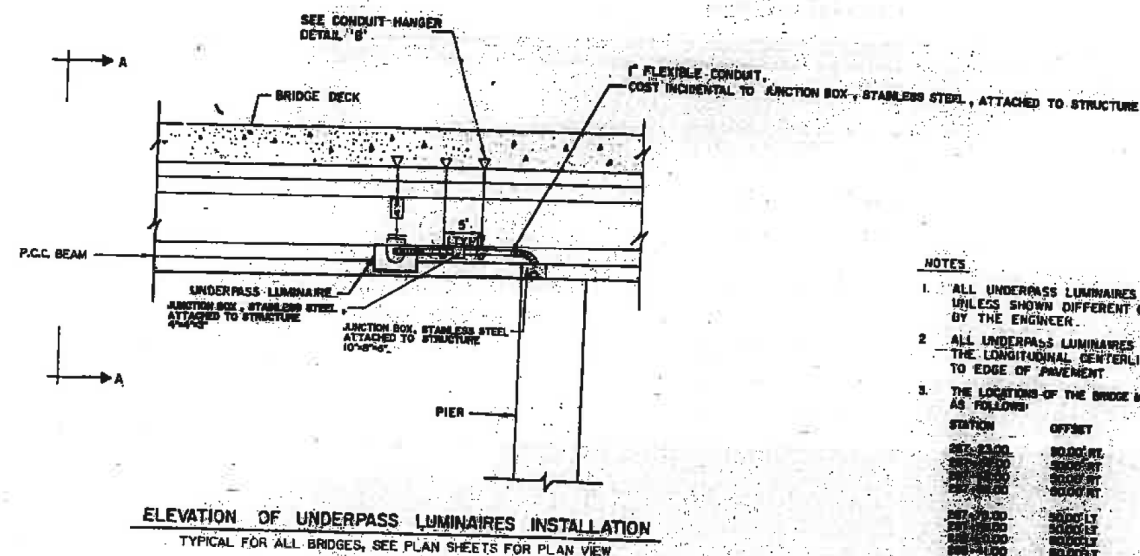
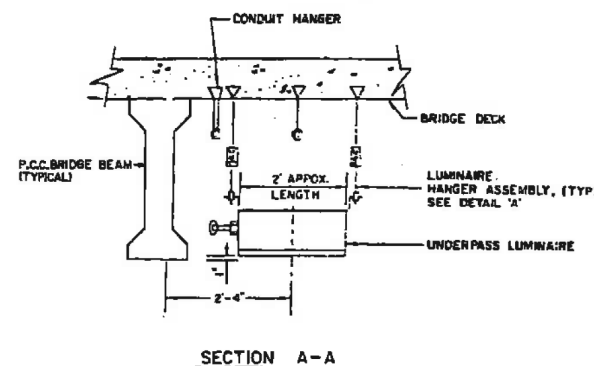


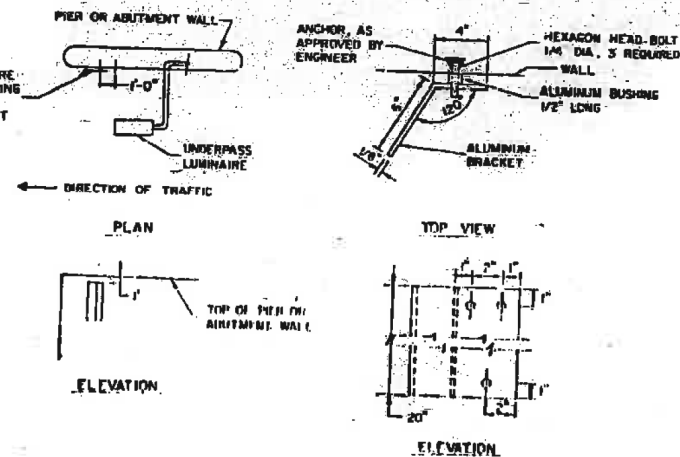
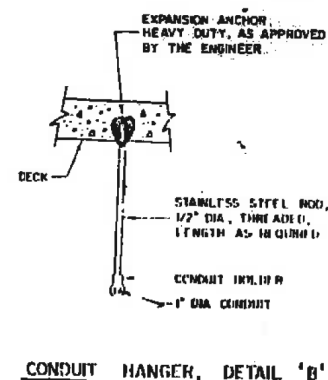
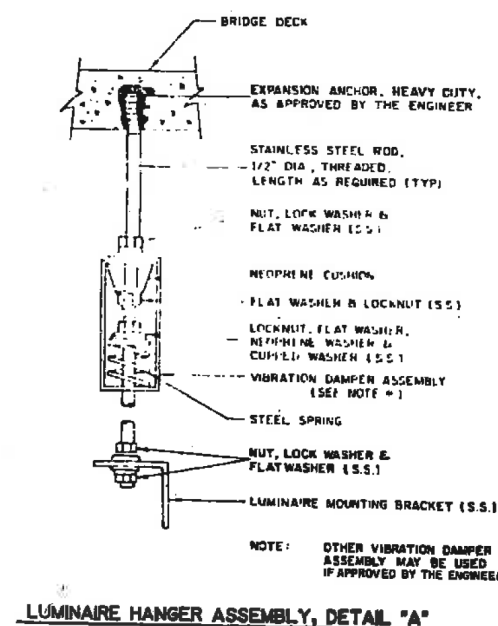
RAI ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
55	99-1NB-100/088	WILL	238	176A

ILLINOIS PROJECT



- NOTES
1. ALL UNDERPASS LUMINAIRES SHALL BE SPACED 21 FT. APART, UNLESS SHOWN DIFFERENT ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
 2. ALL UNDERPASS LUMINAIRES SHALL BE POSITIONED TO HAVE THE LONGITUDINAL CENTERLINE OF THE FIXTURE PARALLEL TO EDGE OF PAVEMENT.
 3. THE LOCATIONS OF THE BRIDGE MOUNTED UNDERPASS LUMINAIRES ARE AS FOLLOWS:

STATION	OFFSET
RET. 23.00	80.00 FT.
23.00+00	80.00 FT.
23.00+20	80.00 FT.
23.00+40	80.00 FT.
23.00+60	80.00 FT.
23.00+80	80.00 FT.
23.00+100	80.00 FT.
23.00+120	80.00 FT.
23.00+140	80.00 FT.
23.00+160	80.00 FT.
23.00+180	80.00 FT.
23.00+200	80.00 FT.
23.00+220	80.00 FT.
- THE ELEVATION ABOVE PAVEMENT FOR THE UNDERPASS LUMINAIRES IS 4'-4"
4. SEE SHEET # FOR ADDITIONAL UNDERPASS LIGHTING MOUNTING DETAILS.



FOR INFORMATION ONLY

[illegible]

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	DRAWN PAW	REVISED -
PLOT SCALE = 1:2	CHECKED CBS	REVISED -
PLOT DATE = 5/13/2017	DATE 05/12/17	REVISED -

FILE NAME = D:\60X10-ahc-light-75-ExistingLighting\9.dgn

KNIGHT

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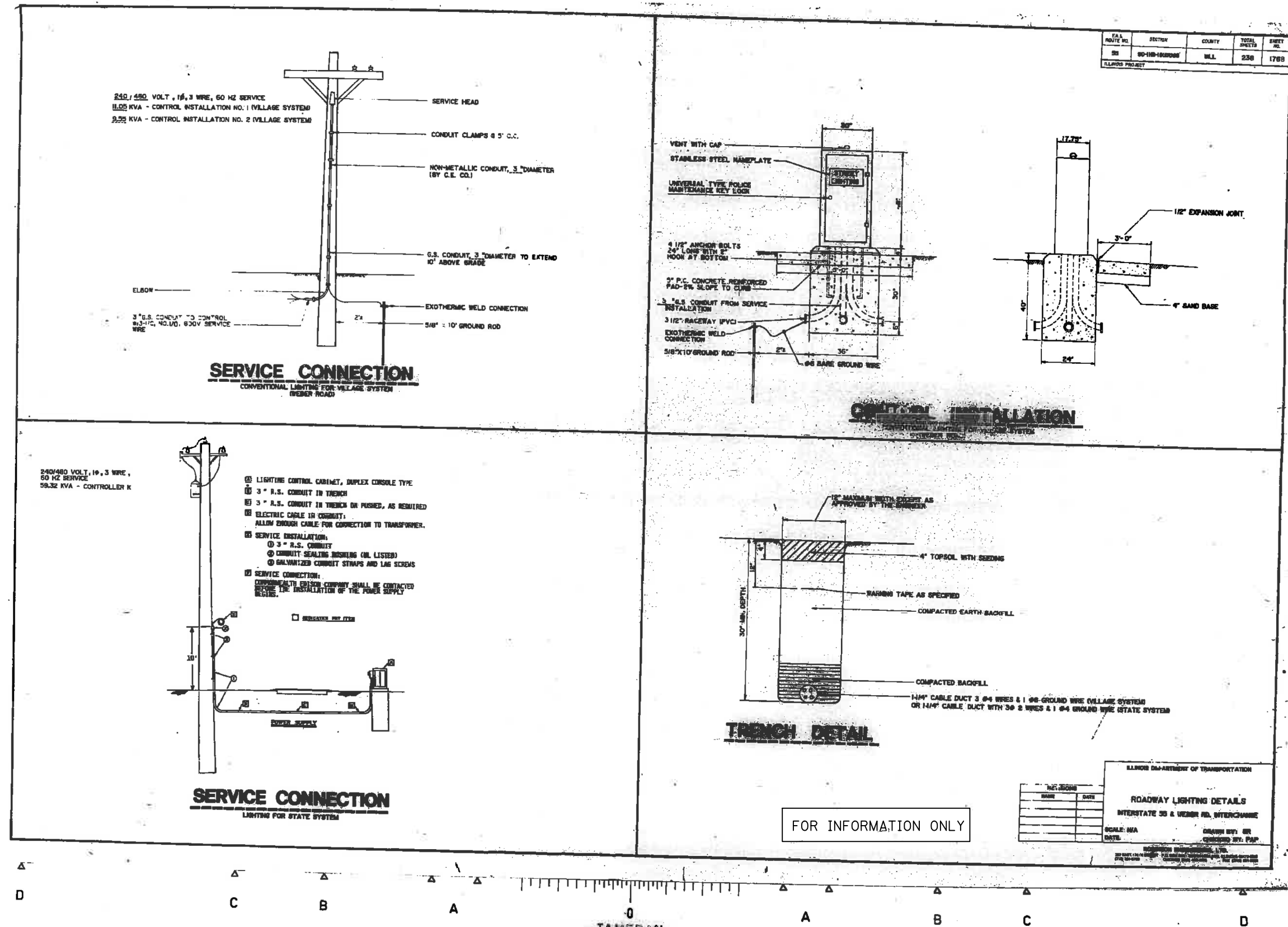
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PLOT DATE = 5/13/2017	DATE 05/12/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING ROADWAY LIGHTING PLAN

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

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1002
LT-75		CONTRACT NO. 60X10		
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				



REVISIONS	
NO.	DATE

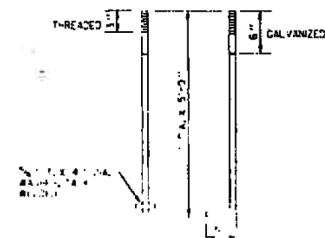
ILLINOIS DEPARTMENT OF TRANSPORTATION	
ROADWAY LIGHTING DETAILS	
INTERSTATE 55 & U.S. 40 INTERCHANGE	
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DATE:	CHECKED BY: PJP
DESIGNED BY: GSG	
2017 ILLINOIS DEPARTMENT OF TRANSPORTATION	

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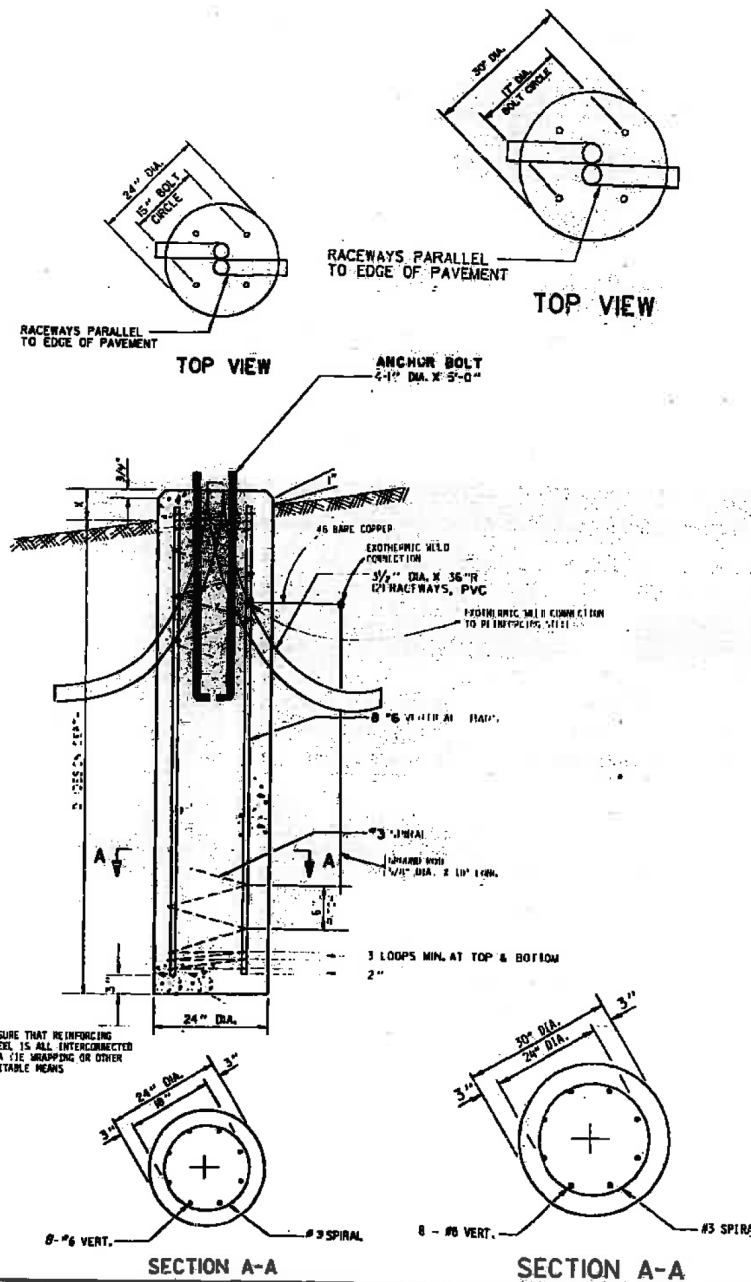
FOUNDATION DESIGN TABLE

TYPE OF SOIL	DESIGN DEPTH OF FOUNDATION		REINFORCEMENT			
	SINGLE ARM D	TWIN ARM D	SINGLE ARM VERT BARS SPIRAL	TWIN ARM VERT BARS SPIRAL	SINGLE ARM VERT BARS SPIRAL	TWIN ARM VERT BARS SPIRAL
SOFT CLAY	13'-0"	15'-0"	8-#6 @ 12"	8-#6 @ 12"	8-#6 @ 12"	8-#6 @ 12"
MEDIUM CLAY	9'-6"	10'-9"	8-#6 @ 10"	8-#6 @ 10"	8-#6 @ 10"	8-#6 @ 10"
STIFF CLAY	7'-0"	8'-0"	8-#6 @ 8"	8-#6 @ 8"	8-#6 @ 8"	8-#6 @ 8"
LOOSE SAND	9'-0"	10'-0"	8-#6 @ 8"	8-#6 @ 8"	8-#6 @ 8"	8-#6 @ 8"
MEDIUM SAND	8'-3"	9'-0"	8-#6 @ 8"	8-#6 @ 8"	8-#6 @ 8"	8-#6 @ 8"
DENSE SAND	7'-9"	8'-0"	8-#6 @ 7"	8-#6 @ 7"	8-#6 @ 7"	8-#6 @ 7"
ROCK OR SOLIDIFIED SLAG	5'-0"	5'-0"	NONE	NONE	NONE	NONE

NOTE: LENGTH OF THE SPIRAL BARS IN THIS TABLE ARE FOR THE 24" DIA. FOUNDATION ONLY



ANCHOR BOLT DETAIL



NOTES

1. THE ENGINEER WILL DETERMINE THE CLASS OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF THE FOUNDATION FROM THE DESIGN TABLE.
2. THE DESIGN DEPTH "D" OF THE FOUNDATION SHALL BE INCREASED BY A VALUE OF X ACCORDING TO FIELD CONDITIONS.
3. THE EXCAVATION OF THE FOUNDATION WILL BE MADE WITH A 24" OR 30" DIAMETER AUGER.
4. THE CONTRACTOR WILL USE #3 SPIRAL AT A 6" PITCH, OR AT HIS OPTION MAY SUBSTITUTE #3 TIES AT 12" O/C.
5. THE ANCHOR SHALL BE A TACK WELDED TYPE BOLT OR HOOK TYPE BOLT. COLD BENDING OF THE HOOK BOLT WILL NOT BE ALLOWED.
6. THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORM.
7. THE CONCRETE WILL BE CLASS X.
8. THE FOUNDATION MUST BE CURED FOR TEN (10) DAYS BEFORE THE LIGHT STANDARD IS ERECTED.
9. ANCHOR BOLTS SHALL PROJECT 3" ABOVE THE TOP OF THE FOUNDATION.
10. RACEWAYS SHALL PROJECT 1" ABOVE THE TOP OF THE FOUNDATION.
11. THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE LIGHT STANDARD IS ERECTED.

FOR INFORMATION ONLY

REVISIONS	
NO.	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

24" & 30" DIA. LIGHT POLE
FOUNDATION
(NOT TO SCALE)

SCALE: VERT.
HORIZ.
5" = 1'

DRAWN BY: *PAW*
CHECKED BY: *CBS*

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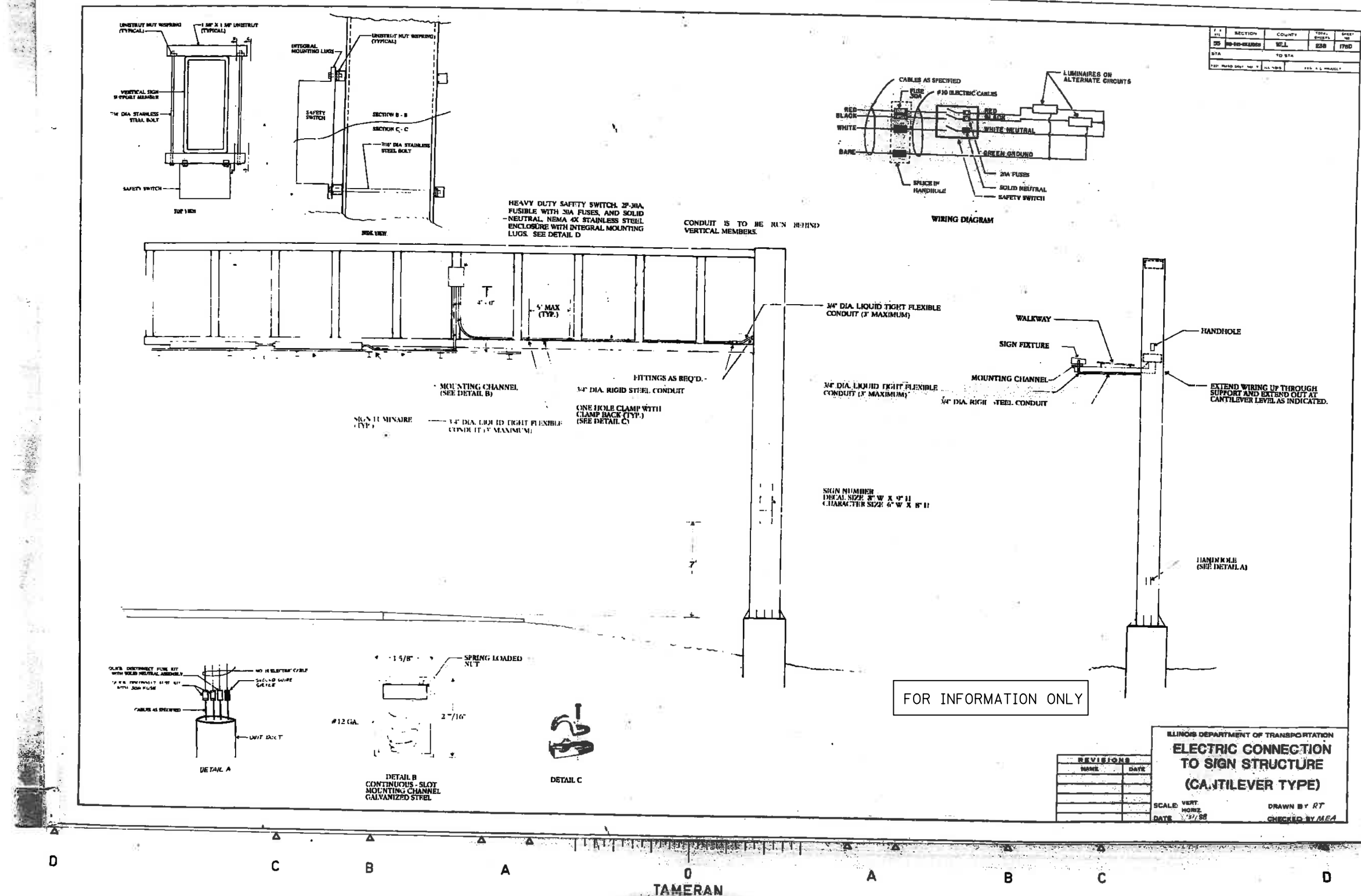
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PLOT DATE = 5/13/2017	DATE 05/12/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING ROADWAY LIGHTING PLAN

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

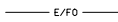
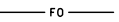
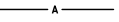
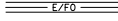
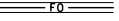
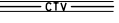
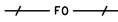
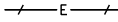
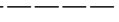
F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1004
LT-77		CONTRACT NO. 60X10		
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				



TRAFFIC SURVEILLANCE GENERAL NOTES:

1. ALL UNDERGROUND CONDUITS SHALL HAVE A MINIMUM GROUND COVER OF 30 INCHES. THIS REQUIREMENT SHALL BE MET FOR EXISTING, TEMPORARY AND PROPOSED GRADING CONDITIONS.
2. INSTALLATION OF CONDUITS IS TO BE COORDINATED WITH THE GUARDRAIL CONTRACTOR AND SHALL BE PROTECTED AT THE LOCATIONS SPECIFIED ON THE CONTRACT PLANS.
3. UNDERGROUND CASINGS OR DUCT SLEEVES SHALL BE ORANGE IN COLOR FOR TRUNK FIBER OPTIC CABLE AND BLUE IN COLOR FOR DISTRIBUTION AND LATERAL FIBER OPTIC CABLES.
4. ALL HANDHOLE FRAME AND COVERS SHALL BE CAPABLE OF SUPPORTING A MINIMUM OF 15,000 POUNDS WITHOUT BEING DAMAGED.
5. FOLLOWING INSTALLATION OF CONDUITS AND HANDHOLES THE GRADING SHALL BE RETURNED TO THE CONDITION PRIOR TO INSTALLATION OR MATCHED TO PROPOSED GRADING.
6. HANDHOLE COVERS THAT ARE PART OF THE TRAFFIC SURVEILLANCE SYSTEM SHALL BE LABELED "SURVEILLANCE".
7. PRIOR TO THE INSTALLATION OF NEW UNIT DUCT, CONDUITS, JUNCTION BOXES AND APPURTENANCES, THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF EXISTING UNDERGROUND UTILITIES. CONDUITS SHALL BE INSTALLED TO AVOID EXISTING AND PROPOSED UTILITIES. CONFLICT RESOLUTION SHALL BE REVIEWED AND APPROVED BY THE ENGINEER.
8. ALL NEW CABLE DUCT, CONDUIT, JUNCTION BOXES AND APPURTENANCES ARE ILLUSTRATED DIAGRAMMATICALLY. THE ACTUAL LOCATION IN THE FIELD SHALL BE APPROVED BY THE ENGINEER.
9. A MINIMUM 12" SEPARATION BETWEEN CONDUITS AND OTHER UTILITIES IS TO BE MAINTAINED UNLESS APPROVED BY ENGINEER ON SITE.
10. ALL CONDUITS JOINTS SHALL BE SEALED.
11. CONTRACTOR SHALL NOTIFY IDOT TSC ENGINEER AT 708-524-2145 TWO WEEKS PRIOR TO IMPLEMENTING ANY CHANGES TO THE ACTIVE TRAFFIC SURVEILLANCE SYSTEM. ACTIVITIES REQUIRING ACTIVATION OR DE-ACTIVATION OF THE ACTIVE TRAFFIC SURVEILLANCE SYSTEM SHALL BE CONDUCTED IN THE PRESENCE OF AN IDOT ENGINEER.
12. THE CONTRACTOR SHALL NOTIFY THE ENGINEER TWO WEEKS PRIOR TO THE INSTALLATION OF POWER AND FIBER OPTIC HANDHOLES AND CONDUITS IN ORDER TO CONFIRM LOCATION.
13. THE CONTRACTOR SHALL PROVIDE A PULL ROPE IN ALL EMPTY CONDUITS AND DUCTS INSTALLED UNDER THIS CONTRACT.
14. TEMPORARY TRAFFIC SURVEILLANCE SYSTEM SHALL BE INSPECTED AND APPROVED BY IDOT PRIOR TO REMOVAL OF ANY EXISTING TRAFFIC SURVEILLANCE COMPONENT. CONTRACTOR SHALL REQUEST INSPECTION BY IDOT TWO WEEKS IN ADVANCE.
15. ALL UNDERGROUND FIBER OPTIC INSTALLATIONS WILL INCLUDE TRACER CABLES INSIDE INNERDUCTS. TRACER CABLES SHALL EXTEND IN TO HANDHOLE, COMMUNICATION VAULT AND FOUNDATIONS.
16. CONDUIT OPENINGS IN HANDHOLES AND FOUNDATIONS SHALL BE GROUTED AND SEALED AFTER REMOVAL OF CONDUITS.
17. MULTIPLE LOOP DETECTORS IN THE SAME LANE SHALL BE SEPERATED BY 16 FEET CENTER TO CENTER.
18. A MAINLINE SPLICE SHALL NOT BE IN THE SAME COMMUNICATION VAULT AS A LATERAL SPLICE. MAINLINE SPLICES SHALL UTILIZE 2 COMMUNICATION VAULTS NEXT TO EACH OTHER UNLESS NOTED OTHERWISE. TRUNK FIBER OPTIC CABLE SPLICE IN ONE VAULT AND DISTRIBUTION FIBER OPTIC CABLE SPLICE IN THE OTHER VAULT.
19. MINIMUM VERTICAL CLEARANCE FOR AERIAL CABLES ABOVE ROADWAY PAVEMENT SHALL BE 20 FT.
20. REMOVAL OF EXISTING FIBER OPTIC CABLE SPLICE, MAINLINE OR LATERAL SHALL BE INCLUDED IN THE COST OF REMOVE FIBER OPTIC CABLE FROM CONDUIT. ANY DAMAGE TO EXISTING FIBER OPTIC TO REMAIN, RESULTING FROM THE REMOVAL OF SPLICE SHALL BE REPAIRED TO ITS ORIGINAL CONDITION, OR REPLACED IN KIND, AT THE CONTRACTOR'S OWN EXPENSE, TO THE SATISFACTION OF THE TSC ENGINEER. THE TSC ENGINEER SHALL BE THE SOLE JUDGE TO DETERMINE THE EXTENT OF DAMAGE.
21. TEMPORARY TRAFFIC SURVEILLANCE EQUIPMENT SUCH AS WOOD POLES, JUNCTION BOXES, FIBER OPTIC CABLE, INNERDUCT, SPLICE ENCLOSURES, SPAN WIRE, CCTV CAMERAS, CABINETS AND CABINET EQUIPMENT SHALL REMAIN THE PROPERTY OF THE CONTRACTOR. REMOVAL OF THESE ITEMS SHALL BE INCLUDED IN THE COST OF THESE ITEMS AND WILL NOT BE PAID FOR SEPARATELY.
22. INTERRUPTION OF FIBER OPTIC MAINLINE OPERATIONS SHALL NOT EXCEED 24 HOURS DURING INSTALLATION OF FIBER OPTIC CABLE SPLICE, FOR TEMPORARY OR PERMANENT FIBER OPTIC INSTALLATIONS.

LEGEND:

EXISTING	PROPOSED	
		TEMPORARY WOOD POLE, CLASS 5, 45 FT MINIMUM, UNLESS SPECIFIED
		CONTROL CABINET
		ELECTRIC SERVICE DISCONNECT
		CCTV SURVEILLANCE CAMERA (PTZ)
		CCTV CAMERA STRUCTURE WITH POLE MOUNTED CABINET AND LOWERING DEVICE
		COMMUNICATION VAULT
		HEAVY DUTY HANDHOLE (SPECIAL)
		TRAFFIC SIGNAL HANDHOLE
		TRAFFIC SIGNAL DOUBLE HANDHOLE
		JUNCTION BOX
		FIBER OPTIC INNERDUCT AND CABLE
		PROPOSED CCTV (CAT6) CABLE
		AERIAL CABLES SUPPORTED BY SPAN WIRE
		FIBER OPTIC INNERDUCT AND CABLE IN GALVANIZED STEEL CONDUIT
		CCTV CABLES IN GALVANIZED STEEL CONDUIT
	(1)	REMOVE EXISTING FIBER OPTIC CABLE AND INNERDUCT OR CONDUIT
	(1)	REMOVE EXISTING ELECTRICAL CABLES IN CONDUIT
	(1)	REMOVE EXISTING CCTV CABLES IN CONDUIT
		CONDUIT
		ADJUST STRUCTURE TO MATCH GRADE
		REMOVE STRUCTURE/FOUNDATION

(1) REMOVAL OF EXISTING ELECTRIC AND CCTV CABLES SHALL BE PAID FOR AS "REMOVE ELECTRIC CABLE FROM CONDUIT". REMOVAL OF FIBER OPTIC AND INNERDUCT SHALL BE PAID AS "REMOVE FIBER OPTIC CABLE FROM CONDUIT".

SUMMARY OF QUANTITIES

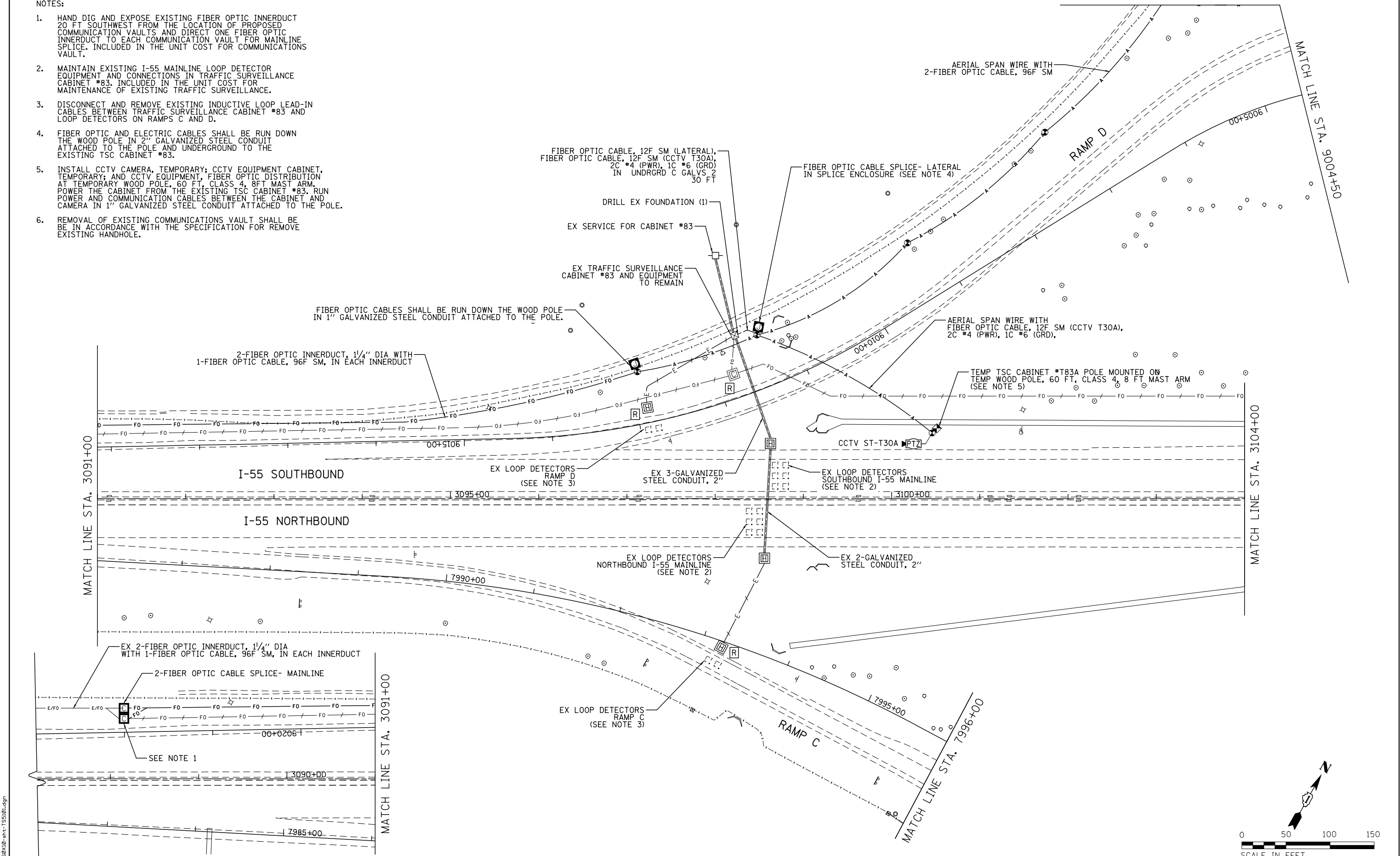
NO.	PAY ITEM NAME	UNIT	QTY
1	TRENCH BACKFILL	CU YD	523
2	ELECTRIC UTILITY SERVICE CONNECTION	LSUM	1
3	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	30
4	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	760
5	UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	955
6	UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	465
7	CONDUIT ATTACHED TO STRUCTURE, 1" DIA., GALVANIZED STEEL	FOOT	85
8	SPAN WIRE	FOOT	7,270
9	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1,168
10	ELECTRIC CABLE AERIAL SUSPENDE, SERVICE, NO. 4 2C	FOOT	505
11	ELECTRIC CABLE AERIAL SUSPENDE, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	505
12	DRILL EXISTING FOUNDATION	EACH	5
13	DRILL EXISTING HEAVY DUTY HANDHOLE	EACH	4
14	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	34,525
15	REMOVE EXISTING HANDHOLE	EACH	9
16	REMOVE EXISTING CONCRETE FOUNDATION	EACH	3
17	MAINTENANCE OF EXISTING TRAFFIC SURVEILLANCE	LSUM	1
18	FIBER OPTIC CABLE SPLICE - LATERAL	EACH	8
19	CABINET, MODEL 334	EACH	1
20	FIBER OPTIC CABLE SPLICE - MAINLINE	EACH	8
21	ROD AND CLEAN EXISTING CONDUIT	FOOT	845
22	REMOVE AND REINSTALL SURVEILLANCE CABINET	EACH	1
23	TEMPORARY WOOD POLE, 45 FEET, CLASS 5	EACH	17
24	CLOSED CIRCUIT TELEVISION EQUIPMENT, FIBER OPTIC DISTRIBUTION	EACH	7
25	CLOSED CIRCUIT TELEVISION CAMERA STRUCTURE, 80 FT. MOUNTING HEIGHT	EACH	2
26	MODIFICATION OF EXISTING VIDEO DISTRIBUTION SYSTEM	LSUM	1
27	CAT 5 ETHERNET CABLE	FOOT	925
28	JUNCTION BOX, POLE OR POST MOUNTED	EACH	4
29	ATMS SYSTEM INTEGRATION	LSUM	1
30	CLOSED CIRCUIT TELEVISION CAMERA STRUCTURE, FOUNDATION, 80 FT. MOUNTING HEIGHT	FOOT	29
31	CONCRETE FOUNDATION, SURVEILLANCE CABINET MODEL 334	EACH	2
32	REMOVE EXISTING TRAFFIC SURVEILLANCE EQUIPMENT	LSUM	1
33	TEMPORARY AERIAL FIBER OPTIC CABLE, 96 FIBERS, SINGLE MODE	FOOT	6,800
34	CLOSED CIRCUIT TELEVISION DOME CAMERA, HD	EACH	5
35	ELECTRICAL SERVICE DISCONNECT	EACH	2
36	HEAVY-DUTY HANDHOLE (SPECIAL)	EACH	3
37	HEAVY-DUTY HANDHOLE TO BE ADJUSTED	EACH	5
38	FIBER OPTIC CABLE 96 FIBERS, SINGLE MODE	FOOT	26,560
39	FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE	FOOT	4,180
40	FIBER OPTIC TERMINATION PANEL, 12 F OR 24F	EACH	1
41	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 18 4/C, TWISTED, SHIELDED	FOOT	6,029
42	INDUCTION LOOP	FOOT	440
43	INDUCTIVE LOOP DETECTOR, RACK MOUNTED	EACH	1
44	REMOVE FIBER OPTIC CABLE FROM CONDUIT	FOOT	23,500
45	POLYETHYLENE DUCT, 1 1/4" DIA	FOOT	9,945
46	TEMPORARY WOOD POLE, 60 FT, CLASS 4, 8 FT MAST ARM	EACH	2
47	CLOSED CIRCUIT TELEVISION CAMERA, TEMPORARY	EACH	2
48	CLOSED CIRCUIT TELEVISION EQUIPMENT CABINET, TEMPORARY	EACH	2
49	TEMPORARY AERIAL FIBER OPTIC CABLE, 12 FIBERS, SINGLE MODE	FOOT	455
50	POLYETHYLENE DUCT, 1 1/4" DIA, SPECIAL	FOOT	14,960
51	CABINET HOUSING EQUIPMENT, ESP 2, POLE MOUNTED	EACH	2
52	ELECTRIC CABLE IN CONDUIT (EPR-TYPE USE) 2C NO. 4 AND NO. 6 GROUND	FOOT	2,065
53	CLEANING EXISTING MANHOLE OR HANDHOLE	EACH	12
54	COMMUNICATIONS VAULT	EACH	6

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KNIGHT Engineers & Architects	USER NAME = mmaestra	DESIGNED GR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SURVEILLANCE GENERAL NOTES AND LEGEND					F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN GR	REVISED -							*	(99-IHB-1) R-1	WILL	1508	1005
	PLOT SCALE = 1:100	CHECKED PJO	REVISED -							CONTRACT NO. 60X10				
	PLOT DATE = 5/15/2017	DATE 05/12/17	REVISED -							* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				
					SCALE: AS SHOWN	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.						

NOTES:

- HAND DIG AND EXPOSE EXISTING FIBER OPTIC INNERDUCT 20 FT SOUTHWEST FROM THE LOCATION OF PROPOSED COMMUNICATION VAULTS AND DIRECT ONE FIBER OPTIC INNERDUCT TO EACH COMMUNICATION VAULT FOR MAINLINE SPLICE. INCLUDED IN THE UNIT COST FOR COMMUNICATIONS VAULT.
- MAINTAIN EXISTING I-55 MAINLINE LOOP DETECTOR EQUIPMENT AND CONNECTIONS IN TRAFFIC SURVEILLANCE CABINET #83. INCLUDED IN THE UNIT COST FOR MAINTENANCE OF EXISTING TRAFFIC SURVEILLANCE.
- DISCONNECT AND REMOVE EXISTING INDUCTIVE LOOP LEAD-IN CABLES BETWEEN TRAFFIC SURVEILLANCE CABINET #83 AND LOOP DETECTORS ON RAMP C AND D.
- FIBER OPTIC AND ELECTRIC CABLES SHALL BE RUN DOWN THE WOOD POLE IN 2" GALVANIZED STEEL CONDUIT ATTACHED TO THE POLE AND UNDERGROUND TO THE EXISTING TSC CABINET #83.
- INSTALL CCTV CAMERA, TEMPORARY; CCTV EQUIPMENT CABINET, TEMPORARY; AND CCTV EQUIPMENT, FIBER OPTIC DISTRIBUTION AT TEMPORARY WOOD POLE, 60 FT, CLASS 4, 8 FT MAST ARM. POWER THE CABINET FROM THE EXISTING TSC CABINET #83. RUN POWER AND COMMUNICATION CABLES BETWEEN THE CABINET AND CAMERA IN 1" GALVANIZED STEEL CONDUIT ATTACHED TO THE POLE.
- REMOVAL OF EXISTING COMMUNICATIONS VAULT SHALL BE BE IN ACCORDANCE WITH THE SPECIFICATION FOR REMOVE EXISTING HANDHOLE.



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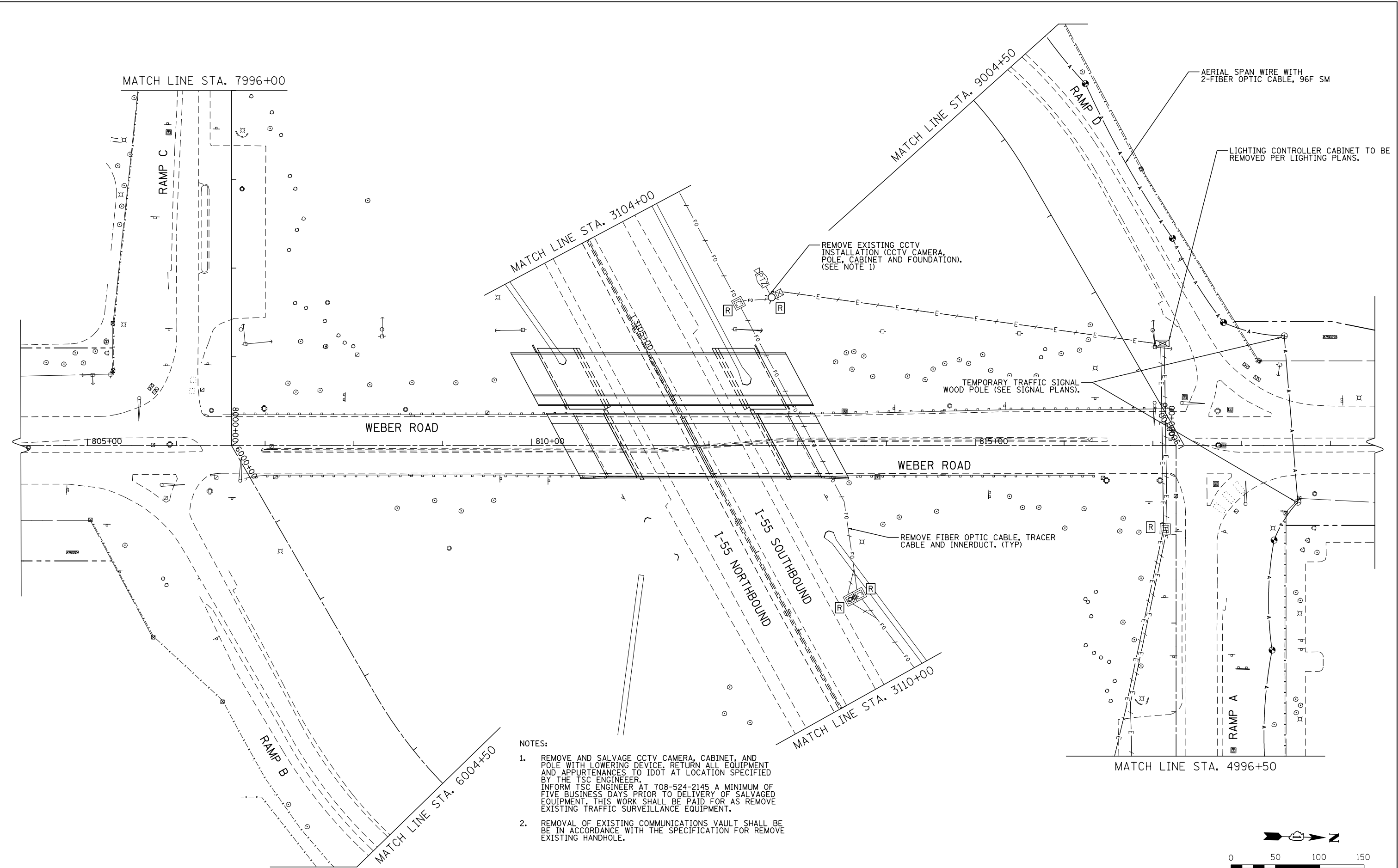
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DRAWN GR	REVISED -
CHECKED PJO	REVISED -
DATE 05/12/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SURVEILLANCE PLAN			
SCALE: AS SHOWN	SHEET NO. 1 OF 3 SHEETS	STA.	TO STA.

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1006
CONTRACT NO. 60X10				
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				

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- NOTES:
- REMOVE AND SALVAGE CCTV CAMERA, CABINET, AND POLE WITH LOWERING DEVICE. RETURN ALL EQUIPMENT AND APPURTENANCES TO IDOT AT LOCATION SPECIFIED BY THE TSC ENGINEER.
INFORM TSC ENGINEER AT 708-524-2145 A MINIMUM OF FIVE BUSINESS DAYS PRIOR TO DELIVERY OF SALVAGED EQUIPMENT. THIS WORK SHALL BE PAID FOR AS REMOVE EXISTING TRAFFIC SURVEILLANCE EQUIPMENT.
 - REMOVAL OF EXISTING COMMUNICATIONS VAULT SHALL BE IN ACCORDANCE WITH THE SPECIFICATION FOR REMOVE EXISTING HANDHOLE.

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USER NAME = mmaestra	DESIGNED GR	REVISED -
	DRAWN GR	REVISED -
PLOT SCALE = 1:100	CHECKED PJO	REVISED -
PLOT DATE = 5/15/2017	DATE 05/12/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SURVEILLANCE PLAN			
SCALE: AS SHOWN	SHEET NO. 2 OF 3 SHEETS	STA.	TO STA.

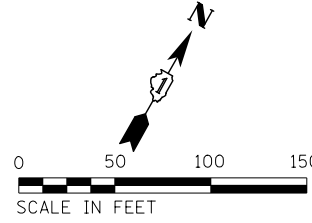
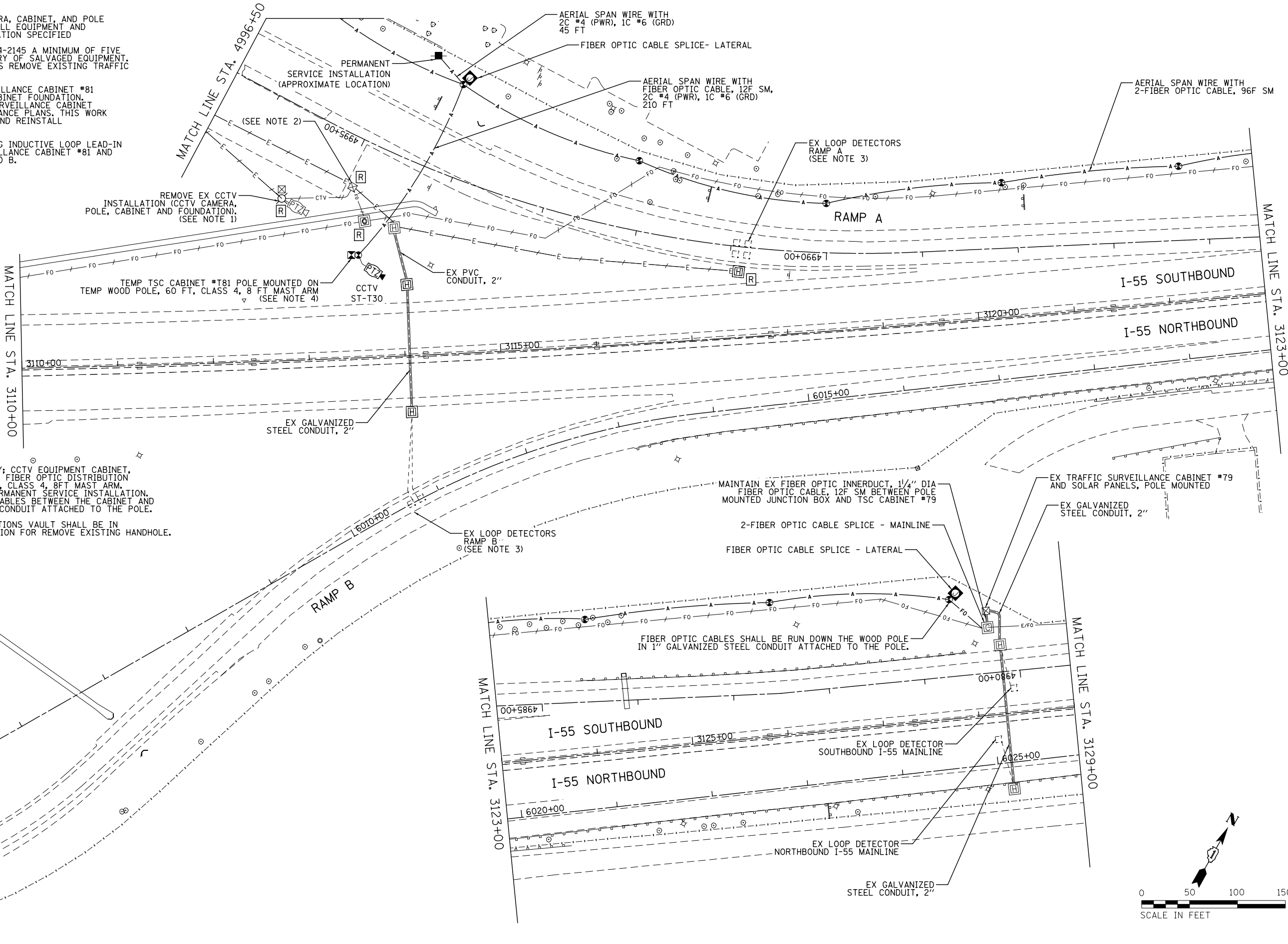
F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-IHB-1) R-1	WILL	1508	1007
CONTRACT NO. 60X10				
* FAI 55, FAP 856 [ILLINOIS] FED. AID PROJECT				

NOTES:

1. REMOVE AND SALVAGE CCTV CAMERA, CABINET, AND POLE WITH LOWERING DEVICE, RETURN ALL EQUIPMENT AND APPURTENANCES TO IDOT AT LOCATION SPECIFIED BY THE TSC ENGINEER. INFORM TSC ENGINEER AT 708-524-2145 A MINIMUM OF FIVE BUSINESS DAYS PRIOR TO DELIVERY OF SALVAGED EQUIPMENT. THIS WORK SHALL BE PAID FOR AS REMOVE EXISTING TRAFFIC SURVEILLANCE EQUIPMENT.
2. REMOVE EXISTING TRAFFIC SURVEILLANCE CABINET #81 AND STORE OFF-SITE. REMOVE CABINET FOUNDATION. RE-INSTALL EXISTING TRAFFIC SURVEILLANCE CABINET PER PROPOSED TRAFFIC SURVEILLANCE PLANS. THIS WORK SHALL BE PAID FOR AS REMOVE AND REINSTALL SURVEILLANCE CABINET.
3. DISCONNECT AND REMOVE EXISTING INDUCTIVE LOOP LEAD-IN CABLES BETWEEN TRAFFIC SURVEILLANCE CABINET #81 AND LOOP DETECTORS ON RAMPS A AND B.

NOTES (CONTINUED):

4. INSTALL CCTV CAMERA, TEMPORARY; CCTV EQUIPMENT CABINET, TEMPORARY; AND CCTV EQUIPMENT, FIBER OPTIC DISTRIBUTION AT TEMPORARY WOOD POLE, 60 FT, CLASS 4, 8FT MAST ARM. POWER THE CABINET FROM THE PERMANENT SERVICE INSTALLATION. RUN POWER AND COMMUNICATION CABLES BETWEEN THE CABINET AND CAMERA IN 1" GALVANIZED STEEL CONDUIT ATTACHED TO THE POLE.
5. REMOVAL OF EXISTING COMMUNICATIONS VAULT SHALL BE IN ACCORDANCE WITH THE SPECIFICATION FOR REMOVE EXISTING HANDHOLE.

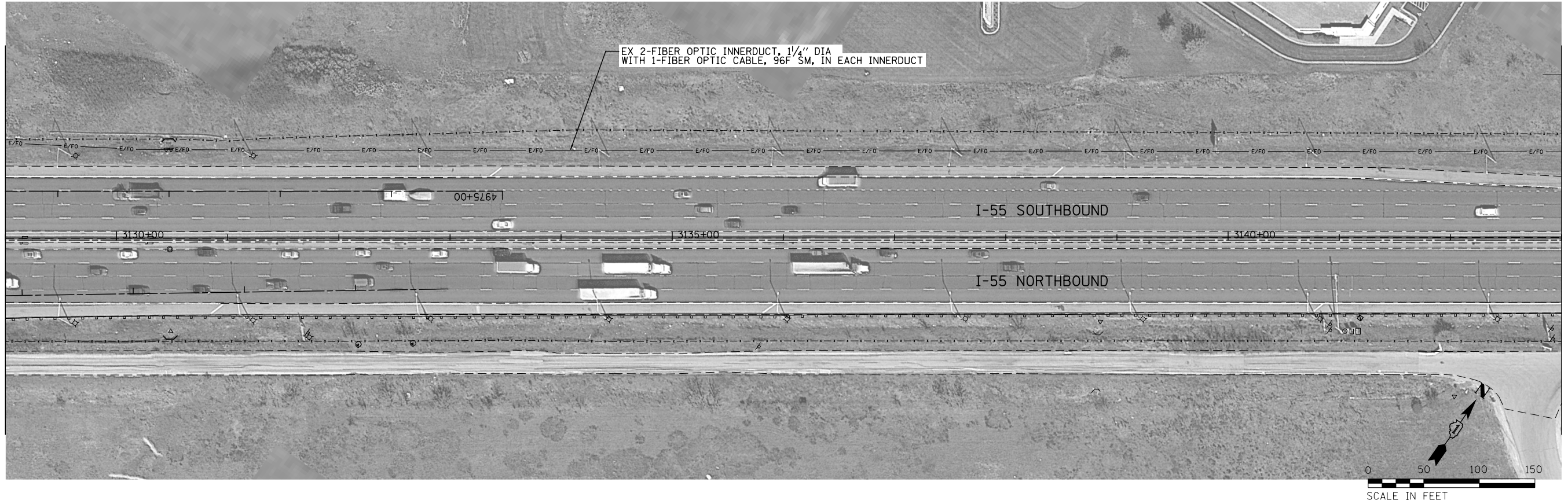


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KNIGHT Engineers & Architects	USER NAME = mmaestra	DESIGNED GR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SURVEILLANCE PLAN					F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN GR	REVISED -	*							(99-IHB-1) R-1	WILL	1508	1008	
	PLOT SCALE = 1:100	CHECKED PJO	REVISED -		CONTRACT NO. 60X10									
	PLOT DATE = 5/15/2017	DATE 05/12/17	REVISED -		SCALE: AS SHOWN	SHEET NO. 3 OF 3 SHEETS	STA.	TO STA.	* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT					

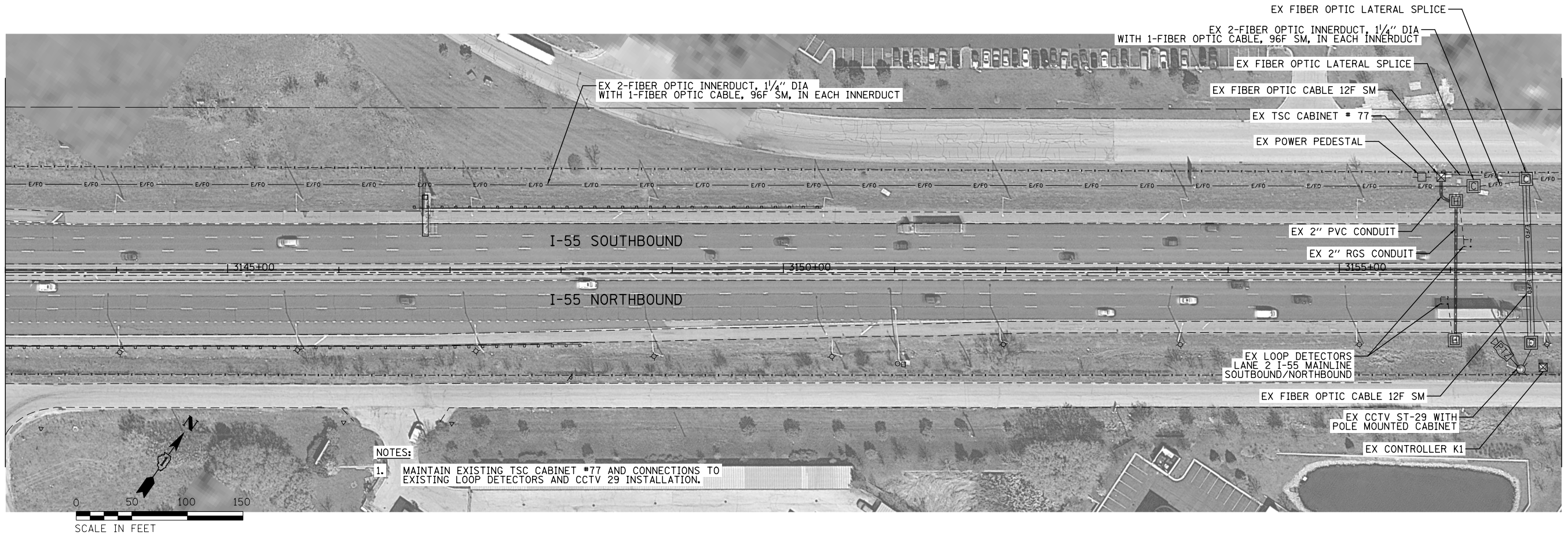
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MATCH LINE STA. 3129+00



MATCH LINE STA. 3143+00

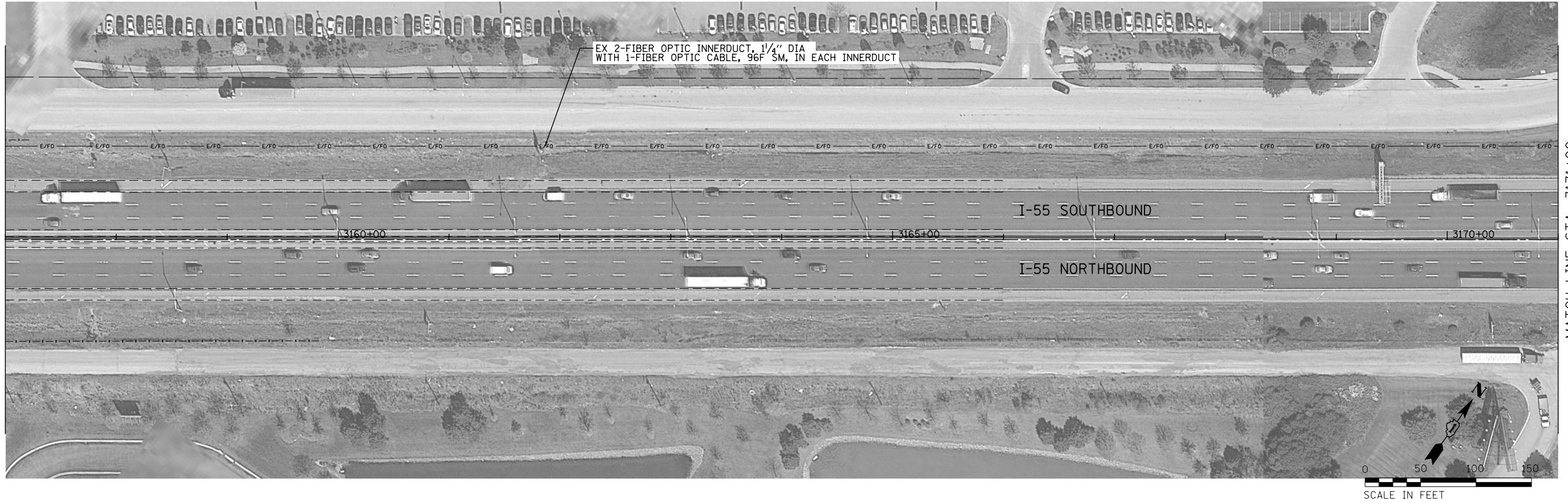
MATCH LINE STA. 3143+00



MATCH LINE STA. 3157+00

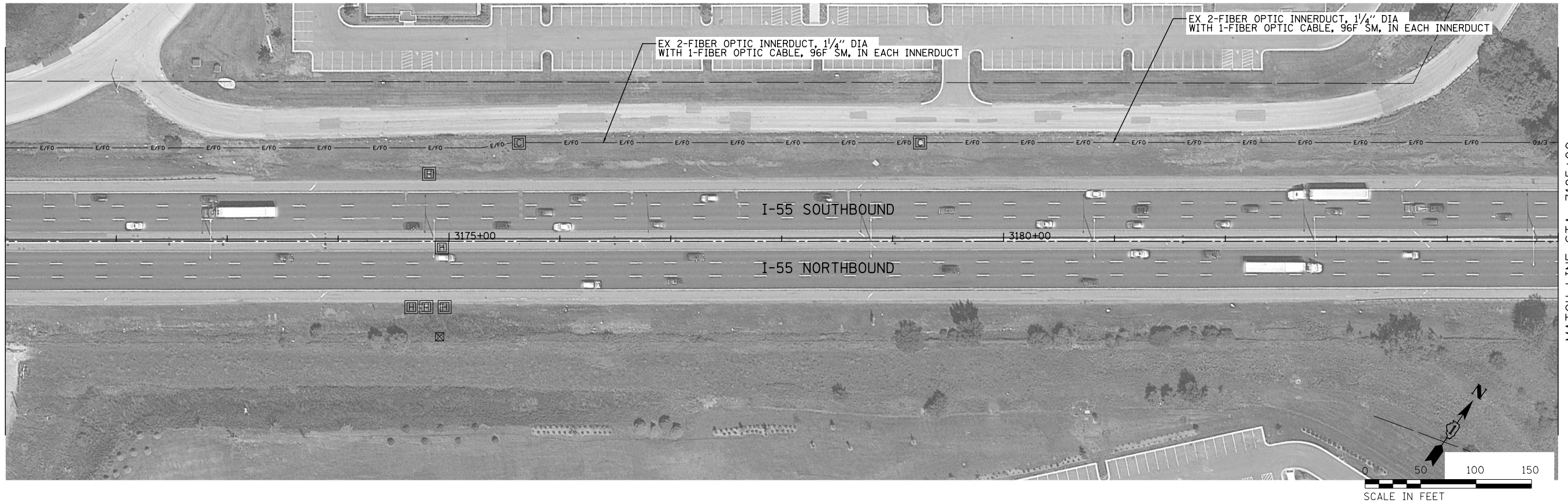
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MATCH LINE STA. 3157+00



MATCH LINE STA. 3171+00

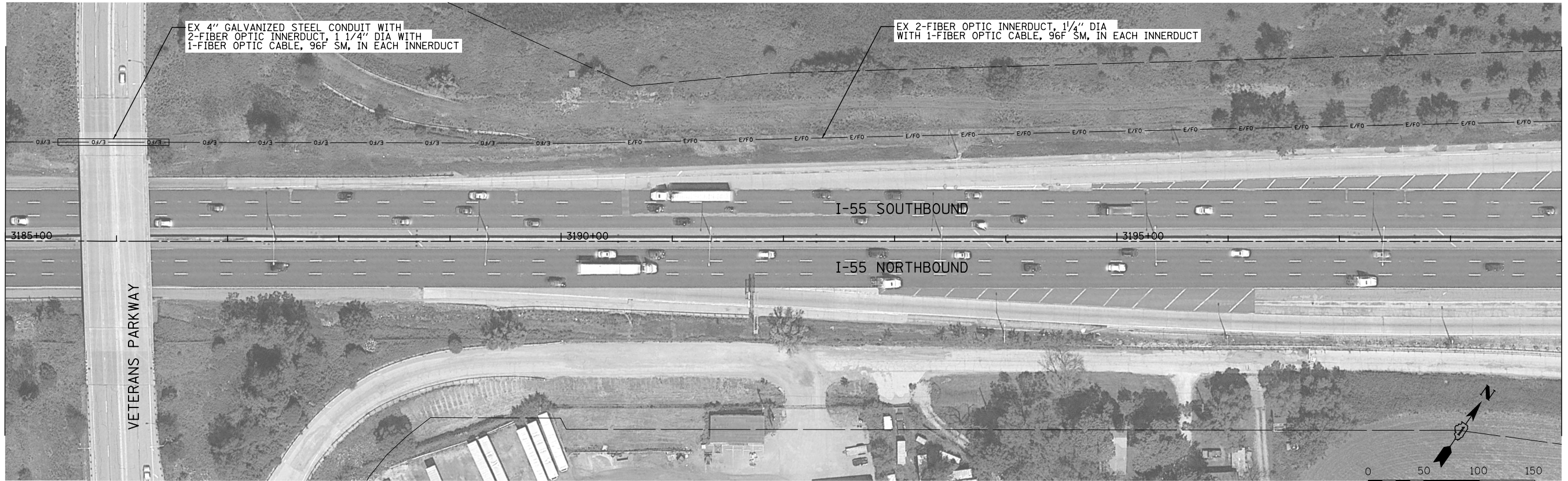
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MATCH LINE STA. 3185+00

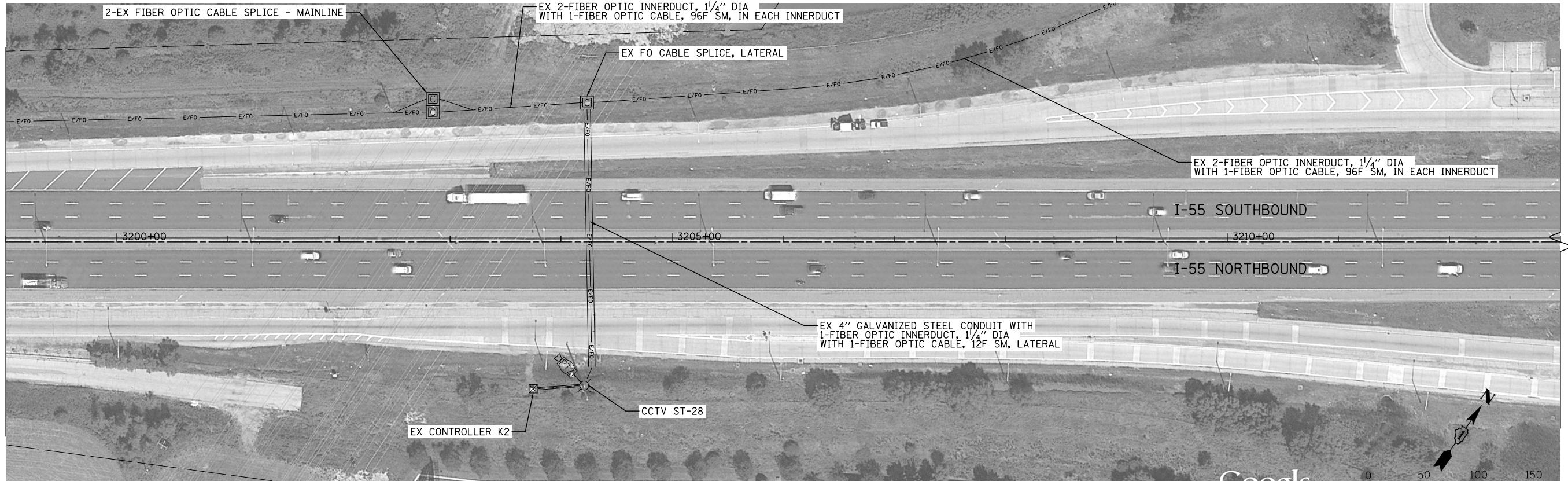
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MATCH LINE STA. 3185+00



MATCH LINE STA. 3199+00

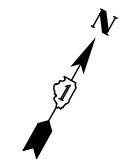
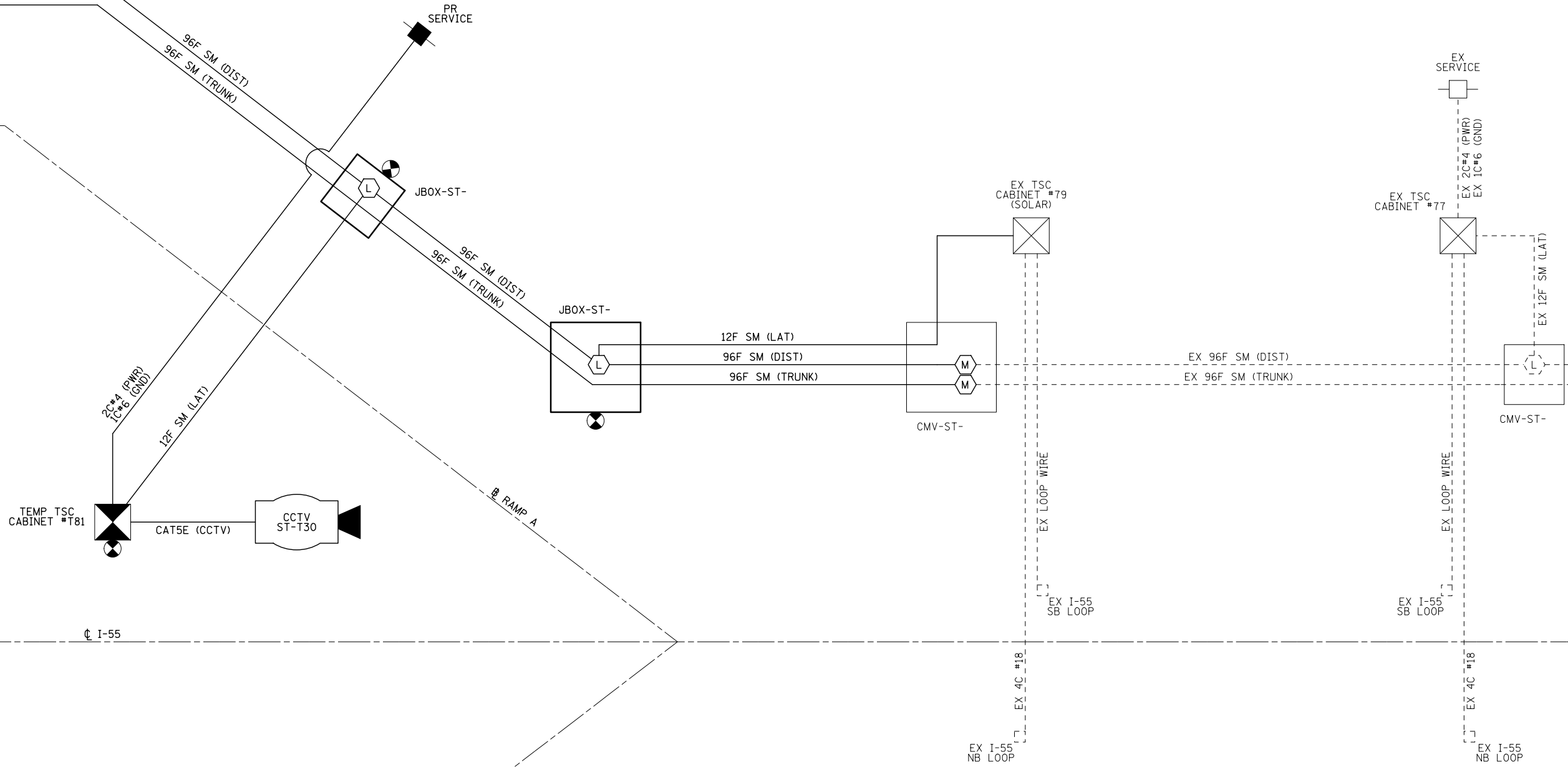
MATCH LINE STA. 3199+00



FILE NAME = D:\60X10-ah-t-I55\I52.dgn

MATCH LINE A-A

MATCH LINE C-C



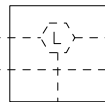
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MATCH LINE C-C

CL VETERANS PKWY

CL I-55

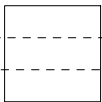
CMV-ST-



EX 12F SM (LAT)

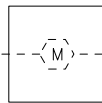
EX 96F SM (DIST)
EX 96F SM (TRUNK)

CMV-ST-



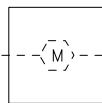
EX 96F SM (DIST)
EX 96F SM (TRUNK)

CMV-ST-



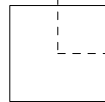
EX 96F SM (DIST)

CMV-ST-

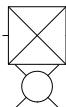


EX 96F SM (TRUNK)

CMV-ST-



EX POLE MTD
TSC CABINET



EX CCTV
ST-29



Engineers & Architects

USER NAME = mmaestra
PLOT SCALE = 1:100
PLOT DATE = 5/15/2017

DESIGNED GR
DRAWN GR
CHECKED PJO
DATE 05/12/17

REVISED -
REVISED -
REVISED -
REVISED -

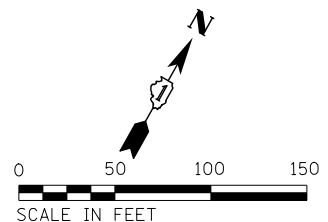
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SURVEILLANCE CABLE SCHEMATIC

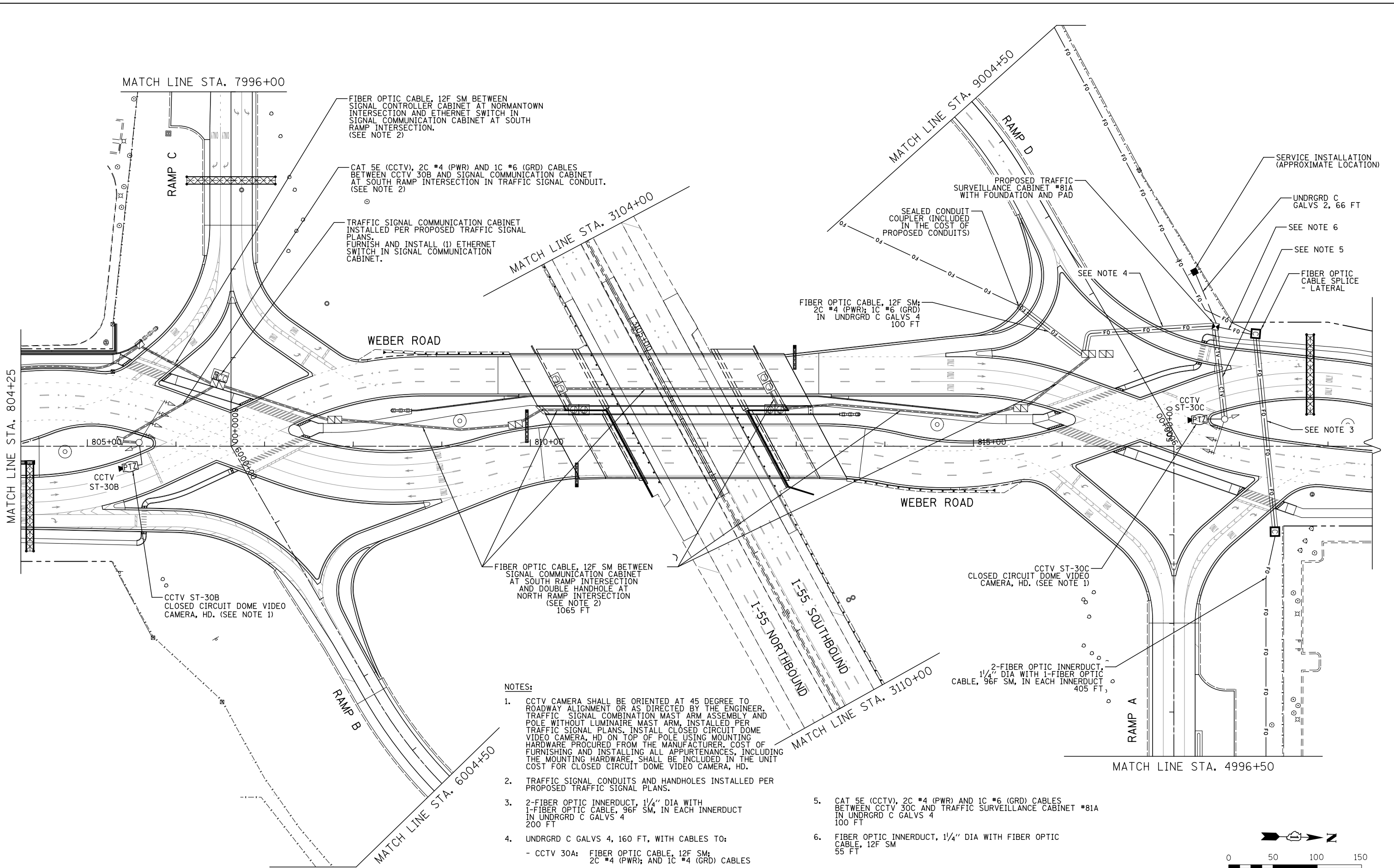
SCALE: AS SHOWN SHEET NO. 3 OF 3 SHEETS STA. TO STA.

