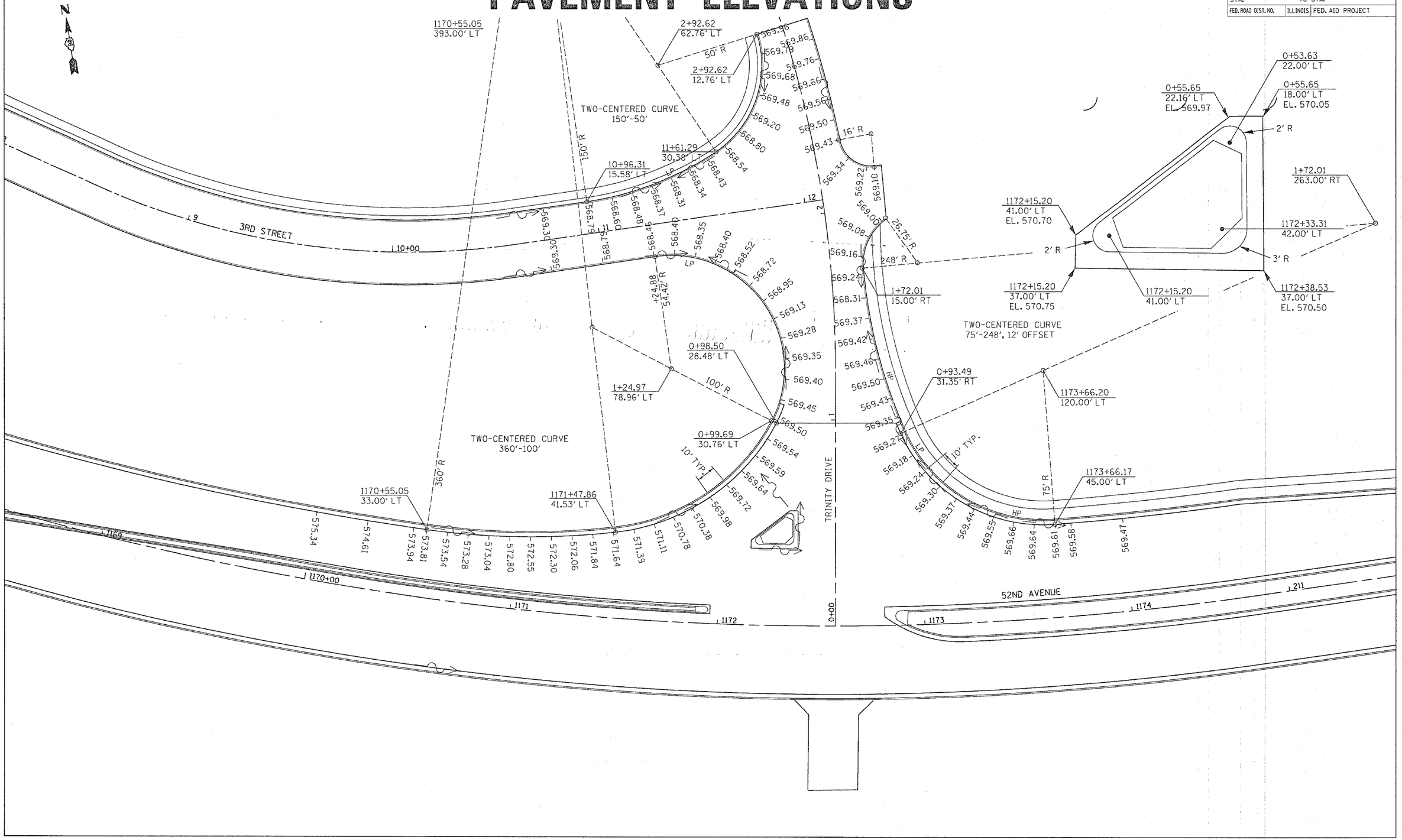
CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	201
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT ELEVATIONS

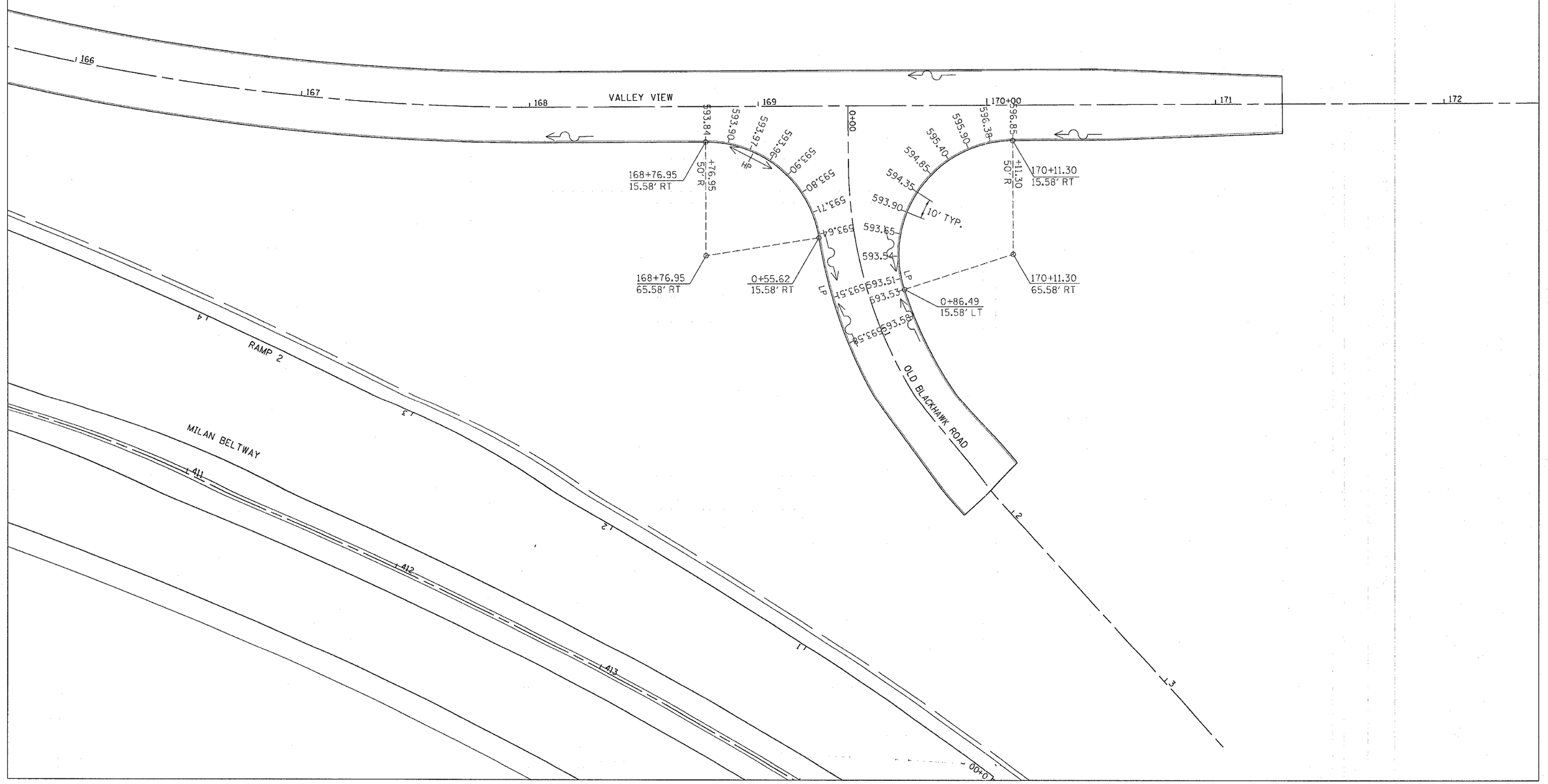


TRINITY DRIVE & 52ND AVENUE PAVEMENT ELEVATIONS

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	202
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT ELEVATIONS



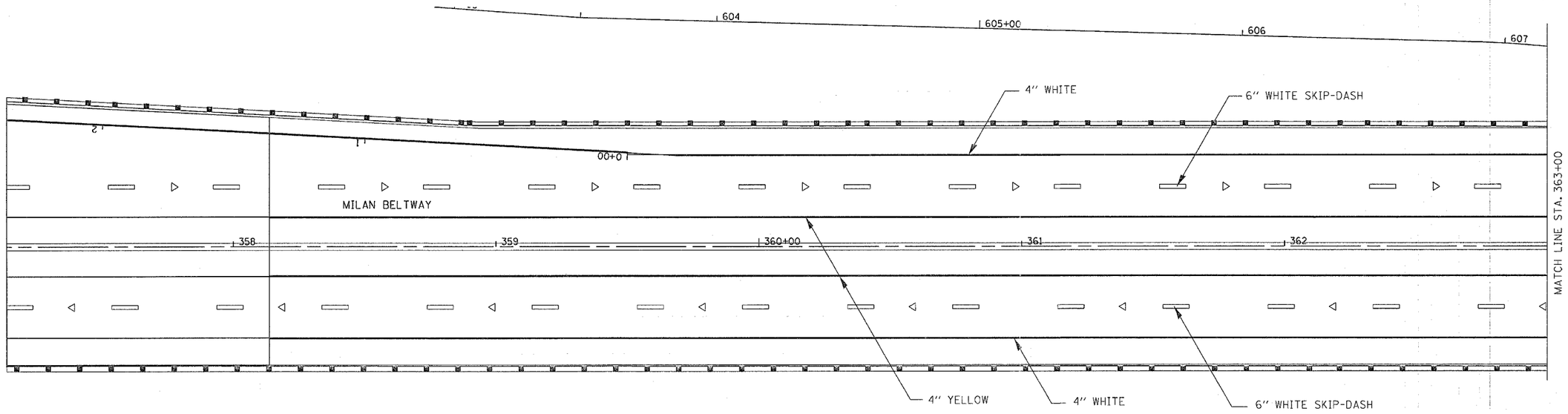
OLD BLACKHAWK & VALLEY VIEW PAVEMENT ELEVATIONS

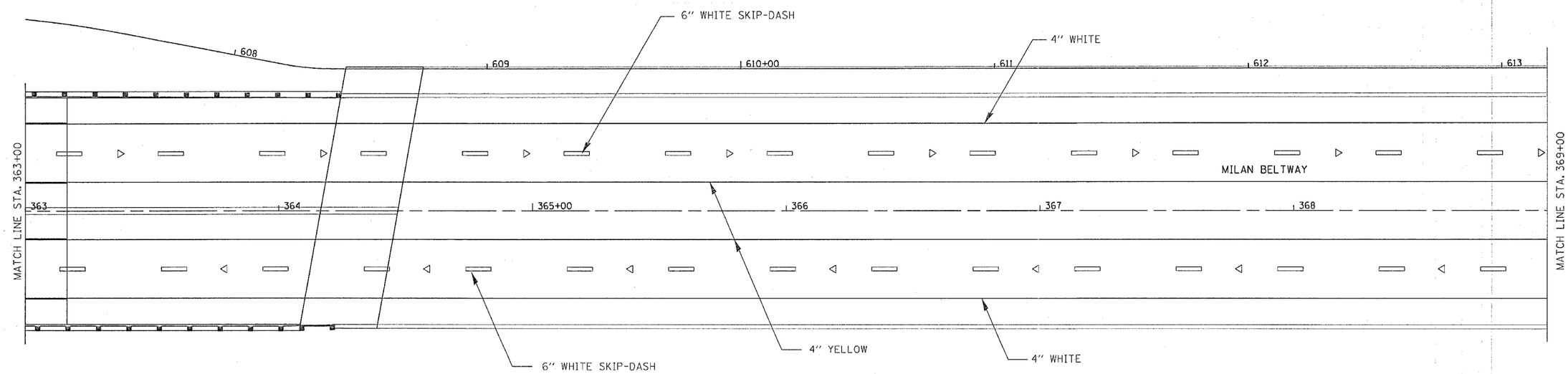
CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	203
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKINGS

N



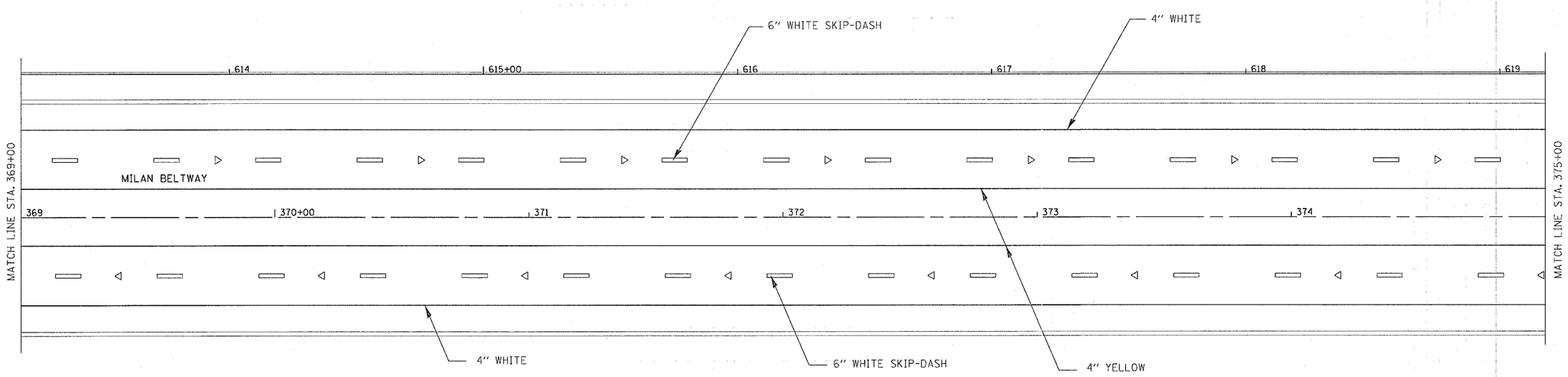


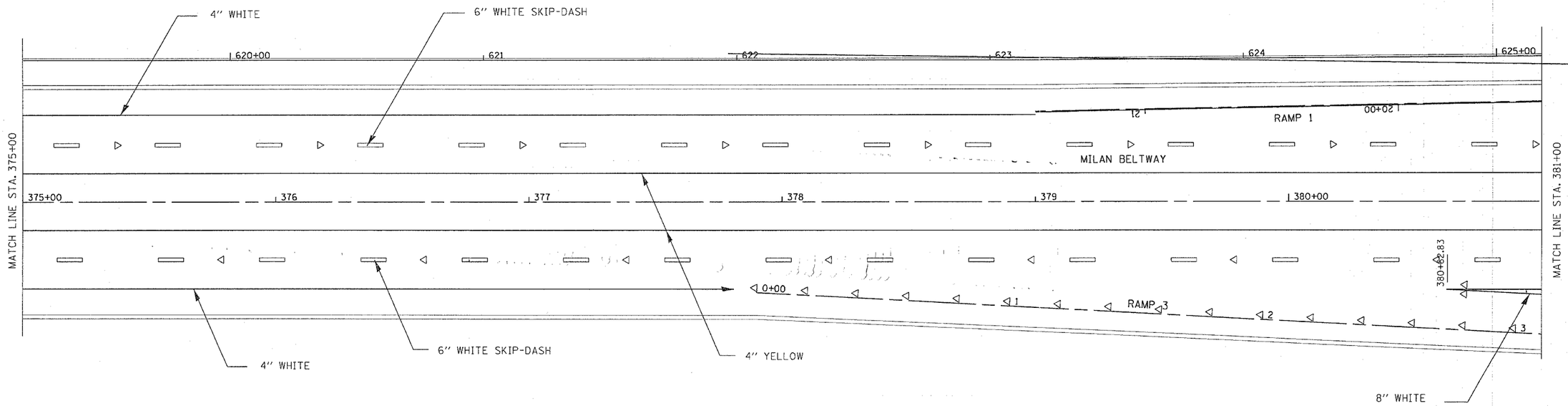
MILAN BELTWAY PAVEMENT MARKINGS

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	204
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKINGS



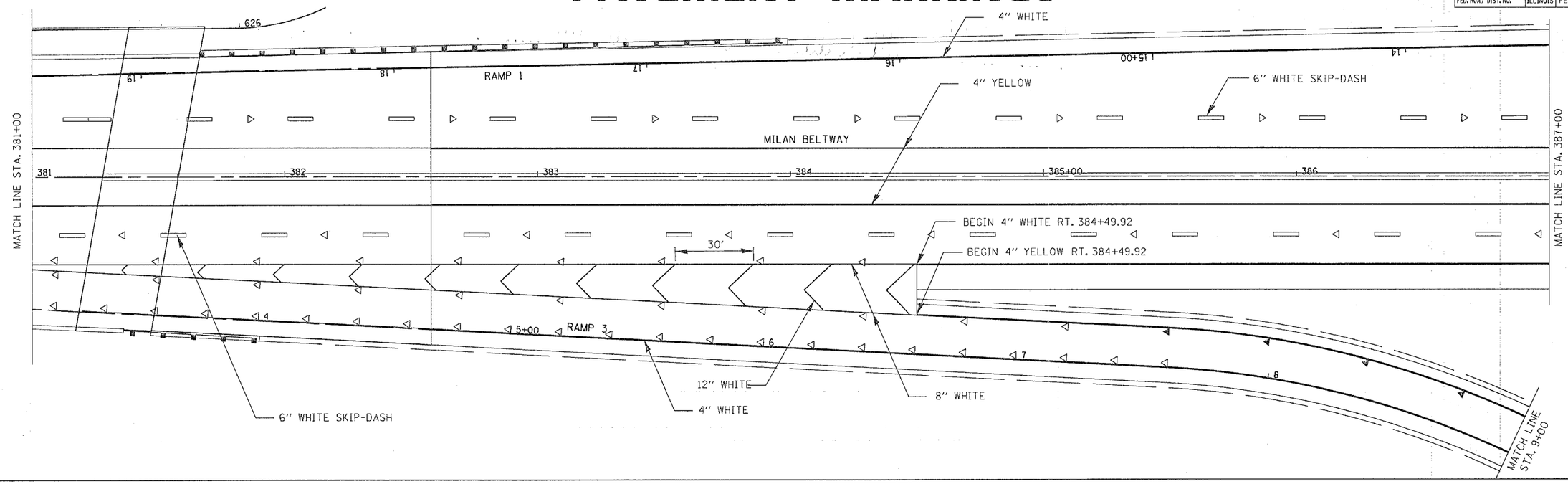


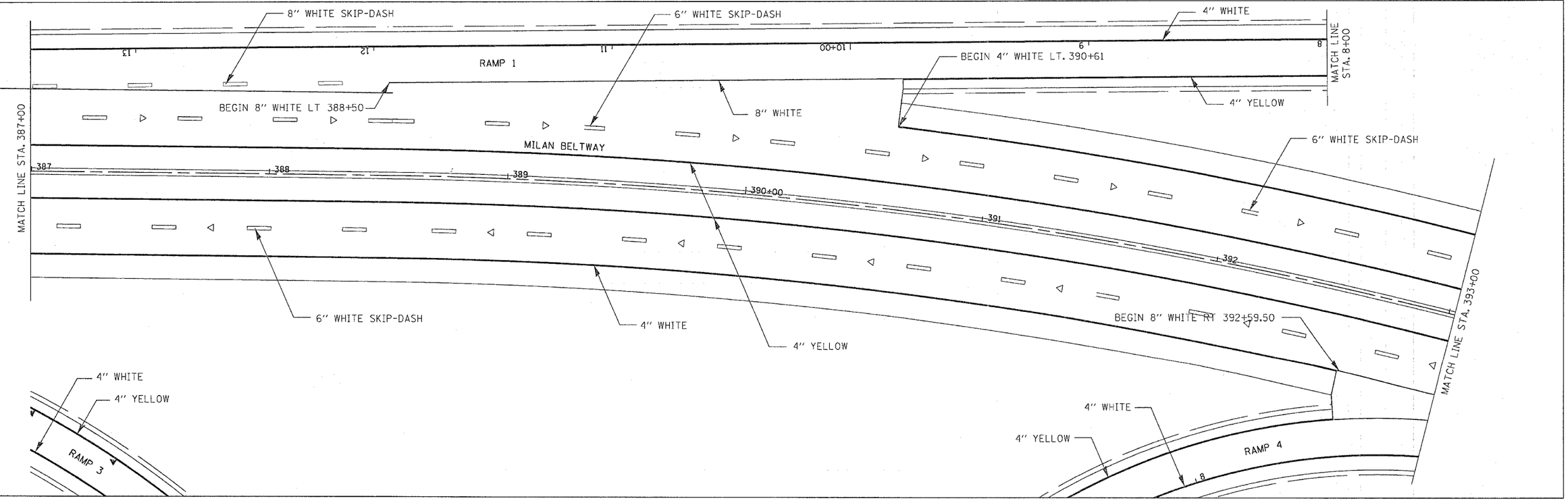
MILAN BELTWAY PAVEMENT MARKINGS

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	205
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKINGS



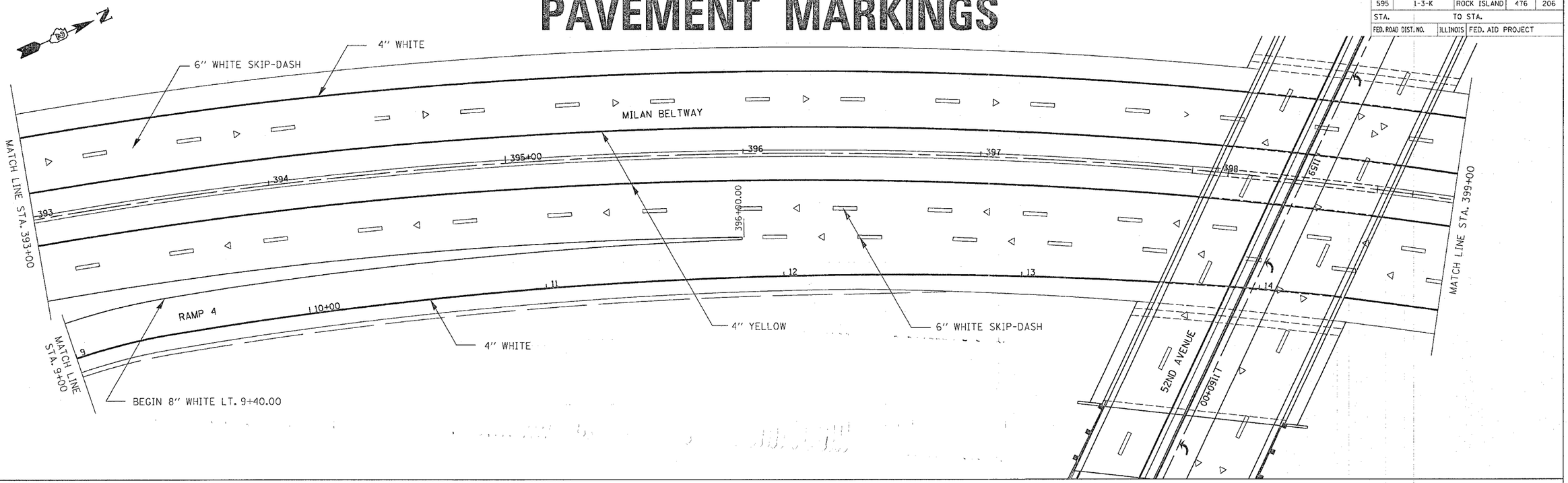


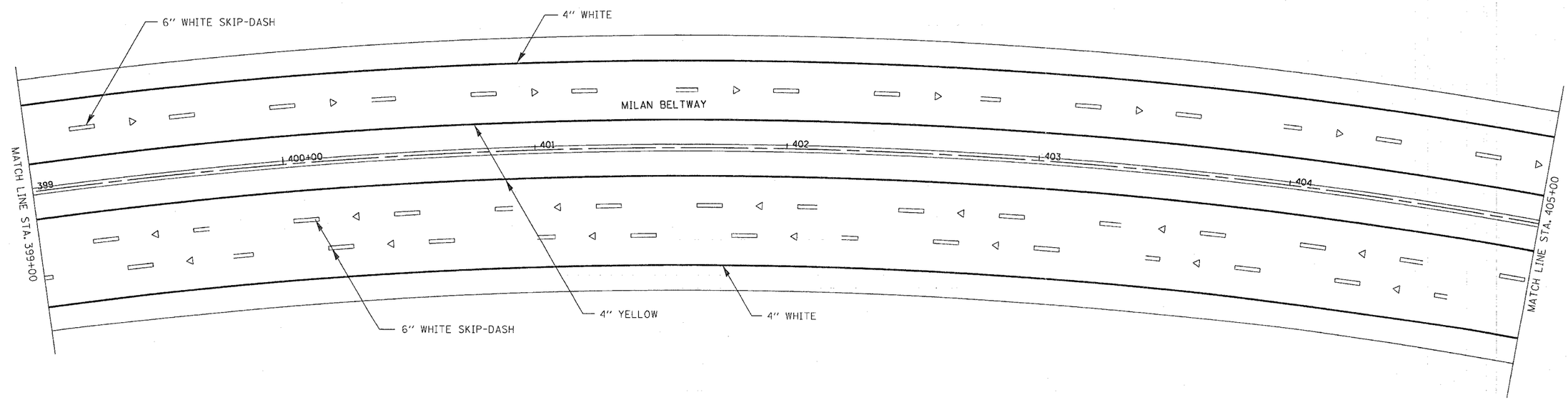
MILAN BELTWAY PAVEMENT MARKINGS

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	206
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKINGS



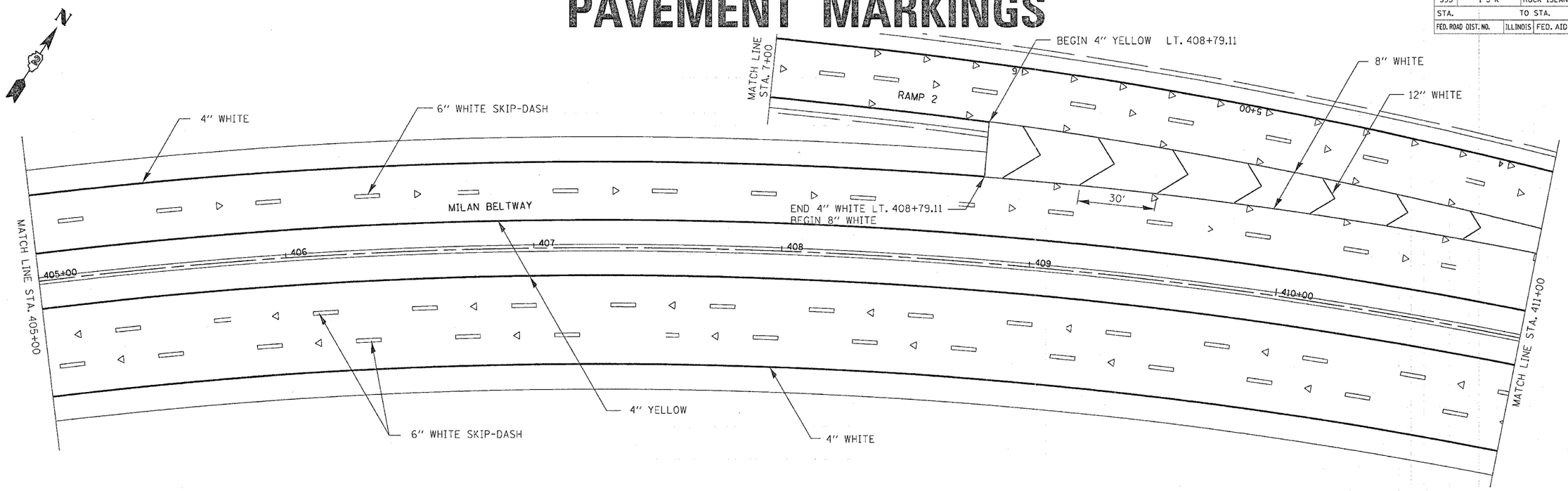


MILAN BELTWAY PAVEMENT MARKINGS

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	207
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKINGS

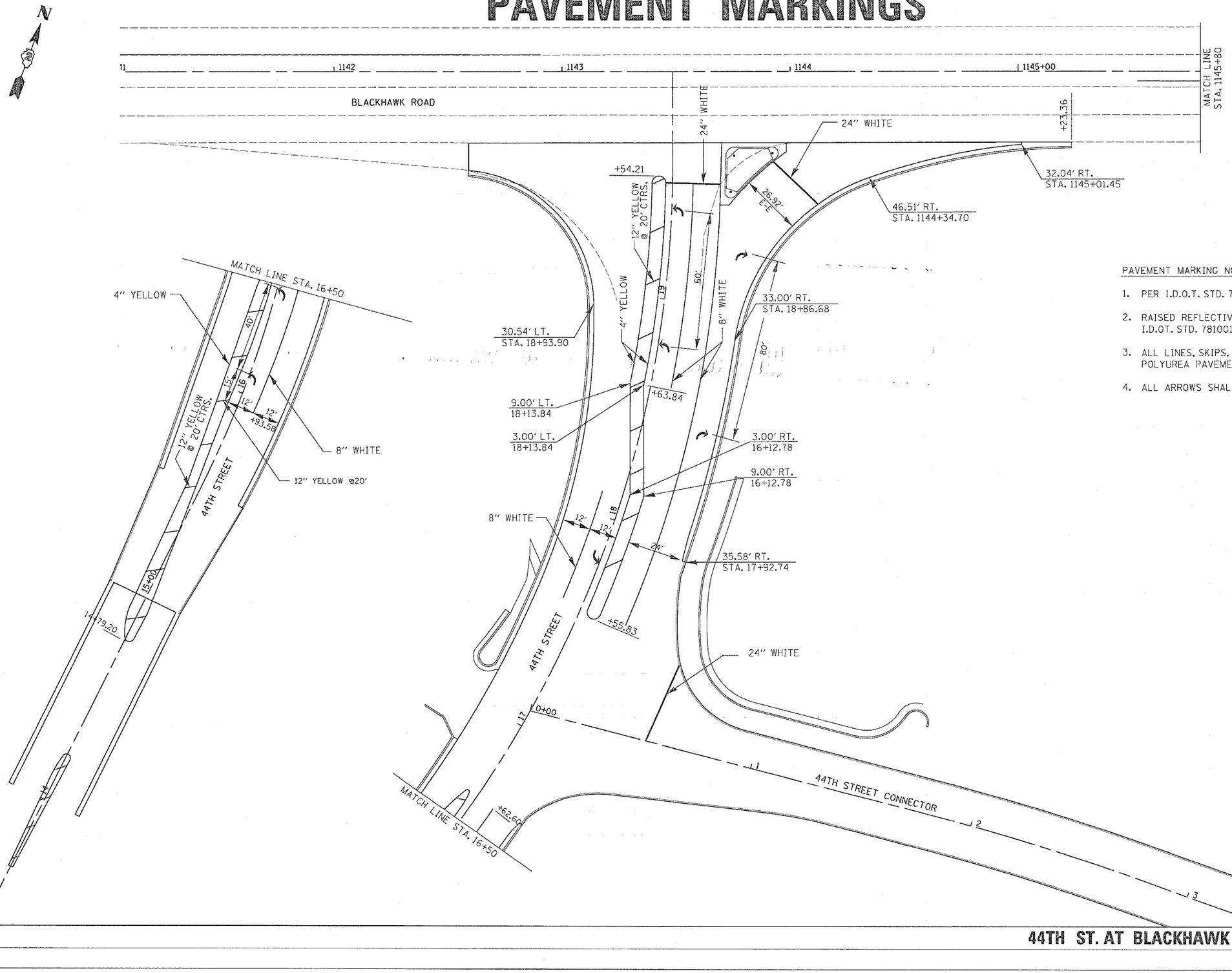


MILAN BELTWAY PAVEMENT MARKINGS

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	208
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKINGS



PAVEMENT MARKING NOTES

1. PER I.D.O.T. STD. 780001 AND DIST. STD. 44.1
2. RAISED REFLECTIVE PAVEMENT MARKERS PER I.D.OT. STD. 781001
3. ALL LINES, SKIPS, DASHES SHALL BE STRIPED WITH POLYUREA PAVEMENT MARKING
4. ALL ARROWS SHALL BE WHITE, LARGE SIZED.

44TH ST. AT BLACKHAWK ROAD PAVEMENT MARKINGS

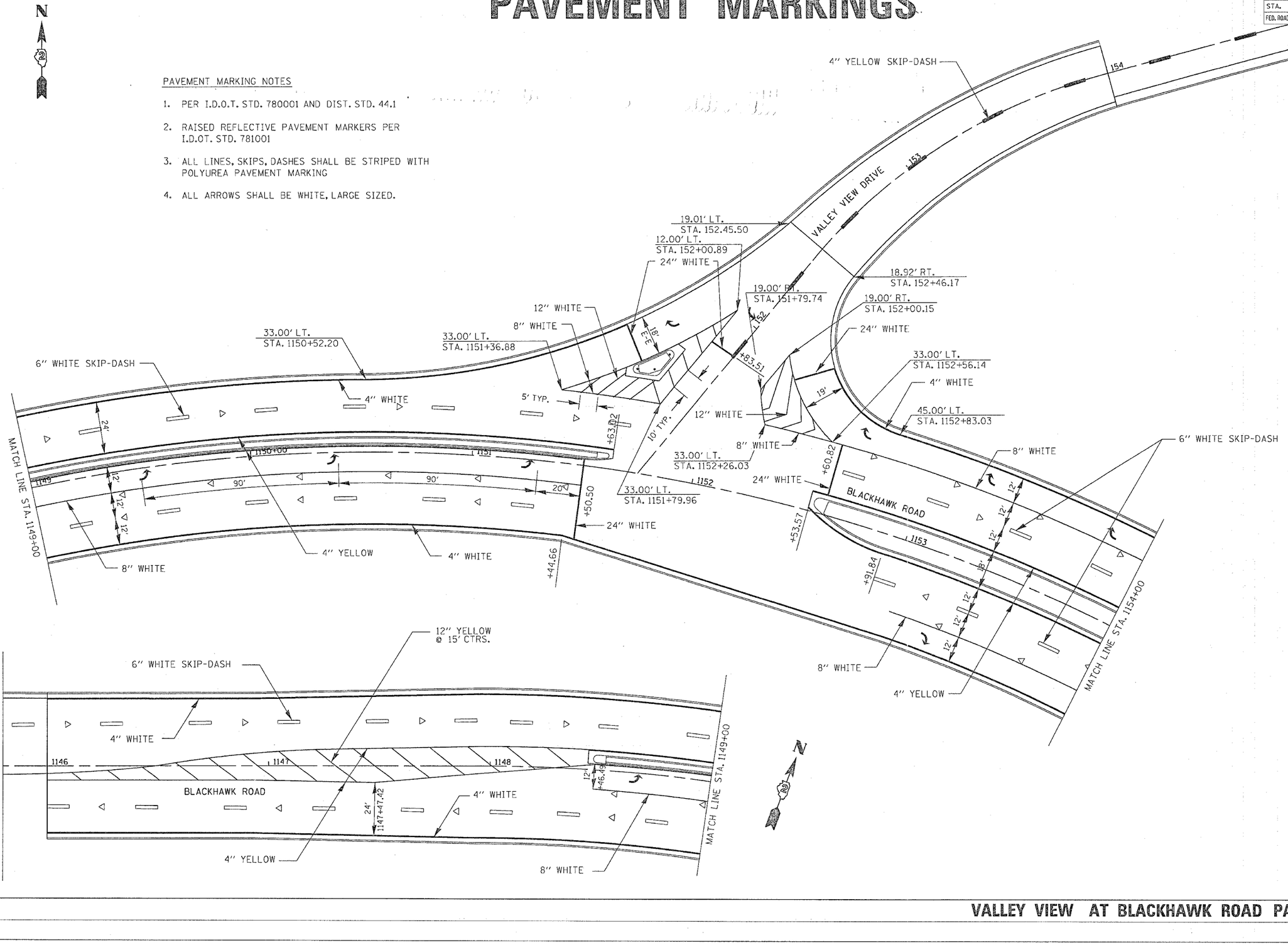
CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	209
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKINGS

PAVEMENT MARKING NOTES

1. PER I.D.O.T. STD. 780001 AND DIST. STD. 44.1
2. RAISED REFLECTIVE PAVEMENT MARKERS PER I.D.OT. STD. 781001
3. ALL LINES, SKIPS, DASHES SHALL BE STRIPED WITH POLYUREA PAVEMENT MARKING
4. ALL ARROWS SHALL BE WHITE, LARGE SIZED.

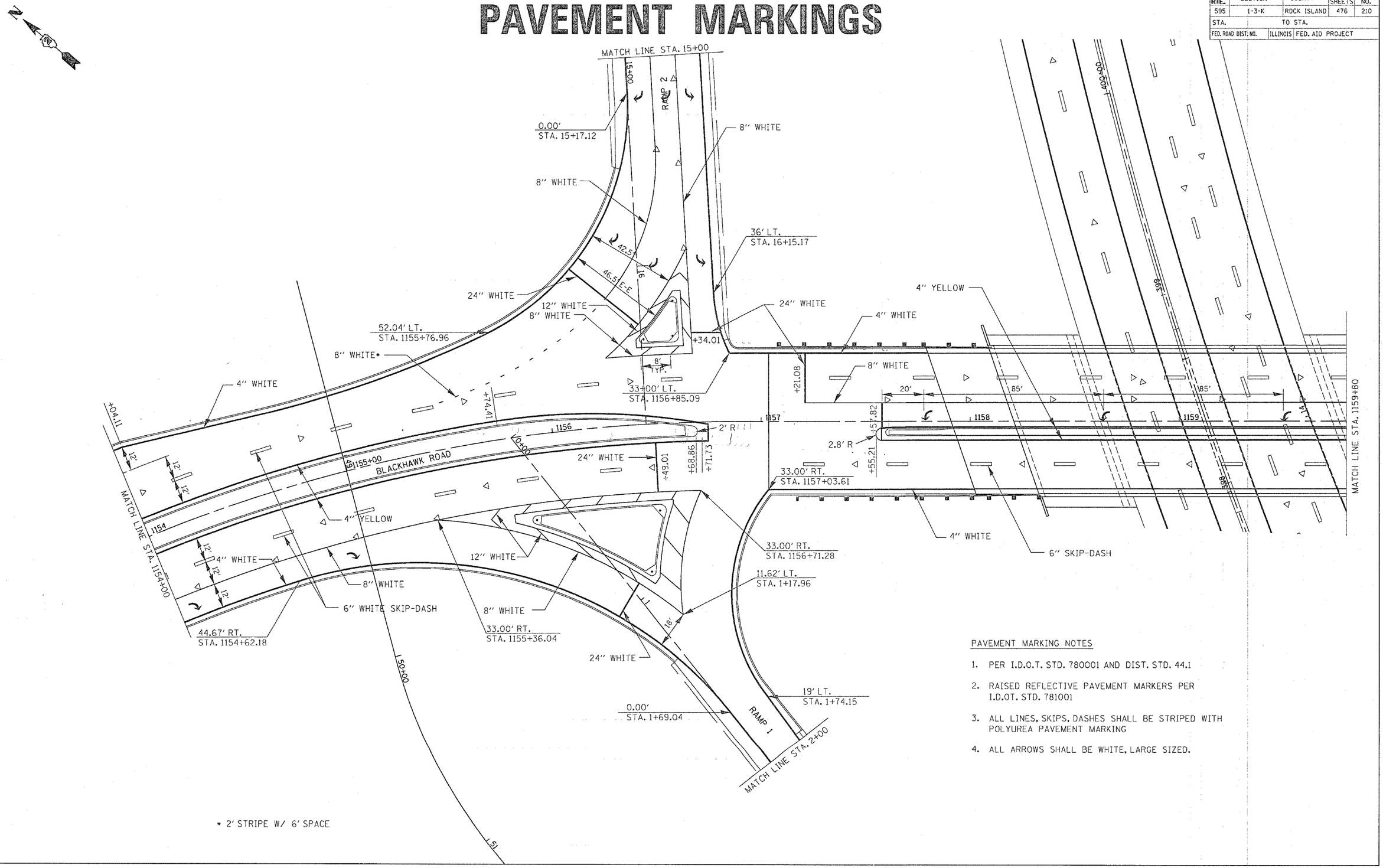


VALLEY VIEW AT BLACKHAWK ROAD PAVEMENT MARKINGS

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	210
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKINGS



* 2' STRIPE W/ 6' SPACE

PAVEMENT MARKING NOTES

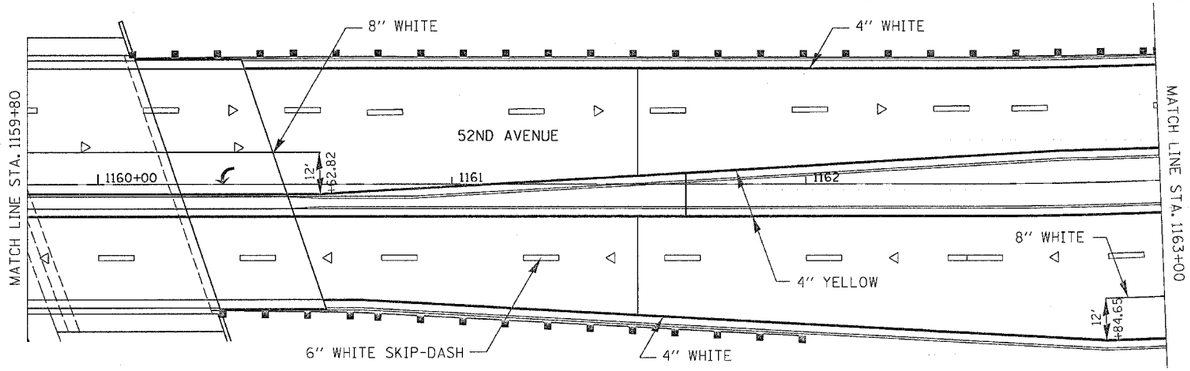
1. PER I.D.O.T. STD. 780001 AND DIST. STD. 44.1
2. RAISED REFLECTIVE PAVEMENT MARKERS PER I.D.O.T. STD. 781001
3. ALL LINES, SKIPS, DASHES SHALL BE STRIPED WITH POLYUREA PAVEMENT MARKING
4. ALL ARROWS SHALL BE WHITE, LARGE SIZED.

RAMPS 1 AND 2 AT BLACKHAWK ROAD PAVEMENT MARKINGS

CONTRACT NO. 64647

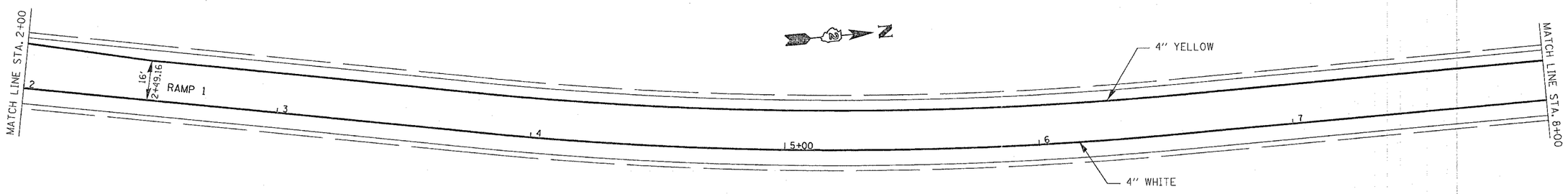
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	211
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

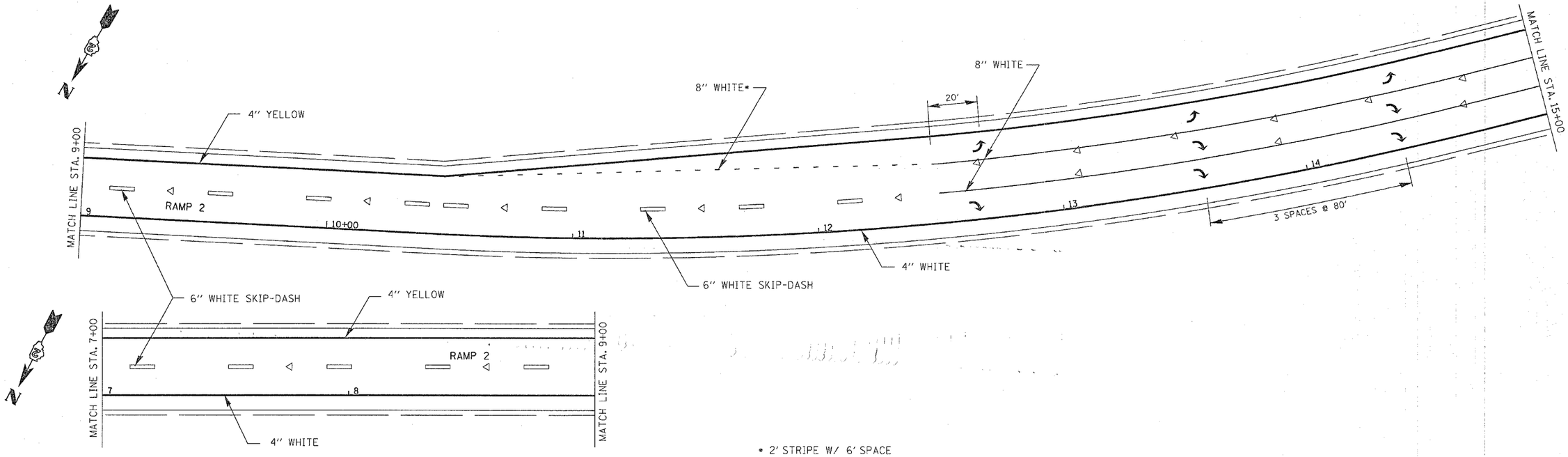
PAVEMENT MARKINGS



PAVEMENT MARKING NOTES

1. PER I.D.O.T. STD. 780001 AND DIST. STD. 44.1
2. RAISED REFLECTIVE PAVEMENT MARKERS PER I.D.O.T. STD. 781001
3. ALL LINES, SKIPS, DASHES SHALL BE STRIPED WITH POLYUREA PAVEMENT MARKING
4. ALL ARROWS SHALL BE WHITE, LARGE SIZED.





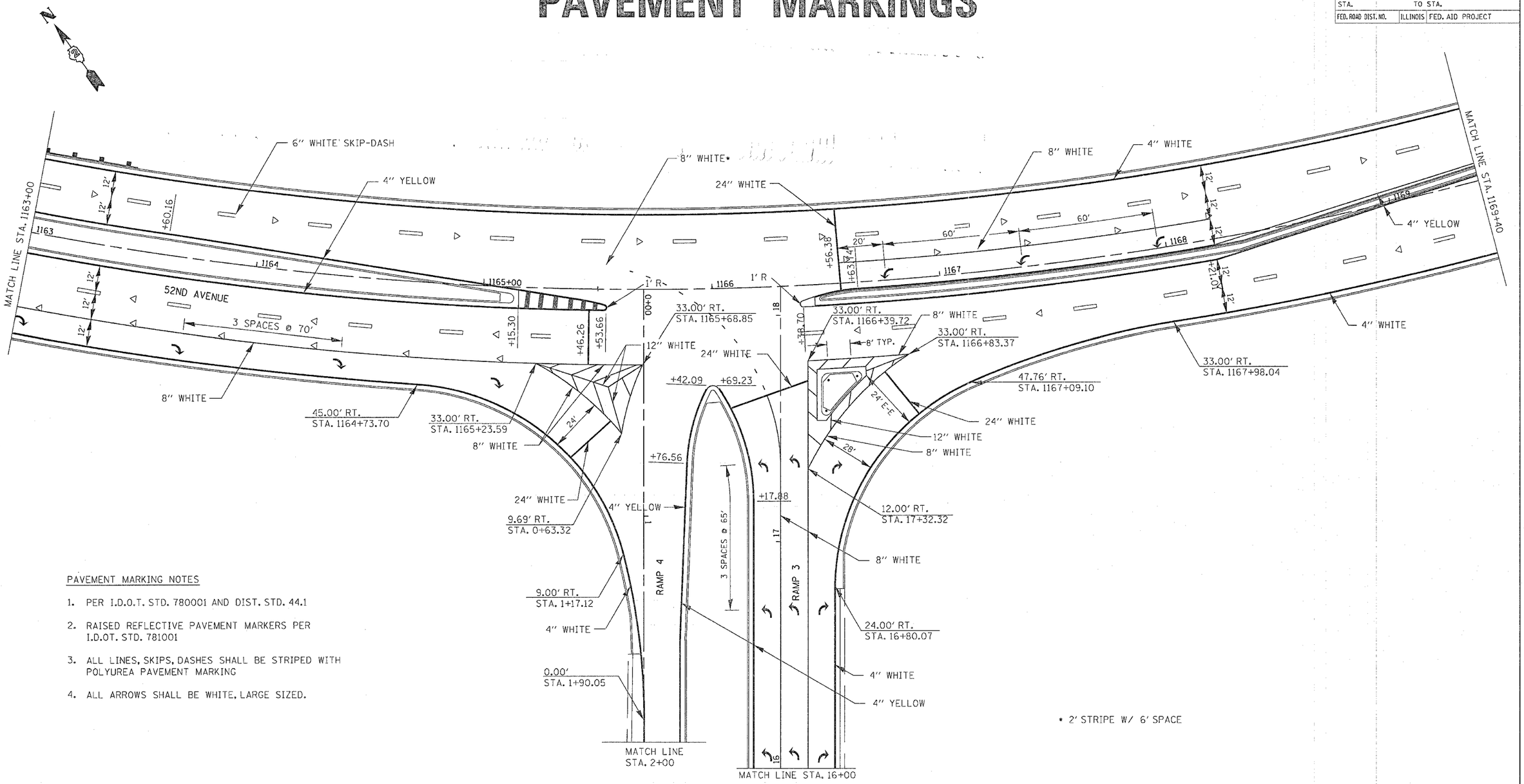
* 2' STRIPE W/ 6' SPACE

52ND AVE., RAMPS 1 AND 2 EXT. PAVEMENT MARKINGS

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	212
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKINGS



PAVEMENT MARKING NOTES

1. PER I.D.O.T. STD. 780001 AND DIST. STD. 44.1
2. RAISED REFLECTIVE PAVEMENT MARKERS PER I.D.OT. STD. 781001
3. ALL LINES, SKIPS, DASHES SHALL BE STRIPED WITH POLYUREA PAVEMENT MARKING
4. ALL ARROWS SHALL BE WHITE, LARGE SIZED.

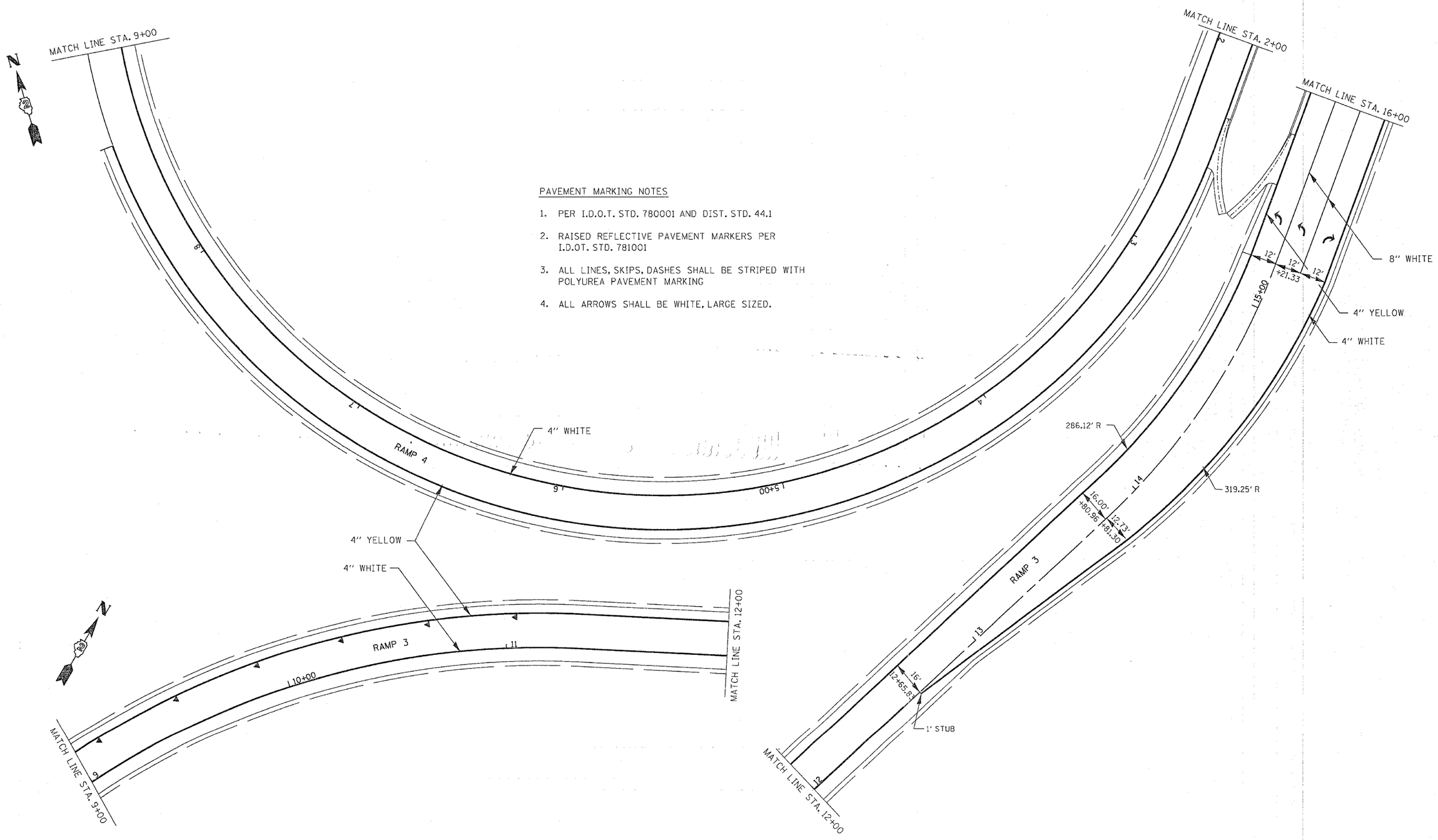
* 2' STRIPE W/ 6' SPACE

RAMPS 3 AND 4 AT 52ND AVE. PAVEMENT MARKINGS

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	213
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKINGS



PAVEMENT MARKING NOTES

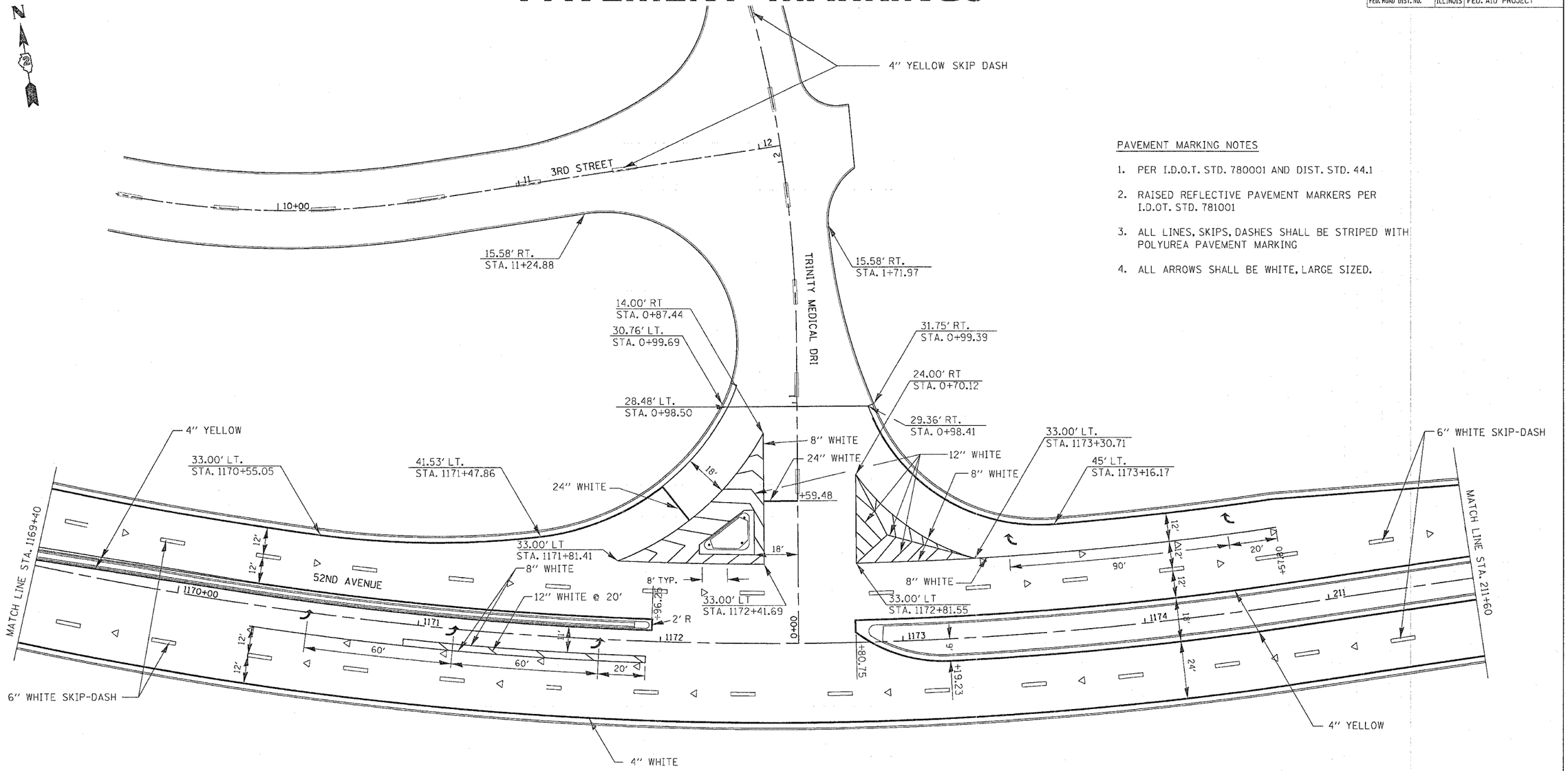
1. PER I.D.O.T. STD. 780001 AND DIST. STD. 44.1
2. RAISED REFLECTIVE PAVEMENT MARKERS PER I.D.O.T. STD. 781001
3. ALL LINES, SKIPS, DASHES SHALL BE STRIPED WITH POLYUREA PAVEMENT MARKING
4. ALL ARROWS SHALL BE WHITE, LARGE SIZED.

RAMPS 3 AND 4 EXT. PAVEMENT MARKINGS

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	214
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKINGS



PAVEMENT MARKING NOTES

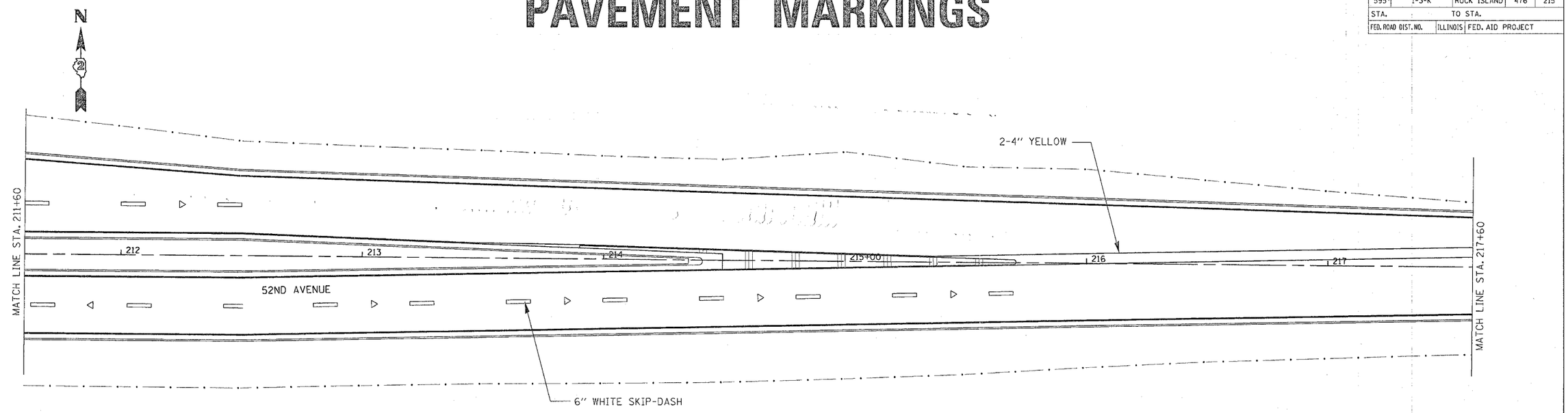
1. PER I.D.O.T. STD. 780001 AND DIST. STD. 44.1
2. RAISED REFLECTIVE PAVEMENT MARKERS PER I.D.O.T. STD. 781001
3. ALL LINES, SKIPS, DASHES SHALL BE STRIPED WITH POLYUREA PAVEMENT MARKING
4. ALL ARROWS SHALL BE WHITE, LARGE SIZED.

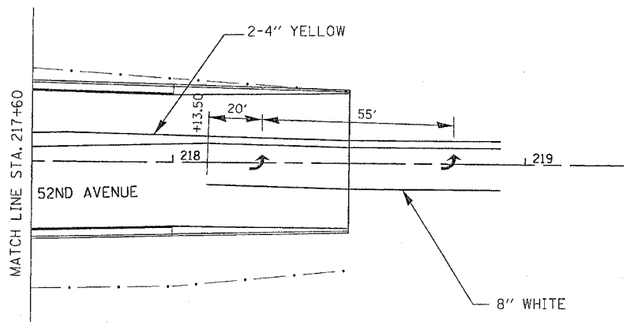
TRINITY DRIVE AT 52ND AVE. PAVEMENT MARKINGS

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	215
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKINGS





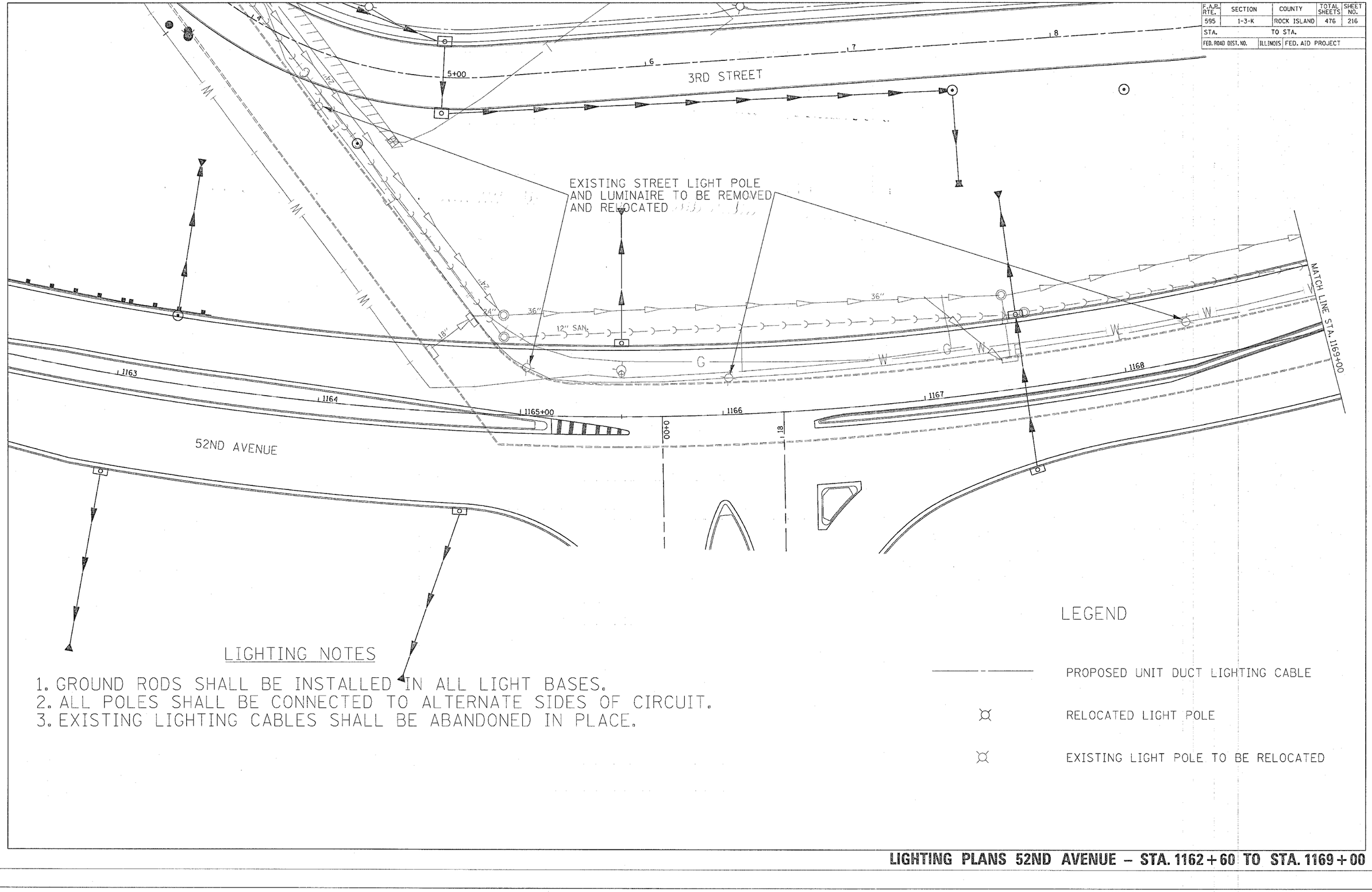
PAVEMENT MARKING NOTES

1. PER I.D.O.T. STD. 780001 AND DIST. STD. 44.1
2. RAISED REFLECTIVE PAVEMENT MARKERS PER I.D.O.T. STD. 781001
3. ALL LINES, SKIPS, DASHES SHALL BE STRIPED WITH POLYUREA PAVEMENT MARKING
4. ALL ARROWS SHALL BE WHITE, LARGE SIZED.

52ND AVE. PAVEMENT MARKINGS

CONTRACT NO. 64647

F.A.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	216
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LIGHTING NOTES

1. GROUND RODS SHALL BE INSTALLED IN ALL LIGHT BASES.
2. ALL POLES SHALL BE CONNECTED TO ALTERNATE SIDES OF CIRCUIT.
3. EXISTING LIGHTING CABLES SHALL BE ABANDONED IN PLACE.

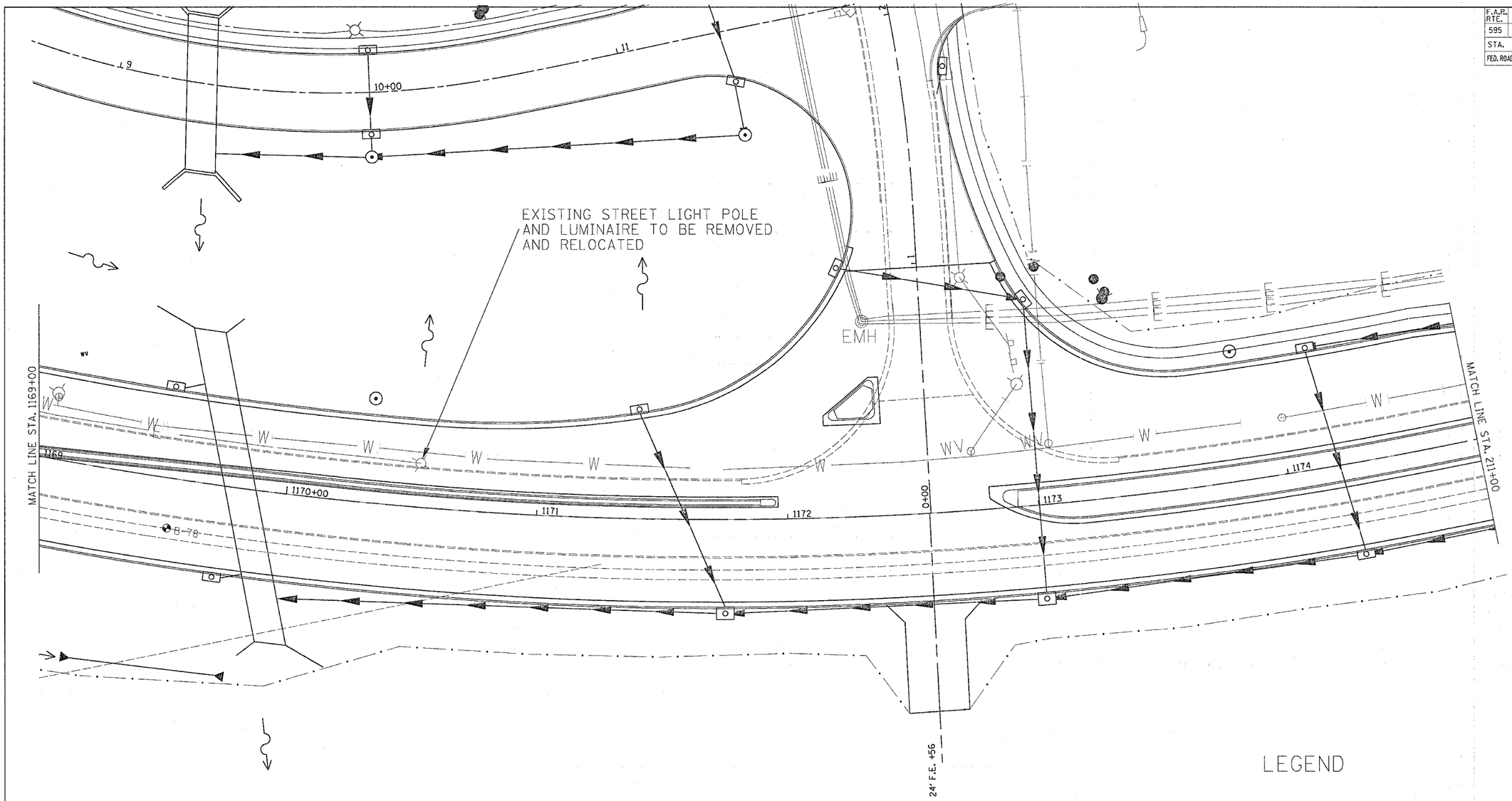
LEGEND

————	PROPOSED UNIT DUCT LIGHTING CABLE
⌘	RELOCATED LIGHT POLE
⌘	EXISTING LIGHT POLE TO BE RELOCATED

LIGHTING PLANS 52ND AVENUE – STA. 1162+60 TO STA. 1169+00

CONTRACT NO. 64647

F.A.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	217
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LIGHTING NOTES

1. GROUND RODS SHALL BE INSTALLED IN ALL LIGHT BASES.
2. ALL POLES SHALL BE CONNECTED TO ALTERNATE SIDES OF CIRCUIT.
3. EXISTING LIGHTING CABLES SHALL BE ABANDONED IN PLACE.

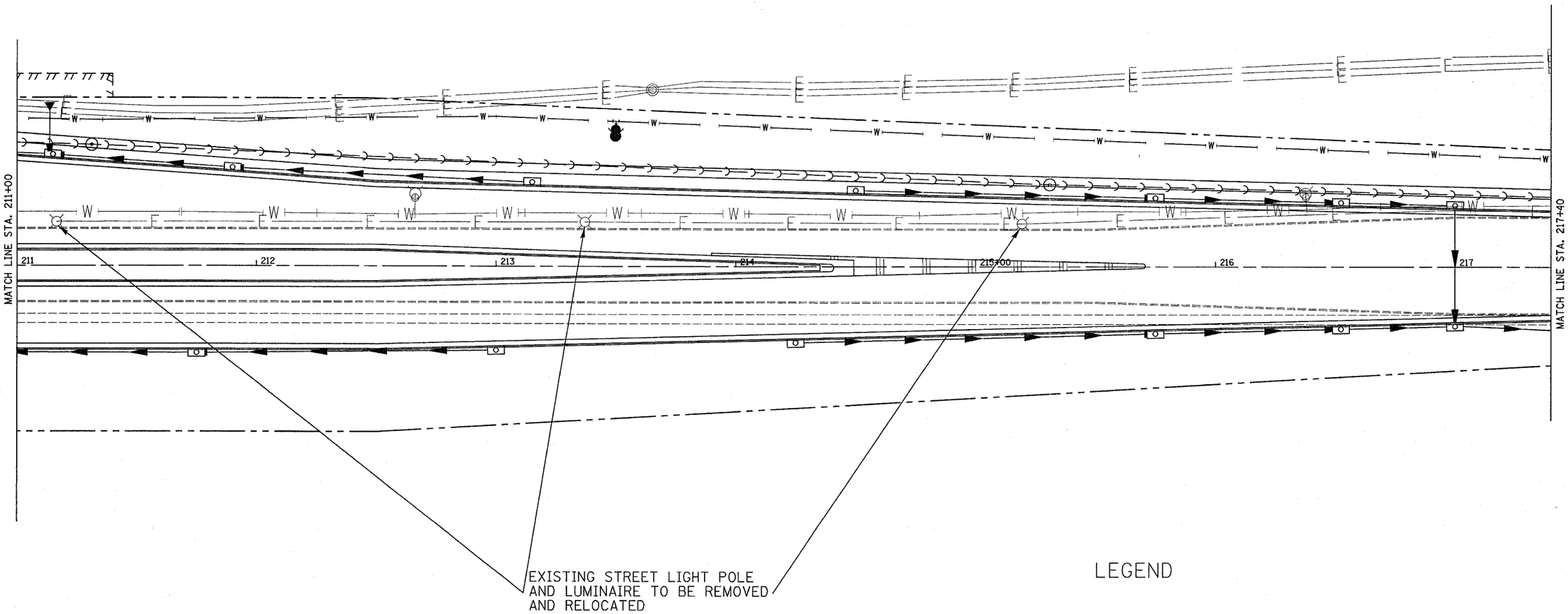
LEGEND

————	PROPOSED UNIT DUCT LIGHTING CABLE
⌧	RELOCATED LIGHT POLE
⌧	EXISTING LIGHT POLE TO BE RELOCATED

LIGHTING PLANS 52ND AVENUE – STA. 1169+00 TO STA. 1174+59.13 BK – STA. 210+82.69 AH TO 211+00

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	I-3-K	ROCK ISLAND	476	218
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LEGEND

PROPOSED UNIT DUCT LIGHTING CABLE

RELOCATED LIGHT POLE

EXISTING LIGHT POLE TO BE RELOCATED

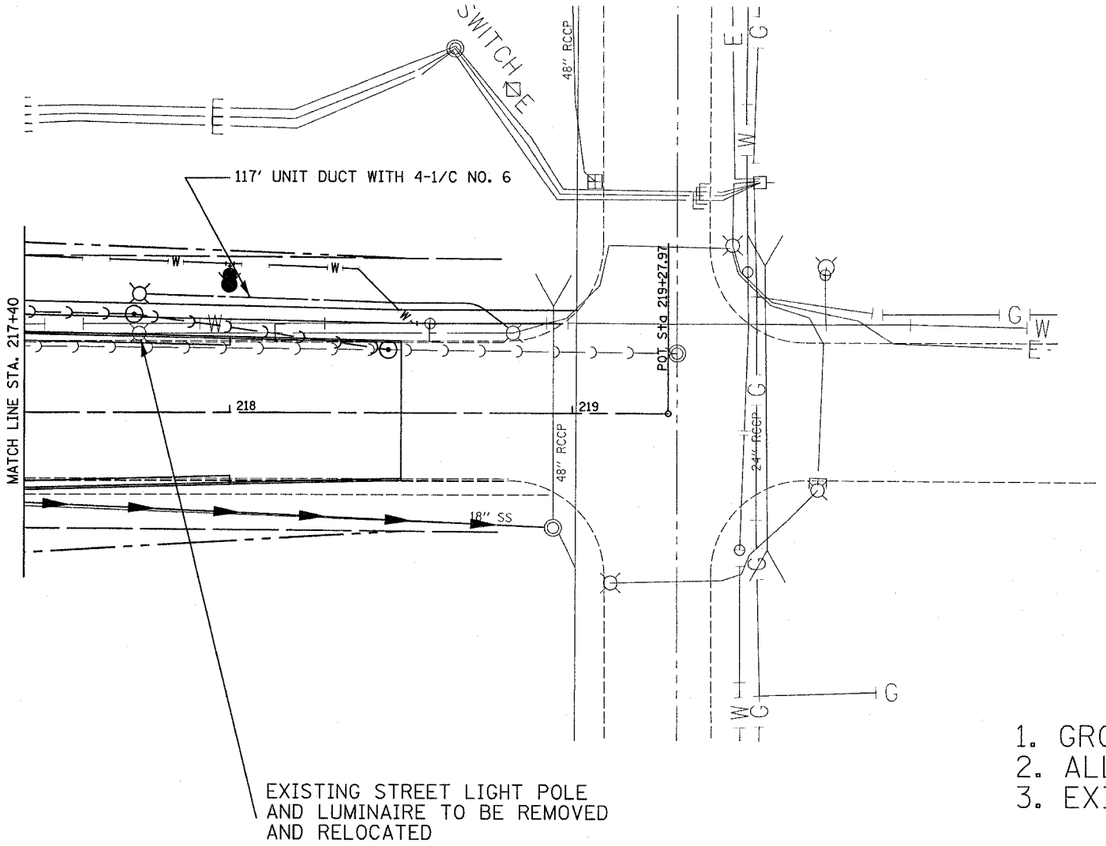
LIGHTING NOTES

1. GROUND RODS SHALL BE INSTALLED IN ALL LIGHT BASES.
2. ALL POLES SHALL BE CONNECTED TO ALTERNATE SIDES OF CIRCUIT.
3. EXISTING LIGHTING CABLES SHALL BE ABANDONED IN PLACE.

LIGHTING PLANS 52ND AVENUE – STA. 211+00 TO STA. 217+40

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	219
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



POLE NO.	EXISTING POLE LOCATION	RELOCATED POLE LOCATION
1	26′ RT. STA. 4+51 (3RD ST.)	29′ LT. STA. 4+54 (3RD ST.)
2	24′ LT. STA. 1165+02 (52ND AVE.)	26′ LT. STA. 6+48 (3RD ST.)
3	18′ LT. STA. 1166+03 (52ND AVE.)	26′ LT. STA. 8+15 (3RD ST.)
4	19′ LT. STA. 1168+34 (52ND AVE.)	24′ LT. STA. 9+95 (3RD ST.)
5	18′ LT. STA. 1170+51 (52ND AVE.)	43′ LT. STA. 11+65 (3RD ST.)
6	18′ LT. STA. 211+17 (52ND AVE.)	MOLINE CITY GARAGE
7	18′ LT. STA. 213+37 (52ND AVE.)	MOLINE CITY GARAGE
8	18′ LT. STA. 215+19 (52ND AVE.)	MOLINE CITY GARAGE
9	23′ LT. STA. 217+73 (52ND AVE.)	34′ LT. STA. 217+73 (52ND AVE.)

LIGHTING NOTES

1. GROUND RODS SHALL BE INSTALLED IN ALL LIGHT BASES.
2. ALL POLES SHALL BE CONNECTED TO ALTERNATE SIDES OF CIRCUIT.
3. EXISTING LIGHTING CABLES SHALL BE ABANDONED IN PLACE.

LEGEND

PROPOSED UNIT DUCT LIGHTING CABLE

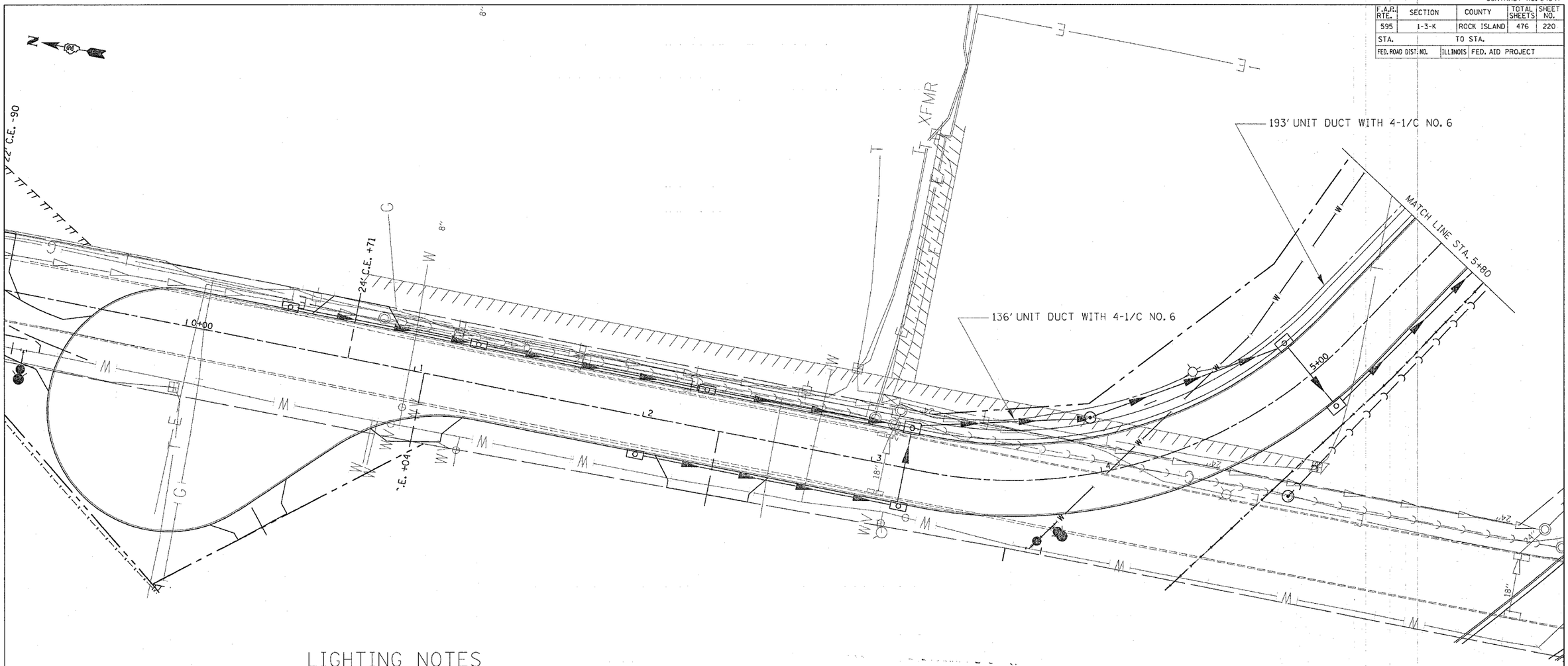
RELOCATED LIGHT POLE

EXISTING LIGHT POLE TO BE RELOCATED

LIGHTING PLANS 52ND AVENUE – STA. 217+40 TO STA. 219+27.97

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	220
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LIGHTING NOTES

1. GROUND RODS SHALL BE INSTALLED IN ALL LIGHT BASES.
2. ALL POLES SHALL BE CONNECTED TO ALTERNATE SIDES OF CIRCUIT.
3. EXISTING LIGHTING CABLES SHALL BE ABANDONED IN PLACE.

