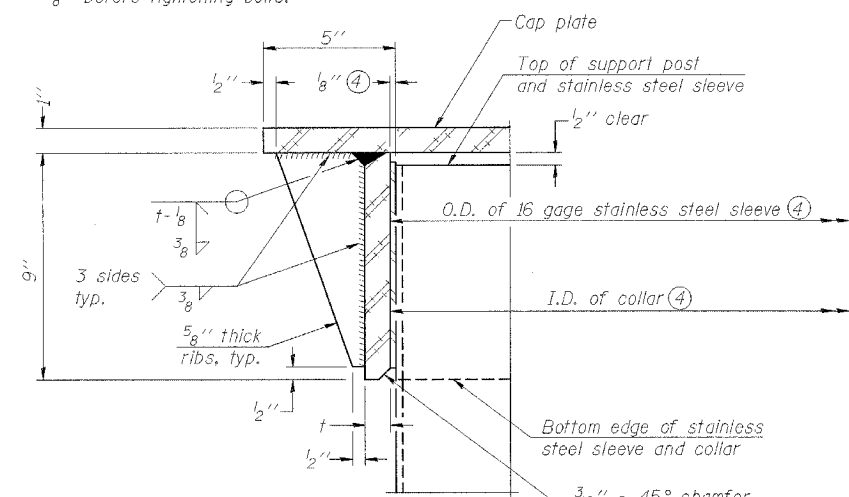


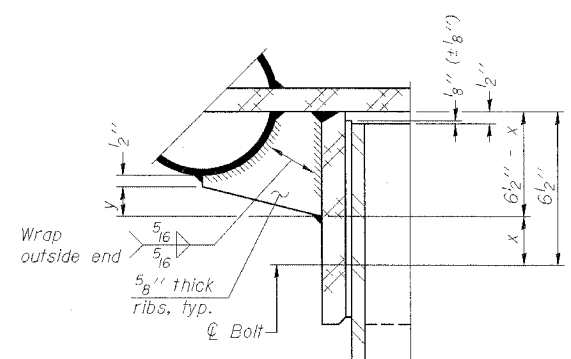
④ Collar I.D. shall be manufactured to correspond to O.D. of actual galvanized post and stainless steel sleeve plus 1/8" (±1/16"). Maximum gap between post and collar at any location equals 1/8" before tightening bolts.

SECTION B-B

Bolts, washers (including contoured washers), and locknuts shall be stainless steel.

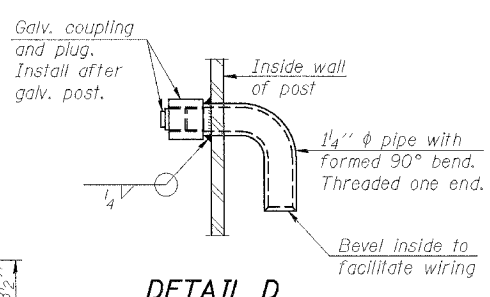


DETAIL A
(Two locations)



DETAIL B

Two locations
(For details not shown, see Detail C)



DETAIL D

CONTOURED WASHERS

Bolt Size	Contoured Washers	
	Hole Dia.	B
7/8"	1"	2 1/2"
1"	1 1/8"	3"
1 1/4"	1 3/8"	3 1/4"

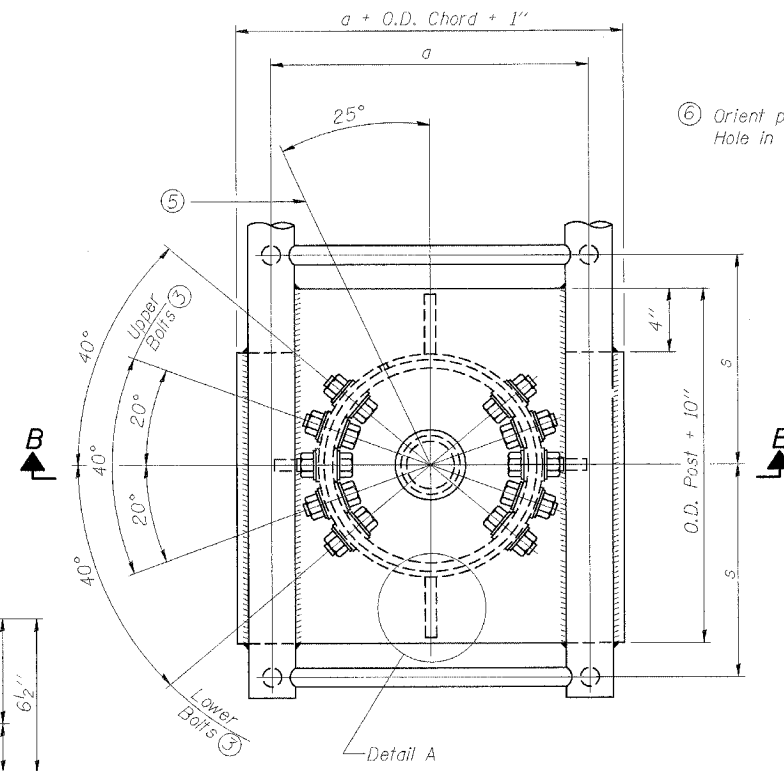
DETAIL OF STAINLESS STEEL SLEEVE

Weld to post after galvanizing. Prepare post surface to insure tight, uniform fit and allow welding. Welds to be 1/2" long at 6" cts. along top edge and at 1/4" opening.

NUMBER	REVISION	DATE

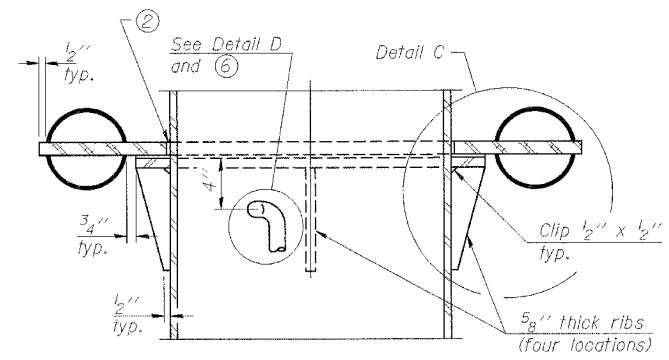
Truss Type	Post Size	Upper & Lower Connection Bolt Diameter ③	Lower Juncture Bolt Spacing Dimension "c" ③	Opening in Cap Plate "HH"	Collar Thickness (t)	Side Ribs	
						x	y
I-C-A	16" φ (83#7)	7/8"	3 1/4"	8"	5/8"	1 3/4"	2 1/4"
II-C-A	24" φ (125#7)	1"	3 1/2"	12"	7/8"	2"	1 1/4"
III-C-A (35' max.)	24" φ (125#7)	1 1/4"	3 1/2"	12"	7/8"	2"	1"
III-C-A (>35' to 40')	24" φ (171#7)	1 1/4"	3 1/2"	12"	7/8"	2"	1"

③ Upper and lower connection bolts in collar and bolts at lower chord connection shall be high strength with matching locknuts. Connection bolts shall have 2 stainless steel flat washers each.

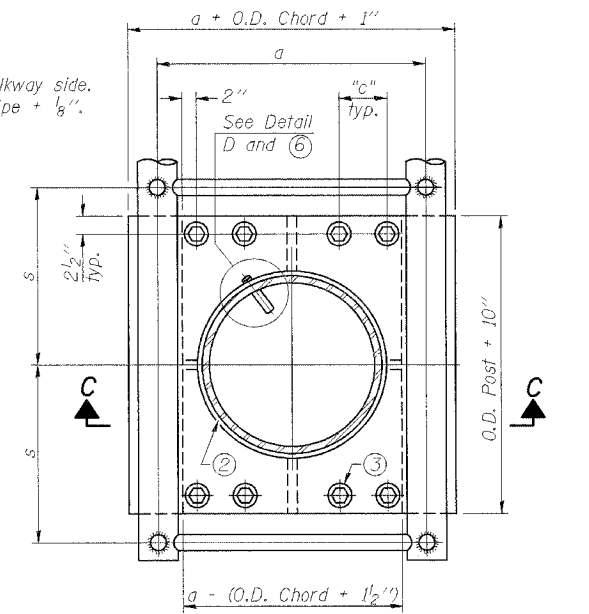


PLAN VIEW - TOP OF COLUMN

⑤ Optional full penetration weld in collar. (Two locations maximum...180° apart)...X-ray or UT 100%

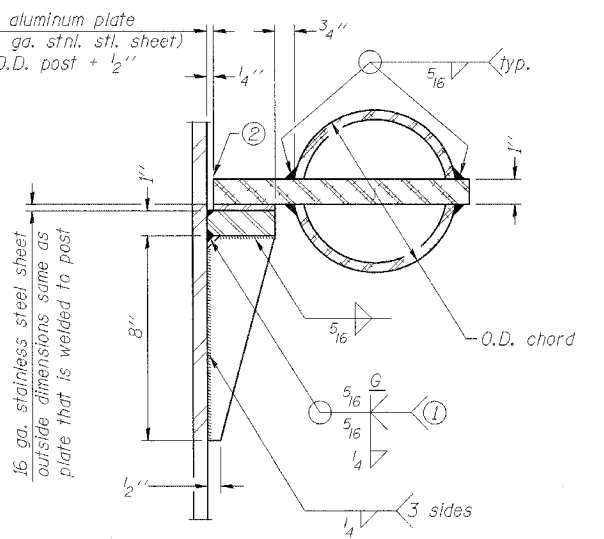


SECTION C-C



SECTION THRU POST ABOVE LOWER CHORDS

Hole in aluminum plate (and 16 ga. stnl. stl. sheet) to be O.D. post + 1/2"



DETAIL C

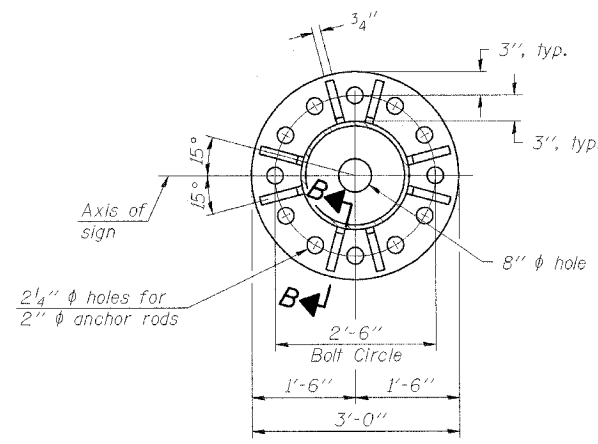
- ① Grind top if required to fully seat aluminum plate and stainless steel sheet.
- ② After tightening lower connection bolts, fill gap with non-hardening, silicone caulk suitable for exterior exposure and acceptable to the Engineer. Cost is included in Overhead Sign Structure Cantilever.

REVISIONS	
NAME	DATE

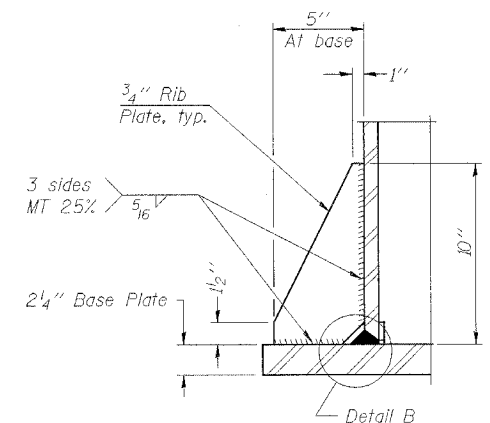
ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI 55 AT FAP 338 ILLINOIS ROUTE 59
SECTION: (26, 26HB-1 & 114) R-2

JUNCTURE DETAILS
ALUMINUM TRUSS & STEEL POST

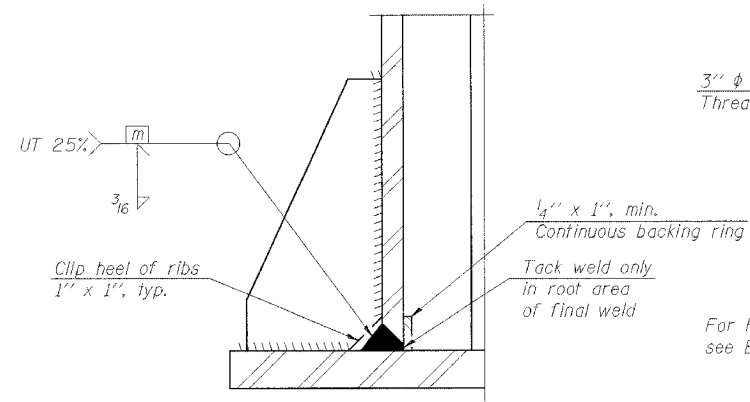
DATE: 03/14/08
DRAWN BY: MDB
CHECKED BY:
TENG



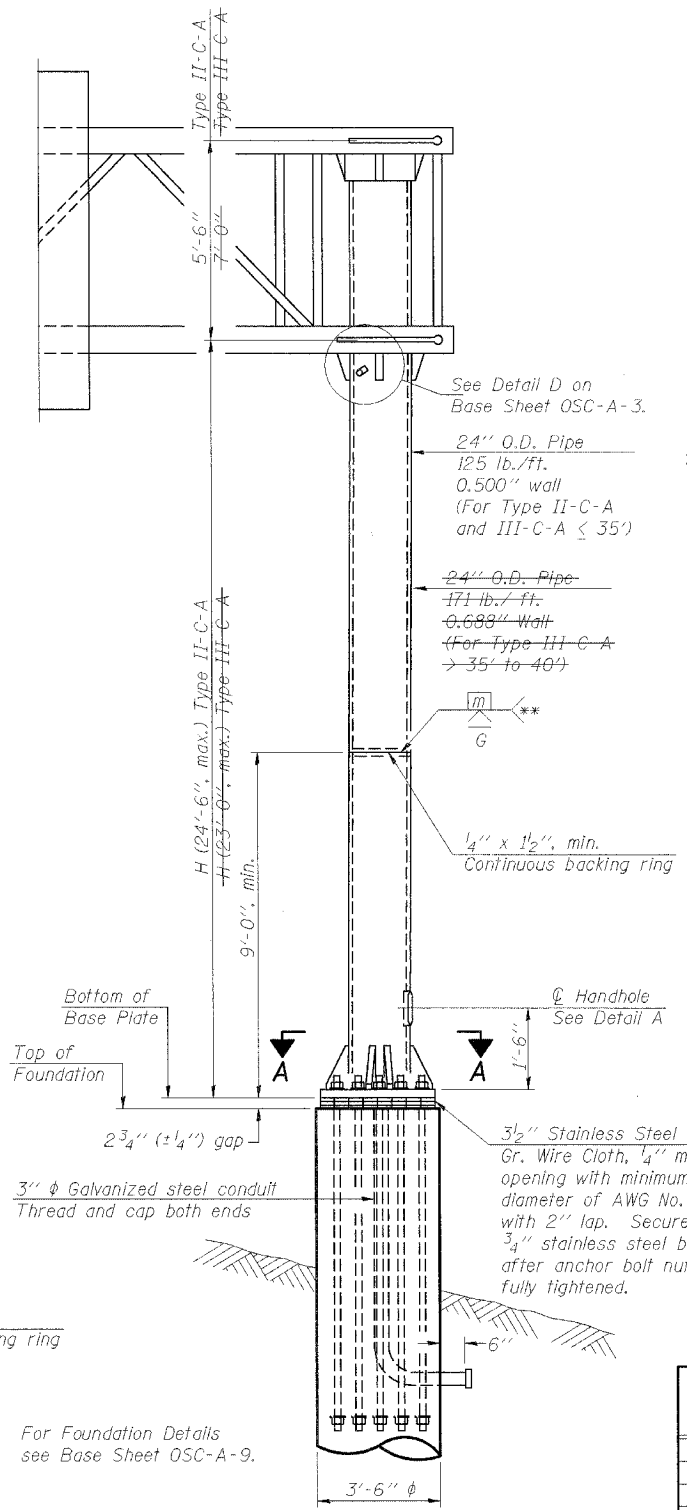
SECTION A-A



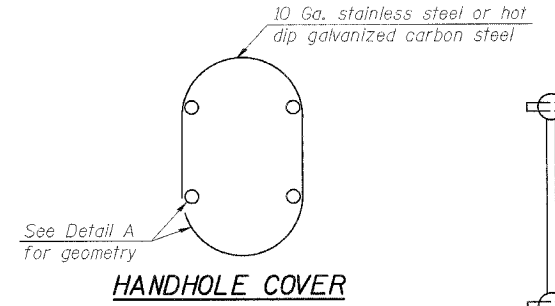
SECTION B-B



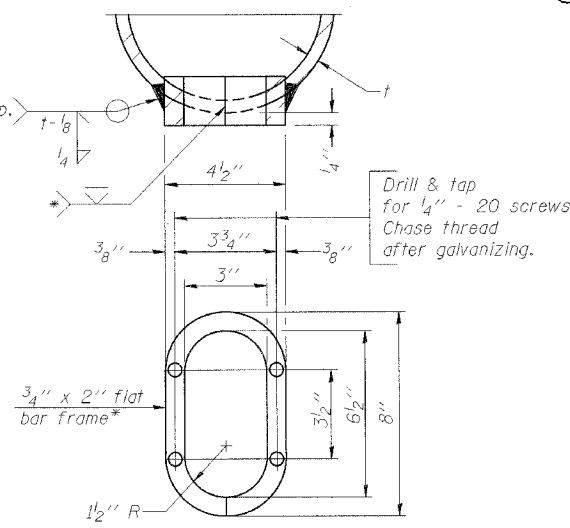
DETAIL B
(Typical rib)



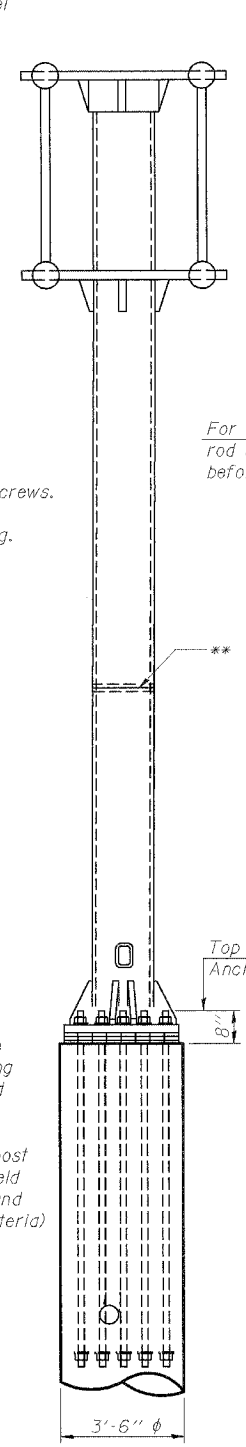
FRONT ELEVATION



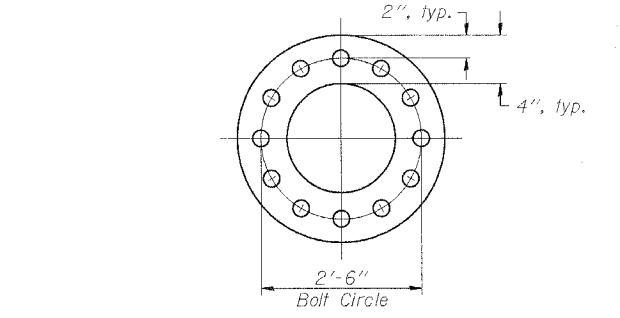
HANDHOLE COVER



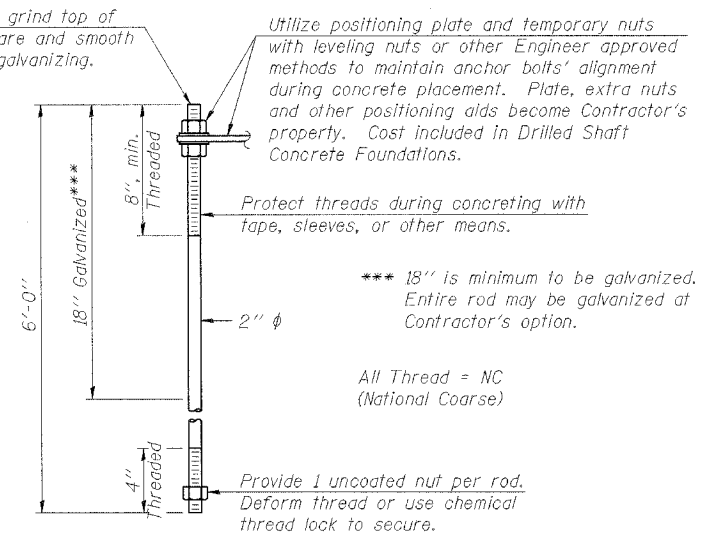
DETAIL A



SIDE ELEVATION



SUGGESTED POSITIONING PLATE



ANCHOR ROD DETAIL

Structure Number	Station	H
IC0991055R250.46	63+00	21'-6"
IC0991055R250.76	79+00	22'-3"
IC0991055L250.93	88+00	22'-3"

Note: "H" based on 15'-0" or actual sign height, whichever is greater.

NUMBER	REVISION	DATE

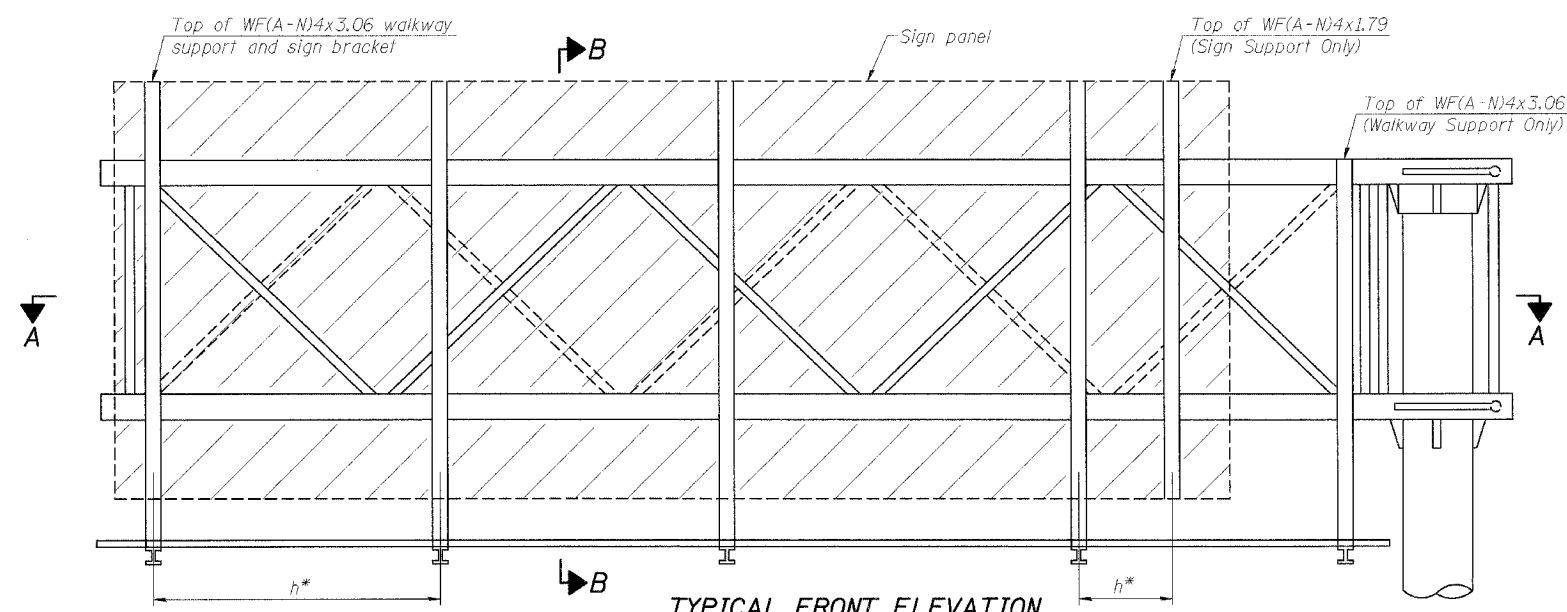
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI 55 AT FAP 338 ILLINOIS ROUTE 59
 SECTION: (26, 26HB-1 & 114) R-2

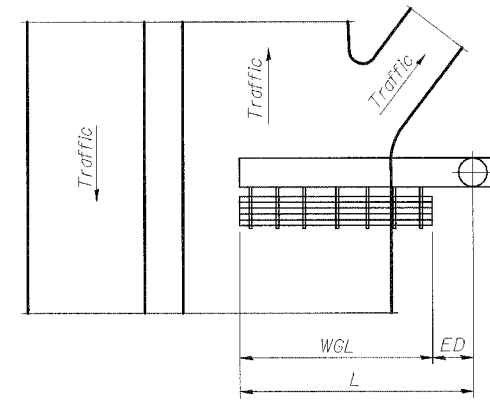
TYPE II-C-A & III-C-A TRUSS SUPPORT POST ALUMINUM TRUSS & STEEL POST

DATE: 03/14/08
 DRAWN BY: MDB
 CHECKED BY:
TENG

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 pen Table: N/A

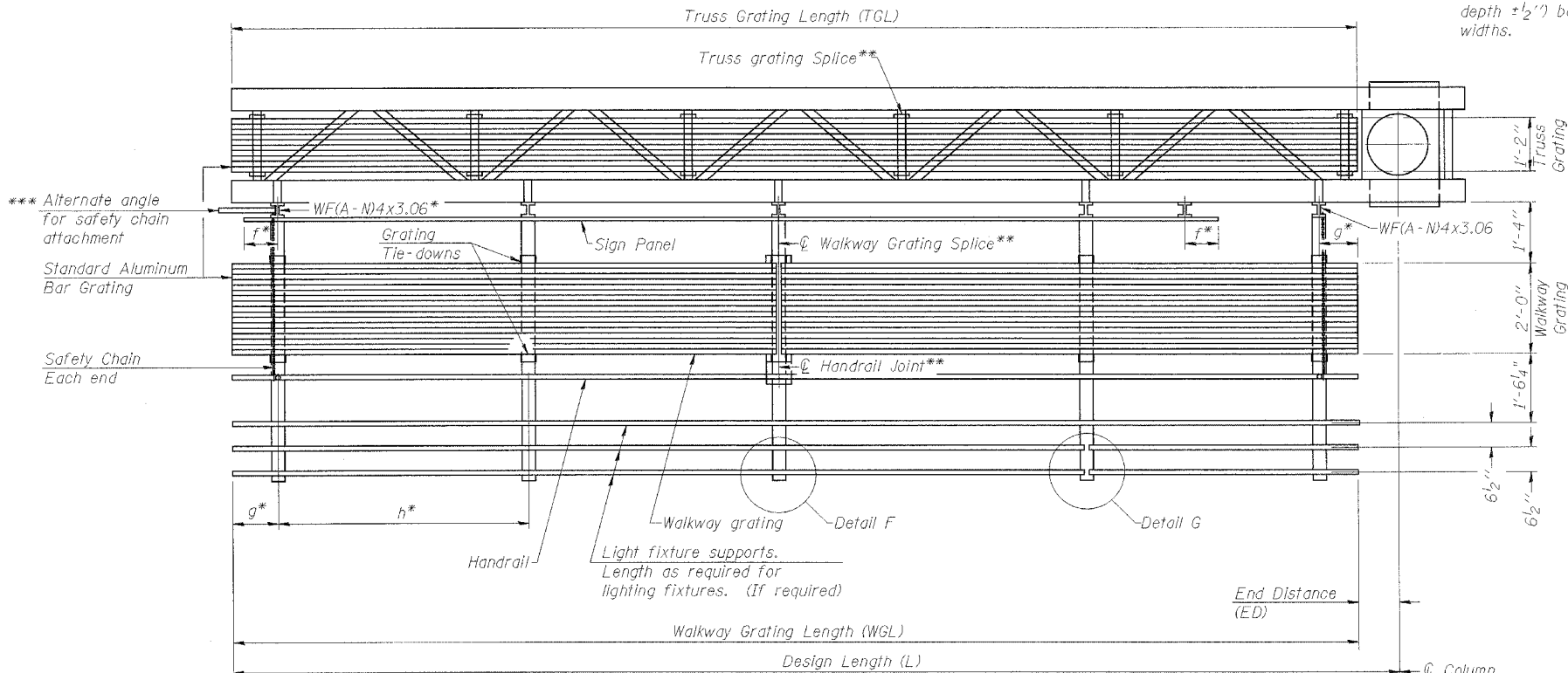


TYPICAL FRONT ELEVATION
With lights and handrail omitted for clarity.



PLAN WALKWAY AND HANDRAIL SKETCH
(Road plan beneath truss varies)

Walkway and truss grating dimensions are nominal and may vary (width ±1/2", depth ±1/2") based on available standard widths.



SECTION A-A

Truss grating to facilitate inspection shall run full length of cantilevers. Cost of truss grating is included in Overhead Sign Structure Cantilever.

Handrail and walkway grating shall span a minimum of three brackets between splices. ** Use and location of handrail joints or grating splices are optional, based on lengths needed and material availability.

$$TGL = L - \left(\frac{\text{Post O.D.}}{2} + 6'' \right)$$

NUMBER	REVISION	DATE

Structure Number	Station	WGL	ED	TGL
IC0991055R250.46	63+00	16'-6"	13'-6"	28'-6"
IC0991055R250.76	79+00	15'-3"	14'-9"	28'-6"
IC0991055L250.93	88+00	15'-6"	14'-6"	28'-6"

Notes:
 * Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:
 $f = 12''$ maximum, $4''$ minimum (End of sign to ϕ of nearest bracket)
 $g = 12''$ maximum, $4''$ minimum (End of walkway to ϕ of nearest bracket)
 $h = 6'-0''$ maximum (ϕ to ϕ sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)
 *** If walkway bracket at safety chain location is behind sign, add angle to bracket. See alternate safety chain attachment on base sheet OSC-A-8
 For details of sign placement, sign/walkway brackets, truss and walkway gratings, grating splices and Section B-B, see Base Sheet OSC-A-7.
 For details of handrail, handrail joint, safety chain and Details F and G, see Base Sheet OSC-A-8.

BRACKET TABLE

Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

REVISIONS	
NAME	DATE

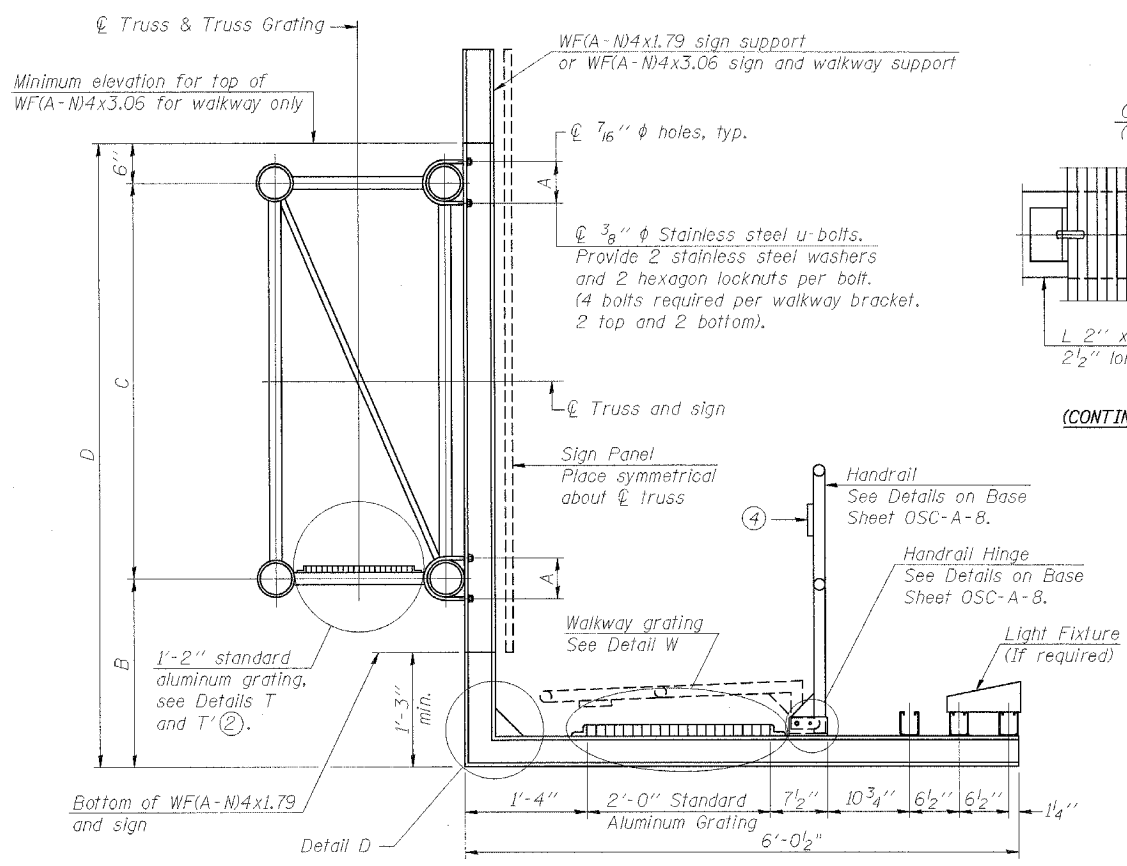
ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI 55 AT FAP 338 ILLINOIS ROUTE 59
 SECTION: (26, 26HB-1 & 114) R-2

ALUMINUM WALKWAY DETAILS
 ALUMINUM TRUSS & STEEL POST

DATE: 03/14/08
 DRAWN BY: MDB
 CHECKED BY:

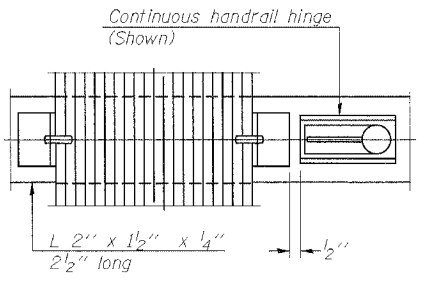
TENG

TENG & ASSOCIATES, INC.
 ENGINEERS ARCHITECTS PLANNERS
 99 N. MICHIGAN AVE. CHICAGO, IL 60602
 TEL: 312.487.8800

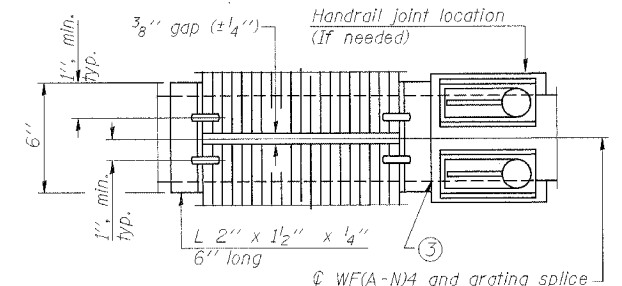


SECTION B-B

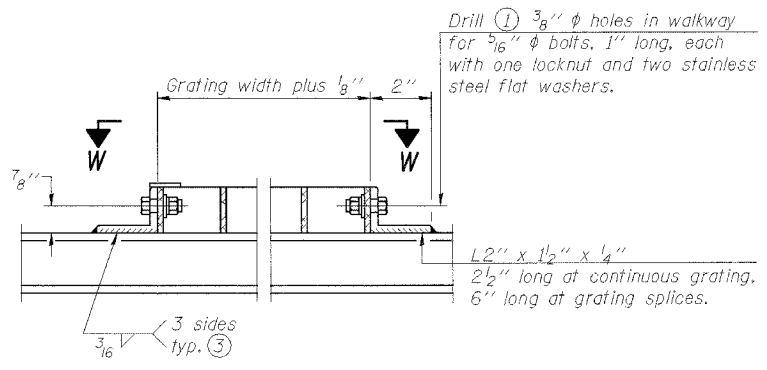
Sign shall be even with the top of the bracket, but it may extend no more than 6" above the top of the bracket for field adjustments.



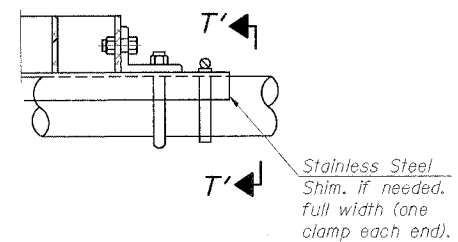
(CONTINUOUS WALKWAY GRATING)



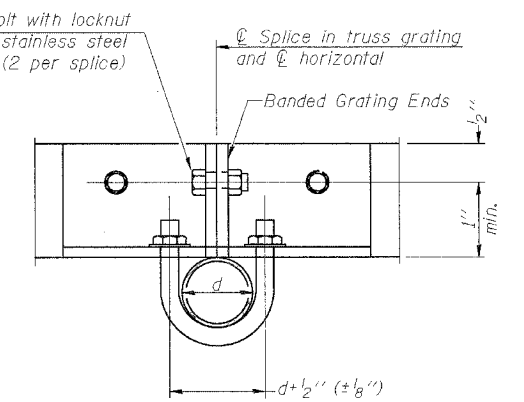
(AT WALKWAY GRATING SPLICE)



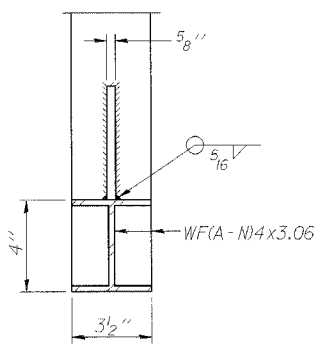
DETAIL W
(Walkway grating)



DETAIL T'
(Truss grating splice)

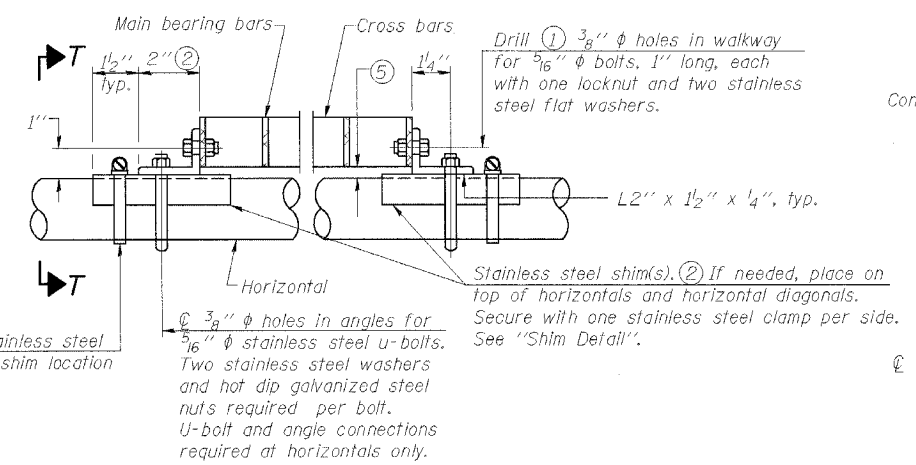


SECTION T'-T'



SECTION D-D

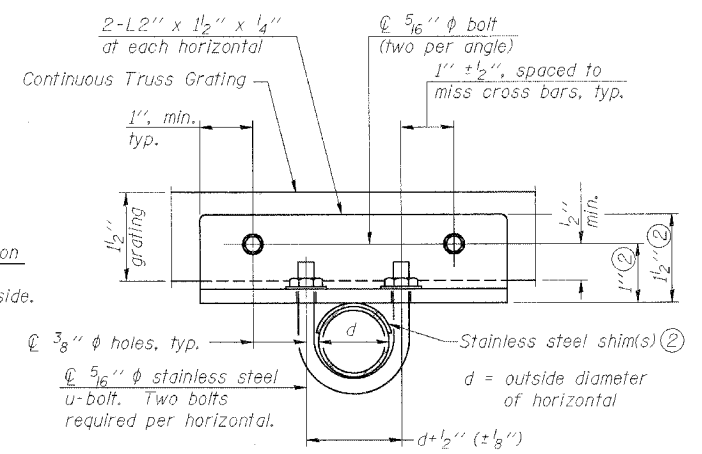
Screw type stainless steel tube clamp at shim location



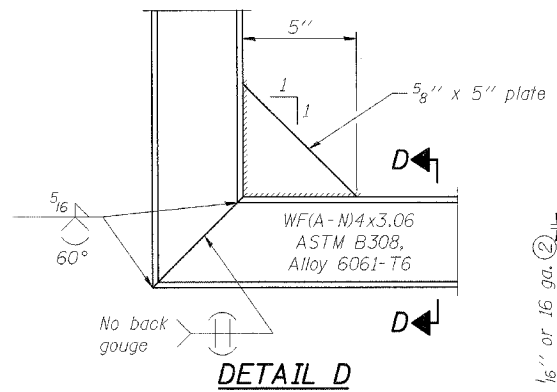
DETAIL T

(Continuous Truss grating)

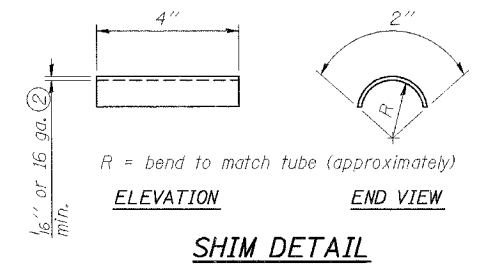
- Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.
- If Handrail Joint present, weld angle to WF(A-N)4 and 1/4 inch extension bars. (See Base Sheet OSC-A-8.)
- 1/8 inch x 1/2 inch x 2 inch welded to handrail posts to protect locations that contact grating.
- Tube to grating gap may vary from 0 to 1/2 inch, max. to align walkway, allow for camber, etc.



SECTION T-T



DETAIL D



SHIM DETAIL

Structure Number	Station	A	B	C	D
IC0991055R250.46	63+00	7"	5'-9"	5'-6"	11'-9"
IC0991055R250.76	79+00	7"	5'-9"	5'-6"	11'-9"
IC0991055L250.93	88+00	7"	4'-6"	5'-6"	10'-6"

NUMBER	REVISION	DATE

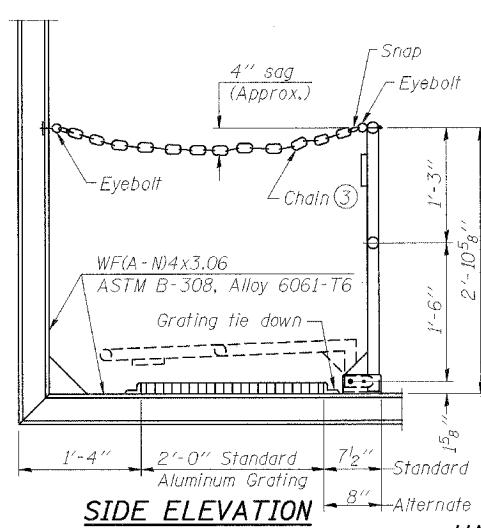
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI 55 AT FAP 338 ILLINOIS ROUTE 59
 SECTION: (26, 26HB-1 & 114) R-2

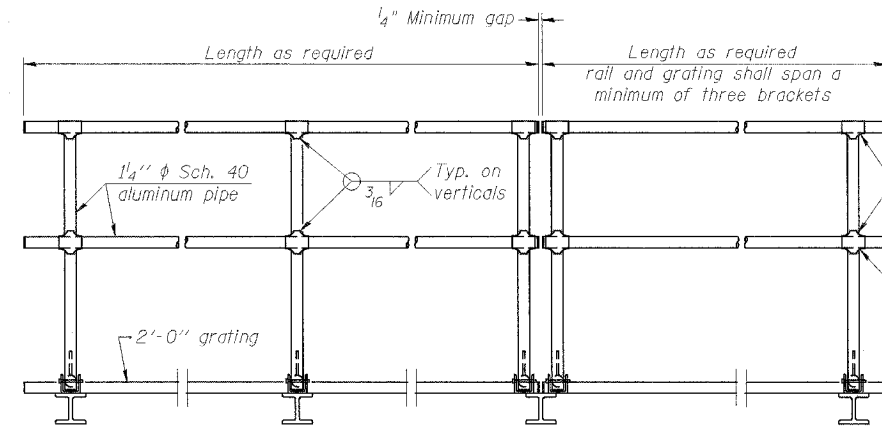
WALKWAY DETAILS
 ALUMINUM TRUSS & STEEL POST

DATE: 03/14/08
 DRAWN BY: MDB
 CHECKED BY:
TENG

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 pen table: N/A
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SIDE ELEVATION
(Showing Safety Chain W/O Sign)



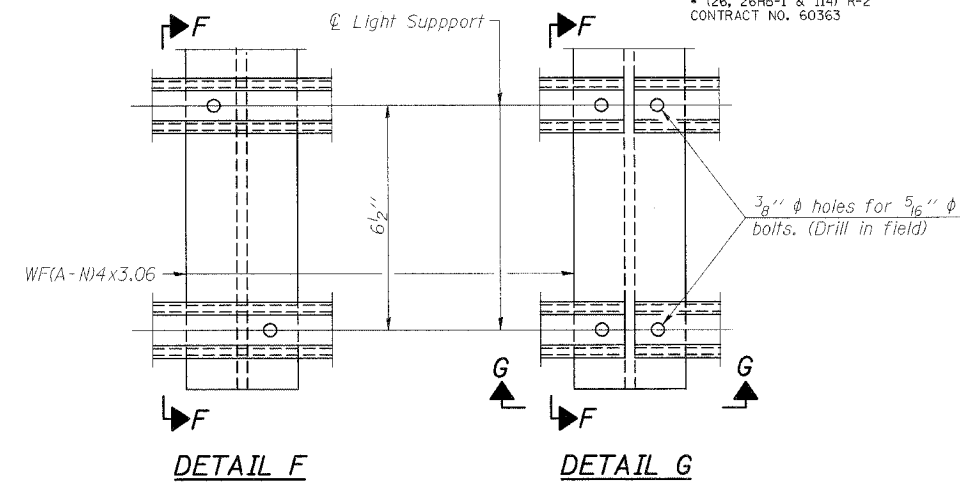
FRONT ELEVATION

HANDRAIL DETAILS

Handrail pipe shall be ASTM B241 or B429, Alloy 6063-T6 or Alloy 6061-T6.

① Install standard force-fit end caps or weld 1/8" end plates with 1/8" c.f.w. and grind smooth. (All rail ends)
Fittings-ASTM B26, Alloy 356-T7 or 1 1/2" aluminum pipe

② Horizontal handrail member shall be continuous thru fitting. Provide 7/16" hole in fitting for 3/8" bolt. Field drill 7/16" hole in horizontal rail member. Provide locknut and two stainless steel washers for bolt. (Use 5/16" eyebolts in 7/16" holes on top rail at ends only.)



DETAIL F

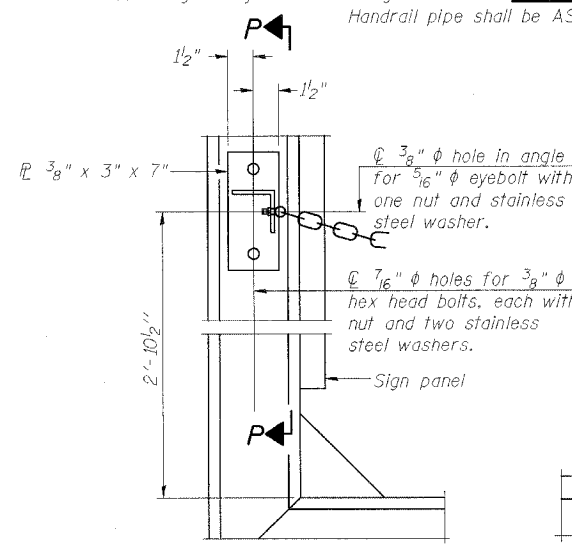
DETAIL G

SECTION F-F

SECTION G-G

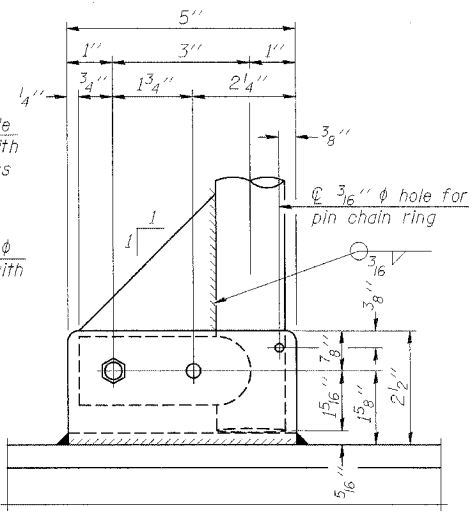
LIGHTING FIXTURE MOUNTS (IF REQUIRED)

⑤ Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.

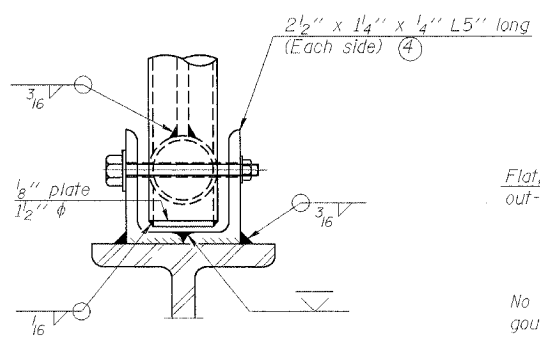


ALTERNATE SAFETY CHAIN ATTACHMENT

(With Sign Present)
Items not shown same as "Side Elevation" of "Handrail Details"

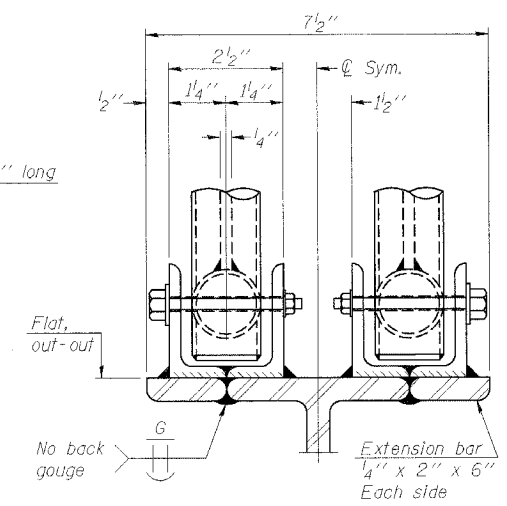


SIDE ELEVATION



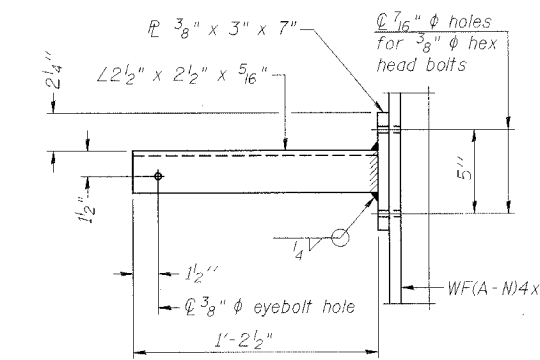
FRONT ELEVATION

Details not shown same as "ELEVATION" at right.

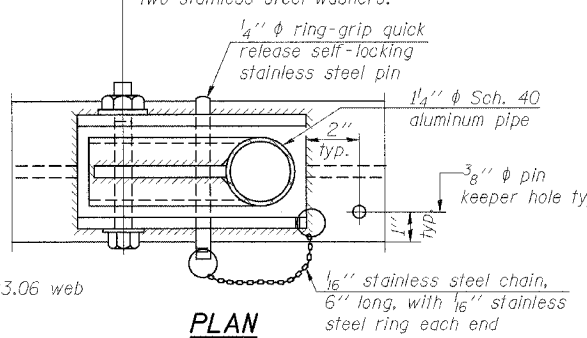


ELEVATION AT HANDRAIL JOINT

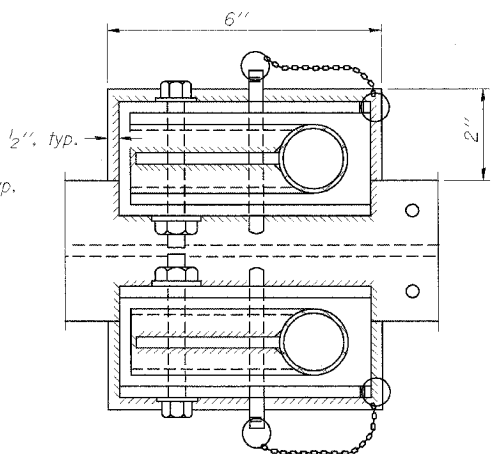
Details not shown same as "FRONT ELEVATION"



SECTION P-P

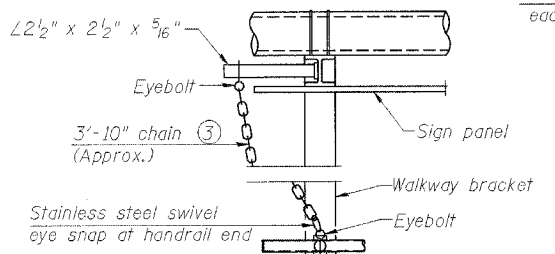


**PLAN
DETAIL E HANDRAIL HINGE**



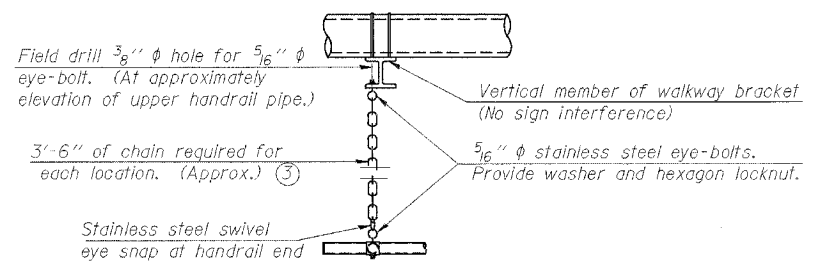
PLAN AT HANDRAIL JOINT

Details not shown same as "PLAN"



ALTERNATE SAFETY CHAIN ATTACHMENT

Details not shown similar to "Safety Chain" Details (Walkway omitted for clarity)



SAFETY CHAIN

One required for each end of each walkway.

③ 3/16" Type 304L stainless steel chain, approximately 12 links per foot.

④ Extrusions may be used in lieu of the details shown, with approval of the Engineer.

