

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED
HIGHWAY PLANS

VARIOUS ROUTES
SECTION: D7 ELECTRICAL REPAIRS 2026-1
ELECTRICAL MAINTENANCE
VARIOUS COUNTIES

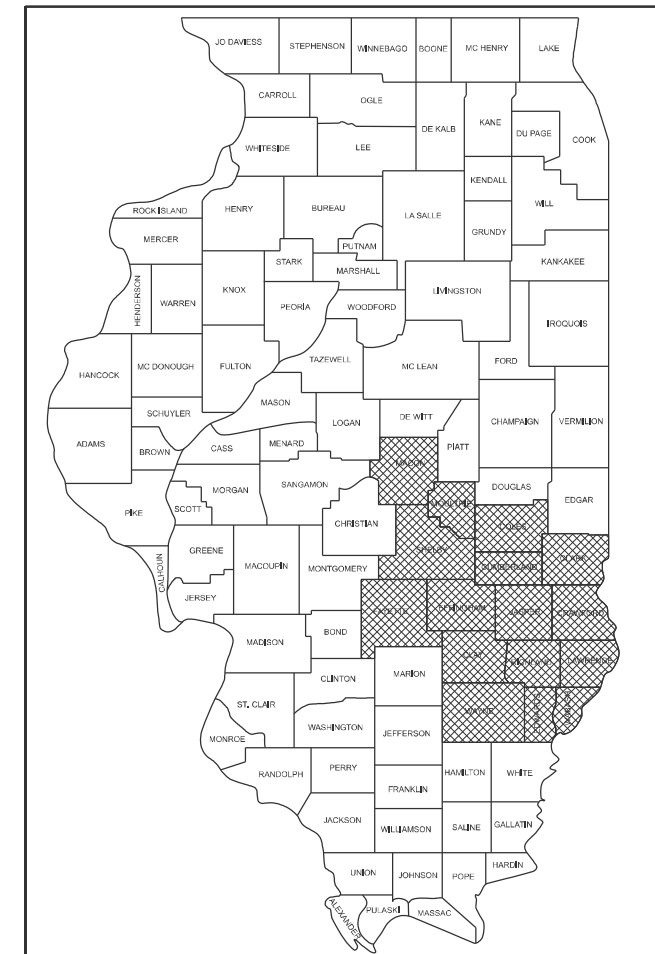
C-97-056-26

FOR INDEX OF SHEETS, SEE SHEET NO. 2

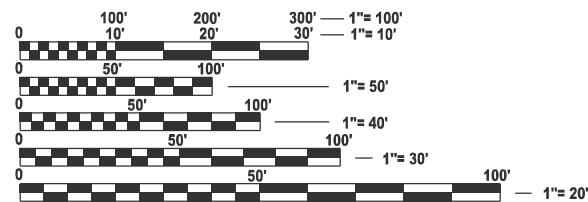
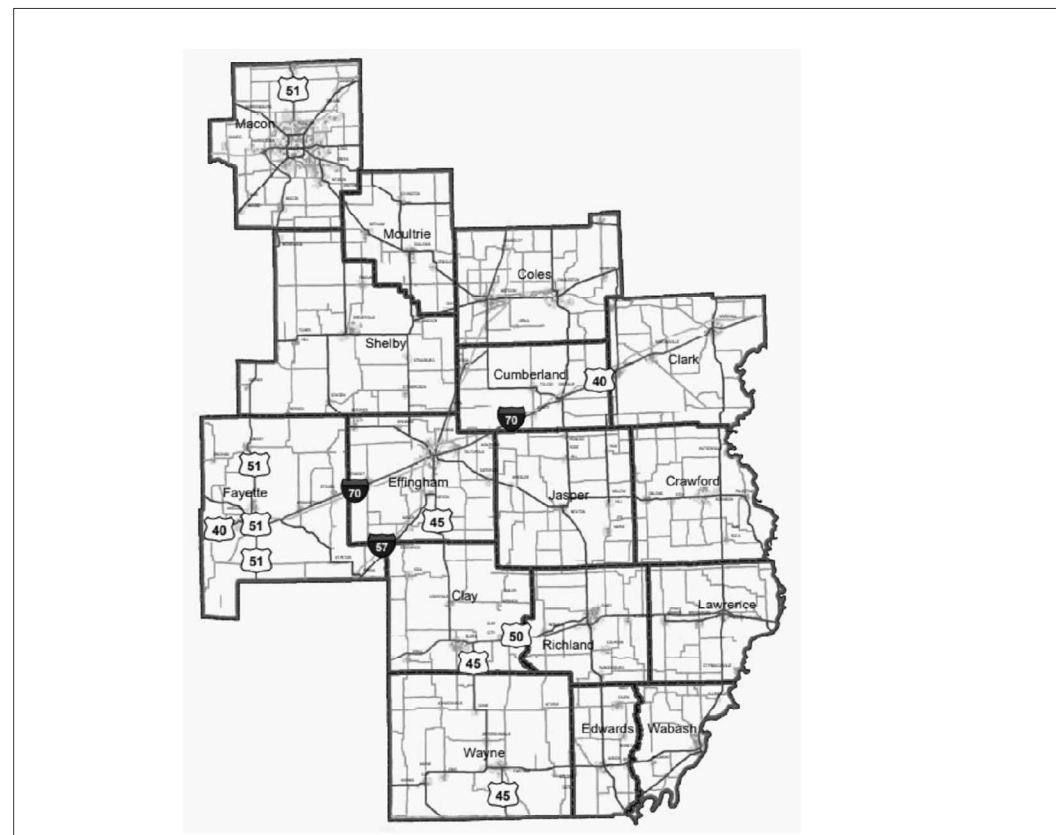
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	****	VARIOUS	6	1
		ILLINOIS	CONTRACT NO. 74E31	

