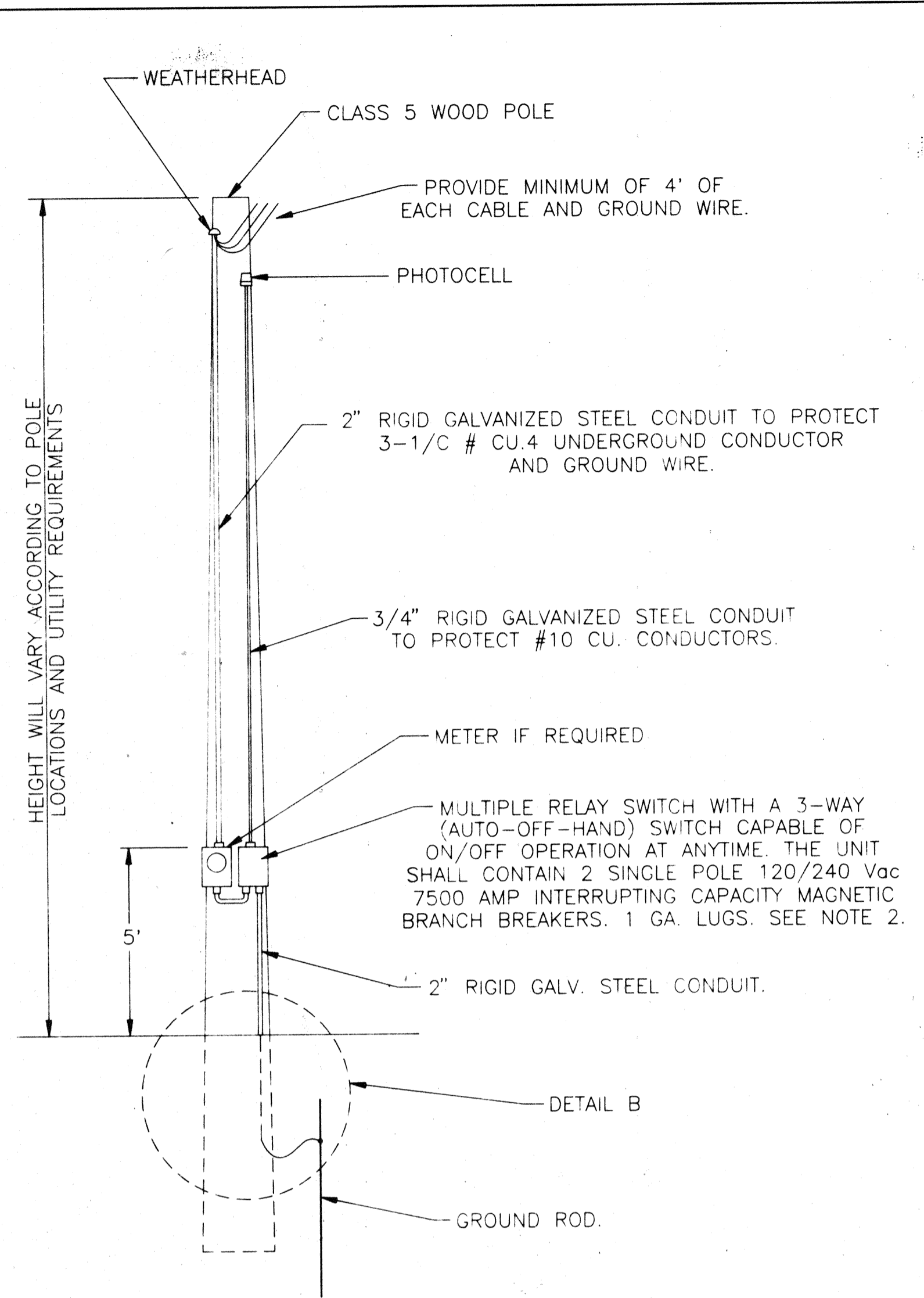
1. ALL ROADWAY LUMINAIRES SHALL HAVE BREAKAWAY TRANSFORMER BASES.
2. THE CIRCLED NUMBERS ON THIS PLAN SHEET ARE TO BE INTERPRETED AS THE LAST DIGIT OF THE IDENTIFICATION NUMBER PRECEDED BY 46-94-20-35.