NUMBER	REVISION	DATE

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI 55 AT FAP 338 ILLINOIS ROUTE 59
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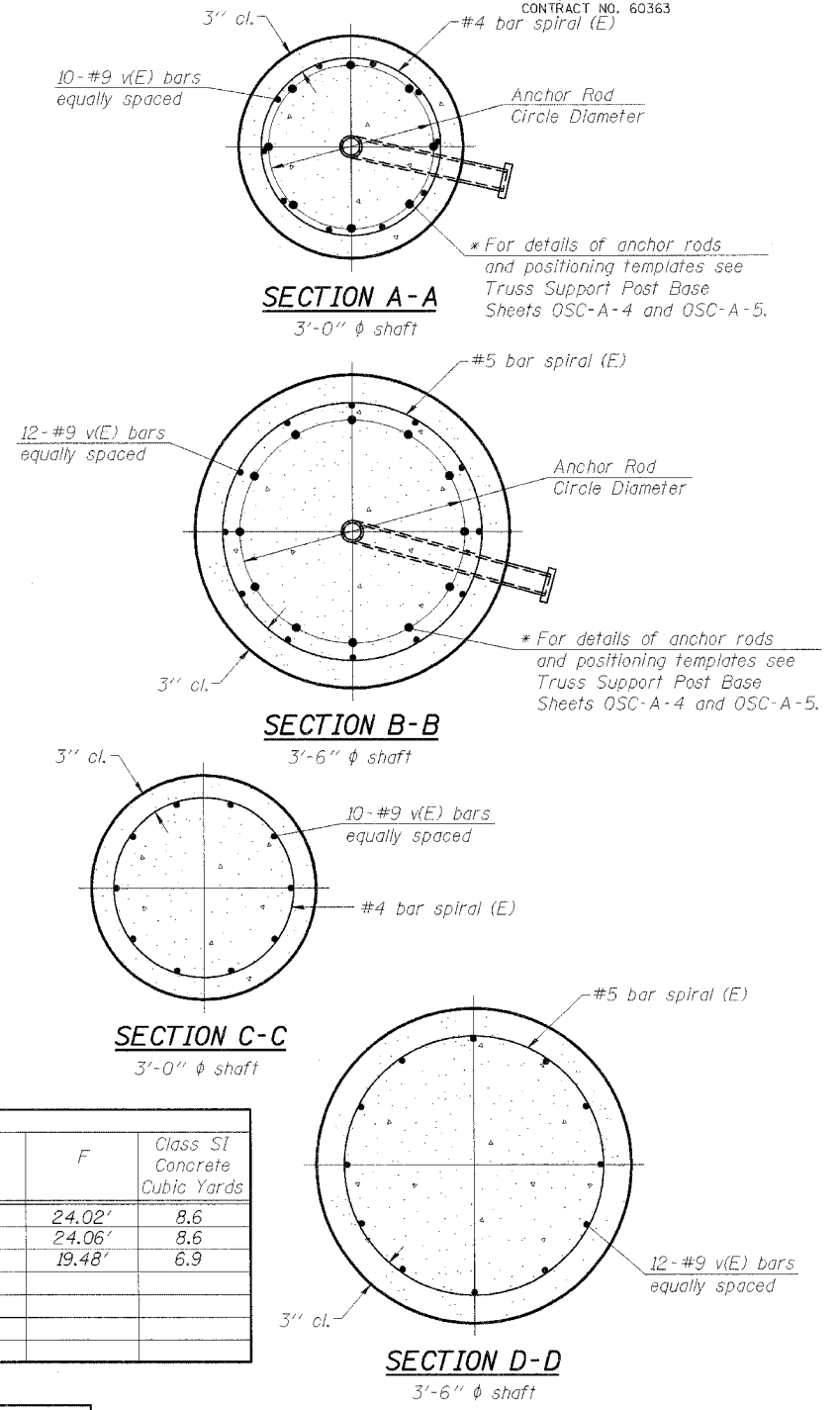
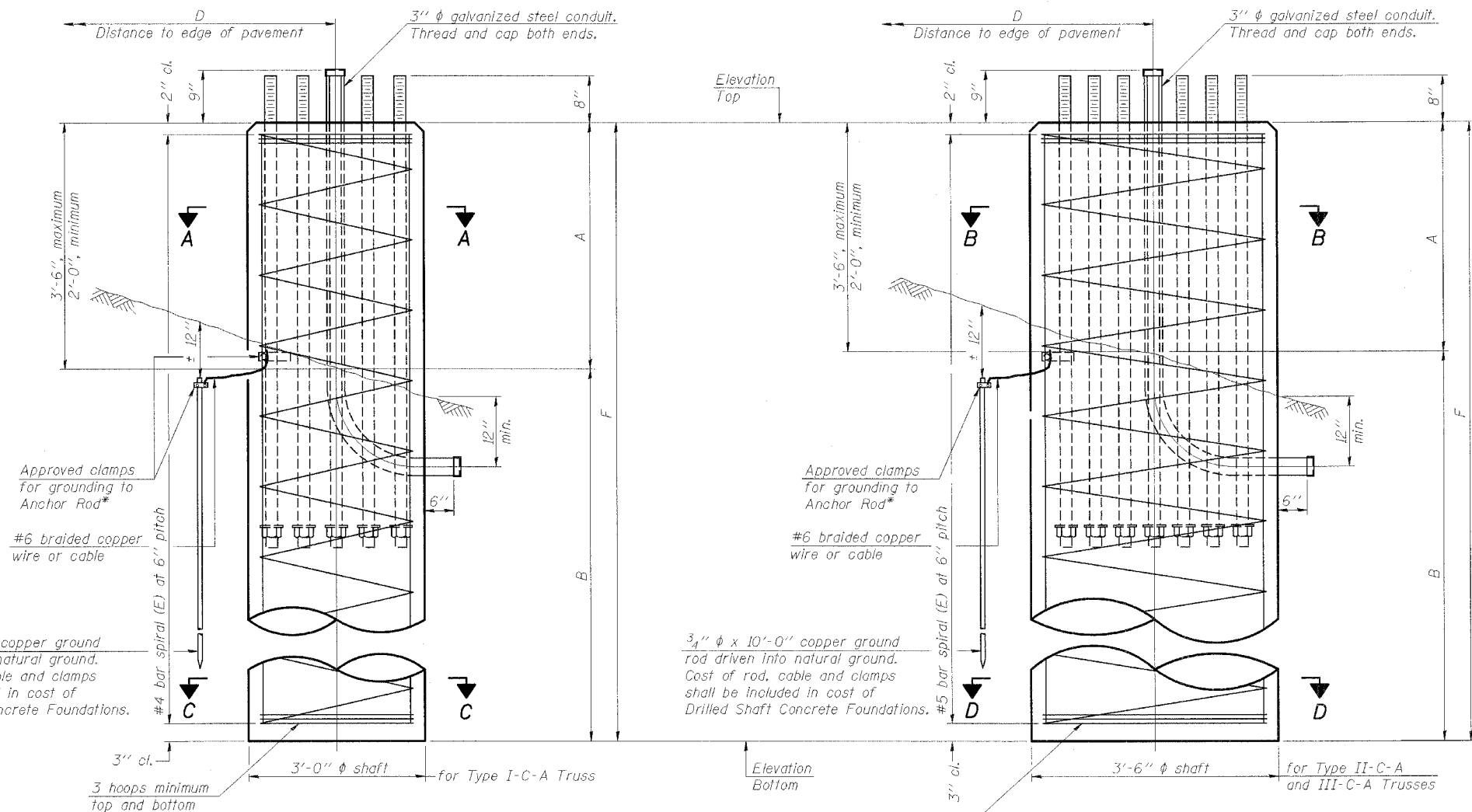
HANDRAIL DETAILS
ALUMINUM TRUSS & STEEL POST

DATE: 03/14/08
DRAWN BY: MDB
CHECKED BY:

TENG

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 pen table: N/A
 BONDHEAD
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* Grind anchor rod to bright finish at ground clamp location before installing clamp.



NOTES:
 The foundation dimensions shown in the Foundation Design Table are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Q_u) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown in the Foundation Data Table will be the result of site specific designs.
 If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.
 No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.
 Concrete shall be placed monolithically, without construction joints.
 Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.
 A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in "Drilled Shaft Concrete Foundation".

Structure Number	Station	Truss Type	Shaft Diameter	Elevation Top	Elevation Bottom	Q_u	A	B	F	Class SI Concrete Cubic Yards
IC0991055R250.46	63+00	II-C-A	3'-6"	591.99	567.97	2.0 tsf	2.52'	21.50'	24.02'	8.6
IC0991055R250.76	79+00	II-C-A	3'-6"	591.47	567.41	2.0 tsf	2.56'	21.50'	24.06'	8.6
IC0991055L250.93	88+00	II-C-A	3'-6"	592.29	572.81	2.0 tsf	2.48'	17.00'	19.48'	6.9

Truss Type	Post Base Sheet	Maximum Cantilever Length (ft)	Maximum Total Sign Area (sq ft)	Shaft Diameter (ft)	"B" Depth (ft)	Anchor Rods		Anchor Rod Circle Diameter (in)
						No.	Diameter (in)	
I-C-A	OSC-A-4	25	170	3.0	16.0	8	2	22
II-C-A	OSC-A-5	30	170	3.5	17.0	12	2	30
II-C-A	OSC-A-5	30	340	3.5	21.5	12	2	30
III-C-A	OSC-A-5	35	170	3.5	19.0	12	2	30
III-C-A	OSC-A-5	35	250	3.5	22.5	12	2	30
III-C-A	OSC-A-5	35	400	3.5	26.5	12	2	30
III-C-A	OSC-A-5	40	400	3.5	32.0	12	2	30

NUMBER	REVISION	DATE

REVISIONS	
NAME	DATE

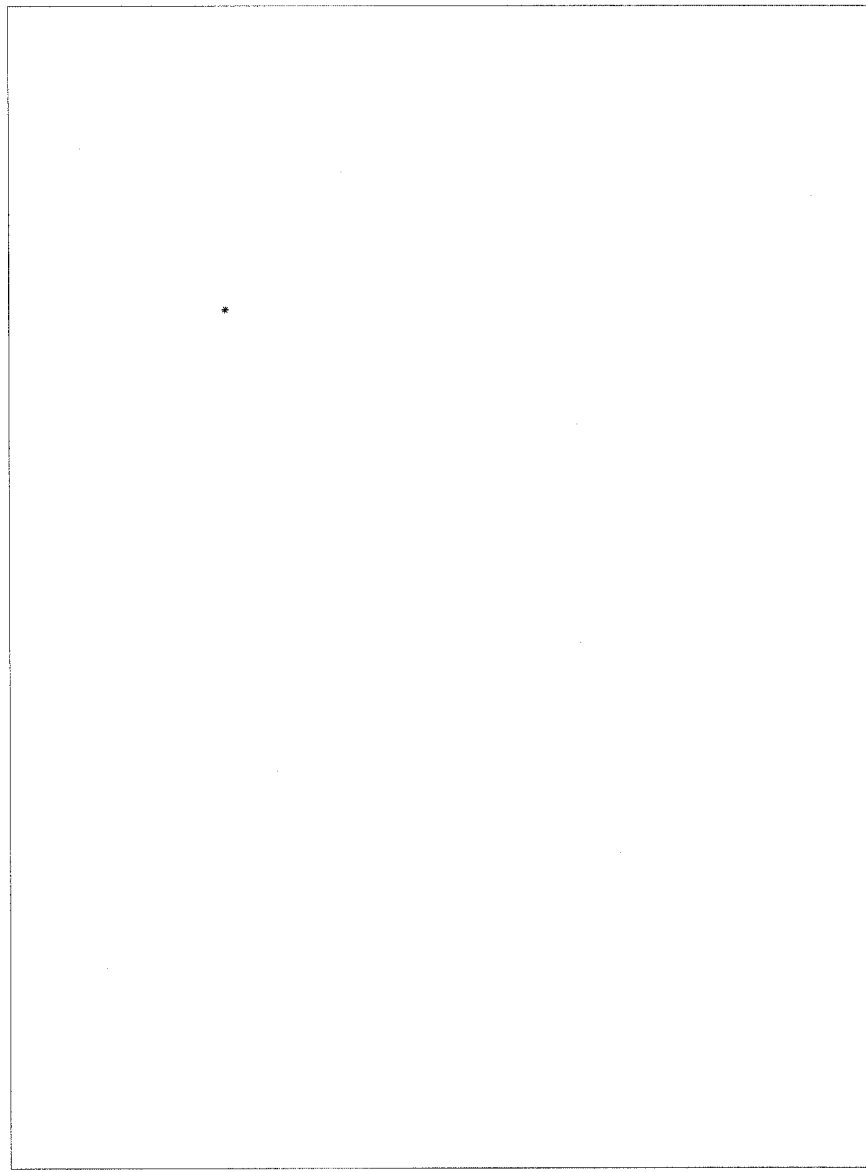
ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI 55 AT FAP 338 ILLINOIS ROUTE 59
 SECTION: 126, 26HB-1 & 114) R-2

DRILLED SHAFT FOUNDATION DETAILS
 ALUMINUM TRUSS & STEEL POST

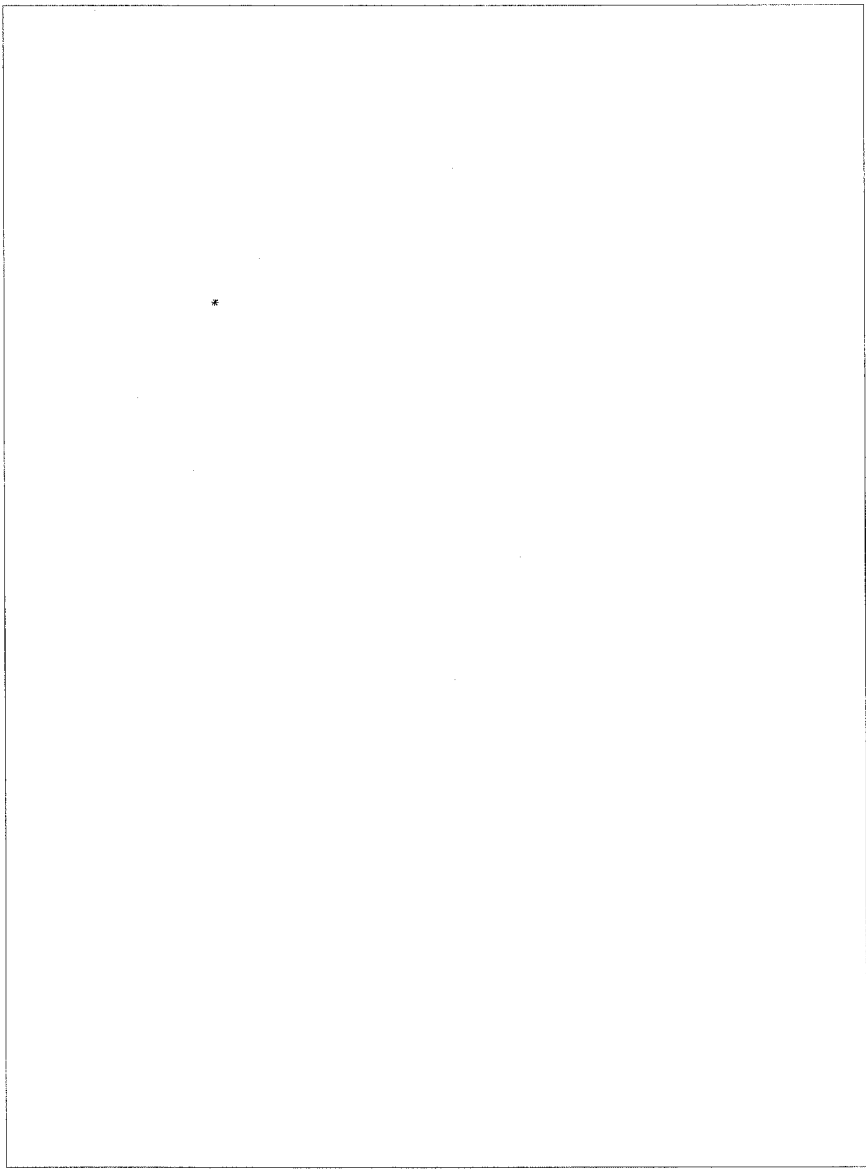
DATE: 03/14/08
 DRAWN BY: MDB
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TENG

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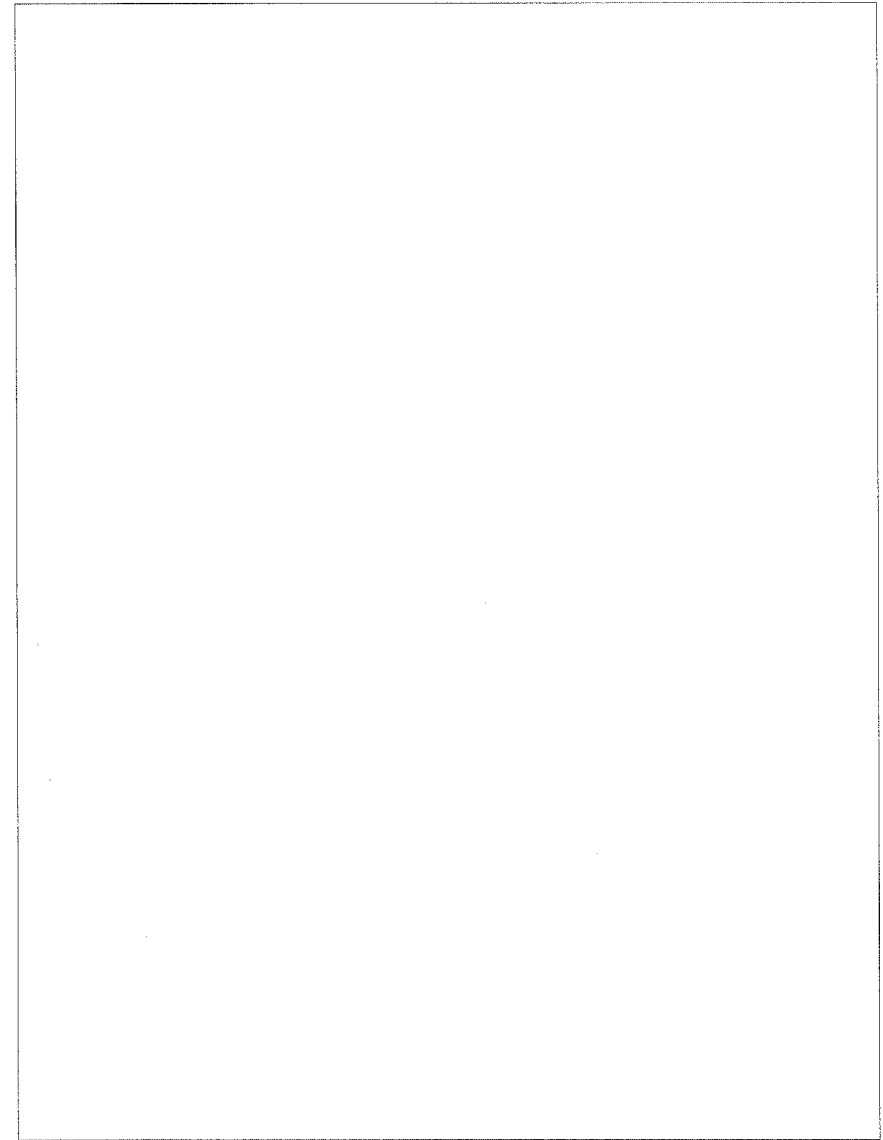
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59	•	WILL	608	307
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
• (26, 26HB-1 & 114) R-2				
CONTRACT NO. 60363				



* Stationing for Boring SB-11 is based on contract 80906. This boring is near station 63+00 based on this contract.



* Stationing for Boring SB-8 is based on contract 80906. This boring is near station 79+00 based on this contract.



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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI 55 AT FAP 338 ILLINOIS ROUTE 59
 SECTION: (26, 26HB-1 & 114) R-2

SOIL BORING LOGS

DATE: 03/14/08

DRAWN BY: MDB
 CHECKED BY:

TENG

TENG & ASSOCIATES, INC.
 85 W. WASHINGTON AVE. CHICAGO, IL 60610
 TELEPHONE: 312.616.2000

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.

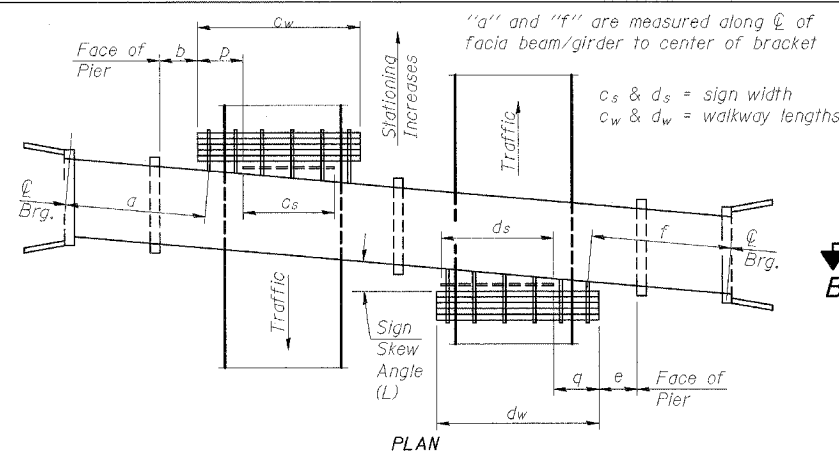
ANCHOR RODS: All threaded rod conforming to ASTM A307, 3/4" ϕ x 12" long, each with one plate washer and locknut and be hot dip galvanized per AASHTO M232. They shall be either cast into the concrete or epoxy grouted in accordance with Section 584 of the Standard Specifications. Minimum embedment in concrete shall be 9".

- 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.
- Any design modifications shall be based on the current version of applicable specifications and submitted for the Engineer's approval.
- 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 (c_w , d_w) unless otherwise specified. For Safety Chain Details and Details D, F and G, see Base Sheet BM-4.
- If walkway bracket at safety chain location is behind sign, add angle to bracket. See detail on Base Sheet BM-4.

NUMBER	REVISION	DATE

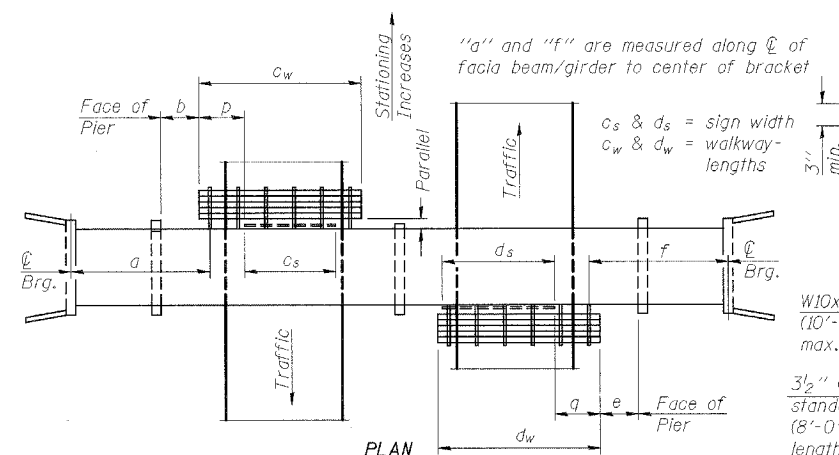
TOTAL BILL OF MATERIAL

(3) OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED	Foot	20
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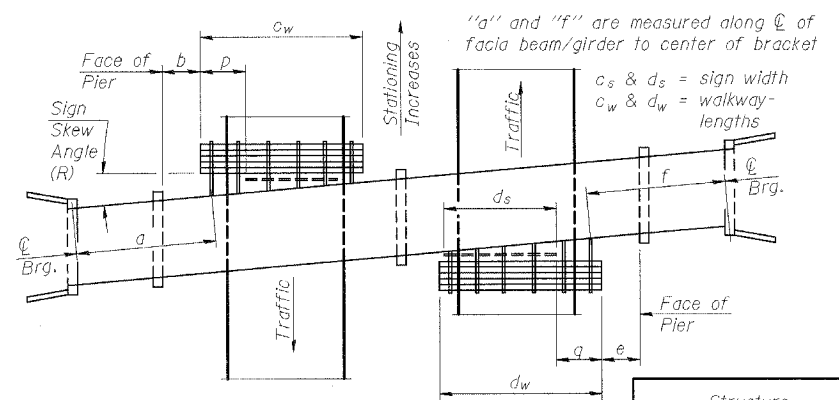
WALKWAY AND HANDRAIL SKETCH

(Road plan beneath structure varies.)



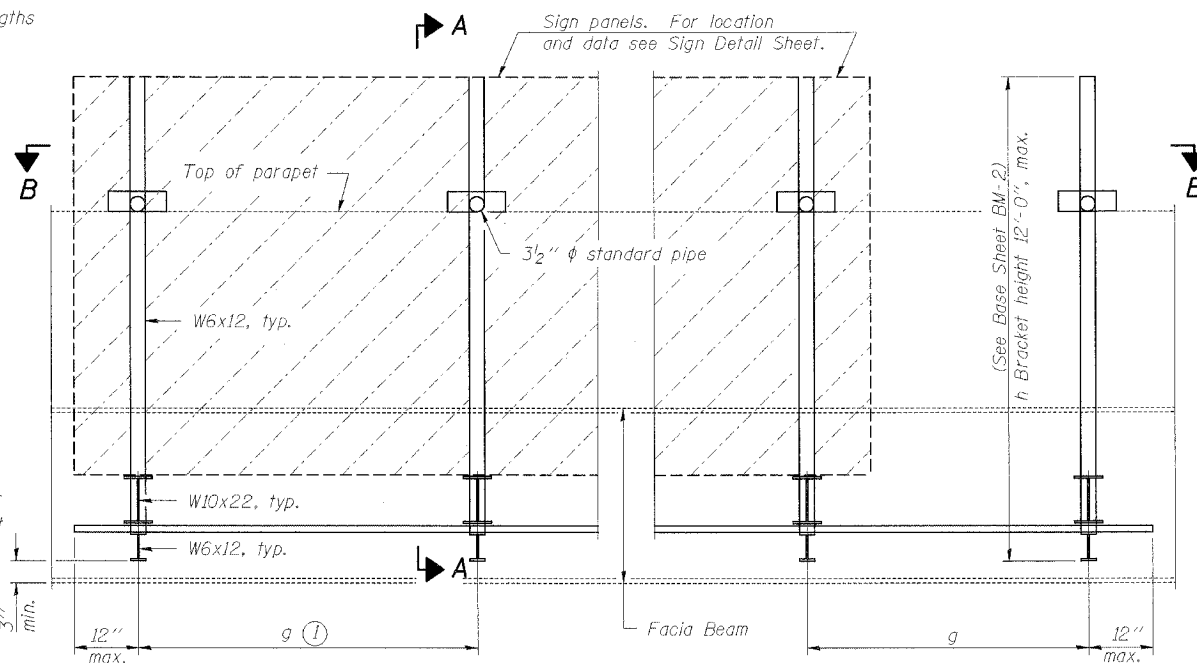
WALKWAY AND HANDRAIL SKETCH

(Road plan beneath structure varies.)



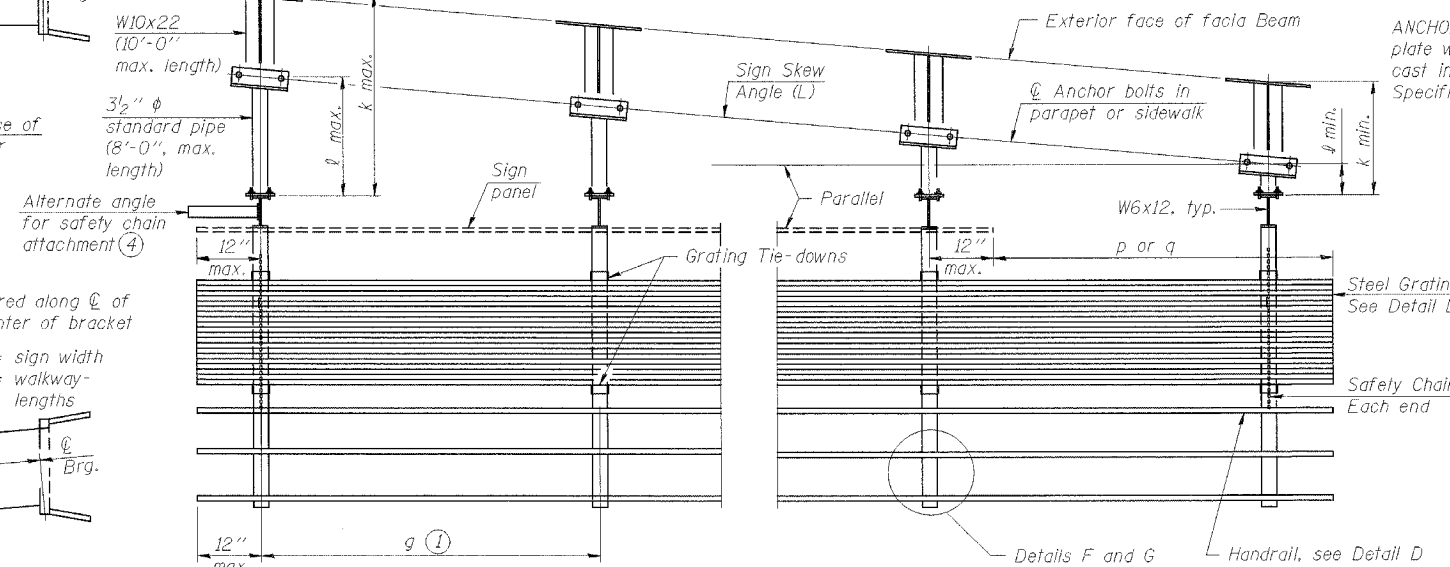
WALKWAY AND HANDRAIL SKETCH

(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)	Station	Bridge Structure Number	Contract Route Designation	a	b	c_s	c_w	d_s	d_w	e	f	g	No. of Brackets (Total)	p	q	Total Grating/Hndrl. Lengths ($c_w + d_w$)
IB0991055R250.28	0	53+45	099-0044	I-55					11'-6"	19'-2"	26'-7"	$\pm 73'-10"$		4		8'-2"	19'-2"

Dimensions a, b, e, f & g may vary as approved by the Engineer, see (1).
When $c_w < c_s$ and/or $d_w < d_s$, use alternate brackets without walkway supports where applicable, see (3).

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI 55 AT FAP 338 ILLINOIS ROUTE 59
SECTION: (26, 26HB-1 & 114) R-2

GENERAL PLAN & ELEVATION

DRAWN BY: MDB

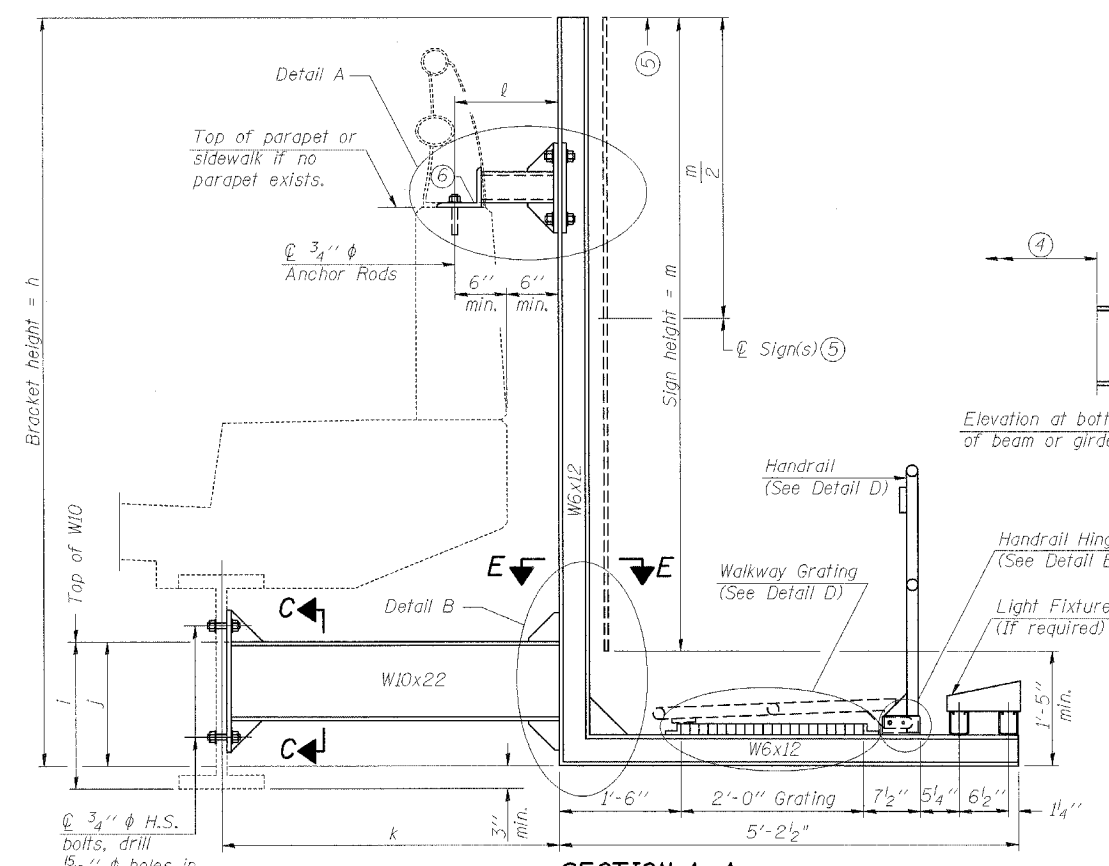
DATE: 03/14/08

CHECKED BY:

TENG

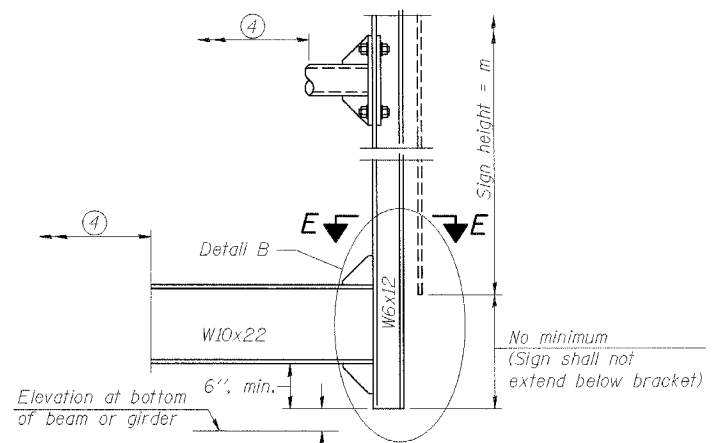
TENG & ASSOCIATES, INC.
ENGINEERS AND ARCHITECTS
200 N. MICHIGAN AVE. CHICAGO, IL 60601
TELEPHONE: 312.644.5900

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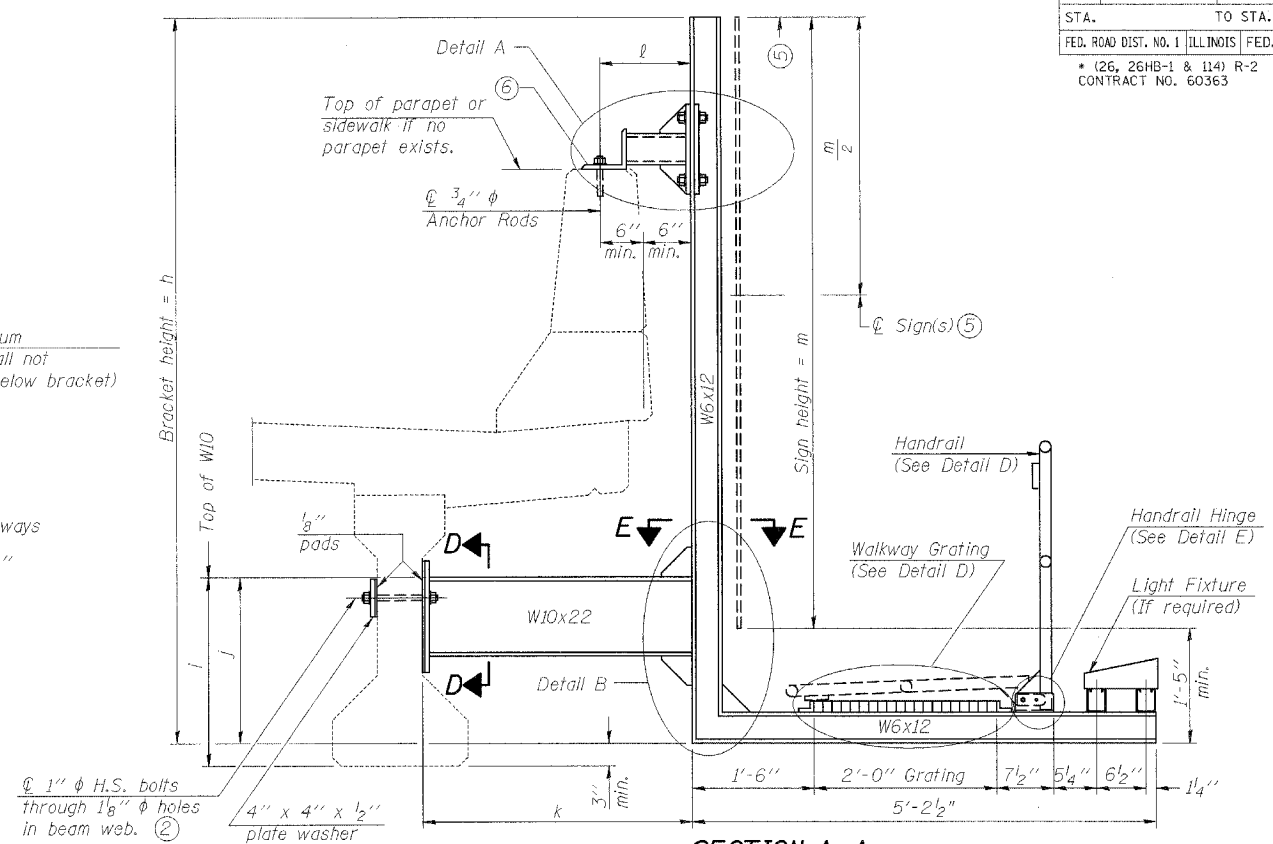
SECTION A-A

Details for mounting to steel beam or girder
& Details for mounting with existing parapet mounted rail



SECTION A-A

Alternate with no lights or walkways
④ For attachment details of 3/2\"/>



SECTION A-A

Details for mounting to PPC I Beam or Bulb "T"
& Details for mounting to parapet w/o rail

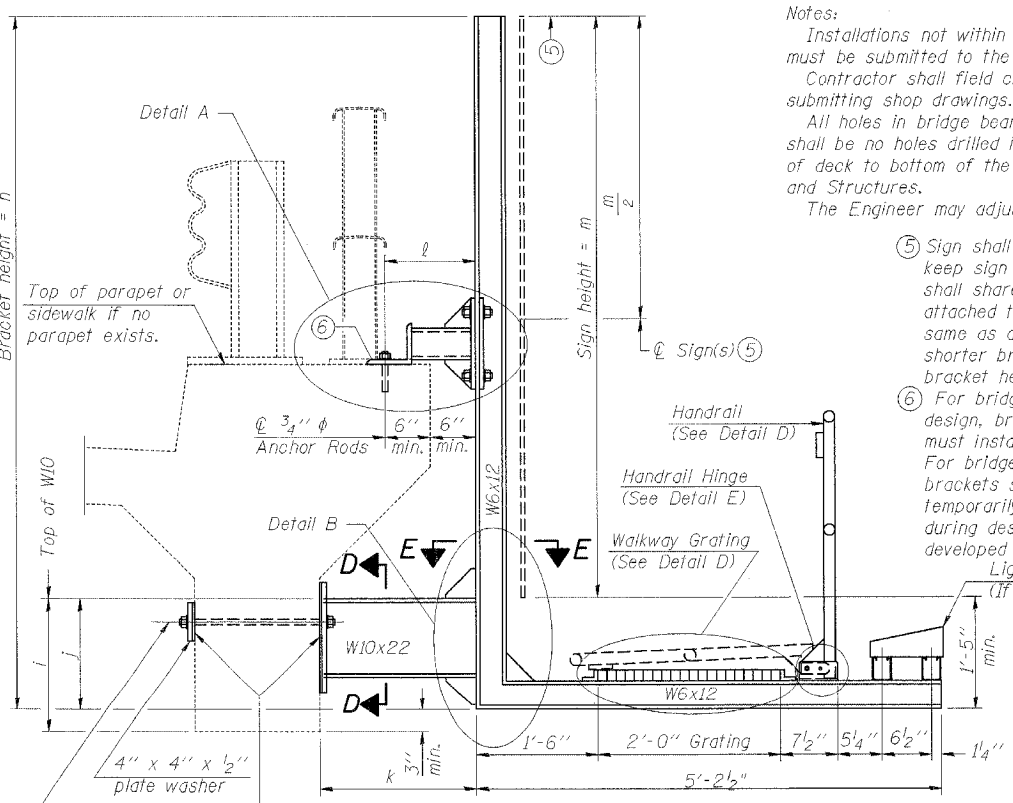
Notes:
Installations not within dimensional limits shown require special analysis for all components and must be submitted to the Bureau of Bridges and Structures for approval.
Contractor shall field check all pertinent existing bridge dimensions shown on plans before submitting shop drawings.
All holes 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 "i" to meet the above condition and to keep the sign level.

- 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	i	j	k max. (10'-0" max.)	l max. (8'-0" max.)	m (15'-0" max.)
1B0991055R250.28	53+45	8'-11"	1'-11"	1'-8"	3'-0"	1'-0"	8'-0"

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.

- 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.



SECTION A-A

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

NUMBER	REVISION	DATE

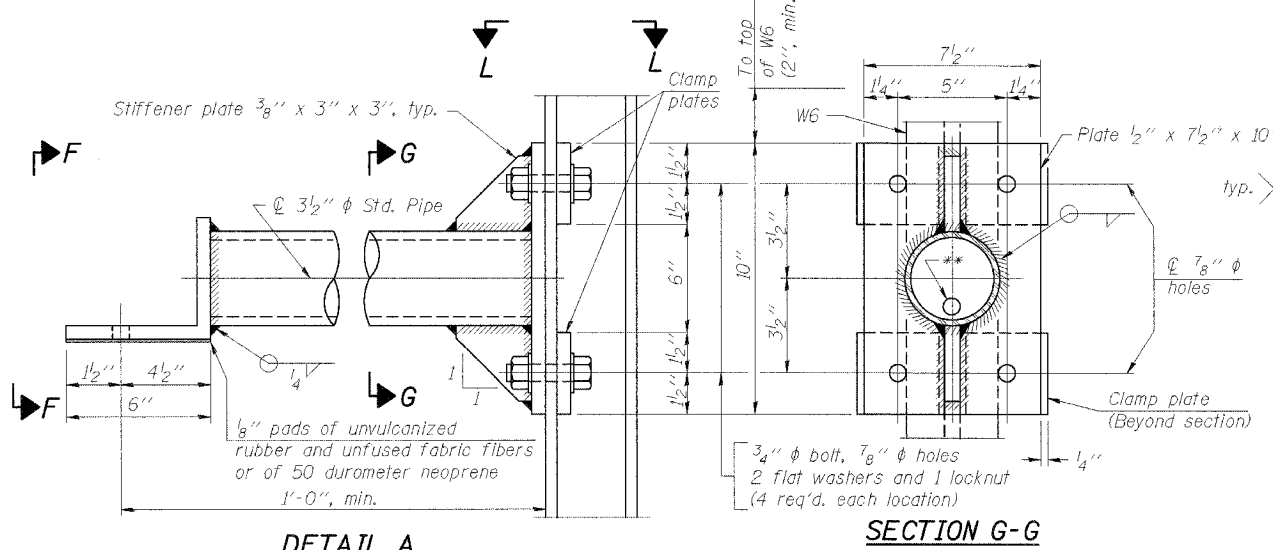
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
FAI 55 AT FAP 338 ILLINOIS ROUTE 59
SECTION: (26, 26HB-1 & 114) R-2

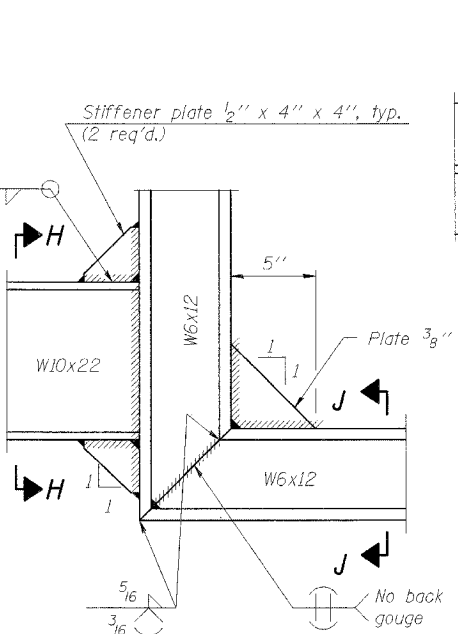
WALKWAY & CONNECTION DETAILS

DRAWN BY: MDB
CHECKED BY:
DATE: 03/14/08

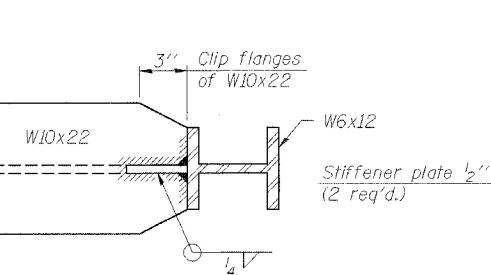
TENG
TENG & ASSOCIATES, INC.
205 N. MORTGAGAN AVE. CHICAGO, IL 60601
TEL: 312.644.6000



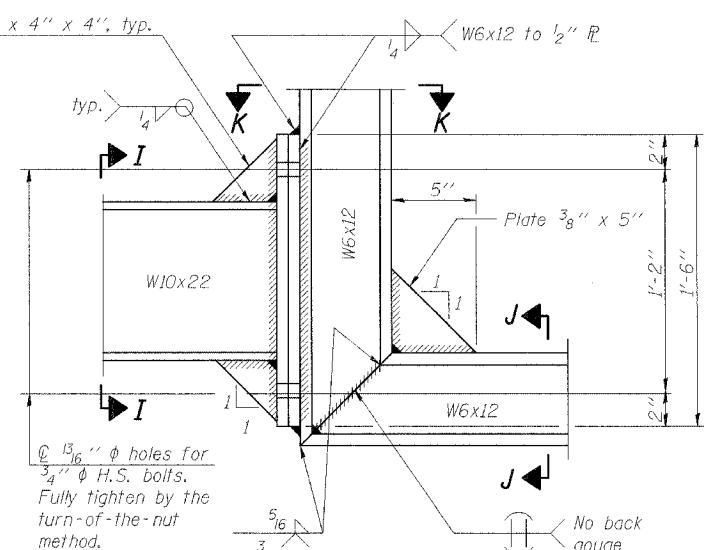
DETAIL A



SECTION G-G

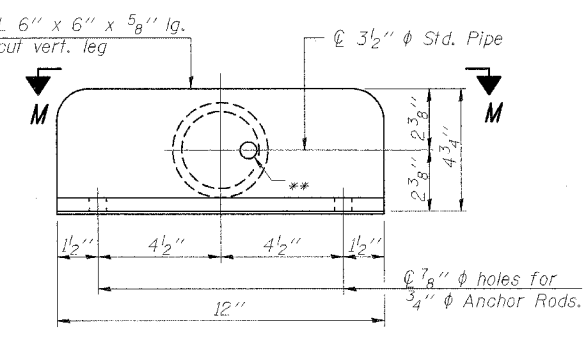


SECTION E-E

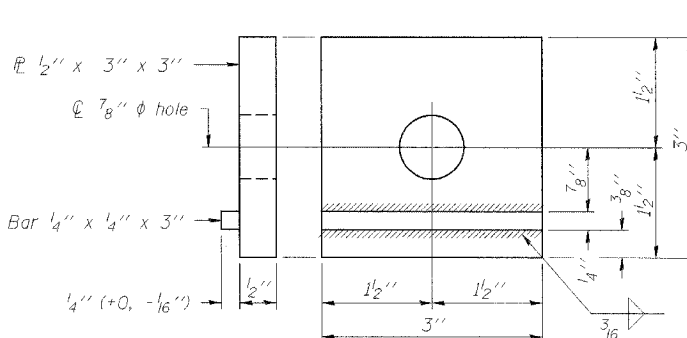


DETAIL B - ALTERNATE BOLTED W10x22 TO W6x12 CONNECTION

Alternate may be substituted by contractor to facilitate construction or galvanizing, especially on long struts for skewed bridges.

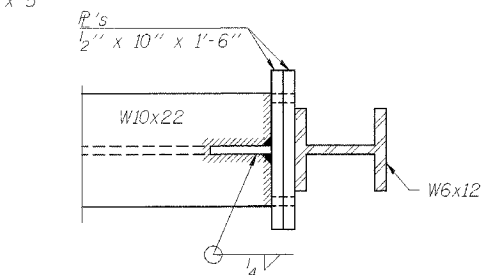


VIEW F-F

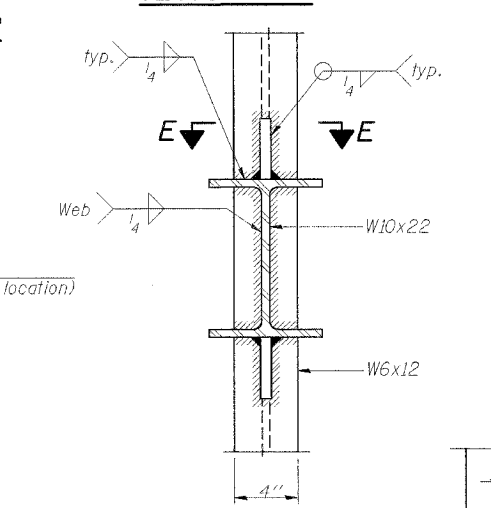


CLAMP PLATE DETAILS

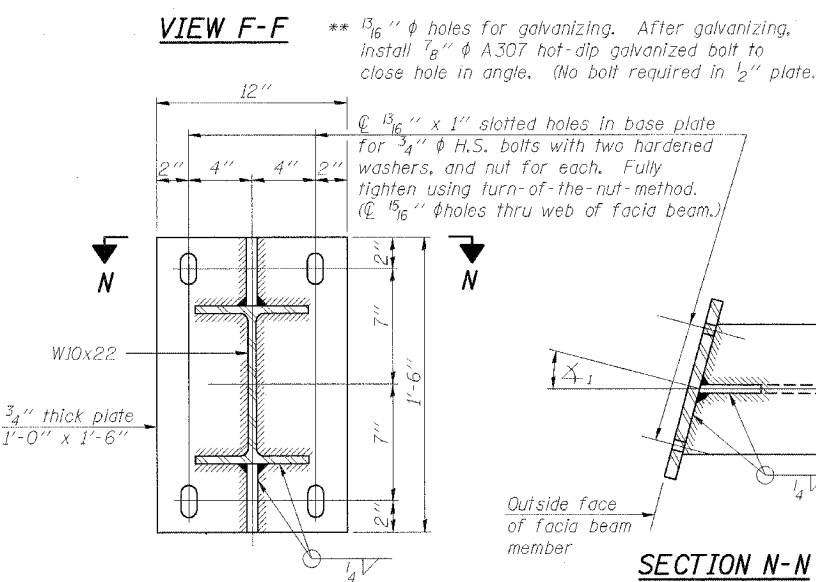
DETAIL B - WELDED W10x22 TO W6x12 CONNECTION



SECTION K-K

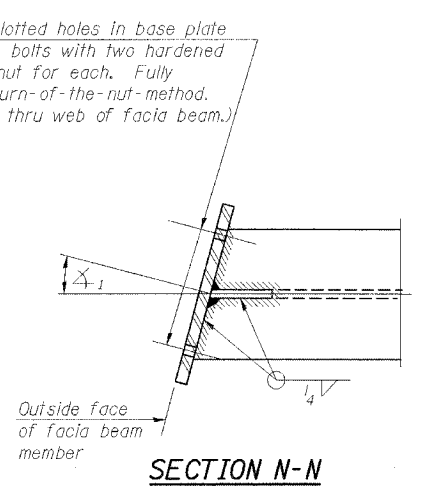


SECTION H-H



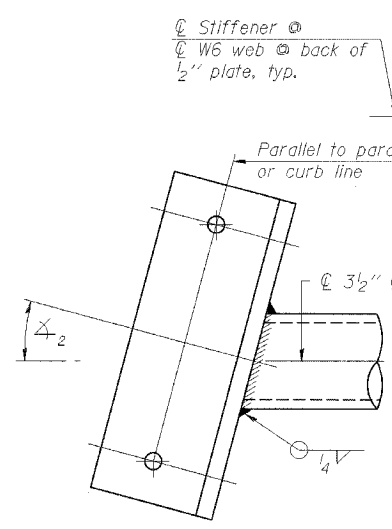
SECTION C-C

Steel beam or girder connection plate details



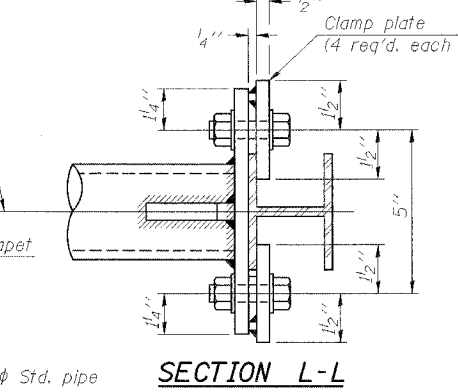
SECTION N-N

Skewed connection detail for W10x22 to fascia beam.

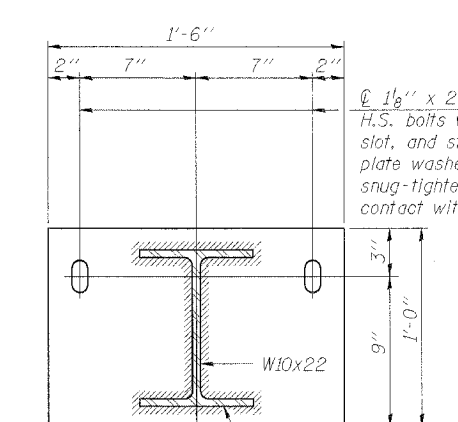


SECTION M-M

Skewed connection detail for 3/2" pipe to parapet.



SECTION L-L



SECTION D-D

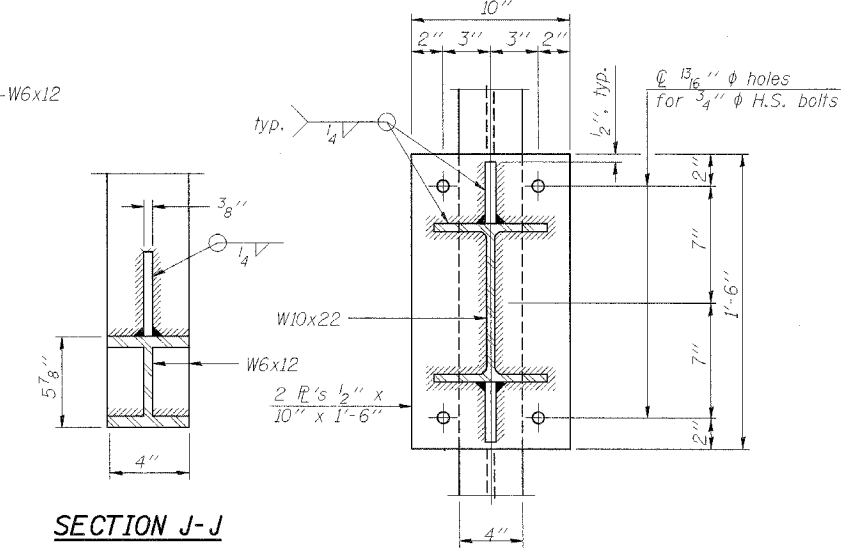
Concrete beam or girder connection plate details.

** 13/16" holes for galvanizing. After galvanizing, install 7/8" A307 hot-dip galvanized bolt to close hole in angle. (No bolt required in 1/2" plate.)

13/16" x 1" slotted holes in base plate for 3/4" H.S. bolts with two hardened washers, and nut for each. Fully tighten using turn-of-the-nut method. (1/8" holes thru web of fascia beam.)

Note: For constant slab overhang at fascia beam, $\Delta_1 = \Delta_2 =$ sign angle. For flared beams or other special cases where $\Delta_1 \neq \Delta_2$, $\Delta_1 =$ sign angle.

NUMBER	REVISION	DATE



SECTION J-J

SECTION I-I

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI 55 AT FAP 338 ILLINOIS ROUTE 59
 SECTION: (26, 26HB-1 & 114) R-2

CONNECTION DETAILS

DATE: 03/14/08
 DRAWN BY: MDB
 CHECKED BY:

TENG

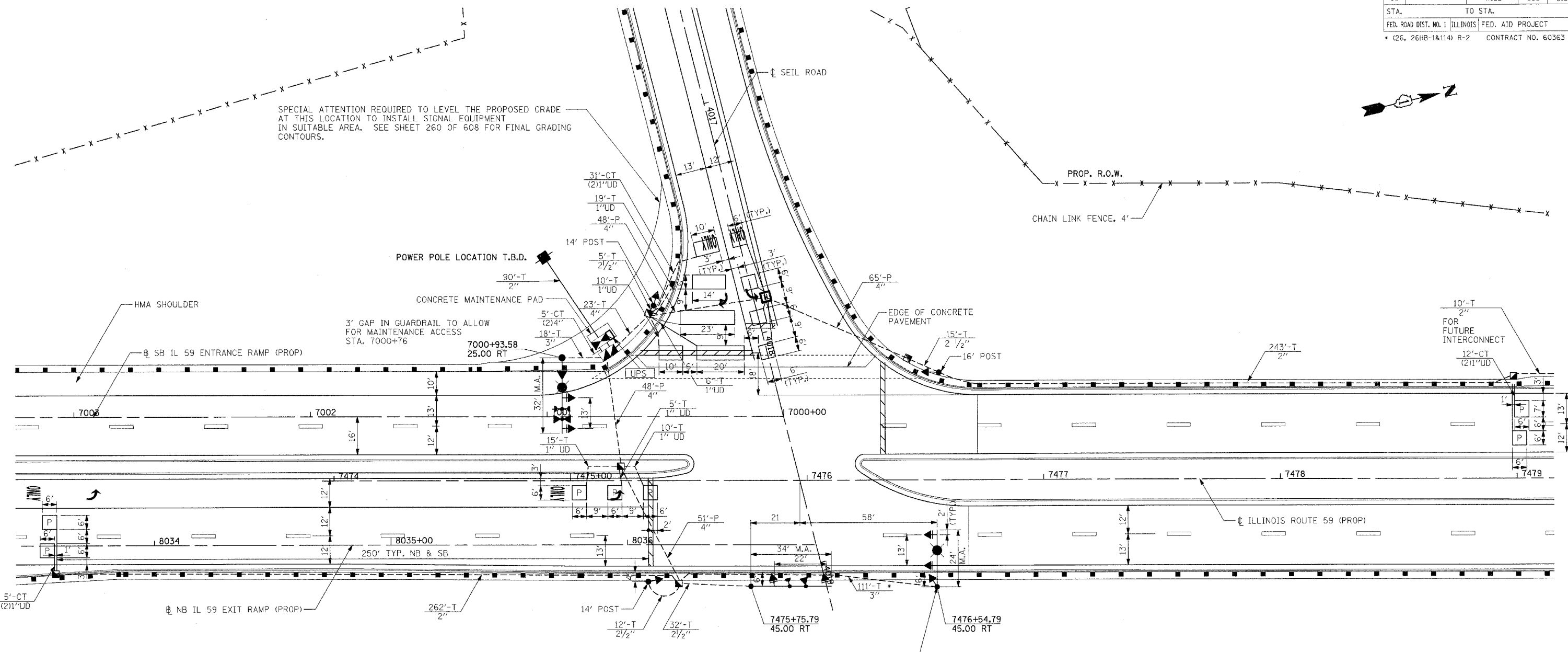
TENG & ASSOCIATES, INC.
 ENGINEERS ARCHITECTS PLANNERS
 815 N. MICHIGAN AVE. CHICAGO, IL 60610
 TELEPHONE: 312.467.8800

11/20/07/10/08
 3-15-2008, 12/21/05
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 6/01/2007

BM-3

6/01/2007

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	WILL	608	318
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
* (26, 26HB-1&114) R-2		CONTRACT NO. 60363		



SPECIAL ATTENTION REQUIRED TO LEVEL THE PROPOSED GRADE AT THIS LOCATION TO INSTALL SIGNAL EQUIPMENT IN SUITABLE AREA. SEE SHEET 260 OF 608 FOR FINAL GRADING CONTOURS.

