

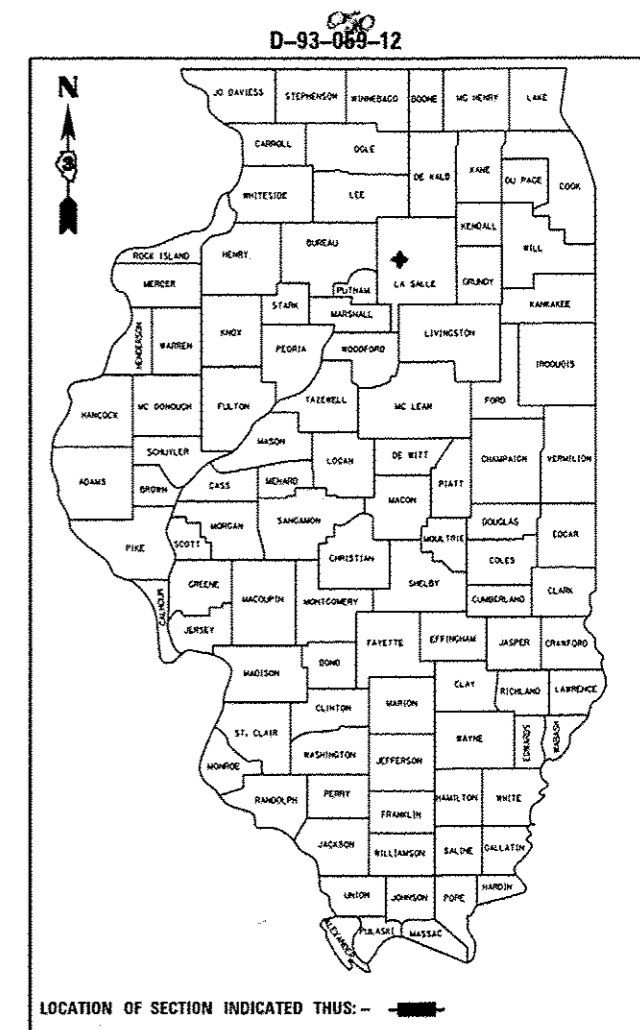
1. COVER SHEET
2. GENERAL NOTES
3. SUMMARY OF QUANTITIES
4. TYPICAL SECTIONS
5. SCHEDULES
6. STAGES OF CONSTRUCTION
7. APPROACH TO LANE CLOSURE FREEWAY/EXPRESSWAY, STANDARD 701400 (SPECIAL).
- 8 - 14. OVERHEAD BRIDGE MOUNT SIGN STRUCTURE DETAILS.

**HIGHWAY STANDARDS**

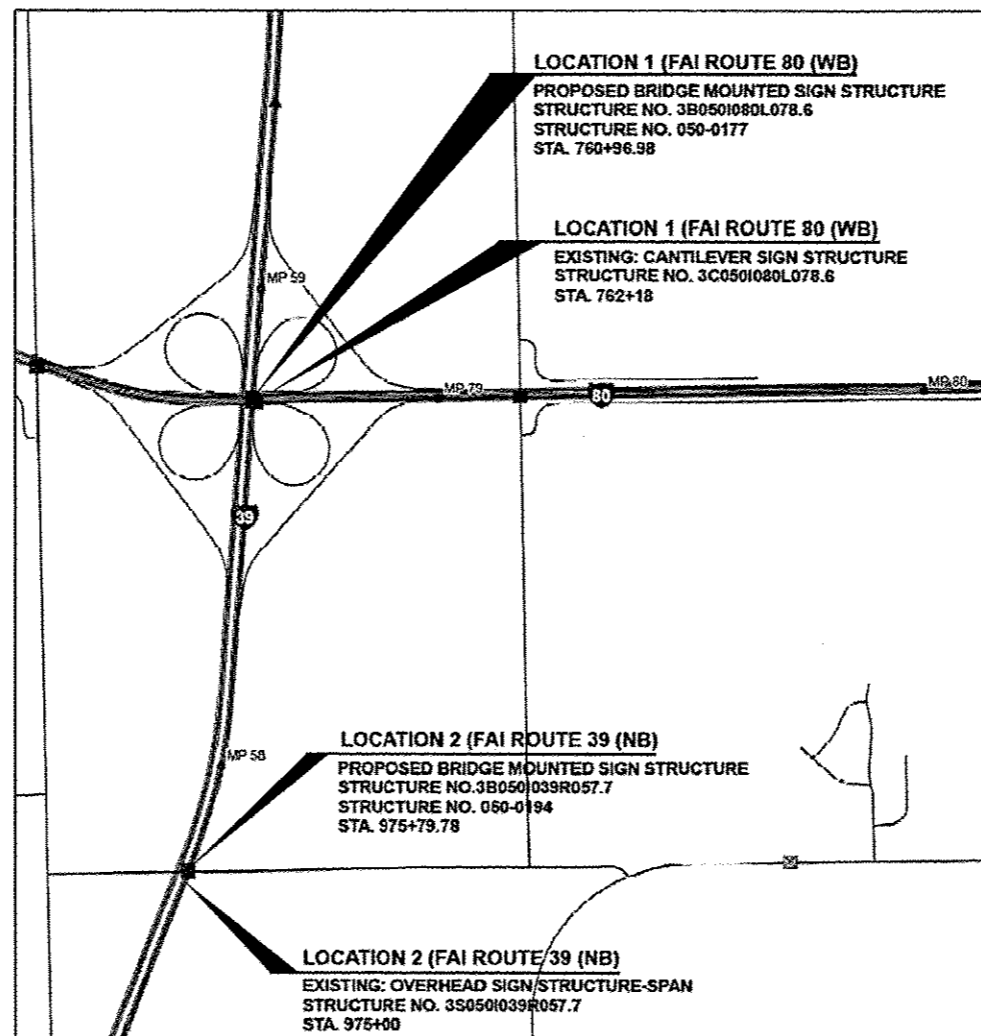
- |           |   |
|-----------|---|
| 000001-06 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS                                  |
| 001006    | DECIMAL OF AN INCH AND OF A FOOT  |
| 643001-01 | SAND MODULE IMPACT ATTENUATORS  |
| 701101-03 | OFF-ROAD OPERATIONS MULTILANE, 15' (4.5 m) TO 24' (600 mm) FROM PAVEMENT EDGE |
| 701106-02 | OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY                    |
| 701401-07 | LANE CLOSURE, FREEWAY/EXPRESSWAY  |
| 701411-08 | LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP FOR SPEEDS ≥ 45 MPH         |
| 701901-02 | TRAFFIC CONTROL DEVICES   |

**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**PROPOSED**  
**HIGHWAY PLANS**  
**F.A.I. ROUTE 80 (I-80) & 39 (I-39)**  
**SECTION D3 OVD SIN STR REPL 14-15**

**OVERHEAD SIGN TRUSS REMOVAL AND REPLACEMENT.**  
**LASALLE COUNTY**  
**C-60-015-14**



RURAL INTERSTATE		RURAL INTERSTATE	
FAI 80 (I-80)		FAI 39 (I-39)	
2011		2011	
ADT	30800	ADT	16700
P.V.	68.83%	P.V.	64.38%
S.U.	3.57%	S.U.	2.99%
M.U.	27.60%	M.U.	32.63%



J.U.L.I.E.  
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
 1-800-892-0123  
 OR 811

DISTRICT 3 NO. (815) 434-6131  
 PROJECT ENGINEER: JOE KANNEL, P.E.  
 UNIT CHIEF: RON WOODSHANK  
 TOWNSHIPS: LASALLE, DIMMICK  
**CONTRACT NO. 46276**

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

SUBMITTED Aug 8 20 13  
 PASSED Justin Mann  
 ENGINEER OF OPERATIONS

Aug 16 20 13  
John D. Baranowski, P.E.  
 ENGINEER OF DESIGN AND ENVIRONMENT

APPROVED Aug 16 20 13  
Omer Osman, P.E.  
 DIRECTOR DIVISION OF HIGHWAYS

**PRINTED BY THE AUTHORITY  
 OF THE STATE OF ILLINOIS**

**GENERAL NOTES**

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF WORK; HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

FOR STABILIZATION, ALL TYPE III BARRICADES WILL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

THE CONTRACTOR SHALL CONTACT JULIE AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE "JULIE" NUMBER IS 1-800-892-0123. A MINIMUM OF FORTY-EIGHT (48) HOURS ADVANCE NOTICE IS REQUIRED.

THE LOCATION OF ALL UTILITIES AND PRIVATELY OWNED FACILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE INSTALLATION OF ANY COMPONENTS.

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE PRESENCE OF DEPARTMENT-OWNED UNDERGROUND ELECTRICAL CABLE WITHIN THE LIMITS OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR SHALL REQUEST THE ILLINOIS DEPARTMENT OF TRANSPORTATION IN OTTAWA (815-434-8417) TO LOCATE THE UNDERGROUND FACILITIES, PROVIDING A MINIMUM OF 72 HOURS NOTICE. THE DEPARTMENT IS NOT A MEMBER OF THE JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS (JULIE) SYSTEM.

ALL DAMAGE TO DEPARTMENT OWNED UNDERGROUND FACILITIES, CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE DEPARTMENT AT THE CONTRACTOR'S EXPENSE. THIS SHALL INCLUDE ALL TEMPORARY REPAIRS REQUIRED TO KEEP THE FACILITY OPERATIONAL WHILE MATERIAL IS BEING OBTAINED TO MAKE PERMANENT REPAIRS. SPLICING OF ELECTRIC CABLE WILL NOT BE ALLOWED. ELECTRIC CABLE SHALL BE REPLACED FROM POLE TO POLE OR CONTROLLER.

DATE: \_\_\_\_\_

PREPARED BY: \_\_\_\_\_  
DISTRICT STUDIES & PLANS ENGINEER

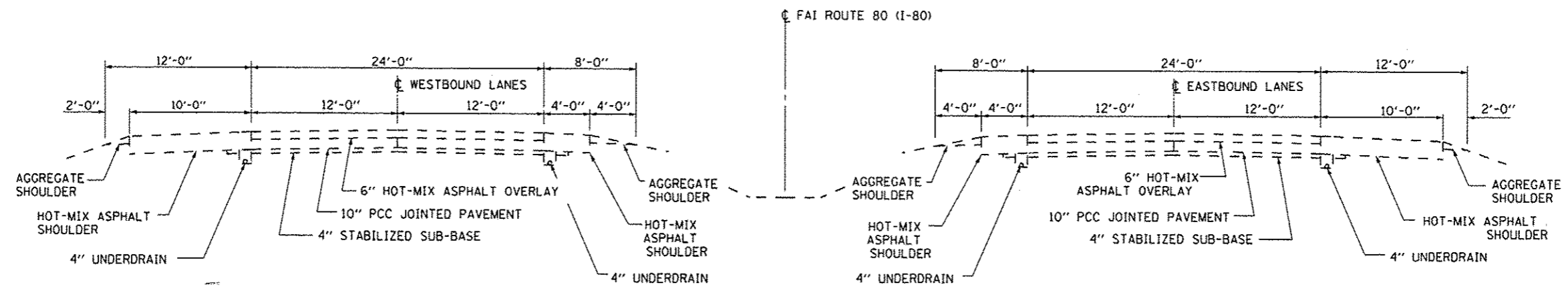
EXAMINED BY: \_\_\_\_\_  
DISTRICT CONSTRUCTION ENGINEER

\_\_\_\_\_  
DISTRICT MATERIALS ENGINEER

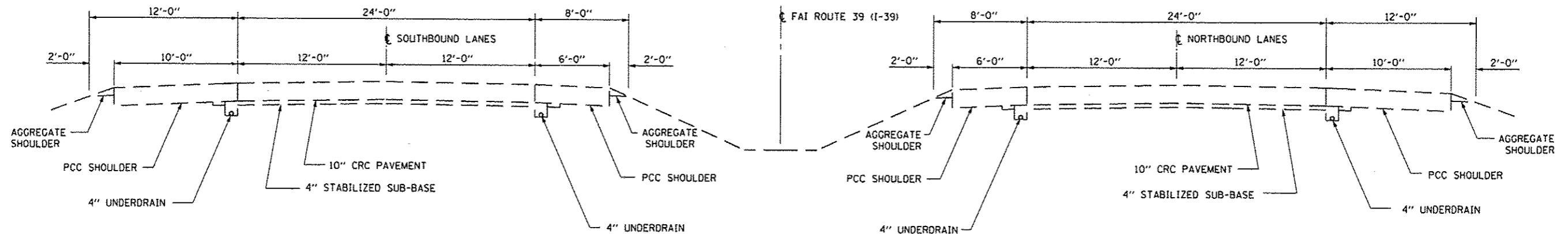
\_\_\_\_\_  
DISTRICT OPERATIONS ENGINEER

