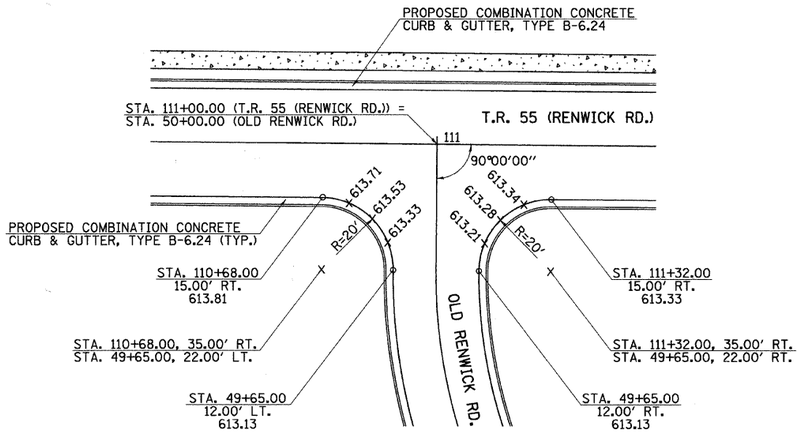

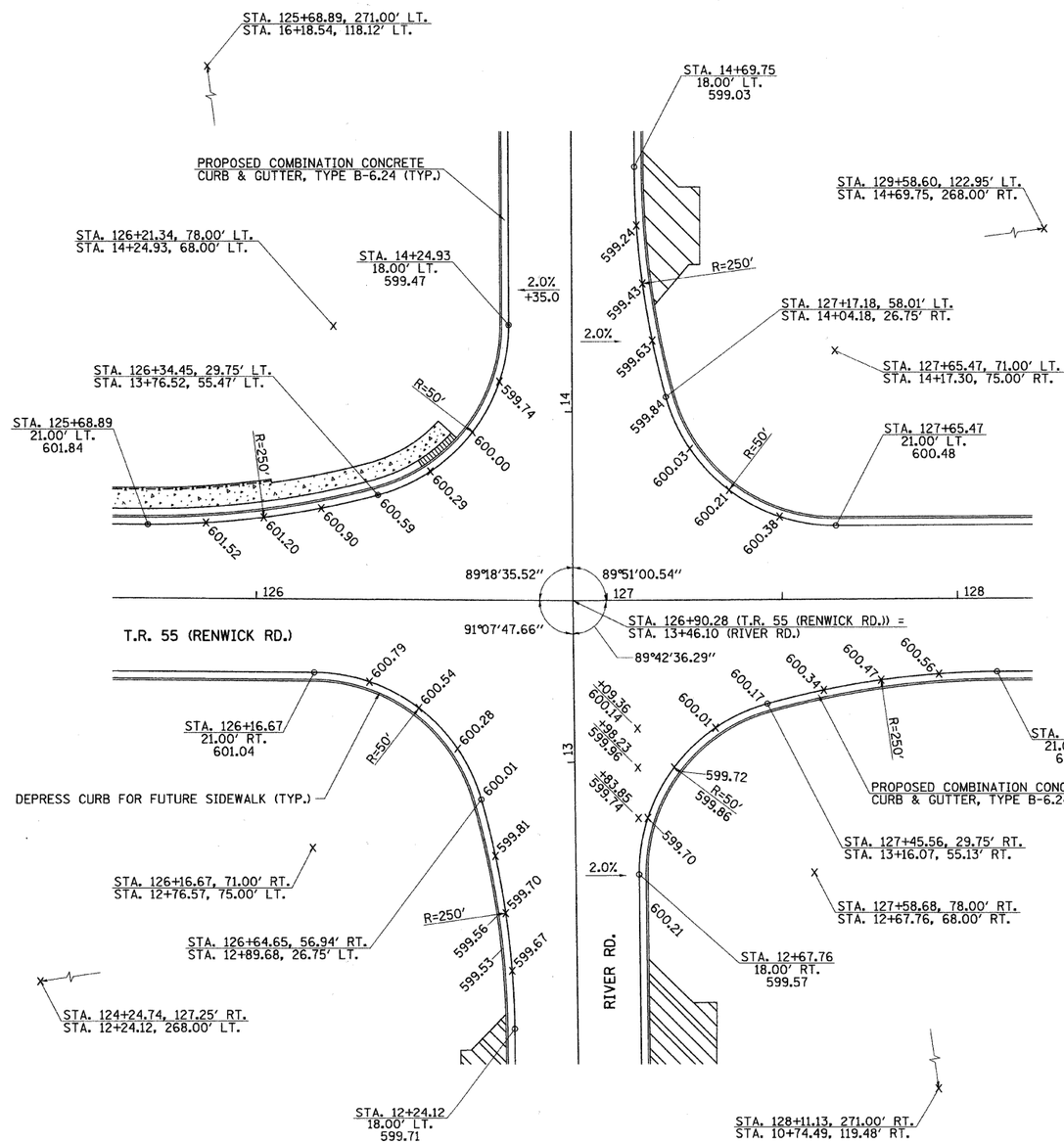

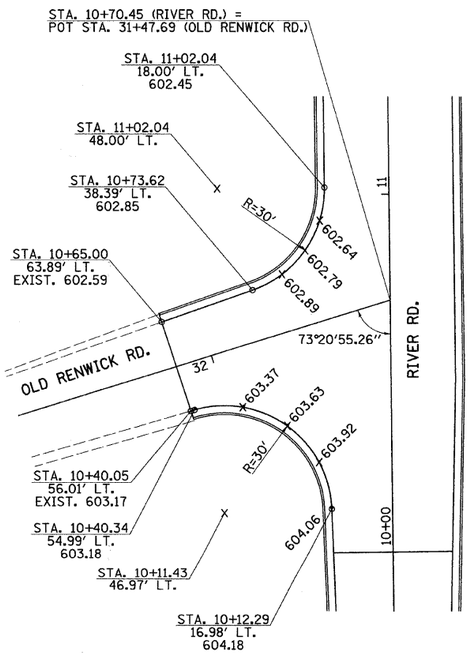

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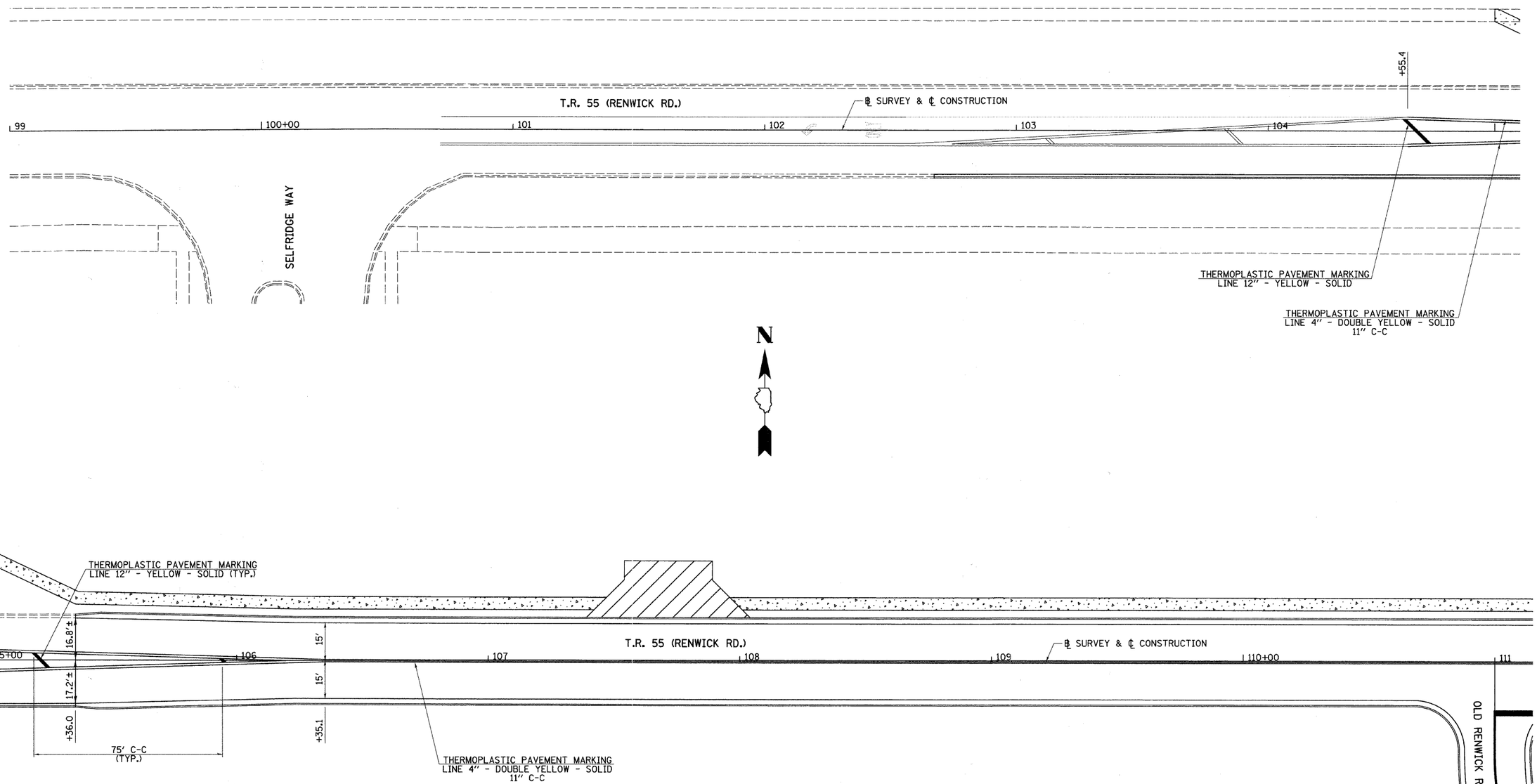
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R 55 (RENWICK RD.) OLD RENWICK RD. & RIVER RD.
INTERSECTION DETAILS

SCALE: 1"=20' | SHEET NO. 1 OF 1 SHEETS | STA. N/A | TO STA. N/A

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	101
		CONTRACT NO. 83126		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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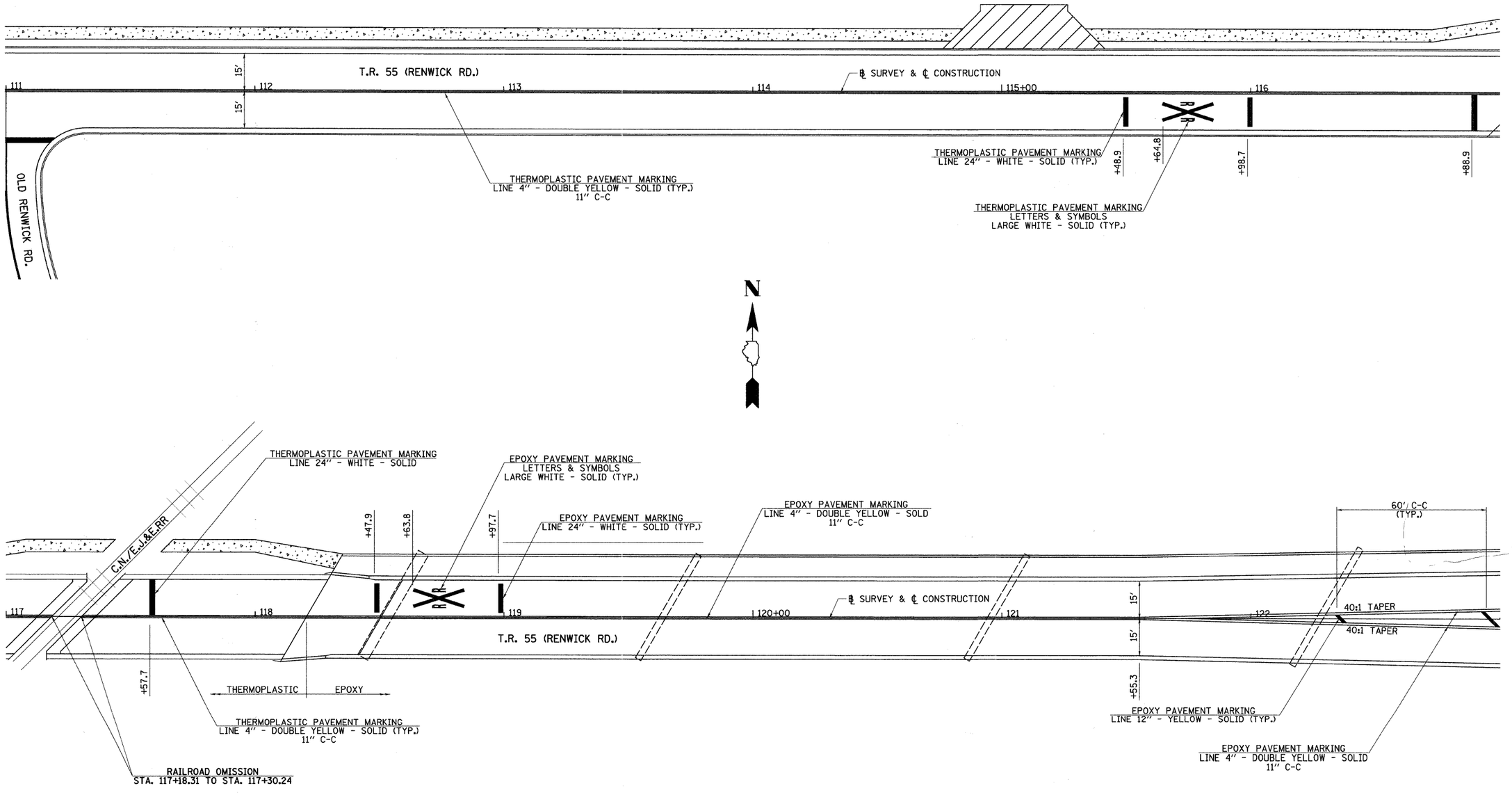
	PLOT DATE = 5/10/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 55 (RENWICK RD.) PAVEMENT MARKING PLAN

SCALE: 1"=20' | SHEET NO. 1 OF 3 SHEETS | STA. 99+00 | TO STA. 111+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	102
		CONTRACT NO. 83126		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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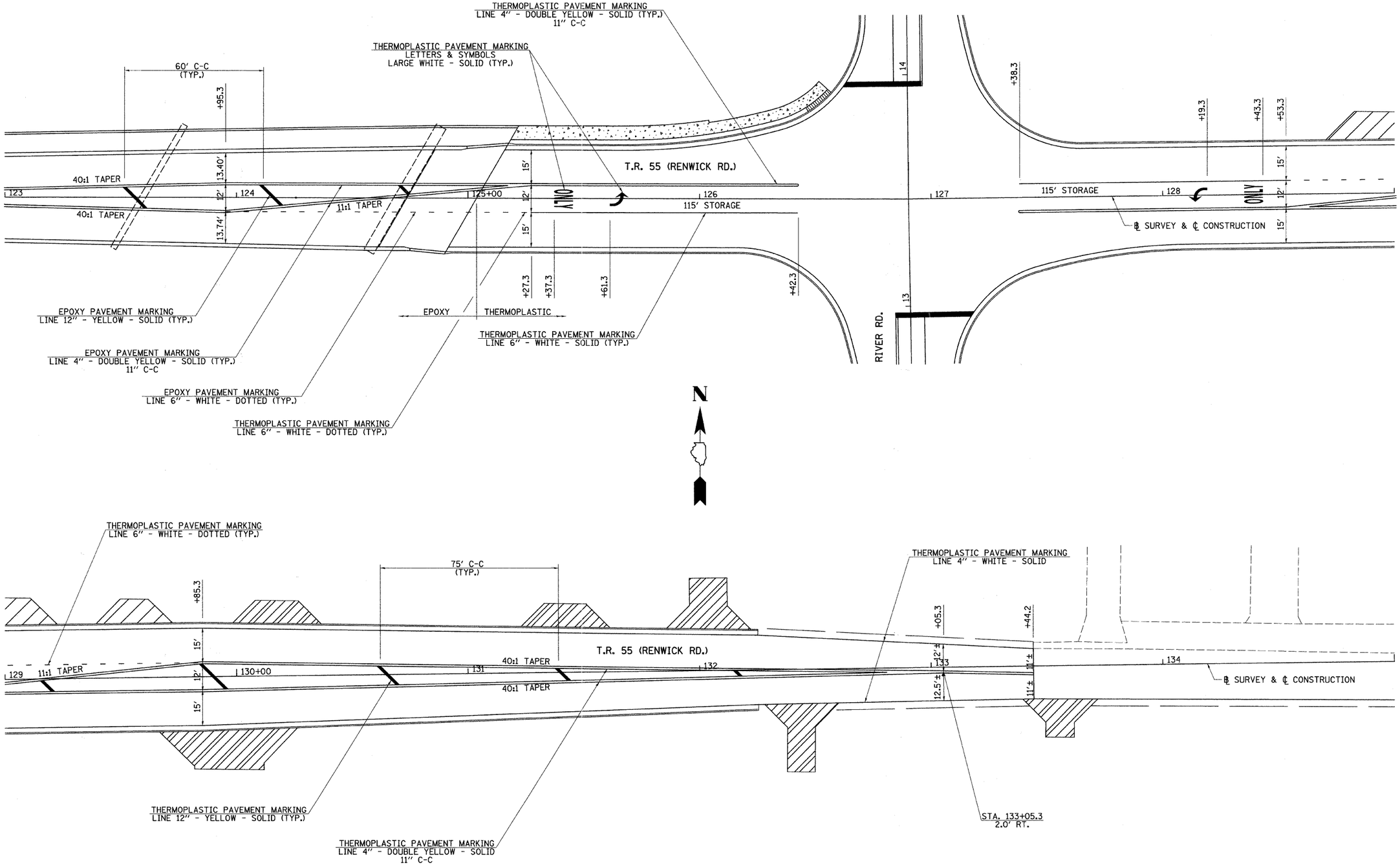
	PLOT DATE = 5/10/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 55 (RENWICK RD.) PAVEMENT MARKING PLAN

SCALE: 1"=20' | SHEET NO. 2 OF 3 SHEETS | STA. 111+00 | TO STA. 123+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	103
		CONTRACT NO. 83126		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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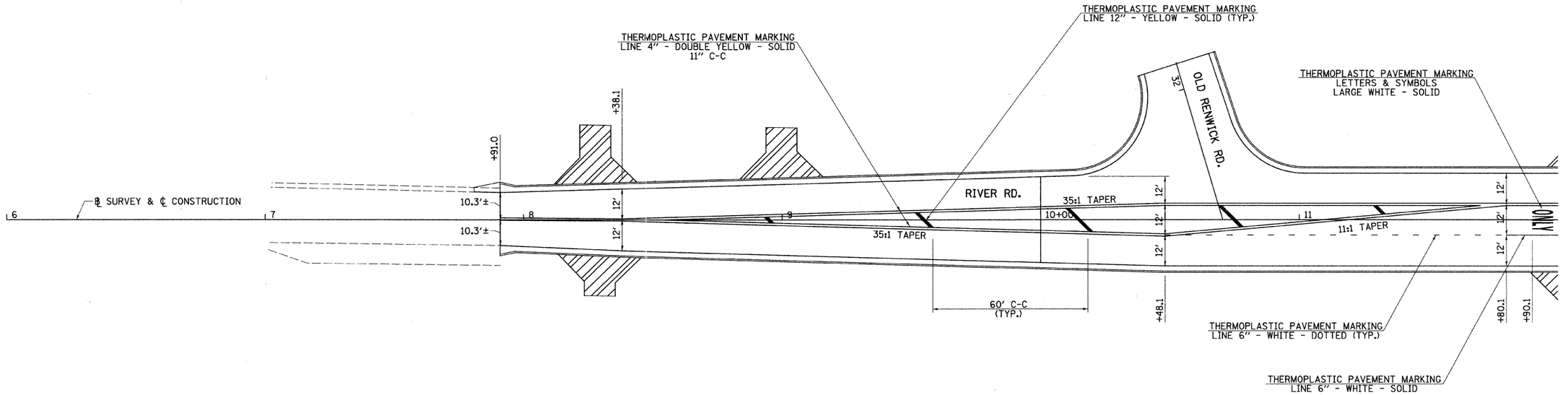
	PLOT DATE = 5/10/2011	DATE -	REVISED -

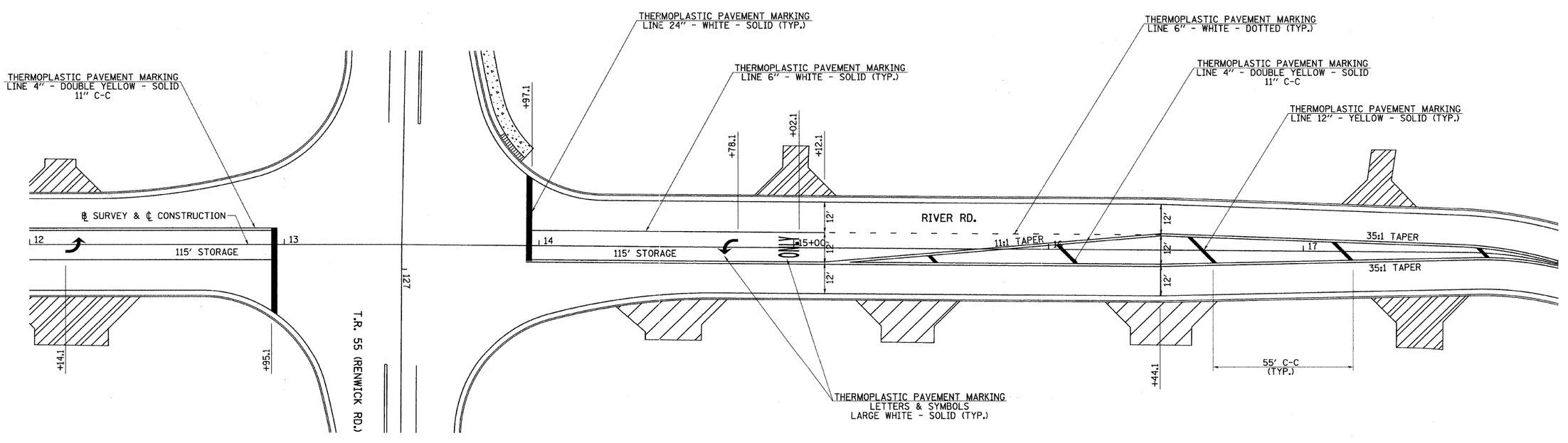
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 55 (RENWICK RD.) PAVEMENT MARKING PLAN

SCALE: 1"=20' | SHEET NO. 3 OF 3 SHEETS | STA. 123+00 | TO STA. 135+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	104
		CONTRACT NO. 83126		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





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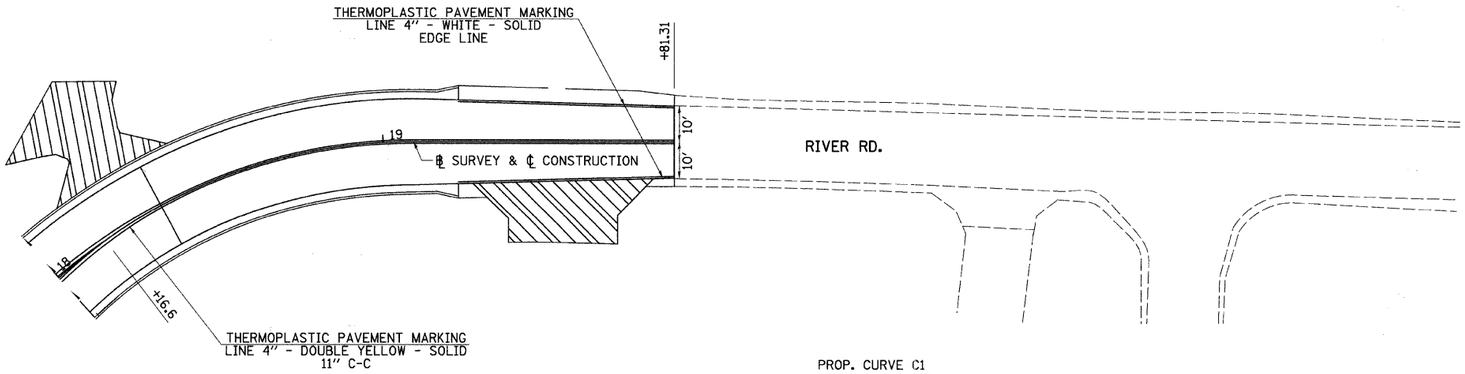
	PLOT DATE = 5/10/2011	DATE -	REVISED -

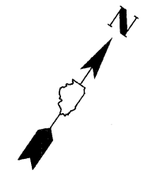
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIVER RD. PAVEMENT MARKING PLAN

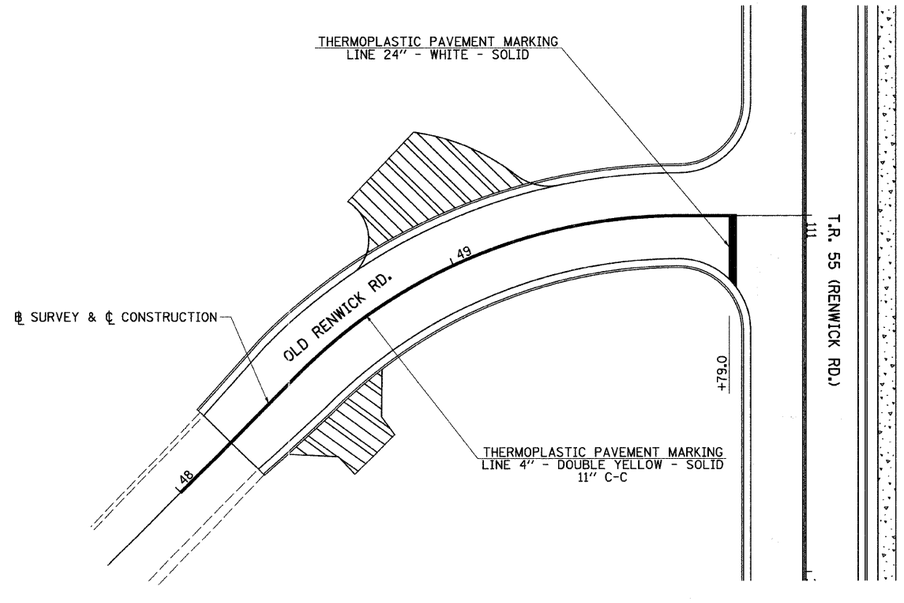
SCALE: 1"=20' | SHEET NO. 1 OF 2 SHEETS | STA. 6+00 | TO STA. 18+00

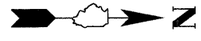
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	105
		CONTRACT NO. 83126		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





PROP. CURVE C1
PI STA. 18+42.35
Δ = 55° 54′ 07″ (RT)
D = 38° 52′ 15″
R = 147.40′
T = 78.21′
L = 143.81′
E = 19.47′
e = 4.00%
P.C. STA. 17+64.14
P.T. STA. 19+07.96





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	PLOT DATE = 5/10/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIVER RD. & OLD RENWICK RD. PAVEMENT MARKING PLAN

SCALE: 1"=20' | SHEET NO. 2 OF 2 SHEETS | STA. 18+00 | TO STA. 19+81.31

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	106
		CONTRACT NO. 83126		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR55	90-16103-01-BR	WILL	255	107
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 83126

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANTITY
80400100	ELECTRIC SERVICE INSTALLATION	EACH	2
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L. SUM	1
81000700	CONDUIT IN TRENCH, 2½" DIA GALVANIZED STEEL	FOOT	115
81021370	CONDUIT PUSHED, 4" DIA PVC	FOOT	488
81702460	ELECTRIC CABLE IN CONDUIT 600 V (XLP-TYPE USE) 3-1/C NO. 3/0	FOOT	200
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	150
82102400	LUMINAIRE, SODIUM VAPOR HORIZONTAL MOUNT, 400 WATT	EACH	4
82500505	LIGHTING CONTROLLER, SPECIAL	EACH	2
83050760	LIGHT POLE, ALUMINUM, 47 ½ FT M.H., 8 FT MAST ARM	EACH	4
83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	250
83600215	LIGHT POLE FOUNDATION, 24" DIAMETER, OFFSET	FOOT	28
83800205	BREAKAWAY DEVICE TRANSFORMER BASE 15" BOLT CIRCLE	EACH	4
XX008283	POLYETHYLENE DUCT BORED AND PULLED, 1¼" DIA WITH ELECTRIC CABLE, 600 V (XHHW-2), 5-1/C NO.6 AND 1-1/C NO.6 GROUND	FOOT	1500
X0326654	ORNAMENTAL LIGHT UNIT COMPLETE	EACH	40
	ELECTRIC CABLE IN CONDUIT 600 V (XHHW-2) 7-1/C NO.6 1/C NO. 6 GROUND	FOOT	850
	POLYETHYLENE DUCT BORED AND PULLED, 1¼" DIA WITH ELECTRIC CABLE, 600 V (XHHW-2), 2-1/C NO.6 AND 1-1/C NO.6 GROUND	FOOT	2250
	POLYETHYLENE DUCT BORED AND PULLED, 1½" DIA WITH ELECTRIC CABLE, 600 V (XHHW-2), 7-1/C NO.6 AND 1-1/C NO.6 GROUND	FOOT	1800

ORNAMENTAL LIGHTING UNIT COMPLETE

POLE HEIGHT	STEEL MAST ARM	FESTOON-OUTLET 20A GFI	LUMINAIRE 200W HPS	QUANTITY
24'-3"	6 FT	YES	YES	19
24'-3"	6 FT	NO	YES	15
21'-6"	6 FT	YES	YES	6
			TOTAL	40 EACH

GROUND ROD:

THE CONTRACTOR SHALL FURNISH AND INSTALL AS IDENTIFIED ON THE PROJECT PLANS GROUNDING ROD WITH THE FOLLOWING APPLICABLE PAY ITEMS.

1. #836 - LIGHT POLE FOUNDATION
2. #825 - LIGHTING CONTROLLER
3. #814 - HANDHOLE
4. #813 - JUNCTION BOX
5. #804 - ELECTRIC SERVICE INSTALLATION
6. #830 - LIGHT POLE WOOD

THE GROUNDING ROD DIAMETER AND LENGTH IS NOTED ON THE PROJECT PLANS. THE GROUNDING ROD SHALL CONFORM TO THE ARTICLE #1087.01 (b) OF THE STANDARD SPECIFICATIONS.

THIS ITEM SHALL ALSO INCLUDE BARE COPPER GROUNING ELECTRODE CONDUCTOT (SIZE AS SHOWN ON THE PLAN) AND MECHANICAL GROUND CLAMP (UL LISTED) AND/OR EXOTHERMIC WELD CONNECTION FOR CONTINUOAS GROUNDING (NEC ARTICLE #250) FOR ELECTRIC POWER SERVICE AND SYSTEM EQUIPMENT.

THE GROUNDING ROD SHALL BE INSTALLED AS SHOWN IN THE CONTRACT PLANS AND AS DIRECTED BY THE ENGINEER. MATERIAL COST OF GROUNDING ROD WITH ATTACHED APPURTENANCES AND LABOR COST FOR INSTALLATION SHALL NOT BE PAID SEPARATELY BUT SHALL BE INCLUDED WITH THE ABOVE ASSOCIATED PAY ITEMS.

GENERAL NOTES

1. THE PROPOSED LIGHTING IMPROVEMENT SHALL BE COORDINATED WITH THE ENGINEER. THE CONTRACTOR SHALL GIVE IN WRITING TO THE ENGINEER FOR REVIEW, CONSTRUCTION STAGING FOR THE PROPOSED ROADWAY LIGHTING IMPROVEMENT AND THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE ENGINEER.
2. BELOW GROUND SPLICING OF THE UNIT DUCT AND CIRCUIT CABLES WILL NOT BE PERMITED.
3. WHERE SEPARATE CIRCUIT RUNS ARE TO BE INSTALLED PARALLEL WITH EACH OTHER, ONE COMMON TRENCH SHALL BE USED AND SHALL BE MEASURED ONLY ONCE FOR PAYMENT, AS TRENCH AND BACKFILL FOR ELECTRICAL WORK.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MARK THE PROPOSED LOCATIONS OF HIGHWAY LIGHTING SYSTEM PER SECTION 801.09 OF THE STANDARD SPECIFICATIONS FOR THE ENGINEER'S INSPECTION AND APPROVAL. THE EXACT LOCATIONS OF ALL OTHER ROADWAY LIGHTING ITEMS, INCLUDING THE LIGHTING CONTROLLER(S), SHALL BE CONFIRMED WITH THE ENGINEER PRIOR TO STARTING WORK.
5. THE RESPONSIBILITY FOR COORDINATING FINISHED GRADE ELEVATION WITH THE TOP THE FOUNDATION HEIGHTS SHALL BE WITH THE CONTRACTOR.
6. THE CONTRACTOR SHALL SUBMIT PER SECTION 801.05 OF THE STANDARD SPECIFICATIONS FOR THE ENGINEER APPROVAL, WITHIN 30 DAYS AFTER CONTRACT EXECUTION, EIGHT (8) COPIES OF APPROVABLE MANUFACTURER'S/PRODUCT DATA AND DETAIL SHOP DRAWINGS TO THE ATTENTION OF MR. STEPHEN TRAVIA BUREAU OF TRAFFIC DISTRICT #1, ILLINOIS DEPARTMENT OF TRANSPORTATION, 201 WEST CENTER COURT, SCHAUMBURG, IL. 60196, AND TO THE PLAINFIELD TOWNSHIP HIGHWAY DEPARTMENT ENGINEER THE SUBMITTAL SHALL INCLUDE;

   a. TRENCH: ELECTRICAL WARNING TAPE
   b. FOUNDATION: CLASS "SI" CONCRETE, REINFORCEMENT, PVC RACEWAYS. ANCHOR BOLTS WITH NUTS & WASHERS.
   c. CONDUIT: CONDUIT AND CONDUIT FITTINGS/
   d. GROUND ROD: GROUND ROD, COPPER WIRE, EXOTHERMIC WELD.
   e. UNIT DUCT/CABLES: UNIT DUCT, CABLES
   f. ELECTRIC CABLES: ELECTRIC CABLES
   g. ELECTRICAL ITEMS: ELECTRIC TAPES, QUICK DISCONNECT WITH FUSE, LAMPS.
7. ALL ELECTRIC CABLE CIRCUIT SHALL BE FULLY PIGMENTED COLOR CODED AND TAGGED AS SHOWN ON THE DRAWINGS.
   RED/BLACK - CIRCUIT PHASE WIRES
   WHITE - NEUTRAL.
   GREEN - GROUND
8. THE CONTRACTOR SHALL SUBMIT FOUR (4) SETS, OF RECORD DRAWINGS FULL SIZE COMPLETE, NEAT AND ACCURATE TO THE ENGINEER FOR REVIEW AND COMMENT, AS SPECIFIED PER SECTION 801.16 OF THE STANDARD SPECIFICATIONS. THE "RECORD DRAWINGS" SHALL BE UPDATED ON A REGULAR BASIS AND DEPICT ALL ROADWAY LIGHTING MATERIAL INSTALLATIONS WITH ANY CHANGES INDICATED IN RED. "RECORD DRAWINGS" SHALL BE SUBMITTED AT LEAST 7 DAYS BEFORE SCHEDULING A FINAL INSPECTION.
9. THE CONTRACTOR SHALL NOTIFY J.U.L.I.E. AT (1-800-892-0123) TO LOCATE AND MARK/STAKE ALL UNDERGROUND UTILITIES.
10. ~~RESTORATION OF PARKWAY AND PROJECT SITE SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS, AND THE STANDARD SPECIFICATIONS.~~
11. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES.
12. THE PROPOSED TRENCH SHALL BE 30 INCHES BELOW FINISHED GRADE, PER SECTION 819 OF THE STANDARD SPECIFICATIONS.
13. ALL ELECTRICAL EQUIPMENT AND PRODUCT SHALL BE UL LISTED AND LABELED.
14. POLE FUSES AND FUSE HOLDERS ASSOCIATED HARDWARE/MATERIAL AND INSTALLATION SHALL BE INCLUDED IN THE LUMINAIRE PAY ITEM.
15. THE ENGINEER WILL NOT AUTHORIZE PARTIAL ACCEPTANCE OF THE PROJECT. FINAL INSPECTION AND ACCEPTANCE OF THE PROJECT WILL ONLY BE PERMITTED PER SECTION 801.15 OF THE STANDARD SPECIFICATIONS.
16. POLYETHYLENE DUCT WITH ELECTRIC CABLE (XLP-TYPE USE) SHALL MEET THE REQUIREMENTS OF THE ARTICLE 816 OF THE STANDARD SPECIFICATIONS.
17. PVC CONDUIT SHALL BE SCHEDULE 80 AND SHALL MEET THE REQUIREMENTS ARTICLE 1088.01 (b) OF THE STANDARD SPECIFICATIONS.
18. PENDENT MOUNT LUMINAIRE SHALL BE FURNISHED AND INSTALLED WITH LAMP GRIP RETAINER.

CAUTION

"THE CONTRACTOR SHALL VERIFY THAT THERE ARE NO CONFLICTS BETWEEN THE PROPOSED LIGHT POLE FOUNDATION LOCATIONS AND EXISTING UTILITIES, PROPOSED UTILITIES, EXISTING DRIVEWAYS, AND PROPOSED DRIVEWAYS. IF A CONFLICT IS FOUND, THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ENGINEER IN WRITING. IN THE EVENT OF A CONFLICT, THE CONTRACTOR SHALL OBTAIN WRITTEN INSTRUCTIONS FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY THE CONFLICT. FAILING TO SECURE SUCH INSTRUCTIONS, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE."

LEGEND

- UTILITY SERVICE POLE, POLE TOP MOUNTED TRANSFORMER
- SERVICE CABLE IN CONDUIT, 600V (XLP-TYPE USE), 3-1/C NO. 3/0
- LIGHTING CONTROLLER SPECIAL, 200 AMPERE, 120/240 VOLT, 1 PHASE 3 WIRE
- PROPOSED LIGHT POLE, ALUMINUM 47.5 FT. MOUNTING HEIGHT, 8 FT. MAST ARM 15" DIA BOLT CIRCLE. LUMINAIRE 400 WATT CLEAR HPS M.C. III 240 VOLT (LINE TO LINE) BALLAST CWA TYPE POLE MOUNTED ON BREAKAWAY TRANSFORMER BASE. RECESSED FESTOON OUTLET
- PROPOSED ORNAMENTAL LIGHT POLE, STEEL- TAPER AND FLUTED, CAST ALUMINUM DECORATIVE SPLIT BASE, 26 FT. MOUNTING HEIGHT, 6 FT. CONTEMPORARY MAST ARM. 12½" DIA BOLT CIRCLE. LUMINAIRE PENDENT MOUNT SODIUM VAPOR CLEAR LAMP, HORIZONTAL MOUNT 200 WATT. BALLAST CWA TYPE, 240 V, RECESSED FESTOON OUTLET
- LIGHT POLE MOUNTED ON A BRIDGE PARAPET WALL. PROPOSED ORNAMENTAL LIGHT POLE, STEEL- TAPER AND FLUTED, CAST ALUMINUM DECORATIVE SPLIT BASE, 21½ FT. HEIGHT, 6 FT. CONTEMPORARY MAST ARM. 12½" DIA BOLT CIRCLE. LUMINAIRE PENDENT MOUNT SODIUM VAPOR CLEAR LAMP, HORIZONTAL MOUNT 200 WATT. BALLAST CWA TYPE, 240 V, RECESSED FESTOON OUTLET
- PROPOSED ORNAMENTAL LIGHT POLE, STEEL- TAPER AND FLUTED, CAST ALUMINUM DECORATIVE SPLIT BASE, 26 FT. MOUNTING HEIGHT, 6 FT. CONTEMPORARY MAST ARM. 12½" DIA BOLT CIRCLE. LUMINAIRE PENDENT MOUNT SODIUM VAPOR CLEAR LAMP, HORIZONTAL MOUNT 200 WATT. BALLAST CWA TYPE, 240 V
- T/P, DIA x L — CONDUIT IN TRENCH (T) OR PUSHED (P) PVC SCHEDULE 80 DIAMETER x LENGTH
- PROPOSED UNIT DUCT WITH ELECTRICAL CABLE, 600 V (XHHW-2). DIAMETER OF UNIT DUCT AND SIZE / NUMBER OF CONDUCTORS AS SHOWN ON THE PLAN DETAILS
- GROUND ROD, ⅝" DIA. x 10 FT.
- J — PROPOSED JUNCTION BOX STAINLESS STEEL EMBEDDED IN STRUCTURE 18" x 12" X 8"

STA X+XX — STATION FOR POLE LOCATION
A31 (R-B) / F3 (O)
- CIRCUIT WIRE COLOR FOR FESTOON OUTLET
- FESTOON NUMBER IN CIRCUIT
- BRANCH CIRCUIT BREAKER FOR FESTOON OUTLET
- CIRCUIT WIRE COLOR FOR LIGHTING
- POLE NUMBER IN CIRCUIT
- BRANCH CIRCUIT BREAKER IDENTIFICATION

- Ⓡ — REMOVE (BY OTHERS)

NOTE:

1. THE MATERIALS AND WORK FOR THIS PROJECT SHALL CONFORM TO THE LATEST N.E.C. AND APPLICABLE STANDARD SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS ISSUED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

REVISED 2-27-10

Sunjoy Inc. Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

ILLINOIS DEPARTMENT OF TRANSPORTATION
T.R. 55 (RENWICK RD.)
PLANFIELD TOWNSHIP, WILL COUNTY

SUMMARY OF QUANTITIES, GENERAL NOTES AND LEGEND

SCALE: NONE — DRAWN BY HKQ
DATE: OCT. 30, 2009 — CHECKED BY JS

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4/8/2010

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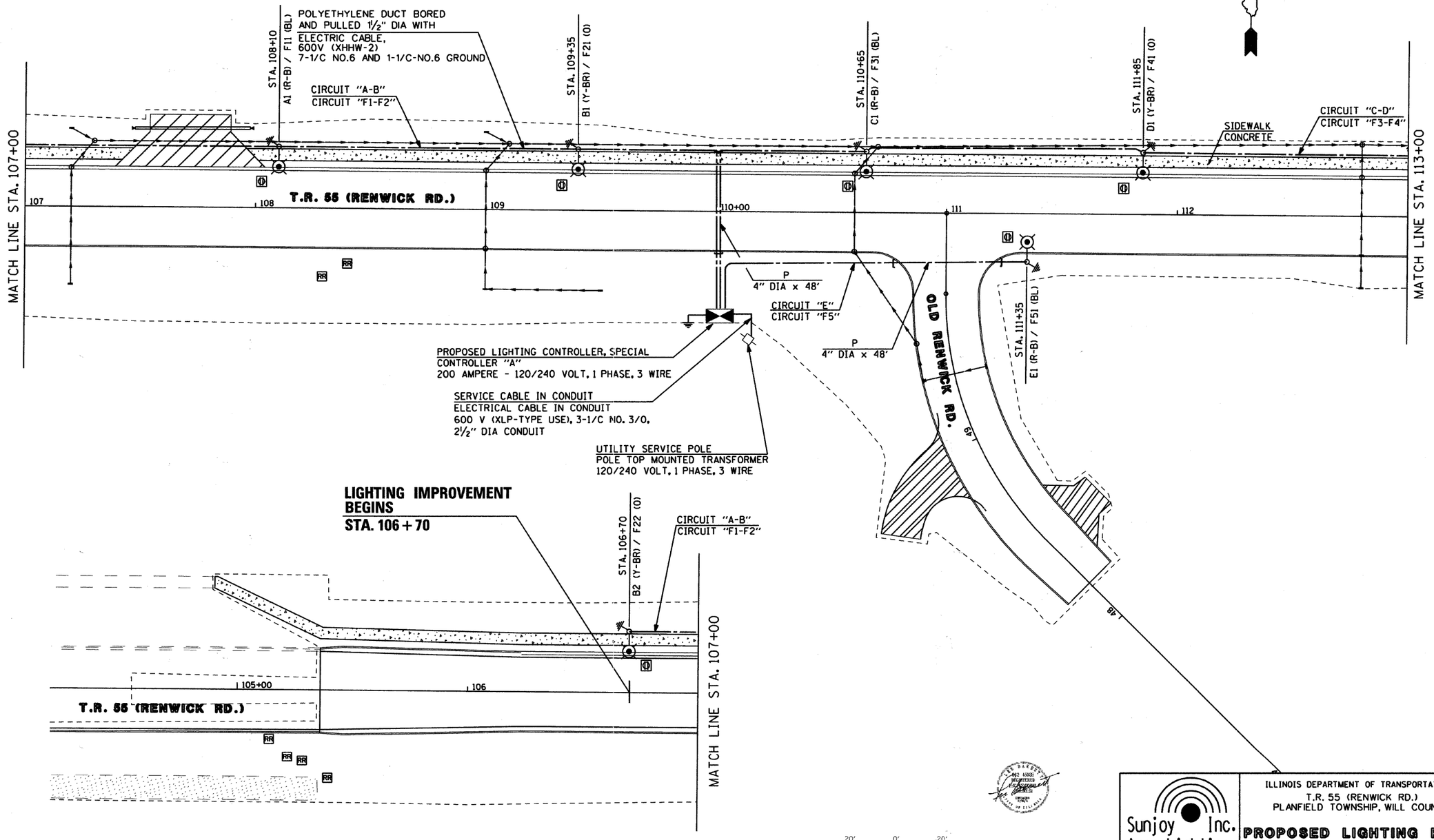
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR55	90-16103-01-BR	WILL	255	108
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 83126



REVISED 2-27-10

Sunjoy Inc.
Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

ILLINOIS DEPARTMENT OF TRANSPORTATION
T.R. 55 (RENWICK RD.)
PLANFIELD TOWNSHIP, WILL COUNTY

PROPOSED LIGHTING PLAN

SCALE: 1" - 20'
DRAWN BY HKQ
DATE: OCT. 30, 2009
CHECKED BY JS

E-2 OF E-17

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4/8/2010

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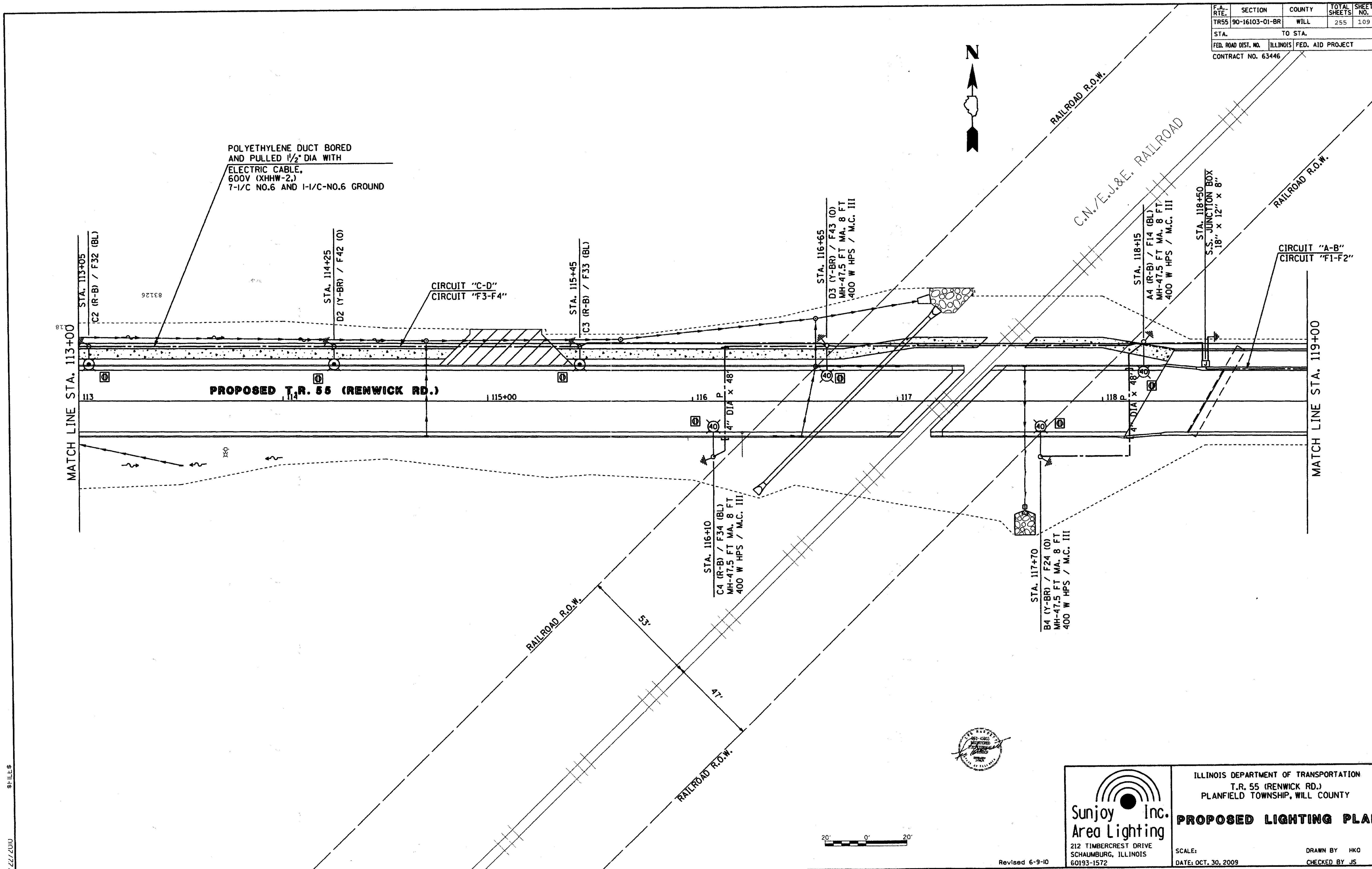
POLYETHYLENE DUCT BORED AND PULLED 1/2" DIA WITH ELECTRIC CABLE, 600V (XHHW-2,) 7-1/C NO.6 AND 1-1/C-NO.6 GROUND
STA. 113+05 C2 (R-B) / F32 (BL)
STA. 114+25 D2 (Y-BR) / F42 (O)
CIRCUIT "C-D"
CIRCUIT "F3-F4"
STA. 115+45 C3 (R-B) / F33 (BL)
STA. 116+65 D3 (Y-BR) / F43 (O) MH-47.5 FT MA. 8 FT 400 W HPS / M.C. III
STA. 118+15 A4 (R-B) / F14 (BL) MH-47.5 FT MA. 8 FT 400 W HPS / M.C. III
STA. 118+50 S.S. JUNCTION BOX 18" x 12" x 8"
CIRCUIT "A-B"
CIRCUIT "F1-F2"
RAILROAD R.O.W.
C.N./E.J.&E. RAILROAD
MATCH LINE STA. 113+00
MATCH LINE STA. 119+00
PROPOSED T.R. 55 (RENWICK RD.)
113
114
115+00
116
117
118
4" DIA x 48"
STA. 116+10 C4 (R-B) / F34 (BL) MH-47.5 FT MA. 8 FT 400 W HPS / M.C. III
STA. 117+70 B4 (Y-BR) / F24 (O) MH-47.5 FT MA. 8 FT 400 W HPS / M.C. III
53'
47'
20' 0' 20'
N

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR55	90-16103-01-BR	WILL	255	109
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 63446

Sunjoy Inc.
Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

Revised 6-9-10

ILLINOIS DEPARTMENT OF TRANSPORTATION
T.R. 55 (RENWICK RD.)
PLANFIELD TOWNSHIP, WILL COUNTY

PROPOSED LIGHTING PLAN

SCALE:
DRAWN BY HKQ
DATE: OCT. 30, 2009
CHECKED BY JS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR55	90-16103-01-BR	WILL	255	110
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 83126

N

DU PAGE RIVER

JUNCTION BOX TO JUNCTION BOX
ELECTRIC CABLE IN CONDUIT
600V (XHHW-2)
7-1/C NO.6 AND 1-1/C-NO.6 GROUND
CONDUIT EMBEDDED IN PARAPET

MATCH LINE STA. 119+00

STA. 119+55
B3 (Y-BR) / F23 (0)

STA. 120+90
A3 (R-B) / F13 (BL)

CIRCUIT "A-B"
CIRCUIT "F1-F2"

STA. 122+25
B2 (Y-BR) / F22 (0)

STA. 123+60
A2 (R-B) / F12 (BL)

STA. 124+90
B1 (Y-BR) / F21 (0)

STA. 124+95
S.S. JUNCTION BOX
18" x 12" x 8"

MATCH LINE STA. 125+00

119 | 120+00 | 121 | 122 | 123 | 124

PROPOSED T.R. 55 (RENWICK RD.)

CIRCUIT "D"
CIRCUIT "F5-F6"

ELECTRIC CABLE IN CONDUIT
600V (XHHW-2)
4-1/C NO.6 AND 1-1/C-NO.6 GROUND
CONDUIT EMBEDDED IN PARAPET

STA. 123+60
D3 (R-B) / F62 (0)

STA. 124+70
S.S. JUNCTION BOX
18" x 12" x 8"

STA. 124+90
D2 (R-B) / F51 (BL)

FLOW

20' 0' 20'

Sunjoy Inc.
Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

ILLINOIS DEPARTMENT OF TRANSPORTATION
T.R. 55 (RENWICK RD.)
PLANFIELD TOWNSHIP, WILL COUNTY

PROPOSED LIGHTING PLAN

SCALE:
DRAWN BY HKQ
DATE: OCT. 30, 2009
CHECKED BY JS

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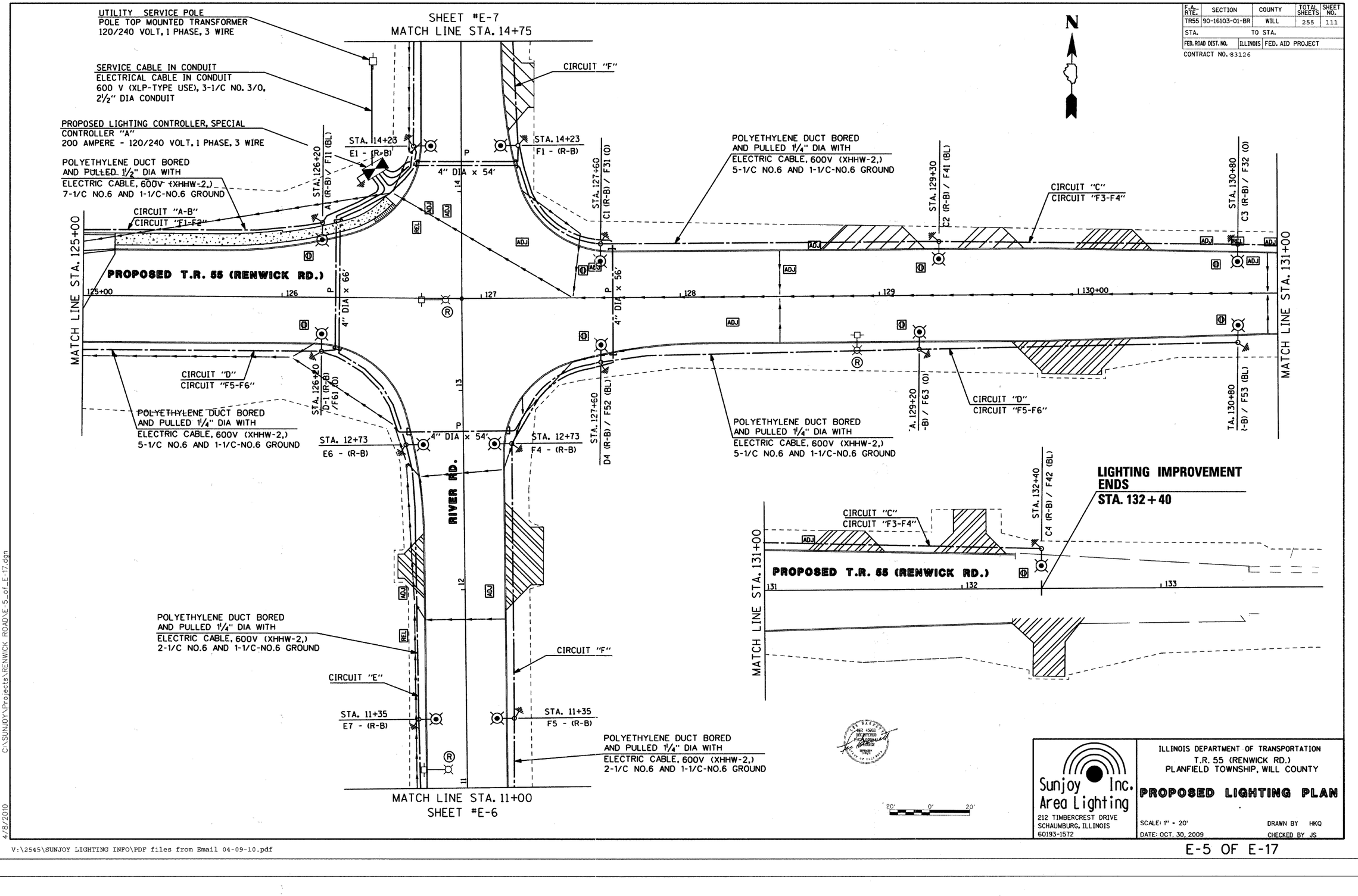
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR55	90-16103-01-BR	WILL	255	111
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 83126



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Sunjoy Inc.
Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

ILLINOIS DEPARTMENT OF TRANSPORTATION
T.R. 55 (RENWICK RD.)
PLANFIELD TOWNSHIP, WILL COUNTY

PROPOSED LIGHTING PLAN

SCALE: 1" = 20'
DRAWN BY HKQ
DATE: OCT. 30, 2009
CHECKED BY JS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR55	90-16103-01-BR	WILL	255	112
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 83126				

N

OLD RENWICK RD.

33'

POLYETHYLENE DUCT BORED
AND PULLED 1¼" DIA WITH
ELECTRIC CABLE,
600V (XHHW-2)
2-1/C NO.6 AND 1-1/C-NO.6 GROUND

CIRCUIT "E"

STA. 9+95
E8 - (R-B)

32'

ADJ

ADJ

4" DIA x 66'

RIVER RD.

6 7 8 9 10+00

ADJ

ADJ

MATCH LINE STA. 11+00
SHEET #E-4

STA. 8+55
F7 - (R-B)

STA. 9+95
F6 - (R-B)

CIRCUIT "F"

LIGHTING IMPROVEMENT BEGINS
STA. 8+55

POLYETHYLENE DUCT BORED
AND PULLED 1¼" DIA WITH
ELECTRIC CABLE,
600V (XHHW-2,)
2-1/C NO.6 AND 1-1/C-NO.6 GROUND

20' 0' 20'

Sunjoy Inc.
Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

ILLINOIS DEPARTMENT OF TRANSPORTATION
T.R. 55 (RENWICK RD.)
PLANFIELD TOWNSHIP, WILL COUNTY

PROPOSED LIGHTING PLAN

SCALE:
DATE: OCT. 30, 2009

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR55	90-16103-01-BR	WILL	255	113
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 83126

N

POLYETHYLENE DUCT BORED
AND PULLED 1¼" DIA WITH
ELECTRIC CABLE,
600V (XHHW-2)
2-1/C NO.6 AND 1-1/C-NO.6 GROUND

STA. 15+20
E2 - (R-B)

CIRCUIT "E"

STA. 16+70
E3 - (R-B)

STA. 18+00
E4 - (R-B)

SHEET #E-5
MATCH LINE STA. 14+75

15+00

16

17

18

19

STA. 19+20
E5 - (R-B)

CIRCUIT "F"

STA. 15+20
F2 - (R-B)

STA. 16+70
F3 - (R-B)

POLYETHYLENE DUCT BORED
AND PULLED 1¼" DIA WITH
ELECTRIC CABLE,
600V (XHHW-2)
2-1/C NO.6 AND 1-1/C-NO.6 GROUND

LIGHTING IMPROVEMENT ENDS
STA. 19+20

RIVER RD.

