

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2009-112-I	WILL	56 #	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 60J24		
D-91-214-10		* 56+4=60		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

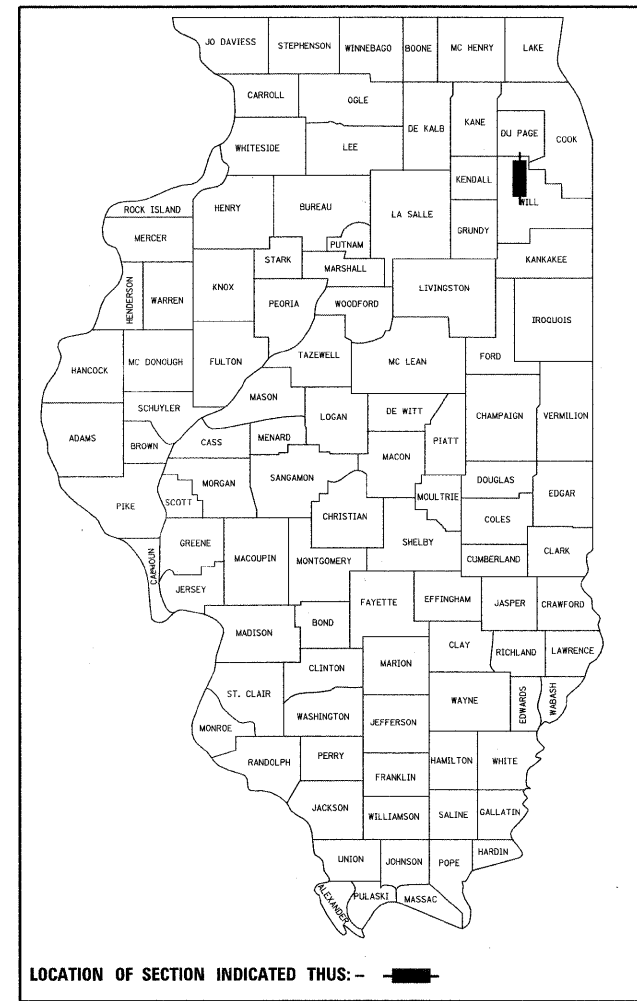
**PROPOSED
HIGHWAY PLANS**

DISTRICT 1
FIBER OPTIC CABLE INSTALLATION FOR HIGHWAY SURVEILLANCE

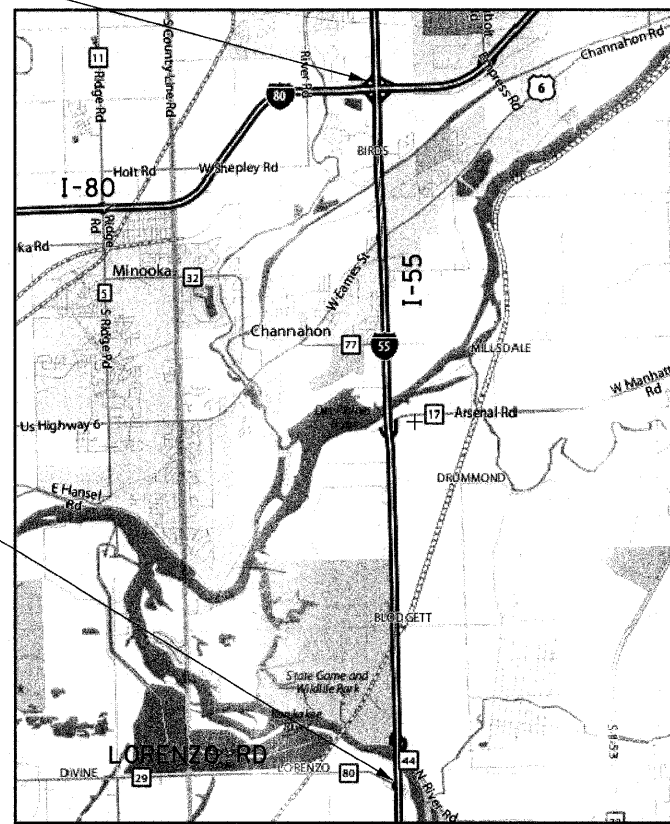
I-55
FROM LORENZO ROAD
TO I-80

FAI ROUTE 55
SECTION 2009-112 I
PROJECT NO. *CMI-055-6(244) 241*
WILL COUNTY
C-91-214-10

FOR INDEX OF SHEETS, SEE SHEET NO. 2



END PROJECT



BEGIN PROJECT

PREPARED BY: *Stevie Tamm* 3/19/2010
TRAFFIC ENGINEER DATE

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *March 19* 20 *10*

Devin M. O'Keefe 199
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 7 20 *10*
Scott E. Stitt, P.E.
acting ENGINEER OF DESIGN AND ENVIRONMENT

May 7 20 *10*
Christine M. Reed 1a
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

INDEX OF SHEETS

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30	CONDUIT CROSSING DETAIL
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HIGHWAY STANDARDS

701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-03	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24' FROM PAVEMENT EDGE
701301-03	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701400-04	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-05	LANE CLOSURE, FREEWAY/EXPRESSWAY
701411-06	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS > 45MPH
701422-02	LANE CLOSURE, MULTILANE, FOR SPEEDS > 45MPH TO 55MPH
701446-01	TWO LANE CLOSURE, FREEWAY/EXPRESSWAY
701501-05	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701901-01	TRAFFIC CONTROL DEVICES
878001-08	CONCRETE FOUNDATION DETAILS

GENERAL NOTES

- REMOVAL AND REINSTALLATION OF FENCE MAY BE REQUIRED TO ACCOMODATE EQUIPMENT THAT PUSHES CONDUIT ACROSS THE EXPRESSWAY. THIS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCIDENTAL TO GALVANIZED STEEL CONDUIT PUSHED 2" OR 4".
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF CABINETS AND FIBER OPTIC CABLE PRIOR TO BIDDING THE JOB. GPS LOCATIONS HAVE BEEN ADDED TO THE PLANS TO ASSIST IN FINDING THE CABINET LOCATIONS.
- THERE EXISTS ENVIRONMENTALLY SENSITIVE AREAS ALONG THIS JOB. CARE MUST BE TAKEN NOT TO REMOVE PLANT LIFE FROM THESE AREAS.
- THERE WILL BE CONCURRENT ROAD WORK WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ENGINEERS OF THOSE PROJECTS TO PROVIDE THE MOST EFFICIENT AND COST EFFECTIVE INSTALLATION OF EQUIPMENT, AND CONDUITS.
SOME OF THESE PROJECTS INCLUDE:
ARSENAL ROAD RECONSTRUCTION, (60C31 AND 60F12) RESURFACING FROM I-80 TO SOUTH OF LORENZO ROAD (60K04 AND 60I53), AND CCTV CAMERA INSTALLATION (60E01).
- THE CONTRACTOR SHALL COORDINATE IT'S OPERATIONS WITH THE CCTV CONTRACTOR (ADRIDGE ELECTRIC). IF THE CCTV CAMERA POLES HAVE NOT BEEN SET PRIOR TO THIS JOB, THE CONTRACTOR SHALL BRING THE CONDUIT TO A LOCATION THAT THE CCTV CONTRACTOR WILL DESIGNATE.
- MAINLINE SPLICES SHALL UTILIZE 2 COMMUNICATION VAULTS (ONE NEXT TO THE OTHER UNLESS OTHERWISE NOTED). 1-96 SM FIBER MAINLINE SPLICE IN ONE VAULT AND THE OTHER 96 SM FIBER MAINLINE SPLICE IN THE OTHER VAULT. ALL VAULTS SHALL HAVE 200 FEET OF SLACK, FOR EACH 96 SM FIBER OPTIC CABLE, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL USE 2 DETECTOR RACKS WHEN THERE ARE MORE THAN 16 LOOPS ENTERING A SURVEILLANCE CABINET.
- THE CONTRACTOR SHALL EXERCISE CARE WITH THE INSTALLATION OF UNDERGROUND EQUIPMENT AS THERE ARE EXISTING PRIVATELY OWNED UTILITIES WITHIN THE PROJECT LIMITS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONTACT ANY UTILITIES IN THE WORK ZONE AND REQUEST UTILITY LOCATES. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE ELECTRICAL MAINTENANCE ENGINEER (JERRY LACOMIAK OF MEADE ELECTRIC (708)524-2145) TO LOCATE CONDUIT FROM EXISTING LIGHTING CABINETS.
- THE CONTRACTOR SHALL BE AWARE OF THE DOCUMENTATION REQUIREMENTS WHICH REQUIRE GPS DATA ACQUISITION.
- ALL RACEWAYS SHALL BE INSTALLED AT A MINIMUM DEPTH OF 30 INCHES.
- THE CONTRACTOR SHALL TEST ALL INDUCTION LOOPS PRIOR TO PULLING CABLE TO THE CABINET ACCORDING TO THE INDUCTION LOOP SPEC. THE CONTRACTOR SHALL ALSO TEST THE LOOPS AFTER THEY ARE INSTALLED IN CABINET.
- THERE EXISTS 150FT. OF LOOP WIRE IN THE ADJACENT HAND HOLE (CONTRACT 60K04 AND 60I53). IF THE RUN IS LESS THAN 150FT. TO THE CABINET, THE LOOP WIRE SHALL BE PULLED THROUGH THE CONDUIT AND BE PAID AS INSTALL EXISTING CABLE IN CONDUIT. IF THE RUN IS GREATER THAN 150FT. TO THE CABINET, THEN A 4C #18 TWISTED SHIELDED CABLE SHALL BE SPLICED TO THE LOOP WIRE IN THE HAND HOLE AND PULLED TO THE CABINET.
- WHEN TWO LOOPS ARE IN ONE LANE, THEY SHALL BE 16FT. APART CENTER TO CENTER.

LEGEND:

- 42"x36"x12" JUNCTION BOX
- COMMUNICATION VAULT
- HEAVY DUTY HAND HOLE
- HEAVY DUTY HAND HOLE SPECIAL (COMMUNICATIONS)
- TYPE 334 CABINET
- TYPE 334 CABINET WITH SPREAD SPECTRUM RECEIVER
- (2) 1 1/4 IN. FIBER OPTIC INNER DUCT - EACH HAS 96 SM FIBERS
- 2 IN. P-DUCT TRENCHED (T)
- CONDUIT ATTACHED TO STRUCTURE, 4" DIA., PVC COATED GALVANIZED STEEL
- GALVANIZED RIGID STEEL CONDUIT TRENCHED (T), TYPE AND SIZE AS NOTED
- GALVANIZED RIGID STEEL CONDUIT PUSHED (P), TYPE AND SIZE AS NOTED
- ELECTRIC SERVICE DISCONNECT
- 6 FT. DIAMETER INDUCTION LOOP CENTERED IN LANE
- 6 FT. X 14 FT. (NOMINAL) RAMP INDUCTION LOOP (SEE RAMP LOOP TABLE IN INDUCTION LOOP SPEC FOR ACTUAL SIZE)
- 6 FT. DIAMETER (NOMINAL) MAINLINE, COUNT, CLASSIFICATION, SPEED INDUCTION LOOPS
- 6 FT. X 14 FT. (NOMINAL) COUNT, CLASSIFICATION, SPEED INDUCTION LOOPS (SEE RAMP LOOP TABLE IN INDUCTION LOOP SPEC FOR ACTUAL SIZE)
- 2 LANE SOLAR POWERED SPREAD SPECTRUM RADAR VEHICLE DETECTOR
- 1 LANE SOLAR POWERED SPREAD SPECTRUM RADAR VEHICLE DETECTOR
- EXISTING CCTV CAMERA (CONTRACT 60E01)
- TYPE 3 CCTV CABINET
- MODEL 334 PATCH PANEL CABINET
- LIGHTING CABINET
- INSTALL CCTV CAMERA

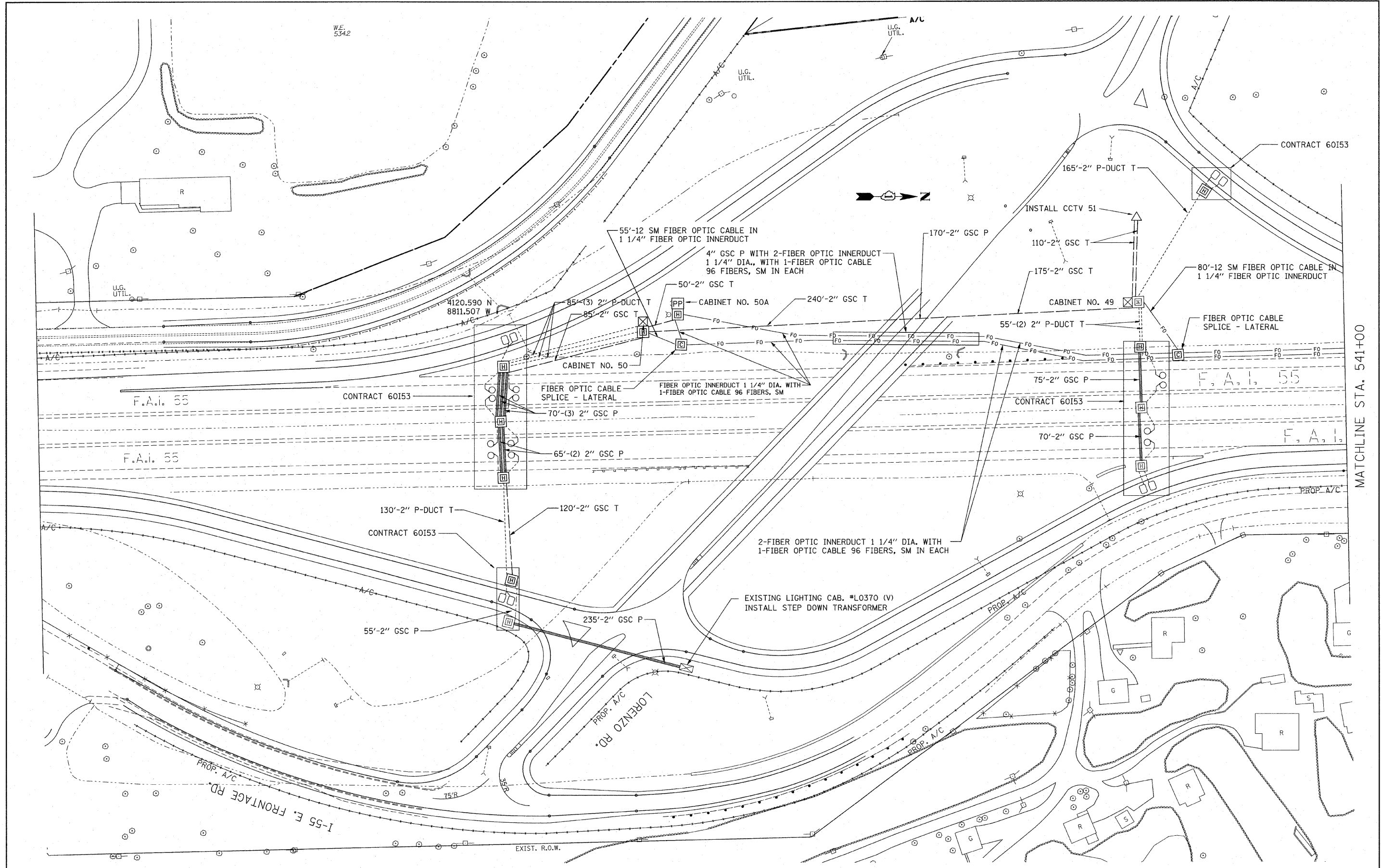
ABBREVIATIONS

PREFIX	COMPONENT	PREFIX	COMPONENT
ADF	ADD/DROP, FIBER OPTIC (CWDM OR OTHER)	PLP	PULLING PEDESTAL
CAX	COAX CABLE	PPC	PATCH PANEL, COPPER
CSC	CABLE SPLICE, COPPER	PPE	PATCH PANEL, ETHERNET
CSF	CABLE SPLICE, FIBER OPTIC	PPF	PATCH PANEL, FIBER
CTD	CCTV CAMERA, DOME	PPV	PATCH PANEL, VIDEO
CTF	CCTV CAMERA, FIXED POSITION	RMC	RADIO, MICROWAVE, CONTROL (UNLICENSED)
CBT	CHANNEL BANK, T1	RMV	RADIO, MICROWAVE, VIDEO (UNLICENSE)
CCC	CONTROL CABLE, COPPER	RXF	RECEIVER, FIBER OPTIC
CVB	CONTROLLER, VIDEO, BACKUP	RXT	RECEIVER, FSK TONE
CVP	CONTROLLER, VIDEO, PRIMARY	SCF	SPLITTER/COMBINER, FIBER OPTIC (CWDM)
DAV	DISTRIBUTION AMPLIFIER, VIDEO	SPV	SIGNAL SPLITTER, VIDEO
DCC	DISTRIBUTION CABLE, COPPER	SSV	SELECTOR SWITCH, VIDEO (MANUAL)
DCF	DISTRIBUTION CABLE, FIBER OPTIC	SWE	SWITCH, ETHERNET
DEC	DECODER (CODEC MPEG2)	SWV	SWITCH, VIDEO
DMS	DYNAMIC MESSAGE SIGN	TCC	TRUNK CABLE, COPPER
VRD	VIDEO RECORDER, DIGITAL	TCF	TRUNK CABLE, FIBER OPTIC
ENC	ENCODER (CODEC MPEG2)	TLC	TLC WATCH EQUIPMENT
ETH	ETHERNET CABLE	TXF	TRANSMITTER, FIBER OPTIC
HHL	HANDHOLE	TXT	TRANSMITTER, FSK TONE
JBC	JUNCTION BOX, CONTROL (COPPER)	VCD	VIDEO CAPTURE DEVICE
JBF	JUNCTION BOX, FIBER OPTIC CABLE	VCL	VIDEO CONTROL LOCATION
JBP	JUNCTION BOX, POWER	VCP	VIDEO COLLECTION POINT
KBD	KEYBOARD	WST	USER WORK STATION
LDI	LOOP DETECTOR, INDUCTION		
LDM	LOOP DETECTOR, MICROLOOP		
MDF	MUX/DEMUX, FIBER (CWDM)		
MON	MONITOR, COMPUTER		
MVD	MONITOR, VIDEO		
MVR	MONITOR, VIDEO, FLAT PANEL RACK (LCD RACK)		
MXS	MULTIPLEXER, SONET		
PCE	PATCH CABLE, ETHERNET		
PCF	PATCH CABLE, FIBER		

FILE NAME =	USER NAME = wjngam	DESIGNED -	REVISED - 03/11/2010	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80) INDEX OF SHEETS, STANDARDS & NOTES	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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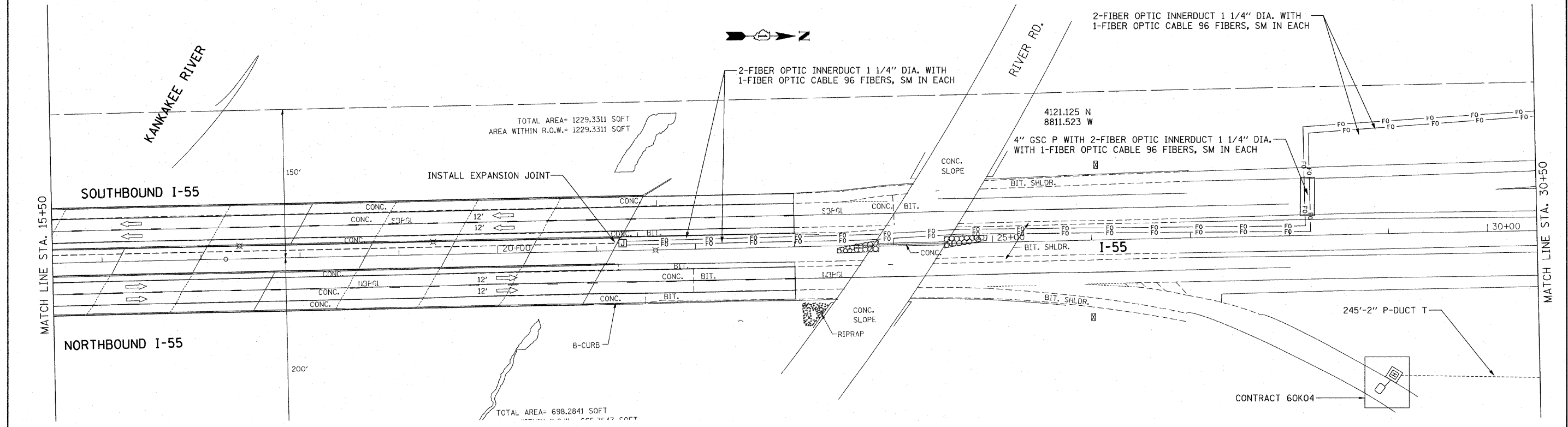
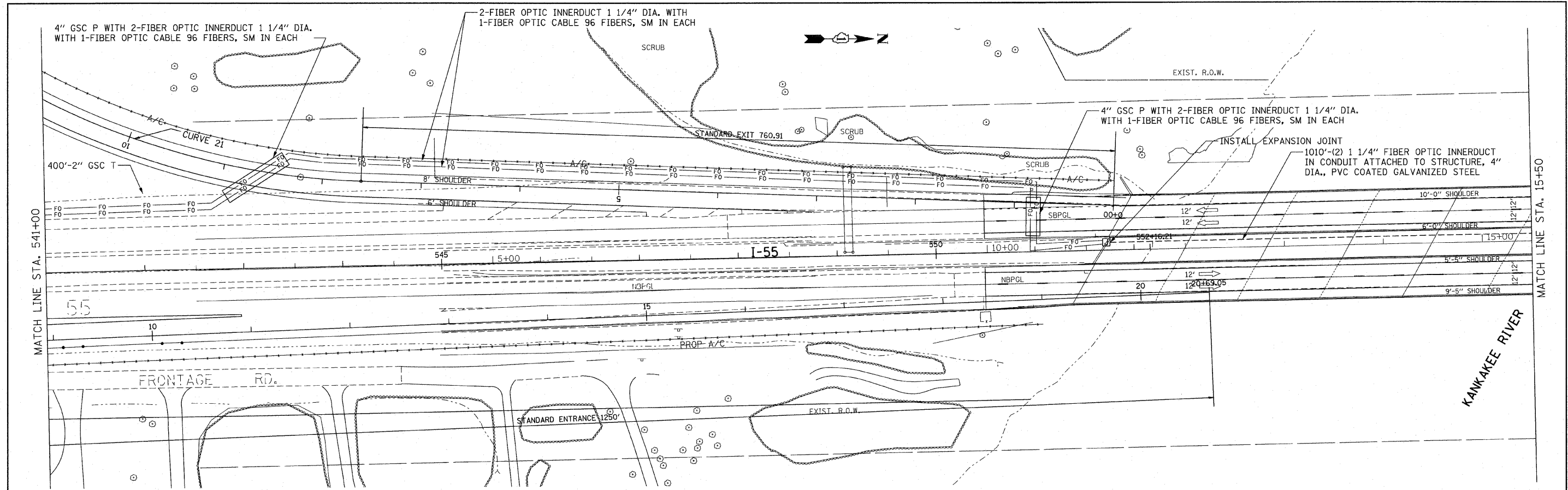
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				WILL Y032-1F	DUPAGE Y032-1F	COOK Y032-1F
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	9	9		
67100100	MOBILIZATION	L SUM	1	1		
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1		
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1	1		
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	3428	3428		
81016600	CONDUIT IN TRENCH, HIGH DENSITY POLYETHYLENE, COILABLE (2" DIA.)	FOOT	4279	4279		
81018500	CONDUIT PUSHED, 2" DIAMETER, GALVANIZED STEEL	FOOT	2538	2538		
81018900	CONDUIT PUSHED, 4" DIAMETER, GALVANIZED STEEL	FOOT	1713	1713		
81101005	CONDUIT ATTACHED TO STRUCTURE, 4" DIA., PVC COATED GALVANIZED STEEL	FOOT	4526	4526		
81300520	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE 12" X 8" X 6"	EACH	2	2		
81300960	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 42" X 36" X 12"	EACH	22	22		
81400200	HEAVY-DUTY HANDHOLE	EACH	17	17		
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK (IN CONDUIT)	FOOT	46275	46275		
87000130	ELECTRIC CABLE ASSEMBLY 600V (EPR-TYPE TC) 2/C NO. 4 AND NO. 10 GROUND	FOOT	861	861		
87000140	ELECTRIC CABLE ASSEMBLY IN CONDUIT, 600V (EPR-TYPE TC) 2/C NO. 2 AND NO. 8 GROUND	FOOT	4385	4385		
88500100	INDUCTIVE LOOP DETECTOR	EACH	88	88		
X0323898	CLOSED CIRCUIT TELEVISION DOME CAMERA	EACH	5	5		
X0323907	COMMUNICATIONS VAULT	EACH	36	36		
X0323914	FIBER OPTIC CABLE SPLICE - LATERAL	EACH	15	15		
X0323917	CABINET, MODEL 334	EACH	10	10		
X0323957	FIBER OPTIC CABLE SPLICE - MAINLINE	EACH	8	8		
X0324234	2070 LITE CONTROLLER	EACH	10	10		
X0324245	CONCRETE FOUNDATION, SURVEILLANCE CABINET, MODEL 334	EACH	9	9		
X0324248	DETECTOR RACK	EACH	11	11		
X0325040	FIBER OPTIC INNERDUCT 1 1/4" DIA.	FOOT	87680	87680		
X0325702	NIGHTTIME WORK ZONE LIGHTING	L SUM	1	1		
X0326122	ELECTRIC CABLE ASSEMBLY IN CONDUIT, 600V (EPR-TYPE TC) 2/C NO. 6 AND NO. 8 GROUND	FOOT	765	765		
X0326465	MODIFICATION OF EXISTING VIDEO DISTRIBUTION SYSTEM	L SUM	1	1		
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	1		
X8040310	ELECTRIC SERVICE DISCONNECT	EACH	9	9		
X8710035	FIBER OPTIC CABLE 96 FIBERS, SINGLE MODE	FOOT	109746	109746		
X8710052	FIBER OPTIC TERMINATION PANEL, 12 FIBER	EACH	13	13		
X8730312	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 18, 4/C, TWISTED, SHIELDED	FOOT	16000	16000		
X0326266	ETHERNET SWITCH	EACH	18	18		
Z0076600	TRAINEES	— HOUR —	— 500 —	— 500 —		
X0326948	CLOSED CIRCUIT TELEVISION CAMERA STRUCTURE, 50 FT. MOUNTING HEIGHT	EACH	5	5		
X0326949	CLOSED CIRCUIT TELEVISION CAMERA STRUCTURE, 30" DIAMETER FOUNDATION	FOOT	60	60		
X0326945	CLOSED CIRCUIT TELEVISION CAMERA EQUIPMENT	EACH	5	5		
X0326946	CLOSED CIRCUIT TELEVISION CAMERA INSTALLATION	EACH	5	5		
X0326947	CLOSED CIRCUIT TELEVISION CAMERA INSTALLATION ON BRIDGE STRUCTURE	EACH	2	2		
81100605	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., PVC COATED GALVANIZED STEEL	— FOOT —	— 240 —	— 240 —		
X8710036	FIBER OPTIC CABLE 12F SM	— FOOT —	— 15582 —	— 15582 —		
X0326950	INSTALL EXISTING ELECTRIC CABLE	FOOT	2580	2580		
X0326942	MODIFY EXISTING CLOSED CIRCUIT TELEVISION INSTALLATION FOR FIBER-OPTIC COMMUNICATIONS, FIBER	EACH	2	2		
X0326943	MODIFY EXISTING CLOSED CIRCUIT TELEVISION INSTALLATION FOR FIBER-OPTIC COMMUNICATIONS, ETHERNET	EACH	1	1		
X0326951	SOLAR POWERED SPREAD SPECTRUM RADAR VEHICLE DETECTOR SYSTEM (MEDIAN)	EACH	5	5		
X0326952	STEP-DOWN TRANSFORMER	EACH	1	1		
X0326953	SURVEILLANCE CABINET, MODEL 334 (PATCH PANEL)	EACH	1	1		
X0326954	TEMPORARY FIBER OPTIC CONNECTION	L SUM	1	1		
X0326941	TYPE 3 CABINET (CLOSED CIRCUIT TELEVISION)	EACH	3	3		
87800200	TYPE D FOUNDATION, CONCRETE	FOOT	32	32		

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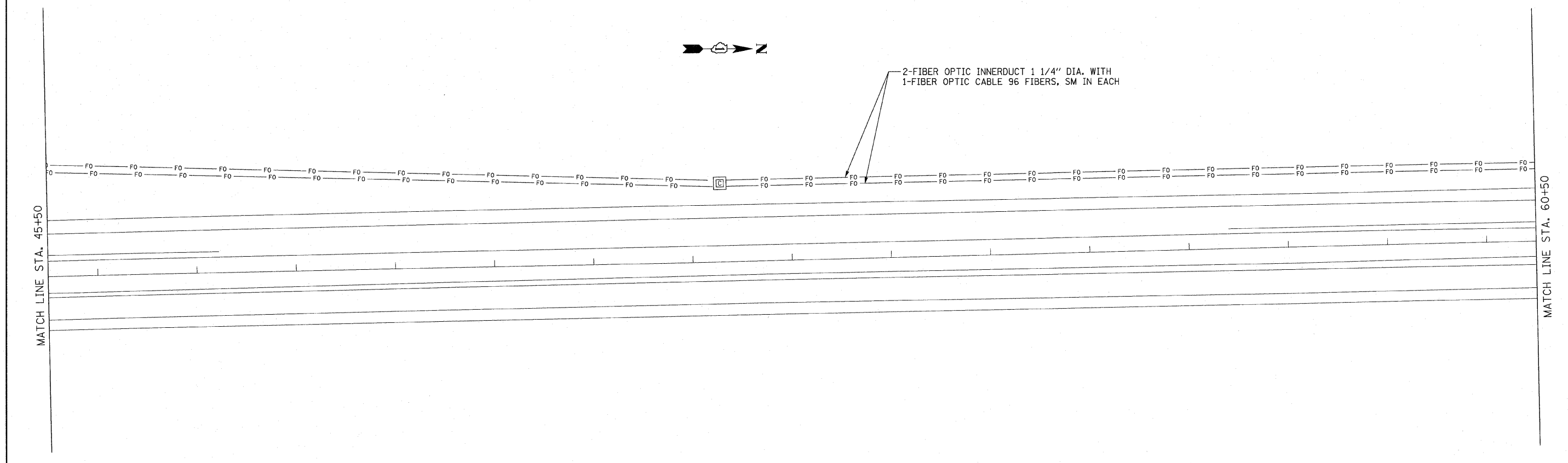
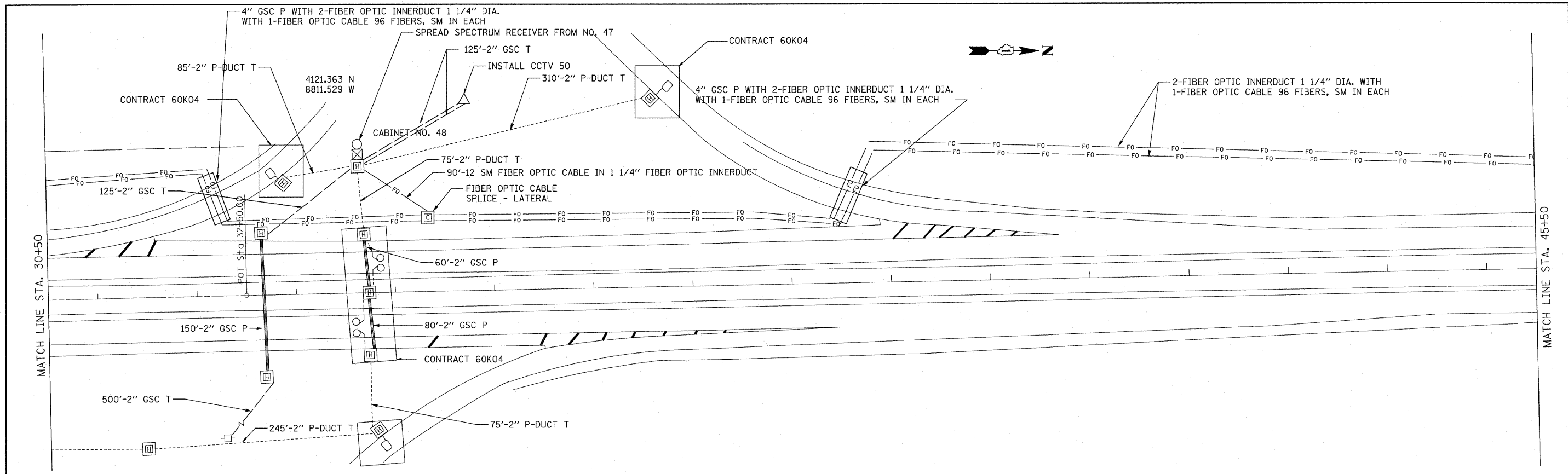


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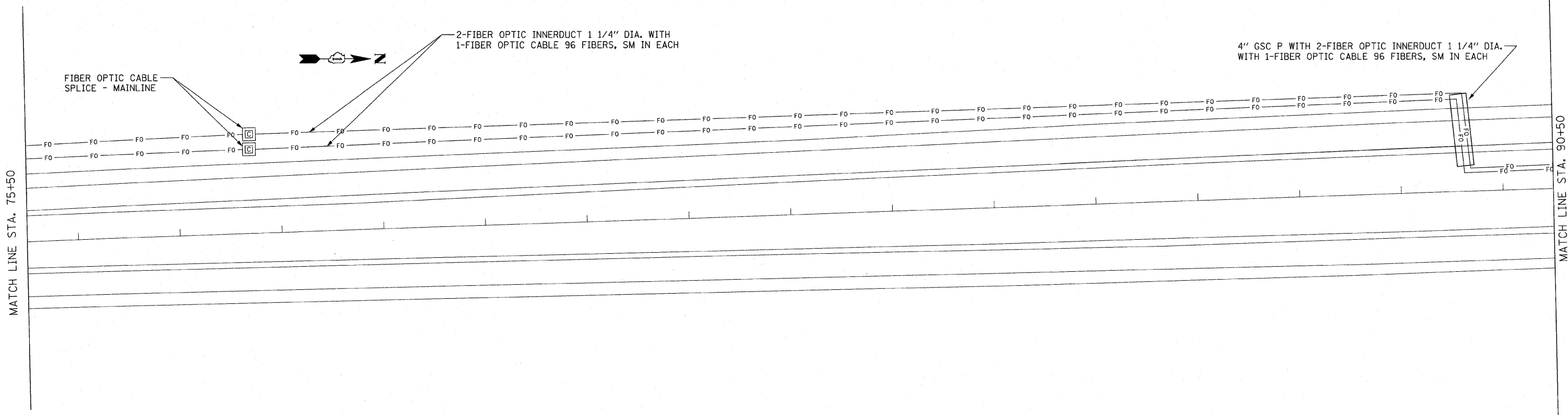
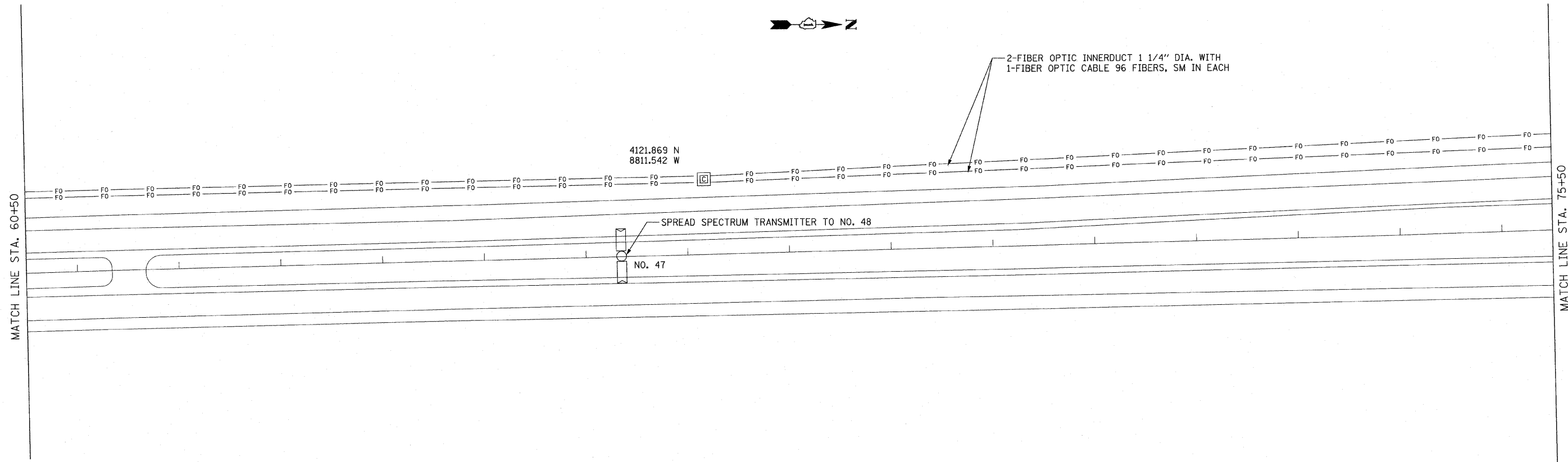
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		DATE - 03/11/2010	REVISED -								



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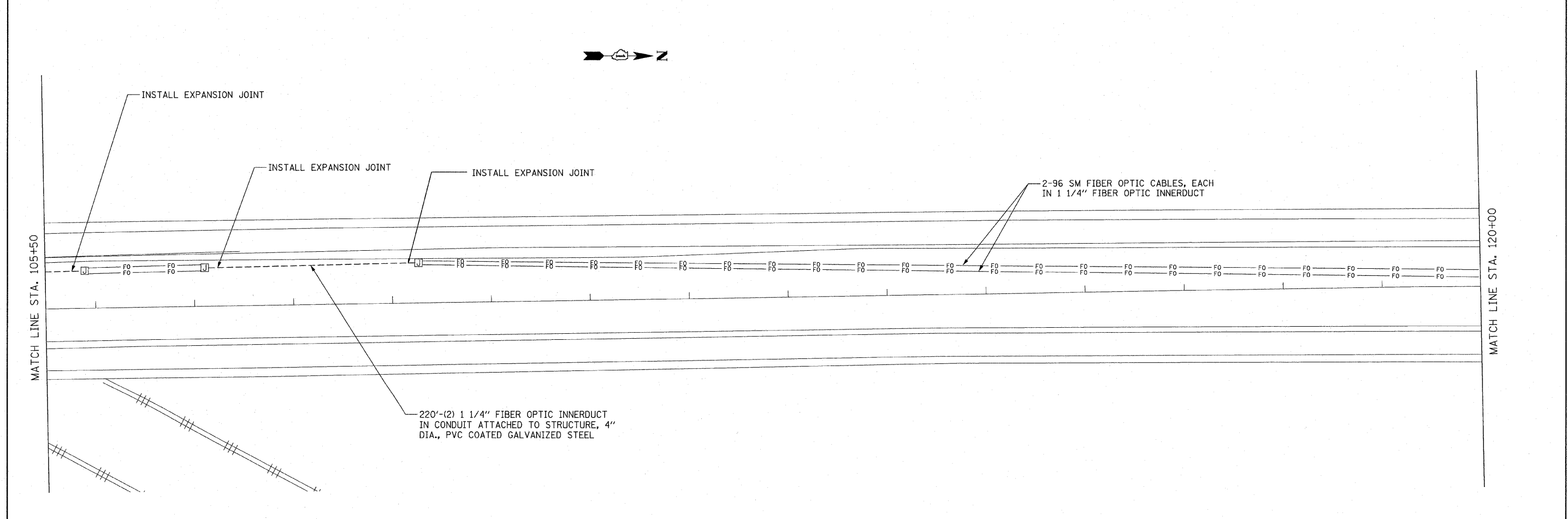
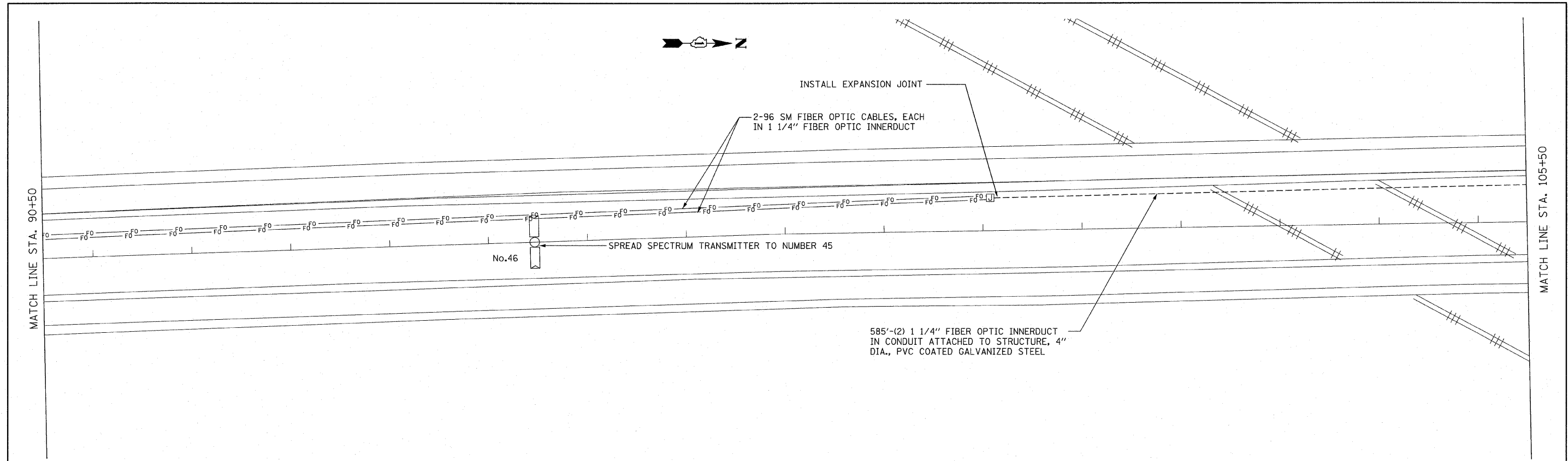
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