FILE NAME =	USER NAME = pateluj	DESIGNED - YOGESH PATEL	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL NOTES</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ci:\pw\work\p\idot\pateluj\0336977\034676-shd-detail.dgn	DRAWN - YOGESH PATEL	REVISED -	80 & 39			03 OVD SIN STR REPL 14-15	LASALLE	14	2	
PLOT SCALE = 1/80.0000 "/ in.	CHECKED - RON WOODSHANK	REVISED -	CONTRACT NO. 46276							
PLOT DATE = 7/2/2013	DATE -	REVISED -	SCALE:			SHEET 1 OF 1 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT		

CODE NO.	ITEM	UNIT	CONSTRUCTION CODE	
			STATE FUNDS	
			100% STATE	
			STRUCTURE	
		0040		
		RURAL		
67100100	MOBILIZATION	L SUM	1	
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	2	
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	1	
73304000	OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED	FOOT	54	
73600100	REMOVE OVERHEAD SIGN STRUCTURE - SPAN	EACH	1	
73600200	REMOVE OVERHEAD SIGN STRUCTURE - CANTILEVER	EACH	1	
73700300	REMOVE CONCRETE FOUNDATION - OVERHEAD	EACH	5	
X0325265	REMOVE ELECTRIC SERVICE	EACH	2	
X0325969	PORTABLE, VEHICLE MOUNTED, CHANGEABLE MESSAGE BOARD	CAL DA	10	
X0326867	RADAR SPEED TRAILER	CAL MO	1	
X0326880	MESSAGE BOARD VEHICLE DRIVER	HOUR	80	
X6320100	GUARDRAIL REMOVAL SPECIAL	FOOT	453	
X7010206	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401 (SPECIAL)	EACH	2	
X7200052	REMOVE, STORE AND RE-ERECT SIGN PANEL	SQ FT	262	
X7200095	FURNISH AND ERECT SIGN PANEL	SQ FT	325	



**TYPICAL SECTION**  
FAI ROUTE 80 (I-80)



**TYPICAL SECTION**  
FAI ROUTE 39 (I-39)

FILE NAME =	USER NAME = petelyj	DESIGNED - YOGESH PATEL	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL SECTION</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\p\idot\petelyj\0335977\0346	76-shrtdetails.dgn	DRAWN - YOGESH PATEL	REVISED -		SCALE:	SHEET 1 OF 1 SHEETS	STA.	TO STA.	80 & 39/03 OVD SIN STR REPL 14-15	LASALLE	14	4
	PLOT SCALE = 1/8" = 1'-0"	CHECKED - RON WOODSHANK	REVISED -									
	PLOT DATE = 7/2/2013	DATE -	REVISED -									
CONTRACT NO. 46276												
ILLINOIS FED. AID PROJECT												

## REMOVAL SCHEDULES

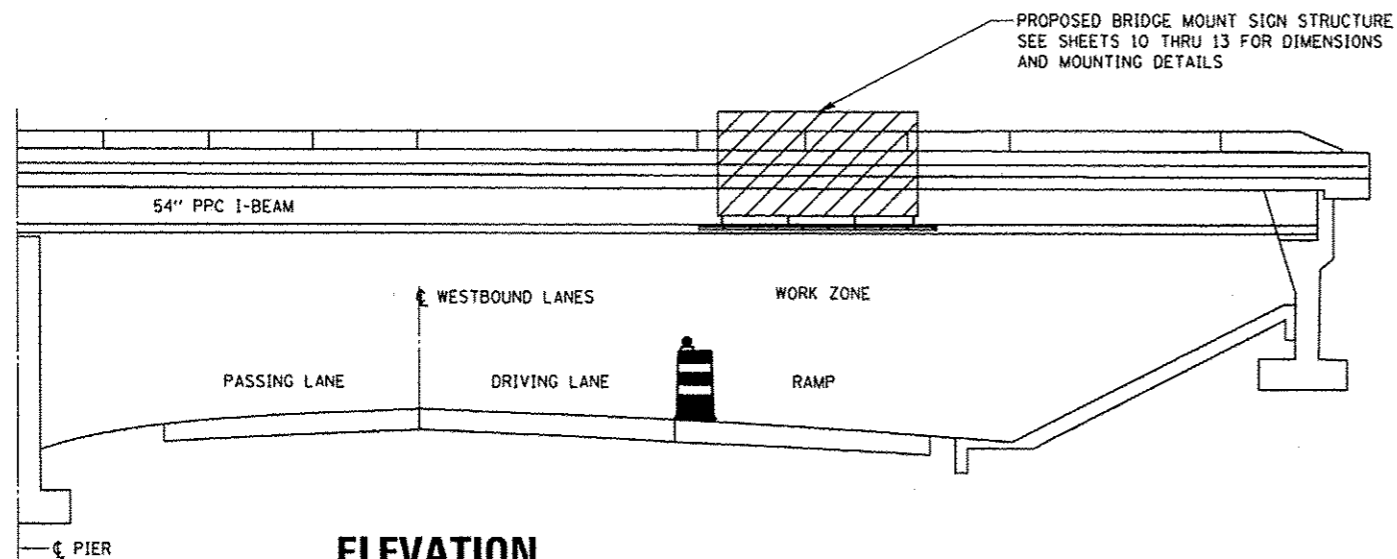
LOCATION NO.	1	STATE I.D. NO.	3C050I080L078.6			
COUNTY	LASALLE	ROUTE	FAI 80	M.P.	78.6	DIRECTION   WB
DESCRIPTION OF WORK			UNIT		QUANTITY	
REMOVE ELECTRIC SERVICE			EACH		1	
REMOVE OVERHEAD SIGN STRUCTURE - CANTILEVER			EACH		1	
REMOVE CONCRETE FOUNDATION - OVERHEAD			EACH		1	
REMOVE, STORE AND RE-ERECT SIGN PANEL			SQ FT		262	
REMOVE & SALVAGE GUARDRAIL AND TRAFFIC BARRIER TERMINALS			FOOT		153	

LOCATION NO.	2	STATE I.D. NO.	3S050I039R057.7			
COUNTY	LASALLE	ROUTE	FAI 39	M.P.	57.7	DIRECTION   NB
DESCRIPTION OF WORK			UNIT		QUANTITY	
REMOVE ELECTRIC SERVICE			EACH		1	
REMOVE EXISTING SIGN PANEL			EACH		2	
REMOVE OVERHEAD SIGN STRUCTURE - SPAN			FOOT		124	
REMOVE CONCRETE FOUNDATION - OVERHEAD			EACH		4	
REMOVE & SALVAGE GUARDRAIL AND TRAFFIC BARRIER TERMINALS			FOOT		300	
IMPACT ATTENUATOR RELOCATE (NON-REDIRECTIVE) TEST LEVEL 3			EACH		1	

## CONSTRUCTION SCHEDULES

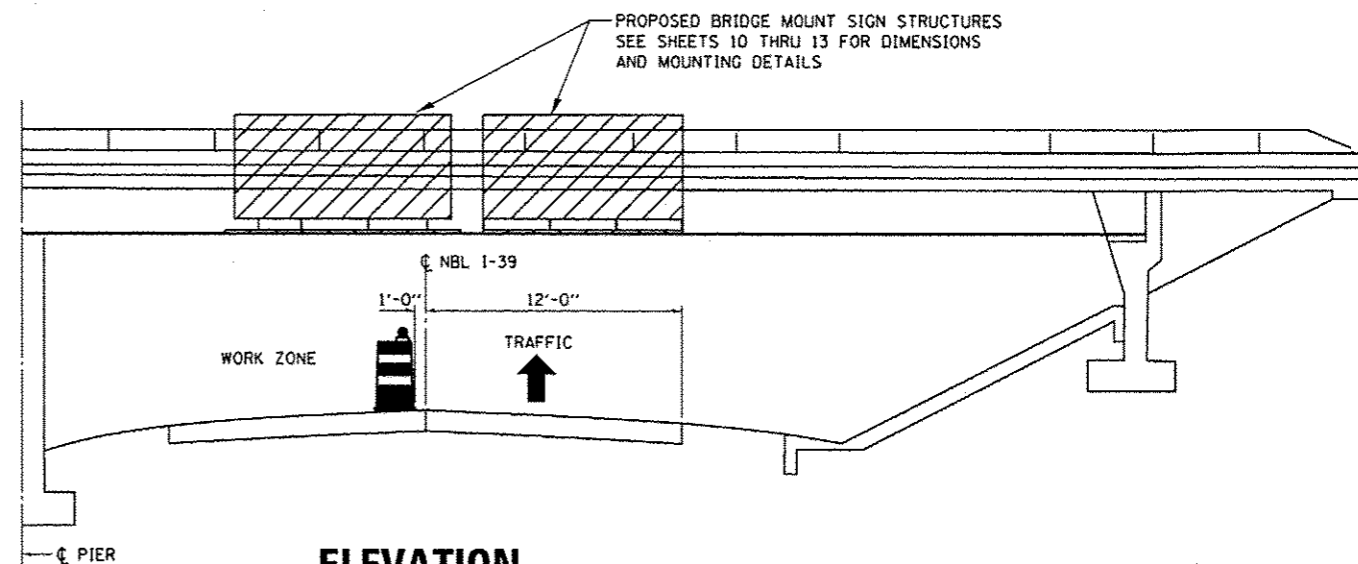
SN: 050-0177						
LOCATION NO.	1	STATE I.D. NO.	3B050I080L078.6			
COUNTY	LASALLE	ROUTE	FAI 80	M.P.	78.6	DIRECTION   WB
DESCRIPTION OF WORK			UNIT		QUANTITY	
OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED			FOOT		26	
RE-ERECT SIGN PANEL			SQ. FT.		262	

SN: 050-0194						
LOCATION NO.	2	STATE I.D. NO.	3B050I039R057.7A & 3B050I039R057.7B			
COUNTY	LASALLE	ROUTE	FAI 39	M.P.	57.7	DIRECTION   NB
DESCRIPTION OF WORK			UNIT		QUANTITY	
OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED			FOOT		28	
FURNISH AND ERECT SIGN PANEL			SQ. FT.		325	