NOTE:
 * THESE CONDUITS SHALL BE INSTALLED AS CLOSE TO BACK OF CURB AS POSSIBLE IN ORDER TO PROVIDE MAXIMUM COVER

SPECIAL ATTENTION REQUIRED TO LEVEL THE PROPOSED GRADE AT THE SOUTHWEST QUADRANT OF THE INTERSECTION TO INSTALL SIGNAL EQUIPMENT IN SUITABLE AREA. SEE SHEET 260 OF 608 FOR FINAL GRADING CONTOURS.

TRAFFIC SIGNAL LEGEND

CONTROLLER		COMMON TRENCH		CT	
SERVICE INSTALLATION		UNIT DUCT		UD	
SIGNAL HEAD		EMERGENCY VEHICLE SYSTEM DETECTOR			
SIGNAL HEAD WITH BACKPLATE		CONFIRMATION BEACON			
SIGNAL HEAD PEDESTRIAN		SIGNAL HEAD OPTICALLY PROGRAMMED			
SIGNAL POST		VIDEO VEHICLE DETECTOR			
MAST ARM ASSEMBLY AND POLE, STEEL		TELEPHONE CONNECTION			
MAST ARM ASSEMBLY AND POLE, ALUMINUM		CONDUIT SPLICE			
HANDHOLE		WOOD POLE			
HEAVY DUTY HANDHOLE		RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II			
DOUBLE HANDHOLE		VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE			
G.S. CONDUIT IN TRENCH OR PUSHED		400 W HPS LUMINAIRE			
PEDESTRIAN PUSHBUTTON DETECTOR		UNINTERRUPTIBLE POWER SUPPLY			
DETECTOR LOOP					
CAST IRON JUNCTION BOX					

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI 55 AT FAP 338 ILLINOIS ROUTE 59
 SECTION: (26, 26HB-1&114) R-2

**IL 59/ SEIL ROAD INTERSECTION
 TRAFFIC SIGNAL INSTALLATION
 PLAN**

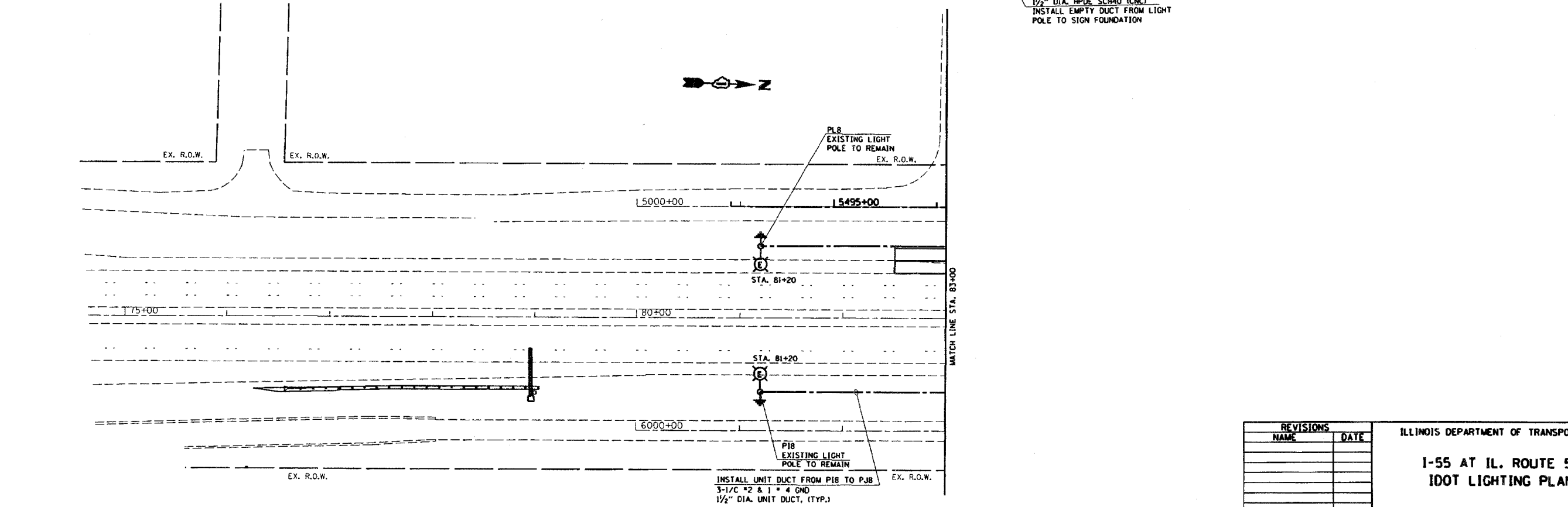
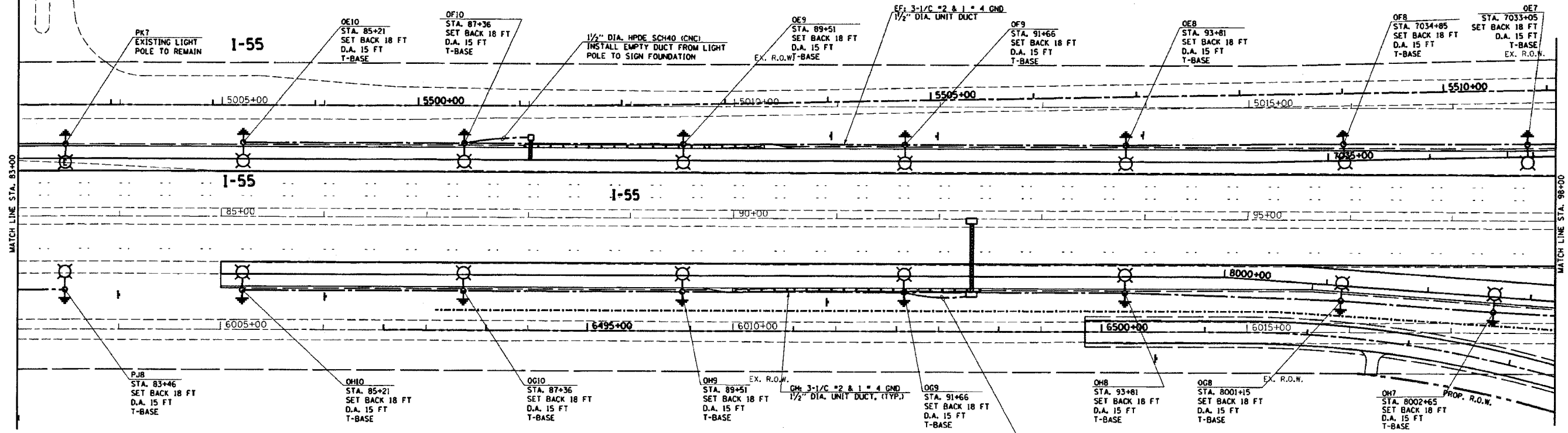
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 DATE: 03/14/08

DRAWN BY: TMH
 DESIGNED BY: RKF
 CHECKED BY: RKF

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 200 N. MICHIGAN AVE. CHICAGO, IL 60601
 TELEPHONE: 312.642.9000

\\P0000001.DGN, \\P0000002.DGN, \\P0000003.DGN, \\P0000004.DGN, \\P0000005.DGN, \\P0000006.DGN, \\P0000007.DGN, \\P0000008.DGN, \\P0000009.DGN, \\P0000010.DGN, \\P0000011.DGN, \\P0000012.DGN, \\P0000013.DGN, \\P0000014.DGN, \\P0000015.DGN, \\P0000016.DGN, \\P0000017.DGN, \\P0000018.DGN, \\P0000019.DGN, \\P0000020.DGN, \\P0000021.DGN, \\P0000022.DGN, \\P0000023.DGN, \\P0000024.DGN, \\P0000025.DGN, \\P0000026.DGN, \\P0000027.DGN, \\P0000028.DGN, \\P0000029.DGN, \\P0000030.DGN, \\P0000031.DGN, \\P0000032.DGN, \\P0000033.DGN, \\P0000034.DGN, \\P0000035.DGN, \\P0000036.DGN, \\P0000037.DGN, \\P0000038.DGN, \\P0000039.DGN, \\P0000040.DGN, \\P0000041.DGN, \\P0000042.DGN, \\P0000043.DGN, \\P0000044.DGN, \\P0000045.DGN, \\P0000046.DGN, \\P0000047.DGN, \\P0000048.DGN, \\P0000049.DGN, \\P0000050.DGN, \\P0000051.DGN, \\P0000052.DGN, \\P0000053.DGN, \\P0000054.DGN, \\P0000055.DGN, \\P0000056.DGN, \\P0000057.DGN, \\P0000058.DGN, \\P0000059.DGN, \\P0000060.DGN, \\P0000061.DGN, \\P0000062.DGN

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA. TO STA.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
* 264B-1BR & 114R-1				



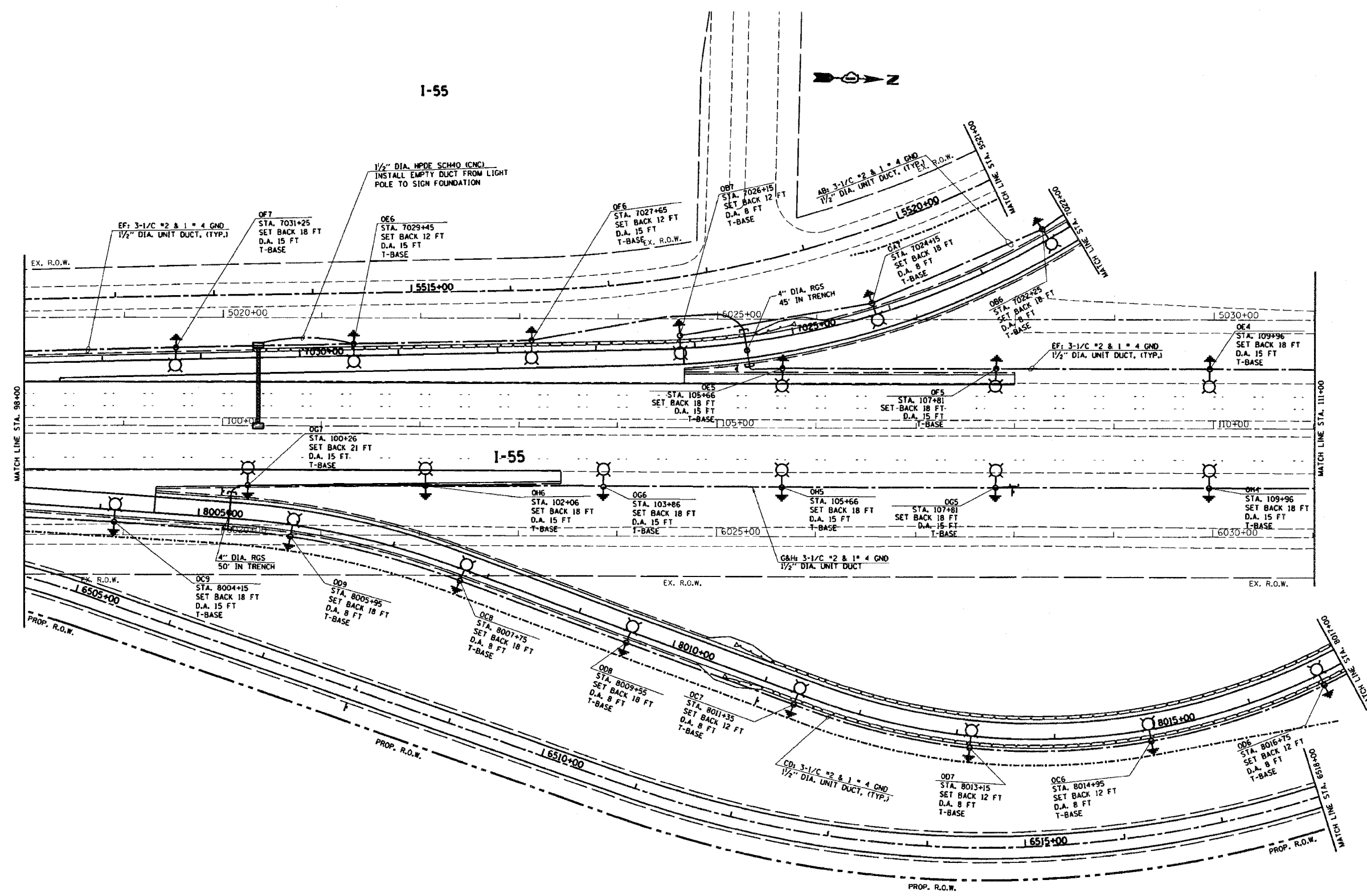
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE		

**I-55 AT IL. ROUTE 59
IDOT LIGHTING PLAN**

SCALE: VERT. 1"=50'
HORIZ. DATE 3/13/2008

DRAWN BY T.G.
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	*	*	608	322
STA. TO STA.		ILLINOIS FED. AID PROJECT		
FED. ROAD DIST. NO.		* 26HB-1BR & 114R-1		



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

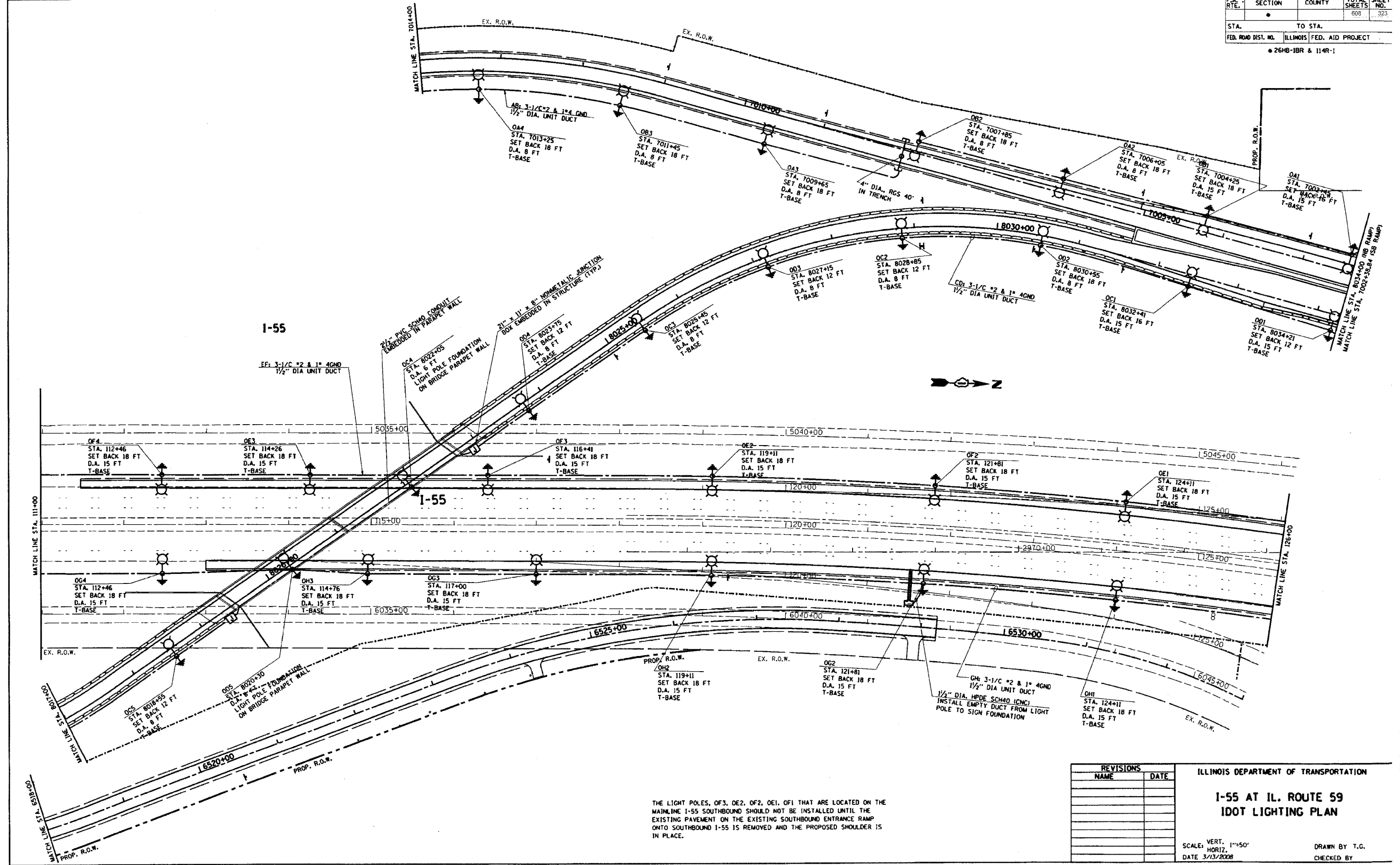
I-55 AT IL. ROUTE 59

IDOT LIGHTING PLAN

SCALE: VERT. 1"=50'
HORIZ. DATE 3/13/2008

DRAWN BY T.G.
CHECKED BY

CONTRACT# 60363				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			608	323
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
# 26HB-1BR & 114R-1				



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

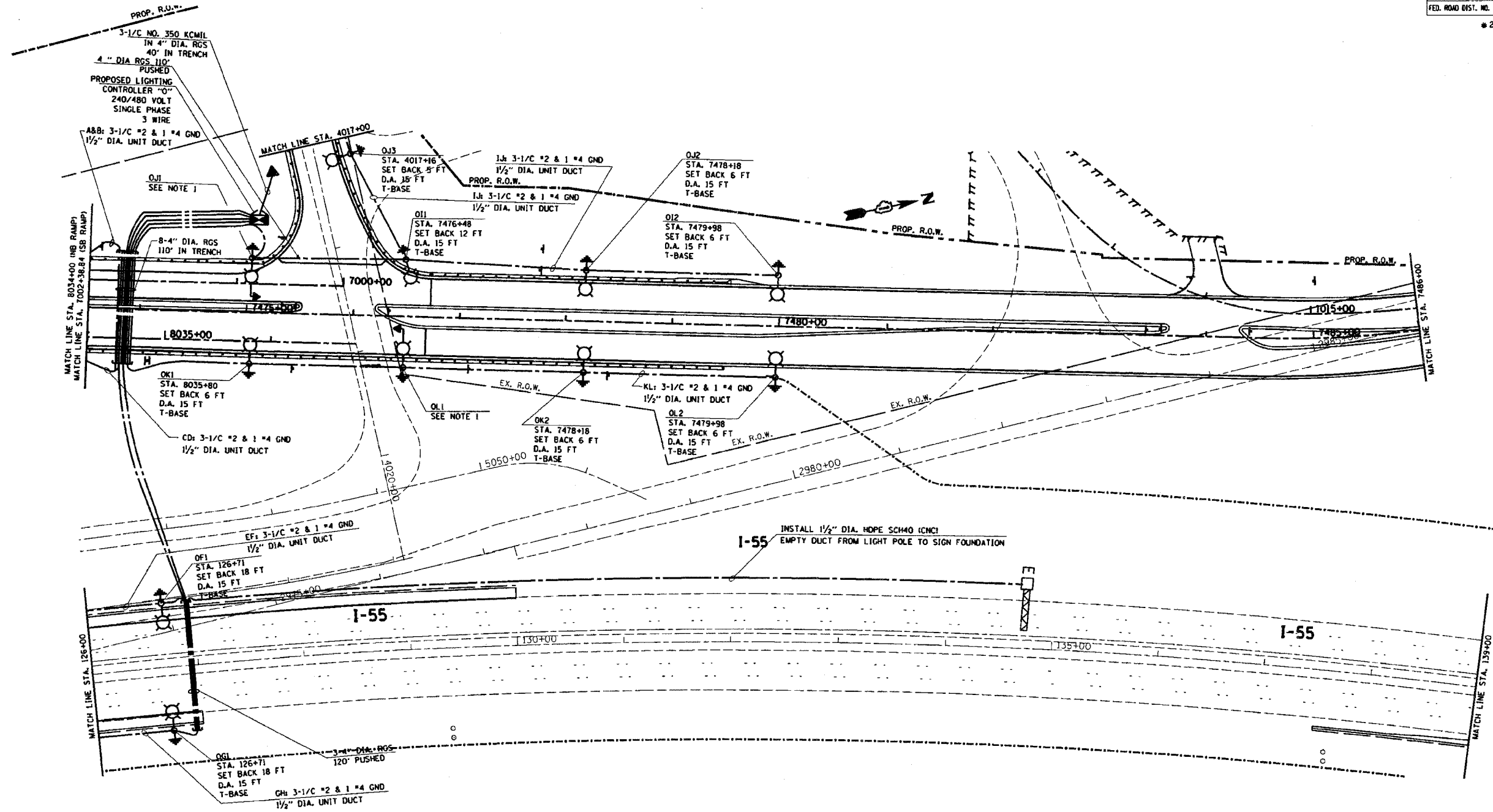
**I-55 AT IL. ROUTE 59
IDOT LIGHTING PLAN**

SCALE: VERT. 1"=50'
HORIZ. DATE 3/13/2008

DRAWN BY T.G.
CHECKED BY

3/13/2008
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	*	*	808	324
STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		
*26MB-IBR & 114R-1				



NOTE:
 1. COMBINATION LIGHTING UNIT:
 45 FT LUMINAIRE MOUNTING HEIGHT, 15 FT M.A.
 400 WHPS M-C-III, 240 VOLT LUMINAIRE
 SEE TRAFFIC PLANS FOR PLACEMENT OF THE
 TRAFFIC POLE.

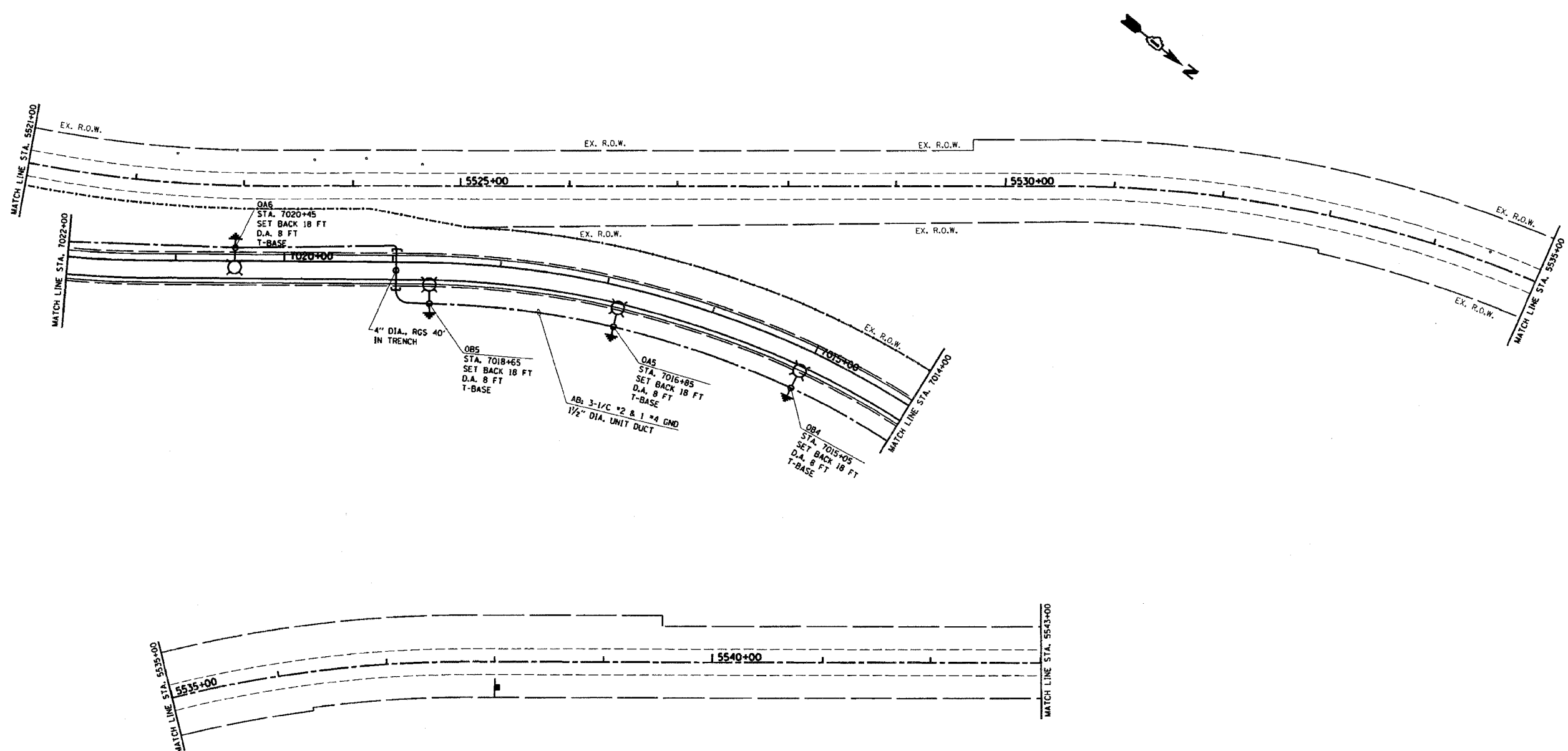
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-55 AT IL. ROUTE 59
IDOT LIGHTING PLAN
 VERT. SCALE: 1"=50'
 HORIZ. SCALE: 1"=50'
 DATE: 3/13/2008
 DRAWN BY: T.G.
 CHECKED BY:

*REF-LITE#
*REF-LITE#

CONTRACT# 60363

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	*	*	608	328
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
*26HB-1BR & 114R-1				



REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		I-55 AT IL. ROUTE 59 IDOT LIGHTING PLAN

VERT. SCALE: 1"=50'
 HORIZ. SCALE: 1"=50'
 DATE 3/13/2008

DRAWN BY T.G.
 CHECKED BY

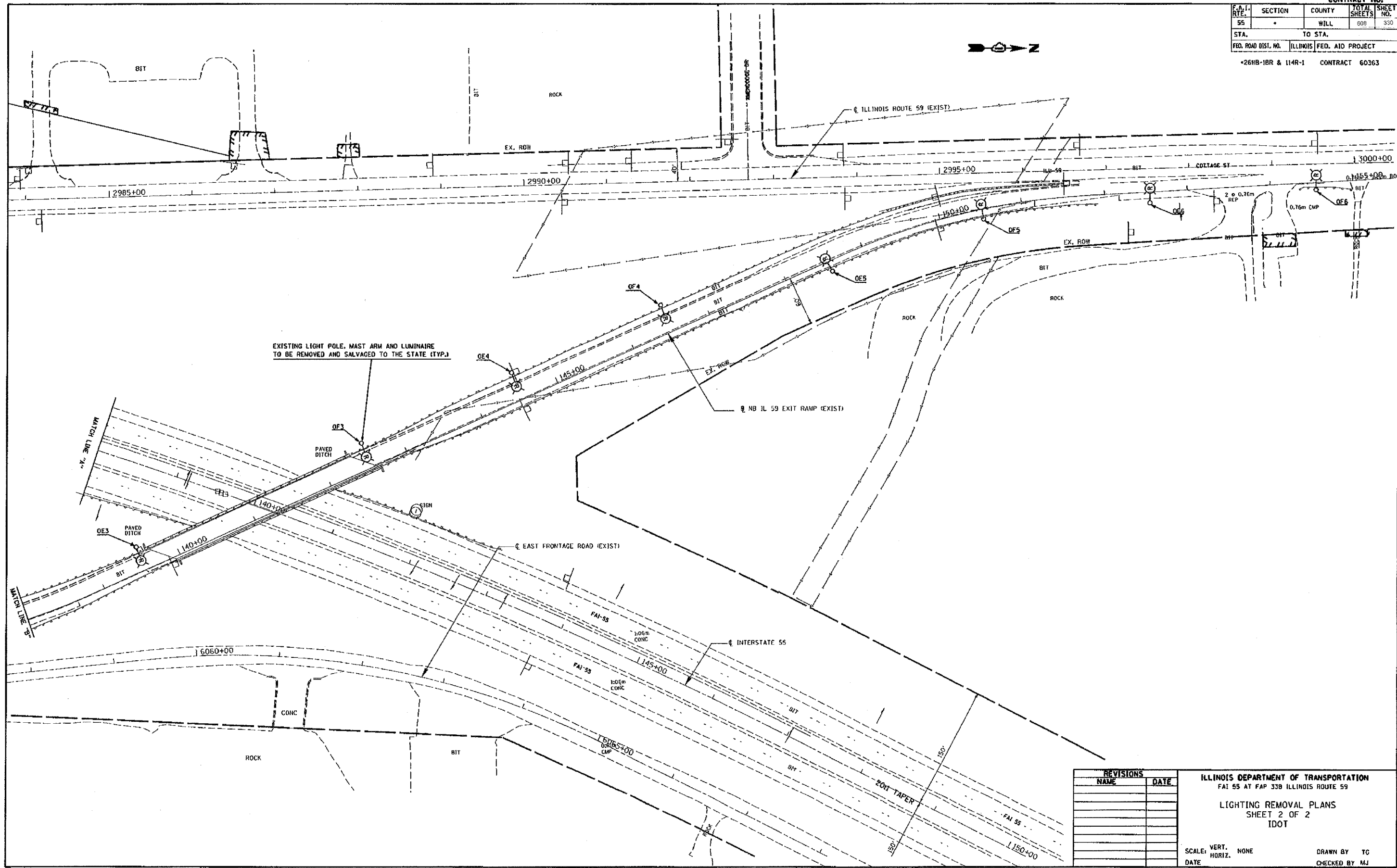
3/13/2008
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bauerdl

CONTRACT NO.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55		WILL	608	330

STA.	TO STA.

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT
 *26HB-1BR & 114R-1 CONTRACT 60363



EXISTING LIGHT POLE, MAST ARM AND LUMINAIRE
 TO BE REMOVED AND SALVAGED TO THE STATE (TYP.)

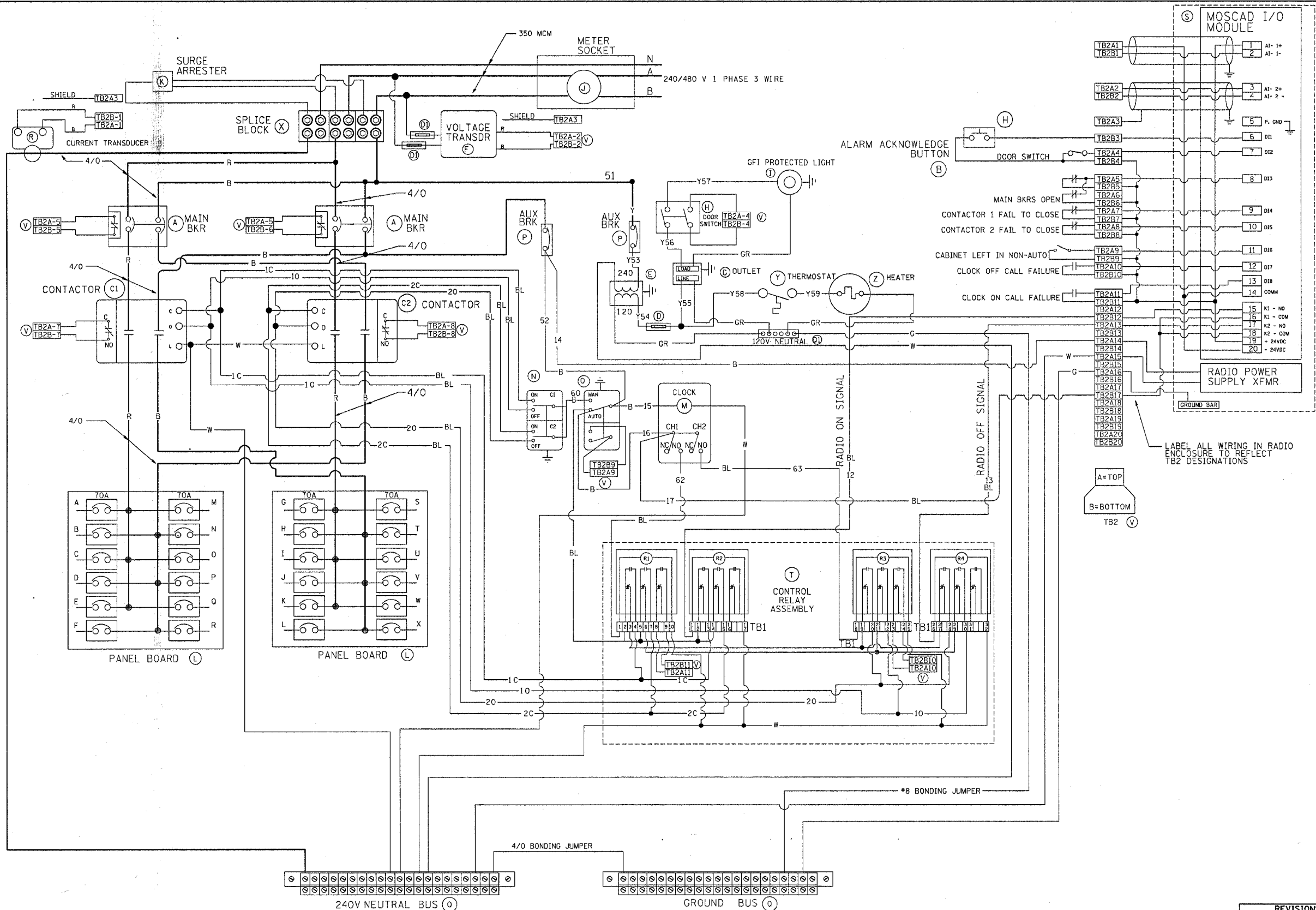
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI 55 AT FAP 338 ILLINOIS ROUTE 59
 LIGHTING REMOVAL PLANS
 SHEET 2 OF 2
 IDOT

SCALE: VERT. NONE
 HORIZ. DATE
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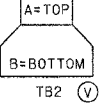
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			608	332
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



BILL OF MATERIALS		
ITEM #	QTY	DESCRIPTION
A	2	MAIN CIRCUIT BREAKERS 2 POLE 175 AMP WITH AUX CONTACT
B	1	ACKNOWLEDGE SWITCH, PUSH BUTTON WITH YELLOW INSERT
C1, C2	2	CONTACTOR 2 POLE 200 AMP 240V COIL WITH AUX CONTACTS
D	1	FINGERSAFE FUSE HOLDER WITH KTK-10 FUSE
DI	2	FINGERSAFE FUSE HOLDER WITH KTK-1/2 FUSE
E	1	2.0 KVA 277V-240/120 TRANSFORMER
F	1	VOLTAGE TRANSDUCER
G	1	15 AMP GFCI DUPLEX OUTLET W/COVER
H	2	DOOR SWITCH A-20G0-B7-X
I	1	LIGHT FIXTURE
J	1	METER FITTING 1 PHASE 3 WIRE 200 AMP
K	1	SURGE ARRESTER
L	2	PANEL BOARD 480/240V 1 PHASE, 250 AMP COPPER BUS
M	1	2 CHANNEL DIGITAL TIME CLOCK
N	1	MOMENTARY SWITCH ON - OFF
O	1	SQUARE D, 900KSIIBH13, 2 POSITION SWITCH IN 900KY1 ENCLOSURE
P	2	BREAKER IP 15A
Q	2	COPPER GROUND AND NEUTRAL BUS 1 x 16 x 1/4
OI	1	COPPER NEUTRAL BUS WITH 1 I/O AND #6 CONDUCTOR POINTS
R	1	CURRENT TRANSDUCER
S	1	MOTOROLA MOSCAD-L RADIO, 240 V
T	1	CONTROL RELAY ASSEMBLY 240V COILS WITH 4 3 PDT 25A RELAYS (W389ACX-15) (R1, R2, R3, R4) . QTY 32 TERMINAL BLOCKS
V	20	TERMINAL BLOCKS
X	1	620 AMP SPLICE BLOCK
Y	1	40-80 DEG THERMOSTAT
Z	1	375 WATT HEATER

LABEL ALL WIRING IN RADIO ENCLOSURE TO REFLECT TB2 DESIGNATIONS



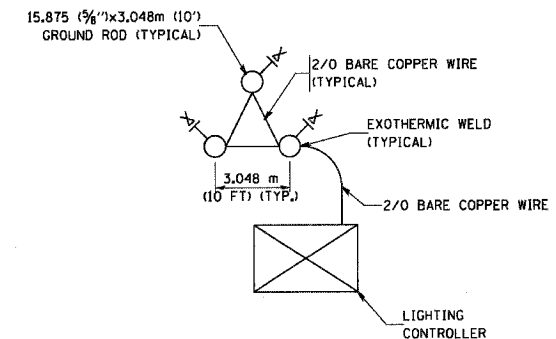
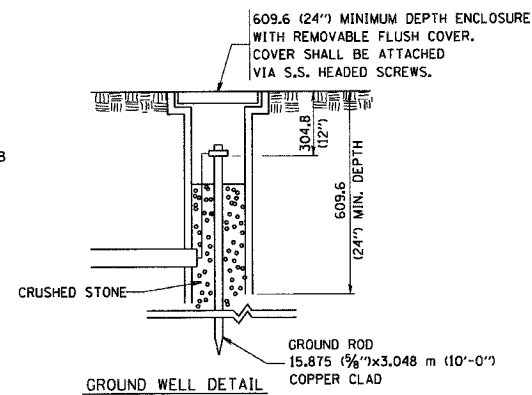
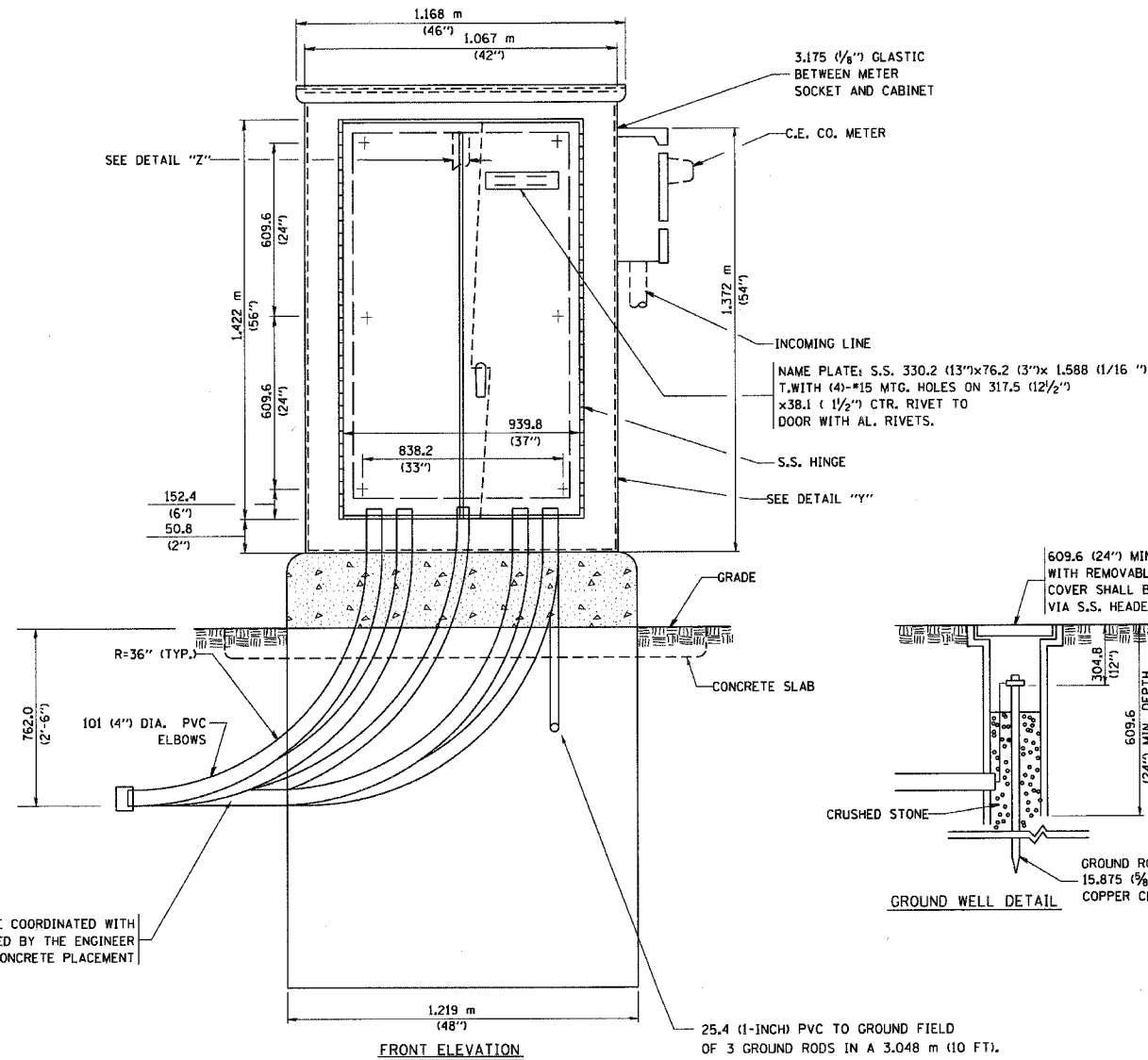
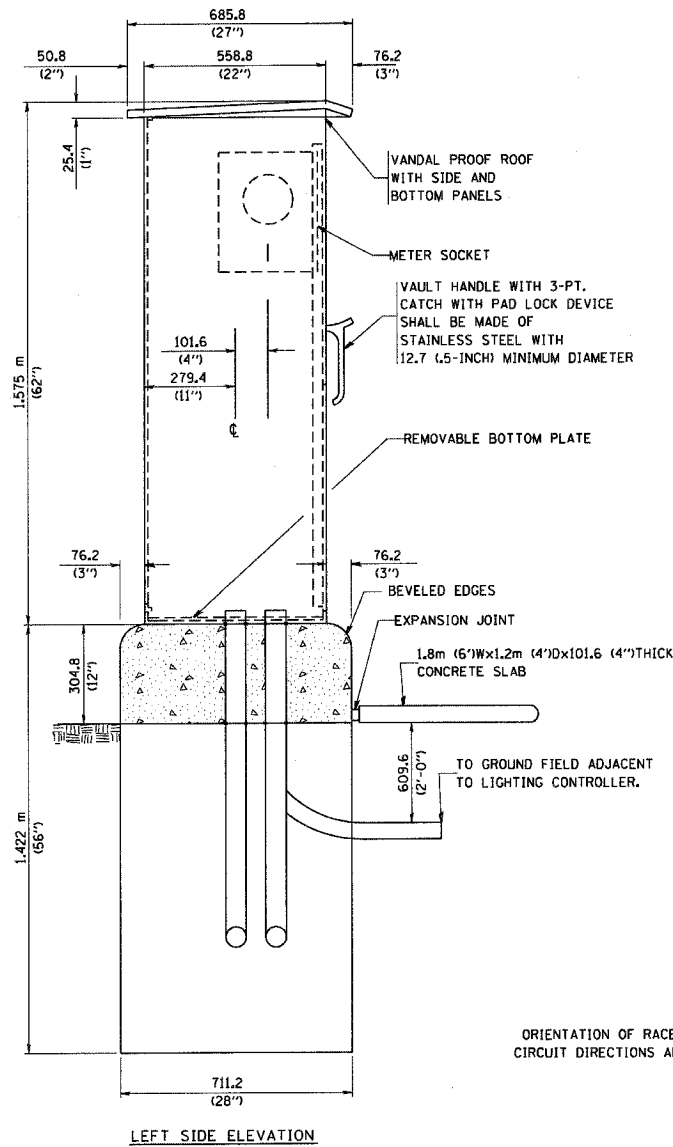
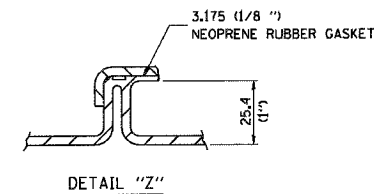
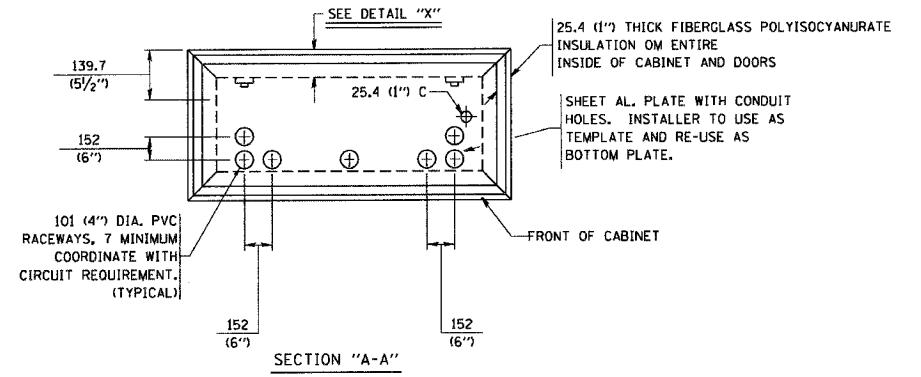
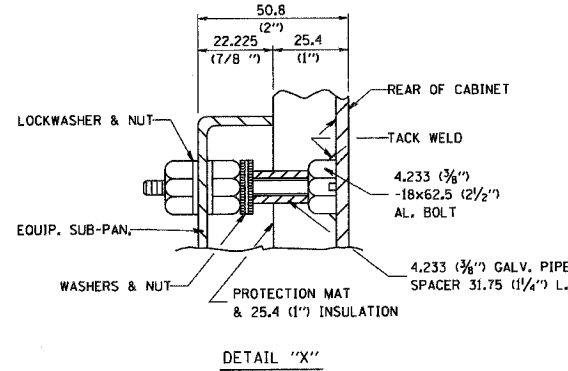
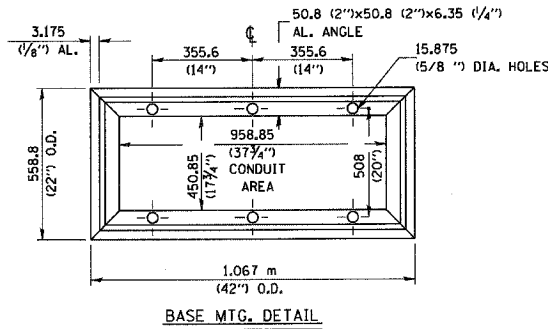
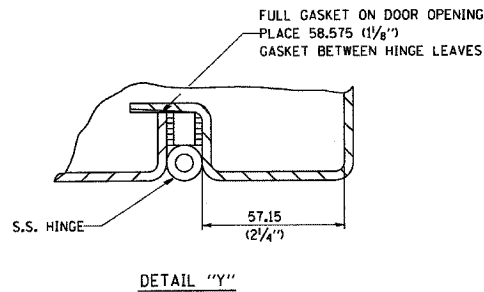
REVISIONS	
NAME	DATE
R. TOMSONS	8/19/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
 LIGHTING CONTROLLER, RADIO CONTROL
 DUPLEX TYPE WITH SCADA
 BE-205 SHT 2 OF 4

SCALE: NONE
 DRAWN BY
 CHECKED BY
 BE 205

PLOT DATE = 3/5/2007
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CONTRACT NO.			
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
			808 333
STA.		TO STA.	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	



ORIENTATION OF RACEWAYS SHALL BE COORDINATED WITH CIRCUIT DIRECTIONS AND BE INSPECTED BY THE ENGINEER PRIOR TO CONCRETE PLACEMENT

25.4 (1-INCH) PVC TO GROUND FIELD OF 3 GROUND RODS IN A 3.048 m (10 FT). TRIANGLE CONNECTED VIA BARE COPPER WIRE. VERIFY EXACT LOCATION OF GROUND FIELD WITH THE ENGINEER. NO GROUND WELL SHALL BE PLACED IN CONCRETE PAD IN FRONT OF CONTROLLER.

REVISIONS	
NAME	DATE
R. TOMSONS	8/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
 LIGHTING CONTROLLER, RADIO CONTROL
 DUPLEX TYPE WITH SCADA
 BE-205 SHT 3 OF 4

SCALE: NONE
 DATE: 4/26/2006

DRAWN BY CADD
 CHECKED BY

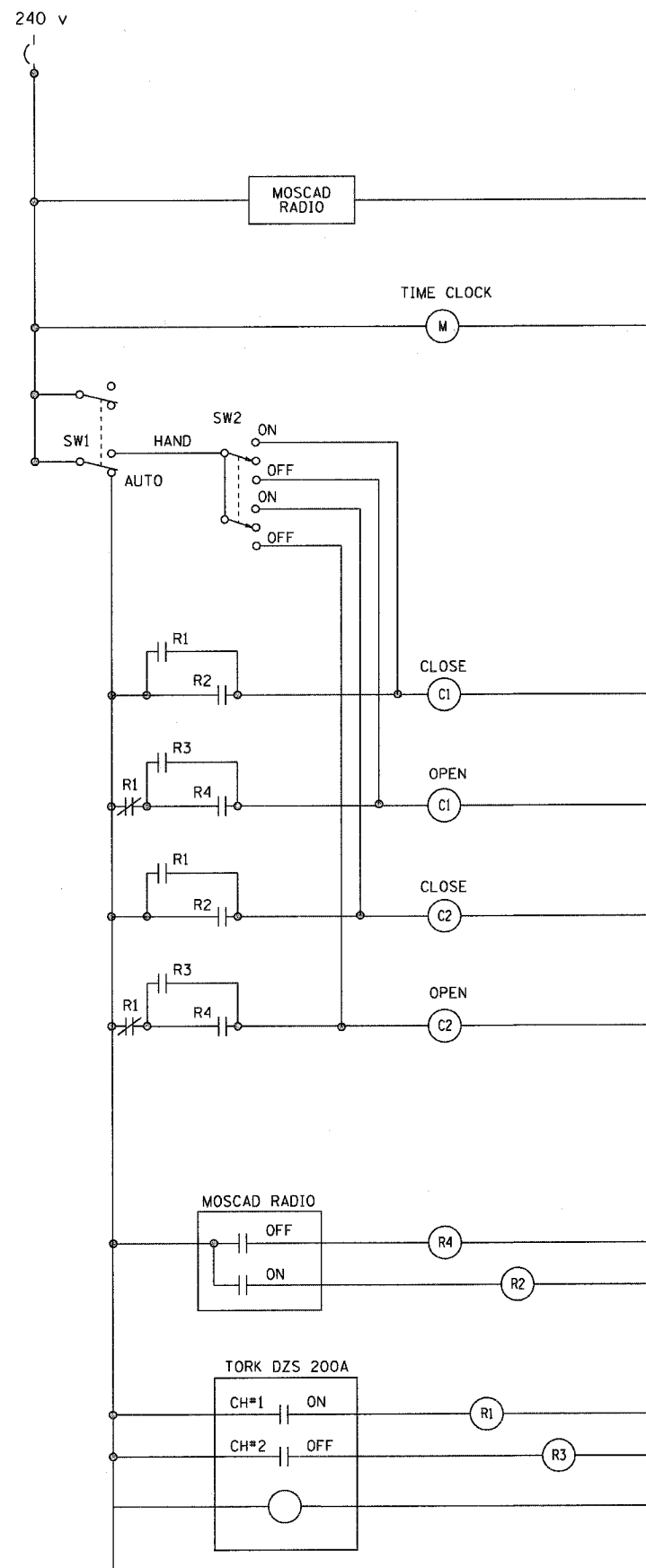
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			608	334
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NOTES

- CABINET SHALL BE FABRICATED FROM 3.175 (0.125-INCH) SHEET ALUMINUM # 3003H14, FORMED AND ARC WELDED.
- ALL SCREWS AND HARDWARE SHALL BE PLATED, GALVANIZED, OR MADE OF BRASS, ALUMINUM OR STAINLESS STEEL, UNLESS OTHERWISE NOTED.
- NAME PLATE SHALL HAVE ENGRAVED 19.05 (0.75-INCH) HIGH LETTERS FILLED IN BLACK: "STATE OF ILLINOIS LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.
- ONE INCH THICK POLYISOCYANURATE INSULATION SHALL BE INSTALL AND PERMANENTLY CEMENTED ON ALL SIDES OF THE CABINET AND DOORS.
- CABINET SHALL BE PRIMED AND PAINTED AS SPECIFIED.
- ELECTRIC UTILITY METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET AS SHOWN ON THE PANEL LAYOUT DIAGRAM.
- THE COMPLETED CONTROLLER SHALL BE U.L. LISTED AS AN INDUSTRIAL CONTROL PANEL UNDER UL508.
- METAL MOUNTING PANEL SHALL BE FABRICATED FROM THE SAME MATERIAL AS THE CABINET AND SHALL BE FLANGED BACK 0.75-INCHES I.D. ON 4 SIDES.
- CIRCUIT BREAKERS AND CONTACTORS AND OTHER COMPONENTS SHALL BE MOUNTED ON 3.175 (0.125-INCH) THICK GLASTIC INSULATION BACK PANEL.
- ALL DEVICES SHALL BE FRONT REMOVABLE.
- TIME CLOCK CHANNEL 1 N.O. CONTACT IS CLOSED NIGHT AND OPEN DAY (LIGHTS ON).
- SET LATITUDE TO 42 DEGREES. SET CH.1 TO 25 MINUTES AFTER ASTRONOMICAL SUNSET, 40 MINUTES BEFORE ASTRONOMICAL SUNRISE. SET CH.2 TO 60 MINUTES AFTER ASTRONOMICAL SUNSET (WITH A SIGNAL LENGTH OF 1 SECOND), +20 MINUTES AFTER ASTRONOMICAL SUNRISE (WITH A SIGNAL LENGTH OF 7 SECONDS.)
- BUS BAR SHALL HAVE 22 LUG TERMINALS SIZED TO ACCOMMODATE REQUIRED WIRE SIZES. 240V NEUTRAL BUS SHALL BE PAINTED WHITE, GROUND BUS SHALL BE PAINTED GREEN, AND THE 120V NEUTRAL BUS SHALL BE PAINTED GREY.
- ALL LUGS SHALL BE OF COPPER SCREWS AND CONNECTORS, SPRING HELD.
- ALL WIRING TERMINATIONS SHALL BE RATED NOT LESS THAN 75 DEGREE CENTIGRADE
- ALL CONTROL WIRING SHALL BE 600V #12 TYPE MTW.
- ALL POWER WIRING SHALL BE 600V TYPE RHH/RHW.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED:

R - RED	Y - YELLOW
B - BLACK	W - WHITE
BL- BLUE	G - GREEN
	GR - GREY
- MOSCAD I/O WIRING SHALL BE:
 - DIGITAL INPUT (DI) WIRING SHALL BE #16 MTW PURPLE
 - ANALOG INPUT (AI) WIRING SHALL BE #18, 2/C SHIELDED.
 - AI AND DI WIRING MAY BE BUNDLED TOGETHER, BUT SHALL NOT BE BUNDLED WITH OTHER WIRING.
- ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE INDICATED.
- SCHEMATIC SHOWN WITH BREAKER OPEN, CONTACTOR OPEN, CABINET DOOR CLOSED, CLOCK NOT ACTIVE (DE-ENERGIZED STATE).
- A LAMINATED COPY OF THE CIRCUIT SCHEMATIC AND SCADA I/O DIAGRAM (NO SMALLER THAN 11"x17" EACH) SHALL BE ATTACHED TO THE INSIDE OF THE CONTROLLER WITH STAINLESS STEEL SCREWS.