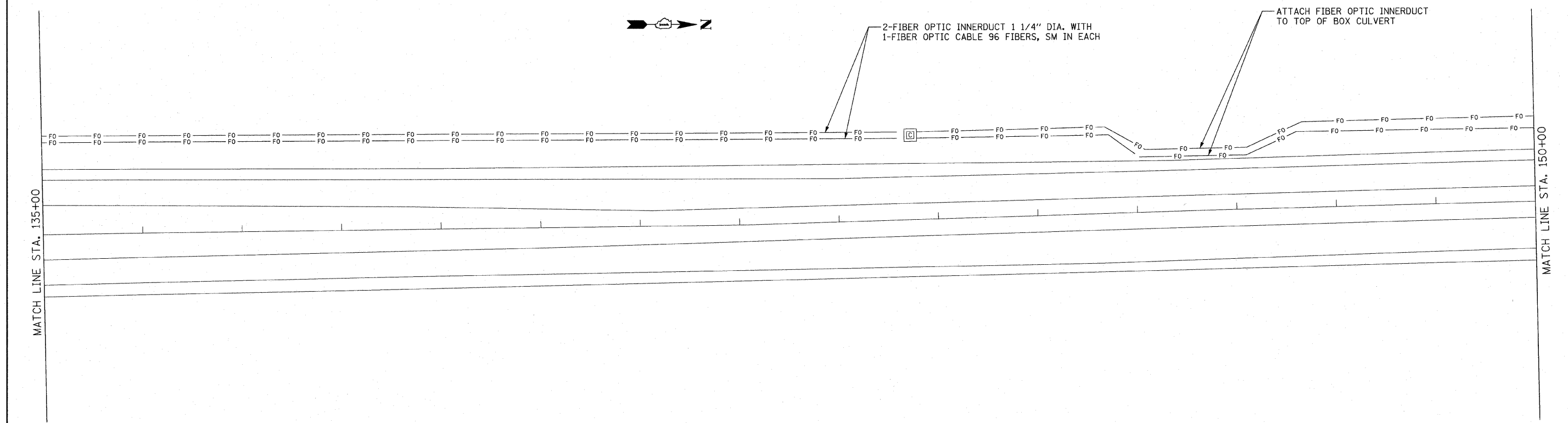
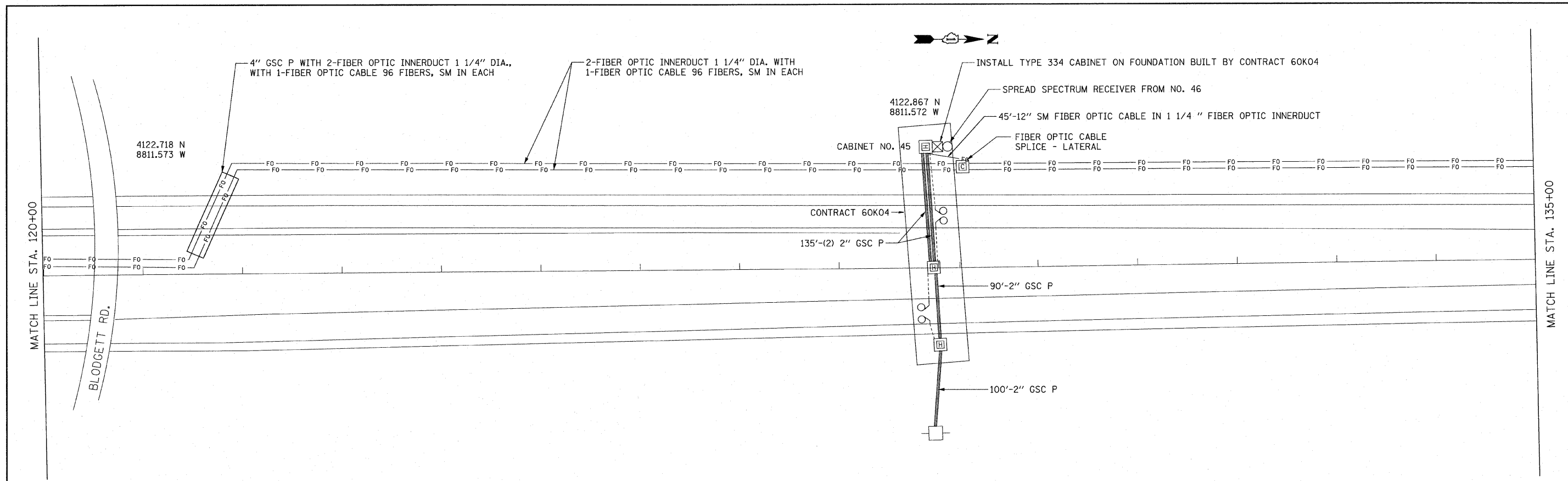
FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80)
TRANSMITTERS NO. 47 1/2 MILE N. OF RIVER RD.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2009-112 I	WILL	56	7
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60J24	

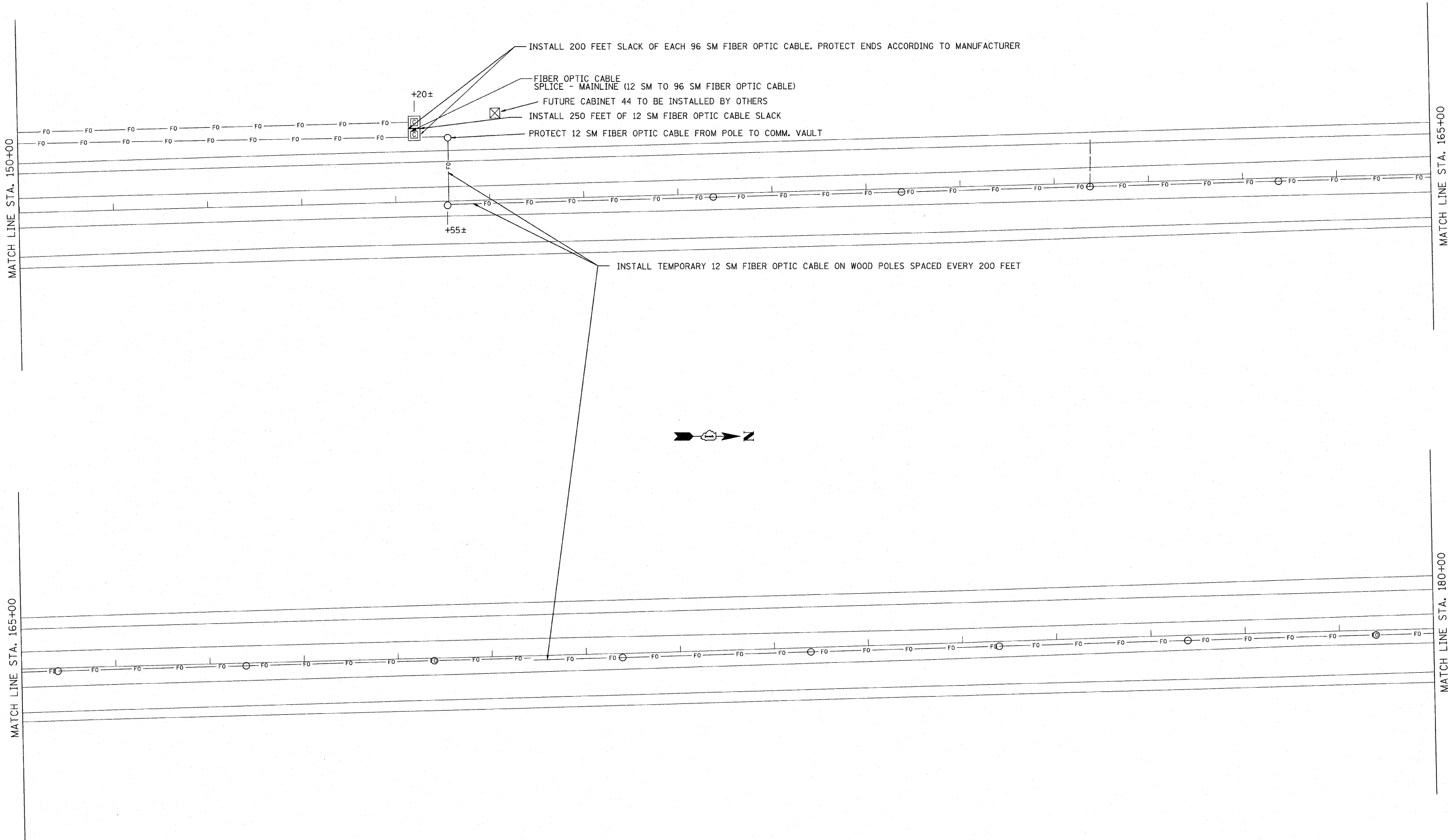
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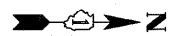
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PLOT DATE = 4/20/2010		DATE - 03/12/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 TRAFFIC SYSTEMS CENTER

FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80)
CABINET NO. 44, 1 MILE SOUTH OF ARSENAL RD. INTERCHANGE

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2009-112 I	WILL	56	10
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60J24	

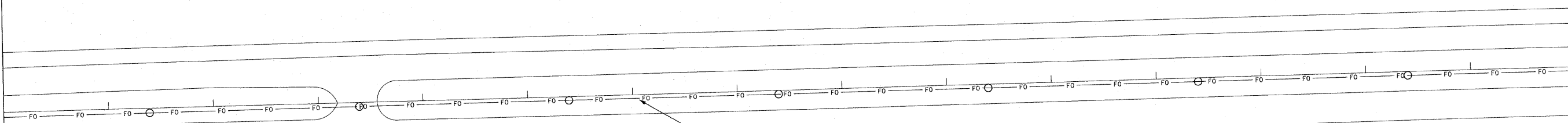


MATCH LINE STA. 180+00

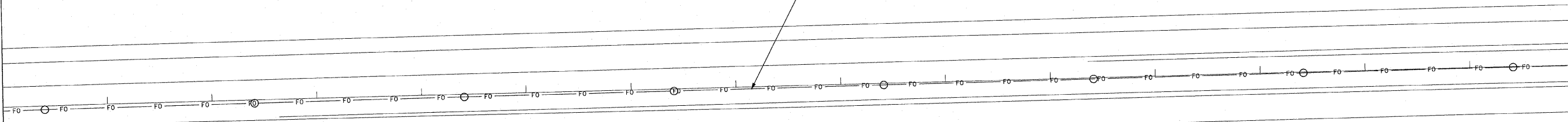
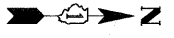
MATCH LINE STA. 195+00

MATCH LINE STA. 195+00

MATCH LINE STA. 210+00



INSTALL TEMPORARY 12 SM FIBER OPTIC CABLE ON WOOD POLES SPACED EVERY 200 FEET



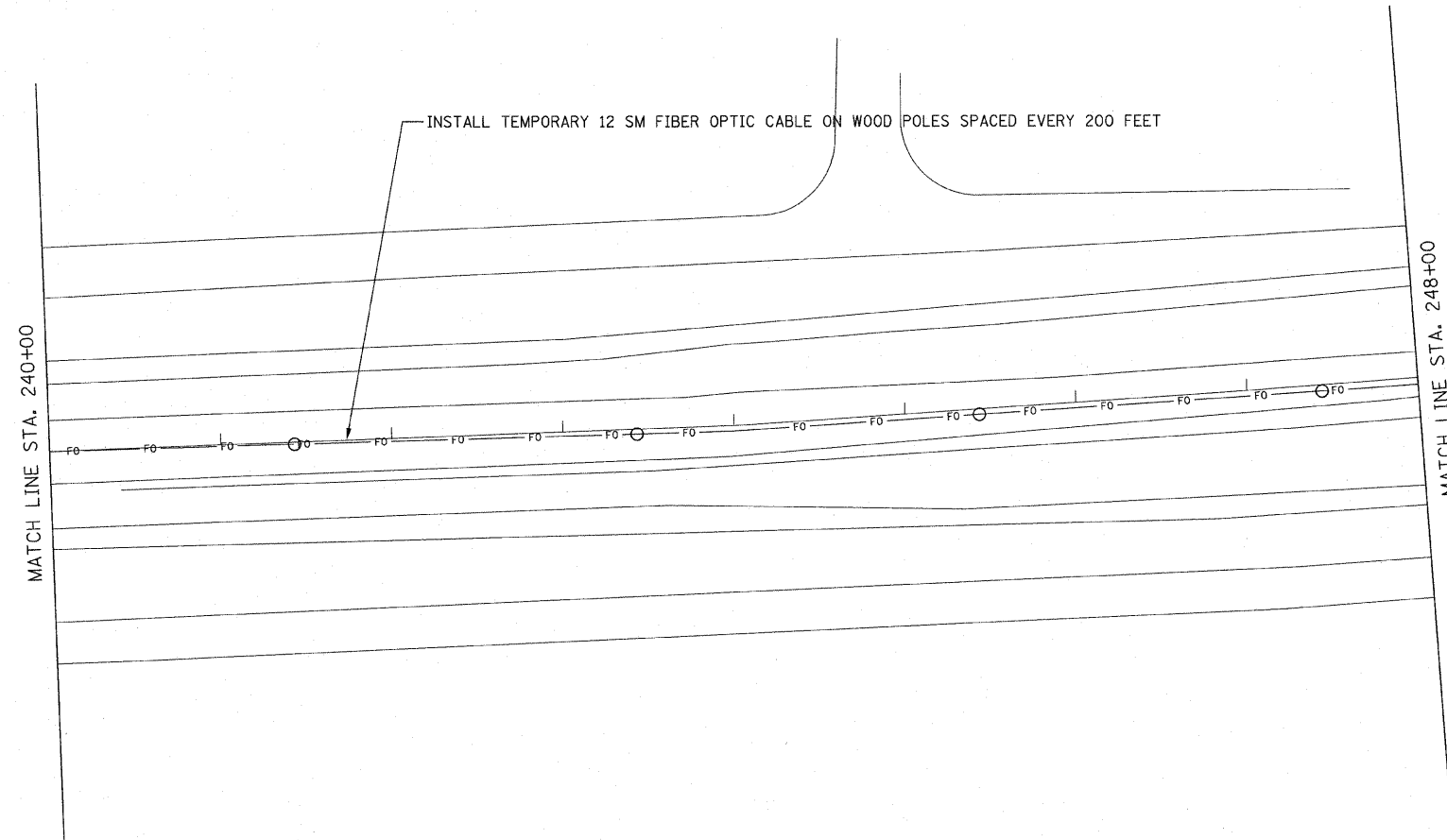
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P:\P-07-1600-12\client\TSC Plans\SH1011.dgn		DRAWN - G.M.	REVISED -
PLOT SCALE = #SCALE#		CHECKED - J.G.	REVISED -
PLOT DATE = 3/18/2010		DATE - 03/12/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 TRAFFIC SYSTEMS CENTER

FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80)
CONTRACT 60C31

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA.

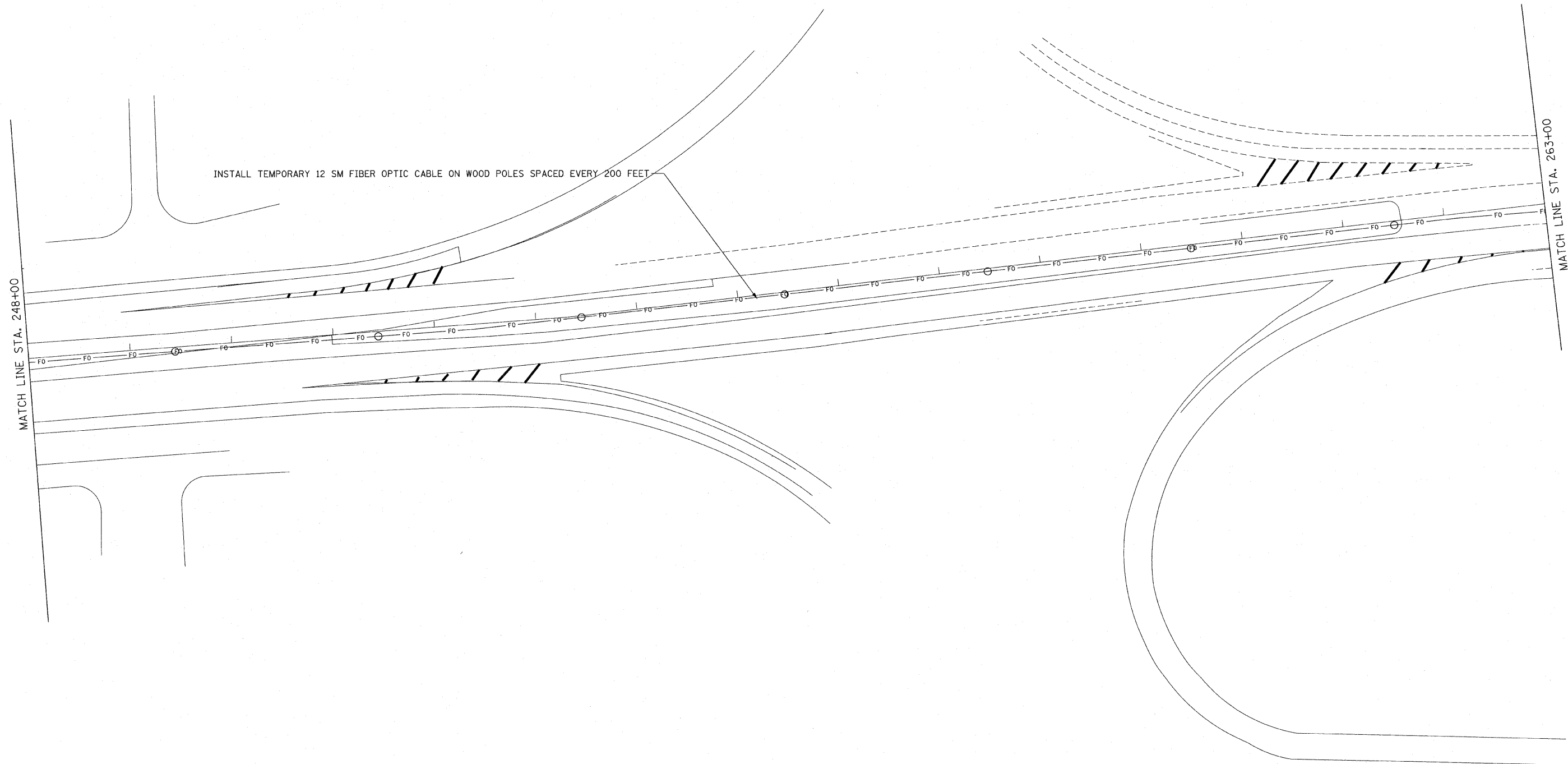
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2009-112 I	WILL	56	11
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60J24	



FILE NAME =	USER NAME = wingren	DESIGNED - J.G.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC SYSTEMS CENTER	FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80) CONTRACT 60C31	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
P:\VP-07-1600-12\Clent\TSC Plans\SH1013.dgn		DRAWN - G.M.	REVISED -			55	2009-112 I	WILL	56	13	
PLOT SCALE = #SCALE#		CHECKED - J.G.	REVISED -			CONTRACT NO. 60J24					
PLOT DATE = 3/19/2010		DATE - 03/12/2010	REVISED -			SCALE: 1" = 50'	SHEET NO.	OF	SHEETS	STA.	TO STA.



INSTALL TEMPORARY 12 SM FIBER OPTIC CABLE ON WOOD POLES SPACED EVERY 200 FEET



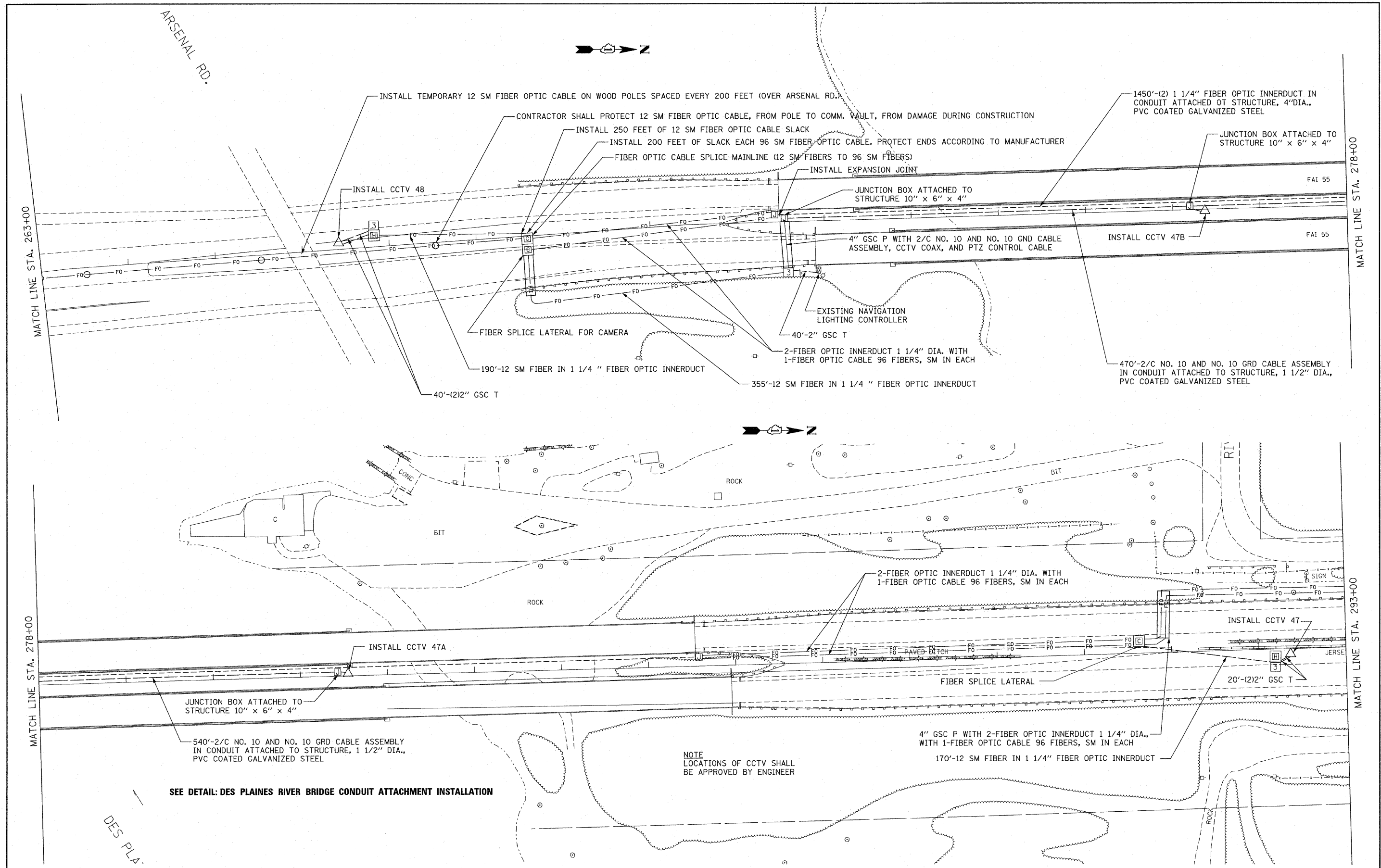
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		DRAWN - G.M.	REVISED -
		CHECKED - J.G.	REVISED -
		DATE - 03/12/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 TRAFFIC SYSTEMS CENTER

FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80)
CONTRACT 60C31

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2009-112 I	WILL	56	14
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60J24	



FILE NAME =
 P:\P-07-1600-12\Clients\TSC Plans\SHI015.dgn

USER NAME = rdahhan
 DESIGNED - J.G.
 DRAWN - G.M.
 CHECKED - J.G.
 DATE - 03/12/2010

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 TRAFFIC SYSTEMS CENTER**

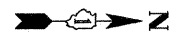
**FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80)
 DESPLAINES RIVER BRIDGE**

F.A. RTE. 55	SECTION 2009-112 I	COUNTY WILL	TOTAL SHEETS 56	SHEET NO. 15
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
CONTRACT NO. 60J24				

SCALE: 1" = 50'
 SHEET NO. OF SHEETS STA. TO STA.

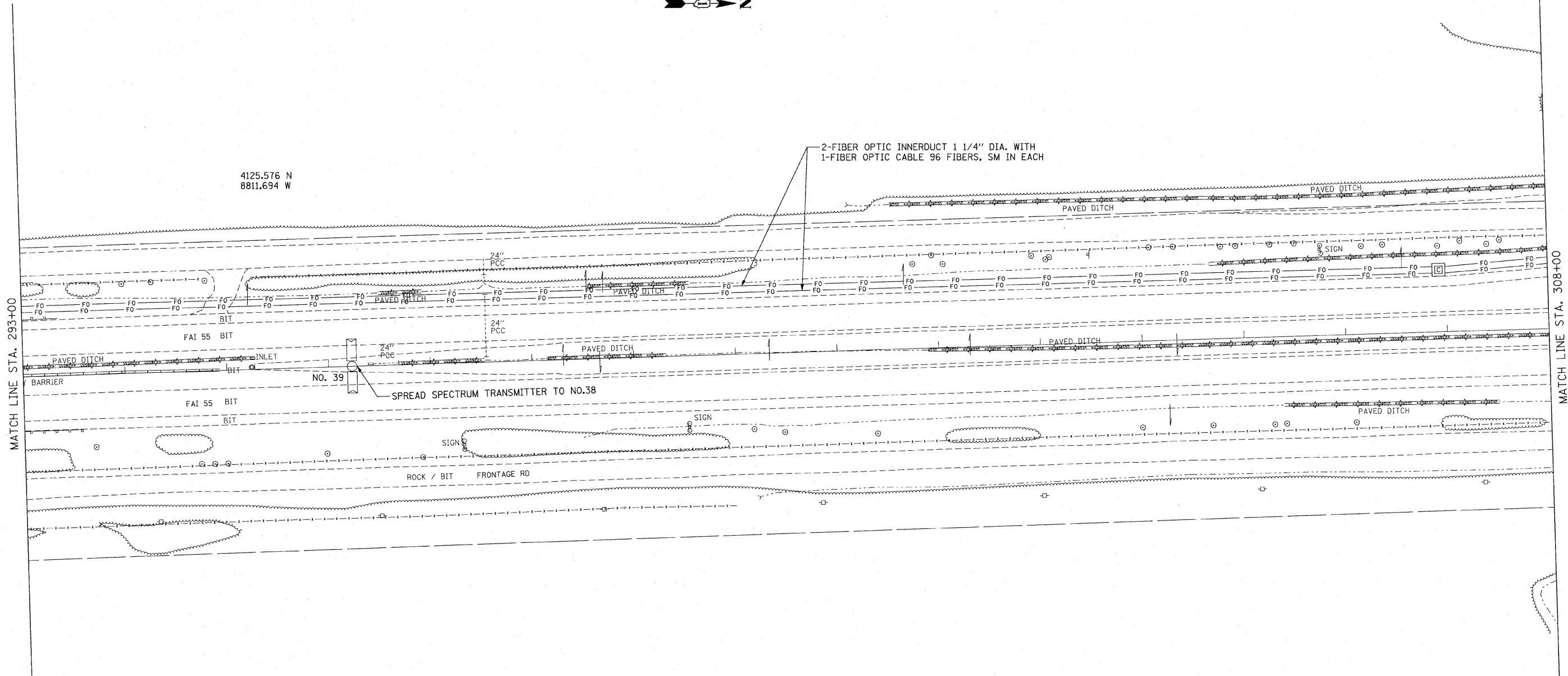
SEE DETAIL: DES PLAINES RIVER BRIDGE CONDUIT ATTACHMENT INSTALLATION

NOTE
 LOCATIONS OF CCTV SHALL
 BE APPROVED BY ENGINEER



4125.576 N
8811.694 W

2-FIBER OPTIC INNERDUCT 1 1/4" DIA. WITH
1-FIBER OPTIC CABLE 96 FIBERS, SM IN EACH



MATCH LINE STA. 293+00

MATCH LINE STA. 308+00

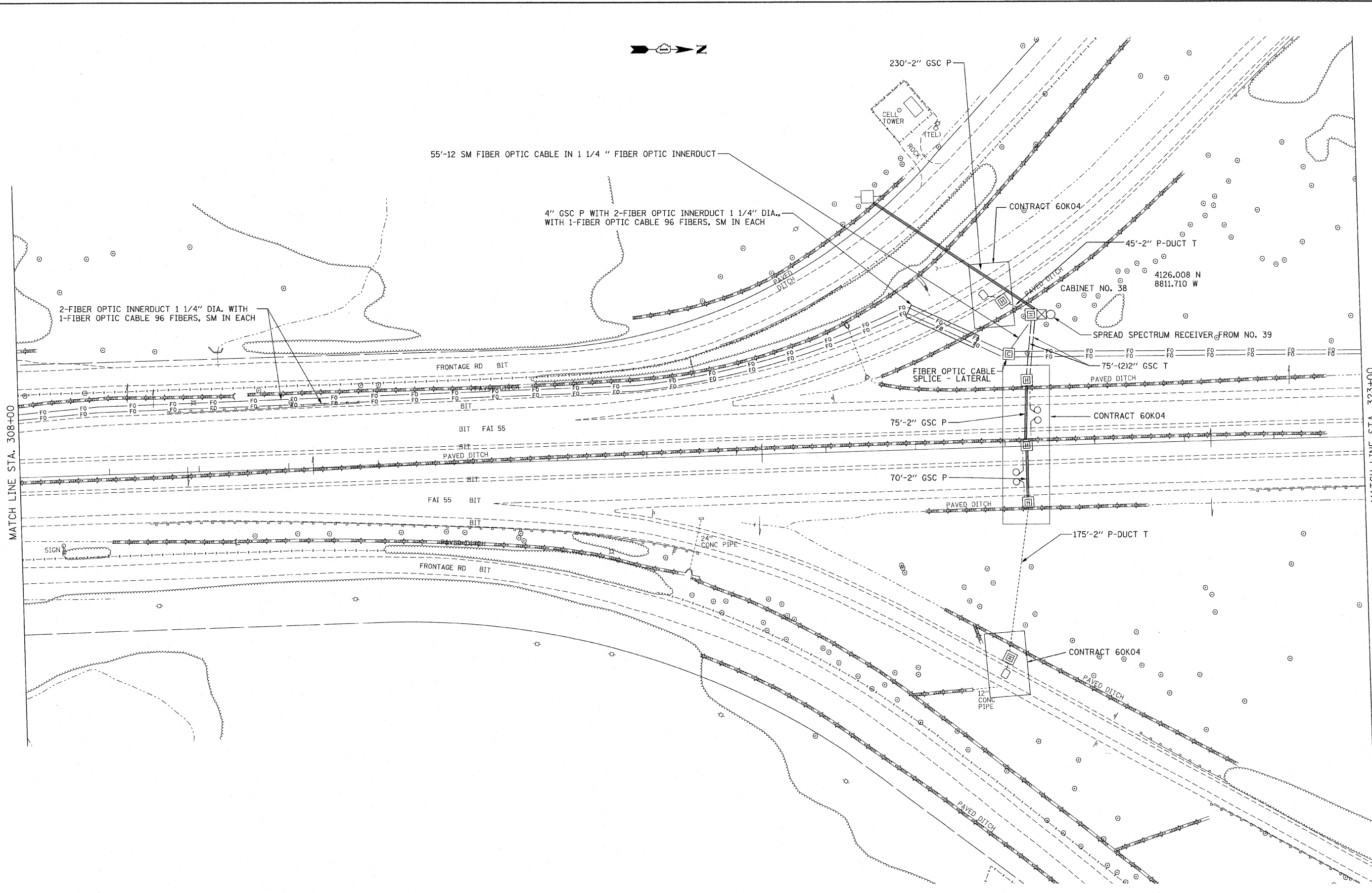
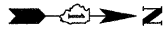
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P:\NP-27-1600-12\client\TSC Plans\SH1016.dgn		DRAWN - C.M.	REVISED -
PLOT SCALE = #SCALE#		CHECKED - J.G.	REVISED -
PLOT DATE = 3/18/2010		DATE - 03/12/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

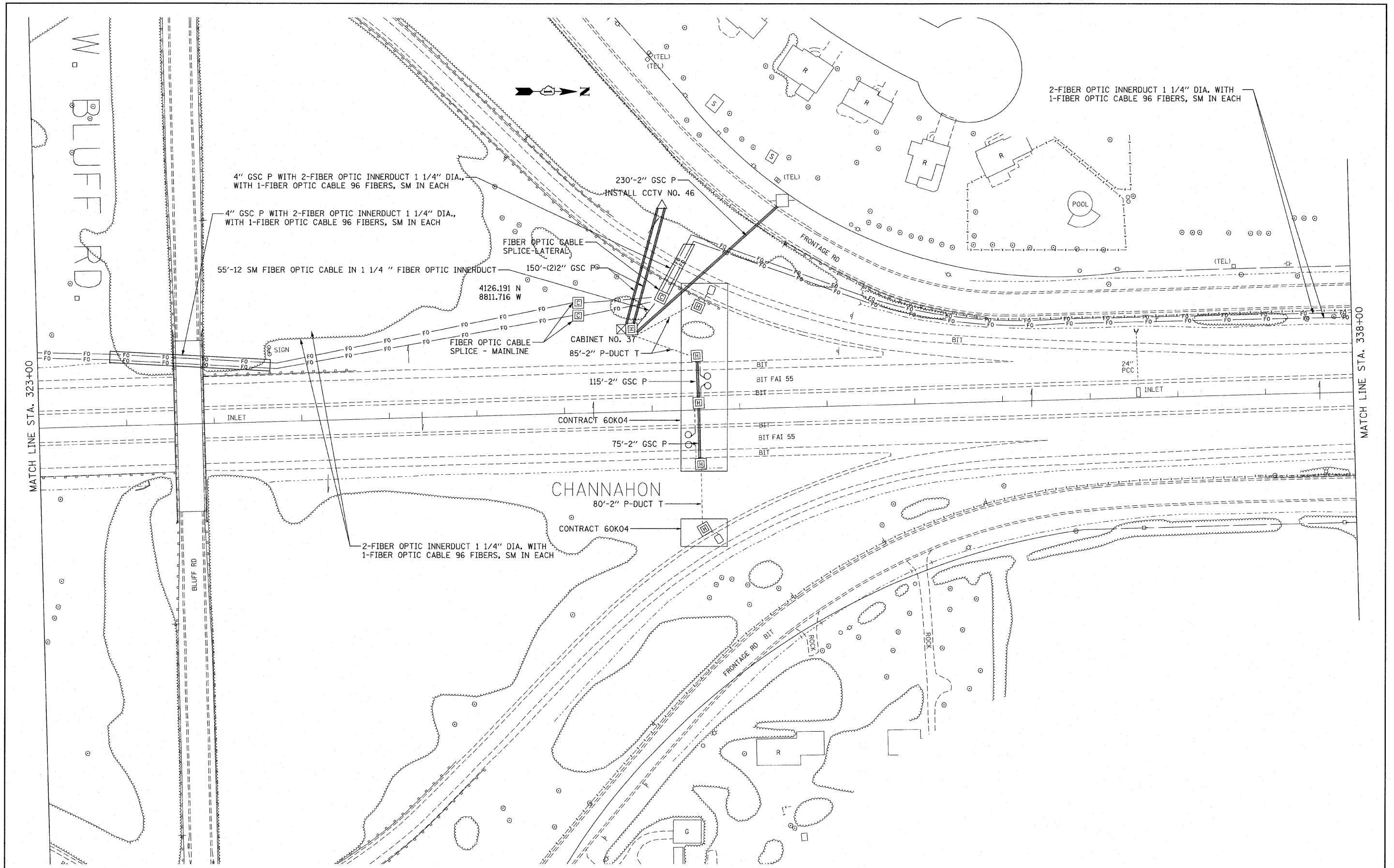
FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80)
SPSSRVD No.38, 1/2 MILE NORTH OF ARSENAL ROAD

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA.