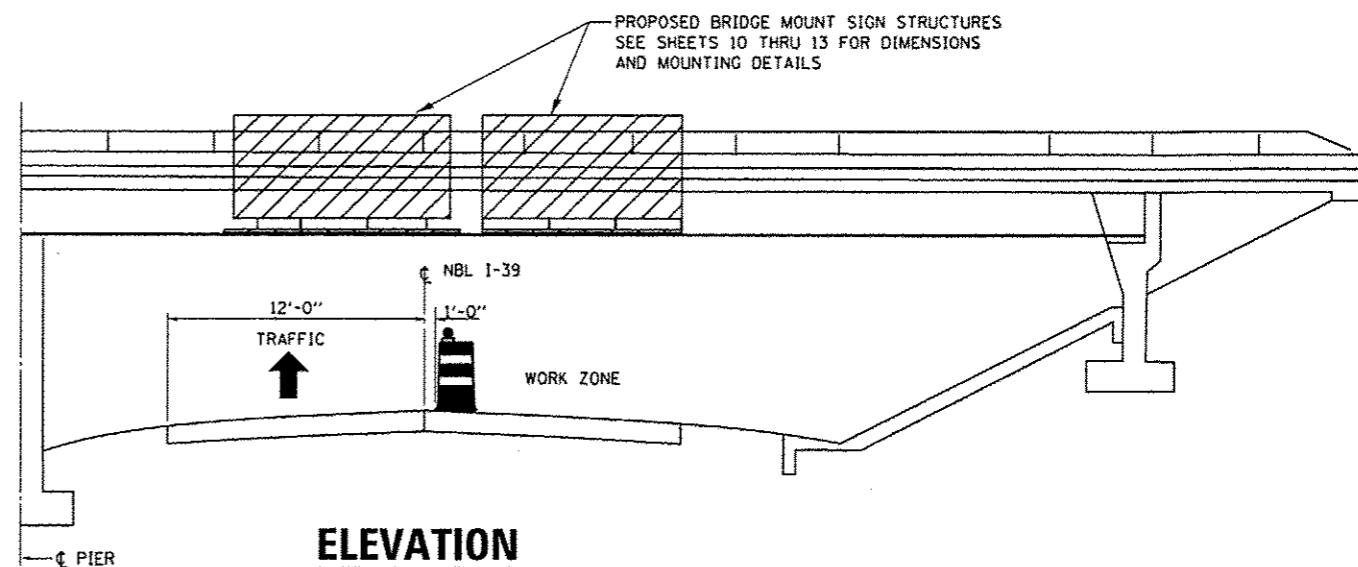
**ELEVATION  
STAGE I CONST.**

SN: 050-0177  
LOOKING WEST



**ELEVATION  
STAGE I CONST.**

SN: 050-0194  
LOOKING NORTH



**ELEVATION  
STAGE II CONST.**

SN: 050-0194  
LOOKING NORTH

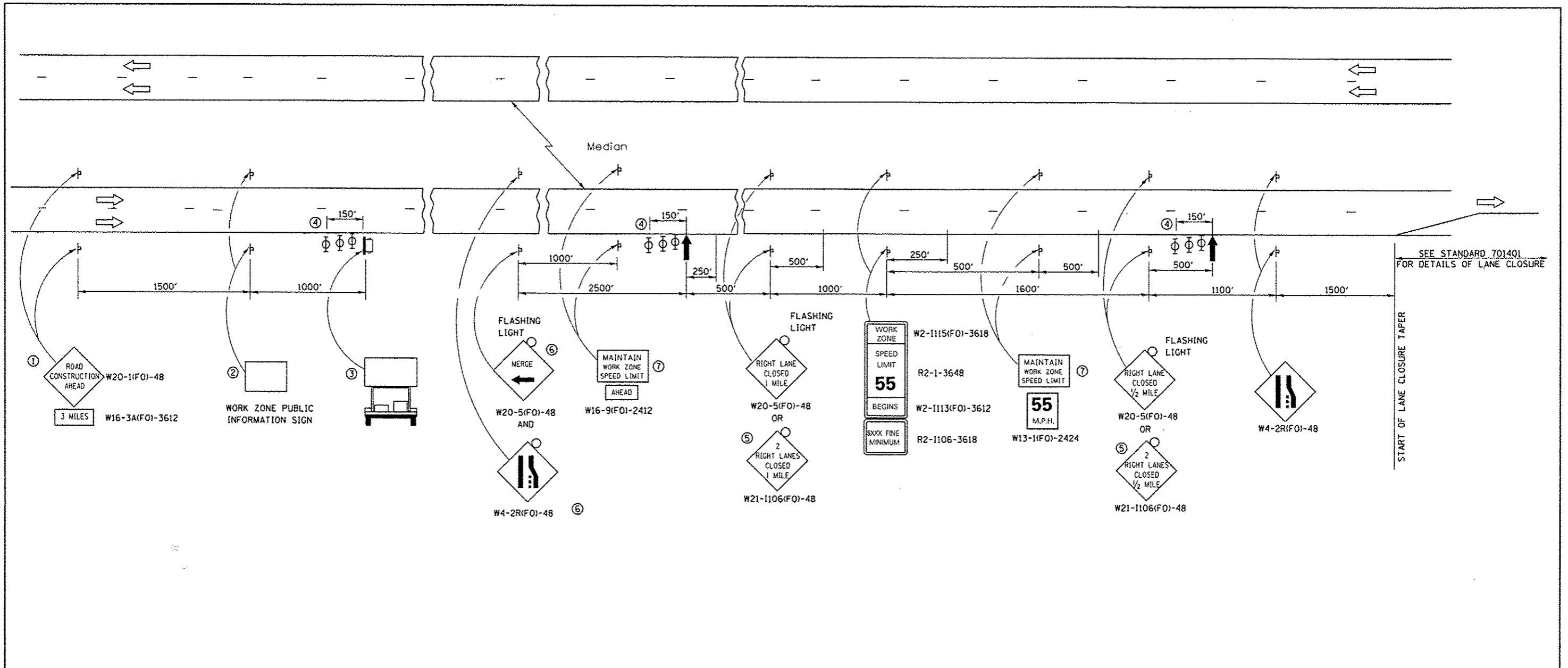
FILE NAME *	USER NAME * potalyj	DESIGNED - YOGESH PATEL	REVISED -
c:\p\work\p\widot\potalyj\00335977\0246	76-shr-details.dgn	DRAWN - YOGESH PATEL	REVISED -
	PLOT SCALE * 100.0000 / in.	CHECKED - RON WOODSHANK	REVISED -
	PLOT DATE * 7/2/2013	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**STAGES OF CONSTRUCTION**

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80 & 39/D3	OVD SIN STR REPL 14-15	LASALLE	14	6
CONTRACT NO. 46276				
ILLINOIS FED. AID PROJECT				

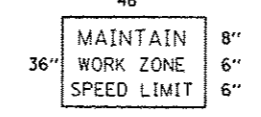


SEE STANDARD 701401 FOR DETAILS OF LANE CLOSURE

START OF LANE CLOSURE TAPER

- ① THE ROAD CONSTRUCTION AHEAD SIGN SHALL BE LOCATED 3 MILES IN ADVANCE OF THE PROJECT LIMITS.
- ② THE MESSAGE AND SIZE OF THE WORK ZONE PUBLIC INFORMATION SIGN SHALL BE AS SPECIFIED BY THE DEPARTMENT.
- ③ TO BE PLACED IN THE MEDIAN WHEN FEASIBLE. THE MESSAGE BOARD SHALL BE USED TO DISPLAY STATUS OF LANES WITHIN THE PROJECT. THE PRIMARY MESSAGES SHALL BE:  
 "RIGHT LANE CLOSED" / " x MILES AHEAD"  
 "LEFT LANE CLOSED" / " x MILES AHEAD"  
 "ALL LANES OPEN"
- ④ THREE, TYPE II BARRICADES, DRUMS, OR VERTICAL BARRICADES AT 50' CENTERS.
- ⑤ THIS SIGN SHALL BE USED WHEN 2 LANES ARE CLOSED.
- ⑥ WHEN THE LEFT LANE IS CLOSED, SWITCH THESE TWO SIGNS AND THE DIRECTION OF THE MERGE ARROW.

- ⑦ 48"x36" FLUORESCENT ORANGE SIGN WITH BLACK LETTERS.



- ↑ ARROW BOARD
- ☐ PORTABLE CHANGEABLE MESSAGE SIGN
- ⌞ SIGN
- ⊕ TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH MONODIRECTIONAL FLASHING LIGHT

**GENERAL NOTE:**

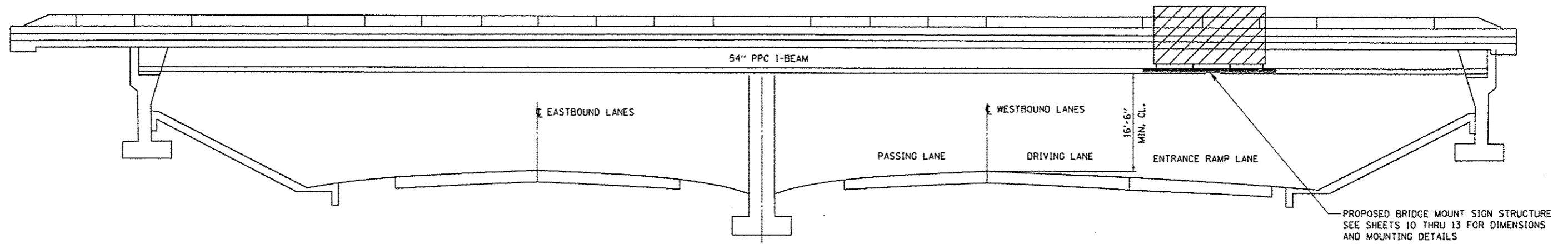
THIS STANDARD IS USED WHERE AT ANY TIME A LANE IS CLOSED ON A FREEWAY/EXPRESSWAY.

WHEN THE LEFT LANE IS CLOSED, LEFT LANE CLOSED SIGNS SHALL BE SUBSTITUTED FOR THE RIGHT LANE CLOSED SIGNS.

THE FIRST TWO SIGNS AND THE MESSAGE BOARD ARE STATIONARY. THE OTHER SIGNS AND ARROWBOARDS SHALL BE MOVED AS NECESSARY TO MAINTAIN THE REQUIRED DISTANCE FROM THE START OF THE LANE CLOSURE TAPER(S).

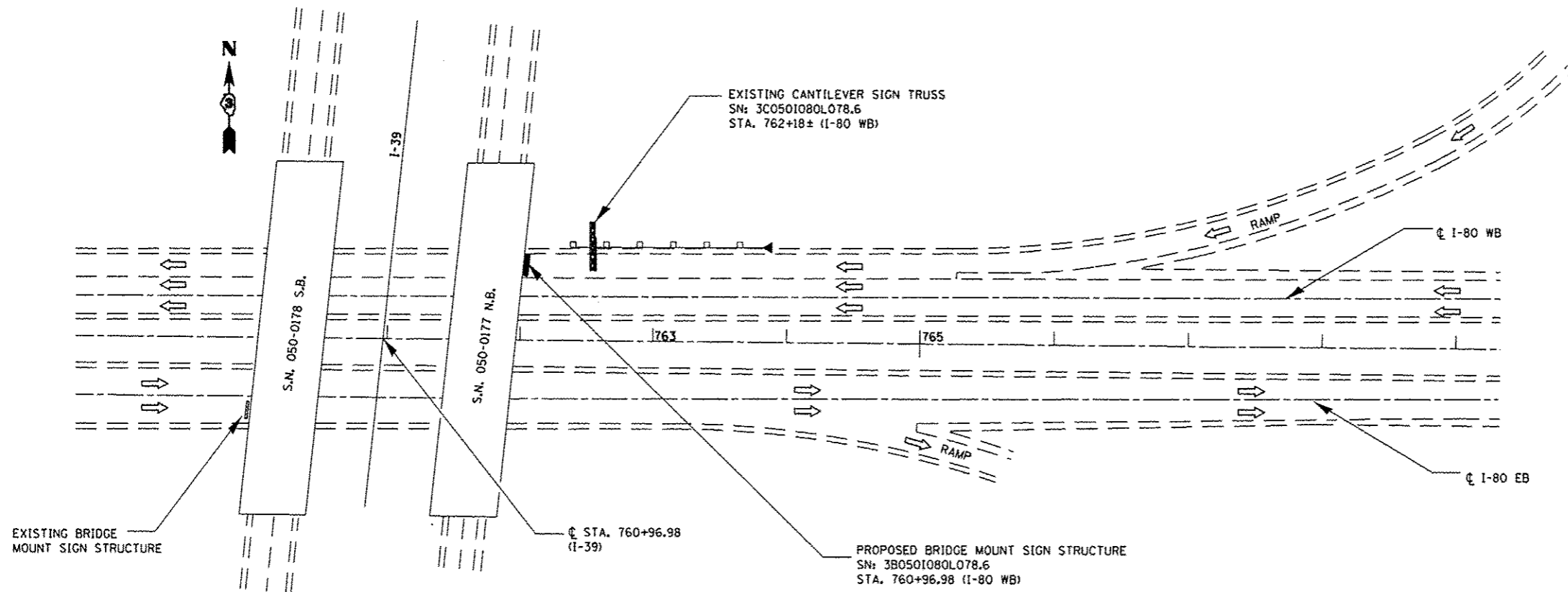
SEE SPECIAL PROVISIONS.

FILE NAME =	USER NAME = ppatel	DESIGNED - YOGESH PATEL	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>APPROACH TO LANE CLOSURE FREEWAY/EXPRESSWAY STANDARD 701400 (SPECIAL)</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pwork\pavidot\patel\4933897\0346576-shc-details.dgn		DRAWN - YOGESH PATEL	REVISED -			80 & 39	03 OVD SIN STR REPL 14-15	LASALLE	14	7
	PLOT SCALE = 100.0000 / in.	CHECKED - RON WOODSHANK	REVISED -						CONTRACT NO. 46276	
	PLOT DATE = 7/2/2013	DATE -	REVISED -		SCALE:	SHEET 1 OF 1 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	



**ELEVATION**

SN: 050-0177  
LOOKING WEST



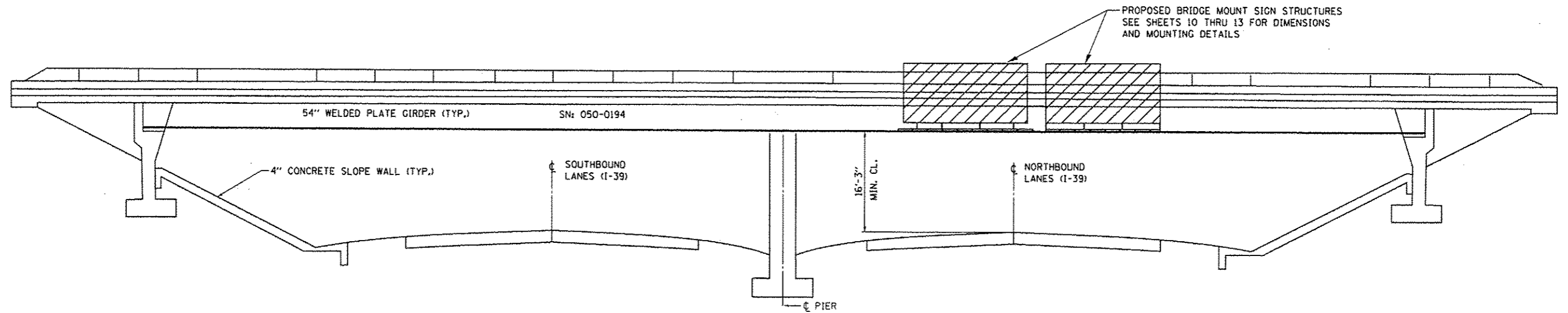
**PLAN**

**SEQUENCE OF OPERATIONS**

1. INSTALL PROPOSED BRIDGE MOUNT SIGN STRUCTURE.
2. RELOCATE EXISTING SIGN PANEL(S) TO BRIDGE MOUNT SIGN STRUCTURE.
3. REMOVE EXISTING CANTILEVER SIGN STRUCTURE INCLUDING FOUNDATION.
4. REMOVE AND SALVAGE ALL EXISTING GUARDRAIL AND COMPONENTS, INCLUDING RAILS, POSTS, BLOCKOUTS, AND TERMINAL SECTIONS.