LEGEND

———	PROPOSED UNIT DUCT LIGHTING CABLE
⌧	RELOCATED LIGHT POLE
⌧	EXISTING LIGHT POLE TO BE RELOCATED

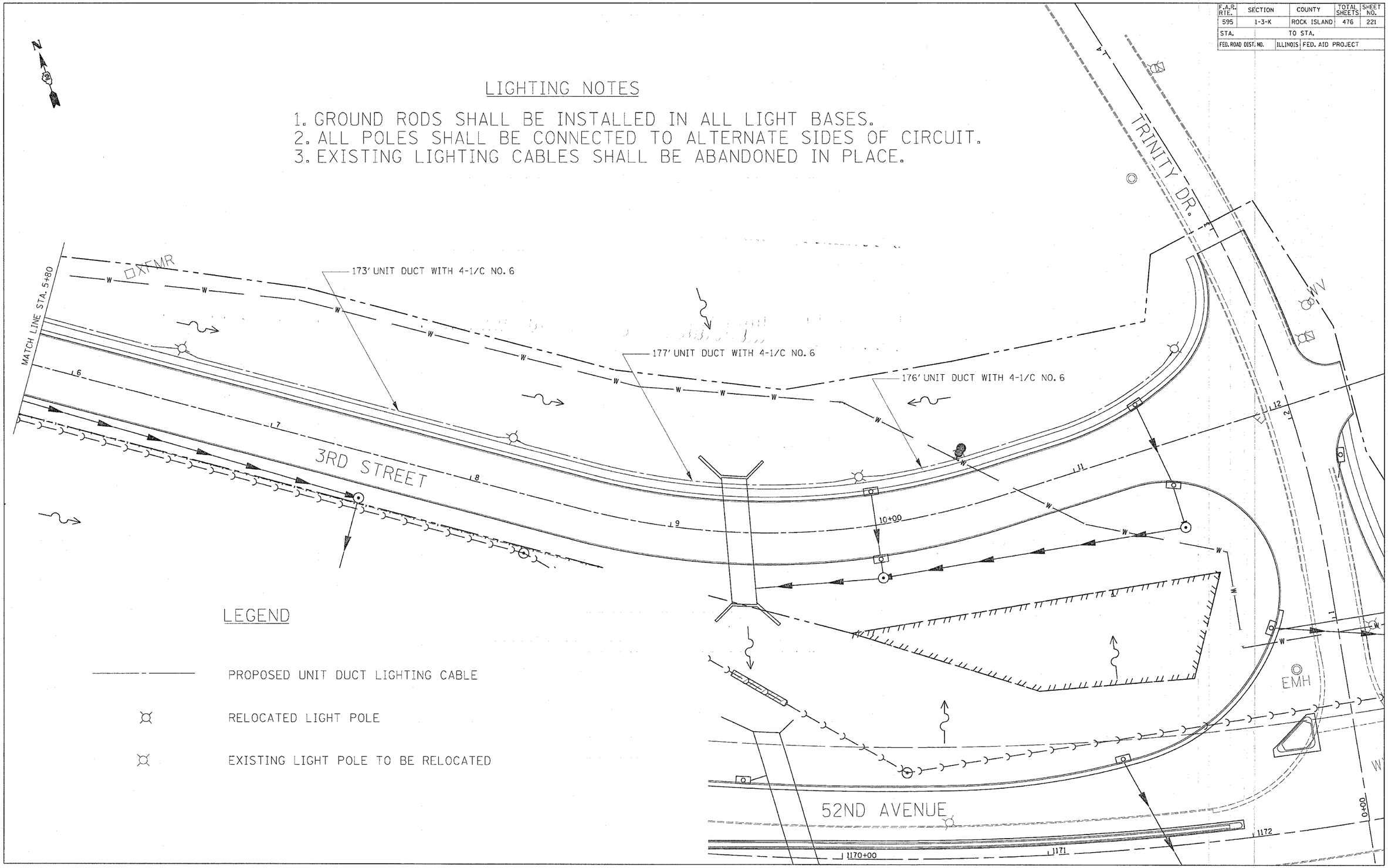
LIGHTING PLAN 3RD STREET – STA. 0+00 TO STA. 5+80

CONTRACT NO. 64647

F.A.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	221
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

LIGHTING NOTES

1. GROUND RODS SHALL BE INSTALLED IN ALL LIGHT BASES.
2. ALL POLES SHALL BE CONNECTED TO ALTERNATE SIDES OF CIRCUIT.
3. EXISTING LIGHTING CABLES SHALL BE ABANDONED IN PLACE.



LEGEND

PROPOSED UNIT DUCT LIGHTING CABLE

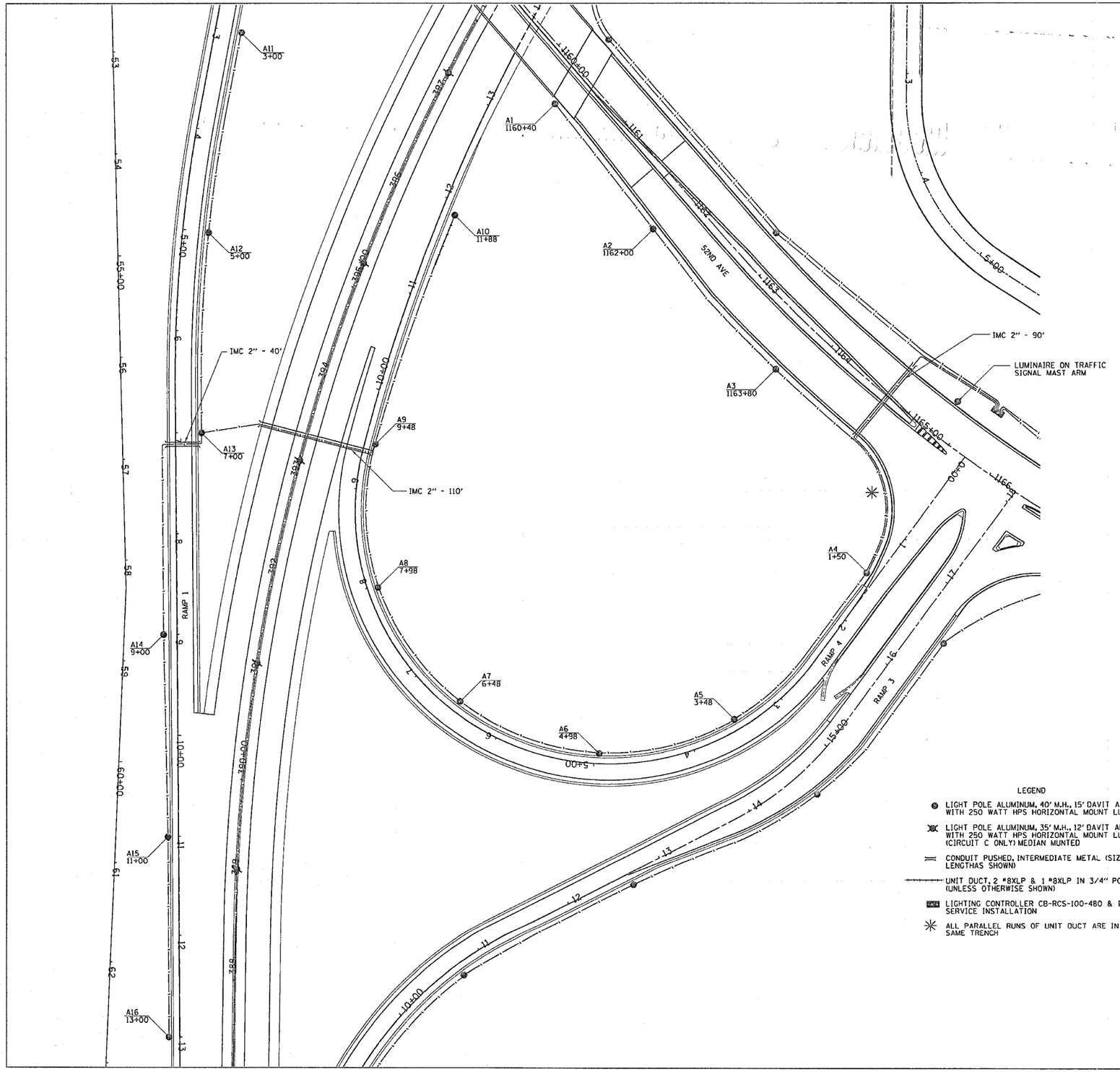
RELOCATED LIGHT POLE

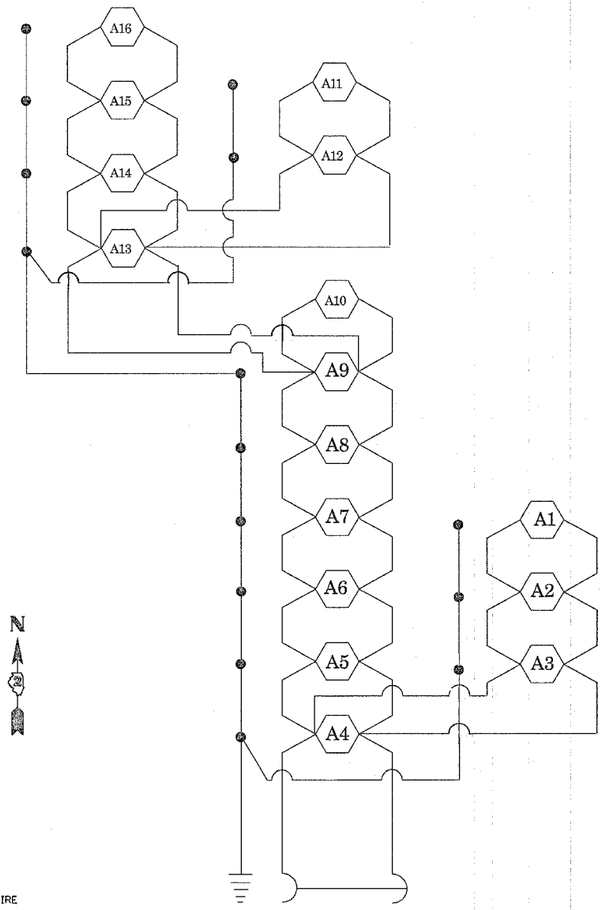
EXISTING LIGHT POLE TO BE RELOCATED

LIGHTING PLAN 3RD STREET – STA. 5+80 TO STA. 12+00

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	222
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





LEGEND

- LIGHT POLE ALUMINUM, 40' M.H., 15' DAVIT ARM WITH 250 WATT HPS HORIZONTAL MOUNT LUMINAIRE
- LIGHT POLE ALUMINUM, 35' M.H., 12' DAVIT ARM- TWIN WITH 250 WATT HPS HORIZONTAL MOUNT LUMINAIRE (CIRCUIT C ONLY) MEDIAN MUNTED
- CONDUIT PUSHED, INTERMEDIATE METAL (SIZE AND LENGTHAS SHOWN)
- UNIT DUCT, 2 #8XLP & 1 #8XLP IN 3/4" POLYETHELYNE (UNLESS OTHERWISE SHOWN)
- LIGHTING CONTROLLER CB-RCS-100-480 & ELECTRIC SERVICE INSTALLATION
- ALL PARALLEL RUNS OF UNIT DUCT ARE IN THE SAME TRENCH

CIRCUIT A

NOTE:
OFFSET PLACEMENT OF LIGHT POLES SHALL BE AS A RESULT OF THE LUMINAIRE BEING IN LINE WITH THE EDGE OF PAVEMENT OR AS DIRECTED BY THE ENGINEER.

QUANTITY OF THE "BREAKAWAY DEVICE, COUPLING, SS SCREEN" MAY BE REDUCED WHERE LIGHT POLES ARE PLACED BEHIND GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

50 SCALE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS
CIRCUIT A

PLOT DATE = Wed Dec 22 12:59:39 2021
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PLOT SCALE = 50.0000 ' / IN.
REFERENCE = #REF#

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	223
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

MATCH LINE CIRCUIT B

LUMINAIRE ON TRAFFIC SIGNAL MAST ARM

IMC 2"-45'

IMC 2"-110'

IMC 2"-55'

IMC 2"-60'

IMC 2"-110'

B12 1149+53

B11 1153+67

B14 1150+62

B13 1148+45

B15 1155+15

B16 1+00

B4 15+95

B3 1157+90

B7 10+25

B6 12+15

B5 14+05

B10 4+25

B9 6+25

B8 8+25

B2 1160+30

B1 1162+80

52ND AVE

RAMP 1

RAMP 2

N

B13 B14 B15 B16 B12 B11 B4 B3 B10 B9 B8 B7 B6 B5 B2 B1

CIRCUIT B

LEGEND

- LIGHT POLE ALUMINUM, 40' M.H., 15' DAVIT ARM WITH 250 WATT HPS HORIZONTAL MOUNT LUMINAIRE
- LIGHT POLE ALUMINUM, 35' M.H., 12' DAVIT ARM- TWIN WITH 250 WATT HPS HORIZONTAL MOUNT LUMINAIRE (CIRCUIT C ONLY) MEDIAN MUNTED
- CONDUIT PUSHED, INTERMEDIATE METAL (SIZE AND LENGTHAS SHOWN)
- UNIT DUCT, 2 "8XLP & 1 "8XLP IN 3/4" POLYETHELYNE (UNLESS OTHERWISE SHOWN)
- LIGHTING CONTROLLER CB-RCS-100-480 & ELECTRIC SERVICE INSTALLATION
- ALL PARALLEL RUNS OF UNIT DUCT ARE IN THE SAME TRENCH

NOTE:
OFFSET PLACEMENT OF LIGHT POLES SHALL BE AS A RESULT OF THE LUMINAIRE BEING IN LINE WITH THE EDGE OF PAVEMENT OR AS DIRECTED BY THE ENGINEER.

QUANTITY OF THE "BREAKAWAY DEVICE, COUPLING, SS SCREEN" MAY BE REDUCED WHERE LIGHT POLES ARE PLACED BEHIND GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

50 SCALE

ILLINOIS DEPARTMENT OF TRANSPORTATION

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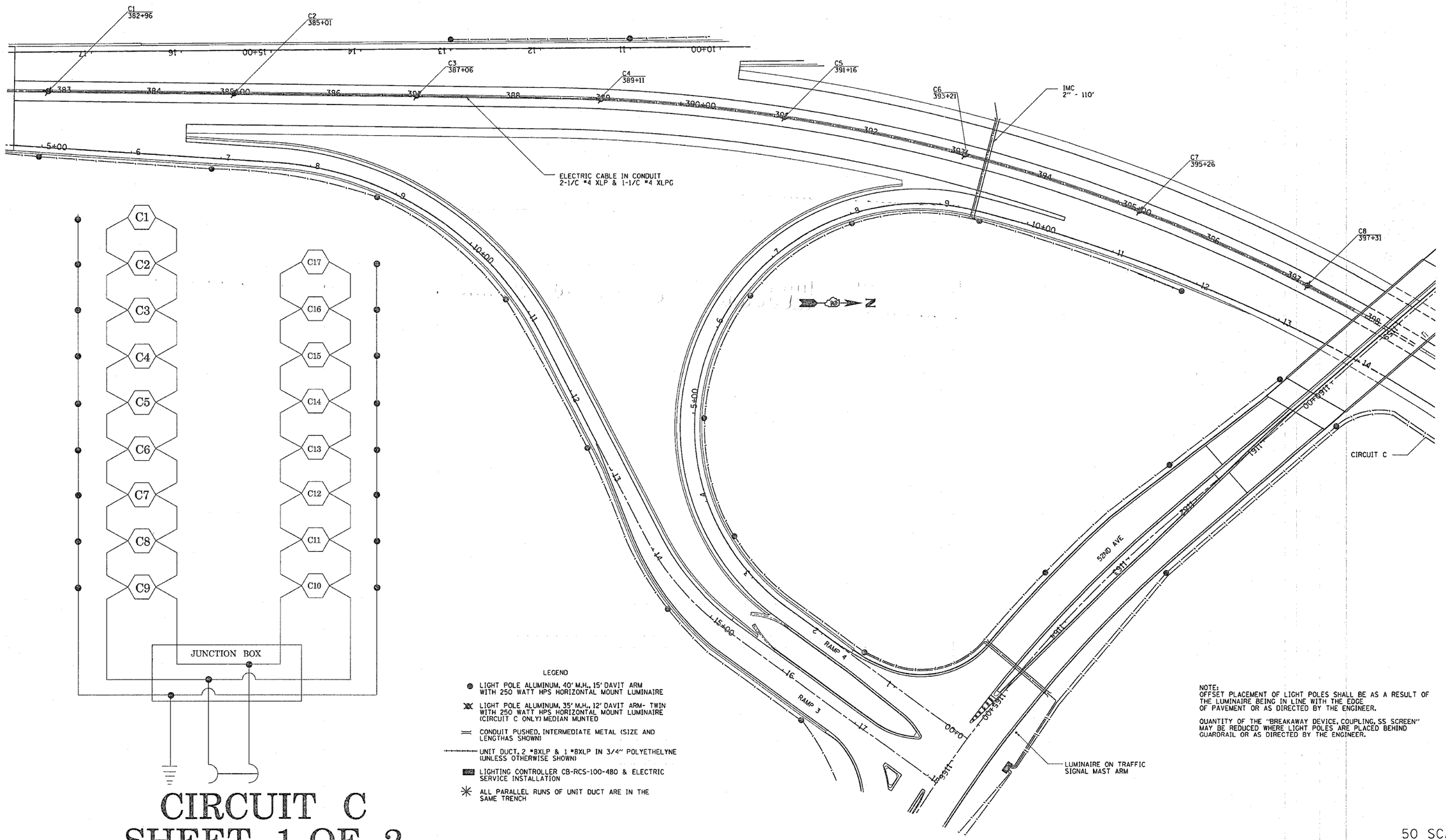
REFERENCE = REF

LIGHTING DETAILS
CIRCUIT B

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	224
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LEGEND

- LIGHT POLE ALUMINUM, 40' M.H., 15' DAVIT ARM WITH 250 WATT HPS HORIZONTAL MOUNT LUMINAIRE
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- ALL PARALLEL RUNS OF UNIT DUCT ARE IN THE SAME TRENCH

NOTE:
OFFSET PLACEMENT OF LIGHT POLES SHALL BE AS A RESULT OF THE LUMINAIRE BEING IN LINE WITH THE EDGE OF PAVEMENT OR AS DIRECTED BY THE ENGINEER.

QUANTITY OF THE "BREAKAWAY DEVICE, COUPLING, SS SCREEN" MAY BE REDUCED WHERE LIGHT POLES ARE PLACED BEHIND GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

50 SCALE

ILLINOIS DEPARTMENT OF TRANSPORTATION

CIRCUIT C
SHEET 1 OF 2

LIGHTING DETAILS
CIRCUIT C

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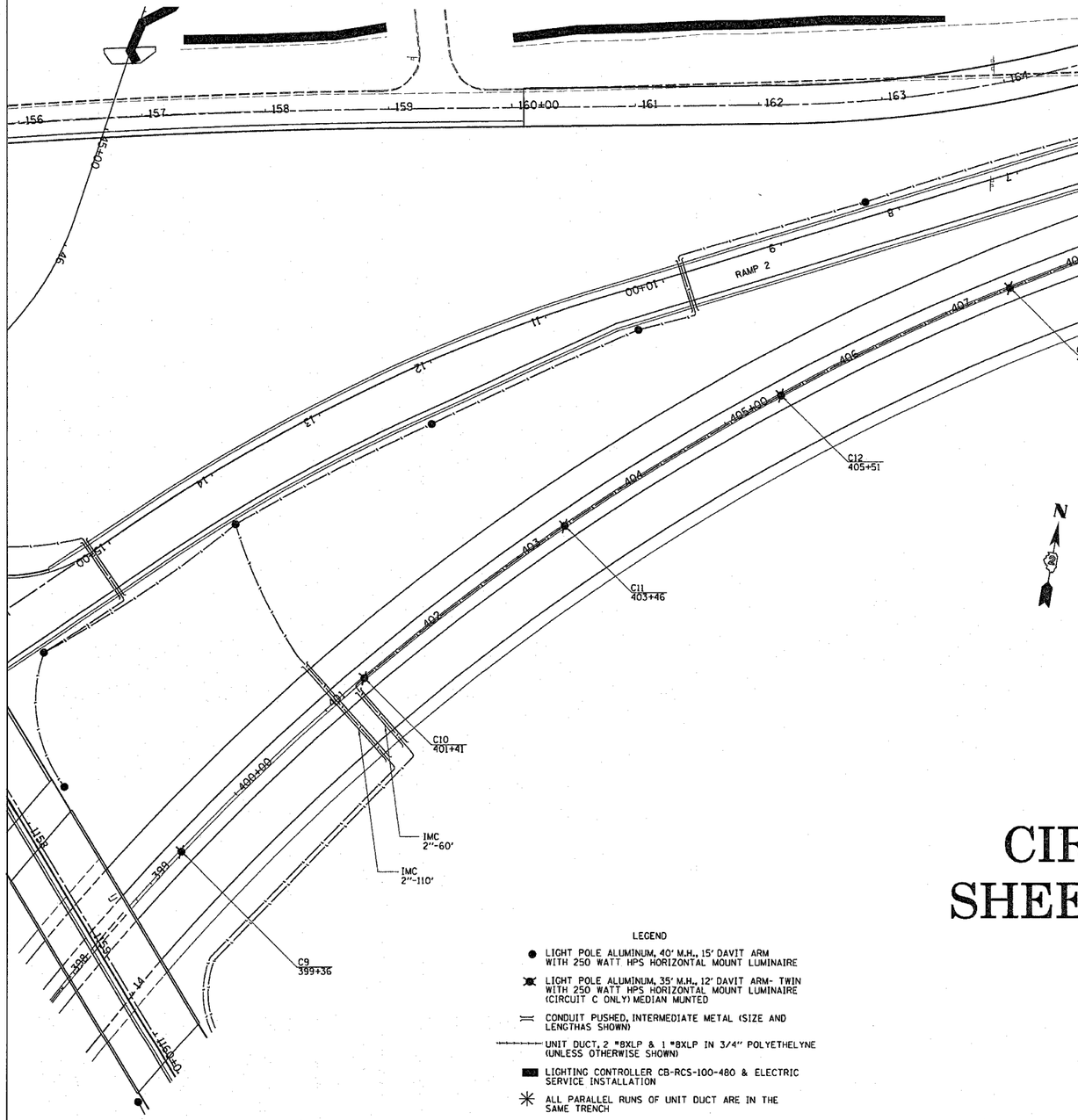
REFERENCE = REF

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	225
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PAY ITEMS	DESCRIPTION	UNIT	QUANTITY
81600215	UD 2# 8 XLP, 1# 8 XLPG 3/4" P	FOOT	11957
81600415	UD 2# 4XLP, 1# 4 XLPG 1" P	FOOT	860
81702410	ELECTRIC CABLE IN CONDUIT. 600V (XLP-TYPE USE)3-1/C NO. 4	FOOT	3472
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	10312
81020500	CONDUIT PUSHED, 2" DIA INTERMEDIATE METAL	FOOT	580
81020700	CONDUIT PUSHED, 3" DIA INTERMEDIATE METAL	FOOT	75
81014600	CONDUIT IN TRENCH, 2" DIA INTERMEDIATE METAL	FOOT	3280
81200230	CONDUIT EMBEDDED IN STRUCTURE, 2" DIA, PVC	FOOT	100
83600355	LIGHT POLE FOUNDATION, METAL, 15" B.C., 8"X6"	EACH	49
83600300	LIGHT POLE FOUNDATION, 30" DIA	FOOT	136
83800650	BREAKAWAY DEVICE, COUPLING, SS SCREEN	EACH	196
#2001296	LIGHT POLE, ALUMINUM. 35 FT M.H., 12 FT DAVIT ARM-TWIN	EACH	17
83002600	LIGHT POLE, ALUMINUM, 40 FT M.H., 15 FT DAVIT ARM	EACH	49
82102250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT 250 WATT	EACH	83
#2001297	JUNCTION BOX, STAINLESS STEEL, EMBEDDED IN STRUCTURE, 18"X4"X10"	EACH	4
82500540	LIGHTING CONTROLLER CB-RCS-100-480	EACH	1
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1

LEGEND

- LIGHT POLE ALUMINUM, 40' M.H., 15' DAVIT ARM WITH 250 WATT HPS HORIZONTAL MOUNT LUMINAIRE
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- CONDUIT PUSHED, INTERMEDIATE METAL (SIZE AND LENGTHAS SHOWN)
- UNIT DUCT, 2 #8XLP & 1 #8XLP IN 3/4" POLYETHELYNE (UNLESS OTHERWISE SHOWN)
- LIGHTING CONTROLLER CB-RCS-100-480 & ELECTRIC SERVICE INSTALLATION
- ALL PARALLEL RUNS OF UNIT DUCT ARE IN THE SAME TRENCH

CIRCUIT C
SHEET 2 OF 2

NOTE:
OFFSET PLACEMENT OF LIGHT POLES SHALL BE AS A RESULT OF THE LUMINAIRE BEING IN LINE WITH THE EDGE OF PAVEMENT OR AS DIRECTED BY THE ENGINEER.

QUANTITY OF THE "BREAKAWAY DEVICE, COUPLING, SS SCREEN" MAY BE REDUCED WHERE LIGHT POLES ARE PLACED BEHIND GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

50 SCALE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

CIRCUIT C

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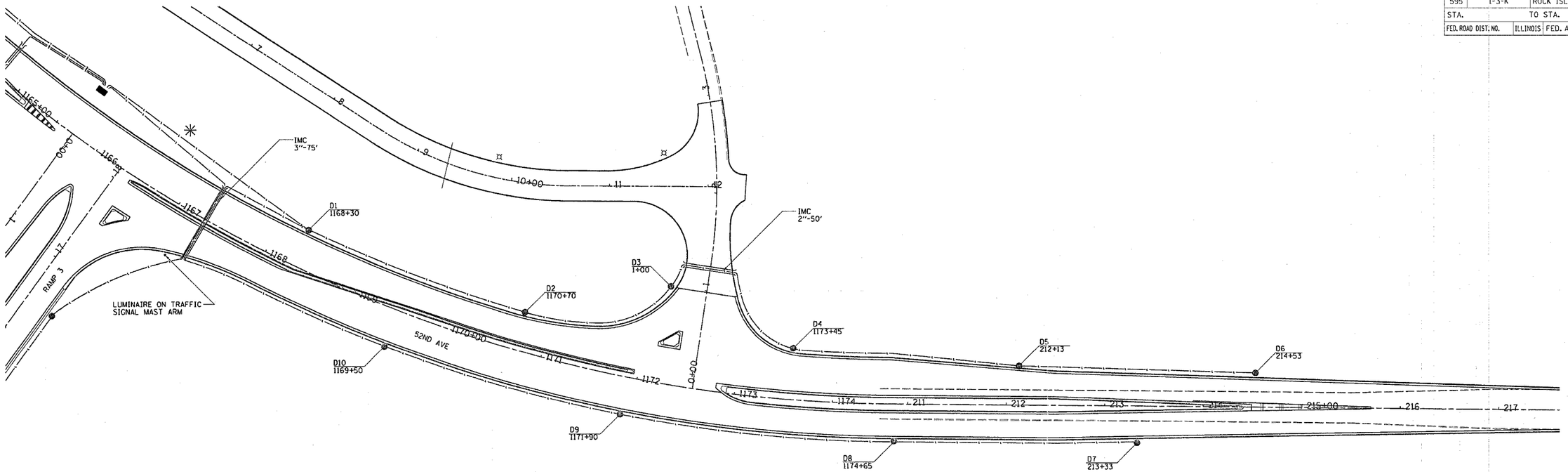
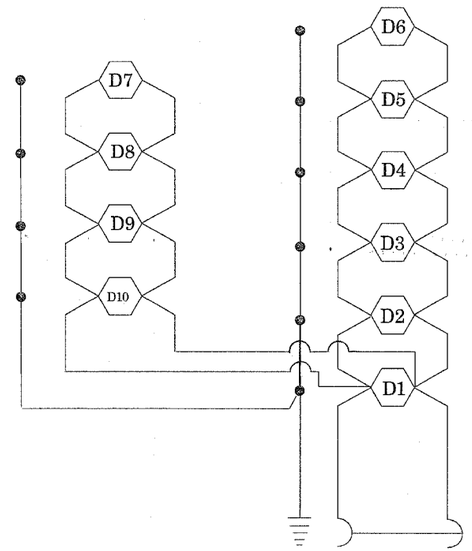
PLOT SCALE = 50.0000 '/ IN.
REFERENCE = REF

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	226
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





CIRCUIT D

LEGEND

- LIGHT POLE ALUMINUM, 40' M.H., 15' DAVIT ARM WITH 250 WATT HPS HORIZONTAL MOUNT LUMINAIRE
- LIGHT POLE ALUMINUM, 35' M.H., 12' DAVIT ARM- TWIN WITH 250 WATT HPS HORIZONTAL MOUNT LUMINAIRE (CIRCUIT C ONLY) MEDIAN MUNTED
- CONDUIT PUSHED, INTERMEDIATE METAL (SIZE AND LENGTHAS SHOWN)
- UNIT DUCT, 2 #8XLP & 1 #8XLP IN 3/4" POLYETHELYNE (UNLESS OTHERWISE SHOWN)
- LIGHTING CONTROLLER CB-RCS-100-480 & ELECTRIC SERVICE INSTALLATION
- ALL PARALLEL RUNS OF UNIT DUCT ARE IN THE SAME TRENCH

NOTE:
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QUANTITY OF THE "BREAKAWAY DEVICE, COUPLING, SS SCREEN" MAY BE REDUCED WHERE LIGHT POLES ARE PLACED BEHIND GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

50 SCALE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

CIRCUIT D

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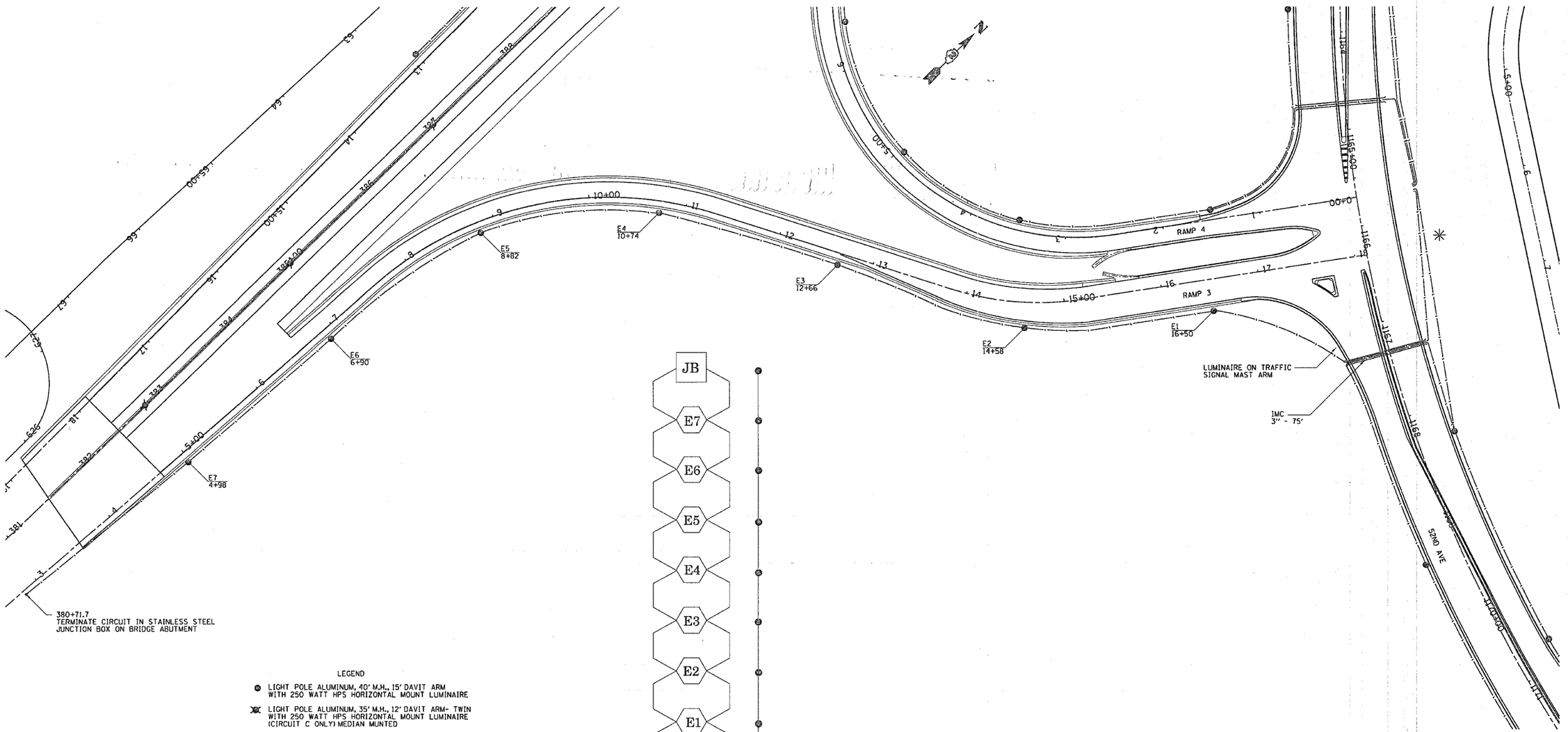
REFERENCE = REF

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	227
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LEGEND

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- ALL PARALLEL RUNS OF UNIT DUCT ARE IN THE SAME TRENCH

NOTE:
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QUANTITY OF THE "BREAKAWAY DEVICE, COUPLING, SS SCREEN" MAY BE REDUCED WHERE LIGHT POLES ARE PLACED BEHIND GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

CIRCUIT E

50 SCALE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS
CIRCUIT E

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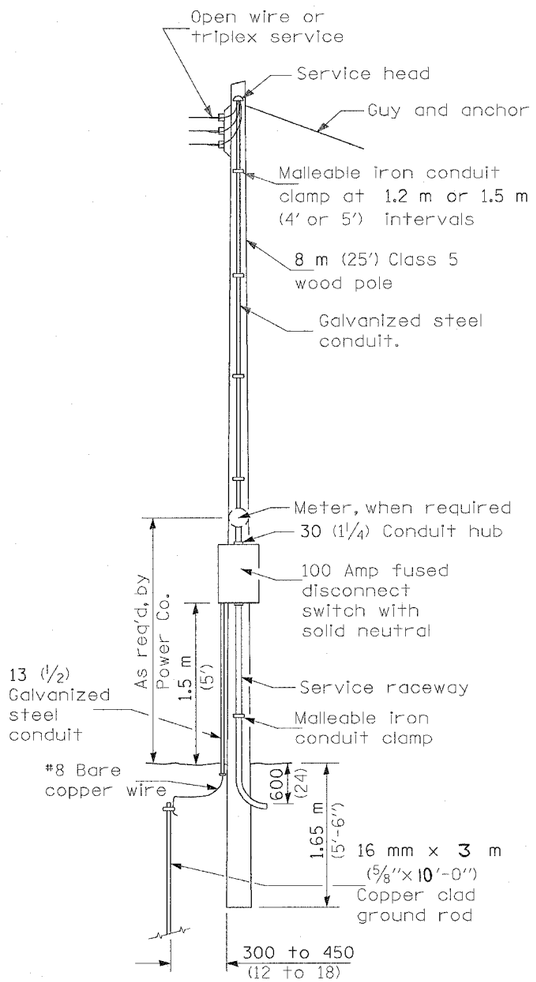
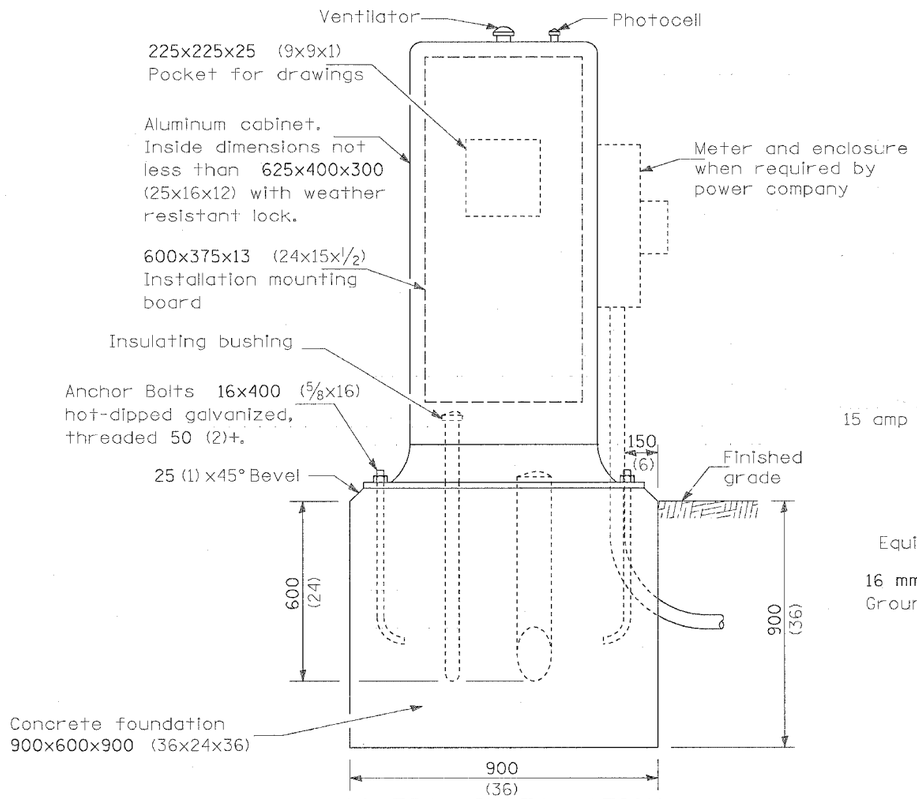
PLOT SCALE = 50.0000 ' / IN.
REFERENCE = REF

64647
228

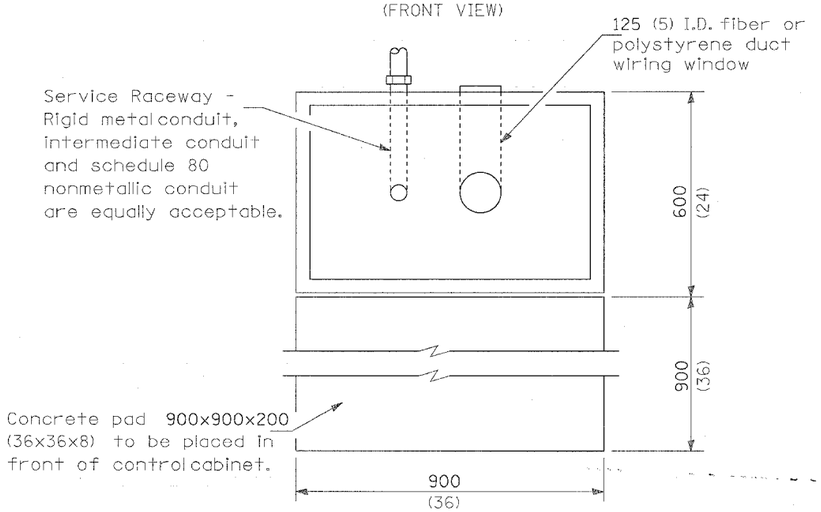


SERVICE POLE



CONTROL INSTALLATION

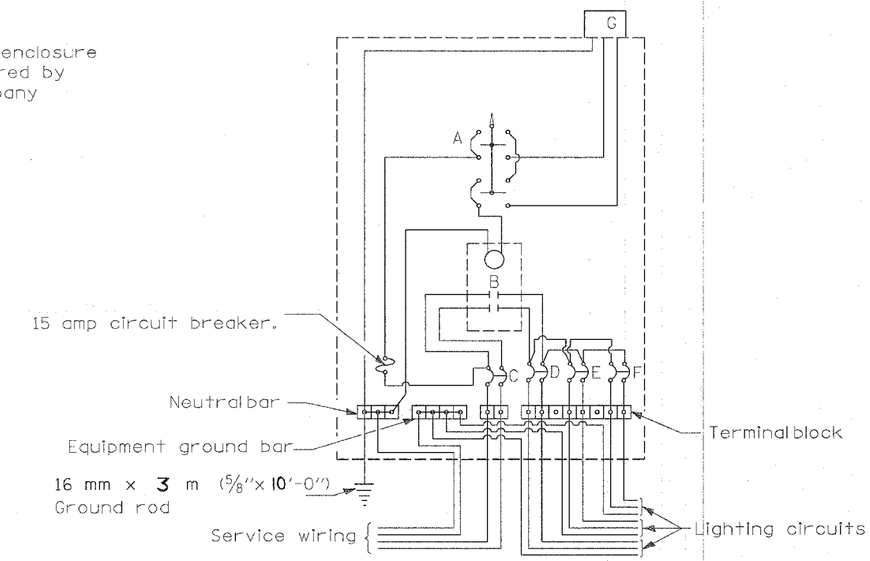
(FRONT VIEW)



FOUNDATION

(TOP VIEW)

A Selector switch
B 2 Pole 100 amp contactor
C 2 Pole 100 amp service disconnect
D,E,F 2 Pole 30 amp breakers
G Photocell w/integral surge arrester



WIRING DIAGRAM

GENERAL NOTES

Locate service pole and control installation adjacent to R.O.W. line with a minimum distance of 9 m (30') from the edge of pavement. Exact location shall be established by the Engineer.

The underground service entrance wiring shall not exceed 46 m (150'). Total aerial and underground service between the control installation and primary transformer shall not exceed 76 m (250').

Raceways shall terminate 75 (3) above top of concrete foundation.

For 480 V. systems, a 480/120 V. control transformer will be required.

All dimensions are in millimeters unless otherwise shown.

☐ 240 V. SERVICE
☒ 480 V. SERVICE

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	228
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DATE	REVISIONS

CONTROL INSTALLATION TYPE CB-RCS-100

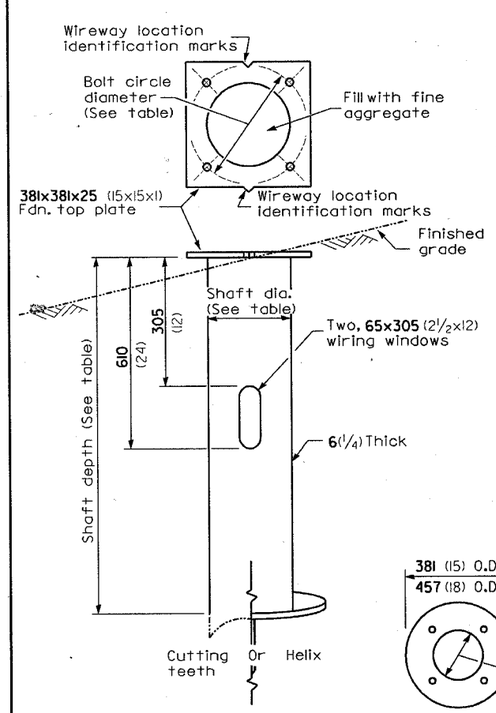
LGT005.DGN

LIGHT POLE MOUNTING HEIGHT	BOLT CIRCLE DIAMETER	STEEL FOUNDATION SHAFT DIAMETER	STEEL FOUNDATION SHAFT DEPTH	CONCRETE FOUNDATION SHAFT DIAMETER	CONCRETE FOUNDATION SHAFT DEPTH	CONCRETE FOUNDATION ANCHOR ROD LENGTH *
≤9.1 m (30')	292 mm (11½")	220 mm (8⅝")	1.83 m (6'-0")	610mm (24")	1.52 m (5'-0")	1.45 m (4'-9")
9.4 m - 10.7 m (31'-35')	292 mm (11½")	220 mm (8⅝")	1.83 m (6'-0")	610mm (24")	1.67 m (5'-6")	1.60 m (5'-3")
10.9 m - 12.2 m (36'-40')	381 mm (15")	220 mm (8⅝")	1.83 m ** (6'-0")	610mm (24")	1.83 m (6'-0")	1.75 m (5'-9")
12.5 m - 13.7 m (41'-45')	381 mm (15")	220 mm (8⅝")	1.83 m ** (6'-0")	610mm (24")	1.98 m (6'-6")	1.90 m (6'-3")
14.0 m - 15.2 m (46'-50')	381 mm (15")	220 mm (8⅝")	2.44 m (8'-0")	610mm (24")	2.13m (7'-0")	2.00 m (6'-9")

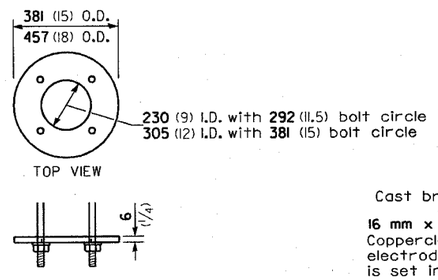
* Length does not include **100** (4) hook
** **220 mm x 2.44 m** (8⅝"x 8'-0") for Twin luminaires

Notes:

All foundations are designed to be located on slopes not exceeding 2:1 where soils have an unconfined compressive strength of at least 1.0 TSF. The contractor shall verify the soil strength during drilling for concrete foundations or by monitoring installation resistance on steel foundations and notify the engineer if other conditions are encountered.

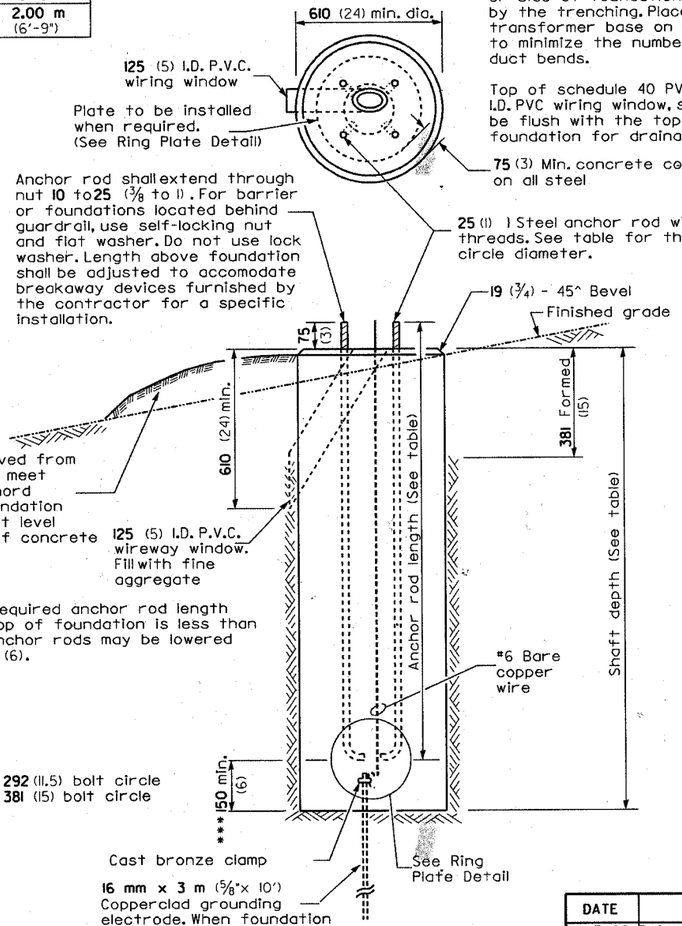


STEEL FOUNDATION



RING PLATE DETAIL

(When rock is encountered and foundation is shallower)



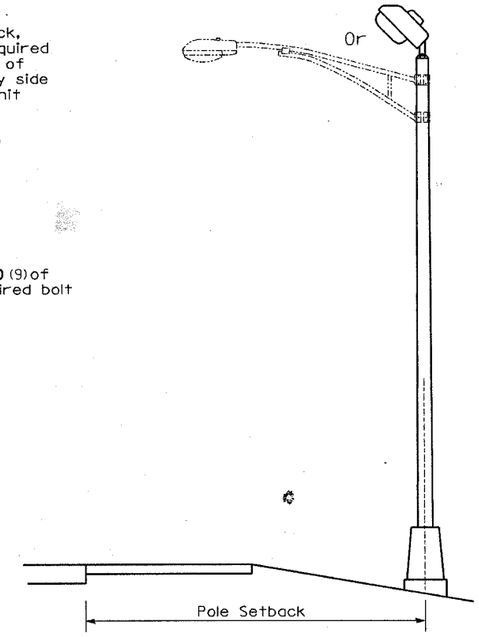
*** If the required anchor rod length above top of foundation is less than **75** (3), anchor rods may be lowered below **150** (6).

CONCRETE FOUNDATION

Notes:

Wireway may be on front, back, or side of foundation as required by the trenching. Place door of transformer base on wireway side to minimize the number of unit duct bends.

Top of schedule 40 PVC **125** (5) I.D. PVC wiring window, shall be flush with the top of foundation for drainage.



Pole Foundation Setback:

For horizontal mounted luminaires, setback shall be a minimum of **6.1 m** (20') from edge of pavement.

For vertical mount luminaires, setback shall be a minimum of **9 m** (30') from edge of pavement. Poles shall be located **1.5 m** (5') behind guardrail or other protective barriers, or as directed by the Engineer.

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

DATE	REVISIONS
10/7/02	Bridge Office depth calc.

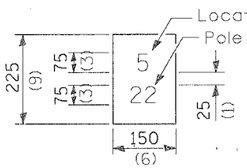
LIGHT POLE FOUNDATION

LGT007-836

64647
230

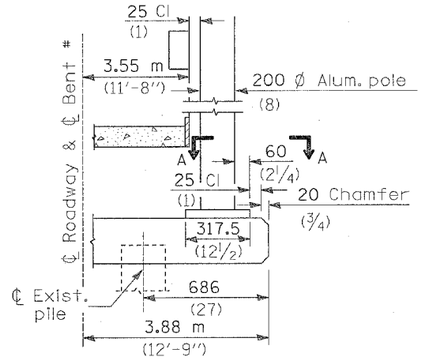
"Install and orient arm bracket over pole tenon and firmly hand tighten the two set screws. Use third hole in arm bracket as a guide to drill a 8.3 (21/64) diameter hole through tenon. Install and tighten self-tapping screw. Tighten set screws an additional (1/4 to 3/8) turn with hex key (not provided). Install locknuts on set screws if threaded projection allows."

Pole shall meet AASHTO Standard Specifications for 128.72 km (80 mph) wind loading and 40.82 kg (90 lb.), .37 m2 (4.0 sq. ft.) E.P.A. luminaire.



The contractor shall furnish and install a light pole identification of each new light pole, as shown above, incidental to the respective light pole pay item. The numerals shall be 75 (3) series "D", black, screened on silver-white type B pressure sensitive reflective sheeting conforming to the requirements of section T602.01 of the Standard Specifications for Traffic Control Items. The numerals shall conform to the FHWA "Standard Alphabets for Highway Signs".

The light pole identification shall be applied to sign base material as specified in section 1085.05 of the Standard Specifications, approximatey 180 (7) above the adjacent pavement grade visible to approaching traffic in accordance with Highway Standard 2319.



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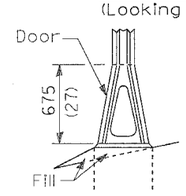
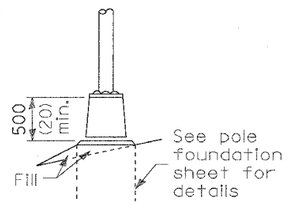
(Looking)

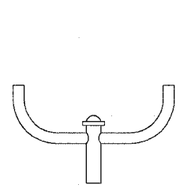




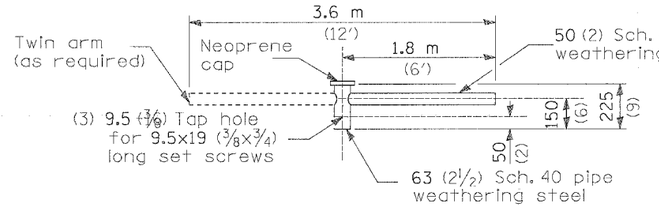
☐ STAINLESS STEEL FLAIR BASE

☐ TRANSFORMER BASE

CONTRACT NO. 64647				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	230
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

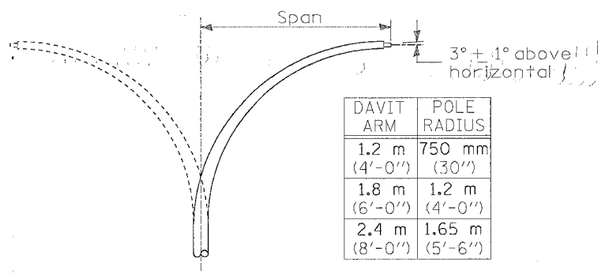


☐ TWIN TENON



☐ TENON MOUNT BRACKET ARM

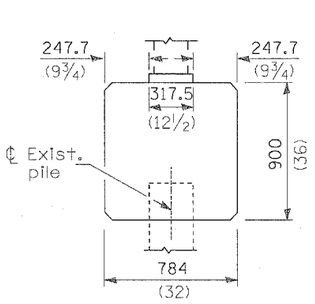
NOTE: Single or twin arm assembly shall be tilted 3° above horizontal.



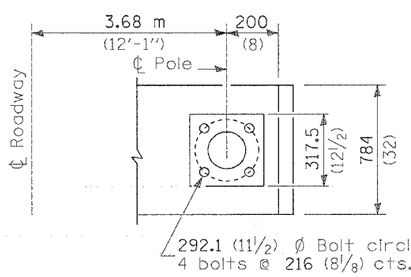
DAVIT ARM	POLE RADIUS
1.2 m (4'-0")	750 mm (30")
1.8 m (6'-0")	1.2 m (4'-0")
2.4 m (8'-0")	1.65 m (5'-6")

X DAVIT ARM (and or)

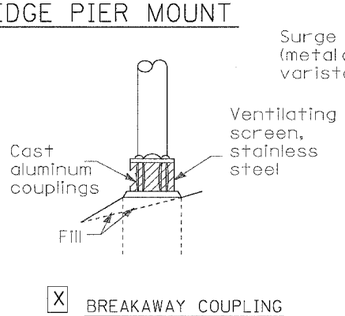
X DAVIT ARM-TWIN NON-STANDARD BOLT PATTERN



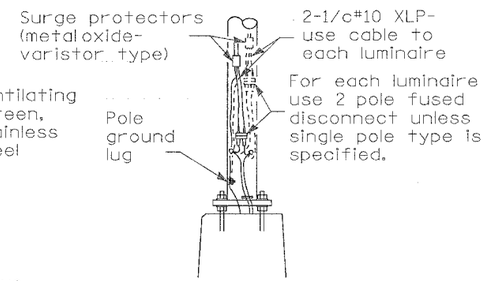
☐ BRIDGE PIER MOUNT



SECTION A-A



☐ BREAKAWAY COUPLING

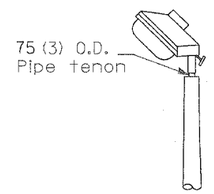


X ANCHOR

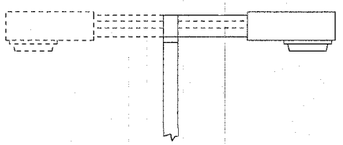
X FRANGIBLE

X METAL OR X CONCRETE

Details for underground distribution if required

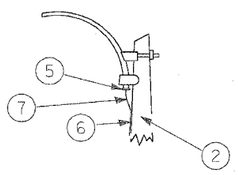


☐ TENON

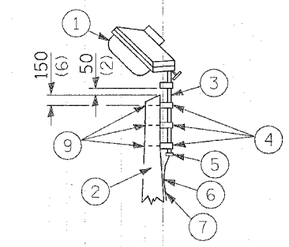


☐ SHORT BRACKET

☐ SHORT BRACKET - TWIN

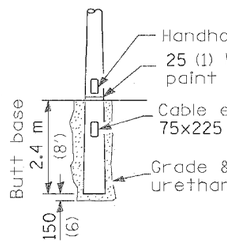


☐ MAST ARM

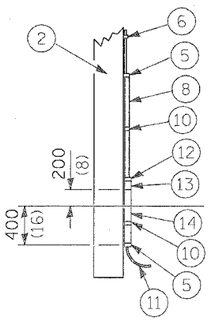


☐ TENON

1. Luminaire
2. Wood pole, class 3 or better
3. 63 (2½) Galv. steel conduit
4. Single offset pole band
5. Conduit bushing
6. Cable clamps on 600 (24) centers
7. 2/c #12 Type use cable
8. 25 (1) Galv. steel conduit 3.0 m (10') in length
9. 16 (5/8) Ø hot dipped galvanized bolt with flat washer & locknut (3 req'd)
10. Conduit clamps on 900 (36) centers
11. Unit duct
12. Threaded reducer
13. "C" Conduiet, threaded
14. 40 (1½) Galv. steel conduit for 1 unit duct or 75 (3) galv. steel conduit for 2 or 3 unit ducts.



☐ BUTT BASE



☐ POLE, WOOD

POLE LENGTH	DEPTH IN GROUND
19.8 m (65')	3.6 m (12')
18.0 m (60')	3.0 m (10')
16.8 m (55')	2.7 m (9')
16.0 m (50')	2.4 m (8')
13.7 m (45')	2.1 m (7')
12.0 m (40')	2.0 m (6.5')
10.7 m (35')	1.8 m (6')
9.0 m (30')	1.7 m (5.5')

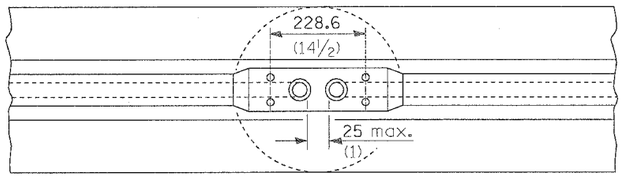
All dimensions are in millimeters (inches) unless otherwise shown.

DATE	REVISIONS

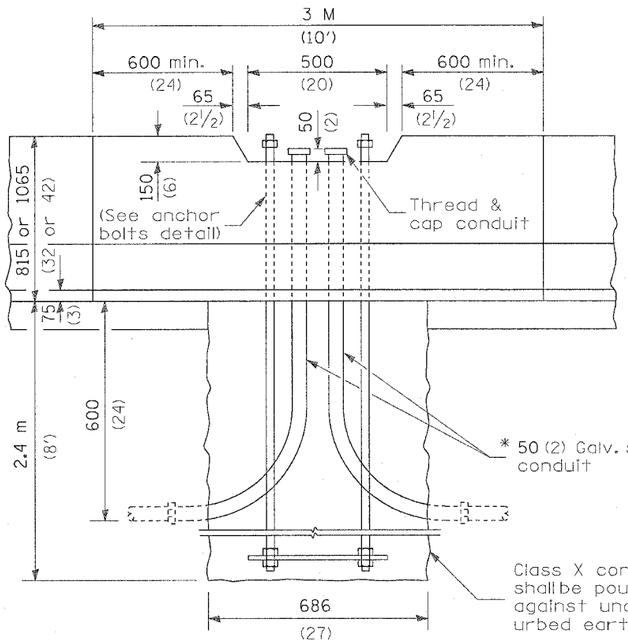
POLE STANDARDS

LGT008.M32

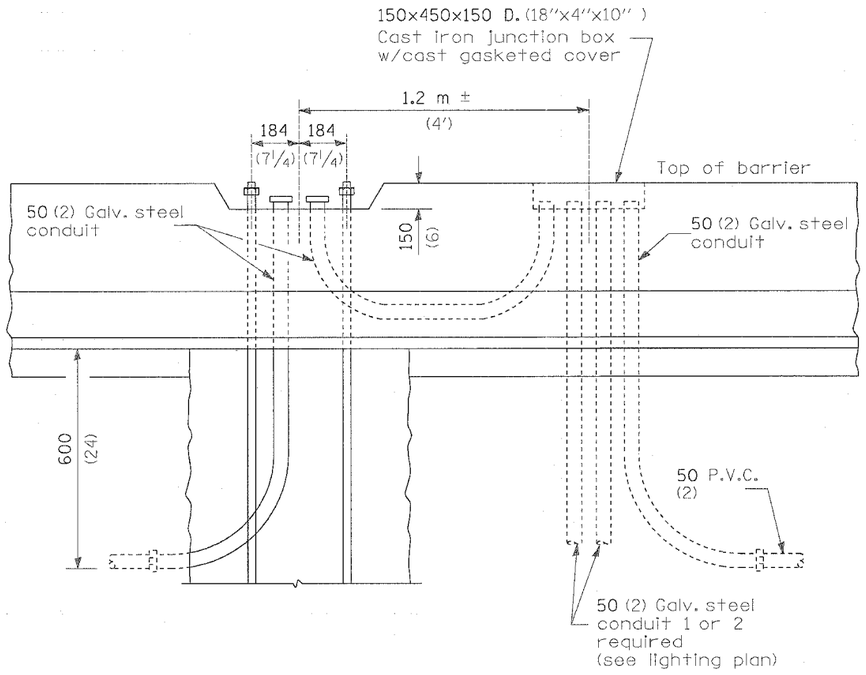
64647
231



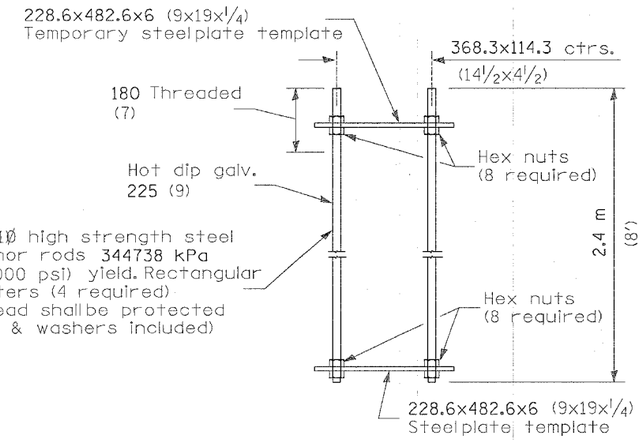
PLAN



ELEVATION AT LIGHT POLE SUPPORT



ELEVATION



ANCHOR ROD DETAIL

GENERAL NOTES

The light pole base at the top of the barrier shall be cast level in a horizontal plane.

* Not more than two 50 mm (2") Ø conduit openings (or one 75 mm (3") Ø conduit) at the pole base permitted (see plan for requirements).

The contractor shall furnish protection for exposed anchor bolt threads.

All anchor bolts shall be supplied with nuts, flatwashers and lockwashers.

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

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	231
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

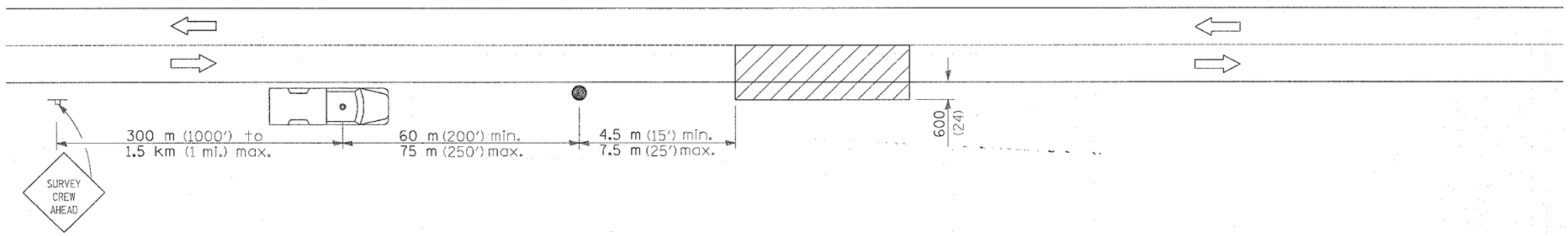
DATE	REVISIONS

POLE MOUNTING ON CONCRETE BARRIER

LGT016.M32

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	232
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



SYMBOLS

Work area

Sign on portable or permanent support

Truck with flashing amber light and dual emergency flashers

Flagger with traffic control sign

TYPICAL APPLICATIONS

Utility operations

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

DATE	REVISIONS

DETAIL FOR NIGHTTIME LIGHTING INSPECTION

LGT017.M32

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-R	ROCK ISLAND	476	233
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NOTE:
TWO WEEKS PIROR TO THE INSTALLATION OF REGULATORY SIGNING
KURT GLAZIER OF THE ILLINOIS DEPARTMENT OF TRANSPORATION
AT 815-284-5478 FOR STAKING OF THE SIGN PLACEMENT.

TYPE I REGULATORY

CODE	SIZE	DESCRIPTION	QTY	SQ FT	TOTAL SQ FT
W3-3	36X36	SIGNAL AHEAD SYMBOL	3	9	27
R4-7	24X30	KEEP RIGHT	1	5	5
R5-1	36X36	DO NOT ENTER	2	9	18
R6-1L	36X12	ONE WAY	1	3	3
W-SPC	36X36	NO OUTLET	1	9	9
R1-1	30X30	STOP	6	6.25	37.5
					99.5

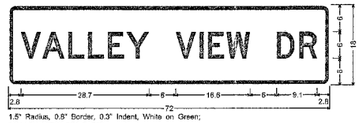
TYPE II REGULATORY

CODE	SIZE	DESCRIPTION	QTY	SQ FT	TOTAL SQ FT
R2-1	36X48	SPEED LIMIT	3	12	36
W13-3	48X60	RAMP SPEED	3	20	60
W4-1R	48X48	MERGE RIGHT	1	16	16
W4-3R	48X48	MERGING RIGHT	1	16	16
W3-3	48X48	SIGNAL AHEAD SYMBOL	2	16	32
					160

1.5" Radius, 0.8" Border, 0.3" Indent, White on Green;
[BLACKHAWK RD] D;
Table of letter and object lefts.

B	L	A	C	K	H	A	W	K	R	D
4.7	10.2	14.2	20.3	25.5	30.8	35.9	41.3	47.7	57.8	63.2

MASTARM MOUNTED



1.5" Radius, 0.8" Border, 0.3" Indent, White on Green;
[VALLEY VIEW DR] D 70% spacing;
Table of letter and object lefts.

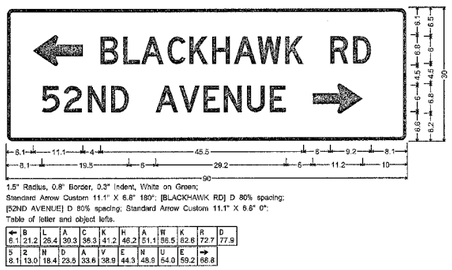
V	A	L	L	E	Y	V	E	W	D	R
2.8	7.6	13.4	17.8	22.3	26.4	37.5	42.8	44.7	49.9	55.2

MASTARM MOUNTED

1.5" Radius, 0.8" Border, 0.3" Indent, White on Green;
[44TH STREET] D;
Table of letter and object lefts.

4	4	T	H	S	T	R	E	E	T
3.1	7.9	13.8	18.8	28.8	33.8	38.8	44.0	48.8	53.2

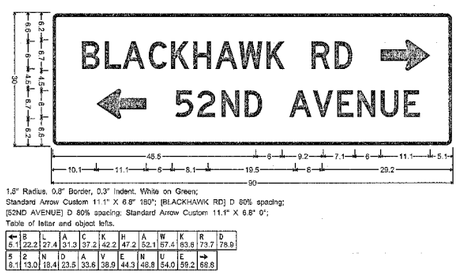
MASTARM MOUNTED



1.5" Radius, 0.8" Border, 0.3" Indent, White on Green;
Standard Arrow Custom 11.1" X 6.8" 180°; [BLACKHAWK RD] D 80% spacing;
[52ND AVENUE] D 80% spacing; Standard Arrow Custom 11.1" X 6.8" 0°;
Table of letter and object lefts.

← B	L	A	C	K	H	A	H	K	R	D
6.1	21.2	26.4	30.3	36.3	41.2	46.2	51.1	56.5	62.6	72.7	77.9
5 2	N	D	A	V	E	N	U	E	→
8.1	13.0	18.4	25.8	33.6	38.9	44.3	48.8	54.0	59.2	68.8

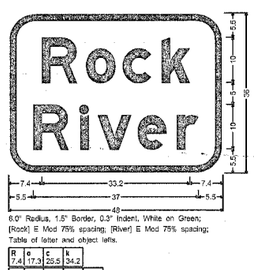
MASTARM MOUNTED



1.5" Radius, 0.8" Border, 0.3" Indent, White on Green;
Standard Arrow Custom 11.1" X 6.8" 180°; [BLACKHAWK RD] D 80% spacing;
[52ND AVENUE] D 80% spacing; Standard Arrow Custom 11.1" X 6.8" 0°;
Table of letter and object lefts.

← B	L	A	C	K	H	A	W	K	R	D
6.1	22.2	27.4	31.3	37.2	42.2	47.2	52.1	57.4	63.6	73.7	78.9
5 2	N	D	A	V	E	N	U	E	→
8.1	13.0	18.4	23.5	33.6	38.9	44.3	48.8	54.0	59.2	69.8

MASTARM MOUNTED



6.0" Radius, 1.5" Border, 0.3" Indent, White on Green;
[Rock] E Mod 75% spacing; [River] E Mod 75% spacing;
Table of letter and object lefts.

R	o	c	k
7.4	17.3	25.5	34.2
R	i	v	e	r
5.5	16.0	20.0	28.9	37.6

2 TYPE 2 SIGN PANELS 12 SQ FT EACH
- MOUNTED ON TUBAL STEEL
STA 363+50 NB
STA 383+00 SB

MASTARM MOUNTED TYPE I SIGNS

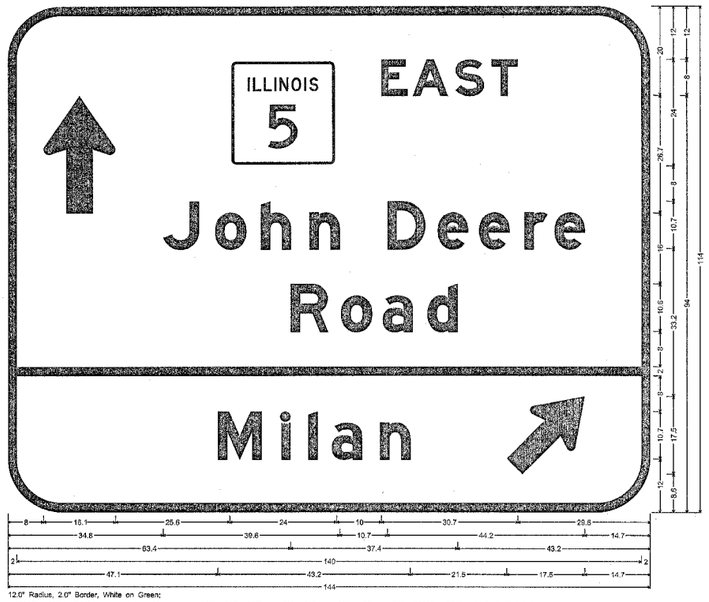
STREE NAME	QTY	SQ FT	TOTAL SQ FT
VALLEY VEW DR	2	9	18
BLACKHAWK DR	1	9	9
44TH STREET	1	7.5	7.5
			34.5

MASTARM MOUNTED TYPE II SIGNS

SIGN MESSAGE	QTY	SQ FT	TOTAL SQ FT
52 ND AVE/BLACKHAWK	1	18.75	18.75
BLACKHAWK/52ND AVE	1	18.75	18.75
ROCK RIVER	2	12	24
EXIT	2	12	24
			85.5

TYPE III SIGNS

STATION	SIGN DIR	SIGN MESSAGE	QTY	SQ FT
1154+00	EB	JOHN DEERE RD / MILAN	1	114
1157+50	WB	ROCK ISLAND/ MILAN	1	96
1158+00	EB	JOHN DEERE RD/RIGHT LANE	1	90
1161+00	EB	JOHN DEERE ROAD	1	74.75
1161+00	WB	ROCK ISLAND/MILAN	1	108
11+50	RAMP 3	IL 5 WEST LEFT 2 LANES	1	50
11+50	RAMP 3	52ND AVE RIGHT ANE	1	28
14+00	RAMP 3	IL 5 WEST	1	37.5
14+00	RAMP 3	52 ND AVE	1	32
359+00	SBR	MILAN/AIRPORT RD	1	56.25
359+00	SBL	MILAN BELTWAY	1	58.5
359+00	NBL	IL 5 EAST JOHN DEERE ROAD W/ARROW	1	114
359+00	NBR	IL 5 WEST BLACKHAWK RD NEXT RIGHT	1	84.5
381+50	SBR	AIRPORT ROAD NEXT RIGHT	1	54
381+50	SBL	MILAN BELTWAY STRAIGHT AHEAD	1	50
381+50	NBL	IL 5 EAST JOHN DEERE RD	1	105
381+50	NBR	IL 5 WEST BLACKHAWK RD	1	88
412+50	SBR	IL 5 WEST ROCK ISLAND	1	87.5
412+50	SBL	MILAN	1	48
416+50	SBL	MILAN LEFT LANES	1	38
416+50	SBR	IL 5 WEST ROCK ISLAND RIGHT LANES	1	78
				1492



12.0" Radius, 2.0" Border, White on Green;
Standard Arrow Custom 26.8" X 16.1" 90°; [EAST] E Mod; [John Deere] E Mod; [Road] E Mod; [Milan] E Mod; Standard Arrow Custom 22.3" X 13.5" 45°;
Table of letter and object lefts.

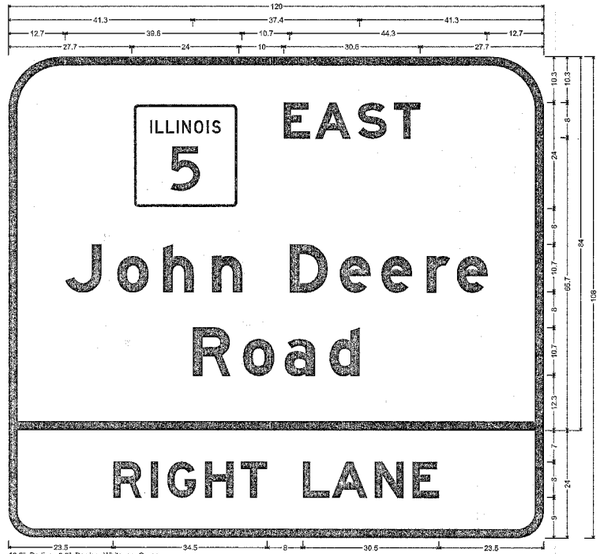
↑	M	E	A	S	T
8.0	49.7	53.7	90.5	100.4	109.5
J	o	h	n	D	e	e	r	e
---	---	---	---	---	---	---	---	---
34.8	46.5	56.7	67.6	85.1	96.3	105.8	115.8	122.5
R	o	a	d
---	---	---	---
63.4	74.7	84.0	94.0
2.0				
---	---	---	---	---
M	I	I	a	n	↗
47.1	61.2	67.3	72.8	83.5	111.8

STA 1154+00 EB
POST MOUNTED

12.0" Radius, 2.0" Border, White on Green;
[WEST] E Mod; Standard Arrow Custom 22.3" X 13.5" 90°; [Rock Island] E Mod; Standard Arrow Custom 22.3" X 13.5" 180°; [Milan] E Mod;
Table of letter and object lefts.

M	W	E	S	T
35.8	69.8	79.9	87.5	95.5
↑	R	o	c	k	I	s	66.1	98.1	a	101.4	n	112.2	d	122.3
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8.3	32.4	43.7	53.0	63.1	80.5									
2.0														
←	M	I	I	a	n
---	---	---	---	---	---
8.3	50.5	64.7	70.8	76.0	88.9

STA 1157+50 WB
POST MOUNTED



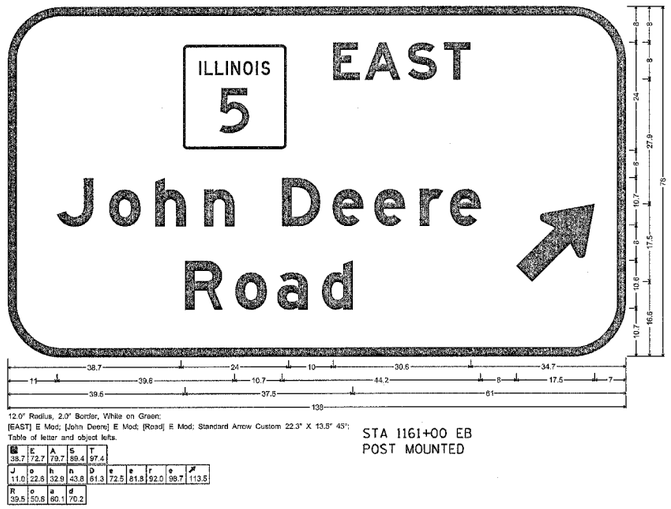
12.0" Radius, 2.0" Border, White on Green;
[EAST] E Mod; [John Deere] E Mod; [Road] E Mod;
6.0" Radius, 2.0" Border, Black on Yellow;
[RIGHT LANE] E Mod;
Table of letter and object lefts.

M	E	A	S	T
27.7	61.7	68.7	78.4	86.4
J	o	h	n	D	o	e	s	r	e
---	---	---	---	---	---	---	---	---	---
12.7	24.4	34.7	45.5	53.0	74.3	83.8	93.7	100.5	
R	o	a	d
---	---	---	---
41.3	52.6	61.9	71.9
R	I	G	H	T	L	A	N	E
---	---	---	---	---	---	---	---	---
23.5	31.9	35.8	44.0	52.0	66.0	72.5	82.1	90.5

STA 1158+00 EB
POST MOUNTED

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
_595	____I-3-K___	ROCKISLAND	_476	_234
STA. _____ TO STA._____				
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



12.0" Radius, 2.0" Border, White on Green:
[EAST] E Mod; [John Deere] E Mod; [Road] E Mod; Standard Arrow Custom 22.3" X 13.5" 45°;
Table of letter and object lefts.

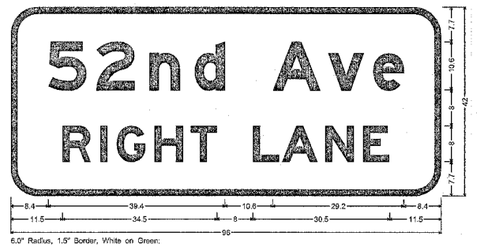
E 35.7	A 72.7	S 79.7	S 89.4	T 97.4	
J 11.0	o 22.6	h 32.9	n 43.8	D 61.3	e 72.5	e 81.8	r 92.0	e 98.7	113.5
R 39.5	o 50.8	a 60.1	d 70.2						

STA 1161+00 EB
POST MOUNTED

12.0" Radius, 2.0" Border, White on Green;
Standard Arrow Custom 22.3" X 13.5" 90°; [WEST] E Mod; [Rock Island] E Mod; [Milan] E Mod; [KEEP LEFT] E Mod;
Table of letter and object lefts.

11.6	W 51.3	E 65.3	S 86.4	S 102.9	T 111.0				
R 35.8	o 47.0	c 58.3	k 68.4	I 83.9	s 89.4	I 98.4	a 104.7	n 115.5	d 125.6
M 50.4	I 64.8	I 70.7	a 75.9	n 88.8					
K 39.1	E 47.2	E 54.8	P 62.4	L 76.8	E 84.4	F 92.0	T 99.0		

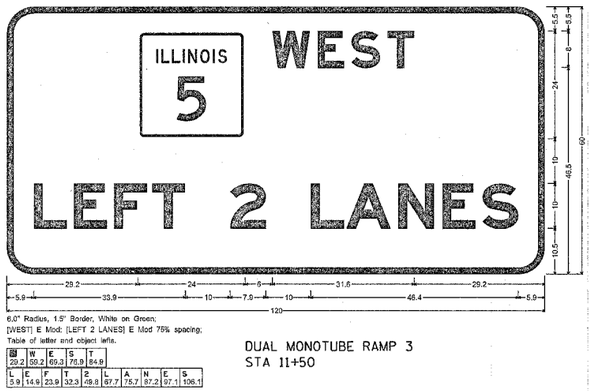
STA 1161+00 WB
POST MOUNTED



6.0" Radius, 1.5" Border, White on Green:
[52nd Ave] E Mod; [RIGHT LANE] E Mod;
Table of letter and object lefts.

5 8.4	2 19.1	n 30.9	d 41.6	A 58.4	V 70.8	e 80.8		
R 11.5	I 19.6	G 23.8	H 32.0	T 40.0	I 54.6	A 60.5	N 70.1	E 78.5

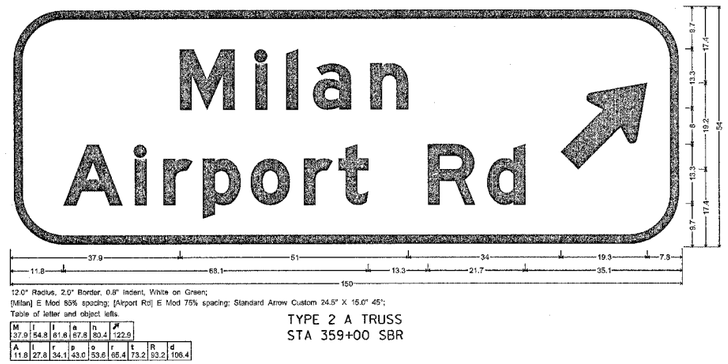
DUAL MONOTUBE RAMP 3
STA 11+50



6.0" Radius, 1.5" Border, White on Green;
[WEST] E Mod; [LEFT 2 LANES] E Mod 75% spacing;
Table of letter and object lefts.