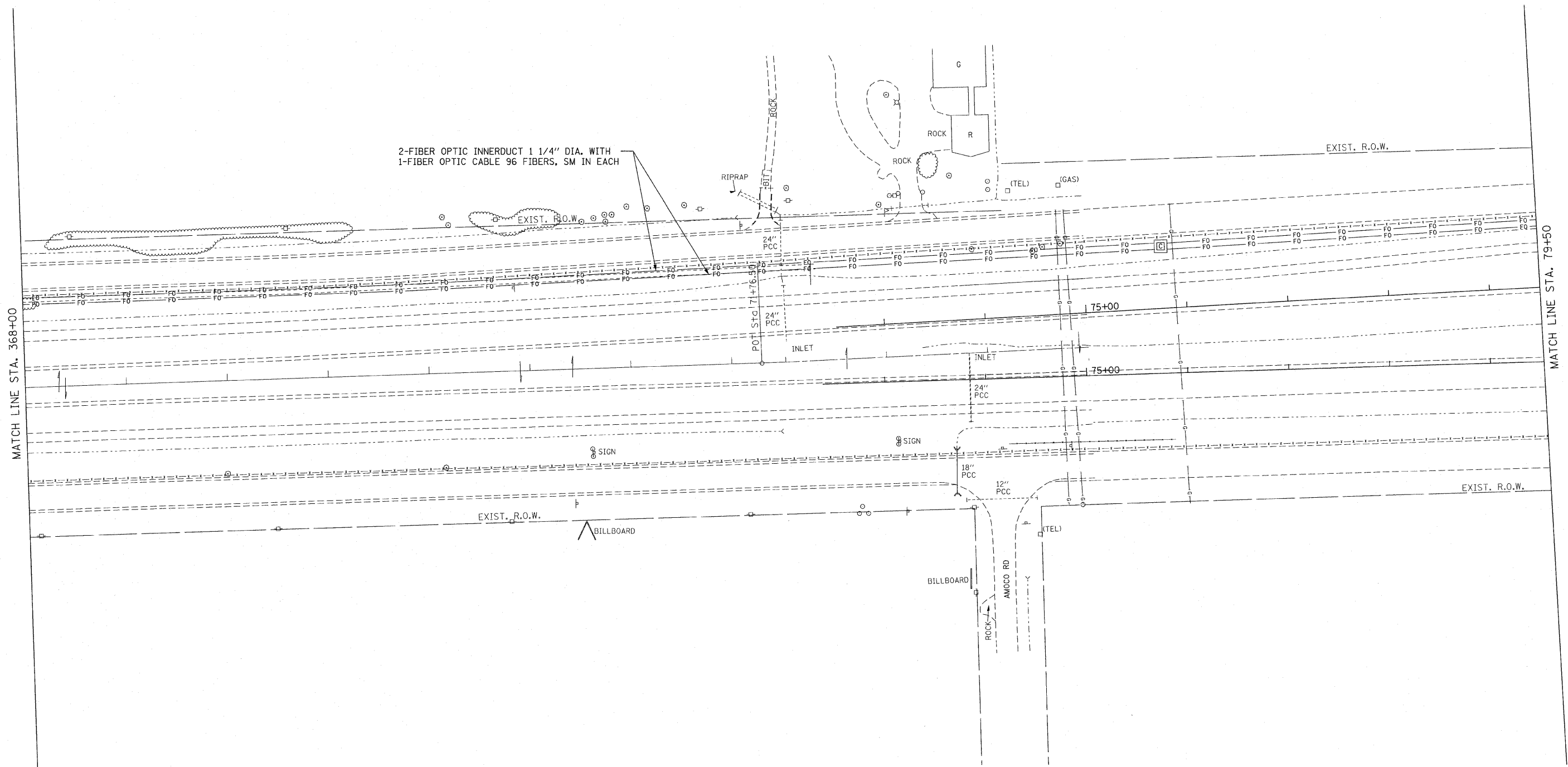
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2009-112 I	WILL	56	16
FED. ROAD DIST. NO.				ILLINOIS FED. AID PROJECT
CONTRACT NO. 60J24				



FILE NAME = P:\NP-07-1600-12\client\TSC P\lane\SH017.dgn USER NAME = wingram PLOT SCALE = #SCALE# PLOT DATE = 3/18/2010	DESIGNED - J.G. DRAWN - G.M. CHECKED - J.G. DATE - 03/12/2010	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC SYSTEMS CENTER	FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80) SOUTH BLUFF ROAD		F.A. RTE. 55 SECTION 2009-112 I COUNTY WILL FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	TOTAL SHEETS 56 SHEET NO. 17 CONTRACT NO. 60J24
	SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA.						



FILE NAME =	USER NAME = rdahhan	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80) NORTH BLUFF ROAD				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P:\P-07-1600-12\Client\TSC Plans\SH1016.dgn		DRAWN -	REVISED -		55	2009-112 1	WILL	56	18				
PLOT SCALE = #SCALE#		CHECKED -	REVISED -		CONTRACT NO. 60J24								
PLOT DATE = 4/20/2010		DATE -	REVISED -		ILLINOIS FED. AID PROJECT								
					SCALE: 1" = 50'	SHEET NO.	OF	SHEETS	STA.	TO STA.			



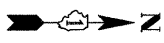
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PLDT DATE = 3/18/2010	DATE - 03/12/2010	REVISIONS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEM CENTER

FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80)

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2009-112 I	WILL	56	20
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60J24	



2-FIBER OPTIC INNERDUCT 1 1/4" DIA. WITH
1-FIBER OPTIC CABLE 96 FIBERS, SM IN EACH

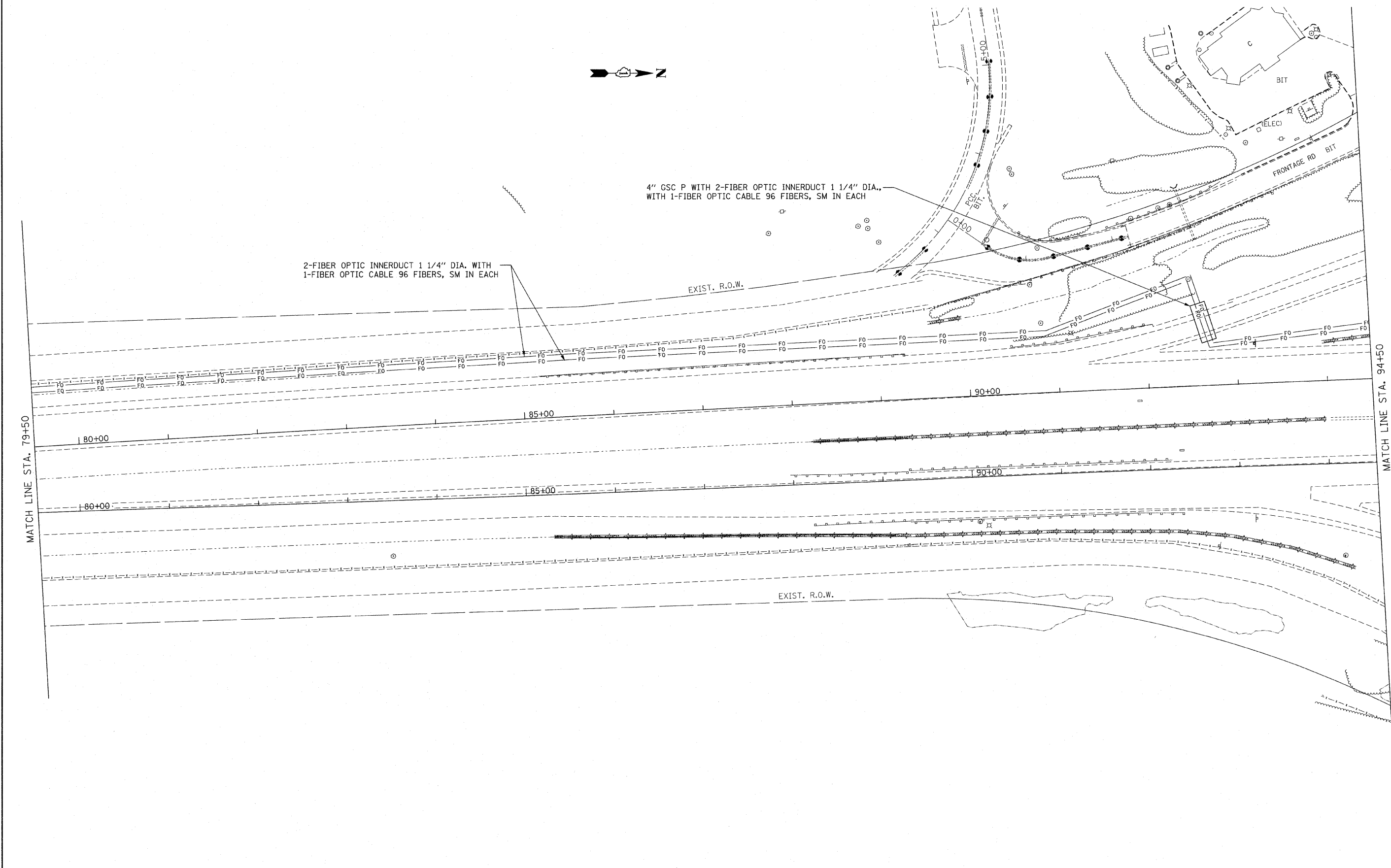
4" GSC P WITH 2-FIBER OPTIC INNERDUCT 1 1/4" DIA.,
WITH 1-FIBER OPTIC CABLE 96 FIBERS, SM IN EACH

EXIST. R.O.W.

EXIST. R.O.W.

MATCH LINE STA. 79+50

MATCH LINE STA. 94+50



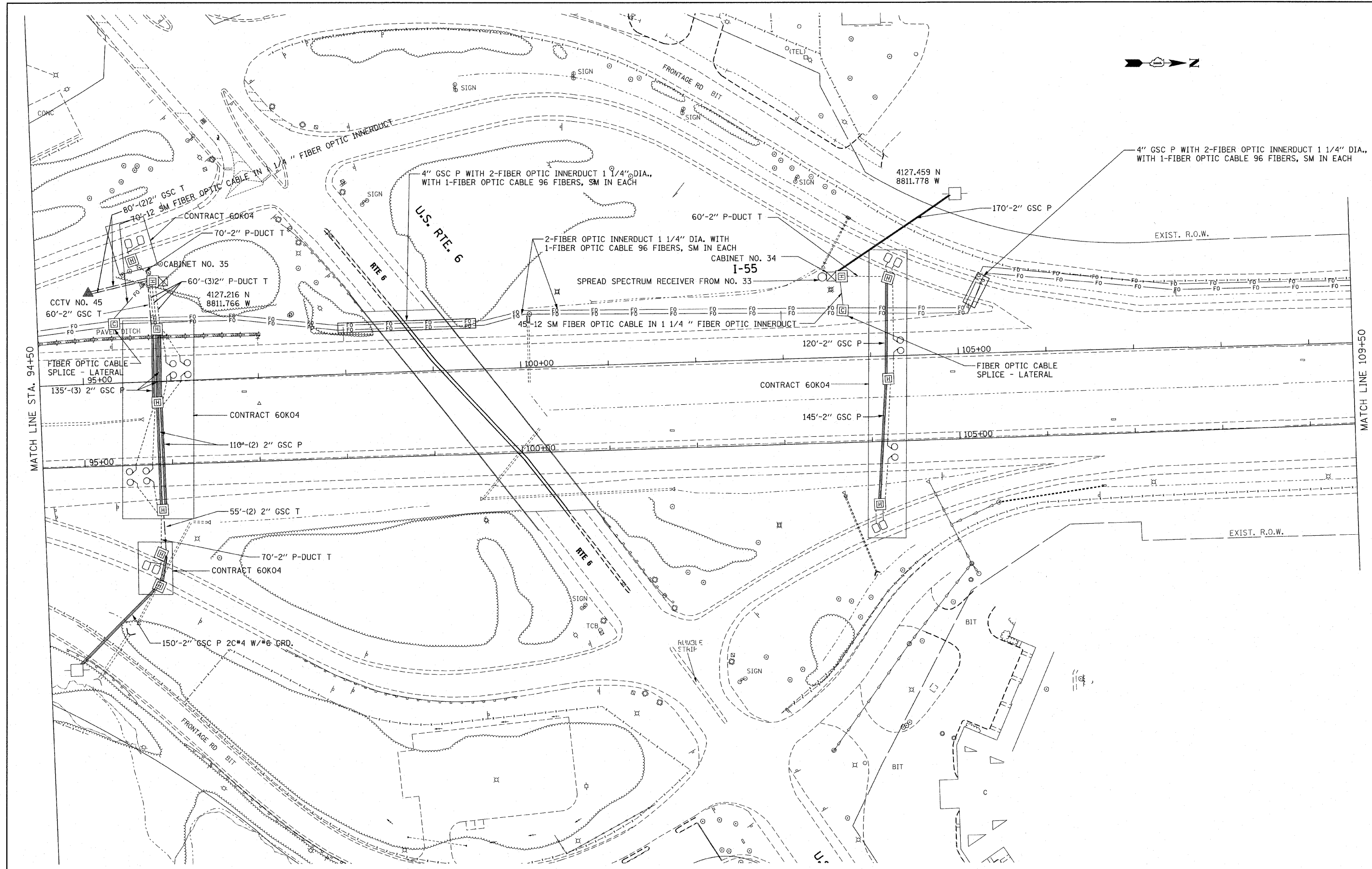
FILE NAME =	USER NAME = wingram	DESIGNED - J.G.	REVISED -
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	PLOT SCALE = *SCALE*	CHECKED - J.G.	REVISED -
	PLOT DATE = 3/18/2010	DATE - 03/12/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

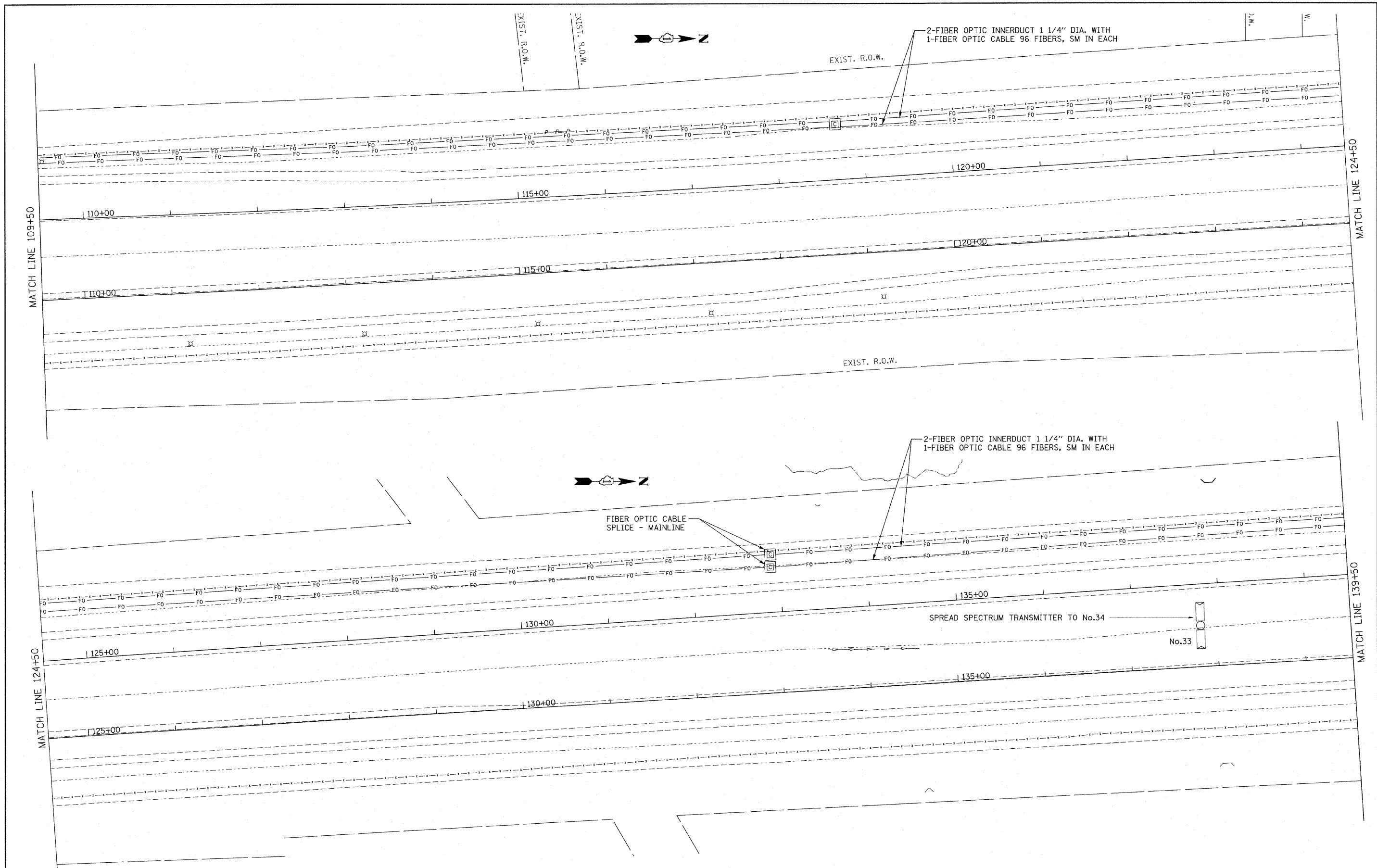
FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80)

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2009-112 I	WILL	56	21
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60J24	



FILE NAME =	USER NAME = rdahhan	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80) CAB. 34, 35 US RTE. 6		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P:\P-07-1600-12\client\TSC Plans\SHI022.dgn		DRAWN -	REVISED -		55	2009-112 I	WILL	56	22		
PLOT SCALE = #SCALE#		CHECKED -	REVISED -		CONTRACT NO. 60J24						
PLOT DATE = 4/20/2010		DATE -	REVISED -		ILLINOIS FED. AID PROJECT						
					SCALE: 1" = 50'	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.



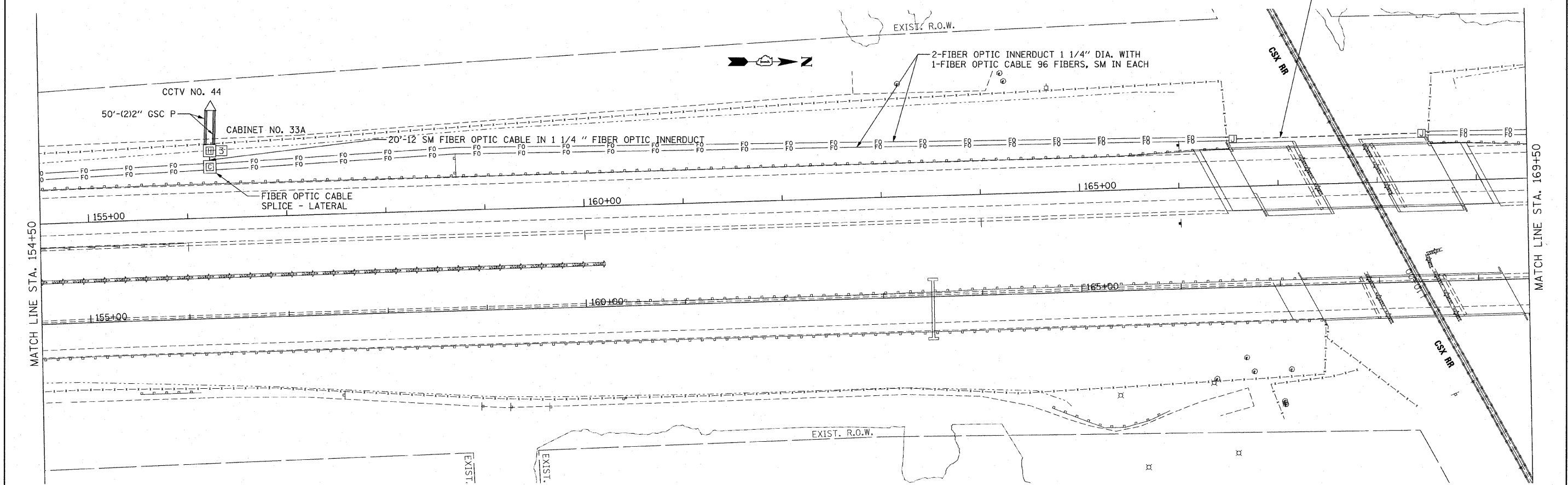
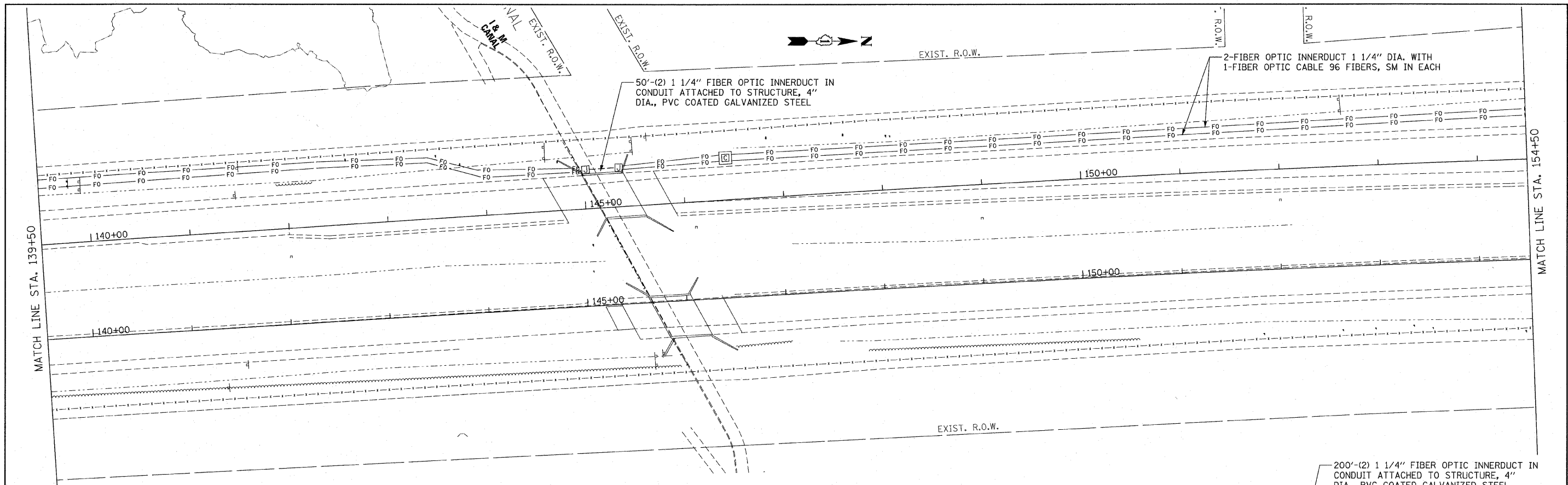
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	PLOT DATE = 3/18/2010	DATE - 03/12/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80)
SPSSRD33 NORTH OF RTE. 6

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2009-112 I	WILL	56	23
CONTRACT NO. 60J24				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



FILE NAME = P:\P-07-1620-12\client\TSC Plans\SH1024.dgn	USER NAME = rdahhan	DESIGNED - J.G.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC SYSTEMS CENTER	FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80) 1/2 MILE NORTH OF RTE. 6			F.A. RTE. 55	SECTION 2009-112 I	COUNTY WILL	TOTAL SHEETS 56	SHEET NO. 24
PLOT SCALE = #SCALE#		DRAWN - G.M.	REVISED -		SCALE: 1" = 50'	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 60J24		
PLOT DATE = 4/20/2010		CHECKED - J.G.	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
		DATE - 03/12/2010	REVISED -									



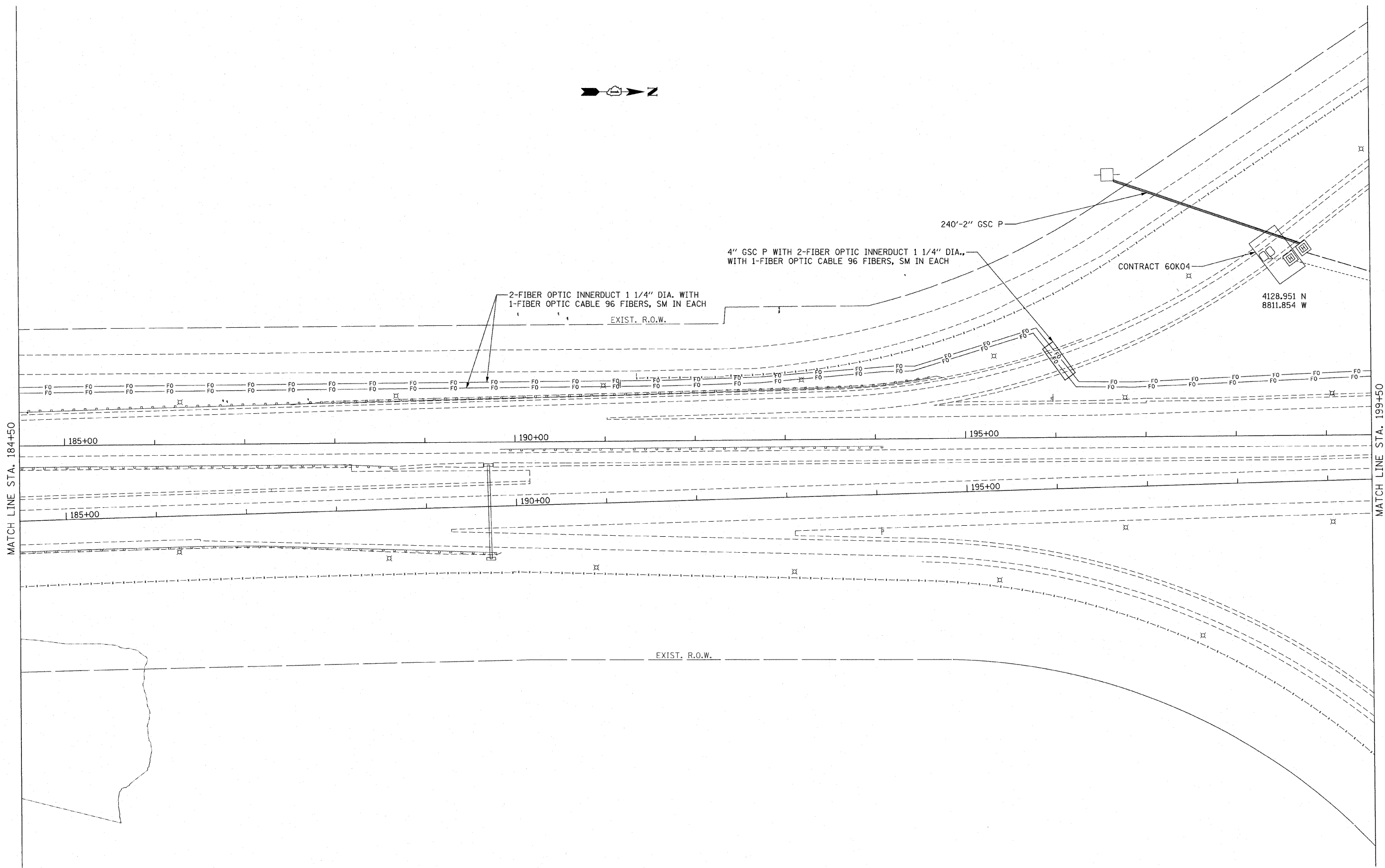
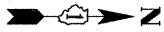
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P:\NP-07-1600-12\client\TSC Plans\SH025.dgn		DRAWN - G.M.	REVISED -
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	PLOT DATE = 3/18/2010	DATE - 03/12/2010	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER**

**FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80)
1/2 MILE SOUTH OF I-80 TRANSMITTER 32**

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2009-112 I	WILL	56	25
FED. ROAD DIST. NO.				ILLINOIS FED. AID PROJECT
CONTRACT NO. 60J24				



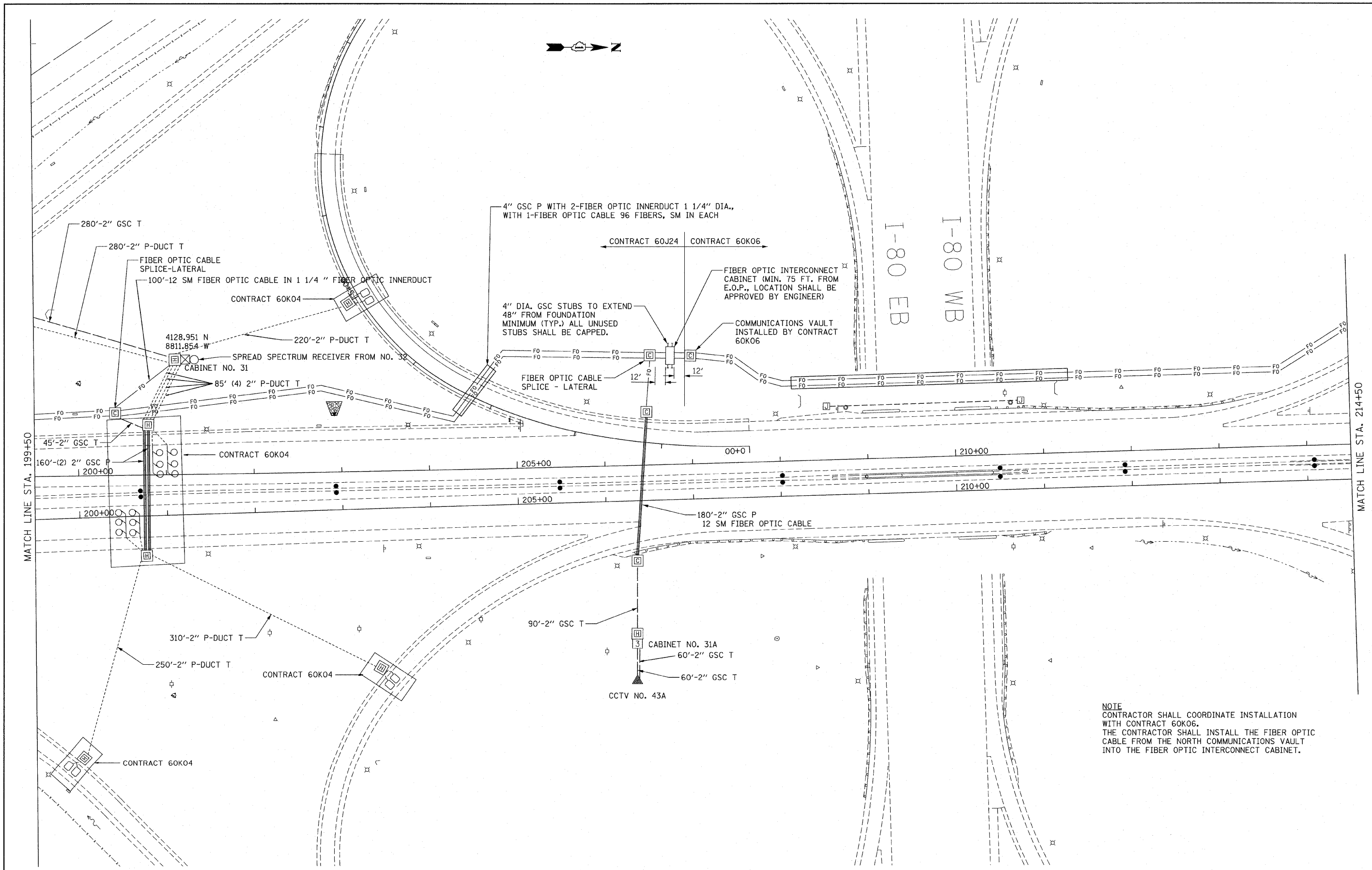
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PLOT SCALE = #SCALE#		CHECKED - J.G.	REVISED -
PLOT DATE = 4/20/2010		DATE - 03/12/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 TRAFFIC SYSTEMS CENTER

FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80)
SOUTH OF I-80

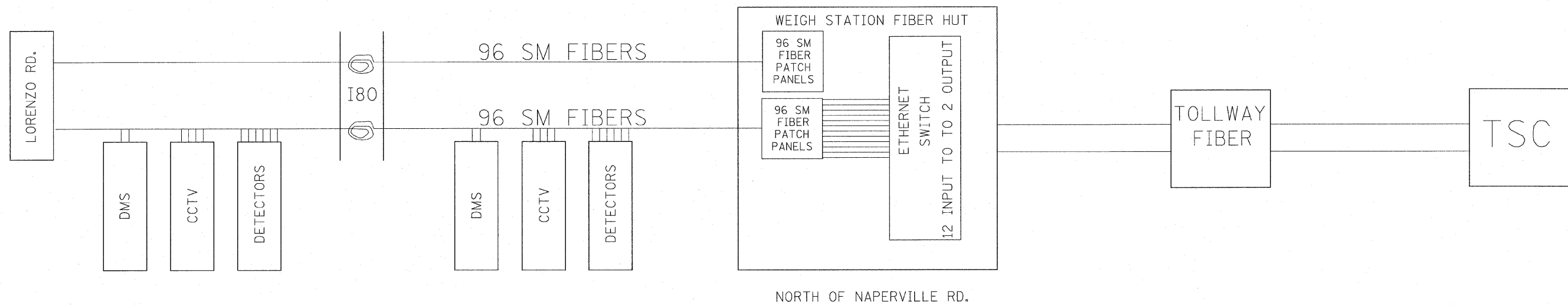
SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2009-112 I	WILL	56	26
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60J24	

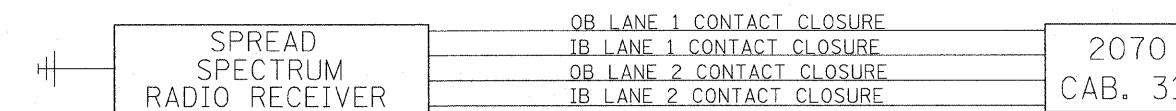
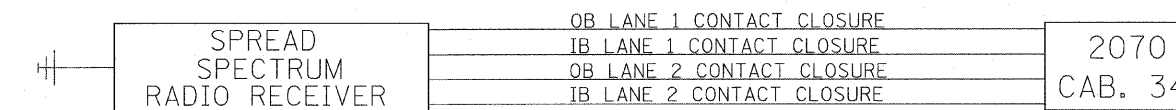
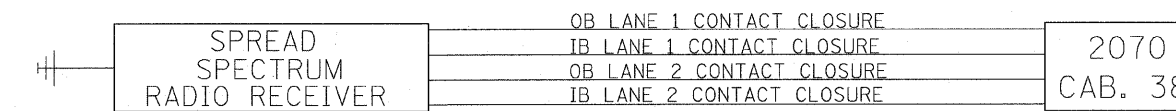
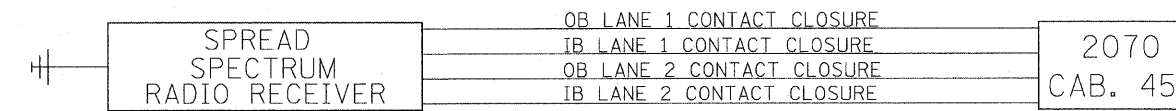
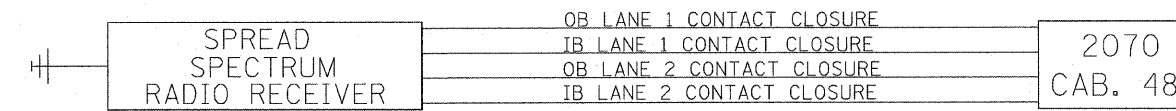
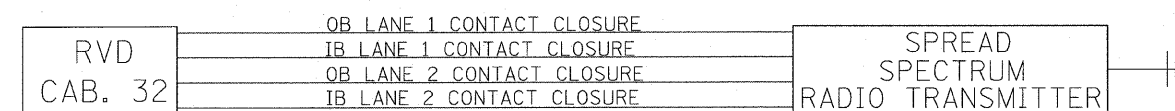
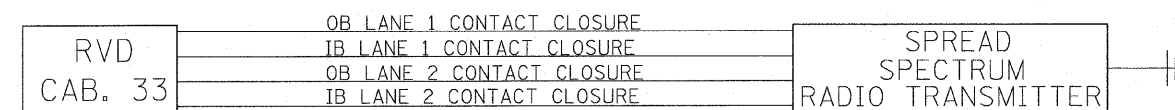
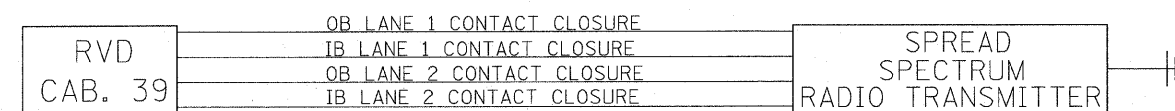
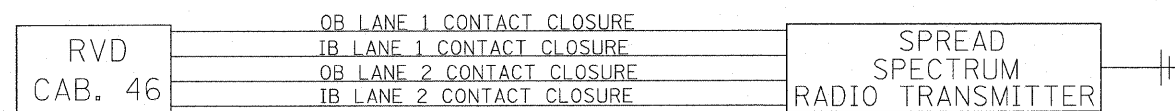
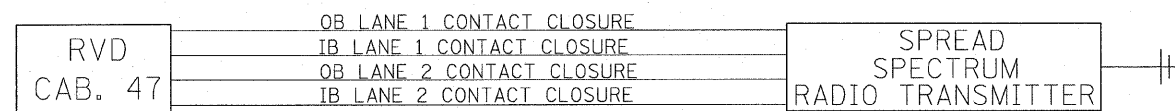


NOTE
 CONTRACTOR SHALL COORDINATE INSTALLATION WITH CONTRACT 60K06.
 THE CONTRACTOR SHALL INSTALL THE FIBER OPTIC CABLE FROM THE NORTH COMMUNICATIONS VAULT INTO THE FIBER OPTIC INTERCONNECT CABINET.

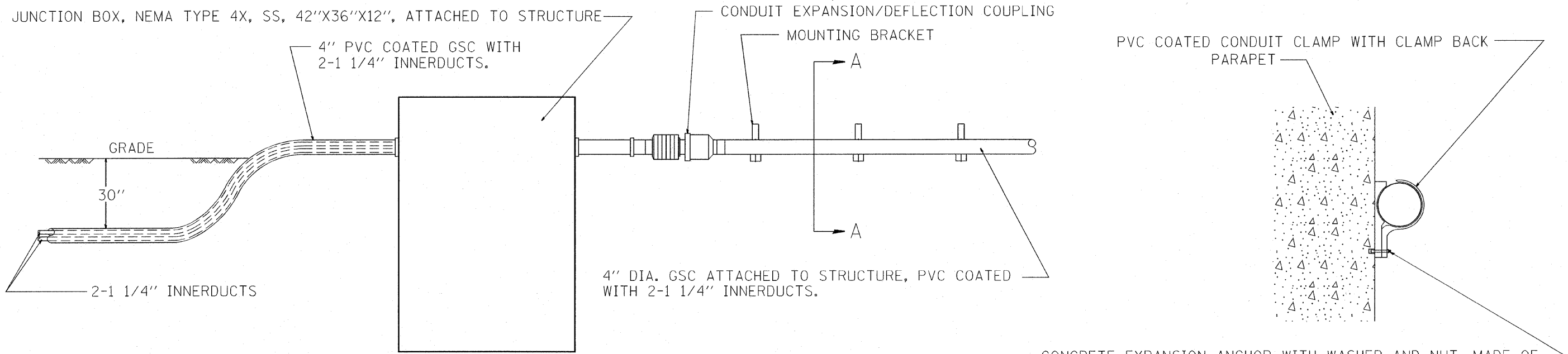
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P:\NP-07-1600-12\client\TSC Plans\SH1027.dgn	PLOT SCALE = #SCALE#	DRAWN - G.M.	REVISED -		SCALE: 1" = 50'	SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. ILLINOIS	FED. AID PROJECT	CONTRACT NO. 60J24
	PLOT DATE = 4/20/2010	CHECKED - J.G.	REVISED -									
		DATE - 03/12/2010	REVISED -									



FILE NAME = C:\d106010\155TSC.TYP.DGN	USER NAME = rdahhan	DESIGNED - J.G.	REVISED - 01/27/2010	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC SYSTEMS CENTER	FIBER ROUTE		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
P:\P-07-1600-12\Client\TSC Plans\SUB155TSC.TYP.dgn		DRAWN - G.M.	REVISED - 03/05/2010		SCALE: NONE	SHEET NO.	OF	SHEETS	STA.	TO STA.	56	28
		CHECKED - J.G.	REVISED -		CONTRACT NO.							
		DATE - 01/19/2010	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							



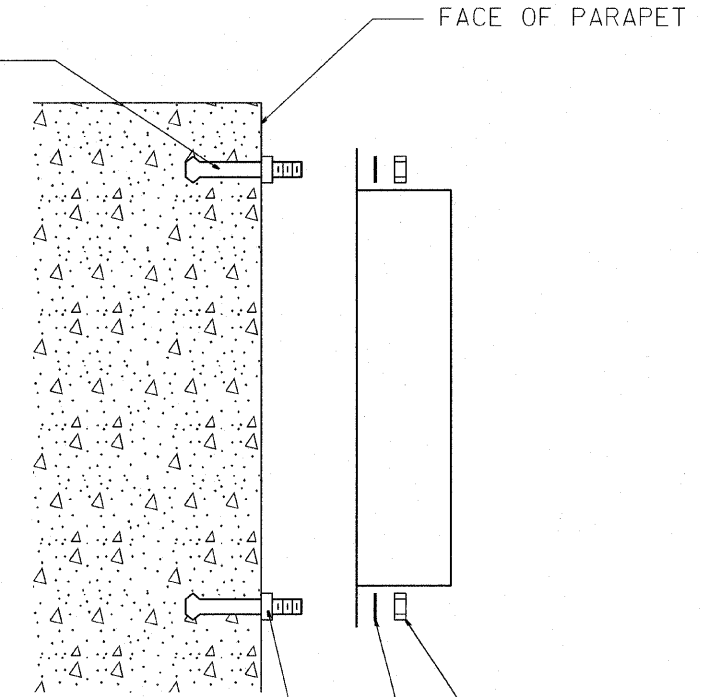
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F:\P-07-1600-12\Client\TSC Plans\SUB155TCTYP.dgn		DRAWN - G.M.	REVISED -								56	29
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PLOT DATE = 3/18/2010		DATE - 01/19/2010	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
TRAFFIC SYSTEMS CENTER 4TY-1TSC-400#46)												



CONCRETE EXPANSION ANCHOR WITH WASHER AND NUT, MADE OF TYPE 304 OR 316 STAINLESS STEEL AND CONFORMING TO ASTM A276, ASTM A493, ASTM F594, AND ASTM A240.