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-IHB-1) R-1	WILL	1508	1014
CONTRACT NO. 60X10				
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				

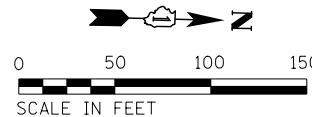
1. DISCONNECT AND REMOVE EXISTING INDUCTIVE LOOP LEAD-IN CABLES BETWEEN TRAFFIC SURVEILLANCE CABINET #83 AND LOOP DETECTORS ON I-55 MAINLINE. ROD AND CLEAN CONDUIT PRIOR TO PULLING NEW LEAD-IN CABLES FOR LOOP DETECTORS. SPLICE EXISTING I-55 MAINLINE LOOP DETECTORS TO NEW LEAD-IN CABLES 4C #18 AND CONNECT TO EXISTING TRAFFIC SURVEILLANCE CABINET EQUIPMENT.
2. COMMUNICATION VAULTS INSTALLED IN PRE-STAGE PER TEMPORARY TRAFFIC SURVEILLANCE PLANS.



FILE NAME = D:\60X10-ah-t-155202.dgn



- NOTES:
- CCTV CAMERA SHALL BE ORIENTED AT 45 DEGREE TO ROADWAY ALIGNMENT OR AS DIRECTED BY THE ENGINEER. TRAFFIC SIGNAL COMBINATION MAST ARM ASSEMBLY AND POLE WITHOUT LUMINAIRE MAST ARM, INSTALLED PER TRAFFIC SIGNAL PLANS. INSTALL CLOSED CIRCUIT DOME VIDEO CAMERA, HD ON TOP OF POLE USING MOUNTING HARDWARE PROCURED FROM THE MANUFACTURER. COST OF FURNISHING AND INSTALLING ALL APPURTENANCES, INCLUDING THE MOUNTING HARDWARE, SHALL BE INCLUDED IN THE UNIT COST FOR CLOSED CIRCUIT DOME VIDEO CAMERA, HD.
 - TRAFFIC SIGNAL CONDUITS AND HANDHOLES INSTALLED PER PROPOSED TRAFFIC SIGNAL PLANS.
 - 2-FIBER OPTIC INNERDUCT, 1/4" DIA WITH 1-FIBER OPTIC CABLE, 96F SM, IN EACH INNERDUCT IN UNDRGRD C GALVS 4 200 FT
 - UNDRGRD C GALVS 4, 160 FT, WITH CABLES TO:
 - CCTV 30A: FIBER OPTIC CABLE, 12F SM; 2C #4 (PWR); AND 1C #4 (GRD) CABLES
 - CCTV 30B&30D: FIBER OPTIC CABLE, 12F SM
 - CAT 5E (CCTV), 2C #4 (PWR) AND 1C #6 (GRD) CABLES BETWEEN CCTV 30C AND TRAFFIC SURVEILLANCE CABINET #81A IN UNDRGRD C GALVS 4 100 FT
 - FIBER OPTIC INNERDUCT, 1/4" DIA WITH FIBER OPTIC CABLE, 12F SM 55 FT

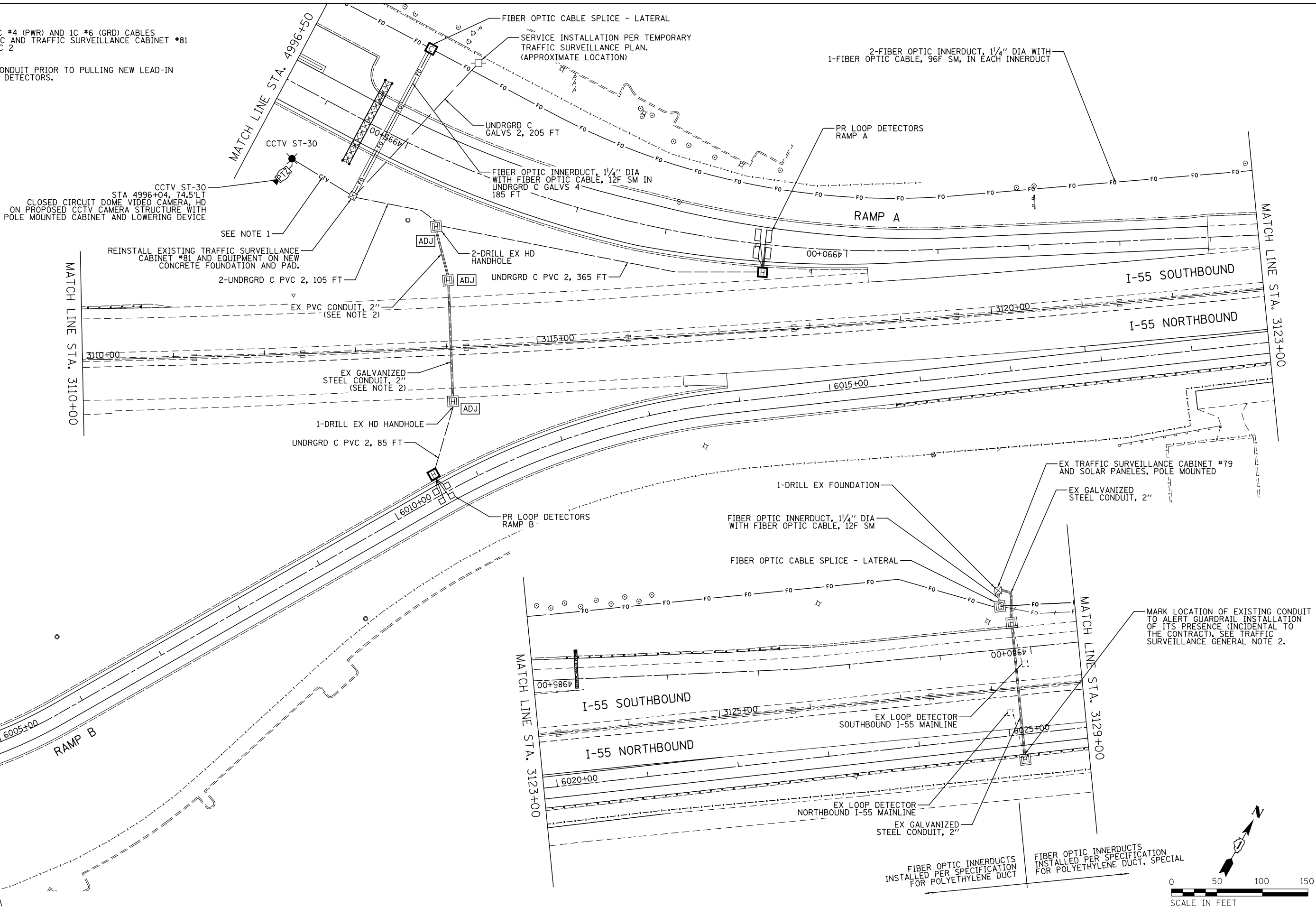


KNIGHT Engineers & Architects	USER NAME = mmaestra	DESIGNED GR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TRAFFIC SURVEILLANCE PLAN				F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN GR	REVISED -						*	(99-IHB-1) R-1	WILL	1508	1016
	PLOT SCALE = 1:100	CHECKED PJO	REVISED -		CONTRACT NO. 60X10								
	PLOT DATE = 5/15/2017	DATE 05/12/17	REVISED -		* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT								

NOTES:

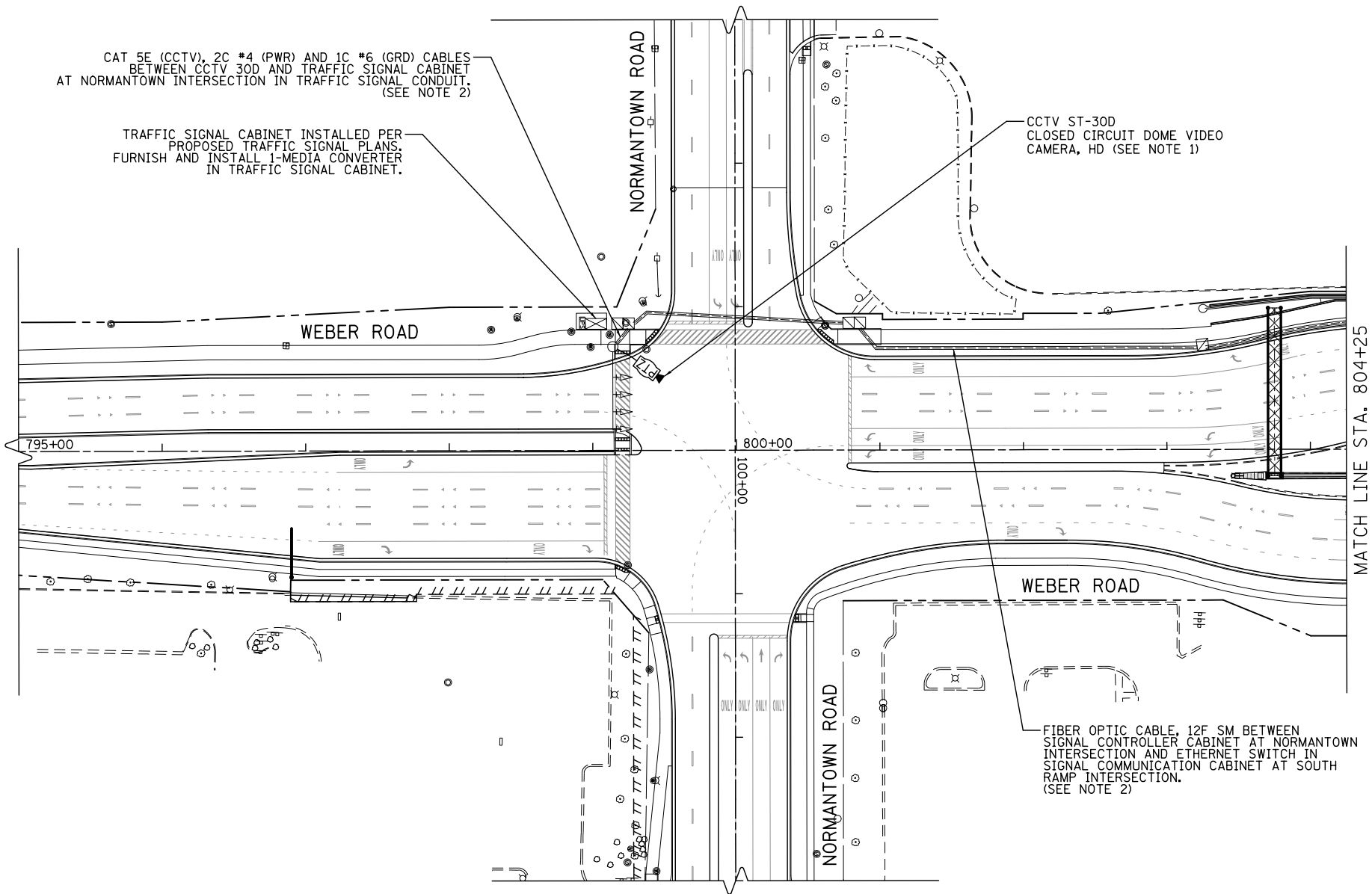
- CAT 5E (CCTV), 2C #4 (PWR) AND 1C #6 (GRD) CABLES BETWEEN CCTV 30C AND TRAFFIC SURVEILLANCE CABINET #81 IN UNDRGRD C PVC 2 80 FT
- ROD AND CLEAN CONDUIT PRIOR TO PULLING NEW LEAD-IN CABLES FOR LOOP DETECTORS.

FILE NAME = D:\60X10-ah-t-155203.dgn



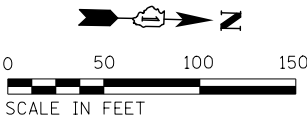
KNIGHT Engineers & Architects	USER NAME = mmaestra		DESIGNED GR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TRAFFIC SURVEILLANCE PLAN			F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1:100		DRAWN GR	REVISED -					*	(99-IHB-1) R-1	WILL	1508	1017
	PLOT DATE = 5/15/2017		CHECKED PJO	REVISED -					CONTRACT NO. 60X10				
			DATE 05/12/17	REVISED -		SCALE: AS SHOWN	SHEET NO. 3 OF 7 SHEETS	STA.	TO STA.	* FAI 55, FAP 856 [ILLINOIS] FED. AID PROJECT			

FILE NAME = D:\60X10-sh-t-155204.dgn



NOTES:

1. CCTV CAMERA SHALL BE ORIENTED AT 45 DEGREE TO ROADWAY ALIGNMENT OR AS DIRECTED BY THE ENGINEER. TRAFFIC SIGNAL COMBINATION MAST ARM ASSEMBLY AND POLE, INSTALLED PER TRAFFIC SIGNAL PLANS. INSTALL CLOSED CIRCUIT DOME VIDEO CAMERA, HD ON POLE USING MOUNTING HARDWARE PROCURED FROM THE MANUFACTURER. COST OF FURNISHING AND INSTALLING ALL APPURTENANCES, INCLUDING THE MOUNTING HARDWARE, SHALL BE INCLUDED IN THE UNIT COST FOR CLOSED CIRCUIT DOME VIDEO CAMERA, HD.
2. TRAFFIC SIGNAL CONDUITS AND HANDHOLES INSTALLED PER PROPOSED TRAFFIC SIGNAL PLANS.



KNIGHT

Engineers & Architects

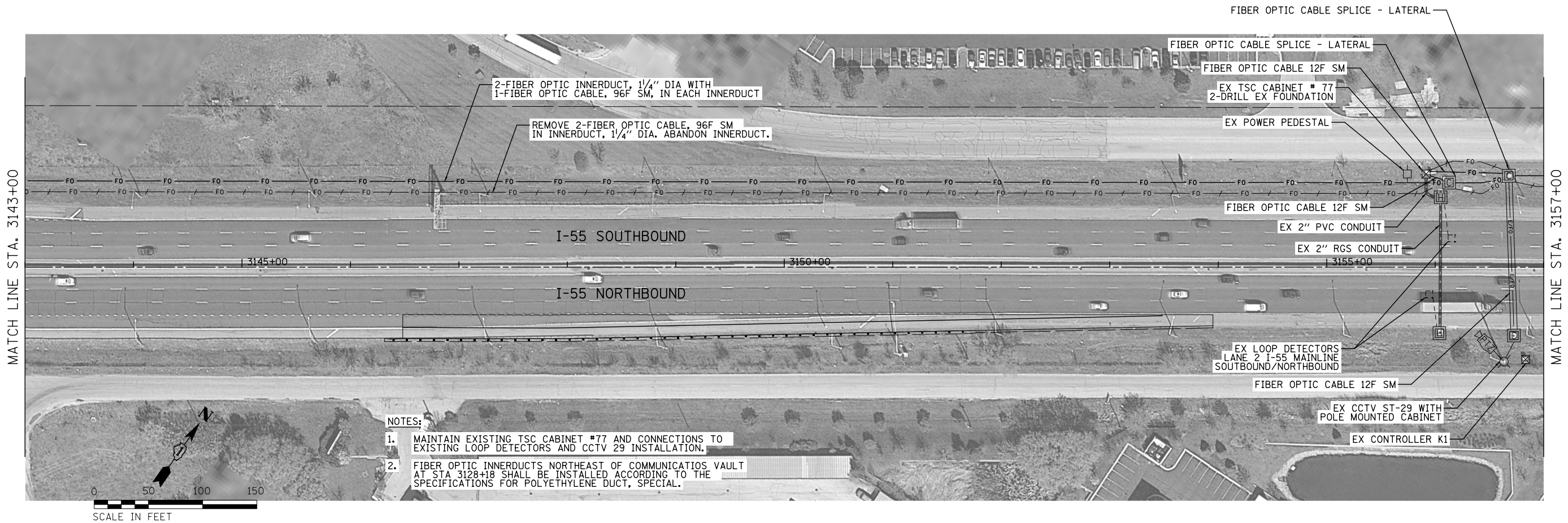
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	DRAWN GR	REVISED -
PLOT SCALE = 1:100	CHECKED PJO	REVISED -
PLOT DATE = 5/15/2017	DATE 05/12/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TRAFFIC SURVEILLANCE PLAN

SCALE: AS SHOWN SHEET NO. 4 OF 7 SHEETS STA. TO STA.

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1018
CONTRACT NO. 60X10				
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				



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KNIGHT
Engineers & Architects

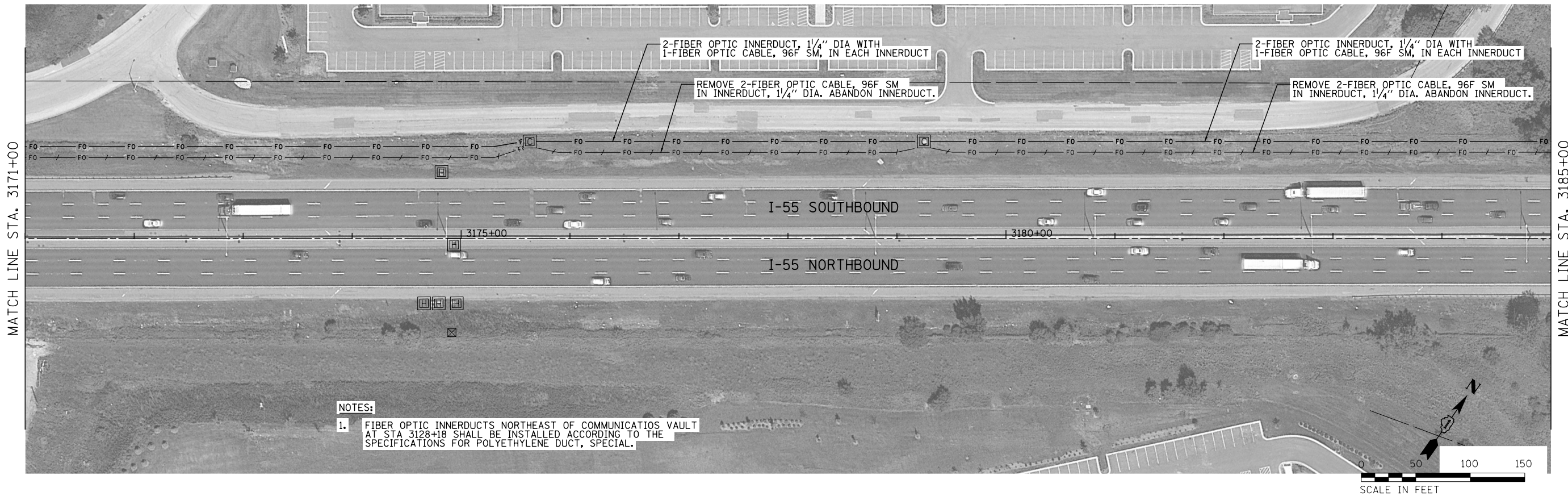
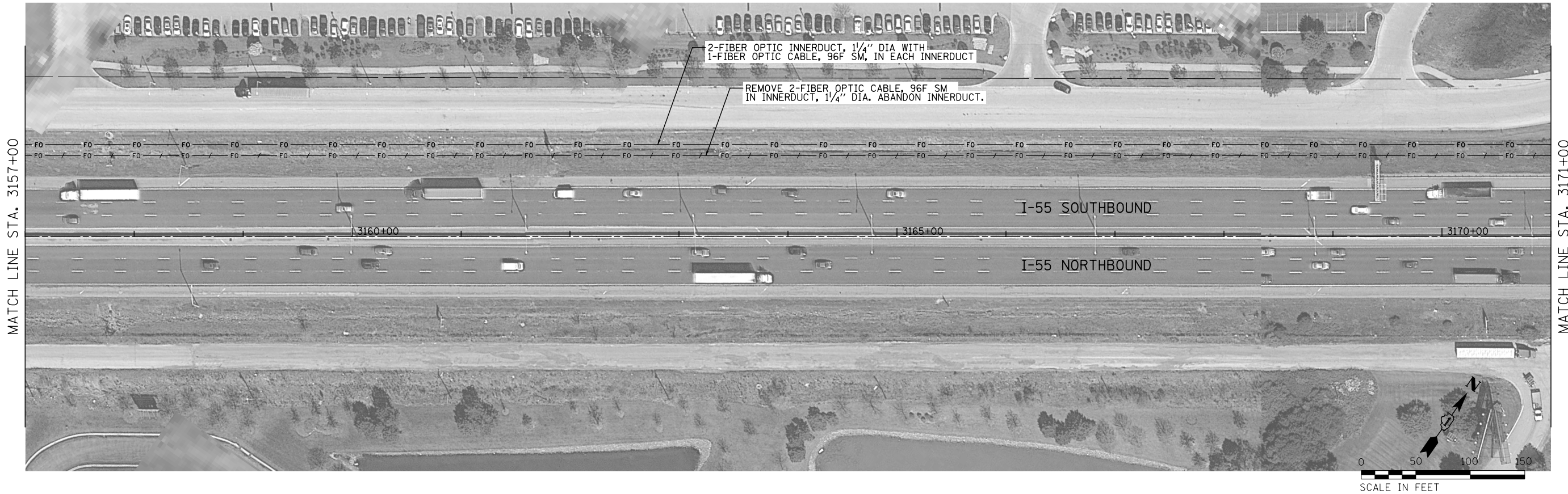
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PLOT SCALE = 1:1000	DRAWN GR	REVISED -
PLOT DATE = 5/15/2017	CHECKED PJO	REVISED -
	DATE 05/12/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TRAFFIC SURVEILLANCE PLAN

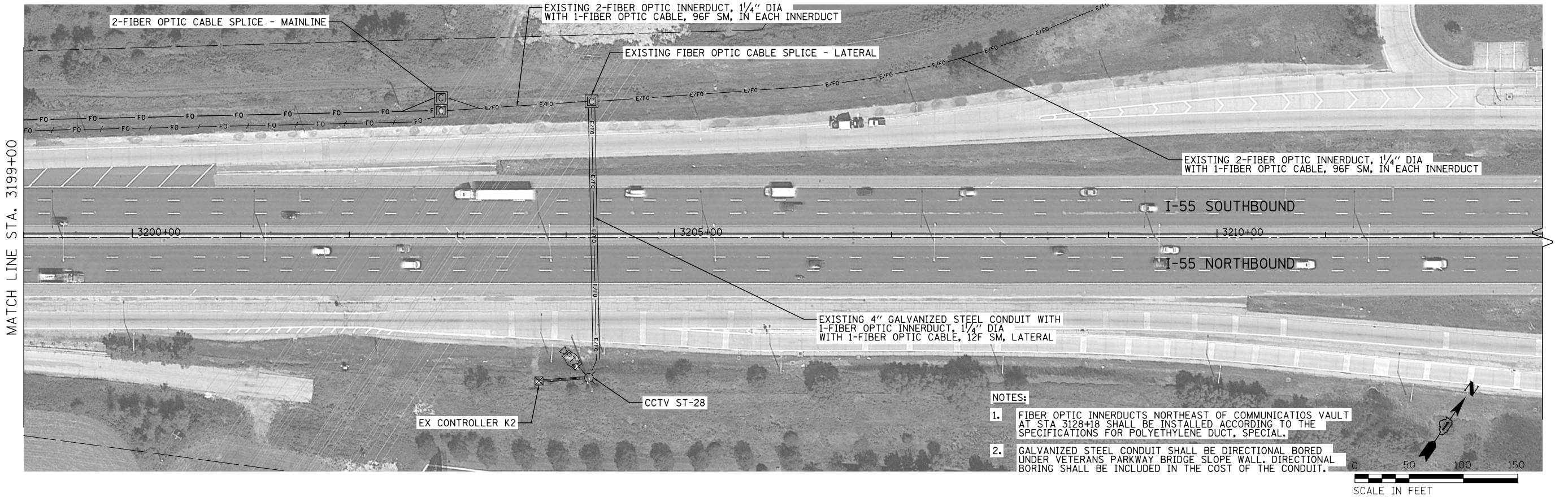
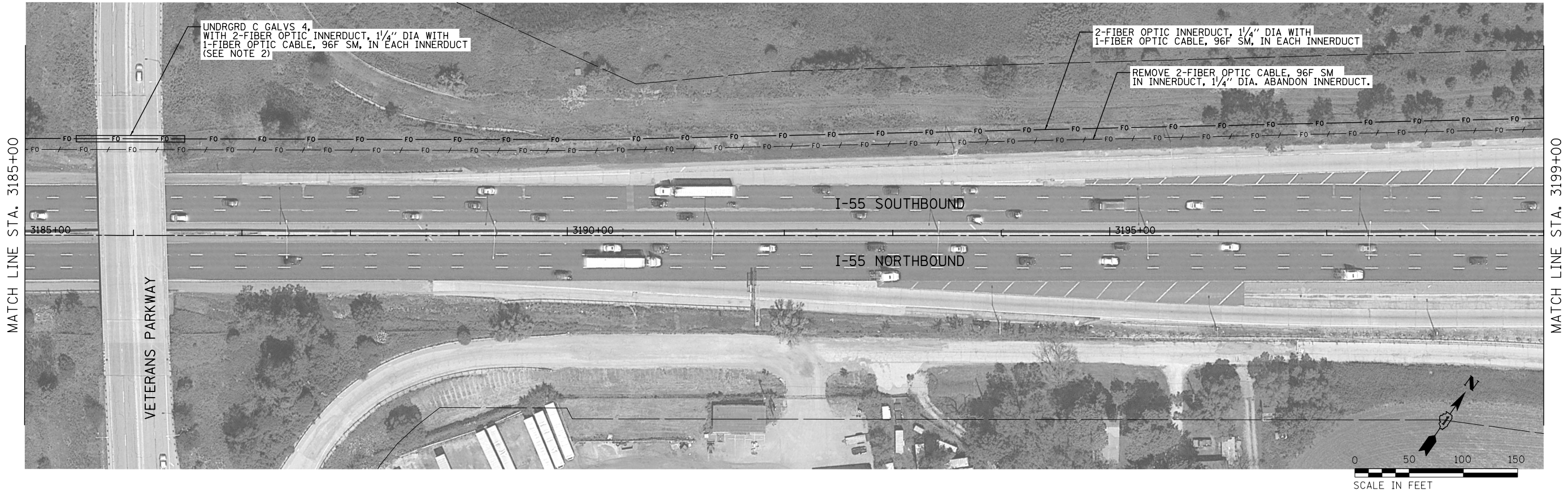
SCALE: AS SHOWN SHEET NO. 5 OF 7 SHEETS STA. TO STA.

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-IHB-1) R-1	WILL	1508	1019
CONTRACT NO. 60X10				
* FAI 55, FAP 856 [ILLINOIS] FED. AID PROJECT				



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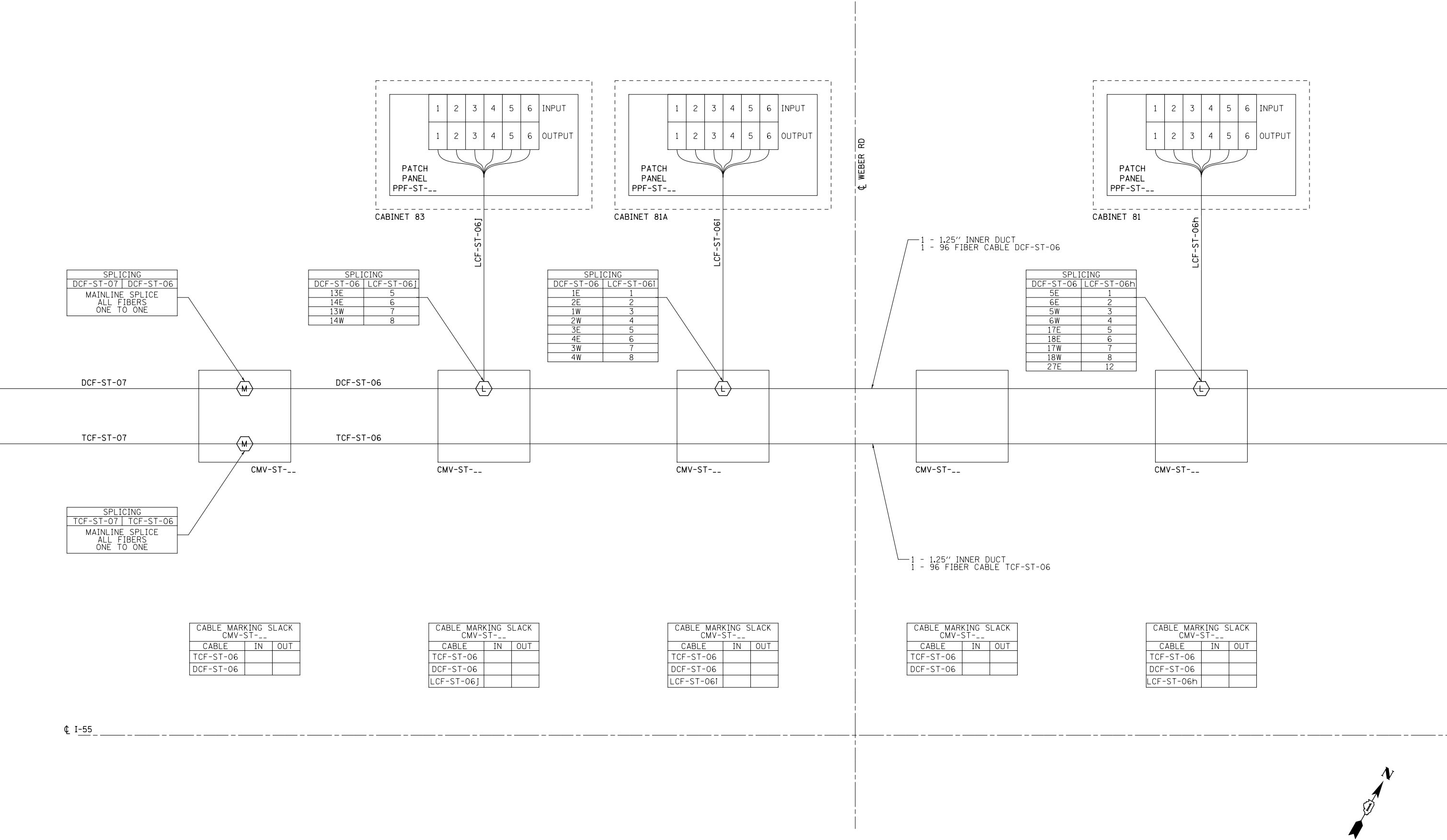
KNIGHT Engineers & Architects	USER NAME = mmaestro		DESIGNED GR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TRAFFIC SURVEILLANCE PLAN			F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			DRAWN GR	REVISED -					*	(99-1HB-1) R-1	WILL	1508	1020
	PLOT SCALE = 1:100		CHECKED PJO	REVISED -					CONTRACT NO. 60X10				
	PLOT DATE = 5/15/2017		DATE 05/12/17	REVISED -					* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				
						SCALE: AS SHOWN	SHEET NO. 6 OF 7 SHEETS	STA.	TO STA.				



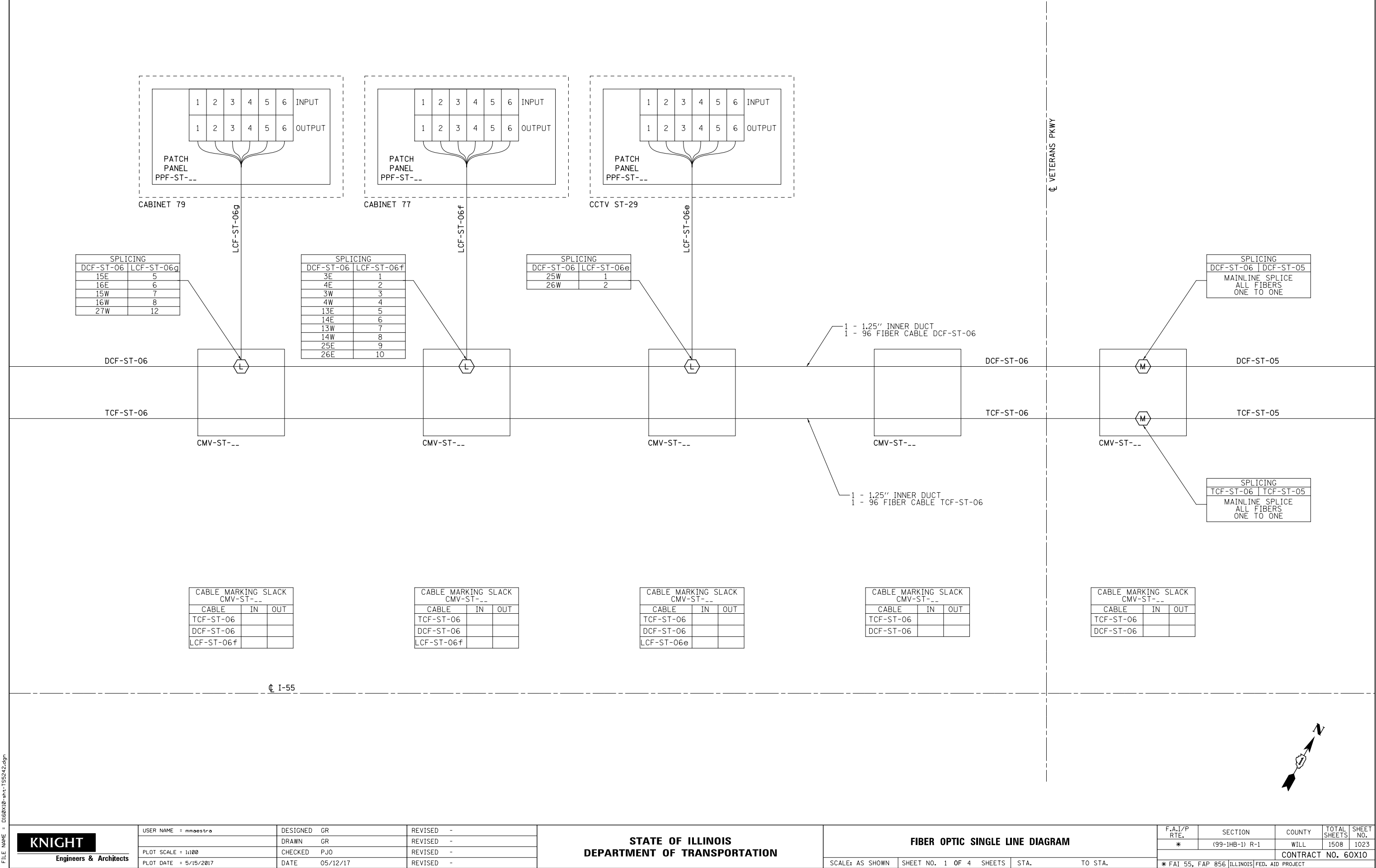
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KNIGHT Engineers & Architects	USER NAME = mmaestra		DESIGNED GR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TRAFFIC SURVEILLANCE PLAN			F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1:1000		DRAWN GR	REVISED -					*	(99-1HB-1) R-1	WILL	1508	1021
	PLOT DATE = 5/15/2017		CHECKED PJO	REVISED -		SCALE: AS SHOWN SHEET NO. 7 OF 7 SHEETS STA. TO STA.			CONTRACT NO. 60X10				
			DATE 05/12/17	REVISED -					* FAI 55, FAP 856 [ILLINOIS] FED. AID PROJECT				

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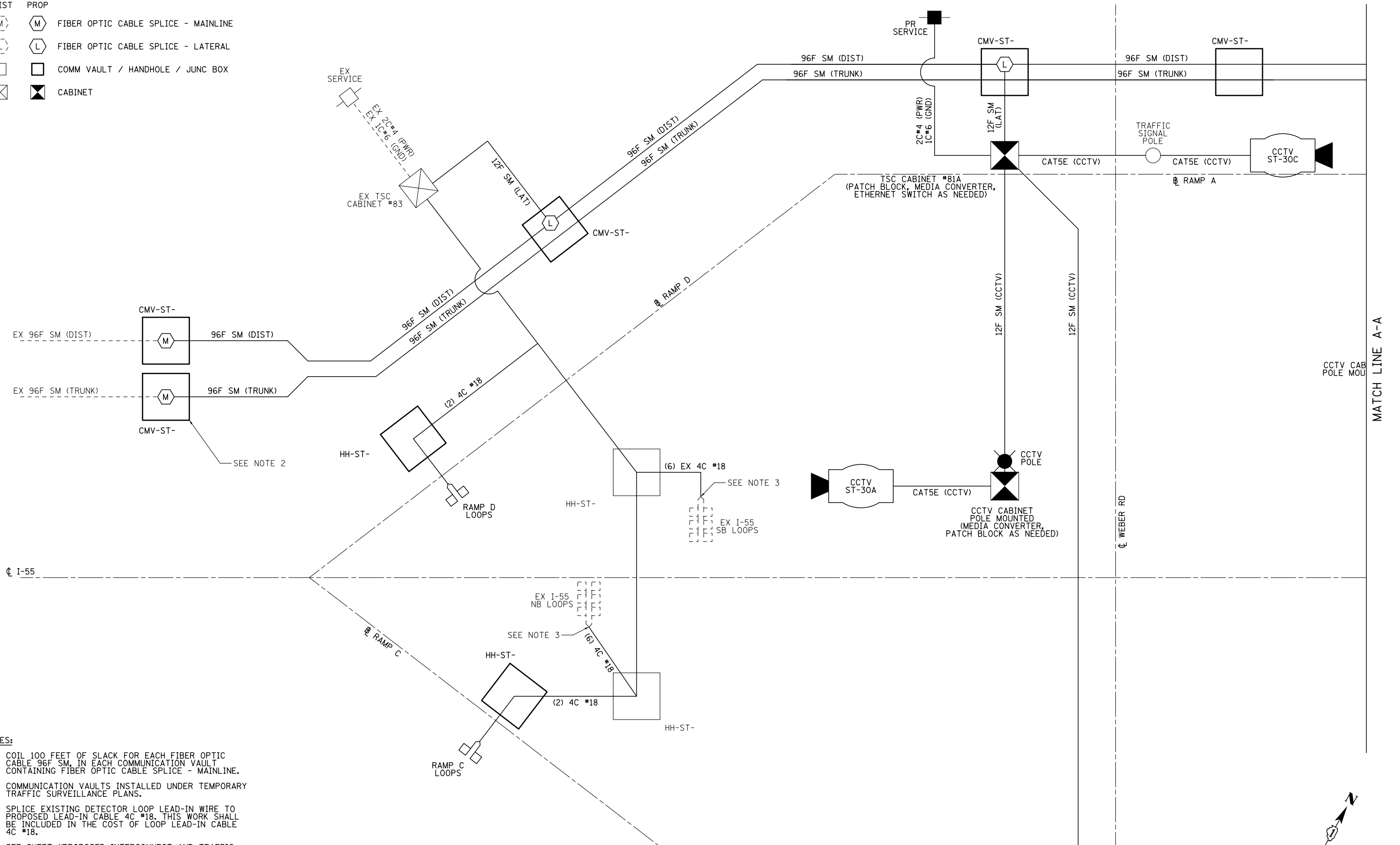
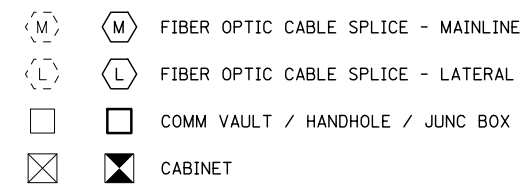


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LEGEND:

EXIST PROP

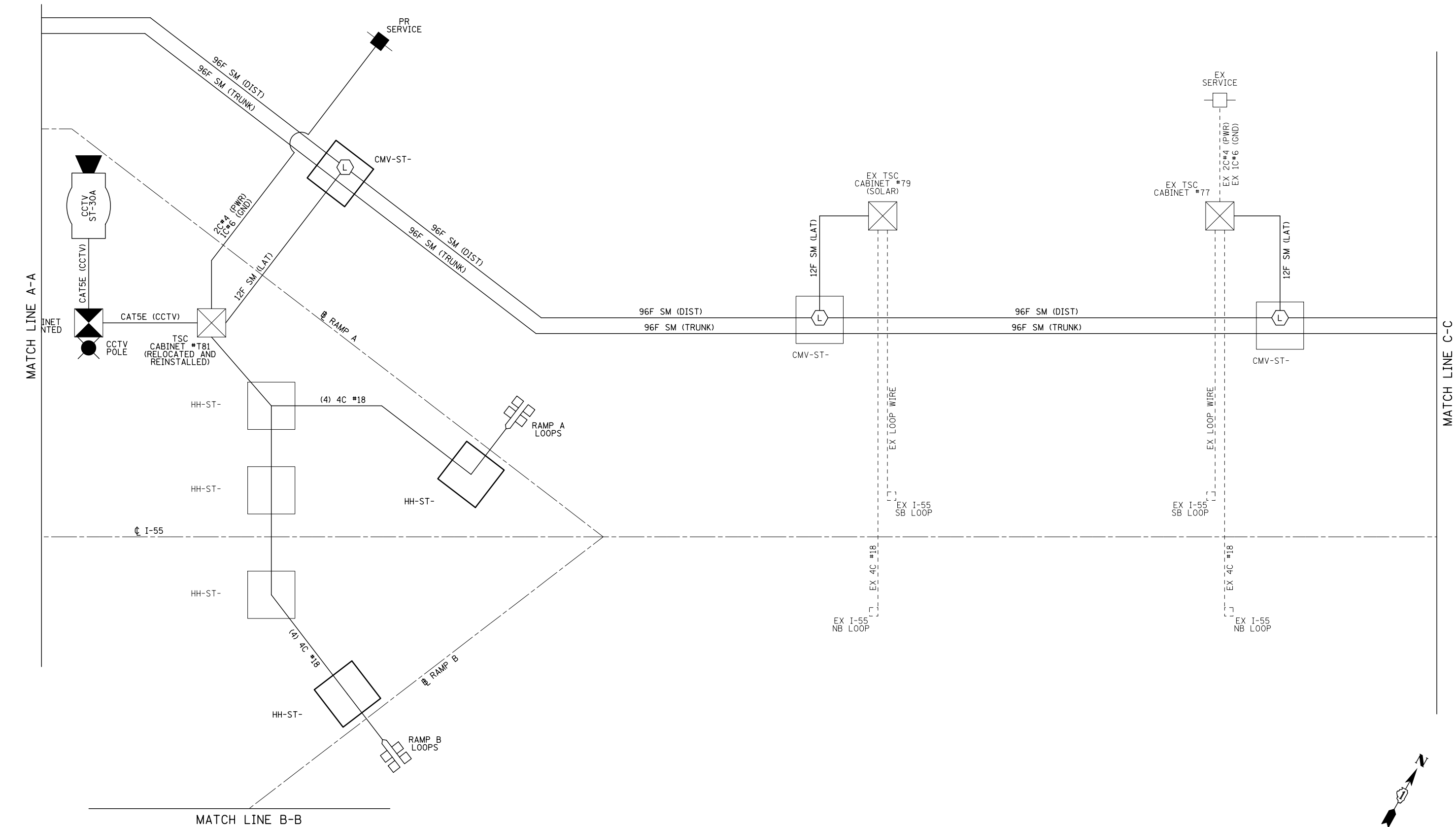


NOTES:

1. COIL 100 FEET OF SLACK FOR EACH FIBER OPTIC CABLE 96F SM. IN EACH COMMUNICATION VAULT CONTAINING FIBER OPTIC CABLE SPLICE - MAINLINE.
2. COMMUNICATION VAULTS INSTALLED UNDER TEMPORARY TRAFFIC SURVEILLANCE PLANS.
3. SPLICE EXISTING DETECTOR LOOP LEAD-IN WIRE TO PROPOSED LEAD-IN CABLE 4C #18. THIS WORK SHALL BE INCLUDED IN THE COST OF LOOP LEAD-IN CABLE 4C #18.
4. SEE SHEET "PROPOSED INTERCONNECT AND TRAFFIC SURVEILLANCE FIBER OPTIC CONNECTIONS AND CABINETS SCHEMATIC" UNDER TRAFFIC SIGNAL PLANS.

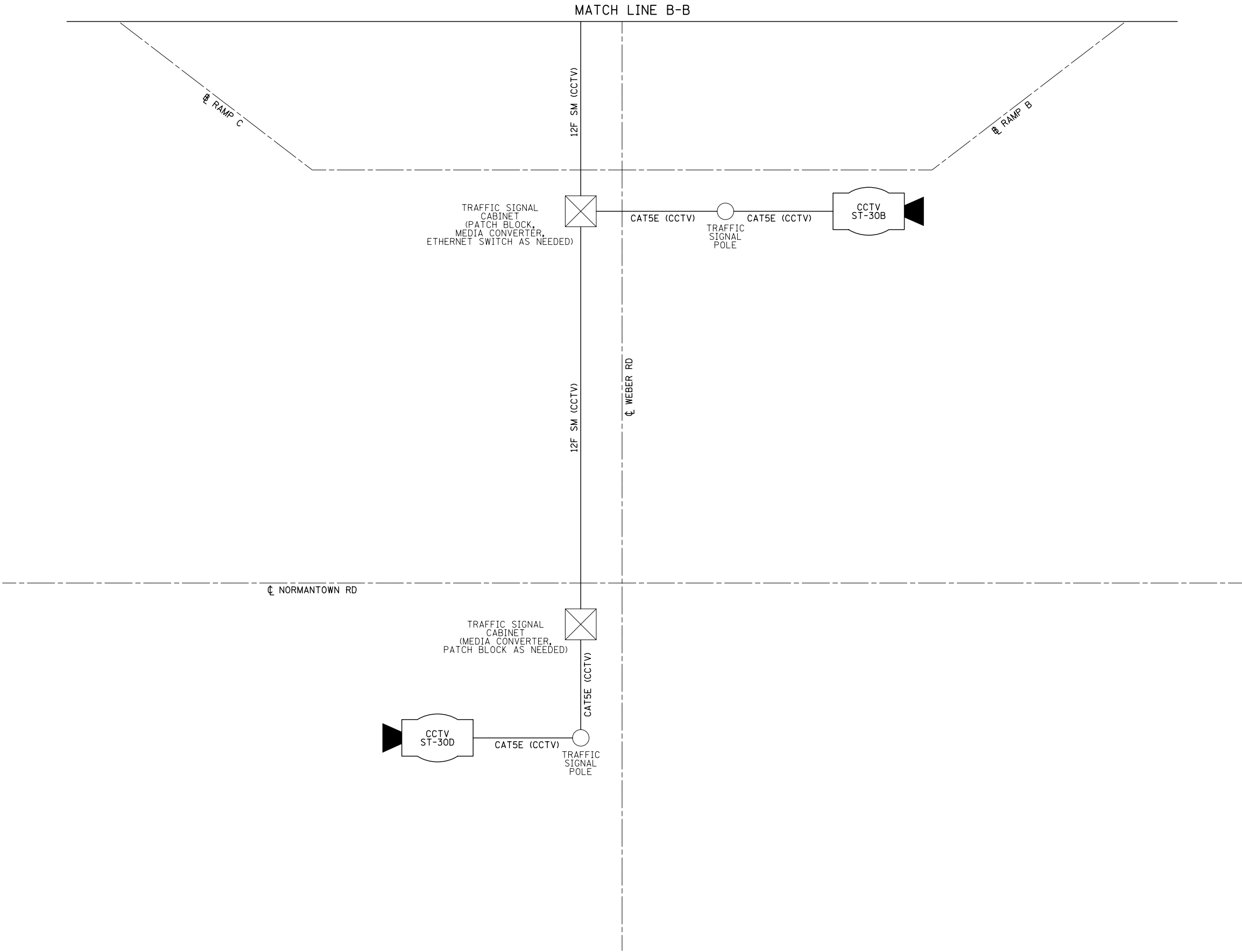
MATCH LINE B-B

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KNIGHT Engineers & Architects	USER NAME = mmaestra	DESIGNED GR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TRAFFIC SURVEILLANCE CABLE SCHEMATIC			F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1:1000	DRAWN GR	REVISED -					*	(99-1HB-1) R-1	WILL	1508	1025
	PLOT DATE = 5/15/2017	CHECKED PJO	REVISED -					CONTRACT NO. 60X10				
		DATE 05/12/17	REVISED -					* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				
SCALE: AS SHOWN		SHEET NO. 2 OF 4 SHEETS		STA.		TO STA.						

FILE NAME = D:\60X10-ah-155253.dgn

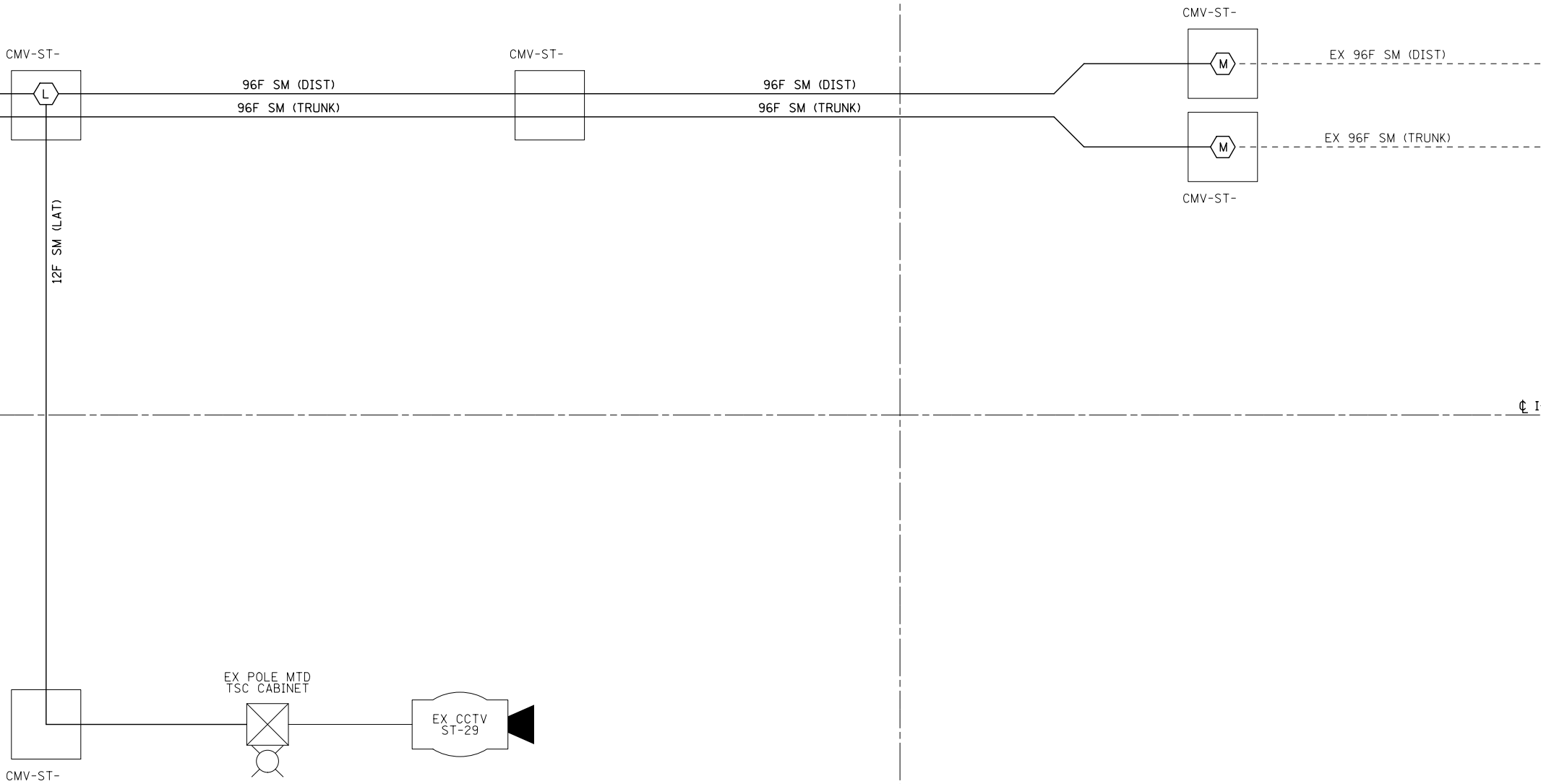


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MATCH LINE C-C

CL VETERANS PKWY

CL I-55



KNIGHT

Engineers & Architects

USER NAME = mmaestra	DESIGNED GR	REVISED -
	DRAWN GR	REVISED -
PLOT SCALE = 1:100	CHECKED PJO	REVISED -
PLOT DATE = 5/15/2017	DATE 05/12/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TRAFFIC SURVEILLANCE CABLE SCHEMATIC

SCALE: AS SHOWN SHEET NO. 4 OF 4 SHEETS STA. TO STA.

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-IHB-1) R-1	WILL	1508	1027
CONTRACT NO. 60X10				
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				

DISTRIBUTION CABLE FIBER ASSIGNMENTS				ORIGINATION		VETERANS PARKWAY	
DISTRIBUTION CABLE DESIGNATION		DCF-ST-06		DESTINATION		WEBER ROAD	
BUFFER TUBE	FIBER	FIBER NO	ASSIGNMENT	BUFFER TUBE	FIBER NO	FIBER NO	ASSIGNMENT
BLUE	Blue 1	1	CCTV ST-30A, ST-30B	SLATE	Blue 1	49	
	Orange 2	2	CCTV ST-30A, ST-30B		Orange 2	50	
	Green 3	3	CCTV ST-29, ST-30C, ST-30D		Green 3	51	
	Brown 4	4	CCTV ST-29, ST-30C, ST-30D		Brown 4	52	
	Slate 5	5	CCTV ST-30		Slate 5	53	
	White 6	6	CCTV ST-30		White 6	54	
	Red 7	7			Red 7	55	
	Black 8	8			Black 8	56	
	Yellow 9	9			Yellow 9	57	
	Violet 10	10			Violet 10	58	
	Rose 11	11			Rose 11	59	
	Aqua 12	12			Acua 12	60	
ORANGE	Blue 1	13	SURVEILLANCE CABINETS 77, 83	WHITE	Blue 1	61	
	Orange 2	14	SURVEILLANCE CABINETS 77, 83		Orange 2	62	
	Green 3	15	SURVEILLANCE CABINET 79		Green 3	63	
	Brown 4	16	SURVEILLANCE CABINET 79		Brown 4	64	
	Slate 5	17	SURVEILLANCE CABINET 81		Slate 5	65	
	White 6	18	SURVEILLANCE CABINET 81		White 6	66	
	Red 7	19			Red 7	67	
	Black 8	20			Black 8	68	
	Yellow 9	21			Yellow 9	69	
	Violet 10	22			Violet 10	70	
	Rose 11	23			Rose 11	71	
	Aqua 12	24			Acua 12	72	
GREEN	Blue 1	25		RED	Blue 1	73	
	Orange 2	26			Orange 2	74	
	Green 3	27			Green 3	75	
	Brown 4	28			Brown 4	76	
	Slate 5	29			Slate 5	77	
	White 6	30			White 6	78	
	Red 7	31			Red 7	79	
	Black 8	32			Black 8	80	
	Yellow 9	33			Yellow 9	81	
	Violet 10	34			Violet 10	82	
	Rose 11	35			Rose 11	83	
	Aqua 12	36			Acua 12	84	
BROWN	Blue 1	37		BLACK	Blue 1	85	
	Orange 2	38			Orange 2	86	
	Green 3	39			Green 3	87	
	Brown 4	40			Brown 4	88	
	Slate 5	41			Slate 5	89	
	White 6	42			White 6	90	
	Red 7	43			Red 7	91	
	Black 8	44			Black 8	92	
	Yellow 9	45			Yellow 9	93	
	Violet 10	46			Violet 10	94	
	Rose 11	47			Rose 11	95	
	Aqua 12	48			Acua 12	96	

LATERAL CABLE FIBER ASSIGNMENTS CCTV ST-29		
LCF-ST-06e		
FIBER NO	FUNCTION	CONNECTION
1	CCTV SURVEILLANCE CABINET 77	DCF-ST-06-25W
2	CCTV SURVEILLANCE CABINET 77	DCF-ST-06-26W
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

LATERAL CABLE FIBER ASSIGNMENTS SURVEILLANCE CABINET 79		
LCF-ST-06g		
FIBER NO	FUNCTION	CONNECTION
1		
2		
3		
4		
5	SURV IN Tx	DCF-ST-06-15E
6	SURV IN Rx	DCF-ST-06-16E
7	SURV OUT Rx	DCF-ST-06-15W
8	SURV OUT Tx	DCF-ST-06-16W
9		
10		
11		
12	SOLAR TO SURVEILLANCE CABINET 81	DCF-ST-06-27W

LATERAL CABLE FIBER ASSIGNMENTS SURVEILLANCE CABINET 77		
LCF-ST-06f		
FIBER NO	FUNCTION	CONNECTION
1	CCTV IN Tx	DCF-ST-06-3E
2	CCTV IN Rx	DCF-ST-06-4E
3	CCTV OUT Rx	DCF-ST-06-3W
4	CCTV OUT Tx	DCF-ST-06-4W
5	SURV IN Tx	DCF-ST-06-13E
6	SURV IN Rx	DCF-ST-06-14E
7	SURV OUT Rx	DCF-ST-06-13W
8	SURV OUT Tx	DCF-ST-06-14W
9	CCTV TO ST-29	DCF-ST-06-25E
10	CCTV TO ST-29	DCF-ST-06-26E
11		
12		

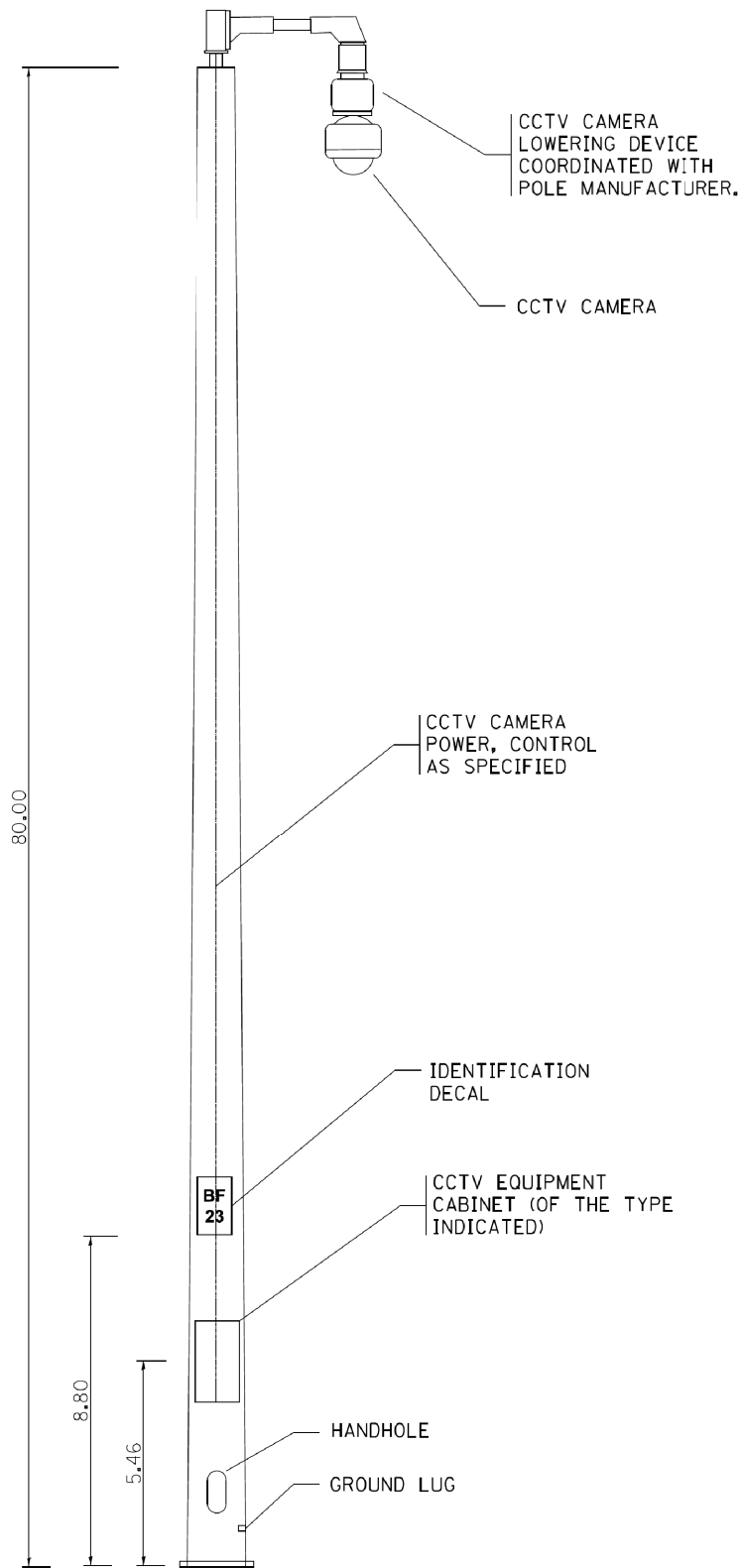
LATERAL CABLE FIBER ASSIGNMENTS SURVEILLANCE CABINET 81, CCTV ST-30		
LCF-ST-06h		
FIBER NO	FUNCTION	CONNECTION
1	CCTV IN Tx	DCF-ST-06-5E
2	CCTV IN Rx	DCF-ST-06-6E
3	CCTV OUT Rx	DCF-ST-06-5W
4	CCTV OUT Tx	DCF-ST-06-6W
5	SURV IN Tx	DCF-ST-06-17E
6	SURV IN Rx	DCF-ST-06-18E
7	SURV OUT Rx	DCF-ST-06-17W
8	SURV OUT Tx	DCF-ST-06-18W
9		
10		
11		
12	SOLAR TO SURVEILLANCE CABINET 79	DCF-ST-06-27E

LATERAL CABLE FIBER ASSIGNMENTS		SURVEILLANCE CABINET 81A	
LCF-ST-06I			
FIBER NO	FUNCTION	CONNECTION	
1	CCTV IN Tx	DCF-ST-06-1E	
2	CCTV IN Rx	DCF-ST-06-2E	
3	CCTV OUT Rx	DCF-ST-06-1W	
4	CCTV OUT Tx	DCF-ST-06-2W	
5	CCTV IN Tx	DCF-ST-06-3E	
6	CCTV IN Rx	DCF-ST-06-4E	
7	CCTV OUT Rx	DCF-ST-06-3W	
8	CCTV OUT Tx	DCF-ST-06-4W	
9			
10			
11			
12			

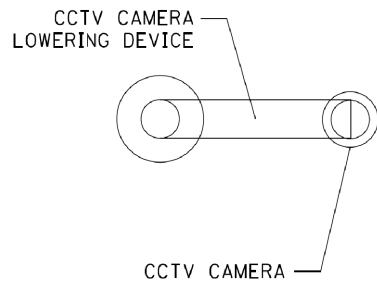
LATERAL CABLE FIBER ASSIGNMENTS		
LCF-		
FIBER NO	FUNCTION	CONNECTION
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

LATERAL CABLE FIBER ASSIGNMENTS		
LCF-		
FIBER NO	FUNCTION	CONNECTION
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

LATERAL CABLE FIBER ASSIGNMENTS		SURVEILLANCE CABINET 83	
LCF-ST-06J			
FIBER NO	FUNCTION	CONNECTION	
1			
2			
3			
4			
5	SURV IN Tx	DCF-ST-06-13E	
6	SURV IN Rx	DCF-ST-06-14E	
7	SURV OUT Rx	DCF-ST-06-13W	
8	SURV OUT Tx	DCF-ST-06-14W	
9			
10			
11			
12			



ELEVATION



TOP VIEW

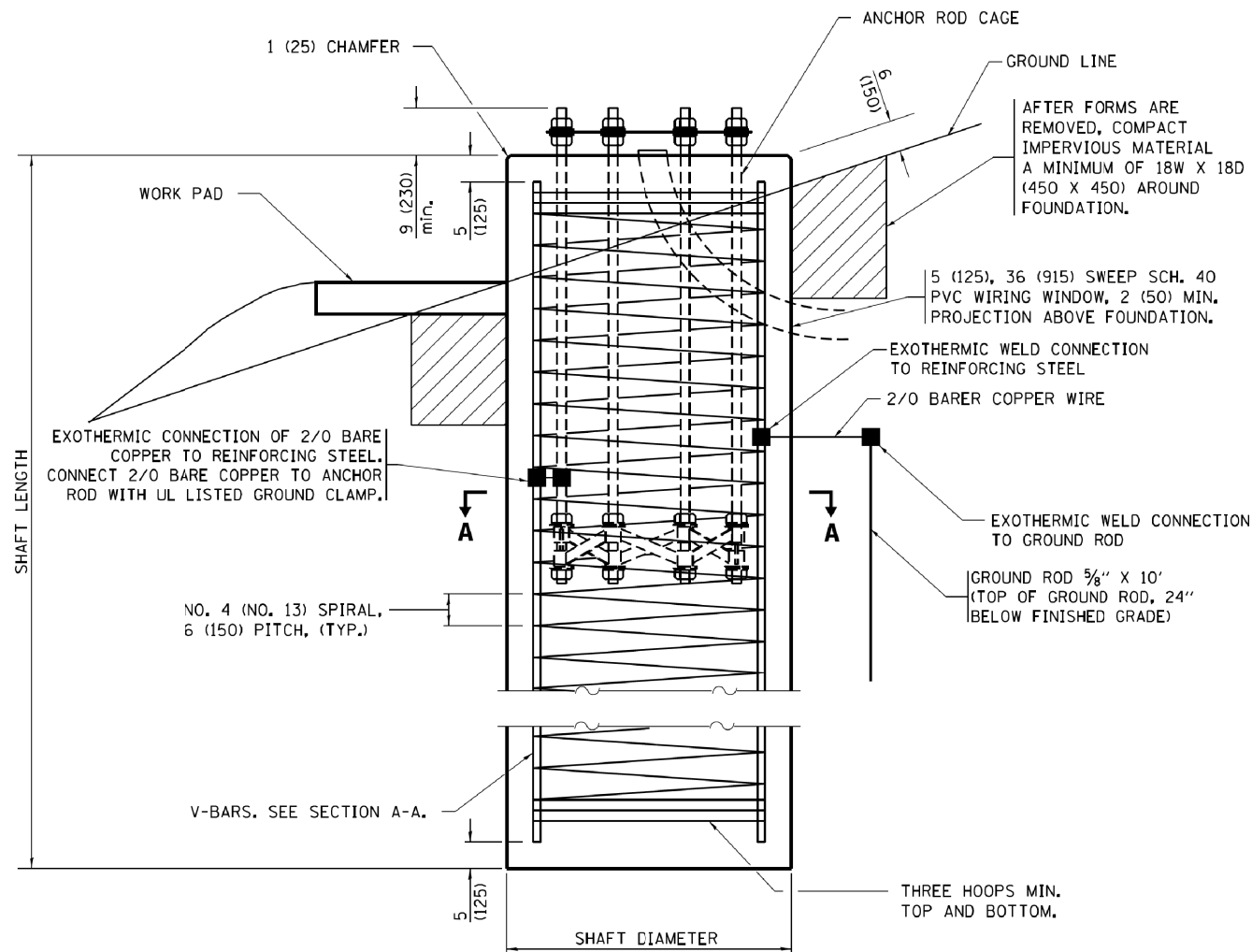
MAINLINE
INTERSTATE

GENERAL NOTES

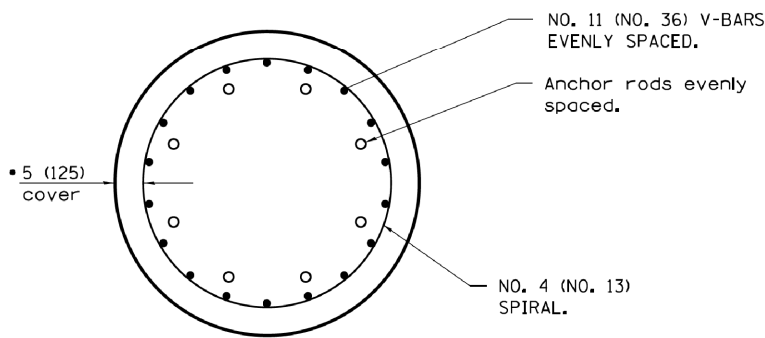
- LOCATIONS OF THE CCTV CAMERA INSTALLATIONS ARE APPROXIMATE. THE CONTRACTOR MAY ADJUST THE LOCATIONS OF THE INSTALLATIONS TO FACILITATE INSTALLATION WITH WRITTEN APPROVAL OF THE RESIDENT ENGINEER AND THE ELECTRICAL DESIGN SECTION. ALL STANDARD NON-FRANGIBLE SETBACK REQUIREMENTS AS WELL AS CLEAR ZONE REQUIREMENTS SHALL BE MAINTAINED.
- THE POLE SHALL BE A MAXIMUM OF THREE SECTIONS FOR FIELD ASSEMBLY.
- THE POLE SHAFTS SHALL BE A ROUND CROSS SECTION. THE BOTTOM SECTION SHALL HAVE A MINIMUM .3125 WALL THICKNESS AND A MINIMUM DIAMETER OF 23³/₃₂. THE POLE SHALL HAVE A PROVISION FOR VENTING AT THE TOP AND BOTTOM TO PREVENT CONDENSATION BUILDUP ON THE INTERIOR OF THE POLE SHAFT.
- CABLE SUPPORTS SHALL BE PROVIDED FOR ALL CABLES INSIDE OF POLE SO THAT NO CABLE LOADING IS EXCEEDED. CALCULATIONS SHALL BE SUBMITTED FOR THE CABLES BEING FURNISHED.
- ALL EQUIPMENT SHALL BE GROUNDED.
- DOCUMENTATION SHALL BE SUBMITTED THAT THE POLE IS FULLY COORDINATED WITH THE CAMERA LOWERING DEVICE.
- ALL CABLES, INCLUDING LOWERING DEVICE CABLES, SHALL BE WITHIN THE POLE SHAFT. EXTERNAL CABLING WILL NOT BE PERMITTED.
- UNLESS OTHERWISE INDICATED, OR AS DIRECTED BY THE ENGINEER, THE CAMERA LOWERING DEVICE SHALL BE ORIENTED PERPENDICULAR TO THE MAINLINE INTERSTATE FOR THE LEAST OBSTRUCTED VIEW OF THE INTERSTATE ROADWAY.

