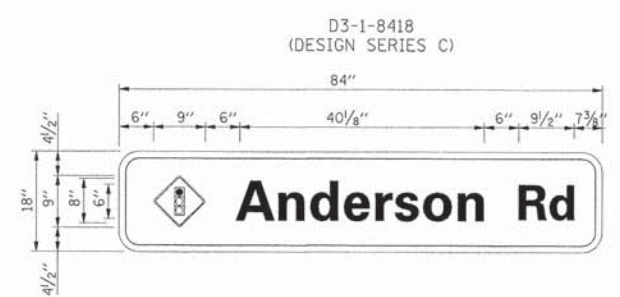
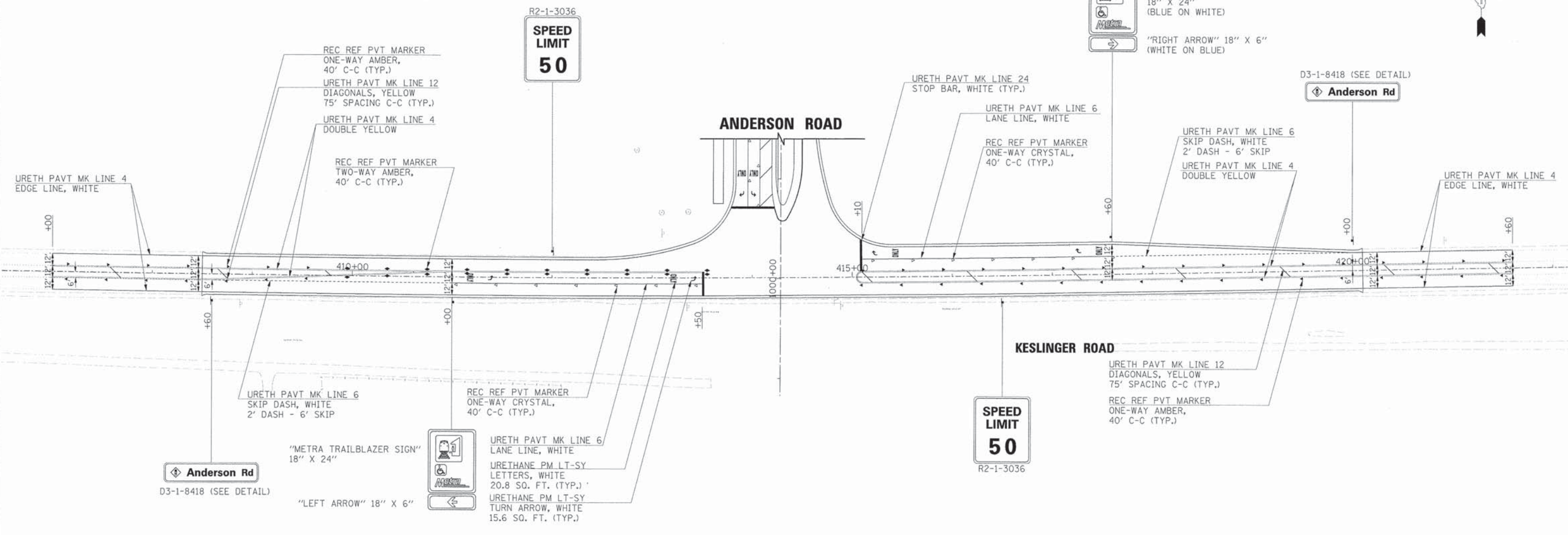




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	NOTE BOOK	
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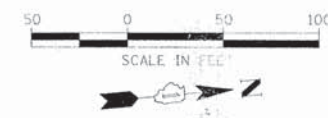
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	GRADES CHECKED	
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	NOTE BOOK	
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	STRUCTURE NOTATIONS CPWD	



- NOTES:
- PAVEMENT MARKING ON THIS PROJECT SHALL BE MODIFIED URETHANE.
  - SEE DISTRICT ONE TYPICAL PAVEMENT MARKINGS DETAIL FOR ADDITIONAL INFORMATION.
  - THE CONTRACTOR SHALL MATCH THE EXISTING PAVEMENT MARKINGS AT PROJECT LIMITS AS NECESSARY.

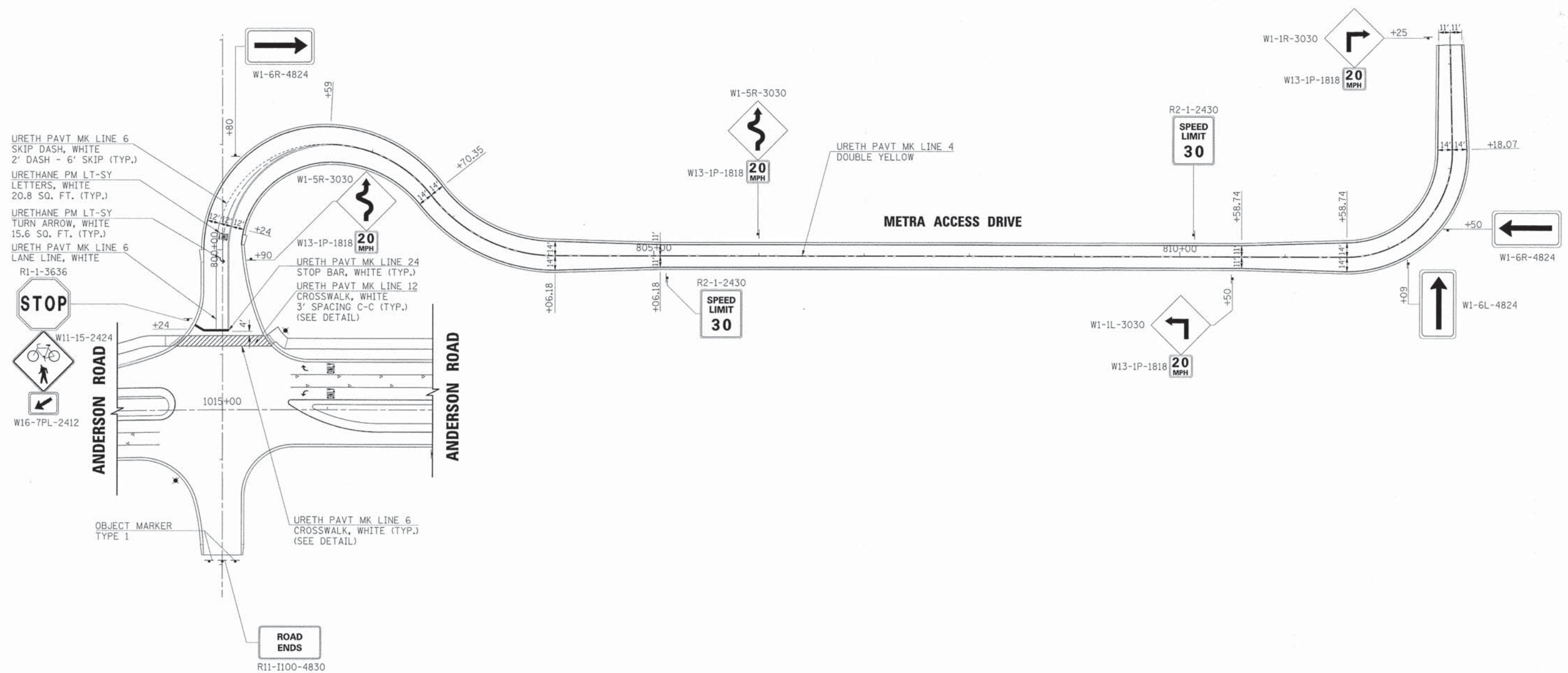
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PLOT SCALE =	DRAWN JMR	REVISED -
PLDT DATE = 6/7/2013	DATE -	REVISED -
FILE NAME = 084_pm05_kes.dgn		REVISED -

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2330	01-00274-00-BR	KANE	289	101
CONTRACT NO. 63698				



PLAN	SURVEYED	DATE
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PROFILE	SURVEYED	DATE
	GRADES	
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- NOTES:
- PAVEMENT MARKING ON THIS PROJECT SHALL BE MODIFIED URETHANE.
  - SEE DISTRICT ONE TYPICAL PAVEMENT MARKINGS DETAIL FOR ADDITIONAL INFORMATION.
  - THE CONTRACTOR SHALL MATCH THE EXISTING PAVEMENT MARKINGS AT PROJECT LIMITS AS NECESSARY.



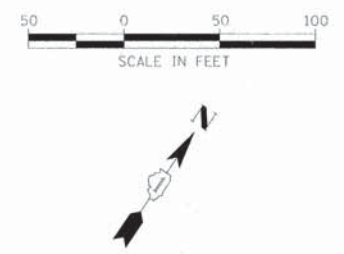
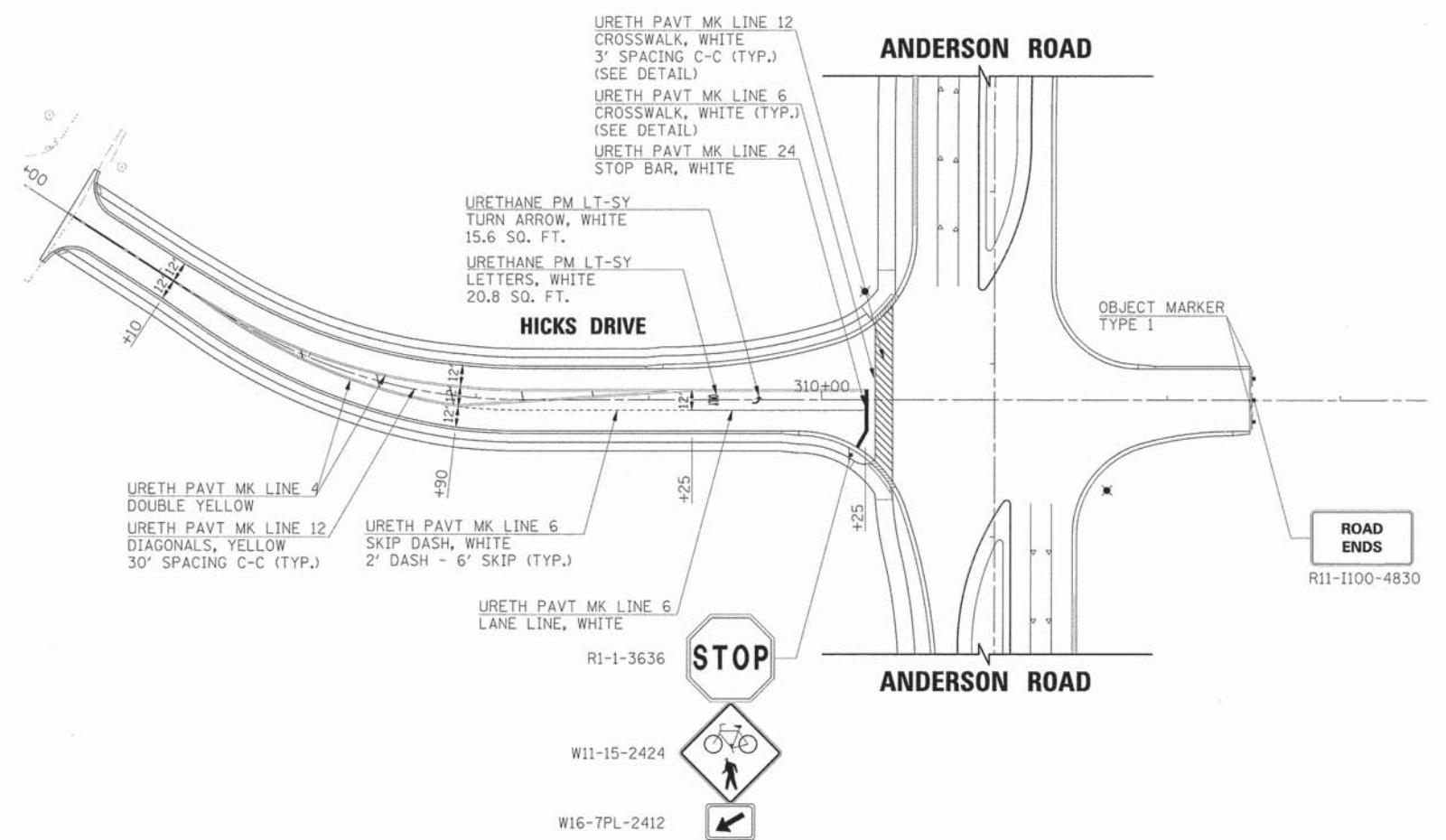
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PLOT SCALE		DRAWN	JMR	REVISED	-
PLOT DATE	6/7/2013	DATE		REVISED	-
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

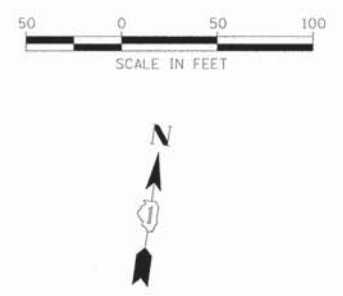
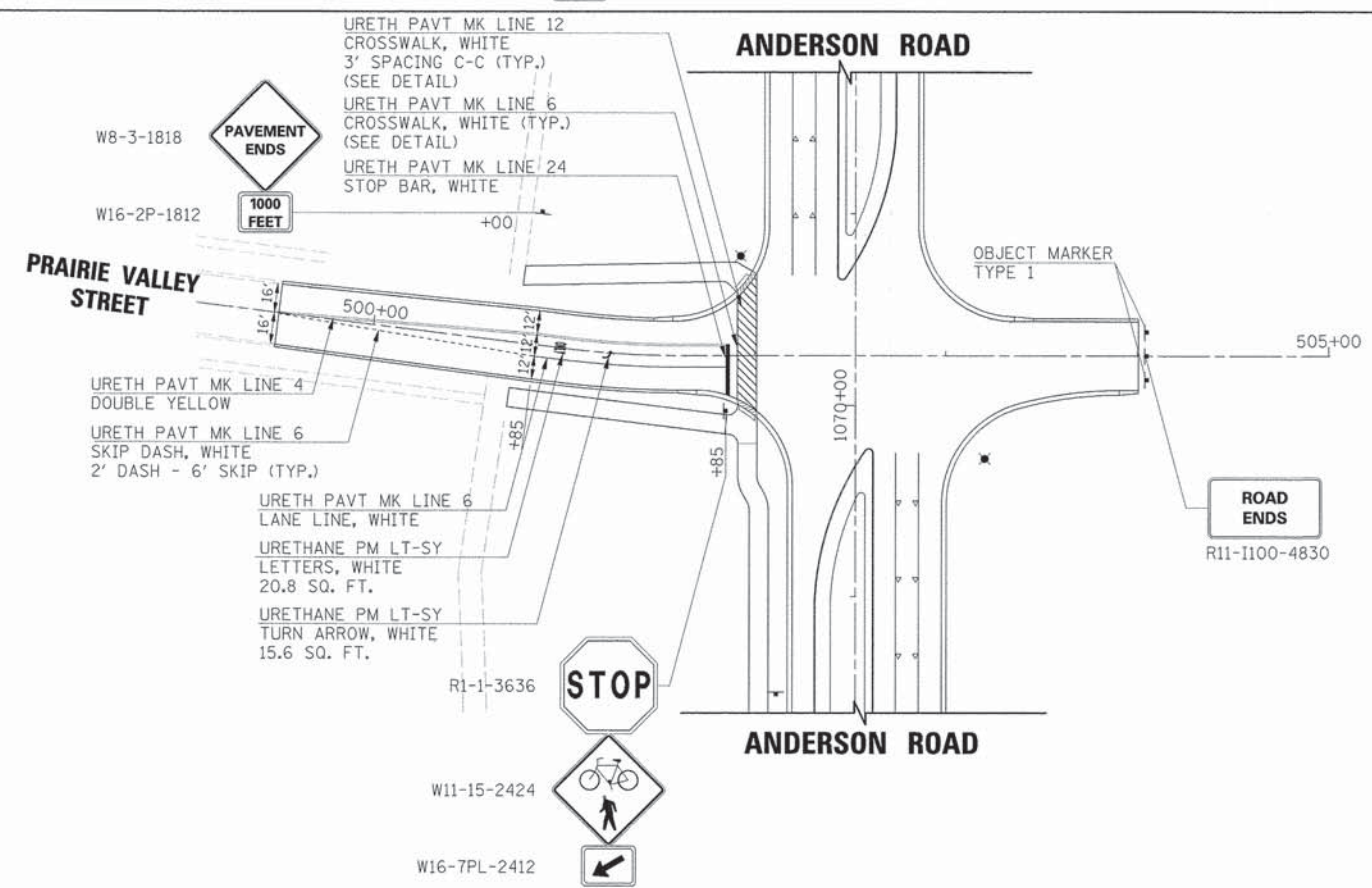
<b>PAVEMENT MARKING AND SIGNAGE PLANS METRA ACCESS DRIVE</b>			
SCALE:	SHEET NO.	OF	SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2330	01-00274-00-BR	KANE	289	102
CONTRACT NO. 63698				

PLAN	DATE
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PROFILE	DATE
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- NOTES:
1. PAVEMENT MARKING ON THIS PROJECT SHALL BE URETHANE.
  2. SEE DISTRICT ONE TYPICAL PAVEMENT MARKINGS DETAIL FOR ADDITIONAL INFORMATION.
  3. THE CONTRACTOR SHALL MATCH THE EXISTING PAVEMENT MARKINGS AT PROJECT LIMITS AS NECESSARY.

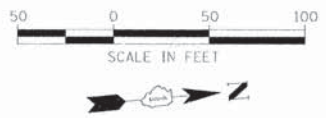


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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

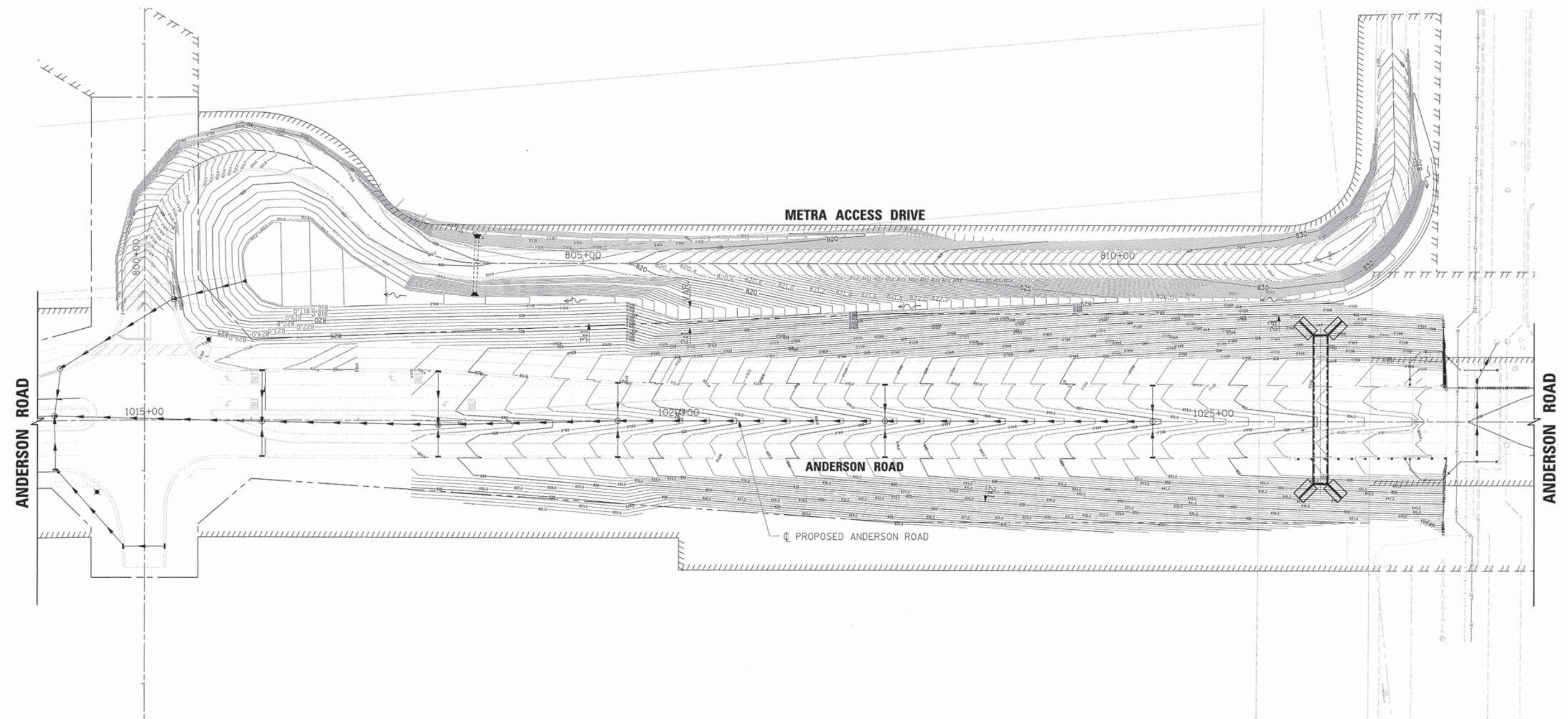
PAVEMENT MARKING AND SIGNAGE PLANS HICKS DRIVE AND PRAIRIE VALLEY STREET			
SCALE:	SHEET NO.	OF	SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2330	01-00274-00-BR	KANE	289	103
CONTRACT NO. 63698				



PLAN	SURVEYED	DATE
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	CHECKED	
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	NO. OF WAY CHECKED	
	DATE FILE NAME	

PROFILE	SURVEYED	DATE
	ALLOWED	
	CHECKED	
	BY	
	NO. OF WAY CHECKED	
	DATE FILE NAME	



NOTE:  
FOR DITCH PROFILES SEE PLAN AND PROFILE SHEETS.

LEGEND				
---	EXISTING RIGHT-OF-WAY			
---	PROPOSED RIGHT-OF-WAY			
	PROPOSED TEMPORARY EASEMENT			
	PROPOSED PERMANENT EASEMENT			



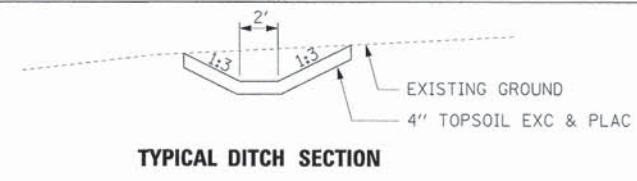
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PLOT DATE = 6/7/2013	DATE -	REVISED -
FILE NAME = 084_gr.d01.dgn		REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GRADING PLANS  
METRA ACCESS DRIVE DITCH

SCALE: SHEET NO. OF SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2330	01-00274-00-BR	KANE	289	104
CONTRACT NO. 63698				



LEGEND	
	EXISTING RIGHT-OF-WAY
	PROPOSED RIGHT-OF-WAY
	PROPOSED TEMPORARY EASEMENT
	PROPOSED PERMANENT EASEMENT

EX MH  
RIM = 806.04  
INV = 801.64  
  
(3) EX 36" RCP CULVERTS  
INV = 804.15

DETENTION BASIN OUTFALL DITCH  
SEE TYPICAL SECTION THIS SHEET  
PRC FES 18"  
INV = 806.00  
28 LIN FT SS-CL-A1  
18" @ 0.7%  
  
MAN TA 8D TIF CL R-P  
RIM = 817.50  
INV = 809.89 NE  
INV = 806.20 SW  
16 LIN FT SS-CL-A1  
18" @ 0.5%  
PRC FES 18"  
INV = 810.00

TOP OF BERM  
ELEV = 817.00 (TYP.)

**SOUTHWEST DETENTION BASIN**  
NWL = 810.00  
HWL = 815.00

POND OVERFLOW WEIR  
WIDTH = 35' (MIN.)  
ELEV = 815.00  
TOP OF BERM  
ELEV = 817.00 (TYP.)

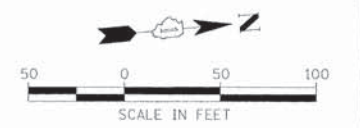
KESLINGER ROAD

405+00

410+00

PLAN	DATE	BY
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PROFILE	DATE	BY
SURVEYED		
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GRADES		
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BY		
NO.		



**HRGreen**  
HRGreen.com  
Illinois Professional Design Firm  
#194-001322

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PLOT SCALE =
PLOT DATE = 6/7/2013
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DESIGNED <i>APS</i>
DRAWN <i>JMR</i>
DATE =

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REVISED -
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

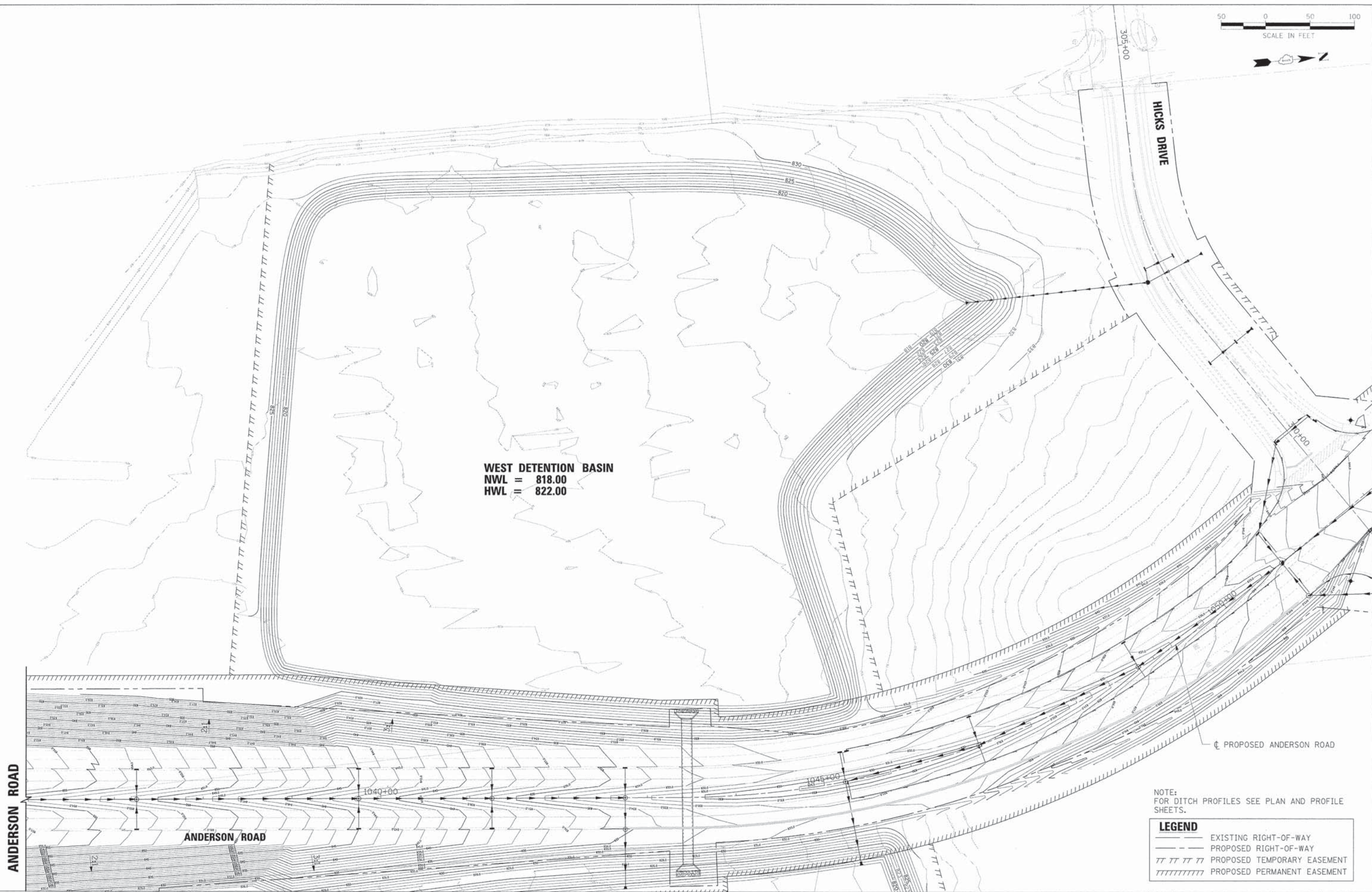
<b>GRADING PLANS SOUTHWEST DETENTION BASIN</b>	
SCALE:	SHEET NO. OF SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2330	01-00274-00-BR	KANE	289	105
CONTRACT NO. 63698				



PLAN	SURVEYED	DATE
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PROFILE	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NO.	



NOTE:  
FOR DITCH PROFILES SEE PLAN AND PROFILE SHEETS.

LEGEND	
	EXISTING RIGHT-OF-WAY
	PROPOSED RIGHT-OF-WAY
	PROPOSED TEMPORARY EASEMENT
	PROPOSED PERMANENT EASEMENT



HRGreen.com  
Illinois Professional Design Firm  
#184-001322

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DRAWN *JMR*  
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DATE =  
PLOT DATE = 6/7/2013  
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

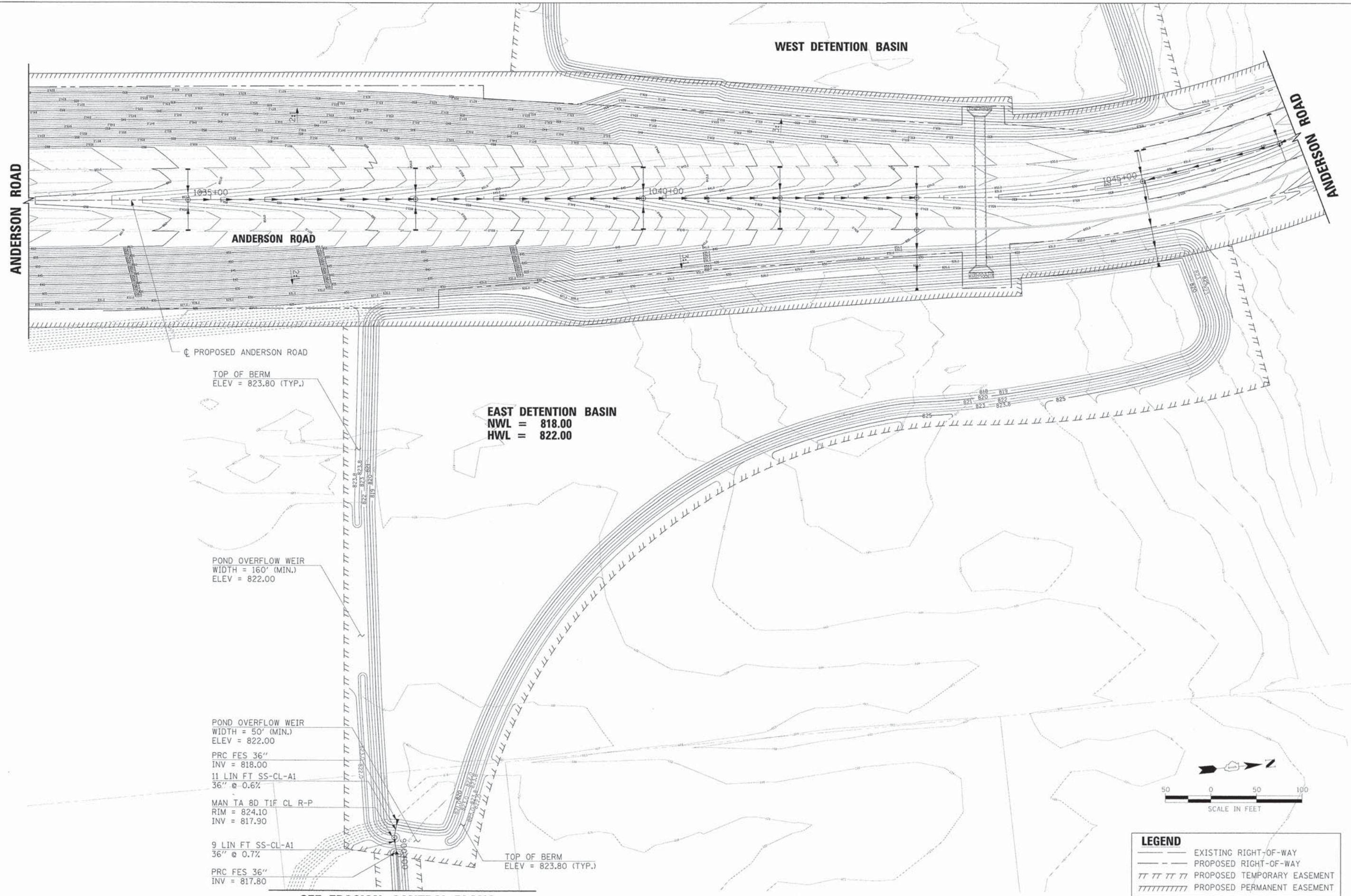
**GRADING PLANS  
WEST DETENTION BASIN**

F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2330	01-00274-00-BR	KANE	289	106
CONTRACT NO. 63698				

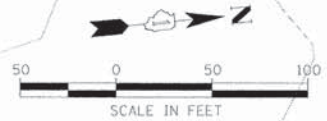
SCALE: SHEET NO. OF SHEETS

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SEE EROSION CONTROL PLANS



LEGEND	
---	EXISTING RIGHT-OF-WAY
---	PROPOSED RIGHT-OF-WAY
TT TT TT TT	PROPOSED TEMPORARY EASEMENT
TTTTTTTTTT	PROPOSED PERMANENT EASEMENT



USER NAME = MFuller  
 PLOT SCALE =  
 PLOT DATE = 6/7/2013  
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

GRADING PLANS  
 EAST DETENTION BASIN

SCALE: SHEET NO. OF SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2330	01-00274-00-BR	KANE	289	107
CONTRACT NO. 63698				

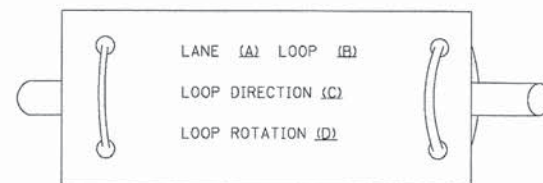
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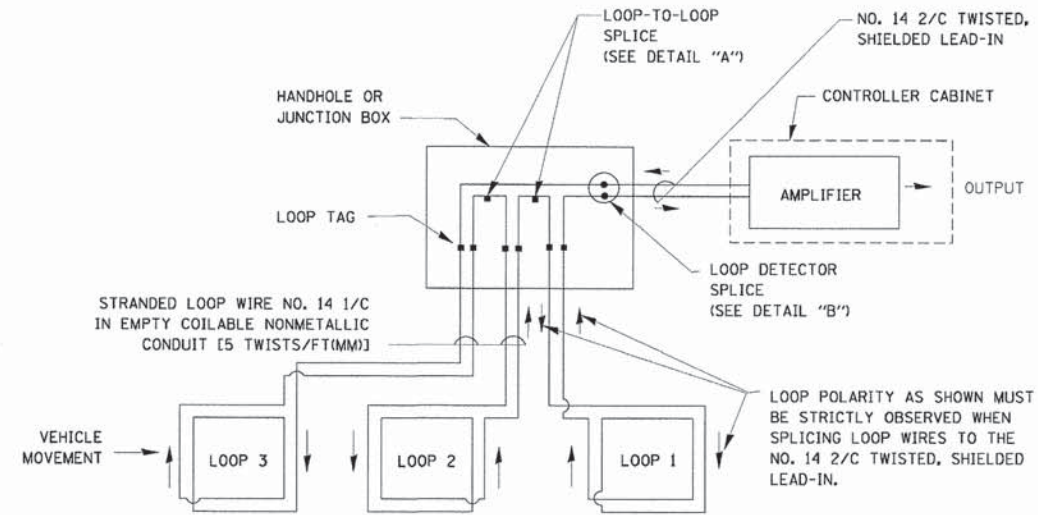
### LOOP DETECTOR NOTES

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVESHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

#### LOOP LEAD-IN CABLE TAG

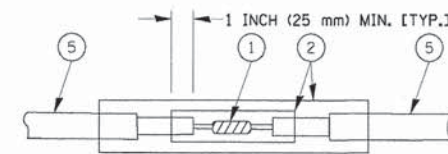


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

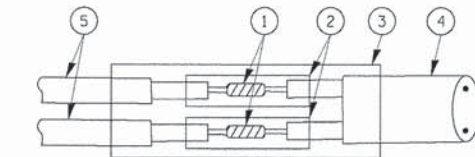


#### DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

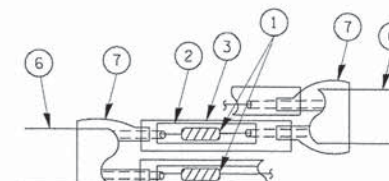


DETAIL "A"  
LOOP-TO-LOOP SPLICE

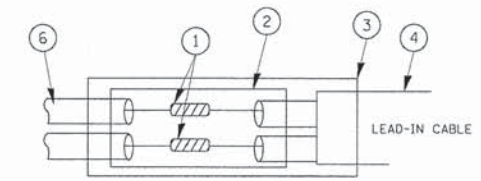


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

#### TYPE I LOOP



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

#### LOOP DETECTOR SPLICE

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- PREFORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

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		BCK	
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		DAD	
	PLOT DATE = 10/6/2009	DATE -	REVISED -
		10/28/09	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: SHEET NO. 1 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CONTRACT NO.				
FED. ROAD DIST. NO. (ILLINOIS) FED. AID PROJECT				

USER NAME =	DESIGNED	REVISED
Mfaller	APS	
PLOT SCALE =	DRAWN	REVISED
	JMR	
PLOT DATE =	DATE	REVISED
6/7/2013		
FILE NAME =	REVISED	
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE  
STANDARD TRAFFIC SIGNAL  
DESIGN DETAILS

SCALE: SHEET NO. OF SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2330	01-00274-00-BR	KANE	289	108
CONTRACT NO. 63698				

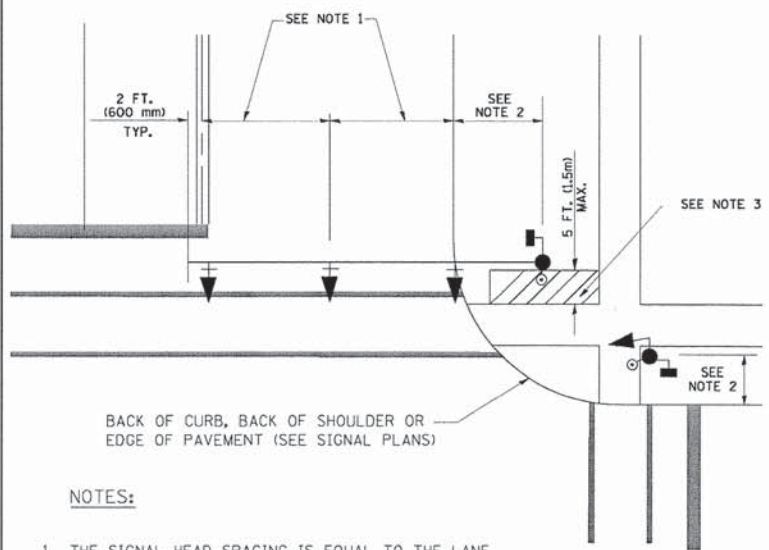


PLAN	DATE	BY
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PROFILE	DATE	BY
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GRADES		
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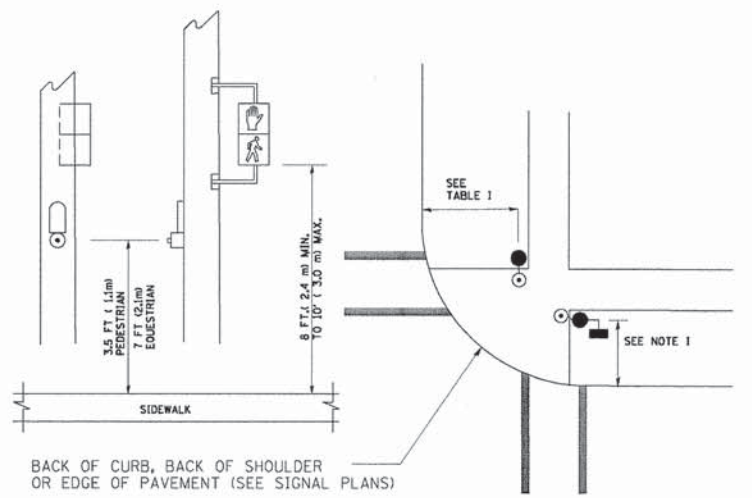
### TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA, INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



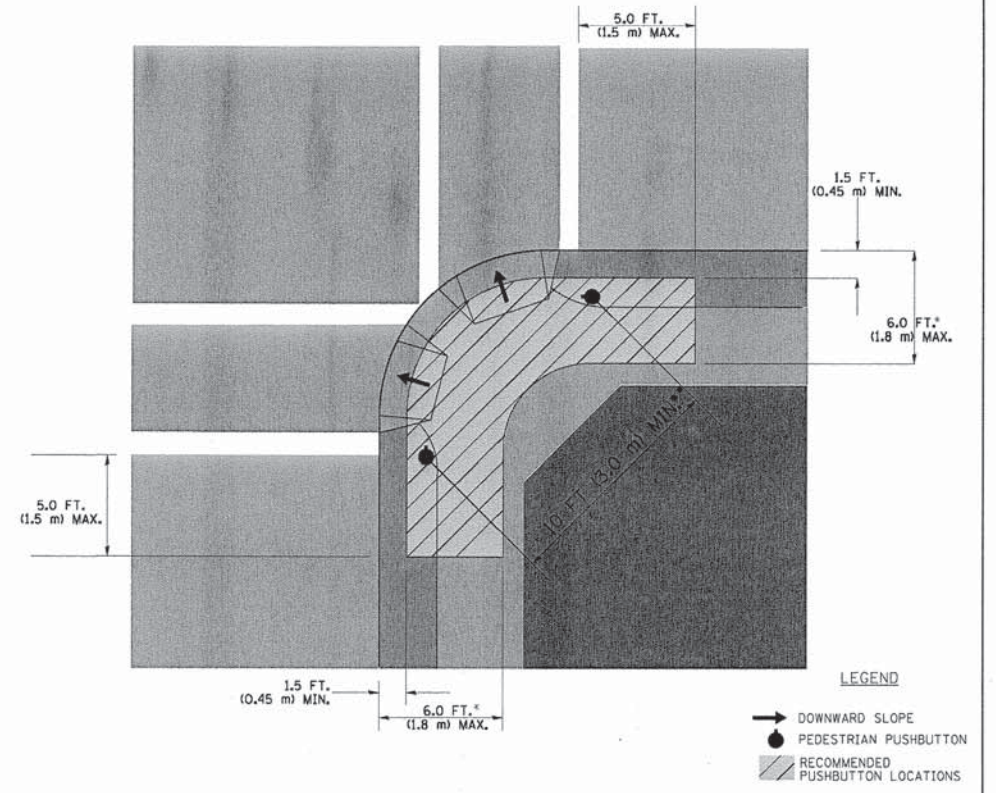
- BACK OF CURB, BACK OF SHOULDER OR EDGE OF PAVEMENT (SEE SIGNAL PLANS)
- NOTES:**
1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
  2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
  3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
  4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
  5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

### PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



- BACK OF CURB, BACK OF SHOULDER OR EDGE OF PAVEMENT (SEE SIGNAL PLANS)
- NOTES:**
1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
  2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
  3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
  4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

### RECOMMENDED PUSHBUTTON LOCATIONS



- LEGEND**
- DOWNWARD SLOPE
  - PEDESTRIAN PUSHBUTTON
  - RECOMMENDED PUSHBUTTON LOCATIONS
- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
  - WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

### NOTES:

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

### TRAFFIC SIGNAL EQUIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

- NOTES:**
1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
  2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
  3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
  4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT 1  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

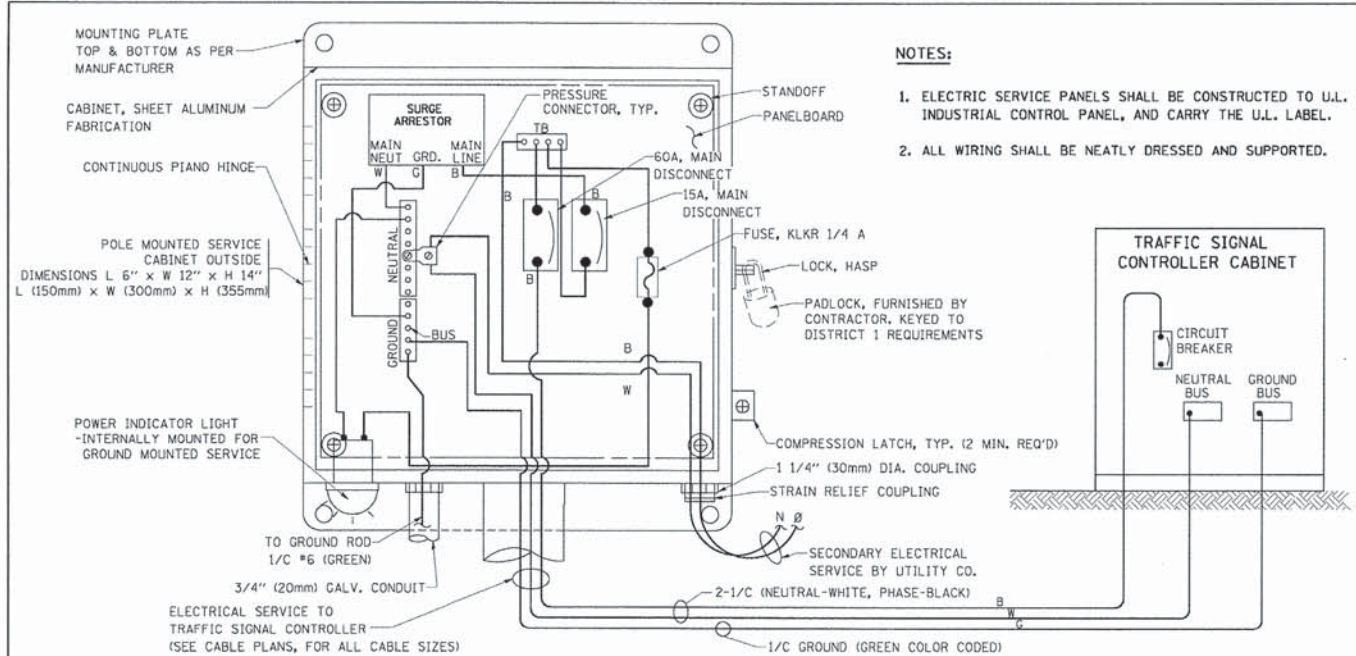
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CONTRACT NO.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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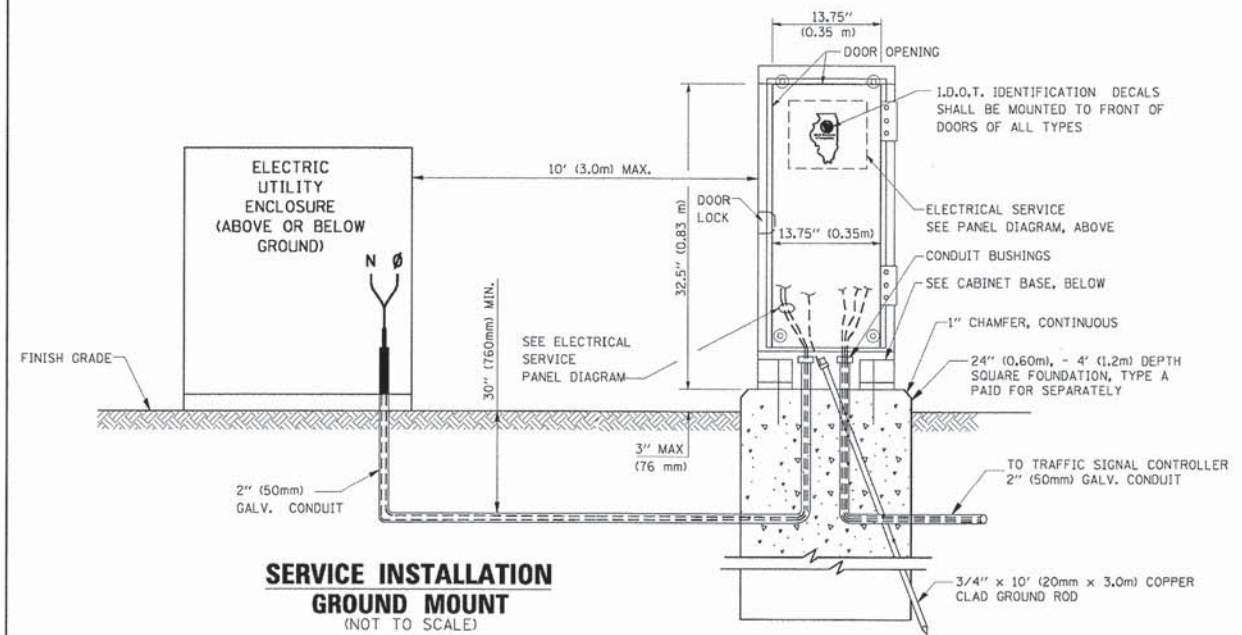
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CONTRACT NO. 63698				

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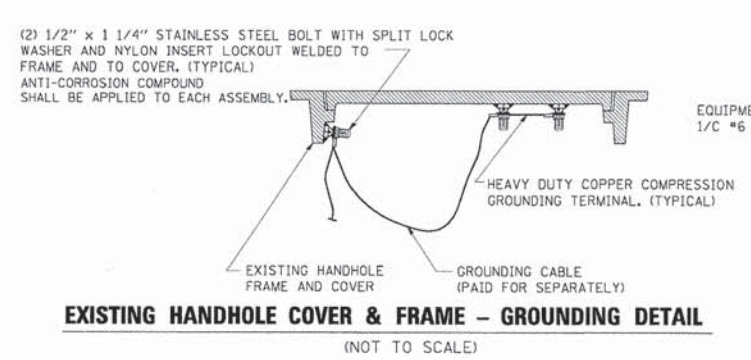
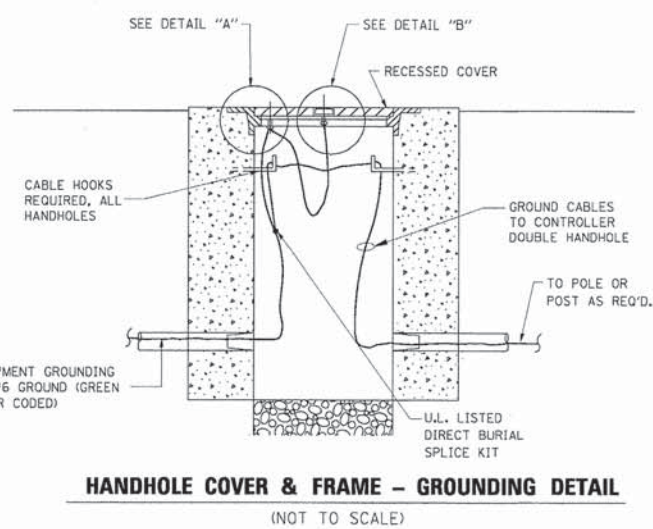
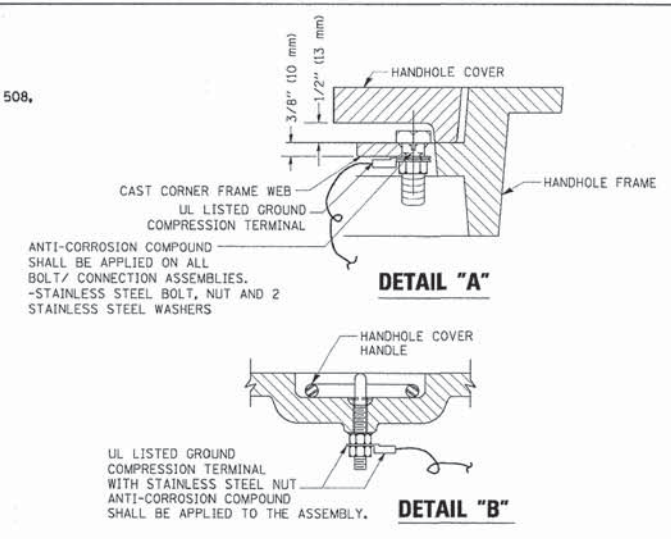
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**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**  
**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
 (NOT TO SCALE)



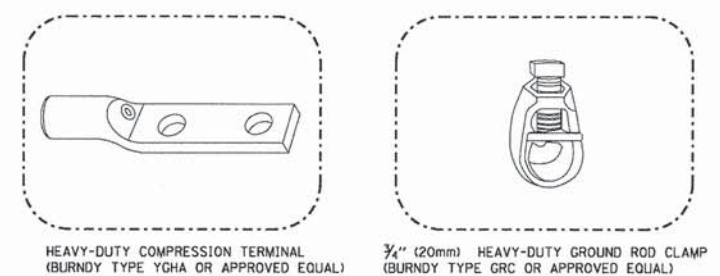
**CABINET - BASE BOLT PATTERN**  
 (NOT TO SCALE)



**NOTES:**

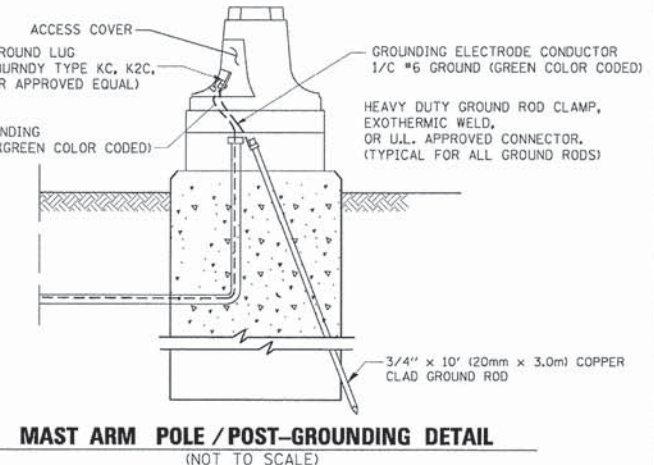
**GROUNDING SYSTEM**

- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
- THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
- ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
- THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



**NOTES:**

- ALL CLAMPS SHALL BE BRONZE OR COPPER, U.L. APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1**  
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: SHEET NO. 3 OF 6 SHEETS STA. TO STA.

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



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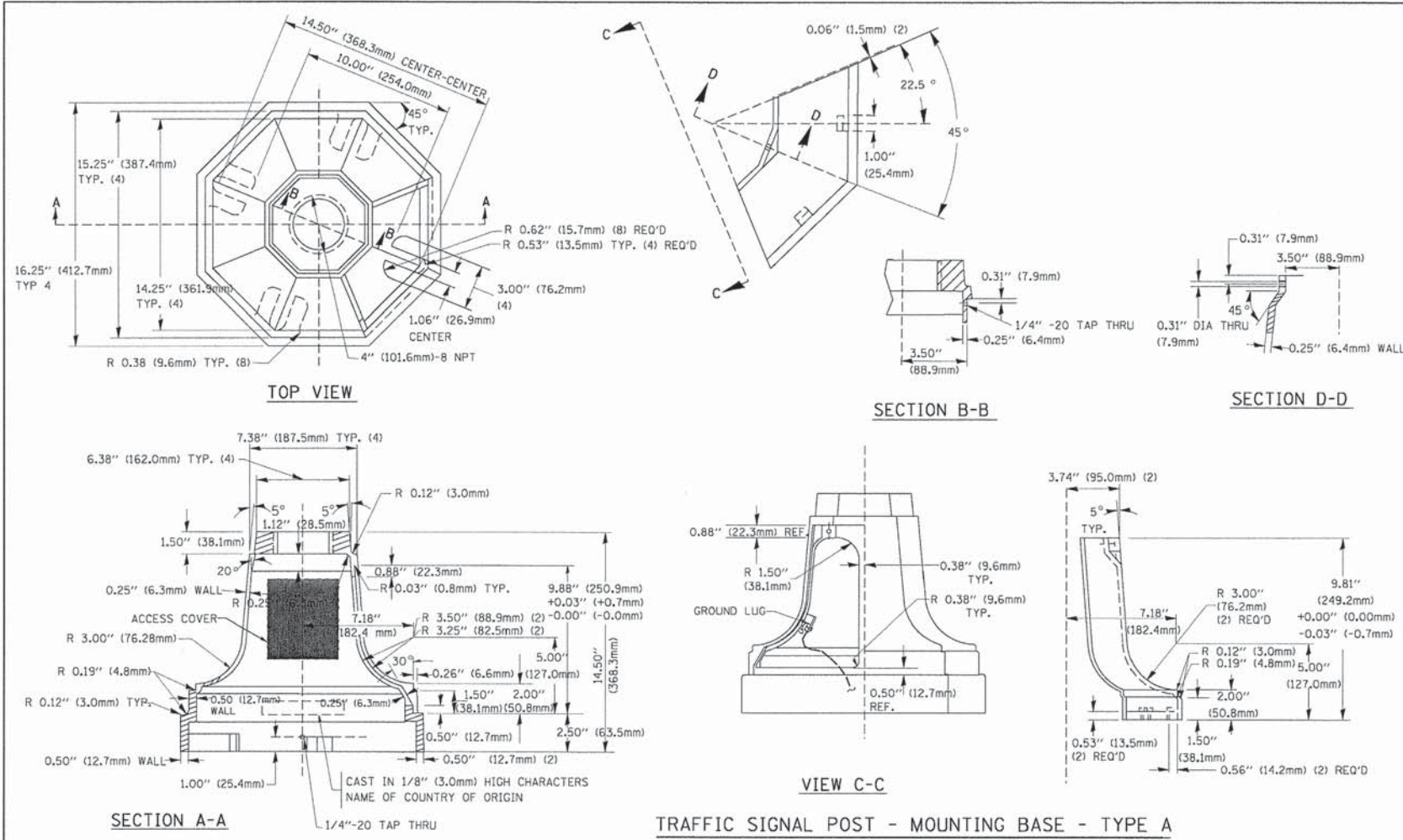
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE**  
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

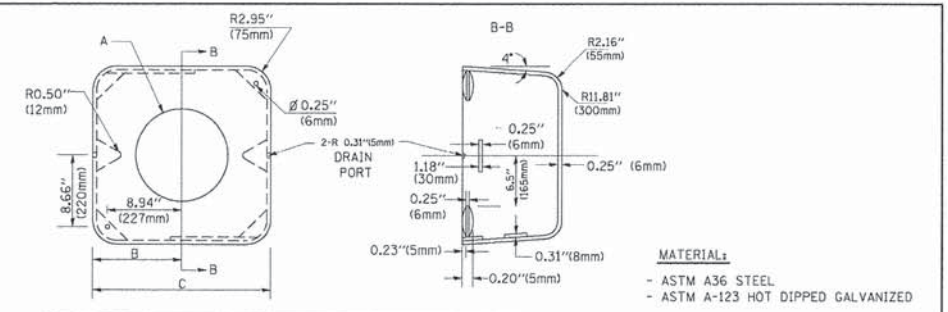
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2330	01-00274-00-BR	KANE	289	110
CONTRACT NO. 63698				

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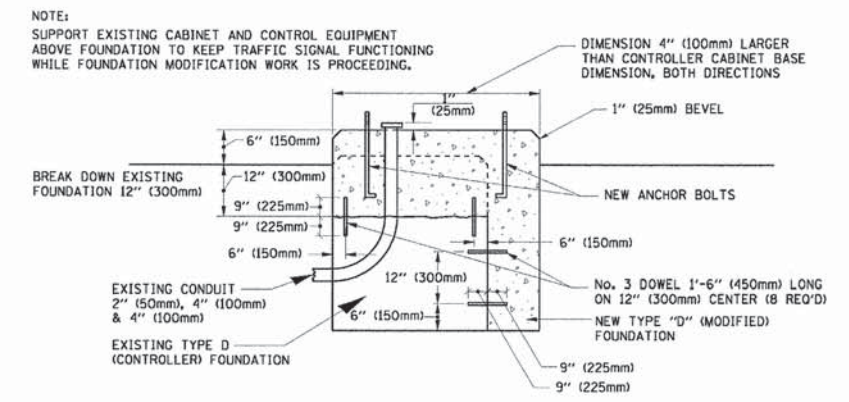
TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



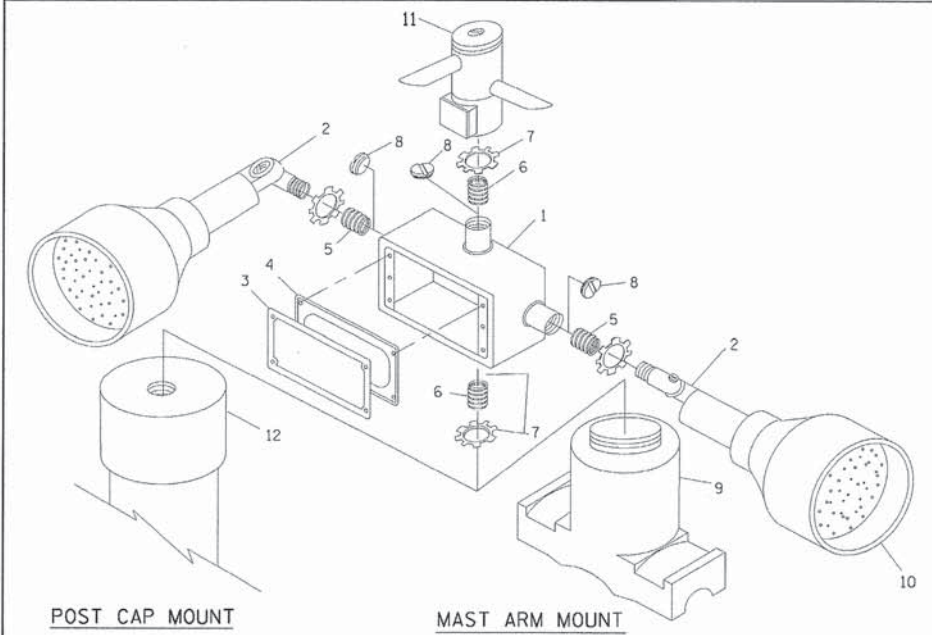
A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5\" (241mm)	19\" (483mm)	7\" (178mm) - 12\" (300mm)	53 lbs (24kg)
VARIABLES	10.75\" (273mm)	21.5\" (546mm)	7\" (178mm) - 12\" (300mm)	68 lbs (31 kg)
VARIABLES	13.0\" (330mm)	26\" (660mm)	7\" (178mm) - 12\" (300mm)	81 lbs (37 kg)
VARIABLES	18.5\" (470mm)	37\" (940mm)	7\" (178mm) - 12\" (300mm)	126 lbs (57 kg)

SHROUD

- NOTES:
- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
  - THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
  - THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



MODIFY EXISTING TYPE "D" FOUNDATION

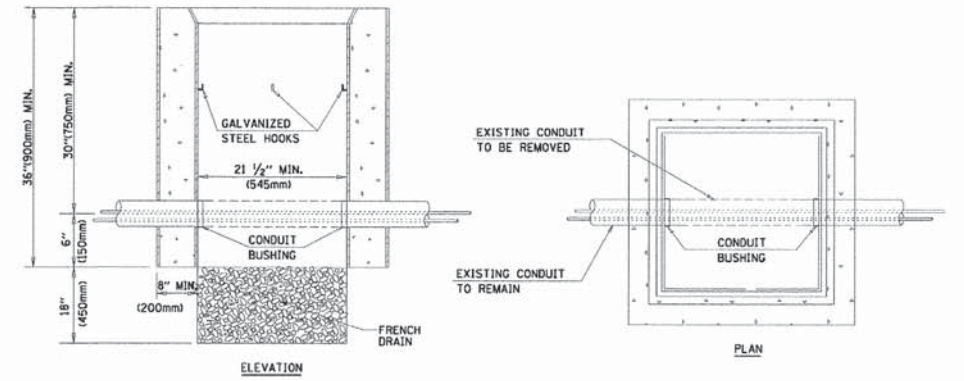


POST CAP MOUNT MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX - GALV. 21 CU. IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\" (19 mm) CLOSE NIPPLE
7	3/4\" (19 mm) LOCKNUT
8	3/4\" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

- NOTES:
- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
  - ITEM #1- OZ/GEEDNEY FSX-1-50 OR EQUIVALENT  
 ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT  
 ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
  - WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4\" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



- NOTES:
- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
  - REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DISTRICT 1  
 STANDARD TRAFFIC SIGNAL DESIGN DETAILS

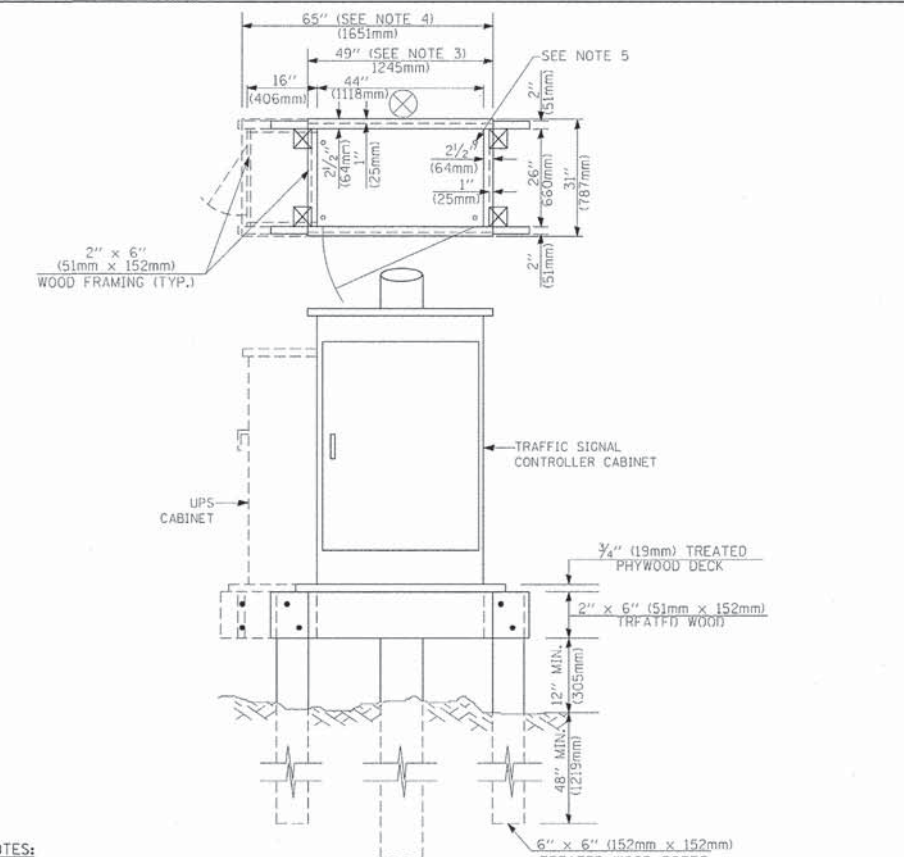
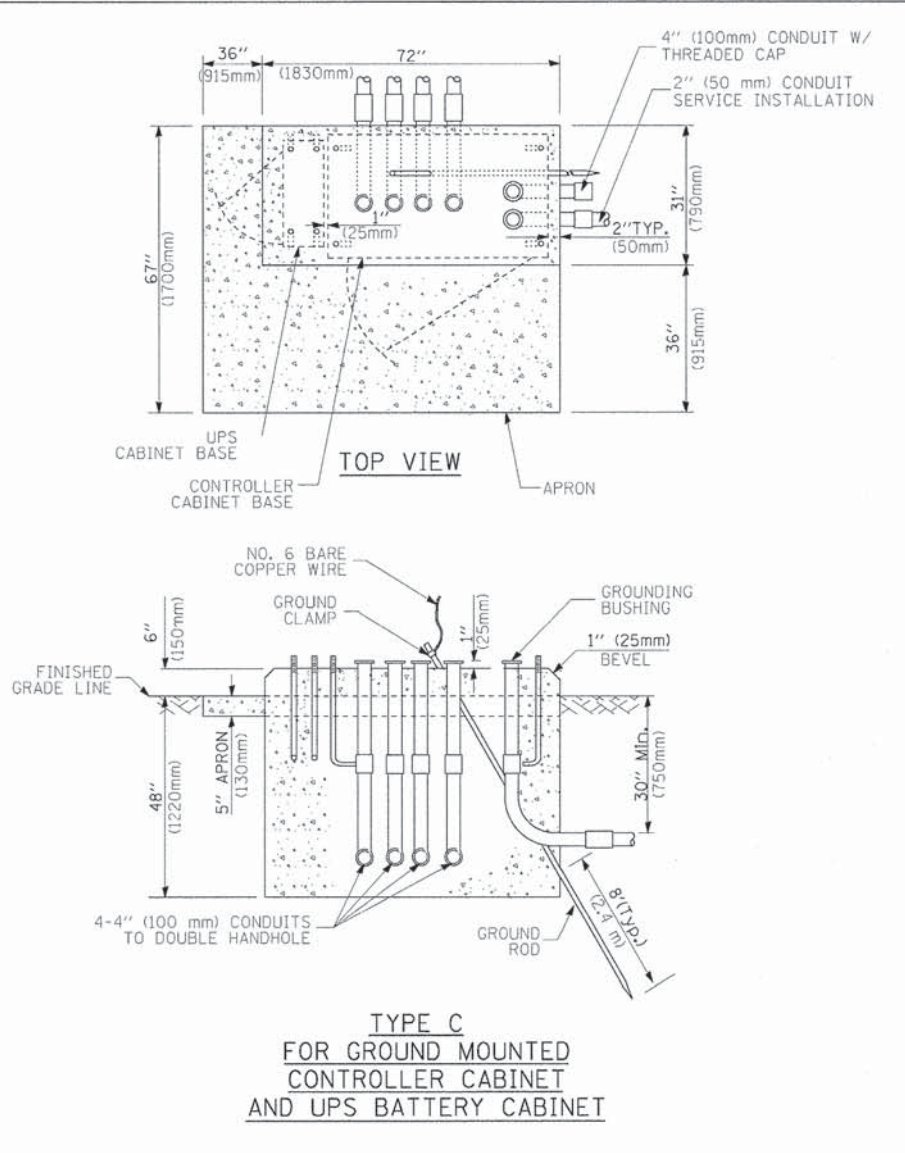
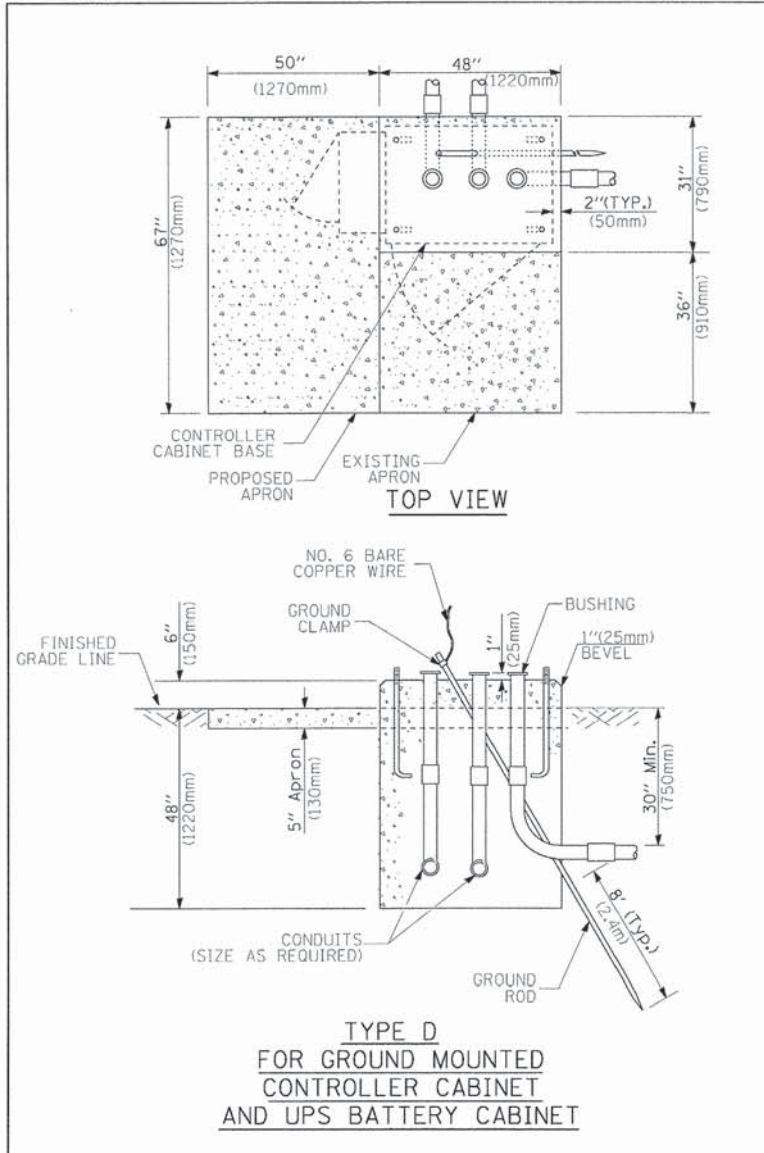
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SCALE:		SHEET NO. 4 OF 6 SHEETS		STA. TO STA.
FED. ROAD DIST. NO.		[ILLINOIS] FED. AID PROJECT		

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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 63698				

PLAN	SURVEYED	DATE
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	BY	
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	DATE	

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	BY	
	NO.	
	DATE	



**NOTES:**

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE ( MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

**CABLE SLACK**

**VERTICAL CABLE LENGTH**

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

**DEPTH OF FOUNDATION**

MAST ARM LENGTH	FOUNDATION DEPTH	FOUNDATION DIAMETER	SPIRAL DIAMETER	QUANTITY OF REBARS	SIZE OF REBARS
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

**NOTES:**

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
4. For mast arm assemblies with dual arms refer to state standard 878001.

**DEPTH OF MAST ARM FOUNDATIONS, TYPE E**

FILE NAME =	USER NAME =	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>		DISTRICT 1		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
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		DATE -	REVISED -			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT							

# TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE			
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE			
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA			
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED			
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F			
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F			
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, MM12F			
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE			
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM		S	S	STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM		I	IP	ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED			
SIGNAL POST				REMOVE ITEM	R			STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED			
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM	RL			SIGNAL POST AND FOUNDATION TO BE REMOVED			
GUY WIRE				ABANDON ITEM	A			INTERSECTION & SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				EXISTING INTERSECTION LOOP DETECTOR			
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD				EXISTING PREFORMED INTERSECTION LOOP DETECTOR			
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID				PREFORMED SAMPLING (SYSTEM) DETECTOR			
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER							
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT							
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER							
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED							
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)							
MICROWAVE VEHICLE SENSOR											
VIDEO DETECTION CAMERA											
VIDEO DETECTION ZONE											
PAN, TILT, ZOOM CAMERA											
WIRELESS DETECTOR SENSOR											
WIRELESS ACCESS POINT											

## RAILROAD SYMBOLS

	EXISTING	PROPOSED
RAILROAD CONTROL CABINET		
RAILROAD CANTILEVER MAST ARM		
FLASHING SIGNAL		
CROSSING GATE		
CROSSBUCK		

FILE NAME = USER NAME = kanthaphu... DESIGNED - DAG/BCK DRAWN - BCK CHECKED - DAD DATE - 10/28/09	REVISIONS REVISIONS REVISIONS REVISIONS	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	F.A.U. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
--	--	---	--	---

FILE NAME = USER NAME = M... DESIGNED APS DRAWN JMR CHECKED - DATE - REVISIONS	REVISIONS REVISIONS REVISIONS	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	F.A.U. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
--	-------------------------------------	---	--	---

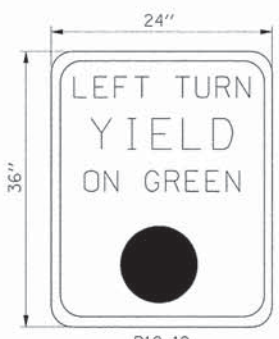
SURVEYED PLOTTED NOTE BOOK NO.	BY DATE
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SURVEYED PLOTTED NOTE BOOK NO.	BY DATE
---	------------



PLAN	SURVEYED	DATE
	ALIGNED	BY
	GRADES CHECKED	
	RT. OF WAY CHECKED	
	ADD FILE NAME	
	NO.	

PROFILE	SURVEYED	DATE
	GRADES CHECKED	BY
	RT. OF WAY CHECKED	
	STRUCTURE NOTATIONS CORRD	
	NO.	



6.00 SQ. FT. EACH  
1 REQUIRED

**LEFT-TURN CONTROL SIGN DETAIL**  
THIS SIGN SHALL BE MOUNTED 6 TO 12 INCHES TO THE RIGHT OF THE OUTER 5-SECTION SIGNAL HEAD ON THE MAST ARM IN THE SOUTHEAST CORNER.

(A)

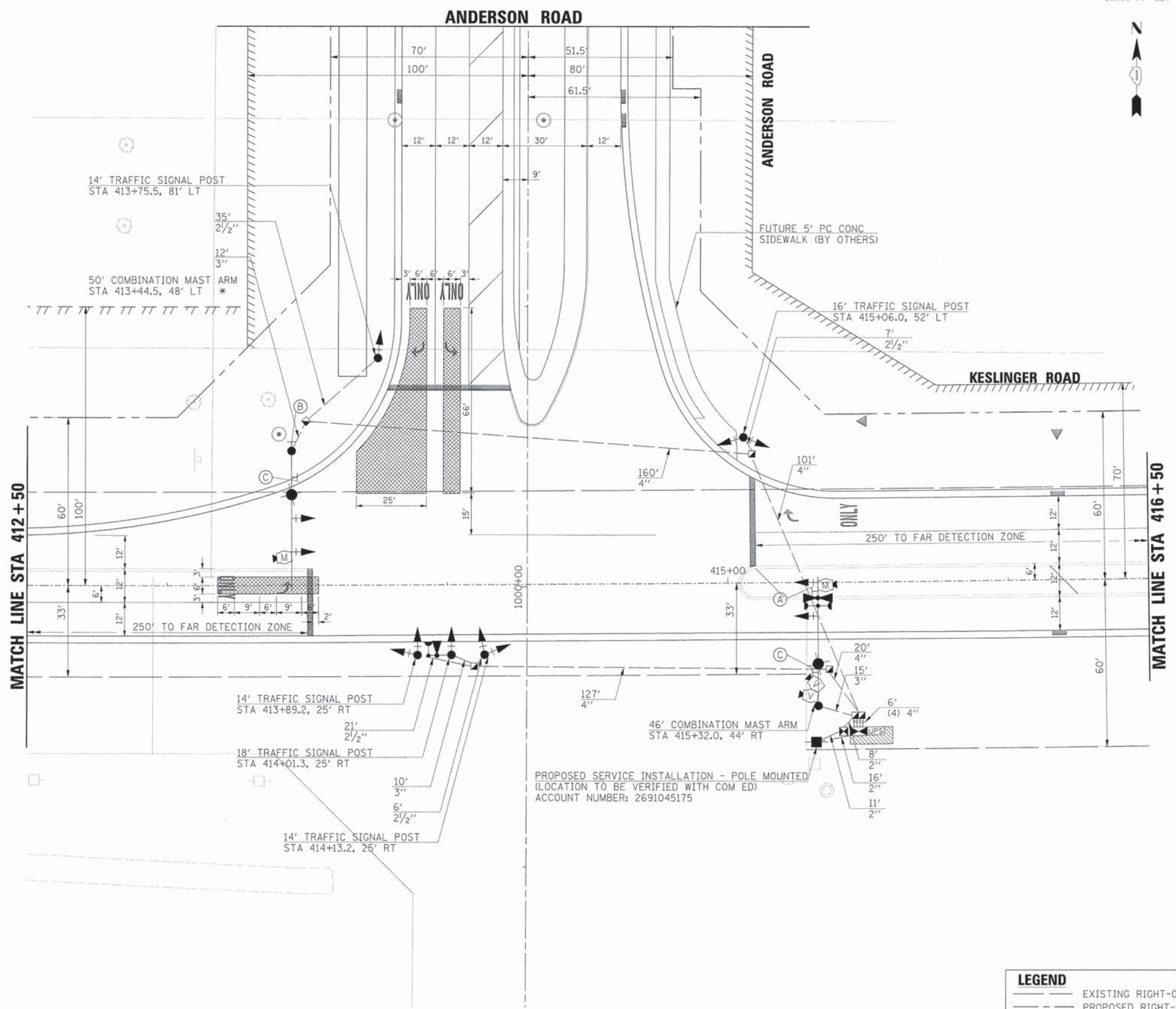
(B) SEE MAST ARM MOUNTED STREET NAME SIGNS.

(C) SEE MAST ARM MOUNTED STREET NAME SIGNS.

NOTE:  
ALL SIGNS FOR THE TRAFFIC SIGNALS WILL BE PROVIDED BY THE KANE COUNTY DIVISION OF TRANSPORTATION.

\* THE LENGTH OF THE PROPOSED MAST ARM IN THE NORTHWEST CORNER HAS BEEN EXTENDED TO ACCOMMODATE THE FUTURE WESTBOUND LEFT-TURN LANE WHEN THE SOUTH LEG IS CONSTRUCTED.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" ASC/3 OR LATER.



LEGEND				
---	EXISTING RIGHT-OF-WAY			
- - -	PROPOSED RIGHT-OF-WAY			
///	PROPOSED TEMPORARY EASEMENT			
////	PROPOSED PERMANENT EASEMENT			



USER NAME	= MFeller	DESIGNED	APS	REVISED	-
PLOT SCALE	=	DRAWN	JMR	REVISED	-
PLOT DATE	= 6/7/2013	DATE	-	REVISED	-
FILE NAME	= 084_sug@lb_kes_1.dgn	REVISED	-	REVISED	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN  
KESLINGER ROAD AND ANDERSON ROAD  
(SHEET 1 OF 2)

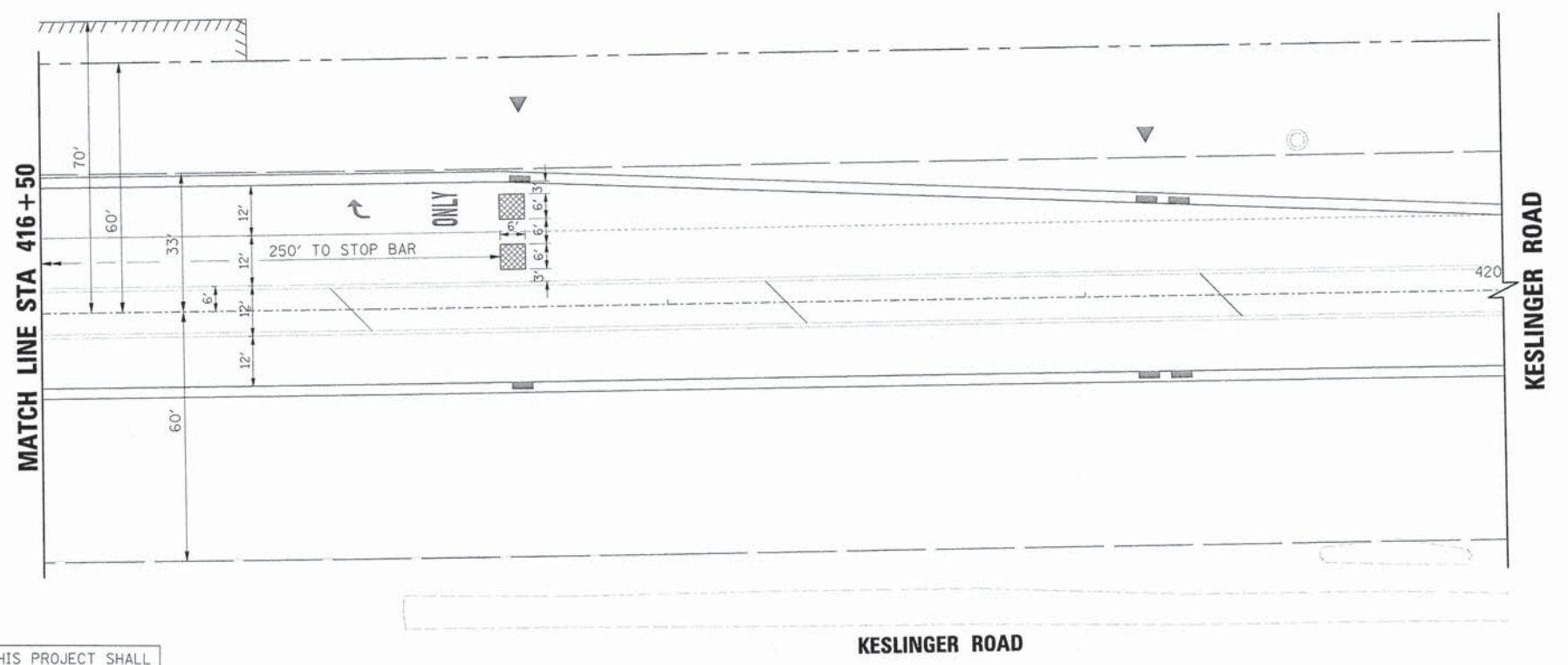
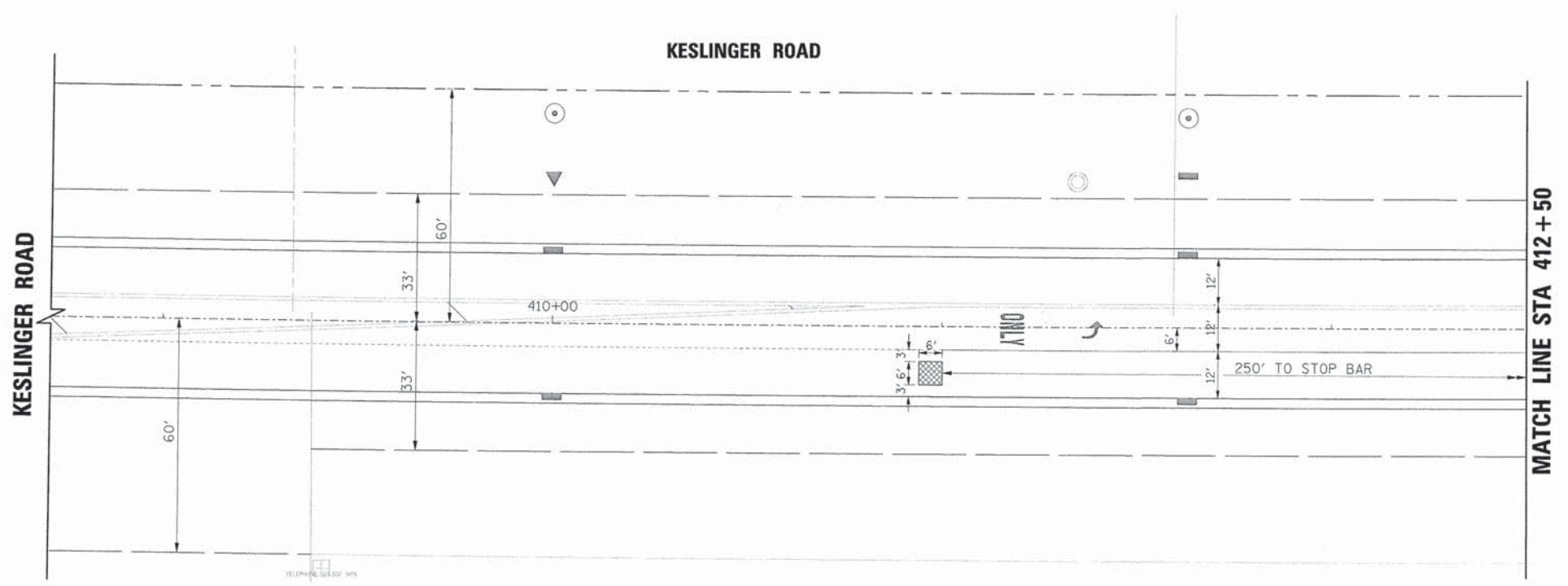
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2330	01-00274-00-BR	KANE	289	114
CONTRACT NO. 63698				

SCALE: SHEET NO. OF SHEETS



PLAN	SURVEYED	BY	DATE
	ALIGNED		
	CHECKED		
	NO. OF WAY CHECKED		
	ADD FILE NAME		
	NO.		

PROFILE	SURVEYED	BY	DATE
	GRADES CHECKED		
	B.M. NOTED		
	STRUCTURE NOTATIONS CHECKED		
	NO.		



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" ASC/3 OR LATER.

LEGEND			
	EXISTING RIGHT-OF-WAY		
	PROPOSED RIGHT-OF-WAY		
	PROPOSED TEMPORARY EASEMENT		
	PROPOSED PERMANENT EASEMENT		



USER NAME = MFeiler	DESIGNED APS	REVISED -
PLOT SCALE =	DRAWN JMR	REVISED -
PLOT DATE = 6/7/2013	DATE -	REVISED -
FILE NAME = 084_sig01b kes2.dgn		REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN  
KESLINGER ROAD AND ANDERSON ROAD  
(SHEET 2 OF 2)

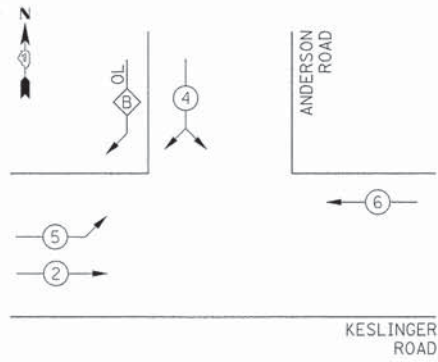
SCALE: SHEET NO. OF SHEETS

F.A.U. RTE. 2330	SECTION 01-00274-00-BR	COUNTY KANE	TOTAL SHEETS 289	SHEET NO. 115
CONTRACT NO. 63698				

DATE	
BY	
REVISION	
NO.	
DESCRIPTION	
DATE	
BY	
REVISION	
NO.	
DESCRIPTION	

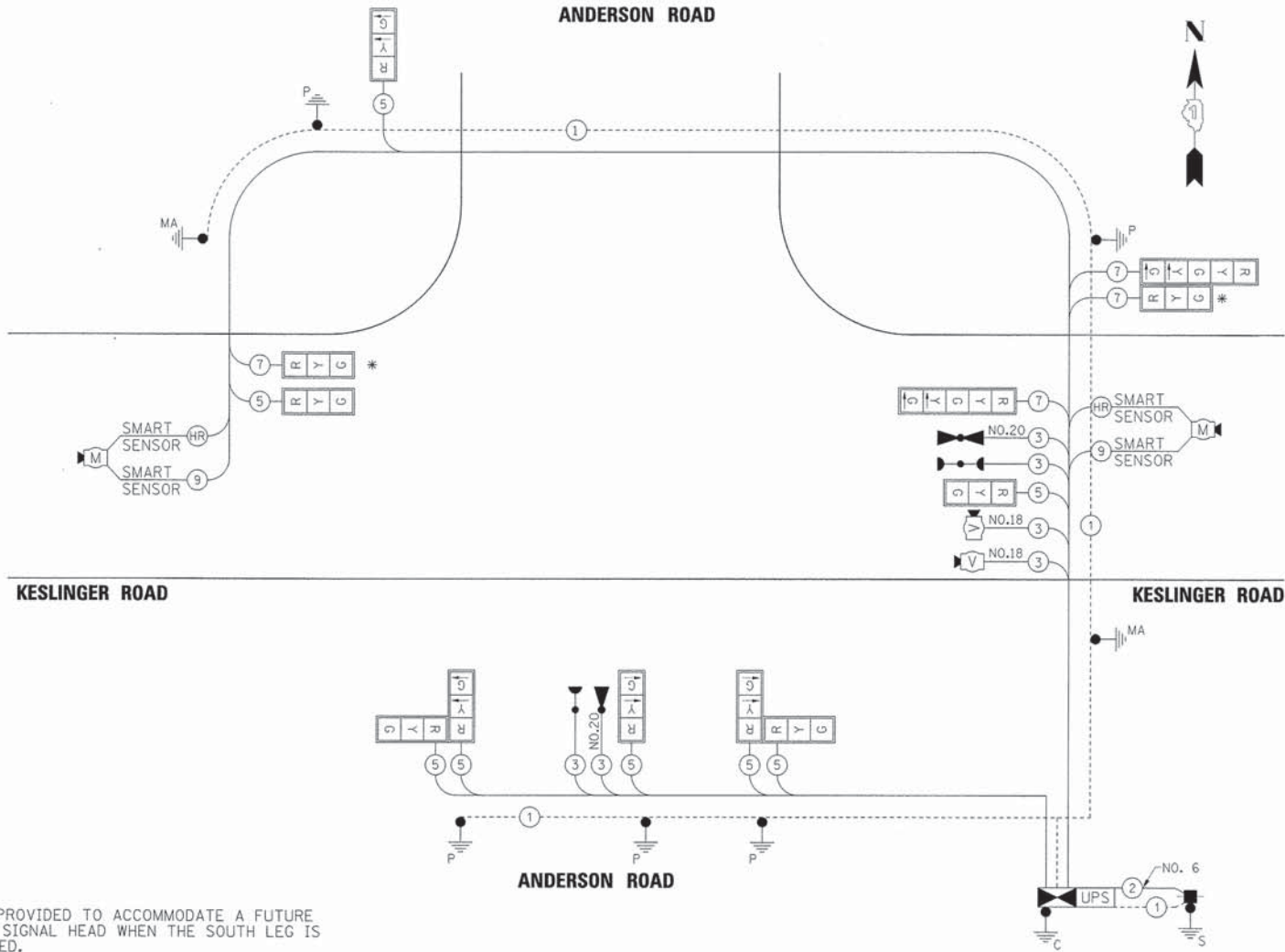
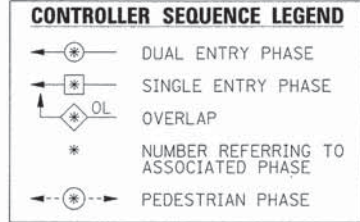
DATE	
BY	
REVISION	
NO.	
DESCRIPTION	
DATE	
BY	
REVISION	
NO.	
DESCRIPTION	

### CONTROLLER SEQUENCE



### PHASE DESIGNATION DIAGRAM

OVERLAP PHASE	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5

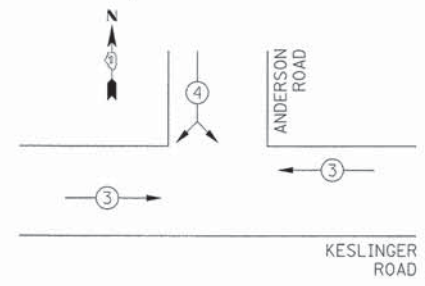


\* 7C CABLE PROVIDED TO ACCOMMODATE A FUTURE 5-SECTION SIGNAL HEAD WHEN THE SOUTH LEG IS CONSTRUCTED.

TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	8		25	0.25	50
(GREEN)	8		15	0.25	30
ARROW	12		12	0.10	14.4
CONTROLLER	1		100	1.00	100
UPS	1		25	1.00	25
VIDEO SYSTEM	1		15	1.00	15
SMART SENSOR	2		10	1.00	20
LUMINAIRE	2		250	0.50	250
TOTAL =					606.4

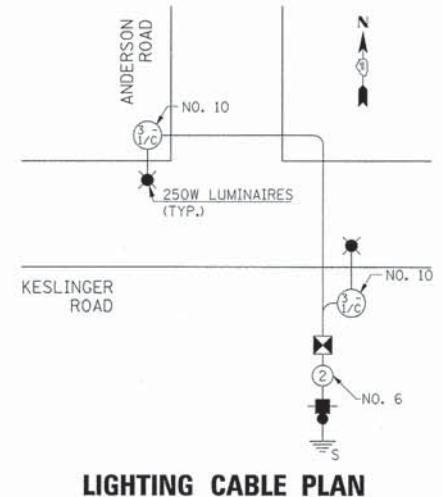
ENERGY COSTS TO: VILLAGE OF ELBURN  
301 E. NORTH STREET  
ELBURN, IL 60119

ENERGY SUPPLY CONTACT: TOM PERKINS  
PHONE: (630) 723-2127  
COMPANY: COMMONWEALTH EDISON



### EMERGENCY VEHICLE PREEMPTION SEQUENCE

PROPOSED EMERGENCY VEHICLE PREEMPTORS	
PROPOSED EMERGENCY VEHICLE PREEMPTORS	3 4
MOVEMENT	← → ↗ ↘



### LIGHTING CABLE PLAN

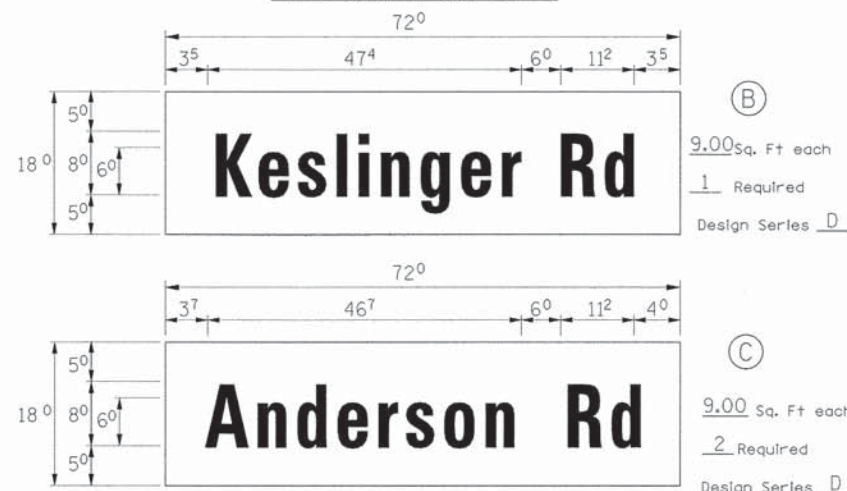
### SCHEDULE OF QUANTITIES

PAY ITEM DESCRIPTION	UNIT	KESLINGER ROAD
ELECTRICAL SERVICE INSTALLATION	EACH	1
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	35
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	69
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	37
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	432
HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 10	FOOT	482
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	2
LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 60AMP	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	324
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1888
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	778
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	66
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	698.5
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 50 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	20
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	28
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	12
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
VIDEO DETECTION SYSTEM	EACH	1
MICROWAVE VEHICLE SENSOR (SMARTSENSOR ADVANCE)	EACH	2
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED	FOOT	324
ELECTRIC CABLE IN CONDUIT, VIDEO NO. 18 3C	FOOT	207
SMARTSENSOR HOMERUN CABLE	FOOT	388
SMARTSENSOR 9C CABLE	FOOT	126
CHANNEL CONTACT CLOSURE CARD	EACH	1

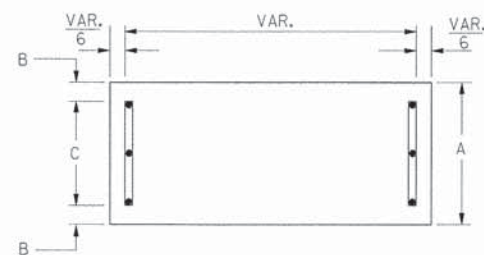
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" ASC/3 OR LATER.



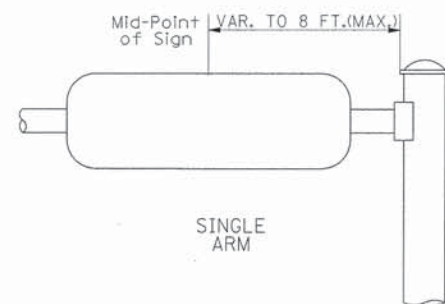
PANEL SIGN DESIGN TYPE 1



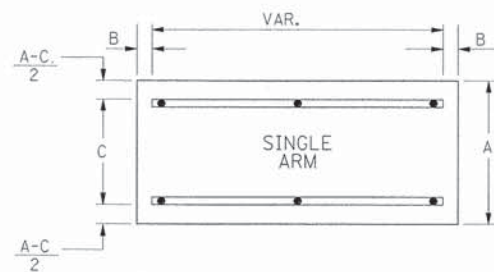
SUPPORTING CHANNELS



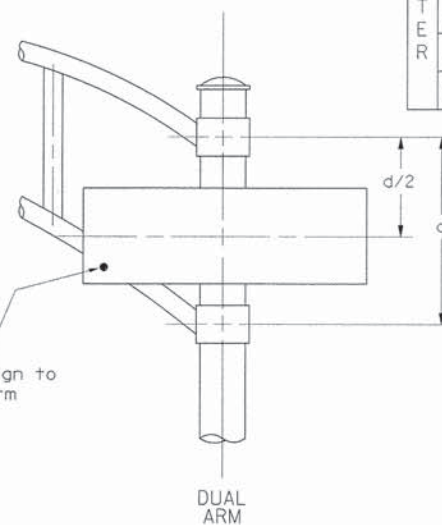
A	B	C
18"	2"	14"



SUPPORTING CHANNELS



A	B	C
18"	2"	12"
30"	2"	22"



Upper Case To Lower Case  
Spacing Chart 8-6 Inch Series "C & D"

SERIES	SECOND LETTER															
	acde		bhikl		fw		j		st		vy		x		z	
	g	o	q	m	n	p	r	u								
A W X	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>
B	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>
C E G	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>
D O Q R	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>4</sup>	1 <sup>5</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>
F	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>4</sup>	1 <sup>5</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>
H I M N	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>2</sup>	2 <sup>4</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>
J U	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>0</sup>	2 <sup>1</sup>
K L	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>
P	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
S	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
T	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>6</sup>	1 <sup>7</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>
V	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
Y	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>4</sup>	1 <sup>5</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>5</sup>	0 <sup>7</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>
Z	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>2</sup>	2 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>0</sup>	2 <sup>1</sup>

EXAMPLE, 2<sup>3</sup> DENOTES 3/8"

Lower Case To Lower Case  
Spacing Chart 6 Inch Series "C & D"

SERIES	SECOND LETTER															
	acde		bhikl		fw		j		st		vy		x		z	
	g	o	q	m	n	p	r	u								
ad h g l j	1 <sup>6</sup>	1 <sup>7</sup>	2 <sup>2</sup>	2 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>
im n q u																
b f k o p s	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
ce	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
r	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>3</sup>	0 <sup>3</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>
t z	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>
vy	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	0 <sup>6</sup>	1 <sup>0</sup>	0 <sup>6</sup>	1 <sup>0</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>
w	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>
x	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>1</sup>	1 <sup>2</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>2</sup>	1 <sup>4</sup>

LETTERS	6 INCH UPPER CASE LETTERS		8 INCH UPPER CASE LETTERS		LETTERS	6 INCH LOWER CASE LETTERS	
	SERIES		SERIES			SERIES	
	C	D	C	D		C	D
A	3 <sup>6</sup>	5 <sup>0</sup>	5 <sup>0</sup>	6 <sup>5</sup>	a	3 <sup>5</sup>	4 <sup>2</sup>
B	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	b	3 <sup>5</sup>	4 <sup>2</sup>
C	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	c	3 <sup>5</sup>	4 <sup>1</sup>
D	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	d	3 <sup>5</sup>	4 <sup>2</sup>
E	3 <sup>0</sup>	3 <sup>5</sup>	4 <sup>0</sup>	4 <sup>7</sup>	e	3 <sup>5</sup>	4 <sup>2</sup>
F	3 <sup>0</sup>	3 <sup>5</sup>	4 <sup>0</sup>	4 <sup>7</sup>	f	2 <sup>3</sup>	2 <sup>6</sup>
G	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	g	3 <sup>5</sup>	4 <sup>2</sup>
H	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	h	3 <sup>5</sup>	4 <sup>2</sup>
I	0 <sup>7</sup>	0 <sup>7</sup>	1 <sup>1</sup>	1 <sup>2</sup>	i	1 <sup>1</sup>	1 <sup>1</sup>
J	3 <sup>0</sup>	3 <sup>6</sup>	4 <sup>0</sup>	5 <sup>0</sup>	j	2 <sup>0</sup>	2 <sup>2</sup>
K	3 <sup>2</sup>	4 <sup>1</sup>	4 <sup>3</sup>	5 <sup>4</sup>	k	3 <sup>5</sup>	4 <sup>2</sup>
L	3 <sup>0</sup>	3 <sup>5</sup>	4 <sup>0</sup>	4 <sup>7</sup>	l	1 <sup>1</sup>	1 <sup>1</sup>
M	3 <sup>7</sup>	4 <sup>5</sup>	5 <sup>1</sup>	6 <sup>1</sup>	m	6 <sup>0</sup>	7 <sup>0</sup>
N	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	n	3 <sup>5</sup>	4 <sup>2</sup>
O	3 <sup>4</sup>	4 <sup>2</sup>	4 <sup>5</sup>	5 <sup>5</sup>	o	3 <sup>6</sup>	4 <sup>3</sup>
P	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	p	3 <sup>5</sup>	4 <sup>2</sup>
Q	3 <sup>4</sup>	4 <sup>2</sup>	4 <sup>5</sup>	5 <sup>5</sup>	q	3 <sup>5</sup>	4 <sup>2</sup>
R	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	r	2 <sup>6</sup>	3 <sup>2</sup>
S	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	s	3 <sup>6</sup>	4 <sup>2</sup>
T	3 <sup>0</sup>	3 <sup>5</sup>	4 <sup>0</sup>	4 <sup>7</sup>	t	2 <sup>7</sup>	3 <sup>2</sup>
U	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	u	3 <sup>5</sup>	4 <sup>2</sup>
V	3 <sup>5</sup>	4 <sup>4</sup>	4 <sup>7</sup>	6 <sup>0</sup>	v	4 <sup>2</sup>	4 <sup>7</sup>
W	4 <sup>4</sup>	5 <sup>2</sup>	6 <sup>0</sup>	7 <sup>0</sup>	w	5 <sup>5</sup>	6 <sup>4</sup>
X	3 <sup>4</sup>	4 <sup>0</sup>	4 <sup>5</sup>	5 <sup>3</sup>	x	4 <sup>4</sup>	5 <sup>1</sup>
Y	3 <sup>6</sup>	5 <sup>0</sup>	5 <sup>0</sup>	6 <sup>6</sup>	y	4 <sup>6</sup>	5 <sup>3</sup>
Z	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>	z	3 <sup>6</sup>	4 <sup>3</sup>

NUMBER	6 INCH SERIES		8 INCH SERIES	
	C	D	C	D
1	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>
2	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
3	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
4	3 <sup>5</sup>	4 <sup>3</sup>	4 <sup>7</sup>	5 <sup>7</sup>
5	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
6	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
7	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
8	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
9	3 <sup>2</sup>	4 <sup>0</sup>	4 <sup>3</sup>	5 <sup>3</sup>
0	3 <sup>4</sup>	4 <sup>2</sup>	4 <sup>5</sup>	5 <sup>5</sup>

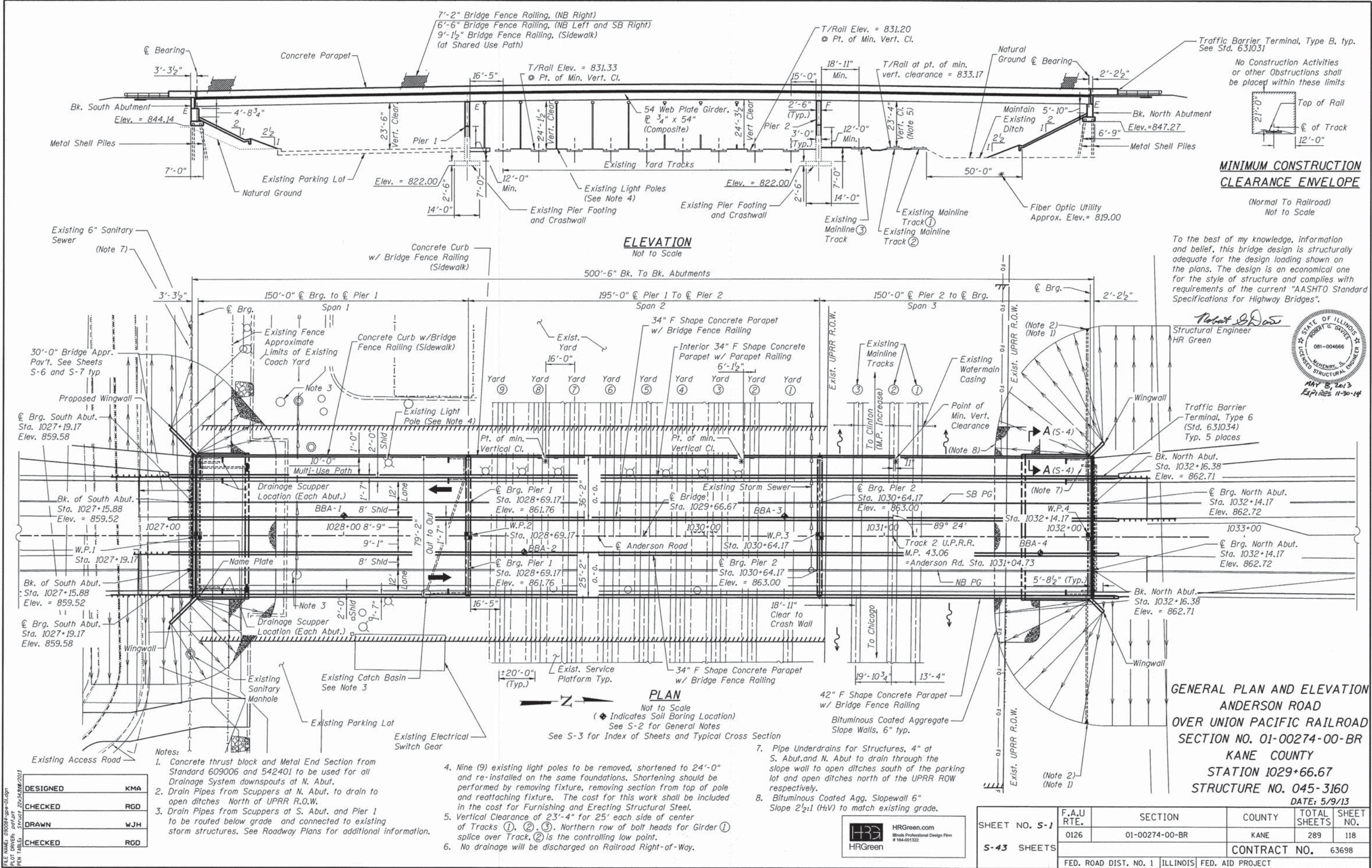
Number To Number  
Spacing Chart 8 Inch Series "C & D"

SERIES	SECOND LETTER																			
	0		1		2		3		4		5		6		7		8		9	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>
1	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>	1 <sup>4</sup>	1 <sup>5</sup>	2 <sup>0</sup>	2 <sup>1</sup>	2 <sup>0</sup>	2 <sup>1</sup>
2 3 4	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>
5	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>
6	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>4</sup>	1 <sup>5</sup>
7	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>5</sup>	0 <sup>5</sup>	0 <sup>6</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>1</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>
8	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>5</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>4</sup>	1 <sup>5</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>2</sup>	1 <sup>4</sup>	1 <sup>6</sup>	1 <sup>7</sup>	1 <sup>4</sup>	1 <sup>5</sup>

GENERAL NOTES

- WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
- THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 8'-0".
- ALL BORDERS SHALL BE 3/4" WIDE AND CORNER RADIUS SHALL BE 2-1/4".
- SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS. LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:

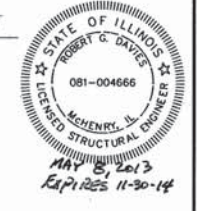
- \* J.O. HERBERT CO. MIDLOTHIAN, VA.
- \* WESTERN REMAC INC. WOODRIDGE, IL.



**MINIMUM CONSTRUCTION CLEARANCE ENVELOPE**

(Normal To Railroad)  
Not to Scale

To the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO Standard Specifications for Highway Bridges".



**GENERAL PLAN AND ELEVATION  
ANDERSON ROAD  
OVER UNION PACIFIC RAILROAD  
SECTION NO. 01-00274-00-BR  
KANE COUNTY  
STATION 1029+66.67  
STRUCTURE NO. 045-3160  
DATE: 5/9/13**

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

- Notes:
- Concrete thrust block and Metal End Section from Standard 609006 and 542401 to be used for all Drainage System downspouts at N. Abut.
  - Drain Pipes from Scuppers at N. Abut. to drain to open ditches North of UPRR R.O.W.
  - Drain Pipes from Scuppers at S. Abut. and Pier 1 to be routed below grade and connected to existing storm structures. See Roadway Plans for additional information.

- Nine (9) existing light poles to be removed, shortened to 24'-0" and re-installed on the same foundations. Shortening should be performed by removing fixture, removing section from top of pole and reattaching fixture. The cost for this work shall be included in the cost for Furnishing and Erecting Structural Steel.
- Vertical Clearance of 23'-4" for 25' each side of center of Tracks ①, ②, ③. Northern row of bolt heads for Girder ① splice over Track ② is the controlling low point.
- No drainage will be discharged on Railroad Right-of-Way.

- Pipe Underdrains for Structures, 4" at S. Abut. and N. Abut to drain through the slope wall to open ditches south of the parking lot and open ditches north of the UPRR ROW respectively.
- Bituminous Coated Agg. Slope wall 6" Slope 2:1 (H:V) to match existing grade.



SHEET NO. 5-1	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	118
S-43 SHEETS			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

**GENERAL NOTES**

- The contractor shall be responsible for contacting the owners of all existing facilities so that the utilities and their appurtenances may be located and adjusted or moved, if necessary, prior to the start of construction operations. The contractor shall cooperate with all utility owners as provided for in the standard specifications. The location of existing structures and utility lines as shown on the plans, is approximate and their horizontal and vertical location is to be determined in the field by the contractor prior to any construction activity. The contractor shall be responsible for the protection of all underground or surface utilities even though they may not be shown on the plans. Any utility that is damaged during construction shall be repaired or replaced to the satisfaction of the Engineer or the owner. This work shall be at the contractor's expense. No additional compensation will be made to the Contractor for this work. At least 48 hours prior to any excavating, the contractor shall call "JULIE" at 800-892-0123 for field locations of buried electric, telephone, gas, and cable television facilities. The contractor shall also call the Union Pacific Fiber Optics at 800-366-9193 at least 48 hours prior to any excavation. Existing fiber optic cable shown on drawings was field verified in 2002 from Station 1873+50 to 2112+00 on the north side of U.P.R.R. Westline Track 1. Horizontal and vertical accuracy +/- 3'. All other fiber optic cable locations are not field verified. At least 10 days prior to any excavation work on or adjacent to the tracks, the contractor shall contact the Union Pacific Railroad (UP) for signal cable location. The UP will perform any signal cable relocation.
- Protect and maintain existing signal cable, signals, signal bungalows, flashers, and gates.
- Fasteners shall be ASTM A325, Type 1, mechanically galvanized bolts  $T_B \phi$ , holes  $1\frac{1}{16} \phi$ , unless otherwise noted.
- Calculated weight of Structural Steel = 1,856,440 pounds.
- All structural steel shall be AASHTO M 270 Grade 50 except expansion joint plates, cross frames, and attached bars which may be AASHTO M 270 Grade 36 or Grade 50.
- Expansion joint plates and attached bars shall be shop painted with the inorganic zinc rich primer.
- No field welding is permitted except as specified in the contract documents.
- Not Used
- If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
- Not Used
- Cover from the face of concrete to reinforcement bars shall be 3" for surfaces formed against earth and 2" for all other surfaces unless otherwise shown.
- Reinforcement bending details shall be in accordance with the "Manual of Standard Practice for Detailing Reinforced Concrete Structures", ACI 315, latest edition.
- Reinforcement bar bending dimensions are out to out.
- Reinforcement Bars designated "(E)" shall be epoxy coated.
- Concrete Parapet Slipform option will not be allowed.
- An Erection Plan is required for the structural steel in accordance with Art. 505.08(e). In addition to this requirement, the erection plan shall be sealed by an Illinois Licensed Structural Engineer. Construction loading due to erection, wind, form work, screed rails and wet concrete shall be accounted for and temporary bracing or other equipment needed shall be included on the erection plan.

- The embankment configuration shown shall be the minimum embankment that must be placed and compacted prior to construction of the abutments.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of  $\frac{1}{8}$  inch (0.01 ft). Adjustment shall be made either by grinding the surface or by shimming the bearing.
- Not Used
- Concrete Sealer shall be applied to the designated areas of the abutments.
- When the deck pour is stopped for the day at one or more of the transverse Bonded Construction Joints in the deck Pouring Sequence as shown, the next pour shall not be made until both of the following requirements are met:
  - At least 72 hours shall have elapsed from the end of the previous pour.
  - The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.
- 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. 2.5 YR 3/4.
- All Plates, Neoprene Pads, Shims, and Fasteners necessary to furnish and install fixed bearing assemblies shall be included in the unit bid price for Furnishing and Erecting Structural Steel.
- Design includes provisions for widening the bridge to four (4) lanes plus path. Abutments and remainder of the piers are to be constructed to the final width under this contract. Future widening of the superstructure assumes three (3) additional plate girders (match design herein) at the center at the same spacing.
- The Contractor is responsible for maintaining existing embankment, and supporting active tracks throughout the construction process. The Contractor shall modify the procedure as necessary to avoid damage to the tracks. Should excavation adjacent to tracks be necessary, temporary shoring that impacts the Railroad's operations and/or supports the Railroad's embankment shall be designed per current Railroad Guidelines for Temporary Shoring.
  - The Contractor shall provide and install track protection shoring before commencing excavation. Prior to commencing any work, the contractor shall submit for approval by the Engineer and UPRR, detailed plans indicating the nature and extent of the track protection shoring proposed.
  - Shoring shall be designed for Cooper E80 live load surcharge and the UPRR may impose more stringent requirements as conditions warrant.
  - For Excavations which encroach into railroad live load surcharge zone, shoring plans will be accompanied by a copy of design calculations, and both must be stamped by an Illinois licensed structural engineer.
  - The system design calculations and drawings shall be submitted to the Engineer and Union Pacific Railroad for approval allowing at least 30 days for review.
- Existing portions of Piers and Pier Footings indicated are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the contractor will be paid for the quantity actually furnished at the unit price for the work.
- All demolition within the Railroad's right-of-way and/or demolition that may impact the Railroad's tracks or operation shall comply with the Railroad's Demolition Guidelines.
- Erection over the Railroad's track shall be planned such that it enables the track(s) to remain open to traffic per Railroad requirements. Erection over Metra yard and parking area shall be planned such that crew facility remains accessible and yard operational. The Contractor's detailed plan and schedule for erection shall be submitted to the Railroad for approval, allowing at least four (4) weeks for review.
- The elevation of the existing top-of-rail profile shall be verified before beginning construction. All discrepancies shall be brought to the attention of the Railroad prior to construction.
- The proposed grade separation project shall not change the quantity and/or characteristics of the flow in the Railroad ditches and/or drainage structures.
- The Contractor must submit a proposed method of erosion and sediment control and have the method approved by the Railroad prior to the begining any grading on the project site.
- For Railroad coordination please refer to the Railroad's Coordination Requirements as part of the Specifications or Special Provisions of the project.
- Temporary Constuction Clearances, including falsework clearances, shall comply with the Construction Clearance Envelope on sheet S-1.
- All permanent clearances shall be verified before project closeout.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu. Yds.	---	512	512
Concrete Structures	Cu. Yds.	---	558.2	558.2
Concrete Superstructure	Cu. Yds.	1,185.7	---	1,185.7
Bridge Deck Grooving	Sq. Yds.	2,916	---	2,916
Protective Coat	Sq. Yds.	4,486	---	4,486
Furnishing and Erecting Structural Steel	L. Sum	1	---	1
Stud Shear Connectors	Each	8,010	---	8,010
Reinforcement Bars, Epoxy Coated	Pound	272,990	43,510	316,500
Bridge Fence Railing	Foot	1,488	---	1,488
Bridge Fence Railing (Sidewalk)	Foot	496	---	496
Parapet Railing	Foot	496	---	496
Slope Wall 4 Inch	Sq. Yds.	---	766	766
Furnishing Metal Shell Piles 14" x 0.25"	Foot	---	3,648	3,648
Driving Piles	Foot	---	3,648	3,648
Test Pile Metal Shells	Each	---	4	4
Name Plates	Each	1	---	1
Preformed Joint Seal, 2 1/2"	Foot	58	---	58
Elastomeric Bearing Assembly, Type II	Each	10	---	10
Elastomeric Bearing Assembly, Type III	Each	10	---	10
Anchor Bolts, 1 1/4"	Each	40	---	40
Anchor Bolts, 1 1/2"	Each	60	---	60
Metal End Sections 10"	Each	---	2	2
Concrete Sealer	Sq. Ft.	---	1,700	1,700
Geocomposite Wall Drain	Sq. Yds.	---	302	302
Concrete Headwall for Pipe Drains	Each	4	---	4
Concrete Thrust Blocks	Each	---	2	2
Porous Granular Embankment, Special	Cu. Yds.	---	566	566
High Load Multi-Rotation Bearings, Guided Expansion, 450 K	Each	10	---	10
Drainage Scuppers, DS-33	Each	9	---	9
Drainage System	L. Sum	1	---	1
Modular Expansion Joint 6"	Foot	58	---	58
Pipe Underdrains for Structures, 4"	Foot	---	200	200
Bituminous Coated Aggregate Slope Wall, 6"	Sq. Yds.	---	541	541

- Railroad requirements do not allow work within 50 feet of track centerline when a train passes. The work site and all personnel must clear the area within 25 feet of the track centerline and secure all equipment.
- Work windows are available Mon.-Fri. from 9:00 AM - 3:30 PM. Extended work windows are available on weekends subject to the approval of the local field manager.
- Contractor's Right of Entry Permit must be executed prior to commencing any work on railroad property.
- All contractor and sub-contractor employees must be certified in Roadway Worker Protection and must be able to provide proof of same.
- All work with 25 feet of the nearest track will require railroad flagging protection. Call Kandice at (312) 496-4738, one week in advance.
- Railroad utilities are not covered by JULIE. Railroad utilities - call Kandice at (312) 496-4738. Fiber Optics - call (800) 336-9193.

**Benchmarks:**

- Mag nail set at the approximate centerline of the northerly most railroad platform, within the Elburn Metra Railroad Yard, approximately 190 feet westerly of the centerline of the bridge alignment. Elevation: 832.05
- Mag nail set at the approximate centerline of the northerly most railroad platform, within the Elburn Metra Railroad Yard, approximately 215 feet easterly of the centerline of the bridge alignment. Elevation: 832.15
- Mag nail at the approximate centerline of the southerly most railroad platform, within the Elburn Metra Railroad Yard, approximately 60 feet westerly of the centerline of the bridge alignment. Elevation: 832.04

All benchmarks are located within the Metra Railroad Yard.

**LOADING HS20-44**

Allow 43#/sq. ft. for future wearing surface.

**DESIGN SPECIFICATIONS**

1996 AASHTO with Interims thru 2002  
BNSF Railway - Union Pacific Railroad  
"Guidelines for Railroad Grade Separation Projects"  
(Jan 2007)

**DESIGN STRESSES**

**FIELD UNITS**

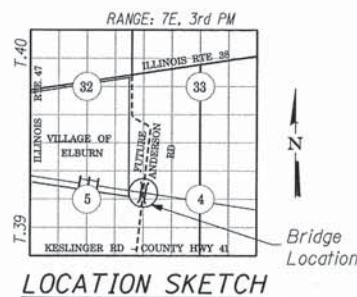
$f'_c = 5,000$  psi (class S1) Substructure  
 $f'_c = 4,000$  psi (class BS) Superstructure  
 $f_y = 60,000$  psi (reinforcement)  
 $f_y = 50,000$  psi (structural steel)  
(See Note 5 this sheet)

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.04g  
Site Coefficient (S) = 1.0

**GENERAL NOTES & B.O.M.  
STRUCTURE NO. 045-3160**

DATE: 5/9/13



BUILT 2012 BY  
KANE COUNTY  
SEC. 01-00274-00-BR  
STATION 1029+66.67  
STR. NO. 045-3160 LOADING HS20

**NAME PLATE**  
See Std. 515001

**Existing Structure:**

Portions of Piers indicated as Not in Contract were constructed previously.

**Proposed Structure:**

3 Span Bridge, Composite Deck on Steel Plate Girders; Supported on Open Abutments and Concrete Piers.



SHEET NO. S-2	F.A.U R.T.E. 0126	SECTION 01-00274-00-BR	COUNTY KANE	TOTAL SHEETS 289	SHEET NO. 119
S-43 SHEETS				CONTRACT NO. 63698	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

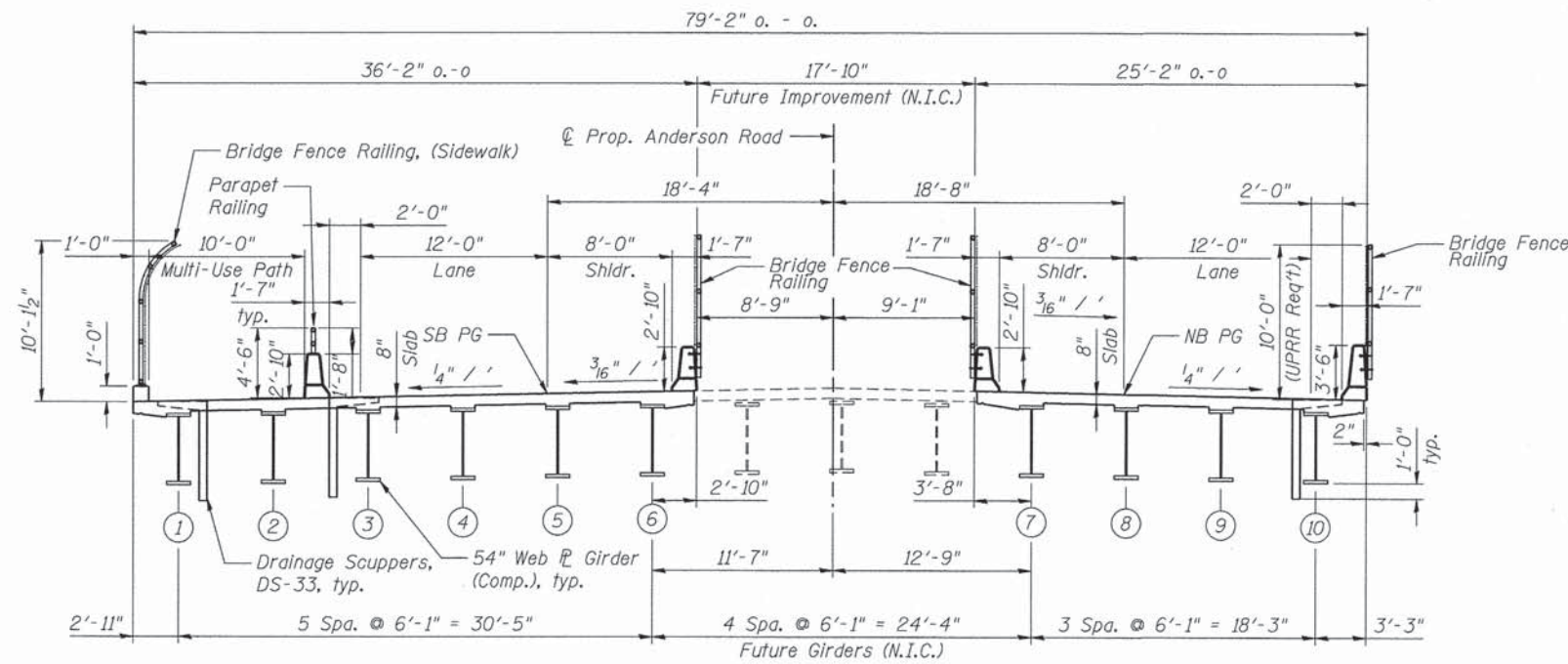
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PLOT DATE: 5/9/13 10:40 AM  
PEN TABLE: S:\PROJECT 2013\045-3160\2103

**INDEX OF SHEETS**

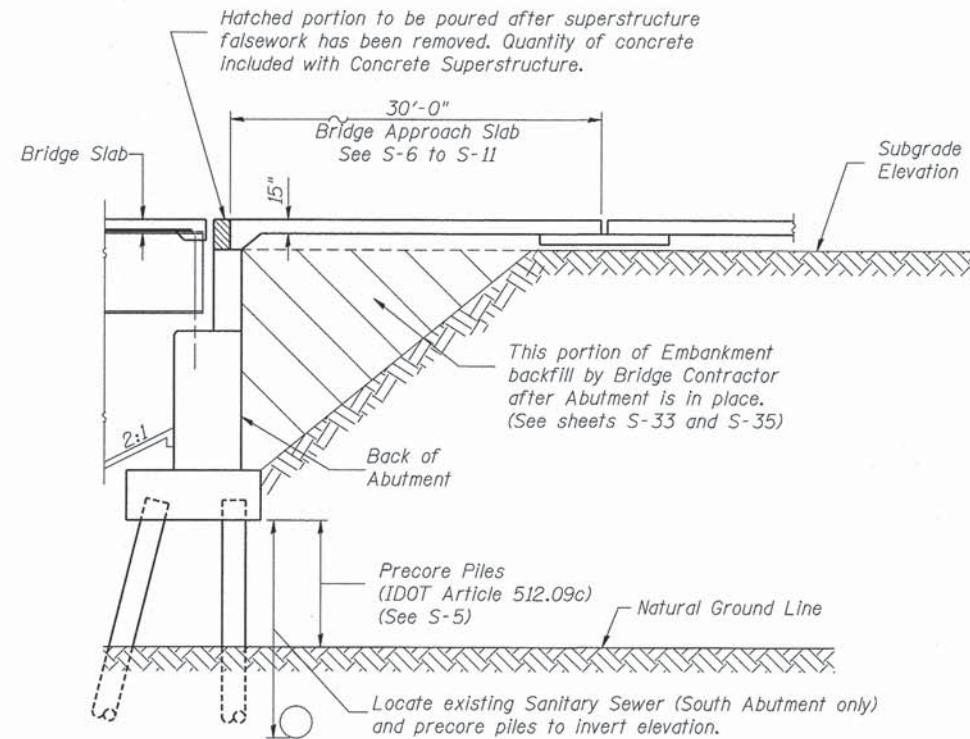
Drawing	Sheet Description
S-1	General Plan and Elevation
S-2	Notes & BOM
S-3	Cross Section, Profile and Index of Sheets
S-4	Substructure Unit Layout
S-5	Pile Layout Plan
S-6	Northbound Bridge Approach Slab Details
S-7	Northbound Bridge Approach Slab Details
S-8	Southbound Bridge Approach Slab Details
S-9	Southbound Bridge Approach Slab Details
S-10	Top of South Approach Slab Elevations
S-11	Top of North Approach Slab Elevations
S-12	Top of Deck Plan and Top of Deck Tables
S-13	Fillet Details and Top of Deck Tables
S-14	Top of Deck Tables
S-15	Top of Deck Tables
S-16	Northbound Deck Plan and Cross Section
S-17	Southbound Deck Plan and Cross Section
S-18	34" F Shape Concrete Parapet
S-19	42" F Shape Concrete Parapet
S-20	Concrete Curb
S-21	Bridge Fence Railing, Sidewalk Mounted
S-22	Bridge Fence Railing
S-23	Roadway Exp. Joint (PJS)
S-24	Modular Expansion Joint Details
S-25	Steel Framing Plan, Girder Moment Tables and Reaction Tables
S-26	Girder Elevation with Fab. Details, Camber and Top Elev.
S-27	Girder Splice Details
S-28	Steel Diaphragm Details
S-29	Bearing and Anchor Bolt Layout
S-30	Bearing Details (Expansion Type 2 and Expansion Type 3)
S-31	Bearing Details (Floating Bearings and Fixed Bearings)
S-32	South Abutment Plan and Elevation
S-33	South Abutment Details and Sections
S-34	North Abutment Plan and Elevation
S-35	North Abutment Details and Sections
S-36	Pier 1 Plan and Elevation
S-37	Pier 1 Detail and Sections
S-38	Pier 2 Plan and Elevation
S-39	Pier 2 Detail and Section
S-40	Metal Shell Pile Details
S-41	Scupper Details (DS-33)
S-42	Bridge Foundation Boring Logs
S-43	Bridge Foundation Boring Logs

**INDEX OF ABBREVIATIONS**

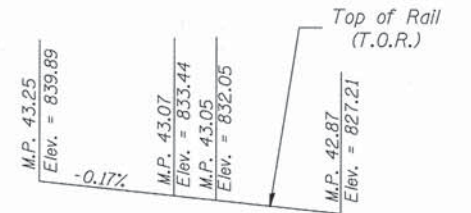
φ = Diameter	I.F. = Inside Face	R = Right
⊕ = Centerline	L = Left	Rad. = Radius
Ⓟ = Plate	L.F. = Linear Foot	R.O.W. = Right of Way
Abut. = Abutment	Max. = Maximum	R.R. = Railroad
Bk. = Back of	Min. = Minimum	Rt. L's = Right Angle
BOM = Bill of Material	M.P. = Mile Post	O.F. = Outside Face
Brg. = Bearing	N. = North	PC = Point of Curvature
Clr. = Clearance	N.I.C. = Not in Contract	P.G. = Profile Grade
cts. = Centers	N.T.R. = Notch Toughness Requirement	PI = Point of Intersection
Dia. = Diameter	Num. = Number	Prop. = Proposed
E = Expansion	o.c. = On Center	Pt. = Point
Exp. = Expansion	O.F. = Outside Face	P.T. = Pressure Treated
Ea. = Each	PC = Point of Curvature	Pvmt. = Pavement
Elev. = Elevation	P.G. = Profile Grade	PVC = Point of Vertical Curvature
Est. = Estimate	PI = Point of Intersection	PVI = Point of Vertical Intersection
Exist. = Existing	Prop. = Proposed	Pt. = Point
F = Fixed	Pvmt. = Pavement	Pvmt. = Pavement
Fab. = Fabrication	PVC = Point of Vertical Curvature	PVT = Point of Vertical Tangency
FL = Flange	PVI = Point of Vertical Intersection	R = Right
FO = Fiber Optic Utility	PVT = Point of Vertical Tangency	Rad. = Radius
Galv. = Galvanize	R = Right	R.O.W. = Right of Way
H.P. = High Point	Rad. = Radius	R.R. = Railroad
H.S. = High Strength	PVI = Point of Vertical Intersection	Rt. L's = Right Angle
IDOT = Illinois Department of Transportation	PVT = Point of Vertical Tangency	S. = South



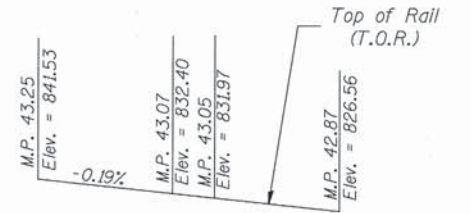
**PROPOSED BRIDGE TYPICAL SECTION**



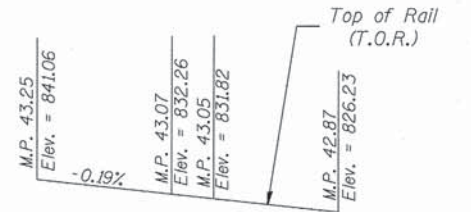
**EMBANKMENT CONFIGURATION**  
Not to Scale



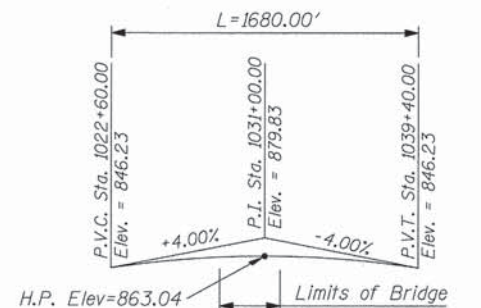
**PROFILE GRADE**  
**U.P.R.R. WEST LINE**  
(along North Rail track #1)



**PROFILE GRADE**  
**U.P.R.R. WEST LINE**  
(along North Rail track #2)



**PROFILE GRADE**  
**U.P.R.R. WEST LINE**  
(along North Rail track #3)



**PROFILE GRADE**  
**ANDERSON ROAD**  
(along NB/SB P.G.L. roadway)

**HIGHWAY CLASSIFICATION**

Anderson Road  
Functional Class: Collector  
ADT: 6,200 (2030)  
ADTT: 236 (2030)  
DHW: 535  
Design Speed: 45 m.p.h.  
Posted Speed: 45 m.p.h.  
Two-Way Traffic  
Directional Distribution: 50/50

**CROSS SECTION, PROFILES AND INDEX OF SHEETS**  
**STRUCTURE NO. 045-3160**

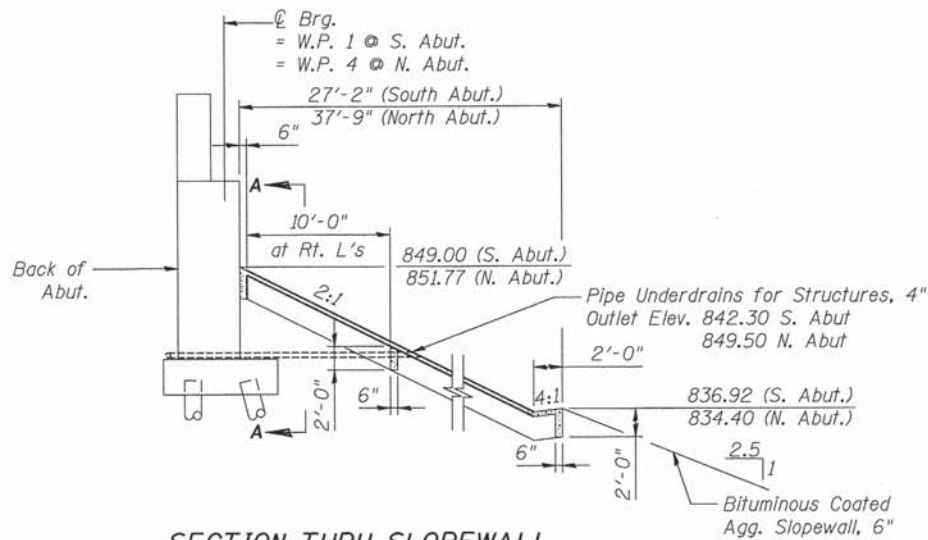
DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

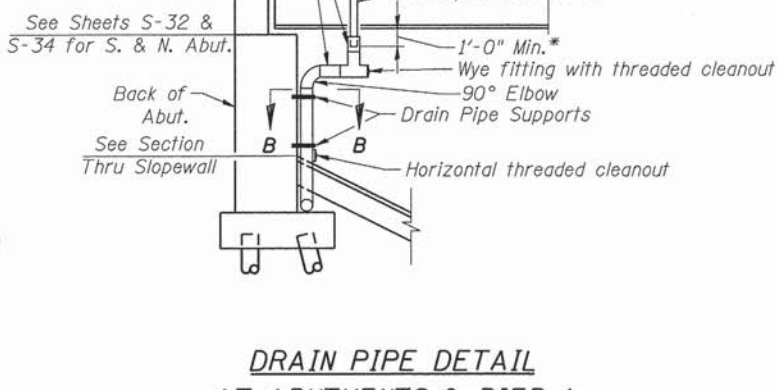
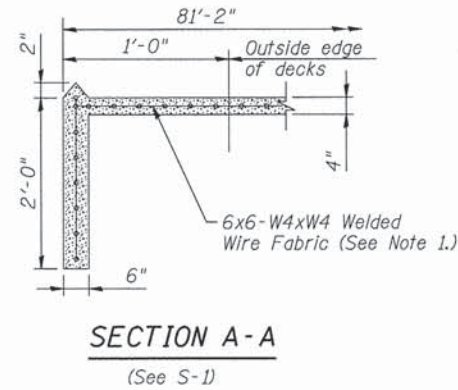


SHEET NO. S-3  
S-43 SHEETS

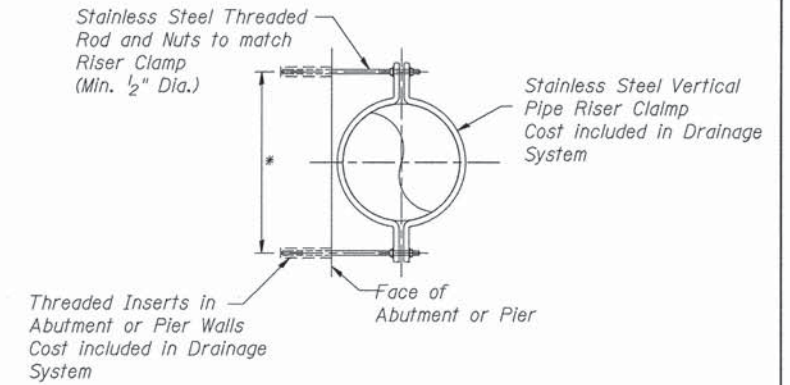
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0126	01-00274-00-BR	KANE	289	120
CONTRACT NO.			63698	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**SECTION THRU SLOPEWALL  
NORTH AND SOUTH ABUTMENTS**



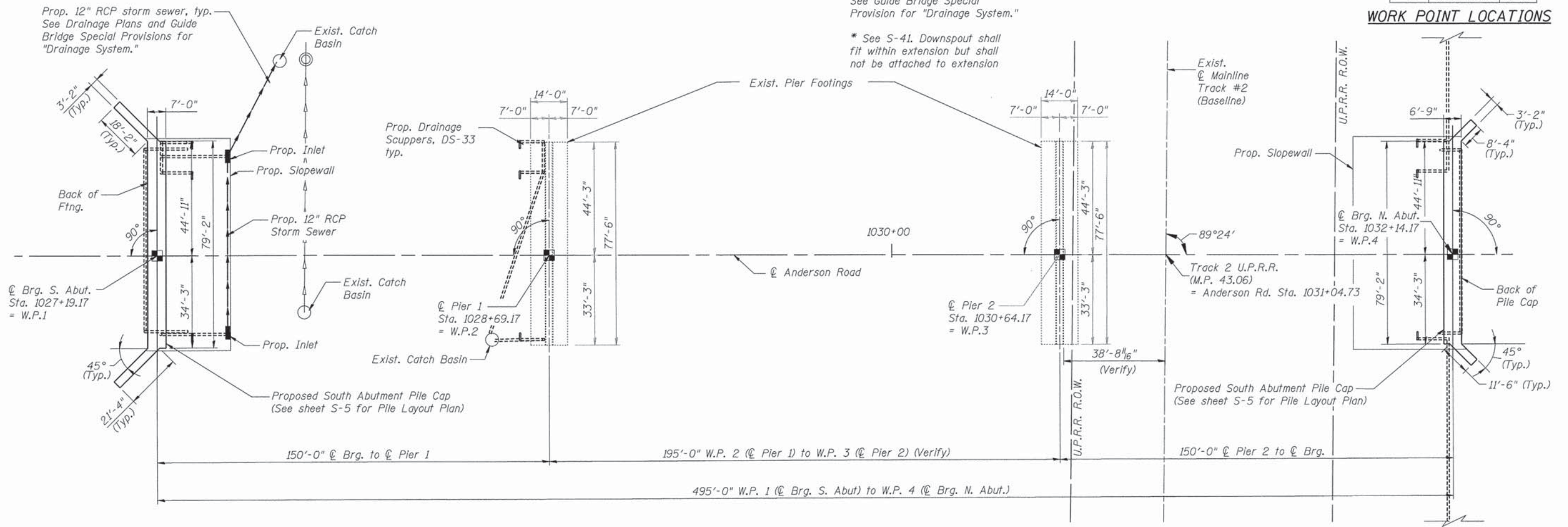
**DRAIN PIPE DETAIL  
AT ABUTMENTS & PIER 1**



**SECTION B-B  
Not to Scale**  
\* = Coordinate with pipe clamp supplier

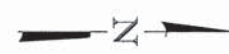
Work Point	Anderson Rd. Sta.	Offset
1.	1027+19.17	0' R
2.	1028+69.17	0' R
3.	1030+64.17	0' R
4.	1032+14.17	0' R

**WORK POINT LOCATIONS**



**SUBSTRUCTURE UNIT LAYOUT**

**SUBSTRUCTURE UNIT LAYOUT  
STRUCTURE NO. 045-3160**



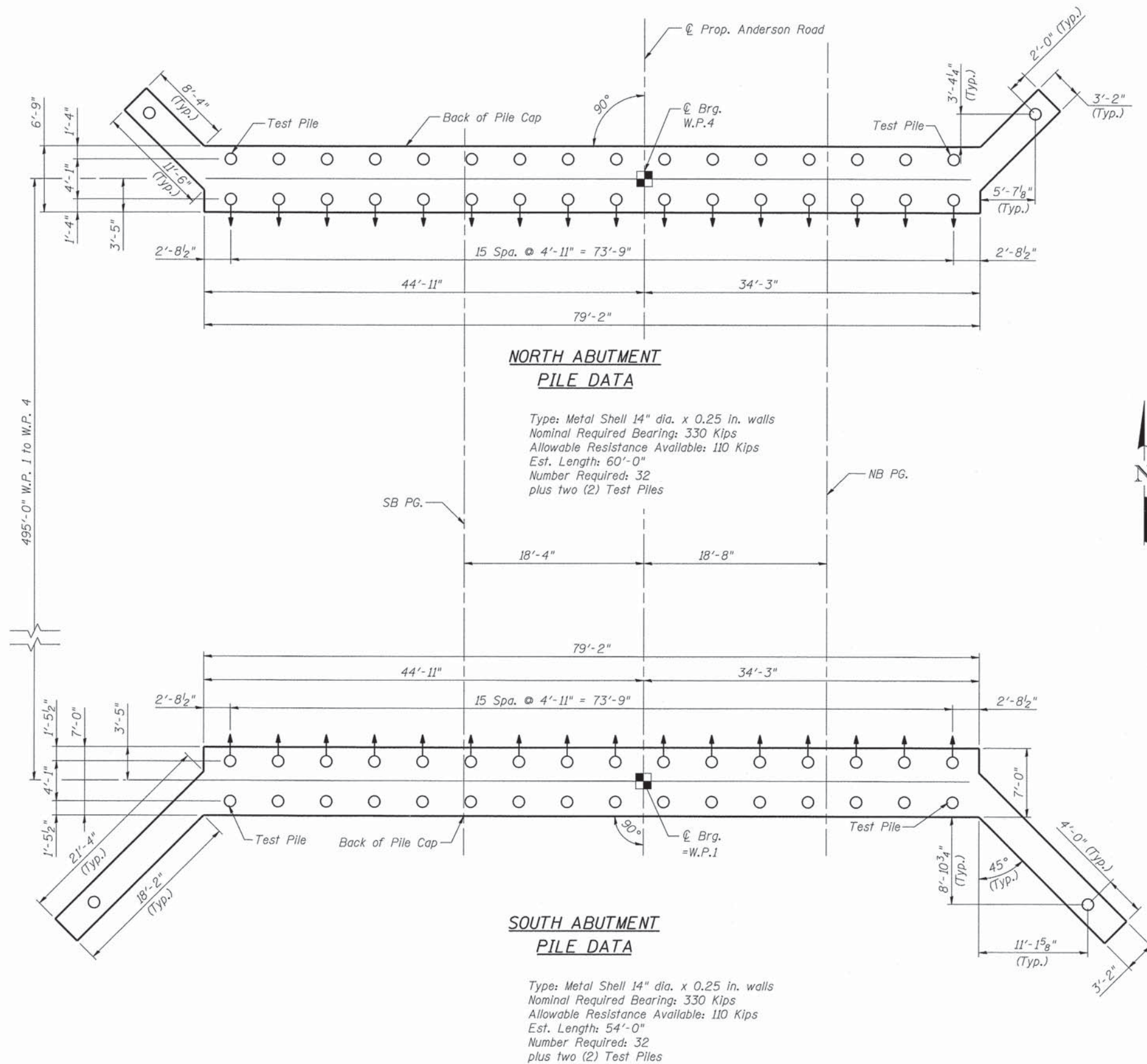
**NOTES**  
1. Slopewall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0 weighing 58 lbs. per 100 sq. ft



SHEET NO. S-4 S-43 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	121
	CONTRACT NO. 63698			DATE: 5/9/13	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

FILE NAME: 090084-sub-01.dgn  
PLOT DRIVER: paf.plt  
PEN TABLE: SFR.ctb 25-3-2008/2013



**NORTH ABUTMENT  
PILE DATA**

Type: Metal Shell 14" dia. x 0.25 in. walls  
 Nominal Required Bearing: 330 Kips  
 Allowable Resistance Available: 110 Kips  
 Est. Length: 60'-0"  
 Number Required: 32  
 plus two (2) Test Piles

**SOUTH ABUTMENT  
PILE DATA**

Type: Metal Shell 14" dia. x 0.25 in. walls  
 Nominal Required Bearing: 330 Kips  
 Allowable Resistance Available: 110 Kips  
 Est. Length: 54'-0"  
 Number Required: 32  
 plus two (2) Test Piles

**NOTES**

1. Metal Shells shall be according to ASTM A 252 Grade 3.
2. Field locate existing W.P.2 and W.P.3. Work W.P.1 and W.P.4 off of existing W.P.2 and W.P.3.
3. Piles shall be driven through 18" diameter precored holes extending to elevation 831.00 at the south abutment and elevation 827.50 at the north abutment according to Article 512.09(c) of the Standard Specifications. Cost included in driving piles.

**LEGEND**

Batter Pile in direction of arrow at 1H : 4V

**PILE LAYOUT PLAN  
STRUCTURE NO. 045-3160**

DATE: 5/9/13

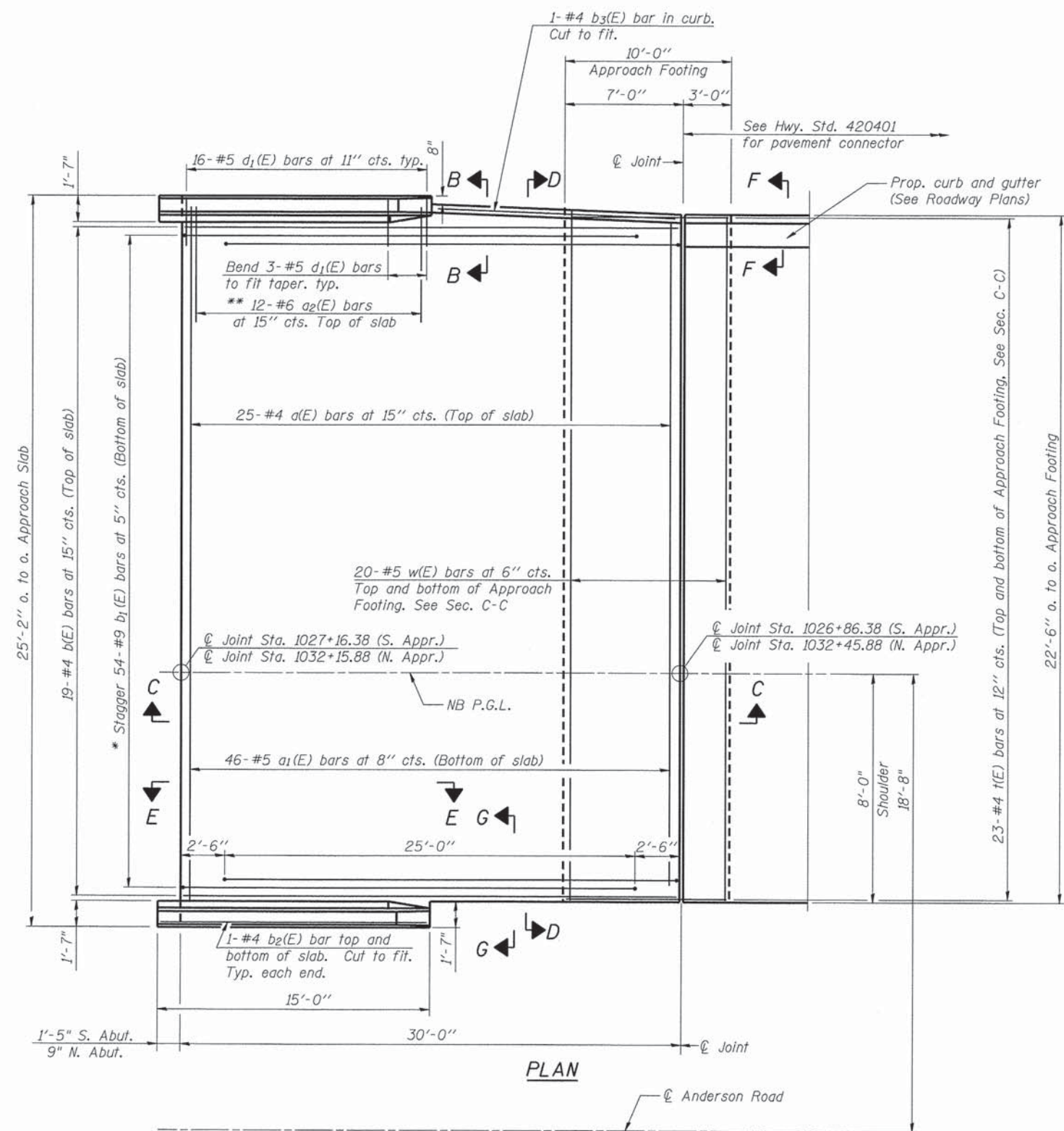
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CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



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FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT		
CONTRACT NO.				63698	

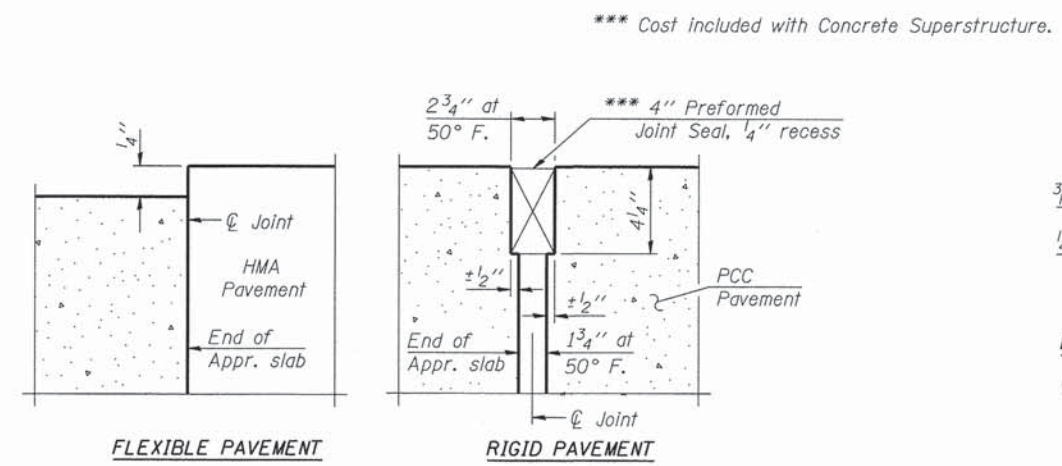
FILE NAME: 090204-TRC-04.dgn  
 PLOT DRIVER: pdfplot  
 PEN TABLE: Struct 22x34x98/2013

Notes:  
See sheet S-7 for Sections C-C & D-D and View E-E.  
a(E), a<sub>1</sub>(E), and w(E) bar spacings measured perpendicular to  $\varnothing$  Rdwy.

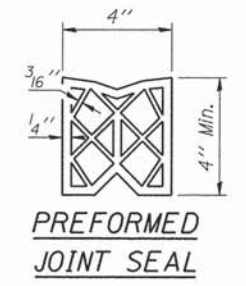


PLAN

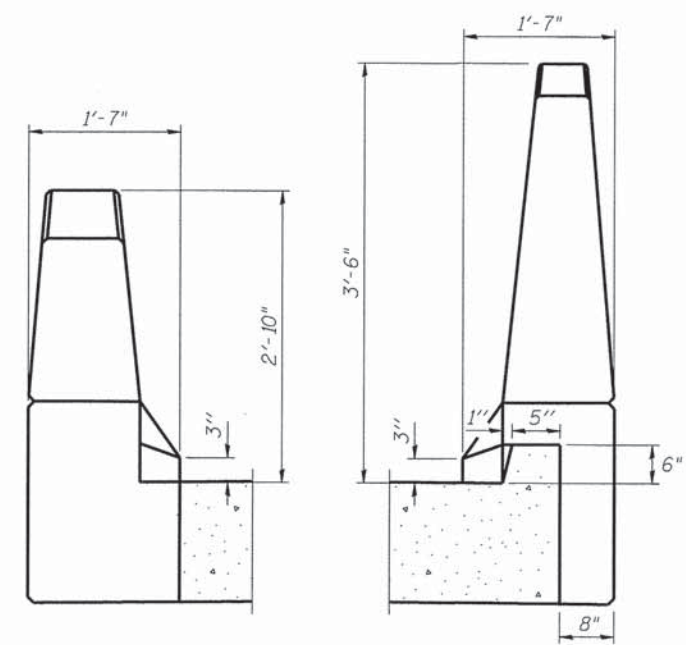
PLAN  
Shown at South end of bridge  
Symmetric about  $\varnothing$  Structure  
\* Tilt #9 b<sub>1</sub>(E) bars as required to maintain clearance.  
\*\* Alternate with a(E) bars, typ. ea. parapet.



DETAIL A

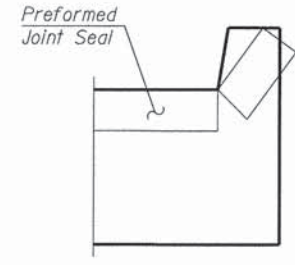


PREFORMED JOINT SEAL



VIEW G-G

VIEW B-B



VIEW F-F

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

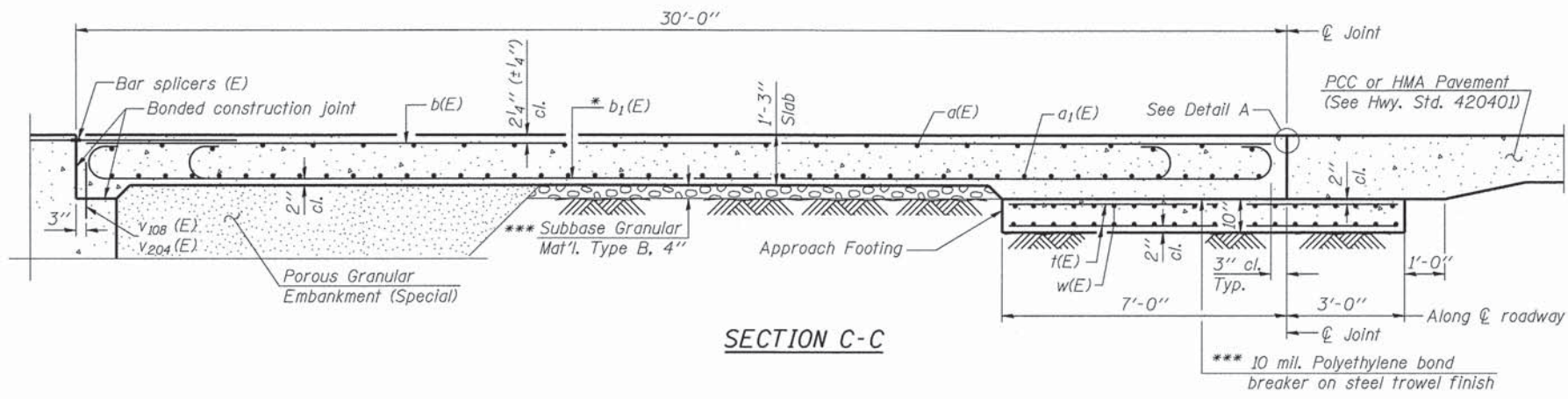
DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



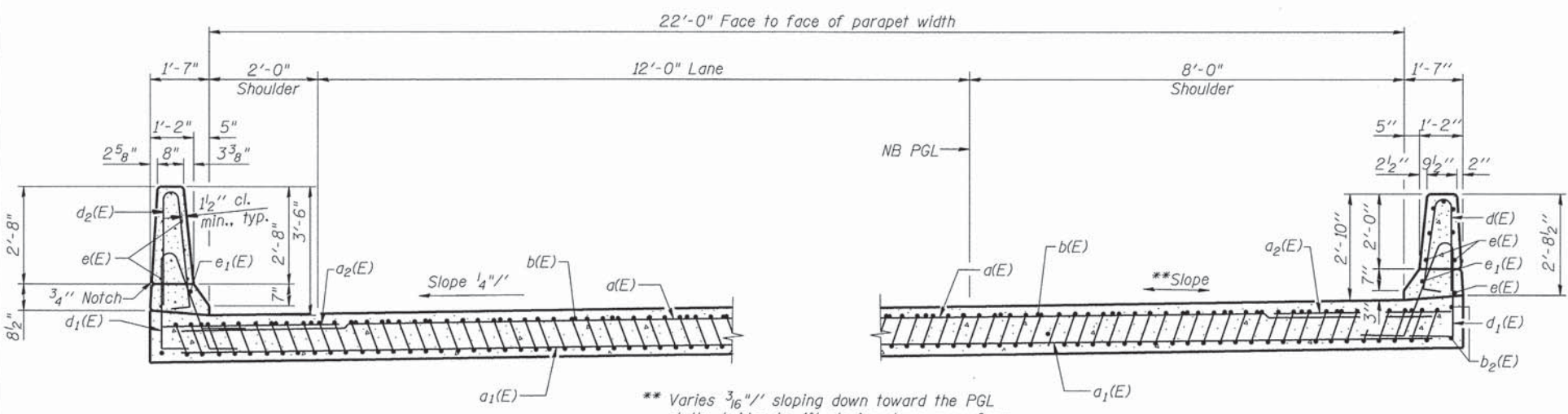
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FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT		
				CONTRACT NO. 63698	

NORTHBOUND BRIDGE  
APPROACH SLAB DETAILS  
STRUCTURE NO. 045-3160

DATE: 5/9/13

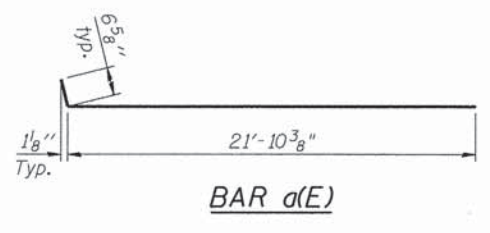


SECTION C-C

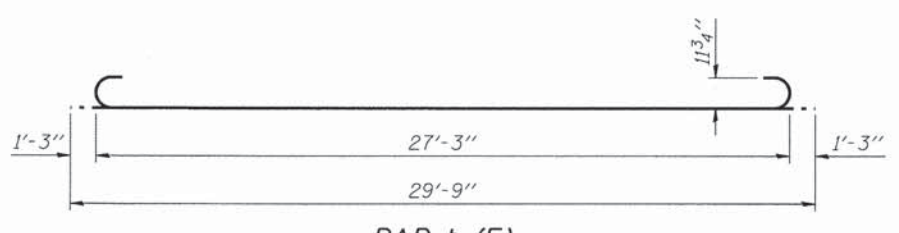


SECTION D-D

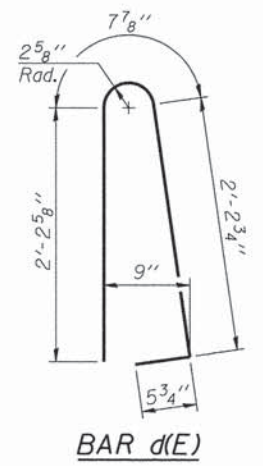
(See Plan for dimensions not shown)



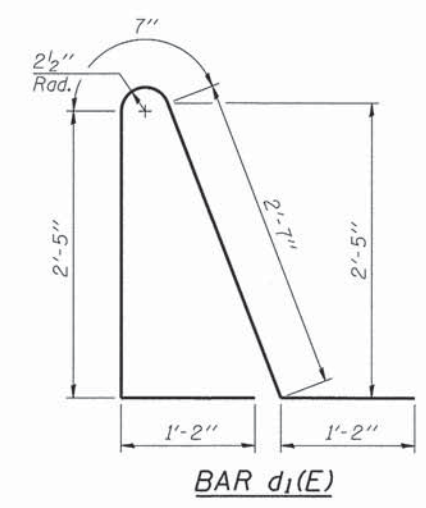
BAR a(E)



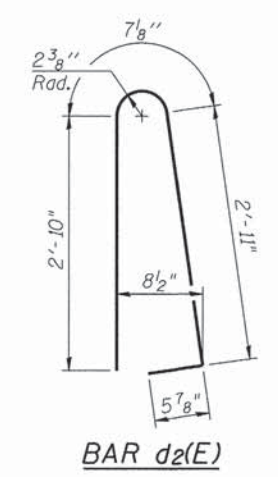
BAR b1(E)



BAR d(E)



BAR d1(E)

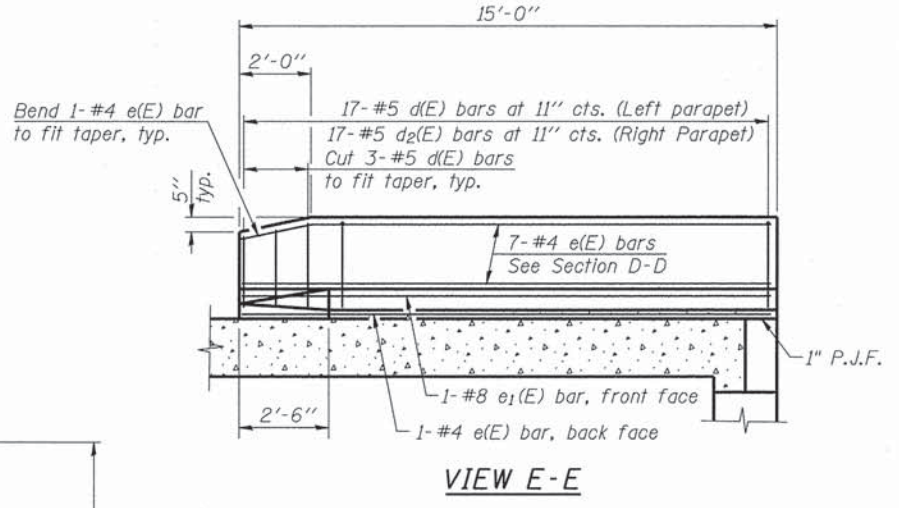


BAR d2(E)

Notes:

See sheet S-6 for Detail A.  
 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.  
 For v108(E) and v204(E) bar details, see sheets S-32 to S-35.  
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.  
 Cost of excavation for approach footing included with Concrete Structures.  
 For Porous Granular Embankment (Special) and drainage treatment details, see sheets S-33 and S-35.

Approach footing shall be constructed on embankment that has been allowed to settle at least nine (9) months.



VIEW E-E

TWO APPROACHES  
 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	50	#4	22'-5"	—
a1(E)	92	#5	22'-2"	—
a2(E)	20	#6	6'-0"	—
b(E)	38	#4	29'-8"	—
b1(E)	108	#9	29'-9"	—
b2(E)	8	#4	13'-11"	—
b3(E)	2	#4	16'-1"	—
d(E)	34	#5	5'-7"	⌋
d1(E)	64	#5	7'-11"	⌋
d2(E)	34	#5	6'-10"	⌋
e(E)	32	#4	14'-8"	—
e1(E)	4	#8	14'-8"	—
t(E)	92	#4	9'-8"	—
w(E)	80	#5	22'-2"	—
Concrete Superstructure			Cu. Yd.	73.8
Concrete Structures			Cu. Yd.	13.8
Reinforcement Bars,			Pound	18,570

NORTHBOUND BRIDGE  
 APPROACH SLAB DETAILS  
 STRUCTURE NO. 045-3160

DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

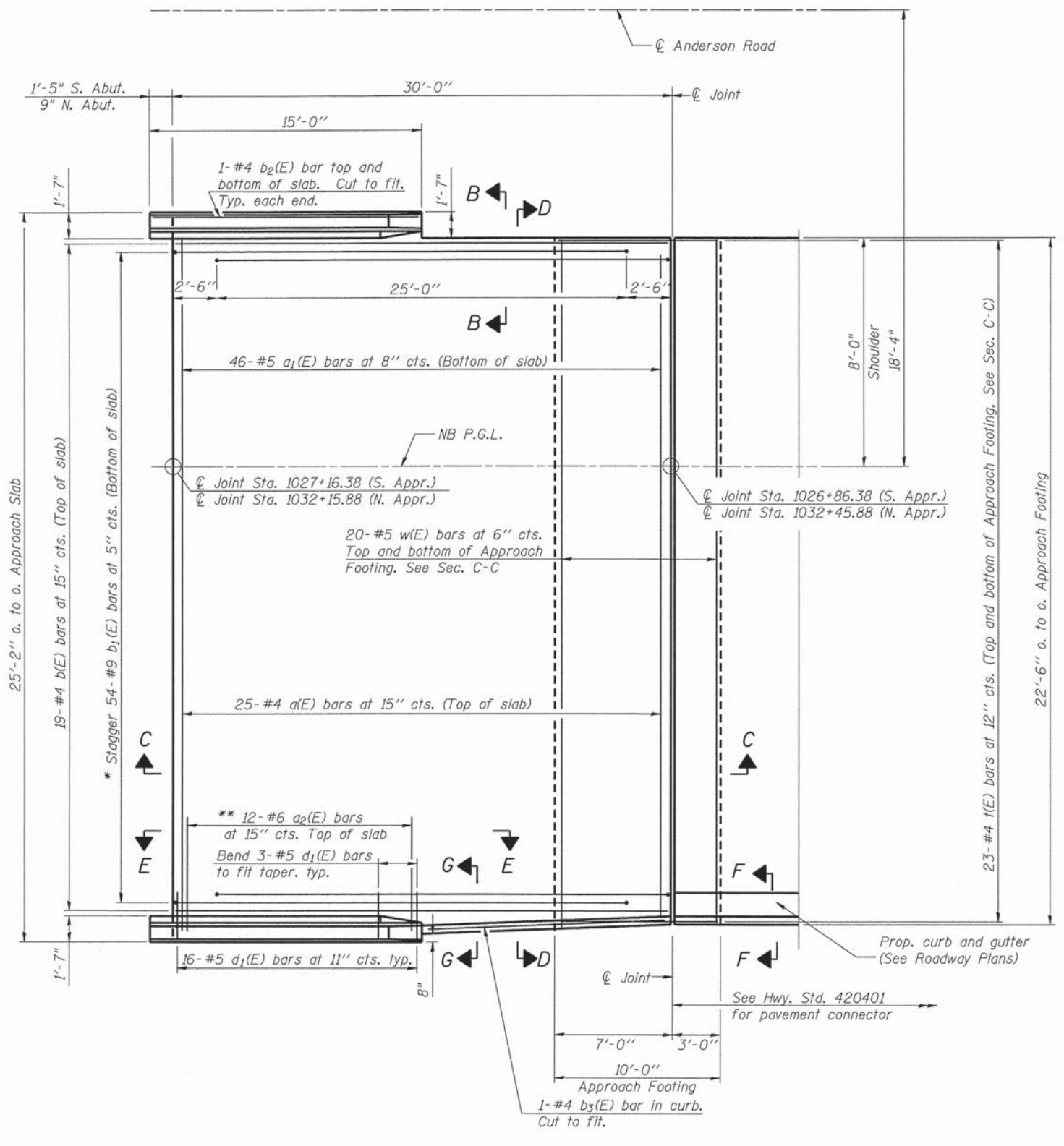
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SHEET NO. 5-7	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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S-43 SHEETS			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



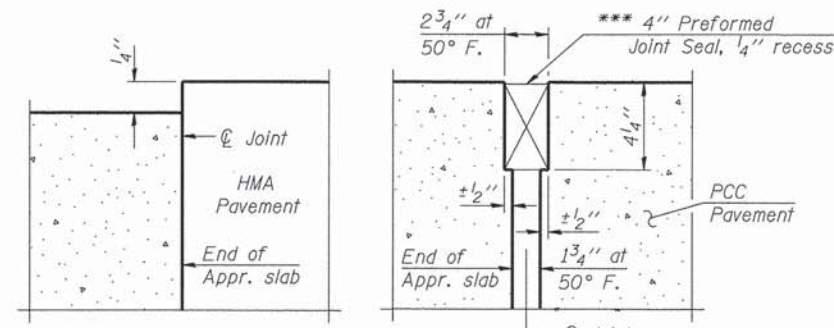
Notes:  
See sheet S-7 for Sections C-C & D-D and View E-E.  
a(E), a<sub>1</sub>(E), and w(E) bar spacings measured perpendicular to C Rdwy.



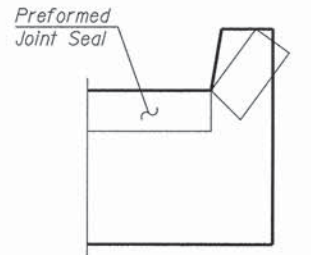
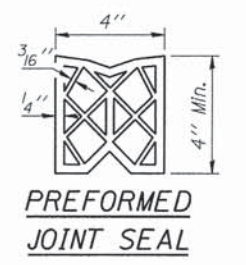
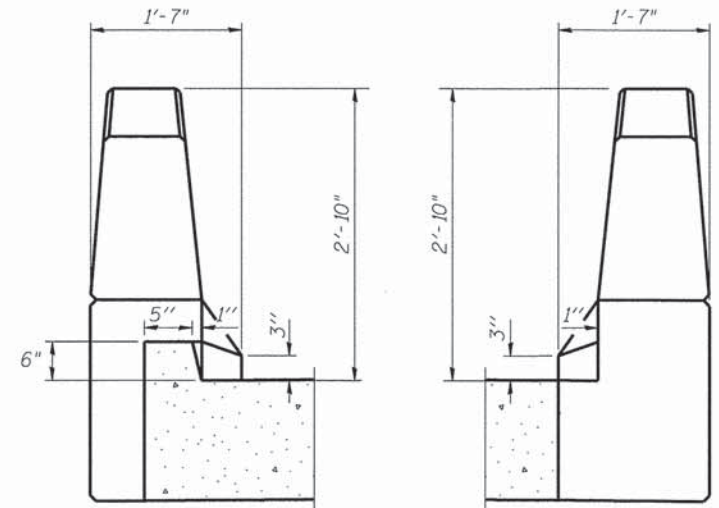
**PLAN**

Shown at South end of bridge  
Symmetric about C Structure

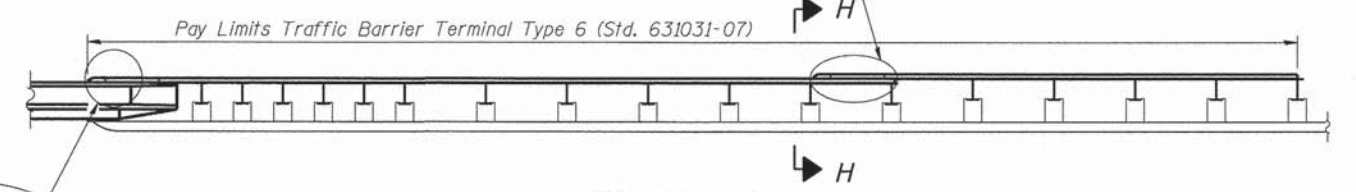
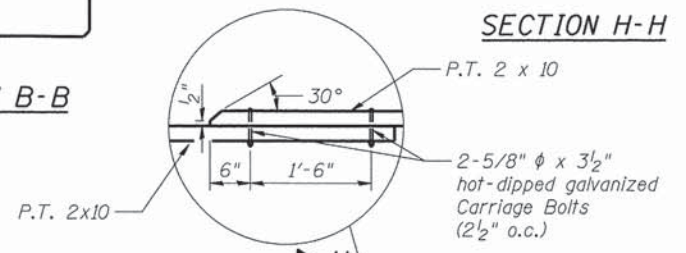
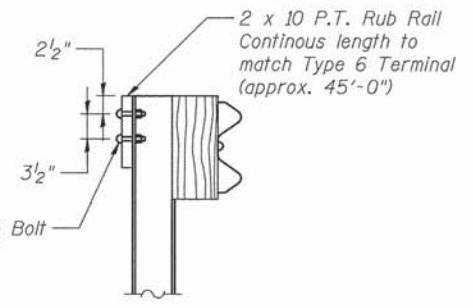
\* Tilt #9 b<sub>1</sub>(E) bars as required to maintain clearance.  
\*\* Space between a(E) bars, typ. ea. parapet.



**DETAIL A**



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



The cost for the rub rail work shall be included in the cost of Traffic Barrier Terminal, Type 6 (See Roadway plans). Rub Rail shall conform to Sect 1007.

**SOUTHBOUND BRIDGE  
APPROACH SLAB DETAILS  
STRUCTURE NO. 045-3160**

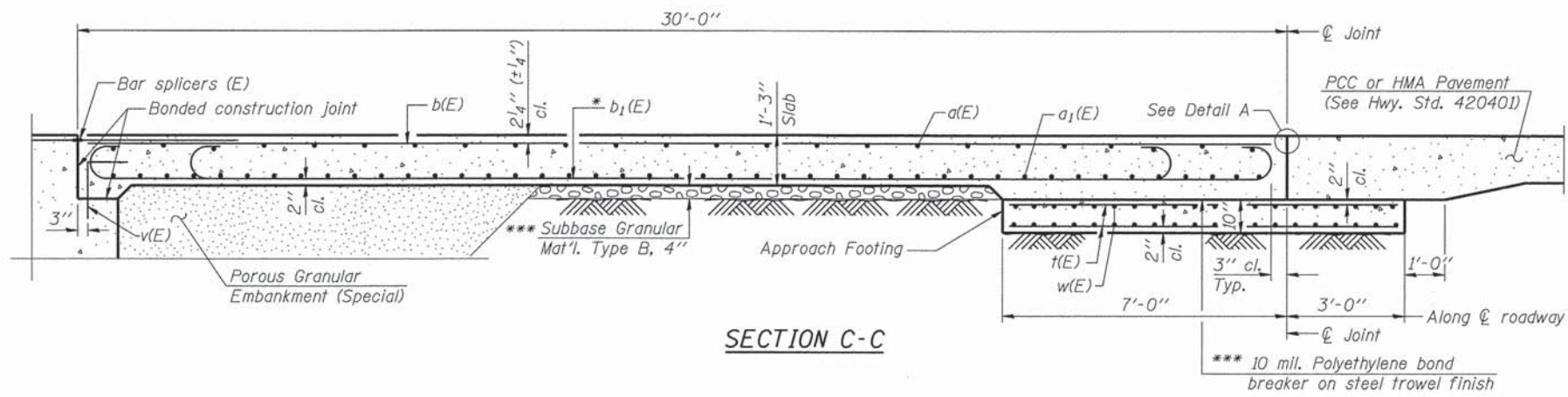
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CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

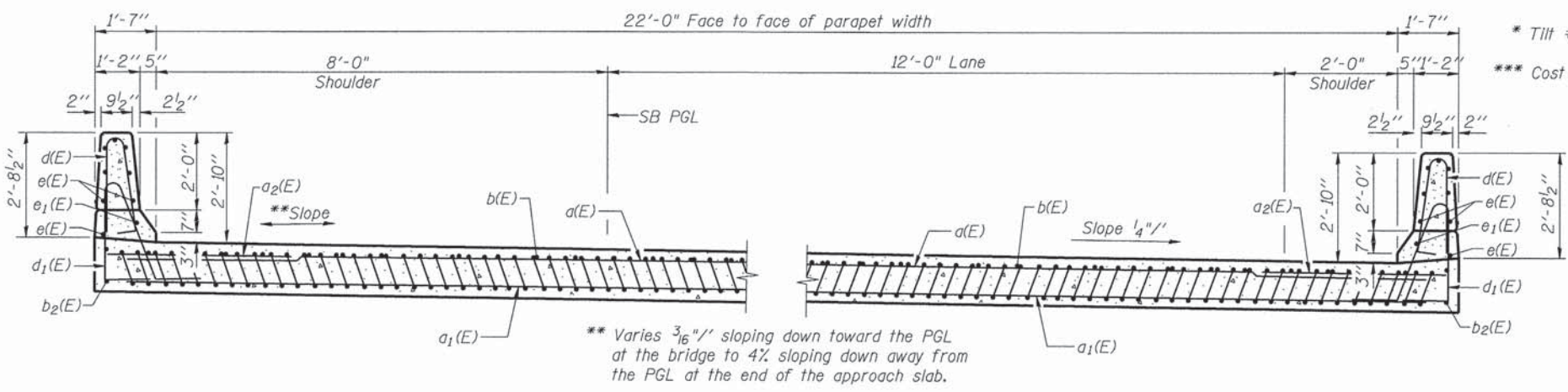
BA-0 11-1-09



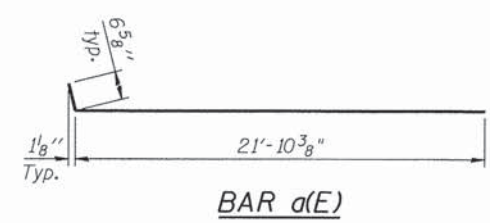
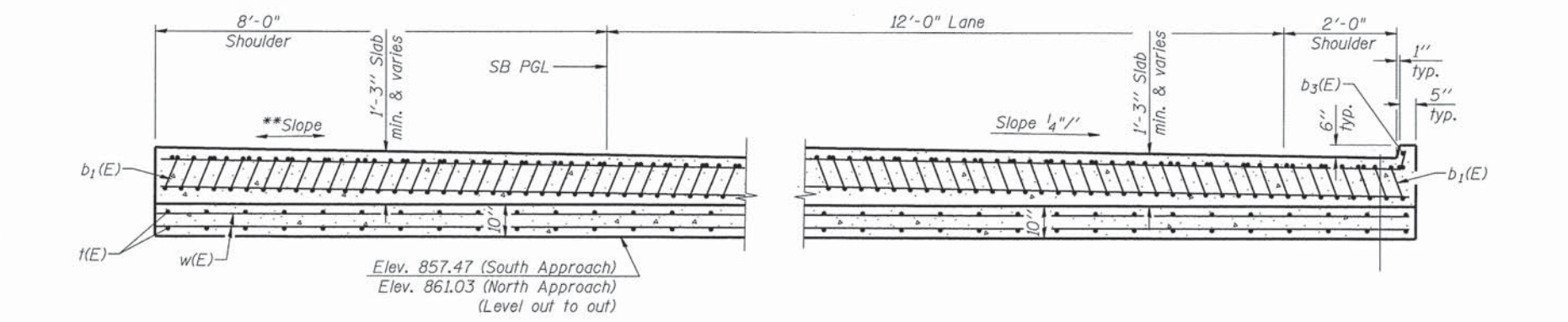
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FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT		
				CONTRACT NO. 63698	



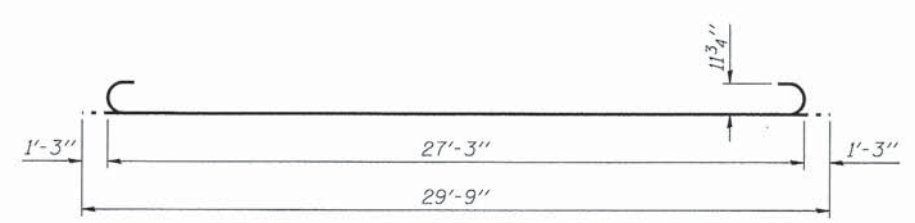
SECTION C-C



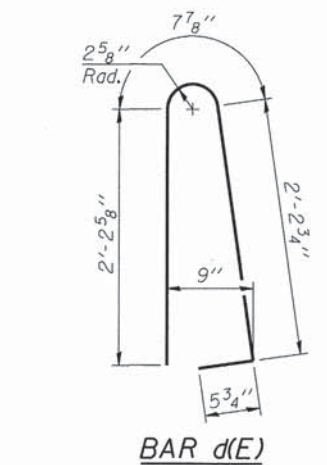
SECTION D-D



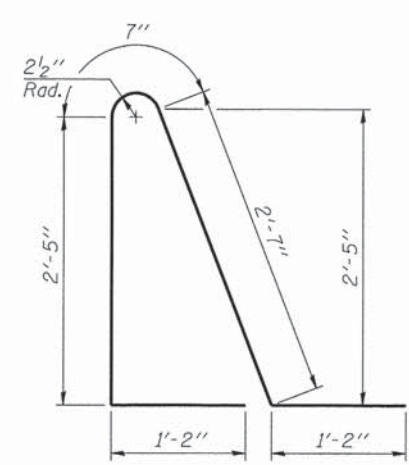
BAR a(E)



BAR b1(E)



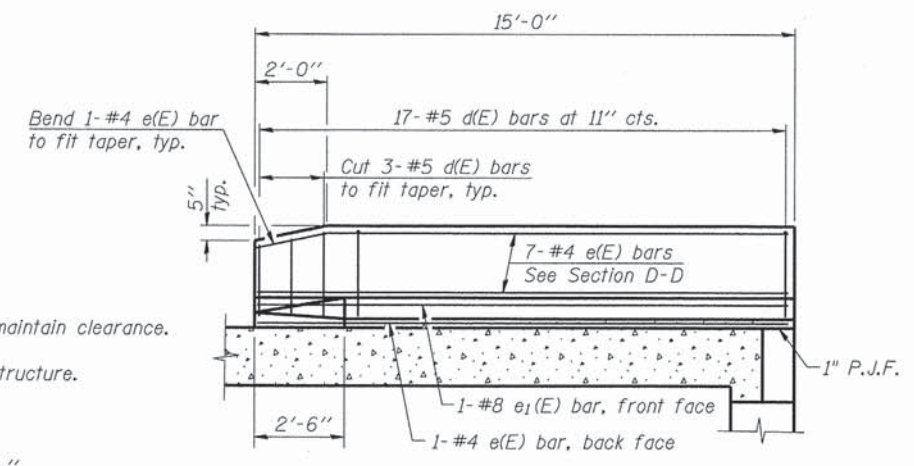
BAR d(E)



BAR d1(E)

Notes:  
 See sheet S-8 for Detail A.  
 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.  
 For  $v_{108}(E)$  and  $v_{204}(E)$  bar details, see sheets S-32 to S-35.  
 The approach footing maximum applied service bearing pressure ( $Q_{max}$ ) = 2.0 ksf.  
 Cost of excavation for approach footing included with Concrete Structures.  
 For Porous Granular Embankment (Special) and drainage treatment details, see sheets S-33 and S-35.

Approach footing shall be constructed on embankment that has been allowed to settle at least nine (9) months.



VIEW E-E

TWO APPROACHES  
 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	50	#4	22'-5"	—
a1(E)	92	#5	22'-2"	—
a2(E)	20	#6	6'-0"	—
b(E)	38	#4	29'-8"	—
b1(E)	108	#9	29'-9"	—
b2(E)	8	#4	13'-11"	—
b3(E)	2	#4	16'-1"	—
d(E)	68	#5	5'-7"	—
d1(E)	64	#5	7'-11"	—
e(E)	32	#4	14'-8"	—
e1(E)	4	#8	14'-8"	—
t(E)	92	#4	9'-8"	—
w(E)	80	#5	22'-2"	—
Concrete Superstructure		Cu. Yd.		73.8
Concrete Structures		Cu. Yd.		13.8
Reinforcement Bars,		Pound		18,490

SOUTHBOUND BRIDGE  
 APPROACH SLAB DETAILS  
 STRUCTURE NO. 045-3160

DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

BA-0 11-1-09



SHEET NO. S-9 S-43 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	126
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT		
CONTRACT NO.				63698	

**NORTHBOUND PGL**

Location	Station	Offset	Theoretical Grade Elevations
A1	1026+86.38	0.00	858.96
A2	1026+96.38	0.00	859.15
A3	1027+06.38	0.00	859.34
A4	1027+16.38	0.00	859.53

**SOUTHBOUND PGL**

Location	Station	Offset	Theoretical Grade Elevations
A1	1026+86.38	0.00	858.96
A2	1026+96.38	0.00	859.15
A3	1027+06.38	0.00	859.34
A4	1027+16.38	0.00	859.53

**SB CURB LINE**

Location	Station	Offset	Theoretical Grade Elevations
A1	1026+86.38	-14.00	858.67
A2	1026+96.38	-14.00	858.86
A3	1027+06.38	-14.00	859.05
A4	1027+16.38	-14.00	859.23

**SB EDGE OF LANE**

Location	Station	Offset	Theoretical Grade Elevations
A1	1026+86.38	-12.00	858.71
A2	1026+96.38	-12.00	858.90
A3	1027+06.38	-12.00	859.09
A4	1027+16.38	-12.00	859.28

**SB EAST EDGE**

Location	Station	Offset	Theoretical Grade Elevations
A1	1026+86.38	8.00	858.64
A2	1026+96.38	8.00	858.98
A3	1027+06.38	8.00	859.32
A4	1027+16.38	8.00	859.65

**NB WEST EDGE**

Location	Station	Offset	Theoretical Grade Elevations
A1	1026+86.38	-8.00	858.64
A2	1026+96.38	-8.00	858.98
A3	1027+06.38	-8.00	859.32
A4	1027+16.38	-8.00	859.65

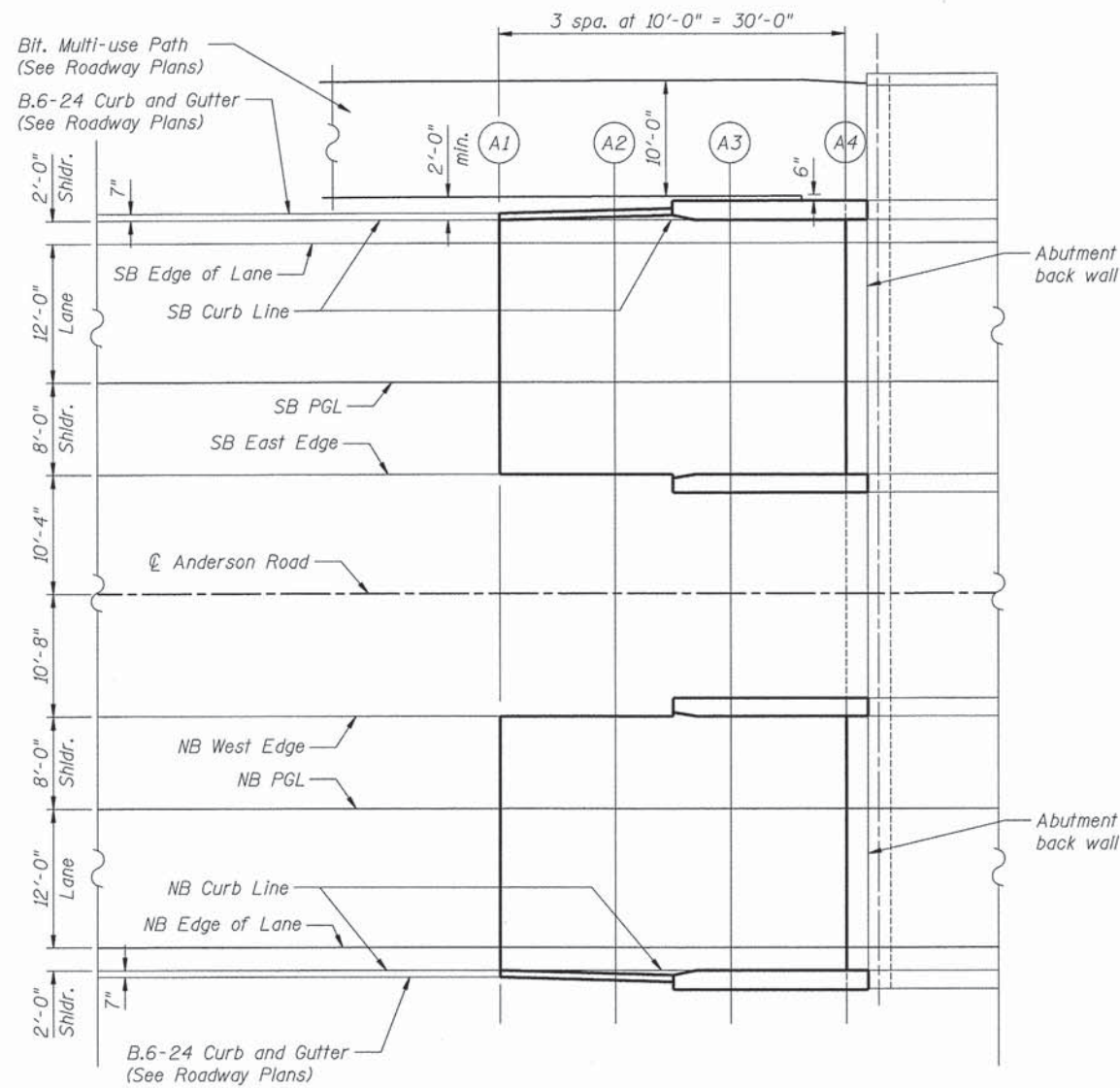
**NB EDGE OF LANE**

Location	Station	Offset	Theoretical Grade Elevations
A1	1026+86.38	12.00	858.71
A2	1026+96.38	12.00	858.90
A3	1027+06.38	12.00	859.09
A4	1027+16.38	12.00	859.28

**NB CURB LINE**

Location	Station	Offset	Theoretical Grade Elevations
A1	1026+86.38	14.00	858.67
A2	1026+96.38	14.00	858.86
A3	1027+06.38	14.00	859.05
A4	1027+16.38	14.00	859.23

Note:  
Offsets are based off of their respective PGL for NB or SB.



