

NOTES:

1. CONTRACTOR SHALL PROVIDE CONCRETE PAD WITH RETAINING WALL AS SHOWN ON DETAIL SHEET L-15.
2. CONTRACTOR SHALL PROVIDE CONCRETE PAD AS SHOWN ON DETAIL SHEET L-14.
3. SEE DETAIL SHEET L-13 FOR HIGH MAST LUMINAIRES ORIENTATION.

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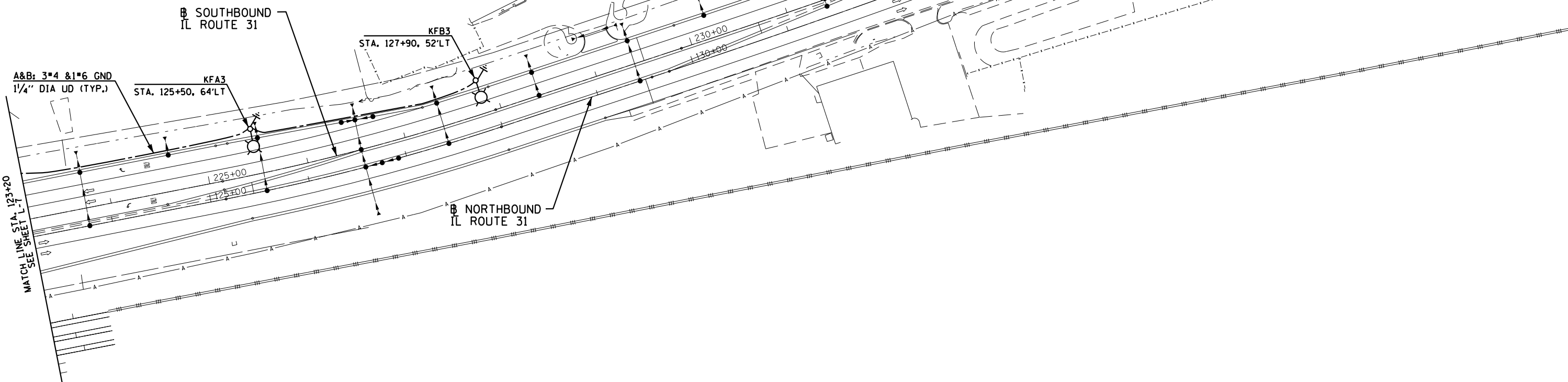
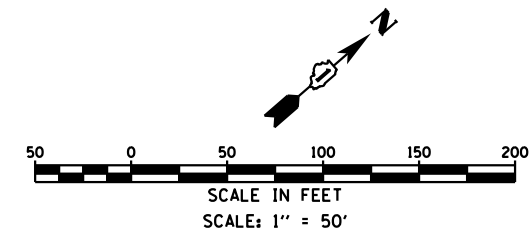
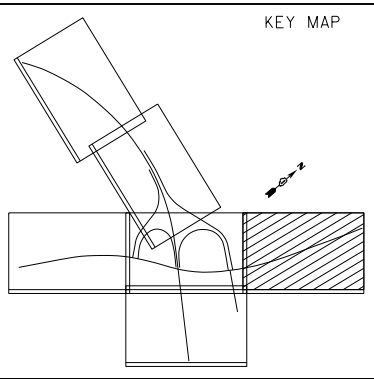
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31
 PROPOSED LIGHTING PLANS (SHEET 4 OF 6)**

SCALE: AS NOTED | SHEET NO. 7 OF 27 SHEETS | STA. ----- TO STA. -----

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	-	507	201
KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



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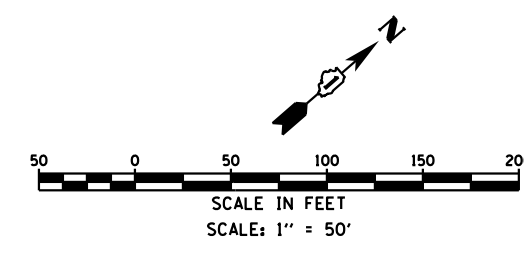
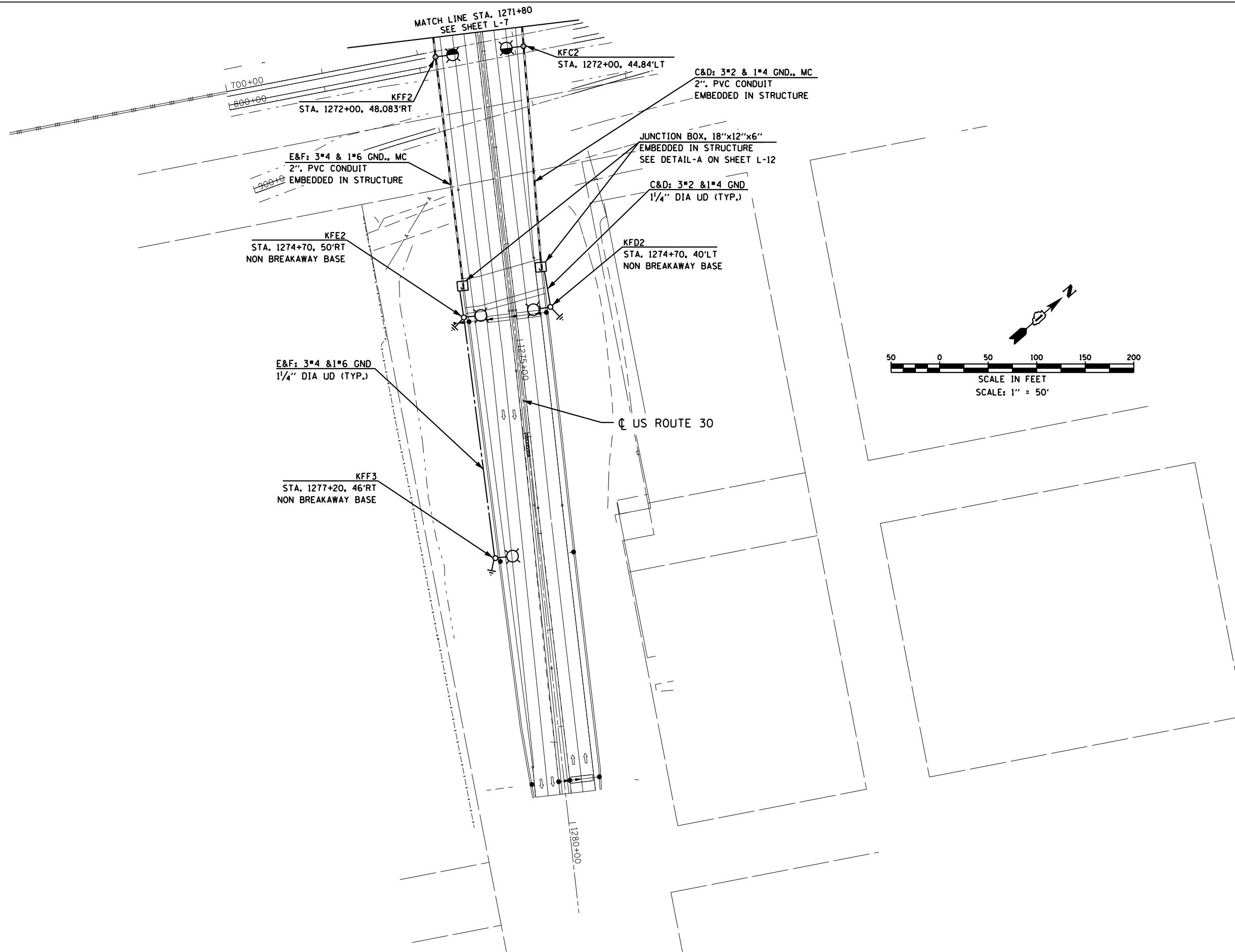
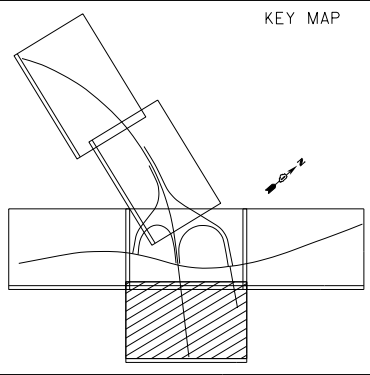
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 30 AT IL ROUTE 31
 PROPOSED LIGHTING PLANS (SHEET 5 OF 6)

SCALE: AS NOTED | SHEET NO. 8 OF 27 SHEETS | STA. ----- TO STA. -----

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	-	507	202
KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



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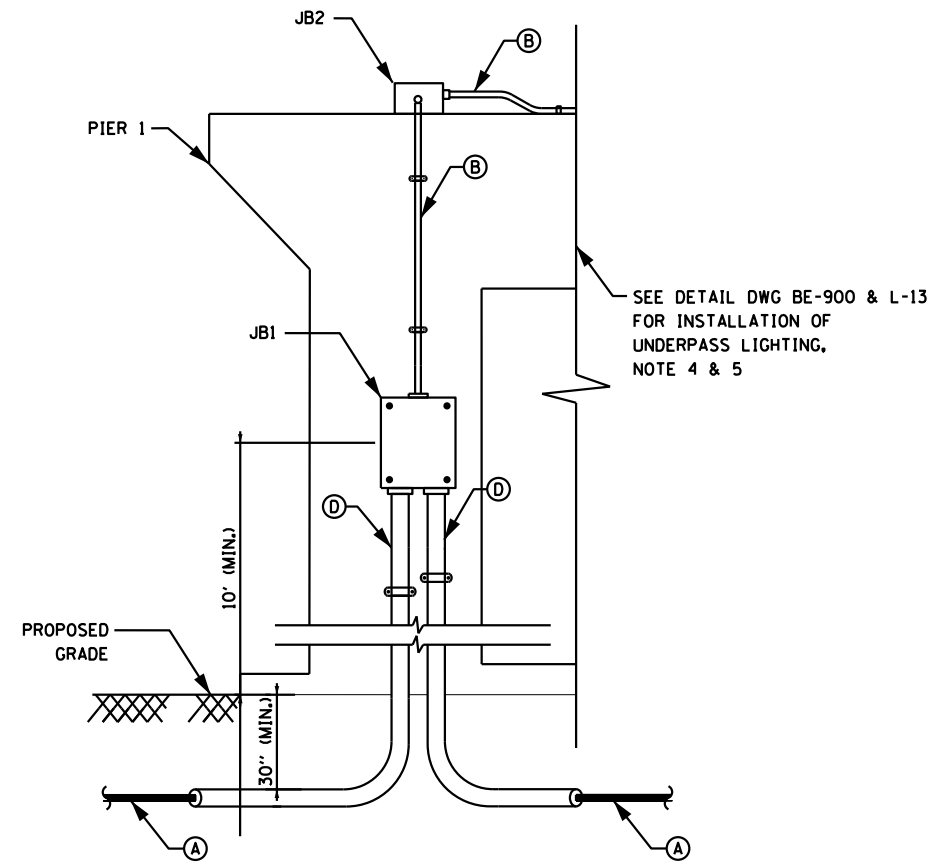
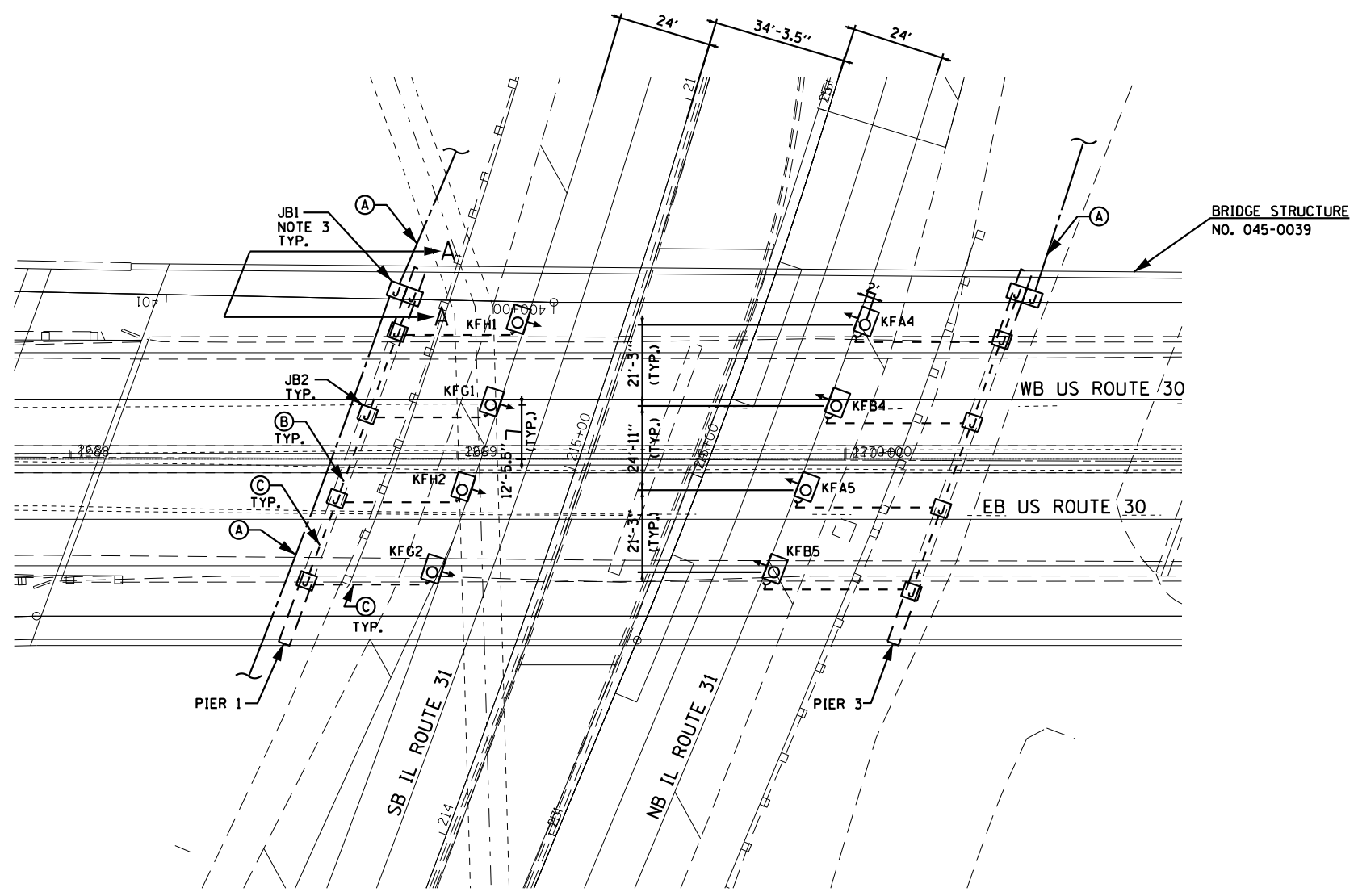
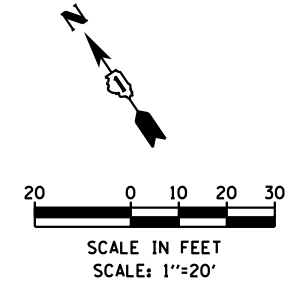
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PLOT DATE = 6/26/2012	DATE - 06/15/2012	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 30 AT IL ROUTE 31
 PROPOSED LIGHTING PLANS (SHEET 6 OF 6)

SCALE: AS NOTED | SHEET NO. 9 OF 27 SHEETS | STA. ----- TO STA. -----

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	-	507	203
KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



LEGENDS

- | | | |
|--|--|--|
| <p>(A) 3-1/2 NO. 4 AND 1/2 NO. 6 GND IN 1 1/4" DIA. UNIT DUCT</p> <p>(B) 3-1/2 NO. 10 AND 1/2 NO. 10 GND. IN 1" PVCC RGC</p> <p>(C) 2-1/2 NO. 10 AND 1/2 NO. 10 GND. IN 1" PVCC RGC</p> <p>(D) 3-1/2 NO. 4 AND 1/2 NO. 6 GND. 1 1/4" UNIT DUCT IN 2 1/2" PVCC RGC ATTACHED TO PIER</p> | <p>PIER 1</p> <p>PIER 3</p> <p>SB IL ROUTE 31</p> <p>NB IL ROUTE 31</p> <p>WB US ROUTE 30</p> <p>EB US ROUTE 30</p> <p>BRIDGE STRUCTURE NO. 045-0039</p> | <p>JB1 JUNCTION BOX, STAINLESS STEEL, 18"x12"x6", ATTACHED TO BACKSIDE OF PIER COLUMN</p> <p>JB2 JUNCTION BOX, STAINLESS STEEL, 12"x10"x6", MOUNTED ON TOP OF THE PIER CAP</p> |
|--|--|--|

PLAN VIEW

PIER 1 LOOKING EAST SECTION A-A
N.T.S.

NOTES:

1. UNDERPASS LUMINAIRES SHALL BE CENTERED BETWEEN GIRDER AND 2FT OFF THE EDGE OF TRAVELED PAVEMENT.
2. THE DISTANCES SHOWN BETWEEN UNDERPASS LUMINAIRES ARE MEASURED PERPENDICULAR TO THE GIRDER.
3. THE CABLE SPLICES AT THE JUNCTION BOX SHALL BE DONE ACCORDING TO THE SPLICING DETAIL SHOWN ON IDOT-D1 STANDARD DETAIL DRAWING NO. BE-702. PROVIDE DOUBLE POLE FUSE HOLDER WITH 5 AMP FUSES.
4. UNDERPASS LUMINAIRES SHALL BE INSTALLED AS SHOWN ON SHEET L-13
5. REFER TO IDOT-D1 STANDARD DRAWING NO BE-900 FOR FURTHER INFORMATION ON CONDUIT ROUTING AND INSTALLATION.

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PLOT DATE = 6/26/2012		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31
UNDERPASS LIGHTING PLAN**

SCALE: AS NOTED SHEET NO. 10 OF 27 SHEETS STA. ----- TO STA. -----

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	-	507	204
KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				







LIGHTING CONTROLLER "KF" WIRING DIAGRAM

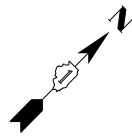
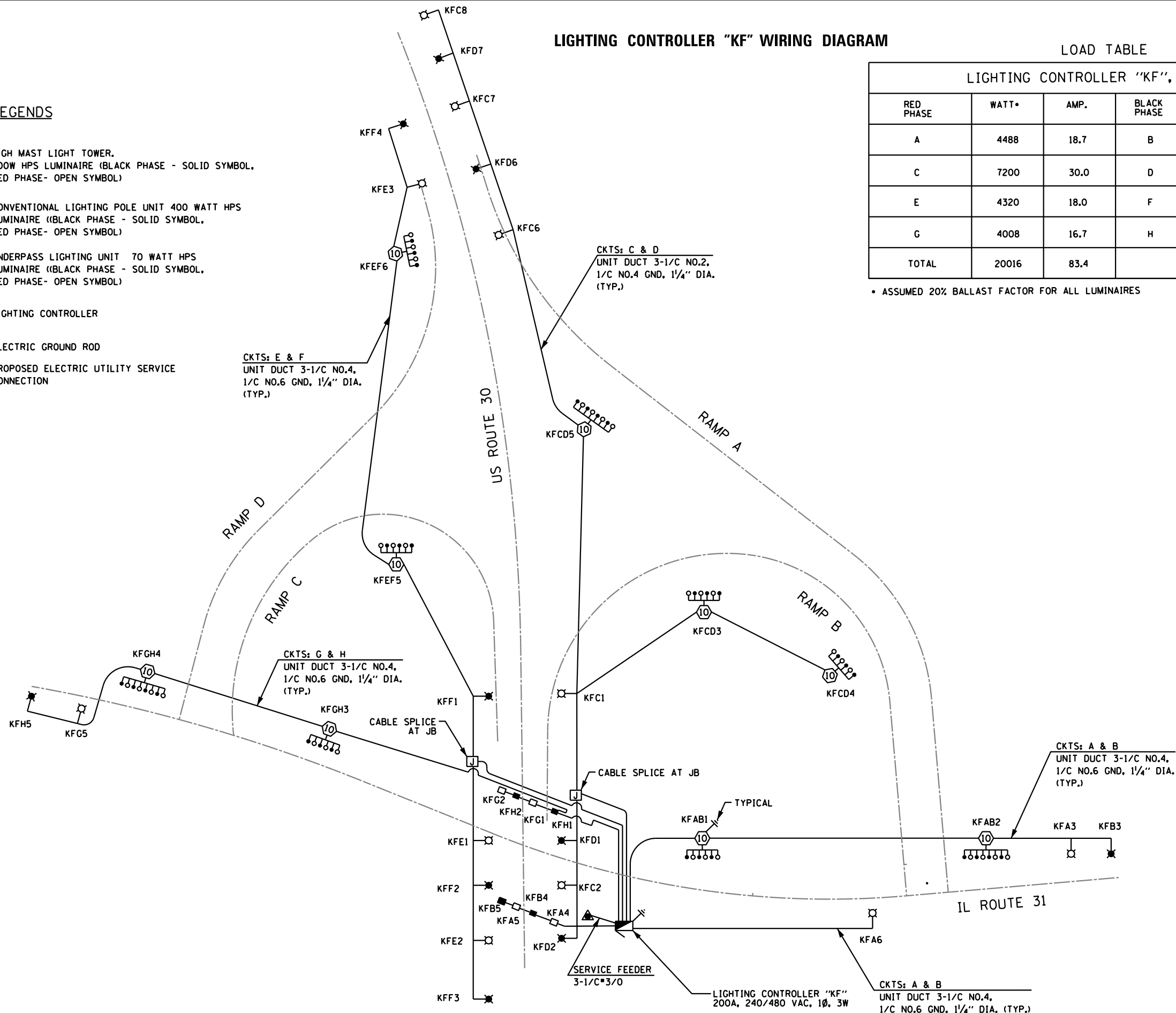
LOAD TABLE

LIGHTING CONTROLLER "KF", 240/480V					
RED PHASE	WATT•	AMP.	BLACK PHASE	WATT•	AMP.
A	4488	18.7	B	4008	16.7
C	7200	30.0	D	6720	28.0
E	4320	18.0	F	4800	20.0
G	4008	16.7	H	4008	16.7
TOTAL	20016	83.4		19536	81.4

• ASSUMED 20% BALLAST FACTOR FOR ALL LUMINAIRES

LEGENDS

-  HIGH MAST LIGHT TOWER, 400W HPS LUMINAIRE (BLACK PHASE - SOLID SYMBOL, RED PHASE- OPEN SYMBOL)
-  CONVENTIONAL LIGHTING POLE UNIT 400 WATT HPS LUMINAIRE (BLACK PHASE - SOLID SYMBOL, RED PHASE- OPEN SYMBOL)
-  UNDERPASS LIGHTING UNIT 70 WATT HPS LUMINAIRE (BLACK PHASE - SOLID SYMBOL, RED PHASE- OPEN SYMBOL)
-  LIGHTING CONTROLLER
-  ELECTRIC GROUND ROD
-  PROPOSED ELECTRIC UTILITY SERVICE CONNECTION



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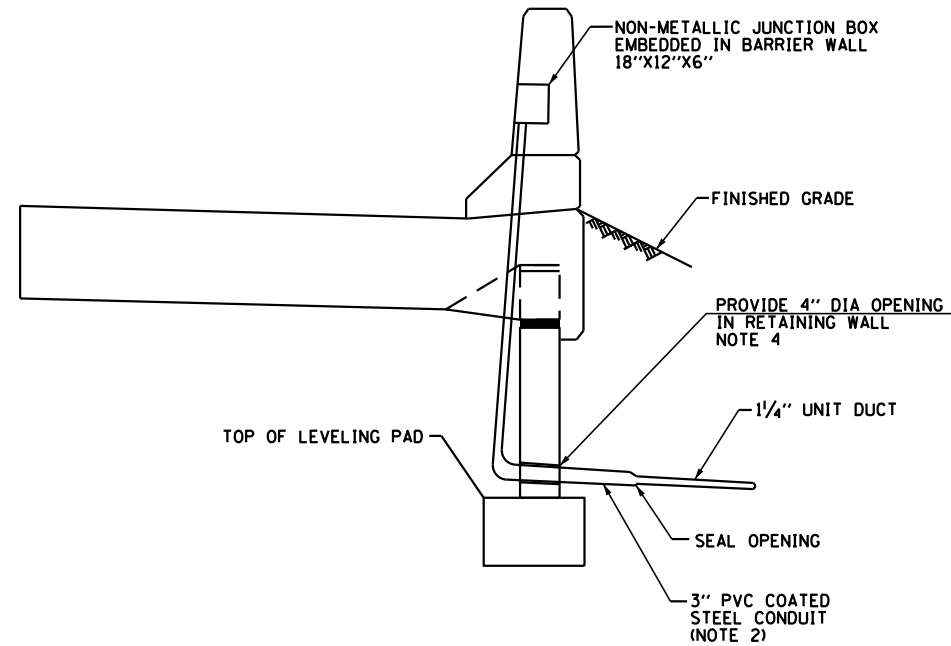
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

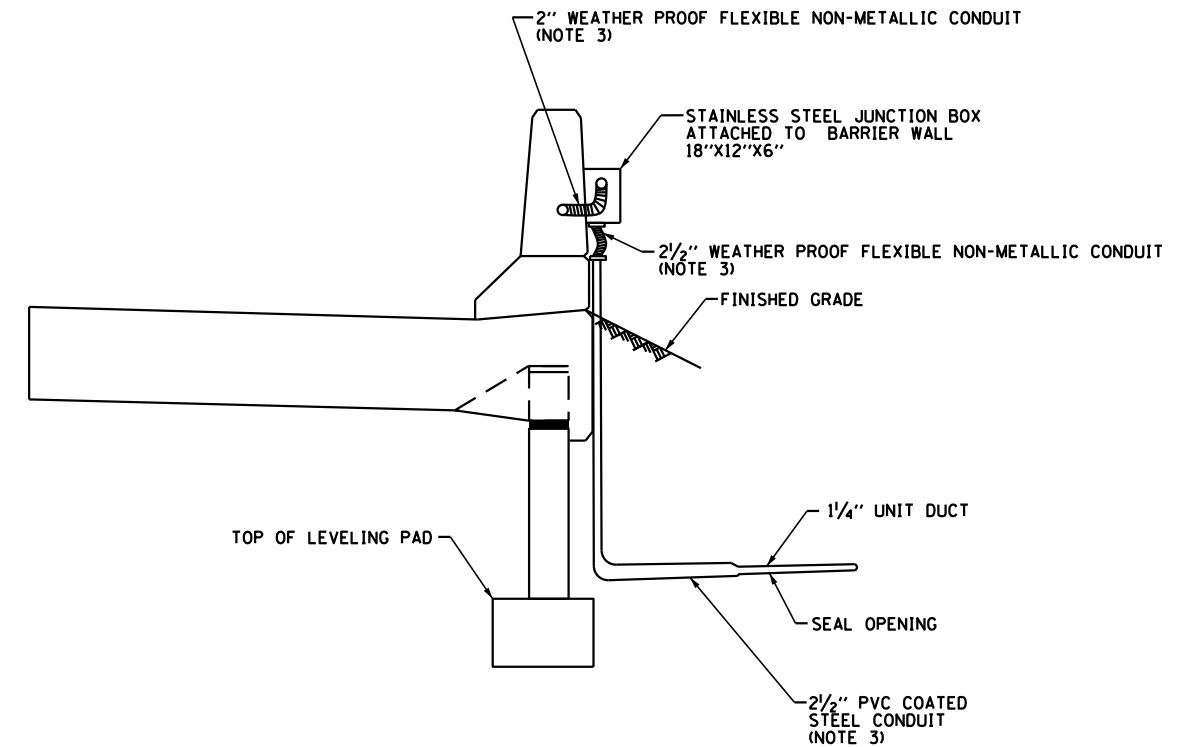
**U.S. ROUTE 30 AT IL ROUTE 31
LIGHTING CONTROLLER "KF" WIRING DIAGRAM**

SCALE: N.T.S. SHEET NO. 11 OF 27 SHEETS STA. ----- TO STA. -----

F.A.P. RTE. 349	SECTION (10 & 11 VB) R-3	COUNTY *	TOTAL SHEETS 507	SHEET NO. 205
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



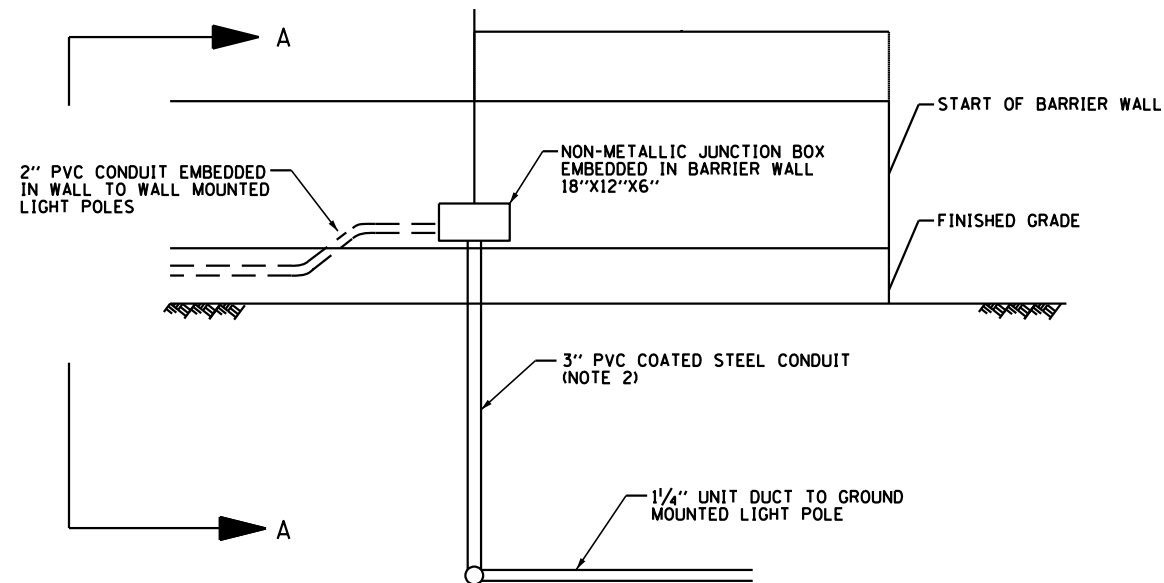
SECTION A-A



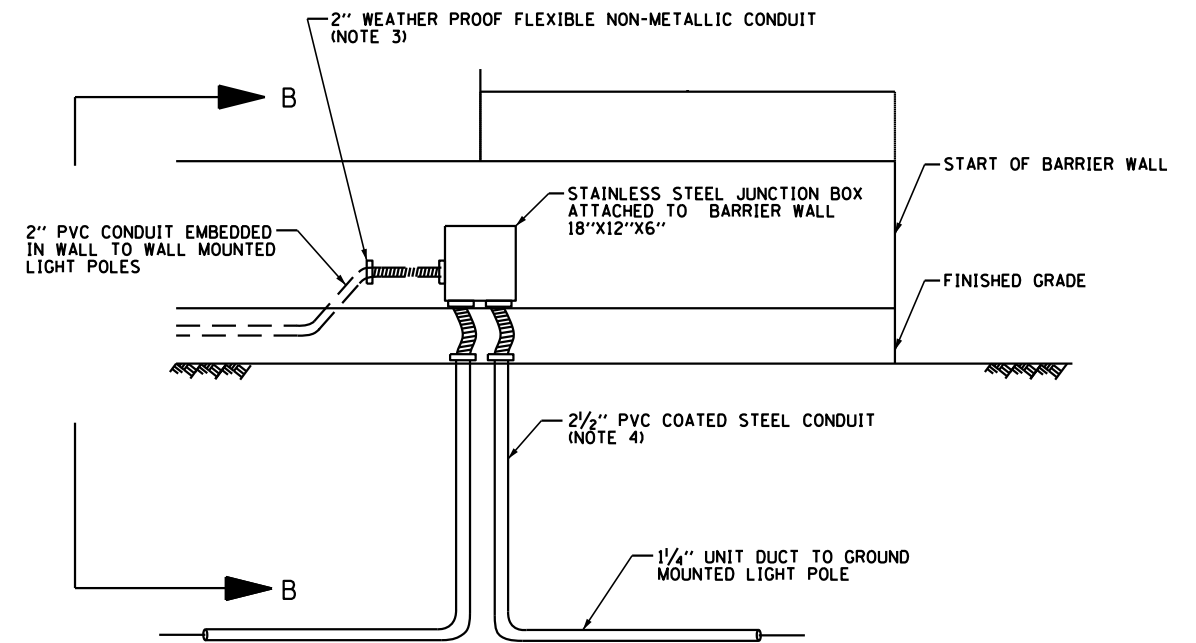
SECTION B-B

NOTES:

1. SEE SHEET L-1 FOR ELECTRICAL SYMBOLS, CALL-OUT SAMPLES, AND ABBREVIATIONS.
2. THE 3" COATED CONDUIT SLEEVE SHALL NOT BE MEASURED FOR PAYMENT BUT SHALL BE INCLUDED IN THE COST OF EACH JUNCTION BOX, EMBEDDED IN STRUCTURE, 18"X12"X6".
3. ALL CONDUITS WITH THEIR FITTING INCLUDING WEATHER PROOF FLEXIBLE NON-METALLIC CONDUIT PIECE SHALL BE INCIDENTAL ASSOCIATED CONDUIT PAY ITEMS.
4. CONTRACTOR SHALL COORDINATE WITH RETAINING WALL CONSTRUCTION FOR EXACT LOCATION OF CONDUIT TRANSITION.



JUNCTION BOX EMBEDDED IN BARRIER WALL
DETAIL-A



JUNCTION BOX ATTACHED TO BARRIER WALL
DETAIL-B

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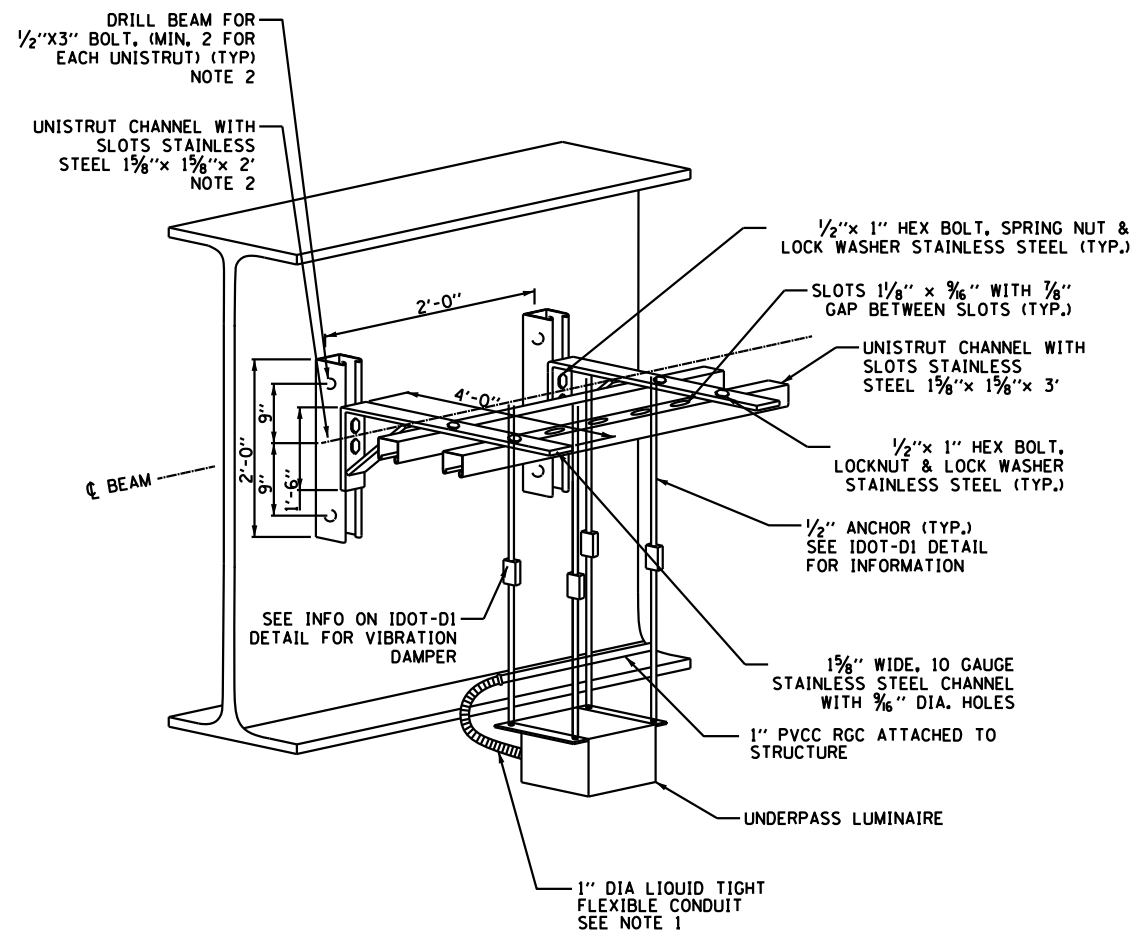
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**U.S. ROUTE 30 AT IL ROUTE 31
CONDUIT TRANSITION DETAILS**

SCALE: N.T.S. SHEET NO. 12 OF 27 SHEETS STA. ----- TO STA. -----

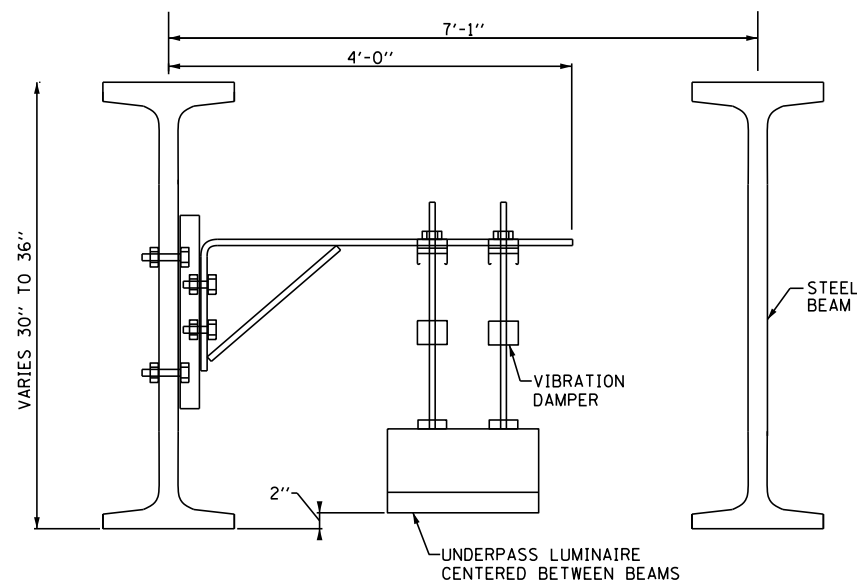
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* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



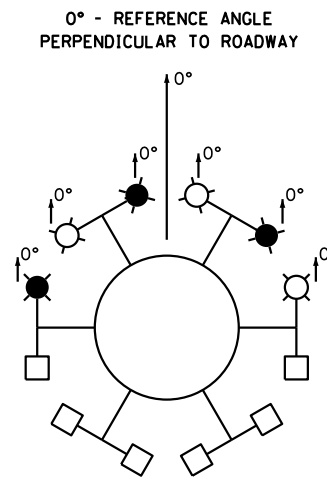
UNDERPASS LUMINAIRE MOUNTING DETAILS

NOTES:

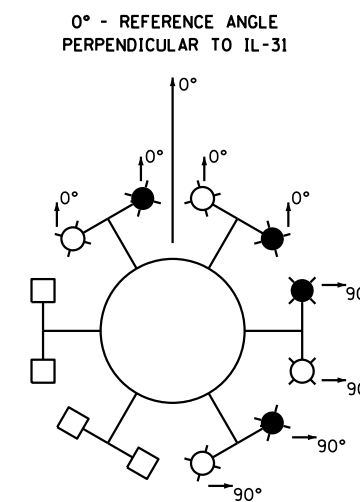
1. LIQUID TIGHT FLEXIBLE CONDUIT PIECE WITH THEIR FITTING SHALL BE INCIDENTAL TO UNDERPASS LUMINAIRE PAY ITEMS.
2. UNISTRUT CHANNEL SHALL BE CENTERED VERTICALLY ON BEAM AND DRILL HOLES AT 9" EQUAL SPACING FROM CENTER LINE AS SHOWN.



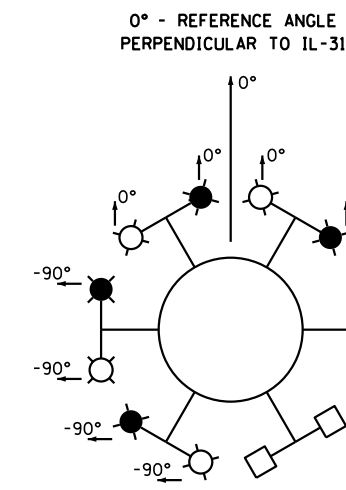
UNDERPASS LUMINAIRE MOUNTING DETAILS - SECTION VIEW



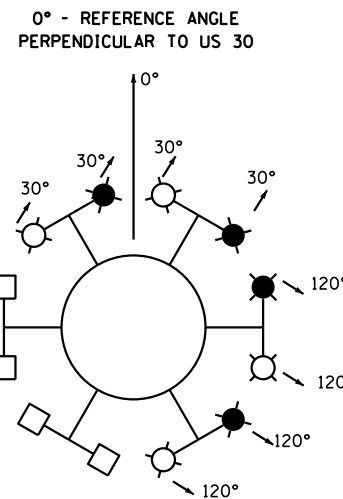
**LIGHT TOWER LAYOUT DETAIL
TOWERS KFCD3, KFCD4, KFAB1,
KFEF6, & KFGH3**



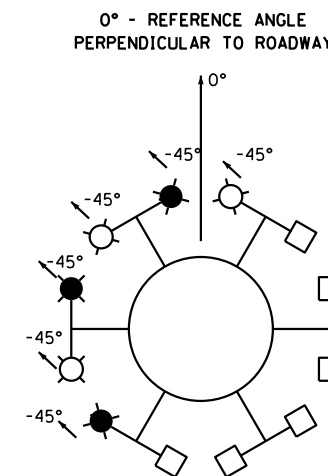
**LIGHT TOWER LAYOUT DETAIL
TOWER KFAB2**



**LIGHT TOWER LAYOUT DETAIL
TOWER KFGH4**



**LIGHT TOWER LAYOUT DETAIL
TOWERS KFCD5**



**LIGHT TOWER LAYOUT DETAIL
TOWERS KFEF5**

- ☉ LUMINAIRE RED PHASE
- LUMINAIRE BLACK PHASE
- COUNTER WEIGHT
- ◎ CCTV CAMERA

NOTES:

1. ARROWS AT THE LUMINAIRES REPRESENT THE ORIENTATION OF THE LUMINAIRE OPTICS.
2. ALL GIVEN ANGLES ARE WITH RESPECT TO THE REFERENCE ANGLE PERPENDICULAR TO THE ROADWAY AT THE LOCATION SHOWN ON THE PLANS.

HIGH MAST LUMINAIRE ORIENTATION DETAILS

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

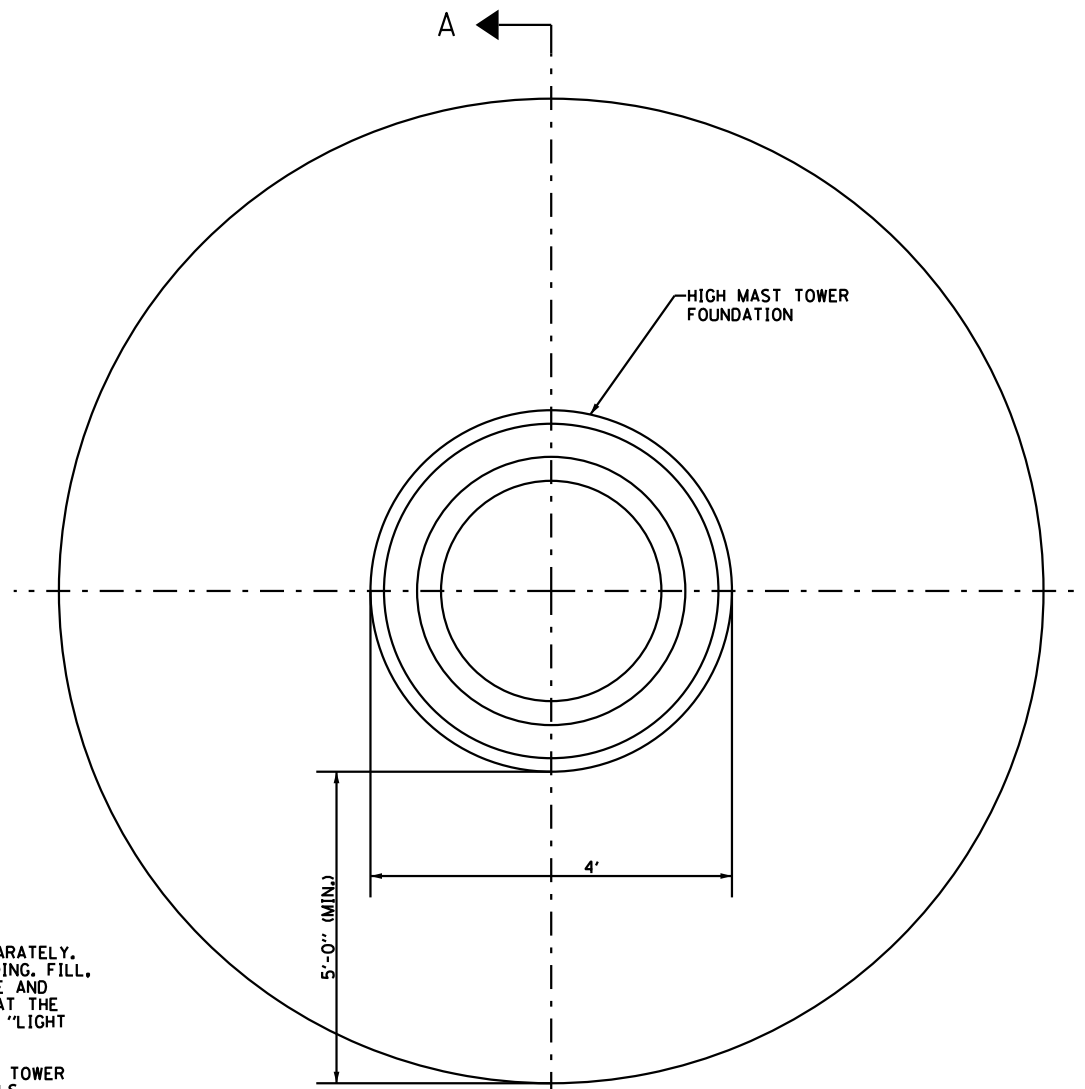
**U.S. ROUTE 30 AT IL ROUTE 31
UNDERPASS LUMINAIRE MOUNTING AND
HIGH MAST LUMINAIRE ORIENTATION DETAIL**

SCALE: N.T.S. SHEET NO. 13 OF 27 SHEETS STA. ----- TO STA. -----

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	207
* KANE AND KENDALL			CONTRACT NO. 60133	

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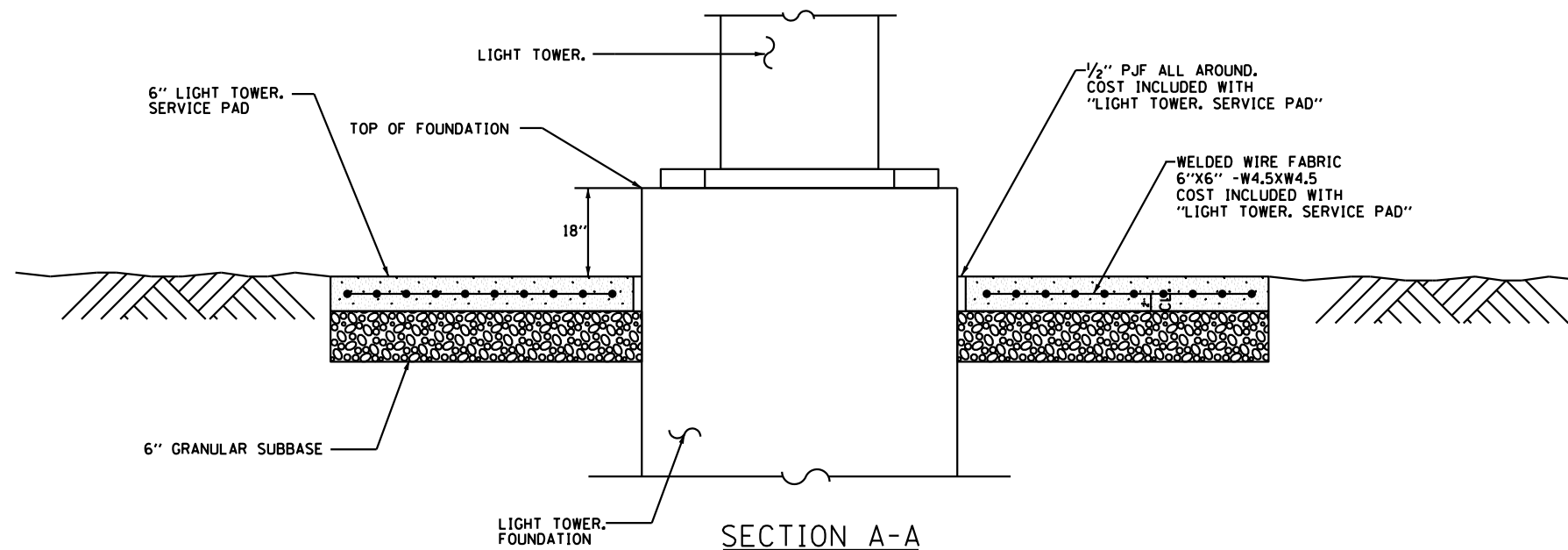
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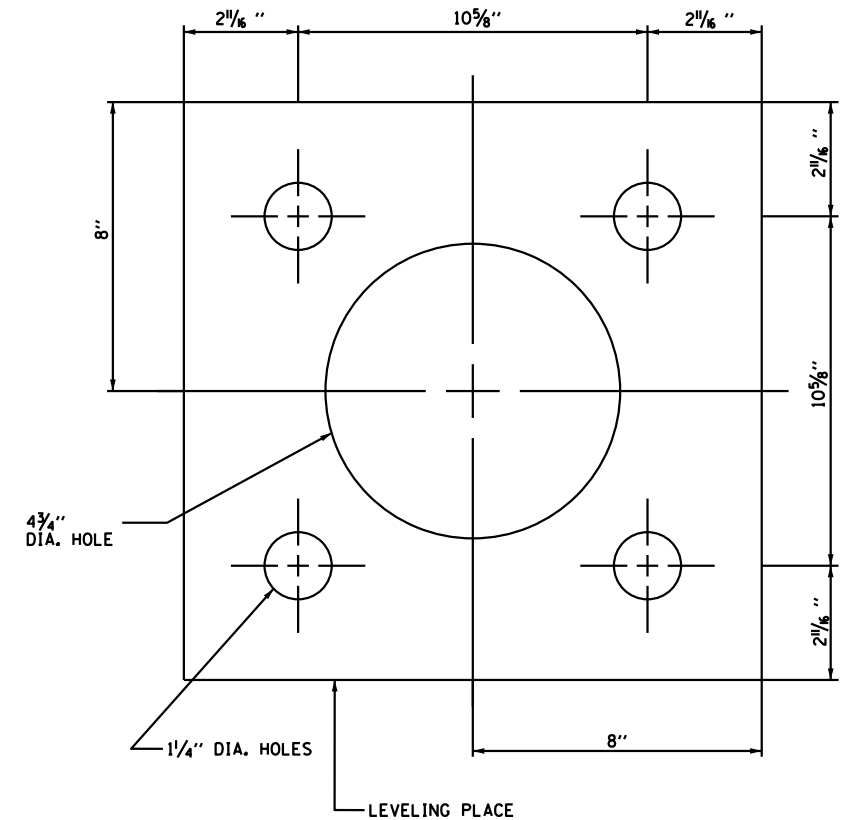
NOTES:

1. THE LIGHT TOWER AND LIGHT TOWER FOUNDATION SHALL BE PAID FOR SEPARATELY. ALL REMAINING WORK INCLUDING GRADING, FILL, SERVICE PAD, RUSTICATION, CONCRETE AND REINFORCEMENT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "LIGHT TOWER SERVICE PAD".
2. SEE IDOT-D1 DRAWING NO BE-501 FOR TOWER FOUNDATION AND GROUND WELL DETAILS.

TYPE A - LIGHT TOWER, SERVICE PAD DETAILS - PLAN VIEW



SECTION A-A



**LEVELING PLATE DETAIL
FOR STRUCTURE MOUNTED LIGHT POLE.**

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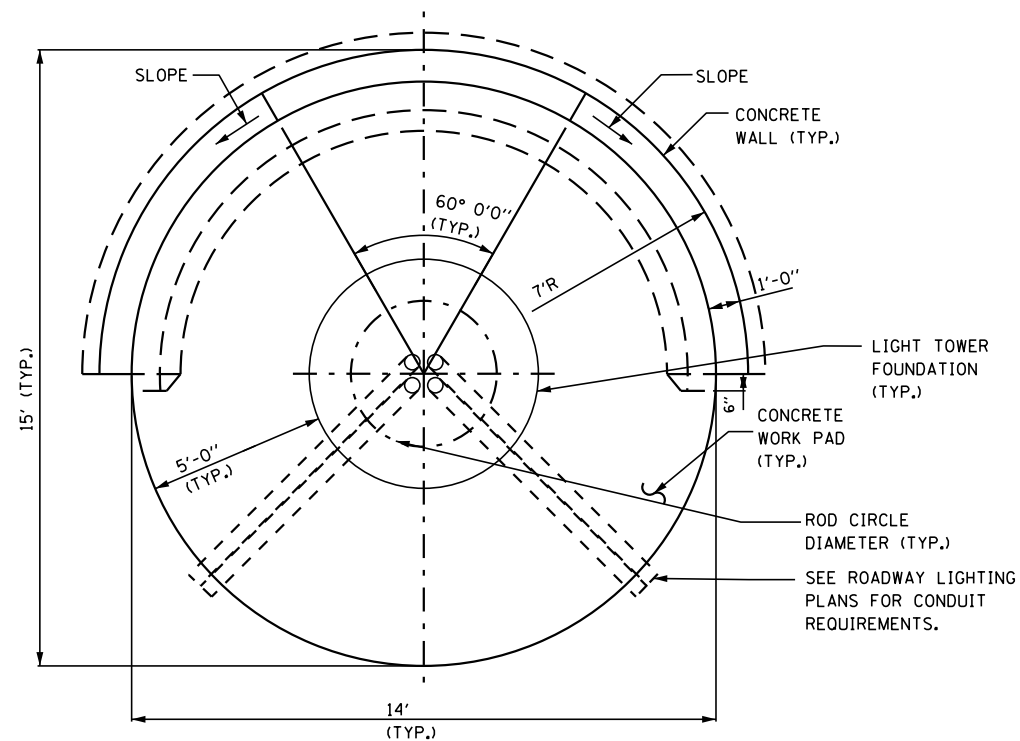
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 DEPARTMENT OF TRANSPORTATION**

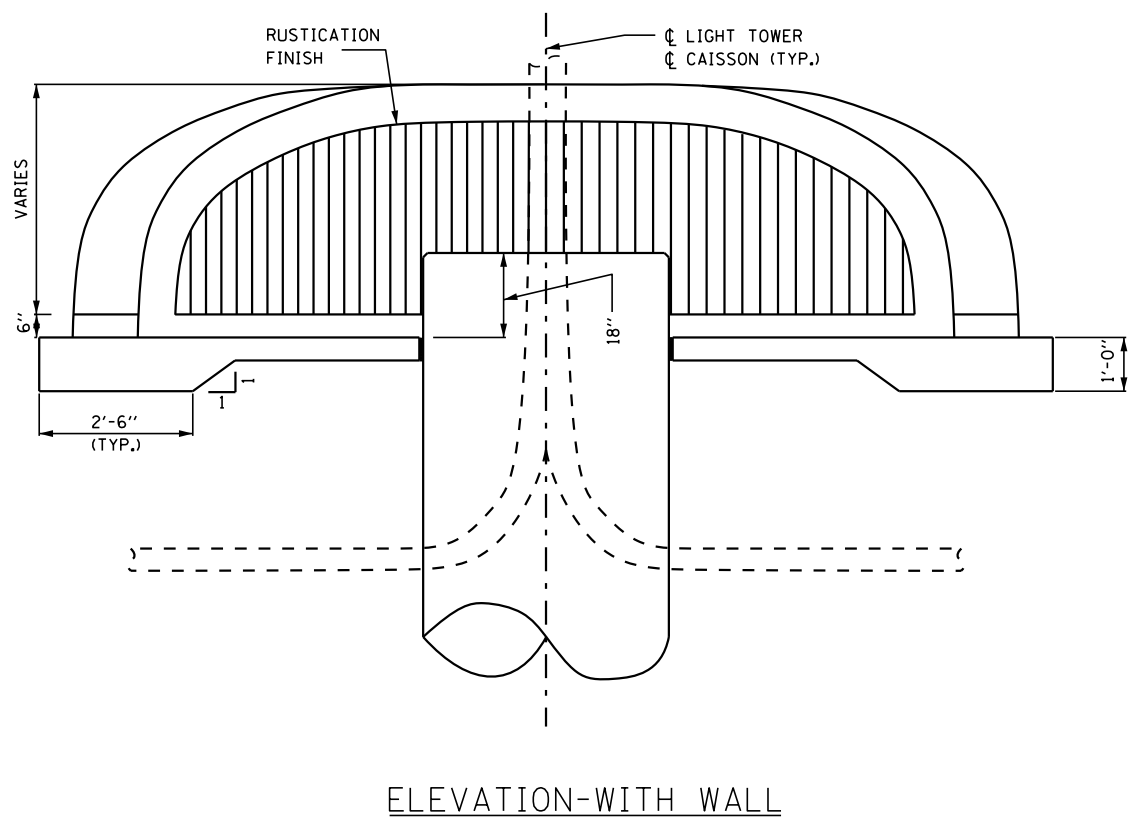
**U.S. ROUTE 30 AT IL ROUTE 31
 HIGH MAST TOWER PAD DETAIL - TYPE A**

SCALE: N.T.S. SHEET NO. 14 OF 27 SHEETS STA. ----- TO STA. -----

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	208
* KANE AND KENDALL			CONTRACT NO. 60133	
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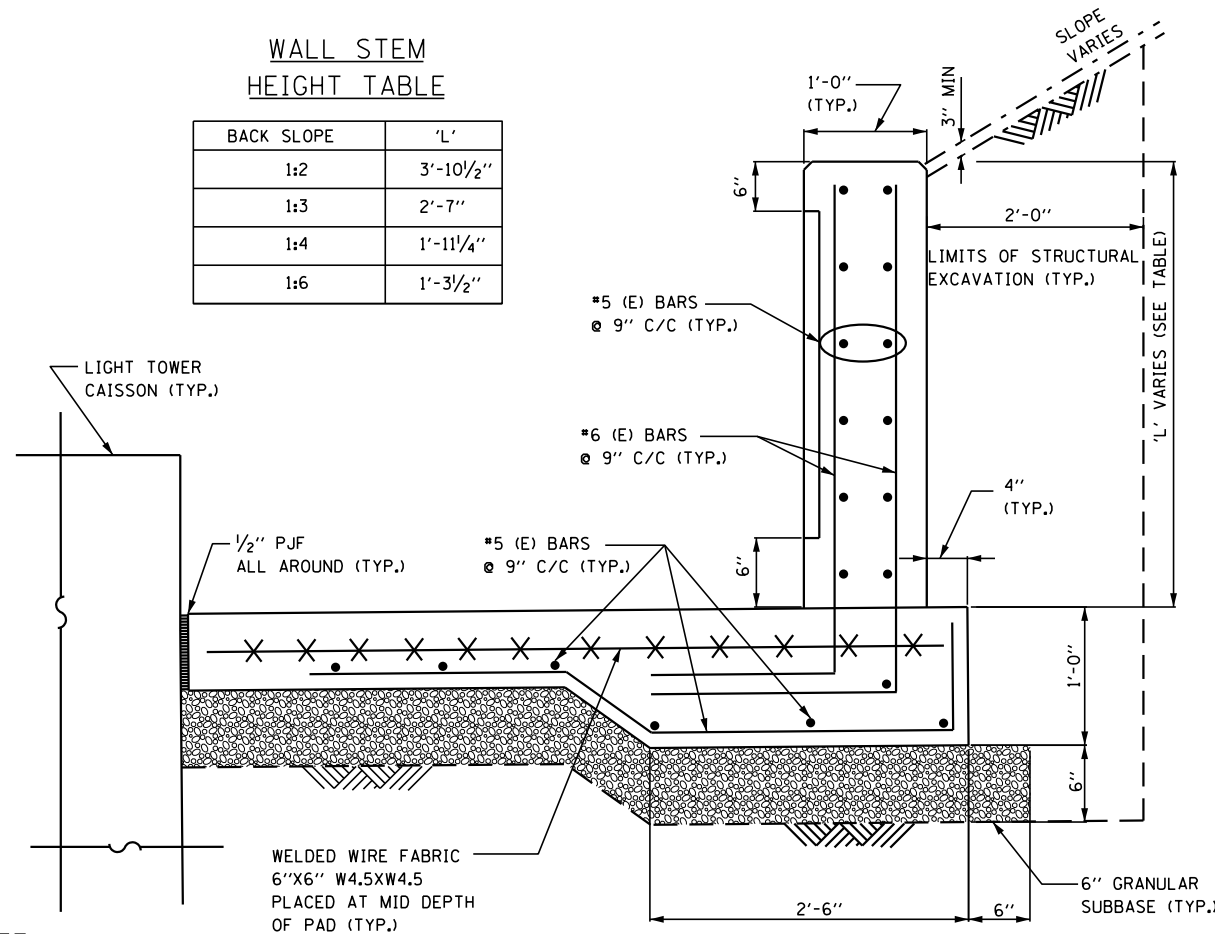
LIGHT TOWER, SERVICE PAD, SPECIAL DETAILS - PLAN VIEW



ELEVATION-WITH WALL

WALL STEM HEIGHT TABLE

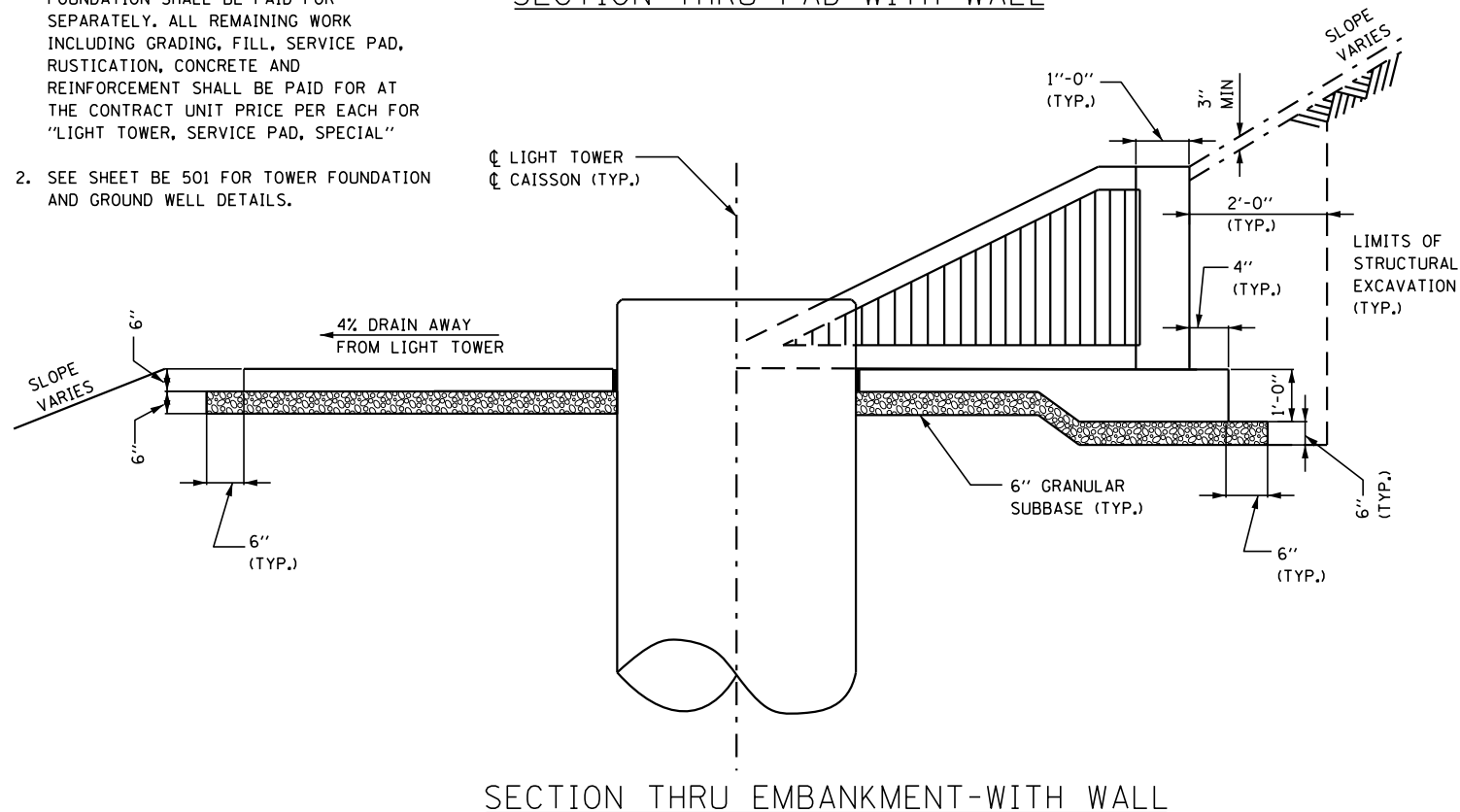
BACK SLOPE	'L'
1:2	3'-10 1/2"
1:3	2'-7"
1:4	1'-11 1/4"
1:6	1'-3 1/2"



SECTION THRU PAD-WITH WALL

NOTE:

1. THE LIGHT TOWER AND LIGHT TOWER FOUNDATION SHALL BE PAID FOR SEPARATELY. ALL REMAINING WORK INCLUDING GRADING, FILL, SERVICE PAD, RUSTICATION, CONCRETE AND REINFORCEMENT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "LIGHT TOWER, SERVICE PAD, SPECIAL"
2. SEE SHEET BE 501 FOR TOWER FOUNDATION AND GROUND WELL DETAILS.



SECTION THRU EMBANKMENT-WITH WALL

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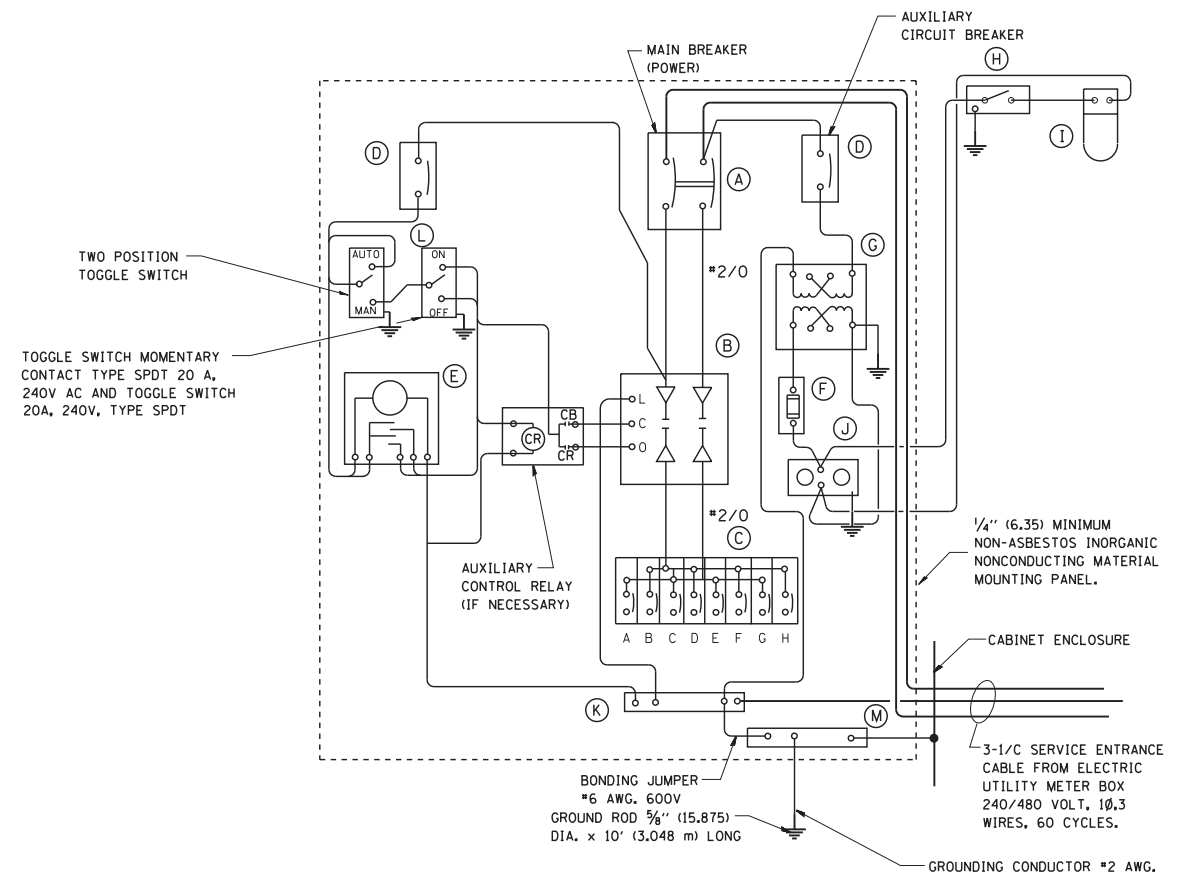
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	DATE - 06/15/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. ROUTE 30 AT IL ROUTE 31
HIGH MAST TOWER PAD DETAIL - TYPE B

SCALE: N.T.S. SHEET NO. 15 OF 27 SHEETS STA. ----- TO STA. -----

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11 VB) R-3	*	507	209
* KANE AND KENDALL			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



PANEL WIRING DIAGRAM

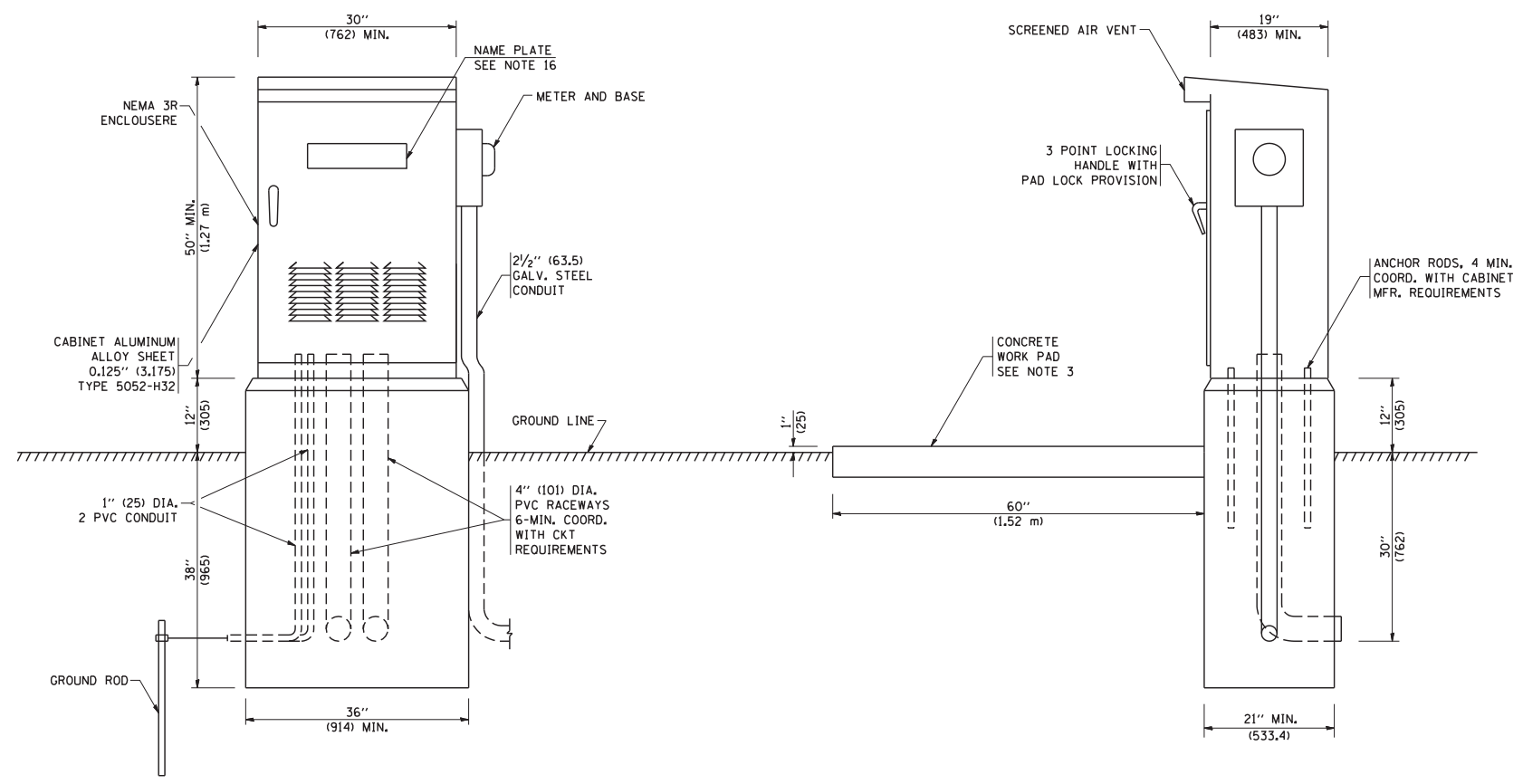
PANEL EQUIPMENT

BILL OF MATERIAL		
ITEM	QUANTITY	DESCRIPTION
* A	1	MAIN CIRCUIT BREAKER, 2 POLE, 600 VOLT 100 AMP. FRAME, 100 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-22000 AMP. AT 480 VOLT.
* B	1	REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, 100 AMP., 600 VOLTS CONTROL CIRCUIT 240 VOLT.
C	8	CIRCUIT BREAKERS, 1 POLE, 100AMP. FRAME, 50 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-10,000 AMP. AT 240 V.
D	2	CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 240 V., 100 AMP. FRAME, 15 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-5000 AMP. AT 240 V.
E	1	ASTRONOMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER (TIME SWITCH).
F	1	20 A., 120 V. FUSE.
G	1	1.5 KVA, SINGLE PHASE, ENCAPSULATED TRANSFORMER 240 X 480 / 120 X 240 VOLT, 60 Hz.
H	1	SPST 20A SWITCH ON DOOR, TO TURN LIGHT ON WHEN DOOR IS OPEN.
I	1	INCANDESCENT LIGHTING FIXTURE ENCLOSED AND GASKETED WITH 60 WATT, 120 V. LAMP.
J	1	20 A., 120 V., DUPLEX RECEPTACLE, GFCI.
K	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
L	1	TOGGLE SWITCHES MOUNTED IN 4" (101.6) X 4" (101.6 mm) BOX.
M	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND SPARE LUGS

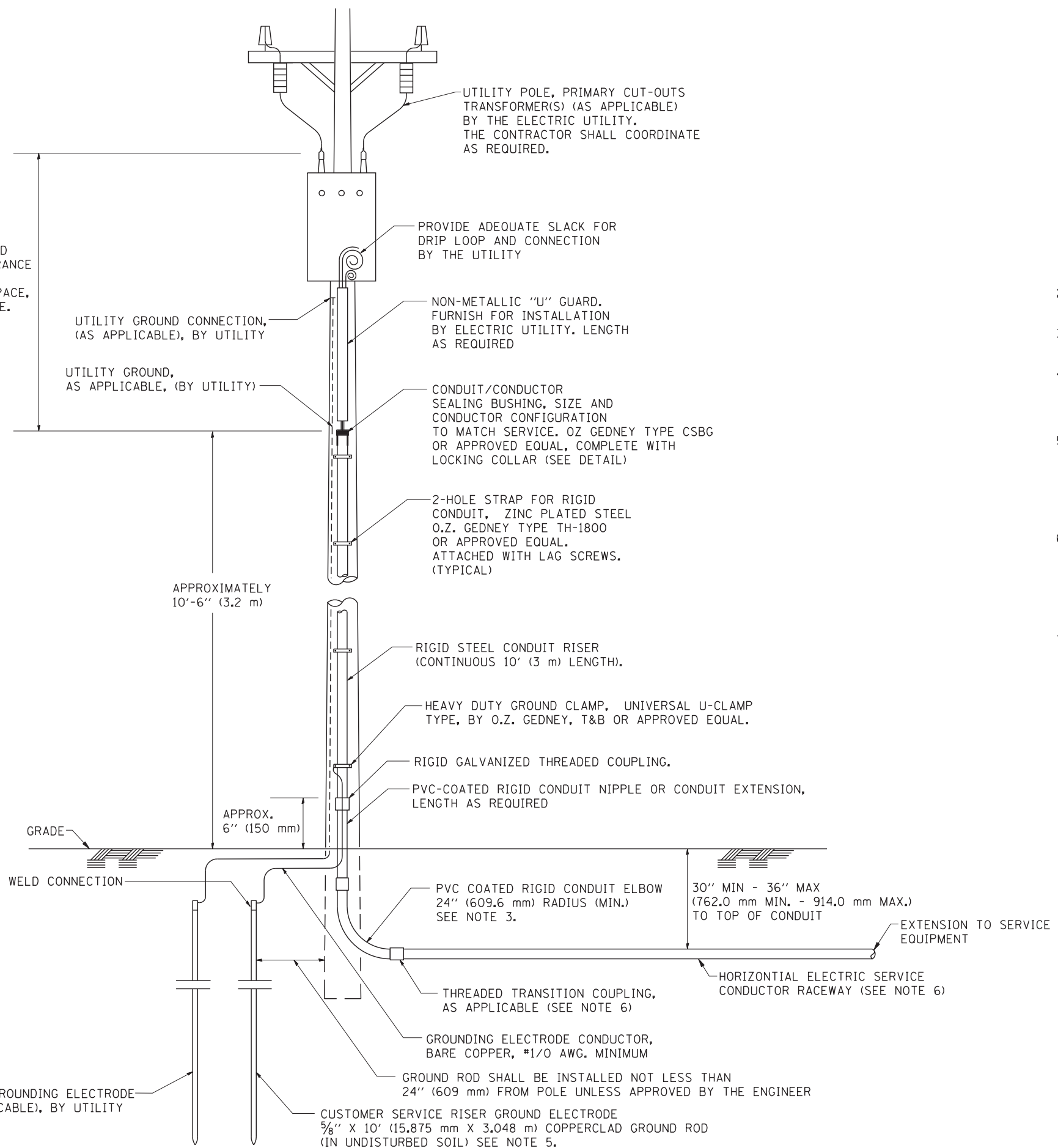
NOTES:

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- FOUNDATION SIZE SHALL BE COORDINATED WITH CABINET SIZE AND MFR.
- IN FRONT OF CONTROL CABINET DOOR, REMOVE VEGETATION AND 2" (50.8 mm) TOP SOIL, LEVEL THE AREA AND ON TOP, PLACE LENGTH WISE PARALLEL TO CONTROL CABINET, A CONCRETE PAD 36" (914.4 mm) x 60" (18.288 m) x 4" (101 mm) MIN. SIZE. THE COST OF LABOR AND MATERIALS ARE INCLUDED IN THE COST OF THE CONTROLLER.
- DOOR SHALL BE CONSTRUCTED FROM SAME TYPE OF MATERIAL AND THICKNESS AS CABINET.
- DOOR SHALL BE EQUIPPED WITH THREE POINT LATCHING MECHANISM WITH NYLON ROLLERS AT TOP THE BOTTOM.
- DOOR HINGE SHALL BE A HEAVY GAUGE CONTINUOUS HINGE WITH A 1/4" (6.35 mm) DIA. STAINLESS STEEL HINGE PIN.
- ALL EXTERNAL HARDWARE SHALL BE STAINLESS STEEL.
- CONTROL WIRING TO BE #12 AWG, 600V, TYPE "SIS" GRAY SWITCH BOARD WIRE, STRANDED COPPER.
- METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET, NEAR TO THE SERVICE POLE.
- CABINETS SHALL BE PRIMED AND PAINTED AS SPECIFIED.
- THE HEADS OF CONNECTORS SCREWS SHALL BE PAINTED WHITE FOR NEUTRAL BAR CONNECTION AND GREEN FOR GROUND BAR CONNECTORS.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.
R = RED BL = BLUE W = WHITE
B = BLACK Y = YELLOW G = GREEN
- PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL CABINET.
- ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
- THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL PANEL".
- 12" (304.8) X 16" (406.4 mm) STAINLESS STEEL EXTERIOR NAMEPLATE SHALL BE ENGRAVED TO "STATE OF ILLINOIS LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.

* ITEMS "A" & "B" SHALL BE 200 AMP. AS SHOWN ON LIGHTING PLANS



ASCERTAIN AND ASSURE CLEARANCE FROM UTILITY SECONDARY SPACE, AS APPLICABLE.



UTILITY POLE, PRIMARY CUT-OUTS TRANSFORMER(S) (AS APPLICABLE) BY THE ELECTRIC UTILITY. THE CONTRACTOR SHALL COORDINATE AS REQUIRED.

PROVIDE ADEQUATE SLACK FOR DRIP LOOP AND CONNECTION BY THE UTILITY

UTILITY GROUND CONNECTION, (AS APPLICABLE), BY UTILITY

UTILITY GROUND, AS APPLICABLE, (BY UTILITY)

NON-METALLIC "U" GUARD. FURNISH FOR INSTALLATION BY ELECTRIC UTILITY. LENGTH AS REQUIRED

CONDUIT/CONDUCTOR SEALING BUSHING, SIZE AND CONDUCTOR CONFIGURATION TO MATCH SERVICE. OZ GEDNEY TYPE CSBG OR APPROVED EQUAL, COMPLETE WITH LOCKING COLLAR (SEE DETAIL)

2-HOLE STRAP FOR RIGID CONDUIT, ZINC PLATED STEEL O.Z. GEDNEY TYPE TH-1800 OR APPROVED EQUAL. ATTACHED WITH LAG SCREWS. (TYPICAL)

APPROXIMATELY 10'-6" (3.2 m)

RIGID STEEL CONDUIT RISER (CONTINUOUS 10' (3 m) LENGTH).

HEAVY DUTY GROUND CLAMP, UNIVERSAL U-CLAMP TYPE, BY O.Z. GEDNEY, T&B OR APPROVED EQUAL.

RIGID GALVANIZED THREADED COUPLING.

PVC-COATED RIGID CONDUIT NIPPLE OR CONDUIT EXTENSION, LENGTH AS REQUIRED

APPROX. 6" (150 mm)

GRADE

EXOTHERMIC WELD CONNECTION

PVC COATED RIGID CONDUIT ELBOW 24" (609.6 mm) RADIUS (MIN.) SEE NOTE 3.

30" MIN - 36" MAX (762.0 mm MIN. - 914.0 mm MAX.) TO TOP OF CONDUIT

EXTENSION TO SERVICE EQUIPMENT

THREADED TRANSITION COUPLING, AS APPLICABLE (SEE NOTE 6)

HORIZONTAL ELECTRIC SERVICE CONDUCTOR RACEWAY (SEE NOTE 6)

GROUNDING ELECTRODE CONDUCTOR, BARE COPPER, #1/0 AWG. MINIMUM

GROUND ROD SHALL BE INSTALLED NOT LESS THAN 24" (609 mm) FROM POLE UNLESS APPROVED BY THE ENGINEER

UTILITY GROUNDING ELECTRODE (AS APPLICABLE), BY UTILITY

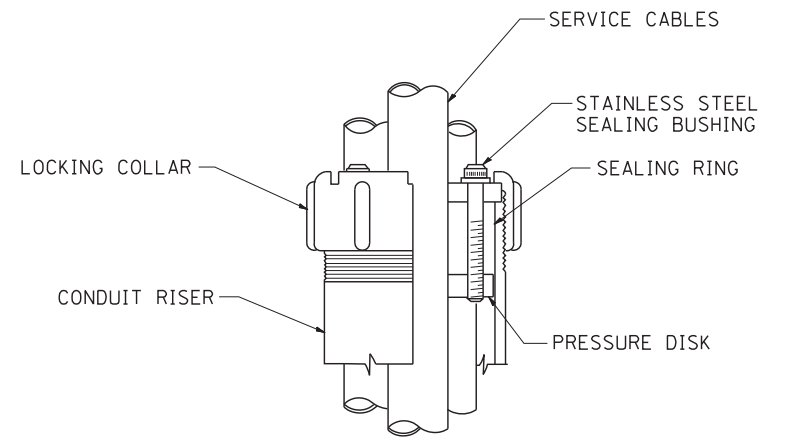
CUSTOMER SERVICE RISER GROUND ELECTRODE 5/8" X 10' (15.875 mm X 3.048 m) COPPERCLAD GROUND ROD (IN UNDISTURBED SOIL) SEE NOTE 5.

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 METALLIC TO NON METALLIC 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.

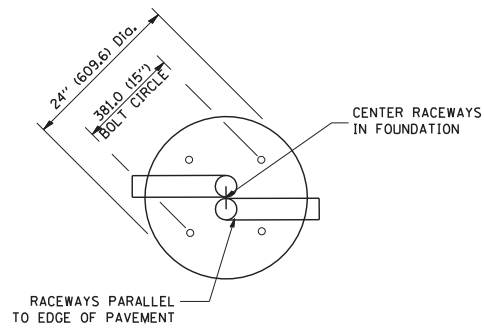


SEALING BUSHING DETAIL

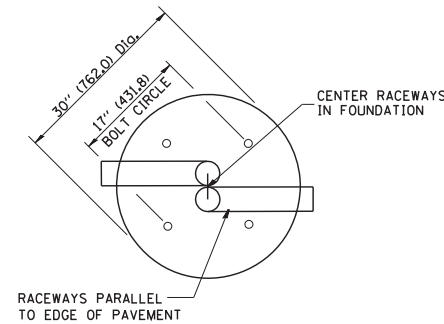
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PLOT DATE = 1/4/2008	DATE -	REVISED -		BE-220			CONTRACT NO.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			

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 O _u = 0.375 TON/SO. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY O _u = 0.75 TON/SO.FT	9'-6" (2.93 m)	10'-9" (3.23 m)
STIFF CLAY O _u = 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)



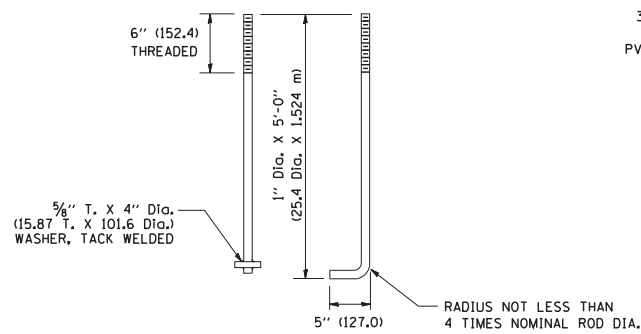
TOP VIEW



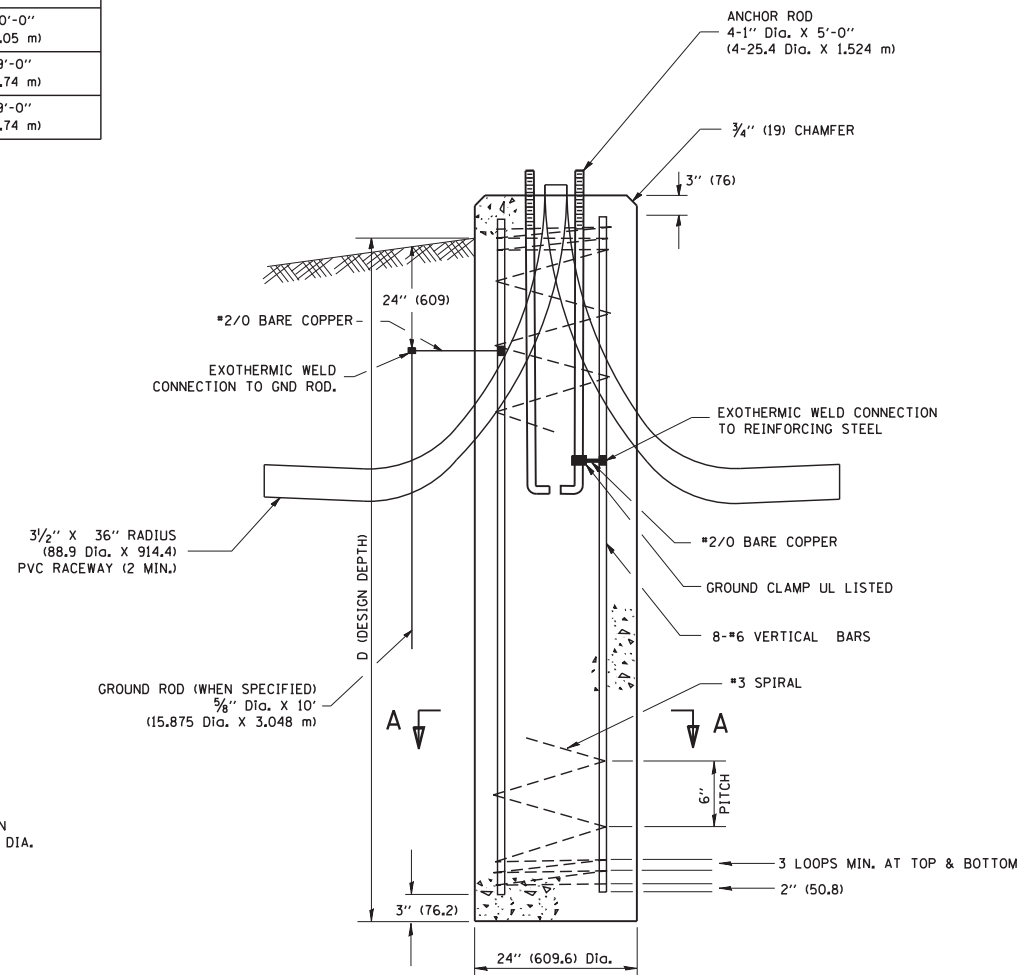
TOP VIEW

NOTES

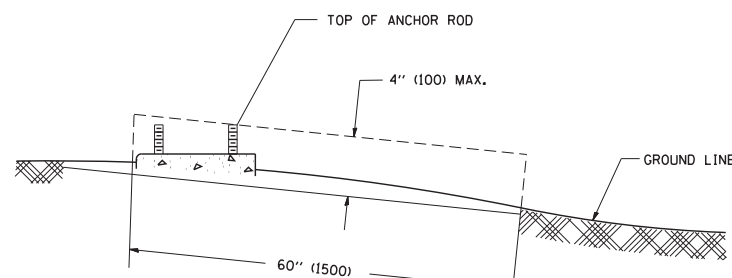
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, 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 UMG 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.