MATERIAL REQUIREMENTS

COMPONENT	ASTM DESIGNATION	MIN. YIELD (KSI)
POLE SHAFT	A572, OR A1011	50
BASE PLATE	A572, OR A1011	50
POLE TOP PLATE	A572, OR A1011	50
ANCHOR BOLTS	F1554	55
GALVANIZING, STRUCTURE	A123	N/A
GALVANIZING, HARDWARE	A153	N/A



FOUNDATION ELEVATION



SECTION A-A

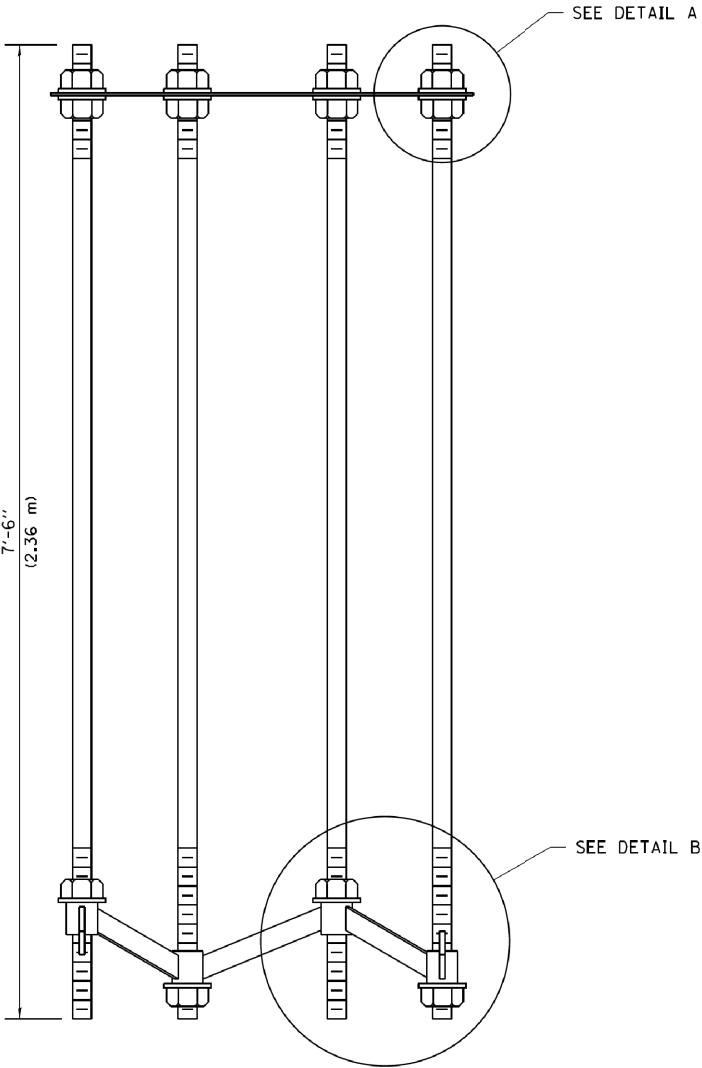
* SEE ROD AND REINFORCEMENT TABLE.

SHAFT LENGTH TABLE

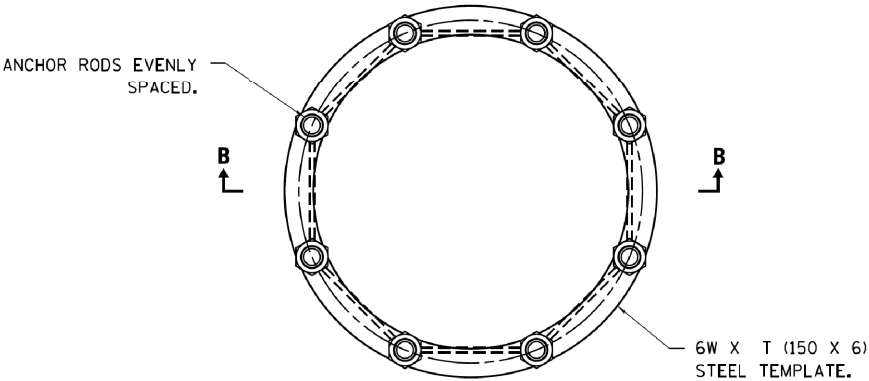
SHAFT LENGTH TABLE		
SOIL CONSISTENCY		AVERAGE STRENGTH
		Qu in tsf (Qu in kPa)
Cohesive	SOFT	< 0.5 (< 50)
	MEDIUM	0.5 to 1 (50 to 100)
	STIFF	1 to 2 (100 to 200)
	VERY STIFF	2 to 4 (200 to 400)
	HARD	> 4 (> 400)
		N in BLOWS/FT. (N in BLOWS/0.3m)
Granular	VERY LOOSE	< 5 (< 5)
	LOOSE	5 to 10 (5 to 10)
	MEDIUM	10 to 25 (10 to 25)
	DENSE	25 to 50 (25 to 50)
	VERY DENSE	> 50 (> 50)

ROD AND REINFORCEMENT TABLE					
TOWER HEIGHT	ANCHOR ROD DIAM. (MIN)	ROD CIRCLE DIAM. (MIN)	TOWER BASE DIAM. (MIN)	DRILLED SHAFT DIAM. ①	V BAR QTY.
80' (25 m)	1½ (38)	30 (760)	24 (610)	4'-0" (1.2 m)	14

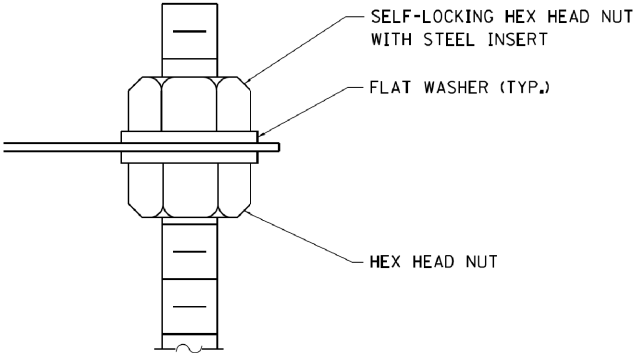
① DIAMETER BASED ON A 5 (125) CONC. COVER. THE MIN. COVER SHALL BE 3 (75) IN DRY SHAFT EXCAVATION AND 4 (100) IN A WET HOLE. WHEN ROCK IS ENCOUNTERED A 5 (125) COVER AGAINST SOIL AND A 2 (50) COVER AGAINST ROCK SHALL BE REQUIRED.



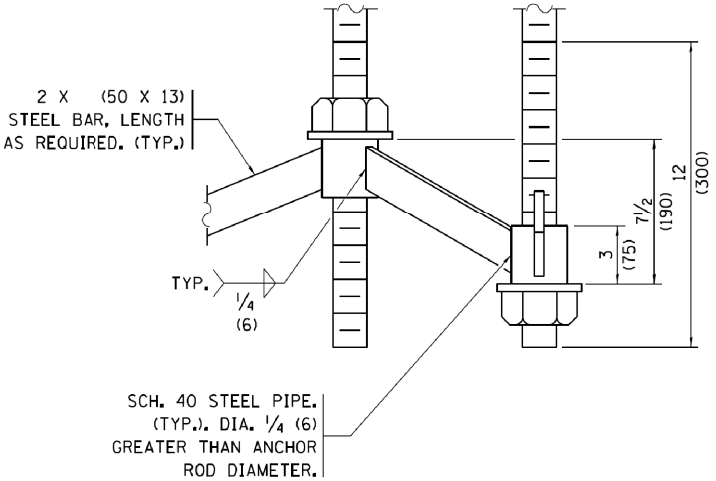
SECTION B-B



ANCHOR ROD CAGE (PLAN)



DETAIL A



DETAIL B

GENERAL NOTES

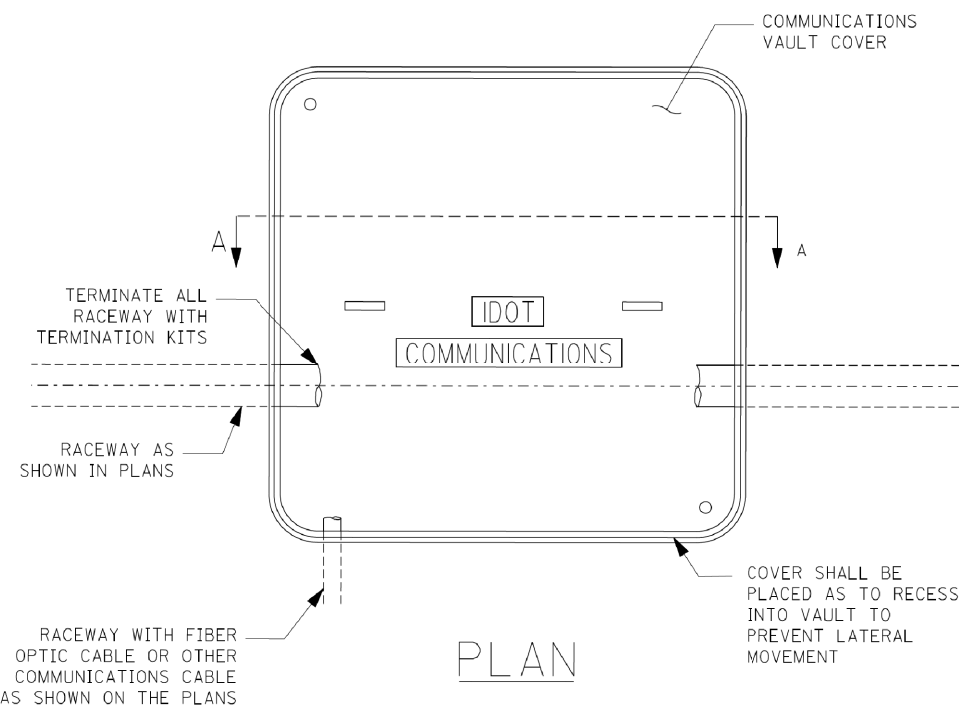
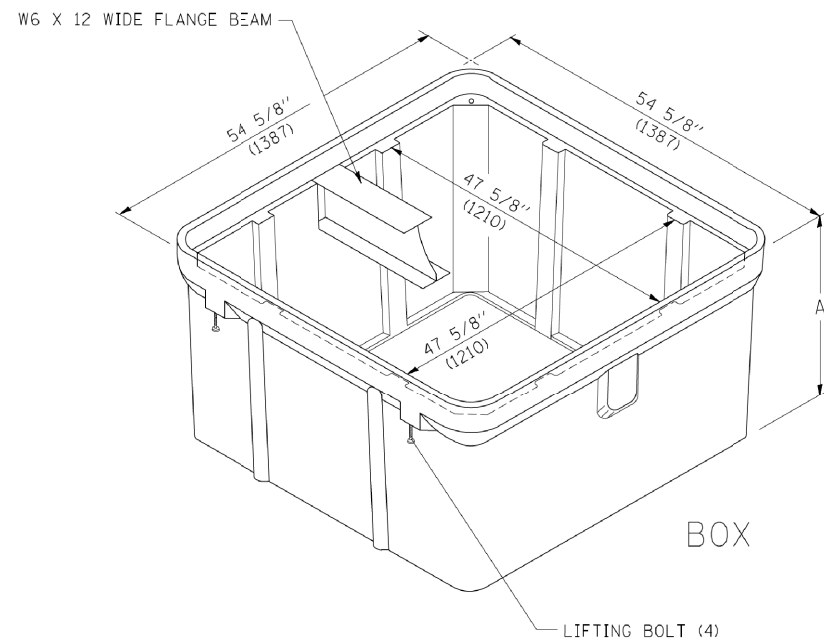
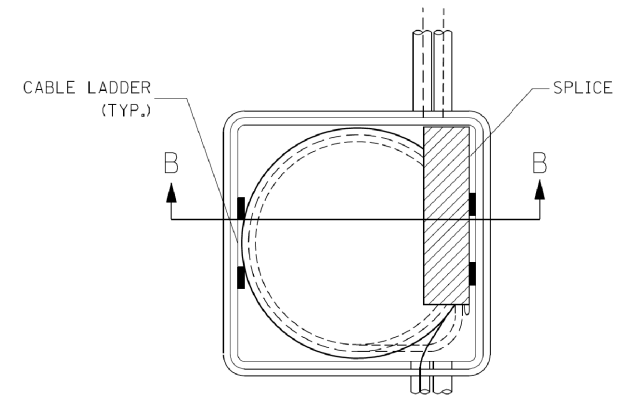
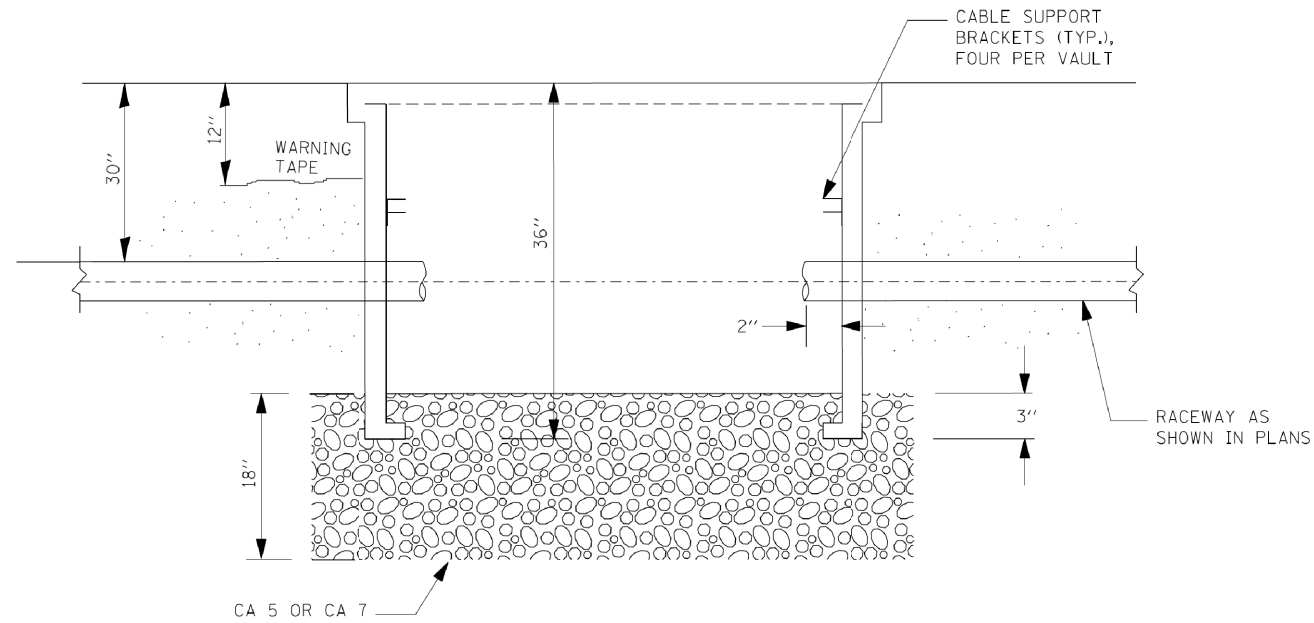
- ANCHOR ROD QUANTITY, DIAMETER, AND LENGTH SHALL BE DETERMINED BY THE CCTV STRUCTURE MANUFACTURER AND APPROVED BY THE ENGINEER. EACH FOUNDATION SHALL HAVE A MINIMUM OF 8 ANCHOR RODS.
- ALL FOUNDATION REINFORCEMENT STEEL SHALL BE EPOXY COATED.
- THE COST OF REINFORCEMENT SHALL BE INCLUDED IN THE COST OF THE FOUNDATION.
- STEEL ANCHOR ROD FORMS SHALL NOT BE REMOVED FOR A MINIMUM OF 3 DAYS AFTER CONCRETE IS POURED. THE TOWER SHALL NOT BE SET FOR A MINIMUM OF 7 DAYS OR AS APPROVED BY THE ENGINEER.
- COORDINATE THE ROD CIRCLE DIAMETER OF THE STRUCTURE WITH THE DIAMETER OF THE ANCHOR ROD CAGE.
- THE FOUNDATION SHALL BE POURED MONOLITHICALLY AND SHALL HAVE NO CONSTRUCTION JOINTS.
- GROUNDING ELECTRODES SHALL BE INSTALLED IN AN ACCESS WELL WHEN THERE IS A CONFLICT IN USING THE METHOD SHOWN.
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = footemj	DESIGNED - R. Tomsors	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CCTV CAMERA STRUCTURE, 80 FT. MOUNTING HEIGHT FOUNDATION, SHEET 2 OF 2					F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL084EBID\INTEG.\Illinois.gov\PWIDOT\Documents\DOT Offices\District 1\Projects\DistSid22x34\CADData\CADsheets\BID\BID	DRAWN -	REVISED -			*	(99-1HB-1) R-1	WILL	1508	1033					
Default	PLOT SCALE = 50.0000' / in.	CHECKED -	REVISED -		BE 1003		CONTRACT NO. 60X10							
	PLOT DATE = 4/18/2017	DATE = 04/17/2017	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS		FED. AID PROJECT	

CCTV 30
SOIL BORING LOG

[illegible]

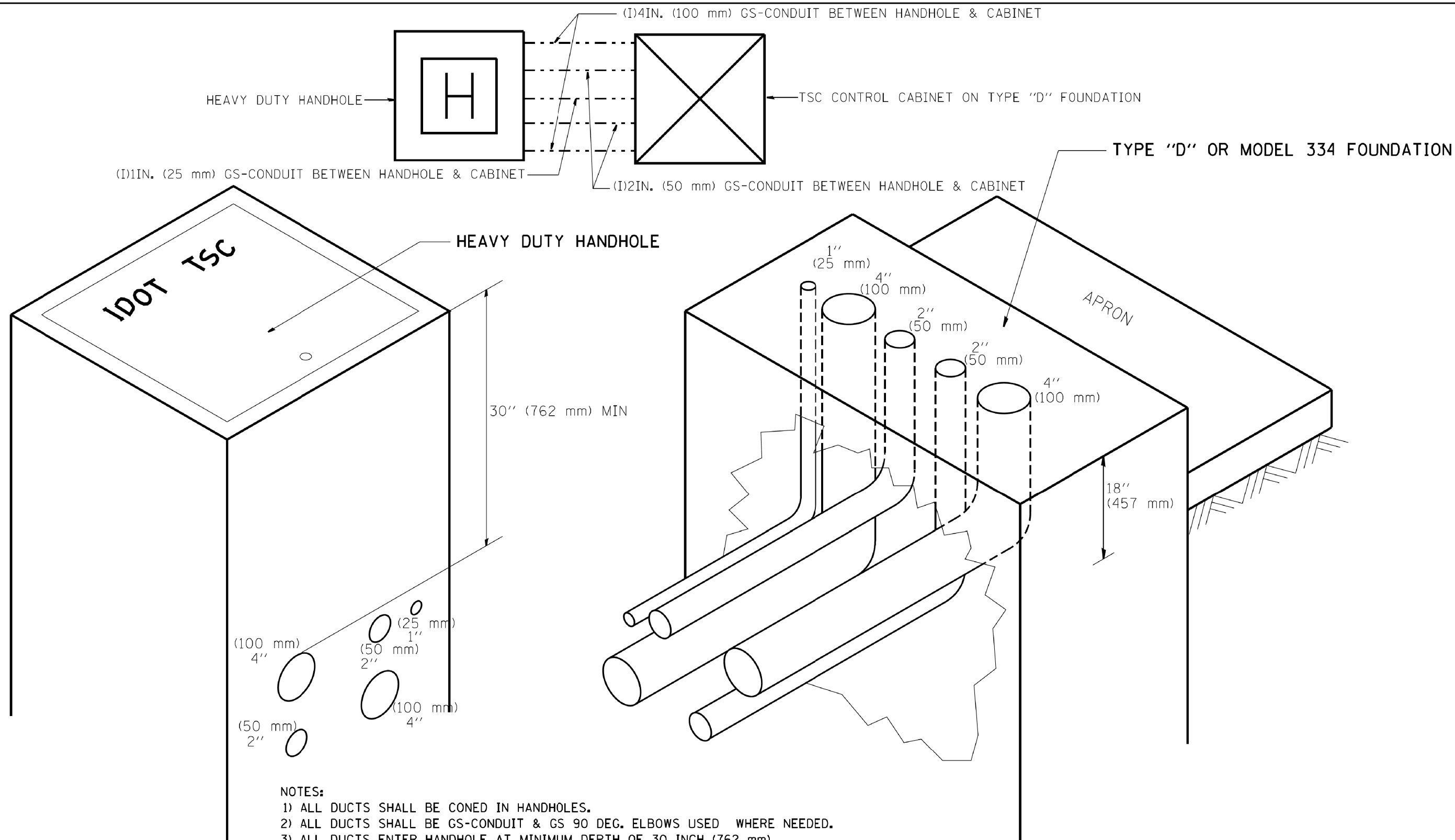
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)



NOTES:

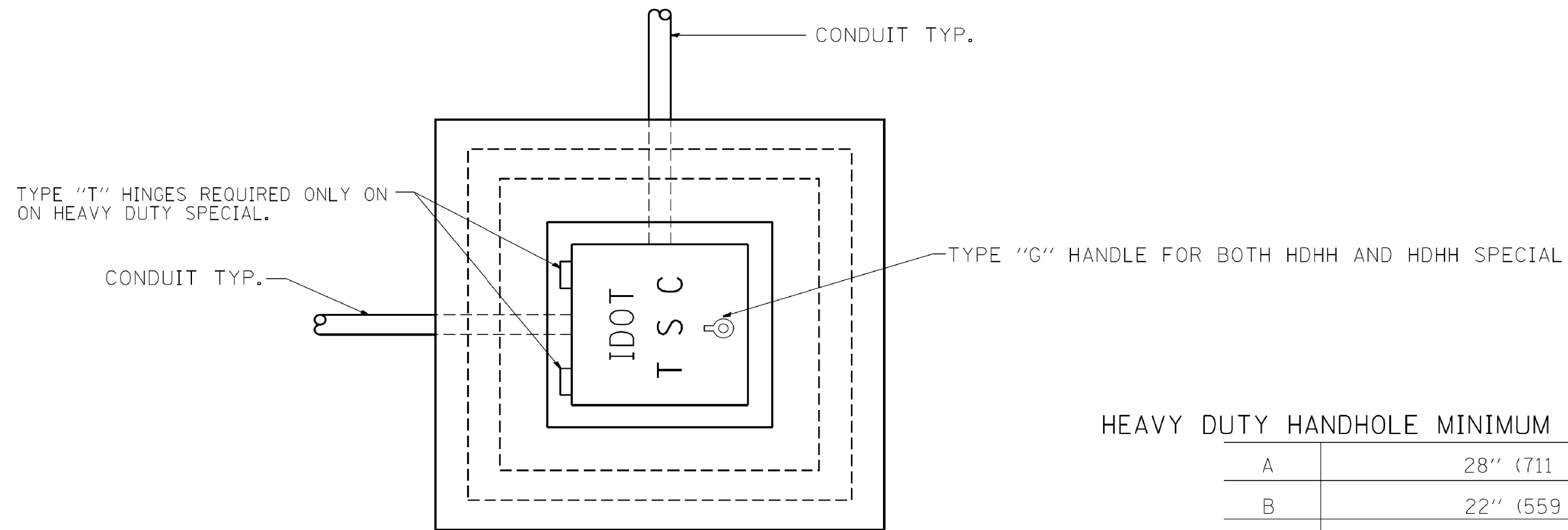
- BOX SHALL HAVE AN OPEN BASE.
- COVER SHALL WITHSTAND A 22,500/33,750 DESIGN/TEST LOADING AND SHALL LOCK.
- ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION OR PUNCH DRIVEN AT TIME OF PLACEMENT, IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
- FIELD PLACEMENT OF COMMUNICATIONS VAULT SHALL BE AS DIRECTED BY THE ENGINEER.
- ALL DIMENSIONS ARE MINIMUM AND A LARGER SIZE HANDHOLE MAY BE USED, WITH THE APPROVAL OF THE ENGINEER, TO FACILITATE USING A MANUFACTURER'S STANDARD PRODUCT.

FILE NAME =	USER NAME = leysa	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	COMMUNICATIONS VAULT, COMPOSITE CONCRETE			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et\pwork\PWIDOT\LEYSAd0108315\be705.dgn		DRAWN -	REVISED -					*	(99-1HB-1) R-1	WILL	1508	1035
PLOT SCALE = 50.0000' / IN.		CHECKED -	REVISED -					BE-705		CONTRACT NO. 60X10		
PLOT DATE = 3/29/2010		DATE - 03-22-10	REVISED -		SCALE: NONE	SHEET NO.	OF SHEETS	STA.	TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

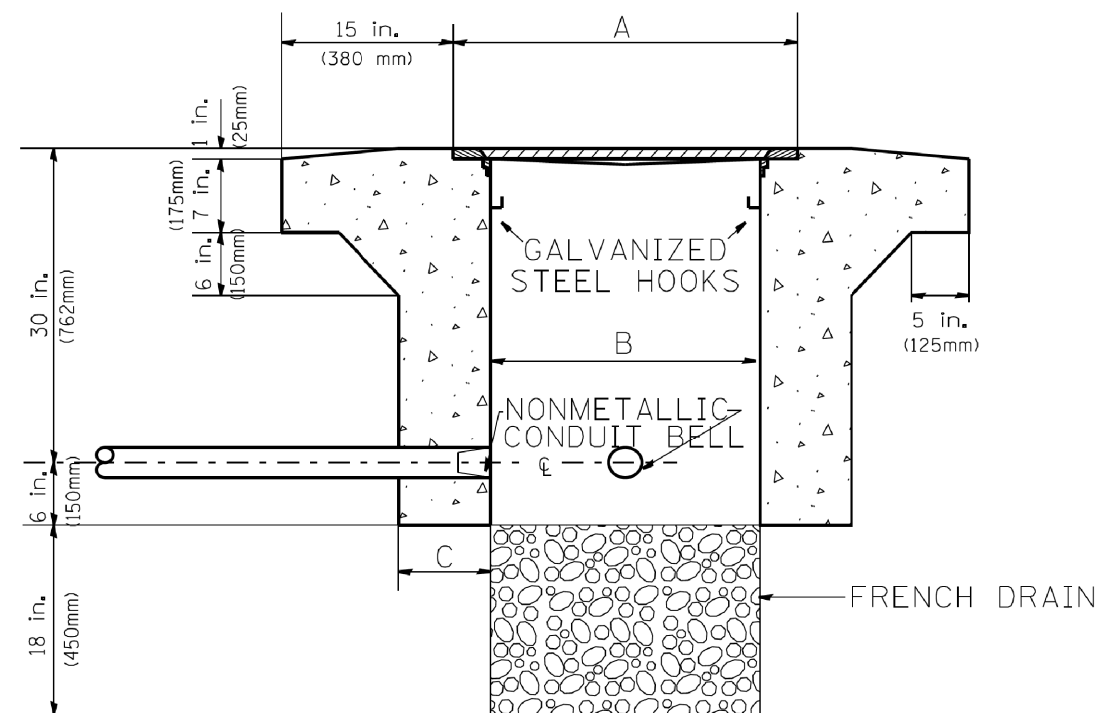


- NOTES:
- 1) ALL DUCTS SHALL BE CONED IN HANDHOLES.
 - 2) ALL DUCTS SHALL BE GS-CONDUIT & GS 90 DEG. ELBOWS USED WHERE NEEDED.
 - 3) ALL DUCTS ENTER HANDHOLE AT MINIMUM DEPTH OF 30 INCH (762 mm)
 - 4) ALL HANDHOLE COVERS SHALL READ "IDOT TSC".
 - 5) ALL CABINET HANDHOLES SHALL BE HEAVY DUTY.
 - 6) DUCTS SHALL BE CENTERED IN CABINET FOUNDATION/HANDHOLE AS SHOWN.
 - 7) CONDUITS SHALL BE SPACED 305 mm (1 FOOT) CENTER TO CENTER IN HEAVY DUTY HANDHOLE.
 - 8) INSTALL 3/4" X 10' (20 mm X 3 m) COPPER CLAD STEEL GROUND ROD IN HDHH PROVIDED AS CABINET PAD. EXOTHERMIC WELD CONNECTION FROM GROUND ROD TO #6 GROUND WIRE INSULATED (GREEN).
 - 9) BOND ALL GSC CONDUITS IN CABINET FOUNDATION.
 - 10) INSTALL #6 GROUND WIRE IN 1IN. (25 mm) GSC FROM HANDHOLE TO CABINET.
 - 11) TYPE "D" FOUNDATION SHALL BE 18" FROM TOP OF FOUNDATION TO FINISHED GRADE.

FILE NAME =	USER NAME = mezag	DESIGNED - R.L.	REVISED - 09/96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC SYSTEMS CENTER	CABINET - HANDHOLE CONDUIT DETAIL					F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct\pw\work\puidot\mezag\d0287541\TSC.TYP	dgn	DRAWN - G.M.	REVISED - 03/99							*	(99-1HB-1) R-1	WILL	1508	1036	
PLOT SCALE = 100.0000 ' / 1in.		CHECKED - R.L.	REVISED - 04/99		CONTRACT NO. 60X10										
PLOT DATE = 12/6/2012		DATE - 06/05/95	REVISED - 07/2010		SCALE: NONE		SHEET NO.	OF SHEETS	STA.	TO STA.					
										FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			



PLAN



ELEVATION

HEAVY DUTY HANDHOLE MINIMUM DIMENSIONS (UNHINGED)

A	28" (711 mm)
B	22" (559 mm)
C	8" (200 mm)

(FRAME AND COVER 260 LBS. (118 Kg.) MIN.)

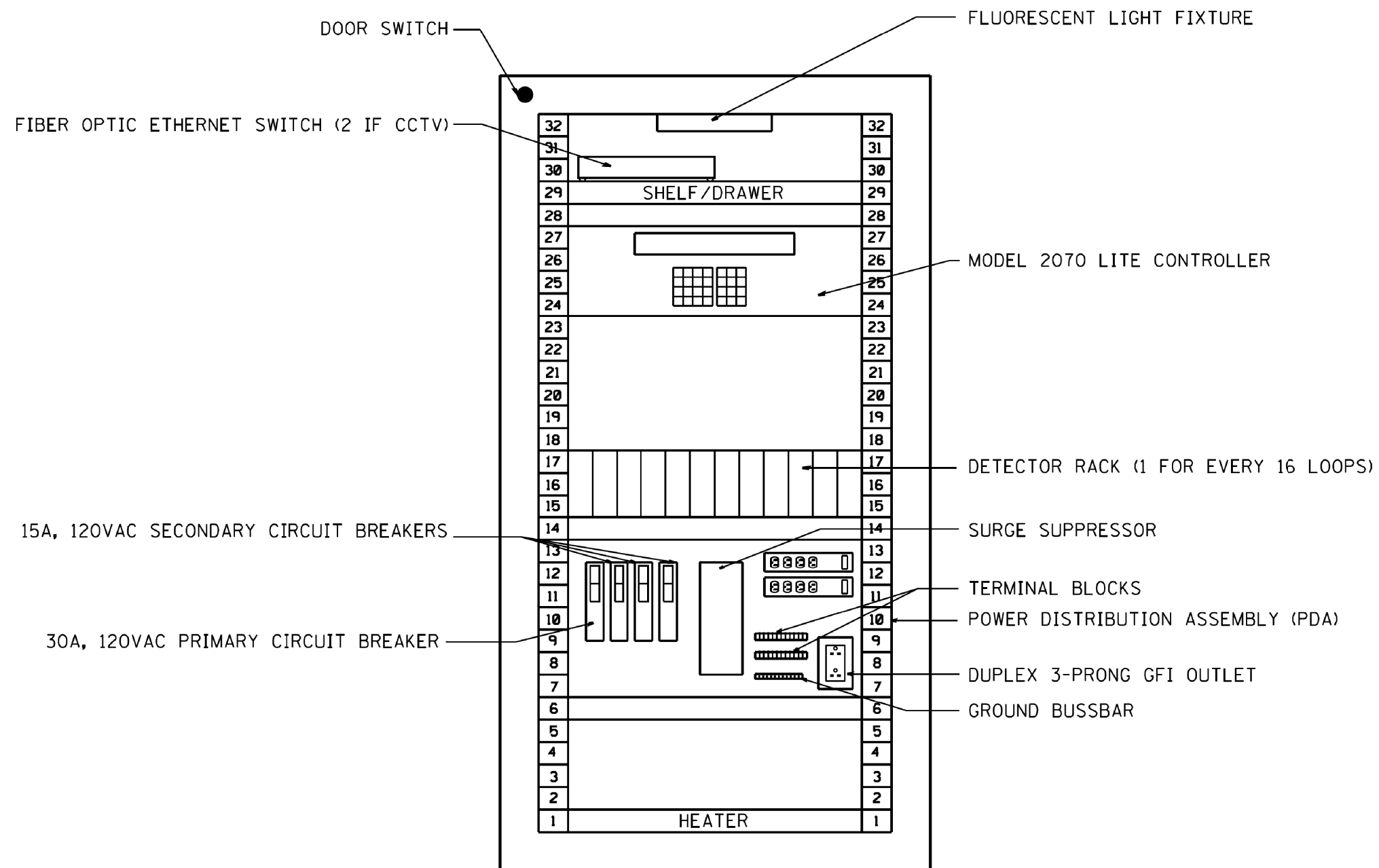
HEAVY DUTY HANDHOLE SPECIAL MINIMUM DIMENSIONS

A	31.5" (800 mm)
B	30.0" (762 mm)
C	10.0" (250 mm)

(FRAME AND COVER 405 LBS. (184 Kg. (405))

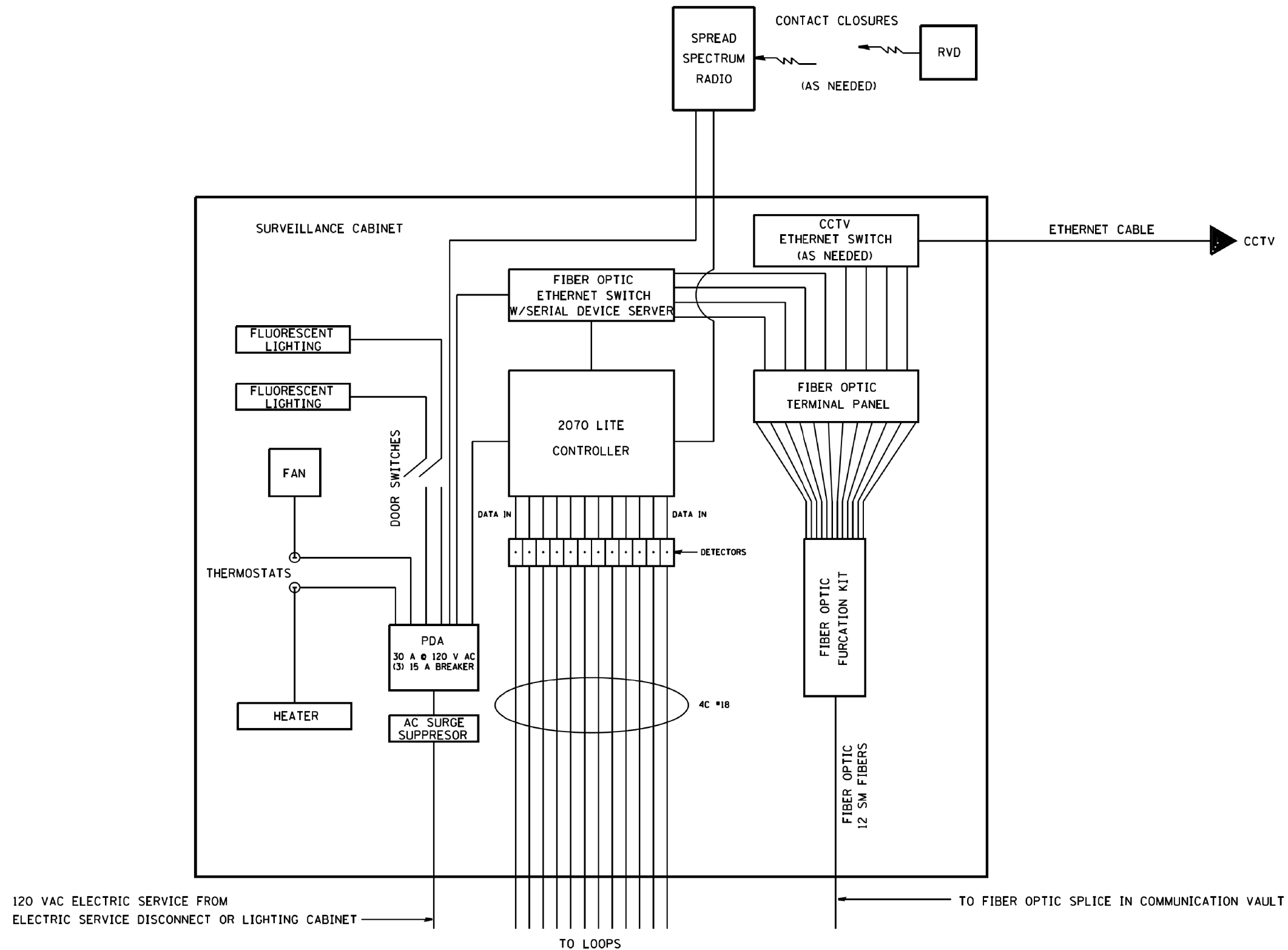
PC CONCRETE - HEAVY DUTY HAND HOLE

FILE NAME = ct\pw_work\puidot\mezag\d0287541\TSCTYP.dgn	USER NAME = mezag	DESIGNED - R.L.	REVISED - 04/97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC SYSTEMS CENTER	PC CONCRETE - HEAVY DUTY HAND HOLE			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 100.0000' / 1in.	DRAWN - G.M.	REVISED -					*	(99-1HB-1) R-1	WILL	1508	1037
	PLOT DATE = 7/26/2012	CHECKED - R.L.	REVISED -		SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 60X10				
		DATE - 09/11/96	REVISED -					FED. ROAD DIST. NO. ILLINOIS/FED. AID PROJECT				



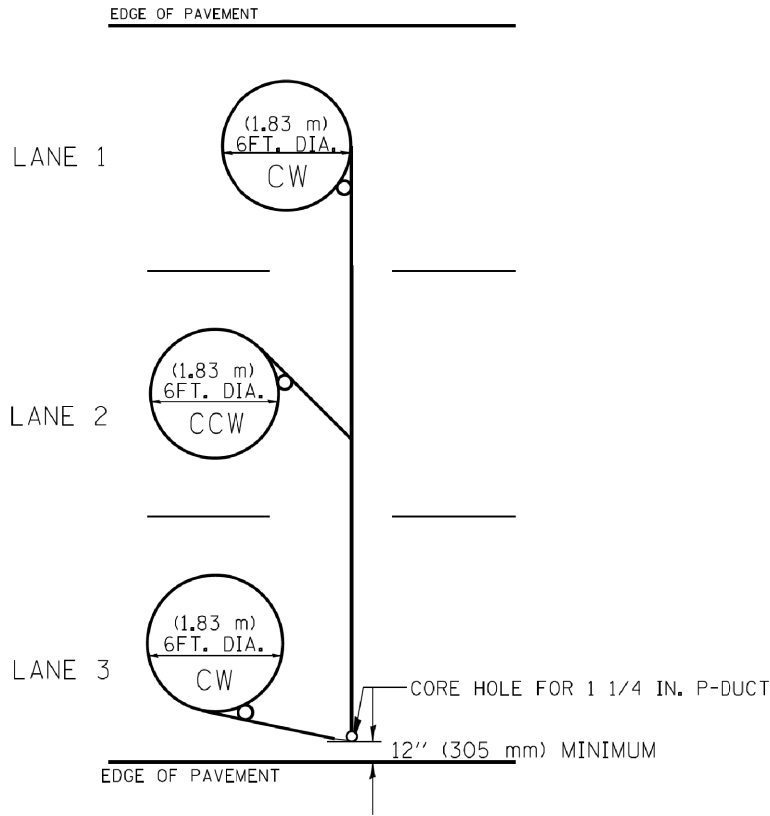
SYSTEM DETECTORS FRONT VIEW (TYPICAL)

FILE NAME = C:\d106010\195TCTYP.DGN	USER NAME = *USER*	DESIGNED - J.G.	REVISED - 01/27/2010	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC SYSTEMS CENTER	CABINET, MODEL 334 RACK LAYOUT		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILEL		DRAWN - G.M.	REVISED - 03/04/2010				*	(99-1HB-1) R-1	WILL	1508	1038
MODELNAME		CHECKED - R.L.	REVISED -		CONTRACT NO. 60X10		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
	PLOT DATE = *DATE*	DATE - 12/28/09	REVISED -		SCALE: NONE	SHEET OF SHEETS	STA. TO STA.				

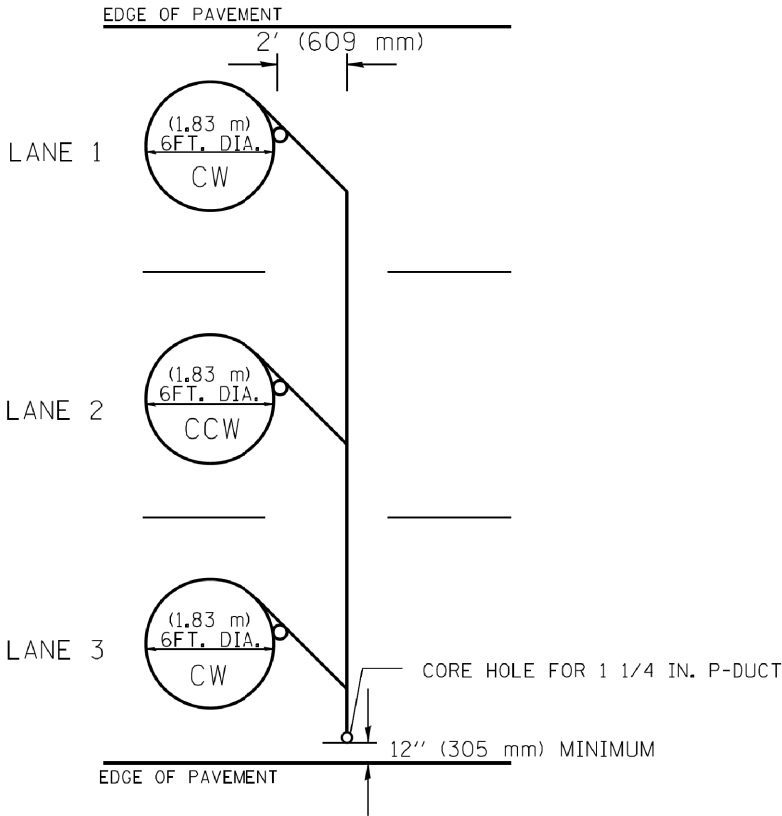


12 LOOP COUNT, OCCS, SPEED, CLASSIFICATION
DETECTOR SYSTEM SINGLE LINE DIAGRAM

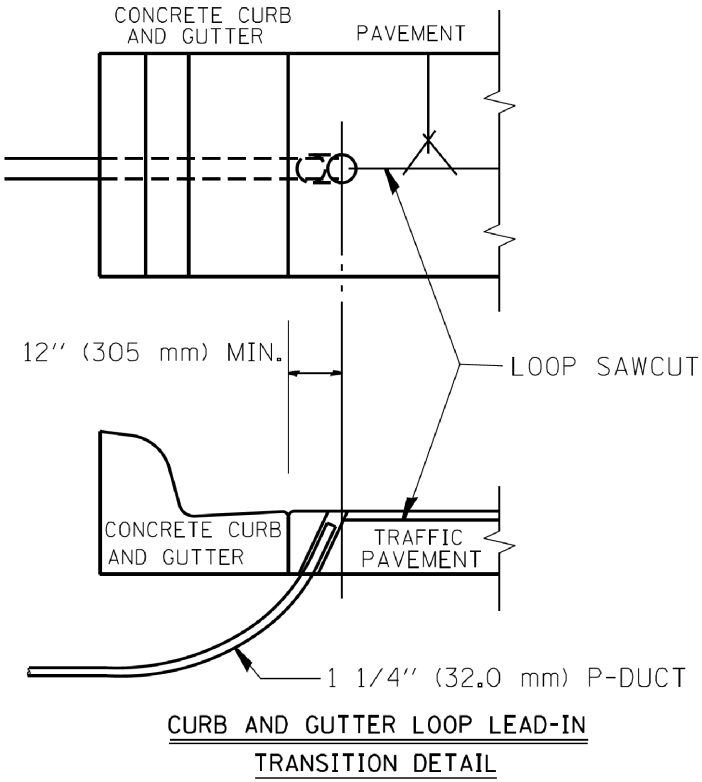
FILE NAME = C:\d106010\1051SCTYP.DGN	USER NAME = *USER*	DESIGNED - J.G.	REVISED - 01/25/2010	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC SYSTEMS CENTER		CABINET MODEL 334 WIRING DETAILS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILEL		DRAWN - G.M.	REVISED -					*	(99-1HB-1) R-1	WILL	1508	1039
	PLOT SCALE = *SCALE*	CHECKED - J.G.	REVISED -									
MODELNAME	PLOT DATE = *DATE*	DATE - 12/29/09	REVISED -									
				SCALE: NONE		SHEET OF SHEETS		STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		
										CONTRACT NO. 60X10		



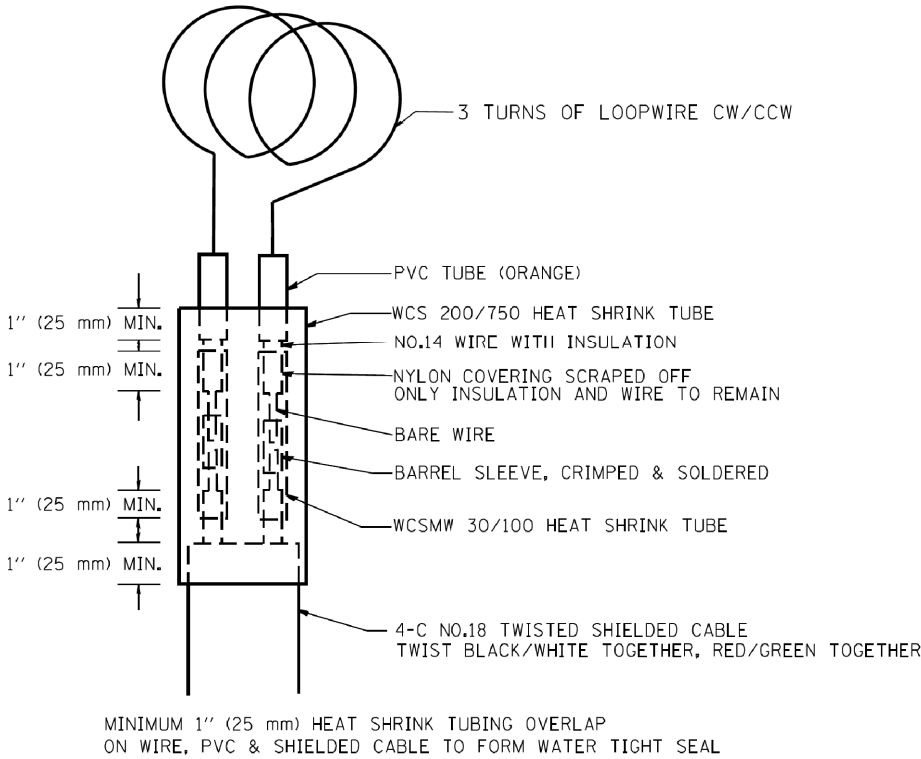
TYPICAL 6FT. (1.83 m) DIA. INDUCTION LOOP CORE DRILL
LAYOUT FOR MULTIPLE LANE ROADWAY



TYPICAL 6FT. (1.83 m) DIA. INDUCTION LOOP CORE DRILL
LAYOUT FOR MULTIPLE LANE ROADWAY

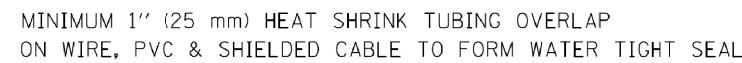


- NOTES
1. EACH LOOP SHALL BE SPLICED TO A 4-C NO.18 TWISTED SHIELDED LEAD IN WHEN 150FT. (45 m) OR MORE FROM CABINET.
 2. LOOPS SHALL BE SPLICED IN HANDHOLES ONLY, OTHERWISE WRITTEN PERMISSION SHALL BE OBTAINED FROM TSC ENGINEER.
 3. LOOPS SHALL NOT BE SPLICED IN SERIES.
 4. EACH LOOP LEAD IN SHALL BE IDENTIFIED AND PERMANENTLY COLOR CODED IN THE COREHOLE, HANDHOLE & CABINETS THRU WHICH THEY ENTER OR PASS AND TAGGED WITH THE CORRECT NOMENCLATURES.



LOOP SPLICING REQUIREMENTS

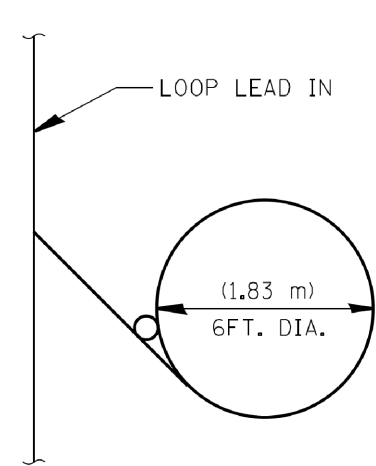
FILE NAME = ct\pw_work\pwidot\mezag\d0287541\TSCITY.dgn	USER NAME = mezag	DESIGNED - R.L.	REVISED - 6/94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC SYSTEMS CENTER	EXISTING ROUND INDUCTION LOOP TYPICALS				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - G.M.	REVISED - 10/96						*	(99-IHB-1) R-1	WILL	1508	1040
	PLOT SCALE = 100,0000 ' / 1"	CHECKED - R.L.	REVISED - R.L. 03/2011						CONTRACT NO. 60X10				
	PLOT DATE = 8/23/2012	DATE - 6-22-94	REVISED -						FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
				SCALE:	NONE	SHEET NO.	OF	SHEETS	STA.	TO STA.			



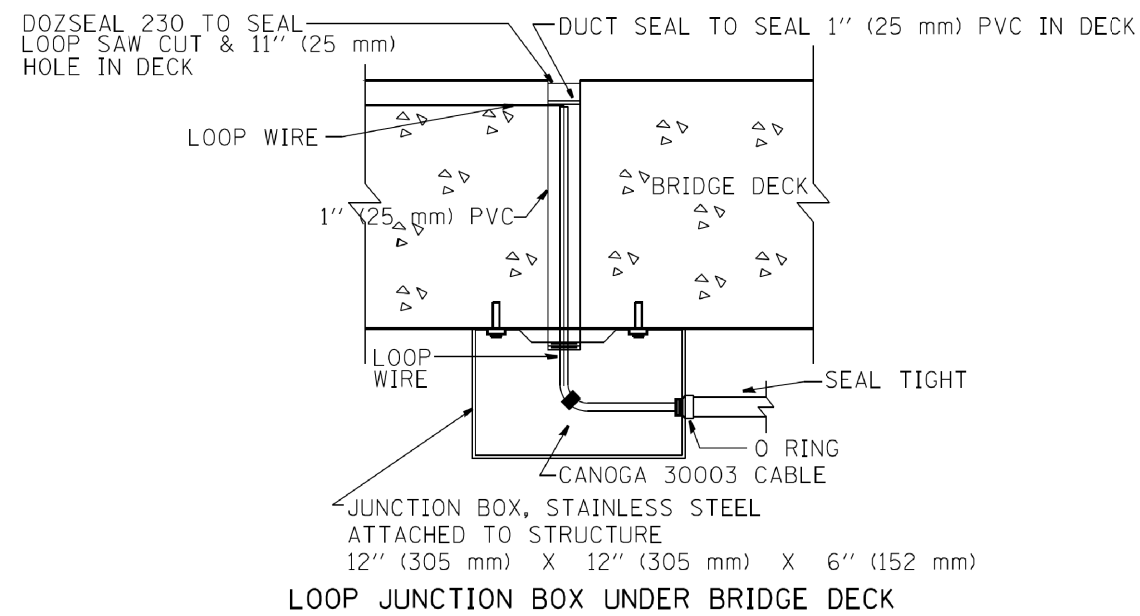
TYPICAL "S" FT. BY 6' (1.83 m) INDUCTION LOOP
SAWCUT LAYOUT FOR RAMPS

CURB AND GUTTER LOOP LEAD-IN
TRANSITION DETAIL

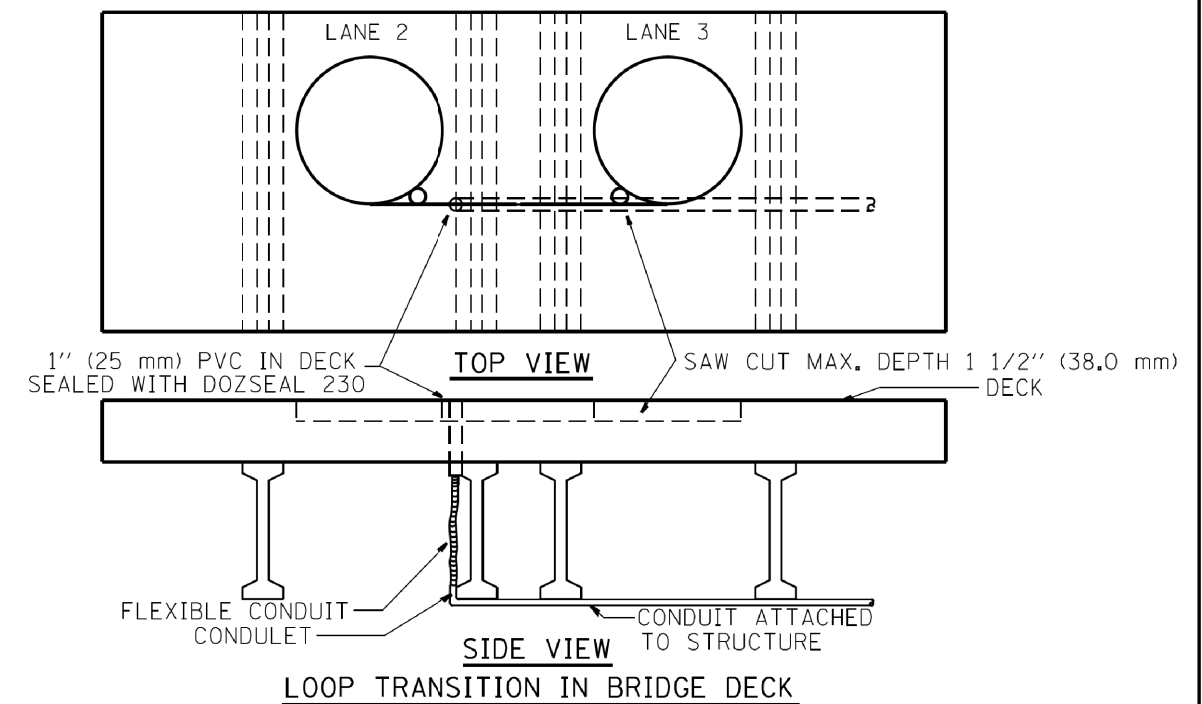
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		DRAWN - G.M.	REVISED - 11/95						*	(99-1HB-1) R-1	WILL	1508	1041
	PLOT SCALE = 100,0000 ' / in.	CHECKED - R.L.	REVISED - 05/96				CONTRACT NO. 60X10						
	PLOT DATE = 12/6/2012	DATE - 6-22-94	REVISED - 10/96		SCALE: NONE	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	



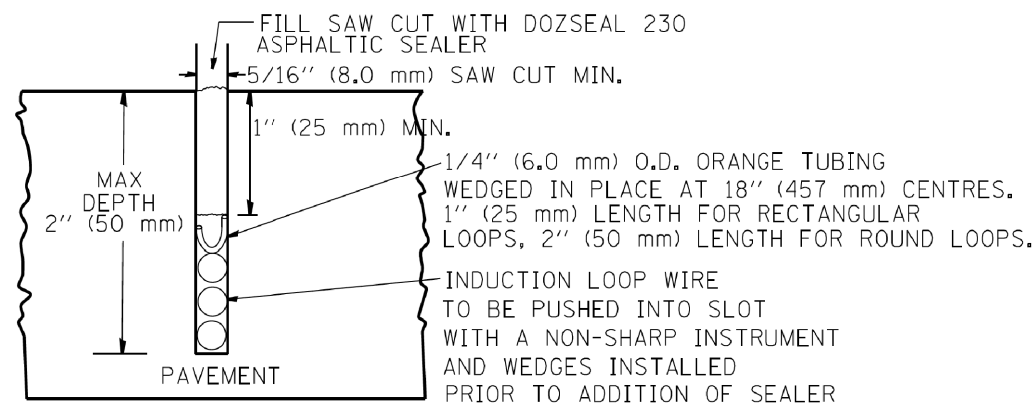
TYPICAL LOOP SAWCUT LAYOUT



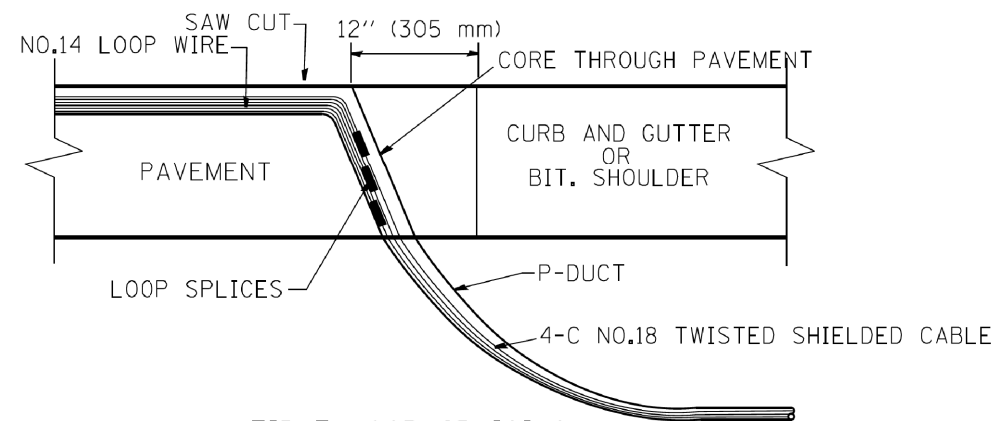
LOOP JUNCTION BOX UNDER BRIDGE DECK



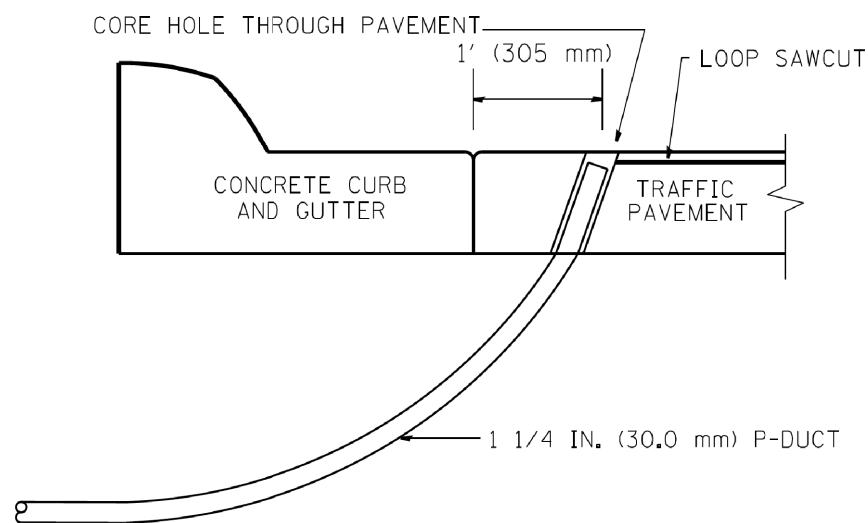
LOOP TRANSITION IN BRIDGE DECK



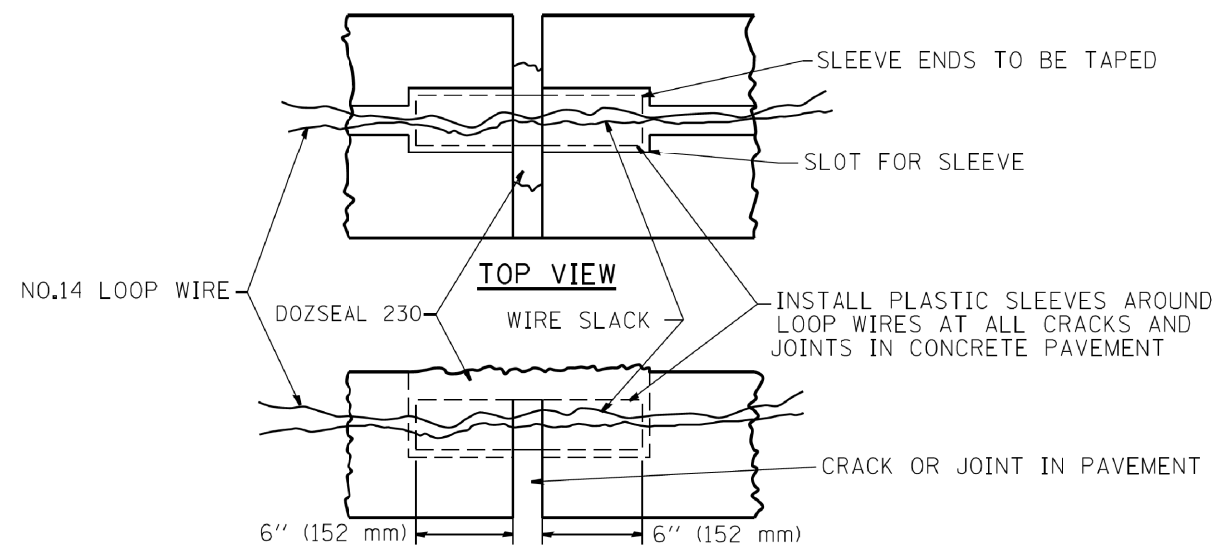
LOOP CROSS SECTION IN PAVEMENT



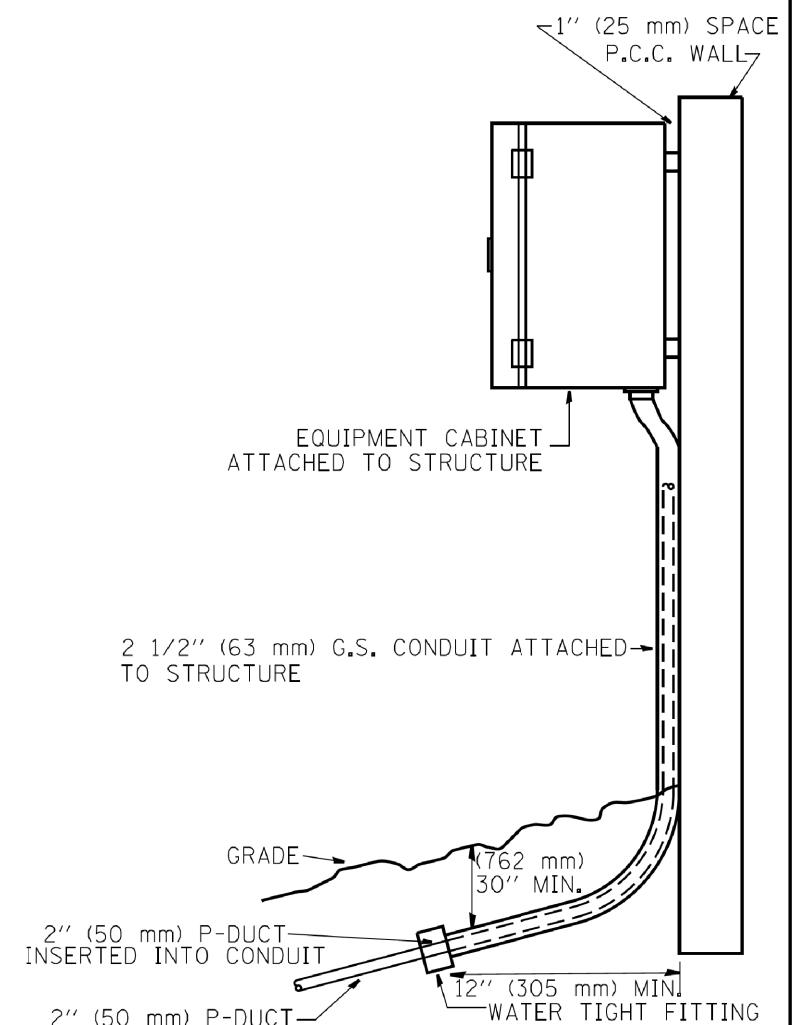
MULTIPLE LOOP SPLICING



SIDE SECTION LOOP LEAD-IN TRANSITION DETAIL

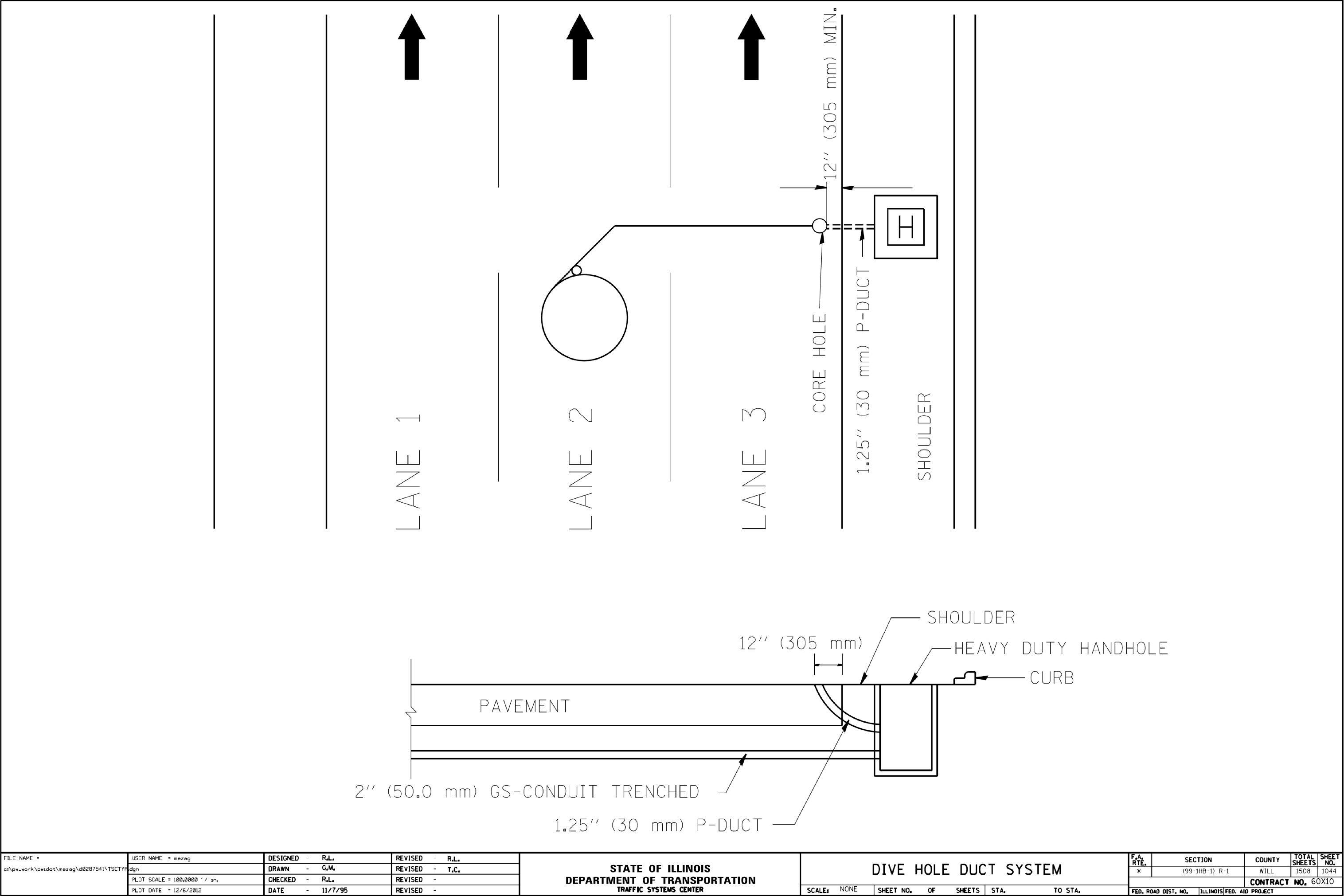


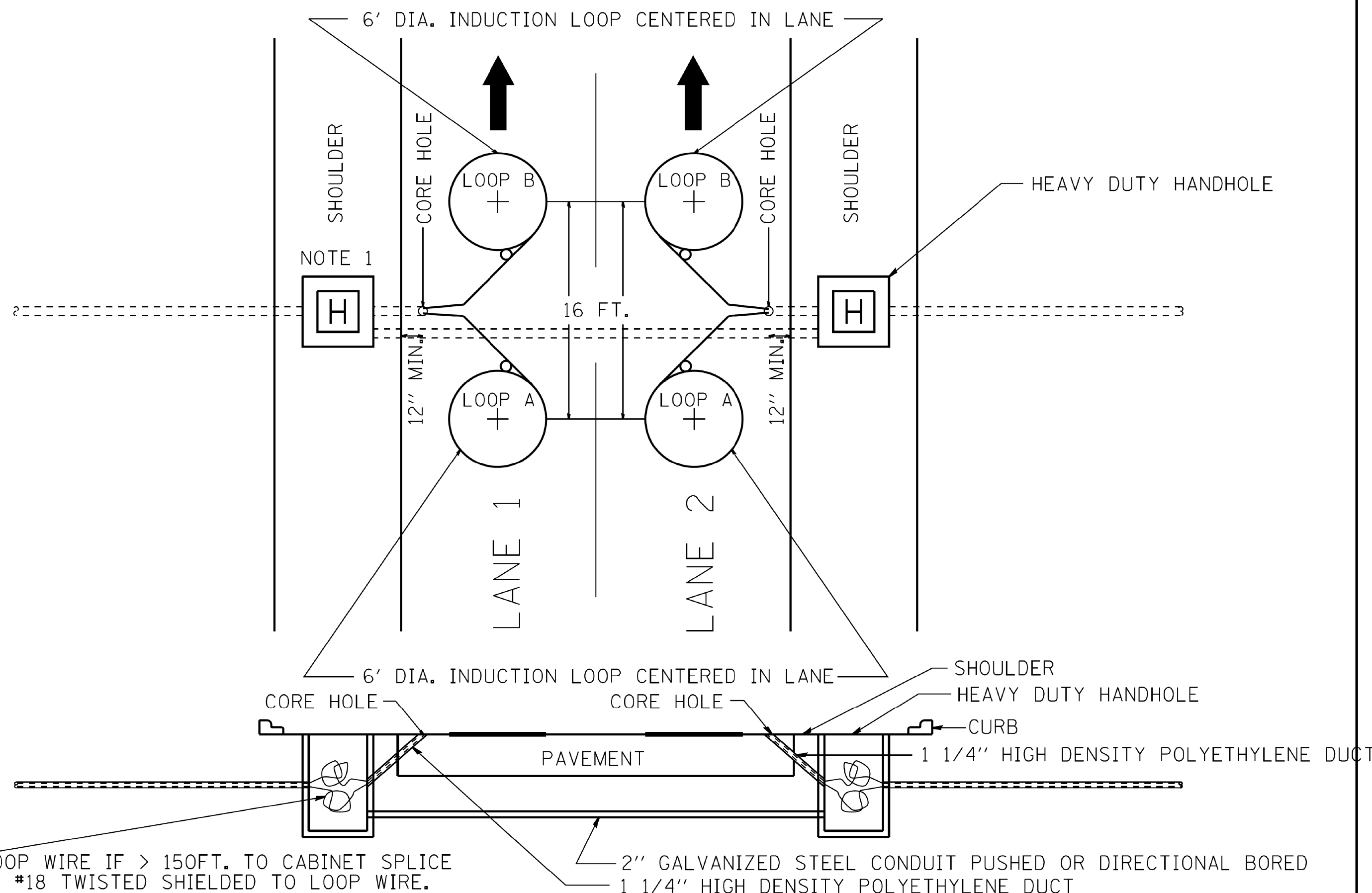
PAVEMENT CRACK TRANSVERSE SLEEVE



POLYETHYLENE DUCT/GS. CONDUIT TRANSITION

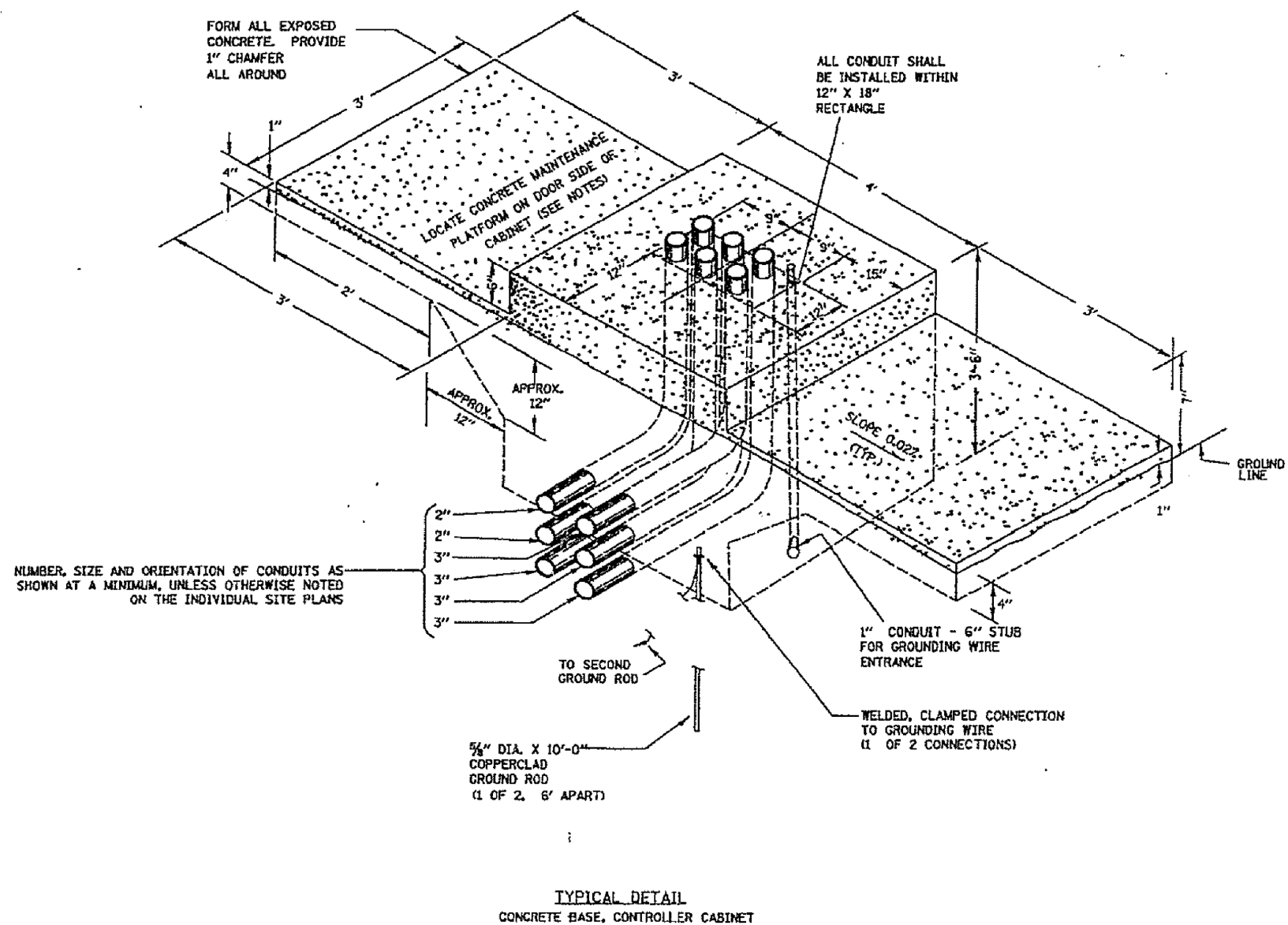
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ct\pw_work\pwidot\mezag\d0287541\TSCTYP.dgn		DRAWN - G.M.	REVISED - 03/95									*	(99-1HB-1) R-1	WILL	1508	1042
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				SCALE: NONE				SHEET NO. OF SHEETS STA. TO STA.								