CONTROL CIRCUIT LADDER LOGIC DIAGRAM

MOSCAD I/O ASSIGNMENTS		
TERM	MOSCAD DESTINATION	DESCRIPTION OF INPUT
1	Analog Input 1 (+)	CABINET NEUTRAL CURRENT
2	Analog Input 1 (-)	CABINET NEUTRAL CURRENT
3	Analog Input 2 (+)	CABINET SERVICE VOLTAGE
4	Analog Input 2 (-)	CABINET SERVICE VOLTAGE
5	P. Ground	GROUND
6	Digital Input 1	ALARM KNOWLEDGE
7	Digital Input 2	DOOR OPEN
8	Digital Input 3	MAINS BREAKER OPEN
9	Digital Input 4	CONTACTOR 1 OPEN
10	Digital Input 5	CONTACTOR 2 OPEN
11	Digital Input 6	CABINET IN NON-AUTO
12	Digital Input 7	BACK-UP CLOCK OFF CALL
13	Digital Input 8	BACK-UP CLOCK ON CALL
14	DI Common	COMMON
15	K1 NO	LIGHTS ON CALL
16	K1 C	K1 COMMON
17	K2 NO	LIGHTS OFF CALL
18	K2 C	K2 COMMON
19	24 V+	24+VDC
20	24 V-	24-VDC

All analog inputs will be 4-20 mA only. Digital output relays will be Electrically energized and momentarily held
Mixed I/O module model number V436

REVISIONS	
NAME	DATE
R. TOMSONS	8/04

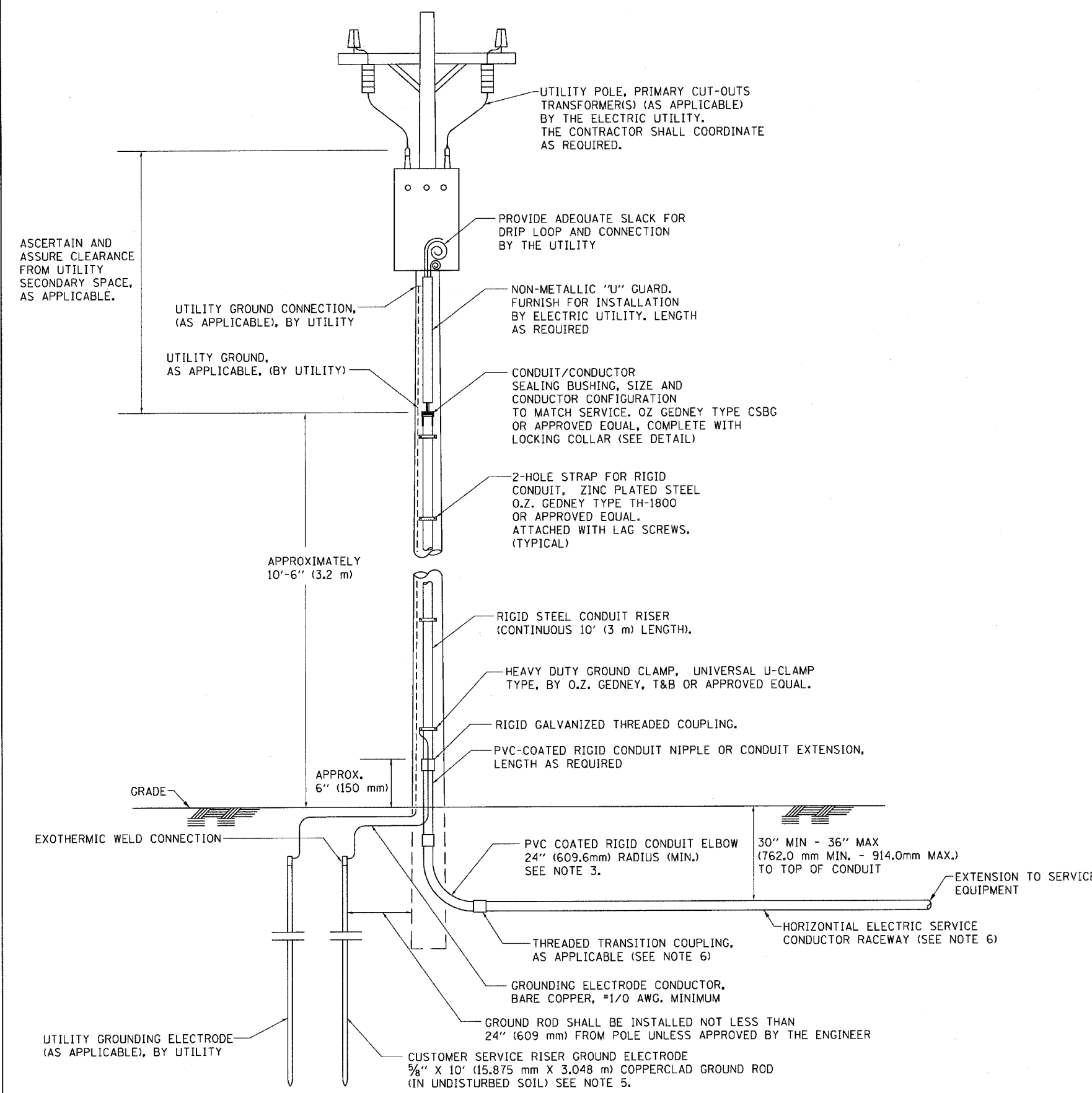
ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING CONTROLLER, RADIO CONTROL
DUPLIX TYPE WITH SCADA
BE-205 SHT 4 OF 4

SCALE: NONE
DATE: 2/15/2006

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BE205
REVISION DATE: 08/19/04

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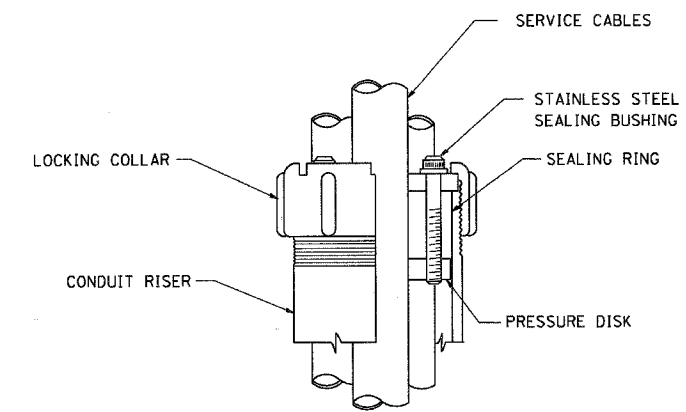


APPLICATION

THIS DETAIL APPLIES FOR LOW VOLTAGE ELECTRIC SERVICE (660 V OR LESS) FROM AN OVERHEAD UTILITY SUPPLY TO SEPERATLY-MOUNTED SERVICE EQUIPMENT.

NOTES

- SERVICE VOLTAGE SHALL BE AS INDICATED ELSEWHERE IN THE DRAWINGS.
- UNLESS OTHERWISE INDICATED, ITEMS AND WORK SHALL BE INCLUDED AND PAID AS PART OF THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.
- CONDUIT AND CONNECTOR DIAMETER SHALL MATCH THE DIAMETER OF THE SERVICE CONDUCTOR RACEWAY AS INDICATED ON THE PLANS.
- PVC COATED RACEWAYS AND ACCESSORIES SHALL BE CAREFULLY INSTALLED WITH MFR RECOMMENDED TOOLS AND PROCEDURES TO AVOID DAMAGE. ANY DAMAGE SHALL BE REPAIRED WITH COMPATIBLE PVC TOUCH-UP MATERIAL TO THE SATISFACTION OF THE ENGINEER OR THE DAMAGED MATERIAL SHALL BE REPLACED AT NO ADDITIONAL COST.
- THE CONTRACTOR SHALL OBTAIN INSPECTION AND APPROVAL BY THE ENGINEER OF SERVICE RISER GROUND ELECTRODE, RISER ELBOW, NIPPLE AND CONNECTION TO SERVICE CONDUCTOR RACEWAY EXTENSION BEFORE BACKFILL AND SHALL ALSO OBTAIN INSPECTION OF SERVICE RISER AND SEALING BUSHING BEFORE UTILITY "U" GUARD INSTALLATION AND SERVICE CONNECTION.
- THE HORIZONTAL ELECTRIC SERVICE CONDUCTOR RACEWAY SHALL BE AS INDICATED AND SHALL BE MEASURED SEPARATELY FOR PAYMENT. WHEN THE RACEWAY IS PVC-COATED RIGID GALVANIZED STEEL, THE COUPLING SHALL BE THE SAME. WHEN THE RACEWAY IS PVC CONDUIT (IN CONCRETE), THE COUPLING SHALL BE A METALIC TO NON METALIC ADAPTER. WHEN THE RACEWAY IS ENCASED IN CONCRETE, THE CONCRETE SHALL EXTEND TO COVER THE COUPLING.
- PLANS AND DETAILS INDICATE THE GENERAL NATURE AND REQUIREMENTS. THEY DO NOT SHOW EVERY ACCESSORY AND ATTACHMENT, AND THEY DO NOT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS AND SPECIAL PROVISIONS TO ASCERTAIN UTILITY REQUIREMENTS AND TO COORDINATE ACCORDINGLY, FURNISHING ALL ITEMS AND WORK NOT PROVIDED BY THE UTILITY, BUT NECESSARY FOR A COMPLETE SERVICE INSTALLATION IS REQUIRED AND SHALL BE INCLUDED IN THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.



SEALING BUSHING DETAIL

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 USER NAME : ulrichid

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**ELECTRIC SERVICE INSTALLATION
AERIAL, REMOTE DISCONNECT
BE - 220**

SCALE: NONE
DATE: 1/9/2007

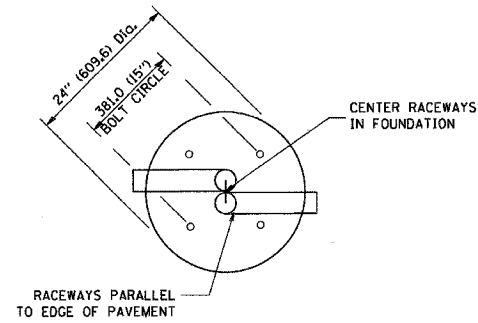
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BE-220

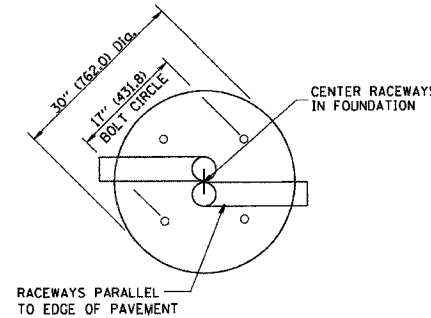
F.A. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			608	338
STA. _____ TO STA. _____		FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT		

LIGHT POLE FOUNDATION DEPTH TABLE
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SQ. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY Qu = 0.75 TON/SQ.FT	9'-6" (2.93 m)	10'-9" (3.23 m)
STIFF CLAY Qu = 1.50 TON/SO. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)



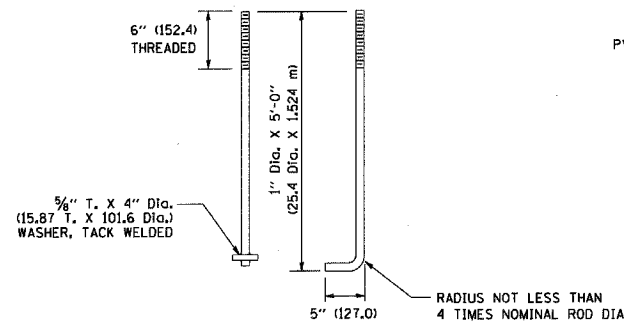
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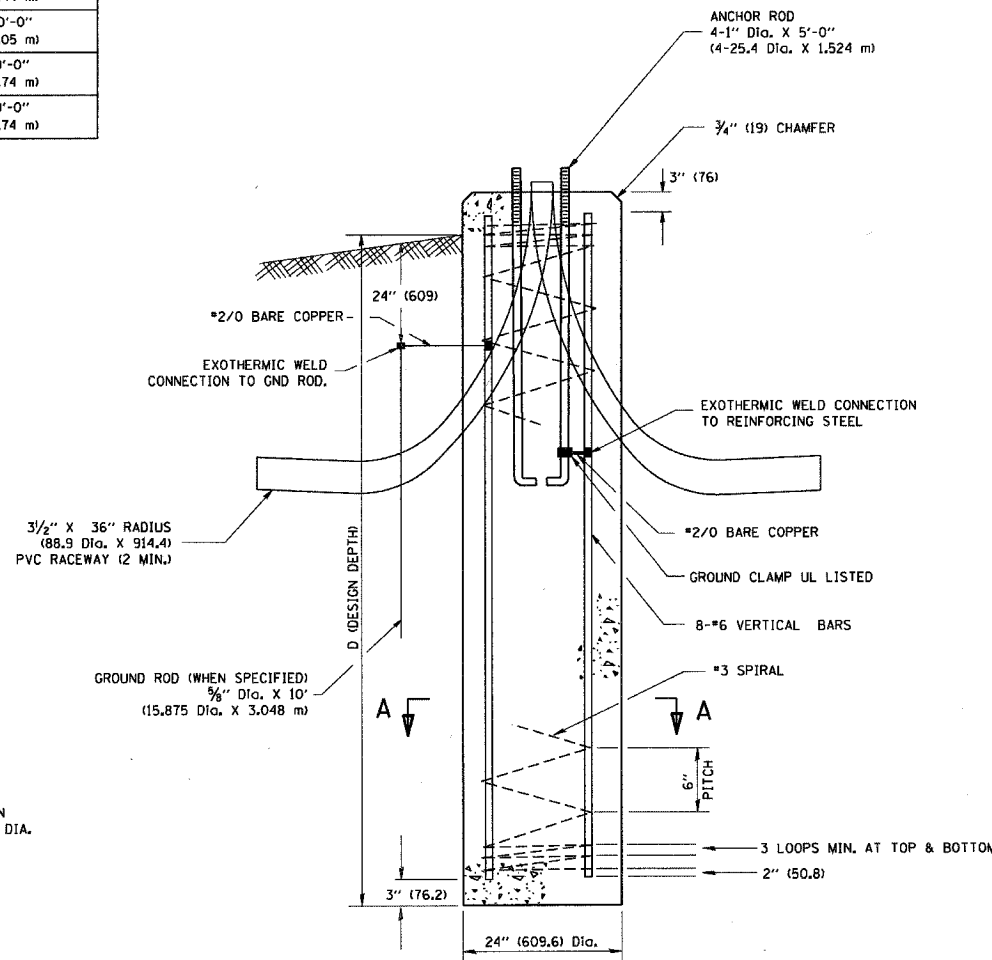
TOP VIEW

NOTES

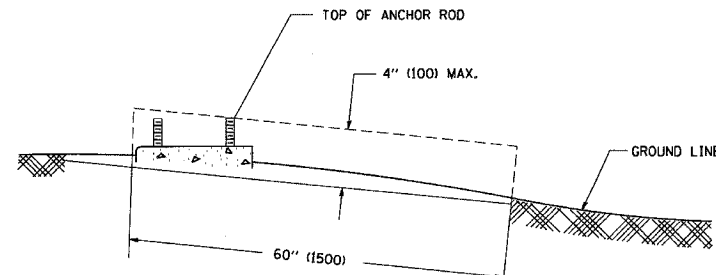
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.



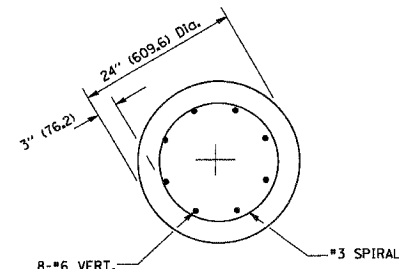
ANCHOR ROD DETAIL



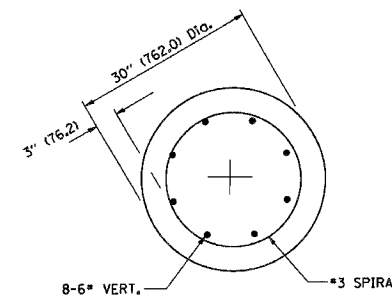
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

REVISIONS	
NAME	DATE
	04/22/02

E-301
ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHT POLE FOUNDATION
40' (12.192 m) TO 47 1/2' (14.478 m) M.H.
15" (381) BOLT CIRCLE

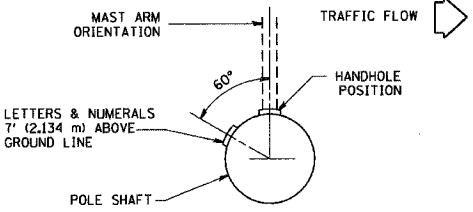
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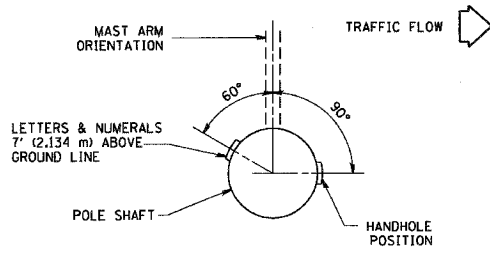
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			608	337
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

NOTES:

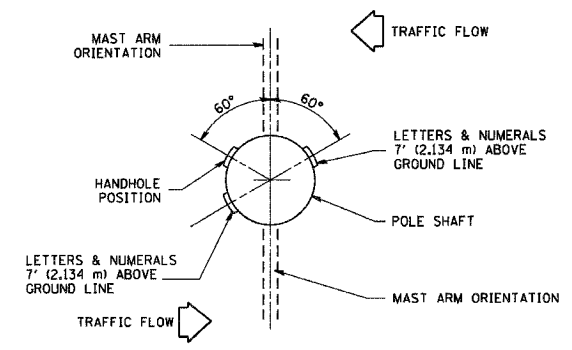
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
3. TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
4. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
5. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR, BURNDY K2C23, 1&B SP40L OR APPROVED EQUAL.
6. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
7. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
8. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.



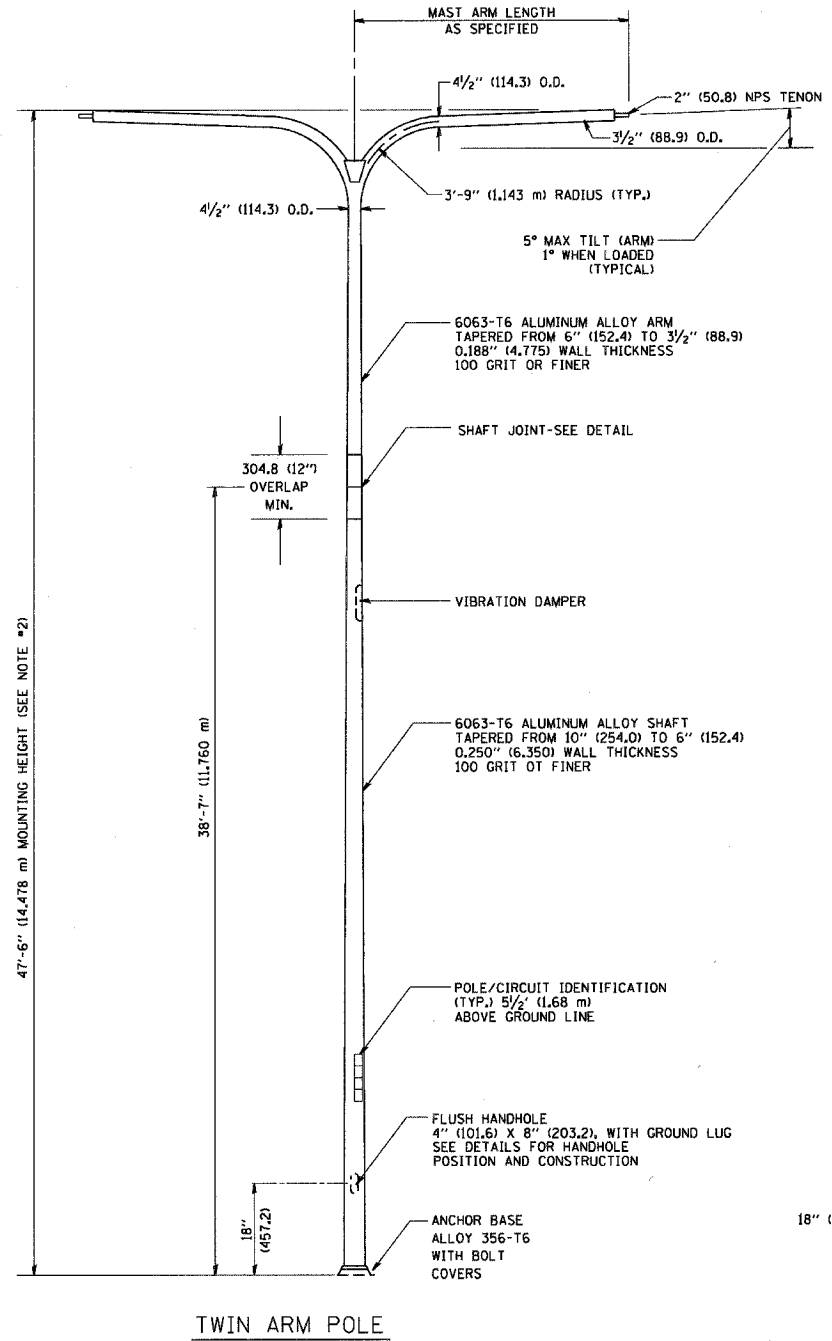
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL



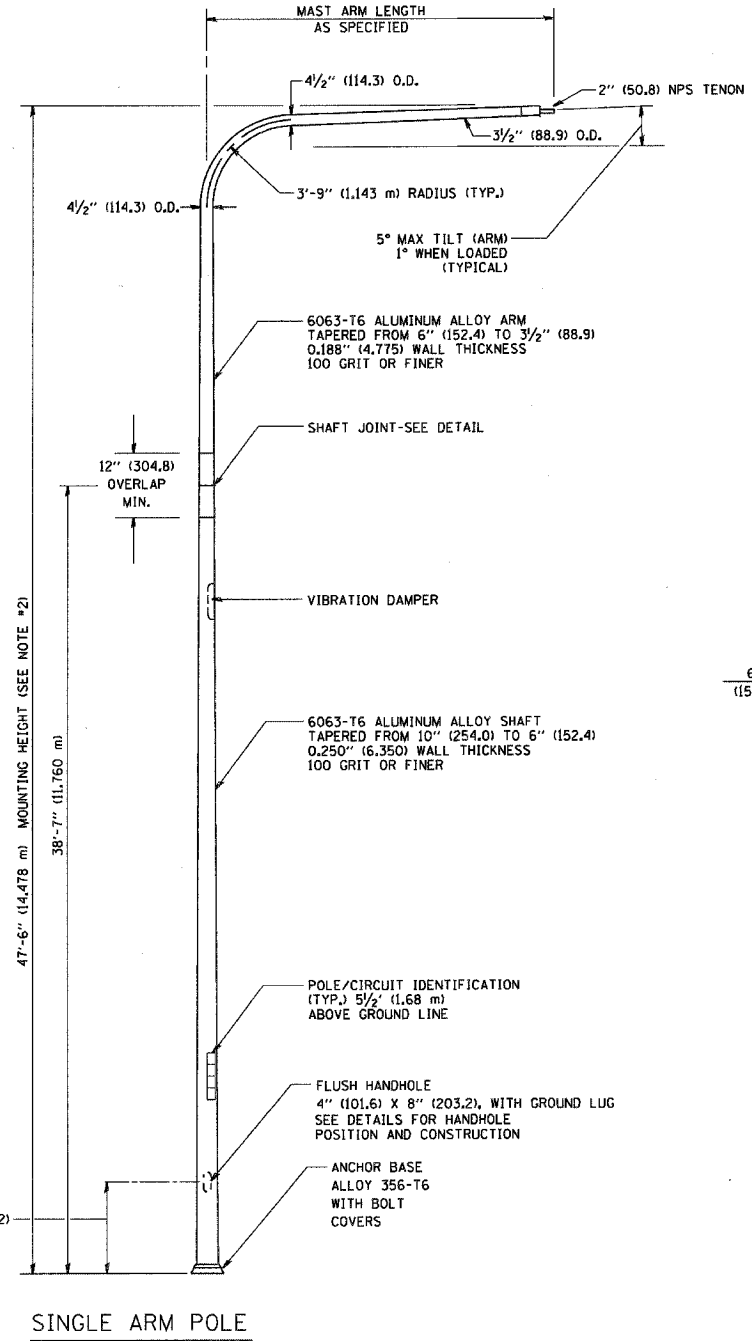
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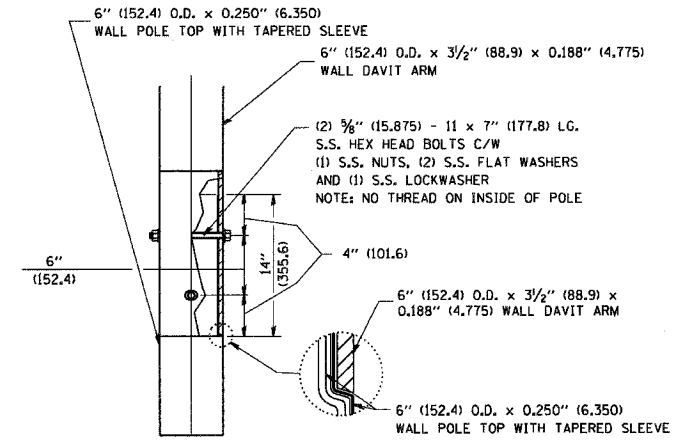
POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES



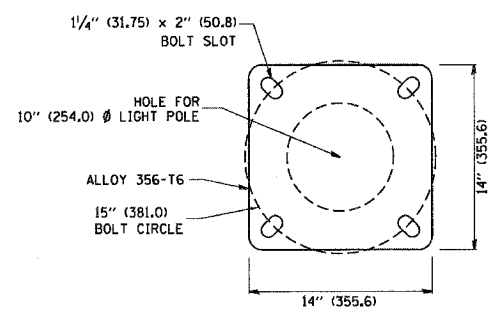
TWIN ARM POLE



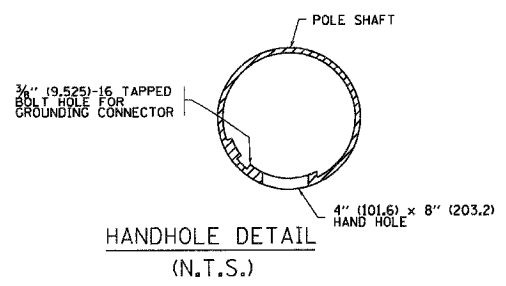
SINGLE ARM POLE



DAVIT ARM CONNECTION [14" (355.6) OVERLAP SHOWN]



LIGHT POLE BASE PLATE DETAIL (FOR POLE MOUNTED ON 15 INCH (381.0) BOLT CIRCLE FOUNDATION)



HANDHOLE DETAIL (N.T.S.)

REVISIONS	
NAME	DATE
D. DREW	4-2-92
D. DREW	5-7-92
R. TOMSONS	9-6-00
R. TOMSONS	8-12-03

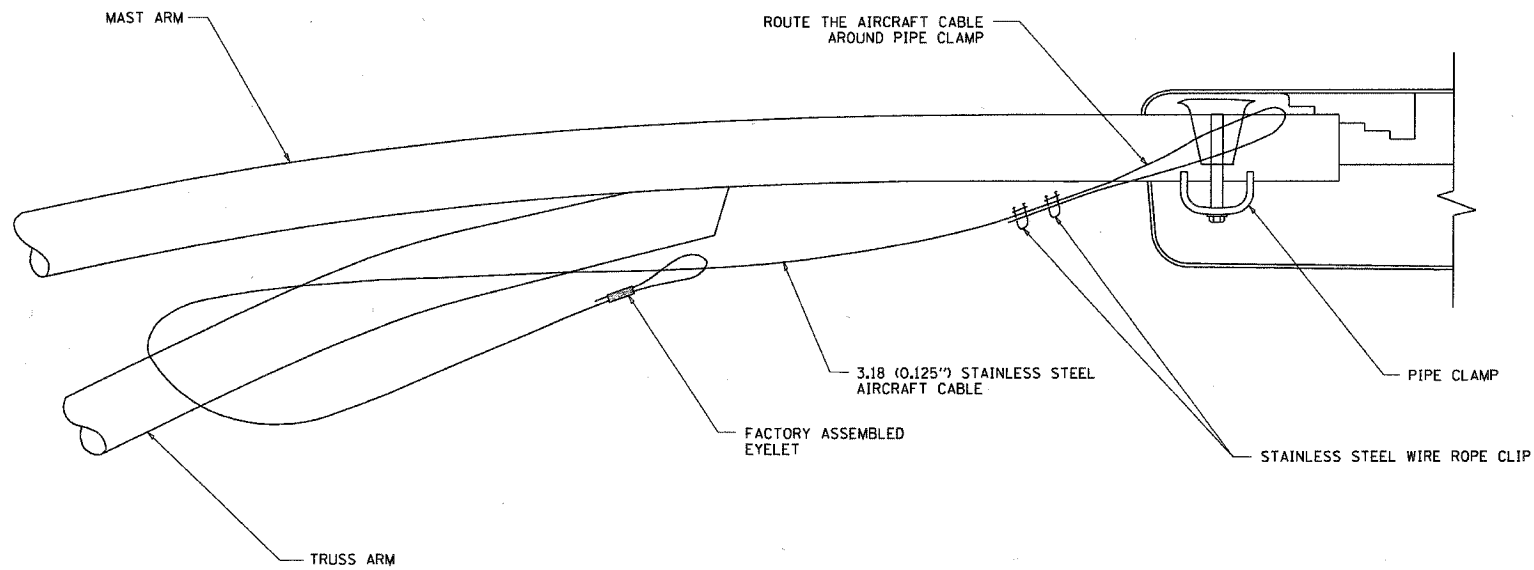
ILLINOIS DEPARTMENT OF TRANSPORTATION

DAVIT LIGHT POLE
47' - 6" (14.478 m)
MOUNTING HEIGHT

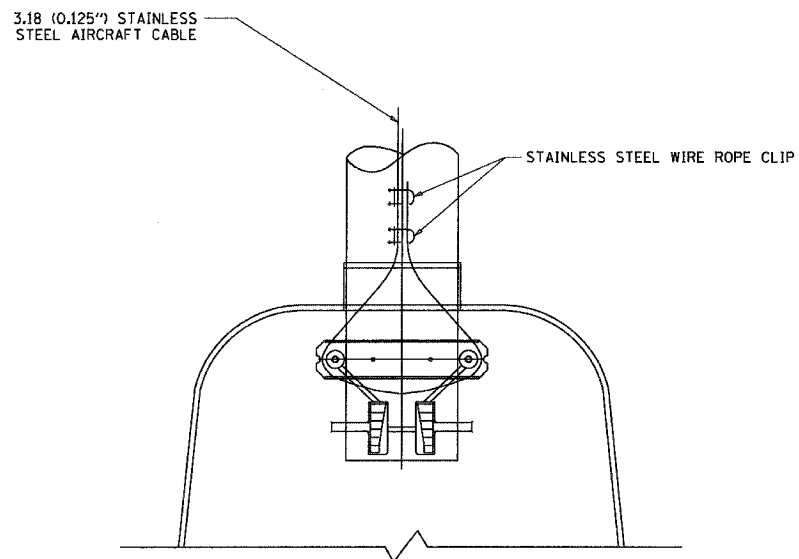
SCALE: NONE
DATE: 1/16/2007

DRAWN BY LEY
CHECKED BY
BE-410
REVISION DATE: 01/01/07

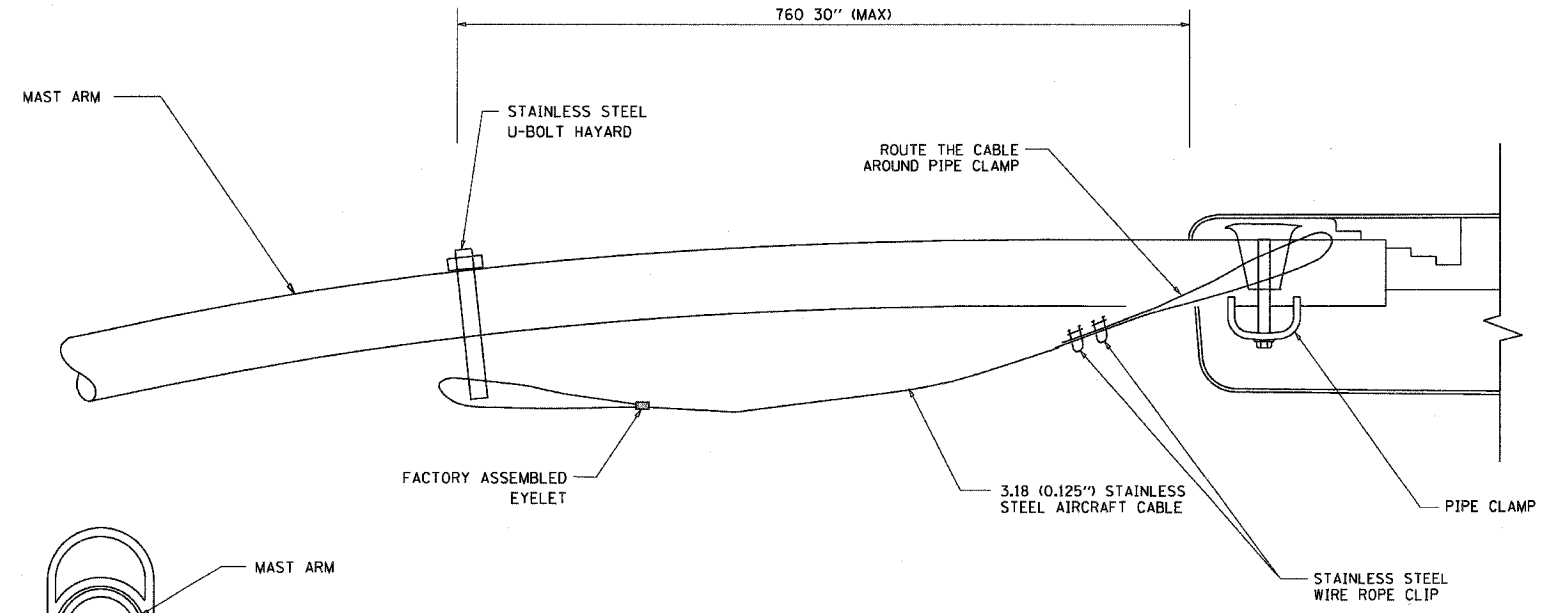
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 PLOT SCALE = 48.59999 / IN.
 USER NAME = ulrichhd



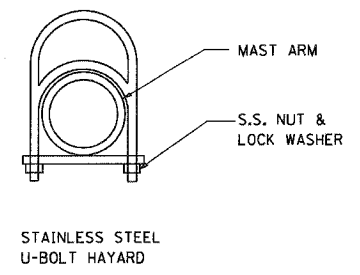
SIDE VIEW (TRUSS ARM)
N.T.S.



BOTTOM VIEW
N.T.S.



SIDE VIEW (SINGLE MEMBER OR DAVIT ARM)
N.T.S.



STAINLESS STEEL U-BOLT HAYARD

- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN
 2. CONTRACTOR SHALL ADJUST THE WIRE CLIP TO ELIMINATE ANY SLACK FROM THE WIRE ROPE.
 3. THE 3.18 (0.125") STAINLESS STEEL AIRCRAFT CABLE SHALL REMAIN VISIBLE FROM THE GROUND LEVEL
 4. THE BREAKING STRENGTH OF THE CABLE SHALL BE 1700 LBS. MIN

REVISIONS	
NAME	DATE

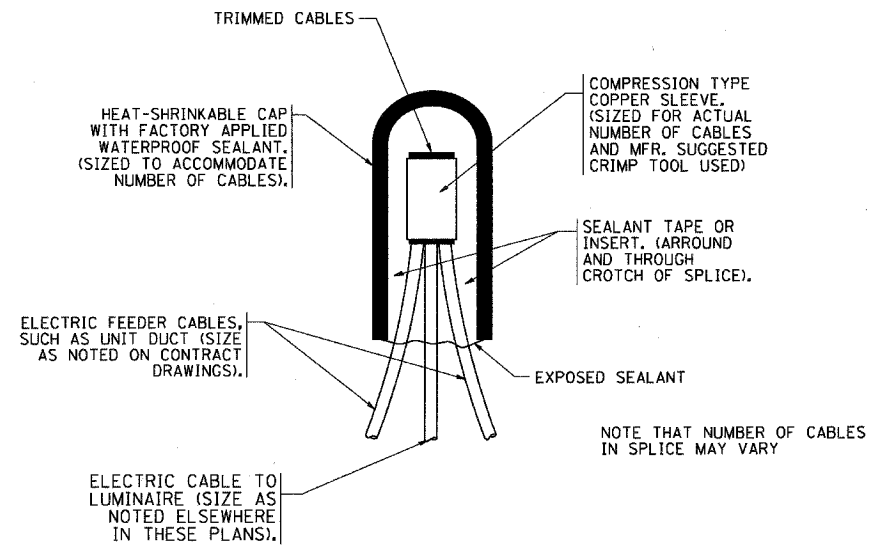
ILLINOIS DEPARTMENT OF TRANSPORTATION

LUMINAIRE SAFETY CABLE ASSEMBLY

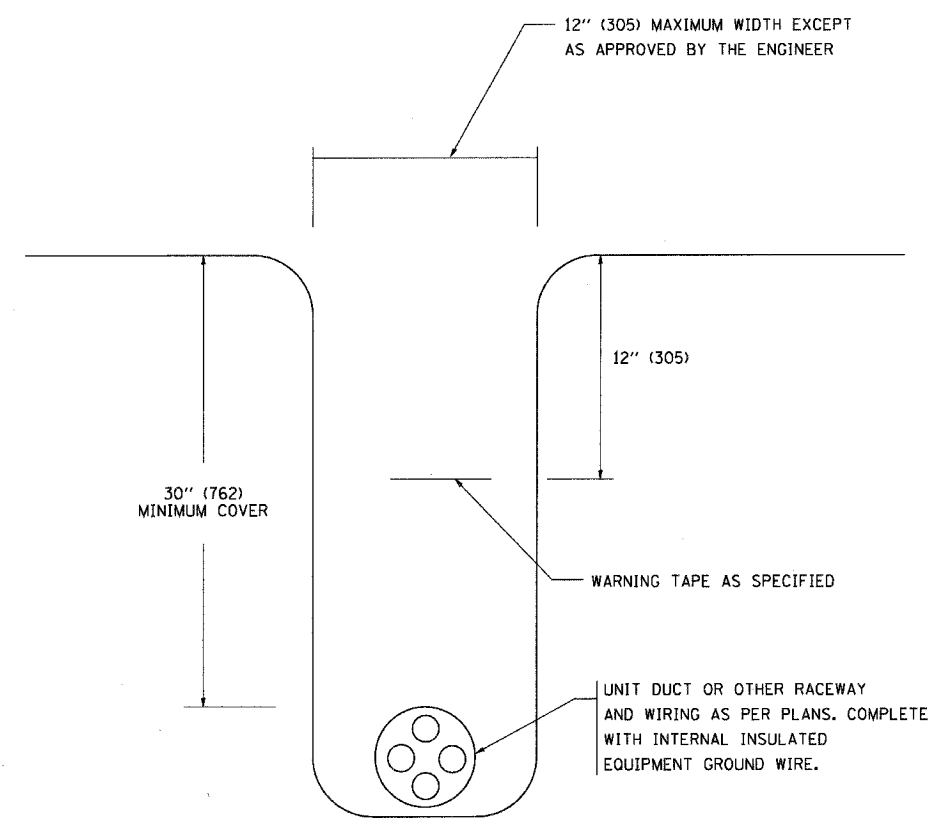
SCALE: VERT. HORIZ. DATE: 2/15/2006

DRAWN BY CHECKED BY BE-701 REVISION DATE:

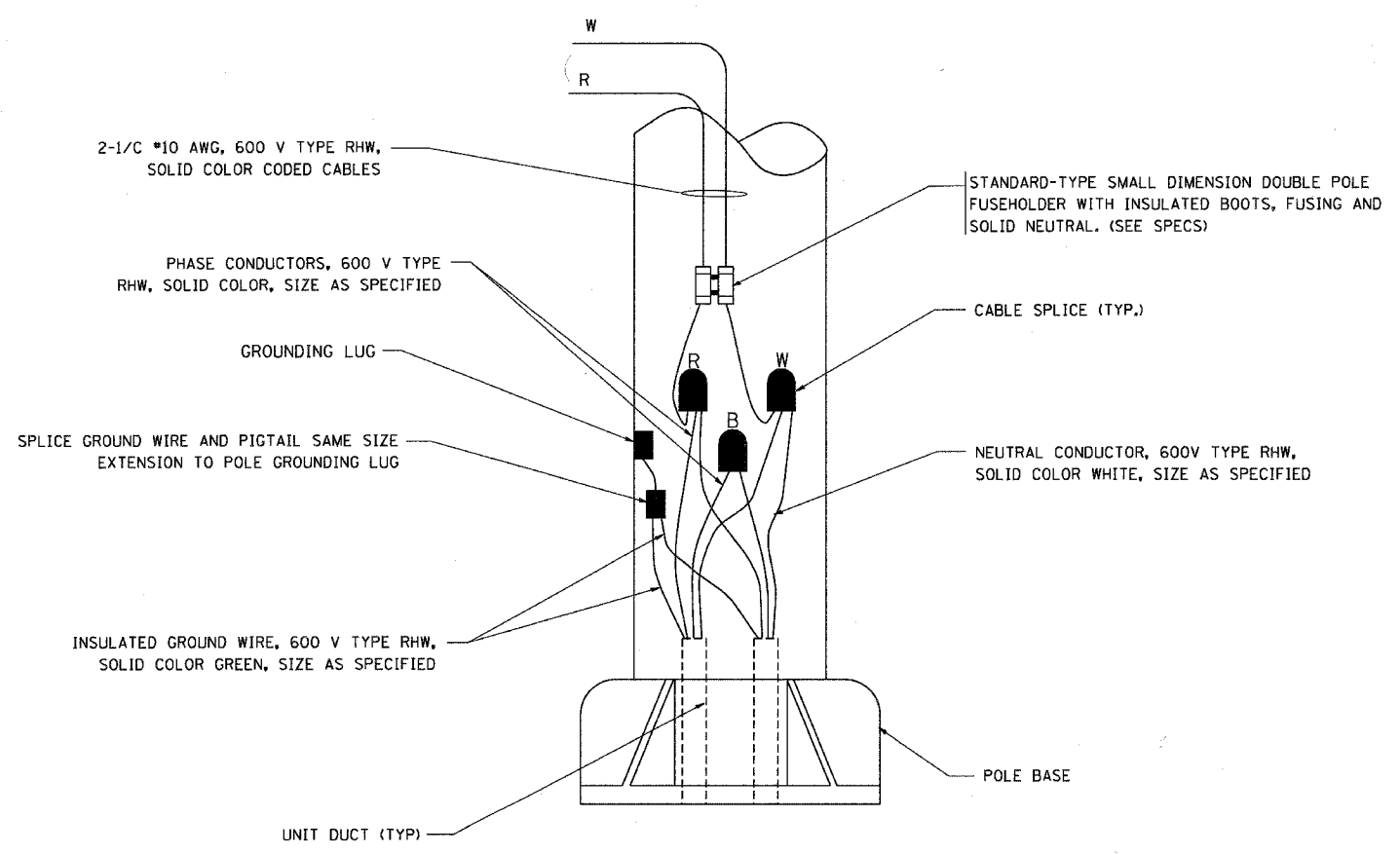
PLOT DATE: 2/15/2006
FILE NAME: w:\advised\luc701.dgn
PLOT SCALE: 60,000 / 1 IN.
USER NAME: gglennob



TYPICAL SPLICE DETAIL
N.T.S.



TYPICAL WIRING IN TRENCH DETAIL
N.T.S.



POLE WIRING DETAIL
N.T.S.

REVISIONS	
NAME	DATE
	08/08/03

ILLINOIS DEPARTMENT OF TRANSPORTATION

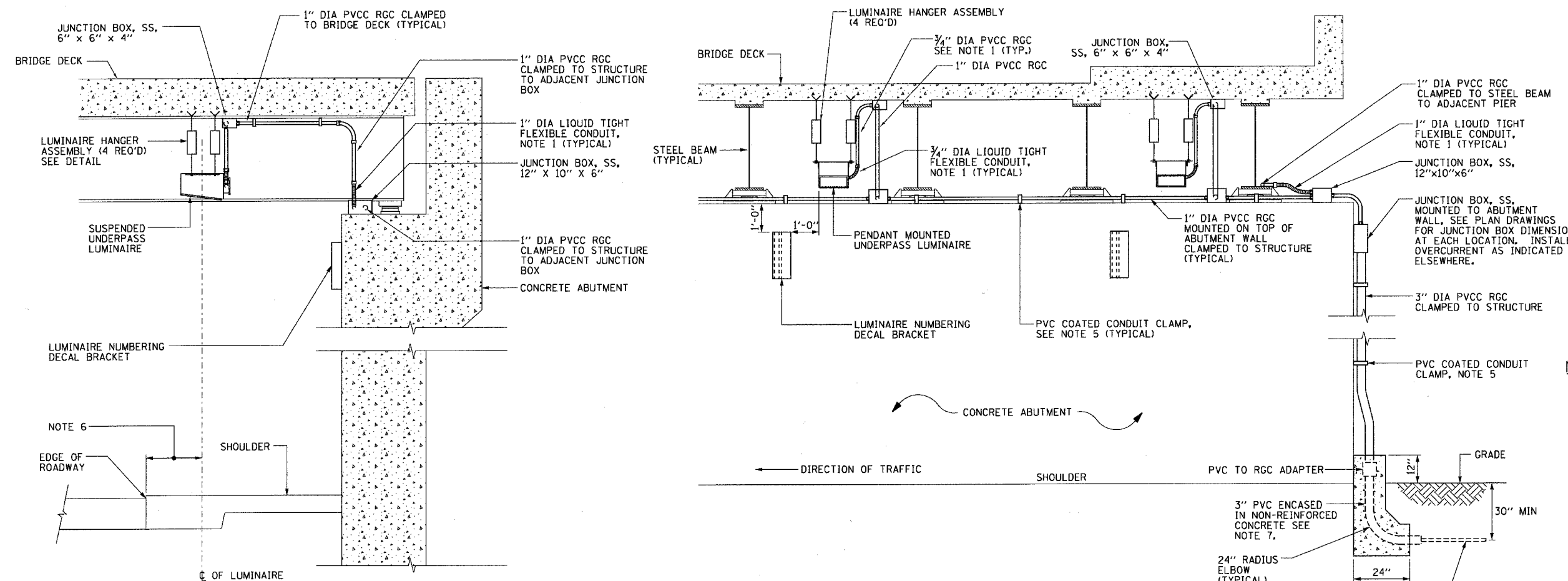
MISC. ELECTRICAL DETAILS
SHEET A

SCALE: VERT. NONE
HORIZ.

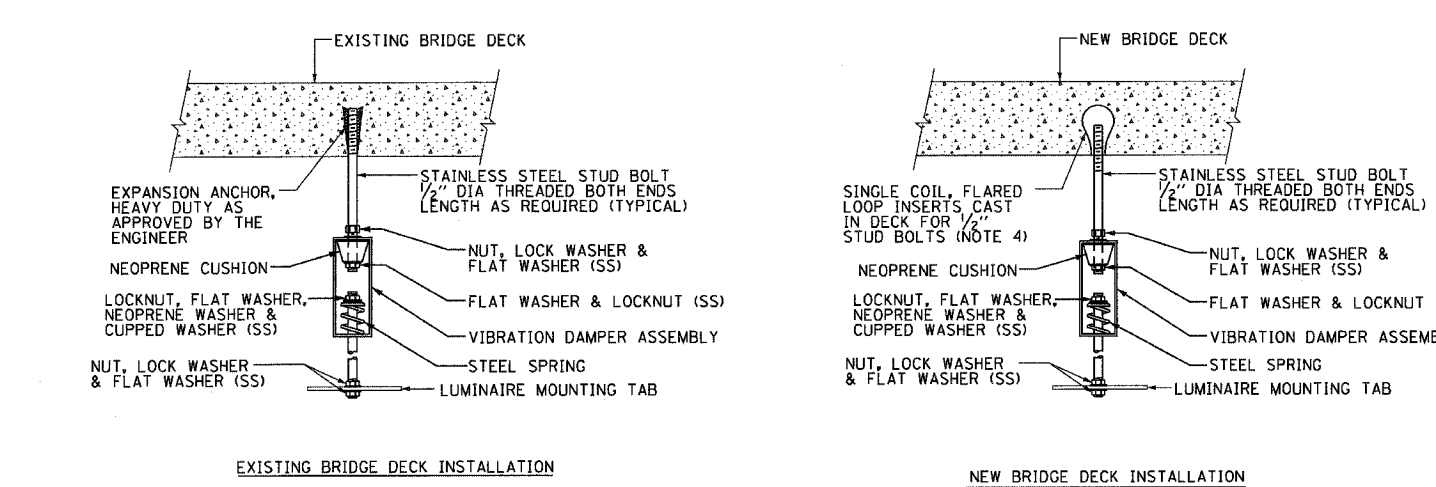
DRAWN BY
CHECKED BY
BE-702

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PLOT SCALE = 88.000 / IN.
USER NAME = baured

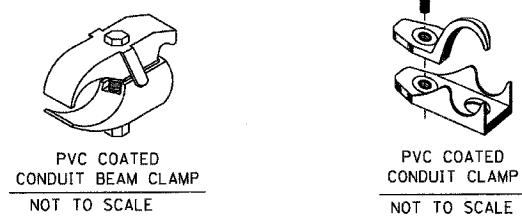
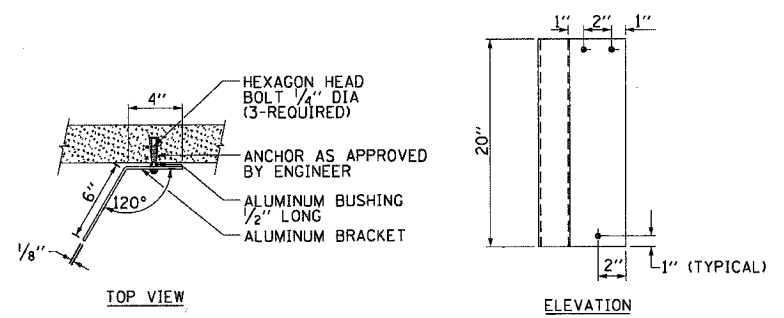
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			608	340
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



- NOTES:**
- LIQUID TIGHT FLEXIBLE METAL CONDUIT, MAXIMUM LENGTH 6'-0", TYPICAL FOR EACH INSTANCE AS SHOWN. PROVIDE PVC COATED RIGID GALVANIZED STEEL CONDUIT AS REQUIRED NOT TO EXCEED 6'-0" OF FLEXIBLE LIQUID TIGHT METAL CONDUIT. LIQUID TIGHT FLEXIBLE METAL CONDUIT WILL BE INCLUDED IN THE COST OF THE CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED PAY ITEM EXCEPT THAT 3/4" DIA. CONDUIT AND 3/4" DIA. FLEXIBLE CONDUIT SHALL BE INCLUDED IN THE COST OF UNDERPASS LUMINAIRE INSTALLATION.
 - SEE UNDERPASS LIGHTING PLANS FOR INSTALLATION LOCATION OF UNDERPASS LIGHTING LUMINAIRES.
 - THE CONTRACTOR SHALL USE APPROVED SINGLE COIL FLARED LOOP INSERTS WHEN SUSPENDING AN UNDERPASS LUMINAIRE TO A NEW BRIDGE DECK. THE FLARED LOOP INSERTS MUST BE CAST INTO THE CONCRETE DECK. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND COORDINATING THE INSERT LOCATIONS FOR MOUNTING THE UNDERPASS LIGHTING SYSTEM AS SHOWN ON THE PLANS WITH THE BRIDGE DECK CONTRACTOR. SEE DETAIL.
 - THE UNDERPASS LUMINAIRE HANGER ASSEMBLY COMPLETE WITH HEAVY DUTY ANCHORS/INSERTS AND ALL APPLICABLE HARDWARE SHALL BE INCLUDED IN THE COST OF THE UNDERPASS LUMINAIRE PAY ITEM.
 - SECURE THE CONDUIT WITH PVC COATED CONDUIT CLAMPS OR CONDUIT BEAM CLAMPS AS SHOWN AT 5'-0" INTERVALS FOR LATERALS AND WITHIN 2'-0" MAXIMUM FROM ANY JUNCTION BOX, FLEXIBLE CONDUIT, OR CHANGE IN DIRECTION. ALL PVC COATED CONDUIT CLAMPS OR BEAM CLAMPS SHALL BE INCLUDED WITH THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED" PAY ITEM.
 - ALL UNDERPASS LUMINAIRES MUST BE CENTERED IN THE BEAM SPACE AS INDICATED ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGR. LUMINAIRE SETBACK SHALL BE AS INDICATED IN PLANS FOR EACH SPECIFIC UNDERPASS
 - THE CONCRETE ENCASED CONDUIT TRANSITION SHALL BE INCLUDED IN THE COST OF THE GALVANIZED RIGID STEEL CONDUIT PAY ITEMS.
 - ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE PVC COATED RIGID STEEL CONDUIT (PVCC RGC) TYPICAL.



TYPICAL LUMINAIRE HANGER ASSEMBLY DETAILS



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUSPENDED MOUNT UNDERPASS LUMINAIRE INSTALLATION DETAILS

SCALE: VERT. HORIZ. DATE: 1/17/2007

DRAWN BY: CHECKED BY: BE-900

REVISION DATE: 01-01-2007

PLOT DATE = 1/17/2007
 PLOT SCALE = 1/8" = 1'-0"
 USER NAME = ulriched

VILLAGE OF SHOREWOOD LIGHTING GENERAL NOTES

- CAST A GROUND ROD 3/4" IN DIAMETER BY 10 FEET IN LENGTH INSIDE EVERY CONCRETE POLE FOUNDATION AND CONNECT TO THE POLE GROUNDING LUG VIA A #6 SOLID COPPER WIRE WITH A MECHANICAL CONNECTION AT THE GROUND ROD AND PIGTAIL SPLICE INSIDE THE POLE HANDHOLE.
- ALL POLE HANDHOLES SHALL FACE AWAY FROM TRAFFIC.
- UNIT DUCT SHALL BE 1/4" DIAMETER HDPE WITH 4/C #6 & 1/C #6 GROUND XLP-TYPE USE CABLES.
- LUMINAIRES SHALL BE LEVEL & HAVE A TIGHT FIT ON MAST ARMS TO THE OWNER'S SATISFACTION. THIS WORK SHALL INCLUDE FIELD ADJUSTING OF THE LUMINAIRE WHICH WILL BE INCIDENTAL TO THE "LIGHTPOLE" PAY ITEM.
- ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A PERMIT FROM THE VILLAGE OF SHOREWOOD BEFORE THE START OF WORK.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING SPECIFICATIONS, WHICH ARE HEREBY MADE A PART HEREOF:
 - "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS", AS PREPARED BY IDOT.
 - "THE NATIONAL ELECTRICAL CODE".
 - MUNICIPAL CODES & STANDARDS.
- NO POLES SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE CURED SUFFICIENTLY.
- TO MAINTAIN THE STRUCTURAL INTEGRITY OF LIGHT POLES WITH MAST ARMS, THEY SHALL NOT BE ERECTED AND LEFT TO STAND WITHOUT LUMINAIRES. NOTE THAT THE CONTRACTOR SHALL NOT BE PAID FOR POLES UNTIL LUMINAIRES ARE INSTALLED.
- BEFORE INSTALLING LIGHT STANDARDS NEAR OVERHEAD UTILITIES CALL COM ED FOR LOCATION APPROVAL.
- NO MATERIALS SHALL BE DELIVERED TO THE JOB SITE UNTIL ALL PERTINENT EQUIPMENT SUBMITTALS HAVE BEEN REVIEWED BY THE OWNER'S REPRESENTATIVE.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MARK THE PROPOSED LOCATIONS OF ALL LIGHT POLES AND LIGHTING CONTROLLERS FOR EXAMINATION AND CONFIRMATION WITH THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO AUGERING FOR LIGHT POLE FOUNDATIONS. THE EXACT LOCATIONS OF ALL PROPOSED ITEMS SHALL BE CONFIRMED WITH THE OWNER'S REPRESENTATIVE PRIOR TO STARTING WORK.
- THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR GROUNDING. GROUNDING CONNECTIONS AT THE FOUNDATION SHALL BE MECHANICAL TYPE UL LISTED FOR DIRECT BURIAL USE, AS SPECIFIED, AND SHALL BE REVIEWED BY THE OWNER'S REPRESENTATIVE PRIOR TO POURING CONCRETE OR BACKFILLING, AS APPLICABLE.
- THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENT FOR BURIED WARNING TAPE. SPECIFIED AS PART OF "TRENCH AND BACKFILL FOR ELECTRICAL WORK". THE INSTALLATION OF THE TAPE SHALL BE REVIEWED BY THE RESIDENT ENGINEER PRIOR TO BACKFILLING OR DURING PLOWING OPERATIONS, AS APPLICABLE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF FINISHED GRADE. THE OWNER'S REPRESENTATIVE MAY ASSIST THE CONTRACTOR, AS APPLICABLE, BUT THE RESPONSIBILITY FOR COORDINATING THE FINISHED GRADE ELEVATION WITH THE TOP OF THE FOUNDATIONS HEIGHTS AND THE LIGHT SHALL REMAIN WITH THE CONTRACTOR.
- THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR THE ELECTRICAL SERVICE FOR THE PROPOSED ROADWAY LIGHTING. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR TIMELY NOTIFICATION AND COORDINATION WITH THE ELECTRICAL UTILITY COMPANY.
- THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR WIRE MARKERS AND SHALL TAG ALL WIRE MARKERS AND SHALL TAG ALL WIRE ACCORDINGLY.
- EQUIPMENT GROUND CONDUCTORS SHALL BE SPLICED AND BONDED AT EACH LIGHT POLE OR OTHER PIECE OF EQUIPMENT.
- THE LIGHTING CONTROLLER SHALL BE CONSTRUCTED TO UL STANDARDS 508 AND 508A, AND BEAR THE LABEL "INDUSTRIAL CONTROL PANEL".
- ALL DISTURBED AREA WHERE RESTORATION IS NOT COVERED BY APPLICABLE SECTIONS OF THE SPECIAL PROVISIONS MUST BE RESTORED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE. THE WORK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT. SEPARATE PAYMENT WILL NOT BE MADE.
- THE EXACT LOCATIONS OF ALL UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONENTS OF THE LIGHTING SYSTEM. FOR THE LOCATIONS OF THE UTILITIES, CALL JULIE TOLL FREE AT 1-800-892-0123.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AS WELL AS SUPERVISION/DIRECTION AND MEANS/METHODS OF CONSTRUCTION.
- THE WORK PERFORMED UNDER THIS CONTRACT SHALL IN NO WAY INTERFERE WITH THE NORMAL OPERATION OF ANY EXISTING UTILITY SERVICE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ITEMS OF EQUIPMENT REQUIRED TO MAINTAIN SUCH NORMAL OPERATION AT NO ADDITIONAL COST TO THE OWNER. THE COST ASSOCIATED FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CONTRACT.
- LIGHTPOLES SHALL NOT BE INSTALLED CLOSER THAN 6 FEET FROM BACK OF CURB.
- THE CONTRACTOR SHALL PERFORM ELECTRICAL TESTING AND VERIFY THAT THE INSTALLTION COMPLIES WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS.