W 29.2	E 59.2	S 69.3	S 75.9	T 84.9				
L 5.9	E 14.9	F 23.9	T 32.3	2 49.8	L 67.7	A 75.7	N 87.2	E 97.1	S 106.1

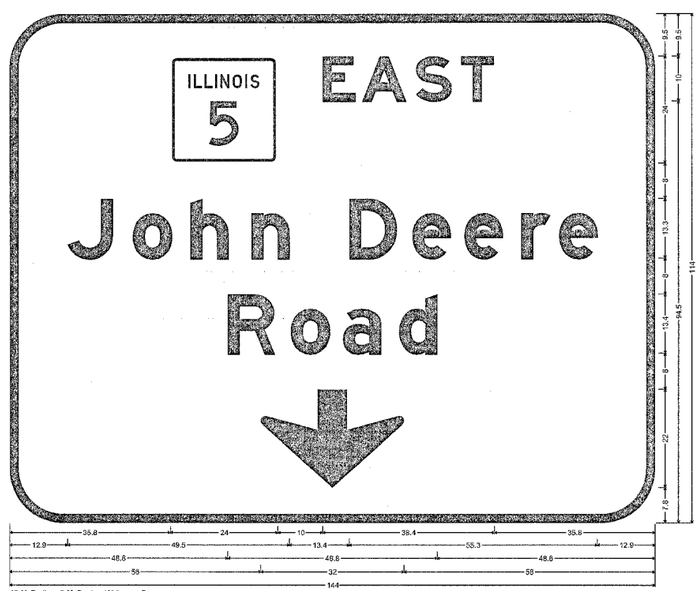
DUAL MONOTUBE RAMP 3
STA 11+50



12.0" Radius, 2.0" Border, 0.8" Indent, White on Green;
[Milan] E Mod 85% spacing; [Airport Rd] E Mod 75% spacing; Standard Arrow Custom 24.5" X 15.0" 45°;
Table of letter and object lefts.

M 37.9	I 54.8	I 61.8	a 67.8	n 80.4	r 122.9
A 11.8	I 27.8	r 34.1	p 43.0	o 53.6	r 66.4	t 73.2	R 93.2	d 106.4

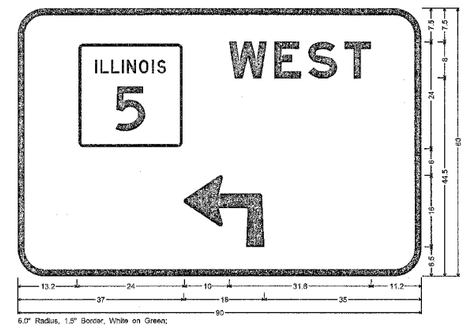
TYPE 2 A TRUSS
STA 359+00 SBR



12.0" Radius, 2.0" Border, White on Green;
[EAST] E Mod; [John Deere] E Mod; [Road] E Mod; Down Arrow 22.0° 270°;
Table of letter and object lefts.

E 35.8	A 59.8	A 76.8	S 90.7	T 100.7					
J 12.9	o 27.5	h 40.3	n 53.9	D 75.8	e 89.8	e 101.4	r 114.1	e 122.6	
R 48.6	o 52.7	d 74.3	65.9						
55.0									

TYPE 2 A TRUSS
STA 359+00 NBL



6.0" Radius, 1.5" Border, White on Green;
[WEST] E Mod; 90 Deg Advanced Turn Arrow 18.0" X 16.0";
Table of letter and object lefts.

W 13.2	E 47.2	S 57.3	S 64.9	T 72.9
37.0				

DUAL MONOTUBE RAMP 3
STA 15+00

12.0" Radius, 2.0" Border, White on Green;
[Milan] E Mod; [Beltway] E Mod; Arrow Custom - 20.3° 270°;
Table of letter and object lefts.

M 27.0	I 44.7	I 52.3	a 58.8	h 72.5			
B 13.2	e 27.8	l 40.3	t 46.5	w 56.0	o 71.9	y 84.0	
45.3							

TYPE 2 A TRUSS
STA 359+00 SB

8.0" Radius, 1.5" Border, White on Green;
[52nd Ave] E Mod; 90 Deg Advanced Turn Arrow 18.0" X 18.0";
Table of letter and object lefts.

5 8.4	2 19.1	n 30.9	d 41.6	A 58.4	V 70.8	e 80.8	
39.0							

DUAL MONOTUBE RAMP 3
STA 15+00

ILLINOIS DEPARTMENT OF TRANSPORTATION

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REFERENCE = REF

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1:3-K	ROCKISLAND	476	235
STA. _____		TO STA. _____		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

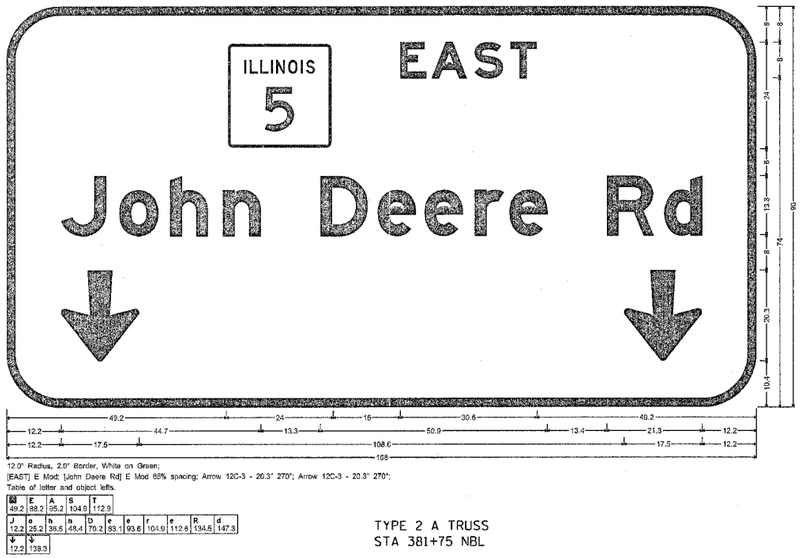
12.0" Radius, 2.0" Border, White on Green;
[WEST] E Mod; [Blackhawk Rd] E Mod 75% spacing; [NEXT RIGHT] E Mod;
Table of letter and object lefts.

B	W	E	S	T
41.2	75.2	87.8	97.3	107.4

B	I	a	c	k	h	a	W	k	R	d
9.8	23.8	29.4	40.9	52.5	54.0	76.8	89.9	102.5	124.7	137.9

N	E	X	T	R	I	G	H	T
32.7	43.2	52.7	62.8	80.2	90.7	95.3	105.8	115.9

TYPE 2 A TRUSS
STA 359+00 NBR



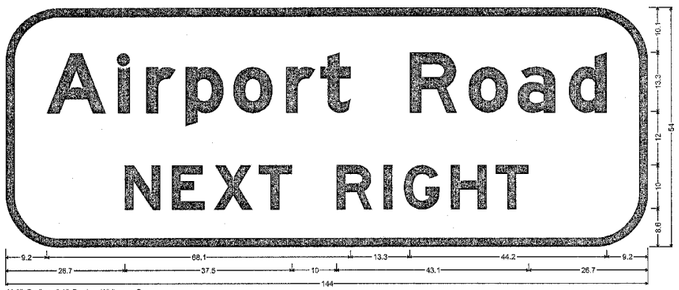
12.0" Radius, 2.0" Border, White on Green;
[EAST] E Mod; [John Deere Rd] E Mod 65% spacing; Arrow 12C-3 - 20.3° 270°; Arrow 12C-3 - 20.3° 270°;
Table of letter and object lefts.

B	E	A	S	T
49.2	88.2	95.2	104.8	112.9

J	a	h	n	D	e	e	r	e	R	d
12.2	25.2	36.8	48.4	70.2	83.1	93.6	104.9	112.8	134.5	147.3

V	V
12.2	138.3

TYPE 2 A TRUSS
STA 381+75 NBL

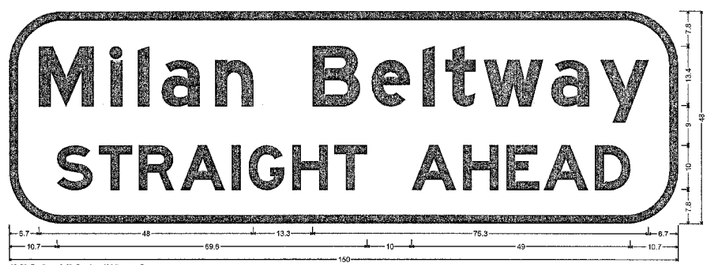


12.0" Radius, 2.0" Border, White on Green;
[Airport Road] E Mod 75% spacing; [NEXT RIGHT] E Mod;
Table of letter and object lefts.

A	I	r	p	o	r	t	R	o	a	d
9.2	25.2	31.6	40.4	51.1	62.9	70.8	90.5	103.8	114.8	126.3

N	E	X	T	R	I	G	H	T
26.7	37.2	46.7	56.8	74.2	84.7	89.3	99.8	109.9

TYPE 2 A TRUSS
STA 381+75 SBR

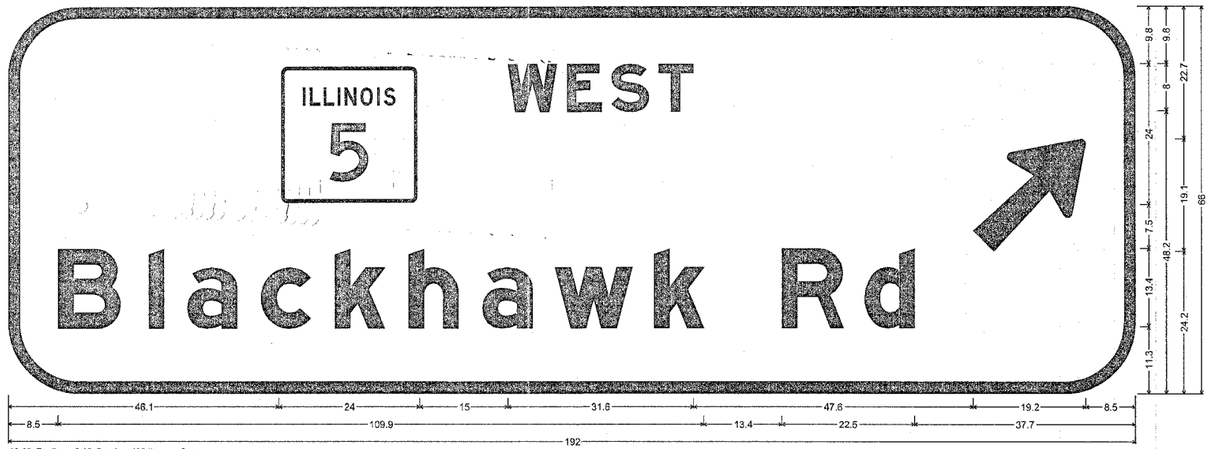


12.0" Radius, 2.0" Border, White on Green;
[Milan Beltway] E Mod 70% spacing; [STRAIGHT AHEAD] E Mod 70% spacing;
Table of letter and object lefts.

M	I	l	a	n	B	e	l	t	W	a	Y
5.7	22.8	28.8	34.2	46.2	66.0	81.3	92.7	97.8	106.5	121.5	132.6

S	T	R	A	I	G	H	T	A	H	E	A	D
10.7	20.1	29.6	38.4	49.8	53.7	63.4	72.8	90.3	101.7	111.5	119.9	131.3

TYPE 2 A TRUSS
STA 381+75 SBL



12.0" Radius, 2.0" Border, White on Green;
[WEST] E Mod; [Blackhawk Rd] E Mod; Arrow 12C-4 - 24.3° 45°;
Table of letter and object lefts.

B	W	E	S	T	
46.1	85.1	95.2	102.8	110.8	164.3

B	I	a	c	K	h	a	W	k	R	d
8.5	23.9	30.5	43.0	55.6	68.2	80.7	93.1	110.0	131.8	145.8

TYPE 2 A TRUSS
STA 381+75 NBR

ILLINOIS DEPARTMENT OF TRANSPORTATION

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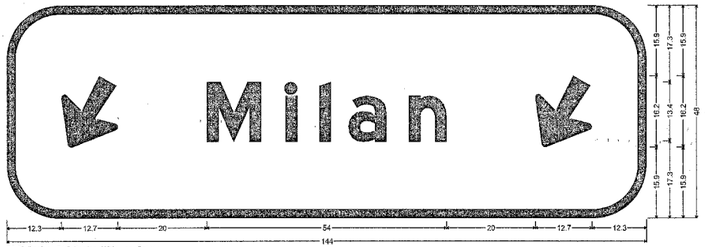
REFERENCE = $REFS

CONTRACT NO. 64647

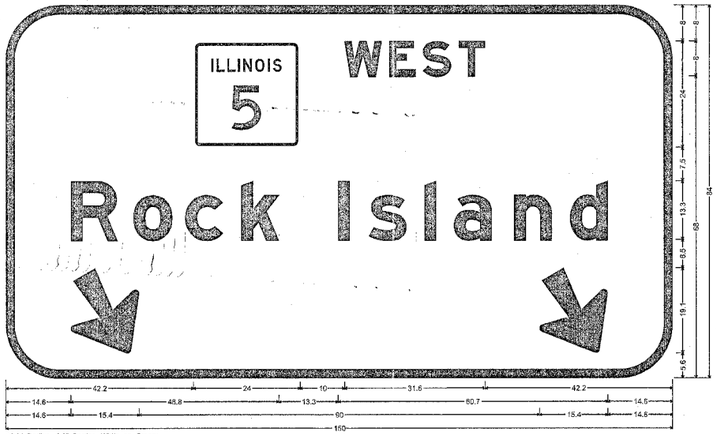
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-6	ROCKISLAND	476	236
STA. _____	TO STA. _____			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



12.0" Radius, 2.0" Border, White on Green;
Arrow 12C-2 - 17.3" 240"; [Milan] E Mod; Arrow 12C-2 - 17.3" 240";
Table of letter and object lefts.

M	I	l	a	n
12.3	48.0	62.7	70.3	76.9	90.5	119.6

MONO TUBE
STA 412+50 SBL



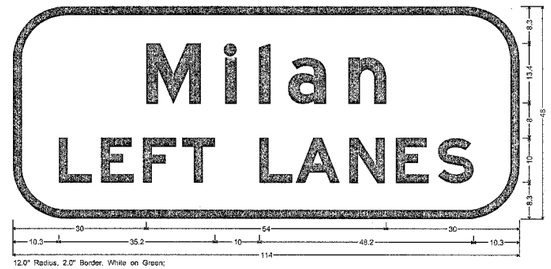
12.0" Radius, 2.0" Border, White on Green;
[WEST] E Mod; [Rock Island] E Mod; Arrow Custom - 29.3° 300"; Arrow Custom - 29.3° 300";
Table of letter and object lefts.

W	E	S	T
42.2	78.2	88.3	93.3	101.9

R	e	c	k	I	s	l	a	n	d
14.6	28.7	40.3	52.9	74.7	81.7	84.2	100.8	114.3	126.9

M	W
14.6	120.0

MONO TUBE
STA 412+50 SBR

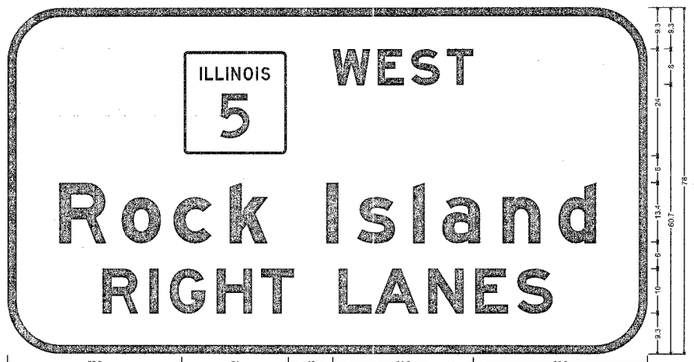


12.0" Radius, 2.0" Border, White on Green;
[Milan] E Mod; [LEFT LANES] E Mod;
Table of letter and object lefts.

M	I	l	a	n
30.0	47.7	55.3	61.9	75.5

L	E	F	T	L	A	N	E	S
10.3	19.6	29.3	38.1	55.3	63.8	78.7	88.2	96.7

MONO TUBE
STA 416+50 SBL



12.0" Radius, 2.0" Border, White on Green;
[WEST] E Mod; [Rock Island] E Mod; [RIGHT LANES] E Mod;
Table of letter and object lefts.

W	E	S	T
39.2	73.2	83.3	90.9	98.0

R	e	c	k	I	s	l	a	n	d
11.6	25.7	37.3	49.9	71.7	78.7	81.2	97.6	111.3	123.9

R	I	G	H	T	L	A	N	E	S
21.4	31.9	38.5	47.0	57.0	74.5	82.8	94.6	105.2	114.7

MONO TUBE
STA 416+50 SBR

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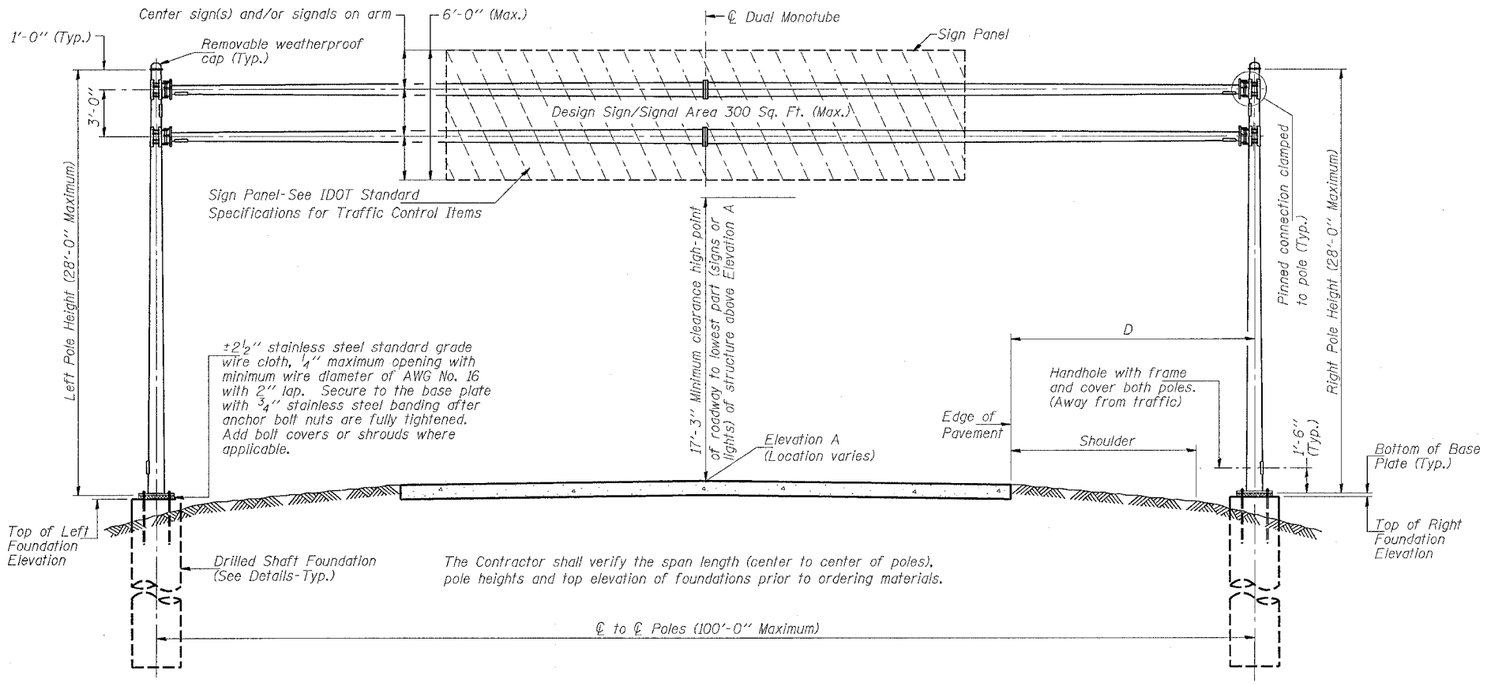
REFERENCE = REF

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	237
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELEVATION

Looking at face of signs.
Looking upstation for structures with signs both sides.

GENERAL NOTES

DESIGN: Current (at time of letting) AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals.

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Recurring Special Provisions. ("Standard Specifications") All references to "Mast Arm Assembly and Pole" are applicable, unless otherwise noted.

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

ANCHOR RODS: Shall meet Charpy V-notch (CVN) energy of 15 ft-lb at 40° F. No welding shall be permitted on rods.

FASTENERS: All connection bolts shall be High Strength Bolts M164, Galvanize M232 (A153), Type 3, or stainless steel heavy hex conforming to ASTM A193, Grade B8 or B8M, Class 1. U-bolts shall be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished, or an equivalent material acceptable to the Engineer. Nuts for stainless steel bolts shall be stainless steel conforming to ASTM A194, Grade 8 (AISI Type 304) or Grade 8F (AISI Type 303). All nuts shall be "locknuts" with nylon or steel inserts and semifinished hexagonal heads equivalent to the finished heavy hex series of the American National Standard. Washers for stainless steel bolts shall be stainless steel conforming to ASTM A240, Type 302 or 304.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

NOTE: SIGN STRUCTURE DESIGN IS FROM A DRIVING DIRECTION NOT AS INCREASING STATIONING

Structure Number	Station	℄ to ℄ Poles	Elevation A	Dimension D	Actual Sign/Signal Area	Median Foundation					Right Foundation					Class SI Concrete (Cu. Yds.)
						Elevation Top	Elev. Bottom	A	B	F	Elevation Top	Elev. Bottom	A	B	F	
2M081NMB41250	412+50	95'	595.687	35' RIGHT	119 SQ FT	597.560	580.770	2.790	14	16.790	593.126	577.126	2	14	16	3.6
2M081NMB41650	416+50	77'	592.74	30' RIGHT	116 SQ FT	595.530	579.740	2.790	13	15.790	589.95	574.950	2	13	15	3.4
2M081NMB1150	11+50 RAMP 3	86'	576.728	35'	78 SQ FT	571.025	555.025	2	14	16	570.454	554.454	2	14	16	3.6
2M081NMB1400	14+00 RAMP 3	75.5'	583.336	16' M-30' R	69.5 SQ FT	581.734	566.734	2	13	15	579.710	564.710	2	13	15	3.3

SIGN STRUCTURE DATA TABLE

NUMBER	REVISION	DATE

BILL OF MATERIAL

ITEM	UNIT	TOTAL
DUAL MONOTUBE OVERHEAD SIGN STRUCTURE SPAN	Foot	333.5
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	13.9

DUAL MONOTUBE SIGN STRUCTURE

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

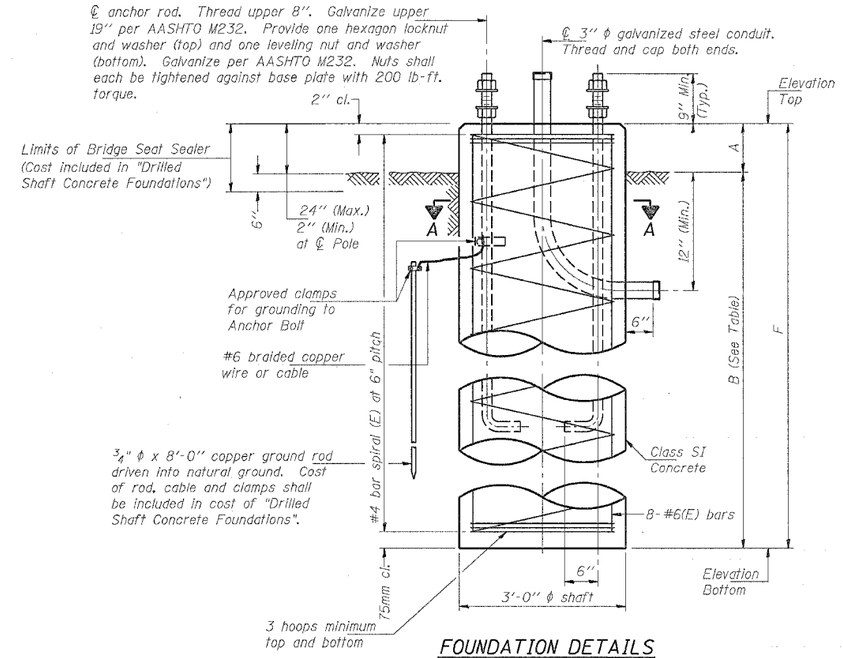
SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

DUALTUBE - 1 11/1/2002

PLOT DATE = Wed Jan 29 07:32:15 2025
FILE NAME = c:\projects\dwg\sign sheets.dgn
PLOT SCALE = 28.2000 '/ IN.
REFERENCE = REF

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-595	____1-3-K___	ROCKISLAND	-476	233A
STA. _____	TO STA._____			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



FOUNDATION DETAILS

Typical, except conduit may only be required at one foundation. Provide conduit openings both poles.

Foundation Design Table	
Span (Ft.)	B (Ft.)
Span ≤ 65	12
65 < Span ≤ 85	13
85 < Span ≤ 100	14

FOUNDATIONS:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

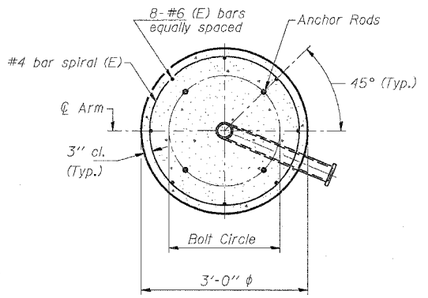
No sonotubes or decomposable forms shall be used below the lower conduit entrance.

Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

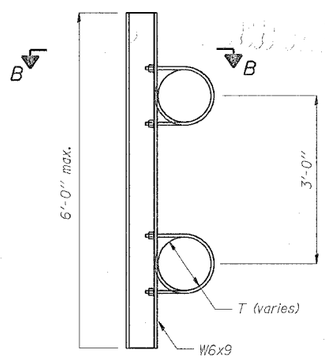
Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

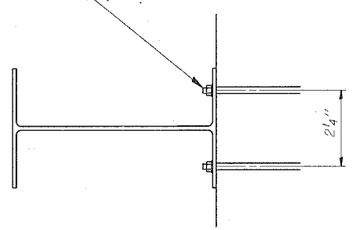
A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in "Drilled Shaft Concrete Foundation".



SECTION A-A

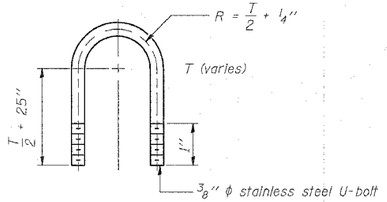


SIGN MOUNTING BRACKET



SECTION B-B

6'-0" maximum spacing. 2'-0" maximum sign overhang beyond end bracket.



U-BOLT DETAIL

(Typical)

DUAL MONOTUBE SIGN STRUCTURE

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.

DATE

DRAWN BY

CHECKED BY

DUAL MONOTUBE - 2 11/1/2001 2/1/2002

PLOT DATE = Wed Dec 22 1385536 2004
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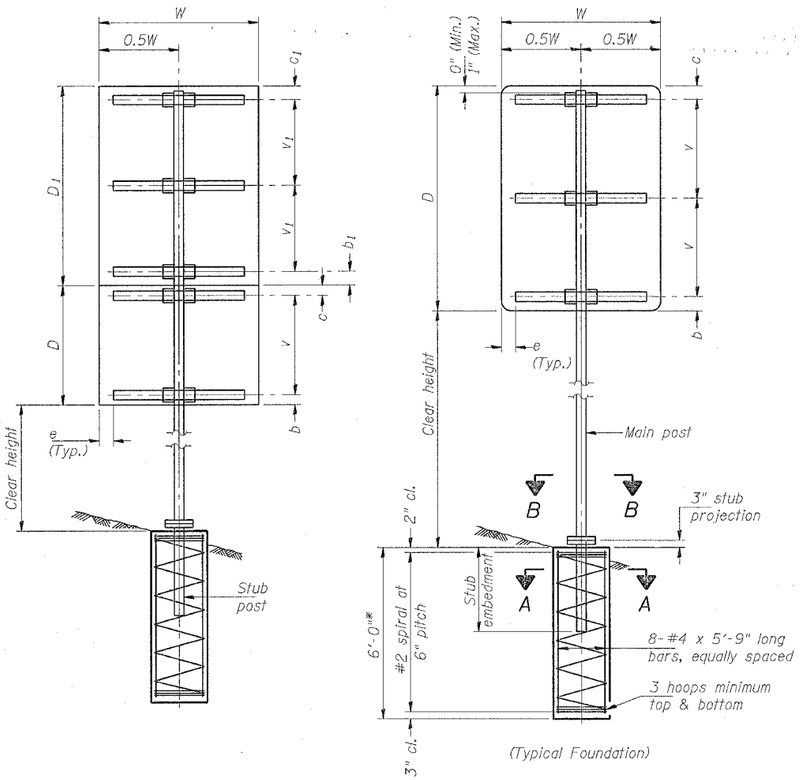
REFERENCE = REF

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	238
STA. _____	TO STA. _____			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



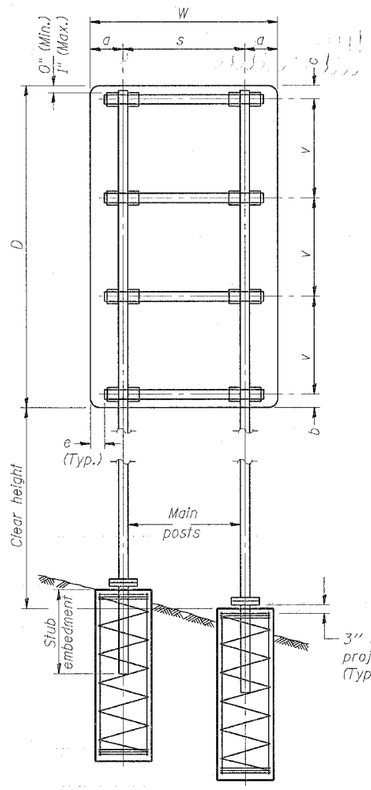
(Typical Foundation)

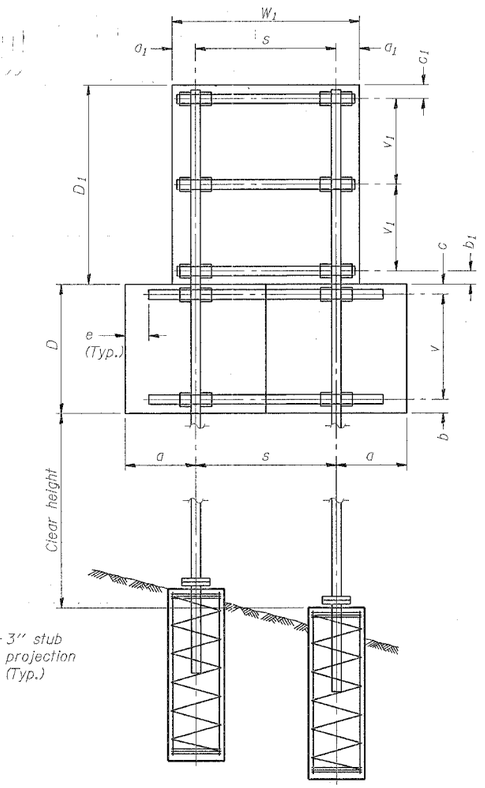
SINGLE POST ASSEMBLY EXAMPLES

*Dimensional changes required for varying site conditions shall be approved by the Engineer.

a or a_1 = 6" Min. to 2'-0" Max. (Approximately 0.2W or $0.2W_1$)
b or b_1 = 3" Min. to 4" Max.
c or c_1 = 3" Min. to 4" Max.
e = 0" Min. to 6" Max.
s = 3'-0" Min. to 6'-0" Max. (Approximately 0.6W or $0.6W_1$)
v or v_1 = 2'-0" Min. to 2'-11" Max.

NUMBER	REVISION	DATE





DUAL POST ASSEMBLY EXAMPLES

MAIN POST STEEL TUBING	WEIGHT PER FOOT (POUND)	STUB POST TABLE		MAIN POST TABLE				
		Stub Embedment	Stub Post Length	Bolt Size	A	t	R	Bolt Circle
3" x 2" x 1/4"	7.11	2'-0"	2'-3"	1/2" x 2 3/4"	8 1/4"	5/8"	9/32"	6 1/2"
4" x 2" x 1/4"	8.81	2'-0"	2'-3"	1/2" x 2 3/4"	8 1/4"	5/8"	9/32"	6 1/2"
4" x 3" x 1/4"	10.51	2'-3"	2'-6"	5/8" x 3 1/4"	10"	3/4"	11/32"	8"
5" x 3" x 1/4"	12.21	2'-3"	2'-6"	5/8" x 3 1/4"	10"	3/4"	11/32"	8"
6" x 3" x 1/4"	13.91	2'-3"	2'-6"	5/8" x 3 1/4"	11 1/2"	3/4"	11/32"	9 1/2"
6" x 4" x 1/4"	15.62	2'-3"	2'-6"	3/4" x 3 1/2"	11 1/2"	3/4"	13/32"	9 1/2"
6" x 4" x 5/16"	19.08	2'-3"	2'-6"	3/4" x 3 1/2"	11 1/2"	3/4"	13/32"	9 1/2"
7" x 5" x 1/4"	19.02	2'-6"	2'-9"	3/4" x 3 1/2"	1'-2"	3/4"	13/32"	1'-0"
8" x 4" x 1/4"	19.02	2'-6"	2'-9"	3/4" x 3 1/2"	1'-2"	3/4"	13/32"	1'-0"
8" x 6" x 1/4"	22.42	2'-6"	2'-9"	7/8" x 3 1/2"	1'-2"	3/4"	15/32"	1'-0"

GENERAL NOTES

Posts shall be plumbed by using shims with post-to-stub post connection bolts snug tight only. Final tightening of all High Strength Bolts shall be in accordance with Article 505.04(f)(3), and threads at the junction of the bolt and nut shall be burred or center punched to prevent the nut from loosening.

One foundation requires 0.7 cubic yards of concrete and 46 pounds of reinforcement bars and spiral hoops.

LOADING: 80 mph wind with 30% gust factor, normal to sign.

DESIGN STRESSES:
Structural steel - 20,000 psi
Reinforcing steel - 20,000 psi
Concrete - 1,400 psi
Footing soil pressure - 2,000 psf

After fabrication, the post, fuse plate, base plate and upper 6" (minimum) of the stub post shall be hot-dip galvanized in accordance with AASHTO M111. All bolts, nuts and washers shall be hot-dip galvanized in accordance with AASHTO M232.

For Sections A-A and B-B, see Base Sheet BAT-A-2.

FOUNDATIONS:
All necessary excavation or drilling (except in rock); backfilling with excavated material; disposal of unsuitable or surplus material; formwork; and furnishing and placing the Class SI Concrete and reinforcement bars, shall be included in the pay item used for foundations.

The measurement of the tubular steel shall be computed on the basis of the weight per foot of the support, multiplied by the combined length of the main posts and stub posts.

BREAK-AWAY TUBULAR STEEL SIGN POSTS AND FOUNDATIONS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT.
HORIZ.
DATE
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CHECKED BY

(Sheet 1 of 2)

BAT-A-1 11/1/2002

CONTRACT NO. 64647

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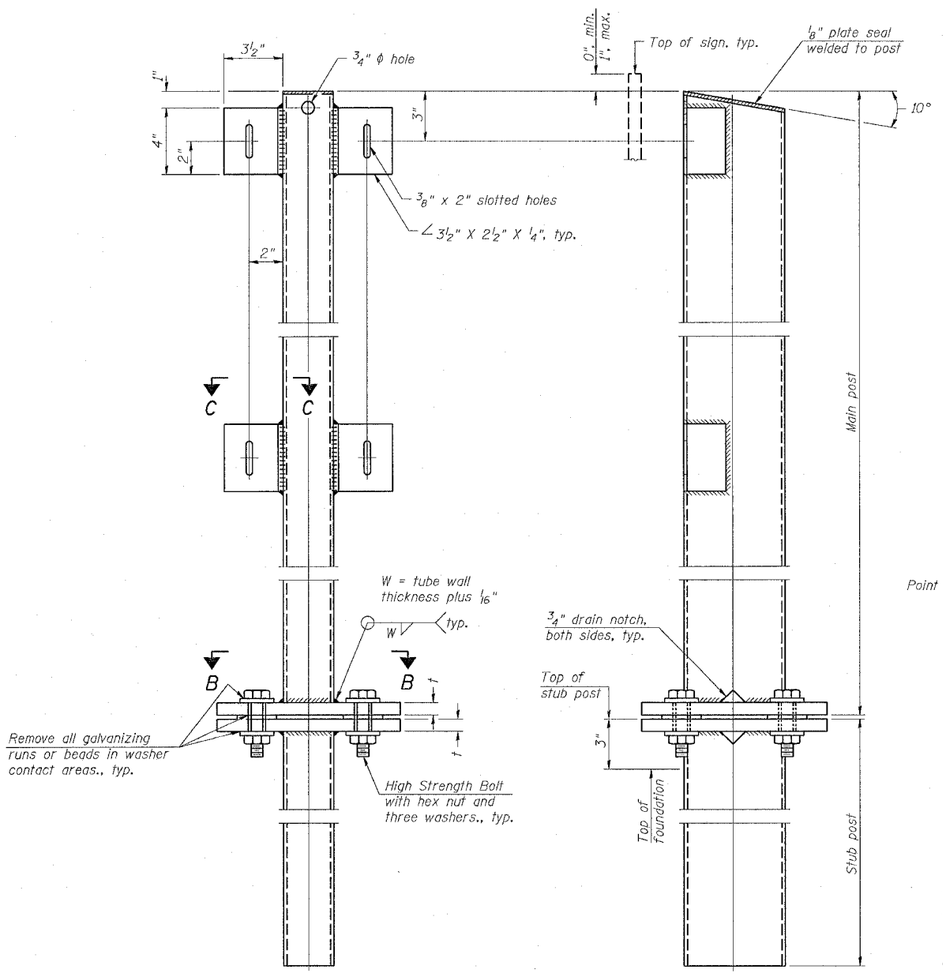
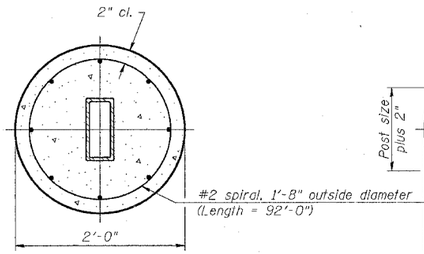
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FRONT ELEVATION

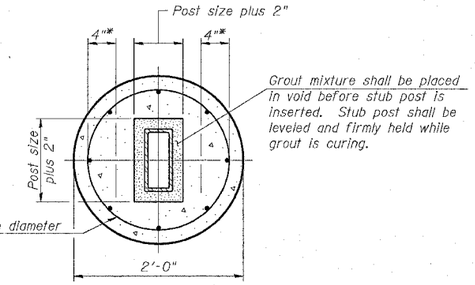
SIDE ELEVATION

MAIN POST & STUB POST



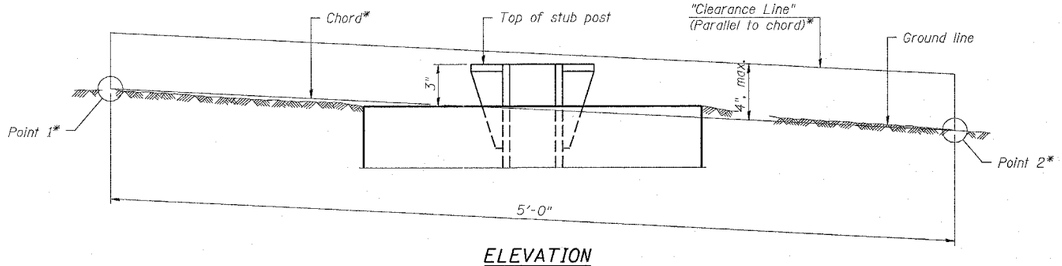
SECTION A-A
(CAST-IN-PLACE)

OR



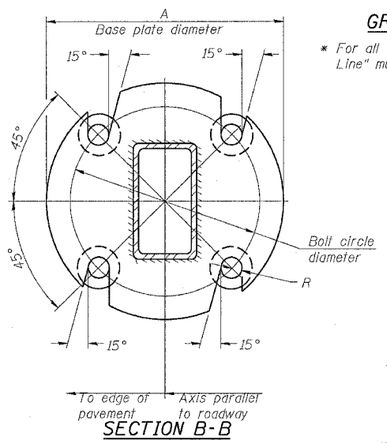
SECTION A-A
(PRECAST)

* Hot dip galvanized lifting loops or inserts may be placed in precast foundation inside the spiral reinforcement but not within 6" of the long axis of the post. Inserts must be adequate for safely lifting a total of 3,000 pounds and must not interfere with installation of the stub post or proper functioning of the slip base.

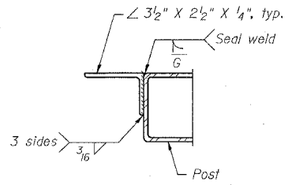


ELEVATION
GROUND LINE & STUB POST

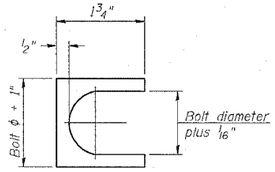
* For all "Point 1" and "Point 2" locations, "Clearance Line" must be at or above top of stub post.



SECTION B-B



SECTION C-C
Weld continuously around corners.



SHIM DETAIL
Furnish two 0.01" thick and two 0.03" thick stainless steel or brass (ASTM B36) shims per post.

NUMBER	REVISION	DATE

BREAK-AWAY TUBULAR STEEL
SIGN POSTS AND DETAILS

BAT-A-2 1-7-05

(Sheet 2 of 2)

ILLINOIS DEPARTMENT OF TRANSPORTATION

PLOT DATE = Tue Feb 01 08:11:57 2005
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CONTRACT NO. 64647

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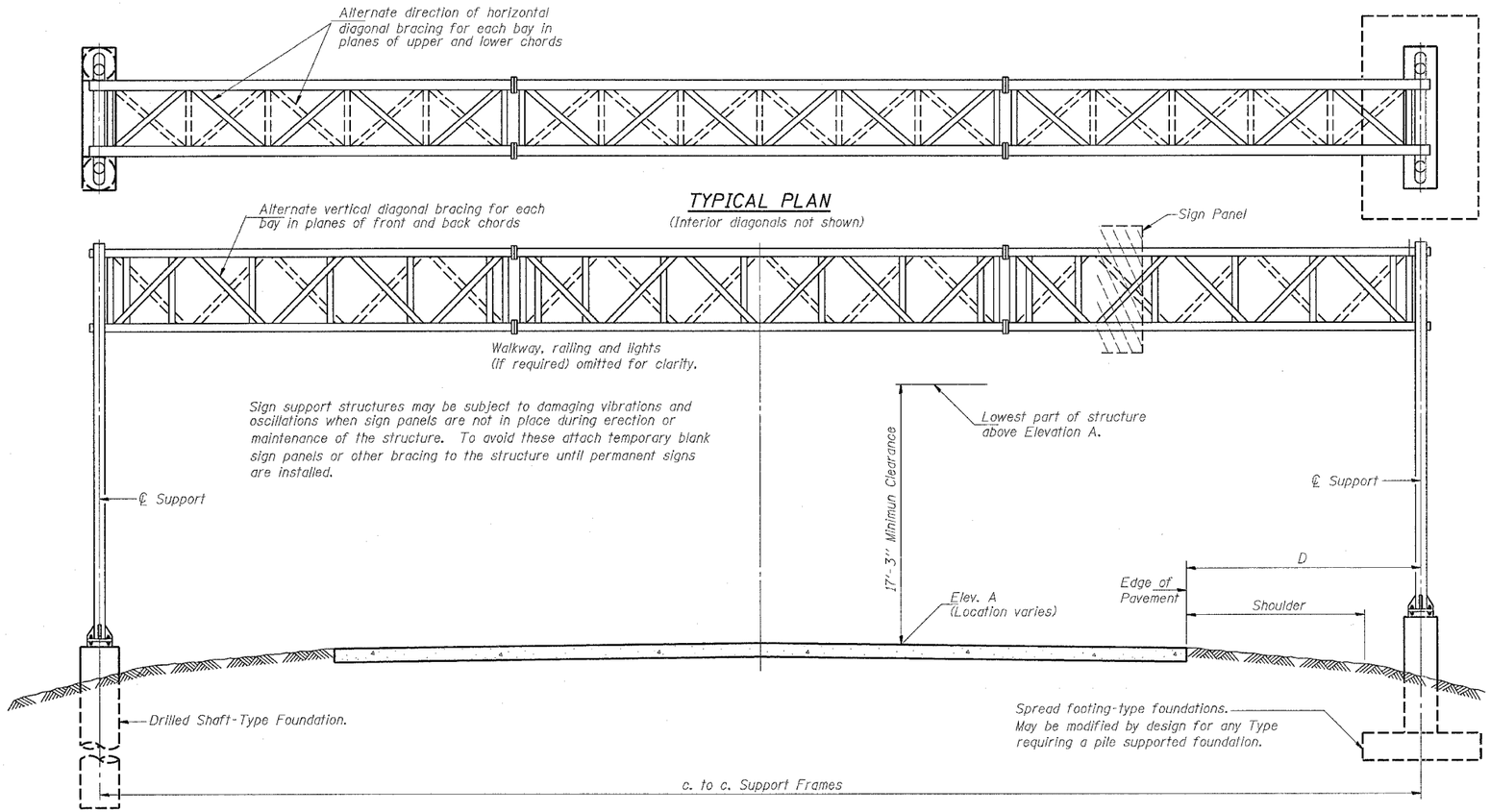
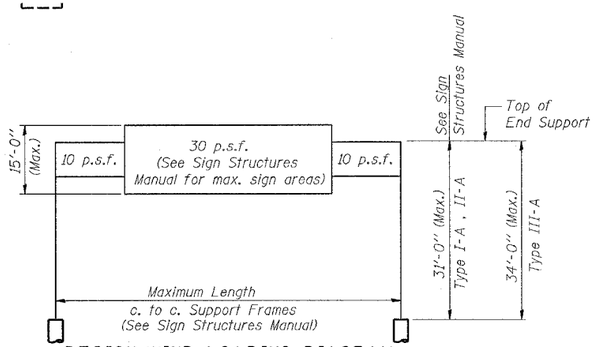
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TYPICAL PLAN

(Interior diagonals not shown)

Sign support structures may be subject to damaging vibrations and oscillations when sign panels are not in place during erection or maintenance of the structure. To avoid these attach temporary blank sign panels or other bracing to the structure until permanent signs are installed.



DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards and Sign Manual Tables. Installations not within dimensional limits shown require special analysis for all components.

TYPICAL ELEVATION

(Looking at Face of Signs**)

Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign	Total Sign Area
2S081NMB35900	359+00	II-A	100'	590.28	15'	9.5'	313.25
2S081NMB38150	381+50	II-A	120'	578.42	31'	7.5'	297

**Looking upstation for structures with signs both sides.

NUMBER	REVISION	DATE

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE TYPE I-A (4'-0" x 4'-6")	Foot	
OVERHEAD SIGN STRUCTURE TYPE II-A (4'-6" x 5'-3")	Foot	220'
OVERHEAD SIGN STRUCTURE TYPE III-A (5'-0" x 7'-0")	Foot	
OVERHEAD SIGN WALKWAY TYPE A	Foot	166'
CONCRETE FOUNDATIONS	Cu. Yds.	
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	48.9

GENERAL NOTES

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

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

LOADING: 90 M.P.H. WIND VELOCITY
WIND LOADING: 30 p.s.f. normal to Sign Panel Area and truss elements not behind sign Loading Diagram.
WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES:
Field Units
f'c = 3,500 p.s.i.
fy = 60,000 p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specificiations.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53.

All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer.

The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04(f) of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

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

ANCHOR RODS: Shall conform to AASHTO M314 Gr. 36 or 55 with a minimum Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F.

CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seat Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

*If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

OVERHEAD SIGN STRUCTURES GENERAL PLAN & ELEVATION ALUMINUM TRUSS & STEEL SUPPORTS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE

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CHECKED BY

OS-A-1 11/1/2002

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CONTRACT NO. 64647

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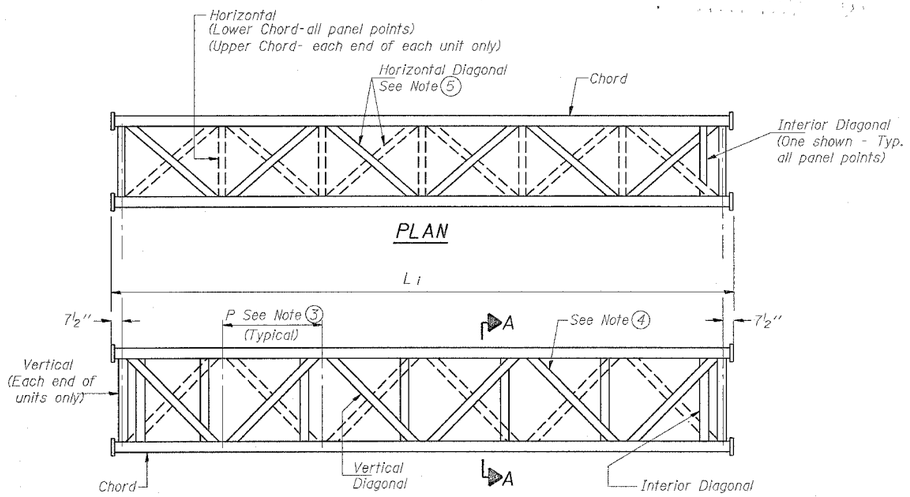
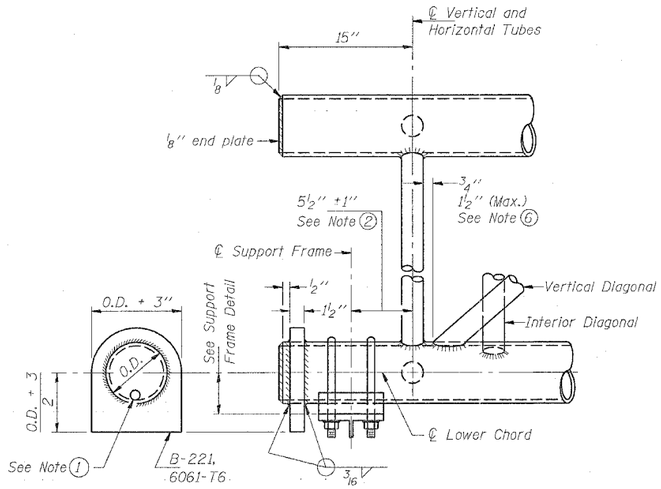
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

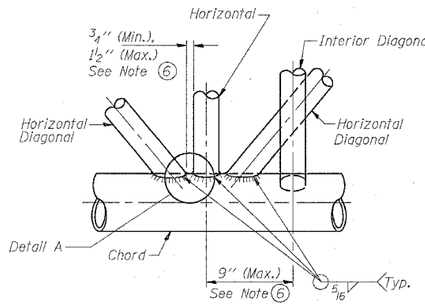


ELEVATION
TYPICAL INTERIOR UNIT

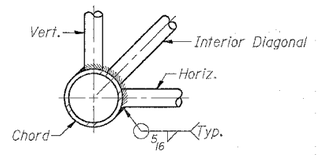
Even number of panels/interior unit required.

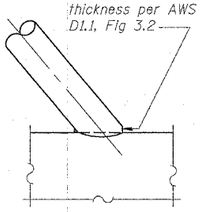


SUPPORT END DETAIL FOR EXTERIOR UNIT

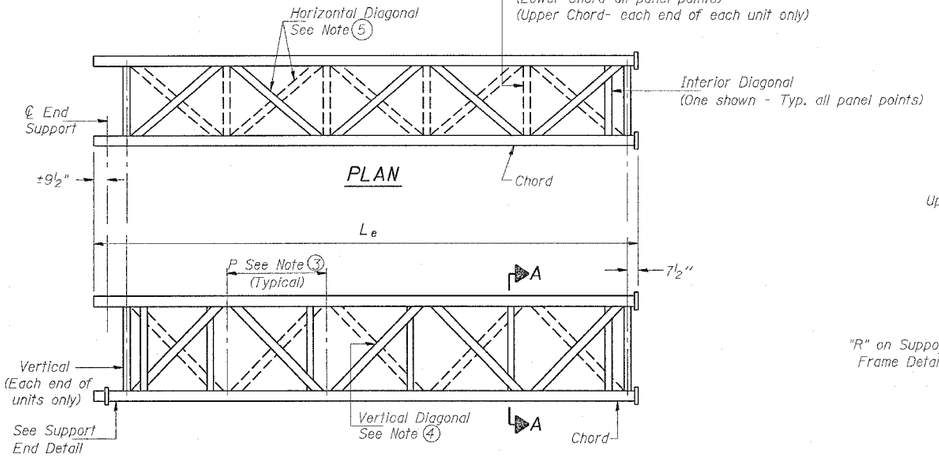


TYPICAL JOINT DETAILS



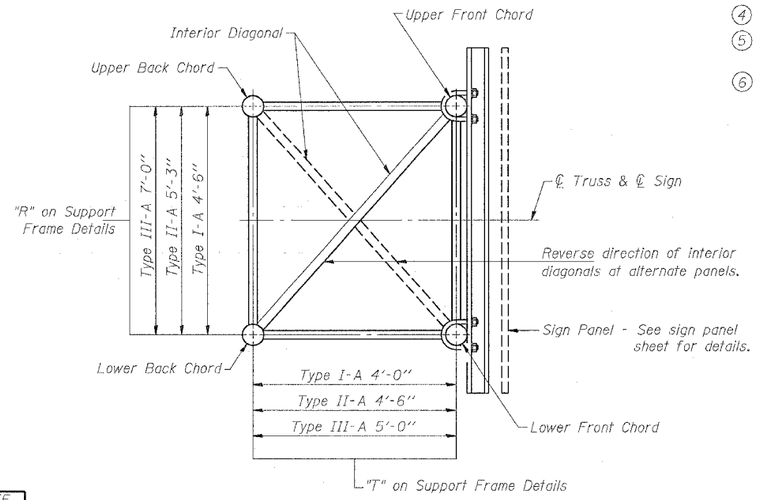


DETAIL A



ELEVATION
TYPICAL EXTERIOR UNIT

Even or add number of panels/exterior units allowed.



SECTION A-S

NOTES

1. Contractor may alternatively use standard aluminum drive-fit cap to close end. ½" ϕ drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
2. 5½" end dimension may vary by ±1" to provide uniform panel spacing (P).
3. Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-A or 4'-0" and 5'-6" for Types II-A and III-A.
4. Vertical Diagonals in front and back face shall alternate.
5. Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
6. All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a ¾" minimum to 1½" maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.

NUMBER	REVISION	DATE

OS-A-2 11/1/2002

OVERHEAD SIGN STRUCTURES
ALUMINUM TRUSS DETAILS
FOR TRUSS TYPES I-A, II-A and III-A

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

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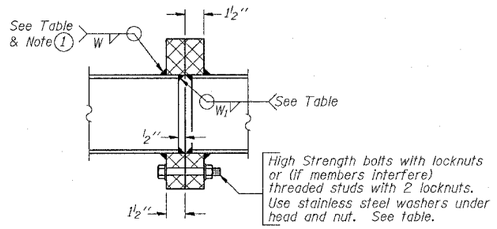
CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCKISLAND	476	239B
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

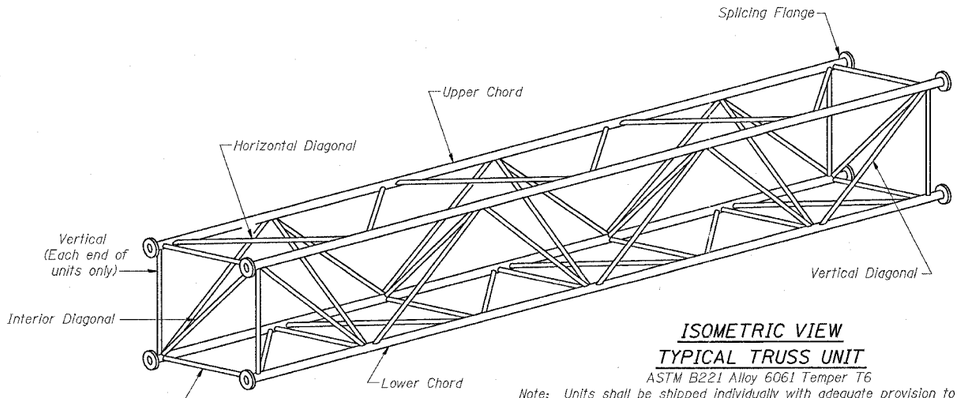
TRUSS UNIT TABLE

Structure Number	Station	Design Truss Type	Exterior Units (2)			Interior Unit				Upper & Lower Chord		Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals		Camber at Midspan	Splicing Flange					
			No. Panels per Unit	Unit Lgth.(L_e)	Panel Lgth.(P)	No. Req'd.	No. Panels per Unit	Unit Lgth.(L_i)	Panel Lgth.(P)	O.D.	Wall	O.D.	Wall		Bolts		Weld Sizes		A	B
															No./Splice	Dia.	W	W_1		
2S081NMB35900	359+00	II-A	6	34'-1 1/2"	5'-4 1/2"	1	6	33'-6"	5'-4 1/2"	6"	5/16"	3"	5/16"	3 1/2"	6	1"	3/8"	3/8"	10 1/4"	13 3/4"
2S081NMB38150	381+50	II-A	6	30'-9"	4'-9 3/4"	2	6	30-1 1/2"	4'-9 3/4"	7"	5/16"	3"	5/16"	4 1/4"	6	1"	5/16"	3/8"	11 1/2"	15"



SECTION B-B

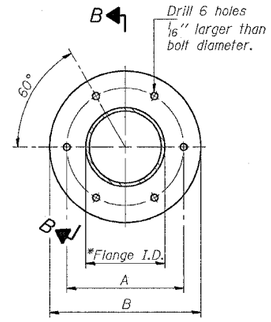
(1) Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds are made after disassembly. Adjacent flanges shall be "match marked" to insure proper field assembly.



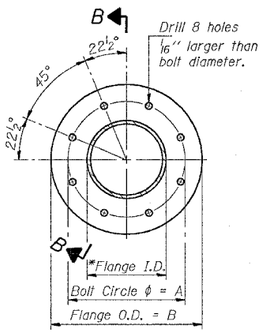
ISOMETRIC VIEW
TYPICAL TRUSS UNIT

ASTM B221 Alloy 6061 Temper T6

Note: Units shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The Contractor is responsible for maintaining the configuration and protection of the units.



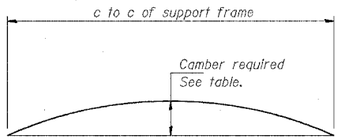
TRUSS TYPES I-A, II-A, & III-A



TRUSS TYPES II-A & III-A

SPLICING FLANGES

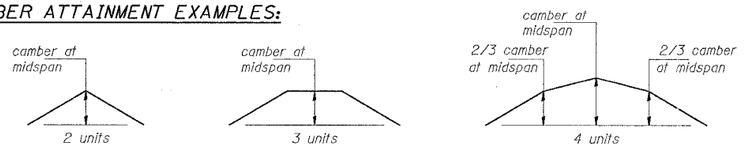
ASTM B221, Alloy 6061-T6
or ASTM B209, Alloy 6061-T651
*To fit O.D. of Chord with maximum gap of 1/16".



CAMBER DIAGRAM

Camber curve shown is theoretical. Actual camber attained by slope changes at splices between units.

CAMBER ATTAINMENT EXAMPLES:



Camber shown is for fabrication only, measured with truss fully supported. (No-load condition)

NUMBER	REVISION	DATE

OVERHEAD SIGN STRUCTURES
ALUMINUM TRUSS DETAILS
FOR TRUSS TYPES I-A, II-A and III-A

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

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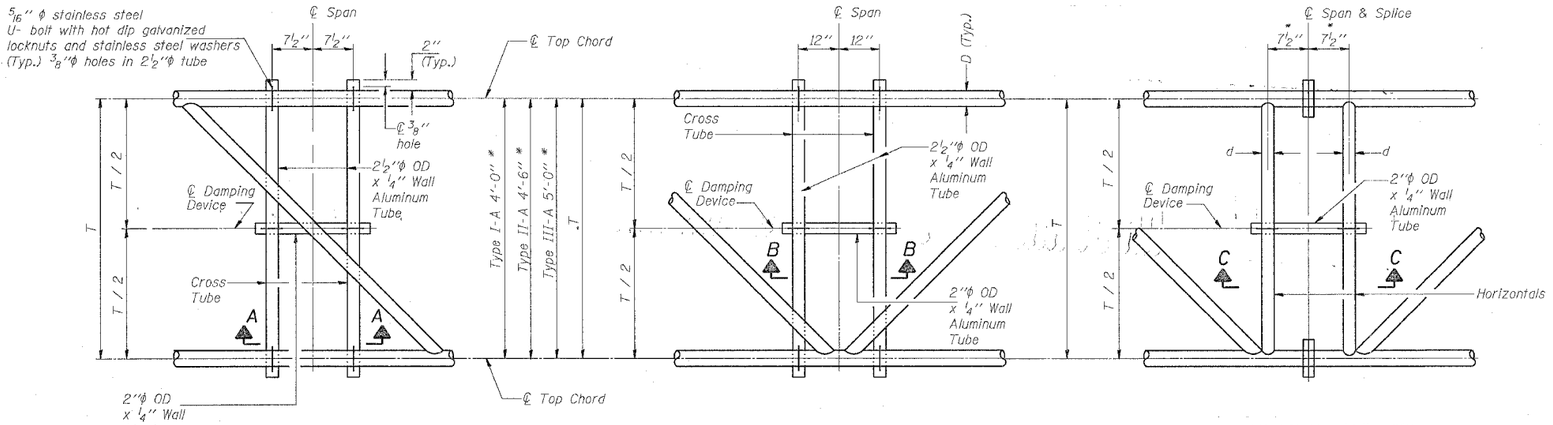
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	239C
STA. _____	TO STA. _____			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

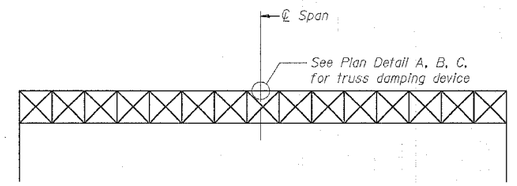
* Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.



PLAN DETAIL "A"
℄ SPAN BETWEEN PANEL POINTS

PLAN DETAIL "B"
℄ SPAN AT PANEL POINT

PLAN DETAIL "C"
℄ SPAN AT ℄ CHORD SPLICE

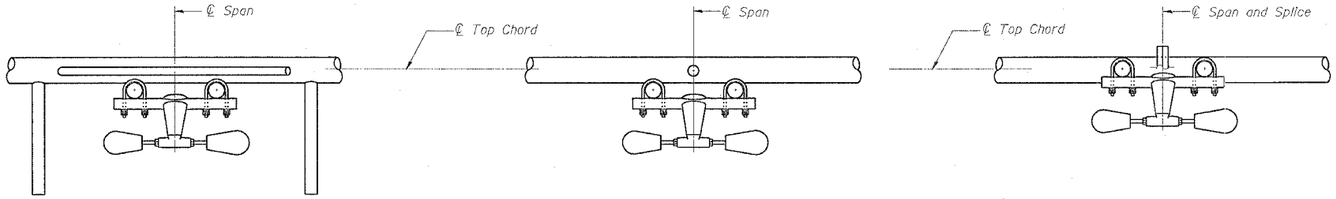


ELEVATION
Aluminum Overhead Sign Truss

NOTES

Damper: One damper per truss. (31 lbs. Stockbridge-Type Aluminum) Cost included in "Overhead Sign Structure..."

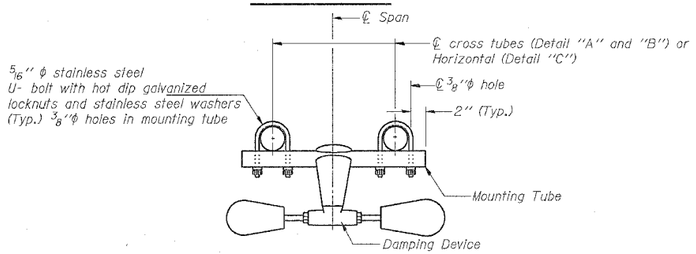
Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in "Overhead Sign Structure..."



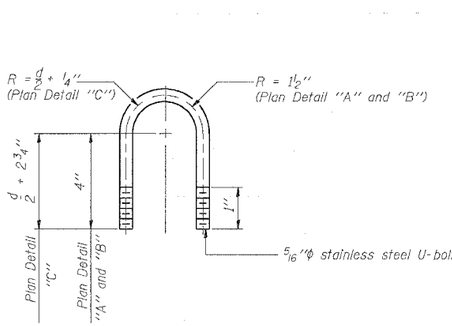
SECTION A-A

SECTION B-B

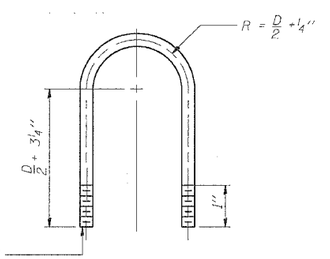
SECTION C-C



TRUSS DAMPING DEVICE CONNECTION DETAIL
(Typical)



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL
(Typical)



TOP CHORD TO CROSS TUBE U-BOLT DETAIL
(Typical - Detail "A" and "B")

OVERHEAD SIGN STRUCTURE
DAMPING DEVICE

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

OS-A-D 11/1/2002

PLOT DATE = Wed Dec 22 13:36:25 2004
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REFERENCE = sREFs

CONTRACT NO. 64647

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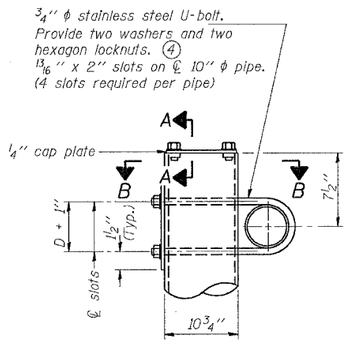
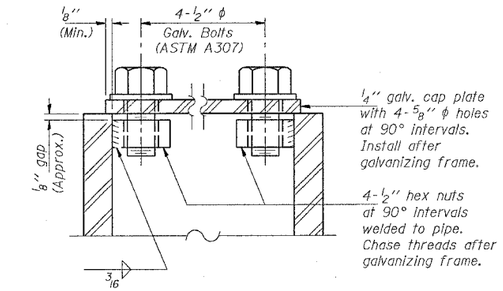
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

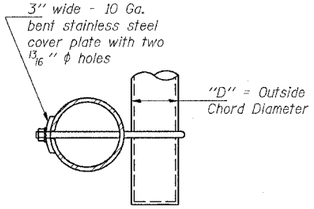


DETAIL A

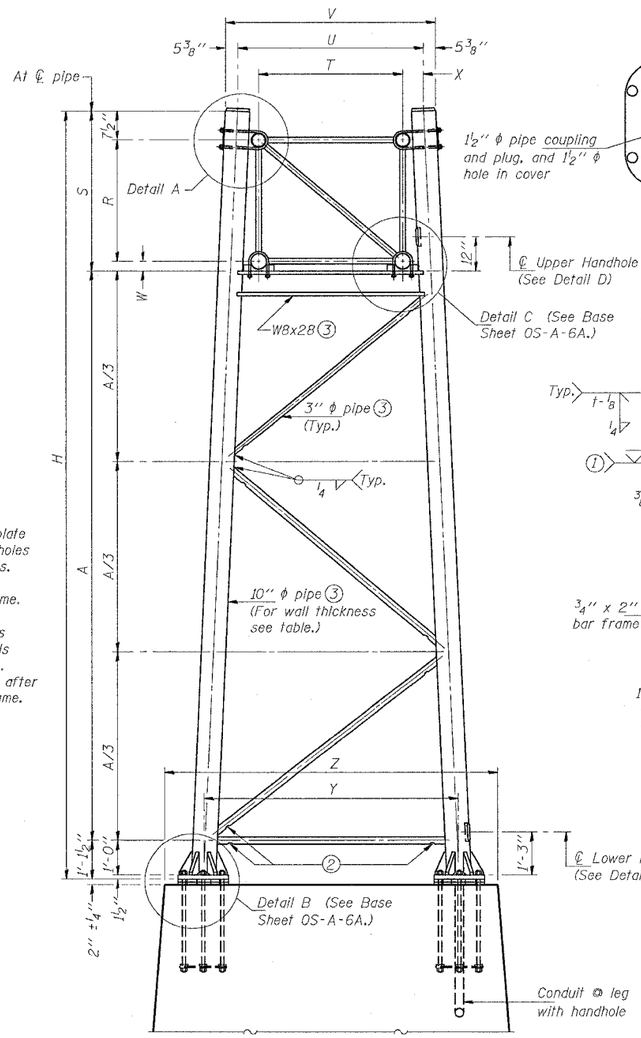


SECTION A-A

As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.

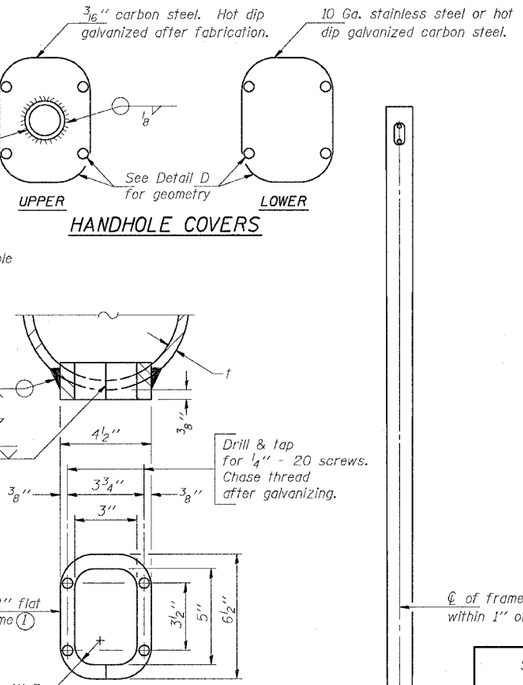


SECTION B-B

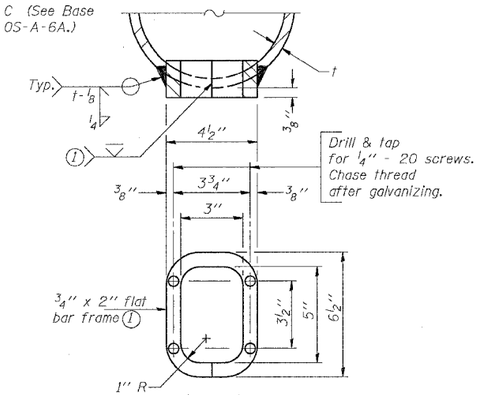


FOR FOUNDATION DETAILS SEE BASE SHEET OS-F3 (Spread Footing) or OS4-F3 (Drilled Shaft).

SIDE ELEVATION

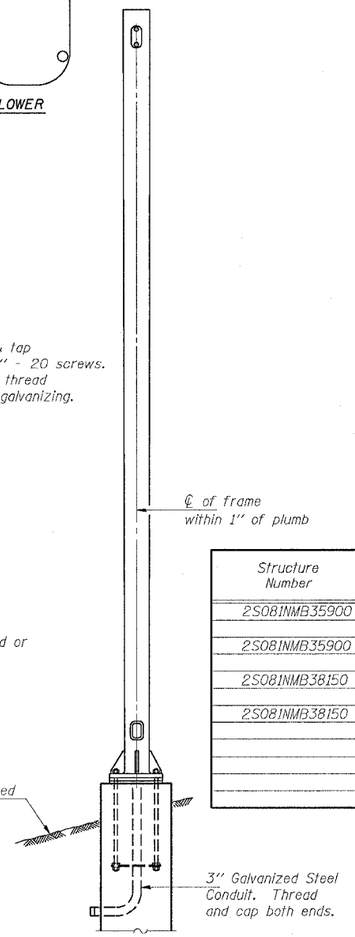


HANDHOLE COVERS



Provide 6 1/2" x 4 1/2" cover. Provide 4-5/16" ϕ holes in cover for 1/4"-20 round head hot dip galvanized or stainless steel machine screws. (See cover details)

DETAIL D



END ELEVATION

Support Design Loads: See Base Sheet OS-A-1 for design and loading criteria.
Load combinations checked include deadload plus:
a) 100% wind normal to sign, 20% parallel to sign
b) 60% wind normal to sign, 30% parallel to sign

(1) In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 $\sqrt{in}$ or less.
(2) Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred. (Typ.)
(3) Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Base Sheet OS-A-1.
(4) See General Notes for fasteners.
(5) Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.

Structure Number	Station	Support		Truss Type	Pipe Wall Thickness	H	A
		Left	Right				
2S081NMB35900	359+00	X		II-A	.365	26' 4 1/2"	18' 11 3/4"
2S081NMB35900	359+00		X	II-A	.365	26' 6"	19' 1 1/4"
2S081NMB38150	381+50	X		II-A	.365	23' 11 1/4"	16' 6 1/2"
2S081NMB38150	381+50		X	II-A	.365	27' 1 3/4"	9' 9"

10" ϕ PIPE TRUSS SUPPORT FRAME

Truss Type	Dimensions								
	R	S	T	U	V	W	X	Y	Z
I-A	4'-6"	5'-5 1/2"	4'-0"	5'-6"	6'-4 3/4"	4"	9"	8'-3"	10'-9"
II-A (5)	5'-3"	6'-3 1/4"	4'-6"	6'-1"	6'-11 3/4"	4 3/4"	9 1/2"	8'-3"	10'-9"

NUMBER	REVISION	DATE

OS-A-6 11/1/2002

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME for ALUMINUM TRUSS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE
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PLOT DATE = Wed Jan 25 07:12:16 2005
FILE NAME = c:\projects\os\os-a-6.sag\sign sheets.dgn
PLOT SCALE = 20.0000 '/ IN.
REFERENCE = REF

CONTRACT NO. 64647

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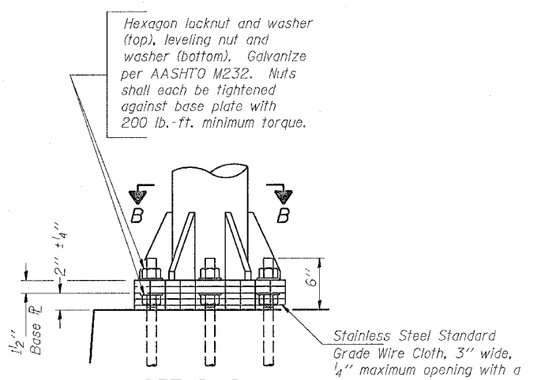
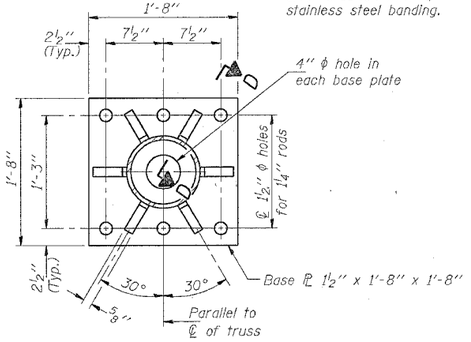
STA. _____	TO STA. _____			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

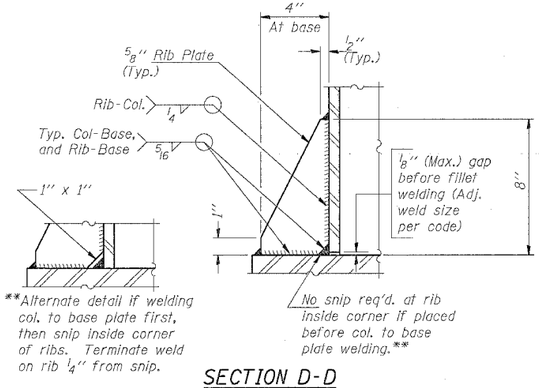


DETAIL B

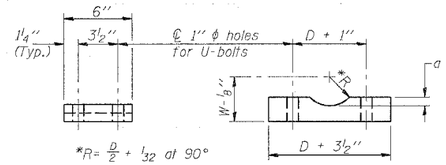
Ribs shall be cut to fit slope of pipe.



SECTION B-B



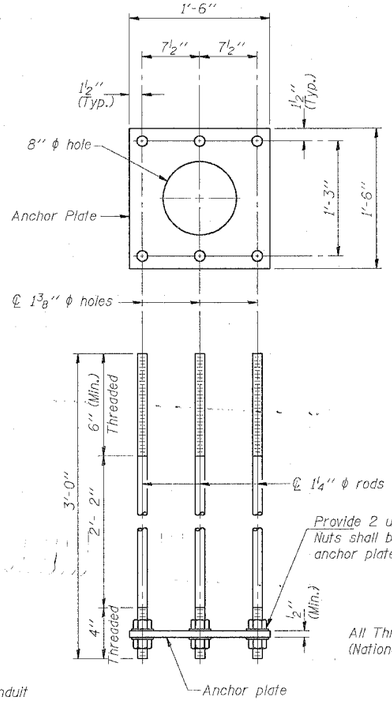
SECTION D-D



SADDLE SHIM DETAIL

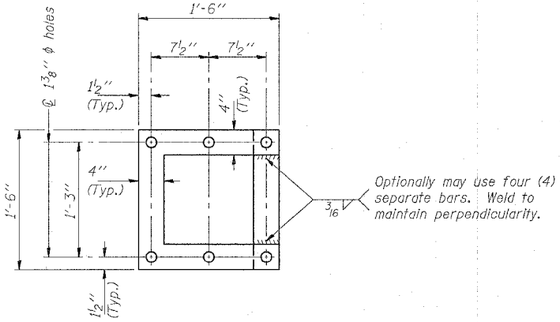
ASTM B26 Alloy 356-F
or
ASTM B209 Alloy 6061-T651
(4 required per sign truss)

Truss Chord Nominal Dia.	a
5''	3/4''
5 1/2''	13/16''
6''	7/8''
6 1/2''	15/16''
7''	1''

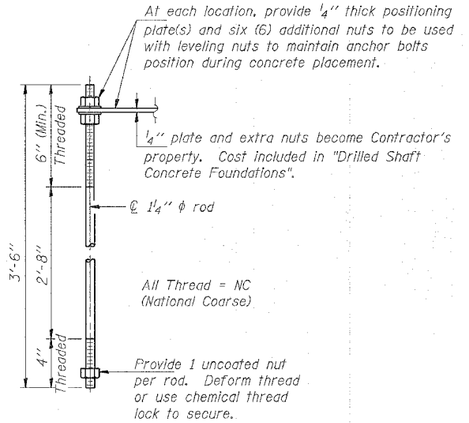


ANCHOR ROD DETAIL

Spread Footing Foundation



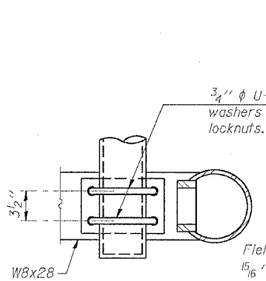
POSITIONING PLATE(S)



ANCHOR ROD DETAIL

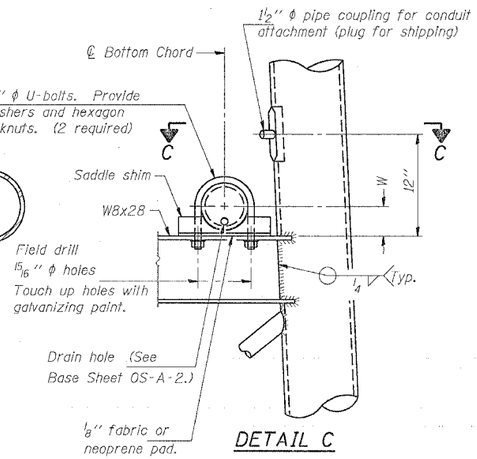
Drilled Shaft Foundation

Anchor rods shall conform to AASHTO M314 Grade 36 or 50 and meet Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. Galvanize upper 12'' per AASHTO M232. No welding shall be permitted on rods.