NOTE 1: IF HDHH NOT POSSIBLE THEN LANE 1 LOOPS USE SAME CORE HOLE AS LANE 2 LOOPS. IN THE OTHER DIRECTION, LANE 2 LOOPS WILL USE SAME CORE HOLE AS LANE 1 LOOPS.

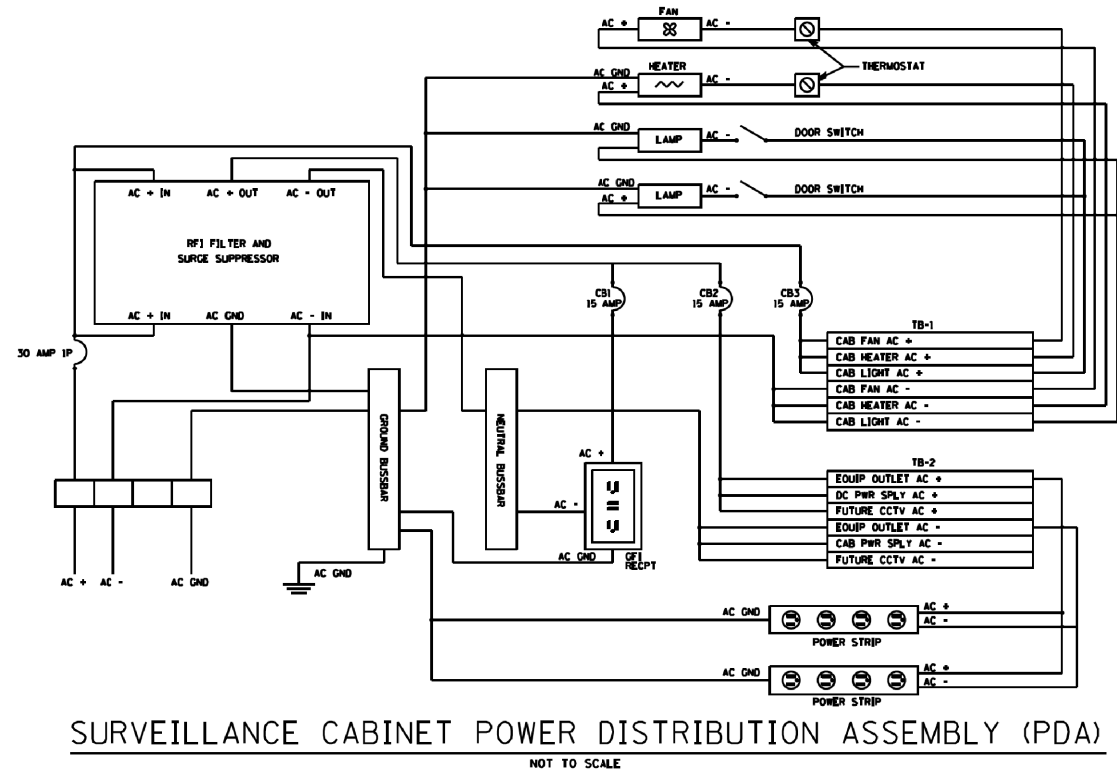
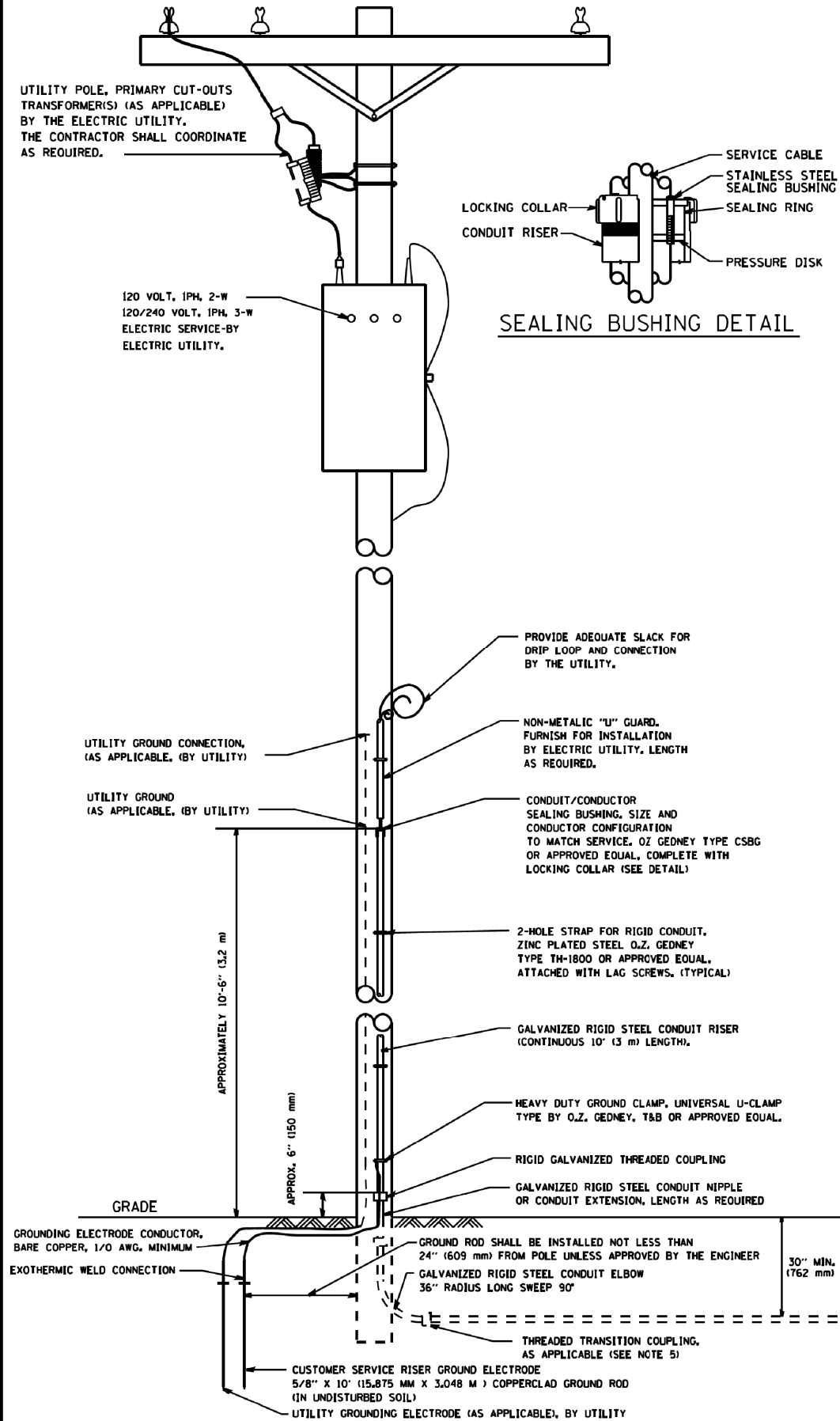
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		DRAWN - G.M.	REVISED - 03/17/2014				*	(99-1HB-1) R-1	WILL	1508	1045		
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	PLOT DATE = #DATE#	DATE - 06/25/2010	REVISED -										
					SCALE: NONE	SHEET	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 60X10		
												FED. ROAD DIST. NO.	ILLINOIS/FED. AID PROJECT



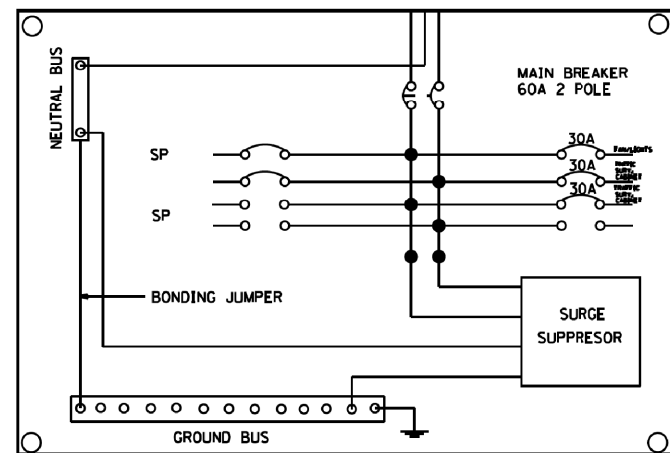
NOTES

1. INSTALL FOUR 3/4 INCH DIAMETER X 12 INCH MINIMUM LENGTH APPROVED J-BOLTS TO ANCHOR THE CABINET BASES. THE ANCHOR BOLTS SHALL BE GALVANIZED STEEL AND LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.
2. CONTROL CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED AND LEVEL. PRIOR TO CABINET INSTALLATION. LEVELING OF TOP SURFACES AFTER CONCRETE BASE HAS CURED SHALL ONLY BE ACCOMPLISHED BY GRINDING.
3. MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.
4. CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.
5. CONCRETE MAINTENANCE PLATFORM AND CABINET FOUNDATION FOR CABINET SHALL BE A MONOLITHIC POUR.
6. WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.
7. CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 3 INCH.
8. MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.
9. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.
10. CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.
11. PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.
12. ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.
13. ALL METALLIC CONDUIT ENDS AT TOP OF CONCRETE BASES SHALL HAVE BUSHINGS AND ALL NON METALLIC CONDUIT ENDS AT TOP OF CONCRETE BASES SHALL HAVE END BELLS.

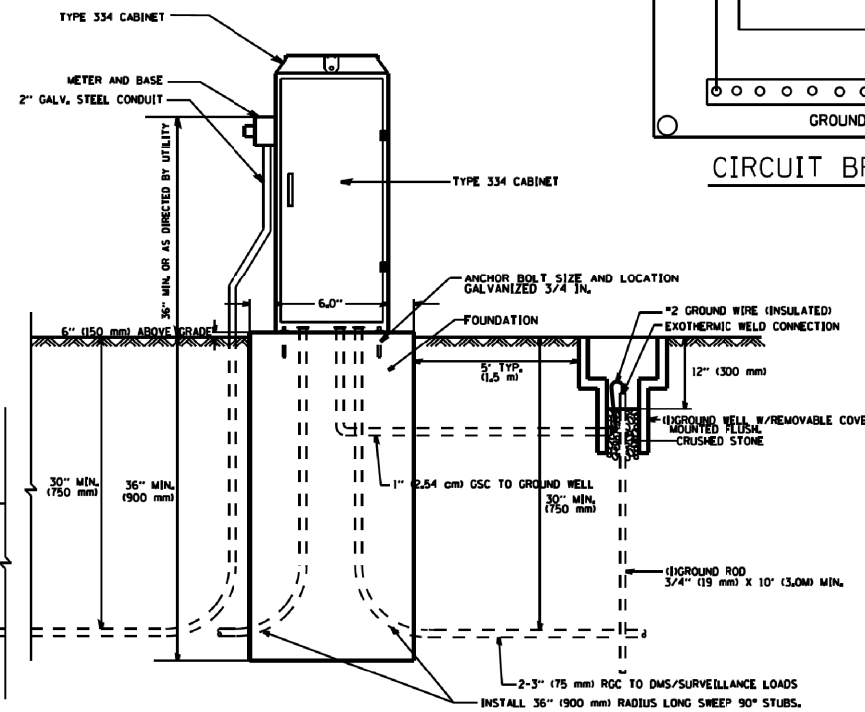
FILE NAME *	USER NAME * wingram	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONCRETE FOUNDATION, SURVEILLANCE CABINET MODEL 334				F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P:\P-07-1628-11\Can\Concrete Foundation	Type 1 Detail (For Cabinet, Model 334).dgn	DRAWN -	REVISED -						*	(99-1HB-1) R-1	WILL	1508	1046
PLOT SCALE * #SCALE#	CHECKED -	REVISED -	REVISED -		SCALE: 1" = 50'				SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 60X10	
PLOT DATE = 3/18/2010	DATE -	REVISED -	REVISED -		FED. ROAD DIST. NO.				ILLINOIS FED. AID PROJECT				



SURVEILLANCE CABINET POWER DISTRIBUTION ASSEMBLY (PDA)



CIRCUIT BREAKER/DISCONNECT DETAIL

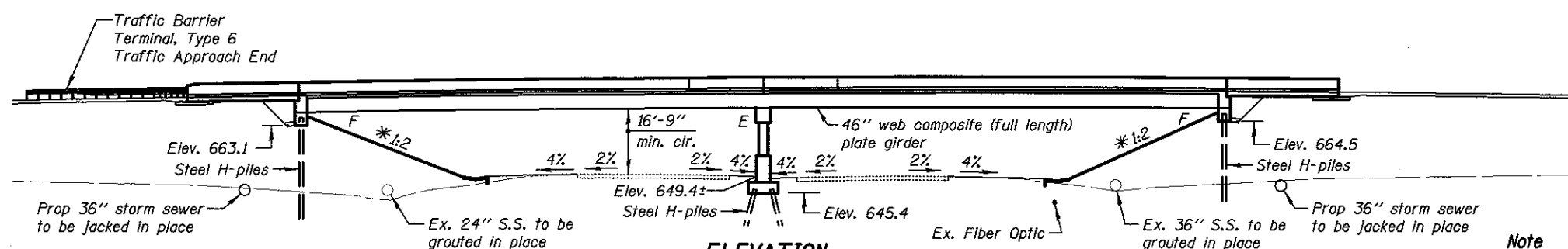


- NOTES:**
- 1.- SERVICE VOLTAGE SHALL BE AS INDICATED IN THE DRAWINGS.
 - 2.- CONDUIT AND CONNECTOR DIAMETER SHALL MATCH THE DIAMETER OF THE SERVICE CONDUCTOR RACEWAY AS INDICATED ON THE PLANS.
 - 3.- THE CONTRACTOR SHALL OBTAIN INSPECTION AND APPROVAL BY THE ENGINEER OF SERVICE RISER GROUND ELECTRODE, RISER ELBOW, NIPPLE AND CONNECTION TO SERVICE CONDUCTOR RACEWAY EXTENSION BEFORE BACKFILL AND SHALL ALSO OBTAIN INSPECTION OF SERVICE RISER AND SEALING BUSHING BEFORE UTILITY "U" GUARD INSTALLATION AND SERVICE CONNECTION.
 - 4.- THE HORIZONTAL ELECTRIC SERVICE CONDUCTOR RACEWAY SHALL BE AS INDICATED AND SHALL BE MEASURED SEPARATELY FOR PAYMENT, WHEN THE RACEWAY IS PVC-COATED RIGID GALVANIZED STEEL, THE COUPLING SHALL BE THE SAME, WHEN THE RACEWAY IS PVC CONDUIT (IN CONCRETE), THE COUPLING SHALL BE A METALIC TO A NON METALIC ADAPTER, WHEN THE RACEWAY IS ENCASED IN CONCRETE, THE CONCRETE SHALL EXTEND TO COVER THE COUPLING.
 - 5.- PLANS AND DETAILS INDICATE THE GENERAL NATURE AND REQUIREMENTS, THEY DO NOT SHOW EVERY ACCESSORY AND ATTACHMENT, AND THEY DO NOT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS AND SPECIAL PROVISIONS TO ASCERTAIN UTILITY REQUIREMENTS AND TO COORDINATE ACCORDINGLY, FURNISHING ALL ITEMS AND WORK NOT PROVIDED BY THE UTILITY, BUT NECESSARY FOR A COMPLETE SERVICE INSTALLATION IS REQUIRED AND SHALL BE INCLUDED IN THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.
 - 6.- THE CONTRACTOR SHALL SCHEDULE THE WORK SUCH THAT THE ENGINEER SHALL WITNESS THE INSTALLATION OF THE RISER SEALING BUSHING AND GROUND ROD EXOTHERMIC WELDS. THE CONTRACTOR SHALL OBTAIN A CERTIFICATION SIGNED BY THE ENGINEER THAT THIS WORK WAS WITNESSED.
 - 7.- THE ELECTRIC SERVICE EQUIPMENT ASSEMBLY SHALL BE UL LABELED, SUITABLE FOR USE AS SERVICE EQUIPMENT. CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC BOLT-ON TYPE WITH A MINIMUM INTERRUPTING CAPACITY OF 65,000 SYMMETRICAL AMPERES AT 240 VOLTS, THEY SHALL BE LOCKABLE IN THE "OFF" POSITION FOR COMPLIANCE WITH OSHA LOCK-OUT/TAG-OUT REQUIREMENTS, HANDLES SHALL BE TRIP FREE.
 - 8.- THE SURGE PROTECTOR SHALL BE SUITABLE FOR 240/120 VOLT SINGLE PHASE 60HZ AC ELECTRICAL SERVICE, WITH A SURGE ENERGY CAPABILITY OF >3600 JOULES OR BETTER AT 8/20 MICROSECONDS, RATED -40 TO 65 DEGREES C., WITH LED OPERATING INDICATORS, AND SHALL BE UL LISTED PER UL 1449, CUTLER-HAMMER CMOV 230L065XST OR APPROVED EQUAL. SURGE PROTECTOR SHALL BE WIRED FOR 120 V SERVICE. FOLLOW MANUFACTURER RECOMMENDED WIRING SPECIFICATIONS.
 - 9.- BUS BARS, CONNECTORS AND LUGS SHALL BE COPPER, INSULATED AND ISOLATED AND CONFIGURED TO PREVENT SHORTED CONDITIONS FROM TIGHTENING TERMINATIONS, ETC. THE OVERALL BUS SECTION SHALL BE CONFIGURED BEHIND AN INSULATING BARRIER SHIELD WHICH IS REMOVABLE FOR ACCESS TO CONNECTIONS.
 - 10.- THE COMBINATION GROUND AND NEUTRAL BAR SHALL BE CONFIGURED WITH SEPARATE GROUND AND NEUTRAL SECTIONS AND SPARE TERMINALS AS INDICATED. THE HEADS OF GROUND SCREWS SHALL BE PAINTED GREEN, THE HEADS OF NEUTRAL SCREWS SHALL BE PAINTED WHITE.
 - 11.- A PLASTIC LAMINATED LAYOUT AND CIRCUIT SHALL BE AFFIXED TO THE INTERIOR SIDE OF THE ENCLOSURE DOOR.
 - 12.- A 2-COLOR ENGRAVED PLASTIC NAMEPLATE, ATTACHED WITH SCREWS, AND ENGRAVED AS INDICATED, SHALL BE PROVIDED FOR EACH MAIN BREAKER.
 - 13.- THE CONTRACTOR SHALL PROVIDE A CABINET LAYOUT DIAGRAM, CIRCUIT SCHEMATIC AND BILL OF MATERIALS WITH CATALOG NUMBERS USED.

FILE NAME: \\PROJECTS\TSC\TYPICAL\TSC\TYP\080808.dgn c:\p_e\work\pedit\mezog\d0267541\TSC\TYP\080808.dgn #MODEL NAME:	USER NAME = mezog	DESIGNED - R.L.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC SYSTEMS CENTER	CABINET 334 (POWER PEDESTAL)	SCALE: NONE	SHEET OF SHEETS	STA. TO STA.	P.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - G.M.	REVISED -						*	(99-1HB-1) R-1	WILL	1508	1047
	PLOT SCALE = 100.0000' / 1" =	CHECKED - R.L.	REVISED -						CONTRACT NO. 60X10				
	PLOT DATE = 10/31/2013	DATE = 02/2012	REVISED -										
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT													

Bench Mark: BM Lin17 Chiseled "X" on south bolt of round light pole foundation between I-55 southbound and existing I-55 ramp to Weber Road
Mile marker 263.71 sign. Elev. 654.37

Existing Structure: None



ELEVATION

* (V:H) @ Rt. L's

Note

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

CURVE DATA

Curve I-55-2
 $\Delta = 5^\circ 33' 40''$ (LT)
 $D = 0^\circ 21' 17''$
 $R = 16,149.49'$
 $T = 784.36'$
 $L = 1,567.49'$
 $E = 19.04'$
SE = normal crown
PC STA. 3106+81.93
PT STA. 3122+49.42
PI STA. 3114+66.30

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications,
Customary U.S. Units, 7th Edition with 2015 Interims

LOADING HL-93

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

DESIGN STRESSES

FIELD UNITS

$f'_c = 4,000$ psi (superstructure concrete)
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (AASHTO M270 Gr. 50)
 $f_y = 36,000$ psi (AASHTO M270 Gr. 36)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.066g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.124g
Soil Site Class = C

APPROVED
For Structural Adequacy Only

Trisha E. Butcher
Engineer of Bridges & Structures



Expires 11-30-2018

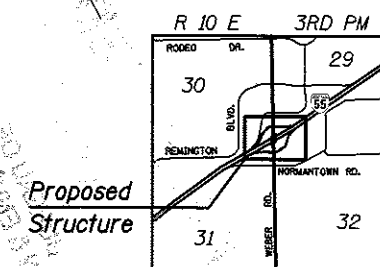
Date: 8/16/2017
for drawings
SA-01 thru SA-33

Legend

Soil Borings
F.F. Front Face S.U.P. Shared Use Path
B.F. Back Face

Notes:
SN 099-0281 and SN 099-0428 are part of a
Diverging Diamond Interchange (DDI).

GENERAL PLAN & ELEVATION
NORTHBOUND WEBER ROAD OVER I-55
F.A.P. RTE. 856 SEC. (99-1HB-1) R-1
WILL COUNTY
STA. 2811+59.99
STRUCTURE NO. 099-0428



LOCATION SKETCH

Note A

Construct retaining wall SN 099-0907, as required, to construct the south abutment and slopewall.

Note B

Construct retaining wall SN 099-0908, as required, to construct the north abutment and slopewall.

PLAN

KNIGHT
Engineers & Architects

DESIGNED - TB
CHECKED - WPM
DRAWN - SMA
DATE - 8/25/2017
CHECKED - TB
REVIS

DESIGNED - TB
CHECKED - WPM
DRAWN - SMA
DATE - 8/25/2017
CHECKED - TB
REVIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NUMBER 099-0428

SHEET NO. SA-01 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1048

CONTRACT NO. 60X10
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts.
Bolts 7⁄8" Ø, holes 15⁄16" Ø, unless otherwise noted.

Calculated weight of Structural Steel = 471,610 lb M270 Grade 50
Calculated weight of Structural Steel = 49,610 lb M270 Grade 36

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

Reinforcement bars designated (E) shall be epoxy coated.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1⁄8" (0.01 ft.).
Adjustment shall be made either by grinding the surface or by shimming the bearings.

Concrete Sealer shall be applied to the designated areas of the pier.

The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception of the exterior surface and the bottom of the bottom flange of fascia beams, masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Gray, Munsell No. 5B 7/1.

Slipforming of the parapet is not permitted.

INDEX OF SHEETS

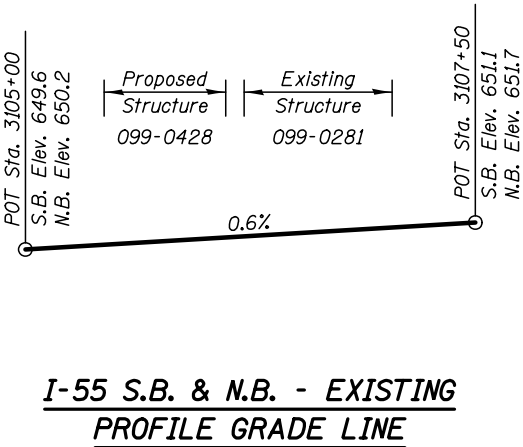
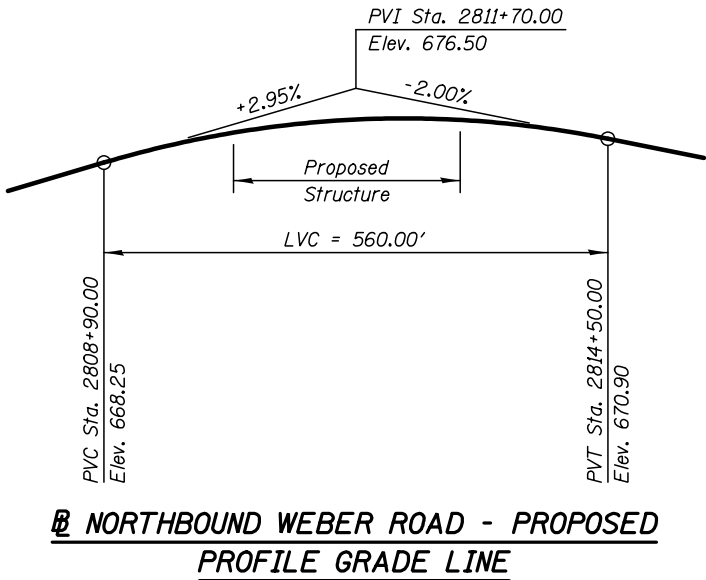
SA-01	General Plan and Elevation
SA-02	General Notes and Total Bill Of Material
SA-03	Slopedwall and Temporary Soil Retention System
SA-04	Substructure Layout
SA-05	Stage Construction Details
SA-06	Temporary Concrete Barrier
SA-07	Top of Slab Elevations - Location Plan
SA-08	Top of Slab Elevations
SA-09	Top of Slab Elevations
SA-10	Top of Approach Slab Elevations
SA-11	Deck Plan and Cross Section
SA-12	Shared Use Path and Parapet Details
SA-13	West Parapet Details
SA-14	Deck Diaphragm Details
SA-15	Deck Miscellaneous Details
SA-16	Bridge Approach Slab Plan (South)
SA-17	Bridge Approach Slab Plan (North)
SA-18	Bridge Approach Slab Details
SA-19	Bridge Approach Slab Details
SA-20	Bridge Fence Railing, Sidewalk Mounted
SA-21	Drainage Scupper, DS-11
SA-22	Deck Drainage System
SA-23	Framing Plan and Elevation
SA-24	Girder Details
SA-25	Field Splice and Diaphragm Details
SA-26	High Load Multi-Rotational Bearing Details
SA-27	Fixed Bearing Details
SA-28	South Abutment
SA-29	North Abutment
SA-30	Abutment Miscellaneous Details
SA-31	Pier
SA-32	Pier Details
SA-33	HP Pile Details
SA-34	Soil Boring Logs
SA-35	Soil Boring Logs
SA-36	Soil Boring Logs

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu. Yd.		728.0	728.0
Concrete Structures	Cu. Yd.	44.0	254.0	298.0
Concrete Superstructure	Cu. Yd.	640.0		640.0
Bridge Deck Grooving	Sq. Yd.	1514.0		1514.0
Protective Coat	Sq. Yd.	2765.0		2765.0
Concrete Superstructure (Approach Slab)	Cu. Yd.	198.0		198.0
Furnishing and Erecting Structural Steel	L Sum	1		1
Stud Shear Connectors	Each	7224		7224
Reinforcement Bars, Epoxy Coated	Pound	207400	33570	240970
Bridge Fence Railing (Sidewalk)	Foot	307.0		307.0
Parapet Railing	Foot	310.0		310.0
Slope Wall 4 Inch	Sq. Yd.		824.0	824.0
Furnishing Steel Piles HP12X53	Foot		2430.0	2430.0
Driving Piles	Foot		2353.0	2353.0
Test Pile Steel HP12X53	Each		3	3
Pile Shoes	Each		54	54
Name Plates	Each		1	1
Anchor Bolts, 1"	Each	32		32
Anchor Bolts, 1 1⁄4"	Each	32		32
Temporary Soil Retention System	Sq. Ft.		688.0	688.0
Concrete Sealer	Sq. Ft.		1451.0	1451.0
Geocomposite Wall Drain	Sq. Yd.		148.0	148.0
Drainage Scuppers, DS-11	Each	4		4
Pipe Underdrains For Structures 4"	Foot		168.0	168.0
Drainage System, No. 1	Each	1		1
High Load Multi-Rotational Bearings, Guided Expansion, 450K	Each	8		8
Granular Backfill for Structures	Cu. Yd.		294.0	294.0

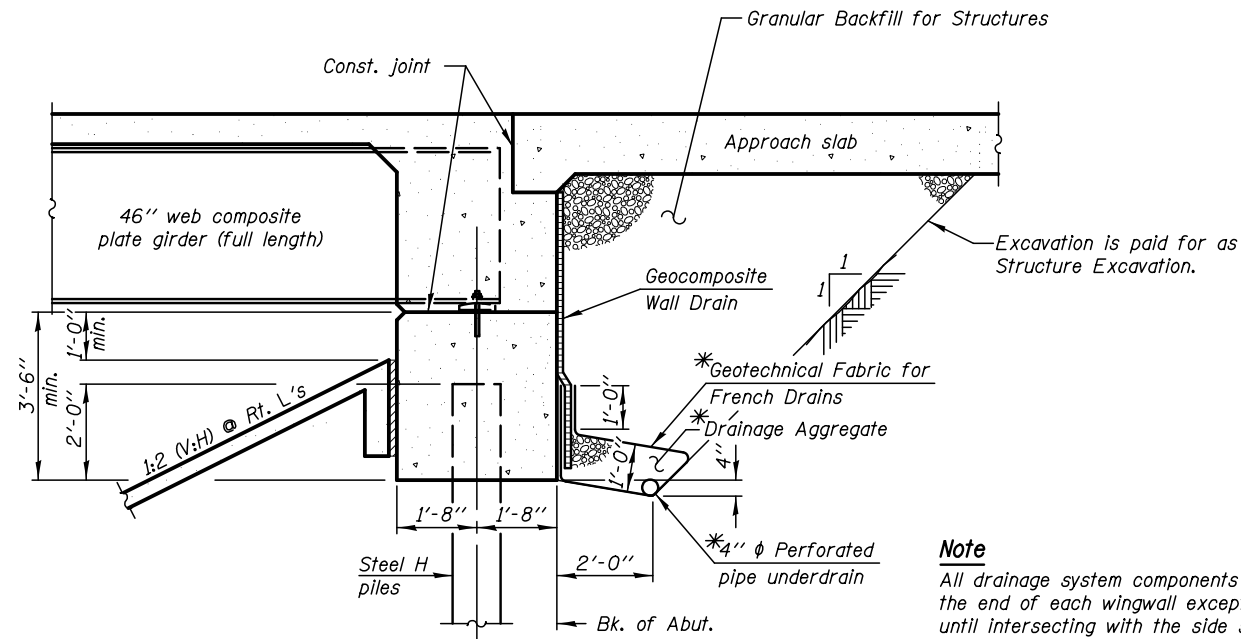
STATION 2811+59.99
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RTE. 856 SEC. (99-1HB-1) R-1
LOADING HL-93
STRUCTURE NO. 099-0428

NAME PLATES
See Std. 515001



PLOT DATE = 8/16/2017

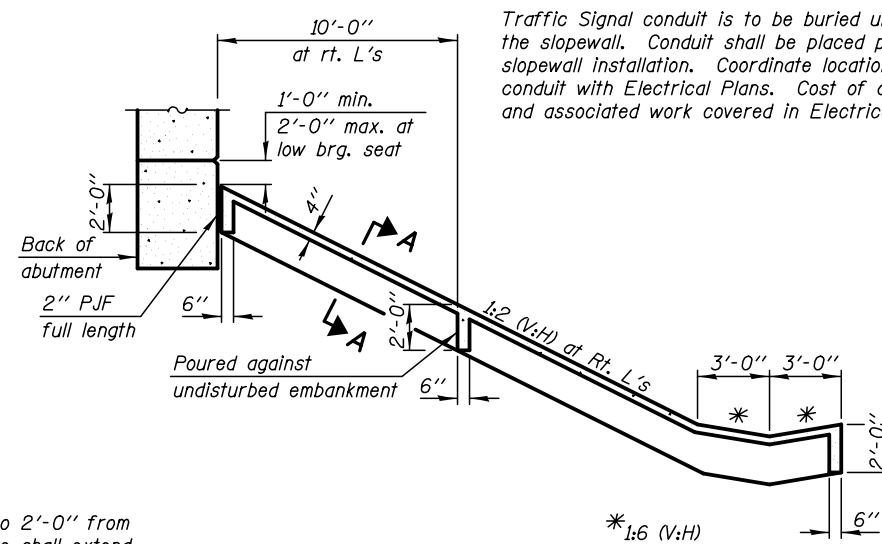
KNIGHT Engineers & Architects		DESIGNED - TB	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES AND TOTAL BILL OF MATERIAL STRUCTURE NUMBER 099-0428	F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - WPM	REVISED			*	(99-1HB-1) R-1	WILL	1508	1049
	SCALE - NONE	DRAWN - SMA	REVISED			CONTRACT NO. 60X10				
	DATE - 8/25/2017	CHECKED - TB	REVISED			* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				
	SHEET NO. SA-02 OF 36 SHEETS									



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures.
(See Special Provisions)

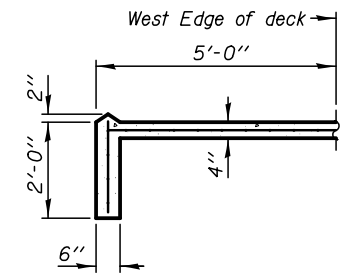
Note
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



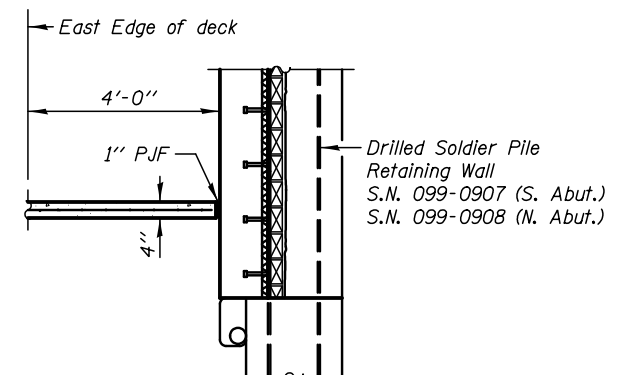
SECTION THRU CONCRETE SLOPEWALL

Note
Slope wall shall be reinforced with welded wire fabric, 6 in. x 6 in. - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

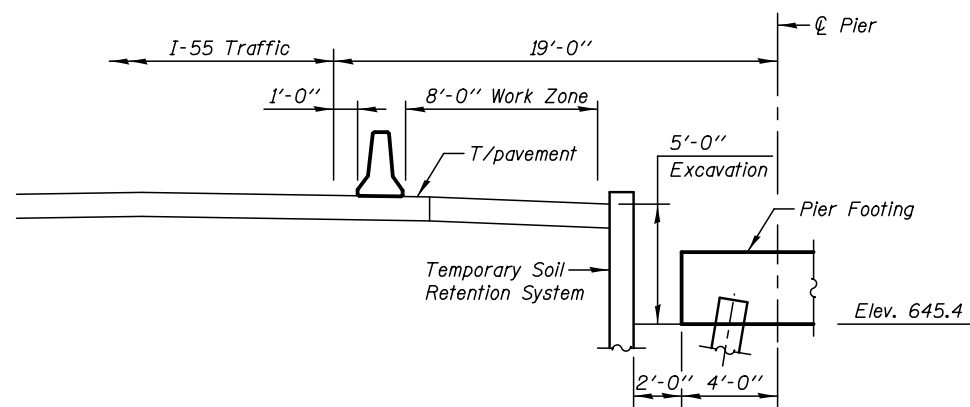
Traffic Signal conduit is to be buried under the sloped wall. Conduit shall be placed prior to sloped wall installation. Coordinate location of conduit with Electrical Plans. Cost of conduit and associated work covered in Electrical Plans.



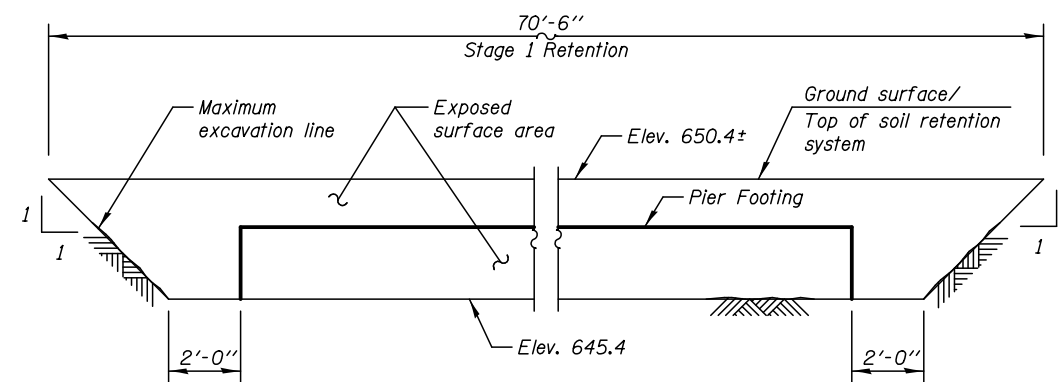
SECTION A-A West Edge Slopewall



SECTION A-A East Edge Slopewall



TEMPORARY SOIL RETENTION SYSTEM - PIER DETAIL
(Symmetrical about Centerline of Pier)



TEMPORARY SOIL RETENTION SYSTEM - ELEVATION VIEW

Note:
A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

BILL OF MATERIAL

Item	Unit	Quantity
Granular Backfill for Structures	Cu. Yd.	294.0
Pipe Underdrains for Structures 4"	Foot	168.0
Geocomposite Wall Drain	Sq. Yd.	148.0
Slope Wall 4 Inch	Sq. Yd.	824.0
Temporary Soil Retention System	Sq. Ft.	688.0

PLOT DATE = 8/16/2017

KNIGHT
Engineers & Architects

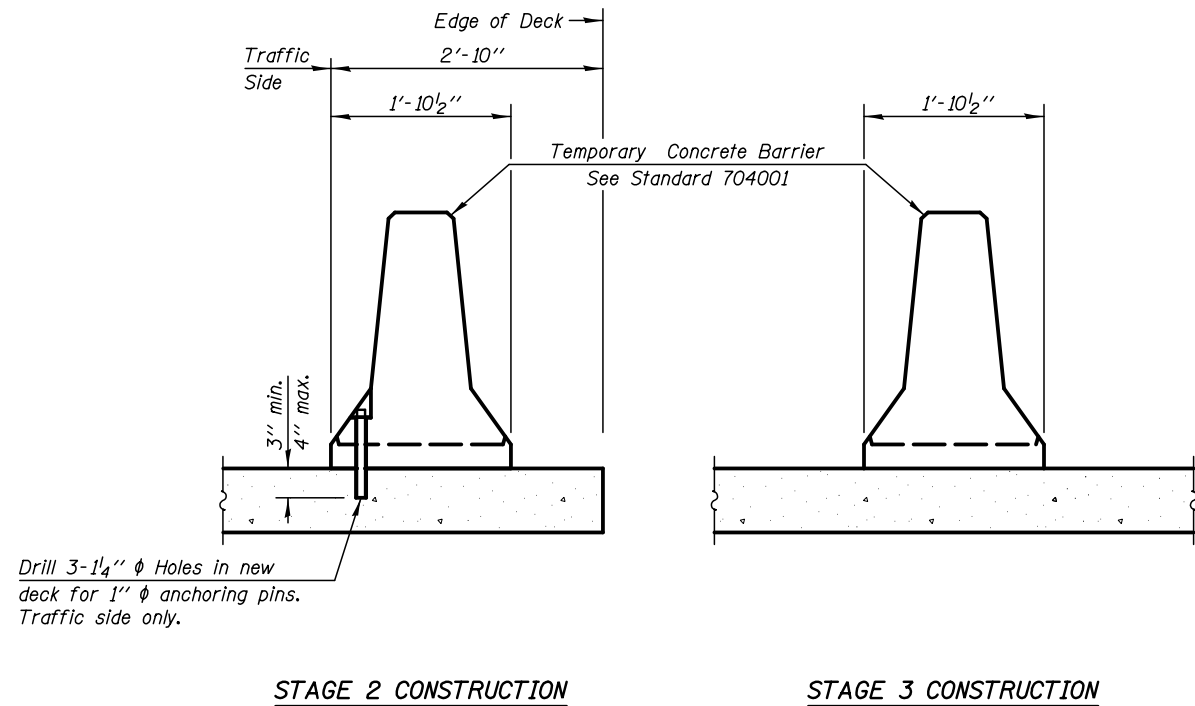
DESIGNED - TB	REVISION
CHECKED - WPM	REVISION
DRAWN - SMA	REVISION
CHECKED - TB	REVISION

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SLOPEWALL AND TEMPORARY SOIL RETENTION SYSTEM
STRUCTURE NUMBER 099-0428

SHEET NO. SA-03 OF 36 SHEETS

F.A.I./P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1050
CONTRACT NO. 60X10				
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				



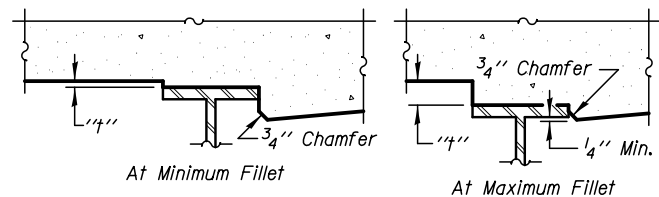
Notes:
Temporary Concrete Barrier to be pinned to deck in Stage 2 ONLY per Special Provision "Temporary Concrete Barrier" and as shown.

Cost of drilling and grouting pins included in the cost of "Pinning Temporary Concrete Barrier". See Maintenance of Traffic Plans for additional details.

SECTIONS THRU DECK

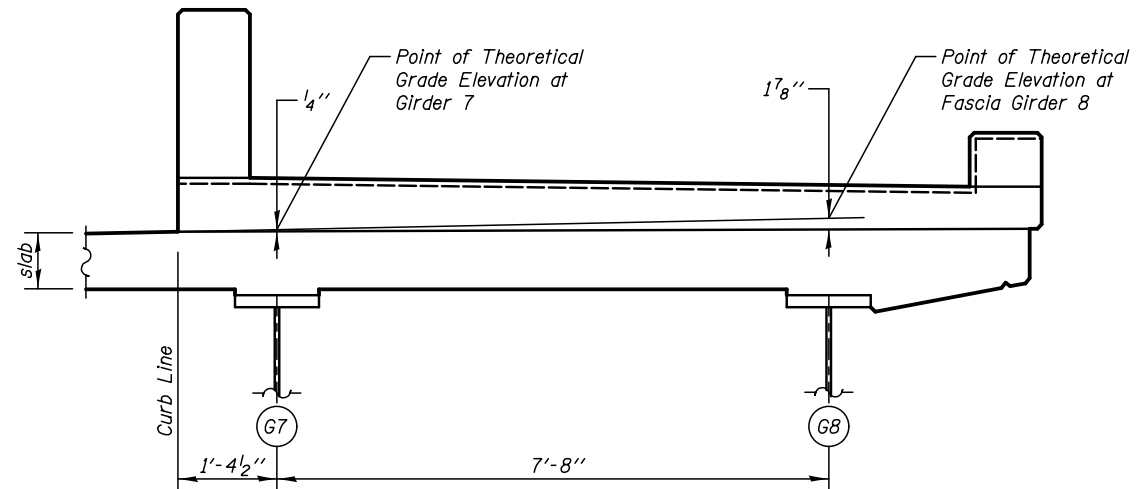
PLOT DATE = 8/16/2017

KNIGHT Engineers & Architects		DESIGNED - TB	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER STRUCTURE NUMBER 099-0428	F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - WPM	REVISED			*	(99-1HB-1) R-1	WILL	1508	1053
	SCALE - NONE	DRAWN - SMA	REVISED			CONTRACT NO. 60X10				
	DATE - 8/25/2017	CHECKED - TB	REVISED			SHEET NO. SA-06 OF 36 SHEETS				
		* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT								



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted For Dead Load Deflection" shown below and on Sheet SA-09, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



SECTION THRU SIDEWALK

GIRDER G1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	2810+33.77	-0.63	671.55	671.55
@ Brg. S. Abut	2810+35.66	-0.63	671.59	671.59
A	2810+45.66	-0.63	671.75	671.81
B	2810+55.66	-0.63	671.90	672.02
C	2810+65.66	-0.63	672.05	672.20
D	2810+75.66	-0.63	672.18	672.36
E	2810+85.66	-0.63	672.31	672.50
F	2810+95.66	-0.63	672.42	672.61
G	2811+05.66	-0.63	672.53	672.69
H	2811+15.66	-0.63	672.63	672.76
I	2811+25.66	-0.63	672.72	672.81
J	2811+35.66	-0.63	672.81	672.85
K	2811+45.66	-0.63	672.88	672.89
@ Brg. Pier	2811+59.66	-0.63	672.97	672.97
L	2811+69.66	-0.63	673.02	673.02
M	2811+79.66	-0.63	673.06	673.09
N	2811+89.66	-0.63	673.10	673.16
O	2811+99.66	-0.63	673.12	673.23
P	2812+09.66	-0.63	673.14	673.29
Q	2812+19.66	-0.63	673.15	673.32
R	2812+29.66	-0.63	673.15	673.34
S	2812+39.66	-0.63	673.14	673.33
T	2812+49.66	-0.63	673.12	673.29
U	2812+59.66	-0.63	673.09	673.23
V	2812+69.66	-0.63	673.06	673.14
@ Brg. N. Abut	2812+83.66	-0.63	672.99	672.99
Bk. N. Abut.	2812+85.55	-0.63	672.98	672.98

P.G. LINE & @ NORTHBOUND WEBER ROAD

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	2810+34.10	0.00	671.57	671.57
@ Brg. S. Abut	2810+35.99	0.00	671.60	671.60
A	2810+45.99	0.00	671.77	671.83
B	2810+55.99	0.00	671.92	672.03
C	2810+65.99	0.00	672.06	672.22
D	2810+75.99	0.00	672.20	672.38
E	2810+85.99	0.00	672.32	672.52
F	2810+95.99	0.00	672.44	672.62
G	2811+05.99	0.00	672.55	672.71
H	2811+15.99	0.00	672.65	672.77
I	2811+25.99	0.00	672.74	672.82
J	2811+35.99	0.00	672.82	672.86
K	2811+45.99	0.00	672.90	672.91
@ Brg. Pier	2811+59.99	0.00	672.98	672.98
L	2811+69.99	0.00	673.03	673.04
M	2811+79.99	0.00	673.08	673.11
N	2811+89.99	0.00	673.11	673.18
O	2811+99.99	0.00	673.14	673.25
P	2812+09.99	0.00	673.15	673.30
Q	2812+19.99	0.00	673.16	673.34
R	2812+29.99	0.00	673.16	673.35
S	2812+39.99	0.00	673.15	673.34
T	2812+49.99	0.00	673.13	673.30
U	2812+59.99	0.00	673.10	673.24
V	2812+69.99	0.00	673.07	673.15
@ Brg. N. Abut	2812+83.99	0.00	673.00	673.00
Bk. N. Abut.	2812+85.88	0.00	672.99	672.99

GIRDER G2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	2810+37.85	7.04	671.78	671.78
@ Brg. S. Abut	2810+39.74	7.04	671.81	671.81
A	2810+49.74	7.04	671.97	672.03
B	2810+59.74	7.04	672.12	672.24
C	2810+69.74	7.04	672.26	672.42
D	2810+79.74	7.04	672.39	672.58
E	2810+89.74	7.04	672.52	672.71
F	2810+99.74	7.04	672.63	672.81
G	2811+09.74	7.04	672.73	672.89
H	2811+19.74	7.04	672.83	672.96
I	2811+29.74	7.04	672.92	673.00
J	2811+39.74	7.04	673.00	673.04
K	2811+49.74	7.04	673.07	673.08
@ Brg. Pier	2811+63.74	7.04	673.15	673.15
L	2811+73.74	7.04	673.20	673.20
M	2811+83.74	7.04	673.24	673.27
N	2811+93.74	7.04	673.27	673.34
O	2812+03.74	7.04	673.29	673.40
P	2812+13.74	7.04	673.30	673.45
Q	2812+23.74	7.04	673.31	673.48
R	2812+33.74	7.04	673.30	673.49
S	2812+43.74	7.04	673.29	673.48
T	2812+53.74	7.04	673.27	673.44
U	2812+63.74	7.04	673.24	673.37
V	2812+73.74	7.04	673.20	673.28
@ Brg. N. Abut	2812+87.74	7.04	673.13	673.13
Bk. N. Abut.	2812+89.63	7.04	673.12	673.12

PLOT DATE = 8/16/2017

KNIGHT

Engineers & Architects

DESIGNED - TB	REVISED
CHECKED - WPM	REVISED
DRAWN - SMA	REVISED
CHECKED - TB	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS
STRUCTURE NUMBER 099-0428**

SHEET NO. SA-08 OF 36 SHEETS

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1055
CONTRACT NO. 60X10				
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				

PLOT DATE = 8/16/2017

GIRDER G3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut. ⌚ Brg. S. Abut	2810+41.93	14.71	672.01	672.01
	2810+43.82	14.71	672.04	672.04
A	2810+53.82	14.71	672.19	672.26
B	2810+63.82	14.71	672.34	672.45
C	2810+73.82	14.71	672.48	672.63
D	2810+83.82	14.71	672.60	672.79
E	2810+93.82	14.71	672.72	672.91
F	2811+03.82	14.71	672.83	673.02
G	2811+13.82	14.71	672.94	673.09
H	2811+23.82	14.71	673.03	673.15
I	2811+33.82	14.71	673.11	673.19
J	2811+43.82	14.71	673.19	673.23
K	2811+53.82	14.71	673.25	673.26
⌚ Brg. Pier	2811+67.82	14.71	673.33	673.33
L	2811+77.82	14.71	673.38	673.38
M	2811+87.82	14.71	673.41	673.44
N	2811+97.82	14.71	673.44	673.50
O	2812+07.82	14.71	673.46	673.57
P	2812+17.82	14.71	673.47	673.61
Q	2812+27.82	14.71	673.47	673.64
R	2812+37.82	14.71	673.46	673.65
S	2812+47.82	14.71	673.44	673.63
T	2812+57.82	14.71	673.42	673.59
U	2812+67.82	14.71	673.38	673.52
V	2812+77.82	14.71	673.34	673.42
⌚ Brg. N. Abut	2812+91.82	14.71	673.26	673.26
Bk. N. Abut.	2812+93.71	14.71	673.25	673.25

GIRDER G4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut. ⌚ Brg. S. Abut	2810+46.02	22.37	672.23	672.23
	2810+47.90	22.37	672.26	672.26
A	2810+57.90	22.37	672.41	672.48
B	2810+67.90	22.37	672.56	672.67
C	2810+77.90	22.37	672.69	672.85
D	2810+87.90	22.37	672.81	673.00
E	2810+97.90	22.37	672.93	673.12
F	2811+07.90	22.37	673.04	673.22
G	2811+17.90	22.37	673.13	673.29
H	2811+27.90	22.37	673.22	673.35
I	2811+37.90	22.37	673.30	673.39
J	2811+47.90	22.37	673.37	673.42
K	2811+57.90	22.37	673.44	673.45
⌚ Brg. Pier	2811+71.90	22.37	673.51	673.51
L	2811+81.90	22.37	673.55	673.55
M	2811+91.90	22.37	673.58	673.61
N	2812+01.90	22.37	673.61	673.67
O	2812+11.90	22.37	673.62	673.73
P	2812+21.90	22.37	673.63	673.77
Q	2812+31.90	22.37	673.63	673.80
R	2812+41.90	22.37	673.61	673.80
S	2812+51.90	22.37	673.59	673.78
T	2812+61.90	22.37	673.56	673.73
U	2812+71.90	22.37	673.53	673.66
V	2812+81.90	22.37	673.48	673.56
⌚ Brg. N. Abut	2812+95.90	22.37	673.40	673.40
Bk. N. Abut.	2812+97.79	22.37	673.39	673.39

GIRDER G5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut. ⌚ Brg. S. Abut	2810+50.10	30.04	672.46	672.46
	2810+51.99	30.04	672.48	672.48
A	2810+61.99	30.04	672.63	672.69
B	2810+71.99	30.04	672.77	672.89
C	2810+81.99	30.04	672.90	673.06
D	2810+91.99	30.04	673.02	673.20
E	2811+01.99	30.04	673.13	673.32
F	2811+11.99	30.04	673.24	673.42
G	2811+21.99	30.04	673.33	673.49
H	2811+31.99	30.04	673.42	673.54
I	2811+41.99	30.04	673.49	673.58
J	2811+51.99	30.04	673.56	673.60
K	2811+61.99	30.04	673.62	673.63
⌚ Brg. Pier	2811+75.99	30.04	673.69	673.69
L	2811+85.99	30.04	673.73	673.73
M	2811+95.99	30.04	673.75	673.78
N	2812+05.99	30.04	673.77	673.84
O	2812+15.99	30.04	673.79	673.89
P	2812+25.99	30.04	673.79	673.93
Q	2812+35.99	30.04	673.78	673.96
R	2812+45.99	30.04	673.77	673.96
S	2812+55.99	30.04	673.74	673.93
T	2812+65.99	30.04	673.71	673.88
U	2812+75.99	30.04	673.67	673.80
V	2812+85.99	30.04	673.62	673.70
⌚ Brg. N. Abut	2812+99.99	30.04	673.53	673.53
Bk. N. Abut.	2813+01.87	30.04	673.52	673.52

GIRDER G6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut. ⌚ Brg. S. Abut	2810+54.18	37.71	672.68	672.68
	2810+56.07	37.71	672.71	672.71
A	2810+66.07	37.71	672.85	672.91
B	2810+76.07	37.71	672.98	673.10
C	2810+86.07	37.71	673.11	673.27
D	2810+96.07	37.71	673.23	673.41
E	2811+06.07	37.71	673.34	673.53
F	2811+16.07	37.71	673.44	673.62
G	2811+26.07	37.71	673.53	673.69
H	2811+36.07	37.71	673.61	673.73
I	2811+46.07	37.71	673.68	673.76
J	2811+56.07	37.71	673.75	673.79
K	2811+66.07	37.71	673.80	673.81
⌚ Brg. Pier	2811+80.07	37.71	673.86	673.86
L	2811+90.07	37.71	673.90	673.90
M	2812+00.07	37.71	673.92	673.95
N	2812+10.07	37.71	673.94	674.01
O	2812+20.07	37.71	673.95	674.06
P	2812+30.07	37.71	673.95	674.09
Q	2812+40.07	37.71	673.94	674.11
R	2812+50.07	37.71	673.92	674.11
S	2812+60.07	37.71	673.89	674.08
T	2812+70.07	37.71	673.85	674.02
U	2812+80.07	37.71	673.81	673.94
V	2812+90.07	37.71	673.75	673.84
⌚ Brg. N. Abut	2813+04.07	37.71	673.66	673.66
Bk. N. Abut.	2813+05.96	37.71	673.65	673.65

GIRDER G7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut. ⌚ Brg. S. Abut	2810+58.26	45.38	672.90	672.90
	2810+60.15	45.38	672.93	672.93
A	2810+70.15	45.38	673.07	673.13
B	2810+80.15	45.38	673.20	673.31
C	2810+90.15	45.38	673.32	673.48
D	2811+00.15	45.38	673.43	673.62
E	2811+10.15	45.38	673.54	673.73
F	2811+20.15	45.38	673.63	673.82
G	2811+30.15	45.38	673.72	673.88
H	2811+40.15	45.38	673.80	673.92
I	2811+50.15	45.38	673.87	673.95
J	2811+60.15	45.38	673.93	673.97
K	2811+70.15	45.38	673.98	673.99
⌚ Brg. Pier	2811+84.15	45.38	674.04	674.04
L	2811+94.15	45.38	674.07	674.07
M	2812+04.15	45.38	674.09	674.12
N	2812+14.15	45.38	674.10	674.17
O	2812+24.15	45.38	674.11	674.22
P	2812+34.15	45.38	674.10	674.25
Q	2812+44.15	45.38	674.09	674.26
R	2812+54.15	45.38	674.07	674.26
S	2812+64.15	45.38	674.04	674.22
T	2812+74.15	45.38	674.00	674.17
U	2812+84.15	45.38	673.95	674.08
V	2812+94.15	45.38	673.89	673.97
⌚ Brg. N. Abut	2813+08.15	45.38	673.79	673.79
Bk. N. Abut.	2813+10.04	45.38	673.78	673.78

GIRDER G8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut. ⌚ Brg. S. Abut	2810+62.34	53.04	673.12	673.12
	2810+64.23	53.04	673.14	673.14
A	2810+74.23	53.04	673.28	673.34
B	2810+84.23	53.04	673.41	673.52
C	2810+94.23	53.04	673.53	673.68
D	2811+04.23	53.04	673.64	673.82
E	2811+14.23	53.04	673.74	673.93
F	2811+24.23	53.04	673.83	674.01
G	2811+34.23	53.04	673.91	674.07
H	2811+44.23	53.04	673.99	674.11
I	2811+54.23	53.04	674.05	674.14
J	2811+64.23	53.04	674.11	674.15
K	2811+74.23	53.04	674.16	674.17
⌚ Brg. Pier	2811+88.23	53.04	674.21	674.21
L	2811+98.23	53.04	674.24	674.24
M	2812+08.23	53.04	674.26	674.28
N	2812+18.23	53.04	674.27	674.33
O	2812+28.23	53.04	674.27	674.37
P	2812+38.23	53.04	674.26	674.40
Q	2812+48.23	53.04	674.24	674.42
R	2812+58.23	53.04	674.22	674.41
S	2812+68.23	53.04	674.18	674.37
T	2812+78.23	53.04	674.14	674.31
U	2812+88.23	53.04	674.08	674.22
V	2812+98.23	53.04	674.02	674.11
⌚ Brg. N. Abut	2813+12.23	53.04	673.92	673.92
Bk. N. Abut.	2813+14.12	53.04	673.91	673.91

KNIGHT

Engineers & Architects

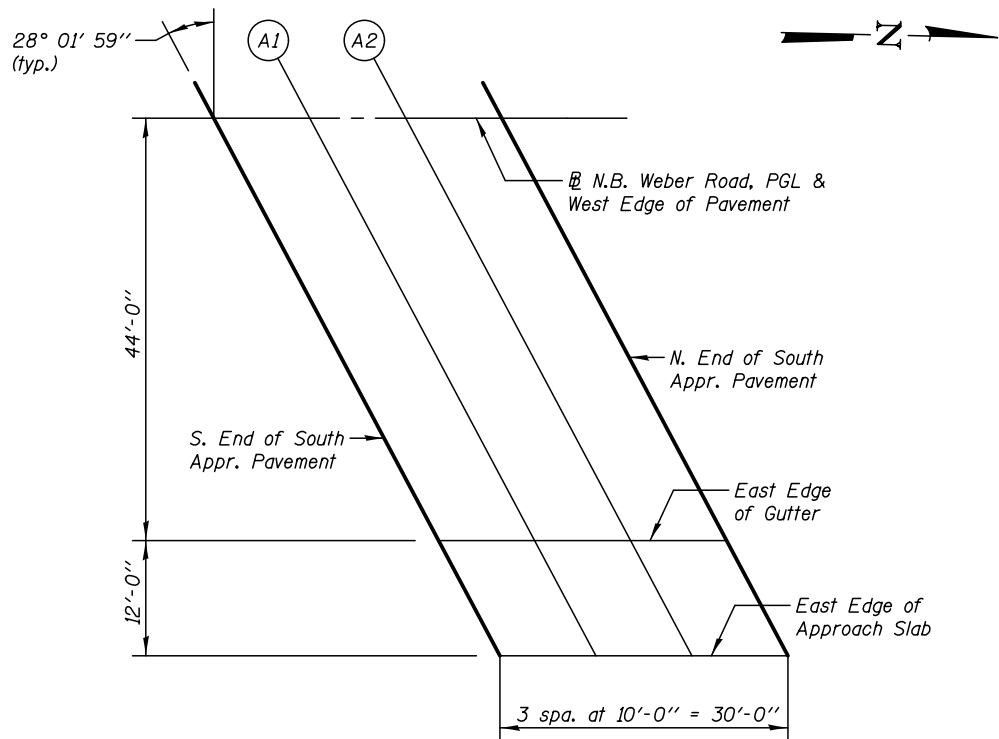
DESIGNED - TB	REVISED
CHECKED - WPM	REVISED
DRAWN - SMA	REVISED
CHECKED - TB	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

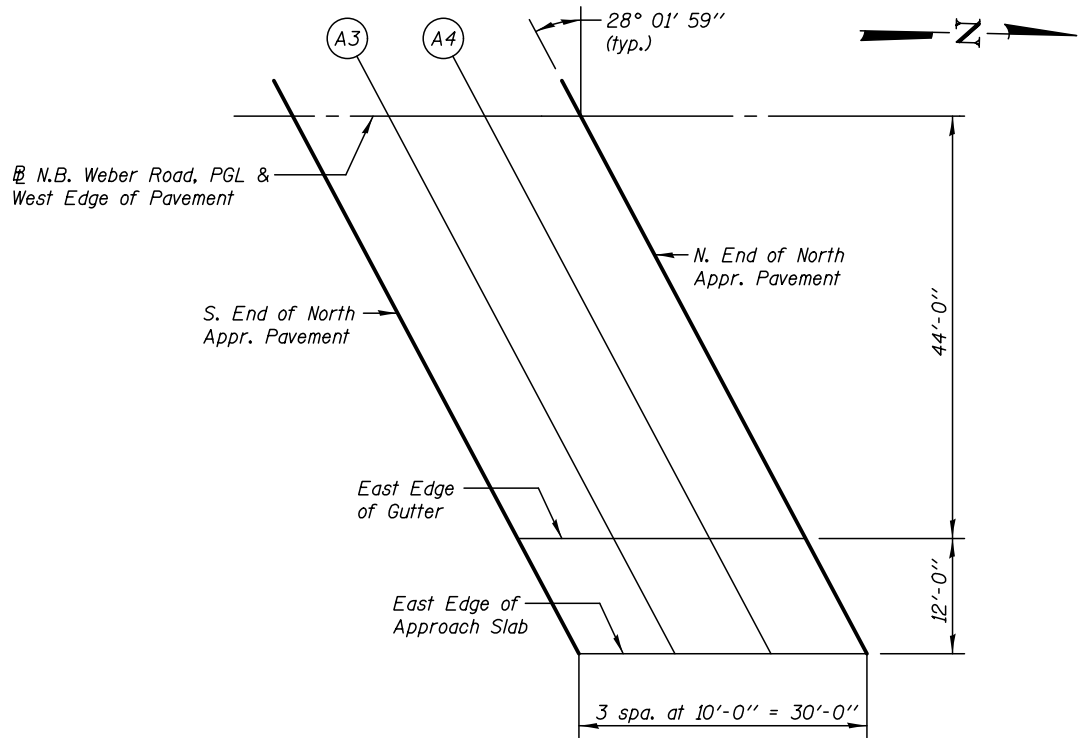
TOP OF SLAB ELEVATIONS
STRUCTURE NUMBER 099-0428

SHEET NO. SA-09 OF 36 SHEETS

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1056
CONTRACT NO. 60X10				
* FAI 55, FAP 856 [ILLINOIS] FED. AID PROJECT				



PLAN
South Approach



PLAN
North Approach

SOUTH APPROACH SLAB

@ NB WEBER ROAD, PROFILE GRADE LINE & WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Pav't.	2810+05.23	0.00	671.05
A1	2810+15.23	0.00	671.24
A2	2810+25.23	0.00	671.42
N. End South Appr. Pav't	2810+35.23	0.00	671.59

EAST EDGE OF GUTTER

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Pav't.	2810+28.66	44.00	672.40
A1	2810+38.66	44.00	672.57
A2	2810+48.66	44.00	672.72
N. End South Appr. Pav't	2810+58.66	44.00	672.88

EAST EDGE OF APPROACH SLAB

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Pav't.	2810+35.05	56.00	672.55
A1	2810+45.05	56.00	672.71
A2	2810+55.05	56.00	672.86
N. End South Appr. Pav't	2810+65.05	56.00	673.01

NORTH APPROACH SLAB

@ NB WEBER ROAD, PROFILE GRADE LINE & WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Pav't.	2812+84.75	0.00	673.00
A3	2812+94.75	0.00	672.94
A4	2813+04.75	0.00	672.87
N. End North Appr. Pav't	2813+14.75	0.00	672.80

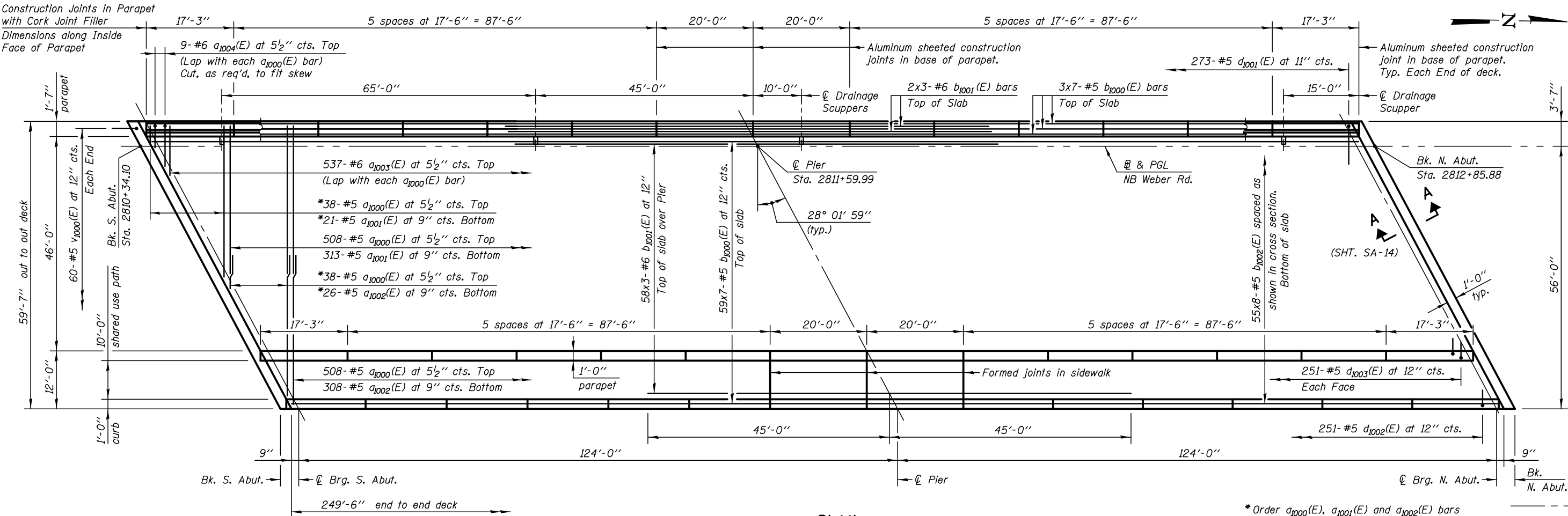
EAST EDGE OF GUTTER

Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Pav't.	2813+08.17	44.00	673.76
A3	2813+18.17	44.00	673.69
A4	2813+28.17	44.00	673.60
N. End North Appr. Pav't	2813+38.17	44.00	673.50

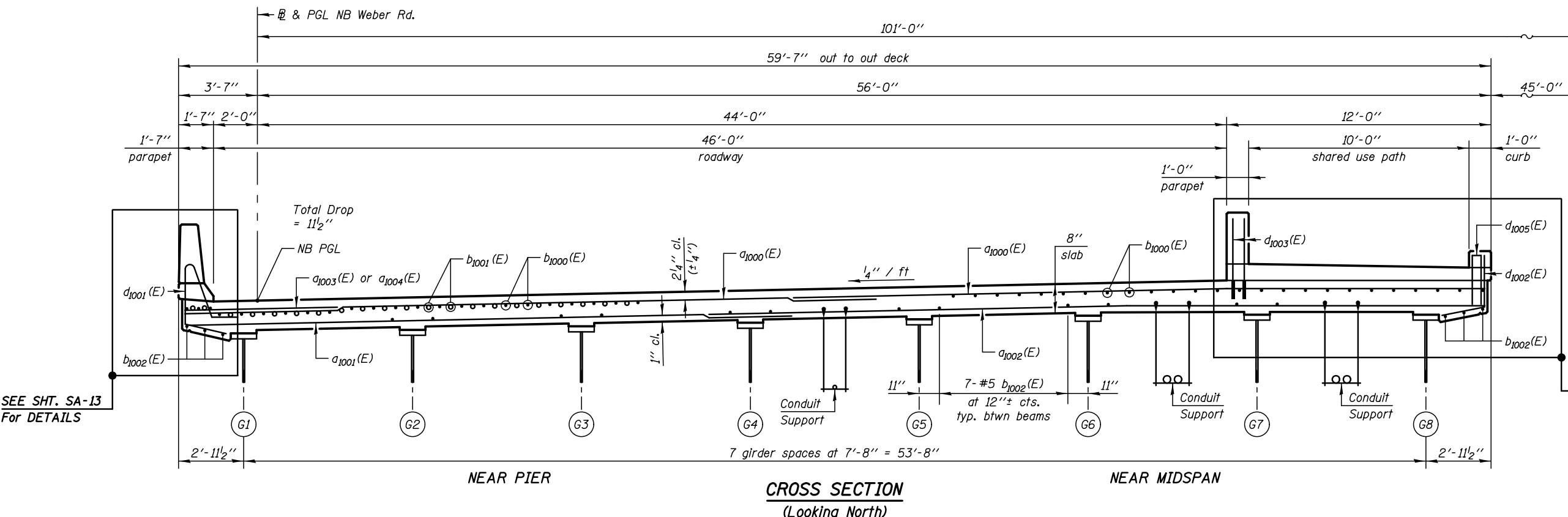
EAST EDGE OF APPROACH SLAB

Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Pav't.	2813+14.56	56.00	673.76
A3	2813+24.56	56.00	673.67
A4	2813+34.56	56.00	673.58
N. End North Appr. Pav't	2813+44.56	56.00	673.48

PLOT DATE = 8/16/2017



* Order a1000(E), a1001(E) and a1002(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

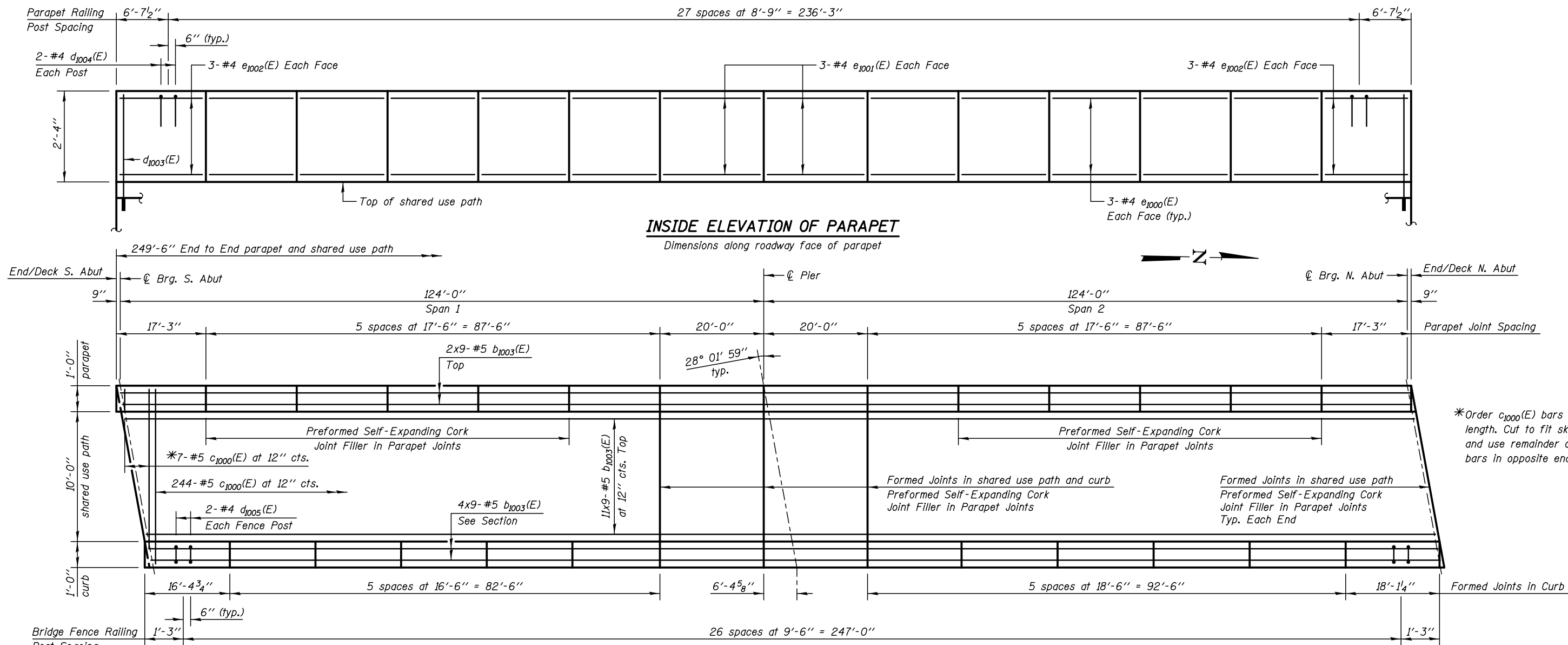


Notes:
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet SA-12 for Shared Use Path and Parapet Details
See Sheet SA-13 for West Parapet Details
See Sheet SA-15 for Deck Misc. Details and Bill of Material.
See Sheet SA-15 for Conduit Support and Drainage System Support Details
See Sheet SA-21 for Drainage Scupper Details.
SEE SHT. SA-12 For DETAILS

MIN. BAR LAPS:
#5 = 3'-6"
#6 = 4'-10"

PLOT DATE = 8/16/2017

KNIGHT Engineers & Architects		DESIGNED - TB	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK PLAN AND CROSS SECTION STRUCTURE NUMBER 099-0428	F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - WPM	REVISED			*	(99-1HB-1) R-1	WILL	1508	1058
	SCALE - NONE	DRAWN - SMA	REVISED			CONTRACT NO. 60X10				
	DATE - 8/25/2017	CHECKED - TB	REVISED			SHEET NO. SA-11 OF 36 SHEETS				
						* FAI 55, FAP 856 [ILLINOIS] FED. AID PROJECT				



*Order c1000(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

SHARED USE PATH - PARTIAL PLAN

NOTE A

Top of deck surface under the shared use path to be coated with Protective Coat during Stage 1 when the deck surface is coated. During Stage 3, prior to placement of the shared use path reinforcement, the construction joint surface shall be prepared by sandblasting and in accordance with Article 503.09 of the Standard Specifications. The cost of Stage 3 surface preparation shall be included in the cost of Concrete Superstructure.