20' 0' 20'

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Sunjoy Inc.
Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

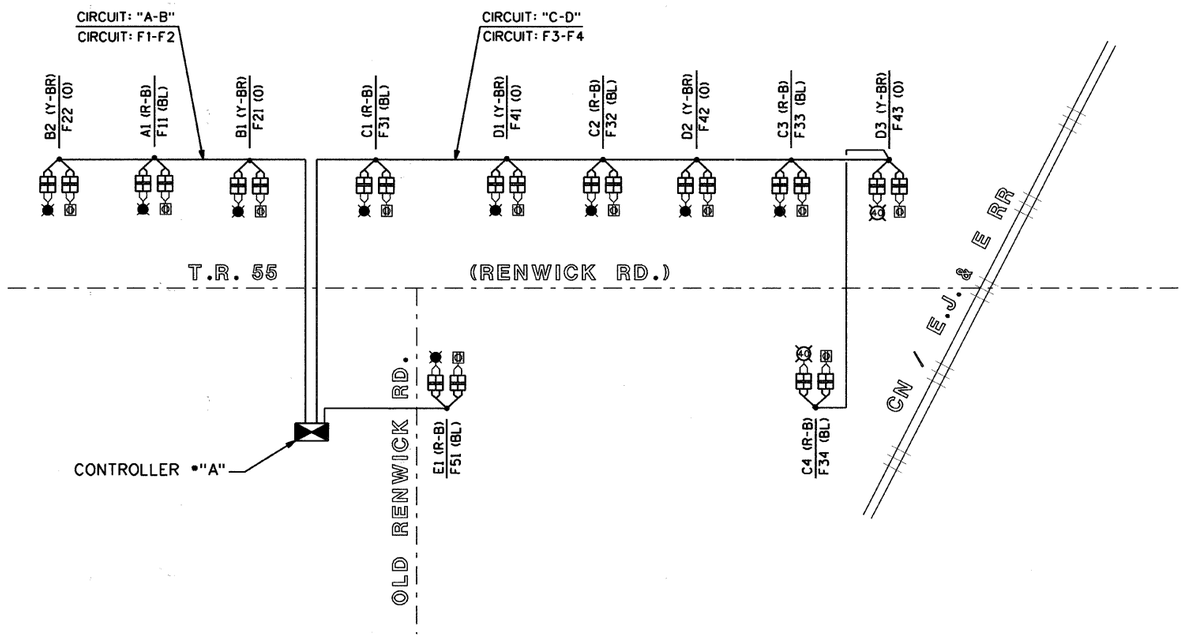
ILLINOIS DEPARTMENT OF TRANSPORTATION
T.R. 55 (RENWICK RD.)
PLANFIELD TOWNSHIP, WILL COUNTY

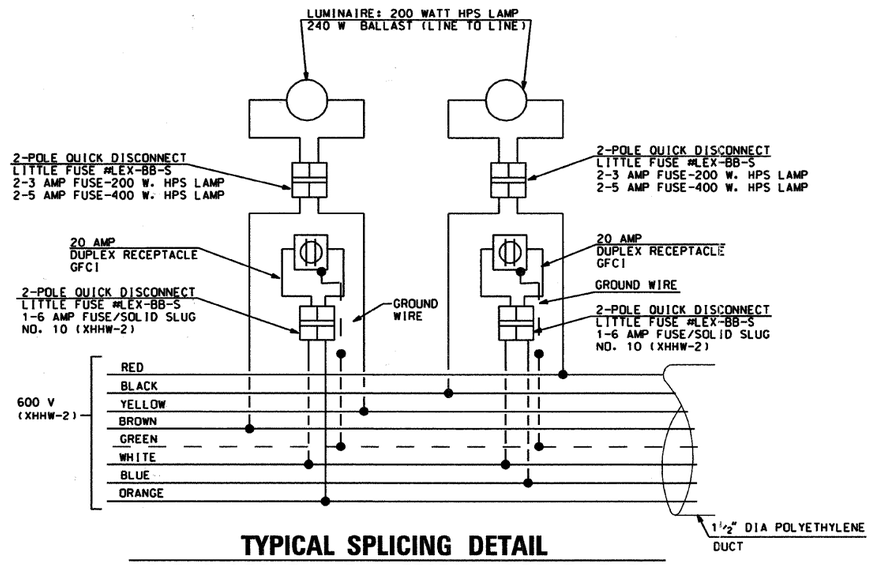
PROPOSED LIGHTING PLAN

SCALE:
DRAWN BY HKQ
DATE: OCT. 30, 2009
CHECKED BY JS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR55	90-16103-01-BR	WILL	255	114
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 83126





TYPICAL SPLICING DETAIL

LIGHTING CIRCUIT "A-B" / FESTOON CIRCUIT "F1-F2"
LIGHTING CIRCUIT "C-D" / FESTOON CIRCUIT "F3-F4"

SINGLE LINE LEGEND

- (40) LUMINAIRE, 400 W HPS LAMP
- LUMINAIRE, 200 W HPS LAMP
- FESTOON OUTLET
- 2 POLE DISCONNECT WITH FUSE
  2-5 AMPERE FUSE, 400 W HPS LAMP
  2-3 AMPERE FUSE, 200 W HPS LAMP
  1-6 AMPERE FUSE/, 1-SOLID SLUG, FESTOON OUTLET
- LIGHTING CONTROL CABINET
  200 AMPERE, 120/240 VOLT, 1 PHASE, 3 WIRE
- ——— POLYETHYLENE DUCT WITH CIRCUIT CABLE

CONTROLLER "A"

CIRCUIT LOAD

LIGHTING PANEL - 240 V (LINE TO LINE)			FESTOON PANEL - 120 V LINE TO NEUTRAL				
CIRCUIT	AMPERE	WATTS	CIRCUIT	AMPERE	WATTS	AMPERE	WATTS
A	1	238	F1	3	360		
B	2	476	F2			6	720
C	5	1,182	F3	12	1,440		
D	4	944	F4			9	1,080
E	1	238	F5	3	360	9	
SPARE							
TOTAL	13	3,078		18	2,160	15	1,800

CWA TYPE MULTITAP BALLAST, 10% VOLTAGE DROP
400 W HPS LAMP 2 AMPERE, 468 WATTS, 50,000 LUMENS
200 W HPS LAMP 1 AMPERE, 238 WATTS, 22,000 LUMENS

REVISED 2-27-10

Sunjoy Inc.
Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

ILLINOIS DEPARTMENT OF TRANSPORTATION
T.R. 55 (RENWICK RD.)
PLANFIELD TOWNSHIP, WILL COUNTY

ONE LINE CIRCUIT DIAGRAM CONTROLLER "A"

SCALE:
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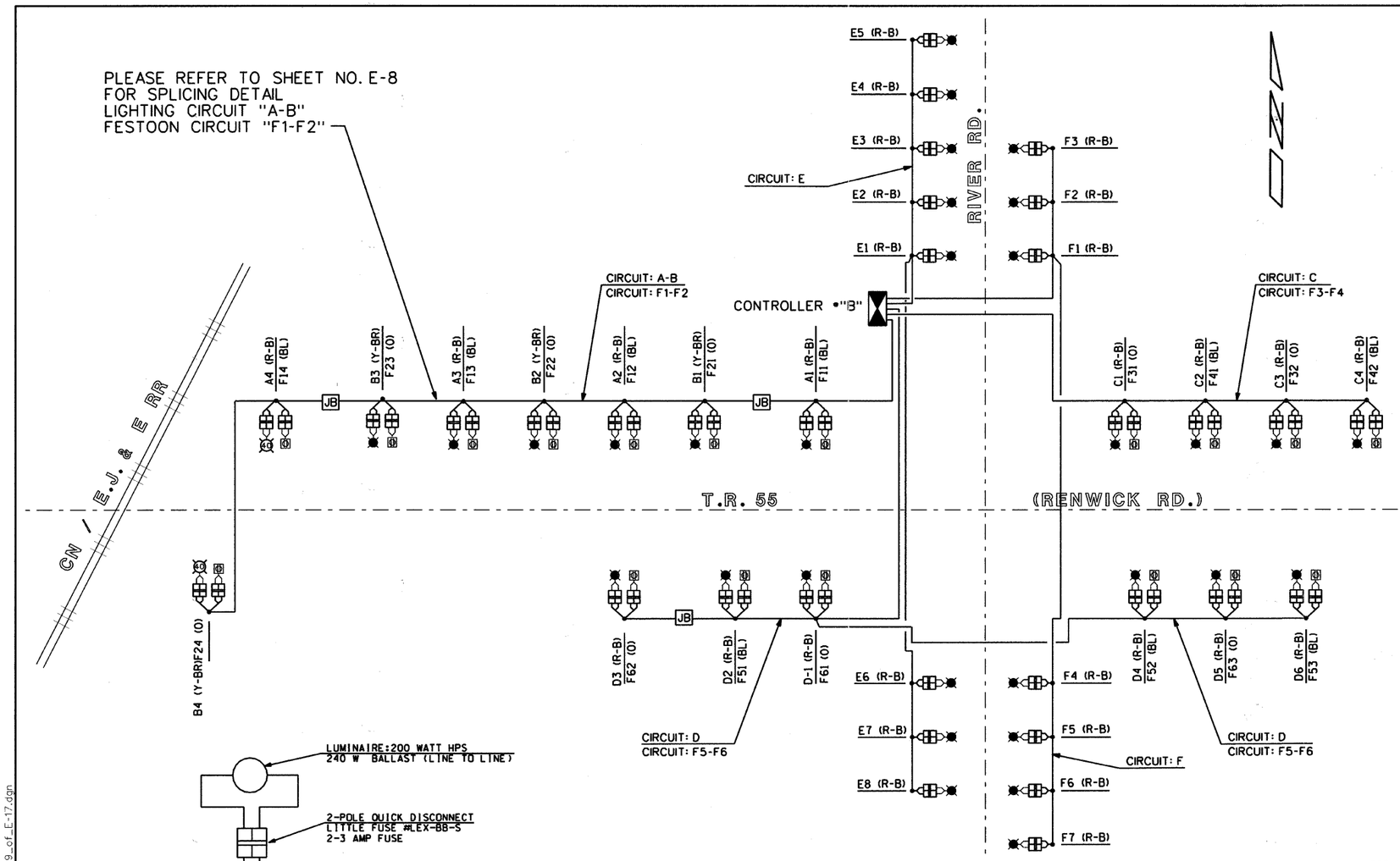
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR55	90-16103-01-BR	WILL	255	115
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

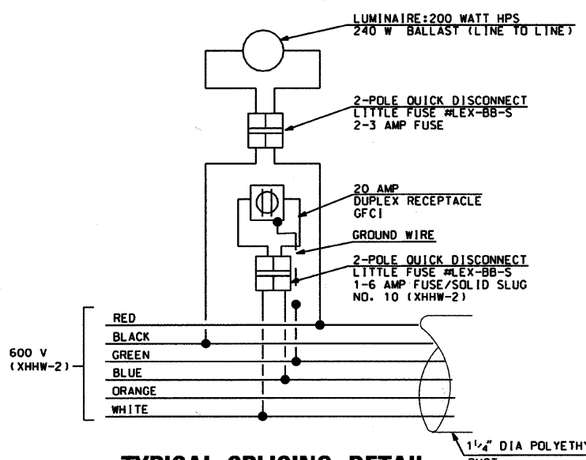
CONTRACT NO. 83126

PLEASE REFER TO SHEET NO. E-8
FOR SPLICING DETAIL
LIGHTING CIRCUIT "A-B"
FESTOON CIRCUIT "F1-F2"



SINGLE LINE LEGEND

- LUMINAIRE, 400 W HPS LAMP
- LUMINAIRE, 200 W HPS LAMP
- FESTOON OUTLET
- 2 POLE DISCONNECT WITH FUSE
  2-5 AMPERE FUSE, 400 W HPS LAMP
  2-3 AMPERE FUSE, 200 W HPS LAMP
  1-6 AMPERE FUSE/, 1-SOLID SLUG,
  FESTOON OUTLET
- LIGHTING CONTROL CABINET
  200 AMPERE, 120/240 VOLT, 1 PHASE, 3 WIRE
- POLYETHYLENE DUCT WITH CIRCUIT CABLE



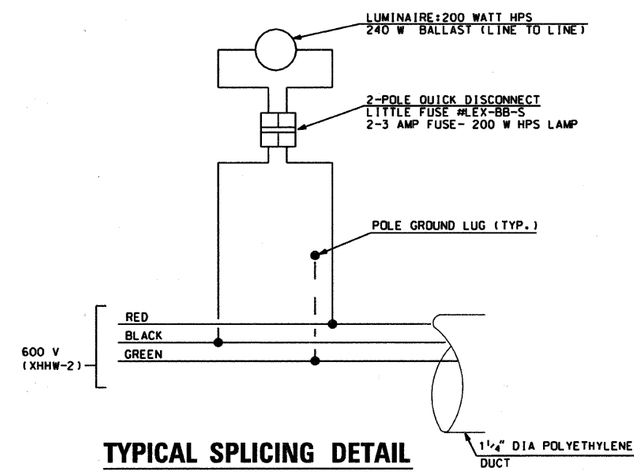
TYPICAL SPLICING DETAIL

LIGHTING CIRCUIT "C" / FESTOON CIRCUIT "F3-F4"
LIGHTING CIRCUIT "D" / FESTOON CIRCUIT "F5-F5"

CONTROLLER "B"
CIRCUIT LOAD

LIGHTING PANEL - 240 V (LINE TO LINE)			FESTOON PANEL - 120 V LINE TO NEUTRAL					
CIRCUIT	AMPERE	WATTS	CIRCUIT	AMPERE	WATTS	CIRCUIT	AMPERE	WATTS
A	5	1,182	F1	12	1,440			
B	5	1,182				F2	12	1,440
C	4	952	F3	6	720			
						F4	6	720
D	6	1,428	F5	9	1,080			
						F6	9	1,080
E	8	1,904	X	X				
F	7	1,666	X	X				
TOTAL	35	8,314	TOTAL	27	3,240	TOTAL	27	3,240

CWA TYPE MULTITAP BALLAST, 10% VOLTAGE DROP
400 W HPS LAMP 2 AMPERE, 468 WATTS, 50,000 LUMENS
200 W HPS LAMP 1 AMPERE, 238 WATTS, 22,000 LUMENS



TYPICAL SPLICING DETAIL

LIGHTING CIRCUIT "E" AND "F"

Sunjoy Inc.
Area Lighting
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60193-1572

ILLINOIS DEPARTMENT OF TRANSPORTATION
T.R. 55 (RENWICK RD.)
PLANFIELD TOWNSHIP, WILL COUNTY

ONE LINE CIRCUIT DIAGRAM
CONTROLLER "B"

SCALE:
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DATE: OCT. 30, 2009
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4/8/2010

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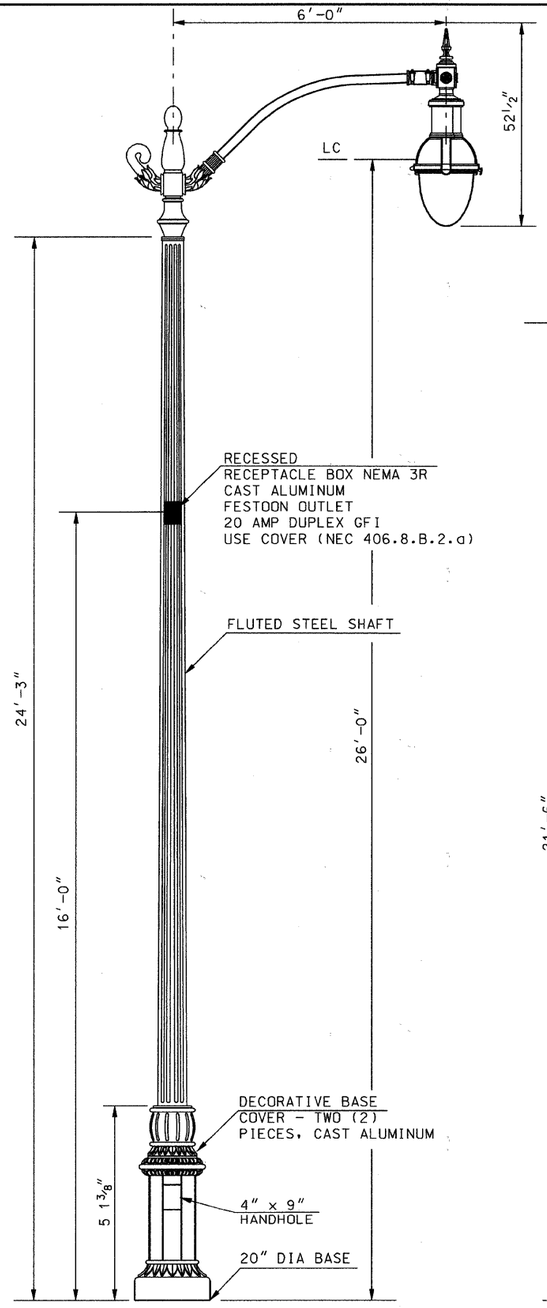
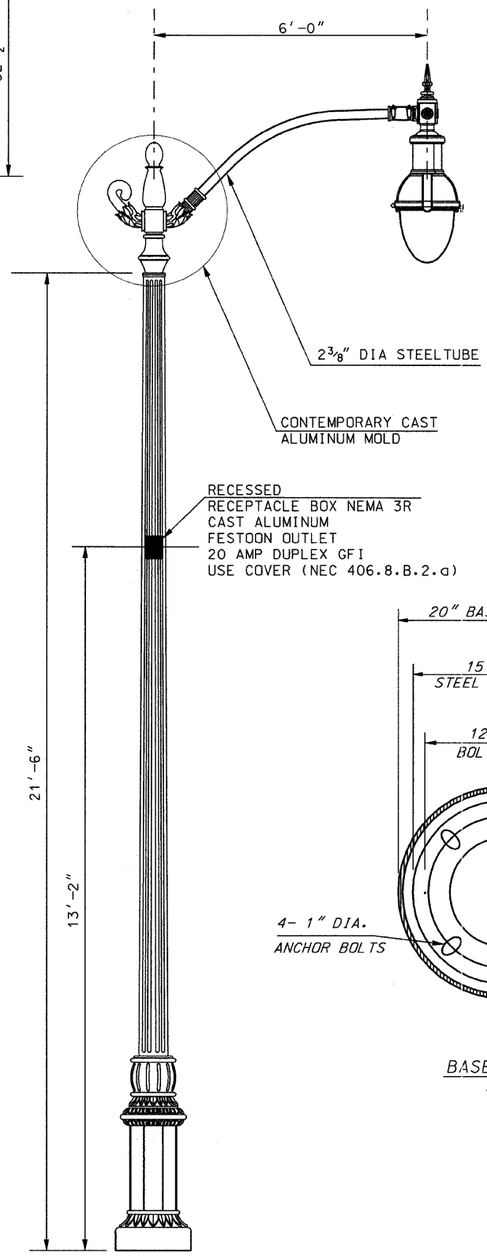
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR55	90-16103-01-BR	WILL	255	116
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

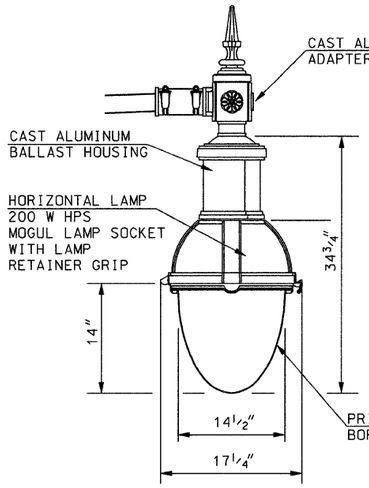
CONTRACT NO. 83126



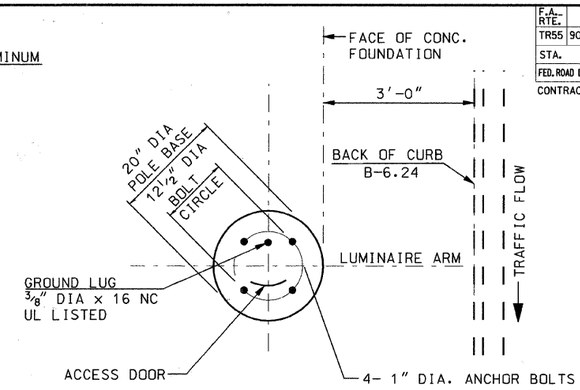
ORNAMENTAL LIGHT POLE, STEEL SHAFT
WITH CONTEMPORARY ARM



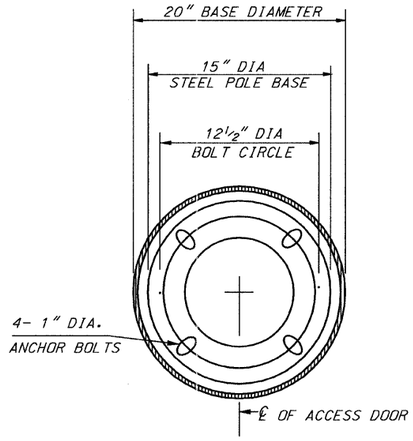
ORNAMENTAL LIGHT POLE, STEEL SHAFT
WITH CONTEMPORARY ARM
POLE MOUNTED ON BRIDGE PARAPET
(FOR MOUNTING ON PARAPET REFER TO SHEET NO. E-14)



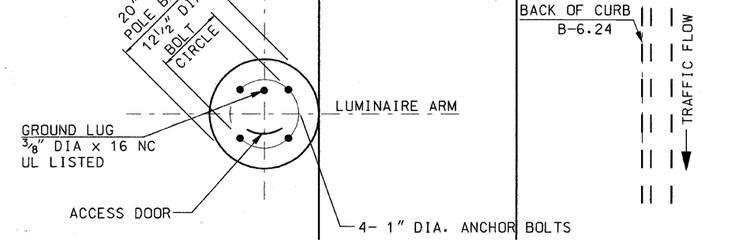
TEAR DROP LUMINAIRE WITH ALUMINUM HOUSING
PENDENT MOUNT



POSITION OF ANCHOR BOLTS AND ACCESS DOOR



BASE DETAIL
N.T.S.



SIDEWALK AND POSITION OF ANCHOR BOLTS AND ACCESS DOOR

NOTES

1. THE LIGHTING UNIT SHALL COMPLY WITH THE ARTICLE 821-ROADWAY LUMINAIRE AND ARTICLE 830-LIGHT POLES OF THE STANDARD SPECIFICATIONS.
2. THE LIGHTING UNIT- THE POLE SHAFT WITH ARM AND LUMINAIRE SHALL BE PAINTED IN BLACK SEMI-GLOSS FINISH TO MATCH MUNSELL COLOR N1 BLACK.
3. ANCHOR BOLT CIRCLE AND BOLT SLOTS IN POLE BASE PLATE, SHALL BE VERIFIED WITH POLE MANUFACTURER.
4. LUMINAIRES ARE TO BE INSTALLED AS SOON AS POSSIBLE AFTER POLE ERECTED PER MANUFACTURER RECOMMENDATIONS. THE POLE WILL NOT BE PAID FOR UNTIL THE LUMINAIRE IS INSTALLED.
5. THE LIGHT POLE SHALL MEET 80 MPH WIND SPEED AASHTO DESIGN CRITERIA. THE CONTRACTOR SHALL FURNISH WIND LOAD CALCULATIONS MEETING AASHTO DESIGN CRITERIA.
6. THE DUCT SHALL EXTEND INTO POLE A MINIMUM OF OF 12" ABOVE THE BASE.
7. LIGHT POLE AND A LUMINAIRE SHALL BE U.L. LISTED AND LABELED.

ORNAMENTAL LIGHTING UNIT COMPLETE

POLE HEIGHT	STEEL MAST ARM	FESTOON-OUTLET 20A GFI	LUMINAIRE 200W HPS	QUANTITY
24'-3"	6 FT	YES	YES	19
24'-3"	6 FT	NO	YES	15
21'-6"	6 FT	YES	YES	6
			TOTAL	40 EACH

Sunjoy Inc.
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212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

ILLINOIS DEPARTMENT OF TRANSPORTATION
T.R. 55 (RENWICK RD.)
PLANFIELD TOWNSHIP, WILL COUNTY

ORNAMENTAL LIGHT POLE WITH CONTEMPORARY ARM AND PENDENT MOUNT LUMINAIRE

SCALE: NTS | DRAWN BY HKQ
DATE: OCT. 30, 2009 | CHECKED BY JS

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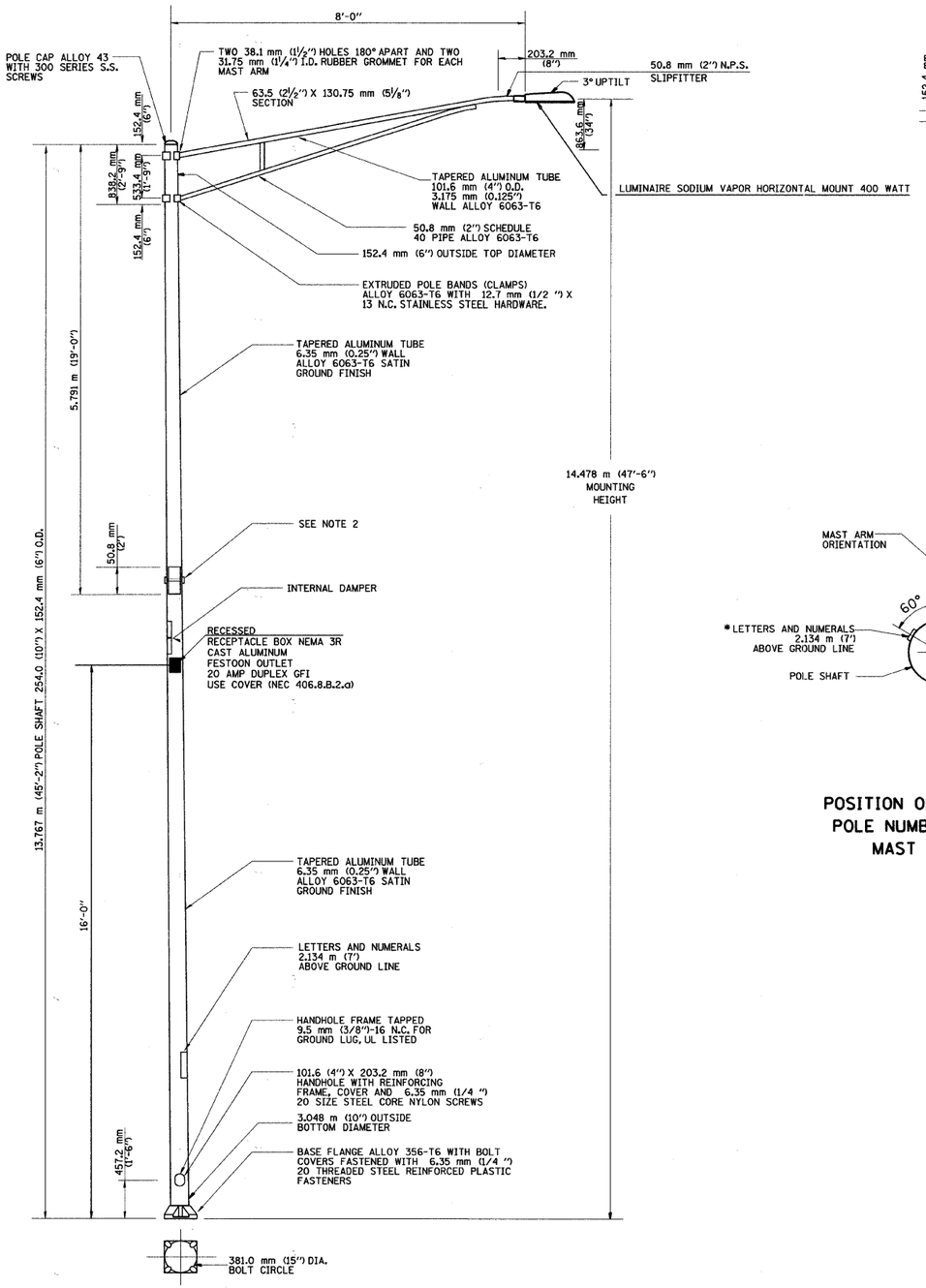
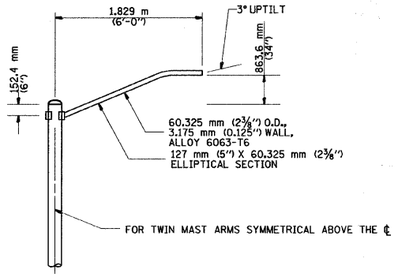
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
TR55	90-16103-01-BR	WILL	255	117
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

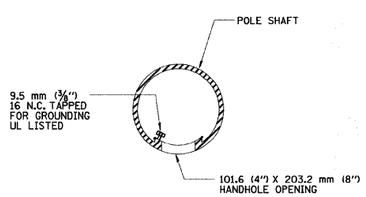
CONTRACT NO. 83126



SINGLE MEMBER MAST ARM
(N.T.S.)



POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES



HANDHOLE DETAIL
(N.T.S.)

NOTES

1. BOLT SLOTS SHALL BE 44.45 (1¾") X 50.8 m (2") CENTERED ON BOLT CIRCLE.
2. TWO PIECE SHAFT WILL BE MATCH MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. STUD BOLT WILL BE 15.875 mm (5/8 ") DIA. WITH NUT, FLATWASHER, AND LOCK WASHER. THERE WILL BE NO THREADS ON THE BOLT INSIDE THE POLE SHAFT.
3. LUMINAIRES ARE TO BE INSTALLED AS SOON AS POSSIBLE AFTER POLE ERECTION. THE POLE WILL NOT BE PAID FOR UNTIL THE LUMINAIRE IS INSTALLED.
4. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA.
5. THE DUCT SHALL EXTEND INTO POLE A MINIMUM OF 304.8 mm (12") ABOVE THE BASE.

Sunjoy Inc.
Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ALUMINUM LIGHT POLE (47'-6") MOUNTING HEIGHT

SCALE: NONE — DRAWN BY

DATE **DATE** — CHECKED BY

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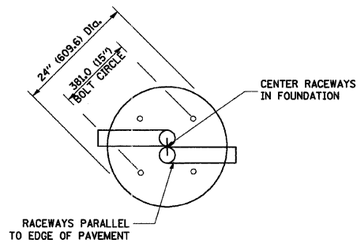
4/8/2010

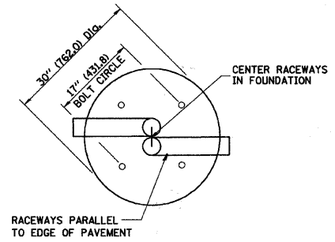
DATE-TIME
DGN-SPEC V:\2545\SUNJOY LIGHTING INFO\PDF files from Email 04-09-10.pdf
VI=BE19

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

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SQ. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY Qu = 0.75 TON/SQ.FT	9'-6" (2.09 m)	10'-9" (3.23 m)
STIFF CLAY Qu = 1.50 TON/SQ. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND ø = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND ø = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND ø = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)

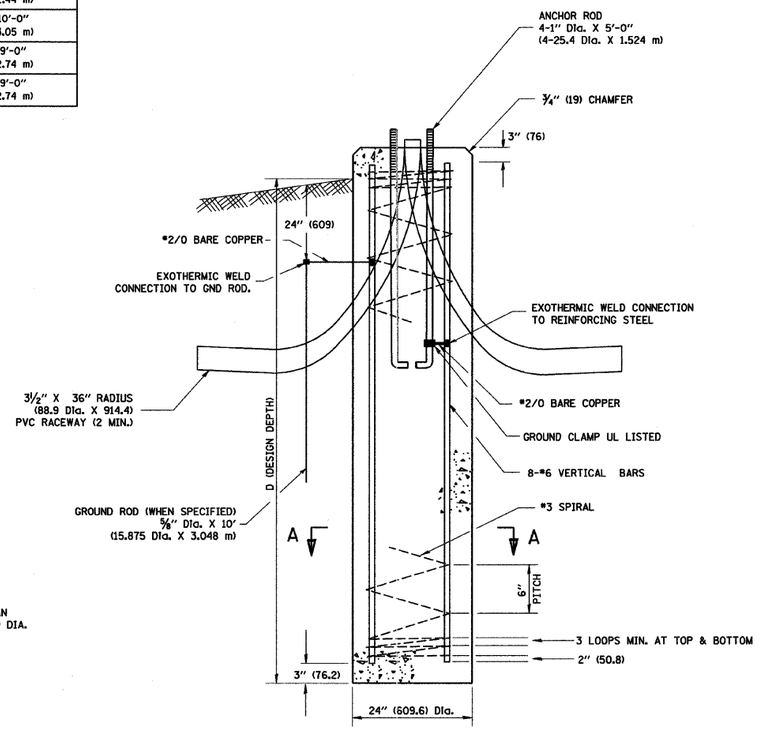


TOP VIEW

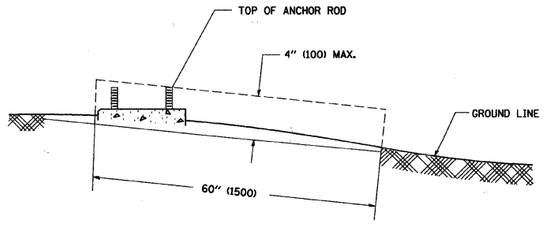


TOP VIEW

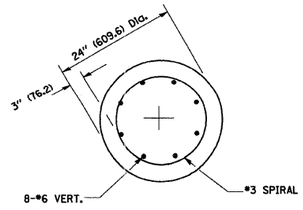
ANCHOR ROD DETAIL



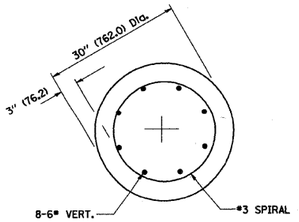
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

NOTES

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IN PLACED.
3. THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
4. THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
5. THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
6. THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
7. THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
8. THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
9. ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM(6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
10. THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
11. ANCHOR RODS SHALL PROJECT 2¾" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
12. THE CONTRACTOR SHALL USE A *3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE *3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
13. THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
14. THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.

FILE NAME = [redacted]	USER NAME = gaglianobt	DESIGNED -	REVISED - 04-22-02
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR55	90-16103-01-BR	WILL	255	118
	BE-301	CONTRACT NO. 83126		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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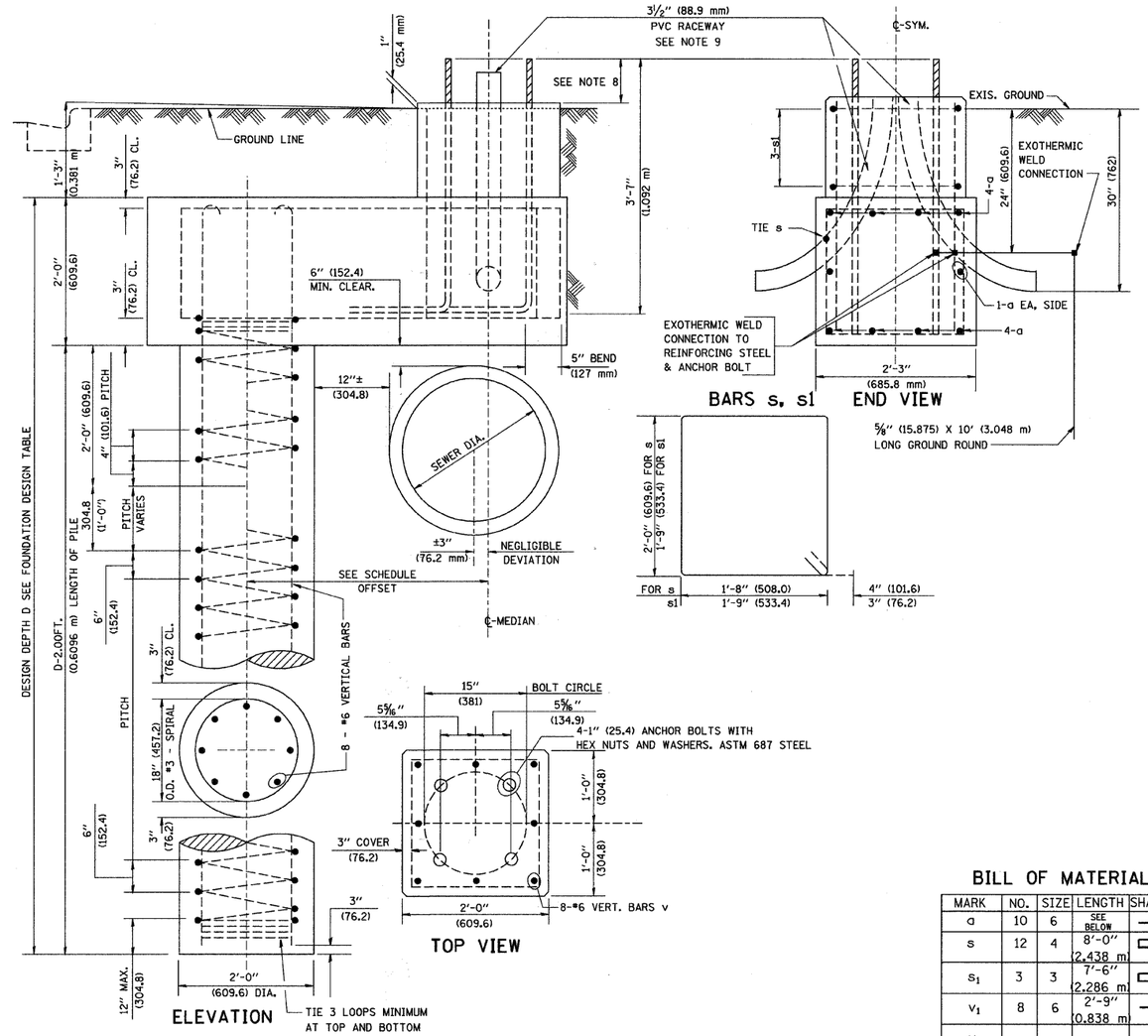
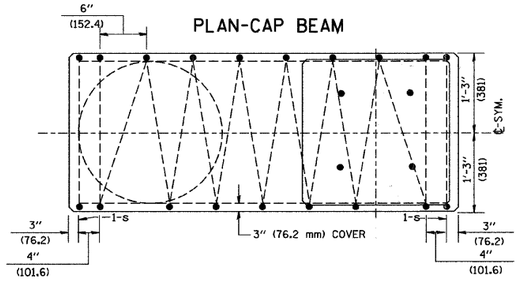
FOUNDATION DESIGN TABLE

TYPE OF SOIL	DESIGN DEPTH OF FOUNDATION		REINFORCEMENT IN FOUNDATION			
	SINGLE ARM D	TWIN ARM D	SINGLE ARM		TWIN ARM	
			VERT BARS	SPIRAL	VERT BARS	SPIRAL
SOFT CLAY	13′-0″ (3.962 m)	15′-0″ (4.572 m)	8-#6X12′-6″ (3.810 m)	#3X122′ (37.186 m)	8-#6X14′-3″ (4.343 m)	#3X141′ (42.977 m)
MEDIUM CLAY	9′-6″ (2.896 m)	10′-9″ (3.277 m)	8-#6X9′-0″ (2.743 m)	#3X90′ (27.432 m)	8-#6X10′-0″ (3.048 m)	#3X100′ (30.480 m)
STIFF CLAY	7′-0″ (2.134 m)	8′-0″ (2.438 m)	8-#6X6′-6″ (1.981 m)	#3X66′ (20.112 m)	8-#6X7′-6″ (2.286 m)	#3X76′ (23.165 m)
LOOSE SAND	9′-0″ (2.743 m)	10′-0″ (3.048 m)	8-#6X8′-6″ (2.591 m)	#3X85′ (25.908 m)	8-#6X9′-6″ (2.896 m)	#3X94′ (28.651 m)
MEDIUM SAND	8′-3″ (2.515 m)	9′-0″ (2.743 m)	8-#6X8′-0″ (2.438 m)	#3X78′ (23.774 m)	8-#6X8′-6″ (2.591 m)	#3X85′ (25.908 m)
DENSE SAND	7′-9″ (2.362 m)	9′-0″ (2.743 m)	8-#6X7′-6″ (2.286 m)	#3X73′ (22.250 m)	8-#6X8′-6″ (2.591 m)	#3X85′ (25.908 m)
ROCK OR SOLIDIFIED SLAG	5′-0″ (1.524 m)	5′-0″ (1.524 m)	NONE	NONE	NONE	NONE

NOTES

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. THE ENGINEER SHALL DETERMINE THE CLASS OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF FOUNDATION FROM THE DESIGN TABLE.
3. EXCAVATION OF THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER, 24″ (609.6 mm) OR 30″ (762.0 mm) IN DIAMETER.
4. THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
5. THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORM.
6. THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
7. THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF FOUNDATION WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS. IF LIGHT POLE IS MOUNTED WITHOUT BREAKAWAY DEVICE, ANCHOR BOLTS SHALL PROJECT 2¾″ (69.9 mm) ABOVE TOP OF THE FOUNDATION. THE CONTRACTOR SHALL CONFIRM ANCHOR BOLT EXTENTION WITH ENGINEER.
8. RACEWAYS SHALL PROJECT 1″ (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.
9. THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE LIGHT IS ERECTED.





BILL OF MATERIAL

MARK	NO.	SIZE	LENGTH	SHAPE
a	10	6	SEE BELOW	—
s	12	4	8′-0″ (2.438 m)	□
s_1	3	3	7′-6″ (2.286 m)	□
v_1	8	6	2′-9″ (0.838 m)	—
v_2				

OFFSET SCHEDULE

SEWER DIAM. d IN.	PILE OFFSET from℄-MED'N FT.	LENGTH of BAR a FT.
UP TO 24″ (609.6 mm)	3′-3″ (0.991 m)	#6 x 5′-3″ (1.600 m)
27″ (685.8 m)TO 36″ (914.4 mm)	3′-9″ (1.143 m)	5′-9″ (1.753 m)
42″ (1066.8 mm) TO 48″ (1219.2 mm)	4′-6″ (1.372 m)	6′-6″ (1.981 m)
54″ (1371.6 mm) TO 60″ (1524.0 mm)	5′-0″ (1.524 m)	7′-0″ (2.134 m)
66″ (1676.4 mm) TO 72″ (1828.8 mm)	5′-6″ (1.676 m)	7′-6″ (2.286 m)

FILE NAME =	USER NAME = bauerd1	DESIGNED -	REVISED - 06-16-08 R. TOMSONS
		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ′ / IN.	CHECKED -	REVISED -
	PLOT DATE = 6/16/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHT POLE FOUNDATION OFFSET
40′ (12.192 m) TO 47 1⁄2 ′ (14.478 m) M.H.
15″ (381 mm) BOLT CIRCLE

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	119
	BE-310	CONTRACT NO. 83126		
	ILLINOIS FED. AID PROJECT			

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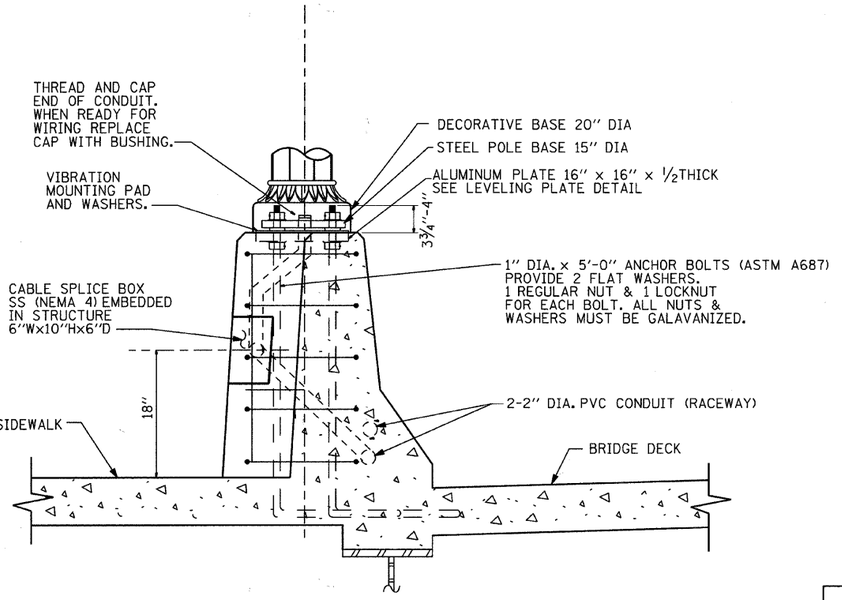
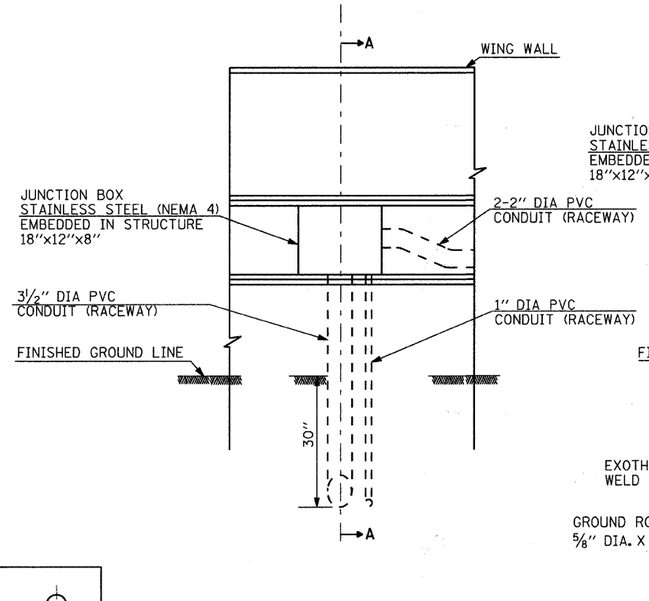
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR55	90-16103-01-BR	WILL	255	120
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

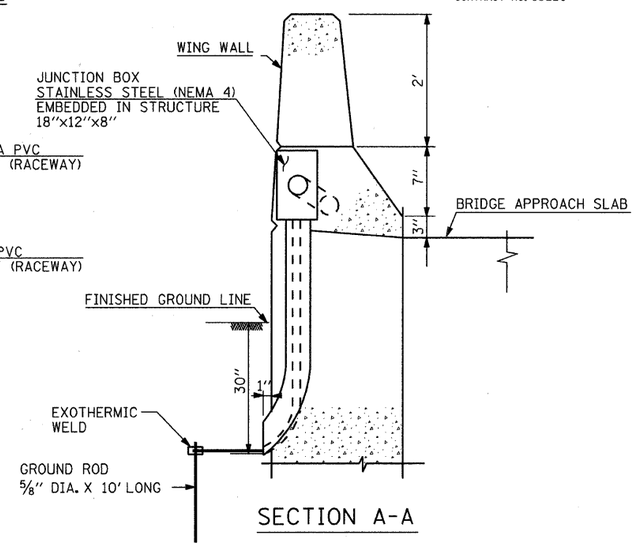
CONTRACT NO. 83126



SECTION A-A

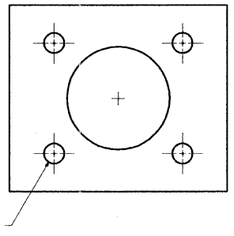
(FOR ORNAMENTAL POLE DETAILS REFER TO SHEET NO. E-10)





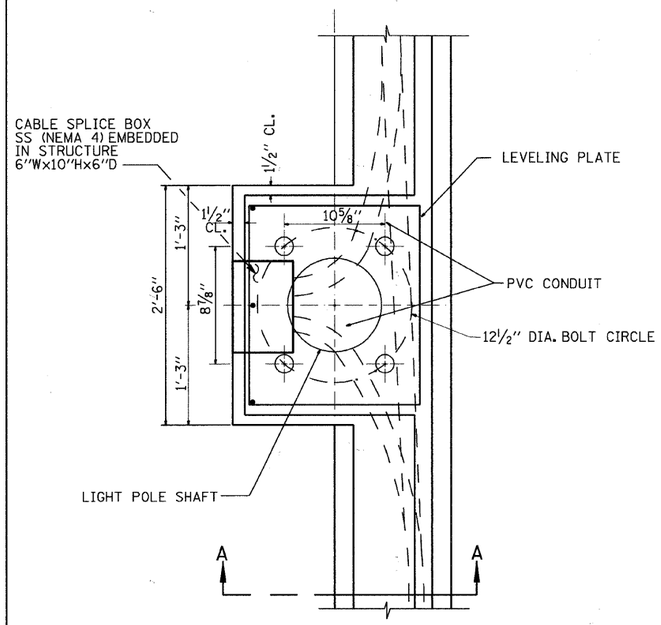
SECTION A-A

JUNCTION BOX AND RACEWAY ON WING WALL DETAIL

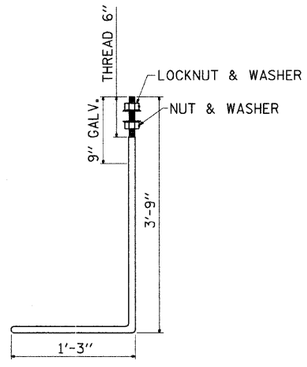


LEVELING PLATE DETAIL

BOLT DIAMETER, BOLT CIRCLE AND OPENING DIAMETER IN POLE BASE PLATE - PLEASE REFER TO MANUFACTURER POLE DETAIL DRAWING



PLAN



1" DIA. ANCHOR BOLT

NOTES

1. JUNCTION BOX ON WING WALL AND CABLE SPLICE BOX SHALL BE INSTALLED, AT THE LOCATION AS SHOWN ON PLAN OR DIRECTED BY THE ENGINEER.
2. CABLE SPLICING WILL BE PERMITTED ONLY IN JUNCTION BOX AND IN LIGHT POLE HANDHOLE.
3. THE JUNCTION BOX AND CABLE SPLICE BOX, STAINLESS STEEL (NEMA 4) SHALL BE EMBEDDED IN CONCRETE WITH FLUSH COVER. THE JUNCTION BOX AND CABLE SPLICE BOX. STAINLESS STEEL (NEMA 4) SHALL BE U.L. LISTED AND LABELED.
4. RACEWAY SHALL BE PVC CONDUIT.
5. EXPANSION FITTINGS SHALL BE INSTALLED IN ALL RACEWAY RUNS CROSSING STRUCTURAL EXPANSION JOINTS.
6. 1" DIA.x5 FT LONG, ASTM A-687, ANCHOR BOLT SHALL BE PROVIDED WITH ONE REGULAR NUT, ONE LOCK NUT AND TWO FLAT WASHERS. ALL NUTS AND WASHERS SHALL BE GALVANIZED.
7. COST OF ANCHOR BOLTS WITH HARDWARE LEVELING PLATE, RACEWAYS WITH FITTINGS AND JUNCTION/CABLE SPLICE BOX ARE INCLUDED IN THE COST OF THE BRIDGE STRUCTURE.
8. FABCO PAD(SA-47) AND FABREEKA WASHERS SHALL BE INSTALLED, ACCORDING TO THE MANUFACTURER INSTRUCTIONS, ON THE LIGHT POLE MOUNTED ON BRIDGE.
9. FOUNDATION IN BRIDGE PARAPET WALL FOR REINFORCEMENT DETAILS, PLEASE REFER TO BRIDGE STRUCTURAL DRAWINGS.

Sunjoy Inc.
Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

T.R. 55 (RENWICK RD.)
PLANFIELD TOWNSHIP, WILL COUNTY

LIGHT/JUNCTION MOUNTED ON BRIDGE CONCRETE PARAPET

SCALE: NONE DRAWN BY

DATE **DATE** CHECKED BY

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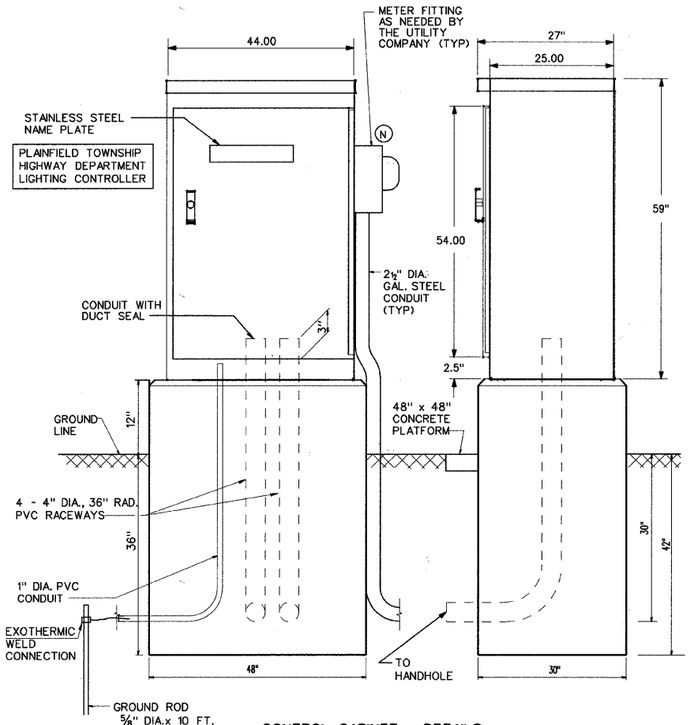
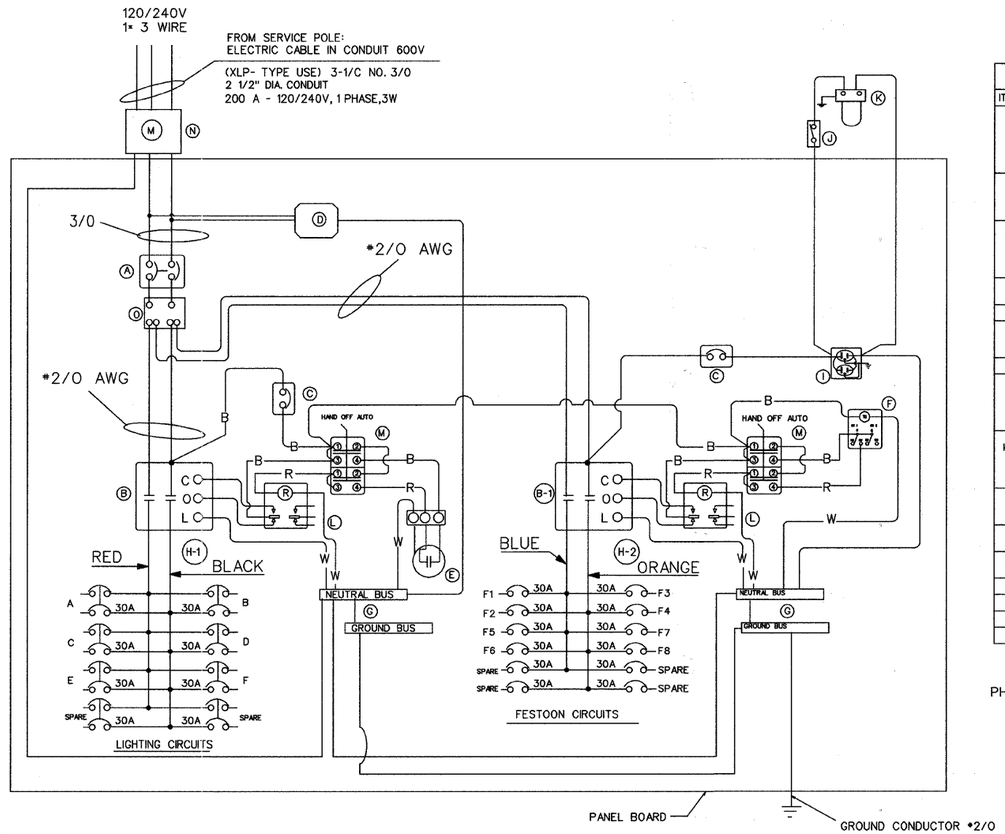


CONTROL CABINET - DETAILS

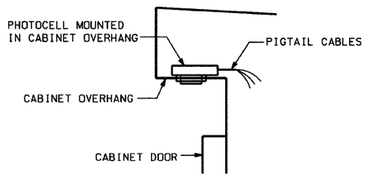


ONE LINE CIRCUIT DIAGRAM

200 AMPERE- 120/240 VOLT, SINGLE PHASE, 3 WIRE

DEVICE SCHEDULE		
ITEM	QTY	DESCRIPTION
A	1	CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 2-POLE, 600V. A.C. 225A FRAME, 200A. NON-INTERCHANGABLE TRIP. BOLT-ON TYPE: INTERUPTING CAPACITY OF NOT LESS THEN 65,000 RMS SYMMETRICAL AMPERES AT 240V.
B	2	LIGHTING CONTACTOR (REMOTE CONTROL SWITCH) MECHANICALLY HELD. SQ.D PB MOUNTED ON SUB PANEL 100A, 2P, 600V. WITH 120V. COIL.
C	2	CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 1-POLE, 15A, 277V. BOLT-ON TYPE WITH AN INTERUPTING RATING OF NOT LESS THAN 14,000 RMS SYMMETRICAL AMPERES AT 277V
D	1	SURGE ARRESTOR, FOR 240/120V, 3 WIRE SERVICE
E	1	PHOTOCELL, 120 V, 1 PHASE
F	2	TIMECLOCK, 120V, 60 HZ, MICROPROCESSOR BASED 2-CHANNEL CONTROLLER WITH ASTRONOMIC FUNCTIONS. RATED FOR -30℃ C.
G	2	GROUND/NEUTRAL BUS, COPPER, 22 CONNECTORS, (MIN.)
H1	8	CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 2-POLE, 30A, 277V. BOLT-ON TYPE WITH AN INTERUPTING RATING OF NOT LESS THAN 14,000 RMS SYMMETRICAL AMPERES AT 277V
H2	12	CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 1-POLE, 30A, 277V. BOLT-ON TYPE WITH AN INTERUPTING RATING OF NOT LESS THAN 14,000 RMS SYMMETRICAL AMPERES AT 277V
I	1	GFI RECEPTACLE, 120V. 20A. PREMIUM SPEC. GRADE. NEMA REFERENCE 5-15R IN WEATHER PROOF BOX WITH FLAP-TYPE COVER. (NEC 406.8B.2.a)
J	1	MICRO SWITCH (MOUNTED WITH ACTUATOR TO SWITCH WHEN DOOR OPENED)
K	1	120 V LIGHT FIXTURE, VAPORTIGHT, WITH GLOBE AND GUARD AND MOUNTING BOX.
L	2	RELAY, 120V - COIL
M	2	MANUAL-OFF-AUTO 3 POSITION SWITCH
N	1	METER FITTING, 200A
O	1	SPLICE BLOCK

PHOTOCELL MOUNTED IN CABINET OVERHANG



PHOTOCELL IN CABINET OVERHANG DETAIL

NOT TO SCALE

NOTES

1. THE CABINET SHALL BE FABRICATED FROM 0.125" THICK ALUMINUM ALLOY SHEET AND SHALL BE REINFORCED WITH ALUMINUM ANGLES. THE CABINET DOOR SHALL BE NEMA TYPE 3R CONSTRUCTION WITH NEOPRENE GASKET. THE DOOR SHALL HAVE STAINLESS STEEL HINGES AND THREE POINT LOCKING SYSTEM.
2. THE CONTRACTOR SHALL REMOVE VEGETATION AND TOPSOIL, LEVEL THE AREA IN FRONT OF THE CONTROL CABINET DOOR AND PLACE LENGTH WISE, PARALLEL TO CONTROL CABINET, A PRECAST PAD, 48"x48"x4" MINIMUM SIZE. THE COST OF LABOR AND MATERIALS SHALL BE INCIDENTAL TO THE CONTROL CABINET.
3. CONTROL WIRE SHALL BE #12 AWG. 600V. TYPE "MTW" STRANDED COPPER GRAY SWITCH BOARD WIRE. THE ENDS OF ALL CONTROL WIRES SHALL BE IDENTIFIED.
4. THE ELECTRIC METER BOX SHALL BE MOUNTED ON THE SIDE OF THE CONTROL CABINET, NEAR TO THE SERVICE POLE AND/OR AS DIRECTED BY THE ENGINEER.
5. ALL CONTROL CABINET ITEMS SHALL HAVE SUITABLE IDENTIFICATION. OPEN CIRCUIT BREAKERS, CONTACTORS AND OTHER OPEN DEVICES SHALL HAVE PERMANENT SELF STICKING TAGS. DEVICES IN ENCLOSURES SHALL HAVE ENGRAVED 2-COLOR LAMINATED PLASTIC NAMEPLATES ATTACHED TO ENCLOSURES WITH SCREWS. NAMEPLATES SHALL BE ENGRAVED TO CORRESPOND TO DESIGNATIONS ON THE DRAWINGS. INTERNAL CABINET WIRING SHALL BE IDENTIFIED AS INDICATED OR AS DIRECTED BY THE ENGINEER BY MEANS OF SELF-STICKING TAGS APPLIED AT EACH CONNECTED END. IDENTIFICATION SHALL BE MADE BY THE CABINET MANUFACTURER.
6. ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.
   R = RED BL = BLUE W = WHITE
   B = BLACK Y = YELLOW G = GREEN
7. PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL CABINET.
8. THE CABINET SHALL BE PRIMED AND PAINTED AS SPECIFIED. THE OUTSIDE SURFACE OF THE CONTROL CABINET SHALL HAVE A BLACK COLOR FINISH.
9. THE HEADS OF CONNECTOR SCREWS SHALL BE PAINTED WHITE FOR NEUTRAL BUSS CONNECTION AND GREEN FOR GROUND BUSS CONNECTORS.
10. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
11. THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL PANEL".
12. PROVIDE A HOLDER AND WATERPROOF POUCH ON THE INNER SIDE OF THE CONTROLLER DOOR. THE HOLDER AND POUCH SHALL BE MOUNTED SO THAT RAIN WATER OR CONDENSED WATER CANNOT ENTER THE POUCH WITH THE CABINET DOOR OPEN. FURNISH A LAMINATED APPROVED COPY OF THE "CONTROL CABINET WIRING DIAGRAM".
13. THE CONTRACTOR SHALL OBTAIN ANCHOR BOLTS LOCATION TEMPLATE FROM THE FABRICATOR OF LIGHTING CONTROLLER.
14. THE CONTROLLER FABRICATION SHALL COMPLY TO ARTICLE 1068.01 OF THE STANDARD SPECIFICATIONS.
15. THE CONTROLLER CABINET DOOR SHOULD OPEN AWAY FROM THE STREET.
16. THE SERVICE EQUIPMENT SHALL HAVE U.L. LABEL AND SHALL BE MARKED TO IDENTIFY IT AS BEING SUITABLE FOR USE AS SERVICE EQUIPMENT (NEC ARTICLE 230.66).

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR55	90-16103-01-BR	WILL	255	121
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 83126

DETAILS FROM EXCEL LTD - (847) 543-9138

Sunjoy Inc.
Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

ILLINOIS DEPARTMENT OF TRANSPORTATION
T.R. 55 (RENWICK RD.)
PLANFIELD TOWNSHIP, WILL COUNTY

LIGHTING CONTROLLER, SPECIAL

SCALE: NTS
DRAWN BY HKQ
DATE: OCT. 30, 2009
CHECKED BY JS

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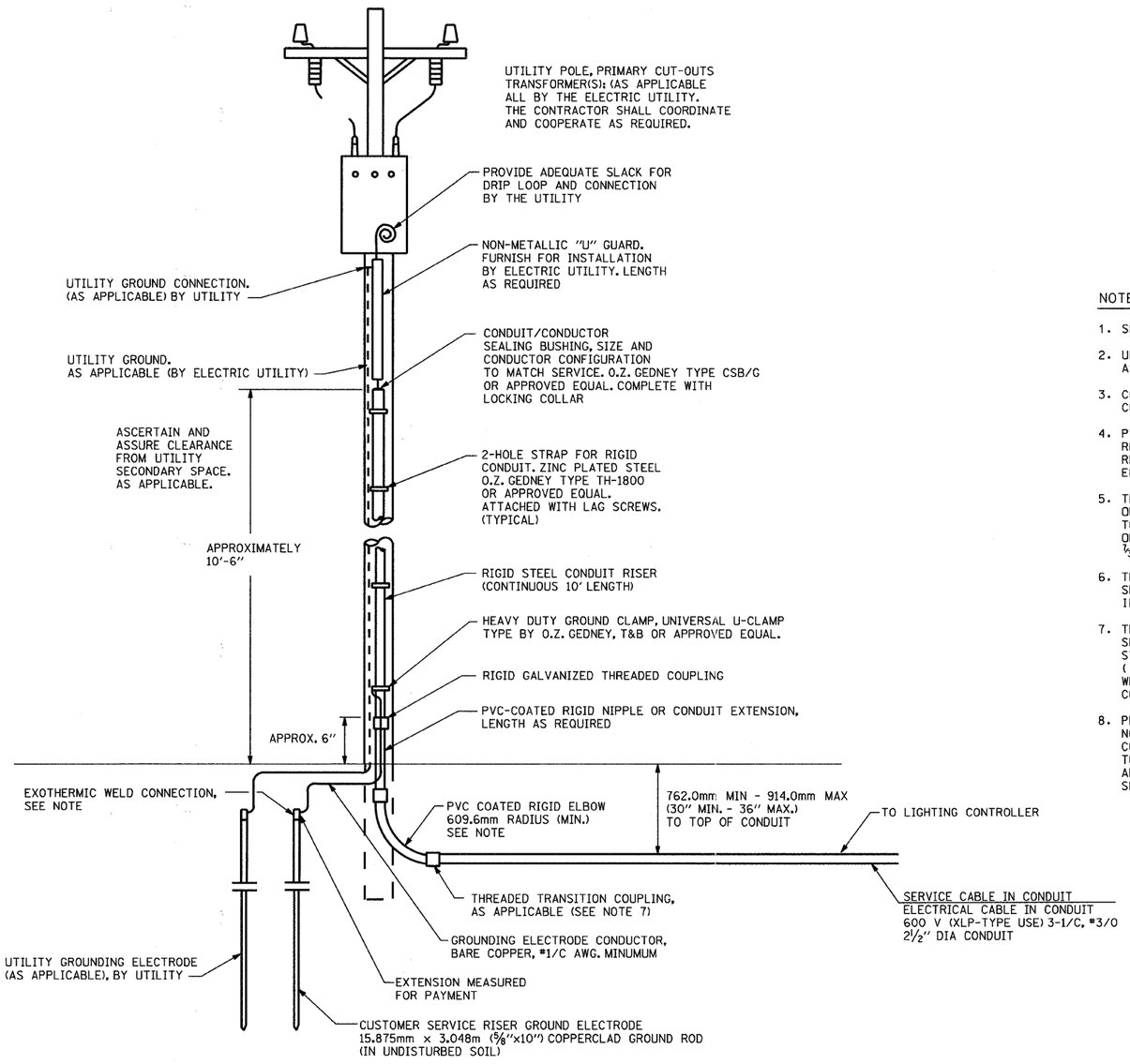
F.A.-RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR55	90-16103-01-BR	WILL	255	122
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 83126



PROPOSED SERVICE INSTALLATION
POLE TOP MOUNTED TRANSFORMER

NOTES:

1. SERVICE VOLTAGE SHALL BE AS INDICATED ELSEWHERE IN THE DRAWINGS.
2. UNLESS OTHERWISE INDICATED. ITEMS AND WORK SHALL BE INCLUDED AND PAID AS PART OF ELECTRIC UTILITY SERVICE INSTALLATION.
3. CONDUIT AND CONNECTOR DIAMETER SHALL MATCH THE DIAMETER OF SERVICE CONDUCTOR RACEWAY AS INDICATED.
4. PVC COATED RACEWAY AND ACCESSORIES SHALL BE CAREFULLY INSTALLED WITH MFR RECOMMENDED TOOLS AND PROCEDURES TO AVOID DAMAGE. ANY DAMAGE SHALL BE REPAIRED WITH COMPATIBLE PVC TOUCH-UP MATERIAL TO THE SATISFACTION OF THE ENGINEER OR THE DAMAGED MATERIAL SHALL BE REPLACED AT NO ADDITIONAL COST.
5. THE CONTRACTOR SHALL OBTAIN INSPECTION AND APPROVAL BY THE ENGINEER OF SERVICE RISER GROUND ELECTRODE. RISER ELBOW. NIPPLE AND CONNECTION TO SERVICE CONDUCTOR RACEWAY EXTENSION BEFORE BACKFILL AND SHALL ALSO OBTAIN INSPECTION OF SERVICE RISER AND SEALING BUSHING BEFORE UTILITY 1/32 " U" 9/32 GUARD INSTALLATION AND SERVICE CONNECTION.
6. THE SERVICE METER SOCKET. AS APPLICABLE, MOUNTED ELSEWHERE AS INDICATED SHALL BE INCLUDED AND PAID AS PART OF THE ELECTRICAL UTILITY SERVICE INSTALLATION PAY ITEM.
7. THE SERVICE CONDUCTOR RACEWAY SHALL BE AS INDICATED AND SHALL BE MEASURED SEPARATELY FOR PAYMENT. WHEN THE RACEWAY IS PVC-COATED RIGID GALVANIZED STEEL. THE COUPLING SHALL BE THE SAME. WHEN THE RACEWAY IS PVC CONDUIT (IN CONCRETE). THE COUPLING SHALL BE A METALIC TO NON METALIC ADAPTER. WHEN THE RACEWAY IS ENCASED IN CONCRETE. THE CONCRETE SHALL EXTEND TO COVER THE COUPLING.
8. PLANS AND DETAILS INDICATE THE GENERAL NATURE AND REQUIREMENTS, THEY DO NOT SHOW EVERY ACCESSORY AND ATTACHMENT. AND THEY DO NOT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS AND SPECIAL PROVISIONS TO ASCERTAIN UTILITY REQUIREMENTS AND TO COORDINATE ACCORDINGLY. FURNISHING ALL ITEMS AND WORK NOT PROVIDED BY THIS UTILITY. BUT NECESSARY FOR A COMPLETE SERVICE INSTALLATION.

Sunjoy Inc.
Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

ILLINOIS DEPARTMENT OF TRANSPORTATION
T.R. 55 (RENWICK RD.)
PLANFIELD TOWNSHIP, WILL COUNTY

ELECTRIC SERVICE INSTALLATION
POLE TOP MOUNTED TRANSFORMER

SCALE: NONE
DRAWN BY HKQ
DATE: OCT. 30, 2009
CHECKED BY JS

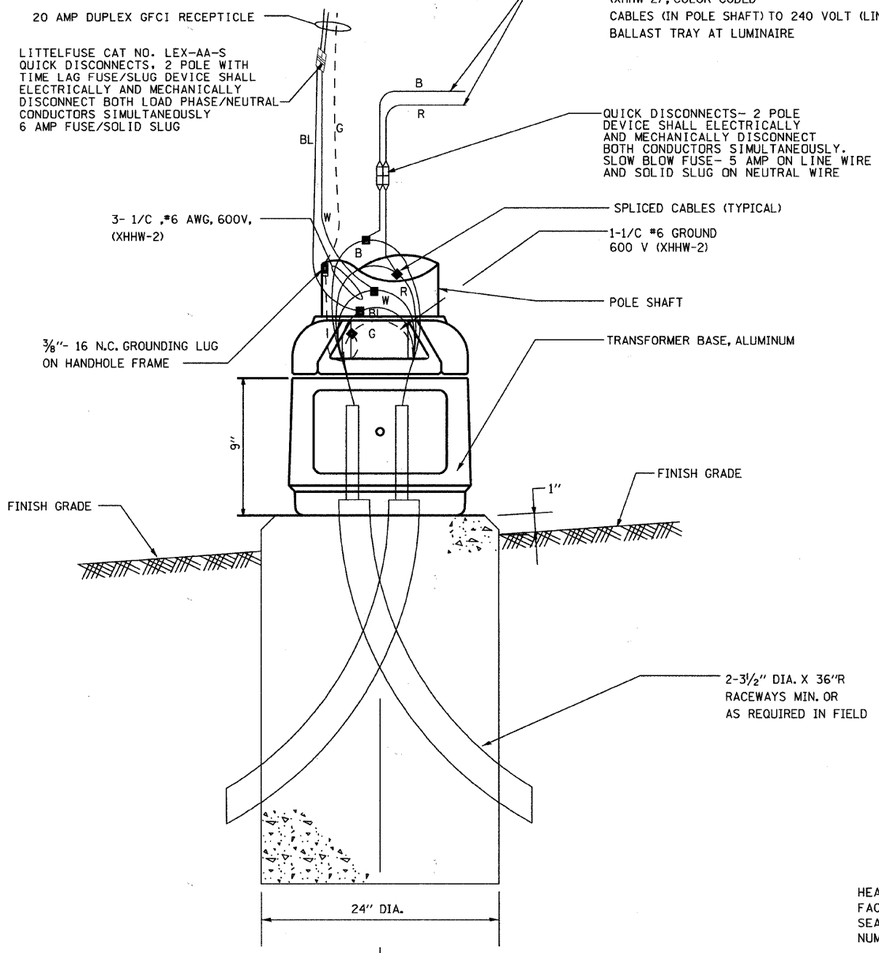
E-16 OF E-17

C:\SUNJOY\Projects\RENWICK ROAD\E-16_of_E-17.dgn
4/8/2010

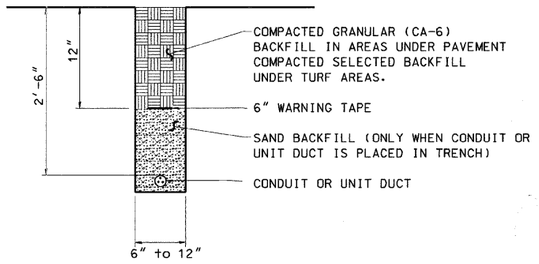
V:\2545\SUNJOY LIGHTING INFO\PDF files from Email 04-09-10.pdf

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR55	90-16103-01-BR	WILL	255	123
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

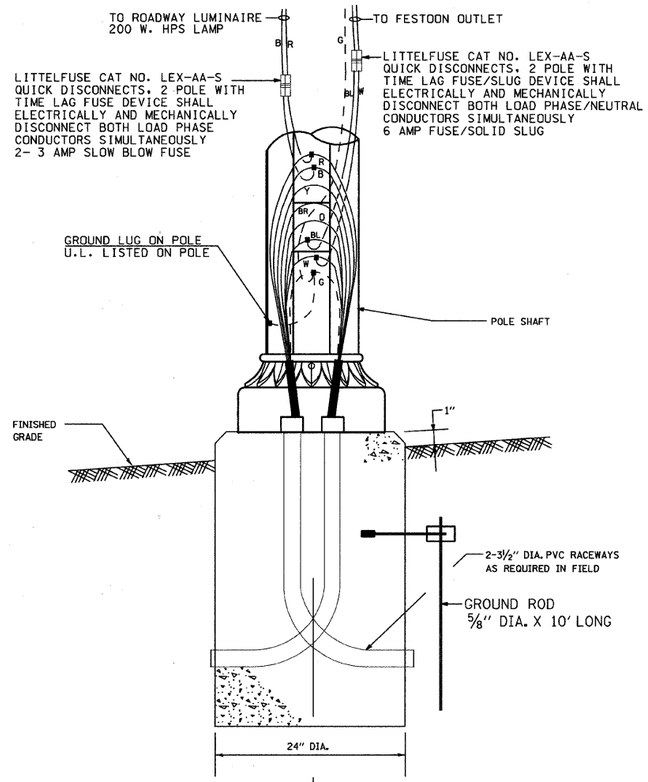
CONTRACT NO. 83126



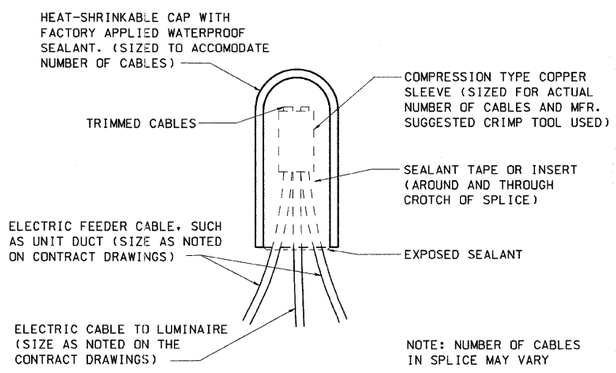
POLE BASE WIRING WITH
QUICK DISCONNECTS AND
BREAKAWAY DEVICE TRANSFORMER BASE, U/L LISTED
6 CABLES WIRING



TRENCH AND BACKFILL



POLE BASE WIRING WITH
QUICK DISCONNECTS
8 CABLES WIRING



SPLICING ELECTRIC CABLE

Sunjoy Inc.
Area Lighting
212 TIMBERCREST DRIVE
SCHAUMBURG, ILLINOIS
60193-1572

ILLINOIS DEPARTMENT OF TRANSPORTATION
T.R. 55 (RENWICK RD.)
PLANFIELD TOWNSHIP, WILL COUNTY

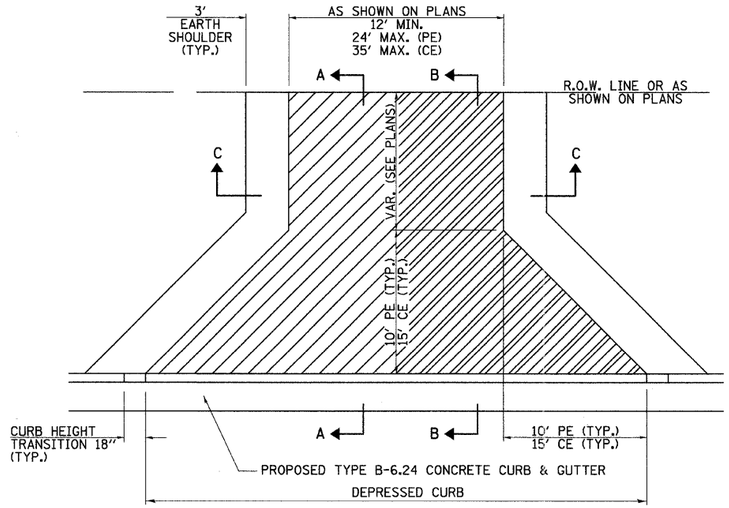
ELECTRICAL DETAILS

SCALE:
DRAWN BY HKQ
DATE: OCT. 30, 2009
CHECKED BY JS

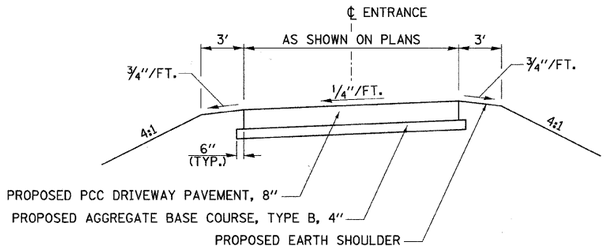
E-17 OF E-17

C:\SUNJOY\Projects\RENWICK ROAD\E-17_of_E-17.dgn
4/8/2010

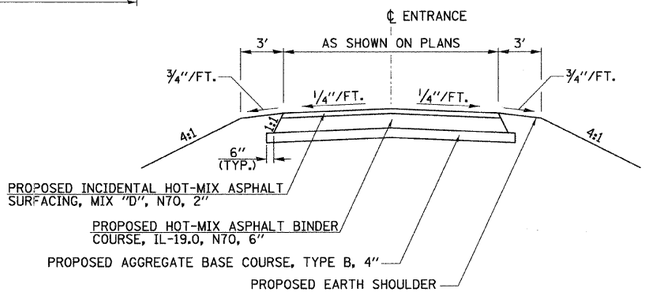
V:\2545\SUNJOY LIGHTING INFO\PDF files from Email 04-09-10.pdf



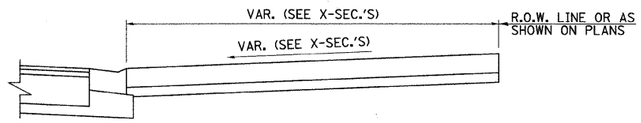
PLAN



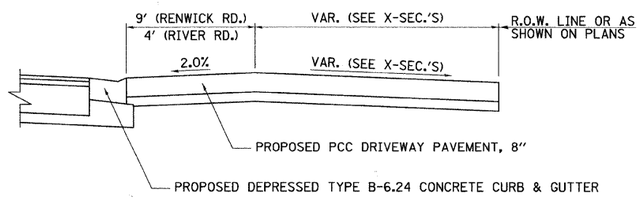
SECTION C-C



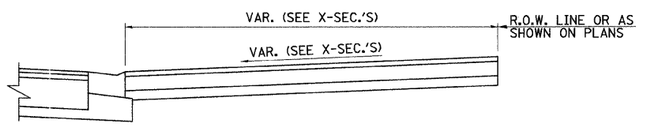
SECTION C-C



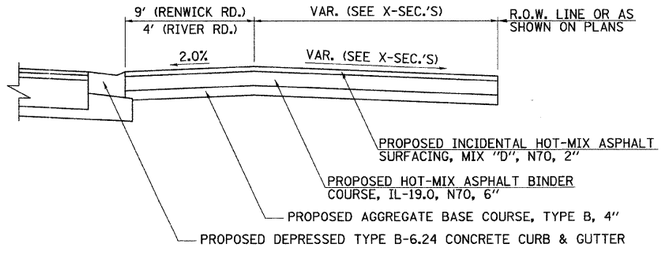
OR



SECTION A-A

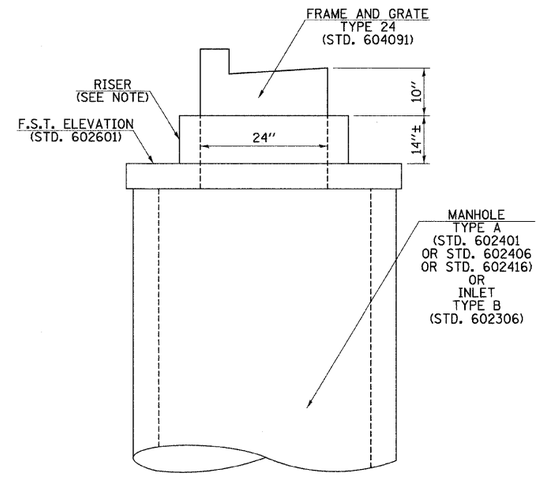


OR

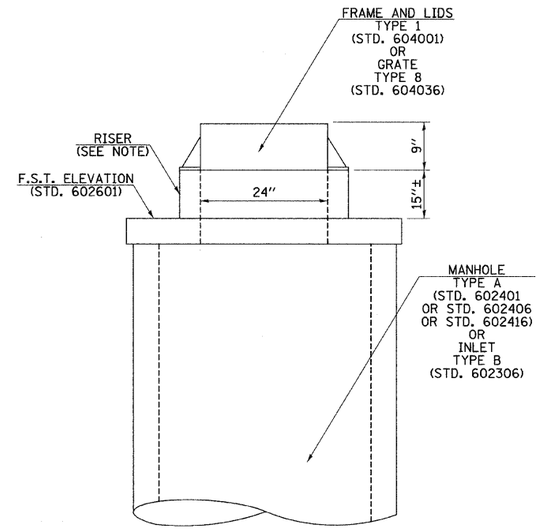


SECTION B-B

PRIVATE AND COMMERCIAL ENTRANCES WITH CURBS



NOTE: THE RISER SHALL BE CONSTRUCTED ACCORDING TO STANDARD 602301 (INLET - TYPE A). THE RISER WILL NOT BE PAID FOR SEPARATELY BUT SHOULD BE INCLUDED IN THE COST OF THE MANHOLE OR INLET TYPE SPECIFIED.