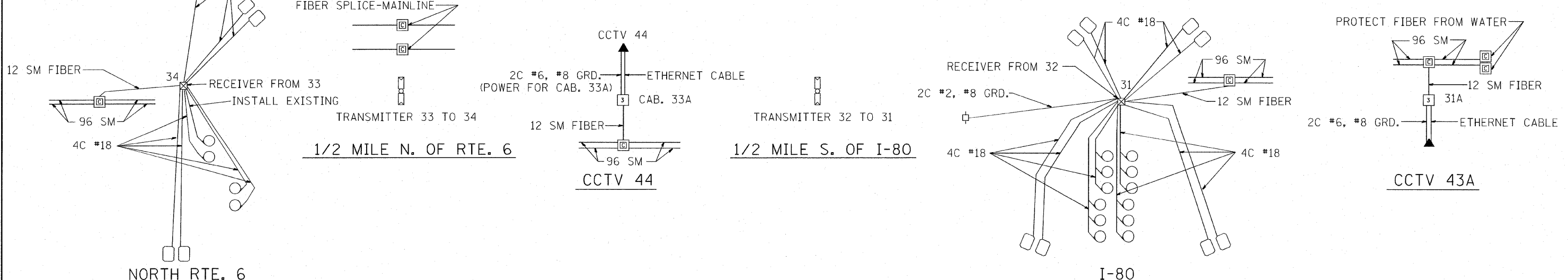
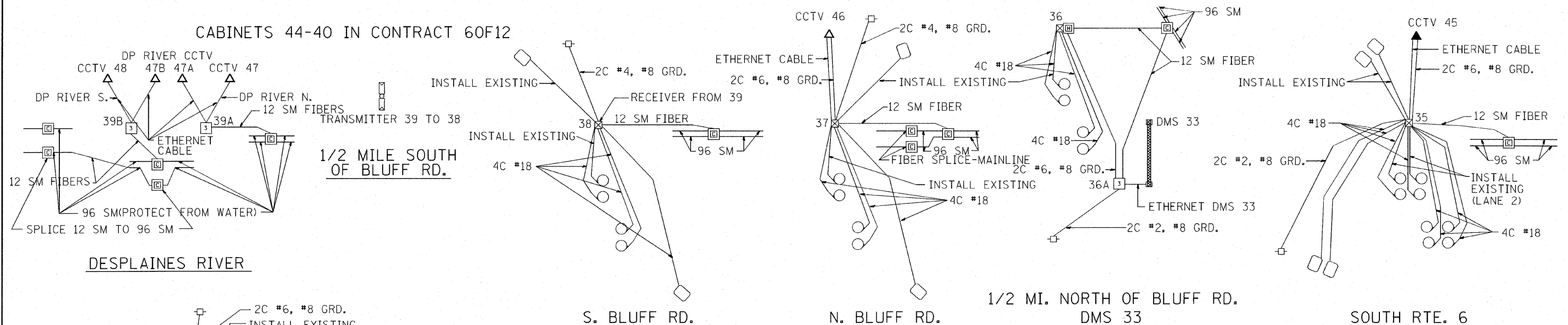
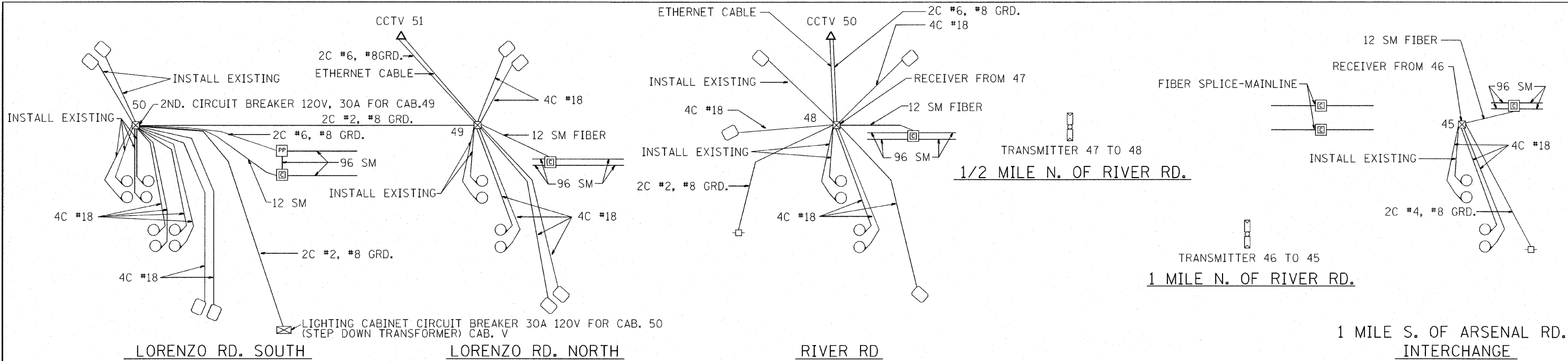
SECTION A-A

CONCRETE EXPANSION ANCHOR MADE OF TYPE 304 OR 316 STAINLESS STEEL AND CONFORMING TO ASTM A276 OR ASTM A493.

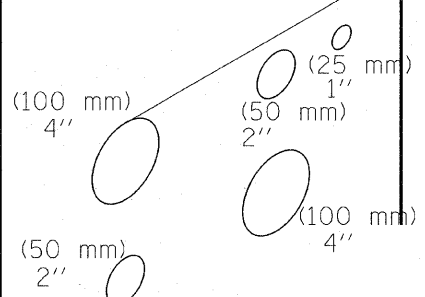
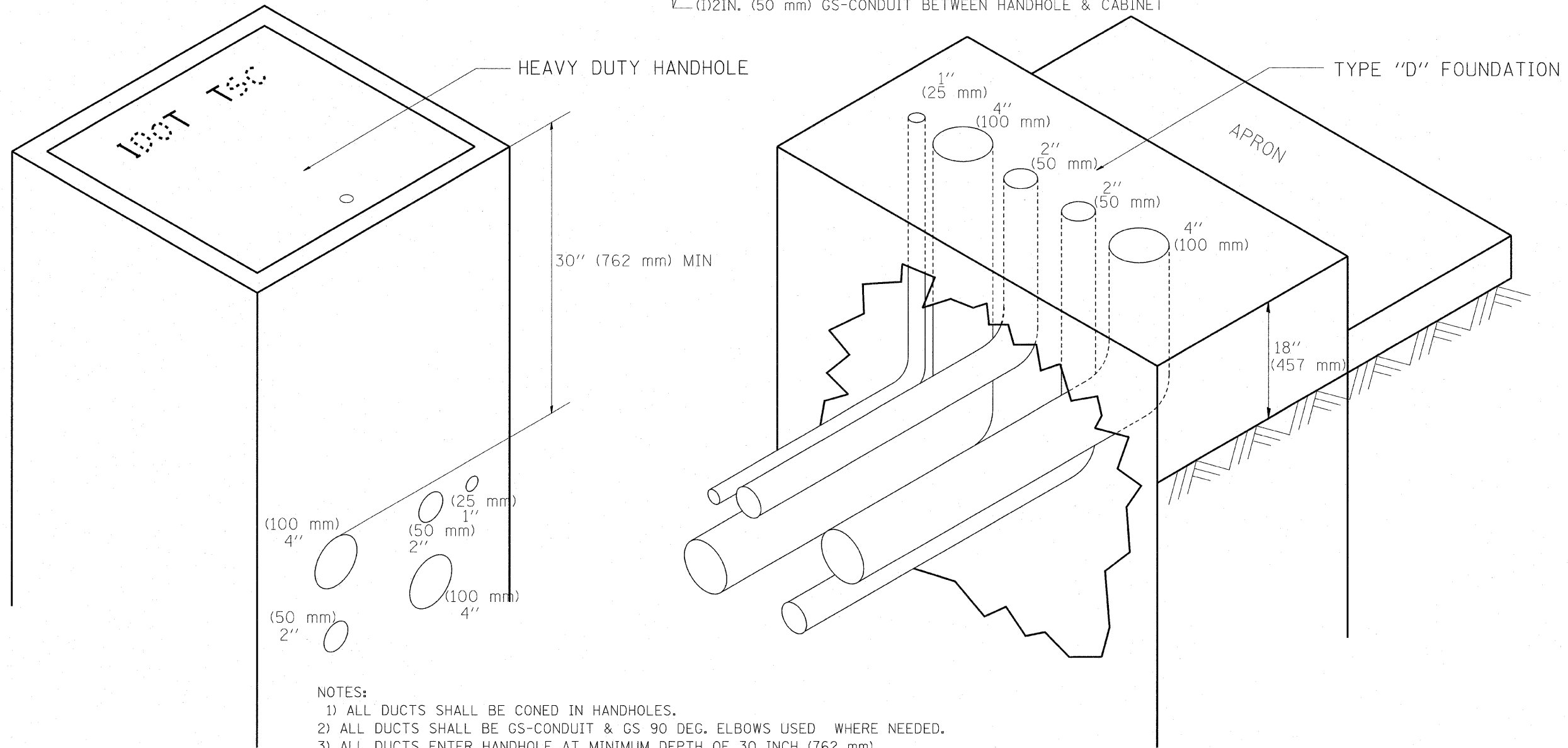
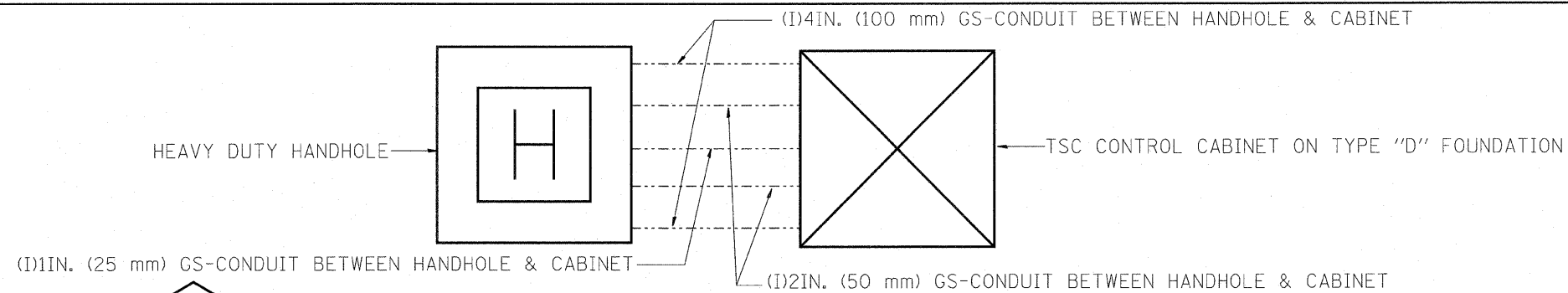


NUTS MADE OF TYPE 304 OR 316 STAINLESS STEEL AND CONFORMING TO ASTM F594

FILE NAME = C:\LORENZO190-3-17-2010\SUB155TSC1YP.dgn	USER NAME = mezag	DESIGNED - J.G.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC SYSTEMS CENTER	FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO RD. TO I-80) CONDUIT CROSSING DETAIL			F.A.I. RTE. 55	SECTION 2009-1121	COUNTY WILL	TOTAL SHEETS 56	SHEET NO. 30
PLOT SCALE = 95.4545' / IN.	CHECKED - J.G.	REVISED -	SCALE: NONE					SHEET NO. OF SHEETS	STA. TO STA.	CONTRACT NO. 60J24		
PLOT DATE = 4/28/2010	DATE - 04/19/2010	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							



FILE NAME = C:\LORENZO180-3-17-2010	USER NAME = mezag	DESIGNED - JG	REVISED - 04/06/2010	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC SYSTEMS CENTER	I-55 WIRE DIAGRAMS LORENZO RD. TO I80		F.A.I. RTE. 55	SECTION 2009-1121	COUNTY WILL	TOTAL SHEETS 66	SHEET NO. 31	
C:\LORENZO180-3-17-2010\LORENZO180\WIREDIAGRAMS.dgn		DRAWN - GM	REVISED - 04/07/2010		SCALE: _____	SHEET NO. ____ OF ____ SHEETS	STA. _____ TO STA. _____	CONTRACT 60J24 ILLINOIS FED. AID PROJECT				
PLOT SCALE = 4772.7273 "/> <td></td> <td>CHECKED - JG</td> <td>REVISED - 04/08/2010</td> <td colspan="8"></td>		CHECKED - JG	REVISED - 04/08/2010									
PLOT DATE = 4/8/2010		DATE - 03/11/2010	REVISED -									



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.

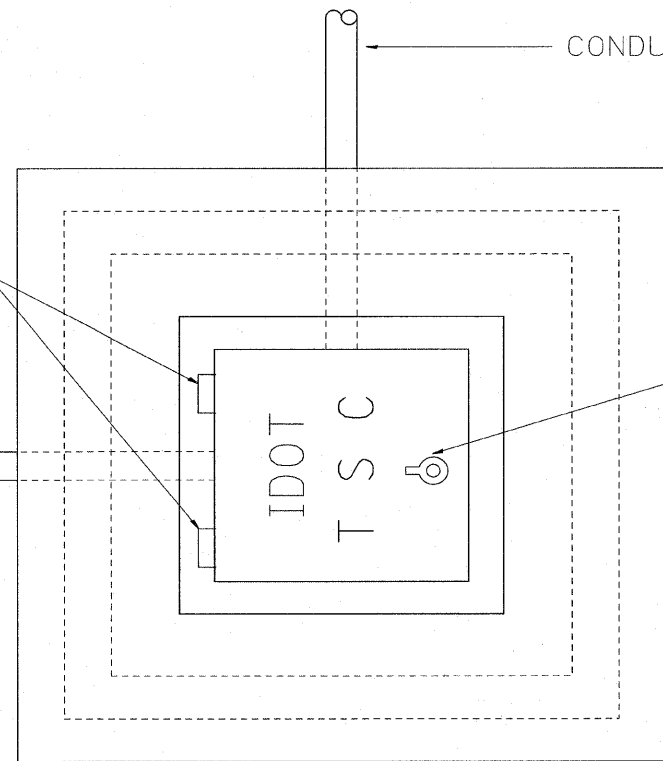
FILE NAME = C:\d106010\155TSC.TYP.DGN	USER NAME = rdahhan	DESIGNED - R.L.	REVISED - 09/96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC SYSTEMS CENTER	CABINET - HANDHOLE CONDUIT DETAIL		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
P:\P-07-1600-12\client\TSC Plans\SUB155TSC.TYP.dgn		DRAWN - G.M.	REVISED - 03/99		SCALE: NONE	SHEET NO. OF SHEETS	STA. TO STA.	CONTRACT NO.		56	32	
		CHECKED - R.L.	REVISED - 04/99				FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			
		DATE - 06/05/95	REVISED -									

TYPE "T" HINGES REQUIRED ONLY ON
ON HEAVY DUTY SPECIAL.

CONDUIT TYP.

CONDUIT TYP.

TYPE "G" HANDLE FOR BOTH HDHH AND HDHH SPECIAL

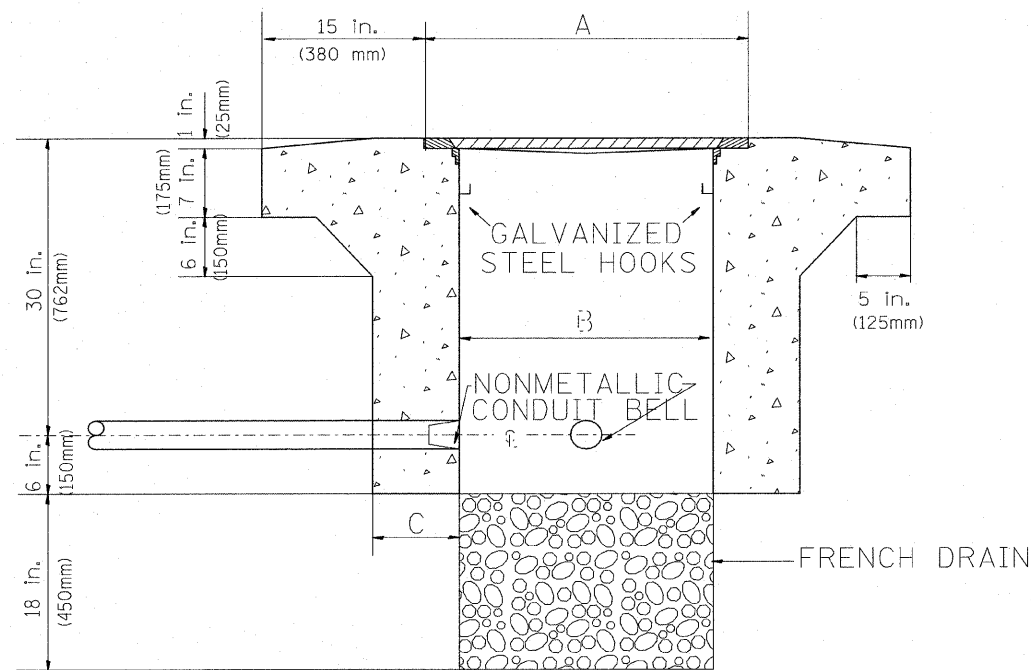


PLAN

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.)



ELEVATION

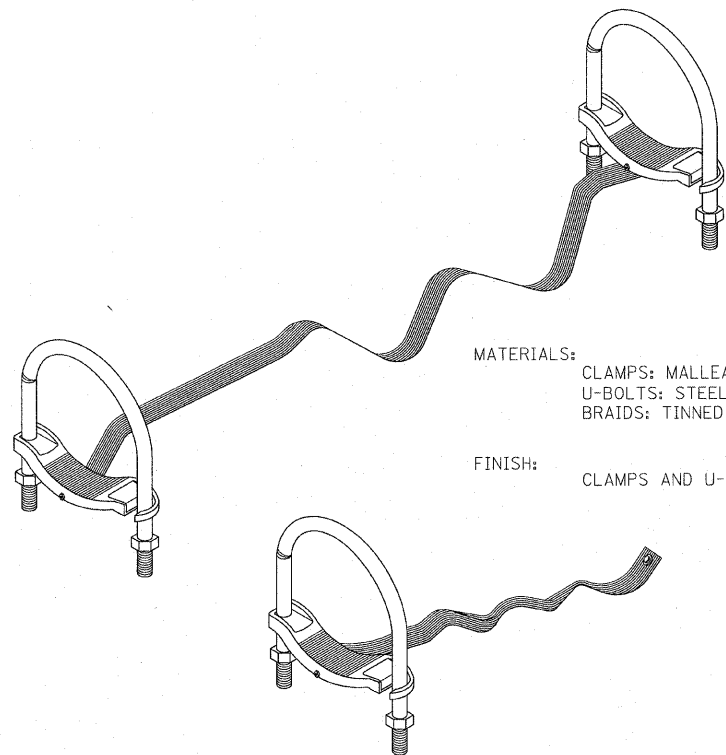
HEAVY DUTY HANDHOLE SPECIAL MINIMUM DIMENSIONS

A	31.5" (800 mm)
B	30" (762 mm)
C	10" (250 mm)

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

PC CONCRETE - HEAVY DUTY HAND HOLE

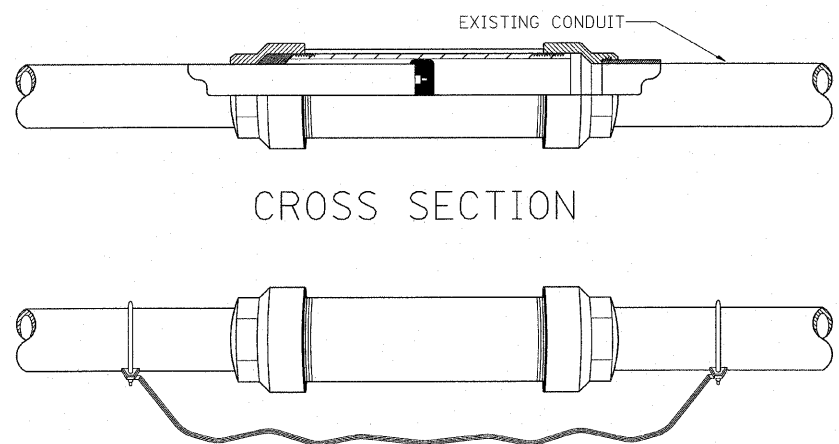
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PWP-07-1600-12\client\TSC Plans\SUB155TSC.TYP.dgn	PLOT SCALE = #SCALE#	DRAWN - G.M.	REVISED -								56	33
	PLOT DATE = 3/18/2010	CHECKED - R.L.	REVISED -		SCALE: NONE	SHEET NO. OF SHEETS	STA. TO STA.	CONTRACT NO.				
		DATE - 09/11/96	REVISED -					FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



MATERIALS:
 CLAMPS: MALLEABLE OR DUCTILE IRON.
 U-BOLTS: STEEL.
 BRAIDS: TINNED COPPER.

FINISH:
 CLAMPS AND U-BOLTS ARE HOT DIP GALVANIZED.

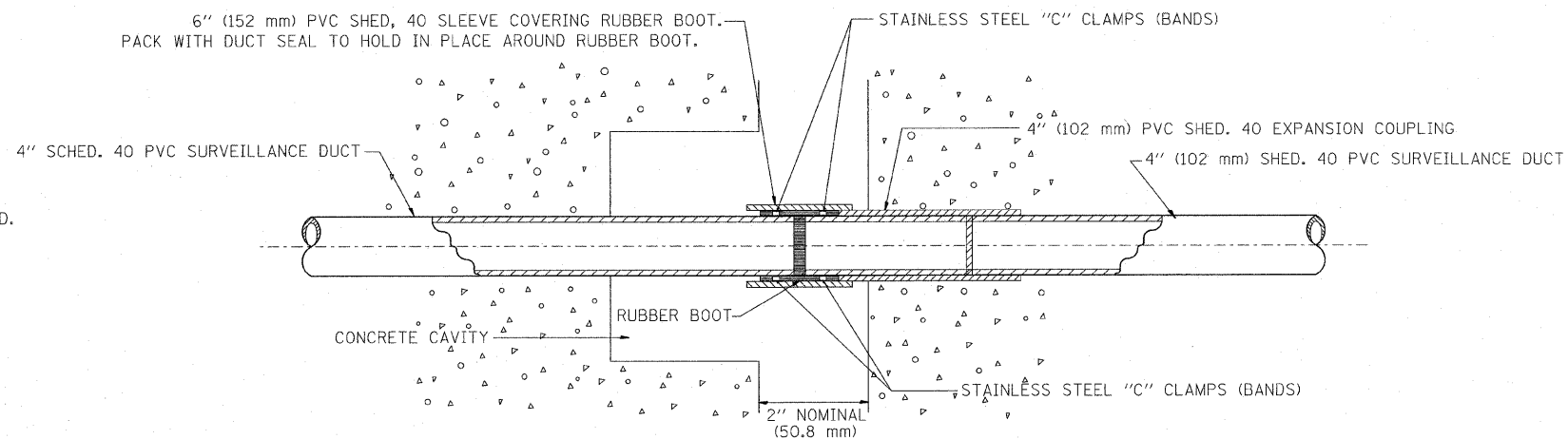
GROUNDING & BONDING JUMPERS FOR RIGID STEEL, IMC & EMT



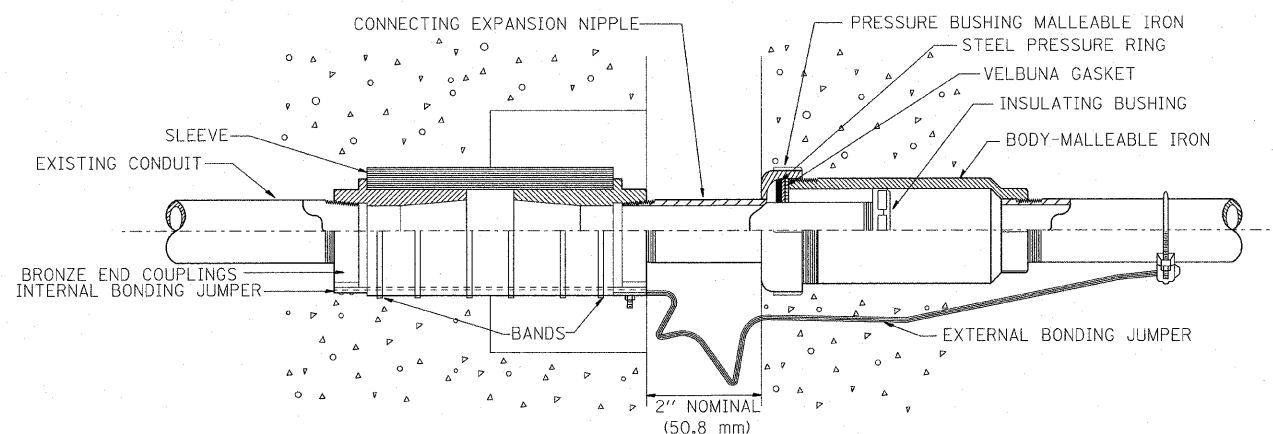
BONDING EXPANSION FITTINGS

MATERIALS:
 HEAD: MALLEABLE OR DUCTILE IRON.
 SLEEVE: STEEL.
 INSULATING BUSHING: PHENOLIC.

FINISH:
 HOT DIP GALVANIZED.



EXPANSION/DEFLECTION FITTING



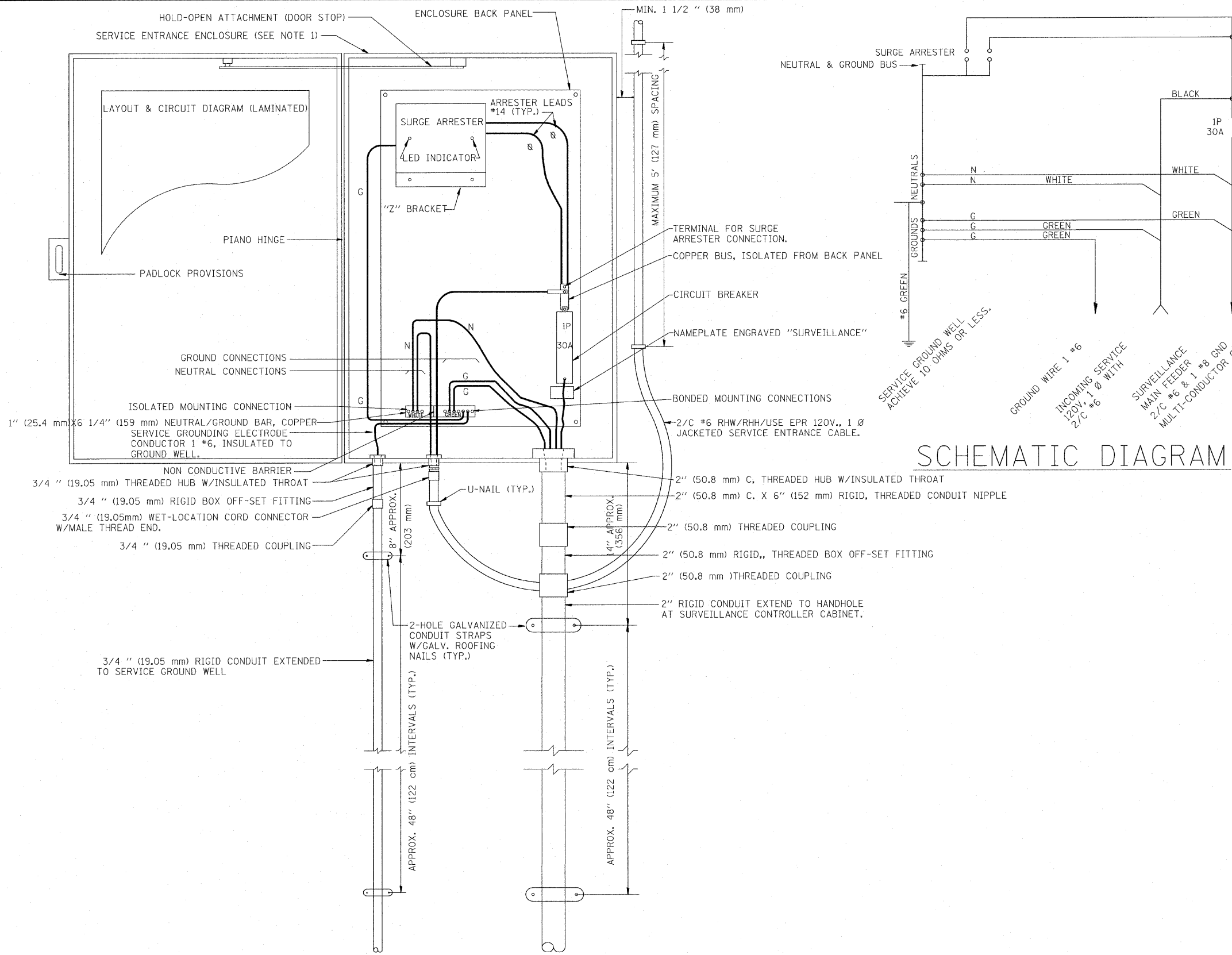
COMBINATION DEFLECTION/EXPANSION FITTINGS FOR RIGID METAL CONDUIT & IMC

FITTING CAN BE USED EXPOSED OR EMBEDDED IN CONCRETE.

MATERIALS:
 SLEEVE: NEOPRENE.
 END COUPLINGS: BRONZE.
 BONDING JUMPER: TINNED COPPER BRAIDS.
 BANDS: STAINLESS STEEL.

FINISH:
 ALL MALLEABLE, DUCTILE IRON OR STEEL PARTS
 ARE HOT DIP GALVANIZED.

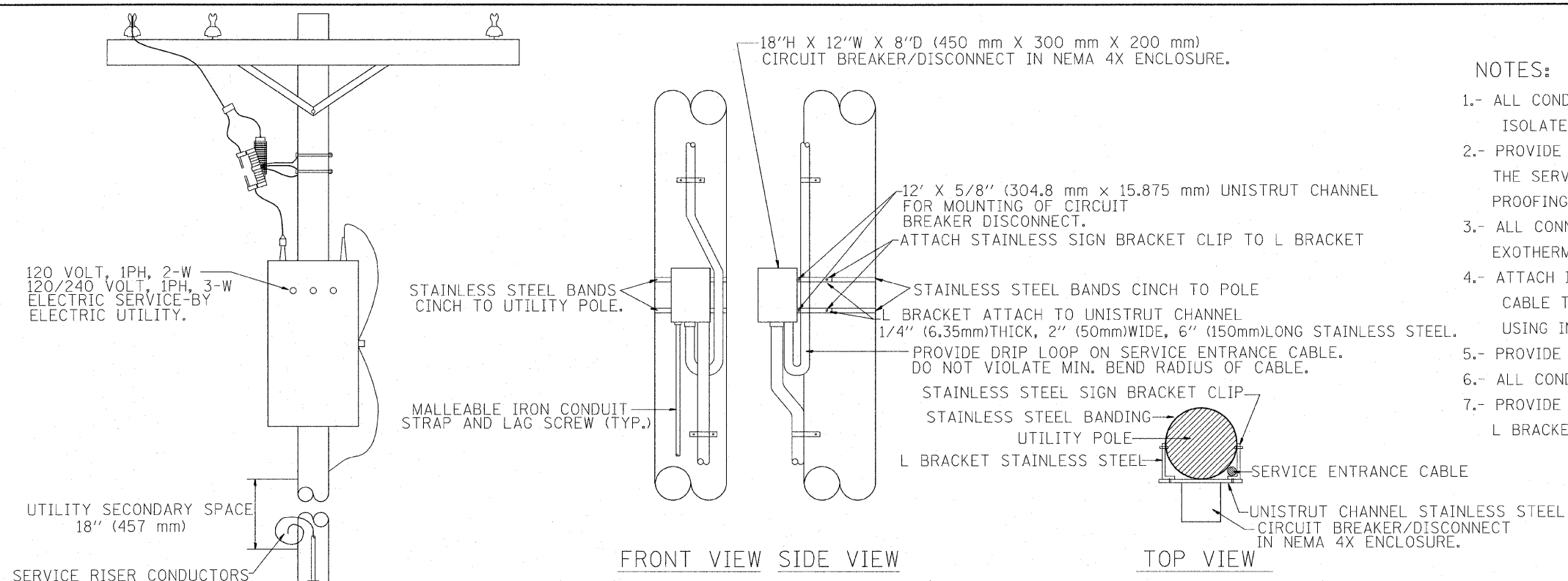
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P:\NP-07-1600-12\client\TSC Plans\SUB155TCTYP.dgn		DRAWN - G.M.	REVISED -		SCALE: NONE	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	56	34
		CHECKED - R.L.	REVISED -		CONTRACT NO.									
		DATE - 01/22/98	REVISED -		TRAFFIC SYSTEMS CENTER (TY-1TSC-400#18)									



- NOTES:**
- 1.- ELECTRIC SERVICE SHALL BE OF THE VOLTAGE INDICATED. WHERE 120-VOLT SERVICE IS INDICATED, SERVICE DROP CABLE SHALL BE INSTALLED ACCORDINGLY AND LIGHTING MAIN FEEDER CABLE SHALL BE OMITTED.
 - 2.- THE ELECTRIC SERVICE BOX SHALL BE NEMA 4X STAINLESS STEEL, NOMINALLY 12" (305 mm) X 18" (457 mm) X 8" (203 mm), WITH PIANO HINGED DOOR, STEEL BACK PANEL, FAST-ACTING STAINLESS STEEL ENCLOSURE CLAMPS, PADLOCK PROVISIONS, DOOR STOP KIT AND STEEL BACK PANEL, HOFFMAN CATALOG A-16H208SS6LP/A-16P2/A-DSTOPK/C-PMK12, OR APPROVED EQUAL.
 - 3.- THE ELECTRIC SERVICE EQUIPMENT ASSEMBLY SHALL BE UL LABELED, SUITABLE FOR USE AS SERVICE EQUIPMENT.
 - 4.- CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC BOLT-ON TYPE WITH A MINIMUM INTERRUPTING CAPACITY OF 25,000 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.
 - 5.- 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.
 - 6.- 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.
 - 7.- 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.
 - 8.- A PLASTIC LAMINATED LAYOUT AND CIRCUIT DIAGRAM SHALL BE AFFIXED TO THE INTERIOR SIDE OF THE ENCLOSURE DOOR.
 - 9.- A 2-COLOR ENGRAVED PLASTIC NAMEPLATE, ATTACHED WITH SCREWS, AND ENGRAVED AS INDICATED, SHALL BE PROVIDED FOR EACH MAIN BREAKER.
 - 10.- PROVIDE ON LAYOUT AND CIRCUIT DIAGRAM A BILL OF MATERIALS USED WITH CATALOG NUMBERS.
 - 11.- REFER TO T.S.C. TYPICAL DRAWING TY-1TSC-400*20 FOR POLE MOUNTED DISCONNECT MOUNTING DETAILS.