**PLAN**  
Proposed guardrail not shown for clarity.



DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



**TOP OF SOUTH APPROACH  
SLAB ELEVATIONS  
STRUCTURE NO. 045-3160**

DATE: 5/9/13

SHEET NO. S-10	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	127
S-43 SHEETS			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

**NORTHBOUND PGL**

Location	Station	Offset	Theoretical Grade Elevations
A5	1032+15.88	0.00	862.71
A6	1032+25.88	0.00	862.65
A7	1032+35.88	0.00	862.59
A8	1032+45.88	0.00	862.52

**SOUTHBOUND PGL**

Location	Station	Offset	Theoretical Grade Elevations
A5	1032+15.88	0.00	862.71
A6	1032+25.88	0.00	862.65
A7	1032+35.88	0.00	862.59
A8	1032+45.88	0.00	862.52

**SB CURB LINE**

Location	Station	Offset	Theoretical Grade Elevations
A5	1032+15.88	-14.00	862.42
A6	1032+25.88	-14.00	862.36
A7	1032+35.88	-14.00	862.30
A8	1032+45.88	-14.00	862.23

**SB EDGE OF LANE**

Location	Station	Offset	Theoretical Grade Elevations
A5	1032+15.88	-12.00	862.46
A6	1032+25.88	-12.00	862.40
A7	1032+35.88	-12.00	862.34
A8	1032+45.88	-12.00	862.27

**SB EAST EDGE**

Location	Station	Offset	Theoretical Grade Elevations
A5	1032+15.88	8.00	862.84
A6	1032+25.88	8.00	862.63
A7	1032+35.88	8.00	862.42
A8	1032+45.88	8.00	862.20

**NB WEST EDGE**

Location	Station	Offset	Theoretical Grade Elevations
A5	1032+15.88	-8.00	862.84
A6	1032+25.88	-8.00	862.63
A7	1032+35.88	-8.00	862.42
A8	1032+45.88	-8.00	862.20

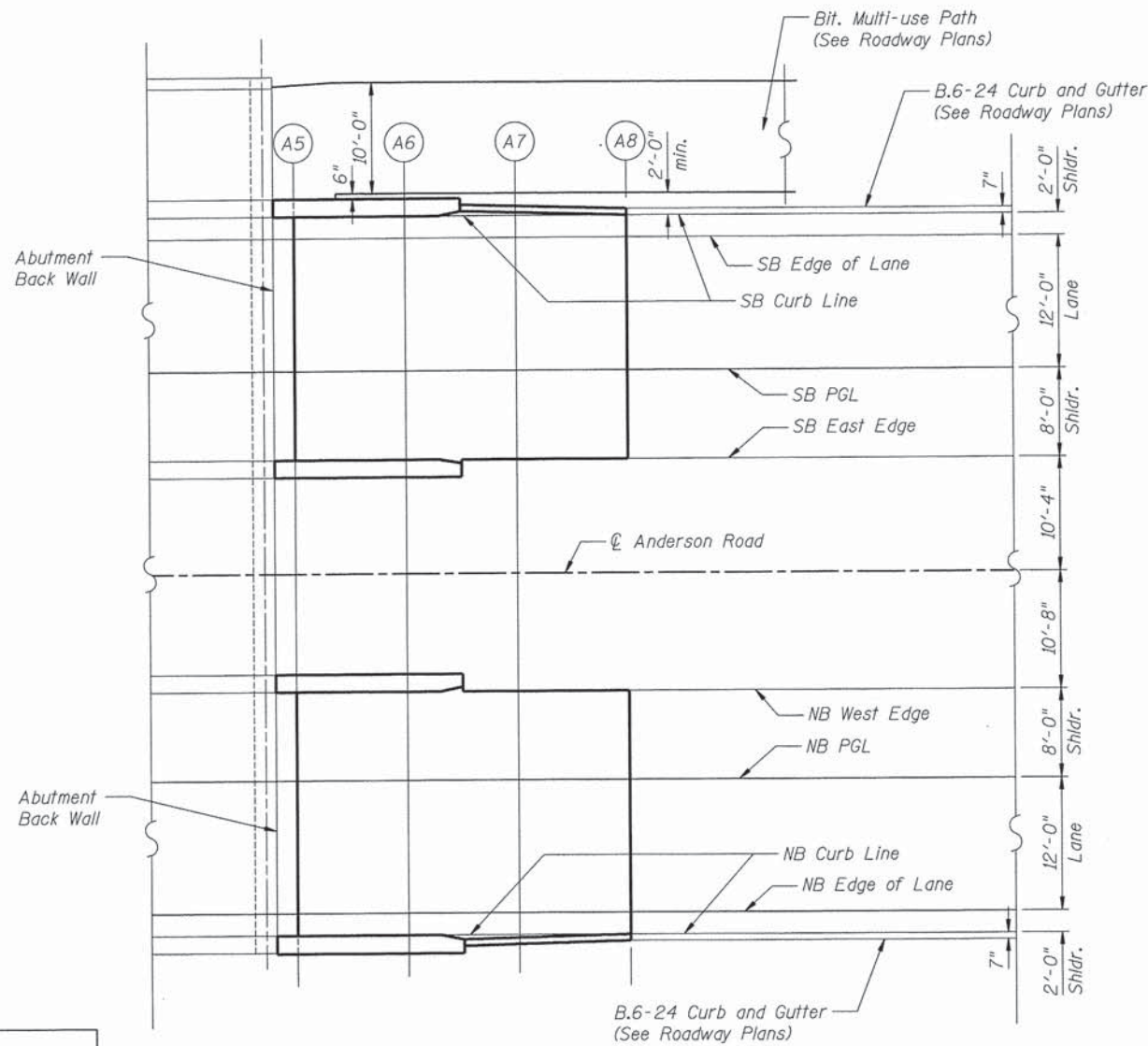
**NB EDGE OF LANE**

Location	Station	Offset	Theoretical Grade Elevations
A5	1032+15.88	12.00	862.46
A6	1032+25.88	12.00	862.40
A7	1032+35.88	12.00	862.34
A8	1032+45.88	12.00	862.27

**NB CURB LINE**

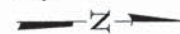
Location	Station	Offset	Theoretical Grade Elevations
A5	1032+15.88	14.00	862.42
A6	1032+25.88	14.00	862.36
A7	1032+35.88	14.00	862.30
A8	1032+45.88	14.00	862.23

Note:  
Offsets are based off of their respective PGL for NB or SB.



**PLAN**

Proposed guardrail not shown for clarity.



DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

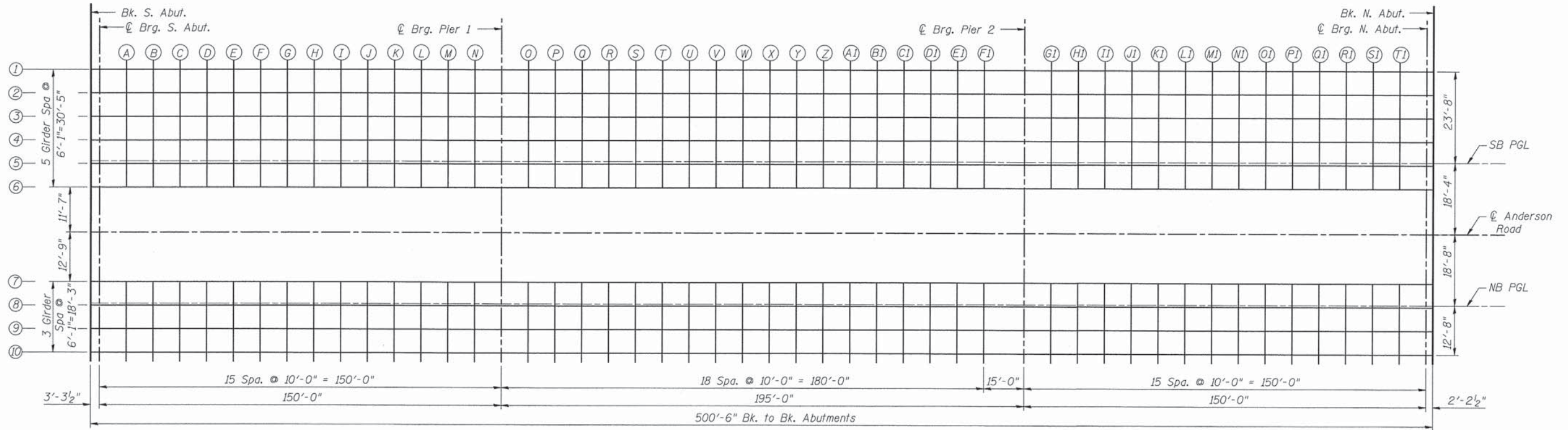
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PEN TABLE: Struct 22x34mm/2013



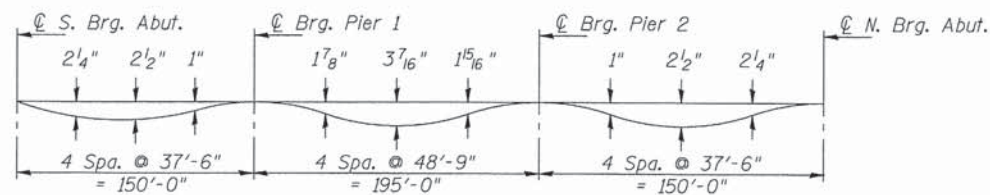
SHEET NO. S-11	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	128
S-43 SHEETS	CONTRACT NO.			63698	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

TOP OF NORTH APPROACH  
SLAB ELEVATIONS  
STRUCTURE NO. 045-3160

DATE: 5/9/13



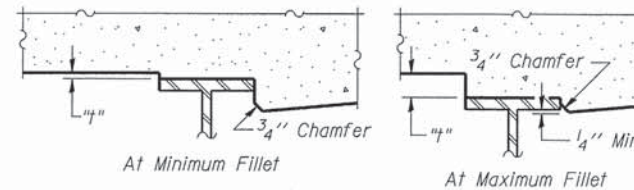
**PLAN**



**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete deck and all superimposed dead loads except for future wearing surface.)

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 below.



**FILLET HEIGHTS**

To determine "t": 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 below, minus slab thickness, equals the fillet heights "t" above top flange of beams.

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

TOP OF DECK PLAN AND  
TOP OF DECK TABLES  
STRUCTURE NO. 045-3160

DATE: 5/9/13



SHEET NO. S-12	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	129
S-43 SHEETS	CONTRACT NO.			63698	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

PG AT SOUTH BOUND AND NORTH BOUND STRUCTURES

GIRDER #1

GIRDER #2

GIRDER #3

Location	Station	Offset +=North -=South	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1027+15.88	± 18.33	859.52	859.52
CL Brg.S. Abut.	1027+19.17	± 18.33	859.58	859.58
A	1027+29.17	± 18.33	859.76	859.82
B	1027+39.17	± 18.33	859.93	860.05
C	1027+49.17	± 18.33	860.10	860.26
D	1027+59.17	± 18.33	860.26	860.46
E	1027+69.17	± 18.33	860.42	860.64
F	1027+79.17	± 18.33	860.58	860.80
G	1027+89.17	± 18.33	860.73	860.95
H	1027+99.17	± 18.33	860.88	861.07
I	1028+09.17	± 18.33	861.02	861.18
J	1028+19.17	± 18.33	861.15	861.28
K	1028+29.17	± 18.33	861.28	861.37
L	1028+39.17	± 18.33	861.41	861.47
M	1028+49.17	± 18.33	861.53	861.56
N	1028+59.17	± 18.33	861.65	861.65
CL Brg. Pier 1	1028+69.17	± 18.33	861.76	861.76
O	1028+79.17	± 18.33	861.87	861.88
P	1028+89.17	± 18.33	861.97	862.01
Q	1028+99.17	± 18.33	862.07	862.15
R	1029+09.17	± 18.33	862.16	862.28
S	1029+19.17	± 18.33	862.25	862.41
T	1029+29.17	± 18.33	862.34	862.54
U	1029+39.17	± 18.33	862.41	862.65
V	1029+49.17	± 18.33	862.49	862.75
W	1029+59.17	± 18.33	862.56	862.84
X	1029+69.17	± 18.33	862.62	862.91
Y	1029+79.17	± 18.33	862.68	862.96
Z	1029+89.17	± 18.33	862.74	862.99
A1	1029+99.17	± 18.33	862.79	863.01
B1	1030+09.17	± 18.33	862.83	863.02
C1	1030+19.17	± 18.33	862.87	863.02
D1	1030+29.17	± 18.33	862.91	863.01
E1	1030+39.17	± 18.33	862.94	863.00
F1	1030+49.17	± 18.33	862.97	863.00
CL Brg. Pier 2	1030+64.17	± 18.33	863.00	863.00
G1	1030+74.17	± 18.33	863.01	863.02
H1	1030+84.17	± 18.33	863.02	863.05
I1	1030+94.17	± 18.33	863.03	863.09
J1	1031+04.17	± 18.33	863.03	863.12
K1	1031+14.17	± 18.33	863.03	863.16
L1	1031+24.17	± 18.33	863.02	863.18
M1	1031+34.17	± 18.33	863.00	863.20
N1	1031+44.17	± 18.33	862.98	863.20
O1	1031+54.17	± 18.33	862.96	863.18
P1	1031+64.17	± 18.33	862.93	863.15
Q1	1031+74.17	± 18.33	862.90	863.09
R1	1031+84.17	± 18.33	862.86	863.02
S1	1031+94.17	± 18.33	862.82	862.93
T1	1032+04.17	± 18.33	862.77	862.83
CL Brg. N. Abut.	1032+14.17	± 18.33	862.72	862.72
Bk. N. Abut.	1032+16.38	± 18.33	862.71	862.71

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1027+15.88	-42.00	859.02	859.02
CL Brg.S. Abut.	1027+19.17	-42.00	859.08	859.08
A	1027+29.17	-42.00	859.26	859.32
B	1027+39.17	-42.00	859.44	859.55
C	1027+49.17	-42.00	859.61	859.77
D	1027+59.17	-42.00	859.77	859.97
E	1027+69.17	-42.00	859.93	860.15
F	1027+79.17	-42.00	860.09	860.31
G	1027+89.17	-42.00	860.24	860.45
H	1027+99.17	-42.00	860.38	860.58
I	1028+09.17	-42.00	860.52	860.69
J	1028+19.17	-42.00	860.66	860.79
K	1028+29.17	-42.00	860.79	860.88
L	1028+39.17	-42.00	860.92	860.97
M	1028+49.17	-42.00	861.04	861.06
N	1028+59.17	-42.00	861.16	861.16
CL Brg. Pier 1	1028+69.17	-42.00	861.27	861.27
O	1028+79.17	-42.00	861.38	861.39
P	1028+89.17	-42.00	861.48	861.52
Q	1028+99.17	-42.00	861.58	861.65
R	1029+09.17	-42.00	861.67	861.79
S	1029+19.17	-42.00	861.76	861.92
T	1029+29.17	-42.00	861.84	862.04
U	1029+39.17	-42.00	861.92	862.16
V	1029+49.17	-42.00	862.00	862.26
W	1029+59.17	-42.00	862.06	862.35
X	1029+69.17	-42.00	862.13	862.42
Y	1029+79.17	-42.00	862.19	862.47
Z	1029+89.17	-42.00	862.24	862.50
A1	1029+99.17	-42.00	862.29	862.52
B1	1030+09.17	-42.00	862.34	862.53
C1	1030+19.17	-42.00	862.38	862.53
D1	1030+29.17	-42.00	862.42	862.52
E1	1030+39.17	-42.00	862.45	862.51
F1	1030+49.17	-42.00	862.48	862.50
CL Brg. Pier 2	1030+64.17	-42.00	862.51	862.51
G1	1030+74.17	-42.00	862.52	862.53
H1	1030+84.17	-42.00	862.53	862.56
I1	1030+94.17	-42.00	862.54	862.59
J1	1031+04.17	-42.00	862.54	862.63
K1	1031+14.17	-42.00	862.53	862.66
L1	1031+24.17	-42.00	862.52	862.69
M1	1031+34.17	-42.00	862.51	862.70
N1	1031+44.17	-42.00	862.49	862.71
O1	1031+54.17	-42.00	862.47	862.69
P1	1031+64.17	-42.00	862.44	862.66
Q1	1031+74.17	-42.00	862.41	862.60
R1	1031+84.17	-42.00	862.37	862.53
S1	1031+94.17	-42.00	862.33	862.44
T1	1032+04.17	-42.00	862.28	862.34
CL Brg. N. Abut.	1032+14.17	-42.00	862.23	862.23
Bk. N. Abut.	1032+16.38	-42.00	862.21	862.21

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1027+15.88	-35.92	859.15	859.15
CL Brg.S. Abut.	1027+19.17	-35.92	859.21	859.21
A	1027+29.17	-35.92	859.39	859.45
B	1027+39.17	-35.92	859.56	859.68
C	1027+49.17	-35.92	859.73	859.89
D	1027+59.17	-35.92	859.90	860.09
E	1027+69.17	-35.92	860.06	860.28
F	1027+79.17	-35.92	860.21	860.44
G	1027+89.17	-35.92	860.36	860.58
H	1027+99.17	-35.92	860.51	860.70
I	1028+09.17	-35.92	860.65	860.82
J	1028+19.17	-35.92	860.79	860.91
K	1028+29.17	-35.92	860.92	861.01
L	1028+39.17	-35.92	861.04	861.10
M	1028+49.17	-35.92	861.17	861.19
N	1028+59.17	-35.92	861.28	861.29
CL Brg. Pier 1	1028+69.17	-35.92	861.39	861.39
O	1028+79.17	-35.92	861.50	861.52
P	1028+89.17	-35.92	861.61	861.64
Q	1028+99.17	-35.92	861.70	861.78
R	1029+09.17	-35.92	861.80	861.91
S	1029+19.17	-35.92	861.89	862.05
T	1029+29.17	-35.92	861.97	862.17
U	1029+39.17	-35.92	862.05	862.29
V	1029+49.17	-35.92	862.12	862.39
W	1029+59.17	-35.92	862.19	862.47
X	1029+69.17	-35.92	862.26	862.54
Y	1029+79.17	-35.92	862.32	862.59
Z	1029+89.17	-35.92	862.37	862.63
A1	1029+99.17	-35.92	862.42	862.65
B1	1030+09.17	-35.92	862.47	862.65
C1	1030+19.17	-35.92	862.51	862.65
D1	1030+29.17	-35.92	862.54	862.65
E1	1030+39.17	-35.92	862.58	862.64
F1	1030+49.17	-35.92	862.60	862.63
CL Brg. Pier 2	1030+64.17	-35.92	862.63	862.63
G1	1030+74.17	-35.92	862.65	862.65
H1	1030+84.17	-35.92	862.66	862.68
I1	1030+94.17	-35.92	862.66	862.72
J1	1031+04.17	-35.92	862.66	862.75
K1	1031+14.17	-35.92	862.66	862.79
L1	1031+24.17	-35.92	862.65	862.82
M1	1031+34.17	-35.92	862.64	862.83
N1	1031+44.17	-35.92	862.62	862.83
O1	1031+54.17	-35.92	862.59	862.82
P1	1031+64.17	-35.92	862.57	862.78
Q1	1031+74.17	-35.92	862.53	862.73
R1	1031+84.17	-35.92	862.49	862.66
S1	1031+94.17	-35.92	862.45	862.57
T1	1032+04.17	-35.92	862.41	862.46
CL Brg. N. Abut.	1032+14.17	-35.92	862.35	862.35
Bk. N. Abut.	1032+16.38	-35.92	862.34	862.34

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1027+15.88	-29.83	859.02	859.02
CL Brg.S. Abut.	1027+19.17	-29.83	859.08	859.08
A	1027+29.17	-29.83	859.26	859.32
B	1027+39.17	-29.83	859.44	859.55
C	1027+49.17	-29.83	859.61	859.77
D	1027+59.17	-29.83	859.77	859.97
E	1027+69.17	-29.83	859.93	860.15
F	1027+79.17	-29.83	860.09	860.31
G	1027+89.17	-29.83	860.24	860.45
H	1027+99.17	-29.83	860.38	860.58
I	1028+09.17	-29.83	860.52	860.69
J	1028+19.17	-29.83	860.66	860.79
K	1028+29.17	-29.83	860.79	860.88
L	1028+39.17	-29.83	860.92	860.97
M	1028+49.17	-29.83	861.04	861.06
N	1028+59.17	-29.83	861.16	861.16
CL Brg. Pier 1	1028+69.17	-29.83	861.27	861.27
O	1028+79.17	-29.83	861.38	861.39
P	1028+89.17	-29.83	861.48	861.52
Q	1028+99.17	-29.83	861.58	861.65
R	1029+09.17	-29.83	861.67	861.79
S	1029+19.17	-29.83	861.76	861.92
T	1029+29.17	-29.83	861.84	862.04
U	1029+39.17	-29.83	861.92	862.16
V	1029+49.17	-29.83	862.00	862.26
W	1029+59.17	-29.83	862.06	862.35
X	1029+69.17	-29.83	862.13	862.42
Y	1029+79.17	-29.83	862.19	862.47
Z	1029+89.17	-29.83	862.24	862.50
A1	1029+99.17	-29.83	862.29	862.52
B1	1030+09.17	-29.83	862.34	862.53
C1	1030+19.17	-29.83	862.38	862.53
D1	1030+29.17	-29.83	862.42	862.52
E1	1030+39.17	-29.83	862.45	862.51
F1	1030+49.17	-29.83	862.48	862.50
CL Brg. Pier 2	1030+64.17	-29.83	862.51	862.51
G1	1030+74.17	-29.83	862.52	862.53
H1	1030+84.17	-29.83	862.53	862.56
I1	1030+94.17	-29.83	862.54	862.59
J1	1031+04.17	-29.83	862.54	862.63
K1	1031+14.17	-29.83	862.53	862.66
L1	1031+24.17	-29.83	862.52	862.69
M1	1031+34.17	-29.83	862.51	862.70
N1	1031+44.17	-29.83	862.49</	

**GIRDER #4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1027+15.88	-23.75	859.40	859.40
CL Brg.S. Abut.	1027+19.17	-23.75	859.46	859.46
A	1027+29.17	-23.75	859.64	859.70
B	1027+39.17	-23.75	859.82	859.93
C	1027+49.17	-23.75	859.99	860.15
D	1027+59.17	-23.75	860.15	860.35
E	1027+69.17	-23.75	860.31	860.53
F	1027+79.17	-23.75	860.47	860.69
G	1027+89.17	-23.75	860.62	860.83
H	1027+99.17	-23.75	860.76	860.96
I	1028+09.17	-23.75	860.90	861.07
J	1028+19.17	-23.75	861.04	861.17
K	1028+29.17	-23.75	861.17	861.26
L	1028+39.17	-23.75	861.30	861.35
M	1028+49.17	-23.75	861.42	861.44
N	1028+59.17	-23.75	861.54	861.54
CL Brg. Pier 1	1028+69.17	-23.75	861.65	861.65
O	1028+79.17	-23.75	861.76	861.77
P	1028+89.17	-23.75	861.86	861.90
Q	1028+99.17	-23.75	861.96	862.03
R	1029+09.17	-23.75	862.05	862.17
S	1029+19.17	-23.75	862.14	862.30
T	1029+29.17	-23.75	862.22	862.42
U	1029+39.17	-23.75	862.30	862.54
V	1029+49.17	-23.75	862.38	862.64
W	1029+59.17	-23.75	862.44	862.73
X	1029+69.17	-23.75	862.51	862.80
Y	1029+79.17	-23.75	862.57	862.85
Z	1029+89.17	-23.75	862.62	862.88
A1	1029+99.17	-23.75	862.68	862.90
B1	1030+09.17	-23.75	862.72	862.91
C1	1030+19.17	-23.75	862.76	862.91
D1	1030+29.17	-23.75	862.80	862.90
E1	1030+39.17	-23.75	862.83	862.89
F1	1030+49.17	-23.75	862.86	862.88
CL Brg. Pier 2	1030+64.17	-23.75	862.89	862.89
G1	1030+74.17	-23.75	862.90	862.91
H1	1030+84.17	-23.75	862.91	862.94
I1	1030+94.17	-23.75	862.92	862.97
J1	1031+04.17	-23.75	862.92	863.01
K1	1031+14.17	-23.75	862.91	863.04
L1	1031+24.17	-23.75	862.90	863.07
M1	1031+34.17	-23.75	862.89	863.09
N1	1031+44.17	-23.75	862.87	863.09
O1	1031+54.17	-23.75	862.85	863.07
P1	1031+64.17	-23.75	862.82	863.04
Q1	1031+74.17	-23.75	862.79	862.98
R1	1031+84.17	-23.75	862.75	862.91
S1	1031+94.17	-23.75	862.71	862.82
T1	1032+04.17	-23.75	862.66	862.72
CL Brg. N. Abut.	1032+14.17	-23.75	862.61	862.61
Bk. N. Abut.	1032+16.38	-23.75	862.59	862.59

**GIRDER #5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1027+15.88	-17.67	859.53	859.53
CL Brg.S. Abut.	1027+19.17	-17.67	859.59	859.59
A	1027+29.17	-17.67	859.77	859.83
B	1027+39.17	-17.67	859.94	860.06
C	1027+49.17	-17.67	860.11	860.27
D	1027+59.17	-17.67	860.27	860.47
E	1027+69.17	-17.67	860.43	860.65
F	1027+79.17	-17.67	860.59	860.81
G	1027+89.17	-17.67	860.74	860.96
H	1027+99.17	-17.67	860.89	861.08
I	1028+09.17	-17.67	861.03	861.19
J	1028+19.17	-17.67	861.16	861.29
K	1028+29.17	-17.67	861.29	861.38
L	1028+39.17	-17.67	861.42	861.48
M	1028+49.17	-17.67	861.54	861.57
N	1028+59.17	-17.67	861.66	861.66
CL Brg. Pier 1	1028+69.17	-17.67	861.77	861.77
O	1028+79.17	-17.67	861.88	861.89
P	1028+89.17	-17.67	861.98	862.02
Q	1028+99.17	-17.67	862.08	862.16
R	1029+09.17	-17.67	862.17	862.29
S	1029+19.17	-17.67	862.26	862.42
T	1029+29.17	-17.67	862.35	862.55
U	1029+39.17	-17.67	862.42	862.66
V	1029+49.17	-17.67	862.50	862.76
W	1029+59.17	-17.67	862.57	862.85
X	1029+69.17	-17.67	862.63	862.92
Y	1029+79.17	-17.67	862.69	862.97
Z	1029+89.17	-17.67	862.75	863.00
A1	1029+99.17	-17.67	862.80	863.02
B1	1030+09.17	-17.67	862.84	863.03
C1	1030+19.17	-17.67	862.88	863.03
D1	1030+29.17	-17.67	862.92	863.02
E1	1030+39.17	-17.67	862.95	863.01
F1	1030+49.17	-17.67	862.98	863.01
CL Brg. Pier 2	1030+64.17	-17.67	863.01	863.01
G1	1030+74.17	-17.67	863.02	863.03
H1	1030+84.17	-17.67	863.03	863.06
I1	1030+94.17	-17.67	863.04	863.10
J1	1031+04.17	-17.67	863.04	863.13
K1	1031+14.17	-17.67	863.04	863.17
L1	1031+24.17	-17.67	863.03	863.19
M1	1031+34.17	-17.67	863.01	863.21
N1	1031+44.17	-17.67	862.99	863.21
O1	1031+54.17	-17.67	862.97	863.19
P1	1031+64.17	-17.67	862.94	863.16
Q1	1031+74.17	-17.67	862.91	863.11
R1	1031+84.17	-17.67	862.87	863.03
S1	1031+94.17	-17.67	862.83	862.94
T1	1032+04.17	-17.67	862.78	862.84
CL Brg. N. Abut.	1032+14.17	-17.67	862.73	862.73
Bk. N. Abut.	1032+16.38	-17.67	862.72	862.72

**GIRDER #6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	1027+15.88	-11.58	859.62	859.62
CL Brg.S. Abut.	1027+19.17	-11.58	859.68	859.68
A	1027+29.17	-11.58	859.86	859.92
B	1027+39.17	-11.58	860.04	860.15
C	1027+49.17	-11.58	860.20	860.37
D	1027+59.17	-11.58	860.37	860.57
E	1027+69.17	-11.58	860.53	860.75
F	1027+79.17	-11.58	860.68	860.91
G	1027+89.17	-11.58	860.84	861.05
H	1027+99.17	-11.58	860.98	861.18
I	1028+09.17	-11.58	861.12	861.29
J	1028+19.17	-11.58	861.26	861.39
K	1028+29.17	-11.58	861.39	861.48
L	1028+39.17	-11.58	861.52	861.57
M	1028+49.17	-11.58	861.64	861.66
N	1028+59.17	-11.58	861.75	861.76
CL Brg. Pier 1	1028+69.17	-11.58	861.87	861.87
O	1028+79.17	-11.58	861.97	861.99
P	1028+89.17	-11.58	862.08	862.12
Q	1028+99.17	-11.58	862.18	862.25
R	1029+09.17	-11.58	862.27	862.39
S	1029+19.17	-11.58	862.36	862.52
T	1029+29.17	-11.58	862.44	862.64
U	1029+39.17	-11.58	862.52	862.76
V	1029+49.17	-11.58	862.59	862.86
W	1029+59.17	-11.58	862.66	862.94
X	1029+69.17	-11.58	862.73	863.01
Y	1029+79.17	-11.58	862.79	863.06
Z	1029+89.17	-11.58	862.84	863.10
A1	1029+99.17	-11.58	862.89	863.12
B1	1030+09.17	-11.58	862.94	863.13
C1	1030+19.17	-11.58	862.98	863.12
D1	1030+29.17	-11.58	863.02	863.12
E1	1030+39.17	-11.58	863.05	863.11
F1	1030+49.17	-11.58	863.07	863.10
CL Brg. Pier 2	1030+64.17	-11.58	863.10	863.10
G1	1030+74.17	-11.58	863.12	863.13
H1	1030+84.17	-11.58	863.13	863.16
I1	1030+94.17	-11.58	863.13	863.19
J1	1031+04.17	-11.58	863.13	863.23
K1	1031+14.17	-11.58	863.13	863.26
L1	1031+24.17	-11.58	863.12	863.29
M1	1031+34.17	-11.58	863.11	863.30
N1	1031+44.17	-11.58	863.09	863.30
O1	1031+54.17	-11.58	863.07	863.29
P1	1031+64.17	-11.58	863.04	863.25
Q1	1031+74.17	-11.58	863.00	863.20
R1	1031+84.17	-11.58	862.97	863.13
S1	1031+94.17	-11.58	862.92	863.04
T1	1032+04.17	-11.58	862.88	862.93
CL Brg. N. Abut.	1032+14.17	-11.58	862.83	862.83
Bk. N. Abut.	1032+16.38	-11.58	862.81	862.81

**TOP OF DECK TABLES  
STRUCTURE NO. 045-3160**

DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



SHEET NO. 5-14	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	131
S-43 SHEETS		CONTRACT NO.		63698	
FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT	

FILE NAME: 090284-rtd-03.dgn  
PLOT DRIVER: c:\windows\system32\cmd.exe  
PLOT TABLES: Structure 23x34.98x2013

GIRDER #7

Table for GIRDER #7 with columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. S. Abut., CL Brg.S. Abut., and CL Brg. Pier 1.

GIRDER #8

Table for GIRDER #8 with columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. S. Abut., CL Brg.S. Abut., and CL Brg. Pier 1.

GIRDER #9

Table for GIRDER #9 with columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. S. Abut., CL Brg.S. Abut., and CL Brg. Pier 1.

GIRDER #10

Table for GIRDER #10 with columns: Location, Station, Offset, Theoretical Grade Elevations, Theoretical Grade Elevations Adjusted For Dead Load Deflection. Rows include Bk. S. Abut., CL Brg.S. Abut., and CL Brg. Pier 1.

Designation table with columns: Action, Designer. Rows: DESIGNED (KMA), CHECKED (RGD), DRAWN (WJH), CHECKED (RGD).

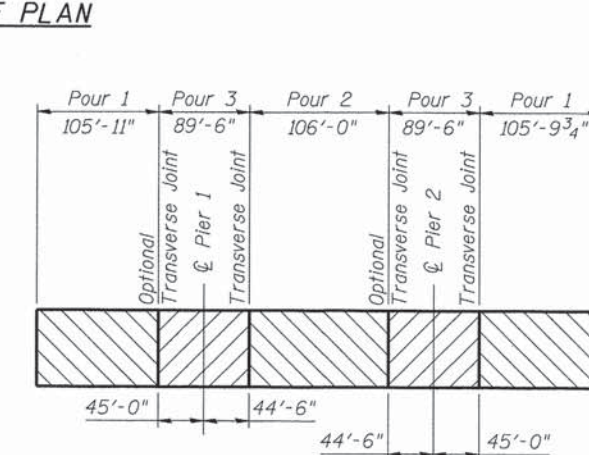
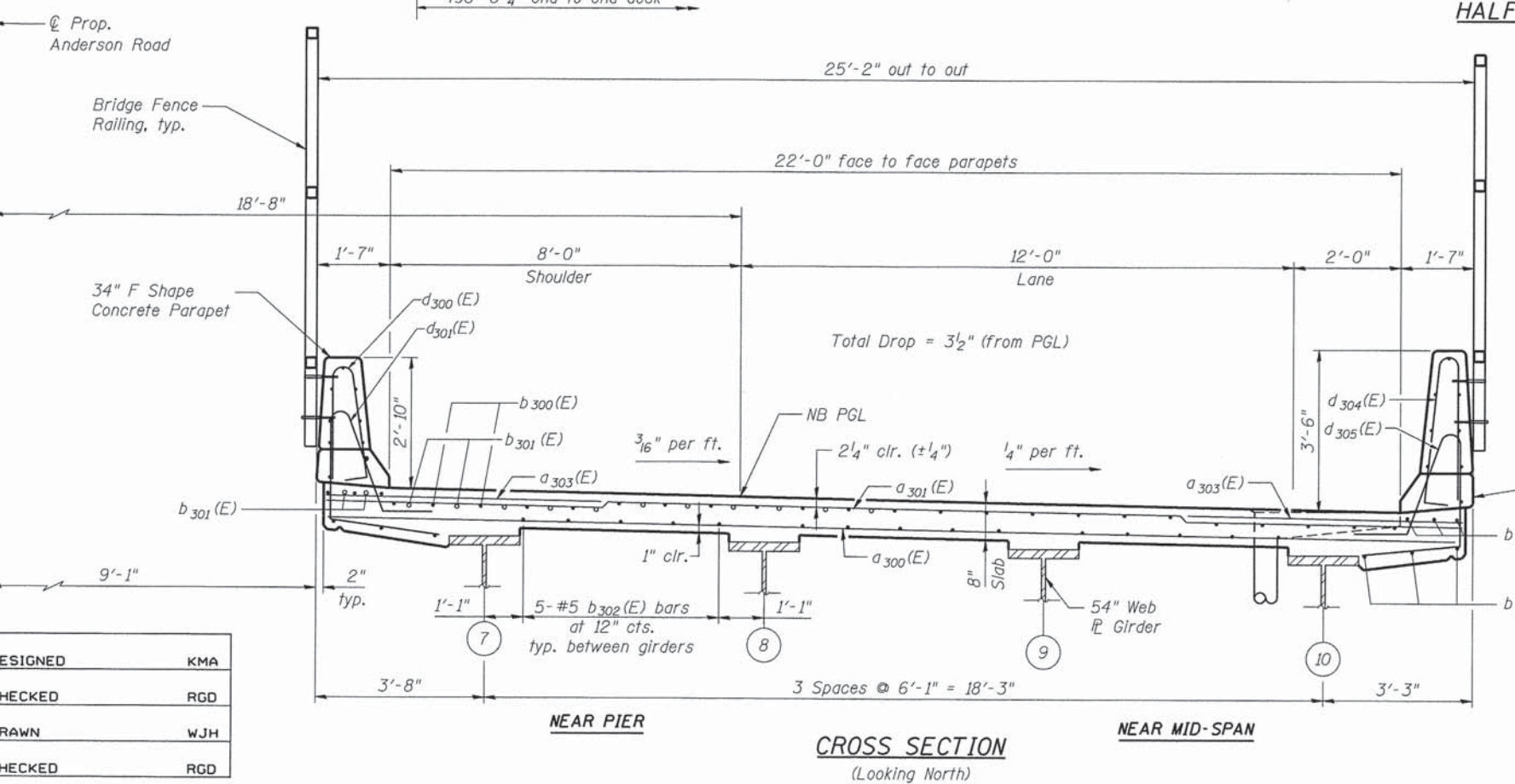
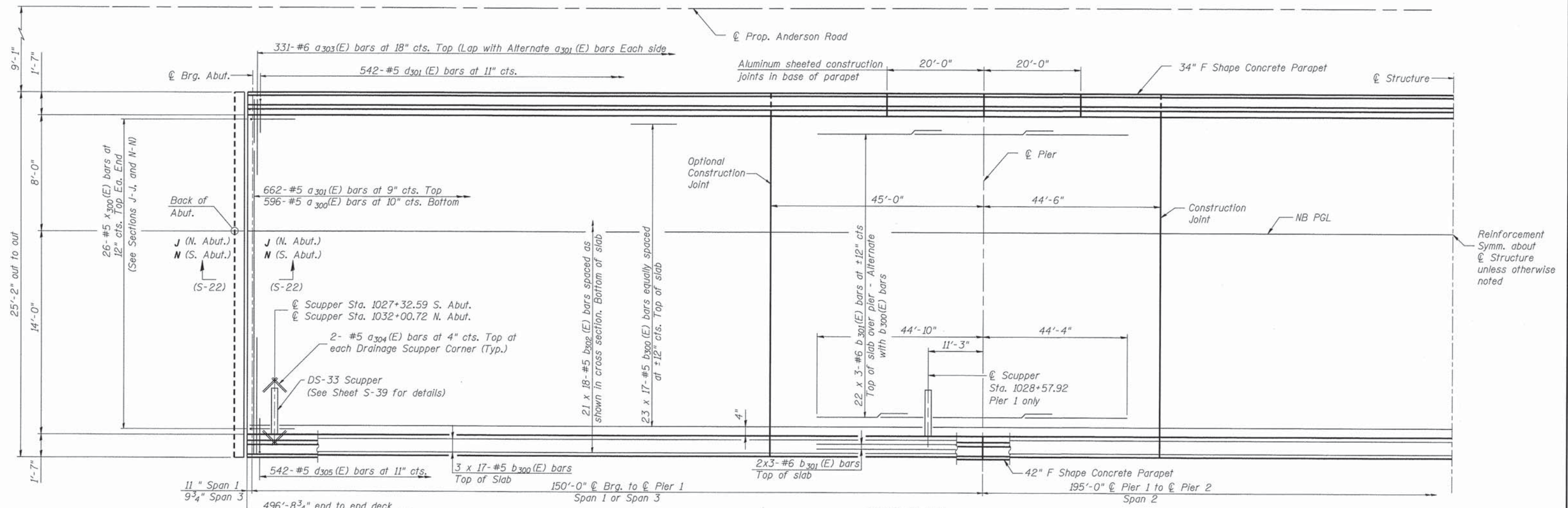


Project information table with columns: SHEET NO. S-15, F.A.U. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO., FED. ROAD DIST. NO. 1, ILLINOIS, FED. AID PROJECT. Values include 0126, 01-00274-00-BR, KANE, 289, 132, 63698.

TOP OF DECK TABLES  
STRUCTURE NO. 045-3160

DATE: 5/9/13





**MIN. BAR LAP**  
 #5 Bar = 2'-7"  
 #6 Bar = 3'-10"

- NOTES**
- bars indicated thus 2x3-#5 etc. indicates 2 lines of bars with 3 lengths per line.
  - Work this Sheet with Sheets S-12 thru S-15 and S-17 thru S-22.
  - See Sheet S-23 for Sections J-J and N-N.
  - See Sheet S-20 for Superstructure Bill of Material.
  - Cut longitudinal bars to clear Drainage Scuppers
  - See Sheet S-41 for DS-33 details
  - Coordinate reinforcement bar placement near South Abutment with block outs for Modular Expansion Joint 6".

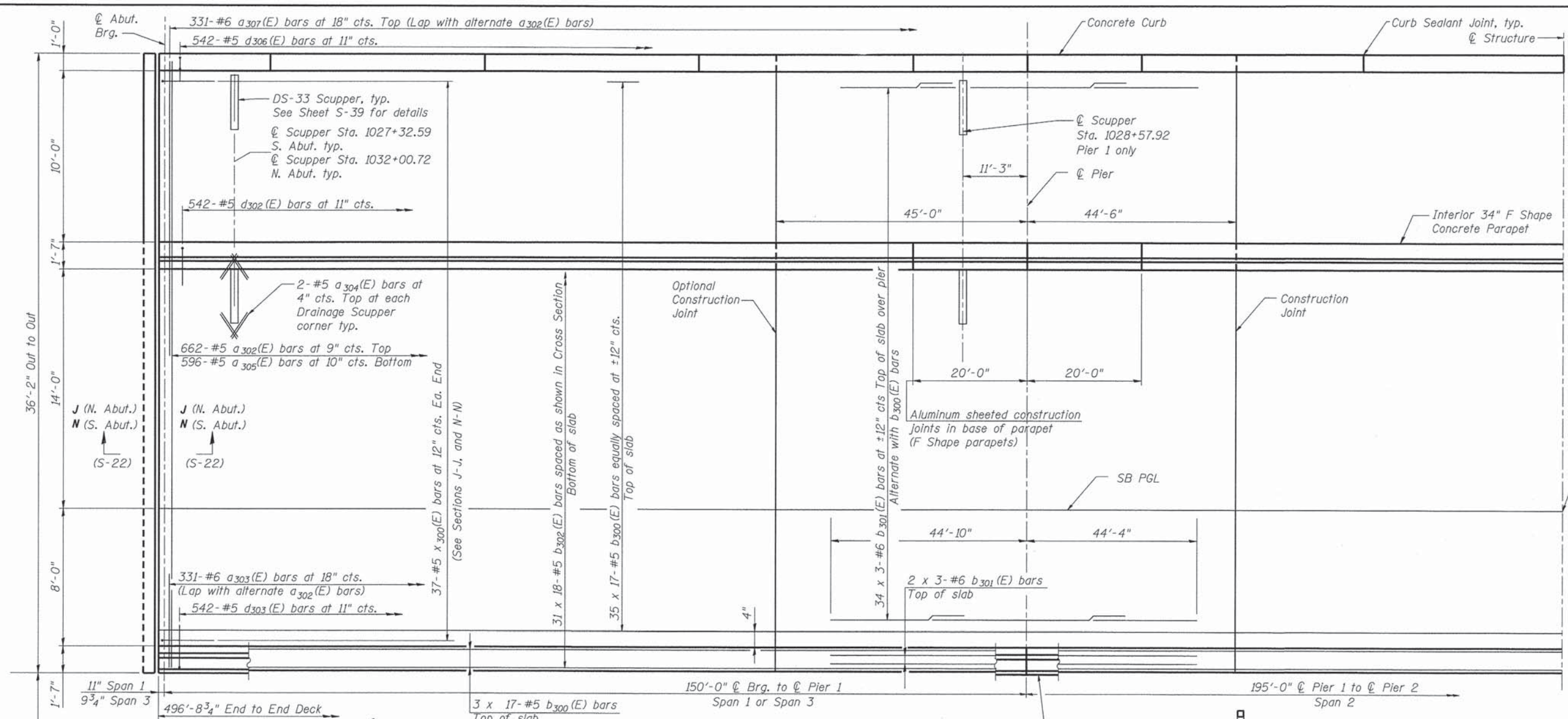
**NORTHBOUND DECK PLAN AND CROSS SECTION**  
**STRUCTURE NO. 045-3160**

DATE: 5/9/13

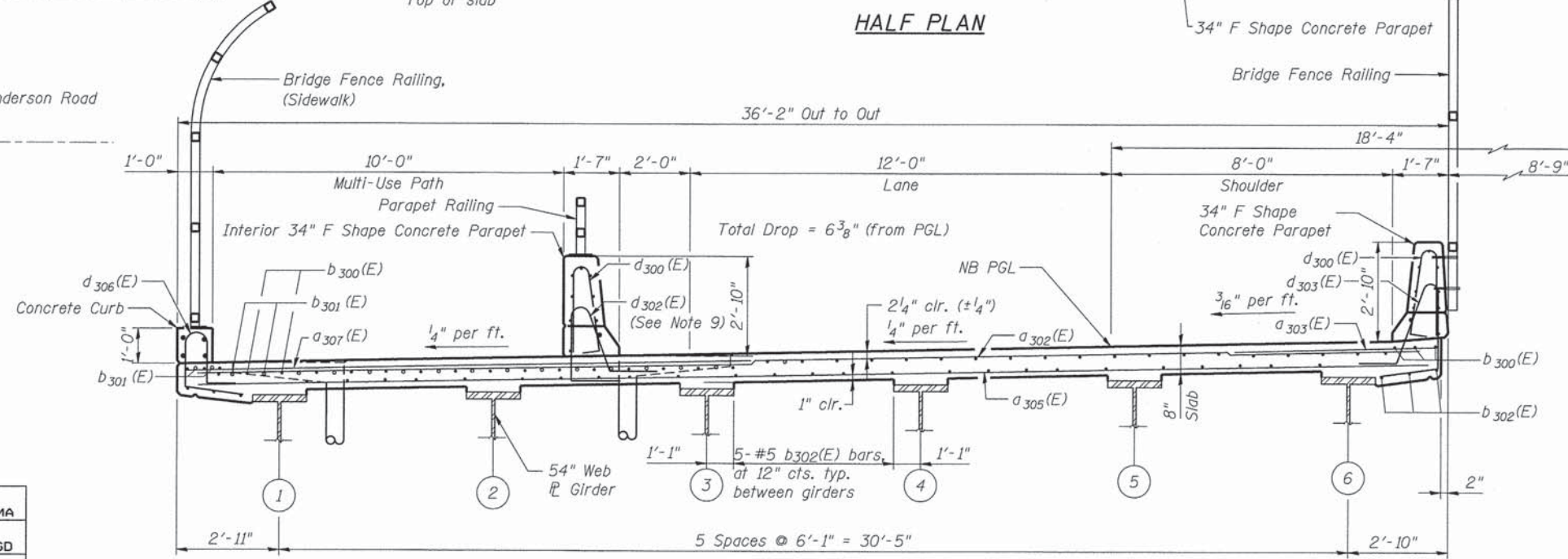
DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



SHEET NO. S-16	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	133
S-43 SHEETS	CONTRACT NO. 63698				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



**HALF PLAN**



**CROSS SECTION**  
(Looking North)

**MIN. BAR LAP**  
#5 Bar = 2'-7"  
#6 Bar = 3'-10"

**NOTES**

1. Bars indicated thus 2x3-#5 etc. indicates 2 lines of bars with 3 lengths per line.
2. Work this Sheet with Sheets S-12 thru S-15 and S-18 thru S-22.
3. See Sheet S-23 for Sections J-J and N-N.
4. See Sheet S-20 for Superstructure Bill of Material.
5. Cut longitudinal bars to clear Drainage Scuppers
6. See Sheet S-41 for DS-33 details
7. Coordinate reinforcement bar placement near South Abutment with block outs for Modular Expansion Joint 6".
8. See Sheet S-16 for Deck Pouring Sequence.
9. See Sheet S-18 for alternate bar d302(E) detail.

**SOUTHBOUND DECK PLAN AND CROSS SECTION**  
**STRUCTURE NO. 045-3160**

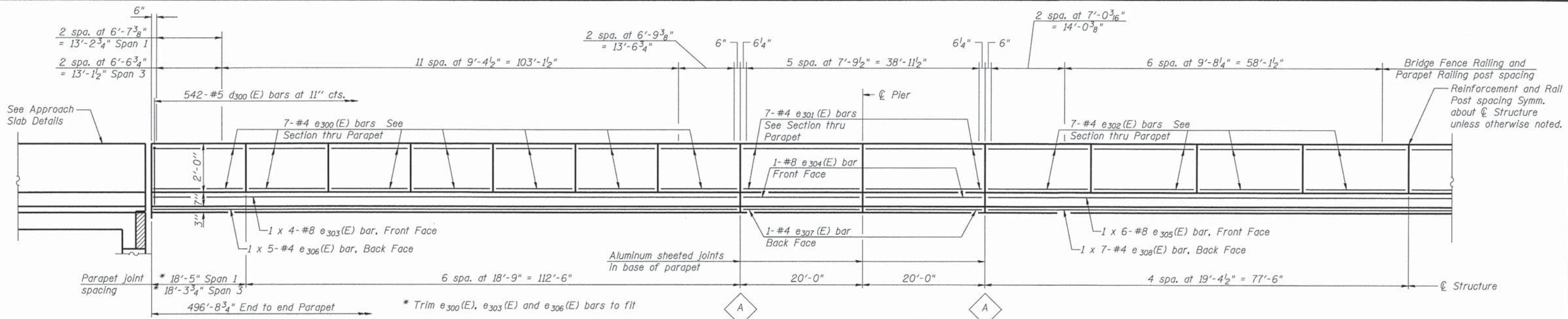
DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

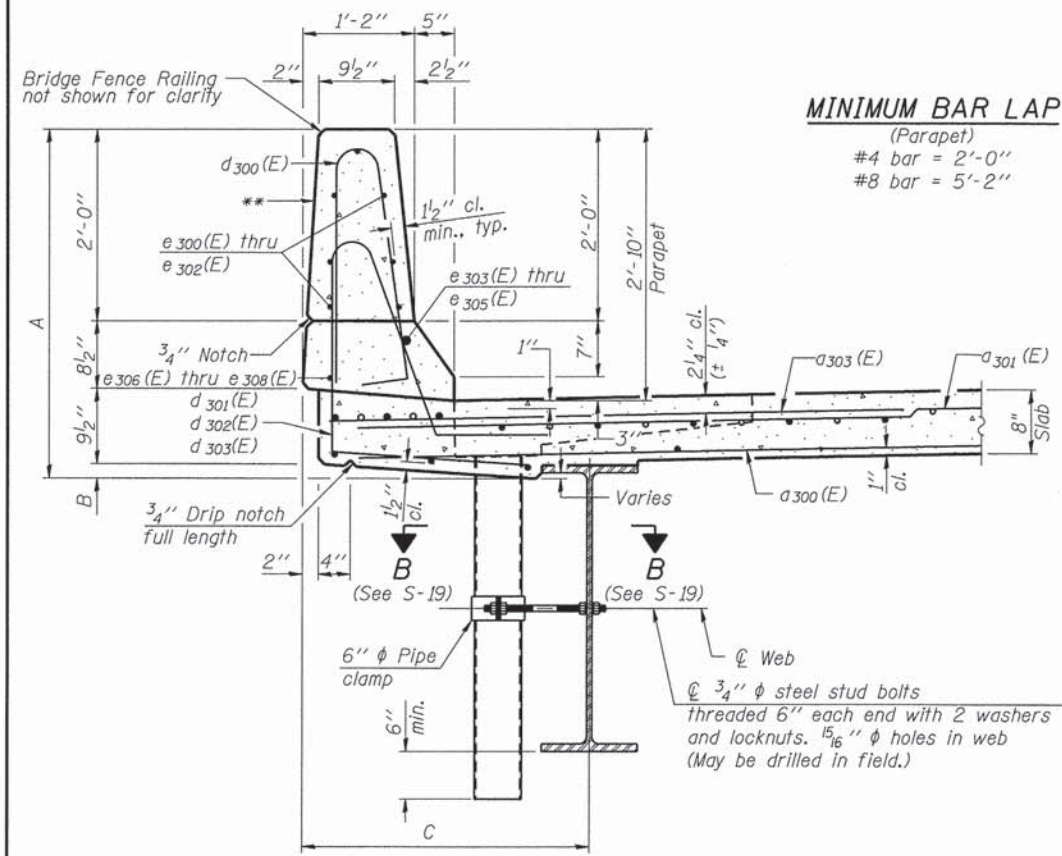
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 PLOT DRIVER: pofplot  
 PEN TABLE: Struct 22x34288/2013



SHEET NO. S-17	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	134
S-43 SHEETS			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



**INSIDE ELEVATION OF 34" F SHAPE PARAPET**

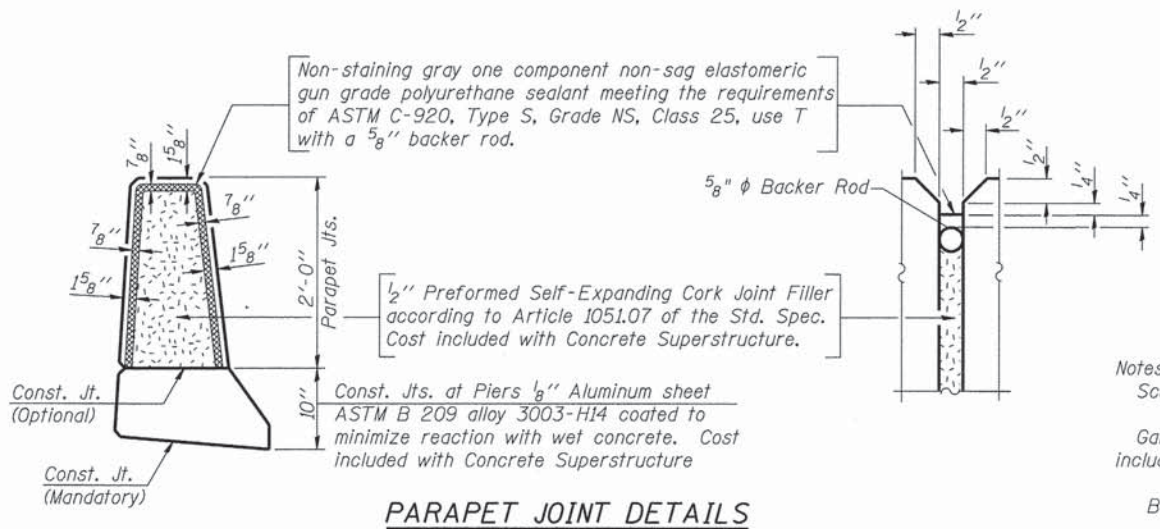


**SECTION THRU 34" F SHAPE PARAPET**

\*\* Back face vertical for interior 34" F Shape Parapet

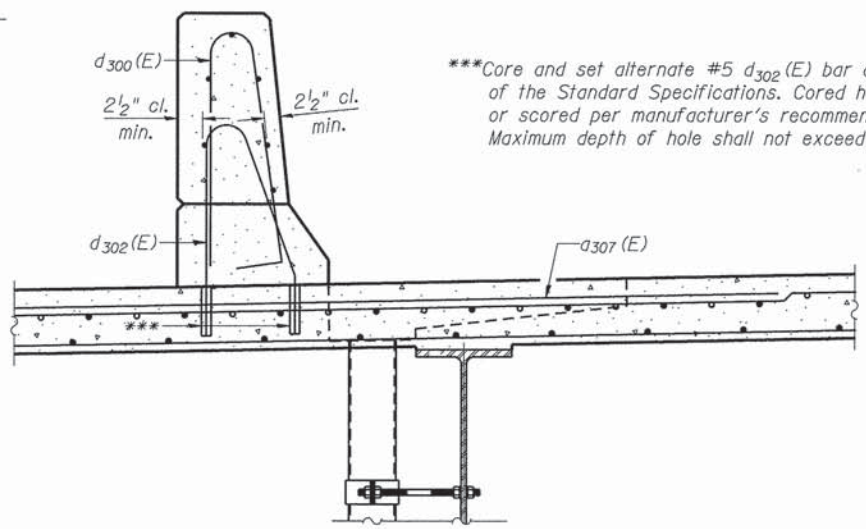
Location	A	B	C
Northbound Deck West Parapet	3'-10 <sup>5</sup> / <sub>8</sub> "	4 <sup>5</sup> / <sub>8</sub> "	3'-8"
Southbound Deck East Parapet	3'-10 <sup>3</sup> / <sub>8</sub> "	4 <sup>3</sup> / <sub>8</sub> "	2'-10"

**MINIMUM BAR LAP**  
(Parapet)  
#4 bar = 2'-0"  
#8 bar = 5'-2"

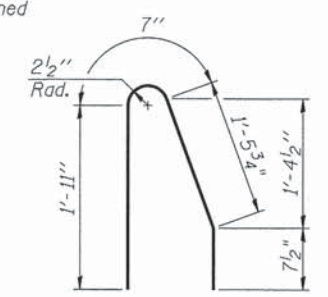


**PARAPET JOINT DETAILS**

Notes:  
Scuppers shall be located clear of all diaphragms.  
Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Drainage Scuppers, DS-33.  
Bars indicated thus 1 x 4 - #8 etc. indicates 1 line of bars with 4 lengths per line



**ALTERNATE PARAPET REINFORCEMENT FOR INTERIOR 34" F SHAPE PARAPET**



**ALTERNATE BAR d302(E)**

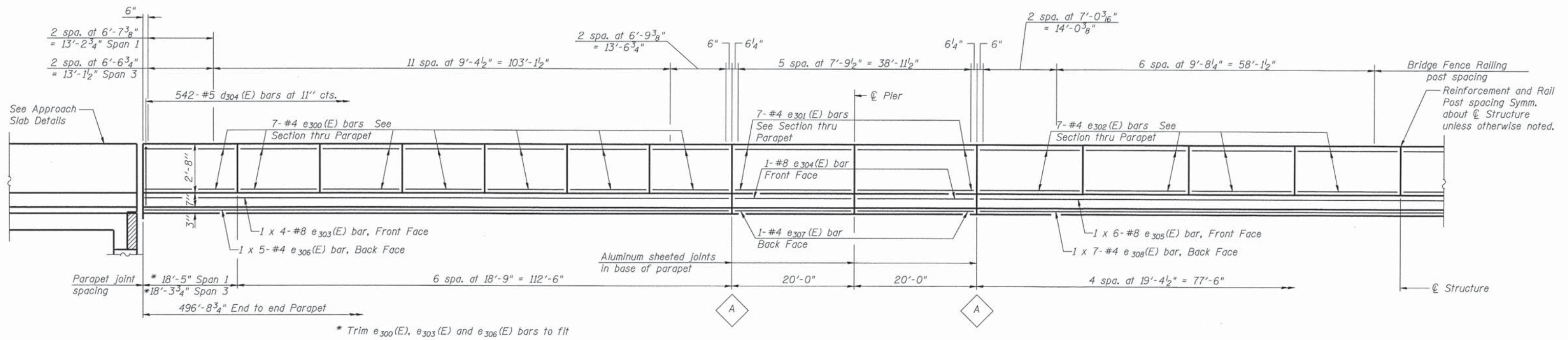
**34" F SHAPE CONCRETE PARAPET STRUCTURE NO. 045-3160**

DATE: 5/9/13

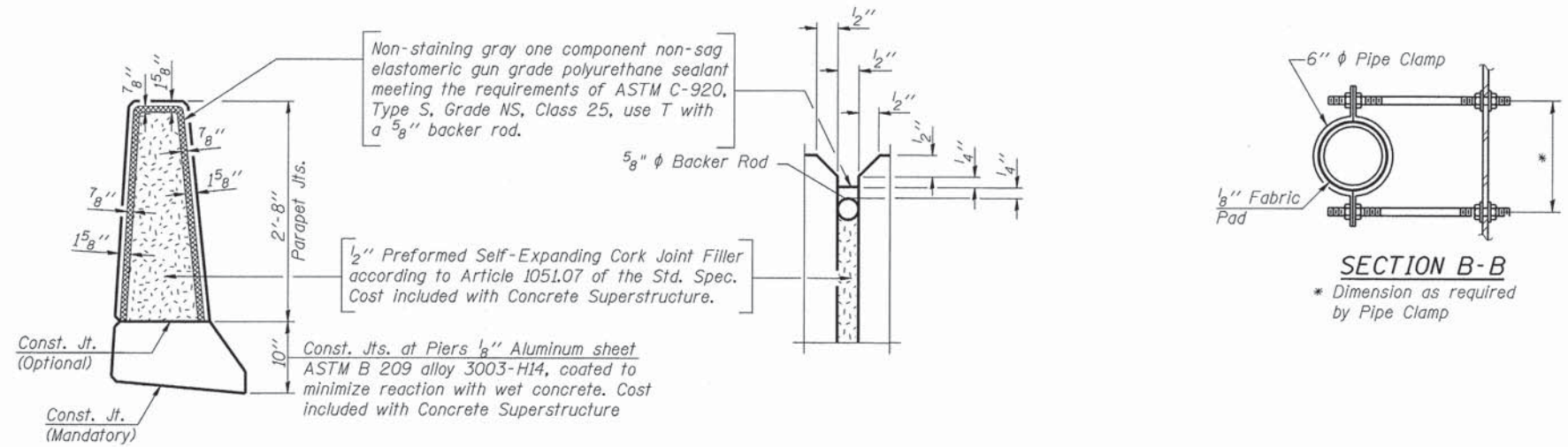
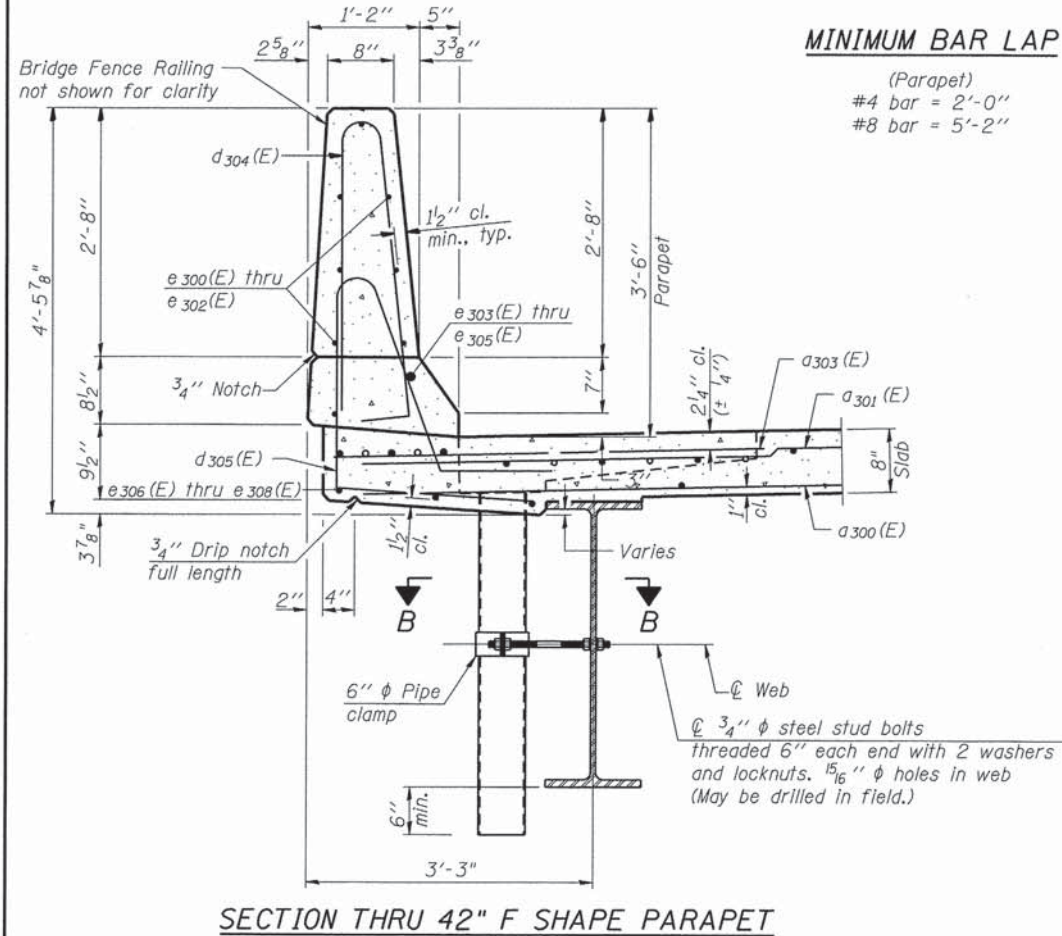
DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



SHEET NO. S-18 S-43 SHEETS	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	135
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT		
CONTRACT NO.				63698	



**INSIDE ELEVATION OF 42" F SHAPE PARAPET**



**PARAPET JOINT DETAILS**

Notes:  
 Scuppers shall be located clear of all diaphragms.  
 Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Drainage Scuppers, DS-33.  
 Bars indicated thus 1 x 4 - #8 etc. indicates 1 line of bars with 4 lengths per line

A See Sheet S-22 for Bridge Fence Railing details

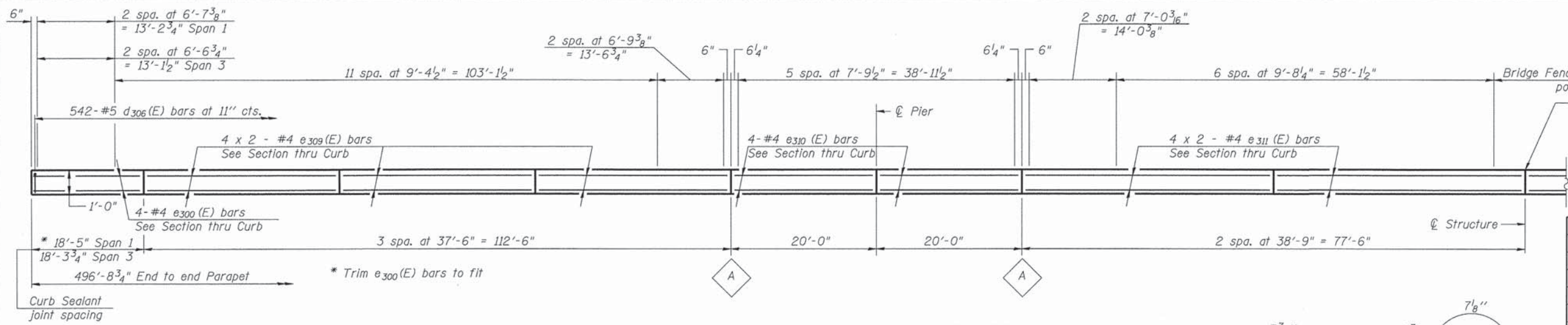
DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

**42" F SHAPE  
 CONCRETE PARAPET  
 STRUCTURE NO. 045-3160**

DATE: 5/9/13



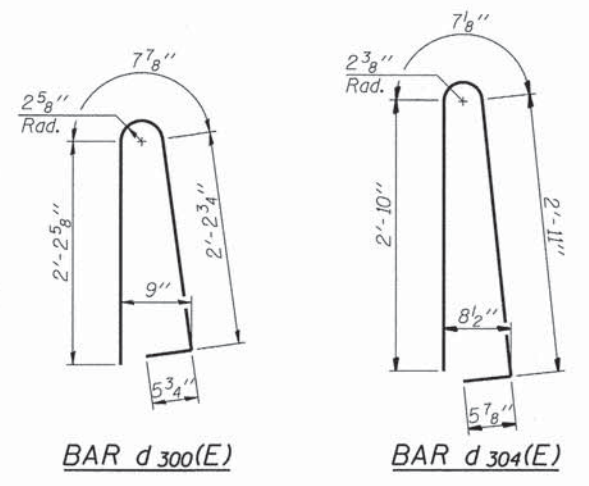
SHEET NO. S-19 S-43 SHEETS	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	136
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT		
CONTRACT NO.				63698	



**SUPERSTRUCTURE  
BILL OF MATERIAL**

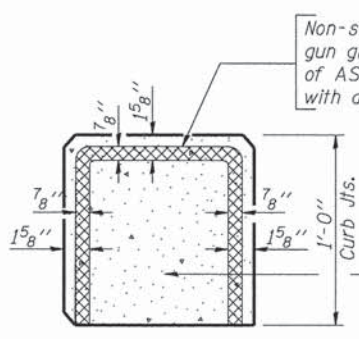
Bar	No.	Size	Length	Shape
d300(E)	596	#5	24'-6"	—
d301(E)	662	#5	24'-6"	—
d302(E)	662	#5	35'-6"	—
d303(E)	993	#6	6'-0"	—
d304(E)	72	#5	2'-0"	—
d305(E)	596	#5	35'-6"	—
d306(E)	48	#5	7'-0"	⌋
d307(E)	331	#6	17'-0"	—
b300(E)	1190	#5	31'-8"	—
b301(E)	384	#6	32'-4"	—
b302(E)	936	#5	30'-0"	—
d300(E)	1626	#5	5'-7"	⌋
d301(E)	542	#5	8'-1"	⌋
d302(E)	542	#5	6'-8"	⌋
d303(E)	542	#5	7'-3"	⌋
d304(E)	542	#5	6'-10"	⌋
d305(E)	542	#5	7'-8"	⌋
d306(E)	542	#5	6'-0"	⌋
e300(E)	400	#4	18'-5"	—
e301(E)	112	#4	19'-8"	—
e302(E)	224	#4	19'-0"	—
e303(E)	32	#8	36'-6"	—
e304(E)	16	#8	19'-8"	—
e305(E)	24	#8	30'-1"	—
e306(E)	40	#4	27'-9"	—
e307(E)	16	#4	19'-8"	—
e308(E)	28	#4	23'-10"	—
e309(E)	48	#4	19'-7"	—
e310(E)	16	#4	19'-8"	—
e311(E)	32	#4	20'-3"	—
x300(E)	126	#5	6'-5"	⌋
Reinforcement Bars, Epoxy Coated			Pound	235,990
Concrete Superstructure			Cu. Yds.	1,185.70

**INSIDE ELEVATION OF CURB**

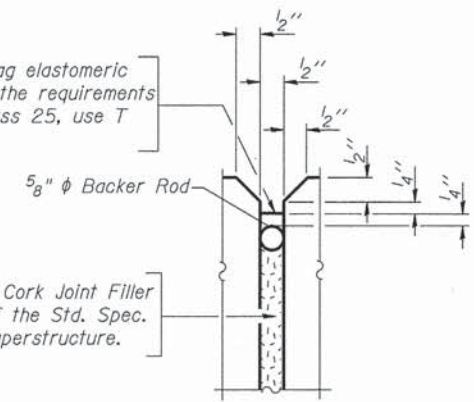


**MINIMUM BAR LAP**

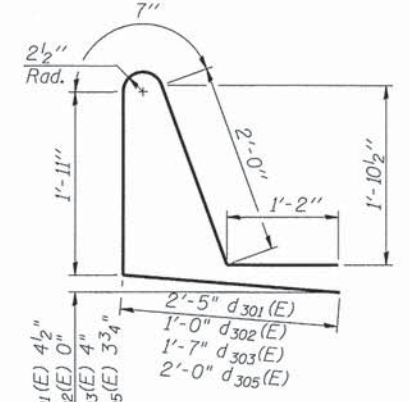
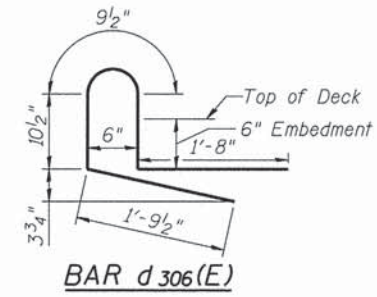
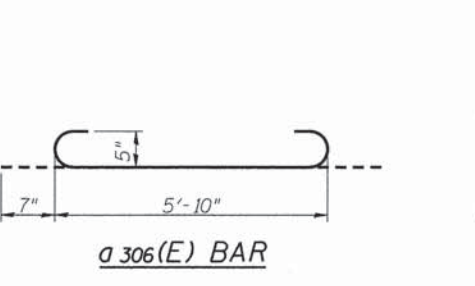
(Parapet)  
#4 bar = 2'-0"



Non-staining gray one component non-sag elastomeric gun grade polyurethane sealant meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25, use T with a 5/8" backer rod.

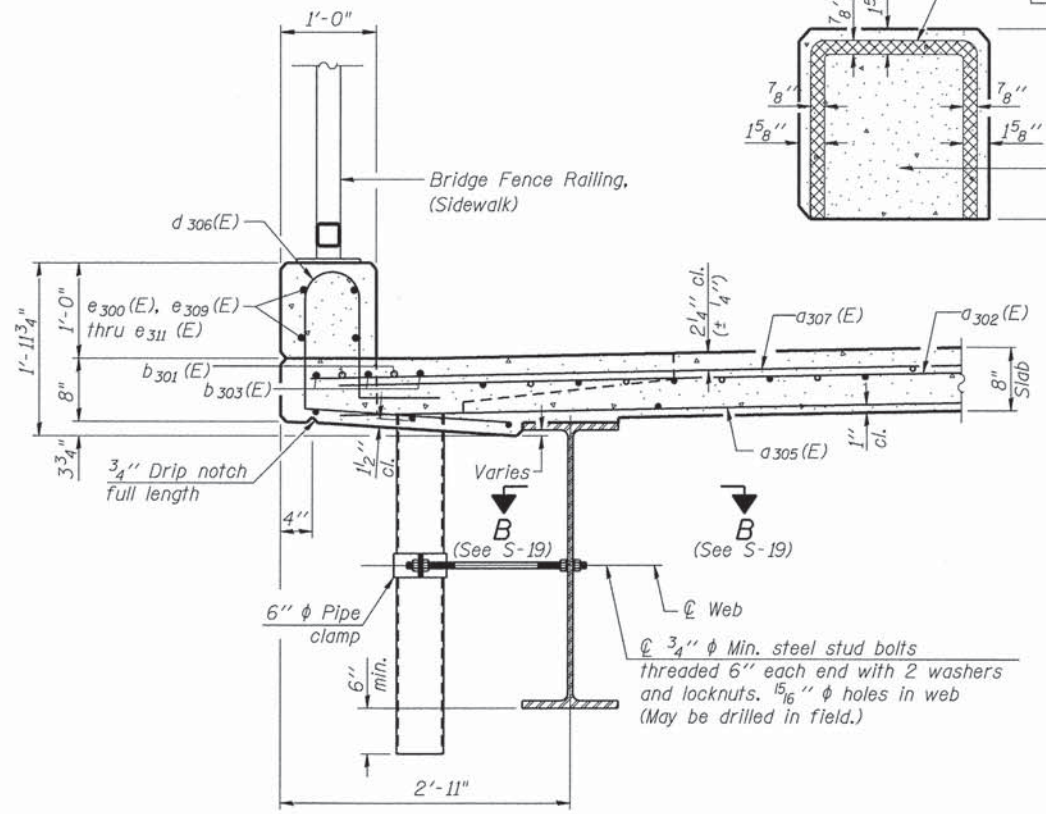
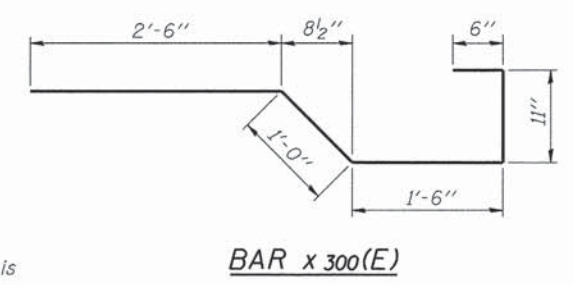


**PARAPET JOINT DETAILS**



**BARS d301(E), d302(E), d303(E), & d305(E)**

See Sheet S-18 for Alternate bar d302(E) detail



**SECTION THRU CURB**

**Notes:**

Scuppers shall be located clear of all diaphragms.  
Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Drainage Scuppers, DS-33.

See Sheet S-21 for Bridge Fence Railing (Sidewalk) details

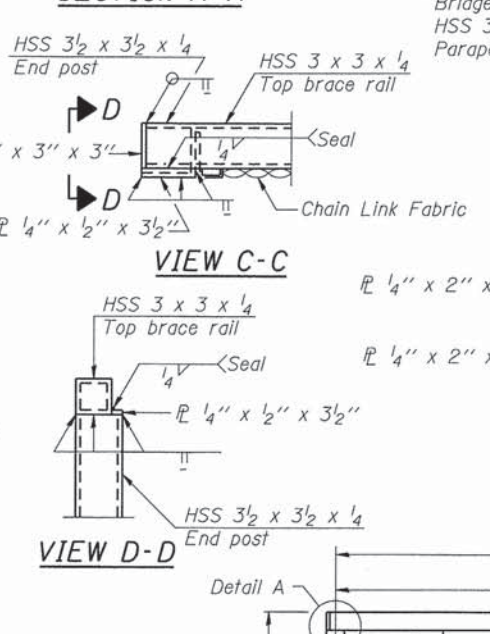
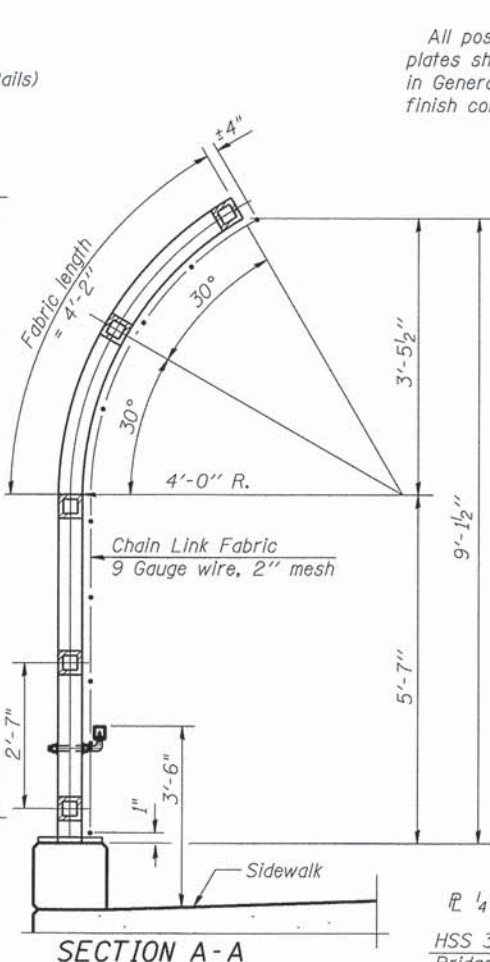
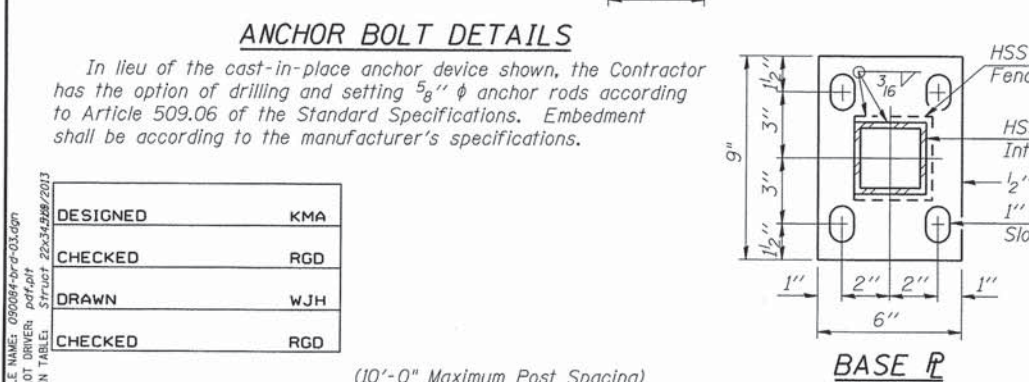
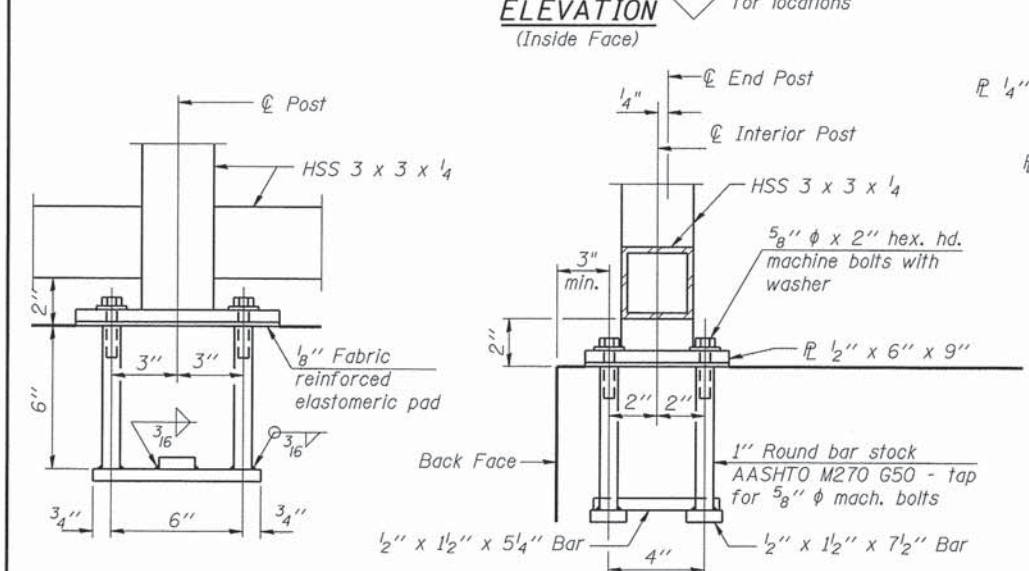
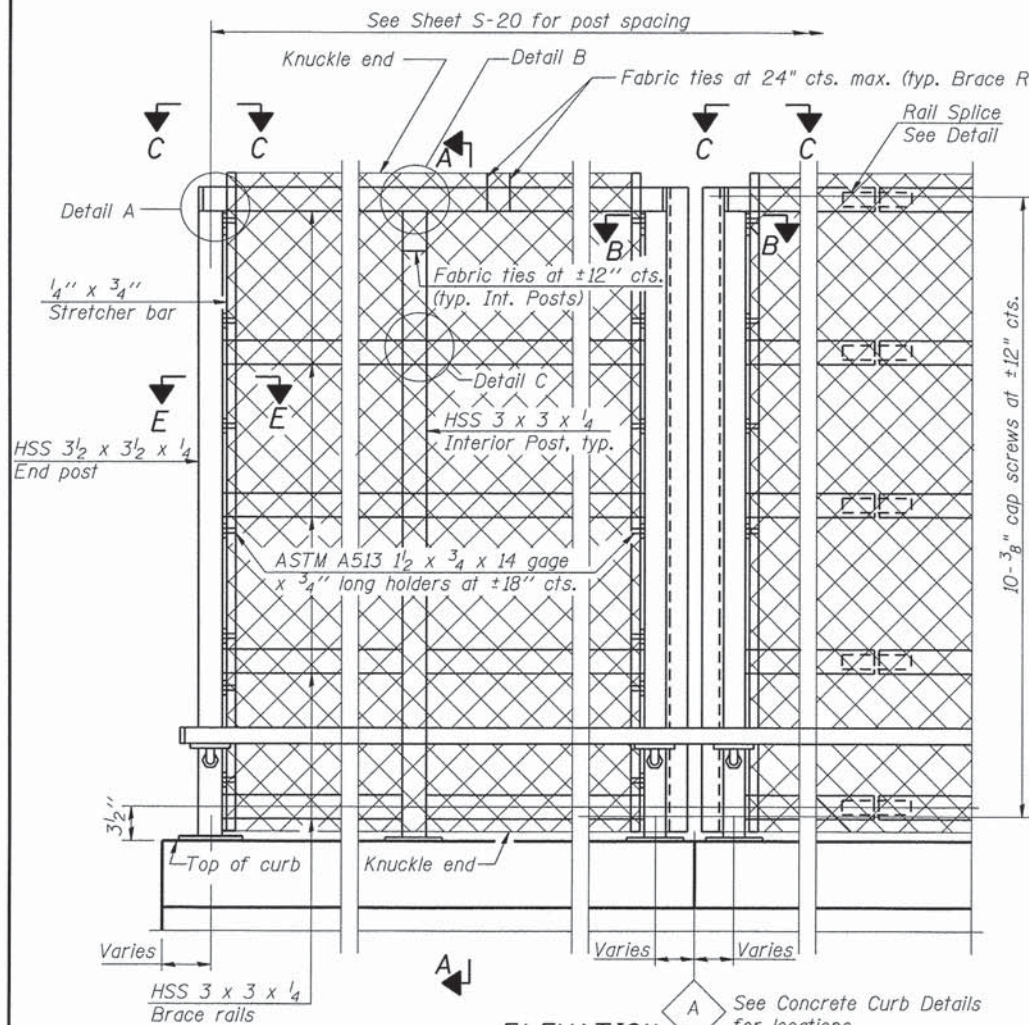
DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

**CONCRETE CURB  
STRUCTURE NO. 045-3160**

DATE: 5/9/13



SHEET NO. S-20 S-43 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	137
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT		
CONTRACT NO.				63698	

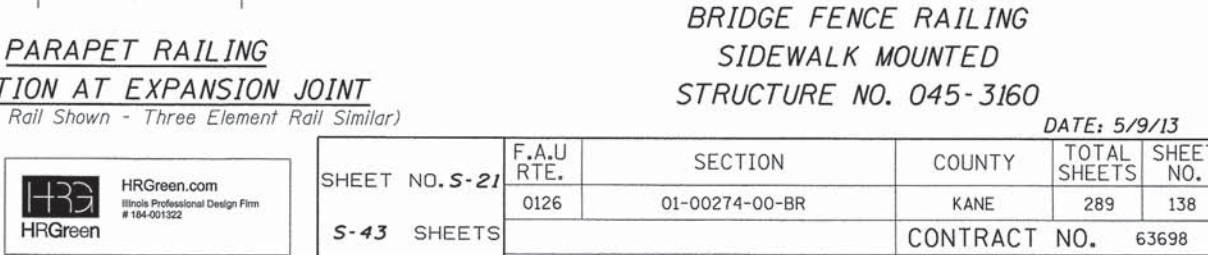
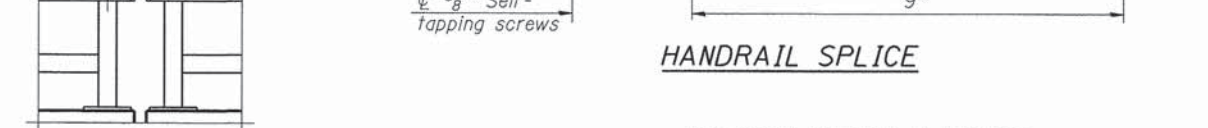
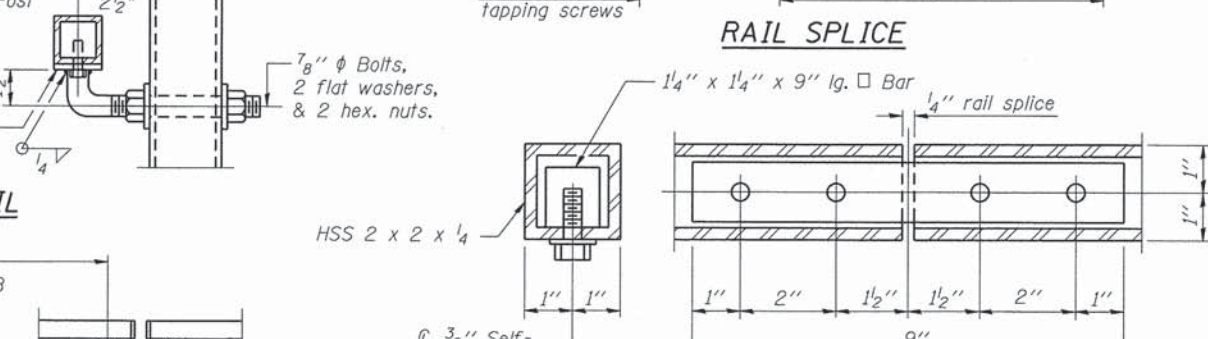
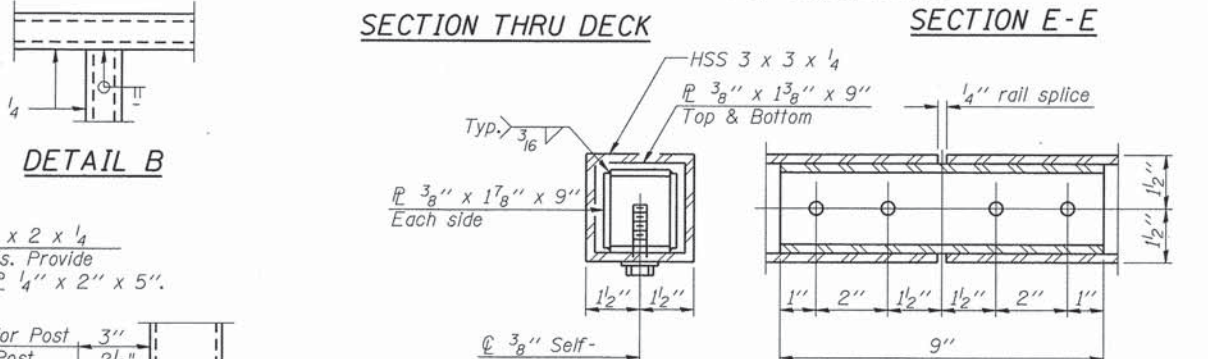
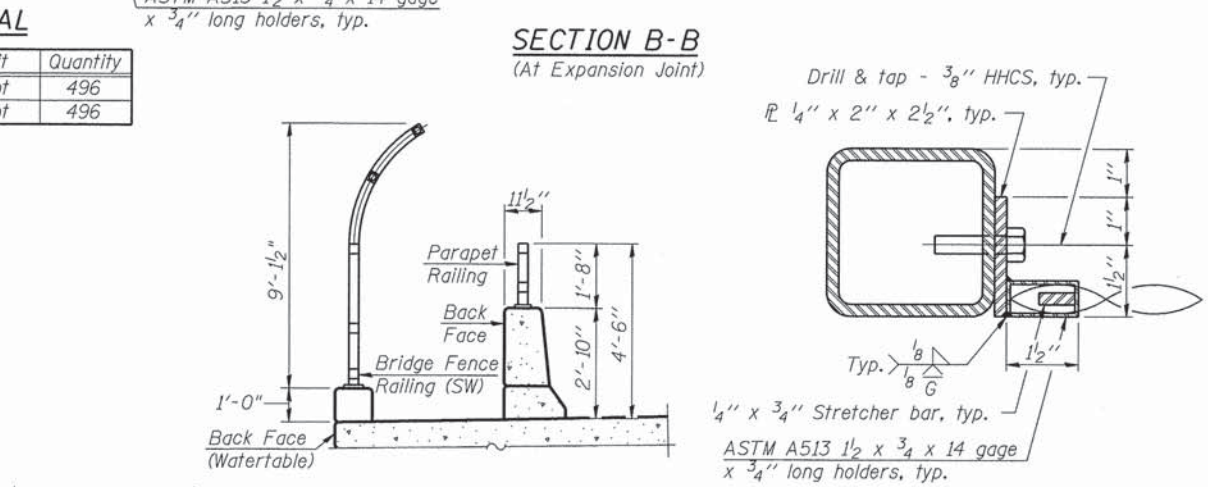
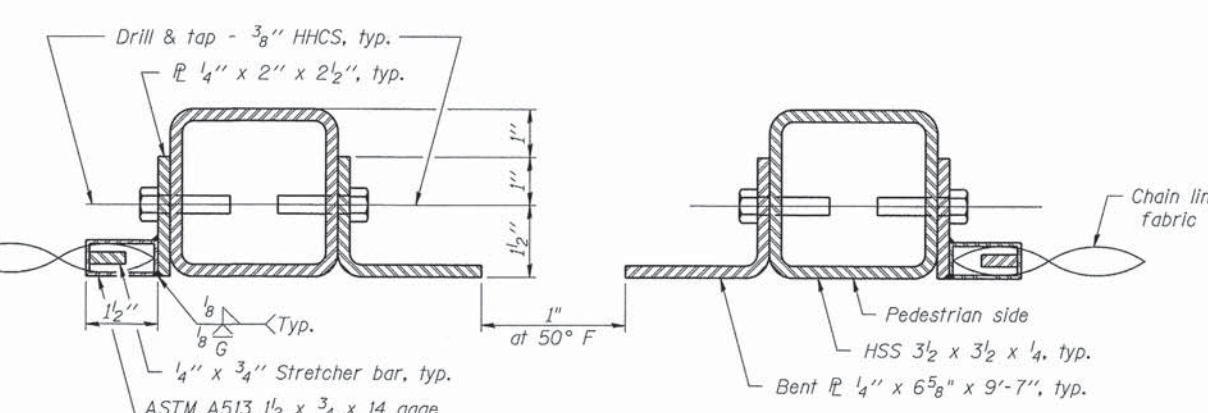
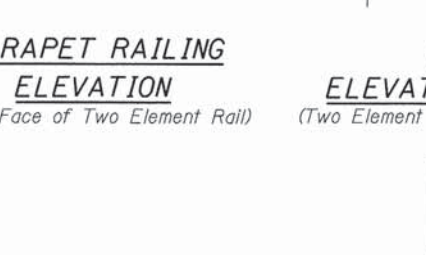
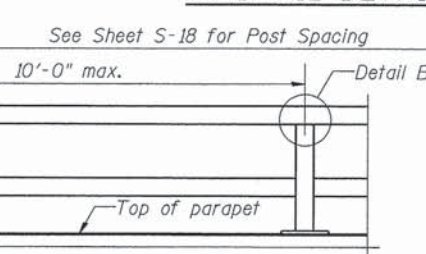
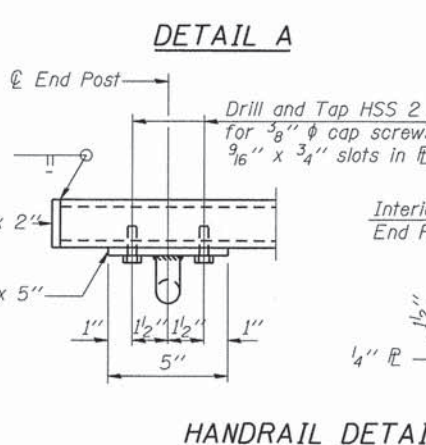
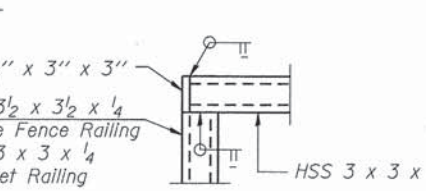
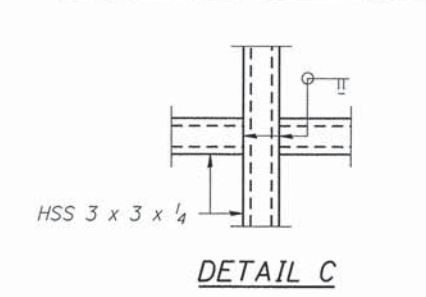


All post, railing, splices, anchor devices, and plates shall be painted using the paint system noted in General Note 22 on sheet S-2 except the final finish color shall be black.