RISER DETAILS

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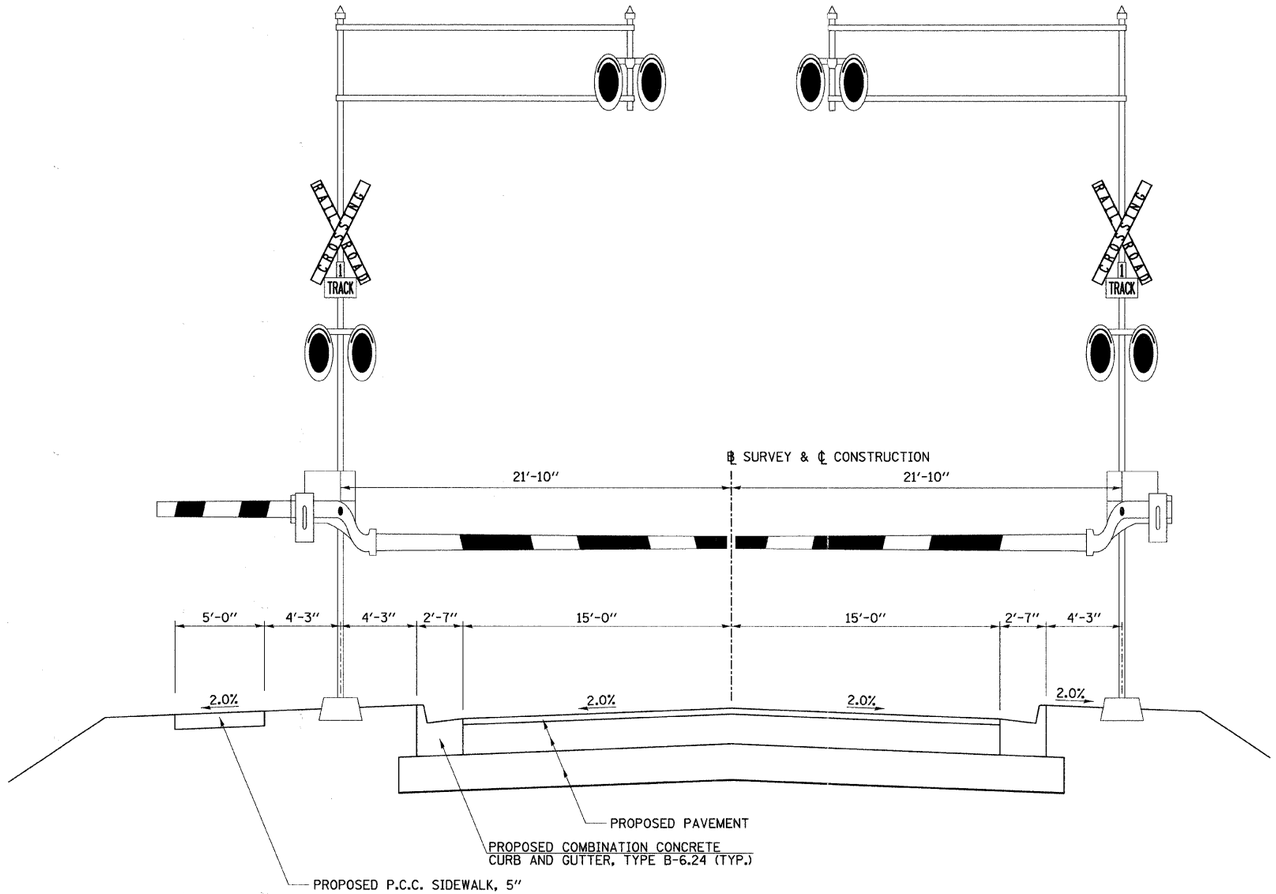
		DRAWN -	REVISED -
	PLOT SCALE = 1.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 55 (RENWICK RD.) & RIVER RD. ENTRANCE & SPECIAL DETAILS

SCALE: 1"=1' | SHEET NO. 1 OF 6 SHEETS | STA. N/A | TO STA. N/A

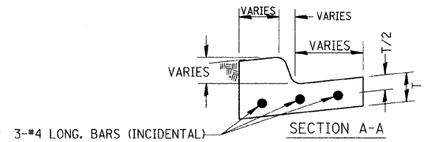
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	124
		CONTRACT NO. 83126		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



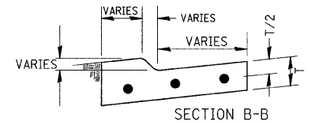
PROPOSED TYPICAL SECTION
T.R. 55 (RENWICK RD.)
LOOKING EAST

''FOR INFORMATION ONLY''

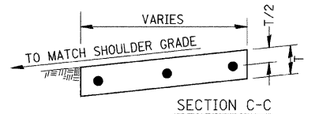
ALL RAILROAD WARNING DEVICES IN THIS DETAIL TO BE FURNISHED & INSTALLED BY OTHERS.



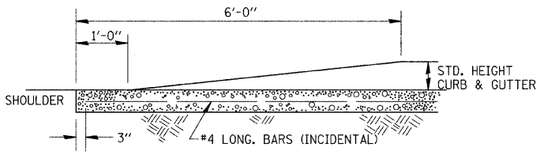
SECTION A-A



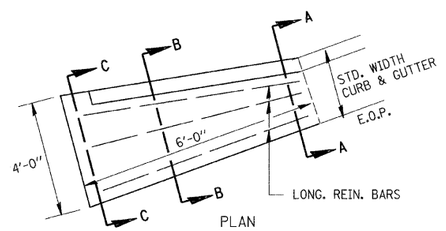
SECTION B-B



SECTION C-C



CURB DETAIL



PLAN

CURB & GUTTER OUTLET, SPECIAL

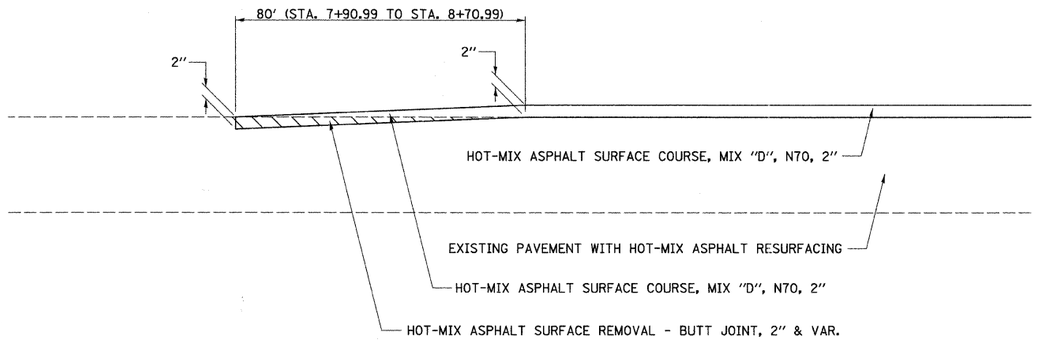
FILE NAME = V:\2545\2545H003.dgn	USER NAME = bdecraene	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 4.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 55 (RENWICK RD.) SPECIAL DETAILS

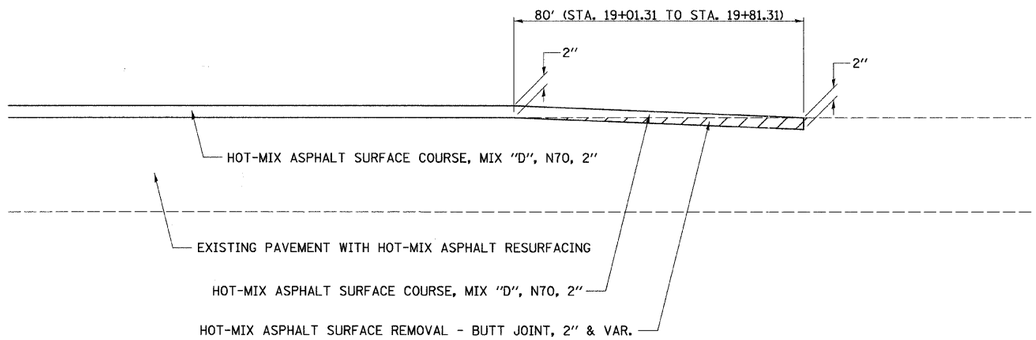
SCALE: 1″=1′ | SHEET NO. 2 OF 6 SHEETS | STA. N/A | TO STA. N/A

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	125
		CONTRACT NO. 83126		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



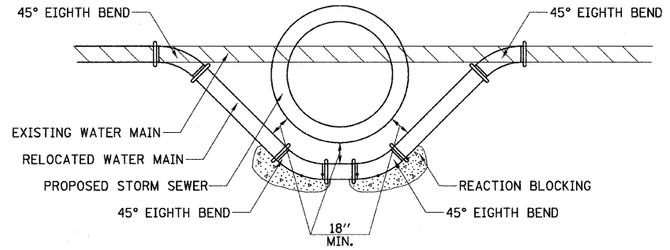
DETAIL OF BEGINNING TRANSITION

RIVER RD. (SOUTH LEG)



DETAIL OF BUTT JOINT

RIVER RD. (NORTH LEG)



DETAIL OF LOWERING WATERMAIN

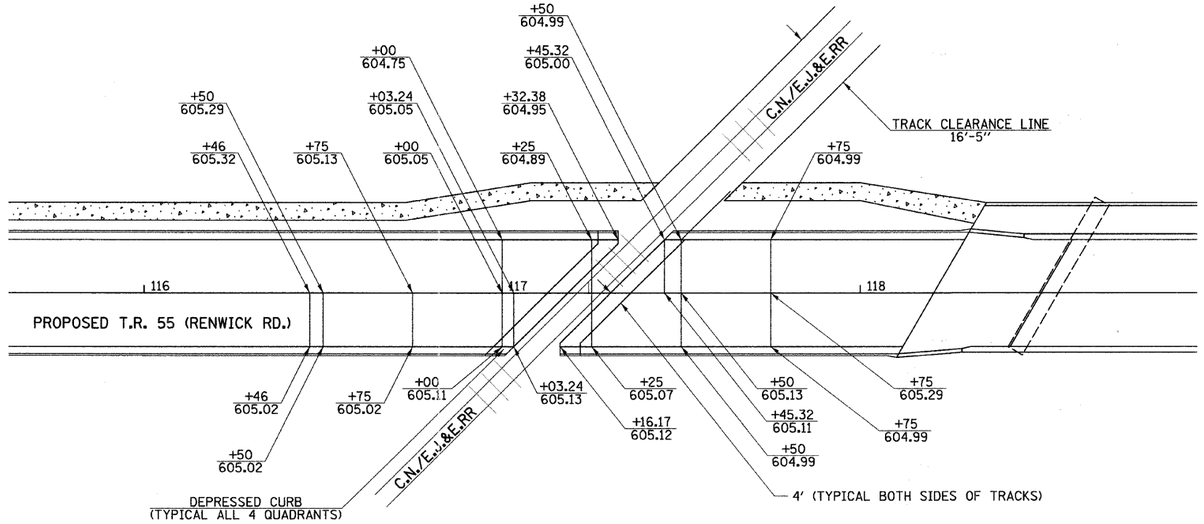
FILE NAME = V:\2545\2545h004.dgn	USER NAME = bdecraene	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 55 (RENWICK RD.) SPECIAL DETAILS

SCALE: N/A | SHEET NO. 3 OF 6 SHEETS | STA. N/A | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	126
		CONTRACT NO. 83126		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PAVEMENT GRADES WEST SIDE OF RAILROAD TRACKS

STATION	PROFILE ELEVATION	SLOPE	LEFT SIDE				RIGHT SIDE			
			SLOPE	WIDTH	DROP	EOP	SLOPE	WIDTH	DROP	EOP
116+46.00	605.32	-0.848%					0.0200	15	0.30	605.02
116+50.00	605.29	-0.797%					0.0182	15	0.27	605.02
116+51.00	605.28	-0.784%					0.0178	15	0.27	605.01
116+52.00	605.27	-0.771%					0.0173	15	0.26	605.01
116+53.00	605.27	-0.758%					0.0169	15	0.25	605.01
116+54.00	605.26	-0.745%					0.0165	15	0.25	605.01
116+55.00	605.25	-0.733%					0.0160	15	0.24	605.01
116+56.00	605.24	-0.720%					0.0156	15	0.23	605.01
116+57.00	605.24	-0.707%	0.0200	15	0.30	604.94	0.0151	15	0.23	605.01
116+58.00	605.23	-0.694%	0.0200	15	0.30	604.93	0.0147	15	0.22	605.01
116+59.00	605.22	-0.681%	0.0200	15	0.30	604.92	0.0142	15	0.21	605.01
116+60.00	605.22	-0.669%	0.0200	15	0.30	604.92	0.0138	15	0.21	605.01
116+61.00	605.21	-0.656%	0.0200	15	0.30	604.91	0.0134	15	0.20	605.01
116+62.00	605.20	-0.643%	0.0200	15	0.30	604.90	0.0129	15	0.19	605.01
116+63.00	605.20	-0.630%	0.0200	15	0.30	604.90	0.0125	15	0.19	605.01
116+64.00	605.19	-0.617%	0.0200	15	0.30	604.89	0.0120	15	0.18	605.01
116+65.00	605.18	-0.605%	0.0200	15	0.30	604.88	0.0116	15	0.17	605.01
116+66.00	605.18	-0.592%	0.0200	15	0.30	604.88	0.0111	15	0.17	605.01
116+67.00	605.17	-0.579%	0.0200	15	0.30	604.87	0.0107	15	0.16	605.01
116+68.00	605.17	-0.566%	0.0200	15	0.30	604.87	0.0103	15	0.15	605.01
116+69.00	605.16	-0.553%	0.0200	15	0.30	604.86	0.0098	15	0.15	605.01
116+70.00	605.15	-0.541%	0.0200	15	0.30	604.85	0.0094	15	0.14	605.01
116+71.00	605.15	-0.528%	0.0200	15	0.30	604.85	0.0089	15	0.13	605.02
116+72.00	605.14	-0.515%	0.0200	15	0.30	604.84	0.0085	15	0.13	605.02
116+73.00	605.14	-0.502%	0.0200	15	0.30	604.84	0.0081	15	0.12	605.02
116+74.00	605.13	-0.489%	0.0200	15	0.30	604.83	0.0076	15	0.11	605.02
116+75.00	605.13	-0.477%	0.0200	15	0.30	604.83	0.0072	15	0.11	605.02
117+00.00	605.05	-0.156%	0.0200	15	0.30	604.75	-0.0039	15	-0.06	605.11
117+01.00	605.05	-0.144%	0.0196	15	0.29	604.75	-0.0043	15	-0.07	605.11
117+02.00	605.05	-0.131%	0.0192	15	0.29	604.76	-0.0048	15	-0.07	605.12
117+03.00	605.05	-0.118%	0.0189	15	0.28	604.76	-0.0052	15	-0.08	605.12
117+03.24	605.05	-0.115%	0.0188	15	0.28	604.76	-0.0053	15	-0.08	605.13
117+04.00	605.05	-0.105%	0.0185	15	0.28	604.77				
117+05.00	605.04	-0.092%	0.0181	15	0.27	604.77				
117+06.00	605.04	-0.080%	0.0177	15	0.27	604.78				
117+07.00	605.04	-0.067%	0.0173	15	0.26	604.78				
117+08.00	605.04	-0.054%	0.0170	15	0.25	604.79				
117+09.00	605.04	-0.041%	0.0166	15	0.25	604.79				
117+10.00	605.04	-0.028%	0.0162	15	0.24	604.80				
117+11.00	605.04	-0.016%	0.0158	15	0.24	604.80				
117+12.00	605.04	-0.003%	0.0154	15	0.23	604.81				
117+13.00	605.04	0.010%	0.0151	15	0.23	604.81				
117+14.00	605.04	0.023%	0.0147	15	0.22	604.82				
117+15.00	605.04	0.036%	0.0143	15	0.21	604.83				
117+16.00	605.04	0.048%	0.0139	15	0.21	604.83				
117+17.00	605.04	0.061%	0.0135	15	0.20	604.84				
117+18.00	605.04	0.074%	0.0132	15	0.20	604.85				
117+19.00	605.04	0.087%	0.0128	15	0.19	604.85				
117+20.00	605.04	0.100%	0.0124	15	0.19	604.86				
117+21.00	605.05	0.112%	0.0120	15	0.18	604.87				
117+21.25	605.05	0.116%	0.0119	15	0.18	604.87				
117+22.00	605.05	0.125%	0.0117	15	0.17	604.87				
117+23.00	605.05	0.138%	0.0113	15	0.17	604.88				
117+24.00	605.05	0.151%	0.0109	15	0.16	604.89				
117+25.00	605.05	0.164%	0.0105	15	0.16	604.89				
117+25.00	605.05	0.164%	0.0105	15	0.16	604.89				
117+32.38	605.07	0.258%	0.0077	15	0.12	604.95				
117+33.38	605.07	0.271%	0.0073	15	0.11	604.96				

PAVEMENT GRADES EAST SIDE OF RAILROAD TRACKS

STATION	PROFILE ELEVATION	SLOPE	LEFT SIDE				RIGHT SIDE			
			SLOPE	WIDTH	DROP	EOP	SLOPE	WIDTH	DROP	EOP
117+15.17	605.04	0.038%					-0.0053	15	-0.080	605.12
117+16.17	605.04	0.051%					-0.0049	15	-0.074	605.12
117+25.00	605.05	0.164%					-0.0012	15	-0.018	605.07
117+26.00	605.05	0.176%					-0.0007	15	-0.011	605.06
117+27.00	605.05	0.189%					-0.0003	15	-0.005	605.06
117+28.00	605.06	0.202%					0.0001	15	0.001	605.06
117+29.00	605.06	0.215%					0.0005	15	0.008	605.05
117+30.00	605.06	0.228%					0.0009	15	0.014	605.05
117+31.00	605.06	0.241%					0.0014	15	0.021	605.04
117+32.00	605.07	0.253%					0.0018	15	0.027	605.04
117+33.00	605.07	0.266%					0.0022	15	0.033	605.04
117+34.00	605.07	0.279%					0.0026	15	0.040	605.03
117+35.00	605.07	0.292%					0.0031	15	0.046	605.03
117+36.00	605.08	0.305%					0.0035	15	0.052	605.02
117+37.00	605.08	0.317%					0.0039	15	0.059	605.02
117+38.00	605.08	0.330%					0.0043	15	0.065	605.02
117+39.00	605.09	0.343%					0.0048	15	0.071	605.02
117+40.00	605.09	0.356%					0.0052	15	0.078	605.01
117+41.00	605.09	0.369%					0.0056	15	0.084	605.01
117+42.00	605.10	0.381%					0.0060	15	0.090	605.01
117+43.00	605.10	0.394%					0.0065	15	0.097	605.00
117+44.00	605.11	0.407%					0.0069	15	0.103	605.00
117+45.00	605.11	0.420%					0.0073	15	0.109	605.00
117+45.32	605.11	0.424%	0.0073	15	0.11	605.00				
117+50.00	605.13	0.484%	0.0093	15	0.14	604.99	0.0094	15	0.141	604.99
117+51.00	605.14	0.497%	0.0098	15	0.15	604.99	0.0098	15	0.148	604.99
117+52.00	605.14	0.509%	0.0102	15	0.15	604.99	0.0103	15	0.154	604.99
117+53.00	605.15	0.522%	0.0106	15	0.16	604.99	0.0107	15	0.160	604.99
117+54.00	605.15	0.535%	0.0110	15	0.17	604.99	0.0111	15	0.167	604.99
117+55.00	605.16	0.548%	0.0115	15	0.17	604.99	0.0115	15	0.173	604.98
117+56.00	605.16	0.561%	0.0119	15	0.18	604.99	0.0120	15	0.179	604.98
117+57.00	605.17	0.573%	0.0123	15	0.18	604.98	0.0124	15	0.186	604.98
117+58.00	605.17	0.586%	0.0127	15	0.19	604.98	0.0128	15	0.192	604.98
117+59.00	605.18	0.599%	0.0132	15	0.20	604.98	0.0132	15	0.198	604.98
117+60.00	605.19	0.612%	0.0136	15	0.20	604.98	0.0136	15	0.205	604.98
117+61.00	605.19	0.625%	0.0140	15	0.21	604.98	0.0141	15	0.211	604.98
117+62.00	605.20	0.637%	0.0145	15	0.22	604.98	0.0145	15	0.217	604.98
117+63.00	605.21	0.650%	0.0149	15	0.22	604.98	0.0149	15	0.224	604.98
117+64.00	605.21	0.663%	0.0153	15	0.23	604.98	0.0153	15	0.230	604.98
117+65.00	605.22	0.676%	0.0157	15	0.24	604.98	0.0158	15	0.236	604.98
117+66.00	605.23	0.689%	0.0162	15	0.24	604.98	0.0162	15	0.243	604.98
117+67.00	605.23	0.701%	0.0166	15	0.25	604.98	0.0166	15	0.249	604.98
117+68.00	605.24	0.714%	0.0170	15	0.26	604.98	0.0170	15	0.256	604.98
117+69.00	605.25	0.727%	0.0174	15	0.26	604.99	0.0175	15	0.262	604.99
117+70.00	605.25	0.740%	0.0179	15	0.27	604.99	0.0179	15	0.268	604.99
117+71.00	605.26	0.753%	0.0183	15	0.27	604.99	0.0183	15	0.275	604.99
117+72.00	605.27	0.765%	0.0187	15	0.28	604.99	0.0187	15	0.281	604.99
117+73.00	605.28	0.778%	0.0191	15	0.29	604.99	0.0192	15	0.287	604.99
117+74.00	605.29	0.791%	0.0196	15	0.29	604.99	0.0196	15	0.294	604.99
117+75.00	605.29	0.804%	0.0200	15	0.30	604.99	0.0200	15	0.300	604.99

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USER NAME = bdecraene | PLOT SCALE = 20.000 ' / IN. | PLOT DATE = 5/10/2011

DESIGNED - | DRAWN - | CHECKED - | DATE -

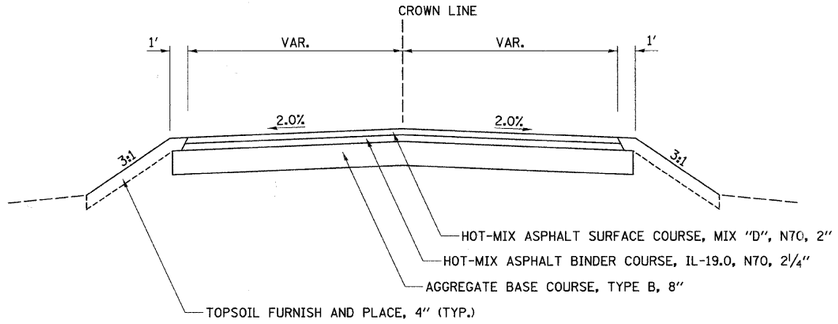
REVISED - | REVISED - | REVISED - | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

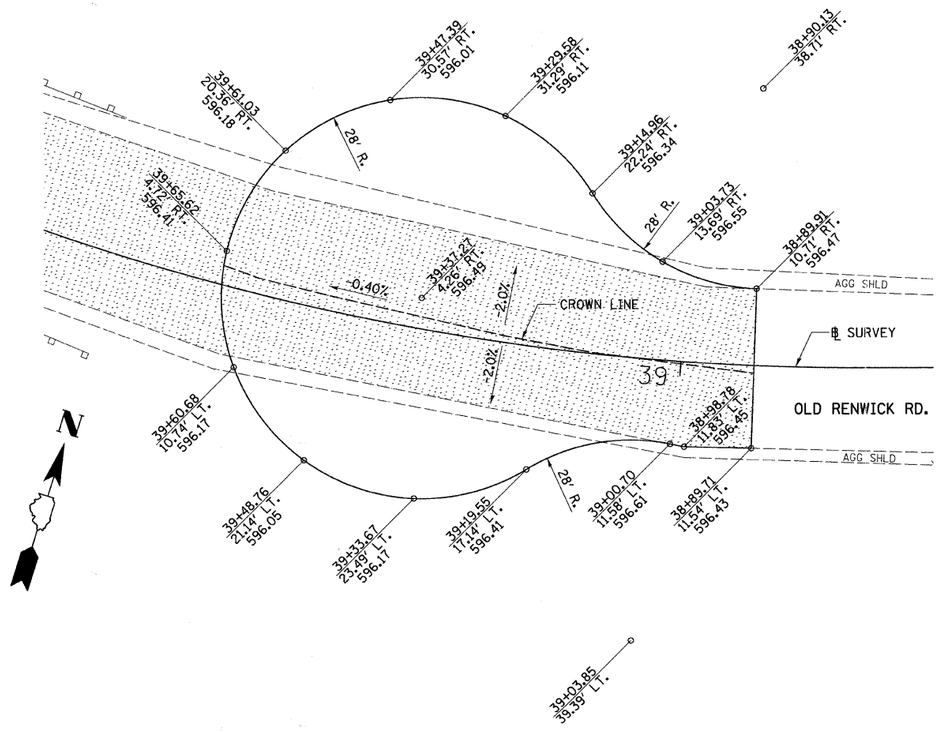
T.R. (RENWICK RD.) RAILROAD DETAIL

SCALE: 1"=1' | SHEET NO. 4 OF 6 SHEETS | STA. N/A | TO STA. N/A

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	127
		CONTRACT NO. 83126		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

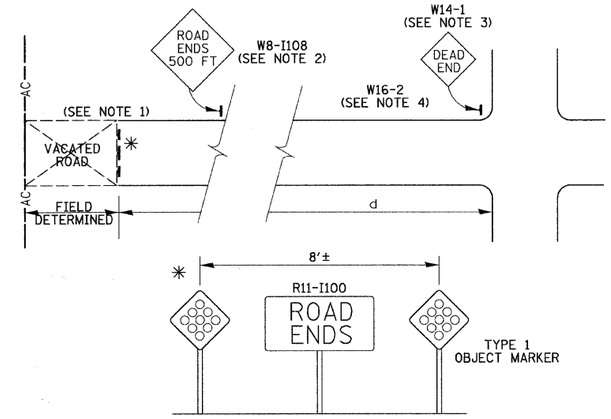


TYPICAL SECTION



PLAN

CUL-DE-SAC DETAILS



LOW VOLUME ROAD CLOSURE

NOTES:

1. OLD PAVEMENT SHOULD BE REMOVED TO SOME DISTANCE BEYOND THE CLOSURE POINT OR COVERED WITH DIRT TO MINIMIZE THE ILLUSION OF THE ROAD CONTINUING AND TO PROVIDE A REASONABLE SAFE RECOVERY AREA. THE MARKERS FOR THE END OF ROADWAY SHALL CONFORM WITH SECTION 3C-4 OF THE MUTCH.
2. USE WHERE "d" EXCEEDS 1,500 FEET OR WHERE SIGHT DISTANCE TO THE CLOSURE IS LESS THAN 500 FEET.
3. THE DEAD END SIGN (W14-1) SHALL BE USED IN ALL CASES EXCEPT WHERE THE CLOSURE POINT IS VISIBLE FROM THE CROSSROAD.
4. WHERE THE POINT OF CLOSURE IS OVER 1 MILE FROM THE LAST CROSSROAD, A MILES AHEAD PLATE (W12-1101) SHALL BE USED.

SIGNING DETAILS

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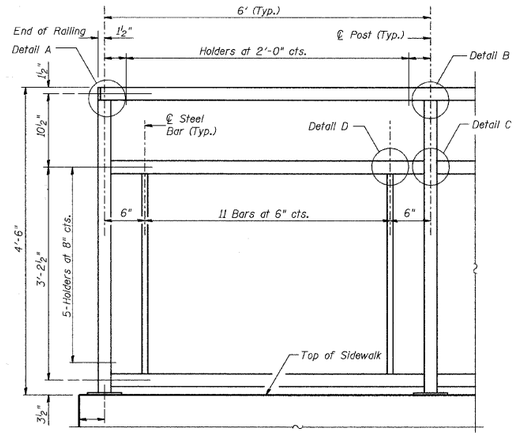
		DRAWN -	REVISED -
	PLOT SCALE = 10.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 5/10/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

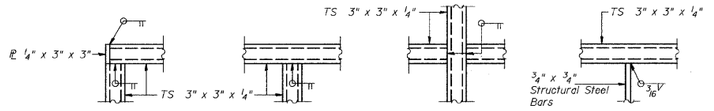
OLD RENWICK RD.
CUL-DE-SAC & SIGNING DETAILS

SCALE: 1"=10' | SHEET NO. 5 OF 6 SHEETS | STA. N/A | TO STA. N/A

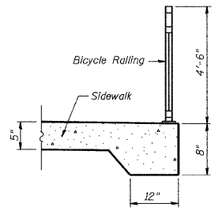
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	128
		CONTRACT NO. 83126		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



BICYCLE RAILING ELEVATION



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



SECTION THRU SIDEWALK

NOTES

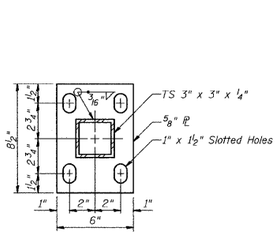
Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the Contract Unit Price per foot for Bicycle Railing.

Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, structural steel tubing.

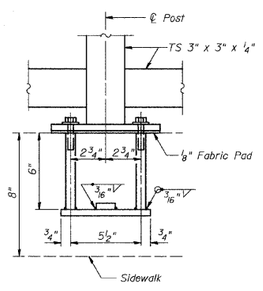
All other steel shapes and plates shall conform to the requirements of AASHTO M 270M Grade 250.

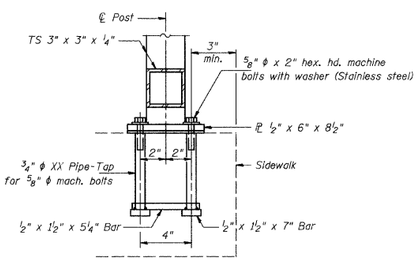
All post, railing, splices, anchor devices, and bent plates shall be painted with the inorganic zinc rich primer /acrylic/ acrylic paint system, for both shop and field painting. The color of the acrylic finish coat shall be Black.

All sidewalk will be paid for as P.C.C. sidewalk, 5" including the outside 12" wide by 8" thick section that accommodates the bicycle railing.

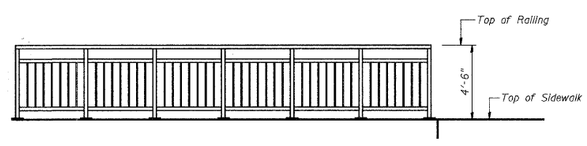


BASE ℙ

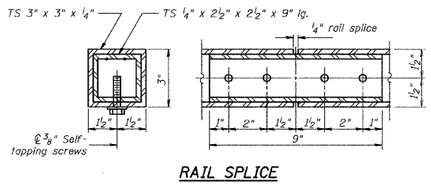




ANCHOR BOLT DETAILS
(Typical)



BICYCLE RAILING SIDE VIEW



RAIL SPLICE

LOCATION	STA. TO STA.	LENGTH
WEST OF WEST APPROACH PAVEMENT	118+10.2 TO 118+34.2	24'
EAST OF EAST APPROACH PAVEMENT	125+02.3 TO 126+04.3	84'
	TOTAL	108'

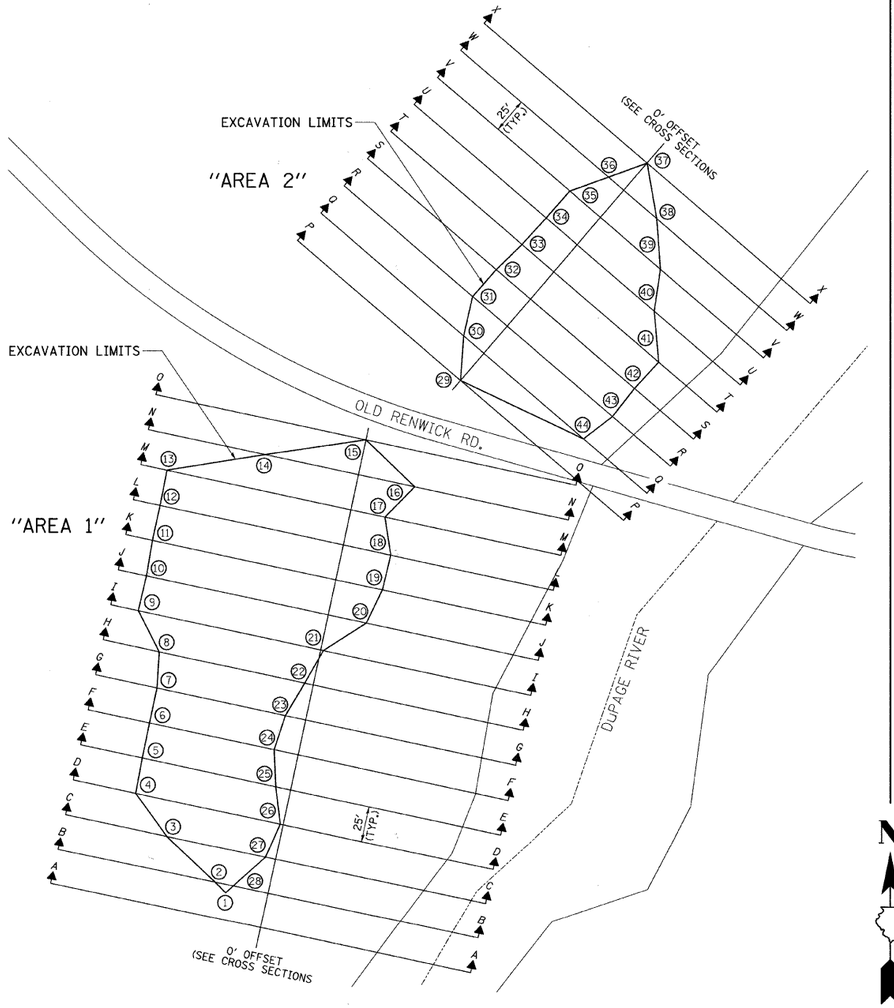
FILE NAME = v:\2545\2545h028.dgn	USER NAME = bdecraene	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	T.R. 55 (RENWICK RD.) BICYCLE RAILING DETAILS ON SIDEWALK
		DRAWN -	REVISED -		
	PLOT SCALE = 1.000 ' / IN.	CHECKED -	REVISED -		SCALE: N/A | SHEET NO. 6 OF 6 SHEETS | STA. N/A | TO STA. N/A
	PLOT DATE = 5/10/2011	DATE -	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	129
		CONTRACT NO. 83126		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

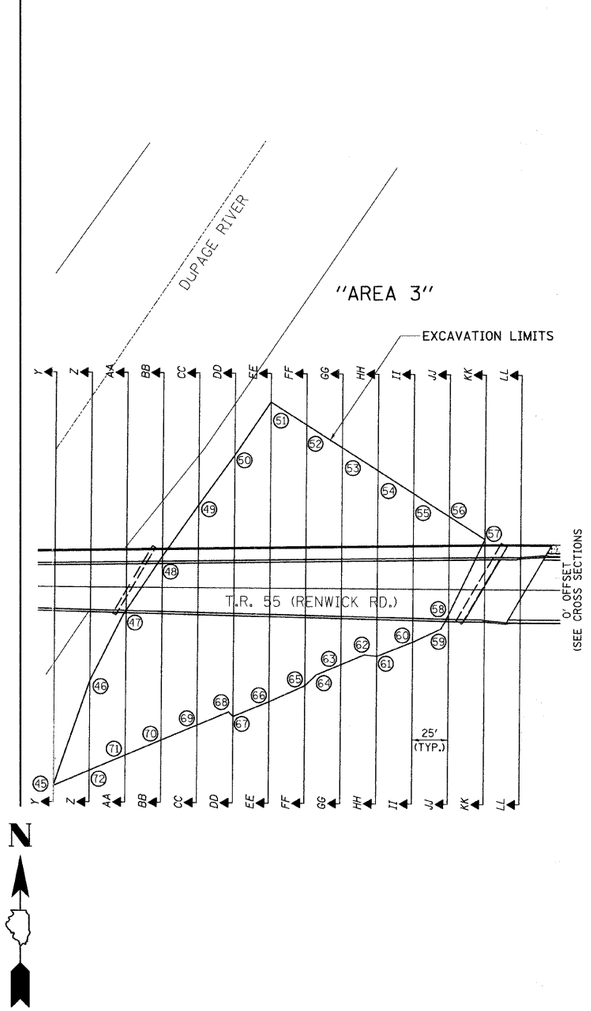
POINT COORDINATES

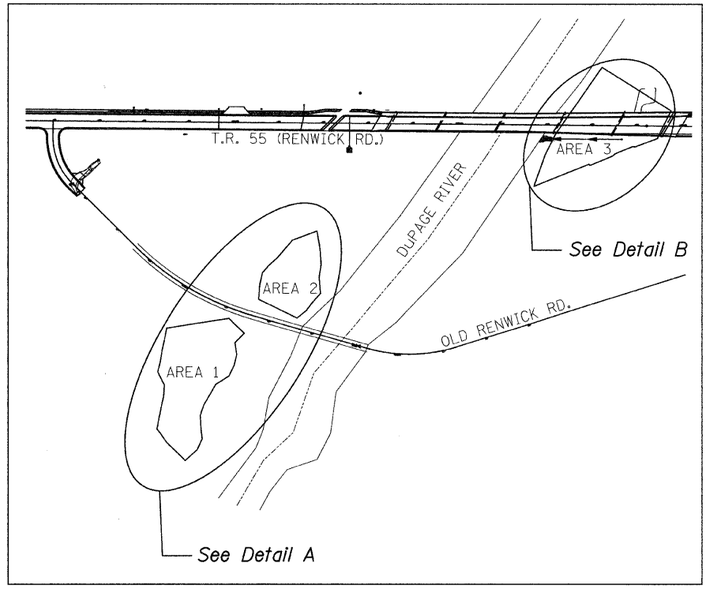
NO.	NORTHING	EASTING	ELEVATION	NO.	NORTHING	EASTING	ELEVATION	NO.	NORTHING	EASTING	ELEVATION	NO.	NORTHING	EASTING	ELEVATION
1	9,224.01	6,431.66	595.92	19	9,436.59	6,541.14		37	9,734.66	6,725.98	595.62	55	10,054.42	7,437.38	596.43
2	9,231.60	6,424.22	596.14	20	9,413.43	6,529.92		38	9,695.89	6,732.76		56	10,038.37	7,462.25	596.25
3	9,264.41	6,390.56	597.26	21	9,394.29	6,500.03		39	9,660.76	6,735.29		57	10,022.33	7,487.11	596.54
4	9,294.65	6,368.84	598.58	22	9,371.53	6,486.95		40	9,631.57	6,730.91		58	9,996.26	7,511.90	597.45
5	9,319.24	6,373.41	598.87	23	9,348.88	6,473.38	595.92	41	9,595.92	6,734.05		59	9,953.19	7,486.55	597.15
6	9,343.75	6,378.38	599.06	24	9,325.01	6,465.48		42	9,577.41	6,717.23		60	9,943.97	7,481.14	596.89
7	9,368.19	6,383.63	599.08	25	9,299.20	6,466.58		43	9,557.73	6,701.78		61	9,934.78	7,461.39	596.62
8	9,393.40	6,385.30	599.19	26	9,272.95	6,469.73		44	9,542.15	6,681.55	595.00	62	9,925.09	7,436.31	596.56
9	9,422.12	6,370.69	601.09	27	9,249.60	6,459.39		45	9,835.23	7,210.57		63	9,926.10	7,427.59	596.09
10	9,446.47	6,376.34	600.89	28	9,228.86	6,436.93		46	9,908.54	7,236.17		64	9,919.27	7,411.26	596.48
11	9,471.15	6,380.52	601.49	29	9,582.92	6,595.69	599.28	47	9,908.73	7,236.17		65	9,912.16	7,394.28	596.48
12	9,495.57	6,385.87	601.37	30	9,614.00	6,597.87	599.80	48	9,957.39	7,261.57		66	9,904.60	7,386.14	596.95
13	9,520.11	6,390.64	601.61	31	9,641.57	6,604.14	600.17	49	9,994.98	7,286.88		67	9,893.40	7,361.05	596.92
14	9,530.97	6,459.06	599.34	32	9,660.34	6,620.65	599.48	50	10,030.71	7,312.18		68	9,883.21	7,335.96	597.08
15	9,541.36	6,529.62	600.00	33	9,677.87	6,638.61	598.89	51	10,065.40	7,337.46	595.82	69	9,886.43	7,332.83	596.15
16	9,508.48	6,563.56		34	9,696.26	6,655.57	598.48	52	10,102.55	7,362.77	595.72	70	9,877.25	7,310.91	595.55
17	9,487.37	6,542.86	595.92	35	9,715.09	6,672.01	598.33	53	10,086.51	7,387.64	596.07	71	9,866.75	7,285.83	595.47
18	9,460.93	6,546.89		36	9,724.85	6,699.10	597.51	54	10,070.46	7,412.51	596.33	72	9,856.24	7,260.74	595.90

Detail A



Detail B

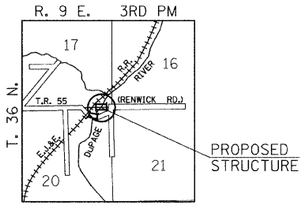




N

200 0' 200

GRAPHIC SCALE IN FEET



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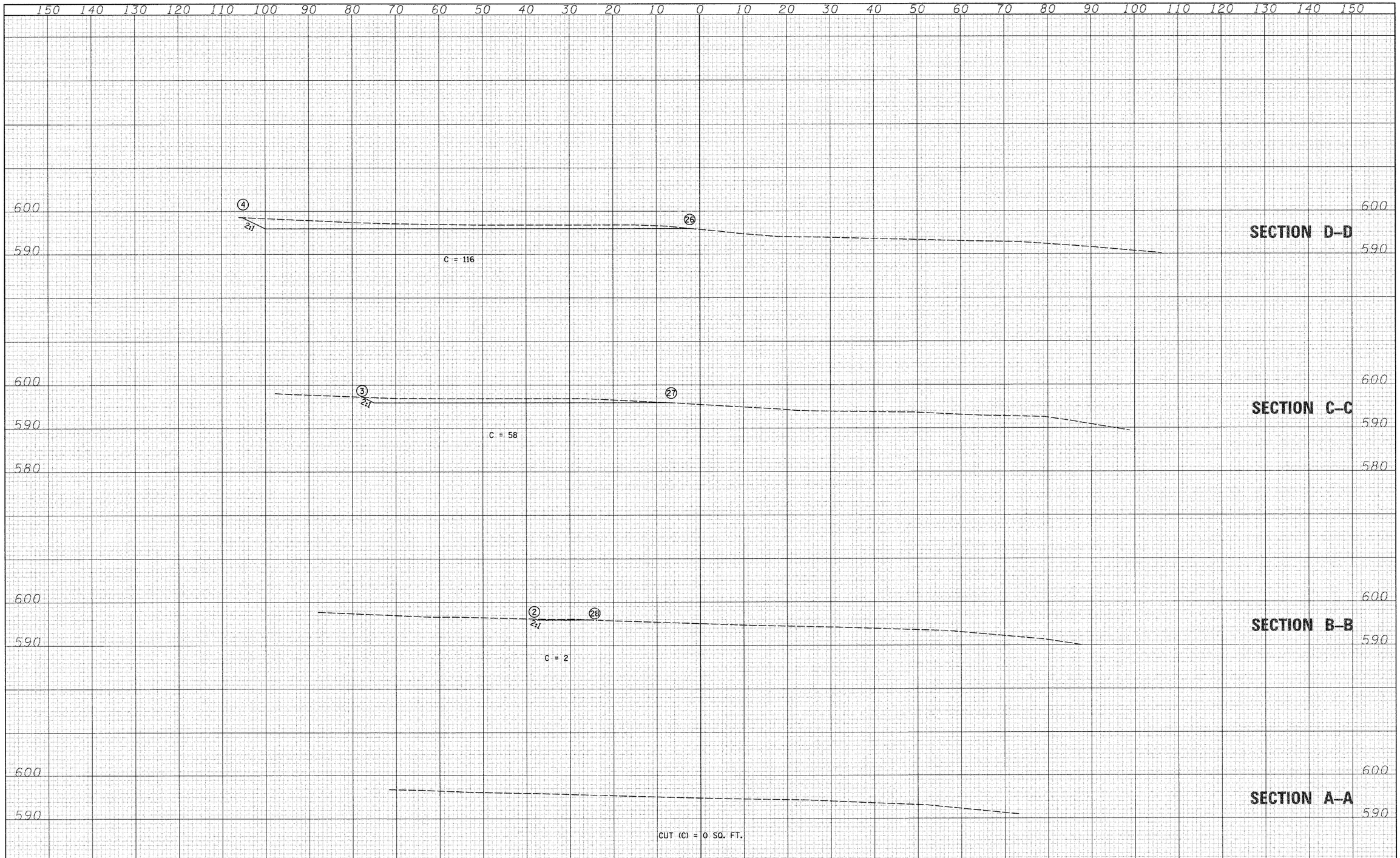
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 55 (RENWICK RD.)
COMPENSATORY STORAGE PLAN

SCALE: 1"=100' | SHEET NO. 1 OF 12 SHEETS | STA. N/A | TO STA. N/A

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	130
		CONTRACT NO. 83126		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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	PLOT DATE = 5/10/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

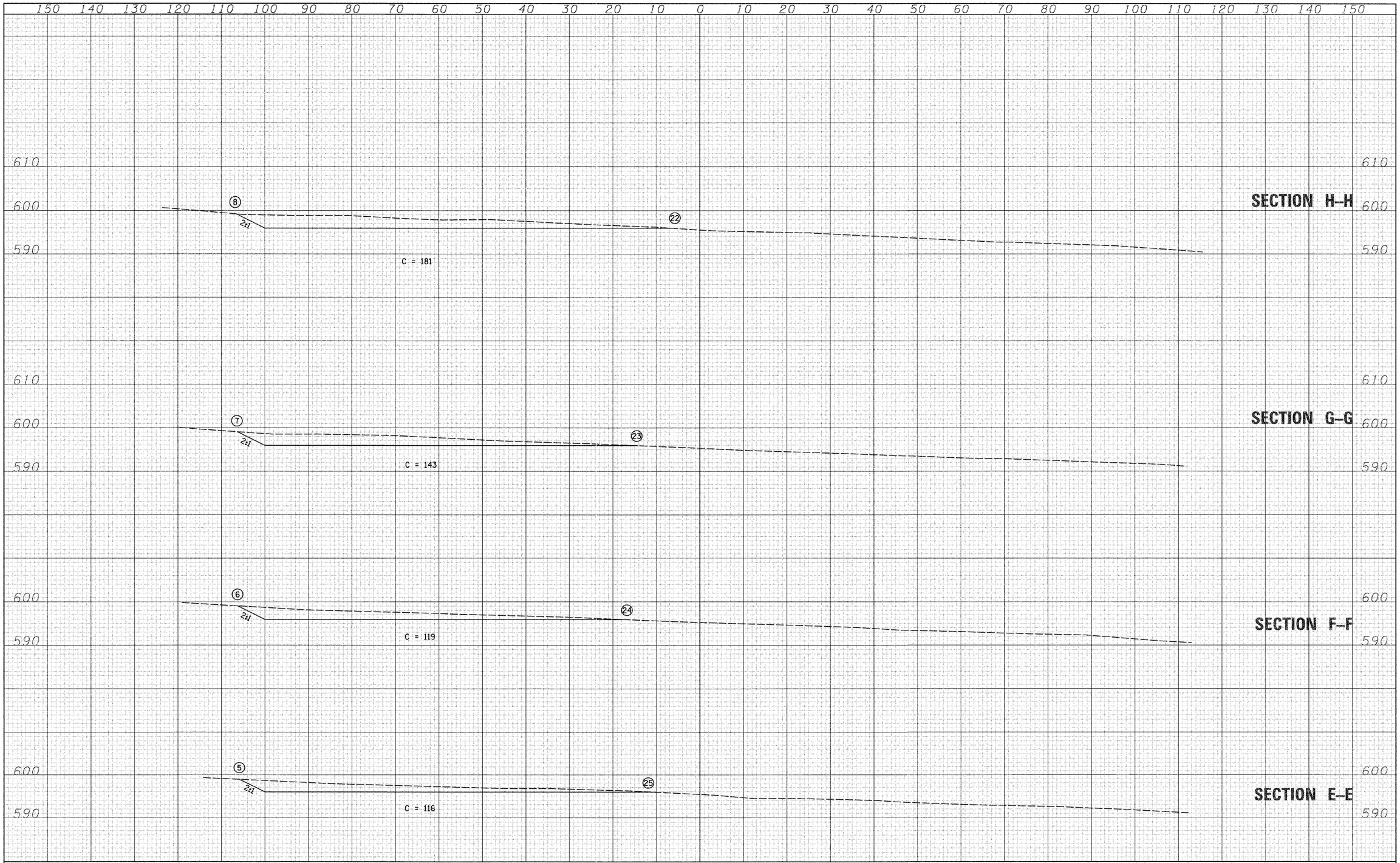
T.R. 55 (RENWICK RD.)
COMPENSATORY STORAGE AREA 1 CROSS SECTIONS

SCALE: H=10 V=10 | SHEET NO. 2 OF 12 SHEETS | SECTION A-A TO SECTION D-D

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	131

CONTRACT NO. 83126

ILLINOIS FED. AID PROJECT



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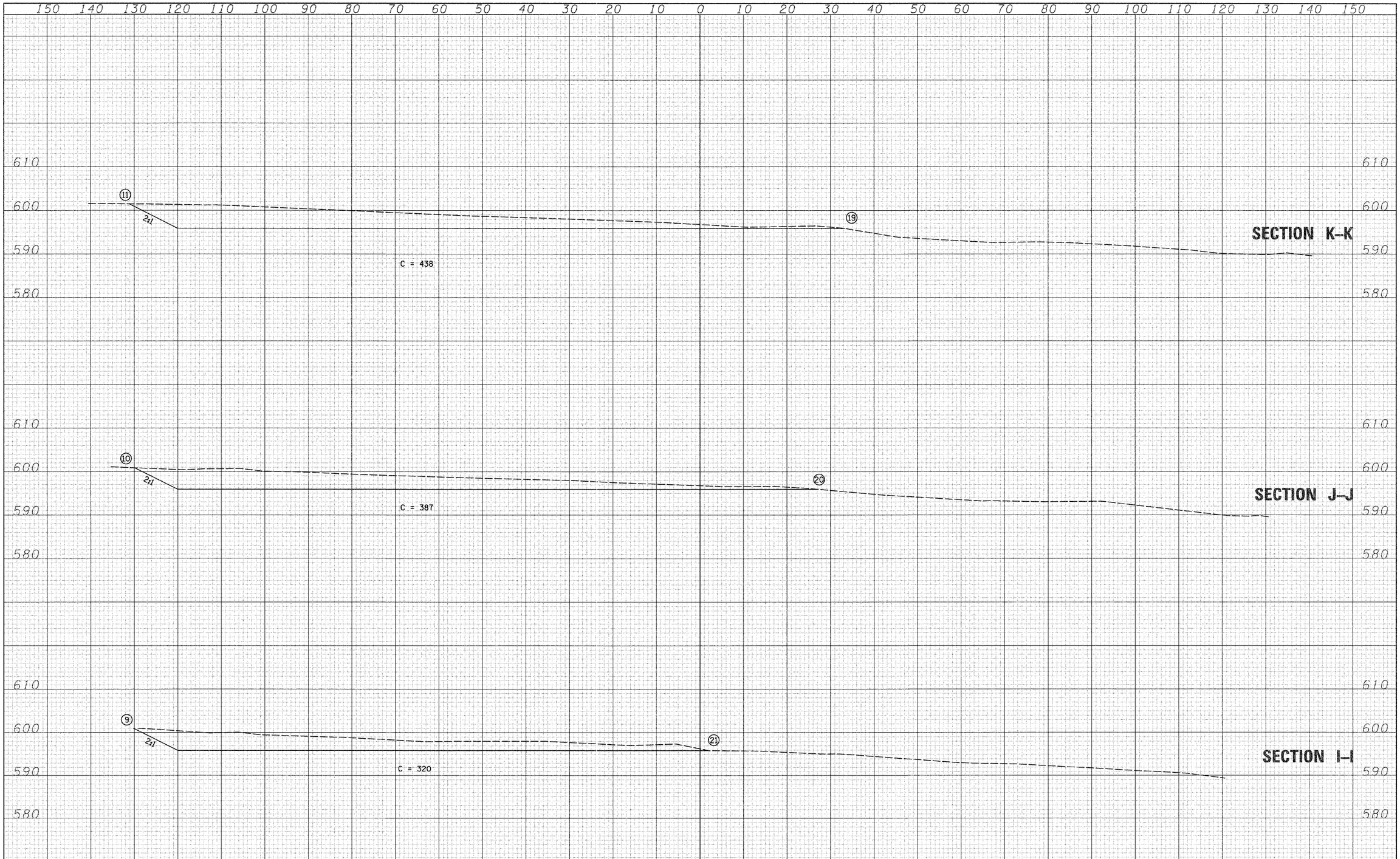
	PLOT DATE = 5/10/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 55 (RENWICK RD.)
COMPENSATORY STORAGE AREA 1 CROSS SECTIONS

SCALE: H=10 V=10 | SHEET NO. 3 OF 12 SHEETS | SECTION E-E TO SECTION H-H

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	132
		CONTRACT NO. 83126		
	ILLINOIS FED. AID PROJECT			



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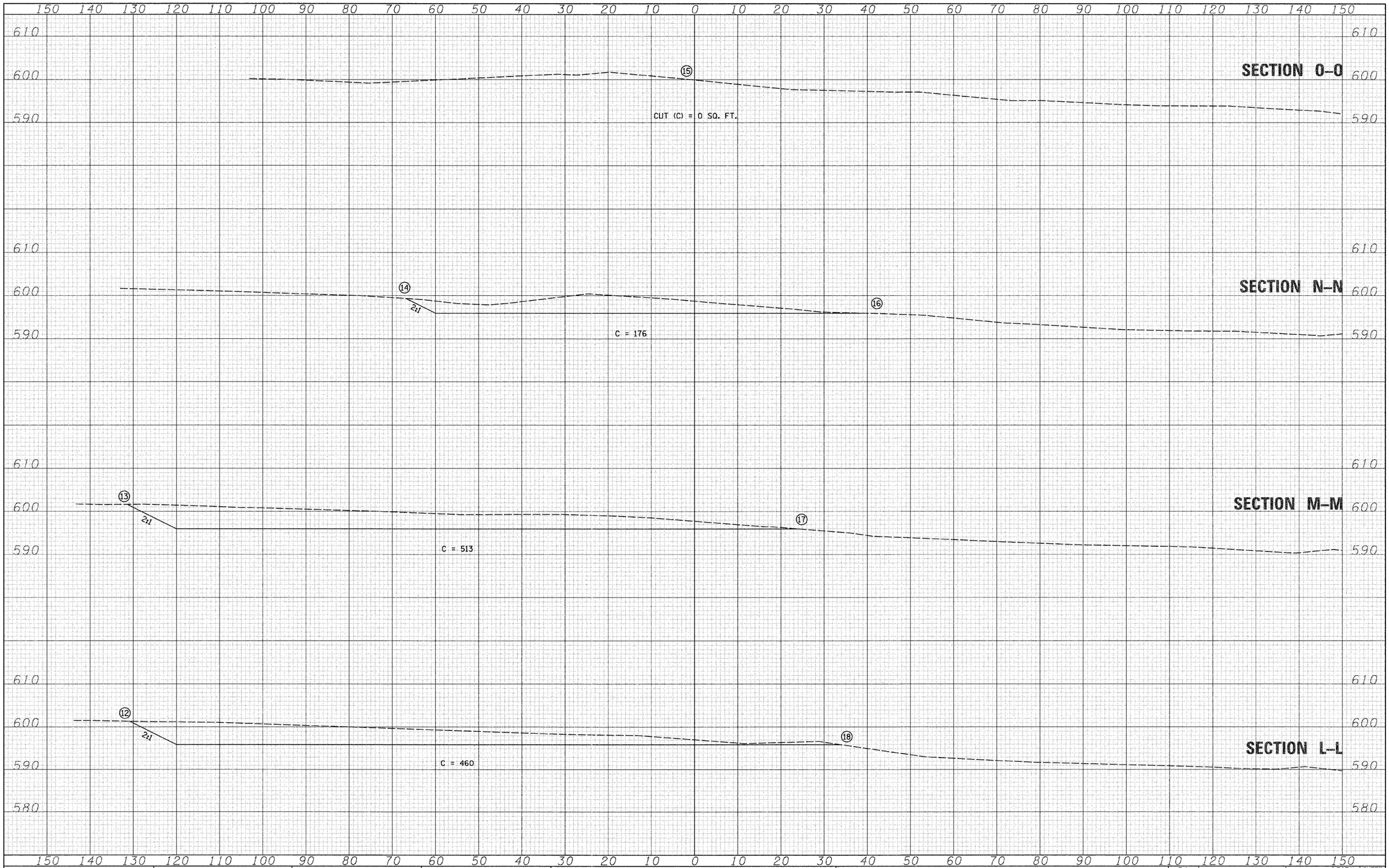
	PLOT DATE = 5/10/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 55 (RENWICK RD.)
COMPENSATORY STORAGE AREA 1 CROSS SECTIONS

SCALE: H=10 V=10 | SHEET NO. 4 OF 12 SHEETS | SECTION I-I TO SECTION K-K

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	133
		CONTRACT NO. 83126		
		ILLINOIS FED. AID PROJECT		



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	PLOT DATE = 5/10/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 55 (RENWICK RD.)
COMPENSATORY STORAGE AREA 1 CROSS SECTIONS

SCALE: H=10 V=10 | SHEET NO. 5 OF 12 SHEETS | SECTION L-L TO SECTION M-M

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	134
		CONTRACT NO. 83126		
	ILLINOIS FED. AID PROJECT			

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

610
600
590
580

(31)
2:1
(43)
C = 366

SECTION R–R

610
600
590
580

(30)
2:1
(44)
C = 321

SECTION Q–Q

610
600
590
580

CUT (C) = 0 SQ. FT.