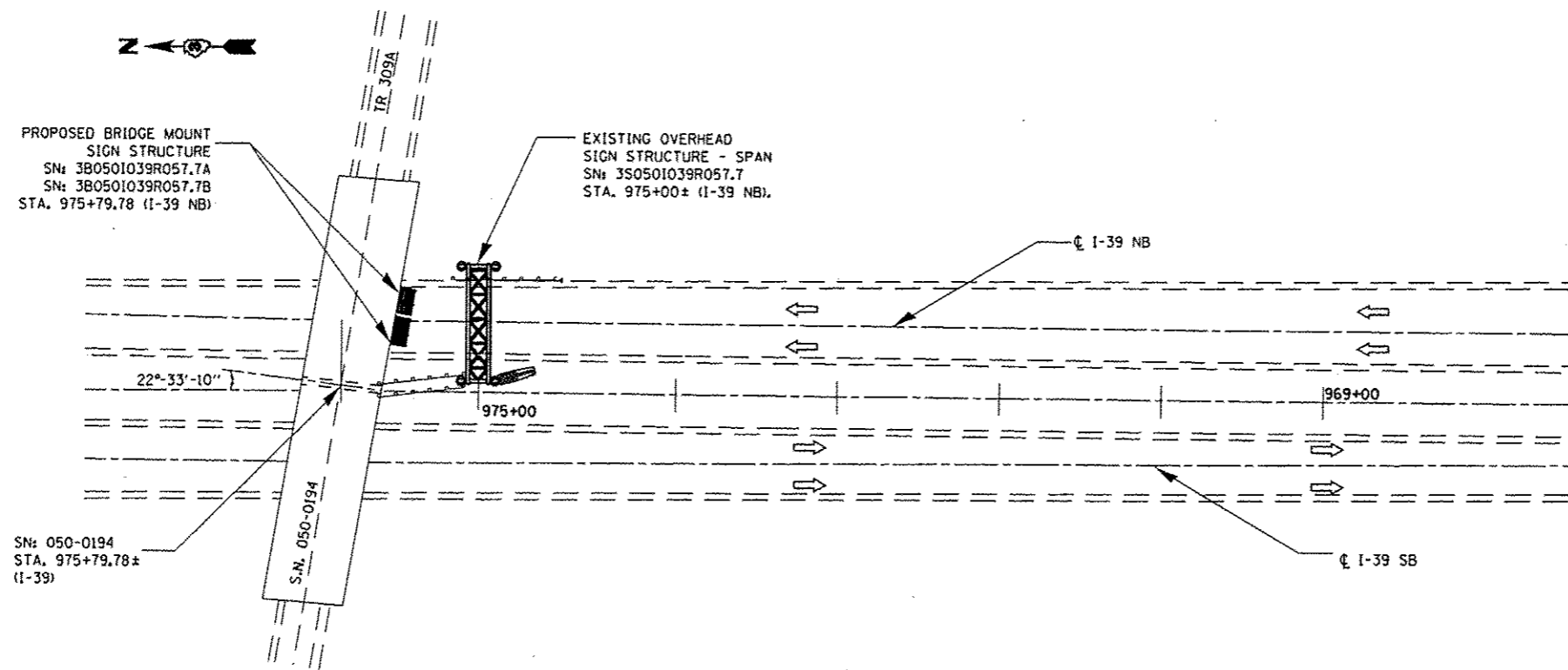
FILE NAME *	USER NAME * patelvj	DESIGNED - YOGESH PATEL	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL PLAN &amp; ELEVATION LOCATION 1</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwwork\p\patelvj\08336977\034676-shr-detailed.dgn	PLT SCALE * 100.0000' / 1" =	DRAWN - YOGESH PATEL	REVISED -					80 & 3903 OVD SIN STR REPL 14-15	LASALLE	14	8	
PLT DATE * 7/3/2013	DATE -	CHECKED - RON WOODSHANK	REVISED -		SCALE:	SHEET 1 OF 8 SHEETS	STA.	TO STA.	CONTRACT NO. 46276			
		DATE -	REVISED -						ILLINOIS FED. AID PROJECT			





**ELEVATION**

SN: 050-0194  
LOOKING NORTH

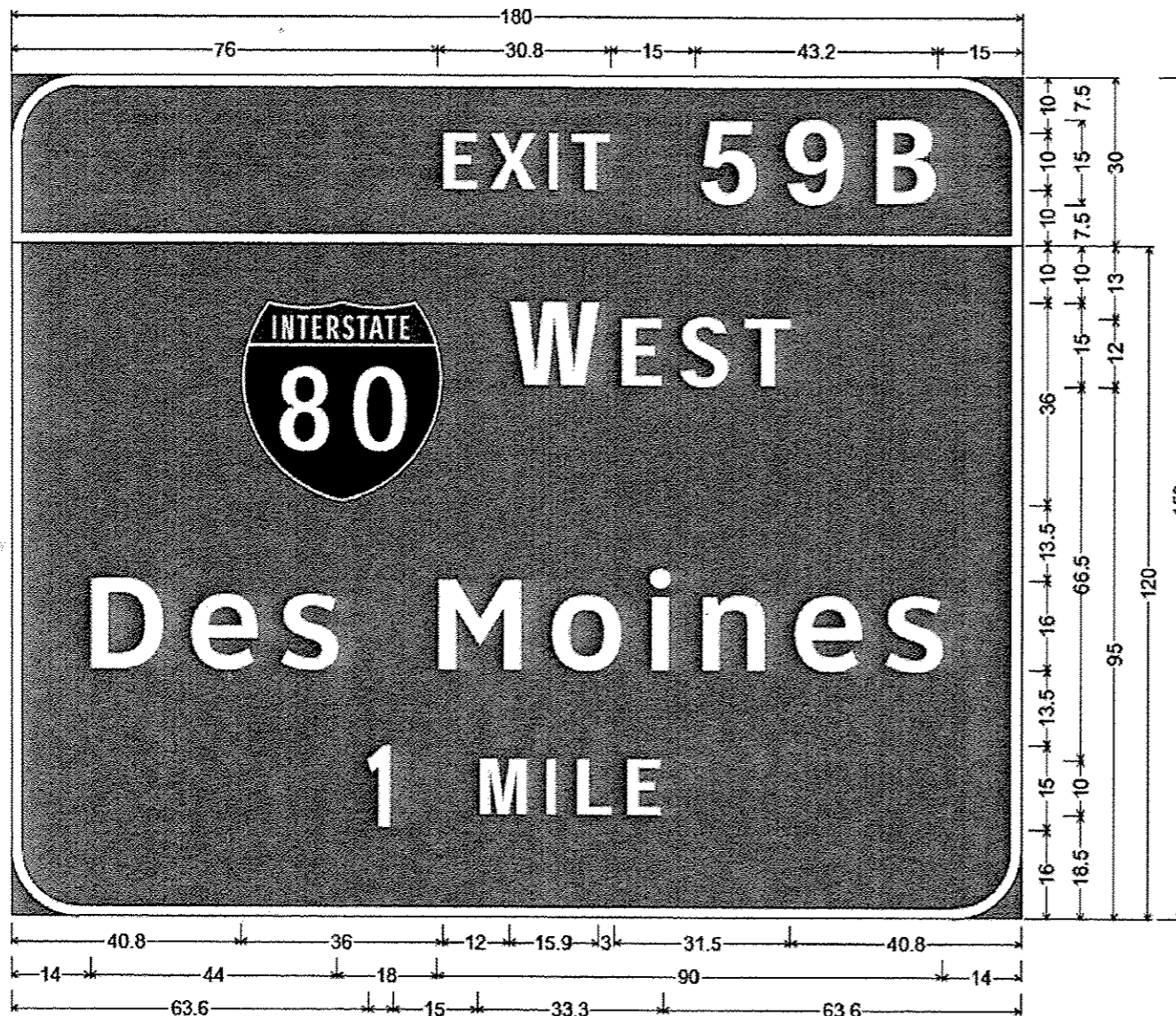


**PLAN**

**SEQUENCE OF OPERATIONS**

1. INSTALL PROPOSED BRIDGE MOUNT SIGN STRUCTURE.
2. REMOVE EXISTING SPAN SIGN STRUCTURE INCLUDING FOUNDATIONS AND SIGN PANELS.
3. REMOVE AND SLAVAGE ALL EXISTING GUARDRAIL AND COMPONENTS, INSTALL NEW ATTENUATOR BASE AT CENTER PIER, RELOCATE EXISTING ATTENUATOR SAND BARRELS TO NEW ATTENUATOR BASE, AND REMOVE EXISTING ATTENUATOR BASE.

FILE NAME *	USER NAME * patelvj	DESIGNED - YOGESH PATEL	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL PLAN &amp; ELEVATION LOCATION 2</b>			P.A.T. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pw_work\pvidot\patelvj\0336977\034676-ah\detail.dgn		DRAWN - YOGESH PATEL	REVISED -		00 & 39	03 OVD SIN STR REPL 14-15	LASALLE	14	9			
PLOT SCALE * 1/8"=1'-0"		CHECKED - RON WOODSHANK	REVISED -		SCALE:	SHEET 2 OF 8 SHEETS	STA. TO STA.	CONTRACT NO. 46276				
PLOT DATE * 7/3/2013		DATE	REVISED -		[ILLINOIS] FED. AID PROJECT							



12.0" Radius, 2.0" Border, White on Green;  
 "EXIT 59B" E Mod 2K;  
 12.0" Radius, 2.0" Border, White on Green;  
 "W EST" E Mod 2K; "Des Moines" ClearviewHwy-5-W; "1 MILE" E Mod 2K;

SN: 3B050I039R057.7A



12.0" Radius, 2.0" Border, White on Green;  
 "EXIT 59A" E Mod 2K;  
 12.0" Radius, 2.0" Border, White on Green;  
 "E AST" E Mod 2K; "Chicago" ClearviewHwy-5-W; "1/2 MILE" E Mod 2K;

SN: 3B050I039R057.7B

**NEW SIGN PANELS TO BE FURNISHED AND INSTALLED ON SN: 050-0194 - LOCATION 2**

ALL DIMENSIONS ARE IN INCHES UNLESS OTHER WISE NOTED.

FILE NAME :	USER NAME :	DESIGNED :	REVISED :	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SIGN PANELS</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\patel\0336977\034675-shc-detail.dgn	patel	YOGESH PATEL	-					80 & 39	03 OVD SIN STR REPL 14-15	LASALLE	14	10
PLOT SCALE :	CHECKED :	RON WOODSHANK	REVISED :		SCALE:	SHEET 4 OF 8 SHEETS	STA.	TO STA.	CONTRACT NO. 46276			
PLOT DATE :	DATE :	-	REVISED :		ILLINOIS FED. AID PROJECT							

**GENERAL NOTES**

**SPECIFICATIONS:**

**DESIGN:** AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications") ②

**CONSTRUCTION:** Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

**LOADING:** 90 M.P.H. WIND VELOCITY

**WALKWAY LOADING:** Dead load plus 500 lbs. concentrated live load.

**MINIMUM CLEARANCE:** 3" greater than bridge members at all locations. (All Obstructions)

**WELDING:** All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 Structural Welding Code (Steel) and the Standard Specifications.

**MATERIALS:** All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 (M183, M223 Gr. 50.).

**HIGH STRENGTH BOLTS:** All bolts, washers, nuts and locknuts shall satisfy the requirements of ASTM designation A307 unless noted as "H.S." which shall require AASHTO M164 (A325), ASTM A449, or approved alternate. All fasteners shall be hot dip galvanized per AASHTO M232 unless otherwise specified.

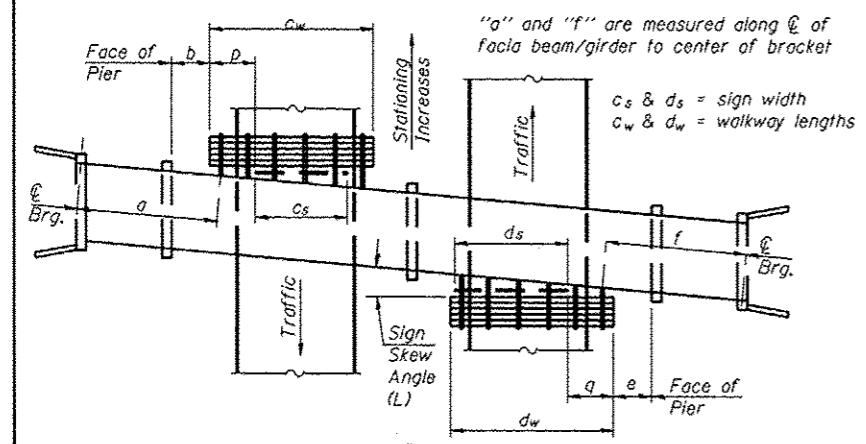
**GALVANIZING:** All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

**ANCHOR RODS:** All-threaded rod shall conform to ASTM F1554 Grade 105, 3/4"  $\phi$  x 12" long, each with one plate washer and locknut and be hot dip galvanized per AASHTO M232. They shall be either cast into the concrete or epoxy grouted in accordance with Section 584 of the Standard Specifications. Minimum embedment in concrete shall be 9".