SECTION C-C

(Handhole cover not shown)



DETAIL C

10'' ϕ PIPE SUPPORT FRAME DETAILS

NUMBER	REVISION	DATE

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME DETAILS ALUMINUM TRUSS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE
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OS-A-6A 11/1/2002

PLOT DATE = Wed Dec 22 13:56:39 2004
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CONTRACT NO. 64647

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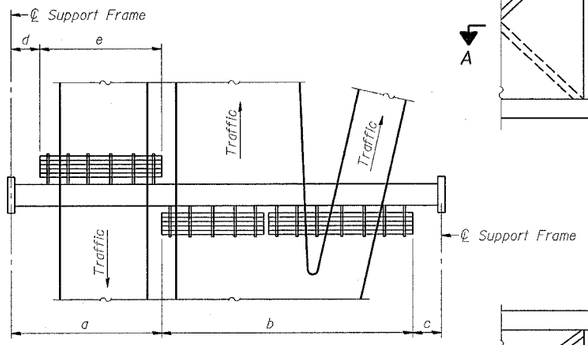
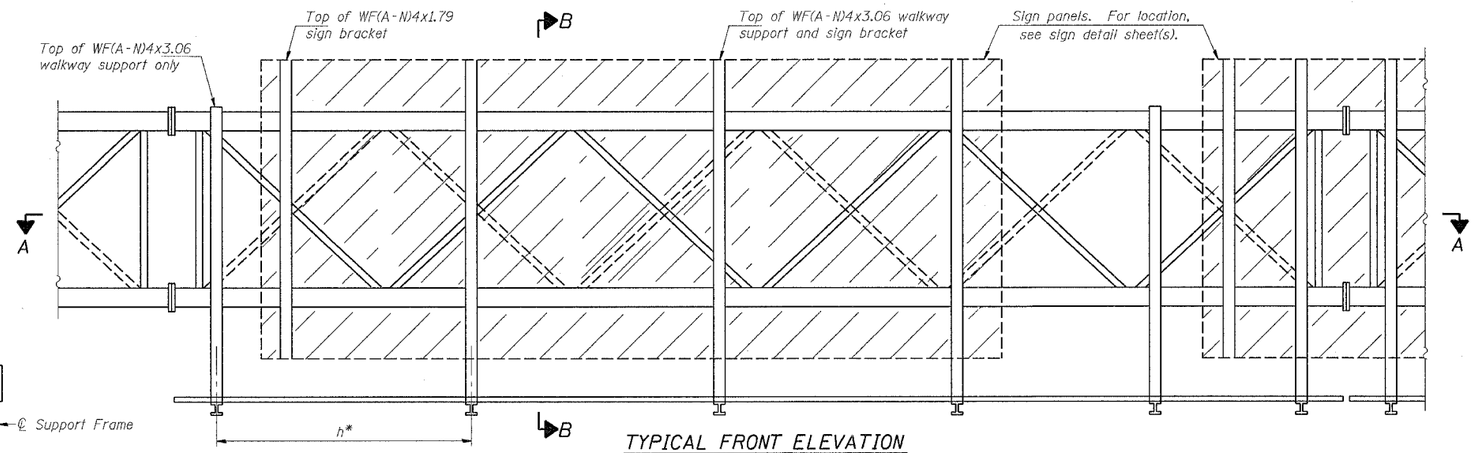
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PLAN

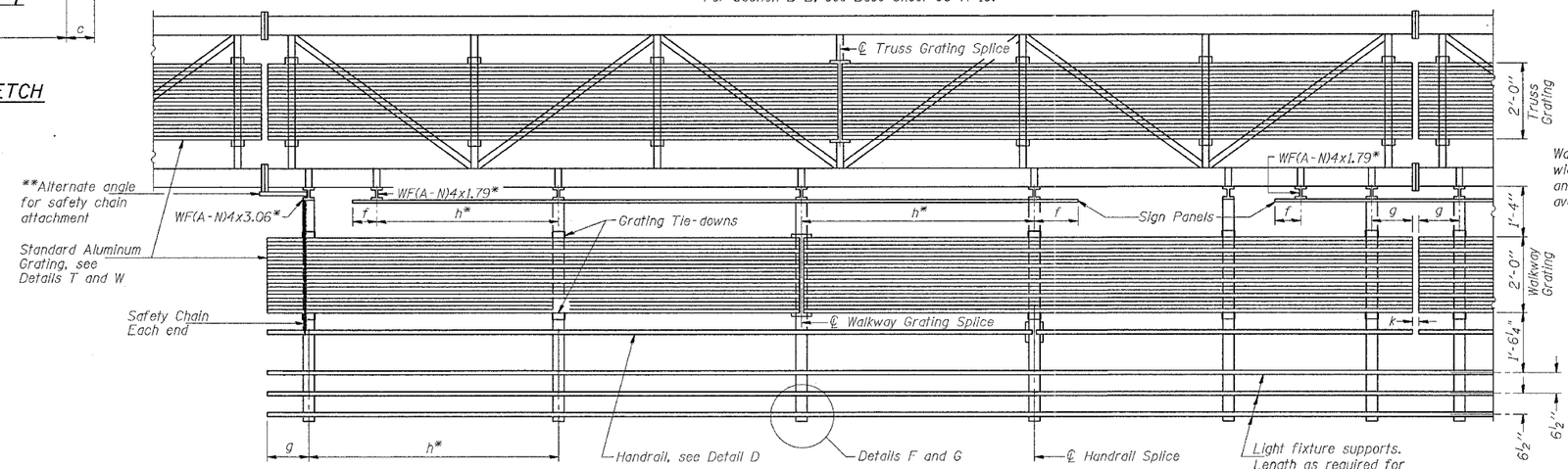
WALKWAY AND HANDRAIL SKETCH

(Road plan beneath truss varies)



TYPICAL FRONT ELEVATION

With lights and handrail omitted for clarity.
For Section B-B, see Base Sheet OS-A-10.



Walkway and Truss Grating width dimensions are nominal and may vary ±½" based on available standard widths.

BRACKET TABLE

WF(A-N)4x1.79 or WF(A-N)4x3.06
ASTM B308, Alloy 6061-T6

Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	10'-0"	2
10'-0"	16'-0"	3
16'-0"	22'-0"	4
22'-0"	28'-0"	5
28'-0"	34'-0"	6

Notes: *Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:

f = 12" maximum, 4" minimum (End of sign to ℄ of nearest bracket)
g = 12" maximum, 4" minimum (End of walkway grating to ℄ of nearest support bracket)
h = 6'-0" maximum (℄ to ℄ sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)
k = 2" maximum gap between adjacent walkway grating sections and handrail ends

**If walkway bracket at safety chain location is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet OS-A-11.

For Details T and W, Section B-B and Grating Splice Details, see Base Sheet OS-A-10.
For Details D, F, G and P and Handrail Splice Details, see Base Sheet OS-A-11.

SECTION A-A

Handrail and walkway shall span a minimum of three brackets between splices and/or gap joints. Place all sign and walkway brackets as close to panel points as practical. Grating, handrail and light support splices placed as needed.

Structure Number	Station	a	b	c	d	e	Walkway Grating and Handrail Lengths
2S081NMB35900	359+00	50'	35'	15'	12'	38'	73'
2S081NMB38150	381+50	44'	49'	27'	0'	44'	93'

Truss grating to facilitate inspection shall run full length (center to center of support frames) ±12" on overhead trusses. Cost of truss grating is included in "Overhead Sign Structure".

NUMBER	REVISION	DATE

OS-A-9 11/1/2002

OVERHEAD SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE
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PLOT DATE = Wed Jan 26 07:32:17 2005
FILE NAME = c:\projects\os\walkway sheets.dgn
PLOT SCALE = 20.0000 '/ IN.
REFERENCE = REF

CONTRACT NO. 64647

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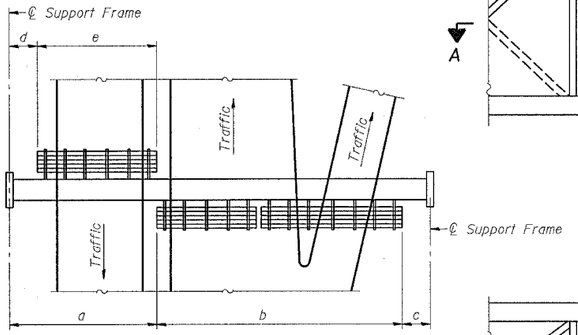
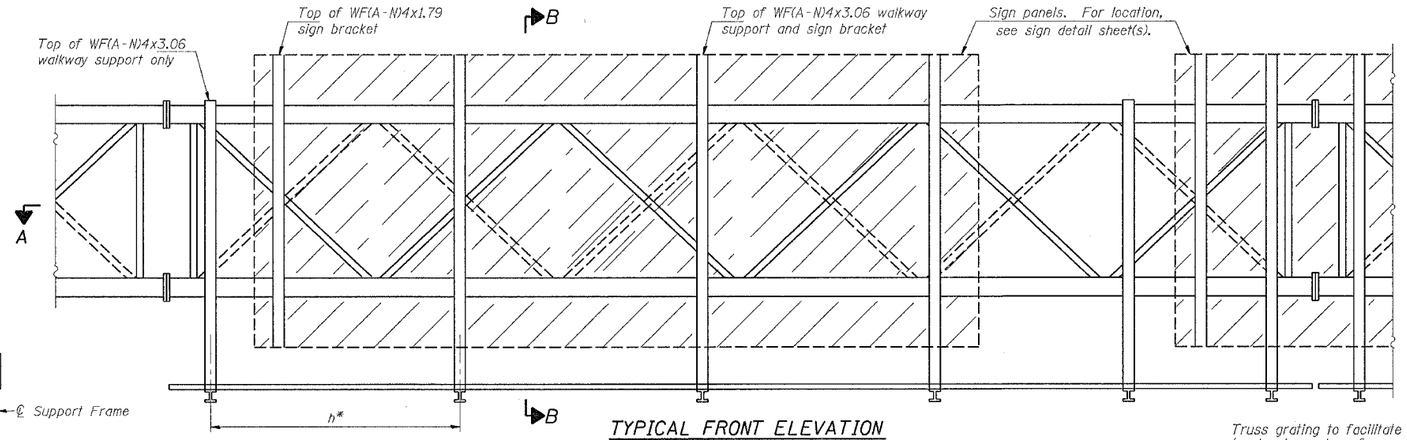
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PLAN

WALKWAY AND HANDRAIL SKETCH

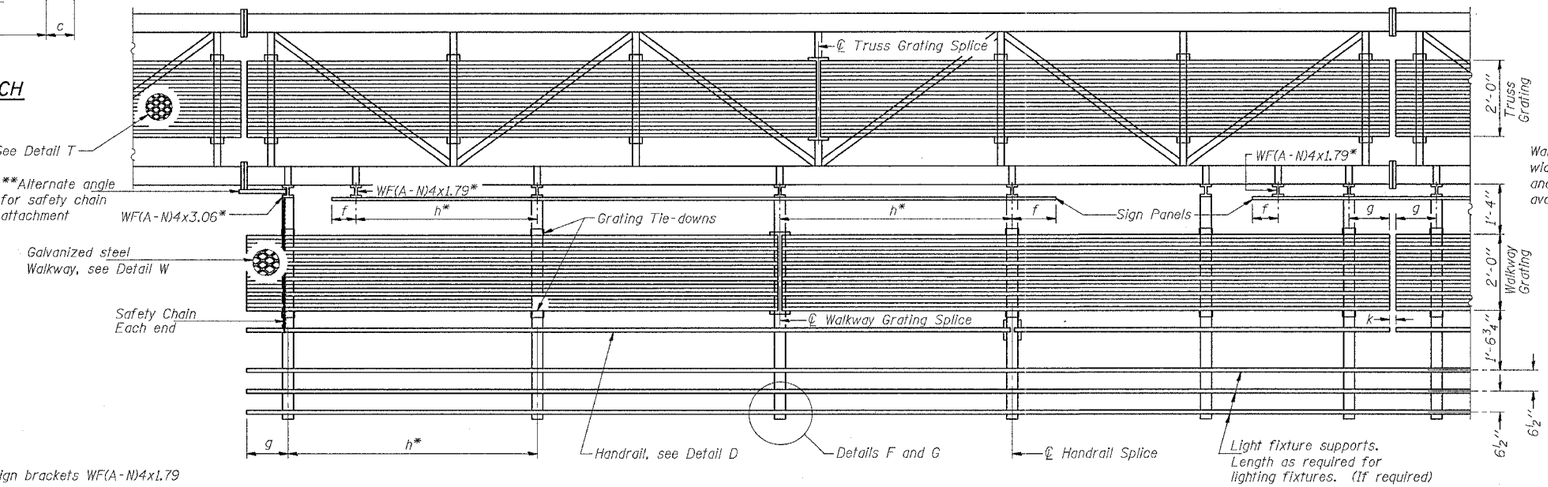
(Road plan beneath truss varies)



TYPICAL FRONT ELEVATION

With lights and handrail omitted for clarity.
For Section B-B, see Base Sheet OS-A-10.

Truss grating to facilitate inspection shall run full length (center to center of support frames) ±12" on overhead trusses. Cost of truss grating is included in "Overhead Sign Structure".



Walkway and Truss Grating width dimensions are nominal and may vary ±½" based on available standard widths.

BRACKET TABLE

WF(A-N)4x1.79 or WF(A-N)4x3.06 ASTM B308, Alloy 6061-T6		
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	10'-0"	2
10'-0"	16'-0"	3
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22'-0"	28'-0"	5
28'-0"	34'-0"	6

Notes: *Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:

f = 12" maximum, 4" minimum (End of sign to ℄ of nearest bracket)
g = 12" maximum, 4" minimum (End of walkway grating to ℄ of nearest support bracket)
h = 6'-0" maximum (℄ to ℄ sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)
k = 2" maximum gap between adjacent walkway grating sections and handrail ends

**If walkway bracket at safety chain location is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet OS-A-11.

For Details T and W, Section B-B and Grating Splice Details, see Base Sheet OS-A-10.
For Details D, F, G and P and Handrail Splice Details, see Base Sheet OS-A-11.

SECTION A-A

Handrail and walkway shall span a minimum of three brackets between splices and/or gap joints. Place all sign and walkway brackets as close to panel points as practical. Grating, handrail and light support splices placed as needed.

Note: Details shown are considered equal alternatives to the Aluminum Walkway on Base Sheet OS-A-9, and may be substituted by Contractor at no change in contract cost.

Structure Number	Station	a	b	c	d	e	Walkway Grating and Handrail Lengths
2S081NMB35900	359+00	50'	35'	15'	12'	38'	73'
2S081NMB38150	381+50	44'	49'	27'	0'	44'	93'

NUMBER	REVISION	DATE

OVERHEAD SIGN STRUCTURES ALTERNATE WALKWAY DETAILS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

OS-A-9S 11/1/2002

PLOT DATE = Wed Jan 26 07:32:17 2005
FILE NAME = c:\projects\bet1\walksign sheets.dgn
PLOT SCALE = 20.0000 '/ IN.
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CONTRACT NO. 64647

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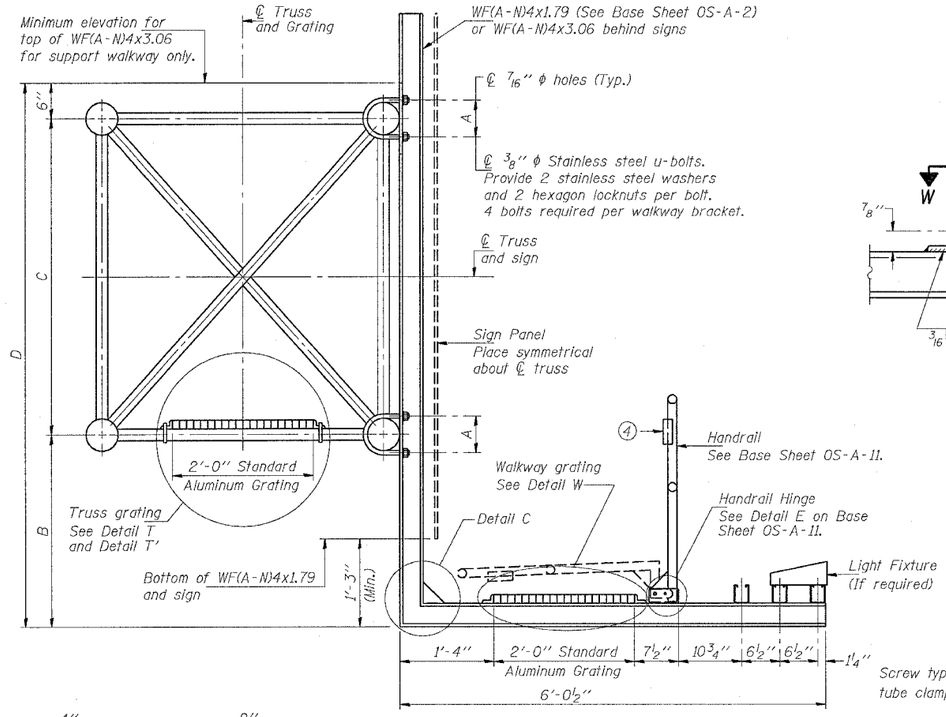
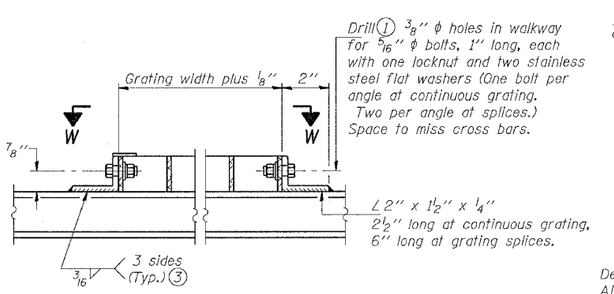
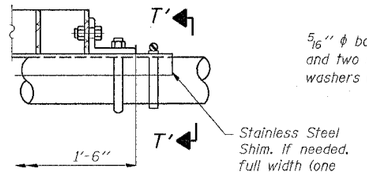
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



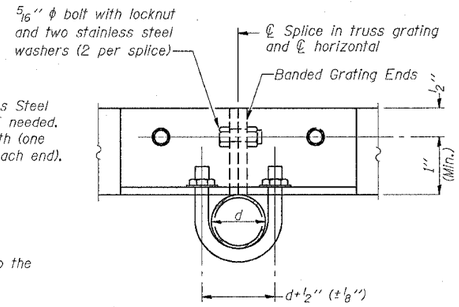
SECTION B-B



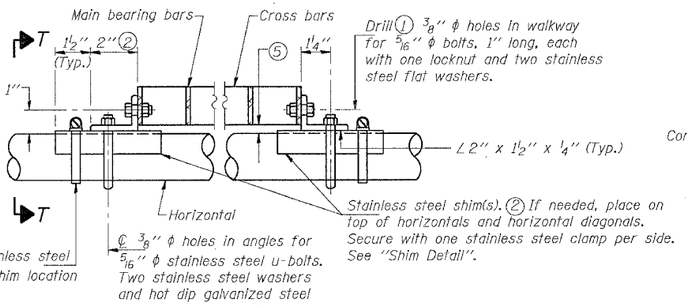
DETAIL W
(Walkway grating)



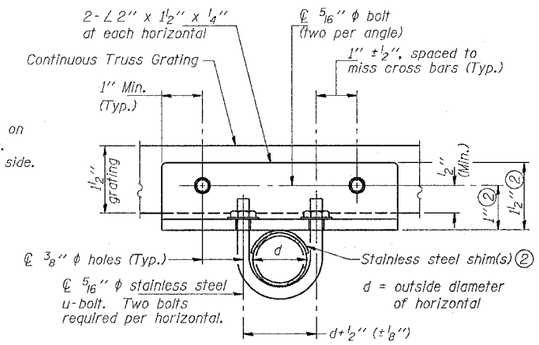
DETAIL T'
(Truss grating splice)
Details not shown same as Detail T.
Alternate materials may be used subject to the Engineer's review and approval.



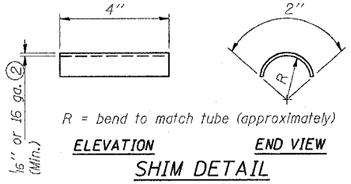
SECTION T'-T'



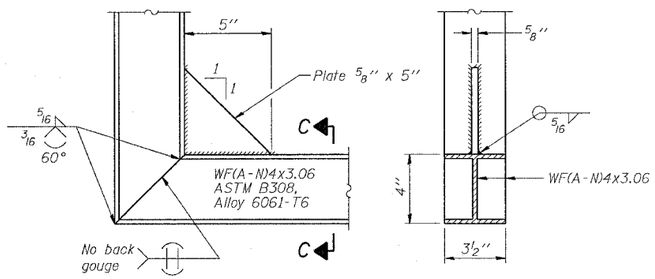
DETAIL T
(Continuous Truss grating)



SECTION T-T

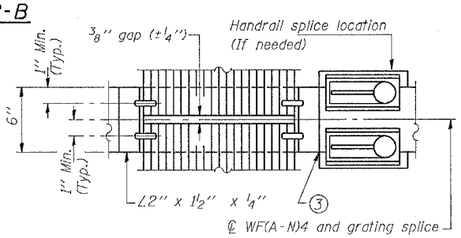


SHIM DETAIL

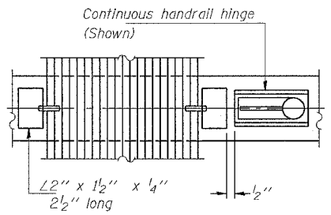


DETAIL C
(See Detail P, Base Sheet OS-A-11.)

SECTION C-C



(AT WALKWAY GRATING SPLICE)



(CONTINUOUS WALKWAY GRATING)

SECTION W-W

SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars shall be 3/16" x 1½" on 1 3/16" centers and conform to ASTM B221 Alloy 6061-T6.

Cross bars shall be 3/16" x 1½" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

Aluminum Grating with modified "T" sections for main bearing bars shall meet the following requirements:

Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.³ per bar, a depth of 1½", spaced on 1 3/16" centers.

Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

Structure Number	Station	A	B	C	D
2S081NMB35900	359+00	6 3/8"	3' 4 1/2"	5' 3"	9' 1 1/2"
2S081NMB38150	381+50	7 3/8"	2' 4 1/2"	5' 3"	8' 1 1/2"

NUMBER	REVISION	DATE

1. Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
2. Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.
3. If Handrail Joint present, weld angle to WF(A-N)4 and ¼" extension bars. (See Base Sheet OS-A-11.)
4. ℄ ⅛" x ½" x 2" welded to handrail posts to protect locations that contact grating.
5. Tube to grating gap may vary from 0 to ½" (max.) to align walkway, allow for camber, etc.

OVERHEAD SIGN STRUCTURES ALUMINUM WALKWAY DETAILS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

PLOT DATE = Wed Jan 26 07:32:17 2005
FILE NAME = c:\projects\walkway\sign sheets.dgn
PLOT SCALE = 28.2000 '/ IN.
REFERENCE = REF

OS-A-10 11/1/2002

CONTRACT NO. 64647

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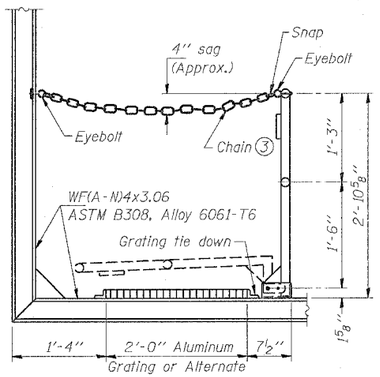
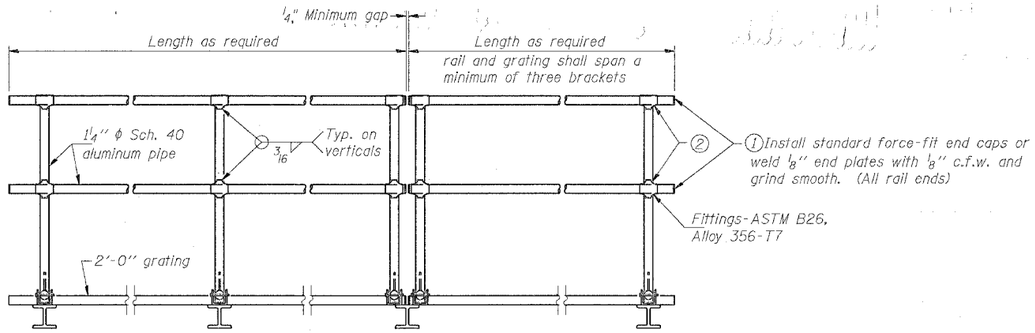
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



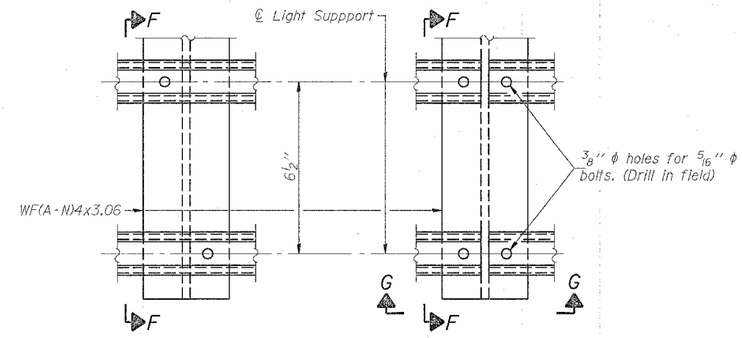
SIDE ELEVATION

(Showing safety chain w/o sign)



FRONT ELEVATION

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

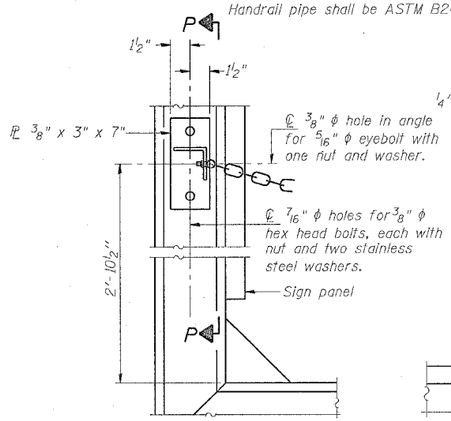


DETAIL F

DETAIL G

HANDRAIL DETAILS

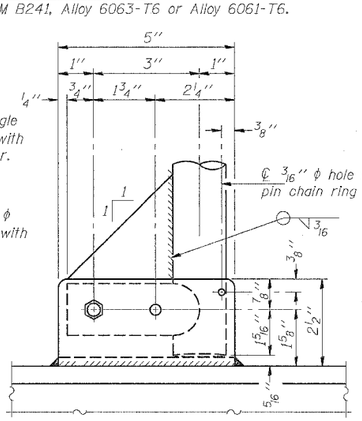
Handrail pipe shall be ASTM B241, Alloy 6063-T6 or Alloy 6061-T6.



ALTERNATE SAFETY CHAIN ATTACHMENT

(With Sign Present)

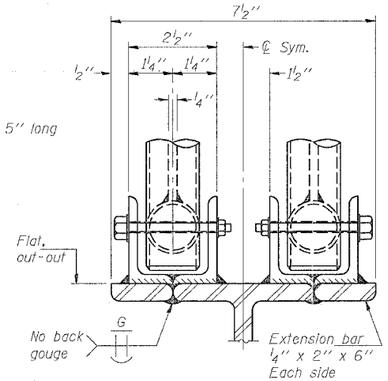
Items not shown same as "Side Elevation" of "Handrail Details"



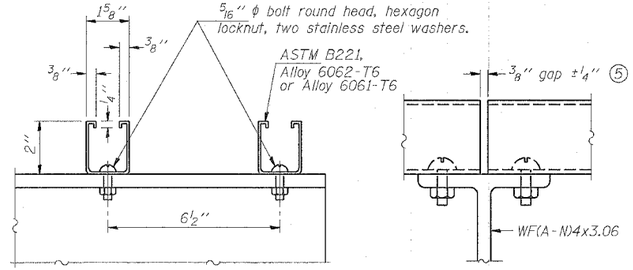
SIDE ELEVATION

FRONT ELEVATION

See "ELEVATION" at right for dimensions.



ELEVATION AT HANDRAIL JOINT (4)

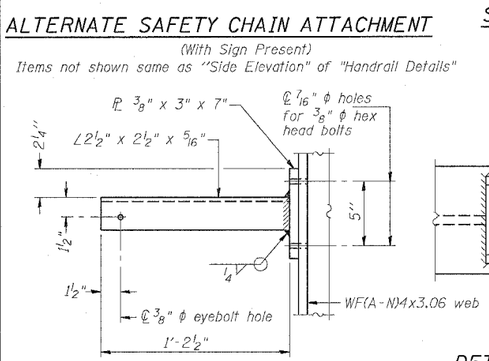


SECTION F-F

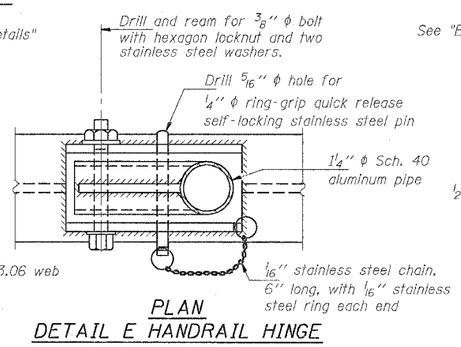
SECTION G-G

LIGHTING FIXTURE MOUNTS (IF REQUIRED)

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



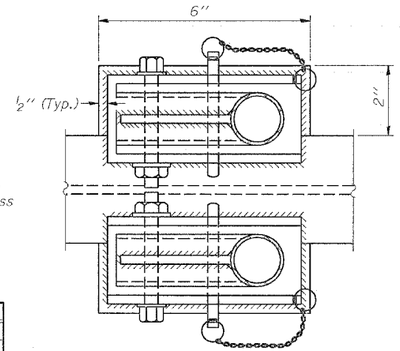
SECTION P-P



PLAN

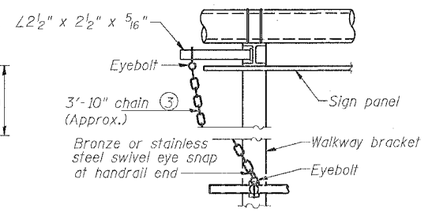
DETAIL E HANDRAIL HINGE

NUMBER	REVISION	DATE



PLAN AT HANDRAIL JOINT

Details not shown same as "PLAN"

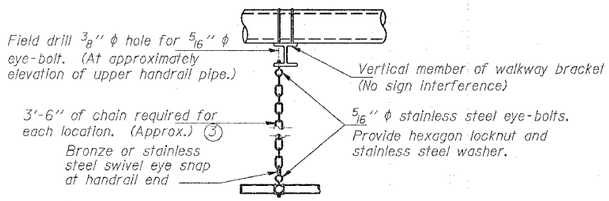


ALTERNATE SAFETY CHAIN ATTACHMENT

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

(3) 3/16" galvanized steel chain, approximately 12 links per foot. Chain to be hot dip galvanized after manufacture and suitable for prolonged exterior exposure. Alternate materials may be substituted with the Engineer's approval.

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



SAFETY CHAIN

One required for each end of each walkway.

OVERHEAD SIGN STRUCTURES
ALUMINUM HANDRAIL DETAILS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

OS-A-11 11/1/2002

PLOT DATE = Wed Dec 22 13:57:05 2004
FILE NAME = C:\Documents and Settings\khoutchen.gs\Desktop\bailey non-th\all7580\sign sheets.dgn
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REFERENCE = $REFS

CONTRACT NO. 64647

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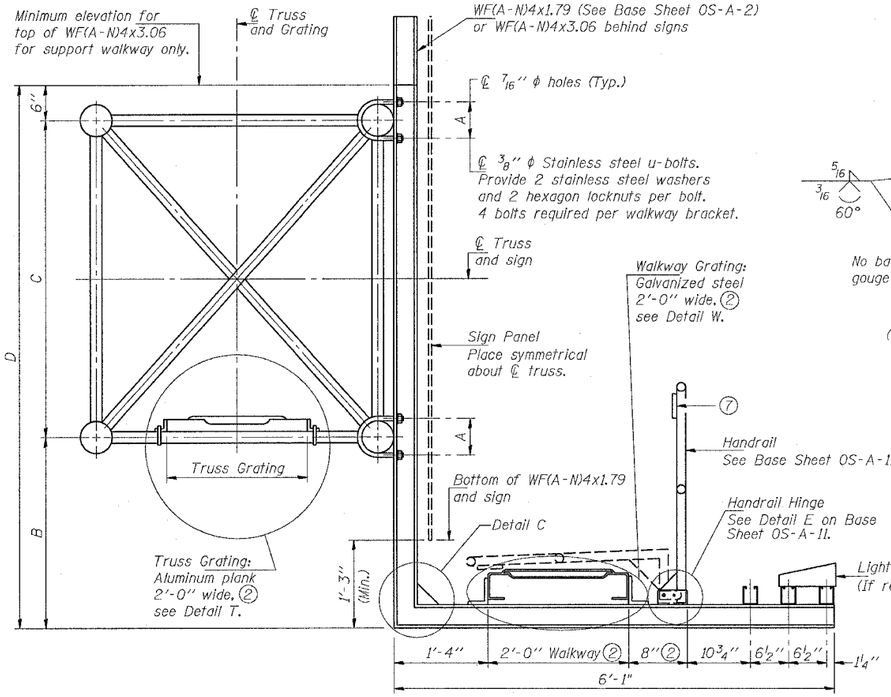
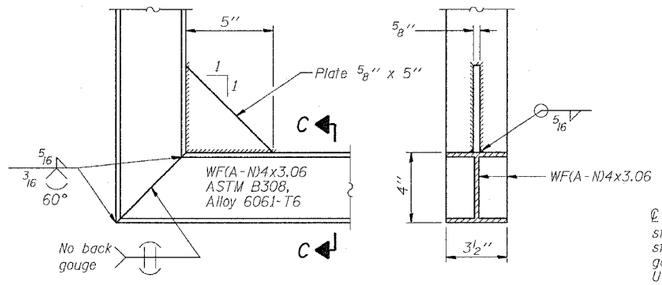
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



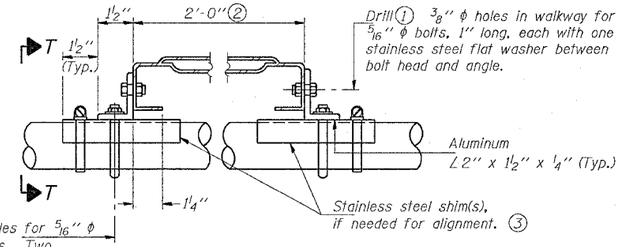
SECTION B-B



DETAIL C

(See Detail P, on Base Sheet OS-A-11.)

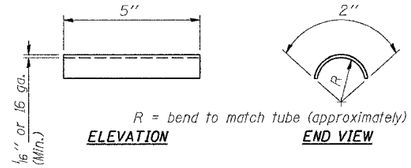
SECTION C-C



℄ 3/8" ϕ holes in angles for 5/16" ϕ stainless steel u-bolts. Two stainless steel washers and hot dip galvanized steel nuts required per bolt. U-bolt and angle connections required at horizontals only.

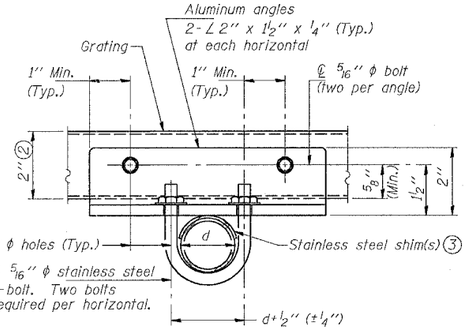
DETAIL T

(Truss grating at horizontal)



ELEVATION END VIEW

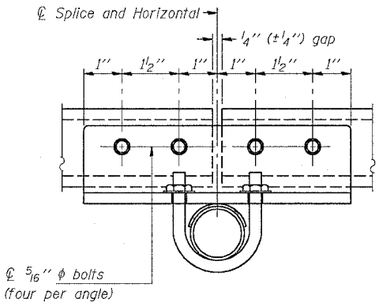
SHIM DETAIL



SECTION T-T

(Truss Grating Continuous)

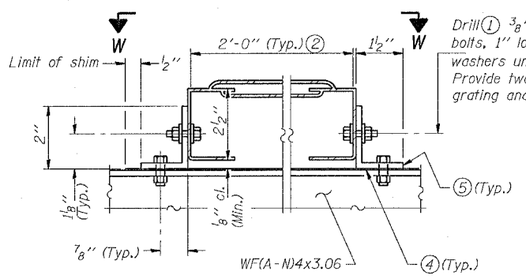
d = outside diameter of horizontal



SECTION T-T

(Truss Grating Splice)

Details not shown same as Section T-T. Alternate splice details and locations may be used subject to the Engineer's review and approval.

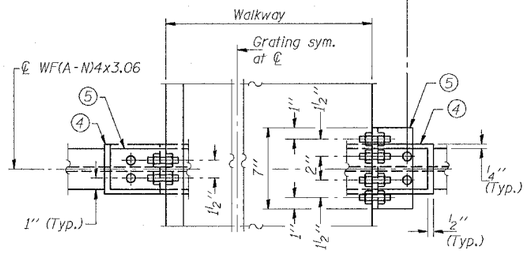


Drill (1) 3/8" ϕ holes in walkway for 5/16" ϕ bolts, 1" long, with stainless steel flat washers under bolt head and under locknut. Provide two per angle for continuous grating and four per angle at grating splices.

DETAIL W

GALVANIZED STEEL WALKWAY GRATING

℄ 3/8" ϕ holes for 5/16" ϕ steel bolts with two stainless steel washer and hexagon nut per bolt. (Typ.) Provide one per angle at continuous grating or two per angle at grating splices.



WALKWAY GRATING CONTINUOUS AT WALKWAY GRATING SPLICE

SECTION W-W

(1) Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.

(2) Perforated or expanded metal grating providing a skid resistant (non-serrated) surface and capable of supporting a 500 pound concentrated load with a 6'-0" clear span. Walkway and truss grating dimensions are nominal and may vary (width ±1/2", depth ±1/2") based on available standard sizes. Cut ends of grating shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.

(3) Stainless steel shims shall be placed under angles at horizontals and horizontal diagonals if needed to compensate for alignment variations and differences in horizontal diagonal pipe sizes beyond adjustment provided by angles. Secure with one stainless steel clamp per location, see "Shim Detail". Thicker shim plates may be used when needed subject to shims performing properly.

(4) 1/16" (or 16 ga.) x 2 1/2" x 4" stainless steel shim adhered to top of WF(A-N)4x3.06 beneath each galvanized angle. Adhesives for shims shall be suitable for materials joined and full exposure conditions.

(5) Galvanized steel ∠ 2" x 1 1/2" x 1/4", 3 1/2" long with continuous grating, 7 1/2" long at grating splice.

(6) Details shown are considered equal alternatives to the Aluminum Walkway on Base Sheet OS-A-10 and may be substituted by Contractor at no change in contract cost.

(7) ℄ 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.

ALUMINUM TRUSS GRATING

Structure Number	Station	A	B	C	D
2S081NMB35900	359+00	6 3/8"	3' 4 1/2"	5' 3"	9' 1 1/2"
2S081NMB38150	381+50	7 3/8"	2' 4 1/2"	5' 3"	8' 1 1/2"

NUMBER	REVISION	DATE

OVERHEAD SIGN STRUCTURES
ALTERNATE WALKWAY DETAILS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

OS-A-10S 11/1/2002

PLOT DATE = Wed Jan 26 07:32:18 2005
FILE NAME = c:\projects\sheets\sign sheets.dgn
PLOT SCALE = 24.0000 '/ IN.
REFERENCE = REF

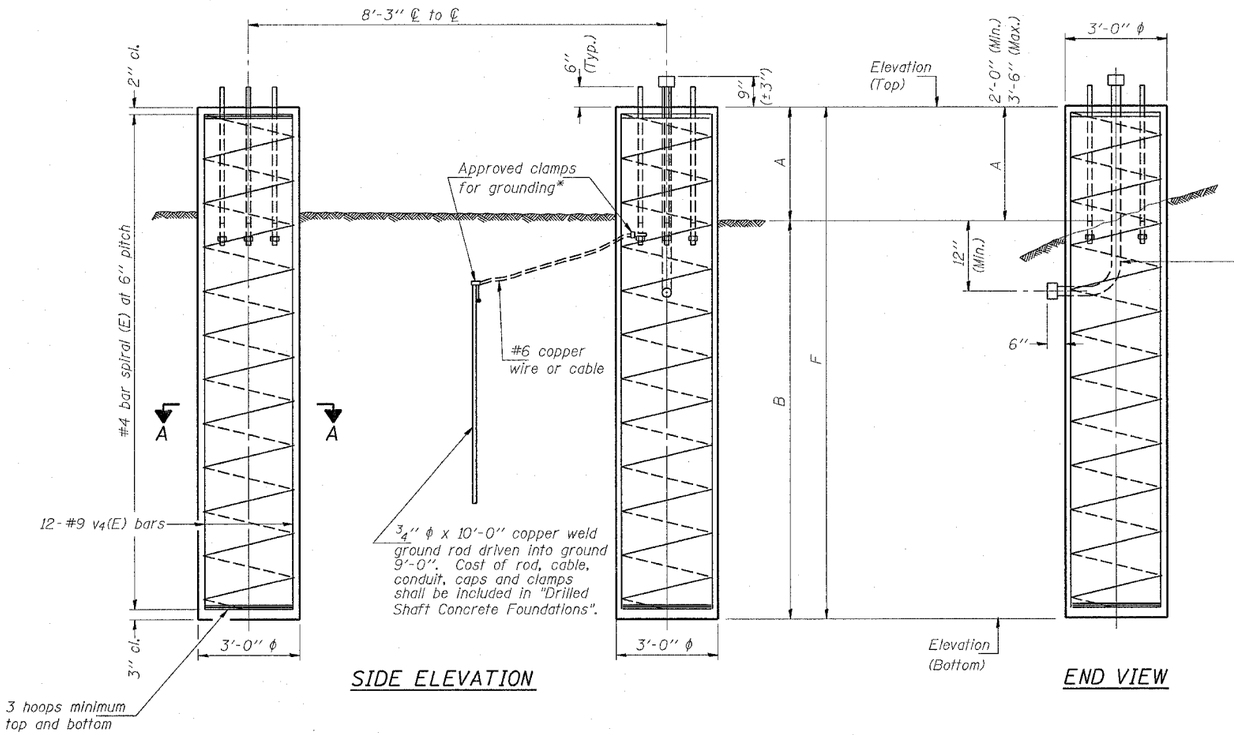
CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCKISLAND	476	240E
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

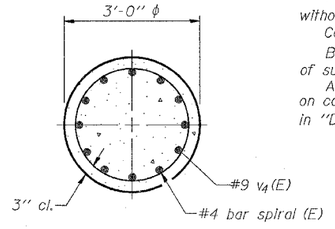
For anchor rod size and placement, see Support Frame Detail Sheet.

**Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.*

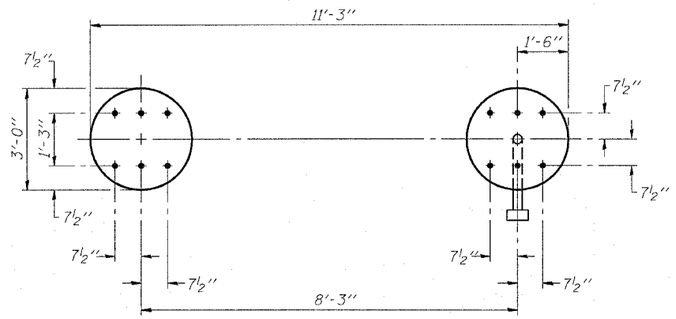


SIDE ELEVATION

END VIEW



SECTION A-A



PLAN

BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
v4(E)	24	#9	F less 5"	———
#4 bar spiral (E) - see "SIDE ELEVATION"				

NOTES:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

No sonotubes or decomposable forms shall be used below the lower conduit entrance.

Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in "Drilled Shaft Concrete Foundation".

Structure Number	Station	Left Foundation					Right Foundation					Class SI Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	A	B	F	Elevation Top	Elevation Bottom	A	B	F	
2S081NMB35900	359+00	590.487	570.987	2	17.5	19.5	590.366	570.866	2	17.5	19.5	22.7
2S081NMB38150	381+50	580.057	557.557	2	20.5	22.5	576.849	554.349	2	20.5	22.5	26.2

DESIGNED	-
CHECKED	-
DRAWN	-
CHECKED	-

- 20

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

DETAILS FOR 10" ϕ SUPPORT FRAME
TYPE I-A or II-A TRUSS

OVERHEAD SIGN STRUCTURES
DRILLED SHAFT DETAILS

ILLINOIS DEPARTMENT OF TRANSPORTATION

PLOT DATE = Wed Jan 26 07:32:18 2005
FILE NAME = c:\projects\bullseye\sign sheets.dgn
PLOT SCALE = 20.0000 ' / IN.
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OS4-F3 11/1/2002

CONTRACT NO. 64647

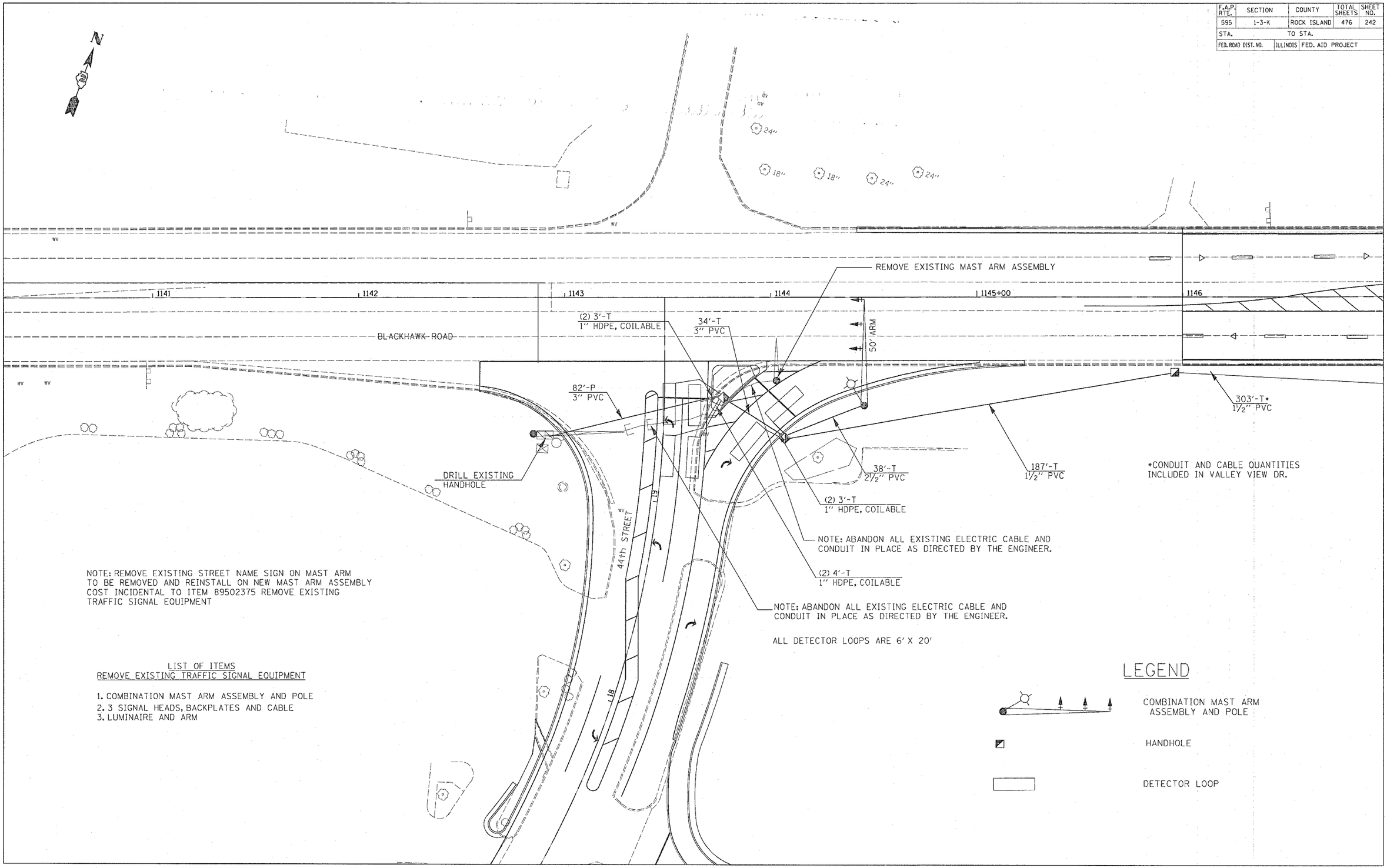
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	241
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

CODE NUMBER	PAY ITEM	UNIT	TOTAL QUANTITY	44TH STREET	VALLEY VIEW	RAMP 1 AND 2	RAMP 3 AND 4
80500105	SERVICE INSTALLATION, TYPE A (MODIFIED)	EA.	3		1	1	1
80801500	WOOD POLE, 25 FT., CLASS 5	EA.	1				1
81012500	CONDUIT IN TRENCH, 1-1/2" DIA., PVC	FT.	3,932	187	785	524	2,436
81012600	CONDUIT IN TRENCH, 2" DIA., PVC	FT.	418		74	275	69
81012700	CONDUIT IN TRENCH, 2-1/2" DIA., PVC	FT.	319	38	81	92	108
81012800	CONDUIT IN TRENCH, 3" DIA., PVC	FT.	336	34	86	127	89
81013000	CONDUIT IN TRENCH, 4" DIA., PVC	FT.	216		141	75	
81013100	CONDUIT IN TRENCH, 5" DIA., PVC	FT.	15		5	5	5
81016300	CONDUIT IN TRENCH, 1" DIA., HIGH DENSITY POLYETHYLENE, COILABLE	FT.	20	20			
81021350	CONDUIT PUSHED 3" DIA., PVC	FT.	82	82			
81102600	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., PVC	FT.	195			195	
81400100	HANDHOLE	EA.	21	3	4	5	9
81400300	DOUBLE HANDHOLE	EA.	3		1	1	1
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FT.	5,256	279	1,172	1,098	2,707
81702110	ELECTRICAL CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FT.	4,462	456	1,880	1,282	844
82103250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 250 WATT	EA.	1	1			
82103400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 400 WATT	EA.	9		3	3	3
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EA.	3		1	1	1
86000100	MASTER CONTROLLER	EA.	1			1	
86400100	TRANSCEIVER-FIBER OPTIC	EA.	3		1	1	1
87100160	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5, 24F	FT.	1,968	357	1,009	602	
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FT.	7,901	711	2,238	3,057	1,895
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FT.	762		762		
87301515	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 18 3 PAIR	FT.	229	229			
87301815	ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 3C	FT.	484		125	319	40
87502500	TRAFFIC SIGNAL POST, GALVANIZED 16 FT.	EA.	6		2	2	2
87700160	STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EA.	2		1	1	
87702880	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 30 FT.	EA.	2		1	1	
87702920	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 38 FT.	EA.	2		1		1
87702940	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 42 FT.	EA.	1			1	
87702970	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 48 FT.	EA.	3		1		2
87702980	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 50 FT.	EA.	1	1			
87703000	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 55 FT.	EA.	1			1	
87800100	CONCRETE FOUNDATION, TYPE A	FT.	18		6	6	6
87800200	CONCRETE FOUNDATION, TYPE D	FT.	10.5		3.5	3.5	3.5
87800400	CONCRETE FOUNDATION, TYPE E, 30-INCH DIA.	FT.	20		10	10	
87800415	CONCRETE FOUNDATION, TYPE E, 36-INCH DIA.	FT.	124	15	35	37	37
87900200	DRILL EXISTING HANDHOLE	EA.	1	1			
88200310	TRAFFIC SIGNAL BACKPLATE, LOUVERED, PLASTIC	EA.	43	3	13	14	13
88600100	DETECTOR LOOP, TYPE I	FT.	376	376			
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EA.	1	1			
89502380	REMOVE EXISTING HANDHOLE	EA.	1	1			
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EA.	1	1			
X0323437	CONDUIT FLEXIBLE METALLIC, WEATHERPROOF 2"	EA.	2			1	1
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FT.	2,986		393	461	2,132
X8801300	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EA.	6			3	3
X8801310	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EA.	30	3	6	11	10
X8801395	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EA.	2		2		
X8801400	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EA.	1		1		
X8801447	SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EA.	1		1		
X8808010	OPTICALLY PROGRAMMED SIGNAL HEAD, POLYCARBONATE, 1-FACE, 3-SECTION BRACKET MOUNTED	EA.	2		2		
X0320872	VIDEO VEHICLE DETECTION SYSTEM	EA.	3		1	1	1

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	242
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTE: REMOVE EXISTING STREET NAME SIGN ON MAST ARM TO BE REMOVED AND REINSTALL ON NEW MAST ARM ASSEMBLY COST INCIDENTAL TO ITEM 89502375 REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

LIST OF ITEMS
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

1. COMBINATION MAST ARM ASSEMBLY AND POLE
2. 3 SIGNAL HEADS, BACKPLATES AND CABLE
3. LUMINAIRE AND ARM

LEGEND

COMBINATION MAST ARM ASSEMBLY AND POLE

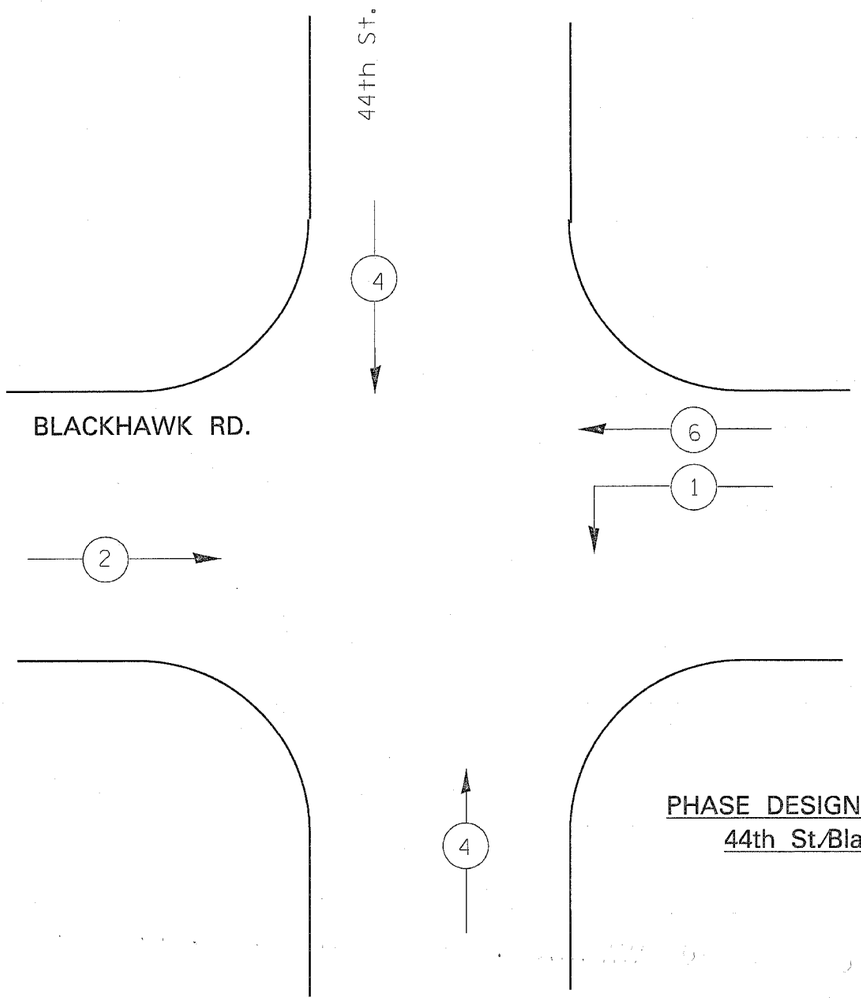
HANDHOLE

DETECTOR LOOP

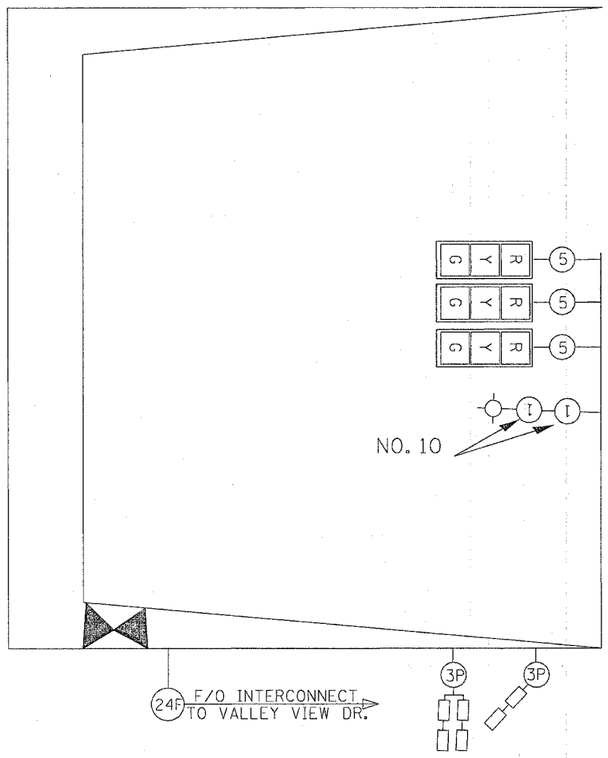
44TH STREET TRAFFIC SIGNALS

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	243
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



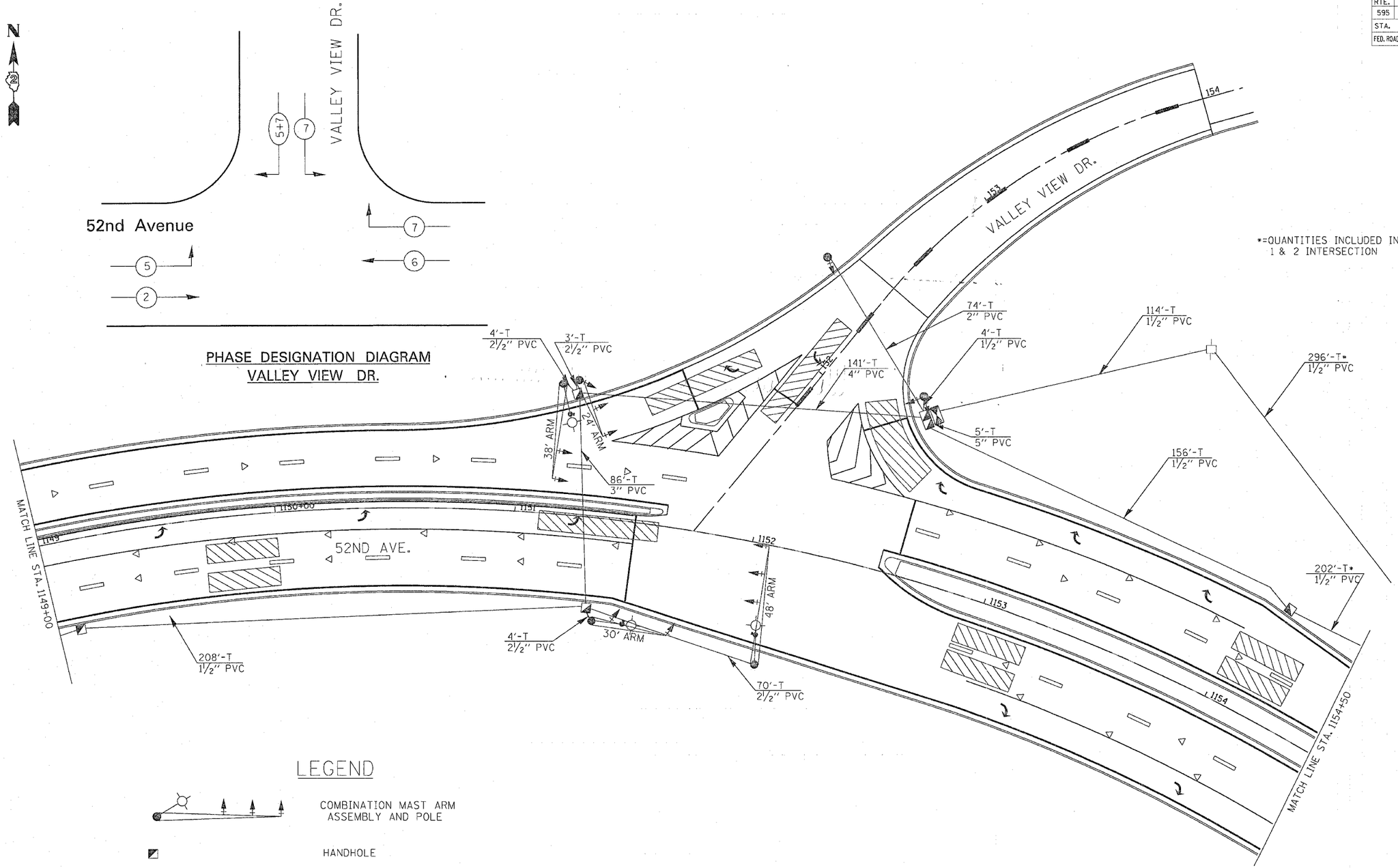
PHASE DESIGNATION DIAGRAM
44th St./Blackhawk Rd.



WIRING DIAGRAM 44TH ST.

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	244
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LEGEND

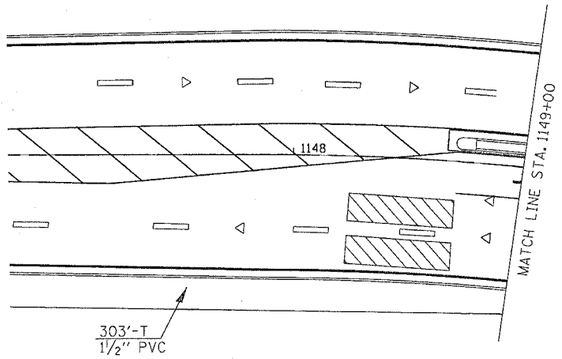
- COMBINATION MAST ARM ASSEMBLY AND POLE
- HANDHOLE
- VIDEO DETECTION ZONE
- VIDEO DETECTION CAMERA

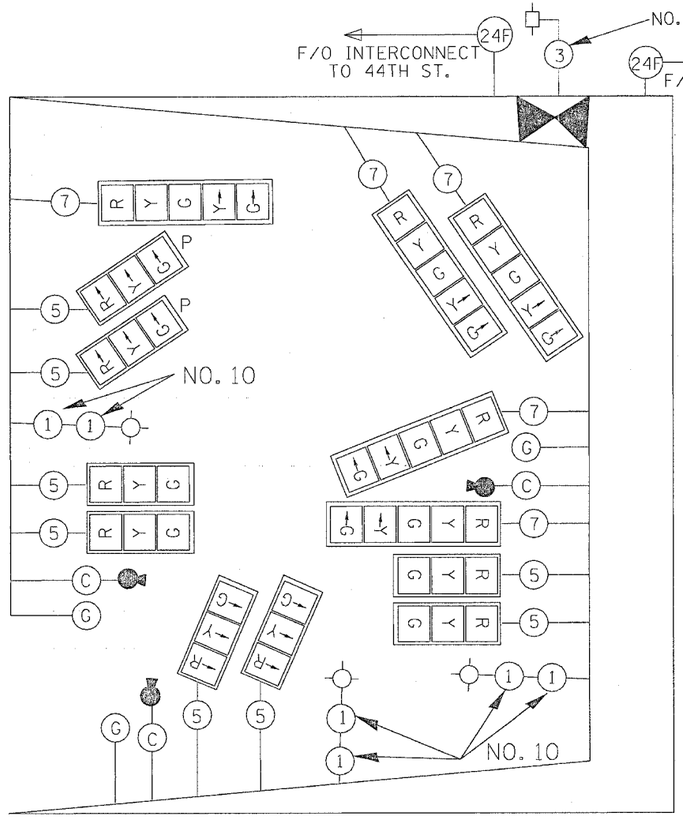
VALLEY VIEW DR. TRAFFIC SIGNALS

CONTRACT NO. 64647

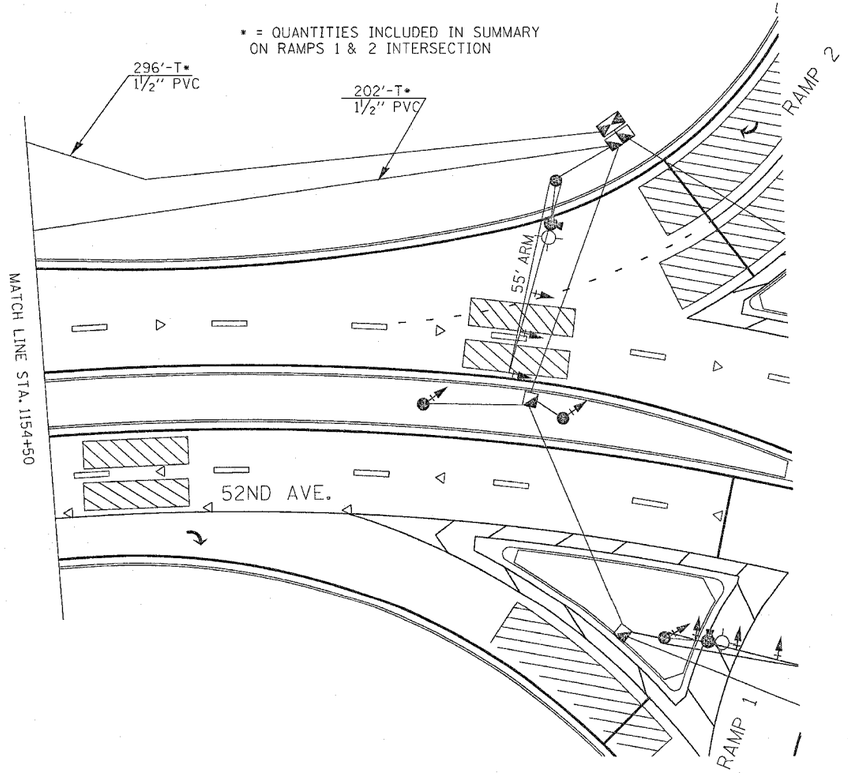
F.A.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	245
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

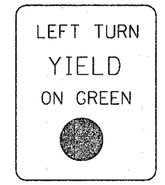
WIRING DIAGRAM VALLEY VIEW DR.





"P" DENOTES OPTICALLY PROGRAMMED SIGNAL HEAD





R10-12

2 REQ'D

THE SIGN SHALL BE LOCATED 12 INCHES TO THE RIGHT OF THE MAST ARM MOUNTED LEFT TURN SIGNAL AND IMMEDIATELY BELOW THE BRACKET MOUNTED LEFT TURN SIGNAL

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	246
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

** = QUANTITIES INCLUDED IN 52nd Ave./ RAMPS 3 & 4 INTERSECTION

* = QUANTITIES INCLUDED IN VALLEY VIEW DR. INTERSECTION

LEFT ON GREEN ARROW ONLY

R10-5

2 REQ'D

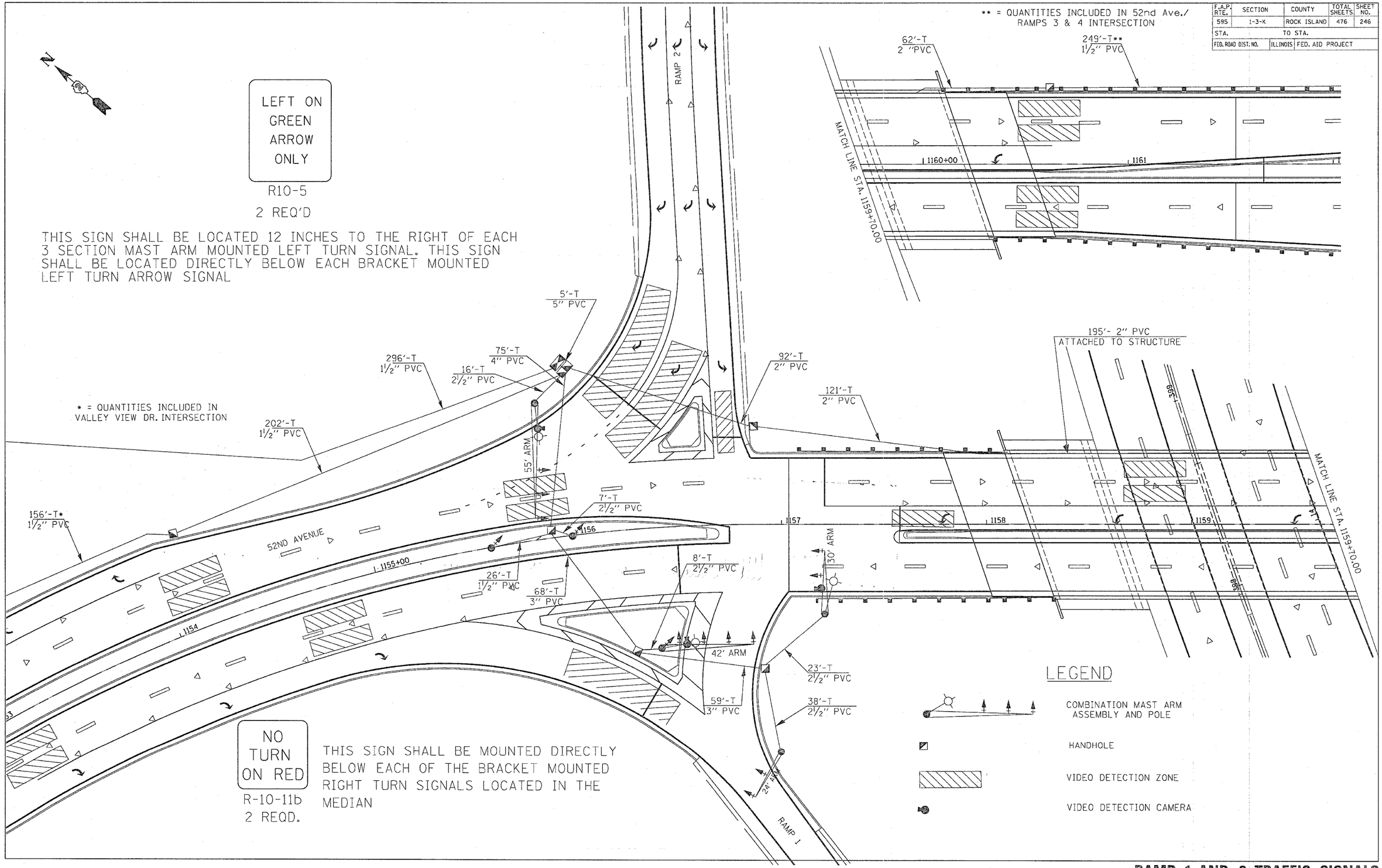
THIS SIGN SHALL BE LOCATED 12 INCHES TO THE RIGHT OF EACH 3 SECTION MAST ARM MOUNTED LEFT TURN SIGNAL. THIS SIGN SHALL BE LOCATED DIRECTLY BELOW EACH BRACKET MOUNTED LEFT TURN ARROW SIGNAL

NO TURN ON RED

R-10-11b

2 REQD.

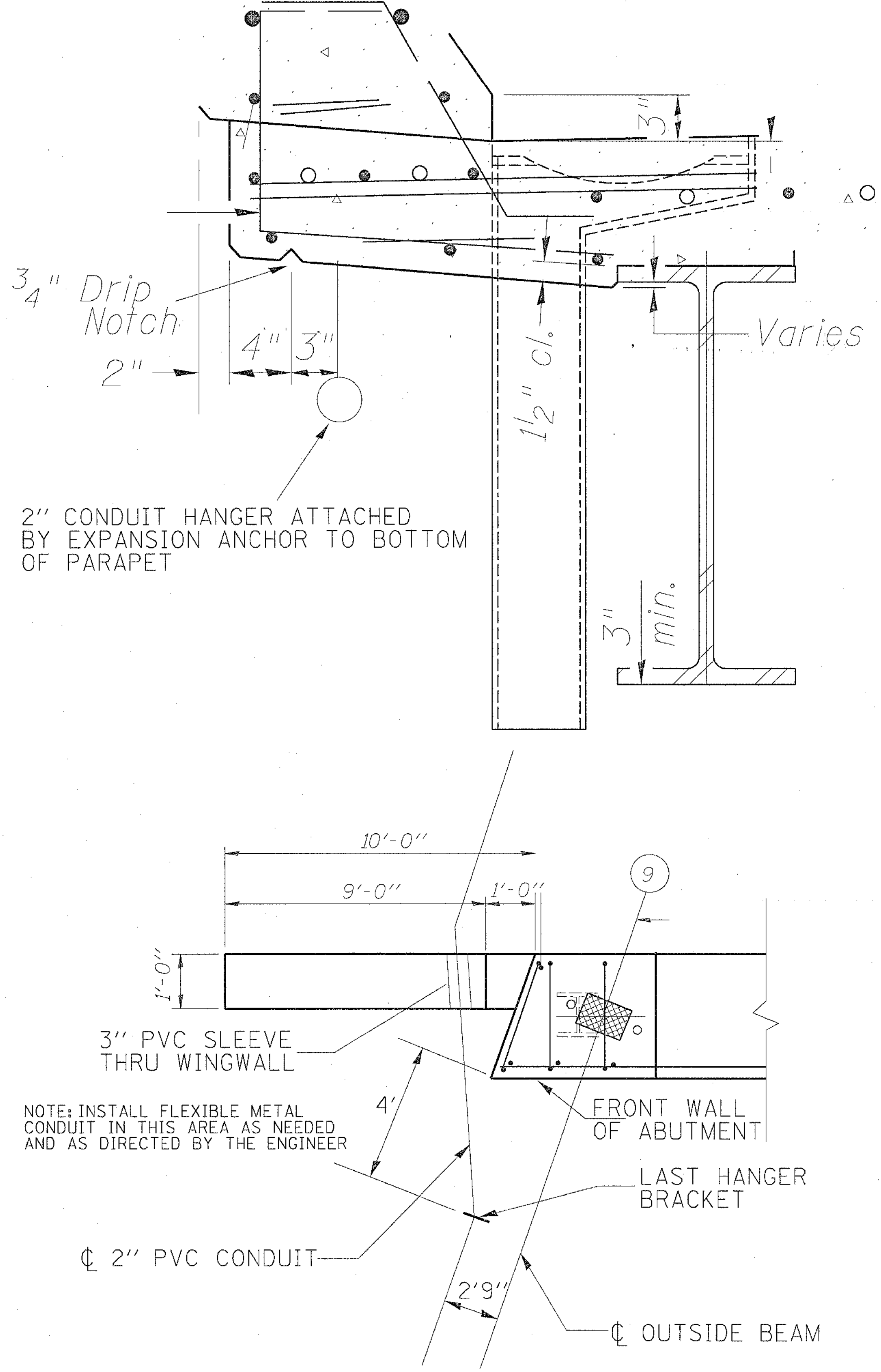
THIS SIGN SHALL BE MOUNTED DIRECTLY BELOW EACH OF THE BRACKET MOUNTED RIGHT TURN SIGNALS LOCATED IN THE MEDIAN



RAMP 1 AND 2 TRAFFIC SIGNALS

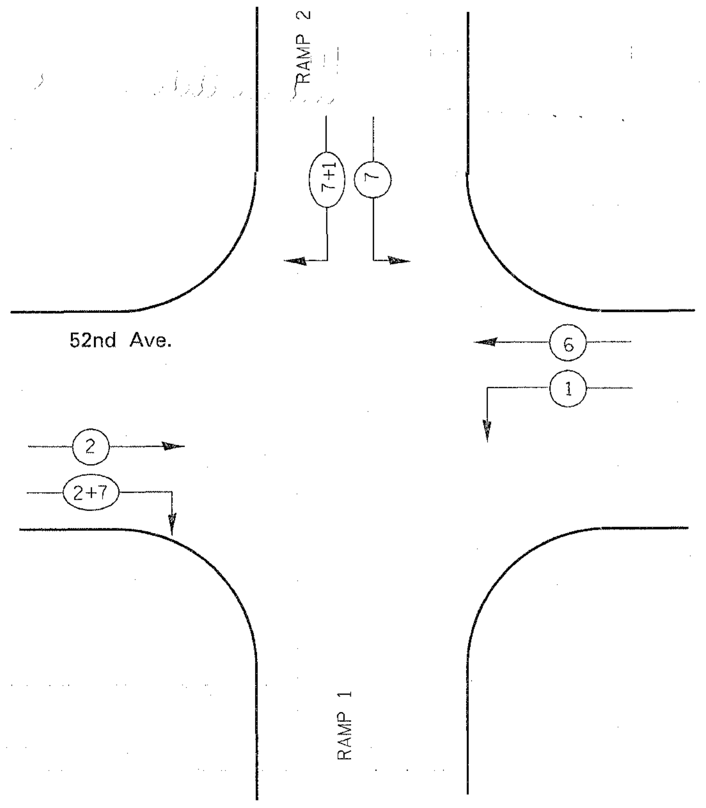
CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	247
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

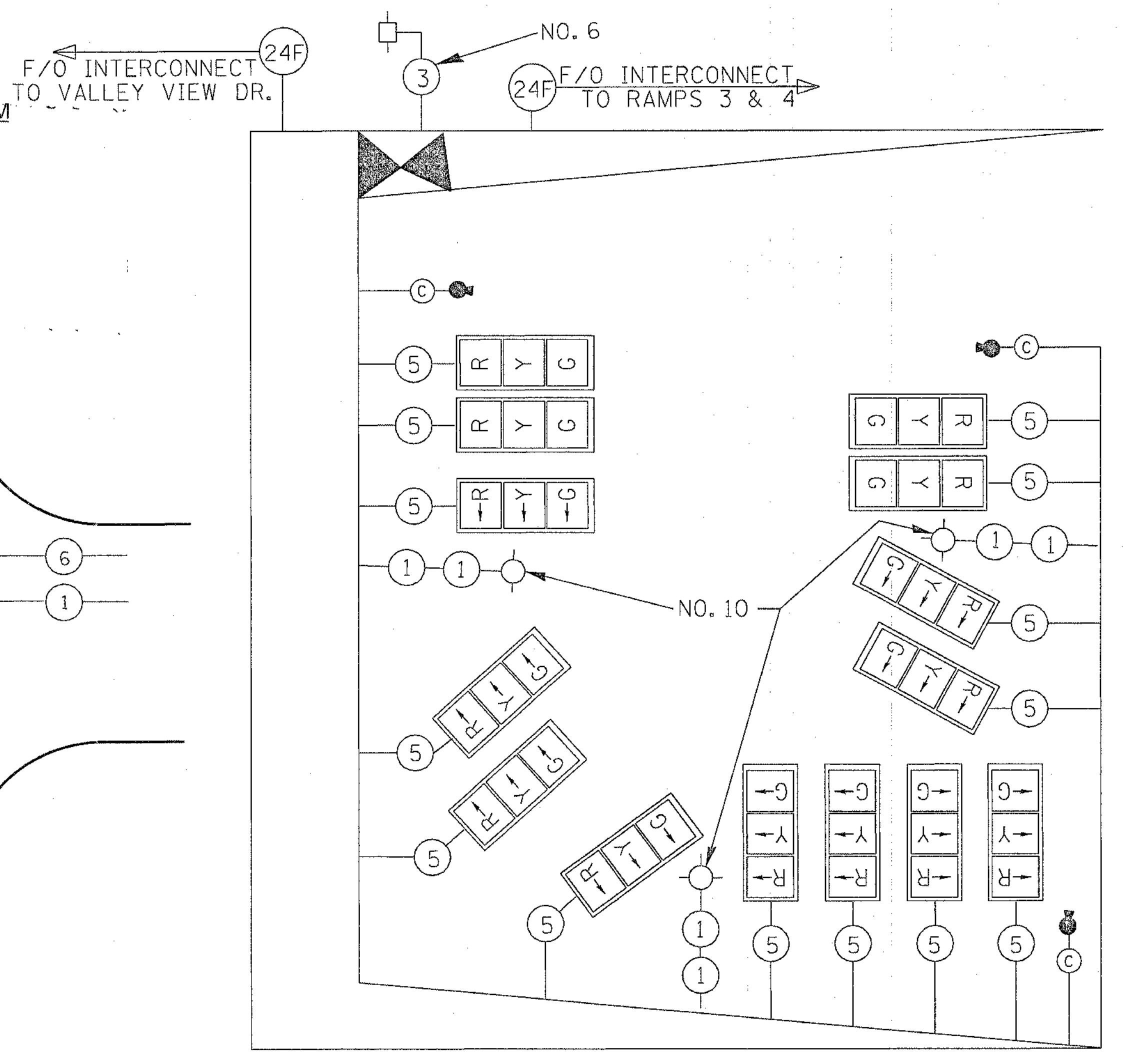


DETAILS GALVANIZED STEEL CONDUIT ATTACHED TO STRUCTURE

PHASE DESIGNATION DIAGRAM
RAMPS 1 & 2 (52nd Ave.)