SECTION P–P

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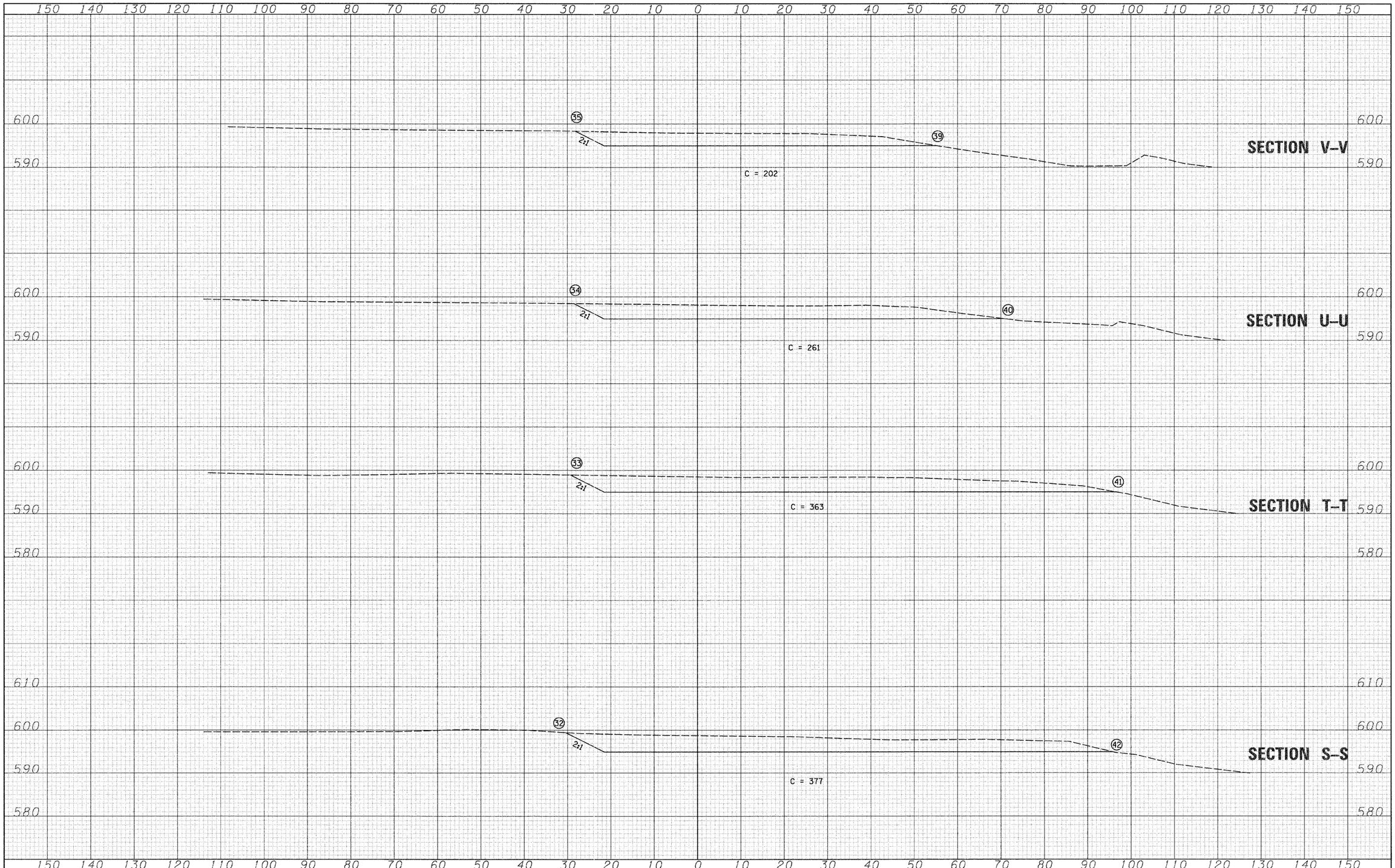
	PLOT DATE = 5/10/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 55 (RENWICK RD.)
COMPENSATORY STORAGE AREA 2 CROSS SECTIONS

SCALE: H=10 V=10 | SHEET NO. 6 OF 12 SHEETS | SECTION P-P TO SECTION R-R

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	135
		CONTRACT NO. 83126		
		ILLINOIS FED. AID PROJECT		



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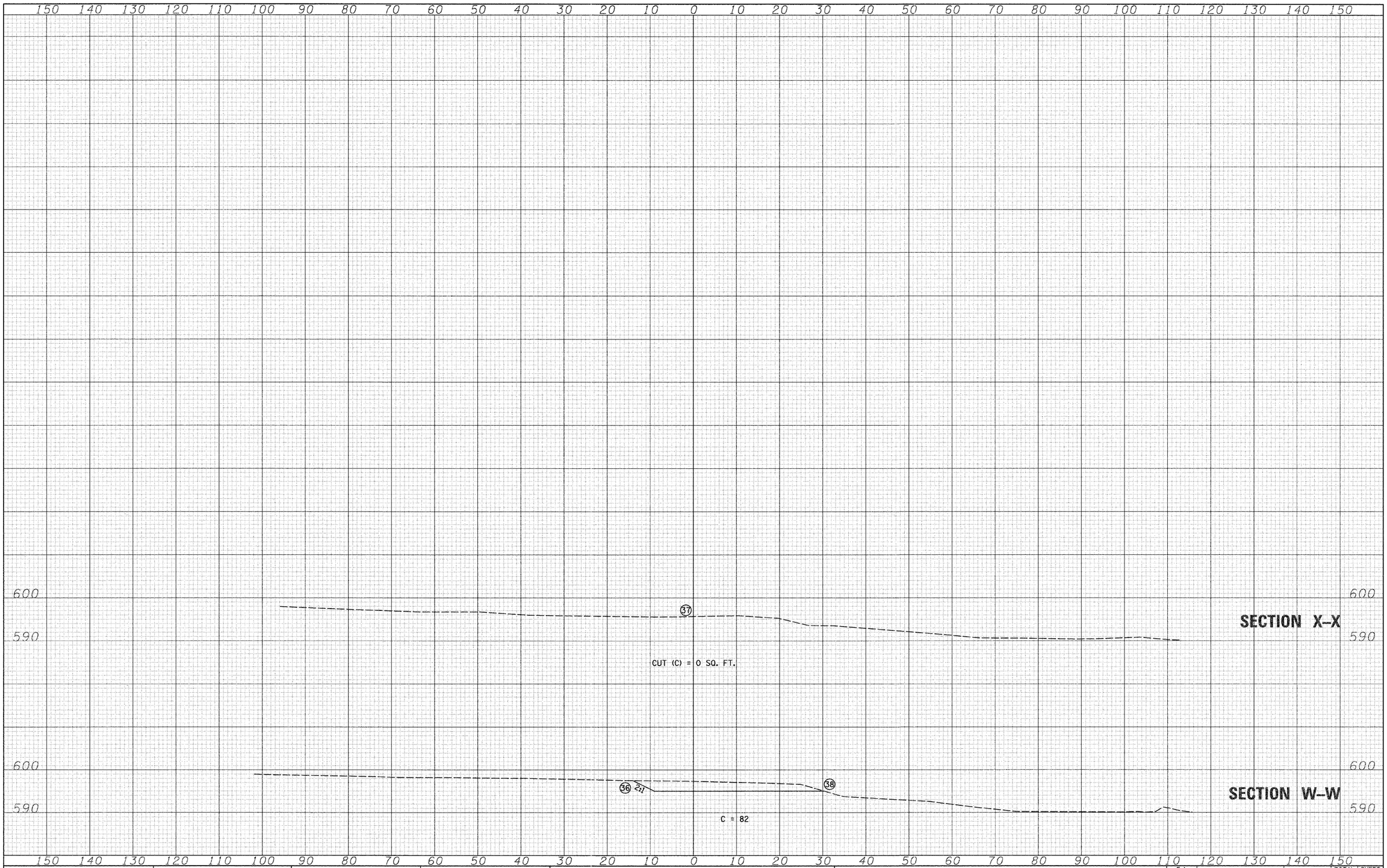
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 55 (RENWICK RD.)
COMPENSATORY STORAGE AREA 2 CROSS SECTIONS

SCALE: H=10 V=10 | SHEET NO. 7 OF 12 SHEETS | SECTION S-S TO SECTION V-V

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	136
		CONTRACT NO. 83126		
	ILLINOIS FED. AID PROJECT			



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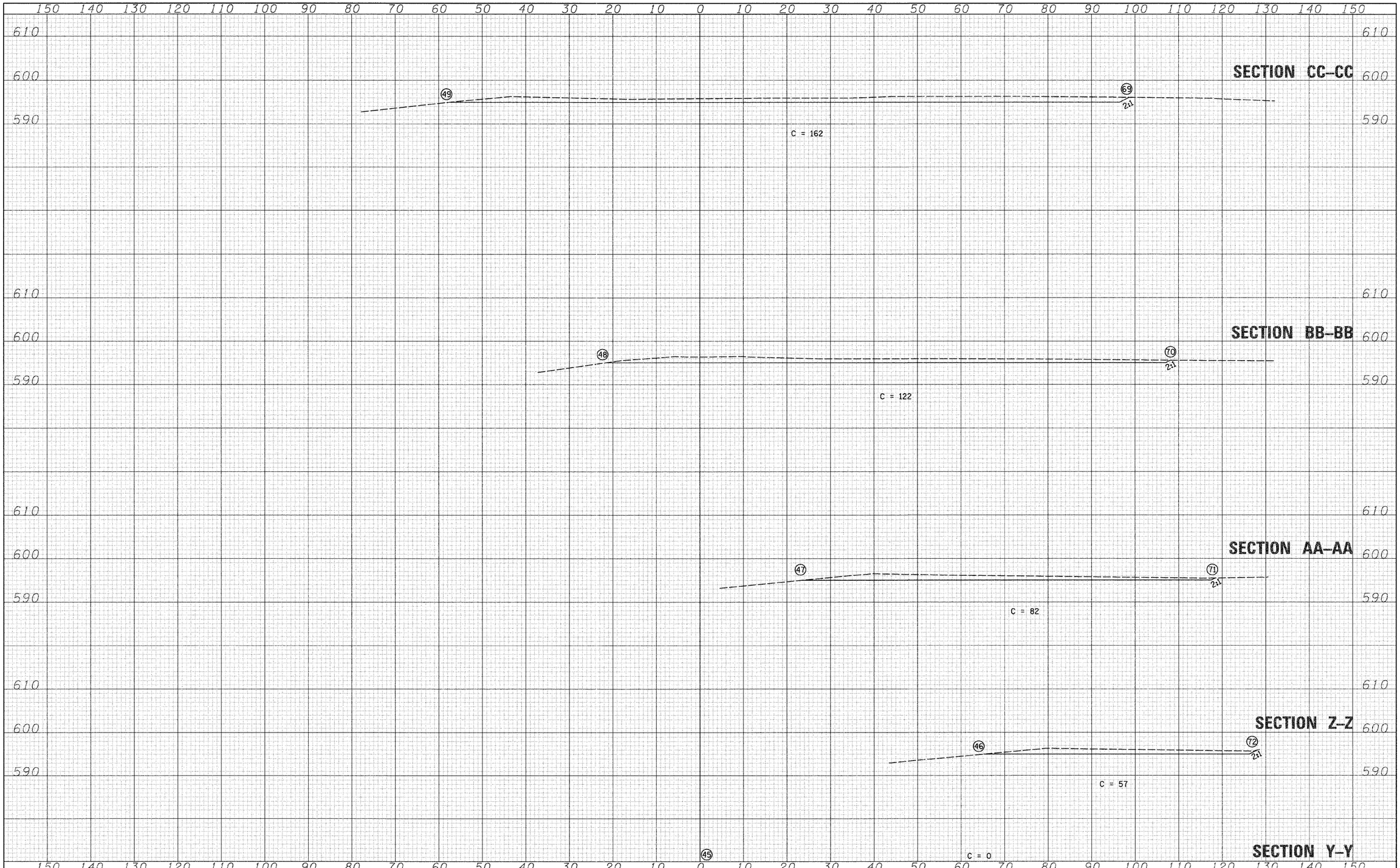
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 55 (RENWICK RD.)
COMPENSATORY STORAGE AREA 2 CROSS SECTIONS

SCALE: H=10 V=10 | SHEET NO. 8 OF 12 SHEETS | SECTION W-W TO SECTION X-X

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	137
		CONTRACT NO. 83126		
		ILLINOIS FED. AID PROJECT		



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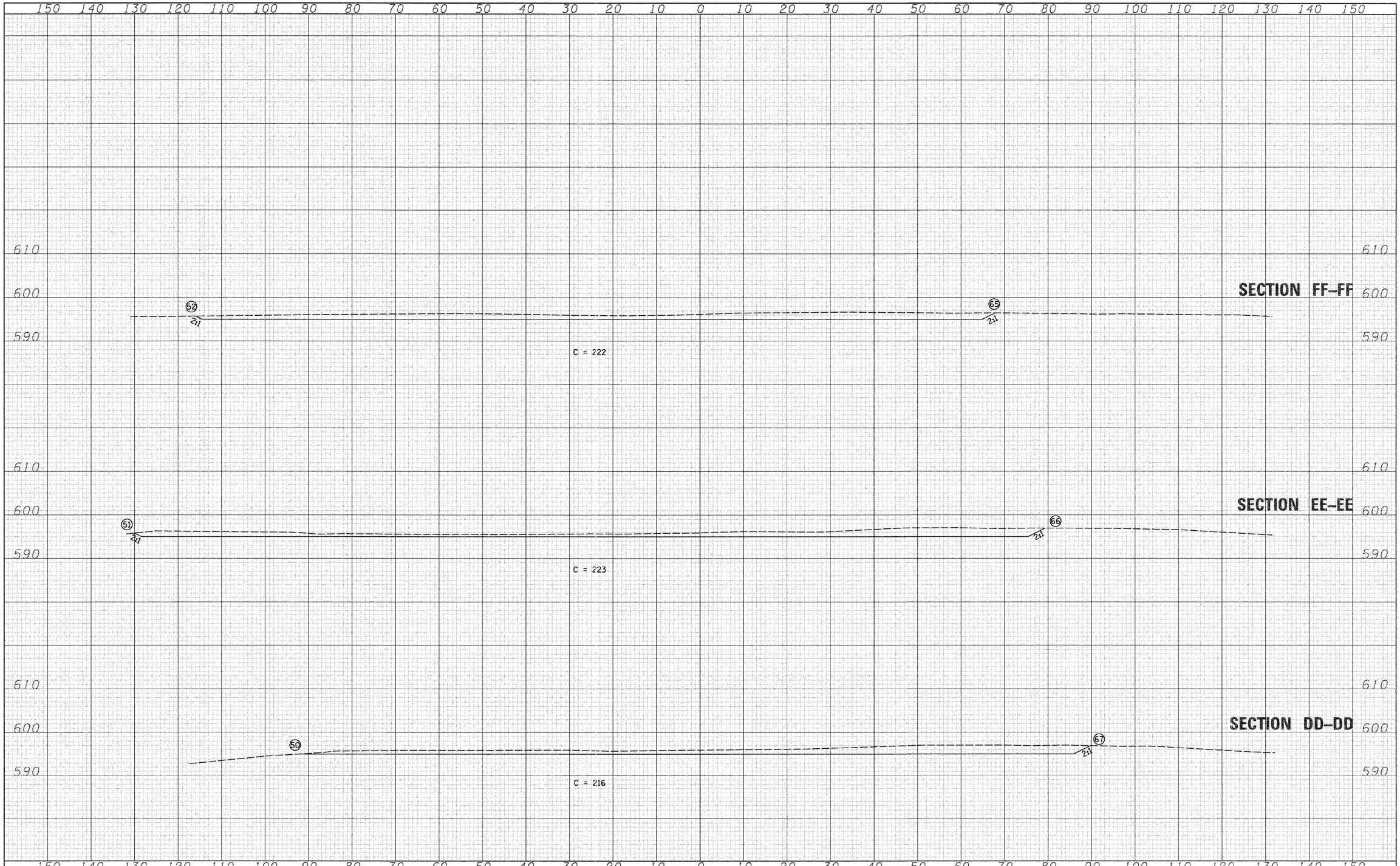
	PLOT SCALE = 10.0000 ' / IN.	DRAWN -	REVISED -			TR 55	90-16103-01-BR	WILL	255	138
	PLOT DATE = 5/10/2011	CHECKED -	REVISED -						CONTRACT NO. 83126	
		DATE -	REVISED -		SCALE: H=10 V=10 SHEET NO. 9 OF 12 SHEETS SECTION Y-Y TO SECTION CC-CC			ILLINOIS	FED. AID PROJECT	



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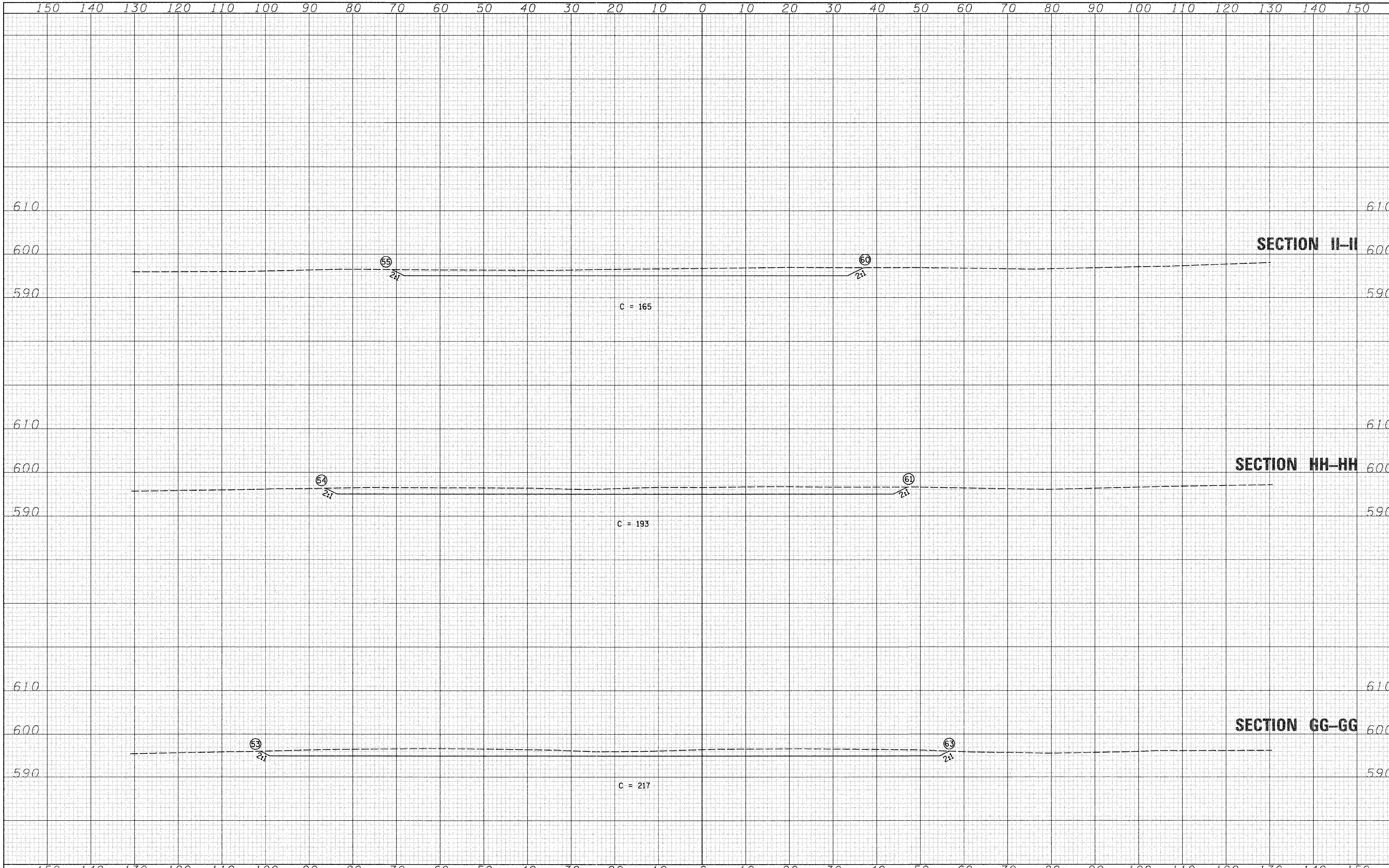
	PLOT DATE = 5/10/2011	CHECKED -	REVISED -		
		DATE -	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	139
		CONTRACT NO. 83126		
		ILLINOIS FED. AID PROJECT		



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	PLOT DATE = 5/10/2011	CHECKED -	REVISED -			ILLINOIS FED. AID PROJECT
		DATE -	REVISED -			

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

610
600
590

SECTION LL–LL

610
600
590

SECTION KK–KK

57

CUT (C) = 0 SQ. FT.

610
600
590

SECTION JJ–JJ

56 58

2:1 2:1

C = 148

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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		DRAWN -	REVISED -
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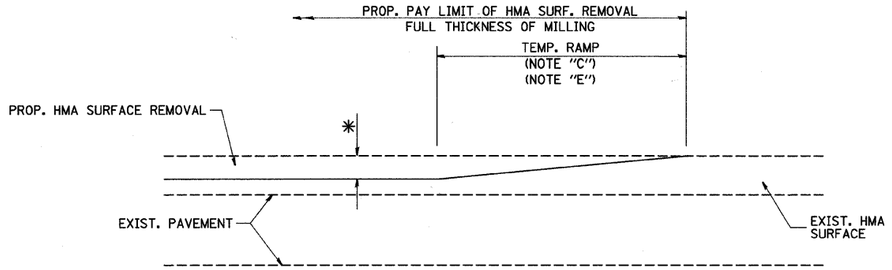
	PLOT DATE = 5/10/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

T.R. 55 (RENWICK RD.)
COMPENSATORY STORAGE AREA 3 CROSS SECTIONS

SCALE: H=10 V=10 | SHEET NO. 12 OF 12 SHEETS | SECTION JJ-JJ TO SECTION LL-LL

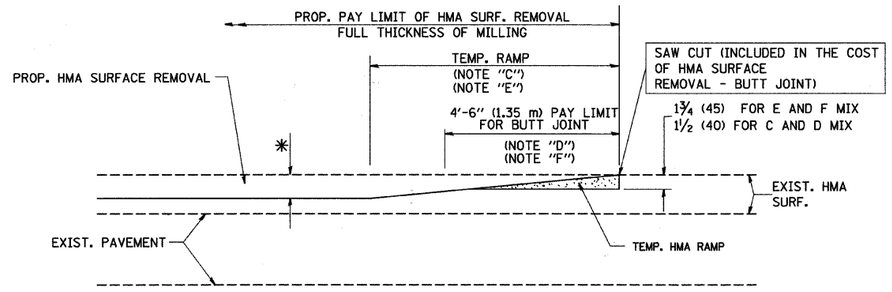
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	141
		CONTRACT NO. 83126		
		ILLINOIS FED. AID PROJECT		



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

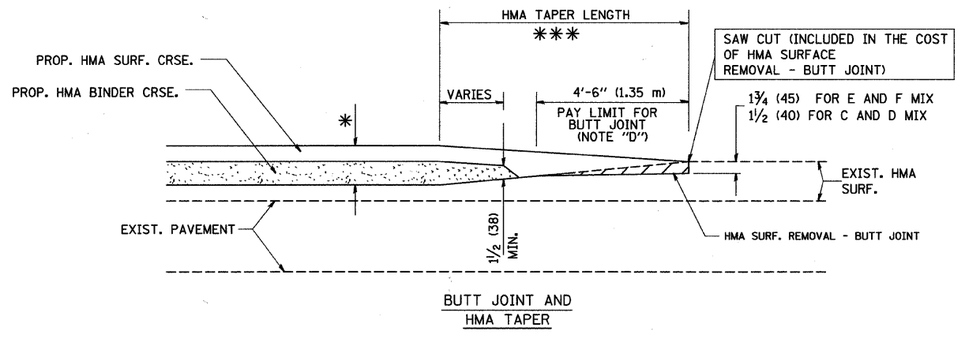


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

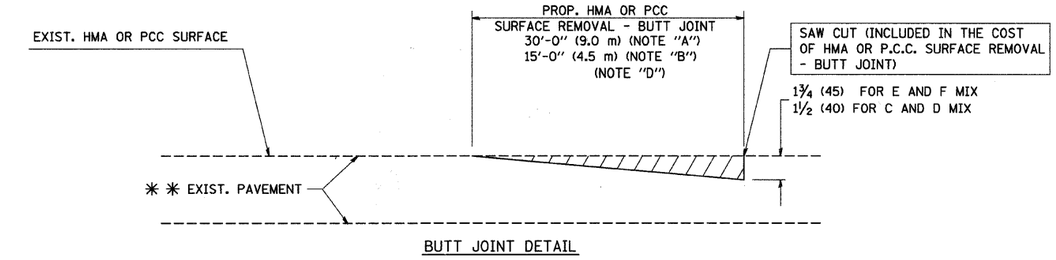
OPTION 2

TYPICAL TEMPORARY RAMP

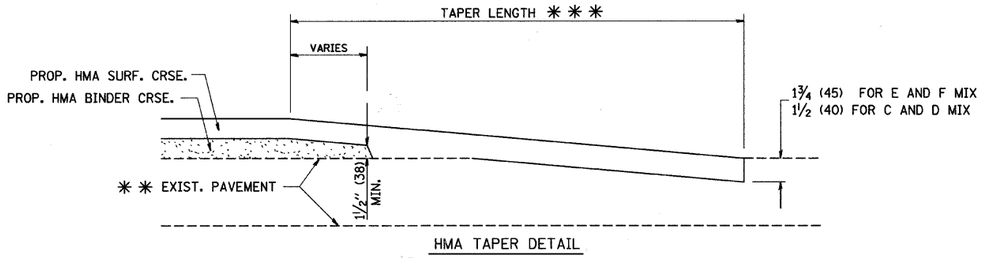


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

✳✳ PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.

F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT

G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

✳ SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

✳✳✳ 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

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

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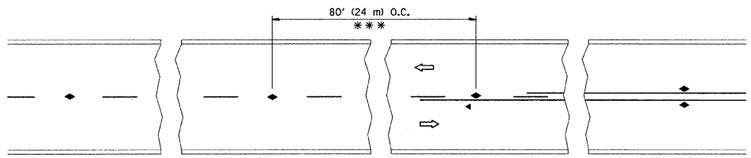
		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

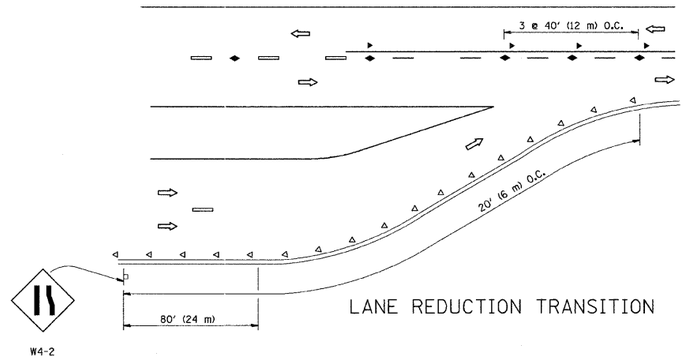
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	142
	BD400-05 BD32	CONTRACT NO. 83126		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

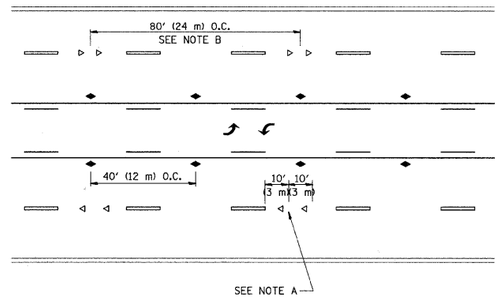


* * * REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

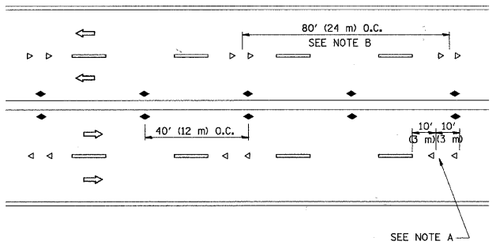
TWO-LANE/TWO-WAY



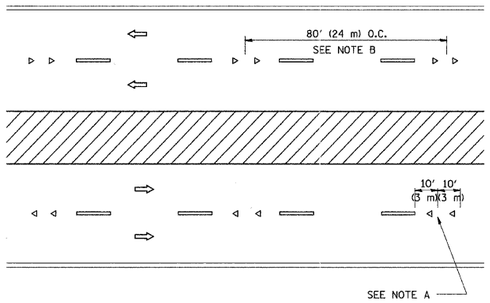
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

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

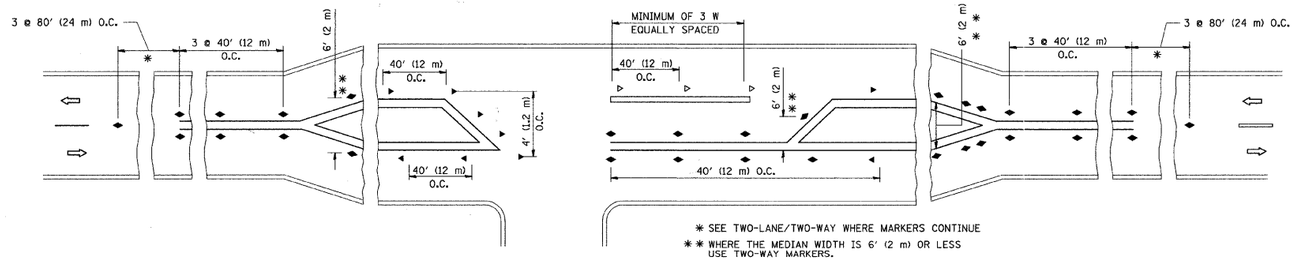
LANE MARKER NOTES

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

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



* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

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

LEFT TURN

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

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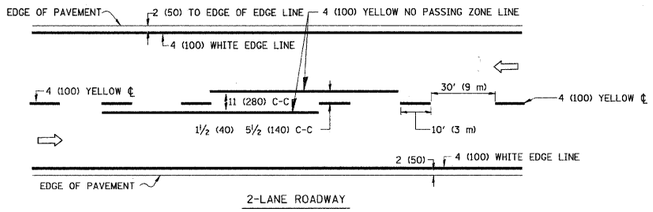
		DRAWN -	REVISED - T. RAMMACHER 03-12-99
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00
	PLOT DATE = 9/9/2009	DATE -	REVISED - C. JUCIUS 09-09-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

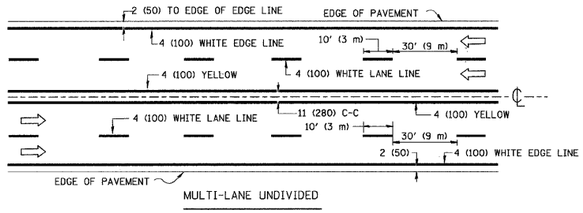
TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

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

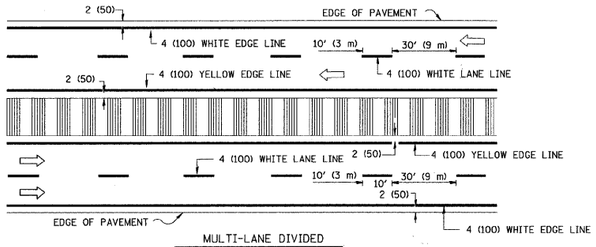
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	90-16103-01-BR	WILL	255	143
	TC-11	CONTRACT NO. 83126		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



2-LANE ROADWAY



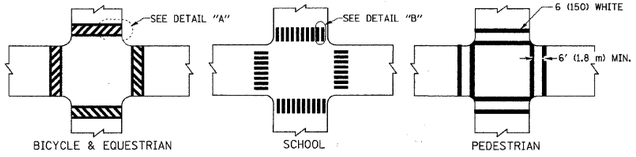
MULTI-LANE UNDIVIDED

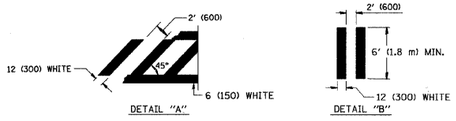


MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

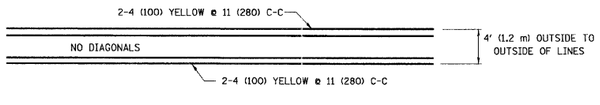
NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

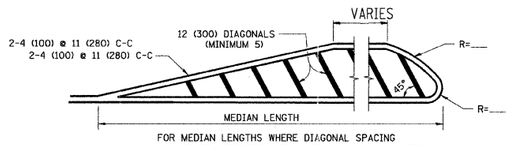




TYPICAL CROSSWALK MARKING



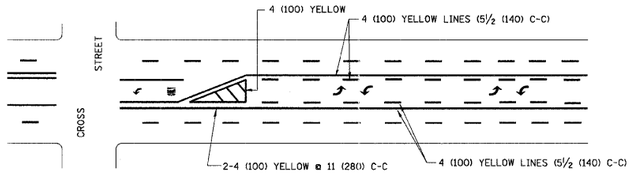
4' (1.2 m) WIDE MEDIANS ONLY



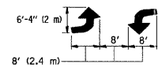
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

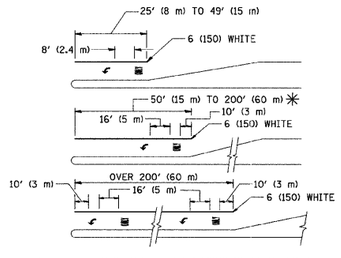


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

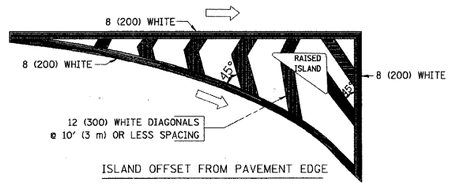


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m^2) ONLY AREA = 20.8 SQ. FT. (1.9 m^2)

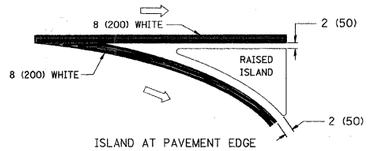
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 ℄ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 ℄ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 ℄ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 ℄ 6 (150) 12 (300) ℄ 45° 12 (300) ℄ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 ℄ 4 (100) WITH 12 (300) DIAGONALS ℄ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS ℄ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m^2) EACH "X"=54.0 SQ. FT. (5.0 m^2)
SHOULDER DIAGONALS	12 (300) ℄ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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

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

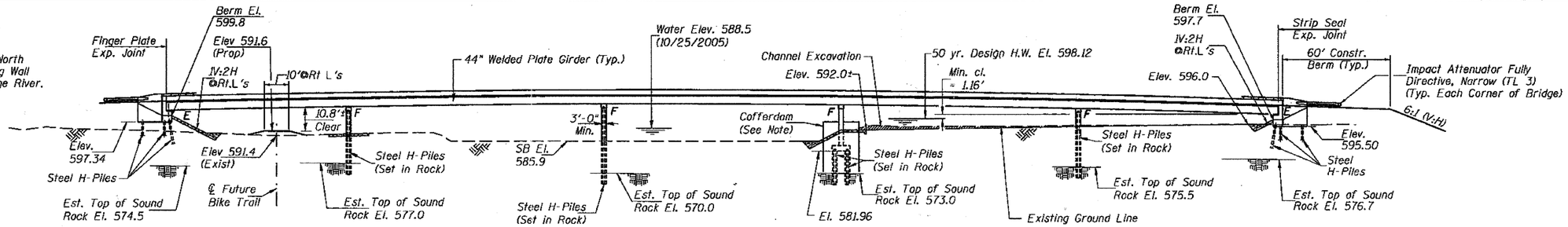
FILE NAME = v:\2545\TypPavMarkSht144.pdf	USER NAME =	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE TYPICAL PAVEMENT MARKINGS			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -C. JUCIUS 09-09-09					TR 55	90-16103-01-BR	WILL	255	144
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -						TC-13	CONTRACT NO. 83126		
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.		FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	

BENCH MARK

RM 47
Chiseled Square (Found) in Top of North Corner of Northeast Stone Slab Wing Wall of Renwick Road Bridge over DuPage River.
EL. 602.83 (N.G.V.D. 1929)

EXISTING STRUCTURE

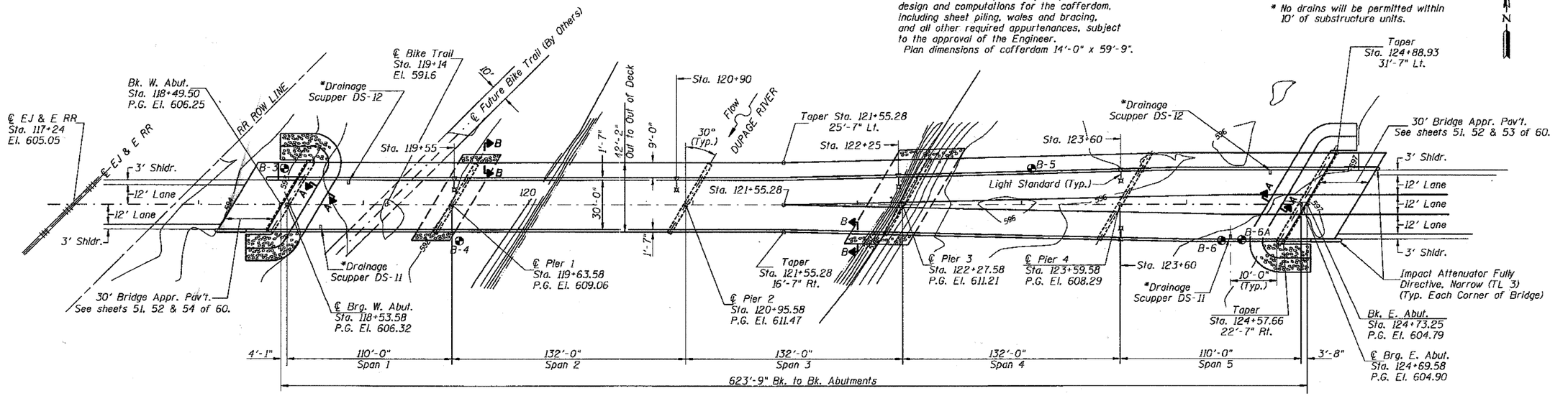
No Existing Structure



ELEVATION

Note:
A water surface elevation of 594.00 will be the basis for the cofferdam design. It is the Contractors responsibility to provide a design and computations for the cofferdam, including sheet piling, wales and bracing, and all other required appurtenances, subject to the approval of the Engineer.
Plan dimensions of cofferdam 14'-0" x 59'-9".

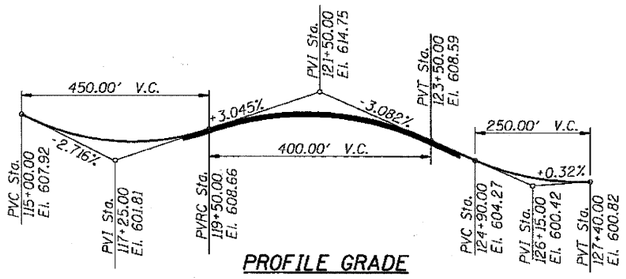
* No drains will be permitted within 10' of substructure units.



PLAN

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (Ft.)	W. Abut.	Pier #1	Pier #2	Pier #3	Pier #4	E. Abut.
	597.9	591.0	581.9	581.9	595.0	595.7



PROFILE GRADE

WATERWAY INFORMATION

Drainage Area = 260 sq. mi. Low Grade Elev. = 600.78 @ Sta. 127+17

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	10100	1717	4237	598.12	0.06	0.03	597.50	598.12
Base	100	11527	1868	4659	598.76	0.07	0.02	598.09	598.76
Overtopping									
Max. Calc.	500	14900	2049	5465	599.97	0.09	0.03	599.21	599.97

LOADING HL-93

Allow 50 lb/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

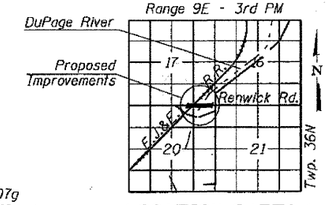
2007 AASHTO LRFD
Bridge Design Specifications 4th Edition w/Interims

DESIGN STRESSES

FIELD UNITS
f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 50,000 psi (structural steel)
(AASHTO M270 Grade 50)

SEISMIC DATA

Seismic Performance Category (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (D_{s1}) = 0.07g
Design Spectral Acceleration at 0.2 sec. (D_{s0}) = 0.12g
Soil Site Class = C



LOCATION SKETCH

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specification for Highway Bridges.
This design complies with all requirements of the current AASHTO Code Specifications for Seismic Design of highway bridges.

James O. Hamilton
Illinois Structural No. 081-3668
Expires 11/30/2012

5/23/2011

JAMES O. HAMILTON 081-003668 LICENSED STRUCTURAL ENGINEER OF JACKSONVILLE, ILLINOIS

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B001

GENERAL PLAN AND ELEVATION
RENWICK ROAD (TR 55)
OVER DUPAGE RIVER
SECTION 90-16103-01-BR
WILL COUNTY
STA. 121+61.58
STRUCTURE NO. 099-4105

SHEET NO. 1	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	145
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

GENERAL NOTES

Fasteners shall be AASHTO M 164, Type 1, mechanically galvanized bolts. Bolts $\frac{7}{8}$"φ, open holes $\frac{15}{16}$"φ, unless otherwise noted.

Calculated weight of Structural Steel = 961,300 lbs.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Concrete sealer shall be applied to the seats, steps, backwall, and front cap face of East and West Abutments.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

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

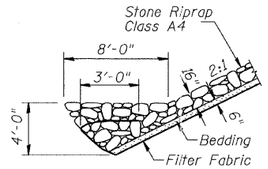
The inorganic Zinc Rich Primer/Acrylic/Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all steel surfaces shall be gray, Munsell No. 5B 7/1. See Special Provisions for "Cleaning and Painting New Metal Structures".

Slip forming of the bridge parapets will not be allowed.

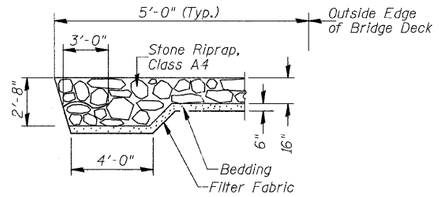
The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (INDR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR permit number as shown in the contract plans.

Finger plate expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

For cleaning, painting and color of Bicycle Railing, Parapet Railing, and Light Poles. See Special Provisions.



SECTION A-A
(At Rt. Angles)



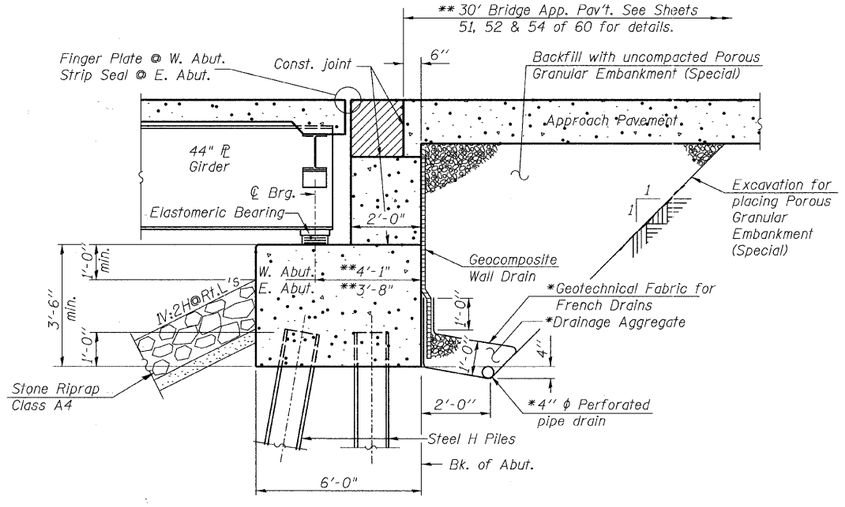
SECTION B-B

BRIDGE PLANS
INDEX TO SHEETS

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	CU YD		245	245
Furnishing Steel Piles HP12x63	FOOT	-	502	502
Furnishing Steel Piles HP14x89	FOOT	-	320	320
Furnishing Steel Piles HP12x84	FOOT	-	779	779
Furnishing Steel Piles HP14x102	FOOT	-	517	517
Driving Piles	FOOT	-	502	502
Setting Piles in Rock	EACH	-	55	55
Test Pile Steel HP12x63	EACH	-	2	2
Cofferdam Excavation	CU YD	-	355	355
Cofferdam (Location - 1)	EACH	-	1	1
Concrete Structures	CU YD	-	588.5	588.5
Concrete Superstructure	CU YD	1,061.1	-	1,061.1
Concrete Encasement	CU YD	-	135.6	135.6
Protective Coat	SQ YD	3,990	-	3,990
Reinforcement Bars, Epoxy Coated	POUND	285,030	46,510	331,540
Furnishing and Erecting Structural Steel	L SUM	1	-	1
Bar Splicers	EACH	-	106	106
Stud Shear Connectors	EACH	10,947	-	10,947
Elastomeric Bearing Assembly, Type II	EACH	-	8	8
Elastomeric Bearing Assembly, Type III	EACH	-	6	6
Anchor Bolts, $1\frac{1}{2}$"	EACH	-	84	84
Porous Granular Embankment, Special	CU YD	-	164	164
Stone Riprap, Class A4	SQ YD	-	-	916
Filter Fabric	SQ YD	-	-	916
Name Plates	EACH			1
* Bicycle Railing	FOOT	679	-	679
Parapet Railing	FOOT	1,237	-	1,237
Bridge Deck Grooving	SQ YD	2,361	-	2,361
Preformed Joint Strip Seal	FOOT	62	-	62
Finger Plate Expansion Joint, 6"	FOOT	47	-	47
Fabric Reinforced Elastomeric Trough	FOOT	46	-	46
Concrete Sealer	SQ FT	-	440	440
Geocomposite Wall Drain	SQ YD	-	91	91
Pipe Underdrains for Structures 4"	FOOT	-	150	150
Drainage Scuppers, DS-11	EACH	2	-	2
Drainage Scuppers, DS-12	EACH	2	-	2
Underwater Structure Excavation Protection - Location No. 1	EACH	-	1	1
Underwater Structure Excavation Protection - Location No. 2	EACH	-	1	1
Underwater Structure Excavation Protection - Location No. 3	EACH	-	1	1
Form Liner Textured Surface	SQ FT	4,330	7,805	12,135

* Quantity figured on bridge deck plus approach slabs.



SECTION THRU PILE BENT ABUTMENT
(Horiz. dim. @ Rt. L's)
* Included in the cost of Pipe Underdrains for Structures.
** Along ℄ Roadway

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

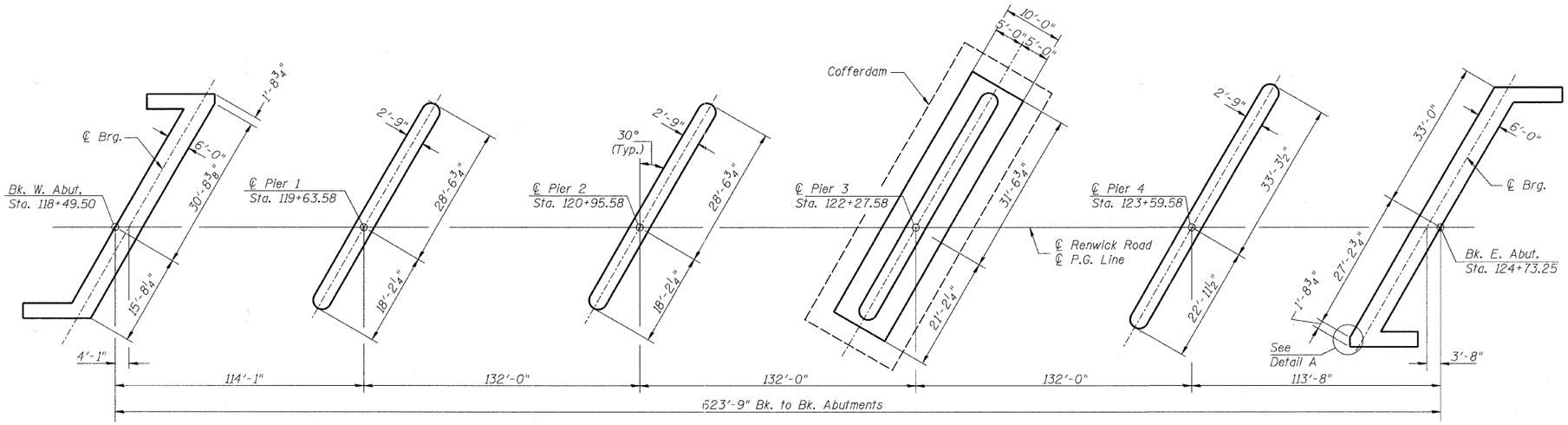
2545B002

DUPAGE RIVER
BUILT: 20__ BY
PLAINFIELD TOWNSHIP
WILL COUNTY
SEC. 90-16103-01-BR
T.R. 55 STA. 121+61.58
LOADING HL-93
STR. NO. 099-4105

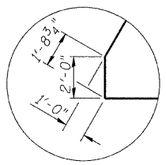
NAME PLATE
(See Std. 515001)

GENERAL NOTES, SUMMARY OF QUANTITIES
STRUCTURE NO. 099-4105

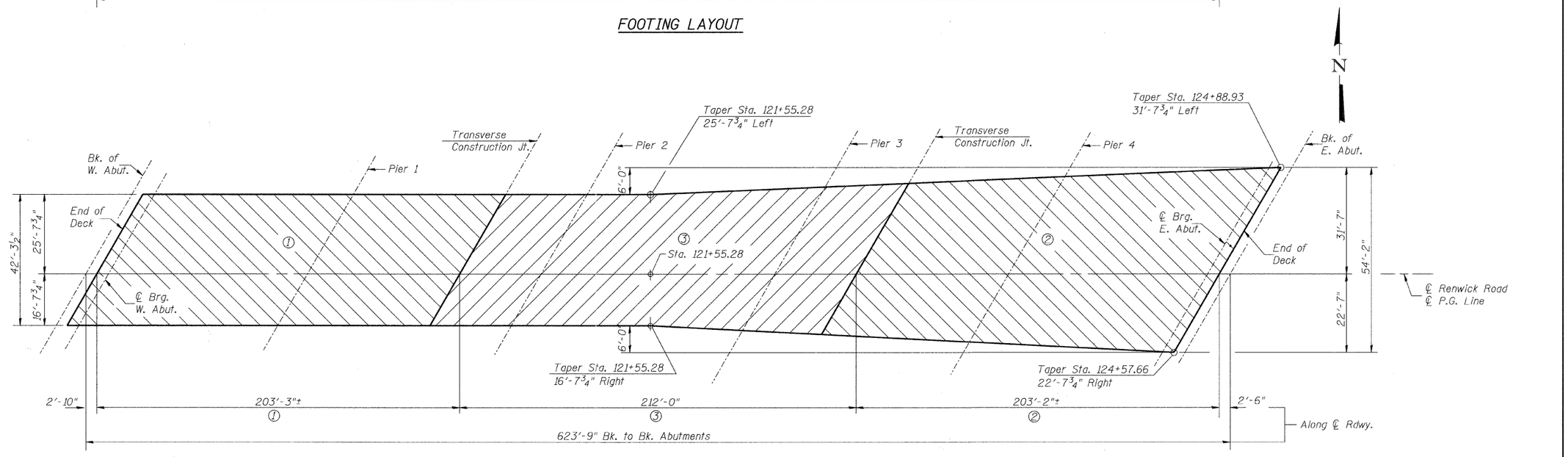
SHEET NO. 2	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	146
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		



FOOTING LAYOUT



DETAIL A



DECK POURING SEQUENCE

When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequense, as shown, the next pour shall not be made until both of the following are met:

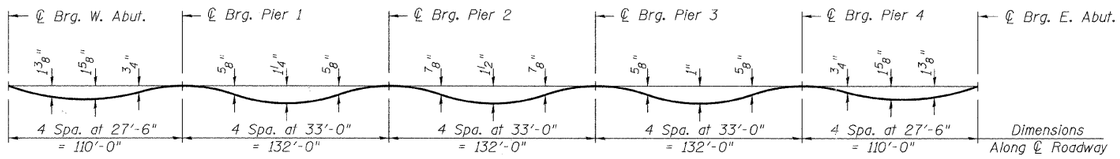
1) At least 72 hours shall have elapsed from the end of the previous pour.
2) The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B003

FOOTING LAYOUT & DECK POURING SEQUENCE
STRUCTURE NO. 099-4105

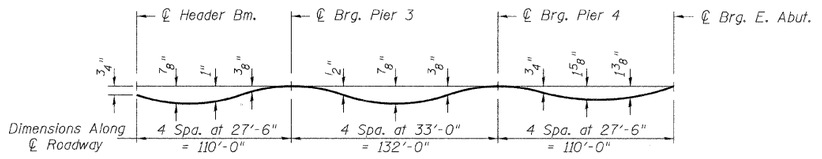
SHEET NO. 3	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	147
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		



DEAD LOAD DEFLECTION DIAGRAM (GIRDERS 1 THRU 6)

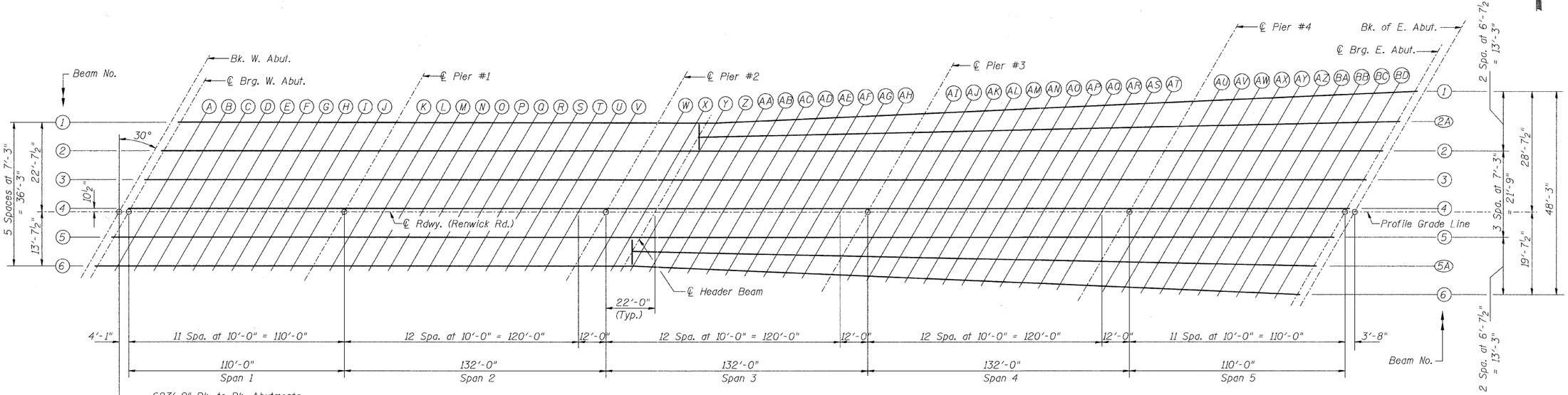
(Includes weight of concrete only.)

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 in tables on sheets 5 thru 7 of 60.

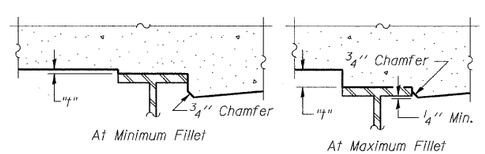


DEAD LOAD DEFLECTION DIAGRAM (GIRDERS 2A AND 5A)

(Includes weight of concrete only.)



PLAN



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown in tables on sheets 5 thru 7 of 60, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B004

TOP OF SLAB ELEVATIONS STRUCTURE NO. 099-4105

SHEET NO. 4 60 SHEETS	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	90-16103-01-BR	WILL	255	148
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. W. Abutment	11862.56	-22.63	606.08	606.08
CL Brg. W. Abut.	11866.64	-22.63	606.16	606.16
A	11876.64	-22.63	606.36	606.41
B	11886.64	-22.63	606.58	606.67
C	11896.64	-22.63	606.81	606.93
D	11906.64	-22.63	607.05	607.18
E	11916.64	-22.63	607.31	607.44
F	11926.64	-22.63	607.58	607.70
G	11936.64	-22.63	607.86	607.95
H	11946.64	-22.63	608.15	608.22
I	11956.64	-22.63	608.45	608.49
J	11966.64	-22.63	608.74	608.75
Pier 1	11976.64	-22.63	609.01	609.01
K	11986.64	-22.63	609.26	609.27
L	11996.64	-22.63	609.51	609.53
M	12006.64	-22.63	609.73	609.77
N	12016.64	-22.63	609.94	610.01
O	12026.64	-22.63	610.14	610.22
P	12036.64	-22.63	610.31	610.42
Q	12046.64	-22.63	610.48	610.59
R	12056.64	-22.63	610.63	610.73
S	12066.64	-22.63	610.76	610.84
T	12076.64	-22.63	610.88	610.94
U	12086.64	-22.63	610.98	611.02
V	12096.64	-22.63	611.07	611.08
Pier 2	12108.64	-22.63	611.15	611.15
W	12118.64	-22.63	611.21	611.22
X	12128.64	-22.63	611.25	611.27
Y	12138.64	-22.63	611.27	611.31
Z	12148.74	-22.80	611.27	611.34
AA	12158.84	-22.97	611.26	611.34
AB	12168.94	-23.15	611.24	611.32
AC	12179.05	-23.32	611.19	611.28
AD	12189.15	-23.50	611.14	611.22
AE	12199.25	-23.67	611.06	611.13
AF	12209.35	-23.85	610.97	611.02
AG	12219.45	-24.02	610.87	610.90
AH	12229.55	-24.19	610.75	610.76
Pier 3	12241.67	-24.40	610.58	610.58
AI	12251.77	-24.58	610.43	610.43
AJ	12261.87	-24.75	610.25	610.27
AK	12271.97	-24.93	610.07	610.10
AL	12282.07	-25.10	609.87	609.92
AM	12292.17	-25.28	609.65	609.72
AN	12302.27	-25.45	609.42	609.49
AO	12312.37	-25.63	609.17	609.24
AP	12322.48	-25.80	608.90	608.97
AQ	12332.58	-25.97	608.62	608.67
AR	12342.68	-26.15	608.33	608.36
AS	12352.78	-26.32	608.02	608.03
AT	12362.88	-26.50	607.70	607.70
Pier 4	12375.00	-26.71	607.32	607.32
AU	12385.10	-26.88	607.01	607.02
AV	12395.20	-27.06	606.69	606.73
AW	12405.30	-27.23	606.38	606.44
AX	12415.40	-27.40	606.06	606.16
AY	12425.50	-27.58	605.75	605.87
AZ	12435.60	-27.75	605.43	605.56
BA	12445.70	-27.93	605.12	605.25
BB	12455.80	-28.10	604.80	604.92
BC	12465.91	-28.28	604.49	604.58
BD	12476.01	-28.45	604.17	604.22
CL Brg. E. Abut.	12486.11	-28.63	603.86	603.86
Bk. E. Abutment	12489.81	-28.69	603.74	603.74

BEAM 2A

Beam 2A Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
CL Header	12128.55	-19.00	611.32	611.35
Y	12136.59	-19.07	611.34	611.39
Z	12146.64	-19.15	611.35	611.42
AA	12156.69	-19.24	611.34	611.43
AB	12166.74	-19.32	611.32	611.42
AC	12176.79	-19.41	611.29	611.38
AD	12186.84	-19.49	611.23	611.32
AE	12196.88	-19.58	611.16	611.23
AF	12206.93	-19.66	611.08	611.13
AG	12216.98	-19.75	610.98	611.01
AH	12227.03	-19.84	610.87	610.88
Pier 3	12239.09	-19.94	610.71	610.71
AI	12249.14	-20.02	610.56	610.57
AJ	12259.19	-20.11	610.40	610.42
AK	12269.24	-20.19	610.22	610.25
AL	12279.29	-20.28	610.02	610.08
AM	12289.34	-20.36	609.81	609.88
AN	12299.39	-20.45	609.59	609.66
AO	12309.44	-20.53	609.35	609.42
AP	12319.48	-20.62	609.09	609.16
AQ	12329.53	-20.70	608.82	608.87
AR	12339.58	-20.79	608.53	608.56
AS	12349.63	-20.88	608.23	608.24
AT	12359.68	-20.96	607.91	607.92
Pier 4	12371.74	-21.06	607.54	607.54
AU	12381.79	-21.15	607.23	607.24
AV	12391.84	-21.23	606.92	606.96
AW	12401.89	-21.32	606.61	606.68
AX	12411.94	-21.40	606.29	606.40
AY	12421.99	-21.49	605.98	606.11
AZ	12432.04	-21.57	605.67	605.81
BA	12442.08	-21.66	605.36	605.50
BB	12452.13	-21.74	605.05	605.17
BC	12462.18	-21.83	604.74	604.83
BD	12472.23	-21.91	604.43	604.47
CL Brg. E. Abut.	12482.28	-22.00	604.11	604.11
Bk. E. Abutment	12485.97	-22.03	604.00	604.00

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. W. Abutment	11858.38	-15.38	606.15	606.15
CL Brg. W. Abut.	11862.46	-15.38	606.23	606.23
A	11872.46	-15.38	606.43	606.48
B	11882.46	-15.38	606.64	606.73
C	11892.46	-15.38	606.86	606.99
D	11902.46	-15.38	607.10	607.24
E	11912.46	-15.38	607.35	607.49
F	11922.46	-15.38	607.61	607.74
G	11932.46	-15.38	607.89	607.99
H	11942.46	-15.38	608.18	608.25
I	11952.46	-15.38	608.48	608.52
J	11962.46	-15.38	608.77	608.79
Pier 1	11972.46	-15.38	609.05	609.05
K	11982.46	-15.38	609.31	609.32
L	11992.46	-15.38	609.56	609.58
M	12002.46	-15.38	609.79	609.84
N	12012.46	-15.38	610.01	610.08
O	12022.46	-15.38	610.21	610.30
P	12032.46	-15.38	610.39	610.50
Q	12042.46	-15.38	610.56	610.67
R	12052.46	-15.38	610.72	610.82
S	12062.46	-15.38	610.86	610.94
T	12072.46	-15.38	610.98	611.04
U	12082.46	-15.38	611.09	611.13
V	12092.46	-15.38	611.19	611.20
Pier 2	12104.46	-15.38	611.28	611.28
W	12114.46	-15.38	611.34	611.35
X	12124.46	-15.38	611.38	611.41
Y	12134.46	-15.38	611.41	611.46
Z	12144.46	-15.38	611.43	611.50
AA	12154.46	-15.38	611.43	611.52
AB	12164.46	-15.38	611.41	611.51
AC	12174.46	-15.38	611.38	611.48
AD	12184.46	-15.38	611.33	611.43
AE	12194.46	-15.38	611.27	611.35
AF	12204.46	-15.38	611.19	611.25
AG	12214.46	-15.38	611.10	611.13
AH	12224.46	-15.38	610.99	611.00
Pier 3	12236.46	-15.38	610.84	610.84
AI	12246.46	-15.38	610.70	610.71
AJ	12256.46	-15.38	610.54	610.56
AK	12266.46	-15.38	610.37	610.41
AL	12276.46	-15.38	610.18	610.24
AM	12286.46	-15.38	609.98	610.06
AN	12296.46	-15.38	609.76	609.85
AO	12306.46	-15.38	609.53	609.61
AP	12316.46	-15.38	609.28	609.36
AQ	12326.46	-15.38	609.01	609.07
AR	12336.46	-15.38	608.73	608.77
AS	12346.46	-15.38	608.44	608.46
AT	12356.46	-15.38	608.13	608.13
Pier 4	12368.46	-15.38	607.76	607.76
AU	12378.46	-15.38	607.45	607.47
AV	12388.46	-15.38	607.14	607.19
AW	12398.46	-15.38	606.84	606.91
AX	12408.46	-15.38	606.53	606.63
AY	12418.46	-15.38	606.22	606.35
AZ	12428.46	-15.38	605.91	606.05
BA	12438.46	-15.38	605.60	605.74
BB	12448.46	-15.38	605.29	605.42
BC	12458.46	-15.38	604.99	605.08
BD	12468.46	-15.38	604.68	604.73
CL Brg. E. Abut.	12478.46	-15.38	604.37	604.37
Bk. E. Abutment	12482.13	-15.38	604.26	604.26

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 099-4105

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

SHEET NO. 5	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	149
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

2545B005

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. W. Abutment	11854.19	-8.13	606.20	606.20
CL Brg. W. Abut.	11858.27	-8.13	606.28	606.28
A	11868.27	-8.13	606.47	606.53
B	11878.27	-8.13	606.68	606.78
C	11888.27	-8.13	606.90	607.03
D	11898.27	-8.13	607.13	607.28
E	11908.27	-8.13	607.37	607.52
F	11918.27	-8.13	607.63	607.77
G	11928.27	-8.13	607.90	608.01
H	11938.27	-8.13	608.19	608.26
I	11948.27	-8.13	608.48	608.52
J	11958.27	-8.13	608.78	608.80
Pier 1	11968.27	-8.13	609.06	609.06
K	11978.27	-8.13	609.33	609.34
L	11988.27	-8.13	609.59	609.61
M	11998.27	-8.13	609.82	609.87
N	12008.27	-8.13	610.05	610.12
O	12018.27	-8.13	610.26	610.35
P	12028.27	-8.13	610.45	610.55
Q	12038.27	-8.13	610.62	610.73
R	12048.27	-8.13	610.79	610.89
S	12058.27	-8.13	610.93	611.01
T	12068.27	-8.13	611.06	611.12
U	12078.27	-8.13	611.18	611.21
V	12088.27	-8.13	611.28	611.29
Pier 2	12100.27	-8.13	611.38	611.38
W	12110.27	-8.13	611.45	611.46
X	12120.27	-8.13	611.50	611.53
Y	12130.27	-8.13	611.53	611.60
Z	12140.27	-8.13	611.55	611.65
AA	12150.27	-8.13	611.56	611.67
AB	12160.27	-8.13	611.55	611.68
AC	12170.27	-8.13	611.52	611.65
AD	12180.27	-8.13	611.48	611.60
AE	12190.27	-8.13	611.43	611.52
AF	12200.27	-8.13	611.36	611.43
AG	12210.27	-8.13	611.27	611.31
AH	12220.27	-8.13	611.17	611.18
Pier 3	12232.27	-8.13	611.03	611.03
AI	12242.27	-8.13	610.89	610.90
AJ	12252.27	-8.13	610.74	610.77
AK	12262.27	-8.13	610.57	610.62
AL	12272.27	-8.13	610.39	610.47
AM	12282.27	-8.13	610.20	610.29
AN	12292.27	-8.13	609.98	610.09
AO	12302.27	-8.13	609.76	609.86
AP	12312.27	-8.13	609.51	609.61
AQ	12322.27	-8.13	609.26	609.33
AR	12332.27	-8.13	608.98	609.03
AS	12342.27	-8.13	608.69	608.72
AT	12352.27	-8.13	608.39	608.40
Pier 4	12364.27	-8.13	608.02	608.02
AU	12374.27	-8.13	607.71	607.73
AV	12384.27	-8.13	607.40	607.45
AW	12394.27	-8.13	607.10	607.17
AX	12404.27	-8.13	606.79	606.90
AY	12414.27	-8.13	606.48	606.61
AZ	12424.27	-8.13	606.17	606.32
BA	12434.27	-8.13	605.86	606.01
BB	12444.27	-8.13	605.55	605.68
BC	12454.27	-8.13	605.25	605.34
BD	12464.27	-8.13	604.94	604.99
CL Brg. E. Abut.	12474.27	-8.13	604.63	604.63
Bk. E. Abutment	12477.94	-8.13	604.52	604.52

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. W. Abutment	11850.01	-0.88	606.24	606.24
CL Brg. W. Abut.	11854.09	-0.88	606.32	606.32
A	11864.09	-0.88	606.50	606.56
B	11874.09	-0.88	606.70	606.80
C	11884.09	-0.88	606.92	607.05
D	11894.09	-0.88	607.14	607.29
E	11904.09	-0.88	607.38	607.53
F	11914.09	-0.88	607.64	607.77
G	11924.09	-0.88	607.90	608.01
H	11934.09	-0.88	608.18	608.25
I	11944.09	-0.88	608.47	608.51
J	11954.09	-0.88	608.77	608.79
Pier 1	11964.09	-0.88	609.06	609.06
K	11974.09	-0.88	609.34	609.34
L	11984.09	-0.88	609.60	609.62
M	11994.09	-0.88	609.84	609.89
N	12004.09	-0.88	610.07	610.14
O	12014.09	-0.88	610.28	610.38
P	12024.09	-0.88	610.48	610.59
Q	12034.09	-0.88	610.67	610.77
R	12044.09	-0.88	610.83	610.93
S	12054.09	-0.88	610.99	611.07
T	12064.09	-0.88	611.12	611.18
U	12074.09	-0.88	611.25	611.28
V	12084.09	-0.88	611.35	611.36
Pier 2	12096.09	-0.88	611.46	611.46
W	12106.09	-0.88	611.53	611.55
X	12116.09	-0.88	611.59	611.63
Y	12126.09	-0.88	611.63	611.70
Z	12136.09	-0.88	611.66	611.75
AA	12146.09	-0.88	611.67	611.79
AB	12156.09	-0.88	611.67	611.80
AC	12166.09	-0.88	611.65	611.78
AD	12176.09	-0.88	611.62	611.73
AE	12186.09	-0.88	611.57	611.66
AF	12196.09	-0.88	611.50	611.57
AG	12206.09	-0.88	611.42	611.46
AH	12216.09	-0.88	611.33	611.34
Pier 3	12228.09	-0.88	611.19	611.19
AI	12238.09	-0.88	611.06	611.07
AJ	12248.09	-0.88	610.92	610.94
AK	12258.09	-0.88	610.76	610.81
AL	12268.09	-0.88	610.58	610.66
AM	12278.09	-0.88	610.39	610.49
AN	12288.09	-0.88	610.19	610.29
AO	12298.09	-0.88	609.97	610.07
AP	12308.09	-0.88	609.73	609.83
AQ	12318.09	-0.88	609.48	609.55
AR	12328.09	-0.88	609.21	609.26
AS	12338.09	-0.88	608.93	608.96
AT	12348.09	-0.88	608.63	608.64
Pier 4	12360.09	-0.88	608.26	608.26
AU	12370.09	-0.88	607.95	607.97
AV	12380.09	-0.88	607.65	607.69
AW	12390.09	-0.88	607.34	607.41
AX	12400.09	-0.88	607.03	607.14
AY	12410.09	-0.88	606.72	606.86
AZ	12420.09	-0.88	606.41	606.56
BA	12430.09	-0.88	606.10	606.25
BB	12440.09	-0.88	605.80	605.93
BC	12450.09	-0.88	605.49	605.59
BD	12460.09	-0.88	605.18	605.23
CL Brg. E. Abut.	12470.09	-0.88	604.87	604.87
Bk. E. Abutment	12473.76	-0.88	604.76	604.76

PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. W. Abutment	11849.50	0.00	606.25	606.25
CL Brg. W. Abut.	11853.58	0.00	606.32	606.32
A	11863.58	0.00	606.51	606.56
B	11873.58	0.00	606.71	606.81
C	11883.58	0.00	606.92	607.05
D	11893.58	0.00	607.15	607.29
E	11903.58	0.00	607.39	607.53
F	11913.58	0.00	607.64	607.77
G	11923.58	0.00	607.90	608.01
H	11933.58	0.00	608.18	608.25
I	11943.58	0.00	608.47	608.51
J	11953.58	0.00	608.77	608.77
Pier 1	11963.58	0.00	609.06	609.06
K	11973.58	0.00	609.34	609.34
L	11983.58	0.00	609.60	609.62
M	11993.58	0.00	609.84	609.89
N	12003.58	0.00	610.07	610.14
O	12013.58	0.00	610.29	610.38
P	12023.58	0.00	610.49	610.59
Q	12033.58	0.00	610.67	610.78
R	12043.58	0.00	610.84	610.94
S	12053.58	0.00	610.99	611.07
T	12063.58	0.00	611.13	611.19
U	12073.58	0.00	611.25	611.28
V	12083.58	0.00	611.36	611.37
Pier 2	12095.58	0.00	611.47	611.47
W	12105.58	0.00	611.54	611.56
X	12115.58	0.00	611.60	611.64
Y	12125.58	0.00	611.65	611.71
Z	12135.58	0.00	611.67	611.77
AA	12145.58	0.00	611.69	611.80
AB	12155.58	0.00	611.68	611.81
AC	12165.58	0.00	611.67	611.79
AD	12175.58	0.00	611.63	611.75
AE	12185.58	0.00	611.58	611.68
AF	12195.58	0.00	611.52	611.59
AG	12205.58	0.00	611.44	611.48
AH	12215.58	0.00	611.35	611.36
Pier 3	12227.58	0.00	611.21	611.21
AI	12237.58	0.00	611.08	611.09
AJ	12247.58	0.00	610.94	610.97
AK	12257.58	0.00	610.78	610.83
AL	12267.58	0.00	610.61	610.68
AM	12277.58	0.00	610.42	610.51
AN	12287.58	0.00	610.21	610.32
AO	12297.58	0.00	609.99	610.10
AP	12307.58	0.00	609.76	609.85
AQ	12317.58	0.00	609.51	609.58
AR	12327.58	0.00	609.24	609.29
AS	12337.58	0.00	608.96	608.98
AT	12347.58	0.00	608.66	608.67
Pier 4	12359.58	0.00	608.29	608.29
AU	12369.58	0.00	607.98	608.00
AV	12379.58	0.00	607.67	607.72
AW	12389.58	0.00	607.37	607.44
AX	12399.58	0.00	607.06	607.17
AY	12409.58	0.00	606.75	606.88
AZ	12419.58	0.00	606.44	606.59
BA	12429.58	0.00	606.13	606.28
BB	12439.58	0.00	605.83	605.96
BC	12449.58	0.00	605.52	605.62
BD	12459.58	0.00	605.21	605.26
CL Brg. E. Abut.	12469.58	0.00	604.90	604.90
Bk. E. Abutment	12473.25	0.00	604.79	604.79

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 099-4105

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

SHEET NO. 6	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	150
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

2545B006

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. W. Abutment	11845.82	6.38	606.08	606.08
CL Brg. W. Abut.	11849.90	6.38	606.15	606.15
A	11859.90	6.38	606.34	606.39
B	11869.90	6.38	606.53	606.63
C	11879.90	6.38	606.74	606.87
D	11889.90	6.38	606.96	607.11
E	11899.90	6.38	607.20	607.34
F	11909.90	6.38	607.44	607.57
G	11919.90	6.38	607.70	607.81
H	11929.90	6.38	607.97	608.05
I	11939.90	6.38	608.26	608.30
J	11949.90	6.38	608.56	608.57
Pier 1	11959.90	6.38	608.85	608.85
K	11969.90	6.38	609.14	609.14
L	11979.90	6.38	609.40	609.43
M	11989.90	6.38	609.65	609.70
N	11999.90	6.38	609.89	609.96
O	12009.90	6.38	610.11	610.20
P	12019.90	6.38	610.32	610.42
Q	12029.90	6.38	610.50	610.62
R	12039.90	6.38	610.68	610.78
S	12049.90	6.38	610.84	610.92
T	12059.90	6.38	610.98	611.04
U	12069.90	6.38	611.11	611.15
V	12079.90	6.38	611.22	611.24
Pier 2	12091.90	6.38	611.34	611.34
W	12101.90	6.38	611.42	611.43
X	12111.90	6.38	611.48	611.51
Y	12121.90	6.38	611.53	611.58
Z	12131.90	6.38	611.57	611.64
AA	12141.90	6.38	611.58	611.68
AB	12151.90	6.38	611.89	611.69
AC	12161.90	6.38	611.57	611.68
AD	12171.90	6.38	611.55	611.64
AE	12181.90	6.38	611.50	611.58
AF	12191.90	6.38	611.44	611.50
AG	12201.90	6.38	611.37	611.40
AH	12211.90	6.38	611.28	611.30
Pier 3	12223.90	6.38	611.16	611.16
AI	12233.90	6.38	611.03	611.04
AJ	12243.90	6.38	610.89	610.92
AK	12253.90	6.38	610.74	610.78
AL	12263.90	6.38	610.57	610.64
AM	12273.90	6.38	610.39	610.47
AN	12283.90	6.38	610.19	610.28
AO	12293.90	6.38	609.97	610.06
AP	12303.90	6.38	609.74	609.82
AQ	12313.90	6.38	609.50	609.56
AR	12323.90	6.38	609.24	609.28
AS	12333.90	6.38	608.96	608.98
AT	12343.90	6.38	608.67	608.68
Pier 4	12355.90	6.38	608.31	608.31
AU	12365.90	6.38	608.00	608.01
AV	12375.90	6.38	607.69	607.73
AW	12385.90	6.38	607.38	607.45
AX	12395.90	6.38	607.07	607.18
AY	12405.90	6.38	606.76	606.89
AZ	12415.90	6.38	606.46	606.60
BA	12425.90	6.38	606.15	606.29
BB	12435.90	6.38	605.84	605.96
BC	12445.90	6.38	605.53	605.63
BD	12455.90	6.38	605.22	605.27
CL Brg. E. Abut.	12465.90	6.38	604.92	604.92
Bk. E. Abutment	12469.57	6.38	604.80	604.80

BEAM 5A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
CL Header	12111.81	10.00	611.43	611.46
Y	12119.77	10.07	611.47	611.52
Z	12129.72	10.15	611.50	611.57
AA	12139.67	10.24	611.52	611.61
AB	12149.62	10.32	611.53	611.62
AC	12159.57	10.41	611.52	611.61
AD	12169.52	10.49	611.49	611.58
AE	12179.47	10.58	611.45	611.52
AF	12189.42	10.66	611.39	611.44
AG	12199.37	10.75	611.32	611.35
AH	12209.32	10.84	611.24	611.25
Pier 3	12221.27	10.94	611.11	611.11
AI	12231.22	11.02	610.99	611.00
AJ	12241.17	11.11	610.86	610.88
AK	12251.12	11.19	610.71	610.75
AL	12261.07	11.28	610.55	610.60
AM	12271.02	11.36	610.37	610.43
AN	12280.97	11.45	610.17	610.25
AO	12290.92	11.53	609.96	610.04
AP	12300.87	11.62	609.73	609.80
AQ	12310.82	11.70	609.49	609.54
AR	12320.77	11.79	609.24	609.27
AS	12330.72	11.88	608.97	608.98
AT	12340.67	11.96	608.68	608.68
Pier 4	12352.62	12.06	608.32	608.32
AU	12362.57	12.15	608.01	608.02
AV	12372.52	12.23	607.70	607.74
AW	12382.47	12.32	607.39	607.46
AX	12392.42	12.40	607.08	607.19
AY	12402.37	12.49	606.77	606.90
AZ	12412.32	12.57	606.47	606.60
BA	12422.27	12.66	606.16	606.29
BB	12432.22	12.74	605.85	605.97
BC	12442.17	12.83	605.54	605.63
BD	12452.12	12.91	605.23	605.28
CL Brg. E. Abut.	12462.07	13.00	604.92	604.92
Bk. E. Abutment	12465.73	13.03	604.81	604.81