Note:  
9 Gauge Wire, 2" Mesh Chain Link Fabric shall conform to Art. 1006.27. The fabric shall be PVC coated in conformance with 1006.27(a)(1)d. PVC coating color shall be black.

**BILL OF MATERIAL**

Item	Unit	Quantity
Bridge Fence Railing (Sidewalk)	Foot	496
Parapet Railing	Foot	496



DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

(10'-0" Maximum Post Spacing)

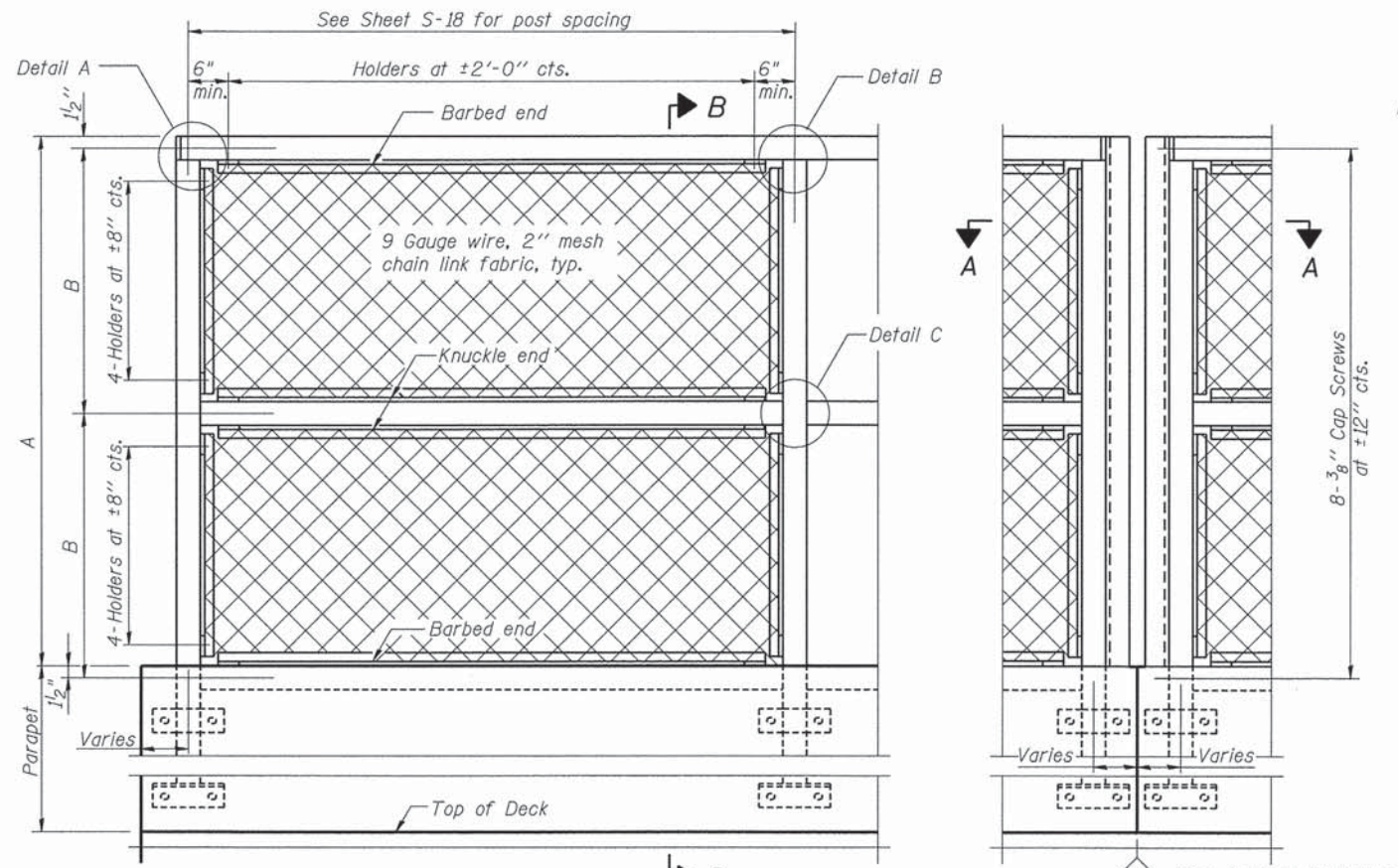


SHEET NO. S-21 S-43 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT		

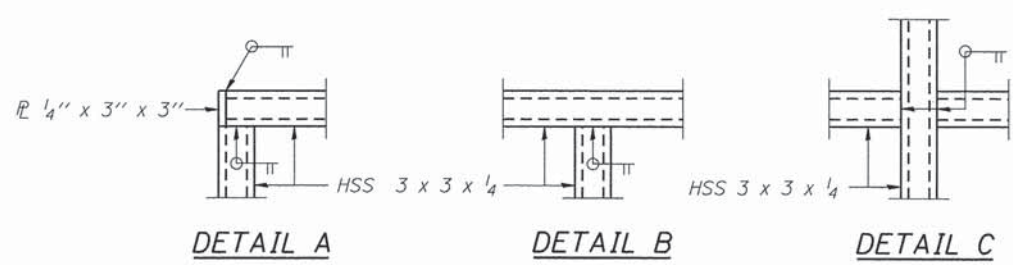
DATE: 5/9/13

BRIDGE FENCE RAILING  
SIDEWALK MOUNTED  
STRUCTURE NO. 045-3160

CONTRACT NO. 63698



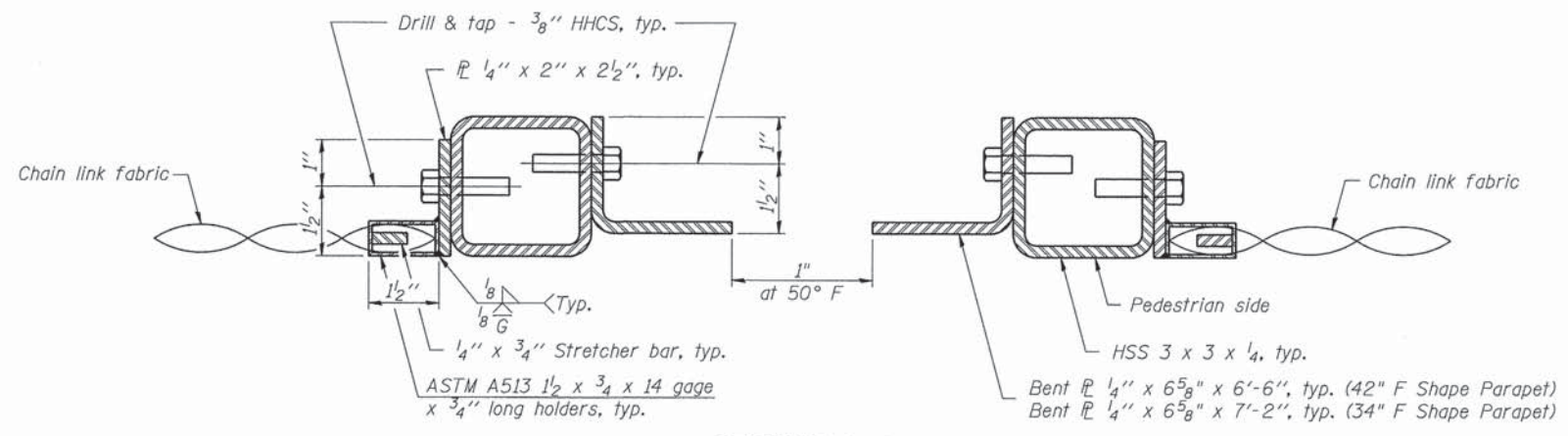
**ELEVATION**  
(Inside Face)



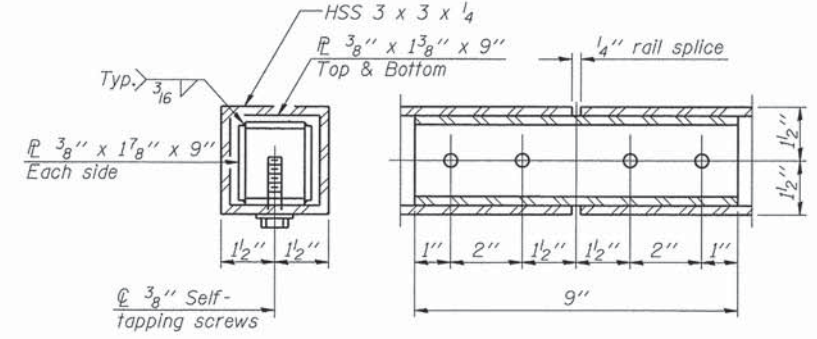
**DETAIL A**      **DETAIL B**      **DETAIL C**

**BILL OF MATERIAL**

Item	Unit	Quantity
Bridge Fence Railing	Foot	1488



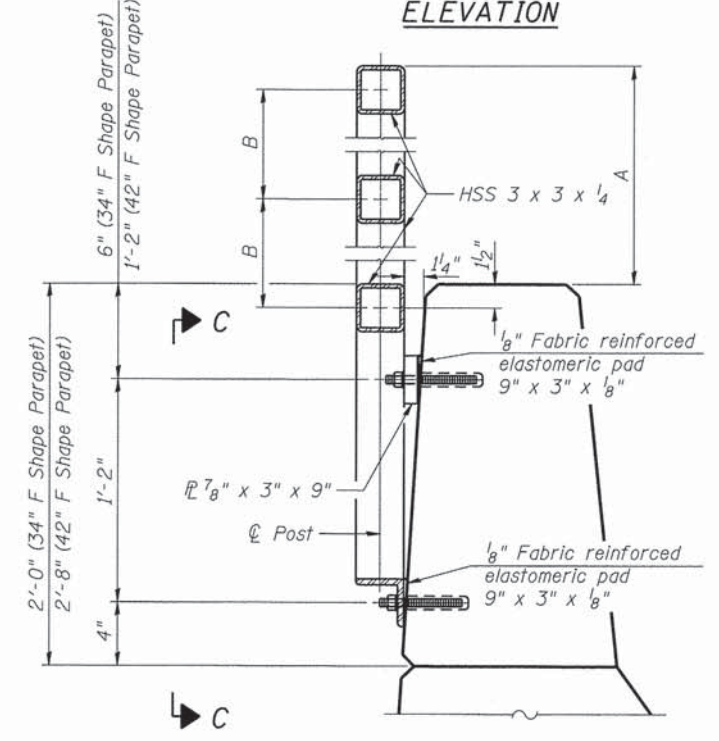
**SECTION A-A**



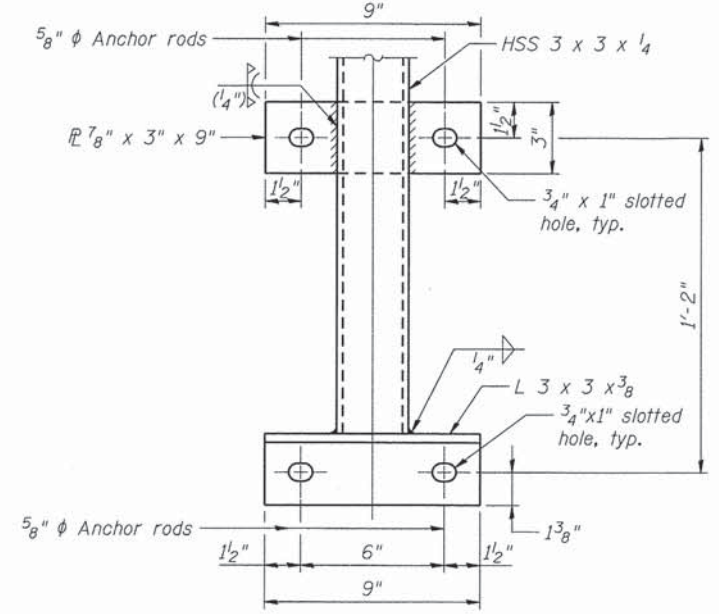
**RAIL SPLICE**

**DIMENSION TABLE**

	A	B
Railing Northbound Right (42" F Shape Parapet)	6'-6"	3'-3"
Railing Northbound Left and Southbound Right (34" F Shape Parapet)	7'-2"	3'-7"



**SECTION B-B**



**VIEW C-C**

**ANCHOR BOLT DETAILS**

The 5/8" φ anchor rods shall be according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

**Notes:**  
 9 Gauge Wire, 2" Mesh Chain Link Fabric shall conform to Art. 1006.27. The fabric shall be PVC coated in conformance with 1006.27(a)(1)(d). PVC coating color shall be black.  
 All post, railing, splices, anchor devices, and plates shall be painted using the paint system noted in General Note 22 on sheet S-2 except the final finish color shall be black.

**BRIDGE FENCE RAILING  
STRUCTURE NO. 045-3160**

DATE: 5/9/13

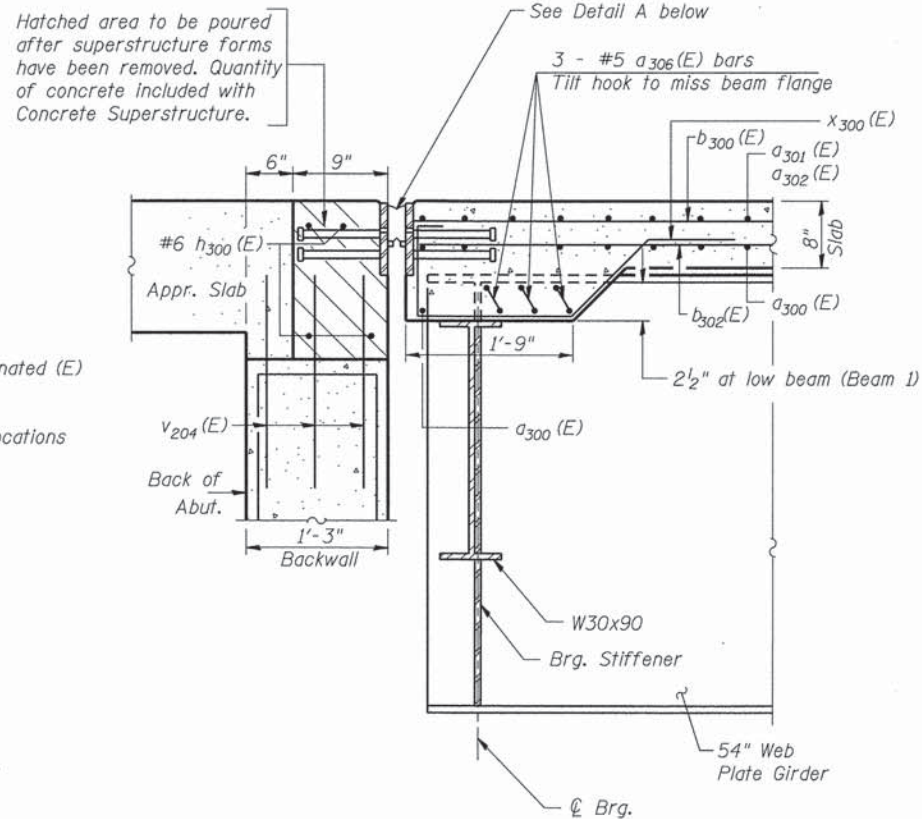
SHEET NO.	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S-43	0126	01-00274-00-BR	KANE	289	139
S-43 SHEETS			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



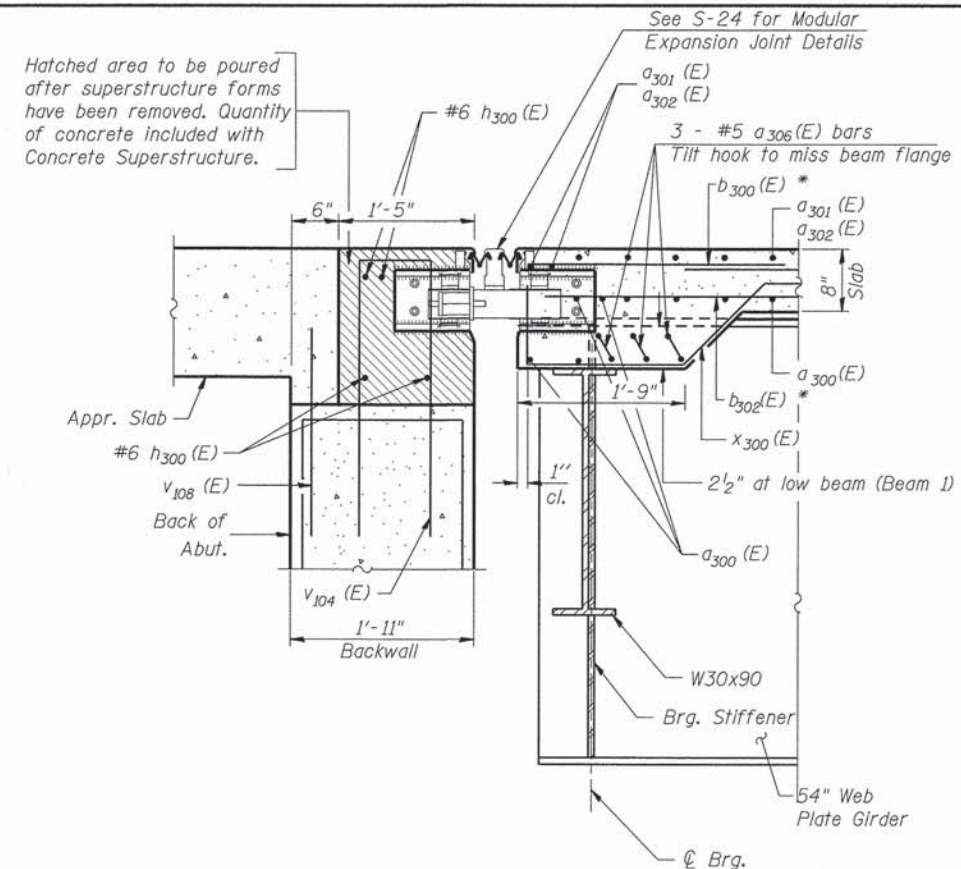
DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

(10'-0" Maximum Post Spacing)

FILE NAME: 090284-rd-04.dgn  
 PLOT DRIVER: pdfplot  
 PEN TABLE: Struct 22x34588/2013



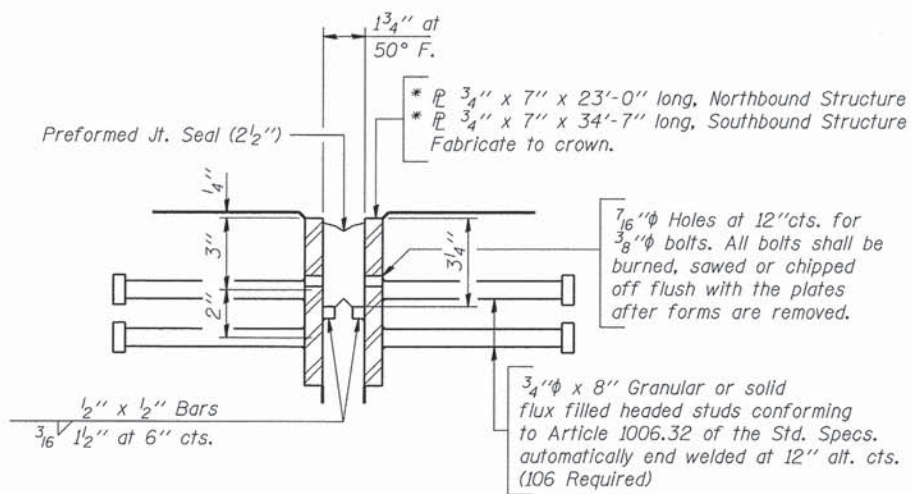
**SECTION J-J**  
N. Abut.  
Not to Scale



**SECTION N-N**  
S. Abut.  
Not to Scale

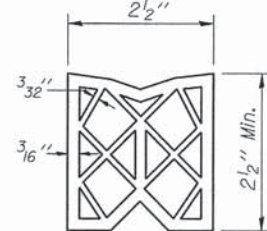
Notes:  
Reinforcement bars designated (E) shall be epoxy coated.  
See sheet S-11 for cut locations of Sections N-N and J-J

\* Coordinate with block outs for Modular Expansion Joint Details (See S-18)

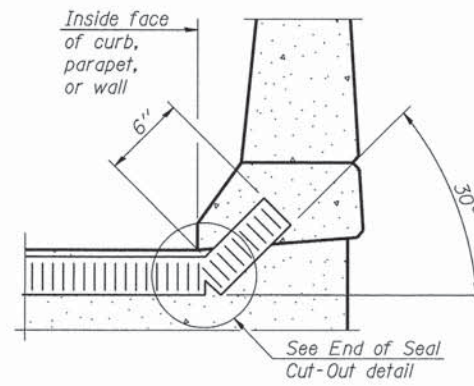


**DETAIL A**

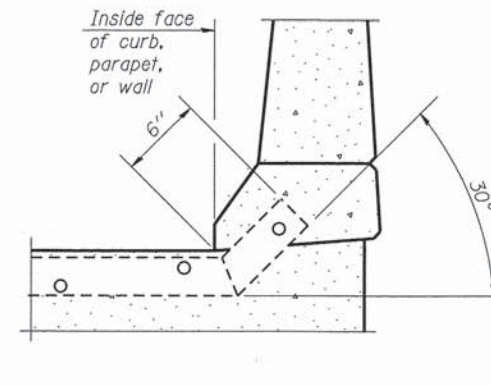
\* Furnish in segments of 20 ft. maximum length. Maximum space between installed segments shall be 3/16 inch. Seal space with Silicone Sealant suitable for Structural Steel.



**PREFORMED JOINT SEAL (2 1/2")**

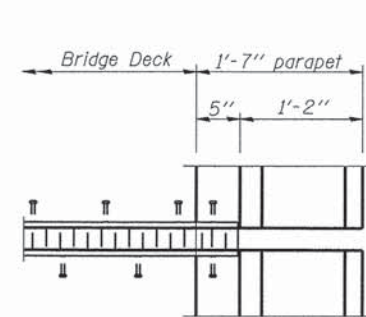


**AT CURB, PARAPET, OR WALL**  
(Showing seal)

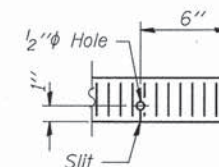


**AT CURB, PARAPET, OR WALL**  
(Showing plate)

**TYPICAL END TREATMENTS FOR PREFORMED JOINT SEAL**



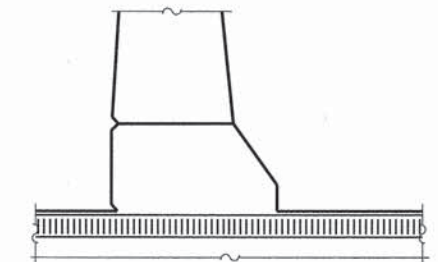
**PLAN AT PARAPET**



**SEAL CUT-OUT**

**BILL OF MATERIAL**

Item	Unit	Quantity
Preformed Joint Seal, 2 1/2"	Foot	58



**PREFORMED JOINT SEAL AT INTERIOR 34" F SHAPE PARAPET**

**ROADWAY EXPANSION JOINT (PJS) STRUCTURE NO. 045-3160**

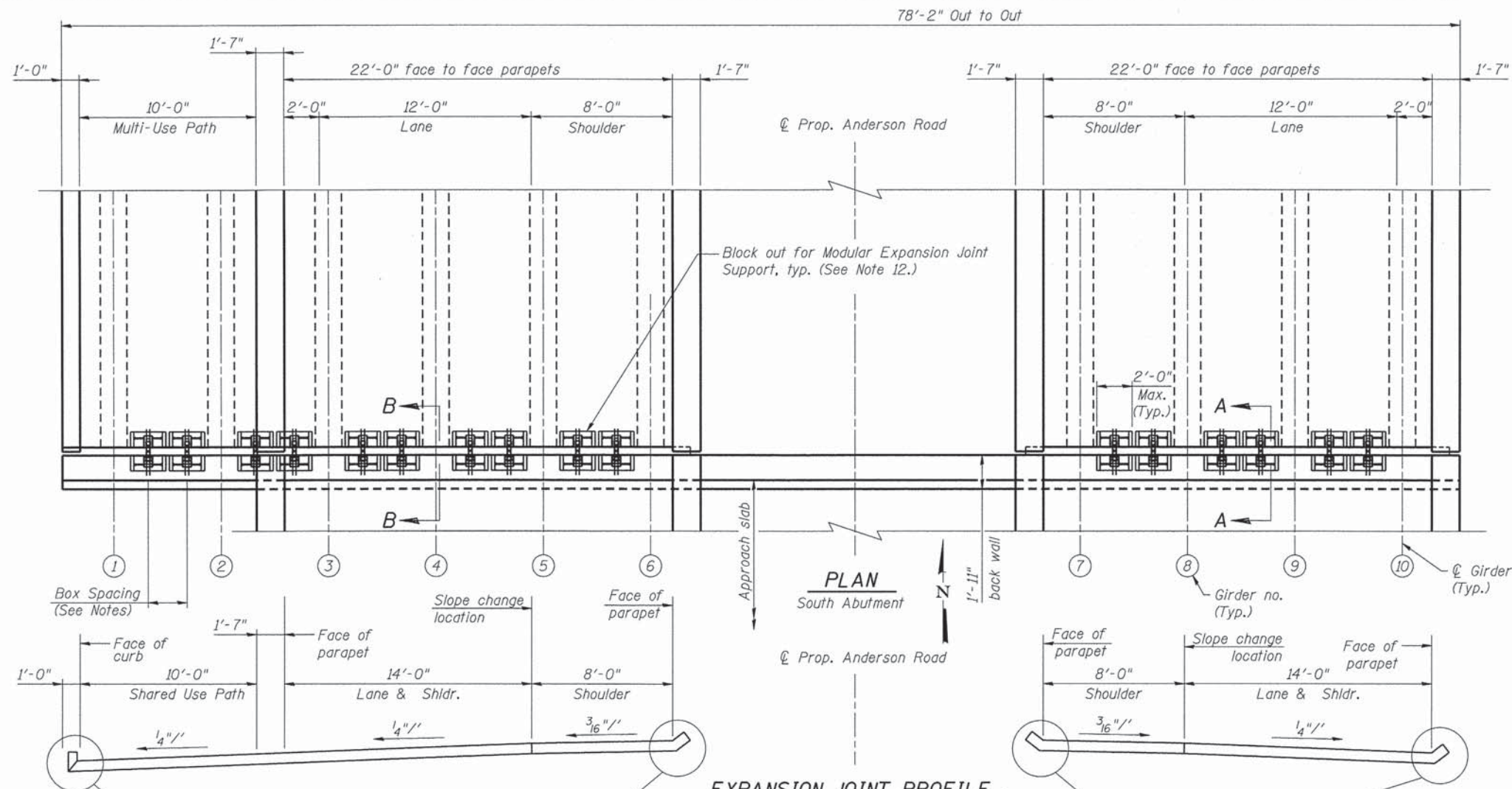
DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



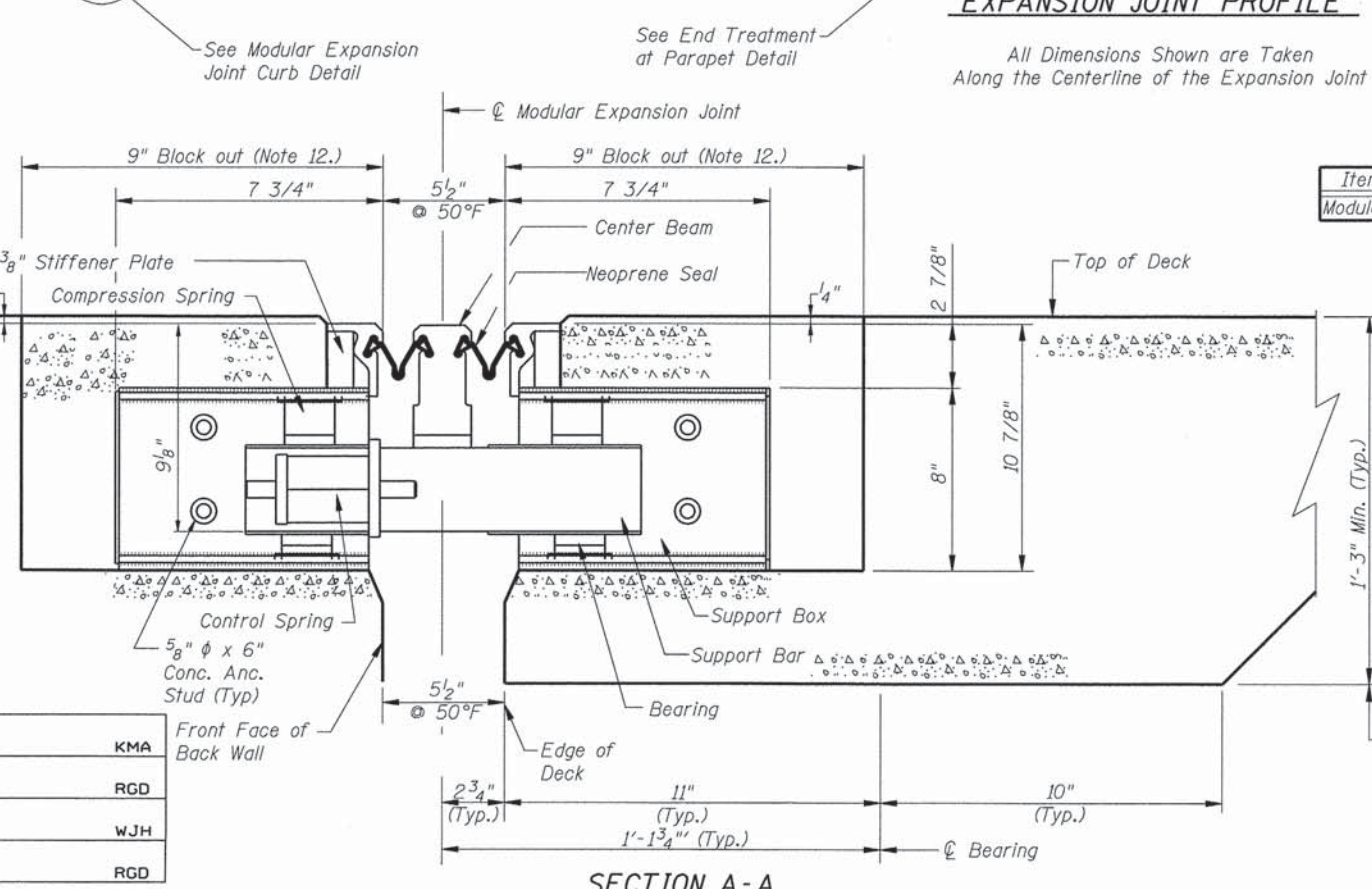
SHEET NO. S-23 S-43 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	140
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT		
CONTRACT NO.				63698	





**EXPANSION JOINT PROFILE**

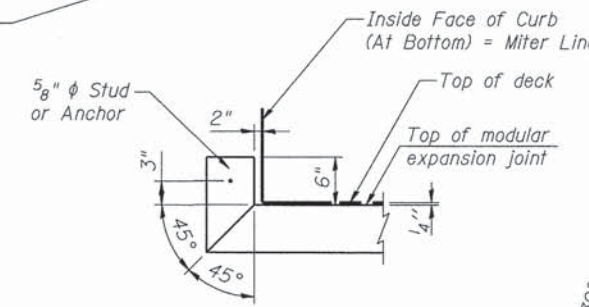
All Dimensions Shown are Taken Along the Centerline of the Expansion Joint



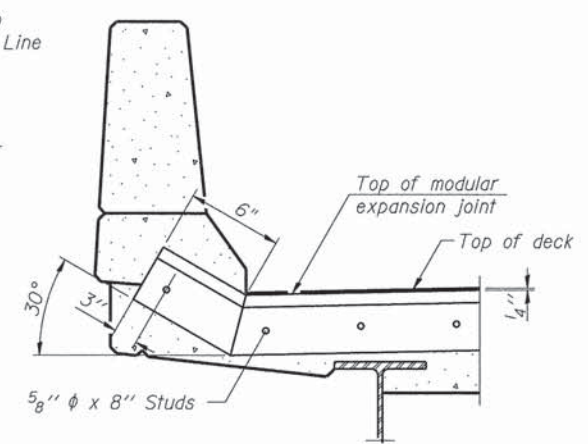
**SECTION A-A**

**BILL OF MATERIAL**

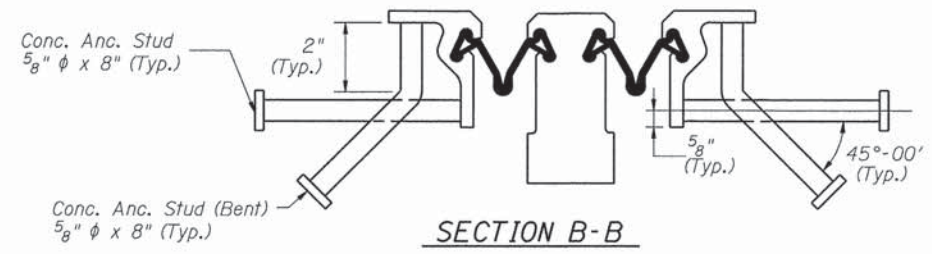
Item	Unit	Quantity
Modular Expansion Joint 6"	Foot	58



**MODULAR EXPANSION JOINT CURB DETAIL**



**END TREATMENT AT PARAPET**



**SECTION B-B**

**MODULAR EXPANSION JOINT DETAILS  
STRUCTURE NO. 045-3160**

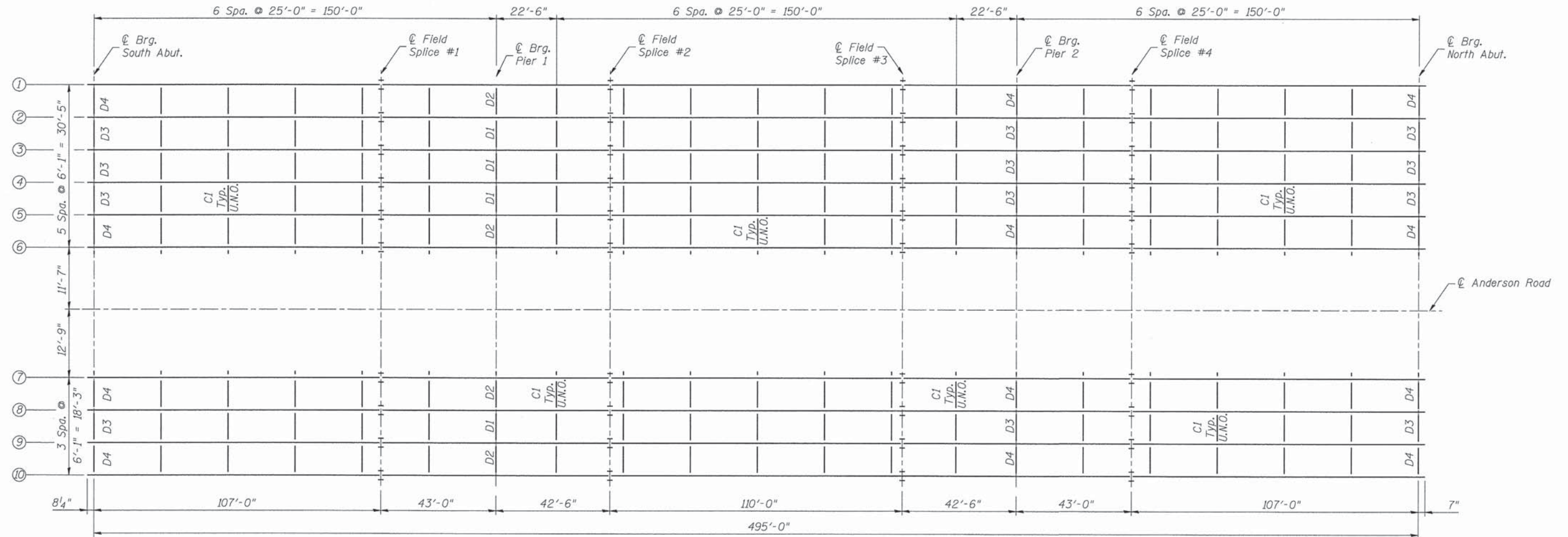
- GENERAL NOTES**
1. The contractor must coordinate pocket and expansion joint assembly dimensions prior to fabrication.
  2. All materials and fabrication shall be in accordance with the 2007 State of Illinois Department of Transportation Standard Specifications for Roads and Structures and the Project Special Provisions, except as noted herein.
  3. All welding shall conform to the requirements of the ANSI/AASHTO/AWS D1.5 and the project special provisions.
  4. The expansion joint assembly shall be hot dip galvanized in accordance with ASTM A-123 after fabrication.
  5. Studs may be bent to an angle of 30° to avoid interference with deck reinforcing or girders.
  6. Modular Expansion Joint 6" shall provide a minimum total movement of 4 1/2".
  7. Joint shall be fabricated to conform to the roadway profile and cross-slopes.
  8. Modular expansion joint shall be designed in accordance with the latest AASHTO Standard Specifications for HS-20 truck loading with impact.
  9. Concrete anchor studs attached to the modular expansion joint shall conform to the requirements of Article 1006.32 of the Standard Specifications. The cost of the anchor studs shall be included with modular expansion joints. Number and spacing of concrete anchor studs shall be determined by Joint Manufacturer in accordance with Note 8 above.
  10. Sliding plate assemblies as shown shall be provided for the parapets. The cost of furnishing and installing sliding plate assemblies shall be included with Modular Expansion Joints, 6".
  11. See sheet S-20 for Superstructure Bill of Material.
  12. Coordinate block out dimensions with Joint Manufacturer and reinforcement bar layout.
  13. Modular expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

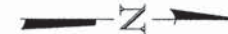


SHEET NO. S-24 S-43 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	141
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT		
			CONTRACT NO.		63698

DATE: 5/9/13



STEEL FRAMING PLAN



		0.4 Sp. 1	Pier	0.5 Sp. 2
<i>I<sub>s</sub></i>	(in <sup>4</sup> )	43,884	89,613	56,477
<i>I<sub>c</sub> (n)</i>	(in <sup>4</sup> )	95,338	Note 2	120,214
<i>I<sub>c</sub> (3n)</i>	(in <sup>4</sup> )	68,807	Note 2	86,212
<i>S<sub>s</sub></i>	(in <sup>3</sup> )	1,417	3,012	1,698
<i>S<sub>c</sub> (n)</i>	(in <sup>3</sup> )	2,253	Note 2	2,983
<i>S<sub>c</sub> (3n)</i>	(in <sup>3</sup> )	2,044	Note 2	2,721
<i>Z</i>	(in <sup>3</sup> )	---	---	---
<i>DL</i>	(k/ft.)	0.971	1.705	1.035
<i>M DL</i>	('k)	1253	5,295	1,376
<i>s DL</i>	(k/ft.)	0.525	---	0.525
<i>M<sub>s</sub> DL</i>	('k)	746	---	816
<i>MLL</i>	('k)	1109	1472	1331
<i>M (Imp)</i>	('k)	200	265	240
<i>5/3 [MLL + M(Imp)]</i>	('k)	2,181	2,895	2,618
<i>M<sub>a</sub></i>	('k)	5,434	10,647	6,253
<i>M<sub>u</sub></i>	('k)	7,741	---	10,671
<i>f<sub>s</sub> DL (non-comp)</i>	(k.s.i.)	10.61	21.10	9.72
<i>f<sub>s</sub> DL (comp)</i>	(k.s.i.)	4.38	Note 2	3.60
<i>f<sub>s</sub> 5/3 (LL + Imp)</i>	(k.s.i.)	11.62	11.53	10.53
<i>f<sub>s</sub> (Overload)</i>	(k.s.i.)	26.61	32.63	23.85
<i>f<sub>s</sub> (Total)</i>	(k.s.i.)	---	42.42	---
<i>VR</i>	(k)	69	---	126

		Abut.	Pier
<i>R DL</i>	(k)	78.2	312.7
<i>R LL</i>	(k)	47.3	106.4
<i>Imp.</i>	(k)	8.5	19.2
<i>R (Total)</i>	(k)	134.0	438.3

*I<sub>s</sub>* and *S<sub>s</sub>* are the moment of inertia and section modulus of the steel section used in computing *f<sub>s</sub>* (Total & Overload).  
*I<sub>c(n)</sub>* and *S<sub>c(n)</sub>* are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.  
*I<sub>c(3n)</sub>* and *S<sub>c(3n)</sub>* are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)  
*VR* is the maximum Live Load + Impact shear range in span.  
*Z* is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.  
*M<sub>a</sub>* (Applied Moment) = 1.3[MDL + *M<sub>s</sub>DL* + 5/3(MLL + *M(Imp)*)]  
The Plastic Moment capacity (*M<sub>u</sub>*) is computed according to AASHTO 10.48.1 and 10.50.1.1  
*f<sub>s</sub>* (Overload) is the sum of the stresses due to MDL + *M<sub>s</sub>DL* + 5/3(MLL + *M(Imp)*)  
*f<sub>s</sub>* (Total) (Non-compact section) is the sum of the stresses due to 1.3[MDL + *M<sub>s</sub>DL* + 5/3(MLL + *M(Imp)*)]

NOTES

- All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
- This bridge superstructure was designed assuming non-composite behavior in the negative moment regions (consistent with IDOT practice prior to 2012). Slab reinforcement was extended and headed shear studs were added to the negative moment regions later in order to take advantage of composite behavior.

STEEL FRAMING PLAN, GIRDER, MOMENT TABLES AND REACTION TABLE STRUCTURE NO. 045-3160

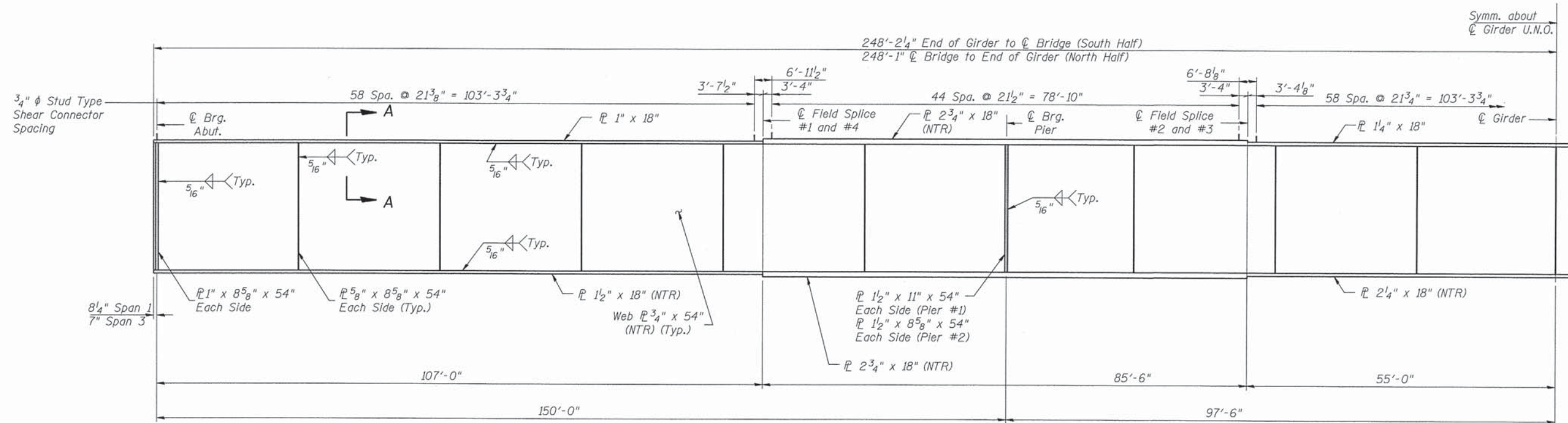
DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

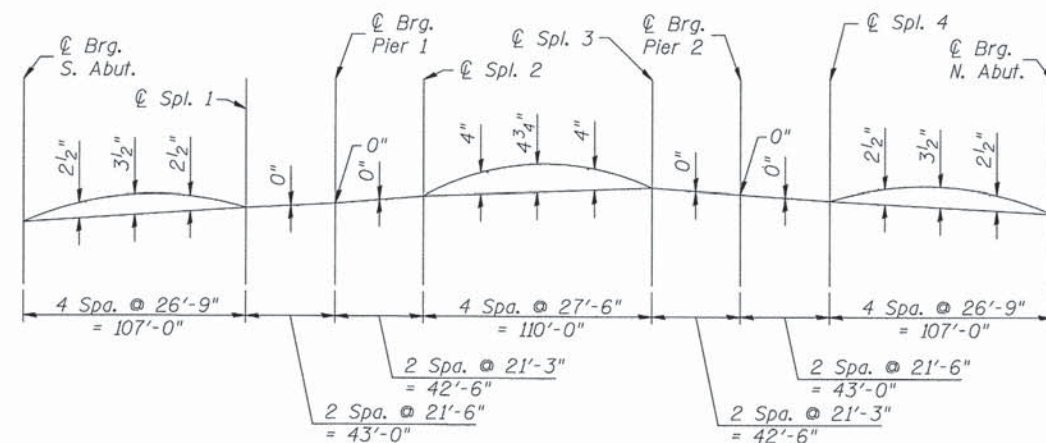


SHEET NO. S-25	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	142
S-43 SHEETS			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

FILE NAME: 090884-frm-01.dgn  
PLOT DRIVER: pdfplot  
PEN TABLE: S:\Struct\_2013\AUG\2013

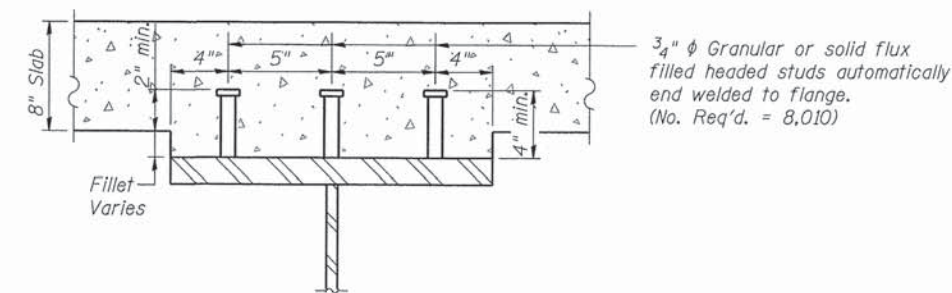


**GIRDER HALF ELEVATION**  
Not to Scale



**CAMBER DIAGRAM**

Camber includes correction for vertical curve and correction for deflection due to the weight of the concrete deck slab.



**SECTION A-A**  
Not to Scale

TOP OF WEB ELEVATIONS (For fabrication only)										
Girder #	℄ Brg. S. Abut.	℄ Field Splice #1	℄ Brg. Pier 1	℄ Field Splice #2	℄ Field Splice #3	℄ Brg. Pier 2	℄ Field Splice #4	℄ Brg. N. Abut.	Elevation Δ due to Deck Slope (ft)	Elevation Δ due to Deck Slope (in)
1	858.268	859.738	860.276	860.658	861.356	861.514	861.522	861.411	0.493	5.917
2	858.395	859.864	860.402	860.785	861.483	861.640	861.649	861.538	0.366	4.397
3	858.521	859.991	860.529	860.911	861.610	861.767	861.775	861.664	0.240	2.877
4	858.648	860.118	860.656	861.038	861.736	861.894	861.902	861.791	0.113	1.357
5	858.771	860.241	860.779	861.161	861.859	862.017	862.025	861.914	-0.10	-0.122
6	858.866	860.336	860.874	861.256	861.954	862.112	862.120	862.009	-0.105	-1.262
7	858.848	860.318	860.856	861.238	861.936	862.094	862.102	861.991	-0.087	-1.044
8	858.751	860.220	860.758	861.141	861.839	861.996	862.005	861.894	0.010	0.127
9	858.624	860.094	860.631	861.014	861.712	861.869	861.878	861.767	0.137	1.647
10	858.497	859.967	860.505	860.887	861.585	861.743	861.751	861.640	0.264	3.167

**NOTES:**

1. Work this sheet with sheet S-26, and S-27.
2. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

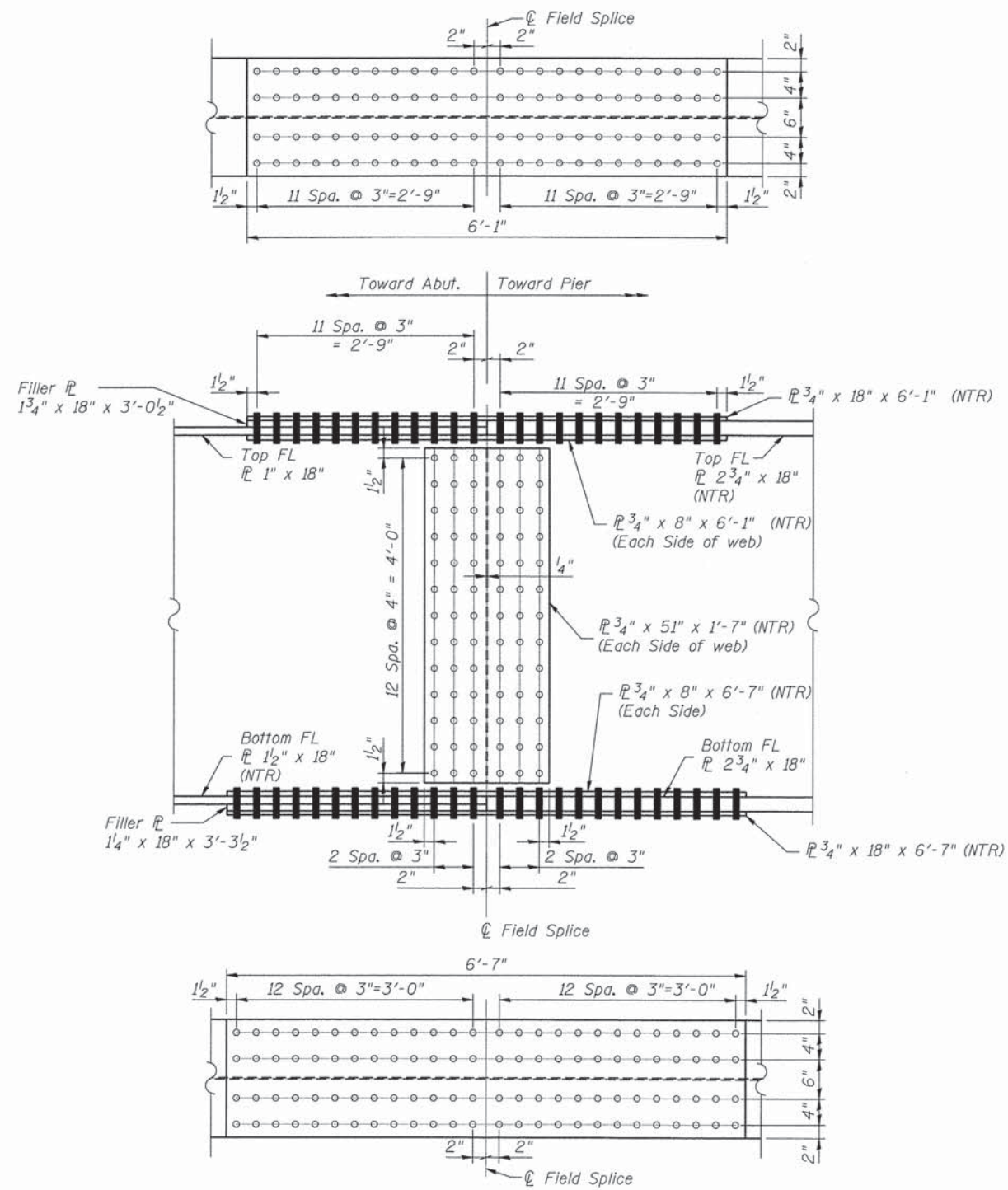
**GIRDER ELEVATION WITH FAB. DETAILS,  
CAMBER AND TOP ELEVATION  
STRUCTURE NO. 045-3160**

DATE: 5/9/13

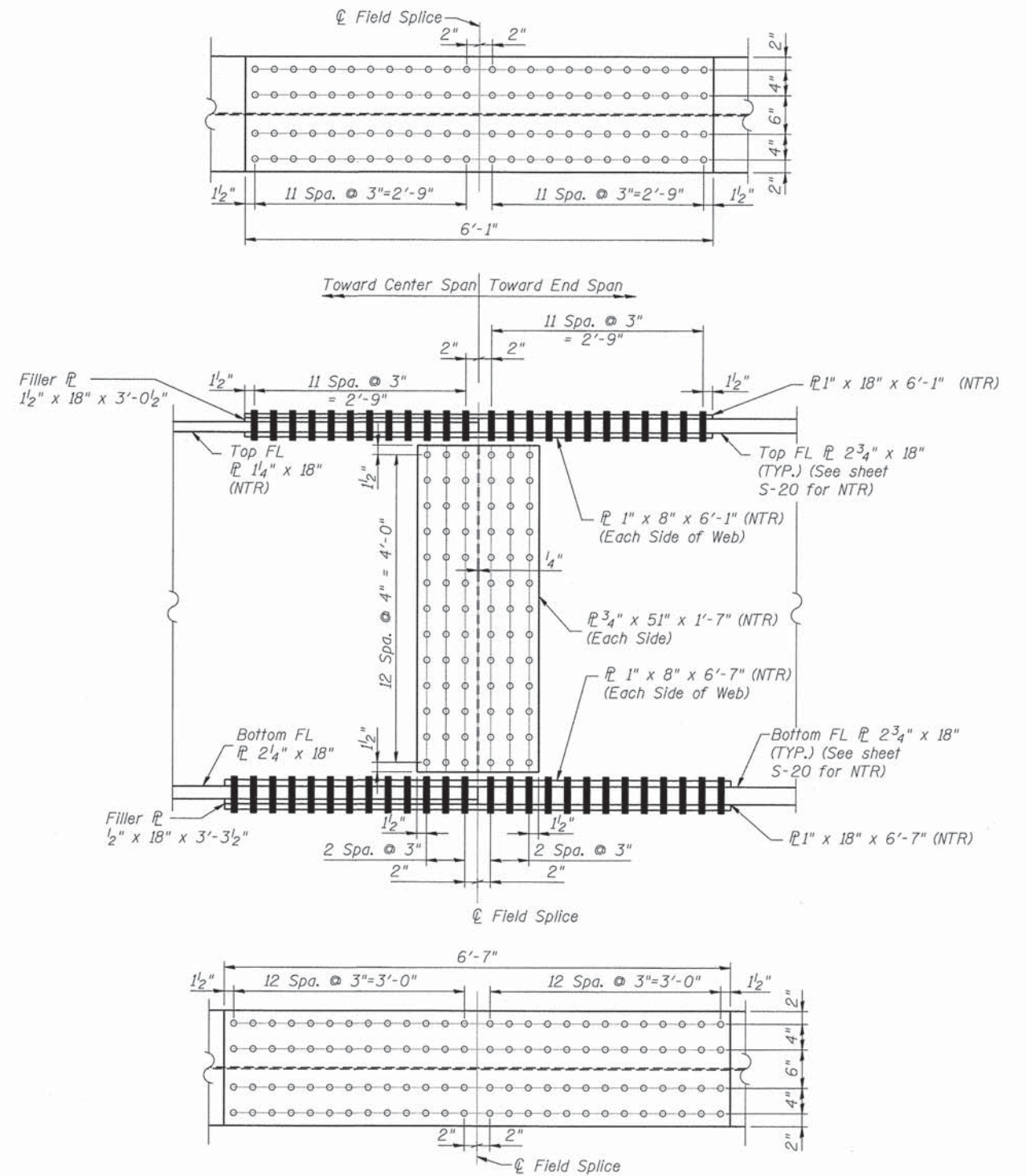
DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



SHEET NO. S-26 S-43 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	143
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT		
CONTRACT NO.				63698	



FIELD SPLICE #1 AND #4



FIELD SPLICE #2 AND #3

NOTES

- "NTR" denotes plates to which notch toughness requirements are applicable.

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

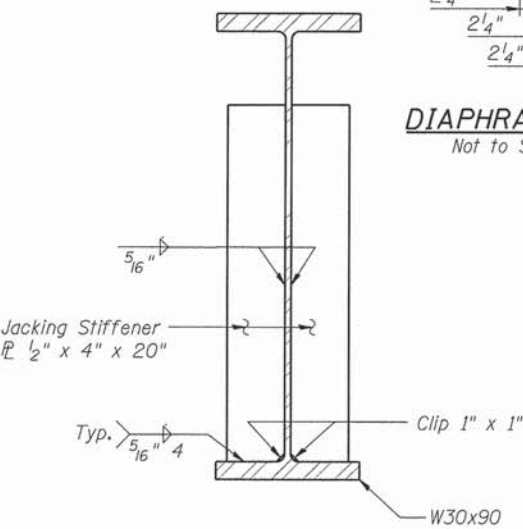
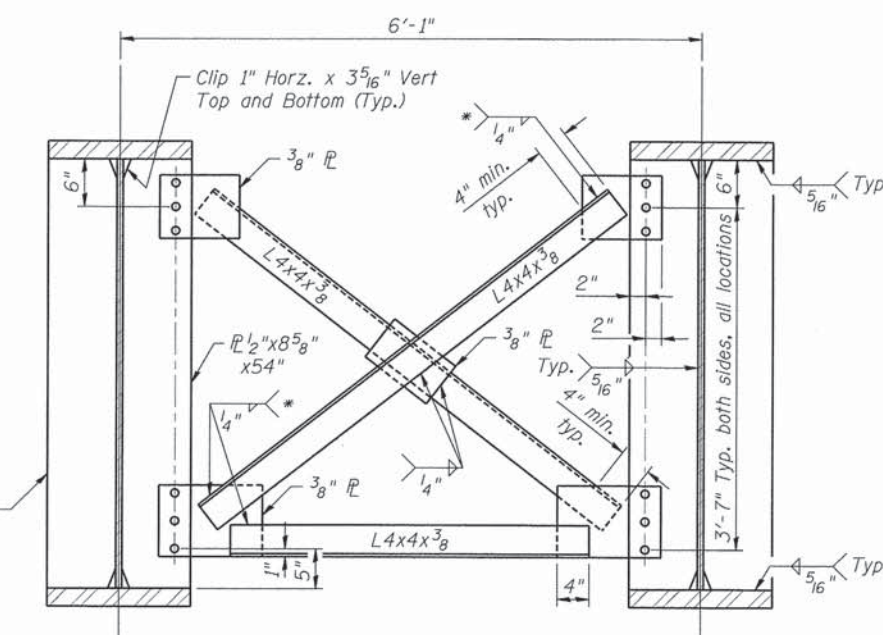
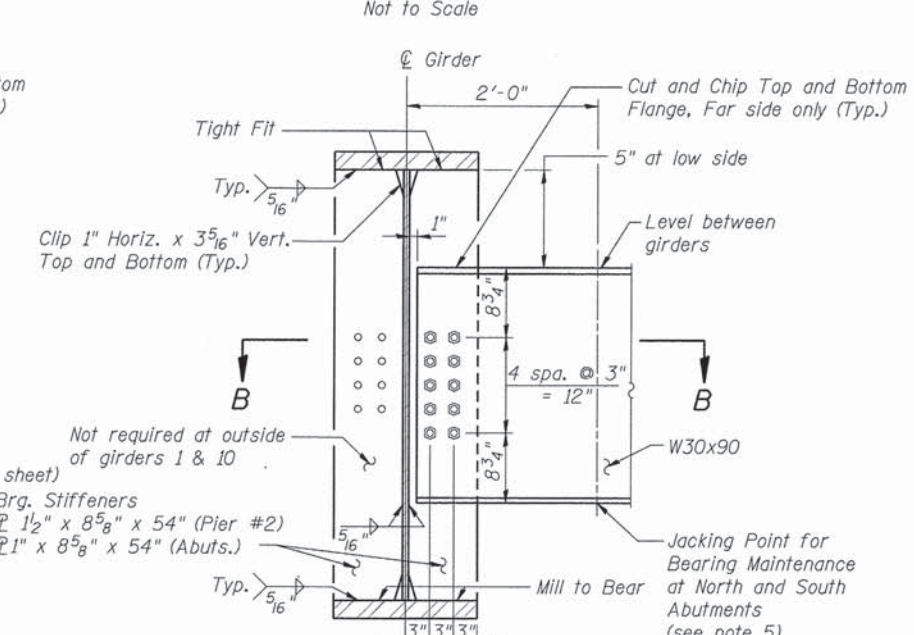
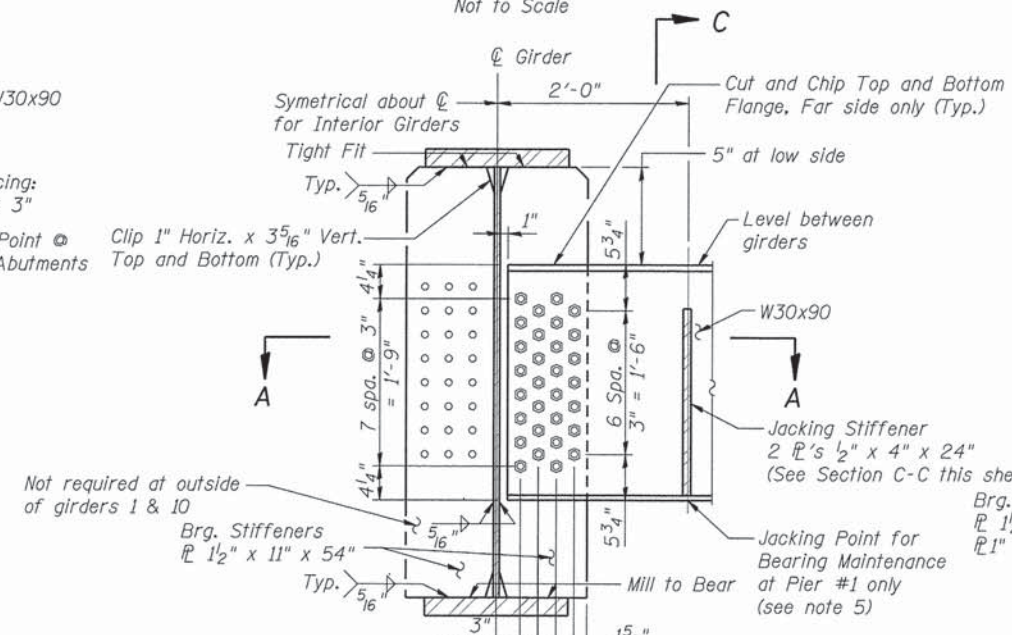
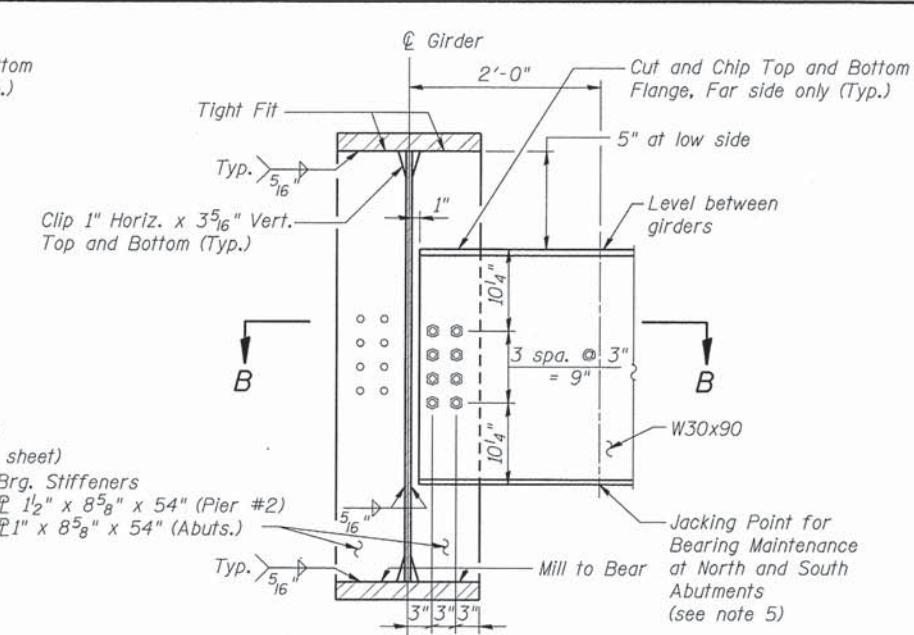
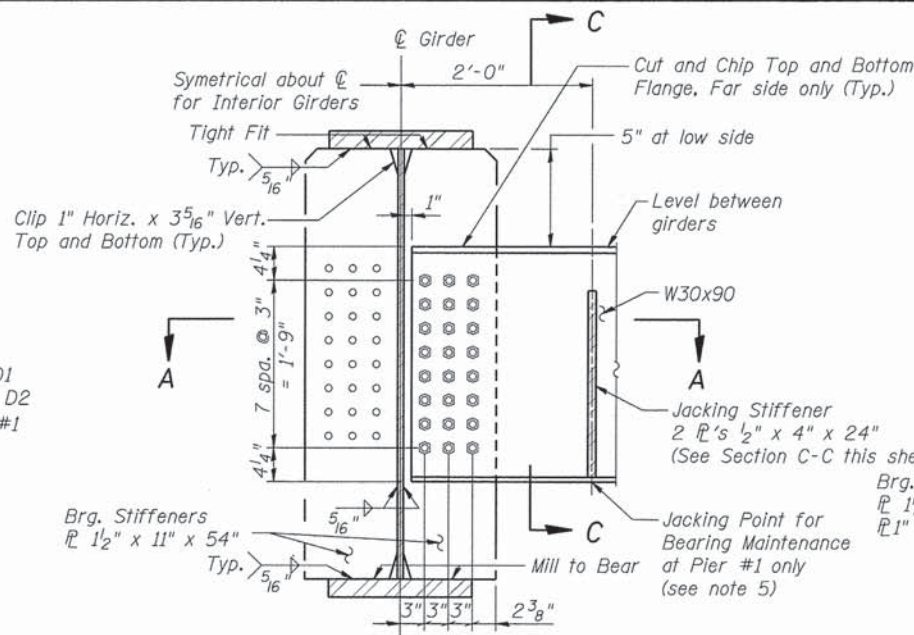
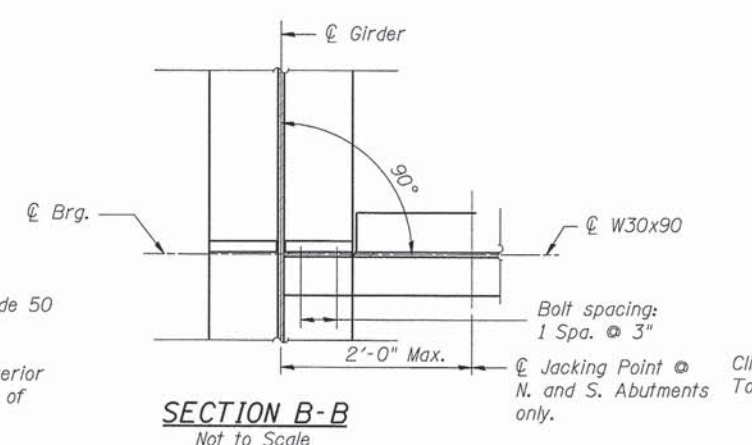
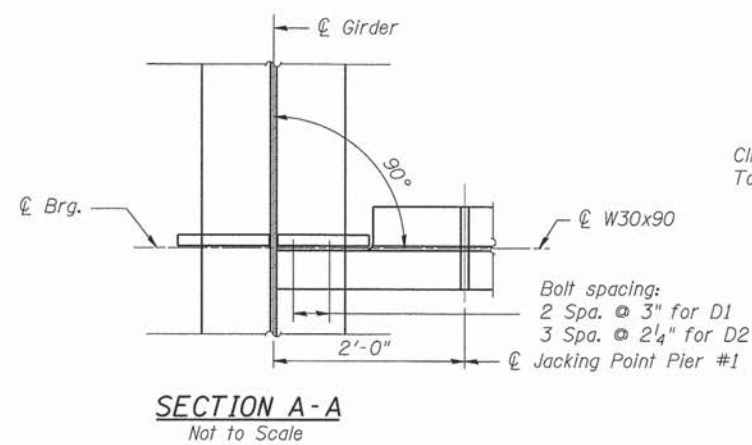
FILE NAME: 090804-frm-03.dgn  
 PLOT DRIVER: pafplot  
 PEN TABLE: Struct 22x34x26/2013



SHEET NO. S-27	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	144
S-43 SHEETS			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

GIRDER SPLICE DETAILS  
STRUCTURE NO. 045-3160

DATE: 5/9/13



**NOTES**

1. Work this sheet with sheets S-25, and S-26
2. Provide cross frame and diaphragm stiffeners for future widening with identical girders and cross slope.
3. Structural steel for diaphragms and cross frames shall be as follows:  
Diaphragms and Stiffener Plates= AASHTO M270 Grade 50  
Cross Frames = AASHTO M270 Grade 36
4. Note - the same stiffeners shall be provided on the exterior face of girders 6 and 7 to accommodate future widening of this structure.
5. Jacking force for expansion bearings at North and South Abutments = 76,300 lbs. at jacking points and for Pier #1 = 278,000 lbs at jacking points.

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

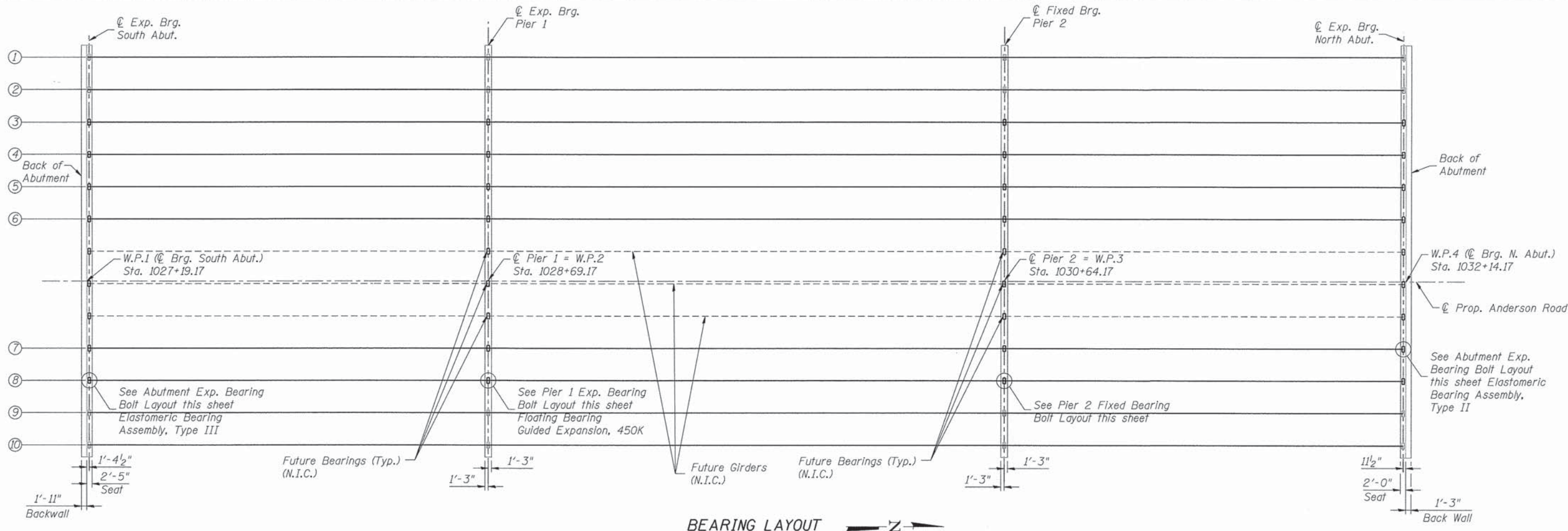
Note: 1<sup>1</sup>/<sub>16</sub>" φ holes for all 7<sup>8</sup>/<sub>16</sub>" φ bolts. Two hardened washers shall be required over all oversized holes.

**STEEL DIAPHRAGM DETAILS**  
STRUCTURE NO. 045-3160

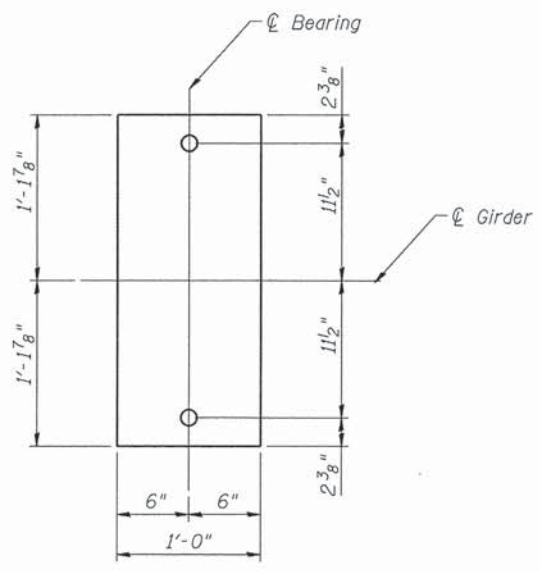
DATE: 5/9/13



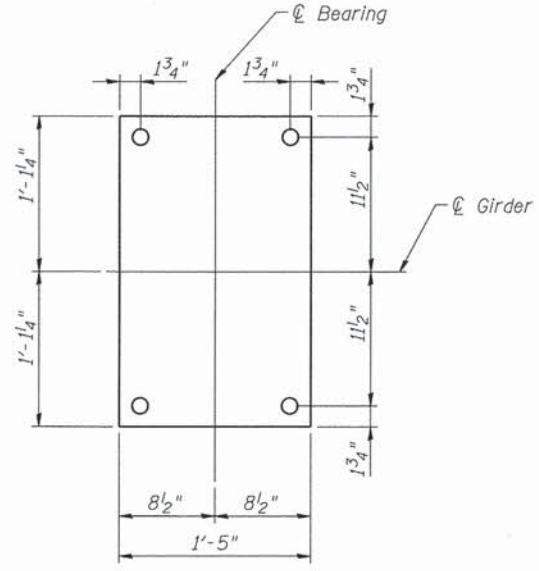
SHEET NO. S-28	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	145
S-43 SHEETS			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



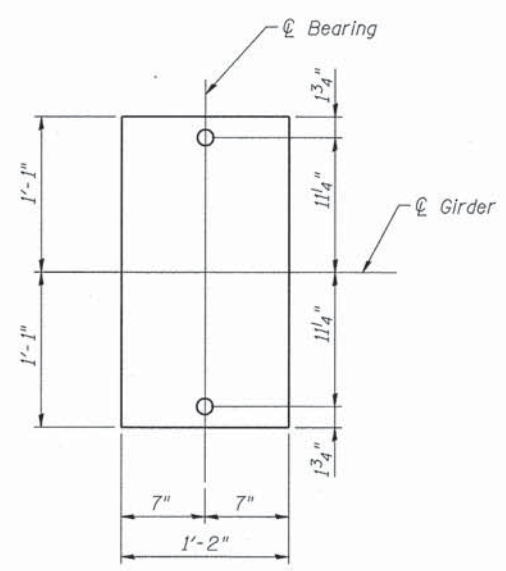
**BEARING LAYOUT**



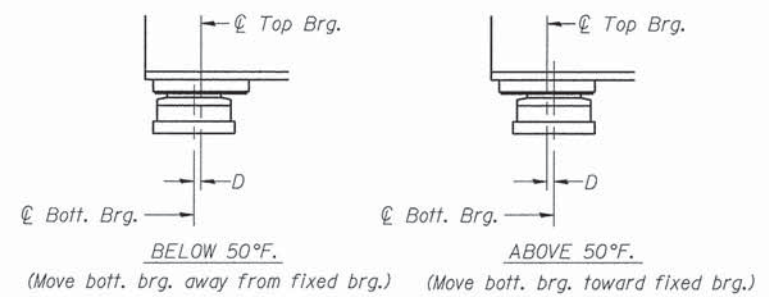
**ABUTMENT EXPANSION BEARING BOLT LAYOUT**



**PIER 1 EXPANSION BEARING BOLT LAYOUT**



**PIER 2 FIXED BEARING BOLT LAYOUT**



**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:**

- 1. Work this sheet with sheets S-30 & S-31.

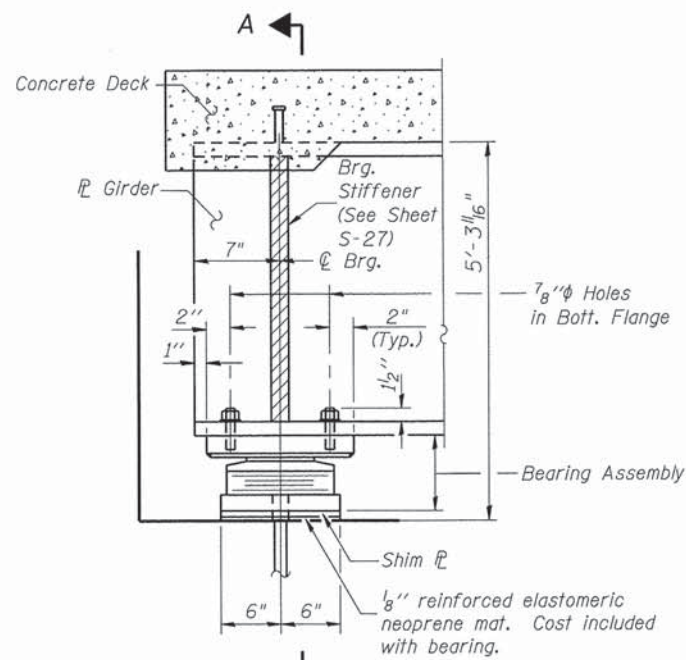
**BEARING AND ANCHOR BOLT LAYOUT**  
**STRUCTURE NO. 045-3160**

DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

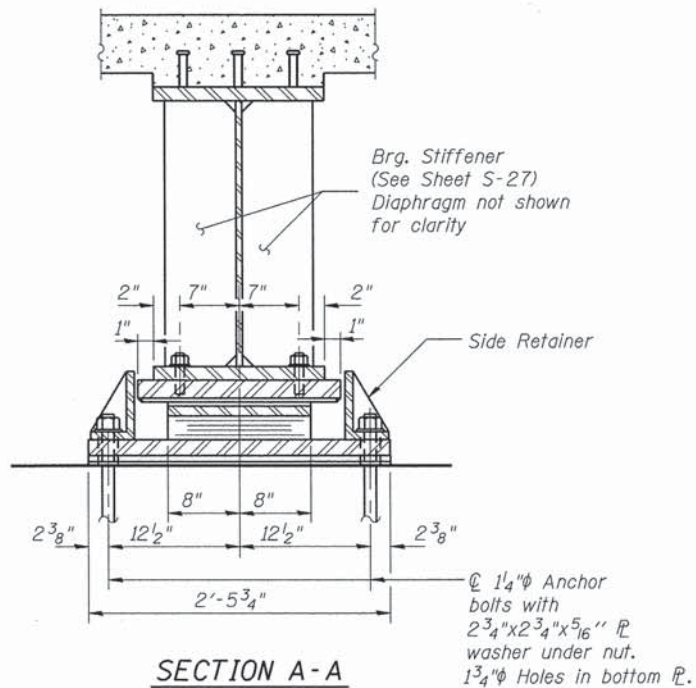


SHEET NO. S-29	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	146
S-43 SHEETS			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

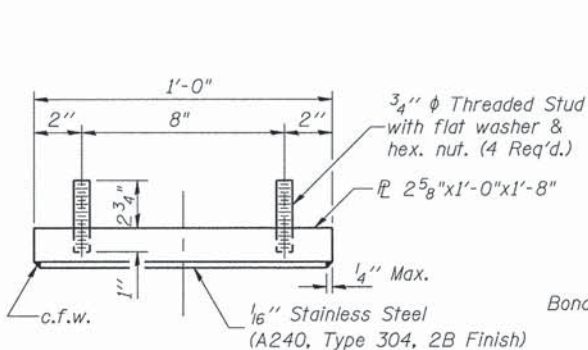


ELEVATION AT ABUT.

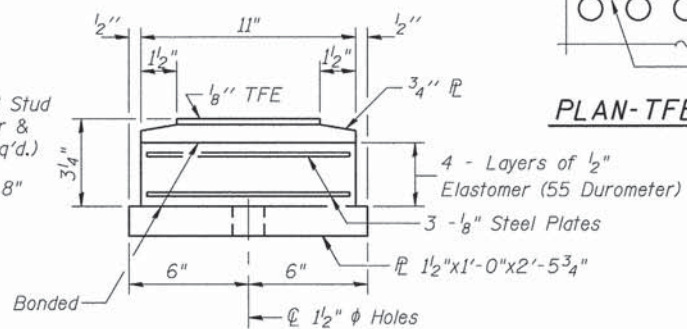
TYPE II ELASTOMERIC EXP. BRG.



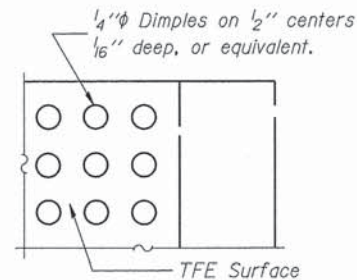
SECTION A-A



TOP BEARING ASSEMBLY

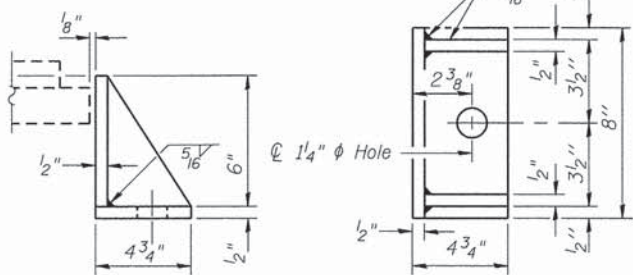


BOTTOM BEARING ASSEMBLY



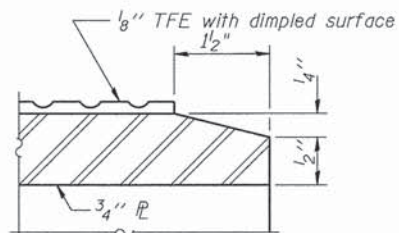
PLAN-TFE SURFACE

TYPE II TYPICAL DETAILS



SIDE RETAINER

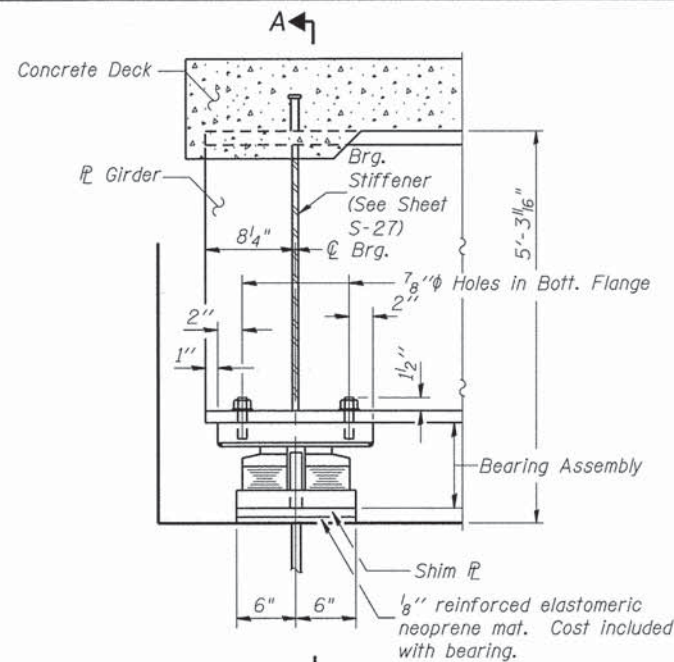
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.



SECTION THRU TFE

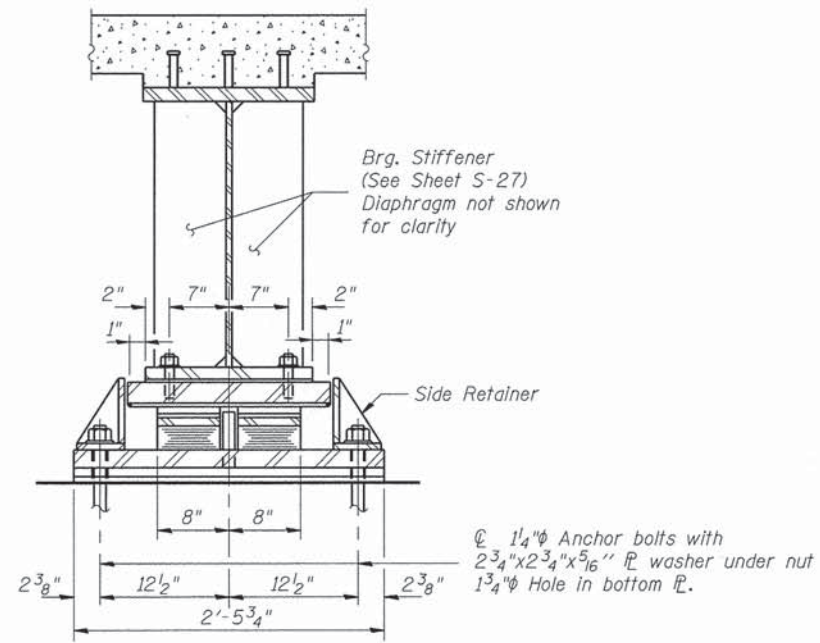
Note: The 1/8 inch TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8 inch TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

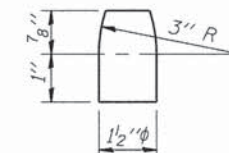


ELEVATION AT ABUT.

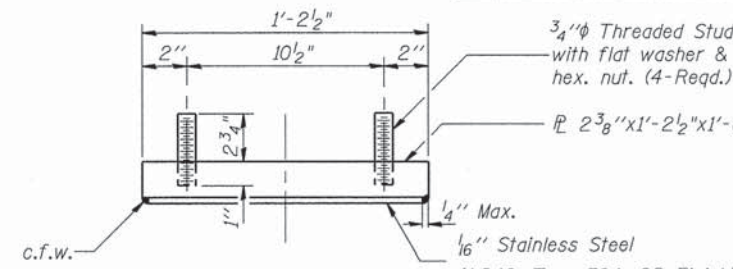
TYPE III ELASTOMERIC EXP. BRG.



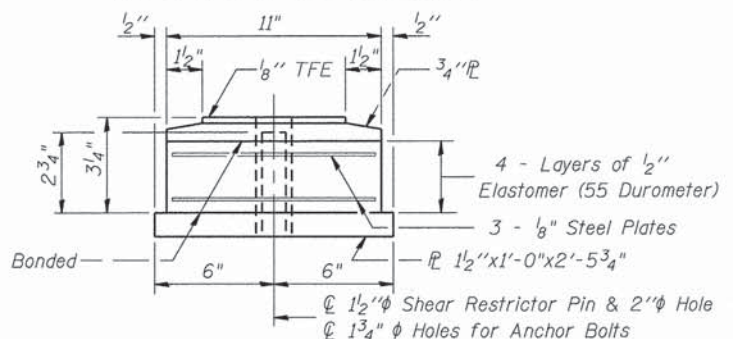
SECTION A-A



PINTLE



TOP BEARING ASSEMBLY

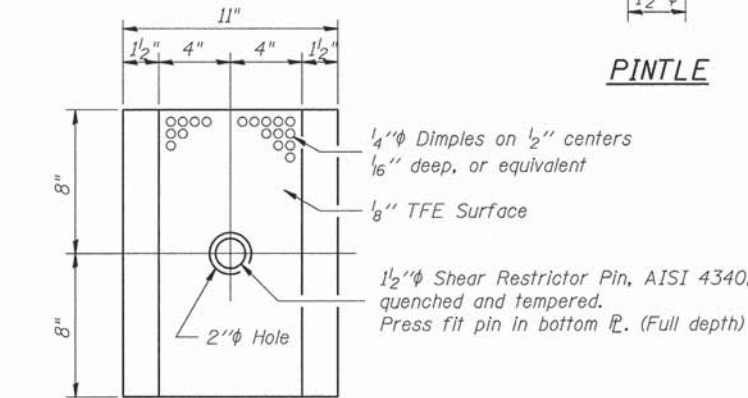


BOTTOM BEARING ASSEMBLY

TYPE III TYPICAL DETAILS

NOTES

1. Work this sheet with sheet S-29.
2. The structural steel bearing plates of the Elastomeric Bearing Assemblies shall conform to the requirement of AASHTO M 270 Grade 50.
3. Two 1/8 inch adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.



PLAN-TFE ELASTOMERIC BRG.

BILL OF MATERIAL

Item	Unit	Quantity
Elastomeric Bearing Assembly, Type II	Each	10
Elastomeric Bearing Assembly, Type III	Each	10

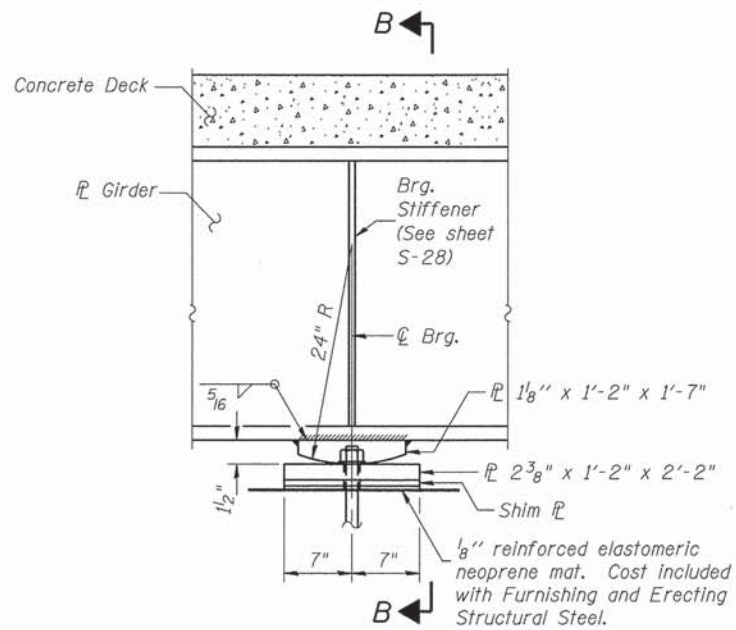
BEARING DETAILS (EXPANSION TYPE 2 AND EXPANSION TYPE 3) STRUCTURE NO. 045-3160

DATE: 5/9/13

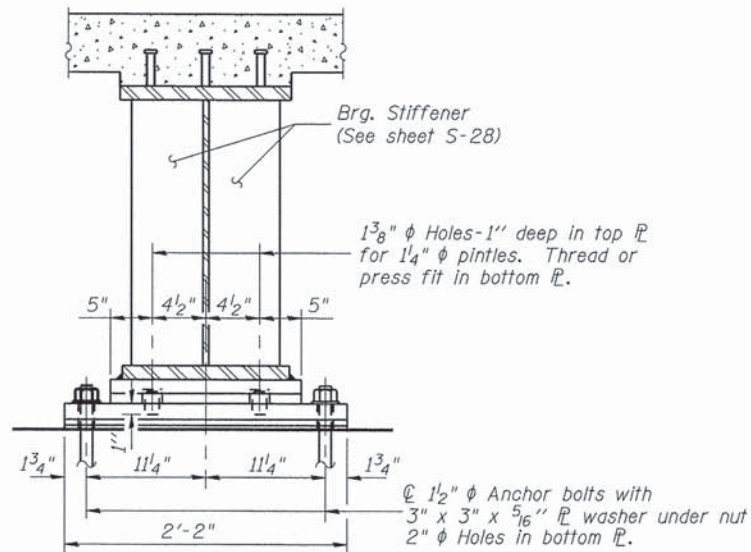
DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



SHEET NO. S-30	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	147
S-43 SHEETS			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

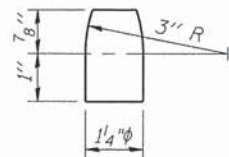


ELEVATION AT PIER #2



SECTION B-B

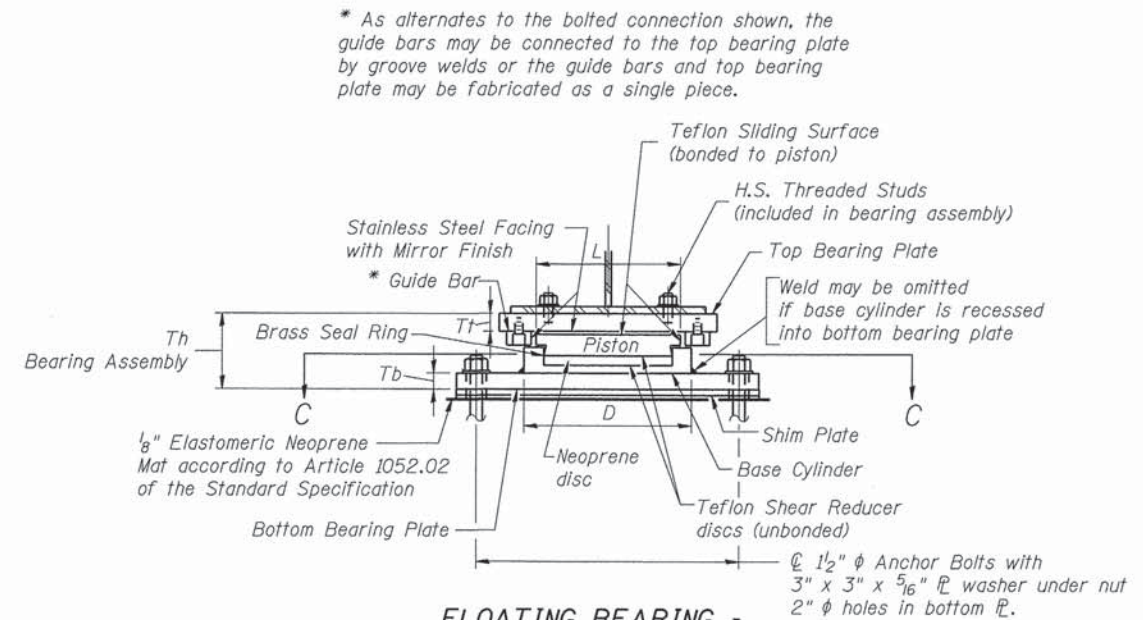
**FIXED BEARING**



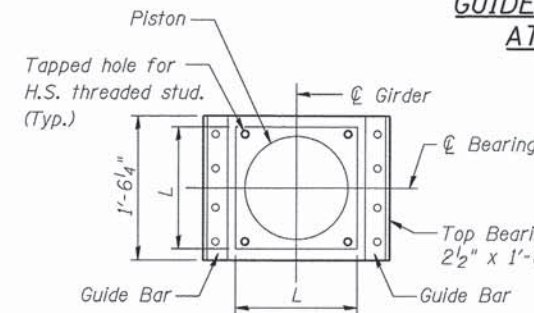
**PINTLE**

Notes: Anchor Bolts at Fixed Bearings may be built into the masonry. See sheet S-23 for Anchor Bolt installation

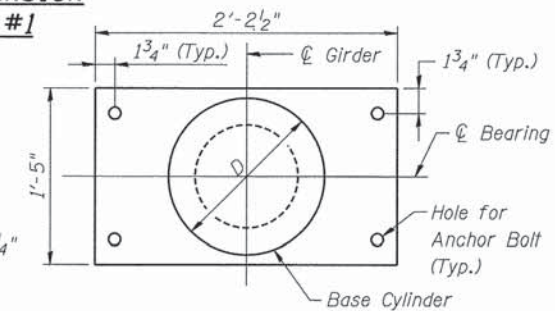
All plates, neoprene pads, shims, and fasteners necessary to furnish and install fixed bearing assemblies shall be included in the unit bid price for "Furnishing and Erecting Structural Steel".