Notes:

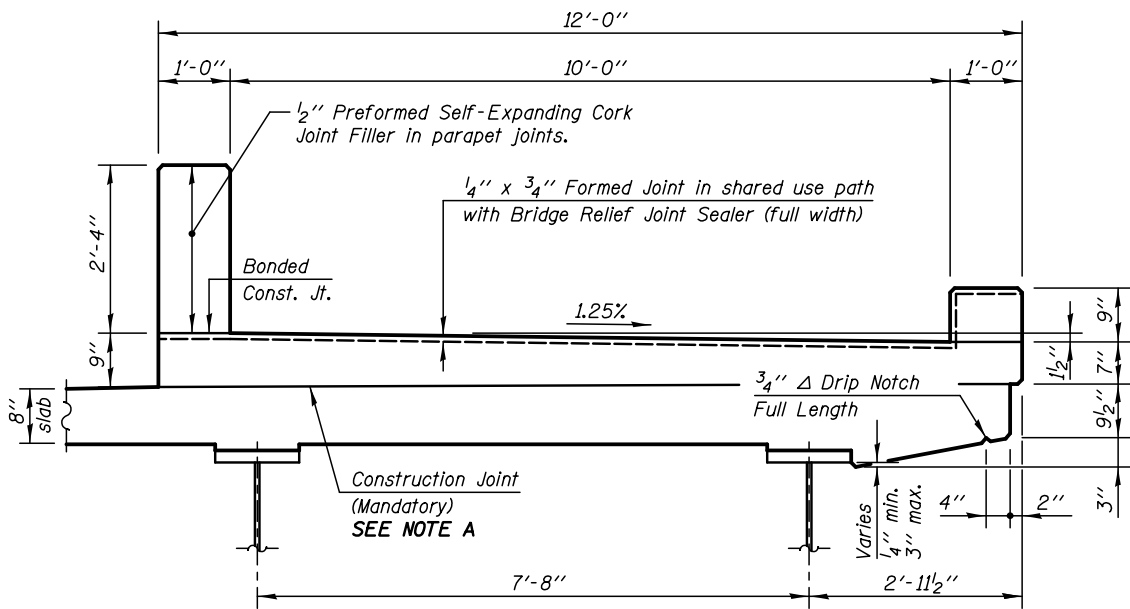
- Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
- See Sheet SA-11 for slab reinforcement.
- See Sheet SA-15 for Cork Filled Parapet Joint Detail.
- See Sheet SA-15 for Deck Misc. Details and Bill of Materials.
- See Sheet SA-20 for Bridge Fence Railing, Sidewalk Mounted Details
- The cost of drilling and setting d1003(E) bars shall be included in the cost of Reinforcement Bars, Epoxy Coated.

NOTE B

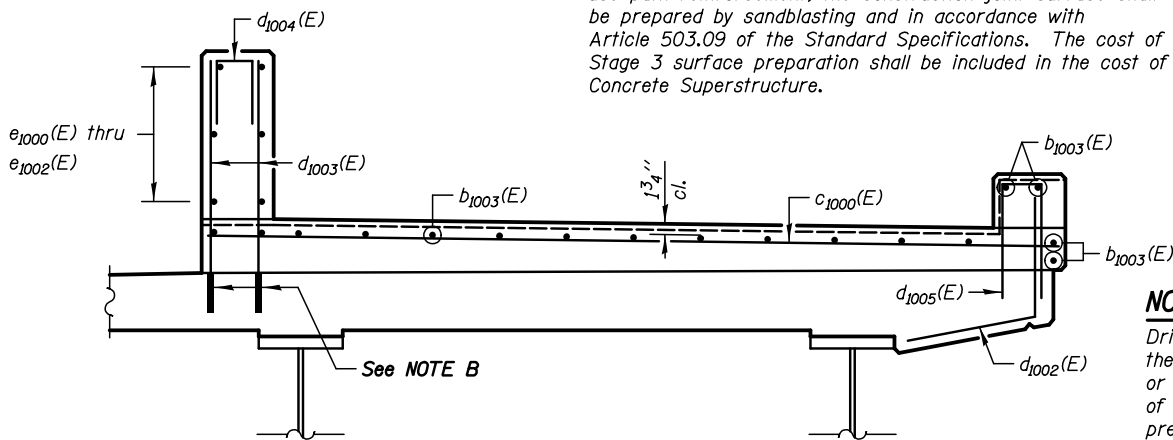
Drill and set d1003(E) bars according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened or scored per manufacturer's recommendations. Max. depth of hole shall not exceed 6". Contractor shall take all necessary precautions to prevent drilled hole interference with deck reinforcement bars. Locate longitudinal bars to miss drilled locations. Locate drilled holes to miss transverse bars in deck.

MIN. BAR LAPS:

#5 = 3'-6"



SECTION THRU SHARED USE PATH AND PARAPET
(Showing Dimensions)



SECTION THRU SHARED USE PATH AND PARAPET
(Showing Reinforcement Bars)

PLOT DATE = 8/16/2017

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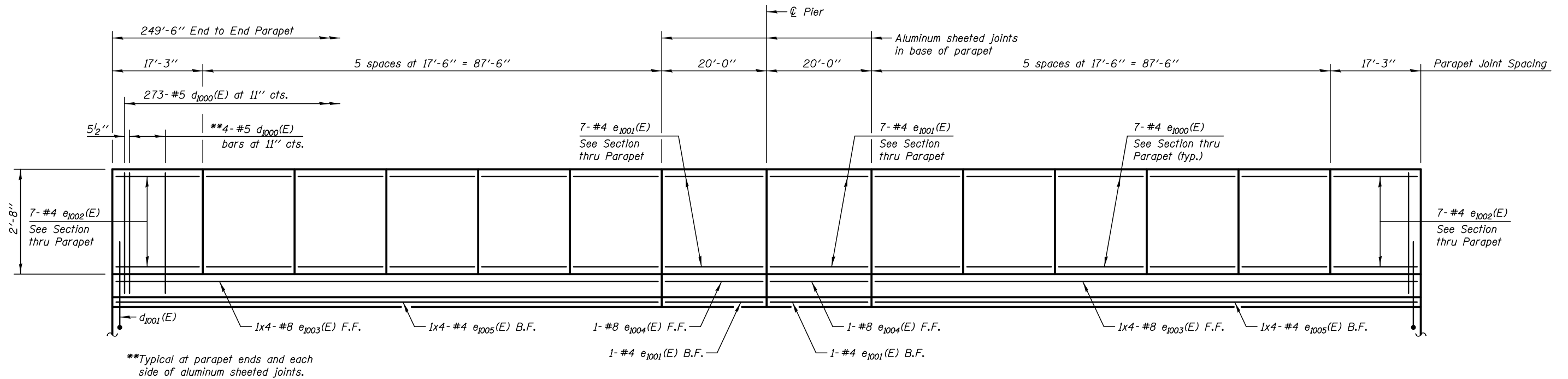
DESIGNED - TB	REVISION
CHECKED - WPM	REVISION
DRAWN - SMA	REVISION
CHECKED - TB	REVISION

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

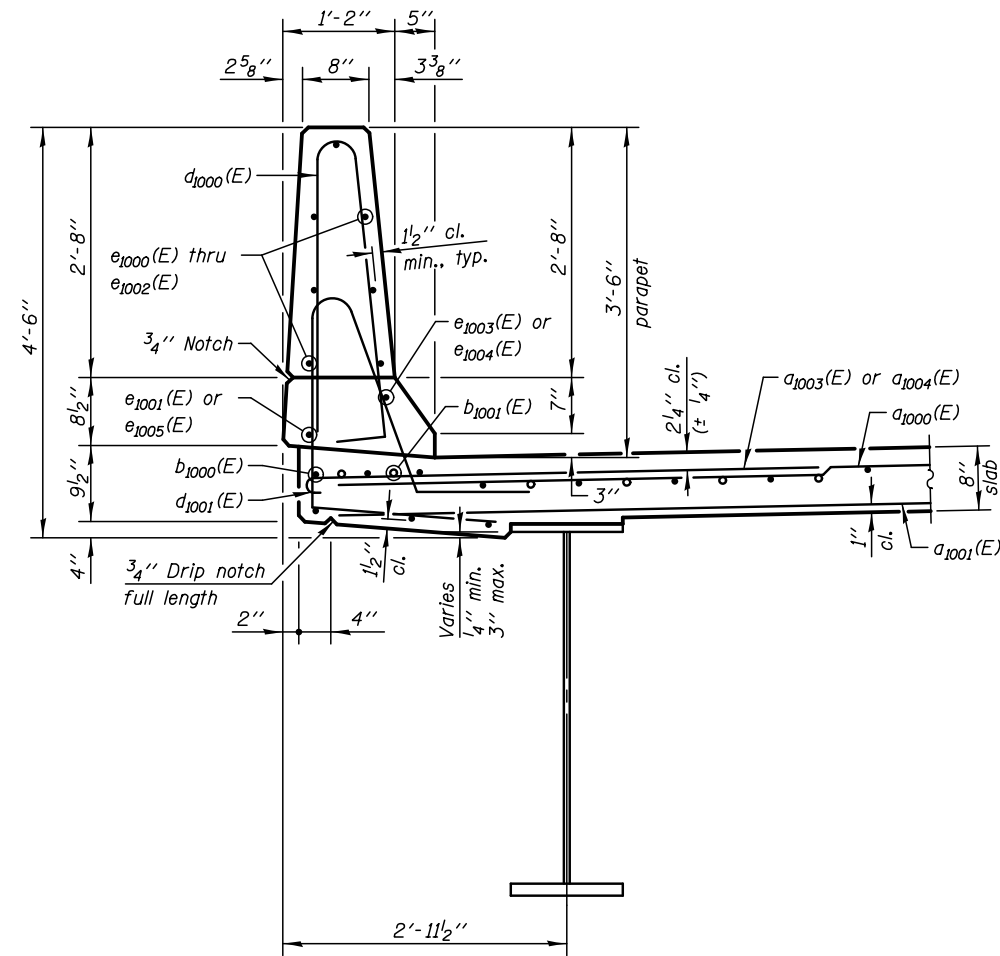
SHARED USE PATH AND PARAPET DETAILS
STRUCTURE NUMBER 099-0428

SHEET NO. SA-12 OF 36 SHEETS

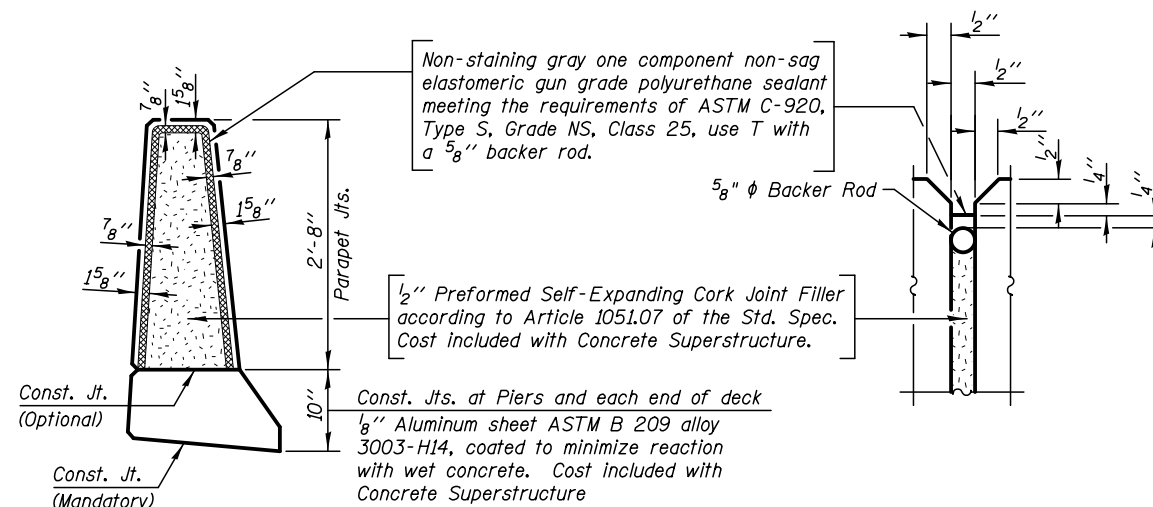
F.A.I./P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1059
CONTRACT NO. 60X10				
* FAI 55, FAP 856 [ILLINOIS] FED. AID PROJECT				



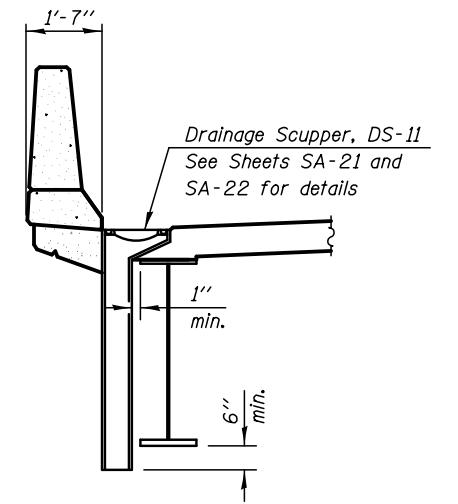
INSIDE ELEVATION OF WEST PARAPET



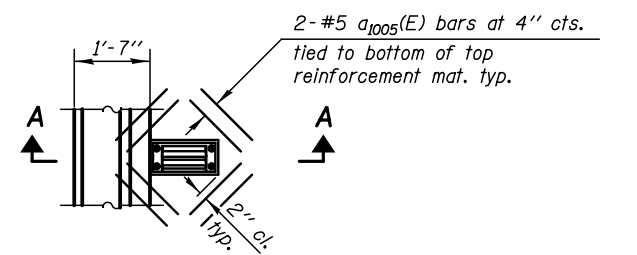
SECTION THRU PARAPET



PARAPET JOINT DETAILS



SECTION A-A



PLAN

Note:
Cut longitudinal reinforcement to clear drainage scuppers.

SCUPPER DETAIL

Notes:

Bars indicated thus 20 x 3- #5 etc. indicates 20 lines of bars with 3 lengths per line.

See Sheet SA-15 for Deck Misc. Details and Bill of Materials.

MIN. BAR LAPS

(Parapet)
#4 = 2'-8"
#8 = 5'-11"

PLOT DATE = 8/16/2017

KNIGHT
Engineers & Architects

SCALE - NONE
DATE - 8/25/2017

DESIGNED - TB
CHECKED - WPM
DRAWN - SMA
CHECKED - TB

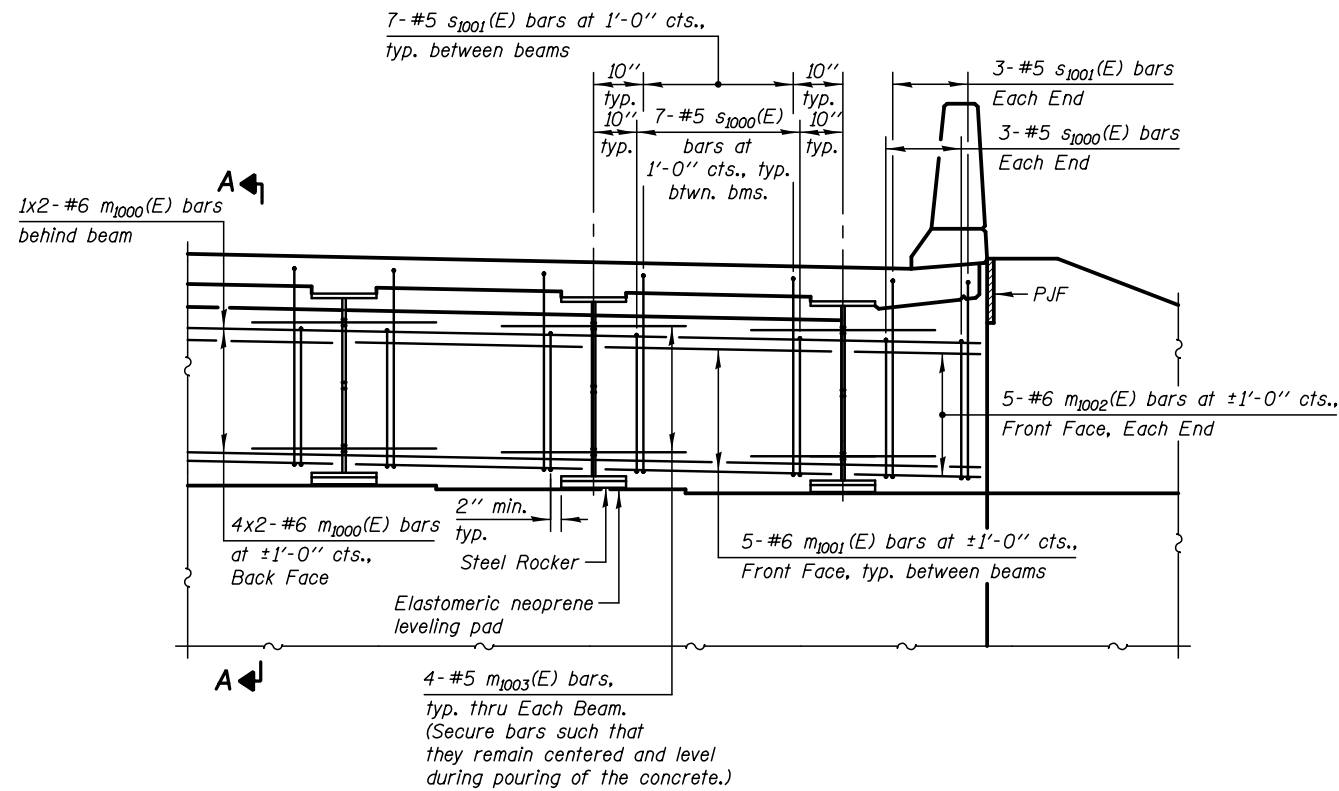
REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST PARAPET DETAILS
STRUCTURE NUMBER 099-0428

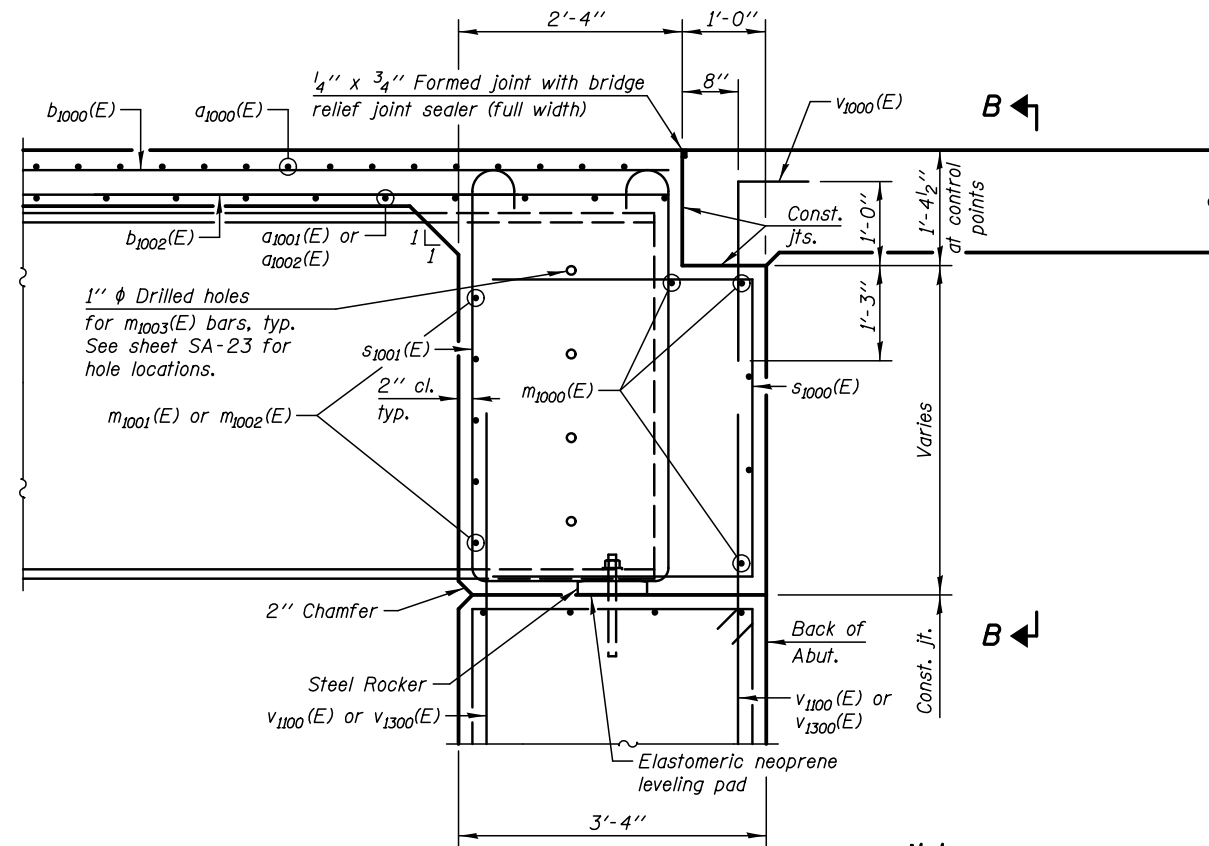
SHEET NO. SA-13 OF 36 SHEETS

F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1060
CONTRACT NO. 60X10				
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				



DIAPHRAGM ELEVATION AT ABUTMENT

MIN. BAR LAPS
#6 = 4'-0"



SECTION A-A
(at Rt. L's)

Notes:

Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

Reinforcement bars in diaphragm are billed with superstructure on Sheet SA-15.

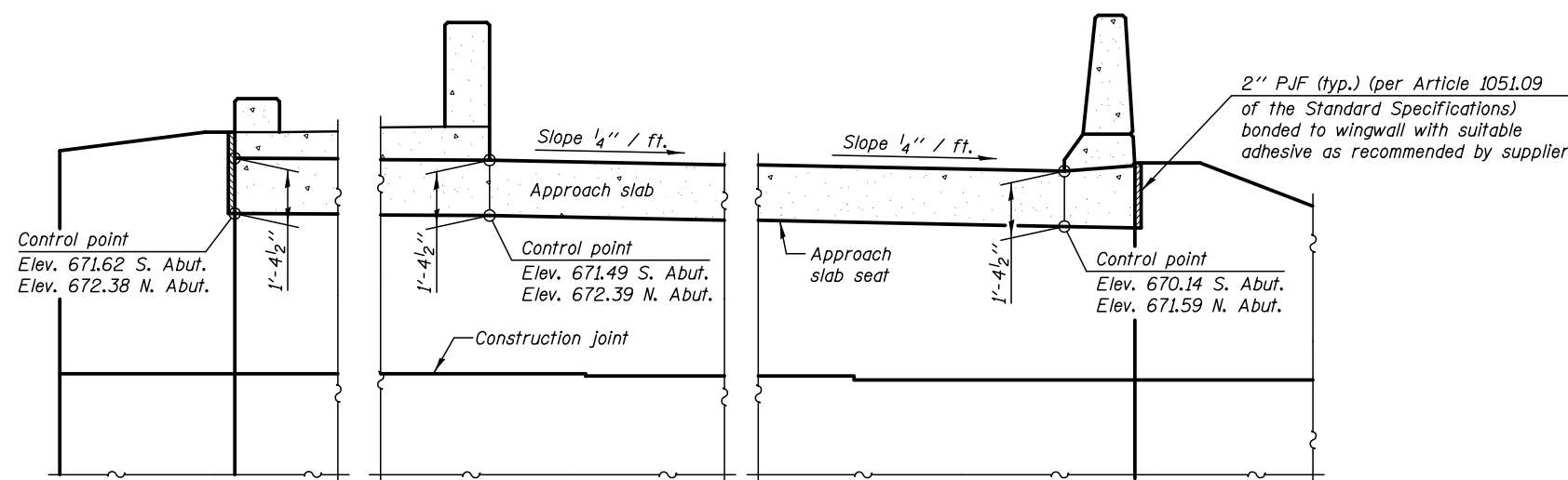
Concrete in diaphragm is included with Concrete Superstructure on Sheet SA-15.

The s1000(E) and s1001(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

See Sheet SA-27 for bearing details.

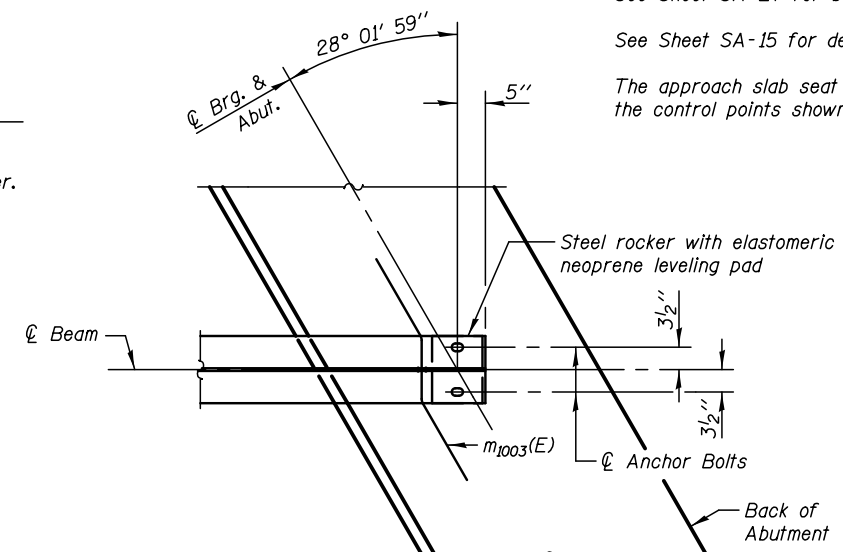
See Sheet SA-15 for details of bars s1000(E), s1001(E) and v1000(E).

The approach slab seat shall have a constant slope determined from the control points shown.



SECTION B-B

(North Abutment shown, South Abutment opposite hand)



PARTIAL PLAN AT ABUTMENT
(Showing bottom flange of beam)

PLOT DATE = 8/16/2017

KNIGHT
Engineers & Architects

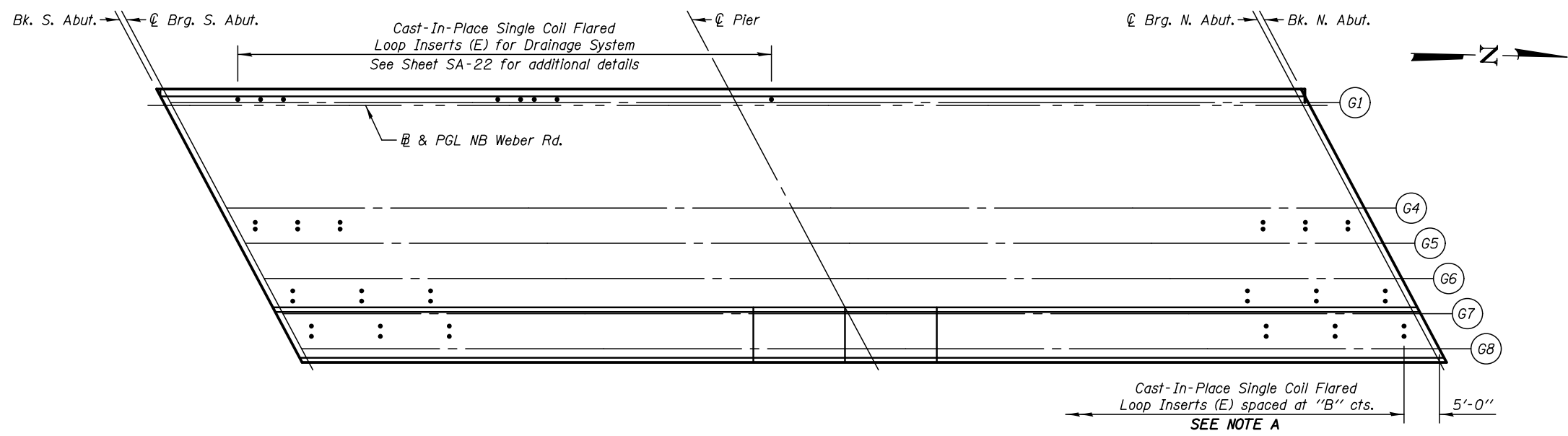
DESIGNED - TB	REVIS
CHECKED - WPM	REVIS
DRAWN - SMA	REVIS
CHECKED - TB	REVIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK DIAPHRAGM DETAILS
STRUCTURE NUMBER 099-0428

SHEET NO. SA-14 OF 36 SHEETS

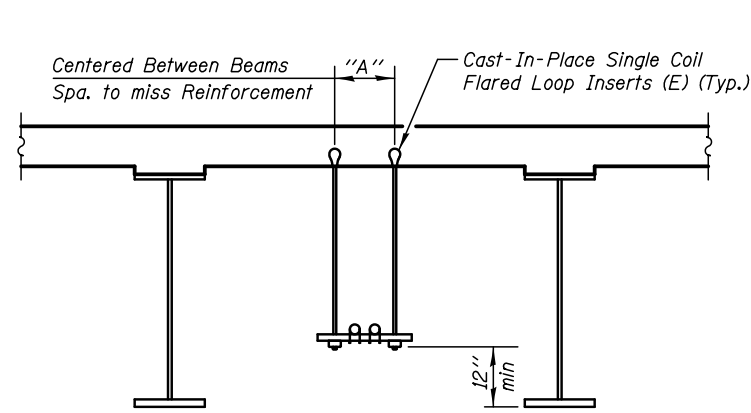
F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1061
CONTRACT NO. 60X10				
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				



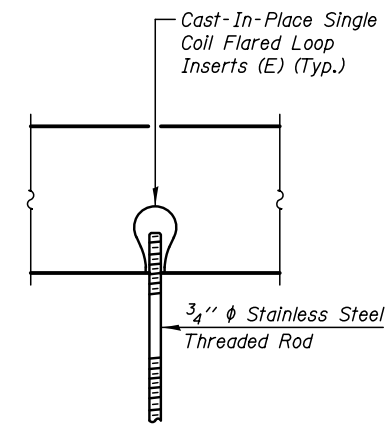
No. Rigid Conduits Supported	"A"	"B"
1-1" ϕ	1'-0"	6'-0"
4-4" ϕ	2'-0"	9'-9"

DRAINAGE SYSTEM SUPPORT AND CONDUIT SUPPORT PLAN

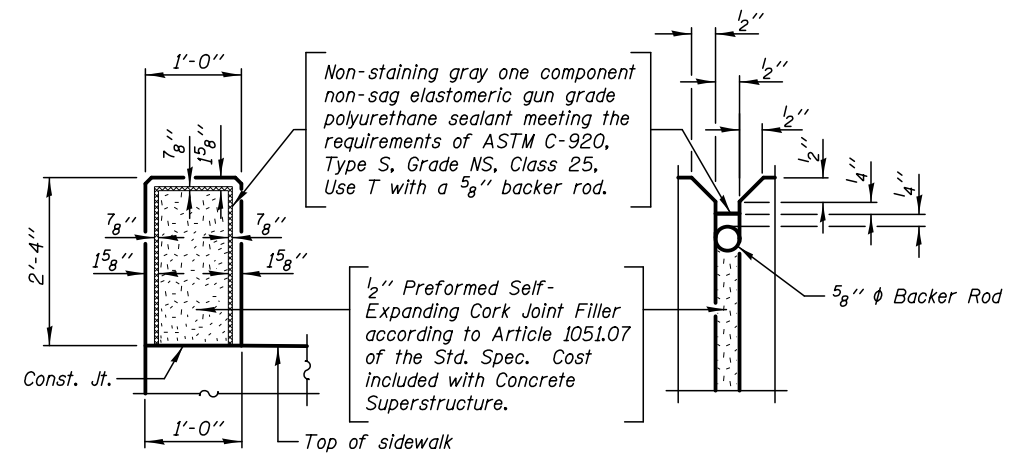
NOTE A
Coordinate single coil flared loop inserts for conduit support and underpass luminaires with Electrical Contractor. The cost of single coil flared loop inserts shall be included in the cost of Concrete Superstructure.



CONDUIT SUPPORT DETAIL

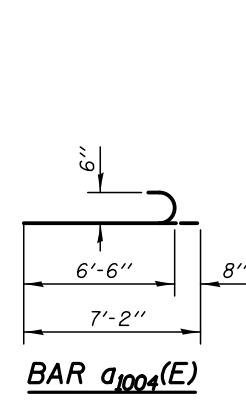


THREADED COIL LOOP INSERTS DETAIL

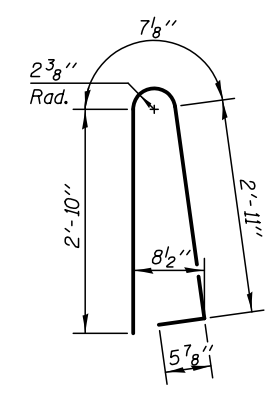


PARAPET JOINT DETAILS

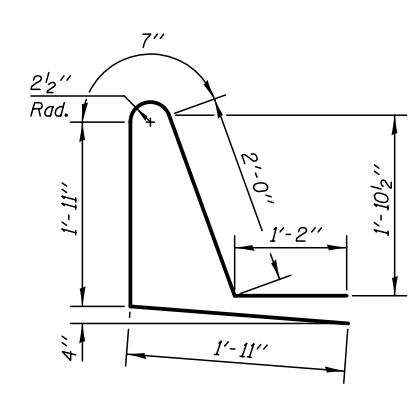
BILL OF MATERIAL				
BAR	NO.	SIZE	LENGTH	SHAPE
a1000(E)	1092	#5	31'-6"	
a1001(E)	334	#5	27'-9"	
a1002(E)	334	#5	35'-6"	
a1003(E)	537	#6	6'-6"	
a1004(E)	9	#6	7'-2"	
a1005(E)	32	#5	1'-6"	
b1000(E)	434	#5	38'-9"	
b1001(E)	180	#6	33'-6"	
b1002(E)	440	#5	34'-6"	
b1003(E)	153	#5	31'-0"	
c1000(E)	251	#5	11'-8"	
d1000(E)	305	#5	6'-10"	
d1001(E)	273	#5	7'-7"	
d1002(E)	251	#5	3'-8"	
d1003(E)	502	#5	3'-5"	
d1004(E)	56	#4	2'-2"	
d1005(E)	54	#4	3'-10"	
e1000(E)	130	#4	17'-2"	
e1001(E)	28	#4	19'-8"	
e1002(E)	26	#4	16'-11"	
e1003(E)	8	#8	30'-9"	
e1004(E)	2	#8	19'-8"	
e1005(E)	8	#4	28'-4"	
m1000(E)	20	#6	35'-9"	
m1001(E)	70	#6	8'-3"	
m1002(E)	20	#6	2'-11"	
m1003(E)	64	#5	4'-0"	
s1000(E)	110	#5	9'-10"	
s1001(E)	110	#5	12'-3"	
v1000(E)	120	#5	3'-1"	
Reinforcement Bars, Epoxy Coated			Pound	129320
Concrete Superstructure			Cu. Yd.	604.0
Bridge Deck Grooving			Sq. Yd.	1220.0
Protective Coat			Sq. Yd.	2227.0



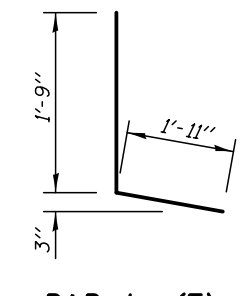
BAR a1004(E)



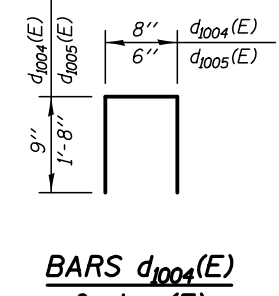
BAR d1000(E)



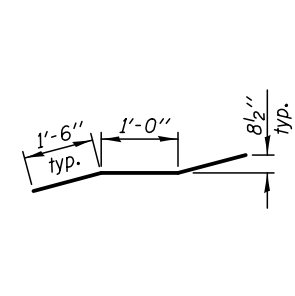
BAR d1001(E)



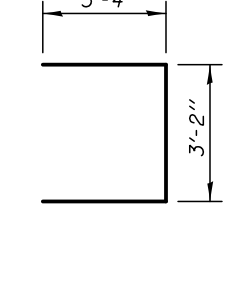
BAR d1002(E)



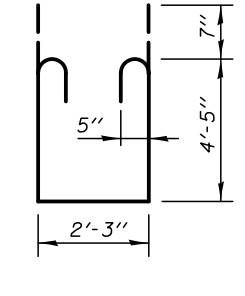
BARS d1004(E)
& d1005(E)



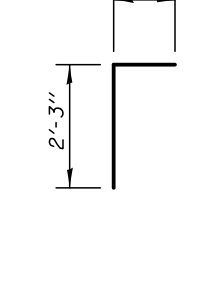
BAR m1003(E)



BAR s1000(E)

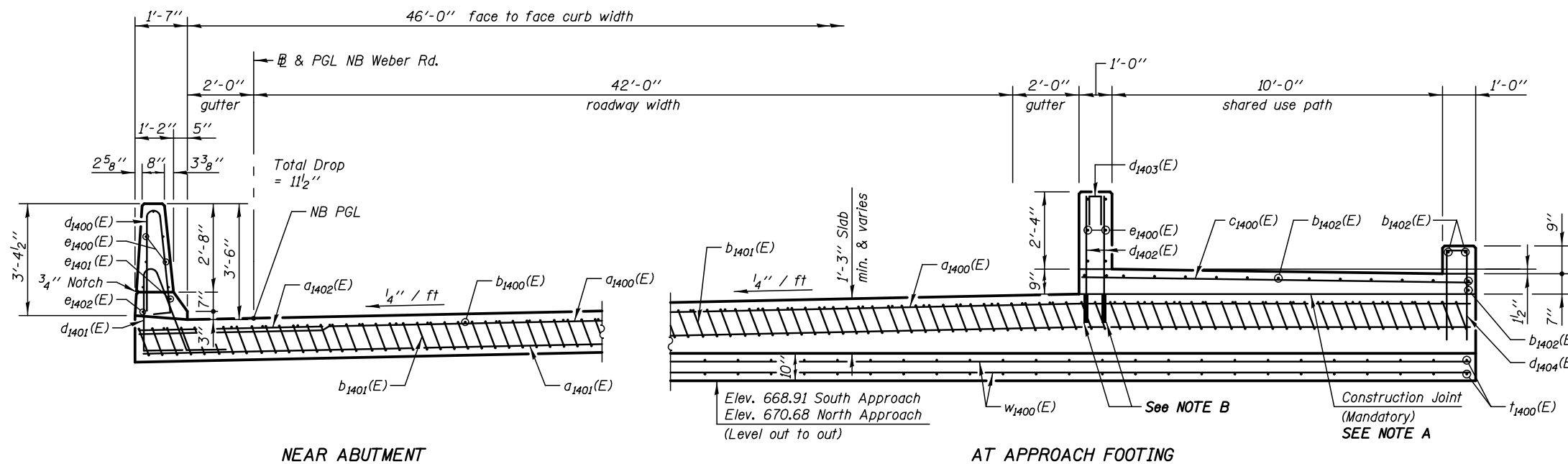
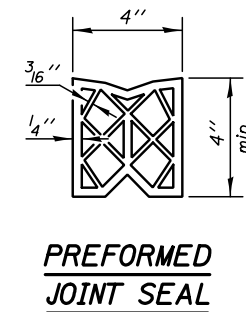
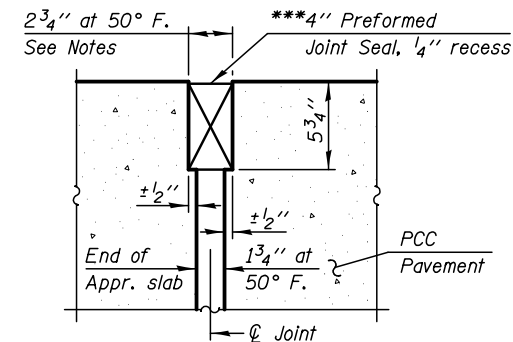
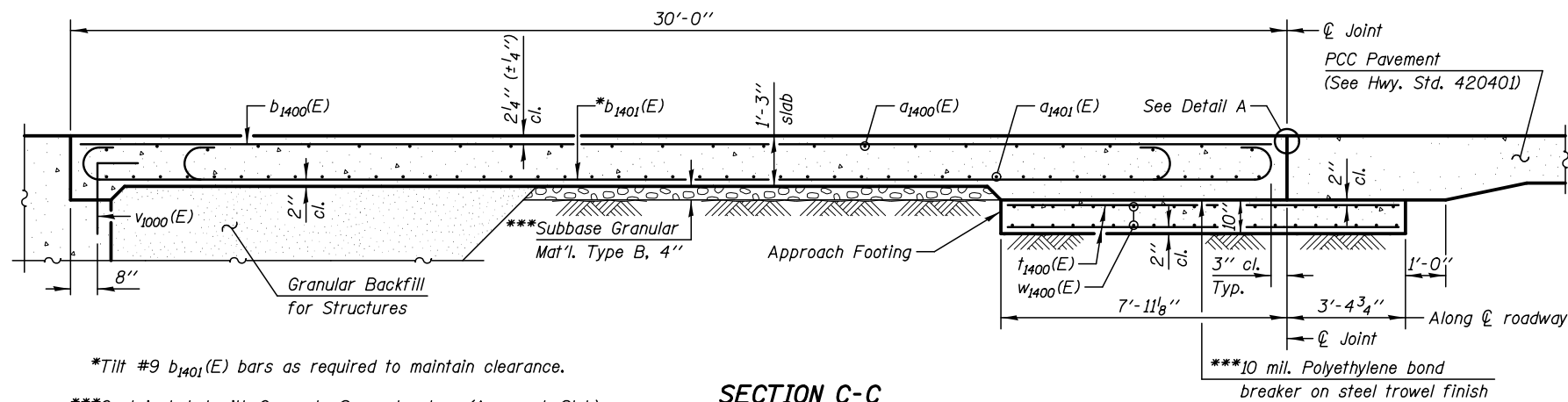


BAR s1001(E)



BAR v1000(E)

PLOT DATE = 8/16/2017



NOTE A
Top of deck surface under the shared use path to be coated with Protective Coat during Stage 1 when the deck surface is coated. During Stage 3, prior to placement of the shared use path reinforcement, the construction joint surface shall be prepared by sandblasting and in accordance with Article 503.09 of the Standard Specifications. The cost of Stage 3 surface preparation shall be included in the cost of Concrete Superstructure.

NOTE B
Drill and set $d_{1402}(E)$ bars according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened or scored per manufacturer's recommendations. Max. depth of hole shall not exceed 6". Contractor shall take all necessary precautions to prevent drilled hole interference with deck reinforcement bars. Locate longitudinal bars to miss drilled locations. Locate drilled holes to miss transverse bars in deck.

Notes:
The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.

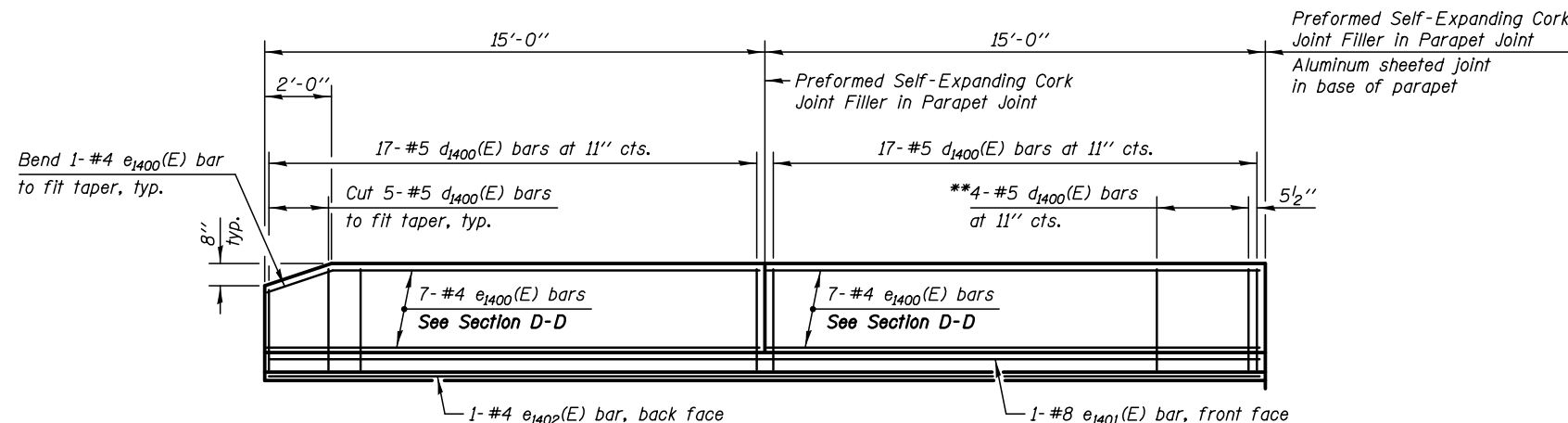
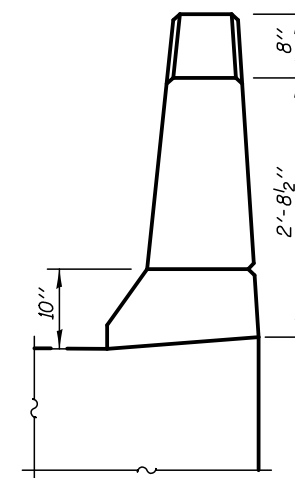
See Sheet SA-15 for $v_{1000}(E)$ bar details.

See Sheet SA-03 for Granular Backfill for Structures and drainage treatment details.

See Sheet SA-13 for Parapet Joint Details and additional parapet details.

The joint opening shall be determined per Article 520.04 except that, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be 1 1/2" for installation purposes.

The cost of drilling and setting $d_{1402}(E)$ bars shall be included in the cost of Reinforcement Bars, Epoxy Coated.



**Typical at parapet ends and each side of aluminum sheeted joints.

PLOT DATE = 8/16/2017

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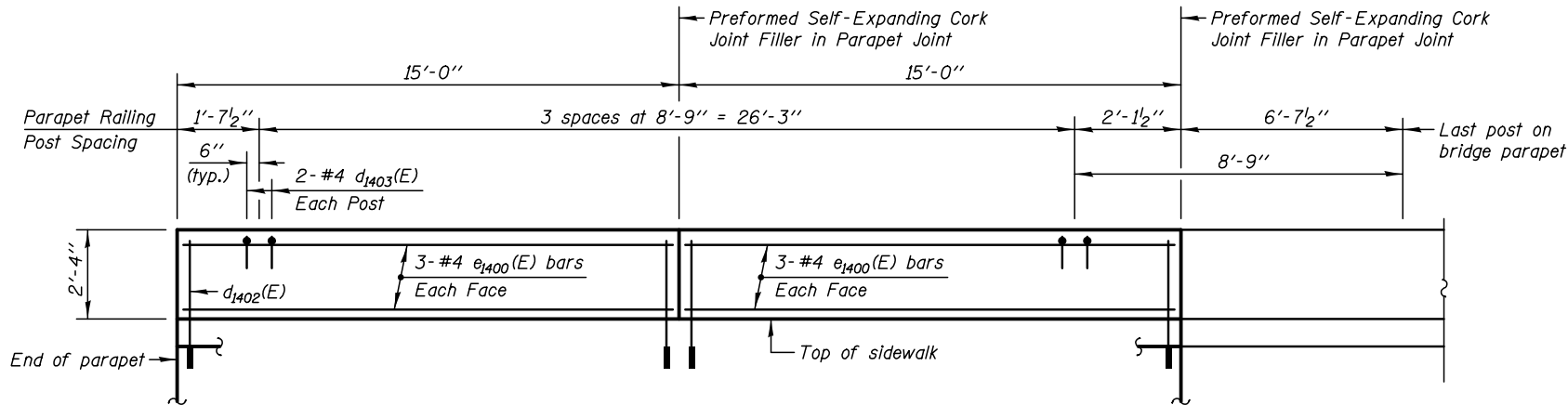
DESIGNED - TB	REVISD
CHECKED - WPM	REVISD
DRAWN - SMA	REVISD
CHECKED - TB	REVISD

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NUMBER 099-0428

SHEET NO. SA-18 OF 36 SHEETS

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1065
CONTRACT NO. 60X10				
* FAI 55, FAP 856 [ILLINOIS] FED. AID PROJECT				



VIEW F-F

Dimensions along roadway face of parapet
South Approach parapet shown, North Approach parapet opposite hand

PARAPET RAILING NOTE

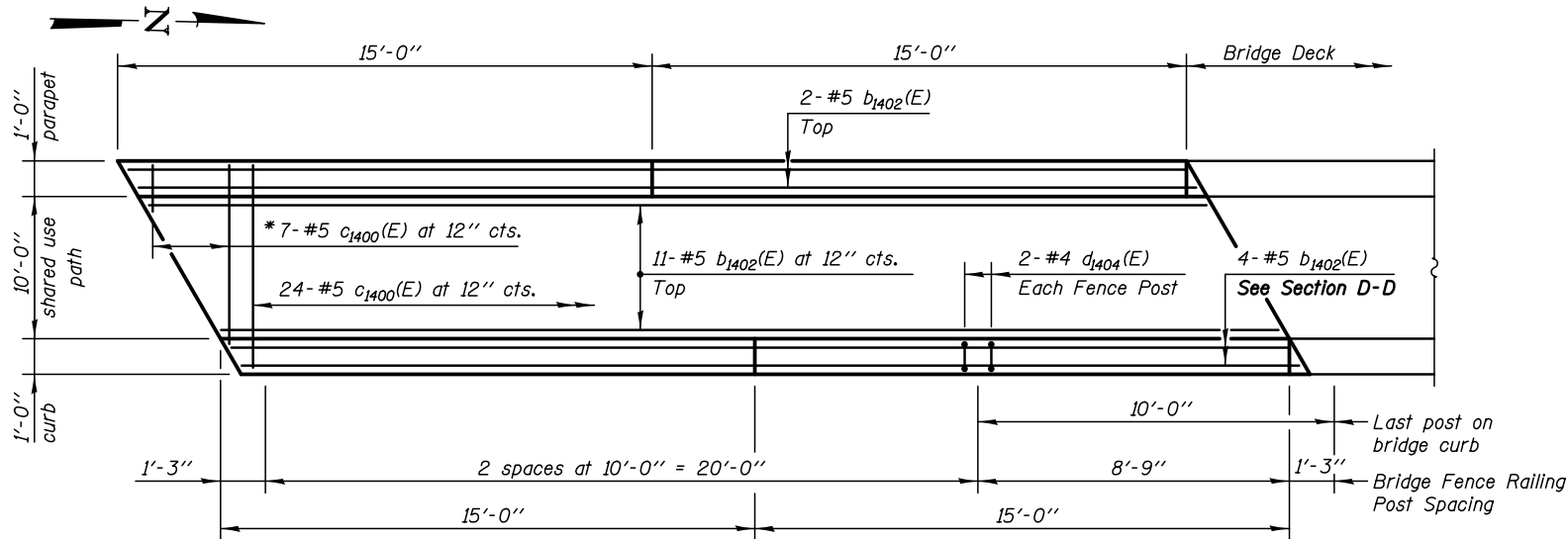
Parapet Railing on the bridge and approach slab shall be continuous, but shall not be continuous with any of the parapet railing on the Roadway Concrete Barrier Wall (Special).

BILL OF MATERIAL
SOUTH APPROACH SLAB

BAR	NO.	SIZE	LENGTH	SHAPE
a1400(E)	92	#5	35'-9"	—
a1401(E)	122	#8	37'-6"	—
a1402(E)	46	#6	6'-6"	—
b1400(E)	89	#5	29'-8"	—
b1401(E)	141	#9	29'-9"	—
b1402(E)	17	#5	29'-8"	—
c1400(E)	31	#5	11'-8"	—
d1400(E)	42	#5	6'-10"	—
d1401(E)	34	#5	7'-11"	—
d1402(E)	68	#5	3'-5"	—
d1403(E)	8	#4	2'-2"	—
d1404(E)	6	#4	4'-0"	—
e1400(E)	26	#4	14'-8"	—
e1401(E)	1	#8	29'-8"	—
e1402(E)	1	#4	29'-8"	—
f1400(E)	120	#4	10'-11"	—
w1400(E)	80	#5	35'-3"	—
Reinforcement Bars, Epoxy Coated			Pound	39040
Concrete Superstructure			Cu. Yd.	18.0
Concrete Structures			Cu. Yd.	22.0
Bridge Deck Grooving			Sq. Yd.	147.0
Protective Coat			Sq. Yd.	269.0
Concrete Superstructure (Approach Slab)			Cu. Yd.	99.0

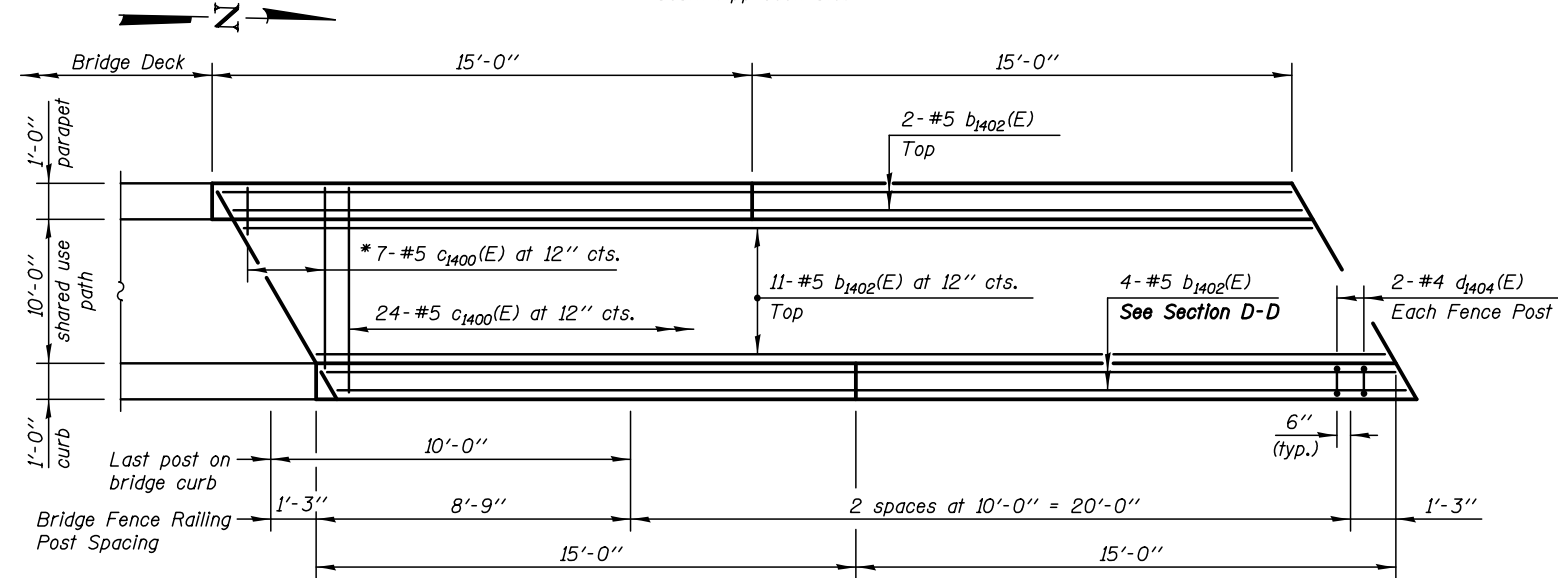
BILL OF MATERIAL
NORTH APPROACH SLAB

BAR	NO.	SIZE	LENGTH	SHAPE
a1400(E)	92	#5	35'-9"	—
a1401(E)	122	#8	37'-6"	—
a1402(E)	46	#6	6'-6"	—
b1400(E)	89	#5	29'-8"	—
b1401(E)	141	#9	29'-9"	—
b1402(E)	17	#5	29'-8"	—
c1400(E)	31	#5	11'-8"	—
d1400(E)	42	#5	6'-10"	—
d1401(E)	34	#5	7'-11"	—
d1402(E)	68	#5	3'-5"	—
d1403(E)	8	#4	2'-2"	—
d1404(E)	6	#4	4'-0"	—
e1400(E)	26	#4	14'-8"	—
e1401(E)	1	#8	29'-8"	—
e1402(E)	1	#4	29'-8"	—
f1400(E)	120	#4	10'-11"	—
w1400(E)	80	#5	35'-3"	—
Reinforcement Bars, Epoxy Coated			Pound	39040
Concrete Superstructure			Cu. Yd.	18.0
Concrete Structures			Cu. Yd.	22.0
Bridge Deck Grooving			Sq. Yd.	147.0
Protective Coat			Sq. Yd.	269.0
Concrete Superstructure (Approach Slab)			Cu. Yd.	99.0



SHARED USE PATH - PARTIAL PLAN

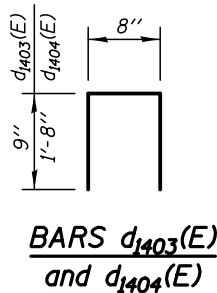
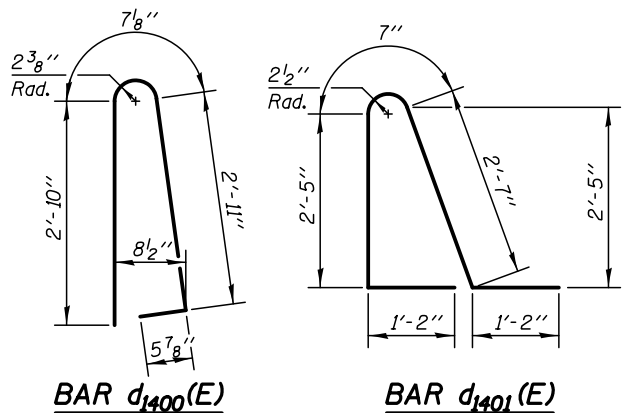
South Approach Slab



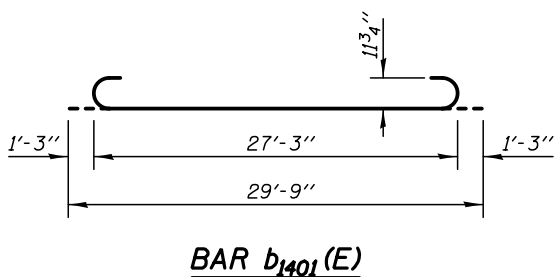
SHARED USE PATH - PARTIAL PLAN

North Approach Slab

*Order c1400(E) bars full length.
Cut to fit skew and use remainder of bars in opposite end.



BARS d1403(E)
and d1404(E)



BAR b1401(E)

Notes:

Parapet and Shared Use Path concrete shall be paid for as Concrete Superstructure.

Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

Approach footing concrete shall be paid for as Concrete Structures.

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

Cost of excavation for approach footing included with Concrete Structures.

See Sheet SA-12 for additional shared use path and parapet details.

See Sheet SA-15 for Parapet Joint Details.

See Sheet SA-18 for Section D-D.