BEAM 6

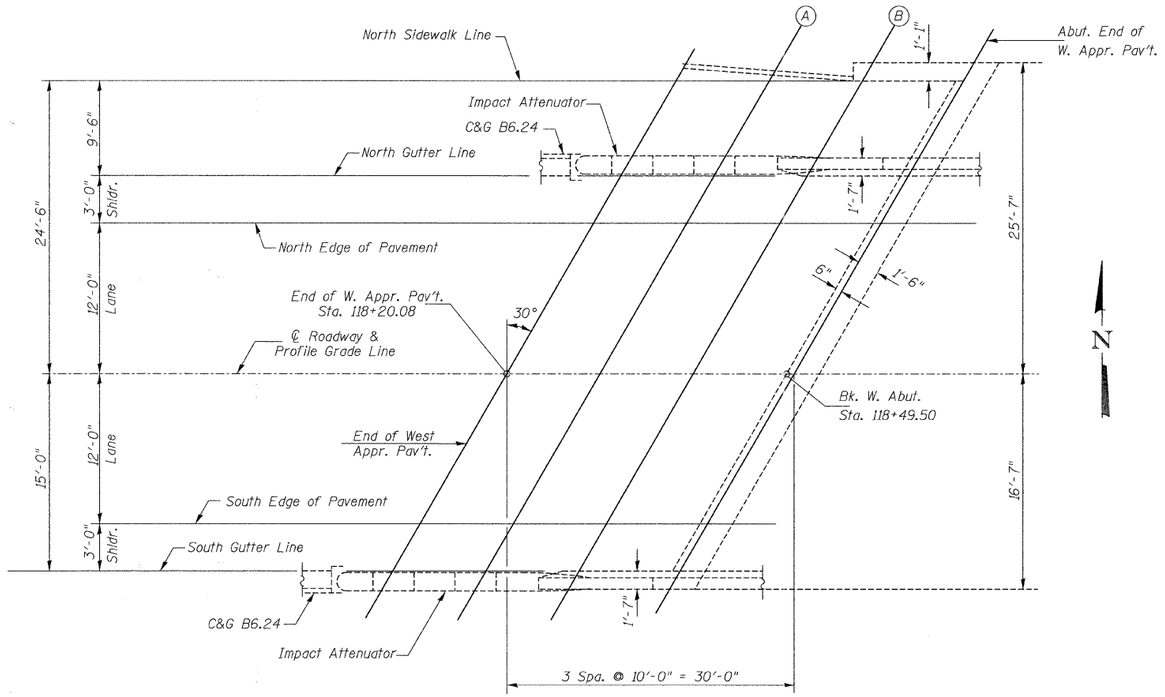
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. W. Abutment	11841.63	13.63	605.89	605.89
CL Brg. W. Abut.	11845.71	13.63	605.96	605.96
A	11855.71	13.63	606.14	606.19
B	11865.71	13.63	606.33	606.42
C	11875.71	13.63	606.53	606.65
D	11885.71	13.63	606.75	606.88
E	11895.71	13.63	606.98	607.11
F	11905.71	13.63	607.22	607.34
G	11915.71	13.63	607.47	607.57
H	11925.71	13.63	607.74	607.81
I	11935.71	13.63	608.02	608.06
J	11945.71	13.63	608.31	608.33
Pier 1	11955.71	13.63	608.61	608.61
K	11965.71	13.63	608.90	608.90
L	11975.71	13.63	609.17	609.19
M	11985.71	13.63	609.43	609.47
N	11995.71	13.63	609.67	609.74
O	12005.71	13.63	609.90	609.99
P	12015.71	13.63	610.11	610.21
Q	12025.71	13.63	610.31	610.41
R	12035.71	13.63	610.49	610.59
S	12045.71	13.63	610.65	610.73
T	12055.71	13.63	610.80	610.86
U	12065.71	13.63	610.94	610.97
V	12075.71	13.63	611.06	611.07
Pier 2	12087.71	13.63	611.18	611.18
W	12097.71	13.63	611.27	611.27
X	12107.71	13.63	611.34	611.36
Y	12117.71	13.63	611.39	611.44
Z	12127.54	13.93	611.42	611.49
AA	12137.44	14.10	611.45	611.53
AB	12147.34	14.27	611.45	611.54
AC	12157.24	14.44	611.44	611.53
AD	12167.14	14.61	611.42	611.50
AE	12177.04	14.78	611.38	611.45
AF	12186.95	14.95	611.33	611.37
AG	12196.85	15.13	611.26	611.29
AH	12206.75	15.30	611.17	611.19
Pier 3	12218.63	15.50	611.05	611.05
AI	12228.53	15.67	610.94	610.94
AJ	12238.43	15.84	610.80	610.82
AK	12248.34	16.01	610.66	610.69
AO	12258.24	16.18	610.49	610.55
AP	12268.14	16.35	610.32	610.39
AQ	12278.04	16.52	610.13	610.20
AR	12287.94	16.69	609.92	609.99
AS	12297.84	16.86	609.70	609.76
AT	12307.75	17.03	609.46	609.51
AU	12317.65	17.20	609.21	609.24
AV	12327.55	17.38	608.94	608.96
AW	12337.45	17.55	608.66	608.66
Pier 4	12349.33	17.75	608.30	608.30
AX	12359.23	17.92	607.99	608.01
AY	12369.14	18.09	607.68	607.72
AZ	12379.04	18.26	607.37	607.44
BA	12388.94	18.43	607.07	607.16
BB	12398.84	18.60	606.76	606.88
BC	12408.74	18.77	606.45	606.58
BD	12418.64	18.94	606.14	606.27
BE	12428.54	19.11	605.83	605.95
BF	12438.45	19.28	605.52	605.61
BG	12448.35	19.45	605.21	605.26
CL Brg. E. Abut.	12458.25	19.63	604.90	604.90
Bk. E. Abutment	12461.88	19.69	604.79	604.79

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 099-4105

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

SHEET NO. 7	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	151
		SN 099-4105	CONTRACT NO. 83126		
		FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT BRS-		

2545B007



PLAN WEST APPROACH PAVEMENT

NORTH SIDEWALK LINE

Location	Station	Offset	Theoretical Grade Elevations
End of W. Appr. Pav't.	11834.22	-24.50	605.54
A	11844.22	-24.50	605.71
B	11854.22	-24.50	605.88
Abut. End of W. Appr. Pav't.	11864.22	-24.50	606.07

NORTH GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations
End of W. Appr. Pav't.	11828.74	-15.00	605.66
A	11838.74	-15.00	605.81
B	11848.74	-15.00	605.98
Abut. End of W. Appr. Pav't.	11858.74	-15.00	606.16

NORTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End of W. Appr. Pav't.	11827.01	-12.00	605.70
A	11837.01	-12.00	605.85
B	11847.01	-12.00	606.02
Abut. End of W. Appr. Pav't.	11857.01	-12.00	606.19

PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations
End of W. Appr. Pav't.	11820.08	0.00	605.78
A	11830.08	0.00	605.93
B	11840.08	0.00	606.09
Abut. End of W. Appr. Pav't.	11850.08	0.00	606.26

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End of W. Appr. Pav't.	11813.15	12.00	605.50
A	11823.15	12.00	605.64
B	11833.15	12.00	605.79
Abut. End of W. Appr. Pav't.	11843.15	12.00	605.95

SOUTH GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations
End of W. Appr. Pav't.	11811.42	15.00	605.42
A	11821.42	15.00	605.55
B	11831.42	15.00	605.70
Abut. End of W. Appr. Pav't.	11841.42	15.00	605.86

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B008

TOP OF WEST APPROACH PAVEMENT ELEVATIONS
STRUCTURE NO. 099-4105

SHEET NO. 8	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	152
		SN 099-4105	CONTRACT NO. 83126		
		FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT BRS-		

NORTH SIDEWALK LINE

Location	Station	Offset	Theoretical Grade Elevations
Abutment End of E. Appr. Pav't.	12490.28	-30.50	603.72
A	12500.28	-30.50	603.42
B	12510.28	-30.50	603.13
End of Appr. Pav't.	12520.28	-30.50	602.86

NORTH GUTTER LINE

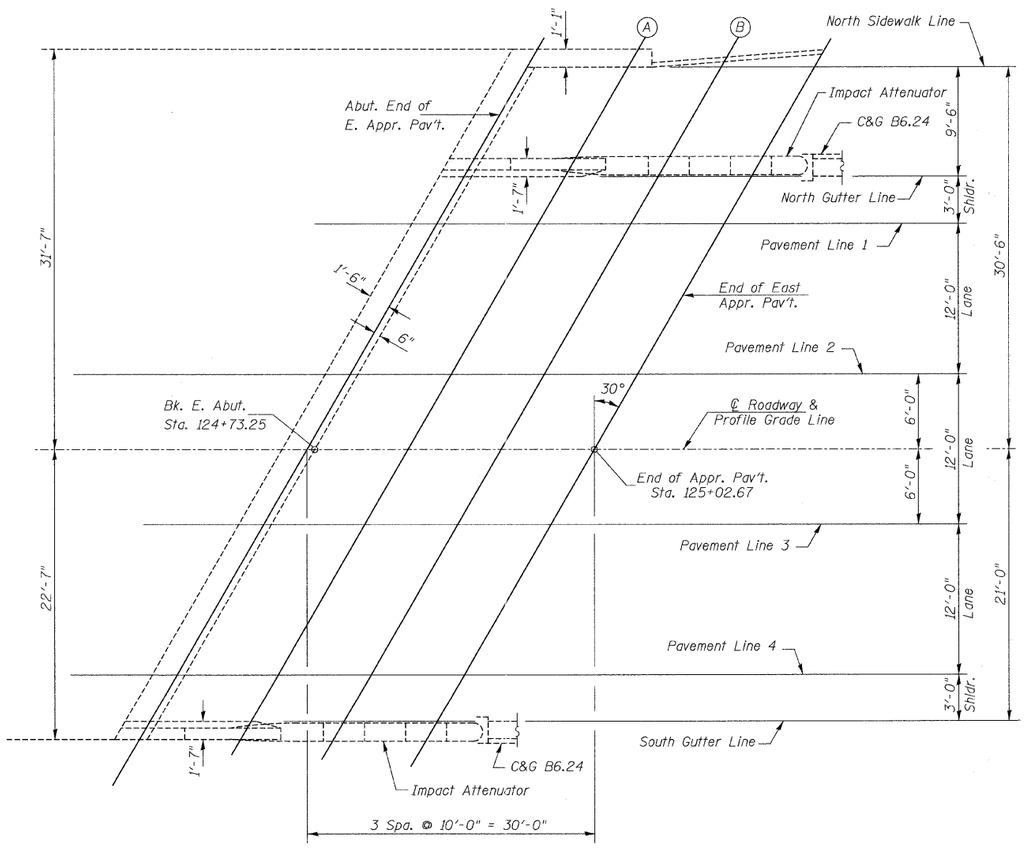
Location	Station	Offset	Theoretical Grade Elevations
Abutment End of E. Appr. Pav't.	12484.80	-21.00	604.09
A	12494.80	-21.00	603.78
B	12504.80	-21.00	603.49
End of Appr. Pav't.	12514.80	-21.00	603.21

PAVEMENT LINE 1

Location	Station	Offset	Theoretical Grade Elevations
Abutment End of E. Appr. Pav't.	12483.06	-18.00	604.20
A	12493.06	-18.00	603.70
B	12503.06	-18.00	603.60
End of Appr. Pav't.	12513.06	-18.00	603.32

PAVEMENT LINE 2

Location	Station	Offset	Theoretical Grade Elevations
Abutment End of E. Appr. Pav't.	12476.14	-6.00	604.61
A	12486.14	-6.00	604.30
B	12496.14	-6.00	603.99
End of Appr. Pav't.	12506.14	-6.00	603.70



PLAN EAST APPROACH PAVEMENT

PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations
Abutment End of E. Appr. Pav't.	12472.67	0.00	604.81
A	12482.67	0.00	604.50
B	12492.67	0.00	604.19
End of Appr. Pav't.	12502.67	0.00	603.89

PAVEMENT LINE 3

Location	Station	Offset	Theoretical Grade Elevations
Abutment End of E. Appr. pav't.	12469.21	6.00	604.82
A	12479.21	6.00	604.51
B	12489.21	6.00	604.20
End of Appr. Pav't.	12499.21	6.00	603.90

PAVEMENT LINE 4

Location	Station	Offset	Theoretical Grade Elevations
Abutment End of E. appr. Pav't.	12462.28	18.00	604.85
A	12472.28	18.00	604.54
B	12482.28	18.00	604.23
End of Appr. Pav't.	12492.28	18.00	603.92

SOUTH GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations
Abutment End of E. appr. Pav't.	12460.55	21.00	604.84
A	12470.55	21.00	604.53
B	12480.55	21.00	604.22
End of Appr. Pav't.	12490.55	21.00	603.91

TOP OF EAST APPROACH PAVEMENT ELEVATIONS
STRUCTURE NO. 099-4105

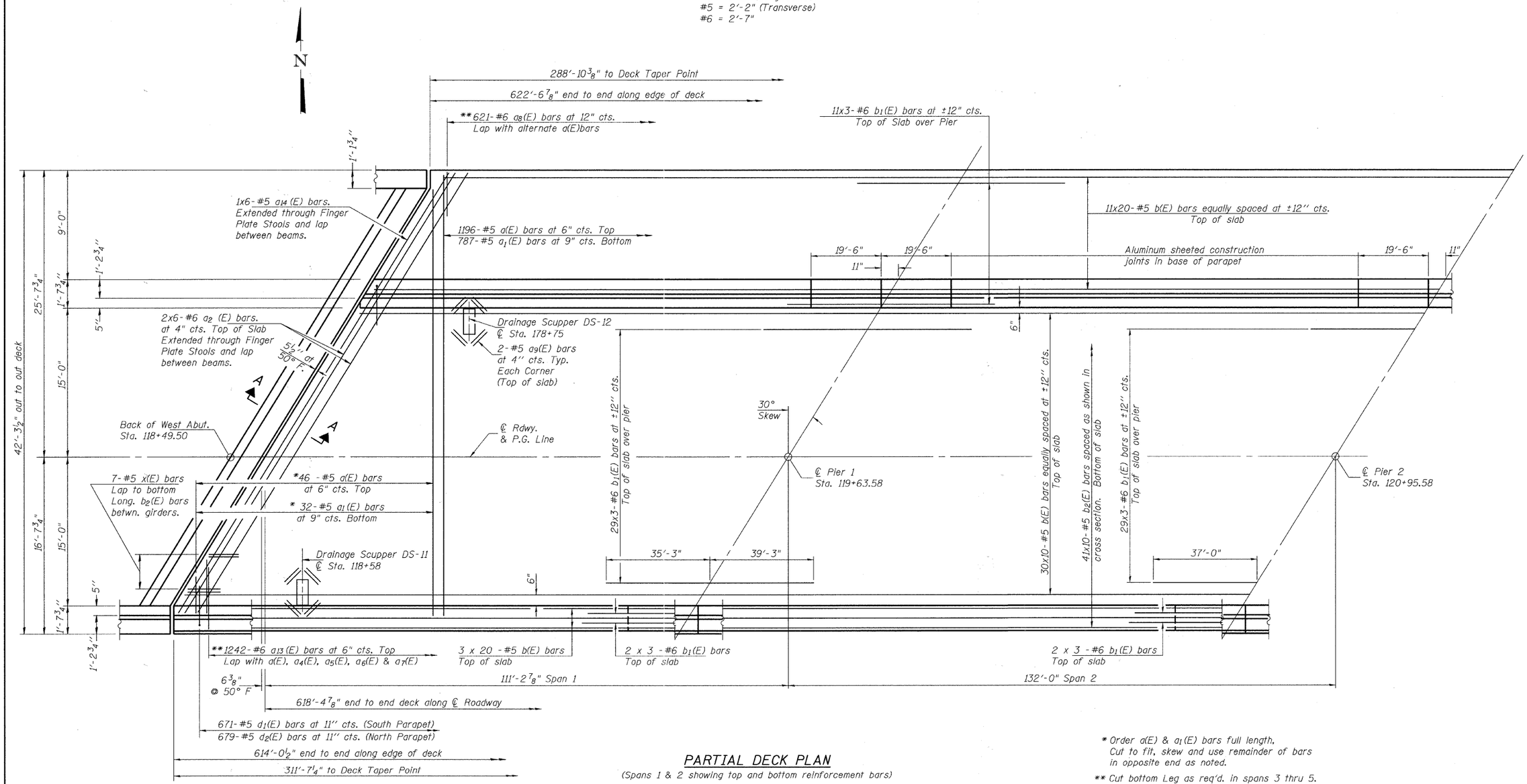
DESIGNED	JOH				
CHECKED	BAN				
DRAWN	TC				
CHECKED	JOH				

SHEET NO. 9	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	153
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

2545B009

MIN. BAR LAP

#5 = 1'-8" (Longitudinal)
#5 = 2'-2" (Transverse)
#6 = 2'-7"



PARTIAL DECK PLAN

(Spans 1 & 2 showing top and bottom reinforcement bars)

* Order a(E) & a1(E) bars full length.
Cut to fit, skew and use remainder of bars
in opposite end as noted.

** Cut bottom Leg as req'd. in spans 3 thru 5.

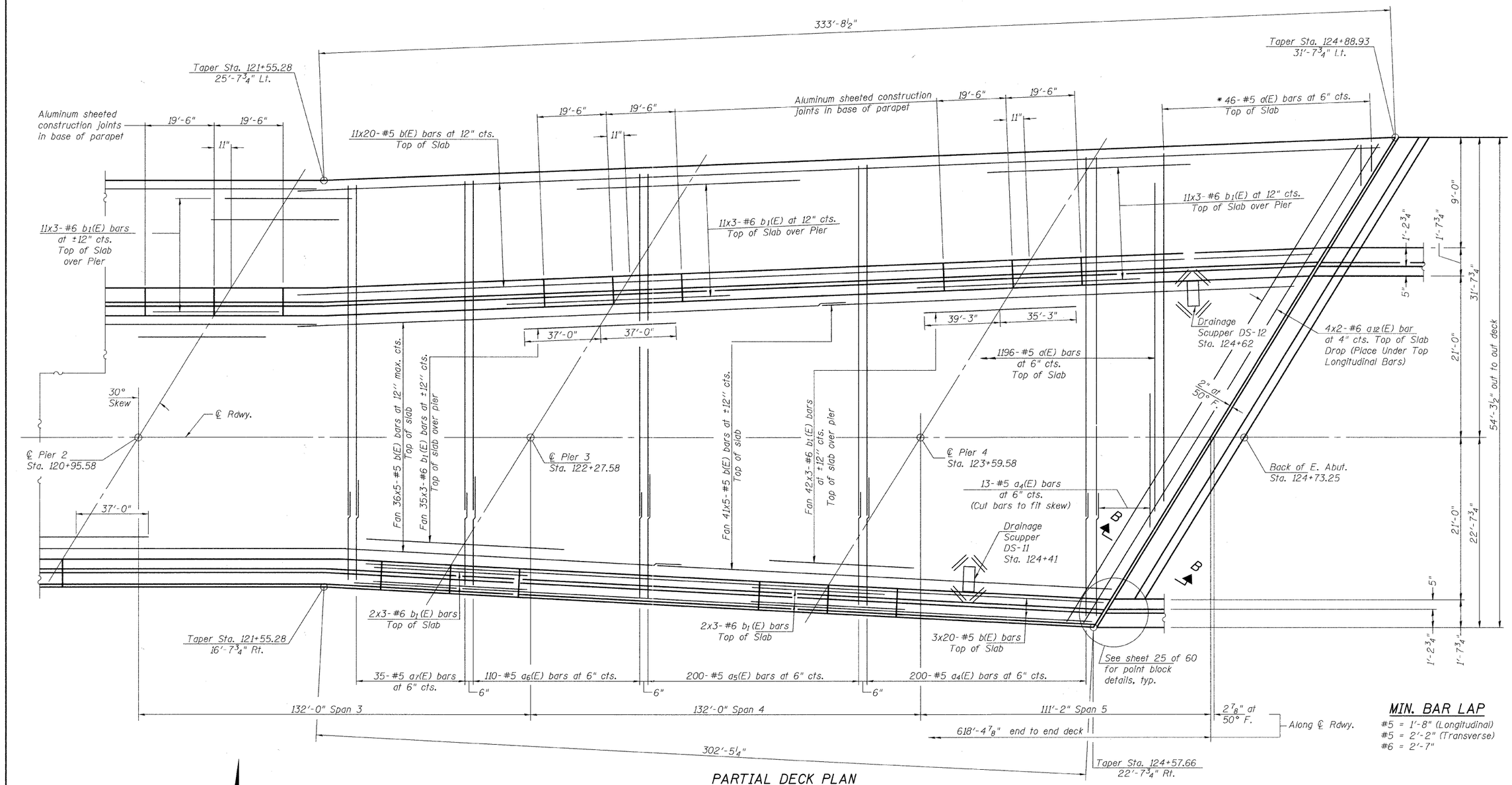
Notes:
Adjust longitudinal reinforcement bar spacing to miss stools.
See Sheets 13 thru 19 of 60 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3- #5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheets 16 & 17 of 60 for parapet reinforcement.
See Sheet 19 of 60 for Section A-A.

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B010

TOP & BOTTOM REINFORCEMENT SUPERSTRUCTURE SPANS 1 & 2 STRUCTURE NO. 099-4105

SHEET NO. 10 / 60 SHEETS	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	90-16103-01-BR	WILL	255	154
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		



PARTIAL DECK PLAN

(Showing Top Reinforcement Bars in Spans 3, 4 & 5)

MIN. BAR LAP

#5 = 1'-8" (Longitudinal)
#5 = 2'-2" (Transverse)
#6 = 2'-7"

Notes:
See Sheets 13 thru 19 of 60 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheets 16 & 17 of 60 for parapet reinforcement.
See Sheet 19 of 60 for Section B-B.

* Order a(E) & a_1(E) bars full length, Cut to fit, skew and use remainder of bars in opposite end as noted.

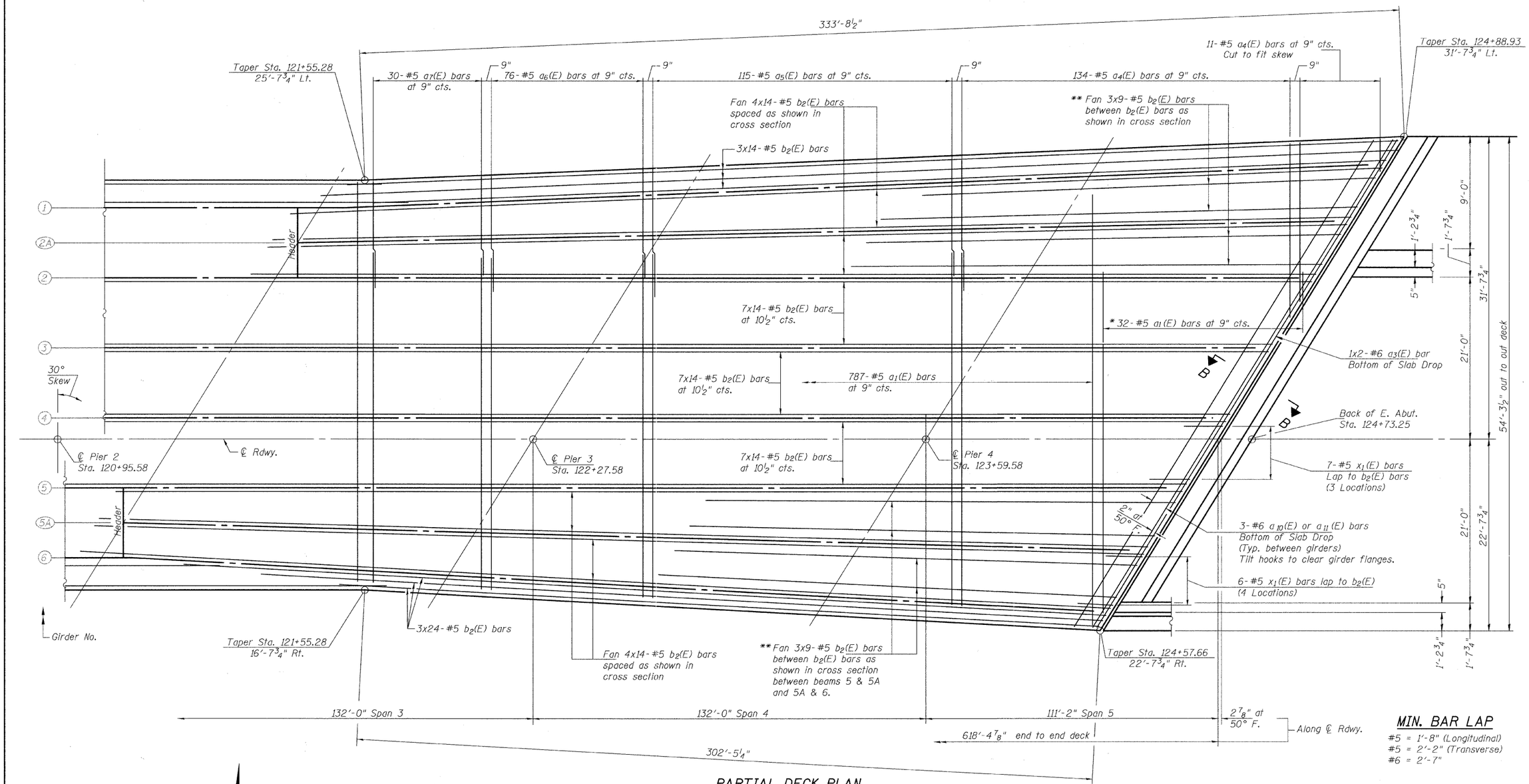
** Cut bottom Leg as req'd. in spans 3 thru 5.

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B011

TOP REINFORCEMENT SUPERSTRUCTURE SPANS 3, 4 & 5 STRUCTURE NO. 099-4105

SHEET NO. 11	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	155
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		



PARTIAL DECK PLAN

(Showing Bottom Reinforcement Bars in Spans 3, 4 & 5)

MIN. BAR LAP

#5 = 1'-8" (Longitudinal)
#5 = 2'-2" (Transverse)
#6 = 2'-7"

Notes:
See Sheets 13 thru 19 of 60 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheets 16 & 17 of 60 for parapet reinforcement.
See Sheet 19 of 60 for Section B-B.

* Order a(E) & a_1(E) bars full length, Cut to fit, skew and use remainder of bars in opposite end as noted.

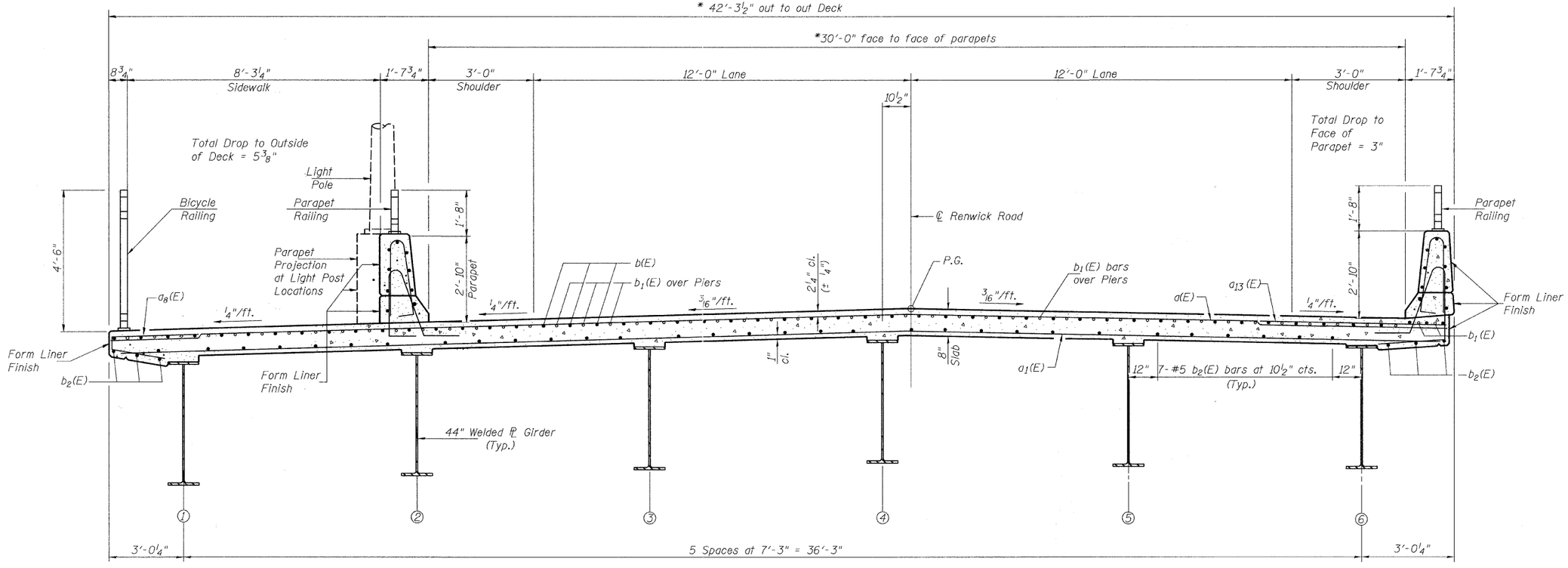
** Cut bottom Leg as req'd. in spans 3 thru 5.

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B012

BOTTOM REINFORCEMENT SUPERSTRUCTURE SPANS 3, 4 & 5 STRUCTURE NO. 099-4105

SHEET NO. 12	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	156
		SN 099-4105	CONTRACT NO. 83126		
		FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT BRS-		



CROSS SECTION - SPANS 1 & 2

(Looking East)

* West End of Deck Span 1 to Sta. 121+55.28

Notes:
See sheets 15 thru 19 of 60 for Superstructure Details.
See sheet 19 of 60 for Bill of Materials.
See sheets 16 & 17 of 60 for Parapet Reinforcement.
See sheet 20 of 60 for Rail Post Spacing.

DECK CROSS SECTION - SPANS 1 & 2
STRUCTURE NO. 099-4105

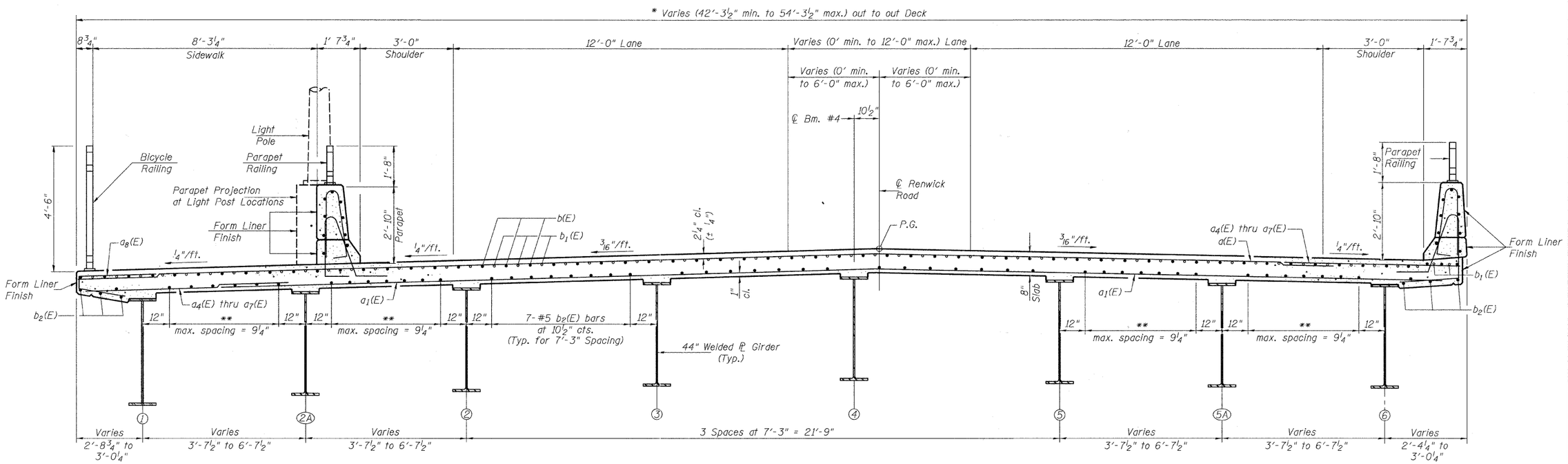
DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B013

SHEET NO. 13	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	157
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

Total Drop to Edge of Deck
= $5\frac{3}{8}$" @ Sta. 121+55.28
= $6\frac{1}{2}$" @ East End of Span 5

Total Drop to Face of Parapet
= 3" @ Station 121+55.28
= $4\frac{1}{8}$" @ East End of Span 5



CROSS SECTION - SPANS 3,4 & 5

(Looking East)

* Sta. 121+55.28 to East End of Deck Span 5

** See Sheet 12 of 59 for placement of bottom longitudinal bars.

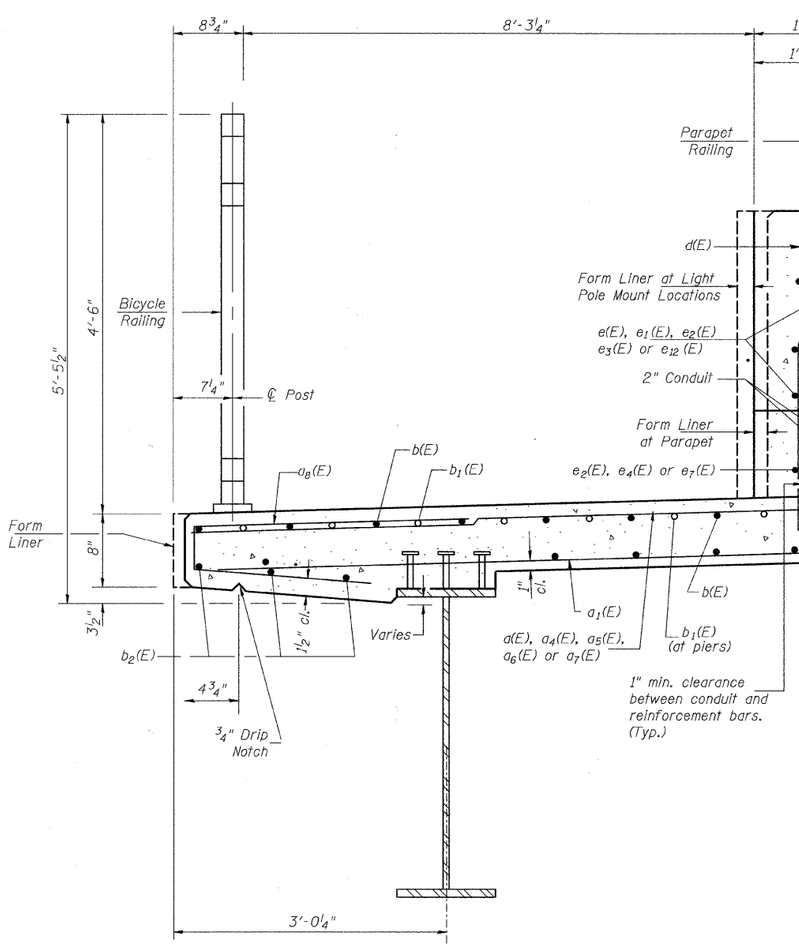
See sheets 15 thru 19 of 60 for Superstructure Details.
See sheet 19 of 60 for Bill of Materials.
See sheets 16 & 17 of 60 for Parapet Reinforcement.
See sheet 20 of 60 for Rail Post Spacing.

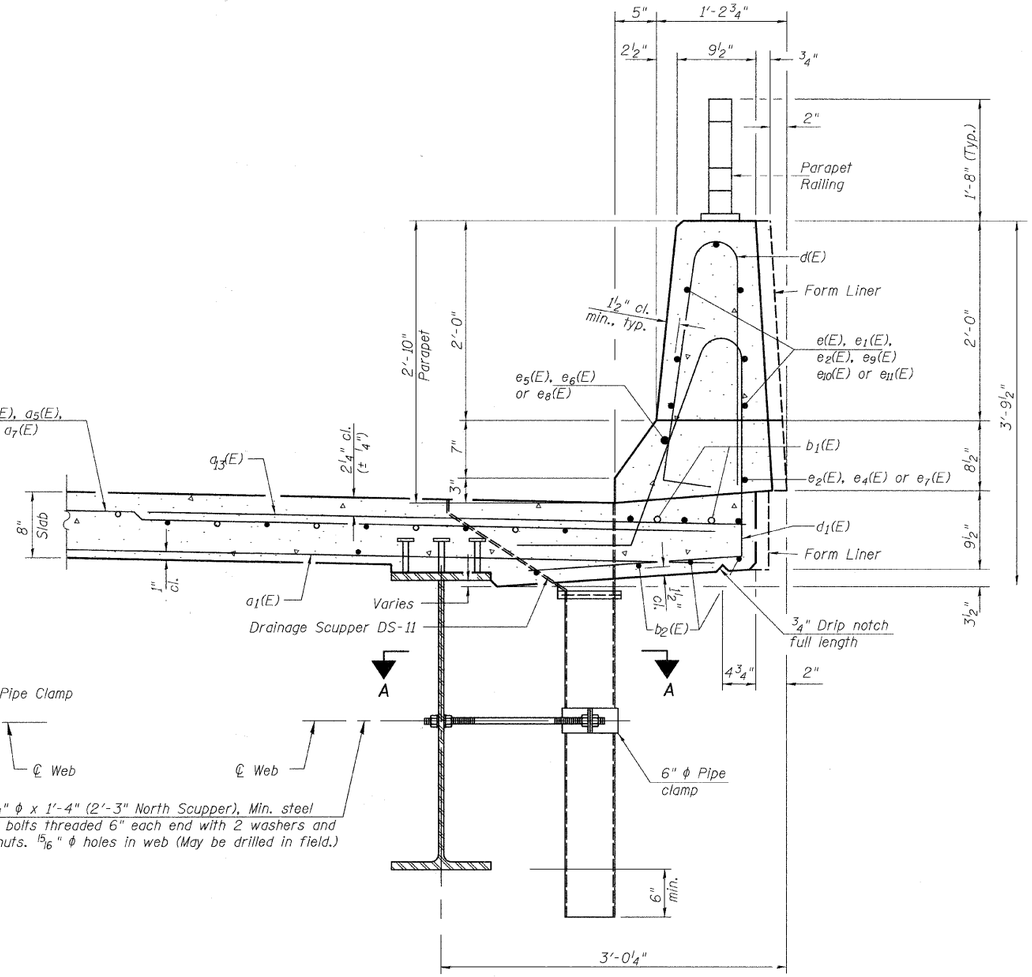
DECK CROSS SECTION - SPANS 3,4 & 5
STRUCTURE NO. 099-4105

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B014

SHEET NO. 14	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	158
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

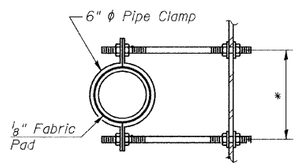




If necessary adjust shear stud connector to accomodate Scupper locations.

SECTION THRU NORTH PARAPET
(Looking East)

SECTION THRU SOUTH PARAPET
(Looking East)



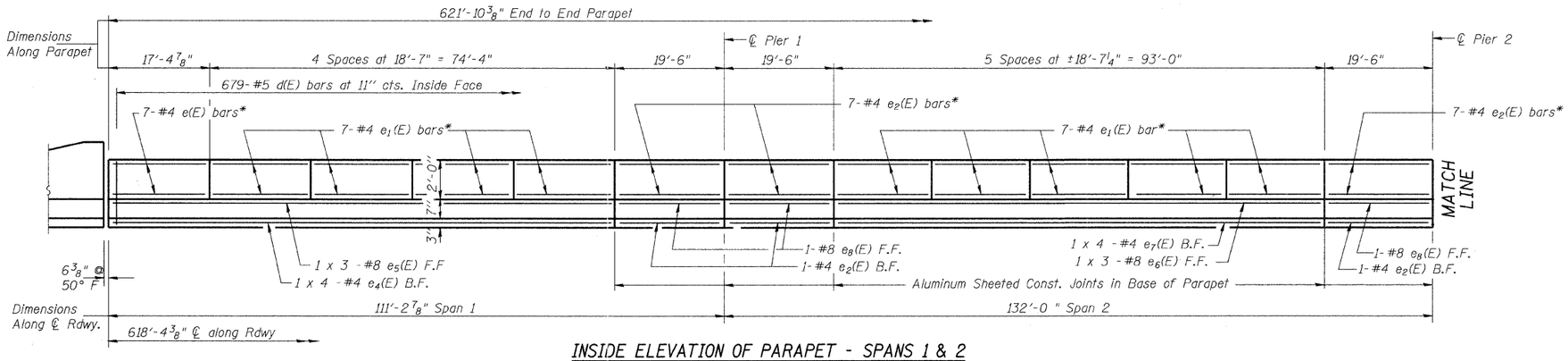
SECTION A-A
*Dimension as required by Pipe Clamp

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

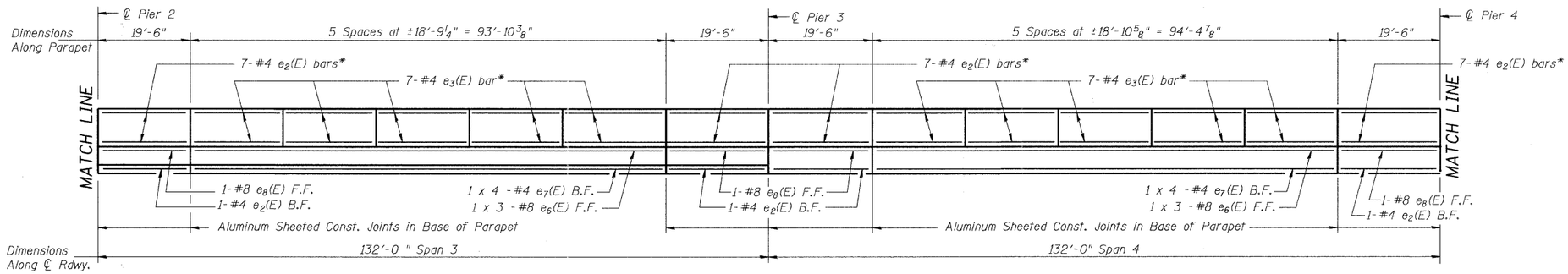
2545B015

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 099-4105

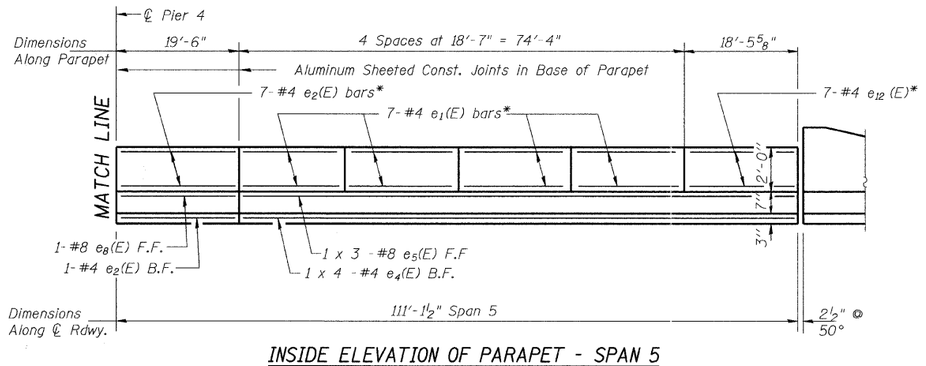
SHEET NO. 15	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	159
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		



INSIDE ELEVATION OF PARAPET - SPANS 1 & 2



INSIDE ELEVATION OF PARAPET - SPANS 3 & 4



INSIDE ELEVATION OF PARAPET - SPAN 5

MIN. BAR LAP (PARAPET)

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

Notes:
* See Section Thru Parapet Sheet 15 of 60.
F.F. = Front Face
B.F. = Back Face

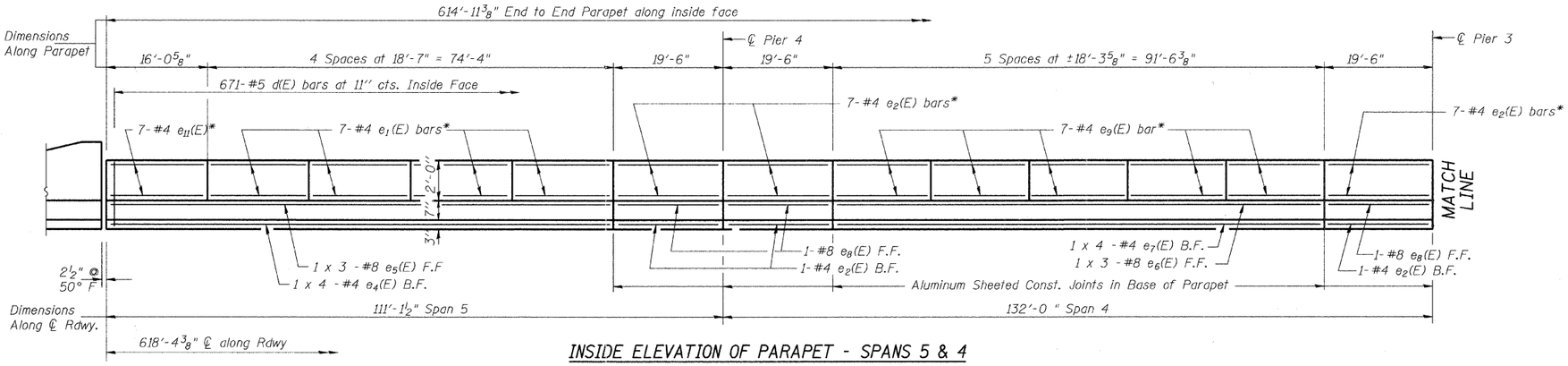
DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

NORTH PARAPET
(Spans 1 Thru 5)

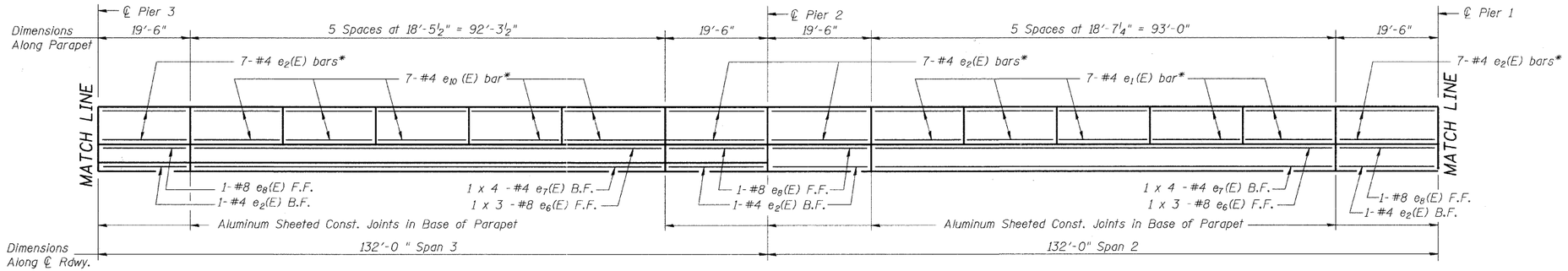
NORTH PARAPET DETAILS
STRUCTURE NO. 099-4105

SHEET NO. 16	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	160
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

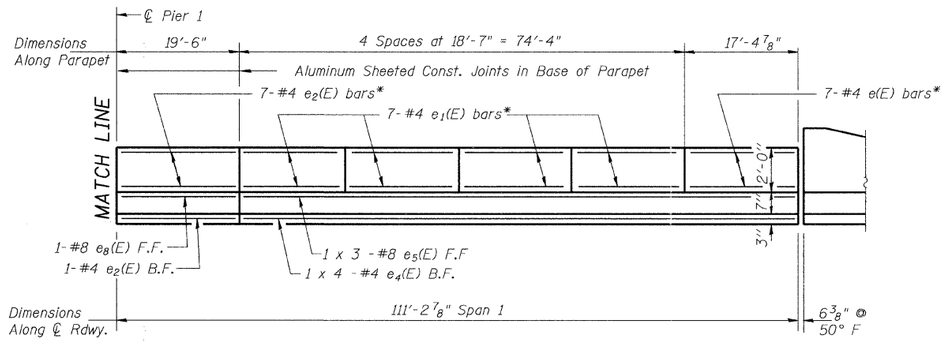
2545B0016



INSIDE ELEVATION OF PARAPET - SPANS 5 & 4



INSIDE ELEVATION OF PARAPET - SPANS 3 & 2



INSIDE ELEVATION OF PARAPET - SPAN 1

MIN. BAR LAP (PARAPET)

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

Notes:
* See Section Thru Parapet Sheet 15 of 60.
F.F. = Front Face
B.F. = Back Face

SOUTH PARAPET

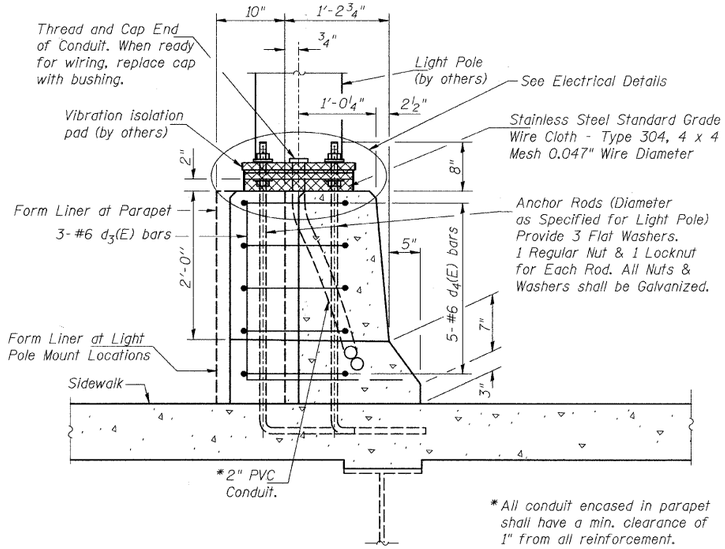
(Spans 5 Thru 1)

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

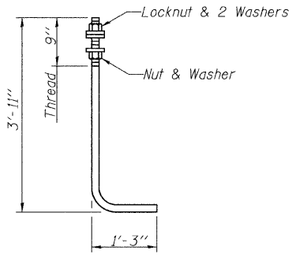
2545B017

SOUTH PARAPET DETAILS STRUCTURE NO. 099-4105

SHEET NO. 17	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	161
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

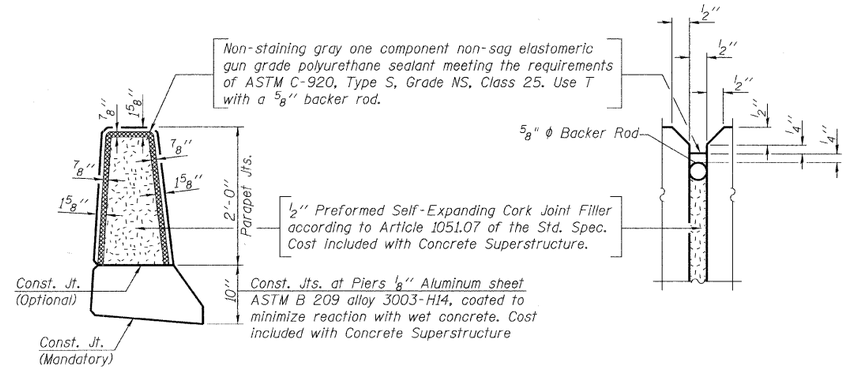


SECTION A-A

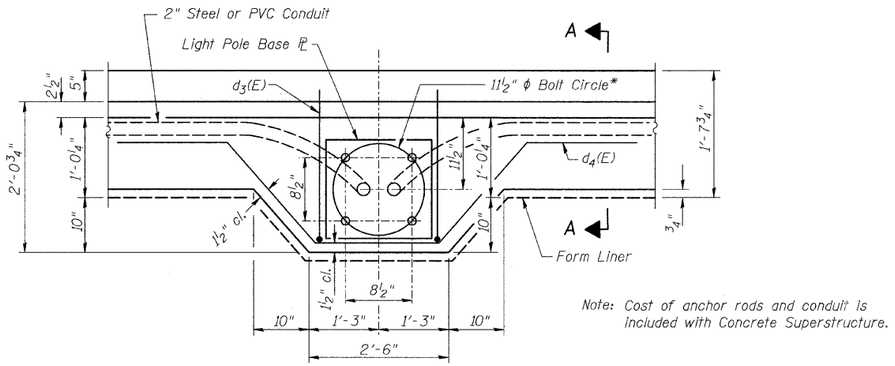


ANCHOR ROD

Diameter as specified for light poles.
(ASTM F 1554 Grade 105)



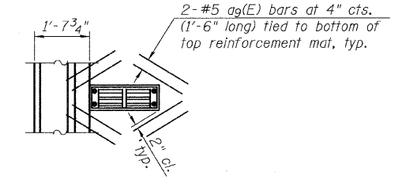
PARAPET JOINT DETAILS



Note: Cost of anchor rods and conduit is included with Concrete Superstructure.

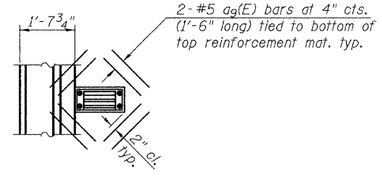
LIGHT POLE MOUNTING PLAN

* Match Light Pole Manufacturer Requirements.



PLAN

Scupper DS-12 North Parapet



PLAN

Scupper DS-11 South Parapet

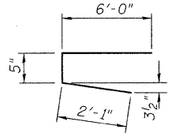
Note:
Cut longitudinal reinforcement to clear drainage scuppers.

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

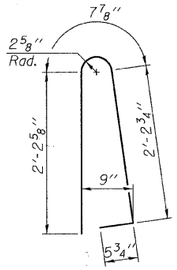
2545B018

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 099-4105

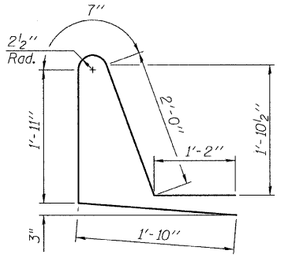
SHEET NO. 18	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	162
		SN 099-4105	CONTRACT NO. 83126		
		FED. ROAD DIST. NO. 7 | ILLINOIS	FED. AID PROJECT BRS-		



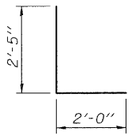
BAR $a_8(E)$



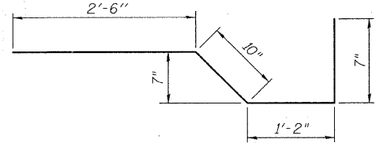
BAR d(E)



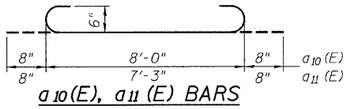
BAR $d_1(E)$



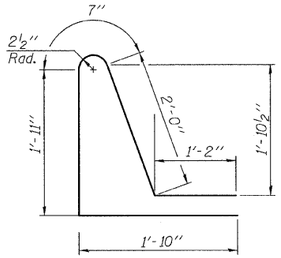
BAR $d_3(E)$



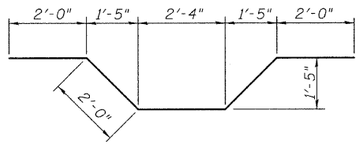
BAR x(E)



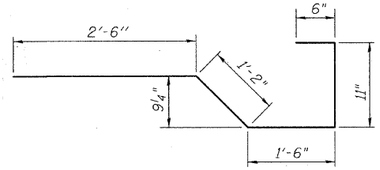
$a_{10}(E)$, $a_{11}(E)$ BARS



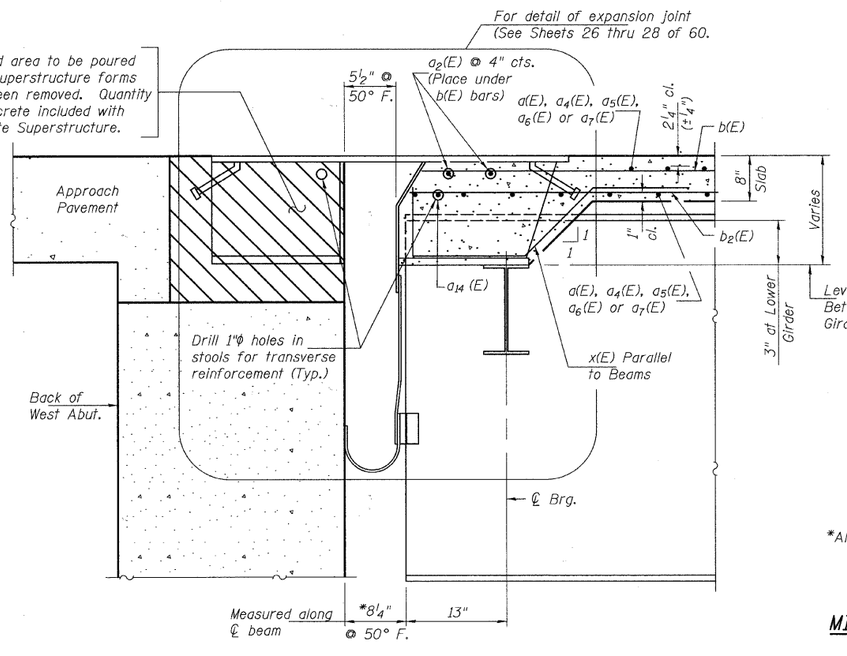
BAR $d_2(E)$



BAR $d_4(E)$



BAR $x_1(E)$



SECTION A-A

(At Rt. Angles to Bk. of abut. Unless Noted)

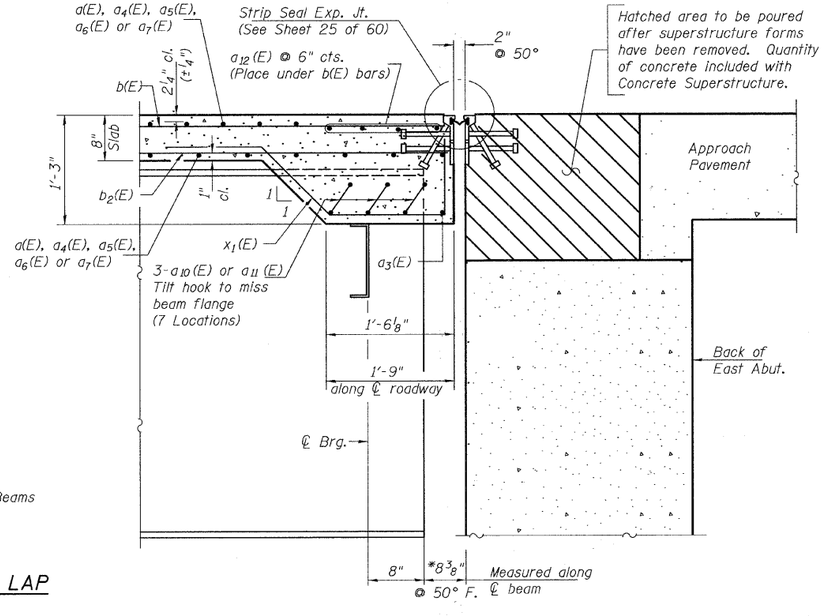
(WEST ABUTMENT)

*Along ℄ of Beams 2 thru 5

MIN. BAR LAP

(Slab)
#5 = 2'-2"
#6 = 2'-7"

(Parapet)
#4 = 1'-4"
#5 = 1'-8"
#8 = 3'-5"



SECTION B-B

(At Rt. Angles to Bk. of abut. Unless Noted)

(EAST ABUTMENT)

SUPERSTRUCTURE BILL OF MATERIAL

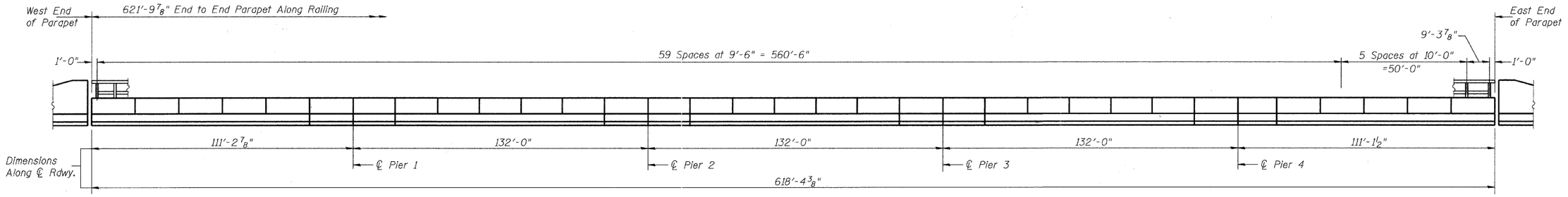
Bar	No.	Size	Length	Shape
d(E)	1242	#5	41'-9"	
$a_1(E)$	819	#5	40'-9"	
$a_2(E)$	12	#6	10'-3"	
$a_3(E)$	2	#6	32'-1"	
$a_4(E)$	371	#5	14'-0"	
$a_5(E)$	315	#5	10'-0"	
$a_6(E)$	186	#5	6'-0"	
$a_7(E)$	65	#5	4'-0"	
$a_8(E)$	621	#6	8'-6"	
$a_9(E)$	32	#5	1'-6"	
$a_{10}(E)$	9	#6	9'-4"	
$a_{11}(E)$	12	#6	8'-7"	
$a_{12}(E)$	8	#6	32'-1"	
$a_{13}(E)$	1242	#6	6'-0"	
$a_{14}(E)$	6	#5	10'-6"	
b(E)	965	#5	32'-9"	
$b_1(E)$	561	#6	26'-6"	
$b_2(E)$	1120	#5	28'-0"	
$b_3(E)$	318	#5	25'-4"	
$b_4(E)$	40	#5	25'-7"	
d(E)	1350	#5	5'-6"	
$d_1(E)$	671	#5	7'-6"	
$d_2(E)$	679	#5	7'-6"	
$d_3(E)$	15	#6	4'-5"	
$d_4(E)$	25	#6	10'-3"	
e(E)	14	#4	17'-0"	
$e_1(E)$	182	#4	18'-4"	
$e_2(E)$	128	#4	19'-2"	
$e_3(E)$	70	#4	18'-6"	
$e_4(E)$	16	#4	23'-10"	
$e_5(E)$	12	#8	32'-9"	
$e_6(E)$	18	#8	32'-3"	
$e_7(E)$	24	#4	24'-3"	
$e_8(E)$	16	#8	19'-2"	
$e_9(E)$	35	#4	18'-0"	
$e_{10}(E)$	35	#4	18'-2"	
$e_{11}(E)$	7	#4	15'-9"	
$e_{12}(E)$	7	#4	18'-2"	
x(E)	56	#5	5'-1"	
$x_1(E)$	24	#5	6'-7"	
Reinforcement Bars, Epoxy Coated			Pound	245,900
Concrete Superstructure			Cu. Yd.	904.1
Bridge Deck Grooving			Sq. Yd.	2,361
Protective Coat			Sq. Yd.	3,990

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

25458019

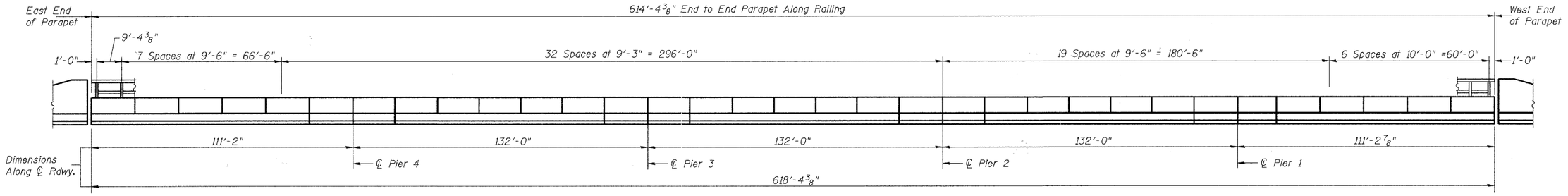
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 099-4105

SHEET NO. 19	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	163
	SN 099-4105		CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		



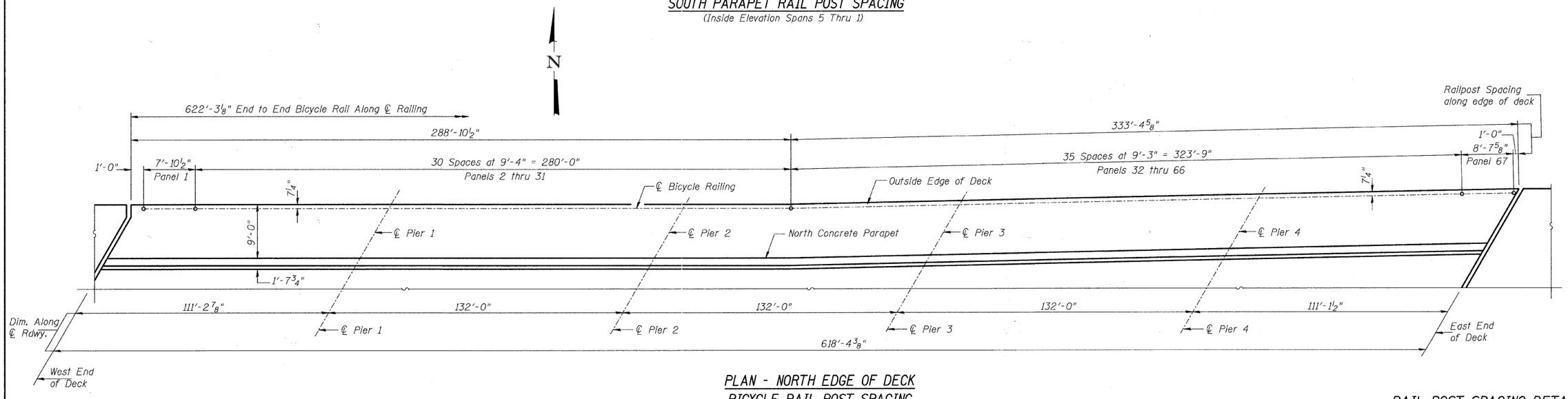
NORTH PARAPET RAIL POST SPACING

(Inside Elevation Spans 1 Thru 5)



SOUTH PARAPET RAIL POST SPACING

(Inside Elevation Spans 5 Thru 1)



PLAN - NORTH EDGE OF DECK
BICYCLE RAIL POST SPACING

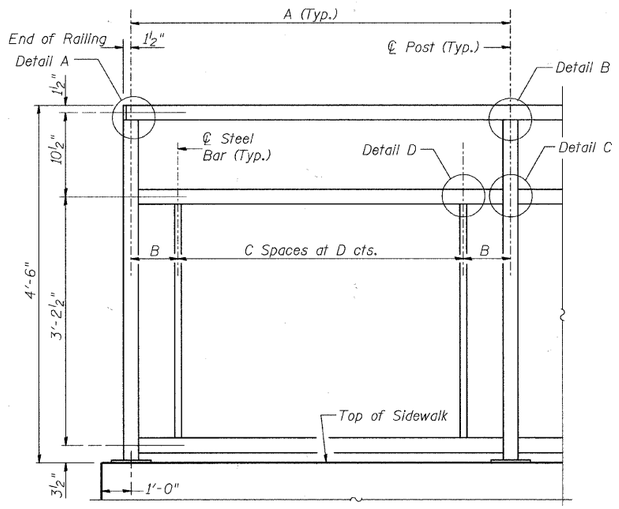
RAIL POST SPACING DETAIL
STRUCTURE NO. 099-4105

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

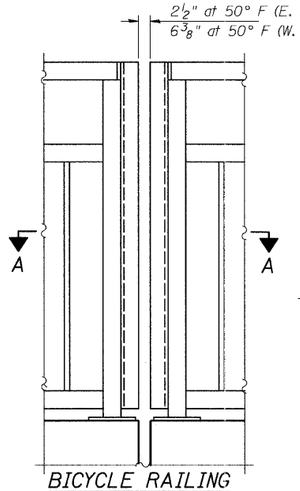
2545B020

SHEET NO. 20	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	164
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

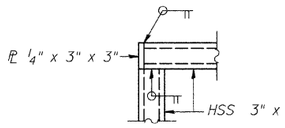
See Sheets 20, 40, 43 and 51 of 60 for Post Spacing



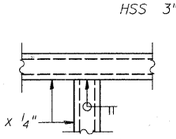
BICYCLE RAILING ELEVATION



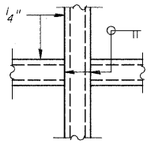
BICYCLE RAILING AT EXPANSION



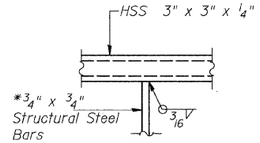
DETAIL A



DETAIL B

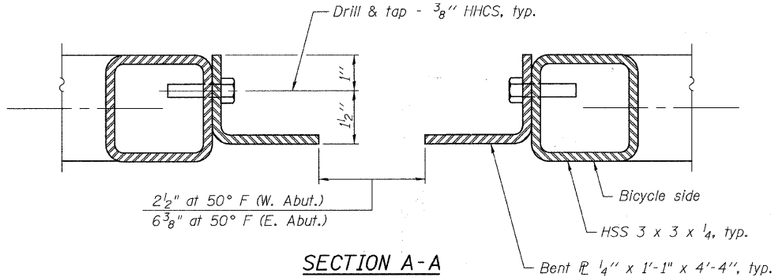


DETAIL C

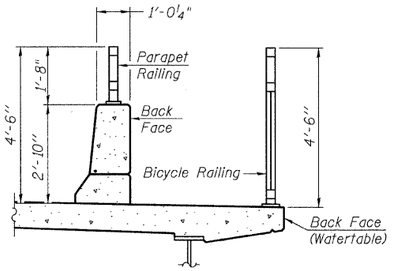


DETAIL D

* Structural steel bars shall conform to the requirements of AASHTO M 270 Grade 50.