**FLOATING BEARING - GUIDED EXPANSION AT PIER #1**



**TOP BEARING P AND PISTON PLAN**



**SECTION C-C BOTTOM BEARING P AND BASE CYLINDER PLAN**

**DIMENSIONS AND LOAD TABLE**

Vertical Design Load = 450 Kips	
Total Required Movement = 2 1/2"	
L = 14 3/4"	T <sub>t</sub> = 2 1/2"
D = 15 1/2"	T <sub>b</sub> = 2"
	T <sub>h</sub> = 8 13/16"

**BILL OF MATERIAL**

Item	Unit	Total
High Load Multi-Rotation Bearings, Guided Expansion, 450K	Each	10

**NOTES**

- Work this sheet with sheet S-23.
- 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.

**BEARING DETAILS (FLOATING BEARINGS AND FIXED BEARINGS) STRUCTURE NO. 045-3160**

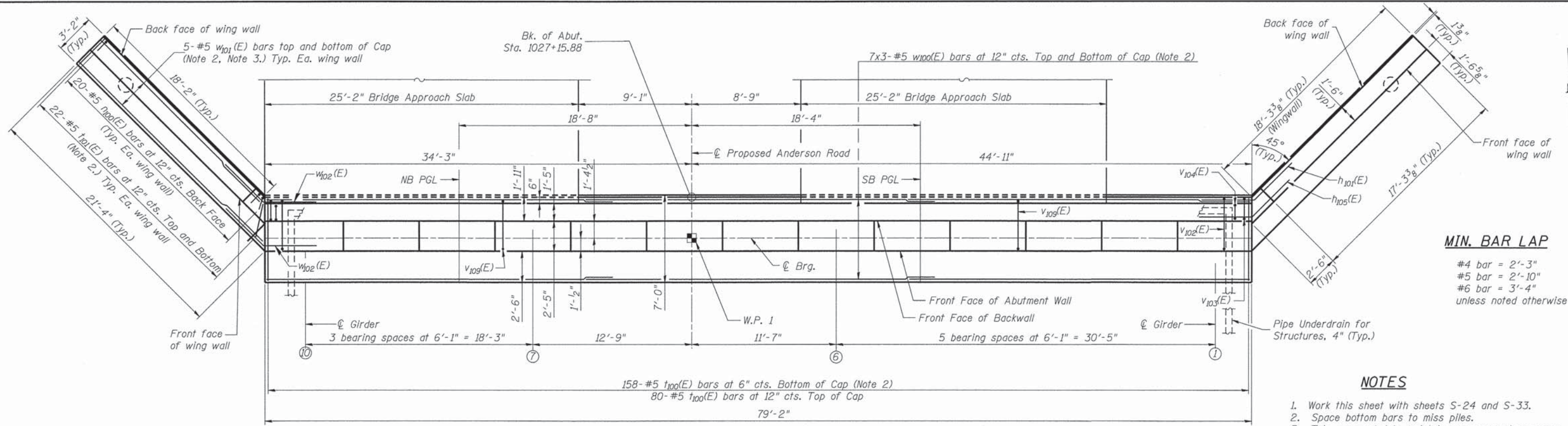
DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



SHEET NO. S-31	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	148
S-43 SHEETS			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					





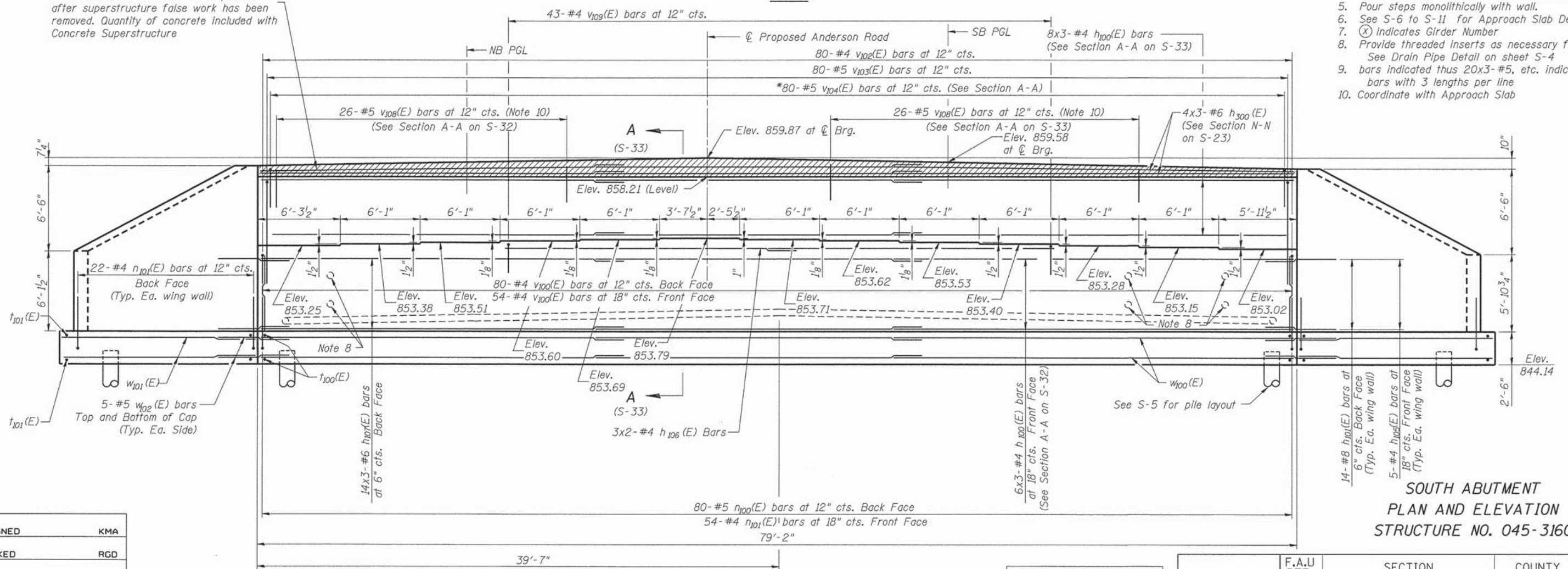
**PLAN**

Hatched area of Backwall to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure

**MIN. BAR LAP**  
 #4 bar = 2'-3"  
 #5 bar = 2'-10"  
 #6 bar = 3'-4"  
 unless noted otherwise

**NOTES**

1. Work this sheet with sheets S-24 and S-33.
2. Space bottom bars to miss piles.
3. Trim as needed to maintain necessary clear cover.
4. Space reinforcement in caps to miss anchor bolts.
5. Pour steps monolithically with wall.
6. See S-6 to S-11 for Approach Slab Details.
7. (X) indicates Girder Number
8. Provide threaded inserts as necessary for Pipe Clamps. See Drain Pipe Detail on sheet S-4
9. bars indicated thus 20x3-#5, etc. indicates 20 lines of bars with 3 lengths per line
10. Coordinate with Approach Slab



**ELEVATION**

\* Space v104 (E) bars to not conflict with Modular Expansion Joint

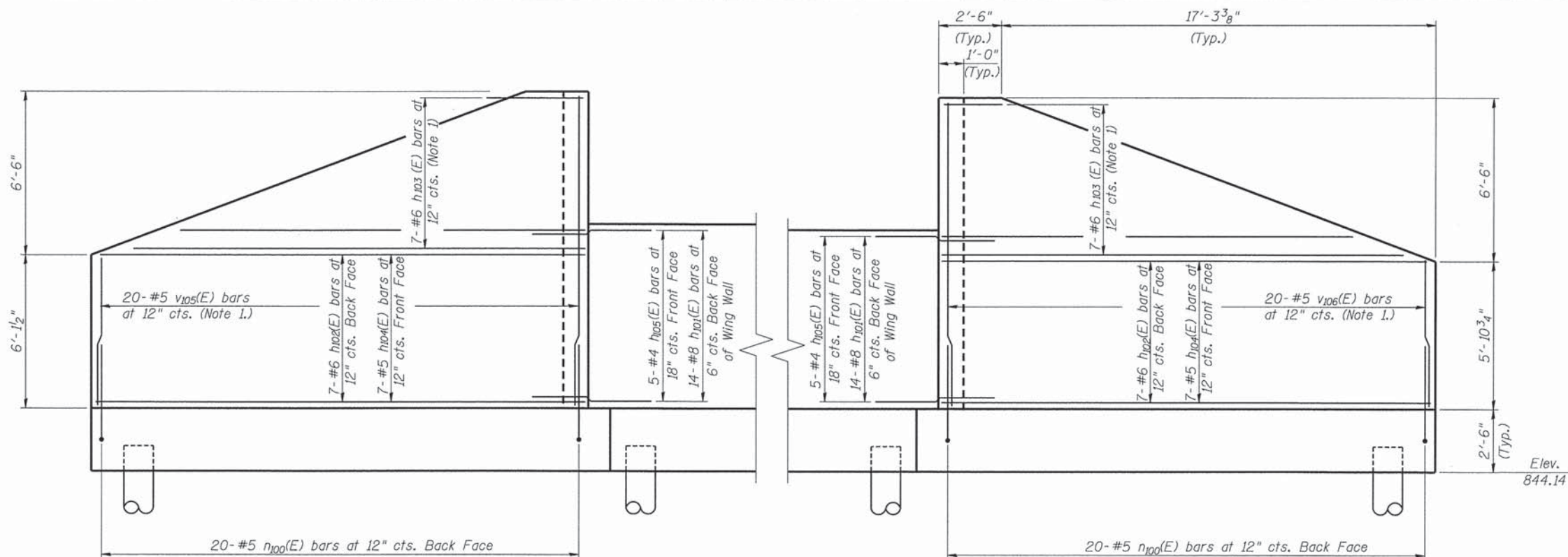
**SOUTH ABUTMENT  
 PLAN AND ELEVATION  
 STRUCTURE NO. 045-3160**

DATE: 5/9/13

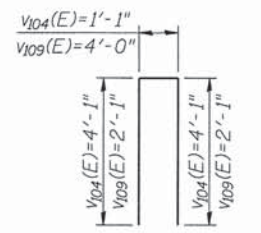
DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



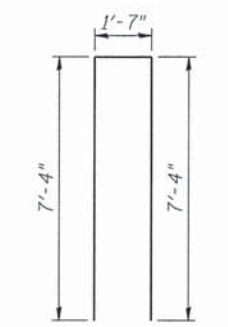
SHEET NO. S-32	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	149
S-43 SHEETS			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



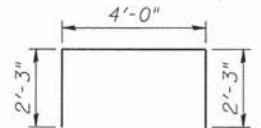
**WING WALL ELEVATION**  
(Looking South)



**BARS v104 (E) & v109 (E)**



**BAR v103 (E)**



**BAR v102 (E)**

**BILL OF MATERIAL FOR SOUTH ABUTMENT**

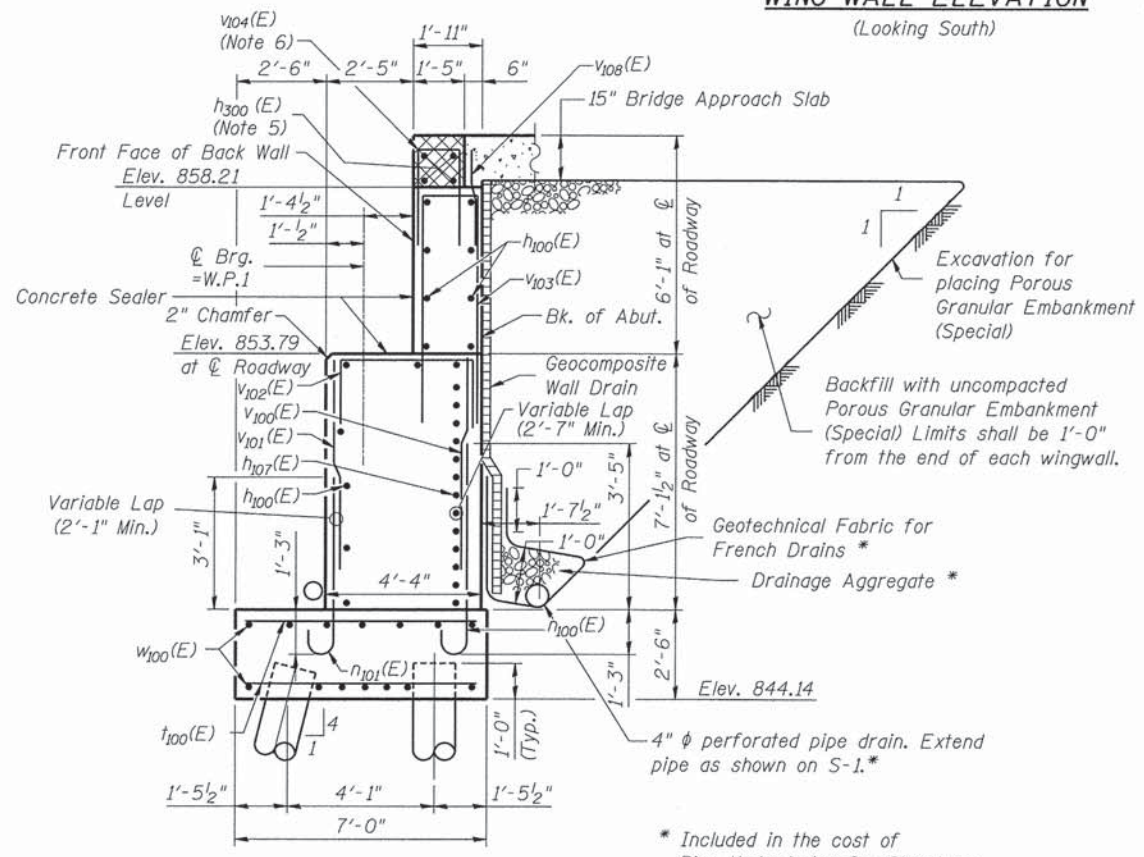
Bar	No.	Size	Length	Shape
h100(E)	42	#4	27'-8"	—
h101(E)	28	#8	10'-10"	✓
h102(E)	14	#6	17'-11"	—
h103(E)	14	#6	20'-1"	—
h104(E)	14	#5	19'-5"	—
h105(E)	10	#4	5'-2"	✓
h106(E)	6	#4	22'-3"	—
h107(E)	42	#6	28'-6"	—
n100(E)	120	#5	5'-3"	J
n101(E)	54	#4	4'-10"	J
t100(E)	238	#5	6'-8"	—
t101(E)	88	#5	2'-10"	—
v100(E)	134	#4	6'-1"	—
v102(E)	80	#4	8'-6"	□
v103(E)	80	#5	16'-3"	□
v104(E)	80	#5	9'-3"	□
v105(E)	20	#5	18'-3"	—
v106(E)	20	#5	17'-10"	—
v108(E)	52	#5	3'-11"	—
v109(E)	43	#4	8'-2"	—
w100(E)	42	#5	28'-0"	—
w101(E)	20	#5	21'-0"	—
w102(E)	20	#5	6'-0"	✓
Structure Excavation		Cu. Yd.	285	
Concrete Structures		Cu. Yd.	200.0	
Reinforcement Bars, Epoxy Coated		Pound	13,450	
Furnishing Metal Shell Piles, 14" x 0.25"		Foot	1,728	
Driving Piles		Foot	1,728	
Test Piles Metal Shells		Each	2	
Concrete Sealer		Sq. Ft.	673	

**MIN. BAR LAP**

- #4 bar = 2'-3"
- #5 bar = 2'-10"
- #6 bar = 3'-4"
- unless noted otherwise

**NOTES**

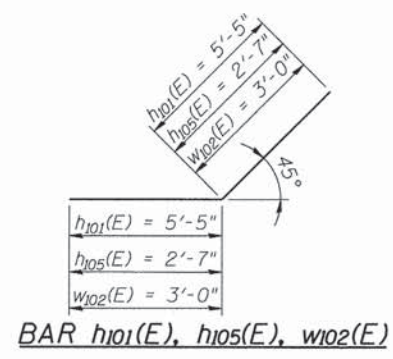
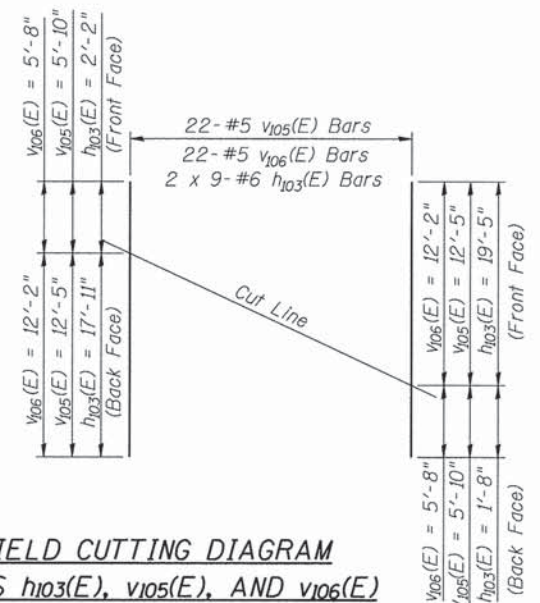
- Order v105(E), v106(E), and h103(E) bars full length, cut as shown in field cutting diagram, and use remainder in opposite face. Trim as needed to maintain 2" clear cover. See Field Cutting Diagram.
- Work this sheet with sheet S-32
- See Sheet S-20 for Superstructure Bill of Material.
- Coordinate Reinforcement with Block out for Modular Expansion Joint, 6" (See S-24).
- See sheet S-5 for Pile Data
- Piles shall be driven through 18" diameter precored holes extending to elevation 831.00 according to Article 512.09(c) of the Standard Specifications. Cost included in driving piles.



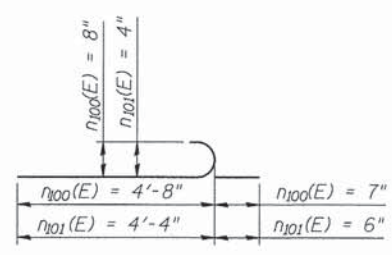
**SECTION A-A**  
Not to Scale

Note:  
All drainage system components shall extend to 2'-0" from the end of the abutment wall except an outlet pipe shall extend through the abutment as shown until intersecting with the side slopes of the Concrete Slope wall, 4". (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

**FIELD CUTTING DIAGRAM BARS h103(E), v105(E), AND v106(E)**



**BAR h101(E), h105(E), w102(E)**

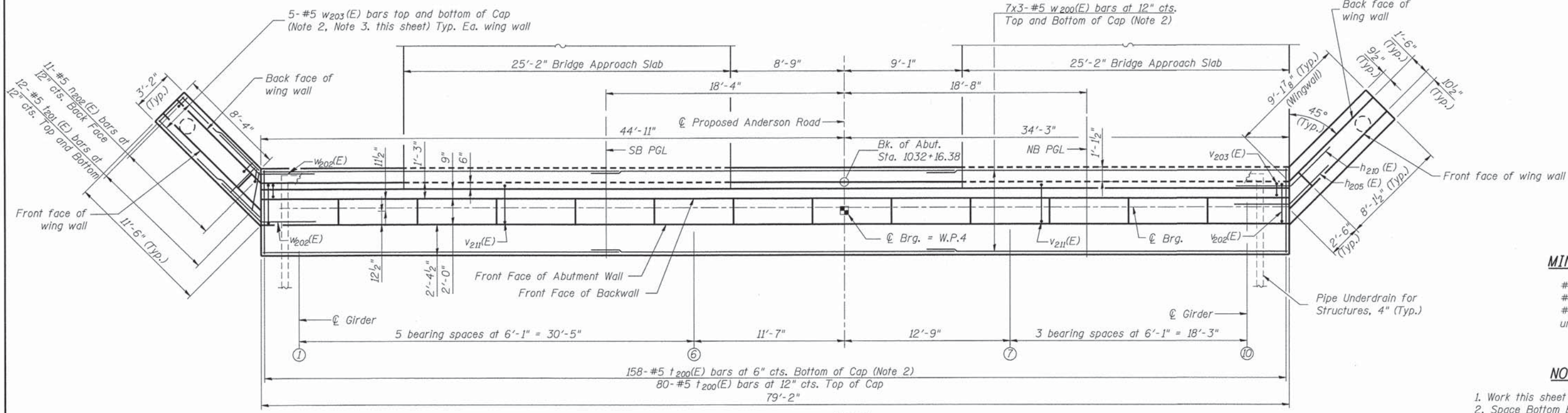


**BAR n100(E), n101(E)**

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



SHEET NO. S-33	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	150
S-43 SHEETS	CONTRACT NO. 63698			DATE: 5/9/13	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



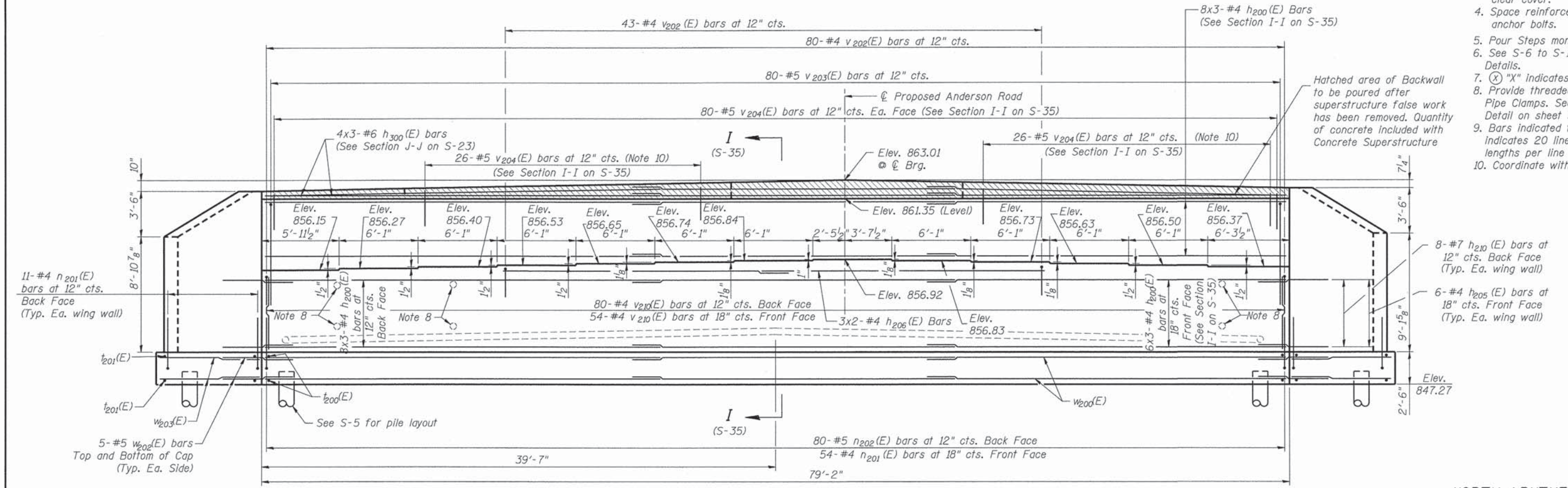
PLAN

**MIN. BAR LAP**

- #4 bar = 2'-3"
- #5 bar = 2'-10"
- #6 bar = 3'-4"
- unless noted otherwise

**NOTES**

1. Work this sheet with sheet S-35.
2. Space Bottom Bars to miss piles.
3. Trim as needed to maintain necessary clear cover.
4. Space reinforcement in caps to miss anchor bolts.
5. Pour Steps monolithically with wall.
6. See S-6 to S-11 for Bridge Approach Slab Details.
7. (X) "X" indicates Girder Number
8. Provide threaded inserts as necessary for Pipe Clamps. See Down Spout Extension Detail on sheet S-4
9. Bars indicated thus 20x3-#5, etc. indicates 20 lines of bars with 3 lengths per line
10. Coordinate with Approach Slab.



ELEVATION

**NORTH ABUTMENT  
PLAN AND ELEVATION  
STRUCTURE NO. 045-3160**

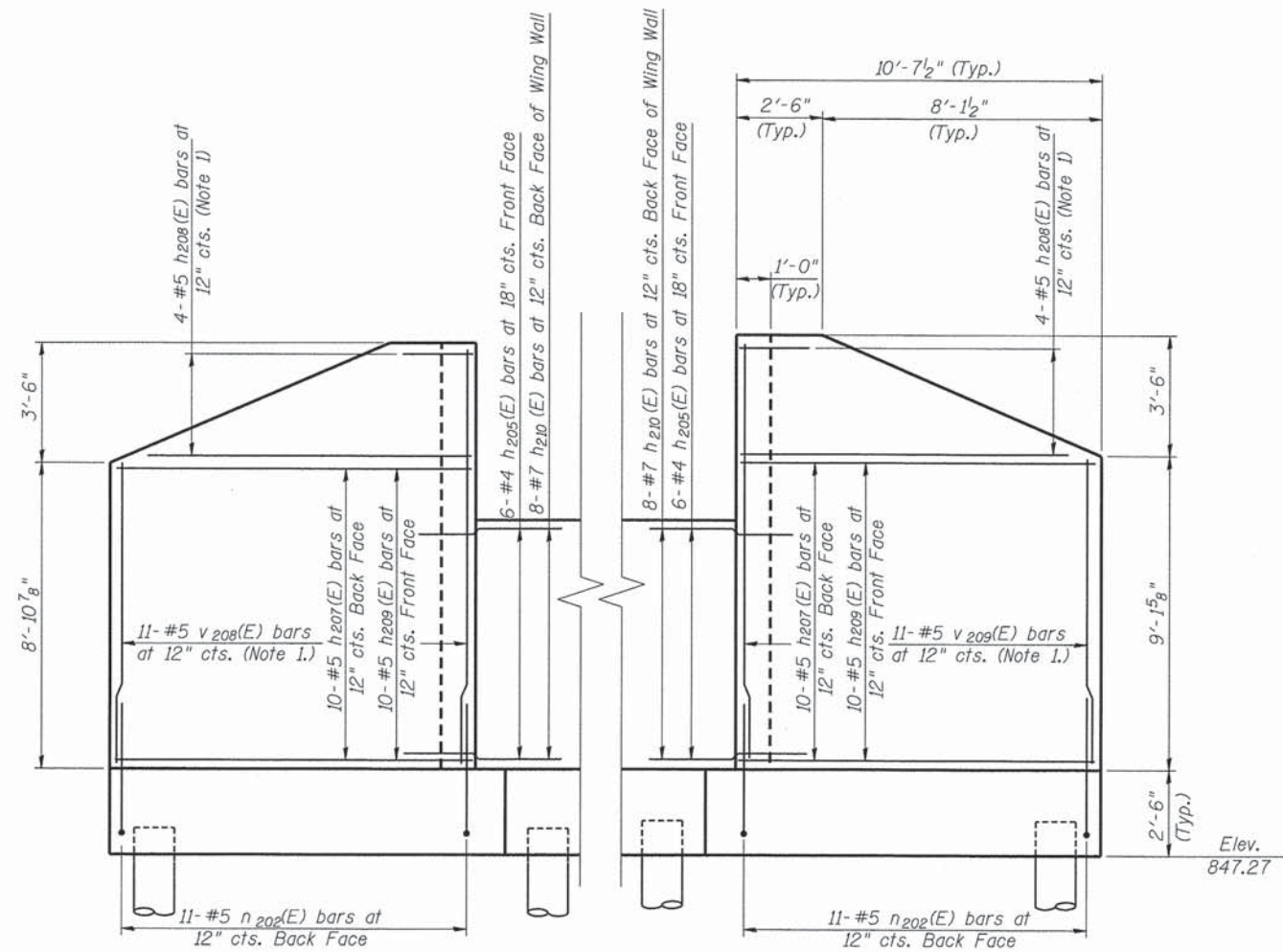
DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

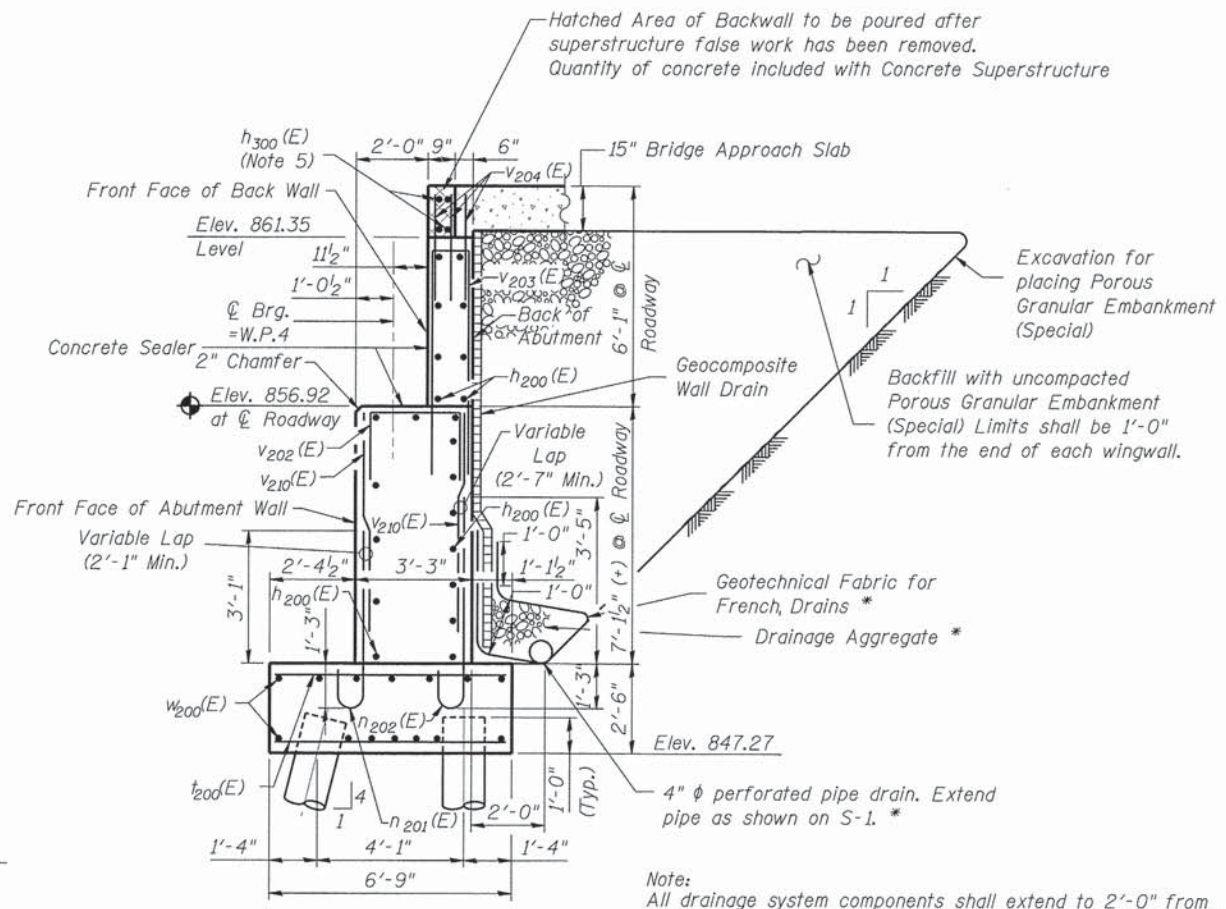


SHEET NO. S-34 S-43 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	151
			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

FILE NAME: 090084-001-03.dgn  
 PLOT DRIVER: pdfplot  
 PEN TABLE: Struct 20x34x28/2013



**WING WALL ELEVATION**  
(Looking North)

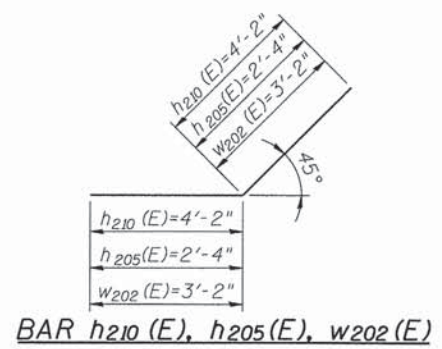


**SECTION I-I**

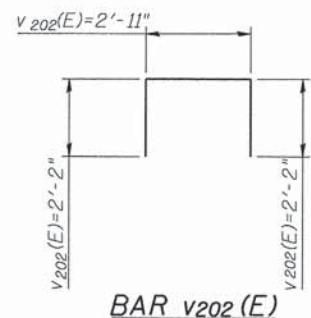
\* Included in the cost of Pipe Underdrains for Structures

**BILL OF MATERIAL FOR NORTH ABUTMENT**

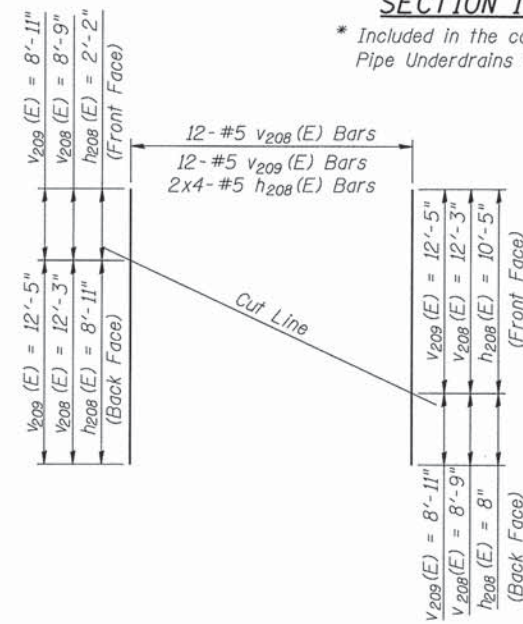
Bar	No.	Size	Length	Shape
h <sub>200</sub> (E)	66	#4	28'-3"	—
h <sub>205</sub> (E)	12	#4	4'-8"	✓
h <sub>206</sub> (E)	6	#4	22'-3"	—
h <sub>207</sub> (E)	20	#5	8'-11"	—
h <sub>208</sub> (E)	8	#5	11'-1"	—
h <sub>209</sub> (E)	20	#5	10'-3"	—
h <sub>210</sub> (E)	16	#7	8'-4"	✓
n <sub>201</sub> (E)	54	#4	4'-10"	J
n <sub>202</sub> (E)	102	#5	5'-3"	J
t <sub>200</sub> (E)	238	#5	6'-5"	—
t <sub>201</sub> (E)	48	#5	2'-10"	—
v <sub>202</sub> (E)	123	#4	7'-3"	□
v <sub>203</sub> (E)	80	#5	15'-9"	□
v <sub>204</sub> (E)	212	#5	3'-11"	—
v <sub>205</sub> (E)	11	#5	21'-0"	—
v <sub>209</sub> (E)	11	#5	21'-4"	—
w <sub>210</sub> (E)	134	#4	6'-1"	—
w <sub>200</sub> (E)	42	#5	28'-3"	—
w <sub>202</sub> (E)	20	#5	6'-4"	✓
w <sub>203</sub> (E)	20	#5	11'-2"	—
Structure Excavation			Cu. Yd.	227
Concrete Structures			Cu. Yd.	149.5
Reinforcement Bars, Epoxy Coated			Pound	10,010
Furnish Metal Shell Piles 14" X 0.25"			Foot	1920
Driving Piles			Foot	1920
Test Pile Metal Shells			Each	2
Concrete Sealer			Sq. Ft.	639



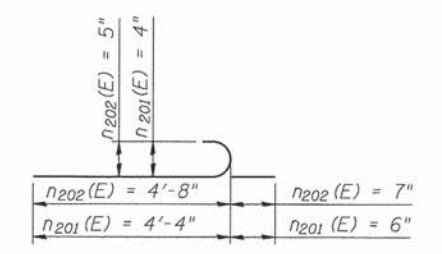
**BAR h<sub>210</sub>(E), h<sub>205</sub>(E), w<sub>202</sub>(E)**



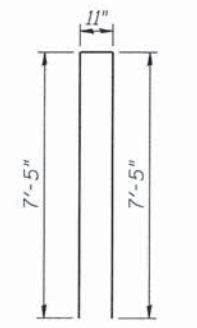
**BAR v<sub>202</sub>(E)**



**FIELD CUTTING DIAGRAM BARS h<sub>208</sub>(E), v<sub>208</sub>(E), AND v<sub>209</sub>(E)**



**BAR n<sub>201</sub>(E), n<sub>202</sub>(E)**



**BAR v<sub>203</sub>(E)**

**MIN. BAR LAP**

- #4 bar = 2'-3"
- #5 bar = 2'-10"
- #6 bar = 3'-4"
- unless noted otherwise

**NOTES**

- Order v<sub>208</sub>(E), v<sub>209</sub>(E), and h<sub>208</sub>(E) Bars full length, cut as shown in field cutting diagram, and use remainder in opposite face. Trim as needed to maintain 2" clear cover. See Field Cutting Diagram.
- Work this sheet with sheet S-34.
- See sheet S-20 for Superstructure Bill of Material
- Piles shall be driven through 18" diameter precored holes extending to elevation 827.50 according to Article 512.09(c) of the Standard Specifications. Cost included in driving piles.
- See sheet S-5 for Pile Data.

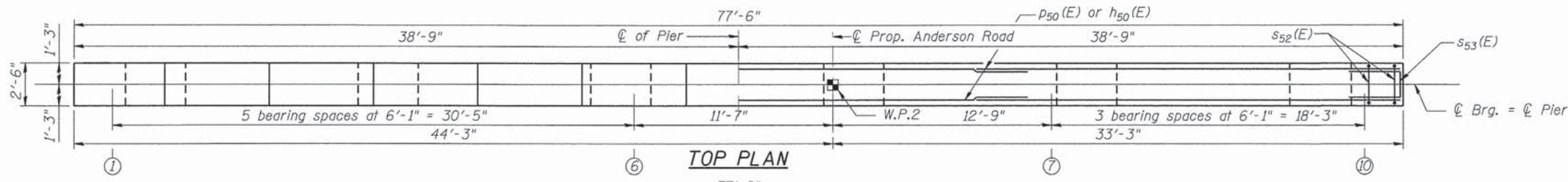
**NORTH ABUTMENT DETAILS AND SECTIONS**  
**STRUCTURE NO. 045-3160**

DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

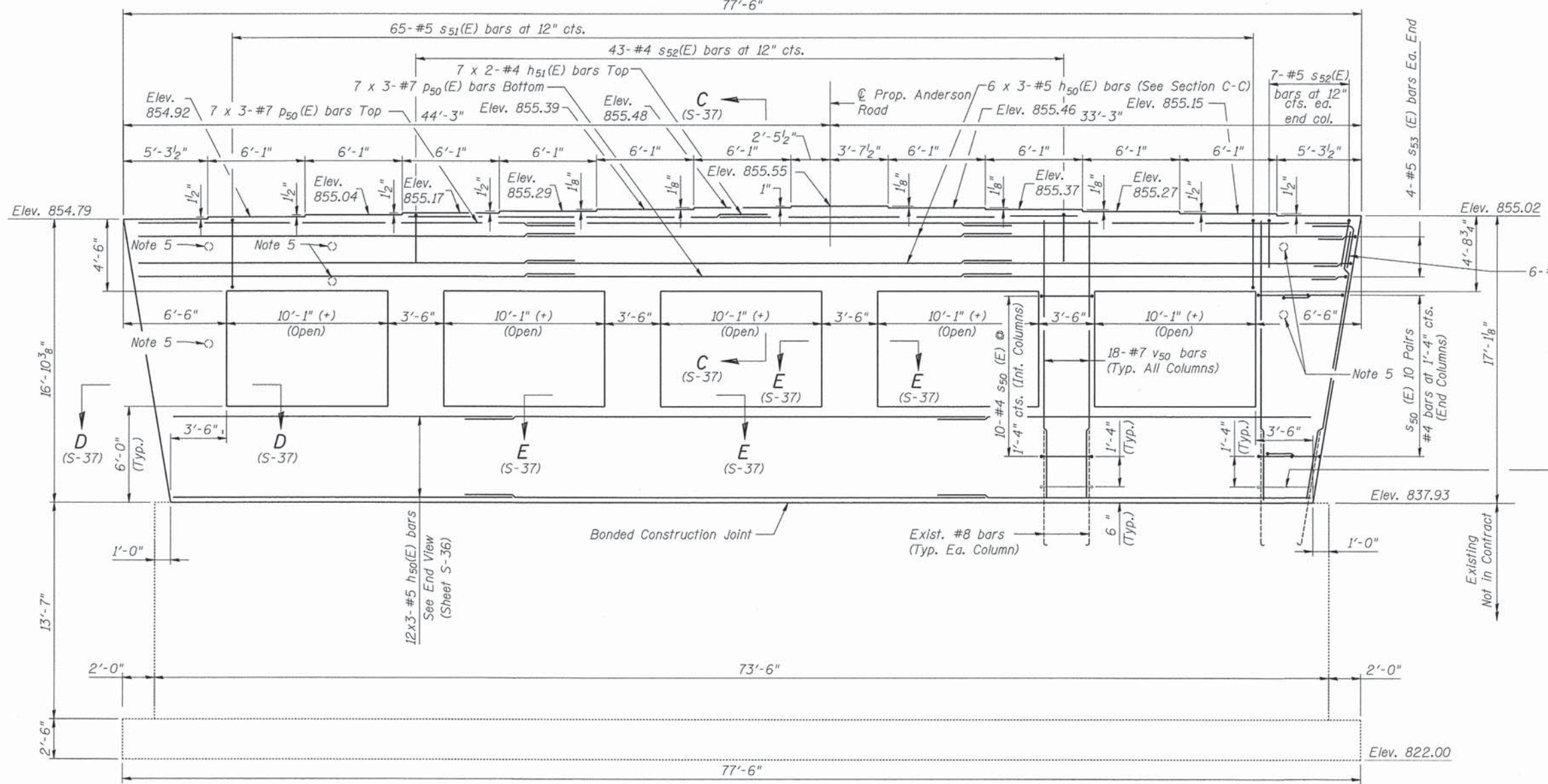


SHEET NO. S-35	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	152
S-43 SHEETS	CONTRACT NO. 63698				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



**MIN. BAR LAP**

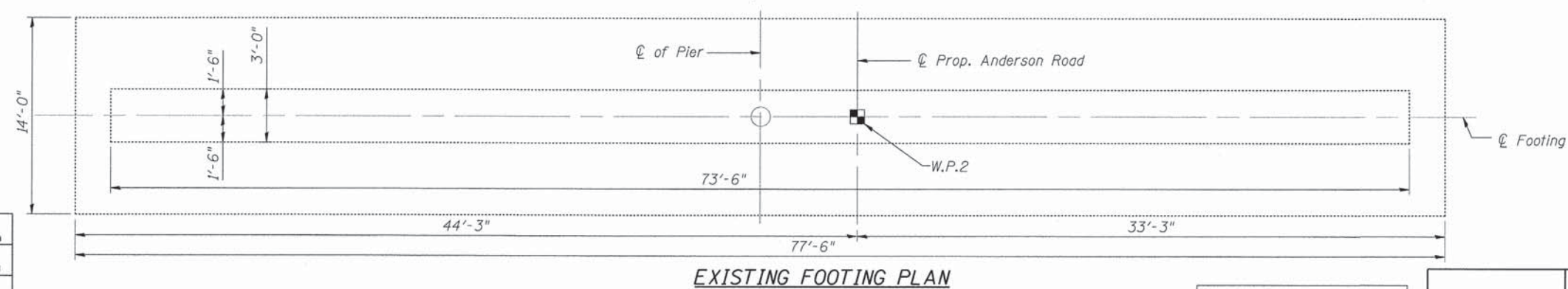
- #4 bar = 2'-3"
- #5 bar = 2'-10"
- #7 bar = 5'-10"



Remove and Replace exist. s50(E) bars, each column. Quantity included in Bill of Materials.

**NOTES**

1. Reinforcement is symmetric about  $\bar{C}$  Pier
2. Space reinforcement in cap to miss anchor bolts
3. Pour steps monolithically with cap.
4. bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
5. Provide threaded inserts as necessary for Pipe Clamps. See Down Spout Extension Detail on S-4.
6. Bonded Construction Joints shall be prepared in accordance with Article 503.09 (b).
7. See Note 26 on S-2



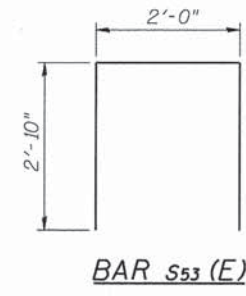
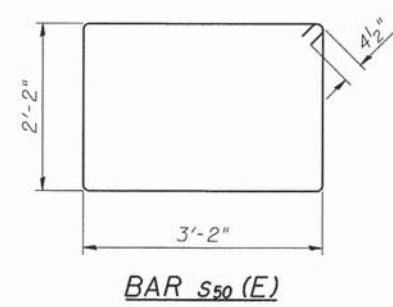
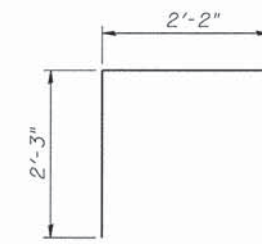
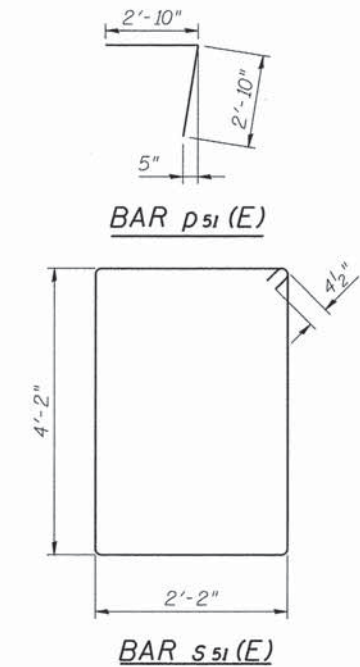
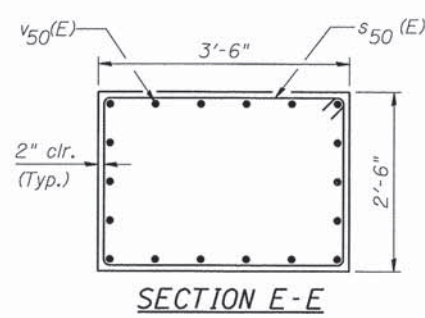
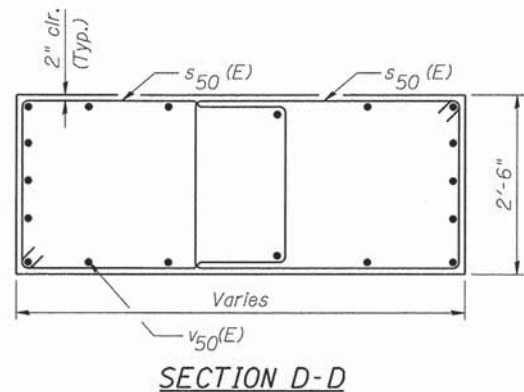
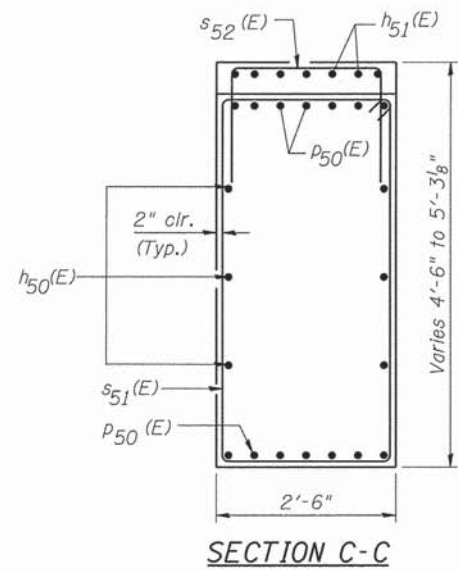
**PIER 1  
PLAN AND ELEVATION  
STRUCTURE NO. 045-3160**

DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



SHEET NO. S-36 S-43 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	153
			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

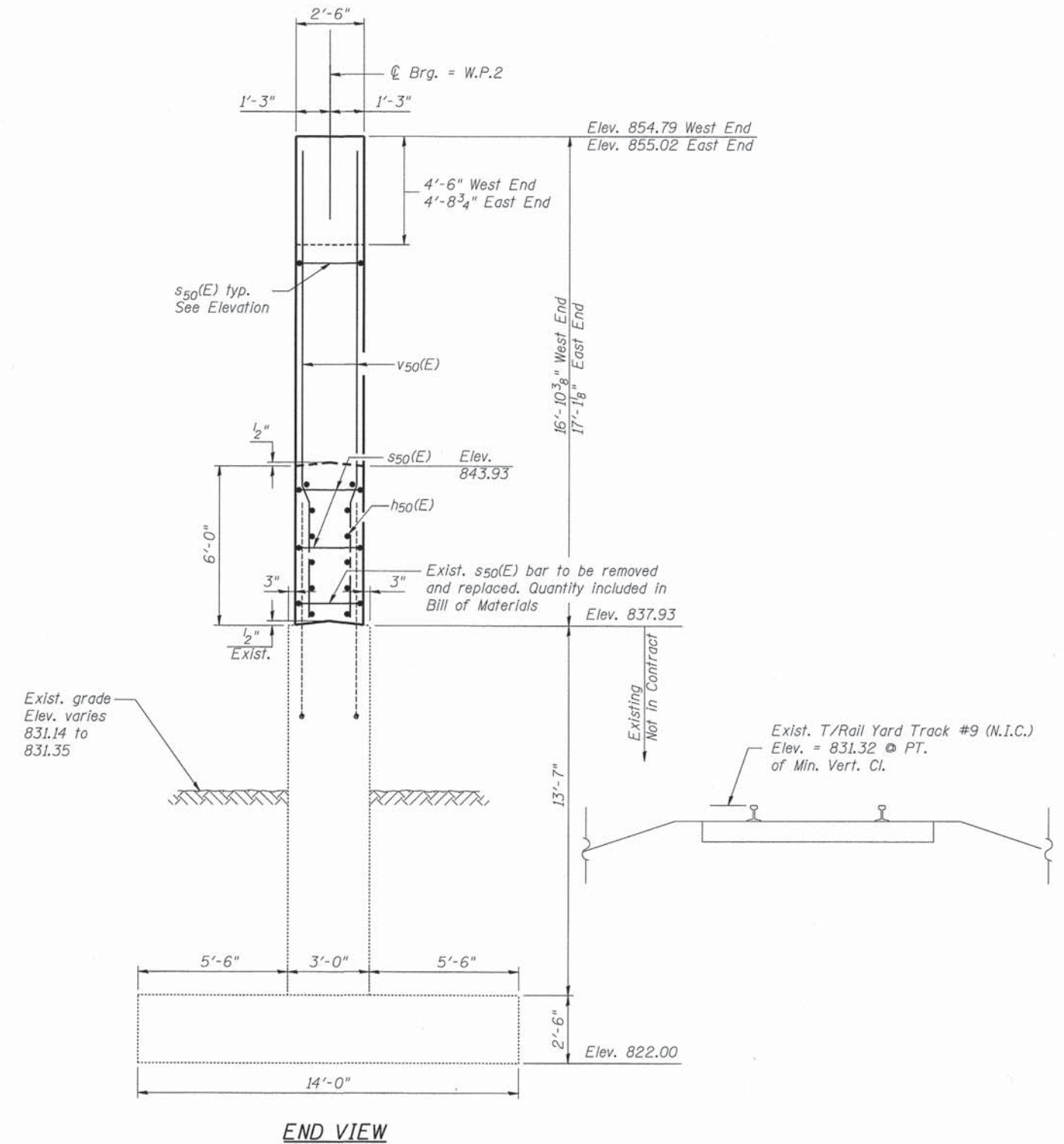


BILL OF MATERIAL FOR PIER 1

Bar	No.	Size	Length	Shape
h <sub>50</sub> (E)	54	#5	27'-8"	—
h <sub>51</sub> (E)	14	#4	22'-3"	—
p <sub>50</sub> (E)	42	#7	29'-7"	—
p <sub>51</sub> (E)	12	#5	5'-8"	7
s <sub>50</sub> (E)	86	#4	11'-5"	□
s <sub>51</sub> (E)	65	#5	13'-5"	□
s <sub>52</sub> (E)	57	#4	6'-8"	┘
s <sub>53</sub> (E)	8	#5	7'-8"	┘
v <sub>50</sub> (E)	108	#7	16'-8"	—
Concrete Structures			Cu. Yd.	89.6
Reinforcement Bars, Epoxy Coated			Pound	9,940

MIN. BAR LAP

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



END VIEW

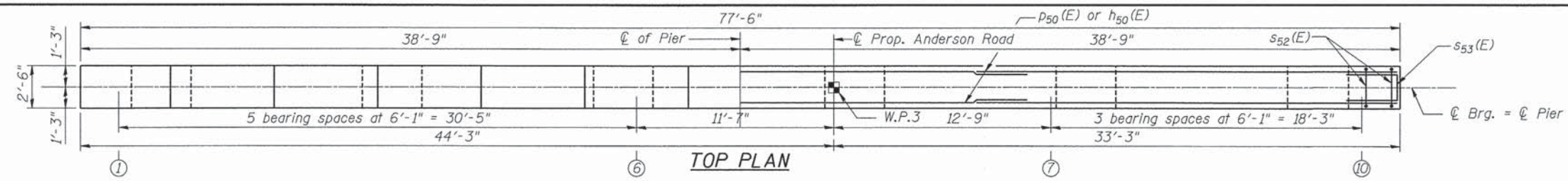
PIER 1  
DETAILS AND SECTIONS  
STRUCTURE NO. 045-3160

DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

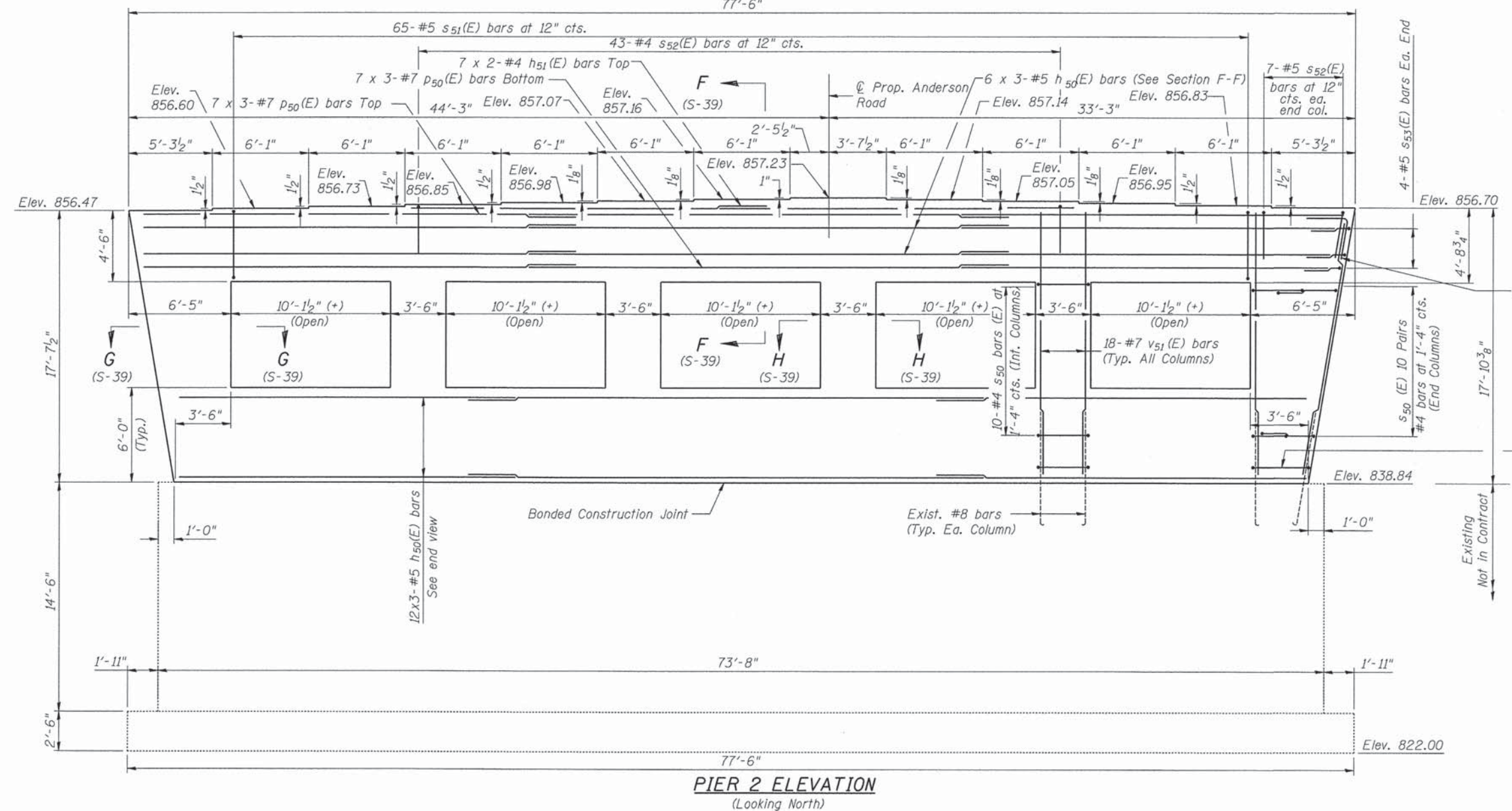


SHEET NO. S-37	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	154
S-43 SHEETS			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



**MIN. BAR LAP**

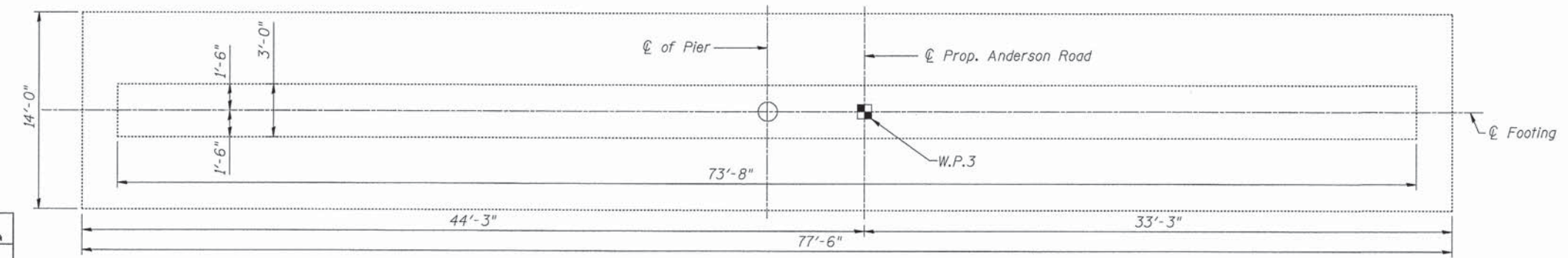
- #4 bar = 2'-3"
- #5 bar = 2'-10"
- #7 bar = 5'-10"



Remove and Replace exist. s50(E) bars, each column. Quantity included in Bill of Materials.

**NOTES**

1. Reinforcement is symmetric about  $\text{C}$  of Pier
  2. Space reinforcement in cap to miss anchor bolts
  3. Pour steps monolithically with cap.
  4. bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
  5. Bonded Construction Joints shall be prepared in accordance with Article 503.09 (b).
- (X) indicates Girder Number
6. See Note 26 on S-2



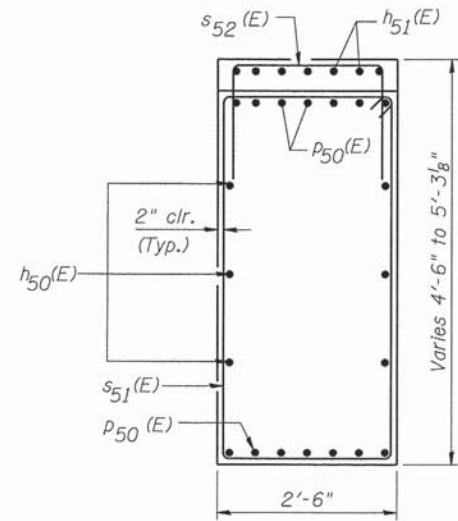
**PIER 2  
PLAN AND ELEVATION  
STRUCTURE NO. 045-3160**

DATE: 5/9/13

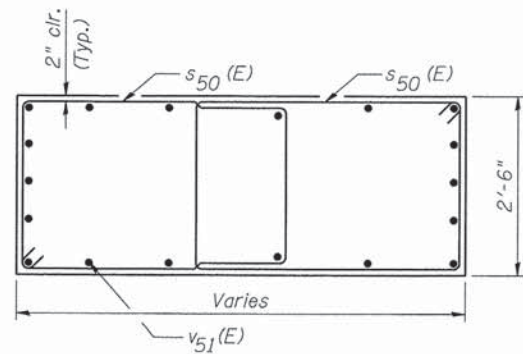
DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



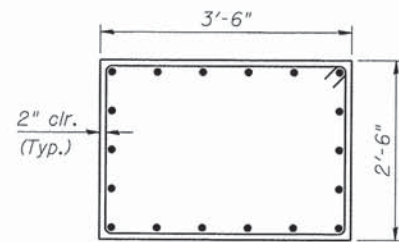
SHEET NO. S-38 S-43 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	155
			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



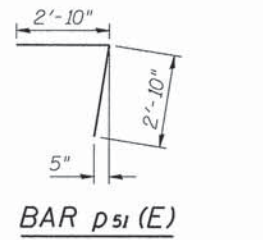
SECTION F-F



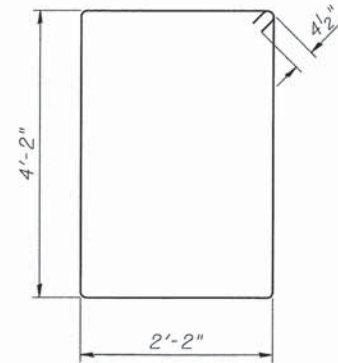
SECTION G-G



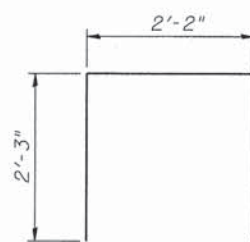
SECTION H-H



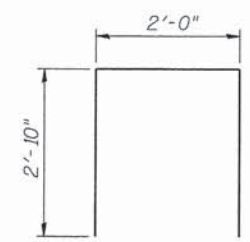
BAR p51(E)



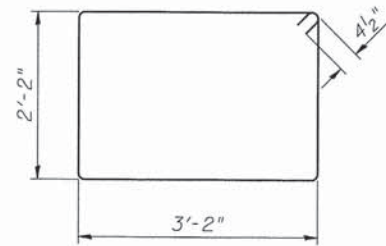
BAR s51(E)



BAR s52(E)



BAR s53(E)



BAR s50(E)

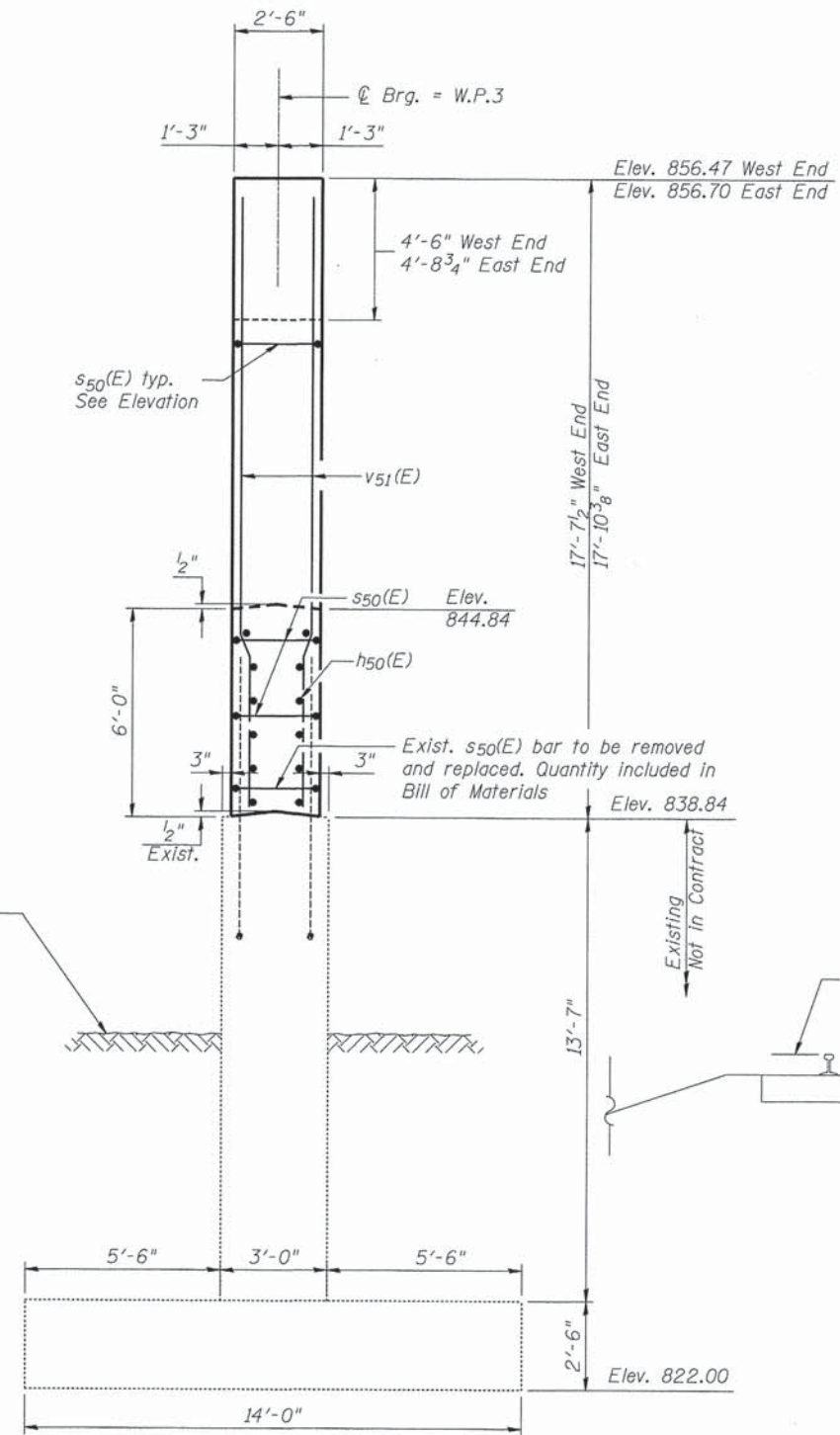
BILL OF MATERIAL FOR PIER 2

Bar	No.	Size	Length	Shape
h50(E)	54	#5	27'-8"	—
h51(E)	14	#4	22'-3"	—
p50(E)	42	#7	29'-7"	—
p51(E)	12	#5	5'-8"	7
s50(E)	86	#4	11'-5"	□
s51(E)	65	#5	13'-5"	□
s52(E)	57	#4	6'-8"	U
s53(E)	8	#5	7'-8"	□
v51(E)	108	#7	17'-5"	—
Concrete Structures		Cu. Yd.	91.5	
Reinforcement Bars, Epoxy Coated		Pound	10,110	

MIN. BAR LAP

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

Exist. grade Elev. varies 829.79 to 830.42



END VIEW

PIER 2  
DETAILS AND SECTIONS  
STRUCTURE NO. 045-3160

DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



SHEET NO. S-39	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	156
S-43 SHEETS			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

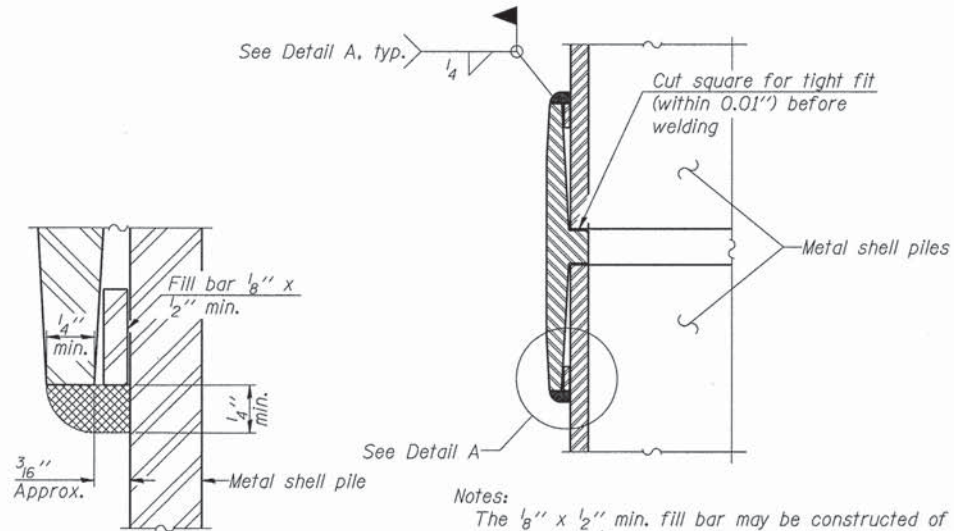
FILE NAME: 090284-pier-04.dgn  
PLOT DRIVER: pcf.plt  
PEN TABLE: STRUCT 2/23/09/2013





**METAL SHELL PILE TABLE**

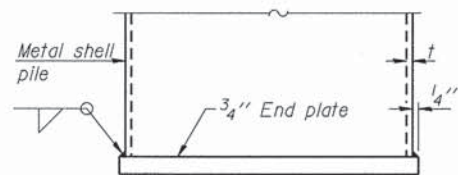
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. <sup>3</sup> /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



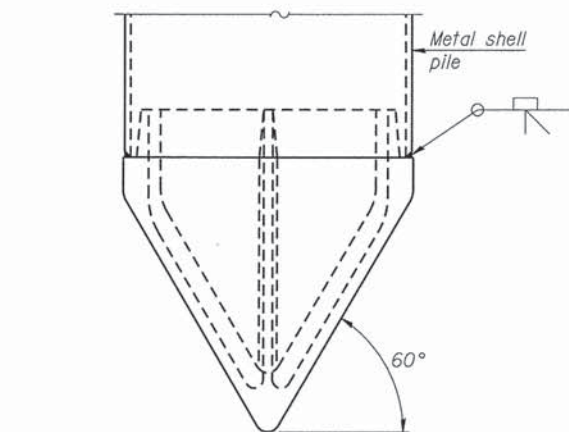
**DETAIL A**

Notes:  
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.  
 Pile segments shall be driven to solid contact with splicer before welding.

**WELDED COMMERCIAL SPLICE**



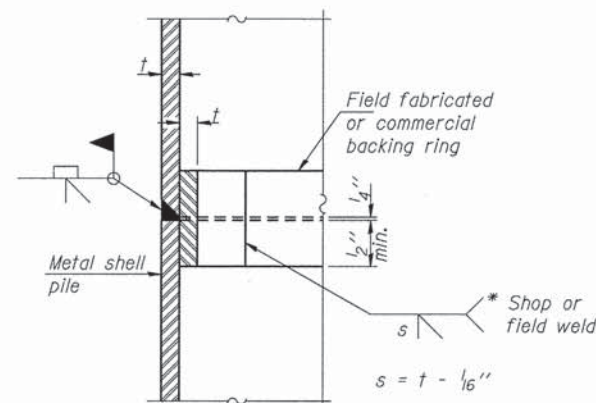
**END PLATE ATTACHMENT**



**METAL SHELL PILE SHOE ATTACHMENT**

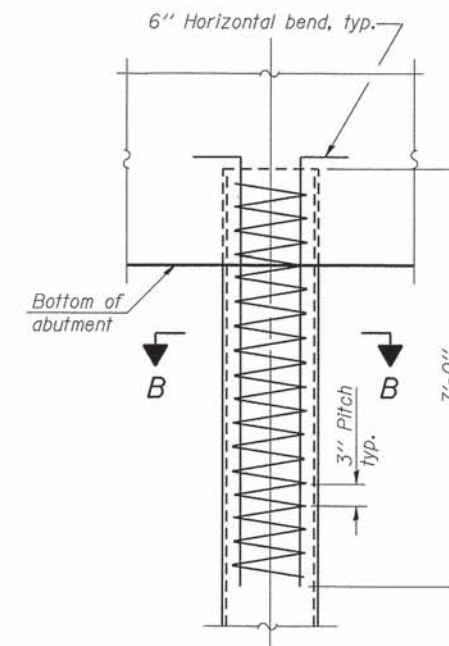
(See Note A)

Note A:  
 When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.



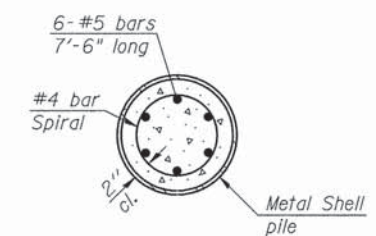
**COMPLETE PENETRATION WELD SPLICE**

\* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



**ELEVATION**

**METAL SHELL REINFORCEMENT AT ABUTMENTS**



**SECTION B-B**

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

Note: The metal shell piles shall be according to ASTM A 252 Grade 3.

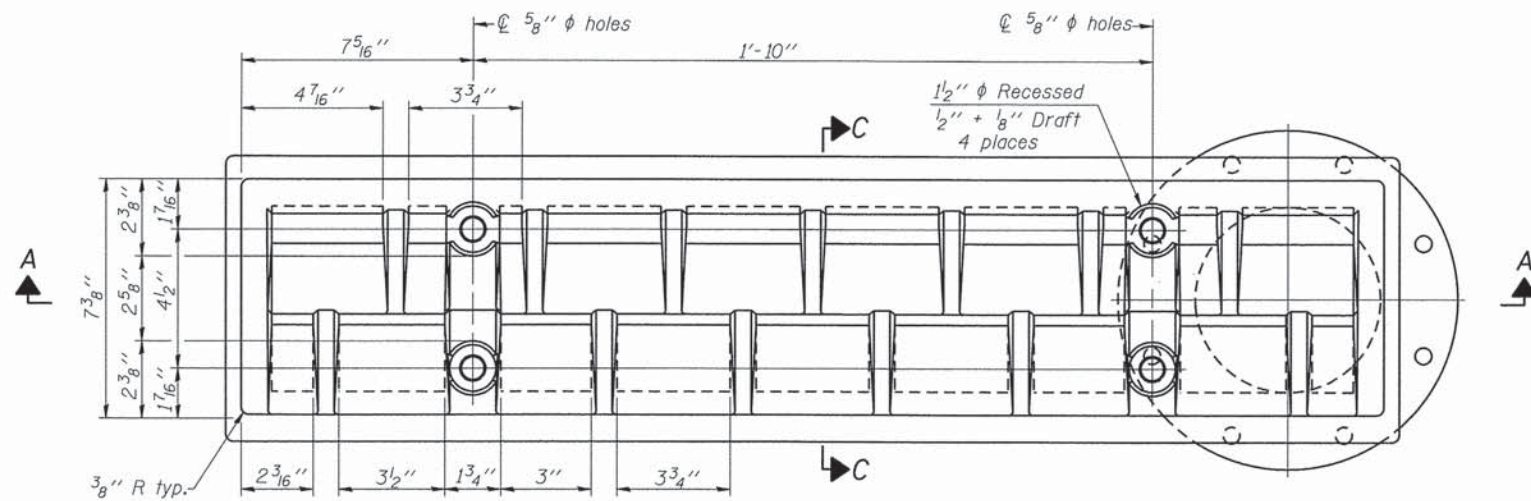


SHEET NO. S-40	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	157
S-43 SHEETS		CONTRACT NO.		63698	
FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT	

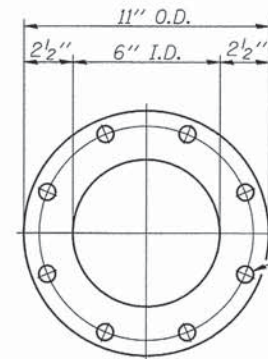
**METAL SHELL PILE DETAILS  
 STRUCTURE NO. 045-3160**

DATE: 5/9/13

FILE NAME: 050204-dp-01.dgn  
 PLOT DRIVER: pafplot  
 PEN TABLE: Struct 22x34x28/2013



PLAN



VIEW B-B

Drill and tap 8 holes for 3/4"-10 UNC bolts on 8 3/4" diameter bolt circle

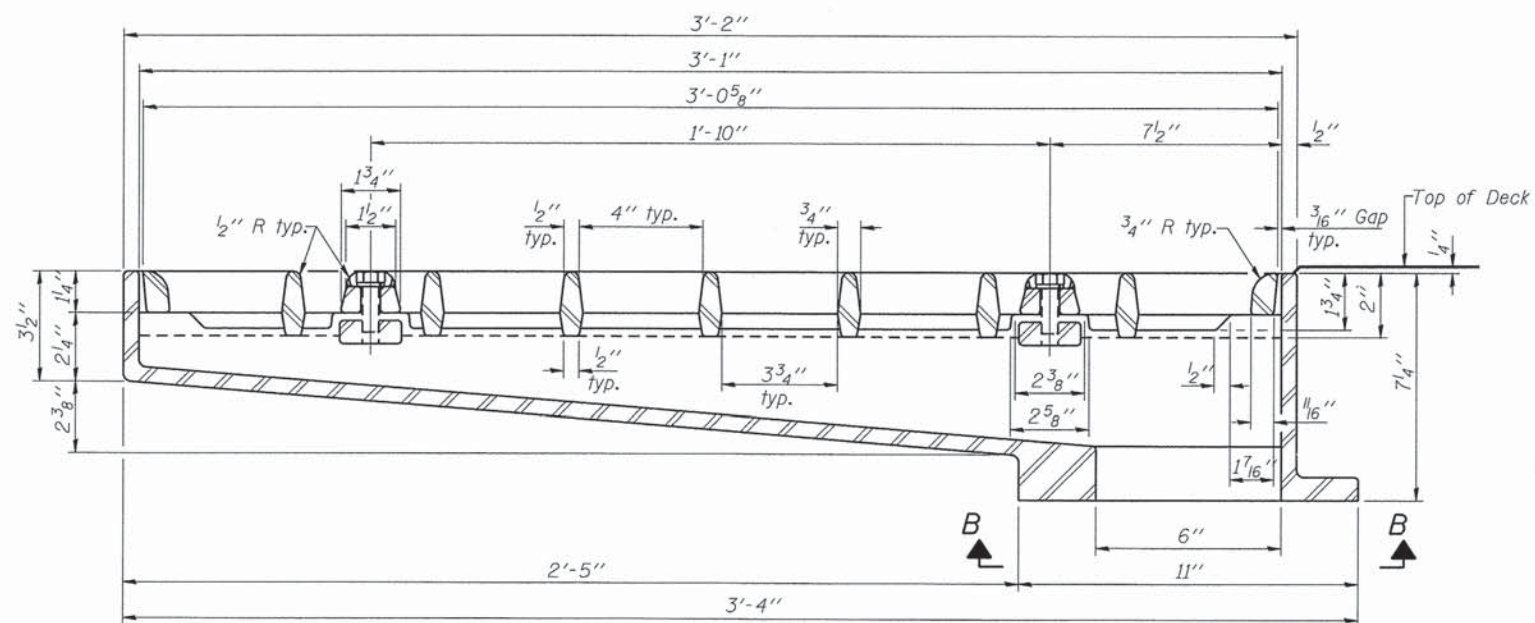
Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.  
Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.  
Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.  
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.  
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

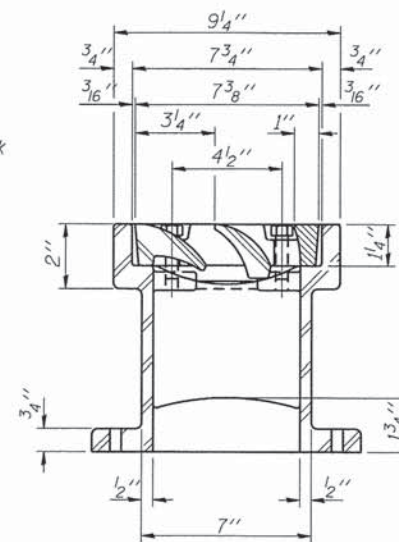
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-33.

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

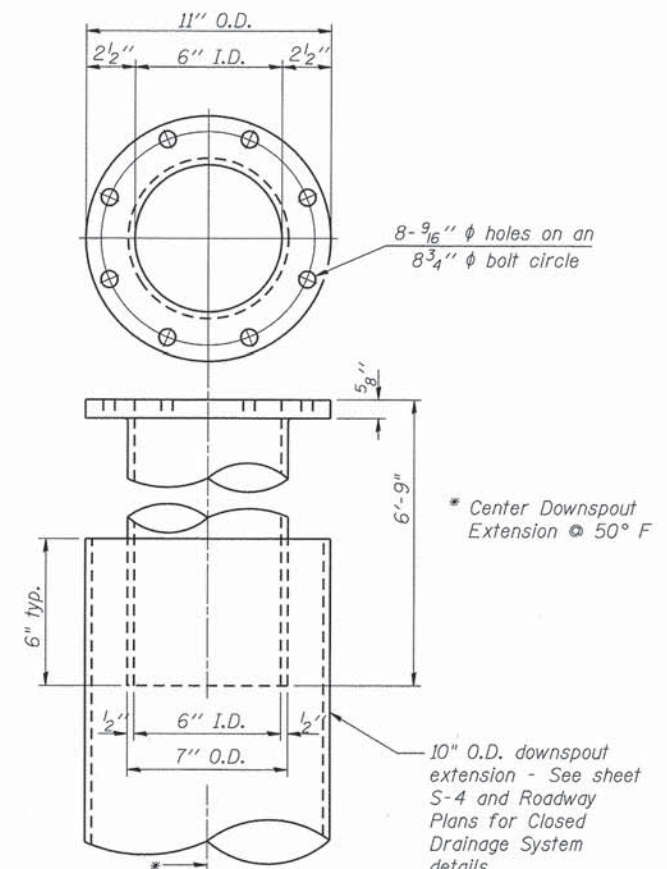


SECTION A-A

See sheet of for scupper location relative to parapet.

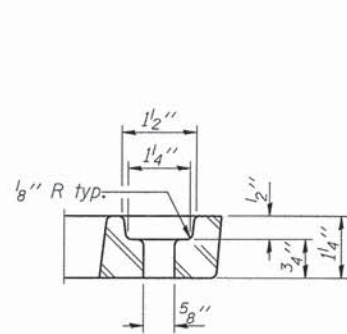


SECTION C-C

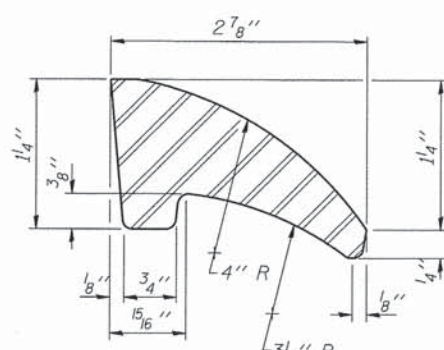


DOWNSPOUT

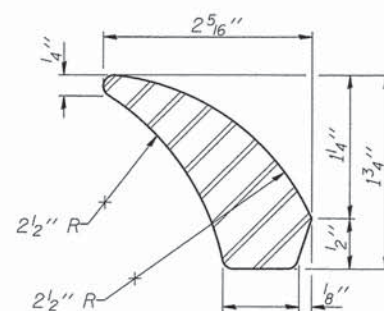
Downspout and extension shall be supported independently of each other allowing the downspout to move relative to the extension.



BOLT HOLE DETAIL



FIRST VANE DETAIL



SECOND VANE DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-33	Each	9

DRAINAGE SCUPPER, DS-33  
STRUCTURE NO. 045-3160

DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

DS-33

10-1-08



SHEET NO. S-41	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	158
S-43 SHEETS			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

**SCHLEEDE-HAMPTON ASSOCIATES, INC.** CONSULTING ENGINEERS  
BRIDGE FOUNDATION BORING LOG

PROJECT ANDERSON RD. EXTENSION, PROPOSED BRIDGE OVER THE CNW RR TRACK DATE 1/23/02  
ROUTE PROPOSED ROADWAY EXTENSION FROM KESLINGER ROAD TO ILL. ROUTE 38 BORER BY CSB  
SECTION STATION CHECKED BY WJW

Depth N/B*	tsf	W %	Type Failure	M (Ft)	
				Depth	Qu
GROUND SURFACE EL. 835.7 Dark Brown Silty CLAY, A-6					
1	2 5	1.5 P	12	1.4 2.2	4.5+ 7
Brown Silty LOAM, medium dense, A-4					
2	9 12 14	- - -	13	8 1.7	5.0 12
Brown SAND, medium dense, A-3					
3	6 8 10	- - -	11	3 5 6	1.7 8 11
Brown and Grey Silty LOAM, A-4					
4	13 15 16	- - -	20	11 11 1.2	- - 14
Brown Silty CLAY, very stiff, A-6					
5	13 14 16	4.0 S	16	10 12	- - 11
Brown Silty CLAY, very stiff, A-6					
6	14 10 22	4.5+ P	13	12 13 1.4	- - 0

N-Standard Penetration Test: Blows per foot to drive 2 inch  
O.D. Split Spoon Sampler 12 inches with 140 lbs. hammer falling 30 inches  
Cu- Unconfined Compressive Strength (tsf)  
W- Water Content (percentage of oven dry weight) (%)  
Type failure: D- Bulge Failure  
S- Shear Failure  
E- Estimated Value  
P- Penetrometer

**SCHLEEDE-HAMPTON ASSOCIATES, INC.** CONSULTING ENGINEERS  
BRIDGE FOUNDATION BORING LOG

BORING BBA-1

Depth N/B*	tsf	W %	Type Failure	M (Ft)	
				Depth	Qu
CONTINUED					
Yellow-Brown SAND (f-c) and GRAVEL, medium dense, A-1					
13	8 15 1.5	- - -	17	1.4 1.5	- - -
Grey SAND (f-m) and SILT, medium dense, A-3 and A-4					
14	3 5	1.5 P	17	1.4 1.5	- - -
Grey Silty LOAM, A-6					
15	8 14 1.6	4.3 R	9	1.4 1.6	- - -
Grey Silty Clay LOAM, very stiff, A-6					
16	7 9 1.1	4.5+ P	10	1.4 1.1	- - -
End of Boring @ 55.0'					

**SCHLEEDE-HAMPTON ASSOCIATES, INC.** CONSULTING ENGINEERS  
BRIDGE FOUNDATION BORING LOG

PROJECT ANDERSON RD. EXTENSION, PROPOSED BRIDGE OVER THE CNW RR TRACK DATE 1/23/02  
ROUTE PROPOSED ROADWAY EXTENSION FROM KESLINGER ROAD TO ILL. ROUTE 38 BORER BY CSB/SPE  
SECTION STATION CHECKED BY SPE/WJW

Depth N/B*	tsf	W %	Type Failure	M (Ft)	
				Depth	Qu
GROUND SURFACE EL. 835.7 Dark Brown Silty CLAY, A-6					
1	2 5	1.5 P	17	1.4 1.5	- - -
Brown and Grey Silty LOAM, A-4					
2	3 5 10	2.0 P	12	3 5 10	2.4 10 11
Brown Silty CLAY, very stiff, A-6					
3	5 7 12	3.0 R	13	5 7 12	3.0 10 10
Grey SILT, medium dense, A-4					
4	8 9 1.2	4.0 P	14	8 9 1.2	- - -
Brown SAND, A-3 Numerous Silt seams medium dense					
5	10 12 13	- - -	13	10 12 13	- - -
Grey SAND (f-m), medium dense, A-3					
6	13 14 1.0	- - -	17	13 14 1.0	- - -
Brown and Grey Silty LOAM, medium dense, A-4					

N-Standard Penetration Test: Blows per foot to drive 2 inch  
O.D. Split Spoon Sampler 12 inches with 140 lbs. hammer falling 30 inches  
Cu- Unconfined Compressive Strength (tsf)  
W- Water Content (percentage of oven dry weight) (%)  
Type failure: D- Bulge Failure  
S- Shear Failure  
E- Estimated Value  
P- Penetrometer

**SCHLEEDE-HAMPTON ASSOCIATES, INC.** CONSULTING ENGINEERS  
BRIDGE FOUNDATION BORING LOG

BORING BBA-2

Depth N/B*	tsf	W %	Type Failure	M (Ft)	
				Depth	Qu
CONTINUED					
15	25 33 31	6.9 S	7	25 33 31	- - -
Grey Silty LOAM, very dense, A-4					
16	4 7 1.2	2.0 P	16	4 7 1.2	- - -
Grey Silty CLAY, very stiff, A-6					
17	10 13 1.3	3.5 P	9	10 13 1.3	- - -
End of Boring @ 80.0'					

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



SHEET NO. S-42 S-43 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	159
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				CONTRACT NO. 63698	

BRIDGE FOUNDATION BORING LOGS  
STRUCTURE NO. 045-3160

DATE: 5/9/13

FILE NAME: 090084-dbf-01.dgn  
PLOT DRIVER: pdfplot  
PEN TABLE: Struct\_20x34x36/2013

**SCHLEEDE-HAMPTON ASSOCIATES, INC.** CONSULTING ENGINEERS  
**BRIDGE FOUNDATION BORING LOG**

PROJECT ANDERSON RD. EXTENSION, PROPOSED BRIDGE OVER THE GW RR TRACK  
 DATE 1/29/12  
 ROUTE PROPOSED ROADWAY EXTENSION FROM KESLINGER ROAD TO ILL. ROUTE 36  
 BORED BY CSD  
 SECTION STATION CHECKED BY WJW

Depth (N/G)	tsf	W	Notes
0.0			GROUND SURFACE EL. 652.9 Dark Brown Silty CLAY, A-8
1.0	3.5	2.1	2.2 Brown Silty CLAY, very stiff, A-8
2.0	4.0	2.5	2.0 Brown Silty CLAY, medium dense, A-8
3.0	5.0	2.2	2.2 Grey SAND (n.c. silt), orange, medium dense, A-1 some Cobbles and Boulders
4.0	6.0	2.0	2.0 Grey Silty CLAY, very stiff, A-8 to A-4
5.0	7.0	1.5	1.5 Brown SAND, medium dense, A-3
6.0	8.0	1.5	1.5 Brown SAND and GRAVEL, trace Sand, A-1
7.0	9.0	1.0	1.0 Grey Silty CLAY, stiff, A-8
8.0	10.0	1.0	1.0
9.0	11.0	1.0	1.0
10.0	12.0	1.0	1.0
11.0	13.0	1.0	1.0
12.0	14.0	1.0	1.0
13.0	15.0	1.0	1.0
14.0	16.0	1.0	1.0
15.0	17.0	1.0	1.0
16.0	18.0	1.0	1.0
17.0	19.0	1.0	1.0
18.0	20.0	1.0	1.0
19.0	21.0	1.0	1.0
20.0	22.0	1.0	1.0
21.0	23.0	1.0	1.0
22.0	24.0	1.0	1.0
23.0	25.0	1.0	1.0
24.0	26.0	1.0	1.0
25.0	27.0	1.0	1.0
26.0	28.0	1.0	1.0
27.0	29.0	1.0	1.0

N-Standard Penetration Test  
 Blows per foot to drive 2 inch  
 O.D. Split Spoon Sampler 12 inches  
 with 140 lbs. hammer falling 30 inches

QU-Unconfined Compressive Strength (tsf)  
 W-Water Content-percentage of oven dry weight (%)

Type Failure:  
 B-Bulge Failure  
 S-Shear Failure  
 E-Estimated Value  
 P-Penetrometer

**SCHLEEDE-HAMPTON ASSOCIATES, INC.** CONSULTING ENGINEERS  
**BRIDGE FOUNDATION BORING LOG**

PROJECT BBA-3  
 SHEET 2 OF 2

Depth (N/G)	tsf	W	Notes
0.0			CONTINUED
1.0			Grey Silty CLAY, stiff, A-8
2.0			to very stiff
3.0			Cable 08-09.5
4.0			to very stiff
5.0			End of Boring @ 00.0
6.0			
7.0			
8.0			
9.0			
10.0			
11.0			
12.0			
13.0			
14.0			
15.0			
16.0			
17.0			
18.0			
19.0			
20.0			
21.0			
22.0			
23.0			
24.0			
25.0			
26.0			
27.0			
28.0			
29.0			
30.0			

**SCHLEEDE-HAMPTON ASSOCIATES, INC.** CONSULTING ENGINEERS  
**BRIDGE FOUNDATION BORING LOG**

PROJECT ANDERSON RD. EXTENSION, PROPOSED BRIDGE OVER THE GW RR TRACK  
 DATE 1/7/12  
 ROUTE PROPOSED ROADWAY EXTENSION FROM KESLINGER ROAD TO ILL. ROUTE 36  
 BORED BY GPC  
 SECTION STATION CHECKED BY WJW

Depth (N/G)	tsf	W	Notes
0.0			GROUND SURFACE EL. 827.5 Black Silty CLAY/TOPSOIL
1.0			Brown Silty CLAY, stiff, A-8
2.0			Dark Grey and Yellow-Brown Silty LOAM, soft, A-6 to A-7.6
3.0			Brown SAND and GRAVEL, medium dense, A-1, saturated
4.0			Brown Silty LOAM, A-4
5.0			Grey Silty CLAY, very stiff, A-8
6.0			Grey Silty CLAY, very stiff, A-8
7.0			Grey Silty CLAY, very stiff, A-8
8.0			Grey Silty CLAY, very stiff, A-8
9.0			Grey Silty CLAY, very stiff, A-8
10.0			Grey Silty CLAY, very stiff, A-8
11.0			Grey Silty CLAY, very stiff, A-8
12.0			Grey SAND (f, dense, A-5)
13.0			Grey SAND (f, dense, A-5)
14.0			Grey SAND (f, dense, A-5)
15.0			Grey SAND (f, dense, A-5)
16.0			Grey SAND (f, dense, A-5)
17.0			Grey SAND (f, dense, A-5)
18.0			Grey SAND (f, dense, A-5)
19.0			Grey SAND (f, dense, A-5)
20.0			Grey SAND (f, dense, A-5)
21.0			Grey SAND (f, dense, A-5)
22.0			Grey SAND (f, dense, A-5)
23.0			Grey SAND (f, dense, A-5)
24.0			Grey SAND (f, dense, A-5)
25.0			Grey SAND (f, dense, A-5)
26.0			Grey SAND (f, dense, A-5)
27.0			Grey SAND (f, dense, A-5)
28.0			Grey SAND (f, dense, A-5)
29.0			Grey SAND (f, dense, A-5)
30.0			Grey SAND (f, dense, A-5)

N-Standard Penetration Test  
 Blows per foot to drive 2 inch  
 O.D. Split Spoon Sampler 12 inches  
 with 140 lbs. hammer falling 30 inches

QU-Unconfined Compressive Strength (tsf)  
 W-Water Content-percentage of oven dry weight (%)

Type Failure:  
 B-Bulge Failure  
 S-Shear Failure  
 E-Estimated Value  
 P-Penetrometer

**SCHLEEDE-HAMPTON ASSOCIATES, INC.** CONSULTING ENGINEERS  
**BRIDGE FOUNDATION BORING LOG**

PROJECT BBA-4  
 SHEET 2 OF 2

Depth (N/G)	tsf	W	Notes
0.0			CONTINUED
1.0			Grey Silty CLAY very stiff, A-8
2.0			
3.0			
4.0			
5.0			
6.0			
7.0			
8.0			
9.0			
10.0			
11.0			
12.0			
13.0			
14.0			
15.0			
16.0			
17.0			
18.0			
19.0			
20.0			
21.0			
22.0			
23.0			
24.0			
25.0			
26.0			
27.0			
28.0			
29.0			
30.0			

End of Boring @ 35.0'

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



**BRIDGE FOUNDATION BORING LOGS**  
**STRUCTURE NO. 045-3160**

DATE: 5/9/13

SHEET NO. S-43	F.A.U. RTE. 0126	SECTION 01-00274-00-BR	COUNTY KANE	TOTAL SHEETS 289	SHEET NO. 160
S-43 SHEETS		CONTRACT NO. 63698			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

**Benchmarks:**

SITE BM #1: Chiseled square on the east side of the base of the light pole located at the northeast corner of the parking lot for Kaneland Elementary School (southwest corner of Anderson Road and Prairie Valley Road). Elevation: 868.39

SITE BM #2: Mag nail set at the approximate centerline of the northerly most railroad platform, within the Elburn Metra Railroad Yard, approximately 215 feet easterly of the centerline of the bridge alignment. Elevation: 832.15

SITE BM #3: Mag nail set in the easterly edge of the driveway of 825 E. North Street, approximately 45 feet southerly of the centerline of North Street. Elevation: 850.48

Site Benchmark #2 is located within the Metra Railroad Yard.