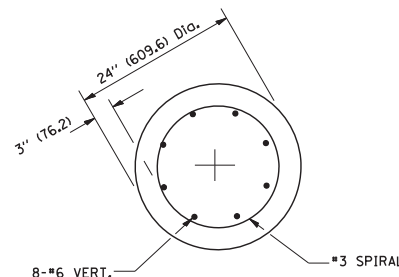
ANCHOR ROD DETAIL



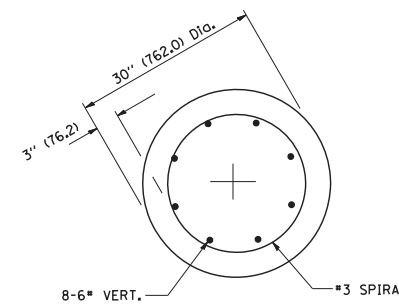
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

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USER NAME = gaglionobt

DESIGNED - REVISED - 04-22-02

DRAWN - REVISED -

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CHECKED - REVISED -

PLOT DATE = 1/4/2008

DATE - REVISED -

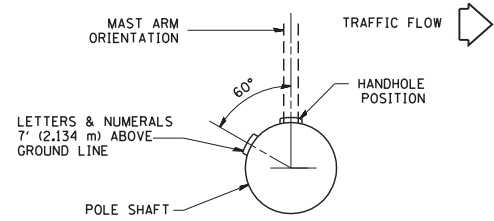
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHT POLE FOUNDATION

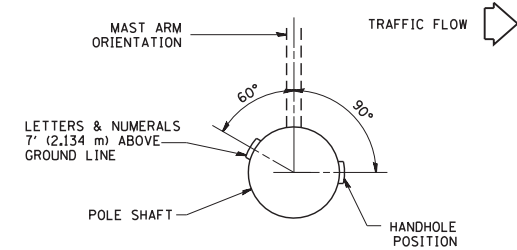
40' (12.192 m) TO 47' 1/2' (14.478 m) M.H. 15" (381 mm) BOLT CIRCLE

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

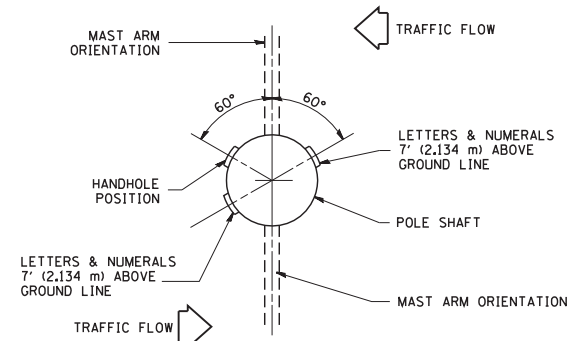
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BE-301			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



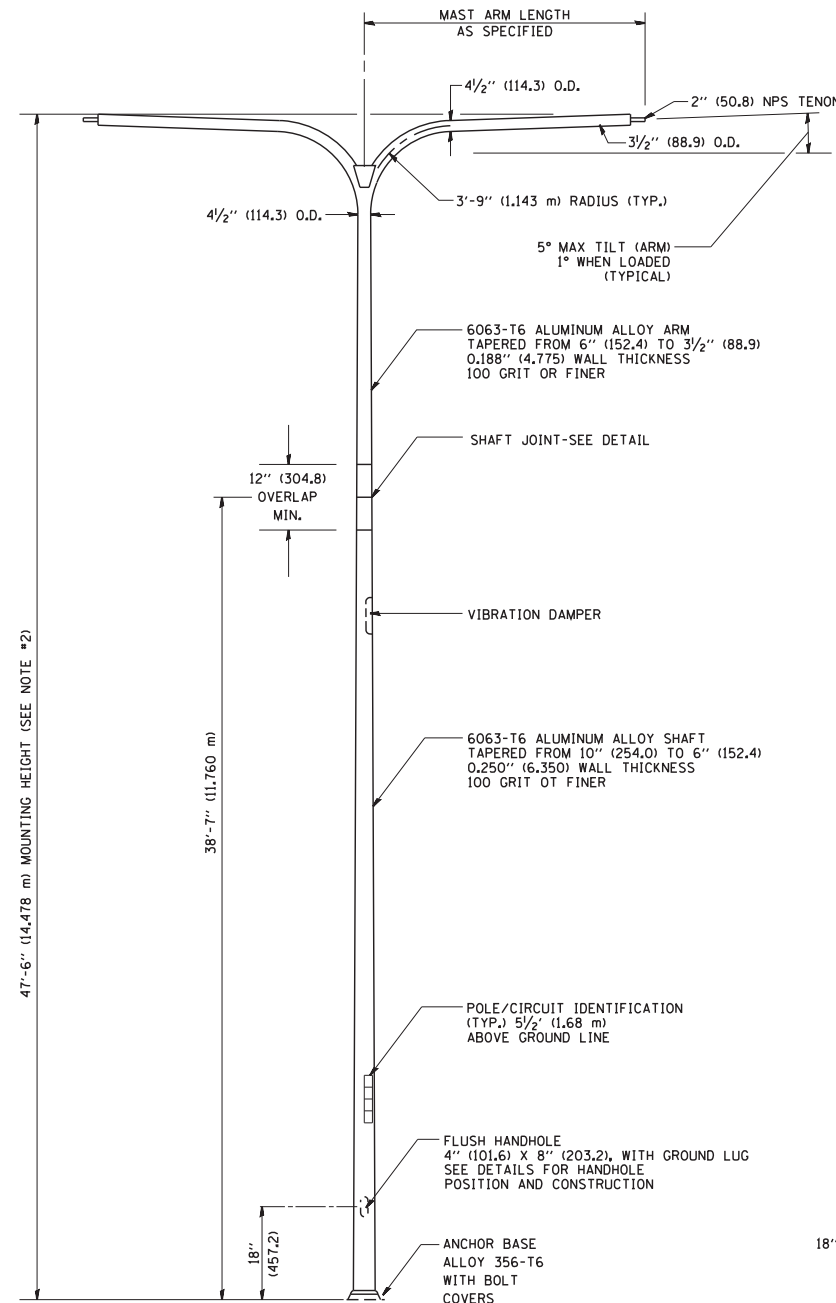
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL



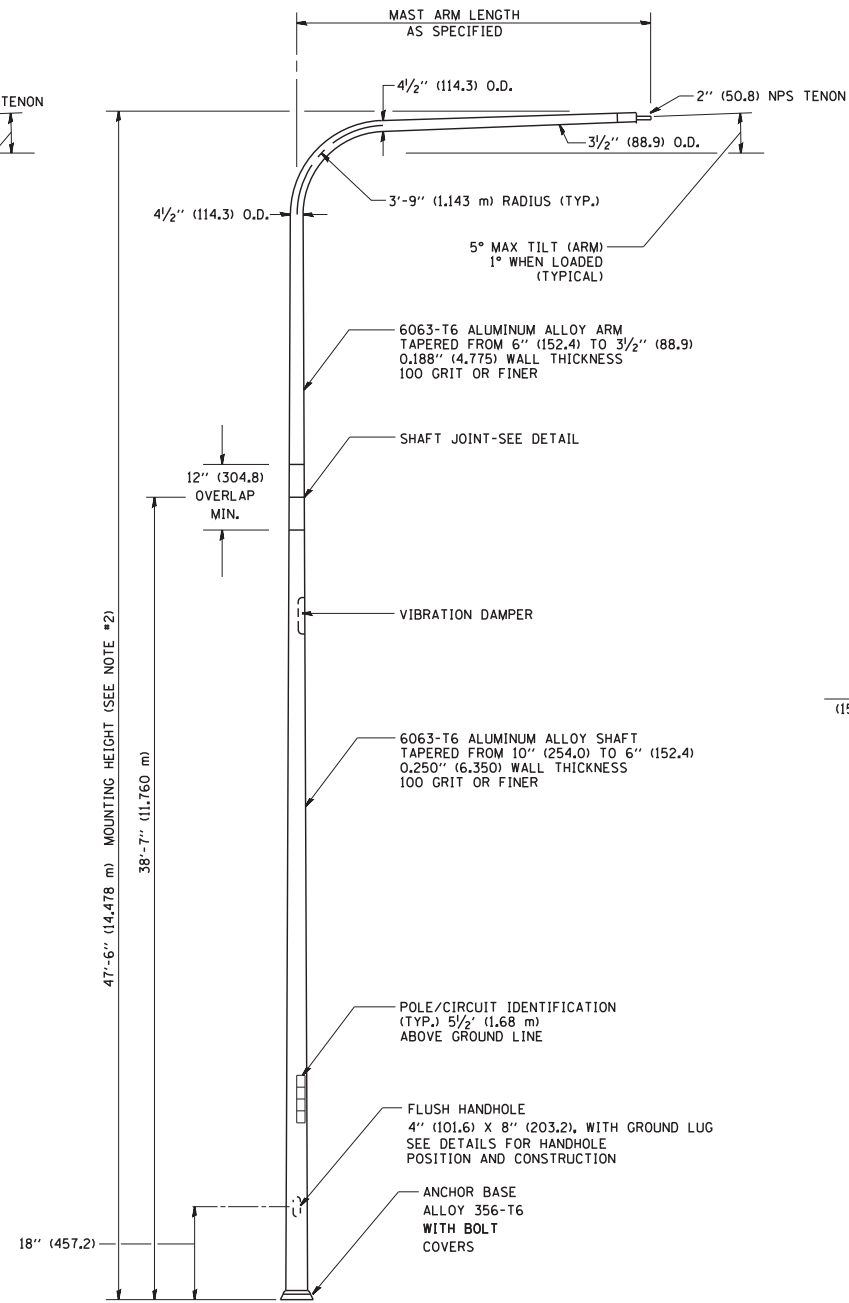
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES



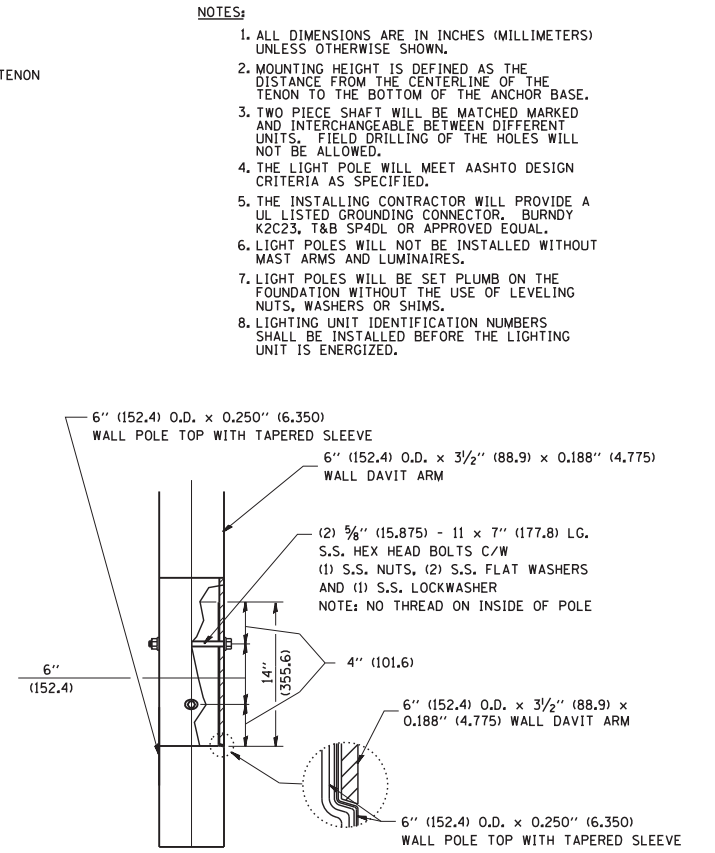
POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES



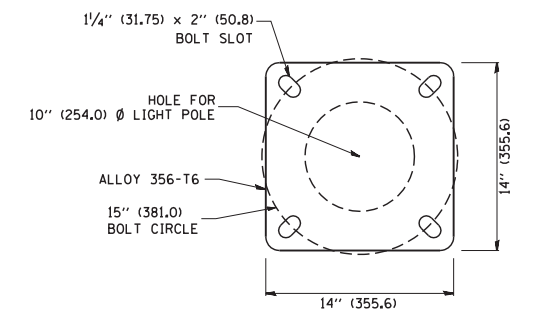
TWIN ARM POLE



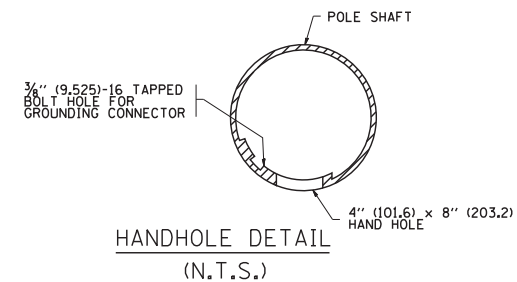
SINGLE ARM POLE



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.)

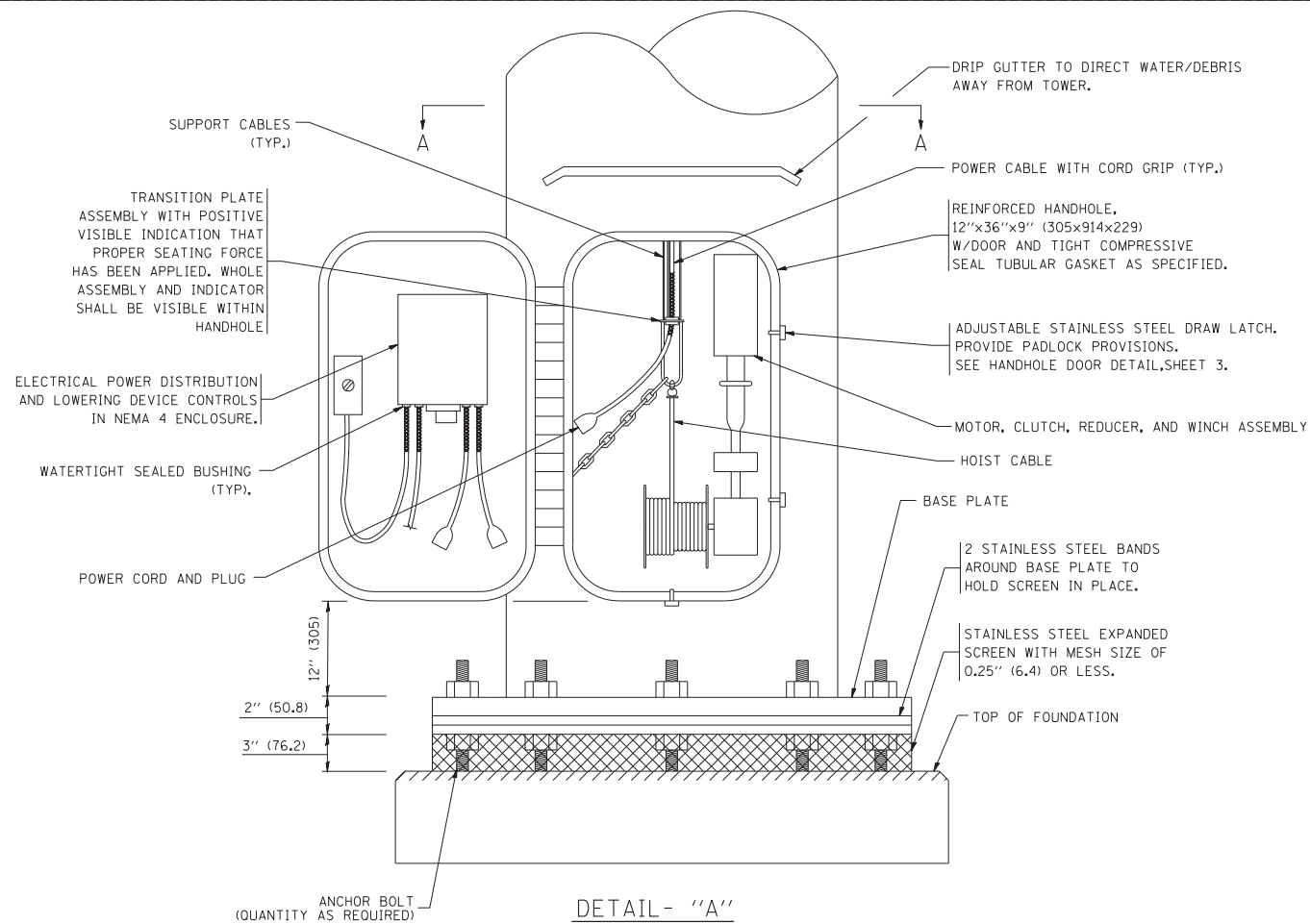
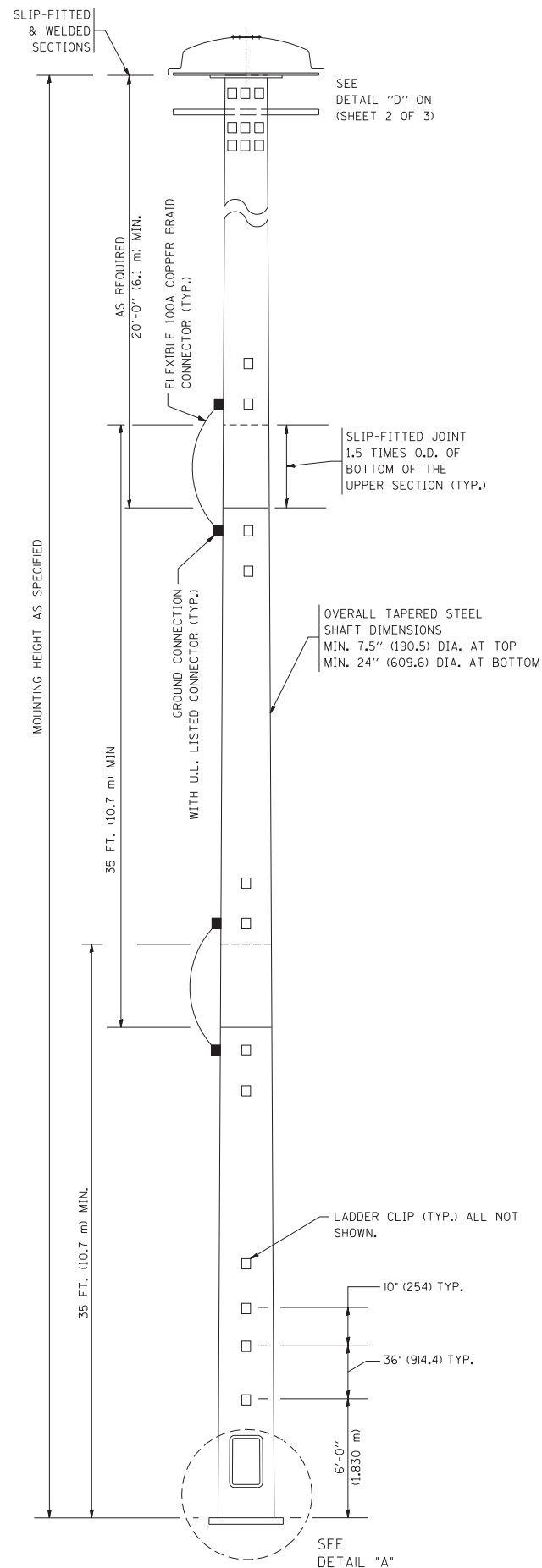
- NOTES:
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
 2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
 3. TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE 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, T&B SP4DL 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.

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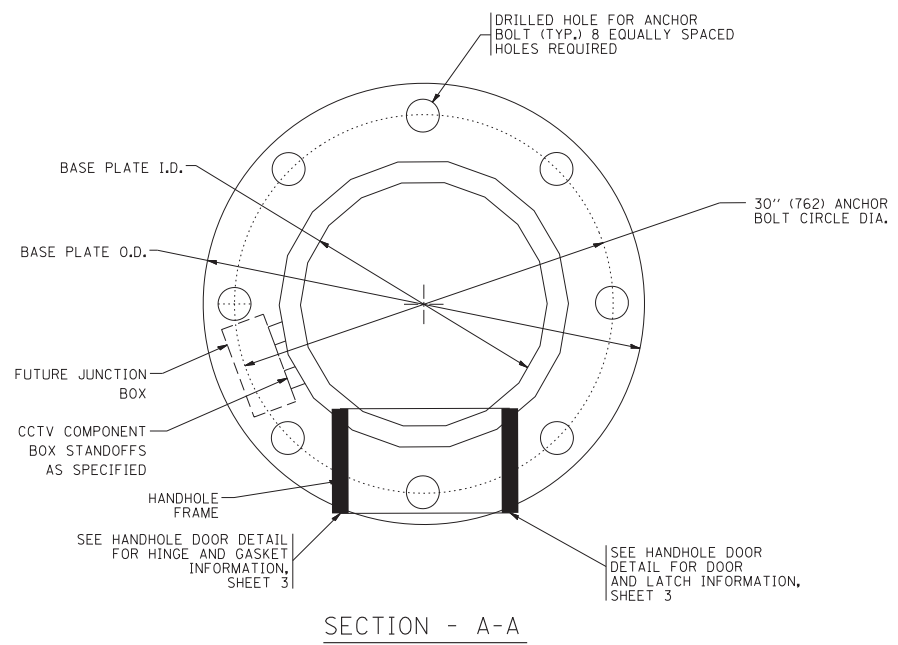
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DAVIT LIGHT POLE			
47'-6" (14.478 m) MOUNTING HEIGHT			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

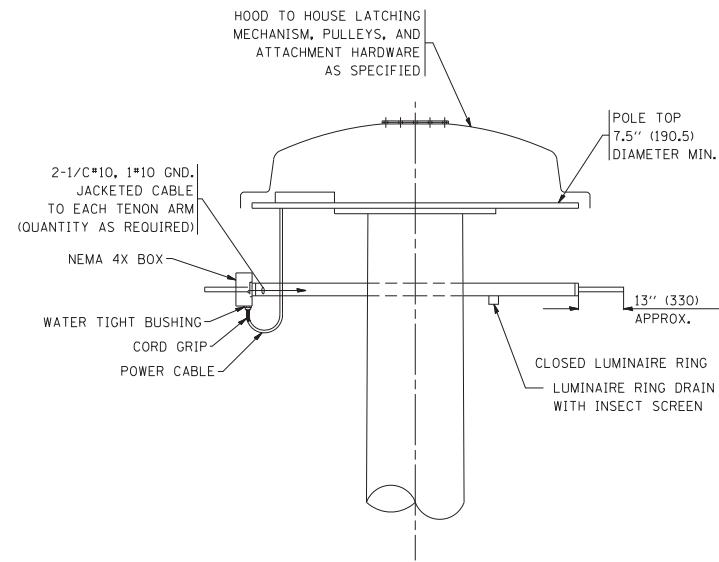
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FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



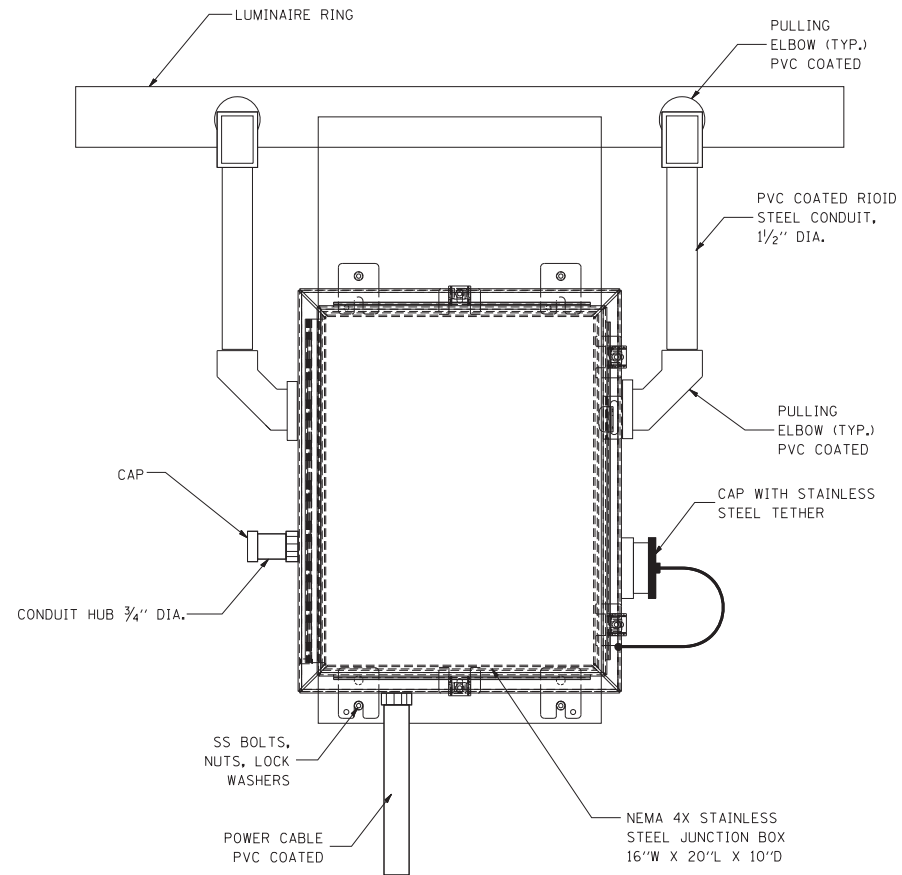
DETAIL - "A"
3 CABLE LOWERING & SUPPORT MECHANISM SHOWN.



- NOTES:**
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
 - THE DESIGN SHALL BE BASED UPON AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" CURRENT AT THE TIME THE PROJECT IS ADVERTISED AND A TOTAL COMBINED LUMINAIRE WEIGHT OF 720 LBS. (326 kg) AND HAVING A TOTAL PROJECTED AREA OF 24 SQ. FT. (7.3 sq. m).
 - ALL TOWER SHAFT COMPONENTS, INCLUDING, BUT NOT LIMITED TO THE SHAFT SECTIONS, BASE PLATE, LADDER CLIPS, HANDHOLE DOOR, HANDHOLE REINFORCING, RAIN GUTTER, AND BASE PLATE, SHALL BE FABRICATED FROM HIGH-STRENGTH, LOW ALLOY, STEEL WITH A MINIMUM YIELD STRENGTH OF 50,000 PSI (345 K PA) ACCORDING TO AASHTO M 223 (ASTM A 572 GR50)
 - THE ELECTRIC MOTOR, MOTOR GEAR REDUCER, WINCH DRUM ASSEMBLY AND AUTOMATIC SHUTOFF SWITCH OF THE LOWERING DEVICE SHALL BE ACCESSIBLE FROM THE FRONT OF THE TOWER FOR EASY REMOVAL AND MAINTENANCE. ALL COMPONENTS SHALL BE REMOVABLE THROUGH THE HANDHOLE.
 - THE LIGHT TOWER SHAFT SHALL HAVE LADDER CLIPS. CLIPS SHALL BEGIN 6 FT. (1.8 m) ABOVE THE BASE PLATE WITH ALTERNATE 36 INCH (900) AND 10 INCH (250) SPACING THEREAFTER, FOR THE ENTIRE LENGTH. THE TOP 10 FT. (3 m) OF THE POLE SHAFT SHALL HAVE 3 SETS OF CLIPS. EACH SET OF CLIPS SHALL BE 120 DEGREES APART. CLIPS SHALL BE 0.25 X 2 INCHES (6 X 50) WELDED TO THE SHAFT TO PRODUCE A SLOT 0.625 INCHES (15.9) DEEP AND 1.625 INCHES (41.3) LONG. THE TOP INSIDE EDGE SHALL BE CHAMFERED.
 - A COPPER BONDING JUMPER SHALL BOND SLIP-FIT POLE SECTIONS TOGETHER WITH A FLAT COPPER MESH AND STAINLESS STEEL GROUND LUGS.
 - ALL TOWER SHAFT HARDWARE, SUCH AS GROUND LUGS, JUNCTION BOXES, HARDWARE FOR THE HANDHOLE DOOR, INCLUDING THE HANDLE/LATCH MECHANISM, HINGE AND DOOR STOP, SHALL BE STAINLESS STEEL. ALL CONDUIT AND CONDUIT FITTINGS SHALL BE PVC COATED GALVANIZED STEEL.
 - THE ENTIRE TOWER INCLUDING THE SHAFT, HANDHOLE, HANDHOLE DOOR, BASE PLATE AND ALL OTHER ELEMENTS WELDED TO THE SHAFT SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 111 (ASTM A 123) AND THEN PAINTED AS SPECIFIED. THE LUMINAIRE RING SHALL BE PRIMED AND PAINTED AS SPECIFIED.
 - THE FINISH COAT SHALL BE ANSI 70, SKY GREY COLOR SAMPLE TO BE SUBMITTED FOR APPROVAL. ON LIGHT TOWERS DESIGNED FOR A CCTV CAMERA TO BE INSTALLED, THE TOP SECTION OR 30 FT. WHICH EVER IS GREATER OF THE TOWER SHAFT SHALL BE PAINTED FLAT BLACK. OTHER SECTIONS SHALL BE ANSI 70, SKY GREY.
 - ALL MULTI-CONDUCTOR CABLES SHALL BE FITTED WITH A HEAT-SHRINK MULTI-LEG BOOT. THE BOOT SHALL MEET MILITARY SPECIFICATION MIL-I-81765/1.
 - THE LIGHT TOWER SHALL BE STRAIGHT AND CENTERED ON ITS LONGITUDINAL AXIS, UNDER NO-WIND CONDITIONS, SO WHEN EXAMINED FROM ANY DIRECTION, THE DEVIATION FROM THE NORMAL SHALL NOT EXCEED 1/8 IN. IN 3 FT (2 mm IN 1 m) WITHIN ANY 5 FT (1.5 m) OF HEIGHT, WITH TOTAL DEVIATION NOT TO EXCEED 3 IN. (75) FROM THE VERTICAL AXIS THROUGH THE CENTER OF THE POLE BASE.
 - PVC CONDUIT WILL NOT BE ALLOWED FOR ANY LIGHT TOWER COMPONENT.
 - COUNTER WEIGHTS TO BE INCLUDED AS A PART OF THE LIGHT TOWER PAY ITEM.

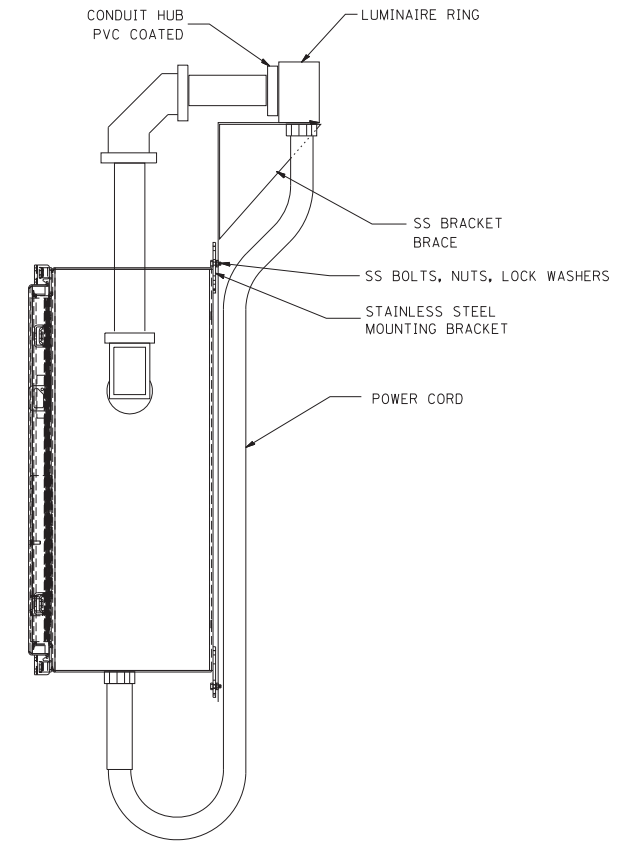


DETAIL - "D"

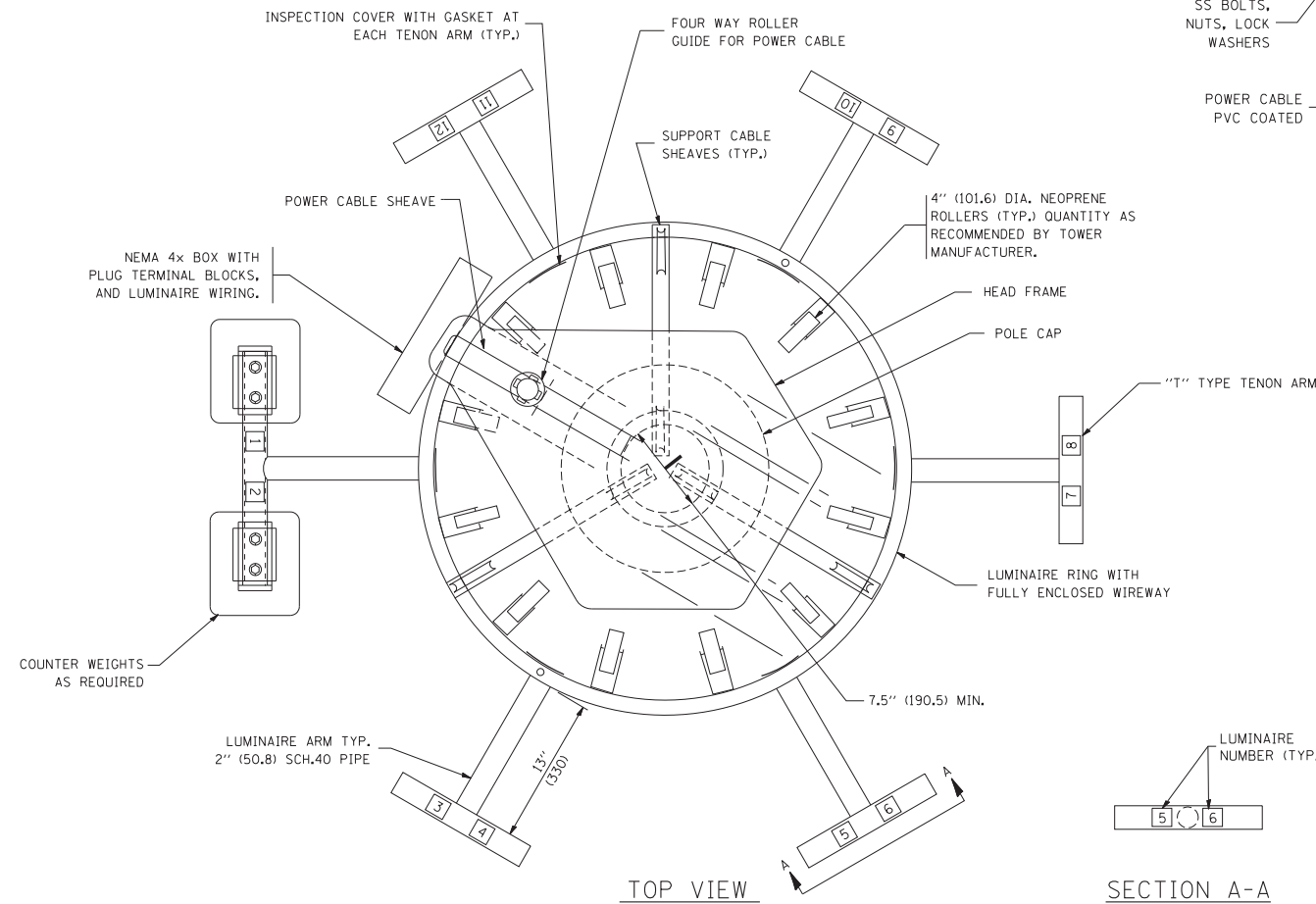


FRONT VIEW
N.T.S.

LUMINAIRE RING TERMINAL BOX

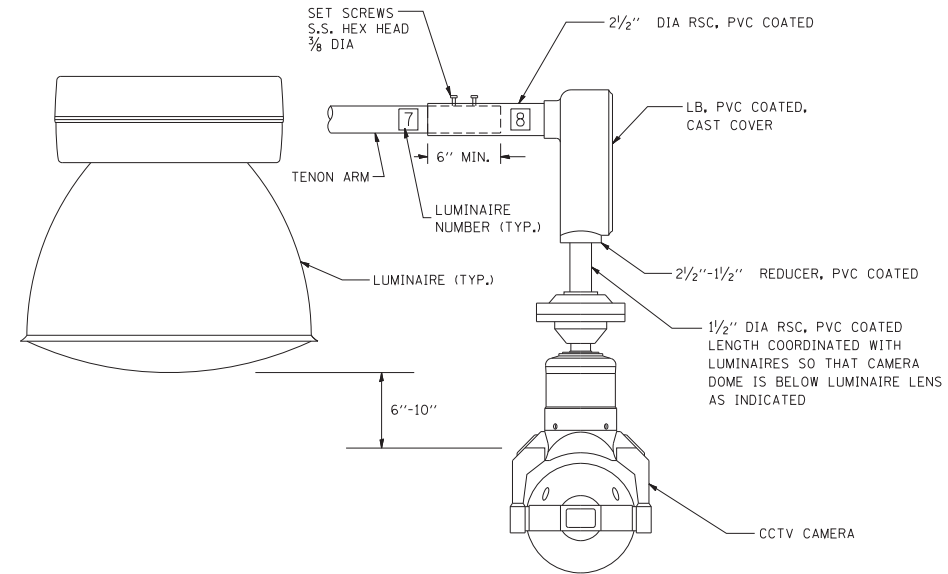


SIDE VIEW
N.T.S.



TOP VIEW

SECTION A-A



CCTV CAMERA MOUNTING DETAIL

NOTES:

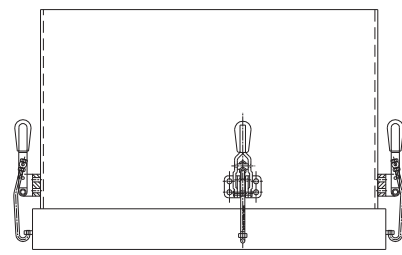
- LUMINAIRE WIRES SHALL EXTEND 24 INCHES (609 mm) LONGER THAN THEIR RESPECTIVE TENON ARM AND SHALL BE TRAINED BACK INTO THE ARM WHICH SHALL THEN BE CLOSED WITH A CAP AS SPECIFIED ALL WIRES SHALL BE CAPPED WITH HEAT SHRINK INSULATING BOOTS, CRIMP CAPS ARE UNACCEPTABLE. ALL RING WIRES SHALL BE TAGGED WITH WIRE MARKERS AT BOTH ENDS THE TENON ARMS SHALL ALSO BE TAGGED CORRESPONDING TO THE WIRING CONTAINED WITHIN.
- SPLICING WILL NOT BE ALLOWED WITHIN THE LUMINAIRE RING.
- ALL TOWER SHAFT HARDWARE, SUCH AS GROUND LUGS, JUNCTION BOXES, HARDWARE FOR THE HANDHOLE DOOR, INCLUDING THE HANDLE/LATCH MECHANISM, HINGE AND DOOR STOP, SHALL BE STAINLESS STEEL. ALL CONDUIT AND CONDUIT FITTINGS SHALL BE PVC COATED GALVANIZED STEEL.
- ALL MULTI-CONDUCTOR CABLES SHALL BE FITTED WITH A HEAT-SHRINK MULTI-LEG BOOT. THE BOOT SHALL MEET MILITARY SPECIFICATION MIL-I-81765/1.

FILE NAME = W:\diststd\22x34\be500.dgn	USER NAME = leuss	DESIGNED - DRAWN -	REVISED - R. TOMSONS 08-04-03 REVISED - R. TOMSONS 05-11-09
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	PLOT DATE = 11/22/2010	DATE -	REVISED -

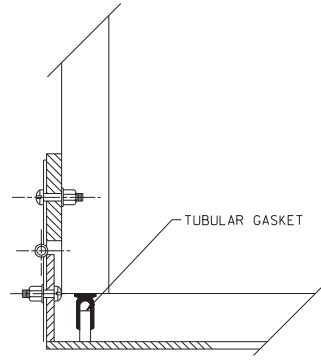
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HIGH MAST LIGHT TOWER 90 FT TO 110 FT (27 m TO 34 m)			
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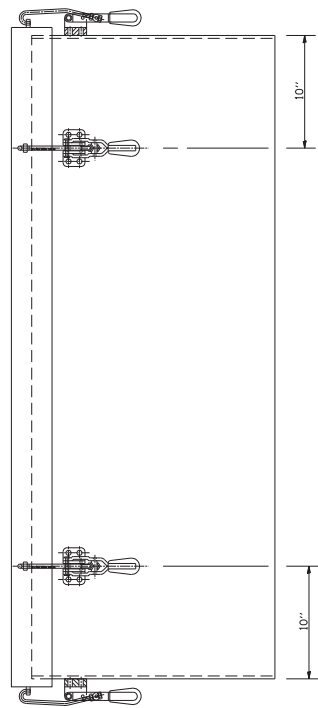
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BE-500		507	215
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO.	



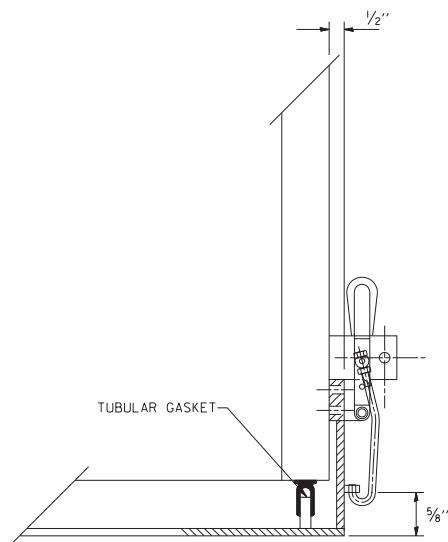
TOP VIEW



HINGE DETAIL

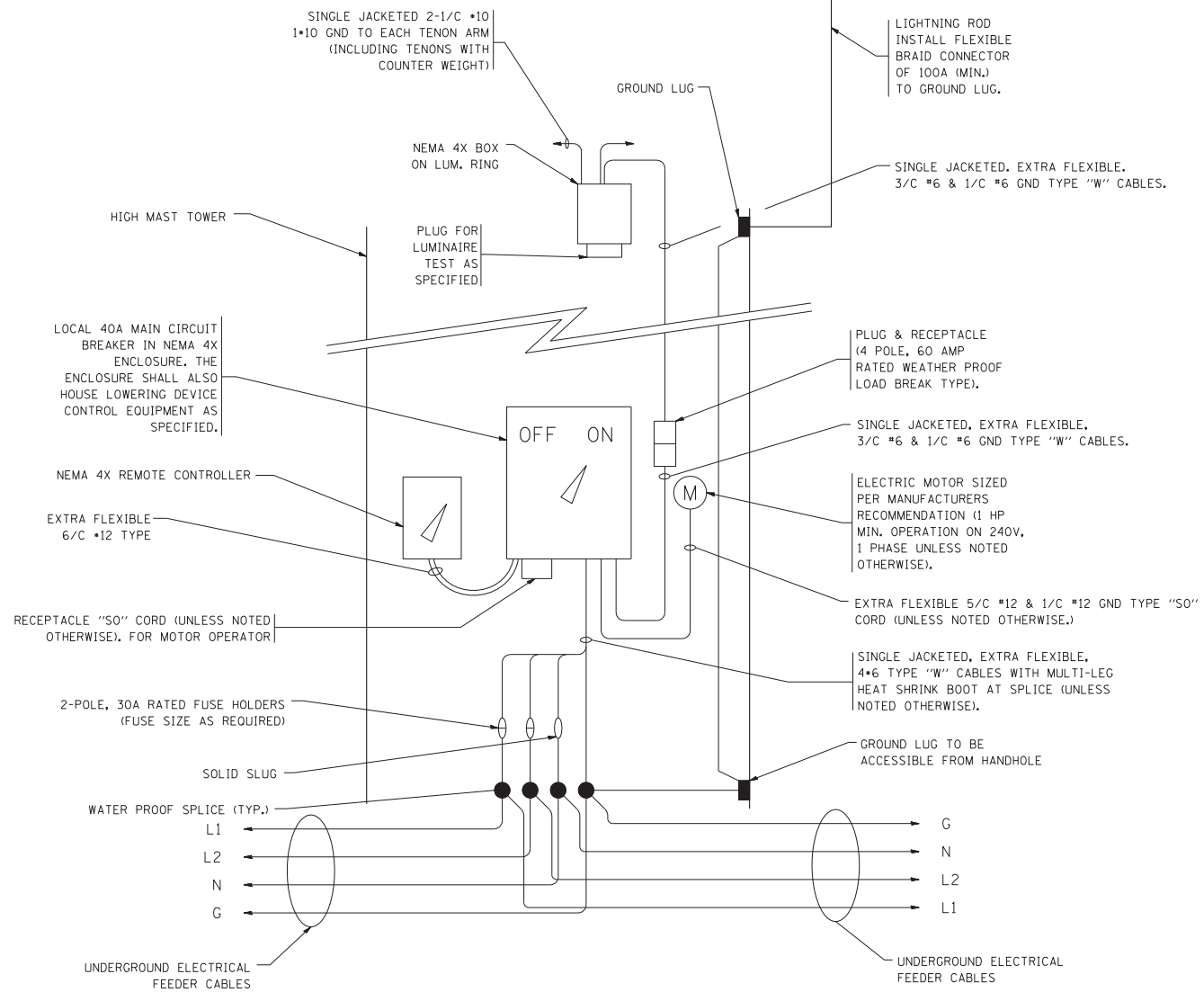


SIDE VIEW

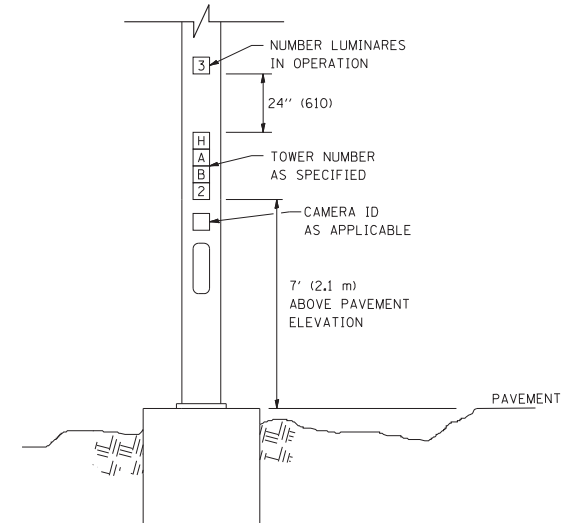


LATCH DETAIL

HANDHOLE DOOR DETAILS



HIGH MAST POLE WIRING DIAGRAM



LIGHT TOWER NUMBERING DETAIL

FILE NAME = W:\diststd\22x34\be500.dgn

USER NAME = leuso

DESIGNED -	REVISED - R. TOMSONS 08-04-03
DRAWN -	REVISED - R. TOMSONS 05-11-09
PLOT SCALE = 50.0000' / IN.	REVISED - R. TOMSONS 09-02-10
CHECKED -	REVISED -
DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HIGH MAST LIGHT TOWER
90 FT TO 110 FT (27 m TO 34 m)

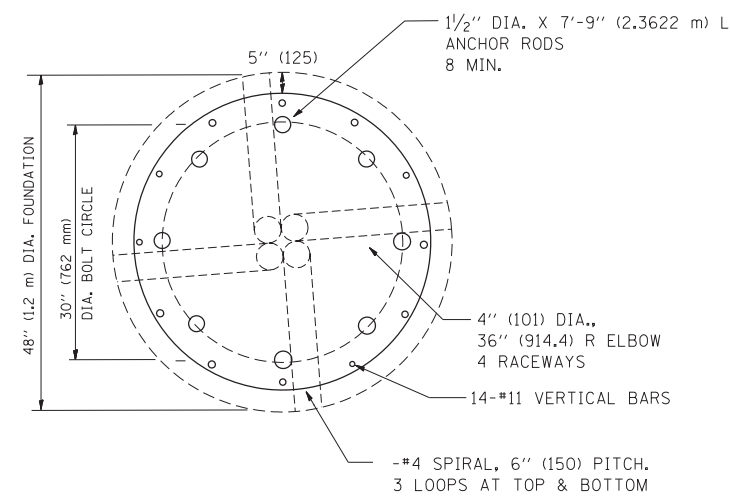
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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BE-500		CONTRACT NO.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

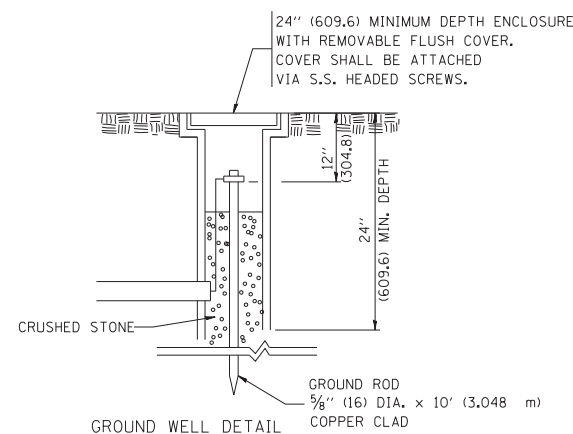
SOIL CONSISTENCY		SHAFT LENGTH (D) TABLE		
		AVERAGE STRENGTH	LIGHT TOWER MOUNTING HEIGHT	
COHESIVE	SOFT	Qu In tsf (Qu In kPa)	100 FT. (30 m)	110 FT. (34 m)
	MEDIUM	<0.5 (<50)	22'-6" (6.9 m)	24'-0" (7.2 m)
	STIFF	0.5 TO 1 (50 TO 100)	18'-6" (6.9 m)	19'-0" (5.8 m)
	VERY STIFF	1 TO 2 (100 TO 200)	15'-6" (4.7 m)	16'-0" (5.5 m)
	HARD	2 TO 4 (200 TO 400)	13'-6" (4.1 m)	14'-0" (4.2 m)
GRANULAR		N in BLOWS/FT. (N in BLOWS/0.3m)		
	VERY LOOSE	<5 (<5)	18'-0" (5.4 m)	18'-6" (5.6 m)
	LOOSE	5 TO 10 (5 TO 10)	16'-6" (4.9 m)	17'-0" (5.1 m)
	MEDIUM	10 TO 25 (10 TO 25)	15'-6" (5.2 m)	16'-0" (5.9 m)
	DENSE	25 TO 50 (25 TO 50)	15'-0" (4.5 m)	15'-6" (4.6 m)
	VERY DENSE	>50 (>50)	14'-0" (4.2 m)	14'-6" (4.4 m)

DESIGN NOTES

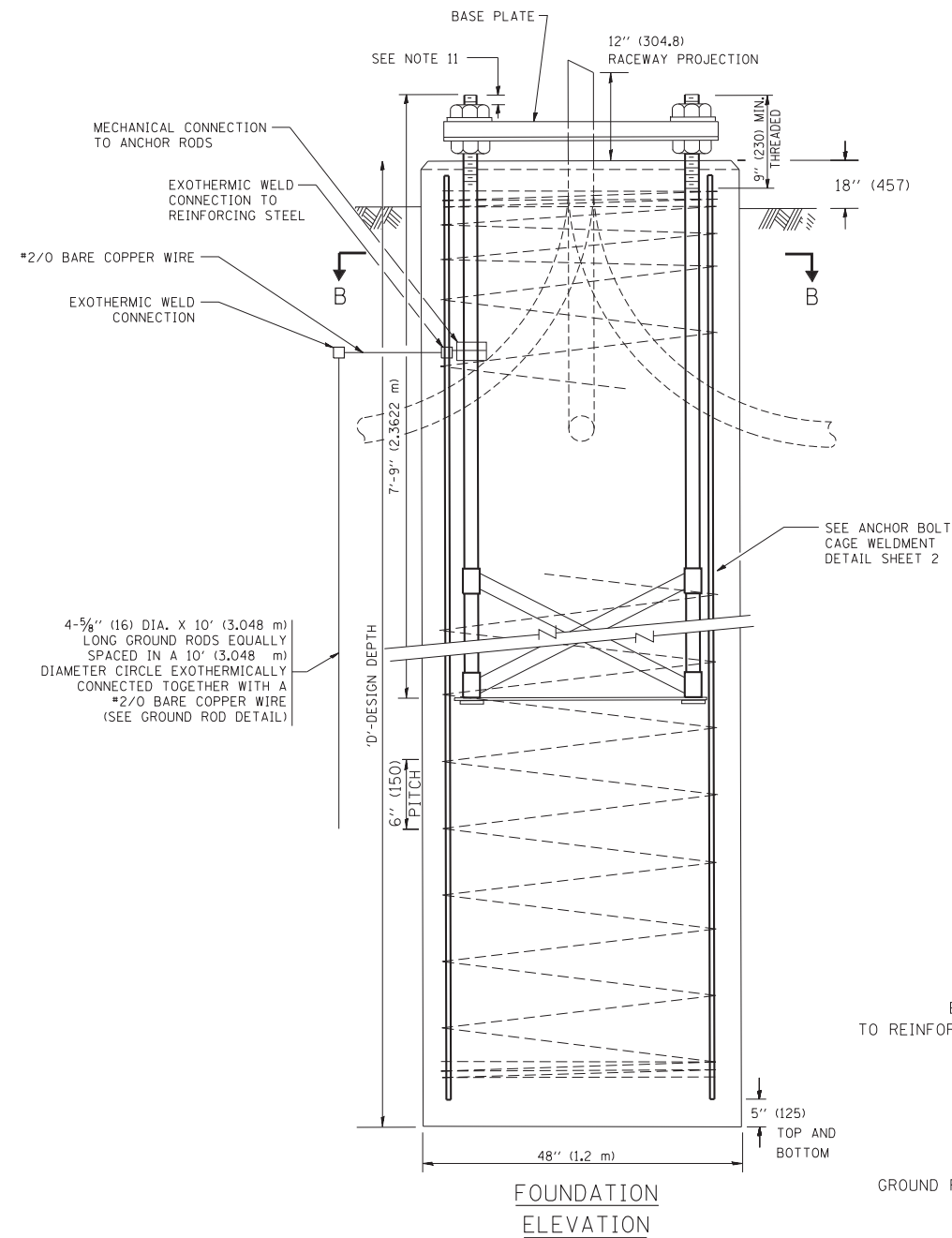
- (1) ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN
- (2) THE ANCHOR RODS SHALL BE VERTICAL NO ADJUSTMENT SHALL BE ALLOWED AFTER THE FOUNDATION IS PLACED.
- (3) THE GAP BETWEEN THE FOUNDATION AND THE BASE PLATE SHALL BE ENCLOSED WITH A STAINLESS STEEL SCREEN FASTENED WITH A STAINLESS STEEL BAND.
- (4) THE TOP OF THE FOUNDATION TO 18" (450) BELOW GRADE SHALL BE FORMED.
- (5) SURFACE WATER WILL NOT BE PERMITTED TO ENTER THE HOLE AND ALL WATER WHICH MAY HAVE INFILTRATED INTO THE HOLE SHALL BE REMOVED BEFORE PLACING CONCRETE.
- (6) THE LIGHT TOWER SHALL NOT BE ERRECTED UNTIL AFTER THE CONCRETE HAS BEEN CURED ACCORDING TO ARTICLE 1020.13.
- (7) ANCHOR RODS SHALL BE STRAIGHT AND SHALL BE ACCORDING TO AASHTO M 314 OR ASTM F1554, GRADE 725(GRADE 105) AND GALVANIZED ACCORDING TO ARTICLE 1006.9.
- (8) ANCHOR ROD INFORMATION SHALL BE SUBMITTED FOR APPROVAL AND SHALL BE FULLY COORDINATED FOR APPROVAL WITH TOWER MANUFACTURER REQUIREMENTS.
- (9) REINFORCEMENT BARS SHALL BE ACCORDING TO ARTICLE 1006.10
- (10) TWO ANCHOR RODS OPPOSITE EACH OTHER SHALL HAVE THE ANCHOR ROD THREADS PEENED AFTER NUTS ARE INSTALLED.
- (11) A MINIMUM OF THREE FULL THREADS SHALL REMAIN EXPOSED AFTER LIGHT TOWER IN INSTALLED.
- (12) ALL GROUNDING INDICATED IN THE PLANS SHALL BE INCLUDED IN THE COST OF THE LIGHT TOWER FOUNDATION AND SHALL NOT BE PAID FOR SEPARATELY.



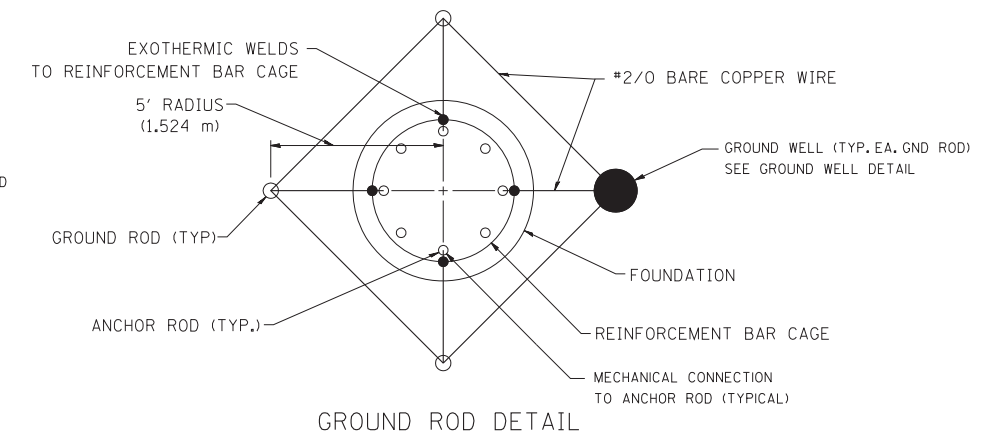
SECTION-B-B



GROUND WELL DETAIL



FOUNDATION ELEVATION



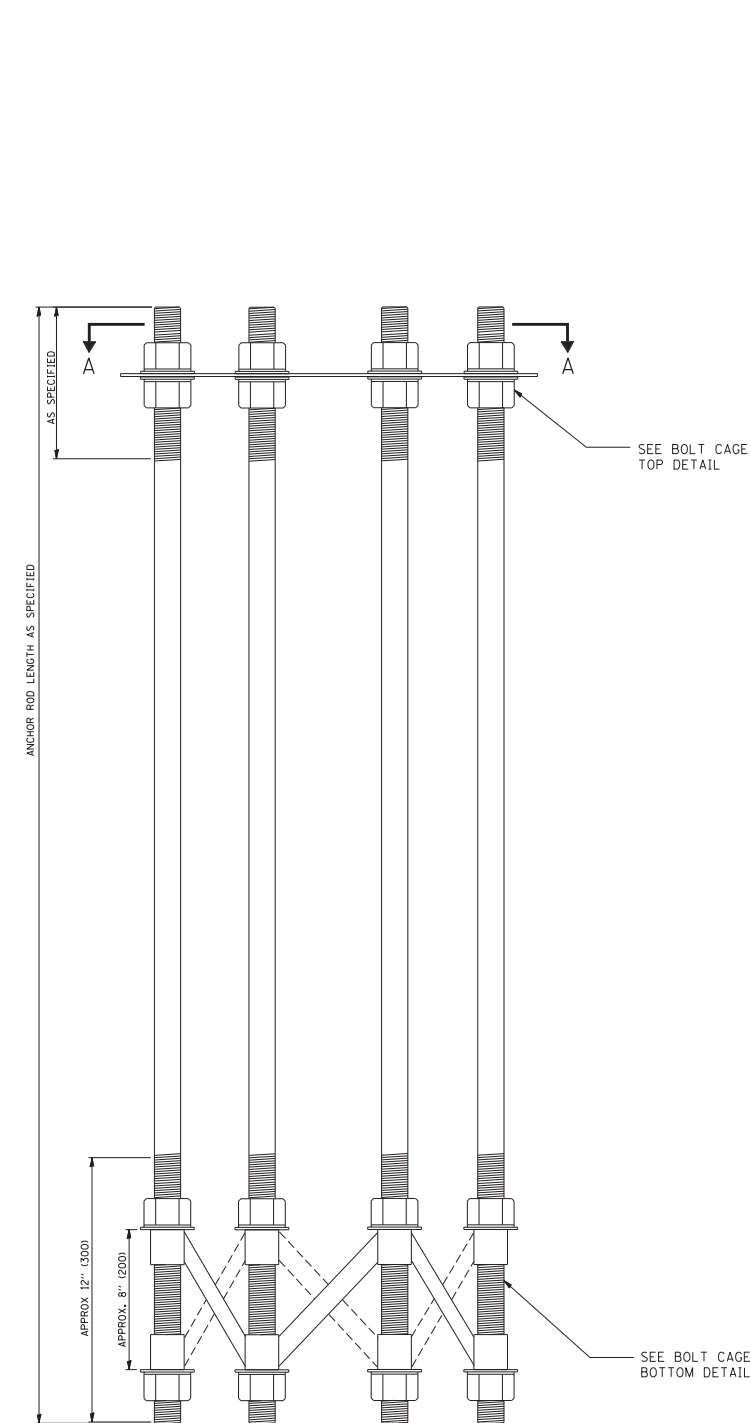
GROUND ROD DETAIL

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		CHECKED -	REVISED - R. TOMSONS 09-02-10
		DATE -	REVISED -

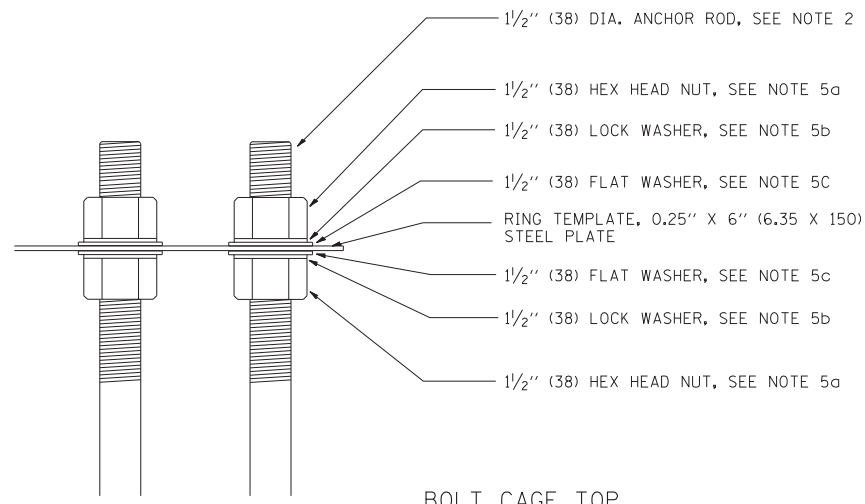
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HIGH MAST LIGHT TOWER			
90 FT TO 110 FT (27 m TO 34 m) FOUNDATION DETAIL			
SCALE: NONE	SHEET NO. 1 OF 2 SHEETS	STA.	TO STA.

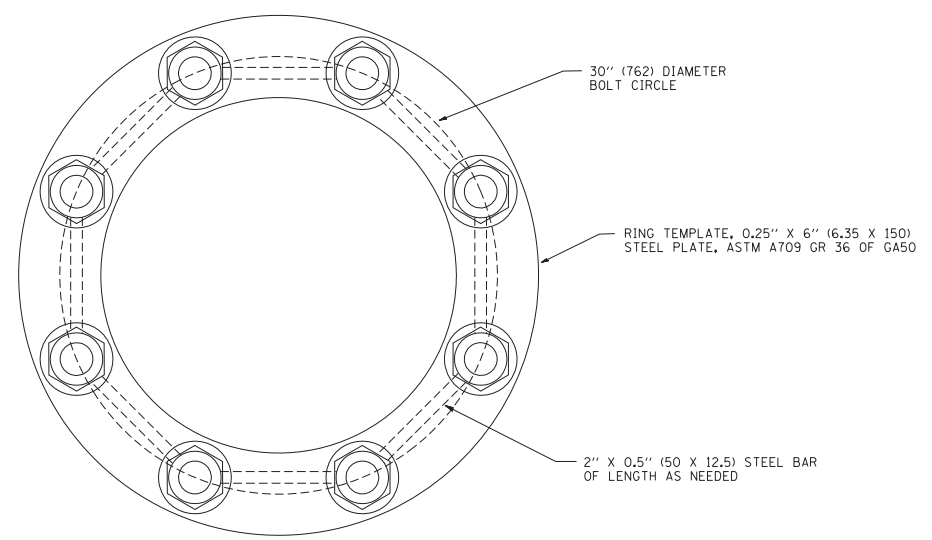
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BE-501		507	217
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO.	



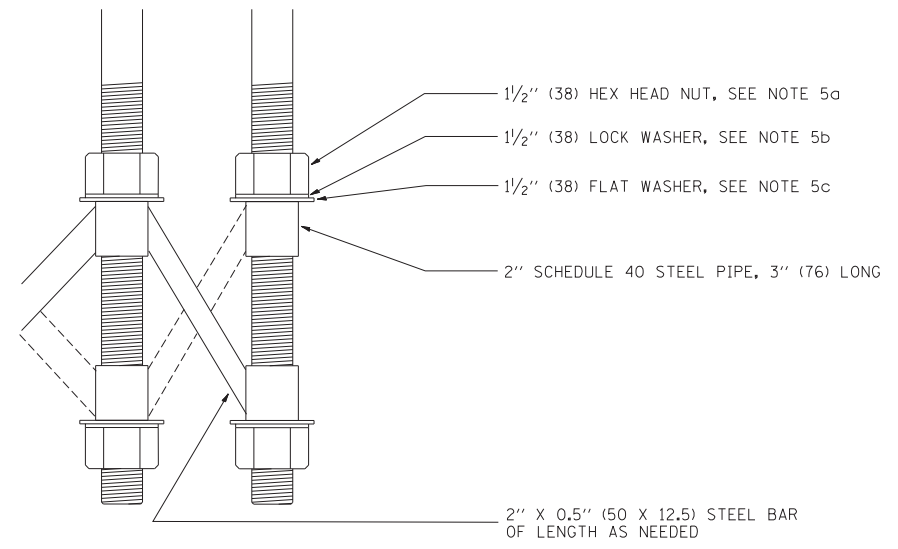
ANCHOR BOLT CAGE



BOLT CAGE TOP



SECTION A-A



BOLT CAGE BOTTOM

NOTES

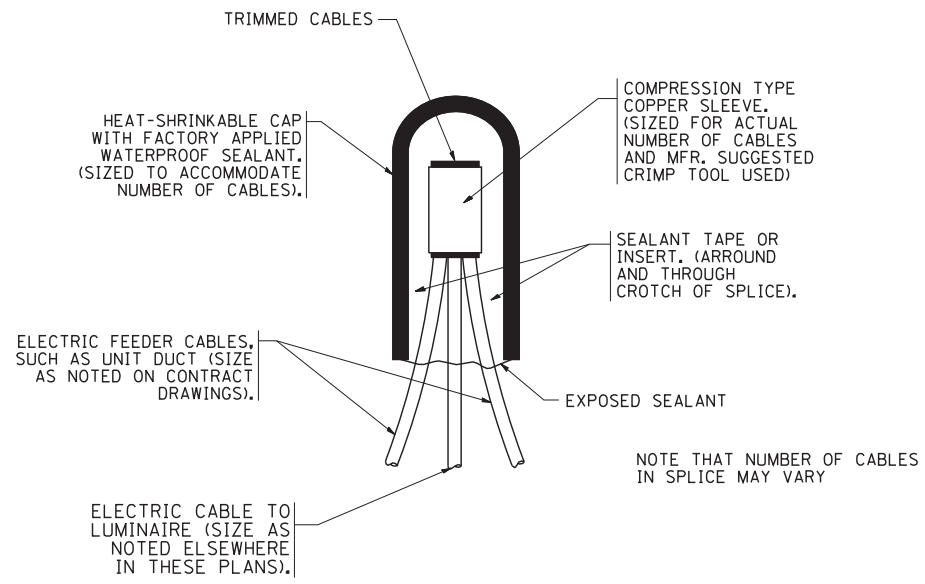
1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN
2. ANCHOR RODS SHALL BE STRAIGHT AND SHALL BE ACCORDING TO AASHTO M 314 OR ASTM F1554, GRADE 725 (GRADE 105) AND GALVANIZED ACCORDING TO ARTICLE 1006.09.
3. ANCHOR ROD INFORMATION SHALL BE SUBMITTED FOR APPROVAL AND SHALL BE FULLY COORDINATED WITH TOWER MANUFACTURERS REQUIREMENTS.
4. CUT NUTS, OR JAM NUTS, ARE NOT ALLOWED
5. ANCHOR ROD CAGE HARDWARE SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
 - a) 1.5 (38) HEX HEAD NUTS
AASHTO M291, GRADE C, C3, D, DH OR DH3
HOT DIPPED GALVANIZED AASHTO M 232
 - b) 1.5 (38) HELICAL LOCK WASHERS
ANSI/ASME B18.21.1
I.D. 1.504 - 1.524
O.D. 2.159 MAX.
WIDTH 0.292 MIN.
THICKNESS 0.375 MIN.
HARDNESS 26-45 ROCKWELL C
HOT DIPPED GALVANIZED AASHTO M232
 - c) 1.5 (38) FLAT WASHERS
AASHTO M293
O.D. 2.75
I.D. 1.56
THICKNESS 0.16 - 0.25
HARDNESS 26-45 ROCKWELL C.
HOT DIPPED GALVANIZED AASHTO M232
6. THE SHAFT LENGTHS SHALL BE BASED ON SOIL BORINGS IN THE PLANS AND OR A DETERMINATION OF SOIL CONDITIONS BY THE ENGINEER.
7. ALL FOUNDATION REINFORCEMENT STEEL SHALL BE EPOXY COATED.
8. THE FOUNDATION SHALL BE POURED MONOLITHICALLY AND SHALL HAVE NO CONSTRUCTION JOINTS.

FILE NAME =	USER NAME = drivakosgn	DESIGNED -	REVISED - R. TOMSONS 04-22-02
ca:\pwwork\pwwork\drivakosgn\d0108315\be501.dgn		DRAWN -	REVISED - R. TOMSONS 03-12-10
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - R. TOMSONS 09-02-10
	PLOT DATE = 9/21/2010	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

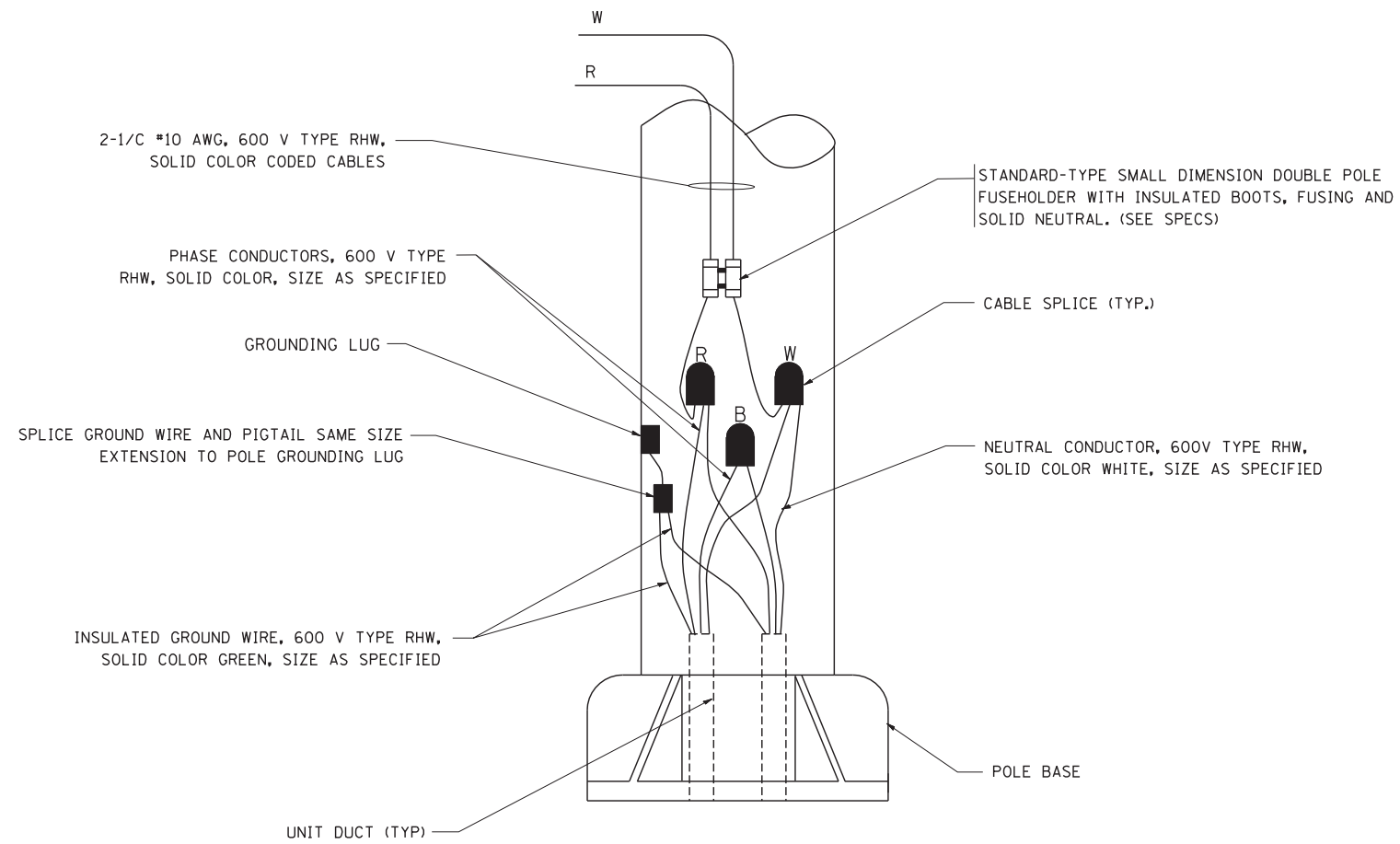
HIGH MAST LIGHT TOWER			
90 FT TO 110 FT (27 m TO 34 m) FOUNDATION DETAIL			
SCALE: NONE	SHEET NO. 2 OF 2 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			507	218
BE-501			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



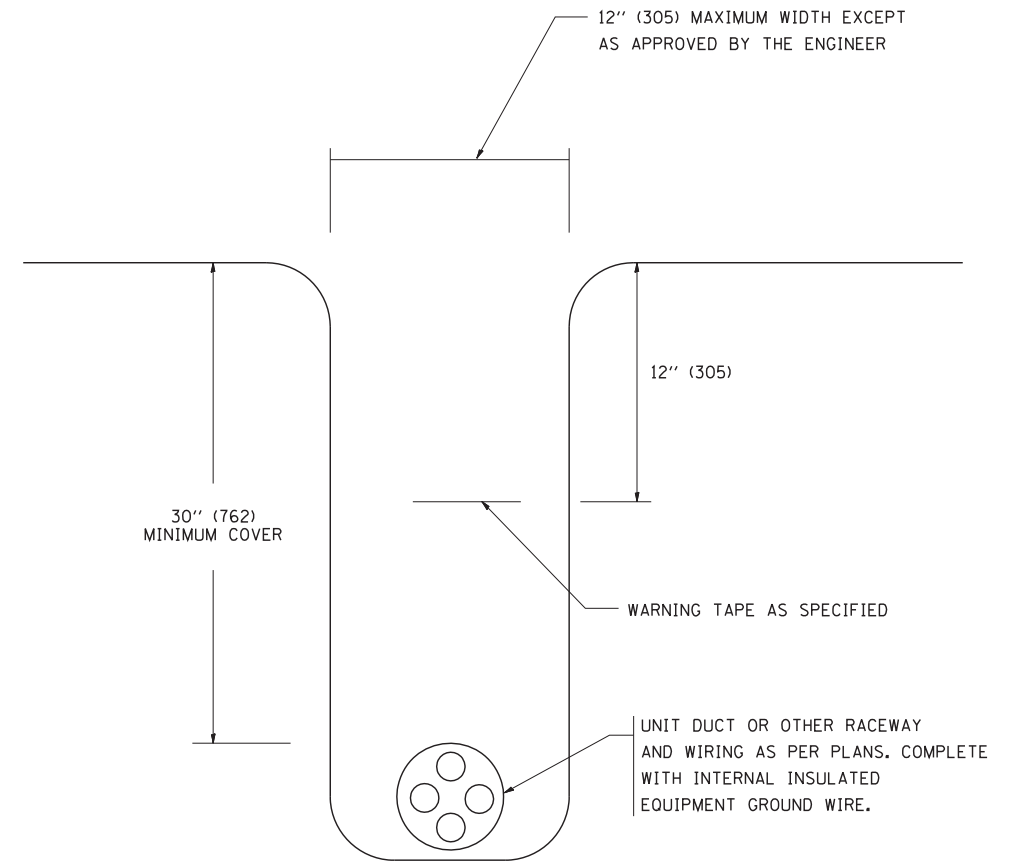
TYPICAL SPLICE DETAIL

N.T.S.



POLE WIRING DETAIL

N.T.S.



TYPICAL WIRING IN TRENCH DETAIL

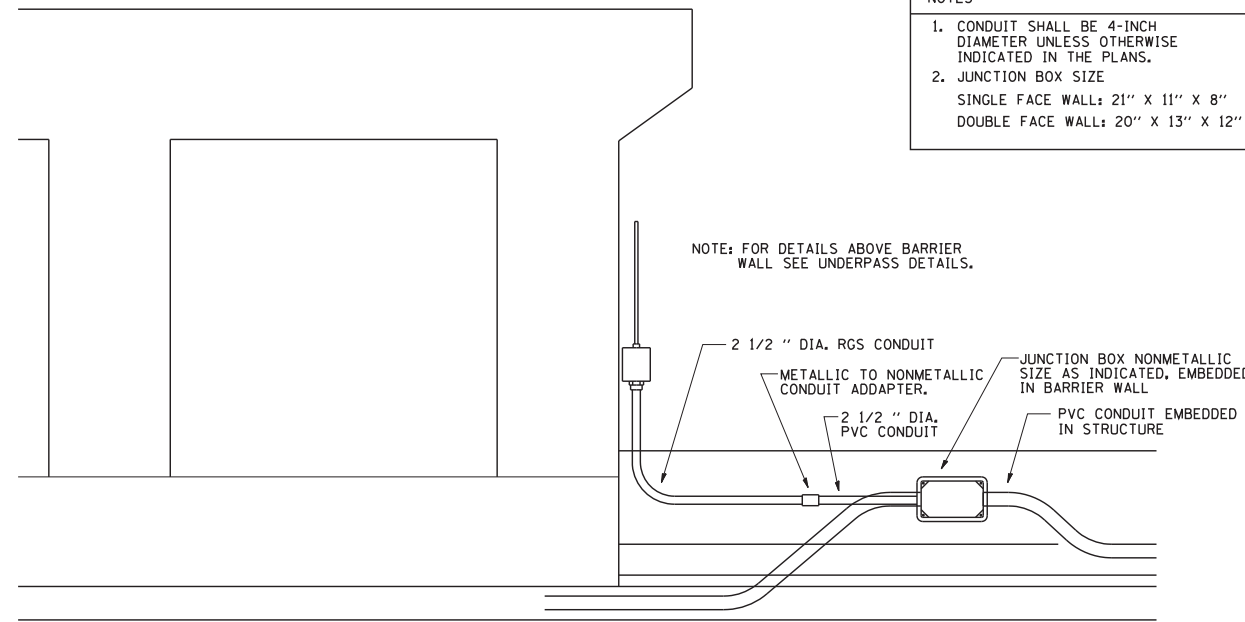
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		DRAWN -	REVISED -
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	PLOT DATE = 1/4/2008	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

MISC. ELECTRICAL DETAILS			
SHEET A			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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BE-702		CONTRACT NO.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

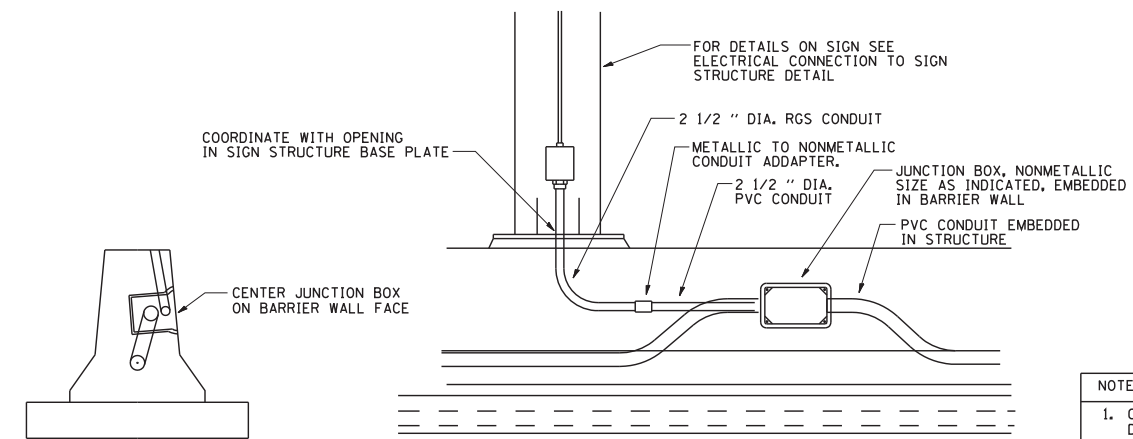


NOTES

1. CONDUIT SHALL BE 4-INCH DIAMETER UNLESS OTHERWISE INDICATED IN THE PLANS.
2. JUNCTION BOX SIZE
SINGLE FACE WALL: 21" X 11" X 8"
DOUBLE FACE WALL: 20" X 13" X 12"

NOTE: FOR DETAILS ABOVE BARRIER WALL SEE UNDERPASS DETAILS.

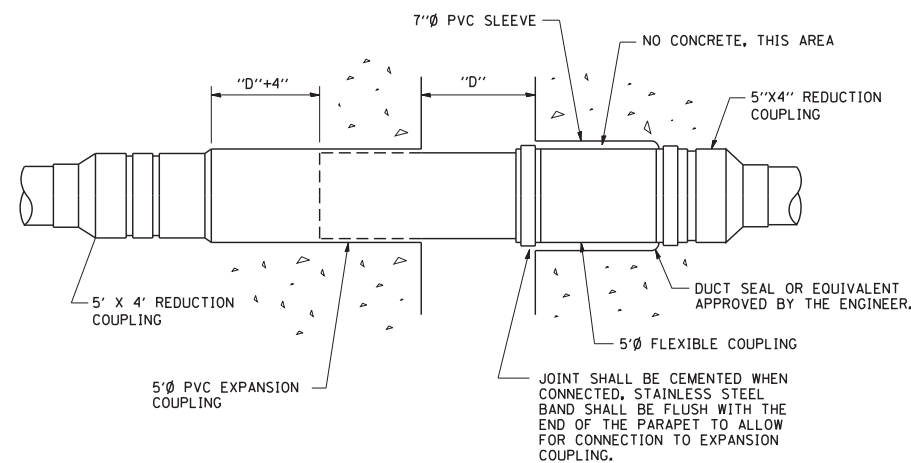
ED - BWD
ELECTRIC CONNECTION TO UNDERPASS LIGHTING



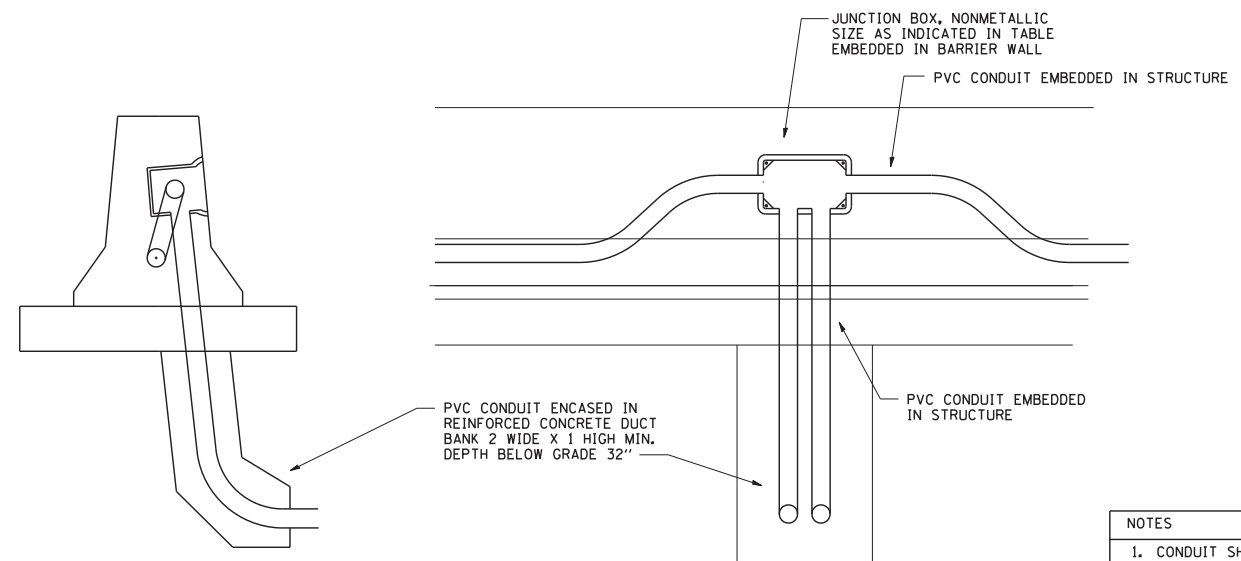
NOTES

1. CONDUIT SHALL BE 4-INCH DIAMETER UNLESS OTHERWISE INDICATED IN THE PLANS.
2. JUNCTION BOX SIZE
SINGLE FACE WALL: 21" X 11" X 8"
DOUBLE FACE WALL: 20" X 13" X 12"

ED - SGN
JUNCTION BOX EMBEDDED IN BARRIER WALL FOR SIGN LIGHTING



INSTALLATION OF CONDUIT
IN BRIDGE PARAPET EXPANSION JOINT
(N.T.S.)



NOTES

1. CONDUIT SHALL BE 4-INCH DIAMETER UNLESS OTHERWISE INDICATED IN THE PLANS.
2. JUNCTION BOX SIZE
SINGLE FACE WALL: 21" X 11" X 8"
DOUBLE FACE WALL: 20" X 13" X 12"

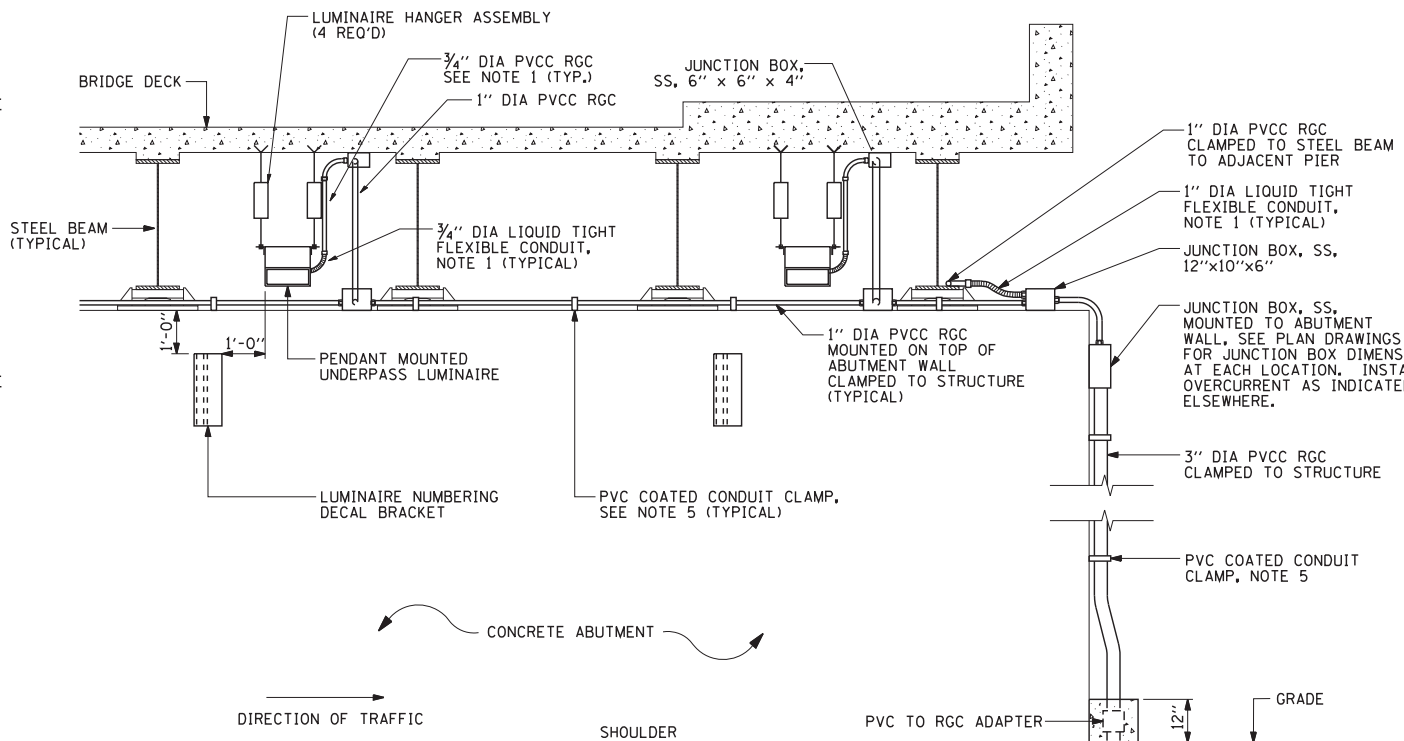
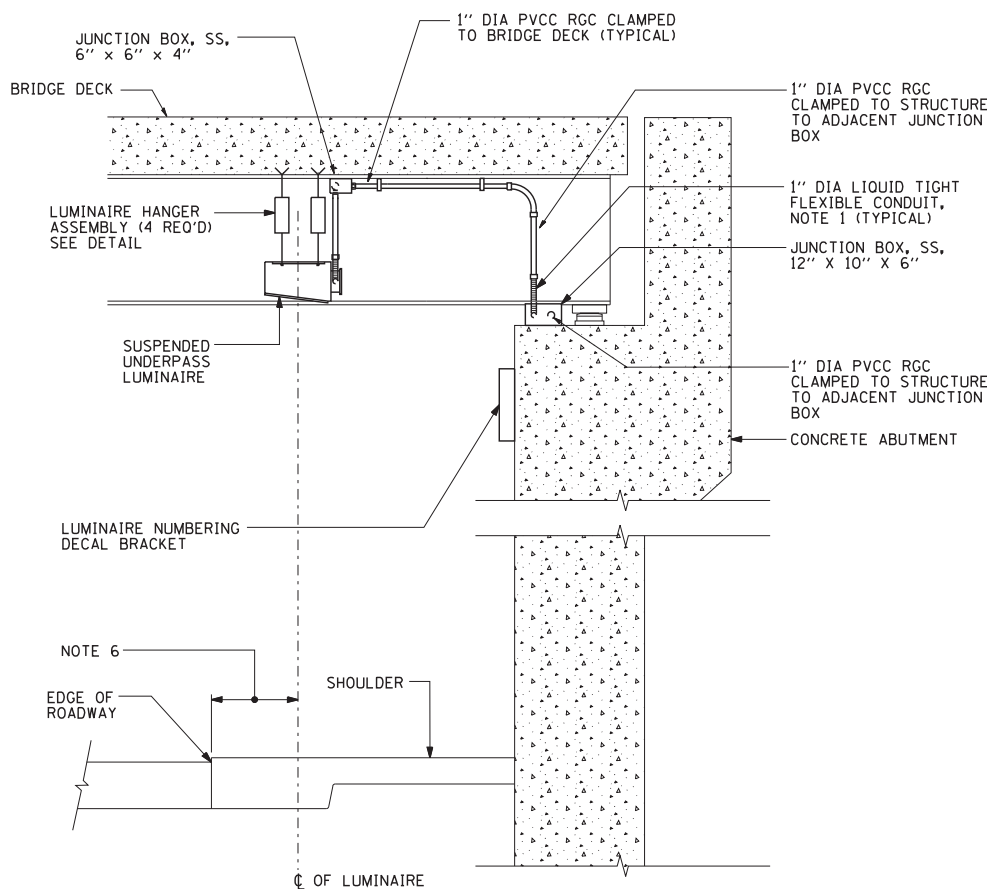
ED - BW
JUNCTION BOX EMBEDDED IN BARRIER WALL

FILE NAME = be703.dgn	USER NAME = gaglianobt	DESIGNED - DRAWN -	REVISED - REVISED -
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -	REVISED -
PLOT DATE = 2/5/2009	DATE - 01-20-2009	REVISED -	REVISED -

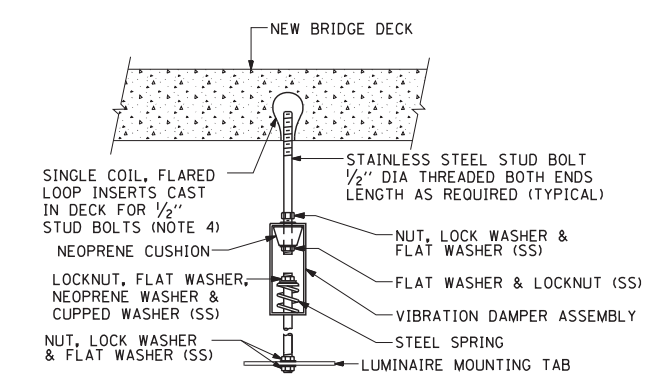
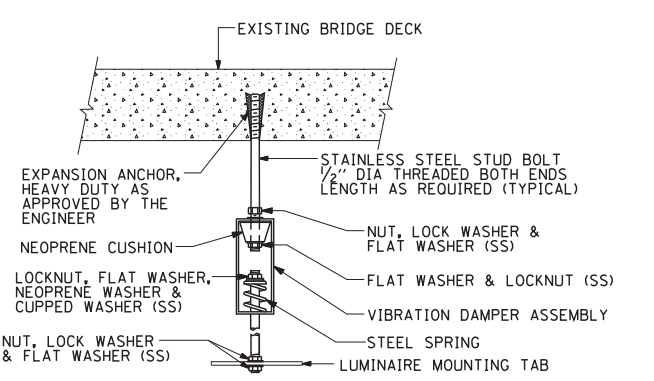
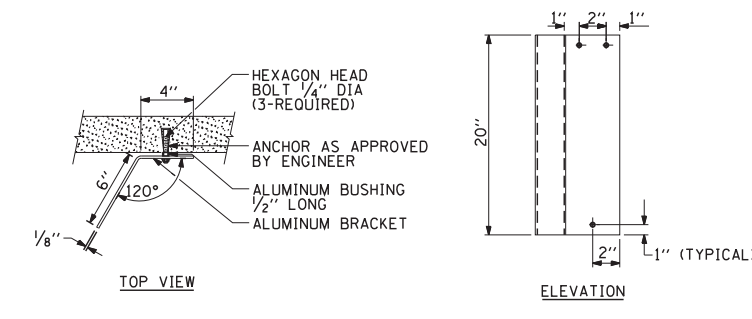
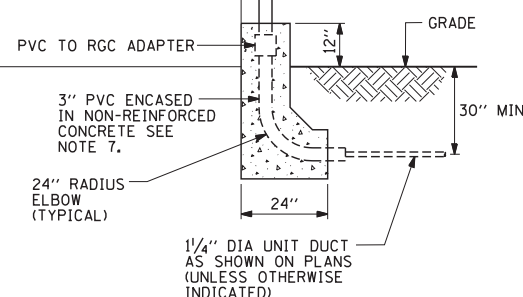
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS ELECTRICAL DETAILS, SHEET B			
J BOX EMBEDDED IN BARRIER WALL - INSTALLATION OF CONDUIT IN BRIDGE PARAPET EXPANSION JOINT - ELECTRIC CONNECTION TO UNDERPASS LIGHTING			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			507	220
BE-703			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



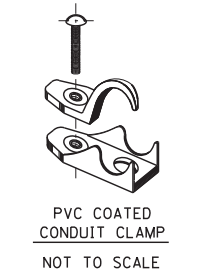
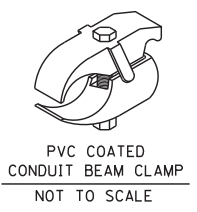
- NOTES:**
- LIQUID TIGHT FLEXIBLE METAL CONDUIT, MAXIMUM LENGTH 6'-0", TYPICAL FOR EACH INSTANCE AS SHOWN. PROVIDE PVC COATED RIGID GALVANIZED STEEL CONDUIT AS REQUIRED NOT TO EXCEED 6'-0" OF FLEXIBLE LIQUID TIGHT METAL CONDUIT. LIQUID TIGHT FLEXIBLE METAL CONDUIT WILL BE INCLUDED IN THE COST OF THE 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 SUSPENDED MOUNTING 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.



EXISTING BRIDGE DECK INSTALLATION

NEW BRIDGE DECK INSTALLATION

TYPICAL LUMINAIRE HANGER ASSEMBLY DETAILS



FILE NAME = W:\diststd\22x34\be900.dgn	USER NAME = gaglionobt	DESIGNED -	REVISED - 12-12-05
		DRAWN -	REVISED -
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUSPENDED MOUNT UNDERPASS LUMINAIRE INSTALLATION DETAILS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BE-900		507	221
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO.	

BRIDGE GENERAL NOTES

- Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts are 7/8" diameter in 1 5/16" diameter holes unless otherwise noted.
- Calculated weight of Structural Steel: AASHTO M270 Grade 36 = 45,930 lbs.
AASHTO M270 Grade 50 = 411,930 lbs.
- All structural steel shall be AASHTO M270 Grade 50 except diaphragms and diaphragm connections shall be AASHTO M270 Grade 36.
- No field welding is permitted except as specified in the contract documents.
- The Contractor shall test the existing welds by non-destructive methods within 2 ft. of the end of the existing cover plates for cracks after removal of the existing concrete deck. Dye penetrant (PT), magnetic particle (MT), or other approved testing method shall be performed by qualified personnel approved by the Engineer. If cracks are found, report them to the Bureau of Bridges and Structures for disposition. The cost of testing is included in Removal of Existing Concrete Deck. The cost of crack repair, if necessary, will be paid for according to Article 109.04 of the Standard Specifications.
- Reinforcement bars designated (E) shall be epoxy coated.
- Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding 1/4 in. deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Bearing seat surface shall be constructed or adjusted to the designed elevations within a tolerance of 1/8 in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
- Concrete Sealer shall be applied to the designated areas of the piers and abutments. Exposed surface areas of new concrete for abutment backwalls, abutment bridge seats, and front faces of pile caps shall be treated with Concrete Sealer. Exposed surface areas of new concrete for Piers 1 thru 5 shall be treated with Concrete Sealer.
- Cleaning and field painting of existing structural steel shall be done under a separate painting contract.
- The Inorganic Zinc Rich Primer/ Acrylic/ Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.
- The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutment extensions.
- Slipforming of the parapets is not allowed.
- Protective Shield System shall be erected at Spans 2, 3, 4, 7 and 8. The payment width shall be the out-to-out width of the widened structure.

- Current Ratings on File for Existing Structure
Inventory: HS22.3
Operating: HS37.3
Live Load Restrictions: No

Inventory and Operating Ratings and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on HS loading and configuration. Live Load Restrictions are based on Illinois legal loads and configurations. The Ratings and Live Load Restrictions are not necessarily representative of capacities to support the Contractor's equipment.

- Removal of the existing superstructure concrete and steel beams for Unit 2 (Span 5) will be paid as "Removal of Existing Superstructures". Removal of the existing superstructure concrete for Unit 1 (Spans 1 thru 4) and Unit 3 (Spans 6 thru 10) will be paid as "Removal of Existing Concrete Deck".