PLOT DATE = 8/16/2017

KNIGHT
Engineers & Architects

DESIGNED - TB
CHECKED - WPM
SCALE - NONE
DATE - 8/25/2017

REVIS
REVISED
DRAWN - SMA
CHECKED - TB

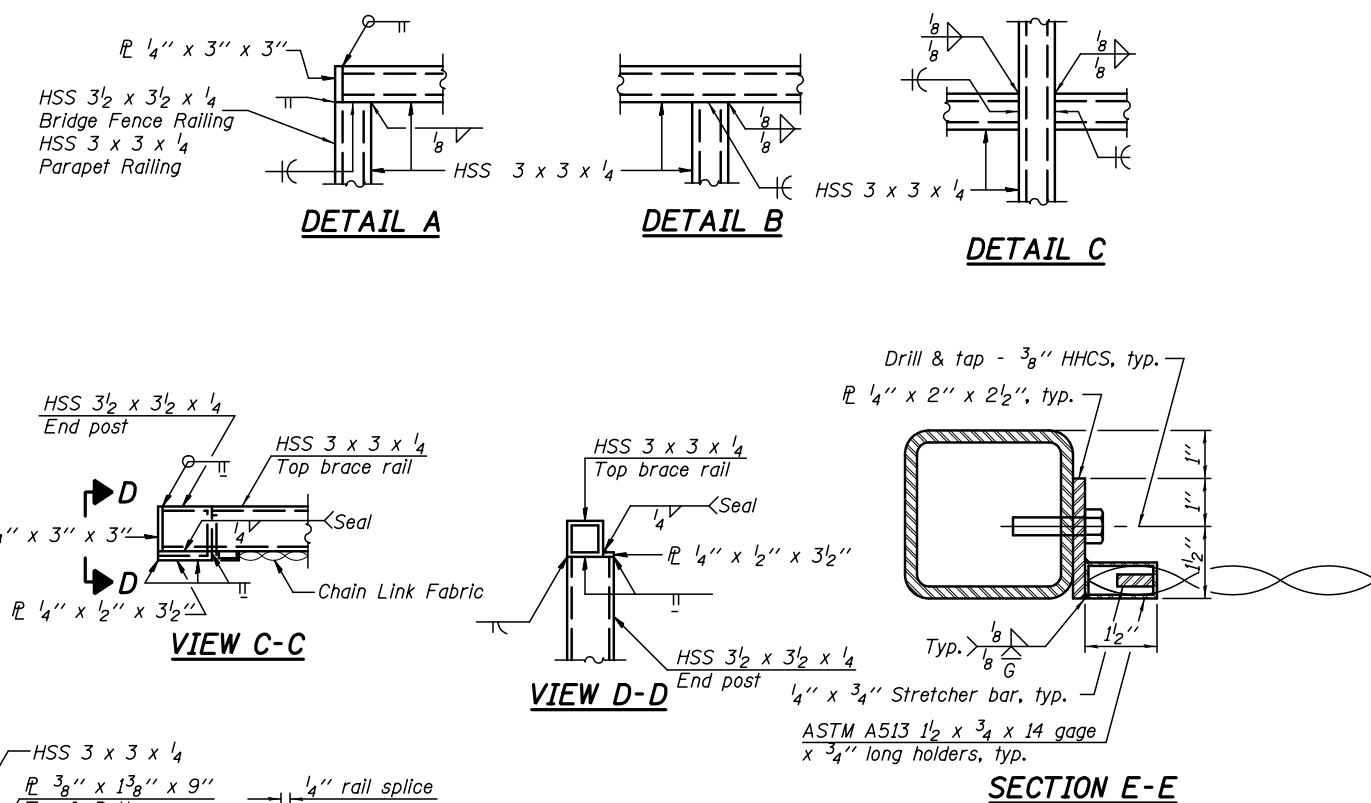
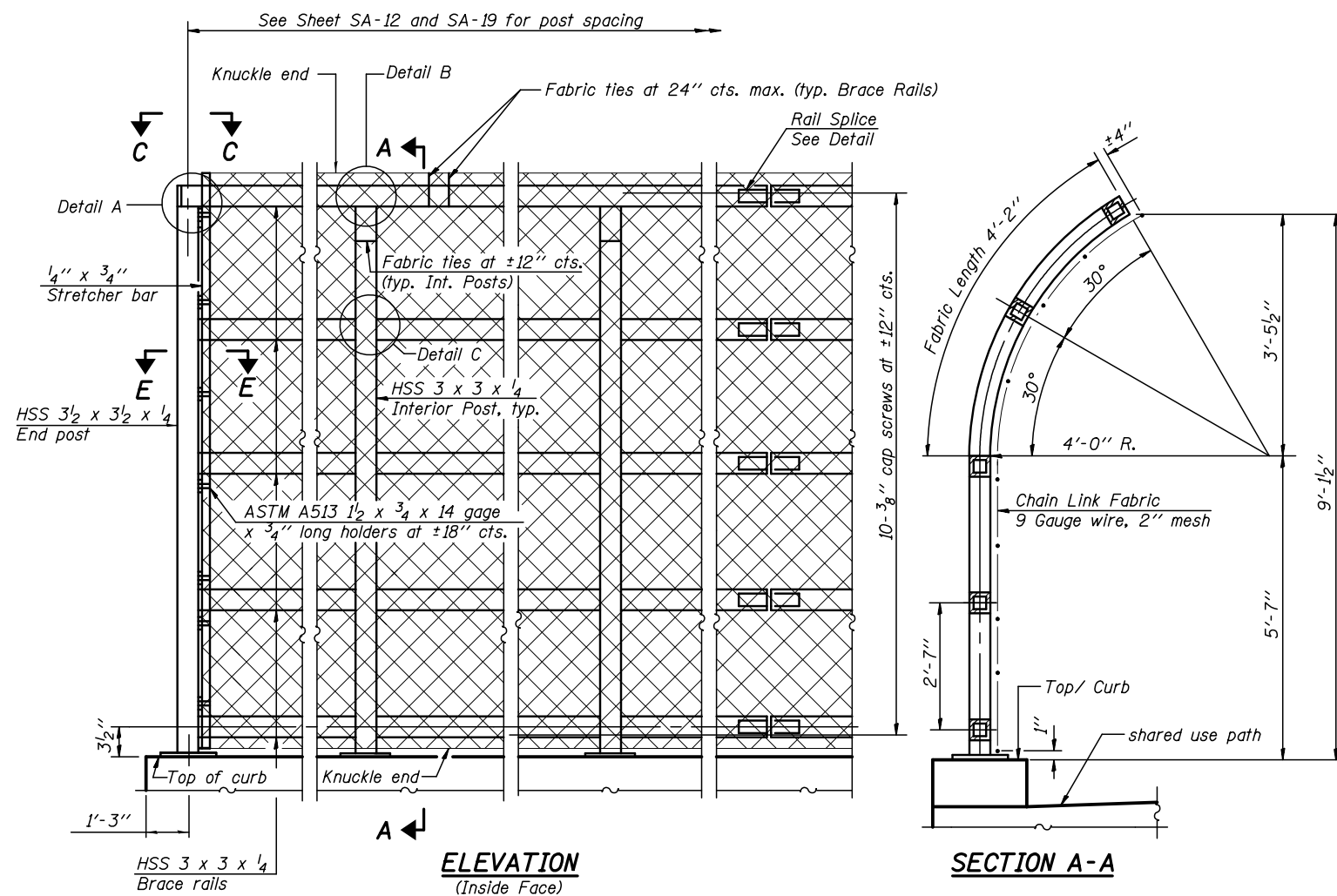
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NUMBER 099-0428

SHEET NO. SA-19 OF 36 SHEETS

F.A./P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1066
CONTRACT NO. 60X10				
* FAI 55, FAP 856 [ILLINOIS] FED. AID PROJECT				

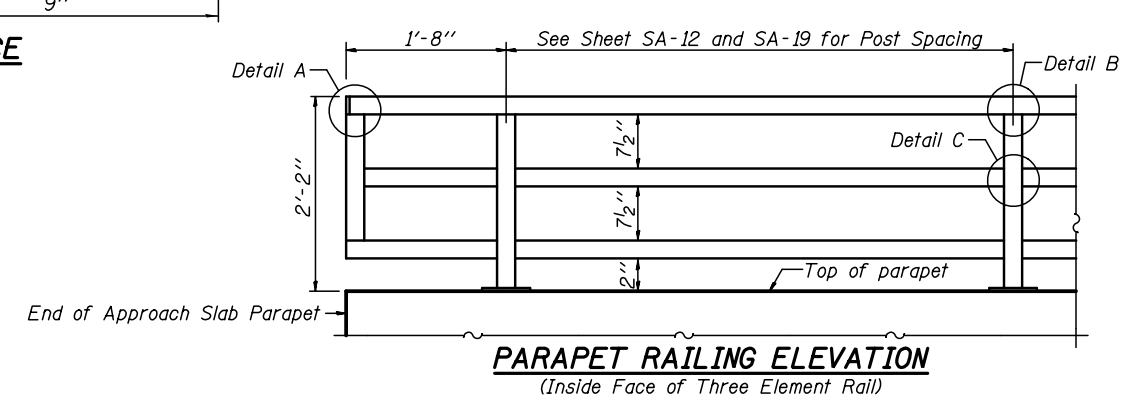
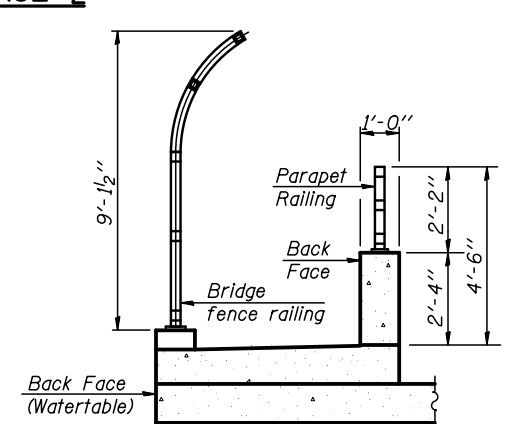
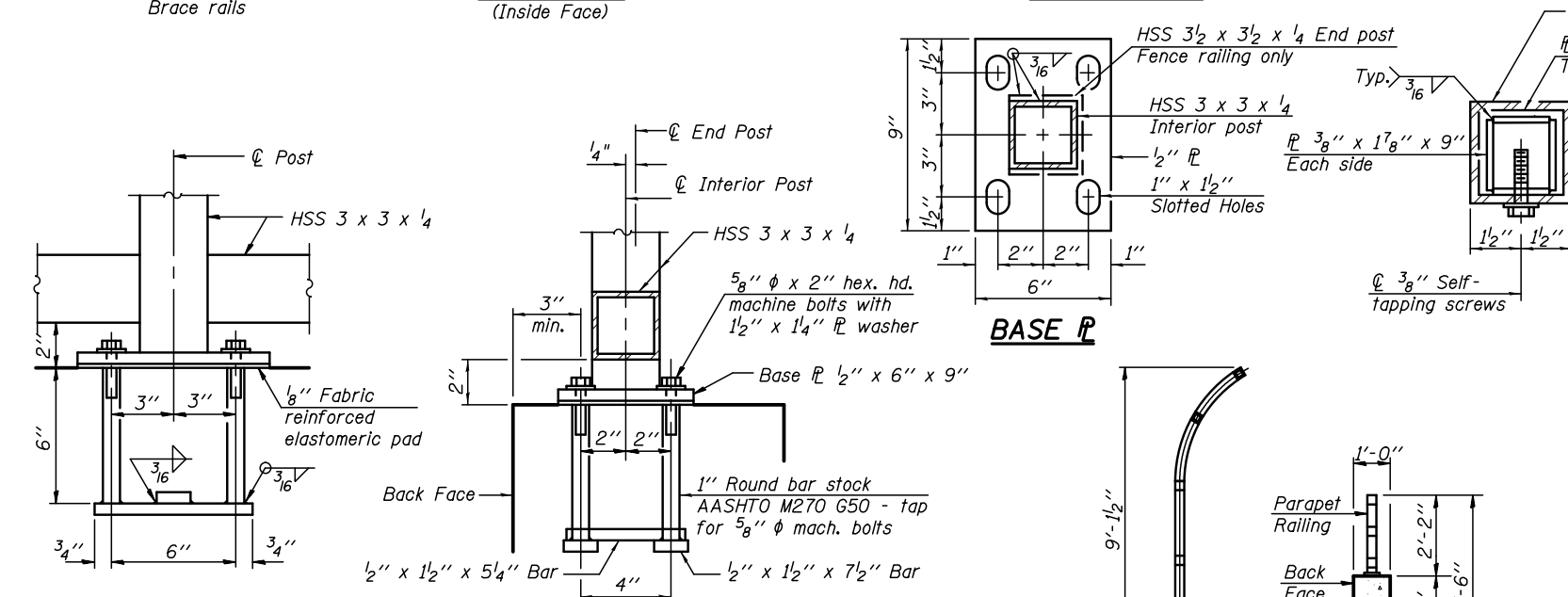


Notes:

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

All structural steel tubing, post, and railing, for parapet railing shall be CVN tested according to 1006.34(b) of the Standard Specifications.

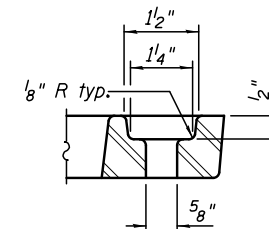
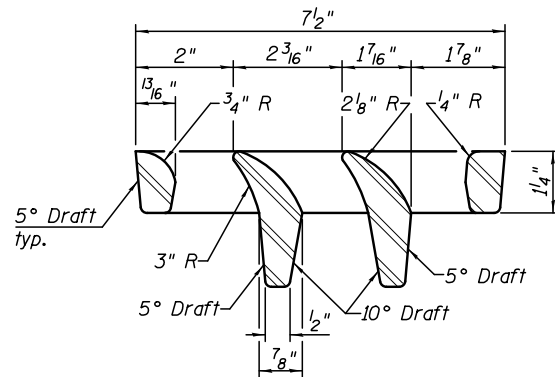
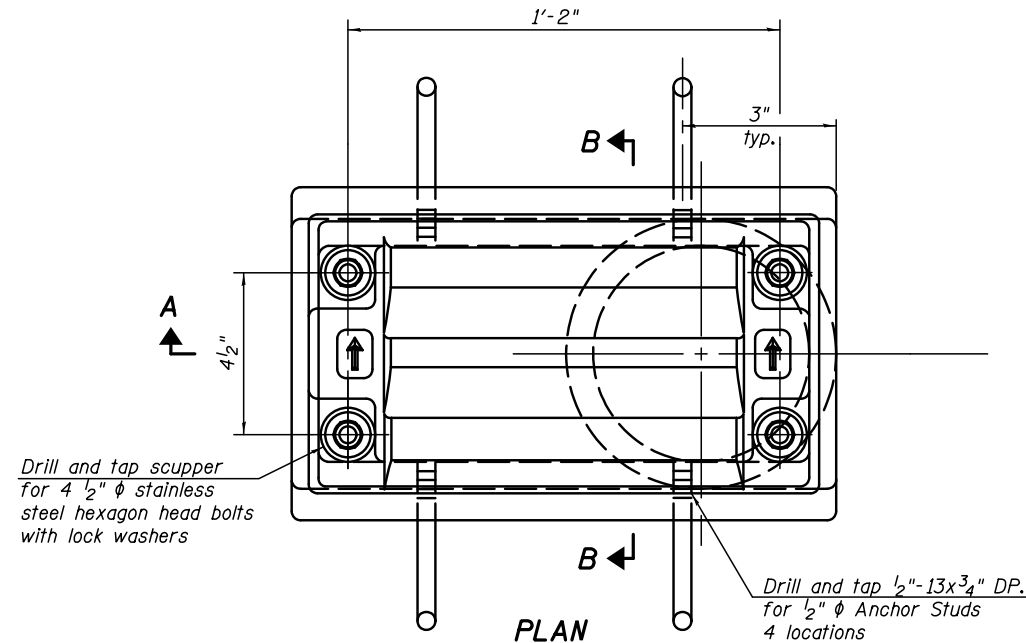
CVN testing may be omitted for the Bridge Fence Railing.



PARAPET RAILING NOTE
Parapet Railing on the bridge and approach slab shall be continuous, but shall not be continuous with any of the parapet railing on the Roadway Concrete Barrier Wall (Special).

BILL OF MATERIAL

<i>Item</i>	<i>Unit</i>	<i>Quantity</i>
<i>Bridge Fence Railing (Sidewalk)</i>	<i>Foot</i>	<i>307.0</i>
<i>Parapet Railing</i>	<i>Foot</i>	<i>310.0</i>



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.

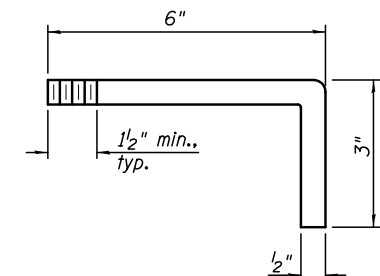
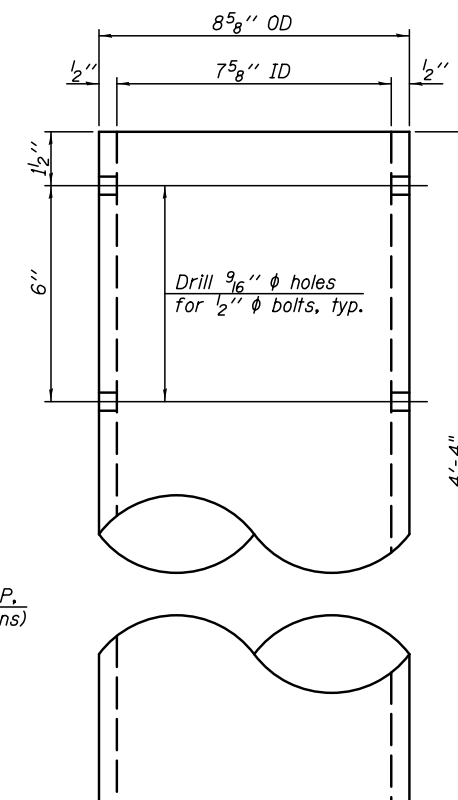
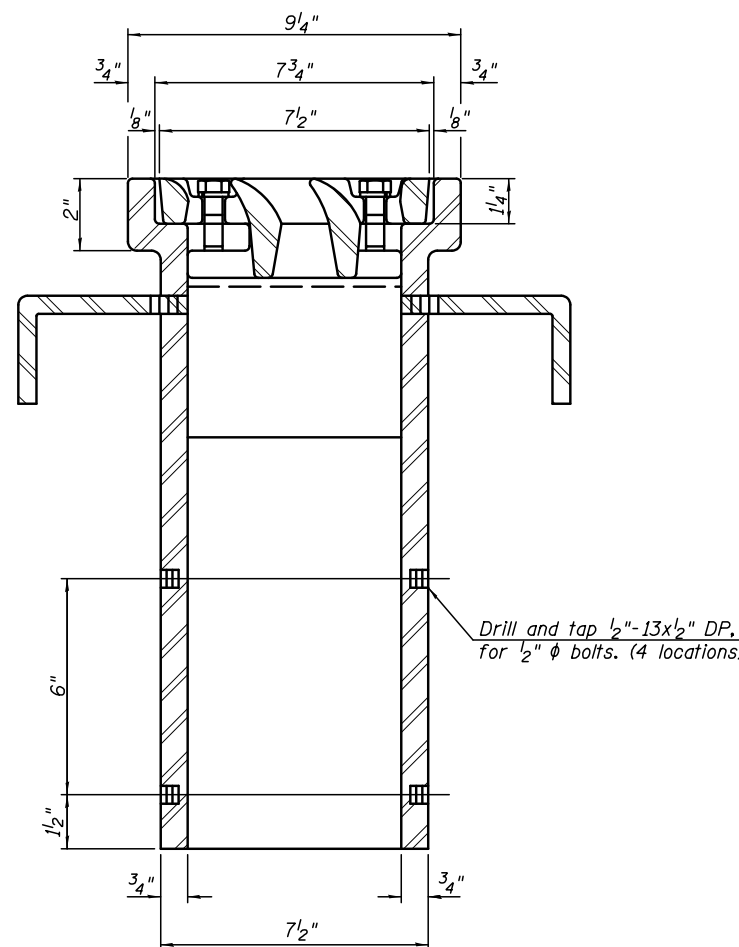
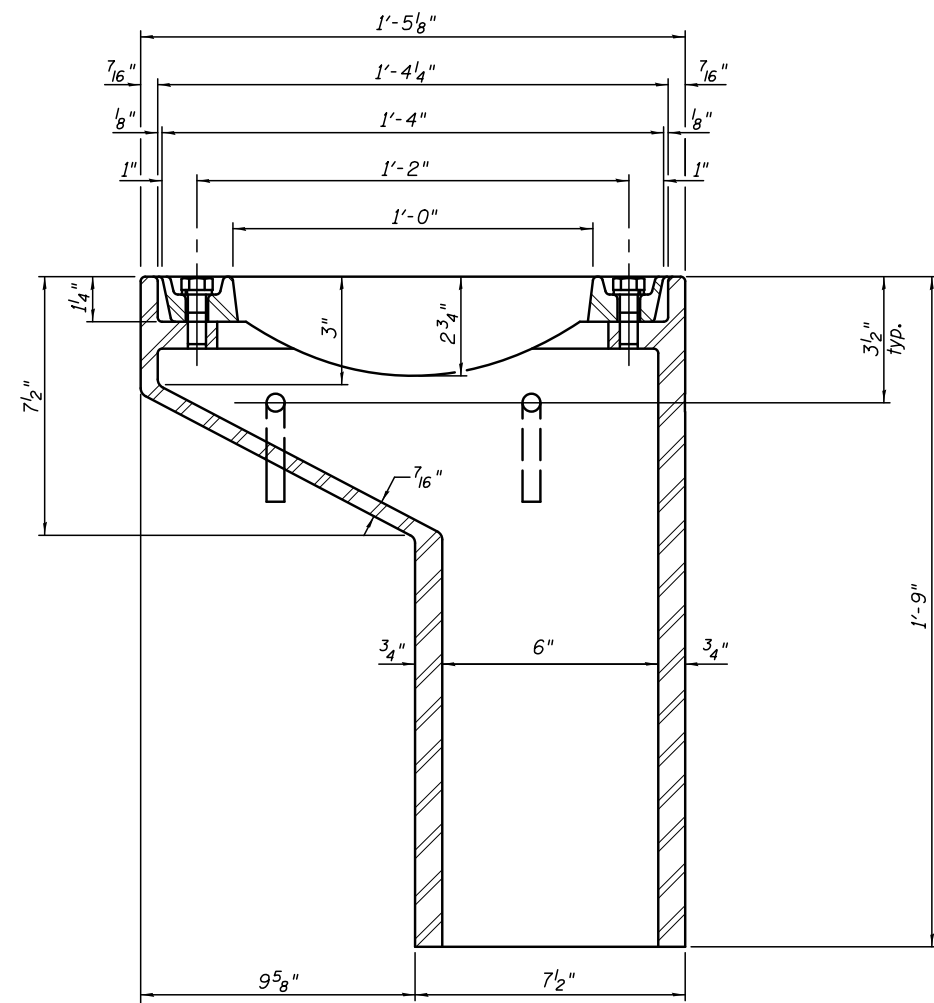
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

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-11.

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.



See Sheet SA-13 for scupper location relative to parapet.

BILL OF MATERIAL

Item	Unit	Quantity
Drainage Scupper, DS-11	Each	4

DS-11 7-1-10

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Engineers & Architects

DESIGNED - TB	REVISD
CHECKED - WPM	REVISD
DRAWN - SMA	REVISD
CHECKED - TB	REVISD

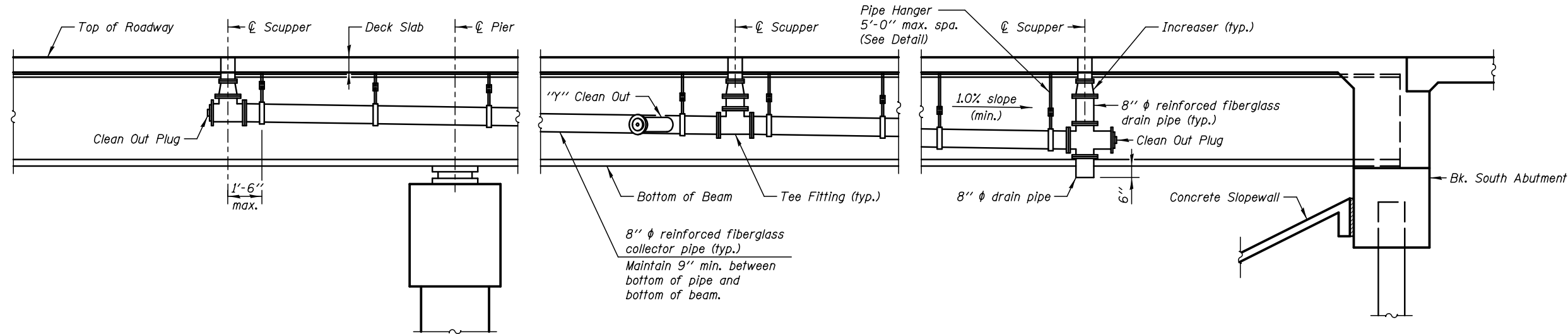
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER, DS-11
STRUCTURE NUMBER 099-0428

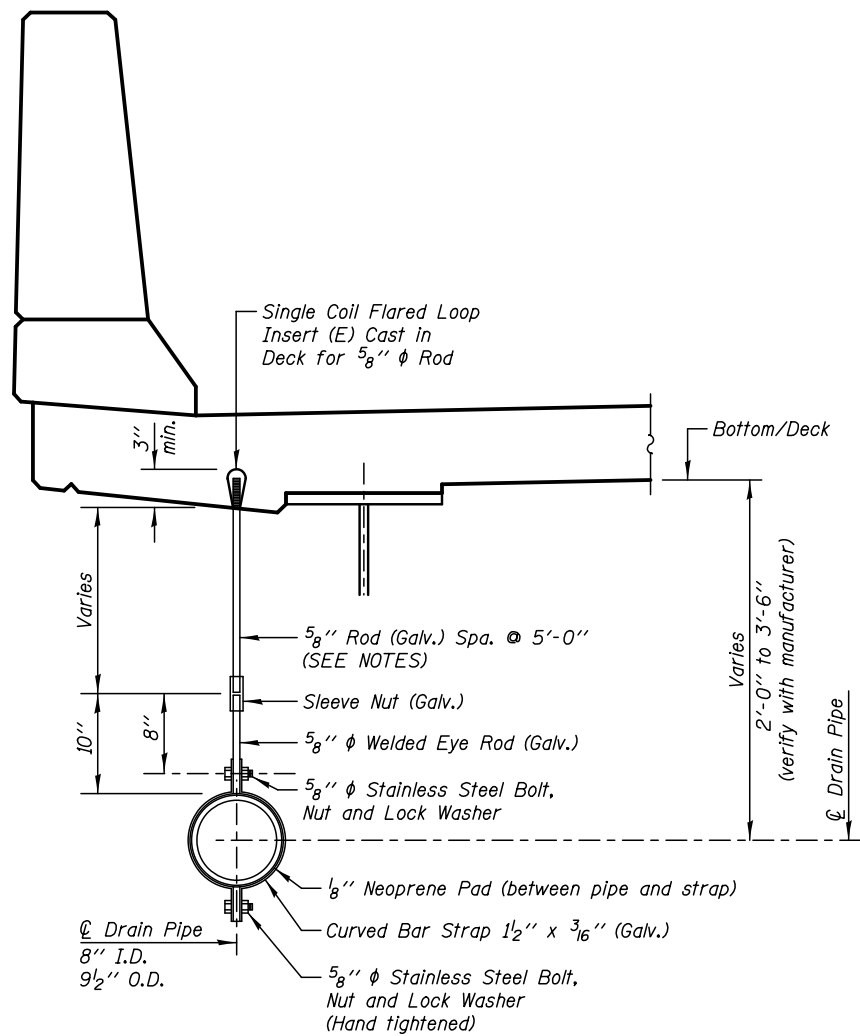
SHEET NO. SA-21 OF 36 SHEETS

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1068
CONTRACT NO. 60X10				
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				

PLOT DATE = 8/16/2017



DECK DRAINAGE SYSTEM
(Looking East)



LONGITUDINAL PIPE
SUPPORT DETAIL

NOTES
See Sheet SA-11 for Drainage Scupper spacing.

All Pipe Hangers, Supports and Hardware shall be hot-dipped galvanized in accordance with AASHTO M232 (ASTM A153). All bolts, nuts and washers shall be stainless steel.

Pipe hangers shall be provided on all horizontal pipes at each tee, elbow or change in direction and at intermediate points as specified by the manufacturer, but not to exceed 5'-0" on centers. Pipe hangers shall have a load capacity of not less than 500 lbs.

The Deck Drainage System for the NB Bridge (099-0428) will be paid for as Drainage System, No. 1.

BILL OF MATERIAL

Item	Unit	Quantity
Drainage System, No. 1	Each	1

PLOT DATE = 8/16/2017

KNIGHT

Engineers & Architects

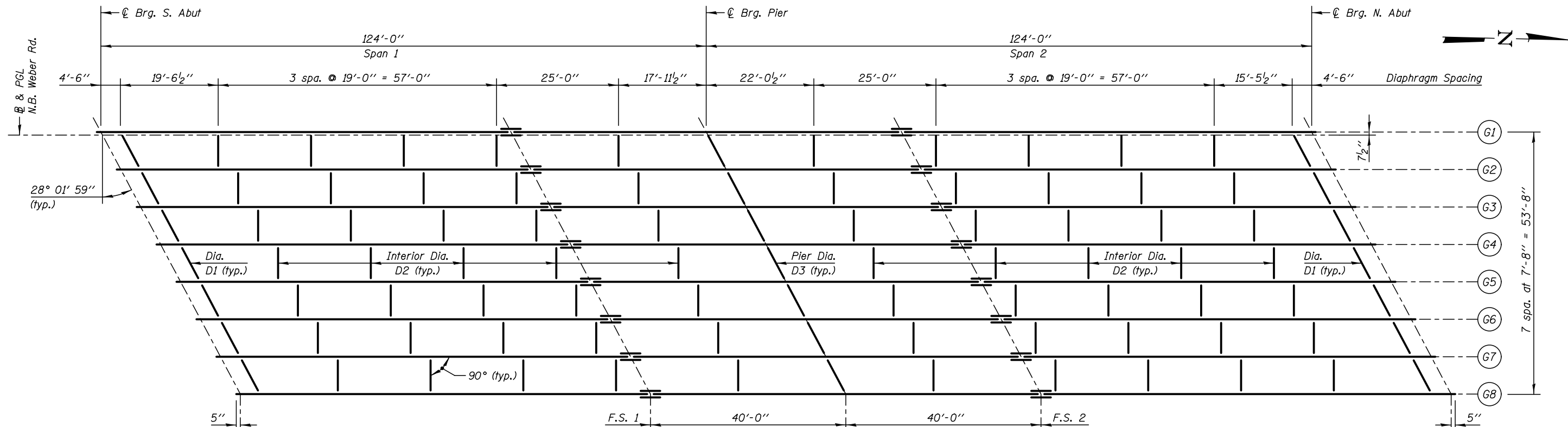
DESIGNED - TB	REVIS
CHECKED - WPM	REVISED
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SCALE - NONE	
DATE - 8/25/2017	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

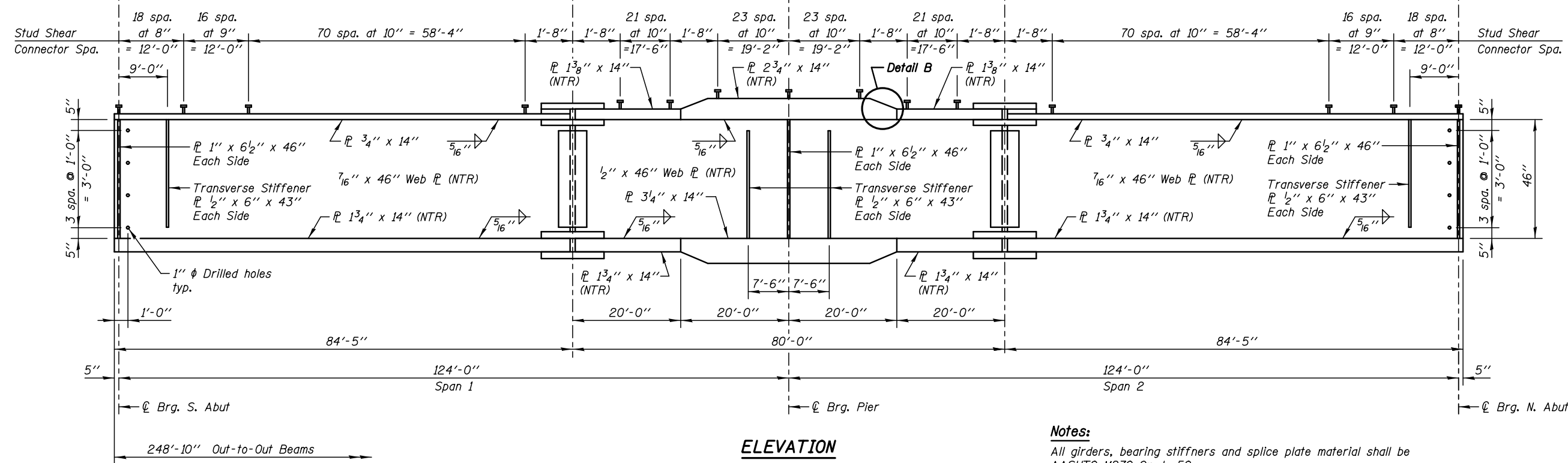
DECK DRAINAGE SYSTEM
STRUCTURE NUMBER 099-0428

SHEET NO. SA-22 OF 36 SHEETS

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1069
CONTRACT NO. 60X10				
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				



FRAMING PLAN



ELEVATION

Notes:

- All girders, bearing stiffeners and splice plate material shall be AASHTO M270 Grade 50.
- Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
- All span lengths, end of beam dimensions and diaphragm spaces are along horizontal plane of the structure.
- See Sheet SA-24 for Detail B

PLOT DATE = 8/16/2017

KNIGHT Engineers & Architects		DESIGNED - TB	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN AND ELEVATION STRUCTURE NUMBER 099-0428	F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED - WPM	REVISED			*	(99-1HB-1) R-1	WILL	1508	1070	
	SCALE - NONE	DRAWN - SMA	REVISED		SHEET NO. SA-23 OF 36 SHEETS		CONTRACT NO. 60X10				
	DATE - 8/25/2017	CHECKED - TB	REVISED		* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT						

PLOT DATE = 8/16/2017

INTERIOR GIRDER MOMENT TABLE			
		0.4 Span 1 0.6 Span 2	Pier
I_s	(in ⁴)	21167	54276
I_c (n)	(in ⁴)	63664	-
I_c (3n)	(in ⁴)	45343	-
I_c (cr)	(in ⁴)	-	61556
S_s	(in ³)	1138	1977
S_c (n)	(in ³)	1575	-
S_c (3n)	(in ³)	1459	-
S_c (cr)	(in ³)	-	2428
DC1	(k/')	0.978	1.164
M_{DC1}	('k)	865	2432
DC2	(k/')	0.290	0.290
M_{DC2}	('k)	281	636
DW	(k/')	0.288	0.288
M_{DW}	('k)	278	631
LLDF		0.589	0.589
$M_L + IM$	('k)	1731	2111
M_u (Strength I)	('k)	4879	8476
$\phi_f M_n$	('k)	7569	-
f_s DC1	(ksi)	9.12	14.76
f_s DC2	(ksi)	2.31	3.14
f_s DW	(ksi)	2.29	3.12
f_s ($L + IM$)	(ksi)	13.19	10.43
f_s (Service II)	(ksi)	30.86	34.59
$0.95R_h F_y f$	(ksi)	47.5	47.5
f_s (Total)(Strength I)	(ksi)	40.80	45.32
$\phi_f F_n$	(ksi)	-	50.0
V_f	(k)	63.1	62.4

GIRDER REACTION TABLE				
	Abutment		Pier	
	Interior	Exterior	Interior	Exterior
LLDF	0.791	0.583	0.791	0.583
OCF	—	1.106	—	1.106
R_{DC1} (k)	41.7	37.5	169.3	152.3
R_{DC2} (k)	12.8	12.8	46.2	46.2
R_{DW} (k)	12.7	12.7	45.8	45.8
R_L (k)	80.9	59.3	163.5	120.1
R_{Im} (k)	17.8	13.0	30.0	22.0
R_{Total} (k)	165.9	135.3	454.8	386.4

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) in uncracked sections 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) in uncracked sections, due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

I_c (cr), S_c (cr): Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.⁴ and 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 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).

M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).

$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).

$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s ($L + IM$): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).

$M_L + IM / S_c(n)$ or $M_L + IM / S_c(cr)$ as applicable.

f_s (Service II): Sum of stresses as computed below (ksi).

$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s (L + IM)$

$0.95R_h F_y f$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).

$1.25 (f_{sDC1} + f_{sDC2}) + 1.5 f_{sDW} + 1.75 f_s (L + IM)$

$\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

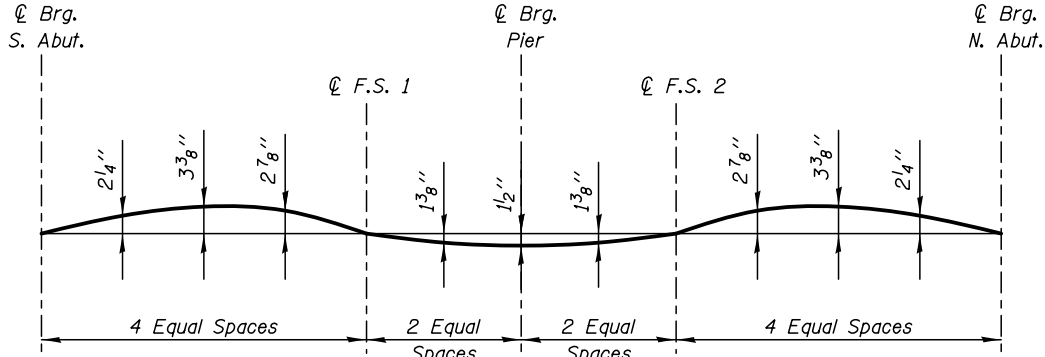
V_f : Maximum factored shear range in span computed according to Article 6.10.10.

LLDF: Live Load Distribution Factor

OCF: Obtuse Correction Factor

Note:

M_L and R_L include the effects of centrifugal force and superelevation.

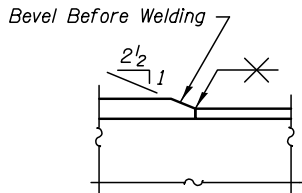


CAMBER DIAGRAM

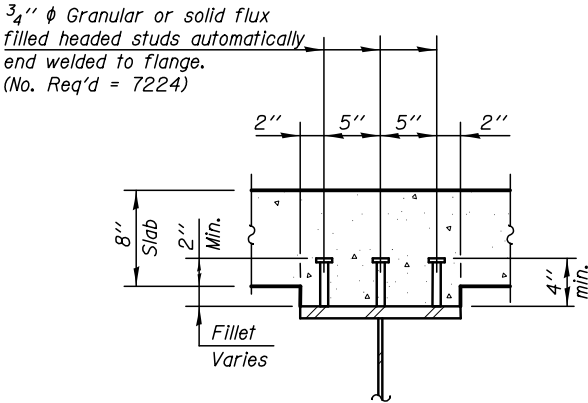
TOP OF WEB ELEVATIONS

(For Fabrication use only)

Girder No.	Brg. S. Abut.	F.S. 1	℄ Pier	F.S. 2	Brg. N. Abut.
G1	670.77	671.88	671.99	672.34	672.18
G2	671.00	672.08	672.17	672.50	672.32
G3	671.23	672.27	672.35	672.67	672.45
G4	671.45	672.47	672.53	672.83	672.59
G5	671.68	672.66	672.71	673.00	672.72
G6	671.90	672.85	672.89	673.17	672.85
G7	672.09	673.01	673.03	673.29	672.95
G8	672.18	673.07	673.07	673.32	672.95



DETAIL "B"



SHEAR CONNECTORS DETAIL

Notes:

All girders, bearing stiffeners and splice plate material shall be AASHTO M270 Grade 50.

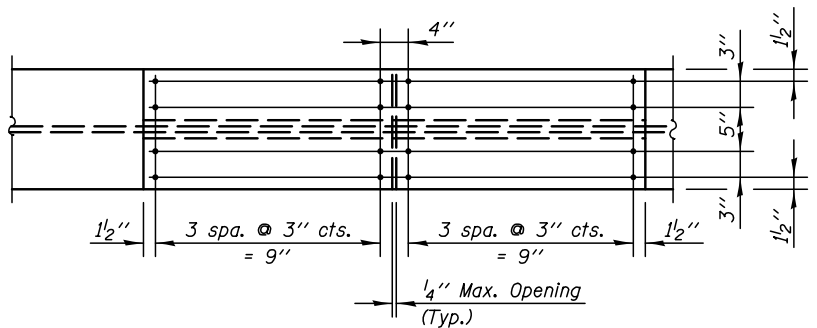
Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

All span lengths, end of beam dimensions and diaphragm spaces are along horizontal plane of the structure.

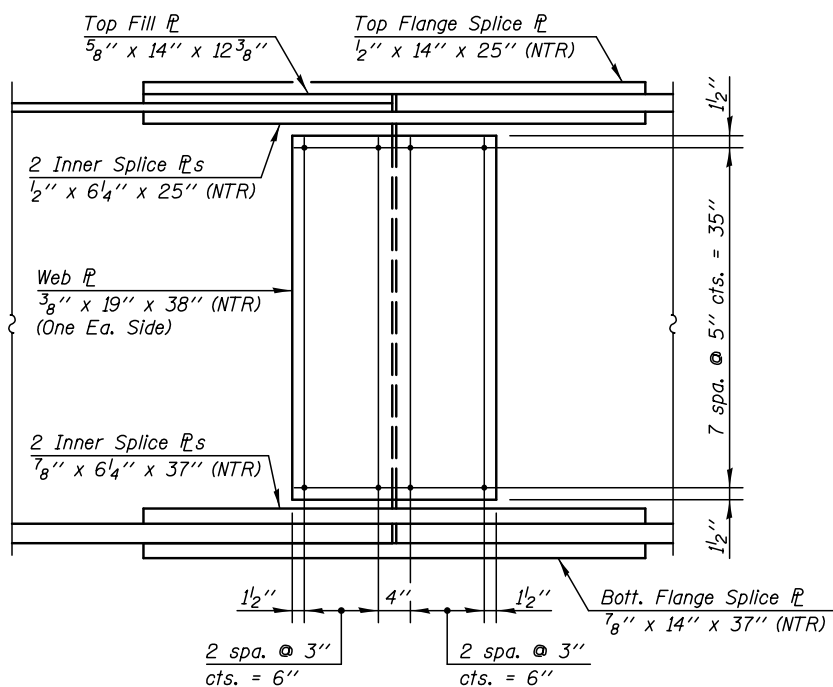
BILL OF MATERIAL

Item	Unit	Quantity
Furnishing And Erecting Structural Steel	L Sum	1

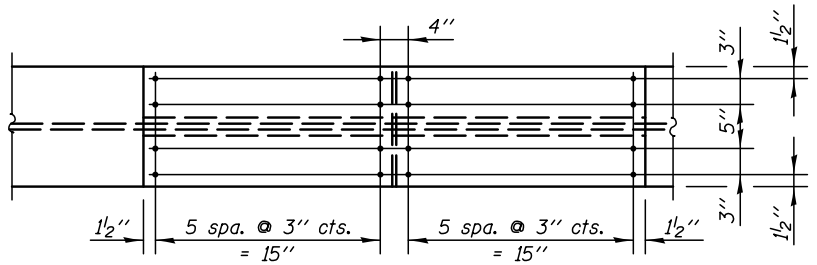
KNIGHT Engineers & Architects		DESIGNED - TB	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GIRDER DETAILS STRUCTURE NUMBER 099-0428	F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - WPM	REVISED			*	(99-1HB-1) R-1	WILL	1508	1071
	SCALE - NONE	DRAWN - SMA	REVISED			CONTRACT NO. 60X10				
	DATE - 8/25/2017	CHECKED - TB	REVISED			* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				
SHEET NO. SA-24 OF 36 SHEETS										



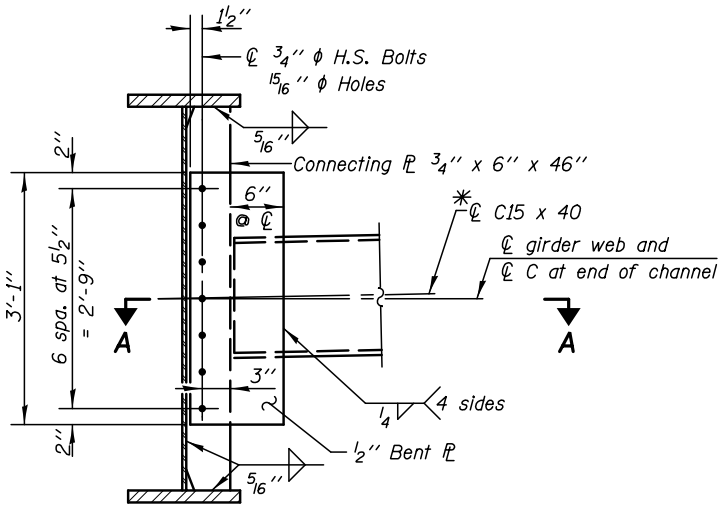
TOP FLANGE



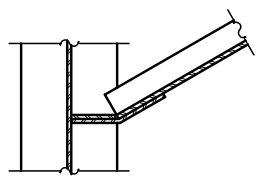
ELEVATION



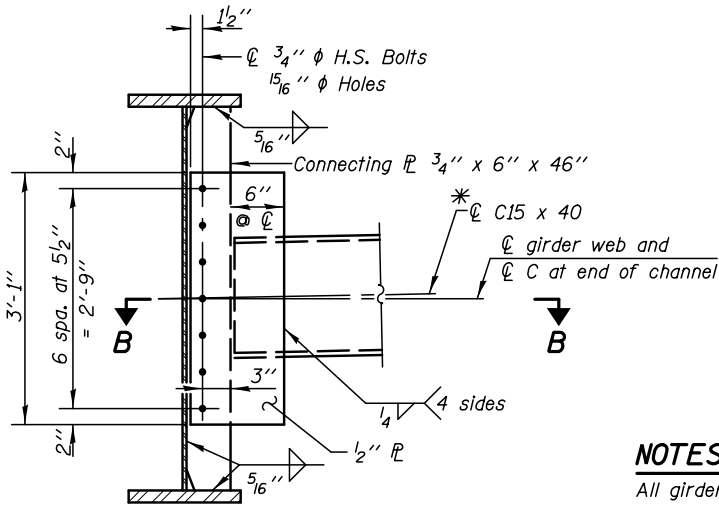
**BOTTOM FLANGE
DETAIL OF SPLICE**



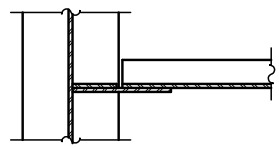
**DIAPHRAGM D1
14 Required**



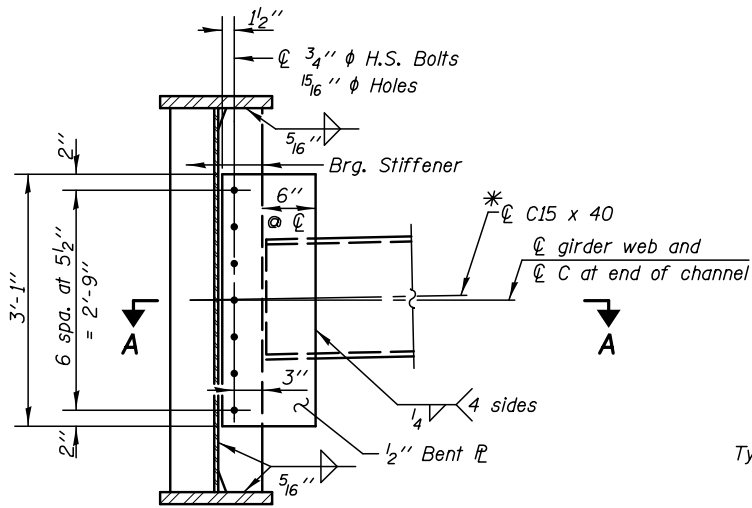
SECTION A-A



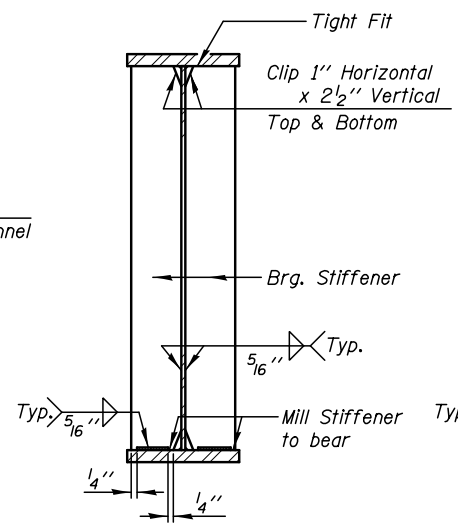
**INTERIOR DIAPHRAGM D2
70 Required**



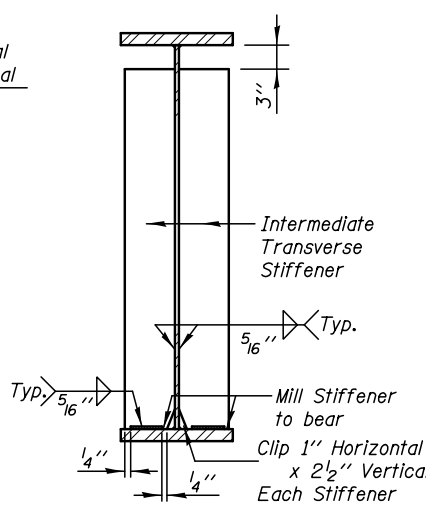
SECTION B-B



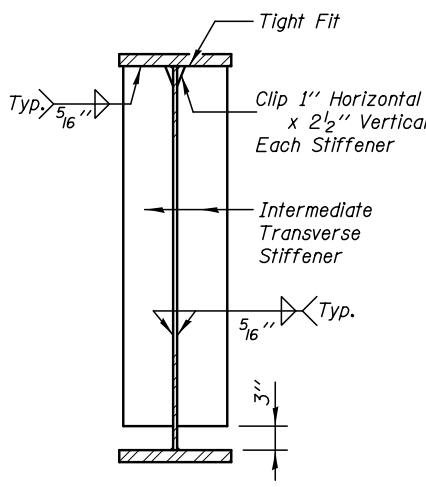
**PIER DIAPHRAGM D3
7 Required**



**BEARING STIFFENER
16 Required**



**TRANSVERSE STIFFENER
PIER
16 Required**



**TRANSVERSE STIFFENER
ABUTMENT
16 Required**

NOTES:

All girders, bearing stiffeners and splice plate material shall be AASHTO M270 Grade 50.

Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

All diaphragms may be AASHTO M270 Grade 36.

All splice bolts shall be 7/8 inch High Strength Bolts. All splice holes shall be 15/16 inch holes.

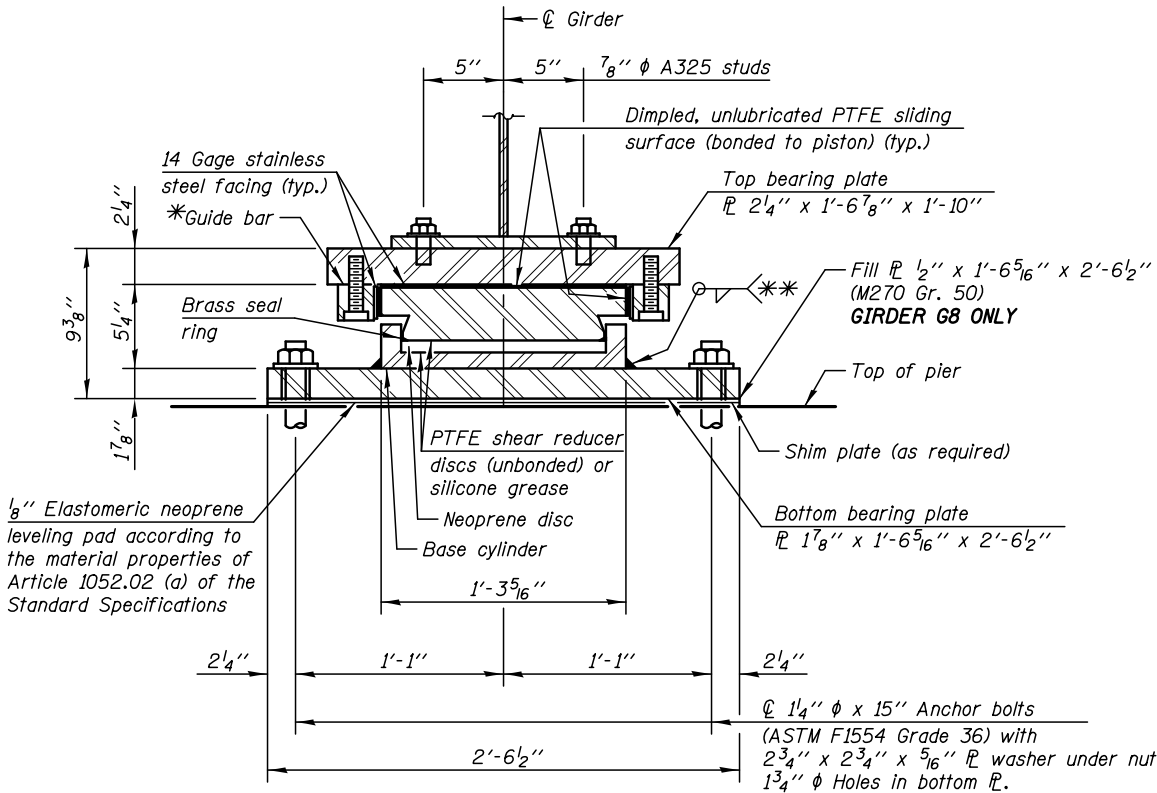
All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

Two hardened washers required for each set of oversized holes.

*Alternate channels C15X50 are permitted to facilitate material acquisition. Calculated weight of structural steel is based on C15X40 sections. The alternate, if utilized, shall be provided at no extra cost to the department.

PLOT DATE = 8/16/2017

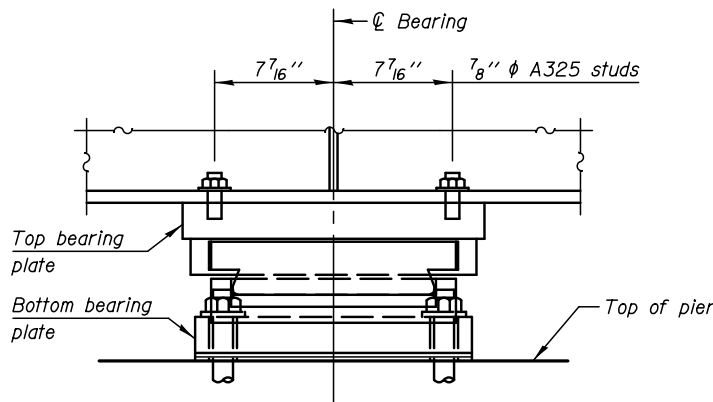
KNIGHT Engineers & Architects	DESIGNED - TB	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FIELD SPLICE AND DIAPHRAGM DETAILS STRUCTURE NUMBER 099-0428	F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - WPM	REVISED			*	(99-1HB-1) R-1	WILL	1508	1072
	DRAWN - SMA	REVISED			CONTRACT NO. 60X10				
	CHECKED - TB	REVISED			* FAI 55, FAP 856 [ILLINOIS] FED. AID PROJECT				
SCALE - NONE	DATE - 8/25/2017				SHEET NO. SA-25 OF 36 SHEETS				



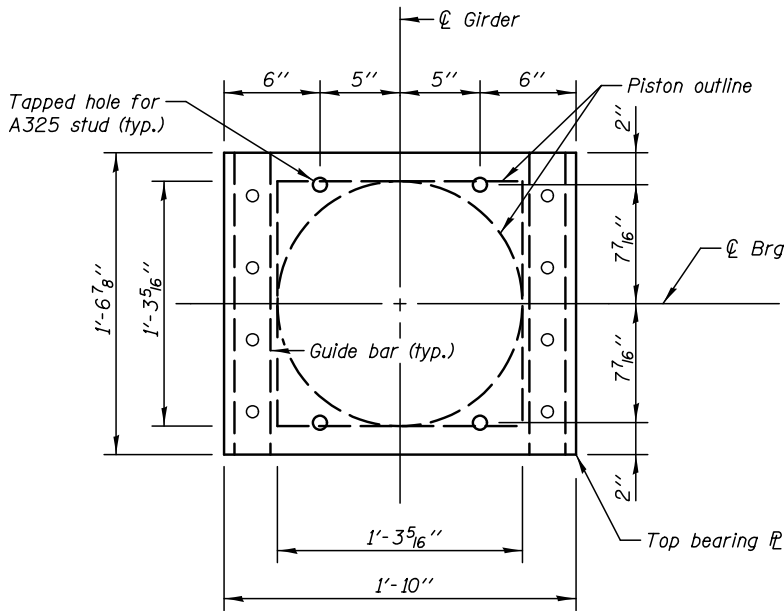
SECTION A-A

*As an alternate to the bolted connection shown, the guide bars may be connected to the top bearing plate by groove welds or the guide bars and top bearing plate may be fabricated as a single piece.

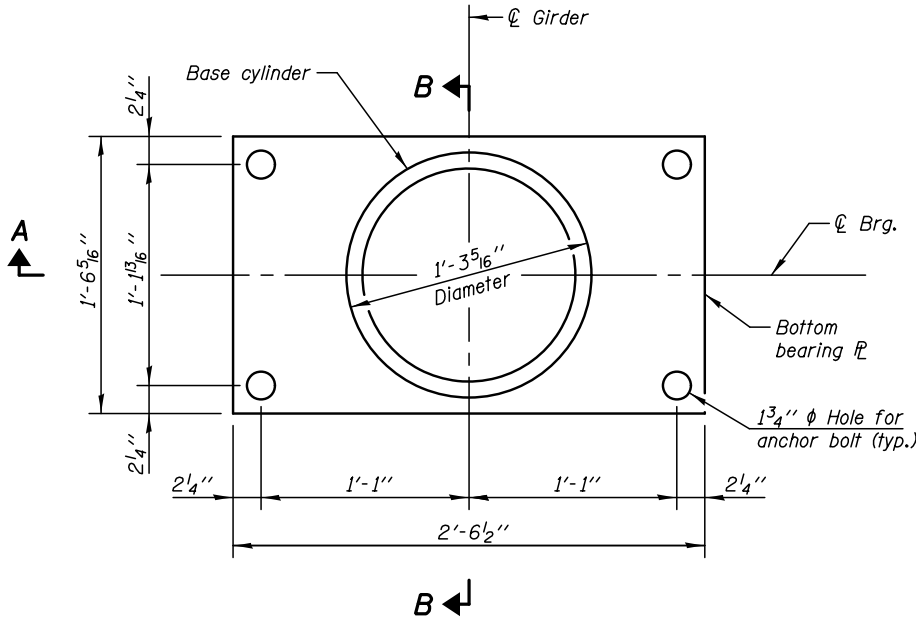
**Weld may be omitted if base cylinder is recessed into bottom bearing plate.



SECTION B-B



TOP BEARING PLATE AND PISTON PLAN



BOTTOM BEARING PLATE AND BASE CYLINDER PLAN

Notes:

All steel for bearings shall conform to the requirements of AASHTO M270 Grade 50, unless otherwise noted.

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

Anchor bolts may be either cast in place or installed in holes drilled after the supported member is in place. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Total bearing height is estimated based on manufacturer data. Actual bearing height may differ from contract plans. The Contractor shall be responsible for verifying bearing heights and adjusting seat elevations, if required, prior to placing concrete, subject to approval by the Engineer. Total bearing height is taken at the centerline of bearing for bevelled top plates.

Two 1/8 inch adjusting shims shall be provided for each bearing in addition to all other plates.

BEARING DESIGN INFORMATION

Vertical Design Load	430 K
Lateral Design Load	86 K
Maximum Factored Ultimate (Strength) Design Rotation	0.02 R
Total Required Movement	1 1/2 inch

Note

Vertical Design Load = total vertical dead load + live load (no impact) at service level

BILL OF MATERIAL

Item	Unit	Quantity
High Load Multi-Rotational Bearings, Guided Expansion, 450K	Each	8
Anchor Bolts, 1 1/4 inch	Each	32

PLOT DATE = 8/16/2017

KNIGHT
Engineers & Architects

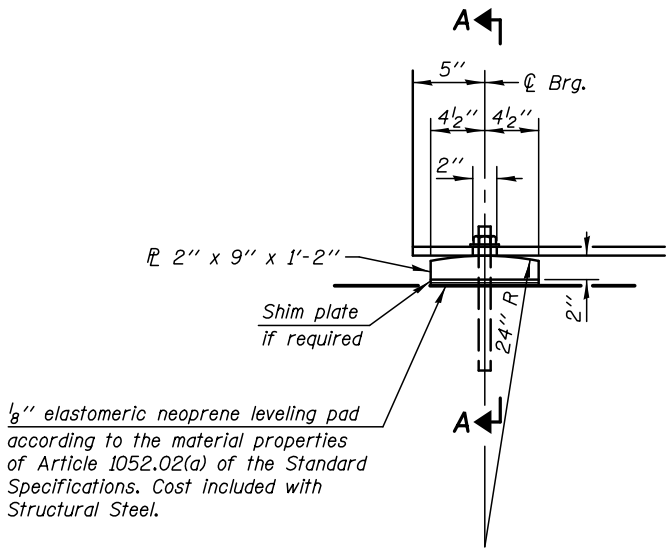
DESIGNED - TB	REVISIONS
CHECKED - WPM	REVISIONS
DRAWN - SMA	REVISIONS
CHECKED - TB	REVISIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HIGH LOAD MULTI-ROTATIONAL BEARING DETAILS
STRUCTURE NUMBER 099-0428

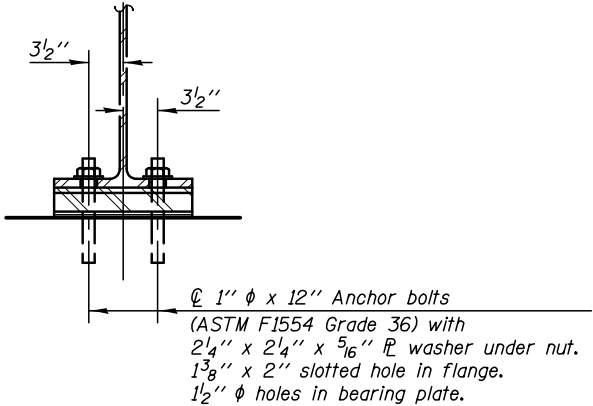
SHEET NO. SA-26 OF 36 SHEETS

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1073
CONTRACT NO. 60X10				
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				



1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Structural Steel.

ELEVATION AT ABUTMENT



SECTION A-A

FIXED BEARING

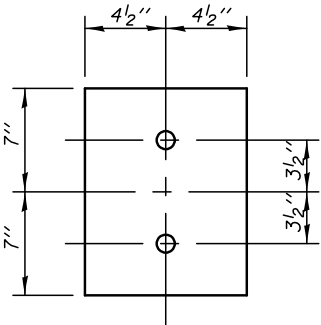


PLATE PLAN VIEW

Notes:
All steel for bearings shall conform to the requirements of AASHTO M270 Grade 50, unless otherwise noted.

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

Anchor bolts may be either cast in place or installed in holes drilled after the supported member is in place. Drilled and set anchor bolts shall be installed according Article 521.06 of the Standard Specifications.

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates.

BILL OF MATERIAL

Item	Unit	Quantity
Anchor Bolts, 1"	Each	32

PLOT DATE = 8/16/2017

KNIGHT

Engineers & Architects

DESIGNED	-	TB
CHECKED	-	WPM
SCALE	-	NONE
DATE	-	8/25/2017

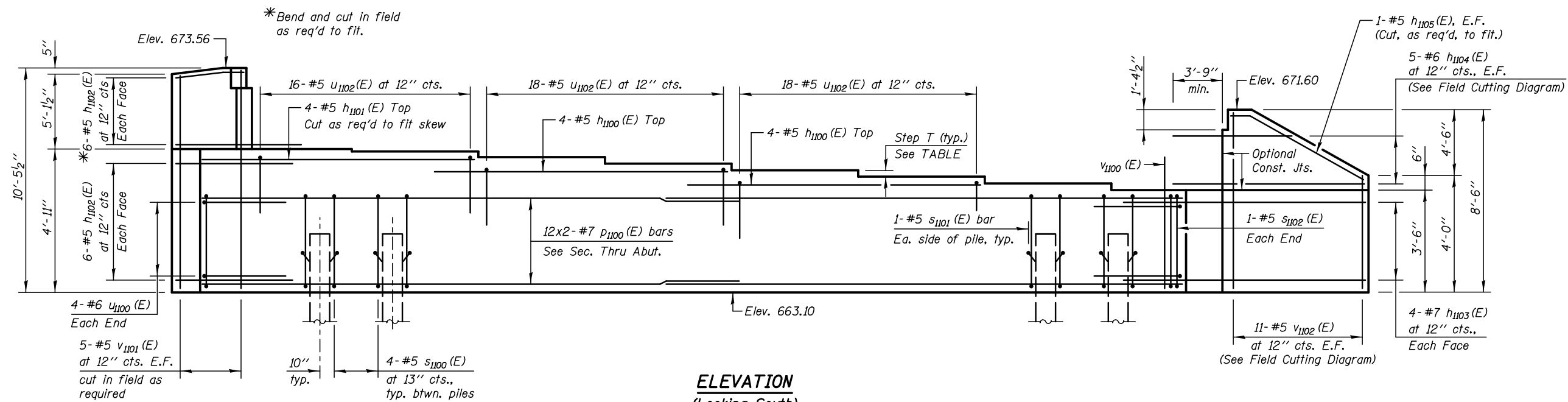
REVISION	
REVISION	
REVISION	
REVISION	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

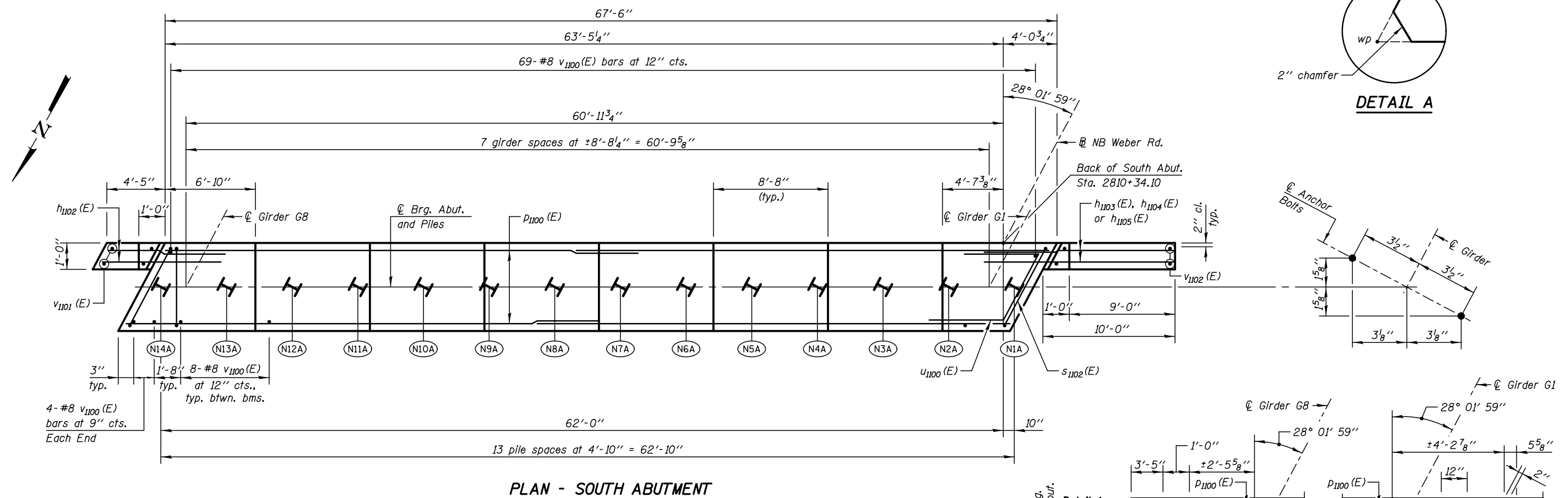
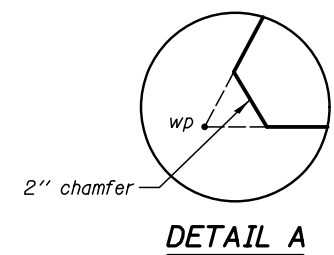
FIXED BEARING DETAILS
STRUCTURE NUMBER 099-0428

SHEET NO. SA-27 OF 36 SHEETS

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1074
CONTRACT NO. 60X10				
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				



<u>BEARING SEAT</u>		
<u>ELEVATIONS</u>		
<i>GIRDER</i>	<i>BRG. SEAT ELEVATION</i>	<i>STEP T- inch</i>
<i>G1</i>	666.61	
<i>G2</i>	666.84	<i>2³/₄</i>
<i>G3</i>	667.07	<i>2³/₄</i>
<i>G4</i>	667.29	<i>2⁵/₈</i>
<i>G5</i>	667.52	<i>2³/₄</i>
<i>G6</i>	667.74	<i>2⁵/₈</i>
<i>G7</i>	667.93	<i>2³/₈</i>
<i>G8</i>	668.02	<i>1</i>



PILE DATA

Type & Size: Steel HP 12x53 with pile shoes
Nominal Required Bearing: 364 Kips
Factored Resistance Available: 200 Kips
Est. Length: 50 ft
No. Production Piles: 13
No. Test Piles: 1

NOTES

Space reinforcement bars to miss anchor bolts.

Pour steps monolithically with cap.

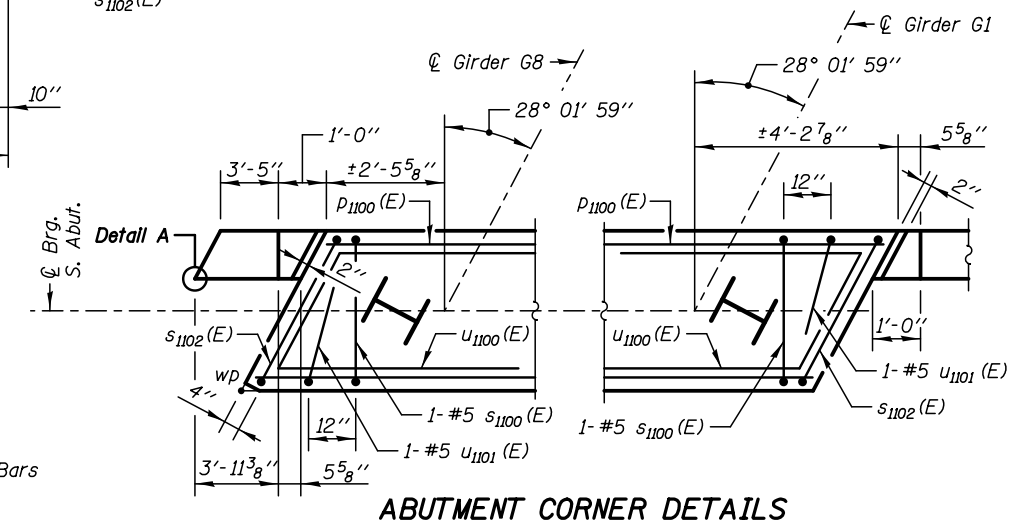
Bars indicated thus 20x3- #15 indicates 20 lines of bars with 3 lengths per line.

LEGEND

E.F. Each Face
(N1A) Pile Number

MIN. BAR LAP

Vertical Bars	Horizontal Top Bars
#5 - 3'-9"	#5 - 3'-7"
	#7 - 5'-0"



1- #5 $h_{1305}(E)$, E.F.
(Cut, as req'd, to fit.)

5- #6 $h_{1304}(E)$
at 12" cts., E.F.
(See Field Cutting
Diagram)

Elev. 673.09

3'-9"
min.

1'-4 1/2"

Step T (typ.)
See TABLE

27- #5 $u_{1302}(E)$ at 12" cts.

17- #5 $u_{1302}(E)$ at 12" cts.

4- #5 $h_{1300}(E)$ Top

4- #5 $h_{1301}(E)$ Top
Cut as req'd to fit skew

1- #5 $s_{1302}(E)$
Each End

11- #5 $v_{1302}(E)$
at 12" cts. E.F.
(See Field Cutting Diagram)

10"
typ.

4- #5 $s_{1300}(E)$
at 13" cts.,
typ. btwn. piles

ELEVATION
(Looking North)

1- #5 $s_{1301}(E)$ bar
Ea. side of pile, typ.

Elev. 664.50

5- #5 $v_{1301}(E)$ at 12" cts. E.F.
cut in field as required

4- #6 $u_{1300}(E)$
Each End

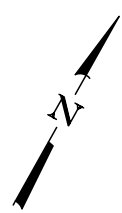
Optional
Const. Jts.

*6- #5 $h_{1302}(E)$
at 12" cts.
Each Face

*Bend and cut in field
as req'd to fit.

**BEARING SEAT
ELEVATIONS**

GIRDER	BRG. SEAT ELEVATION	STEP T- inch
G1	668.02	
G2	668.16	1 5/8
G3	668.29	1 5/8
G4	668.43	1 5/8
G5	668.56	1 5/8
G6	668.69	1 1/2
G7	668.79	1 1/4
G8	668.79	



Back of North Abut.
Sta. 2812+85.88

10'-0"

9'-0"

1'-0"

$v_{1302}(E)$

$h_{1303}(E)$,
 $h_{1304}(E)$ or
 $h_{1305}(E)$

N1D

N2D

N3D

N4D

N5D

N6D

N7D

N8D

N9D

N10D

N11D

N12D

N13D

N14D

4- #8 $v_{1300}(E)$
bars at 9" cts.
Each End

1'-8" 8- #8 $v_{1300}(E)$
at 12" cts.,
typ. btwn. bms.

2'-7 3/8"

PLAN - NORTH ABUTMENT

13 pile spaces at 4'-10" = 62'-10"

60'-2 5/8"

2'-7 3/8"

8'-8" (typ.)

2-9 3/8"

9'-0"

10'-0"

Back of North Abut.
Sta. 2812+85.88

69- #8 $v_{1300}(E)$ bars at 12" cts.

63'-5 1/4"

67'-6"

58'-3 3/4"

7 girder spaces at ±8'-8 1/4" = 60'-9 5/8"

28° 01' 59"

28° 01' 59"

4'-0 3/4"

63'-5 1/4"

67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

63'-5 1/4"

67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

63'-5 1/4"

67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

63'-5 1/4"

67'-6"

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63'-5 1/4"

67'-6"

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67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

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67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

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67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

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67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

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67'-6"

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67'-6"

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67'-6"

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67'-6"

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67'-6"

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67'-6"

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67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

63'-5 1/4"

67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

63'-5 1/4"

67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

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67'-6"

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67'-6"

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63'-5 1/4"

67'-6"

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63'-5 1/4"

67'-6"

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63'-5 1/4"

67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

63'-5 1/4"

67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

63'-5 1/4"

67'-6"

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63'-5 1/4"

67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

63'-5 1/4"

67'-6"

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67'-6"

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63'-5 1/4"

67'-6"

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63'-5 1/4"

67'-6"

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67'-6"

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63'-5 1/4"

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63'-5 1/4"

67'-6"

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63'-5 1/4"

67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

63'-5 1/4"

67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

63'-5 1/4"

67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

63'-5 1/4"

67'-6"

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63'-5 1/4"

67'-6"

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63'-5 1/4"

67'-6"

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67'-6"

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63'-5 1/4"

67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

63'-5 1/4"

67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

63'-5 1/4"

67'-6"

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63'-5 1/4"

67'-6"

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63'-5 1/4"

67'-6"

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63'-5 1/4"

67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

63'-5 1/4"

67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

63'-5 1/4"

67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

63'-5 1/4"

67'-6"

69- #8 $v_{1300}(E)$ bars at 12" cts.