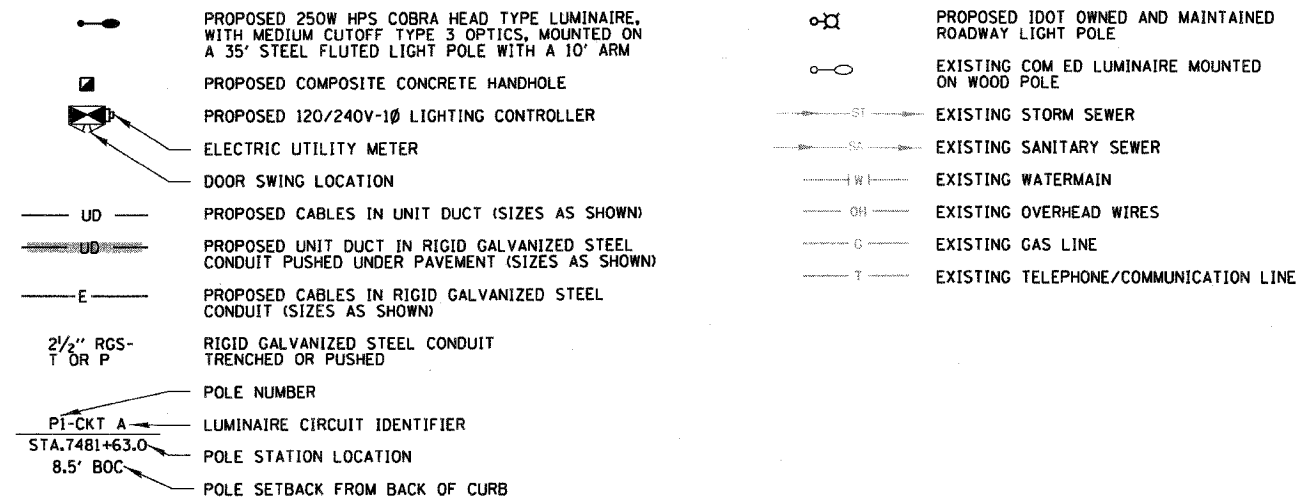
VILLAGE OF SHOREWOOD LIGHTING

SUMMARY OF QUANTITIES

CODE NO.	DESCRIPTION	UNIT	QUANTITY
20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	11
21301052	EXPLORATION TRENCH, 52" DEPTH	FOOT	192
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1
*80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1
81018600	CONDUIT PUSHED, 2 1/2" DIA. GALV. STEEL	FOOT	470
81018900	CONDUIT PUSHED, 4" DIA. GALV. STEEL	FOOT	90
81400730	HANDHOLE, COMPOSITE CONCRETE	EACH	1
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	8510
82500530	LIGHTING CONTROLLER TYPE CB-RCS 100AMP-240VOLT	EACH	1
*83600210	LIGHT POLE FOUNDATION, 24" DIAMETER, SPECIAL	FOOT	300
*83600215	LIGHT POLE FOUNDATION, 24" DIAMETER, OFFSET	FOOT	243
.	LIGHT POLE, COMPLETE IN PLACE, VILLAGE OF SHOREWOOD	EACH	48
.	UNIT DUCT, 600V, 4/C #6 & 1/C #6 GND (XLP-TYPE USE), IN 1/4" DIA. POLYETHYLENE	FOOT	9860

• SEE SPECIAL PROVISION

VILLAGE OF SHOREWOOD LIGHTING LEGEND



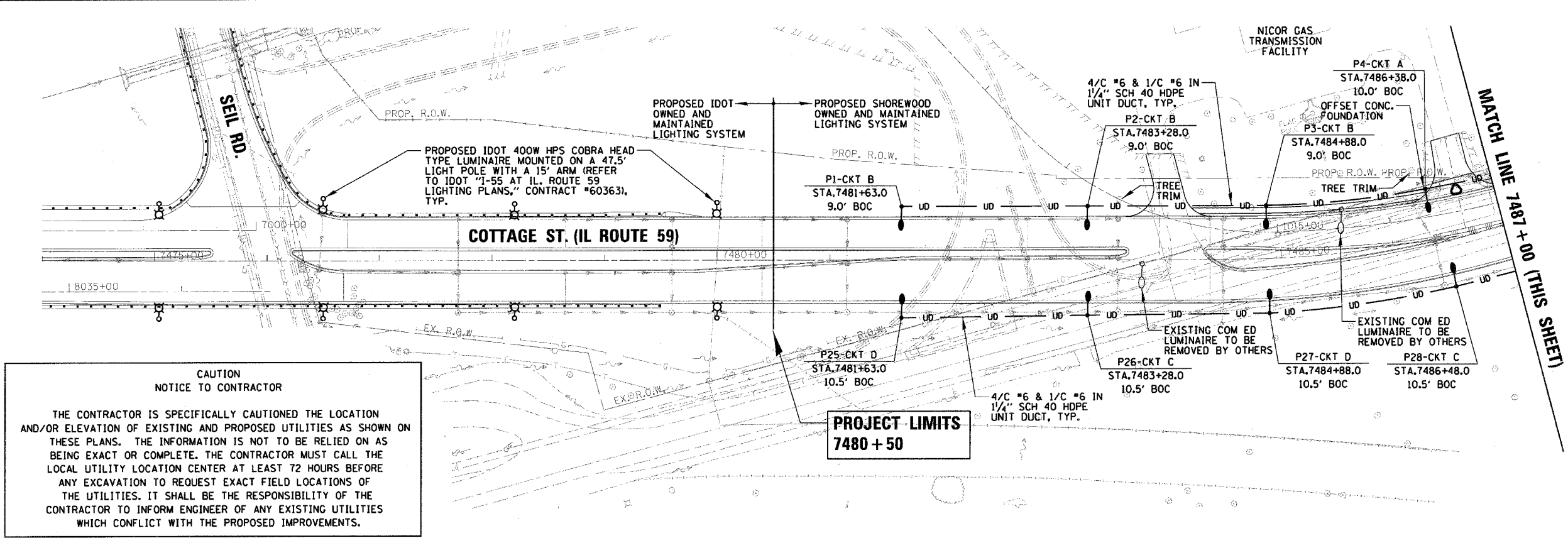
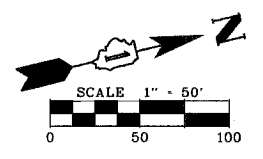
Anthony J. Derico
EXPIRES 11-30-09

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI 55 AT FAP 338 ILLINOIS ROUTE 59
 SECTION: 26HB-1BR AND 114R-1
 VILLAGE OF SHOREWOOD
 IL 59 - LIGHTING SUMMARY OF
 QUANTITIES AND GENERAL NOTES
 STA. 7480+50 TO STA. 7521+00
 SCALE: N.T.S. DRAWN BY: KB
 DATE: 3/14/2008 CHECKED BY: AJD
 CHRISTOPHER B. BURKE ENGINEERING, LTD.
 202 W. Morgan Road, Suite 100
 Huntley, IL 60142
 (815) 833-8900

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59	.	WILL	608	341
STA. 7480+50		TO STA. 7521+00		
FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT		
• 26HB-1BR AND 114R-1		CONTRACT NO. 60363		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59		WILL	608	342
STA. 7480+50		TO STA. 7499+00		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
* 26HB-1BR AND 114R-1 CONTRACT NO. 60363				

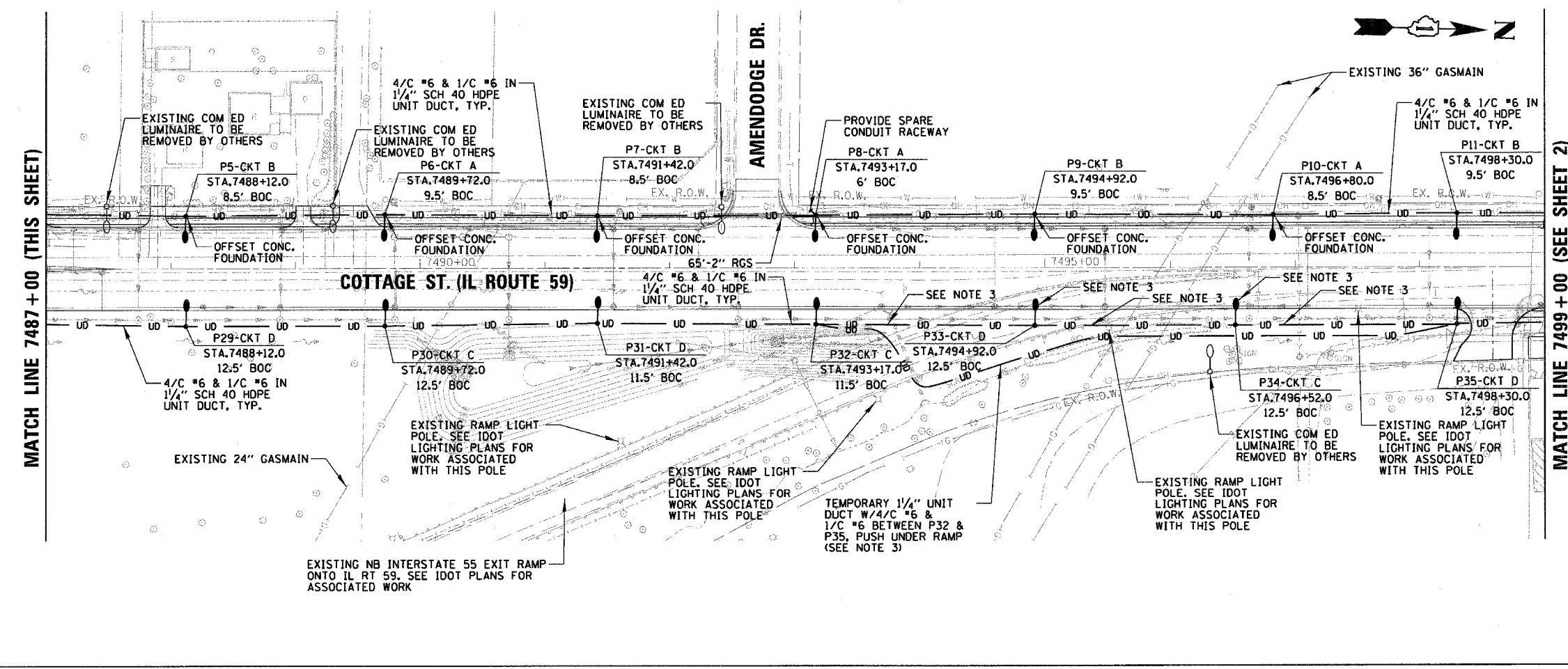


**CAUTION
NOTICE TO CONTRACTOR**

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND/OR ELEVATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THESE PLANS. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ENGINEER OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS.

NOTES:

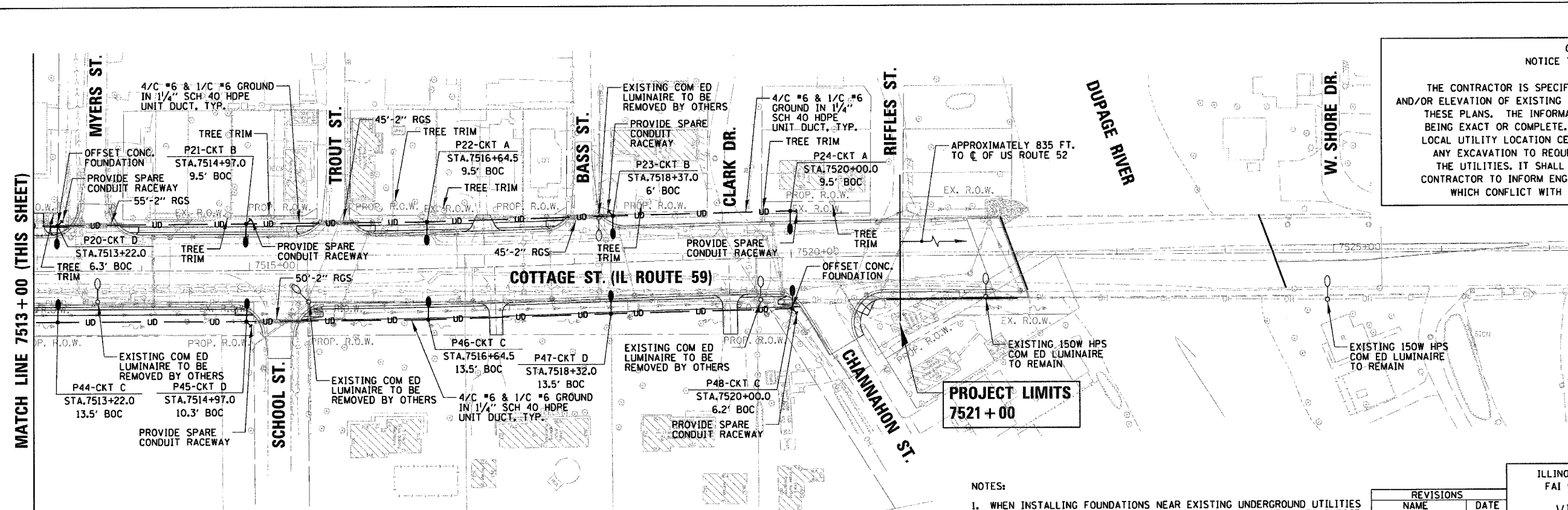
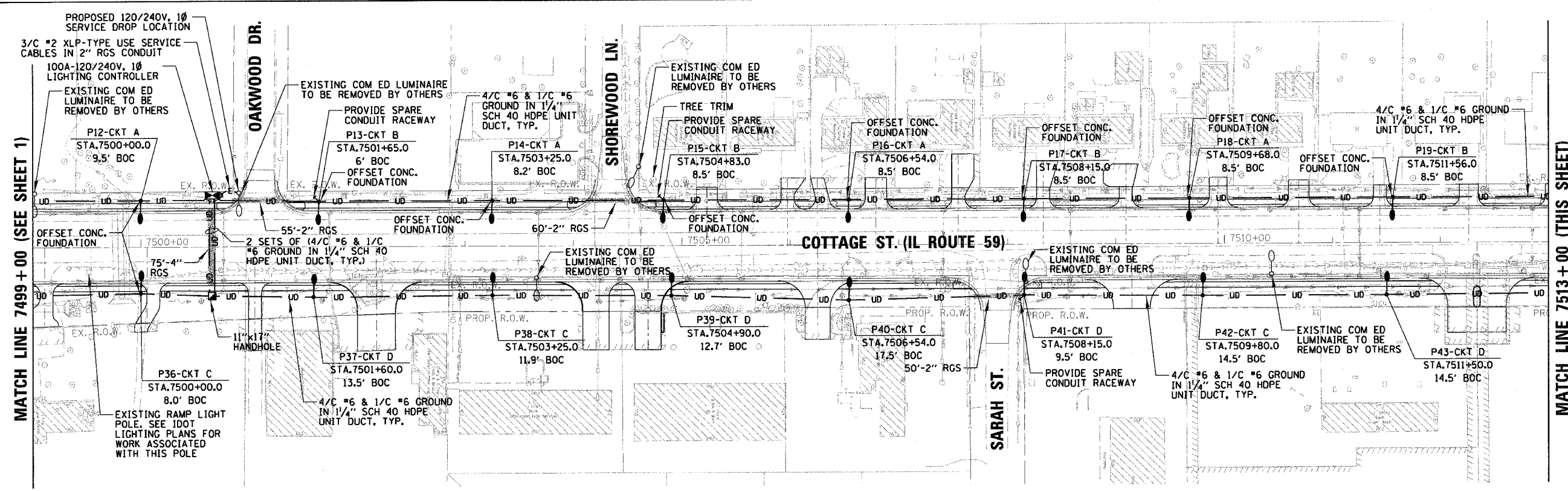
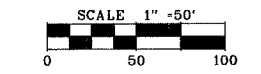
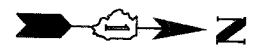
1. WHEN INSTALLING FOUNDATIONS NEAR EXISTING UNDERGROUND UTILITIES THE CONTRACTOR MAY CONSTRUCT AN EXPLORATORY TRENCH TO EXPOSE THE UTILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES. ANY EXPLORATORY TRENCHES REQUIRED WILL BE PAID FOR UNDER EXPLORATORY TRENCH.
2. DRILLING FOR FOUNDATIONS NEAR EXISTING UNDERGROUND UTILITIES MAY ENCOUNTER TRENCH BACKFILL AND MAY REQUIRE SLEEVING TO PREVENT BACKFILL FROM RUNNING INTO THE EXCAVATION. ANY SLEEVING REQUIRED SHALL BE INCLUDED IN THE FOUNDATION PAY ITEM.
3. EXISTING NB INTERSTATE 55 EXIT RAMP ONTO IL RT 59 WILL BE KEPT IN OPERATION AFTER LIGHT POLES ON EAST SIDE OF RT 59 ARE INSTALLED. LIGHT POLES P33 & P34 AND ASSOCIATED CONDUIT/WIRING SHALL BE INSTALLED AFTER RAMP IS CLOSED AND REMOVED. CONTRACTOR SHALL INSTALL TEMPORARY CONDUIT/WIRING AS SHOWN TO KEEP LIGHTS ON EAST SIDE OF RT 59 SOUTH OF RAMP OPERATIONAL. AFTER RAMP IS CLOSED AND REMOVED, POLES P33 & P34 AND PERMANENT CONDUIT/WIRING BETWEEN POLES P32 & P35 SHALL BE INSTALLED; THEN TEMPORARY CONDUIT/WIRING SHALL BE ABANDONED.



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI 55 AT FAP 338 ILLINOIS ROUTE 59
 SECTION: 26HB-1BR AND 114R-1
 VILLAGE OF SHOREWOOD
 PROPOSED IL 59
 LIGHTING PLAN (1 OF 2)
 STA. 7480+50 TO STA. 7499+00
 SCALE: 1" = 50'-0"
 DATE: 3/14/2008
 DRAWN BY: KB
 CHECKED BY: AJD
 CHRISTOPHER B. BURKE ENGINEERING, LTD.
 5075 W. Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 925-2600

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59	*	WILL	608	343
STA. 7499+00		TO STA. 7521+00		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
* 26HB-1BR AND 114R-1 CONTRACT NO. 60363				



**CAUTION
NOTICE TO CONTRACTOR**

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND/OR ELEVATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THESE PLANS. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ENGINEER OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS.

**PROJECT LIMITS
7521+00**

- NOTES:
- WHEN INSTALLING FOUNDATIONS NEAR EXISTING UNDERGROUND UTILITIES THE CONTRACTOR MAY CONSTRUCT AN EXPLORATORY TRENCH TO EXPOSE THE UTILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES. ANY EXPLORATORY TRENCHES REQUIRED WILL BE PAID FOR UNDER EXPLORATORY TRENCH.
 - DRILLING FOR FOUNDATIONS NEAR EXISTING UNDERGROUND UTILITIES MAY ENCOUNTER TRENCH BACKFILL AND MAY REQUIRE SLEEVING TO PREVENT BACKFILL FROM RUNNING INTO THE EXCAVATION. ANY SLEEVING REQUIRED SHALL BE INCLUDED IN THE FOUNDATION PAY ITEM.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI 55 AT FAP 338 ILLINOIS ROUTE 59
 SECTION: 26HB-1BR AND 114R-1
 VILLAGE OF SHOREWOOD
 PROPOSED IL 59
 LIGHTING PLAN (2 OF 2)
 STA. 7499+00 TO STA. 7521+00
 SCALE: 1" = 50'-0"
 DATE: 3/14/2008
 DRAWN BY: KB
 CHECKED BY: AJD

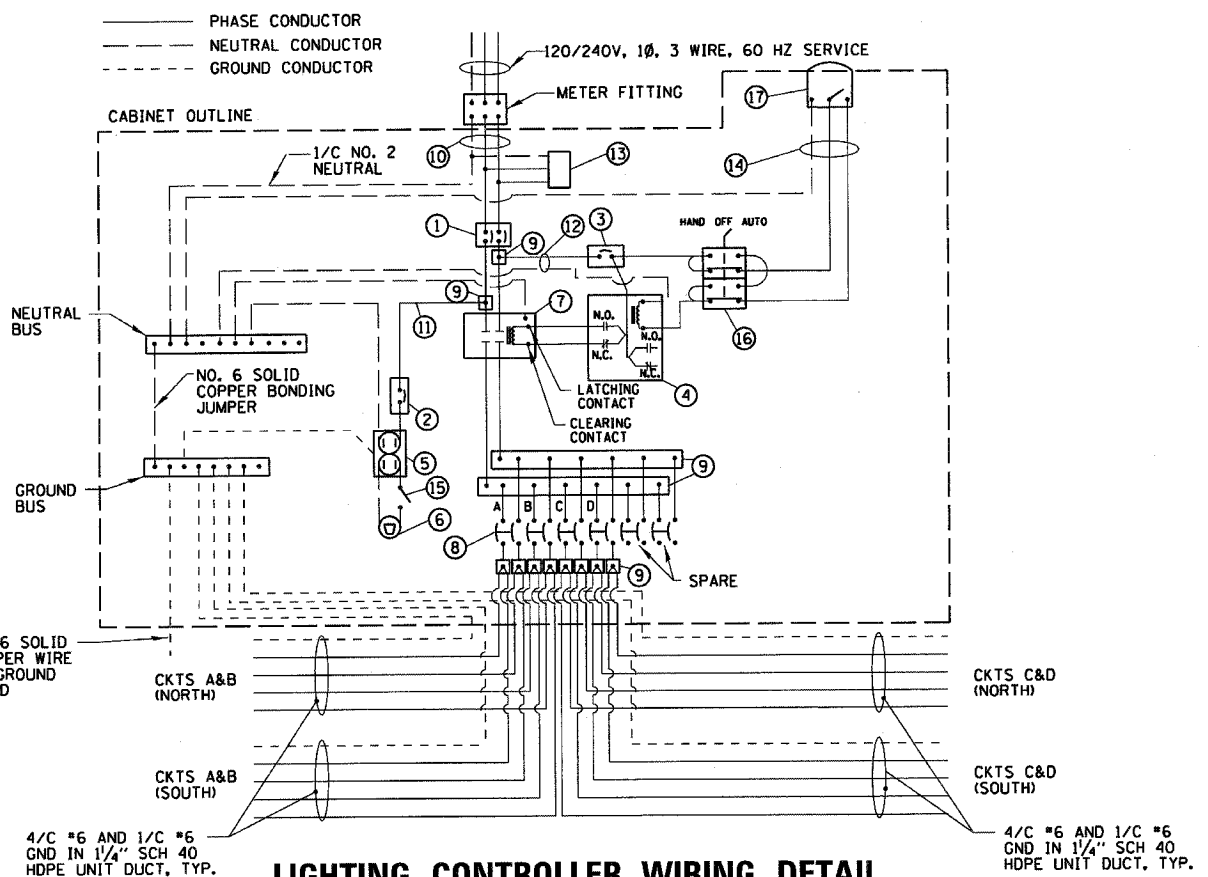
CHRISTOPHER B. BURKE ENGINEERING, LTD.
 1015 W. Higgins Road, Suite 500
 Rosemont, Illinois 60018
 (815) 822-6000

ITEM	SPECIFICATION	MANUFACTURER/MODEL NO. OR EQUAL
1 MAIN CIRCUIT BREAKER	100 AMPERE, 2P, 240V SERVICE RATING, 22KAIC	SIEMENS NO. ED42B100
2 LAMPHOLDER CIRCUIT BREAKER	20 AMPERE, 1P, 120V RATING, 22KAIC	SIEMENS NO. ED41B020
3 PHOTOELECTRIC CONTROL CIRCUIT BREAKER	15 AMPERE, 1P, 120V RATING, 22KAIC	SIEMENS NO. ED41B015
4 AUXILIARY RELAY	120 V OPERATED DPDT 60 HZ COIL 2 NO & 2 NC CONTACTS	MAGNECRAFT NO. 389 FXBXC1 - 120A
5 CABINET RECEPTACLE AND BOX	COMMERCIAL GRADE GFCI 20A/120V, MOUNTED IN A WEATHERPROOF CAST ALUMINUM SINGLE GANG BOX WITH WEATHERPROOF COVER	RECEPTACLE: LEVITON NO. 8899, BOX: APPLETON NO. WSM150 COVER: APPLETON NO. WHG1
6 CABINET LIGHT AND BOX	120V WEATHERPROOF LAMPHOLDER MOUNTED IN A CAST ALUMINUM BOX & EXT. GRADE 100W LAMP	LIGHT & BOX: RAB NO. VX100DG
7 CONTACTOR	100 AMPERE, 2 POLE, 120 V COIL, MECH HELD	SQUARE D NO. 8903 S00 10 V02
8 BRANCH LINE CIRCUIT BREAKERS	6 - 30 AMPERE, 2P, 240V RATING, 22KAIC	SIEMENS NO. ED42B030
9 POWER DISTRIBUTION BLOCK	600 VOLT, INSULATED, SIZE AS REQUIRED	MARATHON
10 SERVICE CABLES	3-600V (XLP-TYPE USE) NO. 2	N/A
11 LAMPHOLDER WIRE	2-600V XLP NO. 12	N/A
12 CONTROL WIRE	2-600V XLP NO. 12	N/A
13 SURGE ARRESTOR	10 K AMPERE RATING	SQUARE D NO. SDSA 1175
14 PHOTOELECTRIC CONTROL WIRE	3-600V XLP NO. 12	N/A
15 DOOR SWITCH	20A/120V, DOOR MOUNTED SNAP ACTION TYPE PLUNGER SWITCH	OMRON NO. A-20G0-K
16 HAND-AUTO-OFF CONTROL SWITCH	20 A, 3 POS. MTD IN CAST ALUM. ENCLOSURE	SQUARE D NO. 9001 KYK 111
17 PHOTOCCELL	120V, MTD. ON CABINET, DELAY TYPE, SPST-NC	FISHER PIERCE NO. FPFA-105

NOTES:

- ALL ITEMS LISTED IN LIGHTING CONTROLLER COMPONENT SCHEDULE SHALL BE CONSIDERED INCIDENTAL TO THE PRICE BID FOR "LIGHTING CONTROLLER" INCLUDING CABINET AND FOUNDATION.
- THE LIGHTING CONTROLLER TOGETHER WITH ALL OF ITS COMPONENTS SHALL BE UL LISTED AS AN "ENCLOSED INDUSTRIAL CONTROL PANEL" UNDER UL508A.
- CONNECTION OF SURGE ARRESTOR TO LINE SIDE OF MAIN CIRCUIT BREAKER SHALL NOT BE "DOUBLE LUGGED."

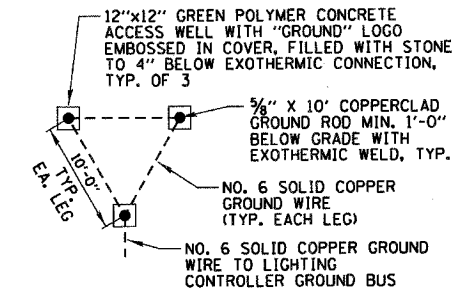
LIGHTING CONTROLLER COMPONENT SCHEDULE



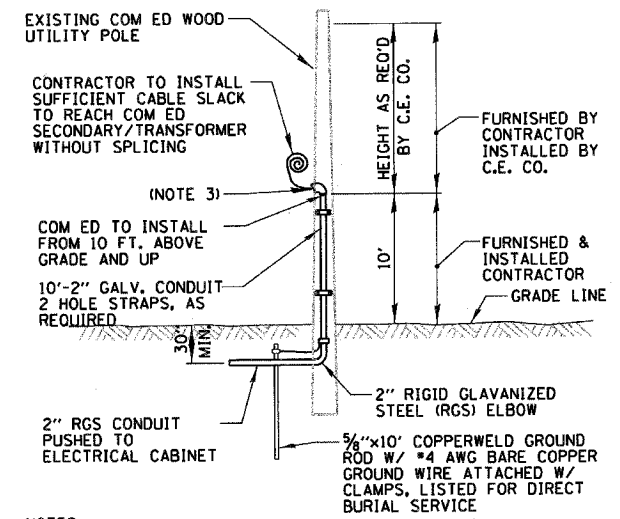
LIGHTING CONTROLLER WIRING DETAIL
N.T.S.

CIRCUIT ID	250W ROADWAY LUMINAIRE		TOTAL CIRCUIT LOAD	
	QTY.	LOAD/FIXT. (WATTS)	(WATTS)	AMPS (240V)
A	12	305 W	3660 W	15.25 A
B	12	305 W	3660 W	15.25 A
C	12	305 W	3660 W	15.25 A
D	12	305 W	3660 W	15.25 A
TOTAL	48	N/A	14640 W	61.0 A

LIGHTING CONTROLLER CIRCUIT LOADS



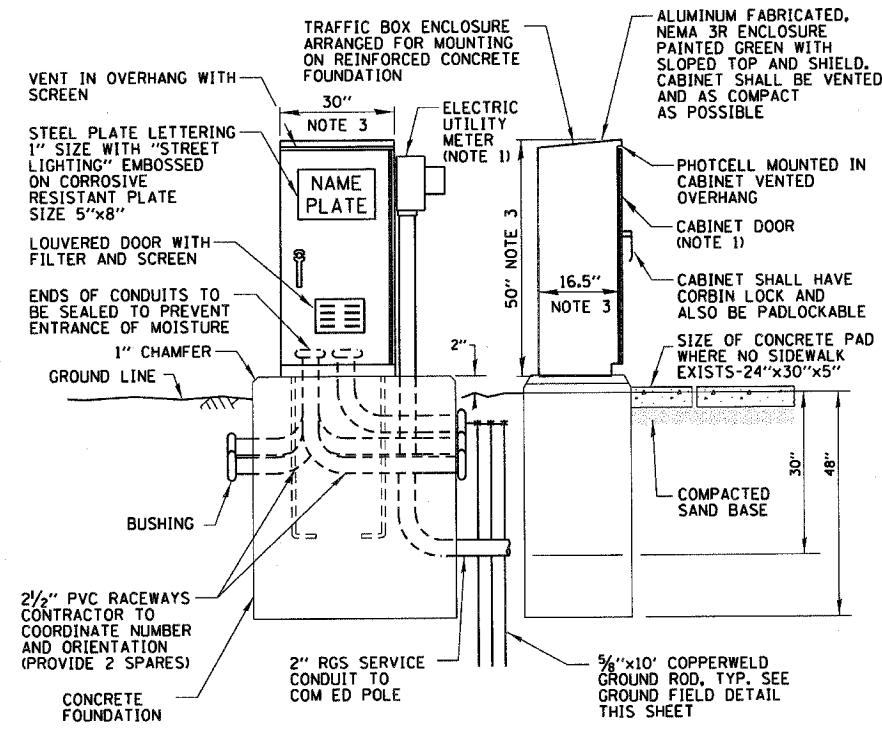
GROUND FIELD DETAIL (TYP.)
N.T.S.



NOTES:

- ALL WORK SHALL CONFORM TO COM ED'S BOOK OF "INFORMATION AND REQUIREMENTS FOR THE SUPPLY OF ELECTRIC SERVICE."
- FURNISHING AND INSTALLING ALL MATERIAL SHOWN ABOVE (EXCEPT FOR POLE) SHALL BE INCLUDED IN THE PRICE BID FOR "ELECTRIC SERVICE INSTALLATION". THE HORIZONTAL SERVICE CONDUIT AND WIRING FROM POLE TO CONTROLLER SHALL BE INCLUDED IN THIS PAY ITEM, AND WILL NOT BE PAID FOR SEPARATELY.
- CONTRACTOR TO PROVIDE A WEATHER HEAD AT TOP OF RISER.

COM ED OVERHEAD CONNECTION POLE
N.T.S.



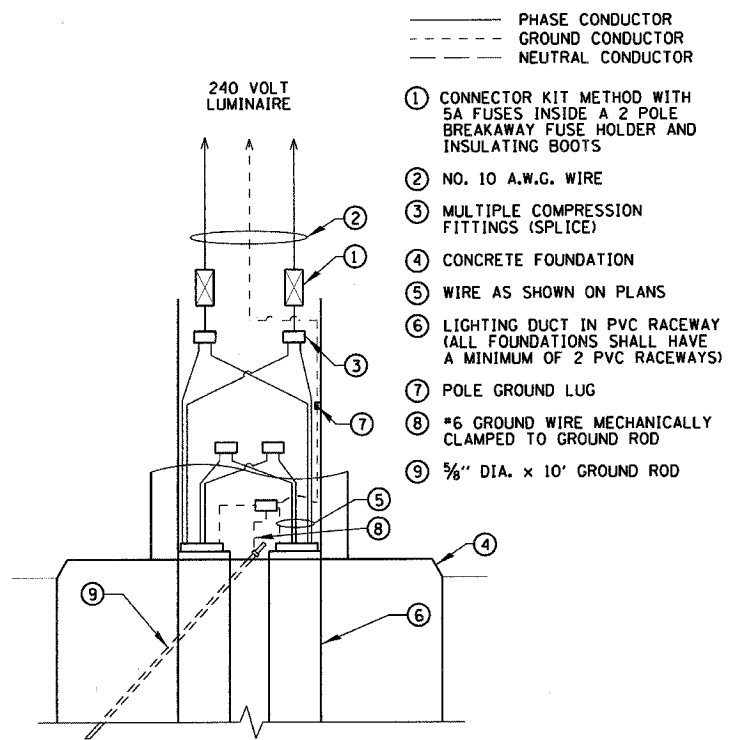
NOTES:

- SEE LIGHTING PLAN DRAWINGS FOR METER & DOOR ORIENTATION.
- ALL ITEMS SHOWN ABOVE (INCLUDING FOUNDATION & GROUND FIELD) SHALL BE INCLUDED IN THE PRICE BID FOR "LIGHTING CONTROLLER", EXCEPT FOR THE SERVICE CONDUIT WHICH WILL BE PAID FOR UNDER "ELECTRIC SERVICE INSTALLATION."
- CABINET DIMENSIONS SHOWN ARE APPROXIMATE, CABINET SHALL BE AS COMPACT AS POSSIBLE. CONTRACTOR TO COORDINATE.

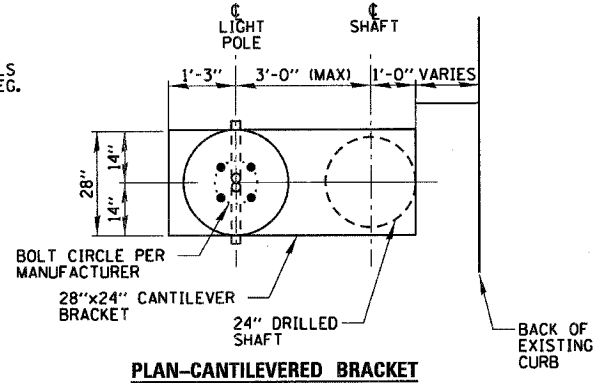
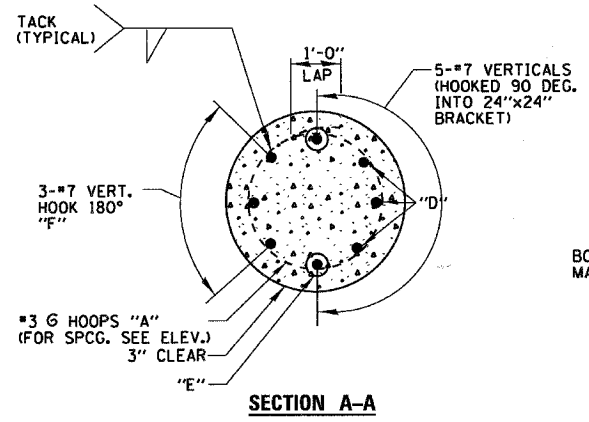
PROPOSED LIGHTING CONTROLLER CABINET AND FOUNDATION
N.T.S.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI 55 AT FAP 338 ILLINOIS ROUTE 59
 SECTION: 26HB-1BR AND 114R-1
 VILLAGE OF SHOREWOOD
 PROPOSED IL 59
 LIGHTING DETAILS (1 OF 3)
 STA. 7480+50 TO STA. 7521+00
 SCALE: N.T.S. DRAWN BY: KB
 DATE: 3/14/2008 CHECKED BY: AJD
 CHRISTOPHER B. BURKE ENGINEERING, LTD.
 8278 W. Higgins Road, Suite 800
 Rosemont, Illinois 60018
 (630) 833-0020

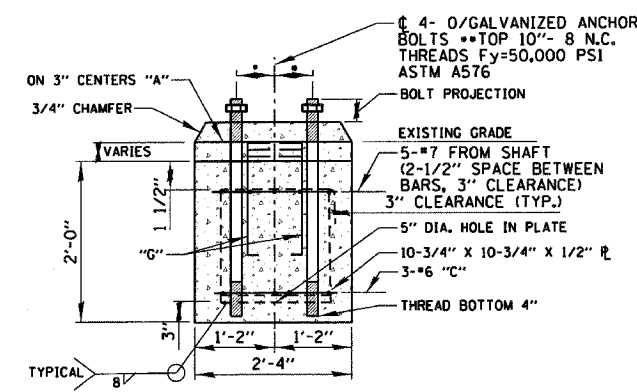


POLE HANDHOLE WIRING DIAGRAM
N.T.S.

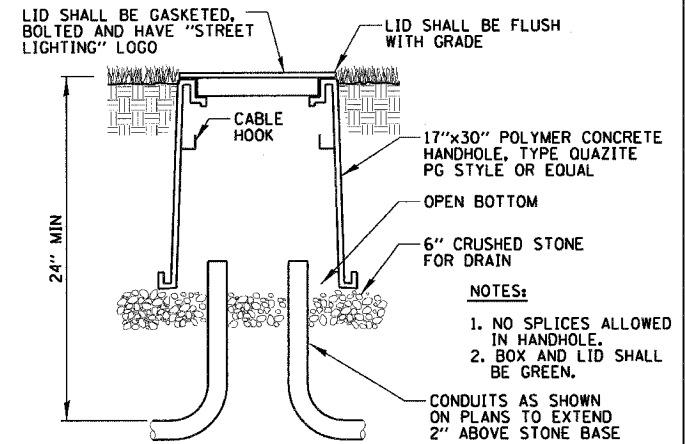


PLAN-CANTILEVERED BRACKET

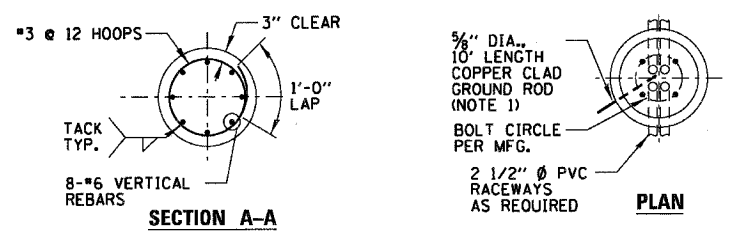
- NOTES:
- BOLT CIRCLE PER MANUFACTURER
 - THE TOP OF THE ANCHOR BOLTS SHALL NOT PROJECT MORE THAN 4" ABOVE A 60" CHORD ALIGNED RADJALLY TO THE CENTERLINE OF THE ROADWAY, AND CONNECTING ANY POINT, WITHIN THE LENGTH OF THE CHORD, ON THE GROUND SURFACE ON ONE SIDE OF THE SUPPORT TO A POINT ON THE GROUND SURFACE ON THE OTHER SIDE.
- CONCRETE SHALL BE 3500 PSI AT 14 DAYS
 - HOLE FOR FOUNDATION SHAFT SHALL BE AUGERED
 - REINFORCING BARS SHALL CONFORM TO BILLET STEEL BARS. (ASTM-A615) SPECIFICATIONS WITH A 6000 PSI MINIMUM YIELD STRENGTH.
 - FOUNDATION AS SHOWN REPRESENTS 13.5 LINEAL FEET FOR LIGHT POLE FOUNDATION, OFFSET, 24" DIAMETER.
 - GROUND ROD SHALL BE CAST INTO CONCRETE FOUNDATION WITH 8 FEET IN CONTACT WITH SOIL & SHALL BE INCIDENTAL TO THE FOUNDATION.
 - USE THIS OFFSET FOUNDATION FOR POLES WHERE INDICATED ON THE LIGHTING PLAN SHEETS.
 - FOUNDATIONS SHALL NOT PROTRUDE MORE THAN 4" ABOVE FINISHED GRADE INCLUDING ANCHOR RODS.



SECTION B-B



COMPOSITE CONCRETE HANDHOLE DETAIL
N.T.S.

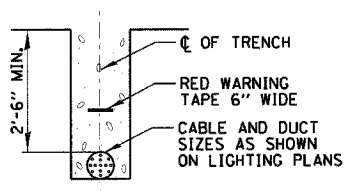


SECTION A-A

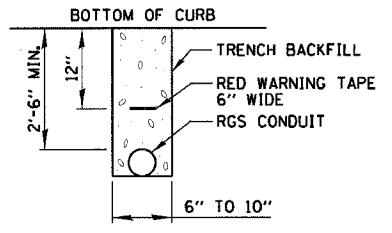
PLAN

- NOTES:
- GROUND ROD SHALL BE CAST INTO CONCRETE FOUNDATION WITH 8 FEET IN CONTACT WITH SOIL & SHALL BE INCIDENTAL TO THE FOUNDATION.
 - FOUNDATION WILL BE PAID FOR UNDER "LIGHT POLE FOUNDATION, 24" DIAMETER, SPECIAL".
 - USE THIS FOUNDATION FOR ALL LIGHT POLES, UNLESS OTHERWISE INDICATED, ON LIGHTING PLAN SHEETS.
 - FOUNDATIONS SHALL NOT PROTRUDE MORE THAN 4" ABOVE FINISHED GRADE INCLUDING ANCHOR RODS.

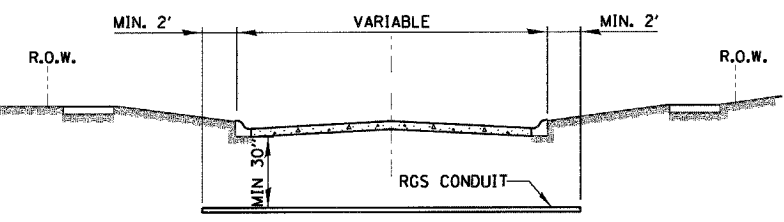
CONCRETE FOUNDATION DETAIL
N.T.S.



TRENCH CROSS SECTION



TRENCH SECTION

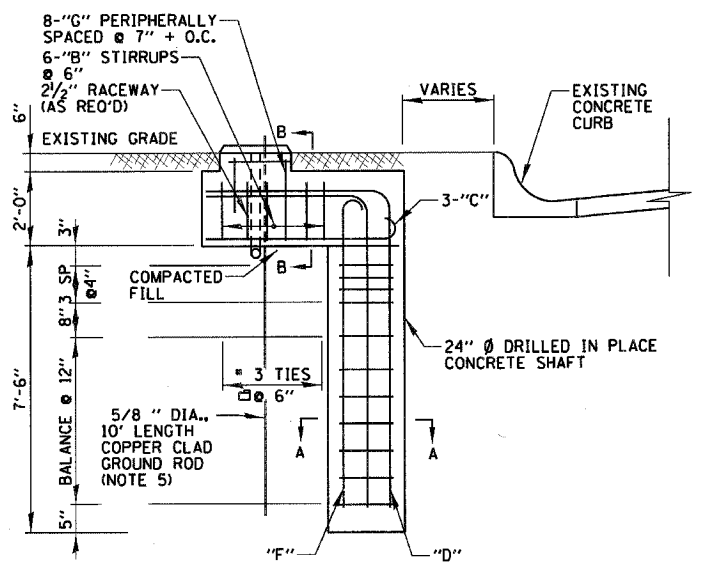


STREET CROSSING

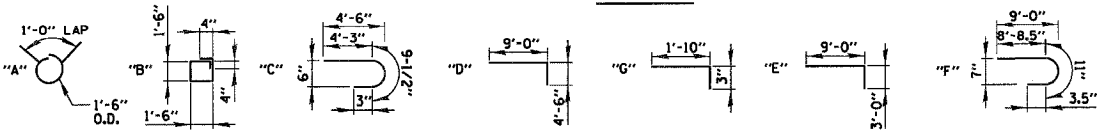
- CONDUIT SHALL BE HEAVY WALL RGS CONDUIT.
- CONDUIT SHALL EXTEND A MINIMUM OF 2 FT. BEYOND BACK OF CURB.
- CONDUIT SHALL BE A MINIMUM OF 30" BELOW CURB BOTTOM.

ELECTRIC CONDUIT UNDER PAVEMENT
N.T.S.

BILL OF MATERIALS				
QUAN.	MARK	SIZE	LENGTH	SHAPE
11	A	NO. 3	5'-9"	○
6	B	NO. 3	6'-8"	□
3	C	NO. 6	5'-3 1/2"	○
8	G	NO. 6	2'-1"	□
3	D	NO. 7	13'-6"	□
2	E	NO. 7	12'-0"	□
3	F	NO. 7	9'-11"	□
REINFORCING BARS LBS.				285
CLASS X CONCRETE CU. YDS.				1.7
ANCHOR BOLTS NO.				4
ANCHOR BOLT PLATE NO.				1



ELEVATION

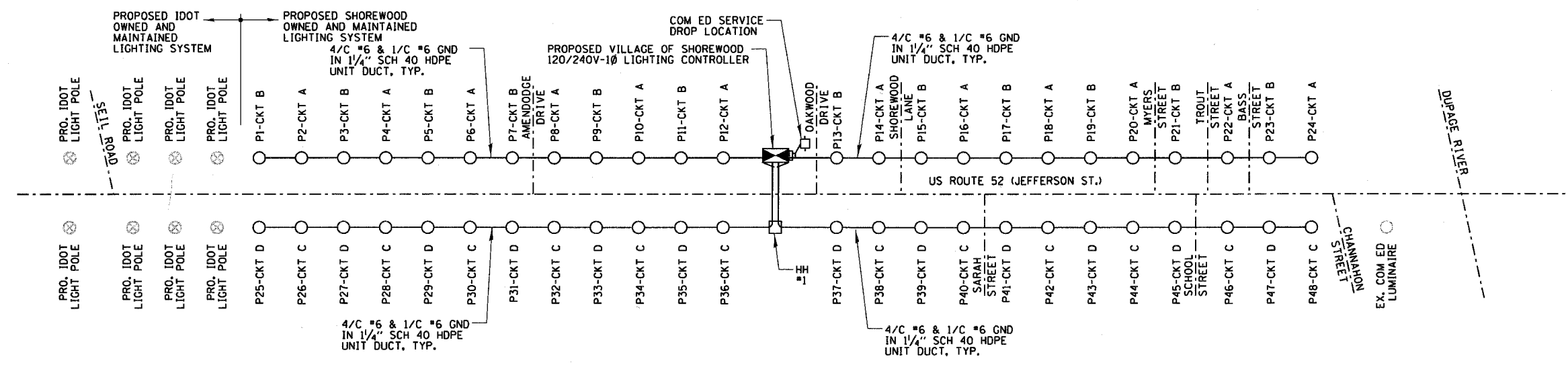


OFFSET CONCRETE FOUNDATION DETAIL
N.T.S.

REVISIONS	
NAME	DATE

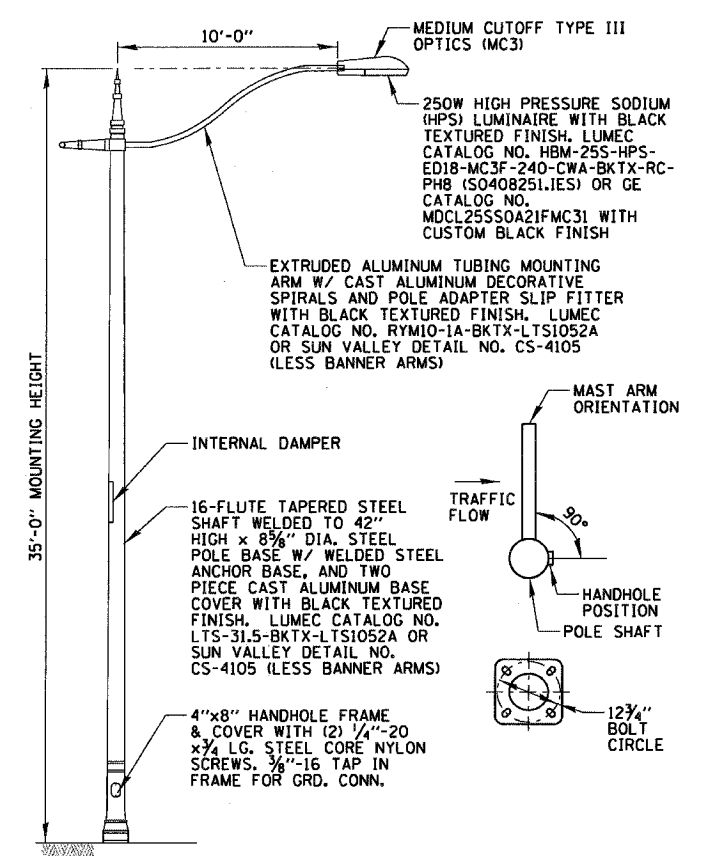
ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI 55 AT FAP 338 ILLINOIS ROUTE 59
 SECTION: 26HB-1BR AND 114R-1
 VILLAGE OF SHOREWOOD
 PROPOSED IL 59
 LIGHTING DETAILS (2 OF 3)
 STA. 7480+50 TO STA. 7521+00
 SCALE: N.T.S. DRAWN BY: KB
 DATE: 3/14/2008 CHECKED BY: AJD
 CHRISTOPHER B. BURKE ENGINEERING, LTD.
 4075 W. Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-9500

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59		WILL	608	348
STA.	7480+50	TO STA.	7521+00	
FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT		
26HB-1BR AND 114R-1		CONTRACT NO. 60363		



- LEGEND**
- PROPOSED VILLAGE OF SHOREWOOD LIGHT POLE
 - ⊗ IDOT PROPOSED LIGHT POLE
 - EXISTING COM ED LUMINAIRE (TO REMAIN)
 - ELECTRIC LINE
 - ⊞ CONTROLLER
 - HANDHOLE
 - POLE NUMBER
 - P1-CKT A — CIRCUIT IDENTIFIER
 - - - ROADWAY

ONE LINE CIRCUIT DIAGRAM FOR LIGHTING CONTROLLER
N.T.S.



LIGHT POLE DETAIL
N.T.S.

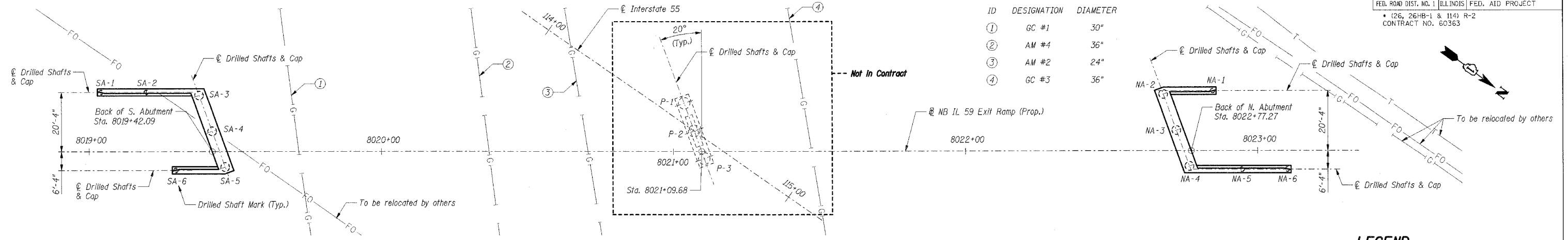
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI 55 AT FAP 338 ILLINOIS ROUTE 59
 SECTION: 26HB-1BR AND 114R-1
VILLAGE OF SHOREWOOD
 PROPOSED IL 59
 LIGHTING DETAILS (3 OF 3)
 STA. 7480+50 TO STA. 7521+00
 SCALE: N.T.S. DRAWN BY: KB
 DATE: 3/14/2008 CHECKED BY: AJD

CHRISTOPHER B. BURKE ENGINEERING, LTD.
 8075 W. Higgins Road, Suite 800
 Rosemont, Illinois 60018
 (847) 622-0000

KINDER MORGAN GAS PIPELINES

ID	DESIGNATION	DIAMETER
①	GC #1	30"
②	AM #4	36"
③	AM #2	24"
④	GC #3	36"



SUBSTRUCTURE LAYOUT

Mark	DRILLED SHAFT SCHEDULE												QUANTITIES		
	Location		Drilled Shaft in Soil		Drilled Shaft in Rock		Reinforcement			Top of Drilled Shaft Elevation	Estimated Top of Rock Elevation*	Existing Grade Elevation*	Drilled Shaft in Soil (Cu Yd)	Drilled Shaft in Rock (Cu Yd)	Reinforcing Bars (Lbs)
	Station	Offset	Diameter	Length "L1"	Diameter	Length "L2"	Vertical Bars "A"	Vertical Bars "B"	Spiral Bar						
SA-1	8019+04.09	-20.33	24"	39'-10"	18"	2'-0"	6-#8v21	6-#8v20	1-#4sp20	611.32	571.5	593.6	4.7	0.2	1,010
SA-2	8019+19.59	-20.33	24"	39'-10"	18"	2'-0"	6-#8v21	6-#8v20	1-#4sp20	611.32	571.5	593.6	14.3	0.5	1,010
SA-3	8019+37.62	-19.22	42"	39'-10"	36"	2'-0"	12-#9v23	12-#9v22	1-#4sp21	611.32	571.5	593.6	14.3	0.5	2,620
SA-4	8019+42.07	-7.00	42"	39'-10"	36"	2'-0"	12-#9v23	12-#9v22	1-#4sp21	611.32	571.5	593.6	14.3	0.5	2,620
SA-5	8019+46.51	5.22	42"	39'-10"	36"	2'-0"	12-#9v23	12-#9v22	1-#4sp21	611.32	571.5	593.6	4.7	0.2	2,620
SA-6	8019+29.65	6.33	24"	39'-10"	18"	2'-0"	6-#8v21	6-#8v20	1-#4sp20	611.32	571.5	593.6	4.7	0.2	1,010
P-1	8021+03.71	-16.40	54"	15'-6"	48"	2'-0"	12-#11v29	12-#11v28	1-#4sp24	585.00	569.5	591.2	9.1	1.0	2,370
P-2	8021+07.13	-7.00	54"	15'-6"	48"	2'-0"	12-#11v29	12-#11v28	1-#4sp24	585.00	569.5	591.2	9.1	1.0	2,370
P-3	8021+10.55	-2.40	54"	15'-6"	48"	2'-0"	12-#11v29	12-#11v28	1-#4sp24	585.00	569.5	591.2	9.1	1.0	2,370
NA-1	8022+84.61	-20.33	24"	39'-5"	18"	2'-0"	6-#8v25	6-#8v24	1-#4sp22	612.87	573.5	595.9	4.7	0.2	1,000
NA-2	8022+67.75	-19.22	42"	39'-5"	36"	2'-0"	12-#9v27	12-#9v26	1-#4sp23	612.87	573.5	595.9	14.3	0.5	2,600
NA-3	8022+72.20	-7.00	42"	39'-5"	36"	2'-0"	12-#9v27	12-#9v26	1-#4sp23	612.87	573.5	595.9	14.3	0.5	2,600
NA-4	8022+76.64	-5.22	42"	39'-5"	36"	2'-0"	12-#9v27	12-#9v26	1-#4sp23	612.87	573.5	595.9	14.3	0.5	2,600
NA-5	8022+94.67	6.33	24"	39'-5"	18"	2'-0"	6-#8v25	6-#8v24	1-#4sp22	612.87	573.5	595.9	4.7	0.2	1,000
NA-6	8023+10.17	6.33	24"	39'-5"	18"	2'-0"	6-#8v25	6-#8v24	1-#4sp22	612.87	573.5	595.9	4.7	0.2	1,000

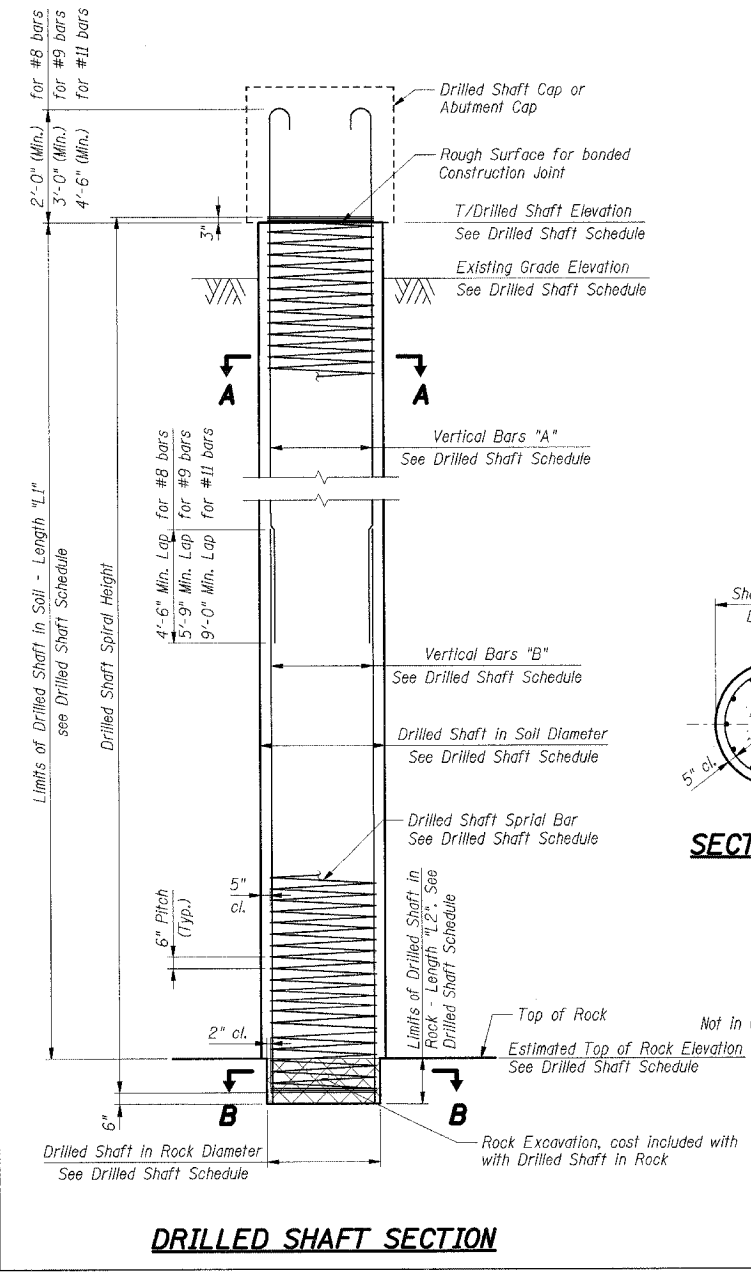
* Estimated elevations and Length "L1" for information only

BILL OF MATERIAL - ABUTMENTS

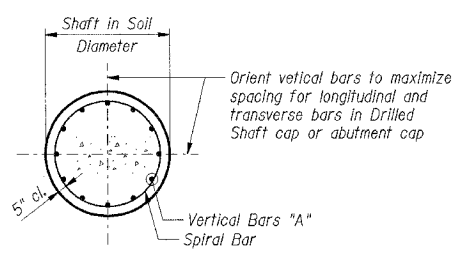
Item	Unit	Total
Drilled Shaft in Soil	Cu Yd	114.0
Drilled Shaft in Rock	Cu Yd	4.2
Reinforcement Bars	Lbs	21,690

BILL OF MATERIAL - PIER

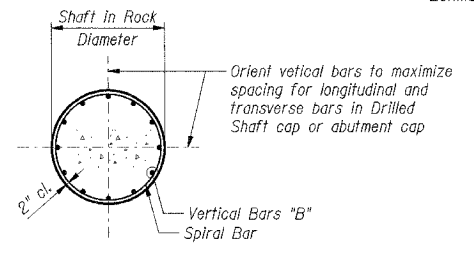
Item	Unit	Total
Drilled Shaft in Soil	Cu Yd	27.3
Drilled Shaft in Rock	Cu Yd	3.0
Reinforcement Bars	Lbs	7,110



SECTION A-A



SECTION B-B



Bar	A	B
sp20	41'-7"	1'-2"
sp21	41'-7"	2'-8"
sp22	41'-2"	1'-2"
sp23	41'-2"	2'-8"
sp24	17'-3"	3'-8"

BAR LIST - ABUTMENTS

Bar	No.	Size	Length	Shape
sp20	3	#4	41'-7"	WWW
sp21	3	#4	41'-7"	WWW
sp22	3	#4	41'-2"	WWW
sp23	3	#4	41'-2"	WWW
v20	18	#8	24'-0"	—
v21	18	#8	25'-0"	—
v22	36	#9	25'-0"	—
v23	36	#9	26'-7"	—
v24	18	#8	24'-0"	—
v25	18	#8	24'-7"	—
v26	36	#9	25'-0"	—
v27	36	#9	26'-2"	—

** Length is height of spiral, not the actual bar length. The mass of spiral bars is based upon 30 ft maximum bar length with 2'-0" minimum lap splices.