LOADING HS20-44 (NEW CONST.)
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS (NEW CONST.)
2002 AASHTO Standard Specifications for Highway Bridges

SEISMIC DATA

Seismic Performance Category (SPC) = A
Horizontal Bedrock Acceleration Coefficient (A) = 0.038g
Site Coefficient (S) = 1.0

DESIGN STRESSES

FIELD UNITS (New Construction)

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

FIELD UNITS (Exist. Construction)

f'c = 3,500 psi
fy = 40,000 psi (Substr. Reinforcement)
fy = 33,000 psi (Structural Steel)

INDEX OF SHEETS

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S22	TOP OF DECK SLAB ELEVATIONS XIII, UNIT 3	S80	PIER 8
S23	TOP OF DECK SLAB ELEVATIONS XIV, UNIT 3	S81	PIERS 6, 7 & 8 DETAILS
S24	TOP OF WEST APPROACH SLAB ELEVATIONS	S82	PIER 9
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S26	DECK PLAN UNIT 1	S84	BRIDGE DRAINAGE SYSTEM
S27	DECK PLAN UNIT 2	S85	METAL SHELL PILES
S28	DECK PLAN UNIT 3	S86	BAR SPLICER ASSEMBLY DETAILS
S29	DECK CROSS SECTION UNITS 1 & 2	S87	SOIL BORING LOG, SB-1
S30	DECK CROSS SECTION UNIT 3	S88	SOIL BORING & ROCK CORE LOG, SB-1
S31	PARAPETS UNIT 1	S89	SOIL BORING LOG, SB-2
S32	PARAPETS UNIT 2	S90	SOIL BORING LOG, SB-3
S33	PARAPETS UNIT 3	S91	SOIL BORING LOG, SB-4
S34	SUPERSTRUCTURE DETAILS I	S92	ROCK CORE LOG, SB-4
S35	SUPERSTRUCTURE DETAILS II	S93	SOIL BORING LOG, SB-5
S36	SUPERSTRUCTURE DETAILS III	S94	ROCK CORE LOG, SB-5
S37	PREFORMED JOINT STRIP SEAL	S95	SOIL BORING LOG, SB-6
S38	DRAINAGE SCUPPER, DS-12	S96	SOIL BORING LOG, SB-7
S39	BRIDGE APPROACH SLABS	S97	SOIL BORING LOG, SB-8
S40	BRIDGE APPROACH SLAB DETAILS I	S98	ROCK CORE LOG, SB-8
S41	BRIDGE APPROACH SLAB DETAILS II	S99	SOIL BORING LOG, SB-9
S42	FRAMING PLAN, UNIT 1	S100	ROCK CORE LOG, SB-9
S43	FRAMING PLAN, UNIT 2	S101	SOIL BORING LOG, SB-10
S44	FRAMING PLAN, UNIT 3	S102	SOIL BORING LOG, SB-11
S45	EXISTING BEAM ELEVATIONS	S103	SOIL BORING LOG, SB-12
S46	NEW BEAM ELEVATIONS	S104	ROCK CORE LOG, SB-12
S47	FIELD SPLICE DETAILS	S105	SOIL BORING LOG, SB-13
S48	DIAPHRAGM DETAILS	S106	ROCK CORE LOG, SB-13
S49	BEAM REPAIR & DIAPHRAGM DETAILS	S107	SOIL BORING LOG, SB-14
S50	BEAM TABLES	S108	SOIL BORING LOG, SB-17
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S55	TYPE 'G' ROCKER BEARINGS	S113	SOIL BORING LOG, SB-20
S56	WEST ABUTMENT REMOVAL & REPAIRS	S114	SOIL BORING LOG, SB-21
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S58	EAST ABUTMENT REMOVAL & REPAIRS	S116	SOIL BORING & ROCK CORE LOG, SB-22

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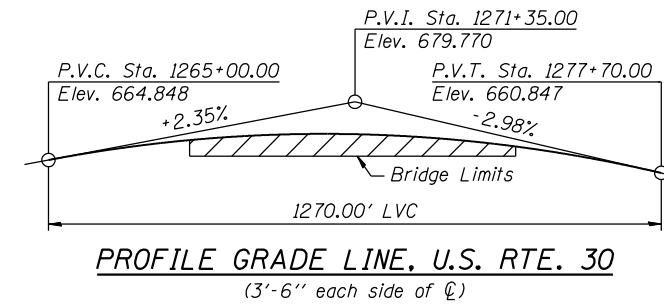
**GENERAL NOTES & INDEX OF SHEETS
STRUCTURE NO. 045-0039**

SHEET NO. 52 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	223
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				

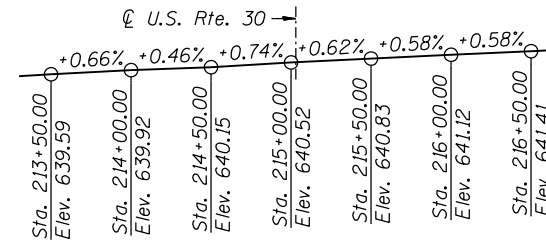
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq. Yd.		758	758
Filter Fabric	Sq. Yd.		758	758
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		61	61
Removal of Existing Concrete Deck	Each	1		1
Protective Shield	Sq. Yd.	3,530		3,530
Structure Excavation	Cu. Yd.		1,558	1,558
Concrete Structures	Cu. Yd.	59.0	1,290.0	1,349.0
Concrete Superstructure	Cu. Yd.	2,188.7		2,188.7
Bridge Deck Grooving	Sq. Yd.	6,255		6,255
Protective Coat	Sq. Yd.	7,848		7,848
Furnishing & Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	24,185		24,185
Reinforcement Bars, Epoxy Coated	Pound	524,770	148,090	672,860
Bar Splicers	Each	2,344	283	2,627
Furnishing Metal Shell Piles 14" x 0.250"	Foot		374	374
Driving Piles	Foot		374	374
Test Pile Metal Shells	Each		4	4
Pile Shoes	Each		26	26
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	385		385
Elastomeric Bearing Assembly, Type I	Each	28		28
Elastomeric Bearing Assembly, Type II	Each	21		21
Anchor Bolts, 3/4"	Each	104		104
Anchor Bolts, 1"	Each	110		110
Concrete Sealer	Sq. Ft.		11,690	11,690
Epoxy Crack Injection	Foot		228	228
Geocomposite Wall Drain	Sq. Yd.		178	178
Porous Granular Embankment, Special	Cu. Yd.		412	412
Remove Existing Sub-Structure - Pier (Special)	Each		2	2
Structural Steel Repair	Pound	1,740		1,740
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.		272.8	272.8
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.		14.3	14.3
Drainage Scuppers, DS-12	Each	11		11
Drainage System	L. Sum		1	1
Temporary Sheet Piling	Sq. Ft.		316	316
Pipe Underdrains for Structures 4"	Foot		211	211
Temporary Soil Retention System	Sq. Ft.		697	697
Temporary Support System	L. Sum	1		1

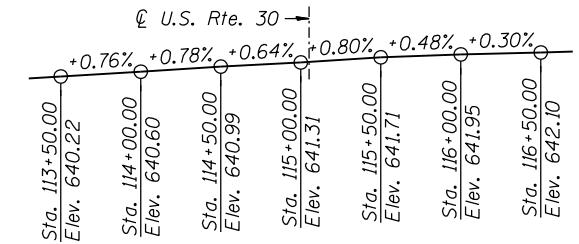


STATION 1271+16.06
REBUILT 2011 BY
STATE OF ILLINOIS
F.A.P. RT. 349 SEC. (10 & 11VB)R-3
LOADING HS20-44
STRUCTURE NO. 045-0039

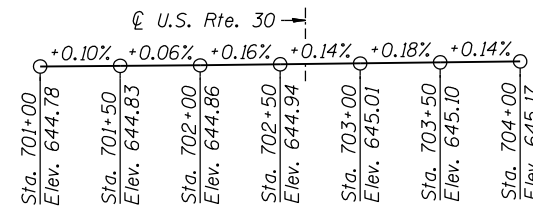
NAME PLATE
See Std. 515001



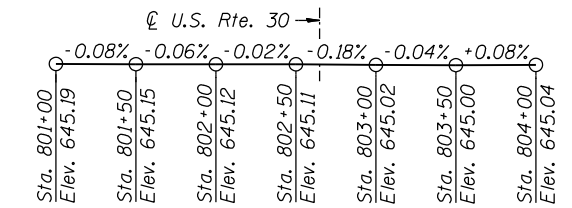
**PROFILE GRADE LINE, EXISTING:
SOUTHBOUND IL RTE. 31**



**PROFILE GRADE LINE, EXISTING:
NORTHBOUND IL RTE. 31**



**EXISTING TOP OF WEST RAIL ELEVATIONS
TRACK #1, BNSF R.R.**



**EXISTING TOP OF EAST RAIL ELEVATIONS
TRACK #2, BNSF R.R.**

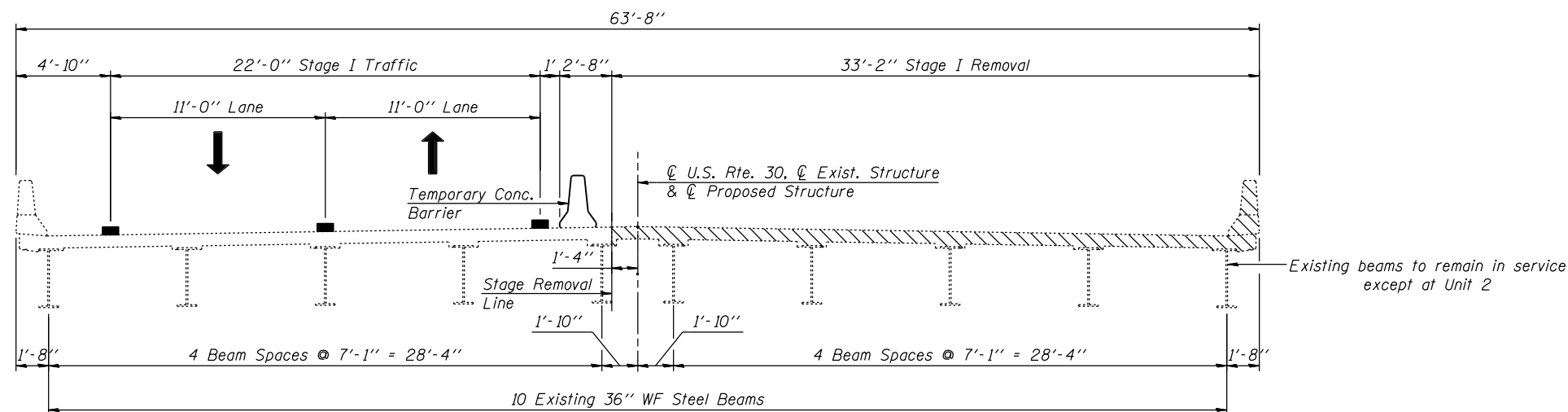
NOTES:

- Existing Name Plates shall be cleaned and relocated next to the new Name Plate. Cost included with NAME PLATES.

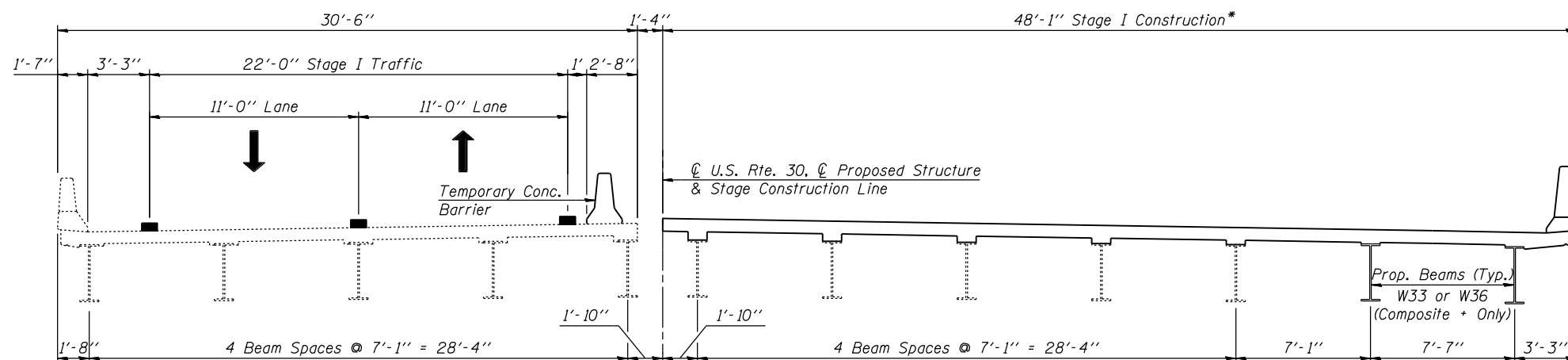
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	224
CONTRACT NO. 60133			ILLINOIS FED. AID PROJECT	

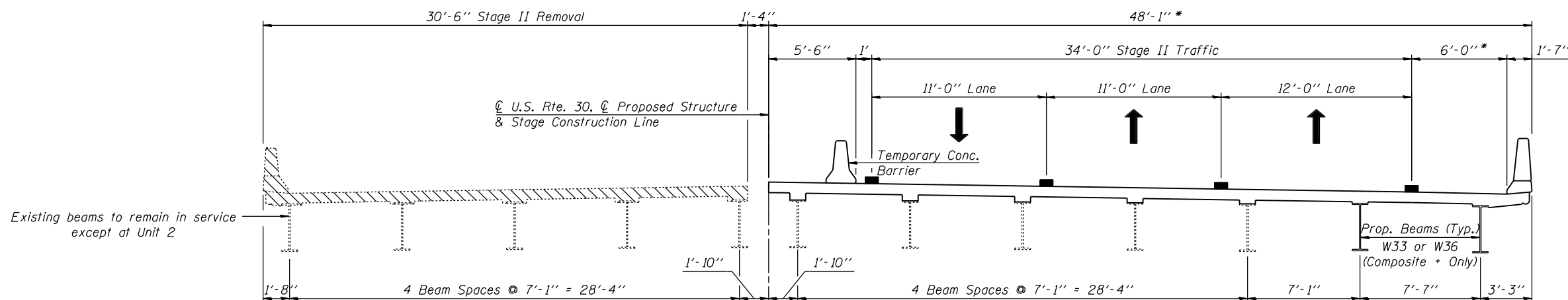


STAGE I REMOVAL
(Looking East)



STAGE I CONSTRUCTION
(Looking East)

*Dimensions increase West of Sta. 1267+91.12.



STAGE II REMOVAL
(Looking East)

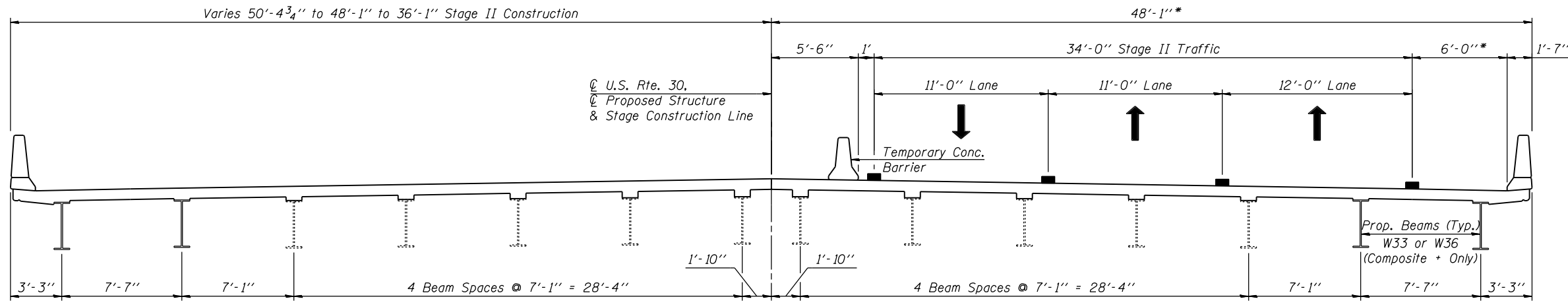
NOTES

- The Stage Removal and Stage Construction lines for the bridge Approach Slab are the same as for the deck.

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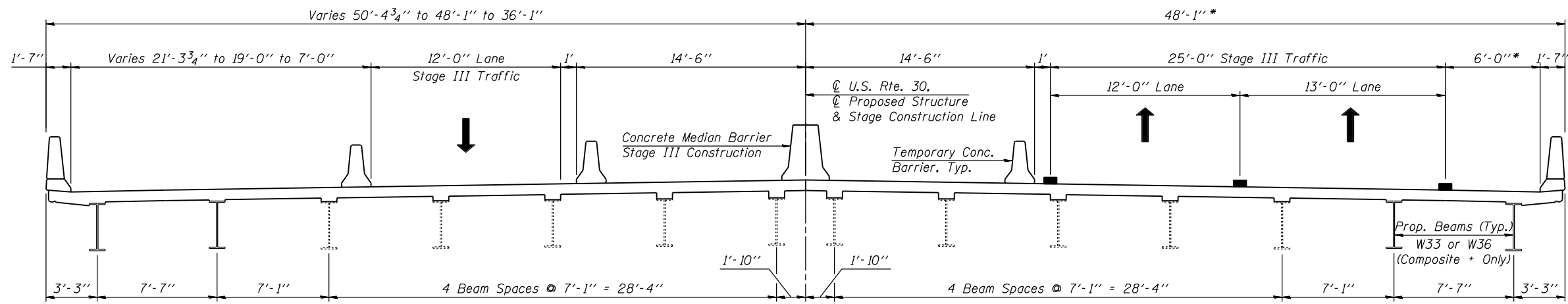
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	225
CONTRACT NO. 60133				



STAGE II CONSTRUCTION
(Looking East)

*Dimensions increase West of Sta. 1267+91.12.



STAGE III CONSTRUCTION
(Looking East)

NOTES

- The Stage Removal and Stage Construction lines for the bridge Approach Slab are the same as for the deck.

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GRÄEF
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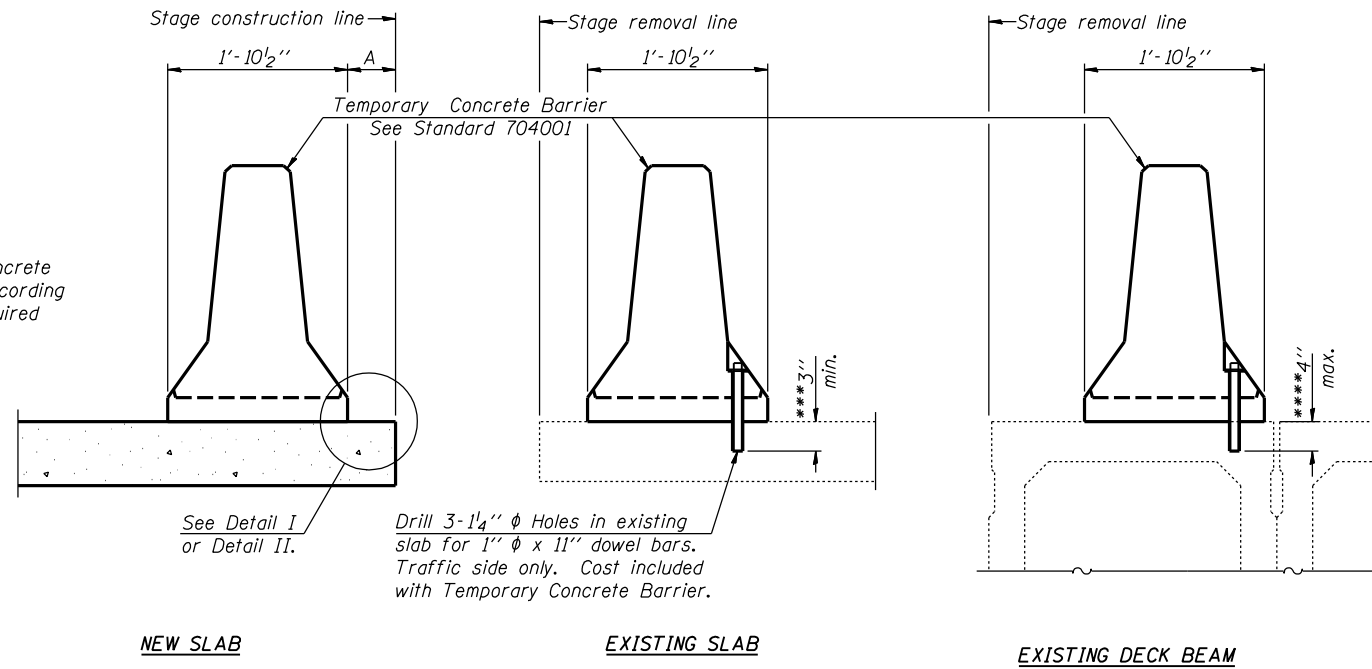
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION STAGING II
STRUCTURE NO. 045-0039**

SHEET NO. 55 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	226
CONTRACT NO. 60133			ILLINOIS FED. AID PROJECT	

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

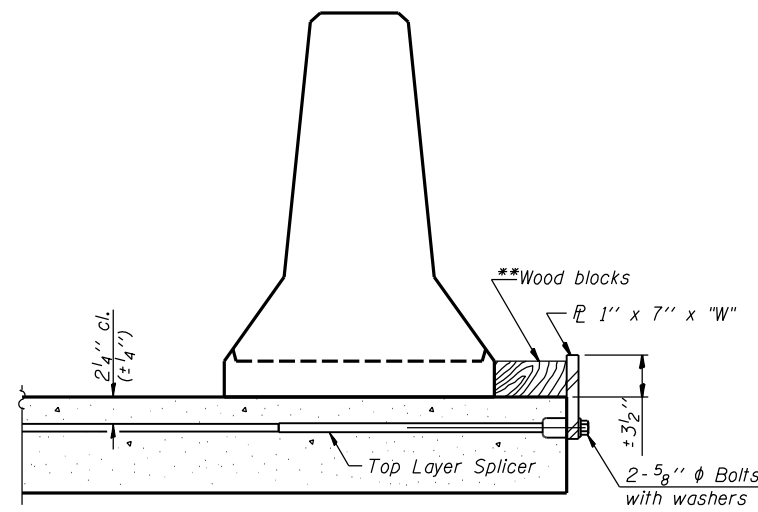
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

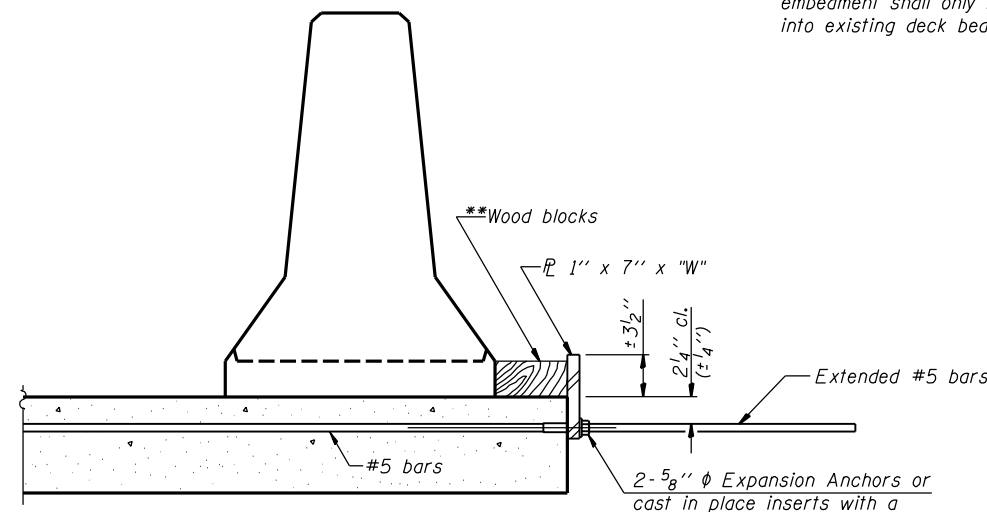
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

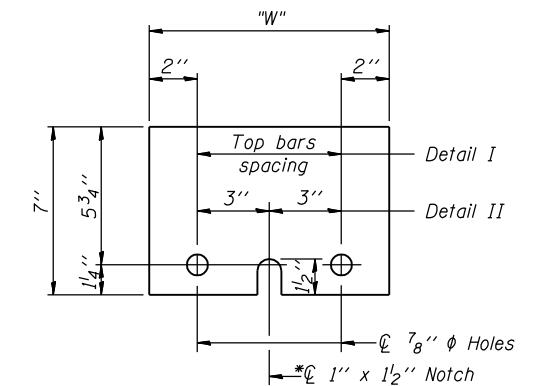
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x "W"

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

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R-27 7-1-10

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 045-0039**

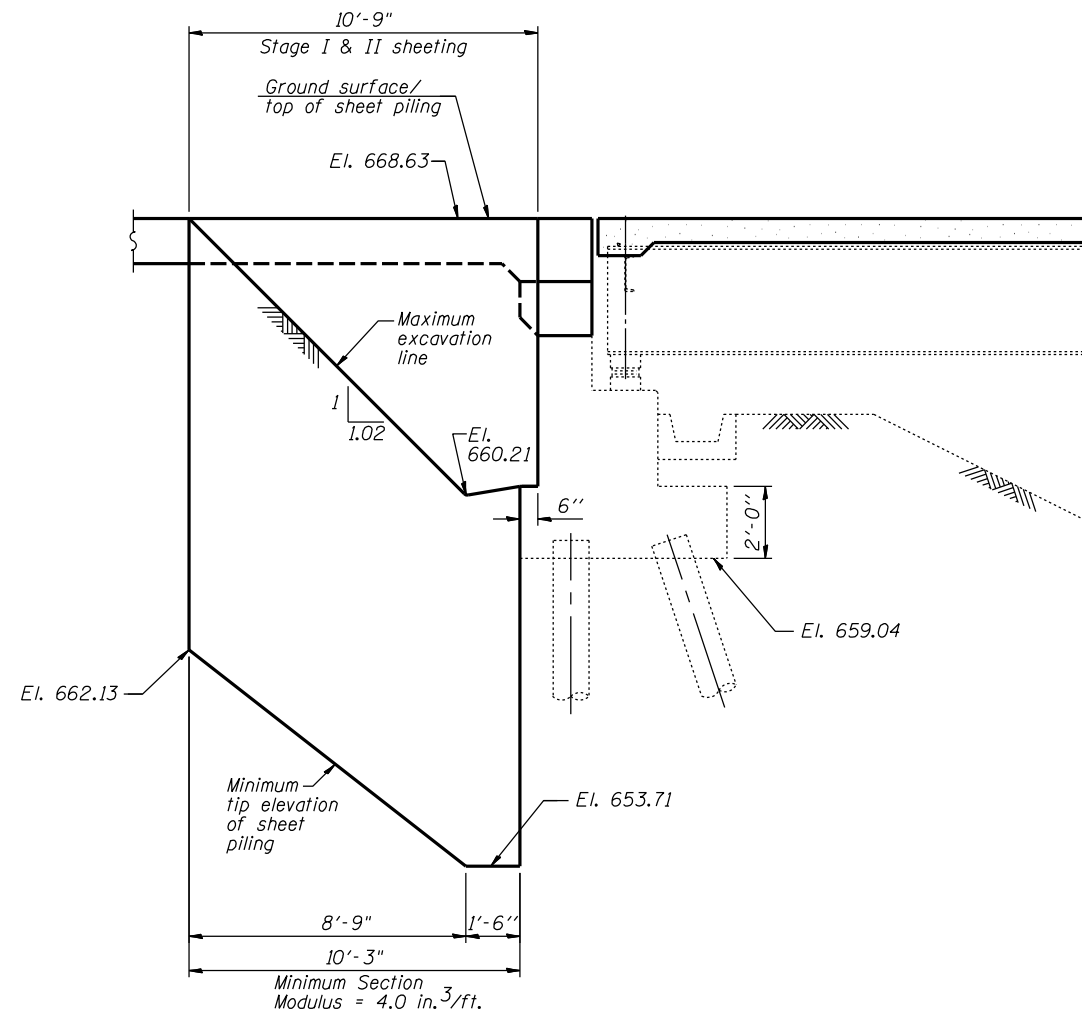
SHEET NO. 56 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	227
			CONTRACT NO. 60133	

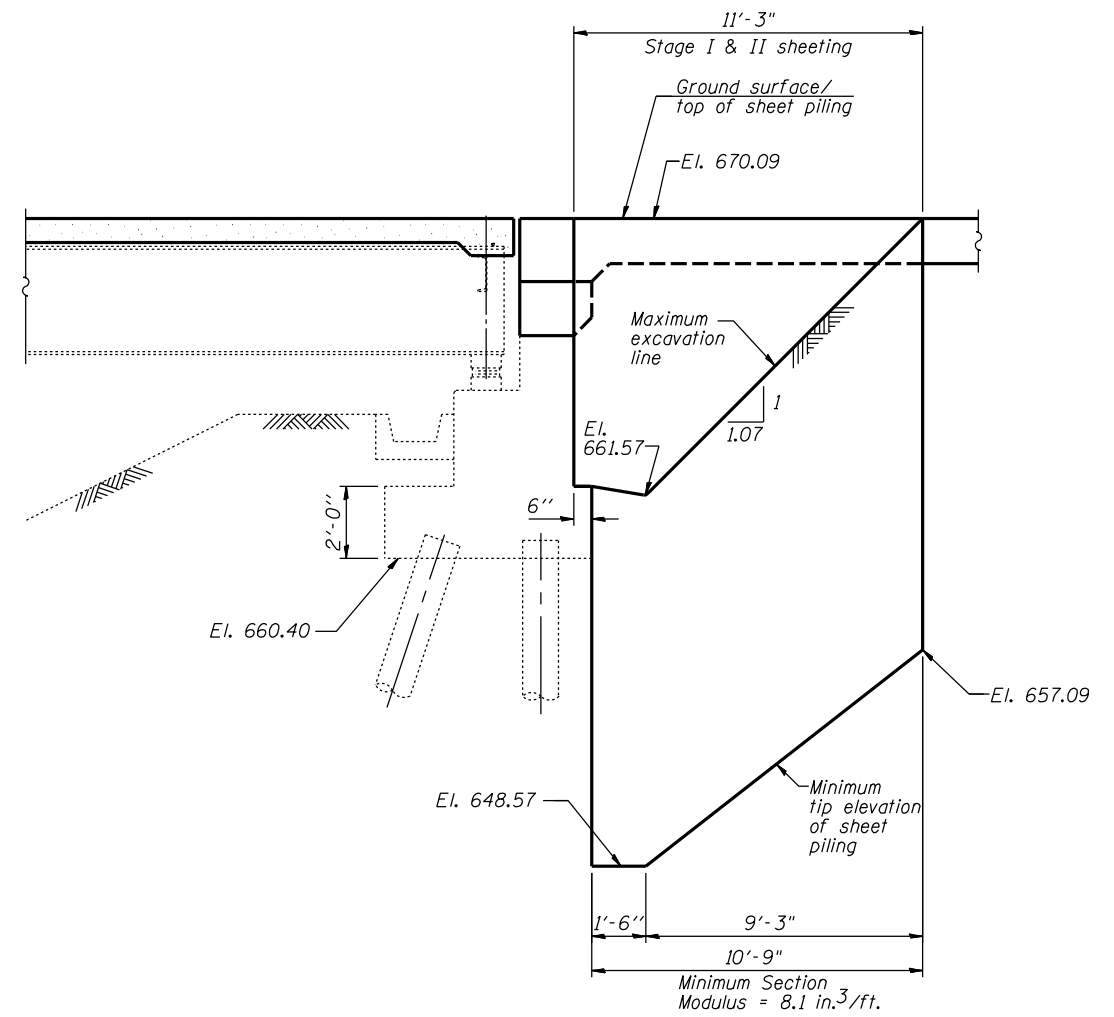
ILLINOIS FED. AID PROJECT

NOTES

1. 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.
2. The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.
3. The temporary sheet piling shall be installed prior to excavation in Stage I. Remove temporary sheet piling after backfilling in Stage II.



**ELEVATION VIEW OF TEMPORARY SHEET PILING
LOOKING SOUTH AT EAST ABUTMENT**



**ELEVATION VIEW OF TEMPORARY SHEET PILING
LOOKING SOUTH AT WEST ABUTMENT**

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Temporary Sheet Piling	Sq. Ft.	316

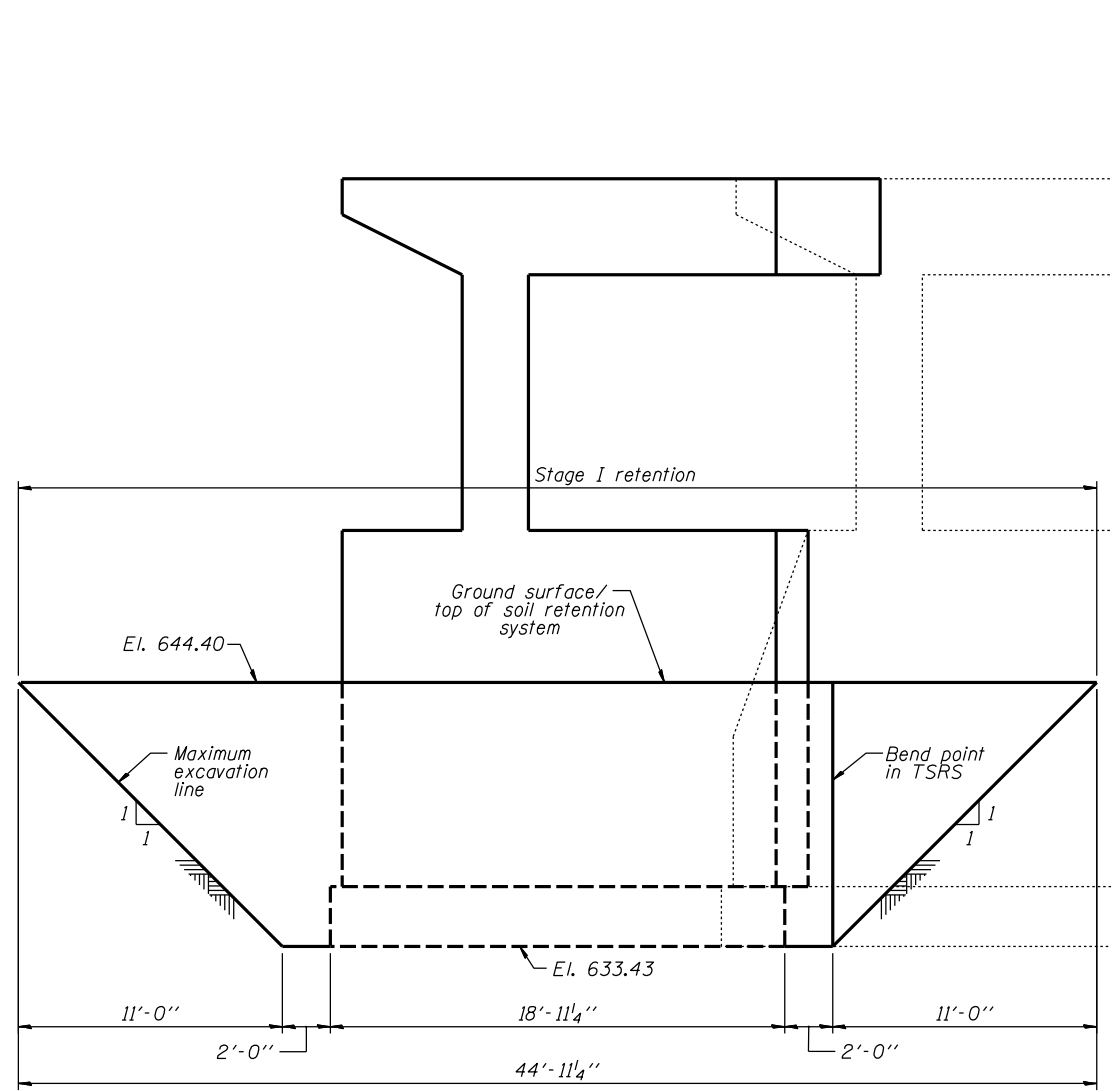
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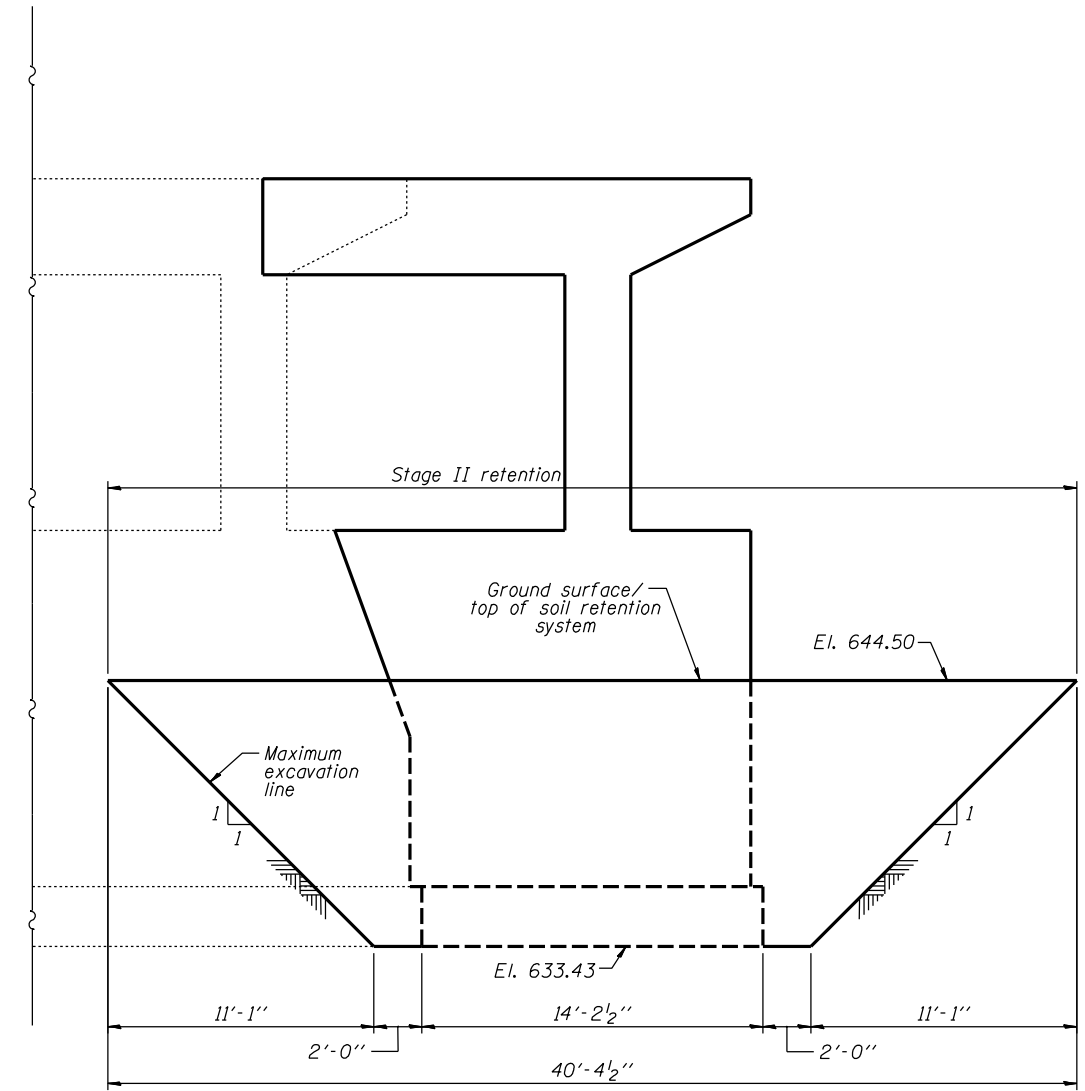
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	228
CONTRACT NO. 60133				

NOTES

1. A cantilevered sheet piling design does not appear feasible to temporarily support existing BNSF RR Track #1. Additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.



**ELEVATION VIEW OF TEMPORARY SOIL RETENTION SYSTEM (TSRS)
LOOKING WEST AT PIER 6, SOUTH END**



**ELEVATION VIEW OF TEMPORARY SOIL RETENTION SYSTEM (TSRS)
LOOKING WEST AT PIER 6, NORTH END**

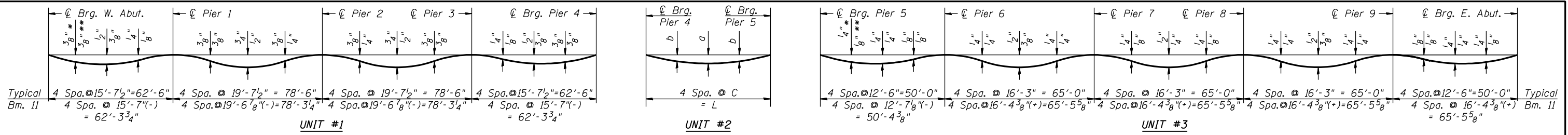
BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Temporary Soil Retention System	Sq. Ft.	697

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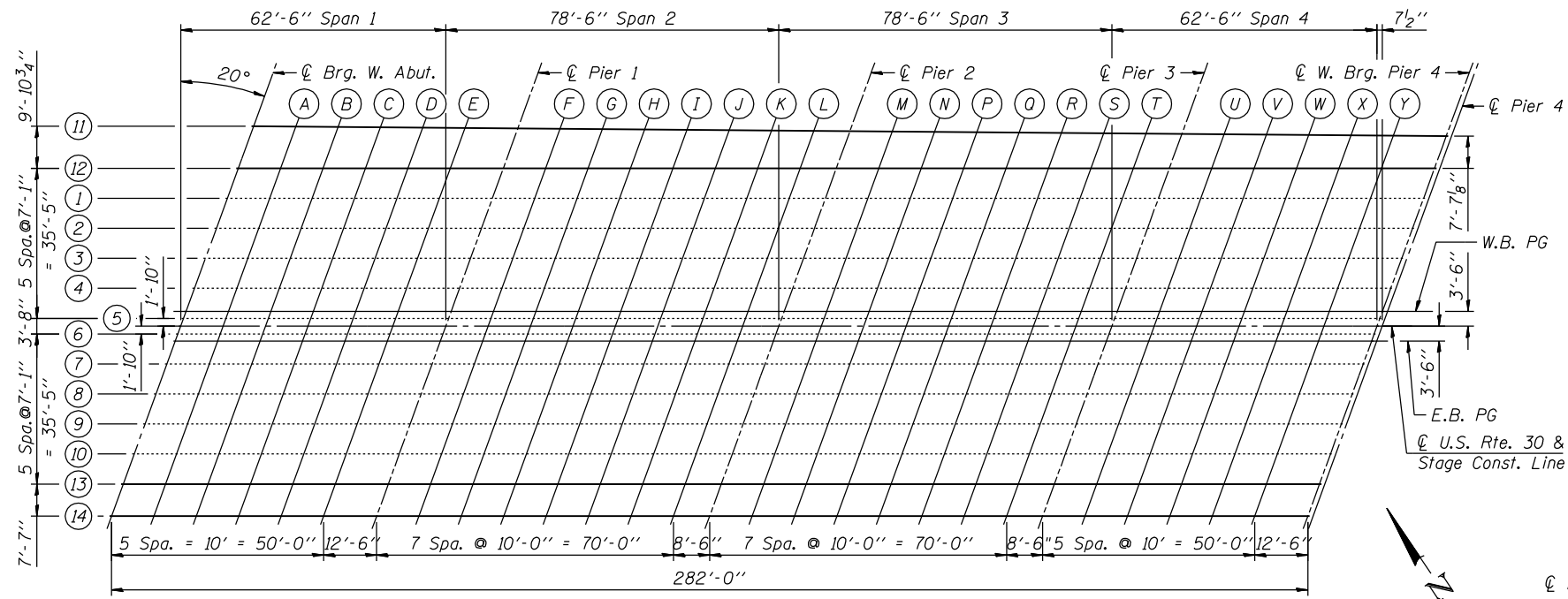
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	229
CONTRACT NO. 60133				



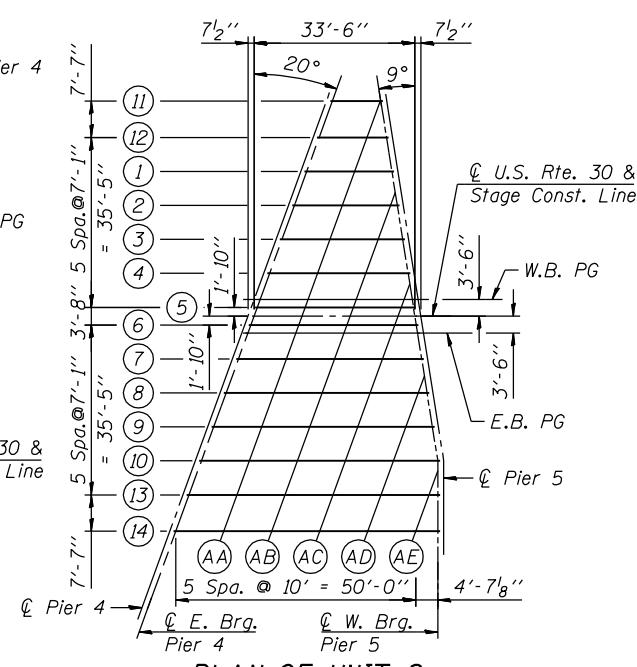
* New Beam
** Exist. Beam

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 grade elevations adjusted for dead load deflections as shown on Sheets S10 thru S23.



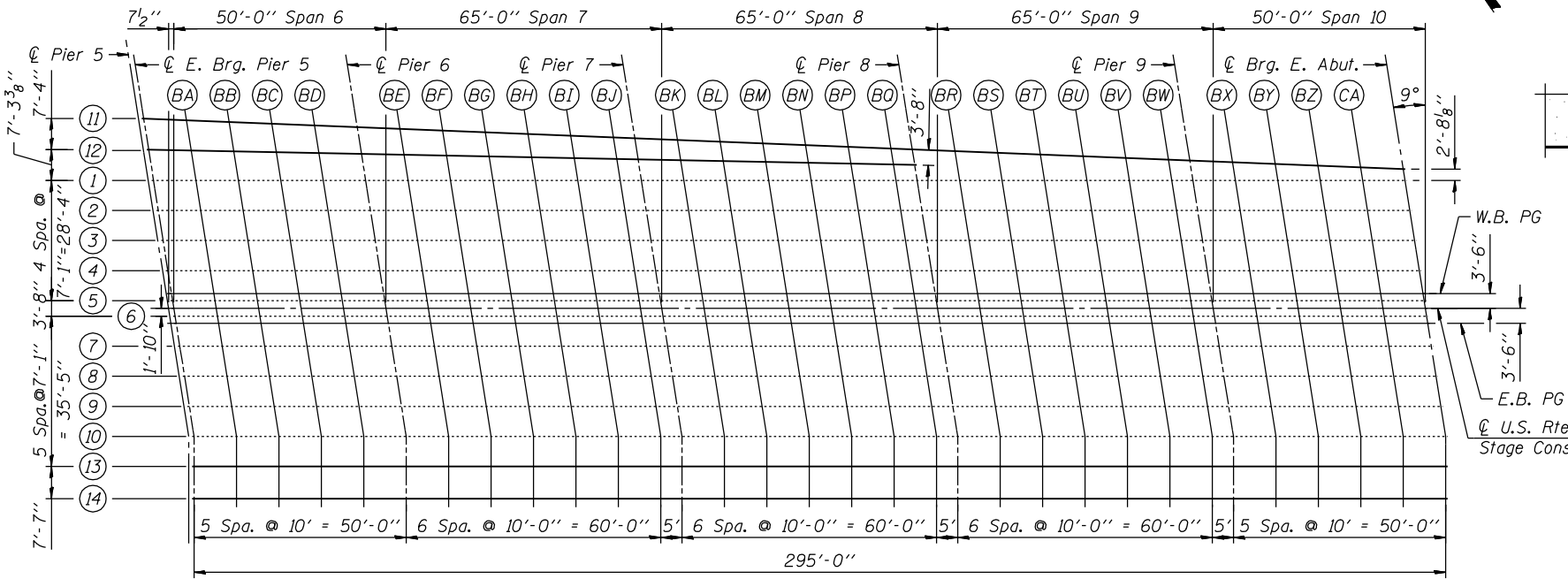
PLAN OF UNIT 1



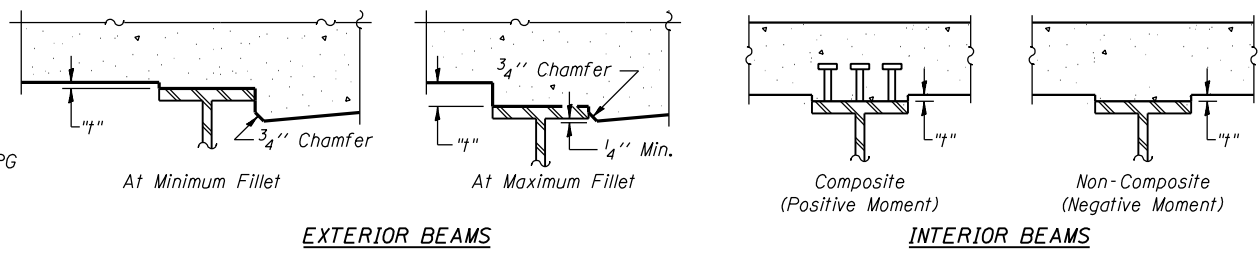
PLAN OF UNIT 2

DEAD LOAD DEFLECTION - UNIT #2

Beams	a	b	C	L
11	0	0	2'-6 1/4"	10'-1"
12	0	0	3'-6 1/8"	14'-0 1/2"
1	0	0	4'-5 1/4"	17'-8 7/8"
2	0	0	5'-4 3/8"	21'-5 1/4"
3	1/16"	0	6'-3 1/2"	25'-1 3/4"
4	1/16"	1/16"	7'-2 1/2"	28'-10 3/8"
5	1/8"	1/16"	8'-1 5/8"	32'-6 1/2"
6	1/8"	1/8"	8'-7 3/8"	34'-5 1/2"
7	1/4"	1/8"	9'-6 1/2"	38'-1 7/8"
8	3/8"	1/4"	10'-5 5/8"	41'-10 3/8"
9	1/2"	3/8"	11'-4 5/8"	45'-6 5/8"
10	5/8"	1/2"	12'-3 3/4"	49'-3 1/8"
13	7/8"	5/8"	12'-11 1/2"	51'-10"
14	1"	3/4"	13'-7 3/4"	54'-7 1/8"



PLAN OF UNIT 3



To determine "f": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets S10 thru S23, minus slab thickness, equals the fillet heights "f" above top flange of beams.

FILLET HEIGHTS

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USER NAME =	DESIGNED - E.E.J. 6/15/2012	REVISED -
	CHECKED - J.Z. 6/15/2012	REVISED -
PLOT SCALE =	DRAWN - E.E.J. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - J.Z. 6/15/2012	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	230
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				

BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. W. ABUT.	1268+23.66	-47.15	669.55	669.55
CL. BRG. W. ABUT.	1268+26.78	-47.15	669.58	669.58
A	1268+36.75	-47.06	669.68	669.70
B	1268+46.72	-46.98	669.77	669.81
C	1268+56.69	-46.90	669.86	669.90
D	1268+66.66	-46.82	669.94	669.97
E	1268+76.63	-46.74	670.02	670.03
CL. BRG. PIER 1	1268+89.10	-46.64	670.11	670.11
F	1268+99.07	-46.55	670.18	670.19
G	1269+09.04	-46.47	670.25	670.28
H	1269+19.01	-46.39	670.31	670.36
I	1269+28.98	-46.31	670.37	670.43
J	1269+38.95	-46.23	670.42	670.47
K	1269+48.92	-46.15	670.47	670.50
L	1269+58.89	-46.06	670.52	670.53
CL. BRG. PIER 2	1269+67.36	-45.99	670.55	670.55
M	1269+77.33	-45.91	670.59	670.60
N	1269+87.30	-45.83	670.63	670.65
P	1269+97.27	-45.75	670.66	670.70
Q	1270+07.24	-45.67	670.68	670.74
R	1270+17.22	-45.59	670.70	670.76
S	1270+27.19	-45.50	670.72	670.77
T	1270+37.16	-45.42	670.74	670.76
CL. BRG. PIER 3	1270+45.63	-45.35	670.74	670.74
U	1270+55.60	-45.27	670.75	670.76
V	1270+65.57	-45.19	670.75	670.78
W	1270+75.54	-45.11	670.75	670.79
X	1270+85.51	-45.03	670.74	670.78
Y	1270+95.48	-44.95	670.73	670.76
CL W. BRG. PIER 4	1271+07.94	-44.86	670.71	670.71
CL. PIER 4	1271+08.57	-44.84	670.71	670.71

BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. W. ABUT.	1268+20.06	-37.25	669.69	669.69
CL. BRG. W. ABUT.	1268+23.18	-37.25	669.72	669.72
A	1268+33.18	-37.25	669.82	669.85
B	1268+43.18	-37.25	669.91	669.95
C	1268+53.18	-37.25	670.00	670.04
D	1268+63.18	-37.25	670.09	670.12
E	1268+73.18	-37.25	670.17	670.18
CL. BRG. PIER 1	1268+85.68	-37.25	670.26	670.26
F	1268+95.68	-37.25	670.33	670.35
G	1269+05.68	-37.25	670.40	670.44
H	1269+15.68	-37.25	670.46	670.52
I	1269+25.68	-37.25	670.52	670.58
J	1269+35.68	-37.25	670.58	670.63
K	1269+45.68	-37.25	670.63	670.66
L	1269+55.68	-37.25	670.67	670.68
CL. BRG. PIER 2	1269+64.18	-37.25	670.71	670.71
M	1269+74.18	-37.25	670.75	670.76
N	1269+84.18	-37.25	670.78	670.80
P	1269+94.18	-37.25	670.81	670.85
Q	1270+04.18	-37.25	670.83	670.89
R	1270+14.18	-37.25	670.86	670.91
S	1270+24.18	-37.25	670.87	670.92
T	1270+34.18	-37.25	670.89	670.91
CL. BRG. PIER 3	1270+42.68	-37.25	670.89	670.89
U	1270+52.68	-37.25	670.90	670.91
V	1270+62.68	-37.25	670.90	670.93
W	1270+72.68	-37.25	670.90	670.94
X	1270+82.68	-37.25	670.89	670.93
Y	1270+92.68	-37.25	670.88	670.91
CL W. BRG. PIER 4	1271+05.18	-37.25	670.86	670.86
CL. PIER 4	1271+05.81	-37.25	670.86	670.86

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. W. ABUT.	1268+17.48	-30.17	669.78	669.78
CL. BRG. W. ABUT.	1268+20.60	-30.17	669.81	669.81
A	1268+30.60	-30.17	669.91	669.93
B	1268+40.60	-30.17	670.00	670.03
C	1268+50.60	-30.17	670.09	670.13
D	1268+60.60	-30.17	670.18	670.20
E	1268+70.60	-30.17	670.26	670.27
CL. BRG. PIER 1	1268+83.10	-30.17	670.35	670.35
F	1268+93.10	-30.17	670.43	670.43
G	1269+03.10	-30.17	670.49	670.52
H	1269+13.10	-30.17	670.56	670.60
I	1269+23.10	-30.17	670.62	670.66
J	1269+33.10	-30.17	670.67	670.71
K	1269+43.10	-30.17	670.72	670.75
L	1269+53.10	-30.17	670.77	670.78
CL. BRG. PIER 2	1269+61.60	-30.17	670.81	670.81
M	1269+71.60	-30.17	670.85	670.85
N	1269+81.60	-30.17	670.88	670.90
P	1269+91.60	-30.17	670.91	670.95
Q	1270+01.60	-30.17	670.94	670.98
R	1270+11.60	-30.17	670.96	671.00
S	1270+21.60	-30.17	670.98	671.01
T	1270+31.60	-30.17	670.99	671.01
CL. BRG. PIER 3	1270+40.10	-30.17	671.00	671.00
U	1270+50.10	-30.17	671.01	671.01
V	1270+60.10	-30.17	671.01	671.03
W	1270+70.10	-30.17	671.01	671.04
X	1270+80.10	-30.17	671.00	671.04
Y	1270+90.10	-30.17	670.99	671.02
CL W. BRG. PIER 4	1271+02.60	-30.17	670.97	670.97
CL. PIER 4	1271+03.23	-30.17	670.97	670.97

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PLOT SCALE =	DRAWN - D.L.G. 6/25/2012	REVISED -
PLOT DATE =	CHECKED - J.Z. 6/25/2012	REVISED -

F.A.P. RTE. 349	SECTION (10 & 11VB) R-3	COUNTY KANE	TOTAL SHEETS 507	SHEET NO. 231
CONTRACT NO. 60133			ILLINOIS FED. AID PROJECT	

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. W. ABUT.	1268+14.90	-23.08	669.86	669.86
CL. BRG. W. ABUT.	1268+18.02	-23.08	669.89	669.89
A	1268+28.02	-23.08	669.99	670.01
B	1268+38.02	-23.08	670.09	670.12
C	1268+48.02	-23.08	670.18	670.21
D	1268+58.02	-23.08	670.27	670.29
E	1268+68.02	-23.08	670.35	670.36
CL. BRG. PIER 1	1268+80.52	-23.08	670.45	670.45
F	1268+90.52	-23.08	670.52	670.53
G	1269+00.52	-23.08	670.59	670.61
H	1269+10.52	-23.08	670.65	670.69
I	1269+20.52	-23.08	670.71	670.76
J	1269+30.52	-23.08	670.77	670.81
K	1269+40.52	-23.08	670.82	670.84
L	1269+50.52	-23.08	670.87	670.88
CL. BRG. PIER 2	1269+59.02	-23.08	670.91	670.91
M	1269+69.02	-23.08	670.95	670.95
N	1269+79.02	-23.08	670.98	671.00
P	1269+89.02	-23.08	671.02	671.05
Q	1269+99.02	-23.08	671.04	671.09
R	1270+09.02	-23.08	671.07	671.11
S	1270+19.02	-23.08	671.09	671.12
T	1270+29.02	-23.08	671.10	671.12
CL. BRG. PIER 3	1270+37.52	-23.08	671.11	671.11
U	1270+47.52	-23.08	671.12	671.12
V	1270+57.52	-23.08	671.12	671.14
W	1270+67.52	-23.08	671.12	671.15
X	1270+77.52	-23.08	671.11	671.15
Y	1270+87.52	-23.08	671.10	671.13
CL W. BRG. PIER 4	1271+00.02	-23.08	671.09	671.09
CL. PIER 4	1271+00.65	-23.08	671.09	671.09

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. W. ABUT.	1268+12.32	-16.00	669.94	669.94
CL. BRG. W. ABUT.	1268+15.45	-16.00	669.98	669.98
A	1268+25.45	-16.00	670.08	670.10
B	1268+35.45	-16.00	670.17	670.21
C	1268+45.45	-16.00	670.27	670.30
D	1268+55.45	-16.00	670.35	670.38
E	1268+65.45	-16.00	670.44	670.45
CL. BRG. PIER 1	1268+77.95	-16.00	670.54	670.54
F	1268+87.95	-16.00	670.61	670.62
G	1268+97.95	-16.00	670.68	670.71
H	1269+07.95	-16.00	670.75	670.79
I	1269+17.95	-16.00	670.81	670.85
J	1269+27.95	-16.00	670.87	670.90
K	1269+37.95	-16.00	670.92	670.94
L	1269+47.95	-16.00	670.97	670.97
CL. BRG. PIER 2	1269+56.45	-16.00	671.01	671.01
M	1269+66.45	-16.00	671.05	671.06
N	1269+76.45	-16.00	671.09	671.10
P	1269+86.45	-16.00	671.12	671.15
Q	1269+96.45	-16.00	671.15	671.19
R	1270+06.45	-16.00	671.17	671.22
S	1270+16.45	-16.00	671.19	671.22
T	1270+26.45	-16.00	671.21	671.22
CL. BRG. PIER 3	1270+34.95	-16.00	671.22	671.22
U	1270+44.95	-16.00	671.23	671.23
V	1270+54.95	-16.00	671.23	671.25
W	1270+64.95	-16.00	671.23	671.26
X	1270+74.95	-16.00	671.23	671.26
Y	1270+84.95	-16.00	671.22	671.24
CL W. BRG. PIER 4	1270+97.45	-16.00	671.20	671.20
CL. PIER 4	1270+98.07	-16.00	671.20	671.20

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. W. ABUT.	1268+09.74	-8.92	670.03	670.03
CL. BRG. W. ABUT.	1268+12.87	-8.92	670.06	670.06
A	1268+22.87	-8.92	670.16	670.18
B	1268+32.87	-8.92	670.26	670.29
C	1268+42.87	-8.92	670.35	670.39
D	1268+52.87	-8.92	670.44	670.47
E	1268+62.87	-8.92	670.53	670.54
CL. BRG. PIER 1	1268+75.37	-8.92	670.63	670.63
F	1268+85.37	-8.92	670.70	670.71
G	1268+95.37	-8.92	670.77	670.80
H	1269+05.37	-8.92	670.84	670.88
I	1269+15.37	-8.92	670.90	670.95
J	1269+25.37	-8.92	670.96	671.00
K	1269+35.37	-8.92	671.02	671.04
L	1269+45.37	-8.92	671.07	671.07
CL. BRG. PIER 2	1269+53.87	-8.92	671.11	671.11
M	1269+63.87	-8.92	671.15	671.16
N	1269+73.87	-8.92	671.19	671.20
P	1269+83.87	-8.92	671.22	671.25
Q	1269+93.87	-8.92	671.25	671.29
R	1270+03.87	-8.92	671.28	671.32
S	1270+13.87	-8.92	671.30	671.33
T	1270+23.87	-8.92	671.31	671.33
CL. BRG. PIER 3	1270+32.37	-8.92	671.33	671.33
U	1270+42.37	-8.92	671.34	671.34
V	1270+52.37	-8.92	671.34	671.36
W	1270+62.37	-8.92	671.34	671.37
X	1270+72.37	-8.92	671.34	671.37
Y	1270+82.37	-8.92	671.33	671.36
CL W. BRG. PIER 4	1270+94.87	-8.92	671.32	671.32
CL. PIER 4	1270+95.49	-8.92	671.32	671.32

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USER NAME =	DESIGNED - J.Z. 6/15/2012	REVISED -
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PLOT SCALE =	DRAWN - D.L.G. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - J.Z. 6/15/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF DECK SLAB ELEVATIONS II, UNIT 1
STRUCTURE NO. 045-0039**

SHEET NO. S11 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	232
CONTRACT NO. 60133			ILLINOIS FED. AID PROJECT	

U.S. RTE. 30 WB PG

BEAM 5

U.S. RTE. 30

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. W. ABUT.	1268+07.77	-3.50	670.09	670.09
CL. BRG. W. ABUT.	1268+10.90	-3.50	670.13	670.13
A	1268+20.90	-3.50	670.23	670.25
B	1268+30.90	-3.50	670.33	670.36
C	1268+40.90	-3.50	670.42	670.45
D	1268+50.90	-3.50	670.51	670.54
E	1268+60.90	-3.50	670.60	670.61
CL. BRG. PIER 1	1268+73.40	-3.50	670.70	670.70
F	1268+83.40	-3.50	670.77	670.78
G	1268+93.40	-3.50	670.84	670.87
H	1269+03.40	-3.50	670.91	670.95
I	1269+13.40	-3.50	670.98	671.02
J	1269+23.40	-3.50	671.04	671.07
K	1269+33.40	-3.50	671.09	671.11
L	1269+43.40	-3.50	671.14	671.15
CL. BRG. PIER 2	1269+51.90	-3.50	671.18	671.18
M	1269+61.90	-3.50	671.23	671.23
N	1269+71.90	-3.50	671.26	671.28
P	1269+81.90	-3.50	671.30	671.33
Q	1269+91.90	-3.50	671.33	671.37
R	1270+01.90	-3.50	671.36	671.40
S	1270+11.90	-3.50	671.38	671.41
T	1270+21.90	-3.50	671.40	671.41
CL. BRG. PIER 3	1270+30.40	-3.50	671.41	671.41
U	1270+40.40	-3.50	671.42	671.42
V	1270+50.40	-3.50	671.42	671.45
W	1270+60.40	-3.50	671.43	671.46
X	1270+70.40	-3.50	671.42	671.46
Y	1270+80.40	-3.50	671.42	671.44
CL W. BRG. PIER 4	1270+92.90	-3.50	671.40	671.41
CL. PIER 4	1270+93.52	-3.50	671.40	671.40

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. W. ABUT.	1268+07.17	-1.83	670.11	670.11
CL. BRG. W. ABUT.	1268+10.29	-1.83	670.14	670.14
A	1268+20.29	-1.83	670.25	670.27
B	1268+30.29	-1.83	670.35	670.38
C	1268+40.29	-1.83	670.44	670.48
D	1268+50.29	-1.83	670.53	670.56
E	1268+60.29	-1.83	670.62	670.63
CL. BRG. PIER 1	1268+72.79	-1.83	670.72	670.72
F	1268+82.79	-1.83	670.79	670.80
G	1268+92.79	-1.83	670.87	670.89
H	1269+02.79	-1.83	670.93	670.98
I	1269+12.79	-1.83	671.00	671.04
J	1269+22.79	-1.83	671.06	671.10
K	1269+32.79	-1.83	671.11	671.14
L	1269+42.79	-1.83	671.16	671.17
CL. BRG. PIER 2	1269+51.29	-1.83	671.21	671.21
M	1269+61.29	-1.83	671.25	671.26
N	1269+71.29	-1.83	671.29	671.30
P	1269+81.29	-1.83	671.32	671.36
Q	1269+91.29	-1.83	671.35	671.40
R	1270+01.29	-1.83	671.38	671.42
S	1270+11.29	-1.83	671.40	671.44
T	1270+21.29	-1.83	671.42	671.44
CL. BRG. PIER 3	1270+29.79	-1.83	671.43	671.43
U	1270+39.79	-1.83	671.44	671.45
V	1270+49.79	-1.83	671.45	671.47
W	1270+59.79	-1.83	671.45	671.49
X	1270+69.79	-1.83	671.45	671.49
Y	1270+79.79	-1.83	671.44	671.47
CL W. BRG. PIER 4	1270+92.29	-1.83	671.43	671.43
CL. PIER 4	1270+92.92	-1.83	671.43	671.43

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. W. ABUT.	1268+06.50	0.00	670.13	670.13
CL. BRG. W. ABUT.	1268+09.62	0.00	670.17	670.17
A	1268+19.62	0.00	670.27	670.29
B	1268+29.62	0.00	670.37	670.40
C	1268+39.62	0.00	670.46	670.50
D	1268+49.62	0.00	670.55	670.58
E	1268+59.62	0.00	670.64	670.65
CL. BRG. PIER 1	1268+72.12	0.00	670.74	670.74
F	1268+82.12	0.00	670.82	670.83
G	1268+92.12	0.00	670.89	670.92
H	1269+02.12	0.00	670.96	671.00
I	1269+12.12	0.00	671.02	671.07
J	1269+22.12	0.00	671.08	671.12
K	1269+32.12	0.00	671.14	671.16
L	1269+42.12	0.00	671.19	671.20
CL. BRG. PIER 2	1269+50.62	0.00	671.23	671.23
M	1269+60.62	0.00	671.27	671.28
N	1269+70.62	0.00	671.31	671.33
P	1269+80.62	0.00	671.35	671.38
Q	1269+90.62	0.00	671.38	671.42
R	1270+00.62	0.00	671.41	671.45
S	1270+10.62	0.00	671.43	671.46
T	1270+20.62	0.00	671.45	671.47
CL. BRG. PIER 3	1270+29.12	0.00	671.46	671.46
U	1270+39.12	0.00	671.47	671.48
V	1270+49.12	0.00	671.48	671.50
W	1270+59.12	0.00	671.48	671.51
X	1270+69.12	0.00	671.48	671.51
Y	1270+79.12	0.00	671.47	671.50
CL W. BRG. PIER 4	1270+91.62	0.00	671.46	671.46
CL. PIER 4	1270+92.25	0.00	671.46	671.46

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USER NAME =	DESIGNED - J.Z. 6/15/2012	REVISED -
	CHECKED - J.A.Z. 6/15/2012	REVISED -
PLOT SCALE =	DRAWN - D.L.G. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - J.Z. 6/15/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK SLAB ELEVATIONS III, UNIT 1
STRUCTURE NO. 045-0039

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	233
CONTRACT NO. 60133			ILLINOIS FED. AID PROJECT	

BEAM 6

U.S. RTE. 30 EB PG

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. W. ABUT.	1268+05.83	1.83	670.10	670.10
CL. BRG. W. ABUT.	1268+08.96	1.83	670.13	670.13
A	1268+18.96	1.83	670.23	670.25
B	1268+28.96	1.83	670.33	670.37
C	1268+38.96	1.83	670.43	670.46
D	1268+48.96	1.83	670.52	670.54
E	1268+58.96	1.83	670.61	670.62
CL. BRG. PIER 1	1268+71.46	1.83	670.71	670.71
F	1268+81.46	1.83	670.78	670.79
G	1268+91.46	1.83	670.86	670.88
H	1269+01.46	1.83	670.93	670.97
I	1269+11.46	1.83	670.99	671.04
J	1269+21.46	1.83	671.05	671.09
K	1269+31.46	1.83	671.11	671.13
L	1269+41.46	1.83	671.16	671.16
CL. BRG. PIER 2	1269+49.96	1.83	671.20	671.20
M	1269+59.96	1.83	671.24	671.25
N	1269+69.96	1.83	671.28	671.30
P	1269+79.96	1.83	671.32	671.35
Q	1269+89.96	1.83	671.35	671.39
R	1269+99.96	1.83	671.38	671.42
S	1270+09.96	1.83	671.40	671.43
T	1270+19.96	1.83	671.42	671.44
CL. BRG. PIER 3	1270+28.46	1.83	671.43	671.43
U	1270+38.46	1.83	671.44	671.45
V	1270+48.46	1.83	671.45	671.47
W	1270+58.46	1.83	671.45	671.49
X	1270+68.46	1.83	671.45	671.49
Y	1270+78.46	1.83	671.45	671.47
CL. W. BRG. PIER 4	1270+90.96	1.83	671.43	671.43
CL. PIER 4	1270+91.58	1.83	671.43	671.43

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. W. ABUT.	1268+05.22	3.50	670.07	670.07
CL. BRG. W. ABUT.	1268+08.35	3.50	670.10	670.10
A	1268+18.35	3.50	670.20	670.22
B	1268+28.35	3.50	670.30	670.33
C	1268+38.35	3.50	670.40	670.43
D	1268+48.35	3.50	670.49	670.51
E	1268+58.35	3.50	670.57	670.58
CL. BRG. PIER 1	1268+70.85	3.50	670.68	670.68
F	1268+80.85	3.50	670.75	670.76
G	1268+90.85	3.50	670.83	670.85
H	1269+00.85	3.50	670.90	670.94
I	1269+10.85	3.50	670.96	671.01
J	1269+20.85	3.50	671.02	671.06
K	1269+30.85	3.50	671.08	671.10
L	1269+40.85	3.50	671.13	671.14
CL. BRG. PIER 2	1269+49.35	3.50	671.17	671.17
M	1269+59.35	3.50	671.21	671.22
N	1269+69.35	3.50	671.25	671.27
P	1269+79.35	3.50	671.29	671.32
Q	1269+89.35	3.50	671.32	671.37
R	1269+99.35	3.50	671.35	671.39
S	1270+09.35	3.50	671.37	671.41
T	1270+19.35	3.50	671.39	671.41
CL. BRG. PIER 3	1270+27.85	3.50	671.41	671.41
U	1270+37.85	3.50	671.42	671.42
V	1270+47.85	3.50	671.42	671.44
W	1270+57.85	3.50	671.43	671.46
X	1270+67.85	3.50	671.43	671.46
Y	1270+77.85	3.50	671.42	671.45
CL. W. BRG. PIER 4	1270+90.35	3.50	671.41	671.41
CL. PIER 4	1270+90.97	3.50	671.41	671.41

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. W. ABUT.	1268+03.25	8.92	669.96	669.96
CL. BRG. W. ABUT.	1268+06.38	8.92	669.99	669.99
A	1268+16.38	8.92	670.10	670.12
B	1268+26.38	8.92	670.20	670.23
C	1268+36.38	8.92	670.29	670.33
D	1268+46.38	8.92	670.39	670.41
E	1268+56.38	8.92	670.47	670.48
CL. BRG. PIER 1	1268+68.88	8.92	670.58	670.58
F	1268+78.88	8.92	670.65	670.66
G	1268+88.88	8.92	670.73	670.75
H	1268+98.88	8.92	670.80	670.84
I	1269+08.88	8.92	670.86	670.91
J	1269+18.88	8.92	670.92	670.96
K	1269+28.88	8.92	670.98	671.00
L	1269+38.88	8.92	671.03	671.04
CL. BRG. PIER 2	1269+47.38	8.92	671.08	671.08
M	1269+57.38	8.92	671.12	671.13
N	1269+67.38	8.92	671.16	671.18
P	1269+77.38	8.92	671.20	671.23
Q	1269+87.38	8.92	671.23	671.28
R	1269+97.38	8.92	671.26	671.30
S	1270+07.38	8.92	671.28	671.32
T	1270+17.38	8.92	671.30	671.32
CL. BRG. PIER 3	1270+25.88	8.92	671.32	671.32
U	1270+35.88	8.92	671.33	671.34
V	1270+45.88	8.92	671.34	671.36
W	1270+55.88	8.92	671.34	671.37
X	1270+65.88	8.92	671.34	671.38
Y	1270+75.88	8.92	671.34	671.36
CL. W. BRG. PIER 4	1270+88.38	8.92	671.33	671.33
CL. PIER 4	1270+89.00	8.92	671.32	671.32

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BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. W. ABUT.	1268+00.67	16.00	669.82	669.82
CL. BRG. W. ABUT.	1268+03.80	16.00	669.85	669.85
A	1268+13.80	16.00	669.96	669.98
B	1268+23.80	16.00	670.06	670.09
C	1268+33.80	16.00	670.16	670.19
D	1268+43.80	16.00	670.25	670.28
E	1268+53.80	16.00	670.34	670.35
CL. BRG. PIER 1	1268+66.30	16.00	670.44	670.44
F	1268+76.30	16.00	670.52	670.53
G	1268+86.30	16.00	670.60	670.63
H	1268+96.30	16.00	670.67	670.71
I	1269+06.30	16.00	670.74	670.78
J	1269+16.30	16.00	670.80	670.84
K	1269+26.30	16.00	670.86	670.88
L	1269+36.30	16.00	670.91	670.92
CL. BRG. PIER 2	1269+44.80	16.00	670.95	670.95
M	1269+54.80	16.00	671.00	671.01
N	1269+64.80	16.00	671.04	671.06
P	1269+74.80	16.00	671.08	671.11
Q	1269+84.80	16.00	671.11	671.16
R	1269+94.80	16.00	671.14	671.19
S	1270+04.80	16.00	671.17	671.20
T	1270+14.80	16.00	671.19	671.21
CL. BRG. PIER 3	1270+23.30	16.00	671.20	671.20
U	1270+33.30	16.00	671.22	671.22
V	1270+43.30	16.00	671.23	671.25
W	1270+53.30	16.00	671.23	671.26
X	1270+63.30	16.00	671.23	671.27
Y	1270+73.30	16.00	671.23	671.25
CL. W. BRG. PIER 4	1270+85.80	16.00	671.22	671.22
CL. PIER 4	1270+86.42	16.00	671.22	671.22

BEAM 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. W. ABUT.	1267+98.10	23.08	669.68	669.68
CL. BRG. W. ABUT.	1268+01.22	23.08	669.72	669.72
A	1268+11.22	23.08	669.82	669.84
B	1268+21.22	23.08	669.92	669.96
C	1268+31.22	23.08	670.02	670.06
D	1268+41.22	23.08	670.12	670.14
E	1268+51.22	23.08	670.21	670.22
CL. BRG. PIER 1	1268+63.72	23.08	670.31	670.31
F	1268+73.72	23.08	670.39	670.40
G	1268+83.72	23.08	670.47	670.50
H	1268+93.72	23.08	670.54	670.58
I	1269+03.72	23.08	670.61	670.65
J	1269+13.72	23.08	670.67	670.71
K	1269+23.72	23.08	670.73	670.75
L	1269+33.72	23.08	670.79	670.79
CL. BRG. PIER 2	1269+42.22	23.08	670.83	670.83
M	1269+52.22	23.08	670.88	670.88
N	1269+62.22	23.08	670.92	670.94
P	1269+72.22	23.08	670.96	670.99
Q	1269+82.22	23.08	670.99	671.04
R	1269+92.22	23.08	671.02	671.07
S	1270+02.22	23.08	671.05	671.08
T	1270+12.22	23.08	671.07	671.09
CL. BRG. PIER 3	1270+20.72	23.08	671.09	671.09
U	1270+30.72	23.08	671.10	671.11
V	1270+40.72	23.08	671.11	671.13
W	1270+50.72	23.08	671.12	671.15
X	1270+60.72	23.08	671.12	671.16
Y	1270+70.72	23.08	671.12	671.14
CL. W. BRG. PIER 4	1270+83.22	23.08	671.11	671.11
CL. PIER 4	1270+83.85	23.08	671.11	671.11

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. W. ABUT.	1267+95.52	30.17	669.54	669.54
CL. BRG. W. ABUT.	1267+98.64	30.17	669.58	669.58
A	1268+08.64	30.17	669.68	669.71
B	1268+18.64	30.17	669.79	669.82
C	1268+28.64	30.17	669.89	669.92
D	1268+38.64	30.17	669.98	670.01
E	1268+48.64	30.17	670.07	670.08
CL. BRG. PIER 1	1268+61.14	30.17	670.18	670.18
F	1268+71.14	30.17	670.26	670.27
G	1268+81.14	30.17	670.34	670.37
H	1268+91.14	30.17	670.41	670.45
I	1269+01.14	30.17	670.48	670.53
J	1269+11.14	30.17	670.55	670.58
K	1269+21.14	30.17	670.61	670.63
L	1269+31.14	30.17	670.66	670.67
CL. BRG. PIER 2	1269+39.64	30.17	670.71	670.71
M	1269+49.64	30.17	670.75	670.76
N	1269+59.64	30.17	670.80	670.82
P	1269+69.64	30.17	670.84	670.87
Q	1269+79.64	30.17	670.87	670.92
R	1269+89.64	30.17	670.91	670.95
S	1269+99.64	30.17	670.93	670.97
T	1270+09.64	30.17	670.96	670.97
CL. BRG. PIER 3	1270+18.14	30.17	670.97	670.97
U	1270+28.14	30.17	670.99	670.99
V	1270+38.14	30.17	671.00	671.02
W	1270+48.14	30.17	671.01	671.04
X	1270+58.14	30.17	671.01	671.05
Y	1270+68.14	30.17	671.01	671.03
CL. W. BRG. PIER 4	1270+80.64	30.17	671.00	671.00
CL. PIER 4	1270+81.27	30.17	671.00	671.00

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GRAEF
8501 W. Higgins Road, Suite 280
Chicago, Illinois 60631; (773) 399-0112

USER NAME =	DESIGNED - J.Z. 6/15/2012	REVISED -
	CHECKED - J.A.Z. 6/15/2012	REVISED -
PLOT SCALE =	DRAWN - D.L.G. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - J.Z. 6/15/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF DECK SLAB ELEVATIONS V, UNIT 1
STRUCTURE NO. 045-0039**

SHEET NO. S14 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	235
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				

BEAM 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. W. ABUT.	1267+92.94	37.25	669.40	669.40
CL. BRG. W. ABUT.	1267+96.07	37.25	669.44	669.44
A	1268+06.07	37.25	669.55	669.57
B	1268+16.07	37.25	669.65	669.69
C	1268+26.07	37.25	669.75	669.79
D	1268+36.07	37.25	669.85	669.88
E	1268+46.07	37.25	669.94	669.95
CL. BRG. PIER 1	1268+58.57	37.25	670.05	670.05
F	1268+68.57	37.25	670.13	670.14
G	1268+78.57	37.25	670.21	670.24
H	1268+88.57	37.25	670.28	670.34
I	1268+98.57	37.25	670.35	670.41
J	1269+08.57	37.25	670.42	670.47
K	1269+18.57	37.25	670.48	670.51
L	1269+28.57	37.25	670.54	670.55
CL. BRG. PIER 2	1269+37.07	37.25	670.58	670.58
M	1269+47.07	37.25	670.63	670.64
N	1269+57.07	37.25	670.68	670.70
P	1269+67.07	37.25	670.72	670.76
Q	1269+77.07	37.25	670.76	670.81
R	1269+87.07	37.25	670.79	670.84
S	1269+97.07	37.25	670.82	670.86
T	1270+07.07	37.25	670.84	670.86
CL. BRG. PIER 3	1270+15.57	37.25	670.86	670.86
U	1270+25.57	37.25	670.87	670.88
V	1270+35.57	37.25	670.89	670.91
W	1270+45.57	37.25	670.90	670.94
X	1270+55.57	37.25	670.90	670.94
Y	1270+65.57	37.25	670.90	670.93
CL W. BRG. PIER 4	1270+78.07	37.25	670.89	670.89
CL. PIER 4	1270+78.69	37.25	670.89	670.89

BEAM 14

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
BK. W. ABUT.	1267+90.18	44.83	669.23	669.23
CL. BRG. W. ABUT.	1267+93.31	44.83	669.27	669.27
A	1268+03.31	44.83	669.38	669.40
B	1268+13.31	44.83	669.48	669.52
C	1268+23.31	44.83	669.58	669.63
D	1268+33.31	44.83	669.68	669.71
E	1268+43.31	44.83	669.77	669.79
CL. BRG. PIER 1	1268+55.81	44.83	669.88	669.88
F	1268+65.81	44.83	669.97	669.98
G	1268+75.81	44.83	670.05	670.08
H	1268+85.81	44.83	670.12	670.18
I	1268+95.81	44.83	670.19	670.25
J	1269+05.81	44.83	670.26	670.31
K	1269+15.81	44.83	670.32	670.35
L	1269+25.81	44.83	670.38	670.39
CL. BRG. PIER 2	1269+34.31	44.83	670.43	670.43
M	1269+44.31	44.83	670.48	670.49
N	1269+54.31	44.83	670.52	670.55
P	1269+64.31	44.83	670.57	670.61
Q	1269+74.31	44.83	670.60	670.66
R	1269+84.31	44.83	670.64	670.70
S	1269+94.31	44.83	670.67	670.71
T	1270+04.31	44.83	670.69	670.72
CL. BRG. PIER 3	1270+12.81	44.83	670.71	670.71
U	1270+22.81	44.83	670.73	670.74
V	1270+32.81	44.83	670.74	670.77
W	1270+42.81	44.83	670.75	670.79
X	1270+52.81	44.83	670.76	670.80
Y	1270+62.81	44.83	670.76	670.79
CL W. BRG. PIER 4	1270+75.31	44.83	670.75	670.76
CL. PIER 4	1270+75.93	44.83	670.75	670.75

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USER NAME =	DESIGNED - J.Z. 6/25/2012	REVISED -
	CHECKED - J.A.Z. 6/25/2012	REVISED -
PLOT SCALE =	DRAWN - D.L.G. 6/25/2012	REVISED -
PLOT DATE =	CHECKED - J.Z. 6/25/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF DECK SLAB ELEVATIONS VI, UNIT 1
STRUCTURE NO. 045-0039**

SHEET NO. S15 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	236
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60133	

BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 4	1271+08.57	-44.84	670.71	670.71
CL E. BRG. PIER 4	1271+09.19	-44.83	670.71	670.71
AA	1271+19.19	-44.83	670.68	670.68
CL W. BRG. PIER 5	1271+19.27	-44.83	670.68	670.68
CL. PIER 5	1271+19.90	-44.83	670.68	670.68

BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 4	1271+05.81	-37.25	670.86	670.86
CL E. BRG. PIER 4	1271+06.43	-37.25	670.85	670.85
AA	1271+16.43	-37.25	670.83	670.83
CL W. BRG. PIER 5	1271+20.47	-37.25	670.82	670.82
CL. PIER 5	1271+21.10	-37.25	670.82	670.82

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 4	1271+03.23	-30.17	670.97	670.97
CL E. BRG. PIER 4	1271+03.85	-30.17	670.97	670.97
AA	1271+13.85	-30.17	670.95	670.95
CL W. BRG. PIER 5	1271+21.60	-30.17	670.93	670.93
CL. PIER 5	1271+22.22	-30.17	670.93	670.93

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 4	1271+00.65	-23.08	671.09	671.09
CL E. BRG. PIER 4	1271+01.27	-23.08	671.09	671.09
AA	1271+11.27	-23.08	671.07	671.07
AB	1271+21.27	-23.08	671.04	671.04
CL W. BRG. PIER 5	1271+22.72	-23.08	671.04	671.04
CL. PIER 5	1271+23.34	-23.08	671.04	671.04

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 4	1270+98.07	-16.00	671.20	671.20
CL E. BRG. PIER 4	1270+98.70	-16.00	671.20	671.20
AA	1271+08.70	-16.00	671.18	671.18
AB	1271+18.70	-16.00	671.16	671.16
CL W. BRG. PIER 5	1271+23.84	-16.00	671.15	671.15
CL. PIER 5	1271+24.46	-16.00	671.14	671.14

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 4	1270+95.49	-8.92	671.32	671.32
CL E. BRG. PIER 4	1270+96.12	-8.92	671.31	671.31
AA	1271+06.12	-8.92	671.30	671.30
AB	1271+16.12	-8.92	671.28	671.28
CL W. BRG. PIER 5	1271+24.96	-8.92	671.25	671.25
CL. PIER 5	1271+25.59	-8.92	671.25	671.25

U.S. RTE. 30 WB PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 4	1270+93.52	-3.50	671.40	671.40
CL E. BRG. PIER 4	1270+94.15	-3.50	671.40	671.40
AA	1271+04.15	-3.50	671.39	671.39
AB	1271+14.15	-3.50	671.37	671.38
AC	1271+24.15	-3.50	671.34	671.34
CL W. BRG. PIER 5	1271+25.82	-3.50	671.34	671.34
CL. PIER 5	1271+26.44	-3.50	671.33	671.33

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 4	1270+92.92	-1.83	671.43	671.43
CL E. BRG. PIER 4	1270+93.54	-1.83	671.43	671.43
AA	1271+03.54	-1.83	671.41	671.42
AB	1271+13.54	-1.83	671.39	671.41
AC	1271+23.54	-1.83	671.37	671.37
CL W. BRG. PIER 5	1271+26.08	-1.83	671.36	671.36
CL. PIER 5	1271+26.71	-1.83	671.36	671.36

U.S. RTE. 30

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 4	1270+92.25	0.00	671.46	671.46
CL E. BRG. PIER 4	1270+92.87	0.00	671.46	671.46
AA	1271+02.87	0.00	671.44	671.45
AB	1271+12.87	0.00	671.42	671.44
AC	1271+22.87	0.00	671.40	671.40
CL W. BRG. PIER 5	1271+26.37	0.00	671.39	671.39
CL. PIER 5	1271+27.00	0.00	671.39	671.39

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	CHECKED - J.A.Z. 6/25/2012	REVISED -
PLOT SCALE =	DRAWN - D.L.G. 6/25/2012	REVISED -
PLOT DATE =	CHECKED - J.Z. 6/25/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF DECK SLAB ELEVATIONS VII, UNIT 2
STRUCTURE NO. 045-0039**

SHEET NO. S16 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	237
CONTRACT NO. 60133			ILLINOIS FED. AID PROJECT	

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 4	1270+91.58	1.83	671.43	671.43
CL E. BRG. PIER 4	1270+92.21	1.83	671.43	671.43
AA	1271+02.21	1.83	671.42	671.43
AB	1271+12.21	1.83	671.40	671.40
AC	1271+22.21	1.83	671.37	671.37
CL W. BRG. PIER 5	1271+26.66	1.83	671.36	671.36
CL. PIER 5	1271+27.29	1.83	671.36	671.36

U.S. RTE. 30 EB PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 4	1270+90.97	3.50	671.41	671.41
CL E. BRG. PIER 4	1270+91.60	3.50	671.41	671.41
AA	1271+01.60	3.50	671.39	671.40
AB	1271+11.60	3.50	671.37	671.38
AC	1271+21.60	3.50	671.35	671.35
CL W. BRG. PIER 5	1271+26.93	3.50	671.33	671.33
CL. PIER 5	1271+27.55	3.50	671.33	671.33

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 4	1270+89.00	8.92	671.32	671.32
CL E. BRG. PIER 4	1270+89.63	8.92	671.32	671.32
AA	1270+99.63	8.92	671.31	671.32
AB	1271+09.63	8.92	671.29	671.31
AC	1271+19.63	8.92	671.27	671.27
CL W. BRG. PIER 5	1271+27.79	8.92	671.25	671.25
CL. PIER 5	1271+28.41	8.92	671.24	671.24

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 4	1270+86.42	16.00	671.22	671.22
CL E. BRG. PIER 4	1270+87.05	16.00	671.22	671.22
AA	1270+97.05	16.00	671.20	671.22
AB	1271+07.05	16.00	671.19	671.22
AC	1271+17.05	16.00	671.16	671.20
AD	1271+27.05	16.00	671.14	671.16
CL W. BRG. PIER 5	1271+28.91	16.00	671.13	671.13
CL. PIER 5	1271+29.53	16.00	671.13	671.13

BEAM 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 4	1270+83.85	23.08	671.11	671.11
CL E. BRG. PIER 4	1270+84.47	23.08	671.11	671.11
AA	1270+94.47	23.08	671.10	671.12
AB	1271+04.47	23.08	671.08	671.12
AC	1271+14.47	23.08	671.06	671.10
AD	1271+24.47	23.08	671.03	671.05
CL W. BRG. PIER 5	1271+30.03	23.08	671.02	671.02
CL. PIER 5	1271+30.65	23.08	671.02	671.02

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 4	1270+81.27	30.17	671.00	671.00
CL E. BRG. PIER 4	1270+81.89	30.17	671.00	671.00
AA	1270+91.89	30.17	670.99	671.03
AB	1271+01.89	30.17	670.97	671.03
AC	1271+11.89	30.17	670.95	671.00
AD	1271+21.89	30.17	670.93	670.95
CL W. BRG. PIER 5	1271+31.15	30.17	670.90	670.90
CL. PIER 5	1271+31.78	30.17	670.90	670.90

BEAM 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 4	1270+78.69	37.25	670.89	670.89
CL E. BRG. PIER 4	1270+79.32	37.25	670.89	670.89
AA	1270+89.32	37.25	670.88	670.92
AB	1270+99.32	37.25	670.87	670.93
AC	1271+09.32	37.25	670.85	670.92
AD	1271+19.32	37.25	670.83	670.89
AE	1271+29.32	37.25	670.80	670.83
CL W. BRG. PIER 5	1271+31.15	37.25	670.79	670.79
CL. PIER 5	1271+31.78	37.25	670.79	670.79

BEAM 14

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 4	1270+75.93	44.83	670.75	670.75
CL E. BRG. PIER 4	1270+76.56	44.83	670.75	670.75
AA	1270+86.56	44.83	670.74	670.79
AB	1270+96.56	44.83	670.73	670.81
AC	1271+06.56	44.83	670.71	670.80
AD	1271+16.56	44.83	670.69	670.76
AE	1271+26.56	44.83	670.67	670.69
CL W. BRG. PIER 5	1271+31.15	44.83	670.65	670.65
CL. PIER 5	1271+31.78	44.83	670.65	670.65

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BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 5	1271+19.90	-44.83	670.68	670.68
CL E. BRG. PIER 5	1271+20.52	-44.78	670.68	670.68
BA	1271+30.59	-44.38	670.66	670.68
BB	1271+40.66	-43.97	670.64	670.66
BC	1271+50.72	-43.57	670.61	670.62
BD	1271+60.79	-43.16	670.57	670.58
CL. BRG. PIER 6	1271+70.85	-42.76	670.53	670.53
BE	1271+80.91	-42.35	670.49	670.50
BF	1271+90.98	-41.95	670.44	670.47
BG	1272+01.04	-41.54	670.39	670.43
BH	1272+11.11	-41.14	670.34	670.37
BI	1272+21.17	-40.73	670.28	670.30
BJ	1272+31.24	-40.33	670.21	670.22
CL. BRG. PIER 7	1272+36.27	-40.13	670.18	670.18
BK	1272+46.33	-39.72	670.11	670.12
BL	1272+56.40	-39.32	670.03	670.06
BM	1272+66.46	-38.91	669.96	669.99
BN	1272+76.52	-38.51	669.87	669.91
BP	1272+86.59	-38.10	669.79	669.81
BQ	1272+96.65	-37.70	669.69	669.70
CL. BRG. PIER 8	1273+01.68	-37.50	669.65	669.65
BR	1273+11.75	-37.09	669.55	669.56
BS	1273+21.81	-36.69	669.45	669.48
BT	1273+31.88	-36.28	669.34	669.38
BU	1273+41.94	-35.88	669.23	669.27
BV	1273+52.00	-35.47	669.11	669.14
BW	1273+62.07	-35.07	669.00	669.00
CL. BRG. PIER 9	1273+67.10	-34.87	668.93	668.93
BX	1273+77.16	-34.46	668.81	668.82
BY	1273+87.23	-34.06	668.68	668.70
BZ	1273+97.29	-33.65	668.55	668.57
CA	1274+07.36	-33.25	668.41	668.42
CL. BRG. E. ABUT.	1274+17.42	-32.84	668.26	668.26
BK. E. ABUT.	1274+20.42	-32.72	668.22	668.22

BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 5	1271+21.10	-37.25	670.82	670.82
CL E. BRG. PIER 5	1271+21.72	-37.45	670.82	670.82
BA	1271+31.72	-37.25	670.79	670.81
BB	1271+41.76	-37.05	670.76	670.79
BC	1271+51.79	-36.85	670.73	670.75
BD	1271+61.82	-36.64	670.69	670.70
CL. BRG. PIER 6	1271+71.85	-36.44	670.65	670.65
BE	1271+81.88	-36.24	670.60	670.61
BF	1271+91.91	-36.04	670.55	670.57
BG	1272+01.95	-35.84	670.50	670.53
BH	1272+11.98	-35.64	670.44	670.47
BI	1272+22.01	-35.44	670.38	670.39
BJ	1272+32.04	-35.24	670.31	670.31
CL. BRG. PIER 7	1272+37.06	-35.14	670.27	670.27
BK	1272+47.09	-34.94	670.20	670.21
BL	1272+57.12	-34.74	670.12	670.14
BM	1272+67.15	-34.54	670.04	670.09
BN	1272+77.18	-34.34	669.95	670.00
BP	1272+87.22	-34.13	669.86	669.90
BQ	1272+97.25	-33.93	669.77	669.78
CL. BRG. PIER 8	1273+02.26	-33.83	669.72	669.72

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 5	1271+22.22	-30.17	670.93	670.93
CL E. BRG. PIER 5	1271+22.85	-30.17	670.93	670.93
BA	1271+32.85	-30.17	670.90	670.91
BB	1271+42.85	-30.17	670.87	670.88
BC	1271+52.85	-30.17	670.83	670.84
BD	1271+62.85	-30.17	670.79	670.79
CL. BRG. PIER 6	1271+72.85	-30.17	670.74	670.74
BE	1271+82.85	-30.17	670.69	670.70
BF	1271+92.85	-30.17	670.64	670.66
BG	1272+02.85	-30.17	670.58	670.60
BH	1272+12.85	-30.17	670.52	670.54
BI	1272+22.85	-30.17	670.45	670.47
BJ	1272+32.85	-30.17	670.38	670.39
CL. BRG. PIER 7	1272+37.85	-30.17	670.35	670.35
BK	1272+47.85	-30.17	670.27	670.27
BL	1272+57.85	-30.17	670.19	670.20
BM	1272+67.85	-30.17	670.10	670.12
BN	1272+77.85	-30.17	670.01	670.03
BP	1272+87.85	-30.17	669.92	669.93
BQ	1272+97.85	-30.17	669.82	669.82
CL. BRG. PIER 8	1273+02.85	-30.17	669.77	669.77
BR	1273+12.85	-30.17	669.67	669.67
BS	1273+22.85	-30.17	669.56	669.58
BT	1273+32.85	-30.17	669.45	669.47
BU	1273+42.85	-30.17	669.33	669.35
BV	1273+52.85	-30.17	669.21	669.22
BW	1273+62.85	-30.17	669.08	669.09
CL. BRG. PIER 9	1273+67.85	-30.17	669.02	669.02
BX	1273+77.85	-30.17	668.89	668.89
BY	1273+87.85	-30.17	668.75	668.76
BZ	1273+97.85	-30.17	668.61	668.63
CA	1274+07.85	-30.17	668.47	668.48
CL. BRG. E. ABUT.	1274+17.85	-30.17	668.32	668.32
BK. E. ABUT.	1274+20.82	-30.17	668.28	668.28