WIRING DIAGRAM RAMPS 1 & 2



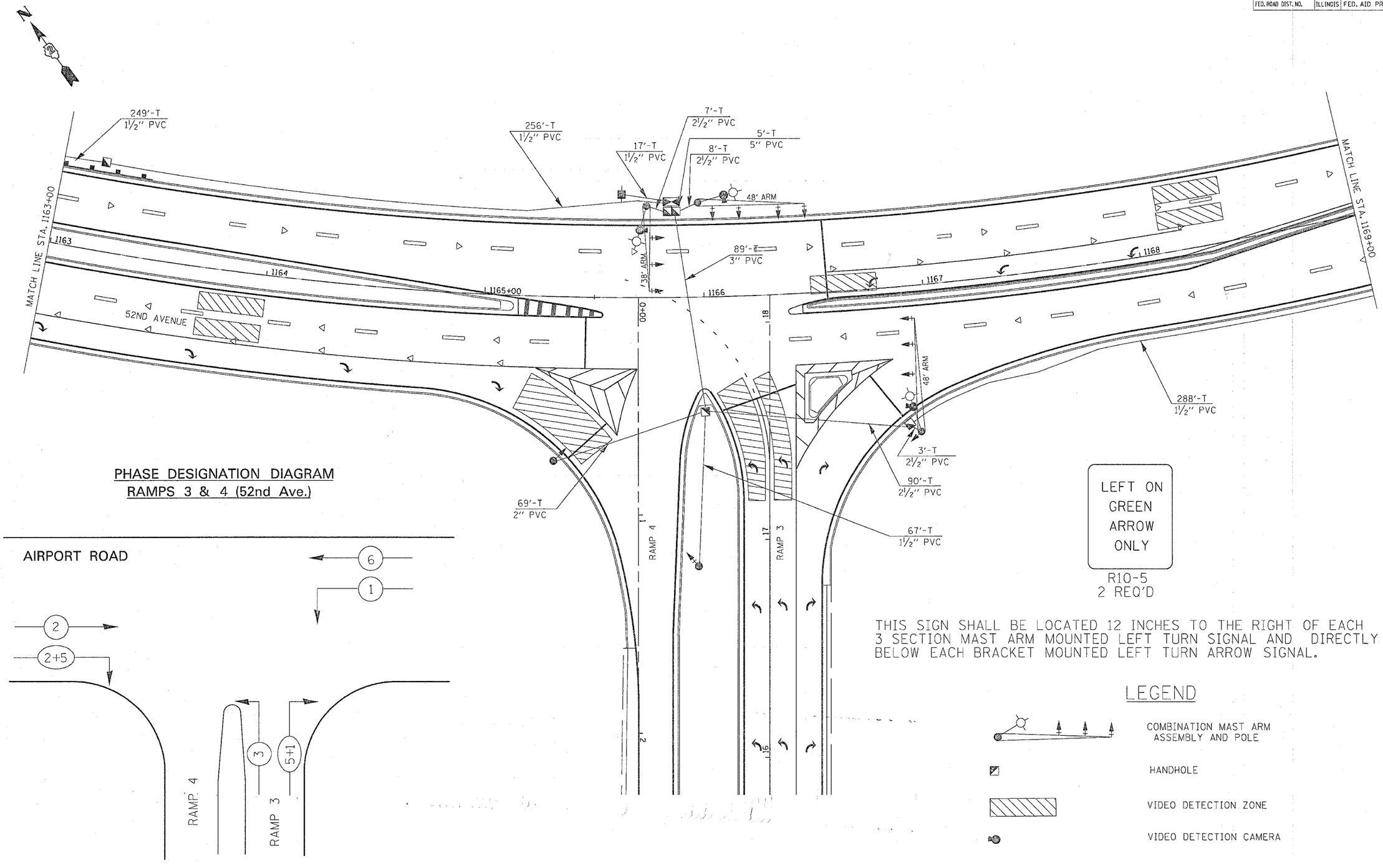
"C" DENOTES COAXIAL AND OTHER NECESSARY CABLES FOR VIDEO DETECTION
"G" DENOTES 1C NO. 6 GROUNDING CABLE TO CONNECT ALL MAST ARMS AND THE CONTROLLER TO THE GROUNDING ROD IN THE DOUBLE HANDHOLE

NOTE: ONLY ONE(1) METER MAY BE MOUNTED ON A POWER POLE UNLESS OTHERWISE ALLOWED BY MID AMERICAN ENERGY. THE CONTRACTOR SHALL ARRANGE FOR OTHER MOUNTING OPTIONS AS DIRECTED AND APPROVED BY THE ENGINEER. COST INCLUDED IN SERVICE INSTALLATION, TYPE A, (MODIFIED)

RAMP 1 AND 2 TRAFFIC SIGNALS

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	248
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PHASE DESIGNATION DIAGRAM
RAMPS 3 & 4 (52nd Ave.)

LEFT ON GREEN ARROW ONLY

R10-5
2 REQ'D

THIS SIGN SHALL BE LOCATED 12 INCHES TO THE RIGHT OF EACH 3 SECTION MAST ARM MOUNTED LEFT TURN SIGNAL AND DIRECTLY BELOW EACH BRACKET MOUNTED LEFT TURN ARROW SIGNAL.

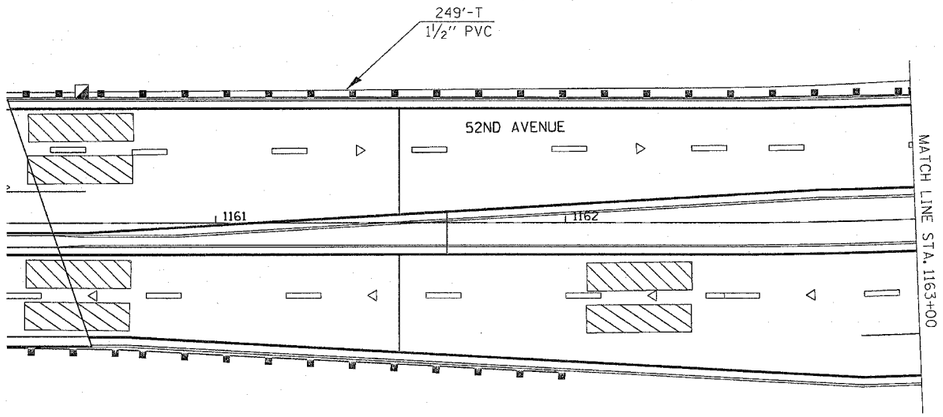
LEGEND

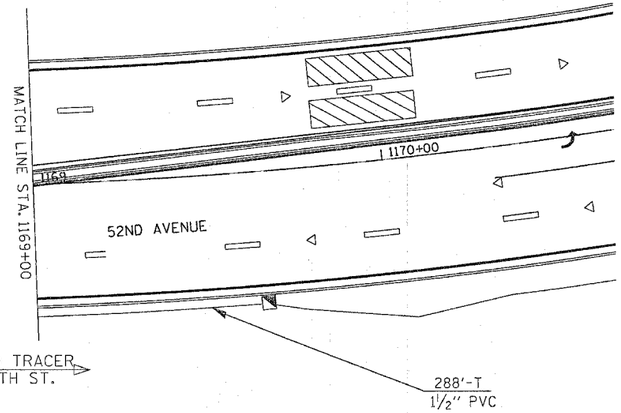
- COMBINATION MAST ARM ASSEMBLY AND POLE
- HANDHOLE
- VIDEO DETECTION ZONE
- VIDEO DETECTION CAMERA

RAMP 3 AND 4 TRAFFIC SIGNALS

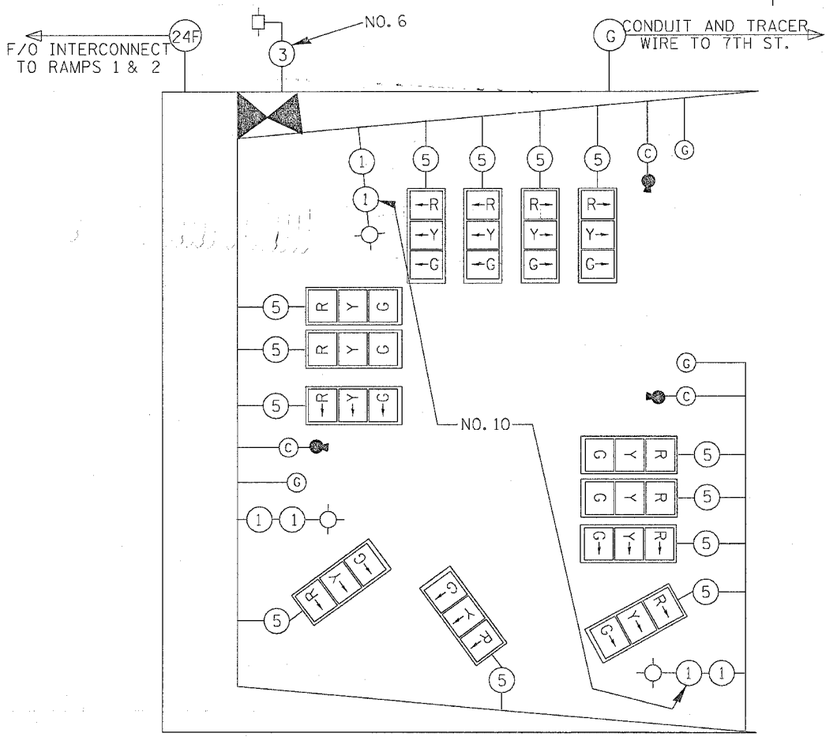
CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	249
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





WIRING DIAGRAM RAMPS 3 & 4

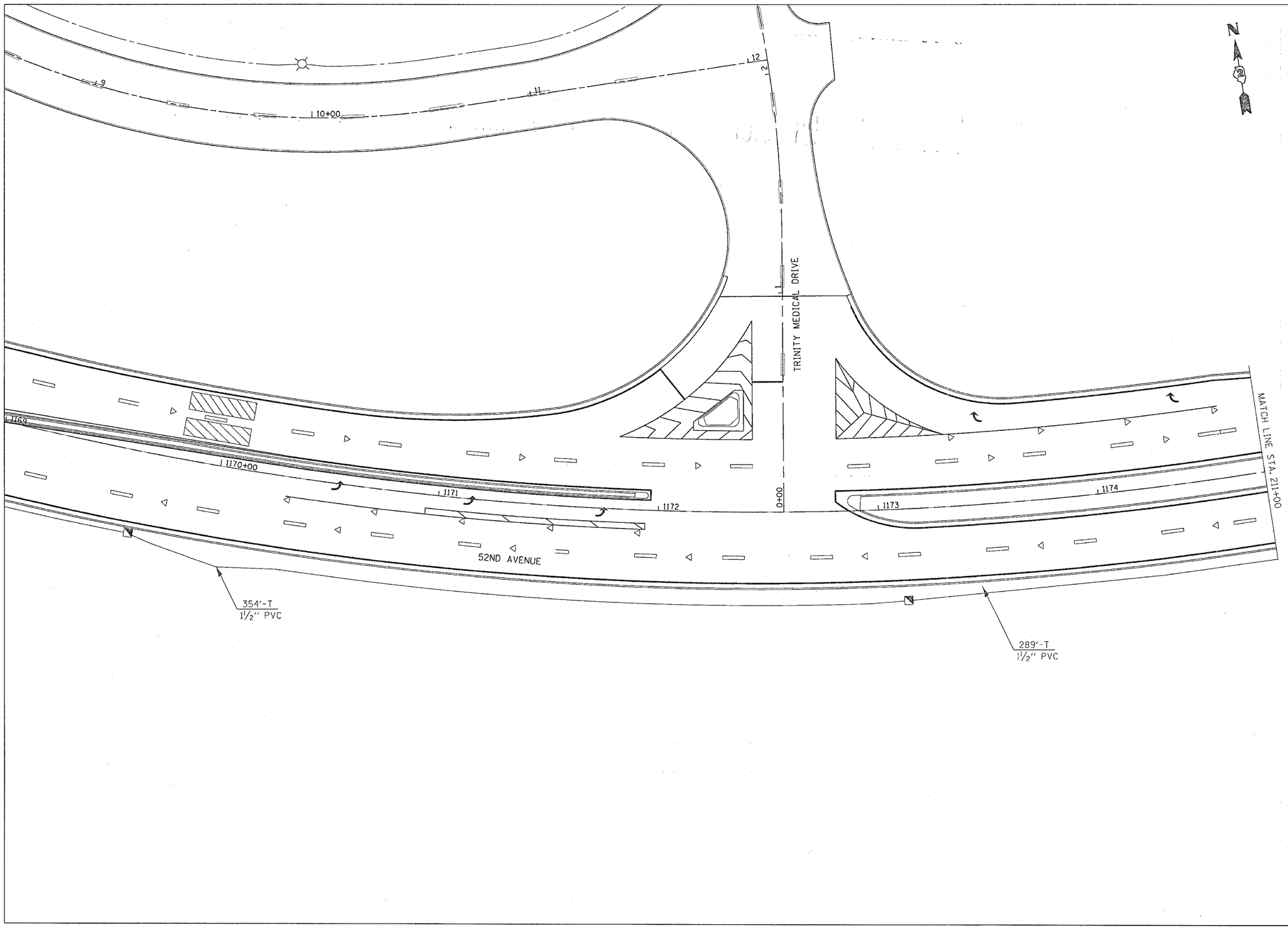


"C" DENOTES COAXIAL AND OTHER NECESSARY CABLES FOR VIDEO DETECTION
"G" DENOTES 1C NO. 6 GROUNDING CABLE TO CONNECT ALL MAST ARMS AND THE CONTROLLER TO THE GROUNDING ROD IN THE DOUBLE HANDHOLE

RAMP 3 AND 4 TRAFFIC SIGNALS

CONTRACT NO. 64647

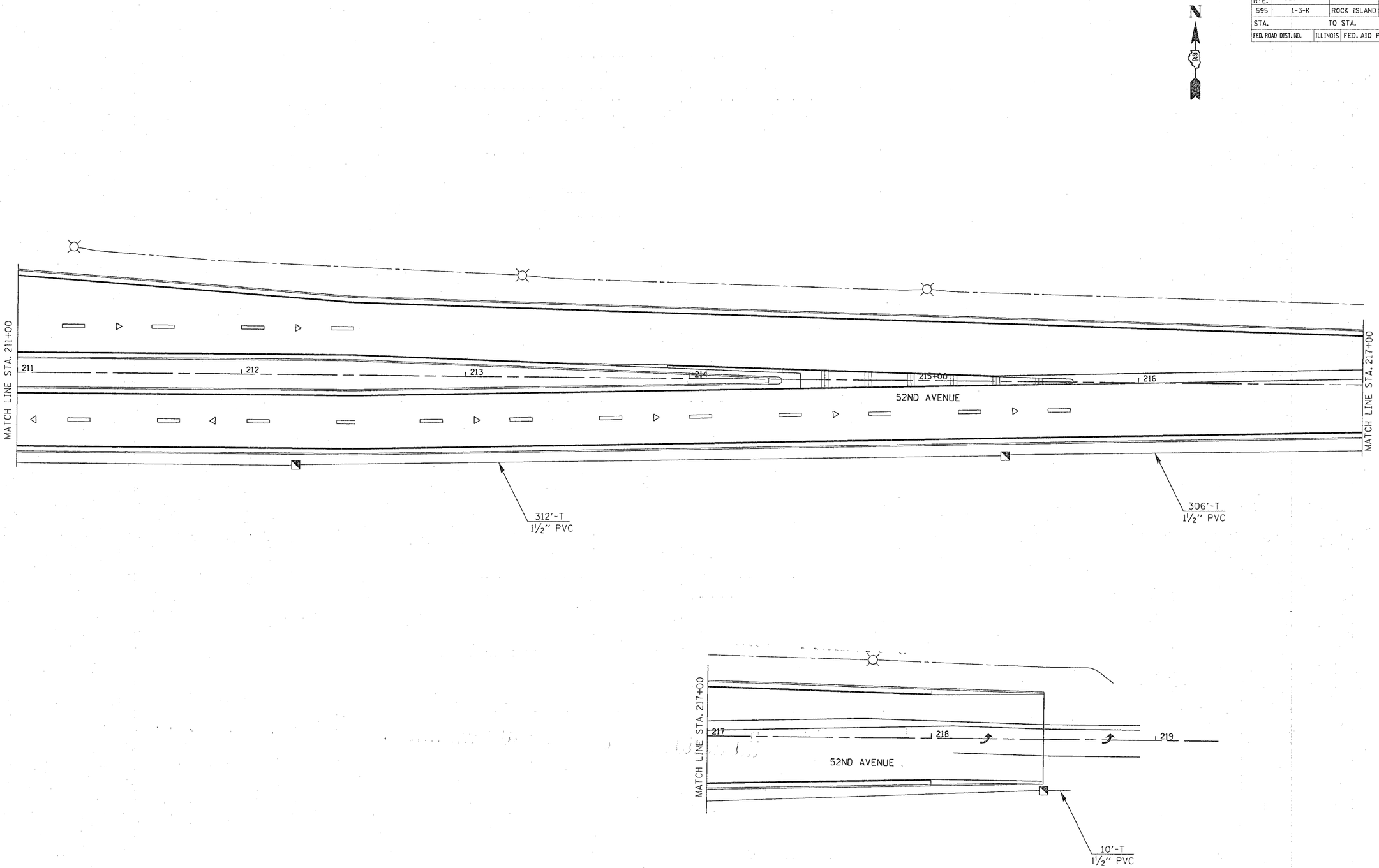
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	250
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



52ND AVENUE TRAFFIC SIGNALS

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	251
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



52ND AVENUE TRAFFIC SIGNALS

CONTRACT NO. 64647

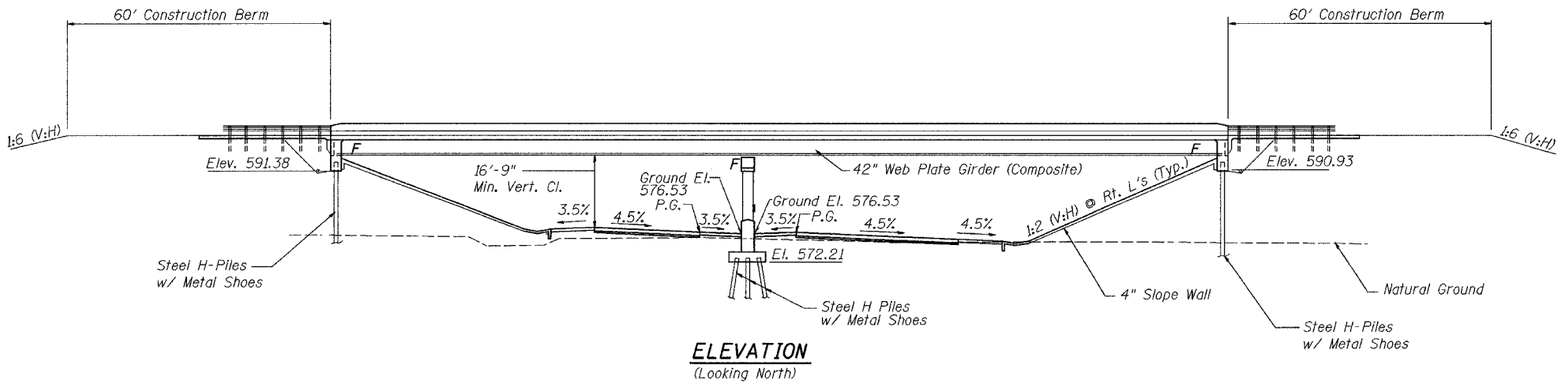
Bench Mark: #14 set RRS in top of 12"ϕ stump, 3' Lt. Sta. 389+00 El. 567.64

Existing Structure: None

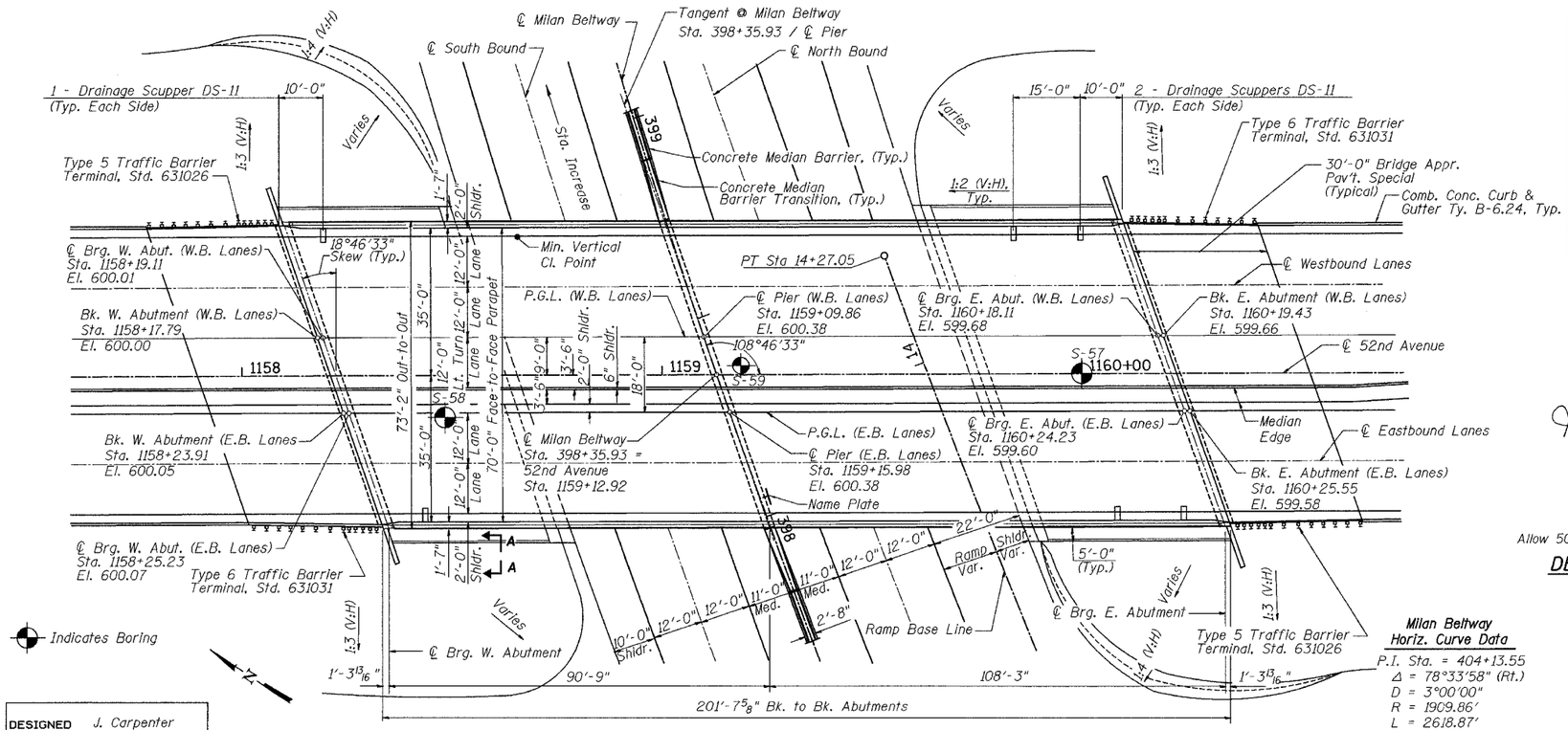
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	252
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
22 SHEETS



ELEVATION
(Looking North)



PLAN

Milan Beltway Horiz. Curve Data
P.I. Sta. = 404+13.55
Δ = 78°33'58" (Rt.)
D = 3°00'00"
R = 1909.86'
L = 2618.87'
E = 557.57'
T = 1562.26'
S.E. = 4.5%
P.C. Sta. = 388+51.29
P.T. Sta. = 414+70.17

DESIGNED	J. Carpenter
CHECKED	J. Fellman
DRAWN	R. Parsons
CHECKED	J. Fellman

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Cu. Yd.		320	320
Structure Excavation	Cu. Yd.		448	448
Concrete Structures	Cu. Yd.		228.6	228.6
Concrete Superstructure	Cu. Yd.	487.6		487.6
Bridge Deck Grooving	Sq. Yd.	1523		1523
Protective Coat	Sq. Yd.	1739		1739
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	4563		4563
Reinforcement Bars, Epoxy Coated	Pound	118250	42870	161120
Slope Wall 4 Inch	Sq. Yd.		852	852
Furnishing Steel Piles HP 10 x 57	Foot		1851	1851
Driving Steel Piles	Foot		1851	1851
Test Pile Steel HP 10 x 57	Each		3	3
Metal Shoes	Each		48	48
Bar Splicers	Each	140		140
Name Plates	Each	1		1
Drainage Scuppers, DS-11	Each	6		6

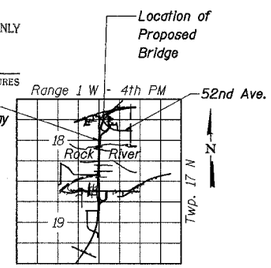
INDEX OF SHEETS

JOHN B. FELLMAN 081-006167 LICENSED STRUCTURAL ENGINEER STATE OF ILLINOIS

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

John B. Fellman 12-21-2004
Expires 11-30-2006



LOCATION SKETCH

LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES
FIELD UNITS
f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 50,000 psi M270 Gr. 50 (structural steel)
f_y = 36,000 psi M270 Gr. 36 (structural steel)

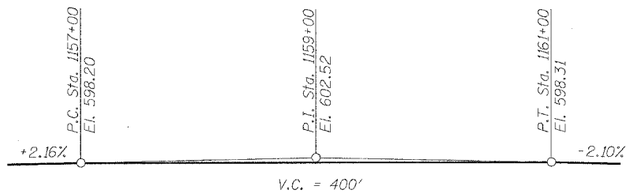
SEISMIC DATA
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.035
Site Coefficient (S) = 1.5

GENERAL PLAN
52nd Ave. over Milan Beltway
F.A.U. Route 5822 Section 1-3
Rock Island County
Sta. 1159+12.92
Structure Number 081-0156

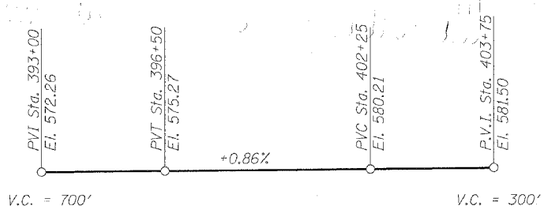
CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2
F.A.P. 595	1-3-K	Rock Island	476	253	22 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

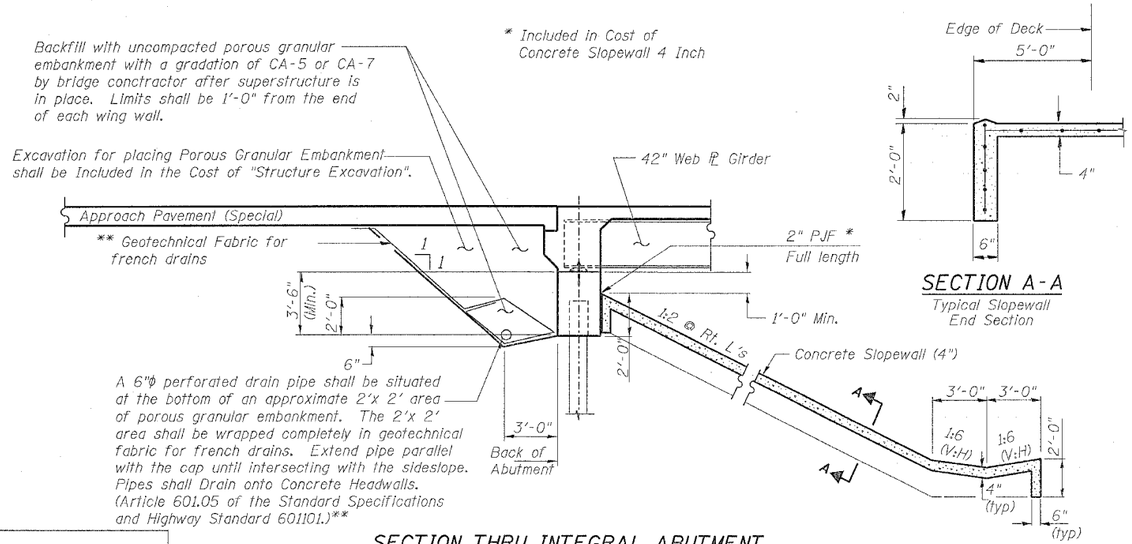
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PROFILE GRADE LINE
52nd AVENUE



PROFILE GRADE LINE
MILAN BELTWAY
(Along Median Edge of Roadway)



SECTION THRU INTEGRAL ABUTMENT

**Included in the Cost of Porous Granular Embankment

(All dimensions are ℄ Rt. L's)

SECTION A-A
Typical Slopewall End Section

DESIGNED	JBF
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

GENERAL NOTES

Fasteners shall be high strength bolts. Bolts $^{7}/_{8}$"ϕ, open holes $^{15}/_{16}$"ϕ. unless otherwise noted.

Calculated weight of Structural Steel = 353,270 lbs. (M 270 Grade 50)

Calculated weight of Structural Steel = 43,120 lbs. (M 270 Grade 36)

Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60

Field welding of construction accessories will not be permitted to the girders.

Anchor bolts shall be set before bolting diaphrams over supports.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the tension flanges, webs and all splice plate material except fill plates.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $^{1}/_{8}$" inch. Adjustment shall be made by grinding the surfaace or by shimming the bearing. Two $^{1}/_{8}$" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

The organic zinc rich primer/epoxy/urethane Paint System shall be used for painting of new structural steel except where ortherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. 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 flanges of the fascia beams shall be blue, Munsell No. 10B 3/6. See Special Provision for Cleaning and Painting New Metal Structures.

The Contractor shall drive 1 steel HP 10x57 test pile in a permanent location at the pier and east and west abutments as directed by the Engineer before ordering the remainder of piles.

All Construction Joints shall be bonded.

STATION 1159+12.92
BUILT 20 BY
STATE OF ILLINOIS
F.A.U. Rt. 5822 Sec. 1-3
LOADING HS20
STR. NO. 081-0156

NAME PLATE
See Std. 515001

GENERAL DATA

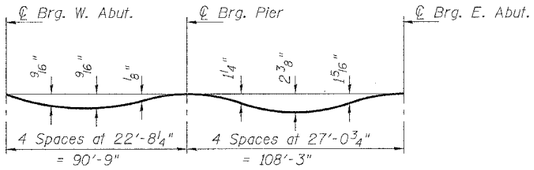
52nd AVE. OVER MILAN BELTWAY
F.A.U. ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STA. 1159+12.92
STRUCTURE NUMBER 081-0156

CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	254
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 3
22 SHEETS

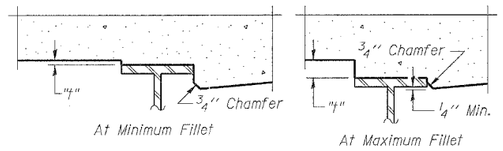
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DEAD LOAD DEFLECTION DIAGRAM

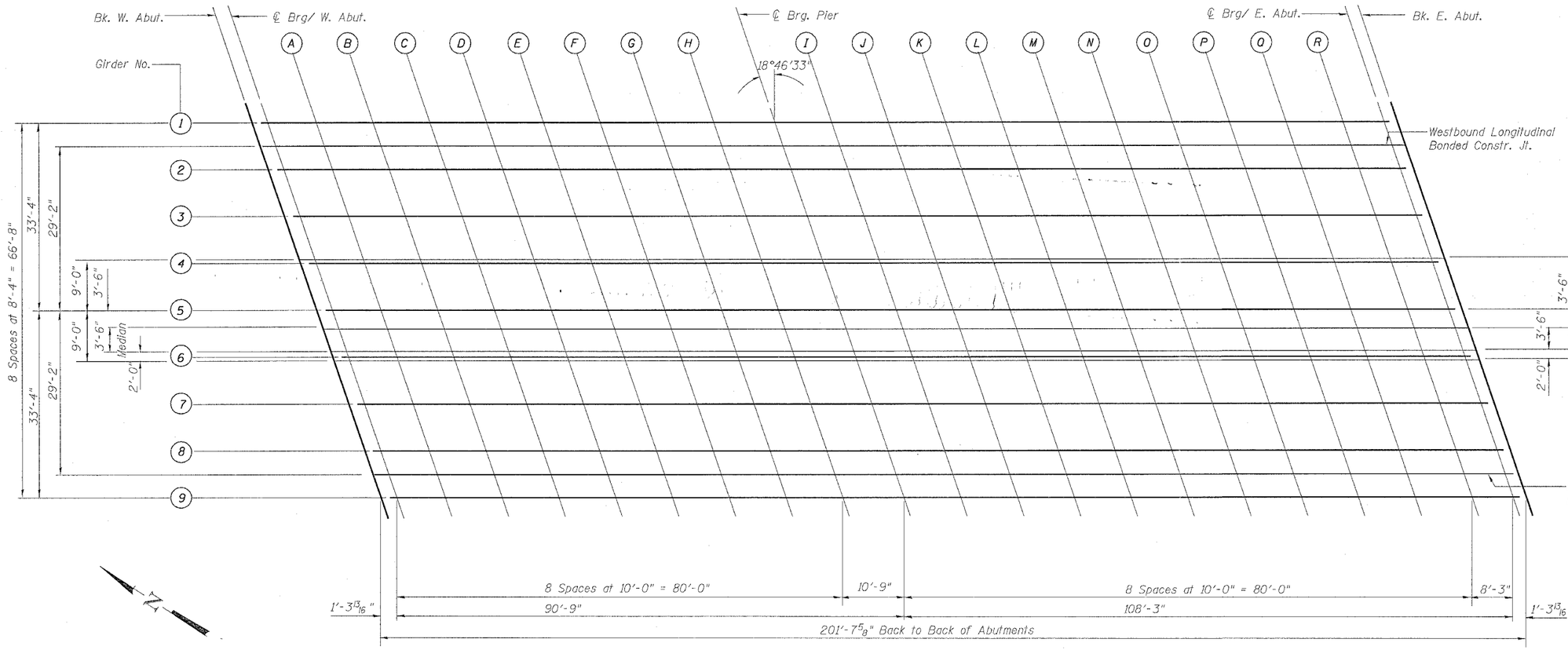
(Includes weight of concrete only.)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheets 4 and 5 of 22 .



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.

FILLET HEIGHTS



PLAN

DESIGNED	JBF
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

TOP OF SLAB ELEVATIONS LAYOUT

52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	255
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4
22 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	1158+09.518	-33.333	599.436	599.436
℄ Brg. W. Abut.	1158+10.838	-33.333	599.449	599.449
A	1158+20.838	-33.333	599.541	599.566
B	1158+30.838	-33.333	599.623	599.667
C	1158+40.838	-33.333	599.694	599.747
D	1158+50.838	-33.333	599.755	599.806
E	1158+60.838	-33.333	599.805	599.844
F	1158+70.838	-33.333	599.844	599.866
G	1158+80.838	-33.333	599.873	599.879
H	1158+90.838	-33.333	599.891	599.886
℄ Brg. Pier	1159+01.588	-33.333	599.898	599.898
I	1159+11.588	-33.333	599.894	599.923
J	1159+21.588	-33.333	599.879	599.949
K	1159+31.588	-33.333	599.854	599.970
L	1159+41.588	-33.333	599.818	599.976
M	1159+51.588	-33.333	599.771	599.959
N	1159+61.588	-33.333	599.713	599.915
O	1159+71.588	-33.333	599.645	599.840
P	1159+81.588	-33.333	599.567	599.733
Q	1159+91.588	-33.333	599.477	599.596
R	1160+01.588	-33.333	599.377	599.434
℄ Brg. E. Abut.	1160+09.838	-33.333	599.287	599.287
Bk. E. Abut.	1160+11.158	-33.333	599.271	599.271

WESTBOUND LONGITUDINAL JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	1158+10.934	-29.167	599.533	599.533
℄ Brg. W. Abut	1158+12.255	-29.167	599.546	599.546
A	1158+22.255	-29.167	599.637	599.662
B	1158+32.255	-29.167	599.717	599.761
C	1158+42.255	-29.167	599.787	599.840
D	1158+52.255	-29.167	599.846	599.897
E	1158+62.255	-29.167	599.894	599.933
F	1158+72.255	-29.167	599.932	599.954
G	1158+82.255	-29.167	599.959	599.965
H	1158+92.255	-29.167	599.976	599.971
℄ Brg. Pier	1159+03.005	-29.167	599.981	599.981
I	1159+13.005	-29.167	599.976	600.005
J	1159+23.005	-29.167	599.960	600.030
K	1159+33.005	-29.167	599.933	600.049
L	1159+43.005	-29.167	599.895	600.053
M	1159+53.005	-29.167	599.847	600.035
N	1159+63.005	-29.167	599.788	599.990
O	1159+73.005	-29.167	599.718	599.913
P	1159+83.005	-29.167	599.638	599.804
Q	1159+93.005	-29.167	599.547	599.666
R	1160+03.005	-29.167	599.445	599.502
℄ Brg. E. Abut.	1160+11.255	-29.167	599.354	599.354
Bk. E. Abut.	1160+12.575	-29.167	599.338	599.338

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	1158+12.351	-25.000	599.630	599.630
℄ Brg. W. Abut.	1158+13.671	-25.000	599.643	599.643
A	1158+23.671	-25.000	599.732	599.757
B	1158+33.671	-25.000	599.811	599.855
C	1158+43.671	-25.000	599.879	599.932
D	1158+53.671	-25.000	599.937	599.988
E	1158+63.671	-25.000	599.984	600.023
F	1158+73.671	-25.000	600.020	600.042
G	1158+83.671	-25.000	600.046	600.052
H	1158+93.671	-25.000	600.061	600.056
℄ Brg. Pier	1159+04.421	-25.000	600.065	600.065
I	1159+14.421	-25.000	600.058	600.087
J	1159+24.421	-25.000	600.040	600.110
K	1159+34.421	-25.000	600.011	600.127
L	1159+44.421	-25.000	599.972	600.130
M	1159+54.421	-25.000	599.922	600.110
N	1159+64.421	-25.000	599.862	600.064
O	1159+74.421	-25.000	599.791	599.986
P	1159+84.421	-25.000	599.709	599.875
Q	1159+94.421	-25.000	599.617	599.736
R	1160+04.421	-25.000	599.514	599.571
℄ Brg. E. Abut.	1160+12.671	-25.000	599.420	599.420
Bk. E. Abut.	1160+13.991	-25.000	599.405	599.405

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	1158+15.184	-16.667	599.824	599.824
℄ Brg. W. Abut.	1158+16.504	-16.667	599.836	599.836
A	1158+26.504	-16.667	599.922	599.947
B	1158+36.504	-16.667	599.998	600.042
C	1158+46.504	-16.667	600.063	600.116
D	1158+56.504	-16.667	600.118	600.169
E	1158+66.504	-16.667	600.162	600.201
F	1158+76.504	-16.667	600.195	600.217
G	1158+86.504	-16.667	600.218	600.224
H	1158+96.504	-16.667	600.229	600.224
℄ Brg. Pier	1159+07.254	-16.667	600.230	600.230
I	1159+17.254	-16.667	600.220	600.249
J	1159+27.254	-16.667	600.199	600.269
K	1159+37.254	-16.667	600.168	600.284
L	1159+47.254	-16.667	600.126	600.284
M	1159+57.254	-16.667	600.073	600.261
N	1159+67.254	-16.667	600.009	600.211
O	1159+77.254	-16.667	599.935	600.130
P	1159+87.254	-16.667	599.851	600.017
Q	1159+97.254	-16.667	599.755	599.874
R	1160+07.254	-16.667	599.649	599.706
℄ Brg. E. Abut.	1160+15.504	-16.667	599.554	599.554
Bk. E. Abut.	1160+16.824	-16.667	599.538	599.538

P.G.L. (W.B. LANES)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	1158+17.790	-9.000	600.001	600.001
℄ Brg. W. Abut.	1158+19.110	-9.000	600.013	600.013
A	1158+29.110	-9.000	600.096	600.122
B	1158+39.110	-9.000	600.170	600.214
C	1158+49.110	-9.000	600.232	600.285
D	1158+59.110	-9.000	600.284	600.335
E	1158+69.110	-9.000	600.325	600.364
F	1158+79.110	-9.000	600.355	600.377
G	1158+89.110	-9.000	600.375	600.381
H	1158+99.110	-9.000	600.384	600.379
℄ Brg. Pier	1159+09.860	-9.000	600.382	600.382
I	1159+19.860	-9.000	600.369	600.398
J	1159+29.860	-9.000	600.346	600.416
K	1159+39.860	-9.000	600.312	600.428
L	1159+49.860	-9.000	600.267	600.425
M	1159+59.860	-9.000	600.211	600.399
N	1159+69.860	-9.000	600.145	600.347
O	1159+79.860	-9.000	600.068	600.263
P	1159+89.860	-9.000	599.980	600.146
Q	1159+99.860	-9.000	599.882	600.001
R	1160+09.860	-9.000	599.773	599.830
℄ Brg. E. Abut.	1160+18.110	-9.000	599.675	599.675
Bk. E. Abut.	1160+19.431	-9.000	599.659	599.659

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	1158+18.017	-8.333	600.013	600.013
℄ Brg. W. Abut.	1158+19.337	-8.333	600.025	600.025
A	1158+29.337	-8.333	600.108	600.133
B	1158+39.337	-8.333	600.181	600.225
C	1158+49.337	-8.333	600.243	600.296
D	1158+59.337	-8.333	600.295	600.346
E	1158+69.337	-8.333	600.336	600.375
F	1158+79.337	-8.333	600.366	600.388
G	1158+89.337	-8.333	600.385	600.391
H	1158+99.337	-8.333	600.394	600.389
℄ Brg. Pier	1159+10.087	-8.333	600.392	600.392
I	1159+20.087	-8.333	600.379	600.408
J	1159+30.087	-8.333	600.355	600.425
K	1159+40.087	-8.333	600.321	600.437
L	1159+50.087	-8.333	600.275	600.433
M	1159+60.087	-8.333	600.220	600.408
N	1159+70.087	-8.333	600.153	600.355
O	1159+80.087	-8.333	600.076	600.271
P	1159+90.087	-8.333	599.988	600.154
Q	1160+00.087	-8.333	599.890	600.009
R	1160+10.087	-8.333	599.781	599.838
℄ Brg. E. Abut.	1160+18.337	-8.333	599.682	599.682
Bk. E. Abut.	1160+19.657	-8.333	599.666	599.666

GIRDER 5 & CL. OF 52nd AVENUE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	1158+20.850	0.000	600.163	600.163
℄ Brg. W. Abut.	1158+22.170	0.000	600.174	600.174
A	1158+32.170	0.000	600.255	600.280
B	1158+42.170	0.000	600.325	600.369
C	1158+52.170	0.000	600.384	600.437
D	1158+62.170	0.000	600.432	600.483
E	1158+72.170	0.000	600.470	600.509
F	1158+82.170	0.000	600.497	600.519
G	1158+92.170	0.000	600.514	600.520
H	1159+02.170	0.000	600.520	600.515
℄ Brg. Pier	1159+12.920	0.000	600.514	600.514
I	1159+22.920	0.000	600.498	600.527
J	1159+32.920	0.000	600.471	600.541
K	1159+42.920	0.000	600.434	600.550
L	1159+52.920	0.000	600.385	600.543
M	1159+62.920	0.000	600.327	600.515
N	1159+72.920	0.000	600.257	600.459
O	1159+82.920	0.000	600.177	600.372
P	1159+92.920	0.000	600.086	600.252
Q	1160+02.920	0.000	599.985	600.104
R	1160+12.920	0.000	599.873	599.930
℄ Brg. E. Abut.	1160+21.170	0.000	599.772	599.772
Bk. E. Abut.	1160+22.490	0.000	599.755	599.755

DESIGNED -	JBF
CHECKED -	JBF
DRAWN -	RAP
CHECKED -	JBF

TOP OF SLAB ELEVATIONS

52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	256
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
22 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROWN (EDGE OF MEDIAN)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	1158+22.040	3.500	600.226	600.226
℄ Brg. W. Abut	1158+23.360	3.500	600.237	600.237
A	1158+33.360	3.500	600.316	600.341
B	1158+43.360	3.500	600.385	600.429
C	1158+53.360	3.500	600.443	600.496
D	1158+63.360	3.500	600.490	600.541
E	1158+73.360	3.500	600.526	600.565
F	1158+83.360	3.500	600.552	600.574
G	1158+93.360	3.500	600.568	600.574
H	1159+03.360	3.500	600.572	600.567
℄ Brg. Pier	1159+14.110	3.500	600.566	600.566
I	1159+24.110	3.500	600.548	600.577
J	1159+34.110	3.500	600.520	600.590
K	1159+44.110	3.500	600.481	600.597
L	1159+54.110	3.500	600.432	600.590
M	1159+64.110	3.500	600.371	600.559
N	1159+74.110	3.500	600.301	600.503
O	1159+84.110	3.500	600.219	600.414
P	1159+94.110	3.500	600.127	600.293
Q	1160+04.110	3.500	600.024	600.143
R	1160+14.110	3.500	599.911	599.968
℄ Brg. E. Abut.	1160+22.360	3.500	599.809	599.809
Bk. E. Abut.	1160+23.680	3.500	599.793	599.793

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	1158+23.683	8.333	600.075	600.075
℄ Brg. W. Abut.	1158+25.003	8.333	600.086	600.086
A	1158+35.003	8.333	600.164	600.189
B	1158+45.003	8.333	600.231	600.275
C	1158+55.003	8.333	600.287	600.340
D	1158+65.003	8.333	600.332	600.383
E	1158+75.003	8.333	600.367	600.406
F	1158+85.003	8.333	600.391	600.413
G	1158+95.003	8.333	600.405	600.411
H	1159+05.003	8.333	600.408	600.403
℄ Brg. Pier	1159+15.753	8.333	600.399	600.399
I	1159+25.753	8.333	600.379	600.408
J	1159+35.753	8.333	600.349	600.419
K	1159+45.753	8.333	600.309	600.425
L	1159+55.753	8.333	600.258	600.416
M	1159+65.753	8.333	600.196	600.384
N	1159+75.753	8.333	600.123	600.325
O	1159+85.753	8.333	600.040	600.235
P	1159+95.753	8.333	599.946	600.112
Q	1160+05.753	8.333	599.842	599.961
R	1160+15.753	8.333	599.727	599.784
℄ Brg. E. Abut.	1160+24.003	8.333	599.624	599.624
Bk. E. Abut.	1160+25.323	8.333	599.607	599.607

P.G.L. (E.B. LANES)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	1158+23.909	9.000	600.054	600.054
℄ Brg. W. Abut.	1158+25.230	9.000	600.065	600.065
A	1158+35.230	9.000	600.143	600.168
B	1158+45.230	9.000	600.209	600.253
C	1158+55.230	9.000	600.265	600.318
D	1158+65.230	9.000	600.310	600.361
E	1158+75.230	9.000	600.345	600.384
F	1158+85.230	9.000	600.369	600.391
G	1158+95.230	9.000	600.382	600.388
H	1159+05.230	9.000	600.385	600.380
℄ Brg. Pier	1159+15.980	9.000	600.376	600.376
I	1159+25.980	9.000	600.356	600.385
J	1159+35.980	9.000	600.326	600.396
K	1159+45.980	9.000	600.285	600.401
L	1159+55.980	9.000	600.234	600.392
M	1159+65.980	9.000	600.172	600.360
N	1159+75.980	9.000	600.099	600.301
O	1159+85.980	9.000	600.015	600.210
P	1159+95.980	9.000	599.921	600.087
Q	1160+05.980	9.000	599.817	599.936
R	1160+15.980	9.000	599.701	599.758
℄ Brg. E. Abut.	1160+24.230	9.000	599.598	599.598
Bk. E. Abut.	1160+25.550	9.000	599.581	599.581

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	1158+26.516	16.667	599.922	599.922
℄ Brg. W. Abut.	1158+27.836	16.667	599.933	599.933
A	1158+37.836	16.667	600.007	600.032
B	1158+47.836	16.667	600.071	600.115
C	1158+57.836	16.667	600.124	600.177
D	1158+67.836	16.667	600.167	600.218
E	1158+77.836	16.667	600.199	600.238
F	1158+87.836	16.667	600.220	600.242
G	1158+97.836	16.667	600.230	600.236
H	1159+07.836	16.667	600.230	600.225
℄ Brg. Pier	1159+18.586	16.667	600.218	600.218
I	1159+28.586	16.667	600.196	600.225
J	1159+38.586	16.667	600.163	600.233
K	1159+48.586	16.667	600.119	600.235
L	1159+58.586	16.667	600.065	600.223
M	1159+68.586	16.667	600.000	600.188
N	1159+78.586	16.667	599.925	600.127
O	1159+88.586	16.667	599.838	600.033
P	1159+98.586	16.667	599.742	599.908
Q	1160+08.586	16.667	599.634	599.753
R	1160+18.586	16.667	599.516	599.573
℄ Brg. E. Abut.	1160+26.836	16.667	599.410	599.410
Bk. E. Abut.	1160+28.156	16.667	599.393	599.393

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	1158+29.349	25.000	599.778	599.778
℄ Brg. W. Abut.	1158+30.669	25.000	599.789	599.789
A	1158+40.669	25.000	599.860	599.885
B	1158+50.669	25.000	599.921	599.965
C	1158+60.669	25.000	599.971	600.024
D	1158+70.669	25.000	600.010	600.061
E	1158+80.669	25.000	600.039	600.078
F	1158+90.669	25.000	600.057	600.079
G	1159+00.669	25.000	600.065	600.071
H	1159+10.669	25.000	600.062	600.057
℄ Brg. Pier	1159+21.419	25.000	600.046	600.046
I	1159+31.419	25.000	600.021	600.050
J	1159+41.419	25.000	599.985	600.055
K	1159+51.419	25.000	599.938	600.054
L	1159+61.419	25.000	599.881	600.039
M	1159+71.419	25.000	599.813	600.001
N	1159+81.419	25.000	599.735	599.937
O	1159+91.419	25.000	599.645	599.840
P	1160+01.419	25.000	599.546	599.712
Q	1160+11.419	25.000	599.435	599.554
R	1160+21.419	25.000	599.314	599.371
℄ Brg. E. Abut.	1160+29.669	25.000	599.206	599.206
Bk. E. Abut.	1160+30.989	25.000	599.188	599.188

EASTBOUND LONGITUDINAL JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	1158+30.765	29.167	599.706	599.706
℄ Brg. W. Abut.	1158+32.085	29.167	599.716	599.716
A	1158+42.085	29.167	599.786	599.811
B	1158+52.085	29.167	599.845	599.889
C	1158+62.085	29.167	599.894	599.947
D	1158+72.085	29.167	599.932	599.983
E	1158+82.085	29.167	599.959	599.998
F	1158+92.085	29.167	599.975	599.997
G	1159+02.085	29.167	599.981	599.987
H	1159+12.085	29.167	599.977	599.972
℄ Brg. Pier	1159+22.835	29.167	599.960	599.960
I	1159+32.835	29.167	599.933	599.962
J	1159+42.835	29.167	599.896	599.966
K	1159+52.835	29.167	599.848	599.964
L	1159+62.835	29.167	599.789	599.947
M	1159+72.835	29.167	599.719	599.907
N	1159+82.835	29.167	599.639	599.841
O	1159+92.835	29.167	599.549	599.744
P	1160+02.835	29.167	599.447	599.613
Q	1160+12.835	29.167	599.335	599.454
R	1160+22.835	29.167	599.212	599.269
℄ Brg. E. Abut.	1160+31.085	29.167	599.103	599.103
Bk. E. Abut.	1160+32.406	29.167	599.085	599.085

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	1158+32.182	33.333	599.633	599.633
℄ Brg. W. Abut.	1158+33.502	33.333	599.643	599.643
A	1158+43.502	33.333	599.711	599.736
B	1158+53.502	33.333	599.769	599.813
C	1158+63.502	33.333	599.816	599.869
D	1158+73.502	33.333	599.853	599.904
E	1158+83.502	33.333	599.879	599.918
F	1158+93.502	33.333	599.894	599.916
G	1159+03.502	33.333	599.898	599.904
H	1159+13.502	33.333	599.892	599.887
℄ Brg. Pier	1159+24.252	33.333	599.874	599.874
I	1159+34.252	33.333	599.845	599.874
J	1159+44.252	33.333	599.806	599.876
K	1159+54.252	33.333	599.757	599.873
L	1159+64.252	33.333	599.696	599.854
M	1159+74.252	33.333	599.626	599.814
N	1159+84.252	33.333	599.544	599.746
O	1159+94.252	33.333	599.452	599.647
P	1160+04.252	33.333	599.349	599.515
Q	1160+14.252	33.333	599.235	599.354
R	1160+24.252	33.333	599.111	599.168
℄ Brg. E. Abut.	1160+32.502	33.333	599.000	599.000
Bk. E. Abut.	1160+33.822	33.333	598.982	598.982

DESIGNED	-	JBF
CHECKED	-	JBF
DRAWN	-	RAP
CHECKED	-	JBF

TOP OF SLAB ELEVATIONS

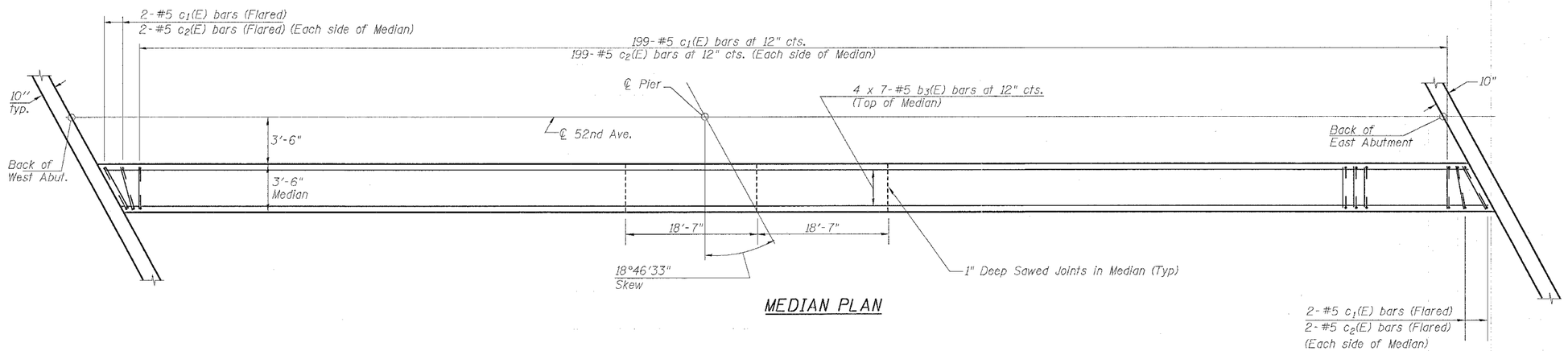
52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

CONTRACT NO. 64647

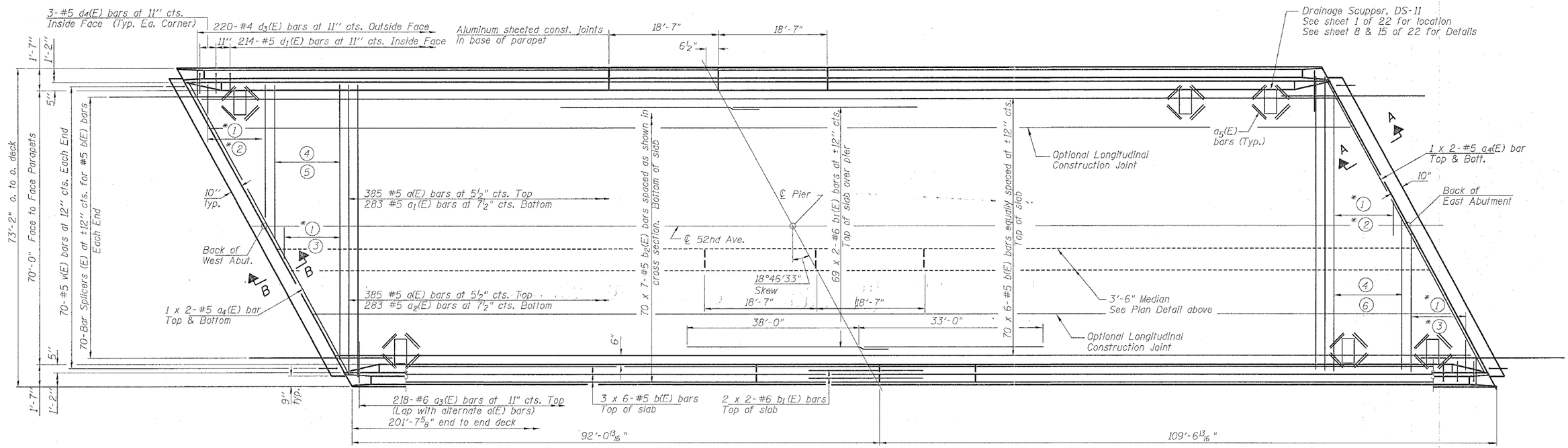
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	257
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 6
22 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



MEDIAN PLAN



PLAN

Order a(E), a_1(E) and a_2(E) bars full length.

*Cut to fit skew and use remainder of bars in opposite end.

*(1) 28-#5 a(E) bars at 5½" ctrs. Top
*(2) 22-#5 a_1(E) bars at 7½" ctrs. Bott.
*(3) 18-#5 a_2(E) bars at 7½" ctrs. Bott.
(4) 26-#5 a(E) bars at 5½" ctrs. Top
(5) 17-#5 a_1(E) bars at 7½" ctrs. Bott.
(6) 21-#5 a_2(E) bars at 7½" ctrs. Bott.

DESIGNED	JBF
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

MIN. BAR LAPS

#4 BAR = 1'-4"
#5 BAR = 1'-8"
#6 BAR = 2'-0"

SUPERSTRUCTURE PLAN

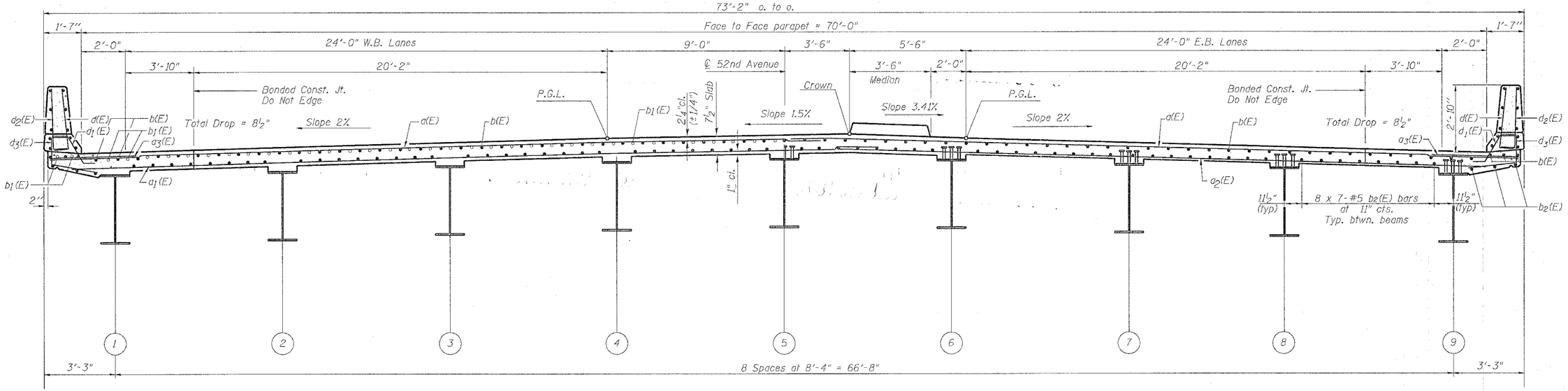
52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	258
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 7
22 SHEETS

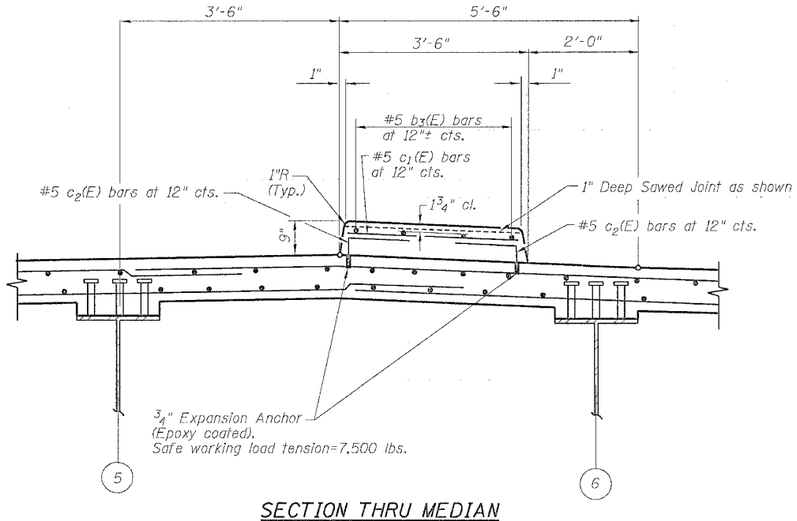
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Near Pier

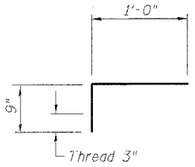
CROSS SECTION

(Looking East)



SECTION THRU MEDIAN

Near Midspan



Bar c2 (E)

Notes:
See Sheet 8 of 22 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet 8 of 22 for parapet reinforcement.

DESIGNED	JBF
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

CROSS SECTION

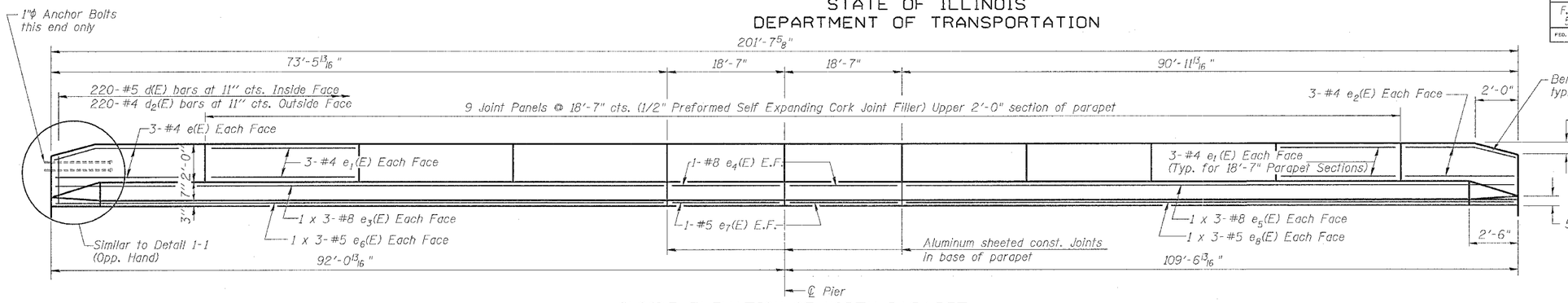
52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

CONTRACT NO. 64647

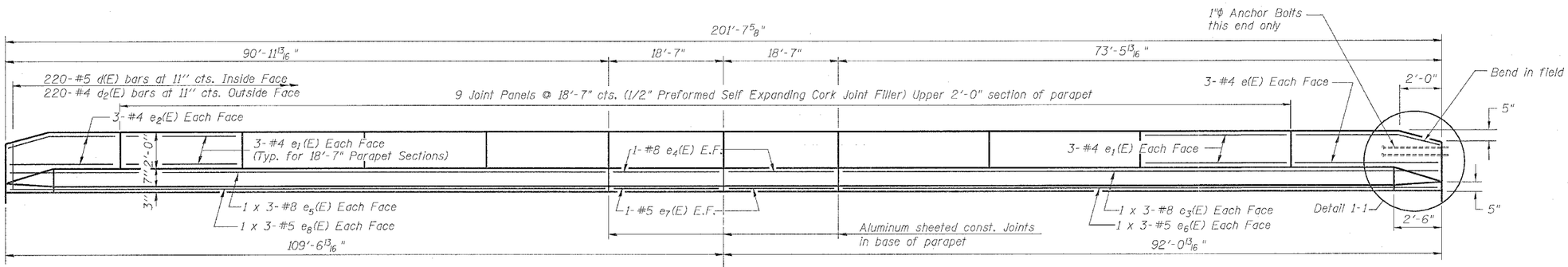
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	259
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 8
22 SHEETS

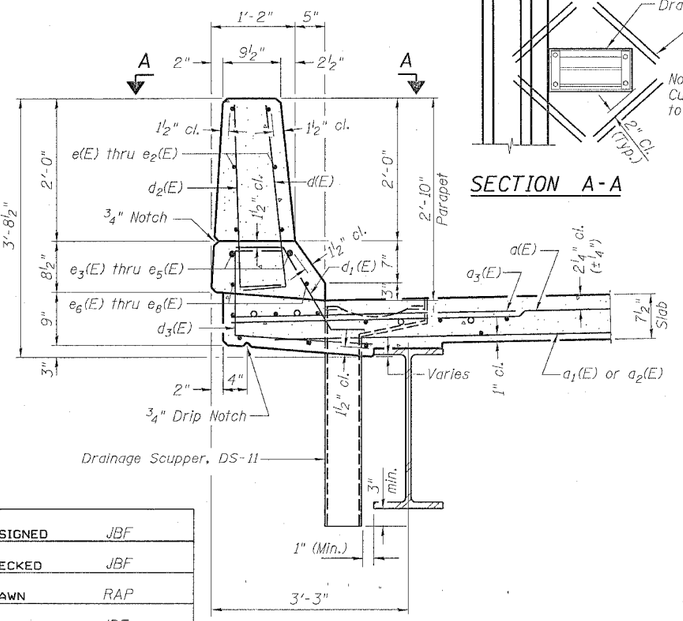
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



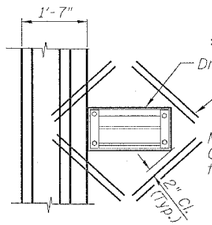
INSIDE ELEVATION OF NORTH PARAPET



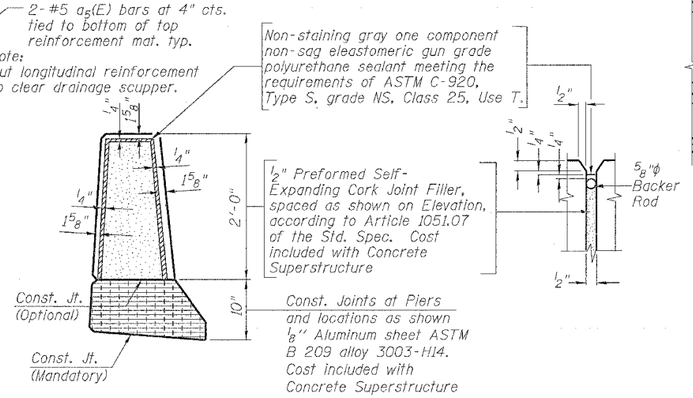
INSIDE ELEVATION OF SOUTH PARAPET



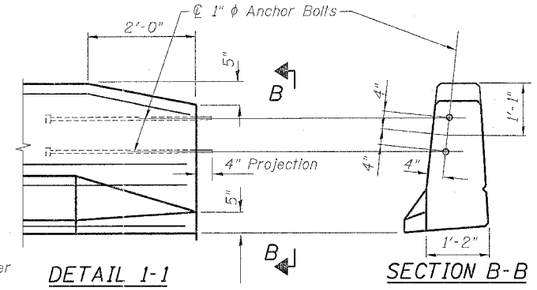
SECTION THRU PARAPET

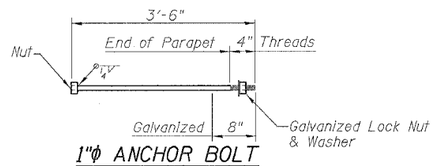


SECTION A-A



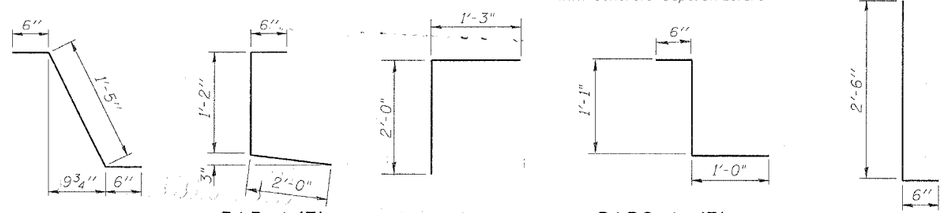
PARAPET JOINT DETAILS





1"ϕ ANCHOR BOLT

Cost of bolts to be included with Concrete Superstructure



BAR d1(E) BAR d3(E) BARS v(E) BARS d4 (E) BARS d(E) & d2(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	878	#5	37'-1"	
a1(E)	322	#5	40'-0"	
a2(E)	322	#5	33'-6"	
a3(E)	436	#6	4'-6"	
a4(E)	8	#5	39'-2"	
a5(E)	48	#5	1'-6"	
b(E)	456	#5	35'-0"	
b1(E)	146	#6	36'-6"	
b2(E)	490	#5	30'-3"	
b3(E)	28	#5	30'-3"	
c1(E)	203	#5	3'-0"	
c2(E)	406	#5	1'-9"	
d(E)	440	#5	3'-0"	
d1(E)	428	#5	2'-5"	
d2(E)	440	#4	3'-0"	
d3(E)	440	#4	3'-8"	
d4(E)	12	#5	2'-7"	
e(E)	12	#4	17'-4"	
e1(E)	108	#4	18'-3"	
e2(E)	12	#4	16'-4"	
e3(E)	12	#8	26'-8"	
e4(E)	8	#8	18'-3"	
e5(E)	12	#8	32'-6"	
e6(E)	12	#5	25'-6"	
e7(E)	8	#5	18'-3"	
e8(E)	12	#5	31'-4"	
m(E)	12	#6	27'-6"	
m1(E)	18	#6	27'-6"	
m2(E)	28	#6	11'-6"	
m3(E)	16	#6	8'-5"	
m4(E)	4	#6	3'-0"	
m5(E)	8	#6	9'-0"	
s(E)	140	#5	6'-6"	
s1(E)	140	#4	11'-2"	
v(E)	140	#5	3'-3"	
Reinforcement Bars, Epoxy Coated		Pound	118,240	
Concrete Superstructure		Cu. Yds.	487.6	

Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 1 x 3-#5 etc. indicates 1 line of bars with 3 lengths per line.

MIN. BAR LAPS

#4 BAR = 1'-4"
#5 BAR = 1'-8"
#8 BAR = 3'-5"

DESIGNED	JBF
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

SUPERSTRUCTURE DETAILS

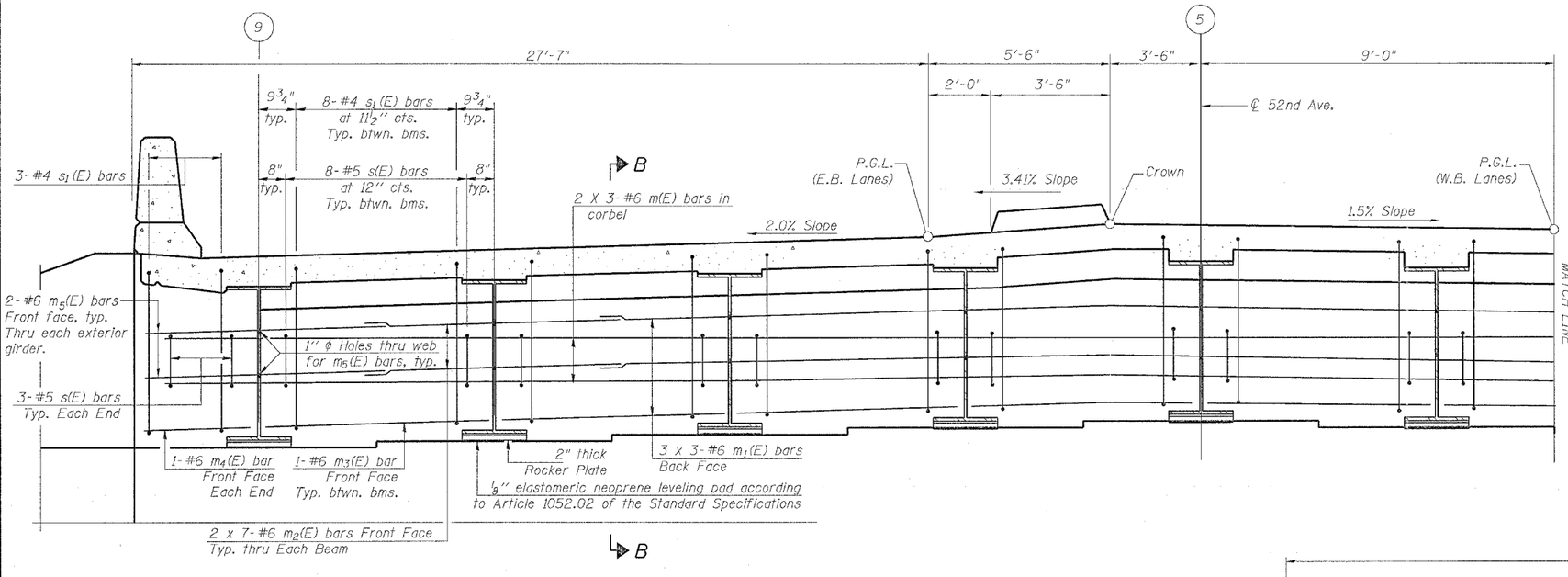
52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	260
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

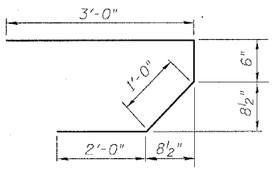
SHEET NO. 9
22 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

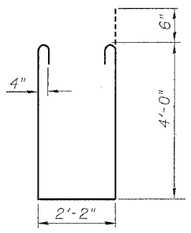


PARTIAL DIAPHRAGM ELEVATION AT ABUTMENT

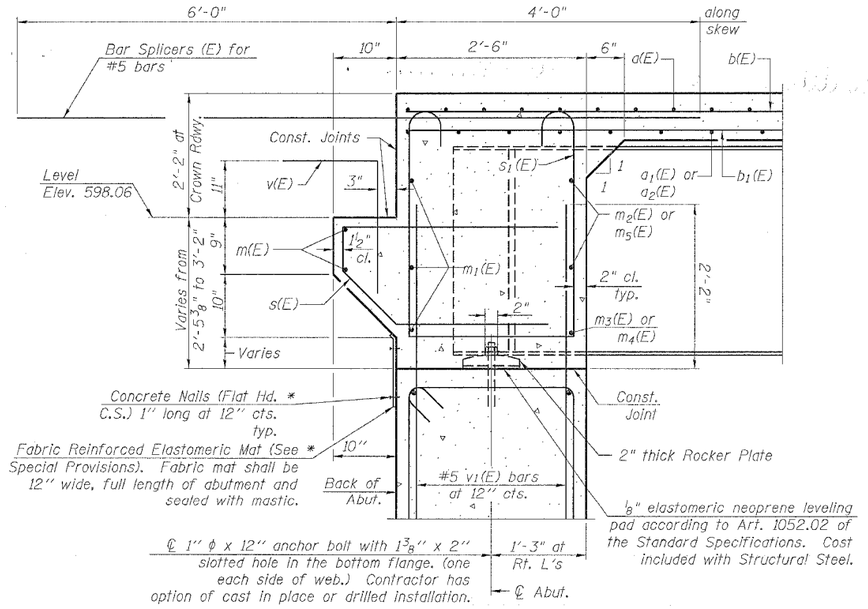
(Looking West)
(Dimensions are @ Rt. L's ℄ 52nd Ave.)



BARS s(E)



BARS $s_1(E)$



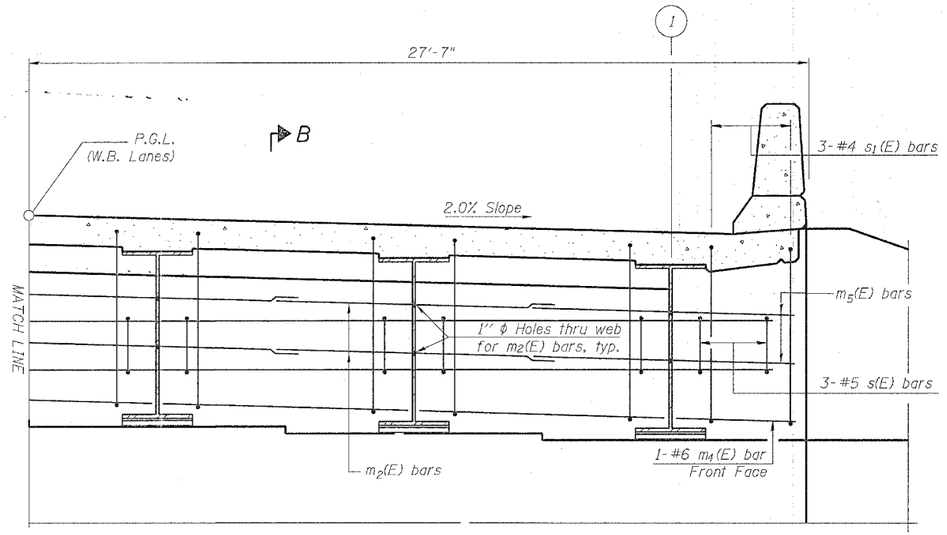
SECTION B-B

Dimensions at right angles to abutment, except as shown.
*Cost included with Concrete Superstructure.

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 8 of 22.
Concrete in diaphragm is included with Concrete Superstructure on sheet 8 of 22.
For details of bars s(E) & $s_1(E)$ see this sheet.
For details of bar v(E) see sheet 8 of 22.
The s(E) and $s_1(E)$ bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
For anchor bolt details see sheet 14 of 22.

MIN. BAR LAP

#6 bar = 2'-9"



PARTIAL DIAPHRAGM ELEVATION AT ABUTMENT

(Looking West)
(Dimensions are @ Rt. L's ℄ 52nd Ave.)

DESIGNED	JBF
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

SI-DS1 9-01-03

DIAPHRAGM DETAILS AT WEST ABUTMENT

52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

CONTRACT NO. 64647

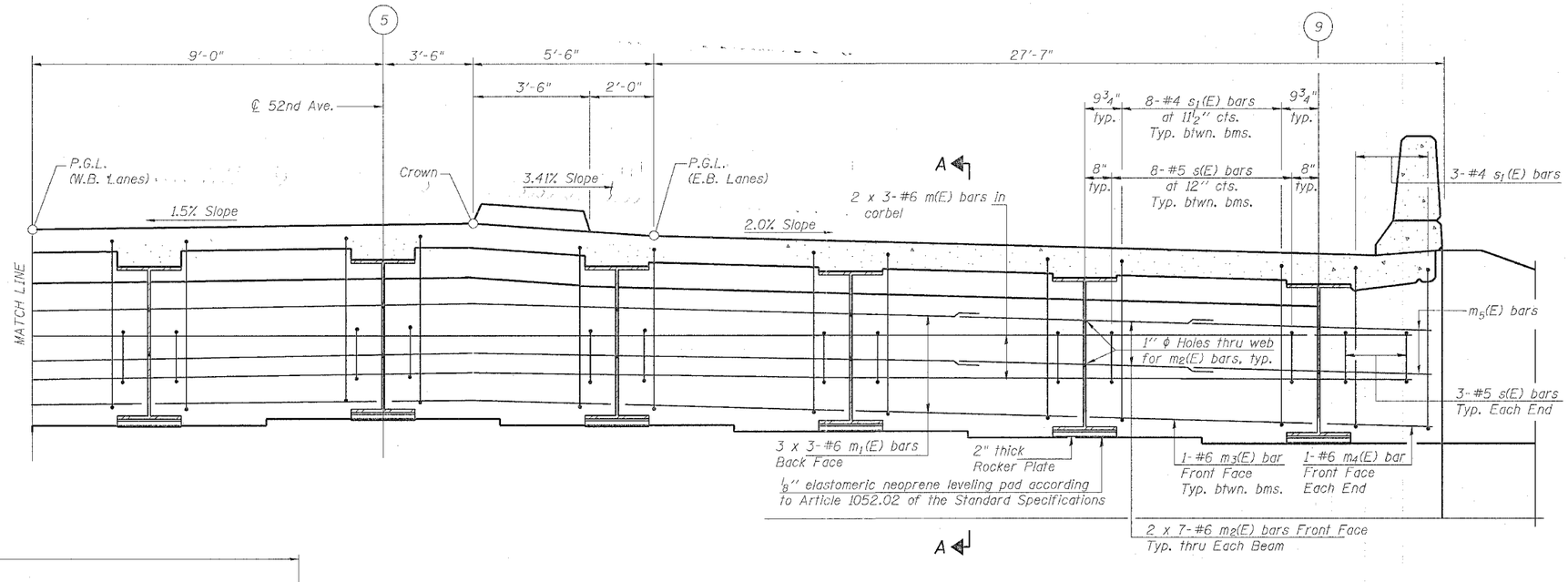
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	261
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 10
22 SHEETS

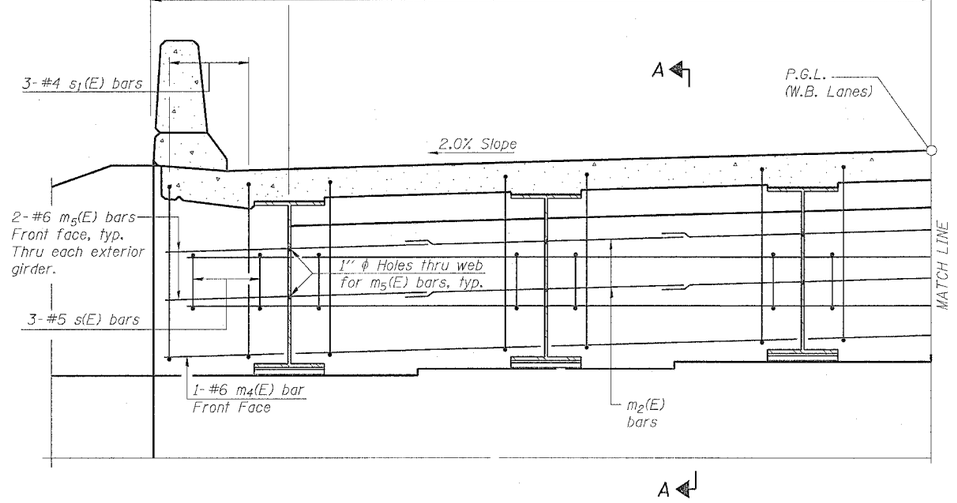
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 8 of 22.
Concrete in diaphragm is included with Concrete Superstructure on sheet 8 of 22.
For details of bars s(E) & s_1(E) see this sheet.
For details of bar v(E) see sheet 8 of 22.
The s(E) and s_1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
For anchor bolt details see sheet 14 of 22.

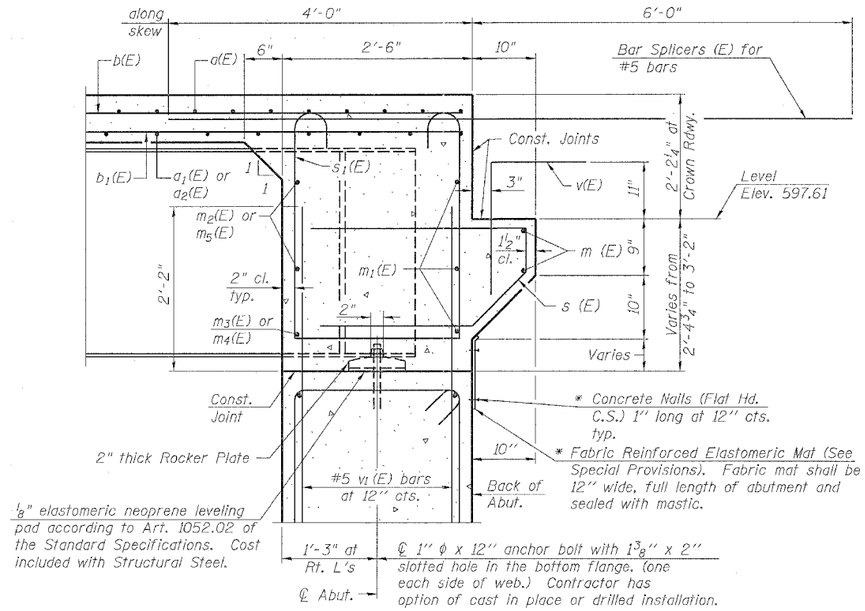
MIN. BAR LAP
#6 bar = 2'-9"



PARTIAL DIAPHRAGM ELEVATION AT ABUTMENT
(Looking East)
(Dimensions are @ Rt. L's ℄ 52nd Ave.)