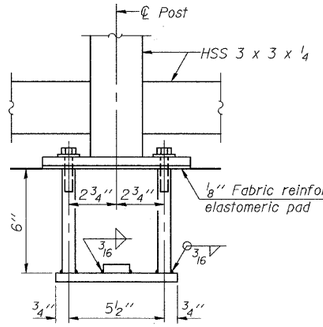


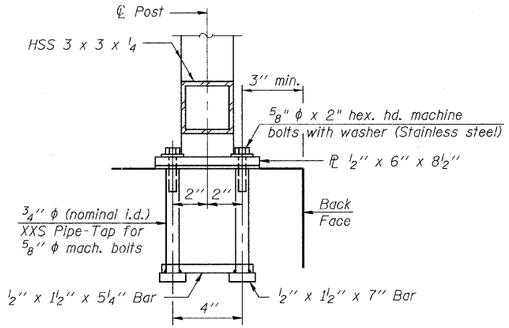
SECTION A-A



SECTION THRU DECK

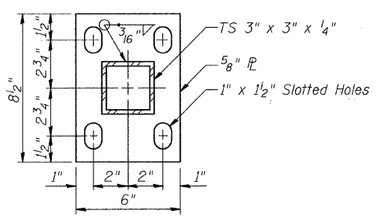
Panel	A	B	C	D
Bridge 1	7'-10½"	6"	15	5½"
Bridge 2-31	9'-4"	5"	17	6"
Bridge 32-66	9'-3"	4½"	17	6"
Bridge 67	8'-7⅝"	5/16"	17	5½"
West Approach	8'-0"	6"	14	6"
West Approach	6'-0"	6"	10	6"
East Approach	6'-0"	6"	10	6"
East Approach	8'-0"	6"	14	6"



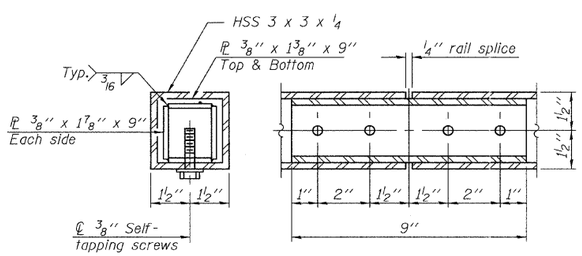


ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



BASE ℄

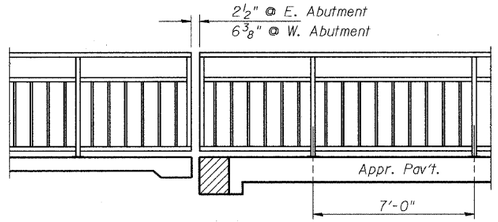


RAIL SPLICE

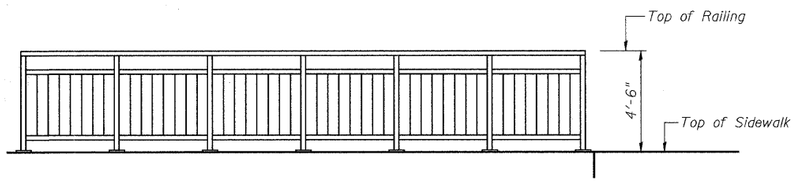
Note: All post, railing, splices, anchor devices, and bent plates shall be painted using the Inorganic Zinc Rich Primer/Acrylic/Acrylic Paint System.

BILL OF MATERIAL

Item	Unit	Quantity
Bicycle Railing	Foot	679



RAIL ELEVATION AT ABUTMENTS



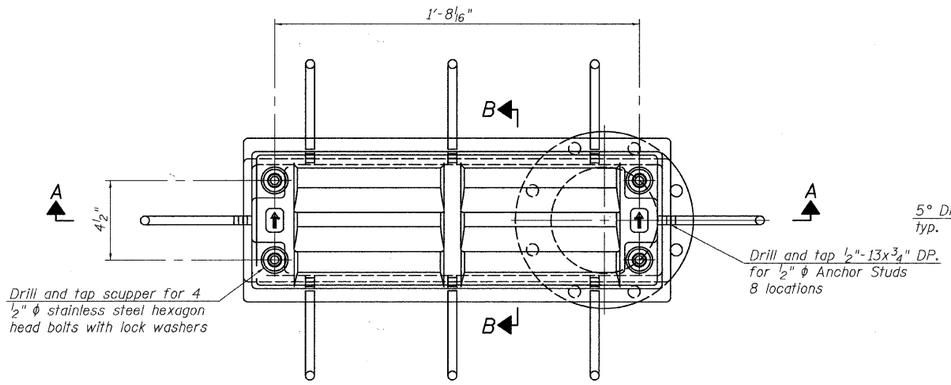
BICYCLE RAILING SIDE VIEW

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

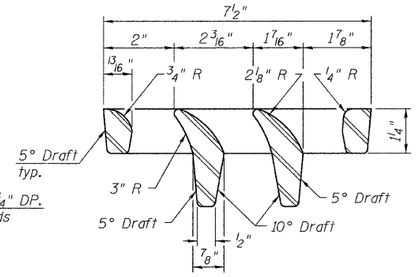
25458024

BICYCLE RAILING DETAILS
STRUCTURE NO. 099-4105

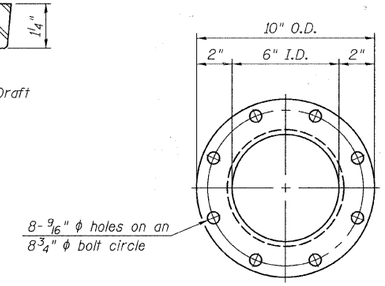
SHEET NO. 24	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	251	165
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		



PLAN



VANE GRATE DETAIL



Notes:

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

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

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

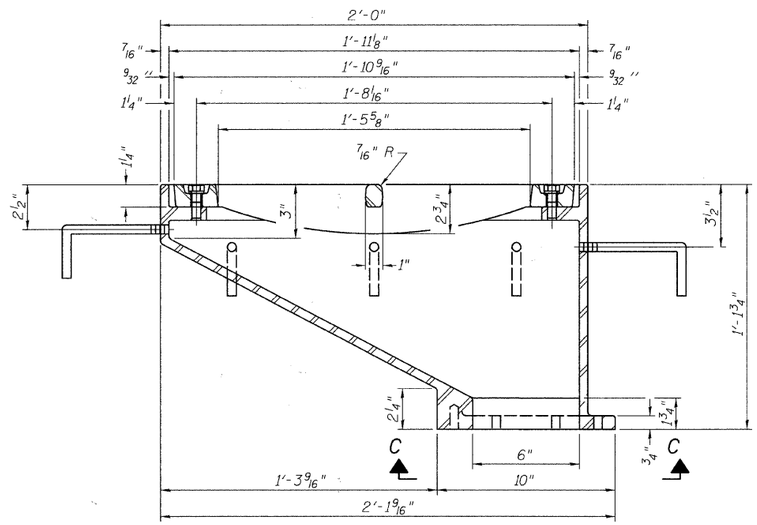
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

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

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

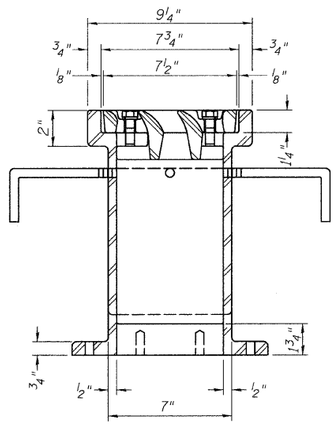
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-12.

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

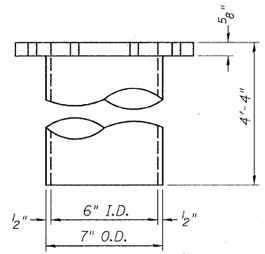


SECTION A-A

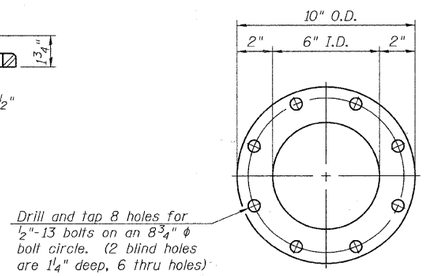
See sheet 1 of 60 for scupper location relative to parapet.



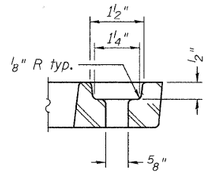
SECTION B-B



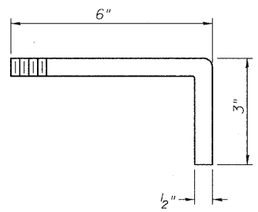
DOWNSPOUT



VIEW C-C



BOLT HOLE DETAIL



ANCHOR STUD DETAIL

BILL OF MATERIAL

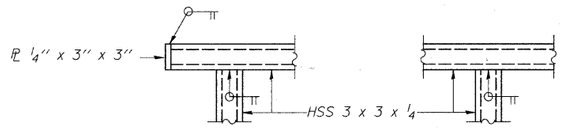
ITEM	UNIT	QUANTITY
Drainage Scupper, DS-12	Each	2

DRAINAGE SCUPPER DS-12
STRUCTURE NO. 099-4105

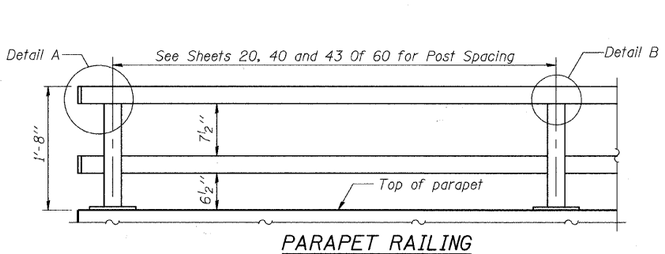
DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

SHEET NO. 22	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	166
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

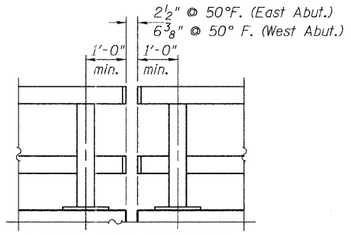
2545B022



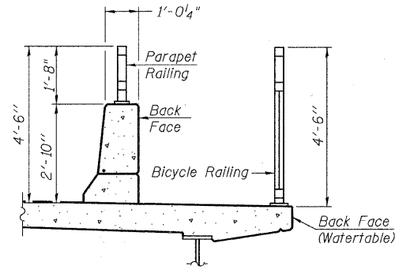
DETAIL A DETAIL B



PARAPET RAILING ELEVATION
(Inside Face of Two Element Rail)

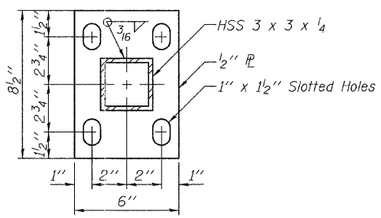


PARAPET RAILING ELEVATION AT EXPANSION JOINT
(Two Element Rail Shown)

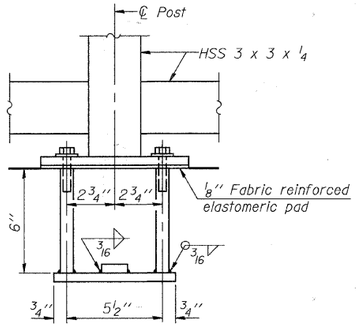


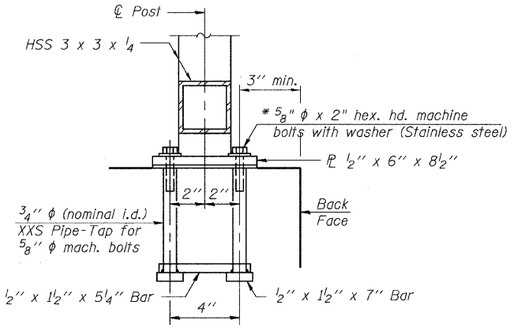
SECTION THRU DECK

Note: All post, railing, splices, anchor devices, and bent plates shall be painted using the Inorganic Zinc Rich Primer/Acrylic/Acrylic Paint System.



BASE ℙ

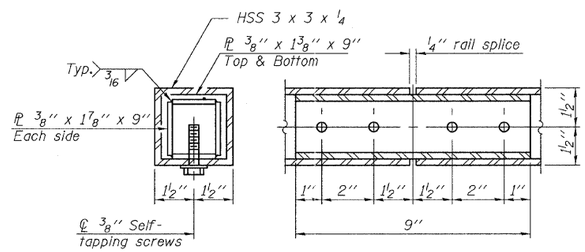




ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

* Minimum O.D. 1 1/2"
Minimum Thickness 1/8".



RAIL SPLICE

BILL OF MATERIAL

Item	Unit	Quantity
Parapet Railing	Foot	1,237

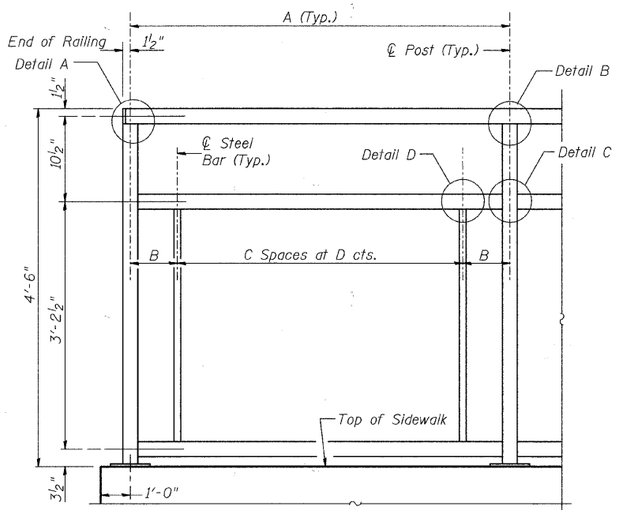
PARAPET RAILING DETAILS
STRUCTURE NO. 099-4105

DESIGNED	JDH
CHECKED	BAN
DRAWN	TC
CHECKED	JDH

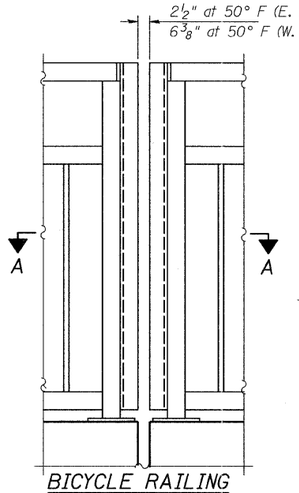
25458023

SHEET NO. 23 60 SHEETS	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	90-16103-01-BR	WILL	255	167
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

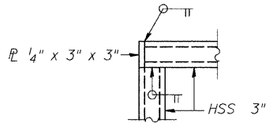
See Sheets 20, 40 and 43 Of 60 for Post Spacing



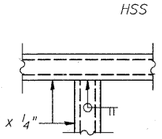
BICYCLE RAILING ELEVATION



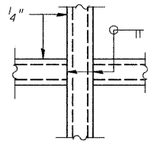
BICYCLE RAILING AT EXPANSION



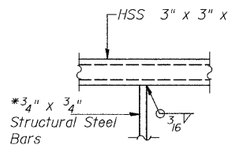
DETAIL A



DETAIL B

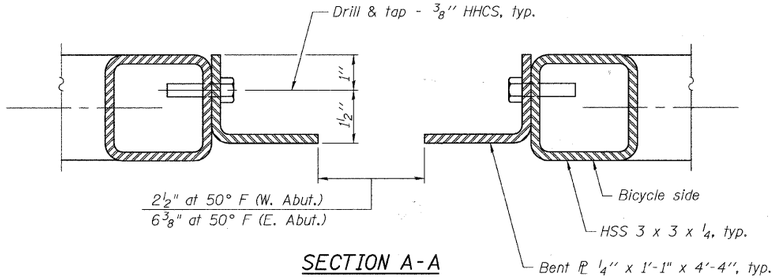


DETAIL C

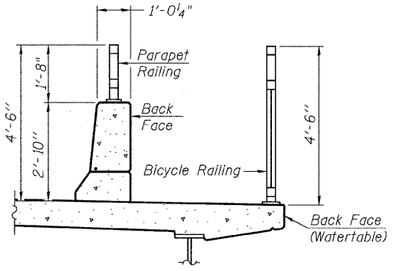


DETAIL D

* Structural steel bars shall conform to the requirements of AASHTO M 270 Grade 50.

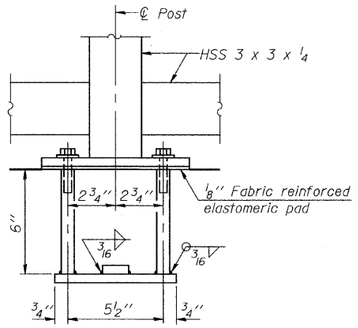


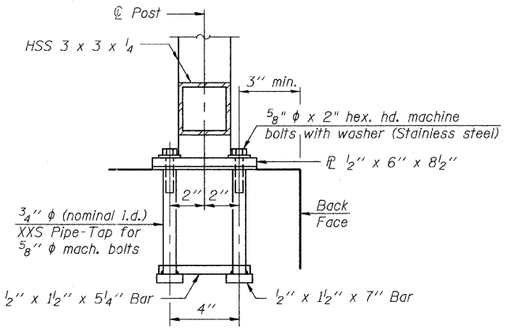
SECTION A-A



SECTION THRU DECK

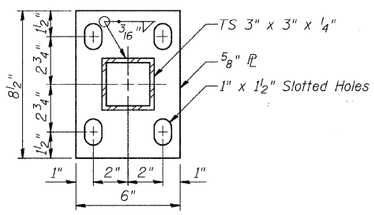
Panel	A	B	C	D
Bridge 1	7'-10½"	6"	15	5½"
Bridge 2-31	9'-4"	5"	17	6"
Bridge 32-66	9'-3"	4½"	17	6"
Bridge 67	8'-7⅝"	5⅛"	17	5½"
West Approach	7'-0"	6"	12	6"
East Approach	7'-0"	6"	12	6"



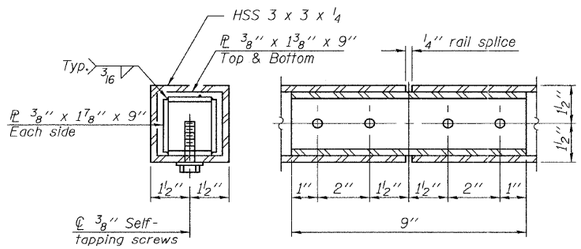


ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



BASE ℄

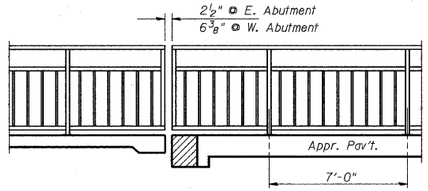


RAIL SPLICE

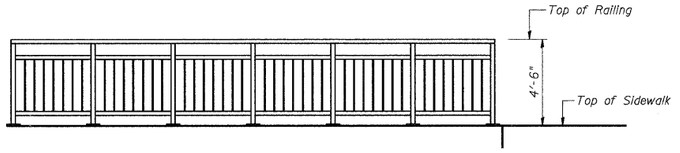
Note: All post, railing, splices, anchor devices, and bent plates shall be painted using the Inorganic Zinc Rich Primer/Acrylic/Acrylic Paint System.

BILL OF MATERIAL

Item	Unit	Quantity
Bicycle Railing	Foot	649



RAIL ELEVATION AT ABUTMENTS



BICYCLE RAILING SIDE VIEW

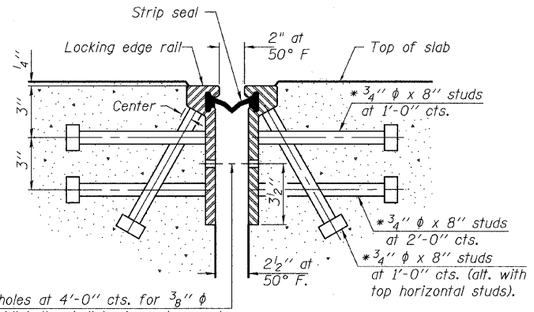
DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

25458024

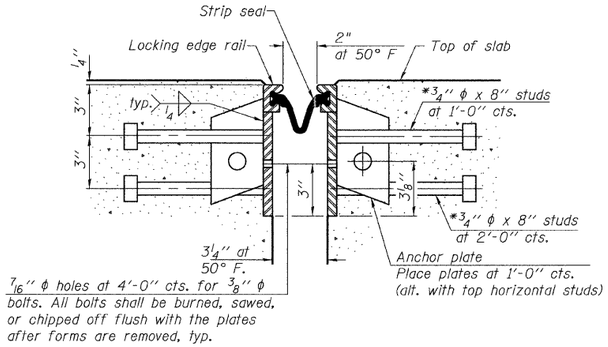
BICYCLE RAILING DETAILS
STRUCTURE NO. 099-4105

SHEET NO. 24	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	168
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

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



SECTION THRU
ROLLED RAIL JOINT



SECTION THRU
WELDED RAIL JOINT

Notes:

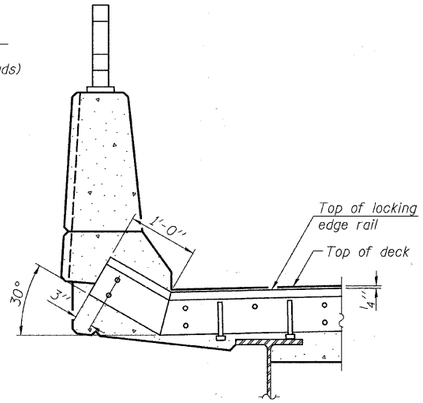
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

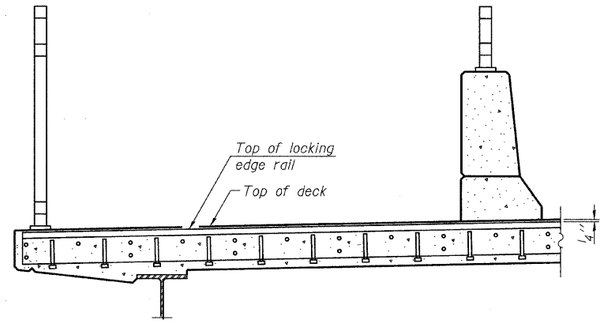
The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

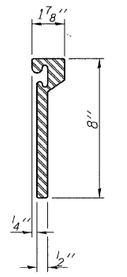
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.



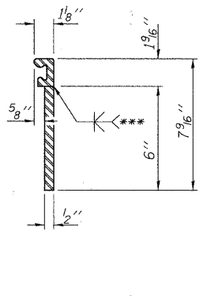
AT SOUTH PARAPET



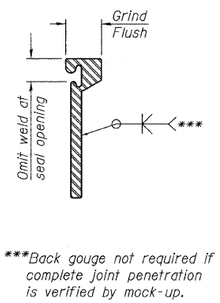
AT NORTH RAILING AND PARAPET



ROLLED
EXTRUDED RAIL



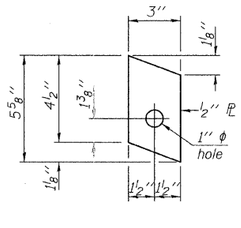
WELDED RAIL



***Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE
RAIL SPLICE

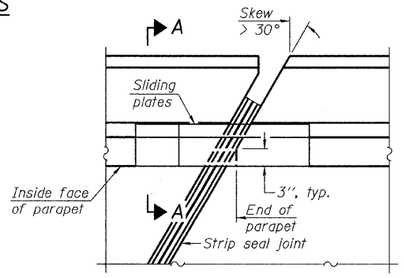
The inside of the locking edge rail groove shall be free of weld residue.



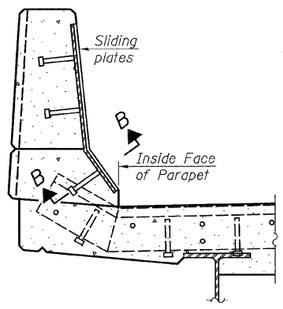
ANCHOR ℄
(for welded rail)

LOCKING EDGE RAILS

TYPICAL END TREATMENTS

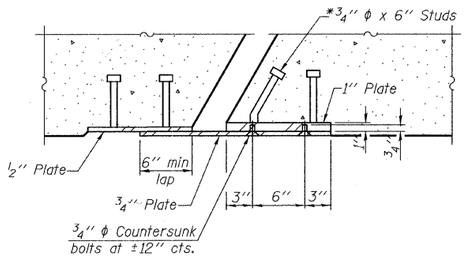


PLAN



SECTION A-A

POINT BLOCK DETAILS
(for skews > 30°)



SECTION B-B

BILL OF MATERIAL

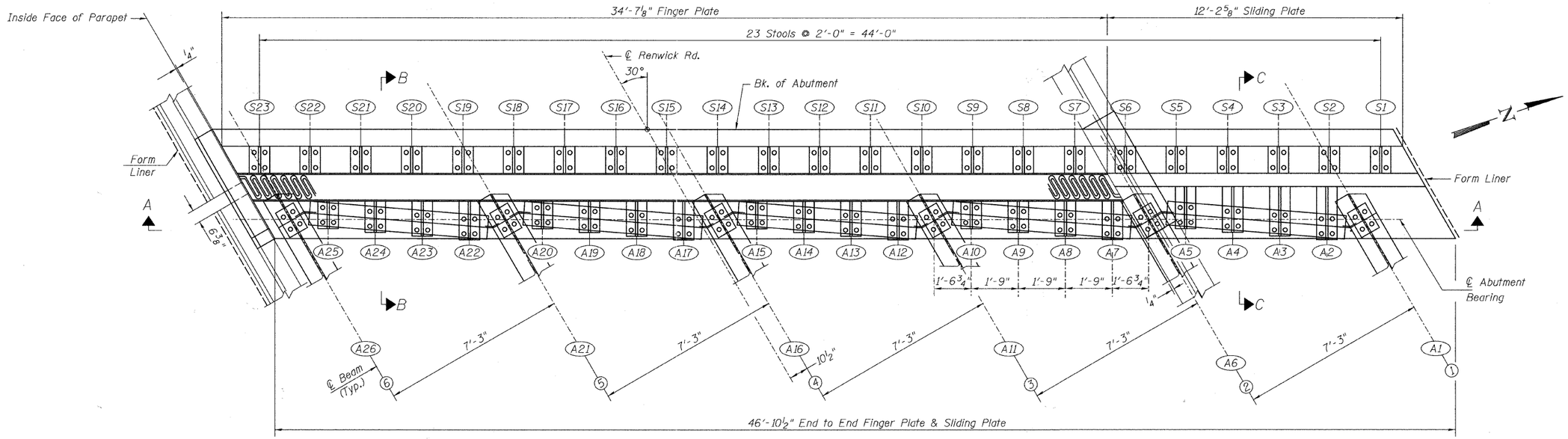
Item	Unit	Total
Preformed Joint Strip Seal	Foot	62

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

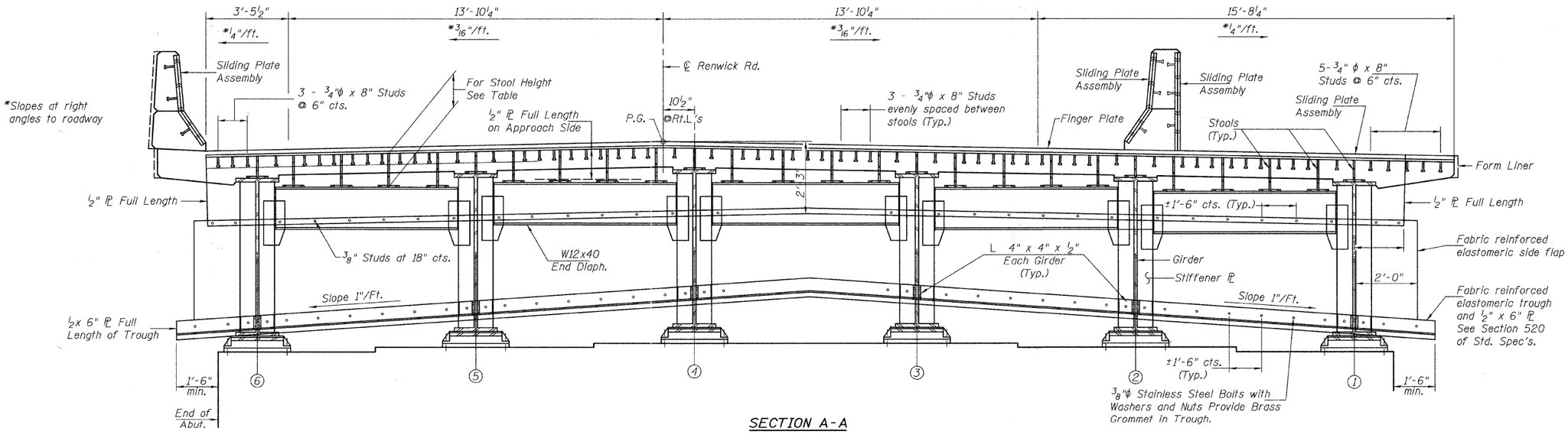
2545B025

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 099-4105

SHEET NO. 25	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	169
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		



PLAN AT WEST ABUTMENT



SECTION A-A

STOOL HEIGHTS

STOOL MARK	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20	A21	A22	A23	A24	A25	A26
STOOL HEIGHT	7"	11"	11 1/4"	11 3/8"	11 1/2"	6 7/8"	10 7/8"	11 1/8"	11 1/4"	11 1/4"	6 7/8"	10 7/8"	10 7/8"	11"	11 1/8"	6 7/8"	12 1/2"	12 1/8"	11 5/8"	11 1/4"	6 7/8"	12 5/8"	12 1/8"	11 3/4"	11 1/4"	6 7/8"
STOOL MARK	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	S21	S22	S23			
STOOL HEIGHT	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"	11 1/8"			

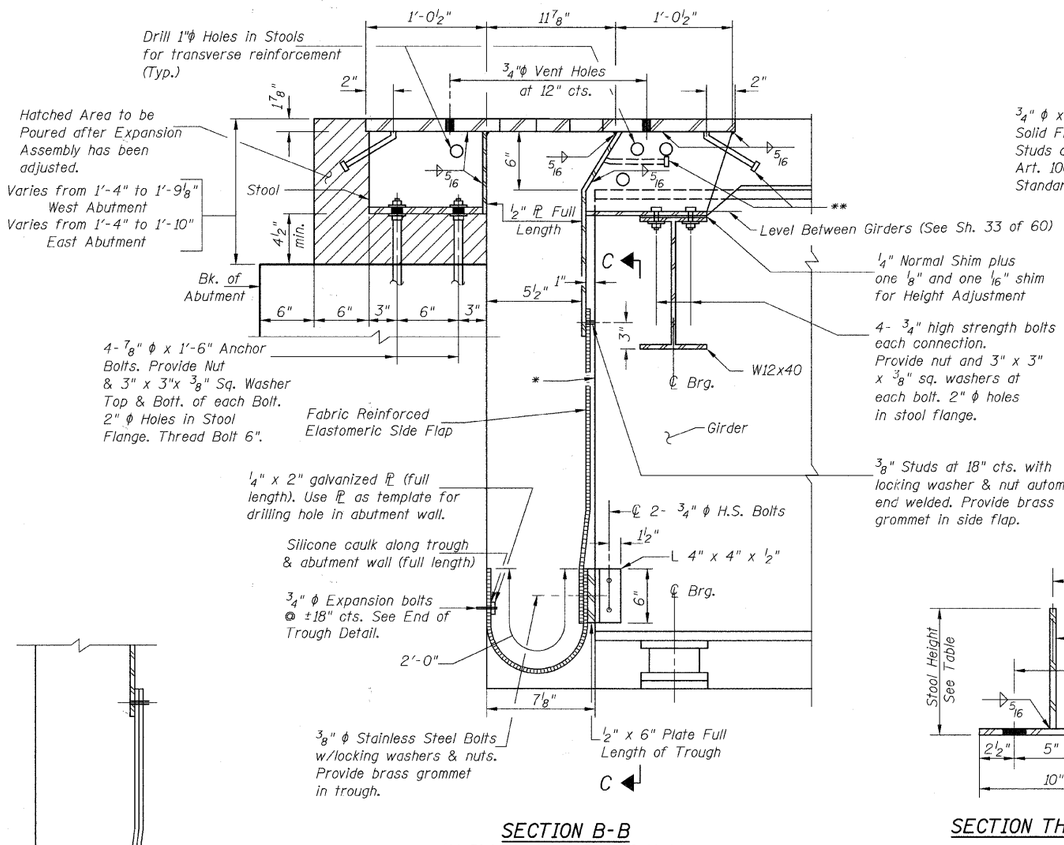
* Stool Heights calculated at ℄ brg. (deck stools) or ℄ stool (abut. stools). Actual stool height will vary along length of stool to match roadway grade.

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B026

EXPANSION JOINT DETAILS AT WEST ABUTMENT STRUCTURE NO. 099-4105

SHEET NO. 26 60 SHEETS	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	90-16103-01-BR	WILL	255	170
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

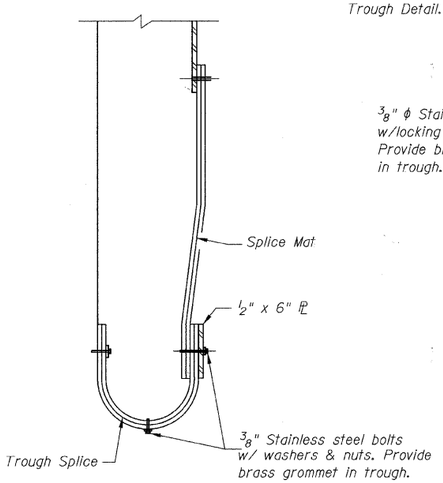


SECTION B-B

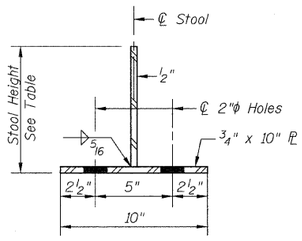
(At Right Angles to Back of Abut.)
Horizontal Dimensions are at 50°F.

* Beam flanges shall be clipped. See sheet 33 of 60.

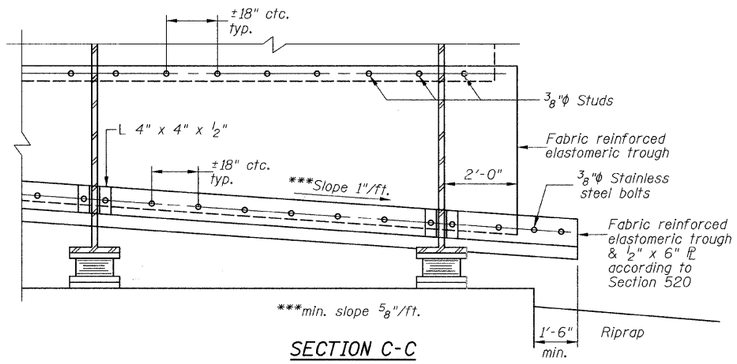
** ¾" ϕ x 8" Granular or Solid Flux Filled Headed Studs conforming to Art. 1006.32 of the Standard Specifications.



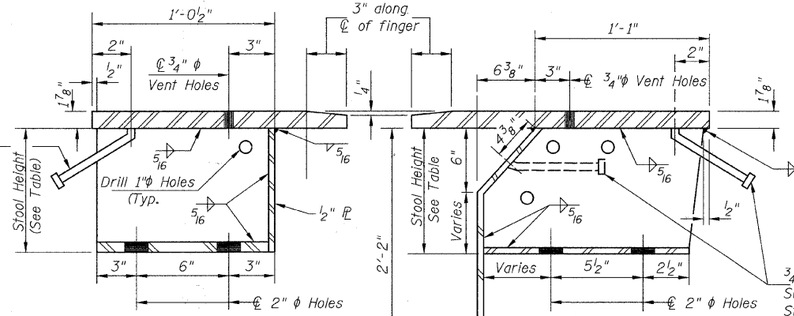
SECTION THRU TROUGH SPLICE



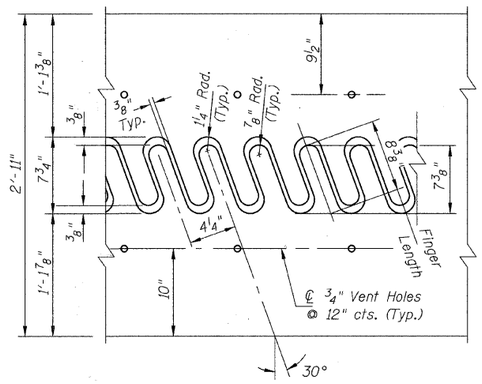
SECTION THRU STOOL



SECTION C-C

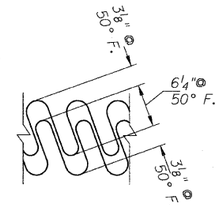


STOOL DETAILS



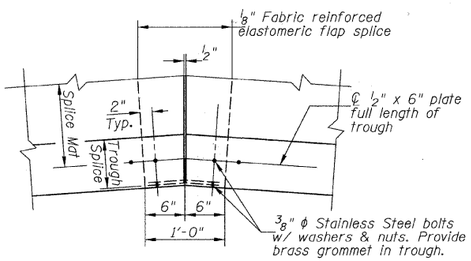
FLAME CUTTING DIAGRAM

Cut from ℄ 1⅞" x 2'-11" x 36'-4"

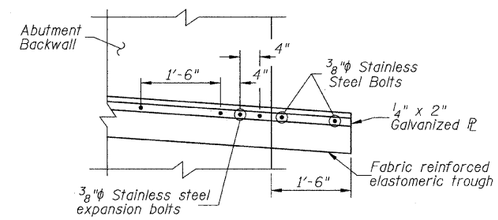


FINGER PLATE SETTING DIAGRAM

Note:
Finger plate expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.



TROUGH SPLICE DETAIL



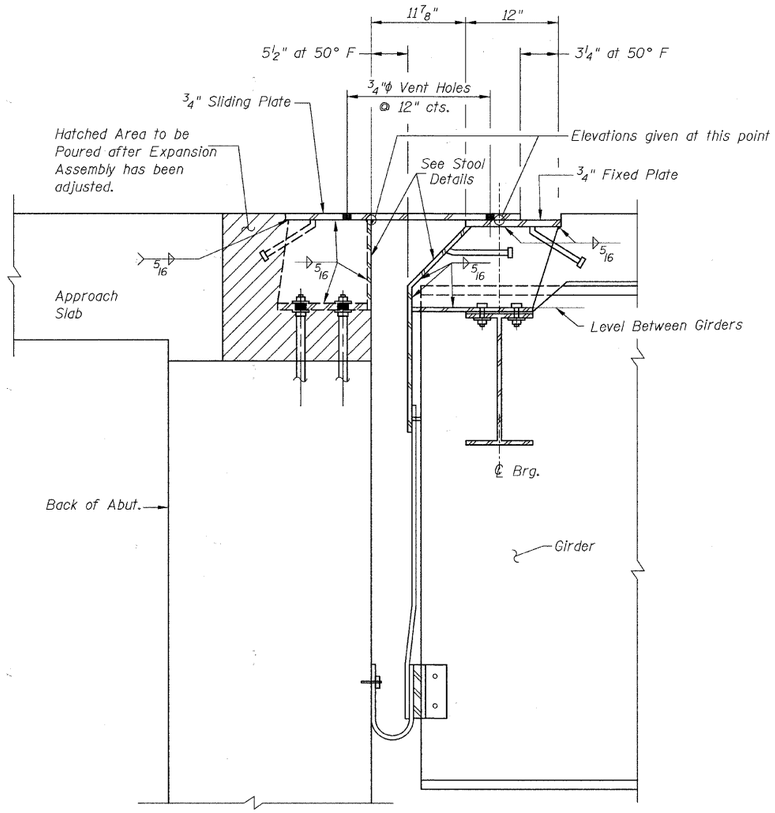
END OF TROUGH DETAIL AT ABUT.

FINGER PLATE EXPANSION JOINT DETAILS AT WEST ABUTMENT STRUCTURE NO. 099-4105

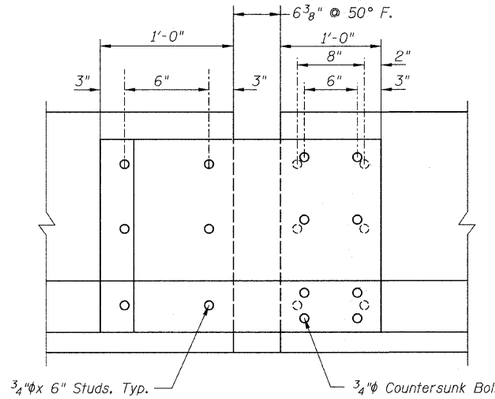
DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

SHEET NO. 27	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	171
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

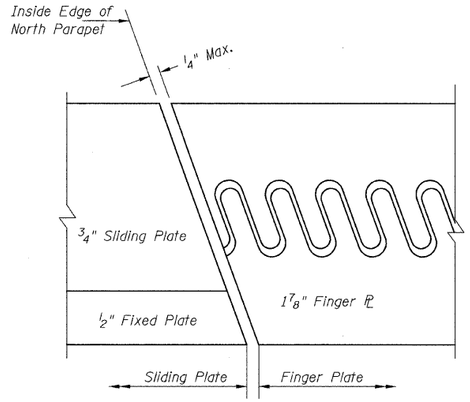
2545B027



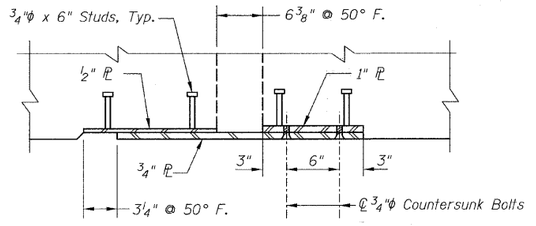
SECTION C-C THRU SLIDING ℙ



INSIDE ELEVATION OF PARAPET AT JOINT

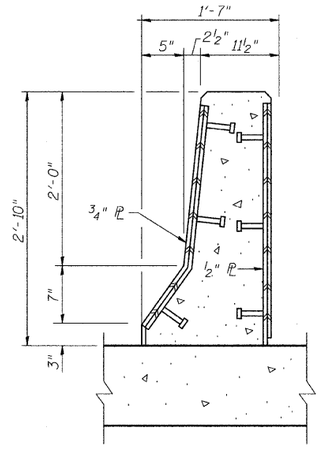


PLAN

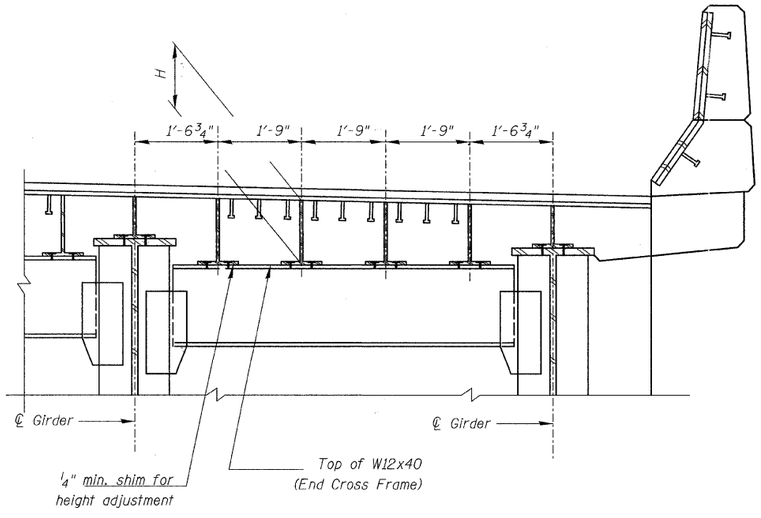


HORIZONTAL SECTION OF PARAPET AT JOINT

H = Stool Height
(See Table on Sheet 26 of 60.#



SECTION THRU PARAPET AT JOINT



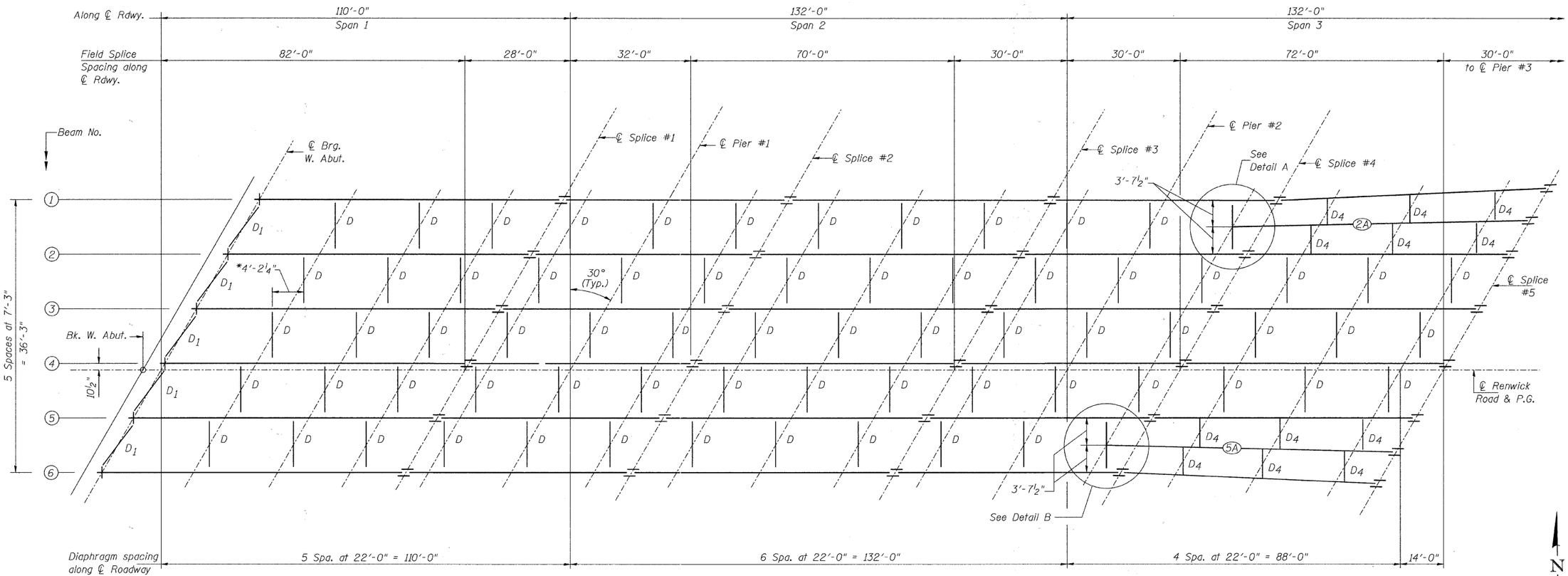
STOOL DETAIL

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B028

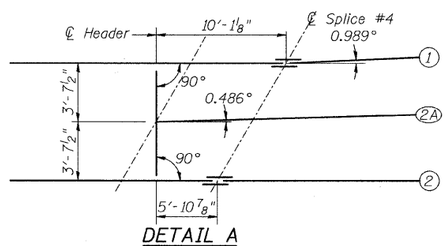
SLIDING PLATE DETAILS AT WEST ABUTMENT STRUCTURE NO. 099-4105

SHEET NO. 28 60 SHEETS	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	90-16103-01-BR	WILL	255	172
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

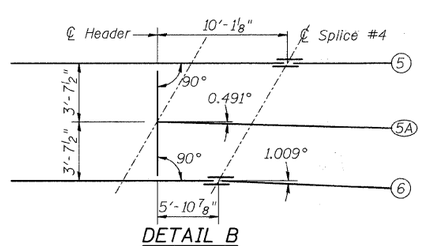


PARTIAL FRAMING PLAN (SPANS 1 THRU 3)

*Typical dimension for 7'-3" girder spacing.



DETAIL A



DETAIL B

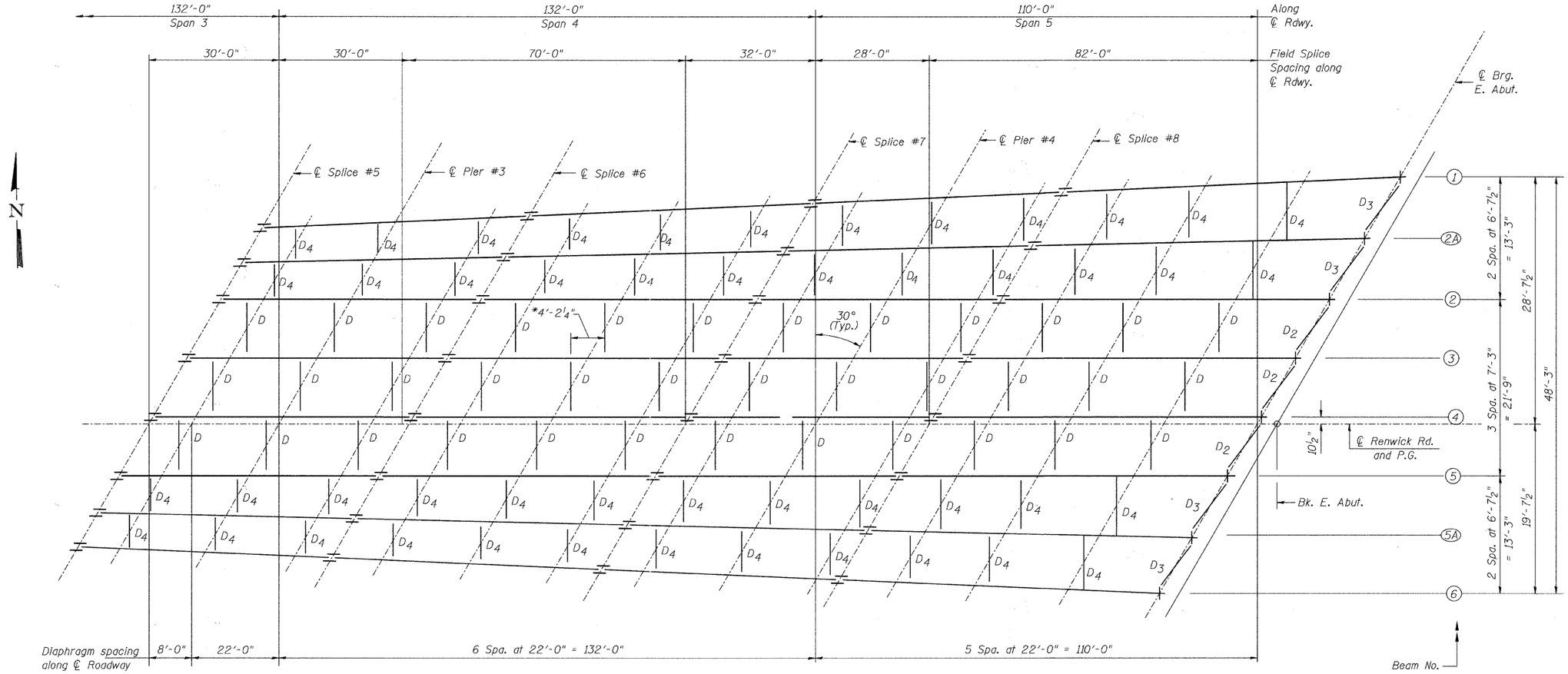
Notes:
- All skew lines are 30° to centerline of roadway.
- All skew lines intersect diaphragms at mid-piont between girders
- Diaphragm and Fieid Splice spacing are along the centerline of roadway.

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B029

FRAMING PLAN - SPANS 1 THRU 3
STRUCTURE NO. 099-4105

SHEET NO. 29	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	90-16103-01-BR	WILL	255	173
60 SHEETS		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		



PARTIAL FRAMING PLAN (SPANS 3 THRU 5)

Notes: All skew lines are 30° to centerline of roadway.
All skew lines intersect diaphragms at mid-piont between girders
Diaphragm and Field Splice spacing are along the centerline of roadway.

*Typical dimension for 7'-3" girder spacing.

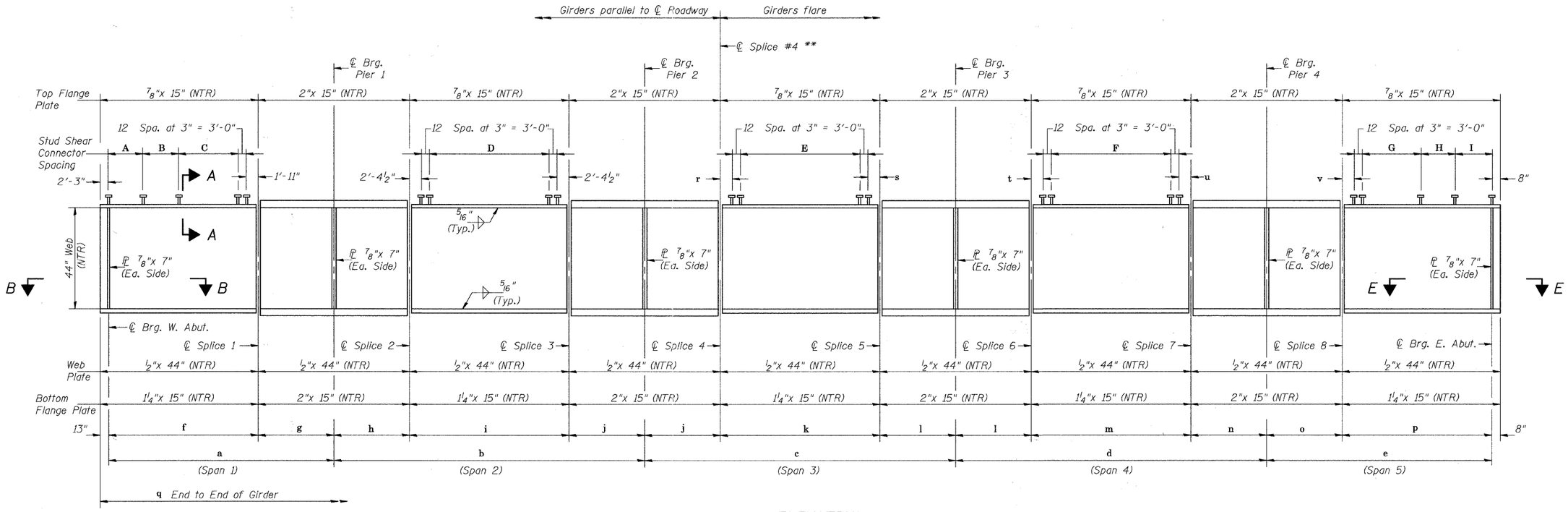
FRAMING PLAN - SPANS 3 THRU 5
STRUCTURE NO. 099-4105

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B030

SHEET NO. 30	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	174
		SN 099-4105	CONTRACT NO. 83126		
		FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT BRS-		

** Fabricate Field Splice Plates to match Girder Flare as required.



ELEVATION
GIRDER 1 & 6

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

For Sections A-A, B-B & E-E See Sheet 34 of 60.

Girder No.	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v
Girder 1	110'-0"	132'-0"	133'-0 1/2"	133'-4 1/8"	111'-1 1/2"	82'-0"	28'-0"	32'-0"	70'-0"	30'-0"	72'-8 7/8"	30'-3 5/8"	70'-8 1/2"	32'-3 7/8"	28'-3 3/8"	82'-10"	621'-3 1/4"	2'-1 1/8"	2'-1 1/4"	2'-8 3/4"	2'-8 3/4"	2'-9"
Girder 6	110'-0"	132'-0"	130'-11 7/8"	130'-8 1/4"	108'-10 7/8"	82'-0"	28'-0"	32'-0"	70'-0"	30'-0"	71'-3 3/8"	29'-8 3/8"	69'-3 5/8"	31'-8 1/4"	27'-8 5/8"	81'-2 1/4"	614'-4 1/8"	3'-0 1/8"	3'-0 1/4"	2'-0 1/4"	2'-0 3/8"	1'-11 1/4"
* Girder 2A	-	-	110'-6 1/2"	132'-7 7/8"	110'-6 1/2"	-	-	-	-	-	80'-4 3/4"	30'-1 3/4"	70'-4 1/8"	32'-1 7/8"	28'-1 5/8"	82'-4 7/8"	354'-2 1/8"	3"	1'-9 1/2"	2'-6 1/2"	2'-6 5/8"	2'-3 7/8"
* Girder 5A	-	-	109'-5 1/2"	131'-4 1/4"	109'-5 1/2"	-	-	-	-	-	79'-7 1/4"	29'-10 1/4"	69'-7 7/8"	31'-10 1/8"	27'-10 3/8"	81'-7 1/4"	350'-8 5/8"	8"	2'-2 1/2"	2'-2 3/8"	2'-2 1/2"	1'-11 1/4"

* See Sheet 32 of 60 for Girder Details

SHEAR STUD SPACING

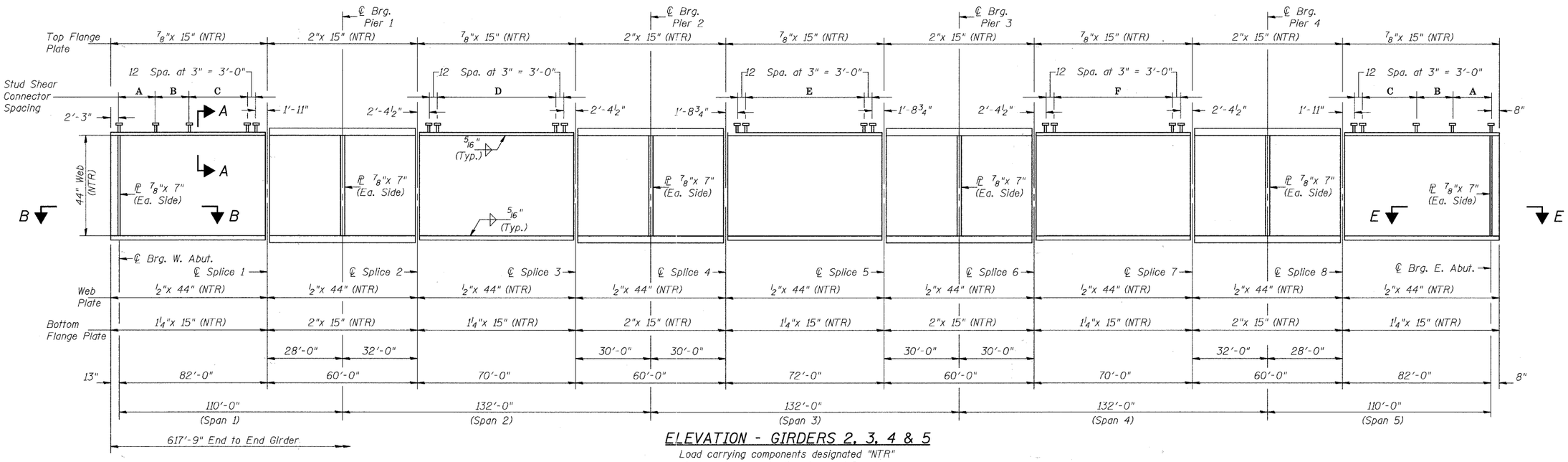
Location	Girder 1	Girder 6
A	28 Spa. @ 9" = 21'-0"	28 Spa. @ 9 1/2" = 22'-2"
B	20 Spa. @ 1'-1" = 21'-8"	20 Spa. @ 1'-0 1/2" = 20'-10"
C	38 Spa. @ 10 1/2" = 33'-3"	38 Spa. @ 10 1/2" = 33'-3"
D	79 Spa. @ 9" = 59'-3"	79 Spa. @ 9" = 59'-3"
E	79 Spa. @ 9 1/2" = 62'-6 1/2"	79 Spa. @ 9" = 59'-3"
F	79 Spa. @ 9" = 59'-3"	79 Spa. @ 9" = 59'-3"
G	38 Spa. @ 10 1/2" = 33'-3"	38 Spa. @ 10 1/2" = 33'-3"
H	20 Spa. @ 1'-1" = 21'-8"	20 Spa. @ 1'-0 1/2" = 20'-10"
I	28 Spa. @ 9 1/2" = 22'-2"	28 Spa. @ 9 1/2" = 22'-2"

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B031

BEAM DETAILS
STRUCTURE NO. 099-4105

SHEET NO. 31	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	175
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

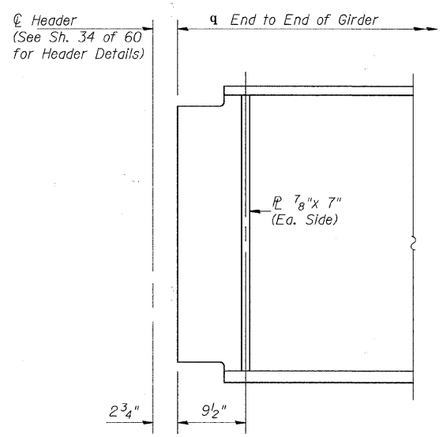


ELEVATION - GIRDERS 2, 3, 4 & 5

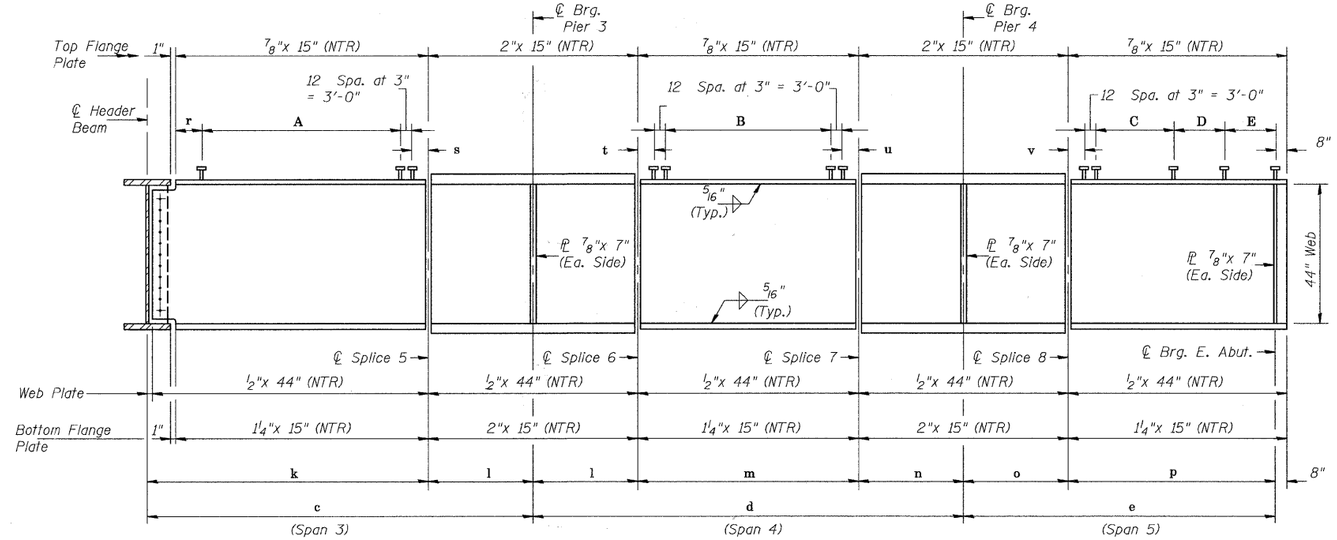
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

SHEAR STUD SPACING

Location	Girders 2, 3, 4 & 5	Girder 2A	Girder 5A
A	28 Spa. @ 9" = 21'-0"	78 Spa. @ 11 1/2" = 74'-9"	78 Spa. @ 11 1/4" = 73'-1 1/2"
B	20 Spa. @ 1'-1" = 21'-8"	79 Spa. @ 9" = 59'-3"	79 Spa. @ 9" = 59'-3"
C	38 Spa. @ 10 1/2" = 33'-3"	38 Spa. @ 10 1/2" = 33'-3"	38 Spa. @ 10 1/2" = 33'-3"
D	79 Spa. @ 9" = 59'-3"	20 Spa. @ 1'-1" = 21'-8"	20 Spa. @ 1'-1" = 21'-8"
E	79 Spa. @ 9 1/2" = 62'-6 1/2"	28 Spa. @ 9 1/2" = 22'-2"	29 Spa. @ 9" = 21'-9"
F	79 Spa. @ 9" = 59'-3"		



END OF GIRDER 2A & 5A



ELEVATION - GIRDERS 2A AND 5A

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

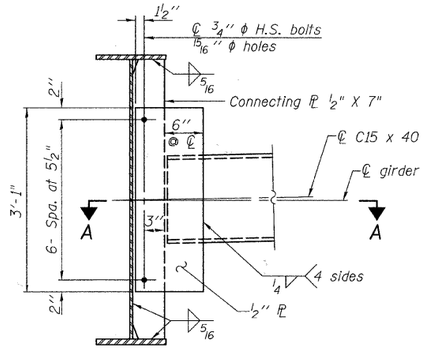
For Sections A-A, B-B & E-E, See Sheet 34 of 60.
*For dimensions **r** thru **v**, See Sheet 31 of 60.*

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B032

BEAM DETAILS
STRUCTURE NO. 099-4105

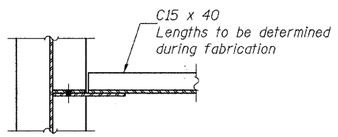
SHEET NO. 32	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	176
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		



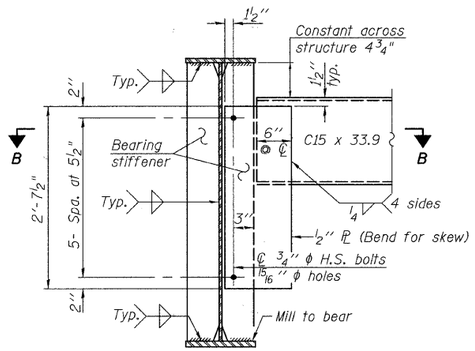
INTERIOR DIAPHRAGMS D & D_4

(103 D required, & 60 D_4 required)

Note: Two hardened washers required for each set of oversized holes.



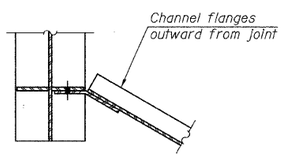
SECTION A-A



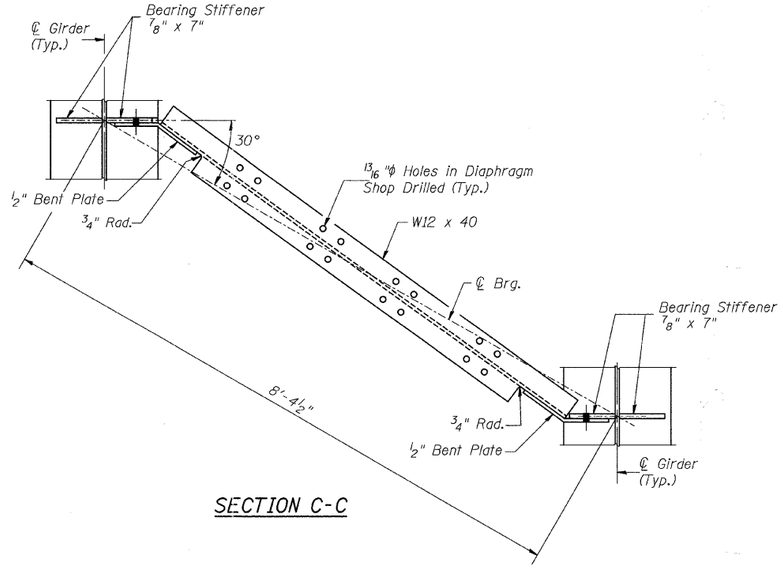
END DIAPHRAGMS AT EAST ABUTMENT D_2 & D_3

($3\ D_2$ required, & $4\ D_3$ required)

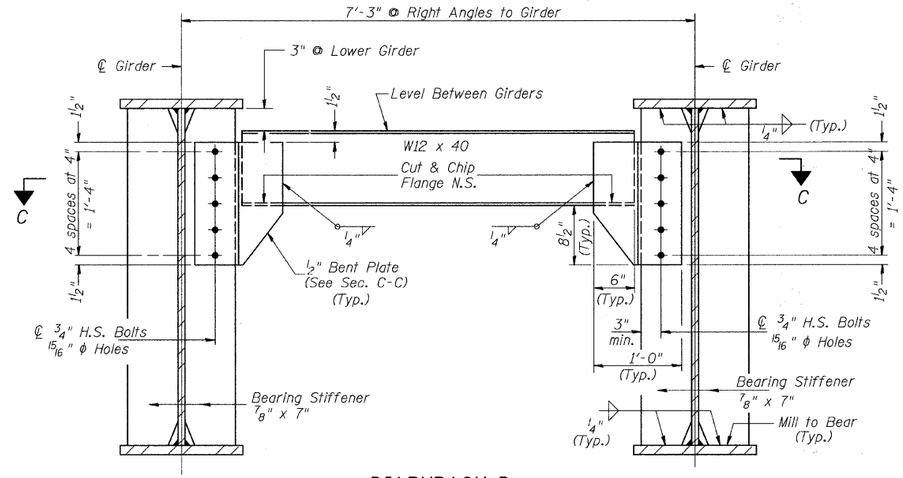
Note: Two hardened washers required for each set of oversized holes.