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	CHECKED - J.A.Z. 6/25/2012	REVISED -
PLOT SCALE =	DRAWN - D.L.G. 6/25/2012	REVISED -
PLOT DATE =	CHECKED - J.Z. 6/25/2012	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	239
CONTRACT NO. 60133			ILLINOIS FED. AID PROJECT	

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 5	1271+23.34	-23.08	671.04	671.04
CL E. BRG. PIER 5	1271+23.97	-23.08	671.03	671.04
BA	1271+33.97	-23.08	671.01	671.02
BB	1271+43.97	-23.08	670.97	670.99
BC	1271+53.97	-23.08	670.94	670.95
BD	1271+63.97	-23.08	670.89	670.90
CL. BRG. PIER 6	1271+73.97	-23.08	670.85	670.85
BE	1271+83.97	-23.08	670.80	670.81
BF	1271+93.97	-23.08	670.74	670.76
BG	1272+03.97	-23.08	670.69	670.71
BH	1272+13.97	-23.08	670.62	670.64
BI	1272+23.97	-23.08	670.56	670.57
BJ	1272+33.97	-23.08	670.49	670.49
CL. BRG. PIER 7	1272+38.97	-23.08	670.45	670.45
BK	1272+48.97	-23.08	670.37	670.38
BL	1272+58.97	-23.08	670.29	670.30
BM	1272+68.97	-23.08	670.20	670.22
BN	1272+78.97	-23.08	670.11	670.13
BP	1272+88.97	-23.08	670.02	670.03
BQ	1272+98.97	-23.08	669.92	669.92
CL. BRG. PIER 8	1273+03.97	-23.08	669.87	669.87
BR	1273+13.97	-23.08	669.77	669.77
BS	1273+23.97	-23.08	669.66	669.67
BT	1273+33.97	-23.08	669.55	669.57
BU	1273+43.97	-23.08	669.43	669.45
BV	1273+53.97	-23.08	669.31	669.32
BW	1273+63.97	-23.08	669.18	669.18
CL. BRG. PIER 9	1273+68.97	-23.08	669.12	669.12
BX	1273+78.97	-23.08	668.99	668.99
BY	1273+88.97	-23.08	668.85	668.86
BZ	1273+98.97	-23.08	668.71	668.72
CA	1274+08.97	-23.08	668.56	668.57
CL. BRG. E. ABUT.	1274+18.97	-23.08	668.42	668.42
BK. E. ABUT.	1274+21.95	-23.08	668.37	668.37

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 5	1271+24.46	-16.00	671.14	671.14
CL E. BRG. PIER 5	1271+25.09	-16.00	671.14	671.14
BA	1271+35.09	-16.00	671.11	671.12
BB	1271+45.09	-16.00	671.08	671.09
BC	1271+55.09	-16.00	671.04	671.05
BD	1271+65.09	-16.00	671.00	671.00
CL. BRG. PIER 6	1271+75.09	-16.00	670.95	670.95
BE	1271+85.09	-16.00	670.90	670.91
BF	1271+95.09	-16.00	670.85	670.87
BG	1272+05.09	-16.00	670.79	670.81
BH	1272+15.09	-16.00	670.73	670.75
BI	1272+25.09	-16.00	670.66	670.67
BJ	1272+35.09	-16.00	670.59	670.59
CL. BRG. PIER 7	1272+40.09	-16.00	670.55	670.55
BK	1272+50.09	-16.00	670.47	670.48
BL	1272+60.09	-16.00	670.39	670.41
BM	1272+70.09	-16.00	670.30	670.32
BN	1272+80.09	-16.00	670.21	670.23
BP	1272+90.09	-16.00	670.12	670.13
BQ	1273+00.09	-16.00	670.02	670.02
CL. BRG. PIER 8	1273+05.09	-16.00	669.97	669.97
BR	1273+15.09	-16.00	669.87	669.87
BS	1273+25.09	-16.00	669.76	669.77
BT	1273+35.09	-16.00	669.64	669.67
BU	1273+45.09	-16.00	669.53	669.55
BV	1273+55.09	-16.00	669.40	669.42
BW	1273+65.09	-16.00	669.28	669.28
CL. BRG. PIER 9	1273+70.09	-16.00	669.21	669.21
BX	1273+80.09	-16.00	669.08	669.08
BY	1273+90.09	-16.00	668.94	668.96
BZ	1274+00.09	-16.00	668.80	668.82
CA	1274+10.09	-16.00	668.66	668.67
CL. BRG. E. ABUT.	1274+20.09	-16.00	668.51	668.51
BK. E. ABUT.	1274+23.07	-16.00	668.46	668.46

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 5	1271+25.59	-8.92	671.25	671.25
CL E. BRG. PIER 5	1271+26.21	-8.92	671.25	671.25
BA	1271+36.21	-8.92	671.22	671.23
BB	1271+46.21	-8.92	671.19	671.20
BC	1271+56.21	-8.92	671.15	671.16
BD	1271+66.21	-8.92	671.11	671.11
CL. BRG. PIER 6	1271+76.21	-8.92	671.06	671.06
BE	1271+86.21	-8.92	671.01	671.01
BF	1271+96.21	-8.92	670.95	670.97
BG	1272+06.21	-8.92	670.89	670.92
BH	1272+16.21	-8.92	670.83	670.85
BI	1272+26.21	-8.92	670.76	670.77
BJ	1272+36.21	-8.92	670.69	670.69
CL. BRG. PIER 7	1272+41.21	-8.92	670.65	670.65
BK	1272+51.21	-8.92	670.57	670.58
BL	1272+61.21	-8.92	670.49	670.51
BM	1272+71.21	-8.92	670.41	670.43
BN	1272+81.21	-8.92	670.31	670.33
BP	1272+91.21	-8.92	670.22	670.23
BQ	1273+01.21	-8.92	670.12	670.12
CL. BRG. PIER 8	1273+06.21	-8.92	670.07	670.07
BR	1273+16.21	-8.92	669.96	669.97
BS	1273+26.21	-8.92	669.85	669.87
BT	1273+36.21	-8.92	669.74	669.76
BU	1273+46.21	-8.92	669.62	669.64
BV	1273+56.21	-8.92	669.50	669.51
BW	1273+66.21	-8.92	669.37	669.38
CL. BRG. PIER 9	1273+71.21	-8.92	669.31	669.31
BX	1273+81.21	-8.92	669.18	669.18
BY	1273+91.21	-8.92	669.04	669.05
BZ	1274+01.21	-8.92	668.90	668.91
CA	1274+11.21	-8.92	668.75	668.76
CL. BRG. E. ABUT.	1274+21.21	-8.92	668.60	668.60
BK. E. ABUT.	1274+24.19	-8.92	668.56	668.56

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PLOT SCALE =	DRAWN - D.L.G. 6/25/2012	REVISED -
PLOT DATE =	CHECKED - J.Z. 6/25/2012	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TOP OF DECK SLAB ELEVATIONS X, UNIT 3
 STRUCTURE NO. 045-0039**

SHEET NO. 519 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	240
CONTRACT NO. 60133			ILLINOIS FED. AID PROJECT	

U.S. RTE. 30 WB PG

BEAM 5

U.S. RTE. 30

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 5	1271+26.44	-3.50	671.33	671.33
CL E. BRG. PIER 5	1271+27.07	-3.50	671.33	671.33
BA	1271+37.07	-3.50	671.30	671.31
BB	1271+47.07	-3.50	671.27	671.28
BC	1271+57.07	-3.50	671.23	671.24
BD	1271+67.07	-3.50	671.19	671.19
CL. BRG. PIER 6	1271+77.07	-3.50	671.14	671.14
BE	1271+87.07	-3.50	671.09	671.09
BF	1271+97.07	-3.50	671.03	671.05
BG	1272+07.07	-3.50	670.97	671.00
BH	1272+17.07	-3.50	670.91	670.93
BI	1272+27.07	-3.50	670.84	670.85
BJ	1272+37.07	-3.50	670.77	670.77
CL. BRG. PIER 7	1272+42.07	-3.50	670.73	670.73
BK	1272+52.07	-3.50	670.65	670.66
BL	1272+62.07	-3.50	670.57	670.58
BM	1272+72.07	-3.50	670.48	670.50
BN	1272+82.07	-3.50	670.39	670.41
BP	1272+92.07	-3.50	670.30	670.31
BQ	1273+02.07	-3.50	670.20	670.20
CL. BRG. PIER 8	1273+07.07	-3.50	670.15	670.15
BR	1273+17.07	-3.50	670.04	670.05
BS	1273+27.07	-3.50	669.93	669.95
BT	1273+37.07	-3.50	669.82	669.84
BU	1273+47.07	-3.50	669.70	669.72
BV	1273+57.07	-3.50	669.57	669.59
BW	1273+67.07	-3.50	669.45	669.45
CL. BRG. PIER 9	1273+72.07	-3.50	669.38	669.38
BX	1273+82.07	-3.50	669.25	669.25
BY	1273+92.07	-3.50	669.11	669.12
BZ	1274+02.07	-3.50	668.97	668.98
CA	1274+12.07	-3.50	668.82	668.83
CL. BRG. E. ABUT.	1274+22.07	-3.50	668.68	668.68
BK. E. ABUT.	1274+25.05	-3.50	668.63	668.63

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 5	1271+26.71	-1.83	671.36	671.36
CL E. BRG. PIER 5	1271+27.33	-1.83	671.36	671.36
BA	1271+37.33	-1.83	671.33	671.34
BB	1271+47.33	-1.83	671.29	671.31
BC	1271+57.33	-1.83	671.25	671.27
BD	1271+67.33	-1.83	671.21	671.21
CL. BRG. PIER 6	1271+77.33	-1.83	671.16	671.16
BE	1271+87.33	-1.83	671.11	671.12
BF	1271+97.33	-1.83	671.06	671.07
BG	1272+07.33	-1.83	671.00	671.02
BH	1272+17.33	-1.83	670.93	670.95
BI	1272+27.33	-1.83	670.87	670.88
BJ	1272+37.33	-1.83	670.79	670.79
CL. BRG. PIER 7	1272+42.33	-1.83	670.75	670.75
BK	1272+52.33	-1.83	670.68	670.68
BL	1272+62.33	-1.83	670.59	670.61
BM	1272+72.33	-1.83	670.51	670.53
BN	1272+82.33	-1.83	670.42	670.43
BP	1272+92.33	-1.83	670.32	670.33
BQ	1273+02.33	-1.83	670.22	670.22
CL. BRG. PIER 8	1273+07.33	-1.83	670.17	670.17
BR	1273+17.33	-1.83	670.06	670.07
BS	1273+27.33	-1.83	669.95	669.97
BT	1273+37.33	-1.83	669.84	669.86
BU	1273+47.33	-1.83	669.72	669.74
BV	1273+57.33	-1.83	669.60	669.61
BW	1273+67.33	-1.83	669.47	669.47
CL. BRG. PIER 9	1273+72.33	-1.83	669.41	669.41
BX	1273+82.33	-1.83	669.27	669.28
BY	1273+92.33	-1.83	669.13	669.15
BZ	1274+02.33	-1.83	668.99	669.01
CA	1274+12.33	-1.83	668.85	668.86
CL. BRG. E. ABUT.	1274+22.33	-1.83	668.70	668.70
BK. E. ABUT.	1274+25.31	-1.83	668.65	668.65

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 5	1271+27.00	0.00	671.39	671.39
CL E. BRG. PIER 5	1271+27.62	0.00	671.39	671.39
BA	1271+37.62	0.00	671.36	671.36
BB	1271+47.62	0.00	671.32	671.33
BC	1271+57.62	0.00	671.28	671.29
BD	1271+67.62	0.00	671.24	671.24
CL. BRG. PIER 6	1271+77.62	0.00	671.19	671.19
BE	1271+87.62	0.00	671.14	671.15
BF	1271+97.62	0.00	671.08	671.10
BG	1272+07.62	0.00	671.02	671.05
BH	1272+17.62	0.00	670.96	670.98
BI	1272+27.62	0.00	670.89	670.90
BJ	1272+37.62	0.00	670.82	670.82
CL. BRG. PIER 7	1272+42.62	0.00	670.78	670.78
BK	1272+52.62	0.00	670.70	670.71
BL	1272+62.62	0.00	670.62	670.63
BM	1272+72.62	0.00	670.53	670.55
BN	1272+82.62	0.00	670.44	670.46
BP	1272+92.62	0.00	670.35	670.36
BQ	1273+02.62	0.00	670.25	670.25
CL. BRG. PIER 8	1273+07.62	0.00	670.19	670.19
BR	1273+17.62	0.00	670.09	670.09
BS	1273+27.62	0.00	669.98	669.99
BT	1273+37.62	0.00	669.86	669.89
BU	1273+47.62	0.00	669.74	669.77
BV	1273+57.62	0.00	669.62	669.64
BW	1273+67.62	0.00	669.50	669.50
CL. BRG. PIER 9	1273+72.62	0.00	669.43	669.43
BX	1273+82.62	0.00	669.30	669.30
BY	1273+92.62	0.00	669.16	669.17
BZ	1274+02.62	0.00	669.02	669.03
CA	1274+12.62	0.00	668.87	668.88
CL. BRG. E. ABUT.	1274+22.62	0.00	668.72	668.72
BK. E. ABUT.	1274+25.60	0.00	668.68	668.68

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK SLAB ELEVATIONS XI, UNIT 3
STRUCTURE NO. 045-0039

SHEET NO. S20 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	241
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				

BEAM 6

U.S. RTE. 30 EB PG

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 5	1271+27.29	1.83	671.36	671.36
CL E. BRG. PIER 5	1271+27.91	1.83	671.36	671.36
BA	1271+37.91	1.83	671.33	671.33
BB	1271+47.91	1.83	671.29	671.30
BC	1271+57.91	1.83	671.25	671.26
BD	1271+67.91	1.83	671.21	671.21
CL. BRG. PIER 6	1271+77.91	1.83	671.16	671.16
BE	1271+87.91	1.83	671.11	671.12
BF	1271+97.91	1.83	671.05	671.07
BG	1272+07.91	1.83	670.99	671.02
BH	1272+17.91	1.83	670.93	670.95
BI	1272+27.91	1.83	670.86	670.87
BJ	1272+37.91	1.83	670.79	670.79
CL. BRG. PIER 7	1272+42.91	1.83	670.75	670.75
BK	1272+52.91	1.83	670.67	670.68
BL	1272+62.91	1.83	670.59	670.60
BM	1272+72.91	1.83	670.50	670.52
BN	1272+82.91	1.83	670.41	670.43
BP	1272+92.91	1.83	670.31	670.32
BQ	1273+02.91	1.83	670.21	670.22
CL. BRG. PIER 8	1273+07.91	1.83	670.16	670.16
BR	1273+17.91	1.83	670.06	670.06
BS	1273+27.91	1.83	669.95	669.96
BT	1273+37.91	1.83	669.83	669.85
BU	1273+47.91	1.83	669.71	669.73
BV	1273+57.91	1.83	669.59	669.60
BW	1273+67.91	1.83	669.46	669.47
CL. BRG. PIER 9	1273+72.91	1.83	669.40	669.40
BX	1273+82.91	1.83	669.26	669.27
BY	1273+92.91	1.83	669.13	669.14
BZ	1274+02.91	1.83	668.98	669.00
CA	1274+12.91	1.83	668.84	668.85
CL. BRG. E. ABUT.	1274+22.91	1.83	668.69	668.69
BK. E. ABUT.	1274+25.89	1.83	668.64	668.64

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 5	1271+27.55	3.50	671.33	671.33
CL E. BRG. PIER 5	1271+28.18	3.50	671.33	671.33
BA	1271+38.18	3.50	671.30	671.31
BB	1271+48.18	3.50	671.26	671.28
BC	1271+58.18	3.50	671.22	671.24
BD	1271+68.18	3.50	671.18	671.19
CL. BRG. PIER 6	1271+78.18	3.50	671.13	671.13
BE	1271+88.18	3.50	671.08	671.09
BF	1271+98.18	3.50	671.03	671.04
BG	1272+08.18	3.50	670.97	670.99
BH	1272+18.18	3.50	670.90	670.92
BI	1272+28.18	3.50	670.83	670.85
BJ	1272+38.18	3.50	670.76	670.76
CL. BRG. PIER 7	1272+43.18	3.50	670.72	670.72
BK	1272+53.18	3.50	670.64	670.65
BL	1272+63.18	3.50	670.56	670.57
BM	1272+73.18	3.50	670.47	670.49
BN	1272+83.18	3.50	670.38	670.40
BP	1272+93.18	3.50	670.29	670.30
BQ	1273+03.18	3.50	670.19	670.19
CL. BRG. PIER 8	1273+08.18	3.50	670.13	670.13
BR	1273+18.18	3.50	670.03	670.03
BS	1273+28.18	3.50	669.92	669.93
BT	1273+38.18	3.50	669.80	669.83
BU	1273+48.18	3.50	669.68	669.71
BV	1273+58.18	3.50	669.56	669.57
BW	1273+68.18	3.50	669.43	669.44
CL. BRG. PIER 9	1273+73.18	3.50	669.37	669.37
BX	1273+83.18	3.50	669.23	669.24
BY	1273+93.18	3.50	669.10	669.11
BZ	1274+03.18	3.50	668.95	668.97
CA	1274+13.18	3.50	668.81	668.82
CL. BRG. E. ABUT.	1274+23.18	3.50	668.66	668.66
BK. E. ABUT.	1274+26.16	3.50	668.61	668.61

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 5	1271+28.41	8.92	671.24	671.24
CL E. BRG. PIER 5	1271+29.04	8.92	671.24	671.24
BA	1271+39.04	8.92	671.21	671.22
BB	1271+49.04	8.92	671.18	671.19
BC	1271+59.04	8.92	671.14	671.15
BD	1271+69.04	8.92	671.09	671.10
CL. BRG. PIER 6	1271+79.04	8.92	671.04	671.04
BE	1271+89.04	8.92	670.99	671.00
BF	1271+99.04	8.92	670.94	670.95
BG	1272+09.04	8.92	670.88	670.90
BH	1272+19.04	8.92	670.81	670.83
BI	1272+29.04	8.92	670.74	670.75
BJ	1272+39.04	8.92	670.67	670.67
CL. BRG. PIER 7	1272+44.04	8.92	670.63	670.63
BK	1272+54.04	8.92	670.55	670.56
BL	1272+64.04	8.92	670.47	670.48
BM	1272+74.04	8.92	670.38	670.40
BN	1272+84.04	8.92	670.29	670.31
BP	1272+94.04	8.92	670.19	670.20
BQ	1273+04.04	8.92	670.09	670.09
CL. BRG. PIER 8	1273+09.04	8.92	670.04	670.04
BR	1273+19.04	8.92	669.93	669.94
BS	1273+29.04	8.92	669.82	669.84
BT	1273+39.04	8.92	669.71	669.73
BU	1273+49.04	8.92	669.59	669.61
BV	1273+59.04	8.92	669.47	669.48
BW	1273+69.04	8.92	669.34	669.34
CL. BRG. PIER 9	1273+74.04	8.92	669.27	669.27
BX	1273+84.04	8.92	669.14	669.14
BY	1273+94.04	8.92	669.00	669.01
BZ	1274+04.04	8.92	668.86	668.87
CA	1274+14.04	8.92	668.71	668.72
CL. BRG. E. ABUT.	1274+24.04	8.92	668.56	668.56
BK. E. ABUT.	1274+27.01	8.92	668.51	668.51

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK SLAB ELEVATIONS XII, UNIT 3
STRUCTURE NO. 045-0039

SHEET NO. 521 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	242
				CONTRACT NO. 60133

ILLINOIS FED. AID PROJECT

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 5	1271+29.53	16.00	671.13	671.13
CL E. BRG. PIER 5	1271+30.16	16.00	671.13	671.13
BA	1271+40.16	16.00	671.10	671.11
BB	1271+50.16	16.00	671.06	671.07
BC	1271+60.16	16.00	671.02	671.03
BD	1271+70.16	16.00	670.98	670.98
CL. BRG. PIER 6	1271+80.16	16.00	670.93	670.93
BE	1271+90.16	16.00	670.88	670.88
BF	1272+00.16	16.00	670.82	670.84
BG	1272+10.16	16.00	670.76	670.78
BH	1272+20.16	16.00	670.69	670.71
BI	1272+30.16	16.00	670.62	670.64
BJ	1272+40.16	16.00	670.55	670.55
CL. BRG. PIER 7	1272+45.16	16.00	670.51	670.51
BK	1272+55.16	16.00	670.43	670.44
BL	1272+65.16	16.00	670.35	670.36
BM	1272+75.16	16.00	670.26	670.28
BN	1272+85.16	16.00	670.17	670.19
BP	1272+95.16	16.00	670.07	670.08
BQ	1273+05.16	16.00	669.97	669.97
CL. BRG. PIER 8	1273+10.16	16.00	669.92	669.92
BR	1273+20.16	16.00	669.81	669.82
BS	1273+30.16	16.00	669.70	669.72
BT	1273+40.16	16.00	669.58	669.61
BU	1273+50.16	16.00	669.46	669.49
BV	1273+60.16	16.00	669.34	669.35
BW	1273+70.16	16.00	669.21	669.21
CL. BRG. PIER 9	1273+75.16	16.00	669.15	669.15
BX	1273+85.16	16.00	669.01	669.02
BY	1273+95.16	16.00	668.87	668.88
BZ	1274+05.16	16.00	668.73	668.74
CA	1274+15.16	16.00	668.58	668.59
CL. BRG. E. ABUT.	1274+25.16	16.00	668.43	668.43
BK. E. ABUT.	1274+28.14	16.00	668.39	668.39

BEAM 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 5	1271+30.65	23.08	671.02	671.02
CL E. BRG. PIER 5	1271+31.28	23.08	671.01	671.01
BA	1271+41.28	23.08	670.98	670.99
BB	1271+51.28	23.08	670.95	670.96
BC	1271+61.28	23.08	670.91	670.92
BD	1271+71.28	23.08	670.86	670.86
CL. BRG. PIER 6	1271+81.28	23.08	670.81	670.81
BE	1271+91.28	23.08	670.76	670.77
BF	1272+01.28	23.08	670.70	670.72
BG	1272+11.28	23.08	670.64	670.66
BH	1272+21.28	23.08	670.57	670.60
BI	1272+31.28	23.08	670.50	670.52
BJ	1272+41.28	23.08	670.43	670.43
CL. BRG. PIER 7	1272+46.28	23.08	670.39	670.39
BK	1272+56.28	23.08	670.31	670.32
BL	1272+66.28	23.08	670.23	670.24
BM	1272+76.28	23.08	670.14	670.16
BN	1272+86.28	23.08	670.05	670.06
BP	1272+96.28	23.08	669.95	669.96
BQ	1273+06.28	23.08	669.85	669.85
CL. BRG. PIER 8	1273+11.28	23.08	669.80	669.80
BR	1273+21.28	23.08	669.69	669.69
BS	1273+31.28	23.08	669.58	669.59
BT	1273+41.28	23.08	669.46	669.48
BU	1273+51.28	23.08	669.34	669.36
BV	1273+61.28	23.08	669.22	669.23
BW	1273+71.28	23.08	669.09	669.09
CL. BRG. PIER 9	1273+76.28	23.08	669.02	669.02
BX	1273+86.28	23.08	668.89	668.89
BY	1273+96.28	23.08	668.75	668.76
BZ	1274+06.28	23.08	668.60	668.62
CA	1274+16.28	23.08	668.46	668.47
CL. BRG. E. ABUT.	1274+26.28	23.08	668.30	668.30
BK. E. ABUT.	1274+29.26	23.08	668.26	668.26

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 5	1271+31.78	30.17	670.90	670.90
CL E. BRG. PIER 5	1271+32.40	30.17	670.90	670.90
BA	1271+42.40	30.17	670.87	670.88
BB	1271+52.40	30.17	670.83	670.84
BC	1271+62.40	30.17	670.79	670.80
BD	1271+72.40	30.17	670.74	670.75
CL. BRG. PIER 6	1271+82.40	30.17	670.70	670.70
BE	1271+92.40	30.17	670.64	670.65
BF	1272+02.40	30.17	670.58	670.60
BG	1272+12.40	30.17	670.52	670.55
BH	1272+22.40	30.17	670.46	670.48
BI	1272+32.40	30.17	670.39	670.40
BJ	1272+42.40	30.17	670.31	670.31
CL. BRG. PIER 7	1272+47.40	30.17	670.27	670.27
BK	1272+57.40	30.17	670.19	670.20
BL	1272+67.40	30.17	670.11	670.12
BM	1272+77.40	30.17	670.02	670.04
BN	1272+87.40	30.17	669.92	669.94
BP	1272+97.40	30.17	669.83	669.84
BQ	1273+07.40	30.17	669.73	669.73
CL. BRG. PIER 8	1273+12.40	30.17	669.67	669.67
BR	1273+22.40	30.17	669.56	669.57
BS	1273+32.40	30.17	669.45	669.47
BT	1273+42.40	30.17	669.34	669.36
BU	1273+52.40	30.17	669.22	669.24
BV	1273+62.40	30.17	669.09	669.10
BW	1273+72.40	30.17	668.96	668.96
CL. BRG. PIER 9	1273+77.40	30.17	668.90	668.90
BX	1273+87.40	30.17	668.76	668.76
BY	1273+97.40	30.17	668.62	668.63
BZ	1274+07.40	30.17	668.48	668.49
CA	1274+17.40	30.17	668.33	668.34
CL. BRG. E. ABUT.	1274+27.40	30.17	668.18	668.18
BK. E. ABUT.	1274+30.38	30.17	668.13	668.13

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF DECK SLAB ELEVATIONS XIII, UNIT 3
STRUCTURE NO. 045-0039**

SHEET NO. S22 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	243
			CONTRACT NO. 60133	
			ILLINOIS FED. AID PROJECT	

BEAM 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 5	1271+31.78	37.25	670.79	670.79
CL E. BRG. PIER 5	1271+32.40	37.25	670.79	670.79
BA	1271+42.40	37.25	670.76	670.77
BB	1271+52.40	37.25	670.72	670.74
BC	1271+62.40	37.25	670.68	670.70
BD	1271+72.40	37.25	670.63	670.64
CL. BRG. PIER 6	1271+82.40	37.25	670.58	670.58
BE	1271+92.40	37.25	670.53	670.54
BF	1272+02.40	37.25	670.47	670.50
BG	1272+12.40	37.25	670.41	670.45
BH	1272+22.40	37.25	670.35	670.38
BI	1272+32.40	37.25	670.28	670.30
BJ	1272+42.40	37.25	670.20	670.21
CL. BRG. PIER 7	1272+47.40	37.25	670.16	670.16
BK	1272+57.40	37.25	670.08	670.09
BL	1272+67.40	37.25	670.00	670.02
BM	1272+77.40	37.25	669.91	669.94
BN	1272+87.40	37.25	669.81	669.85
BP	1272+97.40	37.25	669.72	669.74
BQ	1273+07.40	37.25	669.61	669.62
CL. BRG. PIER 8	1273+12.40	37.25	669.56	669.56
BR	1273+22.40	37.25	669.45	669.47
BS	1273+32.40	37.25	669.34	669.37
BT	1273+42.40	37.25	669.23	669.27
BU	1273+52.40	37.25	669.10	669.14
BV	1273+62.40	37.25	668.98	669.00
BW	1273+72.40	37.25	668.85	668.86
CL. BRG. PIER 9	1273+77.40	37.25	668.78	668.78
BX	1273+87.40	37.25	668.65	668.66
BY	1273+97.40	37.25	668.51	668.53
BZ	1274+07.40	37.25	668.37	668.39
CA	1274+17.40	37.25	668.22	668.23
CL. BRG. E. ABUT.	1274+27.40	37.25	668.07	668.07
BK. E. ABUT.	1274+30.38	37.25	668.02	668.02

BEAM 14

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for DL Deflection
CL. PIER 5	1271+31.78	44.83	670.65	670.65
CL E. BRG. PIER 5	1271+32.40	44.83	670.65	670.65
BA	1271+42.40	44.83	670.62	670.63
BB	1271+52.40	44.83	670.58	670.60
BC	1271+62.40	44.83	670.54	670.56
BD	1271+72.40	44.83	670.49	670.50
CL. BRG. PIER 6	1271+82.40	44.83	670.44	670.44
BE	1271+92.40	44.83	670.39	670.40
BF	1272+02.40	44.83	670.33	670.36
BG	1272+12.40	44.83	670.27	670.31
BH	1272+22.40	44.83	670.20	670.24
BI	1272+32.40	44.83	670.13	670.16
BJ	1272+42.40	44.83	670.06	670.06
CL. BRG. PIER 7	1272+47.40	44.83	670.02	670.02
BK	1272+57.40	44.83	669.94	669.95
BL	1272+67.40	44.83	669.86	669.88
BM	1272+77.40	44.83	669.77	669.80
BN	1272+87.40	44.83	669.67	669.71
BP	1272+97.40	44.83	669.58	669.59
BQ	1273+07.40	44.83	669.47	669.48
CL. BRG. PIER 8	1273+12.40	44.83	669.42	669.42
BR	1273+22.40	44.83	669.31	669.32
BS	1273+32.40	44.83	669.20	669.23
BT	1273+42.40	44.83	669.08	669.12
BU	1273+52.40	44.83	668.96	669.00
BV	1273+62.40	44.83	668.84	668.86
BW	1273+72.40	44.83	668.71	668.71
CL. BRG. PIER 9	1273+77.40	44.83	668.64	668.64
BX	1273+87.40	44.83	668.51	668.51
BY	1273+97.40	44.83	668.37	668.39
BZ	1274+07.40	44.83	668.22	668.25
CA	1274+17.40	44.83	668.07	668.09
CL. BRG. E. ABUT.	1274+27.40	44.83	667.92	667.92
BK. E. ABUT.	1274+30.38	44.83	667.87	667.87

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF DECK SLAB ELEVATIONS XIV, UNIT 3
STRUCTURE NO. 045-0039**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	244
CONTRACT NO. 60133			ILLINOIS FED. AID PROJECT	

NORTH GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	1267+95.04	-49.50	669.20
A1	1268+05.01	-49.41	669.31
A2	1268+14.98	-49.31	669.42
E. End of W. Appr. Slab	1268+24.80	-48.83	669.53

NORTH EDGE OF SHOULDER & SLOPE BREAK LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	1267+92.72	-43.12	669.31
A1	1268+02.65	-42.93	669.42
A2	1268+12.58	-42.73	669.53
E. End of W. Appr. Slab	1268+22.51	-42.53	669.63

WB PG

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	1267+78.30	-3.50	669.76
A1	1267+88.30	-3.50	669.88
A2	1267+98.30	-3.50	669.99
E. End of W. Appr. Slab	1268+08.30	-3.50	670.10

☉ U.S. RTE. 30 & STAGE CONST. LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	1267+77.03	0.00	669.80
A1	1267+87.03	0.00	669.92
A2	1267+97.03	0.00	670.03
E. End of W. Appr. Slab	1268+07.03	0.00	670.14

EB PG

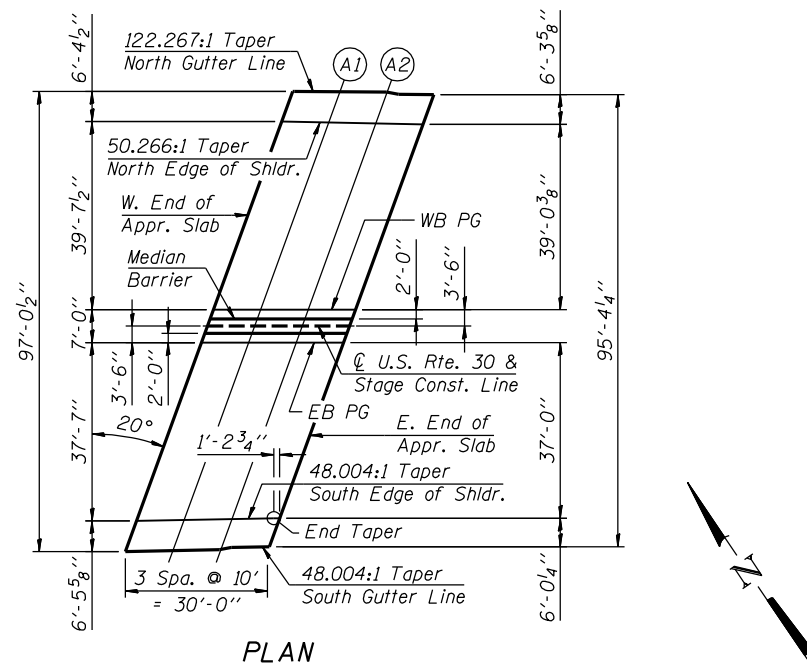
Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	1267+75.76	3.50	669.73
A1	1267+85.76	3.50	669.85
A2	1267+95.76	3.50	669.96
E. End of W. Appr. Slab	1268+05.76	3.50	670.07

SOUTH EDGE OF SHOULDER & SLOPE BREAK LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	1267+62.08	41.08	668.98
A1	1267+72.15	40.88	669.11
A2	1267+82.22	40.68	669.23
E. End of W. Appr. Slab	1267+92.29	40.50	669.35

SOUTH GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	1267+59.72	47.54	668.81
A1	1267+69.80	47.34	668.94
A2	1267+79.89	47.09	669.07
E. End of W. Appr. Slab	1267+90.10	46.52	669.20



PLAN

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NORTH GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	1274+19.63	-34.50	668.20
A1	1274+29.63	-34.50	668.04
A2	1274+39.63	-34.50	667.89
E. End of E. Appr. Slab	1274+49.63	-34.50	667.72

NORTH EDGE OF SHOULDER & SLOPE BREAK LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	1274+20.58	-28.50	668.31
A1	1274+30.58	-28.50	668.15
A2	1274+40.58	-28.50	668.00
E. End of E. Appr. Slab	1274+50.58	-28.50	667.83

WB PG

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	1274+24.54	-3.50	668.64
A1	1274+34.54	-3.50	668.48
A2	1274+44.54	-3.50	668.32
E. End of E. Appr. Slab	1274+54.54	-3.50	668.16

U.S. RTE. 30 & STAGE CONST. LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	1274+25.09	0.00	668.68
A1	1274+35.09	0.00	668.53
A2	1274+45.09	0.00	668.37
E. End of E. Appr. Slab	1274+55.09	0.00	668.21

EB PG

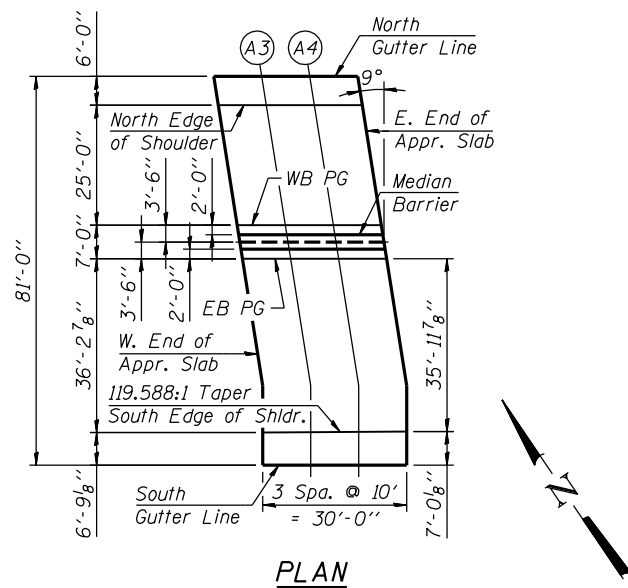
Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	1274+25.65	3.50	668.62
A1	1274+35.65	3.50	668.46
A2	1274+45.65	3.50	668.31
E. End of E. Appr. Slab	1274+55.65	3.50	668.14

SOUTH EDGE OF SHOULDER & SLOPE BREAK LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	1274+29.84	39.74	667.99
A1	1274+39.84	39.66	667.83
A2	1274+49.84	39.57	667.67
E. End of E. Appr. Slab	1274+59.84	39.49	667.51

SOUTH GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	1274+29.84	46.50	667.85
A1	1274+39.84	46.50	667.69
A2	1274+49.84	46.50	667.53
E. End of E. Appr. Slab	1274+59.84	46.50	667.36

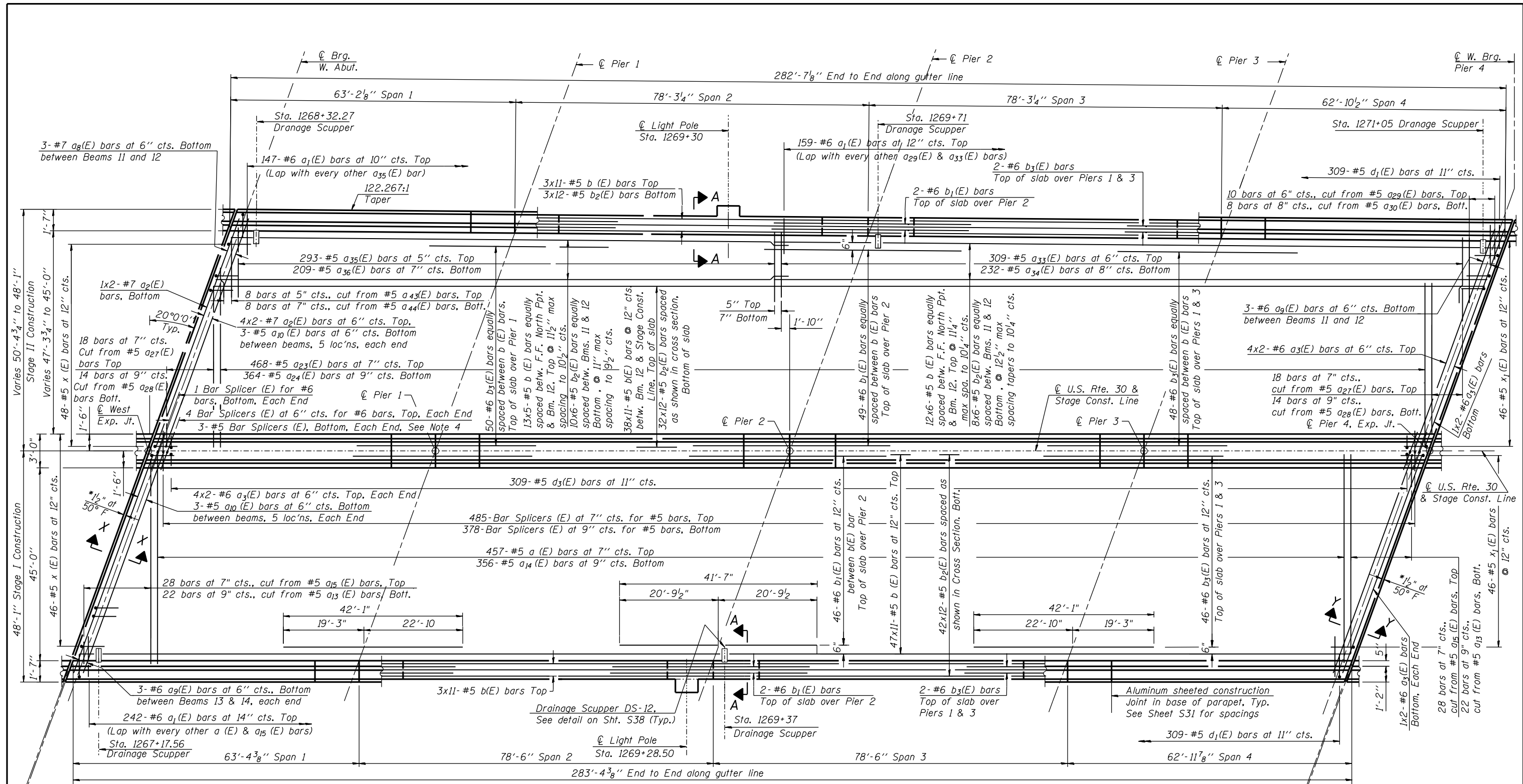


PLAN

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	246
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



NOTES

1. See Sheets S29, S31 and S34 thru S36 for sections, deck details, parapet reinforcement, and Bill of Material.
2. See Sheets S4 and S5 for Construction Staging.
3. Cut longitudinal reinforcement to clear drainage scuppers.
4. Bar Splicers placed in bottom of edge beam between Girders 5 and 6 shall lap with nothing.
5. *Expansion joint dimensions are based on Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Base Sheet EJ-SSJ.

UNIT 1 PLAN

MINIMUM BAR LAP

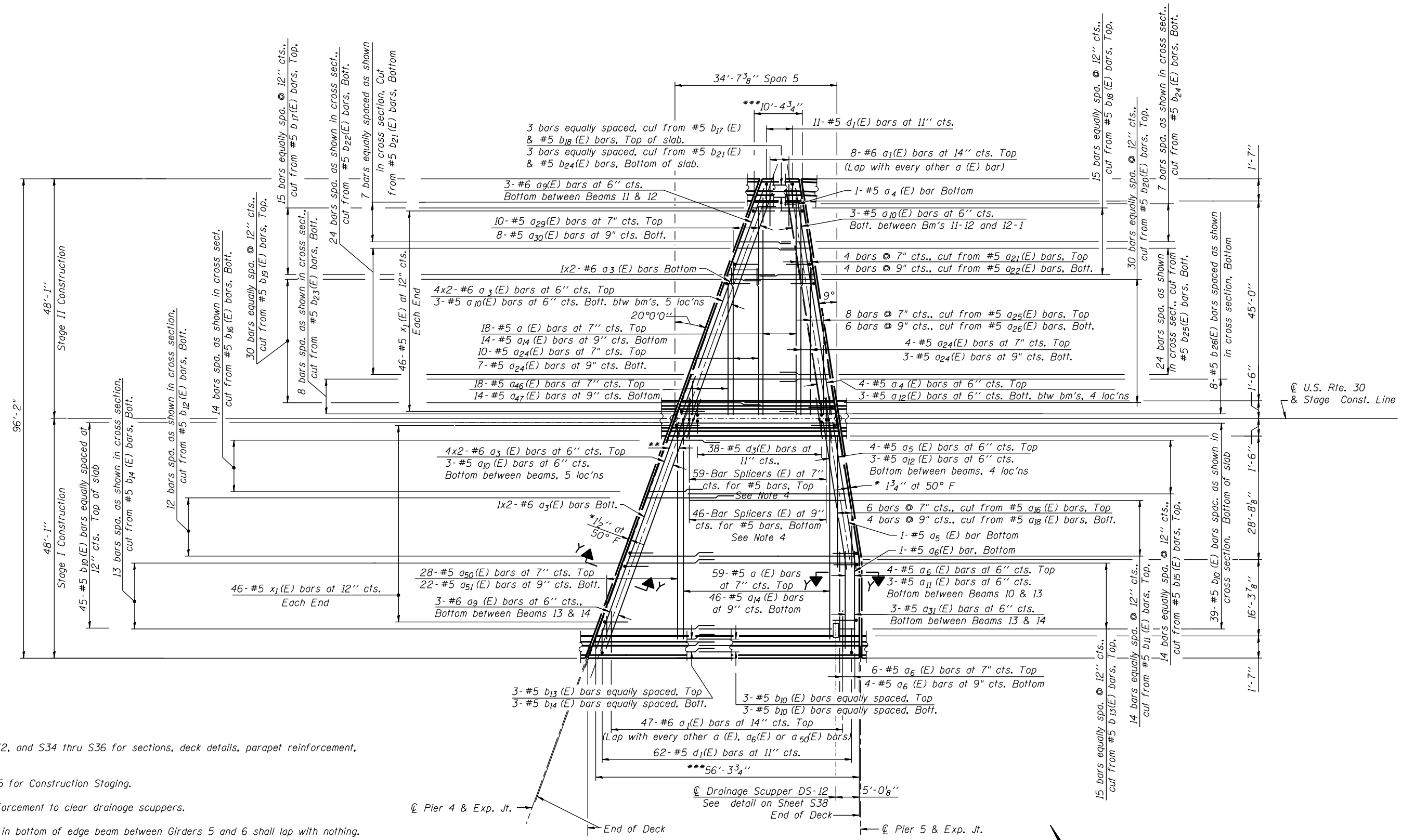
- #5 bar = 3'-3"
- #6 bar = 3'-10"
- #7 bar = 5'-2"

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	247
CONTRACT NO. 60133			ILLINOIS FED. AID PROJECT	

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@ U.S. Rte. 30
 & Stage Const. Line

NOTES

- See Sheets S29, S32, and S34 thru S36 for sections, deck details, parapet reinforcement, and Bill of Material.
- See Sheets S4 & S5 for Construction Staging.
- Cut longitudinal reinforcement to clear drainage scuppers.
- Bar Splicers placed in bottom of edge beam between Girders 5 and 6 shall lap with nothing.
- * Expansion joint dimensions are based on Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Base Sheet EJ-SSJ.
- ** 4 Bar Slicers (E) at 6" cts. for #6 bars top; 1 Bar Splicer (E) for #6 bar Bott., and 3 Bar Splicers (E) for #5 bars, Bott., Each End.
- *** Indicates Dimensions taken along gutter lines.

MINIMUM BAR LAP

#5 bar = 3'-3"
 #6 bar = 3'-10"

UNIT 2 PLAN



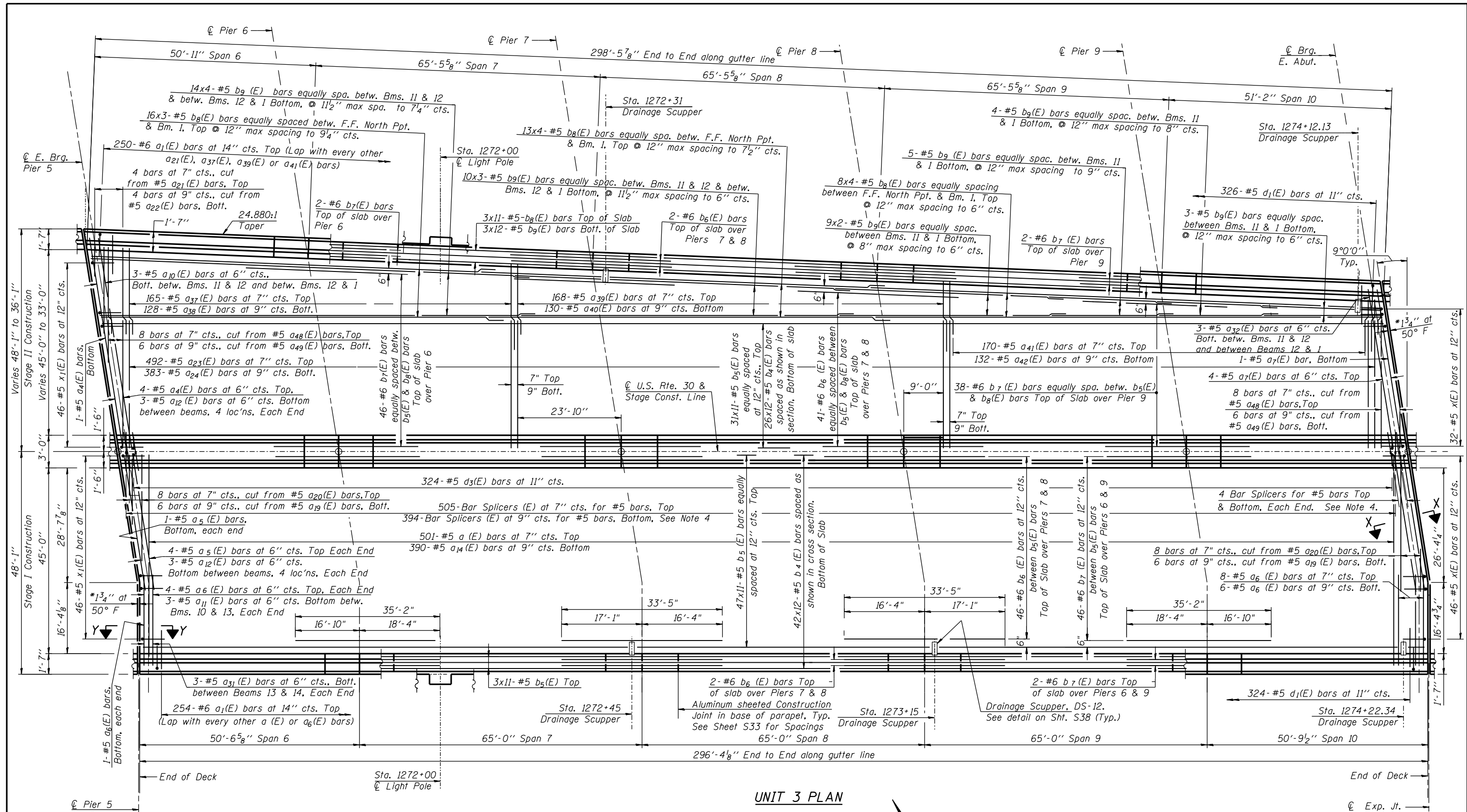
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN UNIT 2
STRUCTURE NO. 045-0039

SHEET NO. S27 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	248
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



UNIT 3 PLAN

NOTES

- See Sheets S30, S33 and S34 thru S36 for deck details, parapet, reinforcement, and Bill of Material.
- See Sheets S4 and S5 for Construction Staging.
- Cut longitudinal reinforcement to clear drainage scuppers.
- Bar Splicers placed in bottom of edge beam between Girders 5 and 6 shall lap with nothing.
- *Expansion joint dimensions are based on Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Base Sheet EJ-SSJ.

MINIMUM BAR LAP

#5 bar = 3'-3"
#6 bar = 3'-10"

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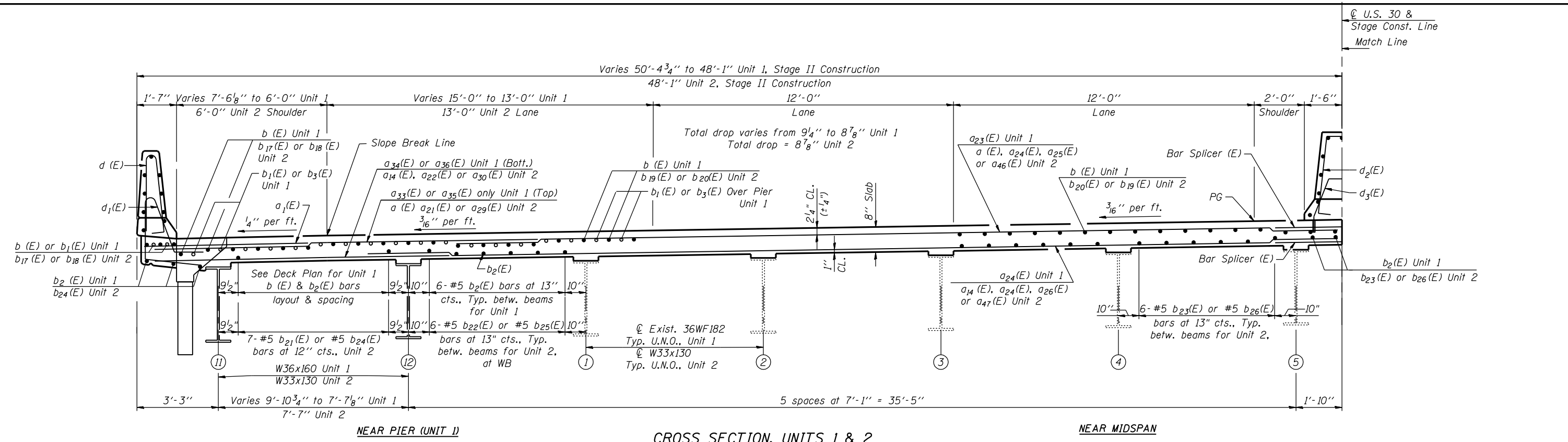
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK PLAN UNIT 3
STRUCTURE NO. 045-0039**

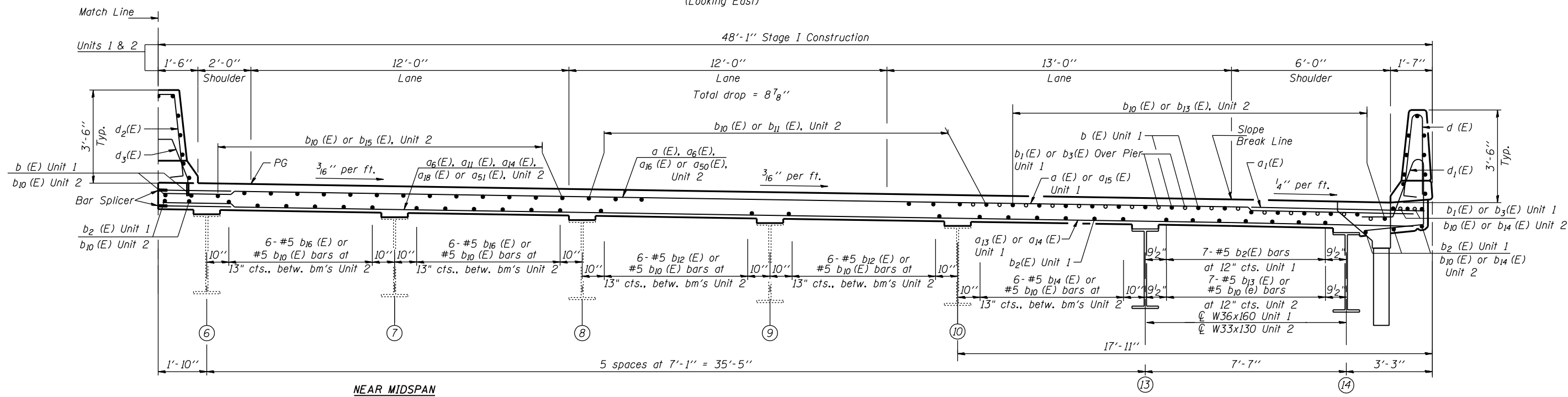
SHEET NO. S28 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	249
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



CROSS SECTION, UNITS 1 & 2

WEST BOUND
(Looking East)



CROSS SECTION, UNITS 1 & 2

EAST BOUND
(Looking East)

NOTES

1. See Sheets S34 thru S36 for deck details, parapet reinforcement, and Bill of Material.
2. See Sheets S4 and S5 for Construction Staging.
3. Cut longitudinal reinforcement to clear drainage scuppers.

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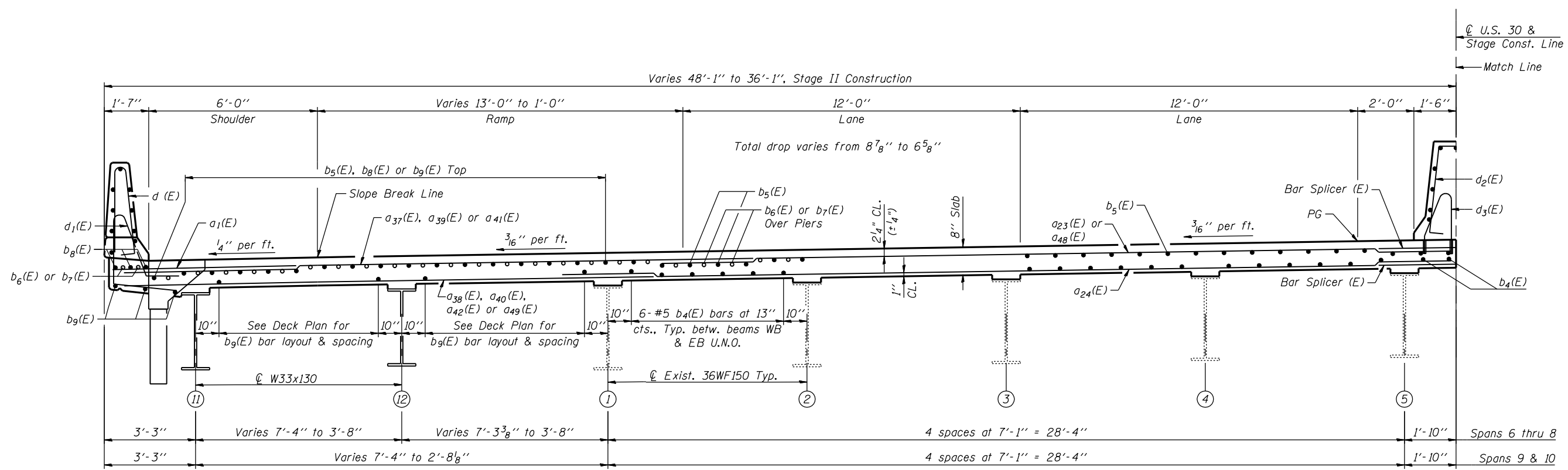
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DEPARTMENT OF TRANSPORTATION

DECK CROSS SECTION UNITS 1 & 2
STRUCTURE NO. 045-0039

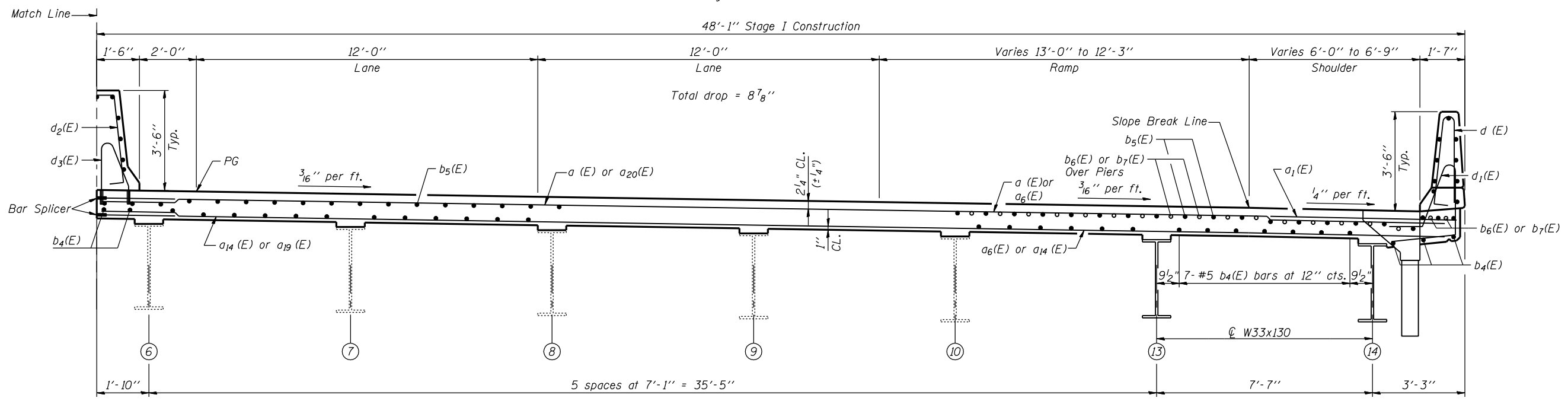
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	250
CONTRACT NO. 60133				

ILLINOIS FED. AID PROJECT



CROSS SECTION, UNIT 3
WEST BOUND
(Looking East)



CROSS SECTION, UNIT 3
EAST BOUND
(Looking East)

- NOTES**
- See Sheets S34 thru S36 for deck details, parapet reinforcement, and Bill of Material.
 - See Sheets S4 and S5 for Construction Staging.
 - Cut longitudinal reinforcement to clear drainage scuppers.

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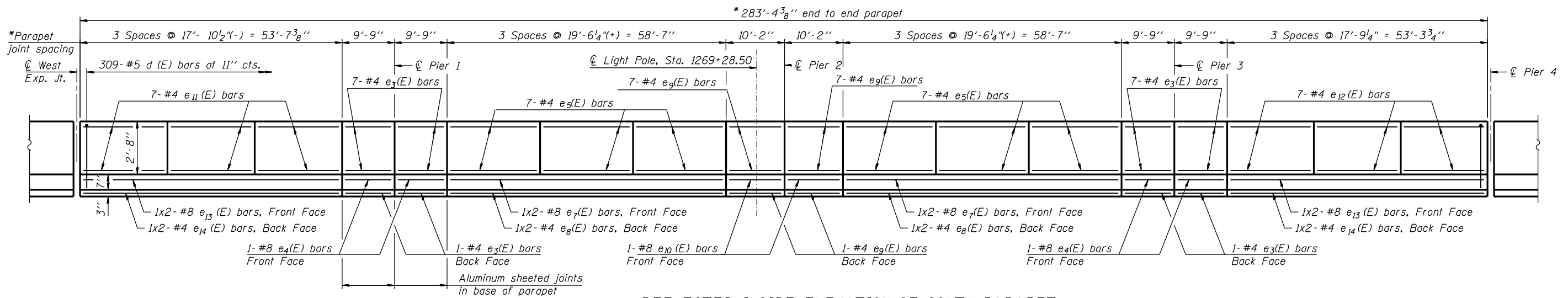
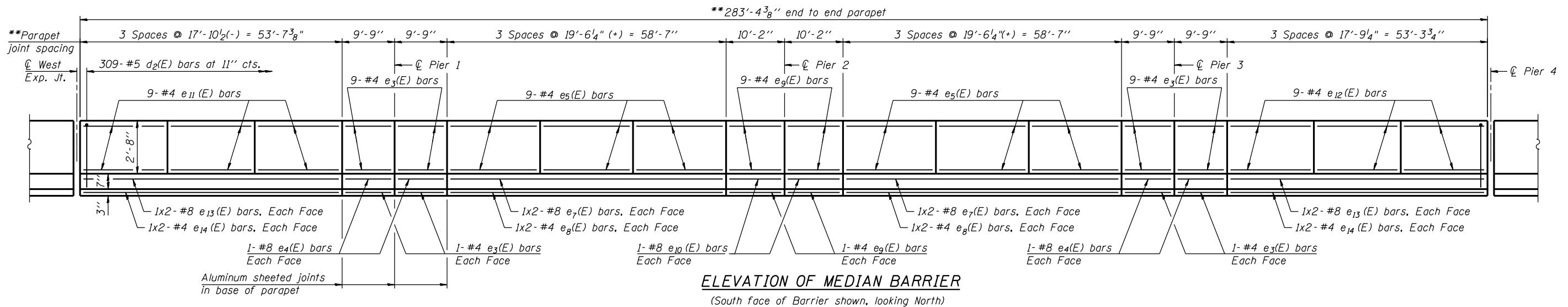
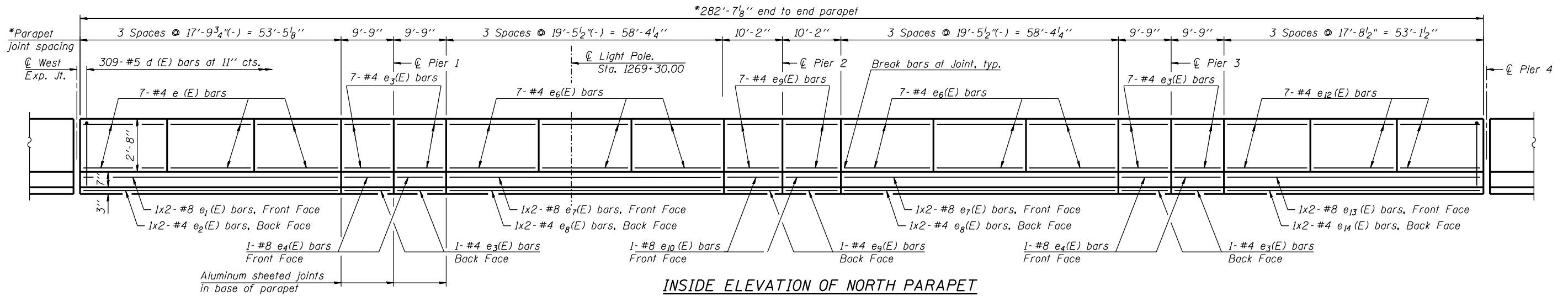
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 Chicago, Illinois 60631; (773) 399-0112

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK CROSS SECTION UNIT 3
STRUCTURE NO. 045-0039
 SHEET NO. S30 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	251
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



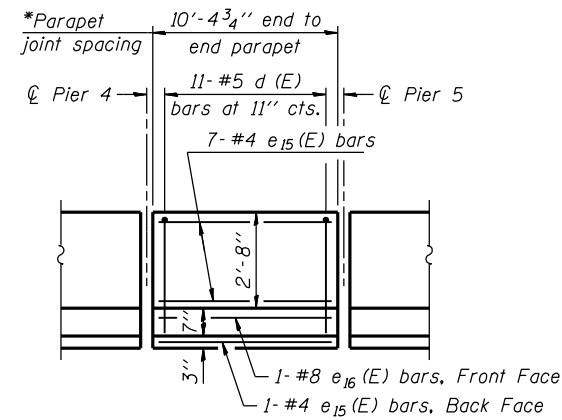
MINIMUM BAR LAP
(Parapet)
#4 bar = 2'-11"
#8 bar = 7'-8"

- NOTES:**
- * Longitudinal parapet dimensions taken along gutter line.
 - ** Longitudinal barrier median dimensions taken along median centerline.
 - For Light Pole See Detail on Sheet S34.

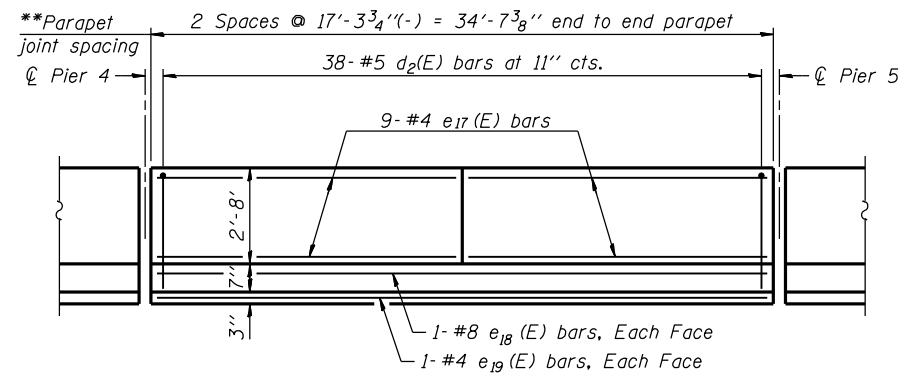
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PLOT DATE =	CHECKED - E.E.J. 6/15/2012	REVISED -

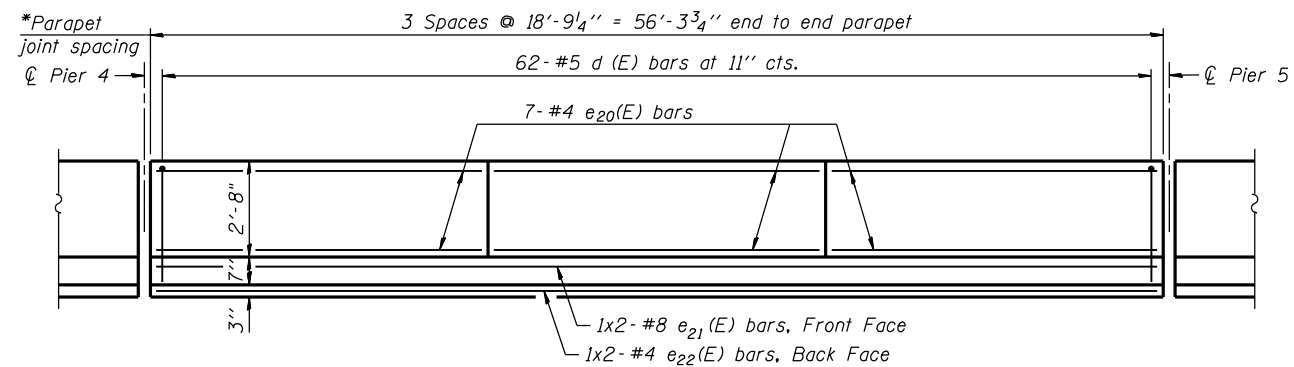
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	252
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



INSIDE ELEVATION OF NORTH PARAPET



ELEVATION OF MEDIAN BARRIER
(South face of Barrier shown, looking North)



REFLECTED INSIDE ELEVATION OF SOUTH PARAPET

MINIMUM BAR LAP
(Parapet)
#4 bar = 2'-11"
#8 bar = 7'-8"

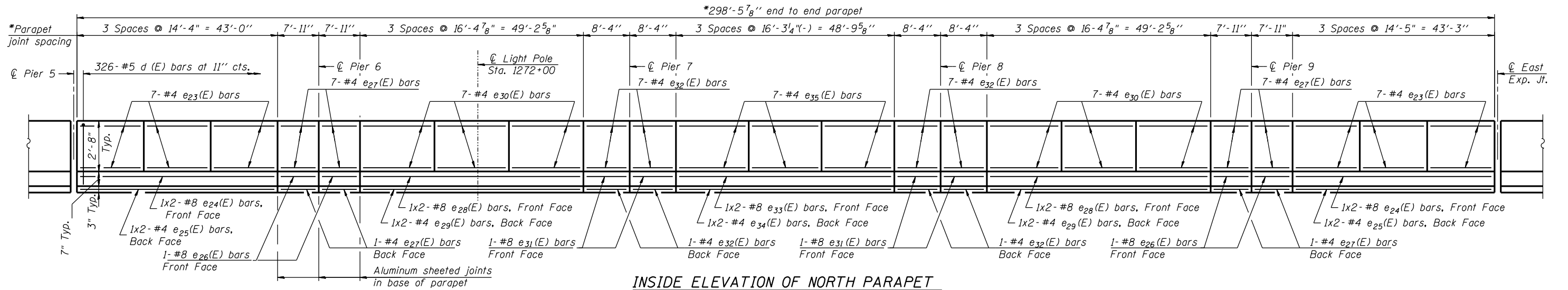
NOTES

- * Longitudinal parapet dimensions taken along gutter line.
- ** Longitudinal barrier median dimensions taken along median centerline.

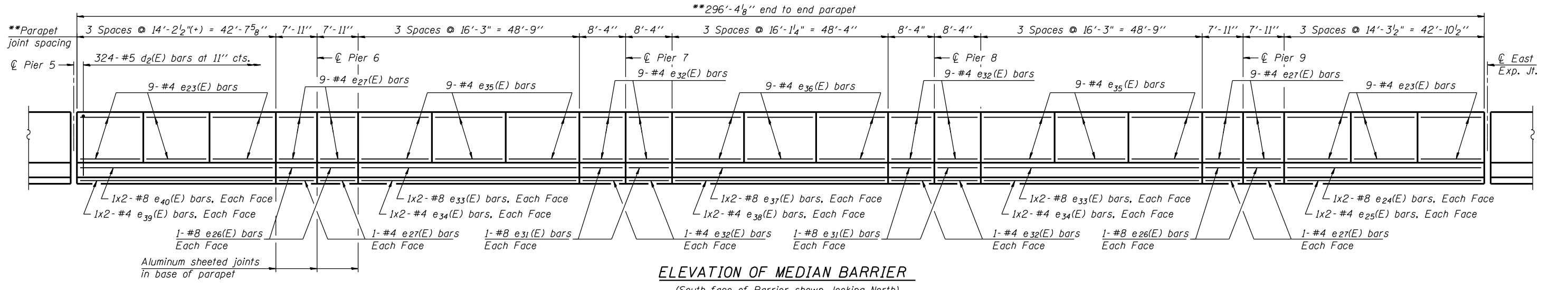
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PLOT DATE =	CHECKED - E.E.J. 6/15/2012	REVISED -

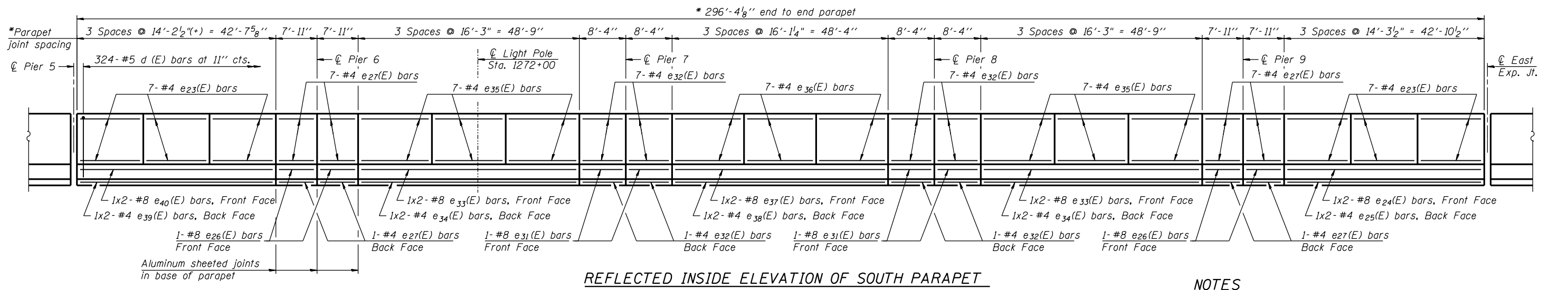
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	253
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60133	



INSIDE ELEVATION OF NORTH PARAPET



ELEVATION OF MEDIAN BARRIER
(South face of Barrier shown, looking North)



REFLECTED INSIDE ELEVATION OF SOUTH PARAPET

MINIMUM BAR LAP
(Parapet)
#4 bar = 2'-11"
#8 bar = 7'-8"

- NOTES**
- * Longitudinal parapet dimensions taken along gutter line.
 - ** Longitudinal barrier median dimensions taken along median centerline.
 - For Light Pole see Detail on Sheet S34.

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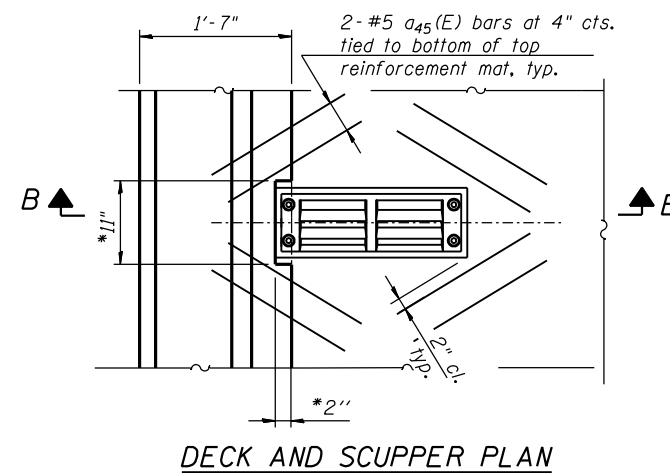
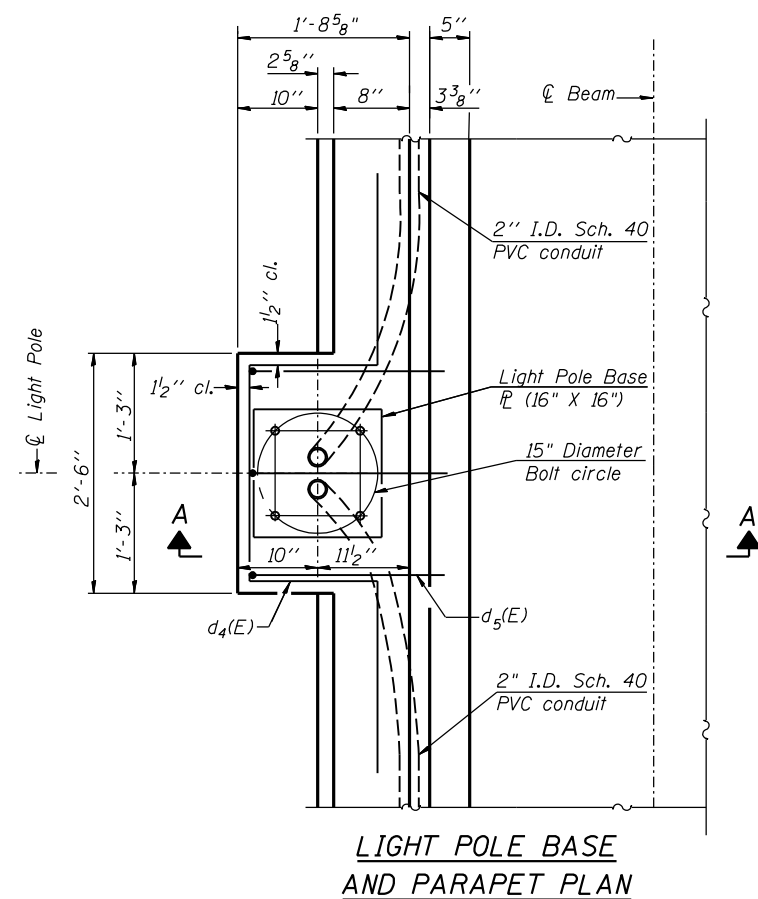
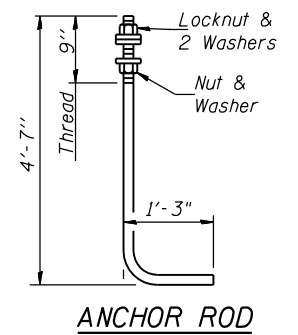
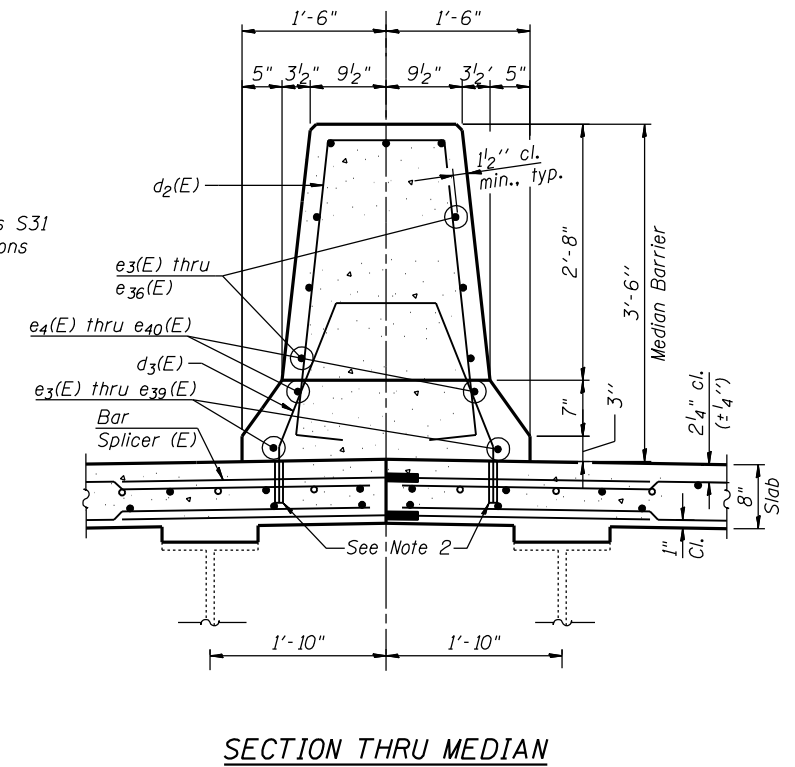
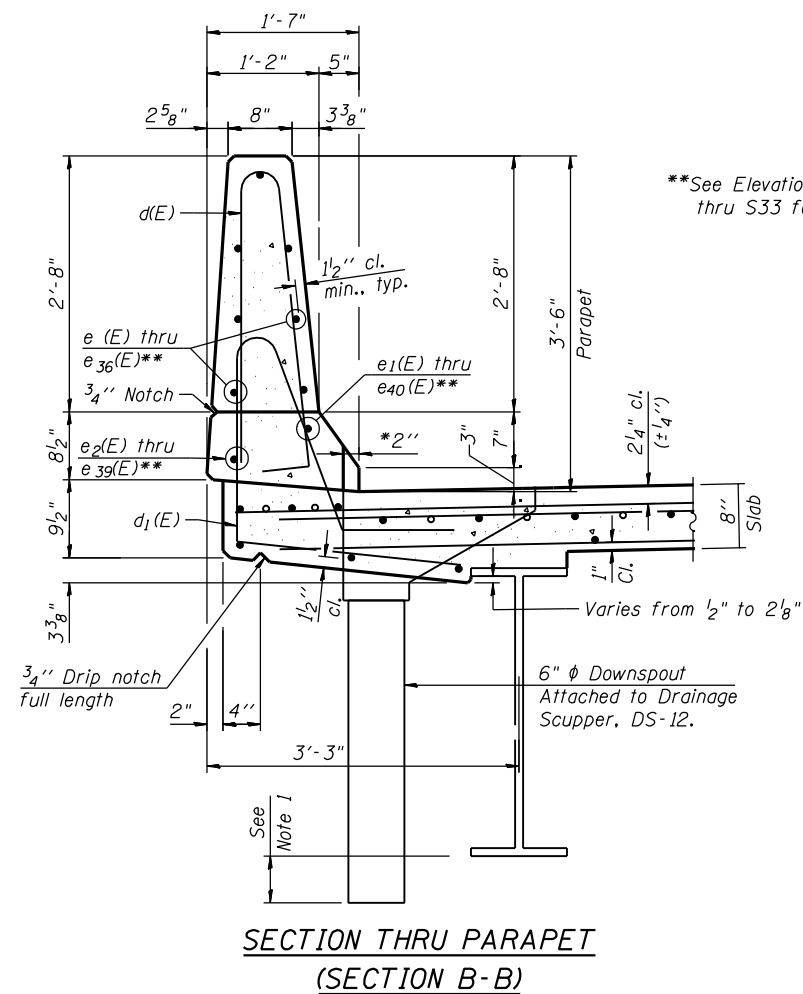
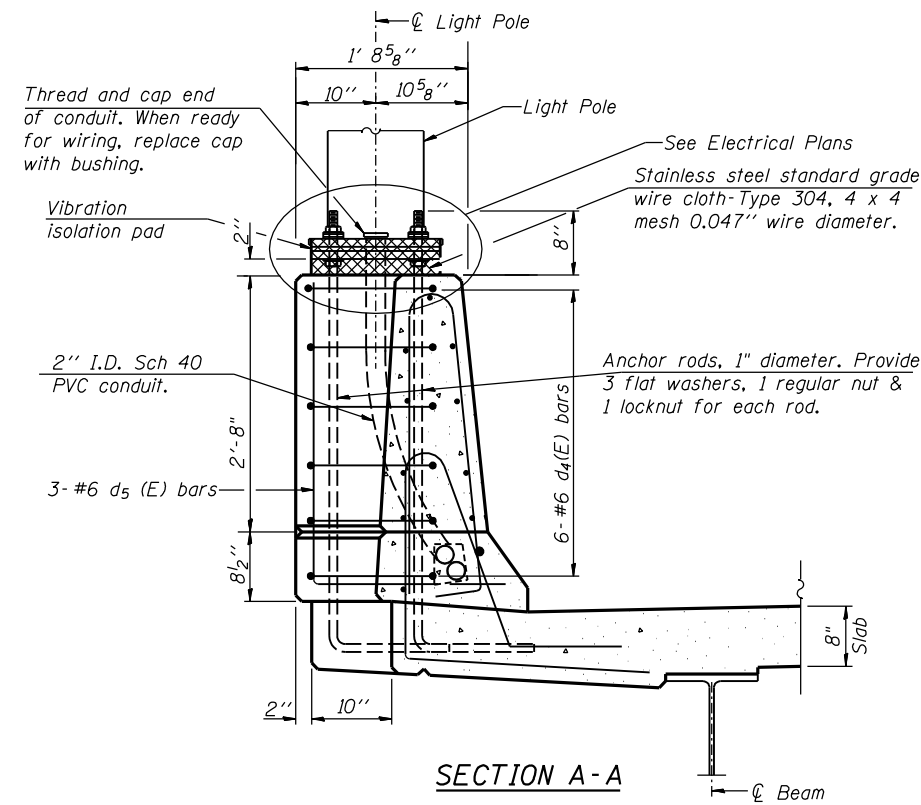


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PLOT DATE =	CHECKED - E.E.J. 6/15/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPETS UNIT 3
STRUCTURE NO. 045-0039
SHEET NO. S33 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	254
CONTRACT NO. 60133			ILLINOIS FED. AID PROJECT	



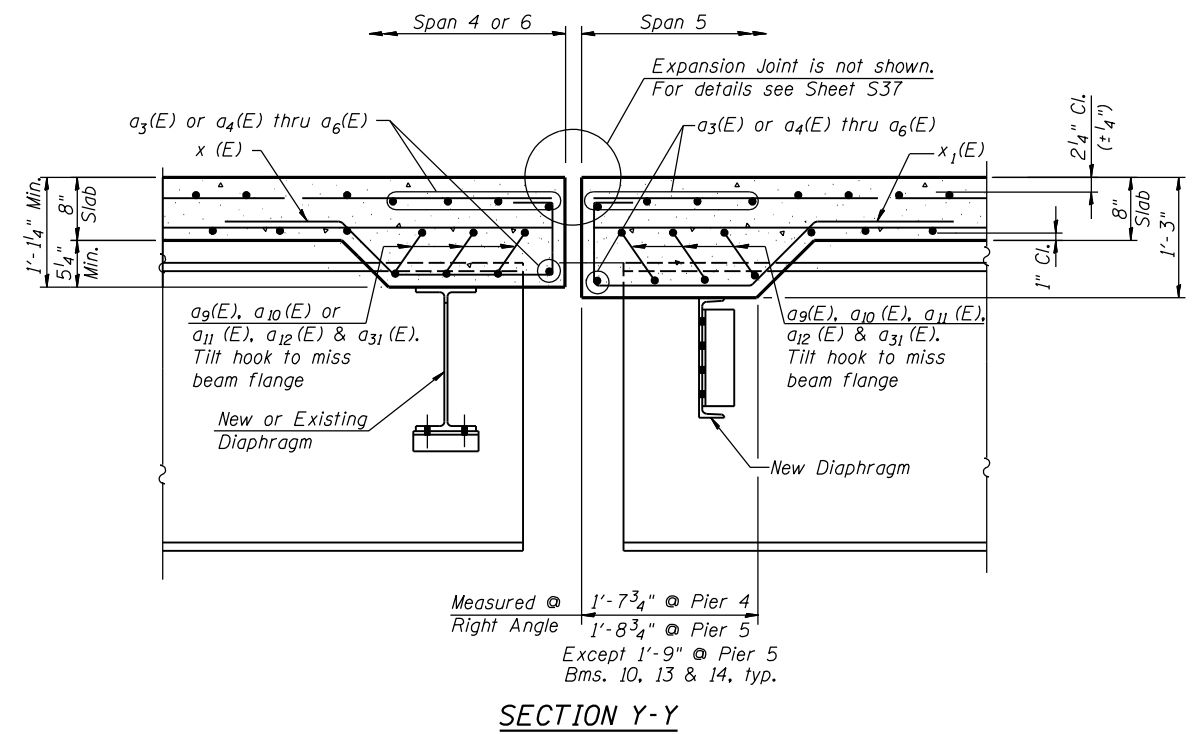
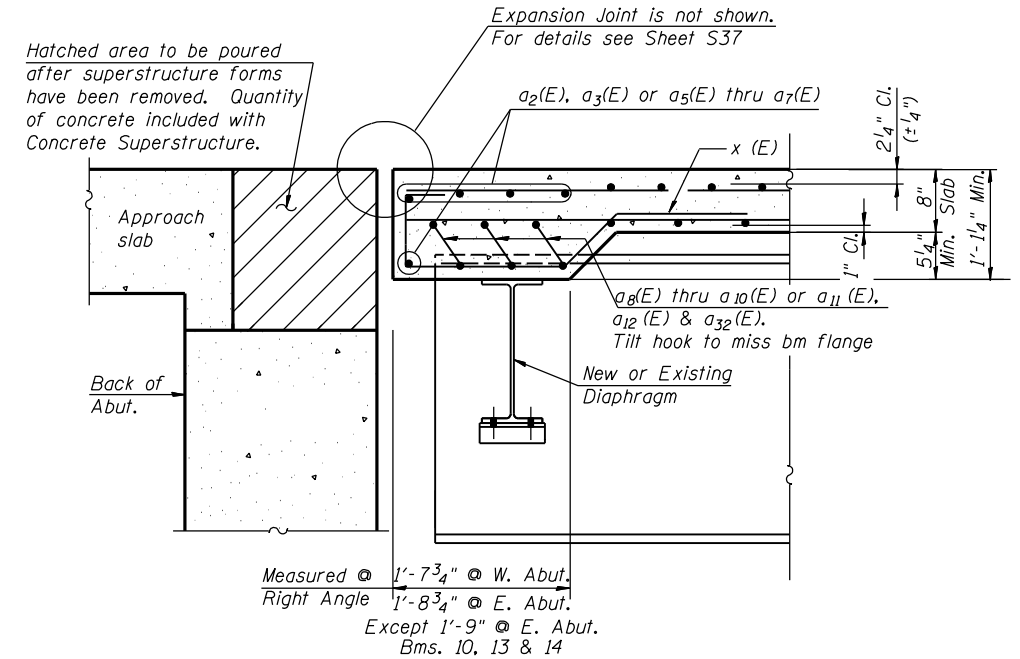
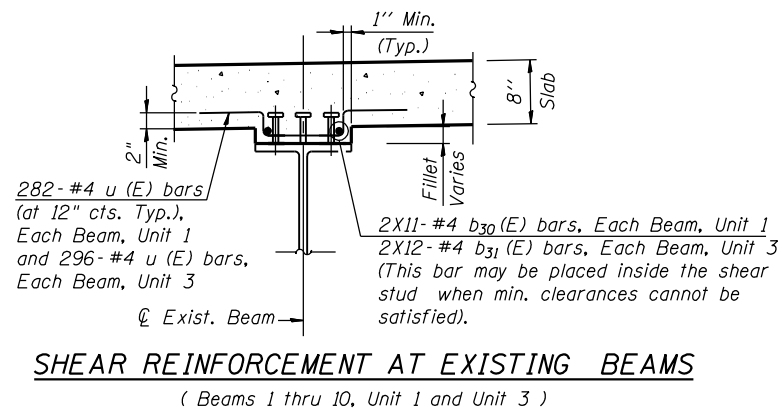
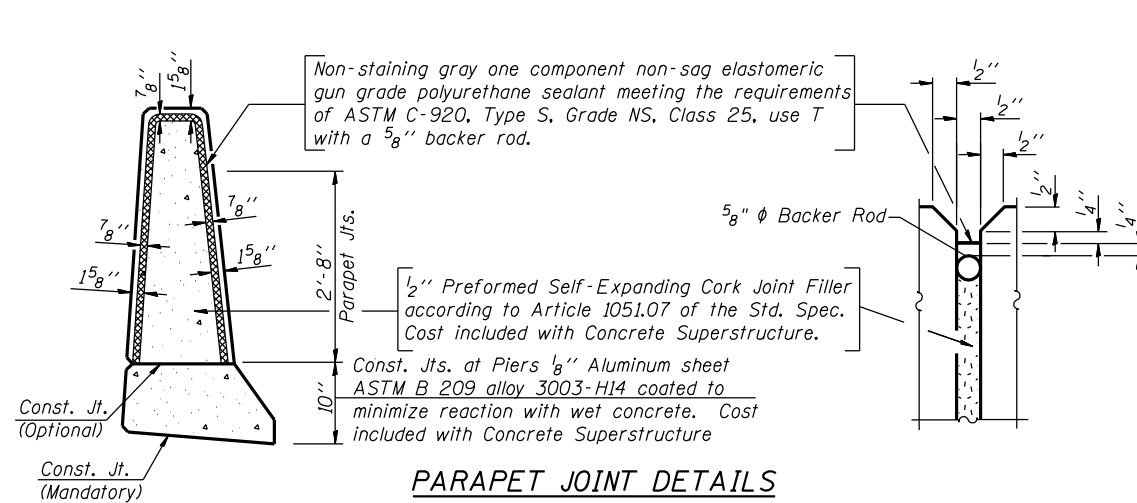
NOTES:

1. Use 6" for the 4 downspouts at the abutments. This dimension will be determined by the Contractor to allow discharge to downspouts attached to the piers.
2. Core and set #5 d₃(E) bar according to Article 509.06 of the Standard Specifications. Cored holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 6".
3. Cut longitudinal reinforcement to clear Drainage Scuppers.
4. Cost of anchor rods, nuts and washers for light poles and conduit is included with Concrete Superstructure. See Electrical Plans for details and payment of other electrical components.
5. *Notch Parapet 11" X 2" to allow placement of Scuppers and future removal of grate. 2" dimension may be reduced if Scupper can be moved closer to fascia beam.
6. Anchor Rods for Light Poles shall be ASTM F1554, Grade 105 and shall be fully hot dip galvanized.
7. Electrical conduit in parapet shall have a minimum clearance of 1/2" from reinforcement bars.