PARTIAL DIAPHRAGM ELEVATION AT ABUTMENT
(Looking East)
(Dimensions are @ Rt. L's ℄ 52nd Ave.)



SECTION A-A
Dimensions at right angles to abutment, except as shown.
* Cost included with Concrete Superstructure.

DIAPHRAGM DETAILS AT EAST ABUTMENT
52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

DESIGNED	JBF
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

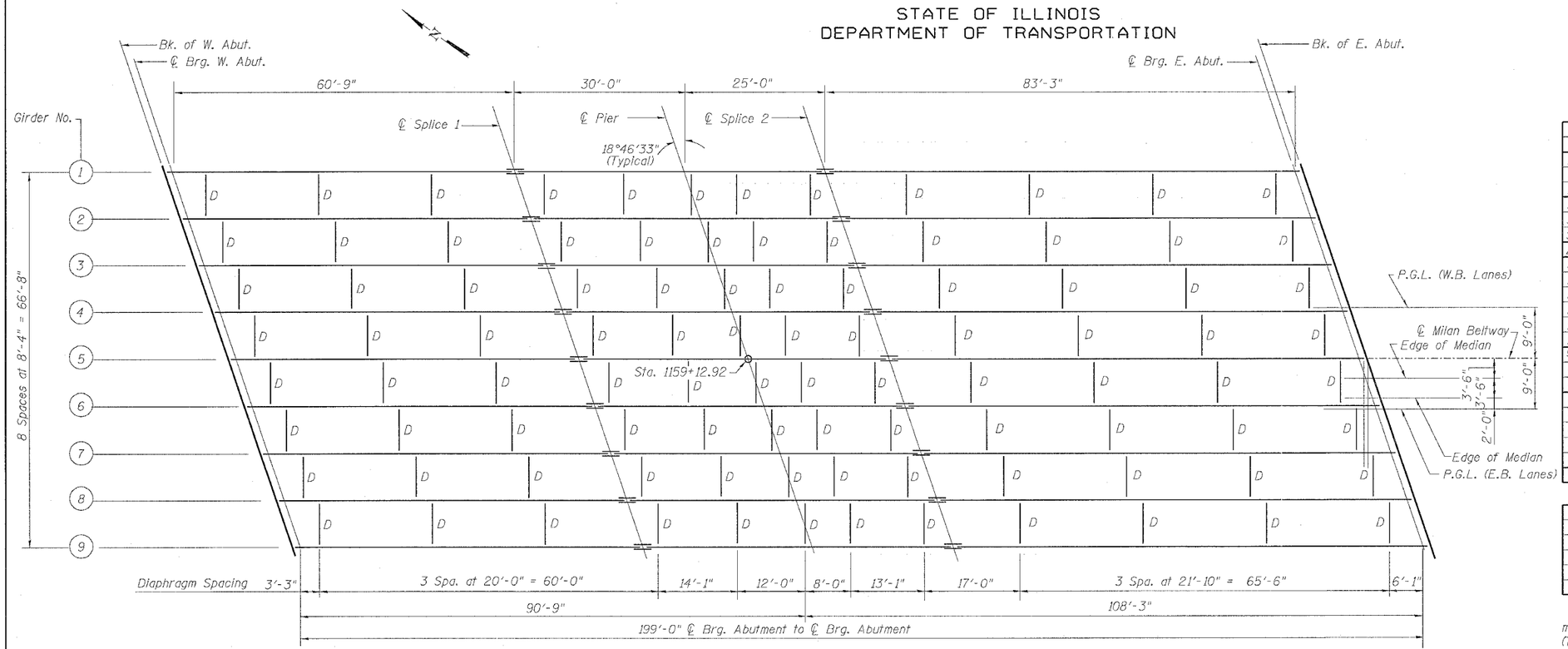
SI-DS1 9-01-03

CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	262
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 11
22 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FRAMING PLAN

TOP OF WEB ELEVATION
(For fabrication only)

Location	℄ Brg. W. Abut.	℄ Splice 1	℄ Brg. Pier	℄ Splice 2	℄ Brg. E. Abut.
Girder 1	598.657	598.997	599.053	599.099	598.495
Girder 2	598.851	599.172	599.219	599.258	598.628
Girder 3	599.044	599.347	599.385	599.416	598.762
Girder 4	599.233	599.518	599.546	599.570	598.890
Girder 5	599.382	599.649	599.669	599.685	598.980
Girder 6	599.294	599.542	599.553	599.562	598.832
Girder 7	599.141	599.371	599.372	599.373	598.618
Girder 8	598.997	599.208	599.200	599.194	598.414
Girder 9	598.851	599.045	599.028	599.014	598.208

INTERIOR GIRDER MOMENT TABLE

		0.4 Sp. 1	Pier	0.6 Sp. 2
Is	(in^4)	15754	25805	15754
Ic (n)	(in^4)	42000	——	42000
Ic (3n)	(in^4)	30731	——	30731
Ss	(in^3)	837	1147	837
Sc (n)	(in^3)	1137	——	1137
Sc (3n)	(in^3)	1051	——	1051
Z	(in^3)			
D℄	(k/ft.)	0.98	1.56	0.98
M℄	('k)	405	2062	812
sD℄	(k/ft.)	0.51	——	0.51
MsD℄	('k)	259	——	472
M℄	('k)	864	753	1052
M (Imp)	('k)	200	168	225
$5/3$[M℄+M(Imp)]	('k)	1773	1535	2128
Ma	('k)	3169	4676	4436
Mu	('k)	5610	——	5610
fsD℄ non-comp	(k.s.i.)	5.8	21.6	11.6
fsD℄ (comp)	(k.s.i.)	3.0	——	5.4
fs$5/3$(℄+Imp)	(k.s.i.)	18.7	16.1	22.5
fs (Overload)	(k.s.i.)	27.5	37.7	39.5
fs (Total)	(k.s.i.)	——	48.9	——
VR	(k)	66.9		64.6

INTERIOR GIRDER REACTION TABLE

		W. Abut.	Pier	E. Abut.
RD℄	(k)	45.4	193.6	62.0
R℄	(k)	47.9	78.6	48.9
Imp.	(k)	11.1	12.1	10.5
R (Total)	(k)	104.4	284.3	121.4

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

Ic(3n) and Sc(3n) 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.

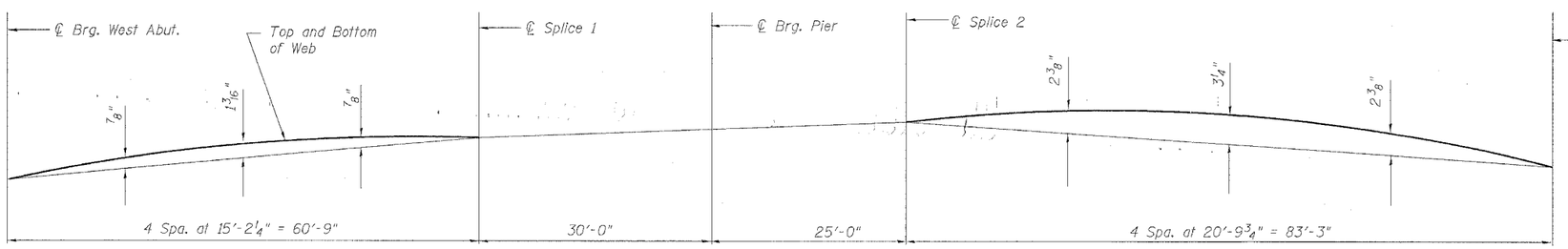
Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

Ma (Applied Moment)=1.3[M D℄+ Ms D℄+$5/3$(M ℄+ M(Imp))].

The Plastic Moment capacity (Mu) is computed according to AASHTO 10.48.1 and 10.50.1.1.

fs (Overload) is the sum of the stresses due to M℄ + Ms℄ +$5/3$(M℄ + M(Imp)).

fs (Total) (Compact section) is the sum of the stresses due to 1.3[M℄ + Ms℄ +$5/3$(M℄ + M(Imp))].



CAMBER DIAGRAM

DESIGNED	JDC
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

STRUCTURAL STEEL FRAMING

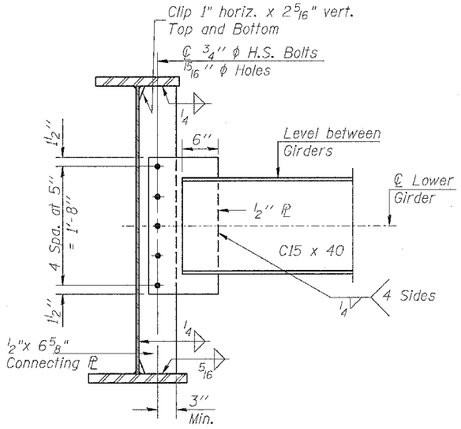
52nd Ave. over Milan Beltway
F.A.U. Route 5822 Section 1-3
Rock Island County
Sta. 1159+12.92
Structure Number 081-0156

CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	263
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 12
22 SHEETS

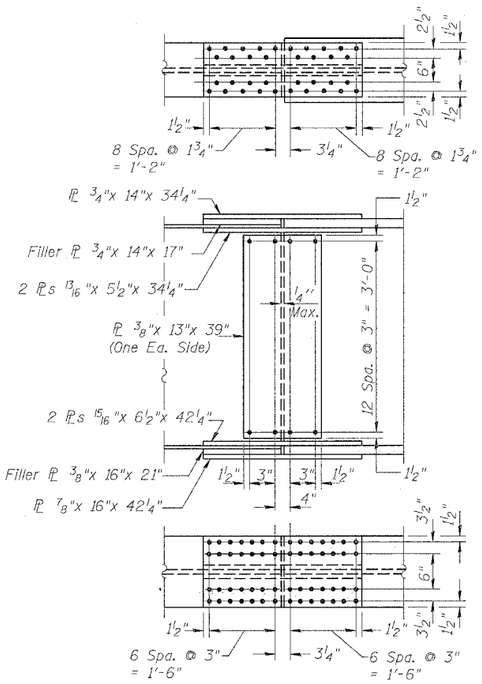
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



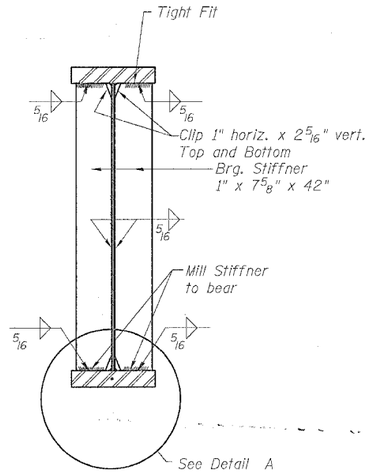
DIAPHRAGM D

96 Required

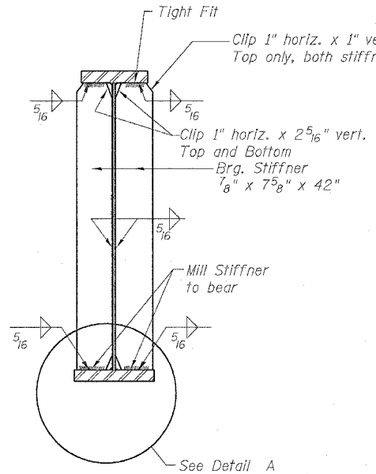
Note:
Two hardened washers shall be required over all oversized holes.
All splice plates except fill plates shall be AASHTO M270, Gr 50.
All fill plates, diaphragms and connecting plates shall be AASHTO M270, Gr 36.
All bolts for splice plates are 7/8"ϕ HS in 15/16"ϕ open holes.



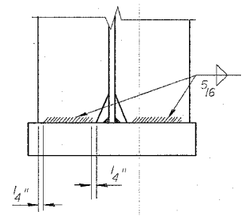
FIELD SPLICE DETAIL



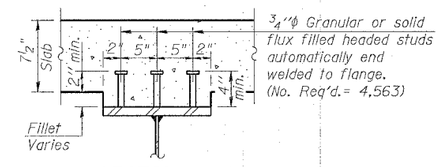
SECTION AT PIER



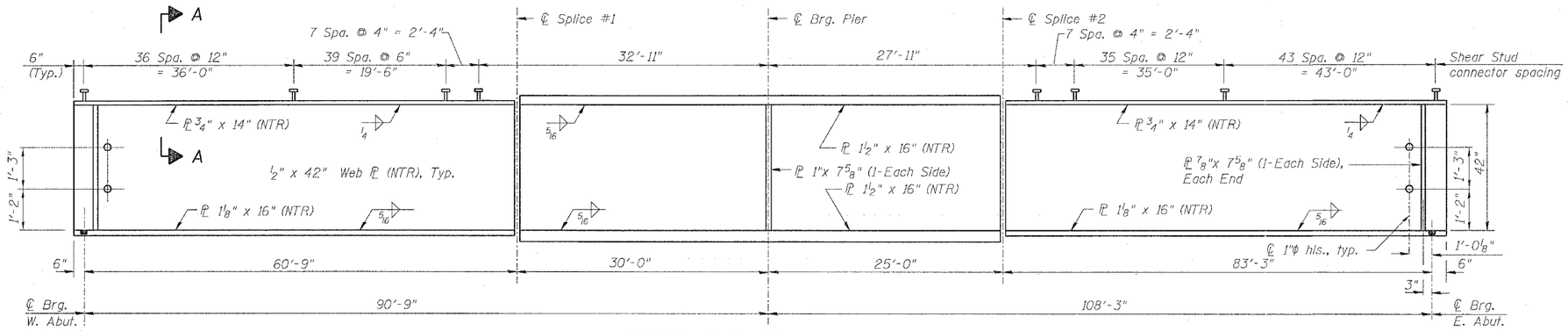
SECTION AT ABUTMENTS



DETAIL A

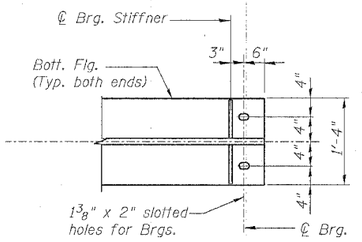


SECTION A-A



GIRDER ELEVATION

"NTR" denotes plates to which notch toughness requirements are applicable.
All plates of the girders, including bearing stiffeners, shall be AASHTO M270 Grade 50.



END OF GIRDER DETAIL

DESIGNED	JDC
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

SI-DS1 9-01-03

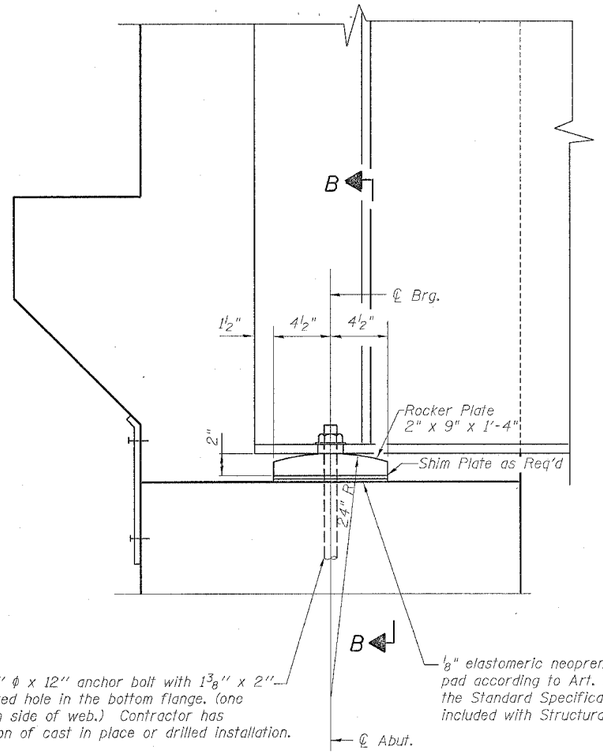
STRUCTURAL STEEL DETAILS

52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

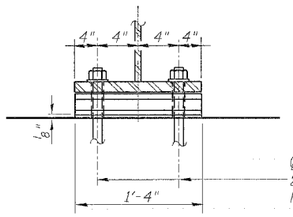
CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 13
F.A.P. 595	1-3-K	Rock Island	476	264	22 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

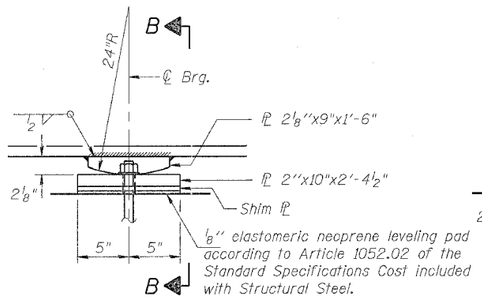


ELEVATION AT ABUTMENT

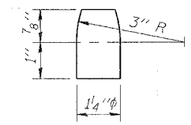


℄ 1"ϕ x 12" Anchor bolts with 2¼" x 2¼" x 5/16" ℙ washer under nut. Provide 1½" ϕ Holes in bearing ℙ.

SECTION B-B

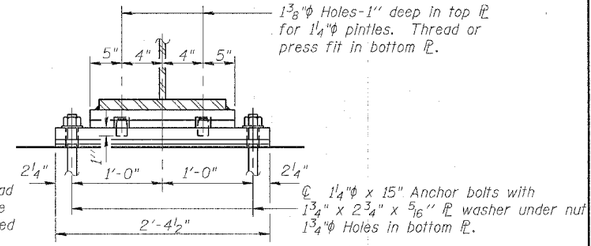


ELEVATION AT PIER



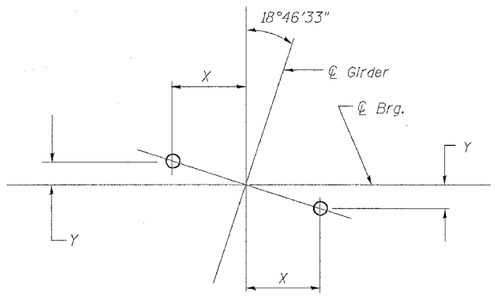
PINTLE

FIXED BEARING
9 Required



SECTION B-B

FIXED BEARING
18 Required



ANCHOR BOLT LOCATION DETAIL

	X	Y
Abutments	3 13/16"	1 5/16"
Pier	11 3/8"	3 7/8"

Note:
All bearing plates, shim plates and pintles shall be be AASHTO M270 Grade 50.
Anchor Bolts at Fixed bearings may be built into the masonry.
See Sheet 14 for Anchor Bolt Installation.

DESIGNED	JDC
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

BEARING DETAILS

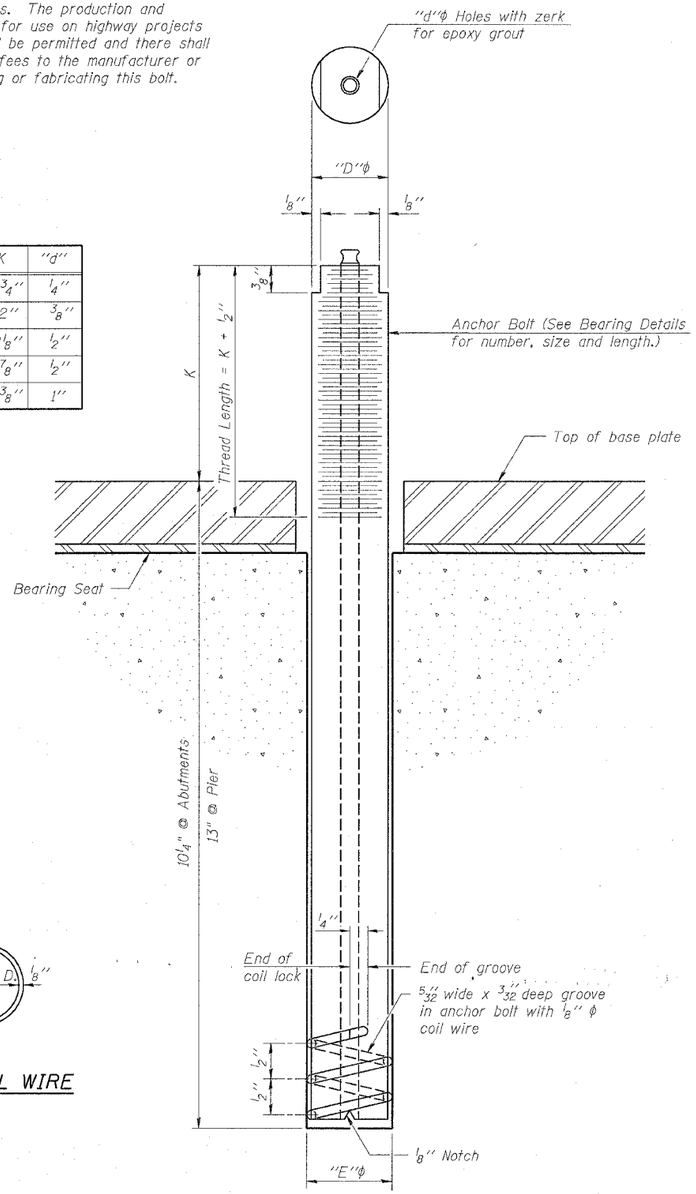
52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	265
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

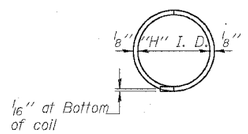
SHEET NO. 14
22 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

D	E	H	K	"d"
1"	1 1/8"	13/16"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/16"	2"	3/8"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 13/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



ILLINOIS COIL-LOCK ANCHOR BOLT



PLAN-COIL WIRE

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.

The coil wire shall be made of any suitable soft steel wire.

The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.

The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.

2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. *A threaded rod stud with nut and washer of the type specified.*
2. *A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.*

Location	Type
W. Abut.	A307
Pier	A307
E. Abut.	A307

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for Furnishing and Erecting Structural Steel.

DESIGNED	JBF
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

ABB-1 4-30-99

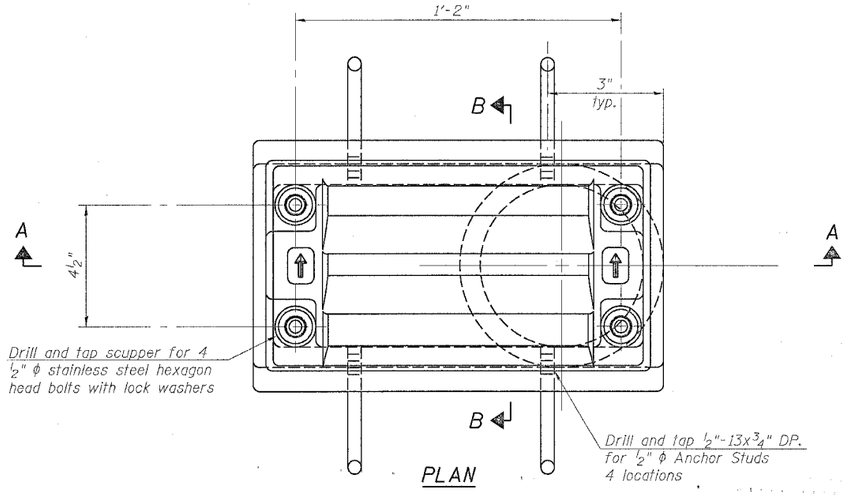
ANCHOR BOLT DETAILS FOR BEARINGS

52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

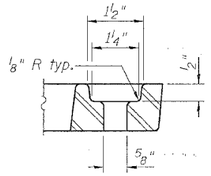
CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 15
F.A.P. 595	1-3-K	Rock Island	476	266	22 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

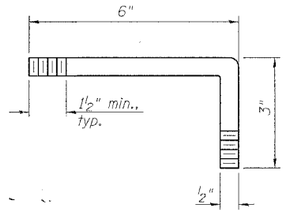
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



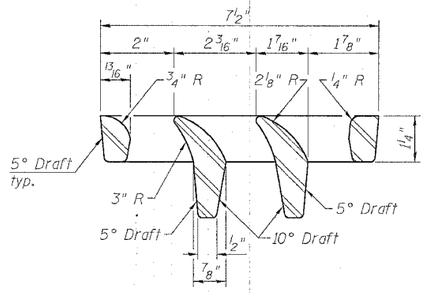
PLAN



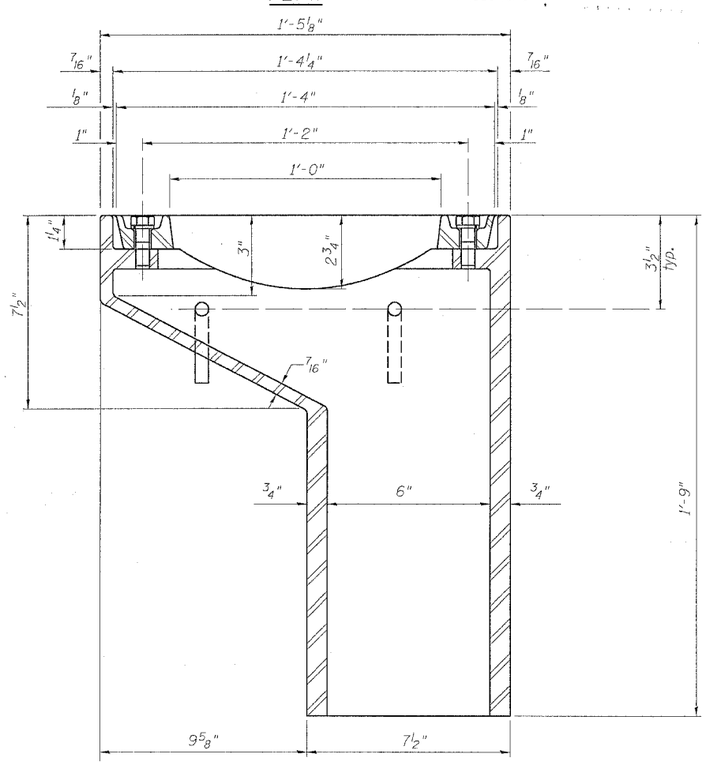
BOLT HOLE DETAIL



ANCHOR STUD DETAIL

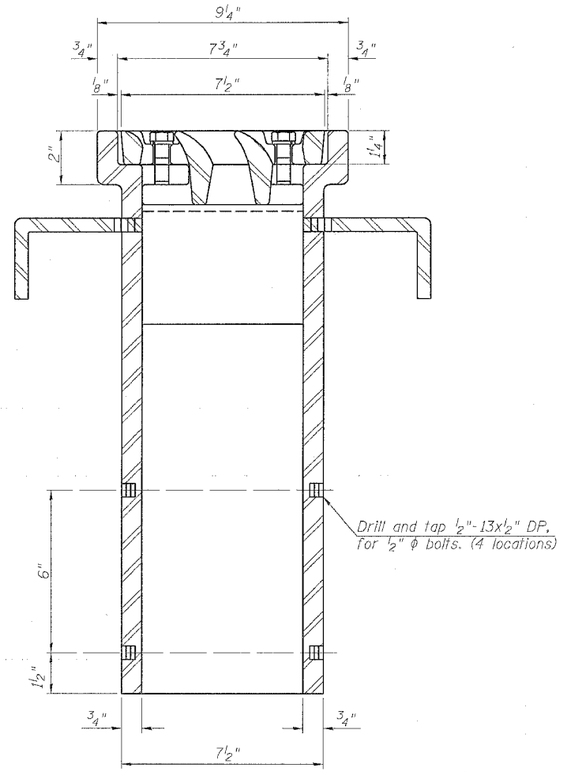


VANE GRATE DETAIL



SECTION A-A

See sheet 8 of 22 for scupper location relative to parapet.



SECTION B-B

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.

The grate, frame and downspout shall be galvanized according to AASHTO M 111 and ASTM A 385. 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 cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.

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-11.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	6

DESIGNED	JBF
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

8-11-02

DRAINAGE SCUPPER, DS-11

52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

CONTRACT NO. 64647

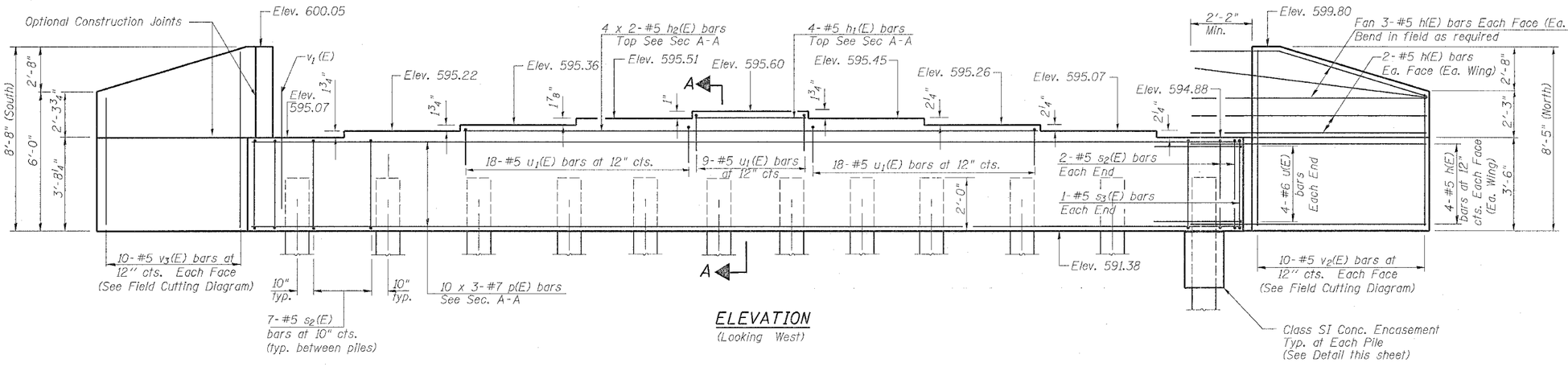
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	267
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 16
22 SHEETS

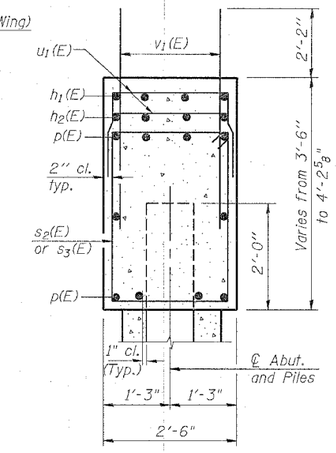
Notes: Pour steps monolithically with cap. Reinforcement bars designated (E) shall be epoxy coated.

Bars designated thus 10 x 3-#7 indicates 10 lines of #7 bars with 3 lengths per line.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



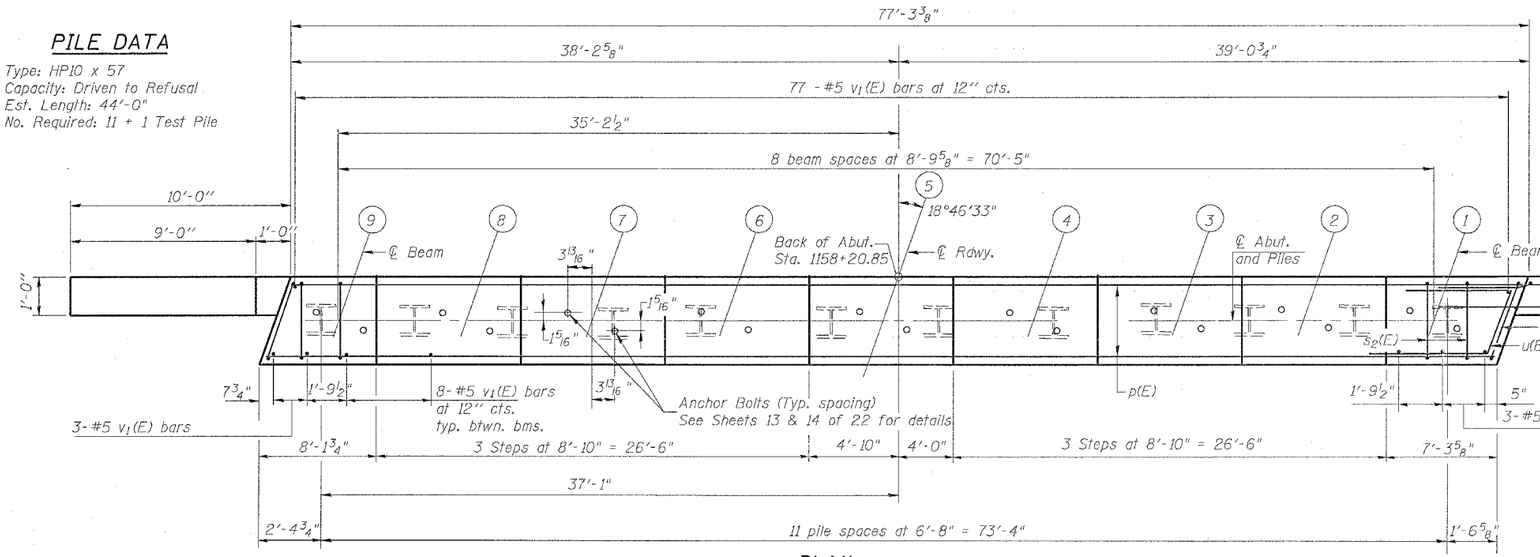
ELEVATION
(Looking West)



SECTION A-A

PILE DATA

Type: HP10 x 57
Capacity: Driven to Refusal
Est. Length: 44'-0"
No. Required: 11 + 1 Test Pile



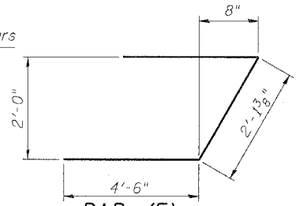
PLAN

Min. Bar Laps

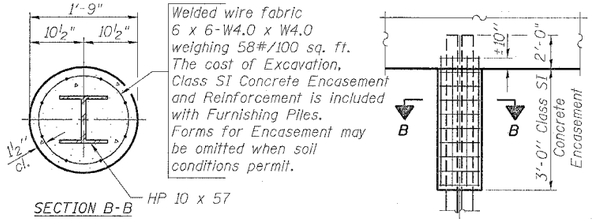
#5 bar = 2'-2"
#7 bar = 3'-5"

BILL OF MATERIAL

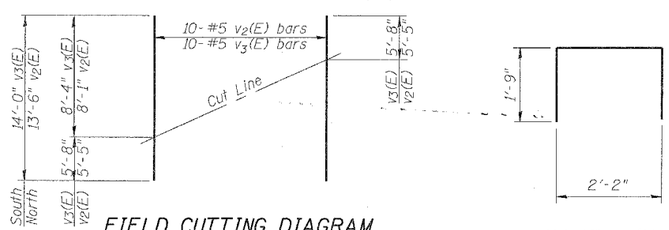
Bar	No.	Size	Length	Shape
h(E)	36	#5	12'-7"	
h_1(E)	4	#5	8'-6"	
h_2(E)	8	#5	23'-0"	
p(E)	30	#7	28'-0"	
s_2(E)	81	#5	11'-7"	
s_3(E)	2	#5	11'-10"	
u(E)	8	#6	11'-1"	
u_1(E)	45	#5	5'-8"	
v_1(E)	147	#5	4'-4"	
v_2(E)	10	#5	13'-6"	
v_3(E)	10	#5	14'-0"	
Concrete Structures		Cu. Yd.	33.4	
Reinforcement Bars, Epoxy Coated		Pound	4,770	
Furnishing Steel Piles HP10x57		Foot	484	
Driving Steel Piles		Foot	484	
Test Pile Steel HP10x57		Each	1	
Structure Excavation		Cu. Yd.	174	
Metal Shoes		Each	11	



BAR u(E)



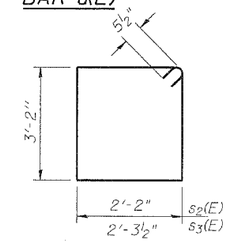
PILE ENCASEMENT DETAIL



Order v_2(E) & v_3(E) bars full length. Cut as shown and use remainder of bars in opposite face.

FIELD CUTTING DIAGRAM

BARS u_1(E)



BARS s_2(E) & s_3(E)

WEST ABUTMENT DETAILS

52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

DESIGNED	JBF
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

AI-R 9-01-03

CONTRACT NO. 64647

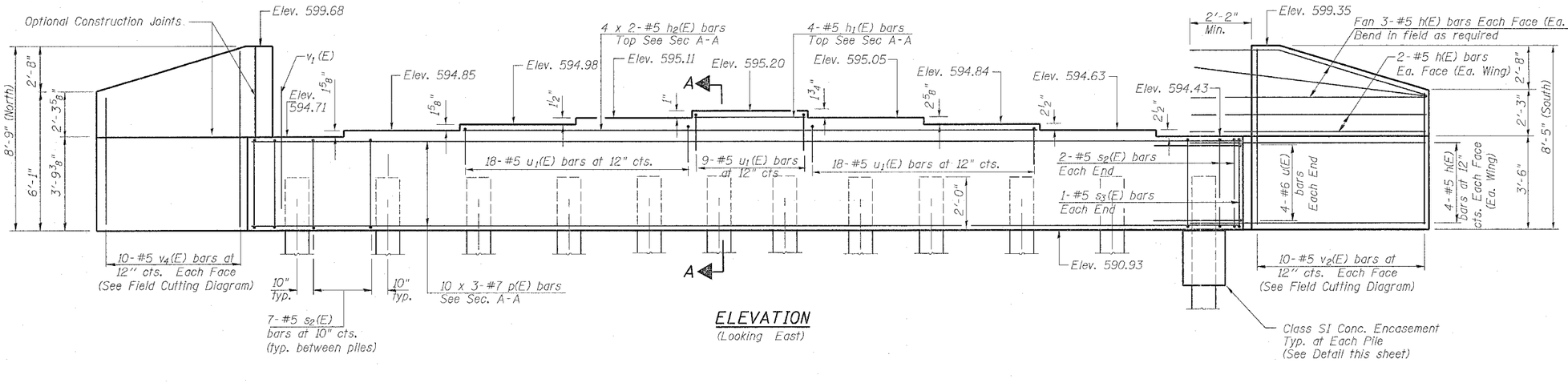
Notes: Pour steps monolithically with cap.
Reinforcement bars designated (E) shall be epoxy coated.

Bars designated thus 10 x 3-#7 indicates 10 lines of #7 bars with 3 lengths per line.

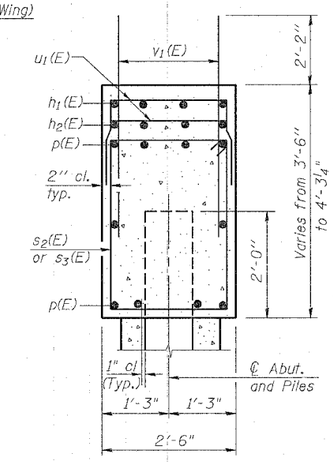
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	268
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 17
22 SHEETS



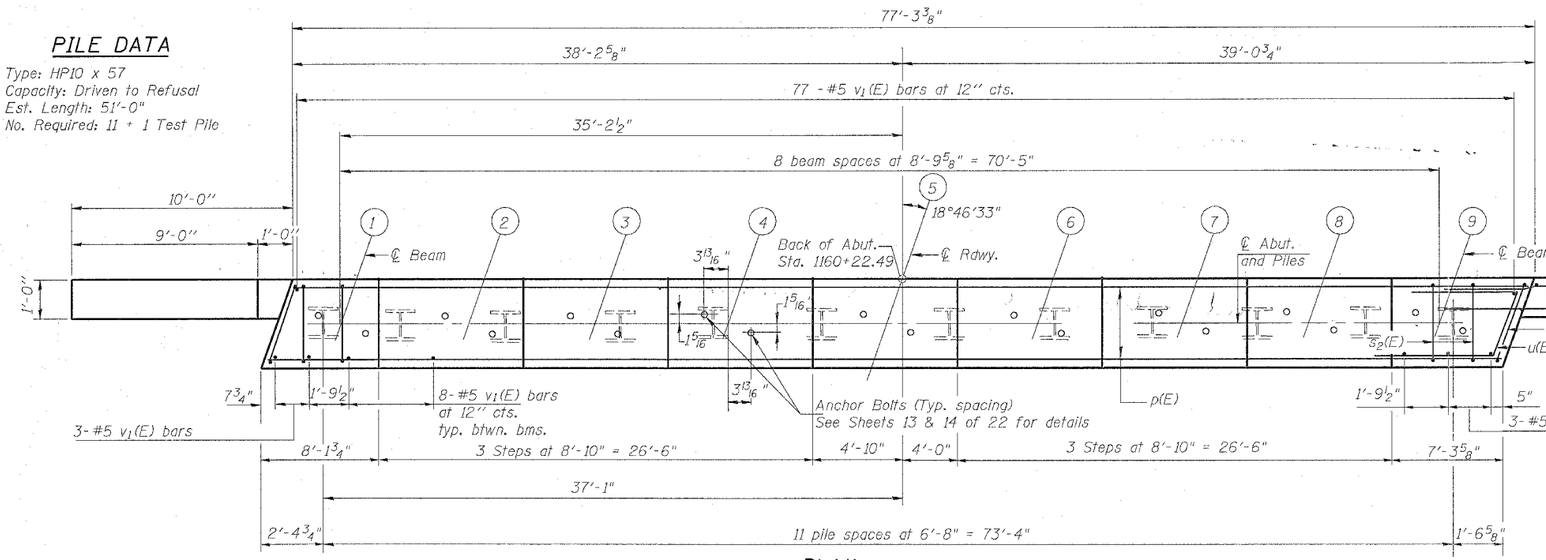
ELEVATION
(Looking East)



SECTION A-A

PILE DATA

Type: HP10 x 57
Capacity: Driven to Refusal
Est. Length: 51'-0"
No. Required: 11 + 1 Test Pile



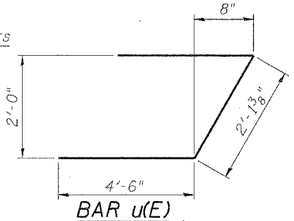
PLAN

Min. Bar Laps

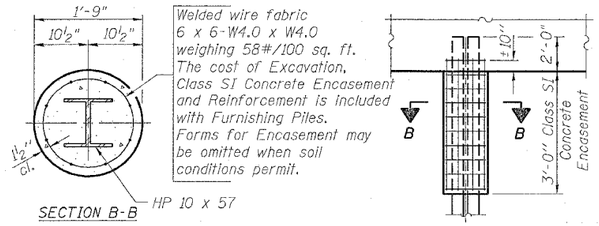
#5 bar = 2'-2"
#7 bar = 3'-5"

BILL OF MATERIAL

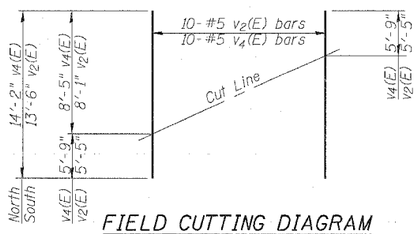
Bar	No.	Size	Length	Shape
h(E)	36	#5	12'-7"	
h_1(E)	4	#5	8'-6"	
h_2(E)	8	#5	23'-0"	
p(E)	30	#7	28'-0"	
s_2(E)	81	#5	11'-7"	
s_3(E)	2	#5	11'-10"	
u(E)	8	#6	11'-1"	
u_1(E)	45	#5	5'-8"	
v_1(E)	147	#5	4'-4"	
v_2(E)	10	#5	13'-6"	
v_4(E)	10	#5	14'-2"	
Concrete Structures			Cu. Yd.	33.7
Reinforcement Bars, Epoxy Coated			Pound	4,780
Furnishing Steel Piles HP10x57			Foot	561
Driving Steel Piles			Foot	561
Test Pile Steel HP10x57			Each	1
Structure Excavation			Cu. Yd.	174
Metal Shoes			Each	11



BAR u(E)

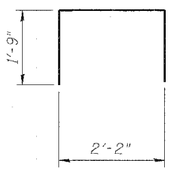


PILE ENCASEMENT DETAIL

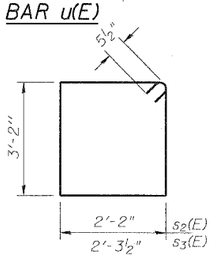


FIELD CUTTING DIAGRAM

Order v_2(E) & v_4(E) bars full length. Cut as shown and use remainder of bars in opposite face.



BARS u_1(E)



BARS s_2(E) & s_3(E)

EAST ABUTMENT DETAILS

52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

DESIGNED	JBF
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

AI-R 9-01-03

CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	269
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 18
22 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Note:

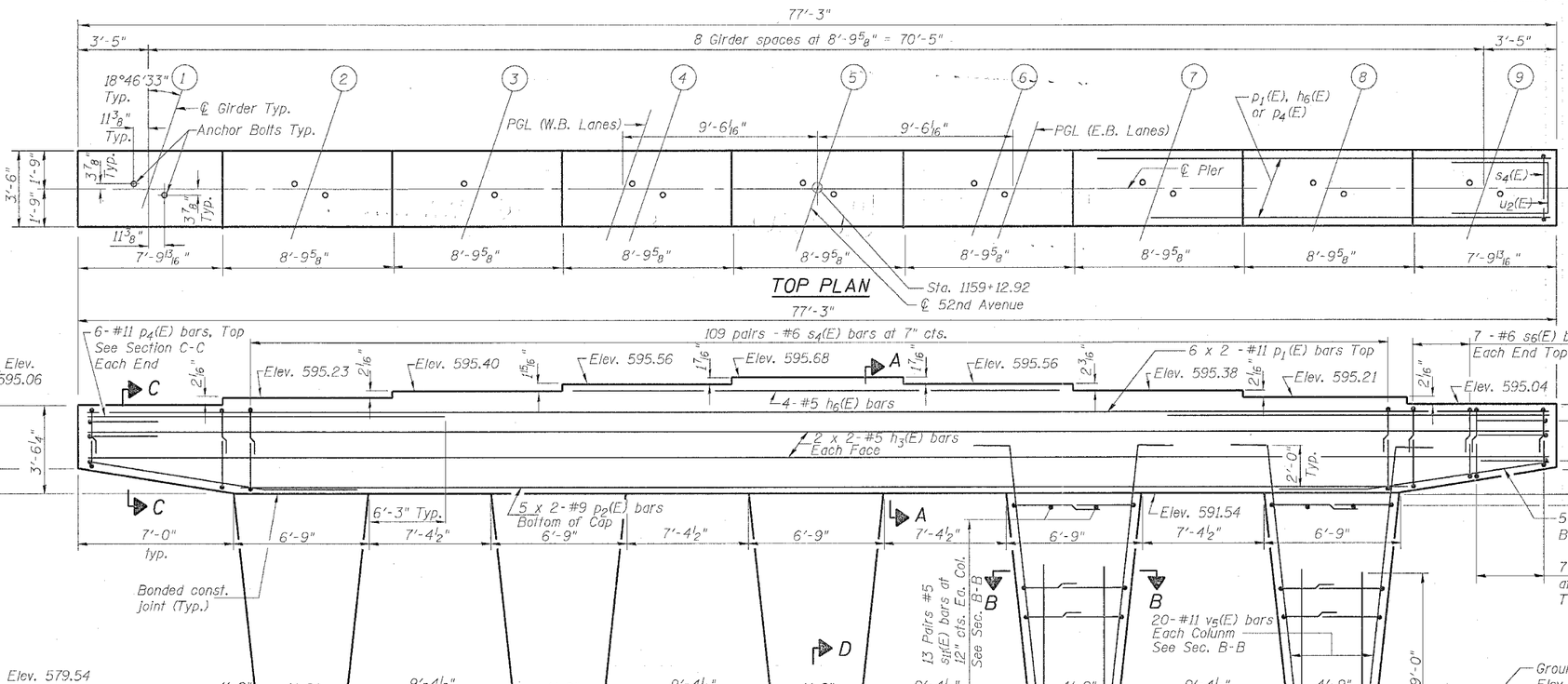
Space reinforcement in cap to miss anchor bolts.

Pour steps monolithically with cap.

Reinforcement bars designated (E) shall be epoxy coated

Bars designanted thus 6 x 2 - #9 etc. indicates 6 lines of bars with 2 lengths per line.

See Sheets 13 & 14 of 22 for Anchor Bolt Details.



END VIEW

ELEVATION
(Looking East)

PILE DATA

Type: Steel HP 10 x 57
Capacity: Driven to refusal
Est. Length 31 ft.
No. Req'd.: 26 + 1 Test Pile

Min. Bar Laps

#4 bar = 1'-8"
#5 bar = 2'-2"
#6 bar = 2'-7"
#9 bar = 5'-9"
#11 bar = 9'-0"

PIER DETAILS

52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

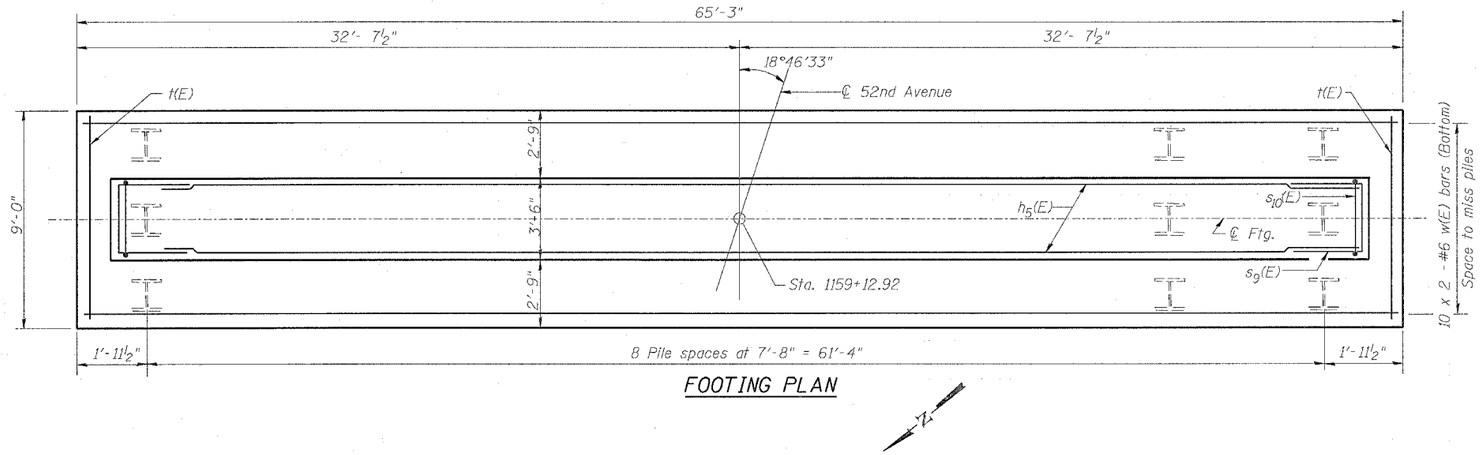
DESIGNED	JDC
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

P-6 9-01-03

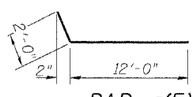
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	270
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

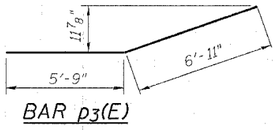
SHEET NO. 19
22 SHEETS



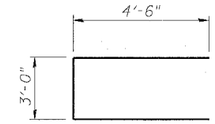
FOOTING PLAN



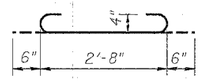
BAR v5(E)



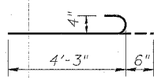
BAR p3(E)



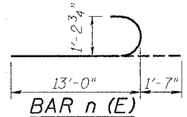
BAR u2(E)



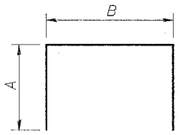
BAR s11(E)



BAR s12(E)



BAR n (E)



BARS
$s_4(E)$ thru $s_{10}(E)$

A & B DIMENSIONS

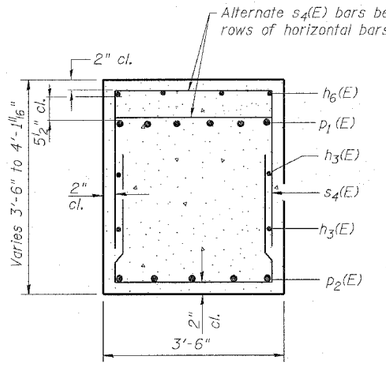
Bar	A	B
$s_4(E)$	3'-0"	3'-2"
$s_5(E)$	2'-2"	3'-2"
$s_6(E)$	2'-8"	3'-2"
$s_7(E)$	4'-5"	2'-8"
$s_8(E)$	4'-0"	3'-2"
$s_9(E)$	4'-6"	3'-2"
$s_{10}(E)$	4'-10"	3'-2"

BILL OF MATERIAL

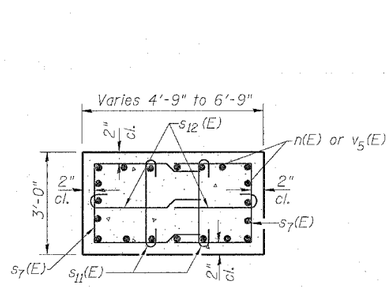
Bar	No.	Size	Length	Shape
$h_3(E)$	8	#5	39'-7"	
$h_4(E)$	20	#9	34'-4"	
$h_5(E)$	20	#6	32'-9"	
$h_6(E)$	4	#5	26'-1"	
n (E)	100	#11	14'-7"	
$p_1(E)$	12	#11	42'-11"	
$p_2(E)$	10	#9	34'-4"	
$p_3(E)$	10	#9	12'-8"	
$p_4(E)$	12	#11	19'-10"	
$s_4(E)$	218	#6	9'-2"	
$s_5(E)$	28	#6	7'-6"	
$s_6(E)$	28	#6	8'-6"	
$s_7(E)$	130	#5	11'-6"	
$s_8(E)$	64	#6	11'-2"	
$s_9(E)$	12	#5	12'-2"	
$s_{10}(E)$	64	#6	12'-10"	
$s_{11}(E)$	130	#4	3'-8"	
$s_{12}(E)$	130	#4	4'-9"	
t (E)	100	#7	8'-8"	
$u_2(E)$	6	#6	12'-0"	
$v_5(E)$	100	#11	14'-0"	
w (E)	20	#6	33'-9"	

Structure Excavation	Cu. Yd.	100
Concrete Structures	Cu. Yd.	161.5
Reinforcement Bars, Epoxy Coated	Pound	35,860
Furnishing Steel Piles HP 10x57	Foot	806
Driving Steel Piles	Foot	806
Metal Shoes	Each	26
Test Pile Steel HP 10x57	Each	1

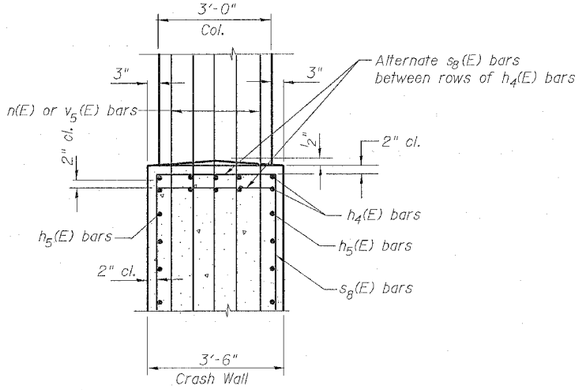
Reinforcement Bars designated (E) shall be epoxy coated.



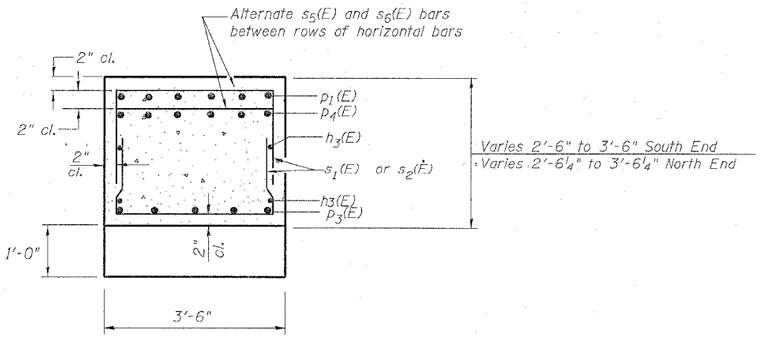
SECTION A-A



SECTION B-B



SECTION D-D



SECTION C-C

DESIGNED	JDC
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

PIER DETAILS

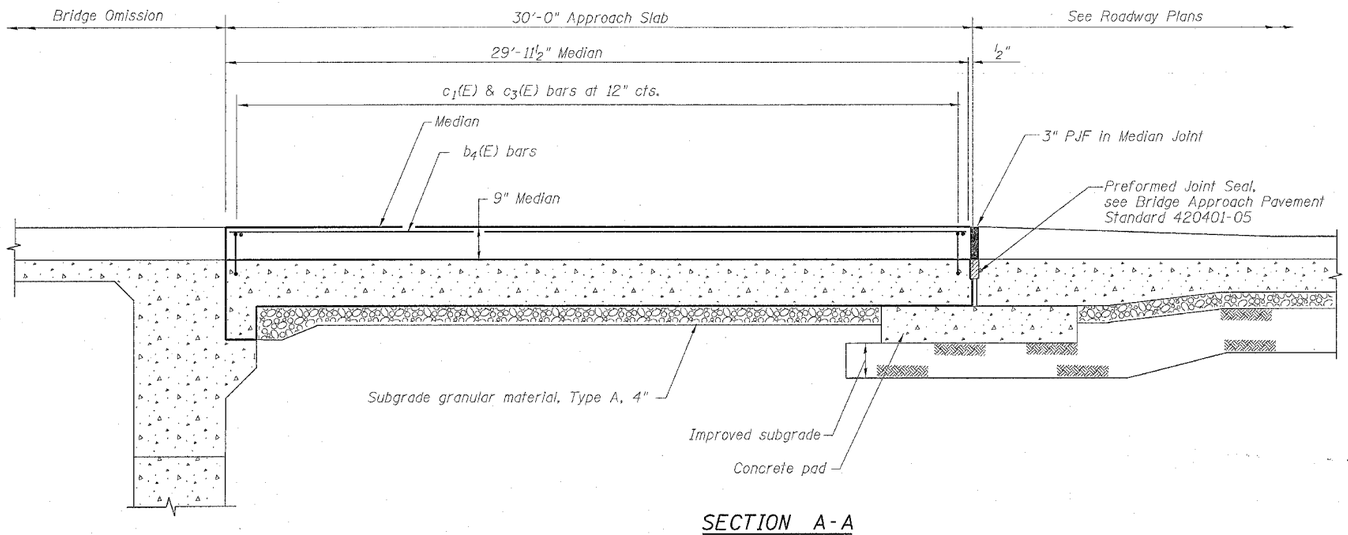
52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	271
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 20
22 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



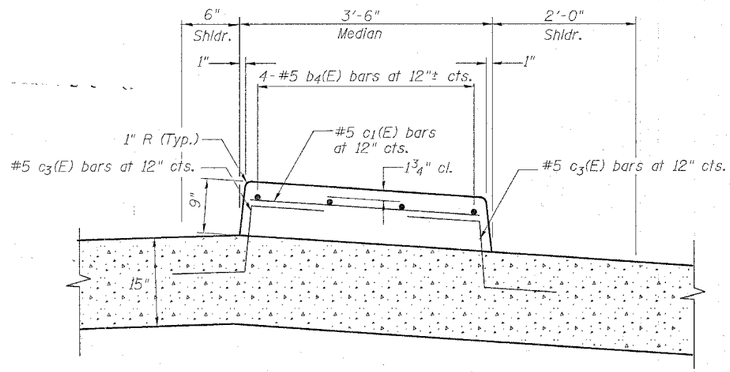
SECTION A-A

Notes:

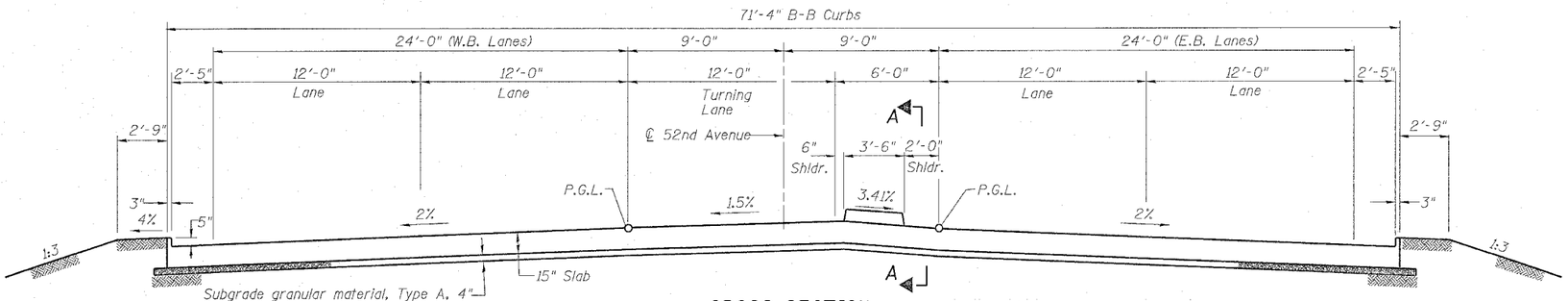
Reinforcement bars and concrete in the median shall be included in the cost of Bridge Approach Pavement (Special).

For additional approach pavement details, see Roadway Plans Standard 420401-2.

For quantity of Bridge Approach Pavement (Special), see Roadway Plans.



SECTION THRU MEDIAN

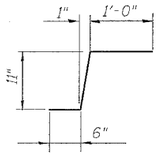


CROSS SECTION
Looking East
(Dimensions are at right <'s to ℄ 52nd Ave.)

TWO APPROACH PAVEMENTS BILL OF MATERIAL
(For Information Only)

Bar	No.	Size	Length	Shape
$b_4(E)$	8	#5	29'-6"	
$c_1(E)$	62	#5	3'-0"	
$c_2(E)$	124	#5	2'-7"	

Reinforcement bars designated (E) shall be epoxy coated.



Bar c3(E)

DESIGNED	JBF
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

BRIDGE APPROACH PAVEMENT (SP)

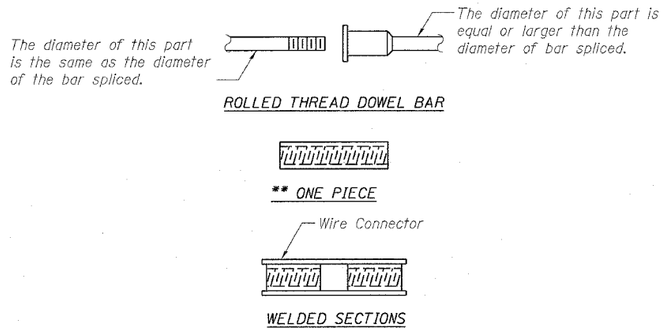
52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	272
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

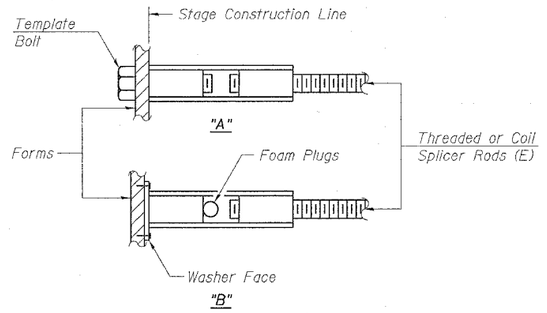
SHEET NO. 21
22 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = $1.25 \times fy \times A_t$

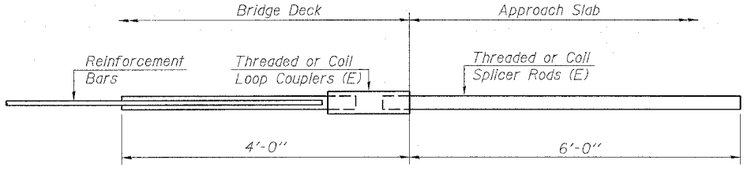
② Minimum *Pull-out Strength (Tension in kips) = $1.25 \times fs_{allow} \times A_t$

Where fy = Yield strength of lapped reinforcement bars in ksi.
fs_{allow} = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES

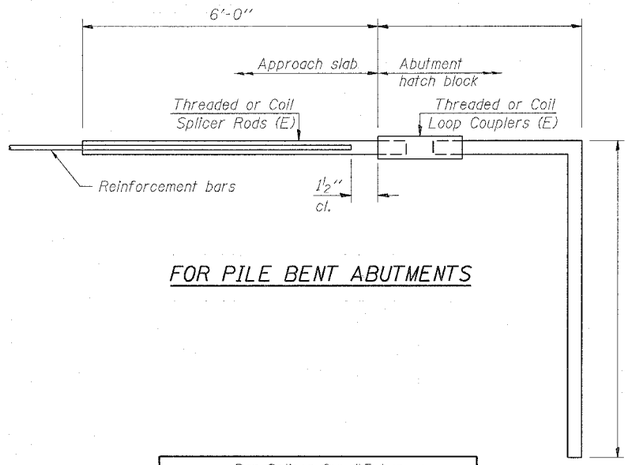
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements: Min. Capacity kips - tension	Strength Requirements: Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



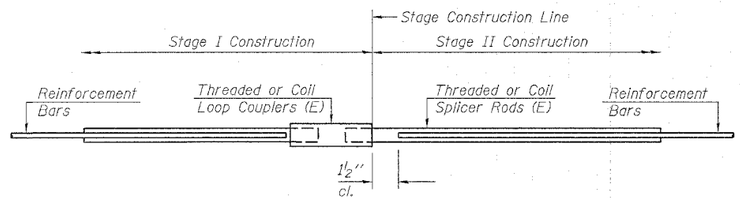
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 140



FOR PILE BENT ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 0



STANDARD

Bar Size	No. Assemblies Required	Location
N/A	0	N/A

DESIGNED	JBF
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

BSD-1 9-01-03

BAR SPLICER ASSEMBLY DETAILS

52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

CONTRACT NO. 64647

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	273
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 22
22 SHEETS

Illinois Department of Transportation

Sh. 1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Beltway Overpass Date 12-17-86
ROUTE FAU 5822 Milan Beltway Bored By D & G Drilling, Inc.
SEC. 1-3 STA. 1160+00, 52nd Ave. Checked By JZ/CB
COUNTY Rock Island
Boring No. S-57
Station 1160+00
Offset CL
Surface Water El. N/A
Groundwater El. at Completion 568.0
After ____ Hours

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 573.5 0			
SILTY CLAY LOAM: dark gray; medium stiff A-7-6 572.0			
SILTY LOAM: light brown and gray mottled; very soft	4	0.5 P	28
-5 ▼	2	0.4 B	27
A-4 to A-6 566.8			
SAND: rusty brown; loose A-3 565.5	2		
SILTY LOAM: light brown and gray mottled; soft			
-10	5	0.3 P	26
A-4 to A-6 560.5	4	0.4 B	32
SILT: gray; soft; very loose; Laminated; trace organics			
-15	3		39
	3	0.3 B	37
-20	2	0.35 B	34
SILT: gray; soft; very loose; Laminated; trace organics	3	0.4 B	34
-25	2	0.2 B	31
A-4 548.0			
SAND AND GRAVEL: gray; dense			
A-1-b 545.5	45		
CLAY SHALE: black; Thin Laminae; Fissile			
-30	50/3"		15
539.3	50/2"		
Boring Terminated @ 34.2'. -35			
-40			
-45			

N-Standard Penetration Test- Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

7-72

Illinois Department of Transportation

Sh. 1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Beltway Overpass Date 12-22-86
ROUTE FAU 5822 Milan Beltway Bored By D & G Drilling, Inc.
SEC. 1-3 STA. ____ Checked By JZ/CB
COUNTY Rock Island
Boring No. S-58
Station 1158+50
Offset 10'R
Surface Water El. N/A
Groundwater El. at Completion 569.0
After ____ Hours

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 574.5 0			
SILTY CLAY LOAM: dark gray; medium stiff; trace organics; A-7-6 572.6			
SILTY LOAM: light gray and brown mottled; medium stiff to soft	8	0.7 P	29
-5 ▼	7	0.8 P	26
*		0.24 B	
-10	4	0.4 B	31
	4	0.7 B	29
A-4 to A-6 560.5			
SANDY LOAM AND GRAVEL: brown; loose A-1-b 558.5	7		23
SILT: gray; very soft, loose; Laminated; trace organics No odor	3	<0.2 P	31
-20	3		33
A-4 552.8			
CLAY SHALE: dark gray to black; Thin Laminae; Fissile	50/3"	4.0 S	14
	50/4"		10
-25	50/4"		12
548.0			
Boring Terminated @ 26.5'.			
*Shelby Tube Sample 5.0' to 8.0 2.0' Recovery -30			
-35			
-40			
-45			

N-Standard Penetration Test- Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

7-73

Illinois Department of Transportation

Sh. 1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Beltway Overpass Date 12-18-86
ROUTE FAU 5822 Milan Beltway Bored By D & G Drilling, Inc.
SEC. 1-3 STA. 398+35 Checked By JZ/CB
COUNTY Rock Island
Boring No. S-59
Station 398+35
Offset 8'R
Surface Water El. N/A
Groundwater El. at Completion 570.7
After ____ Hours

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 574.2 0			
SILTY CLAY LOAM: dark gray; medium stiff to soft			
	6	0.5 P	28
A-7-6 571.2			
SILTY LOAM: brown; medium stiff to soft ▼			
-5	5	0.6 B	25
	3	0.7 B	28
-10	2	<0.2 P	31
	4	0.5 B	28
A-4 to A-6 561.2			
SILT: gray; very soft, loose; trace organics; no odor			
-15	3	0.4 B	32
sand lense at 16.3' to 18.0'	2		24
-20	3	0.3 P	
	2	<0.2 P	28
SILT: gray; very soft, loose; trace organics; no odor	2	0.2 B	33
-25			
A-4 548.7			
SAND AND GRAVEL: gray; medium dense to dense			
A-1-b 546.3	39		
CLAY SHALE: black; Thin Laminae, Fissile			
-30 BEGIN CORING @ 30.0'	50/2"		14
Rock Core @ 30.0' to 40.0'			
RUN #1 @ 30.0' to 34.5' Recovery = 100% RQD = 100%			
RUN #2 @ 34.5' to 39.0' Recovery = 98% RQD = 47% -35			
RUN #3 @ 39.0' to 40.0' Recovery = 0% RQD = 0%			
534.2 -40			
Boring Terminated @ 40.0'.			
-45			

N-Standard Penetration Test- Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

7-74

DESIGNED	JBF
CHECKED	JBF
DRAWN	RAP
CHECKED	JBF

BORING LOGS

52nd AVE. OVER MILAN BELTWAY
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1159+12.92
STRUCTURE NO. 081-0156

CONTRACT NO. 64647

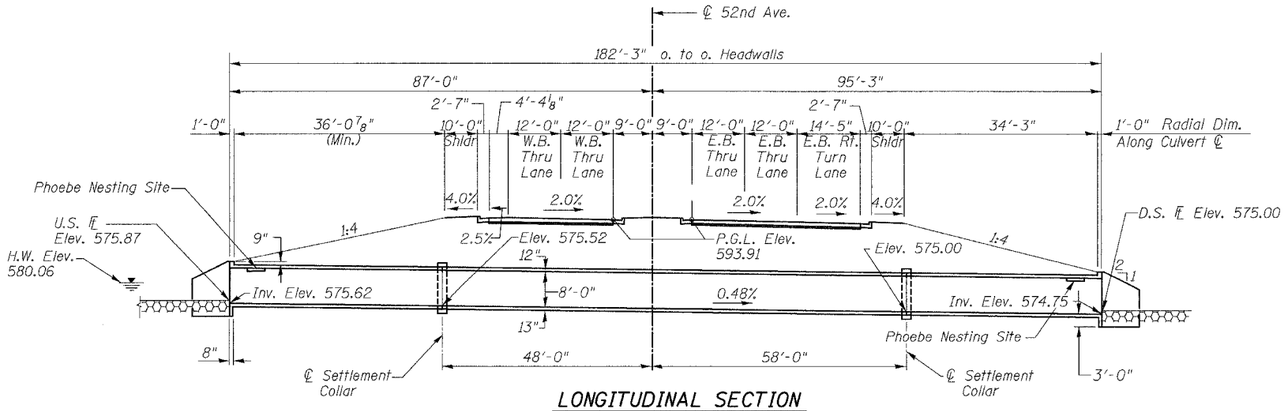
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	274
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
7 SHEETS

Bench Mark: NNW bolt on bolt circle on fire hydrant 23.7' Lt. Sta. 1165+03. Elev. 572.80

Exisitng Structure: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LONGITUDINAL SECTION

STATION 1155+00
BUILT BY
STATE OF ILLINOIS
F.A.U. RT. 5822 SEC. 1-3
LOADING HS20 & ALT.
STR. NO. 081-2035

NAME PLATE
See Std. 515001

GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-322 Grade 60.

Exposed edges shall be beveled 3/4" unless otherwise noted.

It shall be the responsibility of the contractor to divert the stream flow during construction in order to keep the construction areas free of water. The method of water diversion shall be subject to the approval of the engineer and the cost shall be included in the unit bid price of "Concrete Box Culverts".

All construction joints shall be bonded.

For backfilling and embankment see standard specifications.

Precast culvert alternate is not allowed.

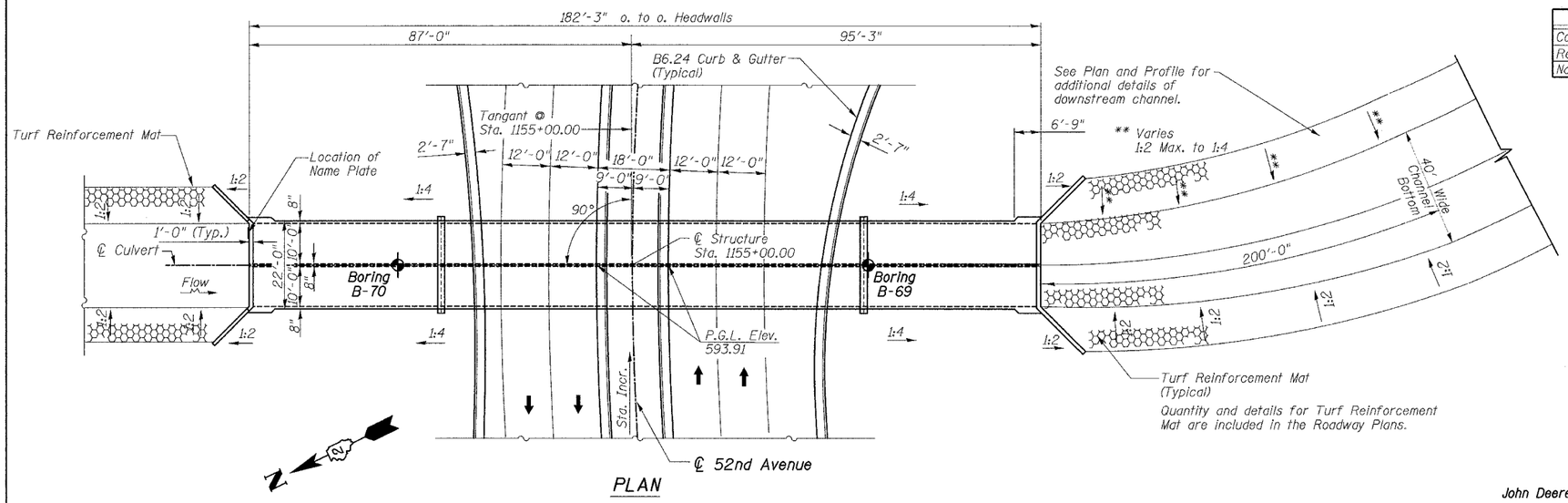
At least 6'-9" of barrel shall be poured monolithically with wingwalls.

Bars indicated thus 12x4-#5 indicates 12 lines of #5 bars with 4 lengths per line.

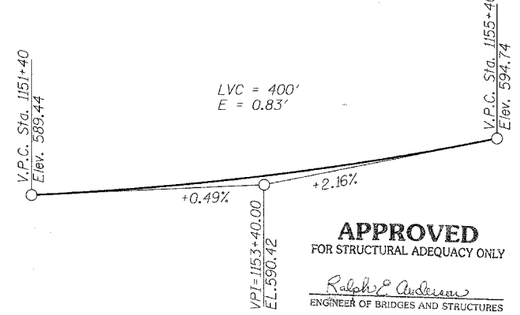
INDEX OF SHEETS

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Box Culverts	Cu. Yd.	480.9
Reinforcement Bars	Pound	76,280
Name Plates	Each	1



PLAN



APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

PROFILE GRADE
Along median edge of pavement

WATERWAY INFORMATION

Drainage Area = 0.97 Sq. Mi. Low Grade Elev. 590.00 ft. @ Sta. 1151+75 (52nd Ave.)

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head-Ft. Exist.	Head-Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	775	N.A.	68.0	579.02	N.A.	1.96	N.A.	580.98
Design	50	1239	N.A.	88.8	580.06	N.A.	2.99	N.A.	583.05
Base	100	1462	N.A.	97.2	580.48	N.A.	3.48	N.A.	583.96
Overtopping	—	—	—	—	—	—	—	—	—
Max. Calc.	260	1832	N.A.	104.0	580.82	N.A.	5.40	N.A.	586.22

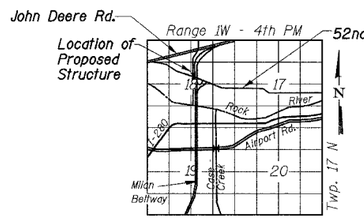
10 - Year Velocity through Existing Structure = NA
10 - Year Velocity through Proposed Structure = 11.84 fps

LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES
FIELD UNITS
f'_c = 3,500 psi
f_y = 60,000 psi (Reinf.)

CURVE DATA
PI Sta. 1153+04.57
Δ = 69°15'02" (RT)
D = 7°45'00"
R = 739.30'
T = 510.49'
L = 893.55'
E = 159.12'
SE = 0.02 FT./FT.
P.C. Sta. 1147+94.08
P.T. Sta. 1156+87.63
S.E. Transition Begins Sta. 1156+37.63



LOCATION SKETCH

LICENSED STRUCTURAL ENGINEER
BRIAN D. FRICKENSTEIN
081-005091
EXPIRES 11-30-06
ILLINOIS
Brian D. Frickenstein
11/30/04

GENERAL PLAN

52ND AVENUE EXTENSION
OVER AN UNNAMED STREAM
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1155+00
STRUCTURE NO. 081-2035

DESIGNED	-	JDC
CHECKED	-	BDF
DRAWN	-	RAP
CHECKED	-	BDF

Missman
STANLEY & ASSOCIATES, P.C.