**Existing Structure:**

None

E.W.S.E. Elev. 818.00

**LOADING HL-93**  
Allow 50#/sq. ft. for future wearing surface.

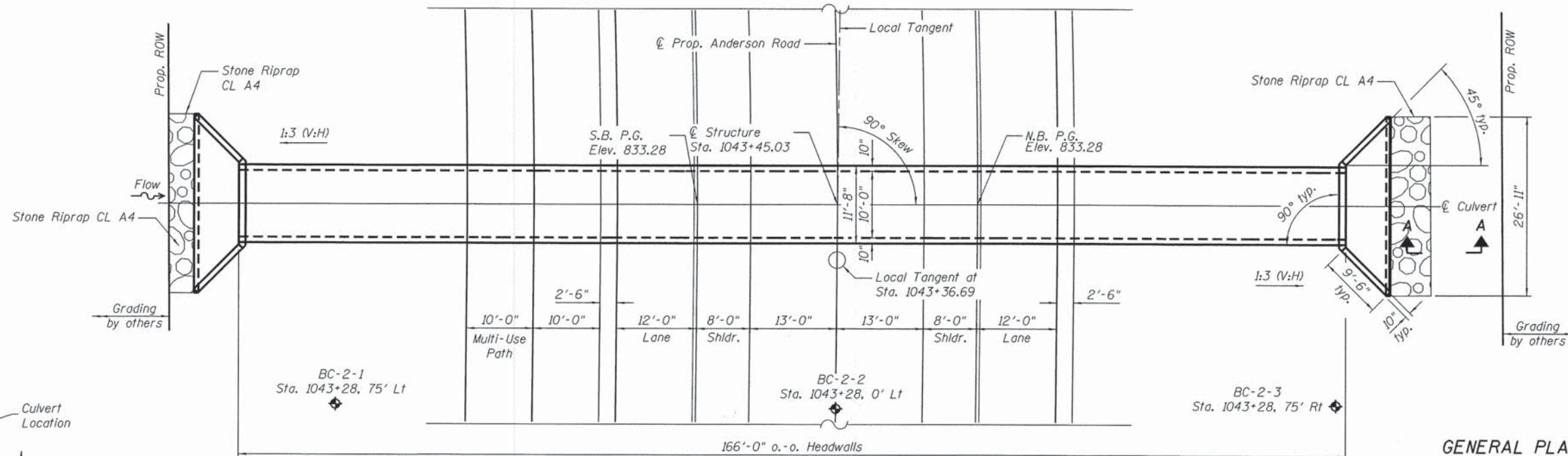
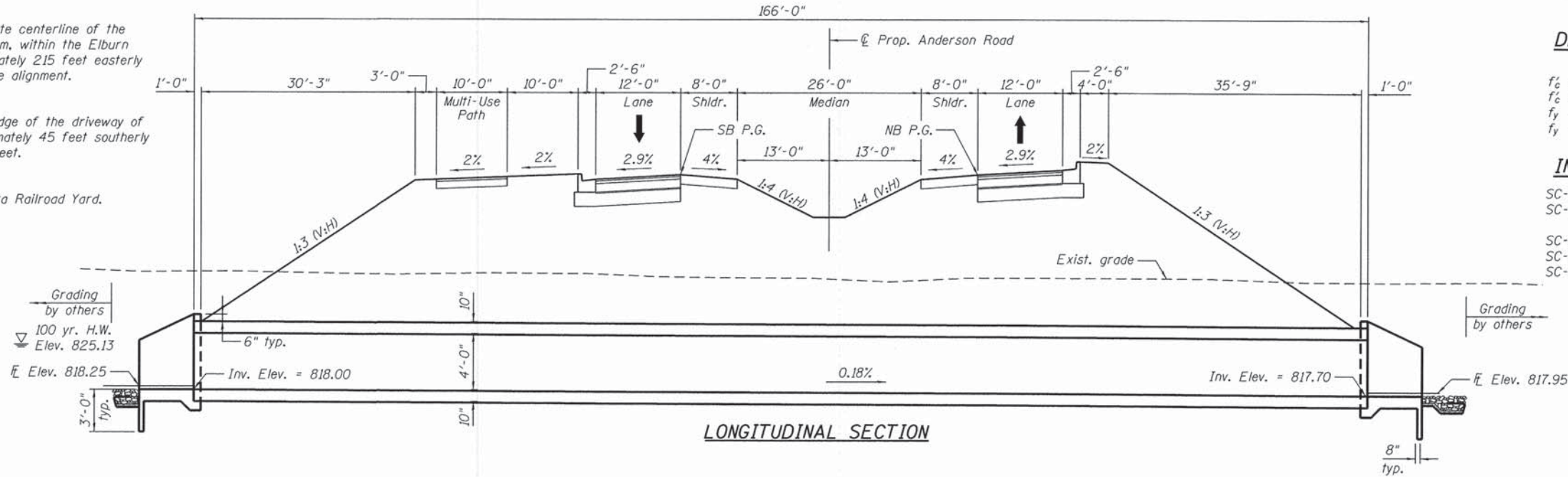
**DESIGN SPECIFICATIONS**  
2010 AASHTO LRFD Bridge Design

**DESIGN STRESSES**

**FIELD UNITS**  
 $f'_c = 3,500$  psi (Cast in Place Concrete)  
 $f'_c = 5,000$  psi (Precast Concrete)  
 $f_y = 60,000$  psi (reinforcement)  
 $f_y = 65,000$  psi (welded wire fabric)

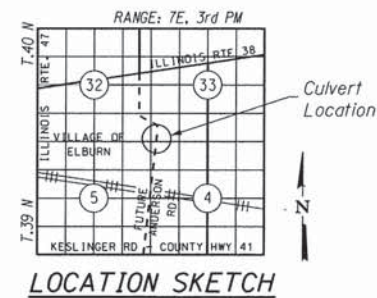
**INDEX OF SHEETS**

- SC-1 General Plan and Elevation
- SC-2 General Notes and Total Bill of Materials
- SC-3 End Section Details
- SC-4 Soil Boring Logs
- SC-5 Soil Boring Logs



**CURVE DATA**

$\Delta = 39^\circ 10' 57.84''$  (LT)  
 $D = 5^\circ 43' 46.5''$   
 $R = 1,000.00'$   
 $T = 355.91'$   
 $L = 683.87'$   
 $E = 61.45'$   
 $S.E. RUN = 3.8\%$   
 $P.C. STA. = 1043+36.69$   
 $P.T. STA. = 1050+20.56$   
 $PI STA. = 1046+92.61$



**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	D.S. Invert	U.S. Invert
	814.70	815.00

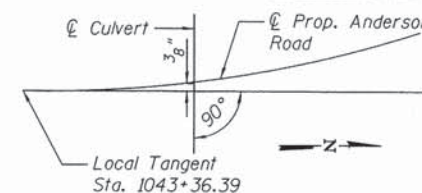
**WATERWAY INFORMATION**

Drainage Area = 0.32 Sq. Mi. Low Grade Elev. 832.93 @ Sta. 1043+45.03

Flood Yr.	Freq.	Q C.F.S.	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft. Exist. Prop.	Headwater El. Exist. Prop.
10	30.6	---	38.62	824.91	0.00	824.91
Base	100	81.9	---	825.13	0.00	825.13
Max. Calc.	500	114.1	---	825.34	0.00	825.34

To the best of my knowledge, information and belief, this culvert design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Bridge Design".

*Robert Green*  
 Structural Engineer  
 HR Green  
 MAY 8, 2013 11-30-2014 Expires



**OFFSET SKETCH**

**GENERAL PLAN AND ELEVATION**  
**ANDERSON ROAD**  
**OVER TRIBUTARY TO BLACKBERRY CREEK**  
**SECTION NO. 01-00274-00-BR**  
**KANE COUNTY**  
**STATION 1043+45.03**

DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

SHEET NO.	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SC-1	0126	01-00274-00-BR	KANE	289	161
SC-5					
CONTRACT NO.					63698
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

FILE NAME: 050224-12-000-01.dgn  
 USER: rgd  
 PLOT DATE: 5/9/13 2:24:38 PM  
 PEN TABLE:

**GENERAL NOTES**

1. Precast concrete culverts, 10'x4' shall conform to the requirements of Article 540.06 of the Standard Specifications and the applicable requirements of AASHTO.

The minimum precast concrete strength shall be 5,000 psi.

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

Fill varies from 6'-8" to 10'-8"

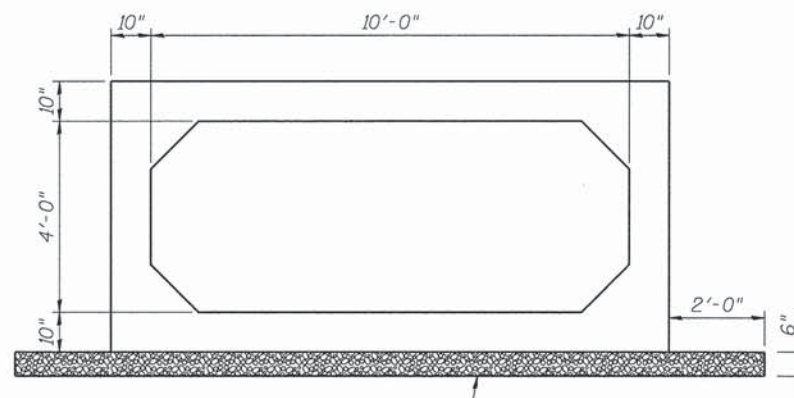
2. BOX CULVERT END SECTIONS shall be paid for as noted in Article 540.08, and The Contract Unit Price for BOX CULVERT END SECTIONS shall include all porous granular bedding material, cast in place wingwalls, headwalls, and aprons, cast in place portions between cells, reinforcement, excavation, backfill, and preformed joint filler.

3. Contractor shall maintain streamflow in accordance with the Standard Specifications Article 502.

4. Reinforcement bars shall conform to the requirements of ASTM A 760 Gr 60. See Special Provisions.

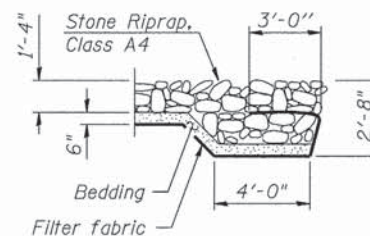
5. Reinforcement bars designated (E) shall be epoxy coated

6. For cast in place concrete, cover from the face of Concrete to Reinforcement bars shall be 3" from surfaces formed against earth and 2" for all other surfaces unless otherwise shown.

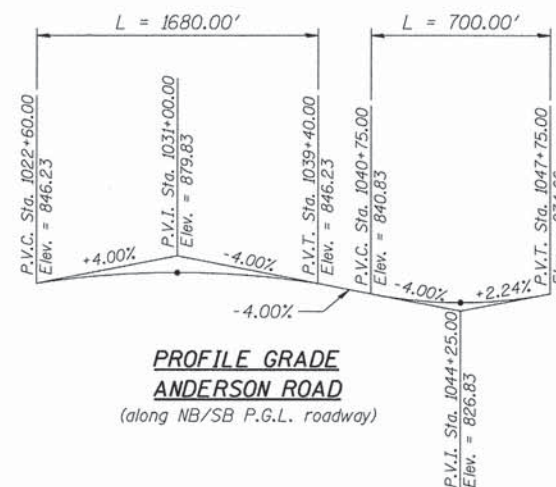


**SECTION THRU PRECAST BARREL**

(See General Plan and Elevation)



**SECTION A-A**



**PROFILE GRADE  
ANDERSON ROAD**

(along NB/SB P.G.L. roadway)

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Stone Riprap Class A4	Sq. Yds.	40
Filter Fabric	Sq. Yds.	40
Box Culvert End Sections, Culvert No. 1	Each	2
Precast Concrete Box Culverts, 10'x4' (Special)	Foot	166

**GENERAL NOTES AND  
TOTAL BILL OF MATERIALS**

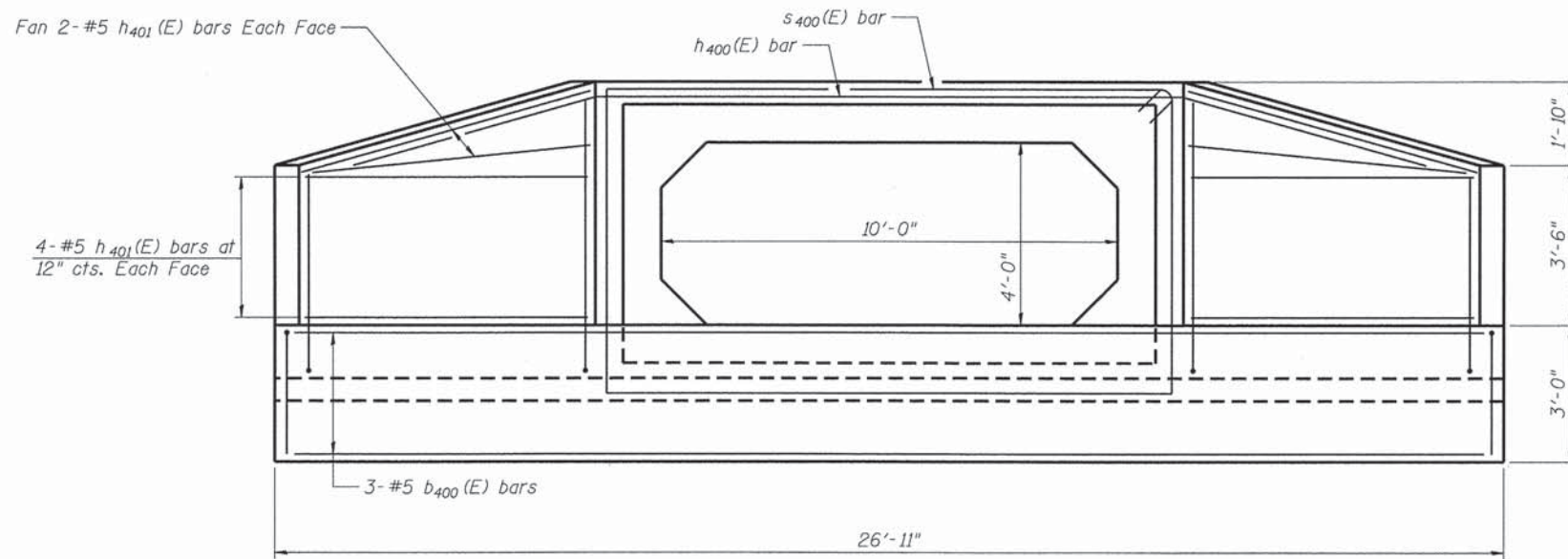
DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

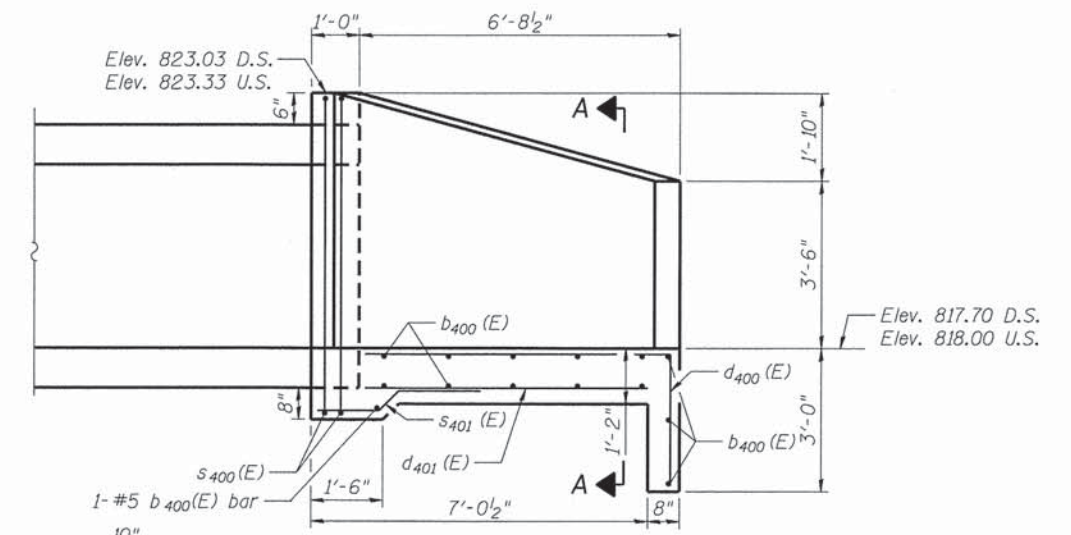


SHEET NO. SC-2	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	162
SC-5 SHEETS			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT		

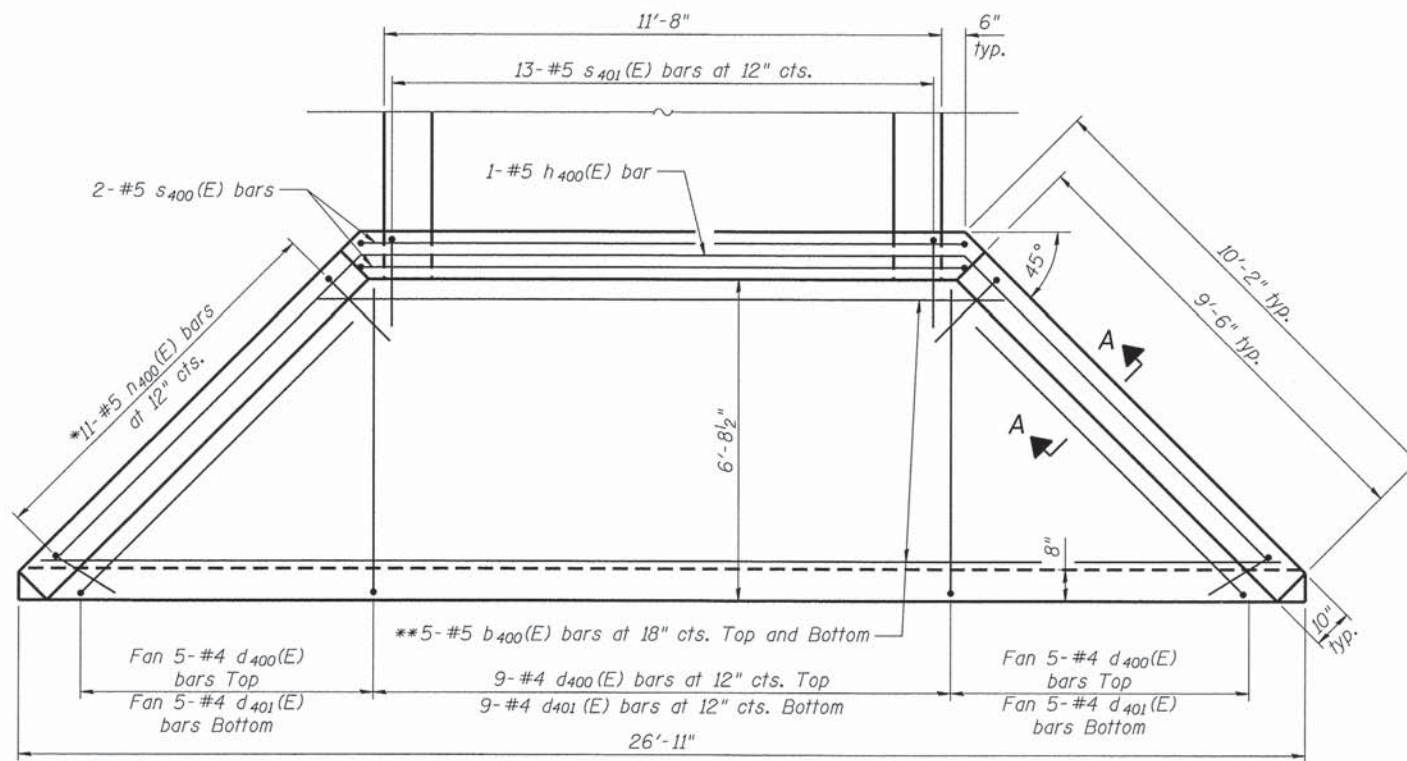
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PLOT DRIVER: pcfplot  
PEN TABLE: Struct 2013/08/2013



**END ELEVATION**



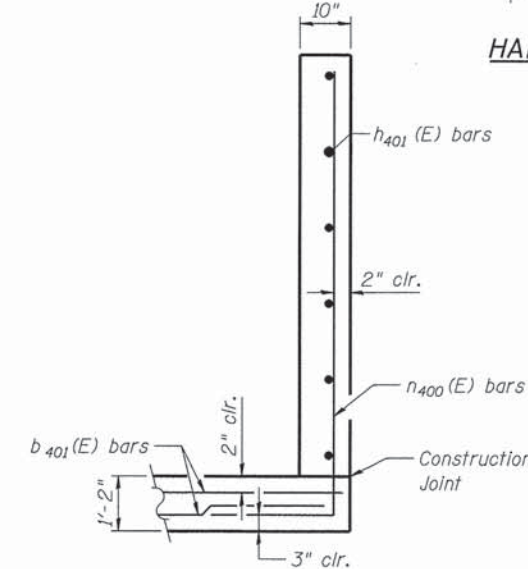
**HALF SIDE ELEVATION**



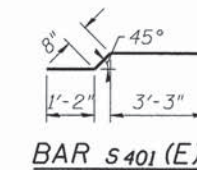
**PLAN**

**BILL OF MATERIAL FOR TWO END SECTIONS**

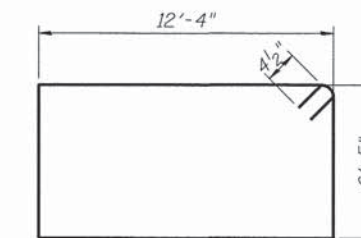
Bar	No.	Size	Length	Shape
b <sub>400</sub> (E)	28	# 5	26'-7"	—
d <sub>400</sub> (E)	38	# 4	8'-0"	J
d <sub>401</sub> (E)	38	# 4	6'-5"	—
h <sub>400</sub> (E)	2	# 5	32'-0"	∩
h <sub>401</sub> (E)	32	# 5	9'-10"	—
n <sub>400</sub> (E)	22	# 5	12'-4"	J
s <sub>400</sub> (E)	4	# 5	38'-3"	□
s <sub>401</sub> (E)	26	# 5	5'-1"	∩
Box Culvert End Sections			Each	2
Reinforcement Bars, Epoxy Coated			Pound	2,120



**SECTION A-A**



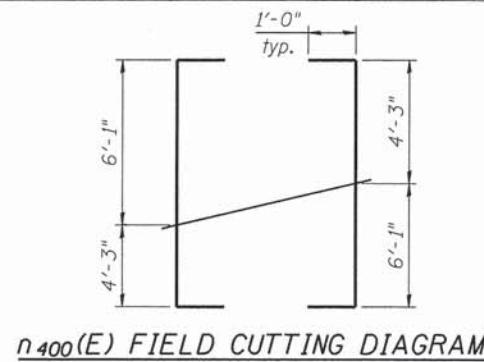
**BAR s401(E)**



**BAR s400(E)**

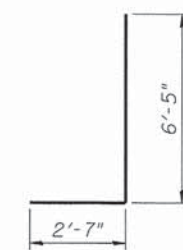
**END SECTION DETAILS**

\*\* Trim to fit

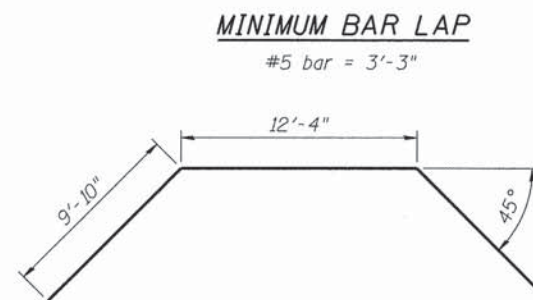


**n<sub>400</sub>(E) FIELD CUTTING DIAGRAM**

\*Order n<sub>401</sub>(E) bars full length. Cut as shown and use remainder of bars in opposite wall.



**BAR d<sub>400</sub>(E)**



**BAR h<sub>400</sub>(E)**

**MINIMUM BAR LAP**

#5 bar = 3'-3"

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

DATE: 5/9/13

SHEET NO. SC-3 SC-5 SHEETS	F.A.U. RTE. 0126	SECTION 01-00274-00-BR	COUNTY KANE	TOTAL SHEETS 289	SHEET NO. 163
	CONTRACT NO. 63698			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	



**BORING LOG**

Sheet 1 of 2

Client: McCleary Engineering  
Project Name: Anderson Road Extension  
Project Site: East of Elburn, IL from just north of IL 38 to just south of Keslinger Road

Boring No. BC-2-1  
Surface Elev. 826.92  
Auger Depth 36.00 Rotary Depth NA  
Start Date 06/15/09 Finish Date 06/15/09

Location: Station 43+28, 75 ft L1 of the Centerline of the proposed Anderson Road

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES				DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)		
826.92	Topsoil								
825.92	Medium Gray Silty Clay		1						
823.92			1	SS 1.0P	4		30		
822.92	Medium Brown/Gray Silty Clay		2						
820.92			2	SS 1.0B	3		30		
819.92	Medium Brown Gray Silty Loam Till		3						
818.92			3	SS 0.8D	2		25		
817.92	Stiff Brown Sandy Loam Till		4						
815.92			4	SS	14		14		
814.92	Stiff Gray Silty Loam Till		5						
813.92			5	SS			13		
812.92	Stiff Gray Silty Loam Till		6						
811.92			6	SS 1.5P	11		13		
810.92	Stiff Gray Silty Loam Till		7						
809.92			7	SS 2.1S	10		13		
808.92	Stiff Gray Silty Loam Till		8						
807.92			8	SS 1.7S	15		11		
806.92	Stiff Gray Silty Loam Till		9						
			9	SS 2.1B	7		12		

Groundwater Data: First encounter with water was at 15 ft. After Auger Removal the water level was at 11 ft below the ground surface.  
Comments:

**BORING LOG**

Sheet 2 of 2

Client: McCleary Engineering  
Project Name: Anderson Road Extension  
Project Site: East of Elburn, IL from just north of IL 38 to just south of Keslinger Road

Boring No. BC-2-1  
Surface Elev. 826.92  
Auger Depth 36.00 Rotary Depth NA  
Start Date 06/15/09 Finish Date 06/15/09

Location: Station 43+28, 75 ft L1 of the Centerline of the proposed Anderson Road

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES				DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)		
805.92	Stiff Gray Silty Loam Till								
804.92	Very Stiff Purplish Gray Silty Loam Till		10						
803.92			10	SS 2.5B	14		13		
802.92	Sand Seam at 25 ft		11						
801.92			11	SS 3.0S	18		13		
800.92	Gray Fine Sand		12						
799.92			12	SS	19		17		
798.92	Medium Dense Gray Coarse Sand and Gravel (Angular)		13						
797.92			13	SS	22		14		
796.92	Medium Dense Gray Coarse Sand and Gravel (Angular)		14						
795.92			14	SS	20		16		
794.92	End of Boring								
793.92									
792.92	End of Boring								
791.92									
790.92	End of Boring								
789.92									
788.92	End of Boring								
787.92									
786.92	End of Boring								
785.92									

Groundwater Data: First encounter with water was at 15 ft. After Auger Removal the water level was at 11 ft below the ground surface.  
Comments:

**BORING LOG**

Sheet 1 of 2

Client: McCleary Engineering  
Project Name: Anderson Road Extension  
Project Site: East of Elburn, IL from just north of IL 38 to just south of Keslinger Road

Boring No. BC-2-2  
Surface Elev. 826.02  
Auger Depth 31.00 Rotary Depth NA  
Start Date 06/15/09 Finish Date 06/15/09

Location: Station 43+28 at Centerline of the proposed Anderson Road

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES				DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)		
826.02	Topsoil								
825.02	Stiff Gray Silty Clay		1						
824.02			1	SS 1.2P	6		22		
823.02	Loose Yellow/Brown Loamy Fine Sand		2						
822.02			2	SS 1.0S	4		30		
821.02	Loose Yellow/Brown Loamy Fine Sand		3						
820.02			3	SS	8		14		
819.02	Stiff to Very Stiff Gray Silty Loam Till		4						
818.02			4	SS 1.2B	7		13		
817.02	Stiff to Very Stiff Gray Silty Loam Till		5						
816.02			5	SS 1.2B	11		14		
815.02	Stiff to Very Stiff Gray Silty Loam Till		6						
814.02			6	SS 2.0B	9		13		
813.02	Stiff to Very Stiff Gray Silty Loam Till		7						
812.02			7	SS 2.3B	11		13		
811.02	Stiff to Very Stiff Gray Silty Loam Till		8						
810.02			8	SS 3.0B	9		13		

Groundwater Data: First encounter with water was at 11 ft. The After Auger Removal water level was not measure due to case in at 4.0 ft.  
Comments:

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



SHEET NO. SC-4	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	164
SC-5 SHEETS		CONTRACT NO.		63698	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

SOIL BORING LOG

DATE: 5/9/13

FILE NAME: 0900864-C-801.dgn  
PLOT DRIVER: 14.dgn  
PEN TABLE: Struct 20x3498/2013



Midwest Testing Services, Inc.  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**  
Sheet 2 of 2  
Phone: 815-223-6696  
Fax: 815-223-6659  
E-Mail: Midwest@TheRamp.net

Client: McCleary Engineering  
Project Name: Anderson Road Extension  
Project Site: East of Elburn, IL, from just north of IL 38 to

Boring No. BC-2-2  
Surface Elev. 826.02  
Auger Depth 31.00 Rotary Depth NA  
Start Date 06/15/09 Finish Date 06/15/09

Location: Station 43+28 at Centerline of the  
proposed Anderson Road

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES				DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)		
805.02									
804.02	Stiff to Very Stiff Gray Silty Loam Till Sand Seam at 23 ft		22						
803.02		9	SS	1.7B	8	13			
802.02			24						
801.02			25						
800.02			26	10	SS	2.5B	16	13	
799.02	Dense Gray Fine Sand		27	11	SS			23	
798.02			28	12	SS	-	39	15	
797.02	Dense to Medium Dense Gray Course Gravel (Angular)		29						
796.02			30						
795.02			31	13	SS	-	19	9	
794.02	End of Boring		32						
793.02			33						
792.02			34						
791.02			35						
790.02			36						
789.02			37						
788.02			38						
787.02			39						
786.02			40						
785.02			41						

Groundwater Data: First encounter with water was at 11 ft. The After Auger Removal water level was not measure due to cave in at 4.0 ft.  
Comments: 0

Midwest Testing Services, Inc.  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**  
Sheet 1 of 2  
Phone: 815-223-6696  
Fax: 815-223-6659  
E-Mail: Midwest@TheRamp.net

Client: McCleary Engineering  
Project Name: Anderson Road Extension  
Project Site: East of Elburn, IL, from just north of IL 38 to

Boring No. BC-2-3  
Surface Elev. 825.72  
Auger Depth 31.00 Rotary Depth NA  
Start Date 06/15/09 Finish Date 06/15/09

Location: Station 43+28, 75 ft Rt of the Centerline of the  
proposed Anderson Road

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES				DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)		
825.72									
824.72	Topsoil		1						
823.72	Stiff Gray Silty Clay		2						
822.72		1	SS	1.0B	4	30			
821.72			4						
820.72			5						
819.72	Stiff Brown/Gray Silty Loam		6	2	SS	1.2B	4	17	
818.72			7						
817.72			8	3	SS	1.7B	11	13	
816.72			9						
815.72	Very Stiff Gray Silty Loam Till		10	4	SS	4.2B	16	14	
814.72			11						
813.72			12						
812.72			13	5	SS	2.5B	14	11	
811.72			14						
810.72			15	6	SS	2.8B	10	11	
809.72			16						
808.72			17						
807.72			18	7	SS	1.8B	8	13	
806.72	Sand Seam at 18.5 ft (Free Water)		19						
805.72			20	8	SS	2.4B	11	13	

Groundwater Data: First encounter with water was at 18.5 ft. After Auger Removal the water level was at 11 ft below the ground surface.  
Comments:

Midwest Testing Services, Inc.  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**  
Sheet 2 of 2  
Phone: 815-223-6696  
Fax: 815-223-6659  
E-Mail: Midwest@TheRamp.net

Client: McCleary Engineering  
Project Name: Anderson Road Extension  
Project Site: East of Elburn, IL, from just north of IL 38 to

Boring No. BC-2-3  
Surface Elev. 825.72  
Auger Depth 31.00 Rotary Depth NA  
Start Date 06/15/09 Finish Date 06/15/09

Location: Station 43+28, 75 ft Rt of the Centerline of the  
proposed Anderson Road

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES				DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)		
804.72									
803.72	Medium Dense Gray Fine Sand		22						
802.72		9	SS	-	13	19			
801.72			24						
800.72			25						
799.72	Medium Dense Gray Course Sand and Gravel (Angular)		26	10	SS	-	18	11	
798.72	Medium Dense Gray Fine Sand		27	11	SS			21	
797.72	Gray Course Sand and Gravel (Angular)		28	12	SS	-	29	10	
796.72	Gray Fine Sand		29						
795.72	Stiff Gray Silty Fine Sand to Sandy Loam		30						
794.72	End of Boring		31	13	SS	2.0P	16	18	
793.72			32						
792.72			33						
791.72			34						
790.72			35						
789.72			36						
788.72			37						
787.72			38						
786.72			39						
785.72			40						
784.72			41						

Groundwater Data: First encounter with water was at 18.5 ft. After Auger Removal the water level was at 11 ft below the ground surface.  
Comments: 0

SOIL BORING LOG

DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



SHEET NO. SC-5	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	165
SC-5 SHEETS	CONTRACT NO. 63698				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

FILE NAME: 09084-AC-802.dgn  
PLOT DRIVER: pcfplot  
PEN TABLE: Struct 20/34/28/2013

**Benchmarks:**

SITE BM #1: Chiseled square on the east side of the base of the light pole located at the northeast corner of the parking lot for Kaneland Elementary School (southwest corner of Anderson Road and Prairie Valley Road). Elevation: 868.39

SITE BM #2: Mag nail set at the approximate centerline of the northerly most railroad platform, within the Elburn Metra Railroad Yard, approximately 215 feet easterly of the centerline of the bridge alignment. Elevation: 832.15

SITE BM #3: Mag nail set in the easterly edge of the driveway of 825 E. North Street, approximately 45 feet southerly of the centerline of North Street. Elevation: 850.48

Site Benchmark #2 is located within the Metra Railroad Yard.

**Existing Structure:**

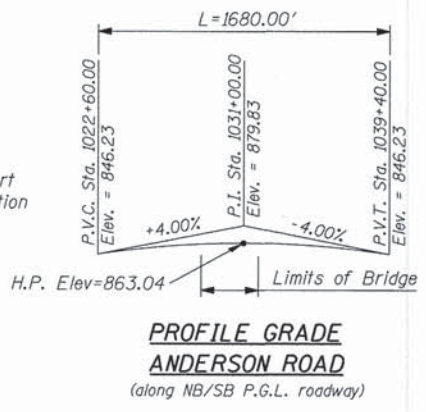
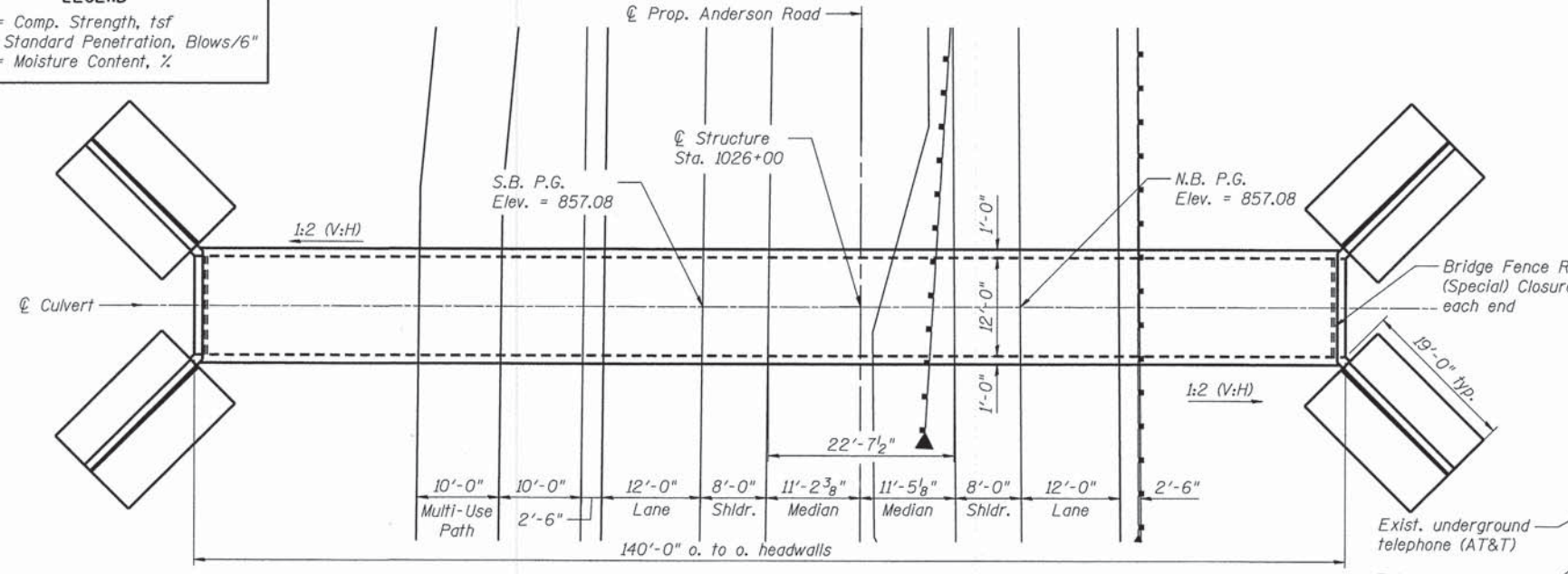
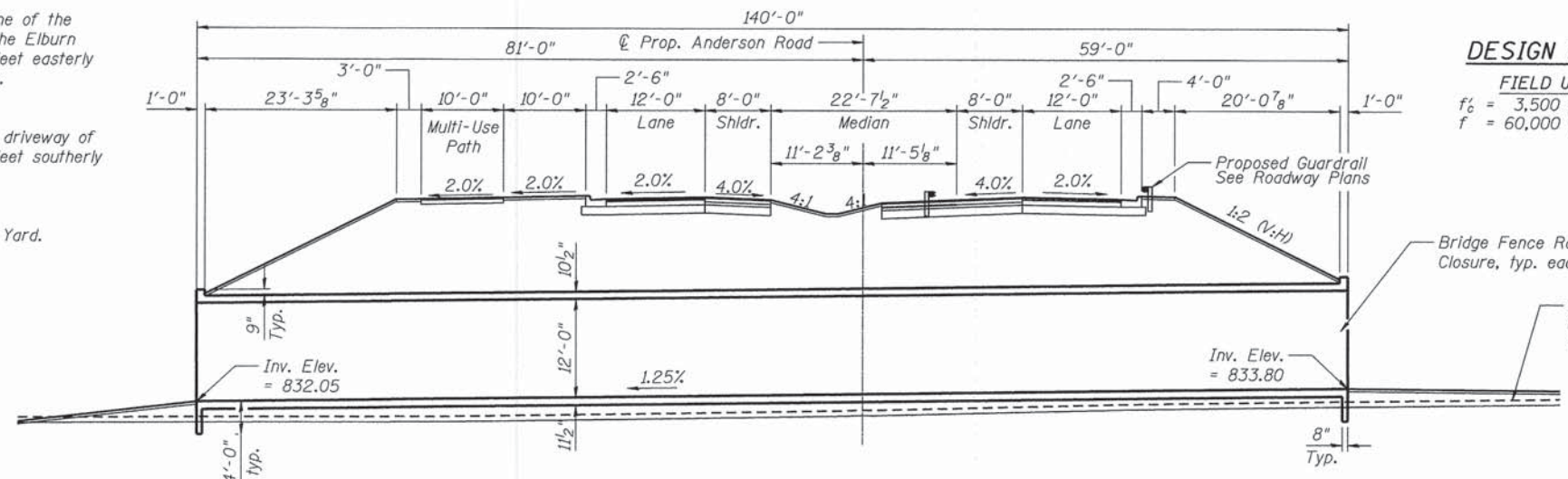
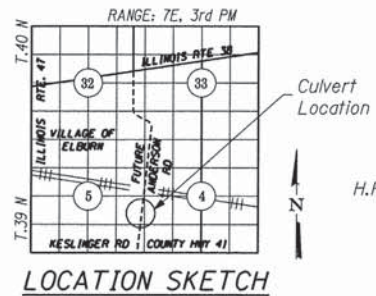
None

**EBA-28**  
 STA. 1025+50  
 10' R OF  $\odot$   
 Exist. Ground Elev. 828.52  
 PROP. ANDERSON ROAD

Qu	N/6"	Mc	
1.0	2	21	
P	3		
	4		
2.8	4	Elev. 825.00	
B	6		
	7		
..	4	14	
	4		
	5		
1.86	4	Elev. 820.00	
BS	4		
	6		
4.27	6	13	
S	15		
	11	Elev. 815.00	
..	7	14	
	8		
	9		
4.5	9	Elev. 810.00	
P	11		
	10		
4.5	7	8	
P	8		
	11	Elev. 805.00	
4.9	8	12	
B	8		
	12	Elev. 803.50	

**SOIL BORING LOG**

**LEGEND**  
 Qu = Comp. Strength, tsf  
 N = Standard Penetration, Blows/6"  
 Mc = Moisture Content, %



To the best of my knowledge, information and belief, this culvert design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO Standard Specifications for Highway Bridges".

*Therese D. Green*  
 Structural Engineer  
 HR Green  
 MAY 8, 2013 11-30-2014 Expires



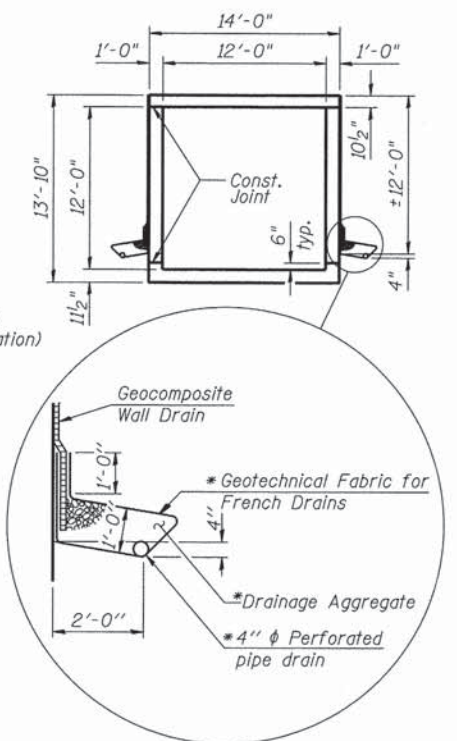
**LOADING HL-93**  
 Allow 50#/sq. ft. for future wearing surface.

**DESIGN SPECIFICATIONS**  
 2010 AASHTO LRFD Bridge Design Specifications

**DESIGN STRESSES**  
 FIELD UNITS  
 $f'_c = 3,500$  psi (Cast in Place Concrete)  
 $f = 60,000$  psi (reinforcement)

**INDEX OF SHEETS**

DC-1	General Plan and Elevation
DC-2	Culvert Details
DC-3	Fence Details



\*Included in the cost of Pipe Underdrains for Structures.

Note:  
 All drainage system components shall extend to 2'-0" from the end 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).

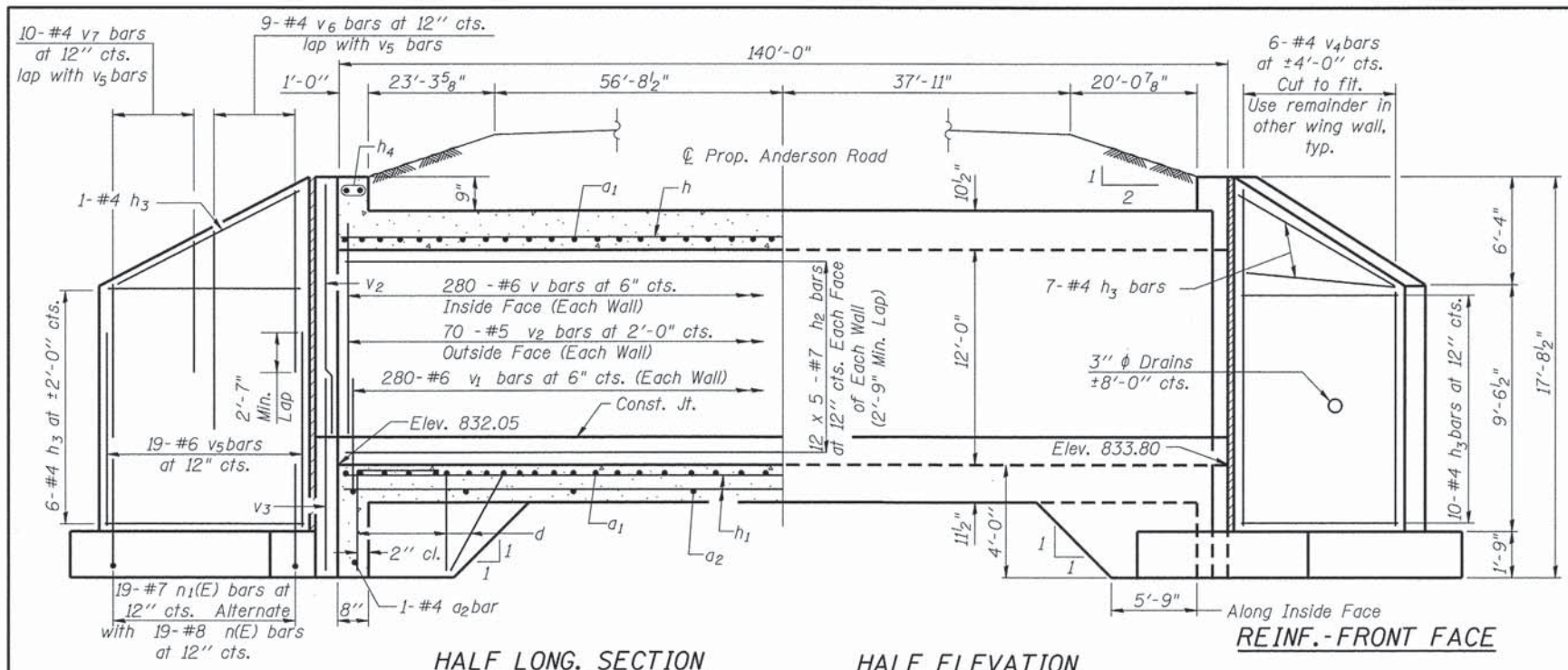
**GENERAL PLAN AND ELEVATION  
 ANDERSON ROAD  
 OVER DRY CULVERT  
 SECTION NO. 01-00274-00-BR  
 KANE COUNTY  
 STATION 1026+00**

DATE: 5/9/13

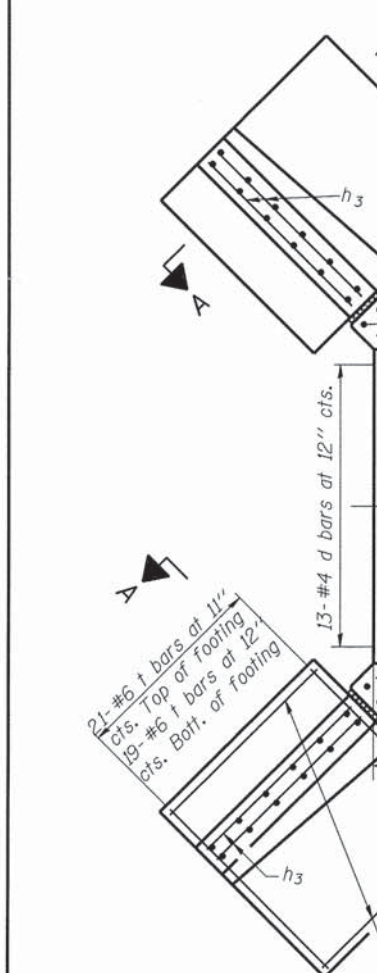
SHEET NO. DC-1	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	166
DC-3 SHEETS	CONTRACT NO. 63698				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

FILE NAME: 0100274-00-01.dgn  
 01 (OWNER) Path: C:\Users\rgd\Documents\2013\0100274-00-01.dgn  
 FOR TITLE: 5/9/13 10:48:20 AM 2013



REINFORCING BACK FACE



DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

HALF LONG. SECTION

HALF ELEVATION

REINFORCING FRONT FACE

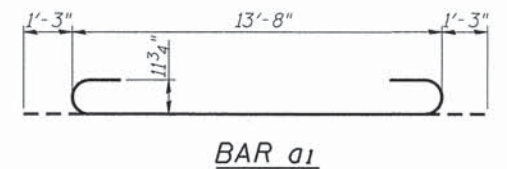
SHOWING REINFORCEMENT

SHOWING OUTLINES

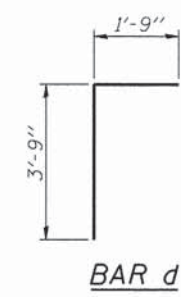
PLAN

NOTES

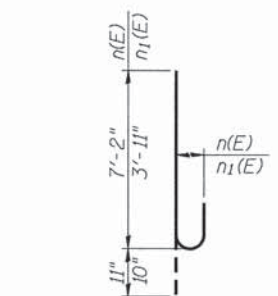
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.  
 Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.  
 Reinforcement bars designated (E) shall be epoxy coated.



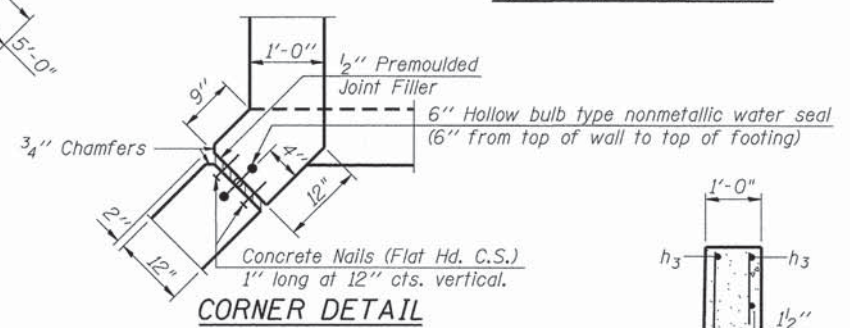
BAR a1



BAR d



BARS n(E) and n1(E)

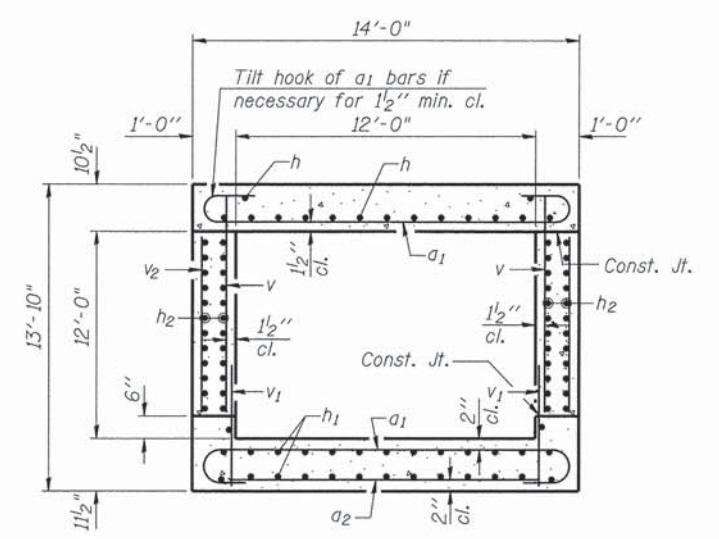


CORNER DETAIL

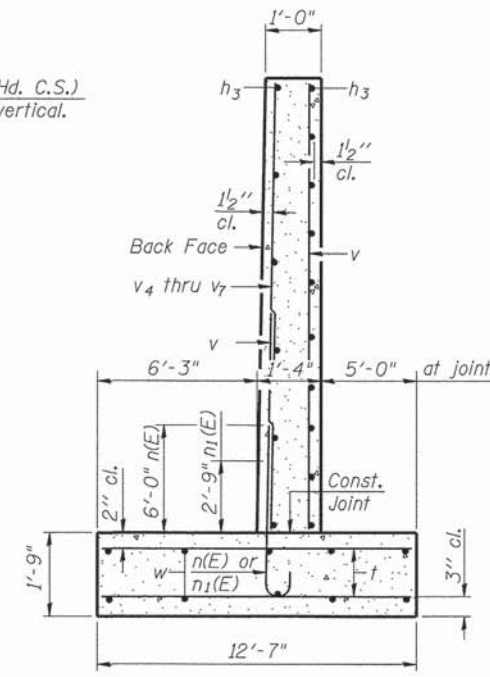
DESIGN STRESSES

$f_y = 60,000 \text{ psi}$   
 $f'_c = 3,500 \text{ psi}$   
 Max. Soil Pressure under footing = 2000 psf

LOADING HS 20-44



SECTION THRU BARREL



SECTION A-A

BILL OF MATERIAL

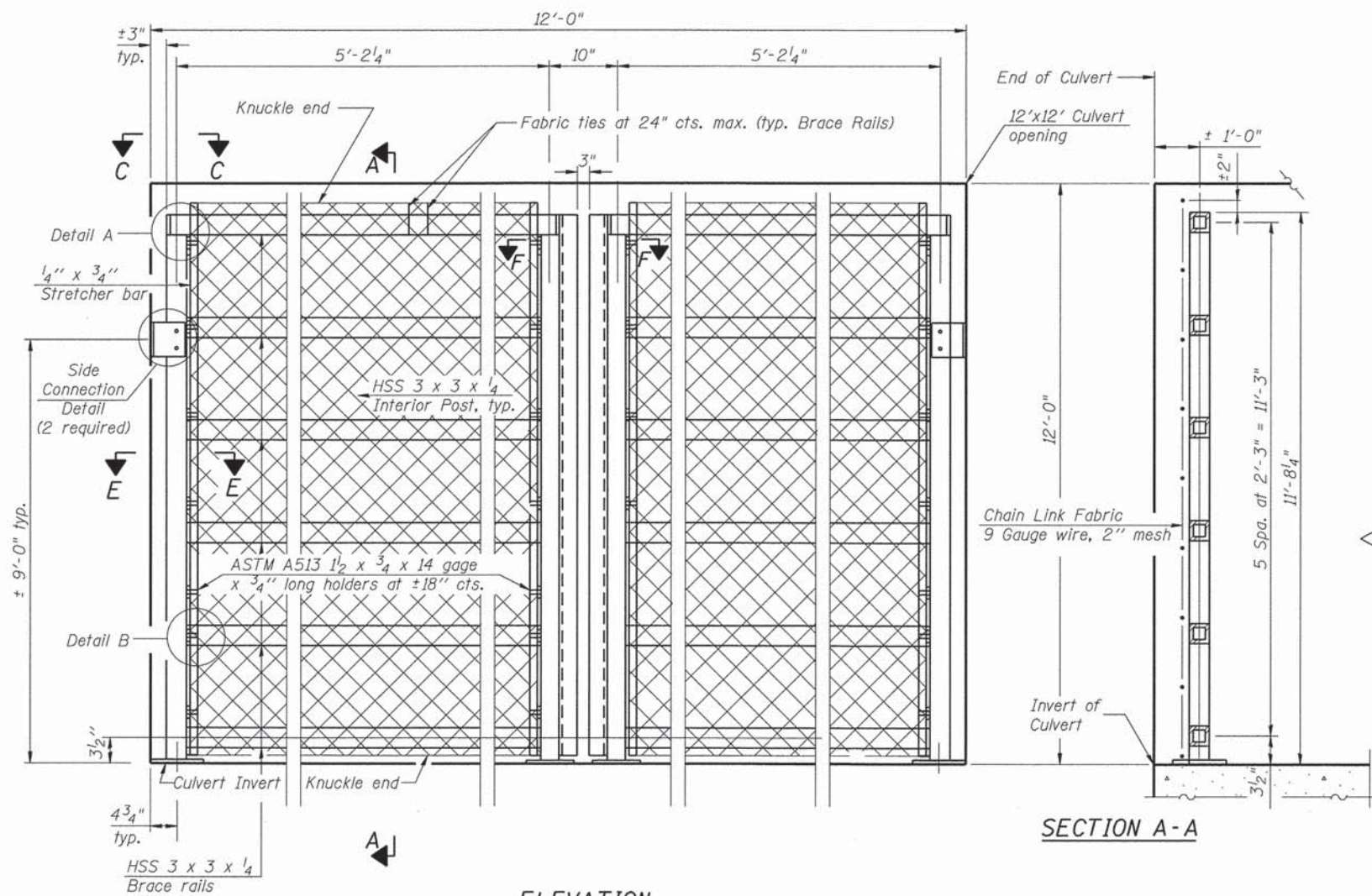
Bar	No.	Size	Length	Shape
a1	518	#9	16'-2"	U
a2	73	#4	12'-3"	—
d	50	#4	5'-6"	J
h	60	#7	37'-0"	—
h1	104	#5	29'-3"	—
h2	240	#7	30'-2"	—
h3	96	#4	17'-8"	—
h4	4	#6	13'-8"	—
n (E)	76	#8	8'-1"	U
n1 (E)	76	#7	4'-9"	U
t	160	#6	12'-3"	—
v	560	#6	12'-3"	—
v1	560	#6	2'-7"	—
v2	148	#5	11'-4"	—
v3	8	#5	6'-5"	—
v4	12	#4	24'-9"	—
v5	76	#6	8'-9"	—
v6	36	#4	9'-9"	—
v7	40	#4	6'-5"	—
w	36	#5	17'-11"	—
Concrete Box Culverts			Cu. Yd.	365.1
Reinforcement Bars			Pound	72,480
Reinforcement Bars, Epoxy Coated			Pound	2,380
Geocomposite Wall Drain			Sq. Yd.	533
Concrete Headwall for Pipe Drains			Each	4
Pipe Underdrains for Structures, 4"			Foot	400

CULVERT DETAILS

SHEET NO. DC-2	F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	167
DC-3 SHEETS	CONTRACT NO. 63698			DATE: 5/9/13	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

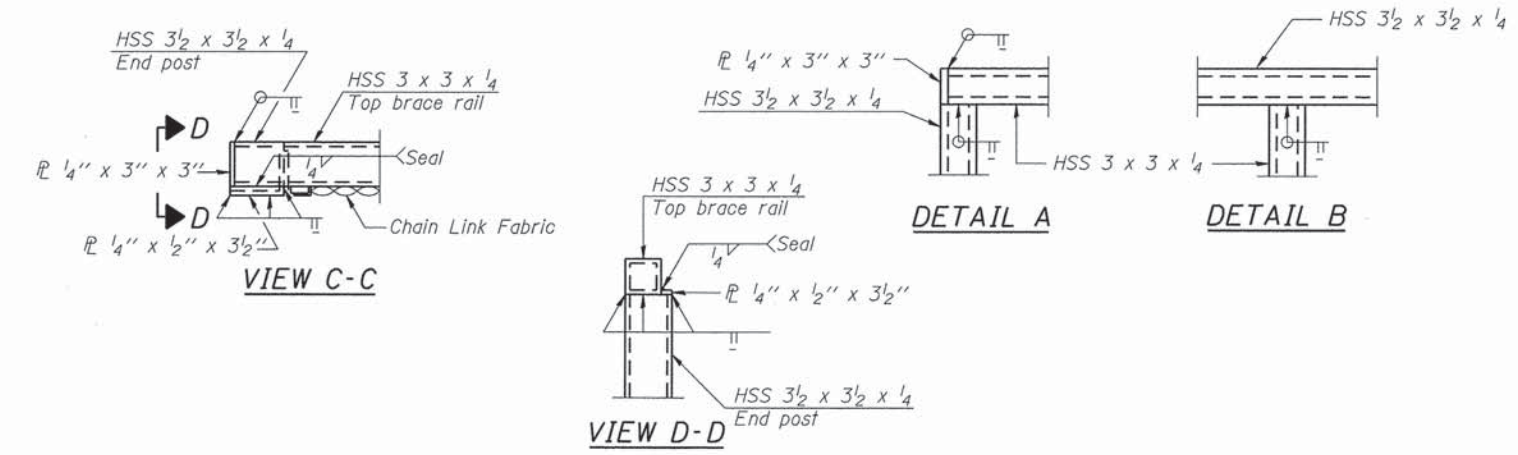


FILE NAME: 090084-culvert.dgn  
 PLOT DRIVER: pafplot  
 PEN TABLE: Struct 20-34389-2013



**ELEVATION**  
(Outside Face)

**SECTION A-A**

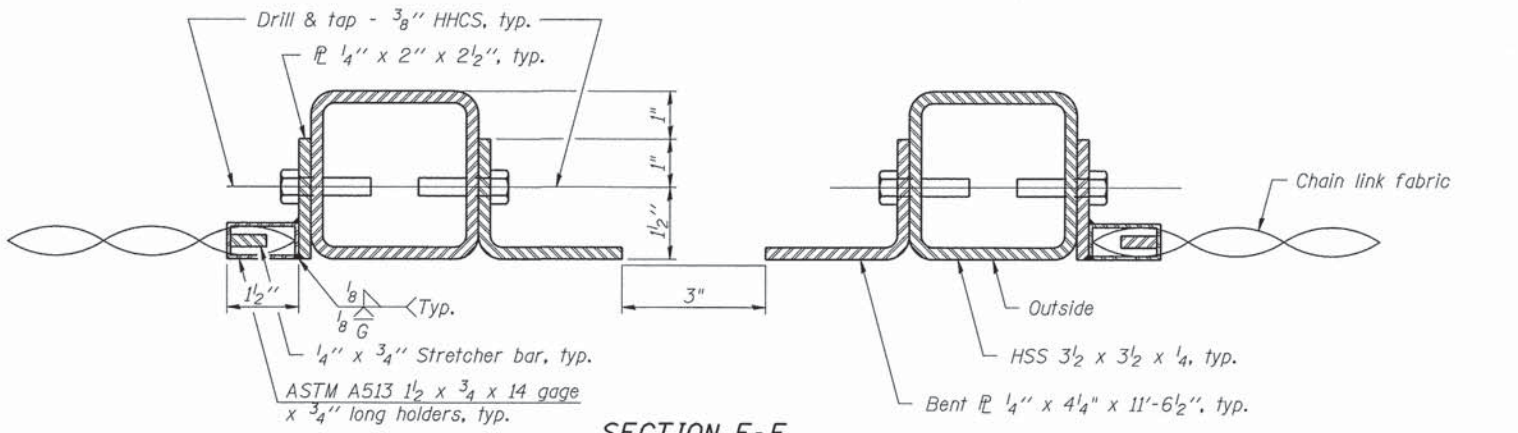


**DETAIL A**

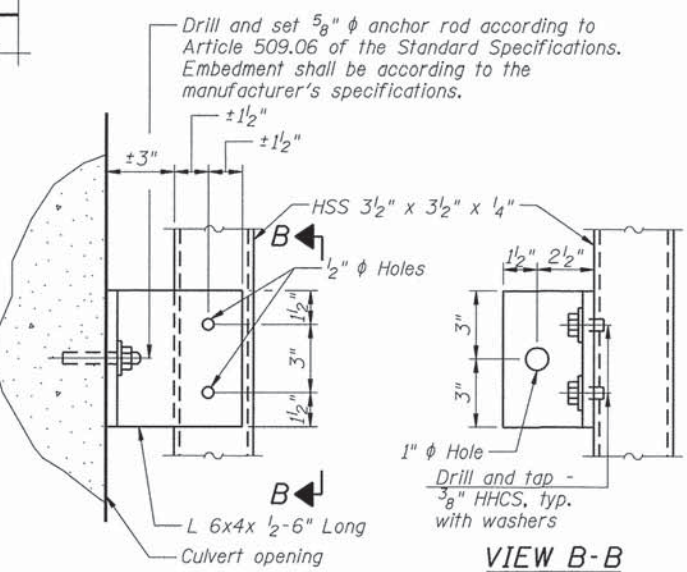
**DETAIL B**

**VIEW C-C**

**VIEW D-D**



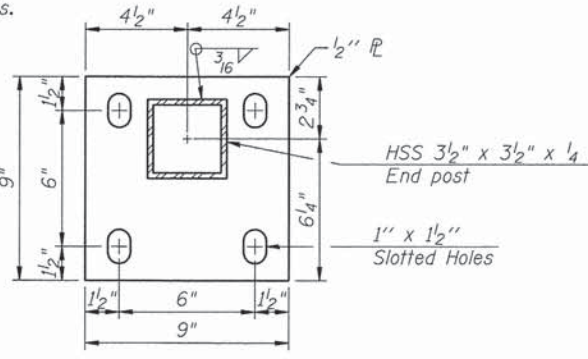
**SECTION F-F**



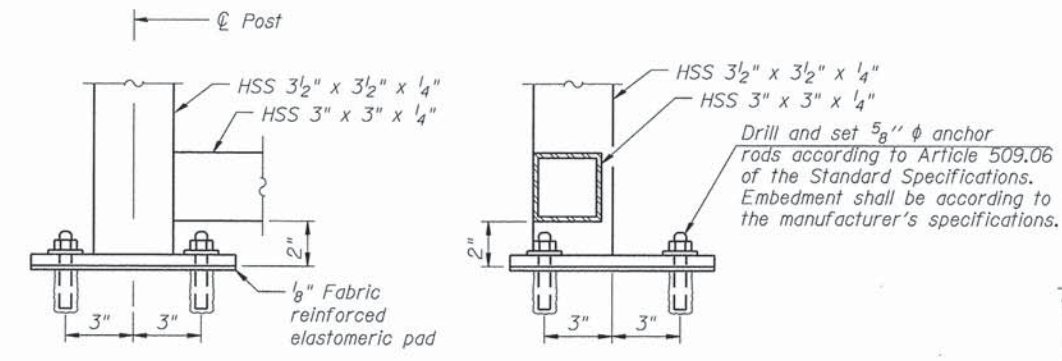
**SECTION E-E**

**SIDE CONNECTION DETAIL**

**VIEW B-B**



**BASE PL**



**ANCHOR BOLT DETAILS**

**BILL OF MATERIAL**

Item	Unit	Quantity
Bridge Fence Railing (Special)	Foot	24

All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

**FENCE DETAILS**

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

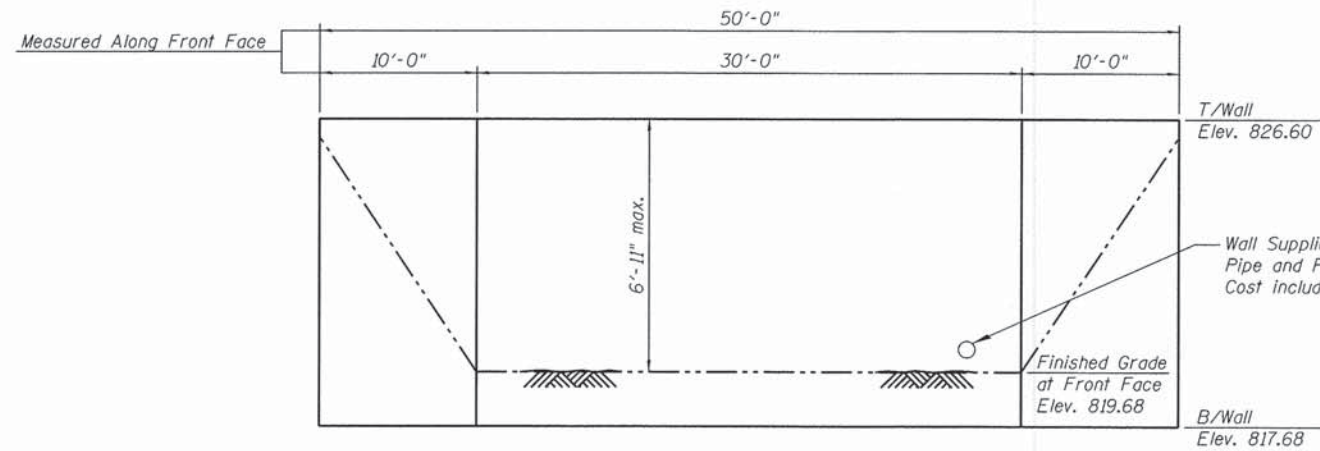
SHEET NO. DC-3	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	0126	01-00274-00-BR	KANE	289	168
DC-3 SHEETS			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

DATE: 5/9/13

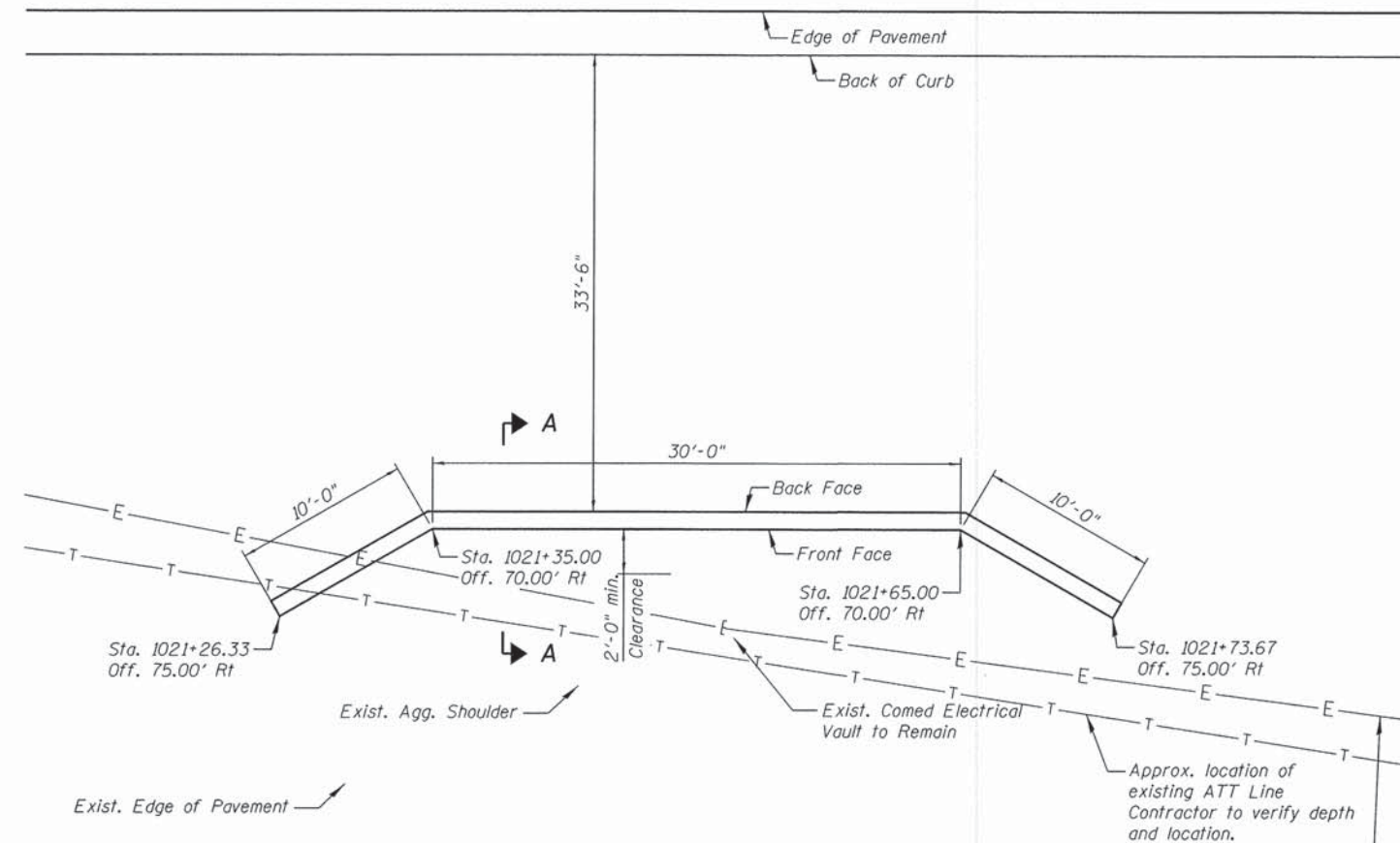


FILE NAME: 090284-Fence.dgn

Note:  
Stationing and offsets are based off the  $\odot$  Proposed Anderson Road. See Roadway Drawings.



**WALL ELEVATION**  
(Looking West)



**PLAN**

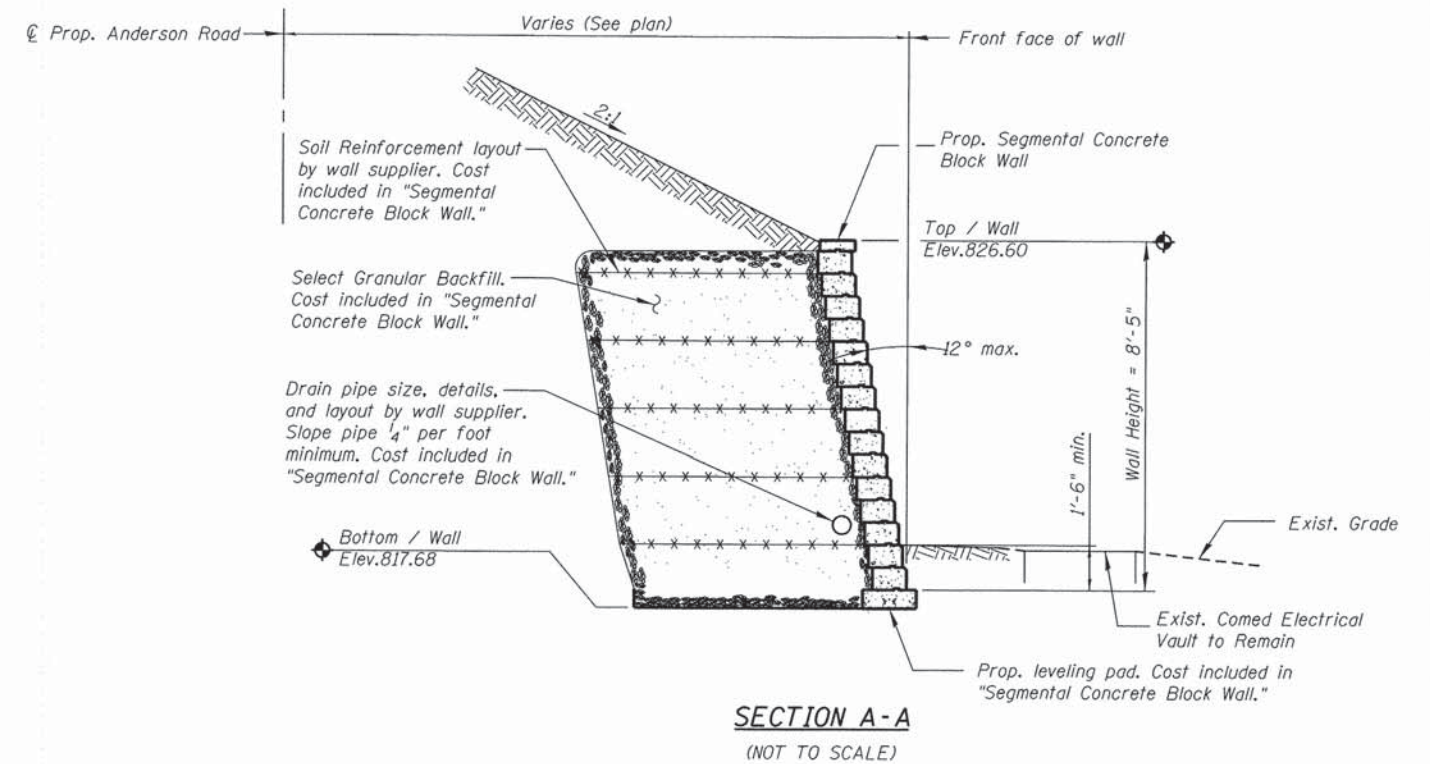


**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	20
Segmental Concrete Block Wall	Sq. Ft.	446

Excavation required for installation of Segmental Concrete Block Wall shall be done in accordance with the applicable portions of Section 502 of the Standard Specifications and will be paid for as Structure Excavation.

The contractor is made aware that extra care shall be taken when working near the existing Com Ed and ATT facilities. Reference Article 107.31 of the Standard Specifications.



**SECTION A-A**  
(NOT TO SCALE)

To the best of my knowledge, information and belief, this retaining wall design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Bridge Design".

*Robert Green*  
Structural Engineer  
HR Green  
Expires 11-30-14



**ANDERSON ROAD  
RETAINING WALL 1 DETAILS  
SECTION NO. 01-00274-00-BR  
KANE COUNTY  
STATION 1021+50.00**

DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD

FILE NAME: 092027-11-10-01.dgn  
PLOT NUMBER: Struct-22-14-00-2013  
PEN TABLE:



SHEET NO.	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SW-1	0126	01-00274-00-BR	KANE	289	169
SW-2 SHEETS			CONTRACT NO. 63698		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

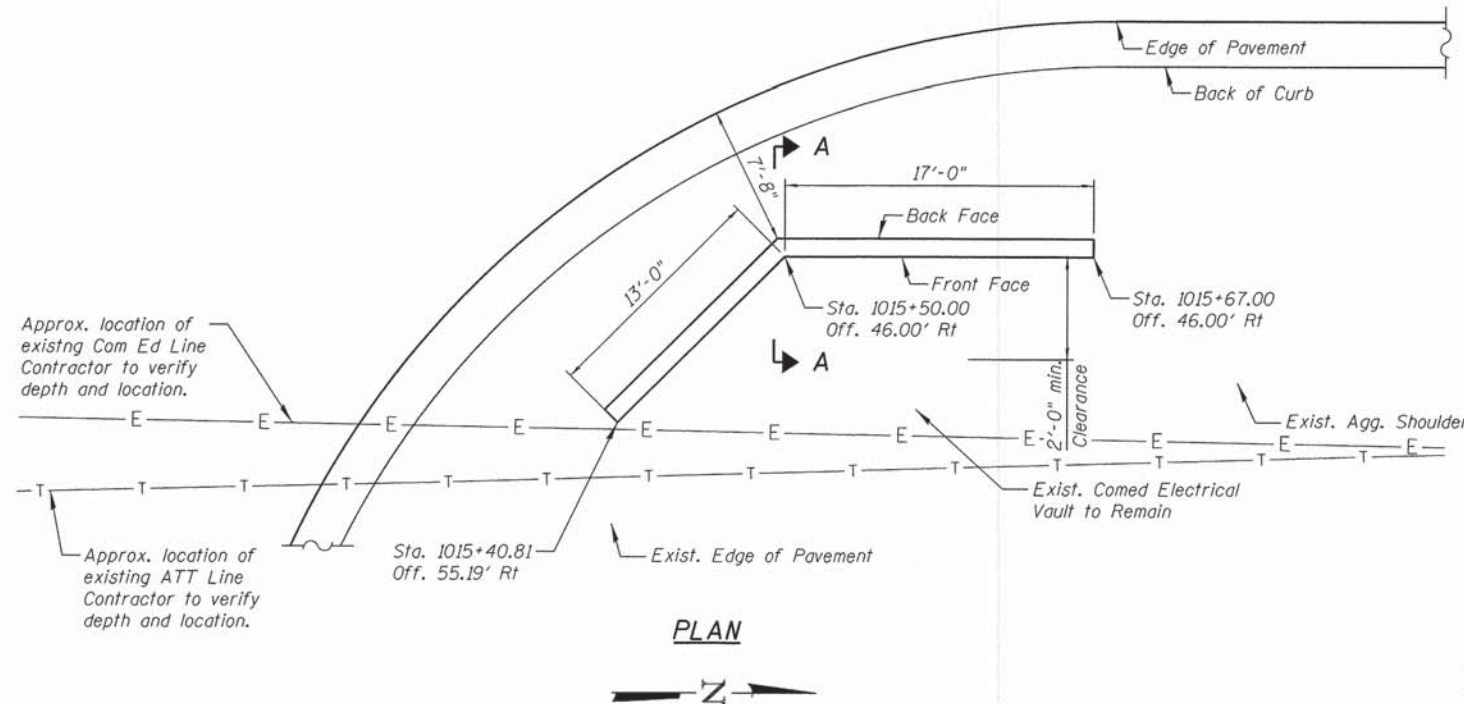
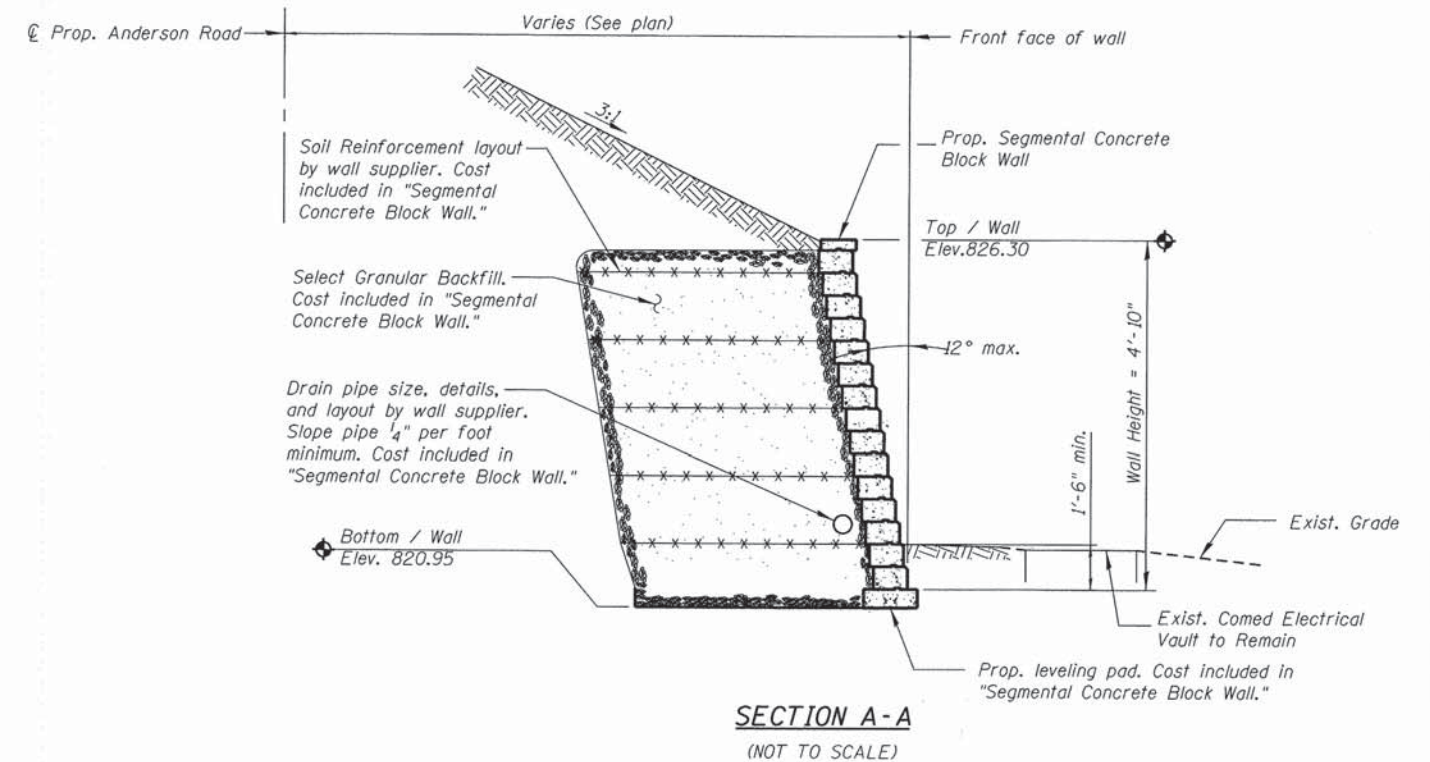
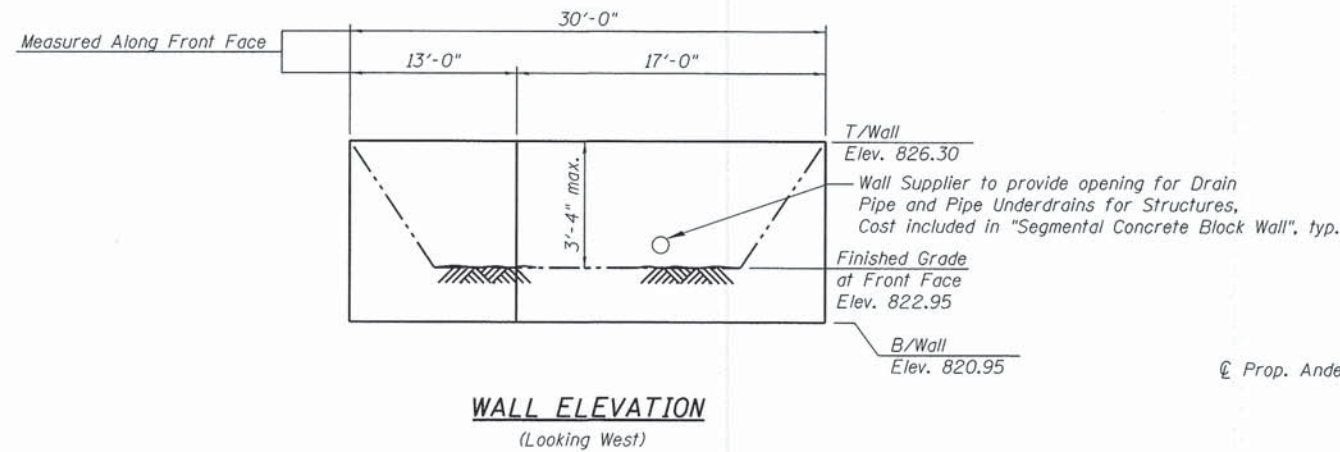
Note:  
Stationing and offsets are based off the  $\odot$  Proposed Anderson Road. See Roadway Drawings.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	11
Segmental Concrete Block Wall	Sq. Ft.	160

Excavation required for installation of Segmental Concrete Block Wall shall be done in accordance with the applicable portions of Section 502 of the Standard Specifications and will be paid for as Structure Excavation.

The contractor is made aware that extra care shall be taken when working near the existing Com Ed and ATT facilities. Reference Article 107.31 of the Standard Specifications.



To the best of my knowledge, information and belief, this retaining wall design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Bridge Design".



*Robert G. Driver*  
Structural Engineer  
HR Green  
MAY 8, 2013 11-30-14  
Expires

ANDERSON ROAD  
RETAINING WALL 2 DETAILS  
SECTION NO. 01-00274-00-BR  
KANE COUNTY  
STATION 1015+51.50

DATE: 5/9/13

DESIGNED	KMA
CHECKED	RGD
DRAWN	WJH
CHECKED	RGD



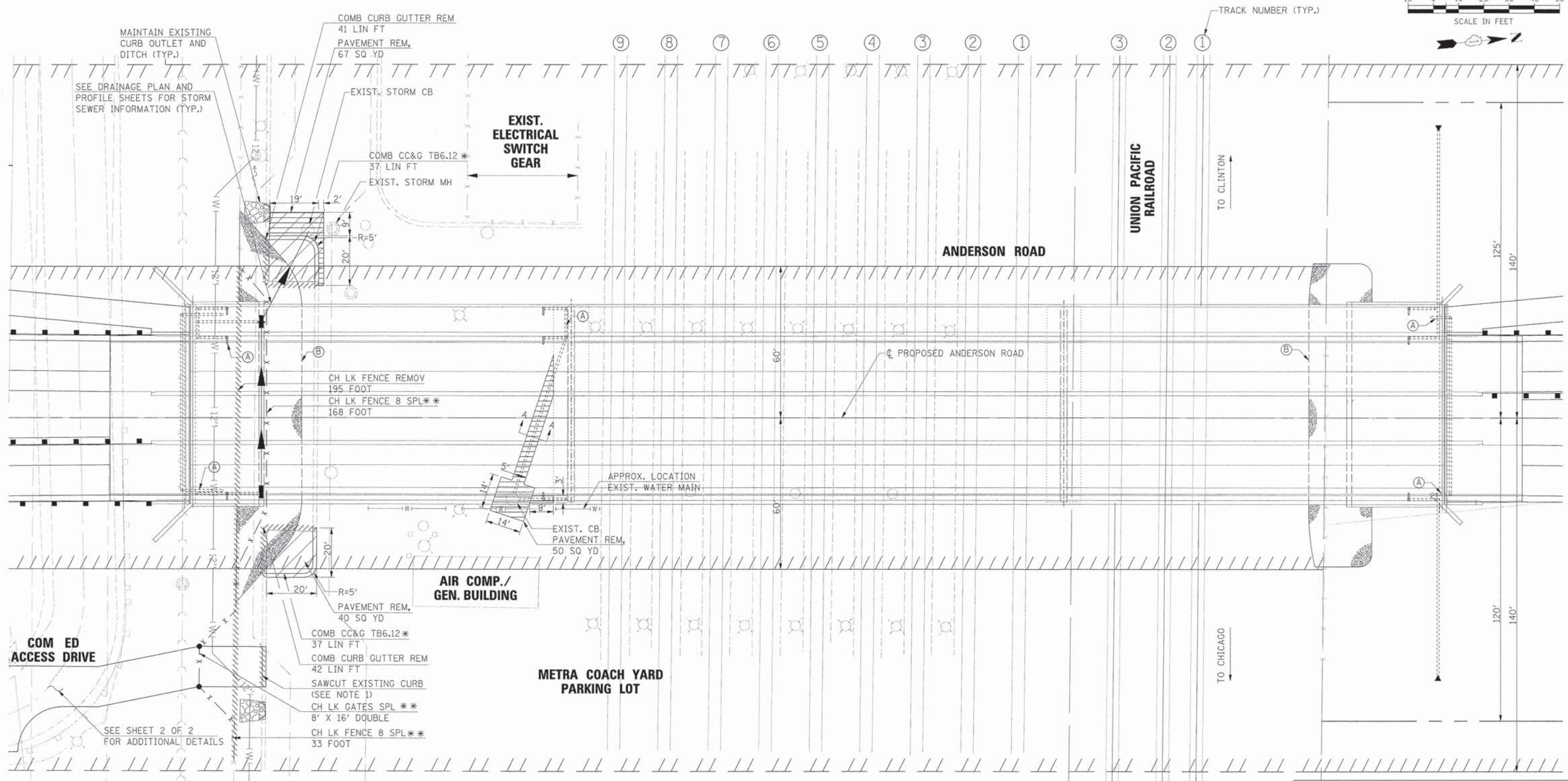
SHEET NO.	F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SW-2	0126	01-00274-00-BR	KANE	289	170
CONTRACT NO.				63698	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

FILE NAME: D:\2013\11-30-14\11-30-14-11-30-14.dgn  
PEN TABLE: 22x34.dwg/2013



PLAN	SUBMITTED	DATE
	PLOTTED	
	ALIGNMENT CHECKED	
	NOTE BOOK	
	NO.	

PROFILE	SUBMITTED	DATE
	PLOTTED	
	GRADES CHECKED	
	NOTE BOOK	
	NO.	



**COM ED ACCESS DRIVE**

**AIR COMP./ GEN. BUILDING**

**METRA COACH YARD PARKING LOT**

**UNION PACIFIC RAILROAD**

**ANDERSON ROAD**

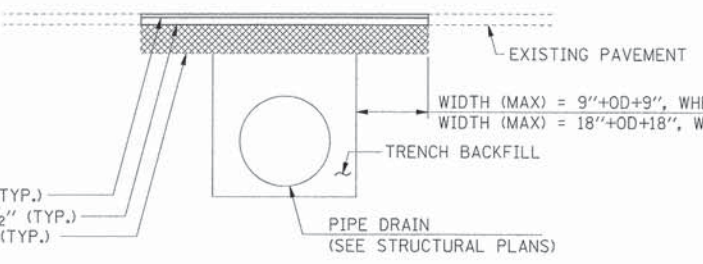
TO CLINTON

TO CHICAGO

SEE DRAINAGE PLAN AND PROFILE SHEETS FOR STORM SEWER INFORMATION (TYP.)

SEE SHEET 2 OF 2 FOR ADDITIONAL DETAILS

**PAVEMENT REPLACEMENT DETAIL (SECTION A-A)**



HMA SC "D" N50, 1 1/2" (TYP.)  
HMA BC IL-19.0 N50, 4 1/2" (TYP.)  
AGG SUBGRADE IMPR 12 (TYP.)

PIPE DRAIN (SEE STRUCTURAL PLANS)

WIDTH (MAX) = 9"+OD+9", WHEN TRENCH < 5'  
WIDTH (MAX) = 18"+OD+18", WHEN TRENCH > 5'

**NOTES:**

1. THE BACK OF EXISTING CURB SHALL BE SAWCUT AS NECESSARY TO PROVIDE DEPRESSED CURB ACROSS THE ACCESS DRIVE IN ACCORDANCE WITH ARTICLE 606.07 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL NOT BE MEASURED AND PAID FOR SEPARATELY.
2. SEE WATER MAIN PLANS FOR DRY HYDRANT INSTALLATION AT SOUTH ABUTMENT.
3. THE CONTRACTOR SHALL CONTACT EITHER TONY OGNIBENE AT (312) 322-8006 OR JOE LORENZINI AT (312) 322-6922 WITH METRA A MINIMUM OF 48 HOURS PRIOR TO BEGINING WORK IN THE METRA YARD.