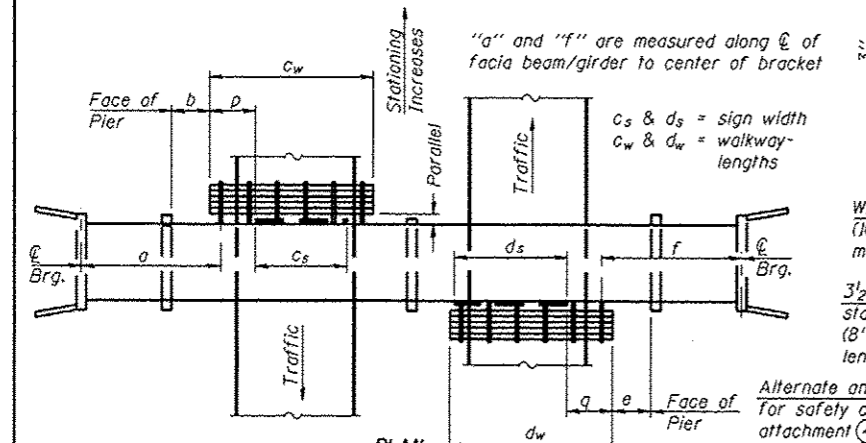
- ① Bracket spacing  $g \leq 6'-0"$ , max. Spacing shall be uniform if possible but may vary  $\pm 6"$  to miss existing obstruction (rail post, light poles, web stiffeners, splice plates, etc.). Adjust bracket lengths accordingly on skewed structures.
- ② Any design modifications shall be based on the current version of applicable specifications and submitted for the Engineer's approval.
- ③ Unit price includes grating, handrail, brackets, supports, anchor bolts, fasteners, fabrication, delivery, erection, field drilling and other necessary items. Limits of payment are based on grating length (cw, dw) unless otherwise specified. For Safety Chain Details and Details D, F and G, see Base Sheet BM-4.
- ④ If walkway bracket at safety chain location is behind sign, add angle to bracket. See detail on Base Sheet BM-4.

**TOTAL BILL OF MATERIAL**

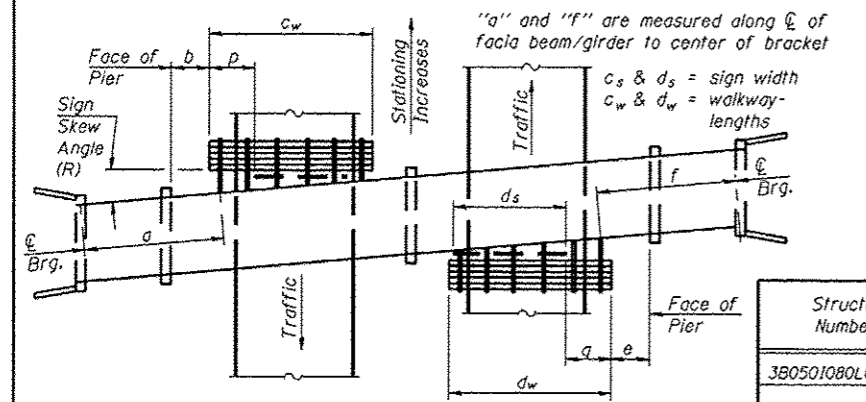
③ OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED	Foot	54'-0"
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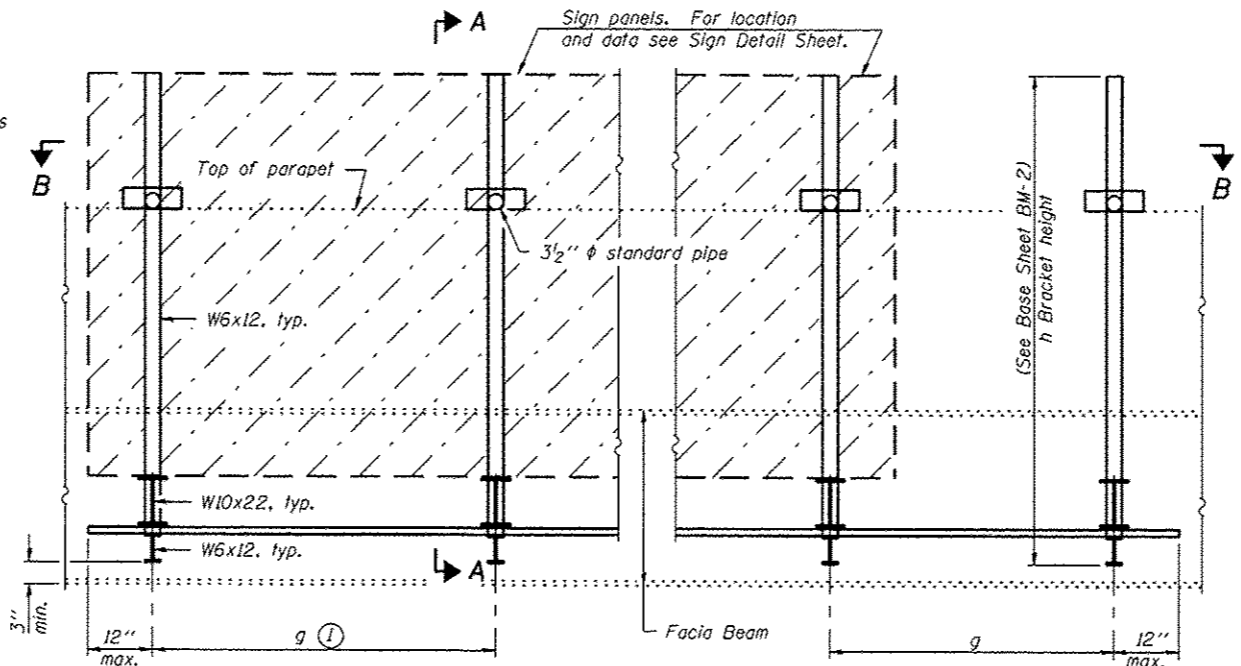
**PLAN**  
(Left Sign Skew > 15°)  
**WALKWAY AND HANDRAIL SKETCH**  
(Road plan beneath structure varies.)



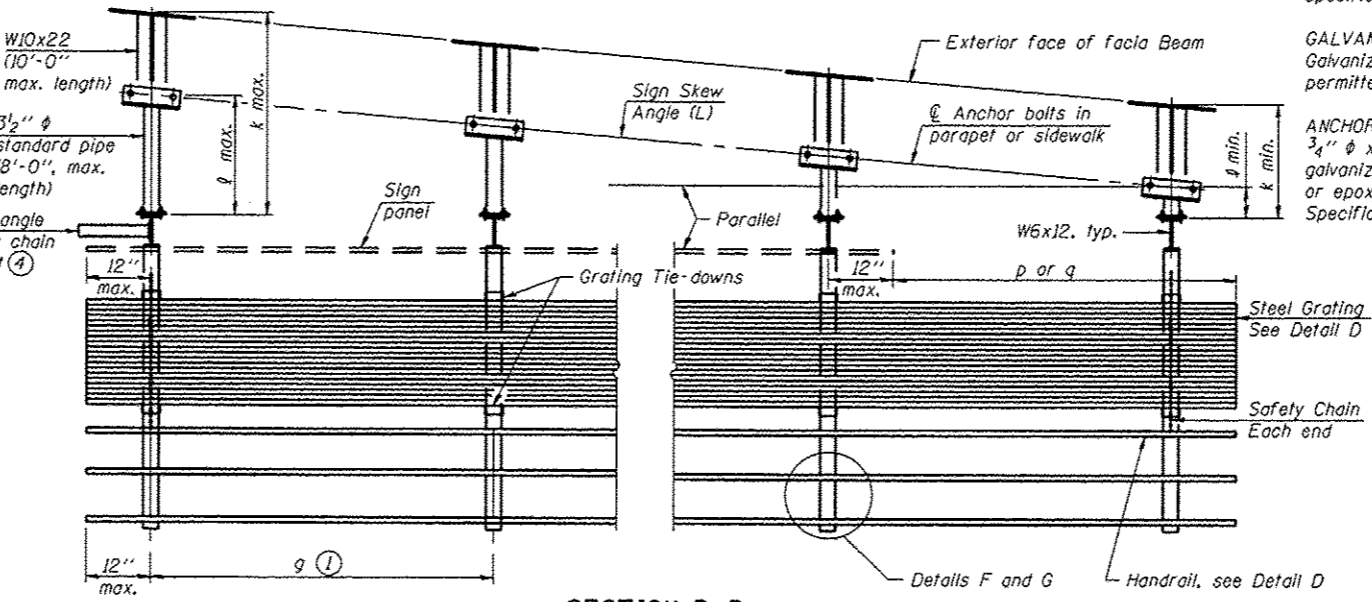
**PLAN**  
(For Sign Skew  $\leq 15^\circ$ , all brackets constant)  
**WALKWAY AND HANDRAIL SKETCH**  
(Road plan beneath structure varies.)



**PLAN**  
(Right Sign Skew > 15°)  
**WALKWAY AND HANDRAIL SKETCH**  
(Road plan beneath structure varies.)



**TYPICAL FRONT ELEVATION**  
(With lights, safety chain and handrail omitted for clarity.)



**SECTION B-B**  
(Shown: Left Sign Skew > 15°)

Structure Number	Sign Skew Angle (L) or (R)	Bridge Station	Bridge Structure Number	Contract Route Designation	a	b	c <sub>s</sub>	c <sub>w</sub>	d <sub>s</sub>	d <sub>w</sub>	e	f	g	No. of Brackets (Total)	p	q	Total Grating/Hndrl. Lengths (c <sub>w</sub> * d <sub>w</sub> )
3B0501080L078.6	Constant	760+96.98	050-0177	FAI 80 (I-80)	---	---	---	---	21'-0"	26'-0"	N/A	41'-6"	6'-0"	5	---	4'-0"	26'-0"
3B0501039R057.7A	R	975+79.78	050-0194	FAI 39 (I-39)	---	---	---	---	15'-0"	15'-0"	N/A	15'-3"	4'-8"	4	---	0'-6"	15'-0"
3B0501039R057.7B	R	975+79.78	050-0194	FAI 39 (I-39)	---	---	---	---	11'-0"	13'-0"	N/A	34'-6"	3'-4"	4	---	1'-0"	13'-0"

Dimensions a, b, e, f & g may vary as approved by the Engineer, see ①.  
When c<sub>w</sub> < c<sub>s</sub> and/or d<sub>w</sub> < d<sub>s</sub>, use alternate brackets without walkway supports where applicable, see ③.

BM-1

6-1-12

FILE NAME =	USER NAME = potalij	DESIGNED - YOGESH PATEL	REVISED -
c:\pwwork\potalij\08336977\0348276\shd\detail\udgn		DRAWN - YOGESH PATEL	REVISED -
		CHECKED - RON WOODSHANK	REVISED -
		DATE -	REVISED -