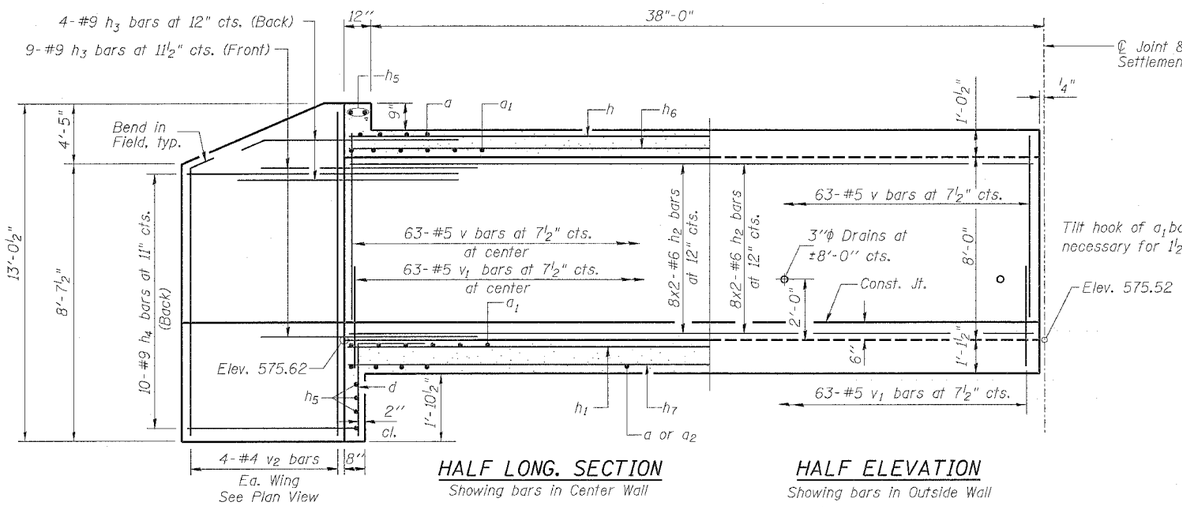
I:\515\SGP\081002.dgn 11/30/2004 11:22:28 AM

CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	275
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

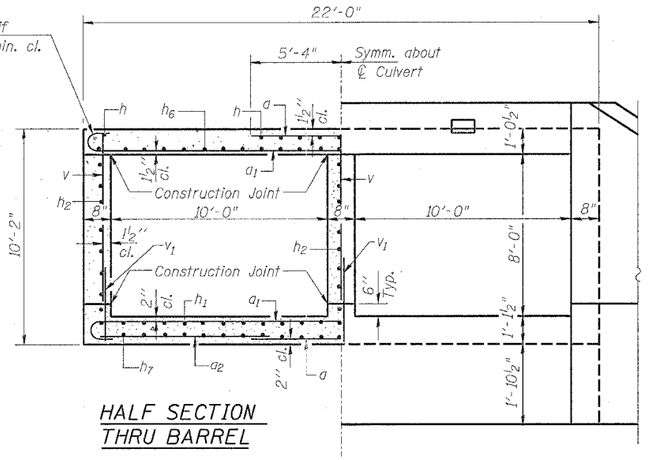
SHEET NO. 2
7 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



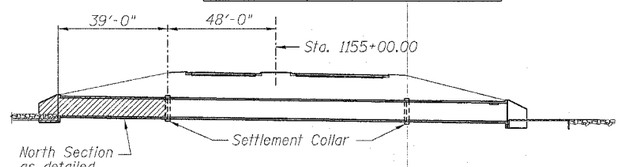
HALF LONG. SECTION
Showing bars in Center Wall

HALF ELEVATION
Showing bars in Outside Wall

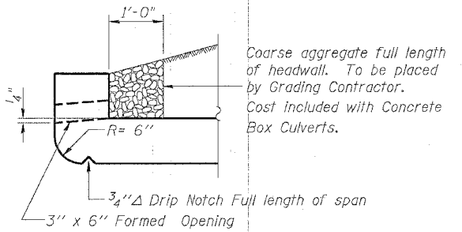


HALF SECTION THRU BARREL

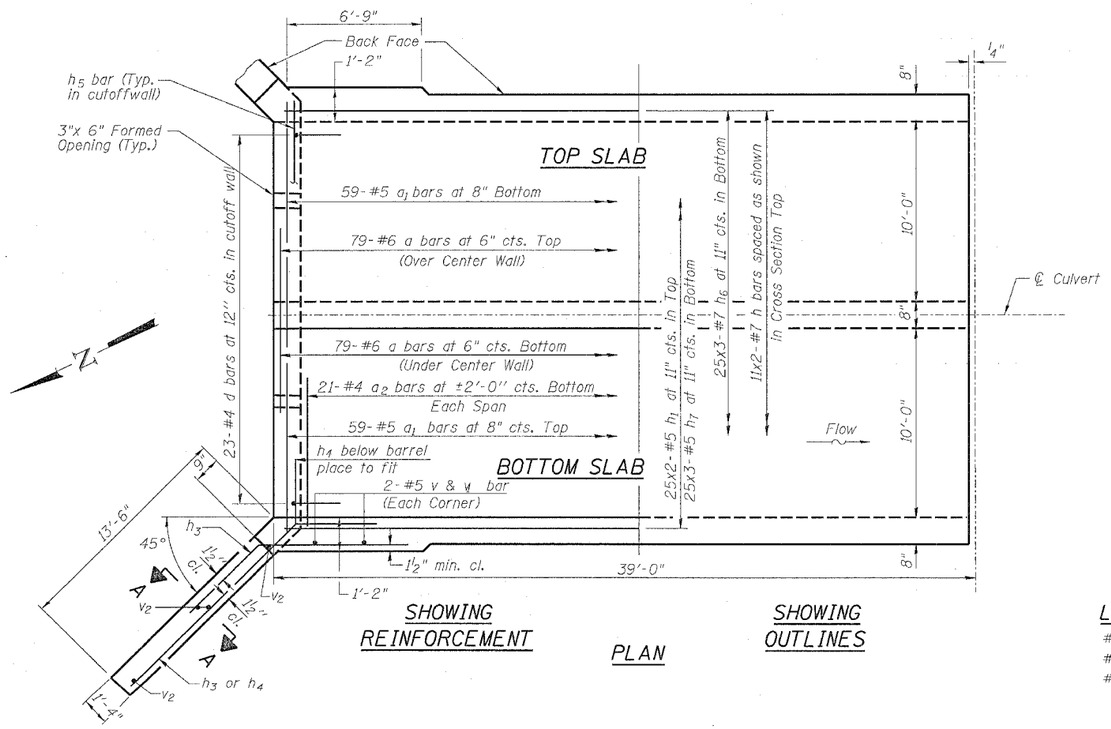
HALF END ELEVATION



KEY ELEVATION
Looking east along ℄ culvert



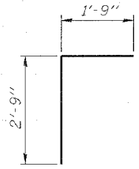
AT UPSTREAM END DRAIN DETAIL



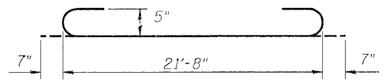
SHOWING REINFORCEMENT

PLAN

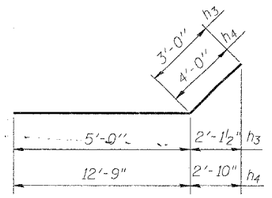
SHOWING OUTLINES



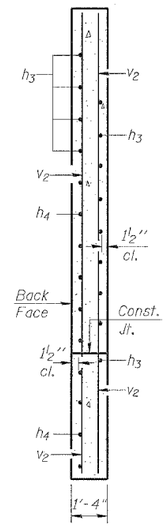
BAR d



BAR a_1



BARS h_3 & h_4



SECTION A-A

Lap Length

#5 Bar 1'-8"
#6 Bar 2'-0"
#7 Bar 2'-9"

BILL OF MATERIAL NORTH SECTION

Bar	No.	Size	Length	Shape
a	158	#6	10'-8"	
a_1	118	#5	22'-10"	
a_2	42	#4	6'-10"	
d	23	#4	4'-6"	
h	22	#7	20'-8"	
h_1	50	#5	20'-1"	
h_2	48	#6	20'-3"	
h_3	26	#9	8'-0"	
h_4	20	#9	16'-9"	
h_5	5	#6	21'-8"	
h_6	75	#7	14'-9"	
h_7	75	#5	14'-0"	
v	193	#5	8'-2"	
v_1	193	#5	3'-4"	
v_2	8	#4	12'-6"	
Concrete Box Culverts			Cu. Yd.	110.9
Reinforcement Bars			Pound	16,790

CULVERT DETAILS AND SECTION

52ND AVENUE EXTENSION
OVER AN UNNAMED STREAM
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1155+00
STRUCTURE NO. 081-2035

DESIGNED	JDC
CHECKED	BDF
DRAWN	RAP
CHECKED	BDF

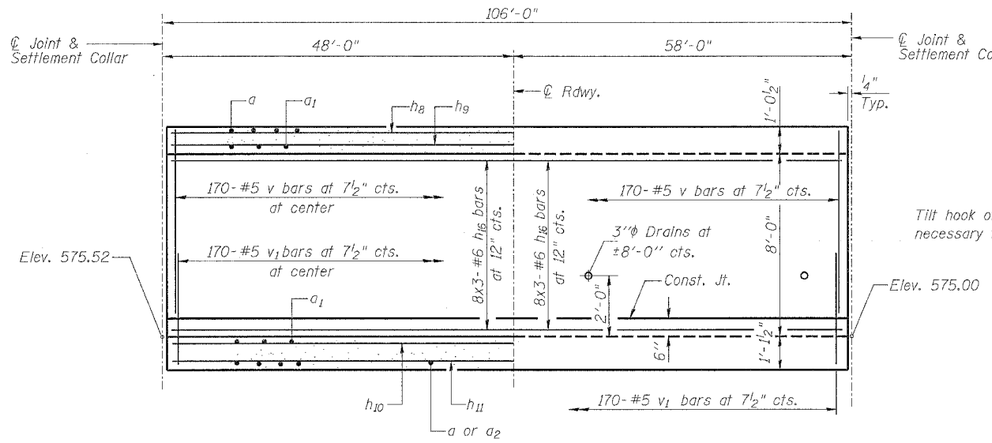
DB-H-0 10-31-02

CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	276
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

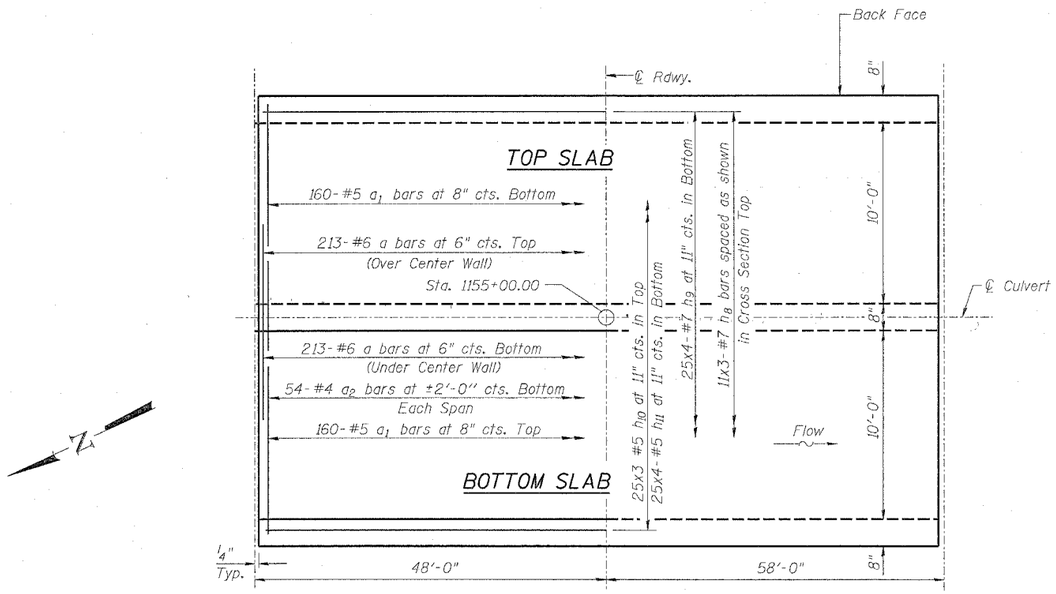
SHEET NO. 3
7 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



HALF LONG. SECTION
Showing bars in Center Wall

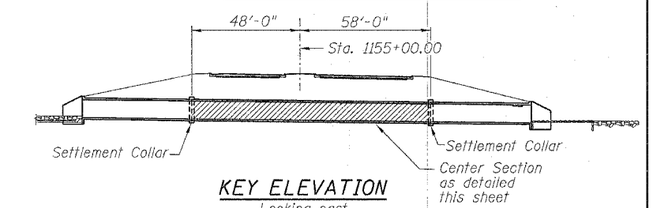
HALF ELEVATION
Showing bars in Outside Wall



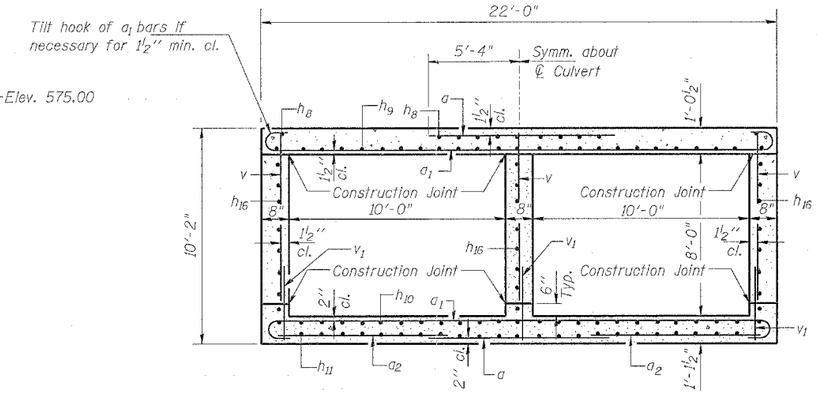
SHOWING REINFORCEMENT

PLAN

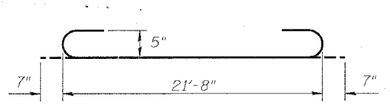
SHOWING OUTLINES



KEY ELEVATION
Looking east along ℄ culvert



SECTION THRU BARREL



BAR a1

BILL OF MATERIAL CENTER SECTION

Bar	No.	Size	Length	Shape
a	426	#6	10'-8"	—
a1	320	#5	22'-10"	⊂⊃
a2	108	#4	6'-10"	—
h8	33	#7	37'-0"	—
h9	100	#7	28'-6"	—
h10	75	#5	36'-4"	—
h11	100	#5	27'-8"	—
h16	72	#6	36'-6"	—
v	510	#5	8'-2"	—
v1	510	#5	3'-4"	—
Concrete Box Culverts			Cu. Yd.	250.2
Reinforcement Bars			Pound	39,060

Lap Length
#5 Bar 1'-8"
#6 Bar 2'-0"
#7 Bar 2'-9"

CULVERT DETAILS AND SECTION

52ND AVENUE EXTENSION
OVER AN UNNAMED STREAM
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1155+00
STRUCTURE NO. 081-2035

DESIGNED	JDC
CHECKED	BDF
DRAWN	RAP
CHECKED	BDF

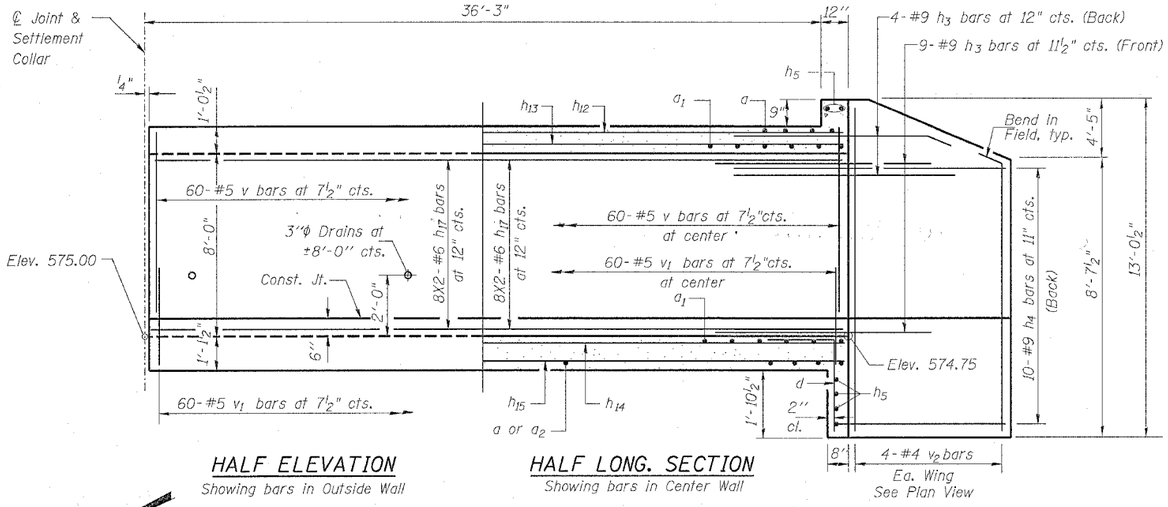
DB-H-0 10-31-02

CONTRACT NO. 64647

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

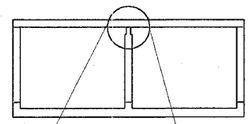
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	277
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4
7 SHEETS

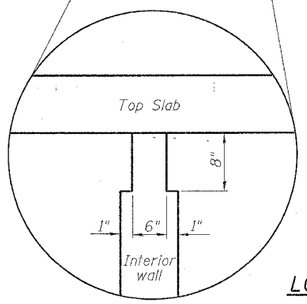


HALF ELEVATION
Showing bars in Outside Wall

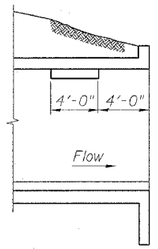
HALF LONG. SECTION
Showing bars in Center Wall



SECTION THRU BARREL
Near downstream end

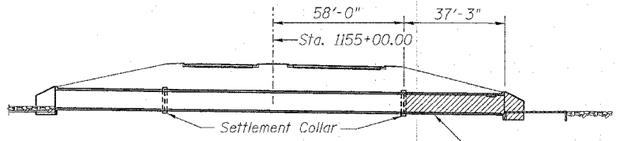


NOTCH DETAIL



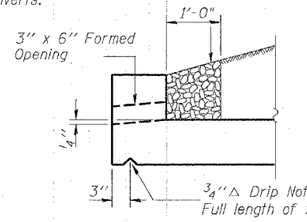
LONGITUDINAL SECTION
Wingwall not shown

Note:
Notch formed by rough-finished board attached to and removed with formwork.



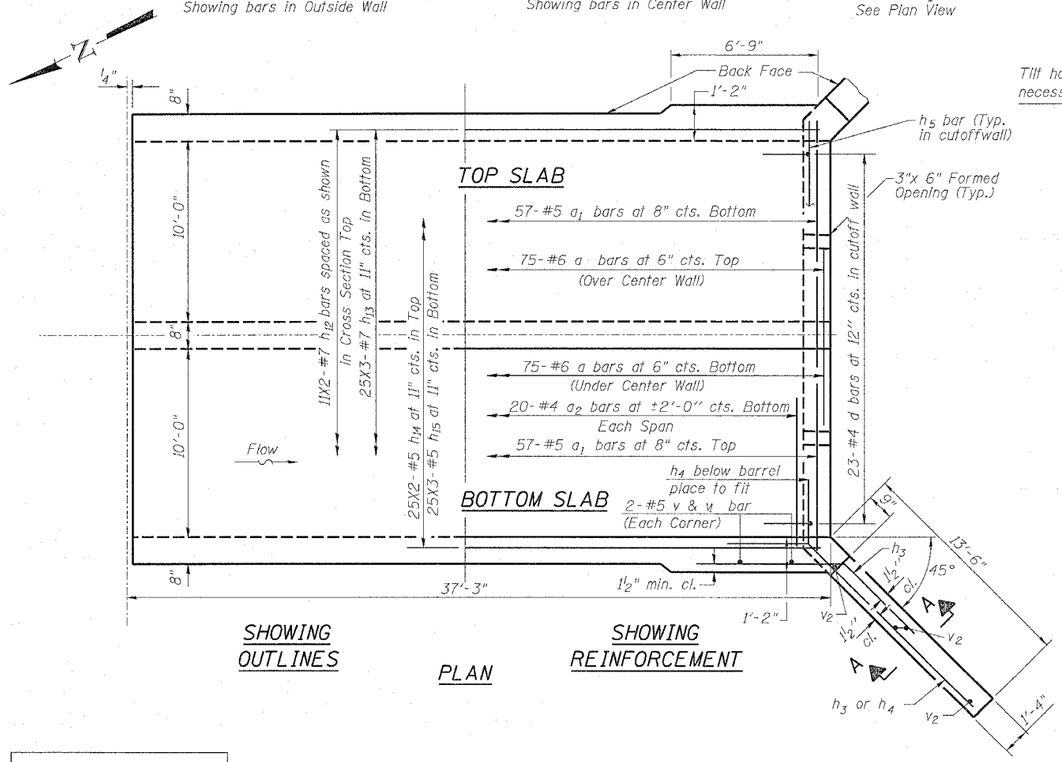
KEY ELEVATION
Looking east along ℄ culvert

Coarse aggregate full length of headwall. To be placed by Grading Contractor. Cost included with Concrete Box Culverts.



AT DOWNSTREAM END DRAIN DETAIL

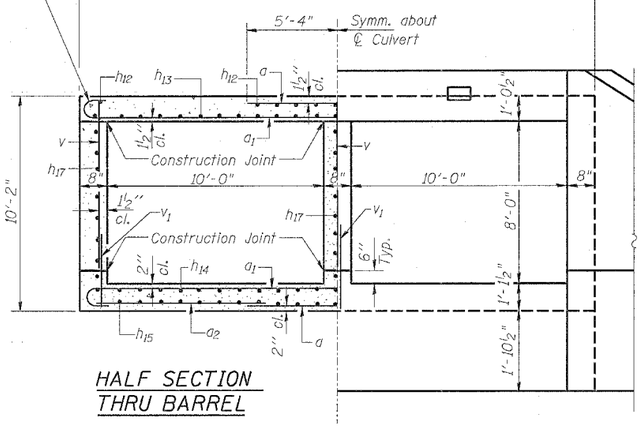
PHOEBE NESTING SITE DETAILS



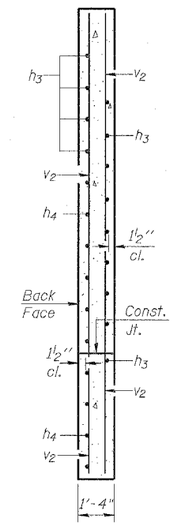
SHOWING OUTLINES

PLAN

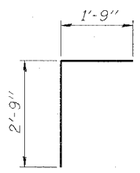
SHOWING REINFORCEMENT



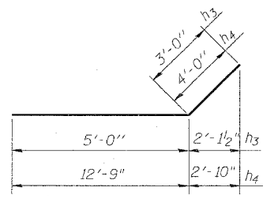
HALF SECTION THRU BARREL



HALF END ELEVATION



BAR d



BARS h3 & h4

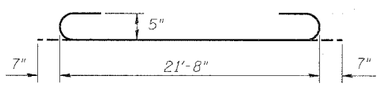
BILL OF MATERIAL SOUTH SECTION

Bar	No.	Size	Length	Shape
a	150	#6	10'-8"	
a1	114	#5	22'-10"	
a2	40	#4	6'-10"	
d	23	#4	4'-6"	
h3	26	#9	8'-0"	
h4	20	#9	16'-9"	
h5	5	#6	21'-8"	
h12	22	#7	19'-9"	
h13	75	#7	14'-2"	
h14	50	#5	19'-3"	
h15	75	#5	13'-5"	
h17	48	#6	19'-5"	
v	184	#5	8'-2"	
v1	184	#5	3'-4"	
v2	8	#4	12'-6"	
Concrete Box Culverts			Cu. Yd.	106.8
Reinforcement Bars			Pound	16,170

CULVERT DETAILS AND SECTION

52ND AVENUE EXTENSION
OVER AN UNNAMED STREAM
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1155+00
STRUCTURE NO. 081-2035

Lap Length
#5 Bar 1'-8"
#6 Bar 2'-0"
#7 Bar 2'-9"



BAR a1

DESIGNED	JDC
CHECKED	BDF
DRAWN	RAP
CHECKED	BDF

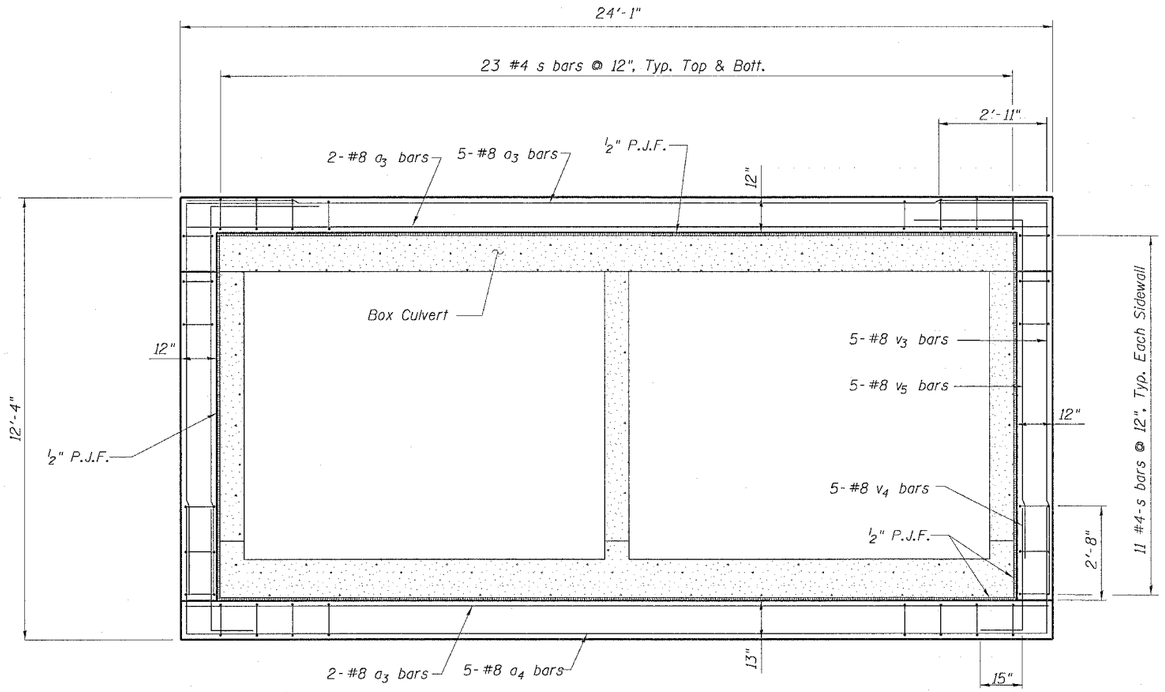
DB-H-0 10-31-02

CONTRACT NO. 64647

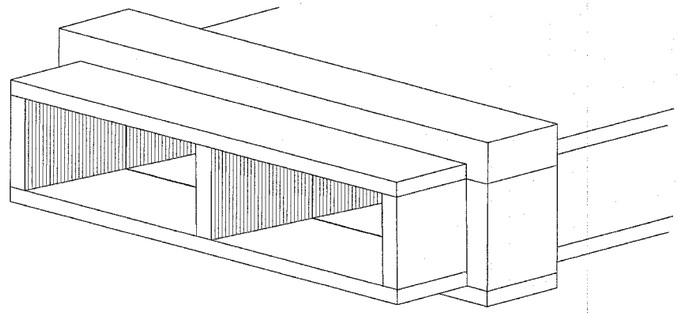
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	278
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

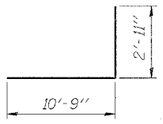
SHEET NO. 5
7 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

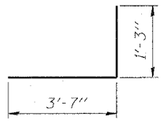


SECTION THRU BOX AT COLLAR

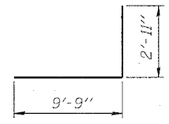




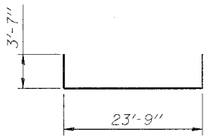
BAR v_3



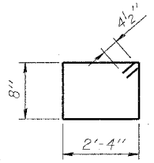
BAR v_4



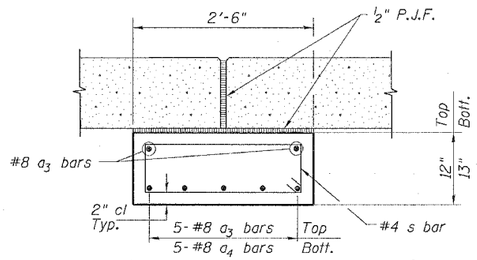
BAR v_5



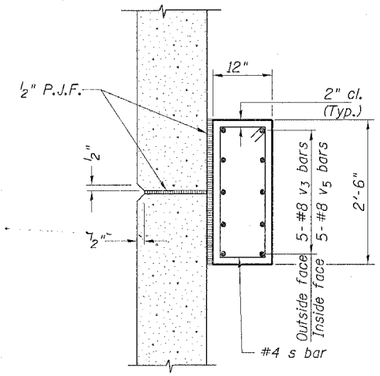
BAR a_4



BAR s



SECTION THRU TOP & BOTTOM SLAB



SECTION THRU SIDEWALL

BILL OF MATERIAL
TWO SETTLEMENT COLLARS

Bar	No.	Size	Length	Shape
a_3	18	#8	23'-9"	
a_4	10	#8	30'-11"	
s	136	#4	6'-9"	
v_3	20	#8	13'-8"	
v_4	20	#8	4'-10"	
v_5	20	#8	12'-8"	
Concrete Box Culverts			Cu. Yd.	13.0
Reinforcement Bars			Pound	4,260

DESIGNED	JDC
CHECKED	BDF
DRAWN	RAP
CHECKED	BDF

SETTLEMENT COLLAR DETAILS

52ND AVENUE EXTENSION
OVER AN UNNAMED STREAM
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1155+00
STRUCTURE NO. 081-2035

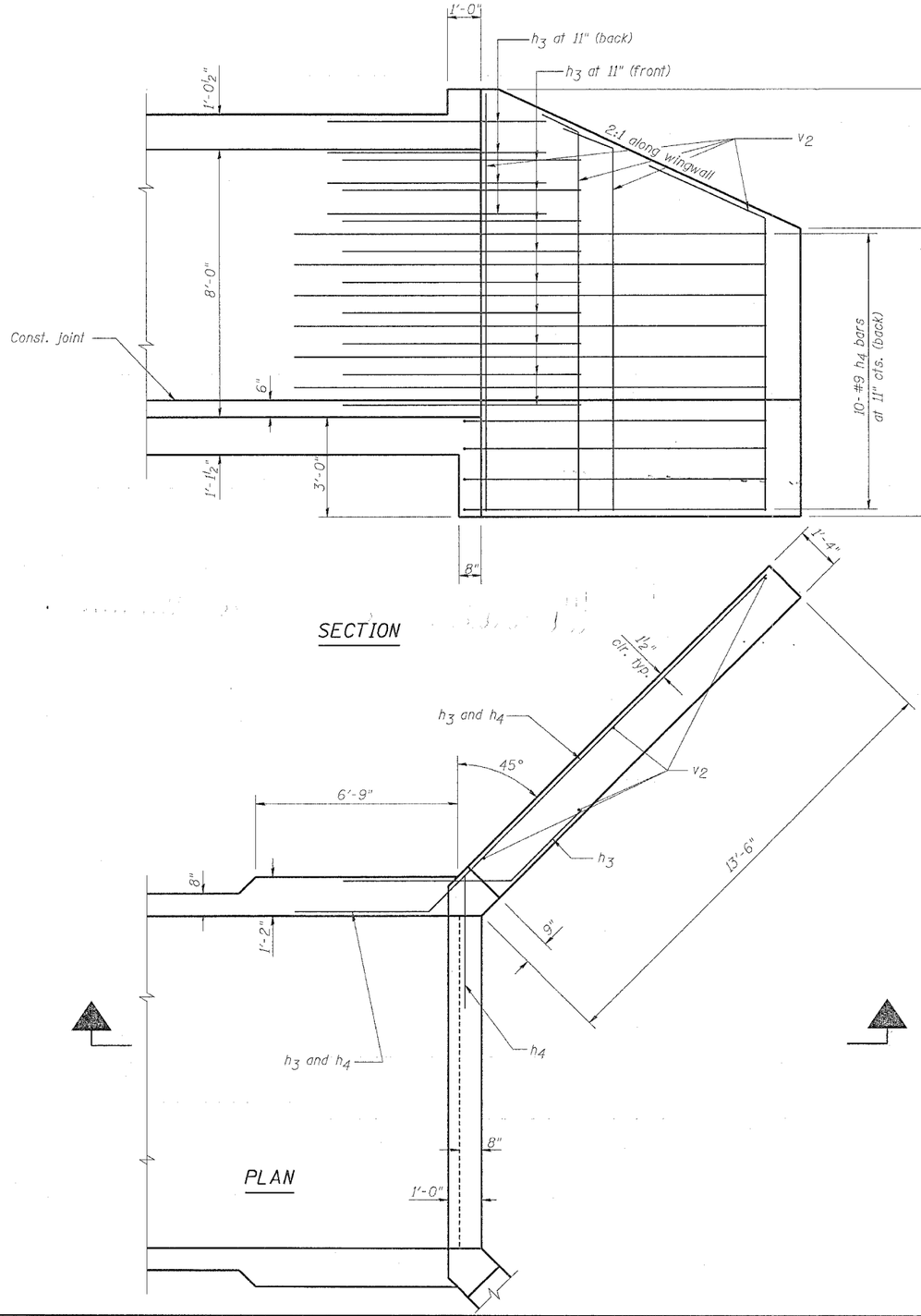
CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	279
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 6
7 SHEETS

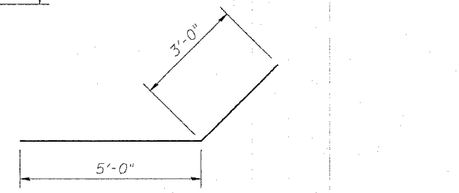
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

2 0 2 6 10
SCALE IN FEET

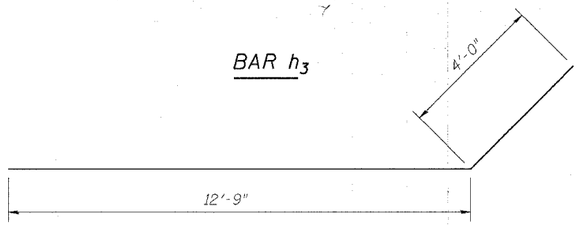


SECTION

PLAN



BAR h_3



BAR h_4

DESIGNED	JDC
CHECKED	BDF
DRAWN	JDC
CHECKED	BDF

WINGWALL REINFORCEMENT DETAILS

52ND AVENUE EXTENSION
OVER AN UNNAMED STREAM
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1155+00
STRUCTURE NO. 081-2035

CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	280
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 7
7 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Illinois Department of Transportation

Sh. 1 of 1 Sh.

PROJECT P-92-096-84 Date 12-21-86

ROUTE FAU 5822 Milan Beltway Bored By D & G Drilling, Inc.

SEC. 1-3 STA. 1155+00 52nd Ave. Checked By JZ/CB

COUNTY Rock Island

Boring No. B-69
Station 1155+00
Offset 59'R

Surface Water El. N/A
Groundwater El. at Completion 573.0
After ____ Hours ____

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 578.0	0			
SILTY CLAY LOAM: dark gray; medium stiff				
A-6 575.0	7	0.8 P	23
SILTY LOAM: gray/brown; medium stiff	-5			
A-4 572.5 ▼	7	1.5 B	23
SANDY LOAM: trace gravel; soft, loose; wet				
A-4 570.0	6	0.5 B	23
SILTY LOAM: brown and gray mottled; medium stiff; wet	-10			
	3	0.5 P	30
grades stiff				
A-4 565.0	5	1.4 B	27
SANDY LOAM: brown and gray mottled; soft to medium stiff; wet	-15			
A-4 563.1	9	.85 B	30
CLAY SHALE: black; Thin Laminae; Fissile				
560.5	69	8.6 S	13
Boring Terminated @ 17.5'.	-20			

Elevation	N	Qu t/s.f.	w (%)
	-25		
	-30		
	-35		
	-40		
	-45		

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

7-84

Illinois Department of Transportation

Sh. 1 of 1 Sh.

PROJECT P-92-096-84 Date 12-21-86

ROUTE FAU 5822 Milan Beltway Bored By D & G Drilling, Inc.

SEC. 1-3 STA. 1155+00 52nd Ave. Checked By JZ/CB

COUNTY Rock Island

Boring No. B-70
Station 1155+00
Offset 60'L

Surface Water El. N/A
Groundwater El. at Completion 572.0
After ____ Hours ____

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 578.0	0			
SILTY CLAY LOAM: dark gray; stiff				
A-6 575.0	7	1.55 B	23
SILTY LOAM: gray/brown; stiff to medium stiff	-5			
A-4 572.5	7	1.09 S	23
SANDY LOAM: trace gravel; gray/brown; medium stiff ▼				
A-4 570.0	3	0.5 B-S	18
SILTY LOAM: light gray and brown mottled; medium stiff	-10			
A-4 567.0	5	0.78 B	28
CLAY SHALE: black; Thin Laminae; Fissile				
566.0	55		15
Boring Terminated @ 12.0'	-15			
	-20			

Elevation	N	Qu t/s.f.	w (%)
	-25		
	-30		
	-35		
	-40		
	-45		

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

7-85

DESIGNED	JDC
CHECKED	BDF
DRAWN	RAP
CHECKED	BDF

BORING LOGS

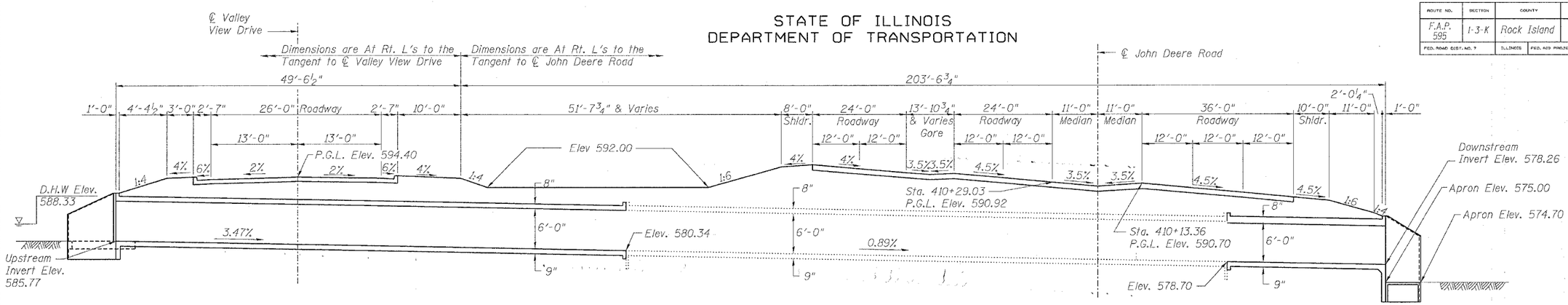
52ND AVENUE EXTENSION
OVER AN UNNAMED STREAM
FAU ROUTE 5822 SECTION 1-3
ROCK ISLAND COUNTY
STATION 1155+00
STRUCTURE NO. 081-2035

CONTRACT NO. 64647

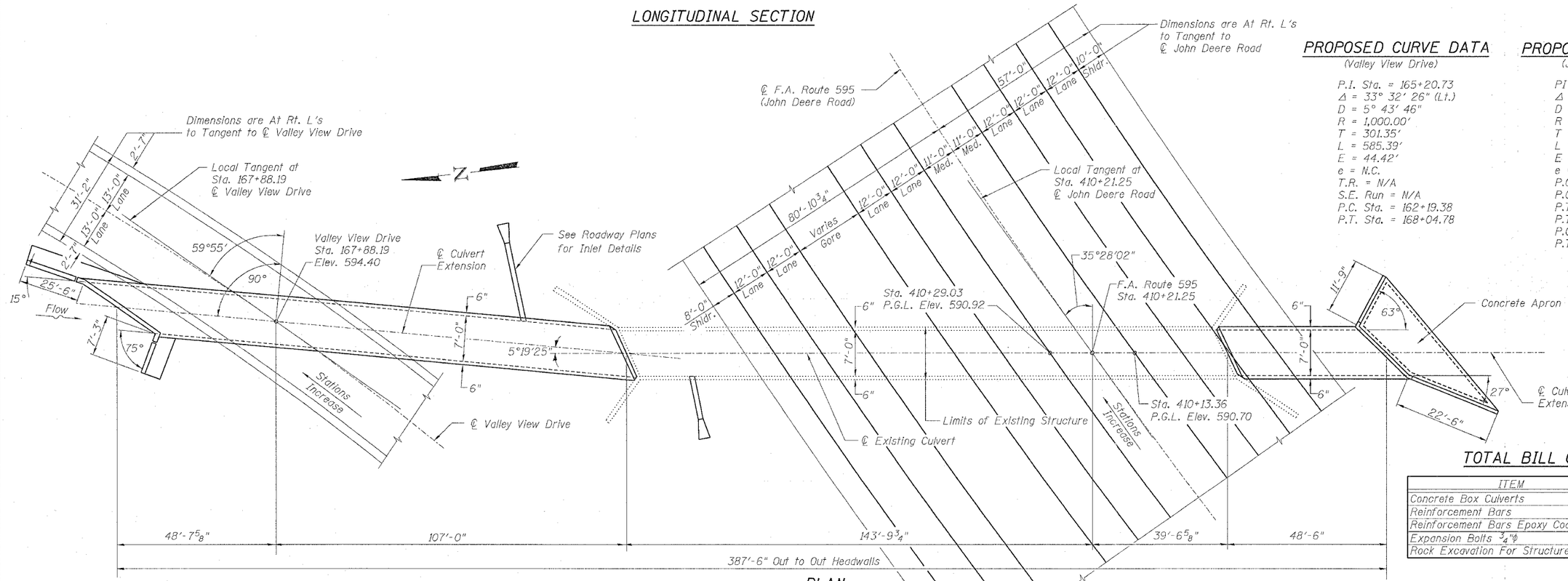
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	281
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
5 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LONGITUDINAL SECTION



PLAN

PROPOSED CURVE DATA
(Valley View Drive)

P.I. Sta. = 165+20.73
Δ = 33° 32' 26" (Lt.)
D = 5° 43' 46"
R = 1,000.00'
T = 301.35'
L = 585.39'
E = 44.42'
e = N.C.
T.R. = N/A
S.E. Run = N/A
P.C. Sta. = 162+19.38
P.T. Sta. = 168+04.78

PROPOSED CURVE DATA
(John Deere Road)

PI Sta. 404+13.55
Δ = 78° 33' 58" (Rt.)
D = 3° 00' 00"
R = 1,909.86'
T = 1,562.26'
L = 2,618.87'
E = 557.57'
e = 4.5%
P.C.T.R. = 36'
P.C.S.E. Run = 150'
P.T.T.R = 90'
P.T.S.E. Run = 225'
P.C. Sta. = 388+51.29
P.T. Sta. = 414+70.16

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Box Culverts	Cu. Yd.	181.2
Reinforcement Bars	Pound	31,290
Reinforcement Bars Epoxy Coated	Pound	160
Expansion Bolts ¾"ϕ	Each	32
Rock Excavation For Structures	Cu. Yd.	5.0

WATERWAY INFORMATION

Drainage Area = 160 Acres Low Grade Elev. 594.12 @ Sta. 168+64.2

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	-	-	-	-	-	-	-	-	-
Design	50	281.6	-	39.8	588.33	-	3.13	-	591.46
Base	100	313.6	-	42.0	588.46	-	3.47	-	591.93
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	434	-	-	-	-	-	-	-

500 year Q is estimated

DESIGN STRESSES

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

LOADING HS20-44 & ALT.

DESIGNED	BDF
CHECKED	BDF
DRAWN	RAP
CHECKED	BDF

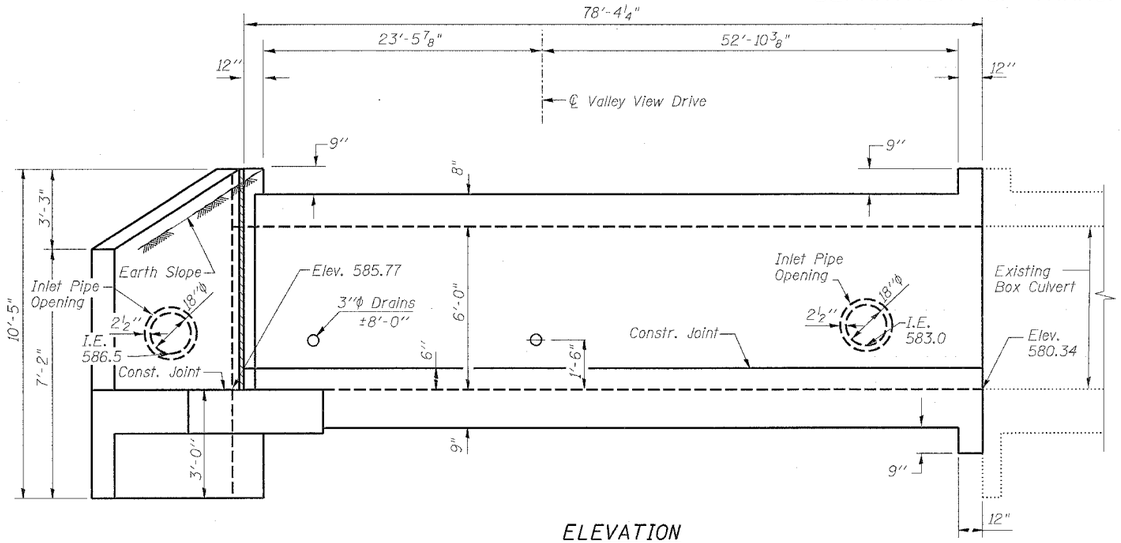
GENERAL PLAN
MILAN BELTWAY AND JOHN DEERE ROAD OVER UNNAMED STREAM
FA ROUTE 595 SECTION 1-3-K
ROCK ISLAND COUNTY
STATION 410+21.25 (JOHN DEERE ROAD)
STATION 167+88.19 (VALLEY VIEW DRIVE)

CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	282
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

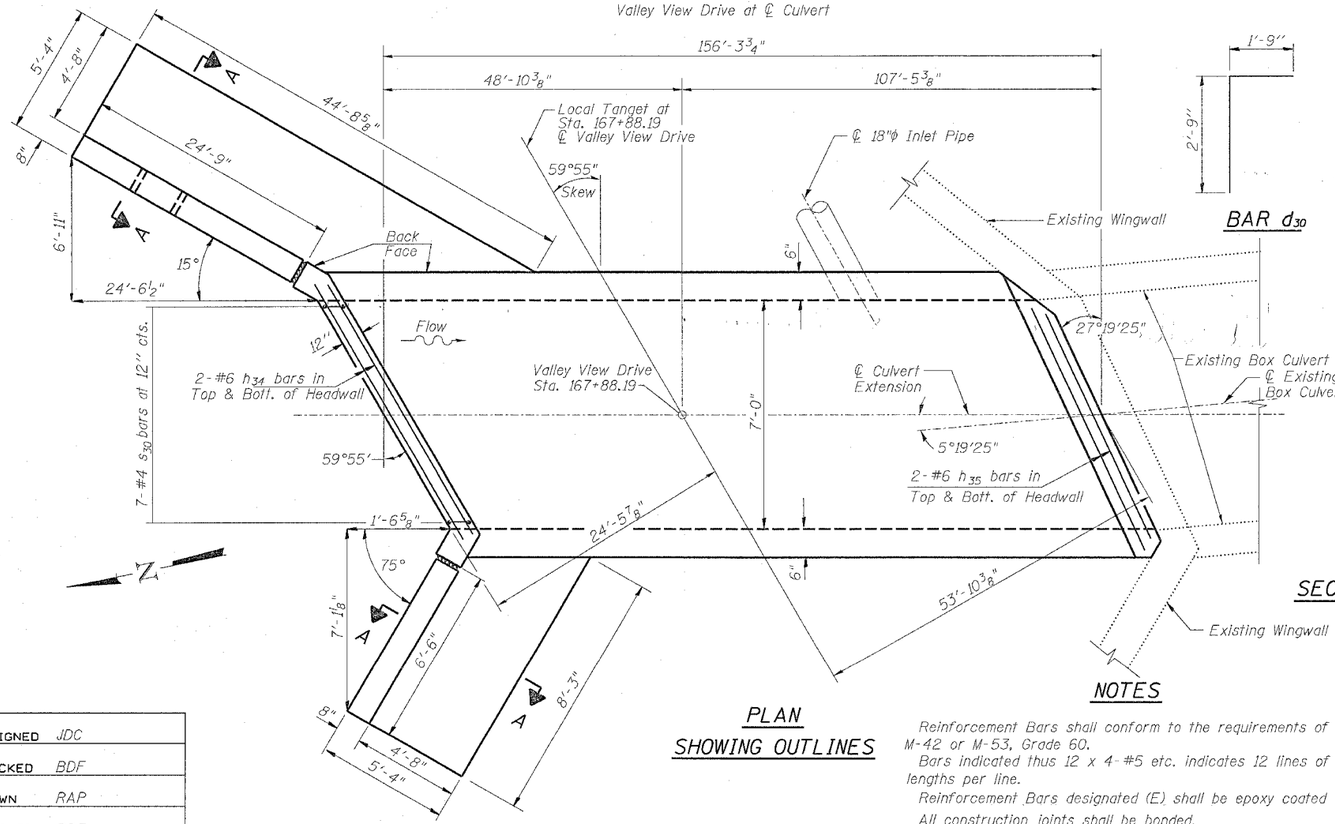
SHEET NO. 2
5 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

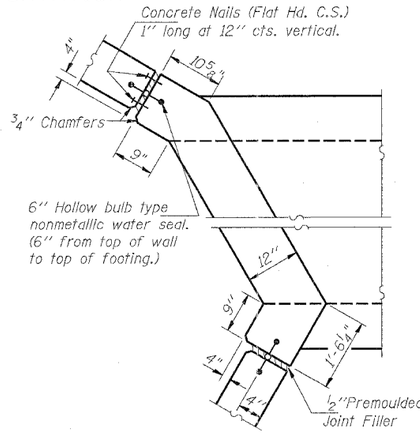


ELEVATION

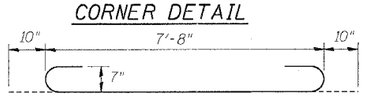
Dimensions at Rt. L's to Tanget to Valley View Drive at ℄ Culvert



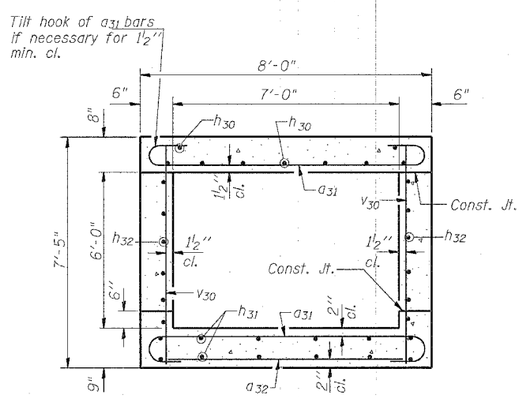
PLAN SHOWING OUTLINES



CORNER DETAIL

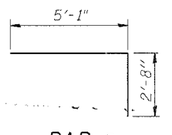


BAR a_{31}

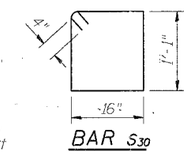


SECTION THRU BARREL

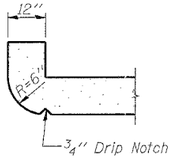
BAR d_{30}



BAR z_{30}

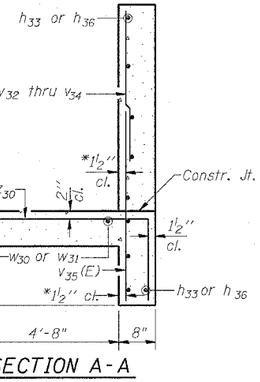


BAR s_{30}



SECTION THRU HEADWALL

(Up Stream End Only)



SECTION A-A

*v bars shall not be placed more than 1½" cl. from back face of wingwall.

DESIGN STRESSES

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

Max. Soil Pressure under footing = 2800 psf

LOADING HS 20-44 & ALT.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{31}	590	#7	9'-4"	
a_{32}	81	#4	7'-3"	
d_{30}	7	#4	4'-6"	
h_{30}	45	#6	33'-10"	
h_{31}	60	#5	33'-6"	
h_{32}	60	#5	33'-6"	
h_{33}	11	#4	24'-4"	
h_{34}	6	#6	15'-3"	
h_{35}	8	#6	8'-8"	
h_{36}	11	#4	6'-1"	
s_{30}	7	#4	5'-6"	
v_{30}	419	#4	7'-0"	
v_{31}	4	#4	10'-0"	
v_{32}	15	#4	3'-11"	
v_{33}	14	#4	5'-6"	
v_{34}	11	#4	6'-3"	
v_{35}(E)	40	#4	6'-0"	
v_{36}	16	#4	4'-0"	
w_{30}	7	#5	30'-9"	
w_{31}	7	#5	9'-9"	
z_{30}	51	#6	7'-9"	
Concrete Box Culverts			Cu. Yd.	115.5
Reinforcement Bars, Epoxy Coated			Pound	160
Reinforcement Bars			Pound	21,690
Expansion Bolts ¾"ϕ			Each	16

NOTES

Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 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

All construction joints shall be bonded.

Precast Culvert alternate is not allowed.

DESIGNED	JDC
CHECKED	BDF
DRAWN	RAP
CHECKED	BDF

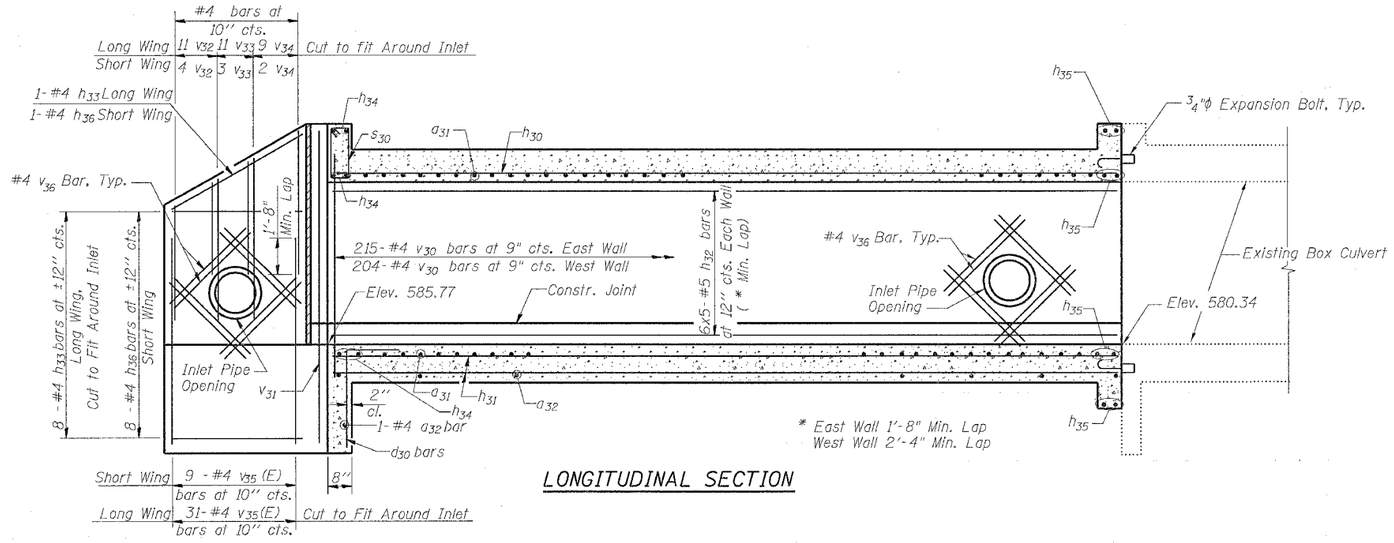
UPSTREAM EXTENSION DETAILS
FA ROUTE 595 SECTION 1-3-K
ROCK ISLAND COUNTY
STATION 410+21.25 (JOHN DEERE ROAD)
STATION 167+88.19 (VALLEY VIEW DRIVE)

CONTRACT NO. 64647

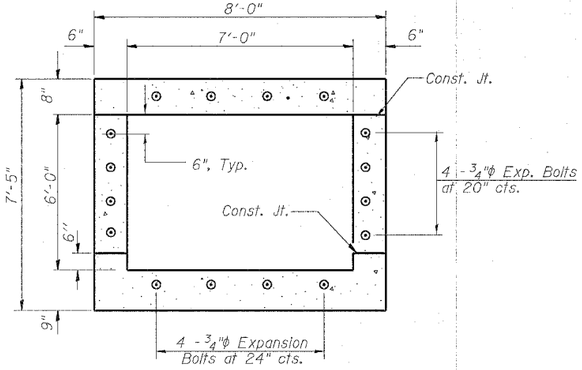
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	283
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 3
5 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

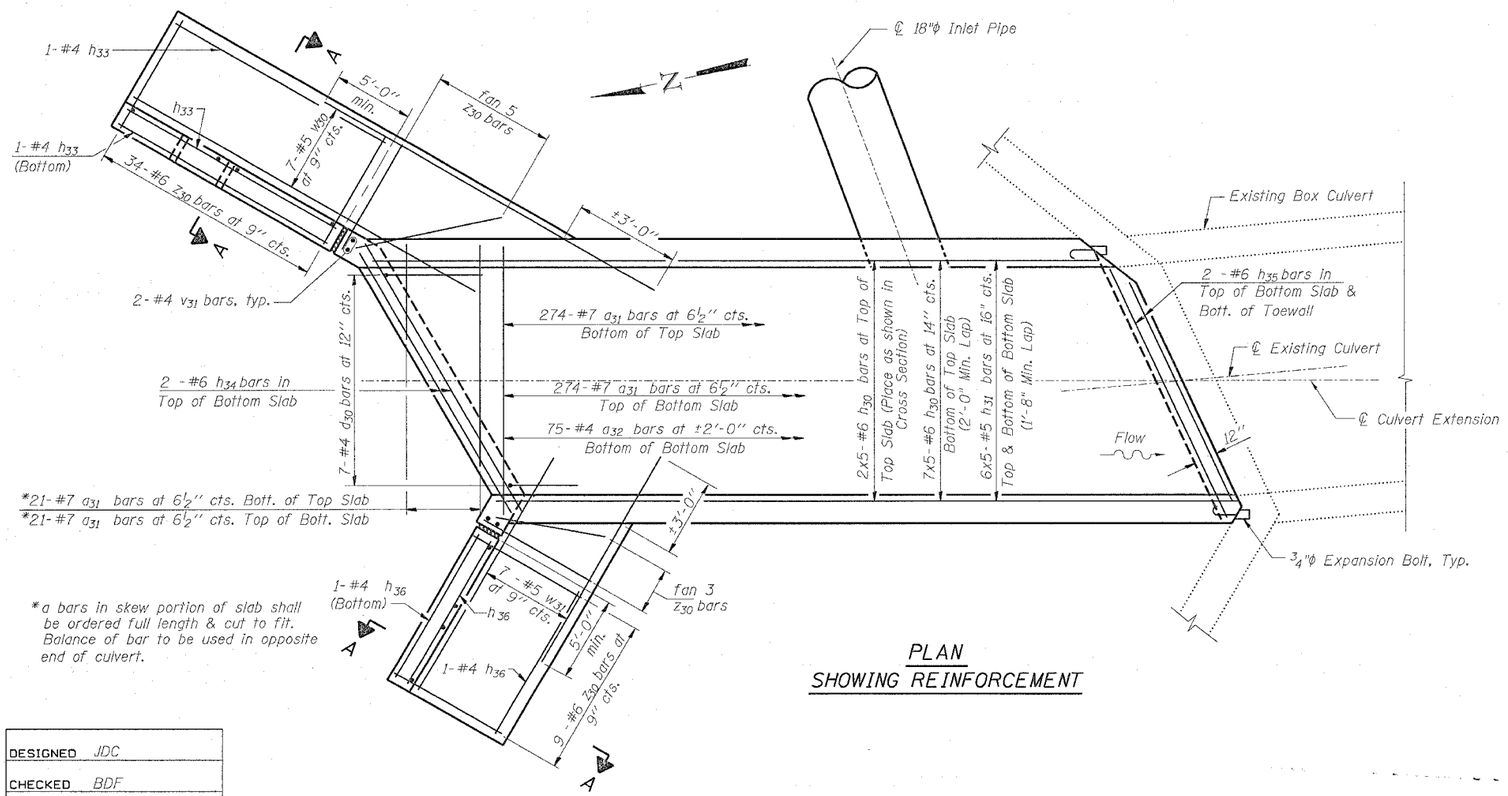


LONGITUDINAL SECTION



SECTION THRU BARREL

Showing $\frac{3}{4}$"ϕ Expansion Bolts



*a bars in skew portion of slab shall be ordered full length & cut to fit. Balance of bar to be used in opposite end of culvert.

PLAN
SHOWING REINFORCEMENT

DESIGNED	JDC
CHECKED	BDF
DRAWN	RAP
CHECKED	BDF

SSB-L-L 6-1-2000

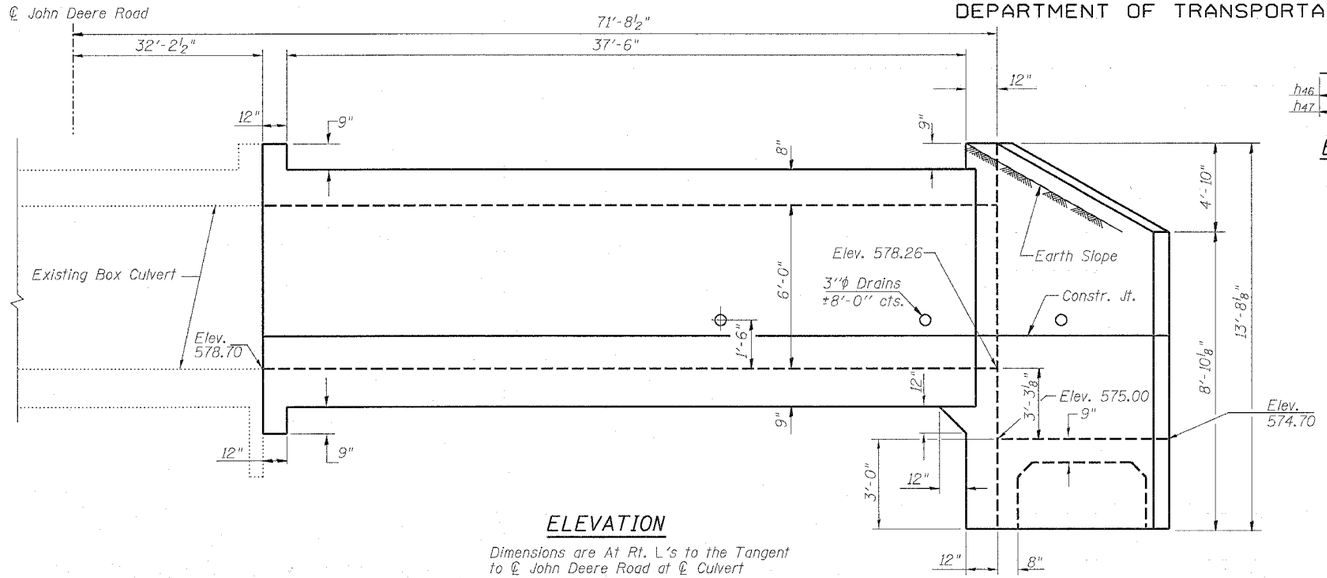
UPSTREAM EXTENSION DETAILS
FA ROUTE 595 SECTION 1-3-K
ROCK ISLAND COUNTY
STATION 410+21.25 (JOHN DEERE ROAD)
STATION 167+88.19 (VALLEY VIEW DRIVE)

CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	284
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

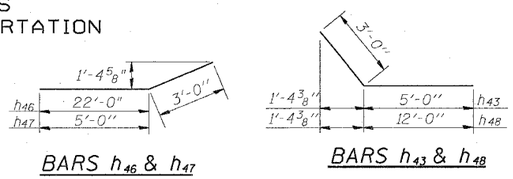
SHEET NO. 4
5 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



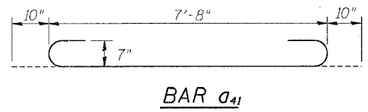
ELEVATION

Dimensions are At Rt. L's to the Tangent to ℄ John Deere Road at ℄ Culvert

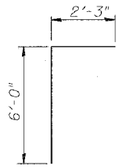


BARS h_{46} & h_{47}

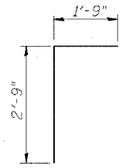
BARS h_{43} & h_{48}



BAR a_{41}

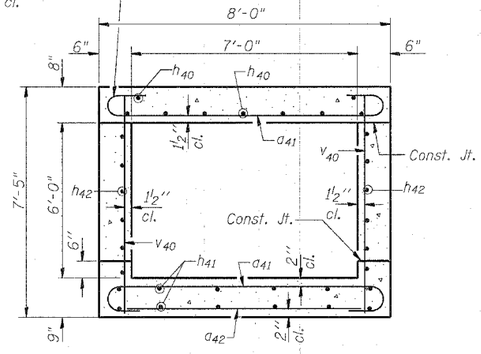


BAR d_{40}

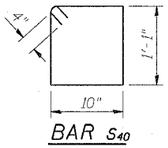


BARS d_{41} & d_{42}

Tilt hook of a_{41} bars if necessary for 1½" min. cl.



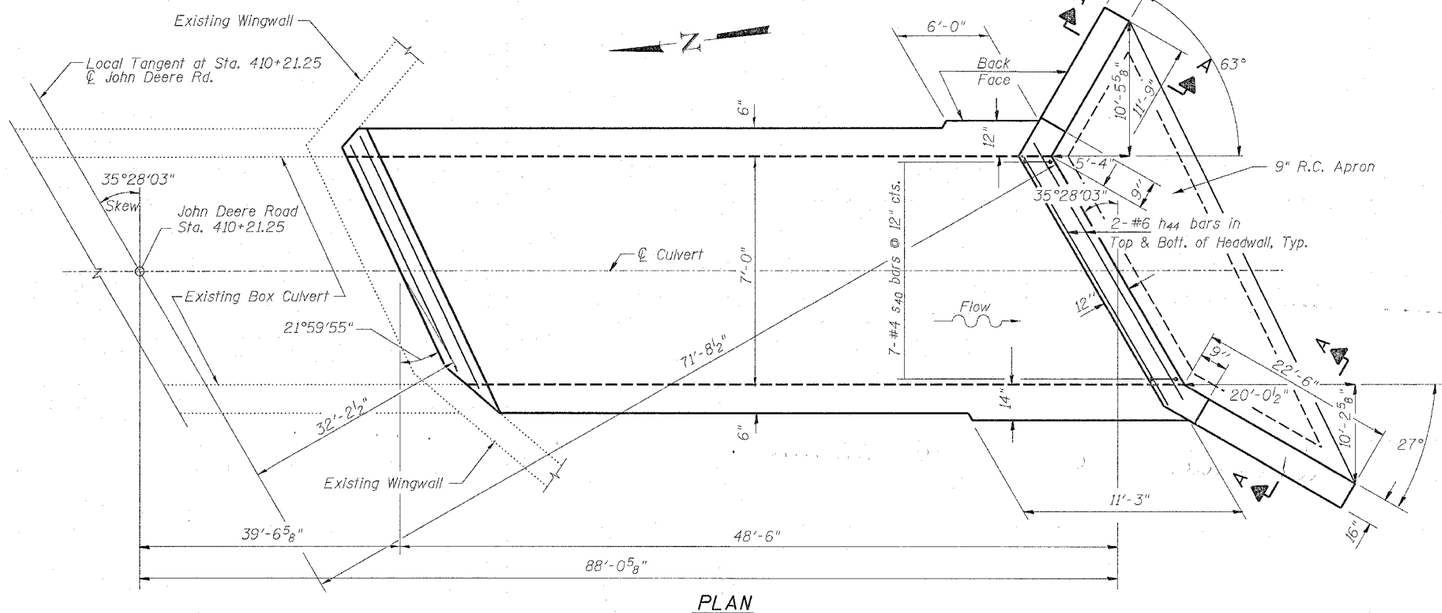
SECTION THRU BARREL



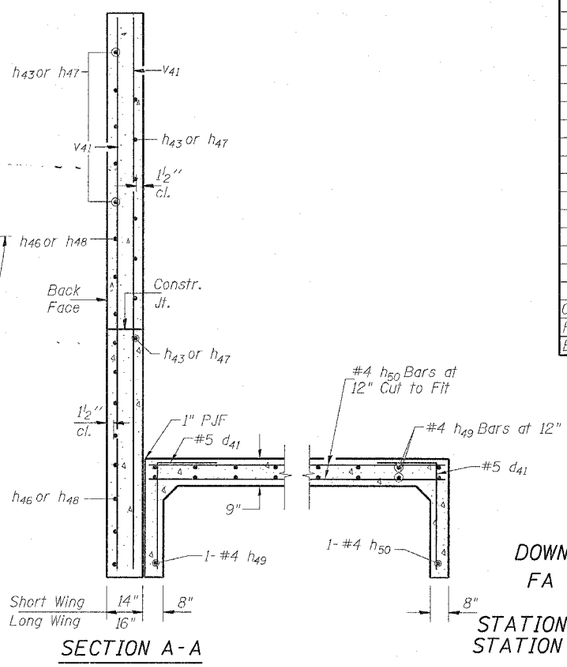
BAR s_{40}

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{41}	180	#7	9'-4"	
a_{42}	26	#4	7'-3"	
d_{40}	13	#5	8'-3"	
d_{41}	71	#4	4'-6"	
d_{42}	13	#5	4'-6"	
h_{40}	18	#6	25'-7"	
h_{41}	24	#5	25'-7"	
h_{42}	24	#5	25'-7"	
h_{43}	12	#7	8'-0"	
h_{44}	14	#6	9'-3"	
h_{46}	11	#9	25'-0"	
h_{47}	12	#9	8'-0"	
h_{48}	11	#7	15'-0"	
h_{49}	66	#4	9'-11"	
h_{50}	24	#4	32'-6"	
s_{40}	7	#4	4'-6"	
V_{40}	135	#4	7'-0"	
V_{41}	8	#4	13'-2"	
Concrete Box Culverts		Cu. Yd.		65.7
Reinforcement Bars		Pound		9,600
Expansion Bolts ¾"ϕ		Each		16



PLAN SHOWING OUTLINES



SECTION A-A

NOTES

A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.

Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.

Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.

All construction joints shall be bonded.

Precast Culvert alternate is not allowed.

DESIGN STRESSES

fy = 60,000 psi

f'c = 3,500 psi

LOADING HS 20-44 & ALT.

DESIGNED	JDC
CHECKED	BDF
DRAWN	RAP
CHECKED	BDF

SSB-H-L 6-1-2000

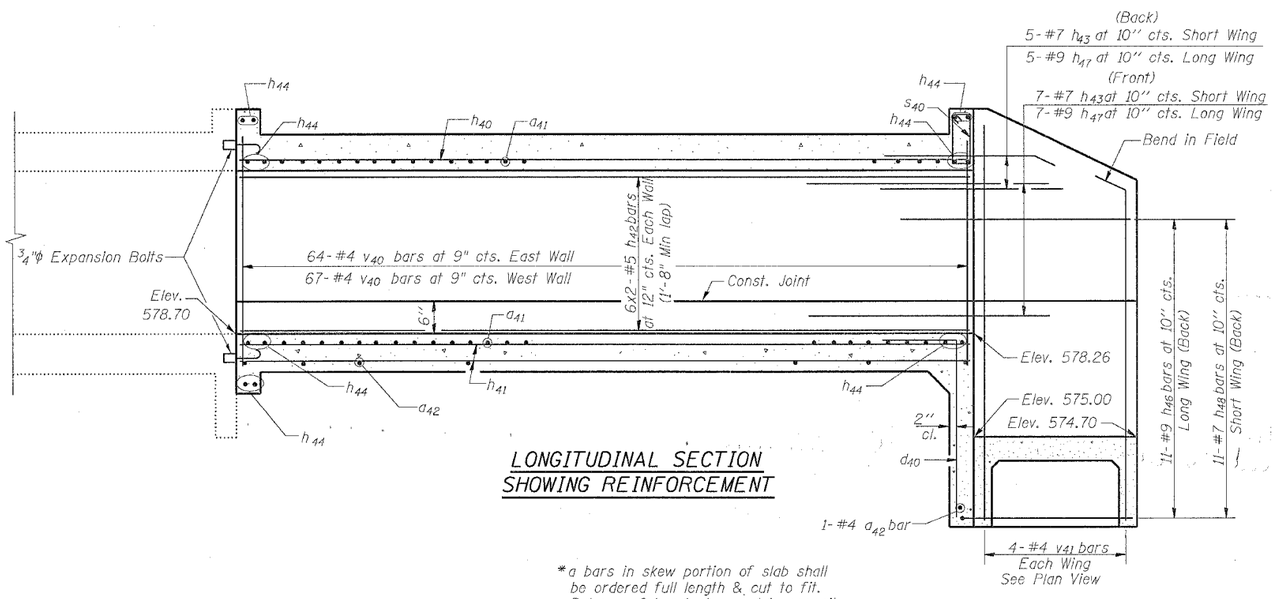
DOWNSTREAM EXTENSION DETAILS
FA ROUTE 595 SECTION 1-3-K
ROCK ISLAND COUNTY
STATION 410+21.25 (JOHN DEERE ROAD)
STATION 167+88.19 (VALLEY VIEW DRIVE)

CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	285
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

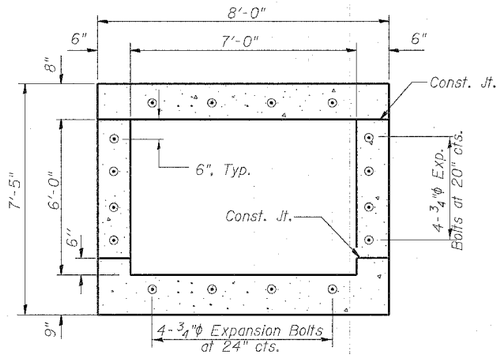
SHEET NO. 5
5 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



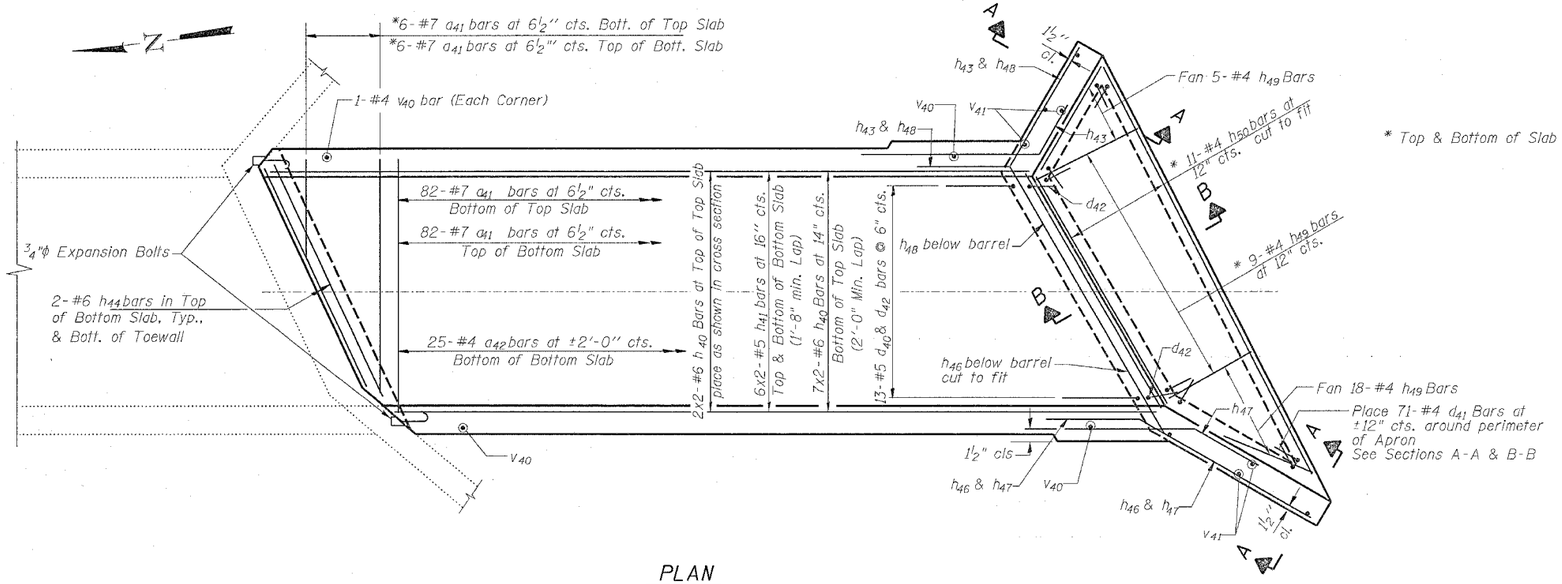
LONGITUDINAL SECTION SHOWING REINFORCEMENT

*a bars in skew portion of slab shall be ordered full length & cut to fit. Balance of bar to be used in opposite end of culvert.



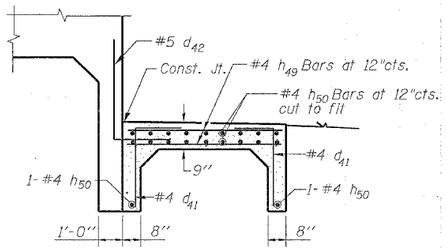
SECTION THRU BARREL

Showing $\frac{3}{4}$"ϕ Expansion Bolts



* Top & Bottom of Slab

PLAN SHOWING REINFORCEMENT



SECTION B-B SHOWING REINFORCEMENT

DESIGNED	JDC
CHECKED	BDF
DRAWN	RAP
CHECKED	BDF

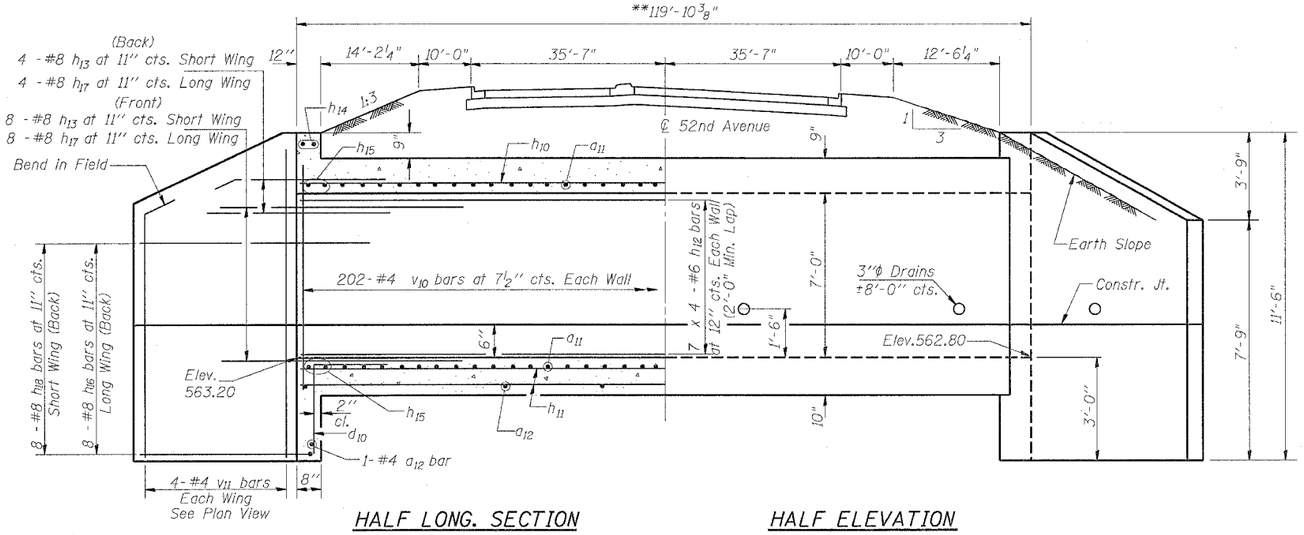
DOWNSTREAM EXTENSION DETAILS
FA ROUTE 595 SECTION 1-3-K
ROCK ISLAND COUNTY
STATION 410+21.25 (JOHN DEERE ROAD)
STATION 167+88.19 (VALLEY VIEW DRIVE)

CONTRACT NO. 64647

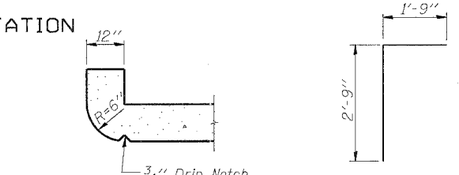
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	286
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
1 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

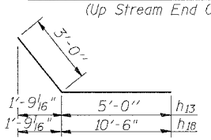


HALF LONG. SECTION

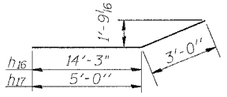


SECTION THRU HEADWALL

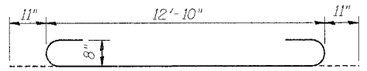
(Up Stream End Only)



BARS h_{13} & h_{18}

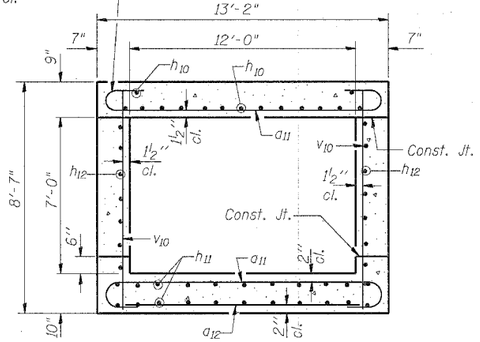


BARS h_{16} & h_{17}



BAR a_{11}

Tilt hook of a_{11} bars if necessary for 1 1/2" min. cl.

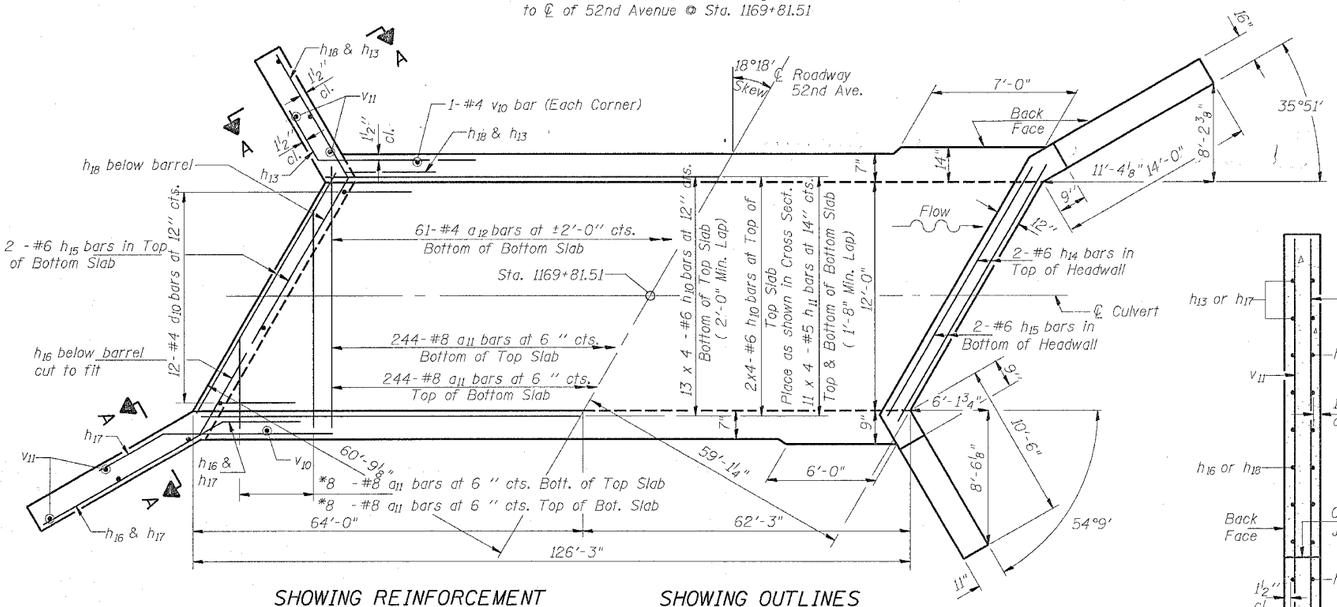


SECTION THRU BARREL

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{11}	504	#8	14'-8"	
a_{12}	63	#4	12'-3"	
d_{10}	24	#4	4'-6"	
h_{10}	60	#6	33'-3"	
h_{11}	88	#5	33'-0"	
h_{12}	56	#6	33'-3"	
h_{13}	24	#8	8'-0"	
h_{14}	4	#6	13'-6"	
h_{15}	8	#6	13'-6"	
h_{16}	16	#8	17'-3"	
h_{17}	24	#8	8'-0"	
h_{18}	16	#8	13'-6"	
v_{10}	408	#4	8'-3"	
v_{11}	16	#4	11'-2"	
v_{12}	16	#4	3'-3"	
v_{13}	8	#4	3'-9"	
Concrete Box Culverts		Cu. Yd.	162.1	
Reinforcement Bars		Pound	34,160	

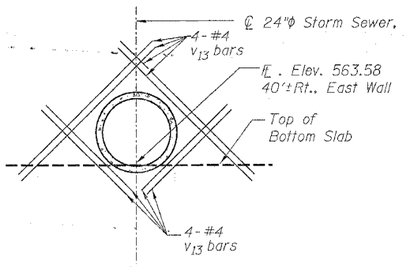
** Dimensions at Rt. L's to the Tangent to ℄ of 52nd Avenue @ Sta. 1169+81.51



SHOWING REINFORCEMENT

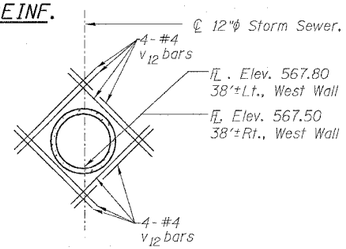
SHOWING OUTLINES

PLAN



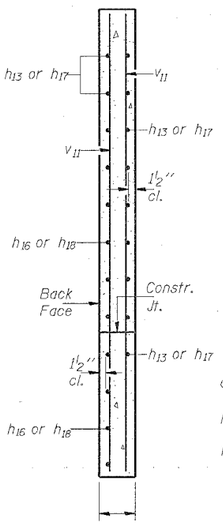
WALL OPENING REINF.