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PLOT SCALE =	DRAWN - R.K.-Z. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - J.J.C. 6/15/2012	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	255
CONTRACT NO. 60133				



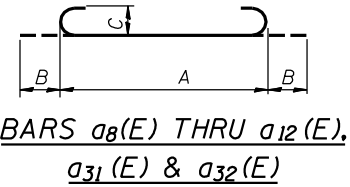
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CHECKED - J.Z. 6/15/2012	REVISIONS -	
PLOT SCALE =	DRAWN - R.K.-Z. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - J.J.G. 6/15/2012	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	256
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				

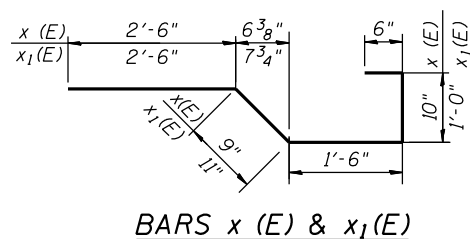
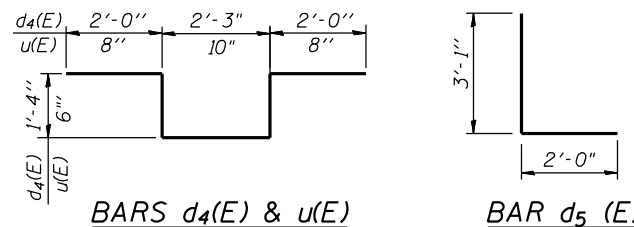
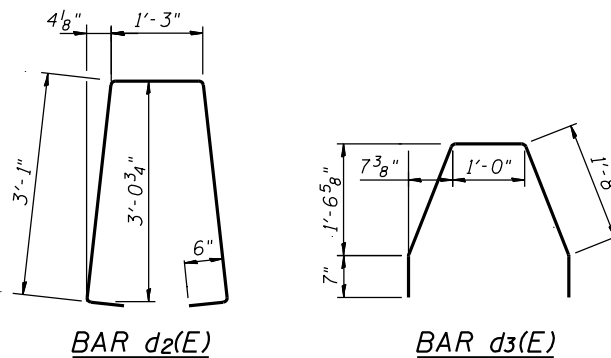
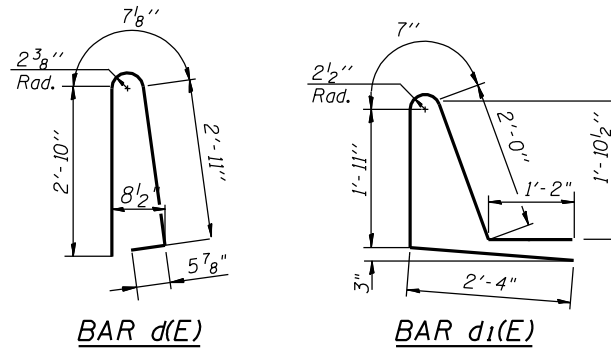
DIMENSIONS FOR BAR CUTTING DIAGRAM

Bar	A	B	C	D	E	F
a13(E)	22	3'-6"	46'-9"	46'-9"	3'-6"	50'-3"
a15(E)	28	3'-9"	47'-0"	47'-0"	3'-9"	50'-9"
a16(E)	3	1'-10"	30'-3"	19'-2"	22'-11"	42'-1"
a18(E)	2	25'-6"	20'-9"	30'-3"	16'-1"	46'-3"
a19(E)	6	28'-3"	4'-8"	4'-8"	28'-3"	32'-11"
a20(E)	8	28'-3"	2'-7"	2'-7"	28'-3"	30'-10"
a21(E)	4	15'-4"	4'-4"	4'-4"	15'-4"	19'-8"
a22(E)	3	15'-4"	4'-4"	4'-4"	15'-4"	19'-8"
a25(E)	4	28'-10"	3'-1"	17'-10"	14'-1"	31'-11"
a26(E)	3	29'-5"	5'-8"	20'-0"	15'-1"	35'-1"
a27(E)	18	31'-5"	4'-3"	4'-3"	31'-5"	35'-8"
a28(E)	14	31'-5"	4'-8"	4'-8"	31'-5"	36'-1"
a29(E)	10	17'-11"	3'-6"	3'-6"	17'-11"	21'-5"
a30(E)	8	17'-11"	5'-1"	5'-1"	17'-11"	23'-0"
a43(E)	4	21'-3"	4'-1"	13'-3"	12'-1"	25'-4"
a44(E)	4	21'-7"	3'-11"	13'-6"	12'-0"	25'-6"
a46(E)	9	17'-0"	18'-8"	4'-3"	31'-5"	35'-8"
a47(E)	7	17'-0"	19'-1"	4'-8"	31'-5"	36'-1"
a48(E)	8	28'-10"	6'-9"	6'-9"	28'-10"	35'-7"
a49(E)	6	27'-10"	4'-3"	4'-3"	27'-10"	32'-1"
a50(E)	14	26'-2"	24'-7"	47'-0"	3'-9"	50'-9"
a51(E)	11	26'-2"	24'-1"	46'-9"	3'-6"	50'-3"
b11(E)	7	18'-4"	11'-8"	15'-2"	15'-2"	30'-0"
b12(E)	6	18'-10"	12'-2"	15'-10"	15'-2"	31'-0"
b13(E)	9	25'-4"	19'-2"	22'-5"	22'-1"	44'-6"
b14(E)	8	19'-10"	25'-4"	22'-5"	22'-9"	45'-2"
b15(E)	7	20'-0"	12'-1"	16'-3"	15'-10"	32'-1"
b16(E)	7	19'-8"	11'-11"	16'-1"	15'-6"	31'-7"
b17(E)	9	6'-11"	7'-3"	4'-0"	10'-2"	14'-2"
b18(E)	9	11'-6"	8'-9"	10'-2"	10'-1"	20'-3"
b19(E)	15	17'-11"	7'-3"	12'-9"	12'-5"	25'-2"
b20(E)	15	19'-6"	14'-10"	17'-3"	17'-1"	34'-4"
b21(E)	5	10'-8"	10'-4"	12'-2"	8'-10"	21'-0"
b22(E)	12	17'-6"	17'-2"	22'-3"	12'-5"	34'-8"
b23(E)	4	24'-5"	24'-1"	25'-10"	22'-8"	48'-6"
b24(E)	5	4'-8"	6'-2"	5'-4"	5'-6"	10'-10"
b25(E)	12	6'-3"	10'-7"	8'-4"	8'-6"	16'-10"
b26(E)	4	10'-8"	12'-2"	11'-4"	11'-6"	22'-10"



BAR DIMENSIONS

Bar	A	B	C
a8(E)	10'-3"	10"	7"
a9(E)	7'-9"	8"	6"
a10(E)	7'-3"	7"	5"
a11(E)	6'-9"	7"	5"
a12(E)	6'-10"	7"	5"
a31(E)	7'-4"	8"	6"
a32(E)	2'-5"	7"	5"



SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.				Size	Length	Shape
	Unit 1	Unit 2	Unit 3	Total			
a	457	77	501	1035	#5	47'-8"	---
a1(E)	548	55	504	1107	#6	6'-6"	---
a2(E)	10	-	-	10	#7	29'-2"	---
a3(E)	30	20	-	50	#6	27'-3"	---
a4(E)	-	5	5	10	#5	48'-2"	---
a5(E)	-	5	10	15	#5	32'-0"	---
a6(E)	-	15	24	39	#5	19'-3"	---
a7(E)	-	-	5	5	#5	36'-0"	---
a8(E)	3	-	-	3	#7	11'-11"	---
a9(E)	9	6	-	15	#6	9'-1"	---
a10(E)	60	36	6	102	#5	8'-5"	---
a11(E)	-	3	6	9	#5	7'-11"	---
a12(E)	-	24	48	72	#5	8'-0"	---
a13(E)	22	-	-	22	#5	50'-3"	---
a14(E)	356	60	390	806	#5	47'-3"	---
a15(E)	28	-	-	28	#5	50'-9"	---
a16(E)	-	3	-	3	#5	42'-1"	---
a18(E)	-	2	-	2	#5	46'-3"	---
a19(E)	-	-	6	6	#5	32'-11"	---
a20(E)	-	-	8	8	#5	30'-10"	---
a21(E)	-	2	2	4	#5	19'-8"	---
a22(E)	-	2	2	4	#5	19'-8"	---
a23(E)	468	-	492	960	#5	31'-7"	---
a24(E)	364	24	383	771	#5	31'-9"	---
a25(E)	-	4	-	4	#5	31'-11"	---
a26(E)	-	3	-	3	#5	35'-1"	---
a27(E)	18	-	-	18	#5	35'-8"	---
a28(E)	14	-	-	14	#5	36'-1"	---
a29(E)	5	5	-	10	#5	21'-5"	---
a30(E)	4	4	-	8	#5	23'-0"	---
a31(E)	-	3	6	9	#6	8'-8"	---
a32(E)	-	-	6	6	#5	3'-7"	---
a33(E)	309	-	-	309	#5	21'-2"	---
a34(E)	232	-	-	232	#5	20'-4"	---
a35(E)	293	-	-	293	#5	21'-7"	---
a36(E)	209	-	-	209	#5	21'-4"	---
a37(E)	-	-	165	165	#5	19'-3"	---
a38(E)	-	-	128	128	#5	19'-0"	---
a39(E)	-	-	168	168	#5	15'-3"	---
a40(E)	-	-	130	130	#5	15'-0"	---
a41(E)	-	-	170	170	#5	7'-3"	---
a42(E)	-	-	132	132	#5	7'-0"	---
a43(E)	4	-	-	4	#5	25'-4"	---
a44(E)	4	-	-	4	#5	25'-6"	---
a45(E)	40	8	40	88	#5	2'-0"	---
a46(E)	-	9	-	9	#5	35'-8"	---
a47(E)	-	7	-	7	#5	36'-1"	---
a48(E)	-	-	8	8	#5	35'-7"	---
a49(E)	-	-	6	6	#5	32'-1"	---
a50(E)	-	14	-	14	#5	50'-9"	---
a51(E)	-	11	-	11	#5	50'-3"	---
b(E)	1138	-	-	1138	#5	28'-10"	---
b1(E)	99	-	-	99	#6	41'-7"	---
b2(E)	1032	-	-	1032	#5	26'-8"	---
b3(E)	198	-	-	198	#6	42'-1"	---
b4(E)	-	-	816	816	#5	27'-9"	---
b5(E)	-	-	891	891	#5	29'-11"	---
b6(E)	-	-	182	182	#6	33'-5"	---
b7(E)	-	-	184	184	#6	35'-2"	---
b8(E)	-	-	165	165	#5	30'-2"	---
b9(E)	-	-	152	152	#5	27'-11"	---
b10(E)	-	90	-	90	#5	34'-4"	---
b11(E)	-	7	-	7	#5	33'-4"	---
b12(E)	-	6	-	6	#5	33'-4"	---
b13(E)	-	9	-	9	#5	45'-2"	---
b14(E)	-	8	-	8	#5	45'-2"	---
b15(E)	-	7	-	7	#5	18'-4"	---
b16(E)	-	7	-	7	#5	18'-4"	---
b17(E)	-	9	-	9	#5	14'-2"	---
b18(E)	-	9	-	9	#5	20'-3"	---
d(E)	618	73	650	1341	#5	6'-10"	---
d1(E)	618	73	650	1341	#5	8'-0"	---
d2(E)	309	38	324	671	#5	8'-5"	---
d3(E)	309	38	324	671	#5	5'-6"	---
d4(E)	12	-	12	24	#6	8'-11"	---
d5(E)	6	-	6	12	#6	5'-1"	---
e(E)	21	-	-	21	#4	17'-6"	---
e1(E)	2	-	-	2	#8	30'-5"	---
e2(E)	2	-	-	2	#4	28'-1"	---
e3(E)	108	-	-	108	#4	9'-5"	---
e4(E)	16	-	-	16	#8	9'-5"	---
e5(E)	96	-	-	96	#4	19'-3"	---
e6(E)	42	-	-	42	#4	19'-2"	---
e7(E)	16	-	-	16	#8	33'-0"	---
e8(E)	16	-	-	16	#4	30'-7"	---
e9(E)	54	-	-	54	#4	9'-10"	---
e10(E)	8	-	-	8	#8	9'-10"	---
e11(E)	48	-	-	48	#4	17'-7"	---
e12(E)	69	-	-	69	#4	17'-5"	---
e13(E)	14	-	-	14	#8	30'-6"	---
e14(E)	14	-	-	14	#4	28'-1"	---
e15(E)	-	8	-	8	#4	10'-0"	---
e16(E)	-	1	-	1	#8	10'-0"	---
e17(E)	-	18	-	18	#4	17'-0"	---
e18(E)	-	2	-	2	#8	34'-3"	---
e19(E)	-	2	-	2	#4	34'-3"	---
e20(E)	-	21	-	21	#4	18'-5"	---
e21(E)	-	2	-	2	#8	31'-10"	---
e22(E)	-	2	-	2	#4	29'-6"	---
e23(E)	-	-	138	138	#4	13'-10"	---
e24(E)	-	-	10	10	#8	25'-4"	---
e25(E)	-	-	10	10	#4	23'-0"	---
e26(E)	-	-	16	16	#8	7'-7"	---
e27(E)	-	-	108	108	#4	7'-7"	---
e28(E)	-	-	4	4	#8	28'-4"	---
e29(E)	-	-	4	4	#4	26'-0"	---
e30(E)	-	-	42	42	#4	16'-1"	---
e31(E)	-	-	16	16	#8	8'-0"	---
e32(E)	-	-	108	108	#4	8'-0"	---
e33(E)	-	-	14	14	#8	28'-1"	---
e34(E)	-	-	14	14	#4	25'-9"	---
e35(E)	-	-	117	117	#4	16'-0"	---
e36(E)	-	-	48	48	#4	15'-10"	---
e37(E)	-	-	6	6	#8	27'-10"	---
e38(E)	-	-	6	6	#4	27'-0"	---
e39(E)	-	-	6	6	#4	22'-8"	---
e40(E)	-	-	6	6	#8	25'-0"	---
u(E)	2820	-	2960	5780	#4	3'-2"	---
x(E)	94	-	78	172	#5	6'-1"	---
x1(E)	92	184	92	368	#5	6'-5"	---
Reinforcement Bars, Epoxy Coated					Pound	451,480	
Concrete Superstructure					Cu. Yds.	1,898.6	

Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.

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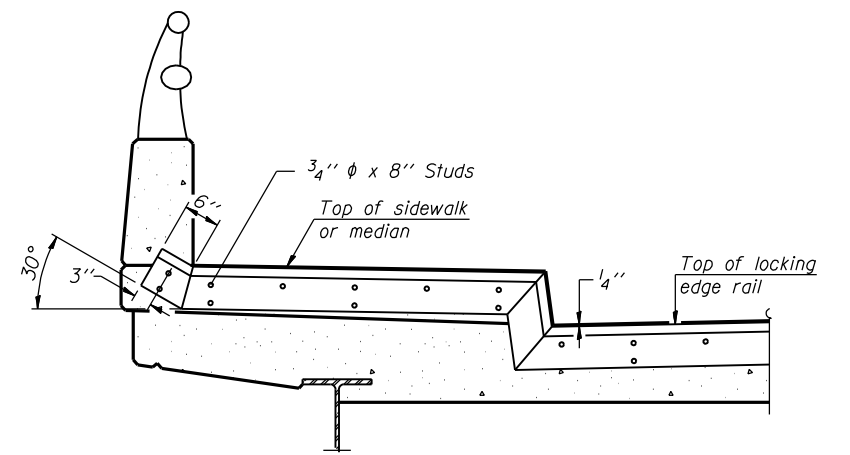
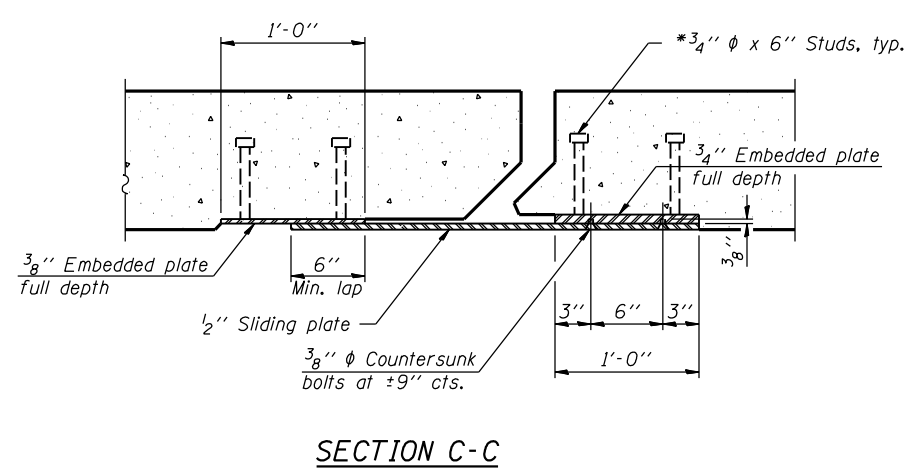
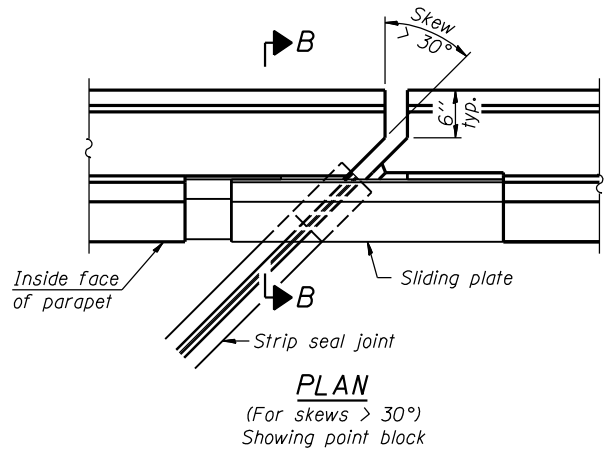
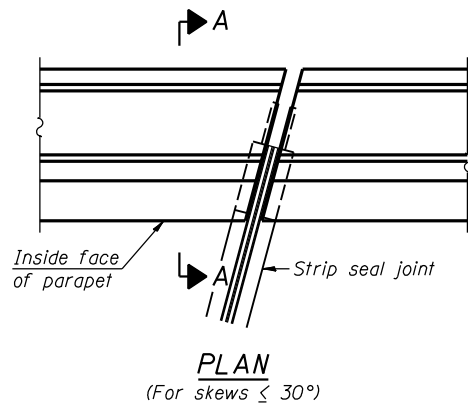
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CHECKED - J.Z. 6/15/2012	REVISED -	
PLOT SCALE =	DRAWN - R.K.-Z. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - J.J.G. 6/15/2012	REVISED -

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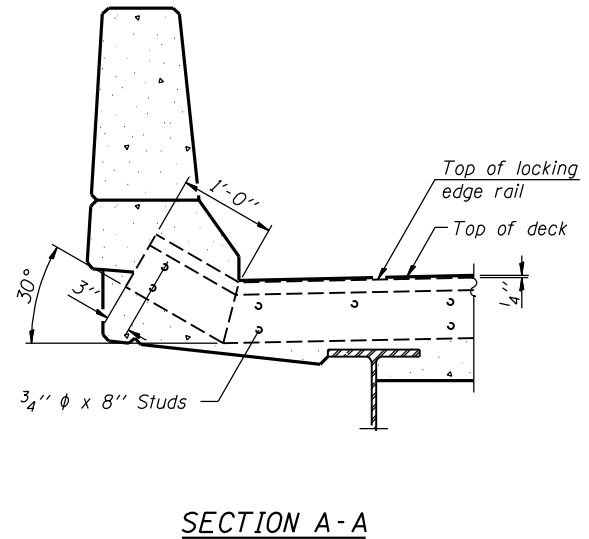
SUPERSTRUCTURE DETAILS III STRUCTURE NO. 045-0039

SHEET NO. S36 OF 116 SHEETS

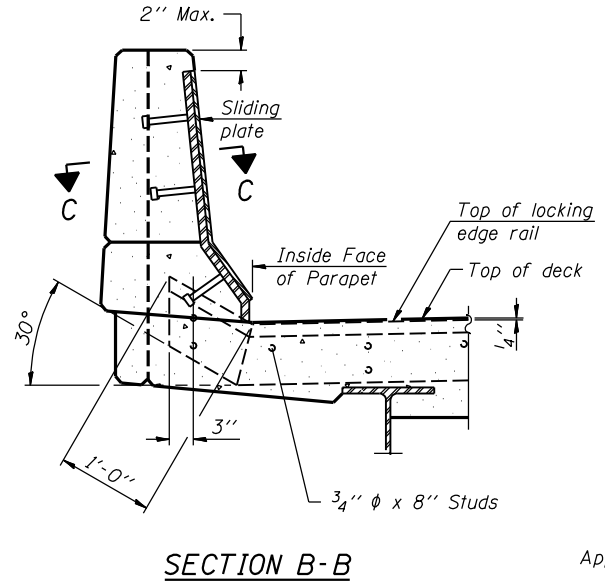
F.A.P. RTE. 349	SECTION (10 & 11VB) R-3	COUNTY KANE	TOTAL SHEETS 507	SHEET NO. 257
CONTRACT NO. 60133			ILLINOIS FED. AID PROJECT	



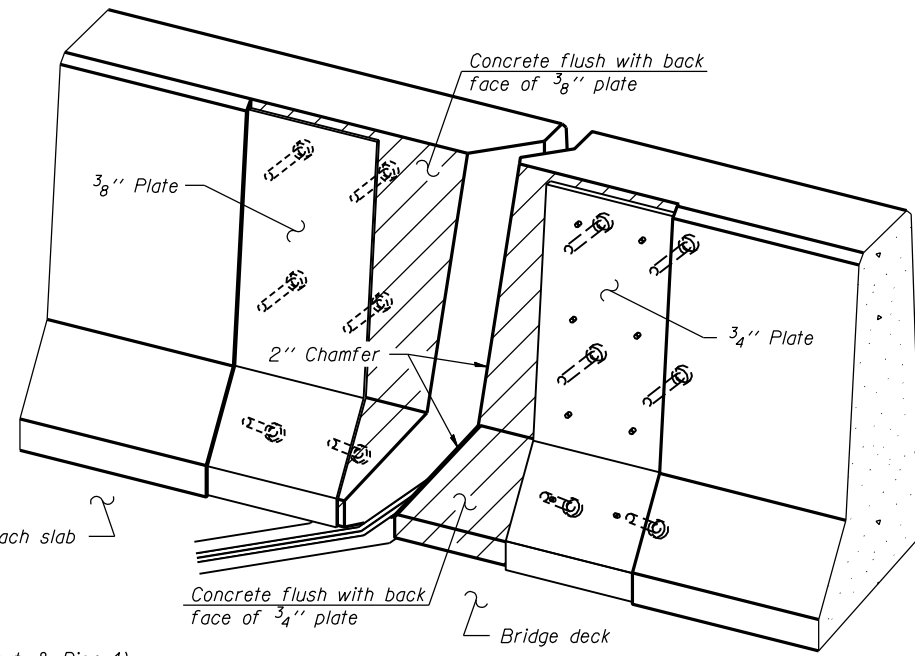
TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN
 Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A

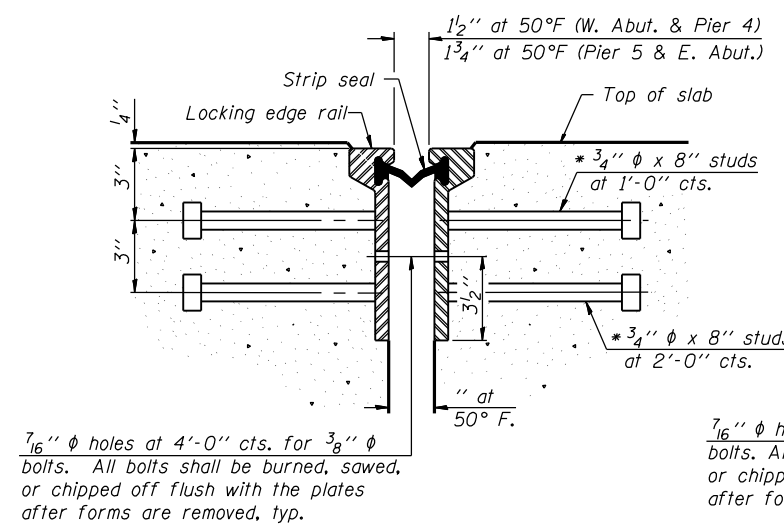


SECTION B-B

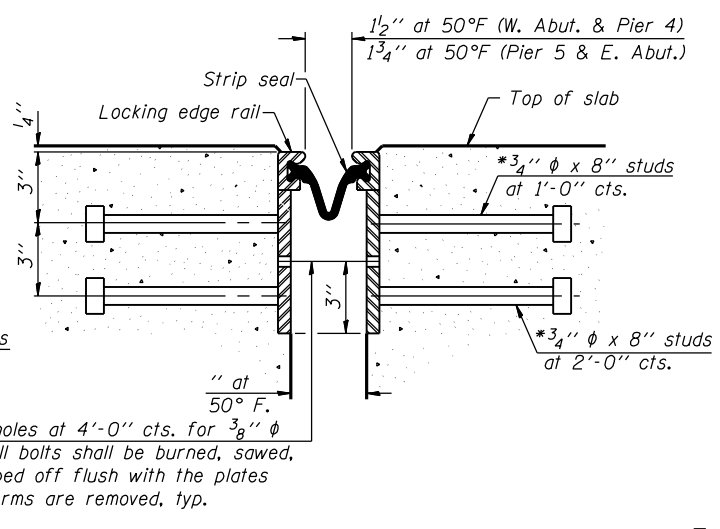


TRIMETRIC VIEW (Showing back plates only)

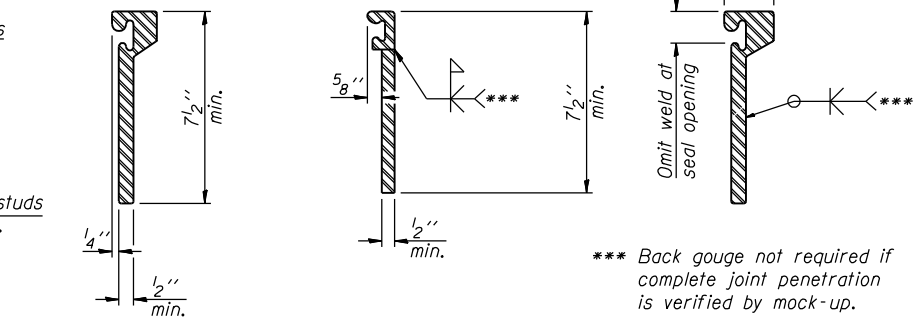
Notes:
 The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.
 The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.
 The manufacturer's recommended installation methods shall be followed.
 The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.
 All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications. Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.
 Parapet plates and anchorage studs for skews > 30 degrees included in the cost of Preformed Joint Strip Seal.



SECTION THRU ROLLED RAIL JOINT



SECTION THRU WELDED RAIL JOINT



ROULDED EXTRUDED RAIL WELDED RAIL

LOCKING EDGE RAIL SPLICE
 The inside of the locking edge rail groove shall be free of weld residue.
 Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	385

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EJ-SSJ

1-27-12

GRÄEF
 8501 W. Higgins Road, Suite 280
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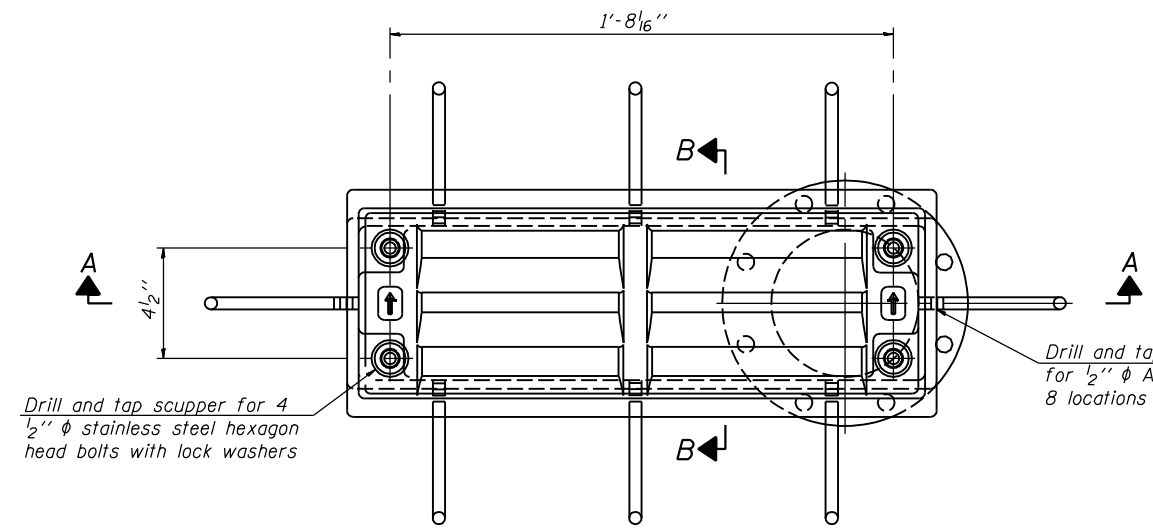
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E.E.J.	6/15/2012	
J.J.G.	6/15/2012	
E.E.J.	6/15/2012	
J.J.G.	6/15/2012	

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**PREFORMED JOINT STRIP SEAL
 STRUCTURE-TYPE-0039**

SHEET NO. S37 OF 116 SHEETS

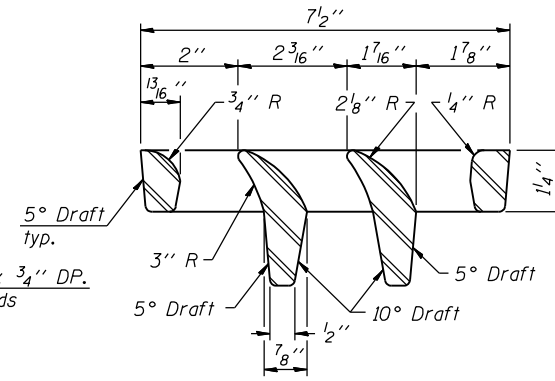
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349	(10 & 11VB) R-3	KANE	507	258
				CONTRACT NO. 60133
ILLINOIS FED. AID PROJECT				



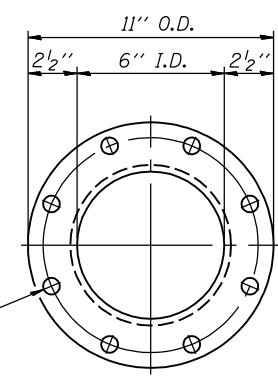
Drill and tap scupper for 4 1/2" φ stainless steel hexagon head bolts with lock washers

Drill and tap 1/2"-13 x 3/4" DP. for 1/2" φ Anchor Studs 8 locations

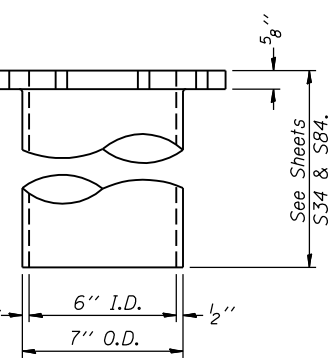
PLAN



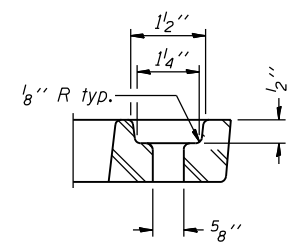
VANE GRATE DETAIL



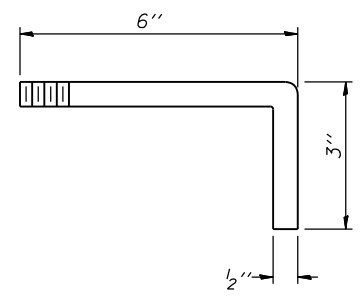
8- 9/16" φ holes on an 9 1/2" φ bolt circle



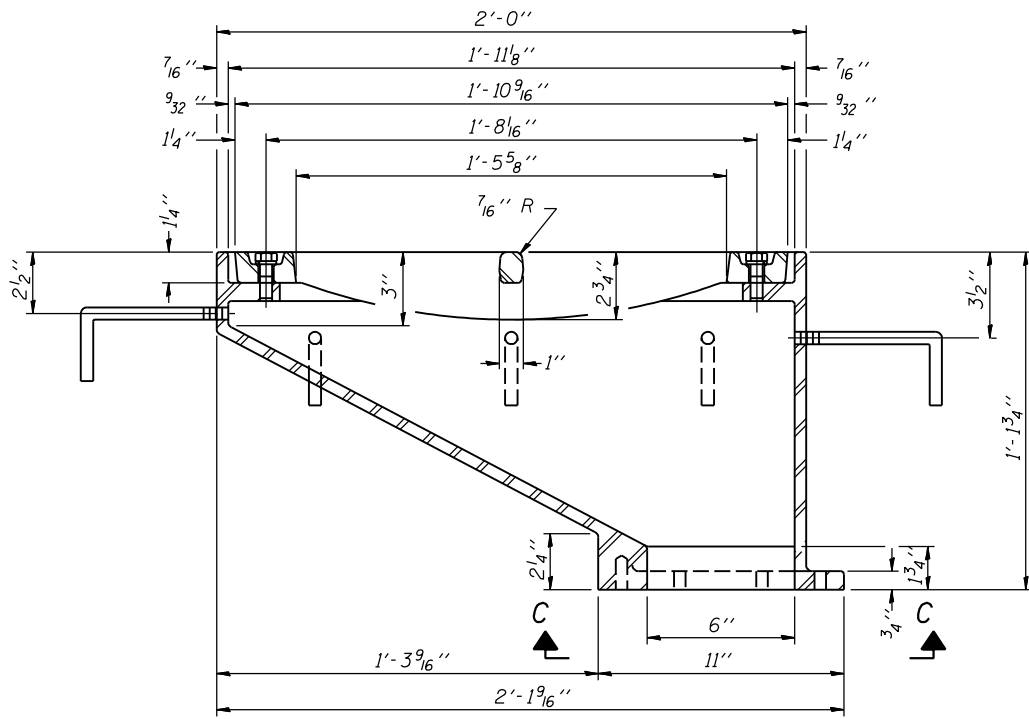
DOWNSPOUT



BOLT HOLE DETAIL

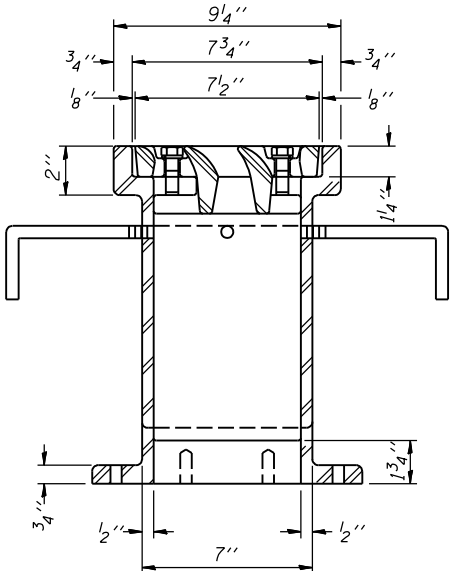


ANCHOR STUD DETAIL

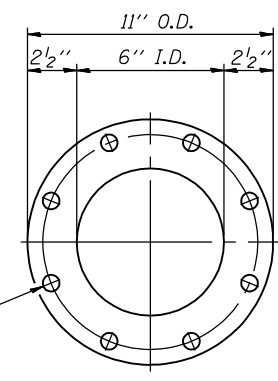


SECTION A-A

See Sheet S34 for scupper location relative to parapet.



SECTION B-B



VIEW C-C

Drill and tap 8 holes for 1/2"-13 bolts on a 9 1/2" φ bolt circle. (2 blind holes are 1 1/4" deep, 6 thru holes)

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-12.
 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.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scuppers, DS-12	Each	11

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DS-12

7-1-10

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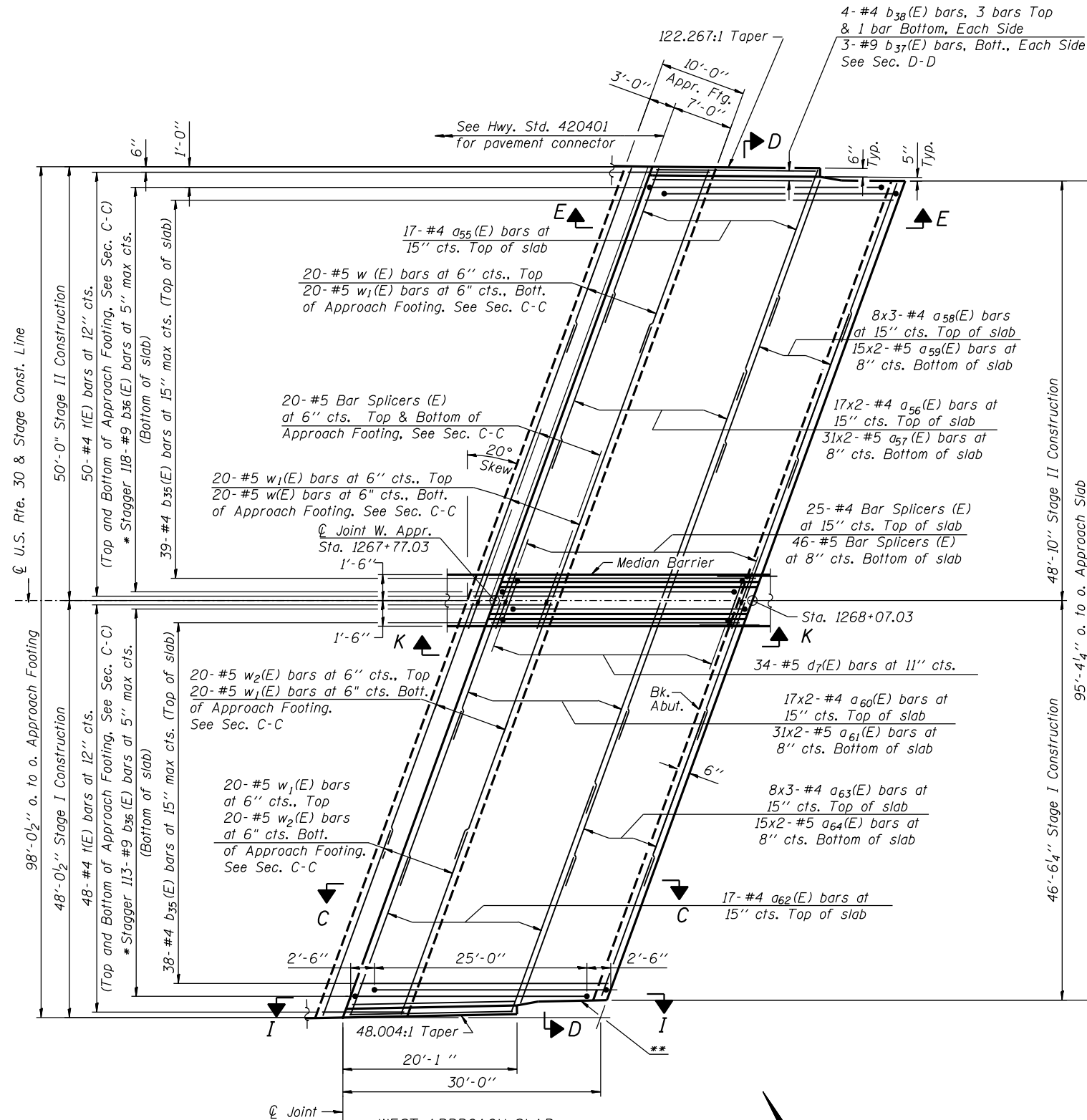
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PLOT DATE =	DRAWN - E.U.B. 6/15/2012	REVISED -
	CHECKED - J.J.G. 6/15/2012	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DRAINAGE SCUPPER, DS-12
 STRUCTURE NO. 045-0039**

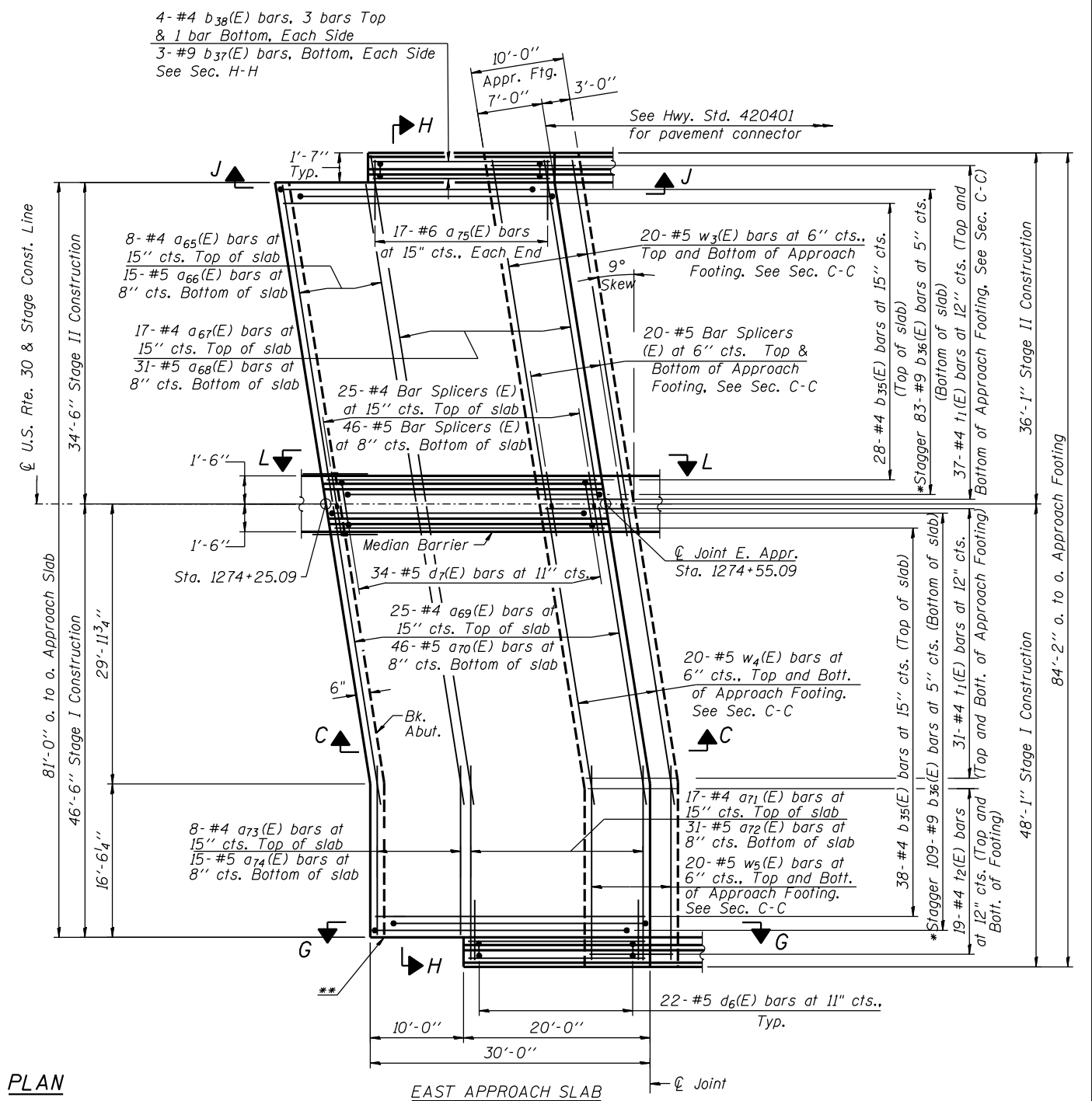
SHEET NO. S38 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	259
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



WEST APPROACH SLAB

MINIMUM BAR LAP
 #4 bar = 2'-11"
 #5 bar = 3'-3"



EAST APPROACH SLAB

PLAN

*Tilt #9 b₃₆(E) bars as required to maintain clearance.

**Preformed flexible foam expansion joint filler according to Article 1051.09 of the Std. Specifications; full depth of slab, full length of parapet. Typ. each parapet.

NOTES

- See sheets S40 & S41 for Sections C-C, D-D & H-H and Views E-E, I-I, J-J & K-K.
- a₅₅(E) thru a₇₅(E) bar spacings measured along C Rdwy.
- Spacing for b₃₅(E) thru b₃₈(E) bars billed for the West Approach is a maximum spacing and tapers narrower from West to East. Make field adjustments as necessary.

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GRAEF
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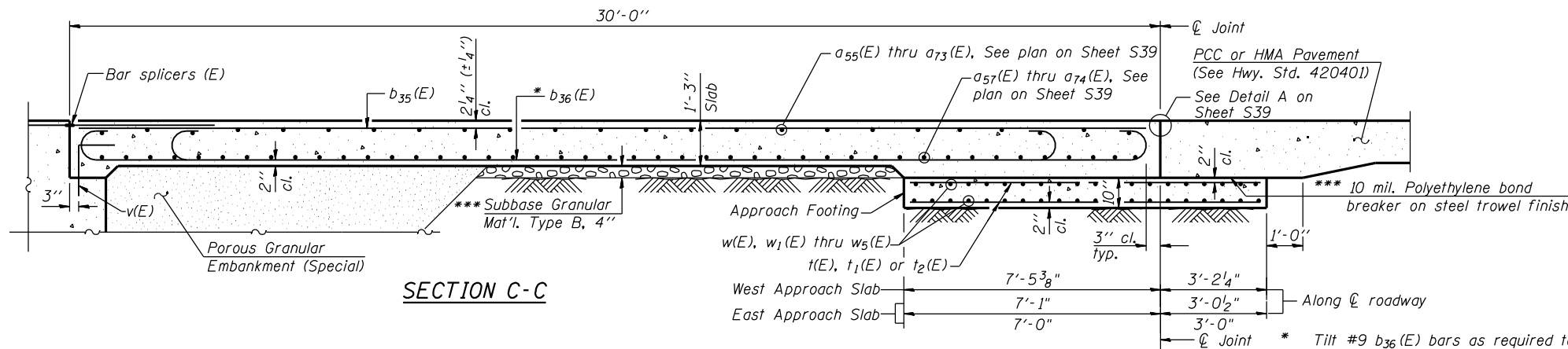
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PLOT DATE =	CHECKED - E.E.J. 6/15/2012	REVISD -

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**BRIDGE APPROACH SLABS
 STRUCTURE NO. 045-0039**

SHEET NO. S39 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	260
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				

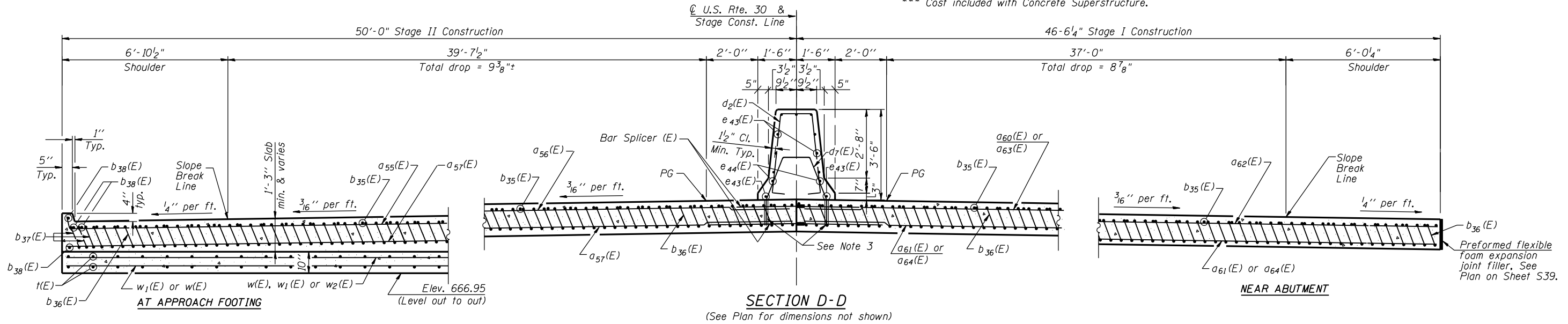


SECTION C-C

NOTES

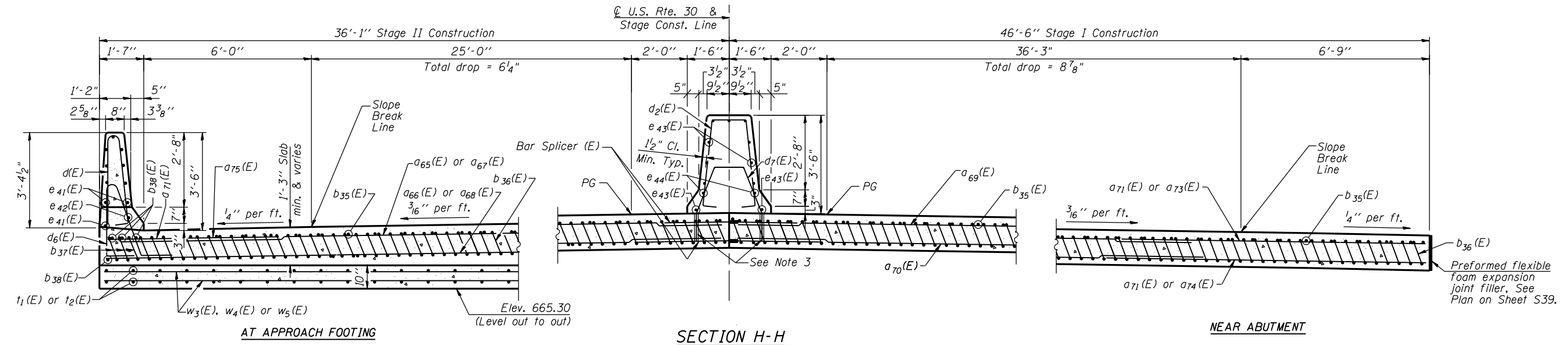
1. See Sheets S39 & S41 for approach slab, parapet reinforcement, and Bill of Material.
2. See Sheets S4 & S5 for Construction Staging.
3. Core and set #5 d7(E) bar according to Article 509.06 of the Standard Specifications. Cored holes shall be roughened or scored per manufacturer's recommendations. Maximum depth shall not exceed 6".

*** Cost included with Concrete Superstructure.
 * Tilt #9 b36(E) bars as required to maintain clearance.



SECTION D-D

(See Plan for dimensions not shown)



SECTION H-H

(See Plan for dimensions not shown)

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	CHECKED - E.E.J. 6/15/2012	REVISED -

**STATE OF ILLINOIS
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**BRIDGE APPROACH SLAB DETAILS I
 STRUCTURE NO. 045-0039**

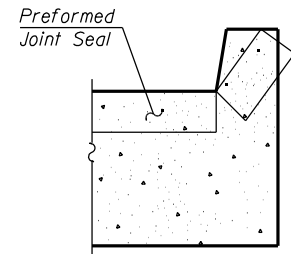
SHEET NO. S40 OF 116 SHEETS

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CONTRACT NO. 60133				

ILLINOIS FED. AID PROJECT

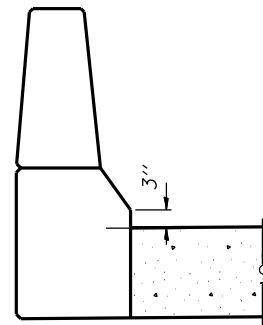
**TWO APPROACHES
BILL OF MATERIAL**

Bar	No.			Size	Length	Shape
	West	East	Total			
a55(E)	17	-	17	#4	20'-0"	
a56(E)	34	-	34	#4	19'-7"	
a57(E)	62	-	62	#5	28'-4"	
a58(E)	24	-	24	#4	19'-3"	
a59(E)	30	-	30	#5	27'-11"	
a60(E)	34	-	34	#4	18'-10"	
a61(E)	62	-	62	#5	27'-3"	
a62(E)	17	-	17	#4	19'-3"	
a63(E)	24	-	24	#4	18'-7"	
a64(E)	30	-	30	#5	26'-10"	
a65(E)	-	8	8	#4	34'-8"	
a66(E)	-	15	15	#5	34'-8"	
a67(E)	-	17	17	#4	36'-3"	
a68(E)	-	31	31	#5	36'-3"	
a69(E)	-	25	25	#4	31'-6"	
a70(E)	-	46	46	#5	31'-10"	
a71(E)	-	17	17	#4	19'-5"	
a72(E)	-	31	31	#5	19'-5"	
a73(E)	-	8	8	#4	17'-7"	
a74(E)	-	15	15	#5	17'-11"	
a75(E)	-	34	34	#6	6'-6"	
b35(E)	77	66	143	#4	29'-8"	
b36(E)	231	192	423	#9	29'-9"	
b37(E)	6	6	12	#9	19'-9"	
b38(E)	8	8	16	#4	19'-8"	
d(E)	-	44	44	#5	6'-10"	
d2(E)	33	33	66	#5	8'-5"	
d6(E)	-	44	44	#5	7'-11"	
d7(E)	33	33	66	#5	5'-6"	
e41(E)	-	16	16	#4	19'-8"	
e42(E)	-	2	2	#8	19'-8"	
e43(E)	11	11	22	#4	29'-8"	
e44(E)	2	2	4	#8	29'-8"	
t(E)	196	-	196	#4	10'-4"	
t1(E)	-	136	136	#4	9'-10"	
t2(E)	-	38	38	#4	9'-8"	
w(E)	40	-	40	#5	32'-0"	
w1(E)	80	-	80	#5	24'-8"	
w2(E)	40	-	40	#5	29'-10"	
w3(E)	-	40	40	#5	36'-3"	
w4(E)	-	40	40	#5	31'-10"	
w5(E)	-	40	40	#5	19'-8"	
Concrete Superstructure				Cu. Yd.	290.1	
Concrete Structures				Cu. Yd.	59.0	
Reinforcement Bars, Epoxy Coated				Pound	73,290	

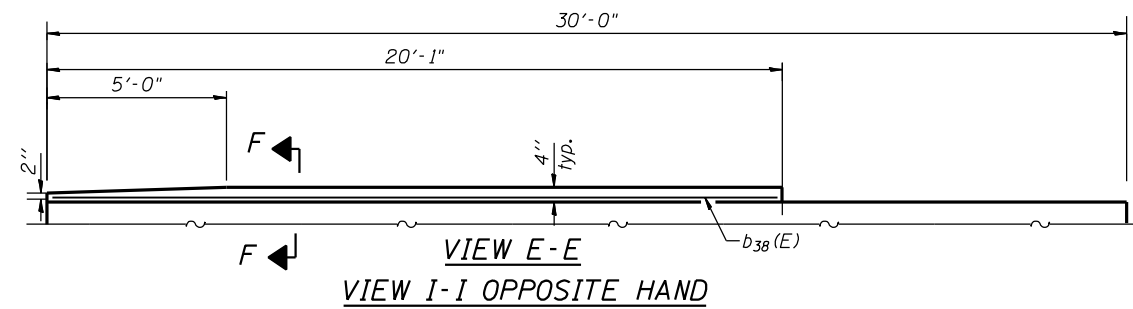


VIEW F-F

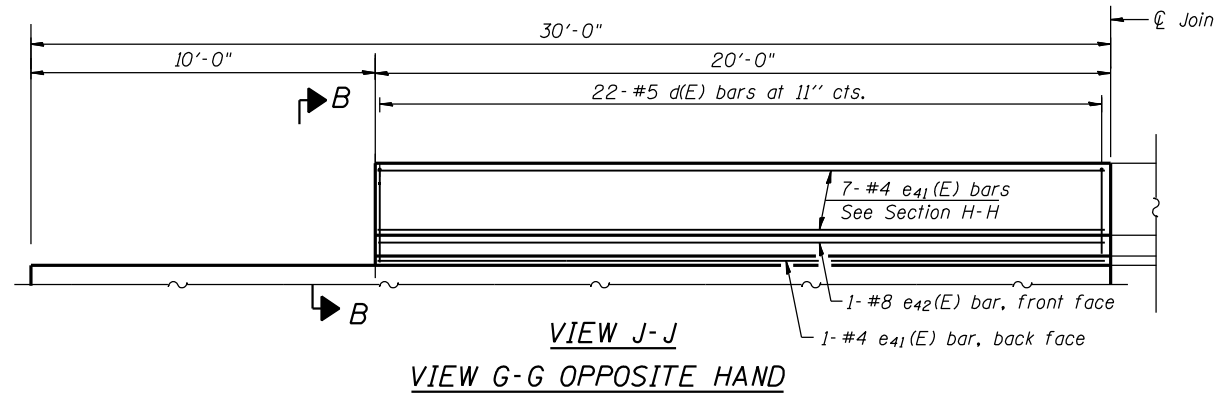
Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.



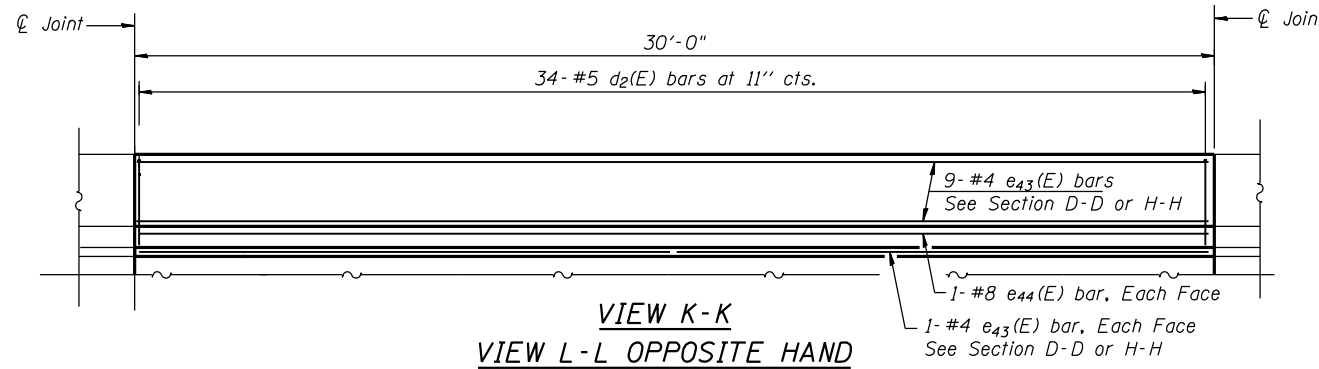
VIEW B-B



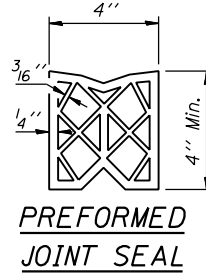
**VIEW E-E
VIEW I-I OPPOSITE HAND**



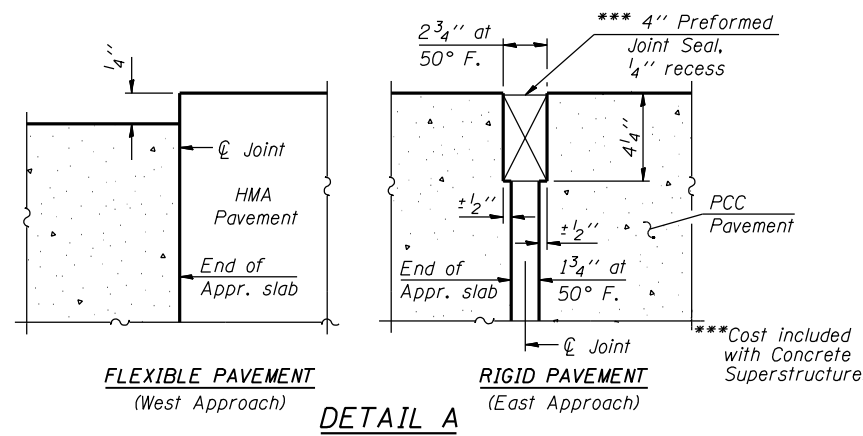
**VIEW J-J
VIEW G-G OPPOSITE HAND**



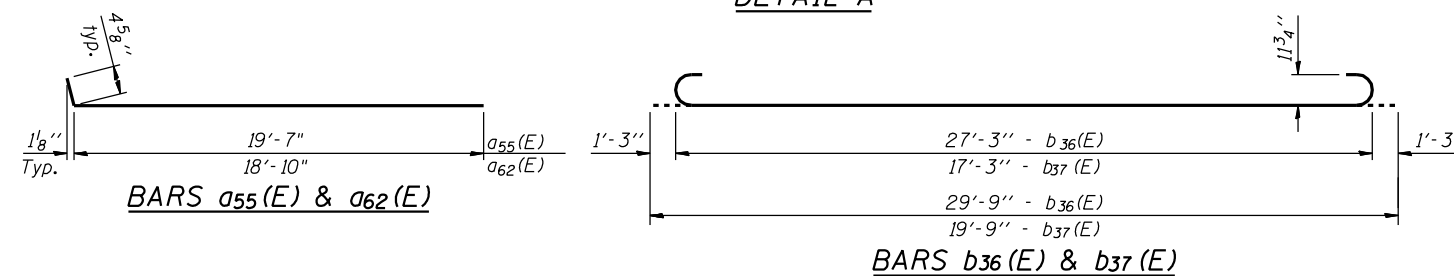
**VIEW K-K
VIEW L-L OPPOSITE HAND**



PREFORMED JOINT SEAL

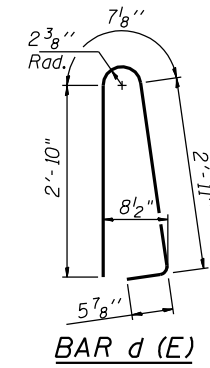


**DETAIL A
FLEXIBLE PAVEMENT (West Approach) RIGID PAVEMENT (East Approach)**

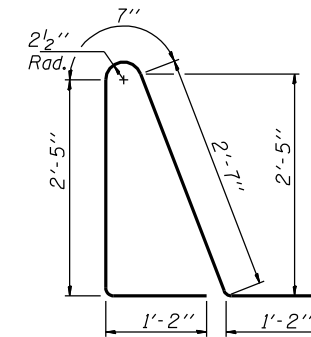


BARS a55(E) & a62(E)

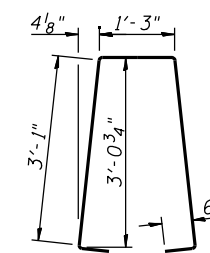
BARS b36(E) & b37(E)



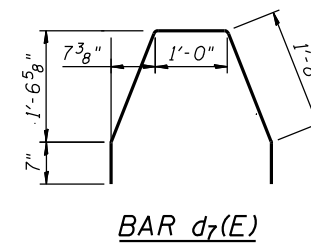
BAR d(E)



BAR d6(E)



BAR d2(E)



BAR d7(E)

NOTES:

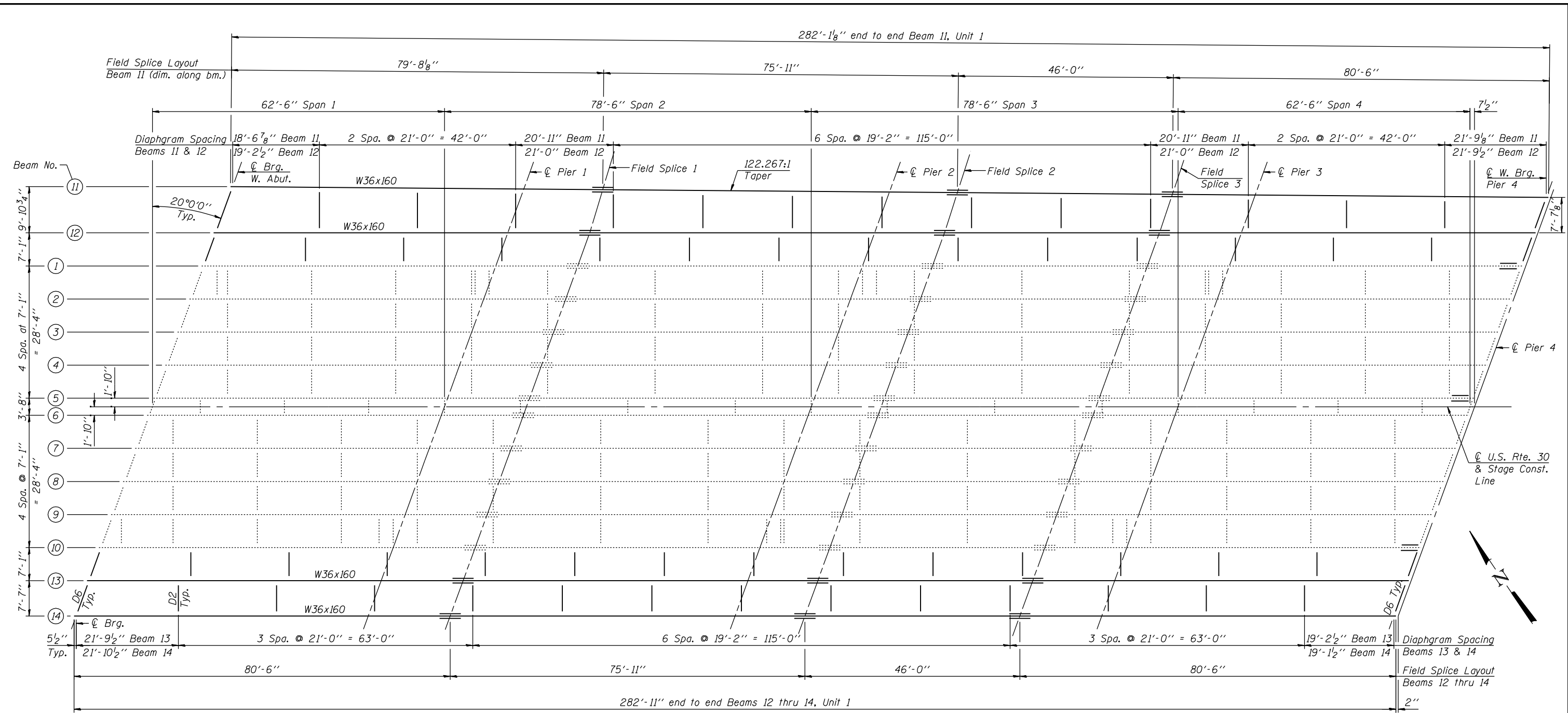
- See Sheets S39 for Views E-E, I-I, J-J, G-G, K-K and L-L.
- Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
- Approach footing concrete shall be paid for as Concrete Structures.
- Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
- The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
- For bar splicer details, see Sheet S86.
- Cost of excavation for approach footing included with Concrete Structures.
- For Porous Granular Embankment (Special) and drainage treatment details, see Sheet S62.
- For additional parapet details, see Sheet S40.

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F.A.P. RTE. =	SECTION =	COUNTY =	TOTAL SHEETS =	SHEET NO. =
349	(10 & 11VB) R-3	KANE	507	262
CONTRACT NO. 60133			ILLINOIS FED. AID PROJECT	

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FRAMING PLAN, UNIT 1

LEGEND

..... Indicates Structural Steel Repair. See sheet S49.

NOTES

1. Work this sheet with Sheets S43 thru S50.
 2. All new Unit 1 interior diaphragms are perpendicular to the ϕ structure.
- The following notes apply to all steel plan sheets:
3. All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
 4. All structural steel shall be AASHTO M270 Grade 50 except diaphragms and diaphragm connections shall be AASHTO M270 Grade 36.



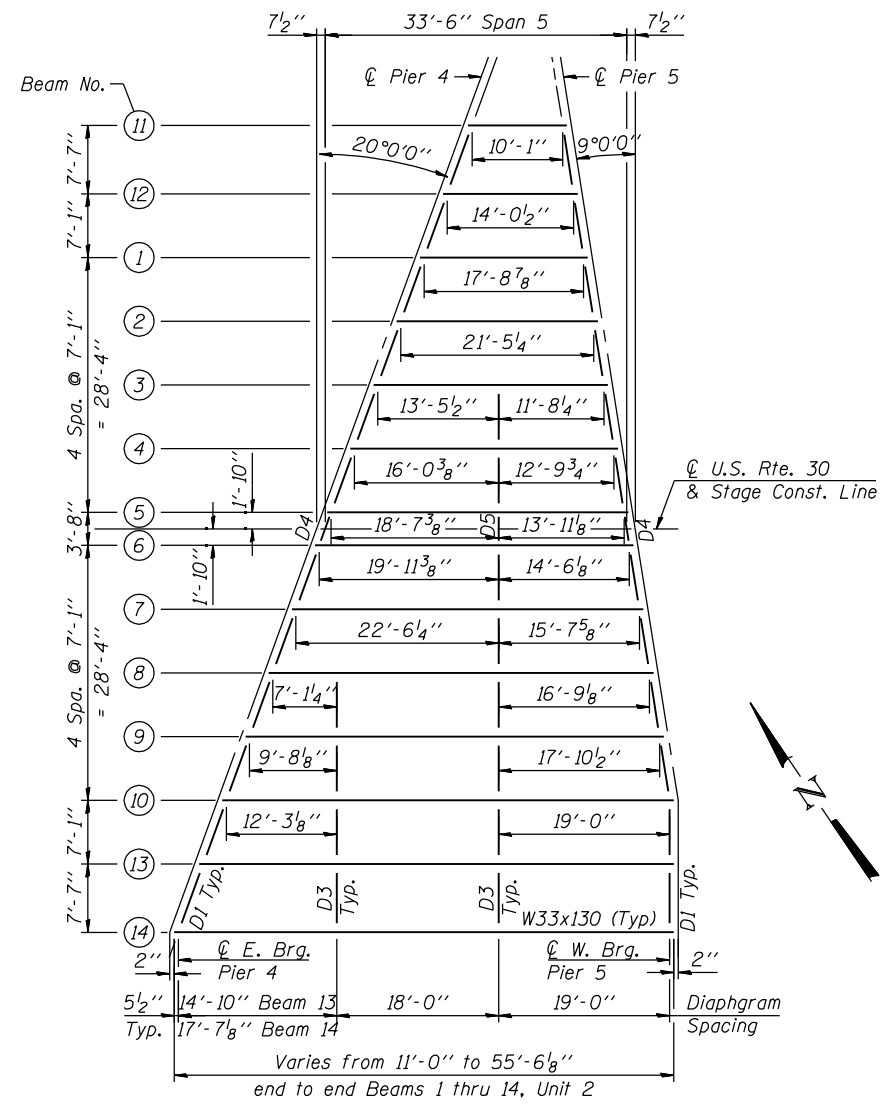
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PLOT DATE =	DRAWN - E.E.J. 6/15/2012	REVISED -
	CHECKED - J.Z. 6/15/2012	REVISED -

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**FRAMING PLAN, UNIT 1
STRUCTURE NO. 045-0039**

SHEET NO. S42 OF 116 SHEETS

F.A.P. RTE. 349	SECTION (10 & 11VB) R-3	COUNTY KANE	TOTAL SHEETS 507	SHEET NO. 263
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



FRAMING PLAN, UNIT 2

Top of Beam Elevations (For Fabrication only)				
	BEAM 11	BEAM 12	BEAM 13	BEAM 14
CL. BRG. W. ABUT.	668.84	668.99	668.70	668.53
CL. BRG. PIER 1	669.30	669.45	669.23	669.07
SPLICE #1	669.42	669.57	669.38	669.22
CL. BRG. PIER 2	669.73	669.88	669.75	669.60
SPLICE #2	669.80	669.95	669.85	669.69
SPLICE #3	669.91	670.06	670.01	669.86
CL. BRG. PIER 3	669.93	670.08	670.04	669.90
CL W. BRG. PIER 4	669.97	670.12	670.16	670.02
CL E. BRG. PIER 4	669.97	670.12	670.15	670.02
CL W. BRG. PIER 5	669.95	670.09	670.06	669.92
CL E. BRG. PIER 5	669.94	670.08	670.05	669.91
CL. BRG. PIER 6	669.73	669.85	669.78	669.64
SPLICE #4	669.68	669.79	669.72	669.58
CL. BRG. PIER 7	669.37	669.46	669.35	669.21
SPLICE #5	669.31	669.39	669.28	669.14
SPLICE #6	668.97	-	668.89	668.75
CL. BRG. PIER 8	668.83	668.98	668.75	668.61
SPLICE #7	668.32	-	668.18	668.03
CL. BRG. PIER 9	668.13	-	667.98	667.84
CL. BRG. E. ABUT.	667.53	-	667.33	667.18

NOTES

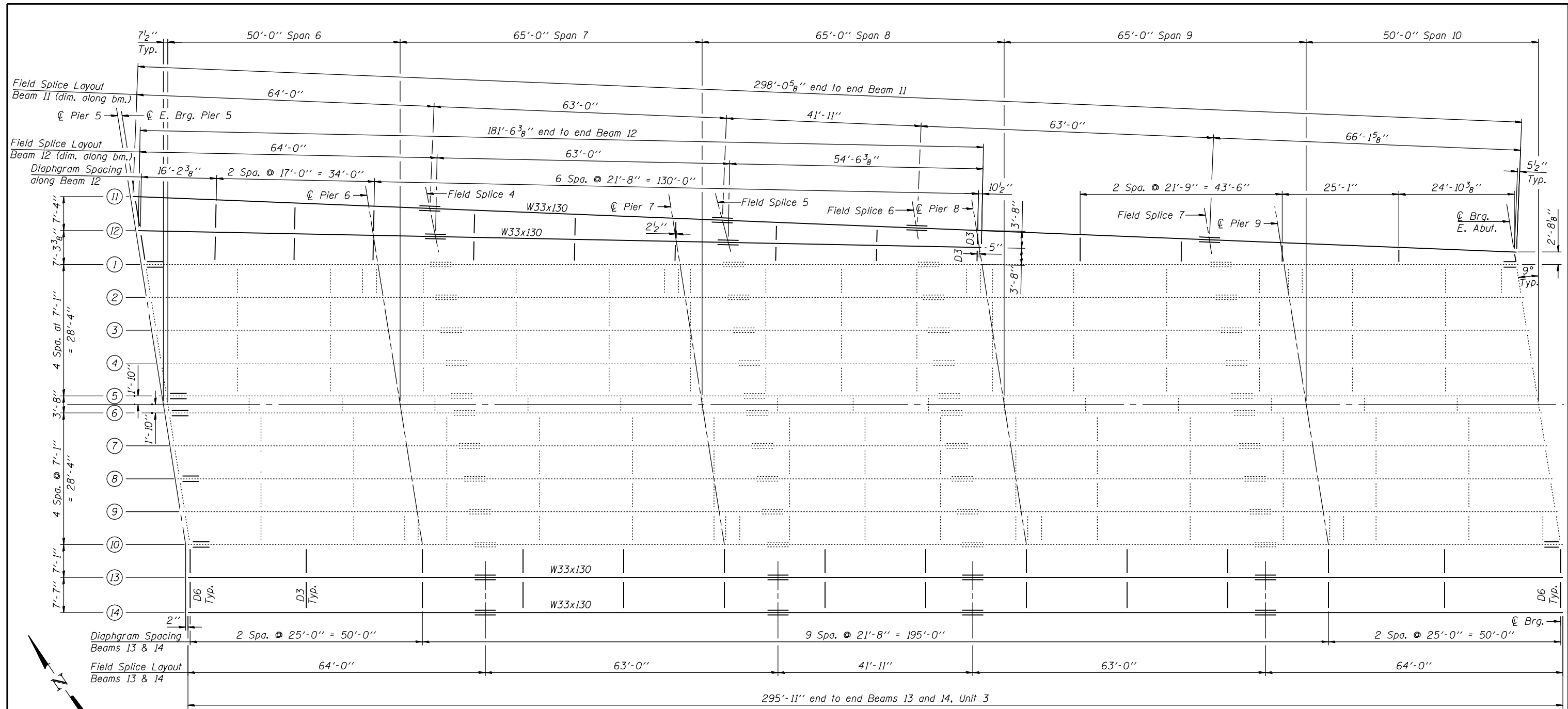
1. Work this sheet with Sheets S42 and S44 thru S50.
2. All Unit 2 interior diaphragms are perpendicular to the ϕ structure.

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F.A.P. RTE. 349	SECTION (10 & 11VB) R-3	COUNTY KANE	TOTAL SHEETS 507	SHEET NO. 264
CONTRACT NO. 60133			ILLINOIS FED. AID PROJECT	

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FRAMING PLAN, UNIT 3

LEGEND

..... Indicates Structural Steel Repair. See sheet S49.

NOTES

1. Work this sheet with Sheets S42, S43 and S45 thru S50.
2. Unit 3 interior diaphragms adjacent to Beam 12 are perpendicular to Beam 12. All other new Unit 3 interior diaphragms are perpendicular to the ϕ structure.



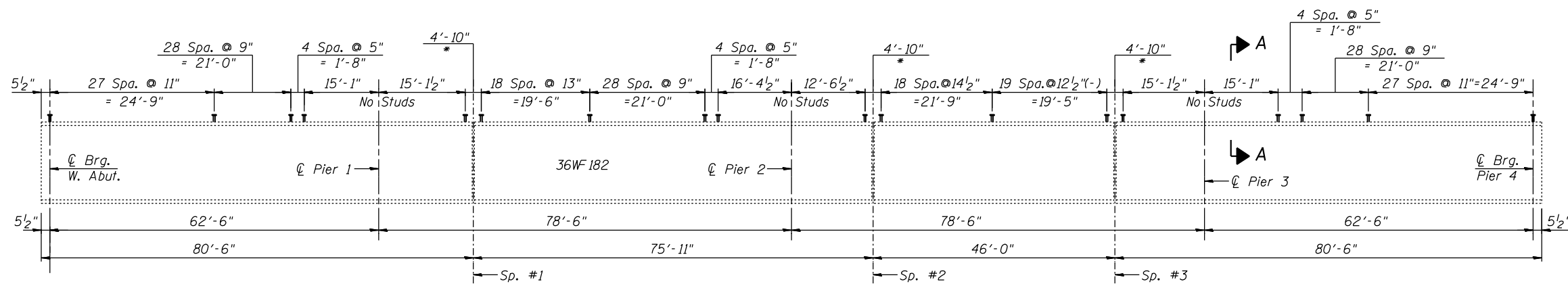
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

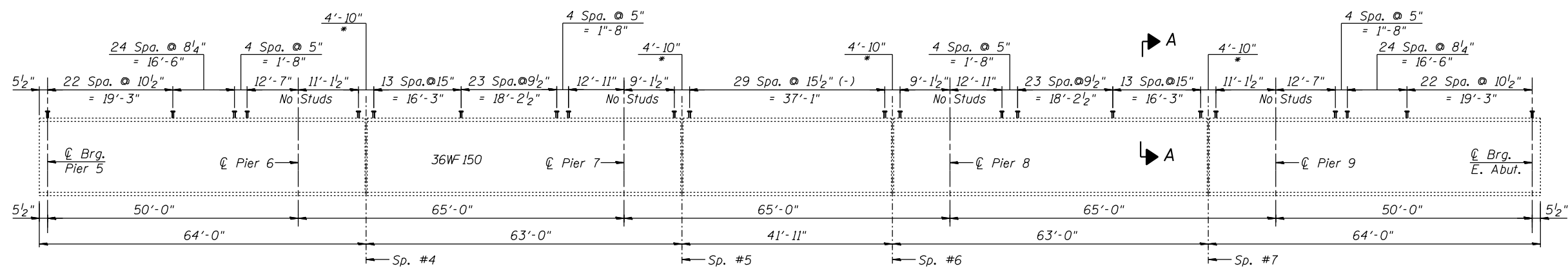
**FRAMING PLAN, UNIT 3
 STRUCTURE NO. 045-0039**

SHEET NO. S44 OF 116 SHEETS

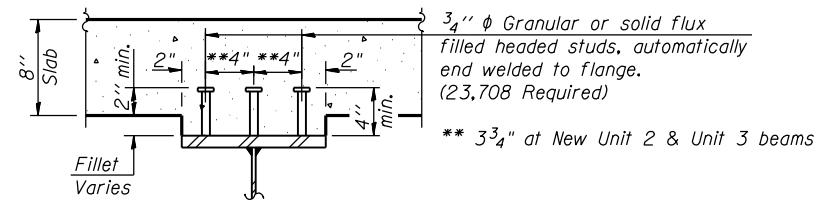
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CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



BEAM ELEVATION - BEAMS 1 THRU 10 AT UNIT #1



BEAM ELEVATION - BEAMS 1 THRU 10 AT UNIT #3



SECTION A-A

NOTES

1. Work this sheet with sheets S42 thru S44 and 46 thru S50.
2. *For studs at field splices see Splice Details on Sheet S47.

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GRÄEF
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 Chicago, Illinois 60631; (773) 399-0112

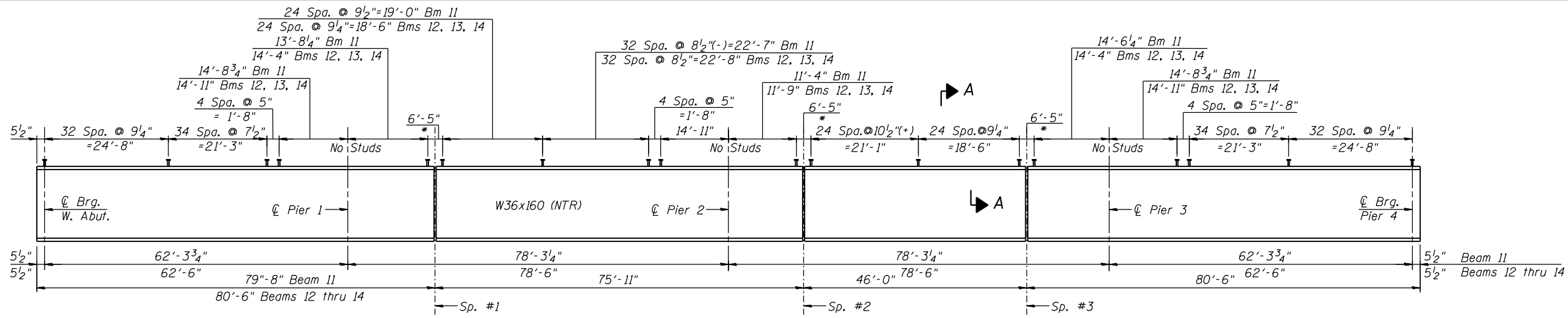
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 DEPARTMENT OF TRANSPORTATION

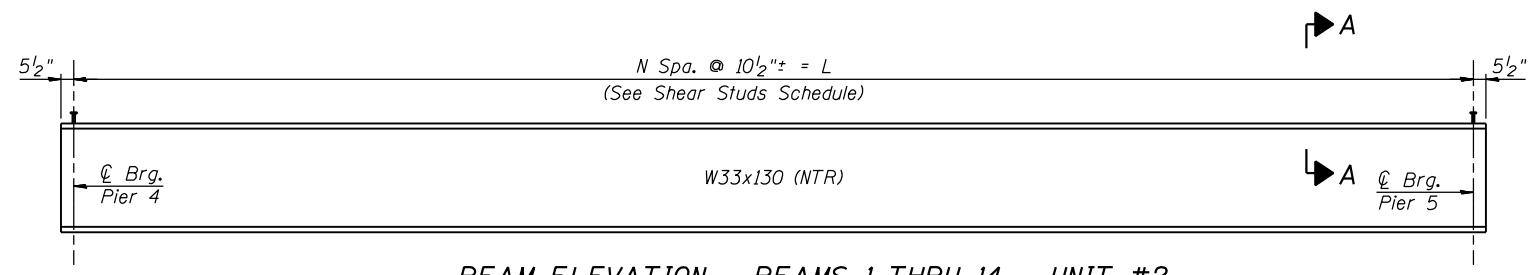
EXISTING BEAM ELEVATIONS
 STRUCTURE NO. 045-0039

SHEET NO. S45 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	266
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



BEAM ELEVATION - BEAMS 11 THRU 14 AT UNIT #1



BEAM ELEVATION - BEAMS 1 THRU 14 - UNIT #2

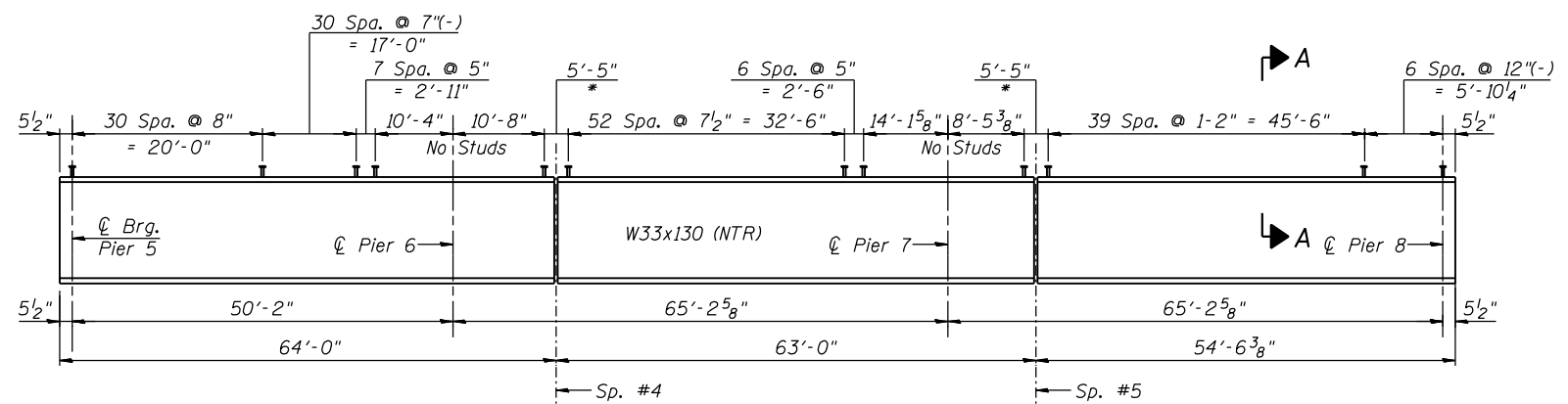
SHEAR STUDS SCHEDULE - UNIT #2

Beam Line	L	N
11	10'-1"	12
12	14'-0 1/2"	17
1	17'-8 7/8"	21
2	21'-5 1/4"	25
3	25'-1 3/4"	29
4	28'-10 1/8"	33
5	32'-6 1/2"	38
6	34'-5 1/2"	40
7	38'-1 7/8"	44
8	41'-10 3/8"	48
9	45'-6 5/8"	53
10	49'-3 3/8"	57
13	51'-10"	60
14	54'-7 1/8"	63

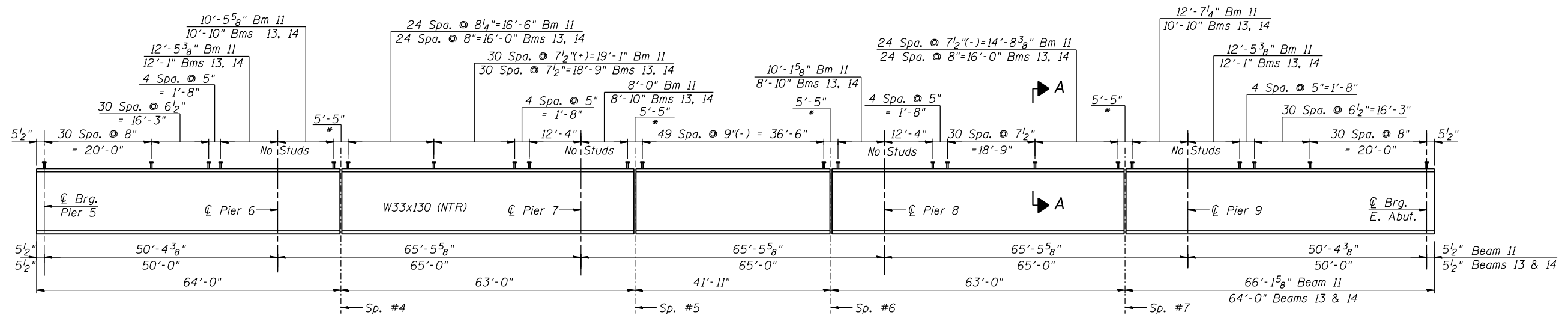
- NOTES**
1. Work this sheet with Sheets S42 thru S45 and S47 thru S50.
 2. Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
 3. *For studs at field splices see Splice Details on Sheet S47.

BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	24,185

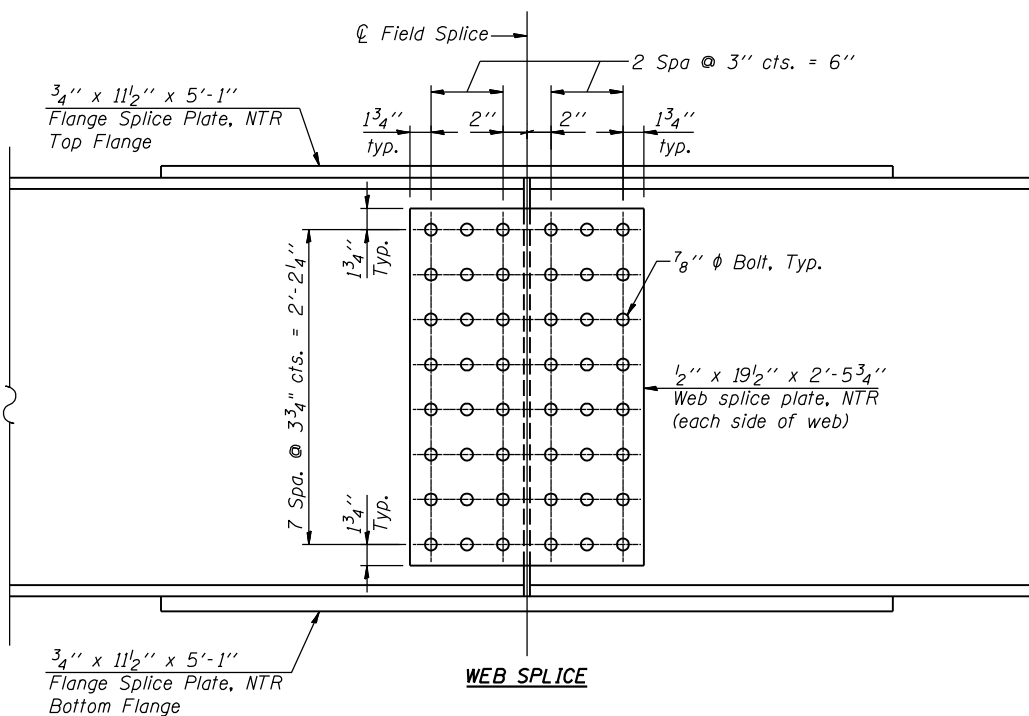
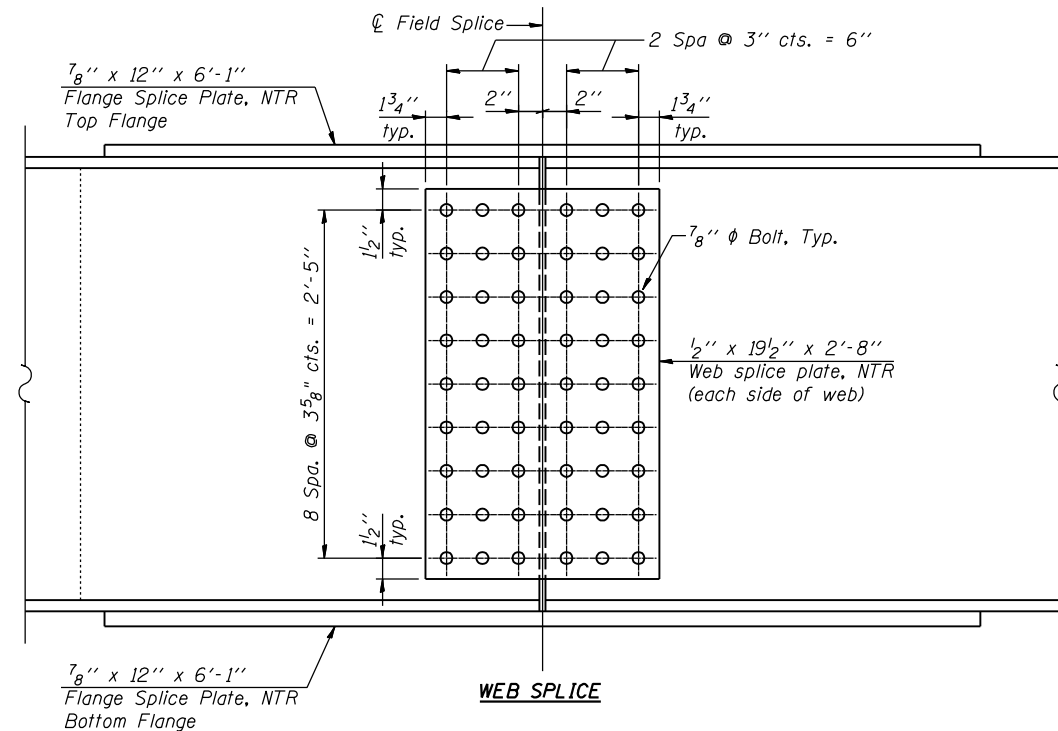
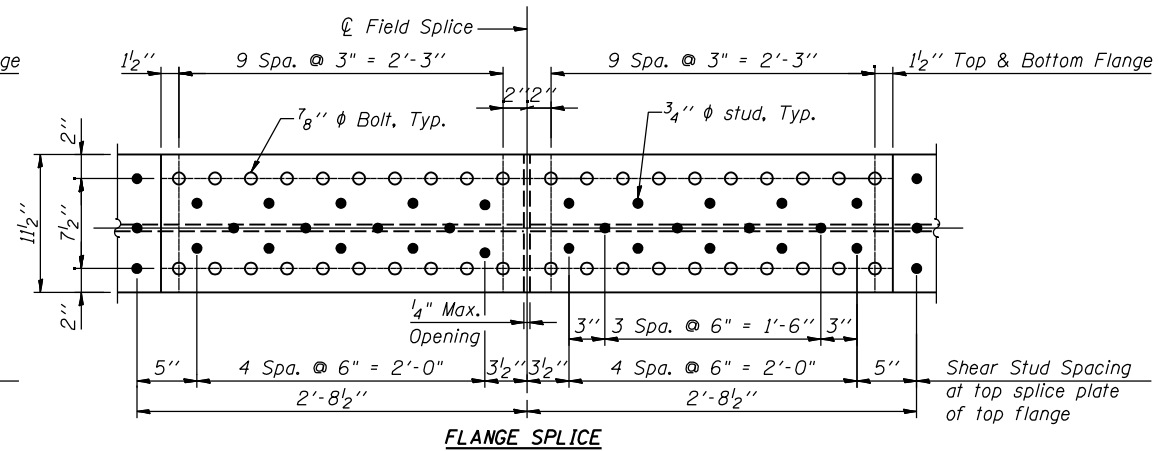
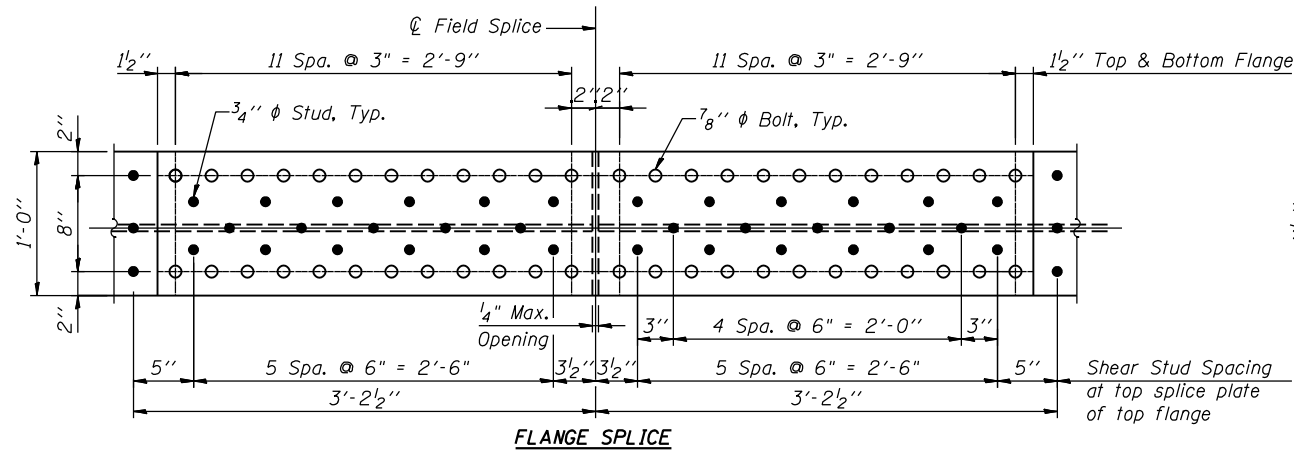


BEAM ELEVATION - BEAM 12 - UNIT #3



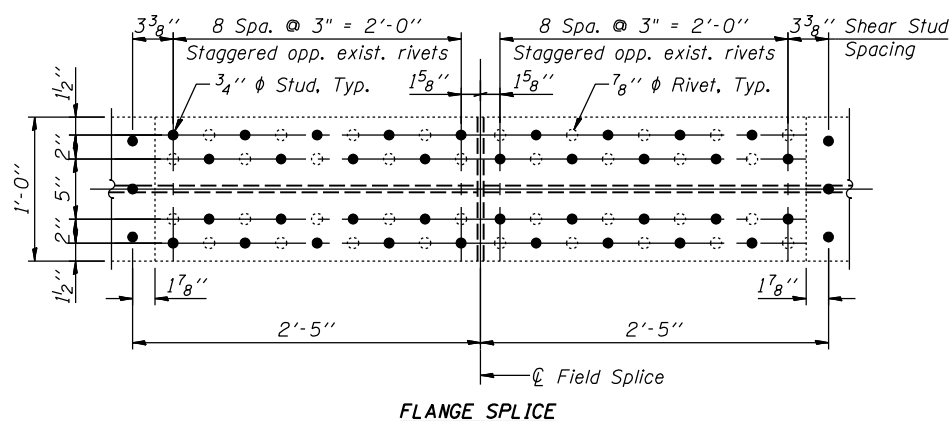
BEAM ELEVATION - BEAMS 11, 13, & 14 AT UNIT #3

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FIELD SPLICES - W36 x 160
(Splices 1 thru 3)

FIELD SPLICES - W33 x 130
(Splices 4 thru 7)



EXISTING FIELD SPLICES - 36 WF 182 & 36 WF 150

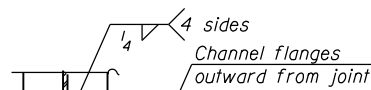
NOTES

1. Work this sheet with Sheets S42 thru S46 and S48 thru S50.
2. Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

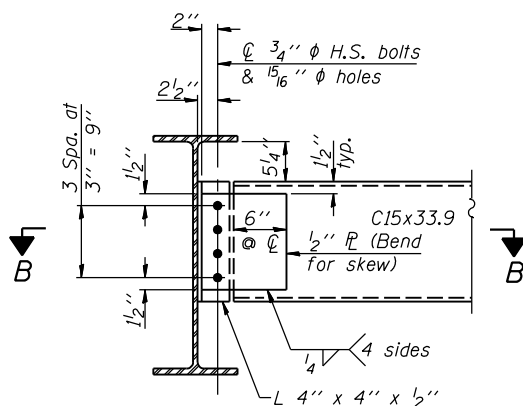
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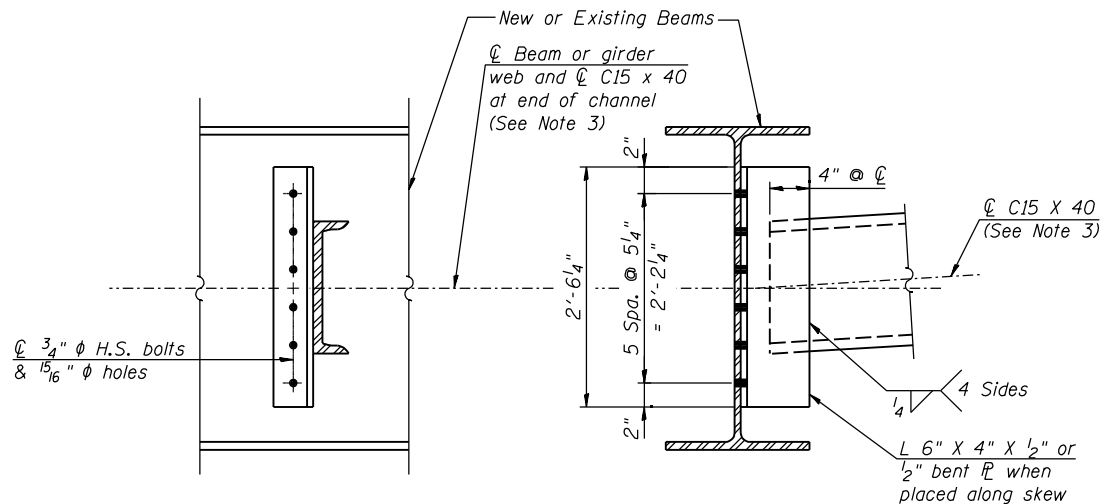
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349	(10 & 11VB) R-3	KANE	507	268
CONTRACT NO. 60133				



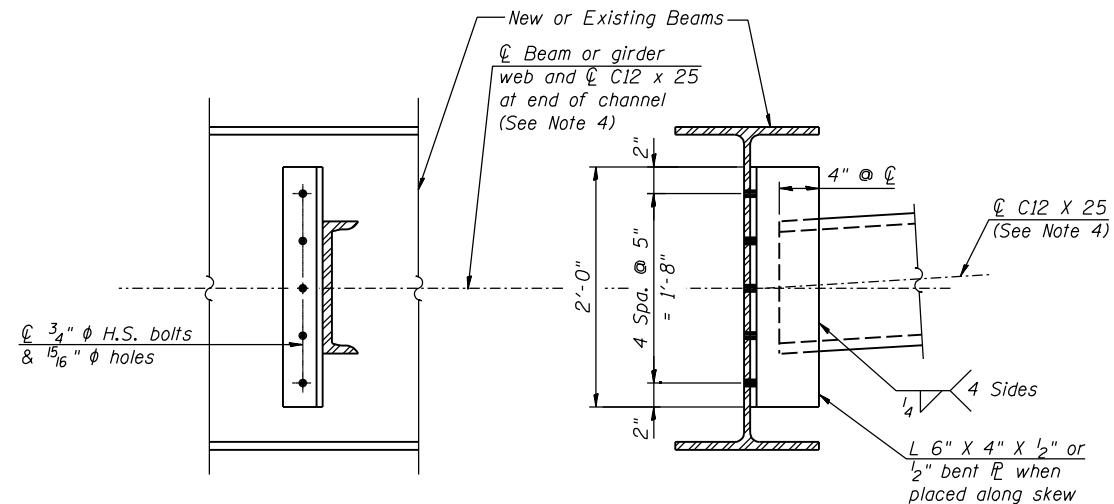
SECTION B-B



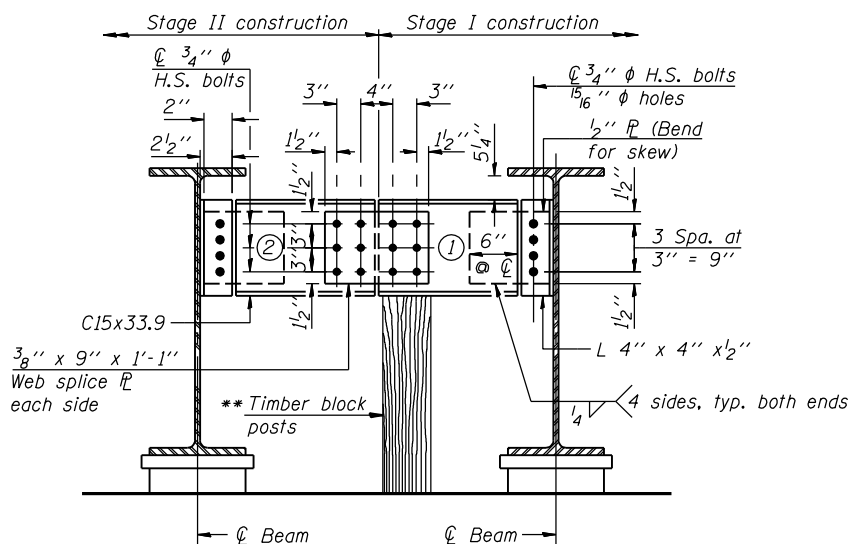
END DIAPHRAGM-D1
(24 Required)



INTERIOR DIAPHRAGM - D2
(52 Required)



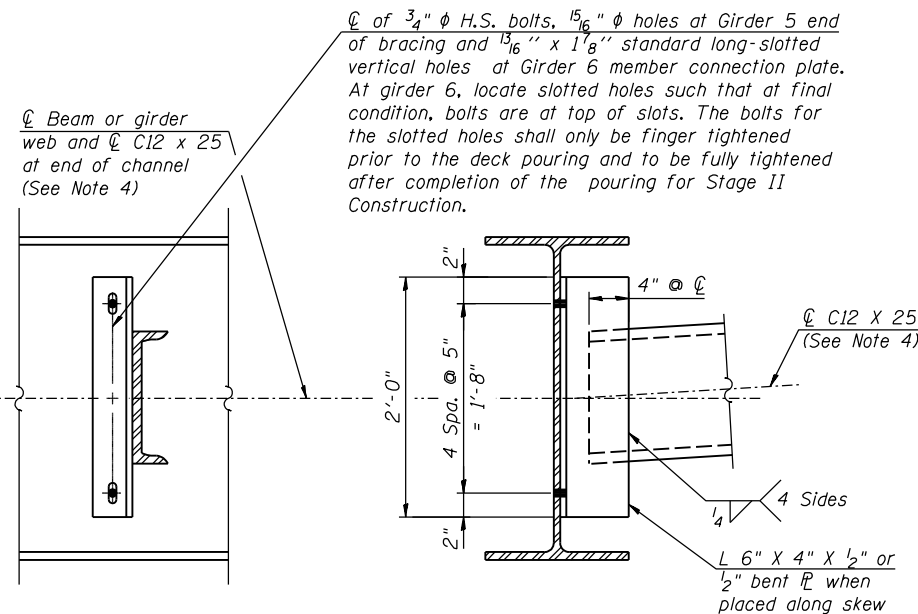
INTERIOR DIAPHRAGM - D3
(58 Required)



END DIAPHRAGM-D4
(2 Required)

END DIAPHRAGM STAGE CONSTRUCTION SEQUENCE

- 1.) Order diaphragm in two sections.
- 2.) Attach section ① of diaphragm to beam
- 3.) Place timber block posts between section ① of diaphragm and abutment bearing section.
- 4.) Attach section ② of diaphragm to both beam and section ① of diaphragm during stage II construction with splice plates.
- 5.) Remove timber block posts.