\* ALL NEW COMBINATION CONCRETE CURB AND GUTTER SHALL MATCH THE ADJACENT EXISTING SECTIONS TO THE SATISFACTION OF THE ENGINEER.  
\*\*SEE SPECIAL PROVISIONS

SEE STRUCTURAL PLANS FOR DETAILS REGARDING THE FOLLOWING:  
(A) STRUCTURE DRAINAGE SYSTEM  
(B) BITUMINOUS COATED AGGREGATE SLOPEWALL 6"

**LEGEND**

- COMBINATION CONCRETE CURB AND GUTTER REMOVAL / FENCE REMOVAL
- PAVEMENT REPLACEMENT (SEE DETAIL)
- PAVEMENT REMOVAL
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED TEMPORARY EASEMENT
- PROPOSED PERMANENT EASEMENT



USER NAME = MFeller  
PLOT SCALE =  
PLOT DATE = 6/7/2013  
FILE NAME = 004\_det\_metra\_yard\_01.dgn

DESIGNED APS  
DRAWN JMR  
DATE

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

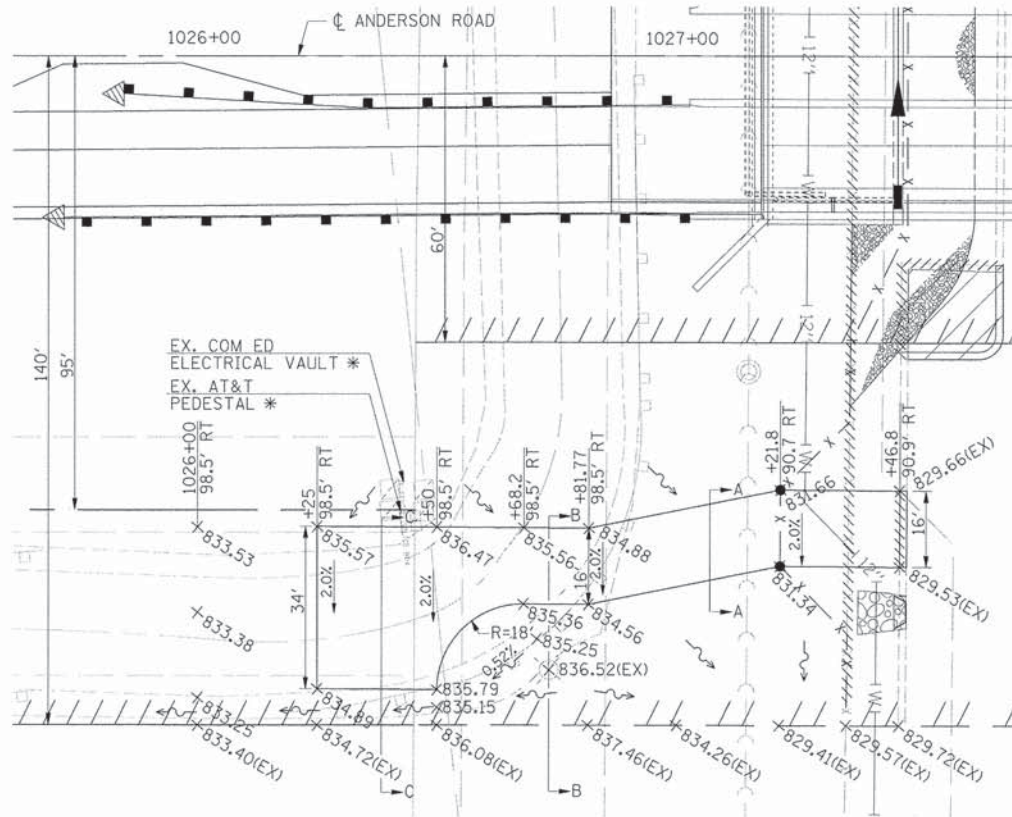
**METRA YARD DETAIL  
(SHEET 1 OF 2)**

SCALE: SHEET NO. OF SHEETS

F.A.J. RTE. 2330	SECTION 01-00274-00-BR	COUNTY KANE	TOTAL SHEETS 289	SHEET NO. 171
CONTRACT NO. 63698				

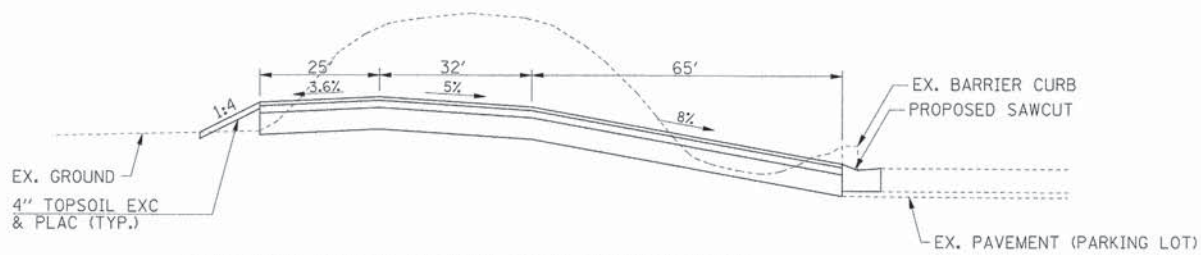


**ANDERSON ROAD**



**PROPOSED COMED ACCESS DRIVE (PLAN VIEW)**

\* THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THESE FACILITIES FROM THE CONTRACTOR'S OPERATIONS. ANY UTILITY PROPERTY DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.



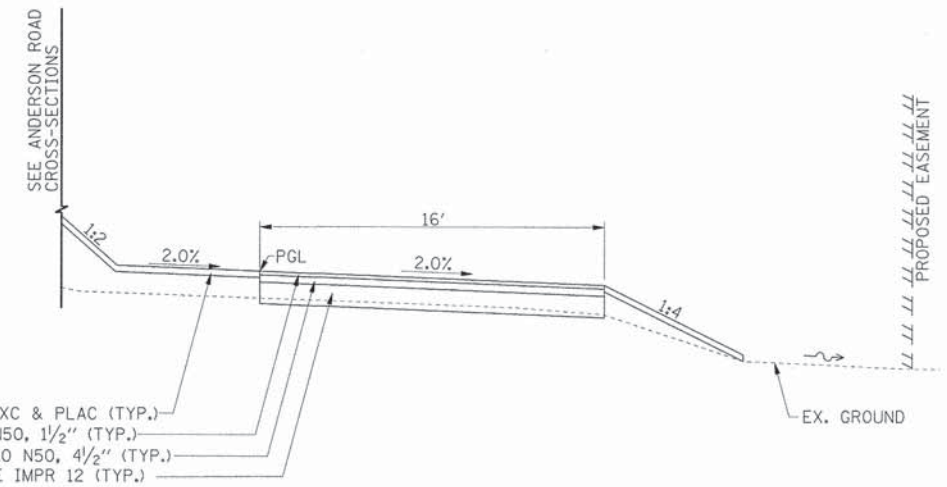
**PROPOSED COMED ACCESS DRIVE (PROFILE VIEW)**

**LEGEND**

- COMBINATION CONCRETE CURB AND GUTTER REMOVAL / FENCE REMOVAL
- PAVEMENT REPLACEMENT (SEE DETAIL)
- PAVEMENT REMOVAL
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPOSED TEMPORARY EASEMENT
- PROPOSED PERMANENT EASEMENT

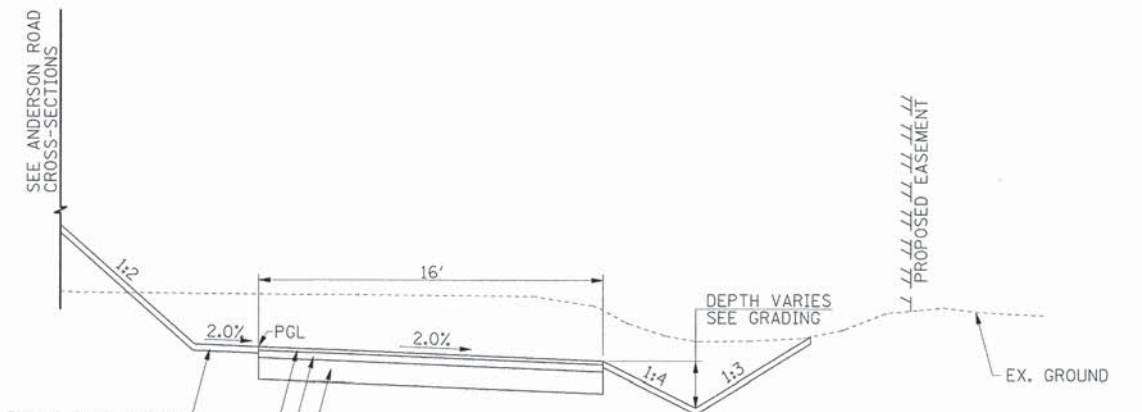
PLAN	DATE
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BY	
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PROFILE	DATE
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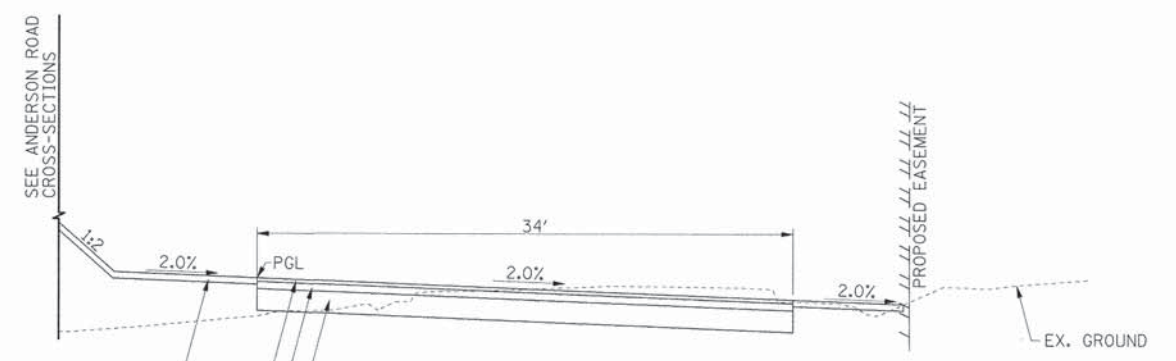
**PROPOSED COMED ACCESS DRIVE (SECTION A-A)**

4" TOPSOIL EXC & PLAC (TYP.)  
HMA SC "D" N50, 1 1/2" (TYP.)  
HMA BC IL-19.0 N50, 4 1/2" (TYP.)  
AGG SUBGRADE IMPR 12 (TYP.)



**PROPOSED COMED ACCESS DRIVE (SECTION B-B)**

4" TOPSOIL EXC & PLAC (TYP.)  
HMA SC "D" N50, 1 1/2" (TYP.)  
HMA BC IL-19.0 N50, 4 1/2" (TYP.)  
AGG SUBGRADE IMPR 12 (TYP.)



**PROPOSED COMED ACCESS DRIVE (SECTION C-C)**

4" TOPSOIL EXC & PLAC (TYP.)  
HMA SC "D" N50, 1 1/2" (TYP.)  
HMA BC IL-19.0 N50, 4 1/2" (TYP.)  
AGG SUBGRADE IMPR 12 (TYP.)



HRGreen.com  
Illinois Professional Design Firm  
# 194-001322

USER NAME =	Mfeller	DESIGNED	APS	REVISED	-
PLOT SCALE =		DRAWN	JMR	REVISED	-
PLOT DATE =	6/7/2013	DATE		REVISED	-
FILE NAME =	084_det_metra_yard_02.dgn			REVISED	-

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

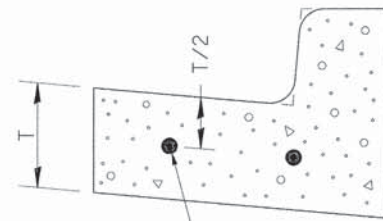
**METRA YARD DETAIL  
(SHEET 2 OF 2)**

SCALE: SHEET NO. OF SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2330	01-00274-00-BR	KANE	289	172
CONTRACT NO. 63698				



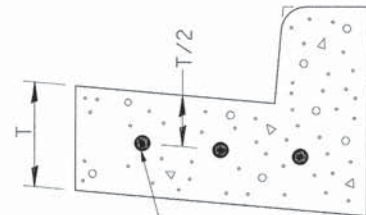
PLAN	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NO.	
	FILE NAME	



CONTINUOUSLY REINFORCED WITH 2 - #4 BARS EVENLY SPACED

- NOTES:
1. REINFORCEMENT SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR CC&G.
  2. ABOVE CC&G DETAIL ALSO APPLIES TO TYPE M-6.06 CURB AND GUTTER ON CHANNELIZING ISLAND.

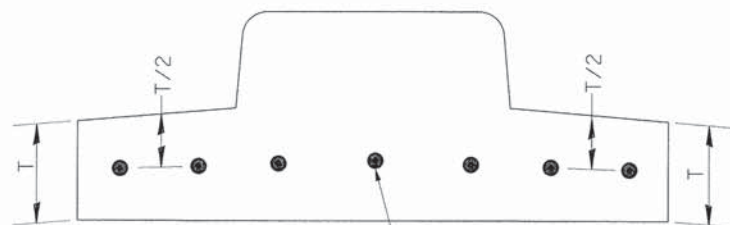
**REINFORCEMENT DETAIL FOR COMBINATION CONCRETE CURB AND GUTTER TYPE B-6.12**



CONTINUOUSLY REINFORCED WITH 3 - #4 BARS EVENLY SPACED

- NOTES:
1. REINFORCEMENT SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR CC&G.
  2. ABOVE CC&G DETAIL ALSO APPLIES TO TYPE M-6.24 CURB AND GUTTER ON CHANNELIZING ISLAND.

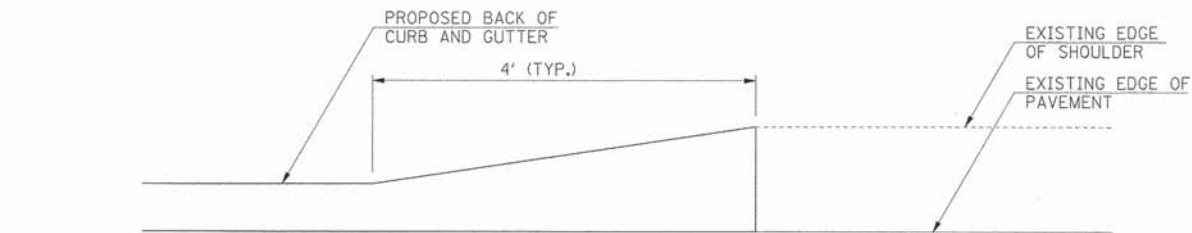
**REINFORCEMENT DETAIL FOR COMBINATION CONCRETE CURB AND GUTTER TYPE B-6.24**



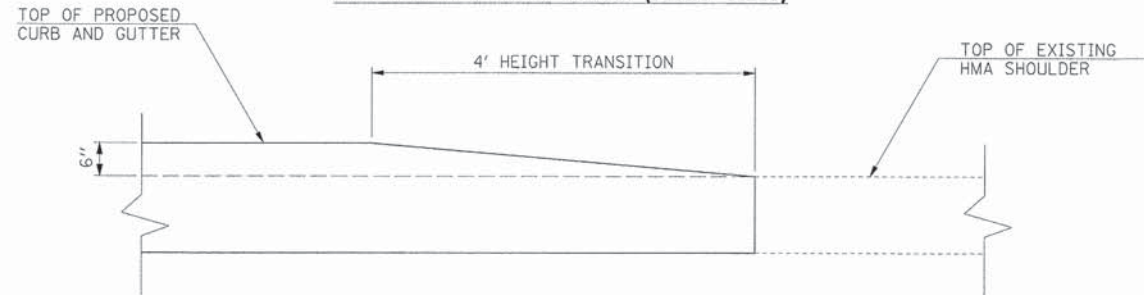
CONTINUOUSLY REINFORCED WITH 7 - #4 BARS EVENLY SPACED

- NOTE:
- REINFORCEMENT SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR CC&G.

**REINFORCEMENT DETAIL FOR CONCRETE MEDIAN, TYPE SB-6.12**

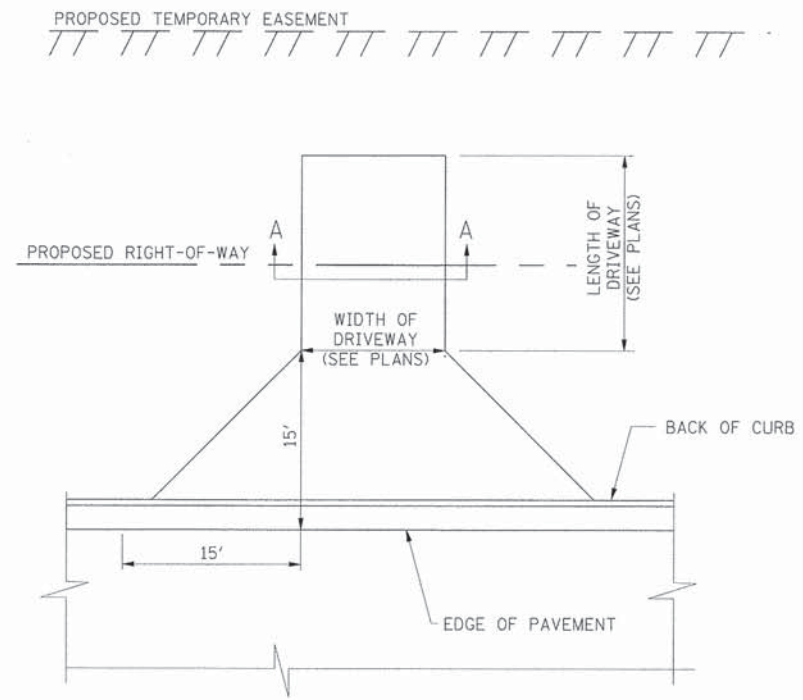


**CURB AND GUTTER FLARE (PLAN VIEW)**

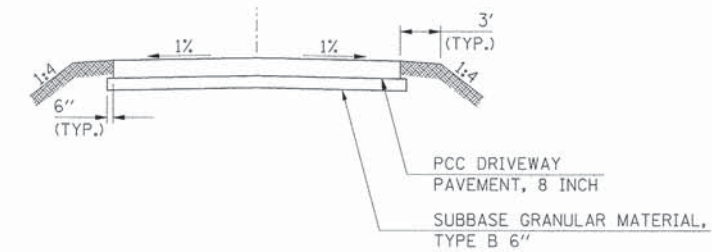


**CURB AND GUTTER FLARE (PROFILE VIEW)**

- NOTE:
- THE CURB AND GUTTER FLARE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE MEASURED QUANTITIES FOR THE TYPE OF CURB AND GUTTER BEING TRANSITIONED.



**DRIVEWAY DETAIL (PLAN VIEW)**



**DRIVEWAY DETAIL (SECTION A-A)**

**DRIVEWAY DETAIL (GENERAL NOTES)**

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

25 (1) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

PROFILE	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NO.	
	FILE NAME	



USER NAME = MFallor	DESIGNED APS	REVISED -
PLOT SCALE =	DRAWN JMR	REVISED -
PLOT DATE = 6/7/2013	DATE -	REVISED -
FILE NAME = 084_det01.dgn		REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

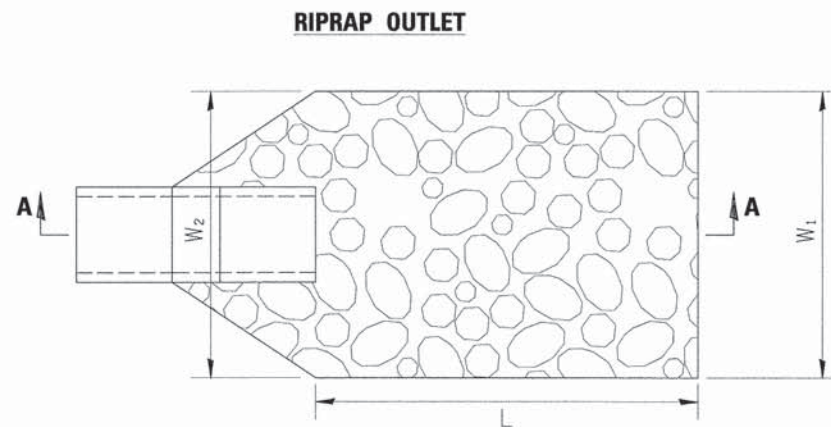
MISCELLANEOUS DETAILS  
(SHEET 1 OF 15)

SCALE: SHEET NO. OF SHEETS

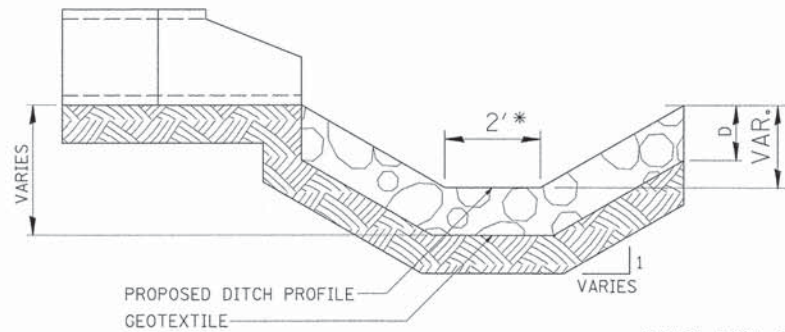
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2330	01-00274-00-BR	KANE	289	173
CONTRACT NO. 63698				

PLAN	SUBMITTED	DATE
	PLOTTED	
	ALIGNMENT CHECKED	
	NOTE BOOK	
	NO. _____	
	FILE NAME	

PROFILE	SUBMITTED	DATE
	PLOTTED	
	GRADES CHECKED	
	NOTE BOOK	
	NO. _____	
	STRUCTURE NOTATIONS CHECKED	



**PLAN**



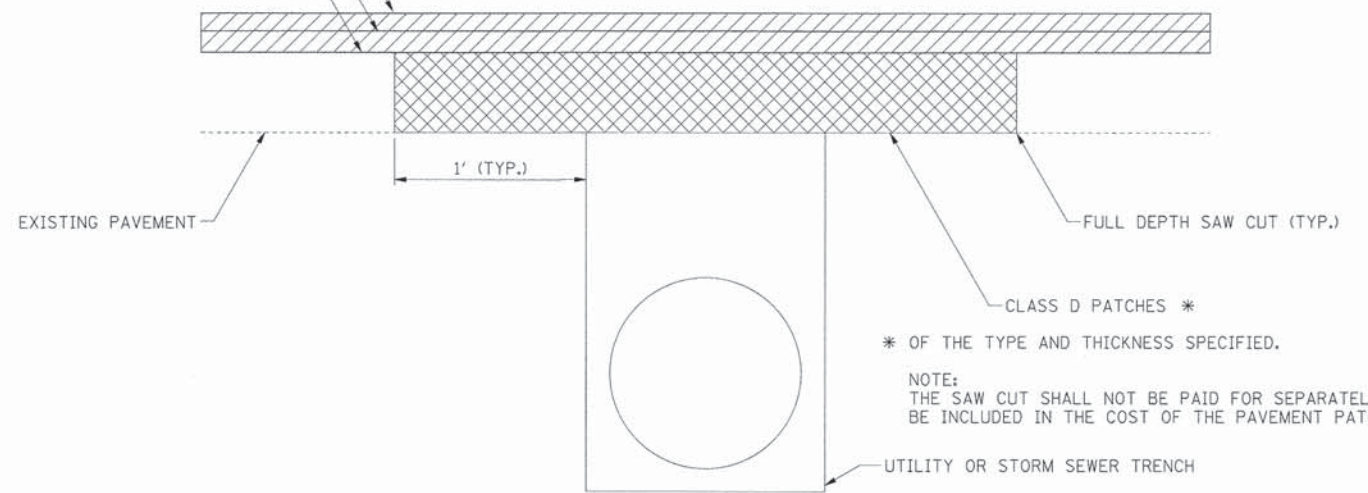
**SECTION A-A**

\* OMIT DITCH SECTION WHEN PIPE OUTLET IS TO A FLAT AREA.

**NOTES:**

1. THE FILTER FABRIC SHALL MEET THE REQUIREMENTS IN MATERIAL SPECIFICATIONS 592 GEOTEXTILE TABLE 1 OR 2, CLASS I, II OR III.
2. THE ROCK RIPRAP SHALL MEET THE IDOT REQUIREMENTS FOR THE GRADATION SPECIFIED ON THE EROSION CONTROL PLANS.
3. THE RIPRAP SHALL BE PLACED ACCORDING TO CONSTRUCTION SPECIFICATION 61 LOOSE ROCK RIPRAP. THE ROCK MAY BE EQUIPMENT PLACED. DIMENSIONS SHOWN IN PLAN VIEW SHALL BE AS SPECIFIED ON THE EROSION CONTROL PLANS OR AS DIRECTED BY THE ENGINEER.

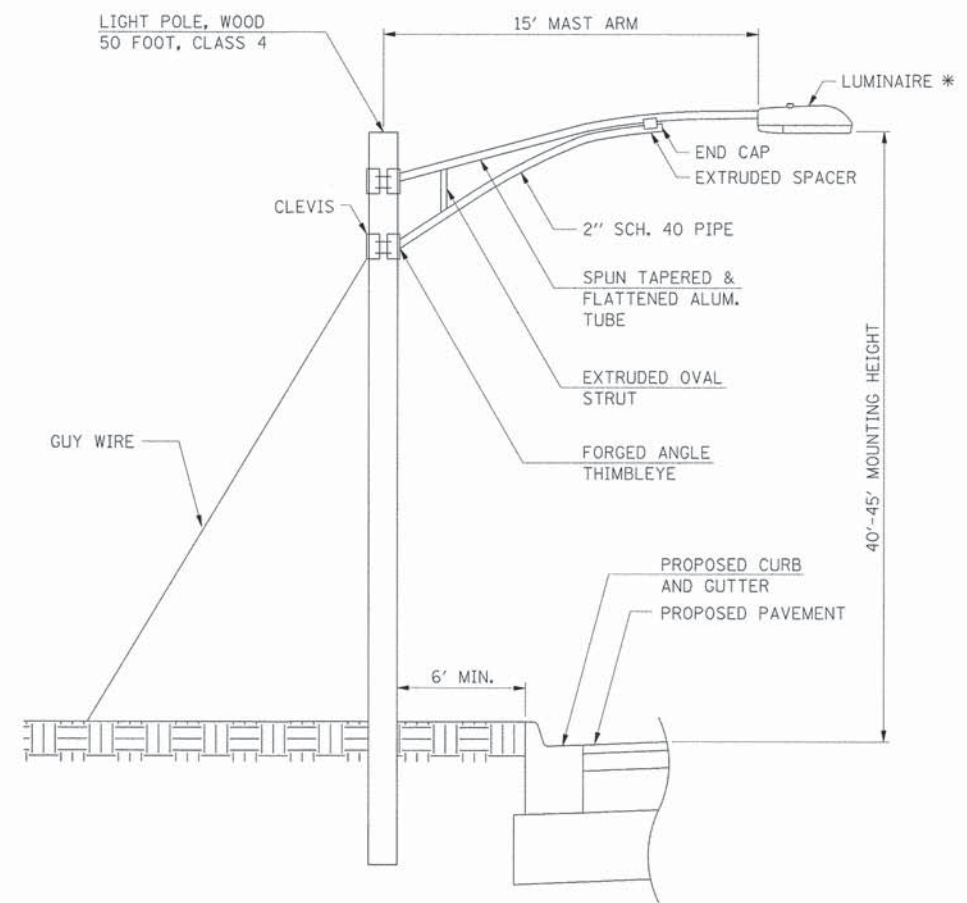
HOT-MIX ASPHALT SURFACE COURSE  
(SEE TYPICAL SECTIONS)  
LEVELING BINDER (MACHINE METHOD)  
(SEE TYPICAL SECTIONS)  
HOT-MIX ASPHALT SURFACE REMOVAL  
(SEE TYPICAL SECTIONS)



**PAVEMENT PATCHING**

\* OF THE TYPE AND THICKNESS SPECIFIED.

NOTE:  
THE SAW CUT SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE PAVEMENT PATCHING.



**LIGHT POLE DETAIL**

\* LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 250 WATT

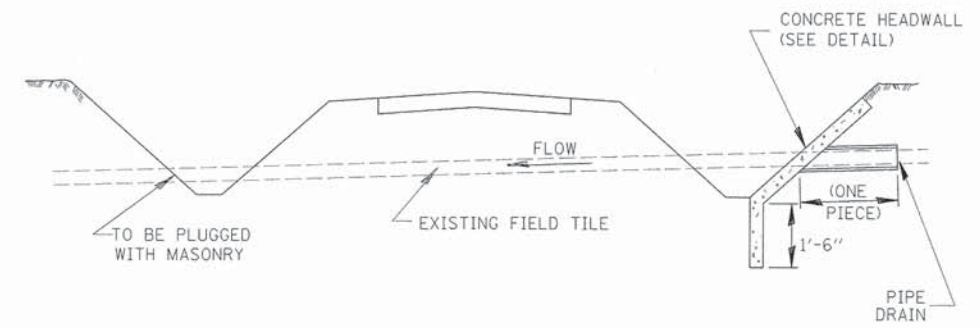
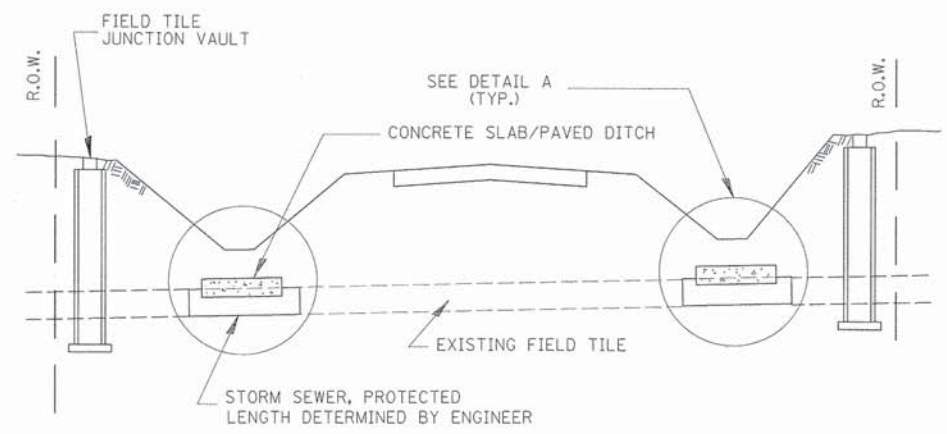
NOTE:  
ELECTRICAL SERVICE FOR LIGHT POLES TO BE PROVIDED BY COM ED.  
CONTRACTOR SHALL COORDINATE WITH COM ED AS NECESSARY (ACCOUNT NO. 2691045175).

USER NAME = MFeller	DESIGNED APS	REVISED -
PLOT SCALE =	DRAWN JMR	REVISED -
PLOT DATE = 6/7/2013	DATE -	REVISED -
FILE NAME = 084_de t02.dgn		REVISED -

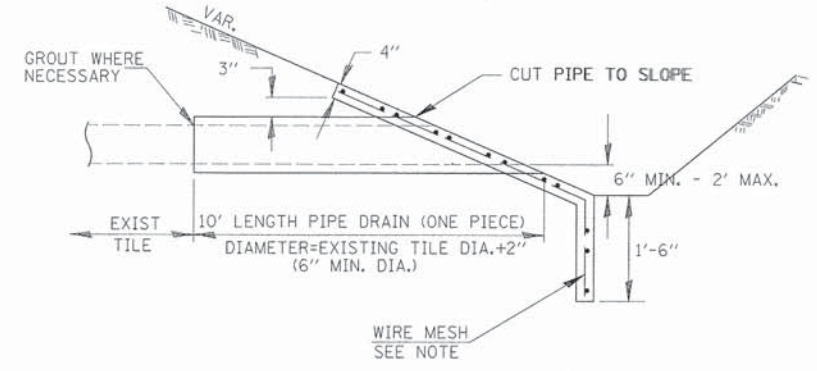
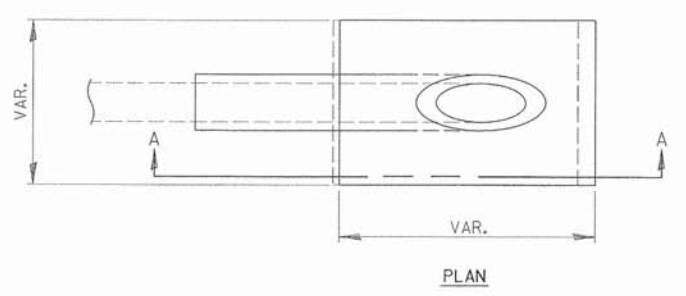
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2330	01-00274-00-BR	KANE	289	174
CONTRACT NO. 63698				

PLAN	DATE
BY	
REVISIONS	
NO.	
DATE	
BY	
DESCRIPTION	
NO.	
DATE	
BY	
DESCRIPTION	
NO.	
DATE	
BY	
DESCRIPTION	
NO.	
DATE	

PROFILE	DATE
BY	
REVISIONS	
NO.	
DATE	
BY	
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DATE	
BY	
DESCRIPTION	
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DATE	

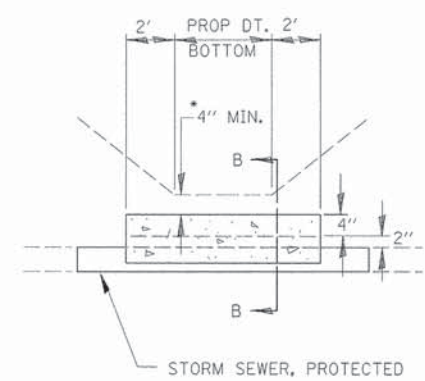


**FIELD TILE REPLACEMENT**



**SECTION A-A**

**CLASS SI CONCRETE HEADWALLS**



**DETAIL A**  
NO SCALE

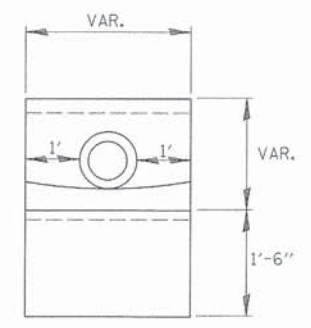
\* IF A 4" COVER CAN NOT BE PROVIDED A PAVED DITCH SHALL BE CONSTRUCTED AS SHOWN IN DETAIL C.

**NOTES**

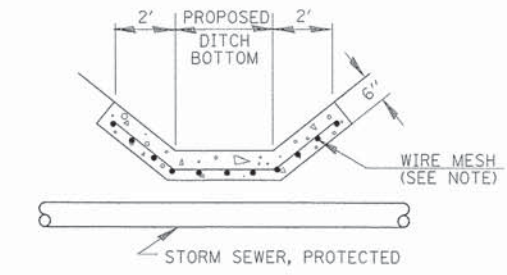
1. WIDTH OF CONCRETE SLAB SHALL BE THE SAME AS THE TRENCH WIDTH IN ACCORDANCE WITH SECTION 550 OF THE STD. SPECIFICATIONS, OR 3' MIN.
2. CONCRETE FOR SLAB, HEADWALL AND PAVED DITCH SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR "MISCELLANEOUS CONCRETE."
3. COST OF FURNISHING AND INSTALLING WIRE MESH SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR MISCELLANEOUS CONCRETE. WIRE MESH TO WEIGH NOT LESS THAN 58# PER 100 SQ. FT.

**NOTES**

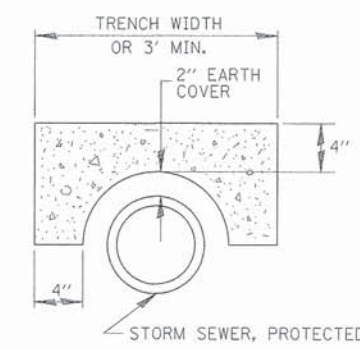
1. ANY STORM SEWER OR FIELD TILE OUTLET INTO A DITCH SHALL HAVE A HEADWALL BUILT IN ACCORDANCE WITH THIS DETAIL.
2. COST OF FURNISHING AND INSTALLING WIRE MESH SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR MISCELLANEOUS CONCRETE. WIRE MESH TO WEIGH NOT LESS THAN 58# PER 100 SQ. FT.



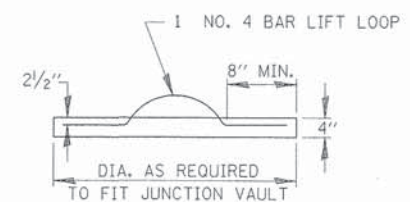
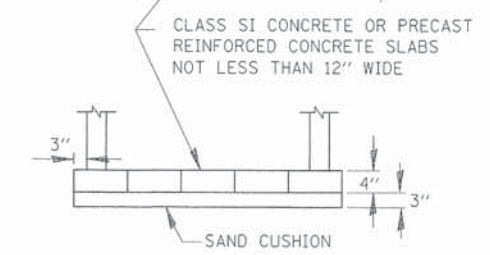
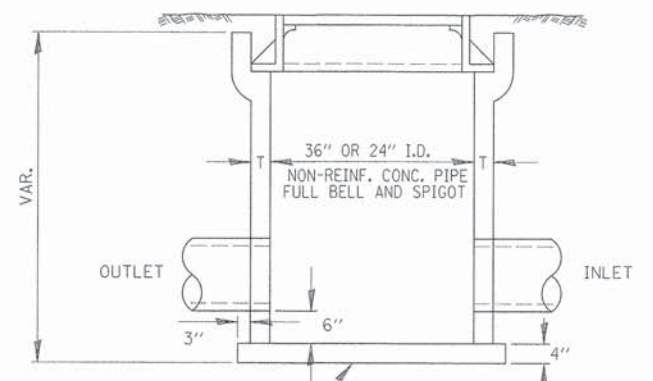
**END VIEW**



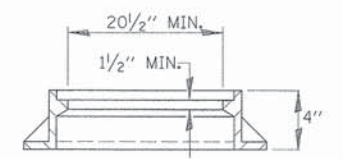
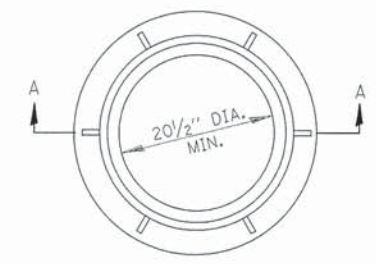
**DETAIL C**  
NO SCALE



**SECTION B-B**



**FIELD TILE JUNCTION VAULT**



**SECTION A-A**

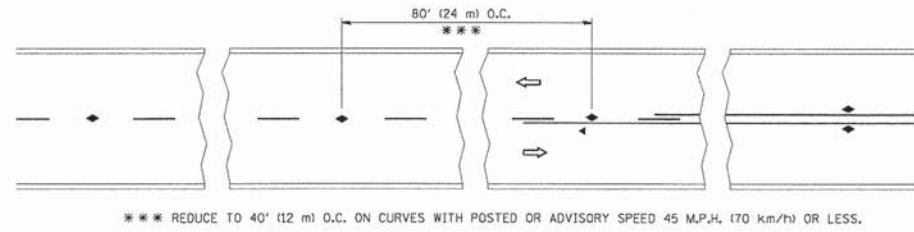
ALTERNATE MATERIALS FOR WALLS	T
PRECAST REINFORCED CONCRETE RISERS	4"
CONCRETE MASONRY UNIT	5"
MONOLITHIC CONCRETE	6"
BUILDING BRICK, GRADE SW FROM CLAY OR SHALE	8"
CONCRETE BUILDING BRICK, GRADE A	8"

**NOTES**

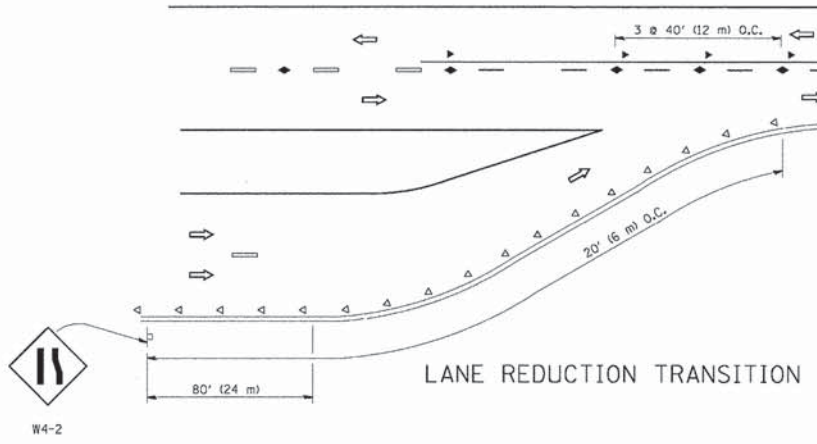
1. THE CONTRACT UNIT PRICE FOR FIELD TILE JUNCTION VAULT SHALL INCLUDE THE COST OF FURNISHING AND PLACING THE FRAME AND GRATE OR PRECAST CONCRETE LID AND WHEN REQUIRED, THE SAND CUSHION.
2. ALL FIELD TILE JUNCTION VAULTS SHALL BE 2'-0" IN DIAMETER UNLESS OTHERWISE NOTED ON THE PLANS.

PLAN	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NO.	
	FILE NAME	

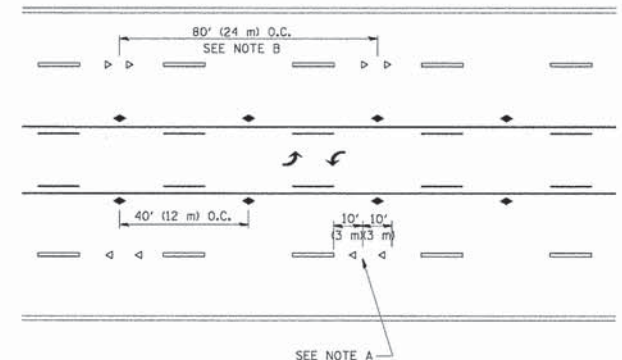
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	PLOTTED	
	CHECKED	
	BY	
	NO.	
	FILE NAME	



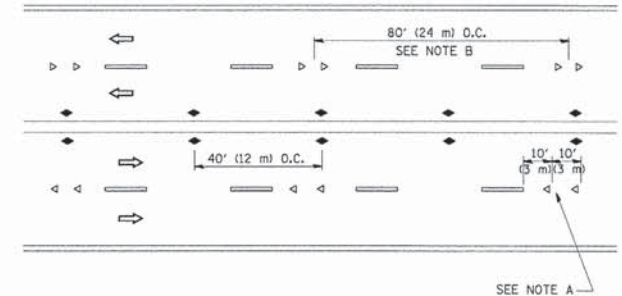
TWO-LANE/TWO-WAY



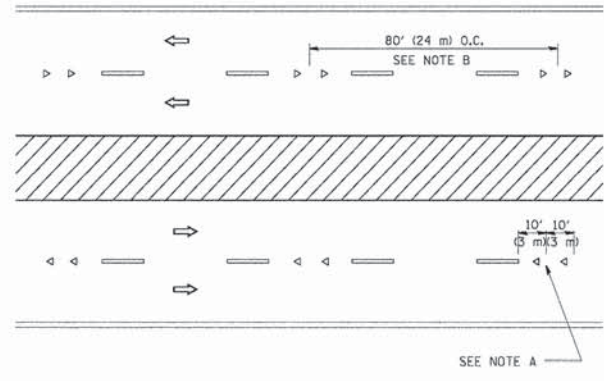
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

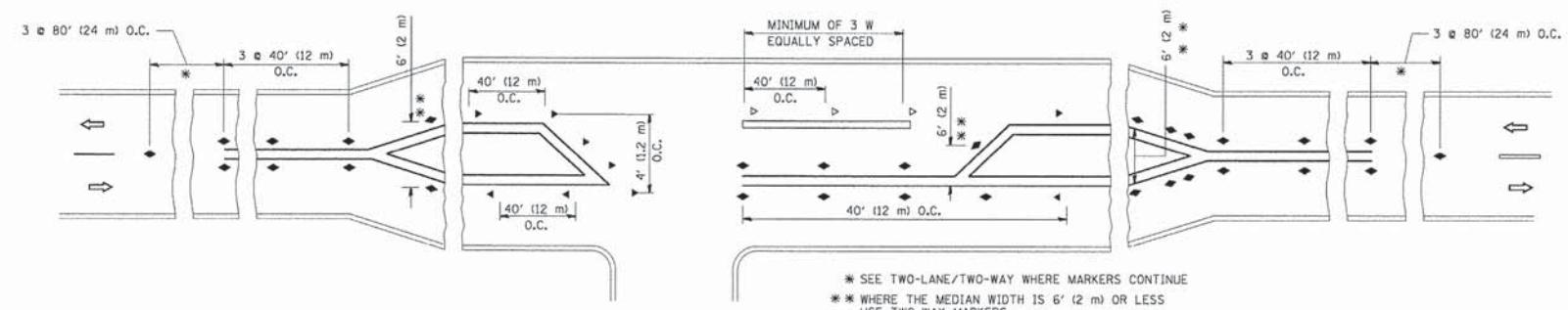
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



LEFT TURN

\* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE  
 \*\* WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = drsvkoegn	DESIGNED -	REVISED - T. RAMMACHER 09-19-94
		DRAWN -	REVISED - T. RAMMACHER 03-12-99
		CHECKED -	REVISED - T. RAMMACHER 01-06-00
		DATE -	REVISED - C. JUCIUS 09-09-09

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS			
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			
SCALE: NONE	SHEET NO. 1 OF 1	SHEETS	STA. TO STA.
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS SHEET NO.
	TC-11		CONTRACT NO.
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT			



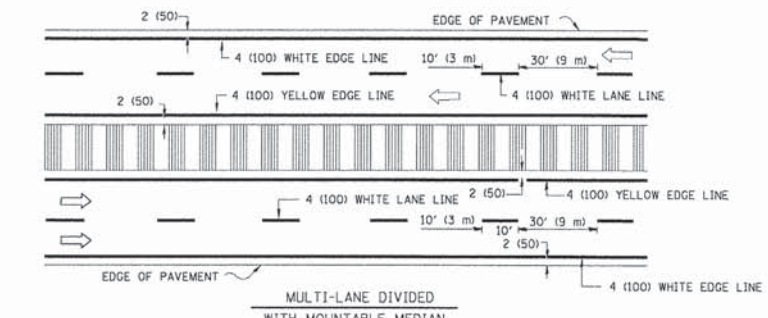
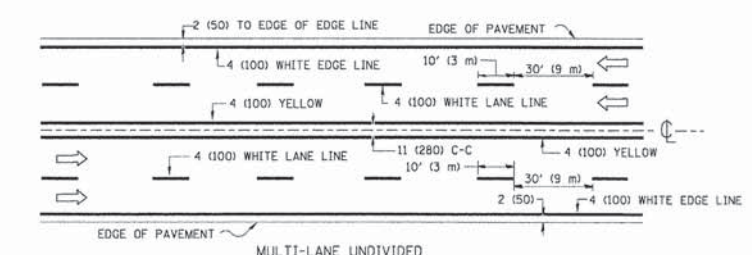
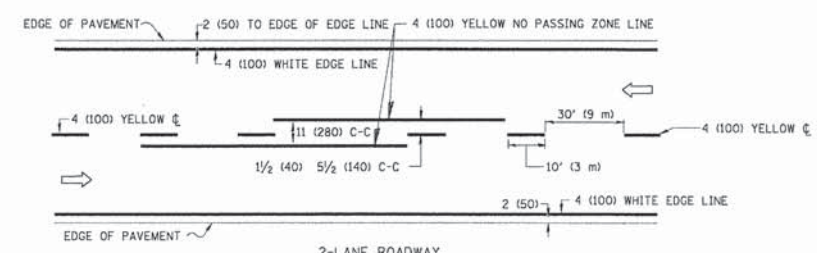
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PLLOT SCALE =	DRAWN JMR	REVISED -
PLLOT DATE = 6/7/2013	DATE -	REVISED -
FILE NAME = 004_d0104.dgn		REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

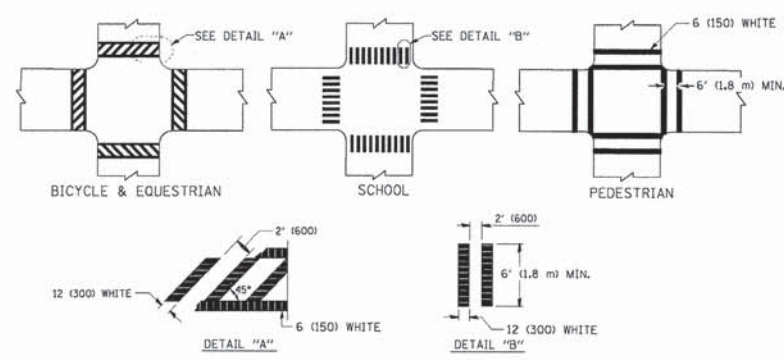
MISCELLANEOUS DETAILS			
(SHEET 4 OF 15)			
SCALE:	SHEET NO.	OF	SHEETS
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS SHEET NO.
2330	01-00274-00-BR	KANE	289 176
CONTRACT NO. 63698			

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED \_\_\_\_\_ PLOTTED \_\_\_\_\_  
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 NO. \_\_\_\_\_ CAD FILE NAME: \_\_\_\_\_  
 PLAN \_\_\_\_\_

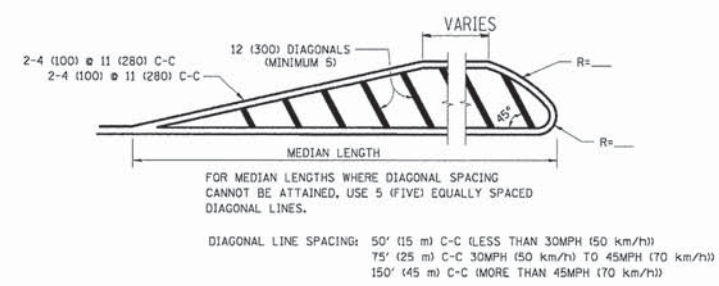
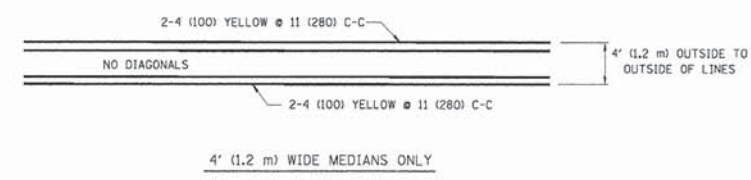
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 PROFILE \_\_\_\_\_



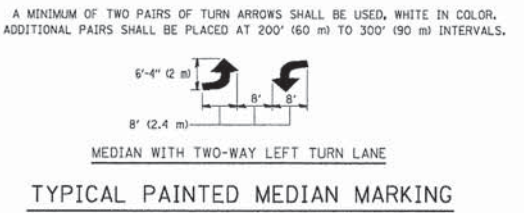
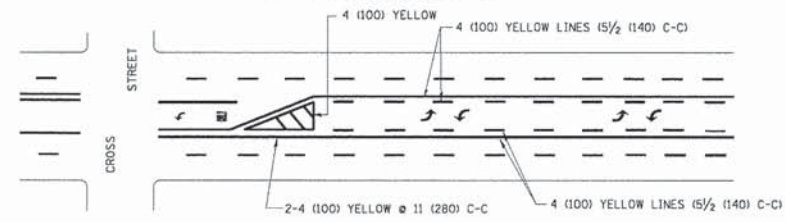
TYPICAL LANE AND EDGE LINE MARKING  
 NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE



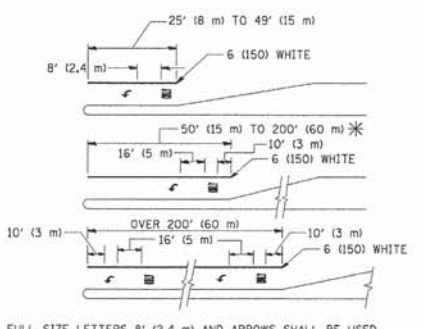
TYPICAL CROSSWALK MARKING



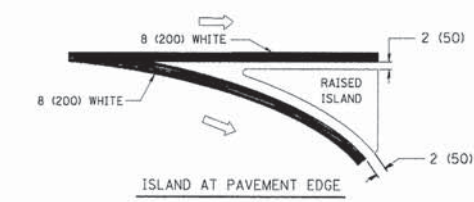
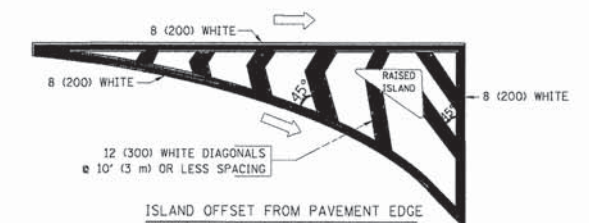
MEDIANS OVER 4' (1.2 m) WIDE



TYPICAL PAINTED MEDIAN MARKING



TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION	4 (100)	SOLID	YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE
NO PASSING ZONE LINES FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100)	SKIP-DASH	WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	5 (125) ON FREEWAYS	SKIP-DASH	WHITE	
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	2' (600) LINE WITH 6' (1.8 m) SPACE
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8" (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8" (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN)	2 @ 6 (150)	SOLID	WHITE	NOT LESS THAN 6' (1.8 m) APART
A. DIAGONALS (BIKE & EQUESTRIAN)	12 (300) @ 45°	SOLID	WHITE	2' (600) APART
B. LONGITUDINAL BARS (SCHOOL)	12 (300) @ 90°	SOLID	WHITE	2' (600) APART
STOP LINES	24 (600)	SOLID	WHITE	SEE TYPICAL CROSSWALK MARKING DETAILS.
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45°	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = c:\pwworkspace\drskvogn\10188315\d188315.dgn	USER NAME = drskvogn	DESIGNED - EVERS	REVISED -T. RAMMACH 10-27-94	DISTRICT ONE				F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -C. JUCIUS 09-09-09	TYPICAL PAVEMENT MARKINGS								
	PLOT SCALE = 5/8" (16 mm) = 1" (25.4 mm)	CHECKED -	REVISED -	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	TC-13 CONTRACT NO.					
	PLOT DATE = 9/1/2009	DATE = 03-19-90	REVISED -	FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT								

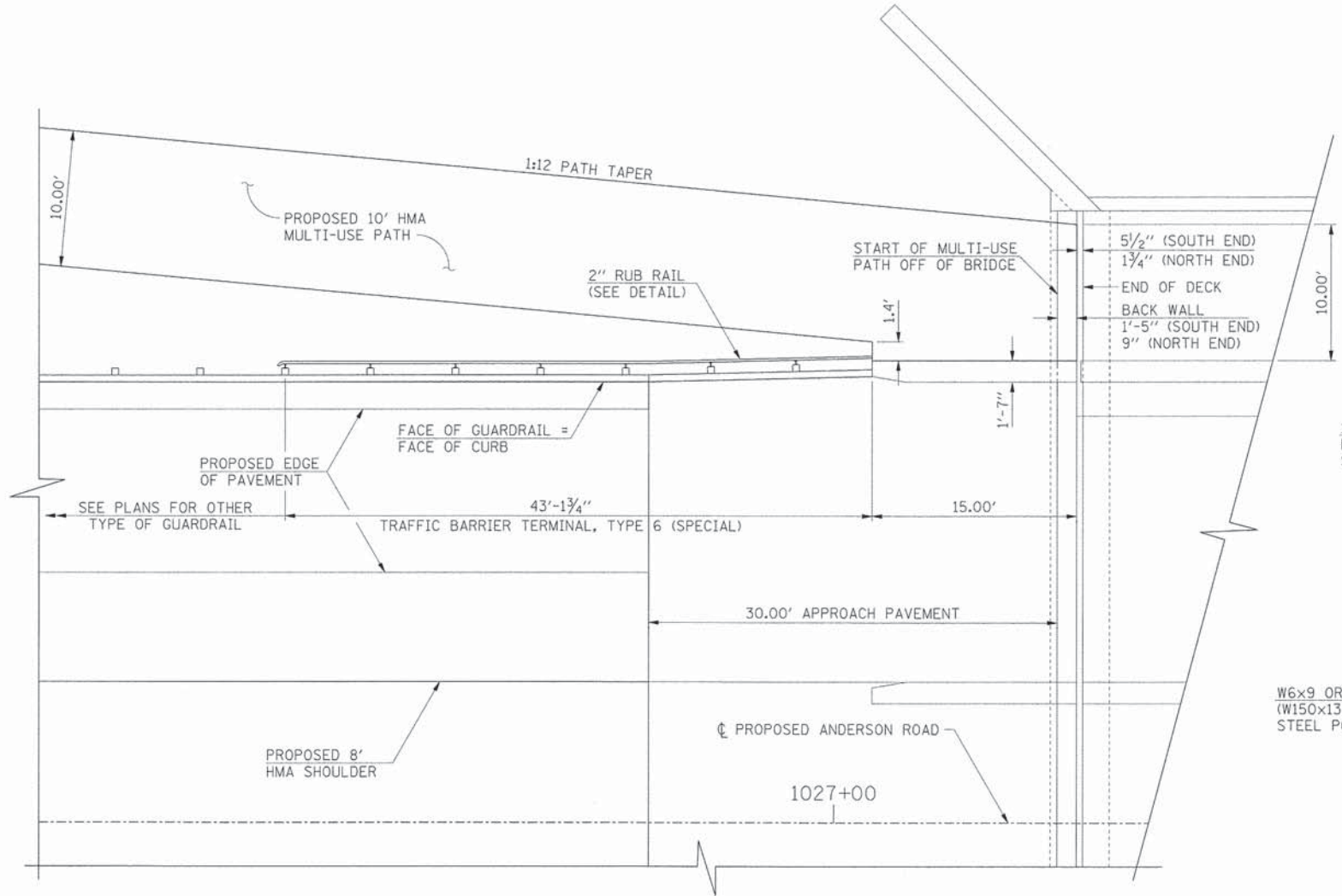
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS  
 (SHEET 5 OF 15)

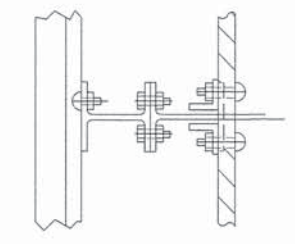
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REVISIONS	
NO.	
NO.	
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DATE	BY
REVISIONS	
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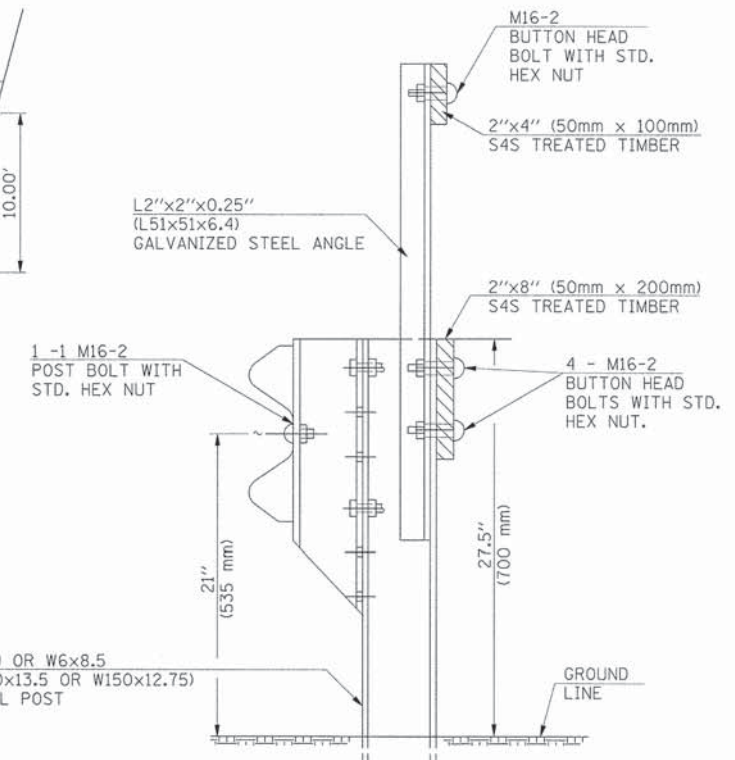


**MULTI-USE PATH TAPER AT END OF BRIDGE**

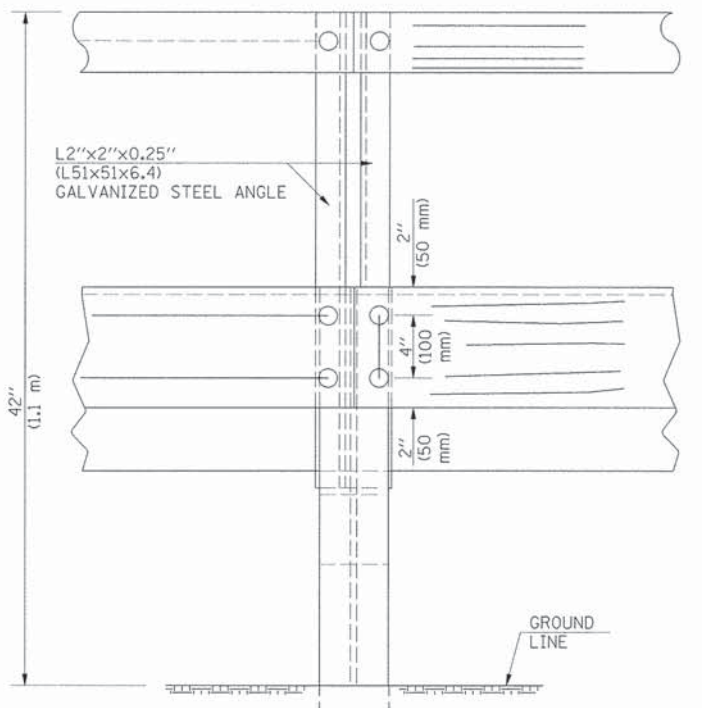
NOTE:  
 DETAIL ABOVE DEPICTS THE SOUTH END OF  
 THE BRIDGE. DETAIL SHALL BE MIRRORED FOR  
 THE NORTH END OF THE BRIDGE.



**PLAN**



**CROSS SECTION**



**ELEVATION  
 (BIKE PATH SIDE)**

**GUARDRAIL ADJUSTMENT ADJACENT TO MULTI-USE PATH**



USER NAME	MFeller	DESIGNED	APS	REVISED	-
PLOT SCALE		DRAWN	JMR	REVISED	-
PLOT DATE	6/7/2013	DATE		REVISED	-
FILE NAME	004.dwt06.dgn			REVISED	-

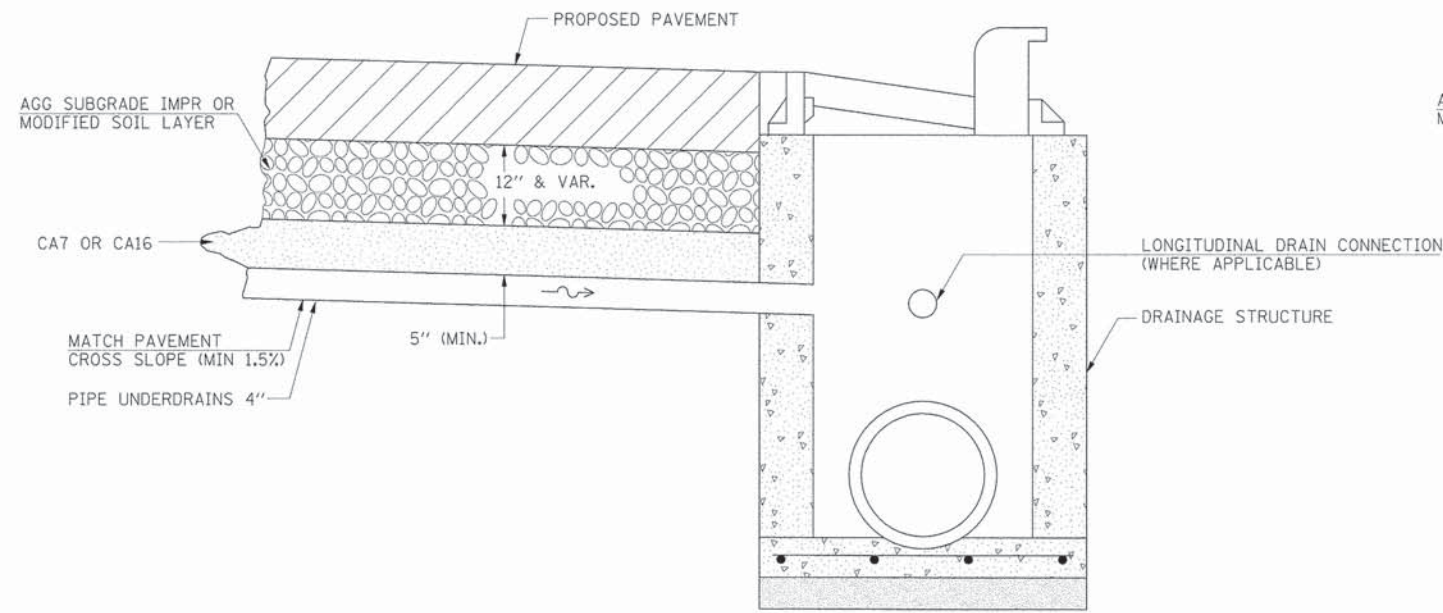
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**MISCELLANEOUS DETAILS  
 (SHEET 6 OF 15)**

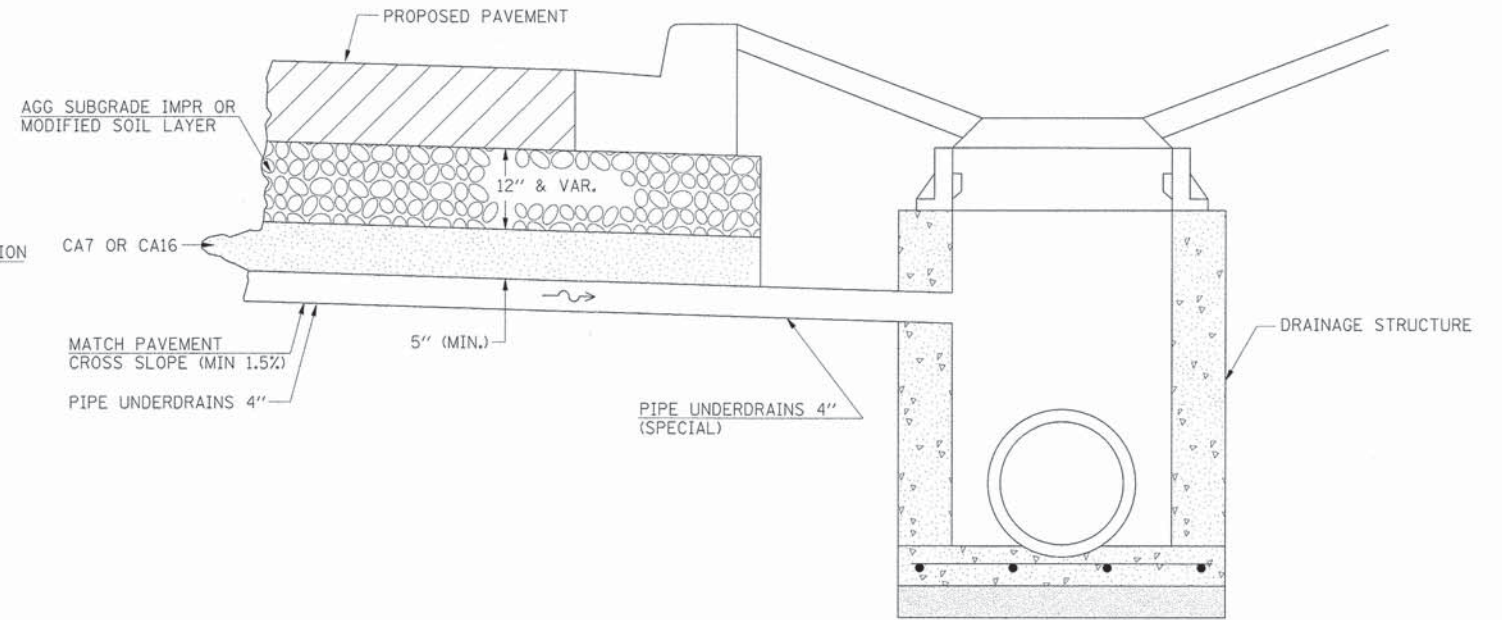
SCALE: SHEET NO. OF SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2330	01-00274-00-BR	KANE	289	178
CONTRACT NO. 63698				

PLAN	DATE
BY	
REVISIONS	
NO.	
DESCRIPTION	
DATE	
BY	
DATE	
BY	
DATE	

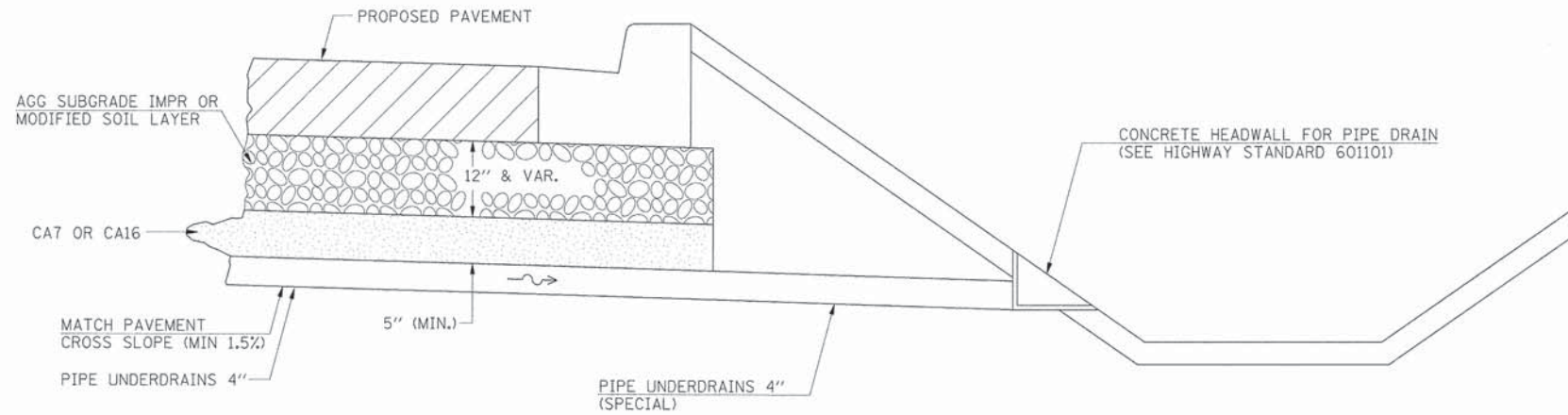


**PIPE UNDERDRAINS (CASE I OUTLET – DRAINAGE STRUCTURE IN CURB)**

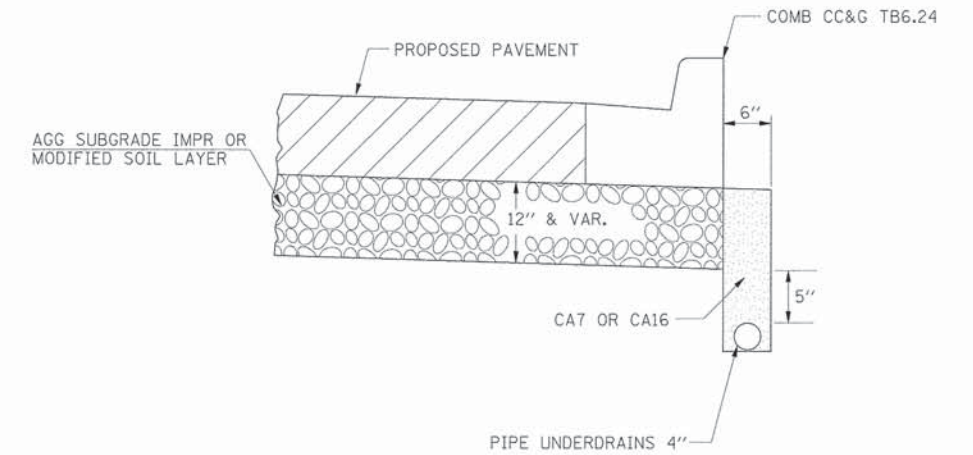


**PIPE UNDERDRAINS (CASE II OUTLET – DRAINAGE STRUCTURE BEHIND CURB)**

PROFILE	DATE
BY	
REVISIONS	
NO.	
DESCRIPTION	
DATE	
BY	
DATE	
BY	
DATE	



**PIPE UNDERDRAINS (CASE III OUTLET – DITCH SECTION)**



**PIPE UNDERDRAIN INSTALLATION (ADJACENT TO CURB & GUTTER)**

- NOTES:
1. PIPE UNDERDRAIN INSTALLATION SHALL OCCUR AFTER SOIL MODIFICATION OR PLACEMENT OF THE AGGREGATE SUBGRADE.
  2. SEE DRAINAGE PLAN AND PROFILES FOR PIPE UNDERDRAIN LOCATIONS.
  3. THIS WORK SHALL BE COMPLETED ACCORDING TO SECTION 601 OF THE STANDARD SPECIFICATIONS.
  4. PIPE UNDERDRAIN INSTALLATION BENEATH THE HMA SHOULDER SHALL BE IN ACCORDANCE WITH STANDARD 601001.
  5. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR PIPE UNDERDRAINS OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CA7 OR CA16 AND THE CONNECTION TO THE DRAINAGE STRUCTURE. CONCRETE HEADWALLS WILL BE PAID FOR SEPARATELY.

PLAN	SURVEYED	DATE
	PLOTTED	BY
	CHECKED	
	IN CHARGE	
	FILE NAME	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	CHECKED	
	IN CHARGE	
	FILE NAME	
	NO.	

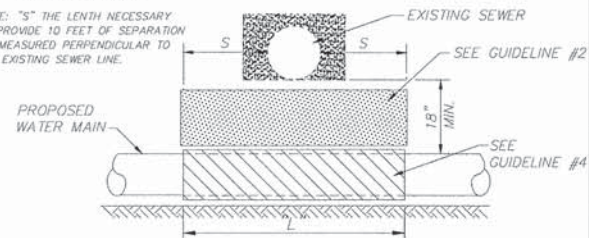
### WATER AND SEWER SEPARATION REQUIREMENTS DETAIL

PROPOSED WATER MAIN BELOW EXISTING SEWER LINE WITH 18" MINIMUM SEPARATION.

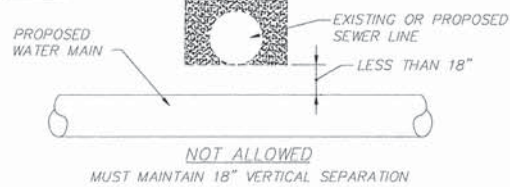
**GUIDELINES:**

1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
3. PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT.
4. USE 7" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING.

NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING SEWER LINE.



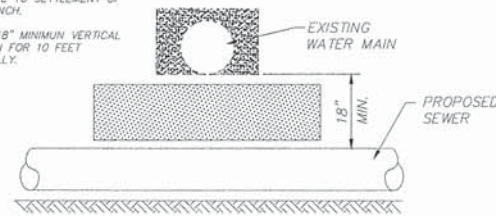
PLACEMENT WATER MAIN BELOW EXISTING OR PROPOSED SEWER LINE WITH LESS THAN 18" MINIMUM SEPARATION.



PROPOSED SEWER LINE BELOW EXISTING WATER MAIN WITH 18" MINIMUM SEPARATION.

**GUIDELINES:**

1. PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH.
2. MAINTAIN 18" MINIMUM VERTICAL SEPARATION FOR 10 FEET HORIZONTALLY.

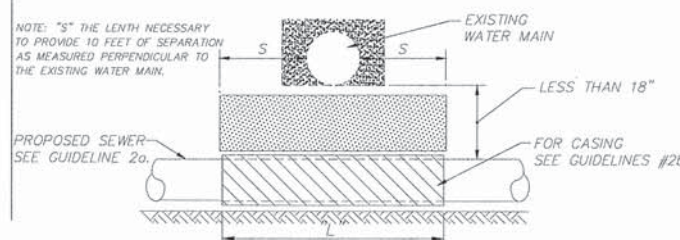


PROPOSED SEWER LINE BELOW EXISTING WATER MAIN WITH LESS THAN 18" SEPARATION.

**GUIDELINES:**

1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF SEWER AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT FOR "S" FEET ON EACH SIDE OF WATER MAIN.
- 2a. CONSTRUCT "L" FEET OF PROPOSED SEWER OF WATER MAIN MATERIAL AND PRESSURE TEST, OR OR;
- 2b. USE 7" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED SEWER & SEAL ENDS OF CASING.
3. PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH.
4. CLASS IV MATERIAL TO BE COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DENSITY (SEE ARTICLE 20-4).

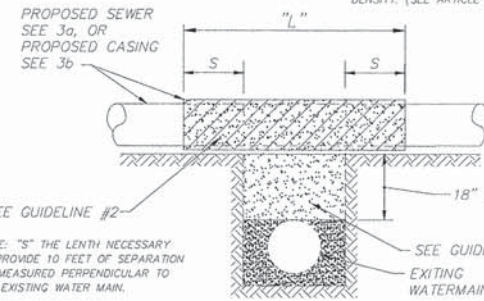
NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING WATER MAIN.



▲ TAKEN FROM THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, 6th EDITION - SEE PAGES 192, 194, 198 & 200.

### WATER AND SEWER SEPARATION REQUIREMENTS DETAIL

PROPOSED SEWER LINE WITH 18" MINIMUM VERTICAL SEPARATION ABOVE EXISTING WATER MAIN



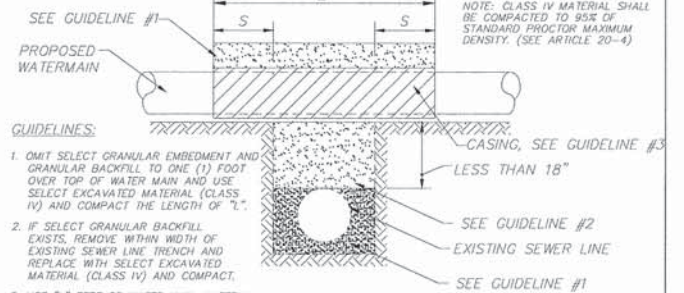
NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING WATER MAIN.

**NOTES:**

1. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF PROPOSED SEWER TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
2. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF PIPE AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L" FEET.
3. a. CONSTRUCT "L" FEET OF PROPOSED SEWER WITH WATER MAIN MATERIAL AND PRESSURE TEST, OR b. USE 7" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED SEWER AND SEAL ENDS OF CASING.

▲ TAKEN FROM THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, 6th EDITION - SEE PAGE 190 AND 196

PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE WITH LESS THAN 18" SEPARATION.



**GUIDELINES:**

1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
3. USE 7" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING.
4. POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER MAIN CASING AND SEWER.

NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR TO THE EXISTING WATER MAIN.

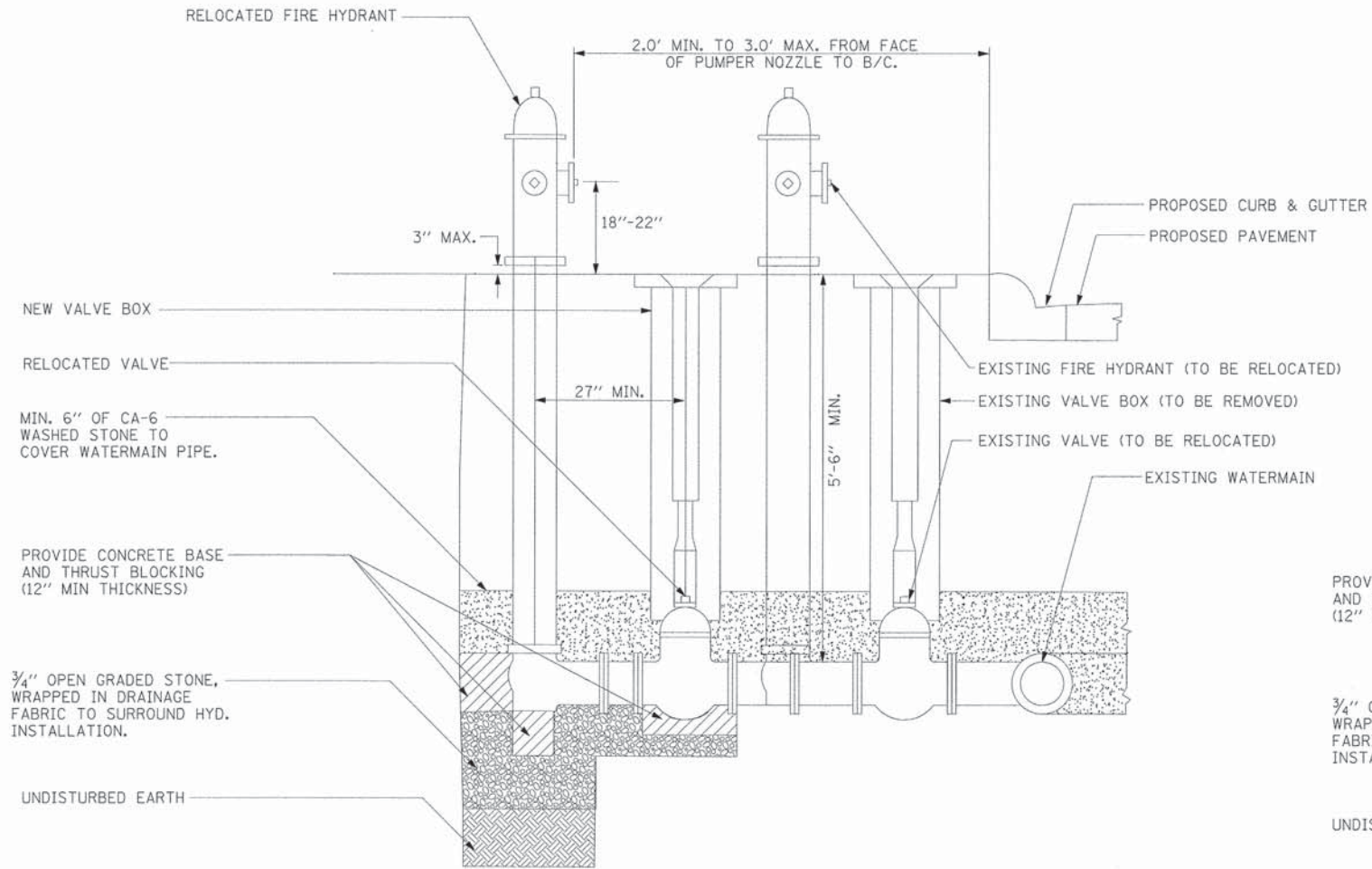
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2330	01-00274-00-BR	KANE	289	180
CONTRACT NO. 63698				

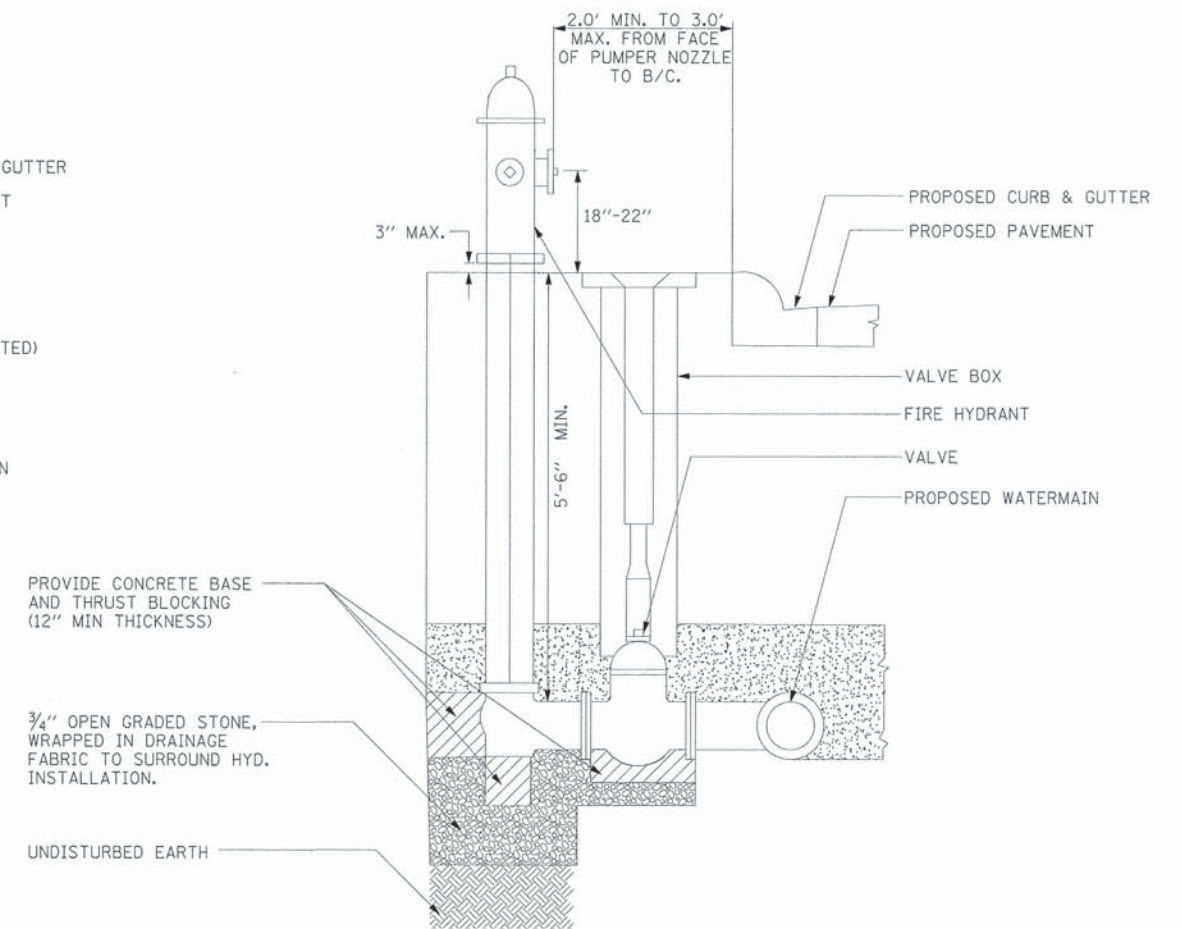


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PROFILE	SURVEYED	DATE
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	NO.	



**FIRE HYDRANTS TO BE MOVED**



**FIRE HYDRANT WITH AUXILLARY VALVE & VALVE BOX**

SEQUENCE OF CONSTRUCTION:

1. CLOSE EXISTING VALVES (CONTACT VILLAGE OF ELBURN PUBLIC WORKS DEPARTMENT A MINIMUM OF 48 HOURS PRIOR TO ANY DISRUPTION IN SERVICE).
2. REMOVE EXISTING HYDRANTS, VALVES, AND VALVE BOXES FROM TEE.
3. RELOCATE EXISTING HYDRANTS AND VALVES AND REINSTALL AT NEW LOCATION. INSTALL NEW VALVE BOXES.
4. CONSTRUCT NEW WATER MAIN.
5. SEE SPECIAL PROVISIONS FOR INSPECTION AND TESTING REQUIREMENTS.
6. BACKFILL UPON VILLAGE APPROVAL.
7. REOPEN EXISTING VALVES AT VALVE VAULTS AT THE LIMITS OF THE PROJECT UNDER VILLAGE DIRECTION.
8. CUT AND CAP EXISTING WATER MAIN 12\".

NOTES:

1. NEW VALVE BOXES SHALL BE "TYLER" OR APPROVED EQUAL.
2. ALL NUTS, BOLTS, & THREADED RODS SHALL BE STAINLESS STEEL.
3. TRENCH BACKFILL SHALL BE PROVIDED FOR TRENCHES MADE IN THE SUBGRADE OF THE PROPOSED IMPROVEMENT OR WITHIN 2' OF THE PROPOSED CURB IN ACCORDANCE WITH SECTION 208 OF THE STANDARD SPECIFICATIONS.



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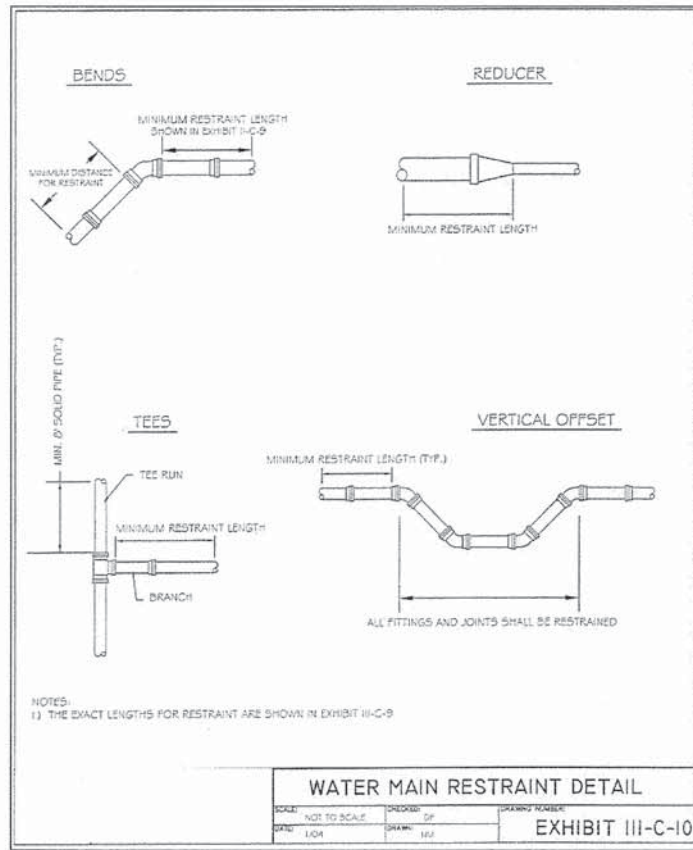
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS  
(SHEET 9 OF 15)

SCALE: SHEET NO. OF SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2330	01-00274-00-BR	KANE	289	181
CONTRACT NO. 63698				

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
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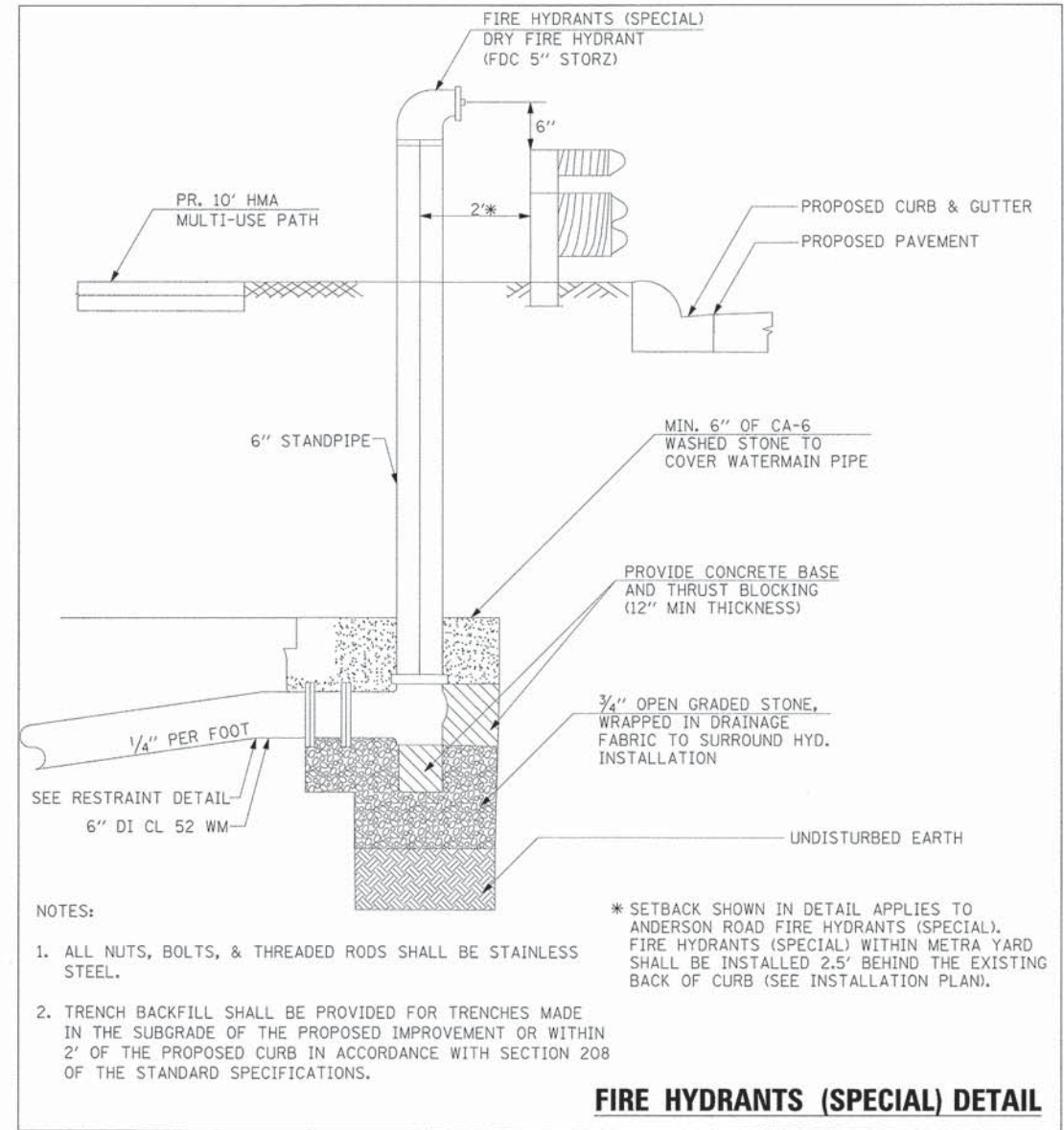
MINIMUM RESTRAINT LENGTH (ft) ON BOTH SIDES OF THE FITTING

FITTING TYPE/NOMINAL SIZE	6"	8"	12"	16"
11 1/4 ° BEND	2	3	4	6
22 1/2 ° BEND	5	6	9	11
45 ° BEND	10	13	18	23
90 ° BEND	23	30	43	56
DEAD END	31	40	57	74
TOP SIDE OF A VERTICAL OFFSET <sup>1</sup>	19	25	35	46
TEE RUN X BRANCH <sup>2</sup>	6" BY 24			
TEE RUN X BRANCH <sup>2</sup>	8" BY 22	34		
TEE RUN X BRANCH <sup>2</sup>	12" BY 18	31	51	
TEE RUN X BRANCH <sup>2</sup>	16" BY 14	28	48	67
REDUCER <sup>3</sup>	8" BY 17			
REDUCER <sup>3</sup>	12" BY 42	30		
REDUCER <sup>3</sup>	16" BY 62	54	31	

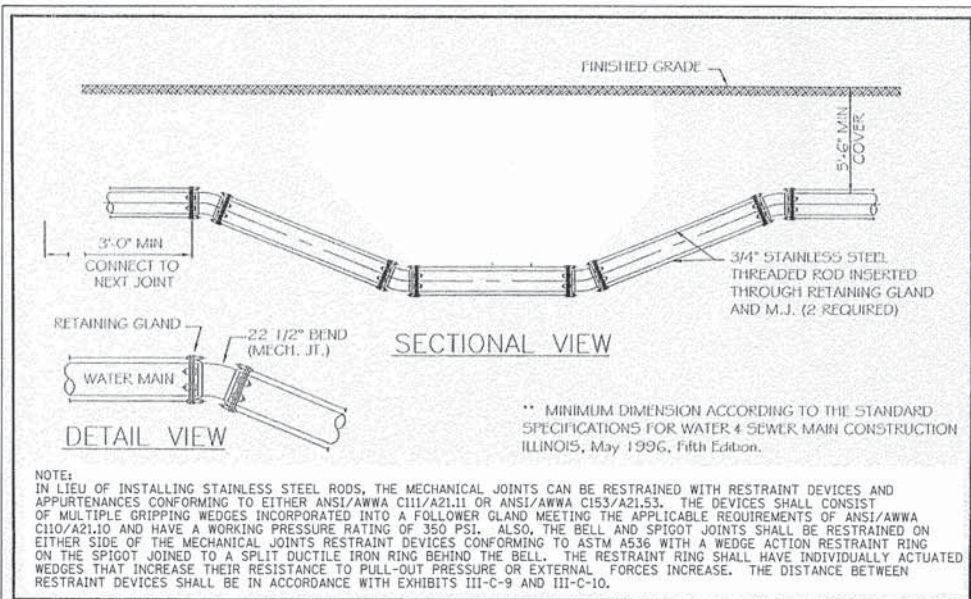
<sup>1</sup> ALL JOINTS WITHIN THE LOWERED SECTION OF THE WATERMAIN SHALL BE RESTRAINED OR SHALL BE SOLID PIPE. THE ABOVE DISTANCES REFLECT THE REQUIRED RESTRAINT DISTANCE ON THE NORMALLY ELEVATED WATERMAIN EITHER SIDE OF THE 45° FITTING OF THE VERTICAL OFFSET (OR LOWERING).  
<sup>2</sup> MINIMUM OF 8 FT OF SOLID PIPE IS REQUIRED ON BOTH SIDES OF THE FITTING ON THE RUN SIDE. DISTANCE INDICATES THE LENGTH OF RESTRAINT ON THE BRANCH SIDE OR THE SIDE PERPENDICULAR TO THE TEE RUN WATERMAIN.  
<sup>3</sup> INDICATES THE DISTANCE FROM THE LARGER END OF THE REDUCER.