**INDIANA DEPARTMENT  
 OF TRANSPORTATION  
 DIVISION OF DESIGN  
 HIGHWAY LIGHTING**  
 I-94 & U.S. 20,35 INTERCHANGE  
 LAPORTE COUNTY, LAPORTE DISTRICT

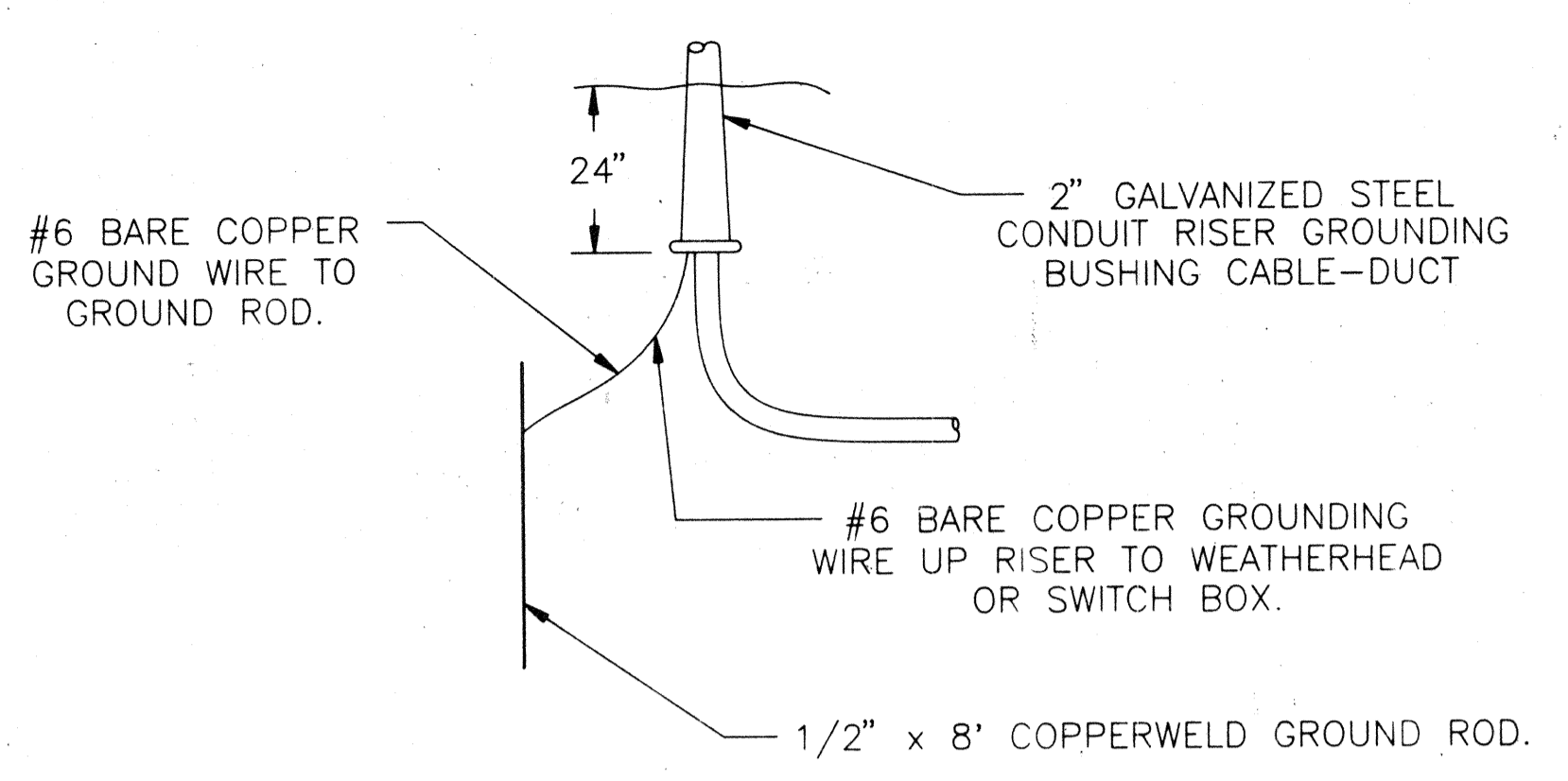


SCALE: 1"=100' DRAWN BY: J.S.S. REV. DATE:

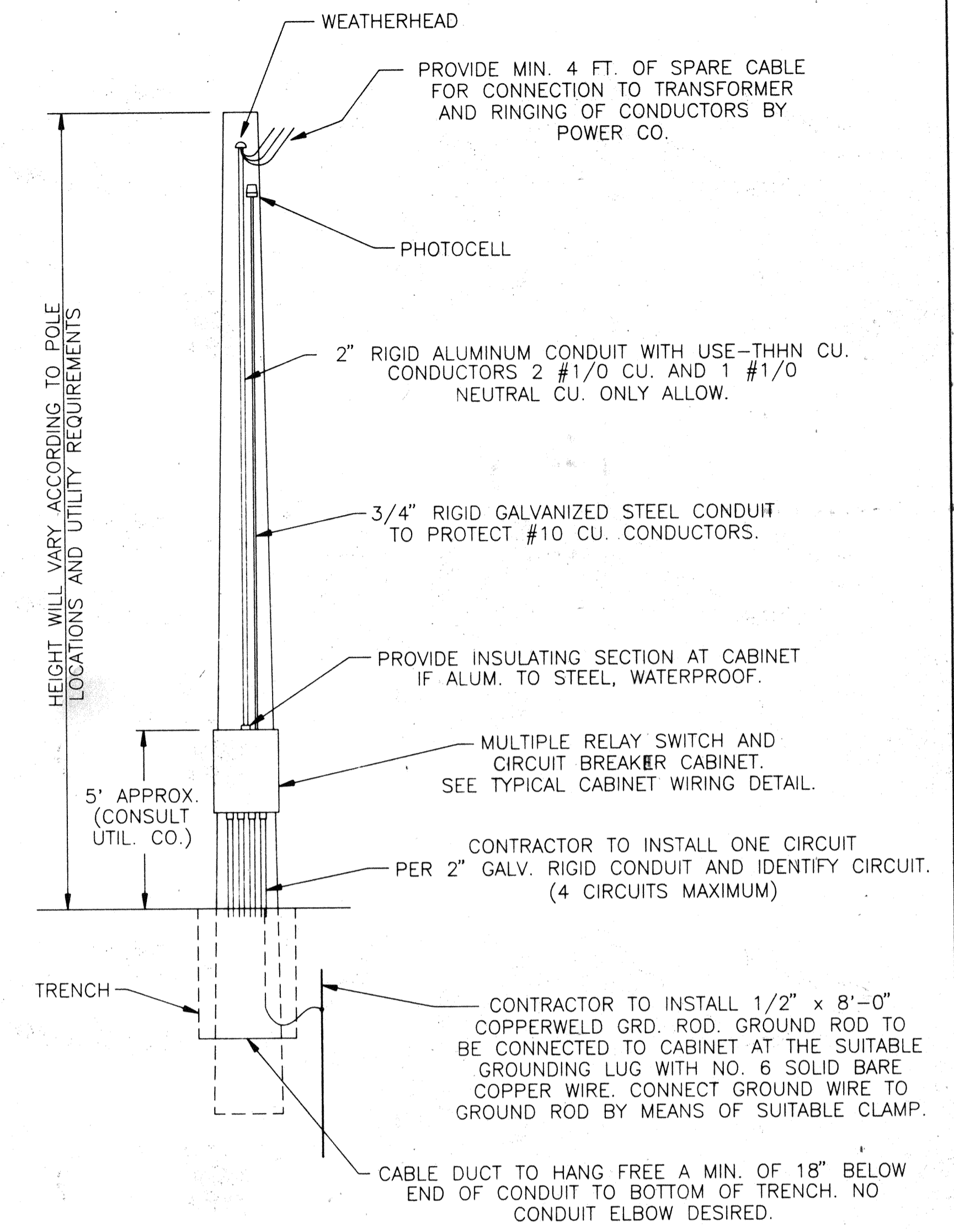
194/PLAN BY: J.J.S.