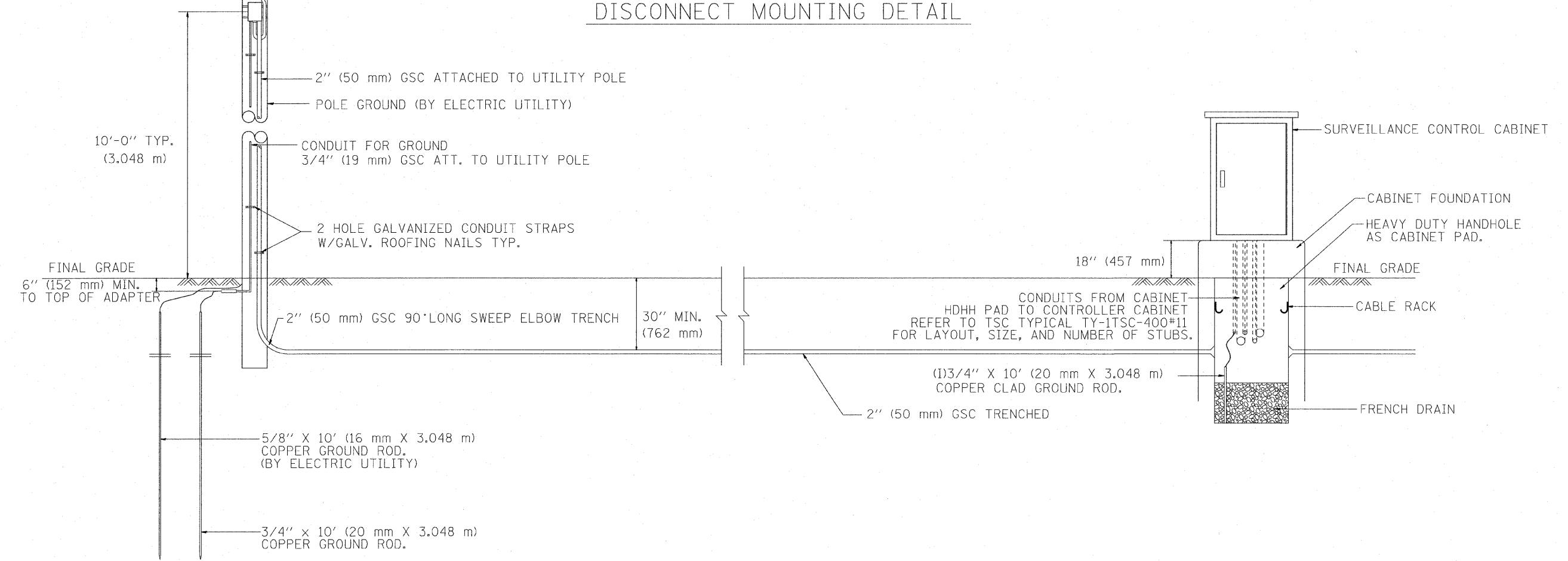
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P:\P-07-1620-12\Clients\TSC Plans\SUB155TSC1TYP.dgn		DRAWN - G.M.	REVISED - 03/30/99		SCALE: NONE	SHEET NO. OF SHEETS	STA. TO STA.				56 35
		CHECKED - R.L.	REVISED - 04/99		CONTRACT NO.						
		DATE - 02/24/99	REVISED - 04/12/99		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT						

TRAFFIC SYSTEMS CENTER (TY-1TSC-400#19)

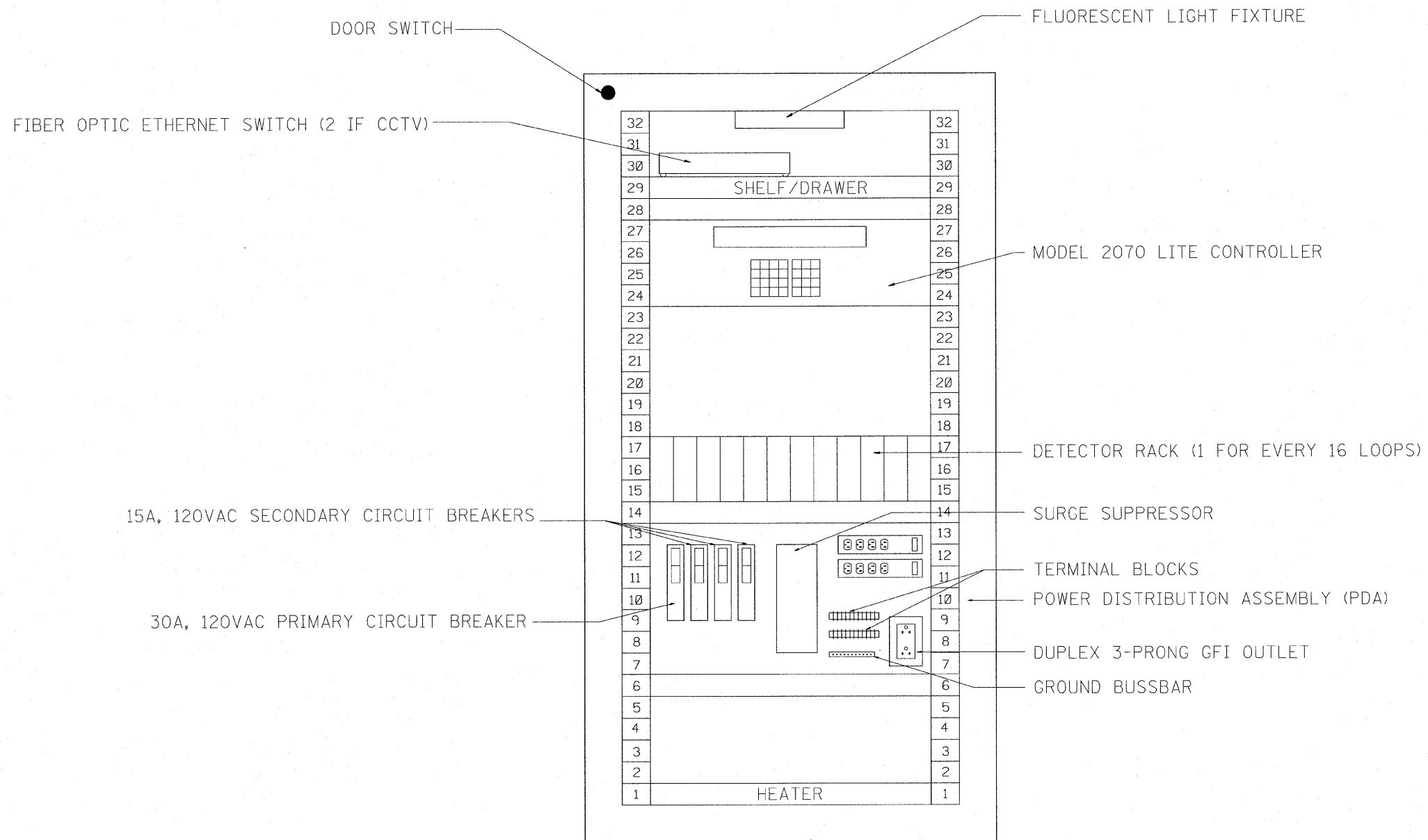


- NOTES:
- 1.- ALL CONDUIT BUSHINGS SHALL HAVE AN ISOLATED THROAT.
 - 2.- PROVIDE HEAT SHRINK BOOT AT THE TOP OF THE SERVICE ENTRANCE CABLE FOR MOISTURE PROOFING.
 - 3.- ALL CONNECTIONS TO GROUND RODS SHALL BE EXOTHERMIC UNLESS OTHERWISE NOTED.
 - 4.- ATTACH INCOMING ELECTRIC SERVICE CABLE TO UTILITY POLE EVERY 5 FEET USING INSULATED U-NAIL.
 - 5.- PROVIDE CABLE RACK IN HANDHOLES.
 - 6.- ALL CONDUCTORS SHALL BE COPPER.
 - 7.- PROVIDE STAINLESS STEEL HARDWARE TO ATTACH L BRACKETS TO UNISTRUT AND TO SIGN HANGER.

NTS
DISCONNECT MOUNTING DETAIL



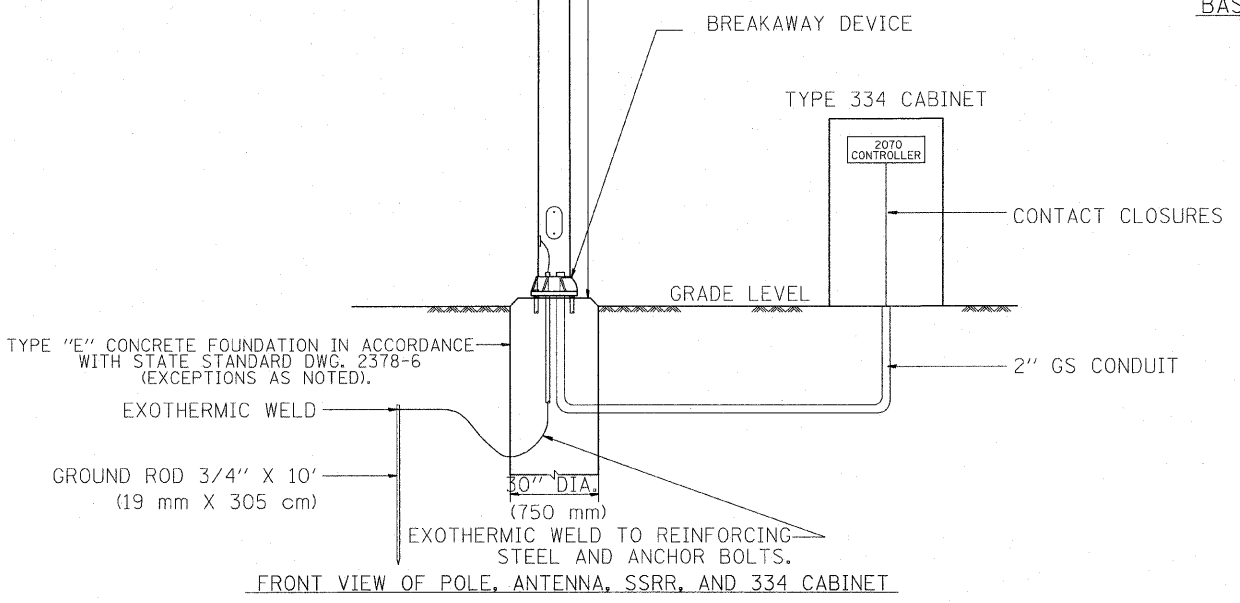
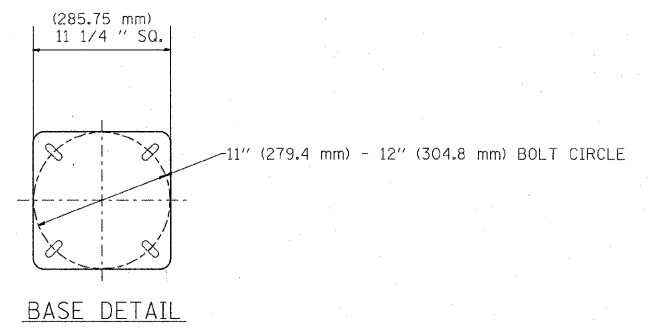
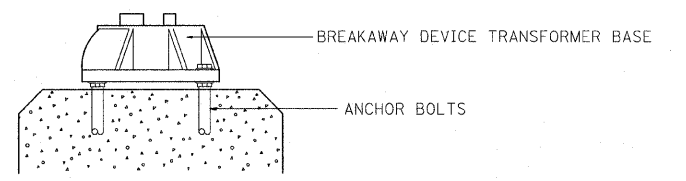
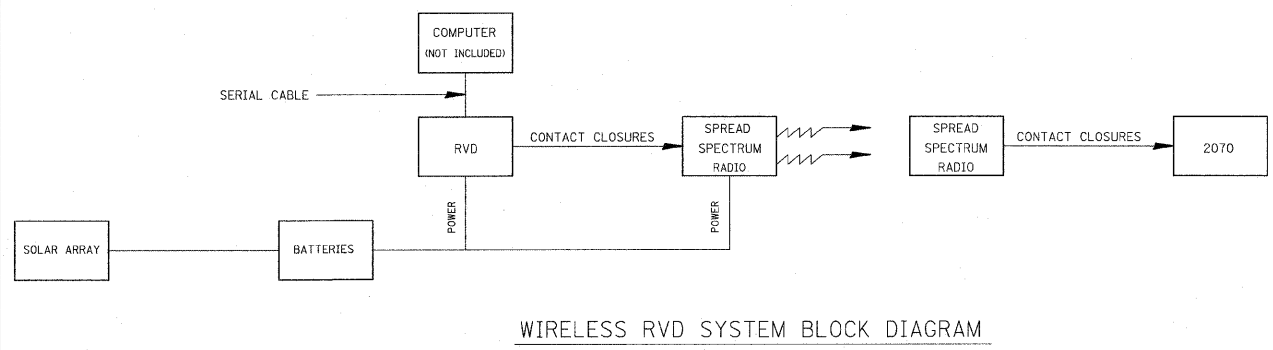
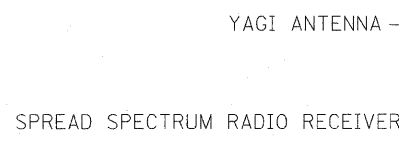
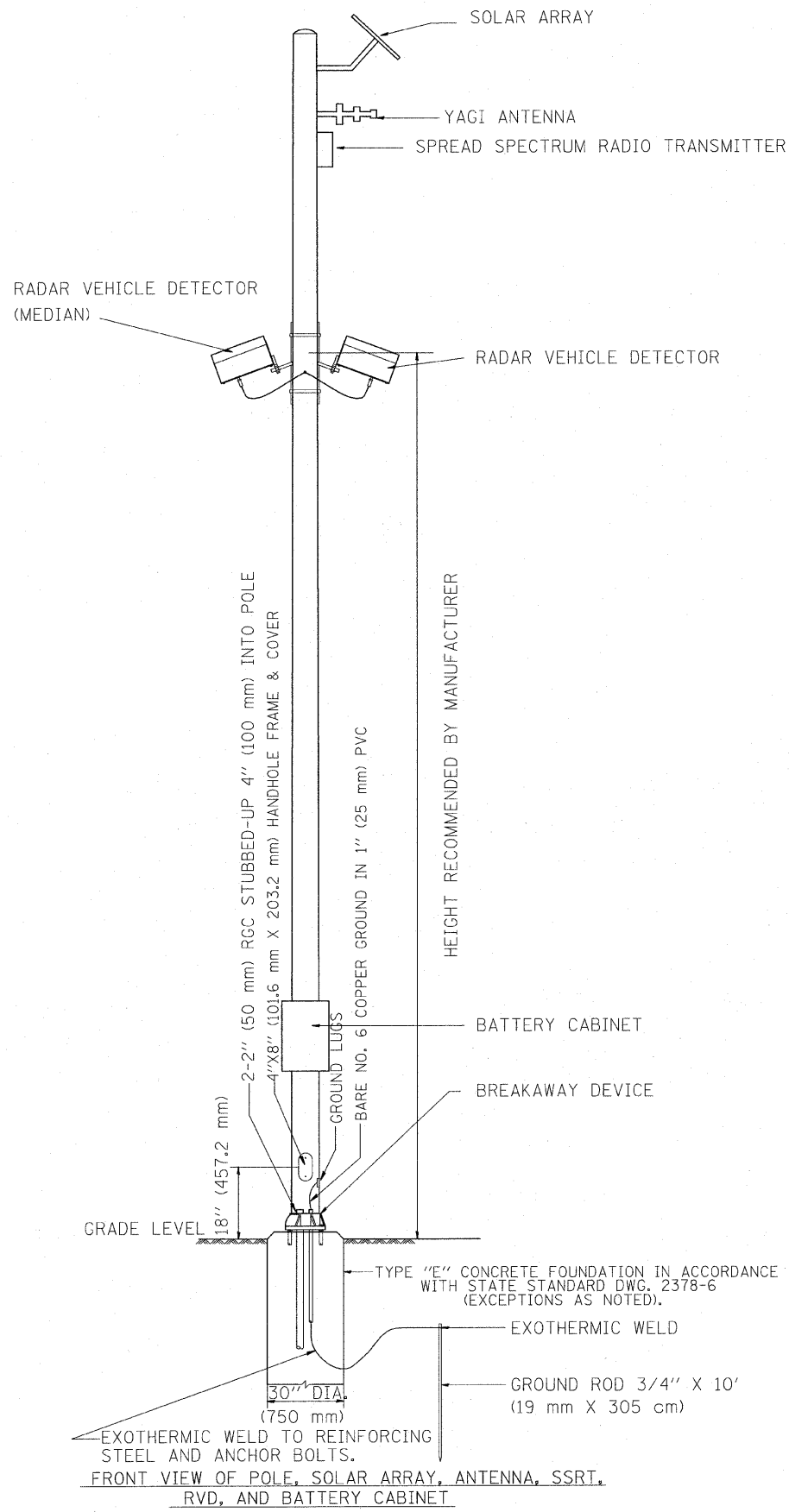
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		DRAWN - G.M.	REVISED -		SCALE: NONE	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO.	56	36
		CHECKED - R.L.	REVISED -									
		DATE - 03/30/99	REVISED -									



SYSTEM DETECTORS
FRONT VIEW (TYPICAL)

FILE NAME = C:\d106010\155TSC.TYP.DGN	USER NAME = rdahhan	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.	
P:\P-27-1682-12\Clients\TSC P1ane\SUB155TSC.TYP.dgn		DRAWN - G.M.	REVISED - 03/04/2010						56	37	
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PLOT DATE = 3/18/2010		DATE - 12/28/09	REVISED -			SCALE: NONE	SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.

TRAFFIC SYSTEMS CENTER (TY-1TSC-400#37)



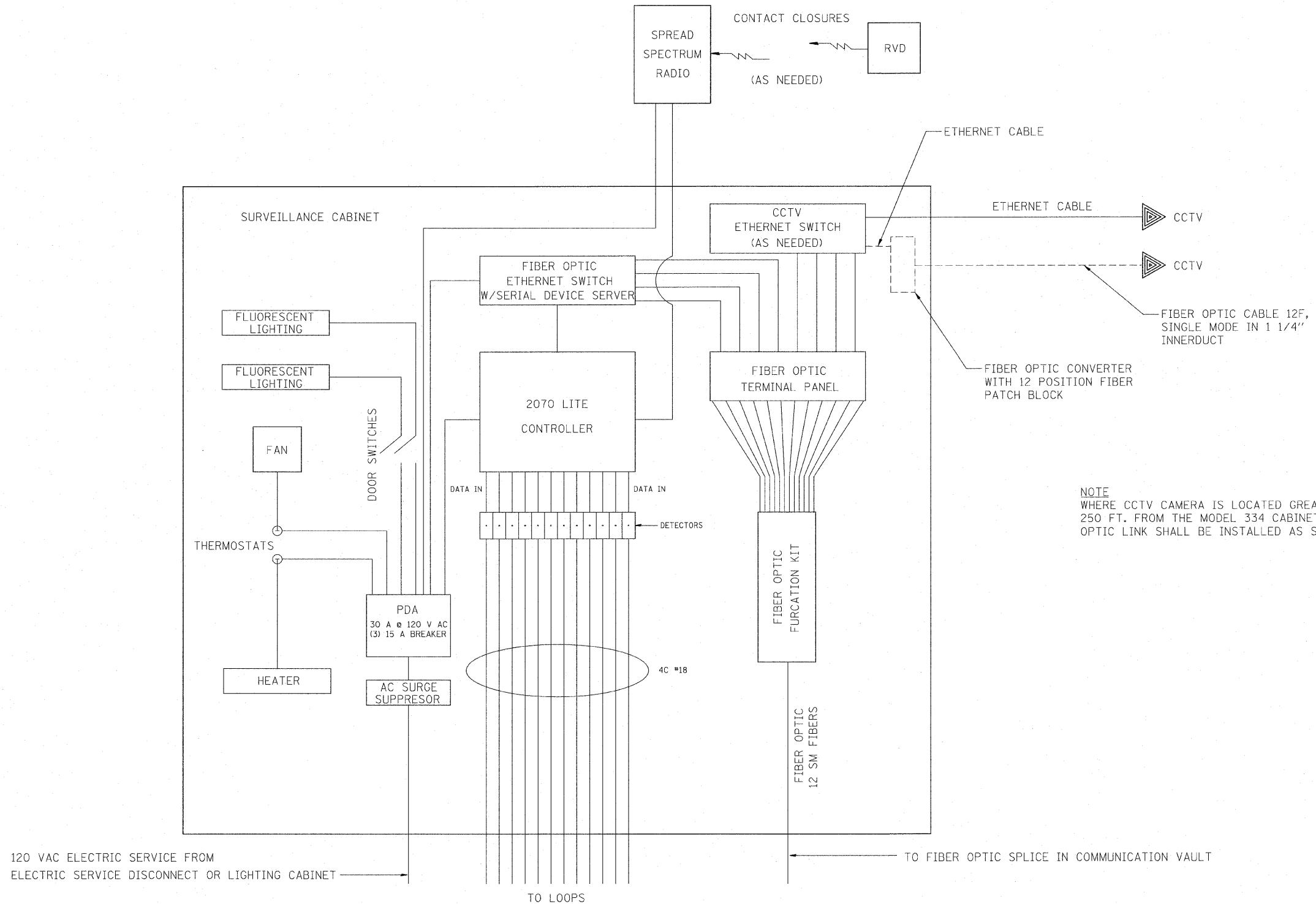
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PLOT DATE = 3/18/2010		DATE - 06-30-04	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 TRAFFIC SYSTEMS CENTER

SOLAR POWERED SPREAD SPECTRUM
 RADAR VEHICLE DETECTOR

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			56	38
CONTRACT NO.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

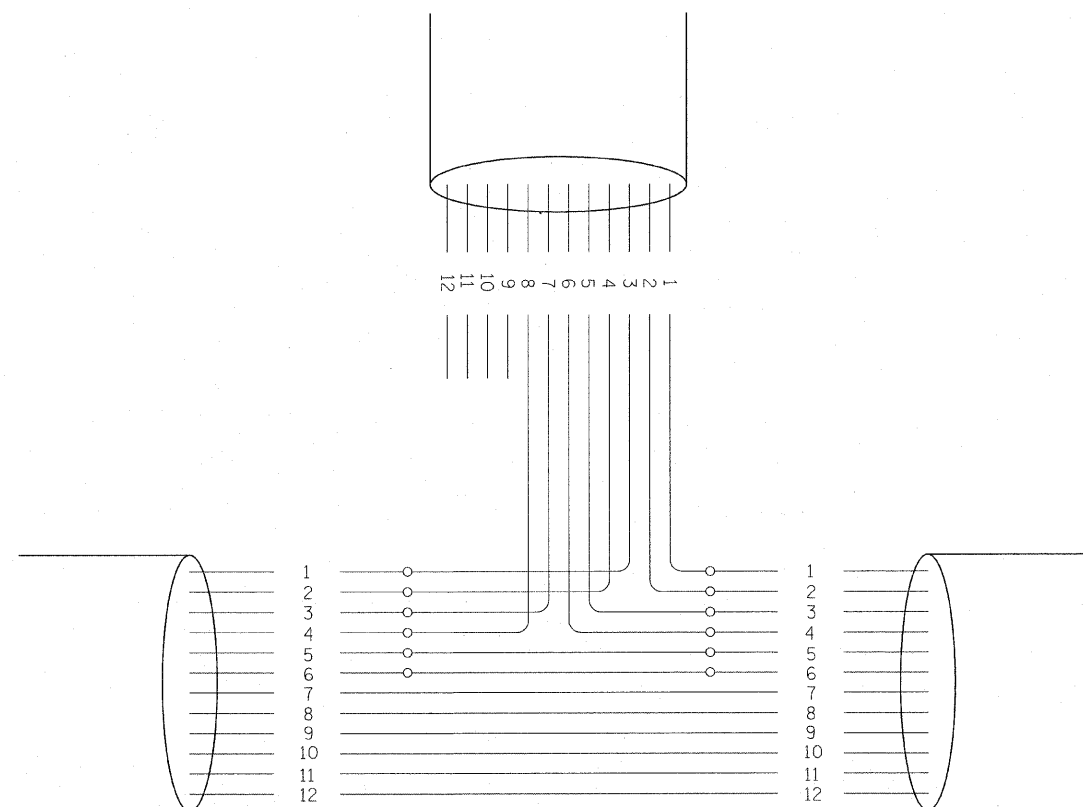
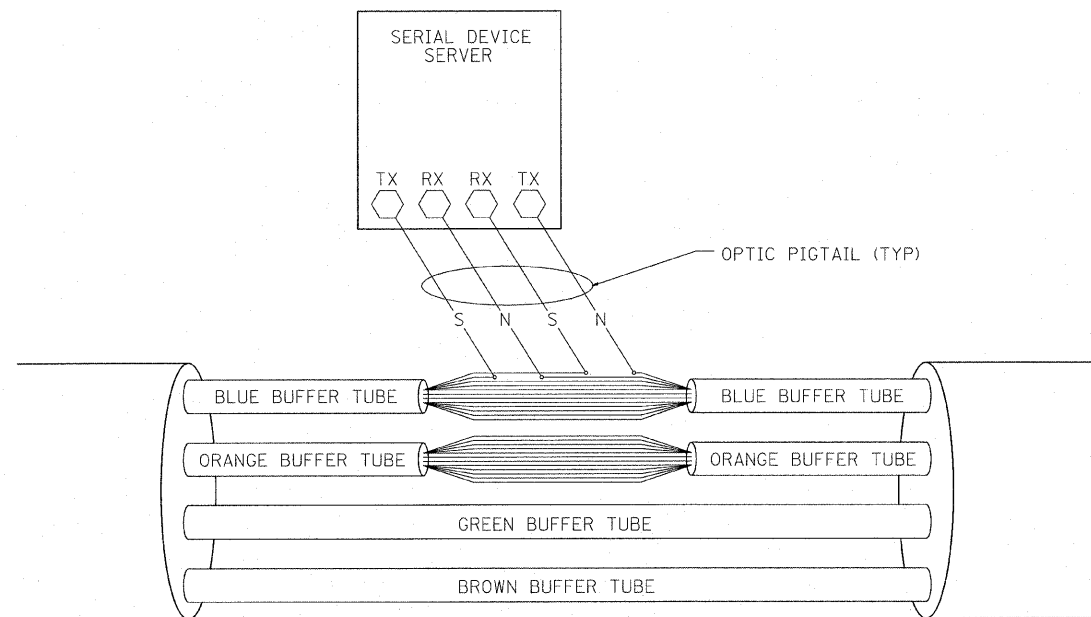


NOTE
 WHERE CCTV CAMERA IS LOCATED GREATER THAN
 250 FT. FROM THE MODEL 334 CABINET, A FIBER
 OPTIC LINK SHALL BE INSTALLED AS SPECIFIED.

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

FILE NAME = C:\d106010\1551SCTYP.DGN	USER NAME = rdohhan	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.	
P:\P-07-1600-12\Client\TSC Plans\SUB1551SCTYP.dgn		DRAWN - G.M.	REVISED -		SCALE: NONE	SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	56	39
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PLOT DATE = 4/20/2010		DATE - 12/29/09	REVISED -										

TRAFFIC SYSTEMS CENTER 4TY-1TSC-400#39)



PHYSICAL SPLICE DETAILS (TYP)
(NOT TO SCALE)

FIBERS		FUNCTION	APPLICATION DESCRIPTION
FIBER NO.	COLOR CODE		
1	BLUE	IN TX	DATA CIRCUIT
2	ORANGE	IN RX	
3	GREEN	OUT RX	
4	BROWN	OUT TX	
5	SLATE	IN TX	DMS
6	WHITE	IN RX	
7	RED	OUT RX	
8	BLACK	OUT TX	
9	YELLOW	IN TX	CCTV
10	VIOLET	IN TX	
11	ROSE	OUT RX	
12	AQUA	OUT TX	

NOTE:

1.- THIS DIAGRAM IS PROVIDED FOR ILLUSTRATION PURPOSES ONLY AND DEPICTS A TYPICAL FIBER OPTIC SPLICE.

FILE NAME = C:\d06010\155TSC.TYP.DGN	USER NAME = rdahhan	DESIGNED - J.G.	REVISED - 03/04/2018
P:\P-07-1600-12\client\TSC Plans\SUB\155TSC.TYP.dgn		DRAWN - G.M.	REVISED -
		CHECKED - J.G.	REVISED -
		DATE - 12/29/09	REVISED -

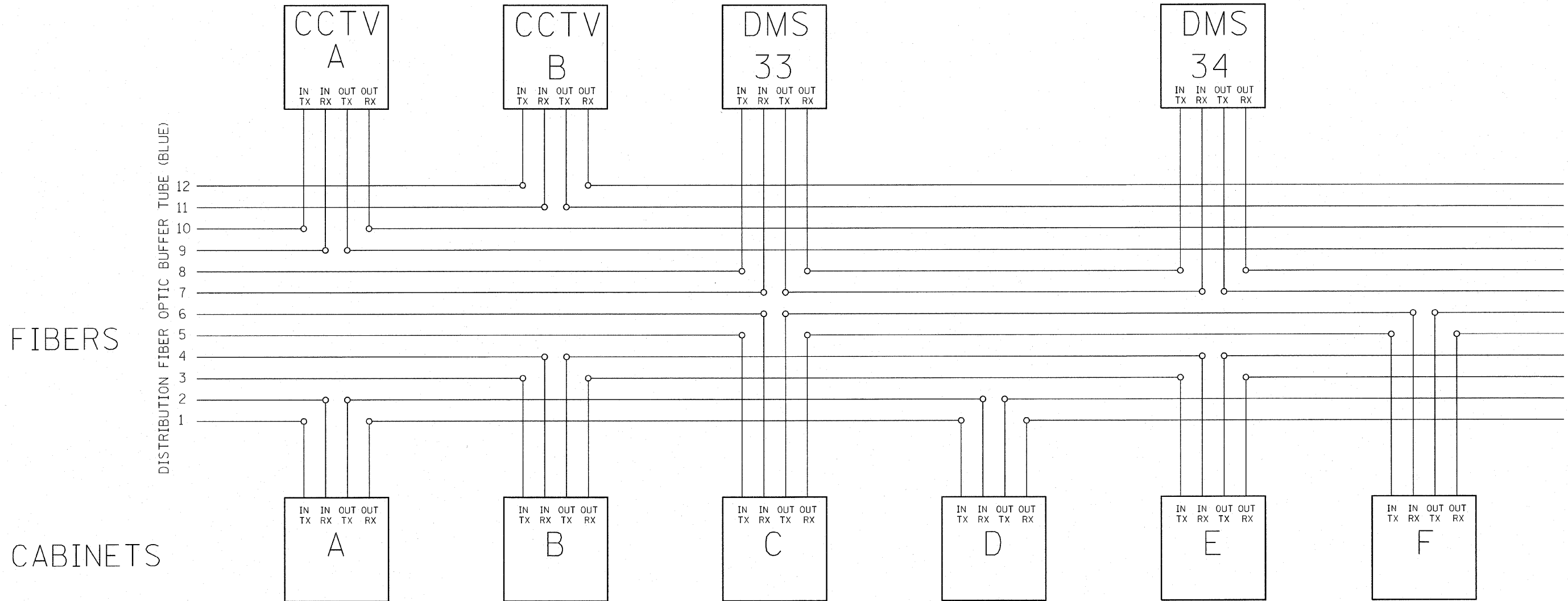
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

FIBER OPTIC
SPLICING TYPICAL

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			56	40
CONTRACT NO.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TRAFFIC SYSTEMS CENTER 4TY-1TSC-400#41)

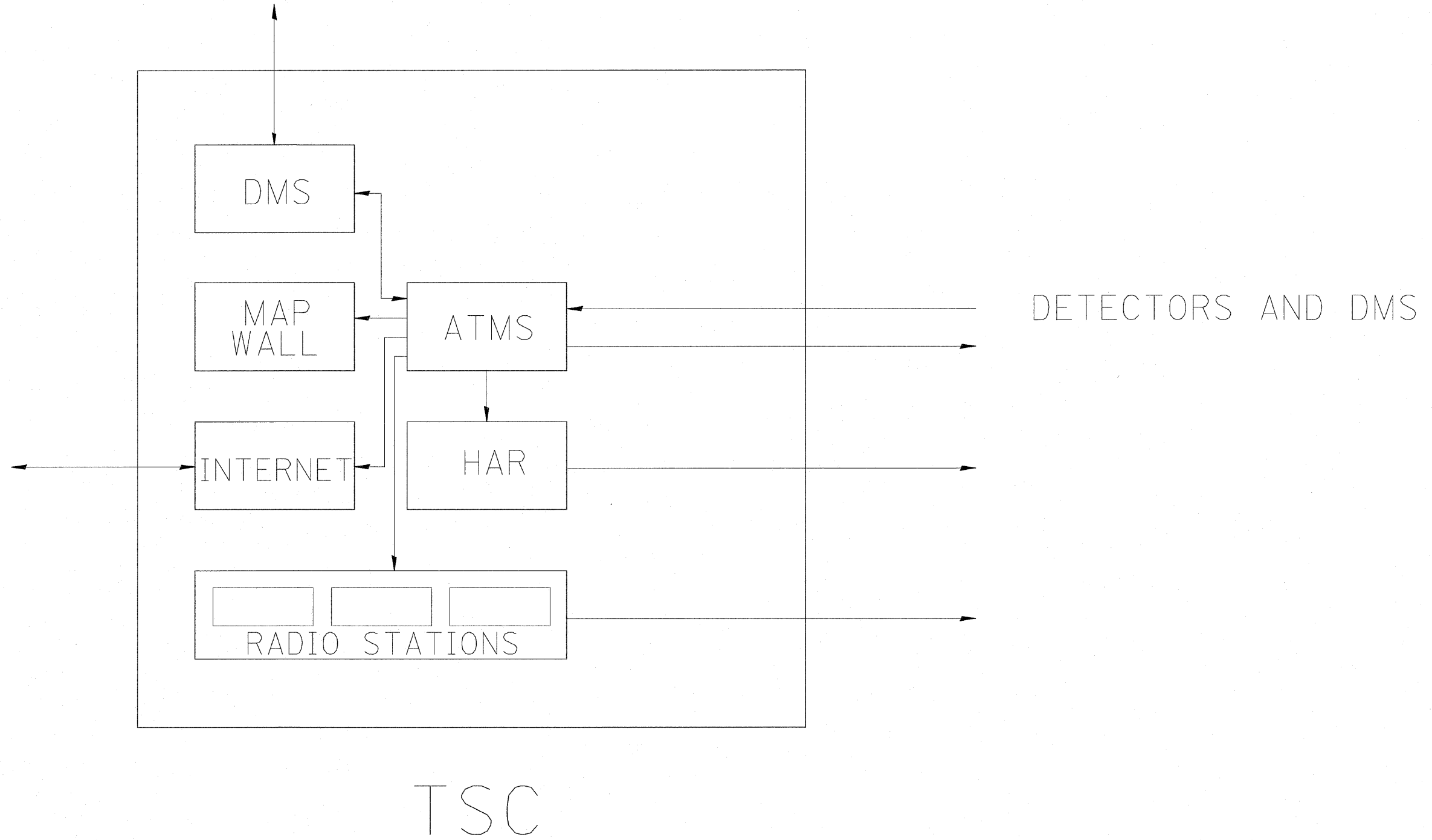


FIBERS 1 AND 2 CABINETS 1, 4, 7, 10, 13, 16, 19, 22, 25, 28, 31, 34, 37, 40, 43, 46, 49.
 FIBERS 3 AND 4 CABINETS 2, 5, 8, 11, 14, 17, 20, 23, 26, 29, 32, 35, 38, 41, 44, 47, 50.
 FIBERS 5 AND 6 CABINETS 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48.
 FIBERS 7 AND 8 DMS 33, DMS 34.
 FIBERS 9 AND 10 CCTV 50, 49, 47B, 47, 45, 43A, 42, 40, 38, 37, 35A, 34, 32, 30A, 29.
 FIBERS 11 AND 12 CCTV 51, 49A, 48, 47A, 46, 44, 43, 40A, 39, 37A, 36, 35, 32A, 31, 30.

NOTE:

- 1.- CABINETS 8A, 8B, 8C, 32, 33, 39, 46, 47 ARE SPSSRVDS, SO THEY DO NOT GET ATTACHED TO THE FIBER.
- 2.- CCTV 49 AND 49A ARE IN THE ARSENAL RD. CONTRACT.

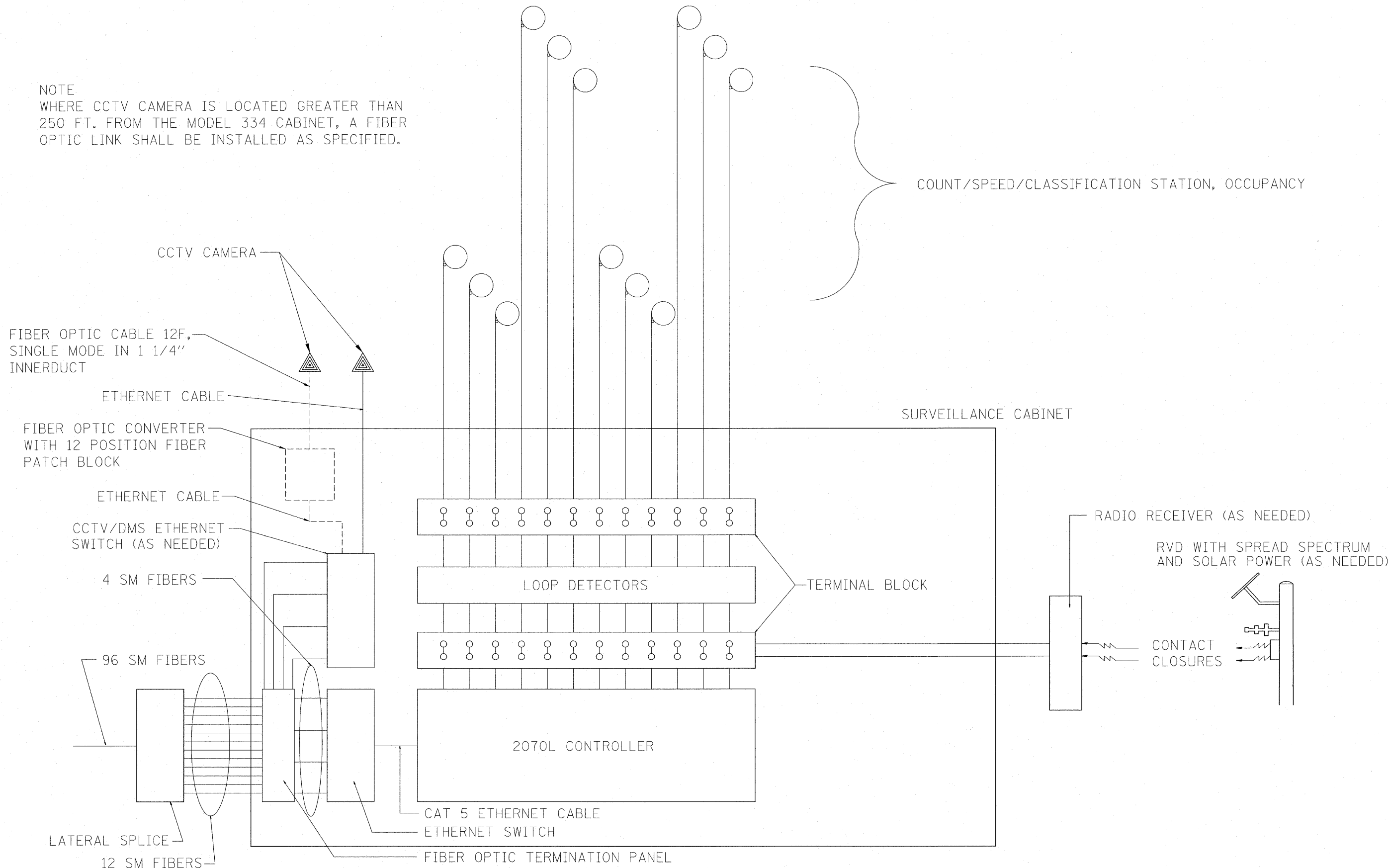
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		CHECKED - J.G.	REVISED - 04/08/2010					FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				
		DATE - 12/29/09	REVISED -									



FILE NAME = C:\n186010\155TSC.TYP.DGN	USER NAME = rdahon	DESIGNED - J.G.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION TRAFFIC SYSTEMS CENTER	TSC ATMS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
P:\NP-07-1600-12\Clent\TSC Plans\SUB155TSC.TYP.dgn		DRAWN - G.M.	REVISED -		SCALE: NONE	SHEET NO.	OF	SHEETS	STA.	TO STA.	56	42
		CHECKED - J.G.	REVISED -								CONTRACT NO.	
		DATE - 01/07/2010	REVISED -								FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

TRAFFIC SYSTEMS CENTER 4TY-1TSC-400#43)

NOTE
 WHERE CCTV CAMERA IS LOCATED GREATER THAN
 250 FT. FROM THE MODEL 334 CABINET, A FIBER
 OPTIC LINK SHALL BE INSTALLED AS SPECIFIED.