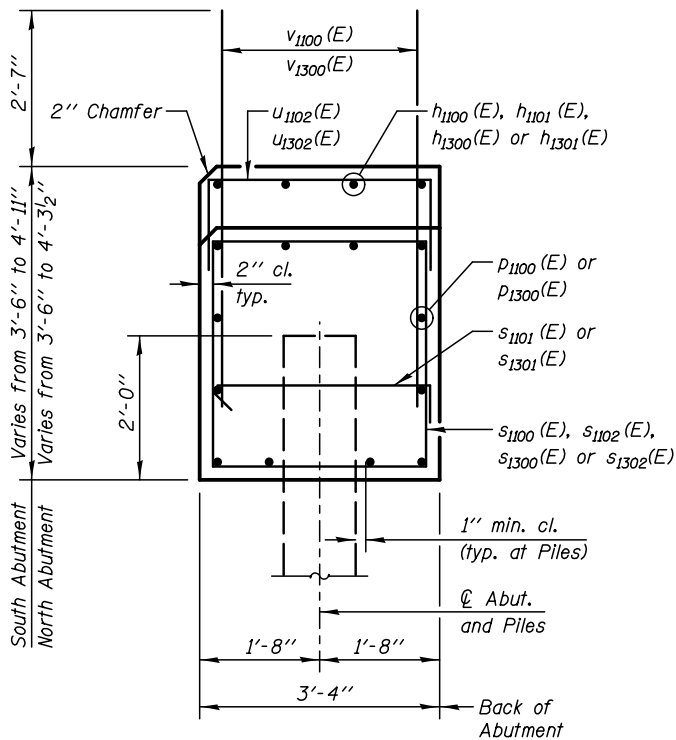
63'-5 1/4"

67'-6"

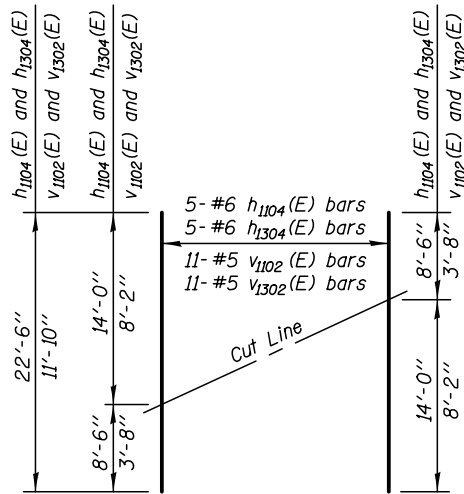
69- #8 $v_{1300}(E)$ bars at 12" cts.

63'-5 1/4"

67'-6"



SEC. THRU ABUT.



FIELD CUTTING DIAGRAM

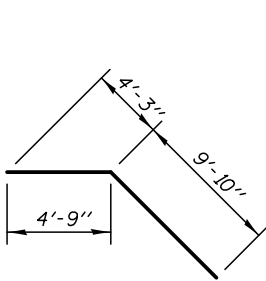
Order $h_{1104}(E)$, $h_{1304}(E)$, $v_{1102}(E)$ & $v_{1302}(E)$ full length.
Cut as shown and use remainder of bars in opposite face.

**SOUTH ABUTMENT
BILL OF MATERIAL**

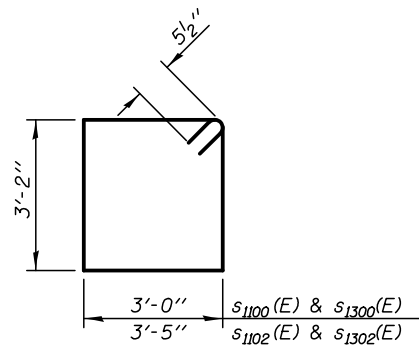
BAR	NO.	SIZE	LENGTH	SHAPE
$h_{1100}(E)$	8	#5	20'-3"	
$h_{1101}(E)$	4	#5	16'-9"	
$h_{1102}(E)$	24	#5	8'-0"	
$h_{1103}(E)$	8	#7	13'-7"	
$h_{1104}(E)$	5	#6	22'-6"	
$h_{1105}(E)$	2	#5	14'-7"	
$p_{1100}(E)$	24	#7	36'-3"	
$s_{1100}(E)$	54	#5	13'-3"	
$s_{1101}(E)$	28	#5	3'-11 1/2"	
$s_{1102}(E)$	2	#5	14'-1"	
$u_{1100}(E)$	8	#6	12'-9"	
$u_{1101}(E)$	2	#5	8'-2"	
$u_{1102}(E)$	52	#5	7'-6"	
$v_{1100}(E)$	133	#8	5'-11"	
$v_{1101}(E)$	10	#5	10'-2"	
$v_{1102}(E)$	11	#5	11'-10"	
Reinforcement Bars, Epoxy Coated			Pound	6450
Concrete Structures			Cu. Yd.	42.0
Structure Excavation			Cu. Yd.	288.0
Furnishing Steel Piles HP12X53			Foot	650.0
Driving Piles			Foot	624.0
Test Pile Steel HP12X53			Each	1
Pile Shoes			Each	14

**NORTH ABUTMENT
BILL OF MATERIAL**

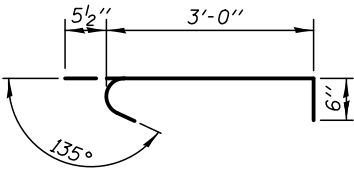
BAR	NO.	SIZE	LENGTH	SHAPE
$h_{1300}(E)$	4	#5	29'-0"	
$h_{1301}(E)$	4	#5	17'-0"	
$h_{1302}(E)$	22	#5	8'-0"	
$h_{1303}(E)$	8	#7	13'-7"	
$h_{1304}(E)$	5	#6	22'-6"	
$h_{1305}(E)$	2	#5	14'-7"	
$p_{1300}(E)$	24	#7	36'-3"	
$s_{1300}(E)$	54	#5	13'-3"	
$s_{1301}(E)$	28	#5	3'-11 1/2"	
$s_{1302}(E)$	2	#5	14'-1"	
$u_{1300}(E)$	8	#6	12'-9"	
$u_{1301}(E)$	2	#5	8'-2"	
$u_{1302}(E)$	44	#5	7'-6"	
$v_{1300}(E)$	133	#8	5'-11"	
$v_{1301}(E)$	10	#5	9'-6"	
$v_{1302}(E)$	11	#5	11'-10"	
Reinforcement Bars, Epoxy Coated			Pound	6320
Concrete Structures			Cu. Yd.	39.0
Structure Excavation			Cu. Yd.	273.0
Furnishing Steel Piles HP12X53			Foot	780.0
Driving Piles			Foot	754.0
Test Pile Steel HP12X53			Each	1
Pile Shoes			Each	14



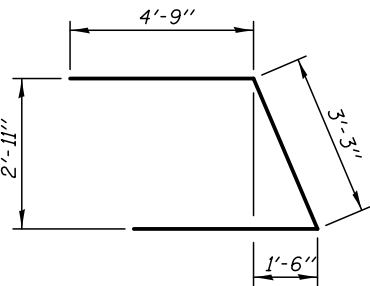
BARS $h_{1105}(E)$ & $h_{1305}(E)$



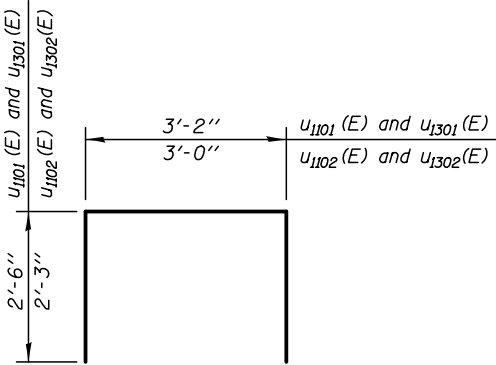
**BARS $s_{1100}(E)$ & $s_{1300}(E)$
BARS $s_{1102}(E)$ & $s_{1302}(E)$**



BAR $s_{1101}(E)$ & $s_{1301}(E)$

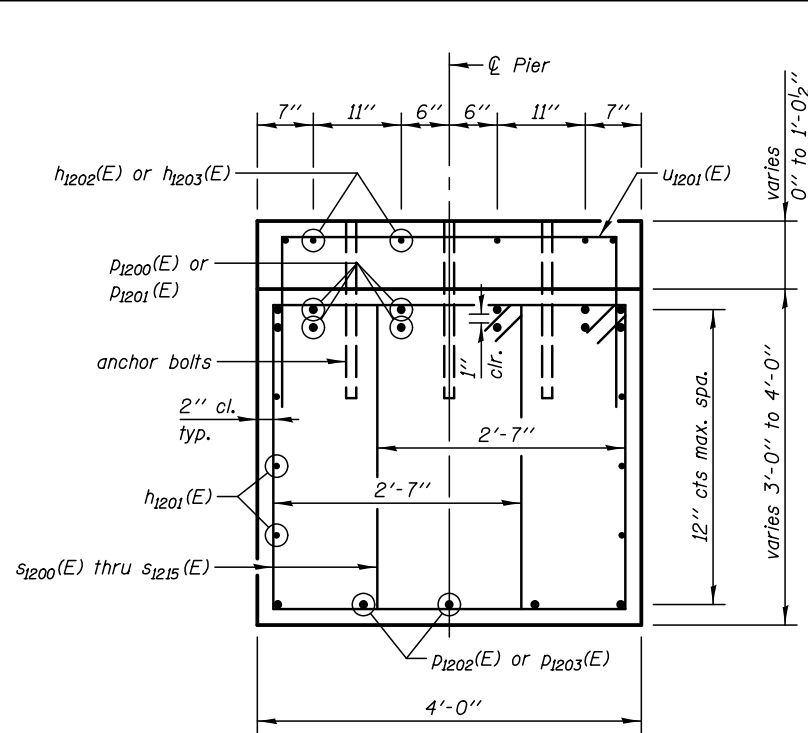


BARS $u_{1100}(E)$ & $u_{1300}(E)$

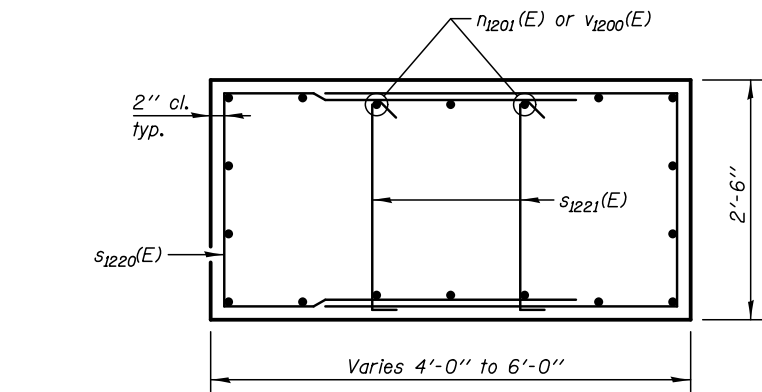


**BARS $u_{1101}(E)$ & $u_{1301}(E)$
BARS $u_{1102}(E)$ & $u_{1302}(E)$**

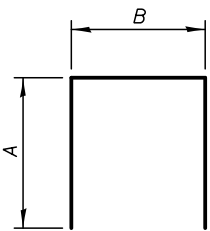
PLOT DATE = 8/16/2017



SECTION A-A



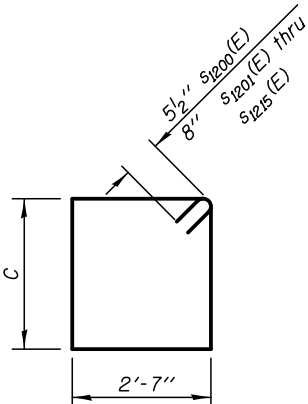
SECTION B-B



A & B DIMENSIONS

BAR	A	B
n1200(E)	6'-9"	3'-8"
s1220(E)	4'-8"	2'-2"
u1200(E)	3'-9"	3'-8"
u1201(E)	2'-0"	3'-8"

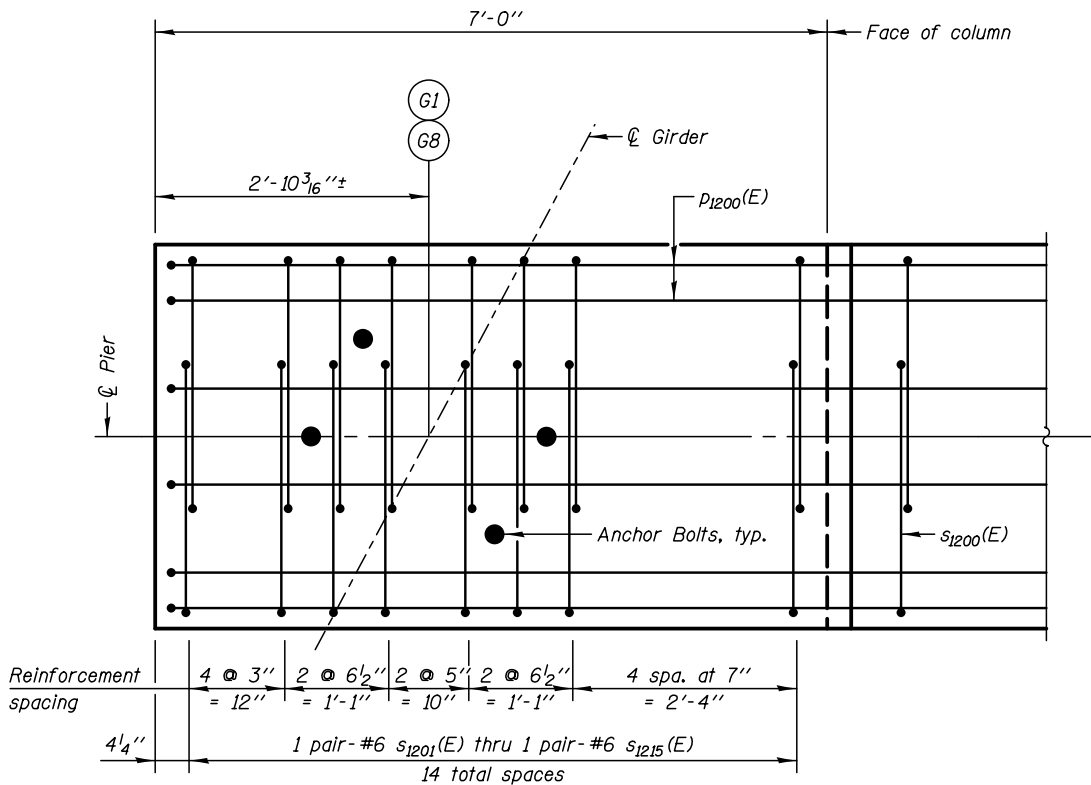
BARS n1200(E), s1220(E),
u1200(E) & u1201(E)



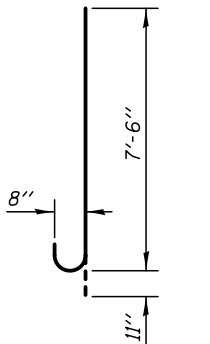
BARS s1200(E) THRU s1215(E)

C DIMENSION

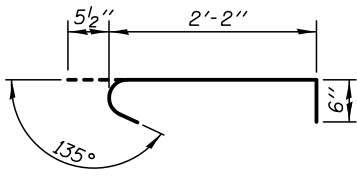
BAR	C
s1200(E)	3'-8"
s1201(E)	2'-8 1/2"
s1202(E)	2'-9"
s1203(E)	2'-9 1/2"
s1204(E)	2'-10"
s1205(E)	2'-10 1/2"
s1206(E)	2'-11 1/2"
s1207(E)	3'-0"
s1208(E)	3'-1"
s1209(E)	3'-1 1/2"
s1210(E)	3'-2 1/2"
s1211(E)	3'-3 1/2"
s1212(E)	3'-4 1/2"
s1213(E)	3'-5 1/2"
s1214(E)	3'-6 1/2"
s1215(E)	3'-7 1/2"



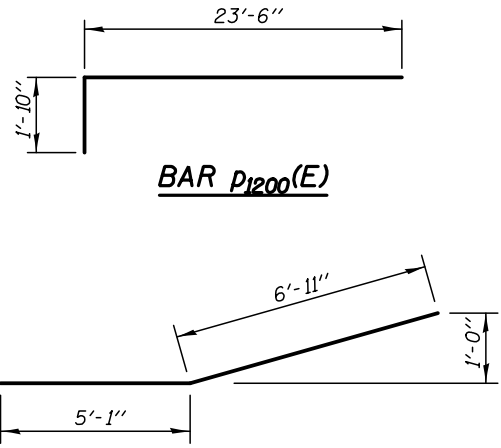
PIER CAP PLAN



BAR n1201(E)

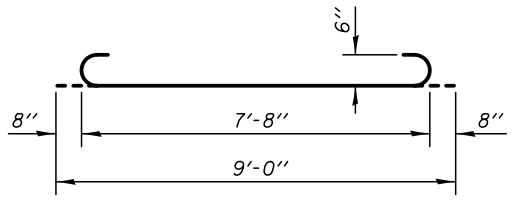


BAR s1221(E)



BAR p1200(E)

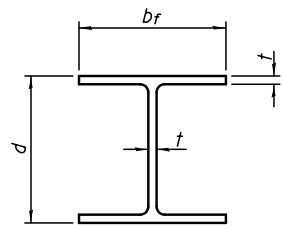
BAR p1203(E)



BAR t1201(E)

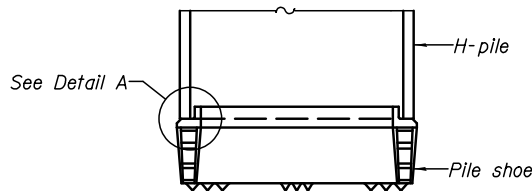
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h1200(E)	38	#6	29'-0"	
h1201(E)	18	#5	24'-9"	
h1202(E)	6	#5	20'-3"	
h1203(E)	6	#5	29'-10"	
n1200(E)	108	#6	17'-2"	└┐
n1201(E)	72	#8	8'-5"	└┐
p1200(E)	24	#10	25'-4"	
p1201(E)	12	#8	36'-0"	
p1202(E)	15	#8	21'-0"	
p1203(E)	10	#8	12'-0"	
s1200(E)	84	#5	13'-5"	□
s1201(E)	4	#6	11'-11"	□
s1202(E)	4	#6	12'-0"	□
s1203(E)	4	#6	12'-1"	□
s1204(E)	4	#6	12'-2"	□
s1205(E)	4	#6	12'-3"	□
s1206(E)	4	#6	12'-5"	□
s1207(E)	4	#6	12'-6"	□
s1208(E)	4	#6	12'-8"	□
s1209(E)	4	#6	12'-9"	□
s1210(E)	4	#6	12'-11"	□
s1211(E)	4	#6	13'-1"	□
s1212(E)	4	#6	13'-3"	□
s1213(E)	4	#6	13'-5"	□
s1214(E)	4	#6	13'-7"	□
s1215(E)	4	#6	13'-9"	□
s1220(E)	64	#5	11'-6"	└┐
s1221(E)	64	#5	3'-1 1/2"	└┐
t1200(E)	57	#5	7'-8"	
t1201(E)	56	#6	9'-0"	└┐
u1200(E)	24	#5	11'-2"	└┐
u1201(E)	52	#5	7'-8"	└┐
v1200(E)	72	#9	11'-0"	
w1200(E)	36	#5	30'-0"	
Reinforcement Bars, Epoxy Coated			Pound	20800
Concrete Structures			Cu. Yd.	173.0
Structure Excavation			Cu. Yd.	167.0
Furnishing Steel Piles HP12X53			Foot	1000.0
Driving Piles			Foot	975.0
Test Pile Steel HP12X53			Each	1
Pile Shoes			Each	26
Concrete Sealer			Sq. Ft.	1451.0

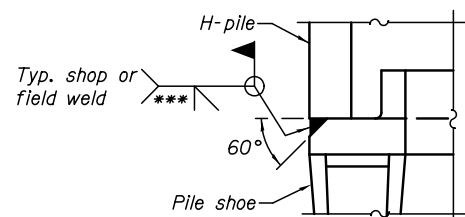


STEEL PILE TABLE

Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	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"	1 1/16"	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"

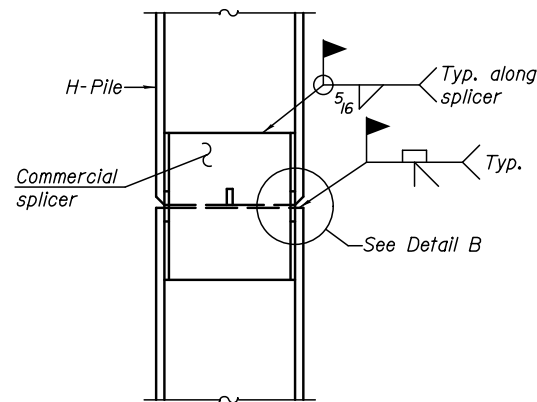


ELEVATION

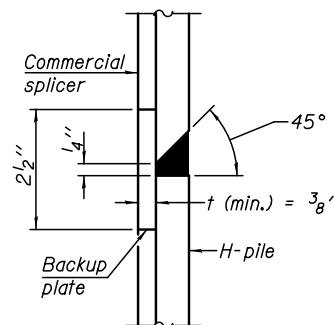


DETAIL A

H-PILE SHOE ATTACHMENT

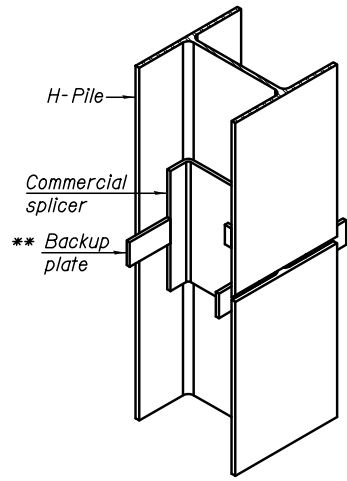


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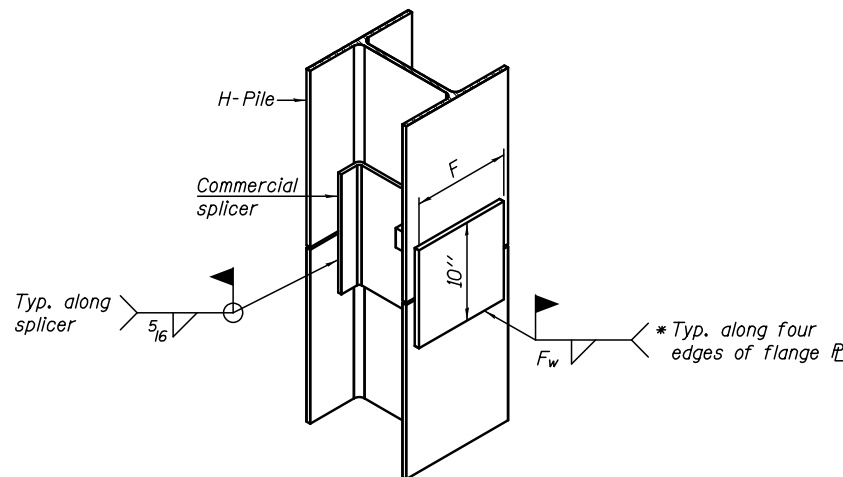


DETAIL "B"

WELDED COMMERCIAL SPLICE



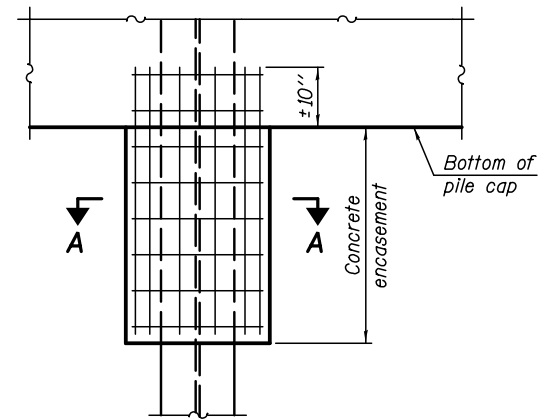
ISOMETRIC VIEW



ISOMETRIC VIEW

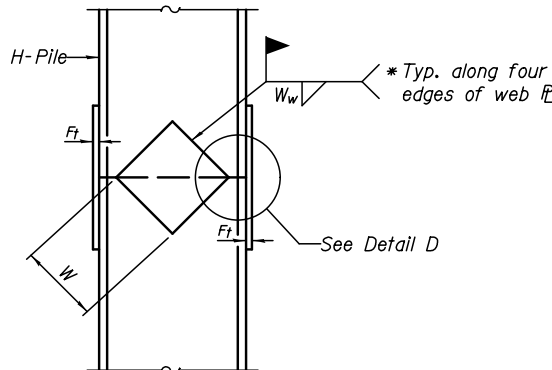
WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).

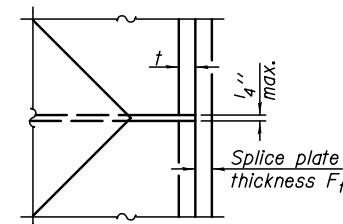


ELEVATION

PILE ENCASEMENT

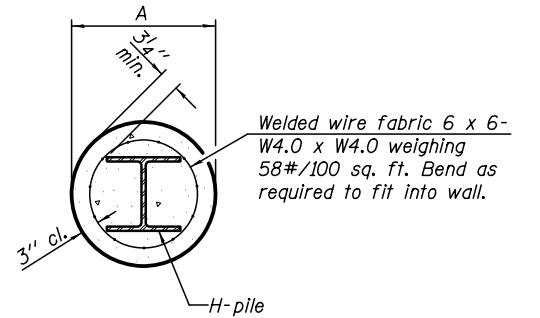


ELEVATION



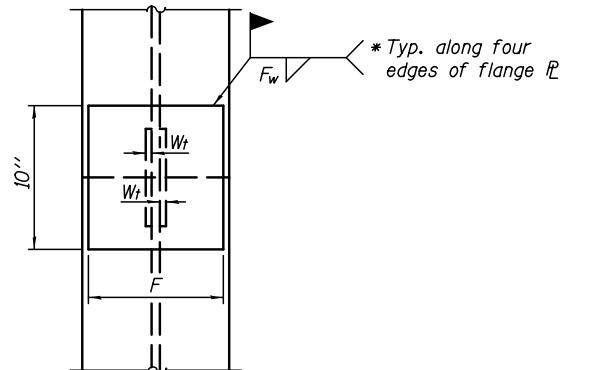
DETAIL D

WELDED PLATE FIELD SPLICE



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

SECTION A-A



END VIEW

Designation	F	Ft	Fw	W	Wt	Ww
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"	1 1/16"	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"	1 1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1 1/16"	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"

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

PLOT DATE = 8/16/2017

F-HP

1-27-12

KNIGHT Engineers & Architects	DESIGNED - TB	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HP PILE DETAILS STRUCTURE NUMBER 099-0428	F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - WPM	REVISED			*	(99-1HB-1) R-1	WILL	1508	1080
	SCALE - NONE	DRAWN - SMA			CONTRACT NO. 60X10				
	DATE - 8/25/2017	CHECKED - TB			* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				

SHEET NO. SA-33 OF 36 SHEETS

Page 1 of 2

Date 10/17/14

ROUTE	Weber Road	DESCRIPTION	Proposed Weber Road & I-55 Improvements	LOGGED BY	JJR
-------	------------	-------------	---	-----------	-----

SECTION	Street/Roman Road	LOCATION	Weber Road Bridge	SEC	TWP	RNG
---------	-------------------	----------	-------------------	-----	-----	-----

COUNTY	Will County	DRILLING METHOD	HSA	HAMMER TYPE	AUTO
--------	-------------	-----------------	-----	-------------	------

STRUCT. NO.	099-0428	D	B	U	M	Surface Water Elev.	NA	ft	D	B	U	M
Station	NA	E	L	C	O	Stream Bed Elev.	NA	ft	E	L	C	O

BORING NO.	BR-01	(1 NB)	T	W	S	Groundwater Elev.:	T	W	S
Station	810+16	(2810+43)	H	S	Qu	First Encounter	614.0	ft	↓
Offset	92.00ft LT	(9.00ft RT)	(ft)	(/6")	(tsf)	Upon Completion	None	ft	
Ground Surface Elev.	648.00	ft	(ft)	(/6")	(tsf)	After	NA	Hrs.	

12 Inches of Topsoil						Very Stiff to Hard Gray, Moist SILTY CLAY, trace gravel (CL/ML) (continued)		
Brown and Gray, Moist FILL: SILTY CLAY, trace gravel	647.00	4	5.0	17		4	4.2	19
		8	B			8	B	
		9				10		
		4				3		
		6	6.3	17	624.00	5	2.5	20
		9	B			7	B	
		3				2		
		6	5.0	16		4	1.3	21
		8	B			4	B	
Very Stiff Brown and Gray, Moist SILTY CLAY, trace gravel (CL/ML)	640.50	2				2		
		3	3.8	20		3	1.7	20
		5	B			5	B	
		5						
		6	3.0	20				
		9	P					
		2			614.50	50/5"		
		8	2.1	18				19
		8	B					
Very Stiff to Hard Gray, Moist SILTY CLAY, trace gravel (CL/ML)	632.00	5			612.00			
		8	3.5	19				
		12	B					
		3						
		5	4.2	22				
		6	B					

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

Page 2 of 2

Date 10/17/14

ROUTE	Weber Road	DESCRIPTION	Proposed Weber Road & I-55 Improvements	LOGGED BY	JJR
-------	------------	-------------	---	-----------	-----

SECTION	Street/Roman Road	LOCATION	Weber Road Bridge	SEC	TWP	RNC
---------	-------------------	----------	-------------------	-----	-----	-----

COUNTY	Will County	CORING METHOD	Rotary, Diamond Bit Core Barrel	R		CORE	S
--------	-------------	---------------	---------------------------------	---	--	------	---

STRUCT. NO.	099-0428	CORING BARREL TYPE & SIZE	NX 5 split barrel	D	C	Q	I	R
Station	NA	Coring Diameter	2 in	E	O	V	M	N

BORING NO.	BR-01	(# NB)	Top of Rock Elev.	611.00	ft
Station	810+16	(2810+43)	Begin Core Elev.	611.00	ft
Offset	92.00ft LT	(9.00ft RT)			
Ground Surface Elev.	648.00	ft			

Very Hard, Slightly Weathered Gray, Fine Grained, Damp LIMESTONE, with cavities					
	-40				
	-45				
	601.00				
End of Boring					
	-50				
	-55				

Color pictures of the cores Yes
 Cores will be stored for examination until 1/2016
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

KNIGHT

Engineers & Architects

DESIGNED	-	GSG	REVISED
CHECKED	-	WPM	REVISED
DRAWN	-	TB	REVISED
CHECKED	-	WPM	REVISED

REVISED
REVISED
REVISED
REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SOIL BORING LOGS
STRUCTURE NUMBER 099-0428

SHEET NO. SA-34 OF 36 SHEETS

F.A.I./P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1081
		CONTRACT NO. 60X10		
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				

Bench Mark: BM Lin17 Chiseled "X" on south bolt of round light pole foundation between I-55 southbound and existing I-55 ramp to Weber Road
Mile marker 263.71 sign. Elev. 654.37

Existing Structure: Structure No. 099-0281 was constructed in 1991 under Section No. 99-1HB-1(K&R)88. In 2007, under Section 99 (1&2) WRS-3, the substructure was repaired, the crashwall vertically extended and the raised median was reconfigured to add a left turn lane. Structure consists of two span 48" PPC I-beams supported on vaulted abutments and spread footing piers. Vaulted abutments consist of 36" PPC I-beams supported on metal shell piles. 242'-10 1/2" back-to-back approach bents. 73'-2" out-to-out deck. Proposed Southbound structure to re-use existing beams, pier and abutments. Weber Road traffic to be shifted to SN 099-0428 during reconstruction of SN 099-0281.

No Salvage

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications
for Highway Bridges

LOADING HS20-44

No allowance for future wearing surface.

DESIGN STRESSES

FIELD UNITS

f'_c = 4,000 psi (superstructure concrete)
 f'_c = 3,500 psi
 f_y = 60,000 psi (reinforcement)
 f_y = 50,000 psi (AASHTO M270 Gr. 50)
 f_y = 36,000 psi (AASHTO M270 Gr. 36)

EXISTING PRECAST PRESTRESSED UNITS

f'_c = 6,000 psi (48") 5,000 psi (36")
 f'_c = 4,400 psi (48") 4,000 psi (36")
 f_{pu} = 270,000 psi (1/2" ϕ stress-relieved strands)
 f_{pbt} = 189,000 psi (1/2" ϕ stress-relieved strands)

EXISTING FIELD UNITS

f'_c = 4,000 psi @ 28 days
 f_y = 60,000 psi (reinforcement)
 f_y = 36,000 psi AASHTO M183 steel (bearings)

SEISMIC DATA

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

APPROVED
For Structural Adequacy Only

Engineer of Bridges & Structures



Expires 11-30-2018

Date: 8/16/2017

for drawings
SB-01 thru SB-40

Legend

Soil Borings
F.F. Front Face S.U.P. Shared Use Path
B.F. Back Face

Notes:

SN 099-0281 and SN 099-0428 are part of a
Diverging Diamond Interchange (DDI).

GENERAL PLAN & ELEVATION

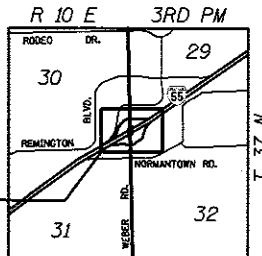
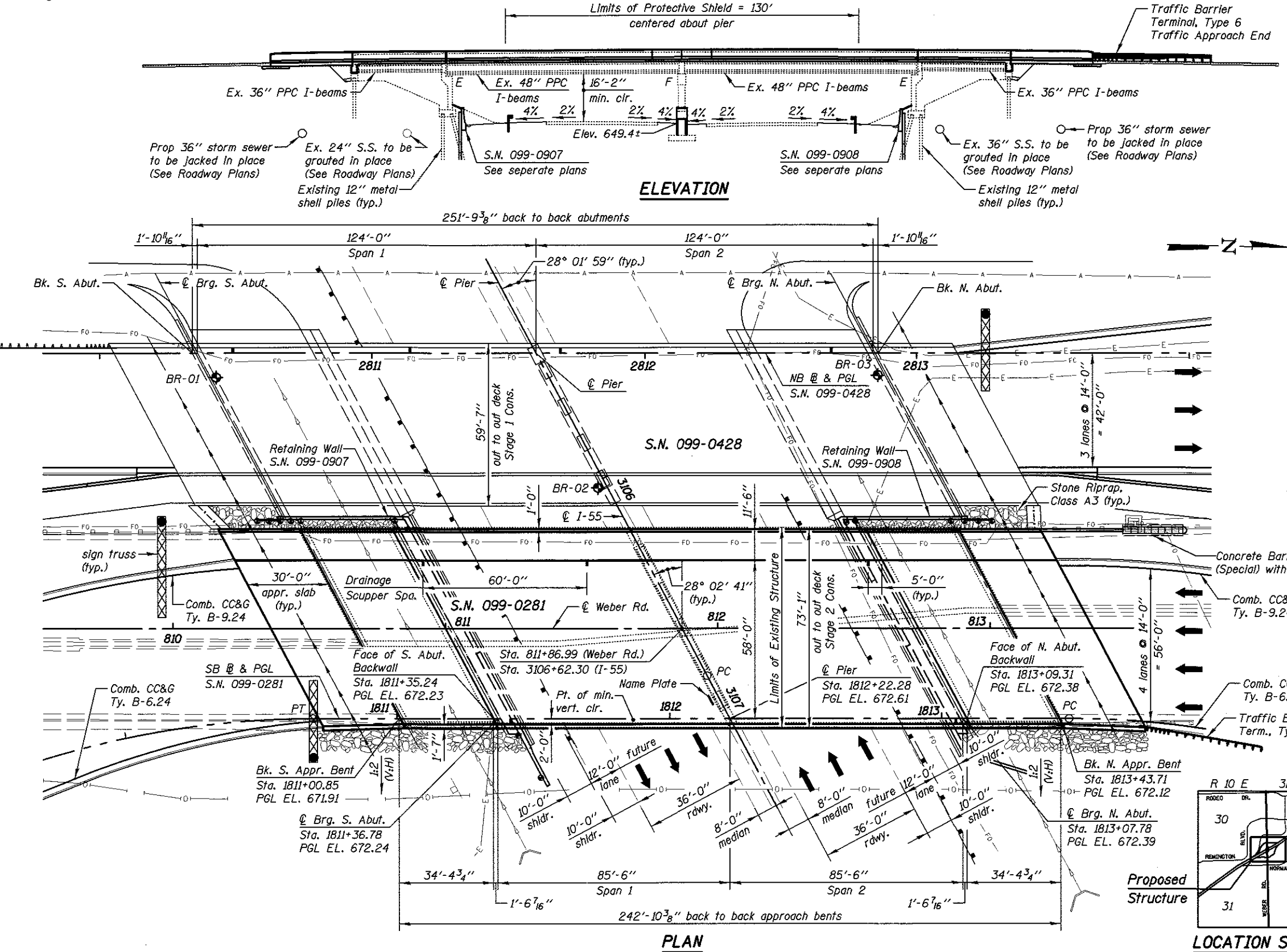
SOUTHBOUND WEBER ROAD OVER I-55

F.A.P. RTE. 856 SEC. (99-1HB-1) R-1

WILL COUNTY

STA. 1812+22.28

STRUCTURE NO. 099-0281



LOCATION SKETCH

KNIGHT Engineers & Architects		DESIGNED - TB	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION STRUCTURE NUMBER 099-0281	F.A.I./P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - WPM	REVISED			*	(99-1HB-1) R-1	WILL	1508	1084
	SCALE - NONE	DRAWN - SMA	REVISED			CONTRACT NO. 60X10				
	DATE - 8/25/2017	CHECKED - TB	REVISED			SHEET NO. SB-01 OF 40 SHEETS				
						* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the structure and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories attached to the top flange of beams and girders shall be removed. The cost of removing accessories will be paid for according to Article 109.04 of the Standard Specifications.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contactor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Concrete Sealer shall be applied to the designated areas of the abutments and pier.

The Protective Shield shall extend as shown on Sheet SB-01 and as a minimum 2 ft beyond the existing edge of deck. As a minimum, the following will be required:
Stage 2 (Total = 1140 Sq. Yd.)
1140 Sq. Yd. to remove the existing deck

Slipforming of the parapet is not permitted.

SCOPE OF WORK

- Remove existing concrete deck and concrete diaphragms from both spans and the vaulted abutments and replace with new 8” reinforced concrete deck and reinforced concrete diaphragms.
- Remove and replace existing expansion joints.
- Remove and replace approach slab.
- Reconstruct pier crashwall.
- Repair spalls, delaminations and open cracks in substructures using structural repair of concrete and epoxy crack injection as shown.
- Clean bridge seats and apply concrete sealer to bridge seats and abutment backwalls.
- Clean and paint existing bearings and side retainers.
- Install new side retainers.
- Install new drainage system at abutments.
- Remove and dispose of existing electrical conduits and junction boxes attached to the deck, beams, pier and/or abutments.
- Perform miscellaneous repairs including removing debris and vegetation at slopewalls.
- Remove and replace existing roadway lighting. See Electrical plans.

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- SB-02

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- SB-03

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- SB-04

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- SB-08

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- SB-16

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- SB-18

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- SB-37

North Abutment Curtain Wall Repair Elevations
- SB-38

Pier Removal and Repair Elevations
- SB-39

Pier Repair Plans and Elevations
- SB-40

Pier Crashwall Reconstruction

For Existing Bridge Plans, see
Sheets SBX-1 thru SBX-6 immediately
following Sheet SB-40.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A3	Sq. Yd.		270.0	270.0
Concrete Removal	Cu. Yd.		46.0	46.0
Bridge Rail Removal	Foot	469.0		469.0
Removal of Existing Concrete Deck	Each	1		1
Protective Shield	Sq. Yd.	1140.0		1140.0
Structure Excavation	Cu. Yd.		275.0	275.0
Concrete Structures	Cu. Yd.	56.0	66.0	122.0
Concrete Superstructure	Cu. Yd.	824.0		824.0
Bridge Deck Grooving	Sq. Yd.	1949.0		1949.0
Protective Coat	Sq. Yd.	2648.0		2648.0
Concrete Superstructure (Approach Slab)	Cu. Yd.	254.0		254.0
Furnishing and Erecting Structural Steel	Pound	560		560
Reinforcement Bars, Epoxy Coated	Pound	243080	3290	246370
Bridge Fence Railing	Foot	299.0		299.0
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	166.0		166.0
Anchor Bolts, 1”	Each	40		40
Concrete Sealer	Sq. Ft.	658.0	2309.0	2967.0
* Epoxy Crack Injection	Foot		414.0	414.0
Geocomposite Wall Drain	Sq. Yd.		116.0	116.0
Containment and Disposal of Non-Lead Paint Cleaning Residues	L Sum	1		1
Cleaning Bridge Seats	Sq. Ft.		380.0	380.0
* Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq. Ft.		61.0	61.0
Drainage Scuppers, DS-11	Each	5		5
Geotechnical Fabric	Sq. Yd.		270.0	270.0
* Precast Prestressed Concrete I-Beam Repair	Sq. Ft.	59.0		59.0
Pipe Underdrains For Structures 4”	Foot		168.0	168.0
Drainage System, No. 2	Each	2		2
Drainage System, No. 3	Each	1		1
Drainage System, No. 4	Each	1		1
Acrylic Coating	Sq. Yd.	546.0		546.0
Fiber Wrap	Sq. Ft.	1138.0		1138.0
Cleaning and Painting Bearings	Each	22		22
Granular Backfill For Structures	Cu. Yd.		212.0	212.0

* Quantity includes a contingency (above the amounts shown in the Bills of Material) to account for uncertainties associated with the condition of the existing substructure and the age of the original inspection (2012). Actual repair areas will be determined by the Engineer in the field.

CURVE DATA

SB Weber Road
Curve SB-4
Δ = 16° 38’ 20” (RT)
D = 17° 09’ 16”
R = 334.00’
T = 48.84’
L = 96.99’
E = 3.55’
SE = normal crown
PC STA. 1809+72.26
PT STA. 1810+69.25
PI STA. 1810+21.10

SB Weber Road
Curve SB-5
Δ = 11° 13’ 29” (RT)
D = 17° 09’ 16”
R = 334.00’
T = 32.82’
L = 65.43’
E = 1.61’
SE = normal crown
PC STA. 1813+46.76
PT STA. 1814+12.20
PI STA. 1813+79.58

I-55
Curve I-55-2
Δ = 5° 33’ 40” (LT)
D = 0° 21’ 17”
R = 16,149.49’
T = 784.36’
L = 1,567.49’
E = 19.04’
SE = normal crown
PC STA. 3106+81.93
PT STA. 3122+49.42
PI STA. 3114+66.30

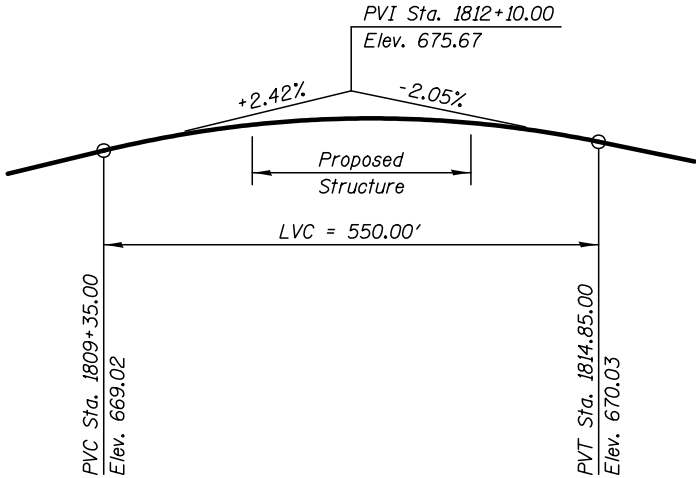
STATION 1812+22.28
RE-BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RTE. 856 SEC. (99-1HB-1) R-1
LOADING HS20-44
STRUCTURE NO. 099-0281

NAME PLATES

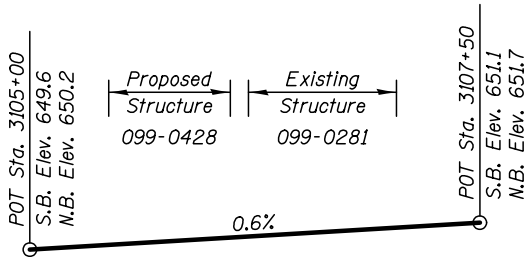
See Std. 515001

Note

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



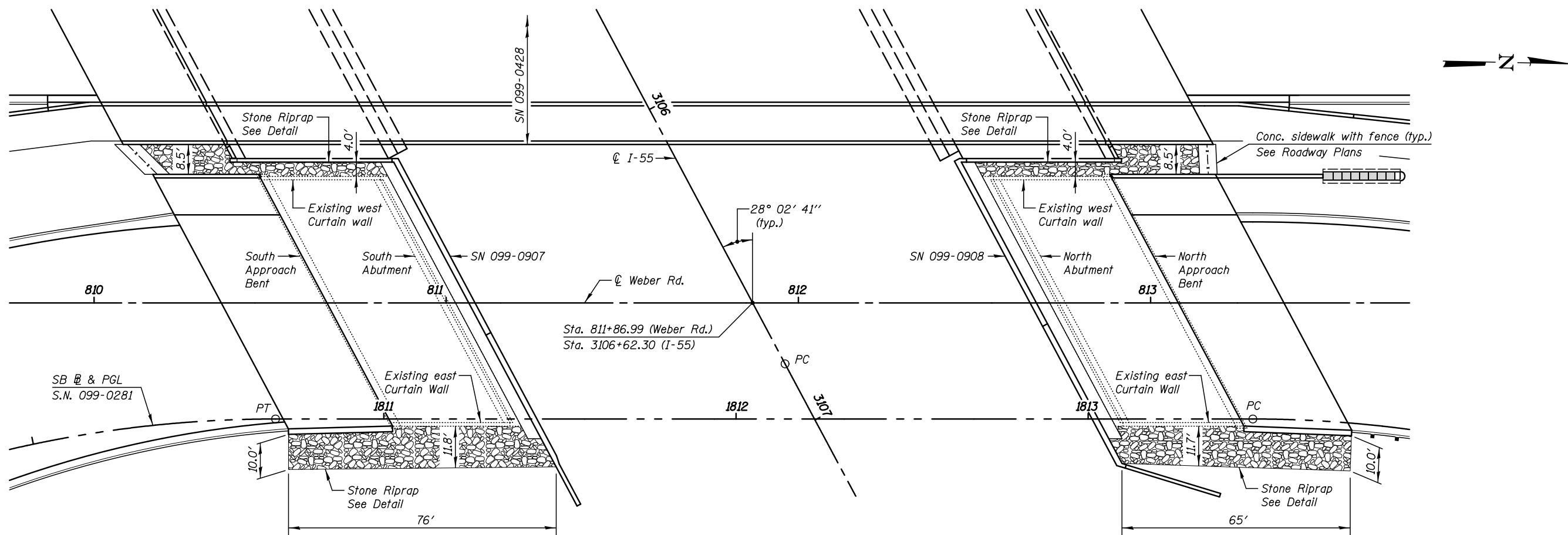
SB SOUTHBOUND WEBER ROAD - PROPOSED
PROFILE GRADE LINE



I-55 S.B. & N.B. - EXISTING
PROFILE GRADE LINE

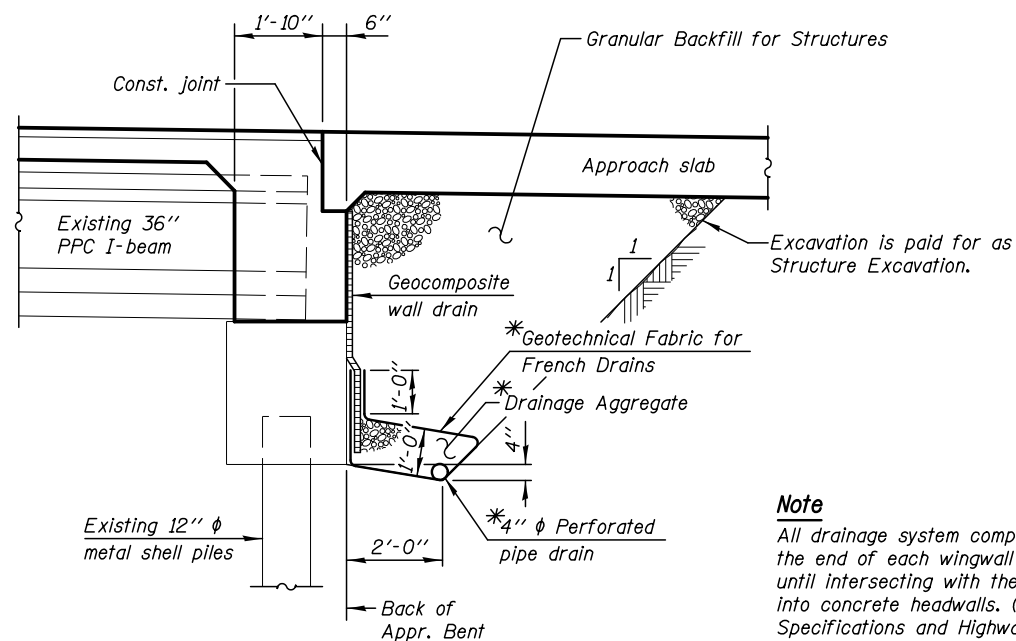
PLOT DATE = 8/16/2017

KNIGHT Engineers & Architects		DESIGNED - TB	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES AND TOTAL BILL OF MATERIAL STRUCTURE NUMBER 099-0281	F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - WPM	REVISED			*	(99-1HB-1) R-1	WILL	1508	1085
	SCALE - NONE	DRAWN - SMA				CONTRACT NO. 60X10				
	DATE - 8/25/2017	CHECKED - TB	REVISED							
						* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				



PLAN

(SN 099-0281 superstructure omitted for clarity)



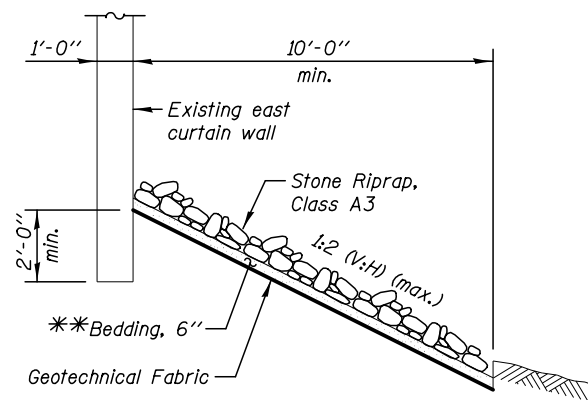
SECTION THRU EXISTING APPROACH BENT

(Horiz. dim. @ Rt. L's)

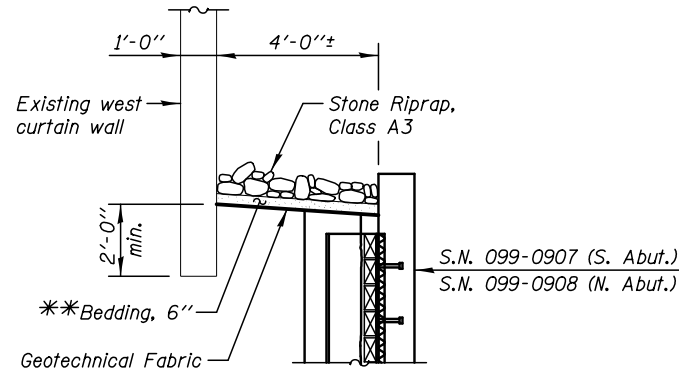
*Included in the cost of Pipe Underdrains for Structures.
(See Special Provisions)

Note

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



AT EXISTING EAST CURTAIN WALL



BETWEEN STRUCTURES

STONE RIPRAP DETAIL

(Horiz. dim. @ Rt. L's)

**Included in the cost of Stone Riprap, Class A3

BILL OF MATERIAL

Item	Unit	Quantity
Structure Excavation	Cu. Yd.	212.0
Granular Backfill for Structures	Cu. Yd.	212.0
Pipe Underdrains for Structures 4"	Foot	168.0
Geocomposite Wall Drain	Sq. Yd.	116.0
Stone Riprap, Class A3	Sq. Yd.	270.0
Geotechnical Fabric	Sq. Yd.	270.0

PLOT DATE = 8/16/2017

KNIGHT
Engineers & Architects

DESIGNED - TB	REVISION
CHECKED - WPM	REVISION
DRAWN - TB	REVISION
CHECKED - WPM	REVISION
SCALE - NONE	
DATE - 8/25/2017	

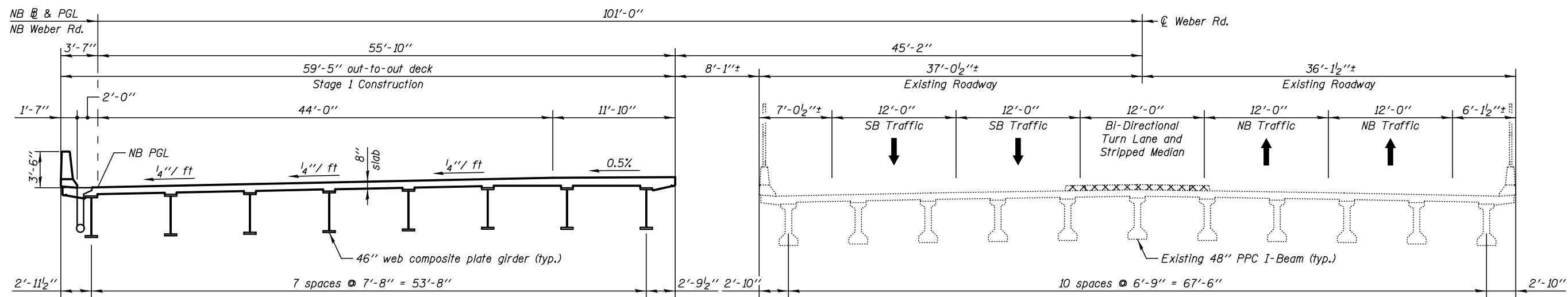
DESIGNED - TB	REVISION
CHECKED - WPM	REVISION
DRAWN - TB	REVISION
CHECKED - WPM	REVISION

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SLOPE STABILIZATION LAYOUT AND DETAILS
STRUCTURE NUMBER 099-0281

SHEET NO. SB-03 OF 40 SHEETS

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1086
CONTRACT NO. 60X10				
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				

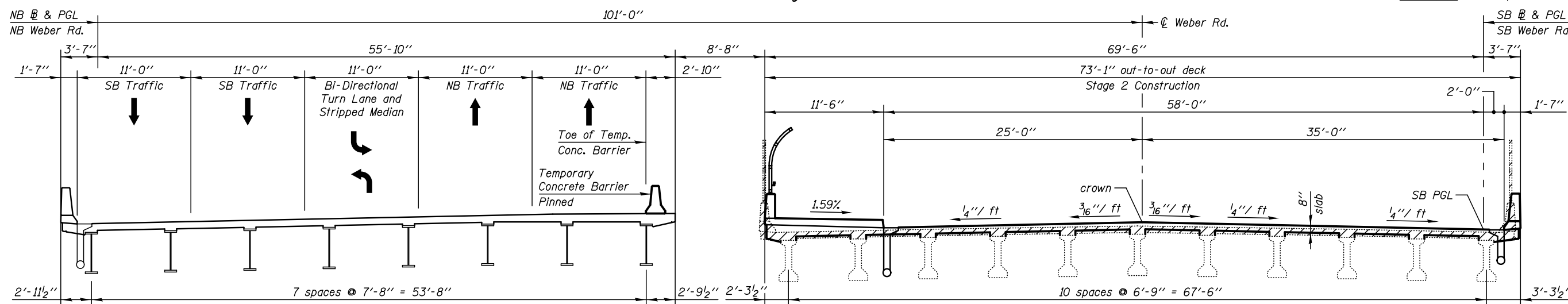


SN 099-0428 (NB)
For Information Only

STAGE 1 CONSTRUCTION (Looking North)

Existing SN 099-0281 (SB)

LEGEND
Pre-Stage Removal
(See Special Provisions)

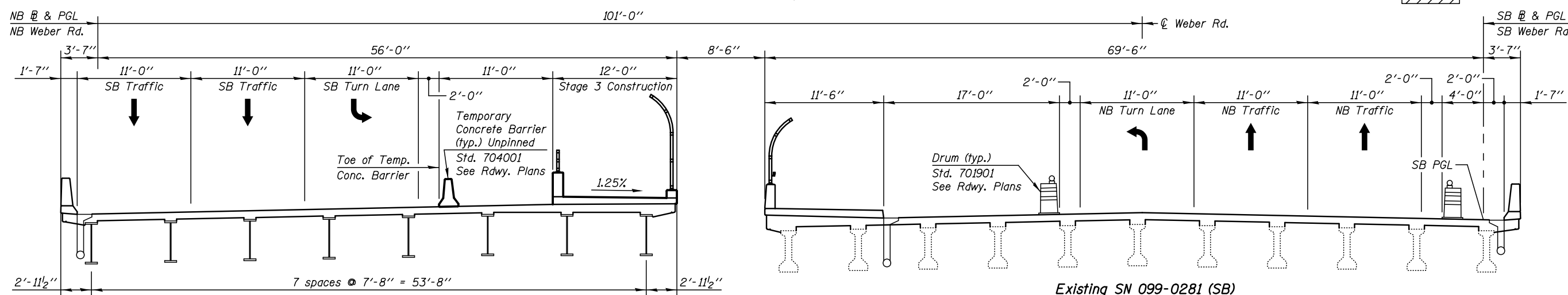


SN 099-0428 (NB)

STAGE 2 REMOVAL/CONSTRUCTION (Looking North)

Existing SN 099-0281 (SB)

LEGEND
Stage 2 Removal



SN 099-0428 (NB)

STAGE 3 CONSTRUCTION (Looking North)

Existing SN 099-0281 (SB)

PLOT DATE = 8/16/2017

KNIGHT
Engineers & Architects

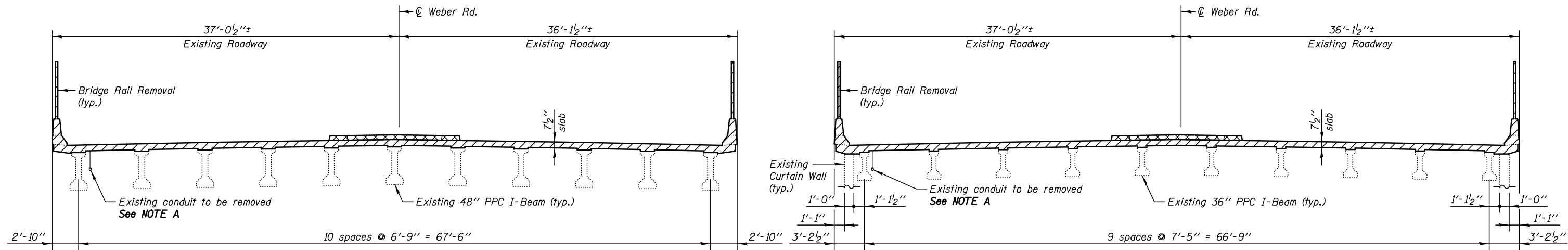
DESIGNED - TB	REVIS
CHECKED - WPM	REVIS
DRAWN - SMA	REVIS
CHECKED - TB	REVIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NUMBER 099-0281

SHEET NO. SB-04 OF 40 SHEETS

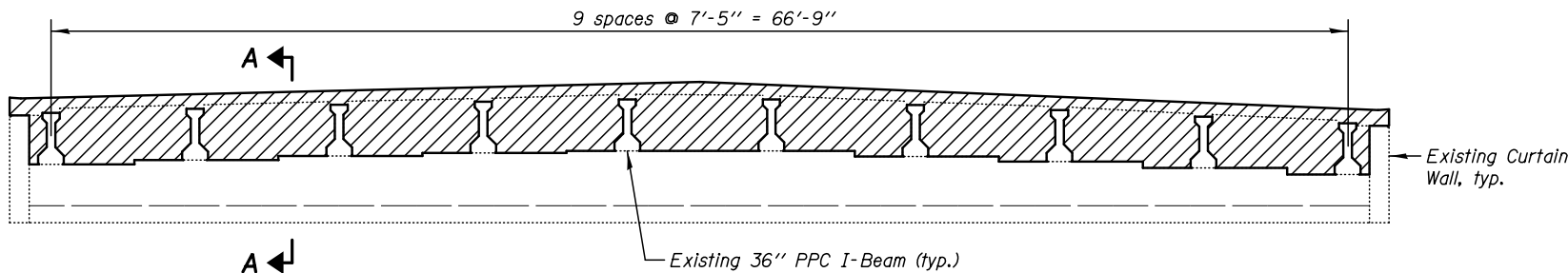
F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1087
CONTRACT NO. 60X10				
* FAI 55, FAP 856 [ILLINOIS] FED. AID PROJECT				



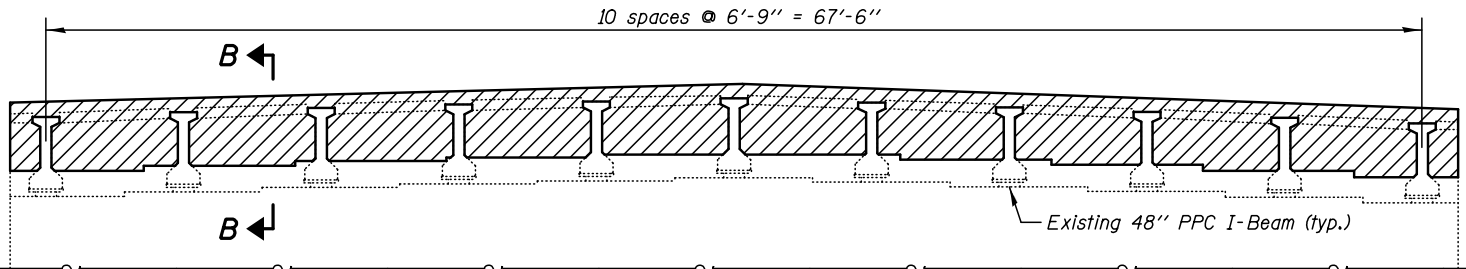
EXISTING DECK REMOVAL

EXISTING APPROACH SPAN REMOVAL

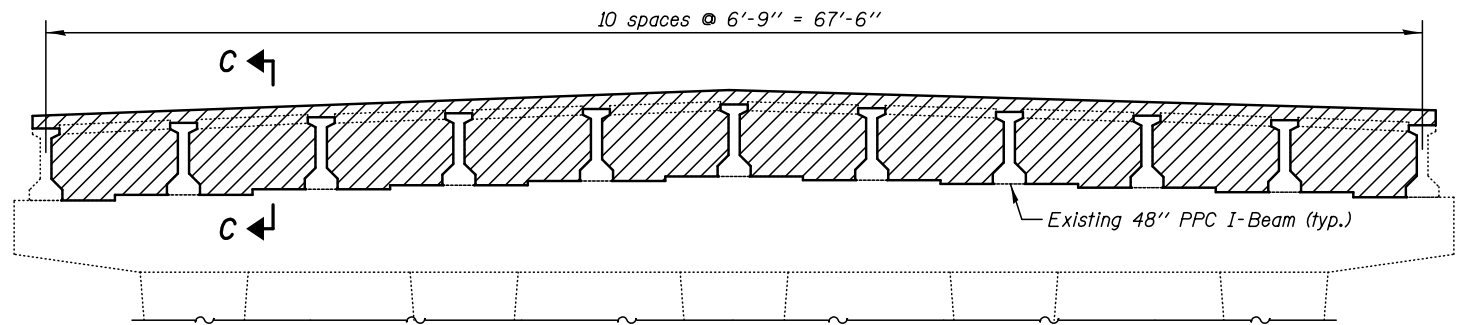
REMOVAL OF EXISTING CONCRETE DECK
(Looking North)



APPROACH BENT DIAPHRAGM REMOVAL ELEVATION



ABUTMENT DIAPHRAGM REMOVAL ELEVATION

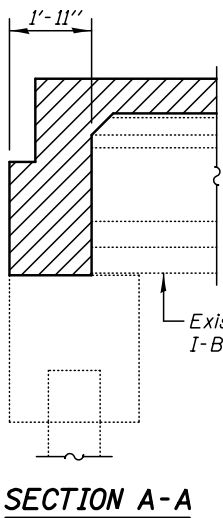


PIER DIAPHRAGM REMOVAL ELEVATION

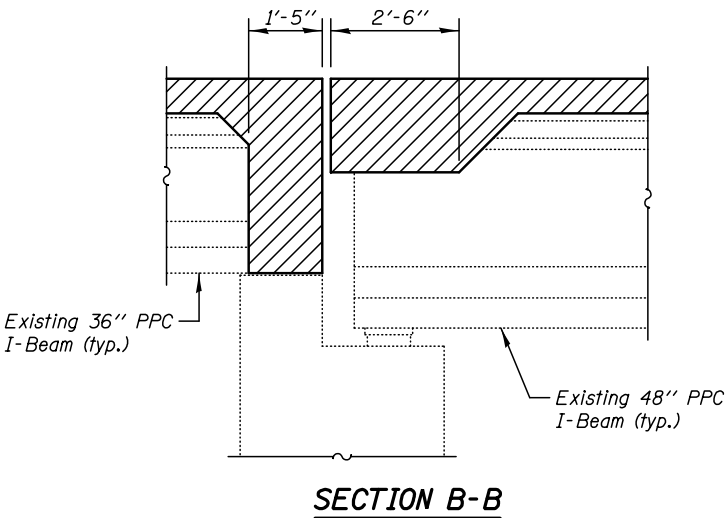
NOTE A
Existing 2" conduit, including all hangers and internal wire and/or fiber optic, to be removed. Cost of removal and disposal included in the cost of "Removal of Existing Concrete Deck".

LEGEND

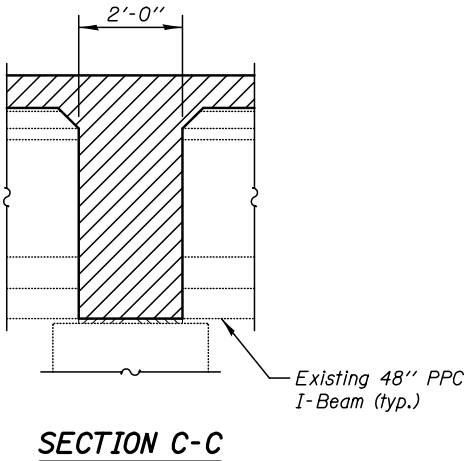
	Pre-Stage Removal
	Stage 2 Removal



SECTION A-A



SECTION B-B



SECTION C-C

Notes:
Cost of removal of the approach bent, abutment and pier diaphragms included in the cost of "Removal of Existing Concrete Deck".

BILL OF MATERIAL

Item	Unit	Quantity
Bridge Rail Removal	Foot	469.0
Removal of Existing Concrete Deck	Each	1

PLOT DATE = 8/16/2017

KNIGHT
Engineers & Architects

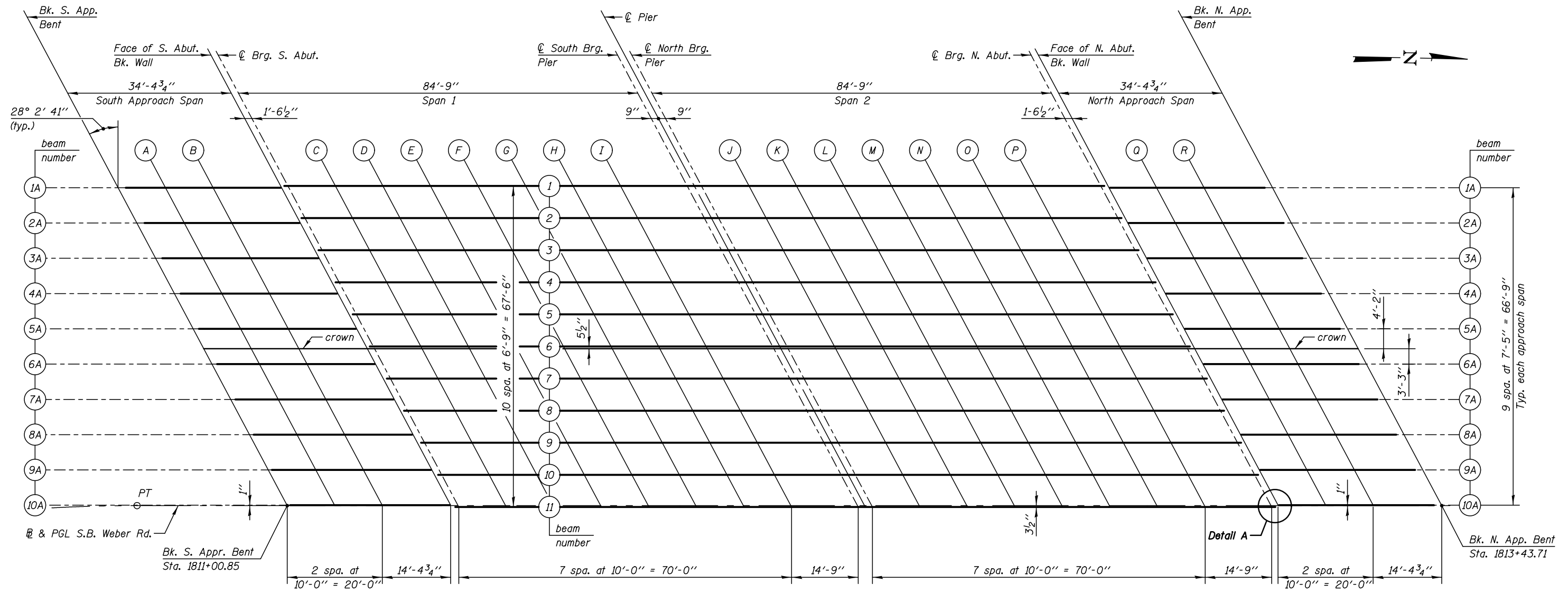
DESIGNED - TB	REVIS
CHECKED - WPM	REVIS
DRAWN - SMA	REVIS
CHECKED - TB	REVIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

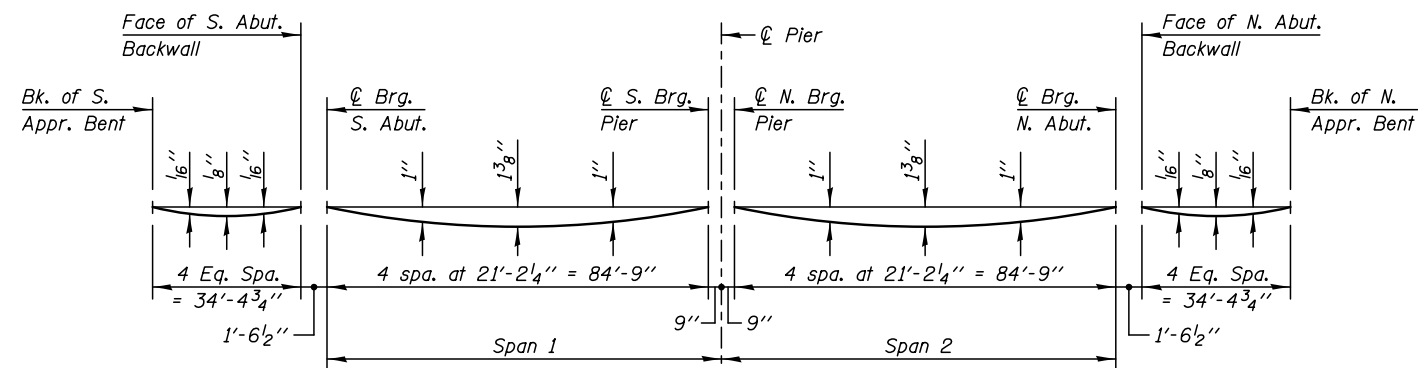
EXISTING DECK AND DIAPHRAGM REMOVAL DETAILS
STRUCTURE NUMBER 099-0281

SHEET NO. SB-05 OF 40 SHEETS

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1088
CONTRACT NO. 60X10				
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				



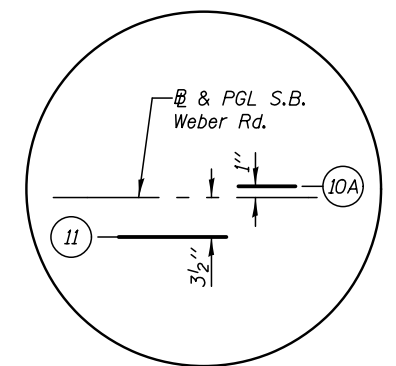
PLAN
(SB Bridge)



DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete, excluding beams)

Note:

The deflections shown 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 SB-07 thru SB-11.