BAR LIST - PIER

Bar	No.	Size	Length	Shape
sp24	3	#4	17'-3"	WWW
v24	36	#11	15'-3"	—
v25	36	#11	17'-1"	—

** Length is height of spiral, not the actual bar length. The mass of spiral bars is based upon 30 ft maximum bar length with 2'-0" minimum lap splices.

SHT. S-3 OF S-24

REVISIONS	DATE
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
 IL ROUTE 59 OVER F.A.I. 55 (I-55)
 SECTION (26, 26HB-1 & 114) R-2
 STRUCTURE NUMBER 099-4642
 STATION 8021+17.13, WILL COUNTY

SUBSTRUCTURE LAYOUT
 DRILLED SHAFT DETAILS AND SCHEDULE

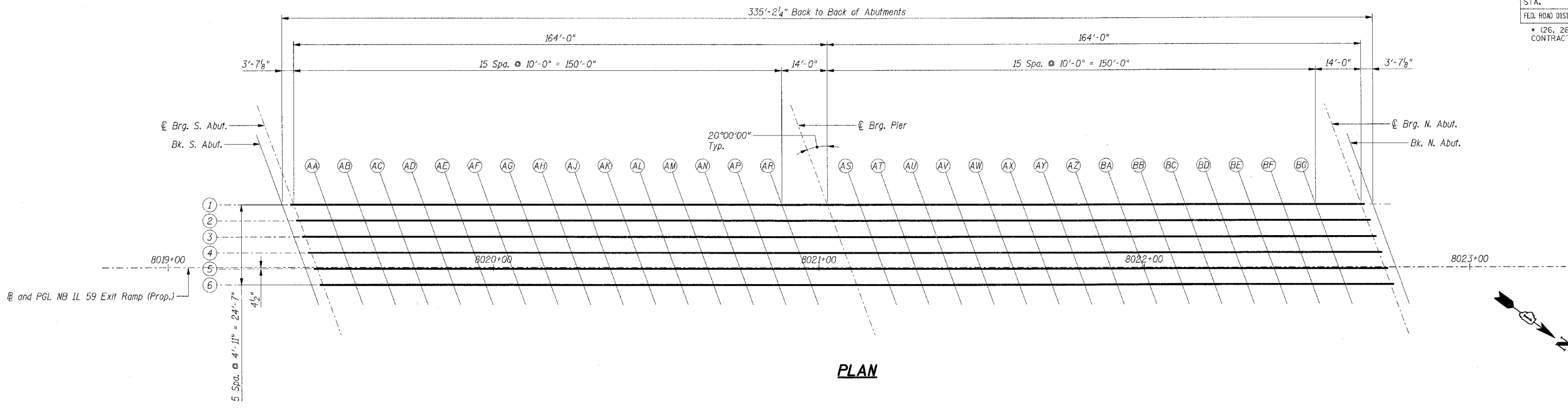
DRAWN BY: MX
 CHECKED BY: MDB

DATE: 03/14/08

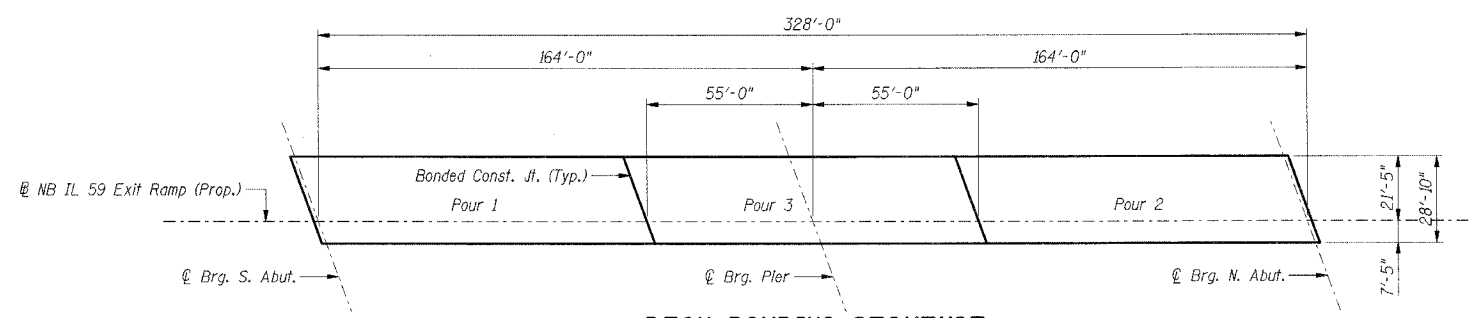
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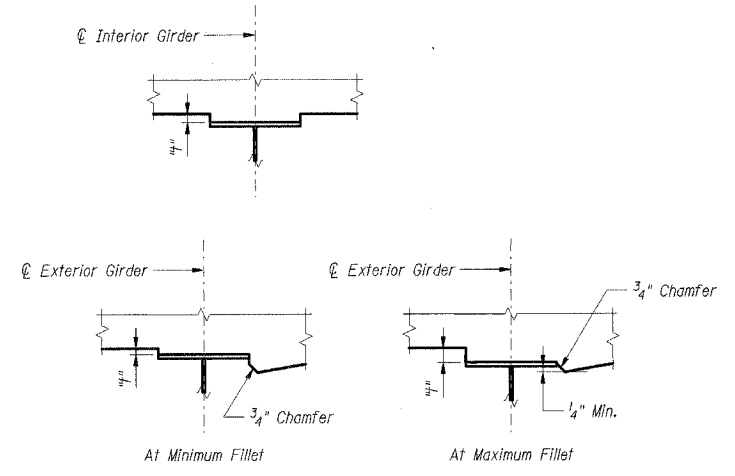
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59		WILL	608	350
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
* (26, 26HB-1 & 114) R-2				
CONTRACT NO. 60363				



PLAN

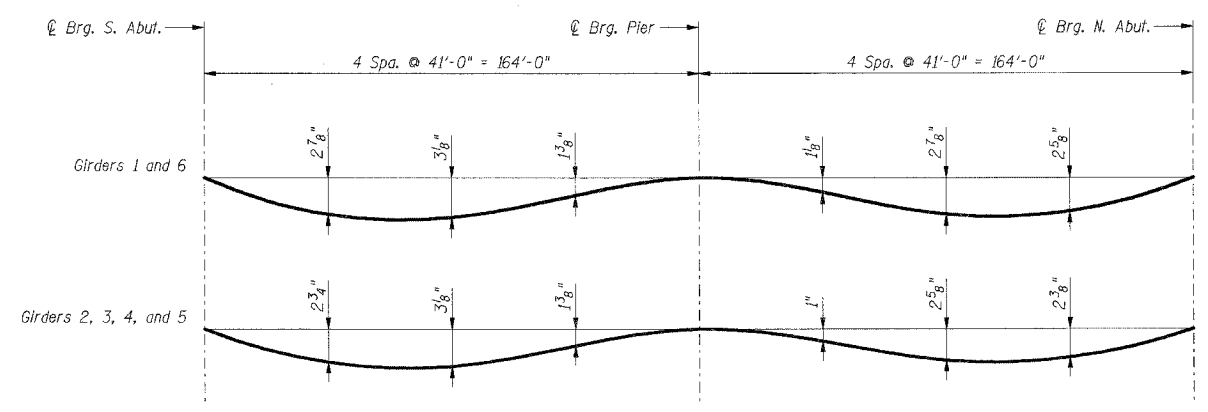


DECK POURING SEQUENCE



FILLET HEIGHTS

To determine "f": After all structural steel has been erected, elevations of the top flanges of the girders shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheet S-5, minus the slab thickness, equal the fillet heights "f" above the top flanges of the girders.



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

Note: The above deflections are not to be used in the field if the Engineer is working from the theoretical grade elevations adjusted for dead load deflection shown on Sheet S-5.

- Notes:**
1. Work this sheet with Sheet S-5.
 2. The concrete deck slab shall be placed in the sequence shown.
 3. The deck pouring sequence shall not be changed without the approval of the Engineer.
 4. When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:
 1. At least 72 hours shall have elapsed from the end of the previous pour.
 2. The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

SHT. S-4 OF S-24

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
 IL ROUTE 59 OVER F.A.I. 55 (I-55)
 SECTION (26, 26HB-1 & 114) R-2
 STRUCTURE NUMBER 099-4642
 STATION 8021+17.13, WILL COUNTY

DECK ELEVATION PLAN

DATE: 03/14/08

DRAWN BY: CCE
 CHECKED BY: MDB

TENG

TENG & ASSOCIATES, INC.
 200 NORTH WASHINGTON STREET, CHICAGO, ILLINOIS 60601
 TELEPHONE: 312.666.0900

\APPROS\6.DGN, \TT180084.DGN, \DKE0038.DGN, \ST1005\JBDN, \VGR005\J.DGN
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GIRDER 1

Location	Station	Offset	Theoretical Grade Elevation	Elevation Adjusted for Dead Load Deflection
Bk. S. Abut.	8019+35.07	-19.29	621.54	621.54
⊕ Brg. S. Abut.	8019+38.66	-19.29	621.62	621.62
AA	8019+48.66	-19.29	621.82	621.89
AB	8019+58.66	-19.29	622.02	622.15
AC	8019+68.66	-19.29	622.20	622.39
AD	8019+78.66	-19.29	622.38	622.61
AE	8019+88.66	-19.29	622.55	622.81
AF	8019+98.66	-19.29	622.71	622.99
AG	8020+08.66	-19.29	622.86	623.14
AH	8020+18.66	-19.29	623.00	623.26
AJ	8020+28.66	-19.29	623.13	623.37
AK	8020+38.66	-19.29	623.25	623.46
AL	8020+48.66	-19.29	623.36	623.53
AM	8020+58.66	-19.29	623.46	623.58
AN	8020+68.66	-19.29	623.55	623.64
AP	8020+78.66	-19.29	623.63	623.68
AR	8020+88.66	-19.29	623.71	623.73
⊕ Brg. Pier	8021+02.66	-19.29	623.79	623.79
AS	8021+12.66	-19.29	623.84	623.85
AT	8021+22.66	-19.29	623.89	623.91
AU	8021+32.66	-19.29	623.92	623.97
AV	8021+42.66	-19.29	623.94	624.03
AW	8021+52.66	-19.29	623.95	624.08
AX	8021+62.66	-19.29	623.96	624.12
AY	8021+72.66	-19.29	623.95	624.15
AZ	8021+82.66	-19.29	623.93	624.16
BA	8021+92.66	-19.29	623.91	624.16
BB	8022+02.66	-19.29	623.87	624.13
BC	8022+12.66	-19.29	623.83	624.08
BD	8022+22.66	-19.29	623.78	624.00
BE	8022+32.66	-19.29	623.71	623.90
BF	8022+42.66	-19.29	623.64	623.78
BG	8022+52.66	-19.29	623.56	623.65
⊕ Brg. N. Abut.	8022+66.66	-19.29	623.43	623.43
Bk. N. Abut.	8022+70.25	-19.29	623.39	623.39

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevation	Elevation Adjusted for Dead Load Deflection
Bk. S. Abut.	8019+36.86	-14.38	621.48	621.48
⊕ Brg. S. Abut.	8019+40.45	-14.38	621.56	621.56
AA	8019+50.45	-14.38	621.76	621.83
AB	8019+60.45	-14.38	621.95	622.08
AC	8019+70.45	-14.38	622.14	622.32
AD	8019+80.45	-14.38	622.31	622.54
AE	8019+90.45	-14.38	622.48	622.74
AF	8020+00.45	-14.38	622.64	622.91
AG	8020+10.45	-14.38	622.78	623.06
AH	8020+20.45	-14.38	622.92	623.19
AJ	8020+30.45	-14.38	623.05	623.29
AK	8020+40.45	-14.38	623.17	623.38
AL	8020+50.45	-14.38	623.28	623.45
AM	8020+60.45	-14.38	623.38	623.50
AN	8020+70.45	-14.38	623.47	623.55
AP	8020+80.45	-14.38	623.55	623.60
AR	8020+90.45	-14.38	623.62	623.64
⊕ Brg. Pier	8021+04.45	-14.38	623.70	623.70
AS	8021+14.45	-14.38	623.75	623.76
AT	8021+24.45	-14.38	623.79	623.82
AU	8021+34.45	-14.38	623.82	623.87
AV	8021+44.45	-14.38	623.84	623.93
AW	8021+54.45	-14.38	623.85	623.97
AX	8021+64.45	-14.38	623.86	624.01
AY	8021+74.45	-14.38	623.85	624.04
AZ	8021+84.45	-14.38	623.83	624.05
BA	8021+94.45	-14.38	623.80	624.04
BB	8022+04.45	-14.38	623.77	624.01
BC	8022+14.45	-14.38	623.72	623.95
BD	8022+24.45	-14.38	623.67	623.88
BE	8022+34.45	-14.38	623.60	623.78
BF	8022+44.45	-14.38	623.53	623.66
BG	8022+54.45	-14.38	623.45	623.53
⊕ Brg. N. Abut.	8022+68.45	-14.38	623.31	623.31
Bk. N. Abut.	8022+72.04	-14.38	623.28	623.28

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevation	Elevation Adjusted for Dead Load Deflection
Bk. S. Abut.	8019+38.65	-9.46	621.42	621.42
⊕ Brg. S. Abut.	8019+42.24	-9.46	621.49	621.49
AA	8019+52.24	-9.46	621.70	621.76
AB	8019+62.24	-9.46	621.89	622.02
AC	8019+72.24	-9.46	622.07	622.26
AD	8019+82.24	-9.46	622.25	622.47
AE	8019+92.24	-9.46	622.41	622.67
AF	8020+02.24	-9.46	622.57	622.84
AG	8020+12.24	-9.46	622.71	622.99
AH	8020+22.24	-9.46	622.85	623.11
AJ	8020+32.24	-9.46	622.97	623.22
AK	8020+42.24	-9.46	623.09	623.30
AL	8020+52.24	-9.46	623.20	623.37
AM	8020+62.24	-9.46	623.30	623.42
AN	8020+72.24	-9.46	623.38	623.47
AP	8020+82.24	-9.46	623.46	623.51
AR	8020+92.24	-9.46	623.53	623.55
⊕ Brg. Pier	8021+06.24	-9.46	623.62	623.62
AS	8021+16.24	-9.46	623.66	623.67
AT	8021+26.24	-9.46	623.70	623.72
AU	8021+36.24	-9.46	623.73	623.78
AV	8021+46.24	-9.46	623.75	623.83
AW	8021+56.24	-9.46	623.76	623.88
AX	8021+66.24	-9.46	623.76	623.91
AY	8021+76.24	-9.46	623.75	623.94
AZ	8021+86.24	-9.46	623.73	623.94
BA	8021+96.24	-9.46	623.70	623.93
BB	8022+06.24	-9.46	623.66	623.90
BC	8022+16.24	-9.46	623.62	623.85
BD	8022+26.24	-9.46	623.56	623.77
BE	8022+36.24	-9.46	623.49	623.67
BF	8022+46.24	-9.46	623.42	623.55
BG	8022+56.24	-9.46	623.33	623.41
⊕ Brg. N. Abut.	8022+70.24	-9.46	623.20	623.20
Bk. N. Abut.	8022+73.83	-9.46	623.16	623.16

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevation	Elevation Adjusted for Dead Load Deflection
Bk. S. Abut.	8019+40.44	-4.54	621.36	621.36
⊕ Brg. S. Abut.	8019+44.03	-4.54	621.43	621.43
AA	8019+54.03	-4.54	621.63	621.70
AB	8019+64.03	-4.54	621.82	621.95
AC	8019+74.03	-4.54	622.01	622.19
AD	8019+84.03	-4.54	622.18	622.41
AE	8019+94.03	-4.54	622.34	622.60
AF	8020+04.03	-4.54	622.49	622.77
AG	8020+14.03	-4.54	622.64	622.92
AH	8020+24.03	-4.54	622.77	623.04
AJ	8020+34.03	-4.54	622.90	623.14
AK	8020+44.03	-4.54	623.01	623.22
AL	8020+54.03	-4.54	623.12	623.29
AM	8020+64.03	-4.54	623.21	623.34
AN	8020+74.03	-4.54	623.30	623.39
AP	8020+84.03	-4.54	623.38	623.43
AR	8020+94.03	-4.54	623.45	623.47
⊕ Brg. Pier	8021+08.03	-4.54	623.53	623.53
AS	8021+18.03	-4.54	623.57	623.58
AT	8021+28.03	-4.54	623.61	623.63
AU	8021+38.03	-4.54	623.63	623.69
AV	8021+48.03	-4.54	623.65	623.74
AW	8021+58.03	-4.54	623.66	623.78
AX	8021+68.03	-4.54	623.66	623.81
AY	8021+78.03	-4.54	623.65	623.84
AZ	8021+88.03	-4.54	623.63	623.84
BA	8021+98.03	-4.54	623.60	623.83
BB	8022+08.03	-4.54	623.56	623.79
BC	8022+18.03	-4.54	623.51	623.74
BD	8022+28.03	-4.54	623.45	623.66
BE	8022+38.03	-4.54	623.38	623.56
BF	8022+48.03	-4.54	623.30	623.44
BG	8022+58.03	-4.54	623.22	623.30
⊕ Brg. N. Abut.	8022+72.03	-4.54	623.08	623.08
Bk. N. Abut.	8022+75.62	-4.54	623.04	623.04

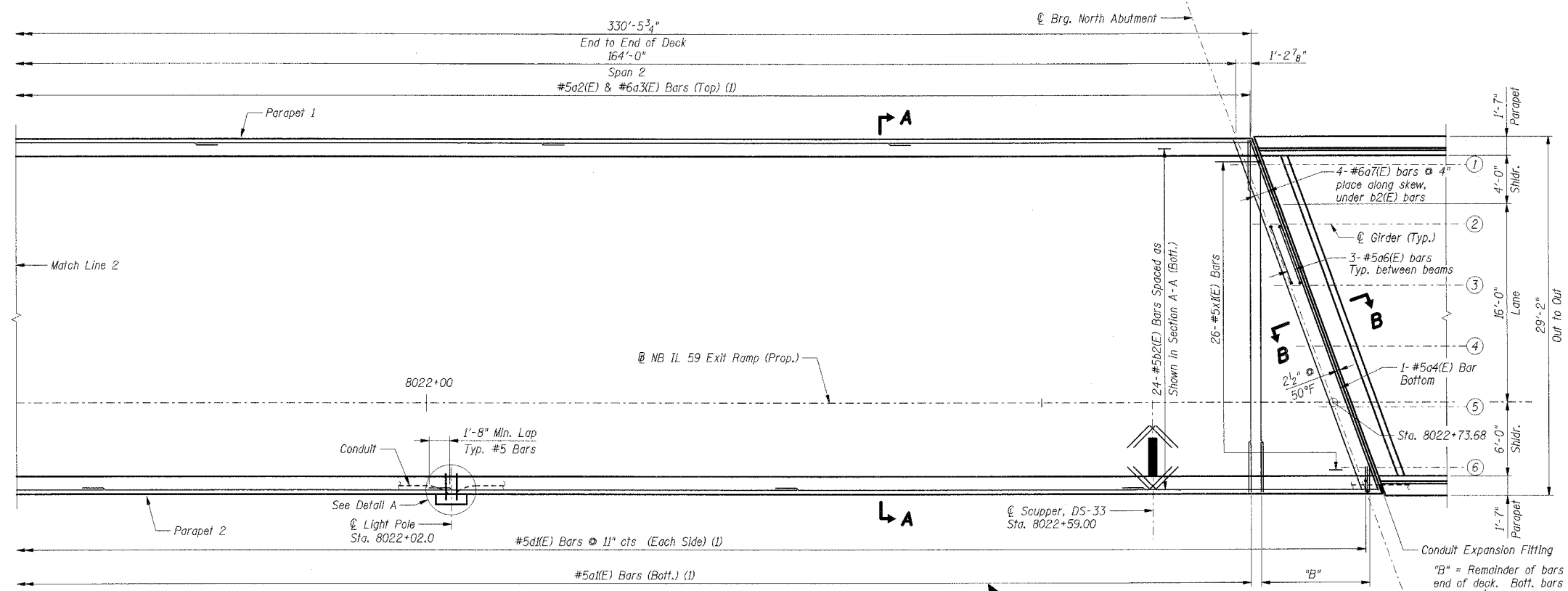
PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevation	Elevation Adjusted for Dead Load Deflection
Bk. S. Abut.	8019+42.09	0.00	621.30	621.30
⊕ Brg. S. Abut.	8019+45.68	0.00	621.38	621.38
AA	8019+55.68	0.00	621.57	621.64
AB	8019+65.68	0.00	621.76	621.89
AC	8019+75.68	0.00	621.94	622.13
AD	8019+85.68	0.00	622.11	622.34
AE	8019+95.68	0.00	622.28	622.53
AF	8020+05.68	0.00	622.43	622.70
AG	8020+15.68	0.00	622.57	622.85
AH	8020+25.68	0.00	622.70	622.97
AJ	8020+35.68	0.00	622.83	623.07
AK	8020+45.68	0.00	622.94	623.15
AL	8020+55.68	0.00	623.04	623.21
AM	8020+65.68	0.00	623.14	623.27
AN	8020+75.68	0.00	623.22	623.31
AP	8020+85.68	0.00	623.30	623.35
AR	8020+95.68	0.00	623.37	623.39
⊕ Brg. Pier	8021+09.68	0.00	623.44	623.44
AS	8021+19.68	0.00	623.49	623.49
AT	8021+29.68	0.00	623.52	623.55
AU	8021+39.68	0.00	623.55	623.60
AV	8021+49.68	0.00	623.56	623.65
AW	8021+59.68	0.00	623.57	623.69
AX	8021+69.68	0.00	623.57	623.72
AY	8021+79.68	0.00	623.55	623.74
AZ	8021+89.68	0.00	623.53	623.75
BA	8021+99.68	0.00	623.50	623.73
BB	8022+09.68	0.00	623.46	623.70
BC	8022+19.68	0.00	623.41	623.64
BD	8022+29.68	0.00	623.35	623.56
BE	8022+39.68	0.00	623.28	623.46
BF	8022+49.68	0.00	623.20	623.33
BG	8022+59.68	0.00	623.11	623.19
⊕ Brg. N. Abut.	8022+73.68	0.00	622.97	622.97
Bk. N. Abut.	8022+77.27	0.00	622.93	622.93

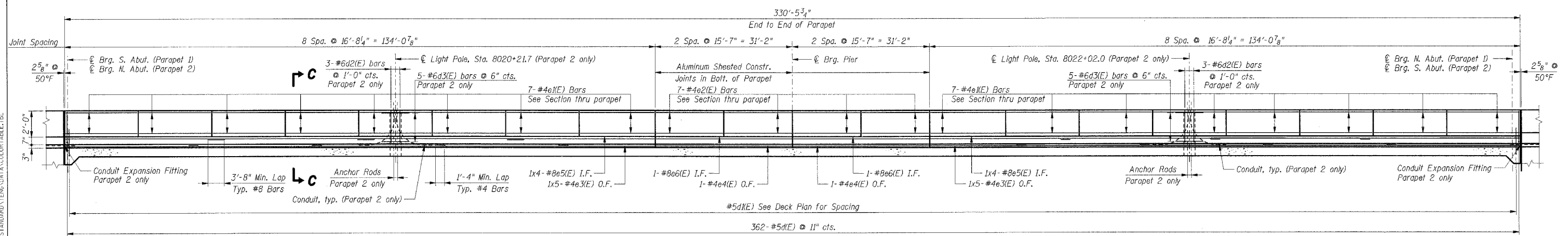
GIRDER 5

Location	Station	Offset	Theoretical Grade Elevation	Elevation Adjusted for Dead Load Deflection
Bk. S. Abut.	8019+42.23	0.38	621.30	621.30
⊕ Brg. S. Abut.	8019+45.82	0.38	621.37	621.37
AA	8019+55.82	0.38	621.57	621.64
AB	8019+65.82	0.38	621.76	621.89
AC	8019+75.82	0.38	621.94	622.12
AD	8019+85.82	0.38	622.11	622.34
AE	8019+95.82	0.38	622.27	622.53
AF	8020+05.82	0.38	622.42	622.70
AG	8020+15.82	0.38	622.56	622.84
AH	8020+25.82	0.38	622.70	622.96
AJ	8020+35.82	0.38	622.82	623.06
AK	8020+45.82	0.38	622.93	623.14
AL	8020+55.82	0.38	623.04	623.21
AM	8020+65.82	0.38	623.13	623.26
AN	8020+75.82	0.38	623.22	623.30
AP	8020+85.82	0.38	623.29	623.34
AR	8020+95.82	0.38	623.36	623.38
⊕ Brg. Pier	8021+09.82			

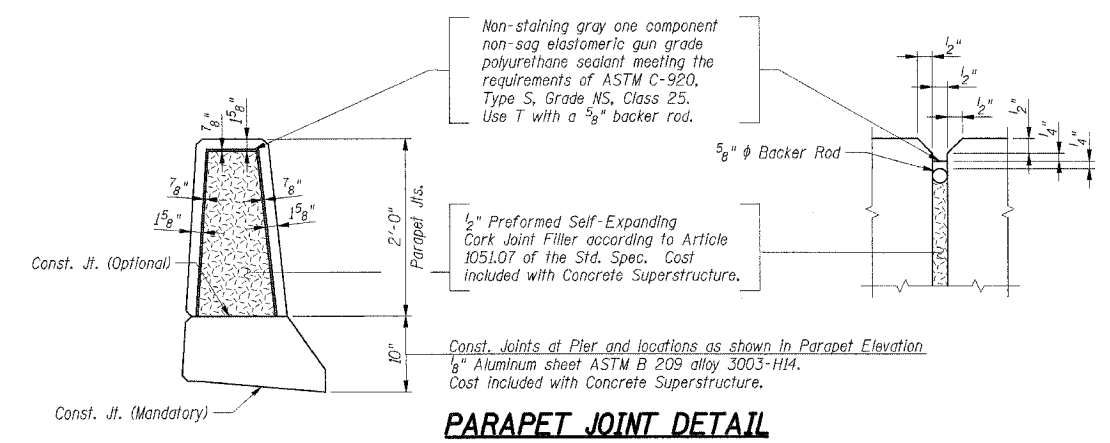
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59		WILL	608	353
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
* (26, 26HB-1 & 114) R-2 CONTRACT NO. 60363				



PLAN



INSIDE ELEVATION OF PARAPET 1
(Parapet 2 Opposite Hand)



PARAPET JOINT DETAIL

- Notes:**
1. Work this sheet with Sheets S-6 & S-8.
 2. Bars indicated thus: 4x2-#5 etc. indicate 4 lines of bars with 2 lengths per line.
 3. E.F. Indicates Each Face
I.F. Indicates Inside Face
O.F. Indicates Outside Face

SHT. S-7 OF S-24

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
IL ROUTE 59 OVER F.A.I. 55 (I-55)
SECTION (26, 26HB-1 & 114) R-2
STRUCTURE NUMBER 099-4642
STATION 8021+17.13, WILL COUNTY

DECK PLAN II

DATE: 03/14/08

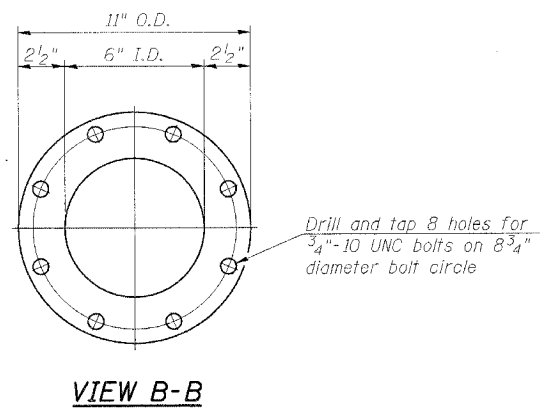
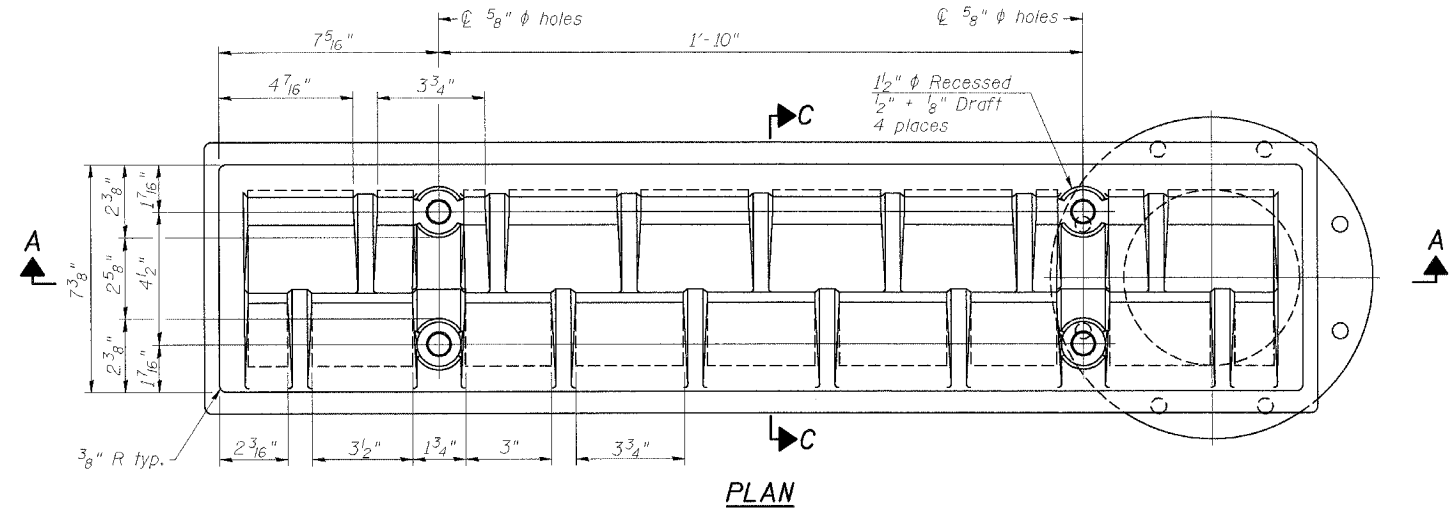
DRAWN BY: TMH
CHECKED BY: MDB

TENG

TENG & ASSOCIATES, INC.
305 N. AMERICAN AVE. CHENEO, IL 60610
TEL: 815.396.4000

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59		WILL	608	356
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
• (26, 26HB-1 & 114) R-2 CONTRACT NO. 60363				



Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

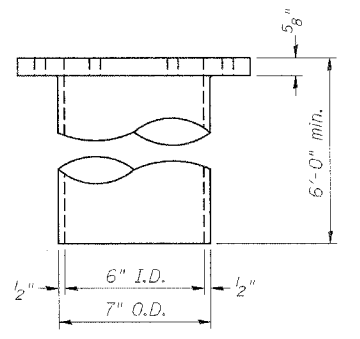
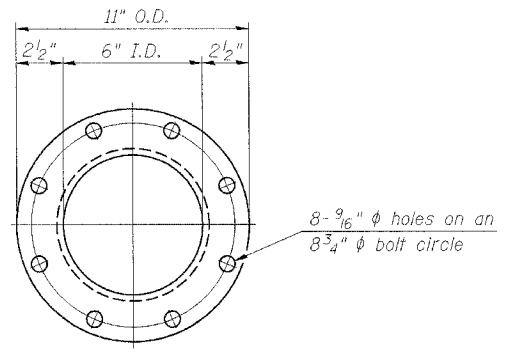
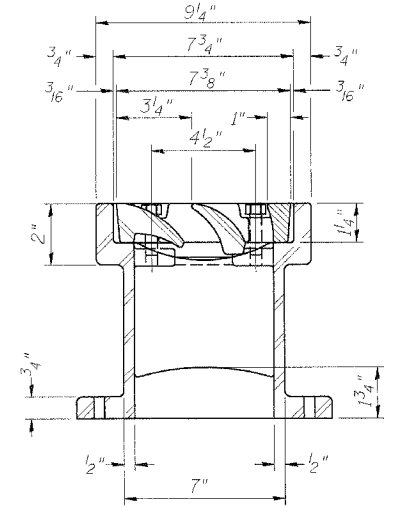
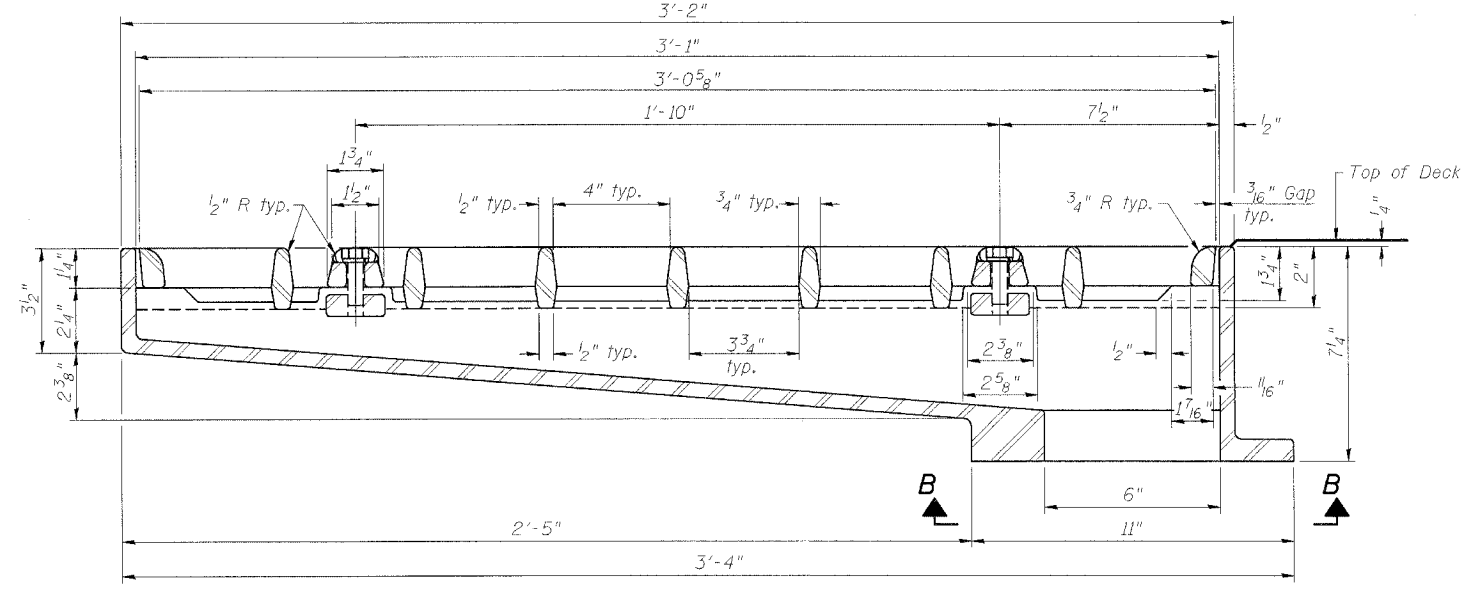
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-33.

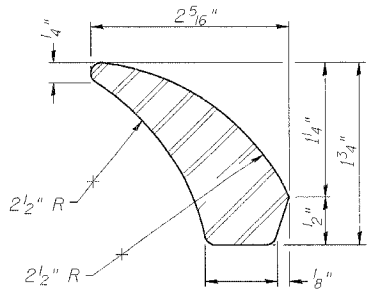
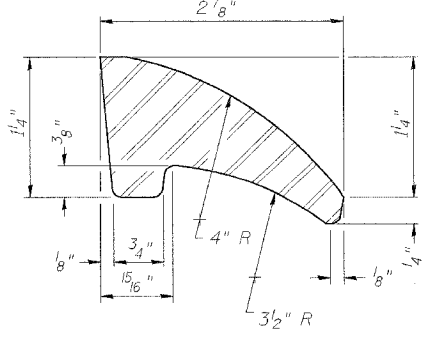
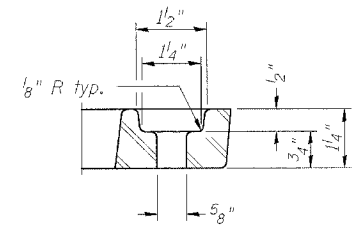
Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



SECTION A-A
See sheet S-8 for scupper location relative to parapet.

SECTION C-C

DOWNSPOUT



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-33	Each	2

SHT. S-10 OF S-24

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
IL ROUTE 59 OVER F.A.I. 55 (I-55)
SECTION (26, 26HB-1 & 114) R-2
STRUCTURE NUMBER 099-4642
STATION 8021+17.13, WILL COUNTY

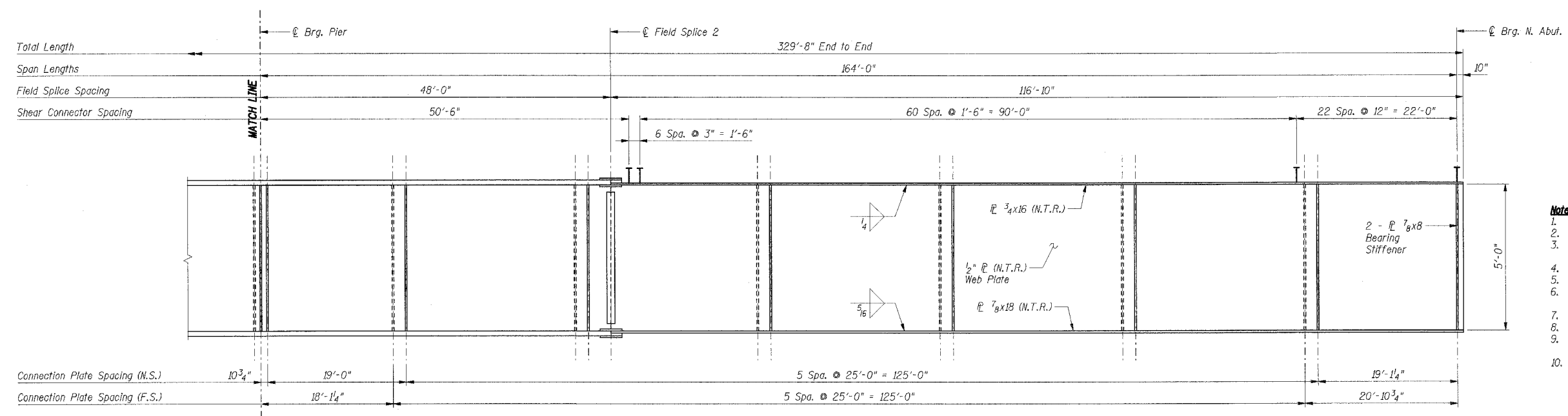
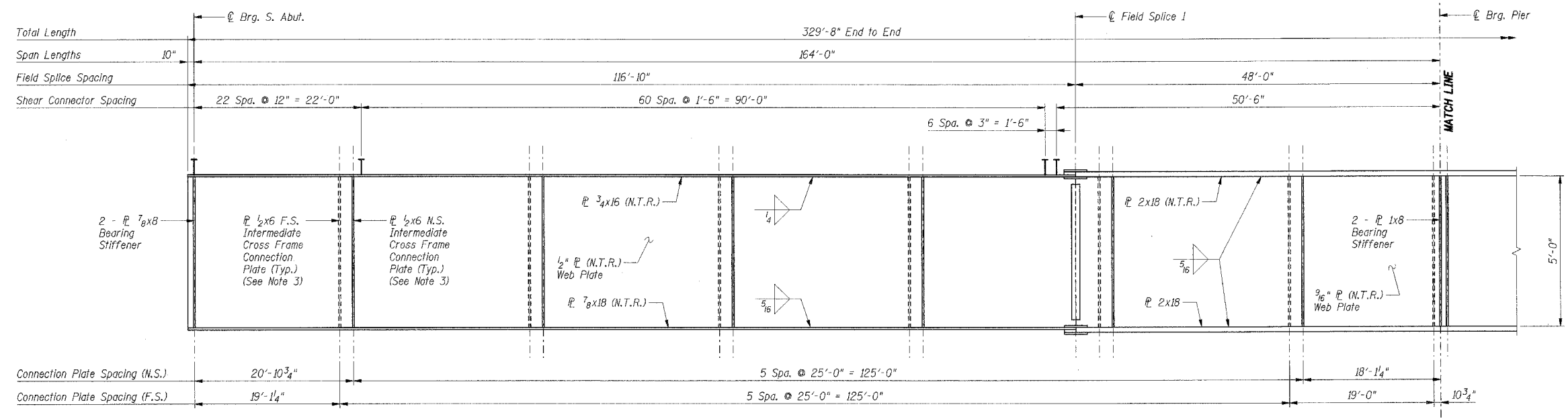
DRAINAGE SCUPPER

DATE: 03/14/08
DRAWN BY: TMH
CHECKED BY: MDB

TENG
TENG & ASSOCIATES, INC.
REGISTERED PROFESSIONAL ENGINEERS
205 N. MICHIGAN AVE. CHICAGO, IL 60601
TELEPHONE: 312.666.2000

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59		WILL	608	358
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
* (26, 26HB-1 & 114) R-2				
CONTRACT NO. 60363				

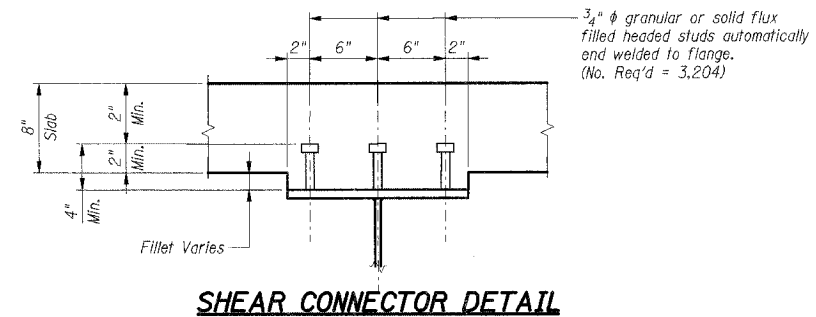


GIRDER ELEVATION

- Notes**
- See Note 1 on Sht. S-11.
 - See Note 2 on Sht. S-11.
 - Omit intermediate cross frame connection plates on exterior side of fascia girders 1 and 6.
 - For Camber Diagram and Top of Web Elevations see Sheet S-11.
 - For Cross Frame Details see Sheet S-13.
 - For Bearing Stiffener Details and Intermediate Cross Frame Connection Plate Details see Sheet S-13.
 - For Field Splice Details see Sheet S-13.
 - For Bearing Details see Sheet S-14.
 - N.S. denotes Near Side.
 - F.S. denotes Far Side.
 - Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	3,204



SHEAR CONNECTOR DETAIL

SHT. S-12 OF S-24

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
 IL ROUTE 59 OVER F.A.I. 55 (I-55)
 SECTION (26, 26HB-1 & 114) R-2
 STRUCTURE NUMBER 099-4642
 STATION 8021+17.13, WILL COUNTY

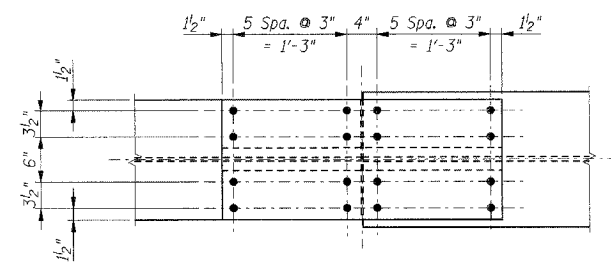
GIRDER ELEVATION

DATE: 03/14/08

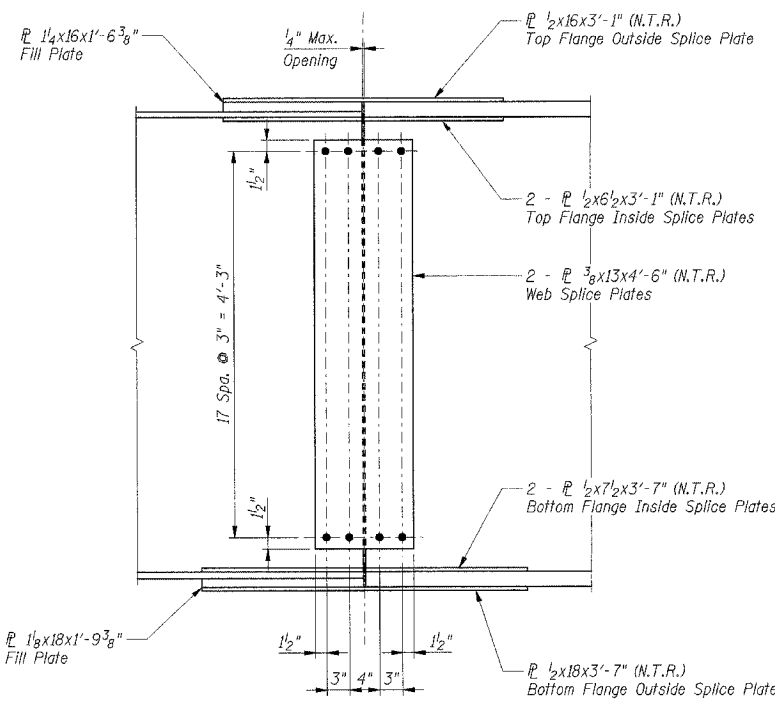
DRAWN BY: CCE
 CHECKED BY: MDB

TENG
 TENG & ASSOCIATES, INC.
 205 N. MICHIGAN AVE. CHICAGO, IL 60601
 TEL: 312.329.4000

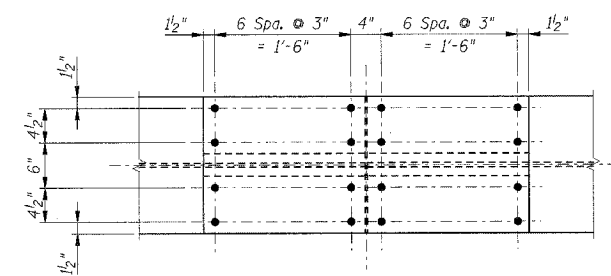
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TOP FLANGE

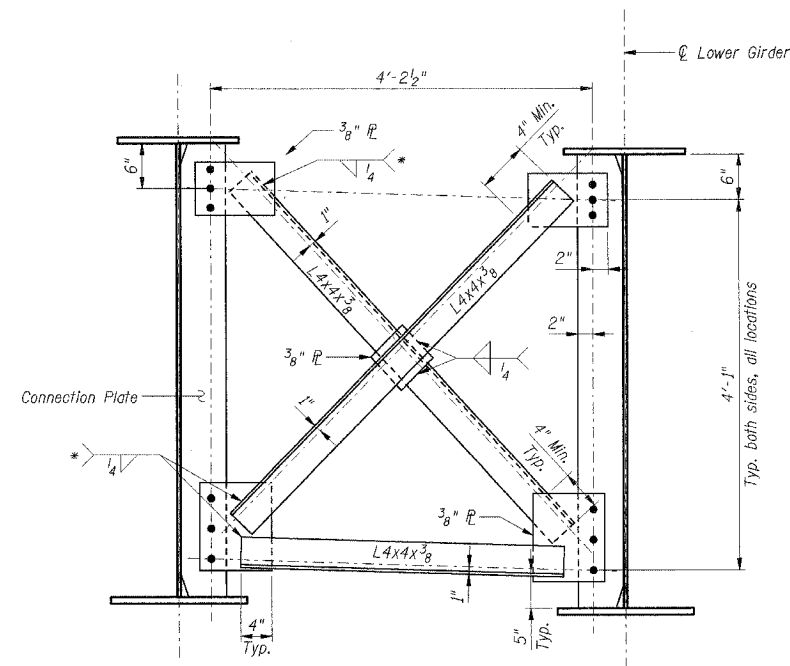


ELEVATION



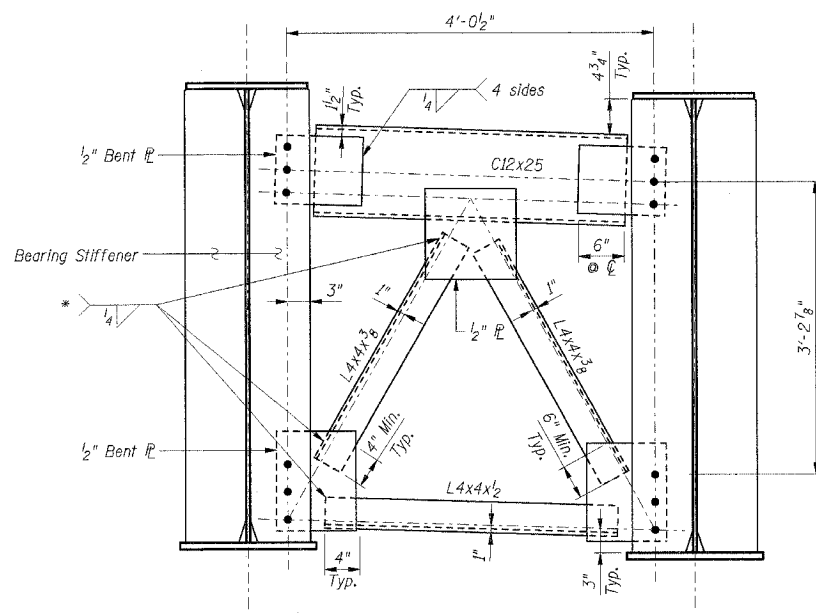
BOTTOM FLANGE

FIELD SPLICE



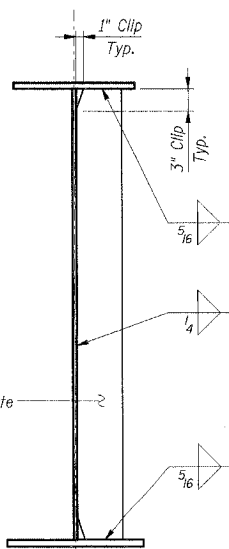
INTERMEDIATE CROSS FRAME CF1

(65 Required)

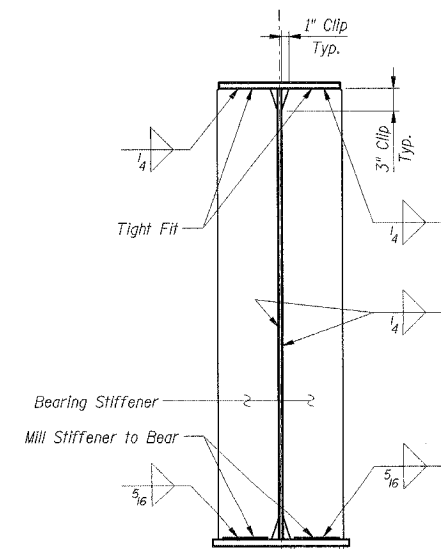


END CROSS FRAME CF2

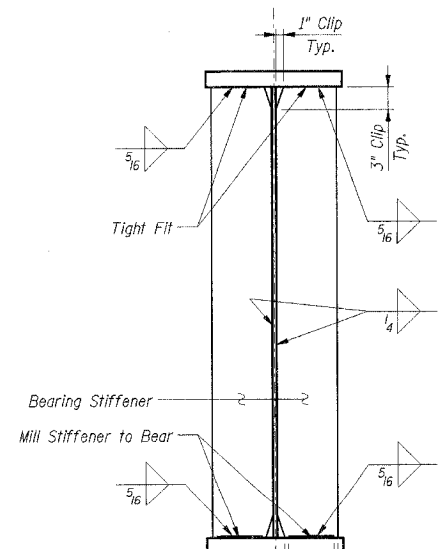
(10 Required)



INTERMEDIATE CROSS FRAME CONNECTION PLATE



BEARING STIFFENER AT ABUTMENTS



BEARING STIFFENER AT PIER

- Notes:**
- See Note 1 on Sht. S-11.
 - See Note 2 on Sht. S-11.
 - Fasteners for field splices shall be 7/8" ϕ AASHTO M 164 high-strength bolts in 5/16" ϕ holes.
 - Fasteners for cross frames shall be 3/4" ϕ AASHTO M 164 high-strength bolts in 5/16" ϕ holes.
 - Two hardened washers shall be required over all oversized holes.
 - Place diaphragm with channel flanges and outstanding angle legs outward from abutment backwall.