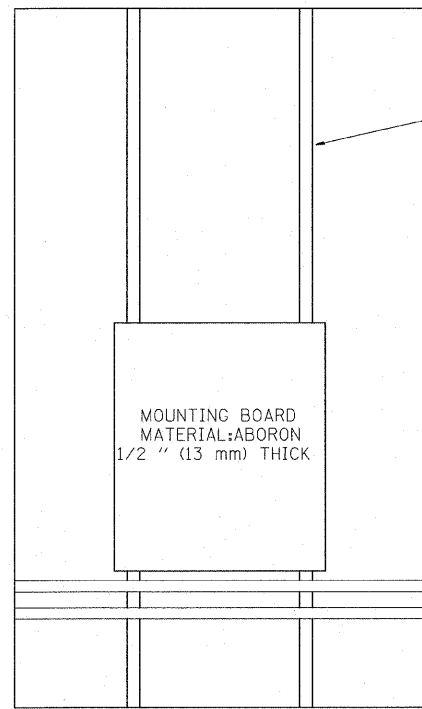
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PLOT DATE = 4/20/2010		DATE - 12/29/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 TRAFFIC SYSTEMS CENTER

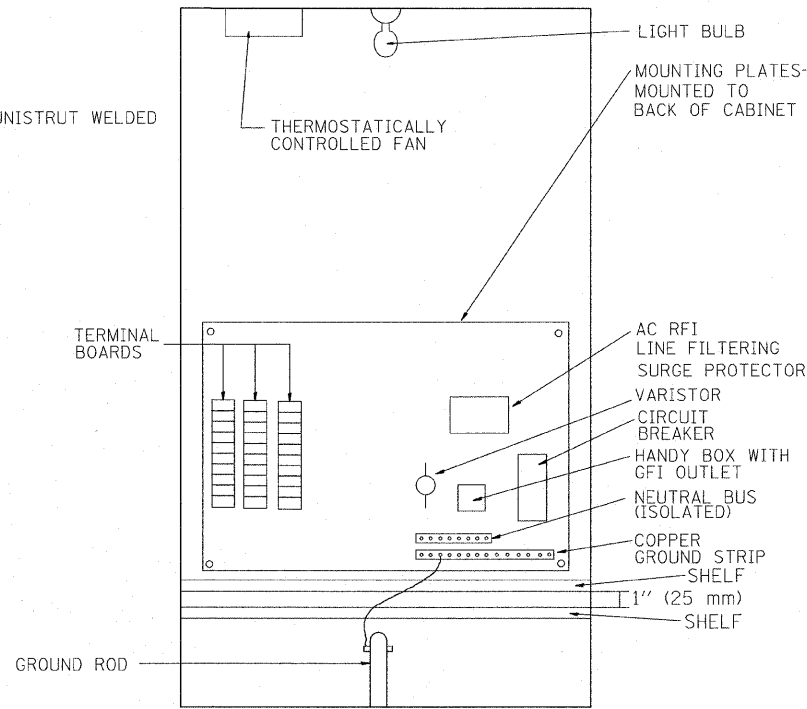
LOOP DETECTOR/SPEED DETECTOR CABINET LAYOUT			
SCALE: NONE	SHEET NO. OF SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			56	43
CONTRACT NO.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

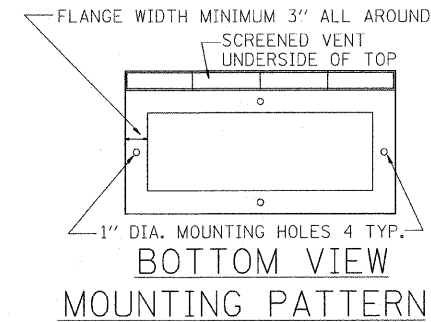
TRAFFIC SYSTEMS CENTER 4TY-1TSC-400#44)



SIDE VIEW ESP 3 & 4 CABINET



ESP 3 CABINET



TYPICAL CABINET INTERIORS
STANDARD TRAFFIC SYSTEMS CENTER CABINETS

TYPE	MINIMUM DIMENSIONS INSIDE					MATERIAL
	HEIGHT (IN-mm)	WIDTH (IN-mm)	DEPTH (IN-mm)	THICKNESS (IN-mm)		
ESP1	22.5" (571.5 mm)	14.25" (361.95mm)	9.75" (247.65mm)	3/16" (4.76mm)		FABRICATED ALUMINUM
ESP2	36" (914.4mm)	20" (508.0mm)	15" (381.0mm)	3/16" (4.76mm)		FABRICATED ALUMINUM
ESP3	49.5" (1.26 m)	30" (762.0mm)	17" (431.8mm)	3/16" (4.76mm)		FABRICATED ALUMINUM
ESP4	55" (1.4 m)	44" (1.12 m)	26" (660.4mm)	3/16" (4.76mm)		FABRICATED ALUMINUM

NOTES:

- CABINETS, CABINET POSTS AND CABINET PEDESTALS SHALL BE PRIMED AND PAINTED IN ACCORDANCE WITH SECTION T637 OF THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS". THE FINAL COAT SHALL BE (X) IN COLOR. THE INTERIOR SHALL BE PAINTED WHITE. SIGNAL POSTS AND HEADS TO BE FEDERAL YELLOW 89-19(MAUTZ).
- CABINETS SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE PORTIONS OF SECTION T400 OF THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS".
- ALL CABINETS WHICH ARE SERVICED BY 117 VOLTS A.C. POWER SHALL BE EQUIPPED WITH A 10 AMP CIRCUIT BREAKER, A.C. R.F.I. LINE FILTERING SURGE PROTECTOR, VARISTOR, AS INCIDENTAL TO THE COST OF THE CABINET. CMS CABINETS TYPE IV SHALL HAVE A 60 AMP. CIRCUIT BREAKER MINIMUM.
- ESP 2/3/4 CABINETS SHALL BE FITTED WITH A THERMOSTATICALLY CONTROLLED FAN. IT SHALL BE MOUNTED AT THE TOP OF THE CABINET. THE FAN SHALL BE CAPABLE OF OPERATING AT 130 CPM AT 160' (48.8 m) OF STATIC WATER PRESSURE. A PORCLAIN BASED PULL CHAIN FIXTURE WITH 3 PRONG OUTLET SHALL ALSO BE PROVIDED.
- RAMP METERING ESP 3 TYPE CABINETS SHALL ALSO BE EQUIPPED WITH A LOAD RELAY AND 2 CIRCUIT FLASHER. LAMPS, FAN, LOAD RELAY, AND 2 CIRCUIT FLASHER SHALL BE INCIDENTAL TO THE COST OF THE CABINET
- INCIDENTAL TO THE COST OF EACH CABINET THE CONTRACTOR SHALL CONSTRUCT A 5 INCH (130mm) PCC SIDEWALK OF A RECTANGULAR AREA 3 FEET (915 mm) BY 4 FEET (1.25 m) IMMEDIATELY ADJACENT TO THE CABINET FOUNDATION ON THE SAME SIDE OF THE FOUNDATION AS THE CABINET DOOR TO PROVIDE FOOTING DURING INSTALLATION AND MAINTENANCE.
- ANCHOR BOLTS FOR PEDESTAL AND BASE MOUNTED CABINETS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CABINET.
- ALL CABINETS SHALL HAVE TERMINAL BLOCKS AND SHELVES AS SHOWN. THESE ITEMS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CABINET.
- THE CABINET DOOR SHALL BE HINGED ON THE RIGHT SIDE WHEN FACING THE CABINET. THE DOOR SHALL BE FURNISHED WITH A GASKET THAT SHALL FORM A WEATHER TIGHT SEAL BETWEEN THE CABINET AND DOOR. THE HINGES SHALL BE CONTINUOUS AND BOLTED TO THE CABINET AND DOOR UTILIZING 1/4-20 STAINLESS STEEL CARRIAGE BOLTS AND NY-LOCK NUTS. THE HINGES WILL BE MADE OF STAINLESS STEEL WITH A 0.25 INCH (6.35 mm) DIAMETER STAINLESS STEEL HINGE PIN. THE HINGE PIN SHALL BE CAPPED TOP AND BOTTOM BY WELD TO RENDER IT TAMPER PROOF.
- THE LATCHING MECHANISM SHALL BE A 3 POINT DRAW ROLLER TYPE. THE CENTER CATCH AND PUSHRODS SHALL BE EITHER CADMIUM OR ZINC PLATED, TYPE II CLASS I. PUSHRODS WILL BE TURNED EDGEWISE AT THE OUTWARD SUPPORTS AND SHALL BE 0.25 INCH (6.35 mm) BY 0.75 INCH (19.05 mm), MINIMUM. ROLLERS SHALL HAVE A MINIMUM DIAMETER OF 0.875 INCH (22.22 mm) AND WILL BE MADE OF NYLON. THE CENTER CATCH SHALL BE FABRICATED FROM 0.14 INCH (3.55 mm) STEEL, MINIMUM. WHEN THE DOOR IS CLOSED AND LATCHED, IT WILL BE LOCKED. THE LATCHING HANDLE SHALL HAVE A PROVISION FOR PADLOCKING IN THE CLOSED POSITION. AN OPERATING HANDLE SHALL BE FURNISHED WITH EACH LOCK. THE HANDLE WILL BE STAINLESS STEEL WITH A 0.75 INCH (19.05 mm) DIAMETER SHANK.
- THE ENCLOSURE SHALL BE EQUIPPED WITH TWO ADJUSTABLE "C" MOUNTING CHANNELS WELDED ON BOTH SIDE WALLS AND BACK WALL OF THE ENCLOSURE, ALLOWING VERSATILE POSITIONING OF SHELVES OR PANELS. MOUNTING CHANNELS SHALL BE FACTORY PAINTED SAME COLOR AS INTERIOR OF CABINET.
- CABINET DOOR SHALL NOT HAVE COMPARTMENT DOORS OR LOUVERS.
- ALL FIELD CABINETS SHALL BE FITTED WITH BRASS LOCKS.
- ESP TYPE 2 & 3 CABINETS FITTED WITH TWO SHELVES AS SHOWN.
- POST TOP MOUNTED CABINETS, SHALL HAVE A 0.25 INCH (6.3 mm) BOTTOM OF CABINET WELDED.
- THE CONTROL CABINET SHALL BE SET PLUMB ON THE FOUNDATION AND FASTENED TO THE ANCHOR BOLTS WITH NUTS AND WASHERS. FLAT WASHERS SHALL BE INSTALLED BELOW AND ABOVE THE BASE PLATE OF THE CONTROL CABINET. LOCKWASHERS SHALL BE INSTALLED ON TOP OF THE TOP FLAT WASHER.

EDENS	WALNUT *
KENNEDY	BLUE STREAK **
EISENHOWER	CARIBBEAN BLUE *
I-290/I153/I-355	POST OFFICE BLUE **
RYAN	YELLOW STONE II **
I-55	MEDIUM BRONZE *
I-57	RED BARON **
CAL-KING	BLUE STREAK **
LAKE SHORE DR.	GREEN *
I-80	STATUARY BRONZE **

ALL RAMP METERING CABINETS LIME GREEN ***. ALL POSTS, T.S. HEADS AND SERVICES WILL BE PAINTED FEDERAL YELLOW.
* MORTON POWDER PAINT COLOR OR EQUIVALENT.
** O'BRIEN POWDER PAINT COLOR OR EQUIVALENT.
*** BENJAMIN MOORE ENAMEL COLOR OR EQUIVALENT.

NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR CONFORMING TO COLOR REQUIREMENTS

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P:\P-07-1600-12\client\TSC Plans\SUB1551TSC\TYP.dgn	
PLOT SCALE = #SCALE#	
PLOT DATE = 3/18/2010	

DESIGNED - J.G.	REVISED -
DRAWN - G.M.	REVISED -
CHECKED - J.G.	REVISED -
DATE - 01/25/2010	REVISED -

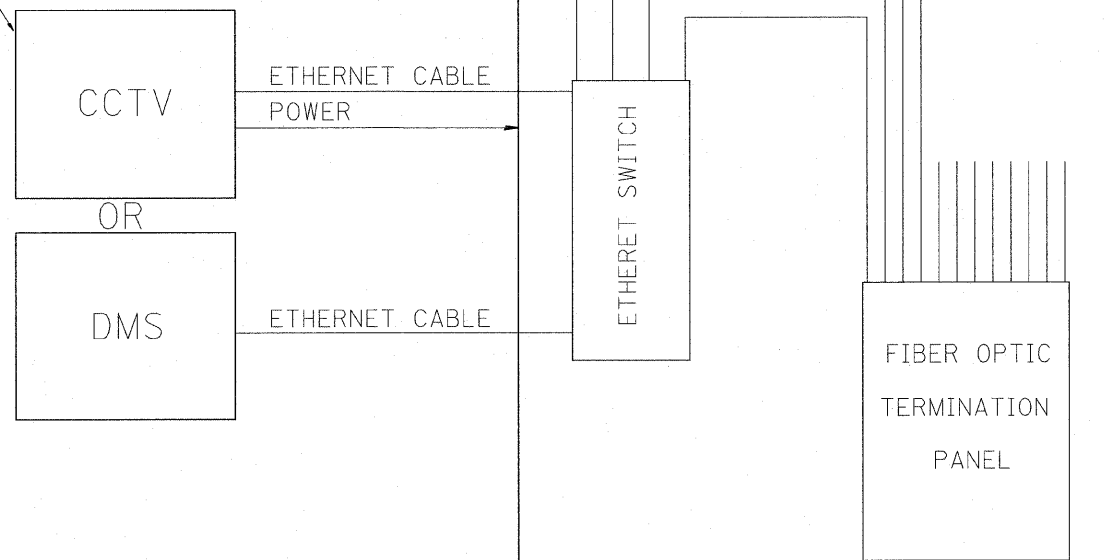
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
TRAFFIC SYSTEMS CENTER

CCTV CABINET
DETAIL SHEET

SCALE: NONE	SHEET NO. OF SHEETS	STA. TO STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			56	44
CONTRACT NO.			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

INSTALL 120V. 30AMP. CIRCUIT BREAKER IN CCTV CAB.



12 SM FIBERS

COMMUNICATION VAULT

FILE NAME = C:\dl\06010\155TSC\TYP.DGN	USER NAME = rdahhan	DESIGNED - J.G.	REVISED -
P:\P-07-1600-12\Client\TSC Plans\SUB155TSC\TYP.dgn		DRAWN - G.M.	REVISED -
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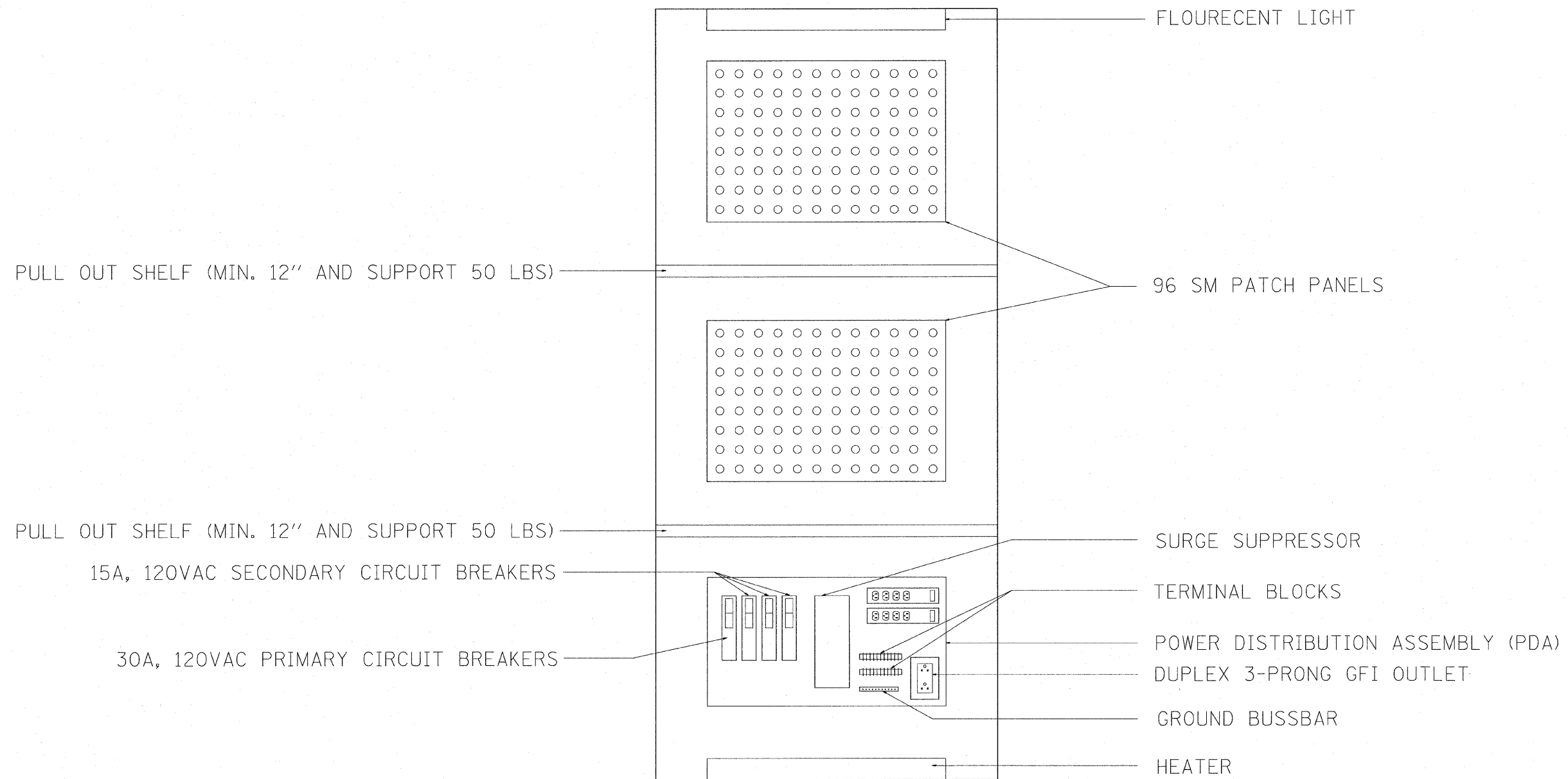
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 TRAFFIC SYSTEMS CENTER

CCTV CABINET TYPE 3

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			56	45
CONTRACT NO.				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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

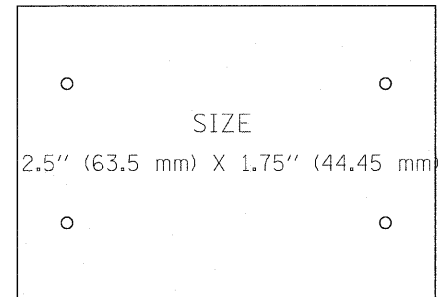
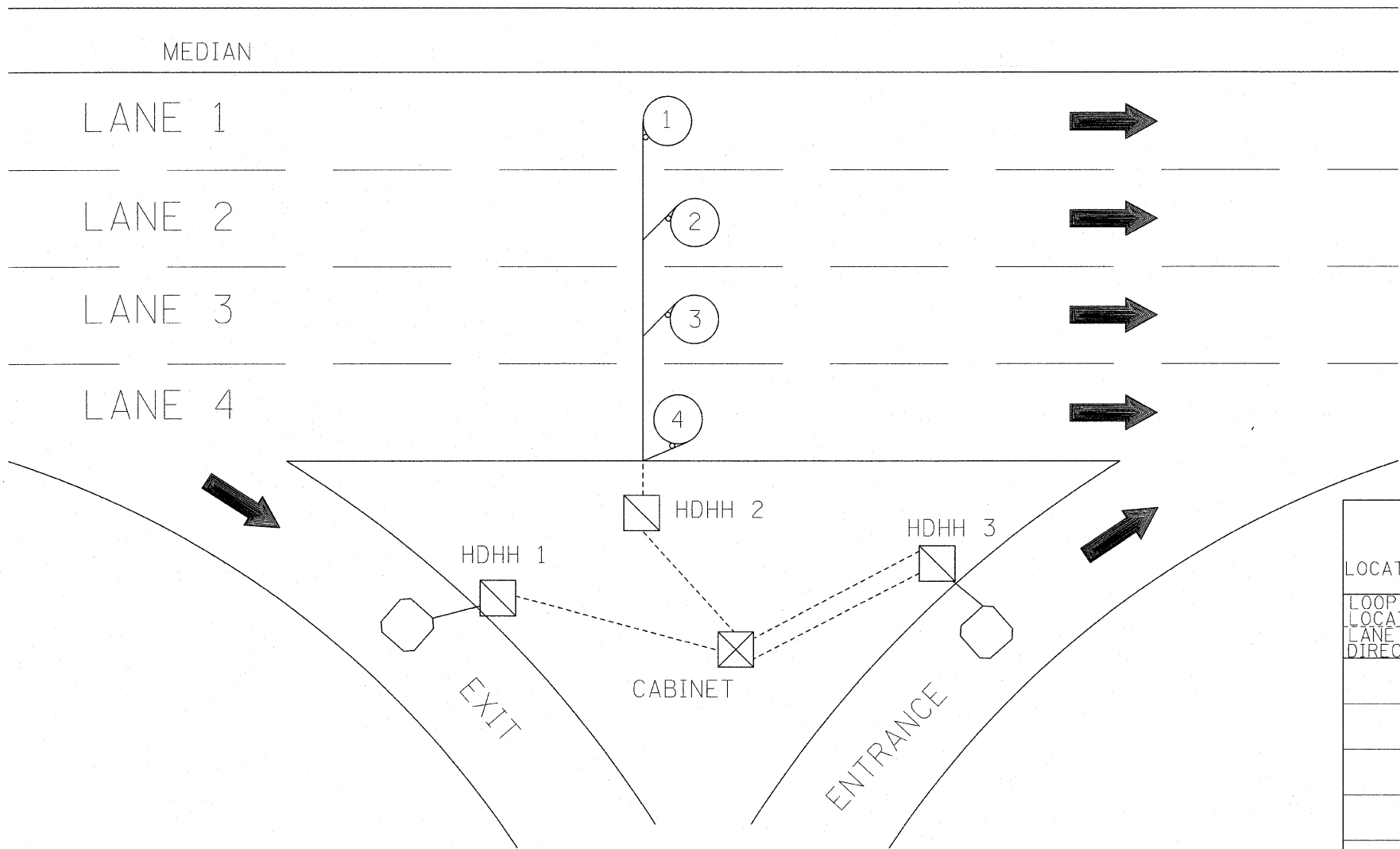
TRAFFIC SYSTEMS CENTER (TY-1TSC-400#49)



TYPE 334 CABINET

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PLOT DATE = 3/18/2010		DATE - 01/25/2010	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

TRAFFIC SYSTEMS CENTER 4TY-1TSC-400#51)



SUGGESTED TAG
PANDUIT
#MP250W175-C
OR EQUIVALENT

LOOP ANALYZER					
LOCATION _____				DATE _____	
LOOP LOCATION LANE DIRECTION	LOOP WIRE MARKED AND CODED	LOOP SIZE	FREQ. INDUCTANCE	INSULATION	LOOP RESISTANCE

HDHH 1 EXAMPLE

IB-EB EXIT
CCW IN/
TO CABINET # _____

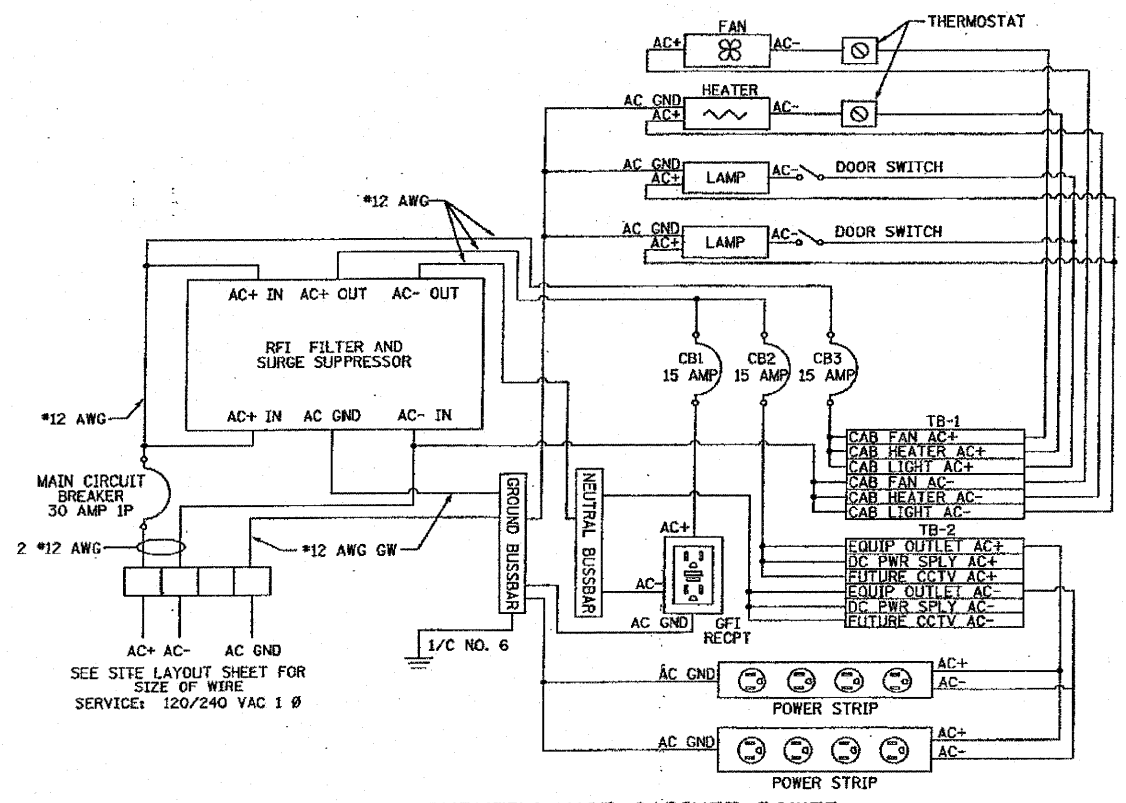
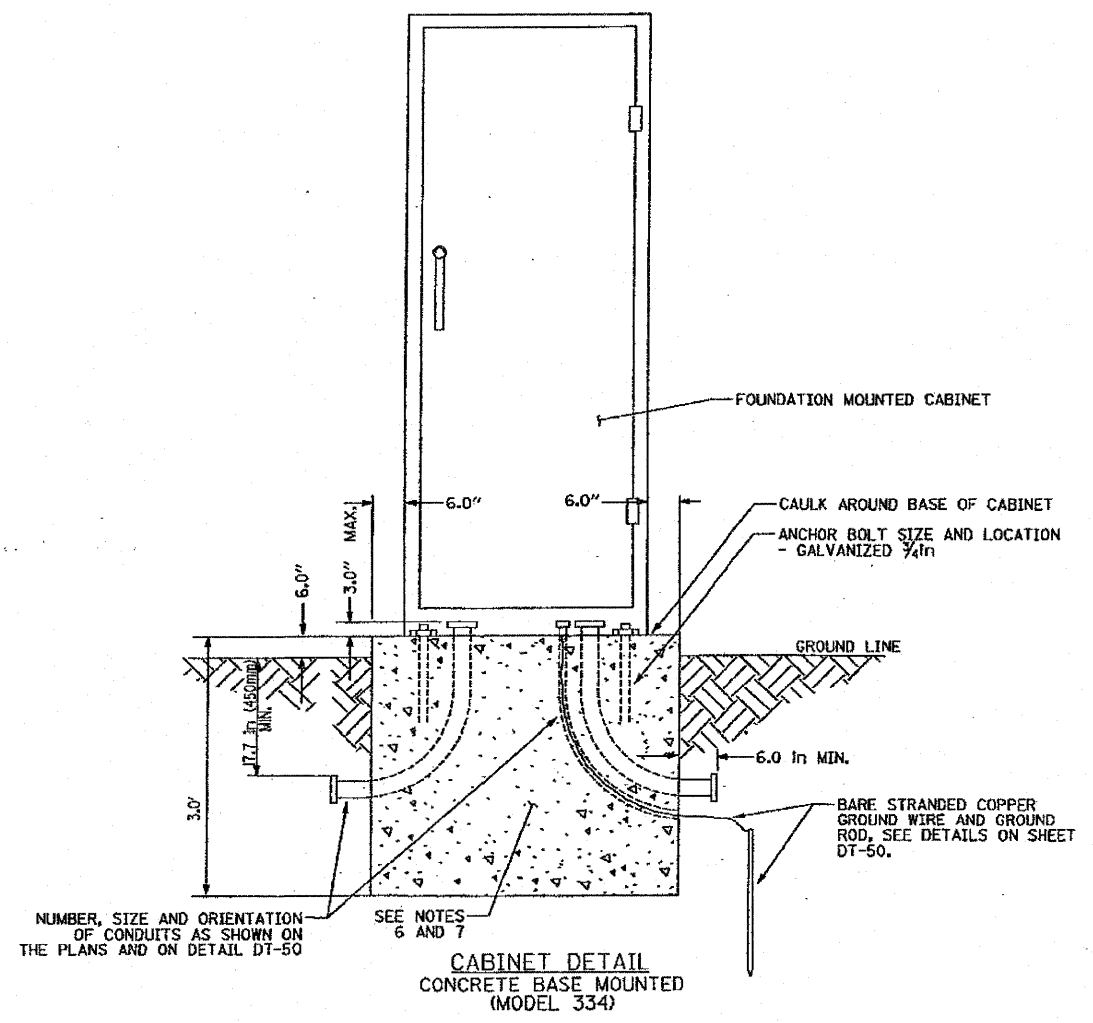
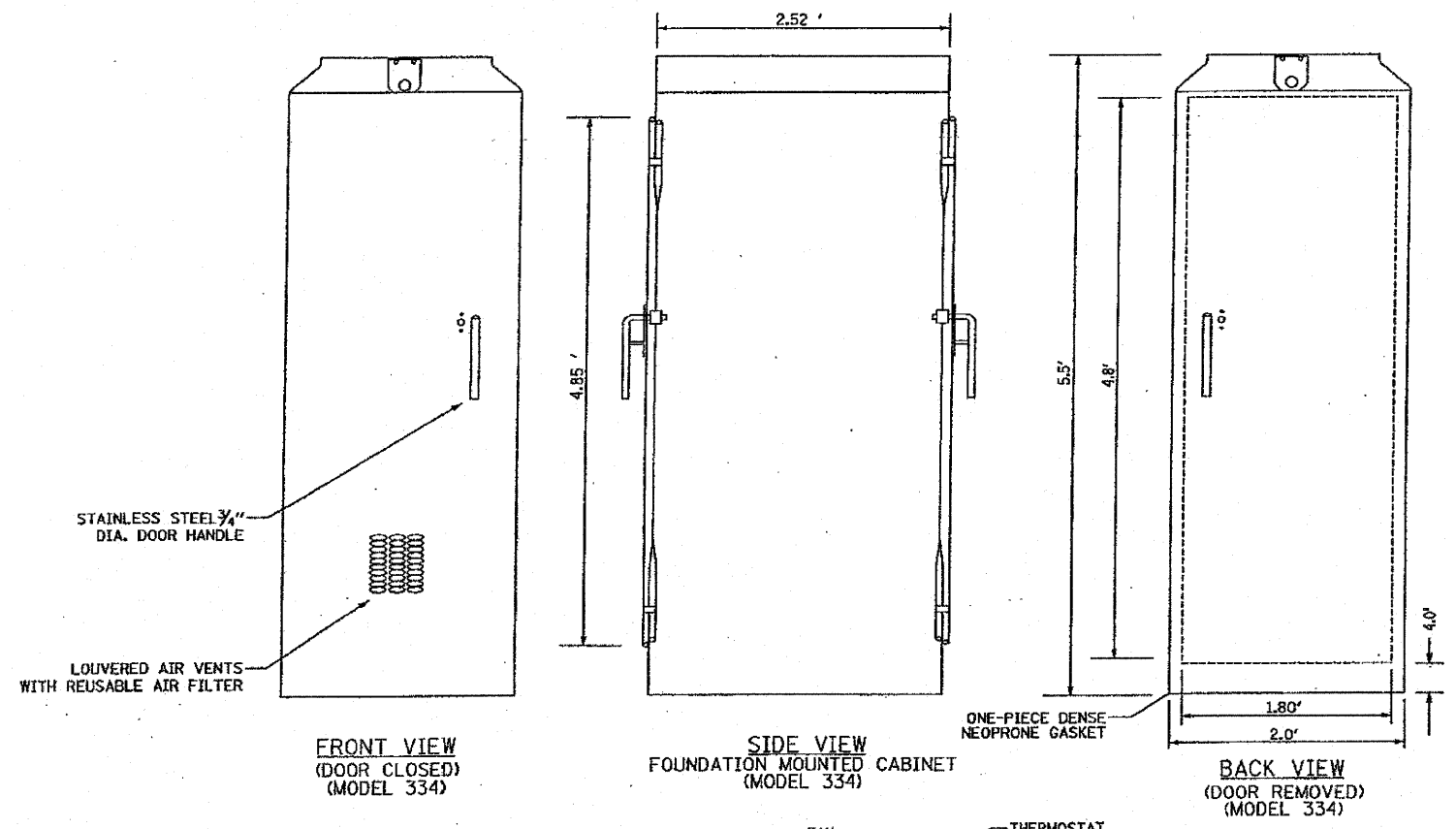
HDHH 2 EXAMPLE

IB (OB) LANE # _____
CCW /OUT
TO CABINET # _____

HDHH 3 EXAMPLE

IB-EB ENT.
LOOP #2
CW IN/

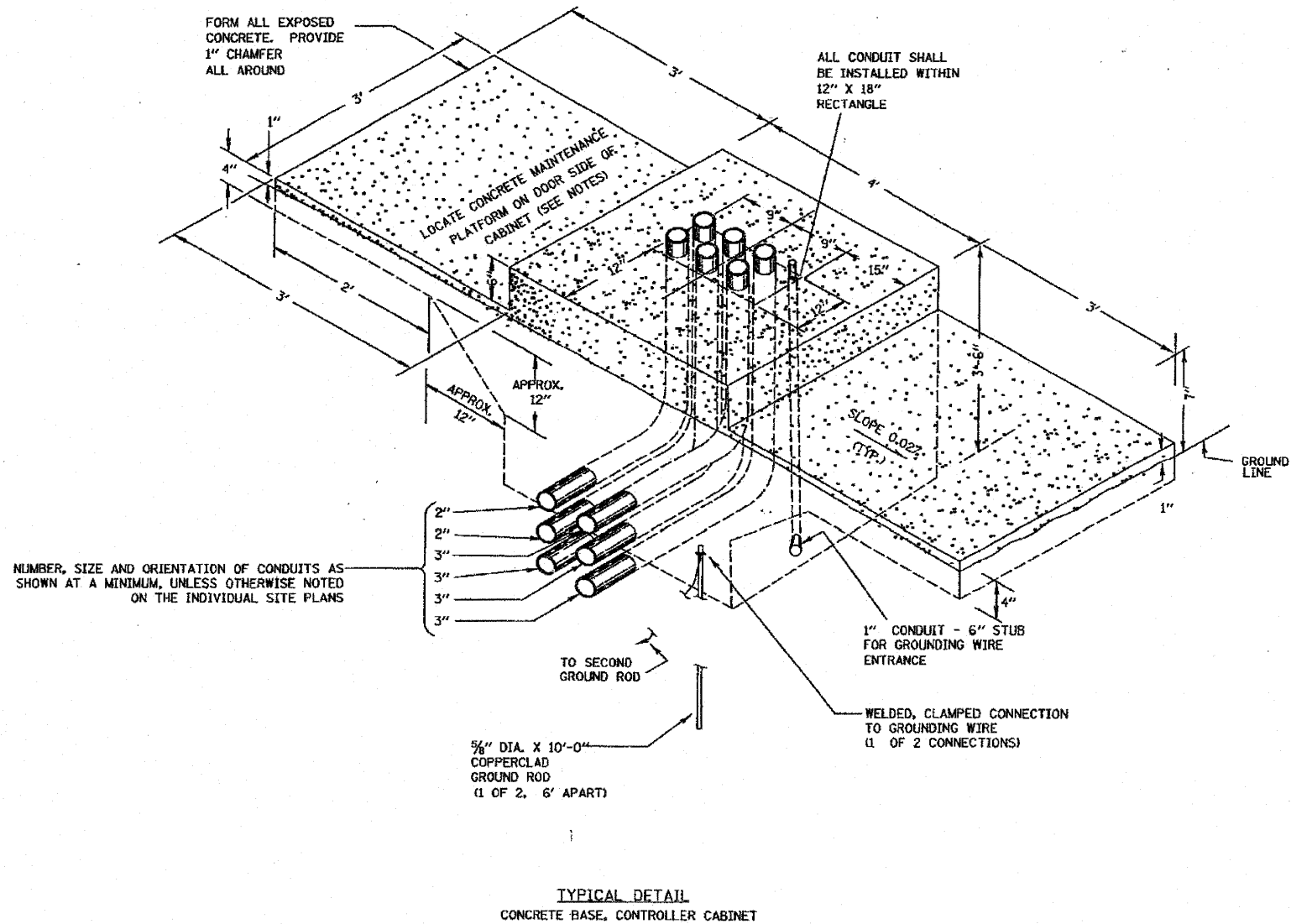
NOTE:
EACH LOOP WIRE SHALL BE TAGGED AS "IN" OR "OUT" AND "CW" OR "CCW". SHIELDED CABLE WILL BE TAGGED IN EACH HANDHOLE AND CABINET TO MATCH THE CABLE LOG.



- NOTES**
- REFER TO SPECIAL PROVISIONS FOR CABINET DETAILS AND ADDITIONAL REQUIREMENTS.
 - CABINET ENTRIES INCLUDE VERTICAL ARRANGEMENT FOR MAJOR EQUIPMENT ITEMS ONLY.
 - INSTALL ADDITIONAL ITEMS ON SIDE AND BACK PANELS PER THE SPECIAL PROVISIONS.
 - THE CONTRACTOR SHALL INSTALL INSULATED BUSHINGS AND DUCT SEALANT AT ALL CONDUIT BEND TERMINATIONS IN FOUNDATIONS.
 - CONCRETE BASE TO BE FORMED AT LEAST 6.0 IN ABOVE THE GROUND SURFACE.
 - CONCRETE BASE MUST BE CAST IN PLACE.
 - ALL WORK INDICATED SHALL BE PAID FOR UNDER ITEM CABINET, MODEL 334 EXCLUSIVE OF THE CONCRETE FOUNDATION.
 - CABINET BOTTOM CONFIGURATION SHALL BE AS DIRECTED BY THE ENGINEER.