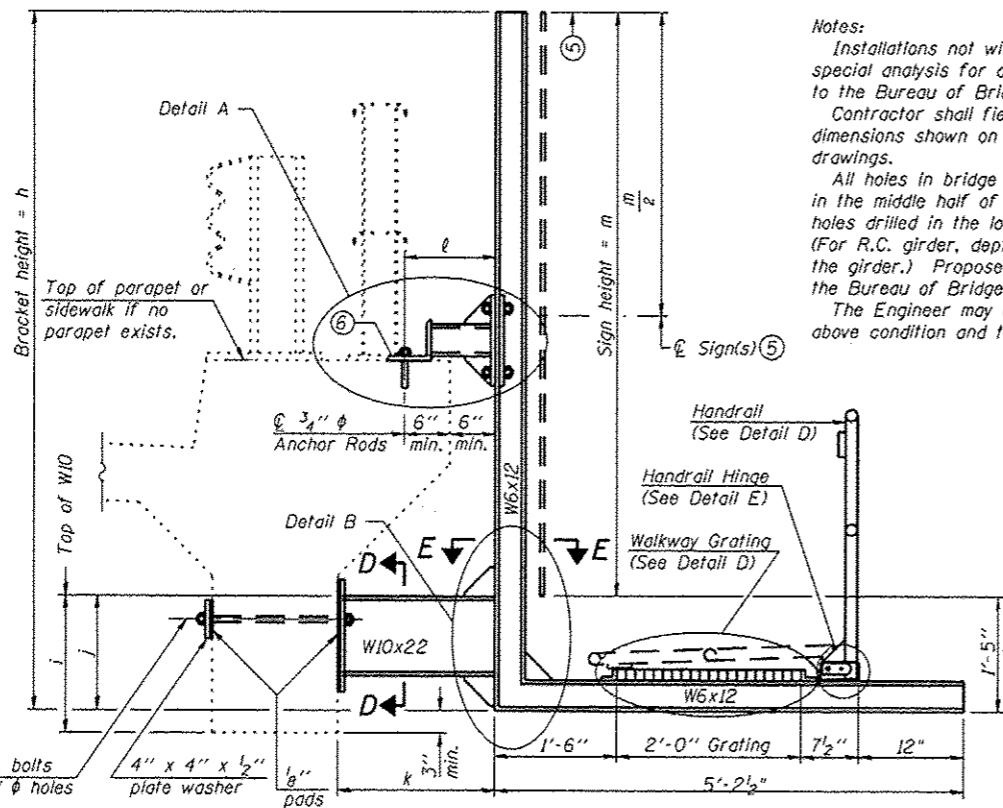
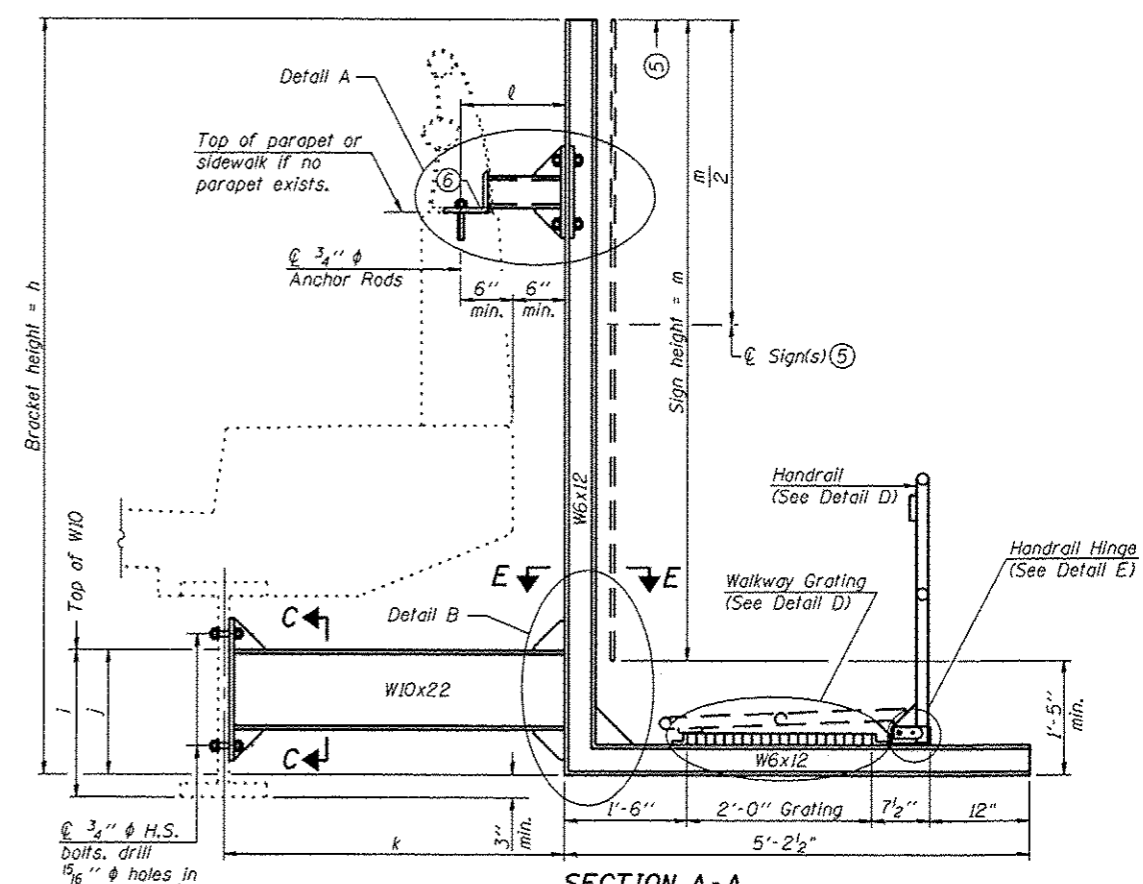
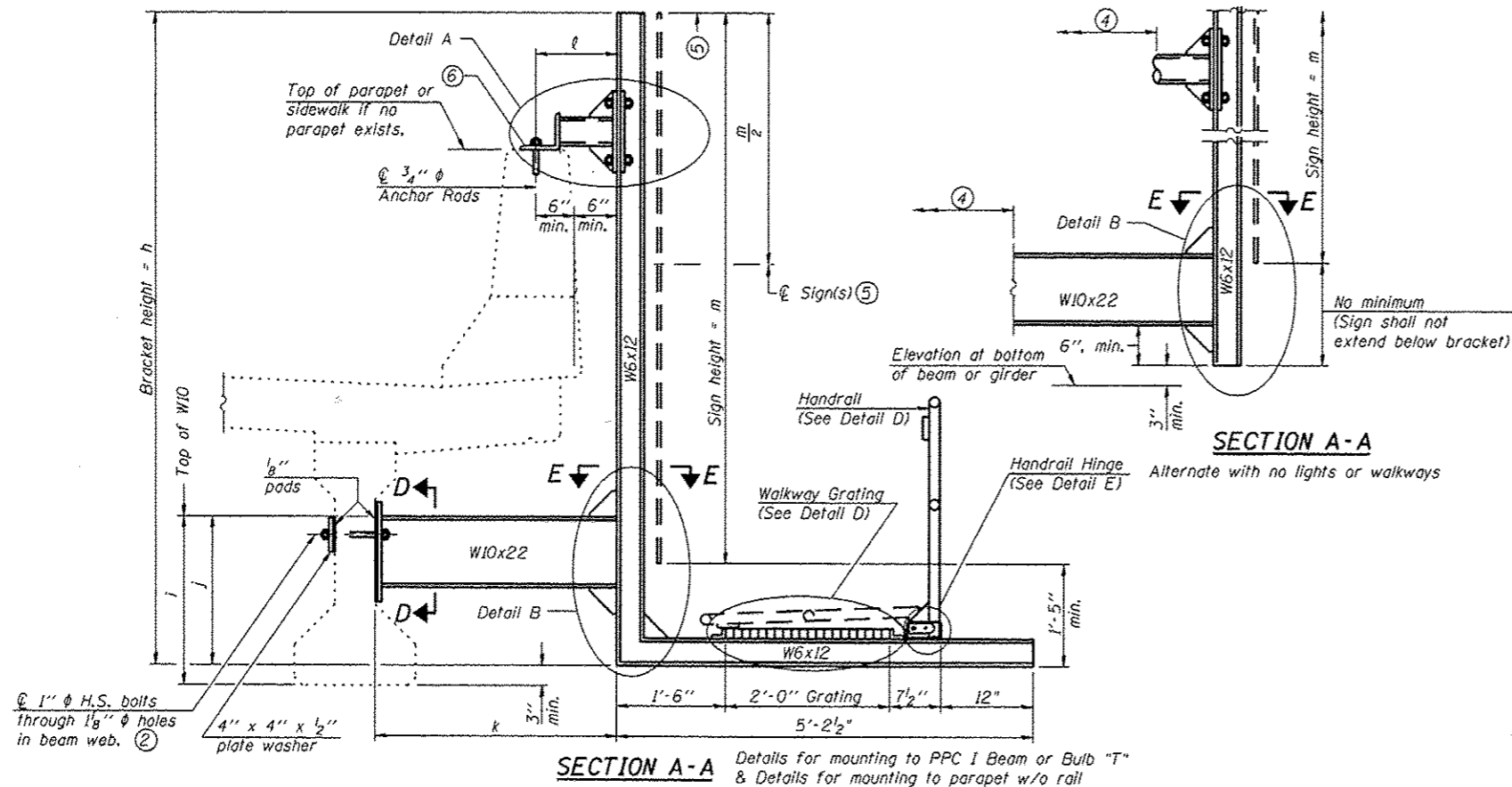
SCALE = 1/8" = 1'-0"	DATE = 7/2/2013
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**BRIDGE MOUNT SIGN STRUCTURES**  
**GENERAL PLAN AND ELEVATION**

P.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80 & 39/D3 OVD SIN STR REPL 14-15		LASALLE	14	11
CONTRACT NO. 46276				
ILLINOIS FED. AID PROJECT				





**Notes:**  
 Installations not within dimensional limits shown require special analysis for all components and must be submitted to the Bureau of Bridges and Structures for approval. Contractor shall field check all pertinent existing bridge dimensions shown on plans before submitting shop drawings.  
 All holes in bridge beams or girders should be located in the middle half of the member. There shall be no holes drilled in the lower quarter of the member's depth. (For R.C. girder, depth = bottom of deck to bottom of the girder.) Proposed exceptions must be approved by the Bureau of Bridges and Structures.  
 The Engineer may adjust dimension "l" to meet the above condition and to keep the sign level.

- ① Holes in new steel members may be drilled in the fabrication shop or in the field. Field drill existing members.
- ② For new PPC I beams, holes shall be formed during casting. For existing PPC I beams, prestressing strand locations shall be determined and spaced to miss strands by 6", min. Minimize spalling during field drilling of existing beams.
- ③ For new construction, form holes. For existing RC beams, locate primary reinforcement and space holes to miss by 6", min. Minimize spalling and concrete fracturing/damage during field drilling of existing concrete. Spalls over 1/4" deep or beyond the coverage of the 4x4 plate washer shall be repaired with epoxy mortar before installing washer.
- ④ For attachment details of 3/2" pipe and W10x22, see other sections as applicable.
- ⑤ Sign shall not extend more than 6" above top of bracket, and this dimension may vary to keep sign level if bridge is on grade or vertical curve. Multiple signs of various heights shall share a common horizontal centerline and use equal bracket heights. If no sign is attached to a W6x12 vertical (bracket only supporting walkway), dimension h shall be the same as an adjacent bracket with a sign attached, unless Engineer specifically directs shorter brackets due to locational restraints on future uses. (See Detail A for minimum bracket height.)
- ⑥ For bridge mounted sign structures installed on new bridges with railing, during design, bracket spacing must be coordinated with railing post spacing and the Contractor must install upper brackets prior to railing installation. For bridge mounted sign structures installed on existing bridges with railing, during design, brackets spacing must be coordinated with railing post spacing and the Contractor must temporarily remove sections of railing to facilitate upper bracket installation. If it is determined during design that existing railings can't be removed, alternate upper connection details must be developed for the contract plans and approved by the Bureau of Bridges and Structures.

Structure Number	Station	h	l	j	k max. (10'-0" max.)	l max. (8'-0" max.)	m (15'-0" max.)
3B0501080L078.6	760+96.98	13'-0"	2'-11 5/8"	2'-8 5/8"	3'-2 1/2"	1'-2"	13'-6"
3B0501039R057.7A	975+79.78	13'-11"	2'-11 5/8"	2'-8 5/8"	9'-4 1/2"	6'-11 5/8"	12'-6"
3B0501039R057.7B	975+79.78	13'-11"	2'-11 5/8"	2'-8 5/8"	8'-8 5/8"	5'-5 1/4"	12'-6"

BM-2

6-1-12

Details for mounting to Integral reinforced concrete girder & Details for mounting on safety curb with surface-mount bridge rail

For Details A & B, Sections C-C, D-D and E-E, see Base Sheet BM-3.  
 For Details D & E, see Base Sheet BM-4.