** VARIOUS **** D7 ELECTRICAL REPAIRS 2026-1

D-97-049-26



LOCATION OF SECTION INDICATED THUS: - [shaded box] OR [cross-hatched box]



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER - KALEB HIRTZEL (217) 342-8256
PROJECT MANAGER - KYLE PRICE (217) 342-8244

CONTRACT NO. 74E31

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED February 3, 2026
Teresa C. Price
REGIONAL ENGINEER

March 20, 2026
Scott A. [Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

March 20, 2026
[Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				100% STATE	
				SAFETY 0043	SAFETY 0021
72700100	STRUCTURAL STEEL SIGN SUPPORT - BREAKAWAY	POUND	1040		1040
81028730	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.	FOOT	20		20
81028770	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 3" DIA.	FOOT	20		20
81603000	UNIT DUCT, 600V, 2-1C NO.8, 1/C NO.8 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE	FOOT	1000		1000
82110007	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	EACH	10		10
82110008	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	10		10
82110015	LUMINAIRE, LED, HIGHMAST, OUTPUT DESIGNATION H	EACH	10		10
82500330	LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 60AMP	EACH	1		1
82500335	LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 100AMP	EACH	1		1
82500340	LIGHTING CONTROLLER, PEDESTAL MOUNTED, 480VOLT, 60AMP	EACH	1		1
82500360	LIGHTING CONTROLLER, BASE MOUNTED, 480VOLT, 100AMP	EACH	1		1
83003500	LIGHT POLE, ALUMINUM, 45 FT. M.H., 12 FT. DAVIT ARM	EACH	3	1	2
83003600	LIGHT POLE, ALUMINUM, 45 FT. M.H., 15 FT. DAVIT ARM	EACH	3		3
83004600	LIGHT POLE, ALUMINUM, 50 FT. M.H., 15 FT. DAVIT ARM	EACH	3	1	2

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				100% STATE	
				SAFETY 0043	SAFETY 0021
83009600	LIGHT POLE, ALUMINUM, 45 FT. M.H., 15 FT. MAST ARM	EACH	3		3
83012400	LIGHT POLE, ALUMINUM, 45 FT. M.H., TENON MOUNT	EACH	3		3
83060830	LIGHT POLE, GALVANIZED STEEL, 45 FT. M.H., TENON MOUNT	EACH	3		3
83062730	LIGHT POLE, WEATHERING STEEL, 45 FT. M.H., TENON MOUNT	EACH	3		3
83600355	LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8" X 6'	EACH	5		5
83600357	LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8" X 8'	EACH	5	2	3
83800650	BREAKAWAY DEVICE, COUPLING WITH STAINLESS STEEL SCREEN	EACH	10		10
85800100	FLASHER CONTROLLER	EACH	2		2
86300300	CONTROLLER CABINET TYPE III	EACH	2		2
87800200	CONCRETE FOUNDATION, TYPE D	FOOT	7		7
87900200	DRILL EXISTING HANDHOLE	EACH	2		2
88600100	DETECTOR LOOP, TYPE I	FOOT	325		325
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	200		200
X0323388	TRAFFIC COUNTER	EACH	2		2