INTERIOR DIAPHRAGM - D5
(1 Required)

NOTES

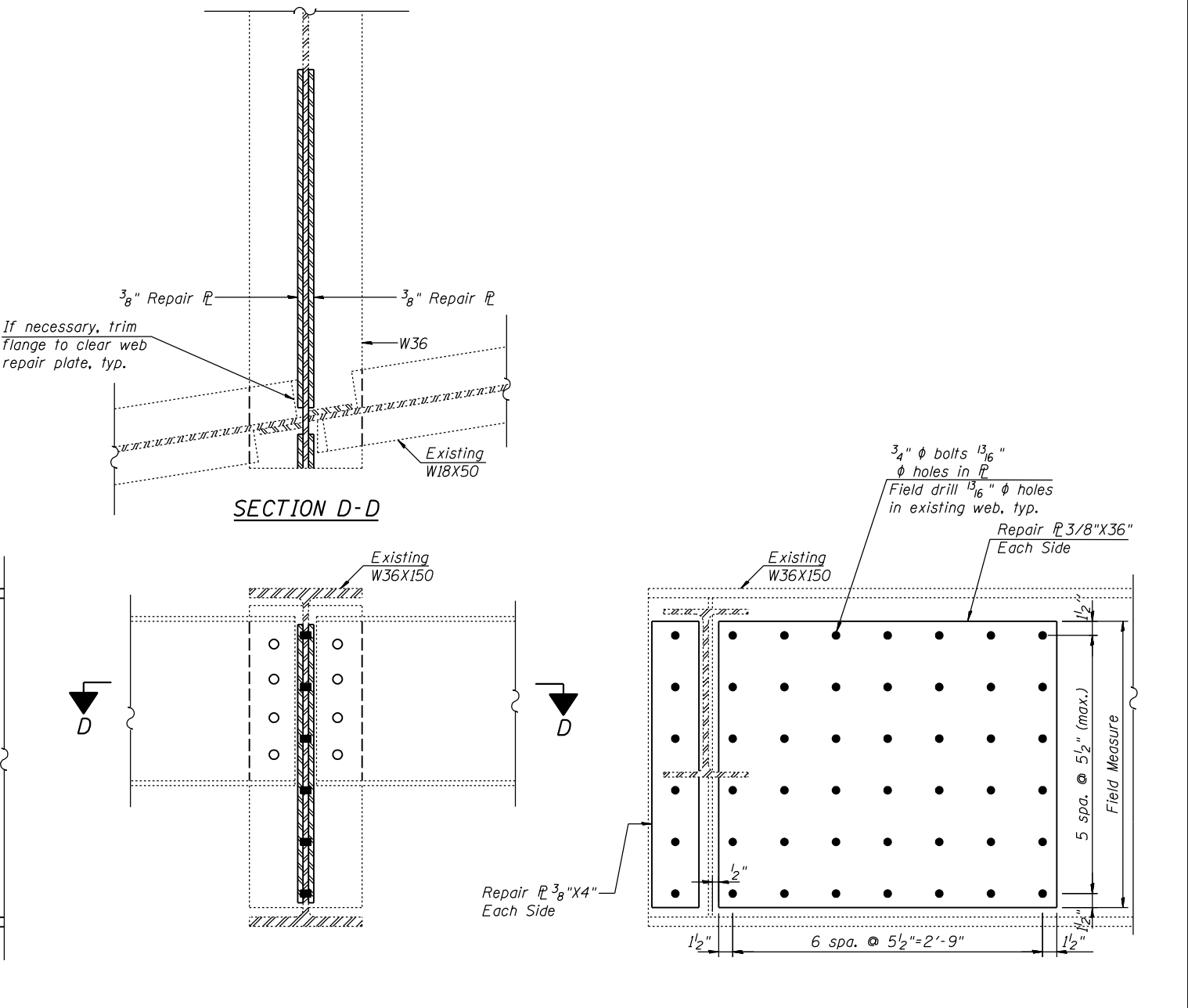
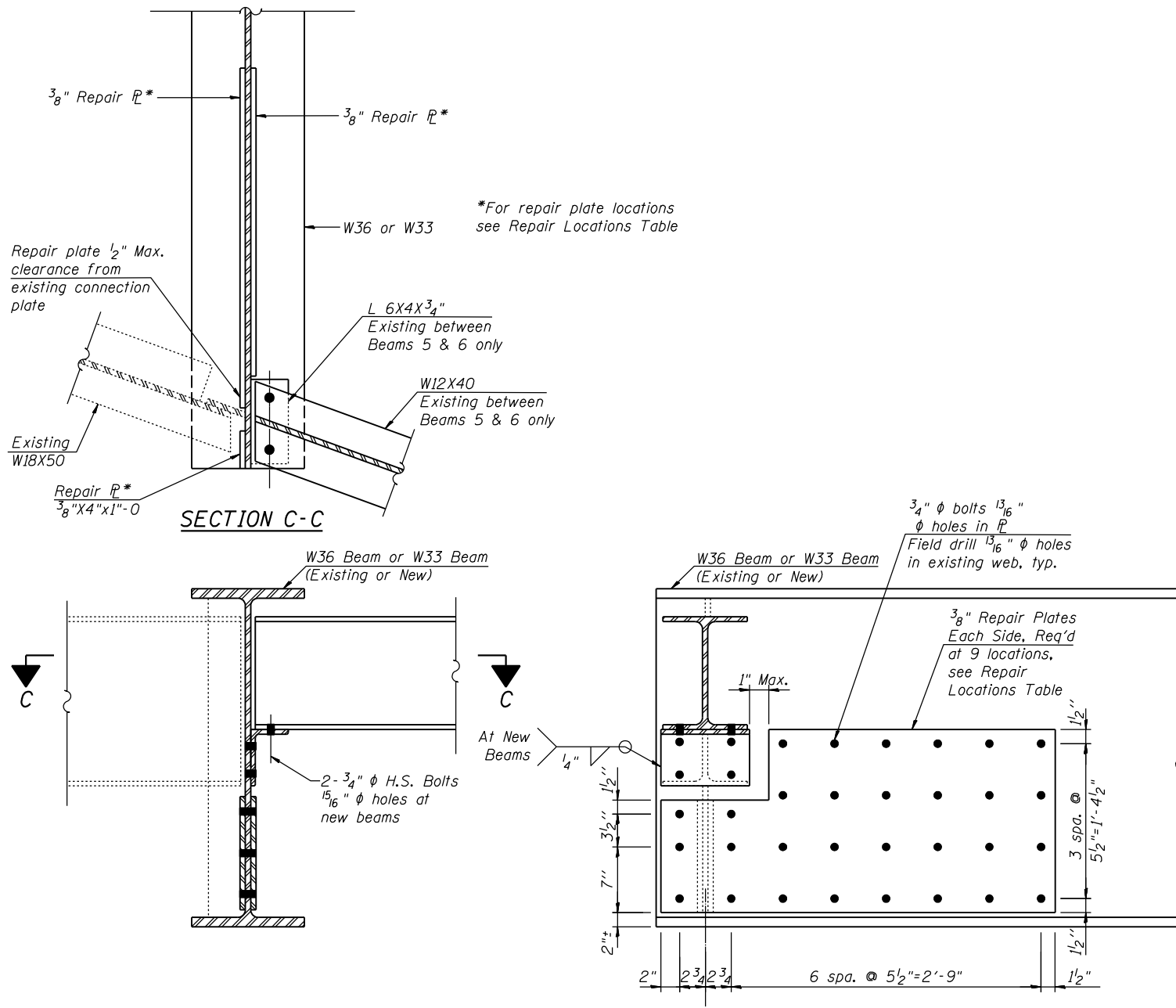
1. Work this sheet with Sheets S47, S49 and S50.
2. Two hardened washers are required for each set of oversized holes.
3. Alternate C15x50 diaphragm channels are permitted for D2 diaphragms to facilitate material acquisition. Calculated weight of structural steel is based on C15x40. The alternate, if utilized, shall be provided at no extra cost to the Department.
4. Alternate C12x30 diaphragm channels are permitted for D3 and D5 diaphragms to facilitate material acquisition. Calculated weight of structural steel is based on C12x25. The alternate, if utilized, shall be provided at no extra cost to the Department.
5. 5/16" diameter holes shall be field drilled into existing Beams 1 & 10 to connect angles for Diaphragms D2 & D3.

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	269
CONTRACT NO. 60133				

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END DIAPHRAGM-D6 & BEAM REPAIR

(15 Diaphragms Required)
(9 Repairs Required)

REPAIR LOCATIONS

Location	Span	Beams
Pier 4	4	1, 5 & 10
Pier 5	6	1, 5, 6 & 10
E. Abut.	10	1 & 10

BILL OF MATERIAL

Item	Unit	Quantity
Structural Steel Repair	Pound	1660

NOTES

1. Work this sheet with Sheets S42 thru S48 and S50.
2. Contractor shall field verify dimensions at repair plates.
3. Two hardened washers are required for each set of oversized holes.
4. Diaphragms, connection angles and repair plates shall be AASHTO M270 Grade 36.

INTERIOR GIRDER MOMENT TABLE - UNIT #1				
	0.4 Sp. 1 & 0.6 Sp. 4	Pier 1 Pier 3	0.5 Sp. 2 & 0.5 Sp. 3	Pier 2
I_s	(in ⁴)	9,760	9,760	9,760
$I_c(n)$	(in ⁴)	27,060	-	27,060
$I_c(3n)$	(in ⁴)	19,543	-	19,543
S_s	(in ³)	542	542	542
$S_c(n)$	(in ³)	821	-	821
$S_c(3n)$	(in ³)	736	-	736
ϕ	(k/')	0.937	1.447	0.937
$M\phi$	(k)	253.5	679.7	248.4
$s\phi$	(k/')	0.51	-	0.51
$M_s\phi$	(k)	152.9	-	169.2
$M\phi$	(k)	662.6	404.5	737.9
M_{IM}	(k)	176.7	103.5	181.3
$^5_3[M\phi + I]$	(k)	1,398.9	846.7	1,531.9
M_o	(k)	2,350.4	1,986.5	2,538.3
M_u	(k)	3,973.9	2,600	3,973.9
$f_s \phi_{non-comp}$	(ksi)	5.6	15.1	5.5
$f_s \phi_{comp}$	(ksi)	2.49	-	2.76
$f_s ^5_3[M\phi + M_I]$	(ksi)	20.48	18.8	22.5
f_s (Overload)	(ksi)	28.58	33.9	30.76
VR	(k)	75.8	-	75.4

INTERIOR GIRDER MOMENT TABLE UNIT #2		0.5 Span 5
I_s	(in ⁴)	6,710
$I_c(n)$	(in ⁴)	20,201
$I_c(3n)$	(in ⁴)	14,737
S_s	(in ³)	406
$S_c(n)$	(in ³)	638
$S_c(3n)$	(in ³)	574
ϕ	(k/')	0.907
$M\phi$	(k)	306.4
$s\phi$	(k/')	0.51
$M_s\phi$	(k)	172.4
$M\phi$	(k)	437.2
M_{IM}	(k)	123.5
$^5_3[M\phi + I]$	(k)	934.6
M_o	(k)	1,839.8
M_u	(k)	3,113.3
$f_s \phi_{non-comp}$	(ksi)	9.06
$f_s \phi_{comp}$	(ksi)	3.60
$f_s ^5_3[M\phi + M_I]$	(ksi)	17.63
f_s (Overload)	(ksi)	30.29
VR	(k)	51.84

INTERIOR GIRDER MOMENT TABLE - UNIT #3					
	0.4 Sp. 6 & 0.6 Sp. 10	Pier 6 Pier 9	0.5 Spans 7 thru 9	Pier 7 Pier 8	0.5 Span 8
I_s	(in ⁴)	6,710	6,710	6,710	6,710
$I_c(n)$	(in ⁴)	20,201	-	20,201	-
$I_c(3n)$	(in ⁴)	14,737	-	14,737	-
S_s	(in ³)	405	405	405	405
$S_c(n)$	(in ³)	637	-	637	-
$S_c(3n)$	(in ³)	574	-	574	-
ϕ	(k/')	0.907	1.417	0.907	1.417
$M\phi$	(k)	152.1	439.9	169.3	474.0
$s\phi$	(k/')	0.51	-	0.51	-
$M_s\phi$	(k)	97.1	-	121.9	-
$M\phi$	(k)	360.1	212.8	431.4	239.1
M_{IM}	(k)	102.9	58.3	113.5	62.9
$^5_3[M\phi + I]$	(k)	771.7	452	907	503.2
M_o	(k)	1,329.1	1,160.6	1,560.0	1,272.9
M_u	(k)	3,340.4	1,945.8	3,340.4	1,945.8
$f_s \phi_{non-comp}$	(ksi)	4.5	13.0	5.0	14.0
$f_s \phi_{comp}$	(ksi)	2.03	-	2.55	-
$f_s ^5_3[M\phi + M_I]$	(ksi)	14.55	13.38	17.11	14.9
f_s (Overload)	(ksi)	21.08	26.39	24.66	28.93
VR	(k)	54.8	-	58.1	-

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in⁴ and in³).

$I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in⁴ and in³).

$I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in⁴ and in³).

Z: Plastic Section Modulus of the steel section in non-composite areas (in³).

ϕ : Un-factored non-composite dead load (kips/ft.).

$M\phi$: Un-factored moment due to non-composite dead load (kip-ft.).

$s\phi$: Un-factored long-term composite (superimposed) dead load (kips/ft.).

$M_s\phi$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

$M\phi$: Un-factored live load moment (kip-ft.).

M_I : Un-factored moment due to impact (kip-ft.).

M_o : Factored design moment (kip-ft.).

M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).

f_s (Overload): Sum of stresses as computed from the moments below (ksi).

$M\phi + M_s\phi + \frac{5}{8}(M\phi + M_I)$

VR: Maximum ϕ + impact shear range within the composite portion of the span for stud shear connector design (kips).

INTERIOR GIRDER REACTION TABLE - UNIT #1			
	W. Abut. Pier 4	Pier 1 Pier 3	Pier 2
$R\phi$	(k)	35.2	112.5
$R\phi$	(k)	53.8	69.9
R_I	(k)	14.3	13.1
R_{Total}	(k)	103.4	195.5

INTERIOR GRDR RXN TABLE - UNIT #2		Pier 4 Pier 5
$R\phi$	(k)	37.7
$R\phi$	(k)	40.1
R_I	(k)	11.3
R_{Total}	(k)	89.2

INTERIOR GIRDER REACTION TABLE - UNIT #3			
	Pier 5 E. Abut.	Pier 6 Pier 9	Pier 7 Pier 8
$R\phi$	(k)	27.5	89.7
$R\phi$	(k)	38.6	45.5
R_I	(k)	11.0	9.5
R_{Total}	(k)	77.1	144.7

Based on girder 13 in Unit 2 & Unit 3

* Compact section
Based on girder 12 in Unit 1.

Note: All Tables are based on new beams.

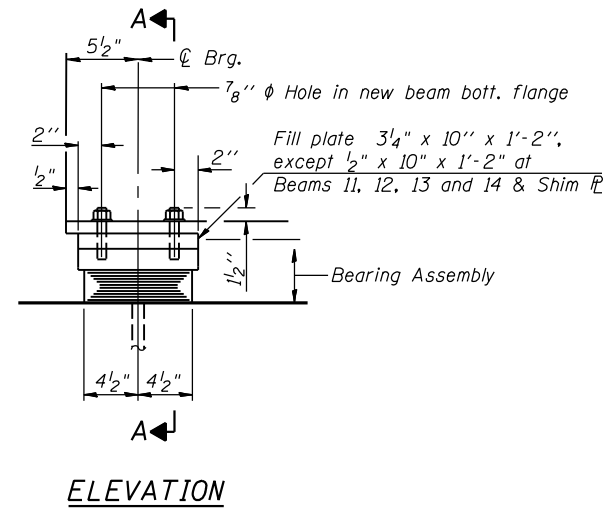
NOTES

1. Work this sheet with Sheets S42 thru S49.

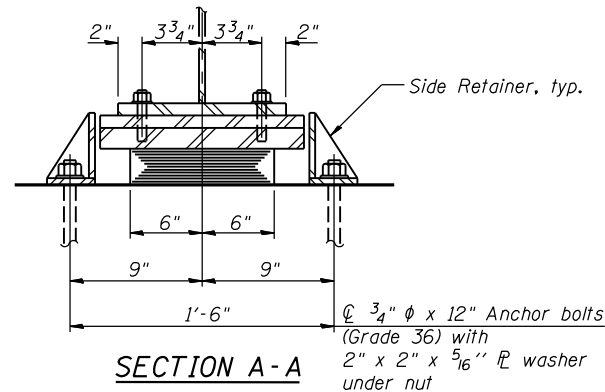
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PLOT DATE =	CHECKED - J.Z. 6/15/2012	REVISED -

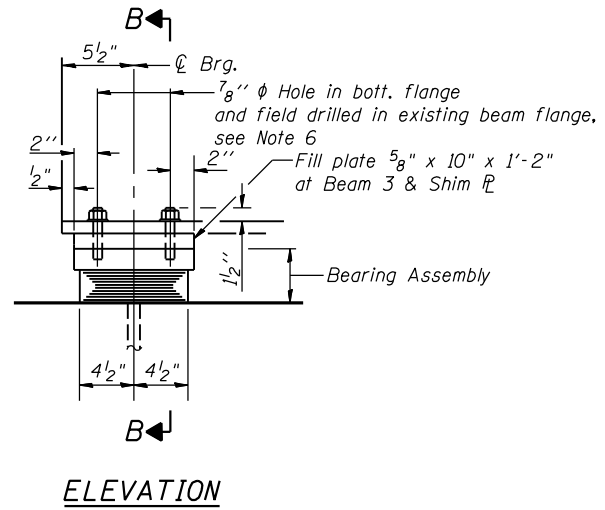
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	271
			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



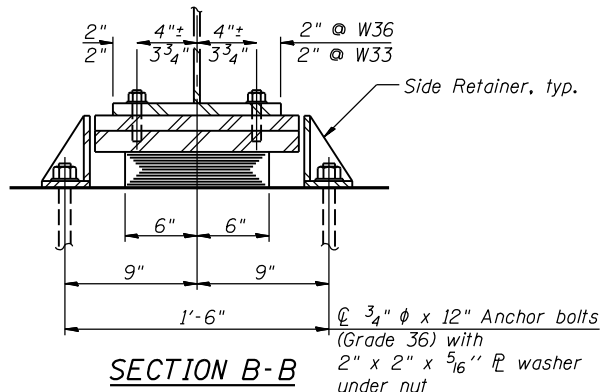
ELEVATION



SECTION A-A



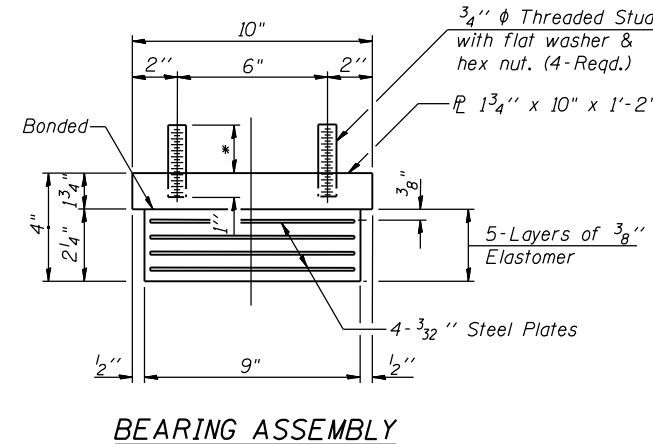
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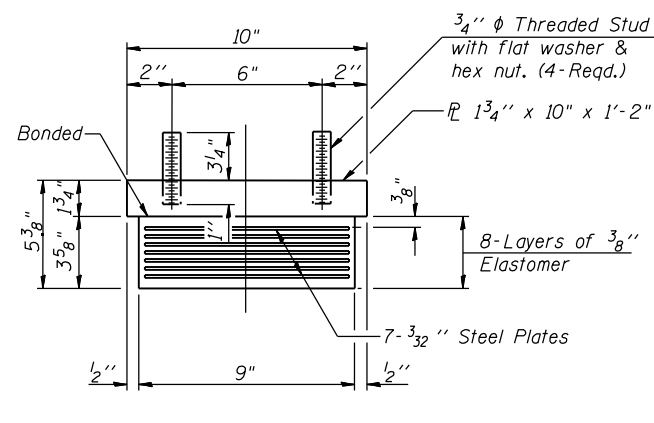
SECTION B-B

TYPE 'A' BEARING (TYPE I ELASTOMERIC EXP. BRG.)
(14 Required)

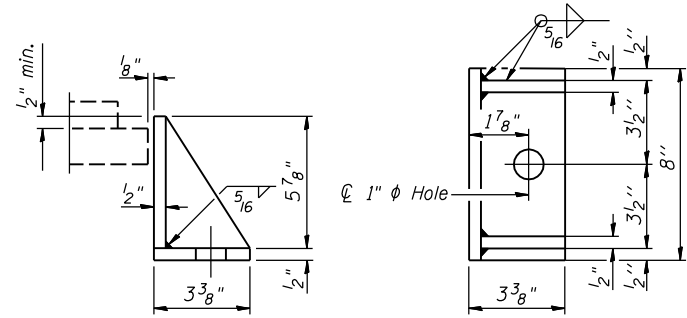
TYPE 'B' BEARING (TYPE I ELASTOMERIC EXP. BRG.)
(14 Required)



BEARING ASSEMBLY



BEARING ASSEMBLY



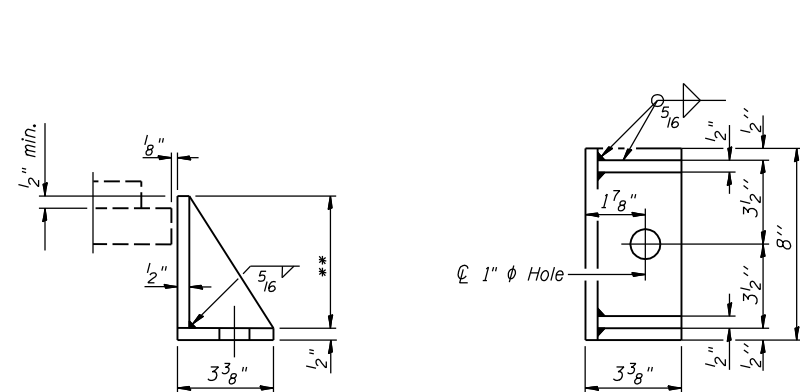
SIDE RETAINER

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

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 for side retainers may be cast in place or installed in holes drilled before or after members are in place.
- 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 elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
- The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.
- The existing type I elastomeric bearings at Pier 5 are to be removed completely from the bottom flange of the existing beams using air-arc method without damaging the flanges and grind smooth all weld material remaining on the existing bottom flange, and to be replaced with appropriate Type I Elastomeric Bearing using bolt connections.
- Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

*5 7/8" at beams 1 thru 10 and 3 1/8" at beams 11 thru 14



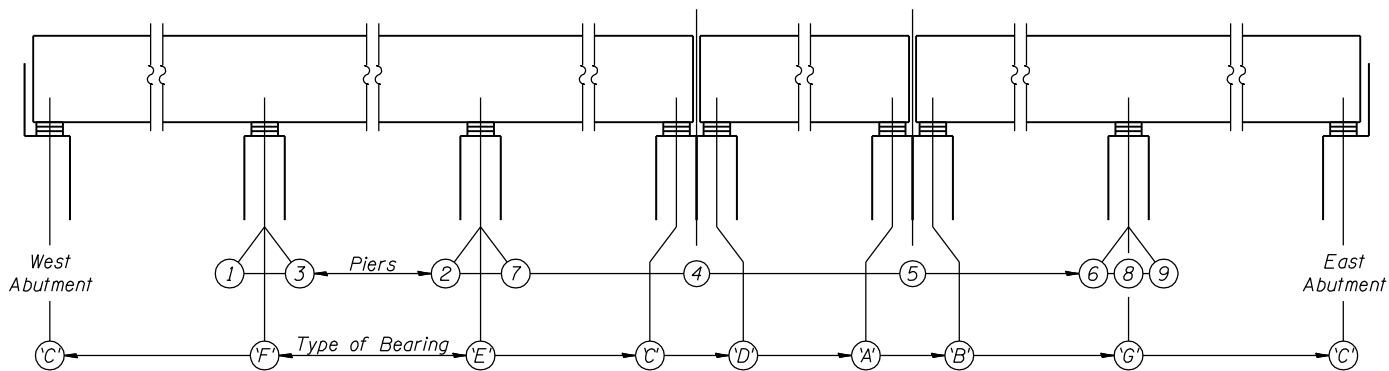
SIDE RETAINER

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

** 7/4" at Beams 1 thru 10 and 4 1/2" at Beams 11 thru 14

BILL OF MATERIAL

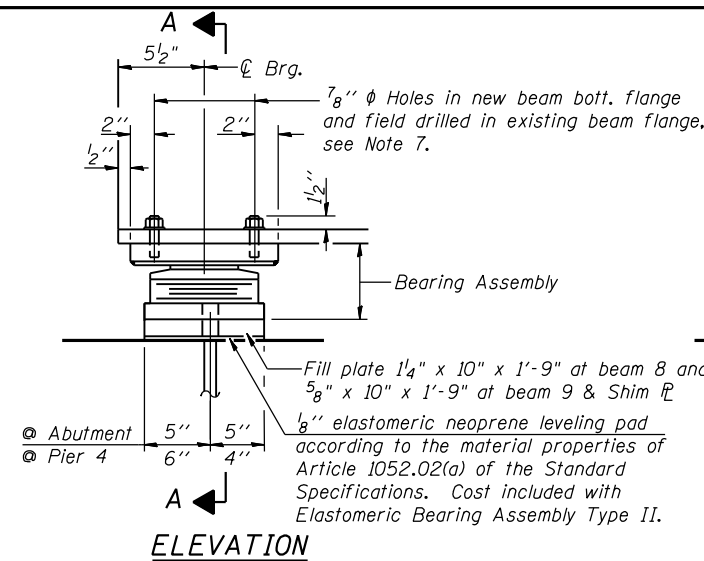
Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	28
Anchor Bolts, 3/4"	Each	56



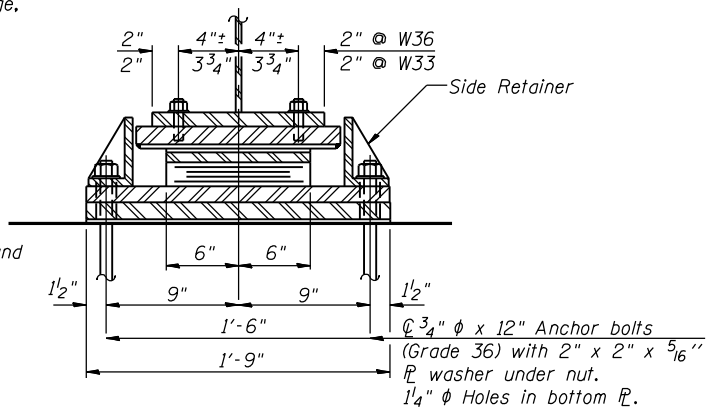
KEY BRIDGE BEARING TYPES

(See Sheets S52 thru S55 for details)

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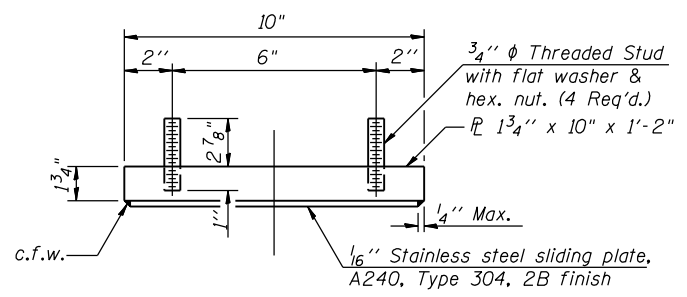


ELEVATION

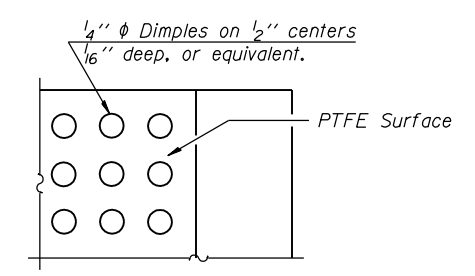


SECTION A-A

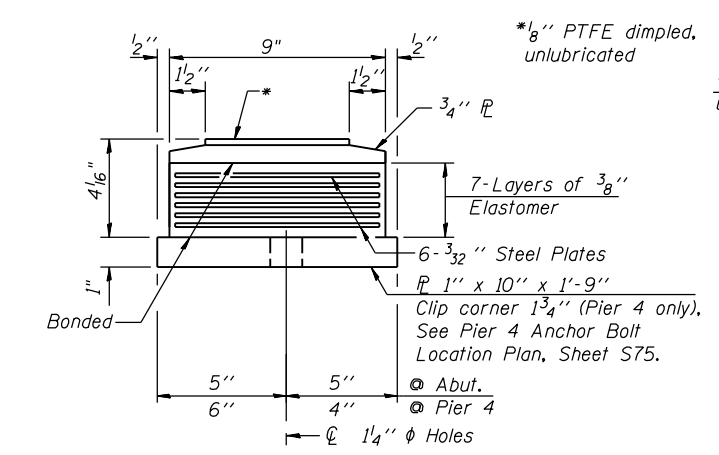
TYPE 'C' BEARING (TYPE II ELASTOMERIC EXP. BRG.)
(21 Required)



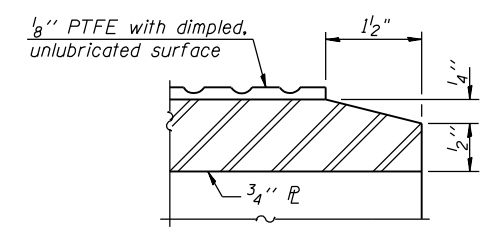
TOP BEARING ASSEMBLY



PLAN-PTFE SURFACE



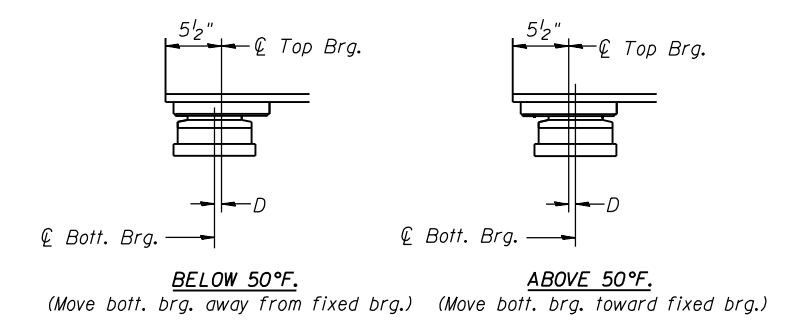
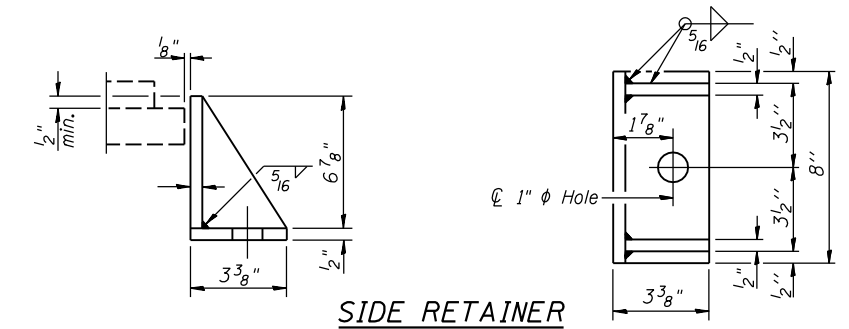
BOTTOM BEARING ASSEMBLY



SECTION THRU PTFE

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	21
Anchor Bolts, 3/4"	Each	42



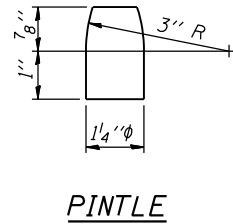
SETTING ANCHOR BOLTS AT EXP. BRG.

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

NOTES

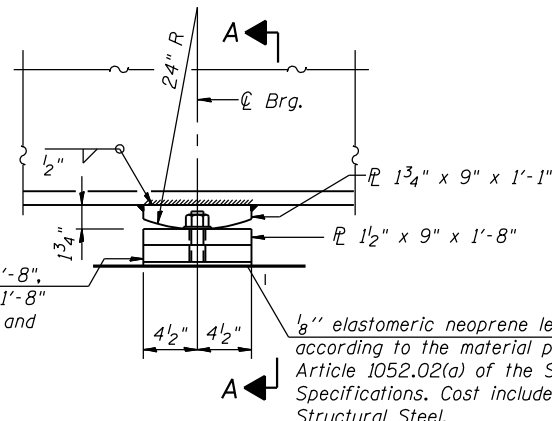
- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Anchor bolts for Type II bearings shall be placed in holes drilled in the concrete through holes in 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 elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.
- The 1/8" PTFE 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" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.
- The existing type II elastomeric bearings at Pier 4 are to be removed completely from the bottom flange of the existing beams using air-arc method without damaging the flanges and grind smooth all weld material remaining on the existing bottom flange, and to be replaced with Type II Elastomeric Bearing using bolt connections.
- The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.
- Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
- See Key Bridge Bearing Types on Sheet S51 for locations of Types 'C' bearing.

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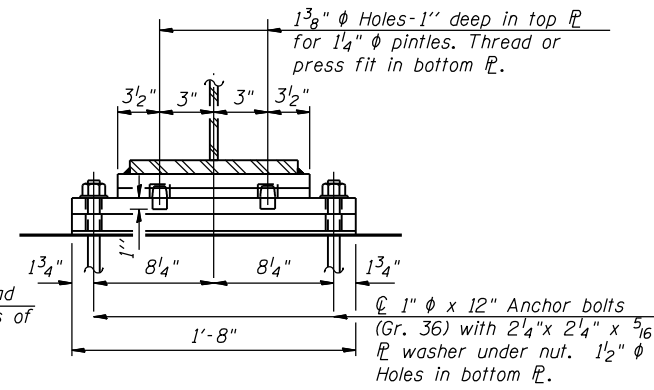


PINTLE

Fill $1\frac{1}{2}'' \times 9'' \times 1'-8''$, except $1\frac{3}{4}'' \times 9'' \times 1'-8''$ at beams 11, 12, 13 and 14 & Shim $1\frac{1}{2}''$

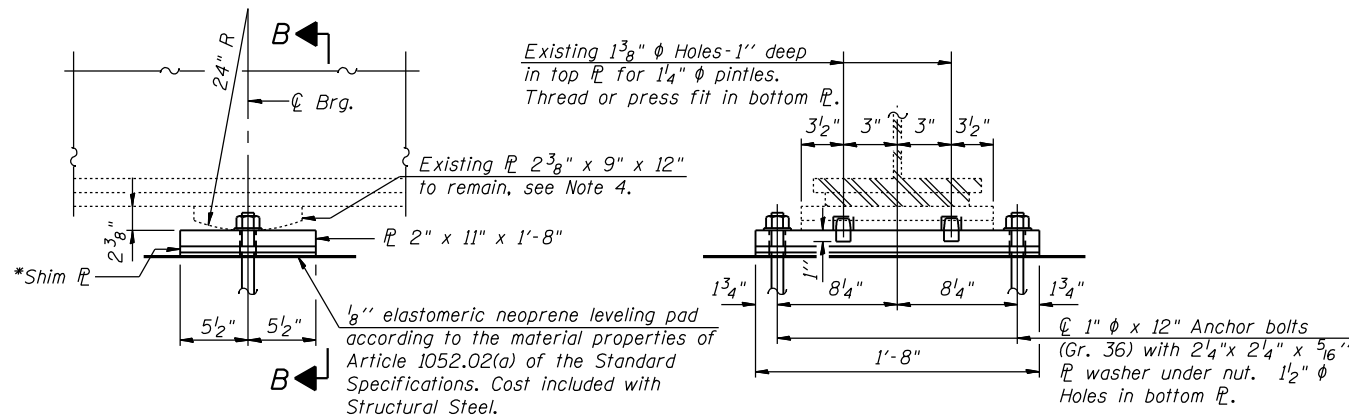


ELEVATION



SECTION A-A

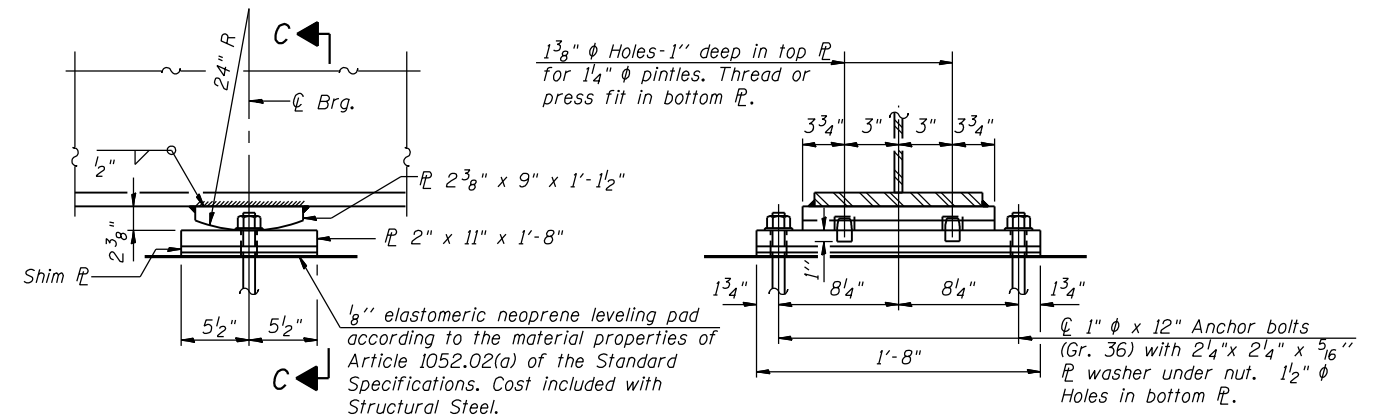
TYPE 'D-N' BEARING AT NEW BEAMS 1 THRU 14
(LOW PROFILE FIXED BEARING)
(14 Required)



ELEVATION

SECTION B-B

TYPE 'E-X' BEARING AT EXISTING BEAMS 1 & 10
(LOW PROFILE FIXED BEARING)
(4 Required)



ELEVATION

SECTION C-C

TYPE 'E-N' BEARING AT NEW BEAMS 11 THRU 14
(LOW PROFILE FIXED BEARING)
(8 Required)

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	52

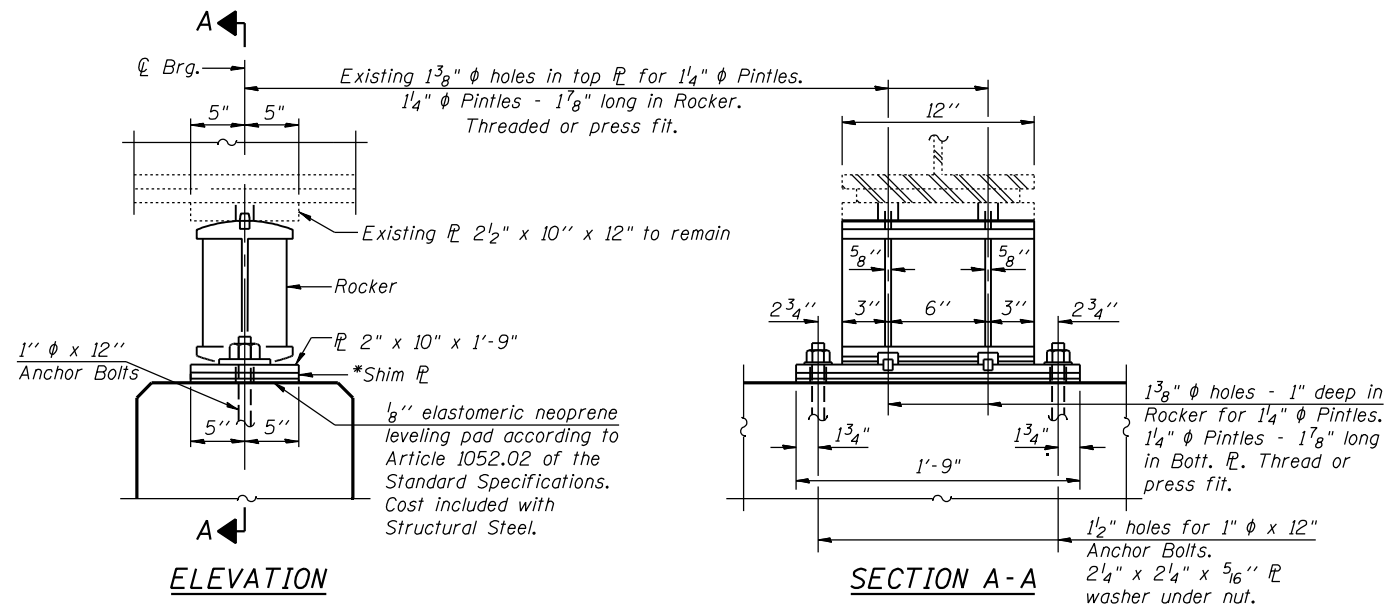
NOTES

- 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.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
- Replace the existing low profile fixed bearings at existing Beam 1 & 10 except for the existing top plates of the existing fixed bearings at Units 1 & 3.
- The structural steel plates of the bearing assembly shall conform to the requirements of AASHTO M 270 Grade 50.
- Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
- Type '-X' refers to fixed bearings at existing beams, while Type '-N' refers to fixed bearings at new beams. See Key Bridge Bearing Types on Sheet S51 for locations of Bearing Types 'D' and 'E'.
- *One additional 1/2" fill plate required at Pier 2, Beam 1.

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	274
CONTRACT NO. 60133				

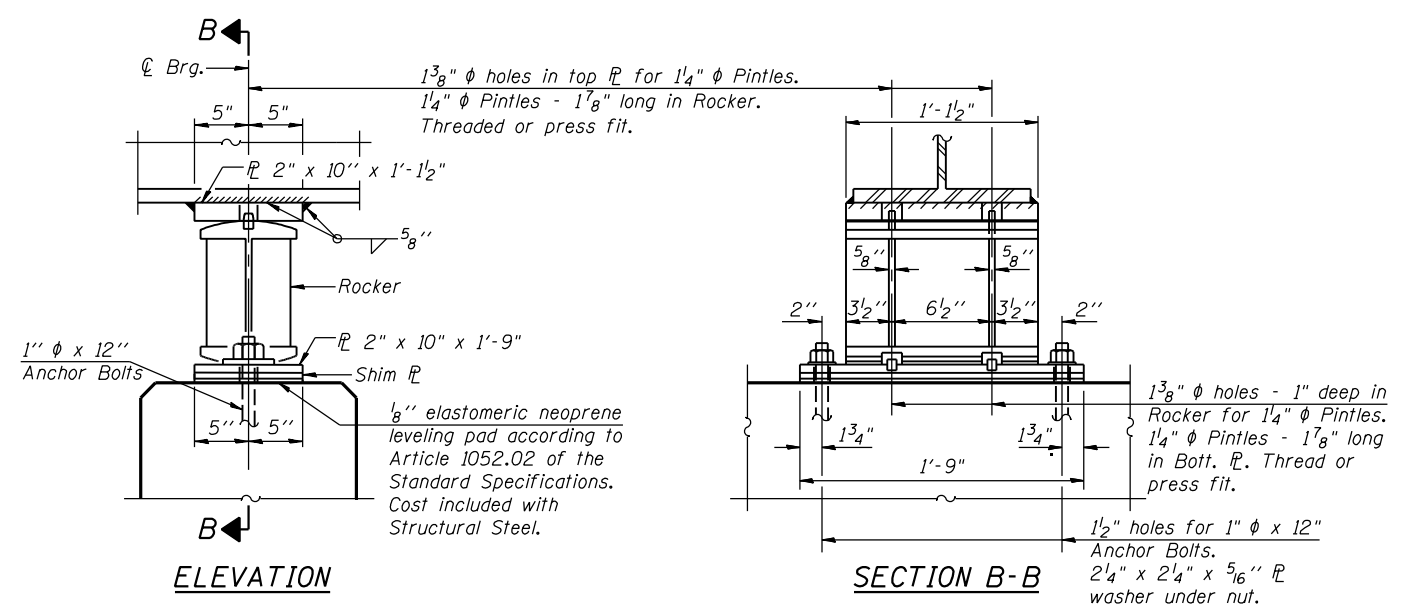


ELEVATION

SECTION A-A

**TYPE 'F-X' BEARINGS AT EXISTING BEAMS 1 & 10
(STEEL ROCKER EXPANSION BEARING)**

(4 Required)

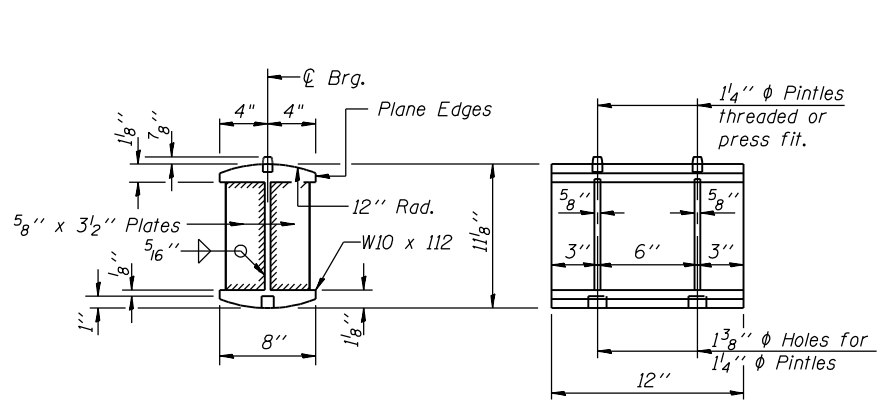


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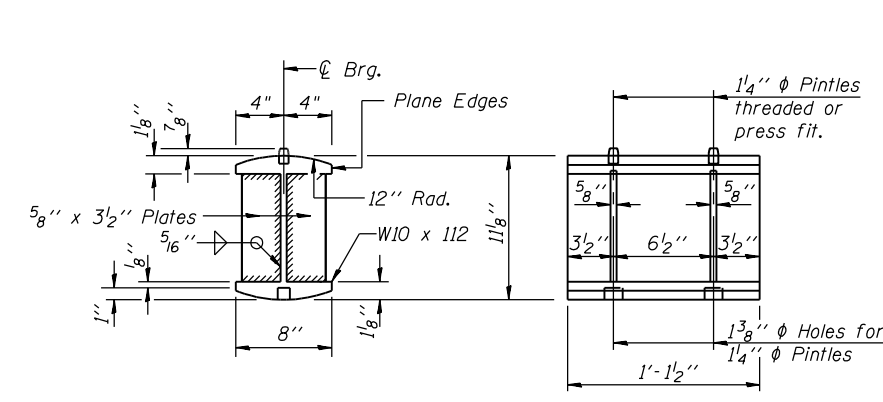
SECTION B-B

**TYPE 'F-N' BEARINGS AT NEW BEAMS 11 THRU 14
(STEEL ROCKER EXPANSION BEARING)**

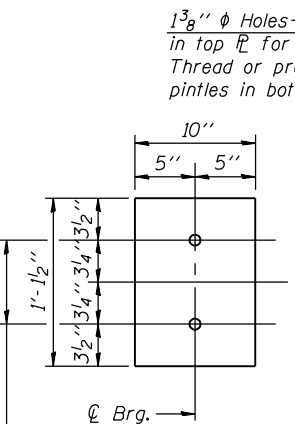
(8 Required)



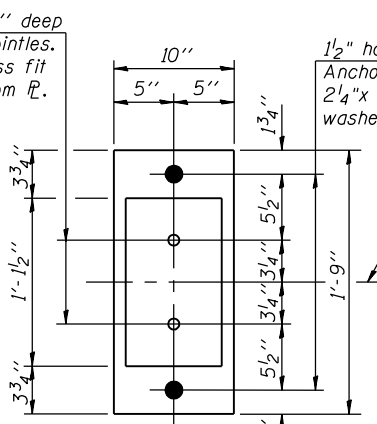
DETAIL OF ROCKER



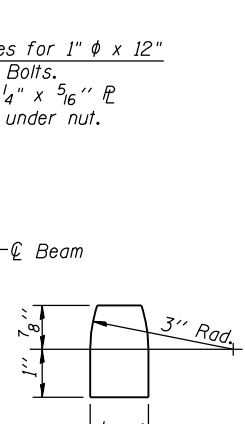
DETAIL OF ROCKER



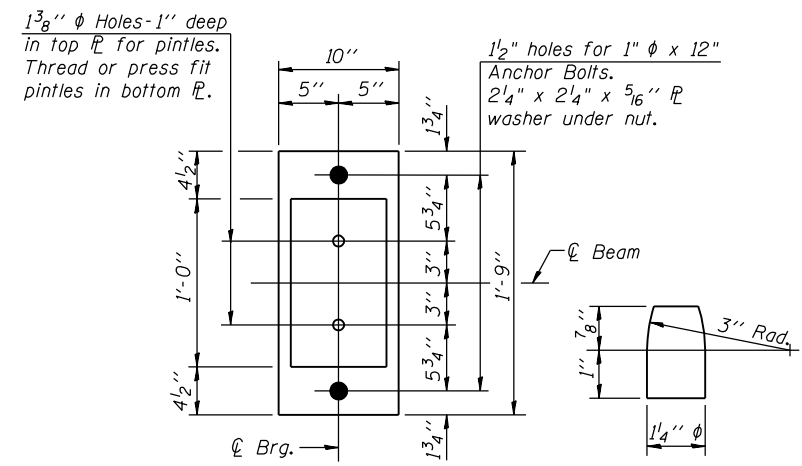
TOP PLATE



BOTTOM PLATE



DETAIL OF PINTLE



BOTTOM PLATE

DETAIL OF PINTLE

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	24

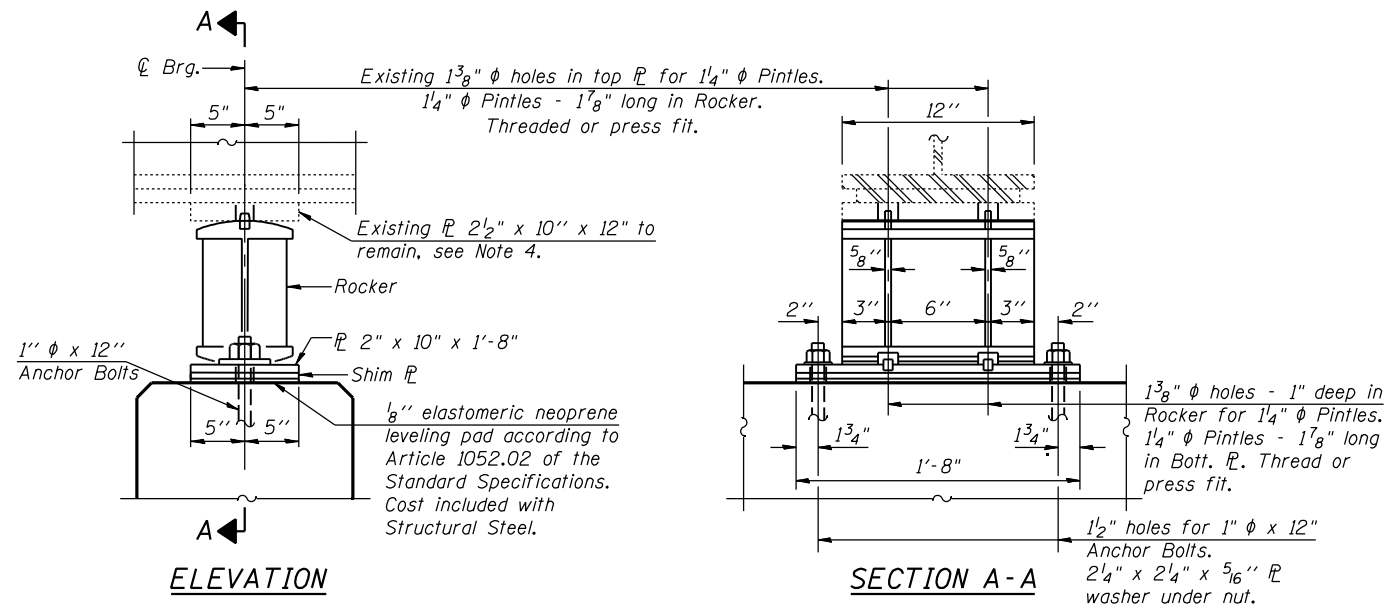
NOTES

- 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.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
- The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.
- Replace the existing rocker bearings at Beams 1 & 10 except for the top plates of the existing assemblies.
- Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
- Type '-X' refers to rocker bearings at existing beams, while Type '-N' refers to rocker bearings at new beams. See Key Bridge Bearing Types on Sheet S51 for Locations of Bearing Type 'F'.
- * One additional 1/4" fill plate required at Pier 3, Beam 1, and one additional 1/4" fill plate required at Pier 3, Beam 10.

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CONTRACT NO. 60133			ILLINOIS FED. AID PROJECT	

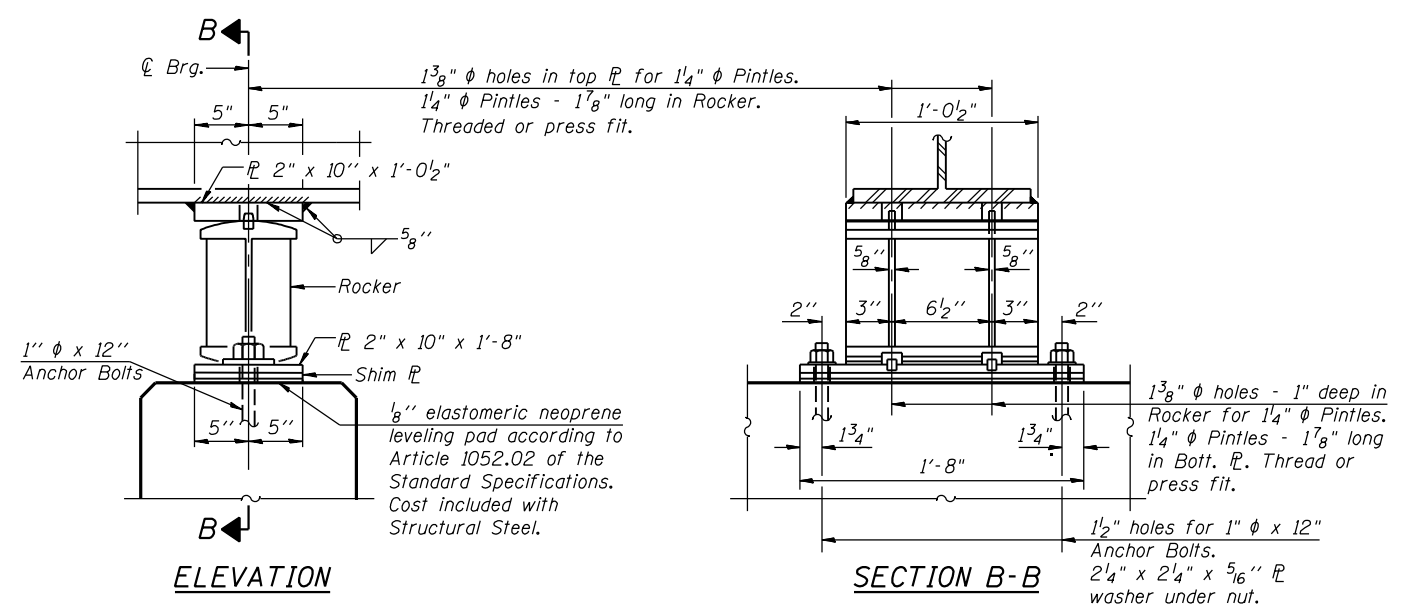


ELEVATION

SECTION A-A

**TYPE 'G-X' BEARINGS AT EXISTING BEAMS 1 & 10
(STEEL ROCKER EXPANSION BEARING)**

(6 Required)

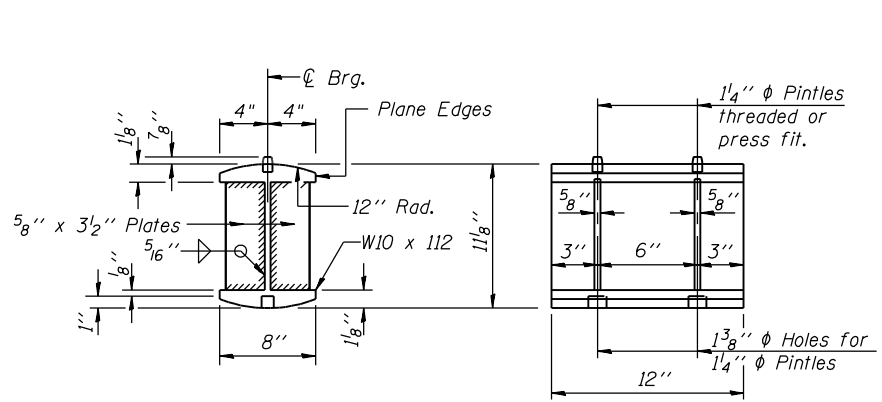


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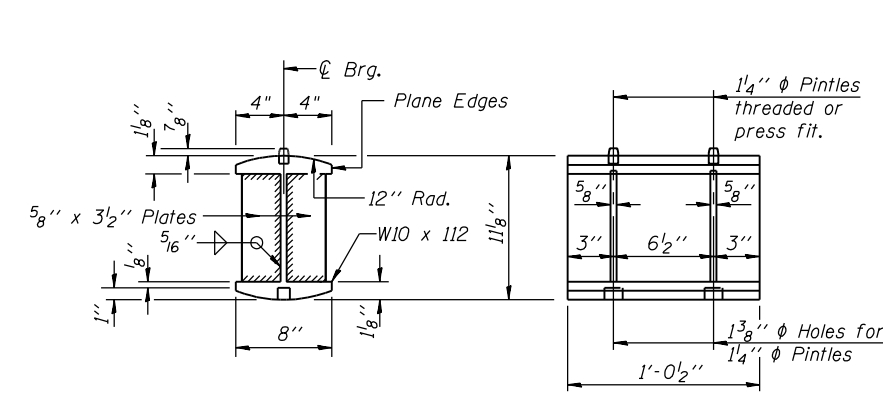
SECTION B-B

**TYPE 'G-N' BEARINGS AT NEW BEAMS 11 THRU 14
(STEEL ROCKER EXPANSION BEARING)**

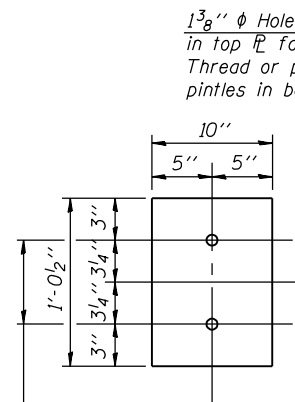
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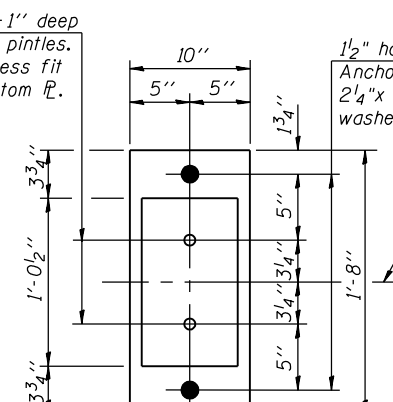
DETAIL OF ROCKER



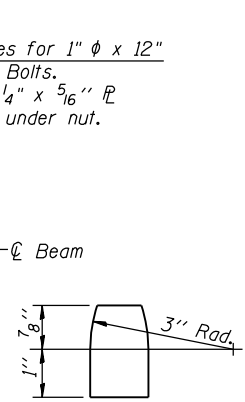
DETAIL OF ROCKER



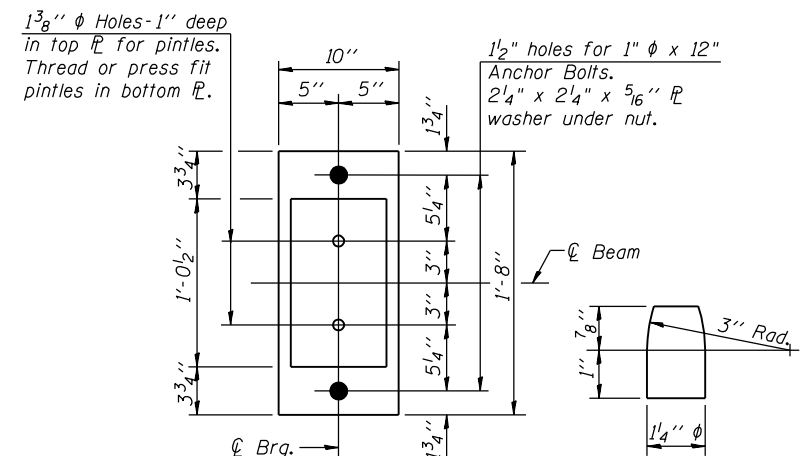
TOP PLATE



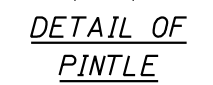
BOTTOM PLATE



DETAIL OF PINTLE



BOTTOM PLATE



DETAIL OF PINTLE

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	34

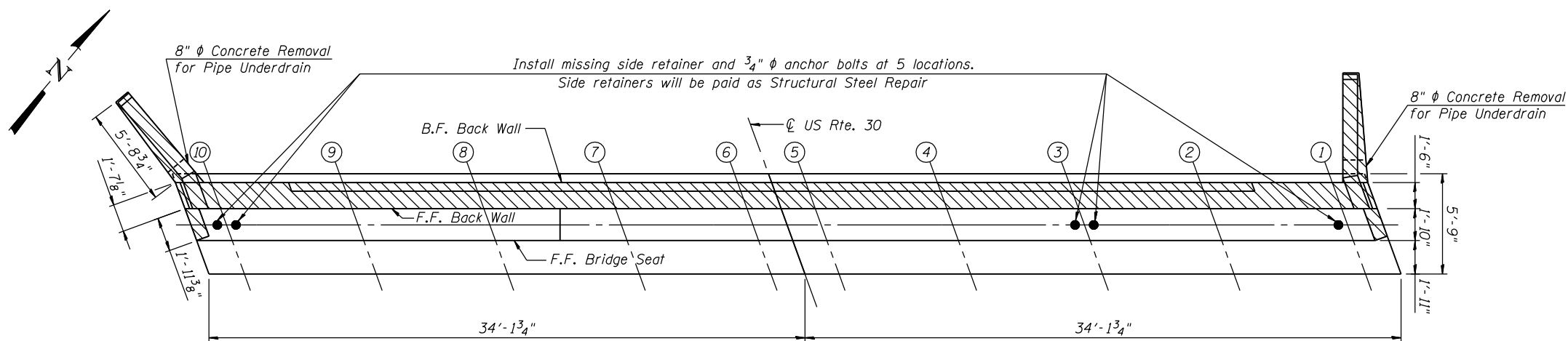
NOTES

- 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.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
- The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.
- Replace the existing rocker bearings at Beams 1 & 10 except for the top plates of the existing assemblies.
- Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
- Type '-X' refers to rocker bearings at existing beams, while Type '-N' refers to rocker bearings at new beams. See Key Bridge Bearing Types on Sheet S51 for Locations of Bearing Type 'G'.

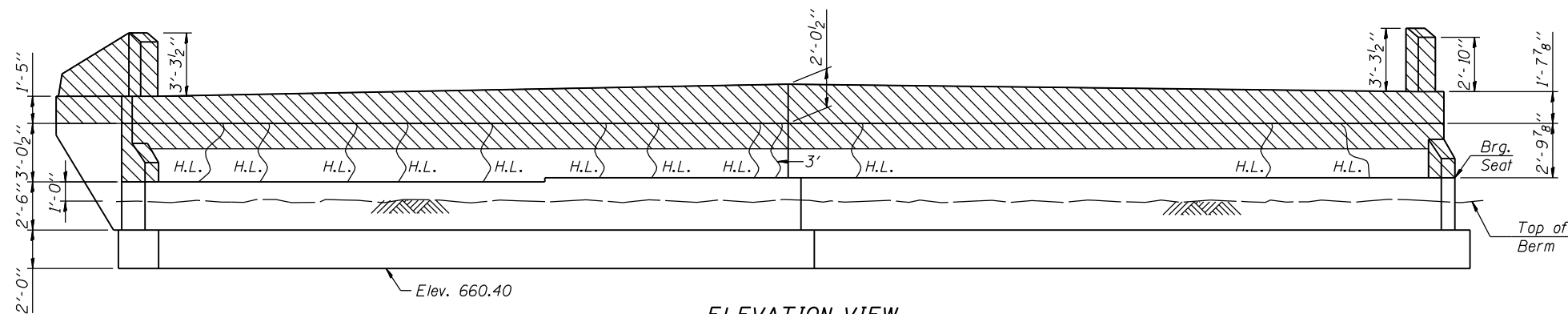
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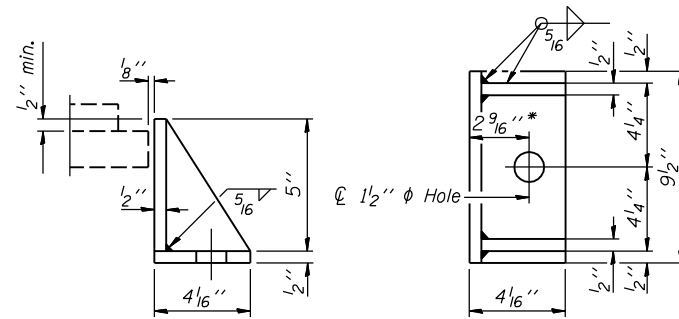
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	276
CONTRACT NO. 60133			ILLINOIS FED. AID PROJECT	



PLAN



ELEVATION VIEW
LOOKING WEST



SIDE RETAINER

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

* Verify in field

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	cu. yd.	10.0
Epoxy Crack Injection	ft.	3.0
Structural Steel Repair	lb.	80
Anchor Bolts, 3/4"	each	5

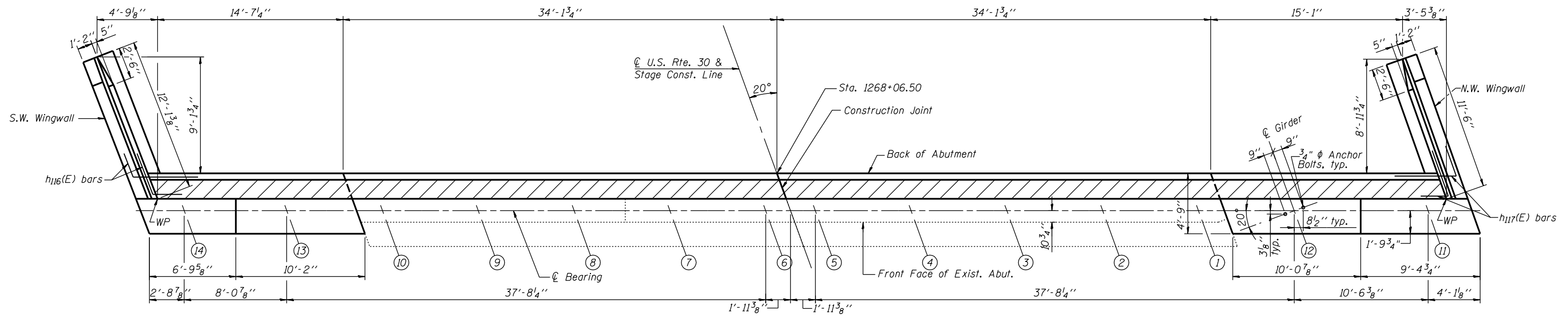
LEGEND

- Concrete Removal
- Epoxy Crack Injection
- H.L. } Hairline Crack, no repair required

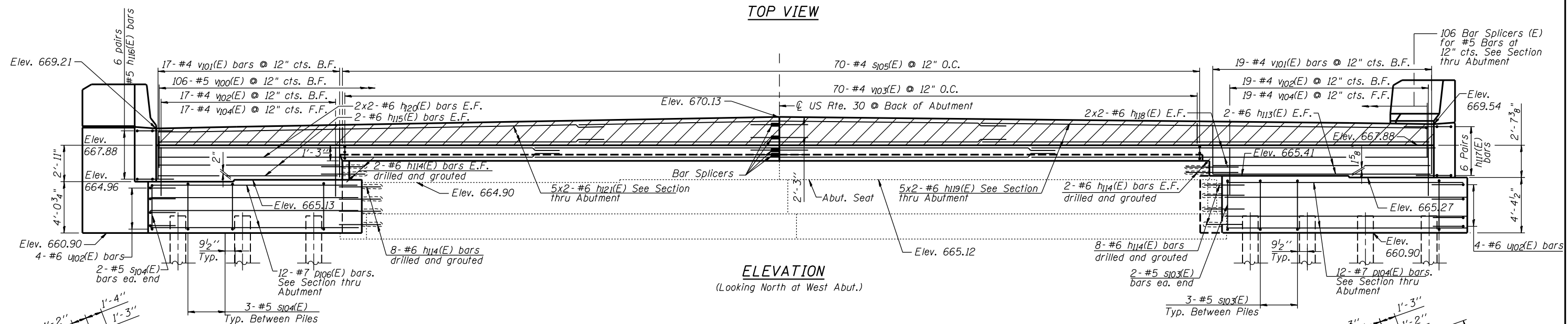
NOTES:

1. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
2. The Structural steel of the side retainers shall conform to the requirements of AASHTO M 270 Grade 36 or Grade 50.

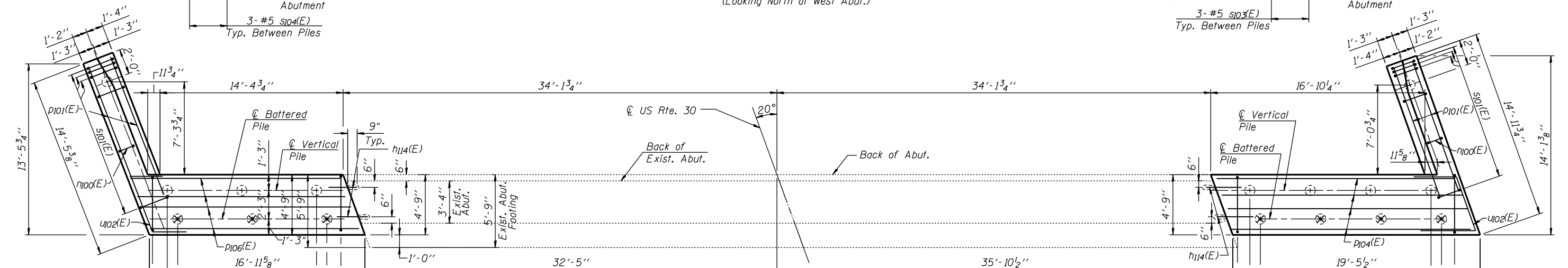
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TOP VIEW



ELEVATION
(Looking North at West Abut.)



PLAN - PILE CAP

- NOTES:**
- Existing reinforcement shall be cleaned, straightened and incorporated the new construction. Cost included with "Concrete Removal".
 - See Sheet S61 for reinforcement details.
 - Space reinforcement in cap to miss anchor bolts.
 - Pour steps monolithically with cap.
 - Embedment depth for #6 bars drilled & grouted is 9".
 - Bars indicated thus 2x2-#6 etc. indicates 2 lines of bars with 2 lengths per line.

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 Chicago, Illinois 60631; (773) 399-0112

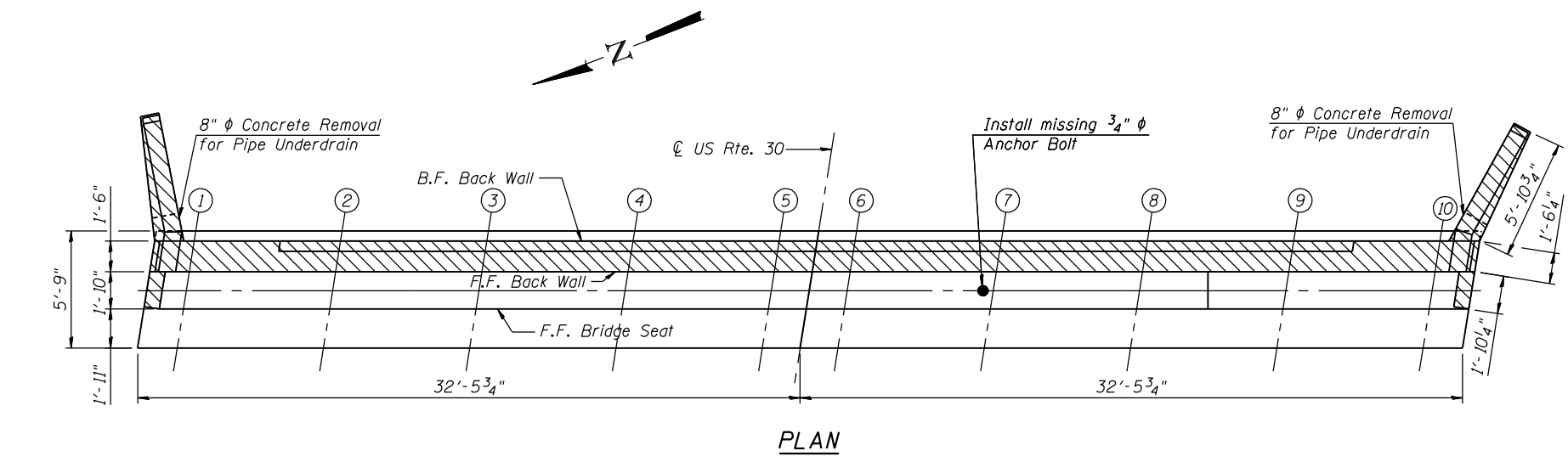
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

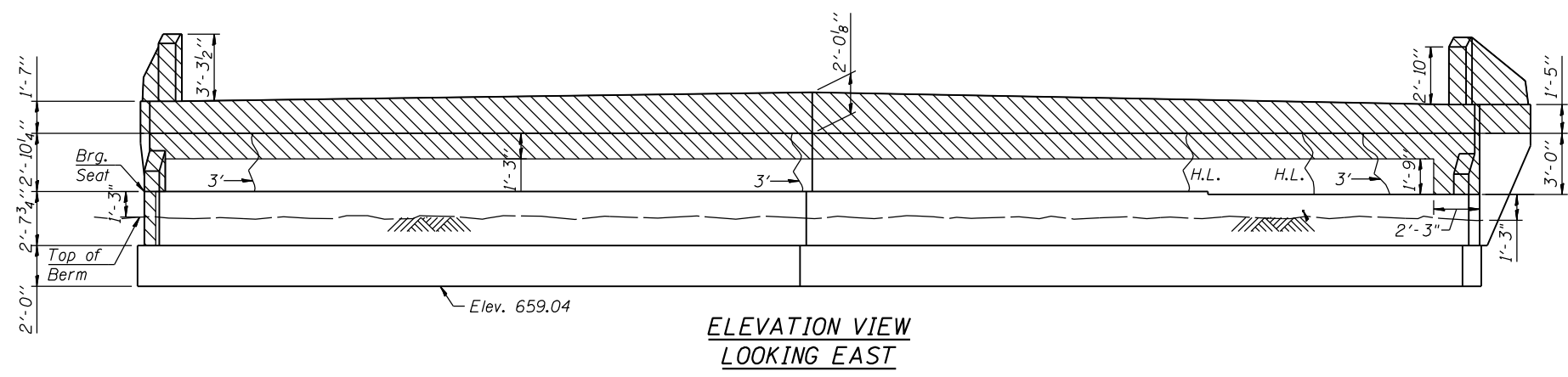
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SHEET NO. S57 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	278
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



PLAN



ELEVATION VIEW
LOOKING EAST

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	cu. yd.	10.0
Epoxy Crack Injection	ft.	9.0
Anchor Bolts, 3/4"	each	1

LEGEND

- Concrete Removal
- Epoxy Crack Injection
- Hairline Crack, no repair required

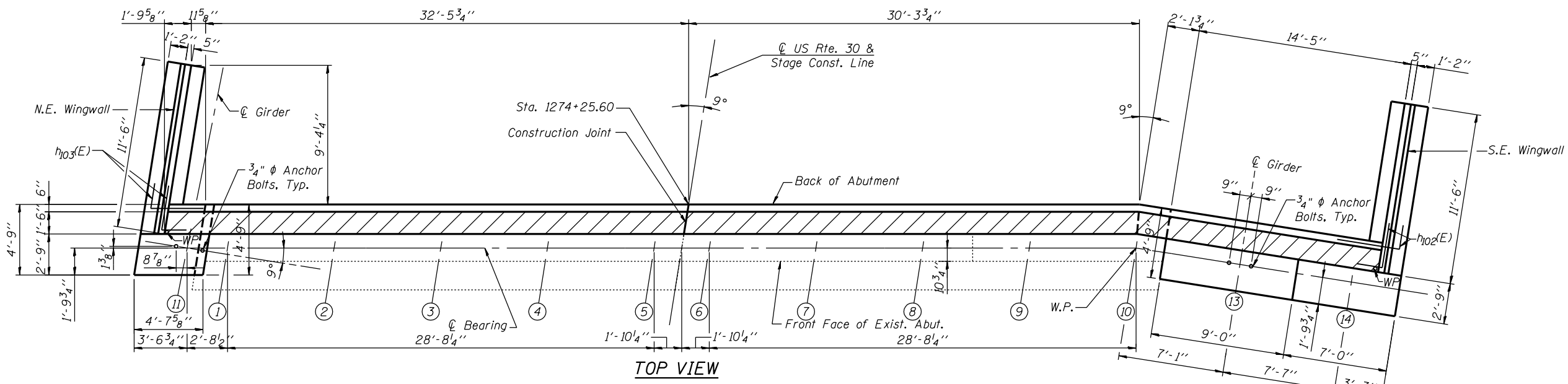
NOTES:

1. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

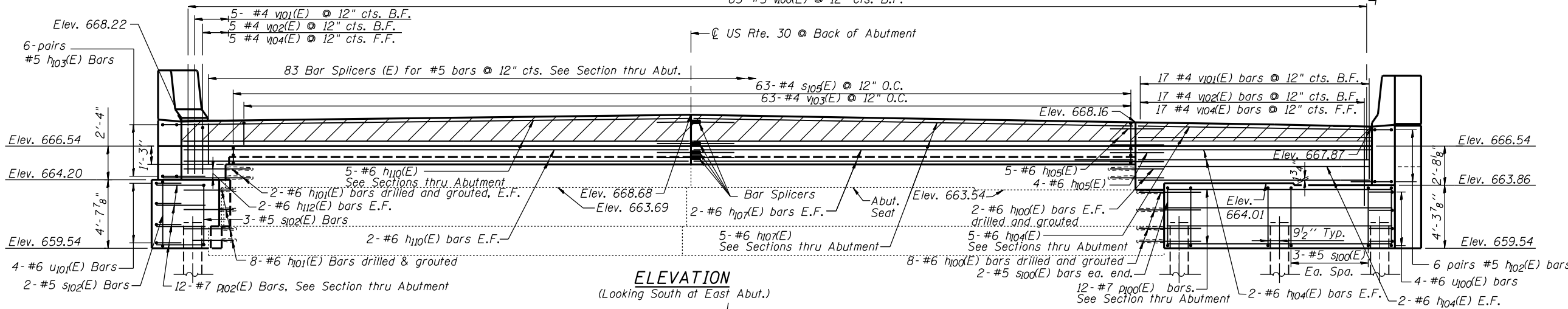
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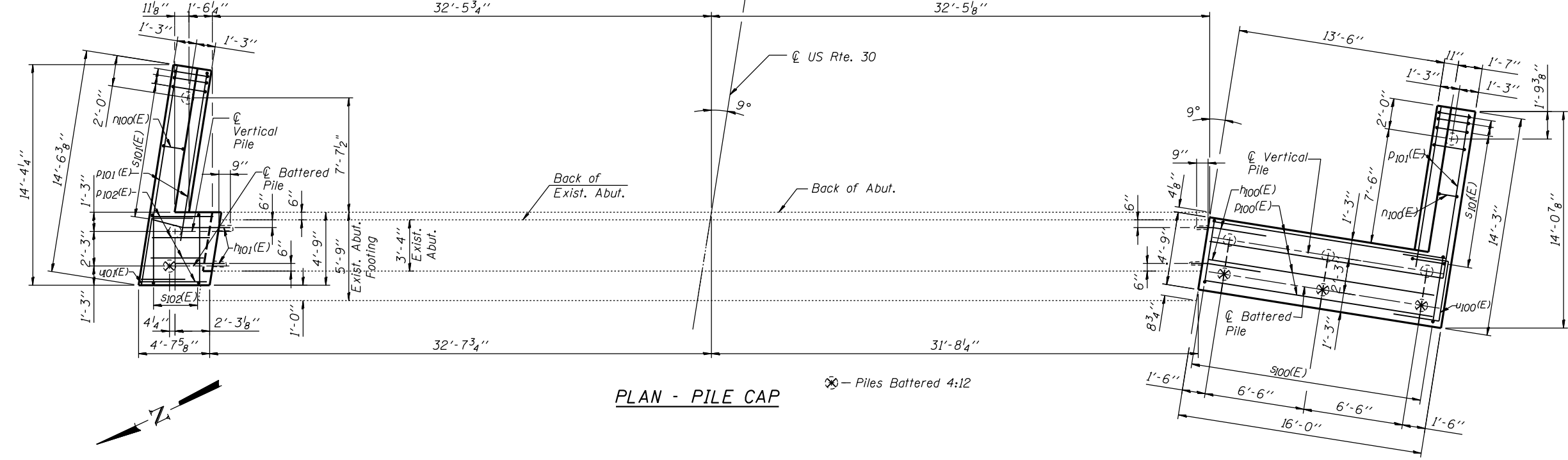
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	279
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



TOP VIEW



ELEVATION
(Looking South at East Abut.)



PLAN - PILE CAP

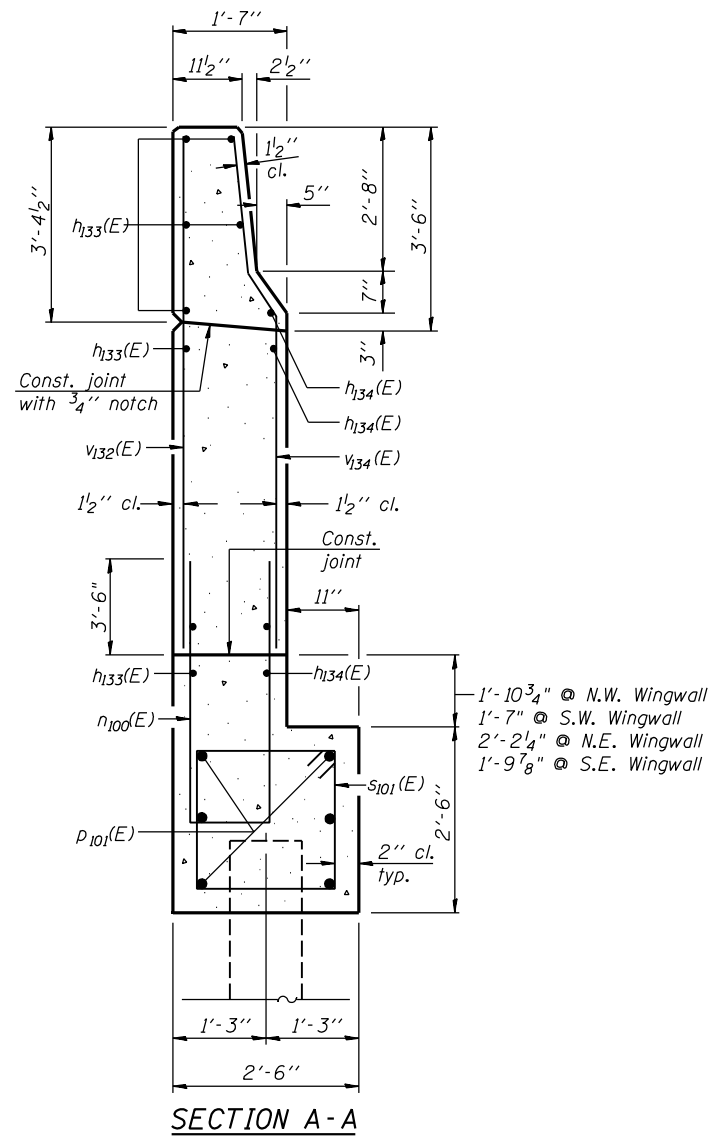
NOTES:

1. Existing reinforcement shall be cleaned, straightened and incorporated into the new construction. Cost included with "Concrete Removal".
2. See Sheet S61 for reinforcement details.
3. Space reinforcement in cap to miss anchor bolts.
4. Pour steps monolithically with cap.
5. Embedment depth for #6 bars drilled & grouted is 9".