SURVEILLANCE CABINET POWER DISTRIBUTION ASSEMBLY (PDA)
NOT TO SCALE

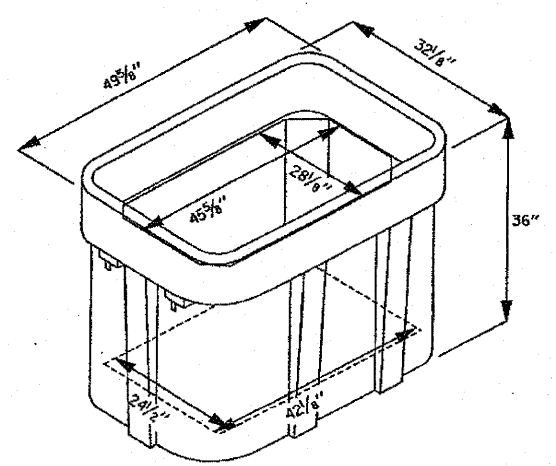
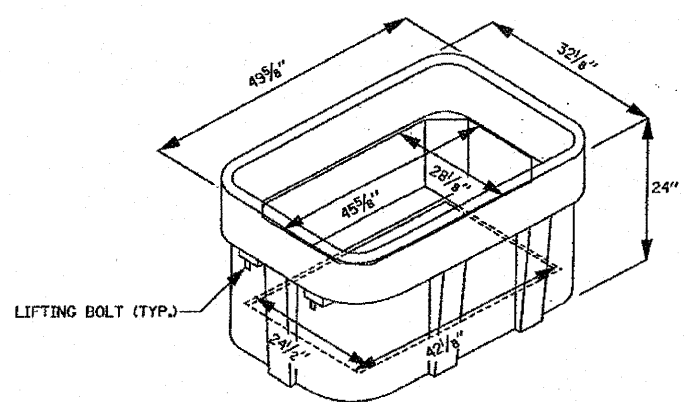
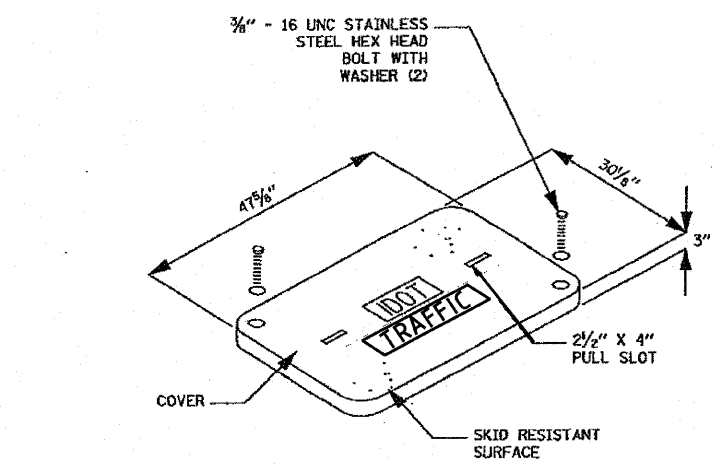
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P:\NP-07-1600-12\client\TSC Plans\Cabinet	Model 334 Detail.dgn	DRAWN -	REVISED -			55	2009-112 I	WILL	56	48	
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PLOT DATE = 3/18/2010		DATE -	REVISED -			SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA.					
						FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



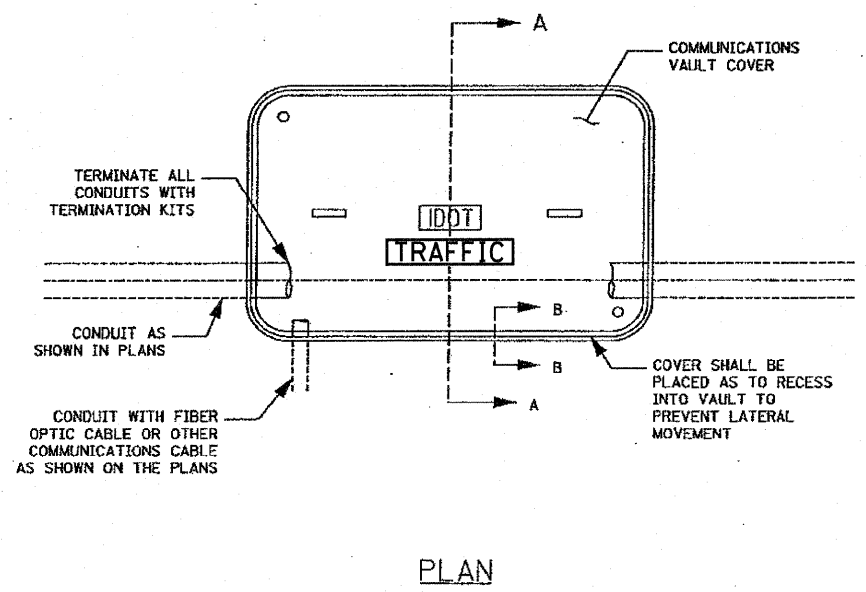
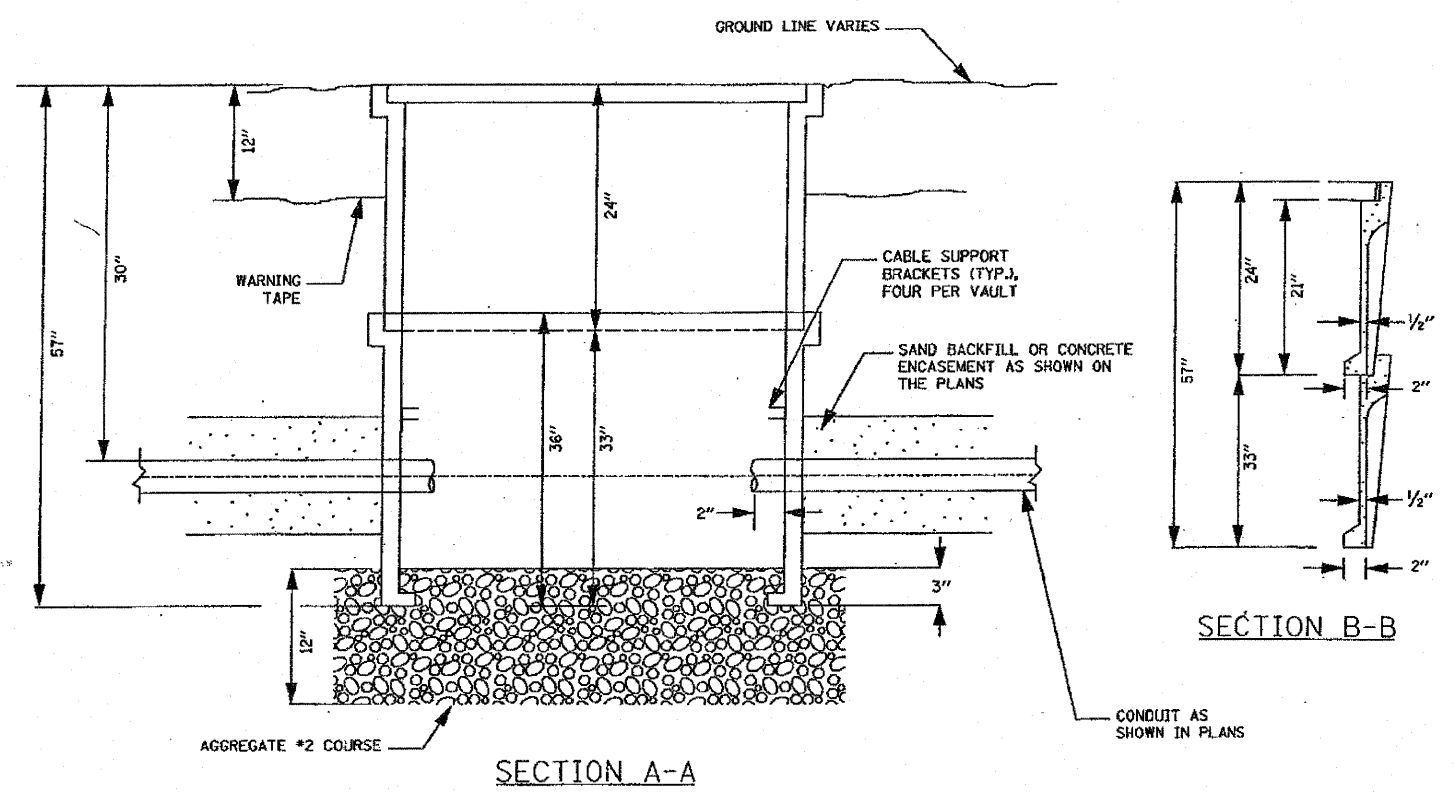
NOTES

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 = wjngrom	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80) CONCRETE FOUNDATION, TYPE 1 DETAIL (FOR CABINET, MODEL 334)	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
P:\NP-07-1600-12\client\TSC Plans\Concrete	Foundation, Type 1 Detail (For Cabinet, Model 334)	DRAWN -	REVISED -			55	2009-112 I	WILL	56	49	
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PLOT DATE = 3/18/2010		DATE -	REVISED -			SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

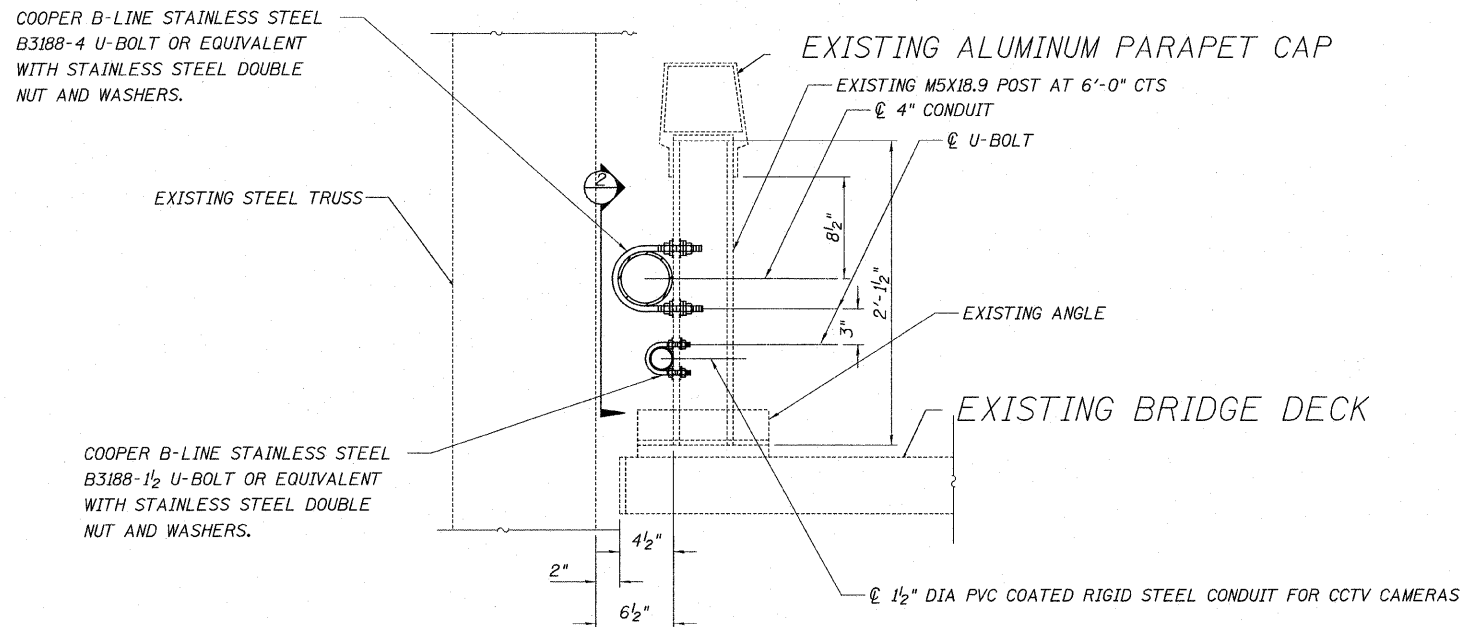


ISOMETRIC



- NOTES:
1. BOX SHALL HAVE AN OPEN BASE.
 2. COVER SHALL WITHSTAND AASHTO H 20 LOADING AND SHALL LOCK.
 3. ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION OR PUNCH DRIVEN AT TIME OF PLACEMENT.
 4. FIELD PLACEMENT OF COMMUNICATIONS VAULT SHALL BE AS DIRECTED BY THE ENGINEER.

FILE NAME =	USER NAME = wingram	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80) COMMUNICATIONS VAULT DETAILS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
P:\NP-07-1600-12\Clent\TSC Plans\Communications Vault Details.dgn		DRAWN -	REVISED -			55	2009-112 I	WILL	56	50
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PLOT DATE = 3/18/2010		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
					SCALE: 1" = 50'	SHEET NO.	OF	SHEETS	STA.	TO STA.



CONDUIT ATTACHMENT SECTION 1

SCALE: NTS

NOTE:
 1. CONDUIT ATTACHMENT TO EXISTING STRUCTURE INCLUDING HARDWARE, INSTALLATION AND GALVANIZING REPAIR SHALL BE INCIDENTAL TO CONDUIT ATTACHED TO STRUCTURE, 4" DIA., PVC COATED GALVANIZED STEEL AND TO CONDUIT ATTACHED TO STRUCTURE 1/2" DIA., PVC COATED GALVANIZED STEEL

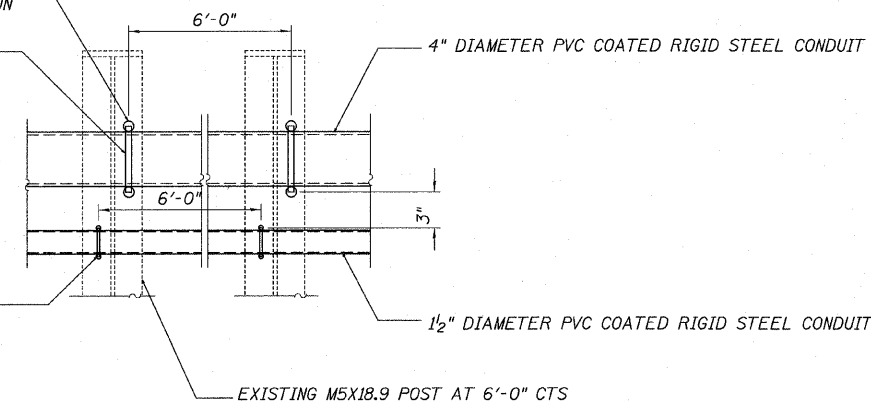
NO SEPARATE PAYMENT WILL BE MADE FOR BOLTS, NUTS, WASHERS AND THE COST OF SUCH ITEMS SHALL BE INCLUDED IN THE UNIT PRICES OF ITEMS ON WHICH THEY ARE USED.

2. GALVANIZING REPAIR:
 REPAIR DAMAGE TO GALVANIZED COATING USING ASTM A 780/A 780M ZINC RICH PAINT FOR GALVANIZING DAMAGED BY HANDLING, CUTTING OR BOLTING. DO NOT HEAT SURFACES TO WHICH REPAIR PAINT HAS BEEN APPLIED.

DRILL EXISTING FLANGE AT LOCATION OF U-BOLT ATTACHMENT. GALVANIZED POST SHALL BE PATCHED PRIOR TO ANY VISIBLE OXIDATION APPEARING.

ATTACH 4" CONDUIT TO EXISTING M5 WITH COOPER B-LINE B3188-4 STAINLESS STEEL U-BOLT OR EQUIVALENT.

ATTACH 1/2" CONDUIT TO EXISTING M5 WITH COOPER B-LINE B3188-1/2 STAINLESS STEEL U-BOLT OR EQUIVALENT.



CONDUIT ATTACHMENT ELEVATION 2

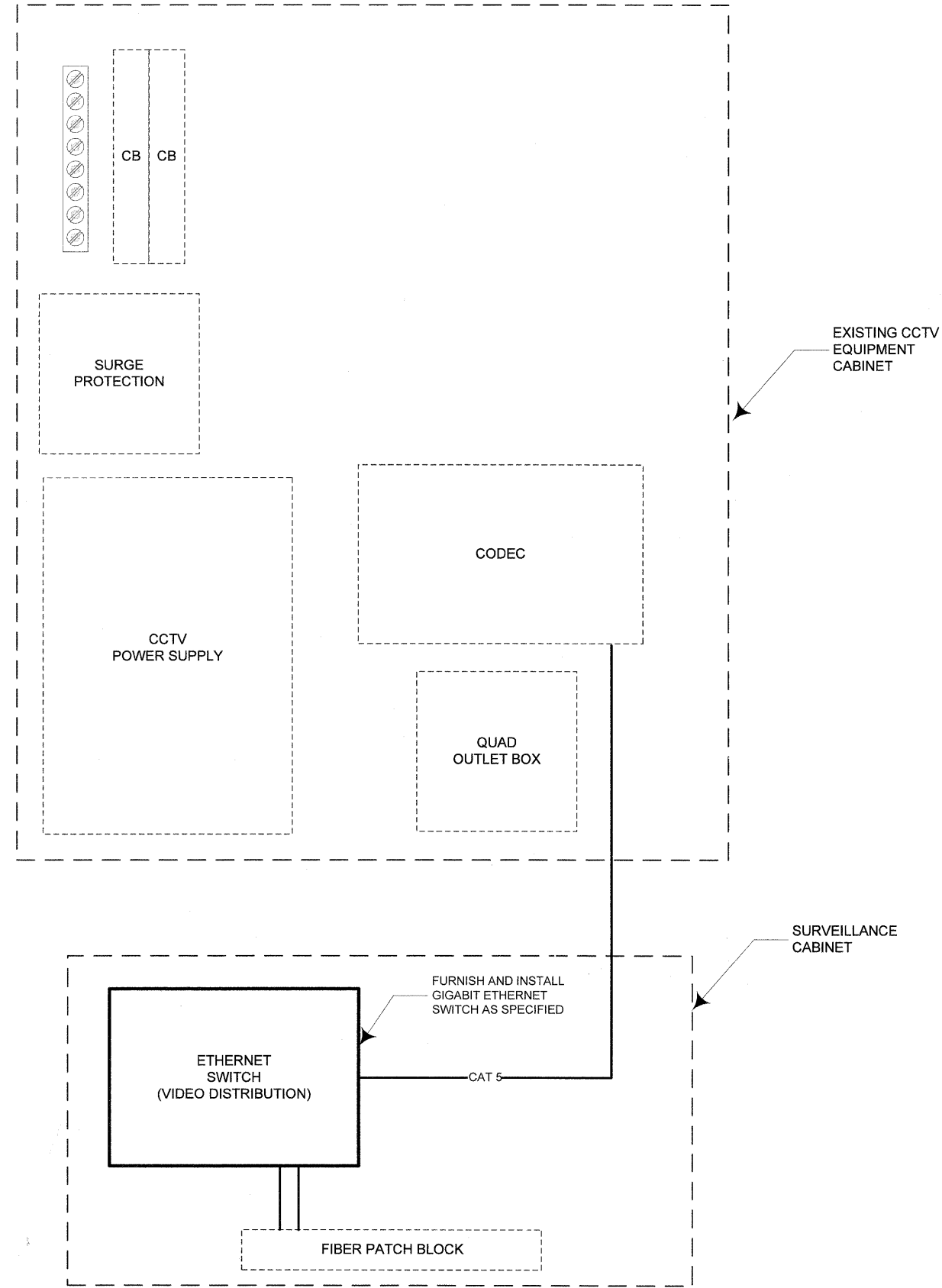
SCALE: NTS

NOTES:
 MAXIMUM SPACING BETWEEN U-BOLTS SHALL NOT EXCEED 10 FEET FOR 4" DIA PVC COATED RIGID STEEL CONDUIT AND NOT TO EXCEED 7 FEET FOR 1/2" DIA PVC COATED RIGID STEEL CONDUIT.

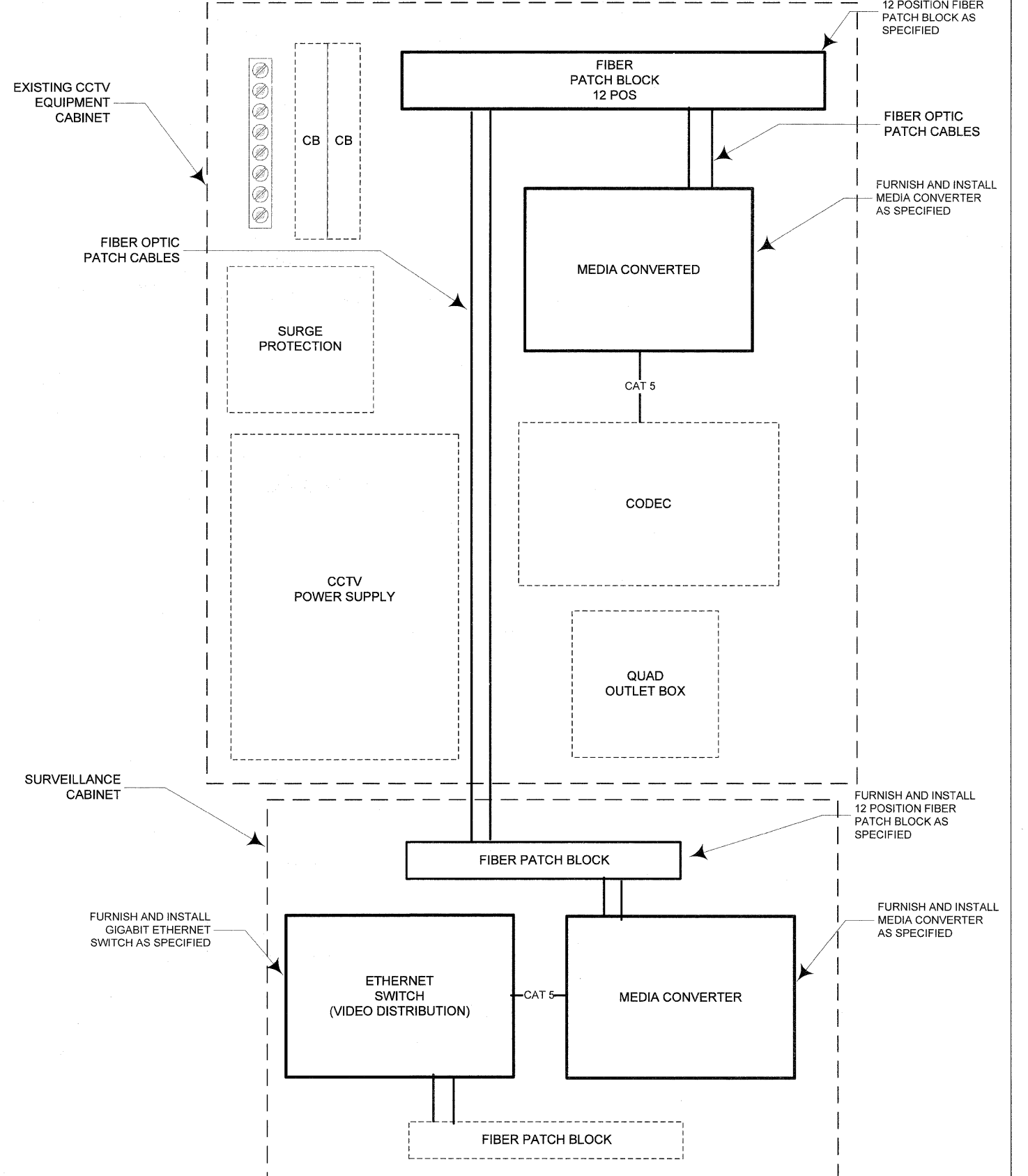
STAGGER U-BOLT PLACEMENT AS SHOWN ON ELEVATION ABOVE.

FILE NAME =	USER NAME = rdshhan	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FIBER OPTIC CABLE INSTALLATION - I-55 (LORENZO ROAD TO I-80) DES PLAINES RIVER BRIDGE CONDUIT ATTACHMENT	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
P:\P-07-1500-12\Client\TSC Plans\Des Plaines River Bridge Conduit Attachment.dgn		DRAWN -	REVISED -			55	2009-112 I	WILL	56	51	
PLOT SCALE = #SCALE#		CHECKED -	REVISED -			CONTRACT NO. 60J24					
PLOT DATE = 4/20/2010		DATE -	REVISED -			SCALE: 1" = 50'	SHEET NO.	OF	SHEETS	STA.	TO STA.

MODIFICATION OF EXISTING CCTV INSTALLATION FOR FIBER OPTIC COMMUNICATIONS. ETHERNET



MODIFICATION OF EXISTING CCTV INSTALLATION FOR FIBER OPTIC COMMUNICATIONS. FIBER



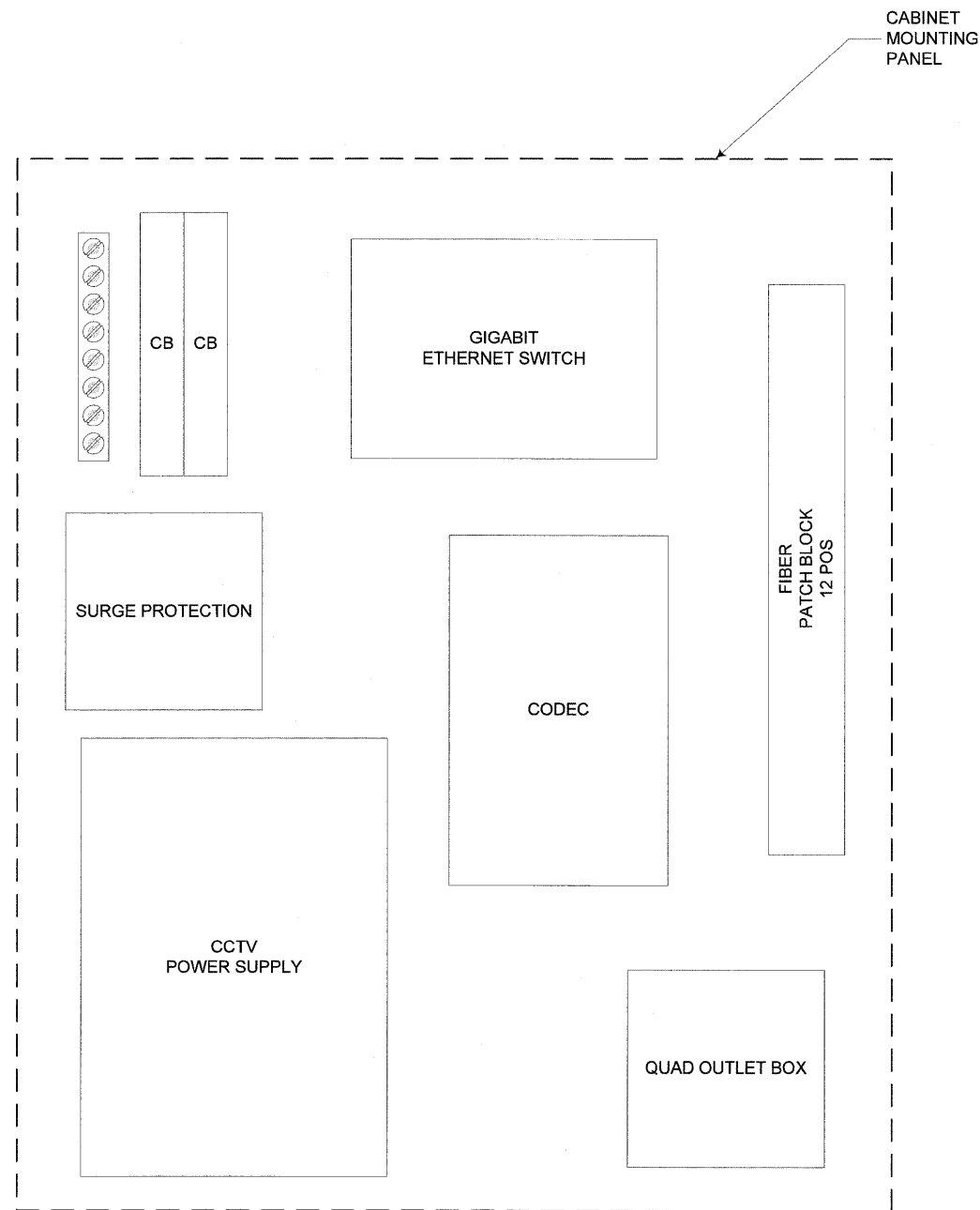
FILE NAME	USER NAME	DESIGNED	REVISED
	PLOT SCALE	DRAWN	REVISED
	PLOT DATE	CHECKED	REVISED
		DATE	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

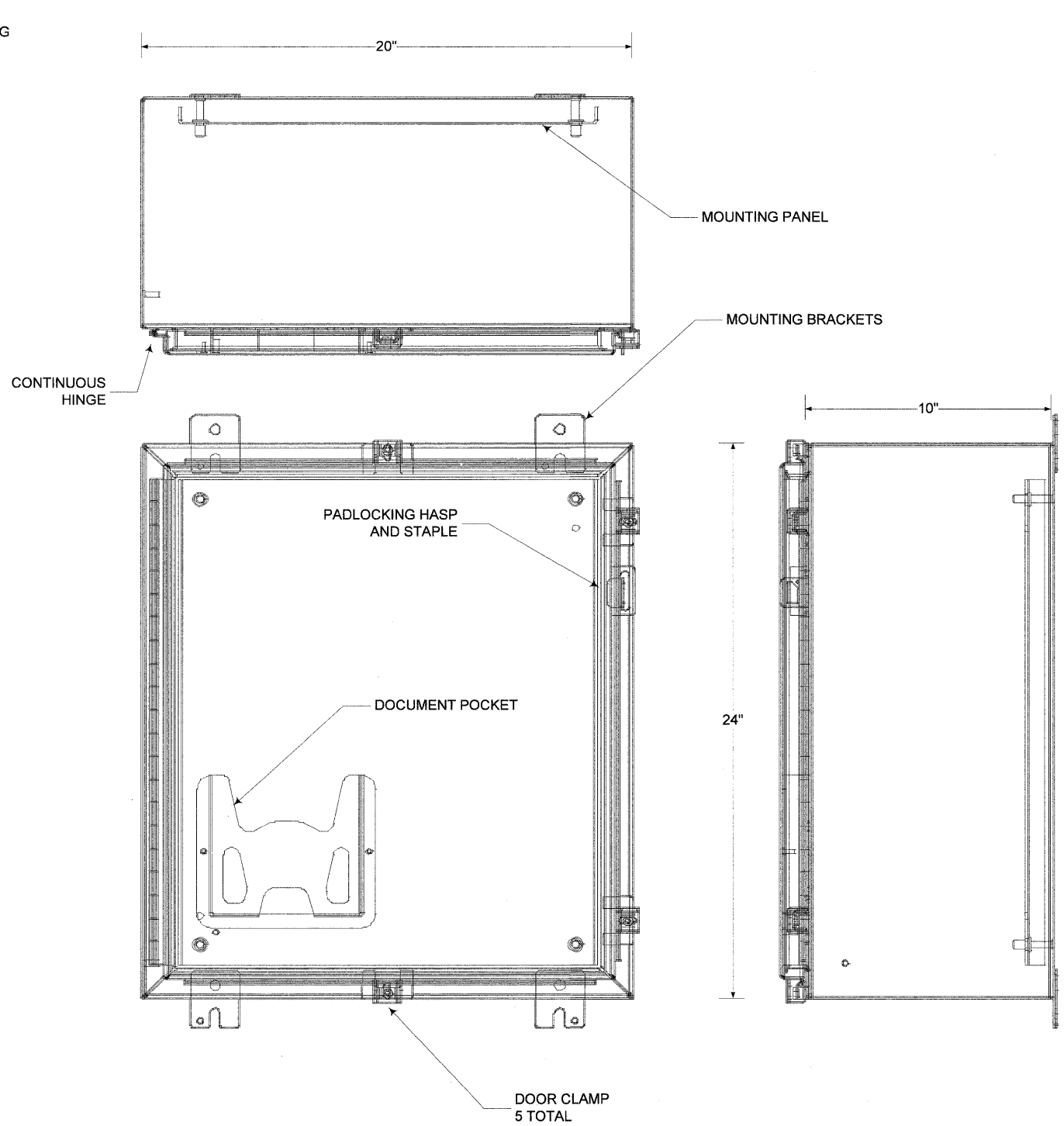
**CCTV CAMERA EXPANSION - FAI 55 (LORENZO RD. TO I-80)
MODIFICATION OF EXIST. CCTV INST. FOR FIBER OPTIC COMMUNICATIONS**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2009-112 I	WILL	50	52
CONTRACT NO.			60J24	
ILLINOIS FED. AID PROJECT				

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



SUGGESTED EQUIPMENT LAYOUT



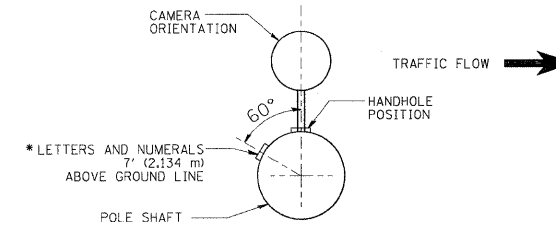
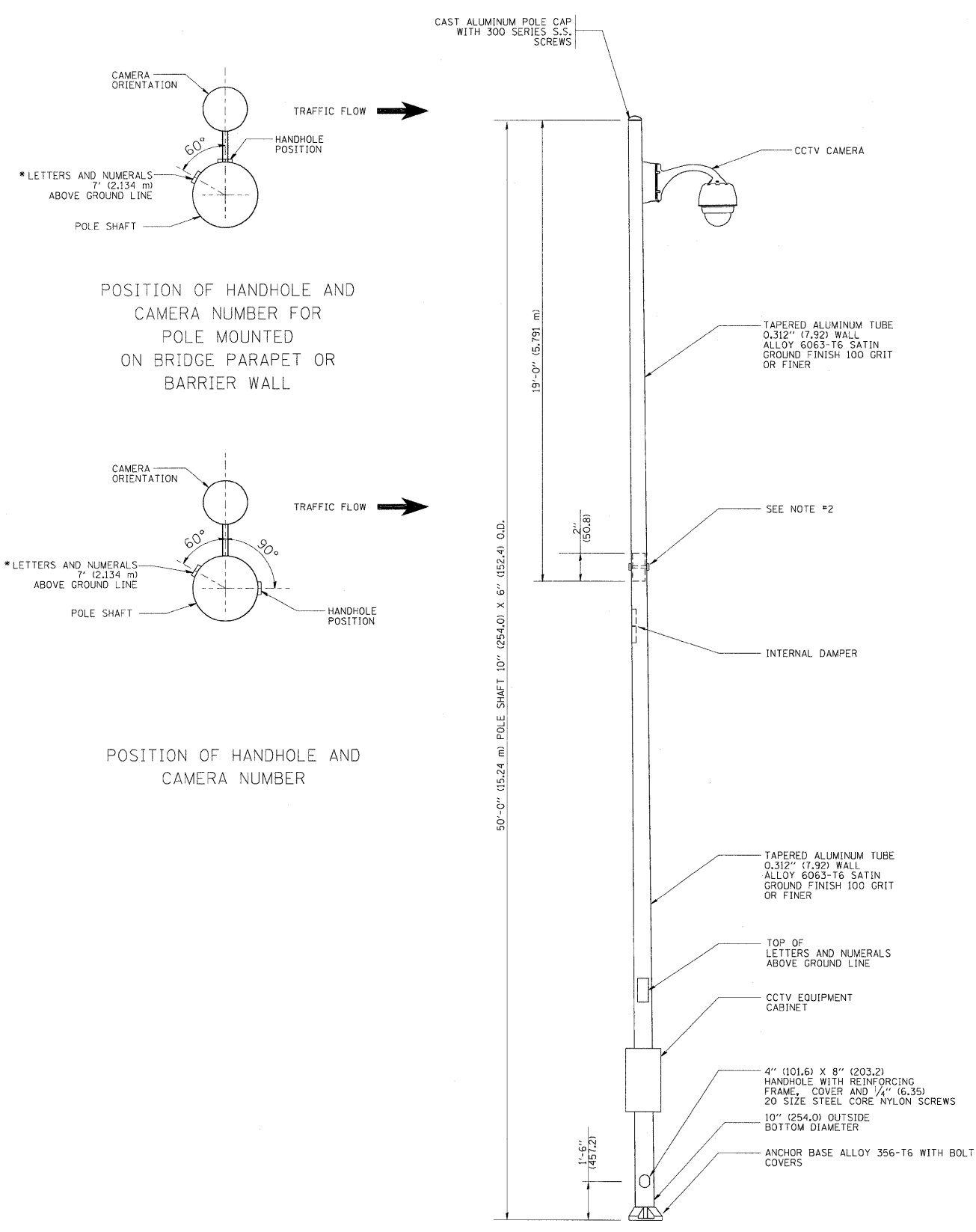
FILE NAME	USER NAME	DESIGNED RT	REVISED
		DRAWN RT	REVISED
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

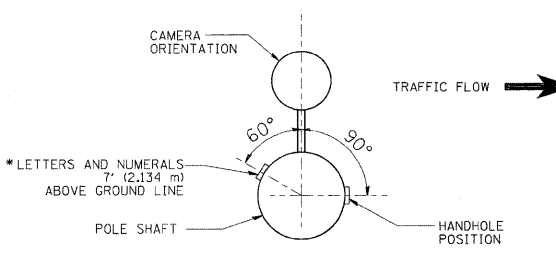
**CCTV CAMERA EXPANSION - FAI 55 (LORENZO RD. TO I-80)
CCTV CAMERA EQUIPMENT, FIBER OPTIC DISTRIBUTION**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2009-112 I	WILL	56	53
CONTRACT NO.			60J24	
ILLINOIS FED. AID PROJECT				

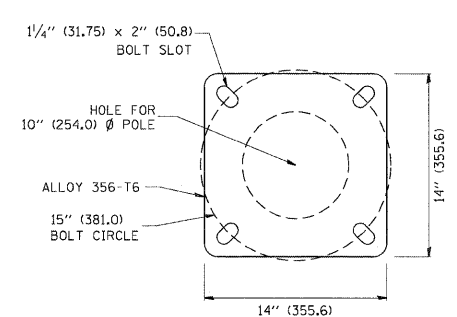


POSITION OF HANDHOLE AND CAMERA NUMBER FOR POLE MOUNTED ON BRIDGE PARAPET OR BARRIER WALL

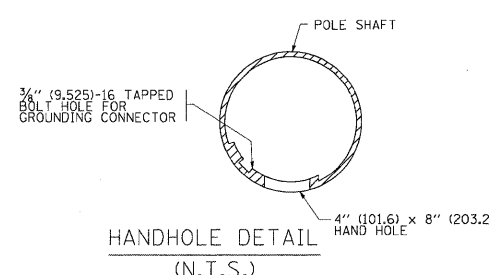


POSITION OF HANDHOLE AND CAMERA NUMBER

- NOTES:**
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
 2. TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
 3. THE POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
 4. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR, BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
 5. POLES WILL BE INSTALLED IN ACCORDANCE TO MANUFACTURER'S INSTRUCTIONS.
 6. POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.



POLE BASE PLATE DETAIL
15 INCH (381.0) BOLT CIRCLE



FILE NAME =	USER NAME = leyse	DESIGNED -	REVISED - R. TOMSONS 09-06-00
c:\pwwork\pwwid\LEYSAN\d2108315\bel1002.dgn		DRAWN -	REVISED - R. TOMSONS 09-03-03
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 4/12/2010	DATE -	REVISED -

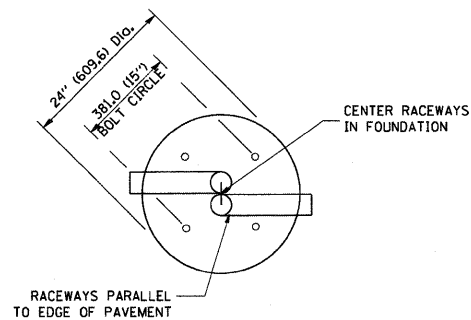
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CCTV CAMERA STRUCTURE			
50' (15.24 m) MOUNTING HEIGHT			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

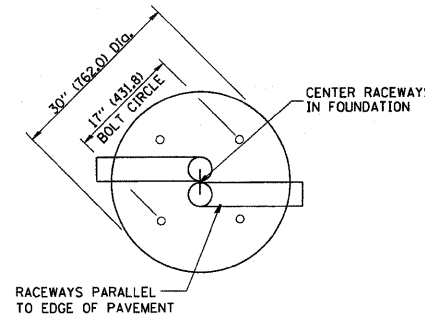
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			56	54
BE-1000		CONTRACT NO. 60724		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY O _u = 0.375 TON/SQ. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY O _u = 0.75 TON/SQ.FT	9'-6" (2.93 m)	10'-9" (3.23 m)
STIFF CLAY O _u = 1.50 TON/SQ. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)



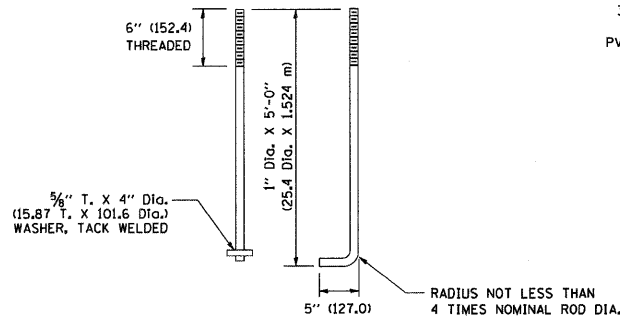
TOP VIEW



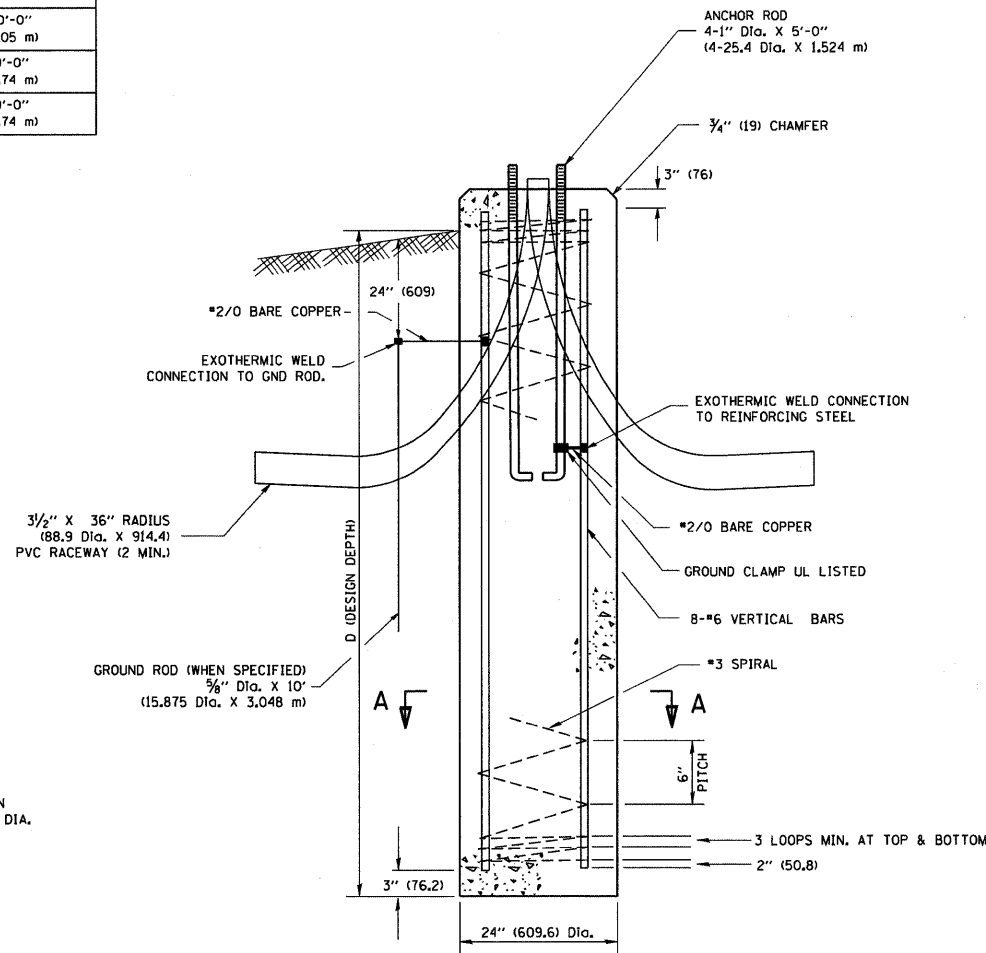
TOP VIEW

NOTES

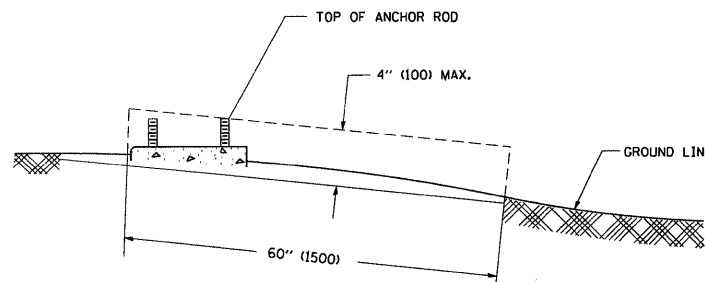
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.