**SERVICE POINT TYPE I**

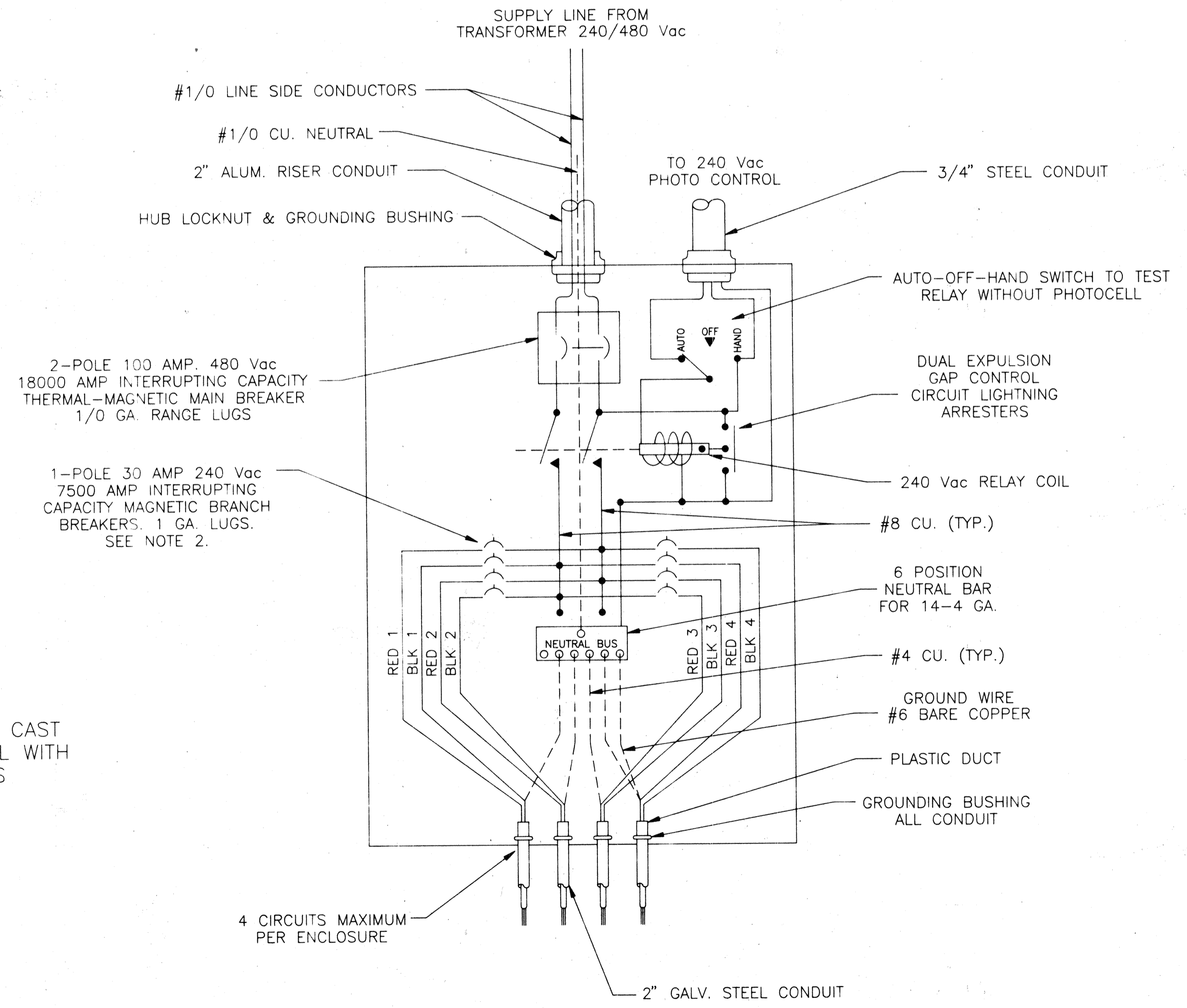


**TYPICAL ENTRY INTO RISER (POLE AND STRUCTURE) DETAIL B**



**SERVICE POINT TYPE II**

**LIGHT SERVICE POINT DETAILS**



**TYPICAL CABINET WIRING 100 AMP SERVICE**

- NOTES:
1. CABINET & HARDWARE SHALL BE WEATHERPROOF, RAIN TIGHT, CAST ALUMINUM OR 14 GA. ALUMINUM OR 16 GA. STAINLESS STEEL WITH PROVISIONS FOR PADLOCKING WITH PLATED BRASS, STAINLESS STEEL OR ALUMINUM FASTENER AND MOUNTING HARDWARE.
  2. E SERIES MAGNETIC CIRCUIT BREAKERS SHALL HAVE THE FOLLOWING FEATURES:
    - A) CAPABLE OF 10,000 ON-OFF OPERATIONS.
    - B) 7500 AMPERE INTERRUPTING CAPACITY.
    - C) TEMPERATURE STABLE AS NOT TO BE ADVERSELY AFFECTED BY TEMPERATURE CHANGES OVER THEIR OPERATING ENVIRONMENT OF -40°C TO +85°C.
    - D) LUG RANGE 1/0-14 COPPER AND 1/0-12 ALUMINUM.
    - E) WILL TRIP ON OVERLOAD, EVEN WHEN HANDLE IS FORCIBLY HELD IN ON POSITION.

REVISIONS	
DATE	REMARKS