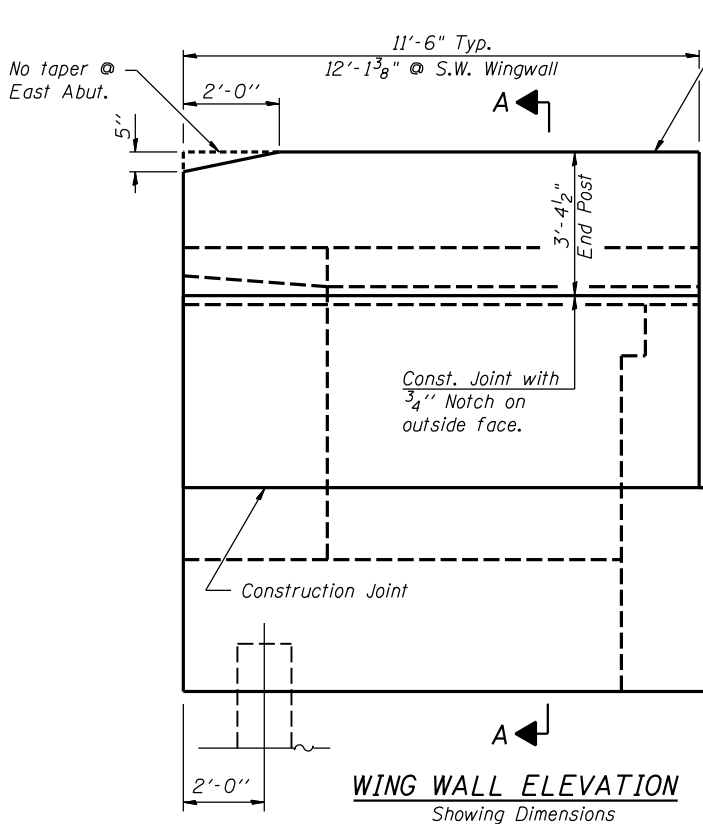
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PLOT DATE =	DRAWN - E.E.J. 6/25/2012	REVISED -
	CHECKED - J.A.Z. 6/25/2012	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	280
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				

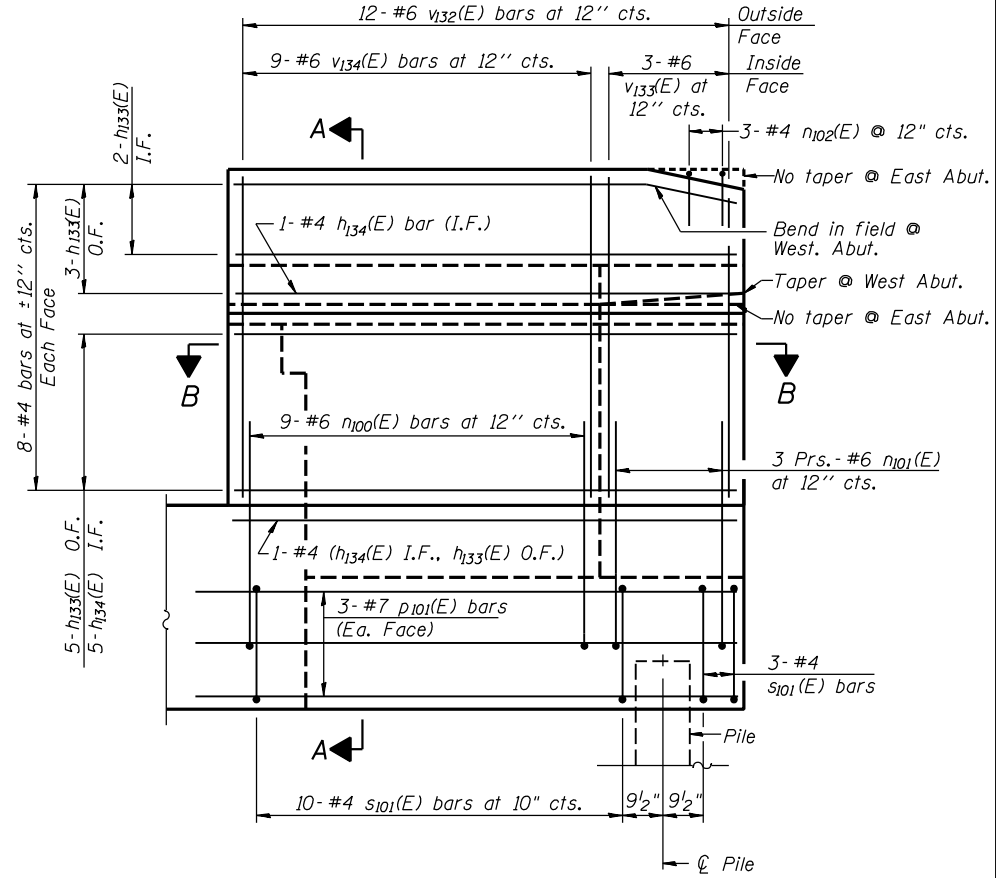


SECTION A-A

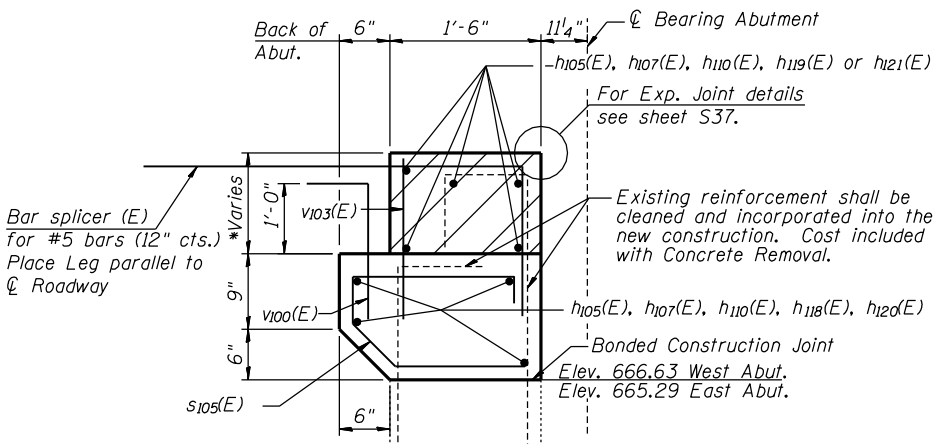


WING WALL ELEVATION
Showing Dimensions

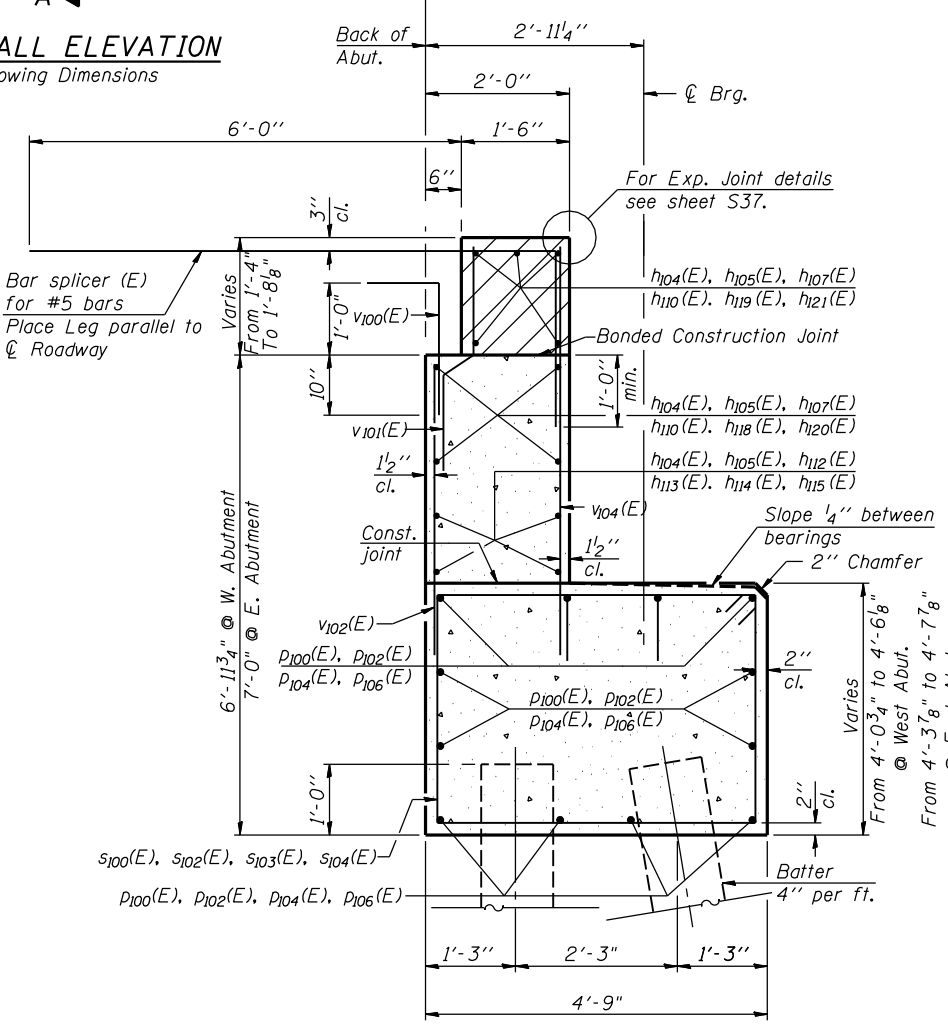
	X	Y	Z
N.W. Wingwall	4'-4 ³ / ₈ "	4'-4 ³ / ₈ "	8'-9 ⁵ / ₈ "
S.W. Wingwall	4'-1"	4'-5 ⁷ / ₈ "	8'-6 ⁷ / ₈ "
N.E. Wingwall	4'-8 ¹ / ₈ "	4'-1 ³ / ₈ "	8'-9 ⁵ / ₈ "
S.E. Wingwall	4'-3 ⁷ / ₈ "	4'-1 ⁵ / ₈ "	8'-5 ¹ / ₂ "



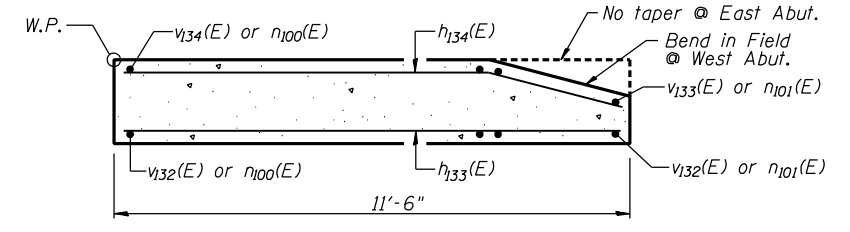
WING WALL ELEVATION
Showing Reinforcement



SECTION THRU MODIFIED EXISTING ABUTMENT



SECTION THRU ABUTMENT EXTENSIONS
(Showing Reinforcement)



SECTION B-B

NOTES:

1. Reinforcement bars designated (E) shall be epoxy coated
2. Quantity of concrete in end post included with Concrete Superstructure on sheet S36.
3. For Concrete Encasement details, see sheet S85.
4. Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.

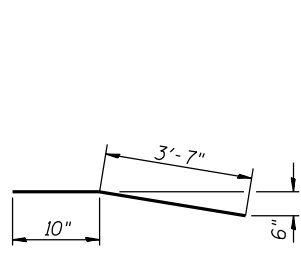
PILE DATA

Pile Type and Size: Metal Shell 14" dia. x 1/4" Walls
 Nominal Required Bearing: 297 kips @ East Abut., 328 kips @ West Abut.
 Allowable Resistance Available: 138 kips
 Estimated Pile Length: 24 Ft. @ East Abut.
 13 Ft. @ West Abut.
 Number Required: 8 + 2 Test Piles @ East Abutment
 14 + 2 Test Piles @ West Abutment

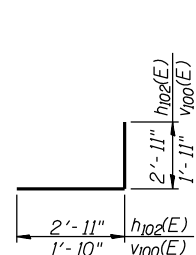
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	E.E.J. 6/25/2012	REVISIONS -
	J.A.Z. 6/25/2012	REVISIONS -

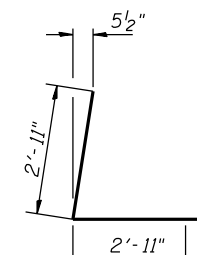
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CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



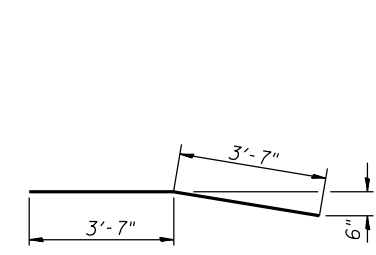
BARS h100(E)



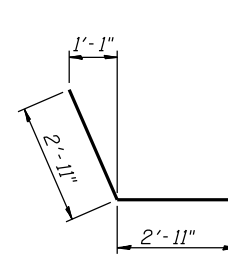
BARS h102(E) & v100(E)



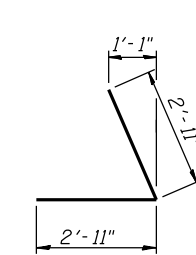
BAR h103(E)



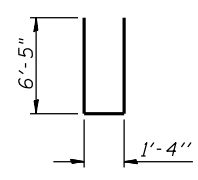
BARS h105(E)



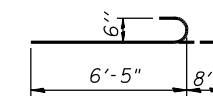
BARS h116(E)



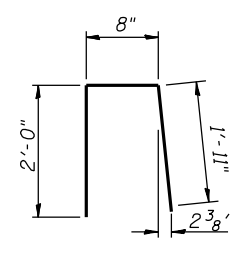
BARS h117(E)



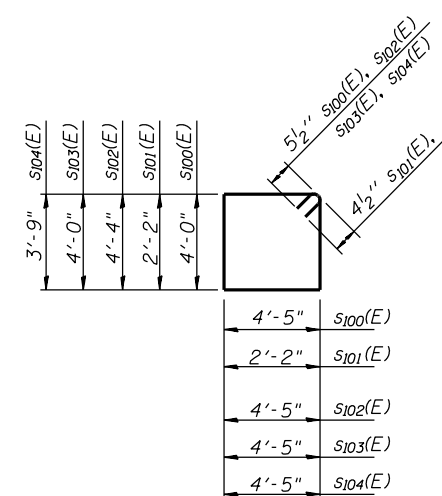
BAR n100(E)



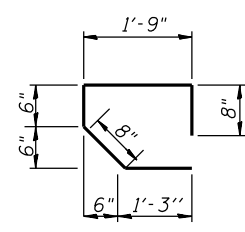
BAR n101(E)



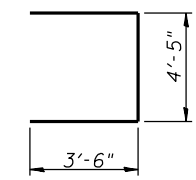
BAR n102(E)



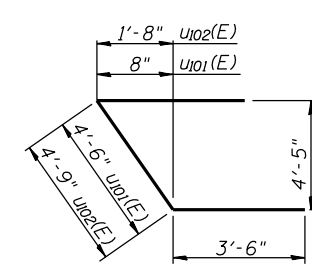
BARS s100(E) thru s104(E)



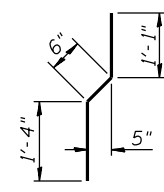
BAR s105(E)



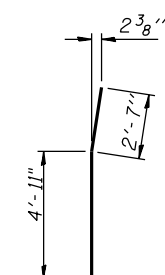
BARS u100(E)



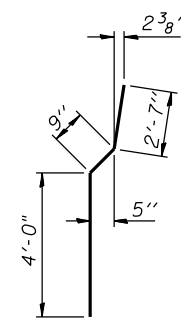
BARS u101(E), u102(E)



BARS v101(E)



BAR v133(E)



BAR v134(E)

EAST ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h100(E)	12	#6	4'-5"	
h101(E)	12	#6	4'-4"	
h102(E)	12	#5	5'-10"	
h103(E)	12	#5	5'-10"	
h104(E)	13	#6	16'-2"	
h105(E)	9	#6	7'-2"	
h107(E)	9	#6	30'-3"	
h110(E)	9	#6	34'-8"	
h112(E)	4	#6	4'-3"	
h133(E)	22	#4	11'-3"	
h134(E)	14	#4	11'-3"	
n100(E)	18	#6	15'-2"	
n101(E)	12	#6	7'-1"	
n102(E)	6	#4	4'-7"	
p100(E)	12	#7	15'-8"	
p101(E)	12	#7	14'-0"	
p102(E)	12	#7	4'-3"	
s100(E)	10	#5	17'-9"	
s101(E)	26	#4	9'-5"	
s102(E)	5	#5	18'-5"	
s105(E)	63	#4	4'-10"	
u100(E)	4	#6	11'-5"	
u101(E)	4	#6	11'-6"	
v100(E)	83	#5	3'-9"	
v101(E)	22	#4	2'-11"	
v102(E)	22	#4	5'-6"	
v103(E)	22	#4	6'-8"	
v132(E)	24	#6	7'-3"	
v133(E)	6	#6	7'-6"	
v134(E)	18	#6	7'-4"	
Reinforcement Bars, Epoxy Coated		Pound	5,140	
Furnishing - Metal Shell Piles,		Foot	192	
Driving Piles		Each	192	
Test Pile Metal Shells		Each	2	
Pile Shoes		Each	10	
Concrete Sealer		Sq. Ft.	639	
Concrete Structures		Cu. yd	35	
Porous Granular Embankment, Special		Cu. yd	180	
Pipe Under-drain for Structures 4"		Foot	94	
Geocomposite Wall Drain		Sq. yd	79	
Structure Excavation		Cu. yd	95	

WEST ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h113(E)	4	#6	17'-6"	
h114(E)	24	#6	4'-4"	
h115(E)	4	#6	15'-1"	
h116(E)	12	#5	5'-10"	
h117(E)	12	#5	5'-10"	
h118(E)	8	#6	27'-10"	
h119(E)	10	#6	27'-10"	
h120(E)	8	#6	27'-2"	
h121(E)	10	#6	27'-2"	
h133(E)	22	#4	11'-3"	
h134(E)	14	#4	11'-3"	
n100(E)	18	#6	15'-2"	
n101(E)	12	#6	7'-1"	
p101(E)	12	#7	14'-10"	
p104(E)	12	#7	19'-1"	
p106(E)	12	#7	16'-8"	
s101(E)	26	#4	9'-5"	
s103(E)	13	#5	17'-9"	
s104(E)	10	#5	17'-3"	
s105(E)	70	#4	4'-10"	
u102(E)	8	#6	11'-9"	
v100(E)	106	#5	3'-9"	
v101(E)	36	#4	2'-11"	
v102(E)	36	#4	5'-6"	
v103(E)	36	#4	6'-8"	
v132(E)	24	#6	7'-3"	
v133(E)	6	#6	7'-6"	
v134(E)	18	#6	7'-4"	
Reinforcement Bars, Epoxy Coated		Pound	6,270	
Furnishing - Metal Shell Piles,		Foot	182	
Driving Piles		Each	182	
Test Pile Metal Shells		Each	2	
Pile Shoes		Each	16	
Concrete Sealer		Sq. Ft.	804	
Concrete Structures		Cu. yd	50	
Porous Granular Embankment, Special		Cu. yd	232	
Pipe Under-drain for Structures 4"		Foot	117	
Geocomposite Wall Drain		Sq. yd	99	
Structure Excavation		Cu. yd	83	

NOTES:




1. Reinforcement Bars designated (E) shall be epoxy coated
2. For details of Bar Splicers, see sheet S86
3. For details of piles and Concrete Encasement, see sheet S85.
4. Concrete sealer shall be applied to the top of seats, front face of backwall, and front face of abutment stem.

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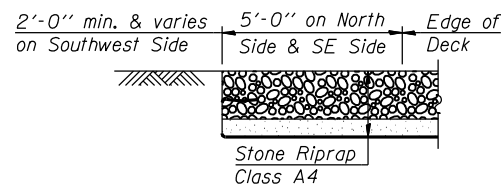
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349	(10 & 11VB) R-3	KANE	507	282
CONTRACT NO. 60133			ILLINOIS FED. AID PROJECT	

LEGEND

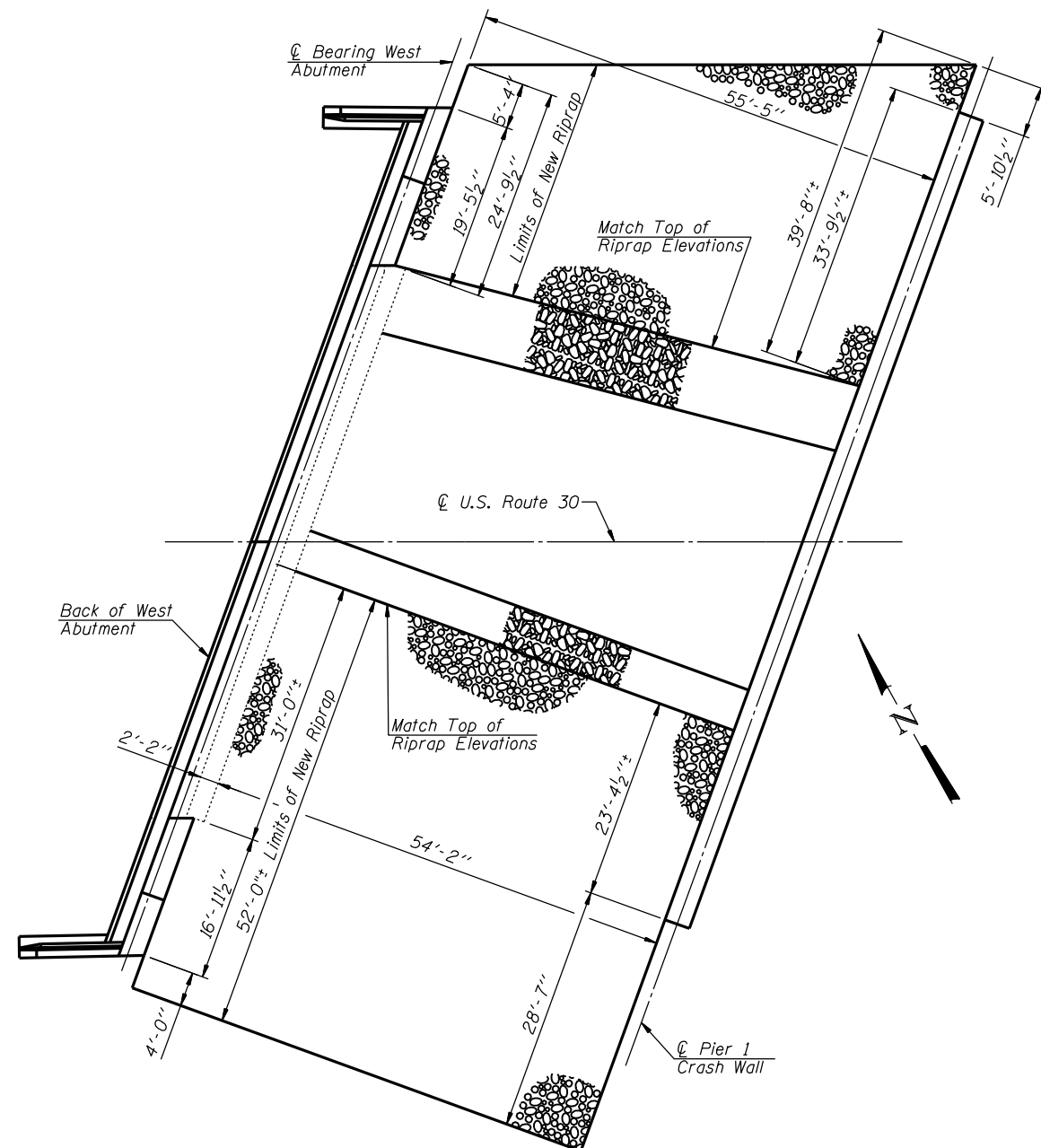
-  Indicates Stone Riprap Class A4
-  Indicates Existing Riprap
-  Indicates Porous Granular Embankment, Special

NOTES:

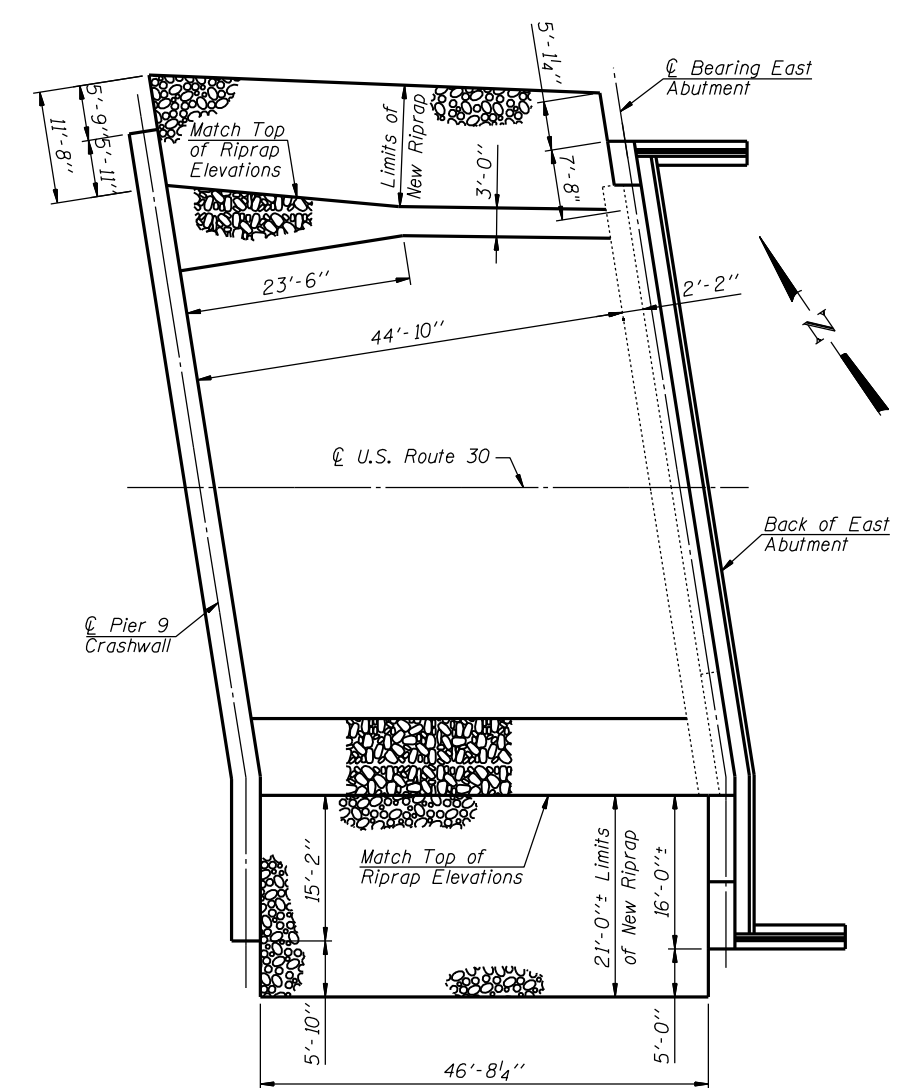
1. All drainage system components shall extend to the inside face of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101)
2. * Items included in the cost of Pipe Underdrains for Structures 4".
3. Dimensions and locations of Existing Riprap are approximate.
4. Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.



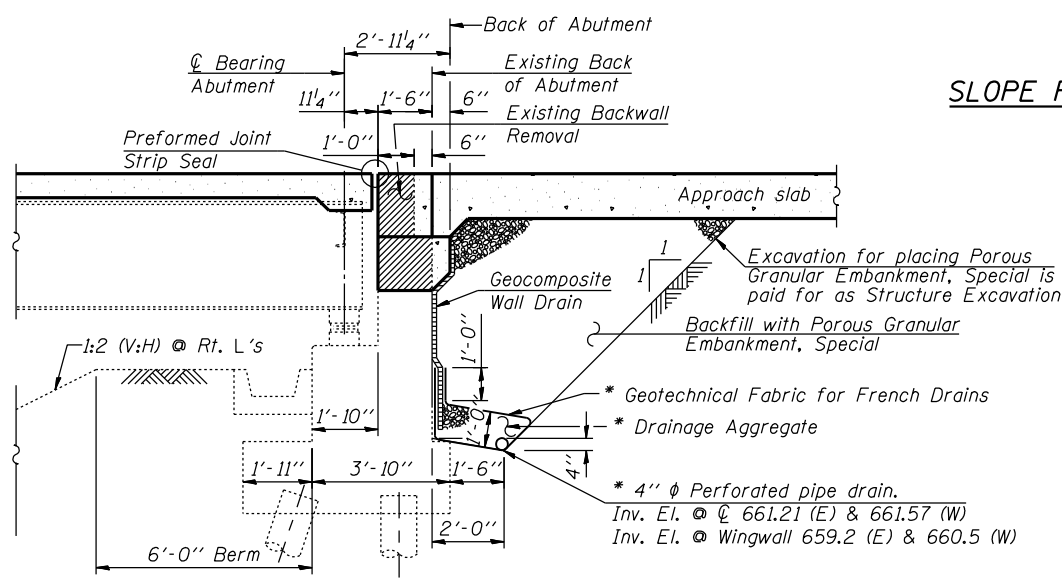
SECTION THRU EDGE OF SLOPE PROTECTION



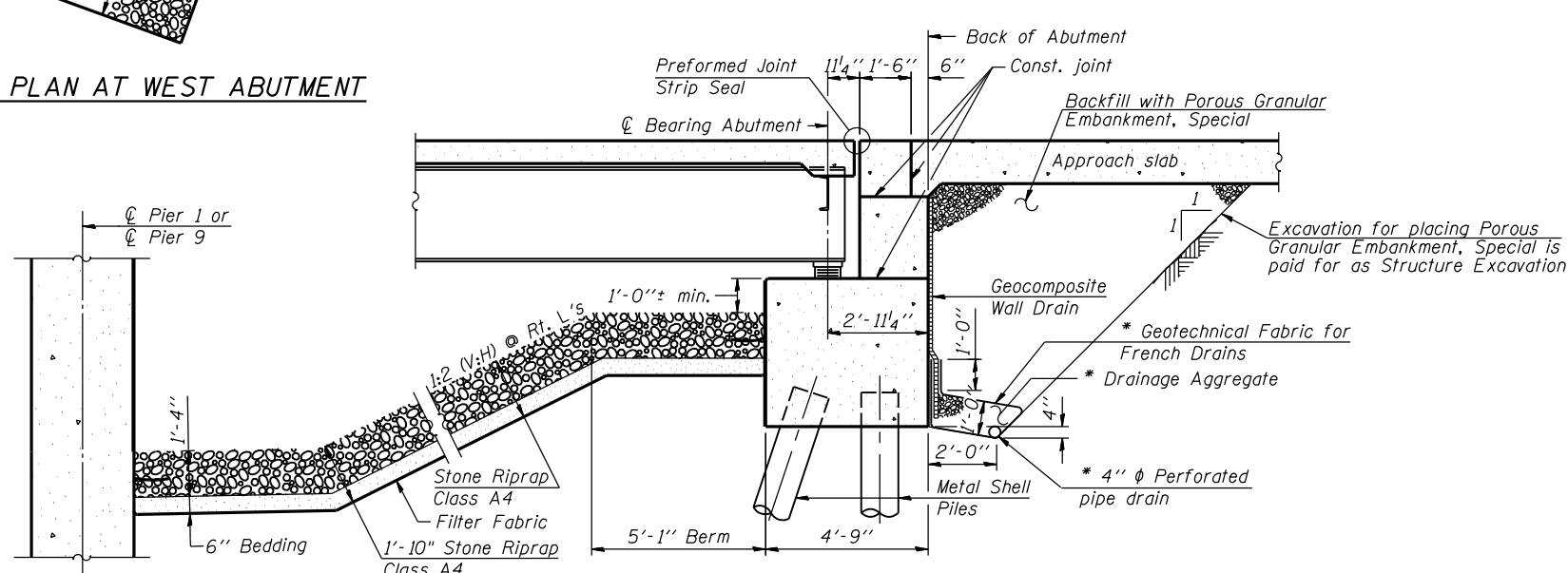
SLOPE PROTECTION PLAN AT WEST ABUTMENT



SLOPE PROTECTION PLAN AT EAST ABUTMENT



SECTION THRU MODIFIED EXISTING ABUTMENT
(Horiz. Dimensions are @ Rt. L's)



SECTION THRU TOE OF SLOPE PROTECTION

SECTION THRU ABUTMENT EXTENSIONS
(Horiz. Dimensions are @ Rt. L's)

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GRAEF
8501 W. Higgins Road, Suite 280
Chicago, Illinois 60631; (773) 399-0112

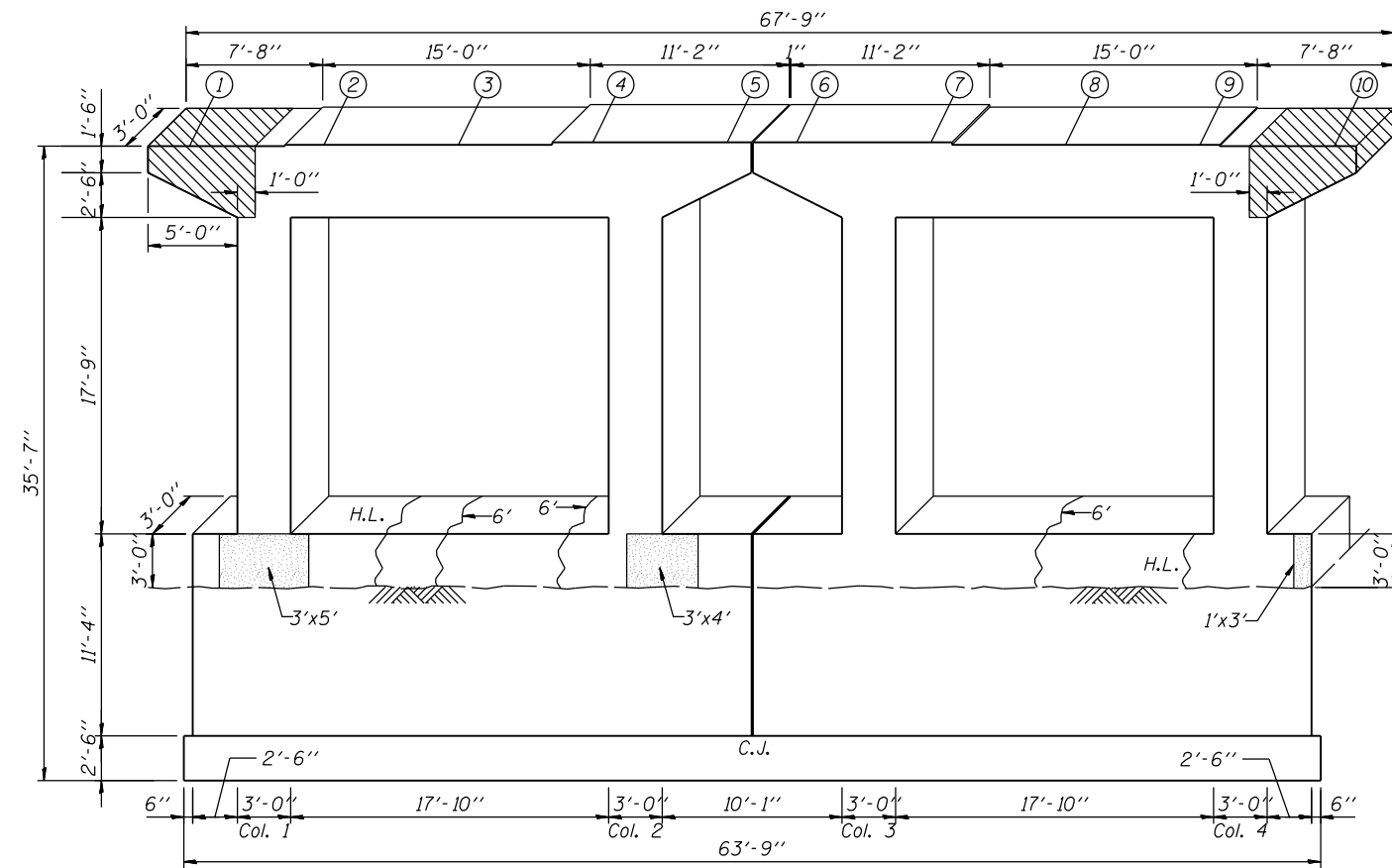
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PLOT DATE =	CHECKED - J.J.G. 6/15/2012	REVISIONS -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

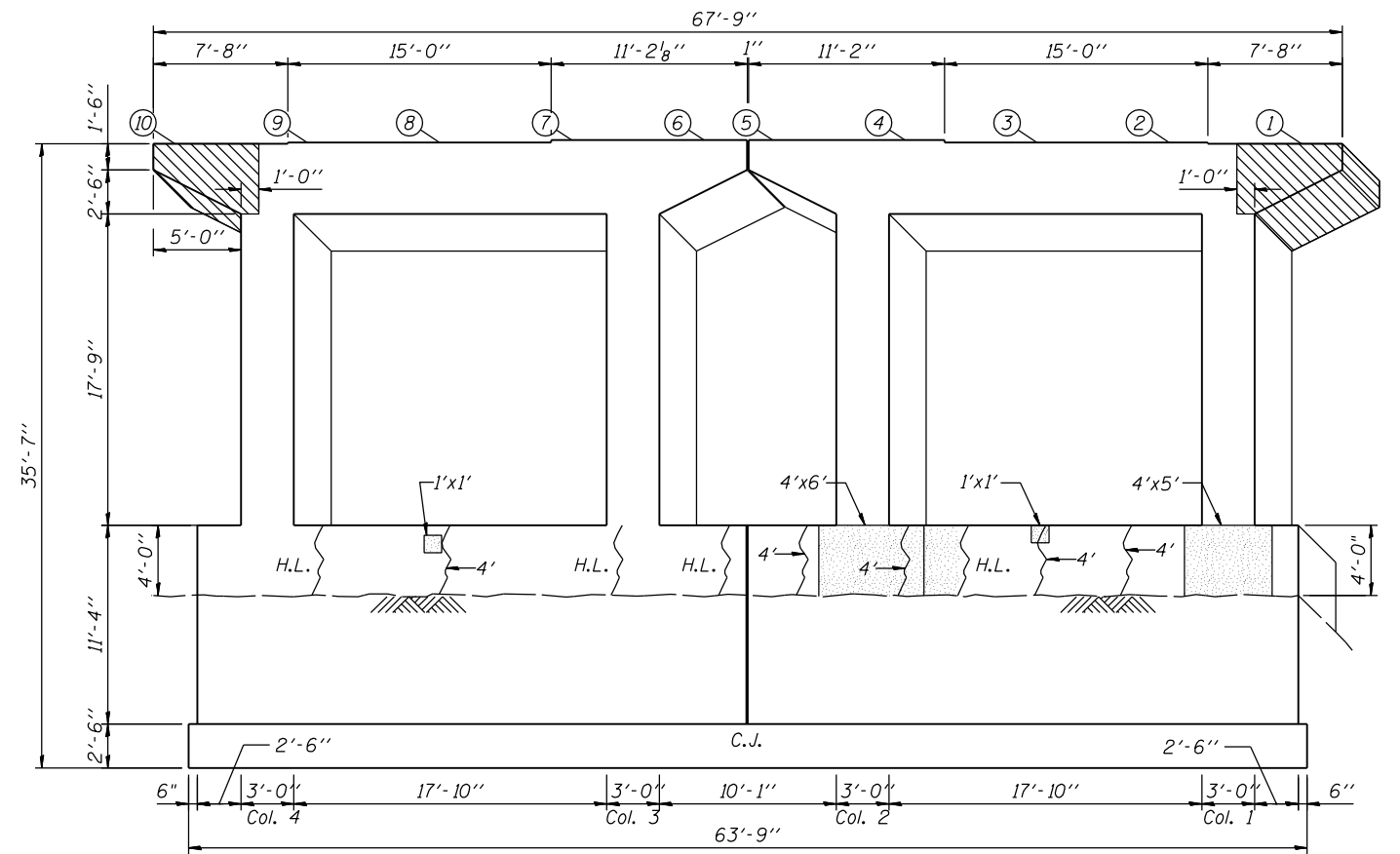
**ABUTMENT DRAINAGE, EXCAVATION & RIPRAP
STRUCTURE NO. 045-0039**

SHEET NO. S62 OF 116 SHEETS

F.A.P. RTE. 349	SECTION (10 & 11VB) R-3	COUNTY KANE	TOTAL SHEETS 507	SHEET NO. 283
CONTRACT NO. 60133			ILLINOIS FED. AID PROJECT	



PIER 1 WEST FACE
LOOKING EAST



PIER 1 EAST FACE
LOOKING WEST

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	cu. yd.	4.2
Epoxy Crack Injection	ft.	38.0
Structural Repair of Concrete (Depth less than or equal to 5")	sq. ft.	72.2
Structural Repair of Concrete (Depth greater than 5")	sq. ft.	3.8

LEGEND

- Concrete Removal
- Structural Repair of Concrete (Depth Equal to or Less than 5")
- Epoxy Crack Injection
- Hairline Crack, no repair required

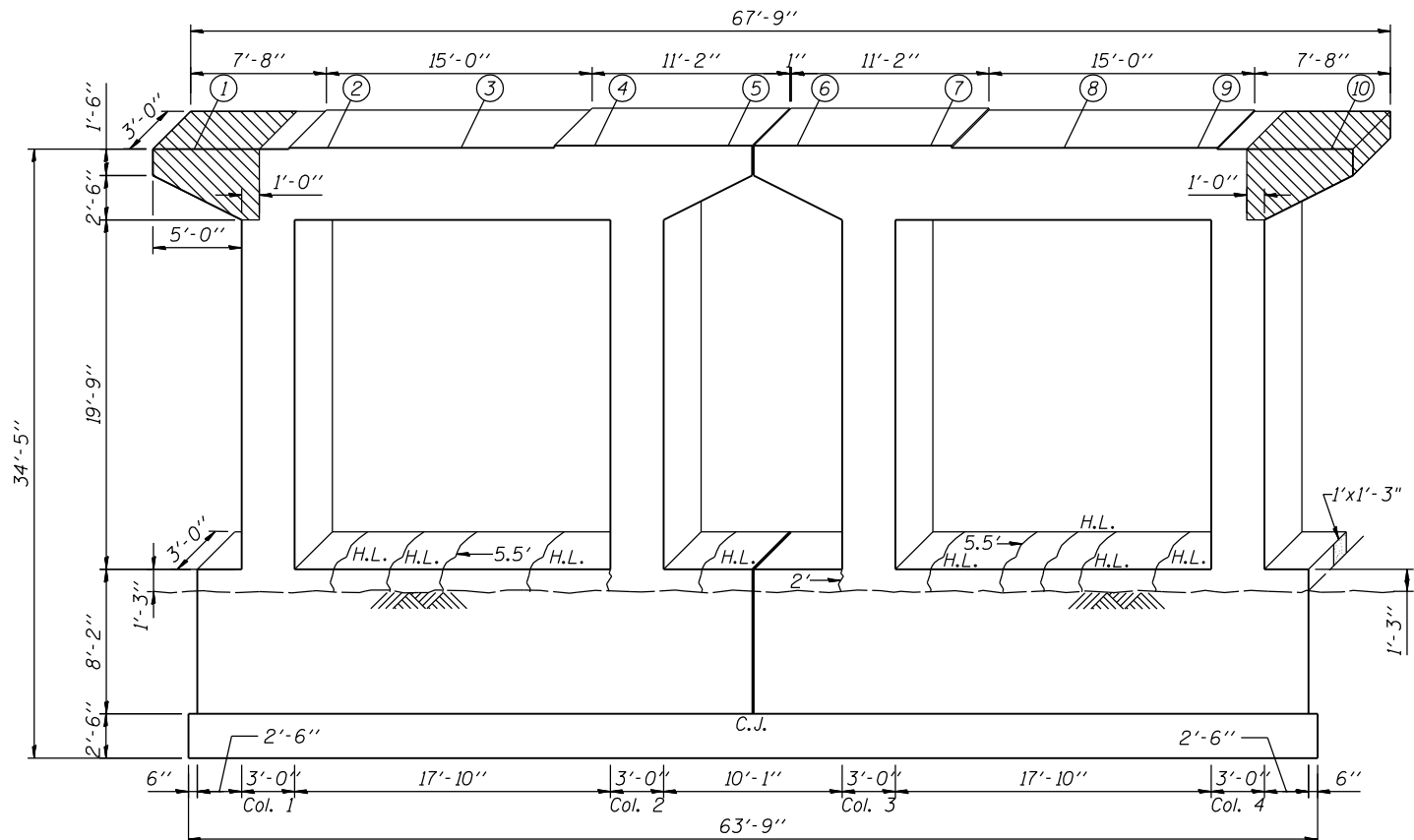
NOTES:

1. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
2. Quantities for Structural Repair of Concrete are approximate. Quantity of Structural Repair of Concrete (Depth Equal to or less than 5") was estimated from field observations. Quantity of Structural Repair of Concrete (Depth Greater than 5") is assumed to be 5% of the quantity for Structural Repair of Concrete (Depth Equal to or less than 5"). The actual repair areas will be determined by the Resident Engineer. Actual repair locations shall be shown on the as-built plans. The Contractor will be paid for the quantity furnished.

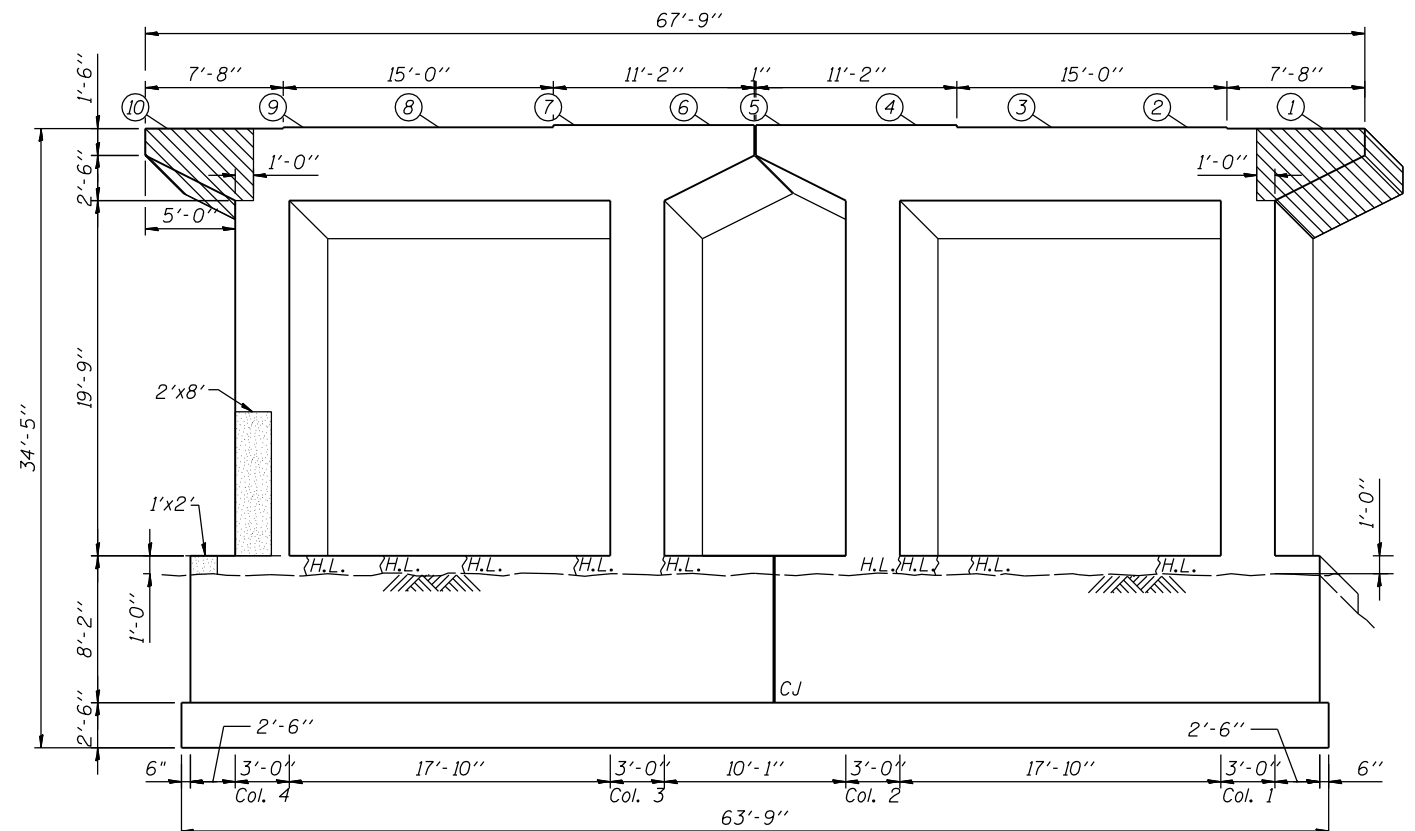
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	284
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



PIER 2 WEST FACE
LOOKING EAST







PIER 2 EAST FACE
LOOKING WEST

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	cu. yd.	4.2
Epoxy Crack Injection	ft.	13.0
Structural Repair of Concrete (Depth less than or equal to 5")	sq. ft.	18.3
Structural Repair of Concrete (Depth greater than 5")	sq. ft.	1.0

LEGEND

-  Concrete Removal
-  Structural Repair of Concrete (Depth Equal to or Less than 5")
-  Epoxy Crack Injection
-  Hairline Crack, no repair required

NOTES:

1. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
2. Quantities for Structural Repair of Concrete are approximate. Quantity of Structural Repair of Concrete (Depth Equal to or less than 5") was estimated from field observations. Quantity of Structural Repair of Concrete (Depth Greater than 5") is assumed to be 5% of the quantity for Structural Repair of Concrete (Depth Equal to or less than 5"). The actual repair areas will be determined by the Resident Engineer. Actual repair locations shall be shown on the as-built plans. The Contractor will be paid for the quantity furnished.

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GR&EF
 8501 W. Higgins Road, Suite 280
 Chicago, Illinois 60631; (773) 399-0112

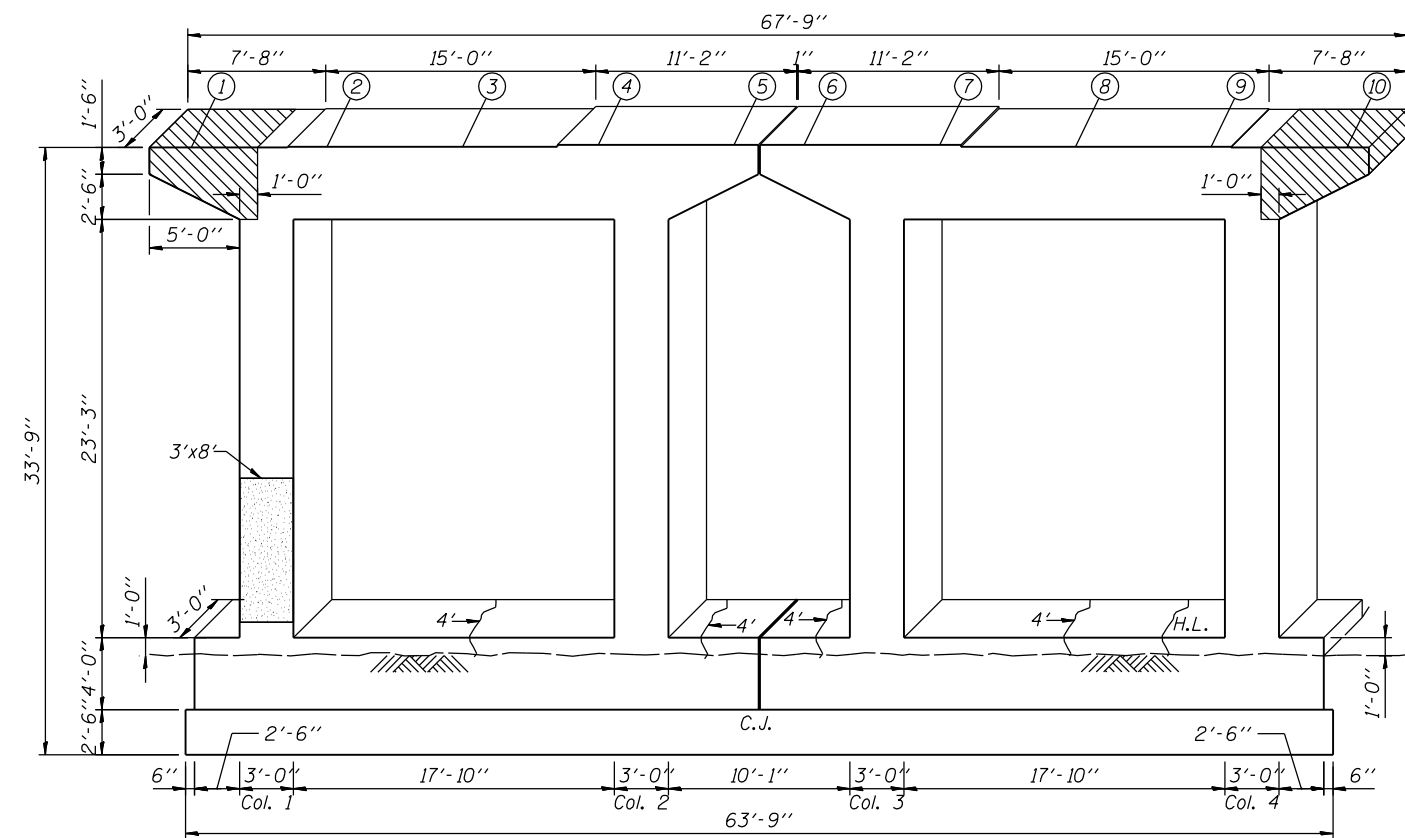
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

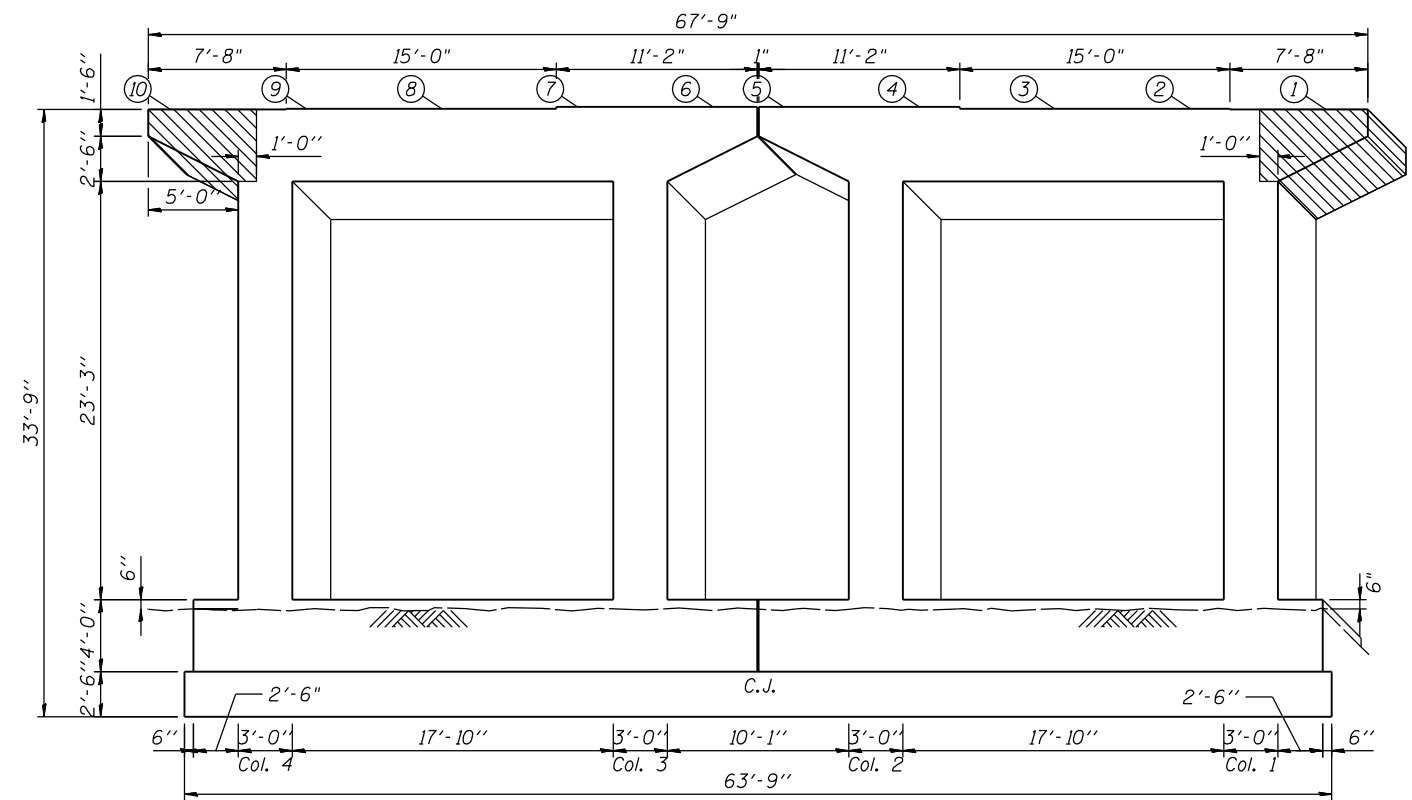
PIER 2 REMOVAL & REPAIRS
STRUCTURE NO. 045-0039

SHEET NO. S64 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	285
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



**PIER 3 WEST FACE
LOOKING EAST**



**PIER 3 EAST FACE
LOOKING WEST**

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	cu. yd.	4.2
Epoxy Crack Injection	ft.	16.0
Structural Repair of Concrete (Depth less than or equal to 5")	sq. ft.	22.8
Structural Repair of Concrete (Depth greater than 5")	sq. ft.	1.2

LEGEND

- Concrete Removal
- Structural Repair of Concrete (Depth Equal to or Less than 5")
- Epoxy Crack Injection
- Hairline Crack, no repair required

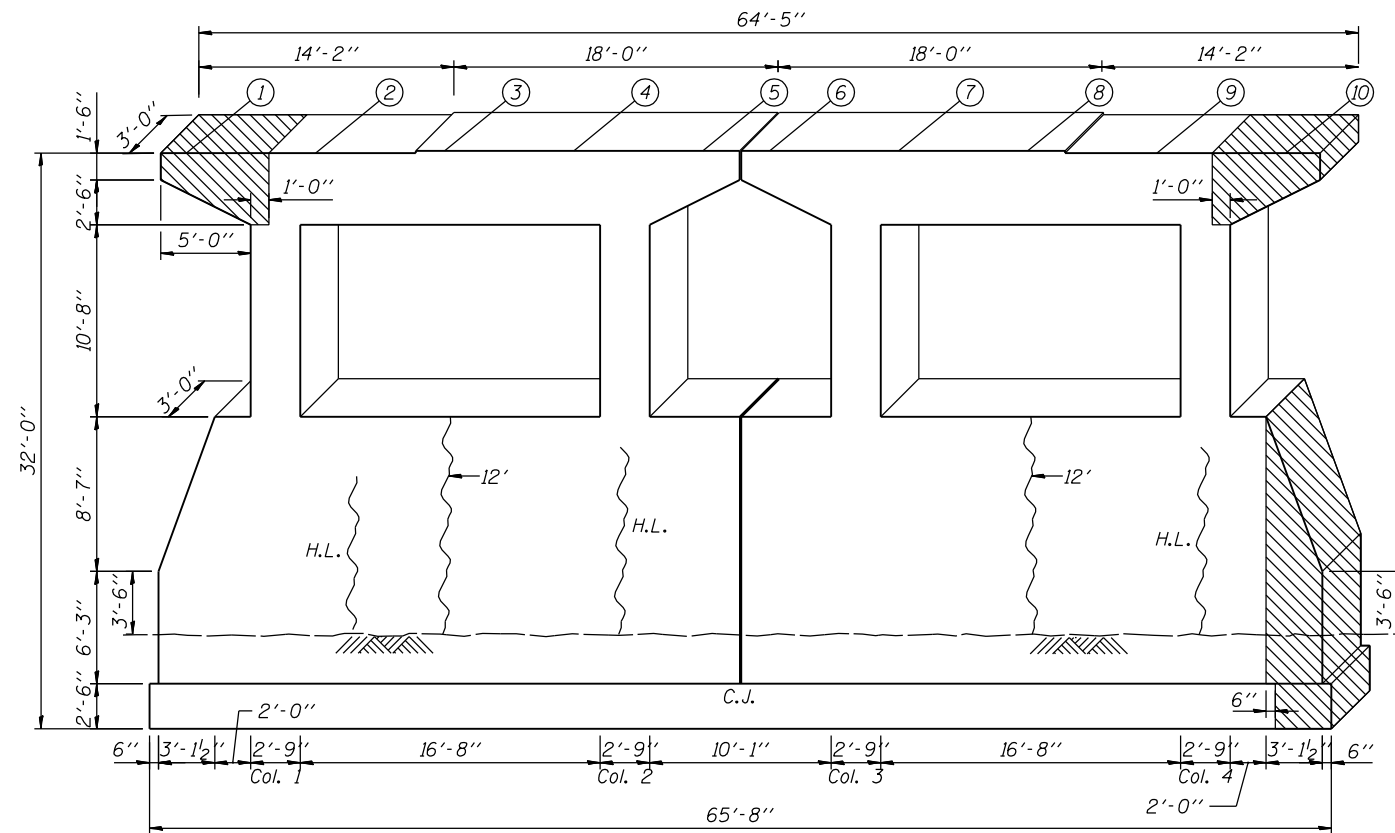
NOTES:

1. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
2. Quantities for Structural Repair of Concrete are approximate. Quantity of Structural Repair of Concrete (Depth Equal to or less than 5") was estimated from field observations. Quantity of Structural Repair of Concrete (Depth Greater than 5") is assumed to be 5% of the quantity for Structural Repair of Concrete (Depth Equal to or less than 5"). The actual repair areas will be determined by the Resident Engineer. Actual repair locations shall be shown on the as-built plans. The Contractor will be paid for the quantity furnished.

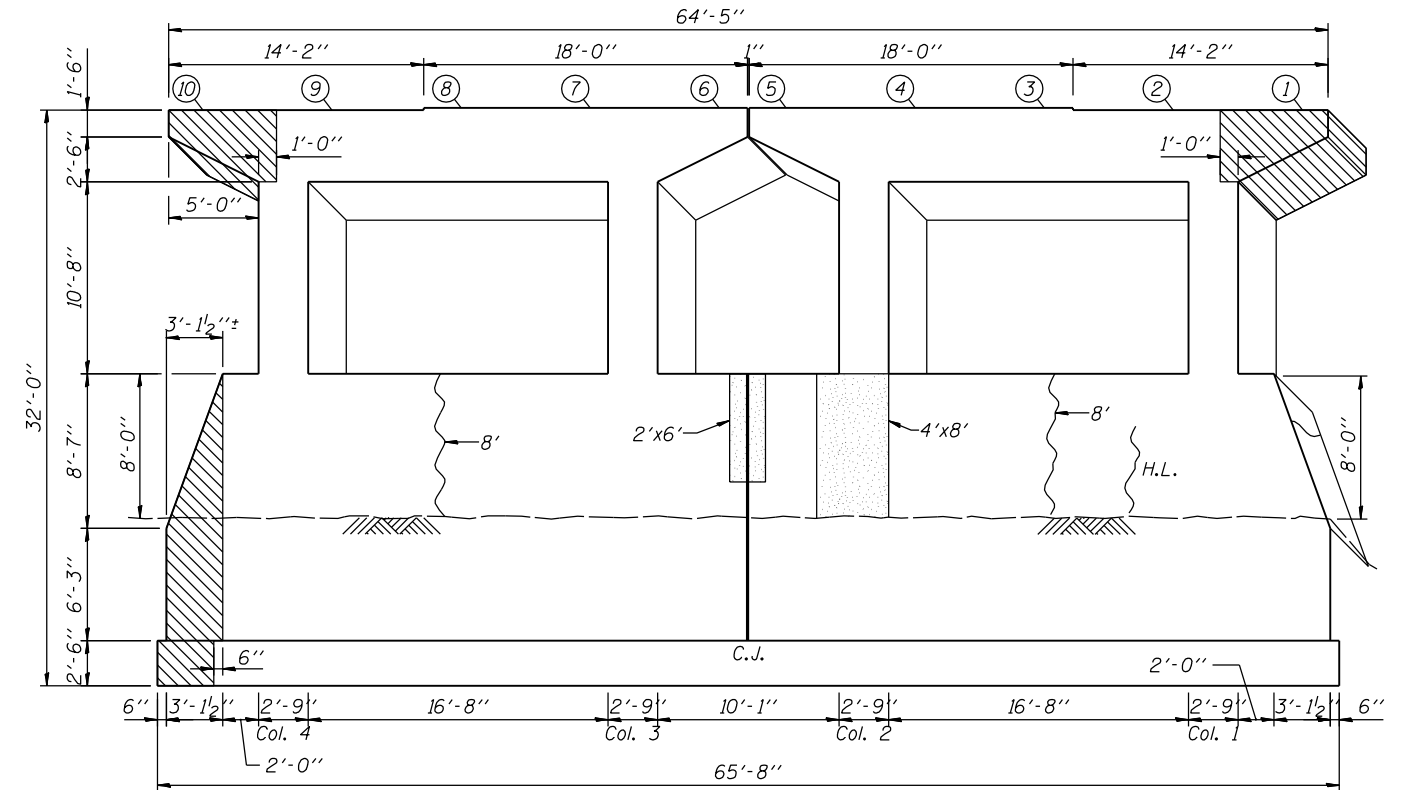
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	CHECKED - J.A.G. 6/15/2012	REVISED -
PLOT SCALE =	DRAWN - D.L.G. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - J.Z. 6/15/2012	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	286
CONTRACT NO. 60133				



**PIER 6 WEST FACE
LOOKING EAST**



**PIER 6 EAST FACE
LOOKING WEST**

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	cu. yd.	8.8
Epoxy Crack Injection	ft.	40.0
Structural Repair of Concrete (Depth less than or equal to 5")	sq. ft.	41.8
Structural Repair of Concrete (Depth greater than 5")	sq. ft.	2.2

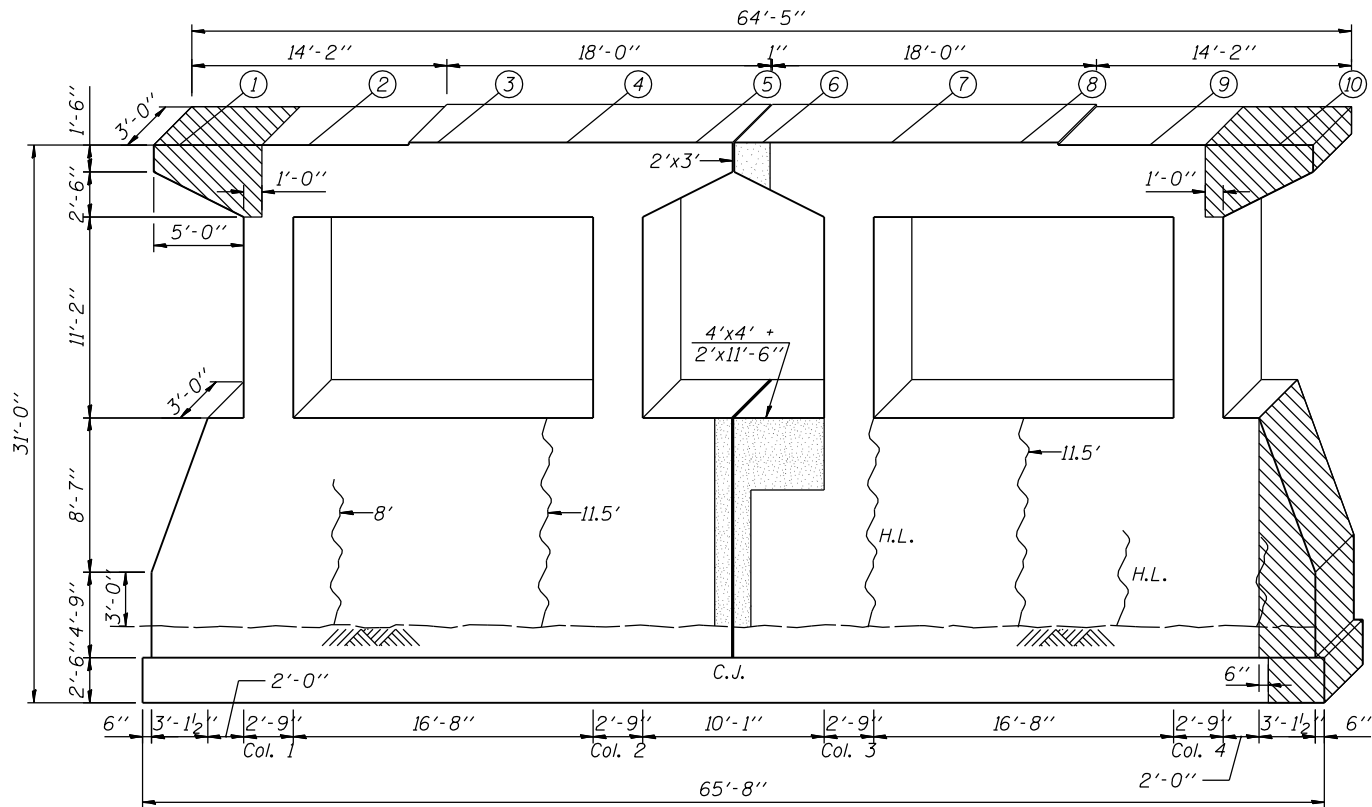
LEGEND

- Concrete Removal
- Structural Repair of Concrete (Depth Equal to or Less than 5")
- Epoxy Crack Injection
- Hairline Crack, no repair required

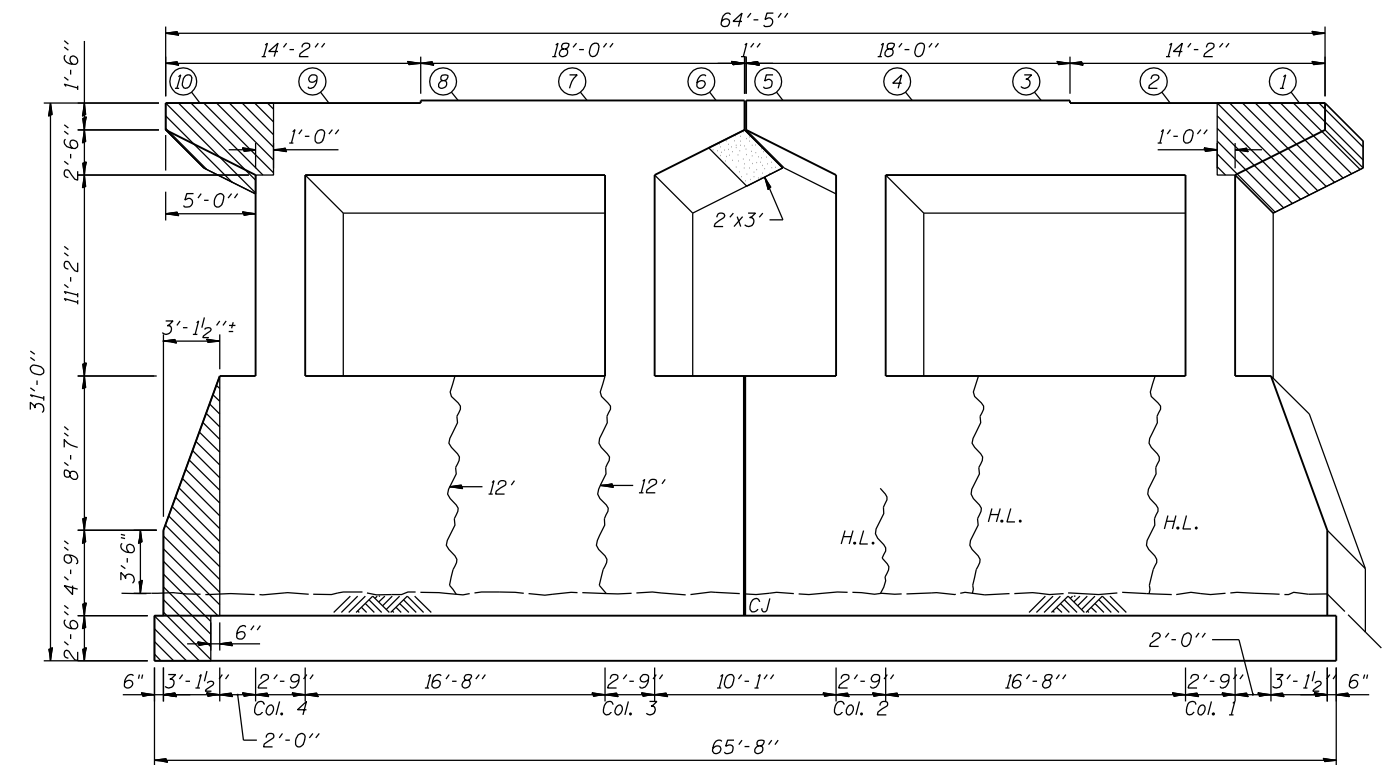
NOTES:

1. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
2. Quantities for Structural Repair of Concrete are approximate. Quantity of Structural Repair of Concrete (Depth Equal to or less than 5") was estimated from field observations. Quantity of Structural Repair of Concrete (Depth Greater than 5") is assumed to be 5% of the quantity for Structural Repair of Concrete (Depth Equal to or less than 5"). The actual repair areas will be determined by the Resident Engineer. Actual repair locations shall be shown on the as-built plans. The Contractor will be paid for the quantity furnished.

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**PIER 7 WEST FACE
LOOKING EAST**



**PIER 7 EAST FACE
LOOKING WEST**

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	cu. yd.	8.2
Epoxy Crack Injection	ft.	55.0
Structural Repair of Concrete (Depth less than or equal to 5")	sq. ft.	48.5
Structural Repair of Concrete (Depth greater than 5")	sq. ft.	2.5

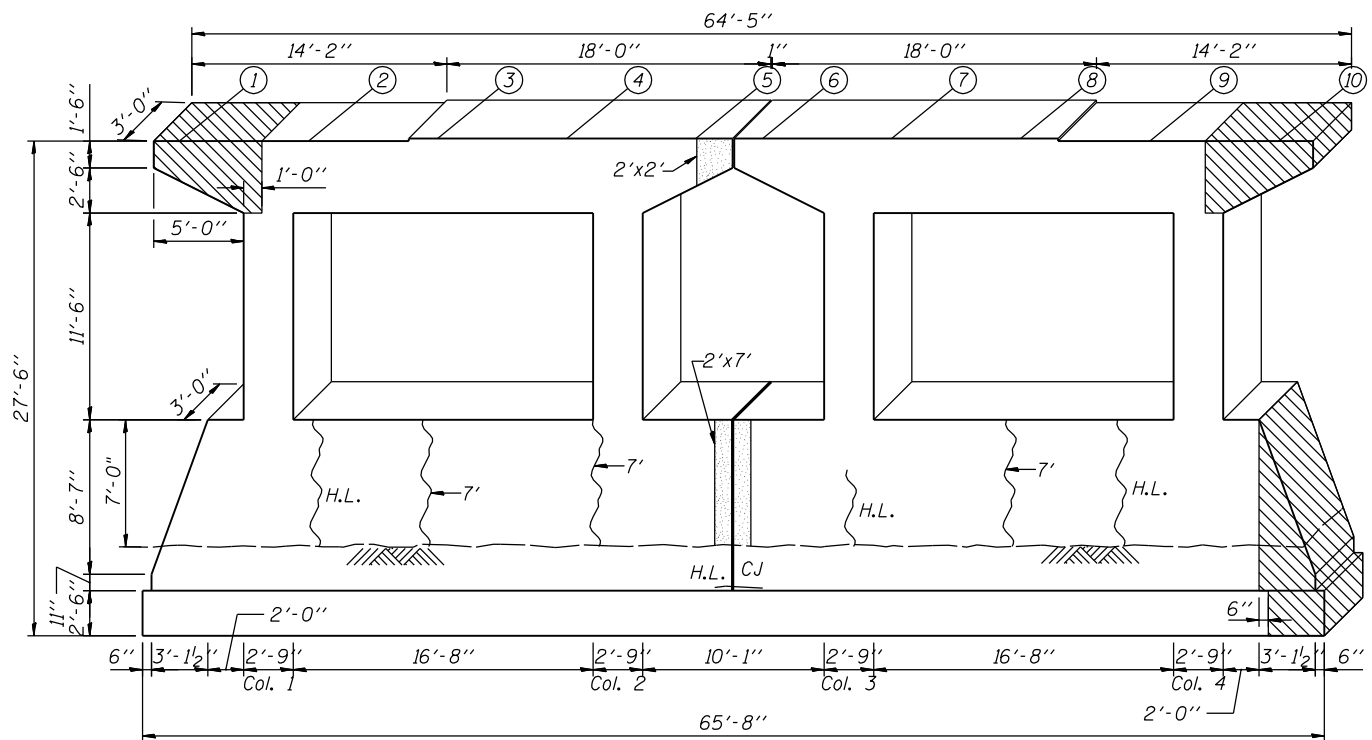
LEGEND

- Concrete Removal
- Structural Repair of Concrete (Depth Equal to or Less than 5")
- Epoxy Crack Injection
- Hairline Crack, no repair required

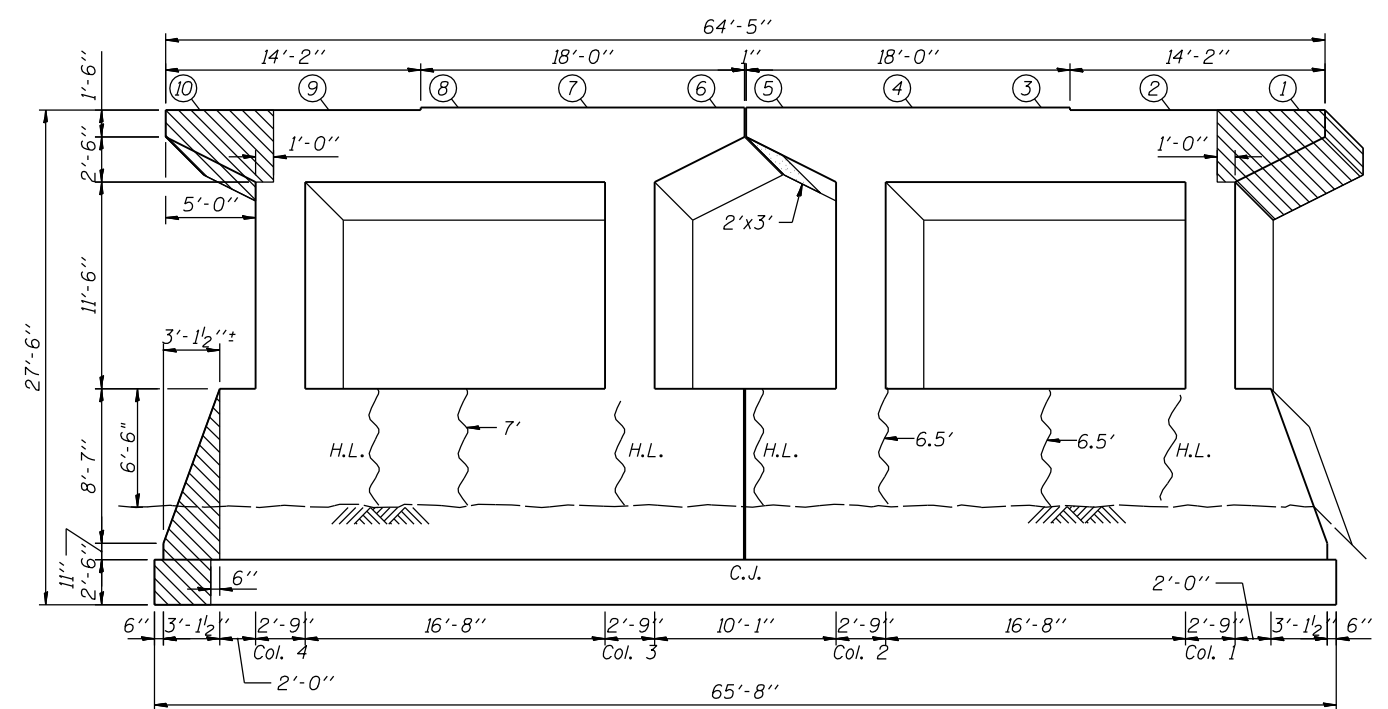
NOTES:

1. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
2. Quantities for Structural Repair of Concrete are approximate. Quantity of Structural Repair of Concrete (Depth Equal to or less than 5") was estimated from field observations. Quantity of Structural Repair of Concrete (Depth Greater than 5") is assumed to be 5% of the quantity for Structural Repair of Concrete (Depth Equal to or less than 5"). The actual repair areas will be determined by the Resident Engineer. Actual repair locations shall be shown on the as-built plans. The Contractor will be paid for the quantity furnished.

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**PIER 8 WEST FACE
LOOKING EAST**



**PIER 8 EAST FACE
LOOKING WEST**

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	cu. yd.	6.9
Epoxy Crack Injection	ft.	41.0
Structural Repair of Concrete (Depth less than or equal to 5")	sq. ft.	22.8
Structural Repair of Concrete (Depth greater than 5")	sq. ft.	1.2

LEGEND

- Concrete Removal
- Structural Repair of Concrete (Depth Equal to or Less than 5")
- Epoxy Crack Injection
- Hairline Crack, no repair required

NOTES:

1. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
2. Quantities for Structural Repair of Concrete are approximate. Quantity of Structural Repair of Concrete (Depth Equal to or less than 5") was estimated from field observations. Quantity of Structural Repair of Concrete (Depth Greater than 5") is assumed to be 5% of the quantity for Structural Repair of Concrete (Depth Equal to or less than 5"). The actual repair areas will be determined by the Resident Engineer. Actual repair locations shall be shown on the as-built plans. The Contractor will be paid for the quantity furnished.

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GR&EF
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 Chicago, Illinois 60631; (773) 399-0112

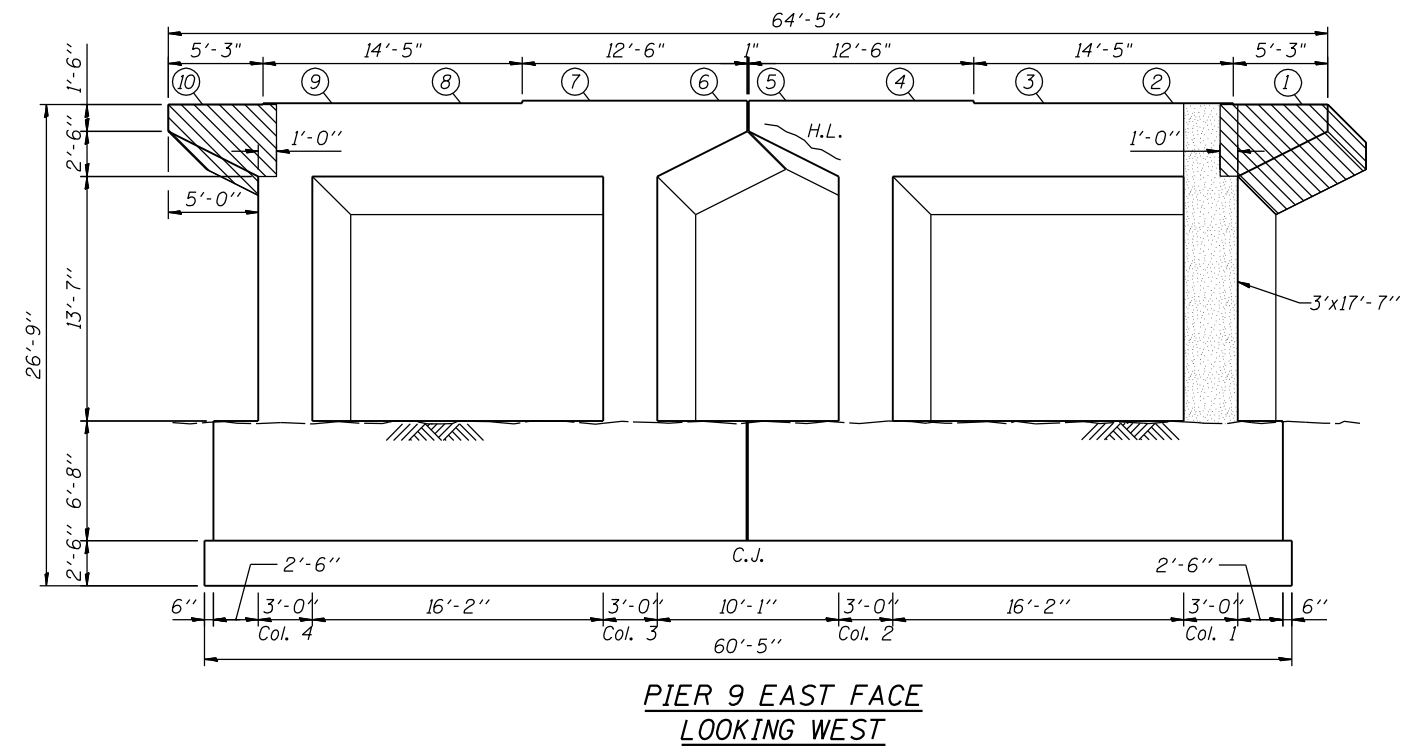
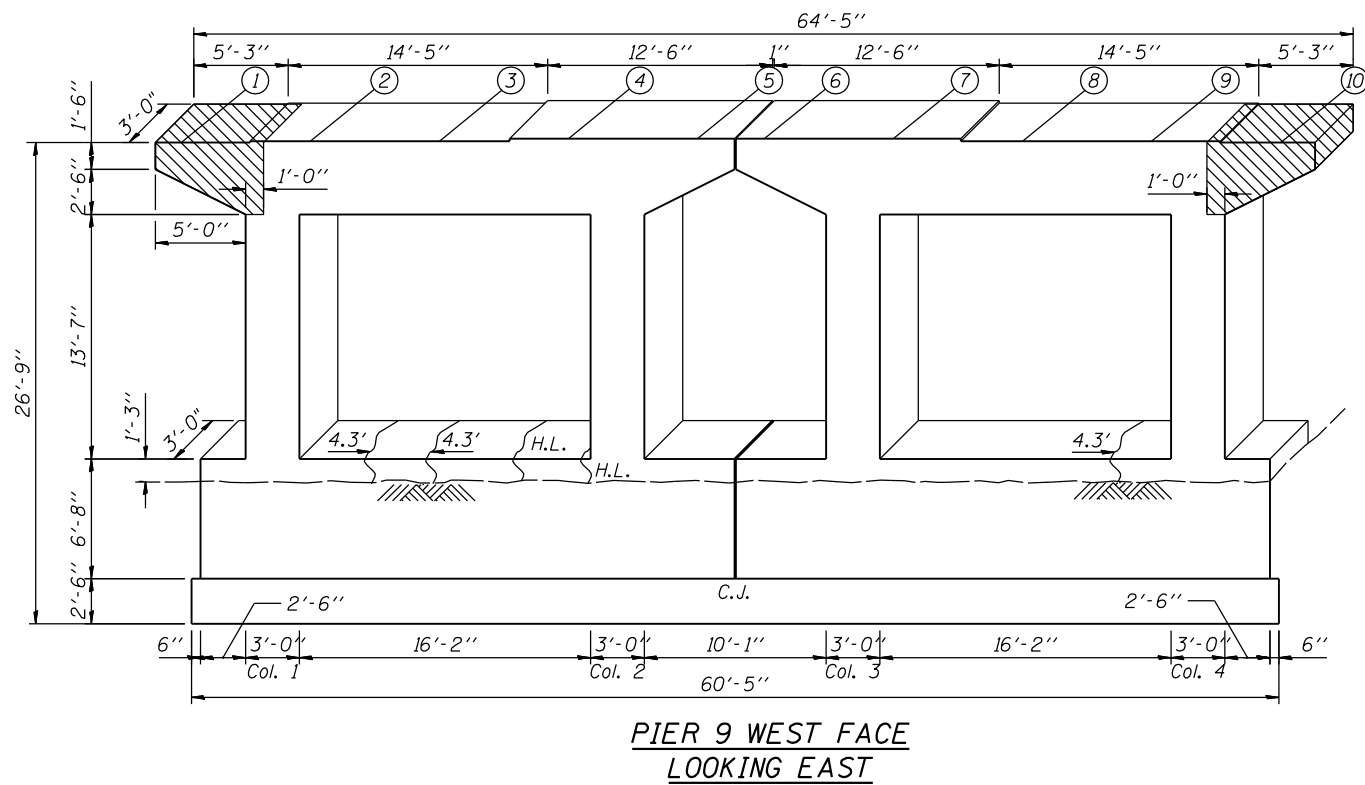
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PLOT SCALE =	DRAWN - D.L.G. 6/15/2012	REVISED -
PLOT DATE =	CHECKED - J.Z. 6/15/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER 8 REMOVAL & REPAIRS
STRUCTURE NO. 045-0039**

SHEET NO. S68 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	289
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	cu. yd.	4.2
Epoxy Crack Injection	ft.	13.0
Structural Repair of Concrete (Depth less than or equal to 5")	sq. ft.	46.4
Structural Repair of Concrete (Depth greater than 5")	sq. ft.	2.4

LEGEND

- Concrete Removal
- Structural Repair of Concrete (Depth Equal to or Less than 5")
- Epoxy Crack Injection
- Hairline Crack, no repair required

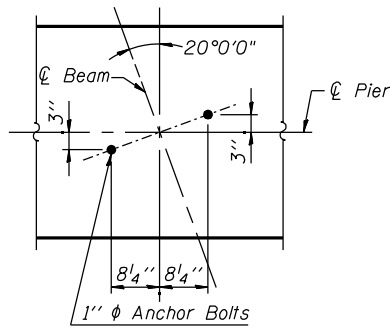
NOTES:

1. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
2. Quantities for Structural Repair of Concrete are approximate. Quantity of Structural Repair of Concrete (Depth Equal to or less than 5") was estimated from field observations. Quantity of Structural Repair of Concrete (Depth Greater than 5") is assumed to be 5% of the quantity for Structural Repair of Concrete (Depth Equal to or less than 5"). The actual repair areas will be determined by the Resident Engineer. Actual repair locations shall be shown on the as-built plans. The Contractor will be paid for the quantity furnished.

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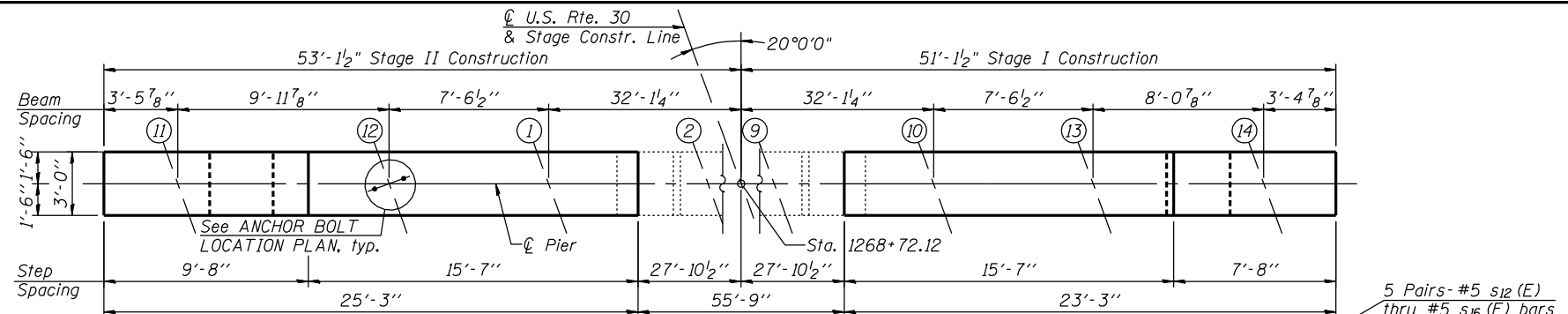
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PLOT DATE =	CHECKED - J.Z. 6/15/2012	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	290
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				

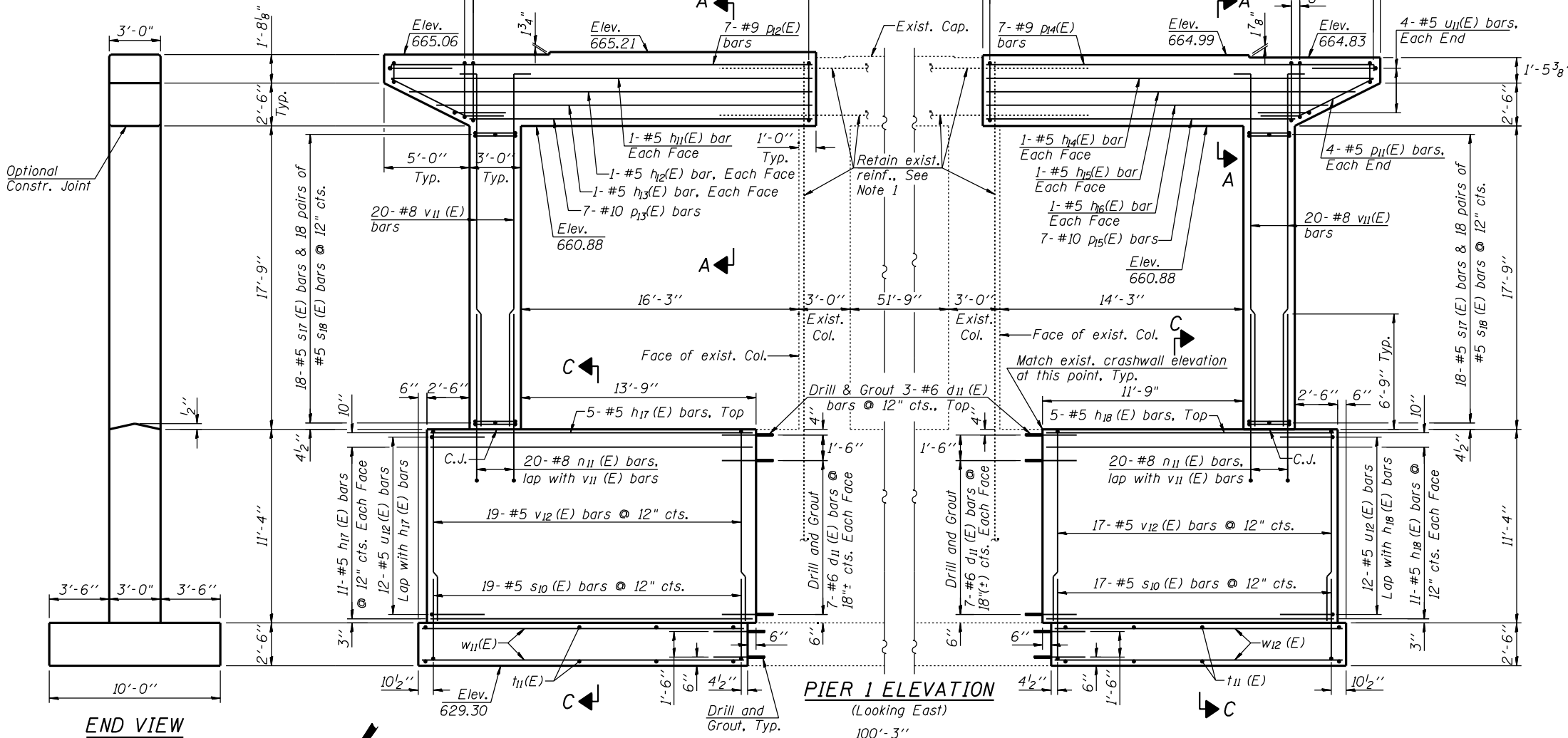


ANCHOR BOLT LOCATION PLAN

(Beams 11, 12, 1, 10, 13 & 14)

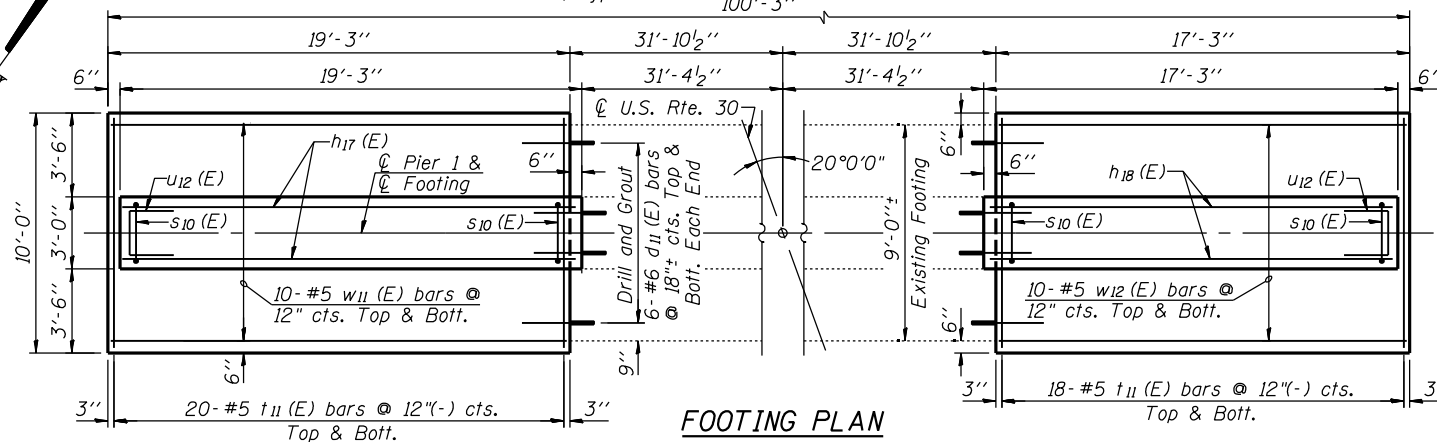


TOP PLAN

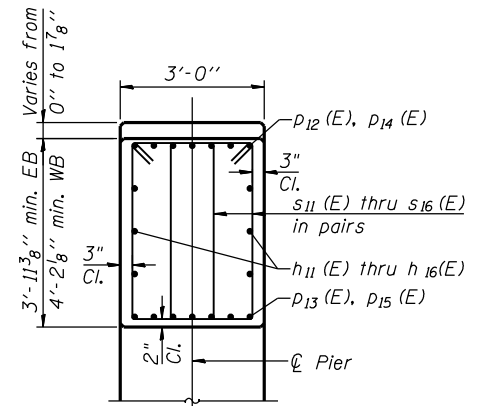


PIER 1 ELEVATION
(Looking East)

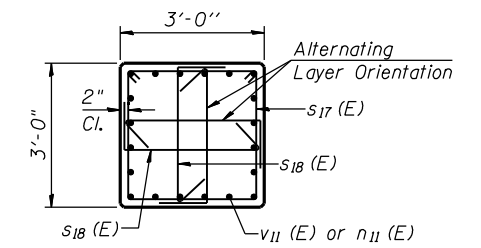
END VIEW



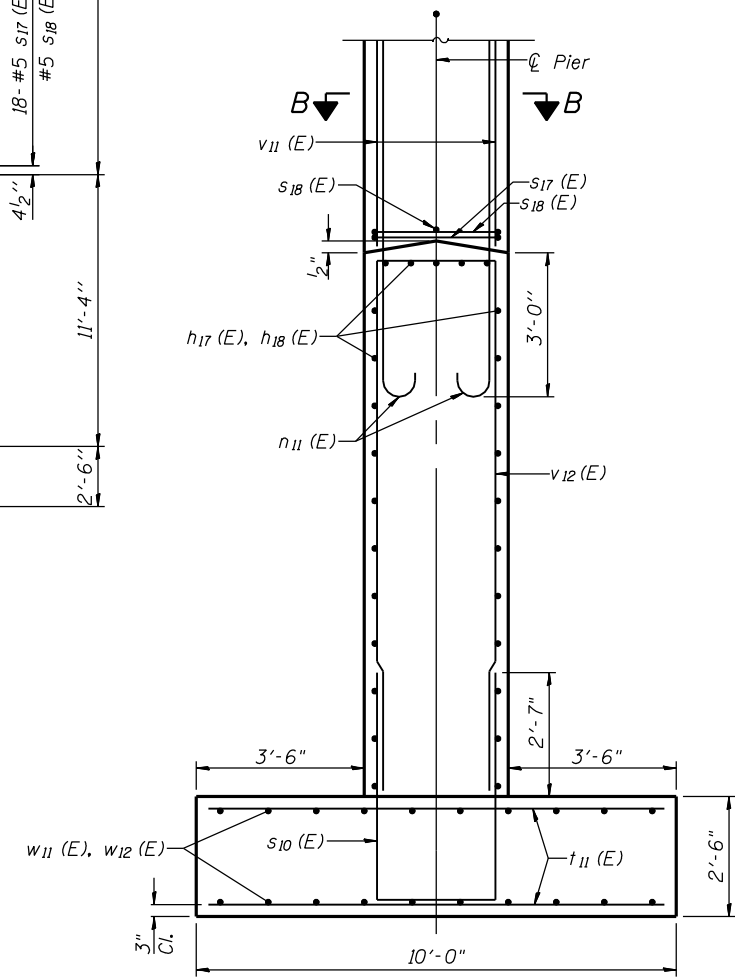
FOOTING PLAN



SECTION A-A



SECTION B-B



SECTION C-C

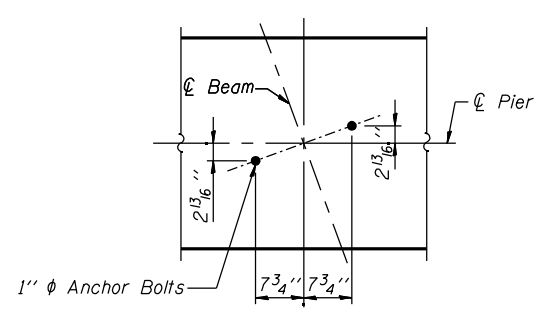
NOTES:

- Existing reinforcement shall be cleaned, straightened and incorporated into the new construction. Cost included with "Concrete Removal".
- See Sheet S73 for reinforcement details.
- Space reinforcement in cap to miss anchor bolts.
- Pour steps monolithically with cap.
- Embedment depth for #6 bars drilled & grouted is 9".
- Maximum applied service load soil bearing pressure is 4,000 psf.