MODEL: SOQ (Sheet)
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USER NAME = jessica.hille	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 2/4/2026	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	****	VARIOUS	6	3
CONTRACT NO. 74E31				
ILLINOIS FED. AID PROJECT				

** VARIOUS **** D7 ELECTRICAL REPAIRS 2026-1

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				SAFETY 0043	SAFETY 0021
X0327116	SOLAR POWER ASSEMBLY	EACH	2		2
X8730810	ELECTRIC CABLE IN CONDUIT, CONOGA-30003	FOOT	200		200
X8860105	DETECTOR LOOP REPLACEMENT	FOOT	300		300
X8860202	PIEZO AXLE SENSOR, CLASS II	FOOT	24		24
XP000001	JOURNEYMAN ELECTRICIAN	HOUR	200	200	
XP000002	APPRENTICE ELECTRICIAN	HOUR	50	50	
XP000009	PICK-UP TRUCK	HOUR	200	200	
XP000010	BUCKET TRUCK (LENGTH LESS THAN 35 FEET)	HOUR	50	50	
XP000011	BUCKET TRUCK (LENGTH 35 TO 65 FEET)	HOUR	100	100	
XP000012	ARROWBOARD (TRAILER MOUNTED)	HOUR	20	20	
XP000013	ATTENUATOR, CRASH (TRUCK MOUNTED)	HOUR	20	20	
XP000028	LABOR	HOUR	100	100	

USER NAME = jessica.hille	DESIGNED -	REVISED -
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

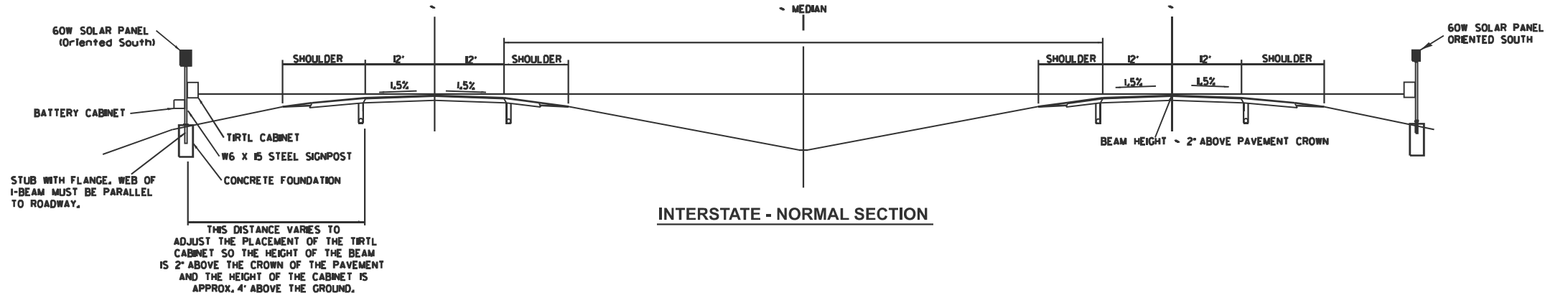
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	****	VARIOUS	6	4
CONTRACT NO. 74E31				
ILLINOIS FED. AID PROJECT				

** VARIOUS **** D7 ELECTRICAL REPAIRS 2026-1

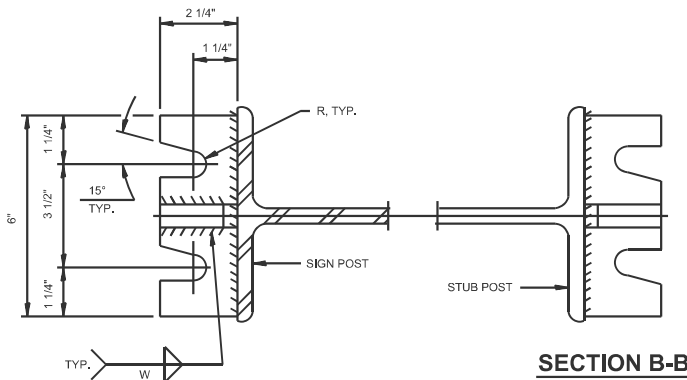
NOTES:

1. SYSTEM CONSISTS OF TWO W6 X 15 I-BEAM SIGNPOSTS WITH CONCRETE FOUNDATION AND A FLANGE WITH BREAKAWAY BOLTS
2. THE I-BEAMS ARE 12' LONG AND DRILLED AS PER THE I-BEAM DETAIL TO ACCOMMODATE A PIPE TO ALLOW THE MOUNTING OF THE SOLAR PANEL.
3. THE WEB OF THE I-BEAM IS TO BE PLACED PARALLEL TO THE LANES.
4. THE TWO POSTS MUST BE PLACED DIRECTLY ACROSS FROM EACH OTHER AND PERPENDICULAR TO THE LANES.
5. TWO POSTS ARE REQUIRED LOCATED AS PER THE ENGINEER AND DRAWING.
6. THE CABINETS ARE ATTACHED TO THE I-BEAM USING 8" GALVANIZED J-BOLTS.
7. THE BOTTOM OF THE CABINET HEIGHT MUST BE NO LOWER THAN 4' ABOVE THE GROUND AND BE ABLE TO VIEW ACROSS ALL LANES AT THE CROWN OF THE PAVEMENT.
8. THE IDOT OFFICE OF PLANNING AND PROGRAMMING DATA MANAGEMENT LAB RICH MARX (217-782-2065) MUST BE CONTACTED TWO WEEKS PRIOR TO ANY WORK BEING DONE TO ENSURE PROPER POST PLACEMENT.

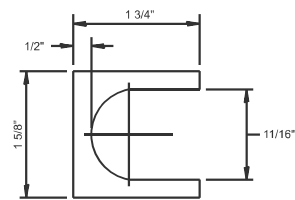


**TIRTL TRAFFIC COUNTER
SCHEDULE OF QUANTITIES
(FOR INFORMATION ONLY)**

CODE NUMBER	ITEM	UNIT	QUANTITY
72700100	STRUCTURAL STEEL SIGN SUPPORT - BREAKAWAY	POUND	520
X0323388	TRAFFIC COUNTER SYSTEM (INCLUDES BELOW)	EACH	1
TIRTL TRAFFIC DATA COLLECTION SYSTEM INCLUDES:			
	SIERRA WIRELESS MODEM RV-50	EACH	1
	PANORAMA LOW PROFILE LTE MIMO LGAM-BC3G-26-3SP ANTENNA	EACH	1
	TIRTL CABINET 15' X 27' X 16'	EACH	2
	BATTERY CABINET 16.5' X 16' X 11.5' BBAIM W/ #2 POLICE LOCK	EACH	1
	SOLAR PANEL 60 W 12 VDC WITH BRACKET AND JUNCTION BOX	EACH	2
	TIRTL TRAFFIC COUNTER	EACH	1
	SUNSAVER SOLAR CHARGE REGULATOR 10 AMP 12 VDC	EACH	2
	BATTERY - 33 AH ABSORBED ELECTROLYTE 8' X 5.5' X 7' (DEEP CYCLE)	EACH	1
	BATTERY -104AH ABSORBED ELECTROLYTE 10' X 6' X 8' (DEEP CYCLE)	EACH	1

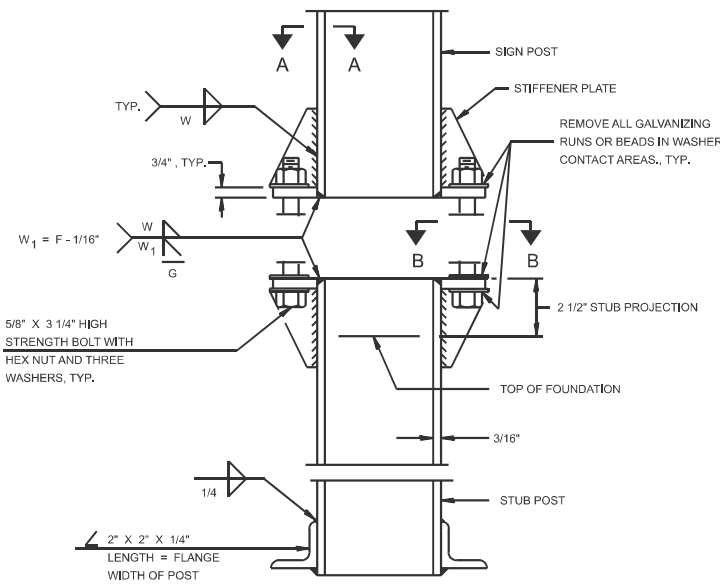


SECTION A-A

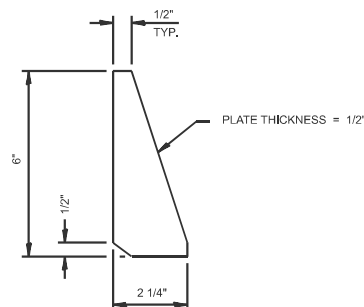


SHIM DETAIL

FURNISH TWO 0.01" THICK AND TWO 0.03" THICK STAINLESS STEEL OR BRASS (ASTM B36) SHIMS PER POST.