SHT. S-13 OF S-24

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
 IL ROUTE 59 OVER F.A.I. 55 (I-55)
 SECTION (26, 26HB-1 & 114) R-2
 STRUCTURE NUMBER 099-4642
 STATION 8021+17.13, WILL COUNTY
 STRUCTURAL STEEL DETAILS

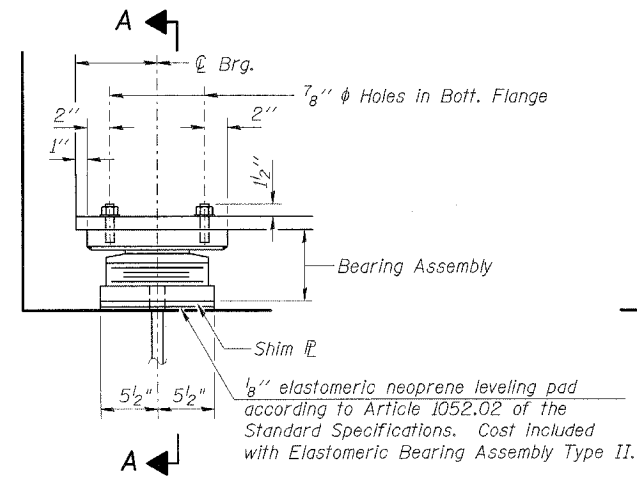
DRAWN BY: CCE
 CHECKED BY: MDB

DATE: 03/14/08

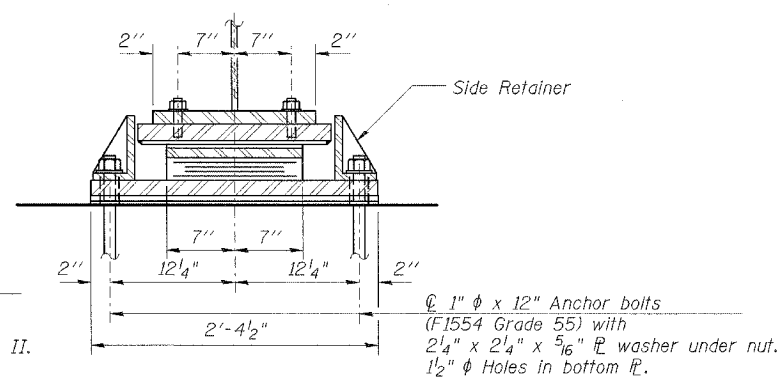
TENG

TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 300 N. MICHIGAN AVE. CHICAGO, IL 60610
 TEL: 312.329.4000

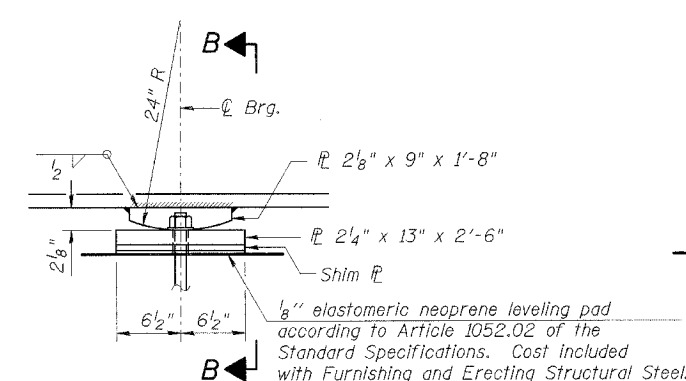
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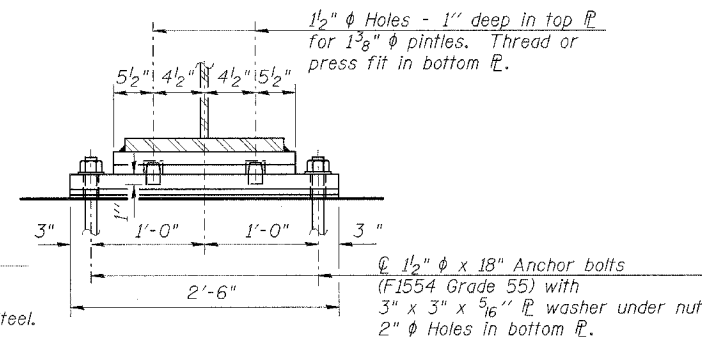
ELEVATION AT ABUT.



SECTION A-A



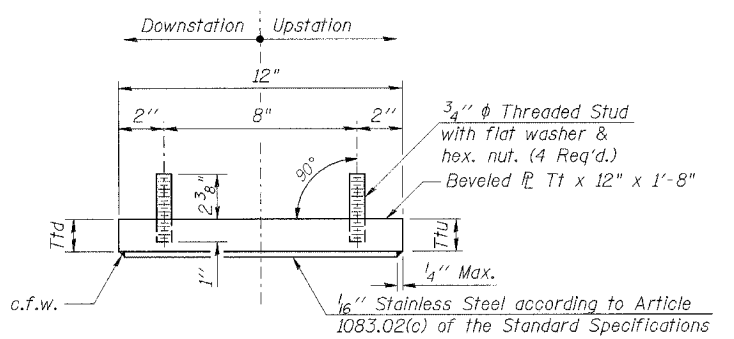
ELEVATION AT PIER



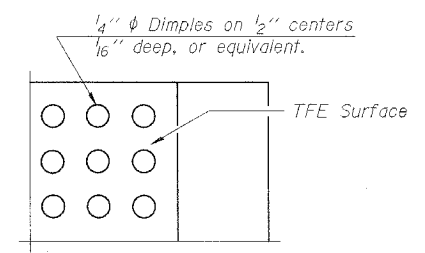
SECTION B-B

TYPE II ELASTOMERIC EXP. BRG.

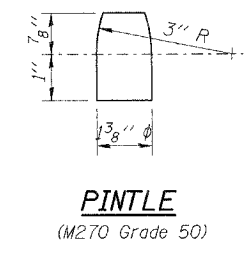
FIXED BEARING



TOP BEARING ASSEMBLY



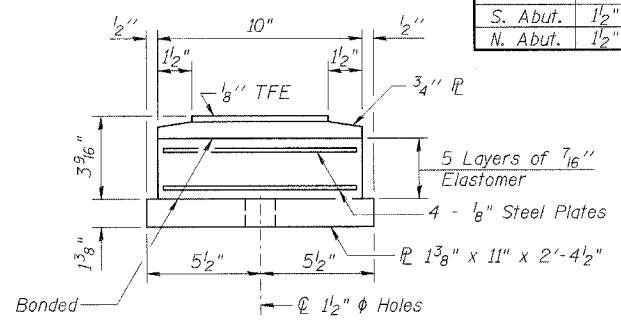
PLAN-TFE SURFACE



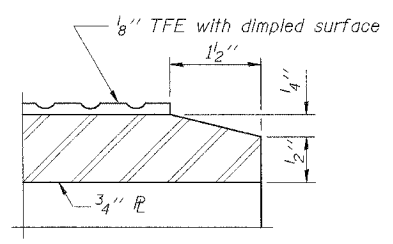
PINTLE
(M270 Grade 50)

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.
The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.
Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.
The cost of the fixed bearings shall be included with Furnishing and Erecting Structural Steel.

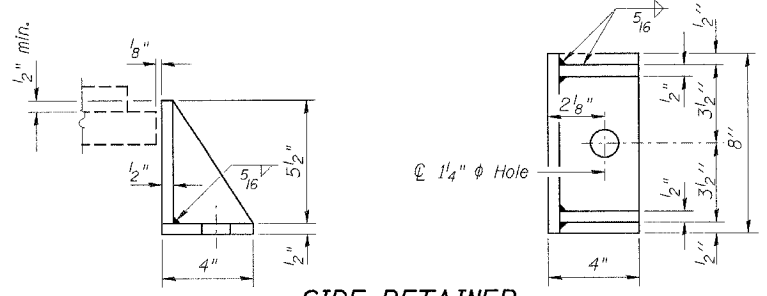
Bearing Location	Ttd	Ttu
S. Abut.	1 1/2"	1 3/4"
N. Abut.	1 1/2"	1 1/2"



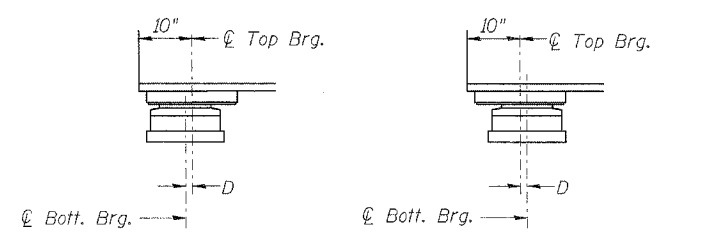
BOTTOM BEARING ASSEMBLY



SECTION THRU TFE



SIDE RETAINER
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



SETTING ANCHOR BOLTS AT EXP. BRG.
BELOW 50°F. (Move bott. brg. away from fixed brg.)
ABOVE 50°F. (Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	12
Anchor Bolts 1" φ	Each	24
Anchor Bolts 1 1/2" φ	Each	12

SHT. S-14 OF S-24

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
IL ROUTE 59 OVER F.A.I. 55 (I-55)
SECTION (26, 26HB-1 & 114) R-2
STRUCTURE NUMBER 099-4642
STATION 8021+17.13, WILL COUNTY

BEARING DETAILS

DRAWN BY: MDB
CHECKED BY: TMH
DATE: 03/14/08

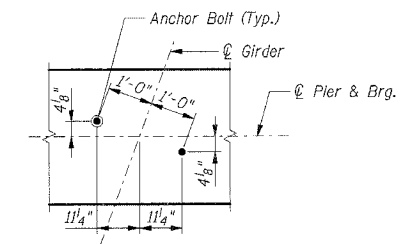
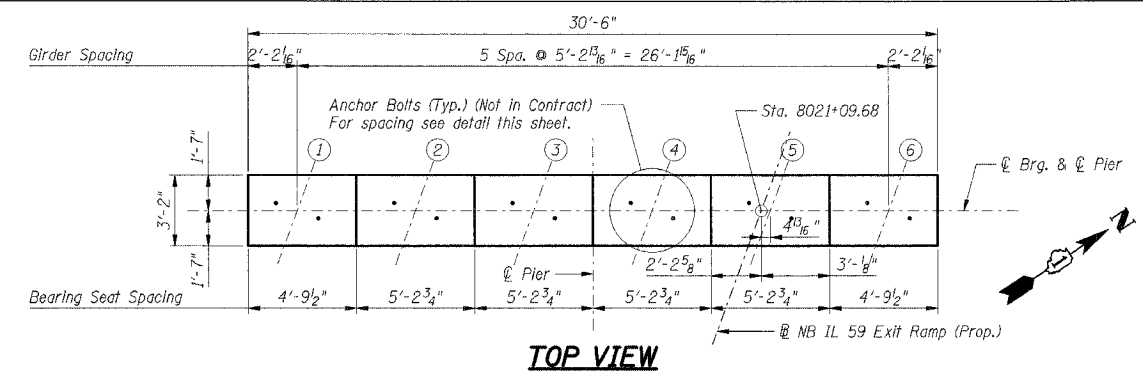
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59		WILL	608	363
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
• (26, 26HB-1 & 114) R-2				
CONTRACT NO. 60363				

Girder	Elevation
1	617.30
2	617.21
3	617.12
4	617.03
5	616.94
6	616.86

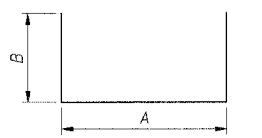
BEARING SEAT ELEVATIONS



ANCHOR BOLT LAYOUT

BAR LIST

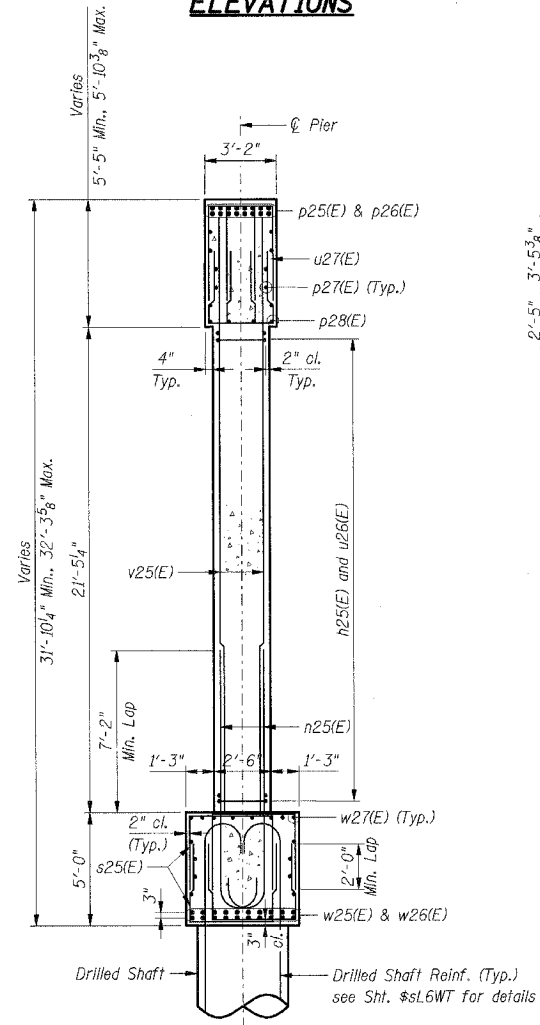
Bar	No.	Size	Length	Shape
n25(E)	44	#5	10'-0"	
n25(E)	34	#11	13'-1"	
p25(E)	8	#11	34'-0"	
p26(E)	8	#11	33'-5"	
p27(E)	10	#5	30'-2"	
p28(E)	8	#5	19'-3"	
p29(E)	4	#5	9'-8"	
s25(E)	104	#6	10'-5"	
u25(E)	8	#5	9'-4"	
u26(E)	44	#5	7'-0"	
u27(E)	172	#5	9'-5"	
u28(E)	48	#5	8'-1"	
u29(E)	24	#5	7'-5"	
u30(E)	10	#5	6'-10"	
u31(E)	4	#5	7'-6"	
v25(E)	34	#11	26'-1"	
w25(E)	10	#11	28'-6"	
w26(E)	10	#11	28'-0"	
w27(E)	16	#5	24'-8"	



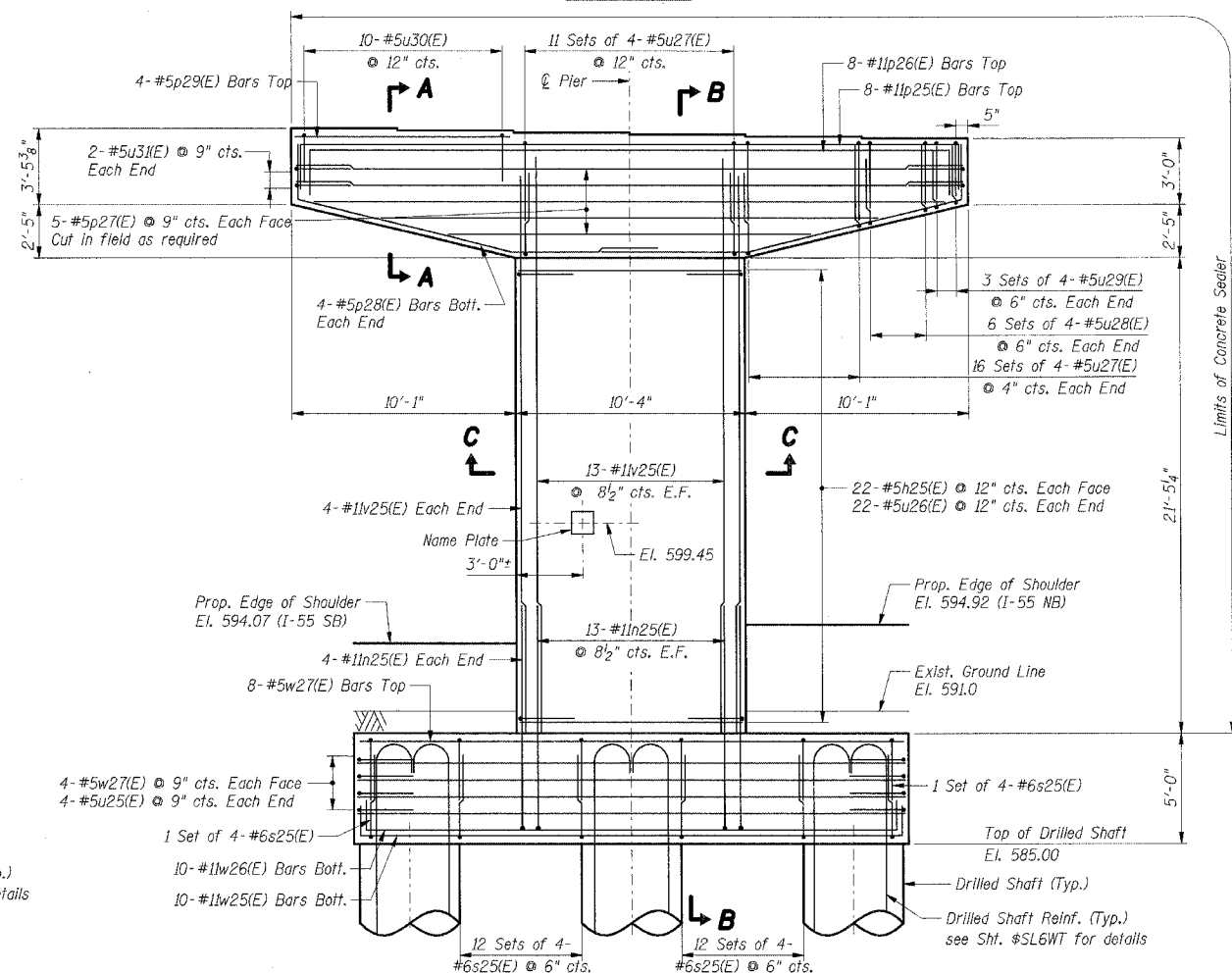
Bar	A	B
p25(E)	30'-0"	2'-0"
p26(E)	29'-6"	2'-0"
s25(E)	3'-9"	3'-4"
u25(E)	4'-6"	2'-5"
u26(E)	2'-2"	2'-5"
u27(E)	2'-1"	3'-8"
u28(E)	2'-1"	3'-0"
u29(E)	2'-1"	2'-8"
u30(E)	2'-10"	2'-0"
u31(E)	2'-8"	2'-5"
w25(E)	24'-6"	2'-0"
w26(E)	24'-0"	2'-0"

BILL OF MATERIAL

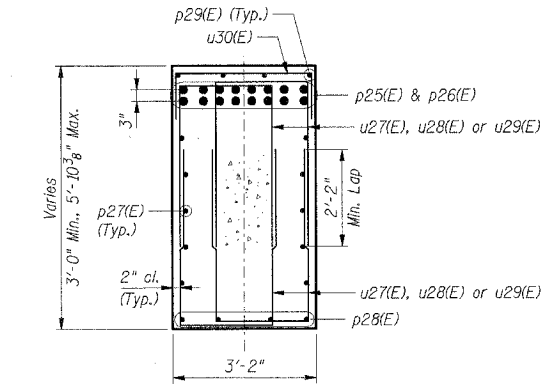
Item	Unit	Total
Structure Excavation	Cu Yd	58
Concrete Structures	Cu Yd	61.0
Reinforcement Bars, Epoxy Coated	Lbs	18,740
Concrete Sealer	Sq Ft	1,694



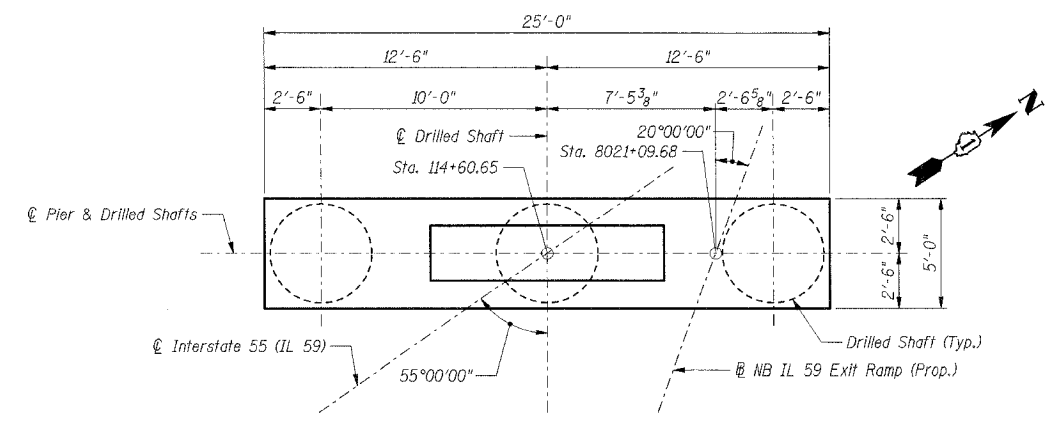
SECTION B-B



ELEVATION
(Looking North)

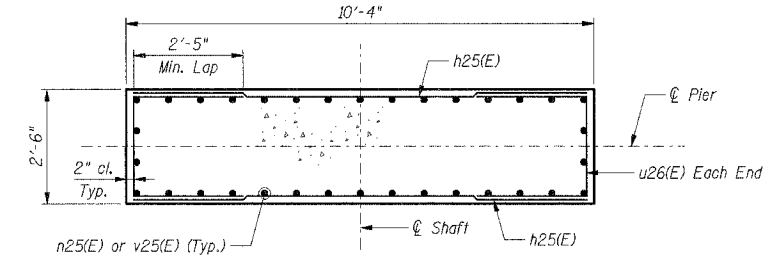


SECTION A-A



FOOTING PLAN

NOT IN CONTRACT FOR INFORMATION ONLY



SECTION C-C

SHT. S-17 OF S-24

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
 IL ROUTE 59 OVER F.A.I. 55 (I-55)
 SECTION (26, 26HB-1 & 114) R-2
 STRUCTURE NUMBER 099-4642
 STATION 8021+17.13, WILL COUNTY

PIER
(FOR INFORMATION ONLY)

DATE: 03/14/08

DRAWN BY: TMH
 CHECKED BY: MDB

TENG

- Notes:**
1. Reinforcement bars designated (E) shall be epoxy coated.
 2. Bars indicated thus: 4x2-#5 etc. indicate 4 lines of bars with 2 lengths per line.
 3. Space reinforcement in cap to miss anchor bolts.
 4. All edges shall have standard 3/4" chamfers except as noted.
 5. Pour steps monolithically with pier cap.
 6. E.F. indicates Each Face.
 7. For drilled shaft details, see Sht. S-3.

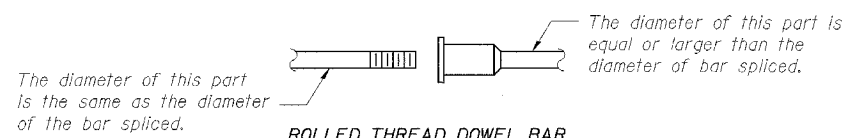
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NOTES

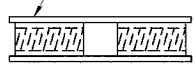
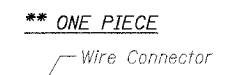
Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
 Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity = $1.25 \times f_y \times A_t$
(Tension in kips)
 - ② Minimum *Pull-out Strength = $0.66 \times f_y \times A_t$
(Tension in kips)
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8

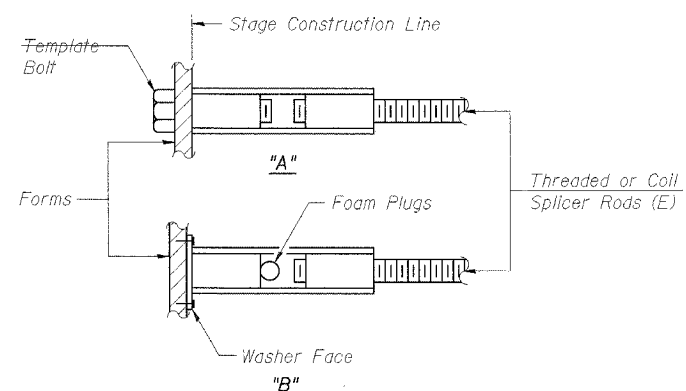


ROLLED THREAD DOWEL BAR



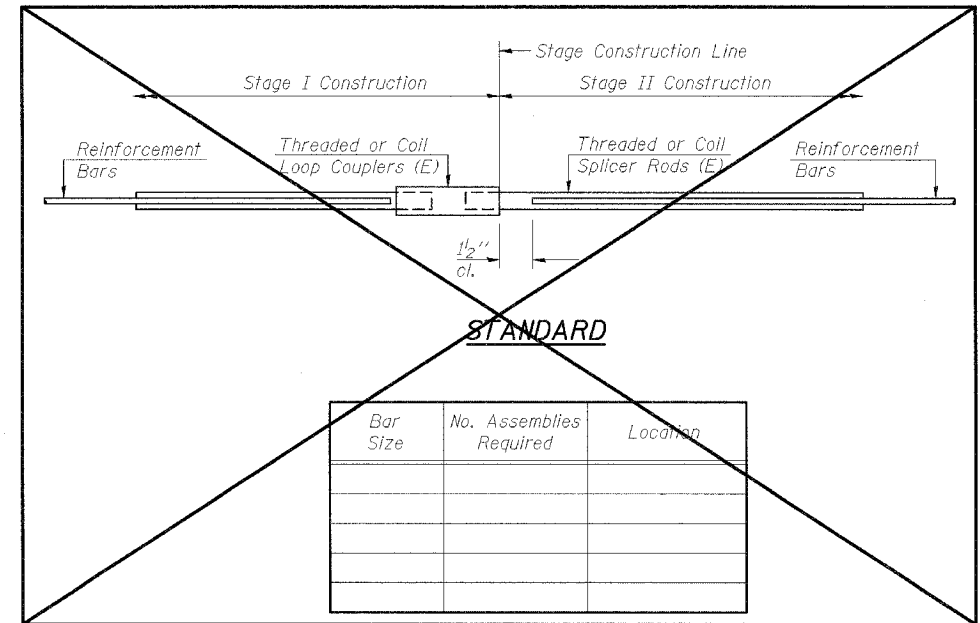
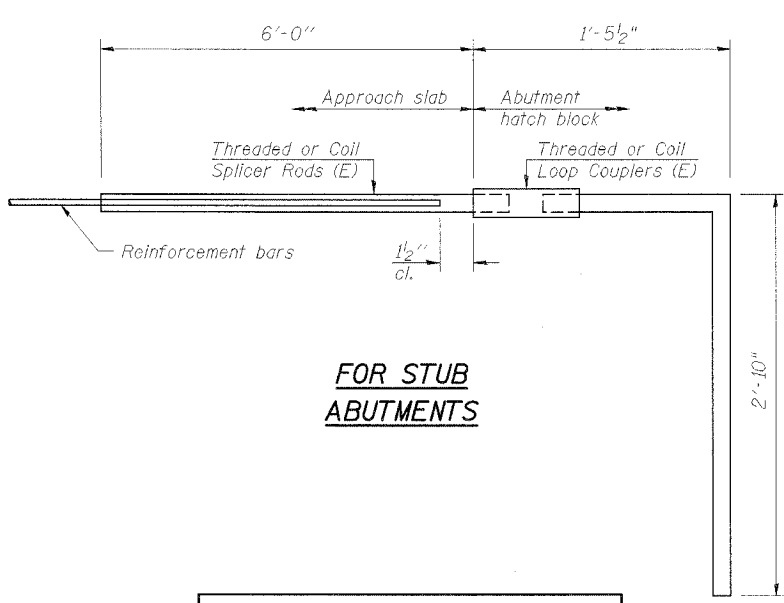
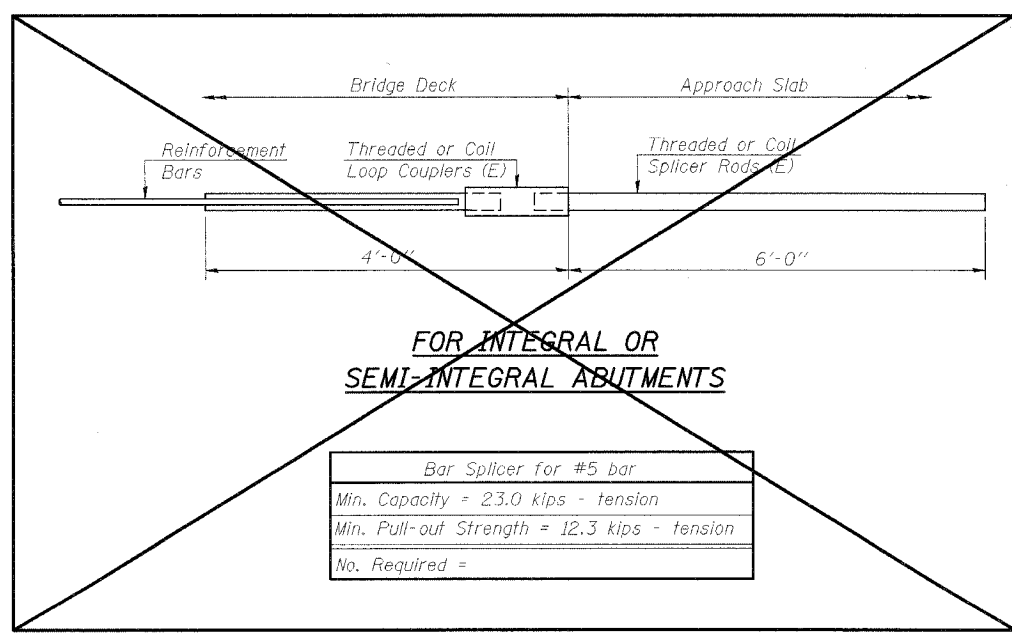
BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.



SHT. S-20 OF S-24

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
 IL ROUTE 59 OVER F.A.I. 55 (I-55)
 SECTION (26, 26HB-1 & 114) R-2
 STRUCTURE NUMBER 099-4642
 STATION 8021+17.13, WILL COUNTY

BAR SPLICER ASSEMBLY DETAILS

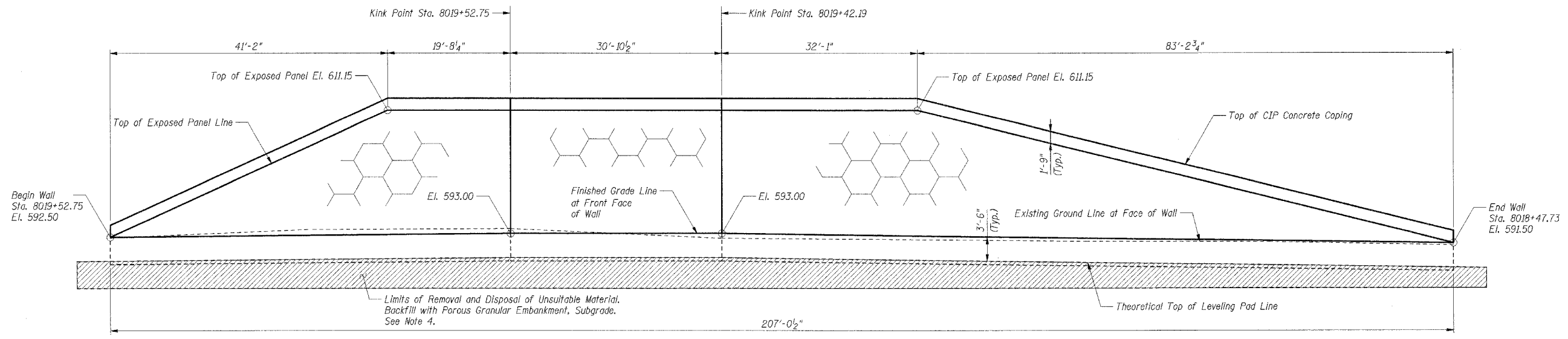
DRAWN BY: TMH
 CHECKED BY: MDB

DATE: 03/14/08

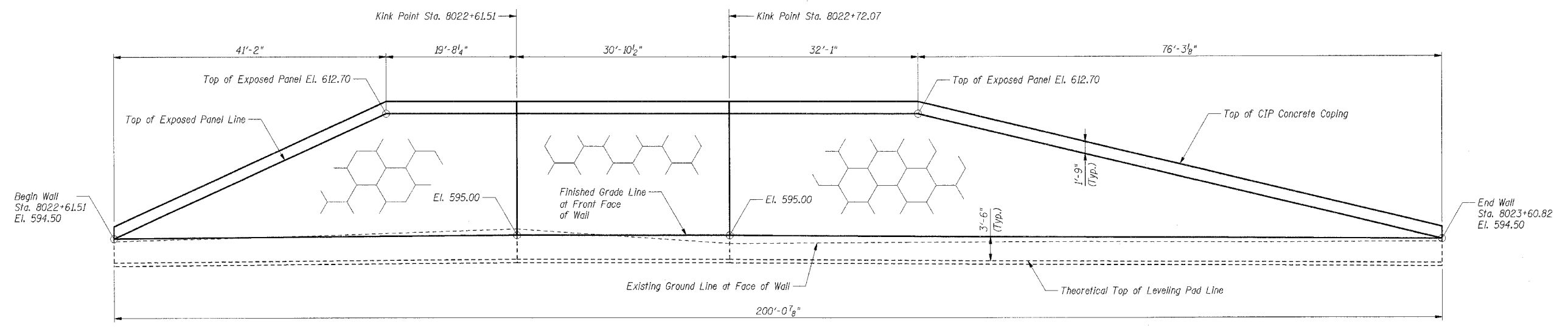
TENG

TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 816 N. MICHIGAN AVE. CHICAGO, IL 60610
 TELEPHONE: 312.467.6000

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59	*	WILL	608	367
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
* (26, 26HB-1 & 114) R-2 CONTRACT NO. 60363				



SOUTH M.S.E. WALL
(Developed Elevation)



NORTH M.S.E. WALL
(Developed Elevation)

- Notes:**
1. Work this sheet with Sht. S-22.
 2. For plans of walls, see Sht. S-1.
 3. Wall alignment offsets and stations are referenced to Front Face of wall. See Typical MSE wall Sections, Sht. S-22.
 4. Unsuitable material shall be removed from within the limits shown at a minimum and as directed by the Engineer; and backfilled with Porous Granular Embankment, Subgrade. Removal and Disposal of Unsuitable Material will be measured in its original position by taking cross-sections after removal has been completed and then computing volume in cubic yards by average end area method. Porous Granular Embankment, Subgrade will be paid for at the same volume as Removal and Disposal of Unsuitable Material. Removal and backfill beyond 1/2H excavation slope will not be measured for payment. Pavement removal will be measured and paid for separately, and shall not be included for payment with Removal and Disposal of Unsuitable Material.

SHT. S-21 OF S-24

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
IL ROUTE 59 OVER F.A.I. 55 (I-55)
SECTION (26, 26HB-1 & 114) R-2
STRUCTURE NUMBER 099-4642
STATION 8021+17.13, WILL COUNTY
MSE WALL ELEVATIONS

DATE: 03/14/08
DRAWN BY: CCE
CHECKED BY: TMH

TENG
TENG & ASSOCIATES, INC.
ENGINEERS ARCHITECTS PLANNERS
300 N. MICHIGAN AVE. CHICAGO, IL 60601
TELEPHONE 312.644.6000

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Everest Engineering Company
STRUCTURE BORING LOG
Date: 8/7/02 Page 1 of 2

ROUTE: FAI 55 & FAP 338 (IL RTE 59) DESCRIPTION: IL 59 (I-55 TO DUPAGE RIVER) AND INTERSTATE 55 AT IL RTE 59
SECT: 26HB-1BR & 114R-1 STRUCT. NO: 099-4642 DRILLED BY: PATRICK DRILLING INC.
COUNTY: WILL LOCATION: NB IL 59 EXIT RAMP BRIDGE S: TWP: 35N R1G: 9E

Boring No: B-122 Station: 8021+43 Offset: 3.8 RT Surface Elev: 593.80 ft

Depth (ft)	Soil Description	Penetration (lb/ft)	Blow Count (N)	Soil Type
0	ASPHALT PAVEMENT			
0.5	Loose, Brown and Gray SANDY LOAM	7	8	
1.5	trace to some - gravel and clay	2		
2.0	FILL	5		
2.5	Medium Dense, Brown SANDY LOAM	5	15	
3.0	some - gravel	5		
3.5	Stiff to Very Stiff, Brown SILTY CLAY	2	1.7	18
4.0	trace - gravel	2	B	
4.5		4		
5.0	Very Stiff to Hard, Gray SILTY CLAY LOAM	1	3.7	19
5.5	trace to little - gravel	3	B	
6.0		7		
6.5		9	3.8	15
7.0		14	S	
7.5		14		
8.0		9	5.8	13
8.5		47	S	
9.0	Extremely Dense, Gray SAND AND GRAVEL	100S	4	
9.5	some - cobble and boulder			
10.0	For Rock Cores See Page 2	100R		
10.5				
11.0				
11.5				
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Surface Water Elev. _____
Groundwater Elev. when drilling: 572.8
Groundwater Elev. at Completion: 573.8

SPT (N) = Sum of last two blow values in sample. (Q_u) = B-Bulge S-Shear P-Penetration Test Stations, Depths, Offset, and Elevations are in Feet.

Everest Engineering Company
STRUCTURE BORING LOG
Date: 8/7/02 Page 1 of 2

ROUTE: FAI 55 & FAP 338 (IL RTE 59) DESCRIPTION: IL 59 (I-55 TO DUPAGE RIVER) AND INTERSTATE 55 AT IL RTE 59
SECT: 26HB-1BR & 114R-1 STRUCT. NO: 099-4642 DRILLED BY: PATRICK DRILLING INC.
COUNTY: WILL LOCATION: NB IL 59 EXIT RAMP BRIDGE S: TWP: 35N R1G: 9E

Boring No: B-121 Station: 8021+18 Offset: 20.8 LT Surface Elev: 591.20 ft

Depth (ft)	Soil Description	Penetration (lb/ft)	Blow Count (N)	Soil Type
0	CRUSHED STONE			
0.5	Loose, Brown and Gray SANDY LOAM	2	1.5	22
1.0	trace to some - gravel and clay	3	B	
1.5	FILL	4		
2.0	Stiff to Hard, Brown SILTY CLAY	4	4.5	18
2.5	trace - gravel	8	B	
3.0		4		
3.5		7		
4.0		4	5.4	17
4.5		1	B	
5.0		8		
5.5		3	4.7	17
6.0		7	B	
6.5		7		
7.0		3		
7.5		4		
8.0		4		
8.5		11		
9.0		10		
9.5		4		
10.0		12		
10.5		15		
11.0		4		
11.5		5	3.3	20
12.0		8	B	
12.5		9		
13.0		3		
13.5		14		
14.0		19		
14.5				
15.0				
15.5				
16.0				
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39.5				
40.0				
40.5				
41.0				
41.5				
42.0				
42.5				
43.0				
43.5				
44.0				
44.5				
45.0				
45.5				
46.0				
46.5				
47.0				
47.5				
48.0				
48.5				
49.0		</		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59		WILL	608	374
STATION TO STATION				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
• (26, 26HB-1 & 114) R-2				
CONTRACT NO. 60363				

BENCHMARKS:

TBM#5 Square cut on the top of retaining wall near DuPage River Bridge on east side of IL 59 and +/- 34' south of south abutment. El. 582.06.

SALVAGE:

None.

STAGING:

Traffic to be maintained utilizing stage construction.

DESIGN SPECIFICATIONS:

2002 AASHTO Standard Specifications for Highway Bridges

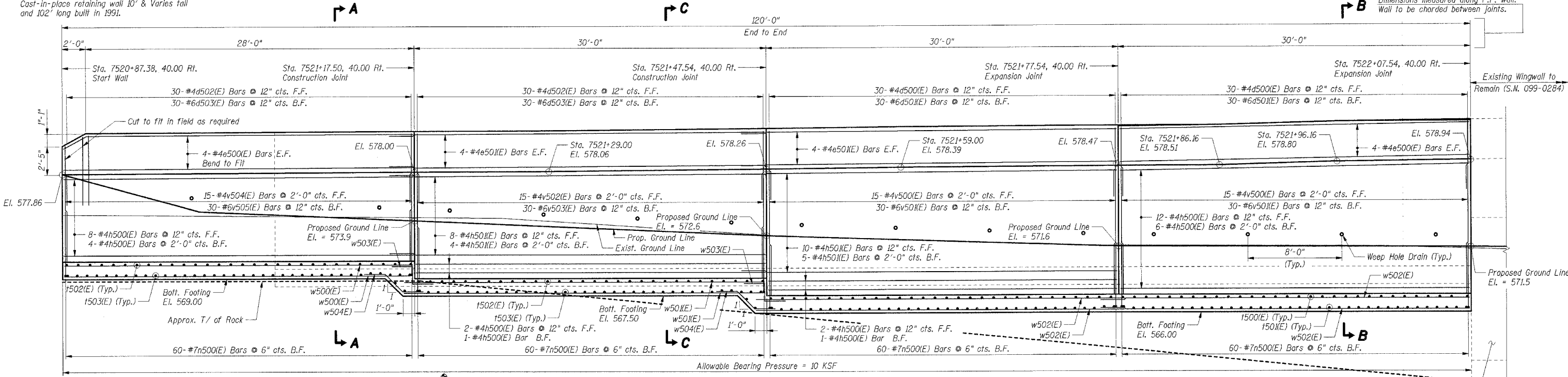
DESIGN STRESSES:

Concrete, f'c = 3,500 psi
Reinforcement, fy = 60,000 psi

EXISTING STRUCTURE:

Cast-in-place retaining wall 10' & Varies tall and 102' long built in 1991.

Dimensions measured along F.F. wall. Wall to be chorded between joints.



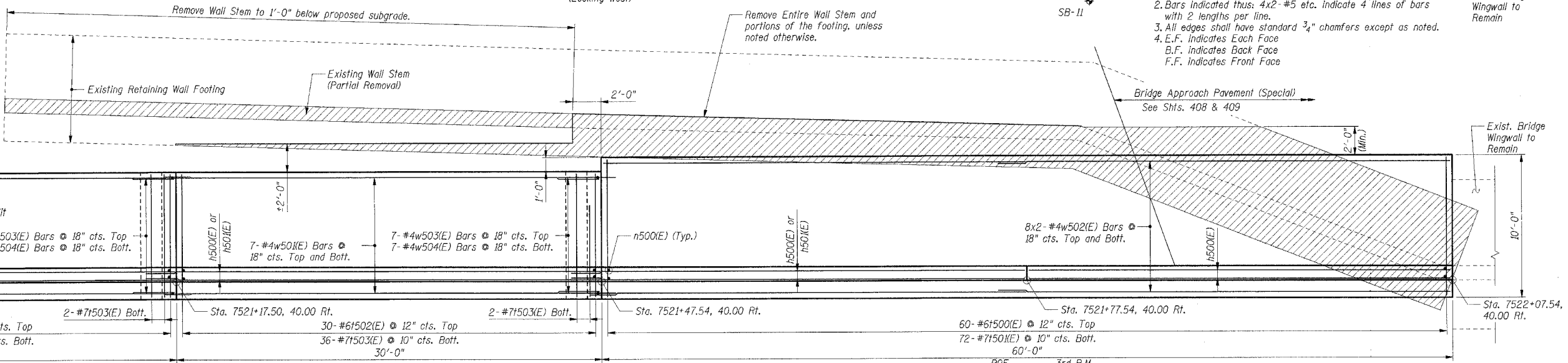
EAST WALL ELEVATION
(Looking West)

Note:
When footing extends into bedrock, the bottom of the footing shall be constructed to the elevation shown, and cast against the existing rock without the use of formwork.

Notes:
1. Work this Sheet with Shts. RWA-2 & RWA-3.
2. Bars indicated thus: 4x2-#5 etc. indicate 4 lines of bars with 2 lengths per line.
3. All edges shall have standard 3/4" chamfers except as noted.
4. E.F. indicates Each Face
B.F. indicates Back Face
F.F. indicates Front Face

Bar	Min. Lap
#4	1'-8"
#6	2'-7"

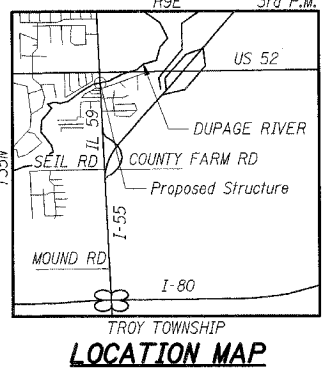
MIN. LAP TABLE



PLAN

TOTAL BILL OF MATERIAL

Item	Unit	Total
Porous Granular Embankment (Special)	Cu Yd	63
Concrete Removal	Cu Yd	54.4
Structure Excavation	Cu Yd	254
Rock Excavation for Structures	Cu Yd	10.0
Concrete Structures	Cu Yd	121.4
Protective Coat	Sq Yd	56
Rustication Finish	Sq. Ft.	1,169
Reinforcement Bars, Epoxy Coated	Lbs	14,440
Geocomposite Wall Drain	Sq. Yd.	48

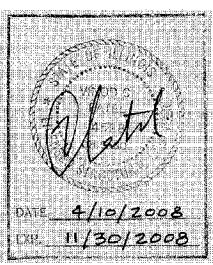
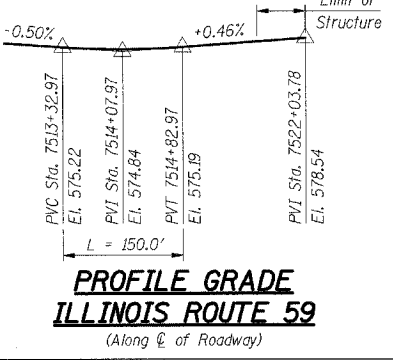


LEGEND

SB-0 Soil Boring Location
Concrete Removal

GENERAL NOTES:

1. Reinforcement Bars shall conform to the requirements of ASTM A 706 Gr 60 (LL Modified). See Special Provisions.
2. Reinforcement Bars designated (E) shall be epoxy coated.
3. Plan dimensions and details relative to existing plans are subject to routine 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 the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.



SHT. RWA-1 OF RWA-3

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
IL ROUTE 59 RETAINING WALL
SECTION (26, 26HB-1 & 114) R-2
STRUCTURE NUMBER 099-W008
STATION 7520+87 TO STATION 7522+08, WILL COUNTY

PLAN AND ELEVATION

DATE: 03/14/08
DRAWN BY: TMH
CHECKED BY: CCE

TENG

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59	*	WILL	608	377
STA.	TO STA.			
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
* 126, 26HB-1 & 114) R-2				
CONTRACT NO. 60363				

HIGHWAY CLASSIFICATION

SEIL ROAD
 Functional Class: Urban Collector
 ADT: 2,000 (1999)
 3,000 (2020)
 DHV: 300 (2020)
 ADTT: n/a
 Design Speed: 35 mph
 Posted Speed: 30 mph

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

LOADING

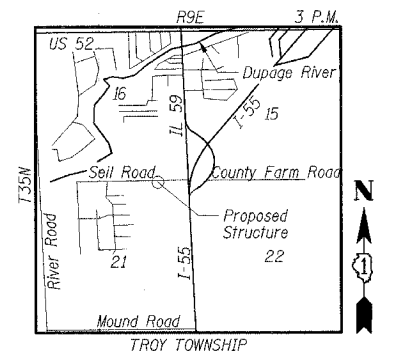
Apply 10k impact to traffic barrier

DESIGN STRESSES

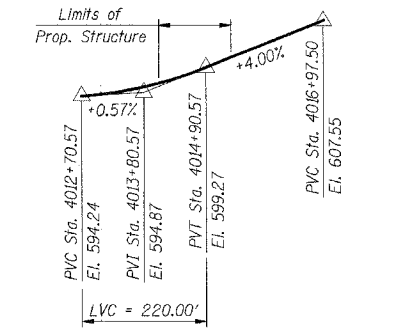
FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

INDEX OF SHEETS

- RWB-1 GENERAL PLAN & ELEVATION
- RWB-2 PLAN & ELEVATION
- RWB-3 SECTIONS & DETAILS
- RWB-4 SOIL BORING LOGS



LOCATION MAP



PROFILE GRADE ILLINOIS ROUTE 59

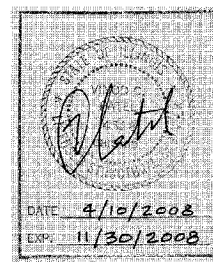
(Along E Roadway)

GENERAL NOTES

- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
- Reinforcement Bars Designated (E) shall be epoxy coated.
- Slipforming of the parapets is not allowed.

TOTAL BILL OF MATERIAL

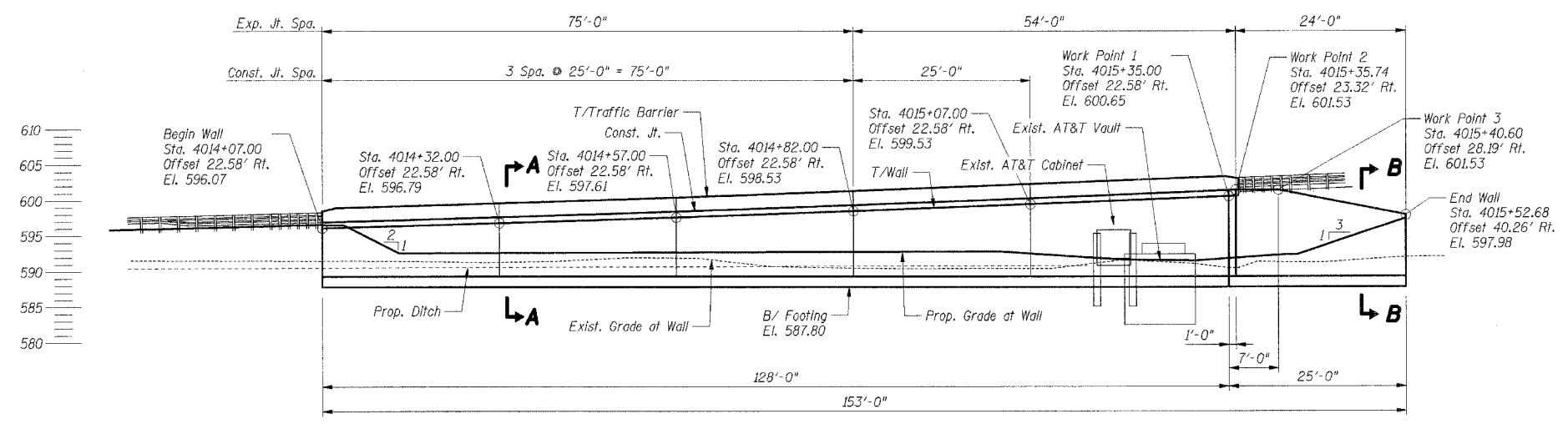
DESCRIPTION	UNIT	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.	86
Structure Excavation	Cu. Yd.	272
Concrete Structures	Cu. Yd.	160.7
Protective Coat	Sq. Yd.	54
Rustication Finish	Sq. Ft.	1,422
Reinforcement Bars, Epoxy Coated	Lbs.	15,210
Geocomposite Wall Drain	Sq. Yd.	63



BENCHMARK: TBM#3: Square out on top of box culvert headwall (near center of the headwall) at the northwest corner of the intersection of Seil Rd. and West Frontage Rd. Elev. 591.70

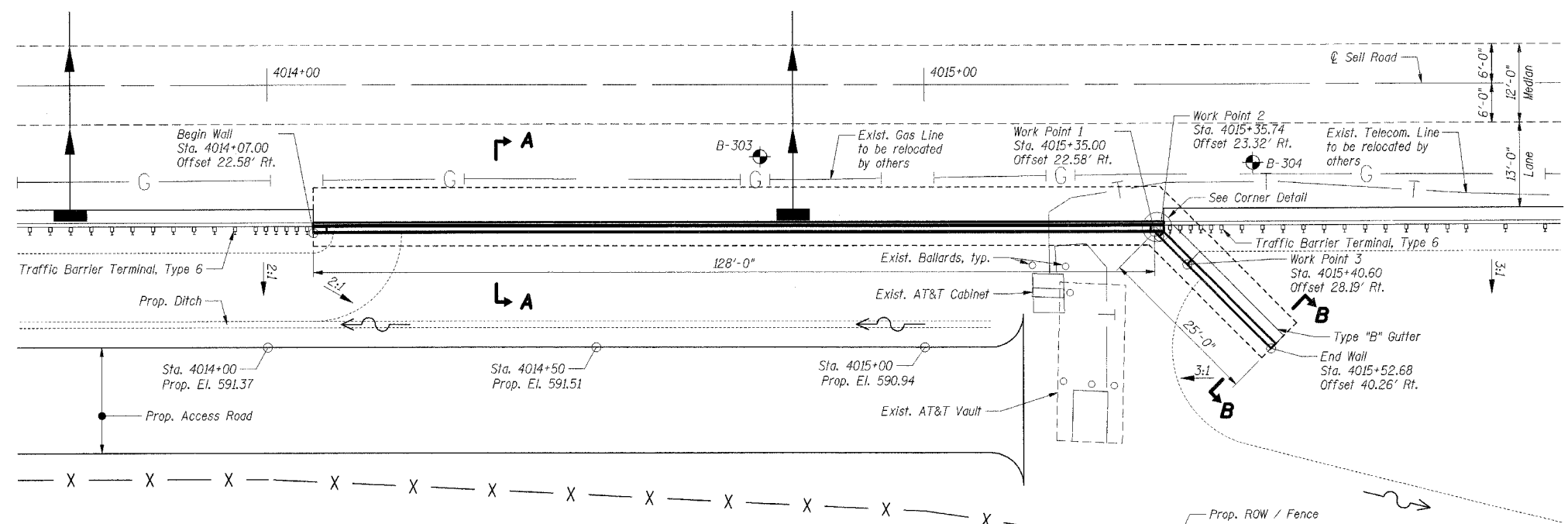
EXIST. STRUCTURE: None.

STAGING: None - traffic on Seil Road is to be re-routed on a temporary run-around. See roadway plans.



DEVELOPED ELEVATION

(Developed along Front Face of wall)



PLAN

LEGEND

- ⊕ Soil Boring Location
- T Exist. Telephone Line
- G Exist. Gas Line
- Prop. Storm Sewer
- Prop. Inlet

Notes:

- Work this sheet with Shis. RWB-2 thru RWB-4.
- Wall Stations and offsets are given to the front face of wall and are measured from E Seil Rd.
- Const. Jt. denotes Construction Joint. Exp. Jt. denotes Expansion Joint

SHT. RWB-1 OF RWB-4

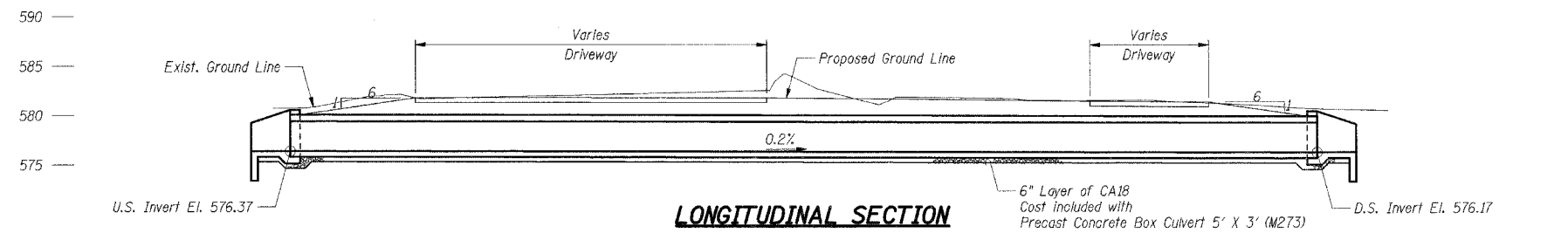
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
 SEIL ROAD RETAINING WALL
 SECTION (26, 26HB-1 & 114) R-2
 STRUCTURE NUMBER 099-W023
 STATION 4014+07 TO STATION 4015+54, WILL COUNTY
 GENERAL PLAN & ELEVATION

DATE: 03/14/08
 DRAWN BY: MDB
 CHECKED BY:

TENG
 TENG & ASSOCIATES, INC.
 800 N. MICHIGAN AVE. CHICAGO, IL 60611
 TEL: 312.666.6666

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59	•	WILL	608	381
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
* (26, 26HB-1 & 114) R-2				
CONTRACT NO. 60363				



INDEX OF SHEETS
 BCB-1 GENERAL PLAN AND ELEVATION
 BCB-2 BOX CULVERT END SECTIONS
 BCB-3 SOIL BORING LOGS

BENCHMARKS:
 TBM#3 Square cut on top of culvert headwall at the northwest corner of the intersection of Seil Road and West Frontage Road. El. 591.70.

EXISTING STRUCTURE:
 None.

SALVAGE:
 None.

STAGING:
 Access to private properties to be maintained using stage construction of the box culvert.

DESIGN SPECIFICATIONS:
 2002 AASHTO Standard Specifications for Highway Bridges

DESIGN LOADING:
 Roadway Live Load: HS20-44
 Future Wearing Surface = 50 psf

DESIGN STRESSES:
 Concrete: f'c = 5,000 psi (Precast Box Culvert)
 f'c = 3,500 psi (Other)
 Reinforcement: fy = 60,000 psi

GENERAL NOTES:
 Cast-in-Place Concrete
 All exposed concrete edges shall have a 3/4" chamfer unless noted otherwise. Chamfer on vertical edges shall be continued a minimum of one foot below finished ground level.

Reinforcement Bars
 Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

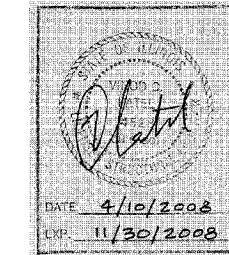
Construction
 For backfilling and embankment, see Standard Specifications.

Precast Box Culvert sections shall conform to the requirements of Article 540.06 of the Standard Specifications and the applicable requirements of AASHTO M 273.

Lifting holes shall be filled with concrete plugs and mastic after box sections are in place.