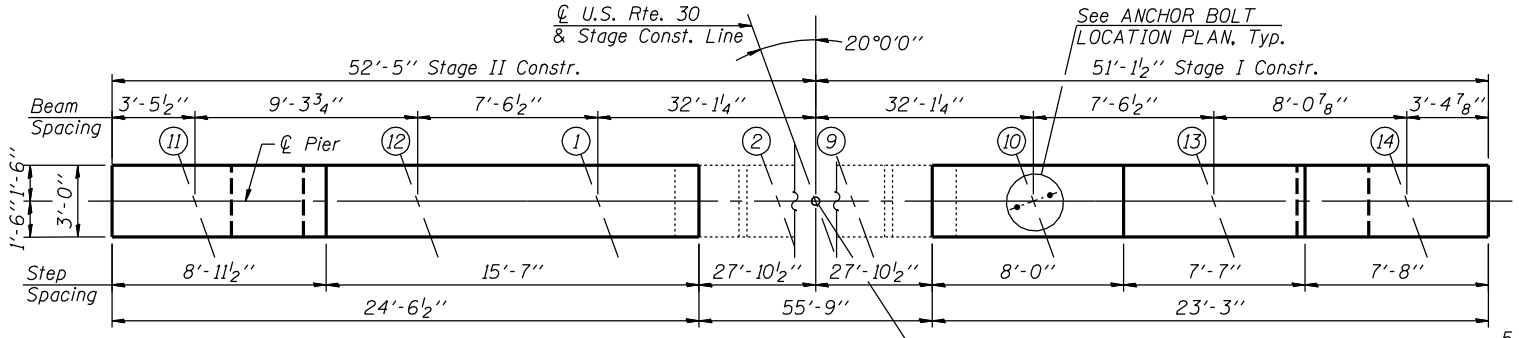
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PLOT DATE =	DRAWN - E.U.B. 6/25/2012	REVISED -
	CHECKED - J.Z. 6/25/2012	REVISED -

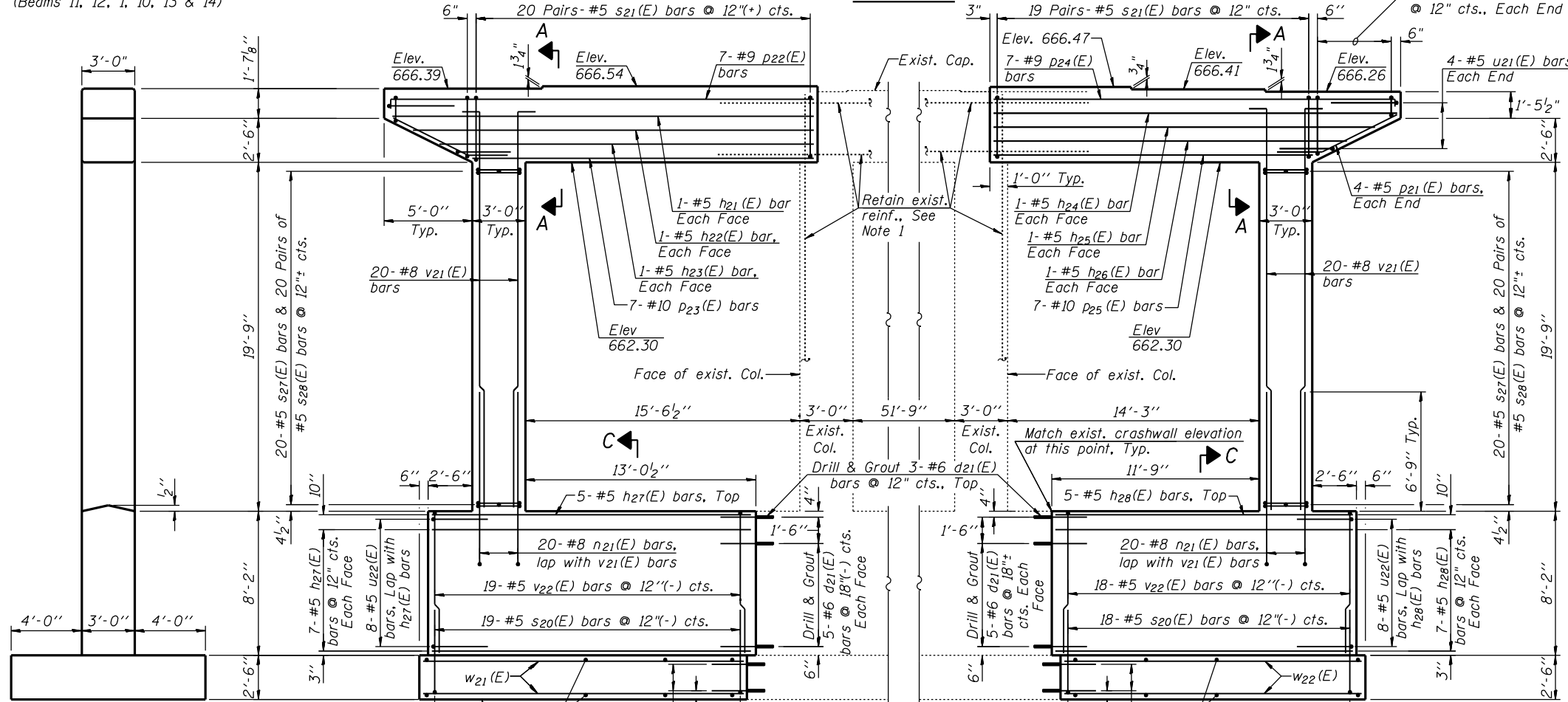
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	291
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				



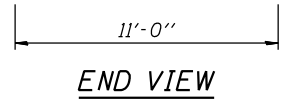
ANCHOR BOLT LOCATION PLAN
(Beams 11, 12, 1, 10, 13 & 14)



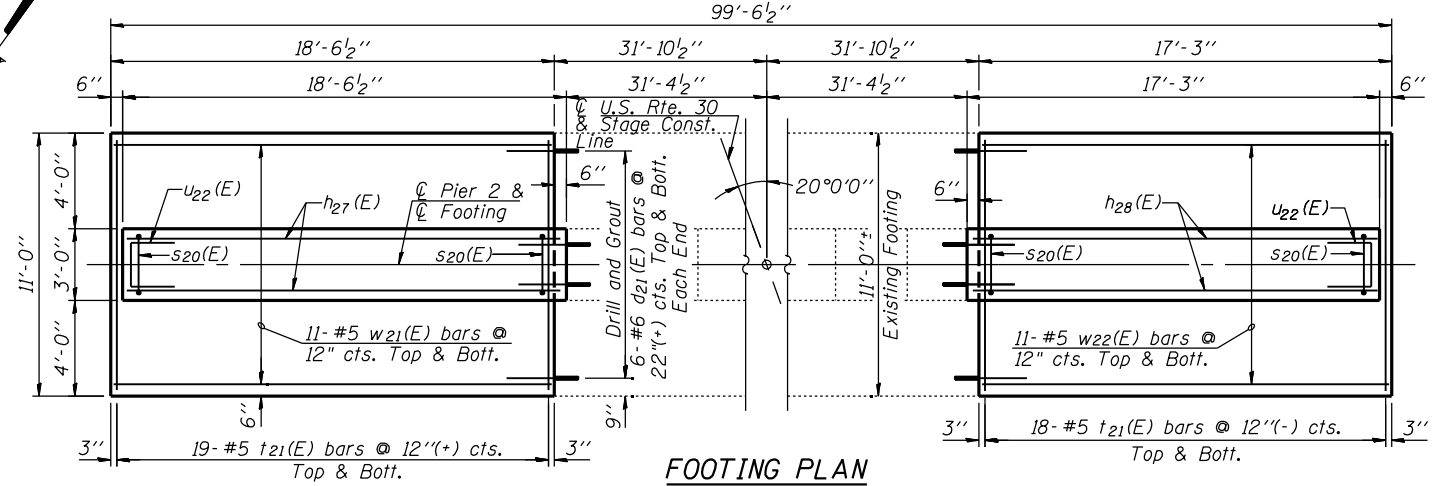
TOP PLAN



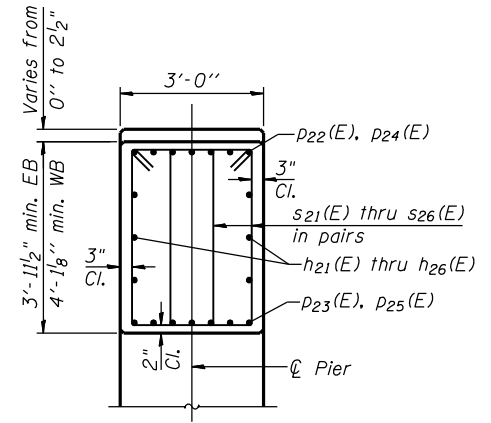
PIER 2 ELEVATION
(Looking East)



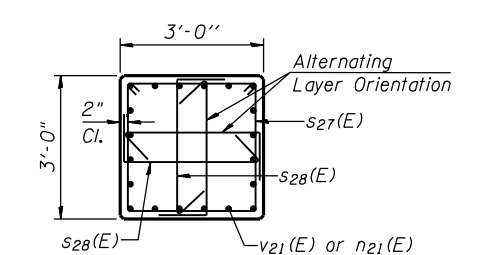
END VIEW



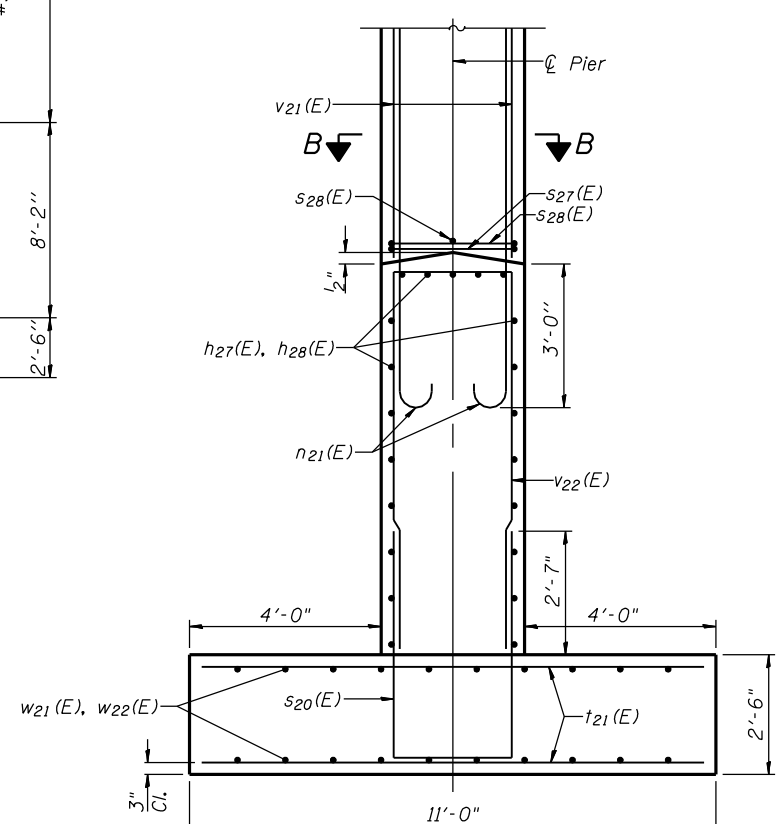
FOOTING PLAN



SECTION A-A



SECTION B-B



SECTION C-C

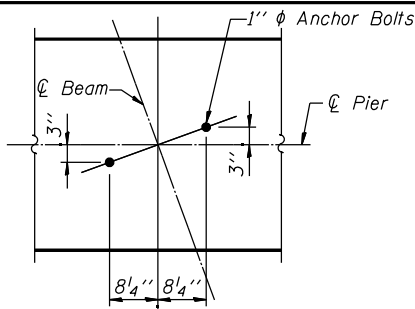
NOTES:

- Existing reinforcement shall be cleaned, straightened and incorporated into the new construction. Cost included with "Concrete Removal".
- See Sheet S73 for reinforcement details.
- Space reinforcement in cap to miss anchor bolts.
- Pour steps monolithically with cap.
- Embedment depth for #6 bars drilled & grouted is 9".
- Maximum applied service load soil bearing pressure is 4,000 psf.

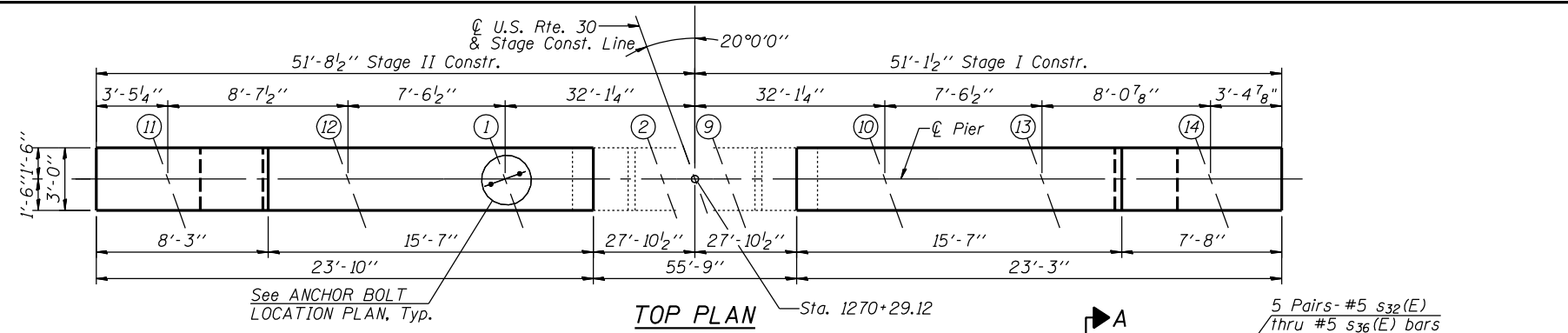
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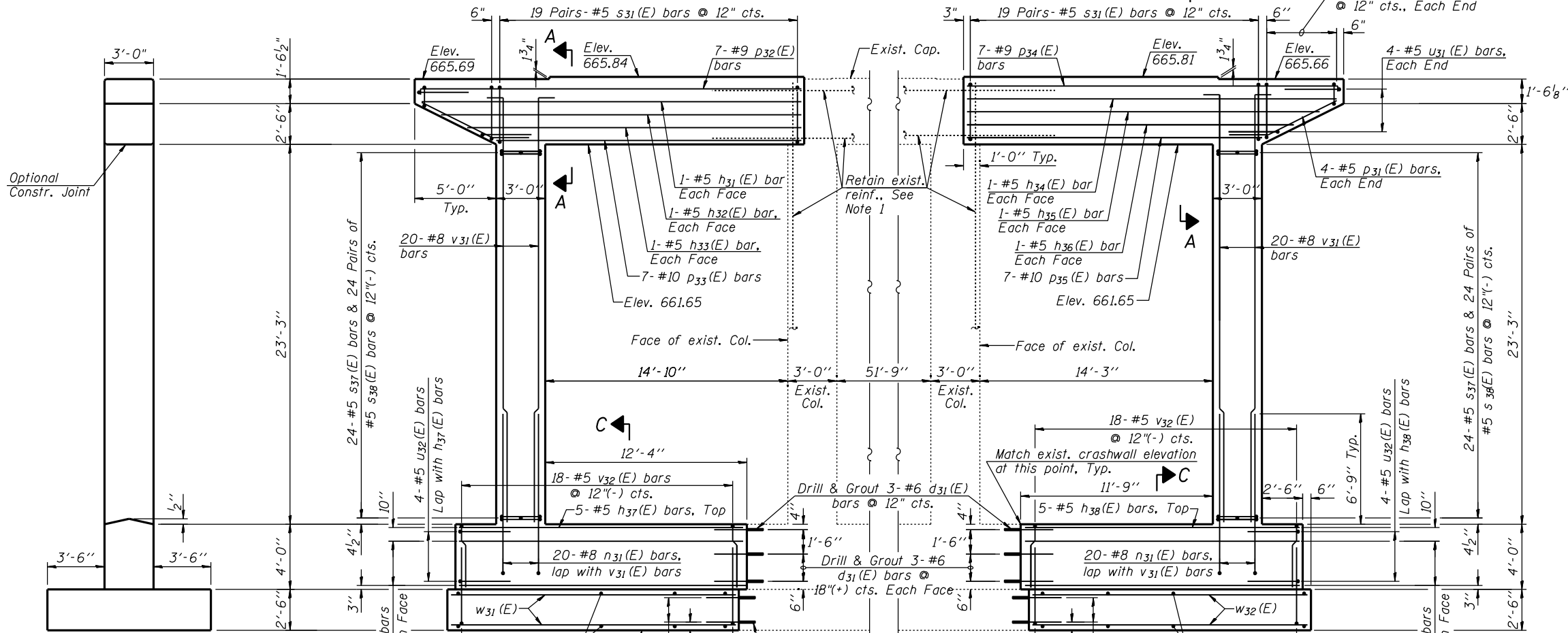
F.A.P. RTE. 349	SECTION (10 & 11VB) R-3	COUNTY KANE	TOTAL SHEETS 507	SHEET NO. 292
CONTRACT NO. 60133				ILLINOIS FED. AID PROJECT



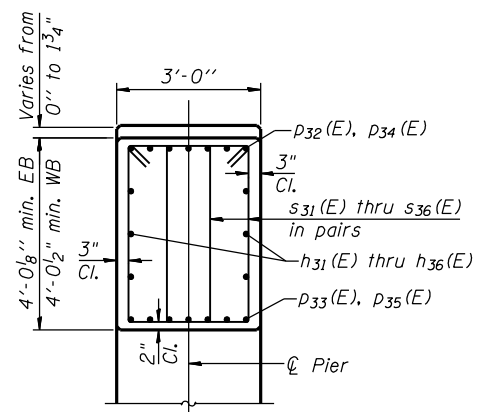
ANCHOR BOLT LOCATION PLAN
(Beams 11, 12, 1, 10, 13 & 14)



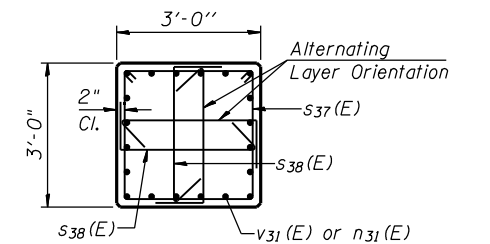
TOP PLAN - Sta. 1270+29.12



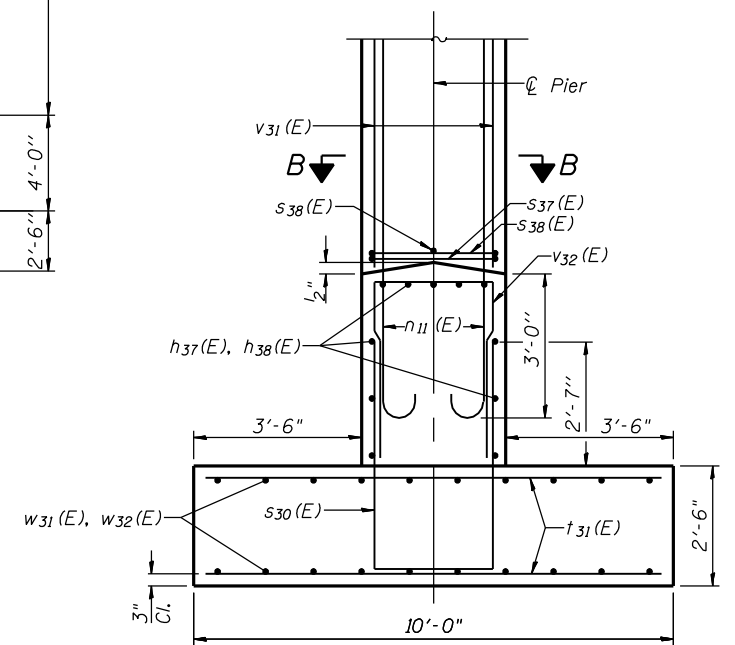
PIER 3 ELEVATION
(Looking East)



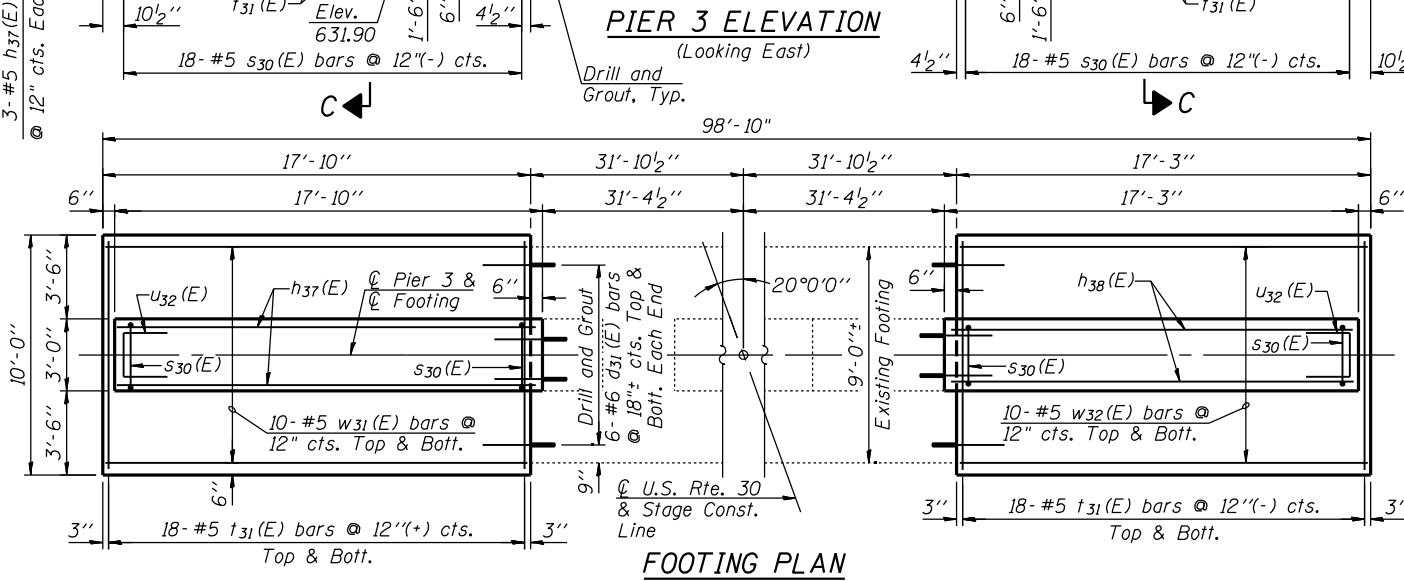
SECTION A-A



SECTION B-B



SECTION C-C



FOOTING PLAN

- NOTES:**
- Existing reinforcement shall be cleaned, straightened and incorporated into the new construction. Cost included with "Concrete Removal".
 - See Sheet S73 for reinforcement details.
 - Space reinforcement in cap to miss anchor bolts.
 - Pour steps monolithically with cap.
 - Embedment depth for #6 bars drilled & grouted is 9".
 - Maximum applied service load soil bearing pressure is 4,000 psf.

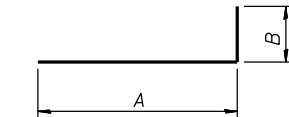
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PLOT DATE =	DRAWN - E.U.B. 6/25/2012	REVISED -
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	293
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				

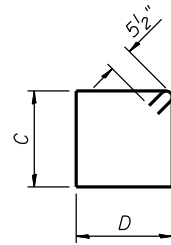
BILL OF MATERIAL - PIER 1

Bar	No.	Size	Length	Shape
d ₁₁ (E)	58	#6	4'-3"	—
h ₁₁ (E)	2	#5	24'-11"	—
h ₁₂ (E)	2	#5	23'-7"	—
h ₁₃ (E)	2	#5	21'-9"	—
h ₁₄ (E)	2	#5	22'-11"	—
h ₁₅ (E)	2	#5	21'-7"	—
h ₁₆ (E)	2	#5	19'-9"	—
h ₁₇ (E)	27	#5	18'-11"	—
h ₁₈ (E)	27	#5	16'-11"	—
n ₁₁ (E)	40	#8	10'-8"	┘
p ₁₁ (E)	8	#5	8'-6"	┘
p ₁₂ (E)	7	#9	26'-2"	┘
p ₁₃ (E)	7	#10	19'-11"	┘
p ₁₄ (E)	7	#9	24'-2"	┘
p ₁₅ (E)	7	#10	17'-11"	┘
s ₁₀ (E)	36	#5	12'-2"	┘
s ₁₁ (E)	80	#5	11'-11"	┘
s ₁₂ (E)	4	#5	11'-7"	┘
s ₁₃ (E)	4	#5	10'-7"	┘
s ₁₄ (E)	4	#5	9'-7"	┘
s ₁₅ (E)	4	#5	8'-7"	┘
s ₁₆ (E)	4	#5	7'-7"	┘
s ₁₇ (E)	36	#5	11'-7"	┘
s ₁₈ (E)	72	#5	4'-0"	┘
t ₁₁ (E)	76	#5	9'-8"	—
u ₁₁ (E)	8	#5	8'-8"	┘
u ₁₂ (E)	24	#5	7'-2"	┘
v ₁₁ (E)	40	#8	22'-7"	┘
v ₁₂ (E)	36	#5	24'-10"	┘
w ₁₁ (E)	20	#5	18'-11"	—
w ₁₂ (E)	20	#5	16'-11"	—
Structure Excavation		Cu Yd.	220	
Concrete Structures		Cu Yd.	113.0	
Reinforcement Bars, Epoxy Coated		Pound	12,710	
Concrete Sealer		Sq. Ft.	1,500	



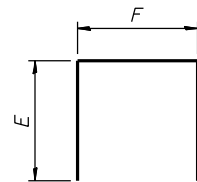
A & B DIMENSIONS

Bar	A	B
p ₁₂ (E)	24'-11"	1'-3"
p ₁₄ (E)	22'-11"	1'-3"
v ₁₁ (E)	21'-3"	1'-4"



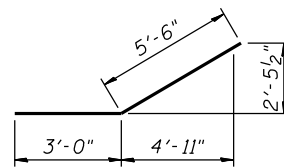
C & D DIMENSIONS

Bar	C	D
s ₁₁ (E)	3'-8"	1'-10"
s ₁₂ (E)	3'-6"	1'-10"
s ₁₃ (E)	3'-0"	1'-10"
s ₁₄ (E)	2'-6"	1'-10"
s ₁₅ (E)	2'-0"	1'-10"
s ₁₆ (E)	1'-6"	1'-10"
s ₁₇ (E)	2'-8"	2'-8"

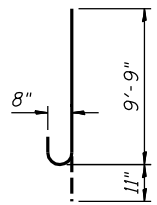


E & F DIMENSIONS

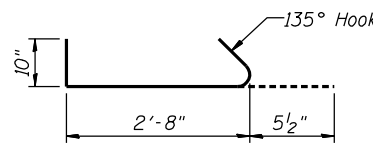
Bar	E	F
s ₁₀ (E)	4'-9"	2'-8"
u ₁₁ (E)	3'-0"	2'-8"
u ₁₂ (E)	2'-3"	2'-8"
v ₁₂ (E)	11'-1"	2'-8"



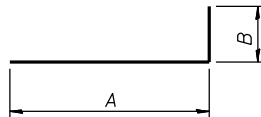
BAR p₁₁(E)



BAR n₁₁(E)

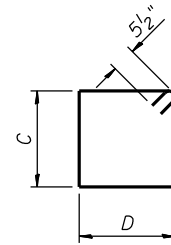


BAR s₁₈(E)



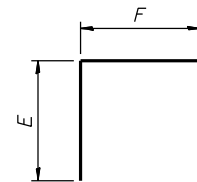
A & B DIMENSIONS

Bar	A	B
p ₂₂ (E)	24'-2"	1'-3"
p ₂₄ (E)	22'-11"	1'-3"
v ₂₁ (E)	23'-3"	1'-4"



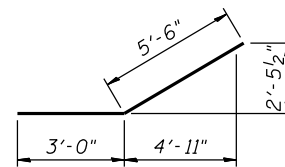
C & D DIMENSIONS

Bar	C	D
s ₂₁ (E)	3'-8"	1'-10"
s ₂₂ (E)	3'-6"	1'-10"
s ₂₃ (E)	3'-0"	1'-10"
s ₂₄ (E)	2'-6"	1'-10"
s ₂₅ (E)	2'-0"	1'-10"
s ₂₆ (E)	1'-6"	1'-10"
s ₂₇ (E)	2'-8"	2'-8"

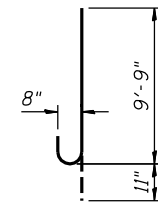


E & F DIMENSIONS

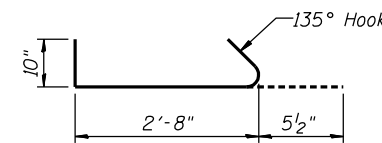
Bar	E	F
s ₂₀ (E)	4'-9"	2'-8"
u ₂₁ (E)	3'-0"	2'-8"
u ₂₂ (E)	2'-3"	2'-8"
v ₂₂ (E)	7'-11"	2'-8"



BAR p₂₁(E)



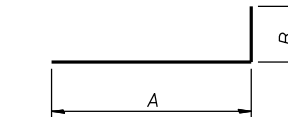
BAR n₂₁(E)



BAR s₂₈(E)

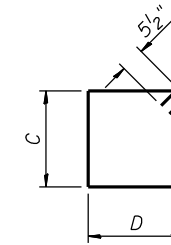
BILL OF MATERIAL - PIER 2

Bar	No.	Size	Length	Shape
d ₂₁ (E)	50	#6	4'-3"	—
h ₂₁ (E)	2	#5	24'-2"	—
h ₂₂ (E)	2	#5	22'-10"	—
h ₂₃ (E)	2	#5	21'-0"	—
h ₂₄ (E)	2	#5	22'-11"	—
h ₂₅ (E)	2	#5	21'-7"	—
h ₂₆ (E)	2	#5	19'-9"	—
h ₂₇ (E)	19	#5	18'-2"	—
h ₂₈ (E)	19	#5	16'-11"	—
n ₂₁ (E)	40	#8	10'-8"	┘
p ₂₁ (E)	8	#5	8'-6"	┘
p ₂₂ (E)	7	#9	25'-5"	┘
p ₂₃ (E)	7	#10	19'-2"	┘
p ₂₄ (E)	7	#9	24'-2"	┘
p ₂₅ (E)	7	#10	17'-11"	┘
s ₂₀ (E)	37	#5	12'-2"	┘
s ₂₁ (E)	78	#5	11'-11"	┘
s ₂₂ (E)	4	#5	11'-7"	┘
s ₂₃ (E)	4	#5	10'-7"	┘
s ₂₄ (E)	4	#5	9'-7"	┘
s ₂₅ (E)	4	#5	8'-7"	┘
s ₂₆ (E)	4	#5	7'-7"	┘
s ₂₇ (E)	40	#5	11'-7"	┘
s ₂₈ (E)	80	#5	4'-0"	┘
t ₂₁ (E)	74	#5	10'-8"	—
u ₂₁ (E)	8	#5	8'-8"	┘
u ₂₂ (E)	16	#5	7'-2"	┘
v ₂₁ (E)	40	#8	24'-7"	┘
v ₂₂ (E)	37	#5	18'-6"	┘
w ₂₁ (E)	22	#5	18'-2"	—
w ₂₂ (E)	22	#5	16'-11"	—
Structure Excavation		Cu Yd.	210	
Concrete Structures		Cu Yd.	103.0	
Reinforcement Bars, Epoxy Coated		Pound	12,420	
Concrete Sealer		Sq. Ft.	1,290	



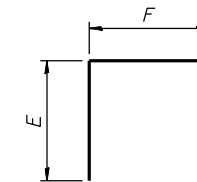
A & B DIMENSIONS

Bar	A	B
p ₃₂ (E)	23'-6"	1'-3"
p ₃₄ (E)	22'-11"	1'-3"
v ₃₁ (E)	26'-9"	1'-4"



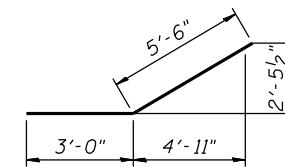
C & D DIMENSIONS

Bar	C	D
s ₃₁ (E)	3'-8"	1'-10"
s ₃₂ (E)	3'-6"	1'-10"
s ₃₃ (E)	3'-0"	1'-10"
s ₃₄ (E)	2'-6"	1'-10"
s ₃₅ (E)	2'-0"	1'-10"
s ₃₆ (E)	1'-6"	1'-10"
s ₃₇ (E)	2'-8"	2'-8"

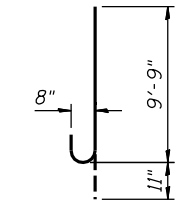


E & F DIMENSIONS

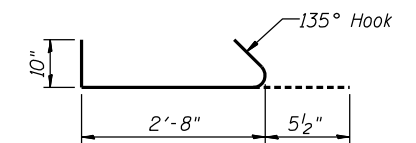
Bar	E	F
s ₃₀ (E)	4'-9"	2'-8"
u ₃₁ (E)	3'-0"	2'-8"
u ₃₂ (E)	2'-3"	2'-8"
v ₃₂ (E)	3'-9"	2'-8"



BAR p₃₁(E)

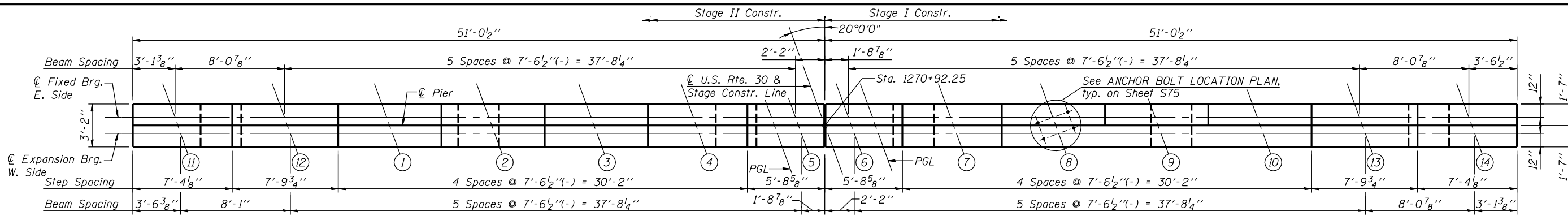


BAR n₃₁(E)

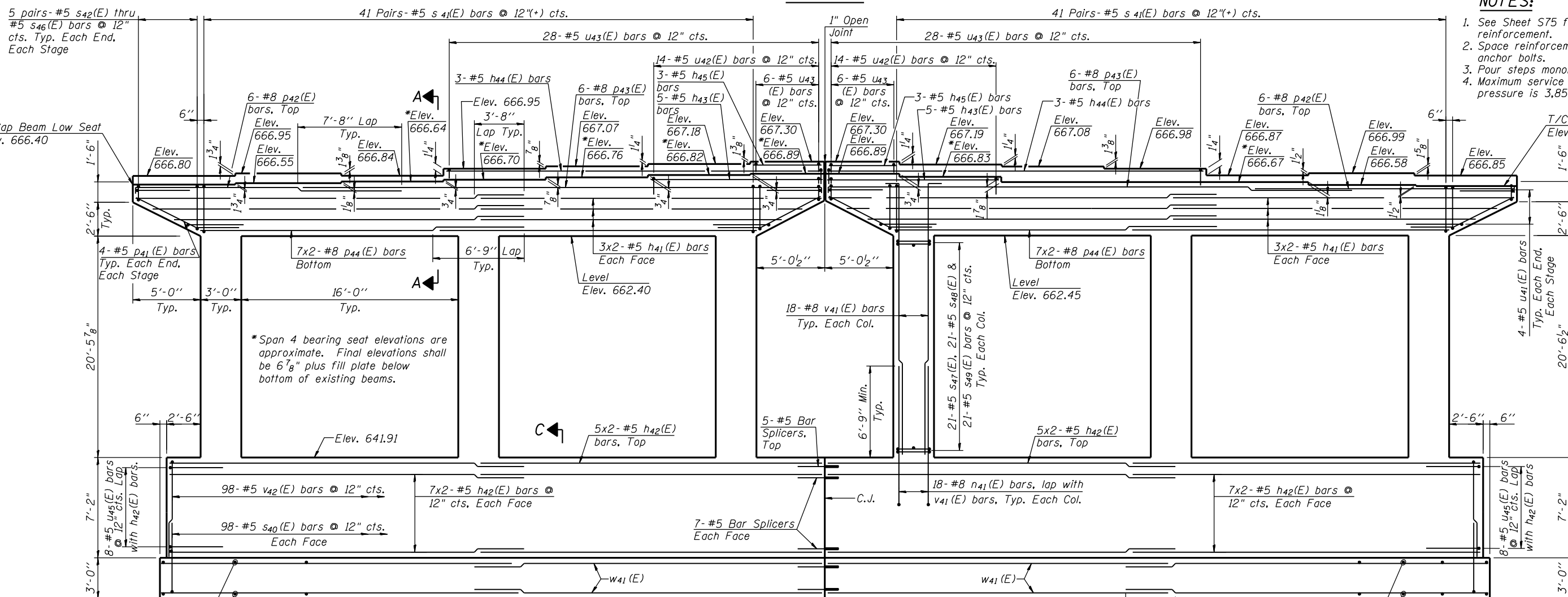


BAR s₃₈(E)

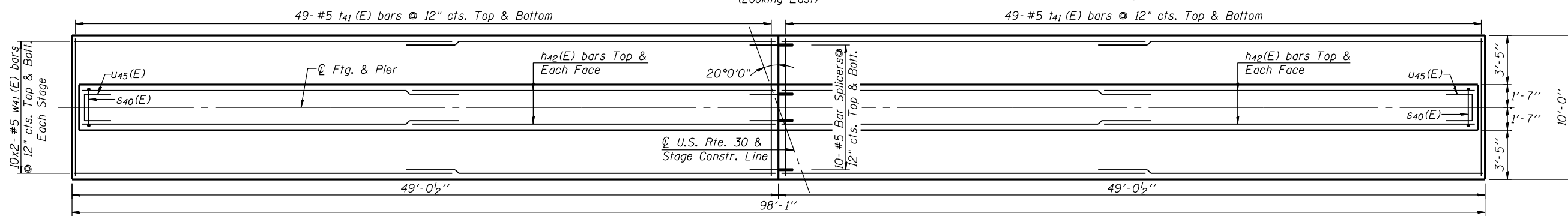
NOTES:
1. Work this Sheet with Sheets S70 thru S72.



TOP PLAN



PIER 4 ELEVATION
(Looking East)



FOOTING PLAN

- NOTES:**
1. See Sheet S75 for Sections and reinforcement.
 2. Space reinforcement in cap to miss anchor bolts.
 3. Pour steps monolithically with cap.
 4. Maximum service load soil bearing pressure is 3,850 psf.

H:\Jobs\2010\20103003\CAD\Structural\dgn\045-0039.Fin\00\06033-e074-4-4.dgn
 6/26/2012 3:40:45 PM

GR&E
 8501 W. Higgins Road, Suite 280
 Chicago, Illinois 60631; (773) 399-0112

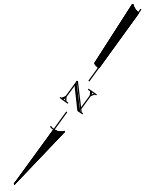
USER NAME =	DESIGNED - J.Z. 6/25/2012	REVISED -
PLOT SCALE =	CHECKED - J.J.G. 6/25/2012	REVISED -
PLOT DATE =	DRAWN - E.U.B. 6/25/2012	REVISED -
	CHECKED - J.Z. 6/25/2012	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PIER 4
STRUCTURE NO. 045-0039

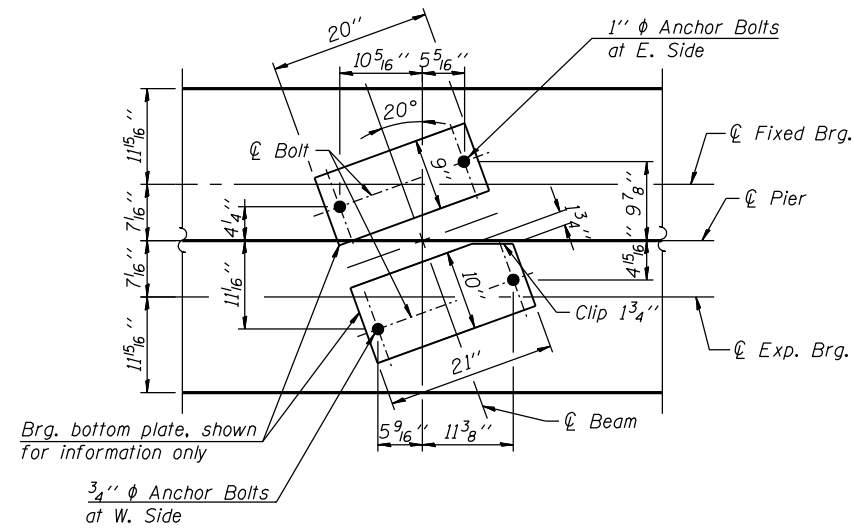
SHEET NO. S74 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	295
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				

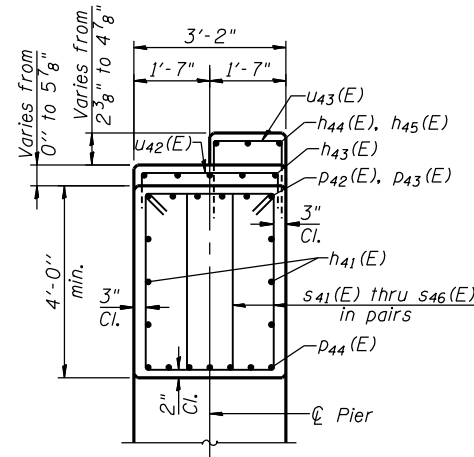


BILL OF MATERIAL - PIER 4

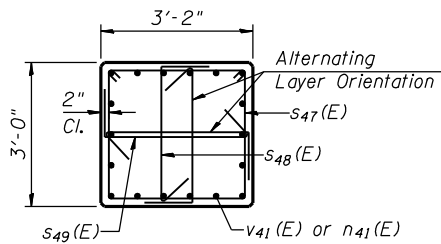
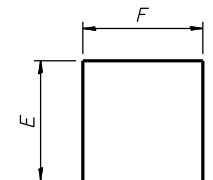
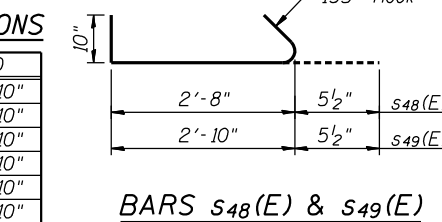
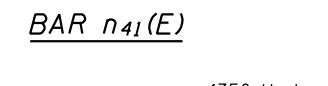
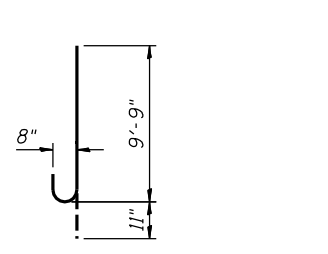
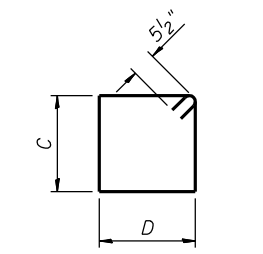
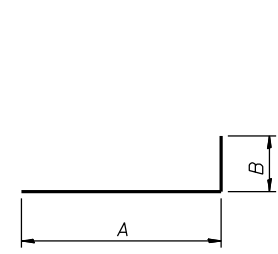
Bar	No.	Size	Length	Shape
h ₄₁ (E)	24	#5	27'-4"	—
h ₄₂ (E)	76	#5	26'-0"	—
h ₄₃ (E)	10	#5	12'-11"	—
h ₄₄ (E)	6	#5	28'-0"	—
h ₄₅ (E)	6	#5	5'-4"	—
n ₄₁ (E)	108	#8	10'-8"	U
p ₄₁ (E)	16	#5	8'-6"	—
p ₄₂ (E)	12	#8	21'-1"	—
p ₄₃ (E)	12	#8	40'-1"	—
p ₄₄ (E)	28	#8	23'-9"	—
s ₄₀ (E)	98	#5	13'-4"	□
s ₄₁ (E)	164	#5	11'-11"	□
s ₄₂ (E)	8	#5	11'-7"	□
s ₄₃ (E)	8	#5	10'-7"	□
s ₄₄ (E)	8	#5	9'-7"	□
s ₄₅ (E)	8	#5	8'-7"	□
s ₄₆ (E)	8	#5	7'-7"	□
s ₄₇ (E)	126	#5	11'-11"	□
s ₄₈ (E)	126	#5	4'-0"	└┘
s ₄₉ (E)	126	#5	4'-2"	└┘
t ₄₁ (E)	196	#5	9'-8"	—
u ₄₁ (E)	16	#5	8'-10"	□
u ₄₂ (E)	28	#5	6'-8"	□
u ₄₃ (E)	68	#5	5'-1"	□
u ₄₅ (E)	16	#5	7'-4"	□
v ₄₁ (E)	108	#8	25'-7"	—
v ₄₂ (E)	98	#5	16'-6"	□
w ₄₁ (E)	80	#5	26'-2"	—
Structure Excavation			Cu Yd.	210
Concrete Structures			Cu Yd.	280.0
Reinforcement Bars, Epoxy Coated			Pound	30,540
Concrete Sealer			Sq. Ft.	3,130



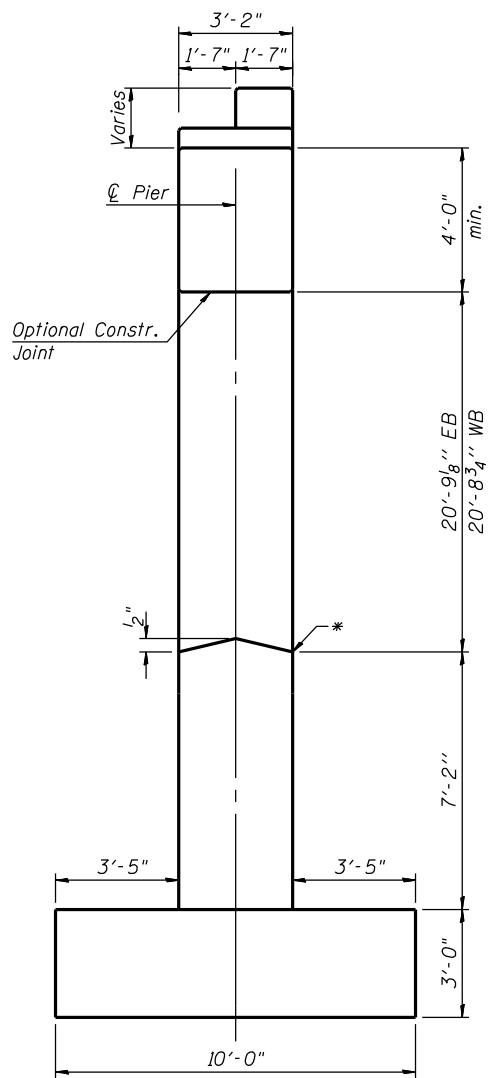
ANCHOR BOLT LOCATION PLAN



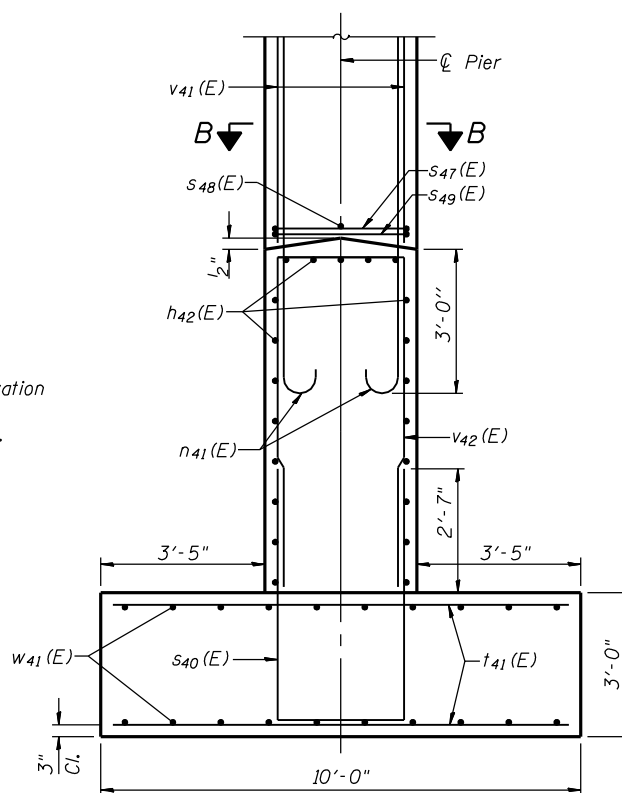
SECTION A-A



SECTION B-B



END VIEW



SECTION C-C

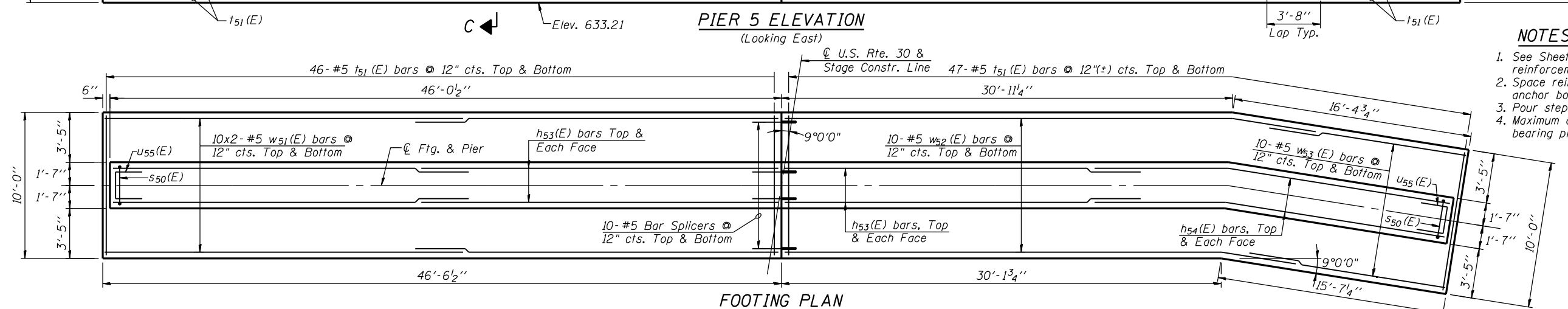
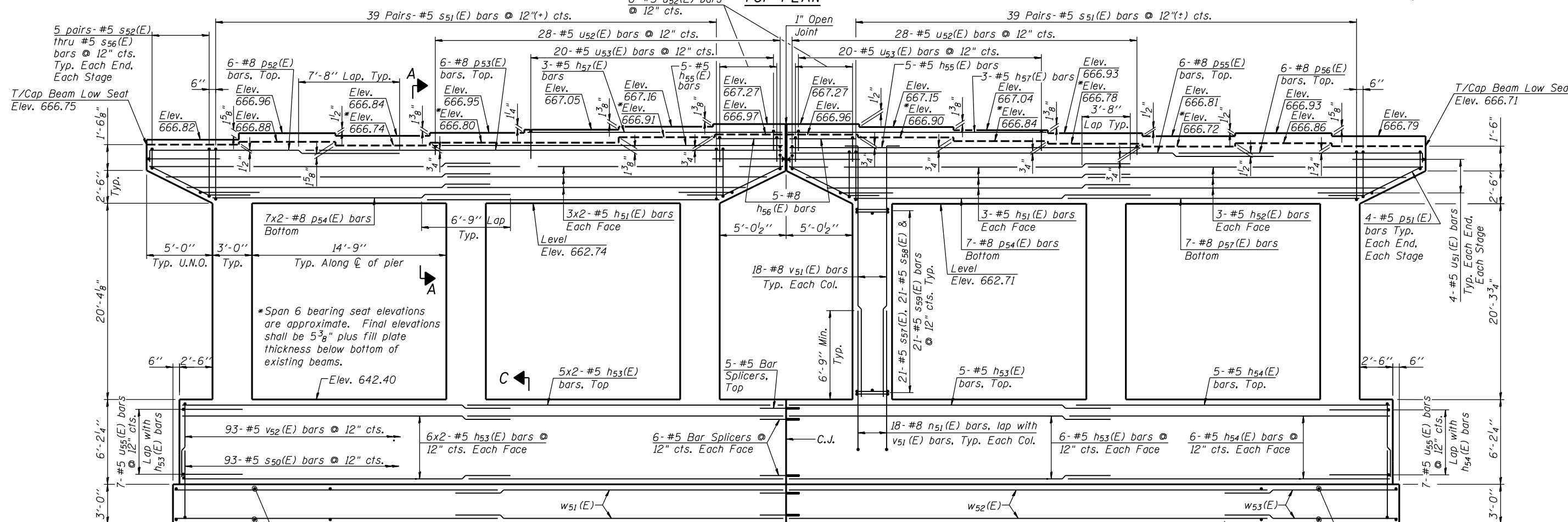
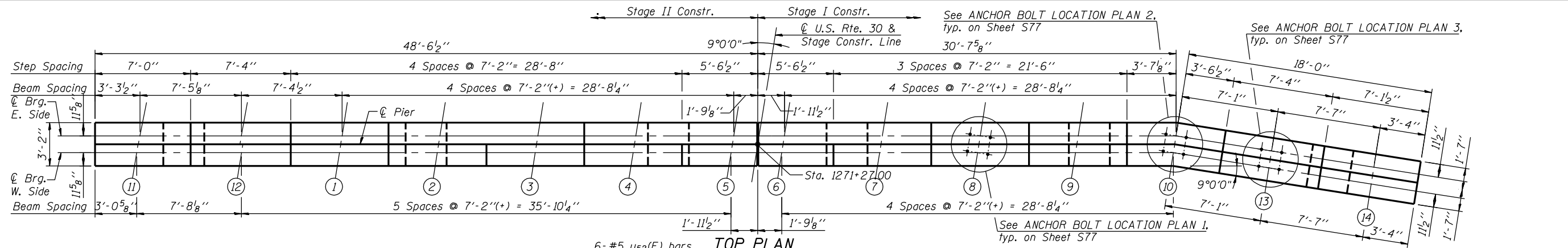
* The location of the elevation at the top of Crashwall shown at Pier Elevation.

- NOTES:**
- Work this Sheet with Sheet S74.
 - Bars indicated thus 3 x 2-#5 etc. indicates 3 lines of bars with 2 lengths per line.

H:\projects\2010\30303\CAD\Structural\dgn\045-0039_Find\00_D16033-s075-pier-4-dt.dgn 6/26/2012 11:27:14 AM

USER NAME =	DESIGNED - J.Z. 6/25/2012	REVISED -
PLOT SCALE =	CHECKED - J.J.G. 6/25/2012	REVISED -
PLOT DATE =	DRAWN - E.U.B. 6/25/2012	REVISED -
	CHECKED - J.Z. 6/25/2012	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	296
			CONTRACT NO. 60133	
ILLINOIS FED. AID PROJECT				



- NOTES:**
1. See Sheet S77 for Sections and reinforcement details.
 2. Space reinforcements in cap to miss anchor bolts.
 3. Pour steps monolithically with cap.
 4. Maximum applied service load soil bearing pressure is 4,000 psf.

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GRAEF
 8501 W. Higgins Road, Suite 280
 Chicago, Illinois 60631; (773) 399-0112

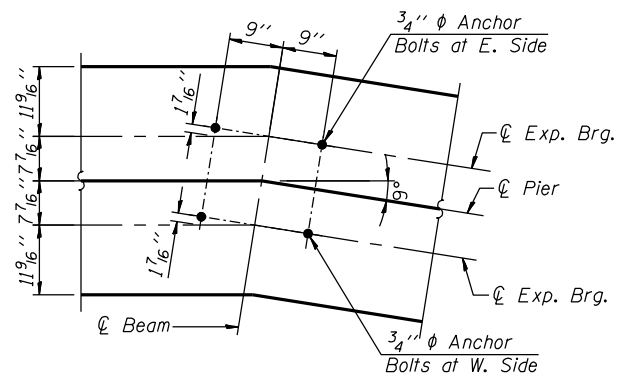
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PLOT SCALE =	CHECKED - J.J.G. 6/25/2012	REVISED -
PLOT DATE =	DRAWN - E.U.B. 6/25/2012	REVISED -
	CHECKED - J.Z. 6/25/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

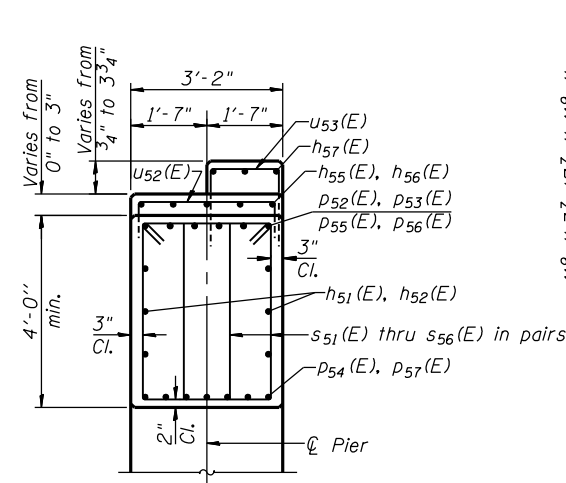
PIER 5
STRUCTURE NO. 045-0039
 SHEET NO. S76 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	297
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				

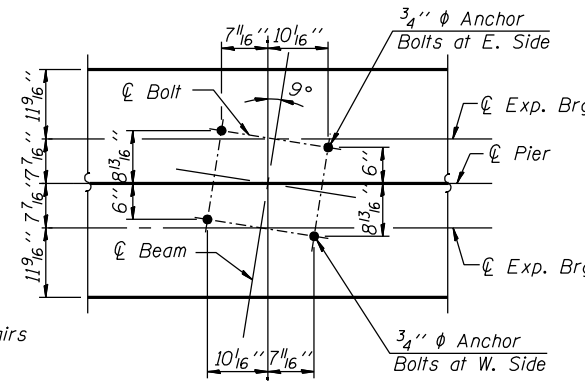
BILL OF MATERIAL - PIER 5



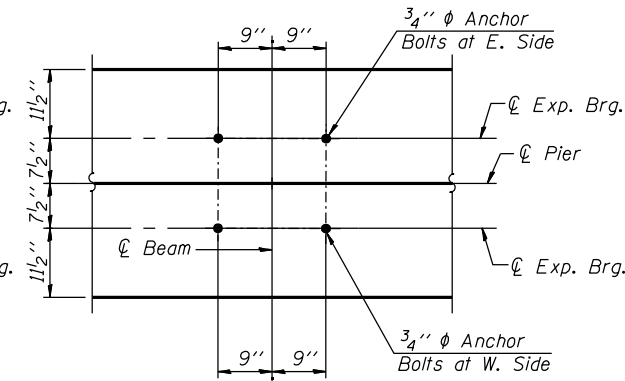
**ANCHOR BOLT LOCATION
PLAN 2 (BEAM 10 ONLY)**



SECTION A-A

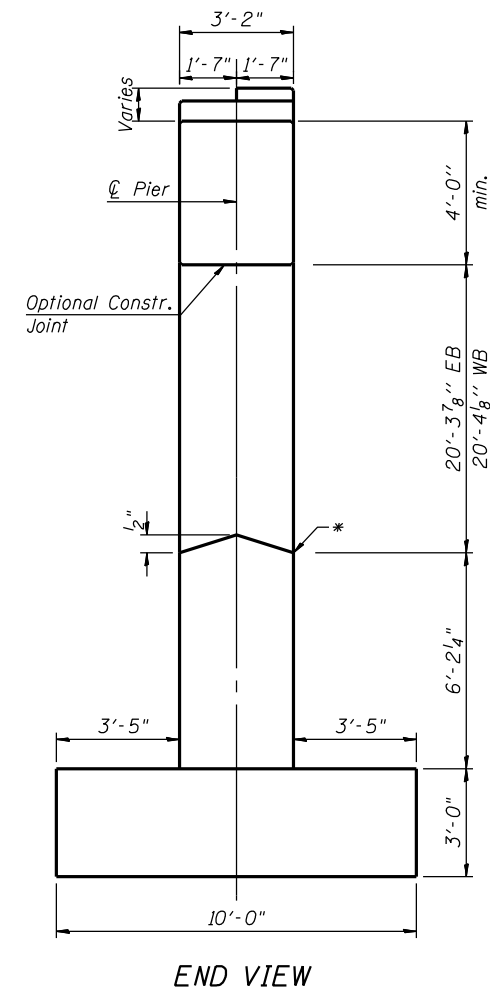


**ANCHOR BOLT LOCATION
PLAN 1 (BEAMS 11, 12, 1 THRU 9)**

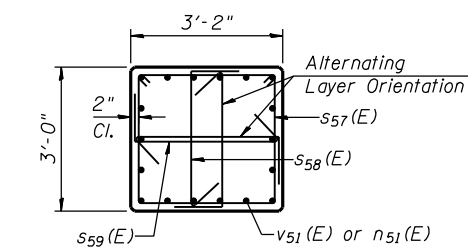


**ANCHOR BOLT LOCATION
PLAN 3 (BEAMS 13 & 14)**

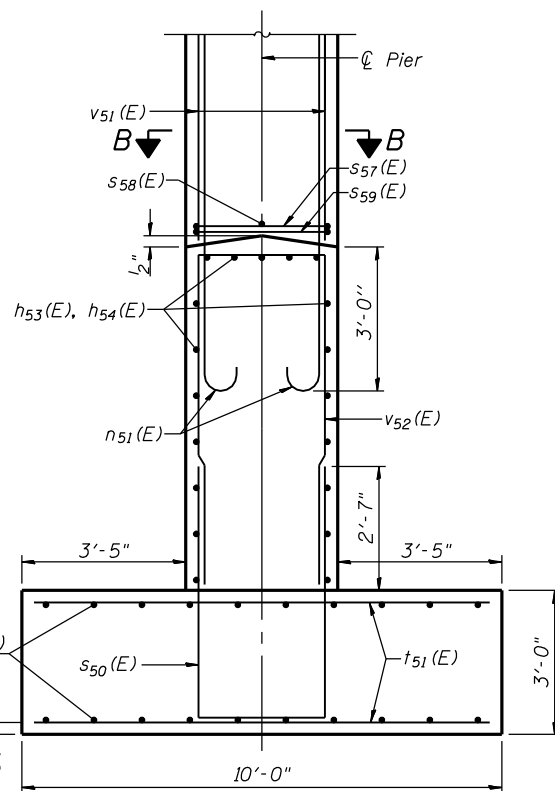
*The location of the elevation at the top of Crashwall shown at Pier Elevation.



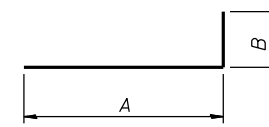
END VIEW



SECTION B-B

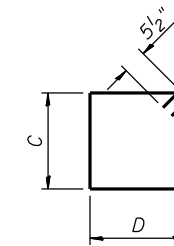


SECTION C-C



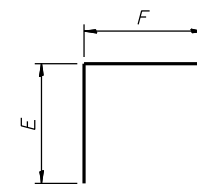
A & B DIMENSIONS

Bar	A	B
p52(E)	18'-9"	1'-3"
p53(E)	37'-0"	1'-3"
p56(E)	17'-10"	1'-3"
v51(E)	23'-10"	1'-4"



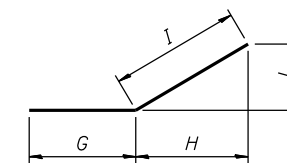
C & D DIMENSIONS

Bar	C	D
s51(E)	3'-8"	1'-10"
s52(E)	3'-6"	1'-10"
s53(E)	3'-0"	1'-10"
s54(E)	2'-6"	1'-10"
s55(E)	2'-0"	1'-10"
s56(E)	1'-6"	1'-10"
s57(E)	2'-10"	2'-8"



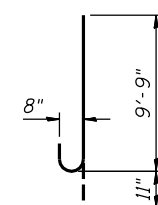
E & F DIMENSIONS

Bar	E	F
s50(E)	5'-3"	2'-10"
u51(E)	3'-0"	2'-10"
u52(E)	1'-11"	2'-10"
u53(E)	1'-11"	1'-3"
u55(E)	2'-3"	2'-10"
v52(E)	5'-11"	2'-10"

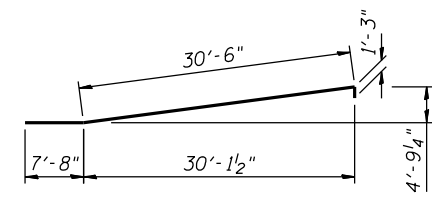


G THRU J DIMENSIONS

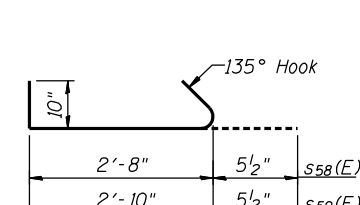
Bar	G	H	I	J
h52(E)	17'-10"	8'-0 3/4"	8'-2"	1'-3 3/8"
h54(E)	15'-4"	9'-8 1/2"	9'-10"	1'-6 1/2"
p51(E)	3'-0"	4'-11"	5'-6"	2'-5 1/2"
p57(E)	9'-8"	12'-8 1/8"	12'-10"	2'-0 1/8"
w52(E)	30'-9"	3'-7 1/2"	3'-8"	6 7/8"



BAR n51(E)



BAR p55(E)



BARS s58(E) & s59(E)

Structure Excavation	Cu Yd.	170
Concrete Structures	Cu Yd.	259.0
Reinforcement Bars, Epoxy Coated	Pound	29,730
Concrete Sealer	Sq. Ft.	2,930

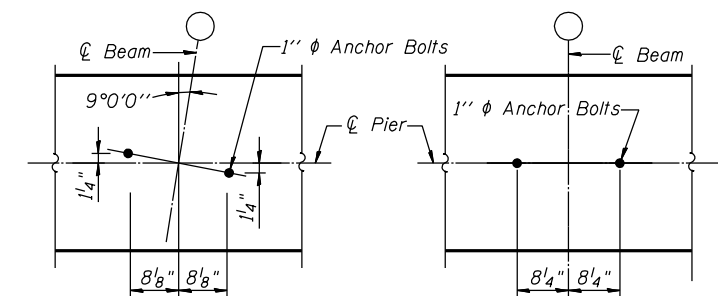
NOTES:

1. Work this Sheet with Sheet S76.
2. Bars indicated thus 3 x 2-#5 etc. indicates 3 lines of bars with 2 lengths per line.

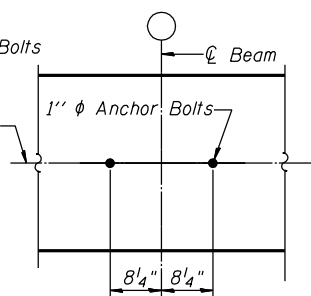
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USER NAME =	DESIGNED -	REVISIONS
J.Z.	J.Z. 6/25/2012	6/25/2012
J.J.G.	J.J.G. 6/25/2012	6/25/2012
E.U.B.	E.U.B. 6/25/2012	6/25/2012
J.Z.	J.Z. 6/25/2012	6/25/2012

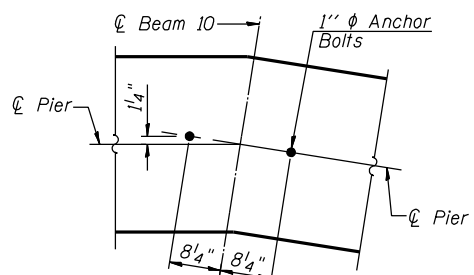
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	298
				CONTRACT NO. 60133
ILLINOIS FED. AID PROJECT				



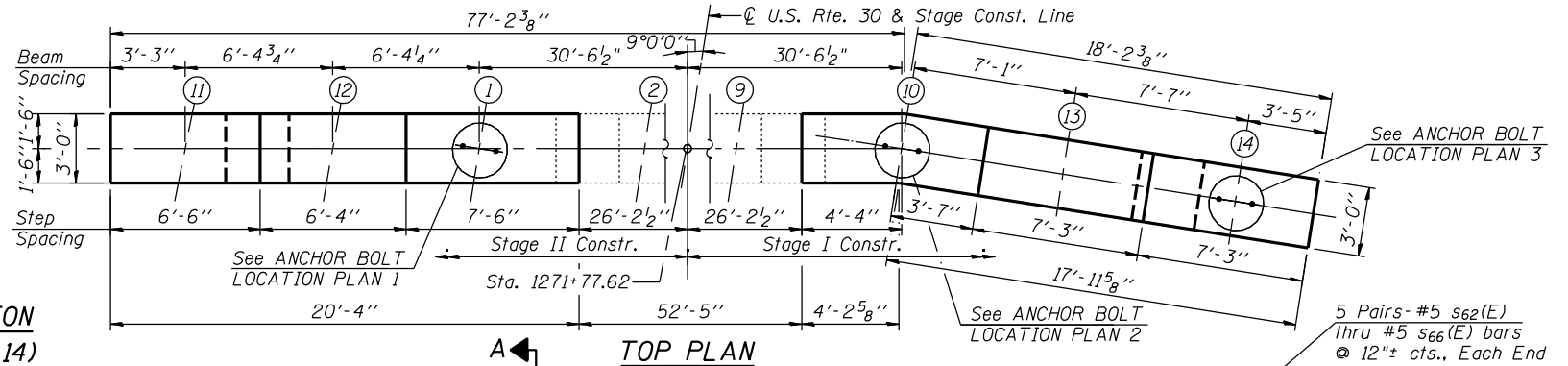
ANCHOR BOLT LOCATION PLAN 1 (BEAMS 11, 12 & 1)



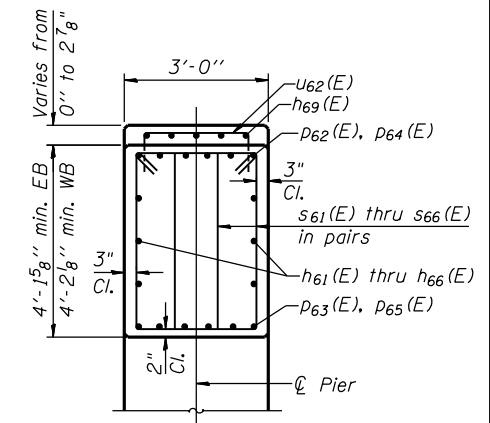
ANCHOR BOLT LOCATION PLAN 3 (BEAMS 13 & 14)



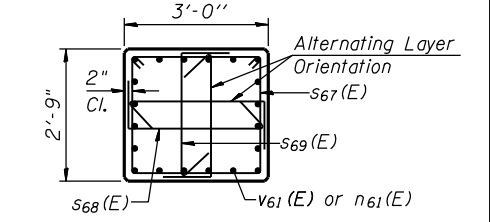
ANCHOR BOLT LOCATION PLAN 2 (BEAM 10 ONLY)



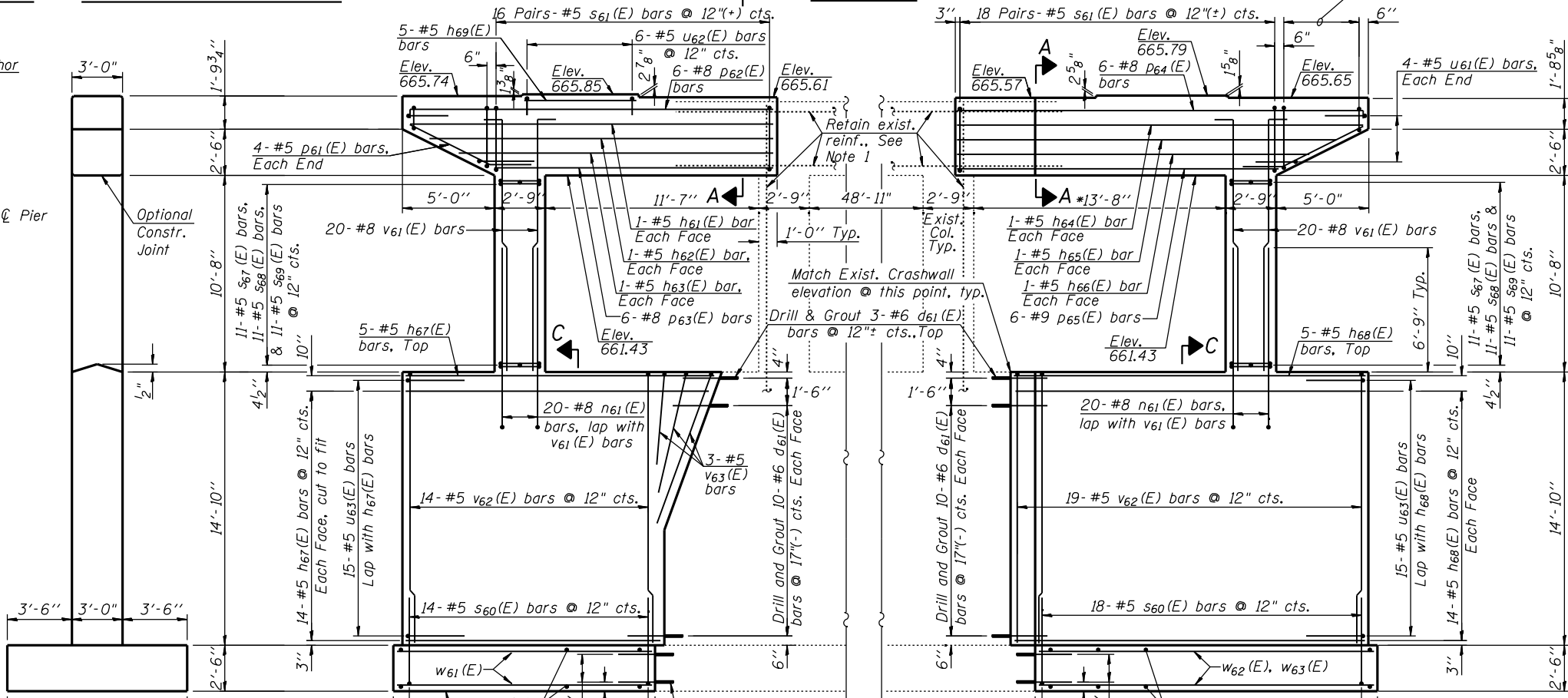
TOP PLAN



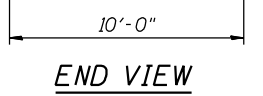
SECTION A-A



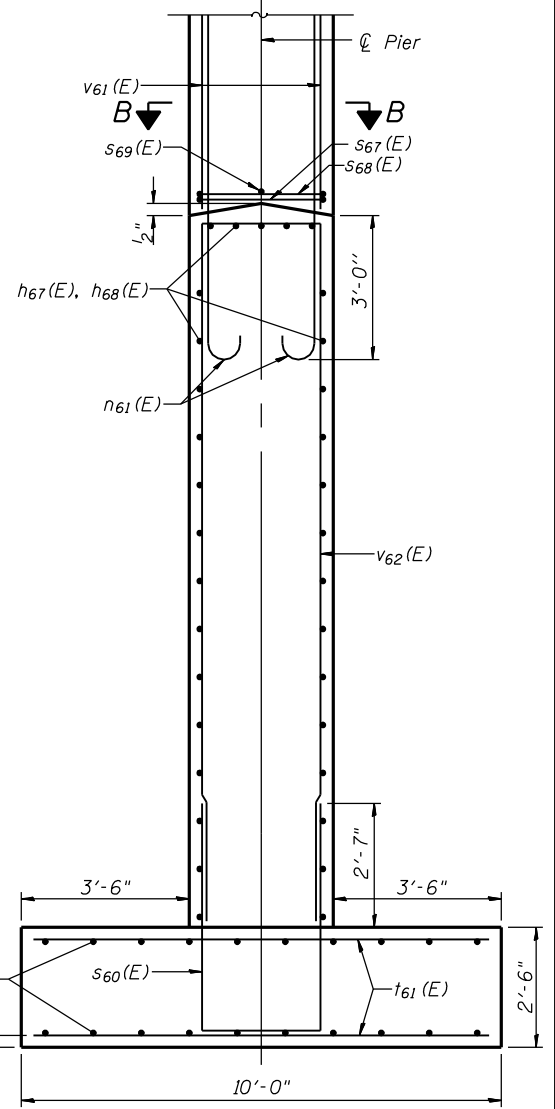
SECTION B-B



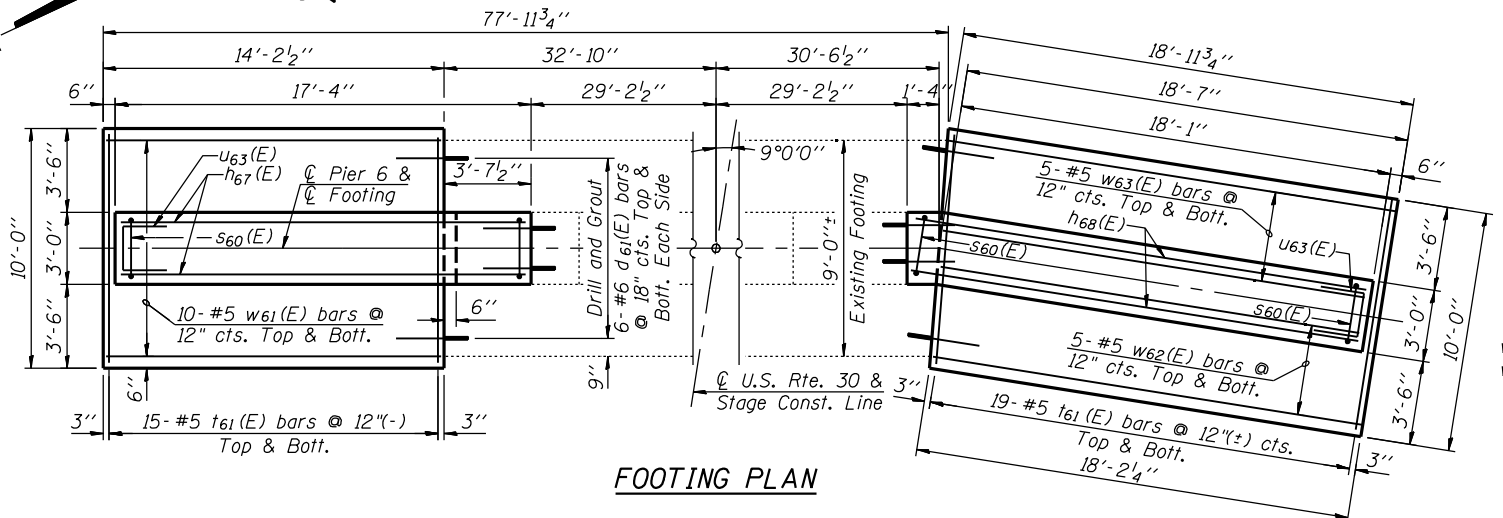
PIER 6 ELEVATION (Looking East)



END VIEW



SECTION C-C



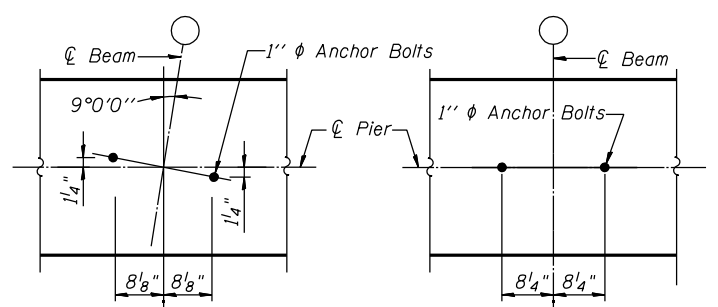
FOOTING PLAN

- NOTES:**
- Existing reinforcement shall be cleaned, straightened and incorporated into the new construction. Cost included with "Concrete Removal".
 - See Sheet S81 for reinforcement details.
 - Space reinforcement in cap to miss anchor bolts.
 - Pour steps monolithically with cap.
 - Embedment depth for #6 bars drilled & grouted is 9".
 - Maximum applied service load soil bearing pressure is 3,800psf.
 - * Denotes dimension along ϕ of Pier.

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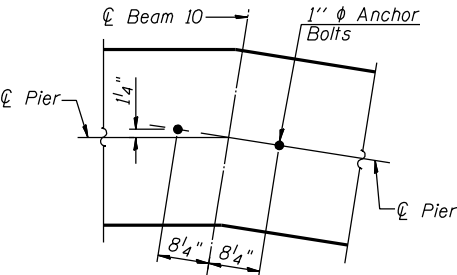
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PLOT DATE =	DRAWN - E.U.B. 6/25/2012	REVISED -
	CHECKED - J.Z. 6/25/2012	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	299
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				

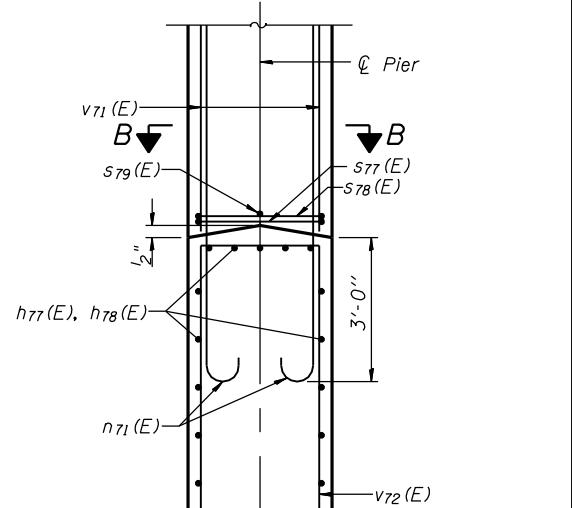
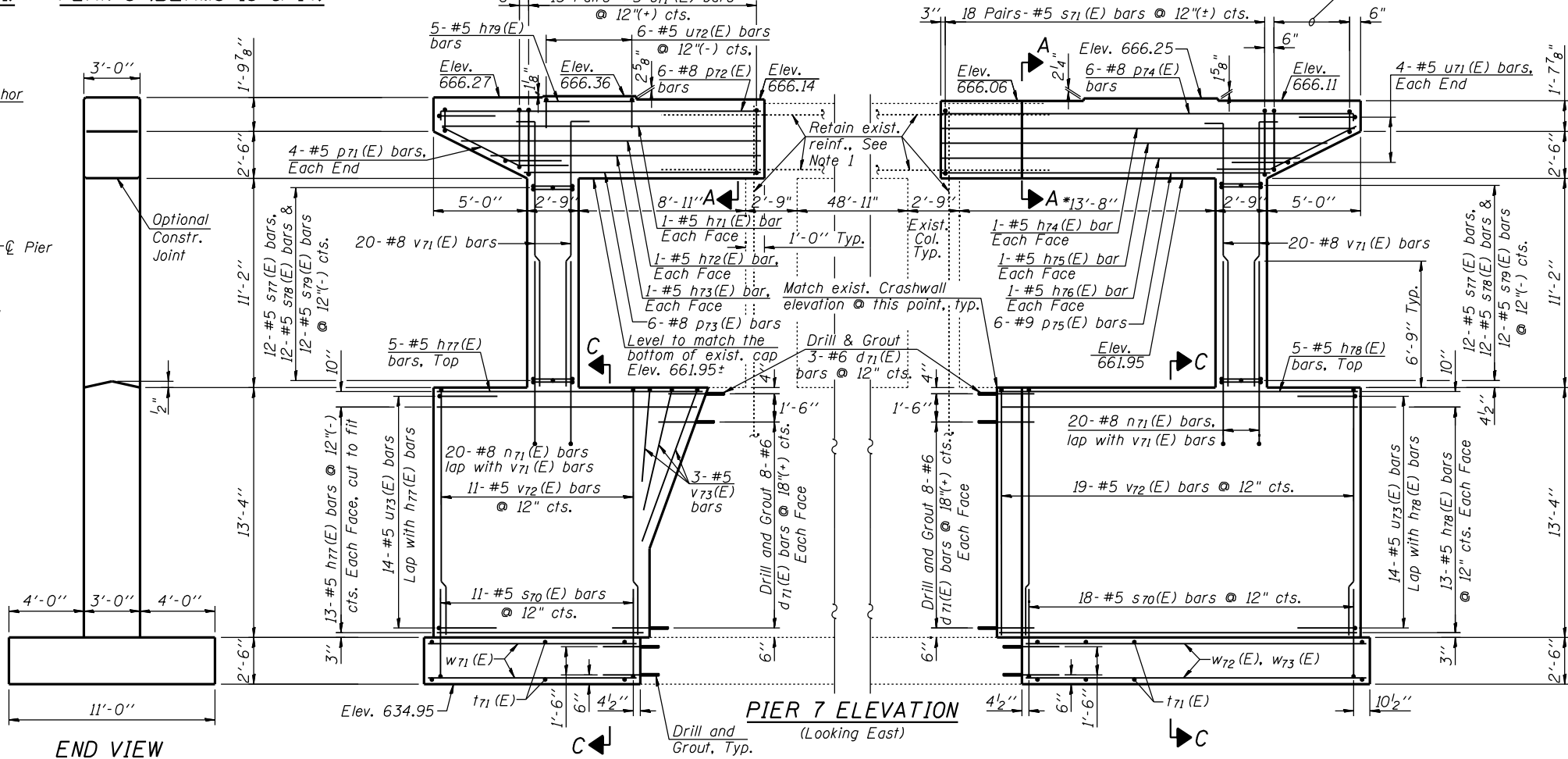
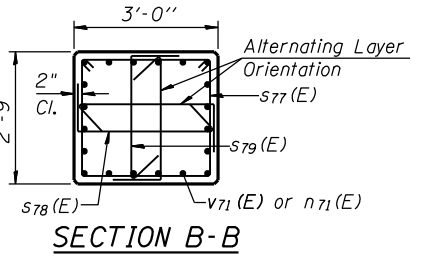
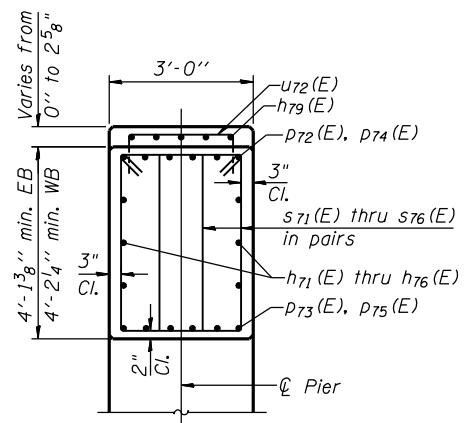
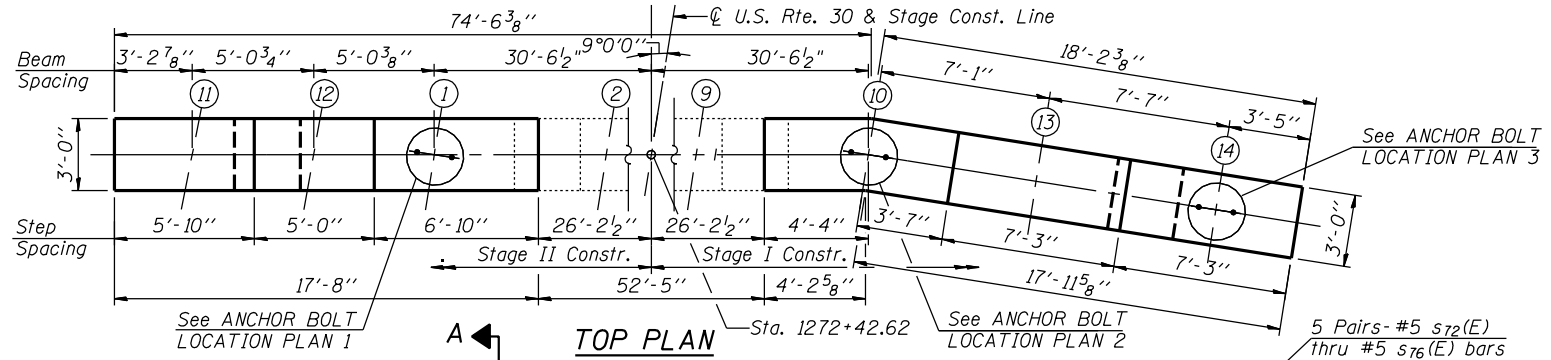


ANCHOR BOLT LOCATION PLAN 1 (BEAM 11, 12 & 1)

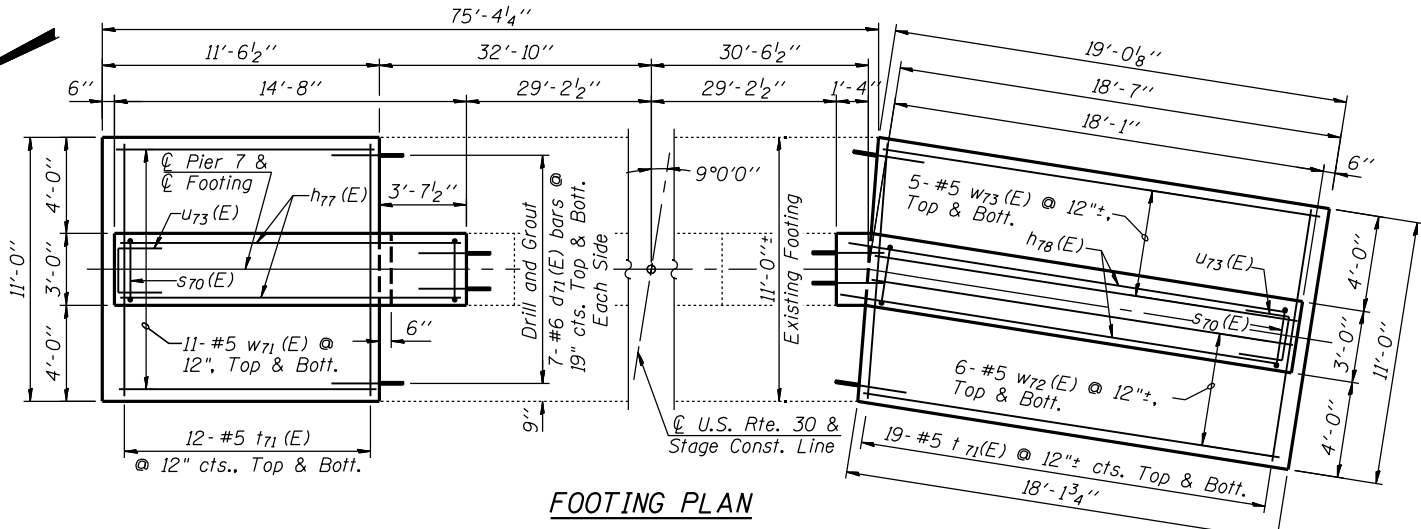
ANCHOR BOLT LOCATION PLAN 3 (BEAMS 13 & 14)



ANCHOR BOLT LOCATION PLAN 2 (BEAM 10 ONLY)



END VIEW



- NOTES:**
- Existing reinforcement shall be cleaned, straightened and incorporated into the new construction. Cost included with "Concrete Removal".
 - See Sheet S81 for reinforcement details.
 - Space reinforcement in cap to miss anchor bolts.
 - Pour steps monolithically with cap.
 - Embedment depth for #6 bars drilled & grouted is 9".
 - Maximum applied service load soil bearing pressure is 3,800 psf.
 - * Denotes dimension along ϕ of Pier.

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PLLOT DATE =	DRAWN - E.U.B. 6/25/2012	REVISED -
	CHECKED - J.Z. 6/25/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 7
STRUCTURE NO. 045-0039

SHEET NO. S79 OF 116 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
349	(10 & 11VB) R-3	KANE	507	300
CONTRACT NO. 60133				
ILLINOIS FED. AID PROJECT				