SECTION B-B



SECTION C-C



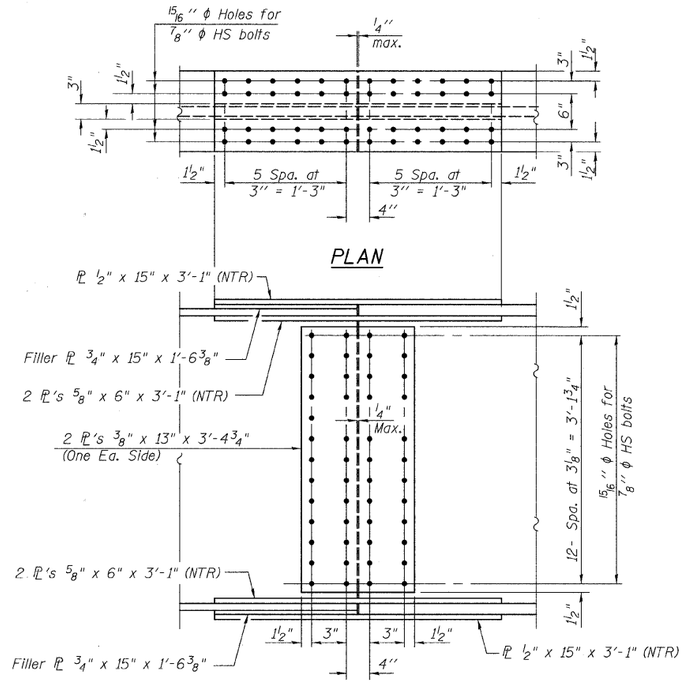
DIAPHRAGM D_1

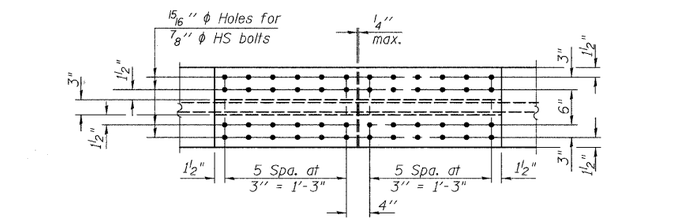
(5 Req'd.)

END DIAPHRAGM AT WEST ABUTMENT

Note: Two hardened washers required for each set of oversized holes.

Note: All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.





DETAIL - FIELD SPLICE

(56 Required)

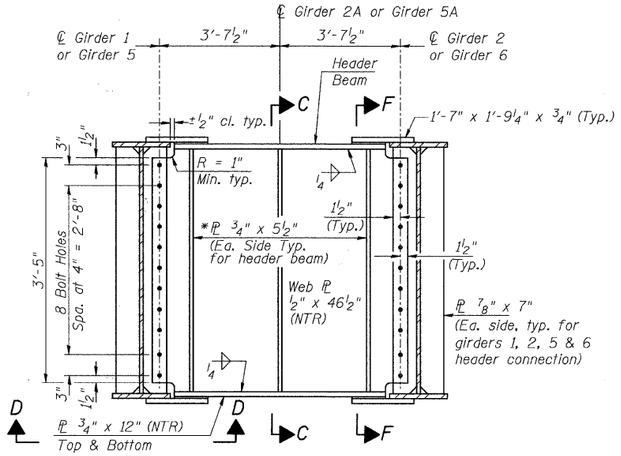
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2, Use ⅞"ϕ H.S. Bolts with 15/16"ϕ holes for all splice connections.

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B033

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 099-4105

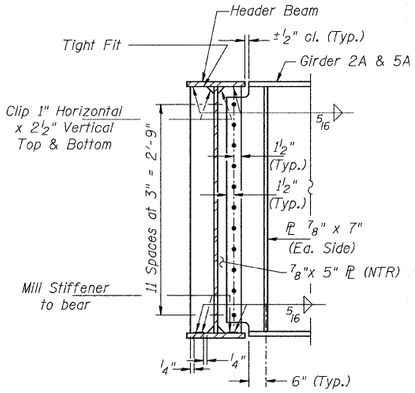
SHEET NO. 33	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	177
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		



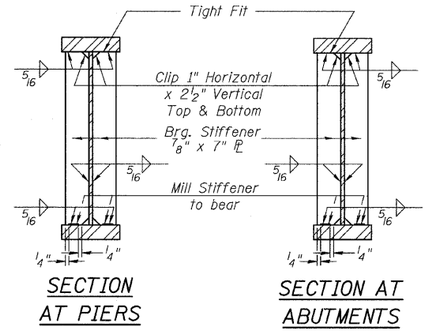
HEADER ELEVATION

(Girder 2A & 5A omitted for clarity. See Section C-C)

All plates of the header including stiffeners and splice plates shall be AASHTO M 270. Grade 50.



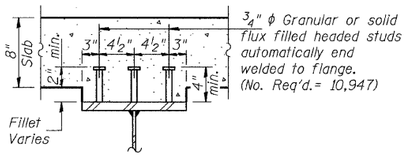
SECTION C-C



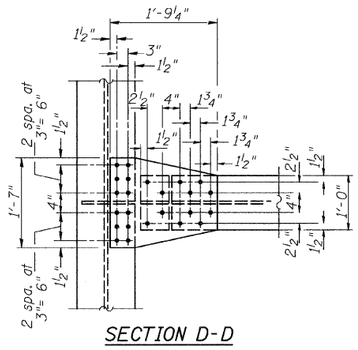
SECTION AT PIERS

SECTION AT ABUTMENTS

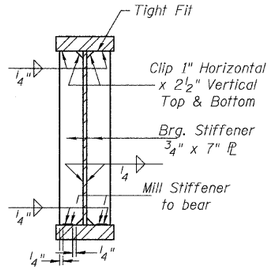
BEARING STIFFENER PLATES



SECTION A-A

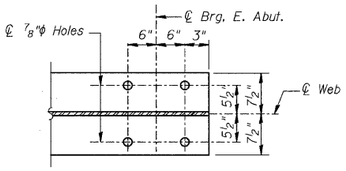


SECTION D-D



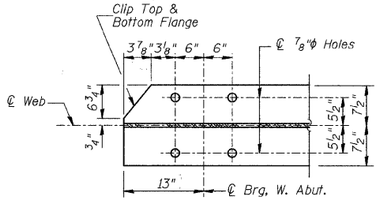
SECTION F-F

BEARING STIFFENER PLATES AT HEADER



SECTION E-E

(East Abut.)



SECTION B-B

(West Abut.)

TOP OF WEB ELEVATIONS

For Fabrication Only

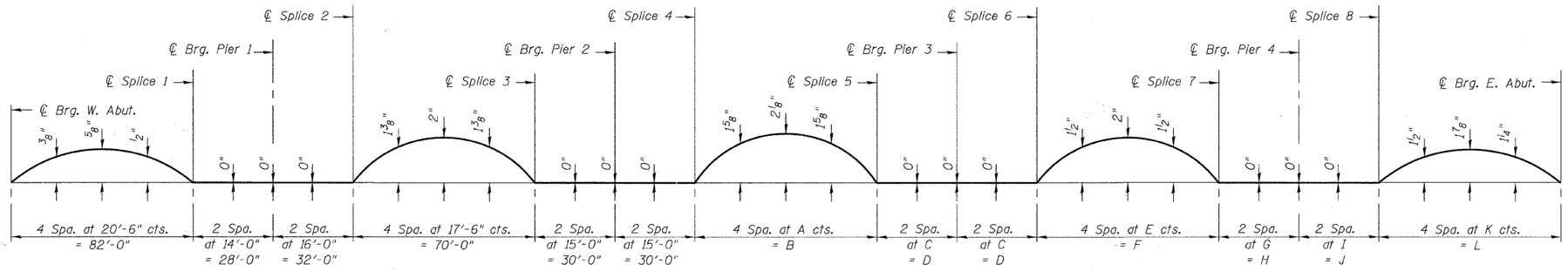
Location	Girder 1	Girder 2A	Girder 2	Girder 3	Girder 4	Girder 5	Girder 5A	Girder 6
℄ Brg. W. Abut.	605.35	-	605.42	605.48	605.43	605.27	-	605.15
℄ Splice 1	607.34	-	607.36	607.38	607.37	607.17	-	606.92
℄ Brg. Pier 1	608.06	-	608.10	608.13	608.13	607.94	-	607.70
℄ Splice 2	608.88	-	608.94	608.99	609.00	608.82	-	608.59
℄ Splice 3	610.02	-	610.12	610.20	610.26	610.13	-	609.94
℄ Brg. Pier 2	610.20	-	610.33	610.43	610.51	610.39	-	610.22
Header	-	610.40	-	-	-	-	610.51	-
℄ Splice 4	610.38	-	610.53	610.66	610.76	610.65	-	610.50
℄ Splice 5	610.06	610.17	610.29	610.47	610.61	610.55	610.50	610.42
℄ Brg. Pier 3	609.61	609.81	609.88	610.08	610.24	610.25	610.22	610.09
℄ Splice 6	609.16	609.32	609.47	609.69	609.87	609.95	609.81	609.76
℄ Splice 7	607.42	607.62	607.83	608.09	608.33	608.34	608.34	608.31
℄ Brg. Pier 4	606.43	606.64	606.87	607.13	607.37	607.40	607.42	607.38
℄ Splice 8	605.56	605.80	606.03	606.29	606.53	606.57	606.59	606.57
℄ Brg. E. Abut.	603.05	603.31	603.56	603.82	604.06	604.11	604.12	604.10

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

25458034

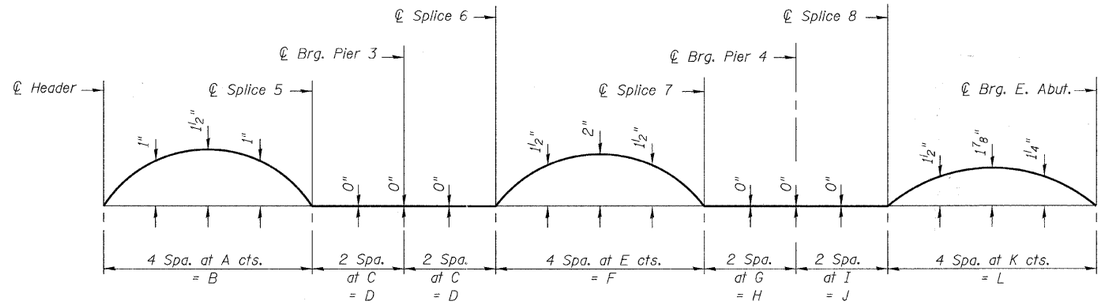
STRUCTURAL STEEL DETAILS
STRUCTURE NO. 099-4105

SHEET NO. 34	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	178
		SN 099-4105	CONTRACT NO. 83126		
		FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT BRS-		



CAMBER DIAGRAM BEAMS 1 THRU 6

(Except 2A and 5A)



CAMBER DIAGRAM BEAMS 2A AND 5A

Girder No.	A	B	C	D	E	F	G	H	I	J	K	L
1	18'-2 1/4"±	72'-8 7/8"	15'-1 7/8"±	30'-3 5/8"	17'-8 1/8"	70'-8 1/2"	16'-2"±	32'-3 7/8"	14'-1 3/4"±	28'-3 3/8"	20'-8 1/2"	82'-10"
2A	20'-1 1/4"±	80'-4 3/4"	15'-0 7/8"	30'-1 3/4"	17'-7"±	70'-4 1/8"	16'-1"±	32'-1 7/8"	14'-0 7/8"±	28'-1 5/8"	20'-7 1/4"±	82'-4 7/8"
2 Thru 5	18'-0"	72'-0"	15'-0"	30'-0"	17'-6"	70'-0"	16'-0"	32'-0"	14'-0"	28'-0"	20'-6"	82'-0"
5A	19'-10 3/4"±	79'-7 1/4"	14'-11 1/8"	29'-10 1/4"	17'-5"±	69'-7 7/8"	15'-11"±	31'-10 1/8"	13'-11 1/8"±	27'-10 3/8"	20'-4 3/4"±	81'-7 1/4"
6	17'-9 7/8"±	71'-3 3/8"	14'-10 1/4"±	29'-8 3/8"	17'-3 7/8"±	69'-3 5/8"	15'-10 1/8"	31'-8 1/4"	13'-10 1/4"±	27'-8 5/8"	20'-3 1/2"±	81'-2 1/4"

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B035

BEAM CAMBER DETAILS
STRUCTURE NO. 099-4105

	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHEET NO. 35	TR 55	90-16103-01-BR	WILL	255	179
60 SHEETS		SN 099-4105		CONTRACT NO. 83126	
		FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-	

	INTERIOR GIRDER MOMENT TABLE (GIRDER 3 & 4)									
		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.5 Sp. 3	Pier 3	0.5 Sp. 4	Pier 4	0.6 Sp. 5
I_s	(in^4)	19,446	35,309	19,446	35,309	19,446	35,309	19,445	35,309	19,446
$I_c(n)$	(in^4)	47,087	-	47,087	-	47,087	-	47,087	-	47,087
$I_c(3n)$	(in^4)	34,534	-	34,534	-	34,534	-	34,534	-	34,534
S_s	(in^3)	933	1,471	933	1,471	933	1,471	933	1,471	933
$S_c(n)$	(in^3)	1,236	-	1,236	-	1,236	-	1,236	-	1,236
$S_c(3n)$	(in^3)	1,139	-	1,139	-	1,139	-	1,139	-	1,139
DC1	(k/')	0.988	1.096	0.988	1.096	0.988	1.096	0.988	1.096	0.988
M_{DC1}	('k)	792	1,714	562	1,596	621	1,596	562	1,714	792
DC2	(k/')	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160
M_{DC2}	('k)	143	216	127	217	127	217	127	216	143
DW	(k/')	0.362	0.362	0.362	0.362	0.362	0.362	0.362	0.362	0.362
M_{DW}	('k)	327	496	292	498	291	498	292	496	327
M_{L+IM}	('k)	1,566	1,405	1,552	1,426	1,572	1,426	1,552	1,405	1,566
M_u (Strength I)	('k)	4,400	5,616	4,015	5,508	4,123	5,508	4,015	5,616	4,400
* $\phi_f M_n$, $\phi_f M_{nc}$	('k)	6,245	-	6,245	-	6,245	-	6,245	-	6,245
f_s DC1	(ksi)	10.19	13.98	7.23	13.02	7.99	13.02	7.23	13.98	10.19
f_s DC2	(ksi)	1.51	1.76	1.34	1.77	1.34	1.77	1.34	1.76	1.51
f_s DW	(ksi)	3.45	4.05	3.08	4.06	3.07	4.06	3.08	4.05	3.45
f_s 1.3(L+IM)	(ksi)	19.76	14.90	19.59	15.12	19.84	15.12	19.59	14.90	19.76
f_s (Service II)	(ksi)	34.91	34.70	31.24	33.97	32.24	33.97	31.24	34.70	34.91
** f_s (Total)(Strength I)	(ksi)	-	45.82	-	44.93	-	44.93	-	45.82	-
V_r	(k)	-	-	-	-	-	-	-	-	-

* Compact sections
** Non-Compact and slender sections

	INTERIOR GIRDER MOMENT TABLE (GIRDER 2 & 5)									
		0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.5 Sp. 3	Pier 3	0.5 Sp. 4	Pier 4	0.6 Sp. 5
I_s	(in^4)	19,446	35,309	19,446	35,309	19,446	35,309	19,446	35,309	19,446
$I_c(n)$	(in^4)	47,087		47,087		44,194		45,178		46,109
$I_c(3n)$	(in^4)	34,534		34,534		32,128		32,900		33,688
S_s	(in^3)	933	1,471	933	1,471	933	1,471	933	1,471	933
$S_c(n)$	(in^3)	1,236		1,236		1,188		1,208		1,223
$S_c(3n)$	(in^3)	1,139		1,139		1,081		1,104		1,123
DC1	(k/')	0.988	1.096	0.988	1.096	0.829	0.962	0.879	1.014	0.932
M_{DC1}	('k)	767	1,669	553	1,529	521	1,342	479	1,533	430
DC2	(k/')	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160
M_{DC2}	('k)	150	205	130	220	115	196	125	218	149
DW	(k/')	0.362	0.362	0.362	0.322	0.283	0.295	0.308	0.321	0.33
M_{DW}	('k)	300	506	294	494	256	414	244	443	303
M_{L+IM}	('k)	1,596	1,414	1,542	1,526	1,474	1,340	1,381	1,302	1,475
M_u (Strength I)	('k)	4,389	5,576	3,993	5,598	3,759	4,888	3,538	5,132	3,760
* $\phi_f M_n$, $\phi_f M_{nc}$	('k)	6,245	-	6,245	-	6,010	-	6,086	-	6,160
f_s DC1	(ksi)	9.86	13.62	7.11	12.47	6.70	10.95	6.16	12.51	5.53
f_s DC2	(ksi)	1.58	1.67	1.37	1.79	1.28	1.60	1.36	1.78	1.59
f_s DW	(ksi)	3.16	4.13	3.10	4.03	2.84	3.38	2.65	3.61	3.24
f_s 1.3(L+IM)	(ksi)	20.14	15.00	19.46	16.18	19.36	14.21	17.83	13.81	18.81
f_s (Service II)	(ksi)	34.74	34.00	31.04	34.47	30.18	30.14	37.38	31.71	29.17
** f_s (Total)(Strength I)	(ksi)	-	45.49	-	45.66	-	39.89	-	41.86	-
V_r	(k)									

* Compact sections
** Non-Compact and slender sections

	INTERIOR GIRDER REACTION TABLE (GIRDER 3 & 4)						
		W. Abut.	Pier 1	Pier 2	Pier 3	Pier 4	E. Abut.
R_{DC1}	(k)	40.4	139.6	133.4	133.4	139.6	40.4
R_{DC2}	(k)	6.8	21.2	21.0	21.0	21.2	6.8
R_{DW}	(k)	15.3	48.1	47.6	47.6	48.1	15.3
R_{L+IM}	(k)	91.8	190.0	194.5	194.5	190.0	91.8
R_{Total}	(k)	154.3	398.9	396.5	396.5	398.9	154.3

	INTERIOR GIRDER REACTION TABLE (GIRDER 2 & 5)						
		W. Abut.	Pier 1	Pier 2	Pier 3	Pier 4	E. Abut.
R_{DC1}	(k)	39.1	135.8	131.5	112.1	124.6	37.1
R_{DC2}	(k)	6.7	21.5	22.5	20.8	21.5	6.8
R_{DW}	(k)	15.3	48.7	47.0	38.5	43.0	14.2
R_{L+IM}	(k)	91.9	190.0	221.4	165.3	170.1	87.0
R_{Total}	(k)	153.0	396.0	422.4	336.7	359.2	145.1

	INTERIOR GIRDER MOMENT TABLE (GIRDER 2A & 5A)				
		0.5 Sp. 3	Pier 3	0.6 Sp. 4	Pier 4	0.6 Sp. 5
I_s	(in^4)	19,446	35,309	19,446	35,309	19,446
$I_c(n)$	(in^4)	40,312	-	42,892	-	45,178
$I_c(3n)$	(in^4)	29,299	-	31,119	-	32,900
S_s	(in^3)	933	1,471	933	1,471	933
$S_c(n)$	(in^3)	1,188	-	1,207	-	1,223
$S_c(3n)$	(in^3)	1,083	-	1,104	-	1,123
DC1	(k/')	0.690	0.821	0.801	0.931	0.906
M_{DC1}	('k)	524	1,196	421	1,452	735
DC2	(k/')	0.160	0.160	0.160	0.160	0.160
M_{DC2}	('k)	137	239	125	238	148
DW	(k/')	0.203	0.228	0.254	0.280	0.306
M_{DW}	('k)	173	303	198	378	282
M_{L+IM}	('k)	1,048	1,047	1,153	1,181	1,378
M_u (Strength I)	('k)	2,919	4,081	2,997	4,747	3,938
* $\phi_f M_n$, $\phi_f M_{nc}$	('k)	5,390	-	5,920	-	6,086
f_s DC1	(ksi)	6.74	9.76	5.41	11.84	9.45
f_s DC2	(ksi)	1.52	1.95	1.36	1.94	1.58
f_s DW	(ksi)	1.92	2.47	2.15	3.08	3.01
f_s 1.3(L+IM)	(ksi)	13.76	11.10	14.90	12.52	17.58
f_s (Service II)	(ksi)	23.88	25.28	23.82	29.39	31.62
** f_s (Total)(Strength I)	(ksi)	-	33.29	-	38.72	-
V_r	(k)	24.1	-	16.6	-	27.6

* Compact sections
** Non-Compact and slender sections

	INTERIOR GIRDER REACTION TABLE (GIRDER 2A & 5A)				
		Header	Pier 3	Pier 4	E. Abut.
R_{DC1}	(k)	27.0	99.7	117.8	36.6
R_{DC2}	(k)	6.2	21.3	21.5	6.9
R_{DW}	(k)	8.8	30.3	37.6	13.1
R_{L+IM}	(k)	62.2	129.4	143.3	80.2
R_{Total}	(k)	104.2	280.7	320.2	136.8

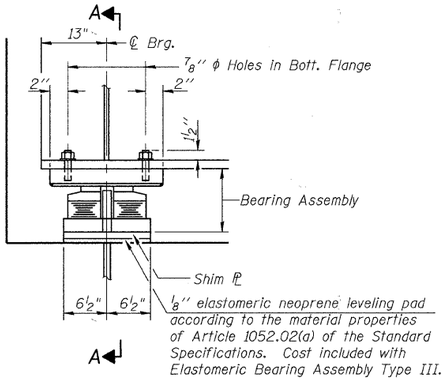
I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).
$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads ($in.^4$ and $in.^3$).
$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).
Z: Plastic Section Modulus of the steel section in non-composite areas. Omit line in Moment Table if not used in design calculations ($in.^3$).
DC1: Un-factored non-composite dead load (kips/ft.).
M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).
DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$
$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).
$\phi_f M_{nc}$: Compact non-composite negative moment capacity computed according to Article A6.1.1 (kip-ft.).
f_s (Service II): Sum of stresses as computed from the moments below (ksi).
$M_{DC1} + M_{DC2} + M_{DW} + 1.3\ M_{L+IM}$
f_s (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$
V_r: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

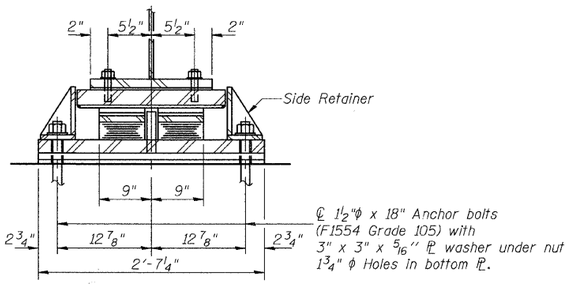
2545B036

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 099-4105

SHEET NO. 36	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	180
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

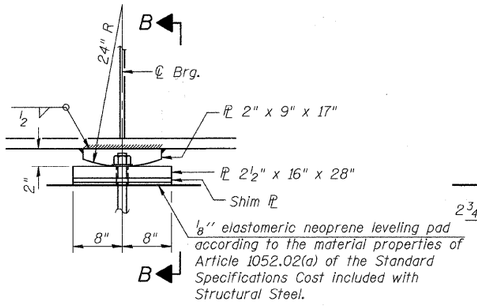


ELEVATION AT WEST ABUT.

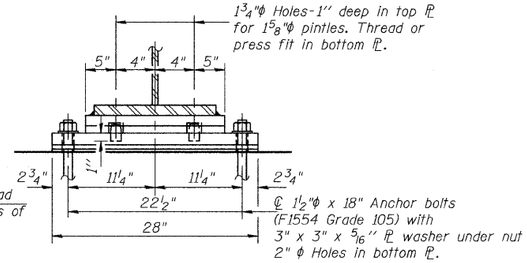


SECTION A-A

TYPE III ELASTOMERIC EXP. BRG.

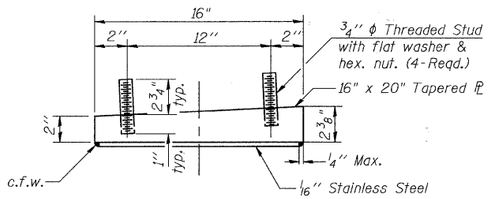


ELEVATION AT PIER

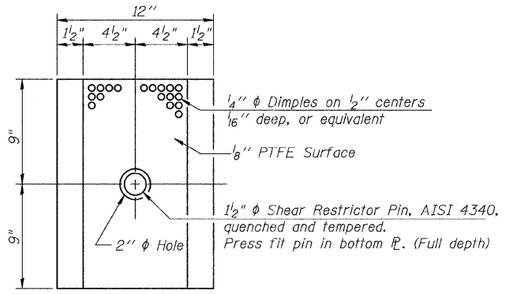


SECTION B-B

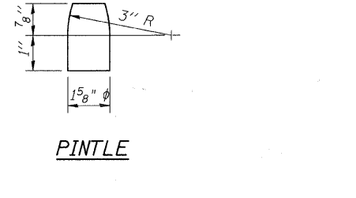
FIXED BEARING - PIERS 1, 2, 3 & 4



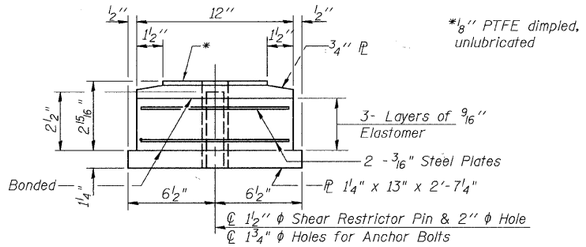
TOP BEARING ASSEMBLY



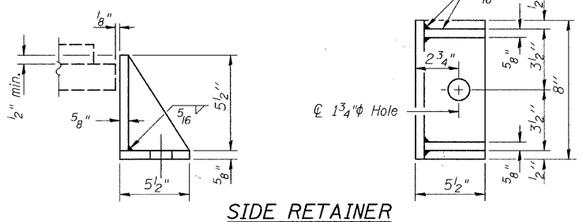
PLAN-PTFE ELASTOMERIC BRG.



PINTLE

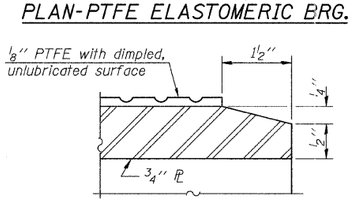


BOTTOM BEARING ASSEMBLY

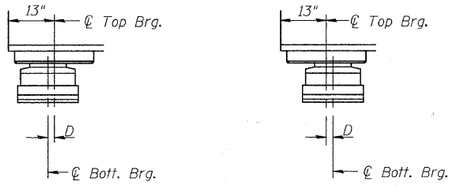


SIDE RETAINER

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



SECTION THRU PTFE



BELOW 50° F.
(Move bottom brg. away from fixed brg.)

ABOVE 50° F.
(Move bottom brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

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

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Anchor bolts for Type III bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type III.

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

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

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type III	Each	6
Anchor Bolts 1 1/2"	Each	68

SHIM PLATES

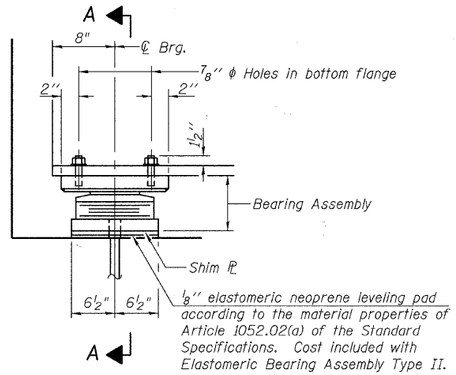
Location	Girder 1	Girder 2A	Girder 2	Girder 3	Girder 4	Girder 5	Girder 5A	Girder 6
West Abutment	-	-	-	5/8"	1/8"	-	-	-
Pier 1	-	-	1/2"	-	-	-	-	-
Pier 2	-	-	-	-	-	-	-	-
Pier 3	-	-	-	-	3/8"	1/2"	-	-
Pier 4	-	-	-	-	-	3/8"	5/8"	1/8"
East Abutment	-	-	-	-	-	5/8"	-	1/2"

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

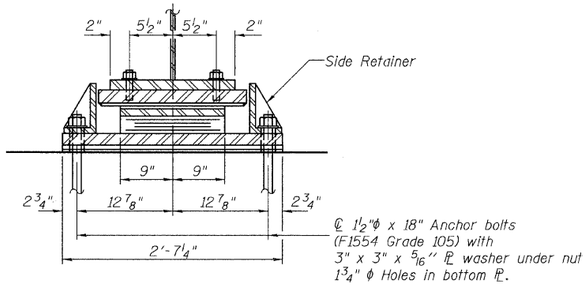
25458037

BEARING DETAILS
STRUCTURE NO. 099-4105

SHEET NO. 37 60 SHEETS	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	90-16103-01-BR	WILL	255	181
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

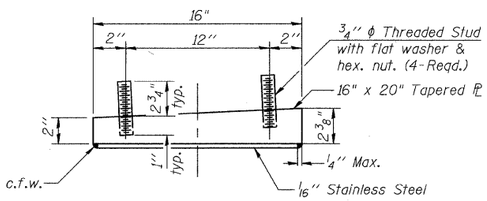


ELEVATION AT EAST ABUT.

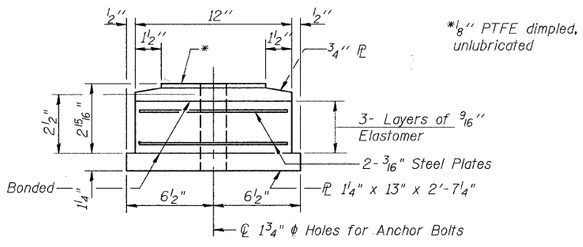


SECTION A-A

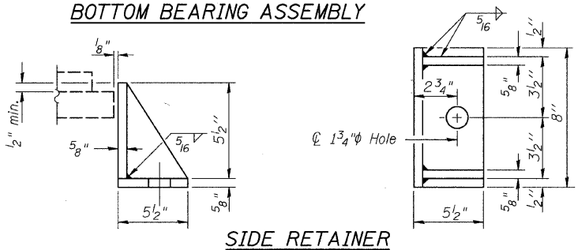
TYPE II ELASTOMERIC EXP. BRG.



TOP BEARING ASSEMBLY

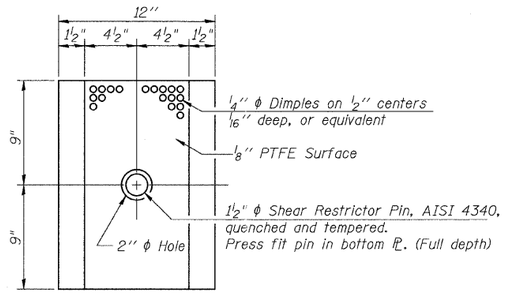


BOTTOM BEARING ASSEMBLY

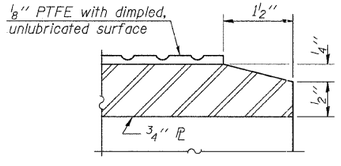


SIDE RETAINER

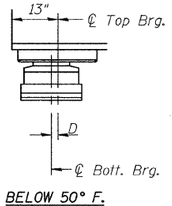
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



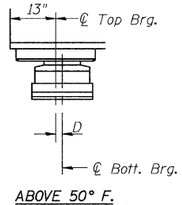
PLAN-PTFE ELASTOMERIC BRG.



SECTION THRU PTFE



BELOW 50° F.
(Move bottom brg. away from fixed brg.)



ABOVE 50° F.
(Move bottom brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

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

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Anchor bolts for Type II bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

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

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

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

See sheet 37 of 60 for Shim Plate Schedule.

BILL OF MATERIAL

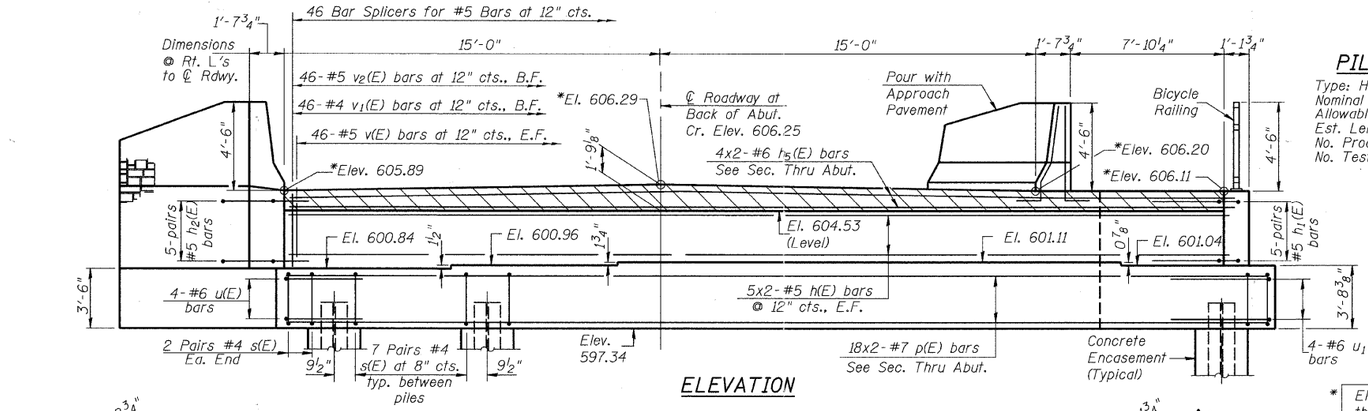
Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	8
Anchor Bolts 1 1/2"	Each	16

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B038

BEARING DETAILS
STRUCTURE NO. 099-4105

SHEET NO. 38 60 SHEETS	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	90-16103-01-BR	WILL	255	182
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

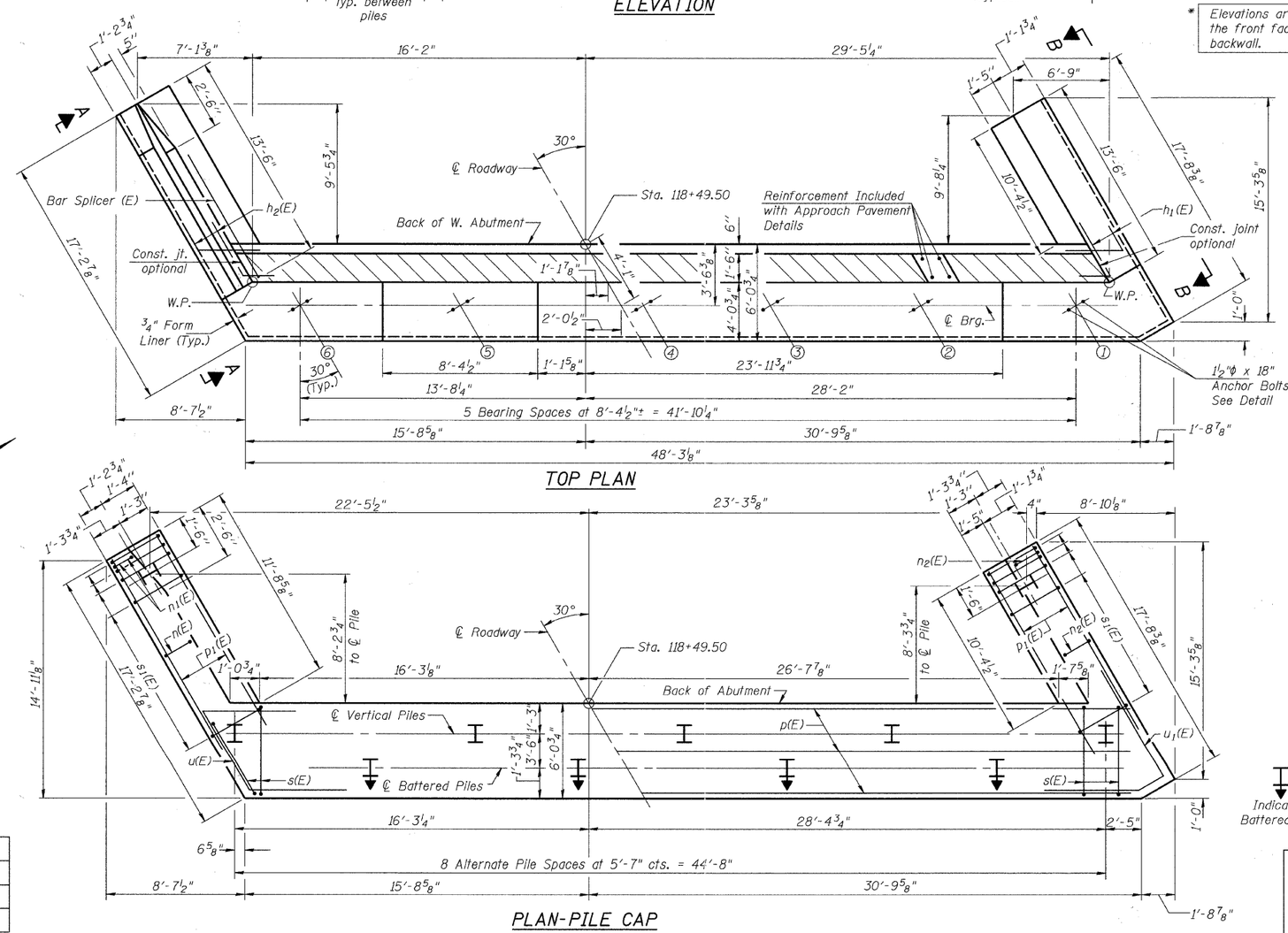


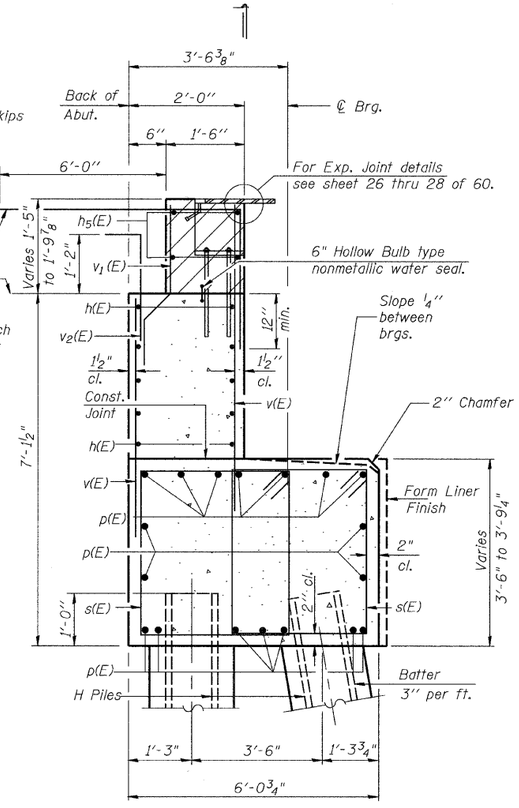
ELEVATION

* Elevations are along the front face of backwall.

PILE DATA

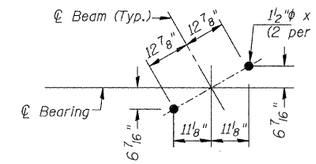
Type: HP12x63
Nominal Required Bearing: 497 kips
Allowable Resistance Available: 248 kips
Est. Length: 25 ft.
No. Production Piles: 10
No. Test Piles: 1





MIN. BAR LAPS

#5 - 2'-2"
#6 - 2'-7"
#7 - 4'-10"



ANCHOR BOLT LAYOUT

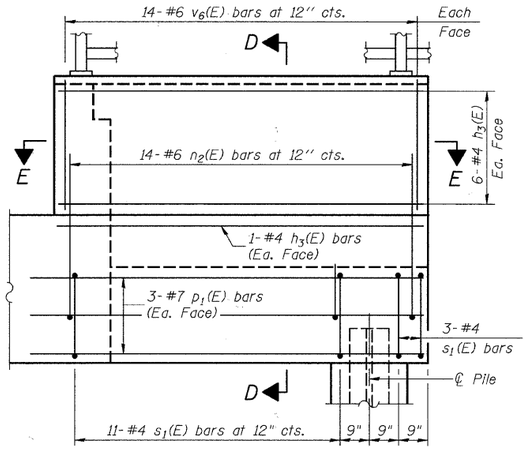
Notes:
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
Quantity of concrete in end post included with Concrete Superstructure on sheet 19 of 60.
For Pile and Concrete Encasement details, see sheet 50 of 60.
For Bar Splicer Details see sheet 49 of 60.

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

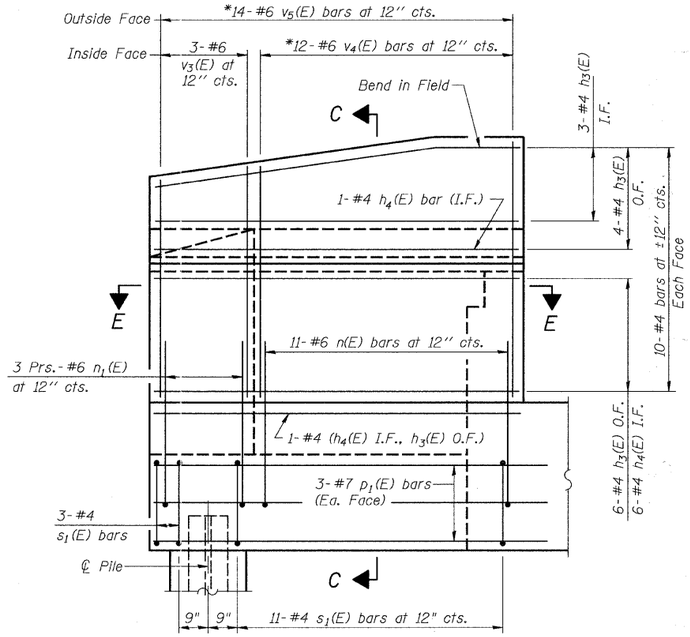
25458039

WEST ABUTMENT
STRUCTURE NO. 099-4105

SHEET NO. 39	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	183
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

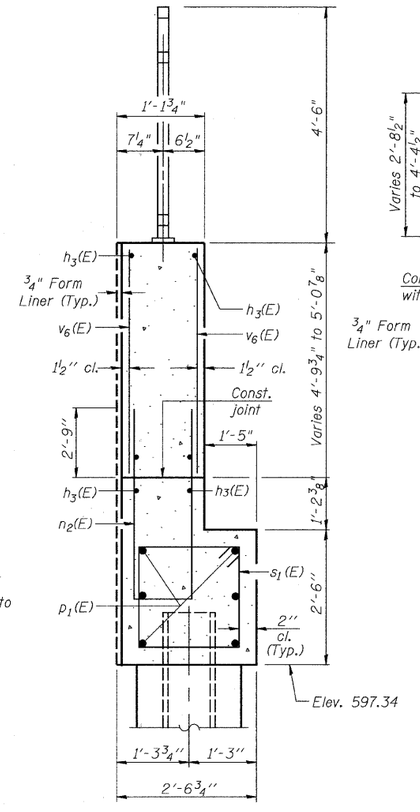


VIEW B-B
NORTH WING WALL ELEVATION
Showing Reinforcement

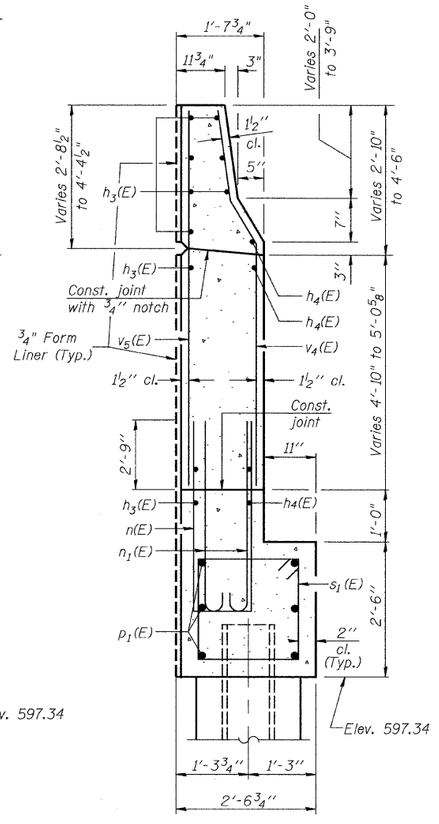


VIEW A-A
SOUTH WING WALL ELEVATION
Showing Reinforcement

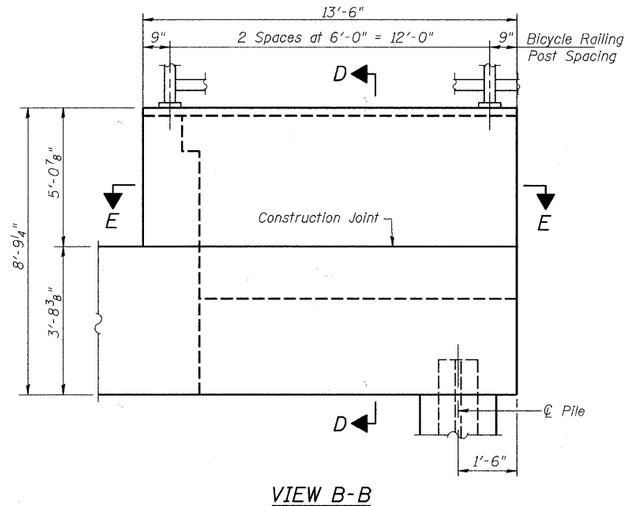
*Cut to fit as required.



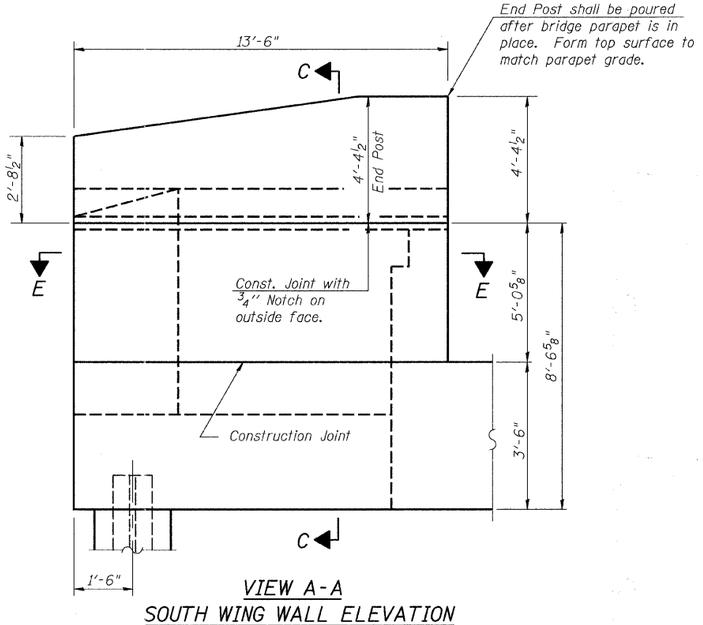
SEC. D-D



SEC. C-C



VIEW B-B
NORTH WING WALL ELEVATION
Showing Dimensions



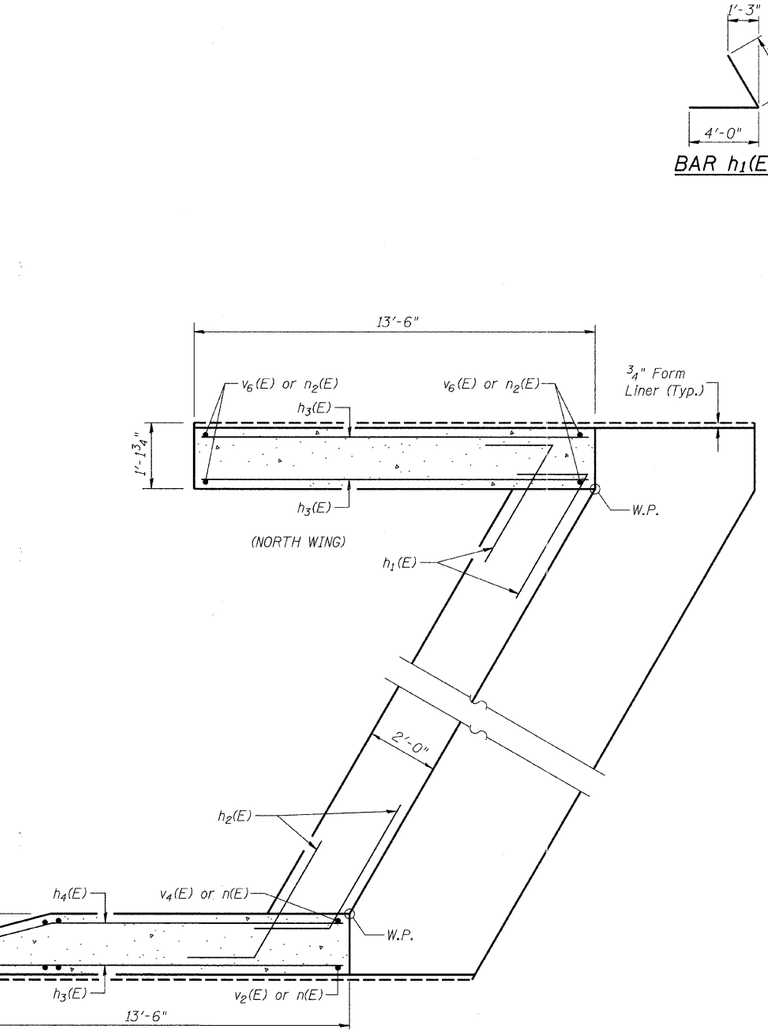
VIEW A-A
SOUTH WING WALL ELEVATION
Showing Dimensions

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

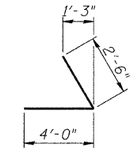
2545B040

WEST ABUTMENT DETAILS
STRUCTURE NO. 099-4105

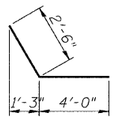
SHEET NO. 40 60 SHEETS	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	90-16103-01-BR	WILL	255	184
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		



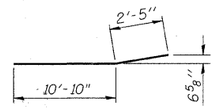
SEC. E-E



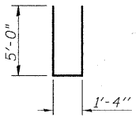
BAR h_1(E)



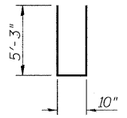
BAR h_2(E)



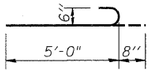
BAR h_4(E)



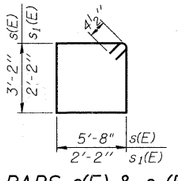
BAR n(E)



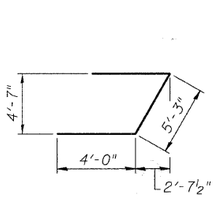
BAR n_2(E)



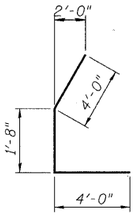
BAR n_1(E)



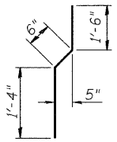
BARS s(E) & s_1(E)



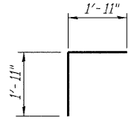
BAR u(E)



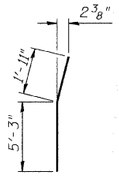
BAR u_1(E)



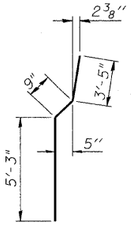
BAR v_1(E)



BAR v_2(E)



BAR v_3(E)



BAR v_4(E)

WEST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	10	#5	22'-7"	
h_1(E)	10	#5	6'-6"	
h_2(E)	10	#5	6'-6"	
h_3(E)	28	#4	13'-3"	
h_4(E)	8	#4	13'-3"	
h_5(E)	8	#6	22'-7"	
n(E)	11	#6	11'-4"	
n_1(E)	6	#6	5'-6"	
n_2(E)	14	#6	11'-4"	
p(E)	36	#7	25'-6"	
p_1(E)	12	#7	14'-0"	
s(E)	120	#4	18'-5"	
s_1(E)	28	#4	9'-5"	
u(E)	4	#6	13'-3"	
u_1(E)	4	#6	9'-8"	
v(E)	92	#5	6'-2"	
v_1(E)	46	#4	3'-4"	
v_2(E)	46	#5	3'-10"	
v_3(E)	3	#6	7'-2"	
v_4(E)	12	#6	9'-1"	
v_5(E)	14	#6	9'-2"	
v_6(E)	28	#6	4'-9"	
Structure Excavation		Cu. Yd.	70	
Concrete Structures		Cu. Yd.	63.7	
Reinforcement Bars, Epoxy Coated		Pound	6,920	
Furnishing Steel Piles HP 12x63		Foot	250	
Driving Piles		Foot	250	
Test Pile Steel HP12x63		Each	1	
Concrete Encasement		Cu. Yd.	3.8	
Concrete Sealer		Sq. Ft.	192	

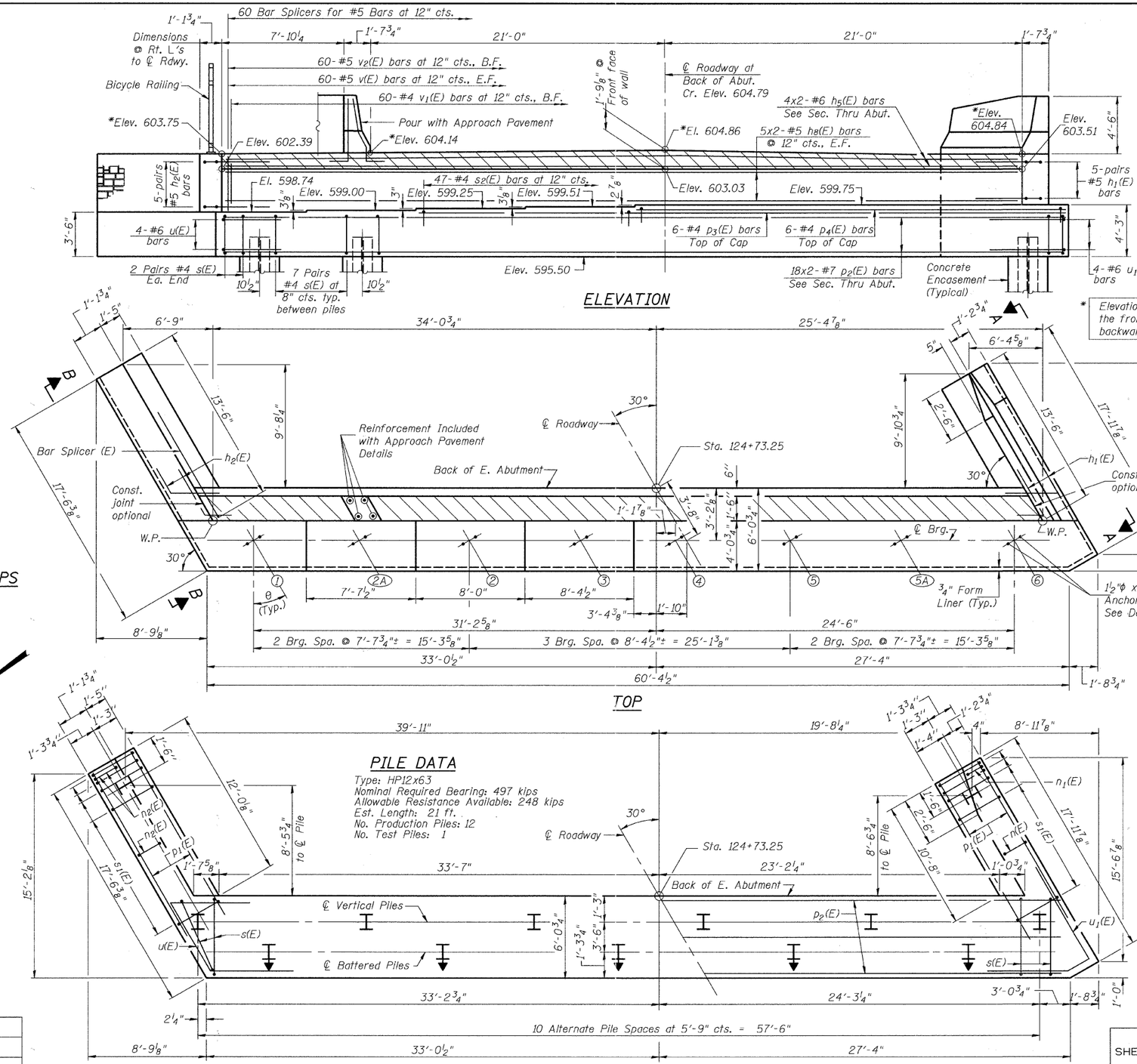
Notes: Reinforcement bars designated (E) shall be epoxy coated.
For details of Bar Splicers, see sheet 49 of 60.
For details of Piles and Concrete Encasement, see sheet 50 OF 60

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B041

WEST ABUTMENT DETAILS STRUCTURE NO. 099-4105

SHEET NO. 41	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	185
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

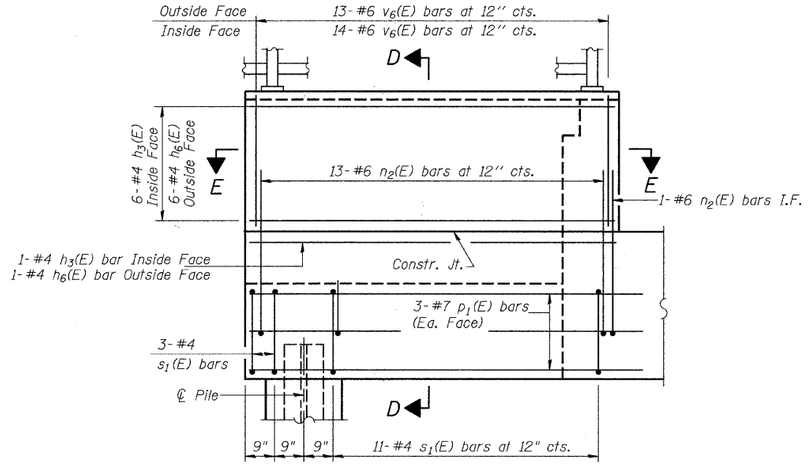


DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

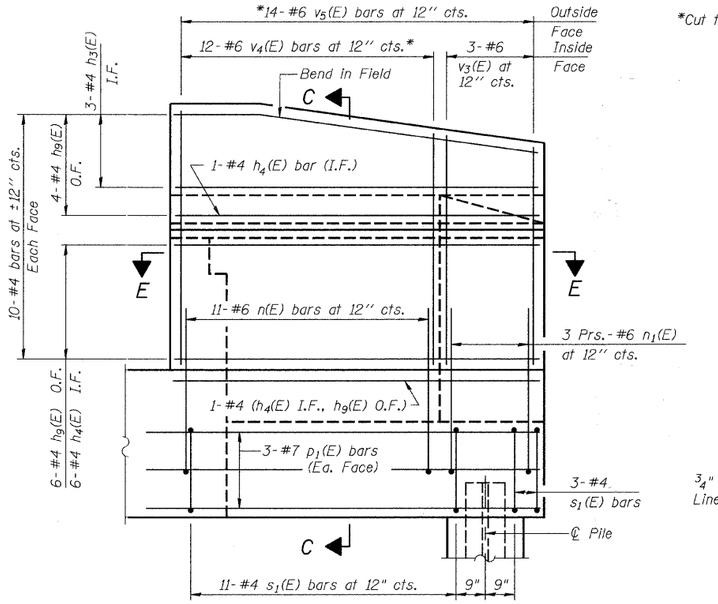
2545B042

EAST ABUTMENT
STRUCTURE NO. 099-4105

SHEET NO. 42	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	186
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

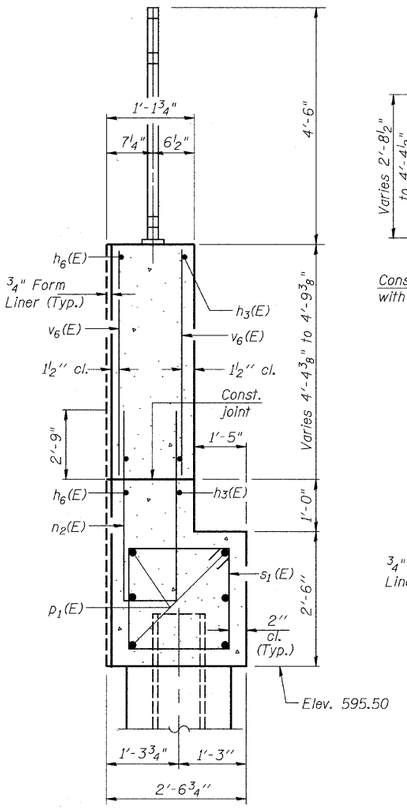


VIEW B-B
NORTH WING WALL ELEVATION
Showing Reinforcement

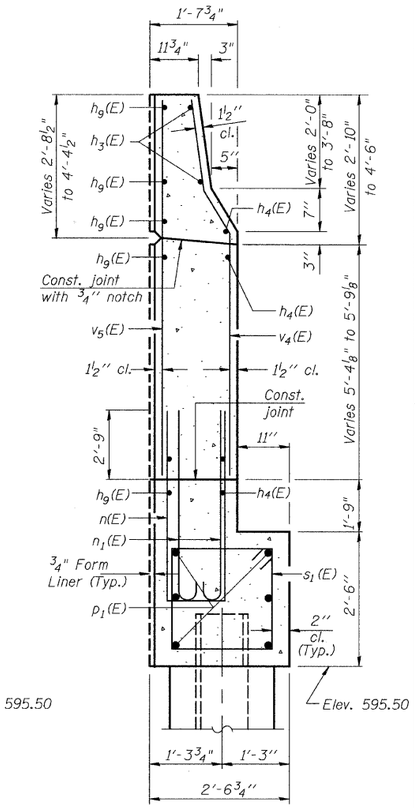


VIEW A-A
SOUTH WING WALL ELEVATION
Showing Reinforcement

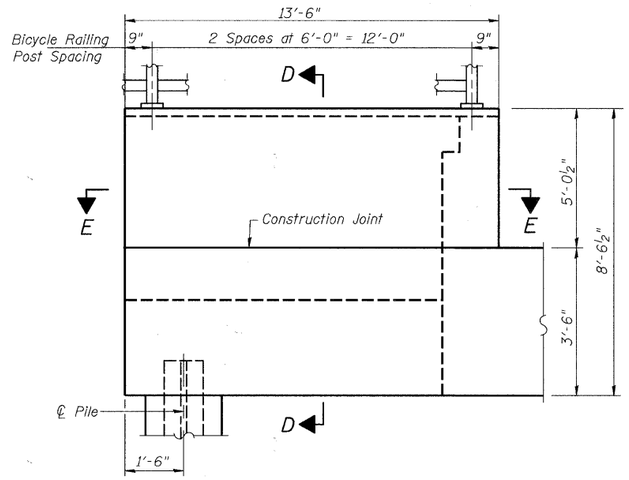
*Cut to fit as required



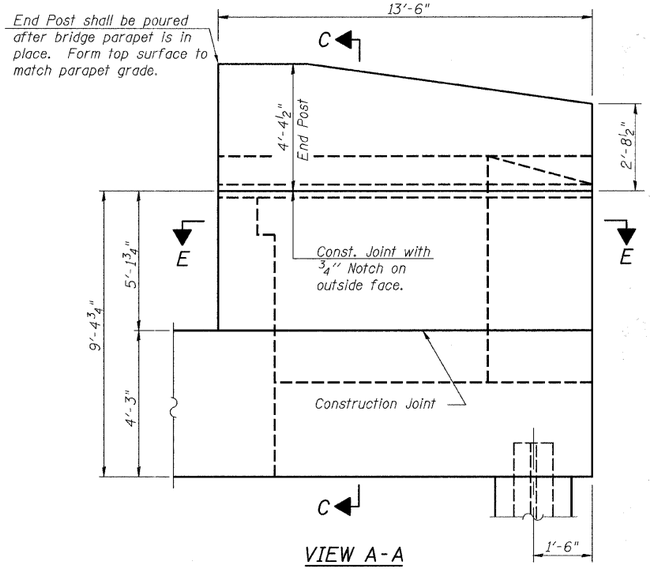
SEC. D-D



SEC. C-C



VIEW B-B
NORTH WING WALL ELEVATION
Showing Dimensions



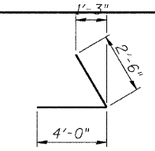
VIEW A-A
SOUTH WING WALL ELEVATION
Showing Dimensions

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

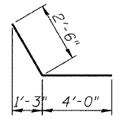
2545B043

EAST ABUTMENT DETAILS
STRUCTURE NO. 099-4105

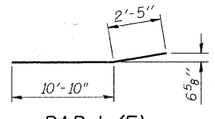
SHEET NO. 43	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	187
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		



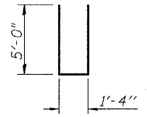
BAR $h_1(E)$



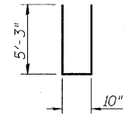
BAR $h_2(E)$



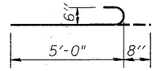
BAR $h_4(E)$



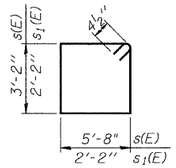
BAR n(E)



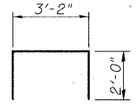
BAR $n_2(E)$



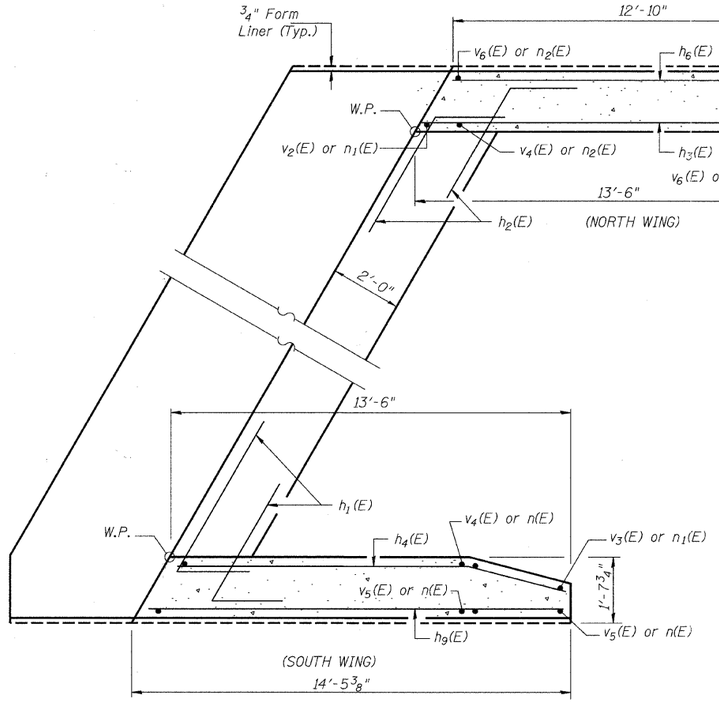
BAR $n_1(E)$



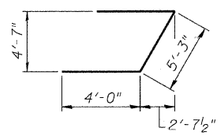
BARS s(E) & $s_1(E)$



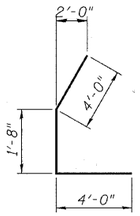
BAR $s_2(E)$



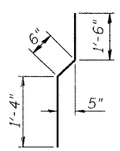
SEC. E-E



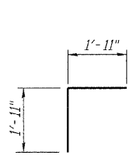
BAR u(E)



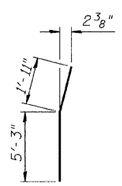
BAR $u_1(E)$



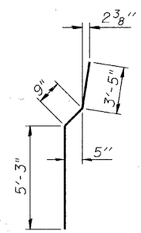
BAR $v_1(E)$



BAR $v_2(E)$



BAR $v_3(E)$



BAR $v_4(E)$

EAST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_1(E)$	10	#5	6'-6"	
$h_2(E)$	10	#5	6'-6"	
$h_3(E)$	10	#4	13'-3"	
$h_4(E)$	8	#4	13'-3"	
$h_6(E)$	7	#4	12'-5"	
$h_7(E)$	8	#6	28'-10"	
$h_8(E)$	20	#5	28'-10"	
$h_9(E)$	11	#4	14'-0"	
n(E)	11	#6	11'-4"	
$n_1(E)$	6	#6	5'-6"	
$n_2(E)$	14	#6	11'-4"	
$p_1(E)$	12	#7	14'-0"	
$p_2(E)$	36	#7	30'-3"	
$p_3(E)$	6	#4	38'-6"	
$p_4(E)$	6	#4	30'-6"	
s(E)	148	#4	18'-5"	
$s_1(E)$	28	#4	9'-5"	
$s_2(E)$	47	#4	7'-2"	
u(E)	4	#6	13'-3"	
$u_1(E)$	4	#6	9'-8"	
v(E)	120	#4	6'-2"	
$v_1(E)$	60	#4	3'-4"	
$v_2(E)$	60	#6	3'-10"	
$v_3(E)$	3	#6	7'-2"	
$v_4(E)$	12	#6	9'-1"	
$v_5(E)$	14	#5	9'-2"	
$v_6(E)$	28	#5	4'-9"	

Structure Excavation	Cu. Yd.	100
Concrete Structures	Cu. Yd.	86.0
Reinforcement Bars, Epoxy Coated	Pound	8,530
Furnishing Steel Piles HP 12x63	Foot	252
Driving Piles	Foot	252
Test Pile Steel HP12x63	Each	1
Concrete Encasement	Cu. Yd.	4.5
Concrete Sealer	Sq. Ft.	248

Notes: Reinforcement bars designated (E) shall be epoxy coated.
For details of Bar Splicers, see sheet 49 of 60.
For details of Piles and Concrete Encasement, see sheet 50 of 60.