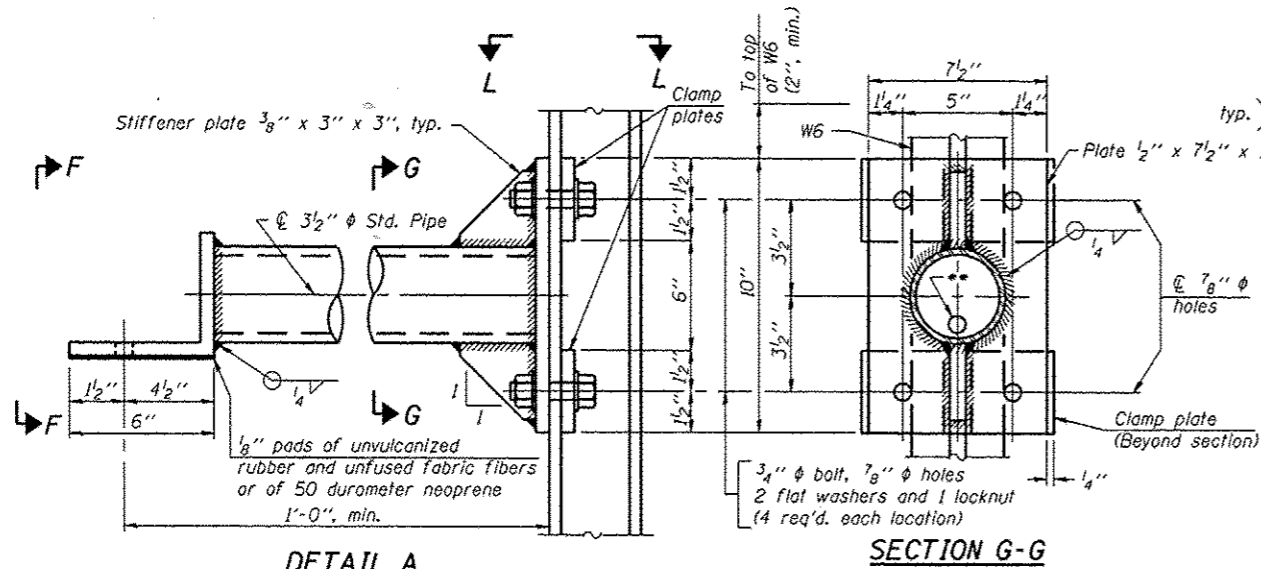
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PLOT DATE: 7/2/2013		CHECKED: RON WOODSHARK	REVISED:
		DATE:	REVISED:

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

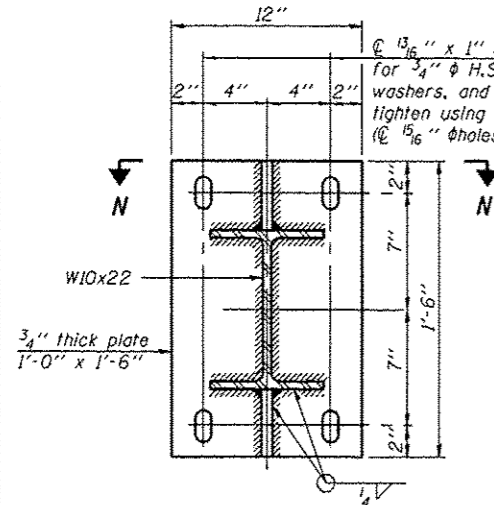
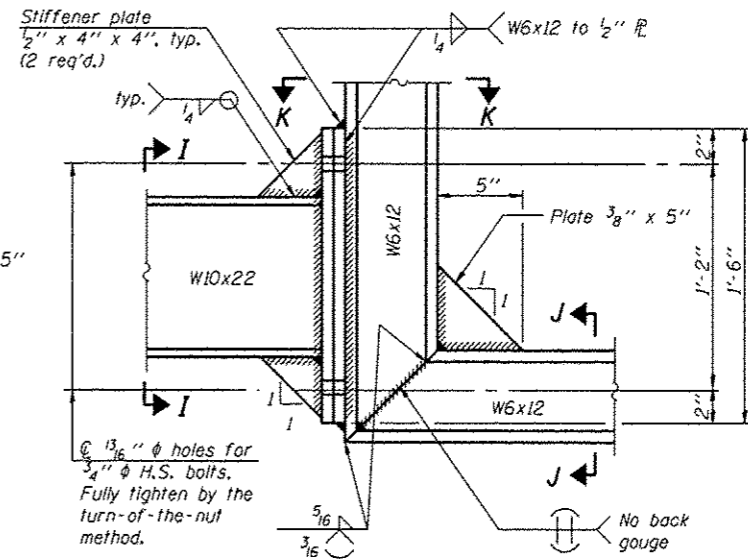
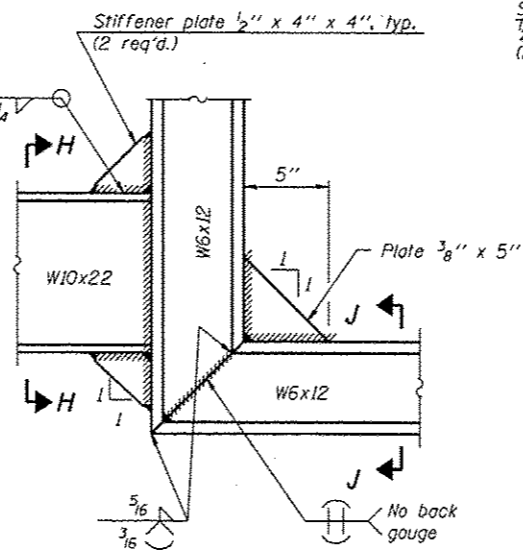
BRIDGE MOUNT SIGN STRUCTURES  
 WALKWAY AND CONNECTION DETAILS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80 & 39/03 OVD SIN STR REPL 14-15		LASALLE	14	12
CONTRACT NO. 46276				
ILLINOIS FED. AID PROJECT				

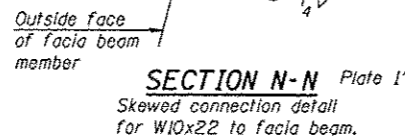
SCALE: SHEET 6 OF 8 SHEETS STA. TO STA.



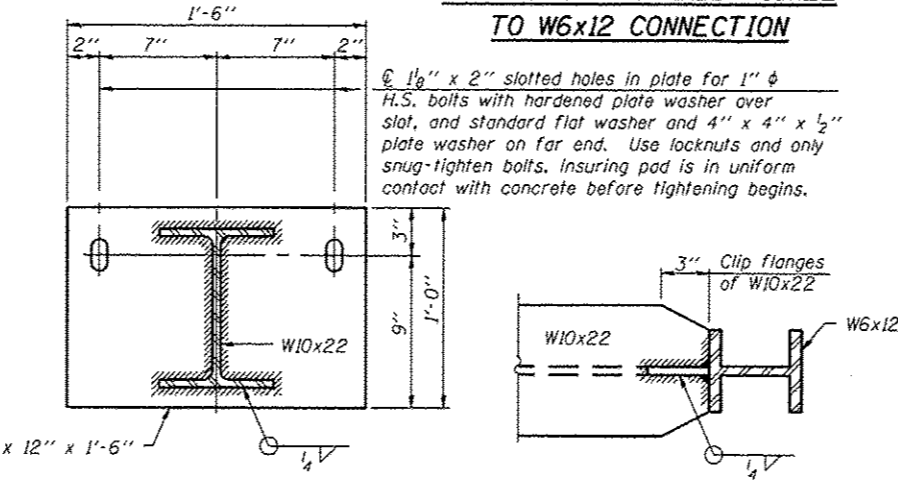
**SECTION G-G**



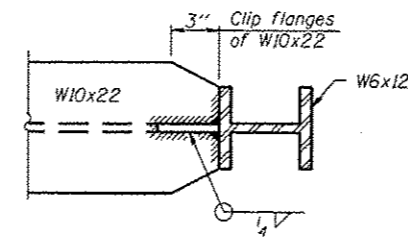
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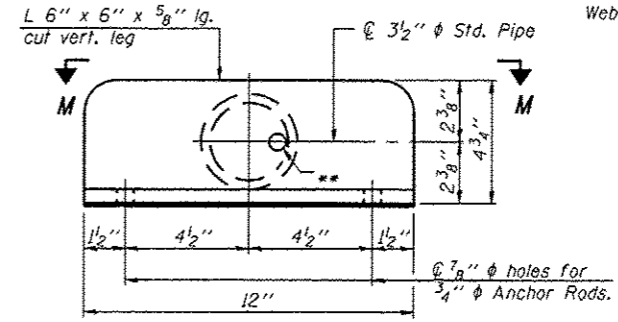
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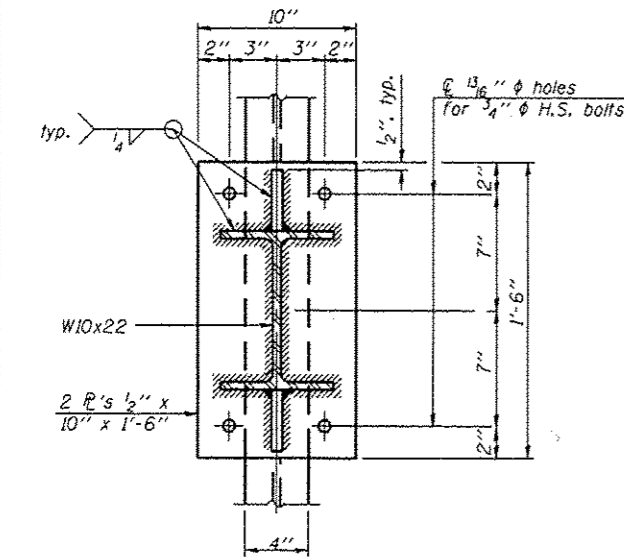
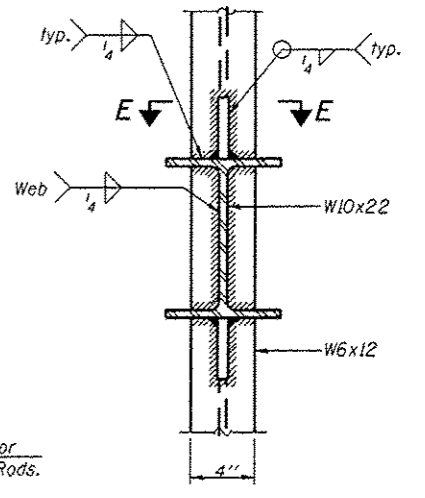
**SECTION E-E**



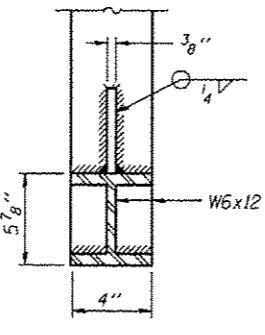
**VIEW F-F**



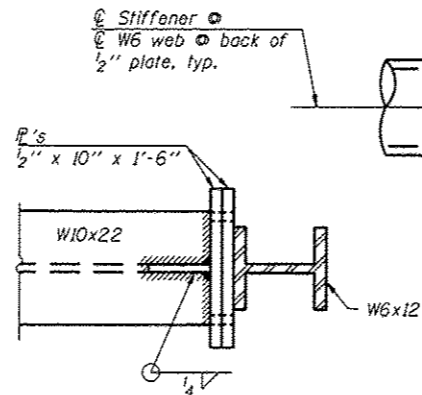
**SECTION H-H**



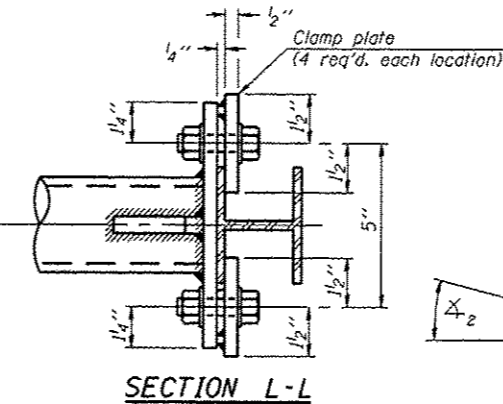
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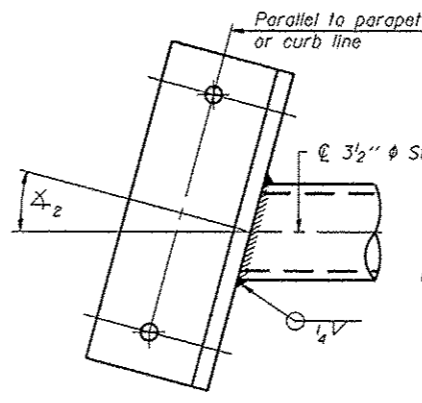
**SECTION K-K**



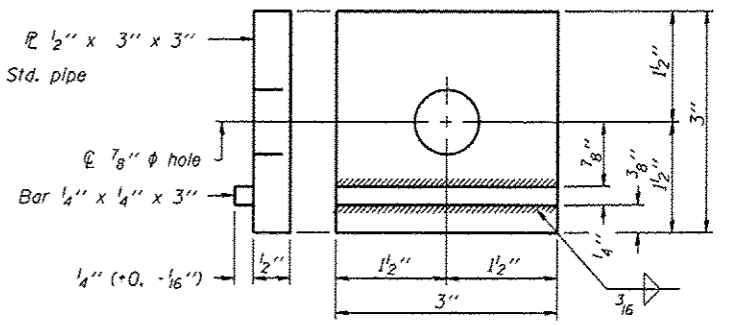
**SECTION L-L**



**SECTION M-M**



**CLAMP PLATE DETAILS**



BM-3

6-1-12

FILE NAME :	USER NAME :
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PLOT SCALE :	PLOT DATE :
1/8" = 1'-0"	7/2/2013

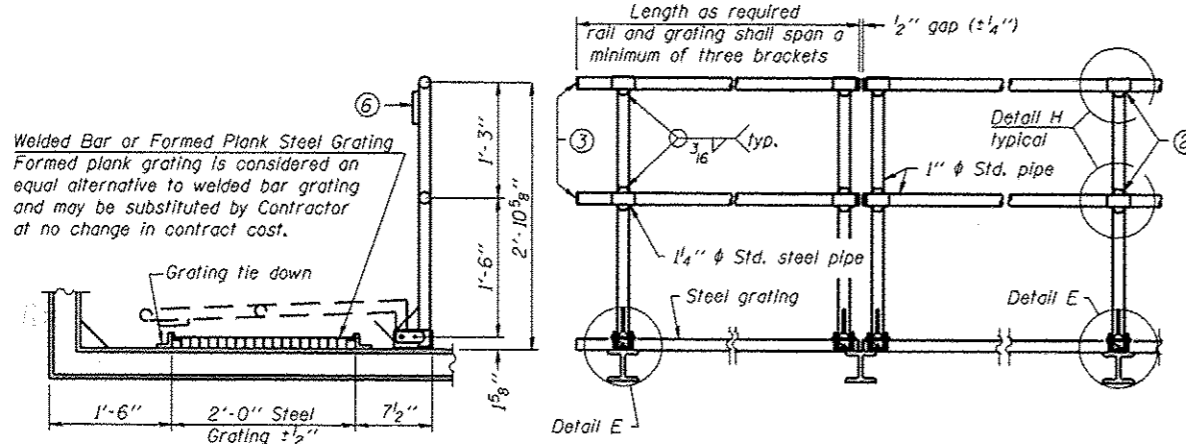
DESIGNED :	REVISOR :
YOGESH PATEL	
DRAWN :	REVISOR :
YOGESH PATEL	
CHECKED :	REVISOR :
RON WOODSHANK	
DATE :	REVISOR :