24"ϕ Storm Sewer



WALL OPENING REINF.

12"ϕ Storm Sewer



SECTION A-A

NOTES

A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.

Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.

Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.

All construction joints shall be bonded.

Precast culvert alternate is not allowed.

DESIGN STRESSES

fy = 60,000 psi

f'c = 3,500 psi

LOADING HS 20-44 & ALT.

* a bars in skew portion of slab shall be ordered full length & cut to fit. Balance of bar to be used in opposite end of culvert.

WATERWAY INFORMATION

Drainage Area = 183 Acres Low Grade Elev. 571.50 @ Sta. 1172+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	197	-	41.8	564.85	-	1.83	-	566.68
Design	50	282	-	52.6	565.16	-	2.42	-	567.58
Base	100	314	-	56.5	565.30	-	2.61	-	567.91
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	N/A	-	-	-	-	-	-	-

DESIGNED	BDF
CHECKED	BDF
DRAWN	RAP
CHECKED	BDF

SSB-H-R 6-1-2000

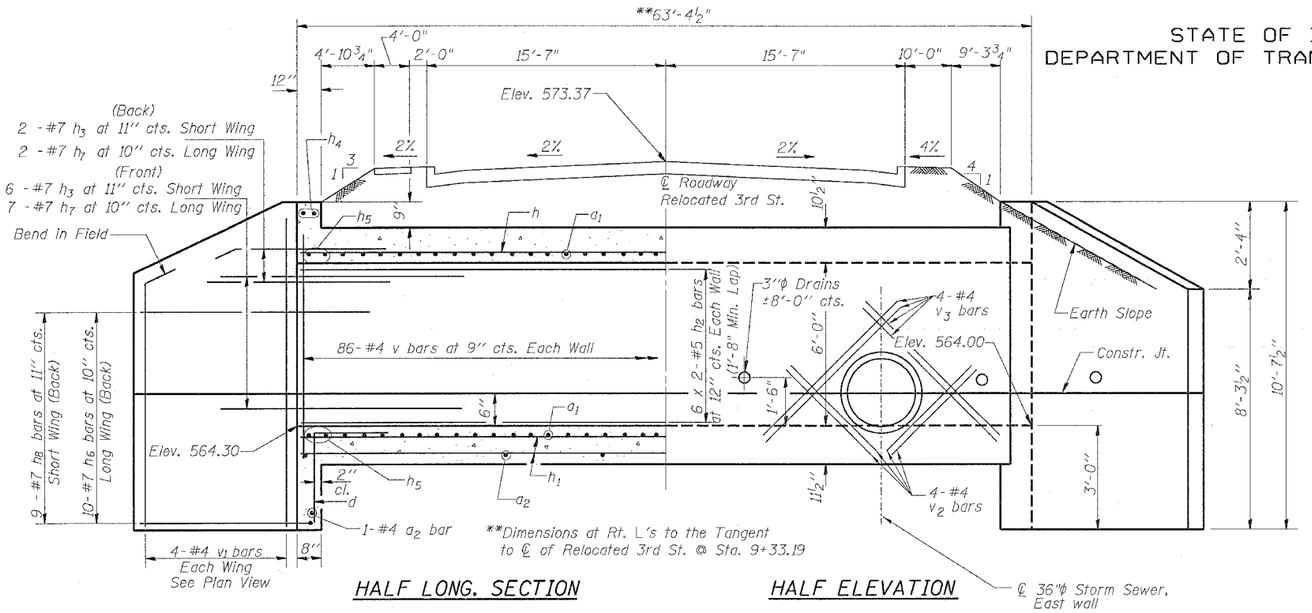
12'-0"x 7'-0" R.C. BOX CULVERT
52nd AVENUE
FA ROUTE 595 SECTION 1-3-K
ROCK ISLAND COUNTY
STATION 1169+81.51

CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	287
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

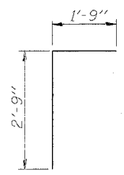
SHEET NO. 1
1 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

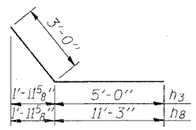


HALF LONG. SECTION

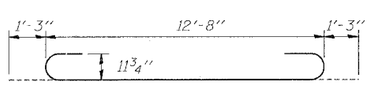
HALF ELEVATION



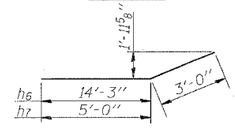
BAR d



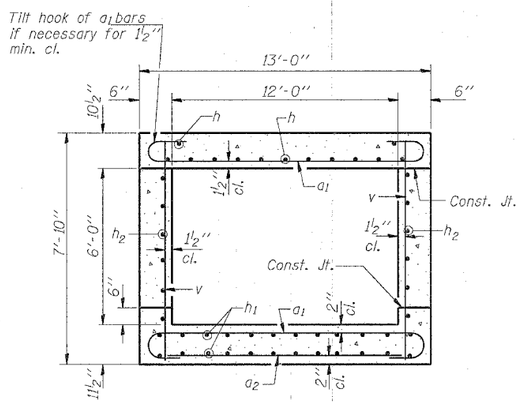
BARS h_3 & h_8



BAR a_1



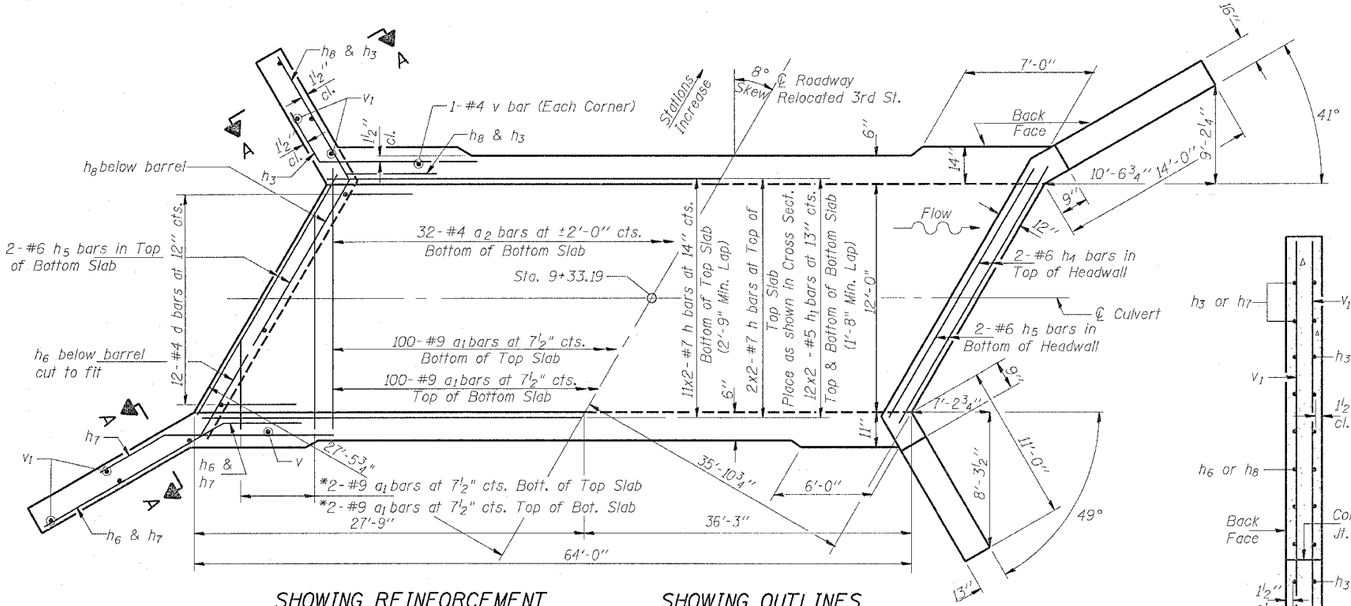
BARS h_6 & h_7



SECTION THRU BARREL

BILL OF MATERIAL

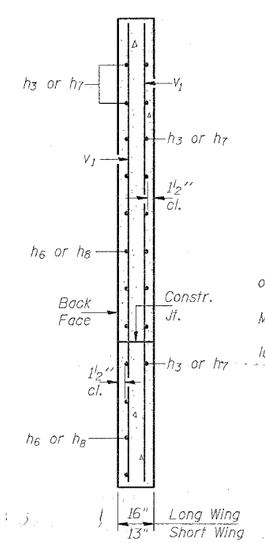
Bar	No.	Size	Length	Shape
a_1	204	#9	15'-2"	
a_2	34	#4	12'-6"	
d	24	#4	4'-6"	
h	26	#7	33'-6	
h_1	48	#5	33'-0"	
h_2	24	#5	33'-0"	
h_3	16	#7	8'-0"	
h_4	4	#6	13'-0"	
h_5	8	#6	13'-0"	
h_6	20	#7	17'-3"	
h_7	18	#7	8'-0"	
h_8	18	#7	14'-3"	
v	176	#4	7'-6"	
v_1	16	#4	10'-3"	
v_2	4	#4	4'-0"	
v_3	4	#4	7'-6"	
Concrete Box Culverts		Cu. Yd.	100.8	
Reinforcement Bars		Pound	18,180	



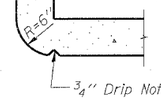
SHOWING REINFORCEMENT

SHOWING OUTLINES

PLAN



SECTION A-A



SECTION THRU HEADWALL

(Up Stream End Only)

NOTES

A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.

Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.

Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.

All construction joints shall be bonded.

Precast culvert alternate is not allowed.

DESIGN STRESSES

fy = 60,000 psi

f'c = 3,500 psi

LOADING HS 20-44 & ALT.

* a_1 bars in skew portion of slab shall be ordered full length & cut to fit. Balance of bar to be used in opposite end of culvert.

DESIGNED	-	BDF
CHECKED	-	BDF
DRAWN	-	CLH
CHECKED	-	BDF

SSB-H-R 6-1-2000

WATERWAY INFORMATION

Drainage Area = 183 Acres Low Grade Elev. 571.50 @ Sta. 1172+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	197	-	41.5	565.93	-	1.83	-	567.76
Design	50	282	-	52.3	566.24	-	2.42	-	568.66
Base	100	314	-	56.2	566.55	-	2.61	-	568.98
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	N/A	-	-	-	-	-	-	-

Overtopping Occurs at the 50-year Storm

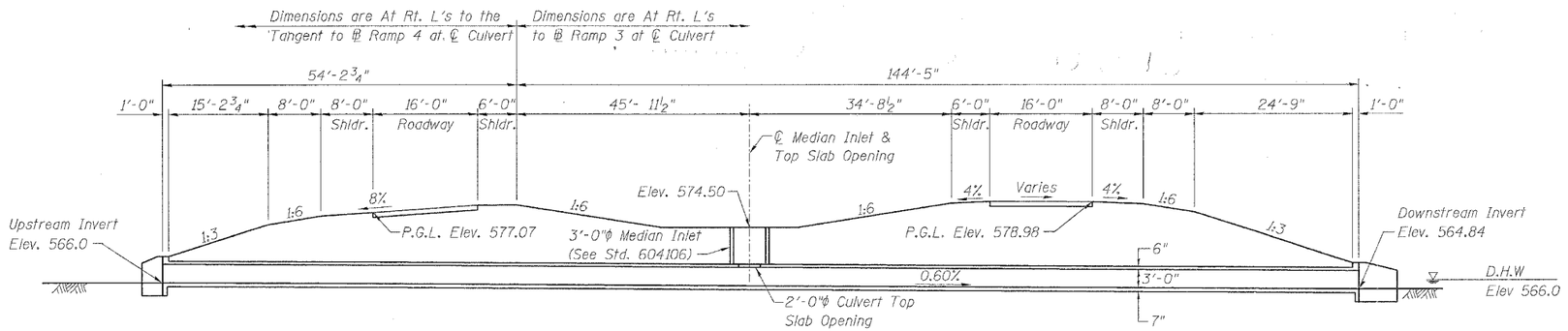
12'-0"x6'-0" R.C. BOX CULVERT
RELOCATED 3RD STREET

FA ROUTE 595 SECTION 1-3-K
ROCK ISLAND COUNTY
STATION 9+33.19

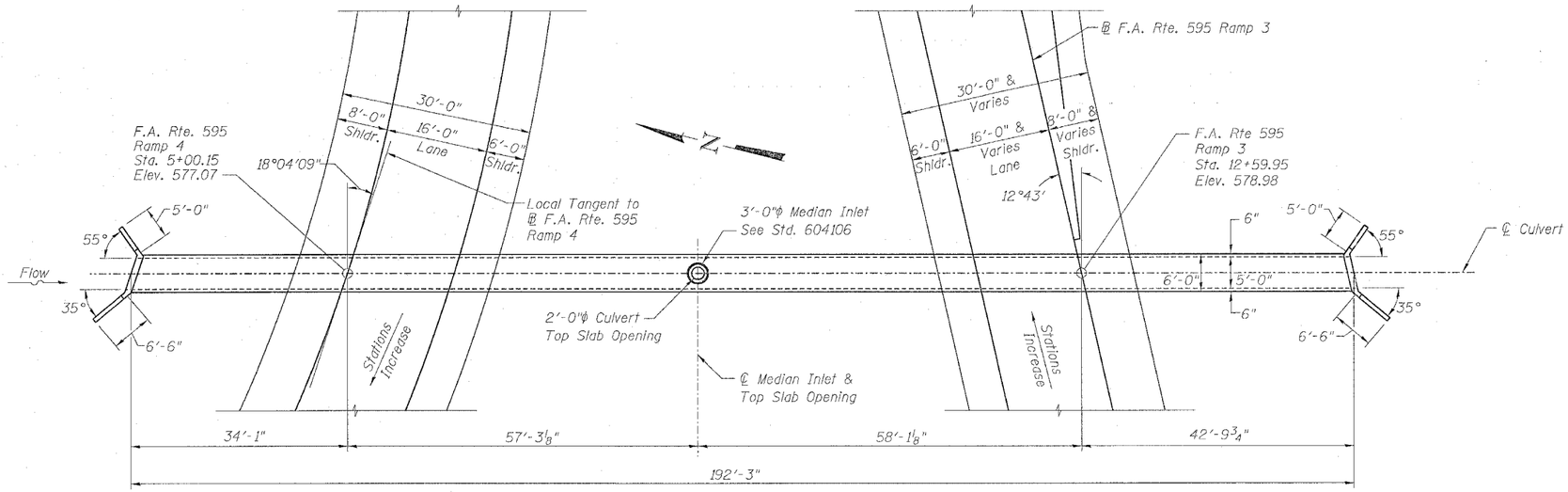
CONTRACT NO. 64647

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
F.A.P. 595	1-3-K	Rock Island	476	288	2 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LONGITUDINAL SECTION



PLAN

WATERWAY INFORMATION

Drainage Area = 7.3 Acres Low Grade Elev. 571. 573.4 @ Sta. 8+25.5, 9+56.55 (Ramp 4&3)

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	-	-	-	-	-	-	-	-	-
Design	50	27.3	-	10.0	566.0	-	2.0	-	568.0
Base	100	31.3	-	11.5	566.0	-	2.3	-	568.3
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	N/A	-	-	-	-	-	-	-

DESIGNED	JDC
CHECKED	BDF
DRAWN	RAP
CHECKED	BDF

DESIGN STRESSES

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

LOADING HS 20-44 & ALT.

5'-0"x 3'-0" R.C. BOX CULVERT
52nd AVENUE RAMP 3

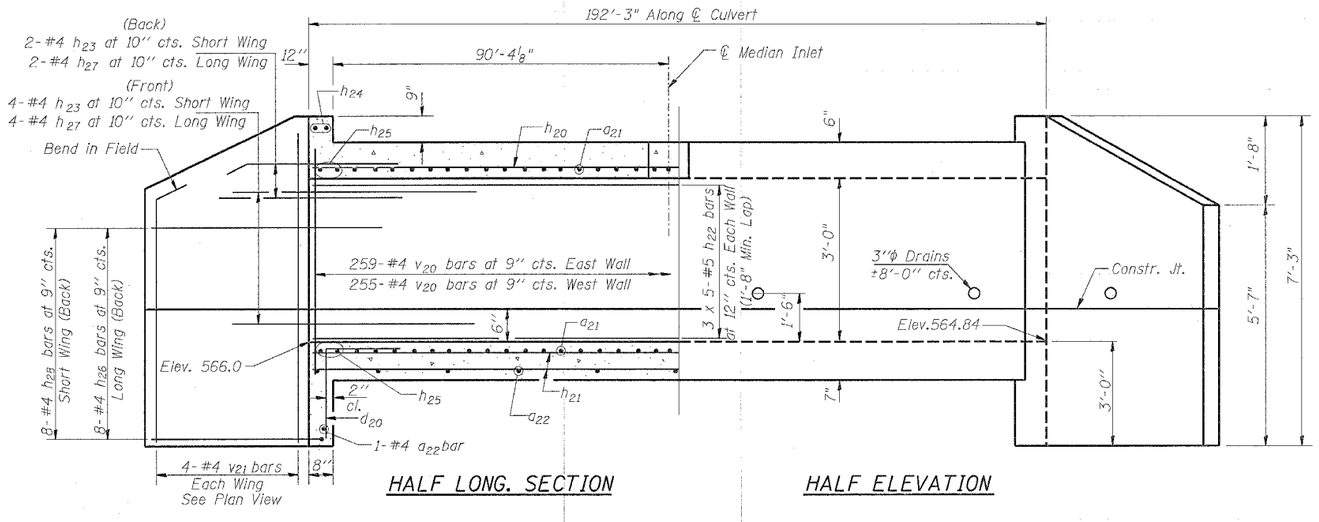
FA ROUTE 595 SECTION 1-3-K
ROCK ISLAND COUNTY
STATION 12+59.95

CONTRACT NO. 64647

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

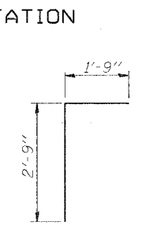
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-3-K	Rock Island	476	289
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 2
2 SHEETS

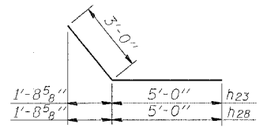


HALF LONG. SECTION

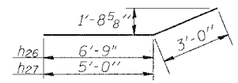
HALF ELEVATION



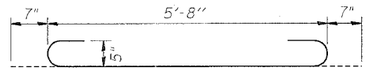
BAR d_{20}



BARS h_{23} & h_{28}

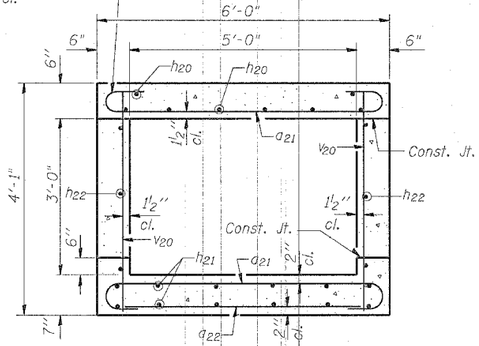


BARS h_{26} & h_{27}

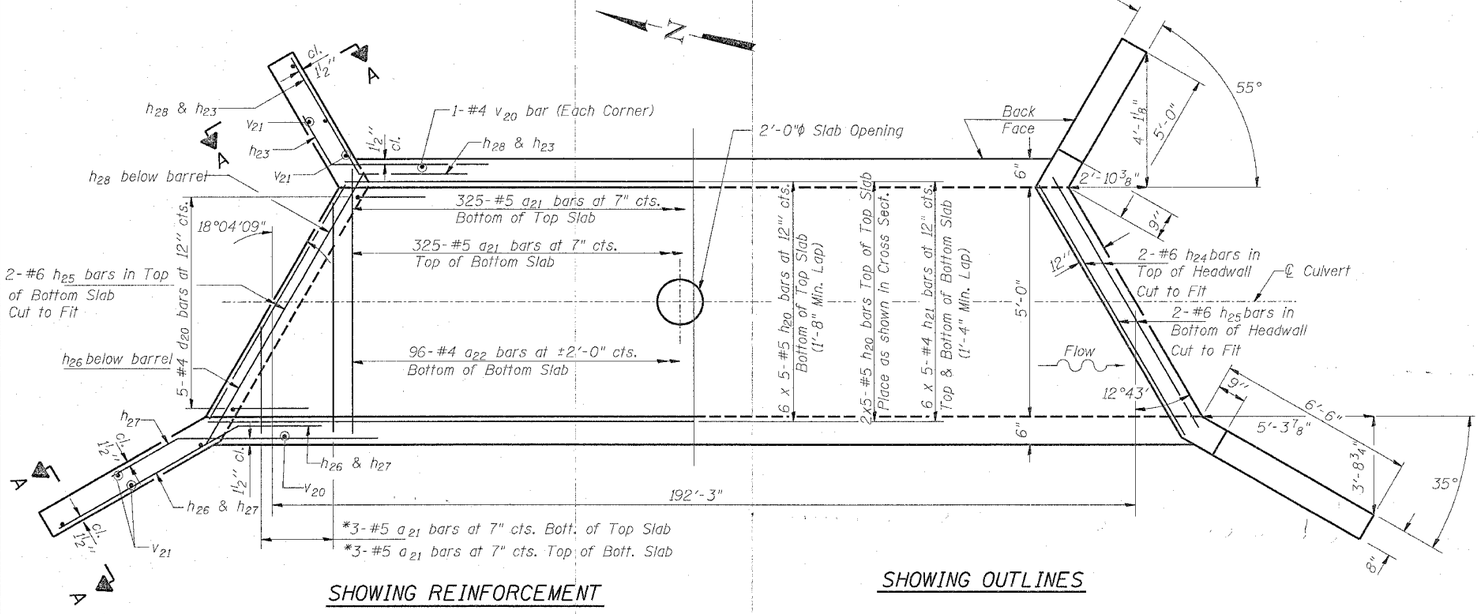


BAR a_{21}

Tilt hook of a_{21} bars if necessary for 1 1/2" min. cl.



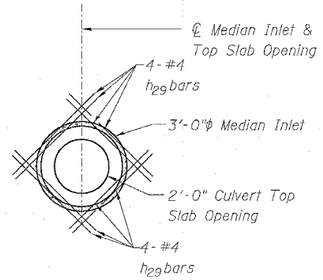
SECTION THRU BARREL



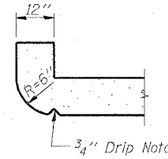
SHOWING REINFORCEMENT

SHOWING OUTLINES

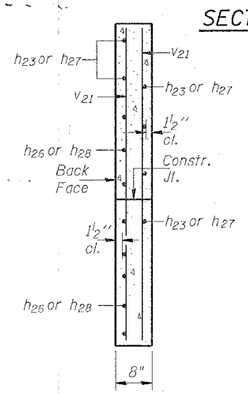
PLAN



TOP SLAB OPENING REINF.



SECTION THRU HEADWALL
(Up Stream End Only)



SECTION A-A

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{21}	656	#5	6'-10"	
a_{22}	98	#4	5'-3"	
d_{20}	10	#4	4'-6"	
h_{20}	40	#5	40'-0"	
h_{21}	60	#4	39'-9"	
h_{22}	30	#5	40'-0"	
h_{23}	12	#4	8'-0"	
h_{24}	4	#6	5'-9"	
h_{25}	8	#6	5'-9"	
h_{26}	16	#4	9'-9"	
h_{27}	12	#4	8'-0"	
h_{28}	16	#4	8'-0"	
h_{29}	8	#4	4'-0"	
v_{20}	518	#4	3'-9"	
v_{21}	16	#4	6'-9"	
Concrete Box Culverts		Cu. Yd.	72.6	
Reinforcement Bars		Pound	11,380	

NOTES

A distance of six feet of the barrel shall be poured monolithically with the wingwalls.

Reinforcement Bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.

Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.

All construction joints shall be bonded.

Precast culvert alternate is not allowed.

Cut top slab reinforcement as required to miss 2'-0"ϕ slab opening (min. 2" clr.).

*a bars in skew portion of slab shall be ordered full length & cut to fit. Balance of bar to be used in opposite end of culvert.

DESIGNED	JDC
CHECKED	BDF
DRAWN	RAP
CHECKED	BDF

SSB-H-L 6-1-2000

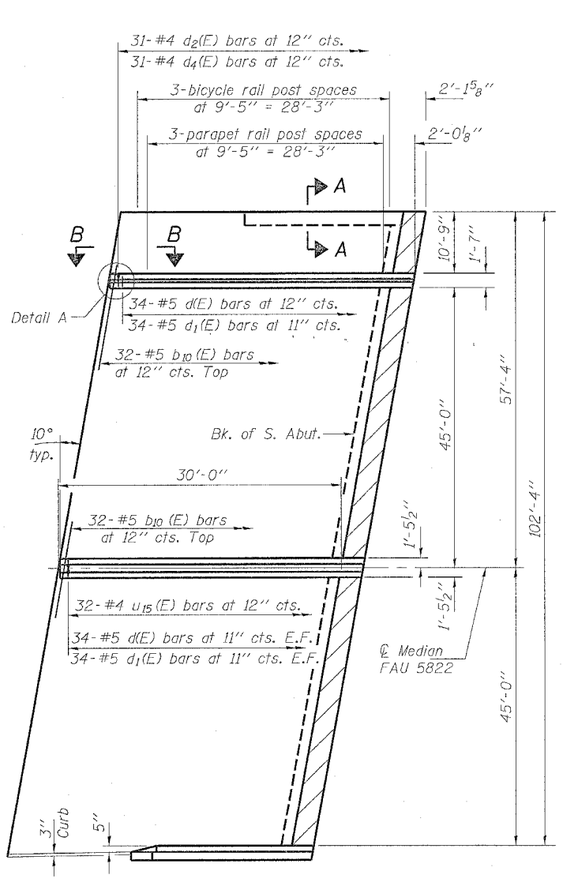
5'-0"x 3'-0" R.C. BOX CULVERT
52nd AVENUE RAMP 3

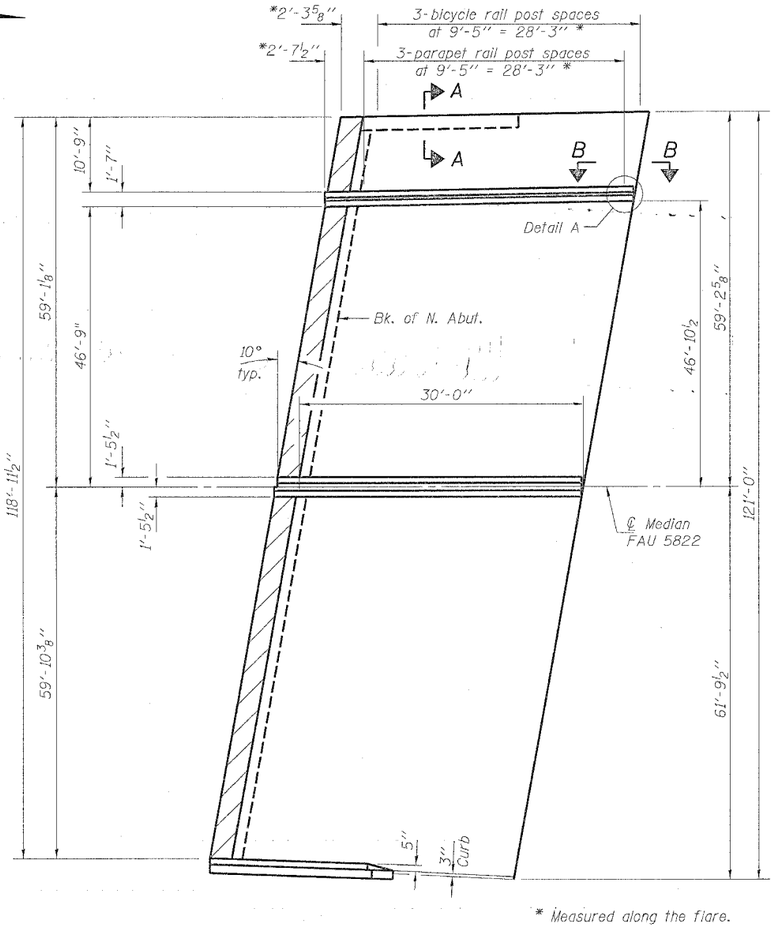
FA ROUTE 595 SECTION 1-3-K
ROCK ISLAND COUNTY
STATION 12+59.95

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 595	1-3-K	Rock Island	476	289A
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO.
SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

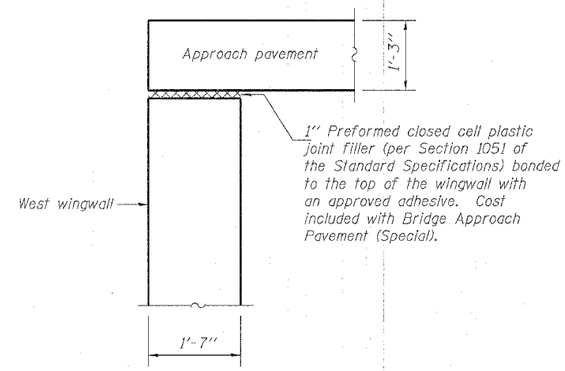




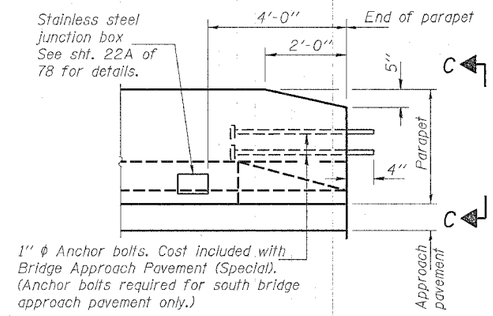
* Measured along the flare.

PLAN VIEW

(Dimensions are at right L's to ℄ Median unless noted otherwise).
(Reinforcement shown for South bridge approach pavement. North approach pavement similar).

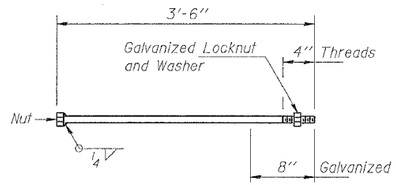


SECTION A-A

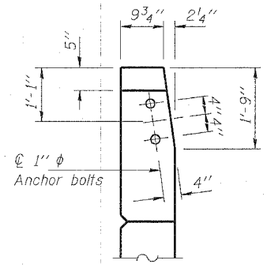


SECTION B-B

(South bridge approach pavement shown; North bridge approach pavement similar.)

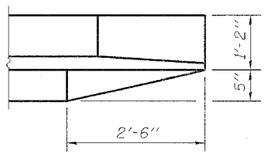


1" ϕ ANCHOR BOLT



VIEW C-C

Notes: See Standard 420401 for additional bridge approach pavement details not shown on sheets 66 & 67 of 78.
For quantity of bridge approach pavement (Special), see roadway plans.
Work this sheet with sheet 67 of 78.
See expansion joint details on sheet 24 thru 30 of 78 for end treatment of concrete parapets at expansion joints.
See sheet 32 of 78 for railing details.



DETAIL A

(North bridge approach pavement shown; South bridge approach pavement similar.)

DESIGNED	
CHECKED	
DRAWN	
CHECKED	

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

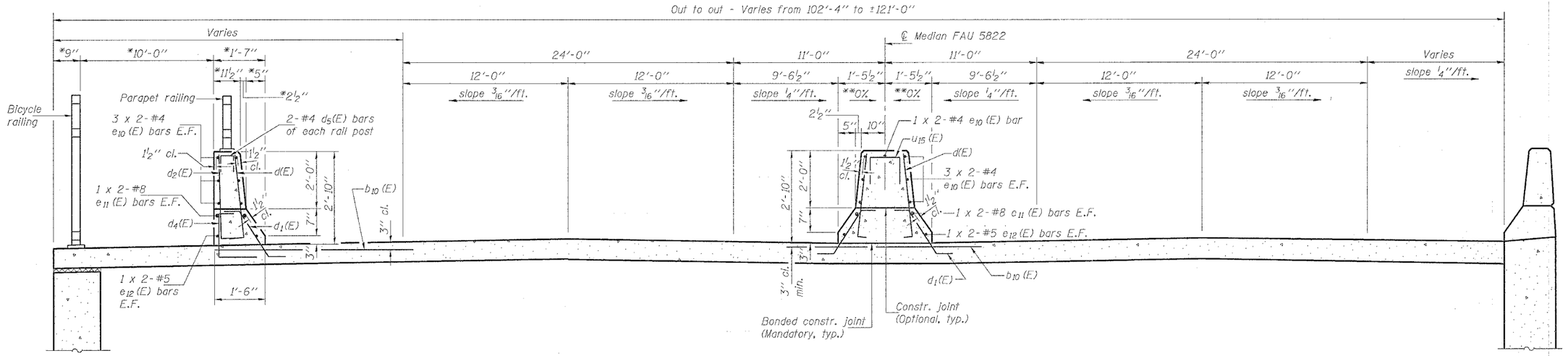
ENGINEER OF BRIDGES AND STRUCTURES

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 595	1-3-K	Rock Island	476	289B
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO.

SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



CROSS SECTION

Looking North

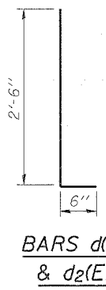
(Dimemsions are at right L's to ℄ Median except as noted.)

* Dimensions are right L's to outside edge of approach pavement.

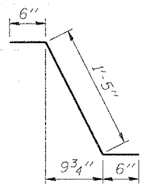
** Form the top of the bridge approach pavement near the median barrier to prevent ponding of water.

Notes: Reinforcement bars and concrete in the barrier shall be included in the cost of Bridge Approach Pavement (Special).

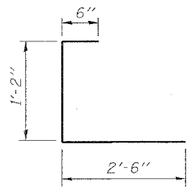
Bars indicated thus 3 x 2-#4 etc. indicates 3 lines of bars with 2 lengths per line.



BARS d(E) & d_2(E)



BAR d_1(E)



BARS d_4(E)

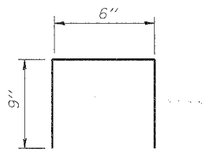
BILL OF MATERIAL

(For information only)

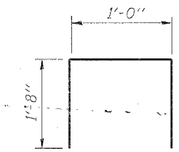
Bar	No.	Size	Length	Shape
b_{10} (E)	128	#5	7'-0"	
d(E)	204	#5	3'-0"	
d_1(E)	204	#5	2'-5"	
d_2(E)	62	#4	3'-0"	
d_4(E)	62	#4	4'-2"	
d_5(E)	16	#4	2'-0"	
e_{10} (E)	52	#4	16'-4"	
e_{11} (E)	16	#8	17'-4"	
e_{12} (E)	16	#5	16'-6"	
u_{15} (E)	64	#4	4'-4"	

MIN. BAR LAPS

#4 bars = 1'-4"
#5 bars = 1'-8"
#8 bars = 3'-5"



BAR d_5(E)



BAR u_{15} (E)

DESIGNED	
CHECKED	
DRAWN	
CHECKED	

EXAMINED

ENGINEER OF BRIDGE DESIGN

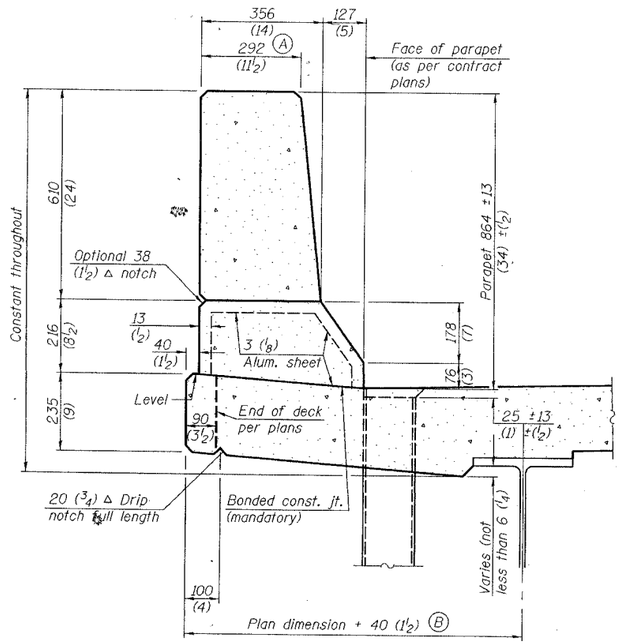
PASSED

ENGINEER OF BRIDGES AND STRUCTURES

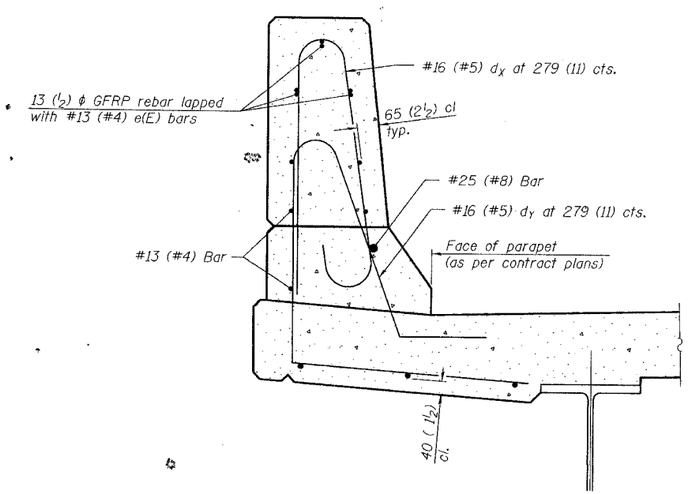
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 595	1-3-K	Rock Island	476	289C
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

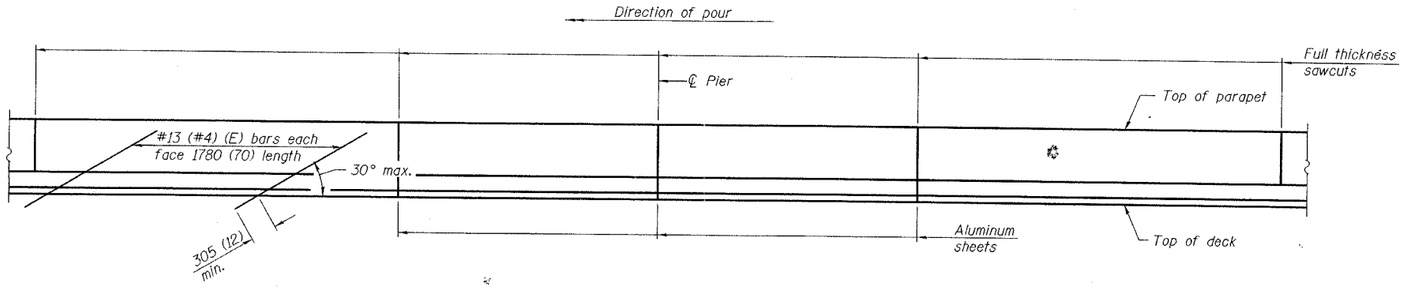
SHEET NO.
SHEETS



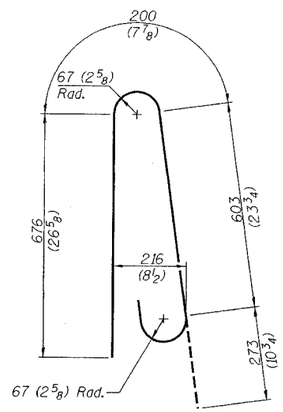
SECTION
(Showing dimensions)



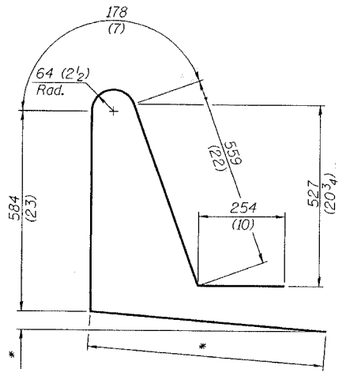
SECTION
(Showing required reinforcement)



ELEVATION
(Showing parapet joints and typical stiffening reinforcement betewwn joints)



BAR d_x(e)

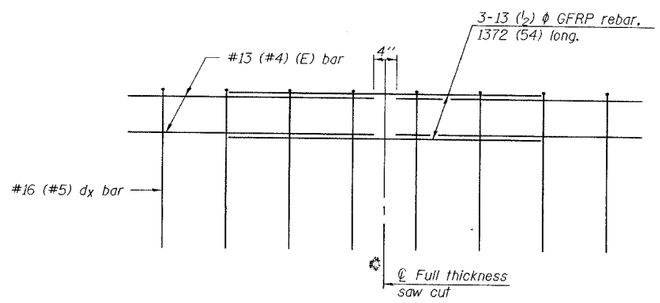


BAR d_y(e)
* Per contract plans

GENERAL NOTES

All dimensions shall remain the same as shown on contract plans, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B= 0.0422 m /m (.0165 cu. yds./ft.) of parapet.

Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all other locations. Adjust/add joint locations to maintain 3 to 6 meter (10 to 20 foot) spacing.



GFRP REBAR STIFFENING DETAIL
(Place as shown in parapet section)

CONCRETE PARAPET
SLIPFORMING OPTION

Added 2-23-05

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	290
STA.		TO STA.		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

BORING LOGS

Illinois Department of Transportation

Sh. 1 of 1 Sh.

PROJECT P-92-096-84 Date 12-8-86

ROUTE FAU 5822 Milan Beltway Bored By D & G Drilling, Inc.

SEG. 1-3 STA. 310+22 Checked By JZ/CB

COUNTY Rock Island

Boring No. B-1
Station 310+22
Offset 12' L

Surface Water El. ____
Groundwater El. at Completion Dry
After ____ Hours ____

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 577.7			
SILTY CLAY LOAM FILL: trace gravel; light brown; very stiff		3.5 P	20
			16
A-6(15) 572.7		2.5 P	
SILTY CLAY: black topsoil; very stiff		3.5 P	22
A-7-6 571.7			
Boring Terminated @ 6.0'.			

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

7-1

Illinois Department of Transportation

Sh. 1 of 1 Sh.

PROJECT P-92-096-84 Date 12-8-86

ROUTE FAU 5822 Milan Beltway Bored By D & G Drilling, Inc.

SEG. 1-3 STA. 313+00 Checked By JZ/CB

COUNTY Rock Island

Boring No. B-2
Station 313+00
Offset 35' L

Surface Water El. ____
Groundwater El. at Completion Dry
After ____ Hours ____

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 573.0			
SILTY CLAY: dark gray; stiff to very stiff		2.5 P	25
A-7-6 567.0		1.5 P	
Boring Terminated @ 6.0'.			

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

7-2

Illinois Department of Transportation

Sh. 1 of 1 Sh.

PROJECT P-92-096-84 Date 12-8-86

ROUTE FAU 5822 Milan Beltway Bored By D & G Drilling, Inc.

SEG. 1-3 STA. 315+25 Checked By JZ/CB

COUNTY Rock Island

Boring No. B-3
Station 315+25
Offset 59' L

Surface Water El. N/A
Groundwater El. at Completion 571.5
After ____ Hours ____

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 571.5			
SILTY CLAY: dark gray A-7-6 570.0			27
CLAY LOAM: gray; medium stiff		1.5 P	
			24
		0.25 P	
A-7-6 565.5		0.5 P	
Boring Terminated @ 6.0'.			

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

7-3

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	291
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BORING LOGS

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Two Materials
Blackhawk Twp. - SE 1/4 Sec. 19 - T17N, R1W

Units English
Bridge Foundation
Boring Log

PROJECT R93-096-84 | BRIDGE Milan Beltway Extension, 1.5 miles East of Blackhawk State Park | Date Sh. 2 of 1 07/17/95
ROUTE FAU 5822 | Bored By C. Jenkins
SEC. 1-3 | STA. - | Checked By T. Bratt
COUNTY Rock Island | Boring No. B-103 | Sta 364 + 83 | O/S on CL

Surf Wat El. 562.3 | Groundwater El. at Compl Wash | At ___ Hrs

Depth	Ground Surface 564.1	N	Qu t/sf	W %	Depth	Surf Wat El. 562.3 Groundwater El. at Compl Wash At ___ Hrs	N	Qu t/sf	W %
	SOFT brown SILTY LOAM with ORGANICS		0.3 P	11		Auger Refusal			
						Tri-Cone to 35'			
	MEDIUM gray SILTY LOAM with GRAVEL	1 2 2	0.5 P	11	-25	Tri-coned to 25' like shale. From 25' to 35' like crystalline bedrock			
	First Encounter V -3								
	No Sample	1 5 7							
-5	LOOSE gray coarse grained SAND with some GRAVEL	5 4 4			-30				
-10	Same as above	3 1 4							
	Begin Wash								
	VERY DENSE gray/black SHALE	18 33 57			-35	1st 5' Run 100% Recovery gray SANDSTONE			
-15	VERY DENSE gray/black SHALE	100/11" PEN							
	Same as above	100/9" PEN			-40	2nd 5' Run 100% Recovery gray SANDSTONE			
-20	Same as above Auger to 22 1/2'	100/8" PEN							
		next column			-45	END OF BORING			

N-Std Pentr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Two Materials
S. Moline Twp. - Sec. 18 - T17N, R1W

Units English
Bridge Foundation
Boring Log

PROJECT R93-096-84 | BRIDGE Milan Beltway Extension, 1.5 miles East of Blackhawk State Park | Date Sh. 1 of 1 07/26/95
ROUTE FAU 5822 | Bored By C. Jenkins
SEC. 1-3 | STA. - | Checked By T. Bratt
COUNTY Rock Island | Boring No. B-200 | Sta 177 + 00 | O/S 15' Rt CL

Surf Wat El. ___ | Groundwater El. at Compl Wash | At ___ Hrs

Depth	Ground Surface 561.24	N	Qu t/sf	W %	Depth	Surf Wat El. ___ Groundwater El. at Compl Wash At ___ Hrs	W	Qu t/sf	W %
	MEDIUM brown SILTY CLAY with GRAVEL	8 0 1	0.5 P	28		VERY DENSE gray/black SHALE			27 100/9" PEN
	Same as above	8 0 1	0.5 P	29	-25	Same as above			22 30 28
	First Encounter V -5								
	VERY LOOSE dirty gray SAND	0 1 3				Same as above			52 100/9" PEN
	VERY LOOSE tan fine to medium grained SAND	0 0 1			-30	Same as above			100/11" PEN
	Begin Wash -15								
	Same as above	0 0 1				Same as above			38 100/7" PEN
	MEDIUM gray SAND & GRAVEL	5 5 3			-35	Auger to 35' 1st 5' Run Black shale 4' 9" 95% Recovery			
-15	DENSE gray/black SHALE	13 15 20							
	VERY DENSE gray/black SHALE	30 33 41			-40	2nd 5' Run black shale 5' 100% Recovery			
-20	Same as above	22 35 28							
		next column			-45	END OF BORING			

N-Std Pentr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Two Materials
S. Moline Twp. - Sec. 18 - T17N, R1W

Units English
Bridge Foundation
Boring Log

PROJECT R93-096-84 | BRIDGE Milan Beltway Extension, 1.5 miles East of Blackhawk State Park | Date Sh. 1 of 1 07/27/95
ROUTE FAU 5822 | Bored By C. Jenkins
SEC. 1-3 | STA. - | Checked By T. Bratt
COUNTY Rock Island | Boring No. B-300 | Sta 379 + 55 | O/S 50' Lt CL

Surf Wat El. ___ | Groundwater El. at Compl Wash | At ___ Hrs

Depth	Ground Surface 561.1	N	Qu t/sf	W %	Depth	Surf Wat El. ___ Groundwater El. at Compl Wash At ___ Hrs	N	Qu t/sf	W %
	SOFT gray/brown SILTY LOAM 7.5% organics		0.3 P	43		VERY DENSE gray/black SHALE			34 100/11" PEN
	SOFT gray/brown SILT 10.3% organics	0 0 0	0.3 P	38	-25	Same as above			100/11" PEN
	SOFT black SILT 7.1% organics	0 0 1	0.3 B	42		Same as above			100/11" PEN
	First Encounter V -5					END OF BORING			
	LOOSE tan SAND & GRAVEL	1 2 1			-30				
-10	LOOSE tan SAND & GRAVEL	0 2 2							
	MEDIUM gray SHALE under tan SAND & GRAVEL	5 6 11			-35				
-15	VERY DENSE gray SHALE	10 35 28							
	DENSE gray/black SHALE	9 16 23			-40				
-20	Same as above	13 14 29							
		next column			-45				

N-Std Pentr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	292
STA.	TO STA.			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

BORING LOGS

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Two Materials
S. Moline Twp. - Sec. 18 - T17N, R1W

Units English
Bridge Foundation
Boring Log

PROJECT P32-096-84 | BRIDGE Milan Beltway Extension, 1.5 miles East of Blackhawk State Park | Date 07/27/95 Sh. 1 of 1
ROUTE FAU 5822 | Bored By C. Jenkins
SEC. 1-3 | STA. _ | Checked By T. Bratt
COUNTY Rock Island | Boring No. B-586 | Sta 379 + 55 | O/S 48' Rt CL
Surf Wat El. _ | Groundwater El. _ at Compl Wash | At _ Hrs _

DEPTH	N	Qu t/sf	W %	DEPTH	N	Qu t/sf	W %
Ground Surface 651.0± 0							
SOFT black SILT LOAM 7.1% organics	0	0.3	48	DENSE gray SHALE	26		
		P			30		
					20		
Same as above 7.5% organics	3	0.3	37	-30			
	0	B		VERY DENSE gray/black SHALE	32		
	0				100/5" PEN		
SOFT black SILTY CLAY -5							
	0	0.4	37	Same as above	100/7" PEN		
	0	B					
	2						
VERY LOOSE tan fine dirty SAND	0			-30			
	0			Same as above	35		
	1				100/11" PEN		
First Wash				END OF BORING			
First Encounter V -10							
LOOSE tan SAND & GRAVEL	2						
	3						
	3						
MEDIUM tan SAND & GRAVEL	4			-25			
	10						
	9						
-15							
Same as above	4						
	7						
	8						
MEDIUM gray/black SHALE below tan SAND -20	6						
	8						
	10						
VERY DENSE gray/black SHALE	100/10" PEN						
next column							

M-Std Pentr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Two Materials
S. Moline Twp. - Sec. 18 - T17N, R1W

Units English
Bridge Foundation
Boring Log

PROJECT P32-096-84 | BRIDGE Milan Beltway Extension, 1.5 miles East of Blackhawk State Park | Date 07/11/95 Sh. 1 of 1
ROUTE FAU 5822 | Bored By C. Jenkins
SEC. 1-3 | STA. _ | Checked By T. Bratt
COUNTY Rock Island | Boring No. B-586 | Sta 381 + 00 | O/S 48' Lt CL
Surf Wat El. _ | Groundwater El. _ at Compl Wash | At _ Hrs _

DEPTH	N	Qu t/sf	W %	DEPTH	N	Qu t/sf	W %
Ground Surface 0							
MEDIUM dark brown SILTY LOAM	0.7	27					
	P						
SOFT brown SILTY CLAY	2	0.3	29	-30			
	1	B					
	3						
First Encounter V -5							
LOOSE tan medium to coarse grained SAND	1						
	2						
	1						
Same as above	2						
	3						
	5						
MEDIUM tan medium to coarse grained SAND -15	9						
	10						
	12						
Begin 5' Wash							
DENSE gray SAND & GRAVEL	8			-35			
	17						
	25						
-25							
VERY DENSE blue/gray SHALE	32						
	100/10" PEN						
Same as above	100/8" PEN			-40			
Auger Refusal							
-29							
next column							

M-Std Pentr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Two Materials
S. Moline Twp. - Sec. 18 - T17N, R1W

Units English
Bridge Foundation
Boring Log

PROJECT P32-096-84 | BRIDGE Milan Beltway Extension, 1.5 miles East of Blackhawk State Park | Date 07/12/95 Sh. 1 of 1
ROUTE FAU 5822 | Bored By C. Jenkins
SEC. 1-3 | STA. _ | Checked By T. Bratt
COUNTY Rock Island | Boring No. B-586 | Sta 380 + 35 | O/S 58' Rt CL
Surf Wat El. _ | Groundwater El. _ at Compl Wash | At _ Hrs _

DEPTH	N	Qu t/sf	W %	DEPTH	N	Qu t/sf	W %
Ground Surface 0							
VERY SOFT brown SILTY LOAM	0.2	36					
	P						
First Encounter V -25							
SOFT brown SILTY LOAM	2	0.3	30				
	1	B					
	2						
LOOSE tan fine to medium grained SAND -5	1						
	2						
	3						
MEDIUM tan coarse grained SAND	2			-30			
	4						
	7						
-15							
Same as above	3						
	7						
	4						
Begin Wash				-35			
VERY DENSE gray/black SHALE	6						
	24						
	50						
-12							
VERY DENSE black SHALE	100/11" PEN						
VERY DENSE gray/black SHALE with hard gray SILT lense	100/3" PEN			-40			
-20							
Auger Refusal							
next column							

M-Std Pentr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	293
STA.	TO STA.			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

BORING LOGS

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Two Materials
S. Moline Twp. - Sec. 18 - T17N, R1W

Units English
Bridge Foundation
Boring Log

Sh. 1 of 1
Date 07/12/95

PROJECT P92-096-84 BRIDGE Milan Beltway Extension, 1.5 miles East of Blackhawk State Park
ROUTE FAU 5822 Bored By C. Jenkins
SEC. 1-3 STA. _____ Checked By T. Bratt
COUNTY Rock Island

Boring No. B-7&8
S&a 379 + 60
O/S 17' Rt CL

Surf Wat El. _____
Groundwater El. at Compl Wash
At _____ Hrs _____

DEPTH	N	Qu t/sf	W %		DEPTH	N	Qu t/sf	W %
Ground Surface 561.2	0							
VERY SOFT brown SILTY LOAM		0.2 P	43					
				VERY DENSE gray/black SHALE		100/8" PEN		
First Encounter ▽					-25			
SOFT brown SILTY LOAM	1 1 1	0.3 B	41	Tri-cone to 35'				
	2							
LOOSE dirty gray coarse grained SAND with ORGANICS	1 1 3							
Same as above	1 2 2				-30			
	4							
LOOSE tan coarse grained SAND	2 3 7							
Begin Wash					-35			
VERY DENSE black SHALE	28 40 22			1st 5' Core Run 100% Recovery Black shale				
Same as above	16 18 38							
Same as above	100/6" PEN			2nd 5' Core Run 100% Recovery Black shale	-40			
VERY DENSE gray SHALE	100/7" PEN							
				END OF BORING	-45			

N-Std Penetr Test: 2⅜ OD Sampler, 140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

Illinois Department of Transportation

Sh.1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Rock River Date 4/1/87
ROUTE FAU 5822 Milan Beltway Bored By ETI
SEC. 1-3 STA. 366+00± Checked By CB
COUNTY _____

Boring No. R-1
Station 366+00±
Offset 40'R

Surface Water El. 559.7
Groundwater El. at Completion N/A
After ____ Hours ____

Elevation	N	Qu t/s.f.	w (%)		Elevation	N	Qu t/s.f.	w (%)
Ground Surface Barge Deck 561.3	0				CLAY SHALE (cont)			
▼ 559.7					538.0			
WATER					Boring Terminated at 23.0'.			
557.7					-25			
SILTY: trace sand; greenish gray; very loose/soft -5	2							
	4				Rock Core 13.5' to 23.5' -30			
A-6 552.8					RUN #1 13.5' to 18.5'			
SAND: brown and gray; medium dense -10	15				Recovery = 90% RQD = 90%			
					RUN #2 18.5' to 23.5'			
A-3 548.8	15				Recovery = 92% RQD = 84%			
CLAY SHALE: dark gray to gray; soft; fissile					-35			
-15	76							
					-40			
-20								
					-45			

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

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Illinois Department of Transportation

Sh.1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Rock River Date 4/1/87
ROUTE FAU 5822 Milan Beltway Bored By ETI
SEC. 1-3 STA. 366+05± Checked By CB
COUNTY _____

Boring No. R-2
Station 366+05±
Offset 40'L

Surface Water El. 559.7
Groundwater El. at Completion N/A
After ____ Hours ____

Elevation	N	Qu t/s.f.	w (%)		Elevation	N	Qu t/s.f.	w (%)
Ground Surface Barge Deck 561.3	0							
▼ 559.7								
WATER								
557.6					-25			
SILT: greenish gray; very loose/soft -5	2							
	2				Rock Core 13.5' to 18.5'			
A-4 551.8					Recovery = 92% RQD = 68%			
SAND: fine-to medium grained; medium dense -10	6				-30			
A-3 548.8	35							
SILTY SHALE: dark gray; fissile	327/6"				-35			
-15								
543.3					-40			
ARGILLACEOUS SANDSTONE 542.8								
Boring Terminated at 18.5'. -20					-45			

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

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CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	294
STA.		TO STA.		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

BORING LOGS

Illinois Department of Transportation

Sh.1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Rock River Date 3/31/87

ROUTE FAU 5822 Milan Beltway Bored By ETI

SEC. 1-3 STA. 367+30 Checked By CB

COUNTY

Boring No. R-3
Station 367+30
Offset 40'R

Surface Water El. 559.7
Groundwater El. at Completion N/A
After _ Hours

Ground Surface	Elevation	N	Qu t/s.f.	w (%)
Barge Deck	561.3	0		
▼ WATER	559.7			
	-5			
	-10			
SAND: brown; very loose	551.3	1		
		2		
	-15			
GRAVEL: dense A-1-b	546.3	7		
	545.8	68		
SILTY SHALE: dark gray; fissile				
	-20			
Boring Terminated at 22.0'.	539.3			
	-25			
	-30			
	-35			
	-40			
	-45			

Rock Core 17.0' to 22.0'.

Recovery = 88%
RQD = 88%

N-Standard Penetration Test- Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

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Illinois Department of Transportation

Sh.1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Rock River Date 3/31/87

ROUTE FAU 5822 Milan Beltway Bored By ETI

SEC. 1-3 STA. 367+50 Checked By CB

COUNTY

Boring No. R-4
Station 367+50
Offset 40'L

Surface Water El. 559.7
Groundwater El. at Completion N/A
After _ Hours

Ground Surface	Elevation	N	Qu t/s.f.	w (%)
Barge Deck	561.3	0		
▼ WATER	559.8			
	-5			
	-10			
SAND: fine, brown; very loose	551.5	2		
		2		
A-3	546.3	6		
	-15			
CLAY SHALE: dark gray to black; fissile		35		
	541.0			
	-20			
SILTY SHALE: gray/green; thin, chaotic bedding				
few limestone bands	537.5			
	-25			
SILTY SHALE: dark gray; fissile; few carbonaceous partings	534.8			
Boring Terminated at 26.5'.				
	-30			
	-35			
	-40			
	-45			

Rock Core 16.5' to 26.5'.

RUN #1 16.5' to 21.5'
Recovery = 90%
RQD = 70%

RUN #2 21.5' to 26.5'
Recovery =100%
RQD = 70%

N-Standard Penetration Test- Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

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Illinois Department of Transportation

Sh.1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Rock River Date 3/30/87

ROUTE FAU 5822 Milan Beltway Bored By ETI

SEC. 1-3 STA. 369+95 Checked By CB

COUNTY

Boring No. R-5
Station 368+95
Offset 40'R

Surface Water El. 559.7
Groundwater El. at Completion N/A
After _ Hours

Ground Surface	Elevation	N	Qu t/s.f.	w (%)
Barge Deck	561.3	0		
▼ WATER	559.7			
	-5			
	-10			
SAND: brown and gray; very loose	551.3	1		
		2		
grades medium dense	-15	4		
	545.3			
		13		
CLAY SHALE: dark gray; fissile few calcareous inclusions below 18.0'		60		
	540.5			
	-20			
LIMESTONE: few shaley inclusions	540.1			
SILTY SHALE: gray/green; thin, chaotic bedding	538.0			
	-25			
SILTY SHALE: gray; thinly bedded	535.3			
Boring Terminated at 26.0'.				
	-30			
	-35			
	-40			
	-45			

Rock Core 17.0' to 26.0'.

RUN #1 17.0' to 22.0'.
Recovery = 80%
RQD = 46%

RUN #2 22.0' to 26.0'.
Recovery =100%
RQD = 70%

N-Standard Penetration Test- Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

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CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	295
STA.		TO STA.		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

BORING LOGS

Illinois Department of Transportation

Sh.1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Rock River Date 3/30/87

ROUTE FAU 5822 Milan Beltway Bored By ETI

SEC. 1-3 STA. 369+10± Checked By CB

COUNTY

Boring No. R-6
Station 369+10±
Offset 40'L

Surface Water El. 559.7
Groundwater El. at Completion N/A
After ____ Hours

Elevation	N	Qu t/s.f.	w (%)
Ground Surface Barge Deck 561.3	0		
▼ 559.7			
WATER			
551.0	-10		
SAND: fine to coarse; very loose		1	
		2	
	-15	3	
		12	
544.3			
SANDSTONE: w/calcareous bands; weathered 543.3		43	
SILTY SHALE: gray to dark gray fissile w/few calcareous bands	-20		

Elevation	N	Qu t/s.f.	w (%)
SILTY SHALE (cont)			
538.3			
Boring Terminated at 23.0'.			
Rock Core 18.0' to 23.0'.	-25		
Recovery = 50% RQD = 20%	-30		
	-35		
	-40		
	-45		

N-Standard Penetration Test- Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

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Illinois Department of Transportation

Sh.1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Rock River Date 3/27/87

ROUTE FAU 5822 Milan Beltway Bored By ETI

SEC. 1-3 STA. 370+60± Checked By CB

COUNTY

Boring No. R-7
Station 370+60±
Offset 40'R

Surface Water El. 559.6
Groundwater El. at Completion N/A
After ____ Hours

Elevation	N	Qu t/s.f.	w (%)
Ground Surface Barge Deck 561.2	0		
▼ 559.6			
WATER			
551.5	-10		
SAND: brown to gray; very loose some shells		2	
		3	
A-3 546.2	-15	9	
SHALE: soft; gray BEGIN CORING @ 16'		35	
545.2			
SANDSTONE: greenish/gray; weathered 544.4 gravel band @ 16.8'			
interbedded ARGILLACEOUS SANDSTONE & LIMESTONE: soft; gray/green; poorly bedded; 540.2	-20		
Boring Terminated at 21.0'.			

Elevation	N	Qu t/s.f.	w (%)
Rock Core 16.0' to 21.0'.	-25		
Recovery =100% RQD = 70%	-30		
	-35		
	-40		
	-45		

N-Standard Penetration Test- Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

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Illinois Department of Transportation

Sh.1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Rock River Date 3/27/87

ROUTE FAU 5822 Milan Beltway Bored By ETI

SEC. 1-3 STA. 570+65± Checked By CB

COUNTY

Boring No. R-8
Station 570+65±
Offset 40'L

Surface Water El. 559.6
Groundwater El. at Completion N/A
After ____ Hours

Elevation	N	Qu t/s.f.	w (%)
Ground Surface Barge Deck 561.2	0		
▼ 559.6			
WATER			
551.7	-10	4	
SAND: brown; loose		8	
A-3 548.2		25	
SANDY SHALE: soft & poorly indurated; greenish/gray; indistinct bedding	-15	60/6"	
grades silty partly washed away during drilling few thin limestone bands below 18.0'			
541.7			
LIMESTONE: hard; light gray to gray; chaotic bedding; numerous fractures are near vertical & partly open & healed	-20		

Elevation	N	Qu t/s.f.	w (%)
LIMESTONE (cont)			
grades darker gray & vuggular below 22.0' w/calcite & pyrite infilling	-25		
534.2			
Boring Terminated at 27.0'.	-30		
Rock Core 16.0' to 27.0'.			
RUN #1 15.0' to 19.0'.			
Recovery = 50% RQD = 22%			
RUN #2 19.0' to 22.0'.	-35		
Recovery = 70% RQD = 47%			
RUN #3 22.0' to 27.0'.			
Recovery = 80% RQD = 56%	-40		
	-45		

N-Standard Penetration Test- Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

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CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	296
STA.		TO STA.		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

BORING LOGS

Illinois Department of Transportation

Sh.1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Rock River Date 3/26/87

ROUTE FAU 5822 Milan Beltway Bored By ETI

SEC. 1-3 STA. 372+20± Checked By CB

COUNTY

Boring No. R-9
Station 372+20±
Offset 40'R

Surface Water El. 559.6
Groundwater El. at Completion N/A
After ___ Hours

Ground Surface	Barge Deck 561.2	Elevation	N	Qu t/s.f.	w (%)
▼	559.6				
WATER					
	552.3	-10			
SAND: brown; loose			2		
grades gray below 10.0'			2		
A-3	548.7		17		
SAND AND GRAVEL: medium dense			60/6"		
A-1-b	547.7	-15			
BEGIN CORING @ 15.0'.					
CLAY SHALE: dark gray to black; soft; fissile		-20			

CLAY SHALE (cont)	536.7	-25
Boring Terminated at 24.5'.		
Rock Core 15.0' to 24.5'.		-30
RUN #1 15.0' to 20.0'.		
Recovery = 84%		
RQD = 50%		
RUN #2 20.0'		
Recovery = 98%		-35
RQD = 72%		
		-40
		-45

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

Illinois Department of Transportation

Sh.1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Rock River Date 3/24/87

ROUTE FAU 5822 Milan Beltway Bored By ETI

SEC. 1-3 STA. 372+35± Checked By CB

COUNTY

Boring No. R-10
Station 372+35±
Offset 40'L

Surface Water El. 559.6
Groundwater El. at Completion N/A
After ___ Hours

Ground Surface	Barge Deck 561.2	Elevation	N	Qu t/s.f.	w (%)
▼	559.6				
WATER					
	553.0	-10			
SAND: brown; very loose			1		
grades loose		-10	1		
A-3	548.2		6		
SAND AND GRAVEL: gray			61		
A-1-b	546.7	-15	33		
BEGIN CORING @ 16.5'.					
CLAY SHALE: gray; soft; fissile		-20			
few sandy laminae					
3" Limestone band @ 17.5'					
	539.7				
Boring Terminated at 21.5'					

Rock Core 16.5' to 21.5'.	-25
Recovery = 72%	
RQD = 30%	-30
	-35
	-40
	-45

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

Illinois Department of Transportation

Sh.1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Rock River Date 3/25/87

ROUTE FAU 5822 Milan Beltway Bored By ETI

SEC. 1-3 STA. 373+90± Checked By CB

COUNTY

Boring No. R-11
Station 373+90±
Offset 40'R

Surface Water El. 559.6
Groundwater El. at Completion N/A
After ___ Hours

Ground Surface	Barge Deck 561.2	Elevation	N	Qu t/s.f.	w (%)
▼	559.6				
WATER					
	554.7	-10			
SILT: dark gray; very soft			1		
A-4	553.7				
SAND: trace shells; gray; loose to medium dense;		-10	7		
little gravel below 12.5'			10		
A-3	547.5		37		
BEGIN CORING @ 15.0'		-15			
CLAY SHALE: dark gray; soft; fissile					
	541.2	-20			
Boring Terminated at 20.0'.					

Rock Core 15.0' to 20.0'.	-25
Recovery = 90%	
RQD = 90%	-30
	-35
	-40
	-45

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	297
STA.		TO STA.		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

BORING LOGS

Illinois Department of Transportation

Sh.1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Rock River Date 3/23/87

ROUTE FAU 5822 Milan Beltway Bored By ETI

SEC. 1-3 STA. 374+00± Checked By CB

COUNTY

Boring No. R-12
Station 374+00±
Offset 40'L

Surface Water El. 559.6
Groundwater El. at Completion N/A
After – Hours –

Elevation	N	Qu t/s.f.	w (%)
Ground Surface Barge Deck 561.2	0		
▼ 559.6			
WATER			
555.7	-5		
SAND: gray; loose to medium dense	6		
	10		
grades greenish gray			
	-10 8		
grades coarse			
A-3 549.2			
SAND & GRAVEL: gray; medium dense to extremely dense (angular limestone A-1-b gravel) 545.7	14		
	-15 100		
BEGIN CORING at 17.0'	47		
CLAY SHALE: dark gray; soft; fissile			
	-20		
CLAY SHALE (cont.)			
534.7	-25		
Boring Terminated at 26.5' (See Boring R12A for Continuation to 35.5')			
	-30		
Rock Core 17.0' to 26.5'			
RUN #1 17.0' to 22.0'			
Recovery = 84%			
RQD = 70%			
RUN #2 22.0' to 26.5'			
Recovery = 70%			
RQD = 30%	-35		
	-40		
	-45		

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

Illinois Department of Transportation

Sh.1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Rock River Date 4/1/87

ROUTE FAU 5822 Milan Beltway Bored By ETI

SEC. 1-3 STA. 374+00± Checked By CB

COUNTY

Boring No. R-12A
Station 374+00±
Offset 40'L

Surface Water El. 559.7
Groundwater El. at Completion N/A
After – Hours –

Elevation	N	Qu t/s.f.	w (%)
Ground Surface Barge Deck 561.3	0		
▼ 559.7			
WATER			
555.8	-5		
(NOT SAMPLED SEE R-12 for Soil & Rock Description to 26.5')			
	-10		
	-15		
	-20		
534.8	-25		
CLAY SHALE: dark gray; soft; fissile			
	-30		
325.8	-35		
Boring Terminated at 35.5'			
Rock Core 26.5' to 35.5'			
RUN #1 26.5' to 31.5'			
Recovery = 84%			
RQD = 64%			
RUN #2 31.5' to 35.5'			
Recovery = 50%			
RQD = 36%	-40		
	-45		

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

Illinois Department of Transportation

Sh.1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Rock River Date 4/2/87

ROUTE FAU 5822 Milan Beltway Bored By ETI

SEC. 1-3 STA. 375+50± Checked By CB

COUNTY

Boring No. R-13
Station 375+50±
Offset 50'R

Surface Water El. 559.7
Groundwater El. at Completion 559.9
After – Hours –

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 560.7	0		
▼			
MUCK: trace vegetation; dark brown & gray; very soft	2		
	3		
few sand lenses below 4.0'			
	2		
grades more clayey below 6.5'			
	-5 2		
	3		
A-8/A-4 533.2	2		
SAND: some silt; gray; loose	9		
grades trace silt below 9.0'	-10 8		
	11		
trace gravel below 11.0'			
A-3 547.7	24		
SHALE: dark gray 546.7	111		
Boring Terminated at 14.0'	-15		
	-20		
	-25		
	-30		
	-35		
	-40		
	-45		

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	298
STA.		TO STA.		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

BORING LOGS

Illinois Department of Transportation

Sh.1 of 1Sh.

PROJECT P-92-096-84 BRIDGE Rock River Date 4/2/87

ROUTE FAU 5822 Milan Beltway Bored By ETI

SEC. 1-3 STA. 375+55 Checked By CB

COUNTY

Boring No. R-14
Station 375+55
Offset 50.L

Surface Water El. 559.7
Groundwater El. at Completion 560.5
After – Hours –

Description	Elevation	N	Qu t/s.f.	w (%)
Ground Surface 560.7	0			
MUCK: trace vegetation; dark brown & gray; very soft		1		
little sand below 3.5'		2		
	-5	3		
A-8/A-4 555.7		2		
SILTY & SAND: laminated; dark gray; very loose		3		
A-4 & A-3 553.7		7		
SAND: some silt; brown & gray; loose		10		
A-3 552.7	-10	9		
SAND: gray; loose to medium dense		11		
A-3		46		
trace gravel below 11.0'		71		
A-1-b 547.7				
SHALE: dark gray; weathered; soft 546.7	-15			
Boring Terminated at 14.0'				
	-20			
	-35			
	-40			
	-45			

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

Illinois Department of Transportation

Sh.1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Rock River Date 3/23/87

ROUTE FAU 5822 Milan Beltway Bored By ETI

SEC. 1-3 STA. 376+95 Checked By CB

COUNTY Rock Island

Boring No. R-15
Station 376+95
Offset 38'R

Surface Water El. 559.6
Groundwater El. at Completion N/A
After – Hours –

Description	Elevation	N	Qu t/s.f.	w (%)
Ground Surface Barge Deck 561.2	0			
559.6				
WATER 558.2				
SILT: trace clay, sand, & shells: dark gray to black; loose		2		
grades more clay below 7.0'	-5			
		2		
A-4 552.7				
SAND: fine to medium grained; gray; medium dense	-10	12		
trace fine gravel below 11.0'		10		
		19		
A-3 548.2				
SAND & GRAVEL: very dense		60		
A-1-b 546.7	-15	18		
CLAY SHALE: dark gray; fissile; few soft zones				
BEGIN CORING at 17.5'		38		
Thin beds and soft zones separated during coring	-20			
538.7				
Boring Terminated at 22.5'				

Rock Core 17.5' to 22.5'

Recovery = 76%
RQD est. = <50%

Elevation
-25
-30
-35
-40
-45

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

Illinois Department of Transportation

Sh.1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Rock River Date 3/19/87

ROUTE FAU 5822 Milan Beltway Bored By ETI

SEC. 1-3 STA. 376+97 Checked By CB

COUNTY Rock Island

Boring No. R-16
Station 376+97
Offset 41'L

Surface Water El. 559.5
Groundwater El. at Completion N/A
After – Hours –

Description	Elevation	N	Qu t/s.f.	w (%)
Ground Surface Barge Deck 561.0	0			
559.4				
WATER 558.0				
SILT: trace clay, organics, gravel; dark gray to black; loose	-5	1		
A-4 555.0				
SAND: trace clay, organics, & shells; gray; very loose		3		
some silt & organics layers	-10	2		
A-3 549.0				
SAND: medium grained; gray; trace fine gravel; loose		3		
	-15	9		
A-3 544.0				
CLAY SHALE: dark gray to black		91		
		60/7"		
	-20			
	-35			
	-40			
	-45			

Cored 19.6' to 26.5' with poor recovery

Moved rig to boring R-16A & recorded 534.5

Boring Terminated at 26.5'

MOVED HOLE AND RECORDED SEE LOG R-16A FOR DESCRIPTION

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	299
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BORING LOGS

Illinois Department of Transportation

Sh.1 of 1 Sh.

PROJECT P-92-096-84 BRIDGE Rock River Date 3/19/87

ROUTE FAU 5822 Milan Beltway Bored By ETI

SEC. 1-3 STA. 376+97 Checked By CB

COUNTY

Boring No. R-16A
Station 376+95
Offset 46'L

Surface Water El. 559.5
Groundwater El. at Completion N/A
After - Hours -

Elevation	N	Qu t/s.f.	w (%)
Ground Surface Barge Deck 561.0	0			
▼ 559.4				
WATER 358.0				
NO SAMPLING	-5			
SEE BORING R-16 FOR DESCRIPTION				
	-10			
544.0				
CLAY SHALE: dark gray; fissile				
BEGIN CORING 18.0'	-15			
	-20			

Elevation	N	Qu t/s.f.	w (%)
CLAY SHALE (cont.)			
	-25		
531.5			
Boring Terminated at 29.5'	-30		
Rock Core 18.0' to 29.5'			
RUN #1 18.0' to 21.5'			
Recovery = 94% RQD = 83%			
RUN #2 21.5' to 24.5'	-35		
Recovery = 87% RQD = 83%			
RUN #3 24.5' to 29.5'			
Recovery = 100% RQD = 70%	-40		
	-45		

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

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Illinois Department of Transportation

Sh. 1 of 1 Sh.

PROJECT P-92-096-84 Date 12/12/86

ROUTE FAU 5822 Milan Beltway Bored By D & G Drilling, Inc.

SEC. 1-3 STA. 362+80 Checked By JZ/CB

COUNTY Rock Island

Boring No. B-43
Station 362+80
Offset CL

Surface Water El.
Groundwater El. at Completion 561.4
After Hours

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 563.4	0			
SAND: brown; medium dense to loose				
▼	13			
trace fine gravel below 4.0'	-5	9			
A-3 556.4				
ANGULAR GRAVEL & SAND: brown; medium dense		32		
A-1-a 554.4				
CLAY SHALE: dark gray to black; fine laminae 553.4	-10	51		
Boring Terminated @ 10.0'.				
	-15			
	-20			

Elevation	N	Qu t/s.f.	w (%)
	-25		
	-30		
	-35		
	-40		
	-45		

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

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Illinois Department of Transportation

Sh. 1 of 1 Sh.

PROJECT P-92-096-84 Date 12-20-86

ROUTE FAU 5822 Milan Beltway Bored By D & G Drilling, Inc.

SEC. 1-3 STA. 380+00 Checked By JZ/CB

COUNTY Rock Island

Boring No. B-48
Station 380+00
Offset CL

Surface Water El. 562.5
Groundwater El. at Completion 562.5
After Hours

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 562.5 ▼	0			
SILTY CLAY LOAM: dark gray; very soft; trace organics (no odor)		2	<.25 P	43
	-5	3	<.25 P	28
A-7-6 557.0				
SAND: light gray/brown; loose		5		22
A-3 554.5				
SAND: trace gravel; brown/gray; loose	-10	5		20
		6		22
	-15	9		14
A-3 545.5		86/10"		15
CLAY SHALE: black; fissile Thin Laminae 542.2				
Boring Terminated @ 17.3'	-20			

Elevation	N	Qu t/s.f.	w (%)
	-25		
	-30		
	-35		
	-40		
	-45		

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

7-63

CONTRACT NO. 64647

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-3-K	ROCK ISLAND	476	300
STA.	TO STA.			
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

BORING LOGS

Illinois Department of Transportation

Sh. 1 of 1 Sh.

PROJECT P-92-096-84 Date 12-20-86

ROUTE FAU 5822 Milan Beltway Bored By D & G Drilling, Inc.

SEC. 1-3 STA. 382+00 Checked By JZ/CB

COUNTY Rock Island

Boring No. B-49
Station 382+00
Offset @ CL

Surface Water El. 563.5
Groundwater El. at Completion 563.5
After _ Hours

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 563.5			
SILTY CLAY LOAM: dark gray; stiff	4	1.6 B	29
	5	1.2 B	29
A-7-6 557.5			
SAND: brown; loose; some clayey lenses A-3 555.5	4		21
SAND/SANDY LOAM: gray and brown layered; loose	8		35
	65		7
A-3 to A-4 550.0			
CLAY SHALE: black; Fissile-Thinly Laminated; few Limestone Partings 548.5	64		15
Boring Terminated @ 15.0'.			

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

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Illinois Department of Transportation

Sh. 1 of 1 Sh.

PROJECT P-92-096-84 Date 12-20-86

ROUTE FAU 5822 Milan Beltway Bored By D & G Drilling, Inc.

SEC. 1-3 STA. 384+00 Checked By JZ/CB

COUNTY Rock Island

Boring No. B-50
Station 384+00
Offset CL

Surface Water El. 564.5*
Groundwater El. at Completion 564.2
After _ Hours

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 564.5			
SILTY CLAY LOAM: dark gray; medium stiff	4		28
	8	1.0 B	30
A-7-6 558.3			
SILTY CLAY LOAM: brown and gray mottled	3	0.6 B	31
A-6 555.5			
SAND: gray/brown; loose	6		20
A-3 554.0			
CLAY SHALE: black	59		13
552.0			
Boring Terminated @ 12.5'.			

* Standing water in ruts of plowed field

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

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Illinois Department of Transportation

Sh. 1 of 1 Sh.

PROJECT P-92-096-84 Date 12-19-86

ROUTE FAU 5822 Milan Beltway Bored By D & G Drilling, Inc.

SEC. 1-3 STA. 386+00 Checked By JZ/CB

COUNTY Rock Island

Boring No. B-51
Station 386+00
Offset 50' L

Surface Water El. N/A
Groundwater El. at Completion 564.0
After _ Hours

Elevation	N	Qu t/s.f.	w (%)
Ground Surface 565.2			
SILTY CLAY LOAM TOPSOIL A-7-6 563.7			
SILTY CLAY LOAM: brown/gray; soft; wet		<.25 P	30
			29
A-6(12) 559.2			
Boring Terminated @ 6.0'.			

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

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

BD 137 (Rev. 4-78)

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