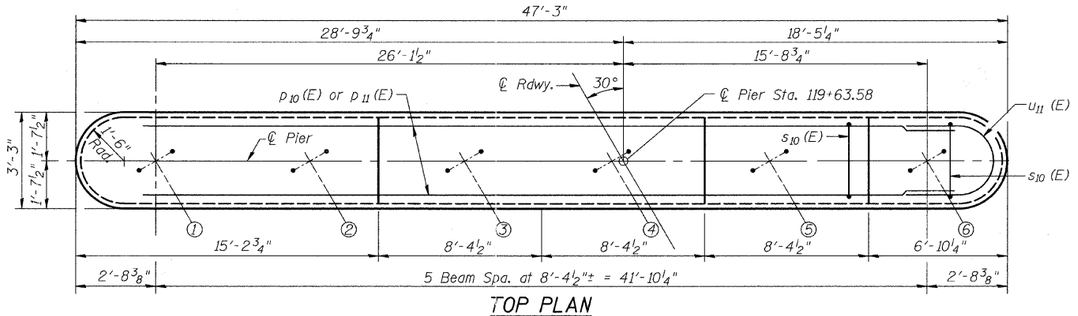
DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B044

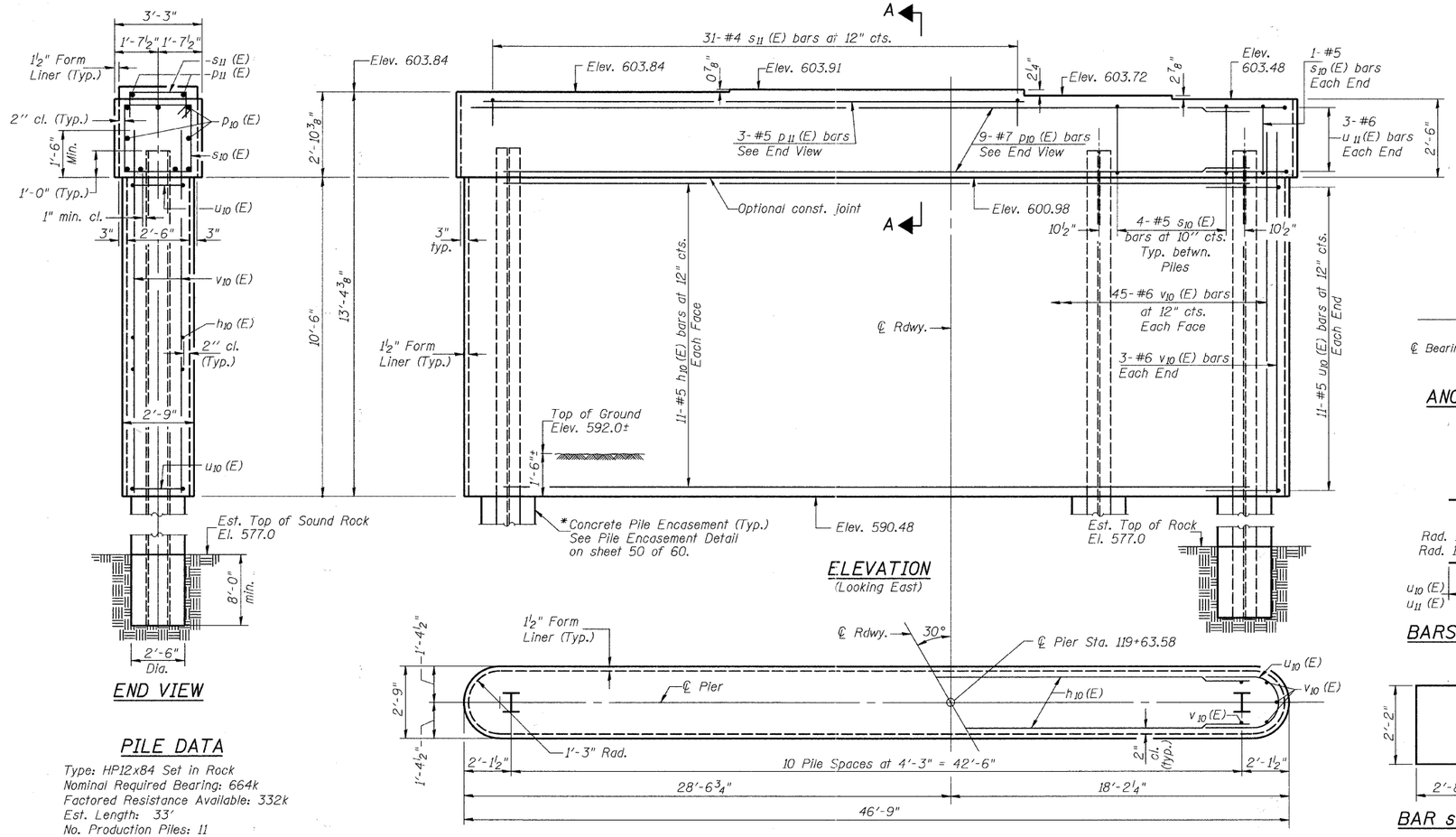
EAST ABUTMENT DETAILS
STRUCTURE NO. 099-4105

SHEET NO. 44	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	188
		SN 099-4105	CONTRACT NO. 83126		
		FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT BRS-		

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 50 of 60.



TOP PLAN



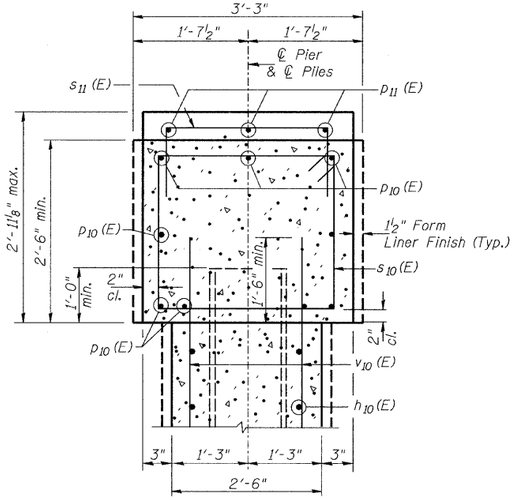
END VIEW

ELEVATION
(Looking East)

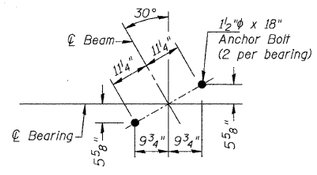
FOOTING PLAN

PILE DATA

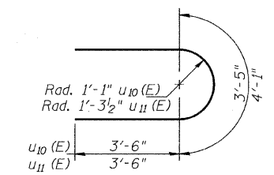
Type: HP12x84 Set in Rock
Nominal Required Bearing: 664k
Factored Resistance Available: 332k
Est. Length: 33'
No. Production Piles: 11



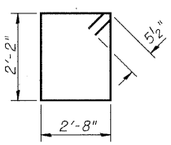
SECTION A-A



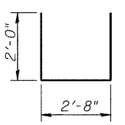
ANCHOR BOLT LAYOUT



BARS u10 (E) & u11 (E)



BAR s10 (E)



BAR s11 (E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10 (E)	22	#5	44'-0"	——
p10 (E)	9	#7	44'-0"	——
p11 (E)	3	#5	30'-0"	——
s10 (E)	42	#5	10'-7"	□
s11 (E)	31	#4	6'-8"	□
u10 (E)	22	#5	10'-5"	⊃
u11 (E)	6	#6	11'-1"	⊃
v10 (E)	96	#6	12'-0"	——
Structure Excavation		Cu. Yd.	19	
Concrete Structures		Cu. Yd.	65.1	
Reinforcement Bars, Epoxy Coated		Pound	4,590	
Furnishing Steel Piles, HP12x84		Foot	363	
Setting Piles in Rock		Each	11	
Underwater Structure Excavation Protection Location No. 1		Each	1	
Concrete Encasement		Cu Yd	27.0	

* If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

PIER 1
STRUCTURE NO. 099-4105

SHEET NO. 45	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	189
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

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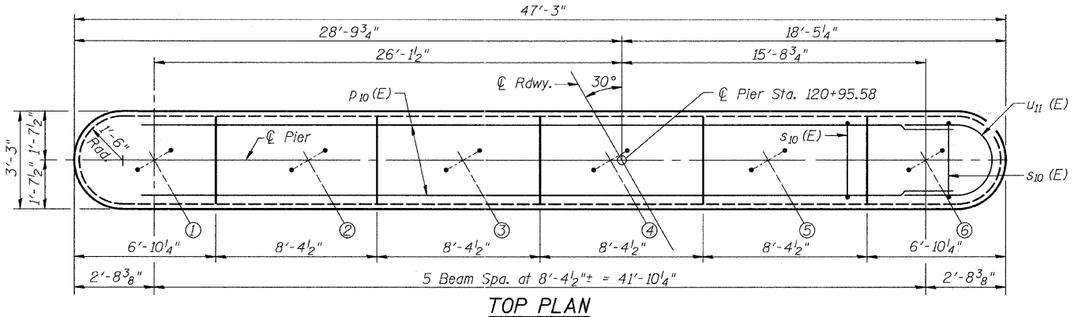
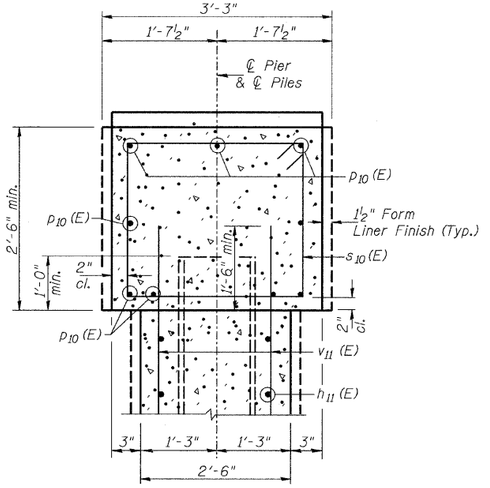
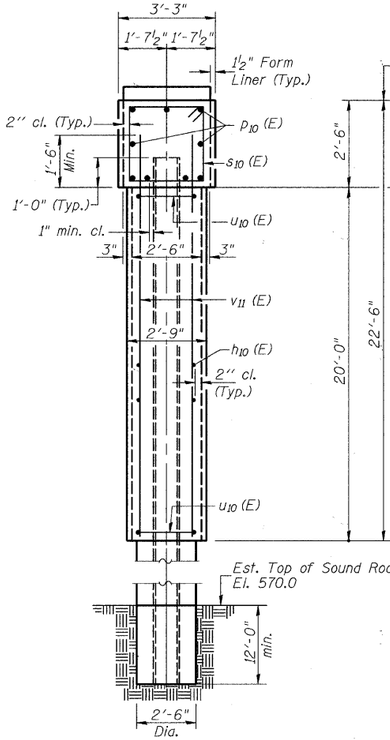
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 50 of 60.



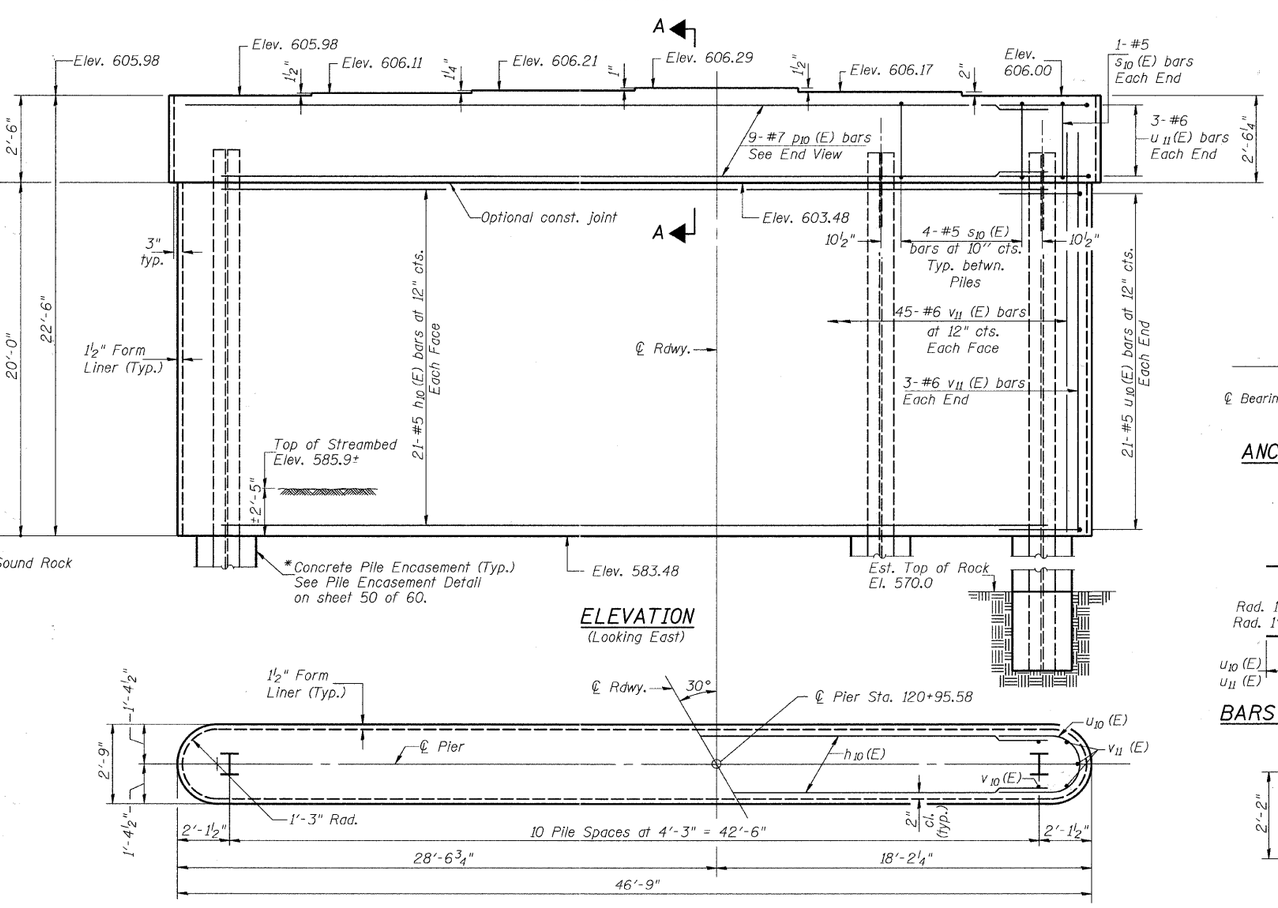
TOP PLAN



SECTION A-A



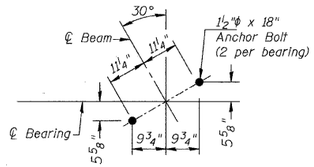
END VIEW



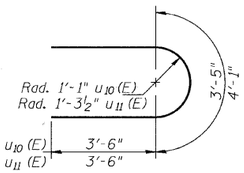
ELEVATION
(Looking East)

FOOTING PLAN

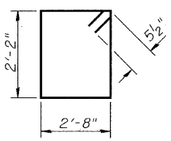
* If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.



ANCHOR BOLT LAYOUT



BARS u10 (E) & u11 (E)



BAR s10 (E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10 (E)	42	#5	44'-0"	——
p10 (E)	9	#7	44'-0"	——
s10 (E)	42	#5	10'-7"	□
u10 (E)	42	#5	10'-5"	⊃
u11 (E)	6	#6	11'-1"	⊃
v11 (E)	96	#6	21'-6"	——
Structure Excavation		Cu. Yd.	30	
Concrete Structures		Cu. Yd.	108.9	
Reinforcement Bars, Epoxy Coated		Pound	6,860	
Furnishing Steel Piles, HP14x102		Foot	517	
Setting Piles in Rock		Each	11	
Underwater Structure Excavation Protection Location No. 2		Each	1	
Concrete Encasement		Cu Yd	27.1	

PILE DATA

Type: HP14x102 Set in Rock
Nominal Required Bearing: 810k
Factored Resistance Available: 405k
Est. Length: 47'
No. Production Piles: 11

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

PIER 2
STRUCTURE NO. 099-4105

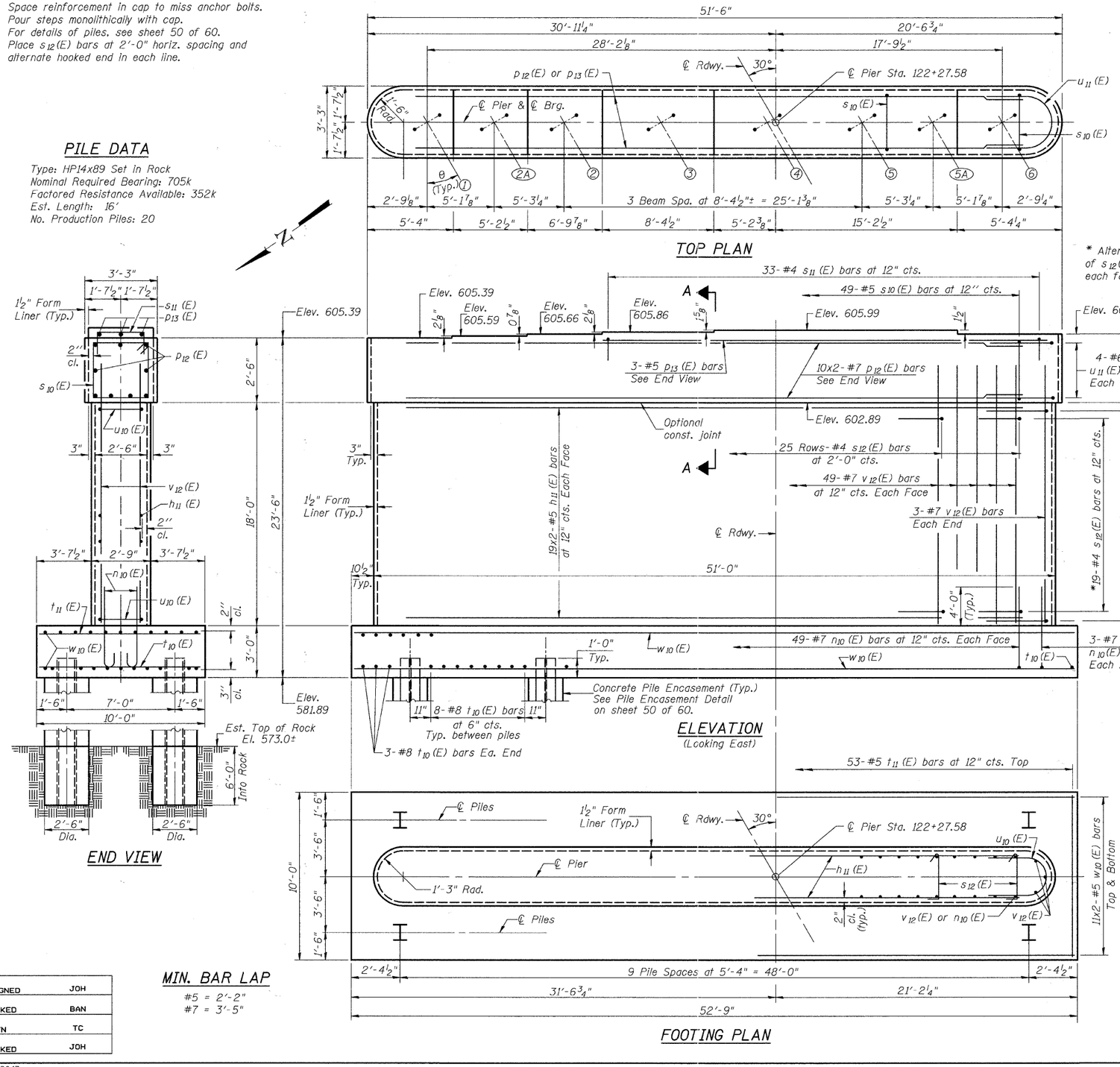
SHEET NO. 46	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	190
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

25458046

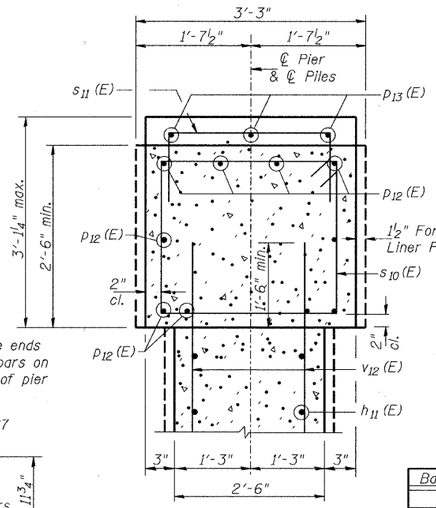
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 50 of 60.
Place s_{12}(E) bars at 2'-0" horiz. spacing and alternate hooked end in each line.

PILE DATA

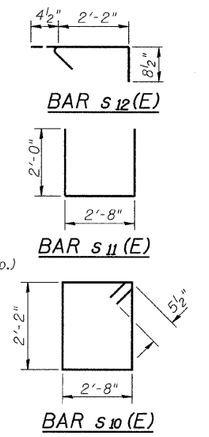
Type: HP14x89 Set in Rock
Nominal Required Bearing: 705k
Factored Resistance Available: 352k
Est. Length: 16'
No. Production Piles: 20



* Alternate ends of s_{12}(E) bars on each face of pier



SECTION A-A

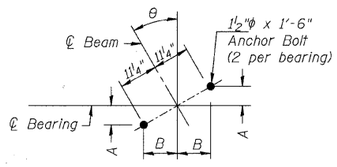


BILL OF MATERIAL

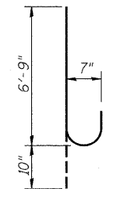
Bar	No.	Size	Length	Shape
h_{11}(E)	76	#5	25'-3"	
n_{10}(E)	104	#7	7'-7"	
p_{12}(E)	20	#7	25'-9"	
p_{13}(E)	3	#5	32'-3"	
s_{10}(E)	49	#5	10'-7"	
s_{11}(E)	33	#4	6'-8"	
s_{12}(E)	475	#4	3'-3"	
t_{10}(E)	78	#8	9'-9"	
t_{11}(E)	53	#5	9'-9"	
u_{10}(E)	38	#5	10'-5"	
u_{11}(E)	8	#6	11'-1"	
v_{12}(E)	104	#7	19'-6"	
w_{10}(E)	44	#5	27'-3"	
Cofferdam Excavation		Cu. Yd.		355
Concrete Structures		Cu. Yd.		167.8
Reinforcement Bars, Epoxy Coated		Pound		15,000
Furnishing Steel Piles, HP14x89		Foot		320
Setting Piles in Rock		Each		20
Cofferdam		Each		1
Concrete Encasement		Cu Yd		32.6

ANCHOR BOLT DIMENSIONS

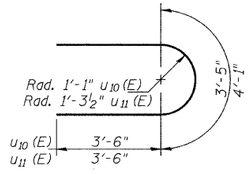
Girder No.	θ	A	B
G-1	30.99°	5¾"	9⅝"
G-2A	30.49°	5¾"	9¾"
G-2 thru G-5	30°	5⅝"	9¾"
G-5A	29.51°	5½"	9¾"
G-6	28.99°	5½"	9⅞"



ANCHOR BOLT LAYOUT



BAR n_{10}(E)



BARS u_{10}(E) & u_{11}(E)

MIN. BAR LAP

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

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

PIER 3
STRUCTURE NO. 099-4105

SHEET NO. 47	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	191
		SN 099-4105	CONTRACT NO. 83126		
		FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT BRS-		

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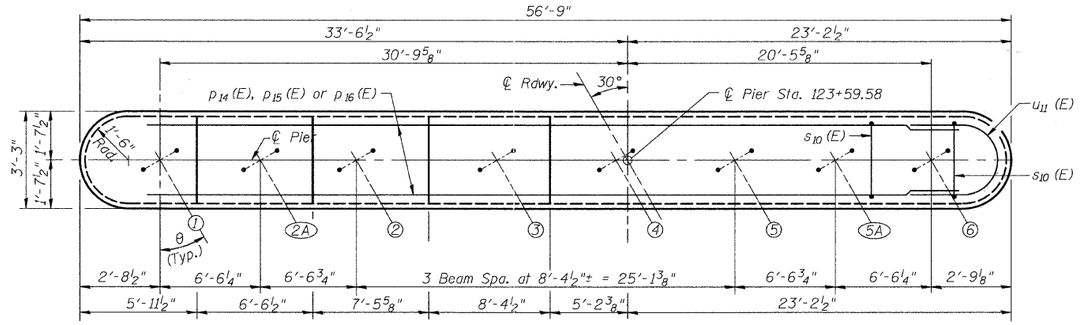
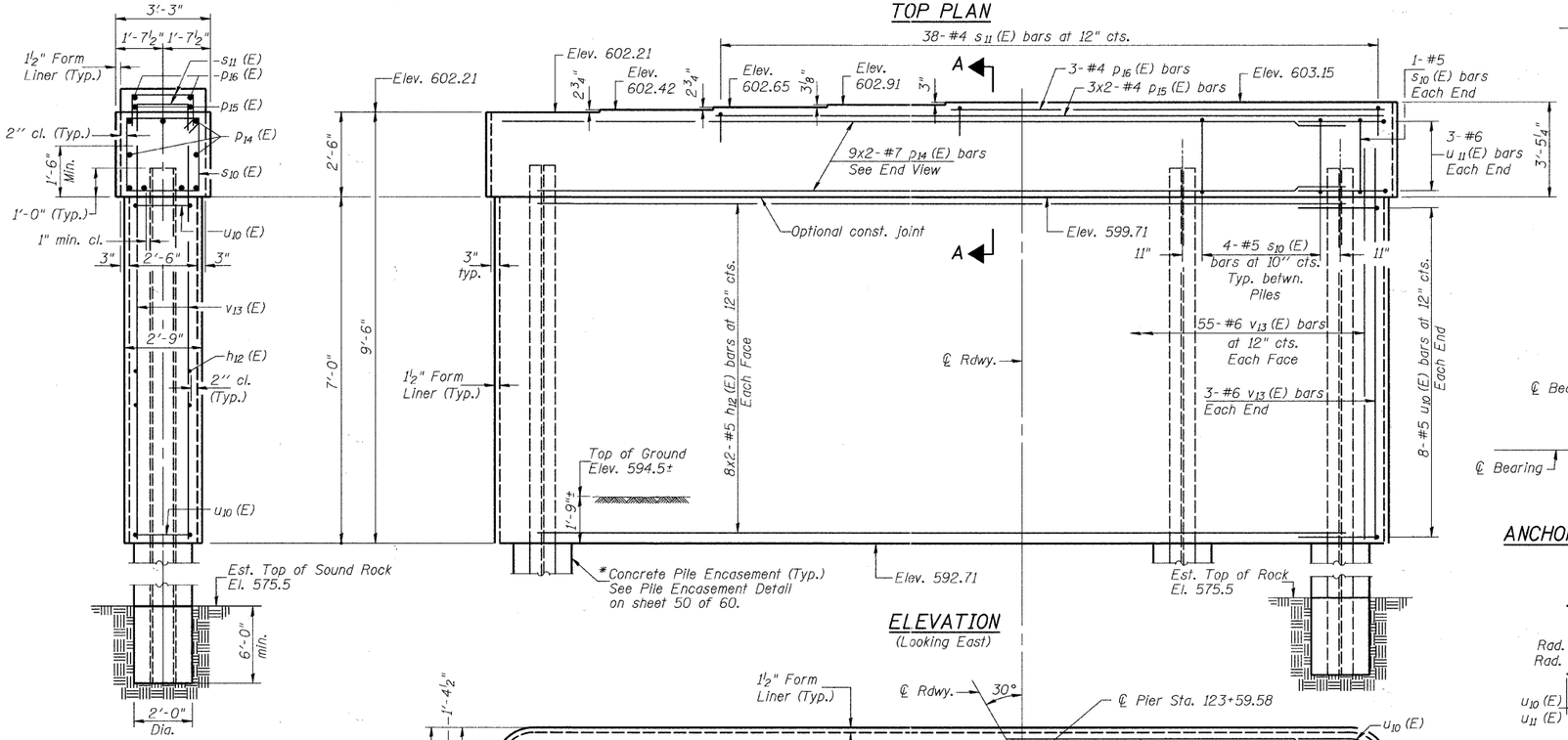
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 50 of 60.

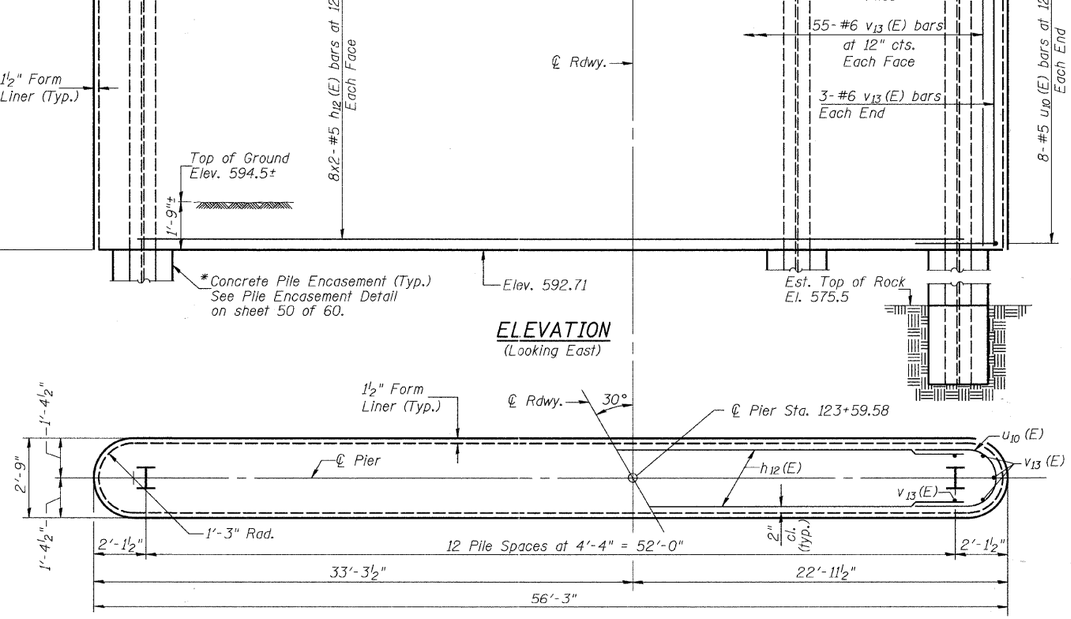


TOP PLAN

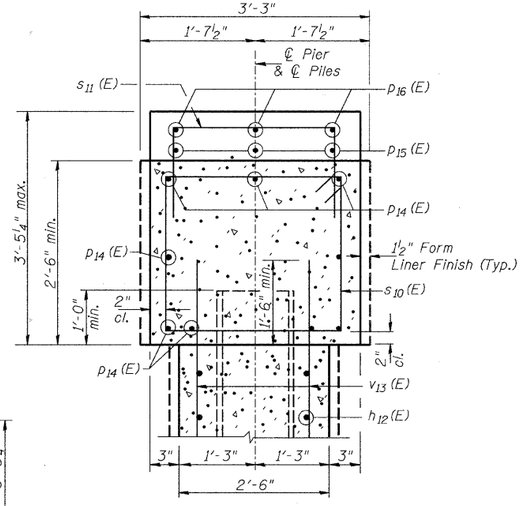


ELEVATION
(Looking East)

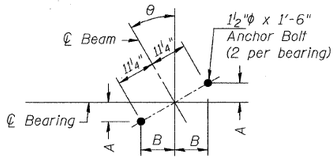
END VIEW



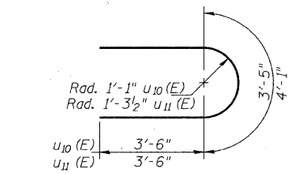
FOOTING PLAN



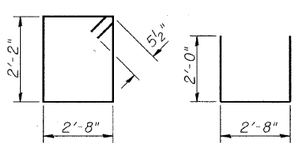
SECTION A-A



ANCHOR BOLT LAYOUT



BARS u10 (E) & u11 (E)



BAR s10 (E) BAR s11 (E)

ANCHOR BOLT DIMENSIONS

Girder No.	θ	A	B
G-1	30.99°	5 7/8"	9 5/8"
G-2A	30.49°	5 3/4"	9 3/4"
G-2 thru G-5	30°	5 5/8"	9 3/4"
G-5A	29.51°	5½"	9 3/4"
G-6	28.99°	5½"	9 7/8"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h12 (E)	32	#5	28'-0"	——
p14 (E)	18	#7	28'-6"	——
p15 (E)	6	#4	22'-6"	——
p16 (E)	3	#4	26'-6"	——
s10 (E)	50	#5	10'-7"	□
s11 (E)	38	#4	6'-8"	⊔
u10 (E)	16	#5	10'-5"	⊃
u11 (E)	6	#6	11'-1"	⊃
v13 (E)	116	#6	8'-6"	——
Structure Excavation			Cu. Yd.	26
Concrete Structures			Cu. Yd.	61.1
Reinforcement Bars, Epoxy Coated			Pound	4,610
Furnishing Steel Piles, HP12x84			Foot	416
Setting Piles in Rock			Each	13
Underwater Structure Excavation Protection Location No. 3			Each	1
Concrete Encasement			Cu Yd	40.6

PILE DATA

Type: HP12x84 Set in Rock
Nominal Required Bearing: 664k
Factored Resistance Available: 332k
Est. Length: 32'
No. Production Piles: 13

* If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

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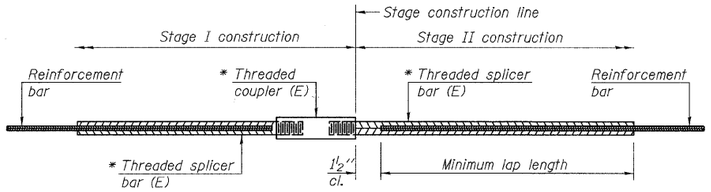
PIER 4
STRUCTURE NO. 099-4105

SHEET NO. 48	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	192
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		



STANDARD BAR SPLICER ASSEMBLY

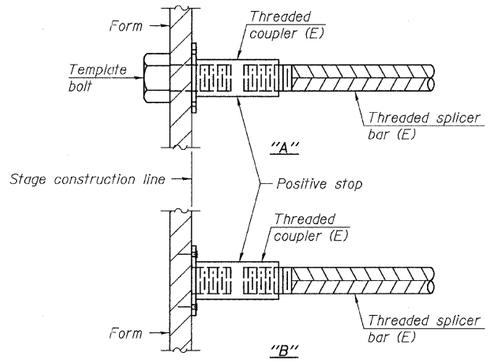
Minimum Lap Lengths				
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

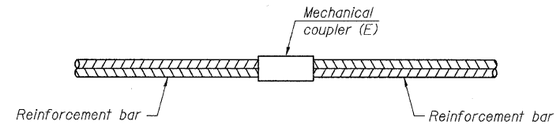
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



INSTALLATION AND SETTING METHODS

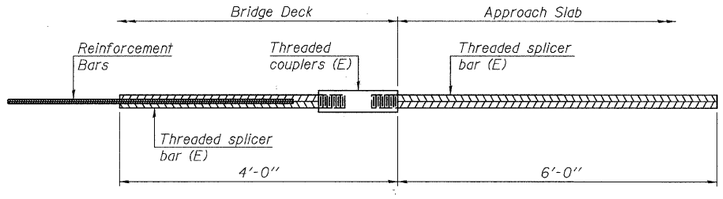
"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

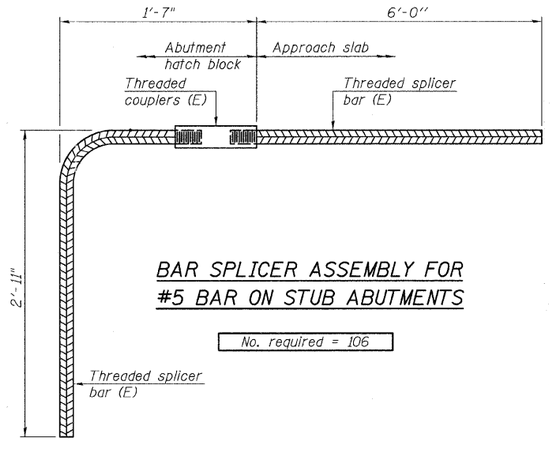
Location	Bar size	No. assemblies required

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 106



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 106

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

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

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See special provision for Mechanical Splicers.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

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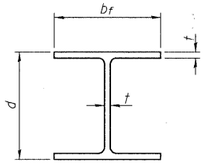
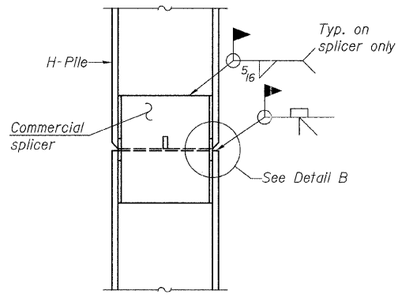
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS STRUCTURE NO. 099-4105

SHEET NO. 49 60 SHEETS	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	90-16103-01-BR	WILL	255	193
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		



STEEL PILE TABLE

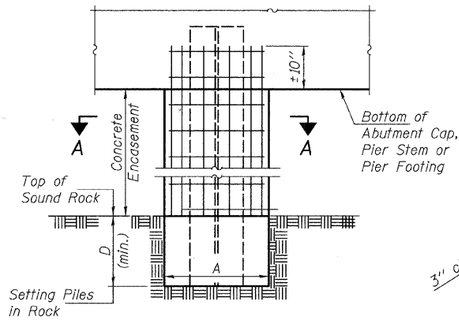
Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



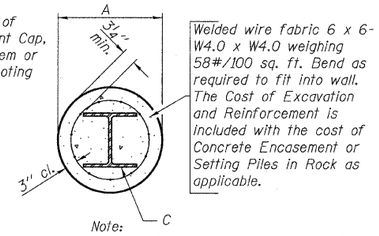
ELEVATION

PILE ENCASEMENT

Designation	A	D	C
W. Abut.	2'-0"	-	HP 12x63
Pier #1	2'-6"	8'-0"	HP 14x102
Pier #2	2'-6"	12'-0"	HP 14x89
Pier #3	2'-6"	6'-0"	HP 14x89
Pier #4	2'-0"	6'-0"	HP 12x84
E. Abut.	2'-0"	-	HP 12x63



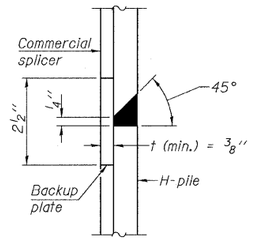
ELEVATION
PILE ENCASEMENT @ PIERS



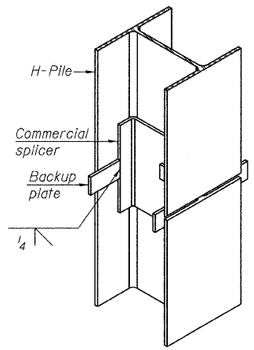
Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. Bend as required to fit into wall. The Cost of Excavation and Reinforcement is included with the cost of Concrete Encasement or Setting Piles in Rock as applicable.

Note:
Forms for encasement may be omitted when soil conditions permit.

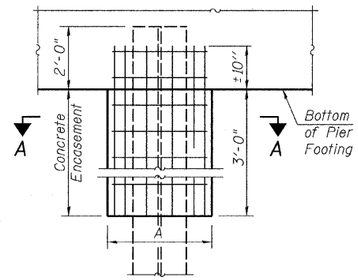
SECTION A-A



DETAIL "B"

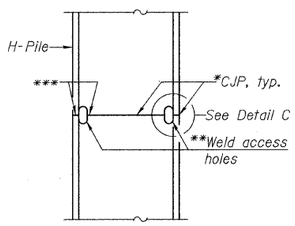


ISOMETRIC VIEW

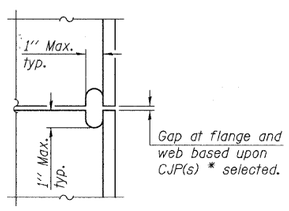


ELEVATION
PILE ENCASEMENT @ ABUTMENTS

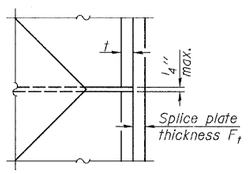
WELDED COMMERCIAL SPLICE



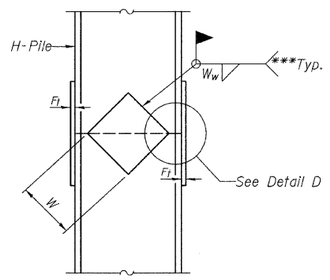
ELEVATION



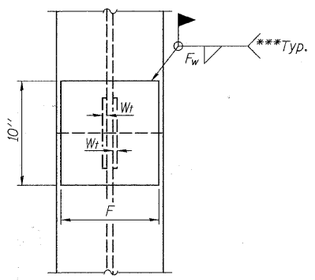
DETAIL C



DETAIL D



ELEVATION



END VIEW

COMPLETE PENETRATION WELD SPLICE

WELDED PLATE FIELD SPLICE

Designation	F	F_f	F_w	W	W_f	W_w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

* Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.

** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.

*** Interrupt welds 1/4" from end of each pile.

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

HP PILE DETAILS
STRUCTURE NO. 099-4105

SHEET NO. 50	RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR		WILL	255	194
		SN 099-4105		CONTRACT NO. 83126		
		FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

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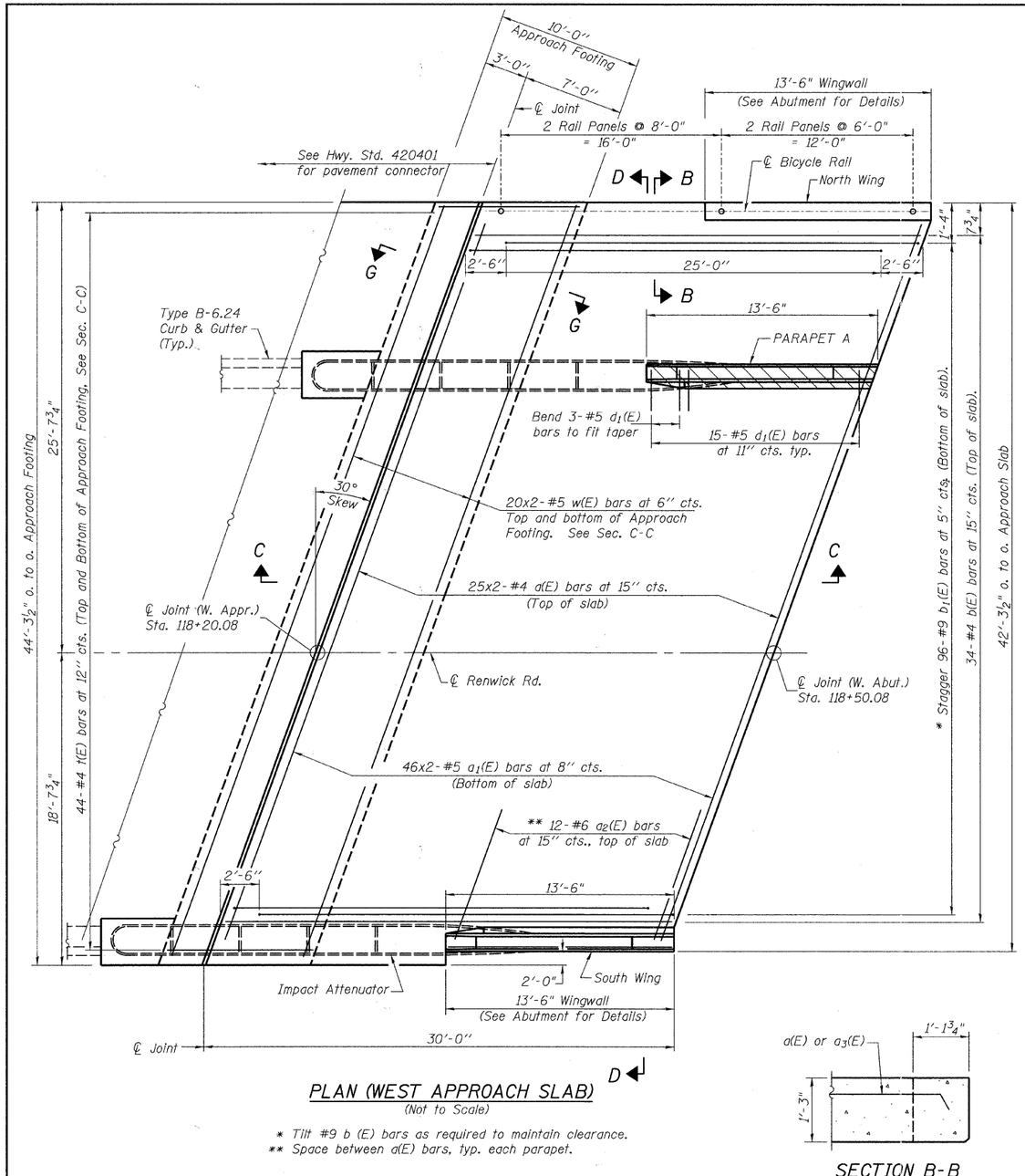
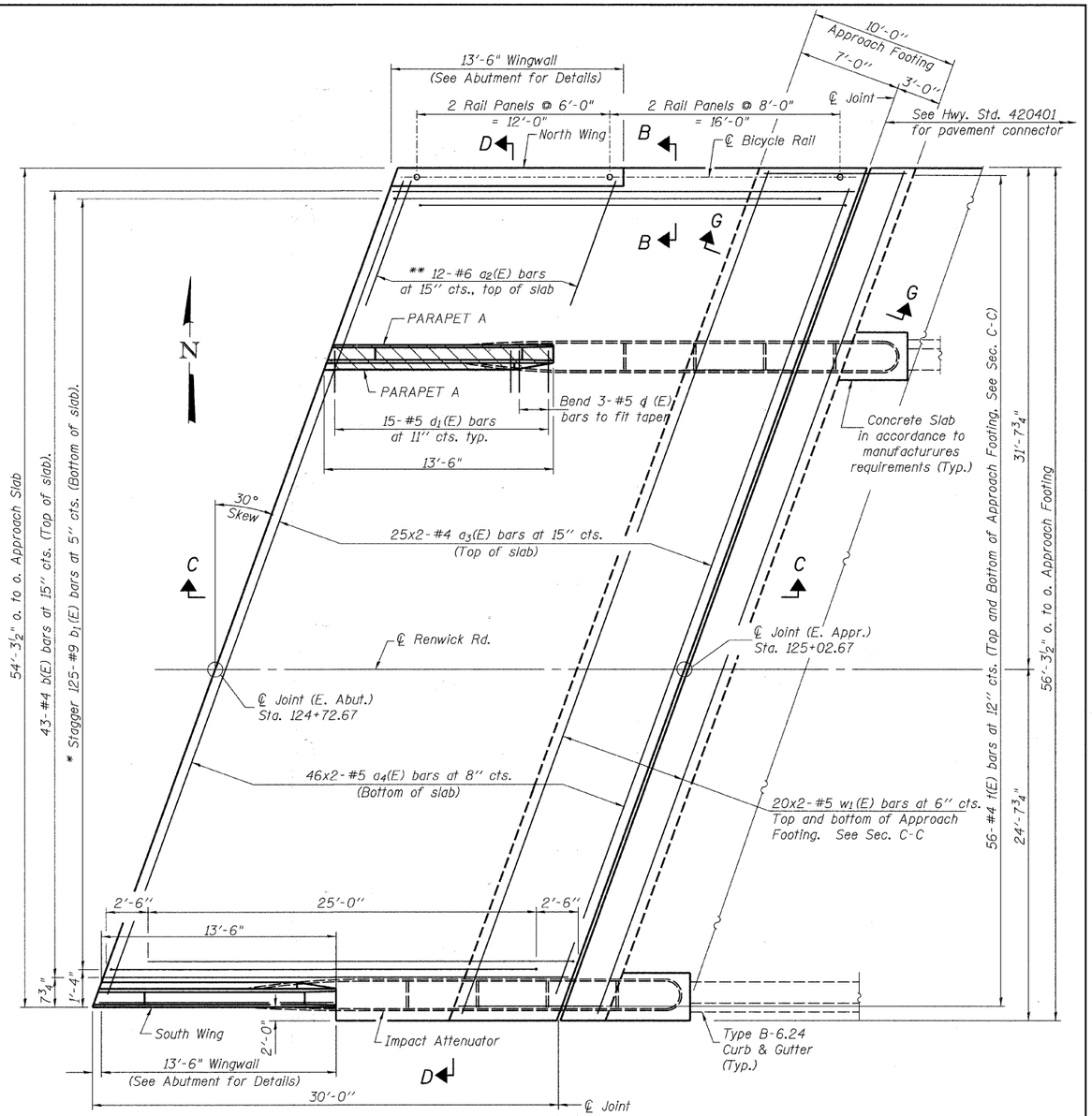


PLAN (WEST APPROACH SLAB)
(Not to Scale)

* Tilt #9 b (E) bars as required to maintain clearance.
** Space between a(E) bars, typ. each parapet.

SECTION B-B



PLAN (EAST APPROACH SLAB)
(Not to Scale)

* Tilt #9 b1(E) bars as required to maintain clearance.
** Space between a(E) bars, typ. each parapet.

(Sheet 1 of 3)

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 099-4105

DESIGNED	JDH
CHECKED	BAN
DRAWN	TC
CHECKED	JDH

Approach parapet walls included with Approach Bill of Material

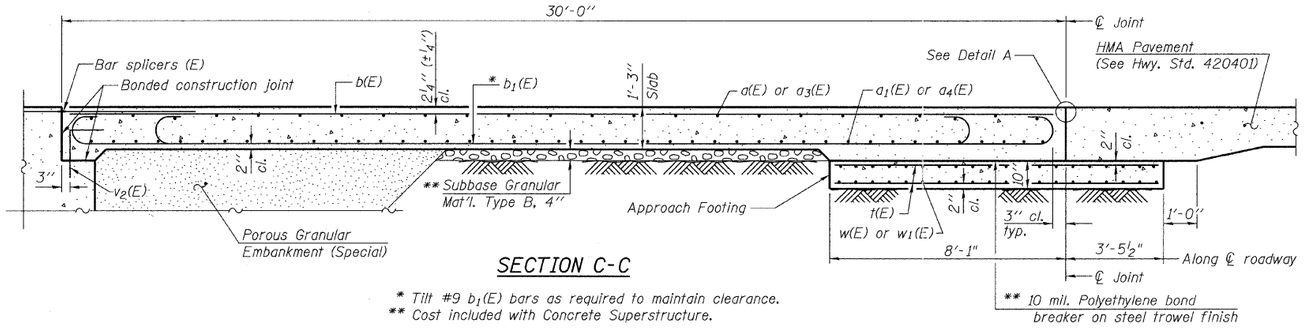
MIN. BAR LAP

#4 = 1'-8"
#5 = 2'-2"

Notes:
See sheet 52 of 60 for Sections C-C & D-D.
See sheet 53 of 60 for Section G-G.
Bar spacings measured along ℄ Rdwy.

SHEET NO. 51 60 SHEETS	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	90-16103-01-BR	WILL	251	195
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

2545B051



SECTION C-C

* Tilt #9 $b_1(E)$ bars as required to maintain clearance.
** Cost included with Concrete Superstructure.

Notes:

Approach slab and parapet concrete shall be paid for as Concrete Superstructure.

Approach footing concrete shall be paid for as Concrete Structures.

Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.

For $v_2(E)$ bar details, see sheets 39 & 42 of 60.

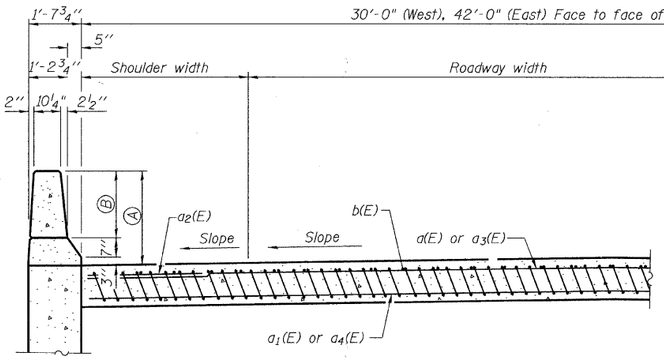
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

For bar splicer details, see sheet 49 of 60.

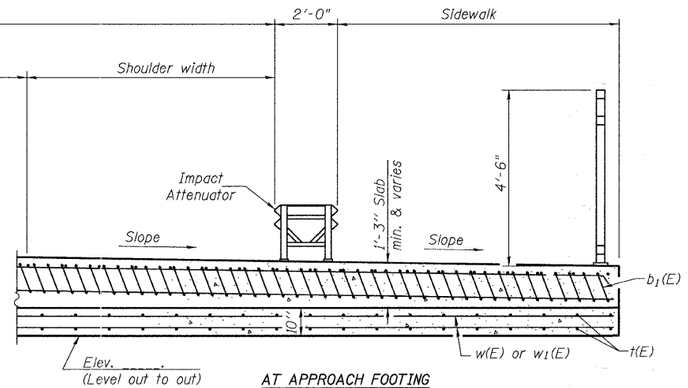
Cost of excavation for approach footing included with Concrete Structures.

For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 60.

For additional parapet details, see sheet 54 of 60.



NEAR ABUTMENT

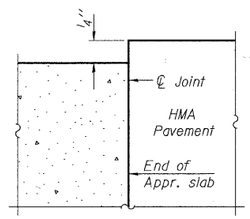


AT APPROACH FOOTING

SECTION D-D

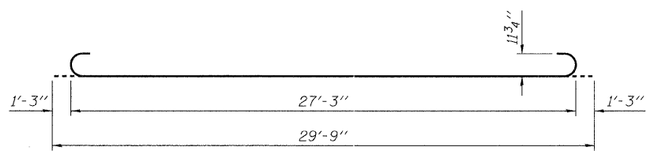
(See Plan for dimensions not shown)

Ⓐ Varies 2'-10" to 4'-6"
Ⓑ Varies 2'-0" to 3'-8"
(See Elevation view on Sheet 3 of 3)

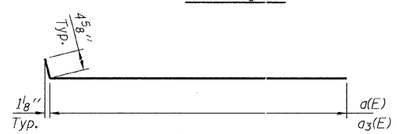


FLEXIBLE PAVEMENT

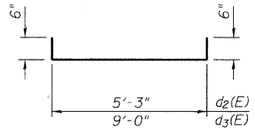
DETAIL A



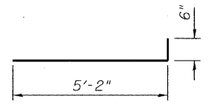
BAR $b_1(E)$



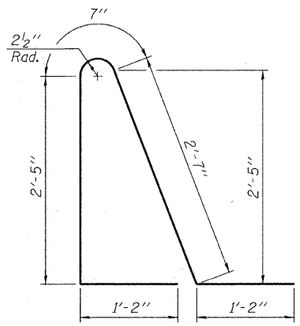
BAR $d(E)$ & $a_3(E)$



BAR $d_2(E)$ & $d_3(E)$



BAR $d(E)$



BAR $d_1(E)$

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	50	#4	26'-6"	
$a_1(E)$	92	#5	26'-10"	
$a_2(E)$	48	#6	6'-6"	
$a_3(E)$	50	#4	33'-4"	
$a_4(E)$	92	#5	33'-9"	
b(E)	77	#4	29'-8"	
$b_1(E)$	221	#9	29'-9"	
d(E)	12	#5	5'-8"	L
$d_1(E)$	36	#5	7'-11"	
$d_3(E)$	24	#5	10'-0"	
e(E)	18	#4	13'-2"	
$e_1(E)$	2	#8	13'-2"	
t(E)	200	#4	11'-2"	
w(E)	80	#5	26'-6"	
$w_1(E)$	80	#5	32'-4"	
Concrete Superstructure			Cu. Yd.	157.0
Concrete Structures			Cu. Yd.	35.9
Reinforcement Bars, Epoxy Coated			Pound	39,130

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

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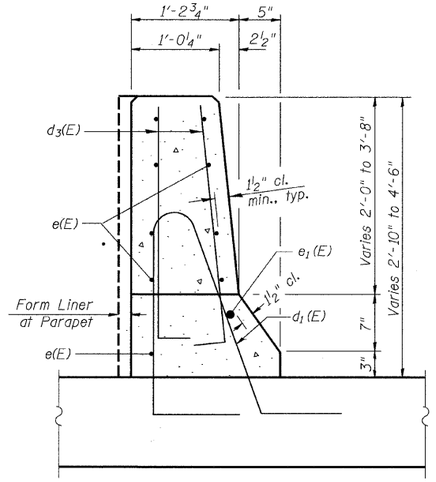
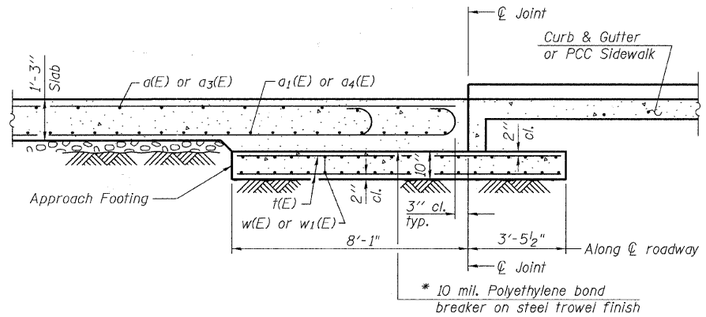
(Sheet 2 of 3)

BRIDGE APPROACH SLAB DETAILS STRUCTURE NO. 099-4105

SHEET NO. 52	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	196
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

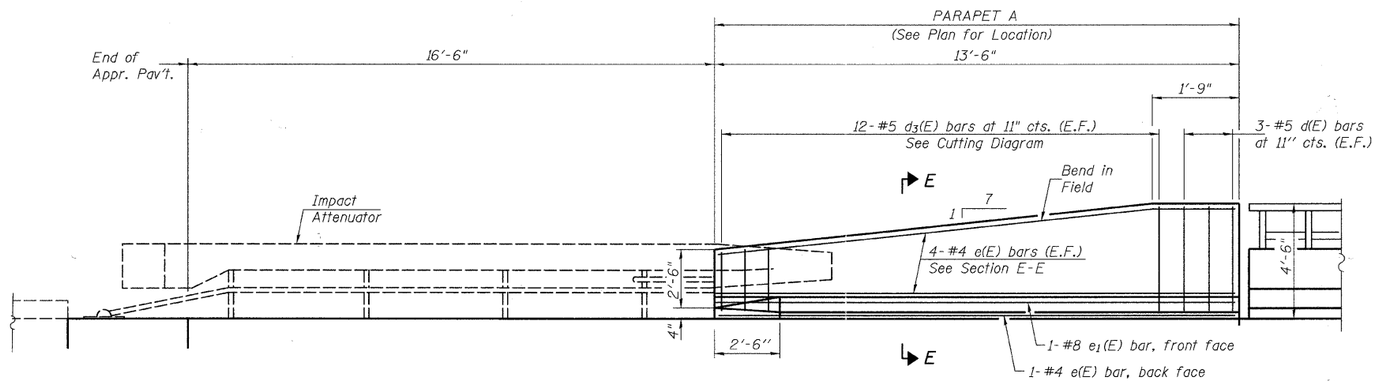


SECTION E-E

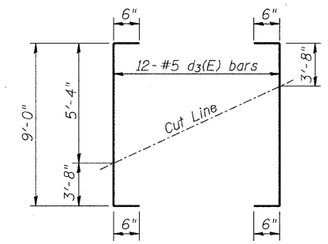


SECTION G-G

* Cost included with Concrete Superstructure.



ELEVATION PARAPET WALL A



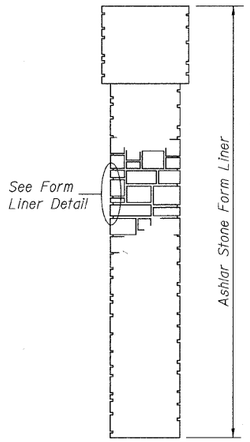
FIELD CUTTING DIAGRAM, BAR d3(E)

Order d3(E) full length. Cut as shown and use remainder of bars in opposite face.

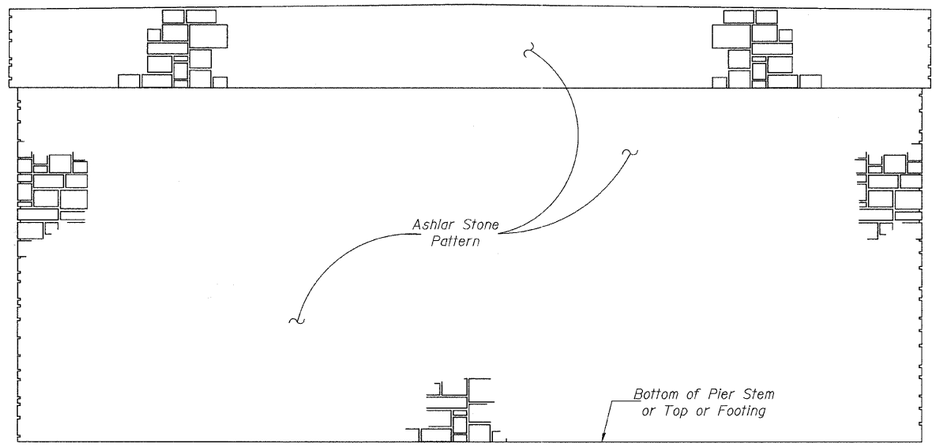
(Sheet 3 of 3)

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 099-4105

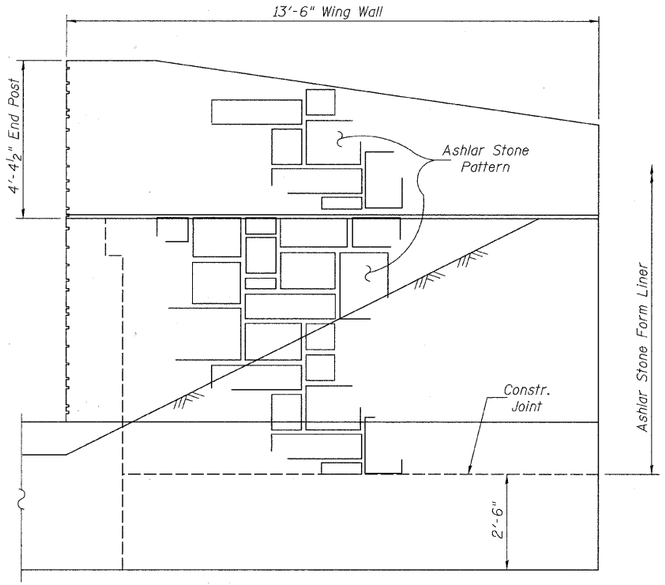
SHEET NO. 53	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	197
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		



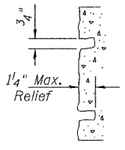
END VIEW



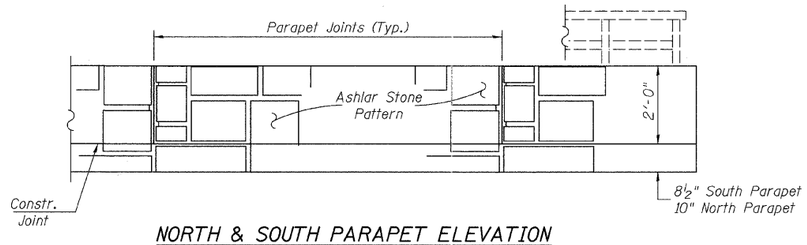
PIERS 1, 2, 3 & 4



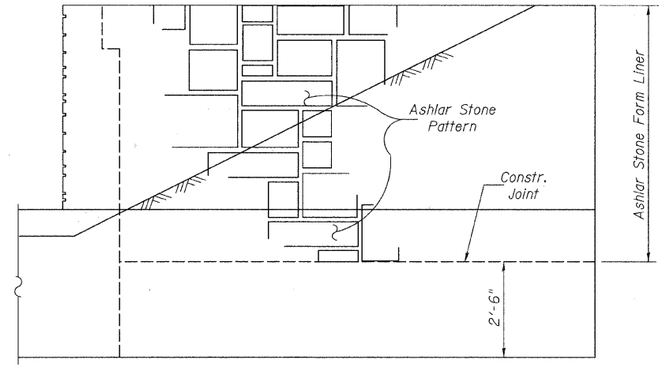
SOUTH WING WALL ELEVATION



FORM LINER DETAIL
AT PIERS & ABUTMENTS



NORTH & SOUTH PARAPET ELEVATION
(Outside face)



NORTH WING WALL ELEVATION

Note: See "Form Liners" Special Provision for pattern, coloration and workmanship for Ashlar Stone Pattern.

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

2545B054

FORM LINER DETAILS
STRUCTURE NO. 099-4105

SHEET NO. 54	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	198
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

S.A.M. Consultants, Inc.

Geotechnical Engineering & Materials Testing
DBE/MBE Firm

500 East 22nd Street
Lombard, IL 60148
Telephone: 630-424-1200
Fax: 630-424-1265

BORING NUMBER B-1

PAGE 1 OF 1

CLIENT Hutchison Engineering, Inc.
PROJECT NAME Renwick Road Over DuPage River Project
PROJECT NUMBER SAM-2005-GT-003
PROJECT LOCATION Renwick & River Roads, Plainfield, Will County, IL
DATE STARTED 3/16/05 COMPLETED 3/16/05
GROUND ELEVATION 605.46 ft Plans HOLE SIZE 8" diameter
DRILLING CONTRACTOR C.S. Drilling / Hollow Stem Augers
GROUND WATER LEVELS:
DRILLING METHOD
AT TIME OF DRILLING 18.0 ft / Elev 587.5 ft
LOGGED BY Simon CHECKED BY AR
AT END OF DRILLING 18.5 ft / Elev 587.0 ft
NOTES Renwick Road - Station 115+21.00: 22.00' Right / South
AFTER DRILLING —

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		2" Layer of Topsoil: dark brown 4" Layer of Gravel CLAY LOAM with traces of gravel: gray; moist; stiff to very stiff; A-4	SS 1	78	2-2-5 (7)	2.0		26				
			SS 2	89	4-6-8 (14)	4.5		16				
5			SS 3	89	4-7-12 (19)	4.5+		16				
			SS 4	100	3-6-9 (15)	4.0		22				
10			SS 5	100	3-6-9 (15)	3.25		23				
		SILTY CLAY LOAM: gray; moist to very moist; stiff; A-6	SS 6	100	3-5-5 (10)	3.5		21				
15			SS 7	100	2-5-7 (12)	3.0		27				
			SS 8	97	3-5-8 (13)	2.75		21				
20		BROKEN LIMESTONE: light gray to white; very hard Bottom of hole at 22.5 feet.	SS 9	94	8-8-60/5"	4.5		16				

GEOTECH BH COLUMNS 2005003-RENWICK ROAD BRIDGE IMPROVEMENT.GPJ GINT US LAB.GDT 6/8/05

S.A.M. Consultants, Inc.

Geotechnical Engineering & Materials Testing
DBE/MBE Firm

500 East 22nd Street
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Telephone: 630-424-1200
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BORING NUMBER B-2

PAGE 1 OF 1

CLIENT Hutchison Engineering, Inc.
PROJECT NAME Renwick Road Over DuPage River Project
PROJECT NUMBER SAM-2005-GT-003
PROJECT LOCATION Renwick & River Roads, Plainfield, Will County, IL
DATE STARTED 4/18/05 COMPLETED 4/18/05
GROUND ELEVATION 600.53 ft Plans HOLE SIZE 8" diameter
DRILLING CONTRACTOR C.S. Drilling/Hollow Stem Augers
GROUND WATER LEVELS:
DRILLING METHOD
AT TIME OF DRILLING 12.5 ft / Elev 588.0 ft
LOGGED BY John CHECKED BY AR
AT END OF DRILLING 11.0 ft / Elev 589.5 ft
NOTES Renwick Road - Station 116+67.00: 22.00' Left / North
AFTER DRILLING —

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		FILL: SILTY CLAY LOAM: some gravel present; damp										
		CLAY LOAM: brown; moist; stiff to very stiff; A-4	SS 1	94	2-3-5 (8)	1.5						
5			SS 2	100	3-4-5 (9)	3.0						
		SANDY LOAM: brown; very moist; stiff to very stiff; A-4	SS 3	100	3-5-8 (13)	4.5						
10			SS 4	94	4-6-9 (15)	4.5						
		SAND with Gravel: brown; saturated; very dense; A-3	SS 5	94	9-25-24 (49)	—						
15			SS 6	78	23-32-37 (69)	—						
		BROKEN LIMESTONE: light gray to white; hard Bottom of hole at 16.0 feet.										

GEOTECH BH COLUMNS 2005003-RENWICK ROAD BRIDGE IMPROVEMENT.GPJ GINT US LAB.GDT 6/8/05

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

25458055

SOIL BORINGS
STRUCTURE NO. 099-4105

SHEET NO. 55 60 SHEETS	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	90-16103-01-BR	WILL	255	199
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

S.A.M. Consultants, Inc. 500 East 22nd Street
Geotechnical Engineering & Materials Testing Lombard, IL 60148
DBE/MBE Firm Telephone: 630-424-1200
Fax: 630-424-1265

BORING NUMBER B-1A

CLIENT Hutchison Engineering, Inc. PROJECT NAME Renwick Road Over DuPage River Project
PROJECT NUMBER SAM-2005-GT-003 PROJECT LOCATION Renwick & River Roads, Plainfield, Will County, IL
DATE STARTED 10/24/05 COMPLETED 10/24/05 GROUND ELEVATION 605.20 ft Plans HOLE SIZE 8" diameter
DRILLING CONTRACTOR C.S. Drilling / Hollow Stem Augers & Mud Rotary GROUND WATER LEVELS:
DRILLING METHOD AT TIME OF DRILLING 19.0 ft / Elev 586.2 ft
LOGGED BY Mark CHECKED BY AR AT END OF DRILLING 18.5 ft / Elev 586.7 ft
NOTES Renwick Road - Station 115+10.00: 20.00' Right / south AFTER DRILLING —

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
0		(Drilled down to 25 feet & then set casing & cored) CLAY LOAM with traces of gravel, gray; moist										
5												
10		SILTY CLAY LOAM: gray; moist to very moist										
15												
20		Pieces of broken limestone abundant starting at 22 feet										
25												

(Continued Next Page)

GEOTECH BH COLUMNS 2005003-RENWICK ROAD BRIDGE IMPROVEMENT.GPJ GINT US LAB.GDT 12/13/05

S.A.M. Consultants, Inc. 500 East 22nd Street
Geotechnical Engineering & Materials Testing Lombard, IL 60148
DBE/MBE Firm Telephone: 630-424-1200
Fax: 630-424-1265

BORING NUMBER B-1A

CLIENT Hutchison Engineering, Inc. PROJECT NAME Renwick Road Over DuPage River Project
PROJECT NUMBER SAM-2005-GT-003 PROJECT LOCATION Renwick & River Roads, Plainfield, Will County, IL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)
25		LIMESTONE: some fractures; light gray with dark gray seams	RC 1	100 (42)								
		SHALE: gray; laminar;	RC 2	100 (44)								
30		Alternating thin layers of Shale & Limestone: shades of gray, light to very dark	RC 3	100 (48)								
		LIMESTONE: very few fractures; light gray; a few dark gray seams; good solid rock	RC 4	100 (64)								
35		Bottom of hole at 35.0 feet.										

GEOTECH BH COLUMNS 2005003-RENWICK ROAD BRIDGE IMPROVEMENT.GPJ GINT US LAB.GDT 12/13/05

DESIGNED	JOH
CHECKED	BAN
DRAWN	TC
CHECKED	JOH

SOIL BORINGS
STRUCTURE NO. 099-4105

SHEET NO. 56	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60 SHEETS	TR 55	90-16103-01-BR	WILL	255	200
		SN 099-4105	CONTRACT NO. 83126		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

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