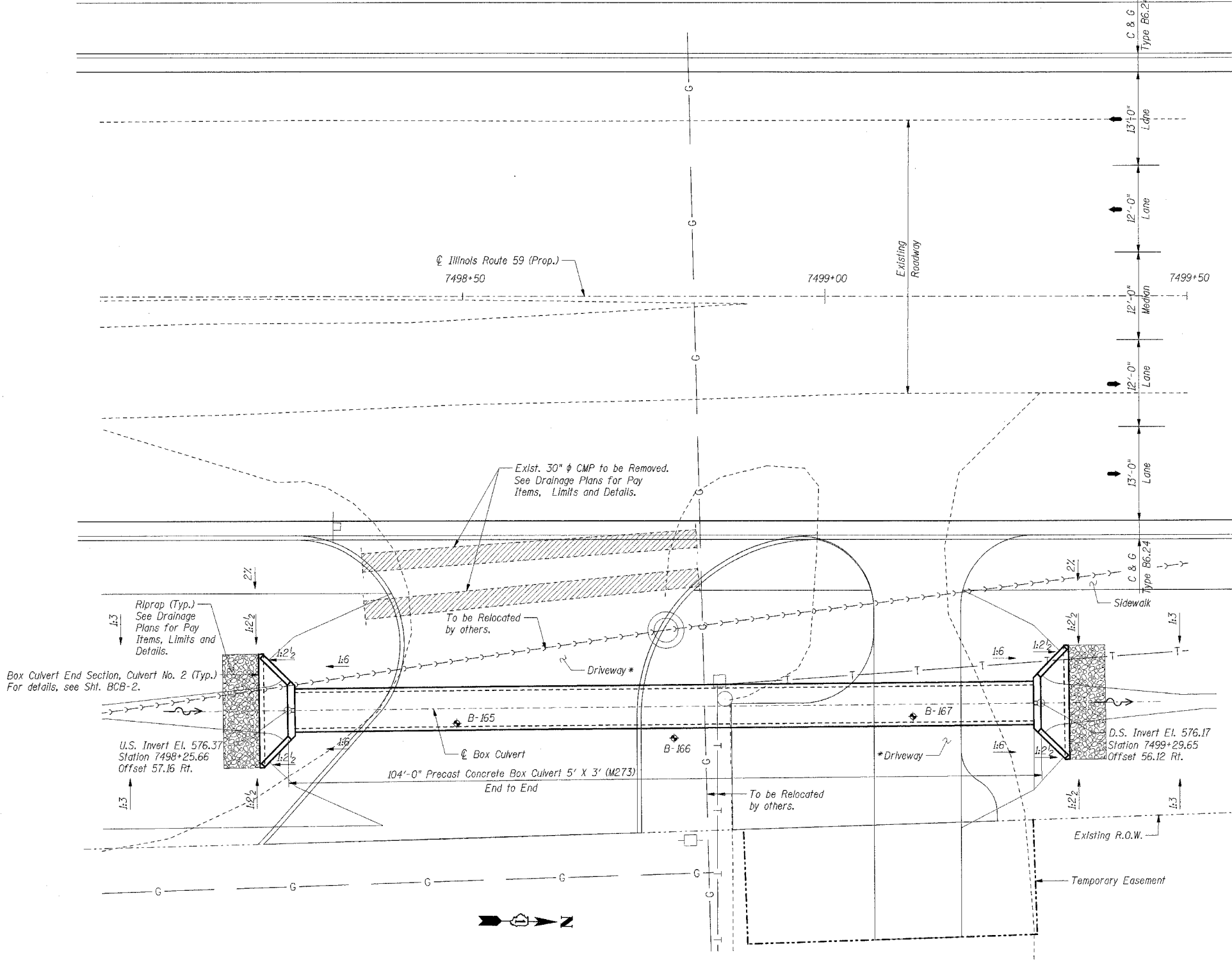
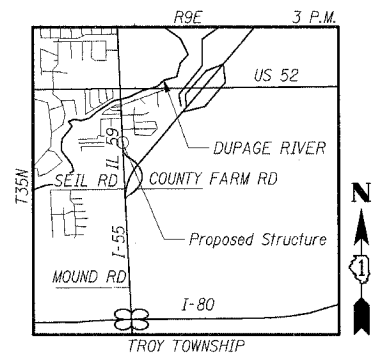
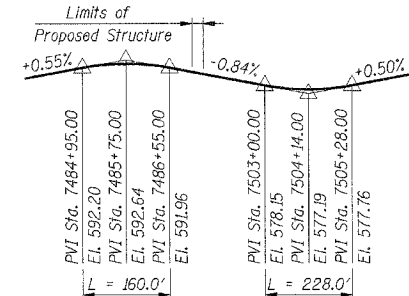
All construction joints shall be bonded.

*** STAGE CONSTRUCTION:**
 Access to both driveways must be maintained at all times.



TOTAL BILL OF MATERIAL

DESCRIPTION	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	136
Box Culvert End Section, Culvert No. 2	Each	2
Precast Concrete Box Culvert 5' X 3' (M273)	Ft.	104



LEGEND

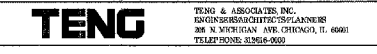
- ◆ Soil Boring Location
- T- Exist. Telephone Line
- G- Exist. Gas Line
- W- Exist. Water Line
- Exist. Electrical Pole
- >->- Exist. Sanitary Sewer

SHT. BCB-1 OF BCB-3

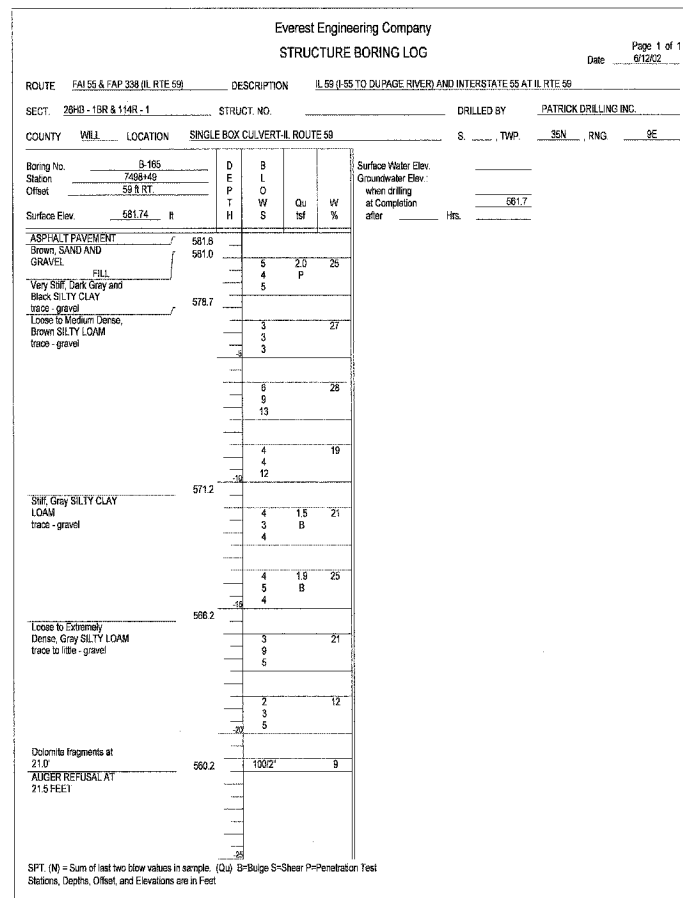
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
 IL ROUTE 59 SINGLE BOX CULVERT
 SECTION (26, 26HB-1 & 114) R-2
 STRUCTURE NUMBER 099-C004
 STATION 7498+38 TO 7499+26, WILL COUNTY
 GENERAL PLAN AND ELEVATION

DATE: 03/14/08
 DRAWN BY: MPM
 CHECKED BY: TMH



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59	*	WILL	608	383
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
* (26, 26HB-1 & 114) R-2 CONTRACT NO. 60363				



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59		WILL	608	384
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
* (26, 26HB-1 & 114) R-2 CONTRACT NO. 60363				

BENCHMARKS:

TBM#4 Square cut on northern end of concrete floor of box culvert end section located on the east side of IL 59. El. 576.00.

EXISTING STRUCTURE:

Single 4'x2' x 69' (Approx.) long concrete box culvert. Route/ Section and date built are unknown.

SALVAGE:

None.

STAGING:

Traffic to be maintained utilizing Standard 701606.

DESIGN SPECIFICATIONS:

2002 AASHTO Standard Specifications for Highway Bridges

DESIGN LOADING:

Roadway Live Load: HS20-44
Future Wearing Surface = 50 psf

DESIGN STRESSES:

Concrete $f'_c = 5,000$ psi (Precast Box Culvert)
 $f'_c = 3,500$ psi (Other)
Reinforcement $f_y = 60,000$ psi

GENERAL NOTES:

Cast-in-Place Concrete
All exposed concrete edges shall have a 3/4" chamfer unless noted otherwise. Chamfer on vertical edges shall be continued a minimum of one foot below finished ground level.

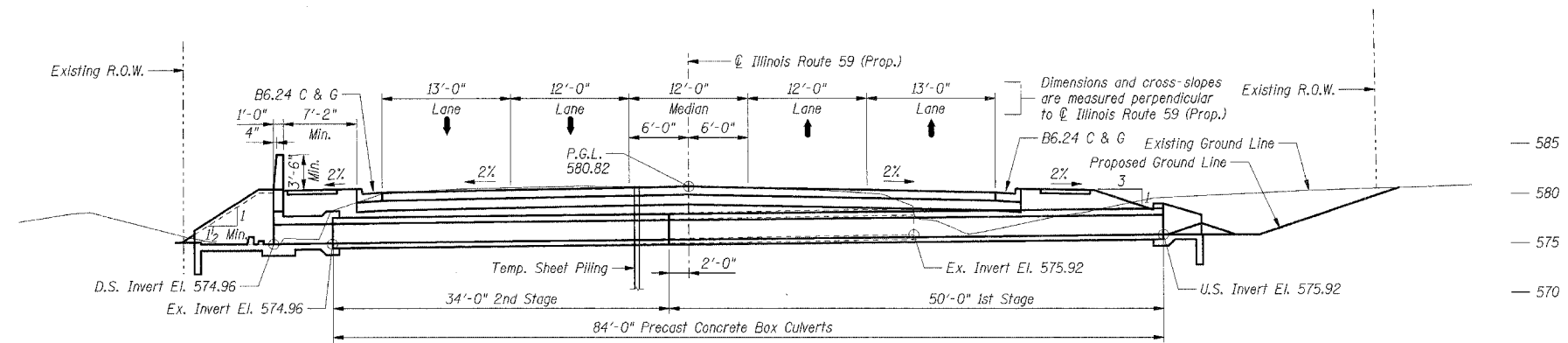
Reinforcement Bars
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

Construction
For backfilling and embankment, see Standard Specifications.

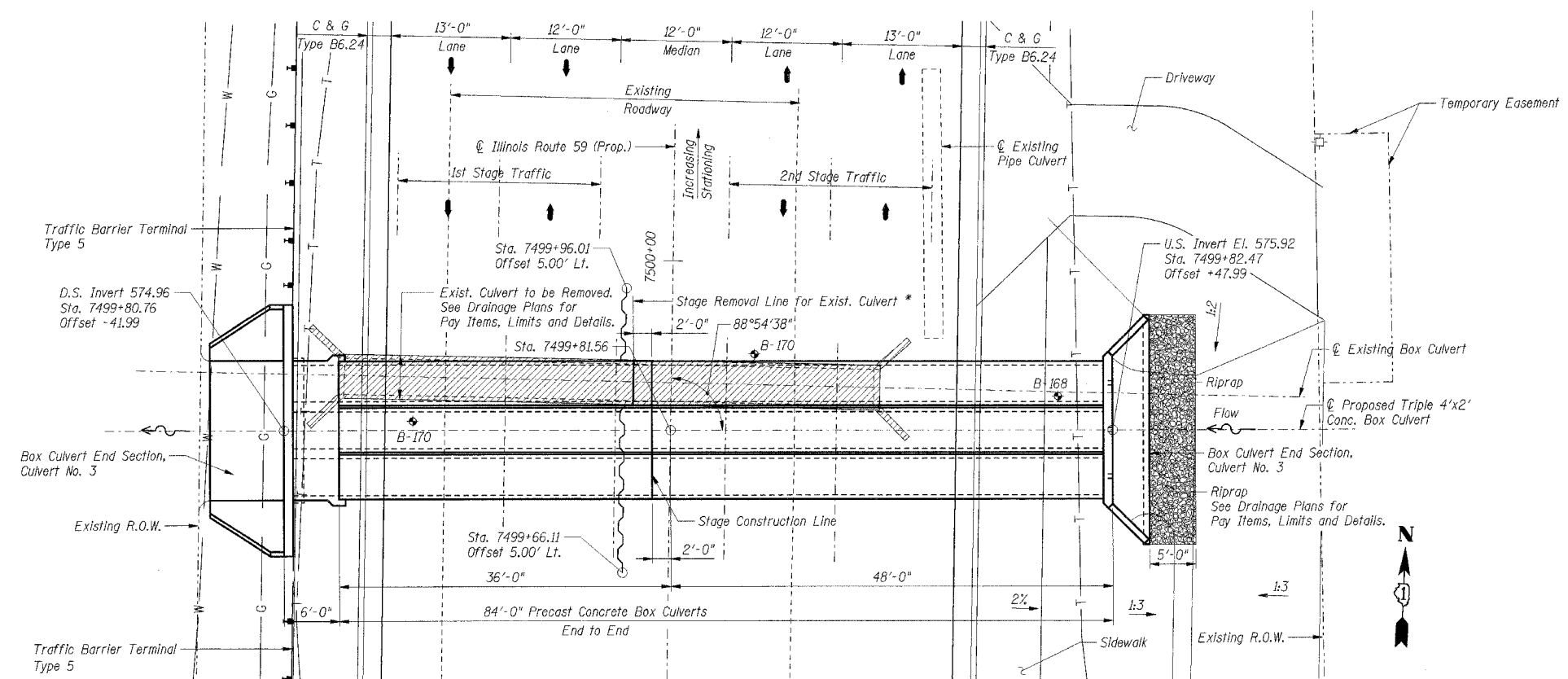
Precast Box Culvert sections shall conform to the requirements of Article 540.06 of the Standard Specifications and the applicable requirements of AASHTO M 273.

Lifting holes shall be filled with concrete plugs and mastic after box sections are in place.

All construction joints shall be bonded.

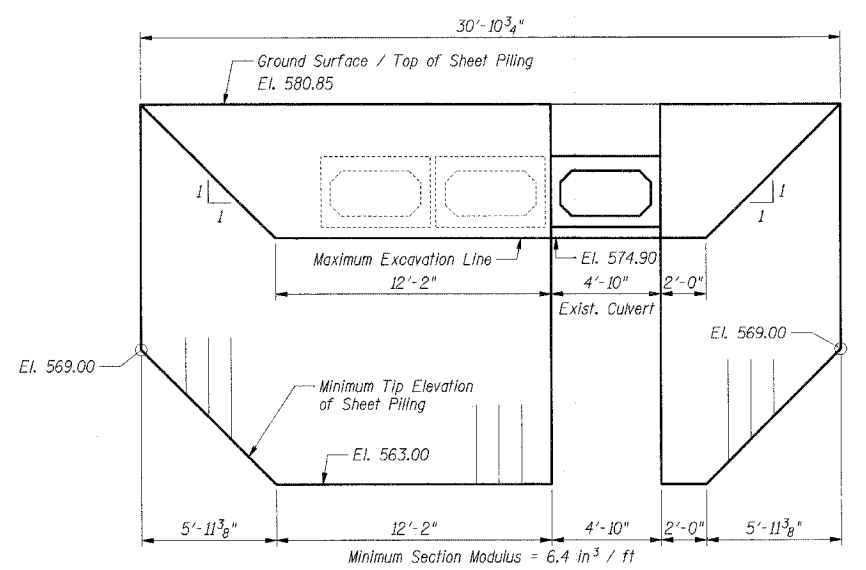


LONGITUDINAL SECTION



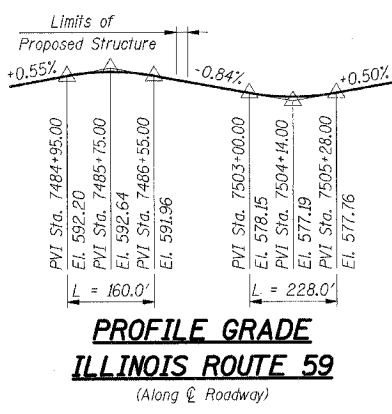
PLAN - CULVERT NO. 3

* Existing culvert shall be maintained during construction for interim drainage.



TEMPORARY SHEET PILING DETAIL

If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.



INDEX OF SHEETS

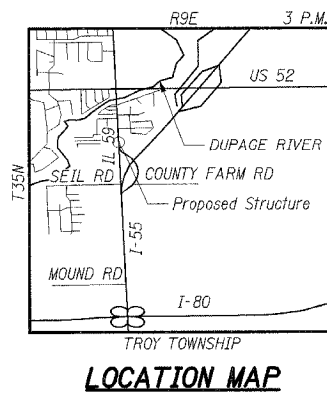
- BCC-1 GENERAL PLAN AND ELEVATION
- BCC-2 BOX CULVERT END SECTIONS I
- BCC-3 BOX CULVERT END SECTIONS 2; DETAIL I
- BCC-4 BOX CULVERT END SECTIONS 2; DETAIL II
- BCC-5 SOIL BORING LOGS

TOTAL BILL OF MATERIAL

DESCRIPTION	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	74
Box Culvert End Section, Culvert No. 3	Each	2
Precast Concrete Box Culvert 4' X 2' (M273)	Ft.	252
Temporary Sheet Piling	Sq. Ft.	120

LEGEND

- ◆ Soil Boring Location
- T— Exist. Telephone Line
- G— Exist. Gas Line
- W— Exist. Water Line
- Exist. Electrical Pole
- S— Exist. Sanitary Sewer
- ~— Temp. Sheet Piling



LOCATION MAP

SHT.BCC-1 OF BCC-5

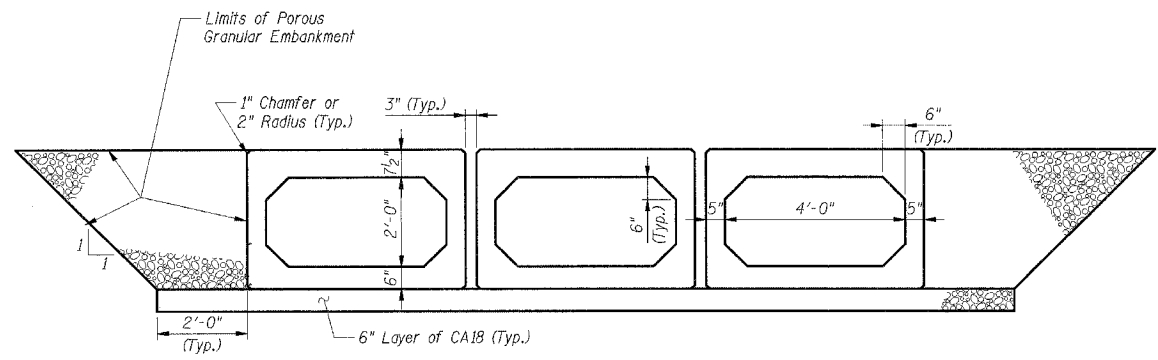
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
IL ROUTE 59 TRIPLE BOX CULVERT
SECTION (26, 26HB-1 & 114) R-2
STRUCTURE NUMBER 099-0352
STATION 7499+81.56, WILL COUNTY
GENERAL PLAN AND ELEVATION

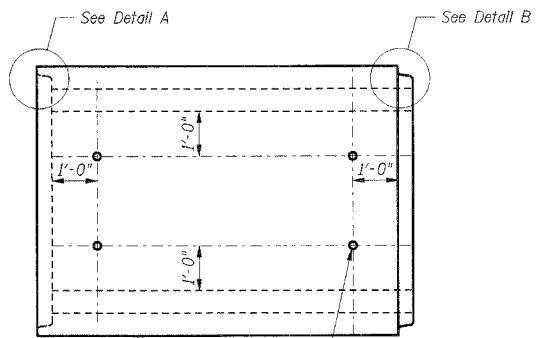
DATE: 03/14/08
DRAWN BY: TMH
CHECKED BY:

TENG
TENG & ASSOCIATES, INC.
300 N. KICHWAU AVENUE, CHICAGO, IL 60610
TEL: 312.281.1000 FAX: 312.281.1001

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59	*	WILL	608	385
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
* (26, 26HB-1 & 114) R-2				
CONTRACT NO. 60363				

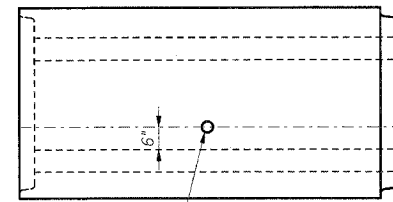


SECTION



PLAN
2" ϕ Hole for Lifting Device (Top Slab Only) (Typ.)

(Location of lifting holes may be varied as needed to clear reinforcement)



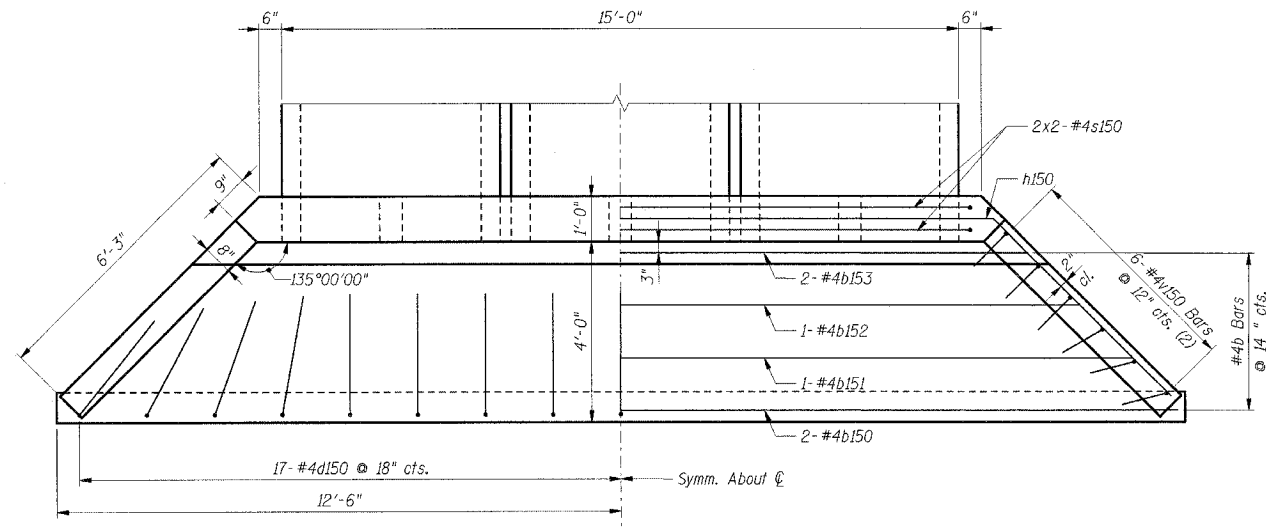
ELEVATION

STANDARD BOX CULVERT SECTION

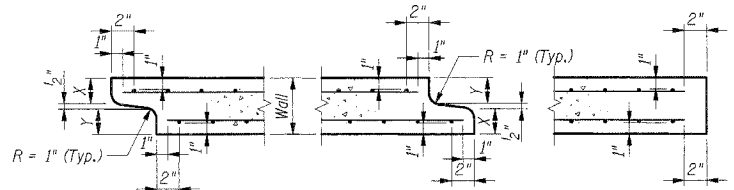
BAR LIST

Bar	No.	Size	Length	Shape
b150	2	#4	24'-8"	—
b151	1	#4	22'-10"	—
b152	1	#4	20'-6"	—
b153	2	#4	18'-2"	—
d150	17	#4	5'-4"	┘
h150	1	#4	27'-6"	∨
h151	6	#4	5'-11"	—
s150	4	#4	20'-4"	┘
v150	6	#4	7'-1"	┘
Item			Unit	Total
Reinforcement Bars***			lbs	270
Concrete Structures***			Cu Yd	4.9

*** For information only, cost included with Box Culvert End Section, Culvert No. 3.

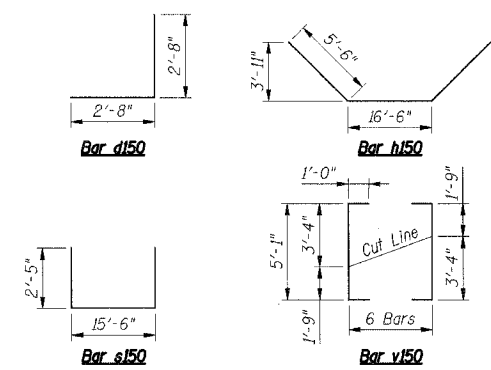


PLAN

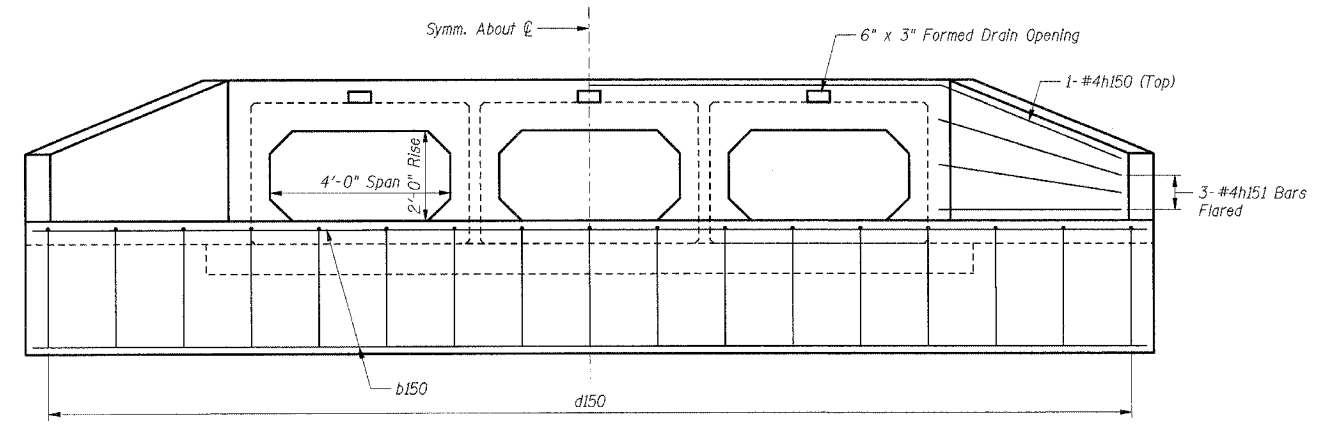


DETAIL A (Typ. Inlet End)
DETAIL B (Typ. Outlet End)
DETAIL C (Typ. Exposed End)

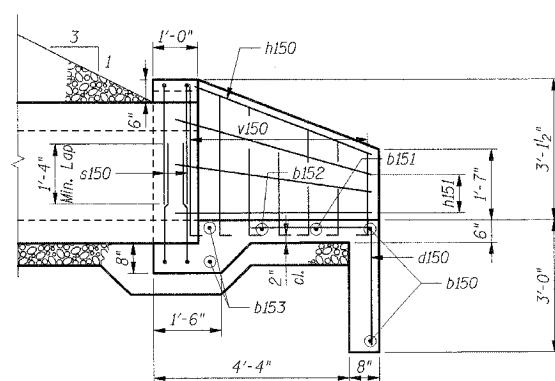
Note: Inlet and outlet ends shall be compatible.



- Reinforcement Notes:**
- Bend bars in the field to fit as required.
 - Cut bars according to Cutting Diagram and use reminder in other side of the Headwall.
- Notes:**
- Bars indicated thus: 4x2-#5 etc. indicate 4 lines of bars with 2 lengths per line.
 - B.F. Indicates Back Face
F.F. Indicates Front Face
E.F. Indicates Each Face.



END ELEVATION
APRON END SECTION



HALF SIDE ELEVATION

SHT. BCC-2 OF BCC-5

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
IL ROUTE 59 TRIPLE BOX CULVERT
SECTION (26, 26HB-1 & 114) R-2
STRUCTURE NUMBER 099-0352
STATION 7499+81.56, WILL COUNTY
BOX CULVERT END SECTIONS 1

DATE: 03/14/08
DRAWN BY: TMH
CHECKED BY:

TENG
TENG & ASSOCIATES, INC.
200 N. MICHIGAN AVE. CHICAGO, IL 60601
TELEPHONE: 312.666.0000

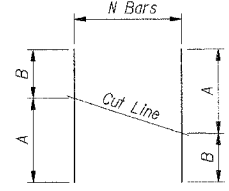
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BAR LIST

Bar	No.	Size	Length	Shape
a158	20	#5	16'-0"	U
a159	4	#6	20'-10"	U
a161	36	#5	7'-10"	U
a162	20	#5	14'-10"	U
a163	4	#6	7'-10"	U
a164	4	#6	10'-2"	U
a165	4	#6	11'-0"	U
b158	21	#4	16'-8"	U
b159	2	#4	14'-4"	U
b160	4	#4	8'-6"	U
d158	20	#6	3'-10"	U
d159	4	#6	13'-3"	U
d163	18	#4	5'-2"	U
d164	35	#6	5'-7"	U
d165	35	#5	5'-7"	U
d166	15	#4	1'-3"	U
d167	15	#4	1'-3"	U
h158	17	#7	8'-5"	U
h159	17	#6	8'-3"	U
h160	34	#5	7'-8"	U
h161	24	#5	5'-8"	U
h162	8	#4	7'-10"	U
h163	12	#4	26'-10"	U
n160	18	#4	3'-5"	U
s158	12	#4	4'-5"	U
t160	14	#6	3'-0"	U
v158	60	#4	3'-1"	U
v159	36	#6	8'-3"	U
v160	14	#4	8'-7"	U
v161	8	#4	7'-1"	U
w158	8	#4	26'-10"	U
x158	40	#4	5'-6"	U
x159	6	#4	21'-5"	U
Item	Unit	Total		
Reinforcement Bars***	lbs	4,670		
Concrete Structures***	Cu Yd	22.0		

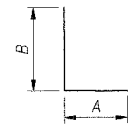
*** For information only, cost included with Box Culvert End Section, Culvert No. 3.

Bar	A	B	N
a164	7'-5"	2'-9"	4
a165	7'-10"	3'-2"	4
v160	6'-8"	1'-11"	7

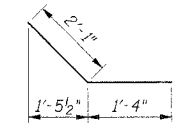


Bars a164, a165 & v160

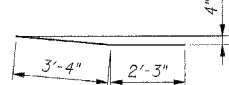
Bar	A	B
d158	1'-0"	2'-10"
d159	1'-0"	2'-2"
d163	2'-7"	2'-7"
d166	1'-0"	0'-8"
d167	0'-7"	0'-8"
h158	5'-8"	2'-9"
h159	5'-0"	3'-3"
h162	1'-8"	6'-2"
v159	6'-5"	1'-10"



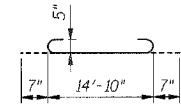
Bars d158, d159, d163, d166, d167, h158, h159, h162 & v159



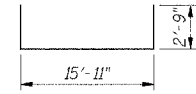
Bar n160



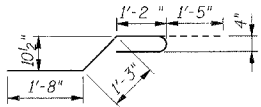
Bar d165



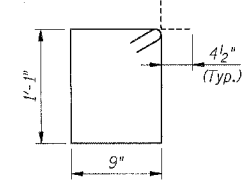
Bar a158



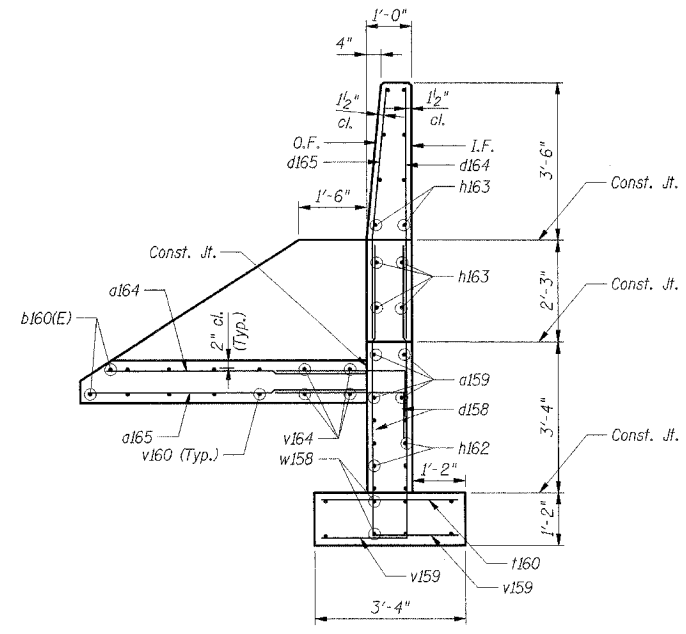
Bars x159



Bar x158



Bar s158



SECTION C-C

(Headwall reinforcement not shown for clarity)

- Notes:**
1. Work this sheet with Sht. BCC-3.
 2. Bars Indicated thus: 4x2-#5 ets. indicate 4 lines of bars with 2 lengths per line.
 3. I.F. Indicates inside face.
O.F. Indicates outside face.
E.F. Indicates each face.

SHT. BCC-4 OF BCC-5

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
 IL ROUTE 59 TRIPLE BOX CULVERT
 SECTION (26, 26HB-1 & 114) R-2
 STRUCTURE NUMBER 099-0352
 STATION 7499+81.56, WILL COUNTY

**BOX CULVERT END SECTIONS 2
 DETAIL II**

DATE: 03/14/08

DRAWN BY: MX
 CHECKED BY: TMH

TENG

TENG & ASSOCIATES, INC.
 2000 W. BROADWAY, SUITE 100
 300 N. MERIDIAN AVE., CHICAGO, IL 60601
 TELEPHONE: 312.642.0000



SOIL BORING LOG

Page 1 of 1

Date 9/4/07

ROUTE FAI 55 & FAP 338 (IL 59) DESCRIPTION IL 59 (I-55 TO DUPAGE RIVER) AND INTERSTATE 55 AT IL RTE 59 LOGGED BY G. Schaerl

SECTION 26HB-1BR & 114R-1 LOCATION BOX CULVERT UNDER SEIL ROAD SEC. 21 TWP. 35 N RNG. 9 E PM. 3rd

COUNTY WILL DRILLING METHOD HOLLOW STEM AUGER HAMMER TYPE AUTOMATIC

STRUCT. NO. 099-C022	D	B	U	M	Surface Water Elev.	ft	D	B	U	M
Station 4016+73.5	E	L	C	O	Stream Bed Elev.	ft	P	O	S	I
BORING NO. B-305	P	O	S	I	Groundwater Elev.:		T	W	S	S
Station 4016+78	T	W	S	S	First Encounter	569.2 ft	H	S	Qu	T
Offset 79.0 ft RT.	H	S	Qu	T	Upon Completion	576.2 ft				
Northing 1,762,888.97					After	Hrs.	(ft)	(6")	(tsf)	(%)
Easting 1,020,852.23										
Ground Surface Elev. 590.2	ft	(ft)	(6")	(tsf)	(%)					

TOPSOIL					569.7					
	3									
Stiff to Hard, Brown SILTY CLAY	4	2.1	25.0							
trace - gravel	5	B			568.2	504"		6.0		
	3									
	4	4.3	21.0							
	5	B								
	3									
	5	4.5	22.0							
	9	B								
	4									
	6	6.4	21.0							
	11	B								
Gray below 11 feet	4									
	7	2.5	22.0							
	9	B								
	4									
	5	3.1	19.0							
	8	B								
	2									
	3	1.5	14.0							
	4	B								
					572.2					
Medium Dense, Gray SILTY LOAM	8									
little - gravel	10		11.0							
	11									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)



SOIL BORING LOG

Page 1 of 1

Date 9/4/07

ROUTE FAI 55 & FAP 338 (IL 59) DESCRIPTION IL 59 (I-55 TO DUPAGE RIVER) AND INTERSTATE 55 AT IL RTE 59 LOGGED BY G. Schaerl

SECTION 26HB-1BR & 114R-1 LOCATION BOX CULVERT UNDER SEIL ROAD SEC. 16 TWP. 35 N RNG. 9 E PM. 3rd

COUNTY WILL DRILLING METHOD HOLLOW STEM AUGER HAMMER TYPE AUTOMATIC

STRUCT. NO. 099-C022	D	B	U	M	Surface Water Elev.	ft	D	B	U	M
Station 4016+73.5	E	L	C	O	Stream Bed Elev.	ft	P	O	S	I
BORING NO. B-306	P	O	S	I	Groundwater Elev.:		T	W	S	S
Station 4016+78	T	W	S	S	First Encounter	570.1 ft	H	S	Qu	T
Offset 77.0 ft LT.	H	S	Qu	T	Upon Completion	565.1 ft				
Northing 1,763,044.73					After	Hrs.	(ft)	(6")	(tsf)	(%)
Easting 1,020,843.68										
Ground Surface Elev. 589.1	ft	(ft)	(6")	(tsf)	(%)					

TOPSOIL					569.7					
	3									
Very Stiff to Hard, Brown SILTY CLAY	4	2.7	24.0							
trace - roots, gravel	5	B			568.1	5		10.0		5.0
	3									
	5	2.9	16.0							
	6	B			564.6					
	6									
	8	4.7	15.0							
	10	B								
	5									
	8	4.3	26.0							
	11	B								
	4									
	6	3.3	16.0							
	8	B								
	5				576.1					
Medium Dense, Gray SILT CLAY	9		18.0							
trace - gravel	15	8								
	3				573.6					
Stiff, Gray SILTY CLAY	3									
trace - gravel	3	1.2	33.0							
	4	B								
					571.1					
Medium Dense, Gray SILTY CLAY LOAM	9									
trace - gravel	6		11.0							
	6									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

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SHT. BCE-3 OF BCE-3

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
 SEIL ROAD DOUBLE BOX CULVERT
 SECTION (26, 26HB-1 & 114) R-2
 STRUCTURE NUMBER 099-C022
 STATION 4016+73.50, WILL COUNTY

SOIL BORING LOGS

DRAWN BY: MDB
 CHECKED BY:

DATE: 03/14/08

TENG
 TENG & ASSOCIATES, INC.
 2100 BIRCHMOUNT ROAD
 SUITE 100
 CHICAGO, ILLINOIS 60614
 TELEPHONE: 847-886-8888



SOIL BORING LOG

Page 1 of 1

Date 9/4/07

ROUTE FAI 55 & FAP 338 (IL 59) DESCRIPTION IL 59 (I-55 TO DUPAGE RIVER) AND INTERSTATE 55 AT IL RTE 59 LOGGED BY G. Schaertl

SECTION 26HB-1BR & 114R-1 LOCATION BOX CULVERT UNDER IL 59 SEC. 21 TWP. 35 N RNG. 9 E PM. 3rd

COUNTY WILL DRILLING METHOD HOLLOW STEM AUGER HAMMER TYPE AUTOMATIC

STRUCT. NO.	099-C023	D	B	U	M	Surface Water Elev.	ft	D	B	U	M
Station	7003+50.00	E	L	C	O	Stream Bed Elev.	ft	E	L	C	O
BORING NO.	B-301	P	O	S	I	Groundwater Elev.:		P	O	S	I
Station	7003+59	T	W	S	S	First Encounter	585.7 ft	T	W	S	S
Offset	132.0 ft LT.	H	S	Qu	T	Upon Completion	573.2 ft	H	S	Qu	T
Northing	1,762,576.77					After	Hrs.				
Easting	1,021,046.77										
Ground Surface Elev.	592.2 ft	(ft)	(6")	(tsf)	(%)			(ft)	(6")	(tsf)	(%)

TOPSOIL	591.4				Medium Dense, Gray GRAVEL with Sand (continued)						
Stiff to Hard, Brown SILTY CLAY trace - gravel		2				570.7					
		4	4.5	18.0	End of Boring						
		6	B								
		4									
		9	5.2	20.0							
		11	B								
		5									
	585.7	4									
Medium Dense, Brown SAND trace - gravel		6	1.4	21.0							
		5	B	17.0							
	584.2										
Stiff to Hard, Gray SILTY CLAY trace - gravel		1									
		2	1.2	15.0							
		3	B								
		5									
		7	3.4	19.0							
		9	B								
		8									
		12	5.2	18.0							
		13	B								
		7									
		8	2.1	14.0							
		8	B								
	574.2										
Medium Dense, Gray SILTY CLAY LOAM little - gravel		5									
		6		27.0							
	572.7	8		15.0							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)



SOIL BORING LOG

Page 1 of 1

Date 9/4/07

ROUTE FAI 55 & FAP 338 (IL 59) DESCRIPTION IL 59 (I-55 TO DUPAGE RIVER) AND INTERSTATE 55 AT IL RTE 59 LOGGED BY G. Schaertl

SECTION 26HB-1BR & 114R-1 LOCATION BOX CULVERT UNDER IL 59 SEC. 21 TWP. 35 N RNG. 9 E PM. 3rd

COUNTY WILL DRILLING METHOD HOLLOW STEM AUGER HAMMER TYPE AUTOMATIC

STRUCT. NO.	099-C023	D	B	U	M	Surface Water Elev.	ft	D	B	U	M
Station	7003+50.00	E	L	C	O	Stream Bed Elev.	ft	E	L	C	O
BORING NO.	B-302	P	O	S	I	Groundwater Elev.:		P	O	S	I
Station	7003+42	T	W	S	S	First Encounter	585.0 ft	T	W	S	S
Offset	66.0 ft RT.	H	S	Qu	T	Upon Completion		H	S	Qu	T
Northing	1,762,658.15					After	Hrs.				
Easting	1,020,863.66										
Ground Surface Elev.	591.5 ft	(ft)	(6")	(tsf)	(%)			(ft)	(6")	(tsf)	(%)

TOPSOIL	590.9				Extremely Dense, Brown GRAVEL with Sand						
Hard, Brown SILTY CLAY trace - gravel		2			End of Boring						
		3	4.3	20.0							
		5	B								
		2									
		5	6.4	18.0							
		8	B								
		5									
	585.0	7									
Medium Dense, Brown SAND trace - gravel		8	6.0	18.0							
		7	B	19.0							
	583.5										
Stiff to Hard, Gray SILTY CLAY trace - gravel		5									
		7	3.2	23.0							
		10	B								
		5									
		9	3.2	22.0							
		12	B								
		5									
		12	4.3	16.0							
		13	B								
		3									
		4	1.6	31.0							
		5	B								
	573.0										
Medium Dense, Gray SILTY CLAY LOAM little - gravel		4									
		6		9.0							
	571.5	20	503"	6.0							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

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SHT. BCF-3 OF BCF-3

REVISIONS	
NAME	DATE

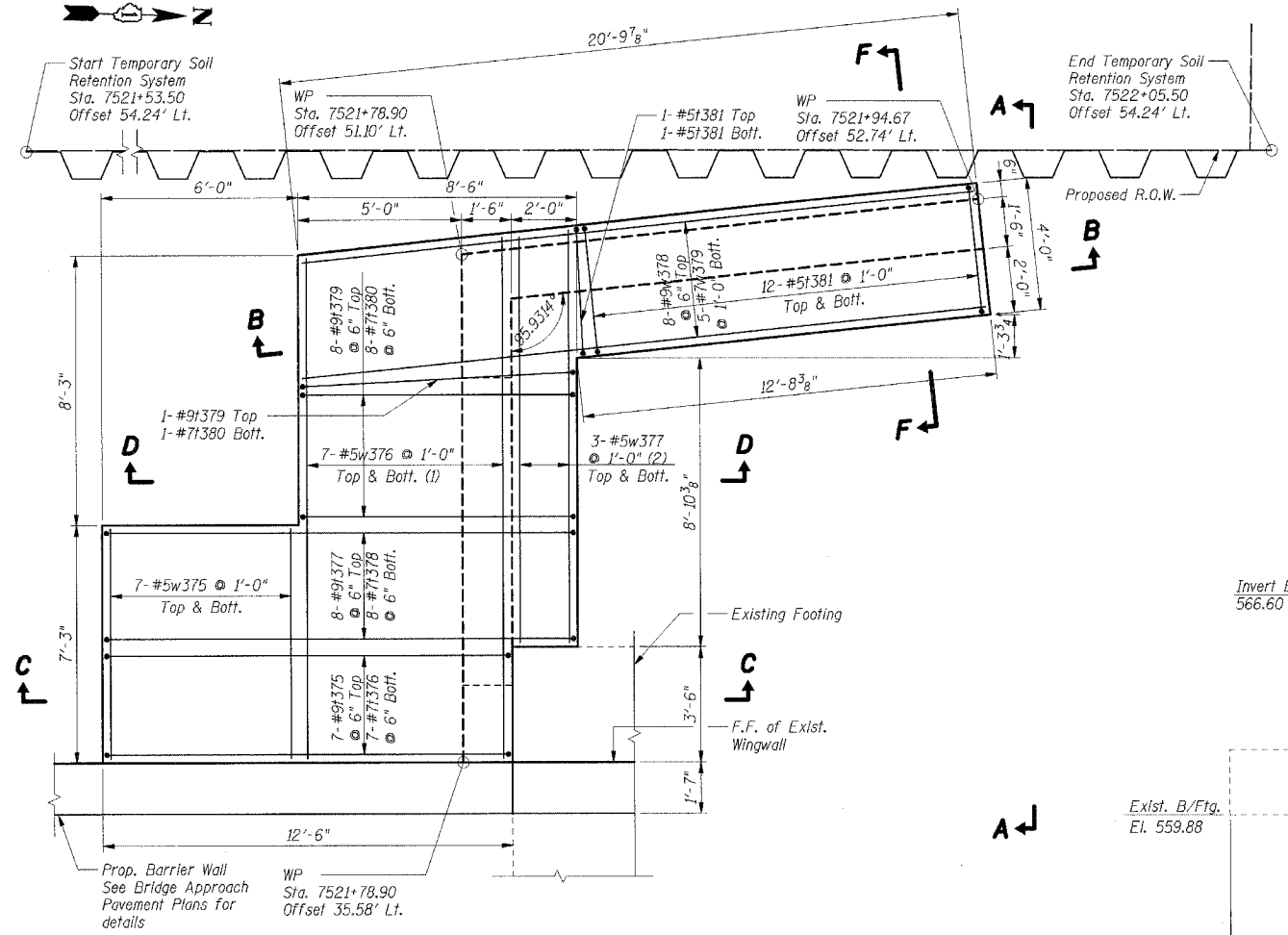
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.P. ROUTE 338 (ILLINOIS ROUTE 59)
 IL 59 DOUBLE BOX CULVERT
 SECTION (26, 26HB-1 & 114) R-2
 STRUCTURE NUMBER 099-0351
 STATION 7003+50.00 (SB IL 59), WILL COUNTY

SOIL BORING LOGS

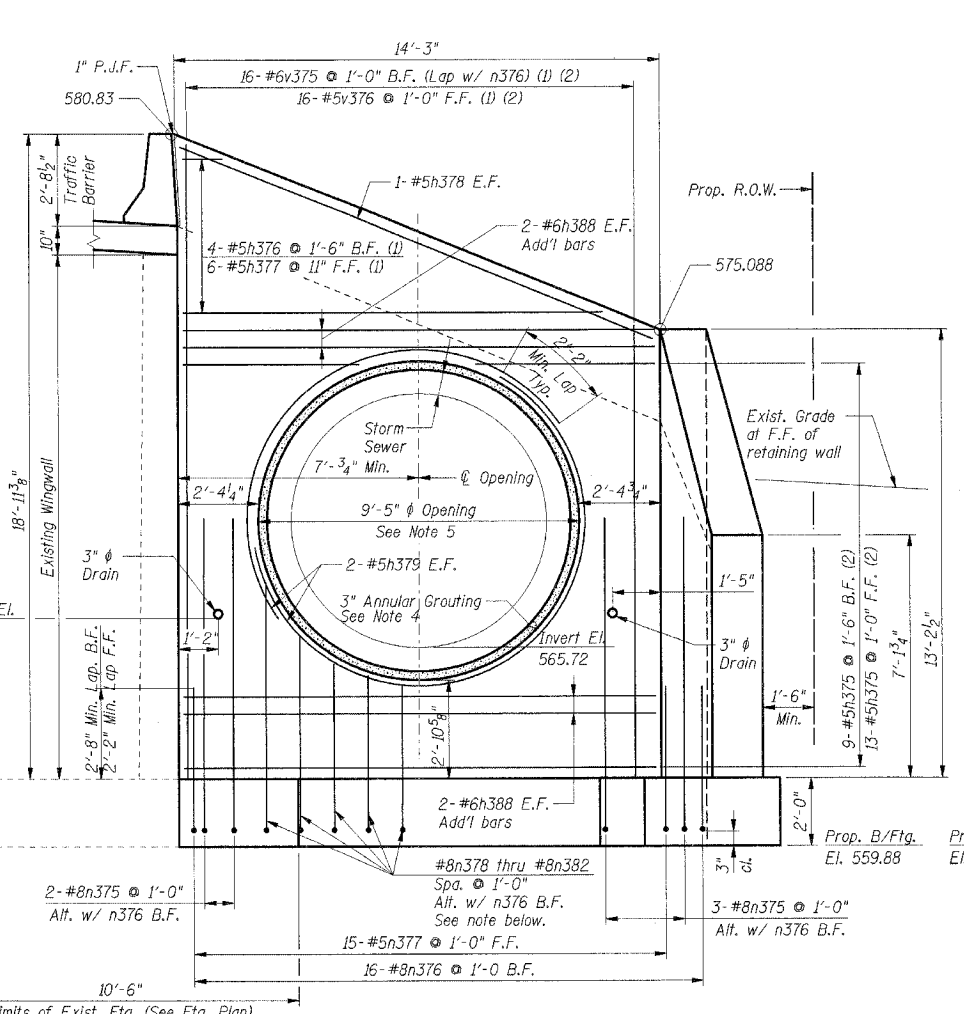
DRAWN BY: MDB
 CHECKED BY: _____
 DATE: 03/14/08

TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 885 N. MICHIGAN AVE. CHICAGO, IL 60610
 TEL: 312.281.1000 FAX: 312.281.1001

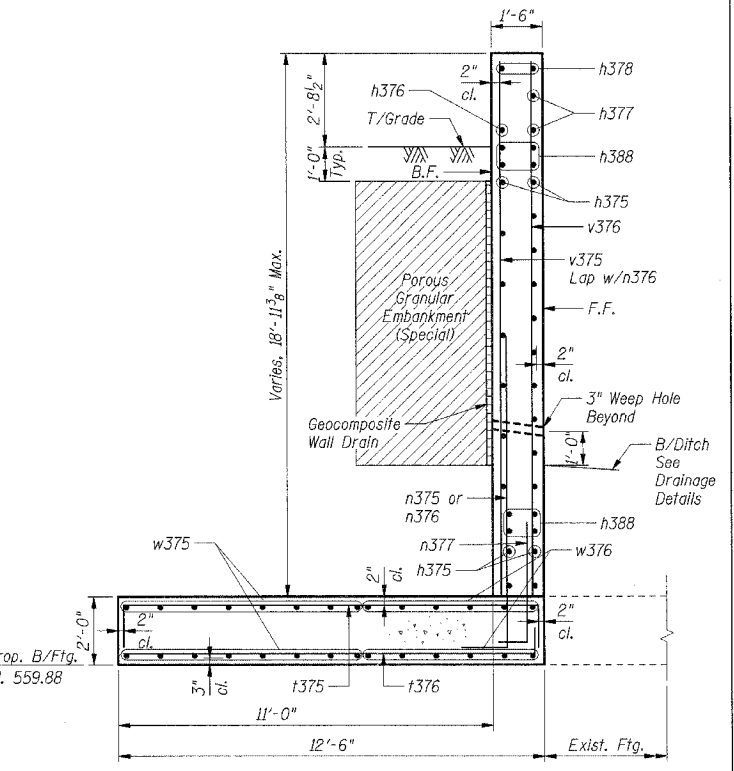
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
59	*	WILL	608	397
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
* (26, 26HB-1 & 114) R-2				
CONTRACT NO. 60363				



FOOTING PLAN



ELEVATION A-A



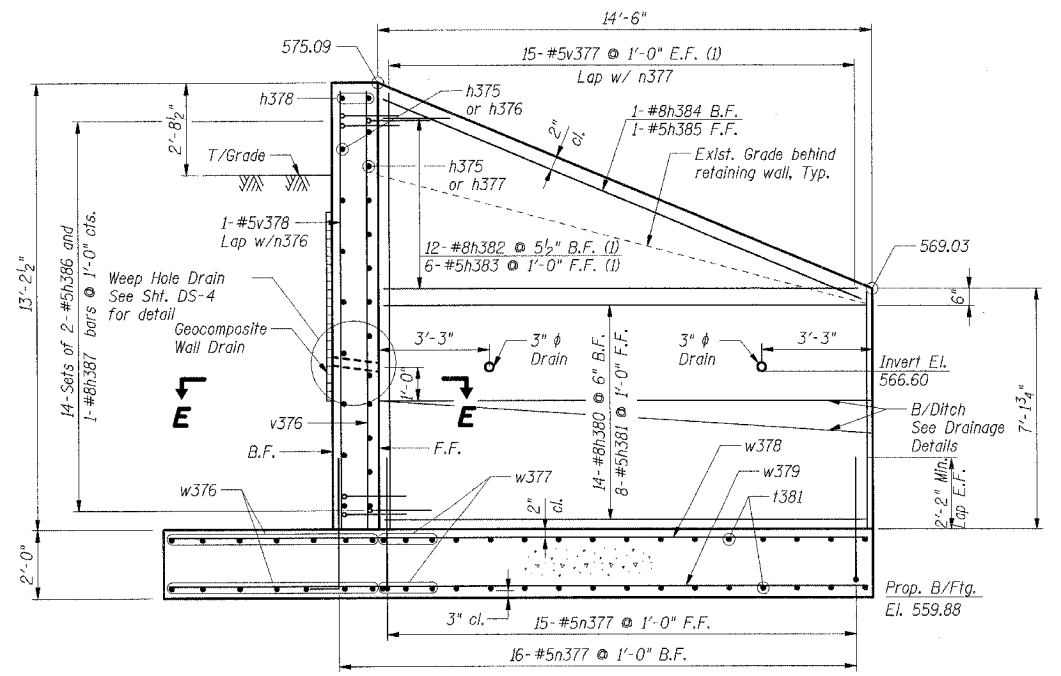
SECTION C-C

(Some reinforcement left off for clarity)

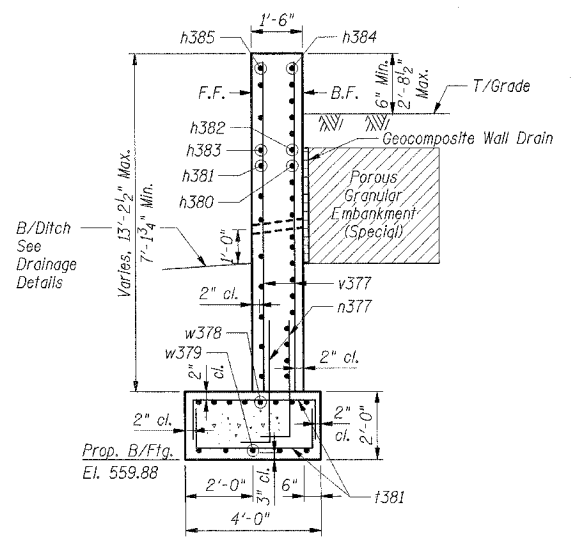
n379 thru n383
 1-#8n378 @ 1'-0" from n375 each side B.F.
 1-#8n379 @ 1'-0" from n378 each side B.F.
 1-#8n380 @ 1'-0" from n379 each side B.F.
 1-#8n381 @ 1'-0" from n380 each side B.F.
 1-#8n382 @ 1'-0" from n381 each side B.F.

Reinforcing Notes:
 (1) Cut bars according to cutting diagrams.
 (2) Cut bars in field to fit.

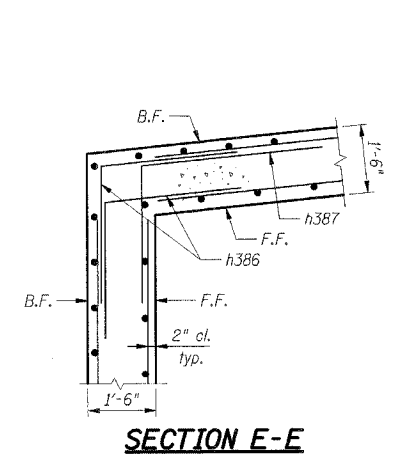
Notes:
 1. Work this Sheet with Sheets DS-1 and DS-4.
 2. For bar cutting and bending diagrams, See Sht. DS-4.
 3. E.F. denotes Each Face.
 F.F. denotes Front Face.
 B.F. denotes Back Face.
 4. For 3" Annular Grouting, see Detail on Sht. DS-7.
 5. For Grate Frame Details at Opening, see Sht. DS-4.
 6. Maximum Applied Bearing Pressure $Q_{max} = 4.2$ ksf



SECTION B-B



SECTION F-F



SECTION E-E

SHT. DS-3 OF DS-11

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 FAI 55 AT FAP 338 ILLINOIS ROUTE 59
 SECTION: (26, 26HB-1 & 114) R-2

DRAINAGE STRUCTURE 1
 PLAN AND DETAILS

DATE: 03/14/08
 DRAWN BY: PA
 CHECKED BY: BGK

TENG

TENG & ASSOCIATES, INC.
 200 N. MICHIGAN AVE. CHICAGO, IL 60601
 TELEPHONE 312.641.0000

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