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

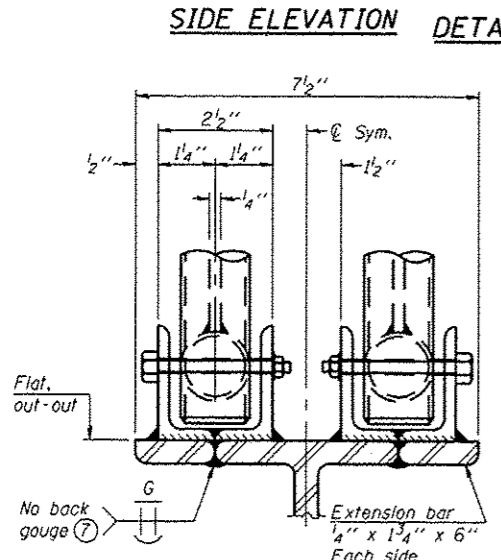
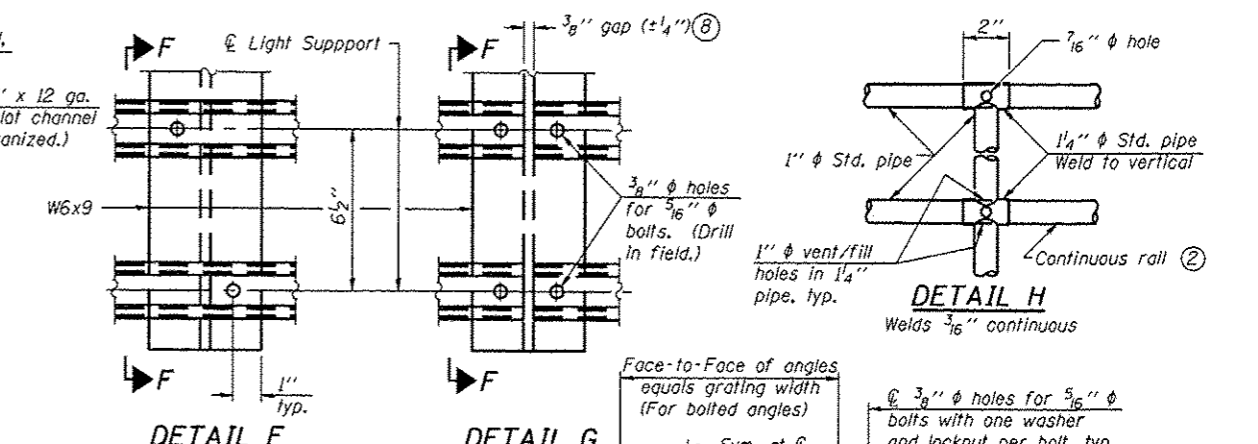
BRIDGE MOUNT SIGN STRUCTURES  
CONNECTION DETAILS

SCALE: SHEET 7 OF 8 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80 & 39D3 OVD SIN STR REPL 14-15		LASALLE	14	13
CONTRACT NO. 46276				
ILLINOIS FED. AID PROJECT				

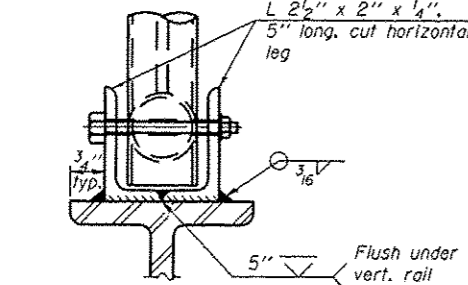


**SECTION F-F  
LIGHTING FIXTURE MOUNTS**  
(If required)

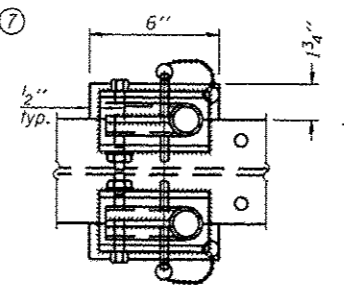


**ELEVATION AT HANDRAIL JOINT**  
(Details not shown same as "FRONT ELEVATION")

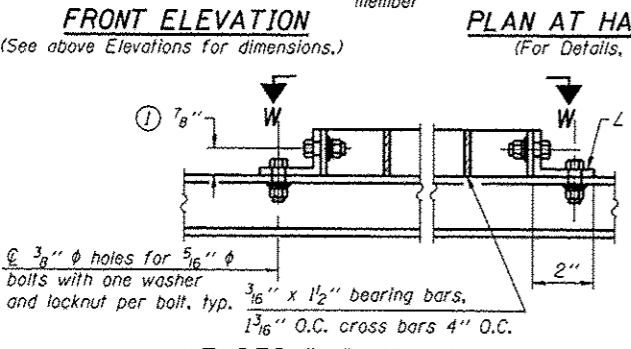
**SIDE ELEVATION**



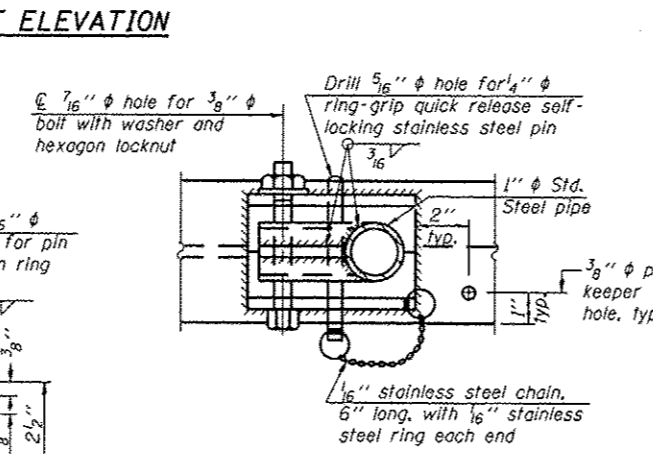
**FRONT ELEVATION**  
(See above Elevations for dimensions.)



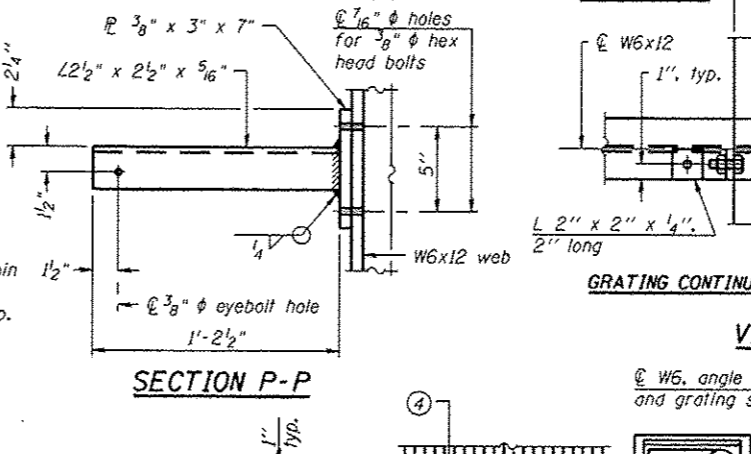
**PLAN AT HANDRAIL JOINT**  
(For Details, see Elevations.)



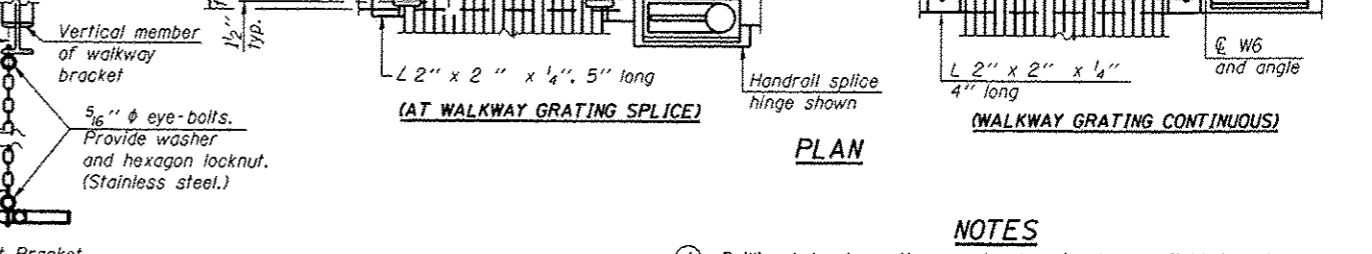
**WELDED BAR GRATING DETAILS**



**PLAN AT SINGLE HANDRAIL HINGE  
DETAIL E**

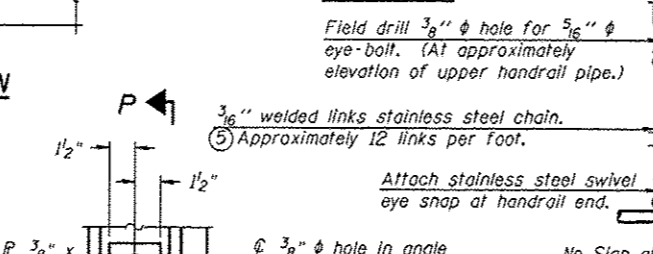


**SECTION P-P**

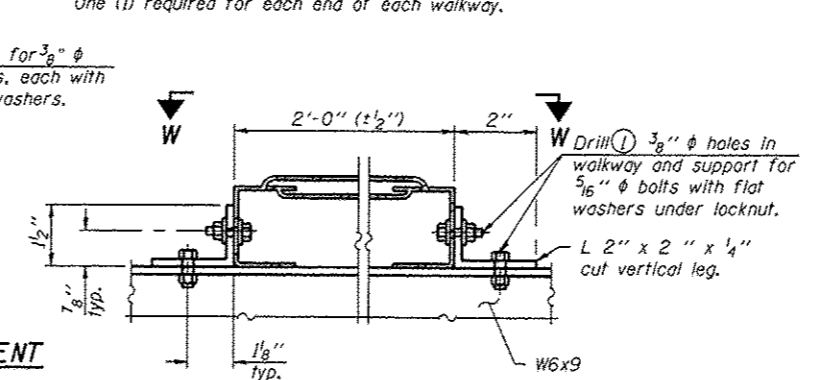


**VIEW W-W  
(AT WALKWAY GRATING SPLICE)**

**PLAN**



**SAFETY CHAIN ATTACHMENT**  
(With Sign Present)  
Items not shown same as "SIDE ELEVATION" and "SAFETY CHAIN"



**ALTERNATE FORMED PLANK GRATING DETAILS**

Plank Grating, nominal depth = 2 1/2" (± 1/2"); perforated or expanded steel sheet with a non-skid surface (non-serrated) concentrated load capacity = 500 lbs. with 6'-0" clear span.

- NOTES**
- Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment. Field drilled holes must be touched up with galvanized paint.
  - Horizontal rail member shall be continuous thru 1 1/4" φ pipe. Provide 7/16" φ hole in 1 1/4" φ pipe for 3/8" φ bolt. Field drill 7/16" φ hole in horizontal rail member. Provide washer and locknut for bolt. (Use 5/16" eyebolts in 1/2" φ holes on top rail at ends only.)
  - Install standard force-fit end caps or weld 1/8" end plates with 1/8" c.f.w. and grind smooth. (All rail ends.)
  - 3/8" (± 1/4") gap between grating panels at splice.
  - Chain to be type 304L stainless steel suitable for prolonged exterior exposure. Approximately 3'-6" long chain per location. Maximum sag with handrail erected = 4".
  - 1/2" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
  - Extrusions may be used in lieu of details shown, with approval by Engineer.
  - Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.

FILE NAME: BM-4	USER NAME: ppatel	DESIGNED: YOGESH PATEL	REVISED: -
6-1-12	76-ehi-details.dgn	DRAWN: YOGESH PATEL	REVISED: -
PLOT SCALE: 1/8" = 1'-0"		CHECKED: RON WOODSHANK	REVISED: -
PLOT DATE: 7/2/2013		DATE: -	REVISED: -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

<b>BRIDGE MOUNT SIGN STRUCTURES</b>		P.A.I. RATE:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
<b>WALKWAY DETAILS</b>		80 & 39103 OVD SIN STR REPL 14-15		LASALLE	14	14
SCALE:	SHEET 8 OF 8 SHEETS	STA. TO STA.	CONTRACT NO. 46276			
			ILLINOIS FED. AID PROJECT			