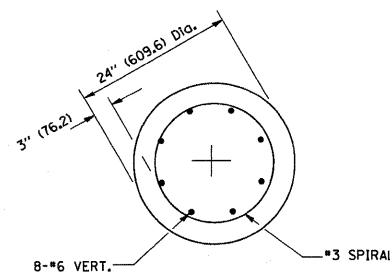
ANCHOR ROD DETAIL



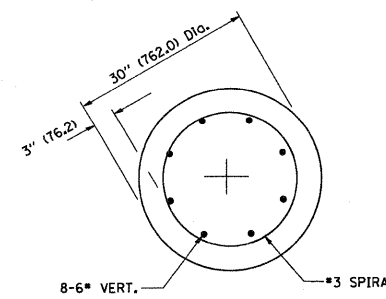
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



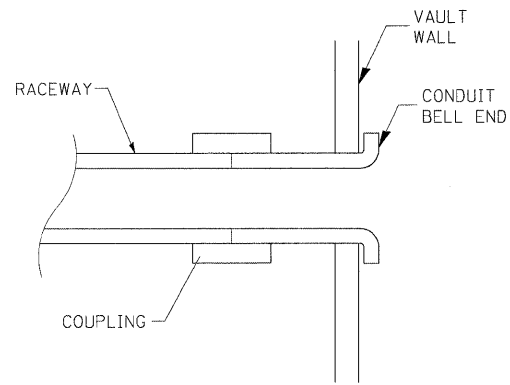
SECTION A-A



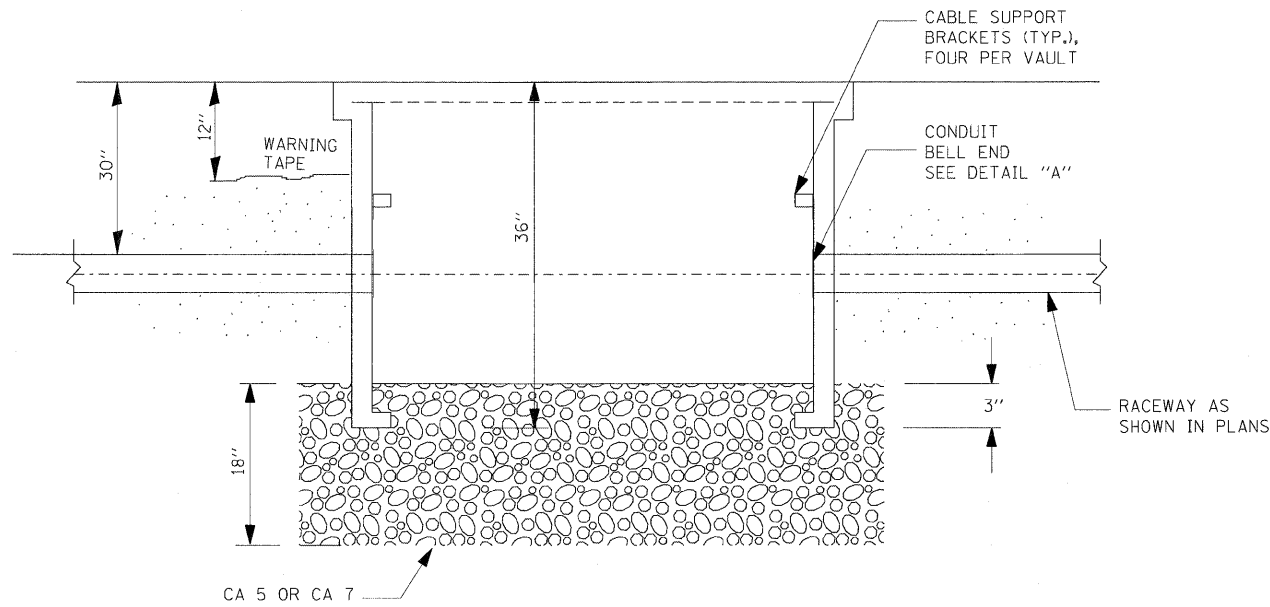
SECTION A-A

FILE NAME = W:\dststd\22x34\be301.dgn	USER NAME = geglianobt	DESIGNED -	REVISED - 04-22-02	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHT POLE FOUNDATION			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED -		40' (12.192 m) TO 47' 1/2' (14.478 m) M.H. 15" (381 mm) BOLT CIRCLE						56	55
	PLOT DATE = 1/4/2008	CHECKED -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	BE-301		CONTRACT NO. 60724	
		DATE -	REVISED -					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

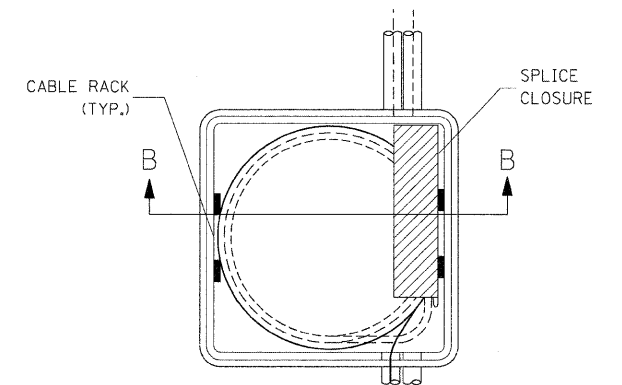
COMMUNICATIONS VAULT LOAD RATINGS			
COMPONENT	ANSI TIER	LOADING	
		DESIGN	TEST
BOX	22	22,500 lbs.	37,750 lbs.
COVER	22	22,500 lbs.	37,750 lbs.



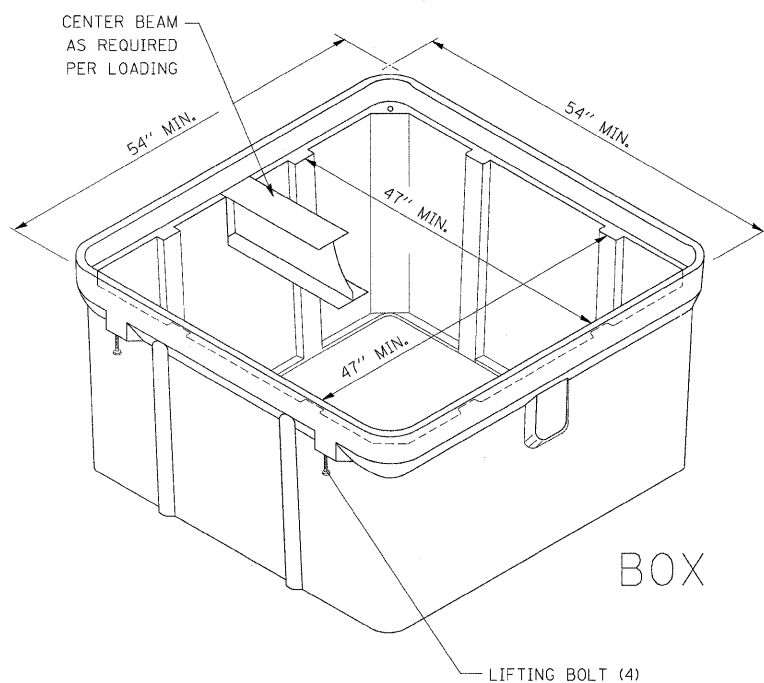
DETAIL A



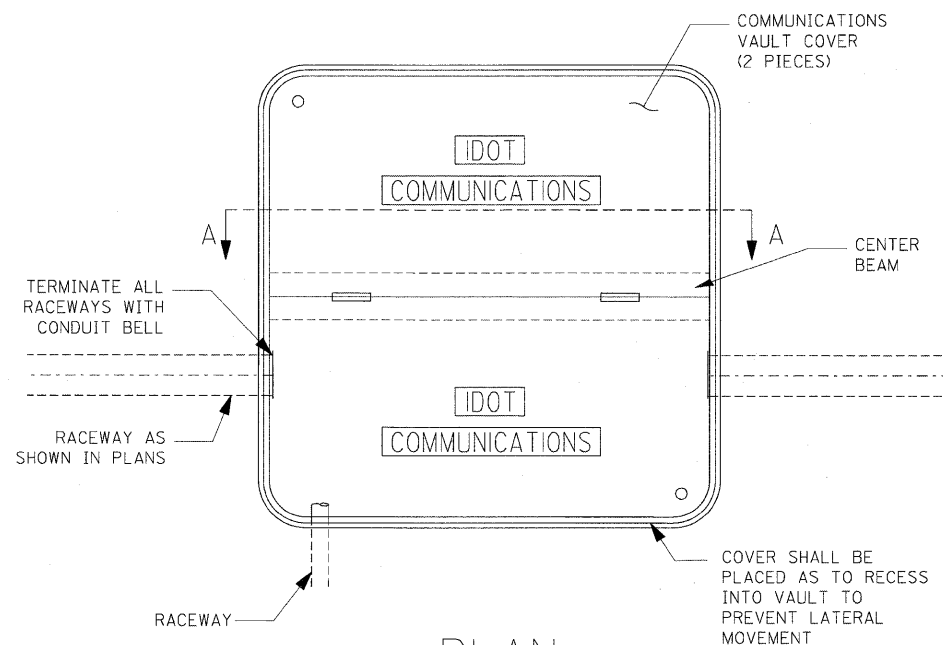
SECTION A-A



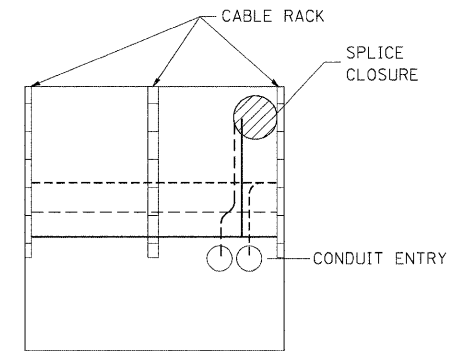
TOP VIEW



ISOMETRIC



PLAN



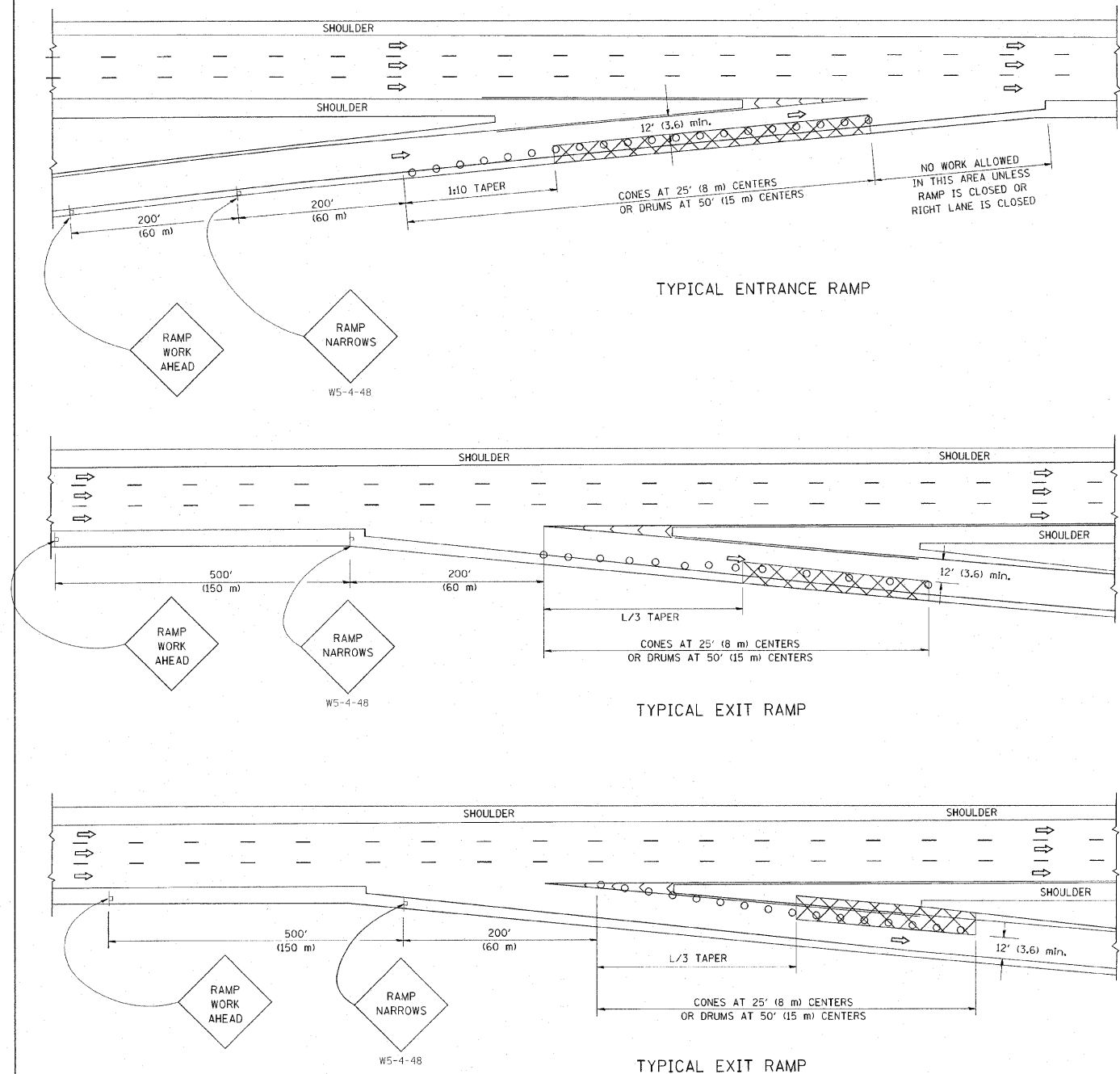
SECTION B-B

NOTES:

1. BOX SHALL HAVE AN OPEN BASE.
2. ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION OR PUNCH DRIVEN AT TIME OF PLACEMENT, IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
3. FIELD PLACEMENT OF COMMUNICATIONS VAULT SHALL BE AS DIRECTED BY THE ENGINEER.
4. 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 = jeyea	DESIGNED - R. Tomsons	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	COMMUNICATIONS VAULT, COMPOSITE CONCRETE			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
os:\pwork\pwidot\jeyea\d0108315\be705.dgn	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED -								50	56
PLOT DATE = 4/5/2010	DATE - 03-22-10	CHECKED -	REVISED -		SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.			BE-705		CONTRACT NO. 60J24		
		REVISI	ON		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			ILLINOIS FED. AID PROJECT				

PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP

TYPICAL EXIT RAMP

TYPICAL EXIT RAMP

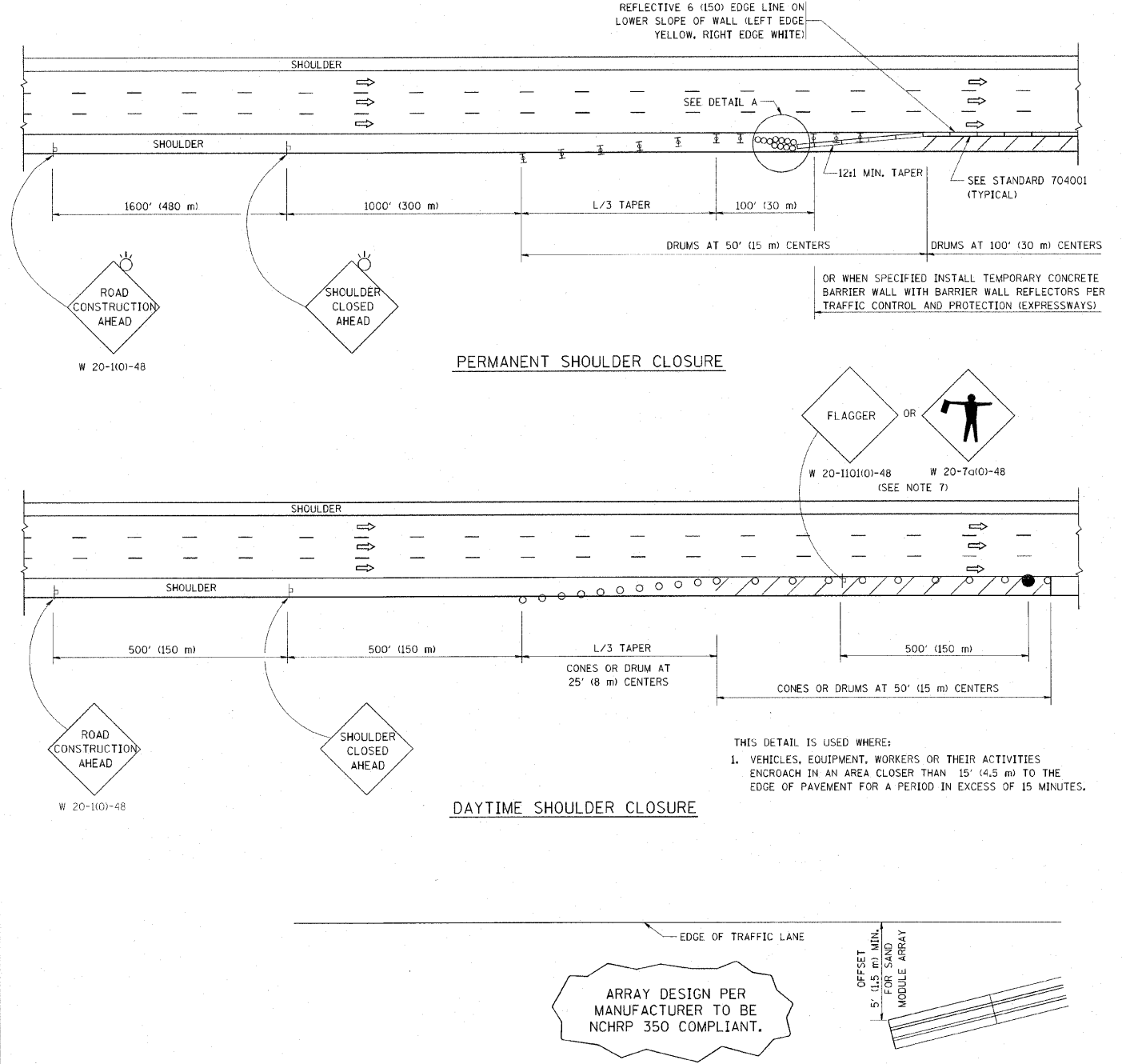
SYMBOLS

- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

GENERAL NOTES

- THE "L" DISTANCE EQUALS:
SPEED LIMIT FORMULAS
45 mph (80 km/h) METRIC ENGLISH
OR GREATER: L=0.65(W)(S) L=(W)(S)
W = WIDTH OF OFFSET IN FEET (METERS)
S = NORMAL POSTED SPEED MPH (KM/H)
- PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

SHOULDER CLOSURE DETAILS



PERMANENT SHOULDER CLOSURE

DAYTIME SHOULDER CLOSURE

ARRAY DESIGN PER MANUFACTURER TO BE NCHRP 350 COMPLIANT.

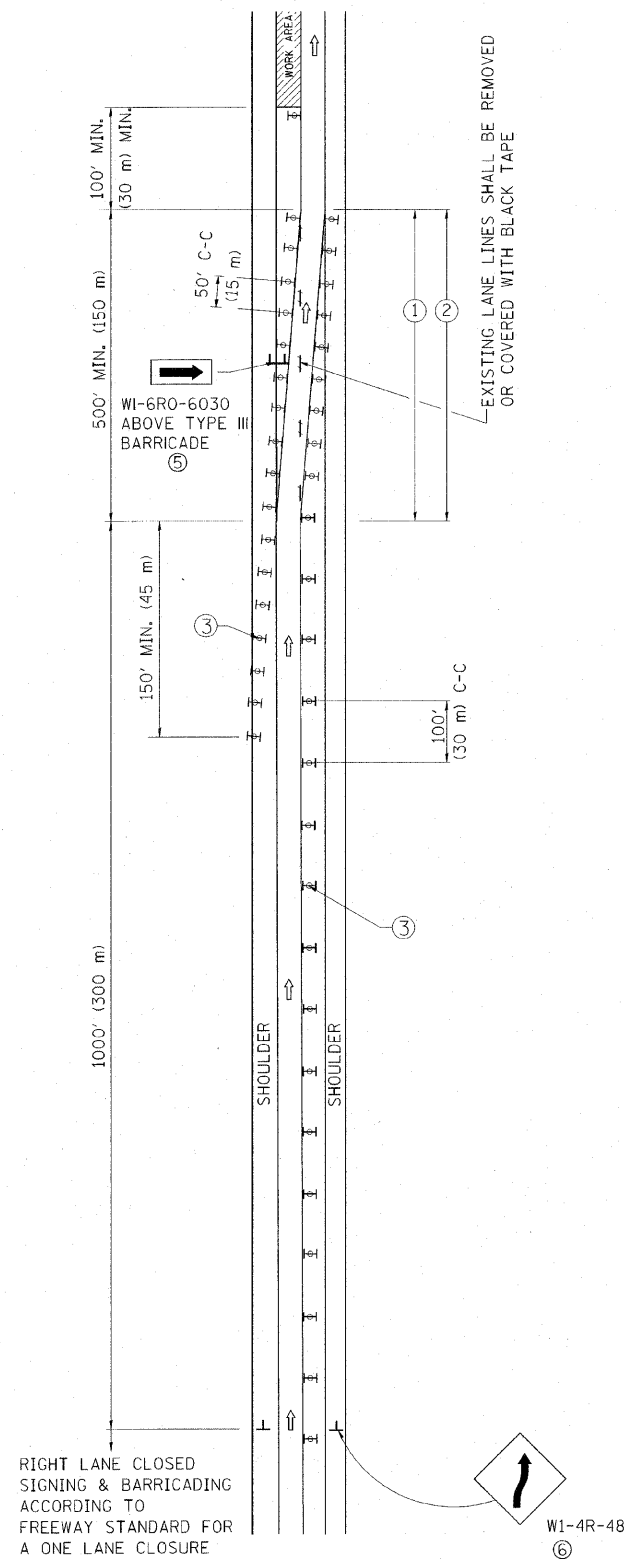
DETAIL "A"
IMPACT ATTENUATOR, TEMPORARY
(SEE NOTE 5)

THIS DETAIL IS USED WHERE:
1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCR OACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.

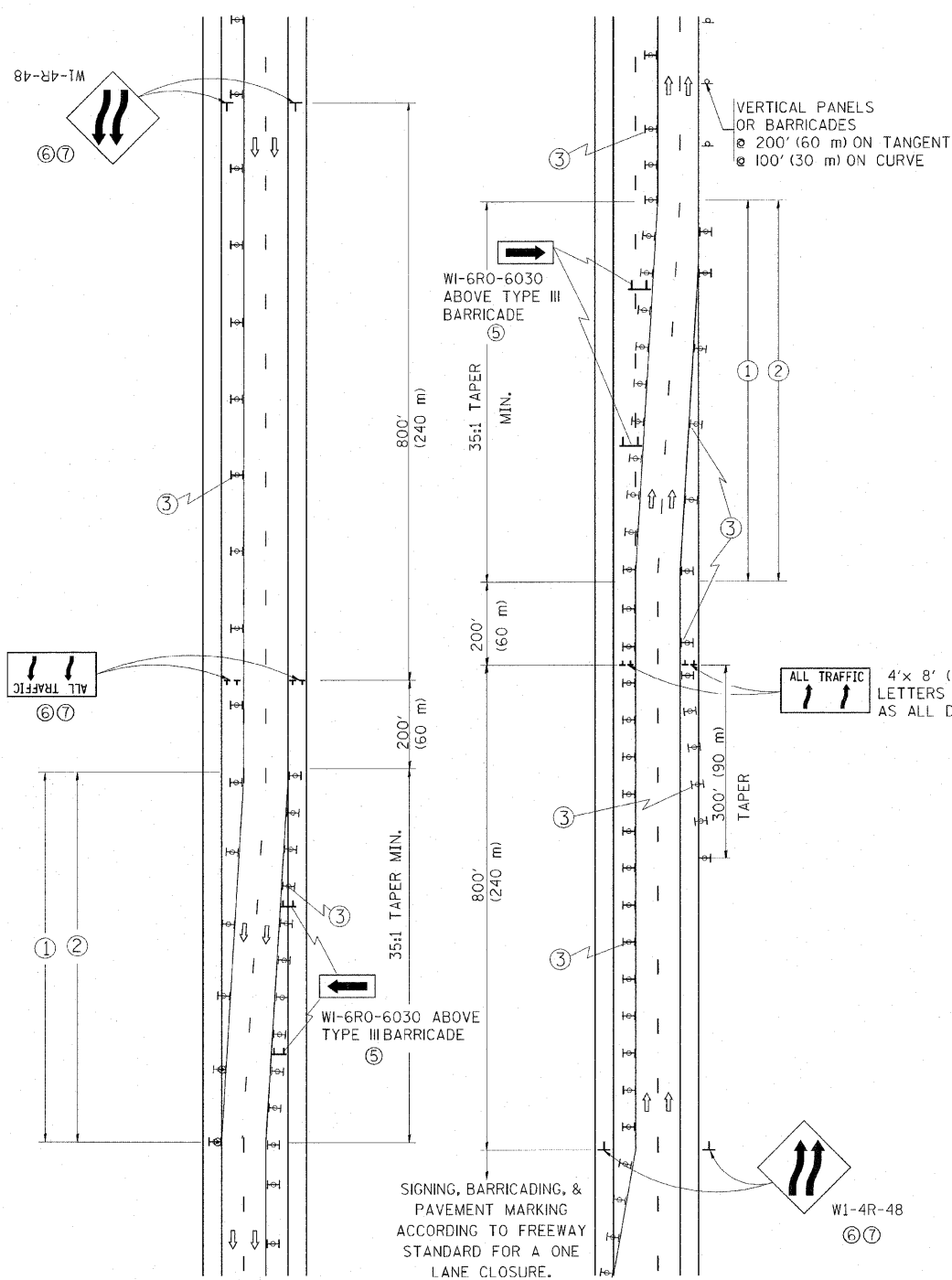
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\dcs\std\22-34\17.dgn	USER NAME = lgea	DESIGNED -	REVISED - 04-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - D.W.S.	REVISED - J.A.F. 12-06		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	TC-17	CONTRACT NO.	56	56A
		CHECKED -	REVISED - S.P.B. 01-07									
		DATE - 11-96	REVISED - S.P.B. 12-09									

SINGLE LANE WEAVE



MULTI-LANE WEAVE



GENERAL NOTES

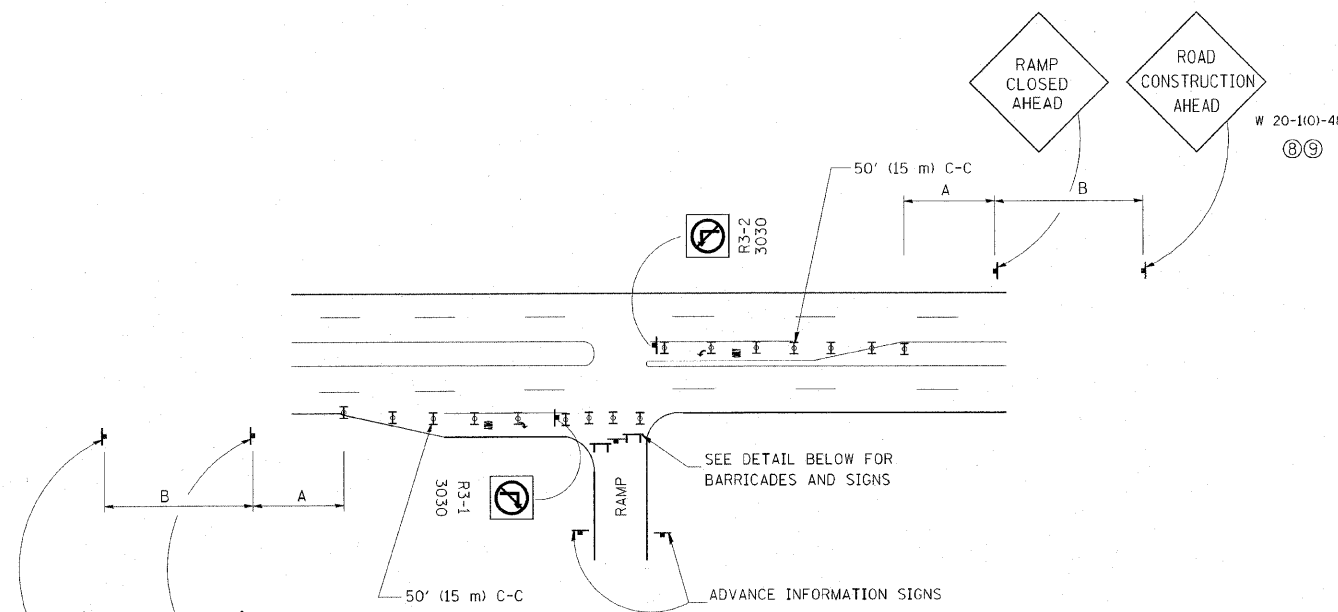
- EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED. PAVEMENT MARKING REMOVAL SHALL NOT BE REQUIRED FOR SINGLE LANE WEAVES UNDER 24 HOURS IN DURATION.
- CONTINUOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVES LANE LINES SHALL BE 5 INCH, 10'-30' (3 m-9 m) SKIP DASH, WHITE.
- PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON NCHRP 350 TEMPORARY SIGN SUPPORTS. TYPE III BARRICADES MAY BE OMITTED FOR SINGLE-LANE WEAVES UNDER 24-HOURS IN DURATION. W1-6 SIGNS WILL STILL BE REQUIRED. IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.
- WHEN THE LENGTH OF THE SHIFTED SEGMENT (DISTANCE BETWEEN WEAVE POINTS) IS LESS THAN 1500', DOUBLE REVERSE CURVE SIGNS (W24-1) SHOULD BE USED INSTEAD OF THE REVERSE CURVE (W1-4) SIGNS. ARROWS ON THE 4'X8' "ALL TRAFFIC" SIGNS SHALL BE THE SAME SHAPE.
- THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC.

SYMBOLS

- ↑ DIRECTION OF TRAFFIC
- ▨ WORK AREA
- ┌ SIGN ON PORTABLE OR PERMANENT SUPPORT
- ⊞ TYPE II BARRICADE OR DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT
- W1-4R-48
- W24-1-48

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME = W:\diststd\F22x34\tc09.dgn	USER NAME = lcyso	DESIGNED - DWS	REVISED - JAF 01-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED - JAF 02-06		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	TC-09			56	502
		CHECKED -	REVISED - SPB 01-07										
		DATE - 02-87	REVISED - SPB 12-09										
								FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

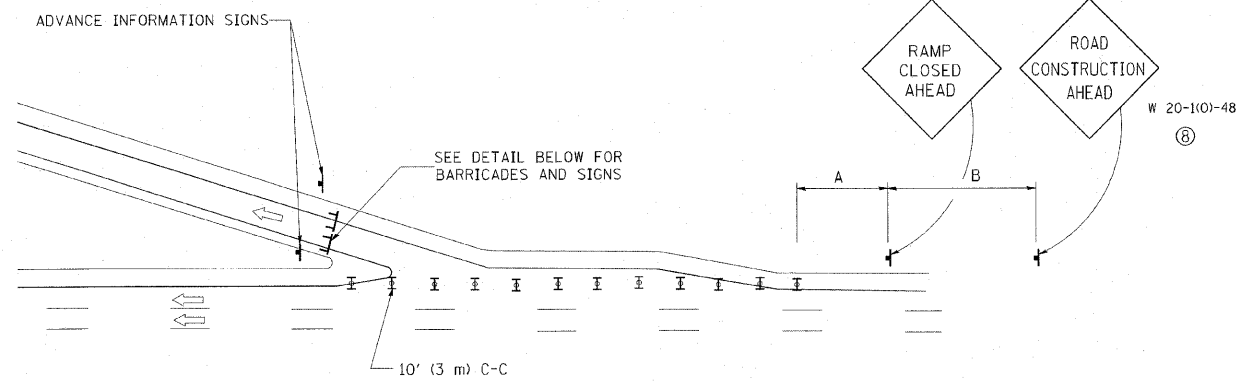
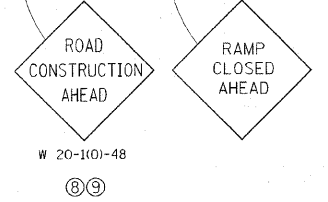


ENTRANCE RAMP CLOSURE

SIGN SPACING TABLE

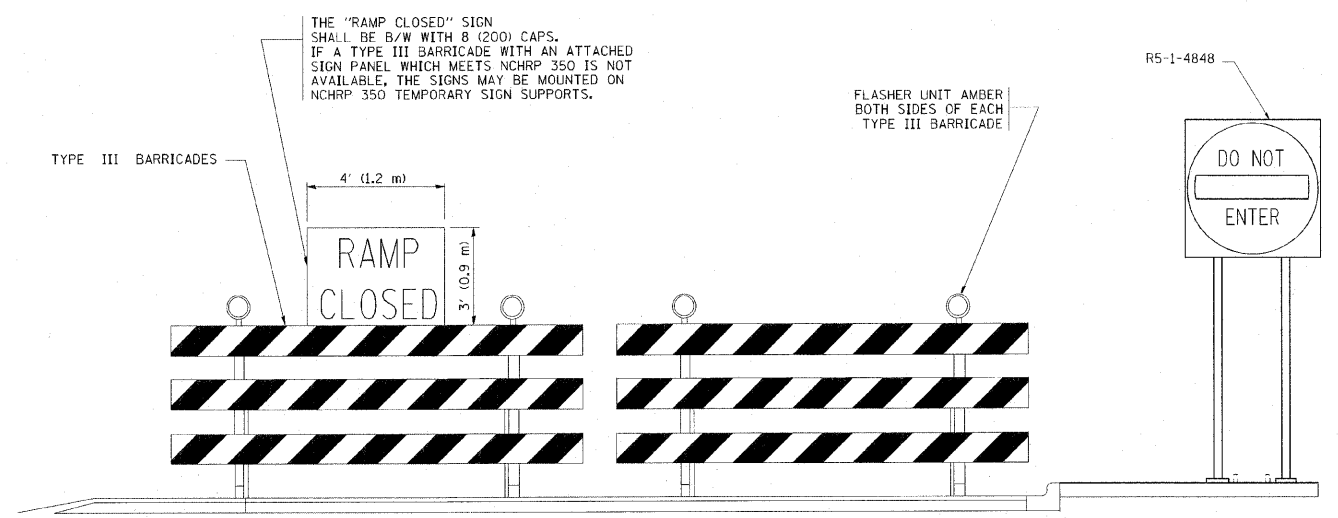
FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY ≤24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL ≥45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	150' (45 m)	150' (45 m)

DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.

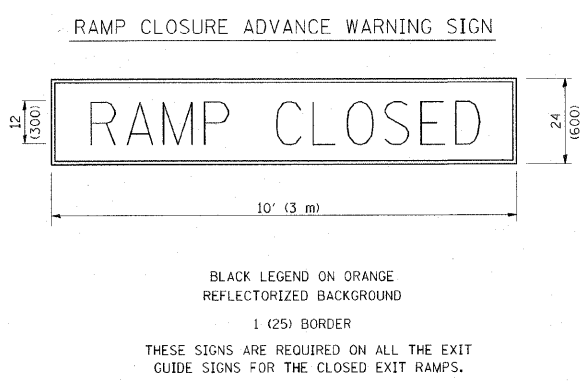


EXIT RAMP CLOSURE

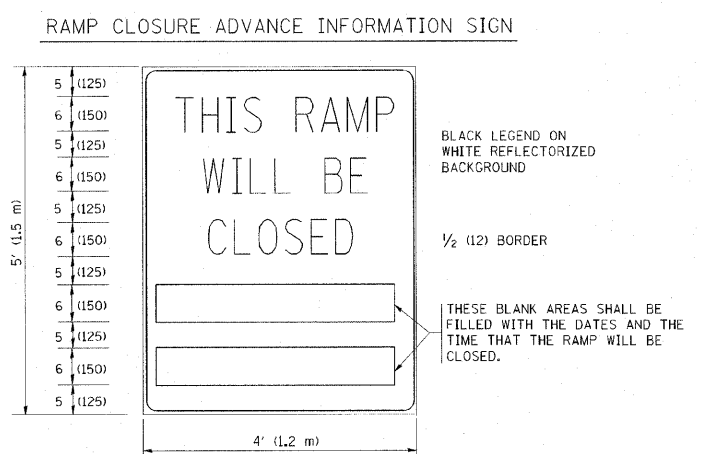
- SYMBOLS**
- ⊥ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
 - ⊥ TYPE III BARRICADE WITH FLASHING LIGHT



DETAIL FOR REQUIRED BARRICADES & SIGNS



BLACK LEGEND ON ORANGE REFLECTORIZED BACKGROUND
1 (25) BORDER
THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR THE CLOSED EXIT RAMPS.



THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

GENERAL NOTES:

- ① CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- ② STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
- ③ A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES.
- ④ ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED.
- ⑤ THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- ⑥ AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- ⑦ THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT RAMP CLOSURES THAT EXCEED TWENTY FOUR (24) HOURS IN LENGTH.
- ⑧ ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- ⑨ ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED ON CLOSURES LESS THAN 24 HOURS IN DURATION.

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

FILE NAME = W:\distrsta\22v34\trc08.dgn	USER NAME = lveys	DESIGNED - DWS	REVISED - DWS/JAF 12-02
		DRAWN -	REVISED - JAF 02-06
		CHECKED -	REVISED - SPB 01-07
		DATE - 02-83	REVISED - SPB 12-09

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

FREWAY ENTRANCE AND EXIST RAMP CLOSURE DETAILS	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS
STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TC-08		50	562
FED. ROAD DIST. NO. 1 ILLINOIS		CONTRACT NO.		