NOTES:  
 1) ALL NUTS AND BOLTS SHALL BE STAINLESS STEEL.  
 2) THE ENTIRE RESTRAINT SYSTEM FROM THE FITTING TO THE MINIMUM RESTRAINT DISTANCE MUST BE INSPECTED BY THE VILLAGE OF ELBURN OR IT'S REPRESENTATIVE PRIOR TO BACKFILLING.

**WATERMAIN RESTRAINT LENGTH TABLE**  
 EXHIBIT III-C-9

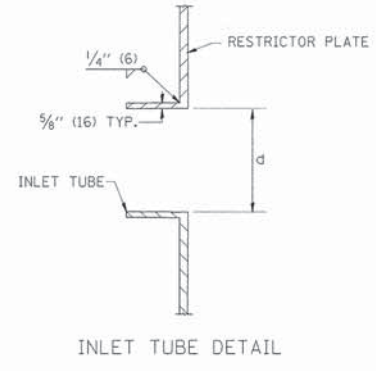
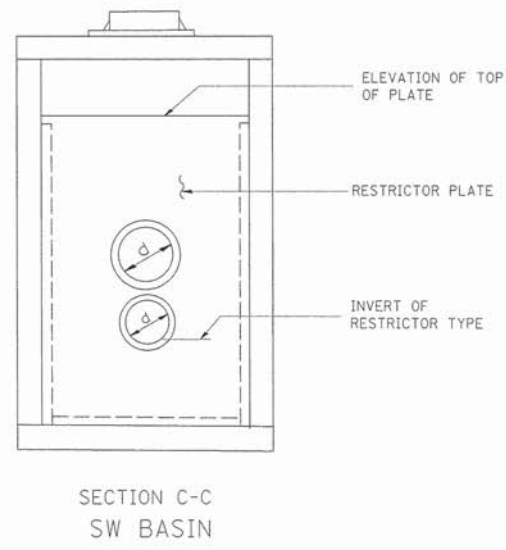
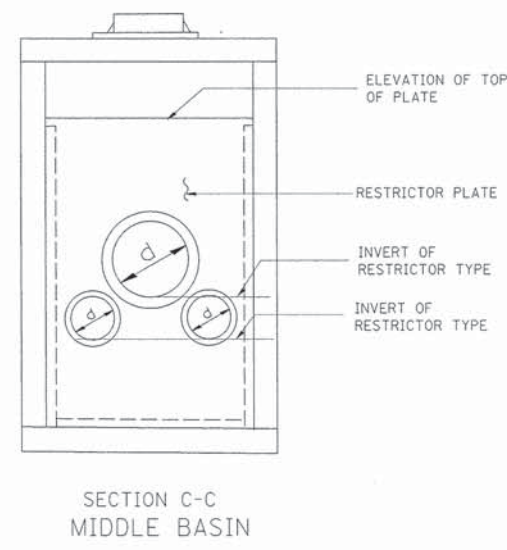
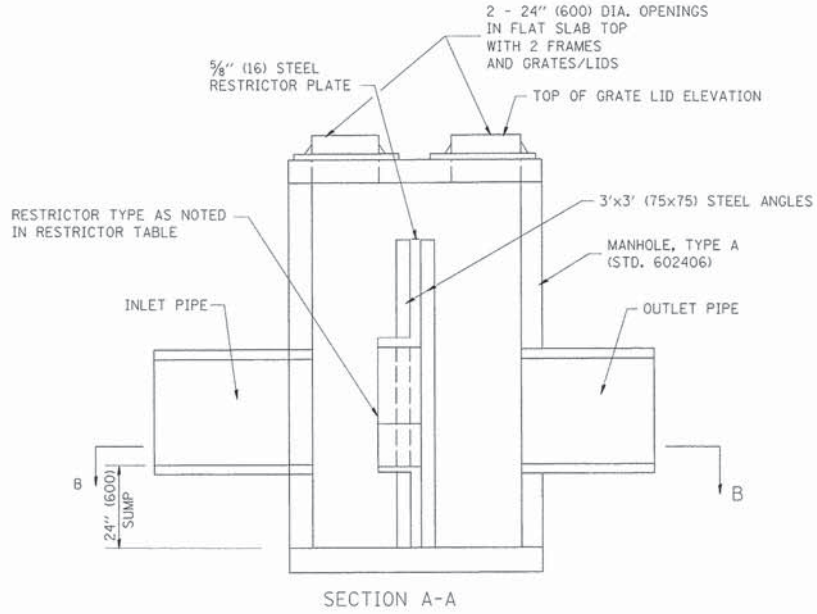
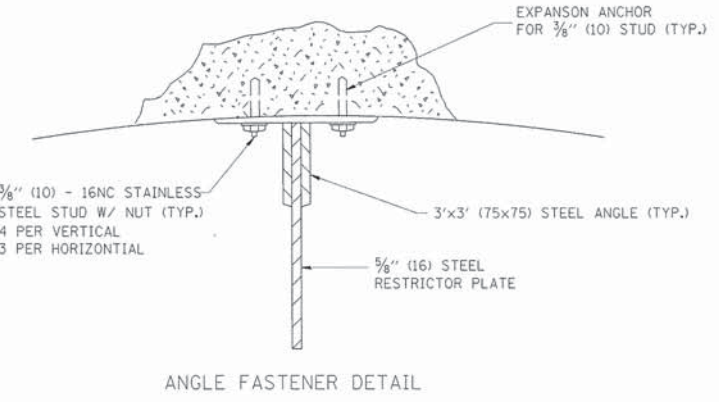
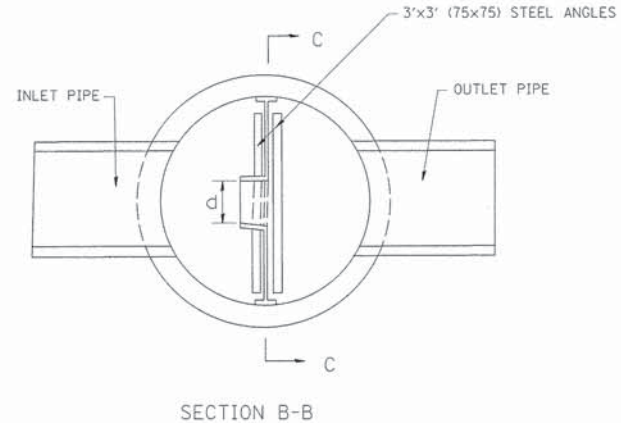
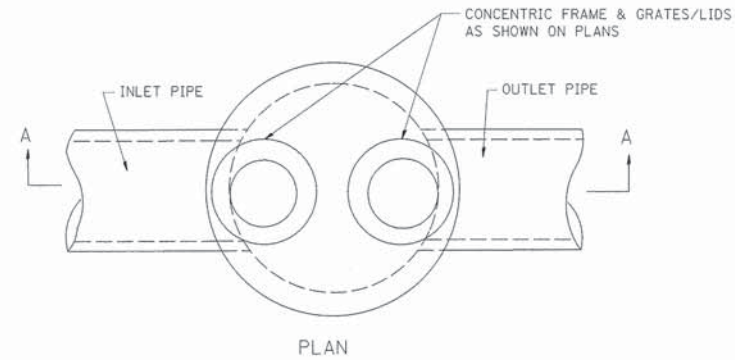


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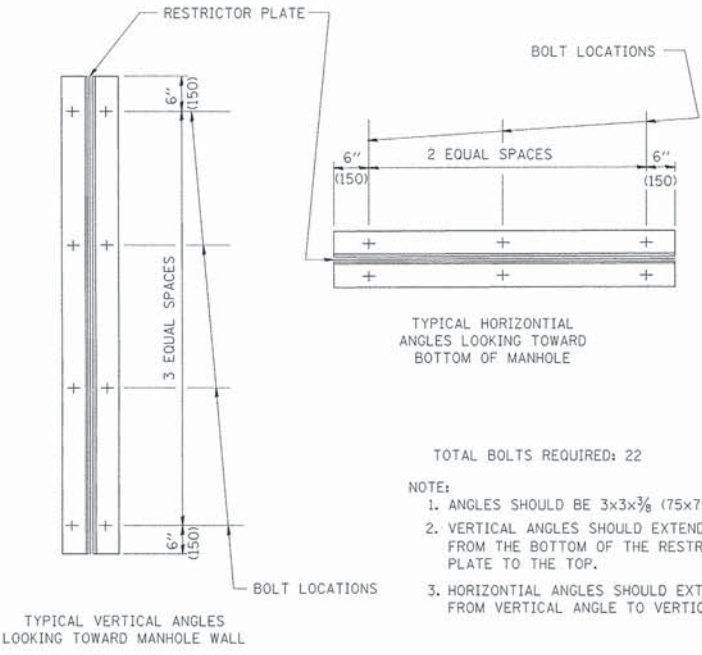


NOTES:

1. ALL STEEL ANGLES AND PLATES TO BE GALVANIZED AFTER FABRICATION.
2. ALL RESTRICTOR PLATES, ANGLES AND HARDWARE TO BE INCLUDED IN THE COST OF THE MANHOLE.
3. BASIS OF PAYMENT: "MANHOLES, TYPE A, 6 FT. (1.8 m)-DIAMETER, TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE" EACH

STATION	MANHOLE DIAMETER	FRAME AND GRATE	RESTRICTOR TYPE	INSIDE RESTRICTOR TYPE DIAMETER in. (mm) (d)	INVERT OF RESTRICTOR TYPE	ELEVATION OF TOP OF PLATE OVERFLOW
SW BASIN	8'	T1F CL	2	7.7	810.00	815.00
SW BASIN	8'	T1F CL	2	10.2	811.00	815.00
EAST BASIN	8'	T1F CL	2	2 - 7.1	818.00	822.00
EAST BASIN	8'	T1F CL	2	30.8	818.94	822.00

NOTE: THE MIDDLE BASIN WILL HAVE A DUAL 7.1" ORIFICE AT INVERT 818.00 AND A SINGLE 30.8" ORIFICE AT INVERT 818.94.



- TOTAL BOLTS REQUIRED: 22
- NOTE:
1. ANGLES SHOULD BE 3x3x3/8 (75x75x75)
  2. VERTICAL ANGLES SHOULD EXTEND FROM THE BOTTOM OF THE RESTRICTOR PLATE TO THE TOP.
  3. HORIZONTAL ANGLES SHOULD EXTEND FROM VERTICAL ANGLE TO VERTICAL ANGLE.

RESTRICTOR TYPE					
1	2	3	4	5	6
RE-ENTRANT TUBE	SHARP EDGED	SQUARE EDGED	RE-ENTRANT TUBE	SQUARE EDGED	ROUNDED
LENGTH: 1/2 TO 1 DIA.		STREAM CLEARS SIDES	LENGTH: 2-1/2 DIA.	LENGTH: 2-1/2 DIA.	
C=.52	C=.61	C=.61	C=.73	C=.82	C=.98

VALUES OF "C" FOR CIRCULAR AND SQUARE ORIFICES

NOTES:

THE FURNISHING AND INSTALLATION OF THE MANHOLE IN ACCORDANCE WITH THIS DETAIL WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR MANHOLES, TYPE A, 8'-DIAMETER, TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE. ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO INSTALL THE RESTRICTOR AND RESTRICTOR PLATE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR MANHOLES, TYPE A, 8'-DIAMETER, TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE.

NOT TO SCALE

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.



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PLOT DATE = 6/7/2013  
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS  
(SHEET 11 OF 15)

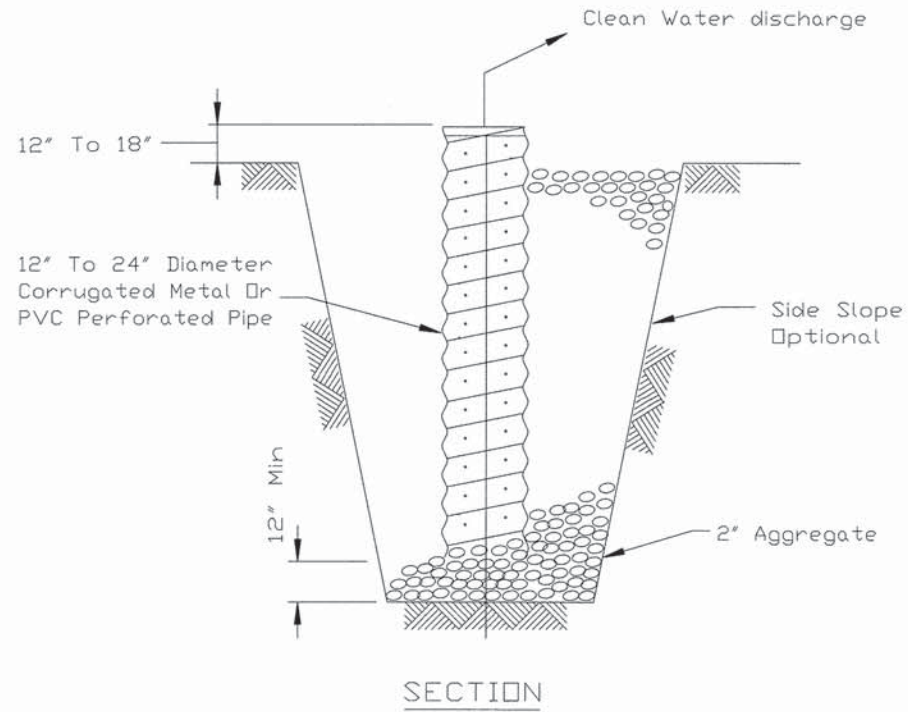
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F.A.U. RTE. 2330	SECTION 01-00274-00-BR	COUNTY KANE	TOTAL SHEETS 289	SHEET NO. 183
CONTRACT NO. 63698				

PLAN	SUBMITTED	DATE
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PROFILE	SUBMITTED	DATE
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### SUMP PIT PLAN



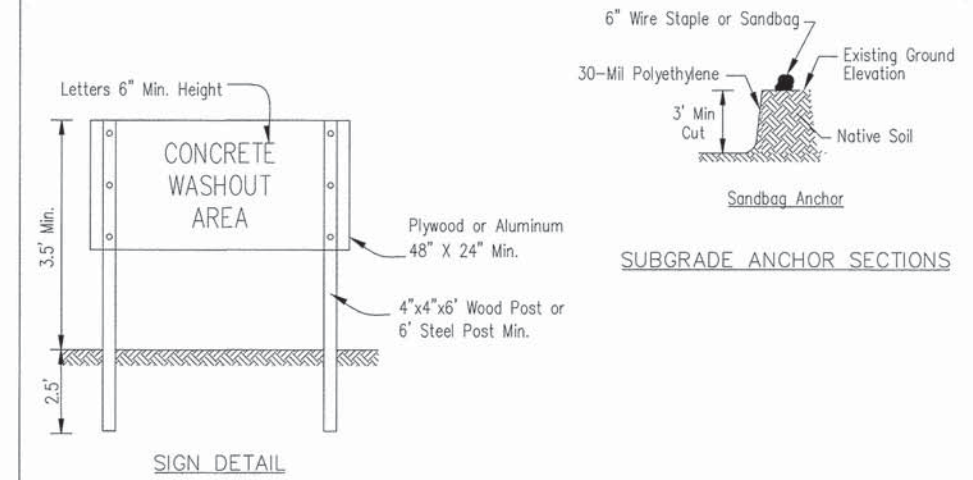
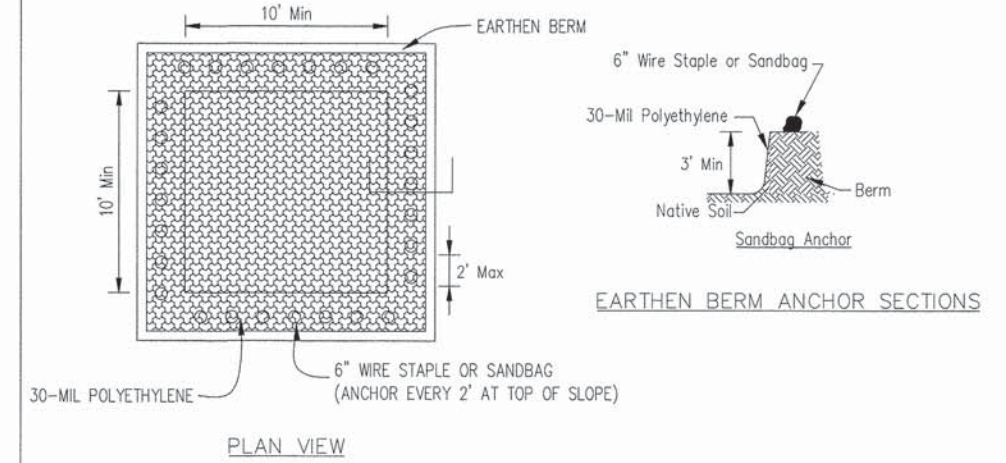
**NOTES:**

1. Pit dimensions are optional.
2. The standpipe will be constructed by perforating a 12"-24" diameter corrugated metal or PVC pipe.
3. A base of 2" aggregate will be placed in the pit to a minimum depth of 12". After installing the standpipe, the pit surrounding the standpipe will then be backfilled with 2" aggregate.
4. The standpipe will extend 12" to 18" above the lip of the pit.
5. If discharge will be pumped directly to a storm drainage system, the standpipe will be wrapped with filter fabric before installation.
6. If desired, 1/4"-1/2" hardware cloth may be placed around the standpipe prior to attaching the filter fabric. This will increase the rate of water seepage into the pipe.

REFERENCE	Project	_____
	Designed	_____ Date _____
	Checked	_____ Date _____
	Approved	_____ Date _____



STANDARD DWG. NO.  
IL-650  
SHEET 1 OF 1  
DATE 8-11-94



**NOTES:**

1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardened concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.

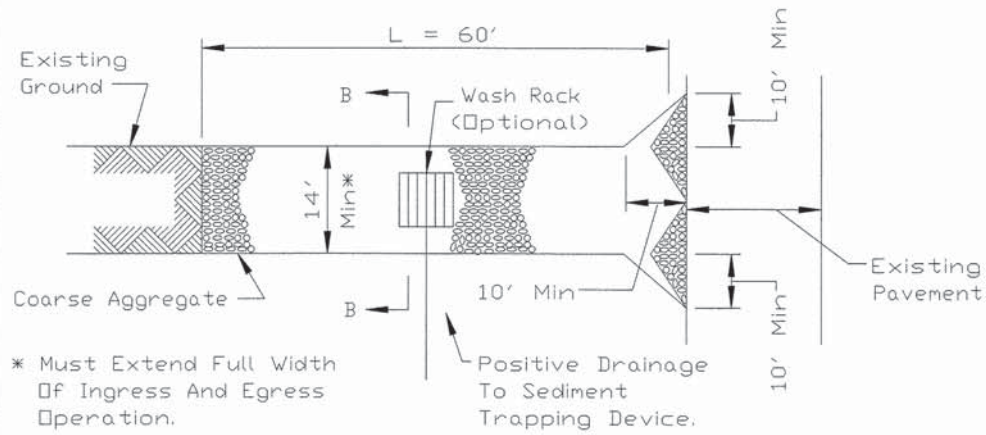
Sheet 2 of 3
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TEMPORARY CONCRETE WASHOUT FACILITY - EARTHEN TYPE		Designed _____ Date _____
		Drawn B. JOHNSON 6/98
		Checked _____
		Approved _____

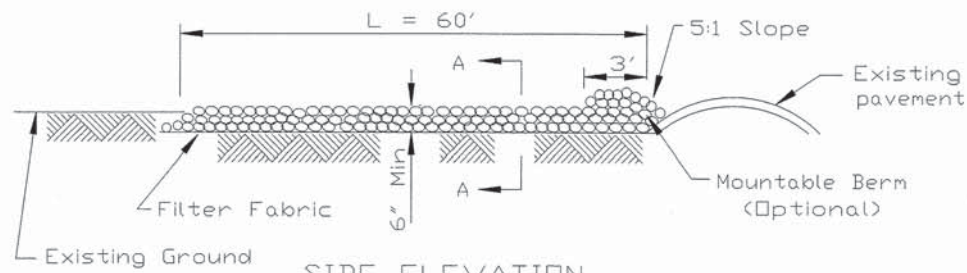
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### STABILIZED CONSTRUCTION ENTRANCE PLAN



PLAN VIEW



SIDE ELEVATION

**NOTES:**

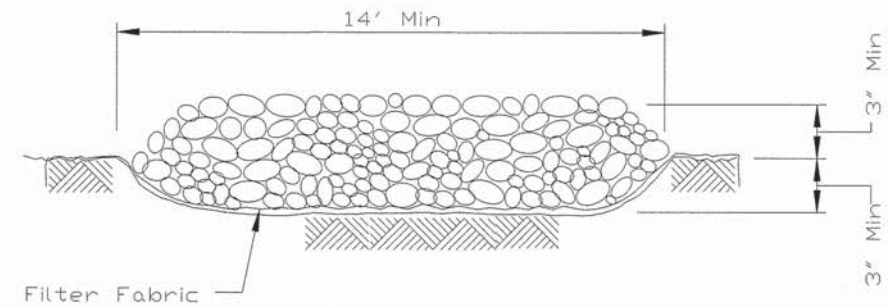
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table I or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
3. Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.
4. If wash racks are used they shall be installed according to the manufacturer's specifications.

REFERENCE	Project	_____
	Designed	_____ Date _____
	Checked	_____ Date _____
	Approved	_____ Date _____

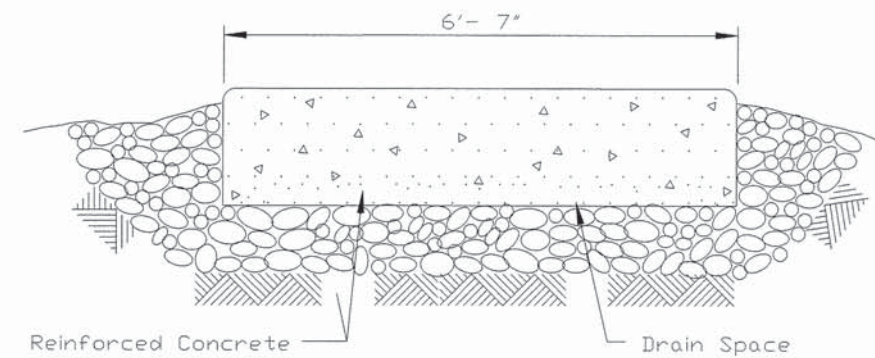


STANDARD DWG. NO.  
IL-630  
SHEET 1 OF 2  
DATE 8-18-94

### STABILIZED CONSTRUCTION ENTRANCE PLAN



SECTION A-A



SECTION B-B

REFERENCE	Project	_____
	Designed	_____ Date _____
	Checked	_____ Date _____
	Approved	_____ Date _____



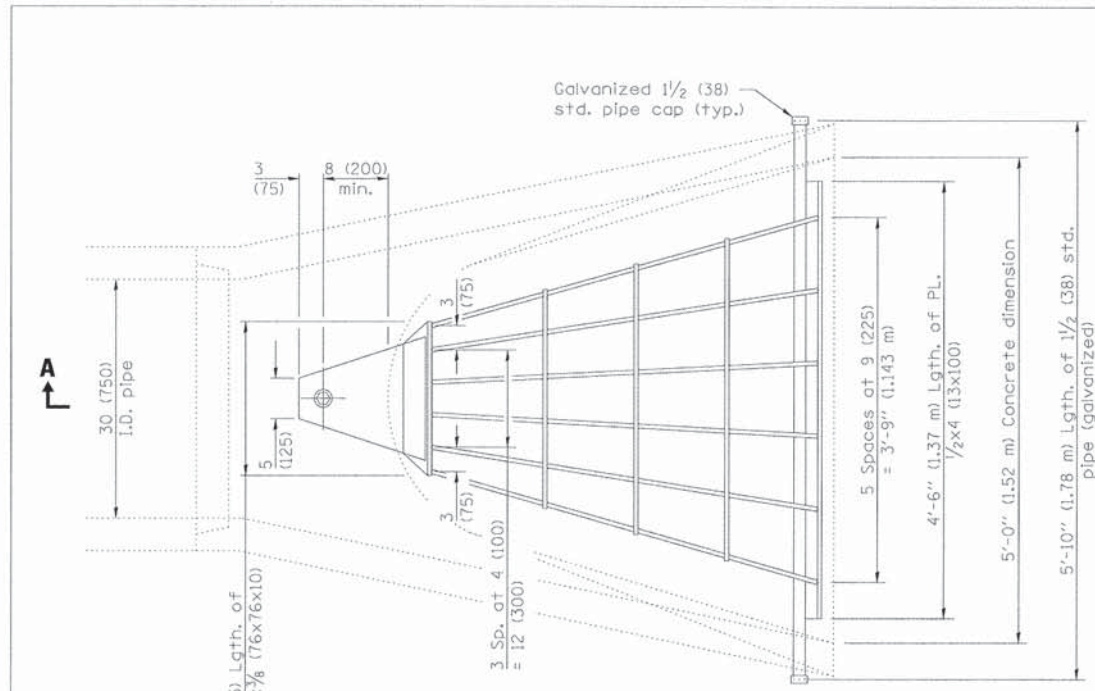
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DATE 8-18-94

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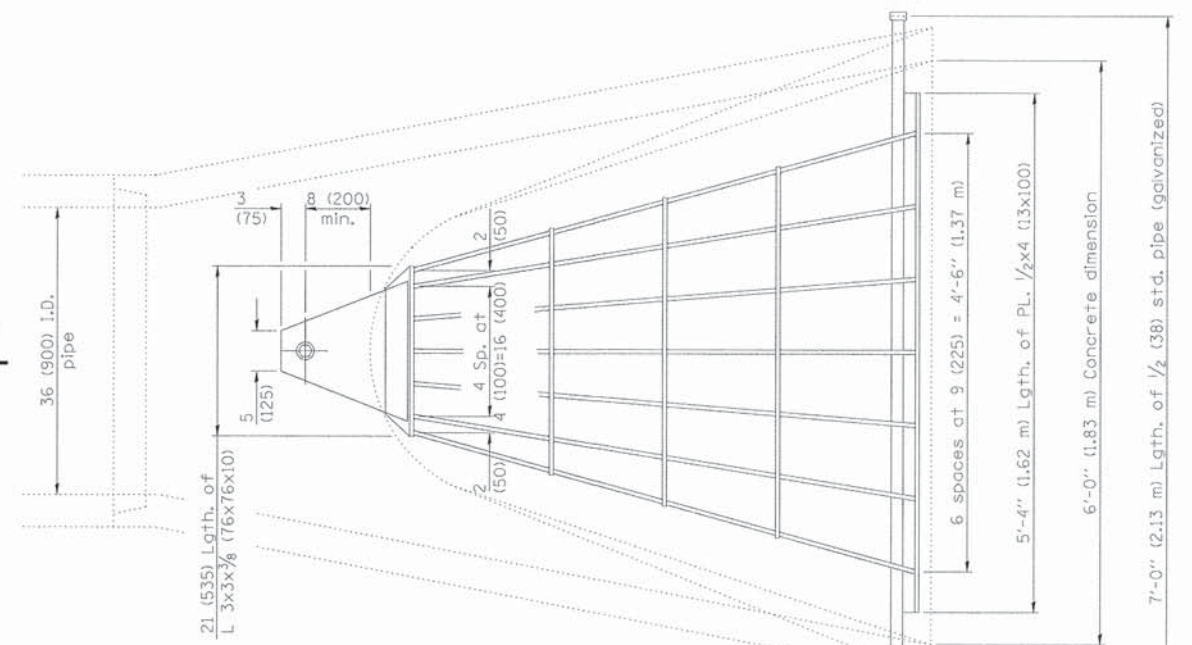
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2330	01-00274-00-BR	KANE	289	185
CONTRACT NO. 63698				

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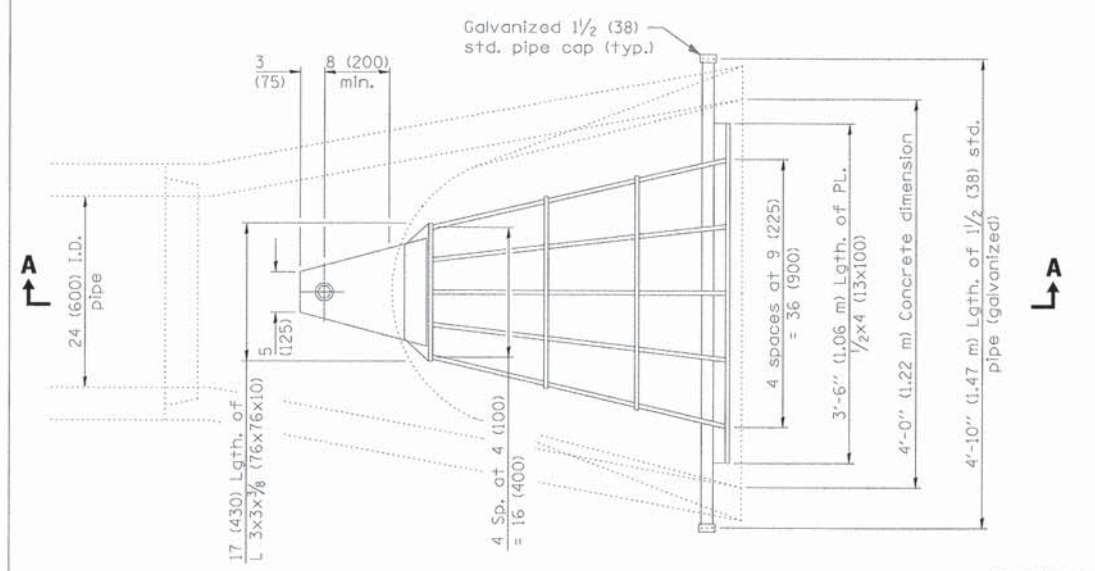
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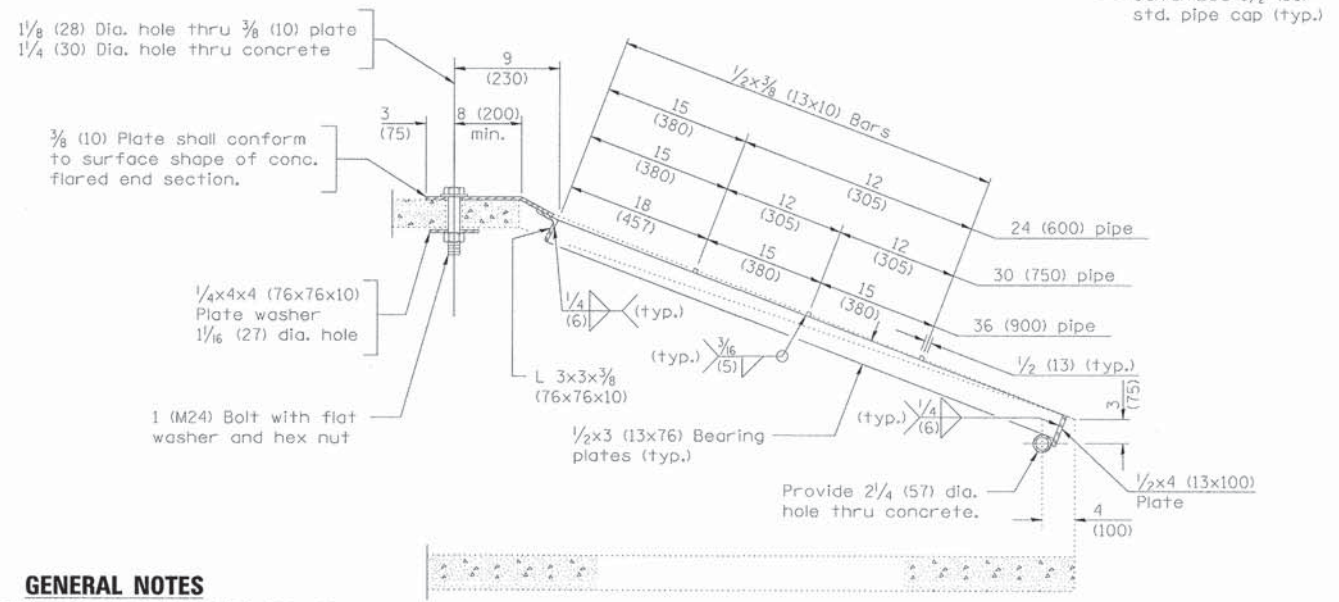
**PLAN**  
Quantity of steel = 210 lbs. (95 kg)



**PLAN**  
Quantity of steel = 280 lbs. (127 kg)



**PLAN**  
Quantity of steel = 150 lbs. (68 kg)



**GENERAL NOTES**

Grating details shown are intended for use with particular sizes of precast reinforced concrete flared end sections as shown on standards 542301 and 542306.

Approximate quantity of steel shown includes total quantity of grating, bolts, nuts, washers and steel pipe.

Holes in the precast concrete flared end sections shall be cored to the diameters noted. If cone-out on the other end of the hole occurs, the hole shall be filled with grout to correct the diameter of the hole.

**SECTION A-A**

All dimensions are in inches (millimeters) unless otherwise shown.

**GRATING FOR CONCRETE FLARED END SECTION (FOR 24" (600 mm) THRU 54" (1350 mm) PIPE)**  
(Sheet 1 of 2)

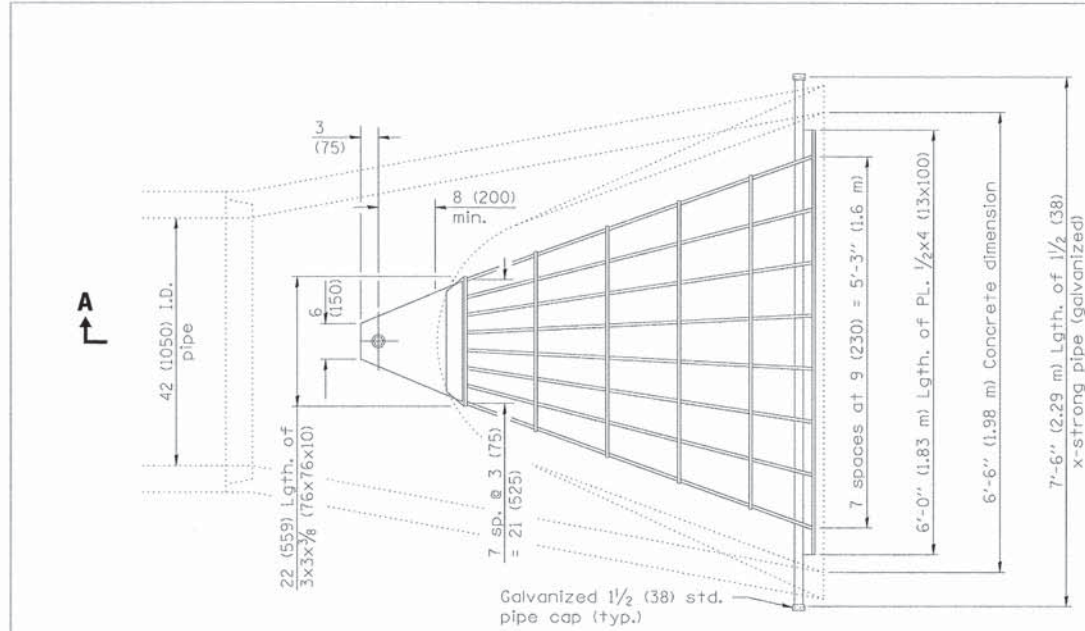
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CONTRACT NO. 63698				

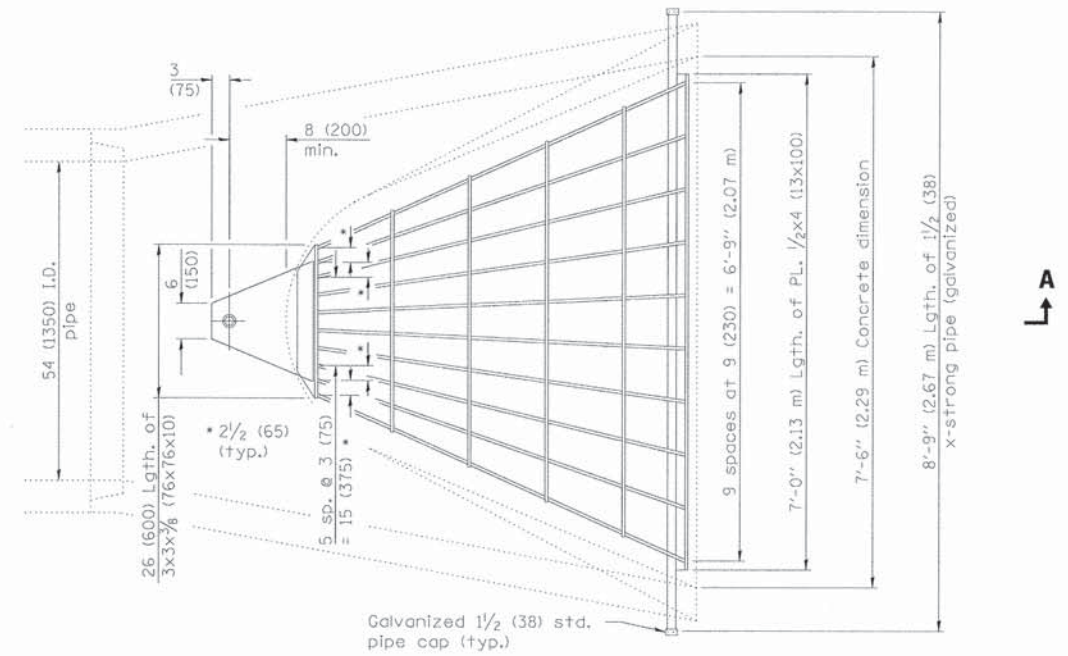
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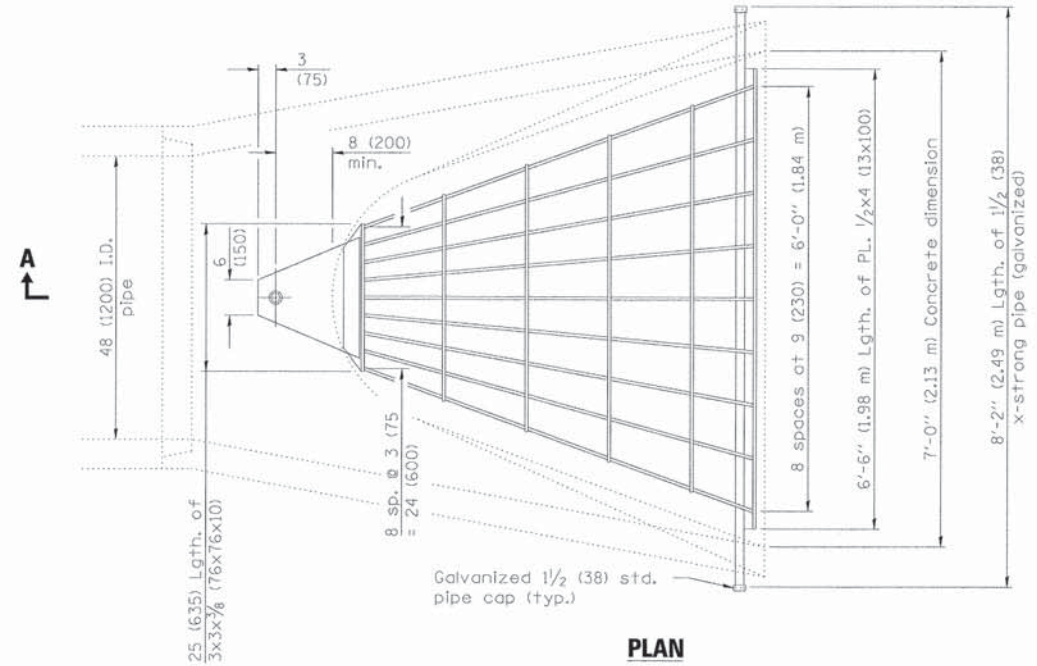
**PLAN**

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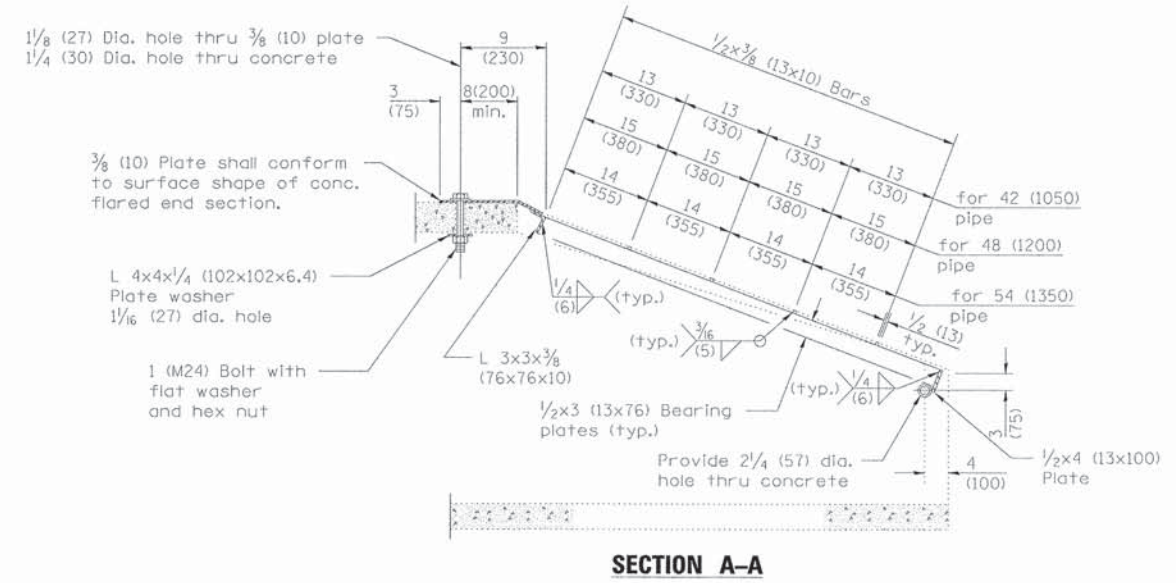
**PLAN**

Quantity of steel = 425 lbs. (193 kg)



**PLAN**

Quantity of steel = 400 lbs. (181 kg)



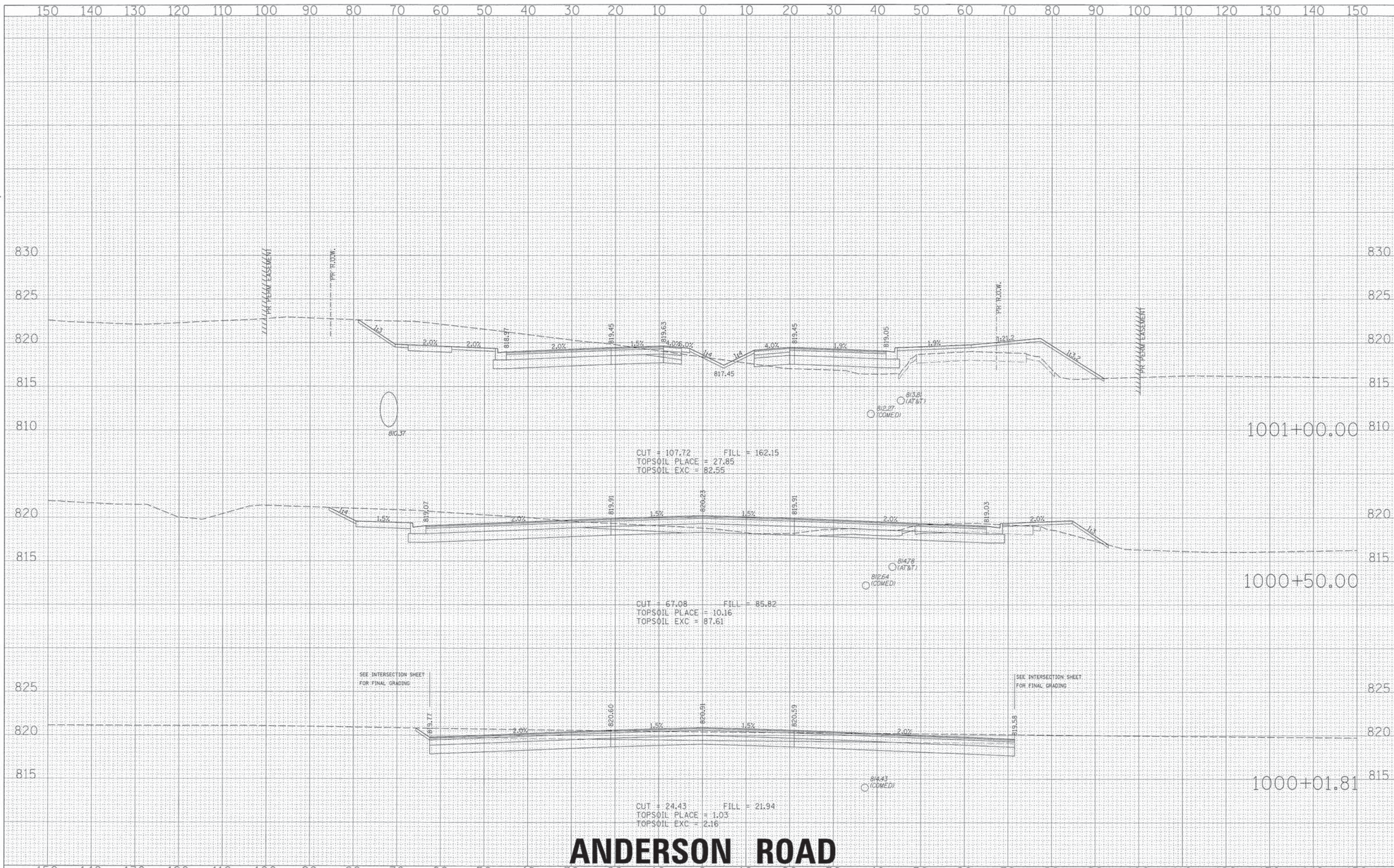
**SECTION A-A**

**GRATING FOR CONCRETE  
FLARED END SECTION  
(FOR 24" (600 mm) THRU  
54" (1350 mm) PIPE)**

(Sheet 2 of 2)

FINAL SURVEY	DATE
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PLOTTED	
NOTE BOOK	
AREAS	
CHECKED	
NO.	

ORIGINAL SURVEY	DATE
SURVEYED	BY
PLOTTED	
NOTE BOOK	
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NO.	



# ANDERSON ROAD

HRGreen.com Illinois Professional Design Firm # 194-001322	USER NAME = Mfeller DESIGNED - DRAWN - CHECKED - PLOT DATE = 6/7/2013 084_xs_anderson_e3.dgn	REVISIONS: REVISION NO.   DATE   DESCRIPTION 1       2       3       4	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CROSS SECTIONS SCALE: SHEET NO. OF SHEETS STA. 1000+01.81 TO STA. 1001+00.00	F.A. RTE. 0126 SECTION 01-00274-00-BR COUNTY KANE TOTAL SHEETS 289 SHEET NO. 188 CONTRACT NO. 63698 ILLINOIS FED. AID PROJECT
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TEMPLATE	
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NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
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NO.	



# ANDERSON ROAD

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED CROSS SECTIONS



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 PLOT SCALE =  
 PLOT DATE = 6/7/2013  
 084\_xs\_anderson\_c3.dgn

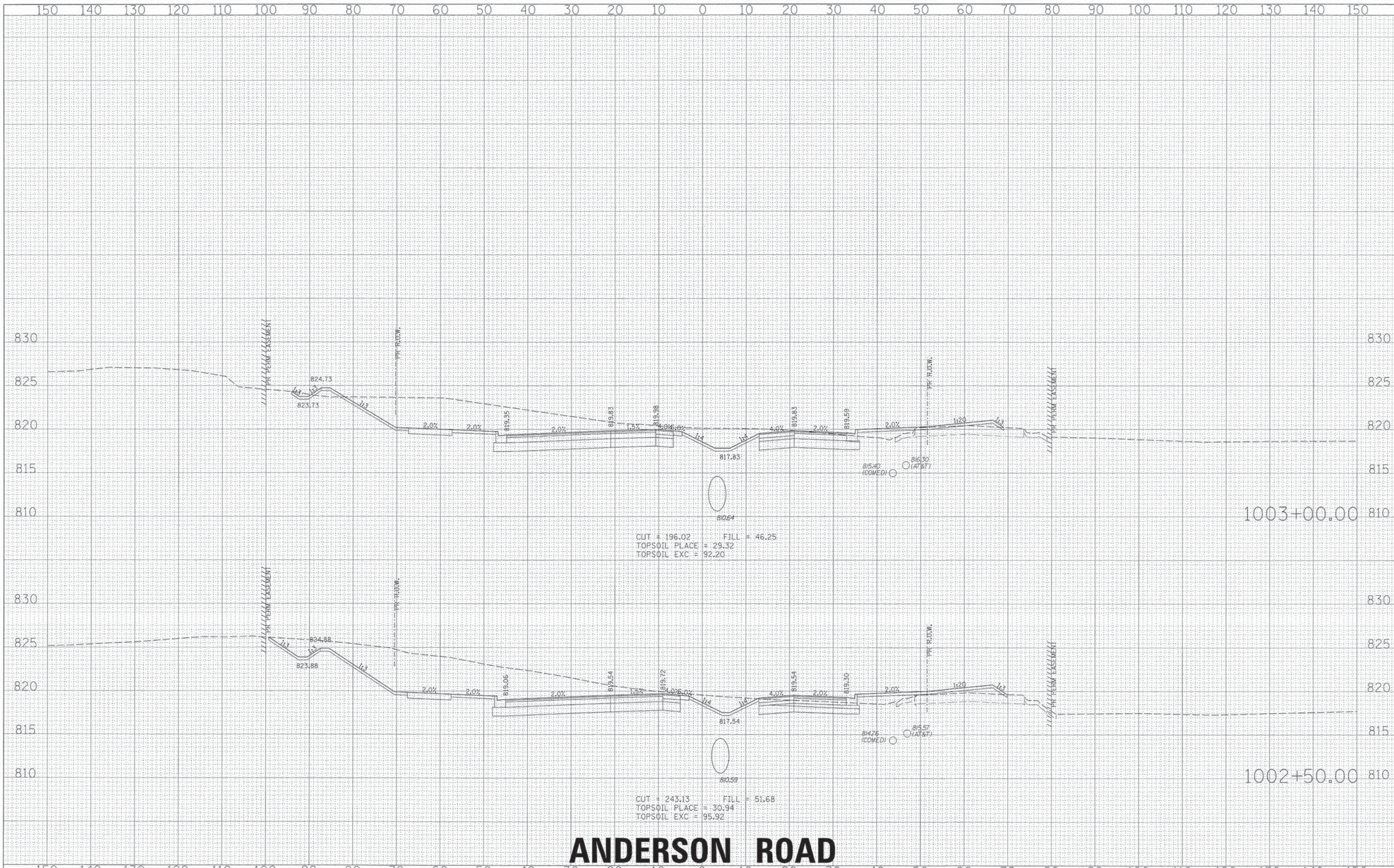
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SCALE:	SHEET NO.	OF	SHEETS	STA. 1001+50.00	TO STA. 1002+00.00
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 63698			ILLINOIS FED. AID PROJECT	

FINAL SURVEY	BY	DATE
SURVEYED		
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ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
NO.		

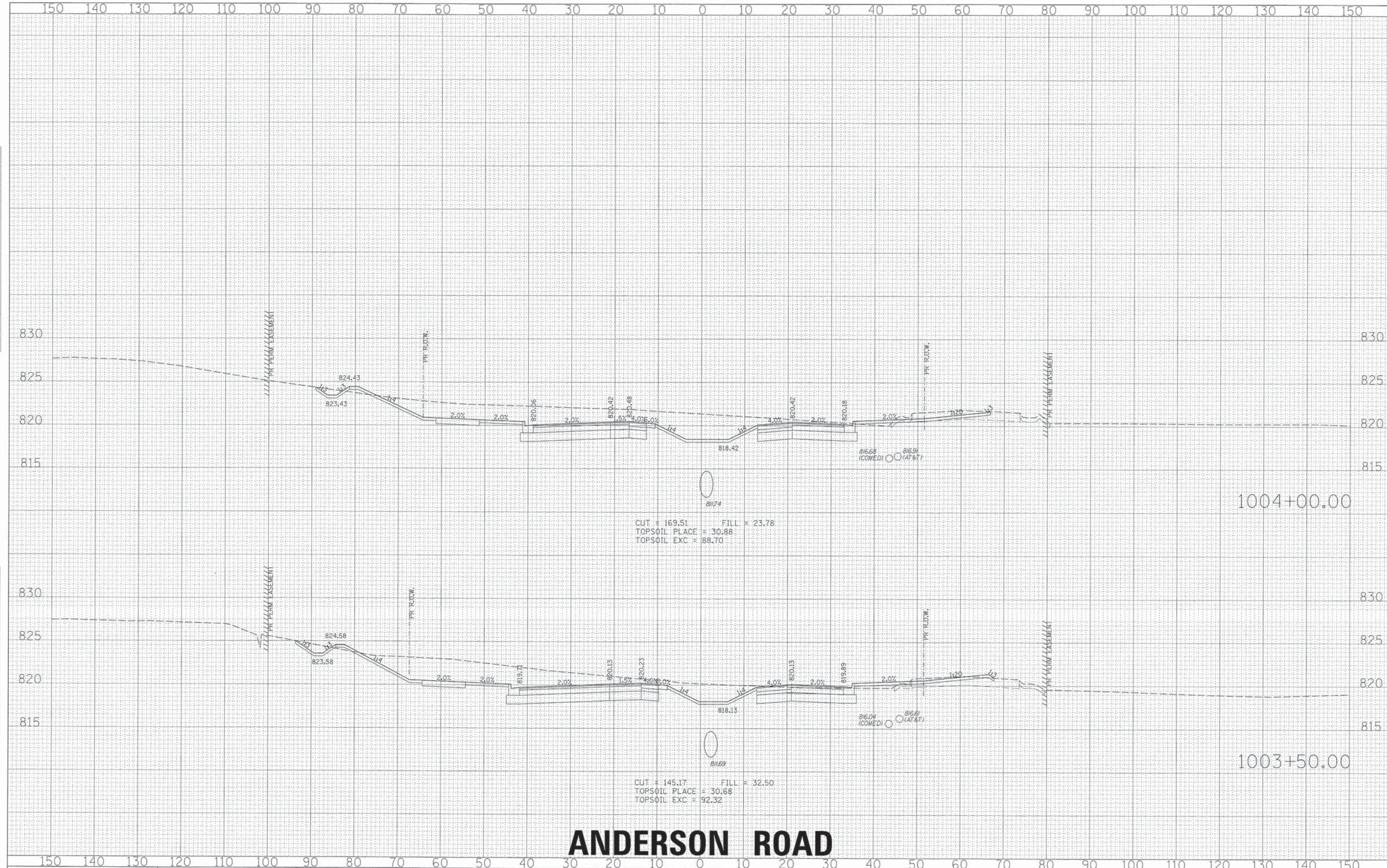


# ANDERSON ROAD

	USER NAME = M.Feller PLLOT SCALE = PLOT DATE = 6/7/2013 004_xs_anderson.c3.dgn	DESIGNED - DRAWN - CHECKED -	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED CROSS SECTIONS</b>	F.A. RTE. 0126 SECTION 01-00274-00-BR COUNTY KANE CONTRACT NO. 63698	TOTAL SHEETS 289 SHEET NO. 190
	SCALE:      SHEET NO. OF SHEETS      STA. 1002+50.00 TO STA. 1003+00.00				ILLINOIS FED. AID PROJECT		

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK NO.	TEMPLATE AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK NO.	TEMPLATE AREAS CHECKED		



# ANDERSON ROAD

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED CROSS SECTIONS

USER NAME = Mfeller  
PLOT SCALE =  
PLOT DATE = 6/7/2013  
004\_ws\_anderson\_c3.dgn

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
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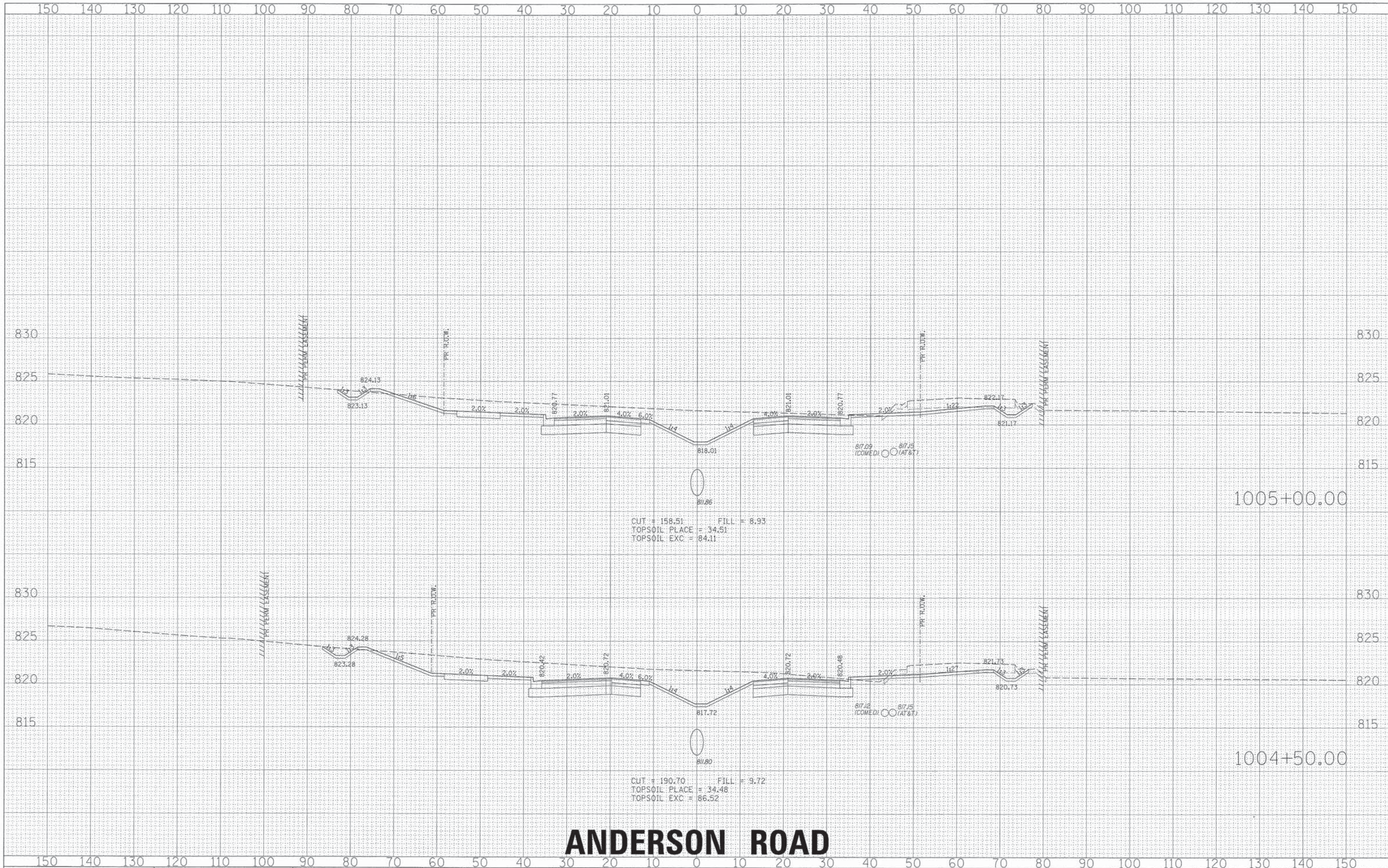
SCALE: SHEET NO. OF SHEETS STA. 1003+50.00 TO STA. 1004+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0126	01-00274-00-BR	KANE	289	191
CONTRACT NO. 63698				
ILLINOIS FED. AID PROJECT				



FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	TEMPLATED		
AREAS	CHECKED		
NO.			

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	TEMPLATED		
AREAS	CHECKED		
NO.			



# ANDERSON ROAD

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED CROSS SECTIONS



USER NAME = MFColler  
 PLOT SCALE =  
 PLOT DATE = 6/7/2013  
 004\_xs\_anderson\_c3.dgn

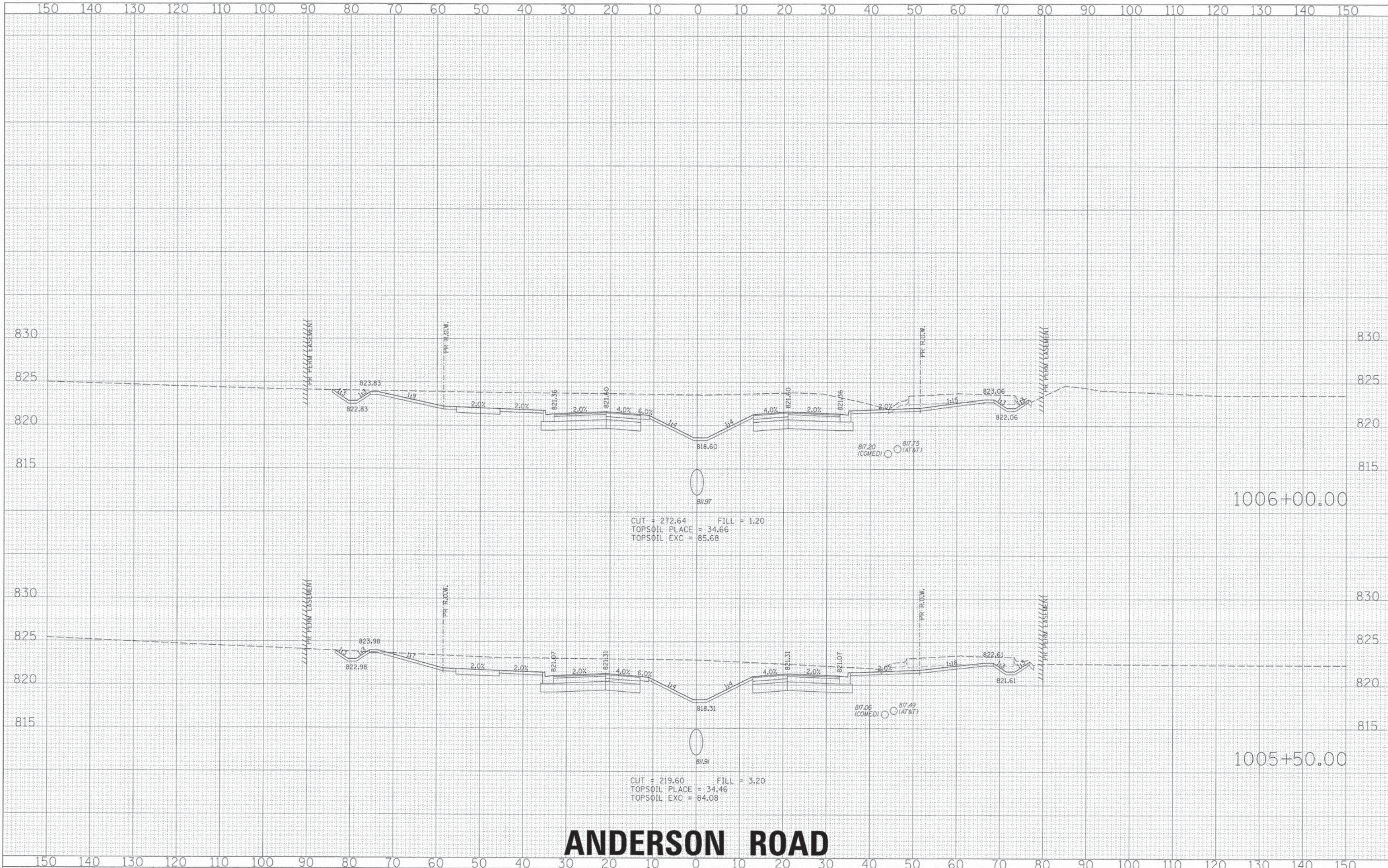
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DRAWN -	REVISED -
CHECKED -	REVISED -
	REVISED -

SCALE:	SHEET NO.	OF	SHEETS	STA. 1004+50.00 TO STA. 1005+00.00
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0126	01-00274-00-BR	KANE	289	192
CONTRACT NO. 63698				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	



# ANDERSON ROAD

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED CROSS SECTIONS



USER NAME = MFeller  
PLOT SCALE =  
PLOT DATE = 6/7/2013  
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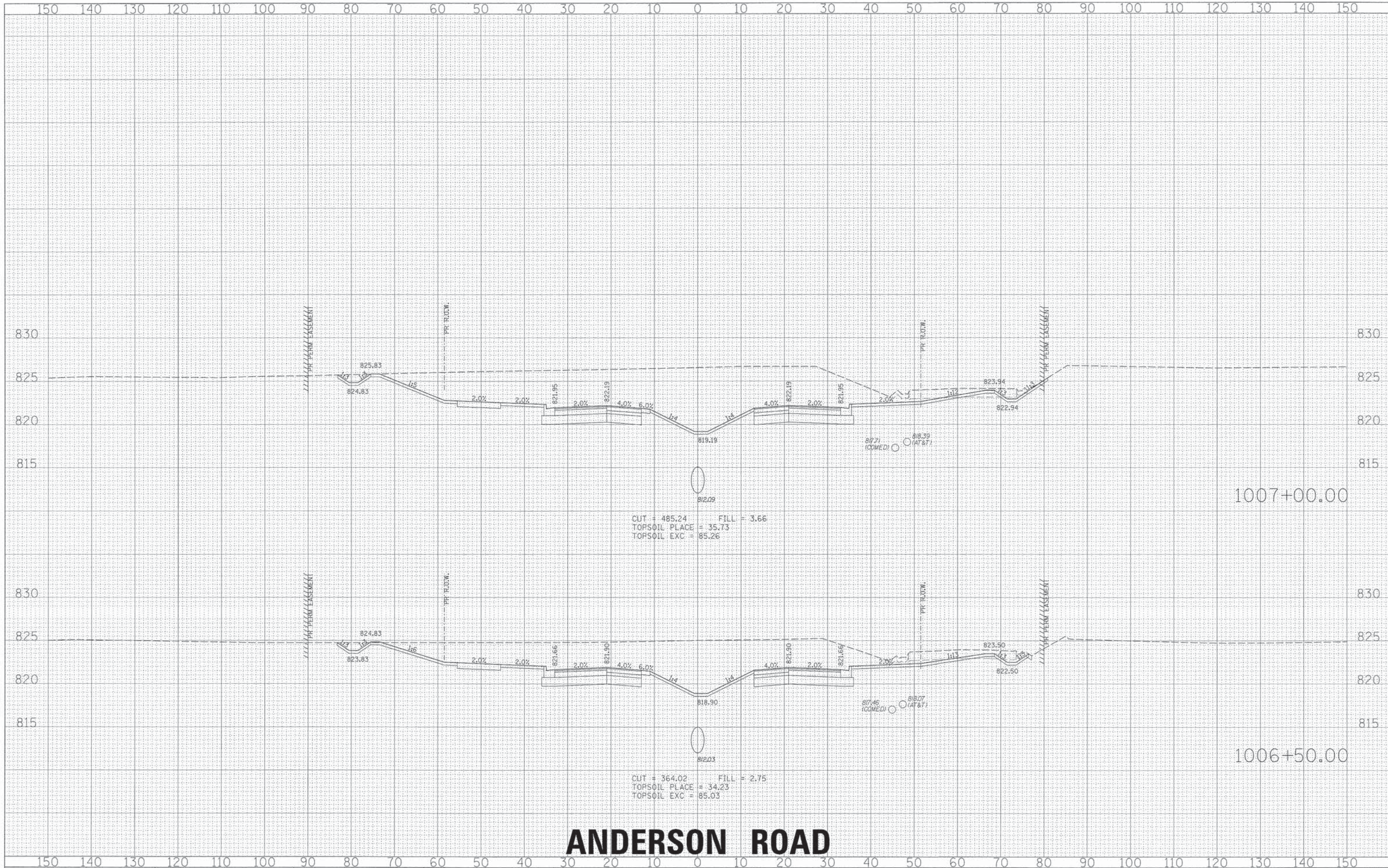
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DRAWN	-	REVISED	-
CHECKED	-	REVISED	-
		REVISED	-

SCALE:	SHEET NO.	OF	SHEETS	STA. 1005+50.00 TO STA. 1006+00.00
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0126	01-00274-00-BR	KANE	289	193
CONTRACT NO. 63698				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	TEMPLATE		
AREAS CHECKED			
NO.			

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	TEMPLATE		
AREAS CHECKED			
NO.			



# ANDERSON ROAD

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED CROSS SECTIONS



USER NAME = Mfeller  
PLOT SCALE =  
PLOT DATE = 6/7/2013  
084\_xs\_anderson\_e3.dgn

DESIGNED -  
DRAWN -  
CHECKED -

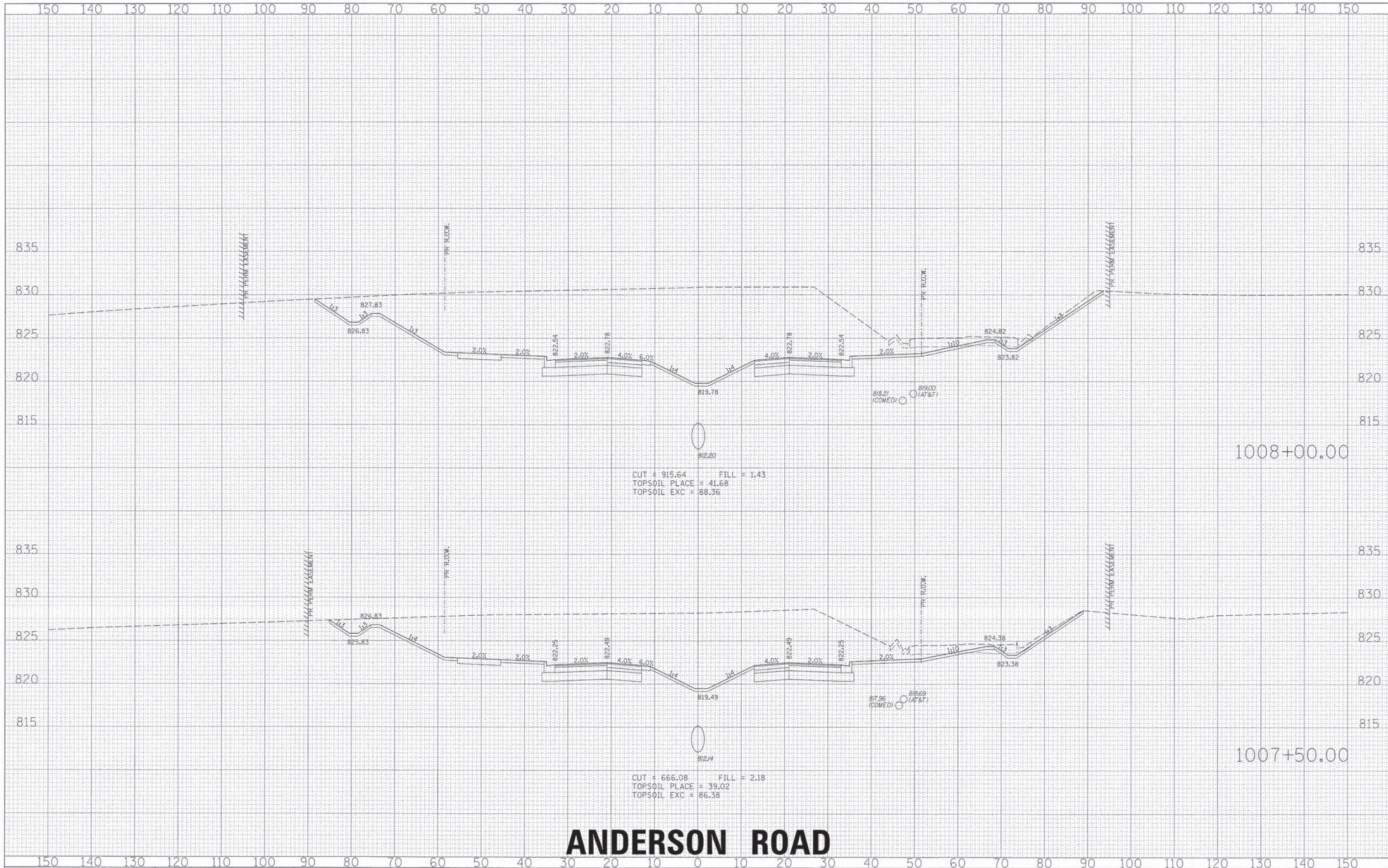
REVISED -  
REVISED -  
REVISED -  
REVISED -

SCALE: SHEET NO. OF SHEETS STA. 1006+50.00 TO STA. 1007+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0126	01-00274-00-BR	KANE	289	194
CONTRACT NO. 63698				
ILLINOIS FED. AID PROJECT				

FINAL	SURVEYED	DATE
SURVEY	BY	
NOTE BOOK	NO.	
AREAS CHECKED		

ORIGINAL	SURVEYED	DATE
SURVEY	BY	
NOTE BOOK	NO.	
AREAS CHECKED		



# ANDERSON ROAD

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED CROSS SECTIONS



USER NAME = Mfaller  
 PLOT SCALE =  
 PLOT DATE = 6/7/2013  
 004\_xs\_anderson\_c3.dgn

DESIGNED -  
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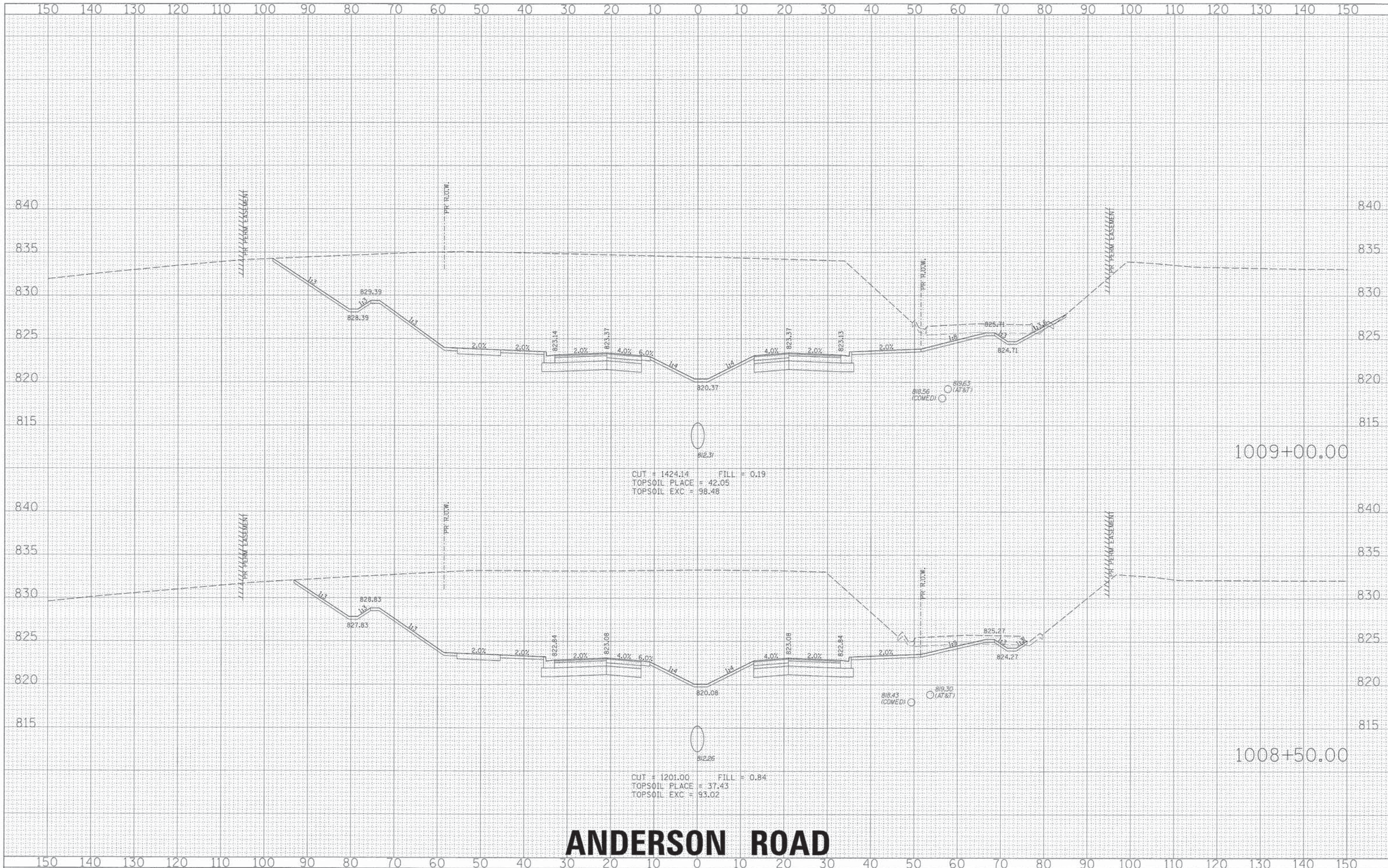
REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

SCALE: SHEET NO. OF SHEETS STA. 1007+50.00 TO STA. 1008+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0126	01-00274-00-BR	KANE	289	195
CONTRACT NO. 63698				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMPLATE		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMPLATE		
NO.	AREAS CHECKED		



# ANDERSON ROAD

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED CROSS SECTIONS

USER NAME = Mfaller	DESIGNED -	REVISED -
PLLOT SCALE =	DRAWN -	REVISED -
PLLOT DATE = 6/7/2013	CHECKED -	REVISED -
084_xs_anderson_e3.dgn		REVISED -

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0126	01-00274-00-BR	KANE	289	196
CONTRACT NO. 63698				
ILLINOIS FED. AID PROJECT				

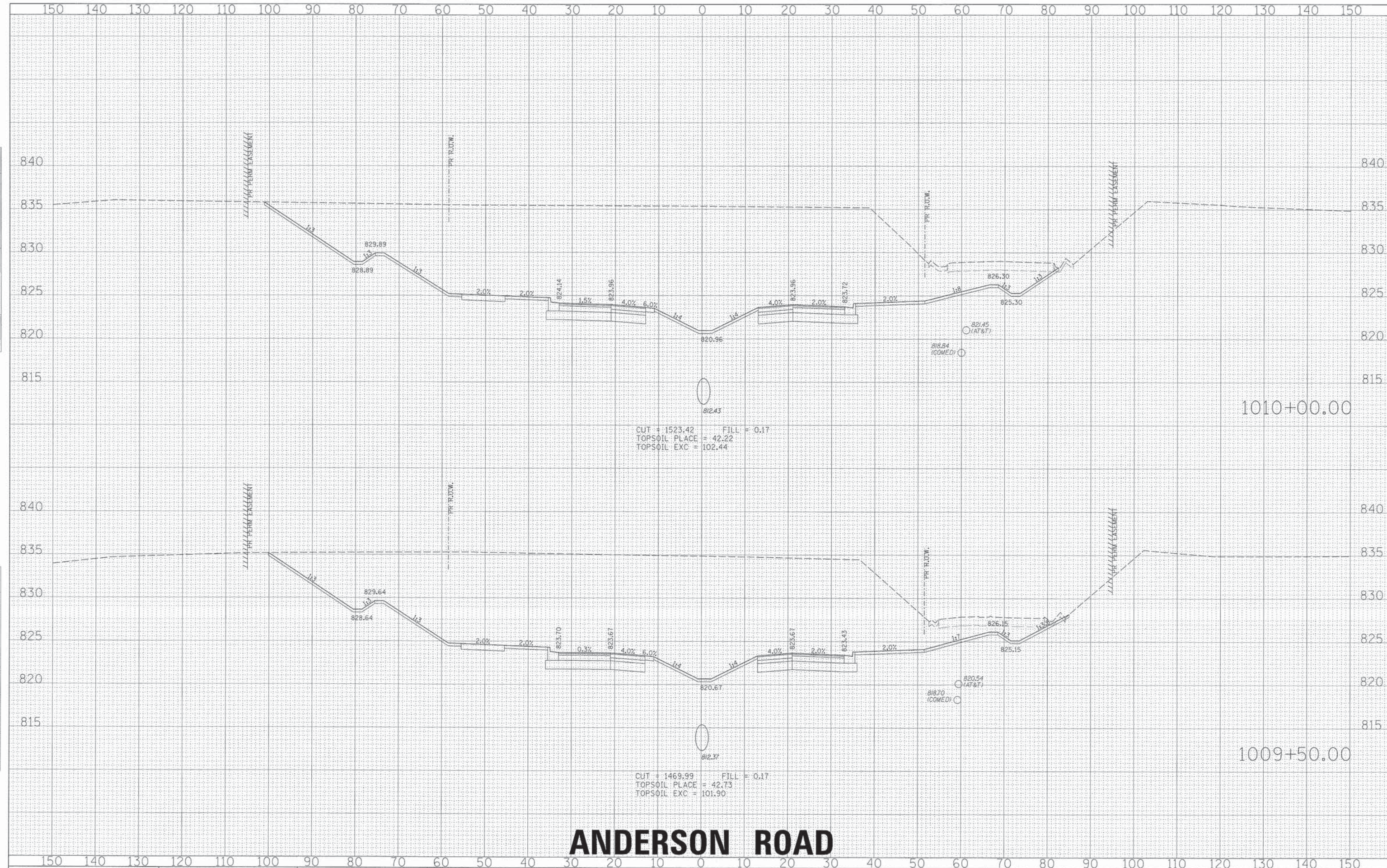
SCALE: SHEET NO. OF SHEETS STA. 1008+50.00 TO STA. 1009+00.00





DATE	
BY	
SURVEYED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



# ANDERSON ROAD



USER NAME = Mfaller	DESIGNED -	REVISED -
PLDT SCALE =	DRAWN -	REVISED -
PLDT DATE = 6/7/2013	CHECKED -	REVISED -
004_xs_anderson_c3.dgn		REVISED -

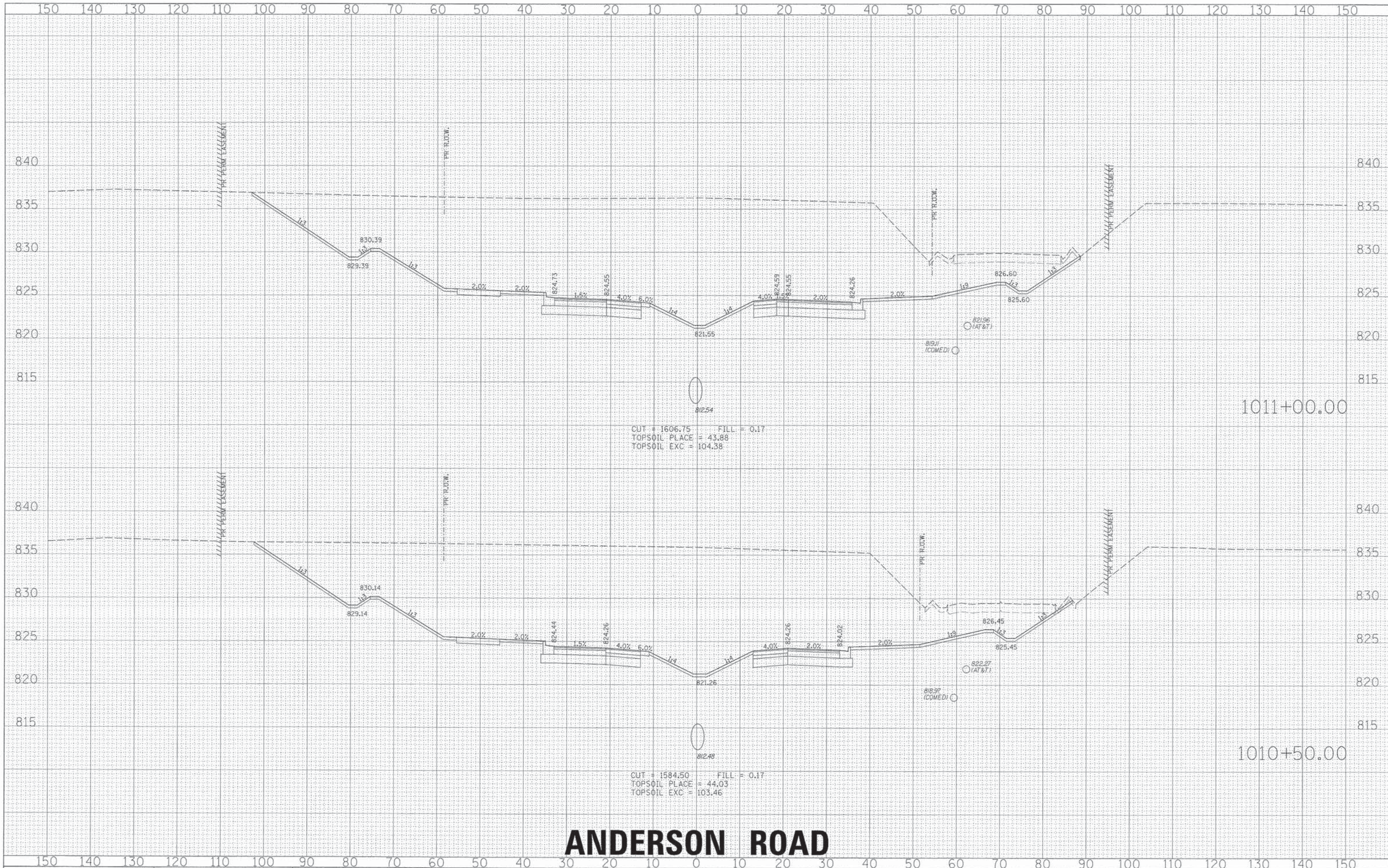
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED CROSS SECTIONS			
SCALE:	SHEET NO.	OF SHEETS	STA. 1009+50.00 TO STA. 1010+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0126	01-00274-00-BR	KANE	289	197
CONTRACT NO. 63698				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PROTECTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PROTECTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	



# ANDERSON ROAD

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED CROSS SECTIONS



USER NAME = MFa11r  
PLOT SCALE =  
PLOT DATE = 6/7/2013  
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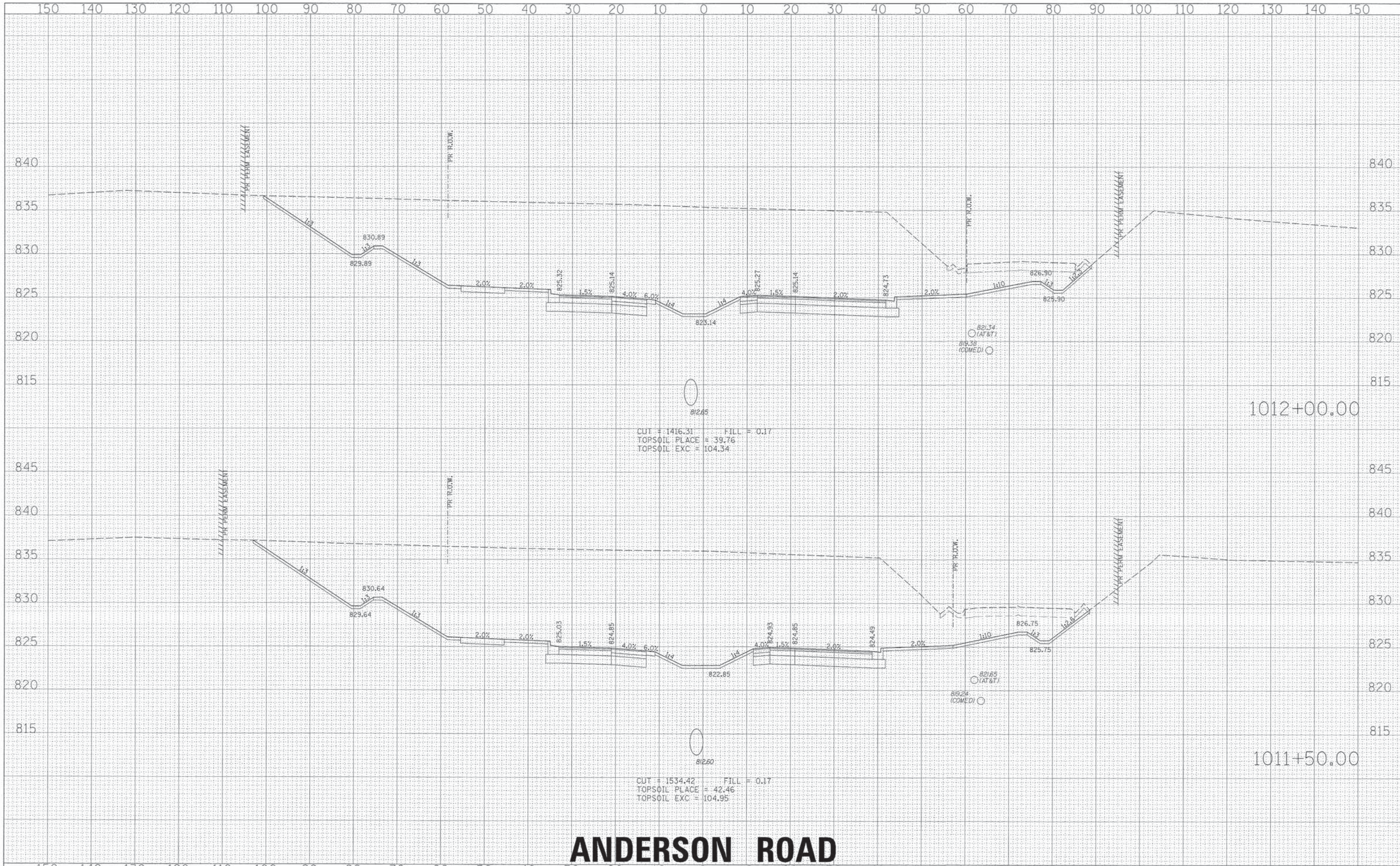
DESIGNED	-
DRAWN	-
CHECKED	-
REVISED	-
REVISED	-
REVISED	-
REVISED	-

SCALE: SHEET NO. OF SHEETS STA. 1010+50.00 TO STA. 1011+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0126	01-00274-00-BR	KANE	289	198
CONTRACT NO. 63698				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	TEMPLATE	
	AREAS CHECKED	

ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	TEMPLATE	
	AREAS CHECKED	



# ANDERSON ROAD

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED CROSS SECTIONS



USER NAME = Mfaller  
PLOT SCALE =  
PLOT DATE = 6/7/2013  
004\_xp\_anderson\_c3.dgn

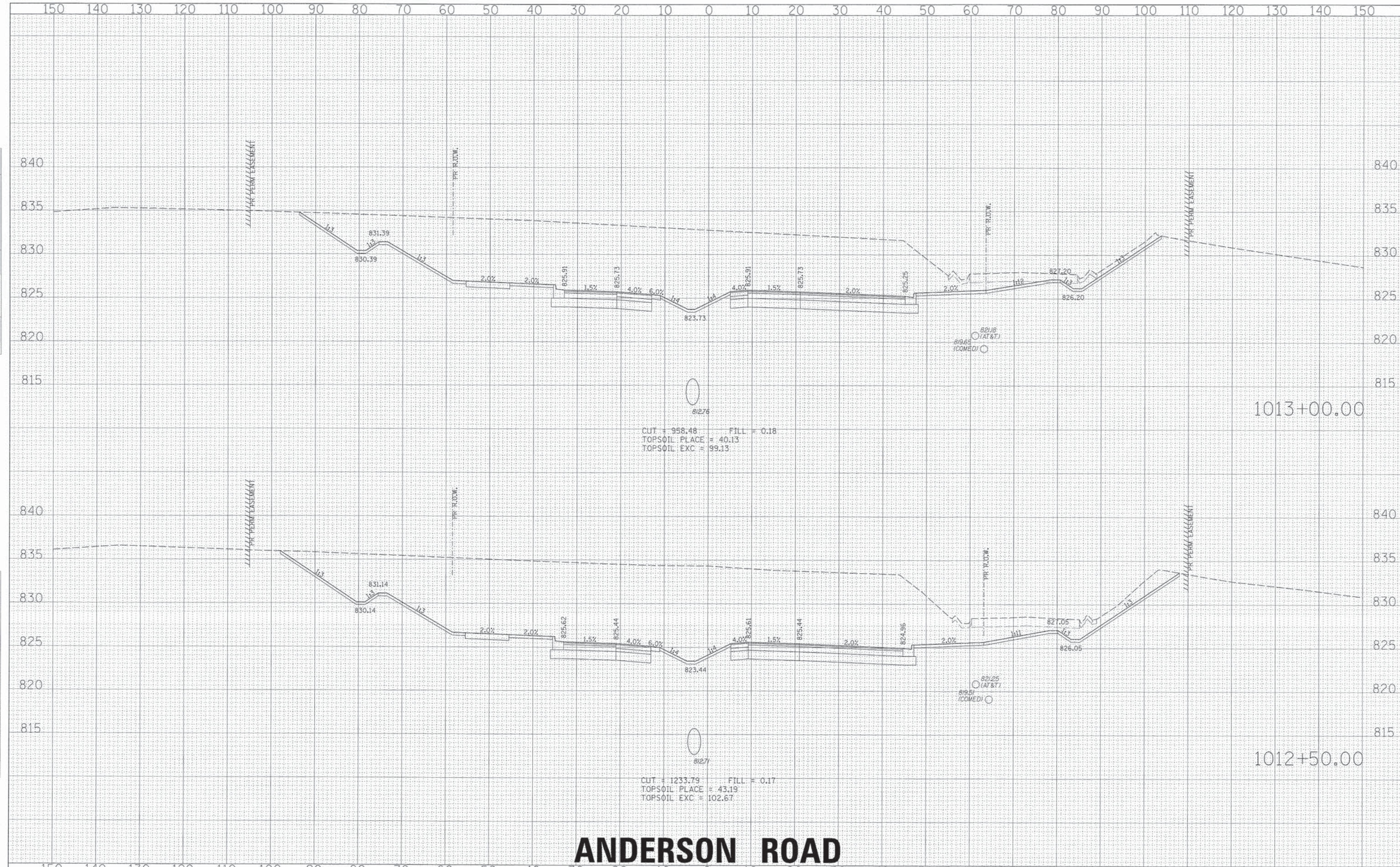
DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
	REVISED -

SCALE: SHEET NO. OF SHEETS STA. 1011+50.00 TO STA. 1012+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0126	01-00274-00-BR	KANE	289	199
CONTRACT NO. 63698				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY	
SURVEYED	
NOTE BOOK	
NO.	
TEMP. DATE	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
NOTE BOOK	
NO.	
TEMP. DATE	
AREAS CHECKED	



# ANDERSON ROAD

	USER NAME = Mfaller PLOT SCALE = PLOT DATE = 6/7/2013 004_xs_anderson_c3.dgn	DESIGNED - DRAWN - CHECKED -	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED CROSS SECTIONS</b> SCALE: SHEET NO. OF SHEETS STA. 1012+50.00 TO STA. 1013+00.00	F.A. RTE. 0126 SECTION 01-00274-00-BR COUNTY KANE TOTAL SHEETS 289 SHEET NO. 200 CONTRACT NO. 63698 ILLINOIS FED. AID PROJECT
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