DETAIL A

PLOT DATE = 8/16/2017

KNIGHT
Engineers & Architects

SCALE - NONE
DATE - 8/25/2017

DESIGNED - TB
CHECKED - WPM
DRAWN - SMA
CHECKED - TB

REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS - LOCATION PLAN
STRUCTURE NUMBER 099-0281

SHEET NO. SB-06 OF 40 SHEETS

F.A.I./P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1089
CONTRACT NO. 60X10				
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				

PLOT DATE = 8/16/2017

KNIGHT

Engineers & Architects

DESIGNED	-	TB	REVISED	
CHECKED	-	WPM	REVISED	
SCALE	-	NONE	DRAWN	- SMA
DATE	-	8/25/2017	CHECKED	- TB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS – SOUTH APPROACH SPAN
STRUCTURE NUMBER 099-0281

SHEET NO. SB-07 OF 40 SHEETS

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1090
CONTRACT NO. 60X10				
* FAI 55, FAP 856 [ILLINOIS] FED. AID PROJECT				

BEAM 1A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	1810+65.91	- 66.85	671.41	671.41
A	1810+75.25	- 66.83	671.58	671.59
B	1810+85.25	- 66.83	671.74	671.74
Face S. Abut. Bkwall	1810+99.64	- 66.83	671.90	671.90

BEAM 2A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	1810+69.20	- 59.42	671.63	671.63
A	1810+79.20	- 59.42	671.80	671.80
B	1810+89.20	- 59.42	671.94	671.95
Face S. Abut. Bkwall	1811+03.59	- 59.42	672.10	672.10

BEAM 3A

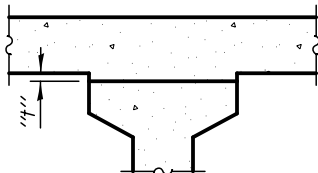
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	1810+73.15	- 52.00	671.85	671.85
A	1810+83.15	- 52.00	672.02	672.03
B	1810+93.15	- 52.00	672.14	672.15
Face S. Abut. Bkwall	1811+07.54	- 52.00	672.29	672.29

BEAM 4A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	1810+77.10	- 44.58	672.07	672.07
A	1810+87.10	- 44.58	672.22	672.23
B	1810+97.10	- 44.58	672.34	672.34
Face S. Abut. Bkwall	1811+11.49	- 44.58	672.49	672.49

BEAM 5A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	1810+81.05	- 37.17	672.27	672.27
A	1810+91.05	- 37.17	672.40	672.40
B	1811+01.05	- 37.17	672.51	672.52
Face S. Abut. Bkwall	1811+15.44	- 37.17	672.65	672.65



To determine "t": After the existing deck is removed, elevations of the top flanges of the beams shall be taken at intervals shown on Sheet SB-06. These elevations subtracted from the "Theoretical Grade Elevations Adjusted For Dead Load Deflections" shown below, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS

CROWN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	1810+83.31	- 32.93	672.37	672.37
A	1810+93.27	- 33.00	672.49	672.49
B	1811+03.27	- 33.00	672.60	672.60
Face S. Abut. Bkwall	1811+17.66	- 33.00	672.74	672.74

BEAM 6A

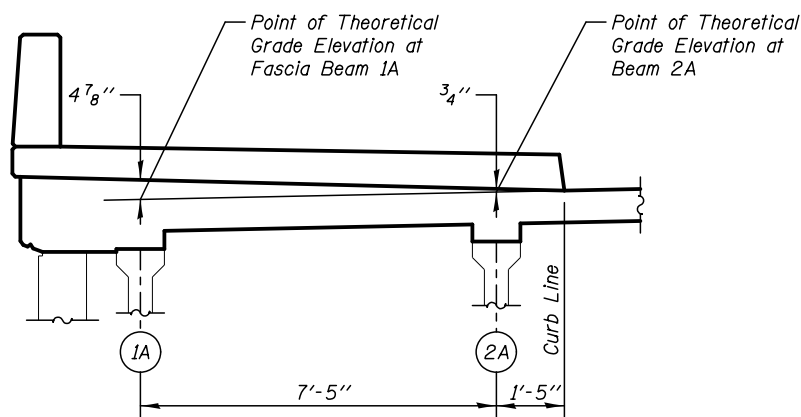
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	1810+85.00	- 29.75	672.34	672.34
A	1810+95.00	- 29.75	672.46	672.46
B	1811+05.00	- 29.75	672.56	672.57
Face S. Abut. Bkwall	1811+19.40	- 29.75	672.71	672.71

BEAM 7A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	1810+88.95	- 22.33	672.24	672.24
A	1810+98.95	- 22.33	672.36	672.36
B	1811+08.95	- 22.33	672.46	672.47
Face S. Abut. Bkwall	1811+23.35	- 22.33	672.60	672.60

BEAM 8A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	1810+92.90	- 14.92	672.13	672.13
A	1811+02.90	- 14.92	672.24	672.25
B	1811+12.90	- 14.92	672.34	672.35
Face S. Abut. Bkwall	1811+27.30	- 14.92	672.48	672.48



SECTION THRU SIDEWALK

BEAM 9A

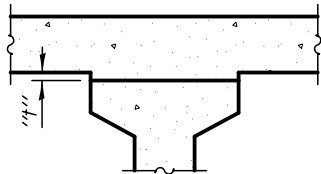
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	1810+96.85	- 7.50	672.02	672.02
A	1811+06.85	- 7.50	672.13	672.14
B	1811+16.85	- 7.50	672.23	672.24
Face S. Abut. Bkwall	1811+31.25	- 7.50	672.36	672.36

BEAM 10A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	1811+00.80	- 0.08	671.91	671.91
A	1811+10.80	- 0.08	672.02	672.02
B	1811+20.80	- 0.08	672.11	672.12
Face S. Abut. Bkwall	1811+35.20	- 0.08	672.23	672.23

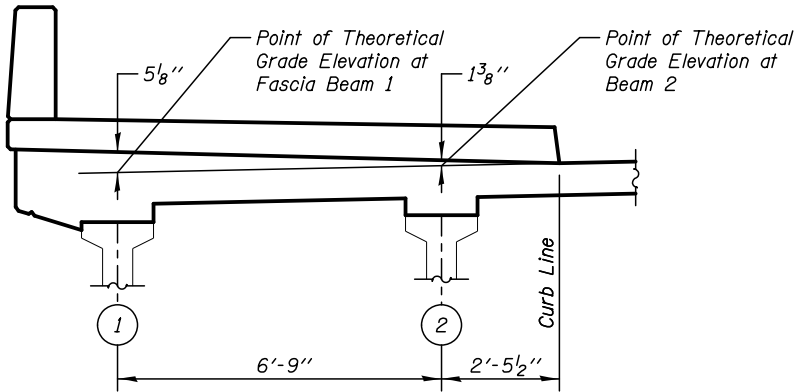
P.G. LINE & @ SOUTHBOUND WEBER ROAD

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Appr. Bent	1811+00.85	0.00	671.91	671.91
A	1811+10.85	0.00	672.01	672.02
B	1811+20.85	0.00	672.11	672.12
Face S. Abut. Bkwall	1811+35.24	0.00	672.23	672.23



To determine "t": After the existing deck is removed, elevations of the top flanges of the beams shall be taken at intervals shown on Sheet SB-06. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS



SECTION THRU SIDEWALK

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Brg. S. Abut.	1811+00.98	-67.21	671.91	671.91
C	1811+10.98	-67.21	672.01	672.05
D	1811+20.98	-67.21	672.11	672.18
E	1811+30.98	-67.21	672.19	672.30
F	1811+40.98	-67.21	672.27	672.39
G	1811+50.98	-67.21	672.34	672.45
H	1811+60.98	-67.21	672.40	672.49
I	1811+70.98	-67.21	672.46	672.52
☉ S. Brg. Pier	1811+85.73	-67.21	672.52	672.52
☉ Pier	1811+86.48	-67.21	672.53	672.53
☉ N. Brg. Pier	1811+87.23	-67.21	672.53	672.53
J	1811+97.23	-67.21	672.56	672.60
K	1812+07.23	-67.21	672.59	672.66
L	1812+17.23	-67.21	672.60	672.71
M	1812+27.23	-67.21	672.61	672.73
N	1812+37.23	-67.21	672.61	672.72
O	1812+47.23	-67.21	672.61	672.70
P	1812+57.23	-67.21	672.59	672.65
☉ Brg. N. Abut.	1812+71.98	-67.21	672.55	672.55

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Brg. S. Abut.	1811+04.57	-60.46	672.09	672.09
C	1811+14.57	-60.46	672.19	672.23
D	1811+24.57	-60.46	672.28	672.36
E	1811+34.57	-60.46	672.36	672.47
F	1811+44.57	-60.46	672.44	672.55
G	1811+54.57	-60.46	672.51	672.62
H	1811+64.57	-60.46	672.57	672.66
I	1811+74.57	-60.46	672.62	672.67
☉ S. Brg. Pier	1811+89.32	-60.46	672.68	672.68
☉ Pier	1811+90.07	-60.46	672.68	672.68
☉ N. Brg. Pier	1811+90.82	-60.46	672.68	672.68
J	1812+00.82	-60.46	672.71	672.75
K	1812+10.82	-60.46	672.73	672.81
L	1812+20.82	-60.46	672.75	672.85
M	1812+30.82	-60.46	672.75	672.87
N	1812+40.82	-60.46	672.75	672.86
O	1812+50.82	-60.46	672.74	672.83
P	1812+60.82	-60.46	672.72	672.78
☉ Brg. N. Abut.	1812+75.57	-60.46	672.68	672.68

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Brg. S. Abut.	1811+08.17	-53.71	672.26	672.26
C	1811+18.17	-53.71	672.36	672.40
D	1811+28.17	-53.71	672.45	672.53
E	1811+38.17	-53.71	672.53	672.64
F	1811+48.17	-53.71	672.60	672.72
G	1811+58.17	-53.71	672.67	672.78
H	1811+68.17	-53.71	672.73	672.82
I	1811+78.17	-53.71	672.77	672.83
☉ S. Brg. Pier	1811+92.92	-53.71	672.83	672.83
☉ Pier	1811+93.67	-53.71	672.83	672.83
☉ N. Brg. Pier	1811+94.42	-53.71	672.84	672.84
J	1812+04.42	-53.71	672.86	672.90
K	1812+14.42	-53.71	672.88	672.96
L	1812+24.42	-53.71	672.89	672.99
M	1812+34.42	-53.71	672.89	673.01
N	1812+44.42	-53.71	672.89	673.00
O	1812+54.42	-53.71	672.88	672.97
P	1812+64.42	-53.71	672.85	672.91
☉ Brg. N. Abut.	1812+79.17	-53.71	672.81	672.81

PLOT DATE = 8/16/2017

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. S. Abut.	1811+11.76	-46.96	672.44	672.44
C	1811+21.76	-46.96	672.53	672.58
D	1811+31.76	-46.96	672.62	672.70
E	1811+41.76	-46.96	672.70	672.80
F	1811+51.76	-46.96	672.77	672.88
G	1811+61.76	-46.96	672.83	672.94
H	1811+71.76	-46.96	672.88	672.97
I	1811+81.76	-46.96	672.93	672.99
℄ S. Brg. Pier	1811+96.51	-46.96	672.98	672.98
℄ Pier	1811+97.26	-46.96	672.98	672.98
℄ N. Brg. Pier	1811+98.01	-46.96	672.99	672.99
J	1812+08.01	-46.96	673.01	673.05
K	1812+18.01	-46.96	673.03	673.10
L	1812+28.01	-46.96	673.03	673.14
M	1812+38.01	-46.96	673.03	673.15
N	1812+48.01	-46.96	673.03	673.14
O	1812+58.01	-46.96	673.01	673.10
P	1812+68.01	-46.96	672.99	673.04
℄ Brg. N. Abut.	1812+82.76	-46.96	672.93	672.93

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. S. Abut.	1811+15.36	-40.21	672.61	672.61
C	1811+25.36	-40.21	672.70	672.74
D	1811+35.36	-40.21	672.78	672.86
E	1811+45.36	-40.21	672.86	672.96
F	1811+55.36	-40.21	672.92	673.04
G	1811+65.36	-40.21	672.98	673.09
H	1811+75.36	-40.21	673.03	673.12
I	1811+85.36	-40.21	673.08	673.13
℄ S. Brg. Pier	1812+00.11	-40.21	673.12	673.12
℄ Pier	1812+00.86	-40.21	673.13	673.13
℄ N. Brg. Pier	1812+01.61	-40.21	673.13	673.13
J	1812+11.61	-40.21	673.15	673.19
K	1812+21.61	-40.21	673.16	673.24
L	1812+31.61	-40.21	673.17	673.27
M	1812+41.61	-40.21	673.16	673.28
N	1812+51.61	-40.21	673.15	673.26
O	1812+61.61	-40.21	673.13	673.22
P	1812+71.61	-40.21	673.11	673.17
℄ Brg. N. Abut.	1812+86.36	-40.21	673.05	673.05

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. S. Abut.	1811+18.95	-33.46	672.75	672.75
C	1811+28.95	-33.46	672.83	672.87
D	1811+38.95	-33.46	672.91	672.99
E	1811+48.95	-33.46	672.99	673.09
F	1811+58.95	-33.46	673.05	673.17
G	1811+68.95	-33.46	673.11	673.22
H	1811+78.95	-33.46	673.15	673.24
I	1811+88.95	-33.46	673.19	673.25
℄ S. Brg. Pier	1812+03.70	-33.46	673.24	673.24
℄ Pier	1812+04.45	-33.46	673.24	673.24
℄ N. Brg. Pier	1812+05.20	-33.46	673.24	673.24
J	1812+15.20	-33.46	673.26	673.30
K	1812+25.20	-33.46	673.27	673.35
L	1812+35.20	-33.46	673.27	673.37
M	1812+45.20	-33.46	673.27	673.38
N	1812+55.20	-33.46	673.25	673.36
O	1812+65.20	-33.46	673.23	673.32
P	1812+75.20	-33.46	673.20	673.26
℄ Brg. N. Abut.	1812+89.95	-33.46	673.14	673.14

CROWN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. S. Abut.	1811+19.20	-33.00	672.75	672.75
C	1811+29.20	-33.00	672.84	672.88
D	1811+39.20	-33.00	672.92	673.00
E	1811+49.20	-33.00	673.00	673.10
F	1811+59.20	-33.00	673.06	673.17
G	1811+69.20	-33.00	673.11	673.23
H	1811+79.20	-33.00	673.16	673.25
I	1811+89.20	-33.00	673.20	673.26
℄ S. Brg. Pier	1812+03.95	-33.00	673.25	673.25
℄ Pier	1812+04.70	-33.00	673.25	673.25
℄ N. Brg. Pier	1812+05.45	-33.00	673.25	673.25
J	1812+15.45	-33.00	673.27	673.31
K	1812+25.45	-33.00	673.28	673.35
L	1812+35.45	-33.00	673.28	673.38
M	1812+45.45	-33.00	673.27	673.39
N	1812+55.45	-33.00	673.26	673.37
O	1812+65.45	-33.00	673.24	673.33
P	1812+75.45	-33.00	673.20	673.26
℄ Brg. N. Abut.	1812+90.20	-33.00	673.14	673.14

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. S. Abut.	1811+22.55	-26.71	672.68	672.68
C	1811+32.55	-26.71	672.77	672.81
D	1811+42.55	-26.71	672.84	672.92
E	1811+52.55	-26.71	672.91	673.02
F	1811+62.55	-26.71	672.97	673.09
G	1811+72.55	-26.71	673.03	673.14
H	1811+82.55	-26.71	673.07	673.16
I	1811+92.55	-26.71	673.11	673.17
℄ S. Brg. Pier	1812+07.30	-26.71	673.15	673.15
℄ Pier	1812+08.05	-26.71	673.15	673.15
℄ N. Brg. Pier	1812+08.80	-26.71	673.15	673.15
J	1812+18.80	-26.71	673.17	673.21
K	1812+28.80	-26.71	673.17	673.25
L	1812+38.80	-26.71	673.17	673.28
M	1812+48.80	-26.71	673.16	673.28
N	1812+58.80	-26.71	673.15	673.26
O	1812+68.80	-26.71	673.12	673.21
P	1812+78.80	-26.71	673.09	673.15
℄ Brg. N. Abut.	1812+93.55	-26.71	673.02	673.02

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. S. Abut.	1811+26.15	-19.96	672.57	672.57
C	1811+36.15	-19.96	672.65	672.70
D	1811+46.15	-19.96	672.73	672.81
E	1811+56.15	-19.96	672.79	672.90
F	1811+66.15	-19.96	672.85	672.97
G	1811+76.15	-19.96	672.90	673.01
H	1811+86.15	-19.96	672.95	673.04
I	1811+96.15	-19.96	672.98	673.04
℄ S. Brg. Pier	1812+10.90	-19.96	673.01	673.01
℄ Pier	1812+11.65	-19.96	673.02	673.02
℄ N. Brg. Pier	1812+12.40	-19.96	673.02	673.02
J	1812+22.40	-19.96	673.03	673.07
K	1812+32.40	-19.96	673.03	673.11
L	1812+42.40	-19.96	673.03	673.13
M	1812+52.40	-19.96	673.02	673.13
N	1812+62.40	-19.96	673.00	673.11
O	1812+72.40	-19.96	672.97	673.06
P	1812+82.40	-19.96	672.93	672.99
℄ Brg. N. Abut.	1812+97.15	-19.96	672.87	672.87

PLOT DATE = 8/16/2017

BEAM 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. S. Abut.	1811+29.74	-13.21	672.46	672.46
C	1811+39.74	-13.21	672.54	672.58
D	1811+49.74	-13.21	672.61	672.69
E	1811+59.74	-13.21	672.68	672.78
F	1811+69.74	-13.21	672.73	672.85
G	1811+79.74	-13.21	672.78	672.89
H	1811+89.74	-13.21	672.82	672.91
I	1811+99.74	-13.21	672.85	672.91
℄ S. Brg. Pier	1812+14.49	-13.21	672.88	672.88
℄ Pier	1812+15.24	-13.21	672.88	672.88
℄ N. Brg. Pier	1812+15.99	-13.21	672.88	672.88
J	1812+25.99	-13.21	672.89	672.93
K	1812+35.99	-13.21	672.89	672.97
L	1812+45.99	-13.21	672.89	672.99
M	1812+55.99	-13.21	672.87	672.99
N	1812+65.99	-13.21	672.85	672.96
O	1812+75.99	-13.21	672.82	672.91
P	1812+85.99	-13.21	672.78	672.84
℄ Brg. N. Abut.	1813+00.74	-13.21	672.71	672.71

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. S. Abut.	1811+33.34	-6.46	672.35	672.35
C	1811+43.34	-6.46	672.43	672.47
D	1811+53.34	-6.46	672.50	672.57
E	1811+63.34	-6.46	672.56	672.66
F	1811+73.34	-6.46	672.61	672.72
G	1811+83.34	-6.46	672.65	672.76
H	1811+93.34	-6.46	672.69	672.78
I	1812+03.34	-6.46	672.72	672.78
℄ S. Brg. Pier	1812+18.09	-6.46	672.74	672.74
℄ Pier	1812+18.84	-6.46	672.74	672.74
℄ N. Brg. Pier	1812+19.59	-6.46	672.75	672.75
J	1812+29.59	-6.46	672.75	672.79
K	1812+39.59	-6.46	672.75	672.83
L	1812+49.59	-6.46	672.74	672.84
M	1812+59.59	-6.46	672.72	672.84
N	1812+69.59	-6.46	672.70	672.81
O	1812+79.59	-6.46	672.66	672.76
P	1812+89.59	-6.46	672.62	672.68
℄ Brg. N. Abut.	1813+04.34	-6.46	672.54	672.54

P.G. LINE & @ SOUTHBOUND WEBER ROAD

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. S. Abut.	1811+36.78	0.00	672.24	672.24
C	1811+46.78	0.00	672.32	672.36
D	1811+56.78	0.00	672.38	672.46
E	1811+66.78	0.00	672.44	672.54
F	1811+76.78	0.00	672.49	672.61
G	1811+86.78	0.00	672.53	672.64
H	1811+96.78	0.00	672.57	672.66
I	1812+06.78	0.00	672.59	672.65
℄ S. Brg. Pier	1812+21.53	0.00	672.61	672.61
℄ Pier	1812+22.28	0.00	672.61	672.61
℄ N. Brg. Pier	1812+23.03	0.00	672.61	672.61
J	1812+33.03	0.00	672.62	672.66
K	1812+43.03	0.00	672.61	672.69
L	1812+53.03	0.00	672.60	672.70
M	1812+63.03	0.00	672.58	672.70
N	1812+73.03	0.00	672.55	672.66
O	1812+83.03	0.00	672.52	672.61
P	1812+93.03	0.00	672.47	672.53
℄ Brg. N. Abut.	1813+07.78	0.00	672.39	672.39

BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. S. Abut.	1811+36.93	0.29	672.24	672.24
C	1811+46.93	0.29	672.31	672.35
D	1811+56.93	0.29	672.38	672.46
E	1811+66.93	0.29	672.44	672.54
F	1811+76.93	0.29	672.49	672.60
G	1811+86.93	0.29	672.53	672.64
H	1811+96.93	0.29	672.56	672.65
I	1812+06.93	0.29	672.58	672.64
℄ S. Brg. Pier	1812+21.68	0.29	672.61	672.61
℄ Pier	1812+22.43	0.29	672.61	672.61
℄ N. Brg. Pier	1812+23.18	0.29	672.61	672.61
J	1812+33.18	0.29	672.61	672.65
K	1812+43.18	0.29	672.61	672.68
L	1812+53.18	0.29	672.59	672.70
M	1812+63.18	0.29	672.57	672.69
N	1812+73.18	0.29	672.55	672.66
O	1812+83.18	0.29	672.51	672.60
P	1812+93.18	0.29	672.46	672.52
℄ Brg. N. Abut.	1813+07.93	0.29	672.38	672.38

PLOT DATE = 8/16/2017

KNIGHT

Engineers & Architects

	DESIGNED - TB	REVISED
	CHECKED - WPM	REVISED
SCALE - NONE	DRAWN - SMA	REVISED
DATE - 8/25/2017	CHECKED - TB	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS – DECK
STRUCTURE NUMBER 099-0281

SHEET NO. SB-10 OF 40 SHEETS

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1093
CONTRACT NO. 60X10				
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				

PLOT DATE = 8/16/2017

KNIGHT

Engineers & Architects

DESIGNED	-	TB
CHECKED	-	WPM
DRAWN	-	SMA
CHECKED	-	TB

REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS – NORTH APPROACH SPAN
STRUCTURE NUMBER 099-0281

SHEET NO. SB-11 OF 40 SHEETS

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1094
CONTRACT NO. 60X10				
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				

BEAM 1A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Face N. Abut. Bkwall	1812+73.71	- 66.83	672.55	672.55
Q	1812+83.71	- 66.83	672.52	672.52
R	1812+93.71	- 66.83	672.47	672.48
Bk. N. Appr. Bent	1813+08.11	- 66.83	672.39	672.39

BEAM 2A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Face N. Abut. Bkwall	1812+77.66	- 59.42	672.69	672.69
Q	1812+87.66	- 59.42	672.65	672.66
R	1812+97.66	- 59.42	672.60	672.61
Bk. N. Appr. Bent	1813+12.06	- 59.42	672.52	672.52

BEAM 3A

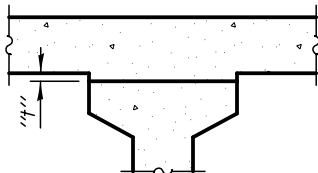
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Face N. Abut. Bkwall	1812+81.61	- 52.00	672.83	672.83
Q	1812+91.61	- 52.00	672.79	672.80
R	1813+01.61	- 52.00	672.74	672.75
Bk. N. Appr. Bent	1813+16.01	- 52.00	672.65	672.65

BEAM 4A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Face N. Abut. Bkwall	1812+85.56	- 44.58	672.97	672.97
Q	1812+95.56	- 44.58	672.92	672.93
R	1813+05.56	- 44.58	672.87	672.88
Bk. N. Appr. Bent	1813+19.96	- 44.58	672.78	672.78

BEAM 5A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Face N. Abut. Bkwall	1812+89.51	- 37.17	673.08	673.08
Q	1812+99.51	- 37.17	673.03	673.04
R	1813+09.51	- 37.17	672.97	672.98
Bk. N. Appr. Bent	1813+23.91	- 37.17	672.88	672.88



To determine "t": After the existing deck is removed, elevations of the top flanges of the beams shall be taken at intervals shown on Sheet SB-06. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown below, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS

CROWN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Face N. Abut. Bkwall	1812+91.73	- 33.00	673.14	673.14
Q	1813+01.73	- 33.00	673.09	673.09
R	1813+11.73	- 33.00	673.03	673.03
Bk. N. Appr. Bent	1813+26.17	- 32.93	672.92	672.92

BEAM 6A

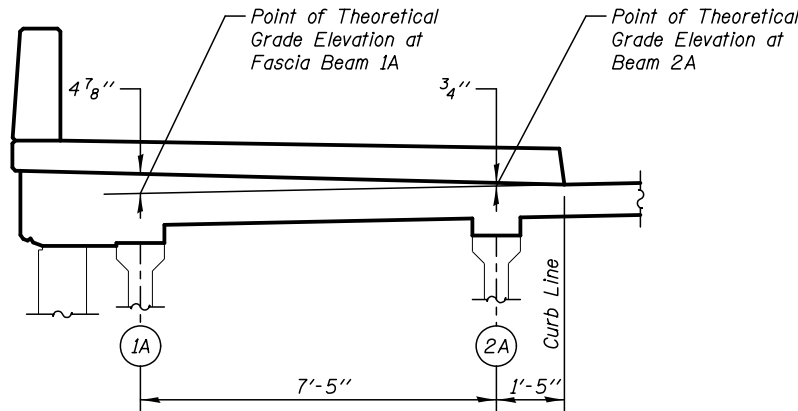
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Face N. Abut. Bkwall	1812+93.46	- 29.75	673.08	673.08
Q	1813+03.46	- 29.75	673.03	673.03
R	1813+13.46	- 29.75	672.96	672.97
Bk. N. Appr. Bent	1813+27.86	- 29.75	672.86	672.86

BEAM 7A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Face N. Abut. Bkwall	1812+97.41	- 22.33	672.91	672.91
Q	1813+07.41	- 22.33	672.86	672.86
R	1813+17.41	- 22.33	672.79	672.80
Bk. N. Appr. Bent	1813+31.81	- 22.33	672.68	672.68

BEAM 8A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Face N. Abut. Bkwall	1813+01.37	- 14.92	672.74	672.74
Q	1813+11.37	- 14.92	672.68	672.68
R	1813+21.37	- 14.92	672.61	672.62
Bk. N. Appr. Bent	1813+35.76	- 14.92	672.50	672.50



SECTION THRU SIDEWALK

BEAM 9A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Face N. Abut. Bkwall	1813+05.32	- 7.50	672.56	672.56
Q	1813+15.32	- 7.50	672.50	672.50
R	1813+25.32	- 7.50	672.43	672.43
Bk. N. Appr. Bent	1813+39.71	- 7.50	672.31	672.31

BEAM 10A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Face N. Abut. Bkwall	1813+09.27	- 0.08	672.38	672.38
Q	1813+19.27	- 0.08	672.32	672.32
R	1813+29.27	- 0.08	672.24	672.25
Bk. N. Appr. Bent	1813+43.66	- 0.08	672.12	672.12

P.G. LINE & @ SOUTHBOUND WEBER ROAD

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Face N. Abut. Bkwall	1813+09.31	0.00	672.38	672.38
Q	1813+19.31	0.00	672.31	672.32
R	1813+29.31	0.00	672.24	672.25
Bk. N. Appr. Bent	1813+43.71	0.00	672.12	672.12

PLOT DATE = 8/16/2017

KNIGHT

Engineers & Architects

SCALE - NONE
DATE - 8/25/2017

DESIGNED - TB
CHECKED - WPM
DRAWN - TB
CHECKED - WPM

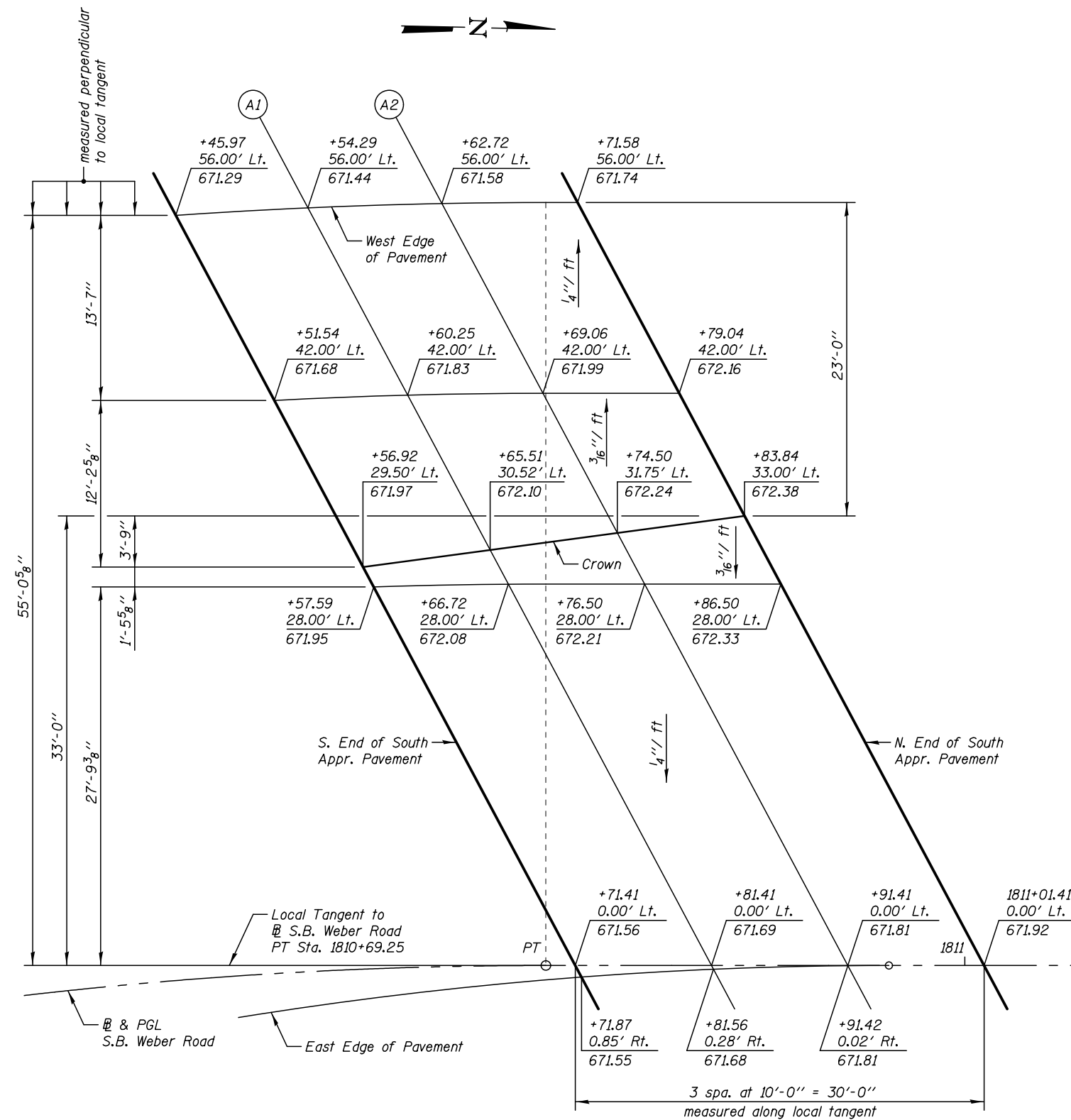
REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF APPROACH SLAB ELEVATIONS
STRUCTURE NUMBER 099-0281

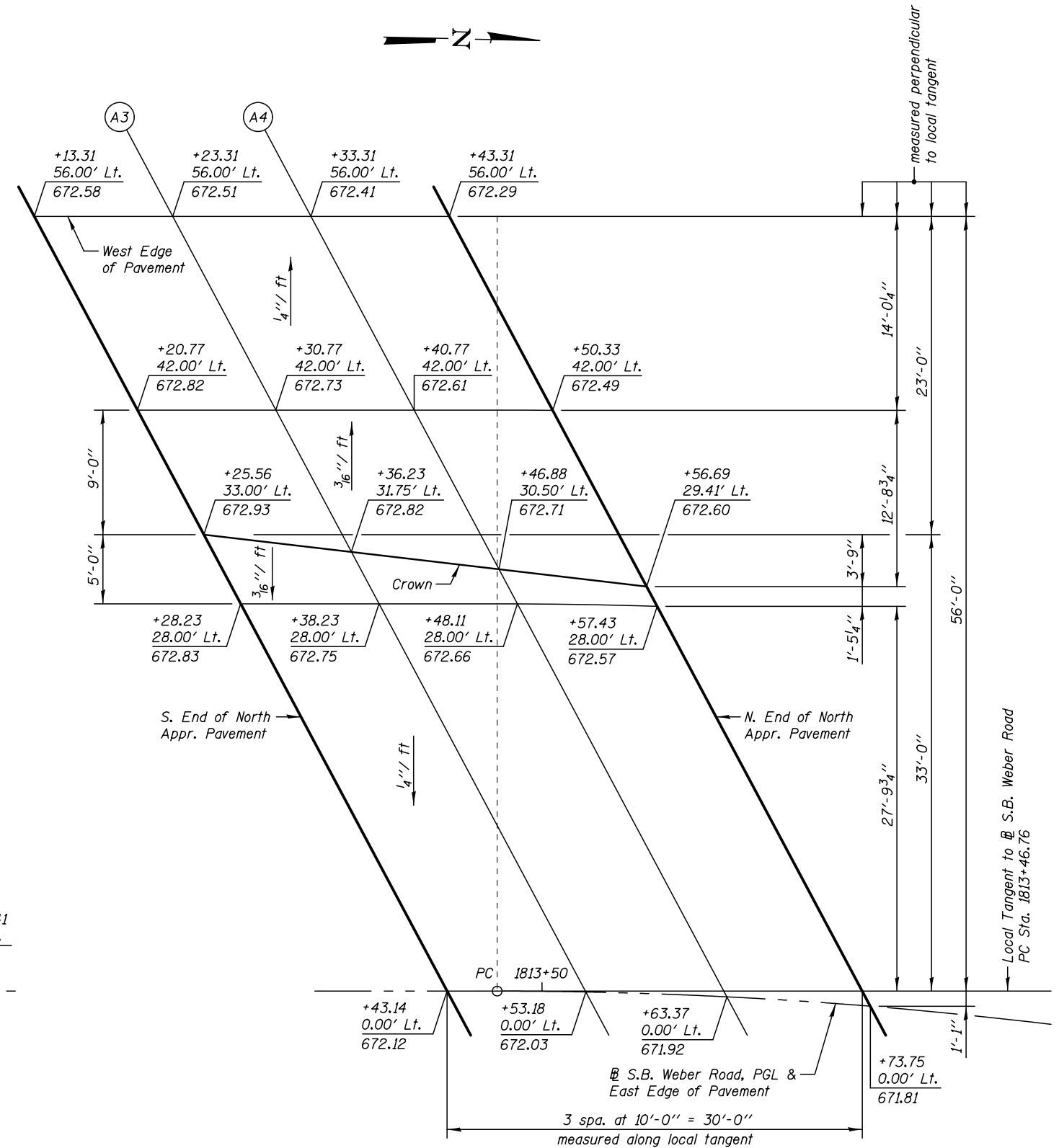
SHEET NO. SB-12 OF 40 SHEETS

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1095
CONTRACT NO. 60X10				
* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT				



PLAN

South Approach (SB)

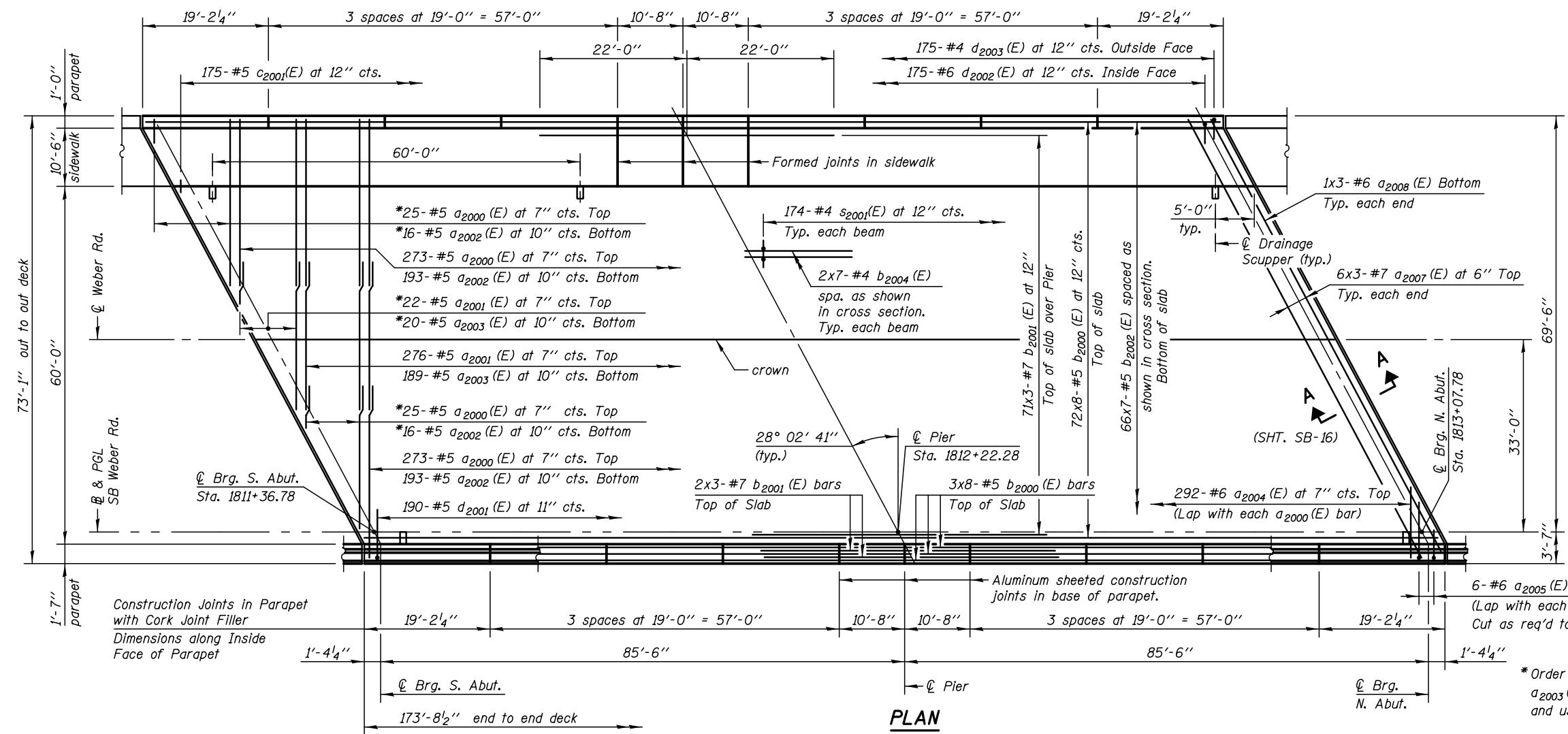


LEGEND

Station (@ SB Weber Rd.)
Offset
Top of Slab Elev.

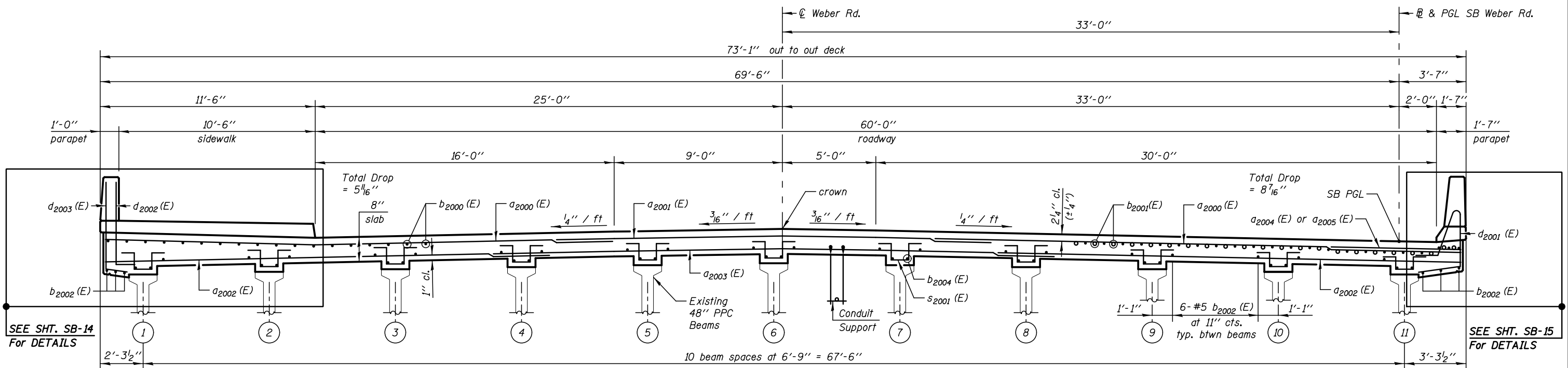
PLAN

North Approach (SB)



Notes:
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 See Sheet SB-14 for Sidewalk and Parapet Details
 See Sheet SB-15 for East Parapet Details
 See Sheet SB-17 for Deck Misc. Details and Bill of Material.
 See Sheet SB-17 for Conduit Support Details
 See Sheet SB-30 for Drainage Scupper Details.
 Dimensions are based on a Rolled Rail Strip Seal Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet SB-29.

PLAN
(SB Bridge)

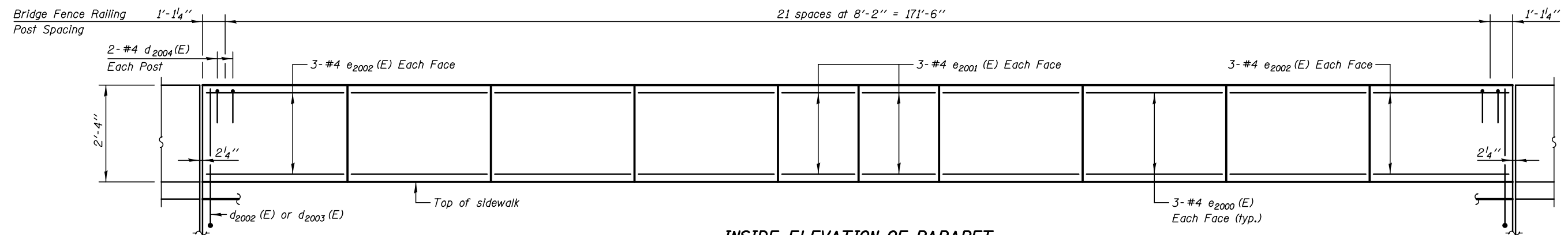


CROSS SECTION
(Looking North)

MIN. BAR LAPS:
 #4 = 2'-5"
 #5 = 3'-6"
 #6 = 4'-10"
 #7 = 6'-3"

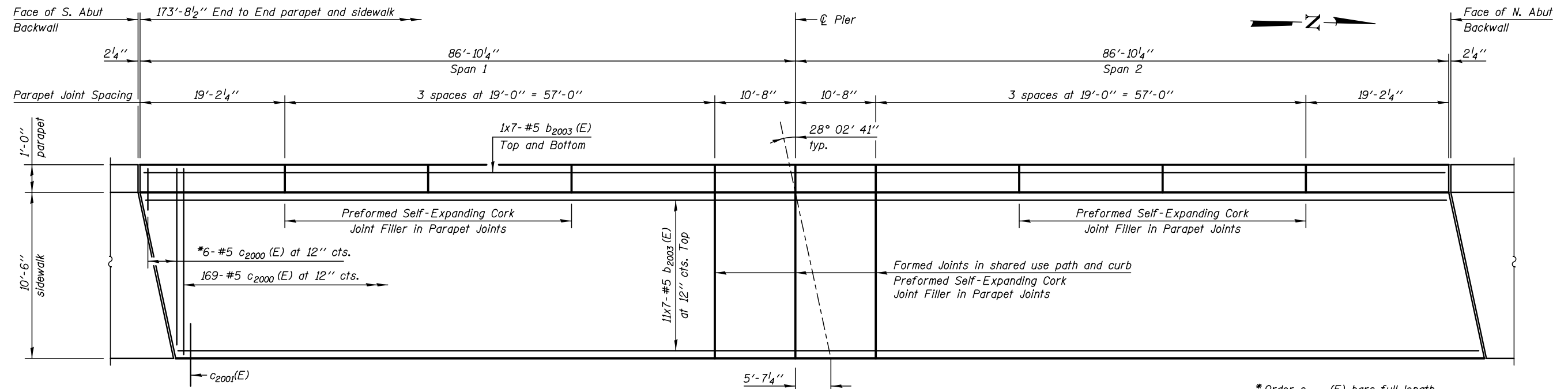
PLOT DATE = 8/16/2017

KNIGHT Engineers & Architects	DESIGNED - TB	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK PLAN AND CROSS SECTION STRUCTURE NUMBER 099-0281 SHEET NO. SB-13 OF 40 SHEETS	F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - WPM	REVISED			*	(99-1HB-1) R-1	WILL	1508	1096
	DRAWN - SMA	REVISED			CONTRACT NO. 60X10				
	DATE - 8/25/2017	CHECKED - TB			* FAI 55, FAP 856 [ILLINOIS] FED. AID PROJECT				



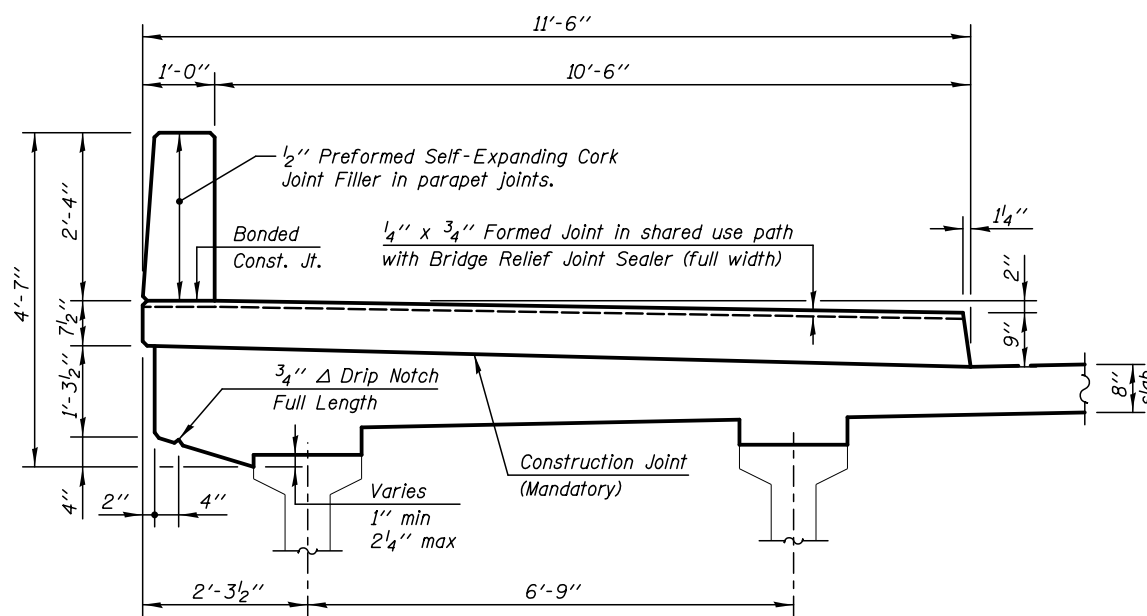
INSIDE ELEVATION OF PARAPET

Dimensions along roadway face of parapet

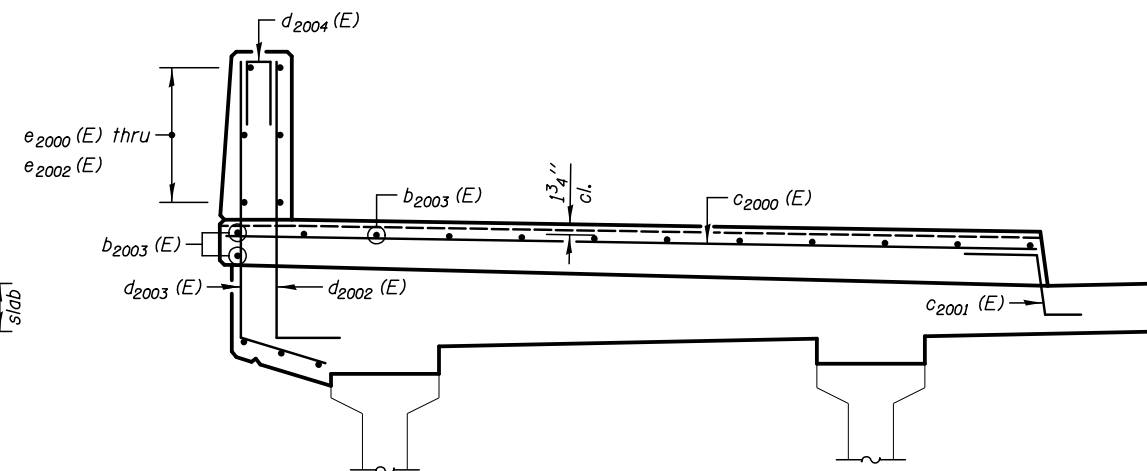


SIDEWALK - PARTIAL PLAN

* Order $c_{2000}(E)$ bars full length.
Cut to fit skew and use remainder
of bars in opposite end.



SECTION THRU SIDEWALK AND PARAPET
(Showing Dimensions)



SECTION THRU SIDEWALK AND PARAPET
(Showing Reinforcement Bars)

Notes:

Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

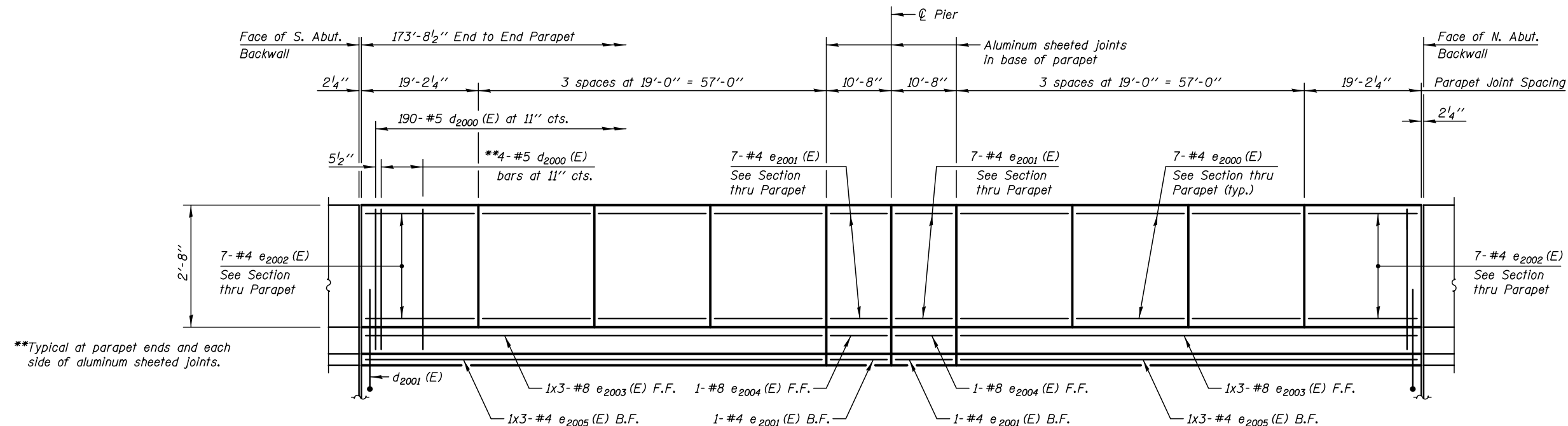
See Sheet SB-17 for Cork Filled Parapet Joint Detail.

See Sheet SB-17 for Deck Misc. Details and Bill of Materials.

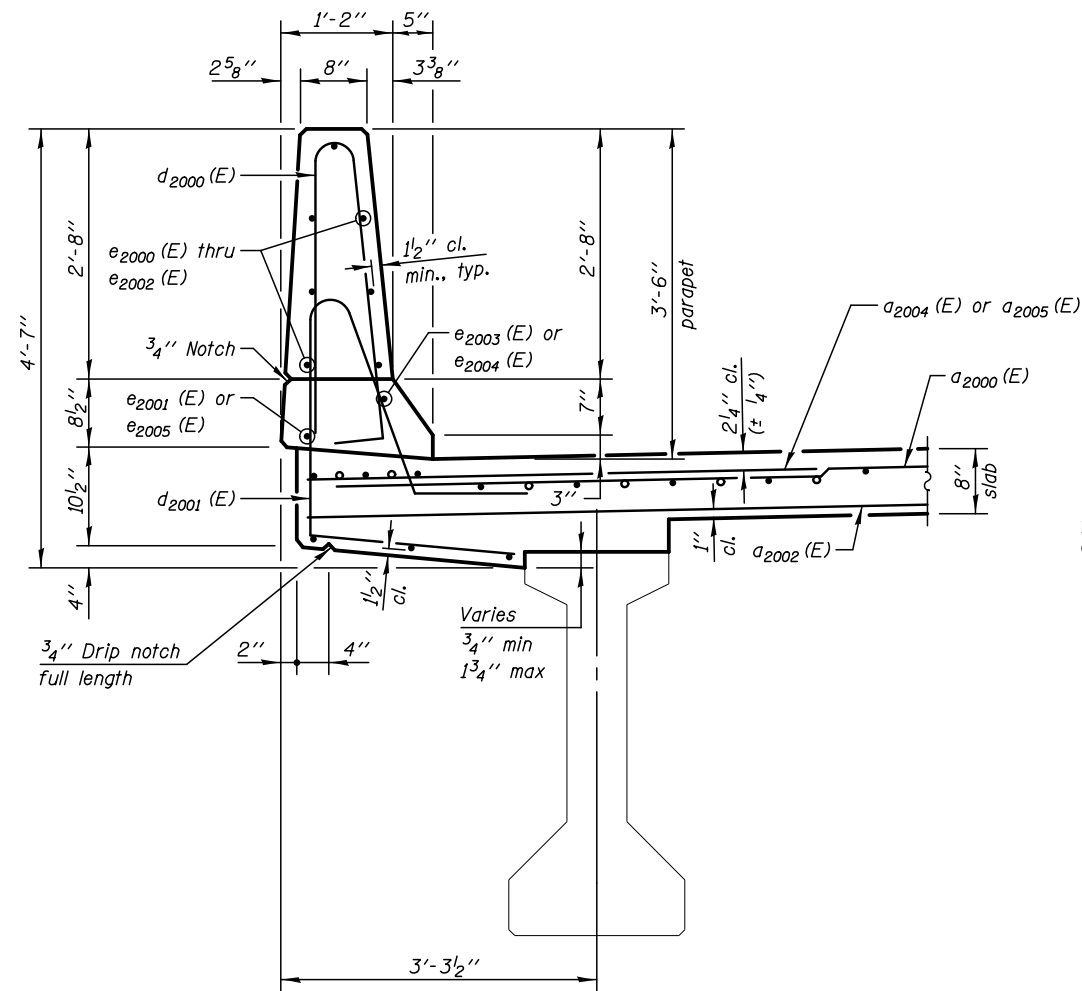
See Sheet SB-28 for Bridge Fence Railing,
Parapet Mounted Details

MIN. BAR LAPS:

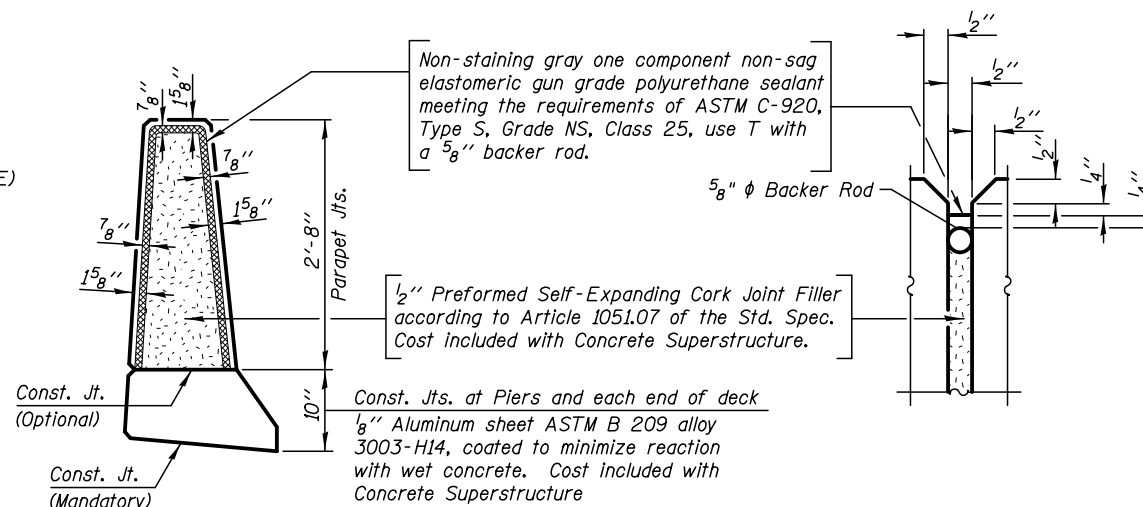
#5 = 3'-6''



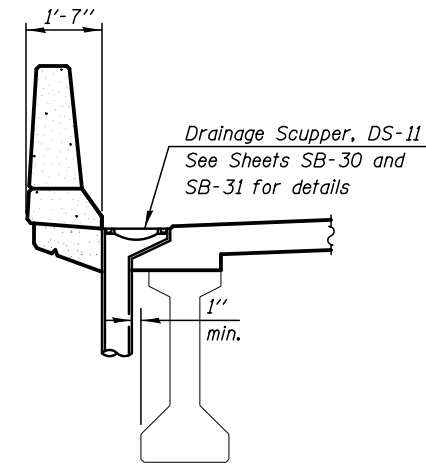
INSIDE ELEVATION OF EAST PARAPET



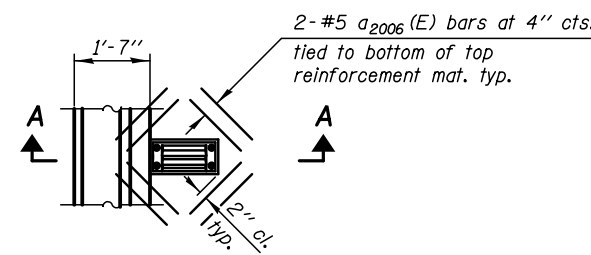
SECTION THRU PARAPET



PARAPET JOINT DETAILS



SECTION AT SCUPPERS



PLAN

Note:
Cut longitudinal reinforcement to clear drainage scuppers.

Notes:

Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

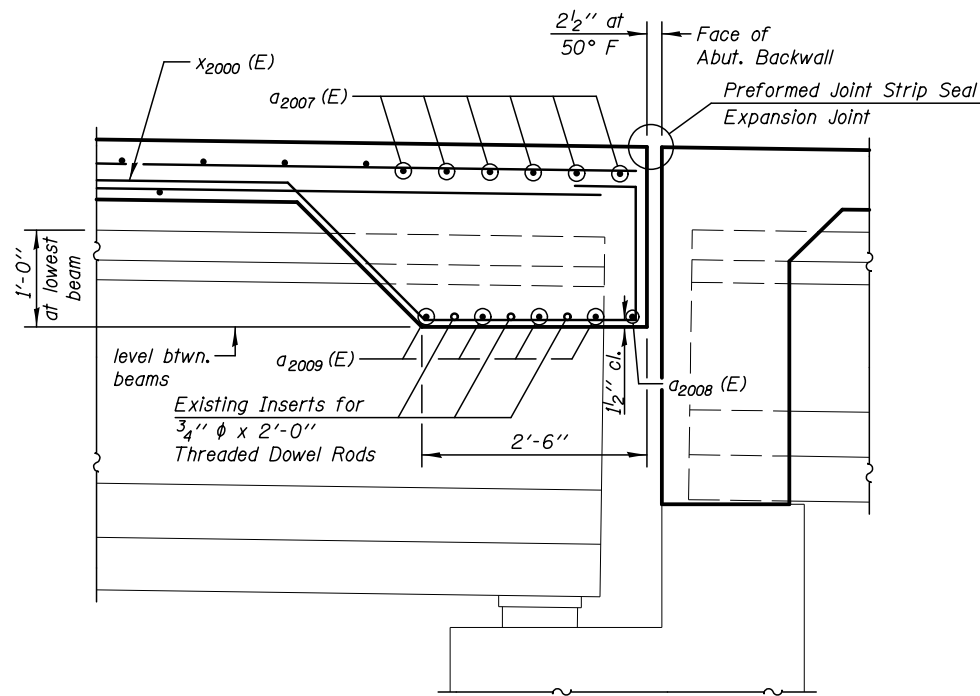
See Sheet SB-17 for Deck Misc. Details and Bill of Materials.

MIN. BAR LAPS

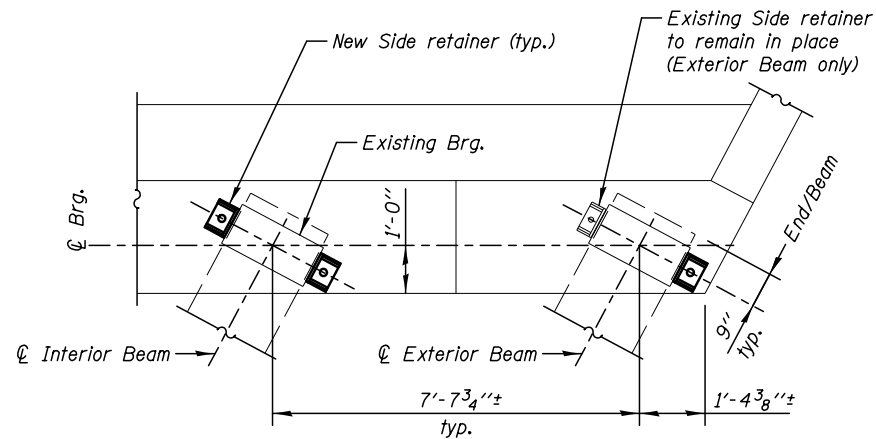
(Parapet)
#4 = 2'-8"
#8 = 5'-11"

PLOT DATE = 8/16/2017

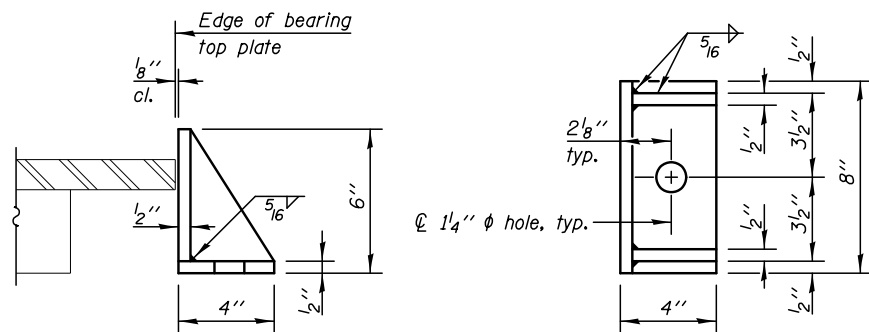
KNIGHT Engineers & Architects		DESIGNED - TB	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK EAST PARAPET DETAILS STRUCTURE NUMBER 099-0281					F.A.I/P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - WPM	REVISED		*	(99-1HB-1) R-1	WILL	1508	1098					
	SCALE - NONE	DRAWN - SMA	REVISED		SHEET NO. SB-15 OF 40 SHEETS					CONTRACT NO. 60X10				
	DATE - 8/25/2017	CHECKED - TB	REVISED		* FAI 55, FAP 856 ILLINOIS FED. AID PROJECT									



**SECTION A-A
AT ABUTMENT**
(at Rt. Ls)

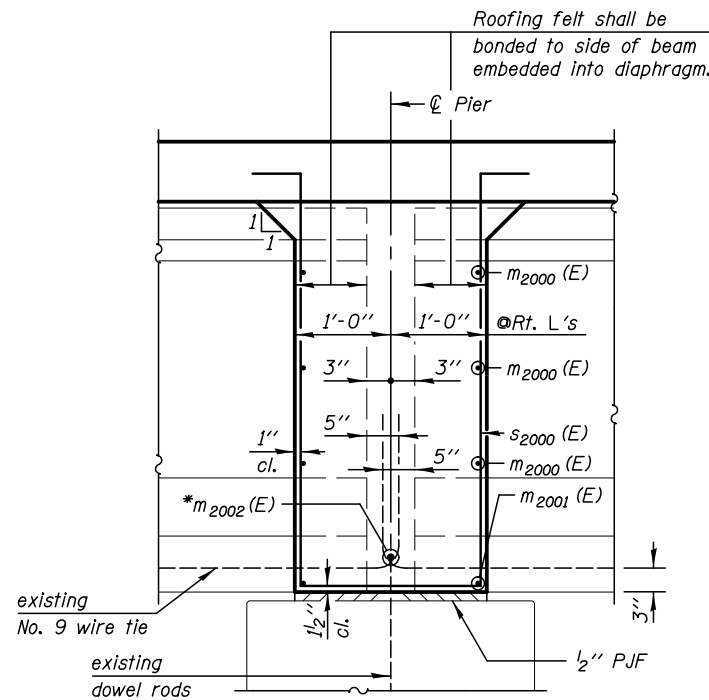


**PLAN VIEW
SIDE RETAINER PLACEMENT AT ABUTMENTS**



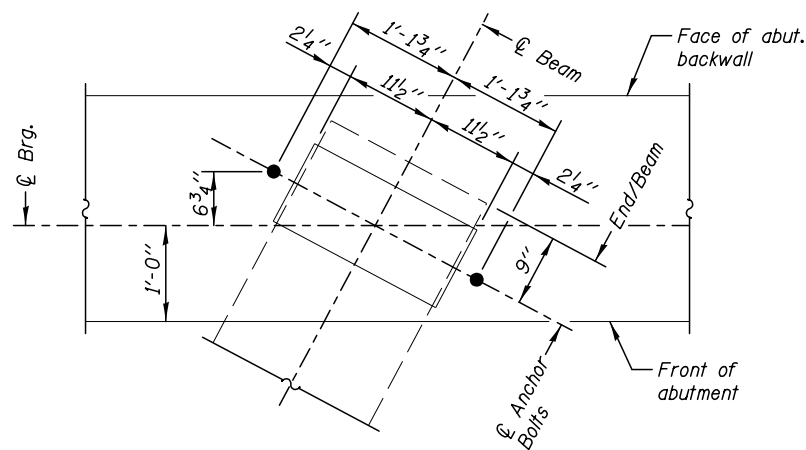
SIDE RETAINER

(1 required each side of existing bearing at abutments, except as shown for Exterior Beams)
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



**SECTION B-B
AT PIER**

*Tightly fasten the #8 bars together with existing No. 9 wire ties.



ANCHOR BOLT LAYOUT

Notes:

Reinforcement bars in diaphragm are billed with superstructure on Sheet SB-17.

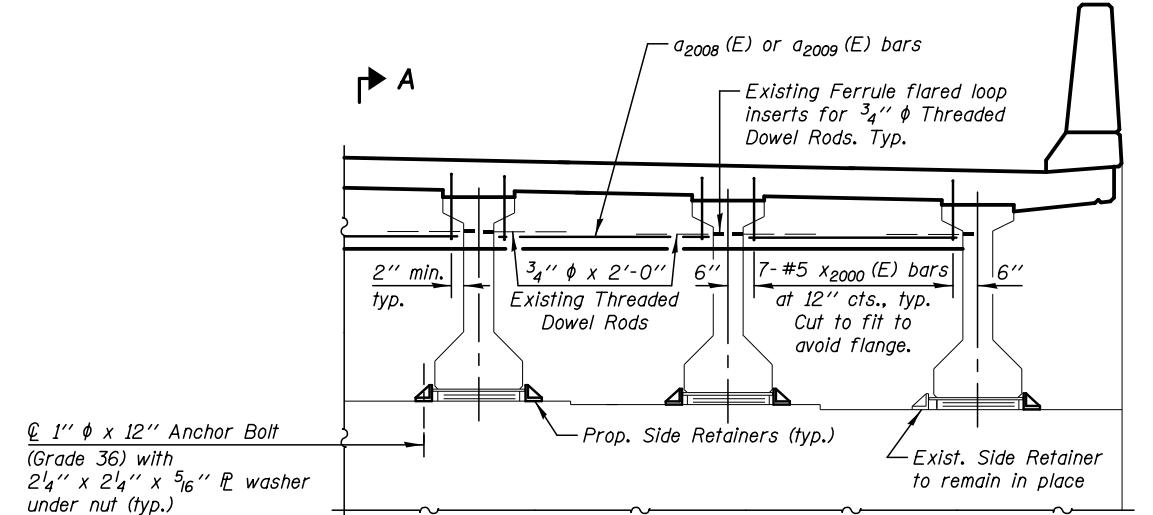
Concrete in diaphragm is included with Concrete Superstructure on Sheet SB-17.

The s2000 (E) and x2000 (E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

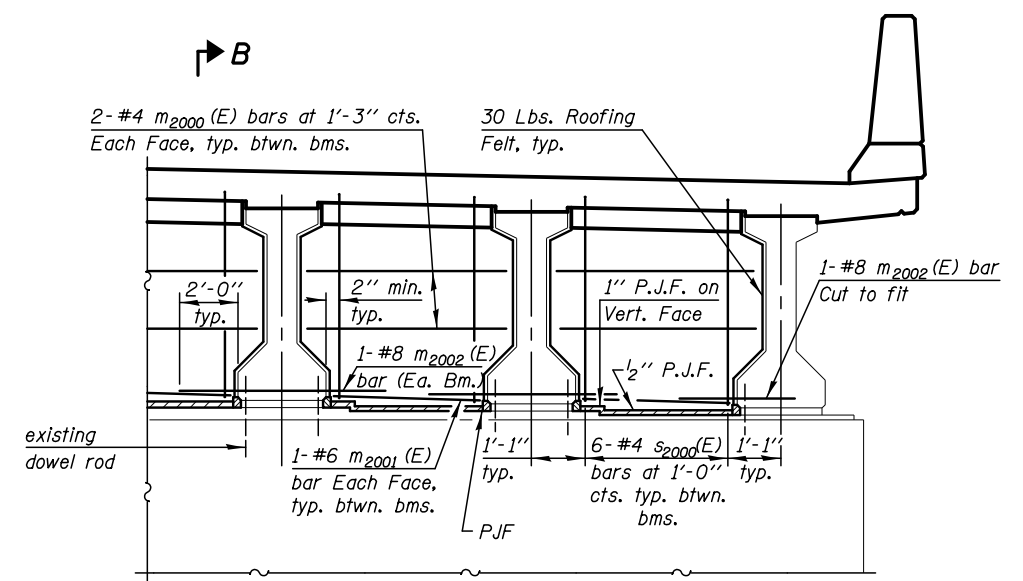
Cost of 30 Lb. roofing felt is included with Concrete Superstructure.

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

See Sheet SB-29 for Preformed Joint Strip Seal details.



DIAPHRAGM ELEVATION AT ABUTMENT
For location of a2008 (E) and a2009 (E) bars see Section A-A



DIAPHRAGM ELEVATION AT PIER

BILL OF MATERIAL

Item	Unit	Quantity
Furnishing And Erecting Structural Steel	Pound	560
Anchor Bolts, 1"	Each	40

KNIGHT

Engineers & Architects

DESIGNED - TB	REVISION
CHECKED - WPM	REVISION
DRAWN - SMA	REVISION
CHECKED - TB	REVISION

SCALE - NONE
DATE - 8/25/2017

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK DIAPHRAGM DETAILS
STRUCTURE NUMBER 099-0281**

SHEET NO. SB-16 OF 40 SHEETS

F.A.I/P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(99-1HB-1) R-1	WILL	1508	1099
CONTRACT NO. 60X10				
* FAI 55, FAP 856 [ILLINOIS] FED. AID PROJECT				

PLOT DATE = 8/16/2017