**ELEVATION
SIGN POST & STUB POST**



STIFFENER PLATE DETAIL

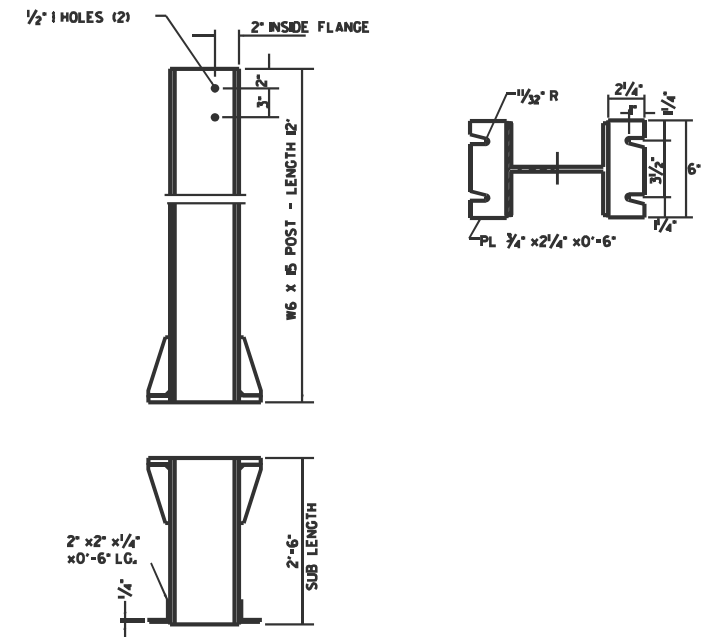
GENERAL NOTES

POSTS SHALL BE PLUMBED BY USING SHIMS WITH POST-TO-STUB POST CONNECTION BOLTS SNUG TIGHT ONLY. FINAL TIGHTENING OF ALL HIGH STRENGTH BOLTS SHALL BE IN ACCORDANCE WITH ARTICLE 727.05 AND THREADS AT THE JUNCTION OF THE BOLT AND NUT SHALL BE BURRED OR CENTER PUNCHED TO PREVENT THE NUT FROM LOOSENING.

LOADING: 80 M.P.H. WIND WITH 30% GUST FACTOR, NORMAL TO SIGN.

DESIGN STRESSES:
 STRUCTURAL STEEL - 20,000 P.S.I.
 REINFORCING STEEL - 20,000 P.S.I.
 CONCRETE - 4,400 P.S.I.
 FOOTING SOIL PRESSURE - 2,000 P.S.F.

AFTER FABRICATION, THE POST AND UPPER 6" MIN. OF THE STUB POST SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M11. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M232.



BREAK-AWAY WIDE FLANGE STEEL POST DETAILS

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USER NAME = jessica.hille	DESIGNED -	REVISED -
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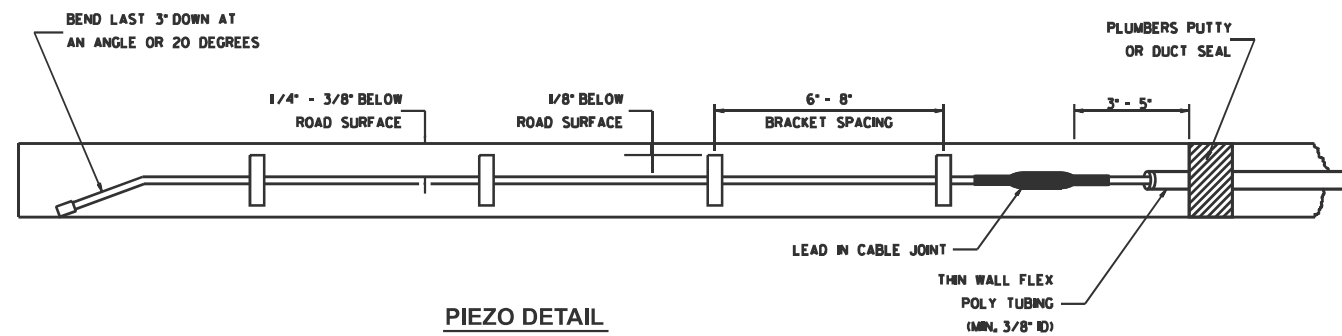
DETAIL - TIRTL CABINET

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

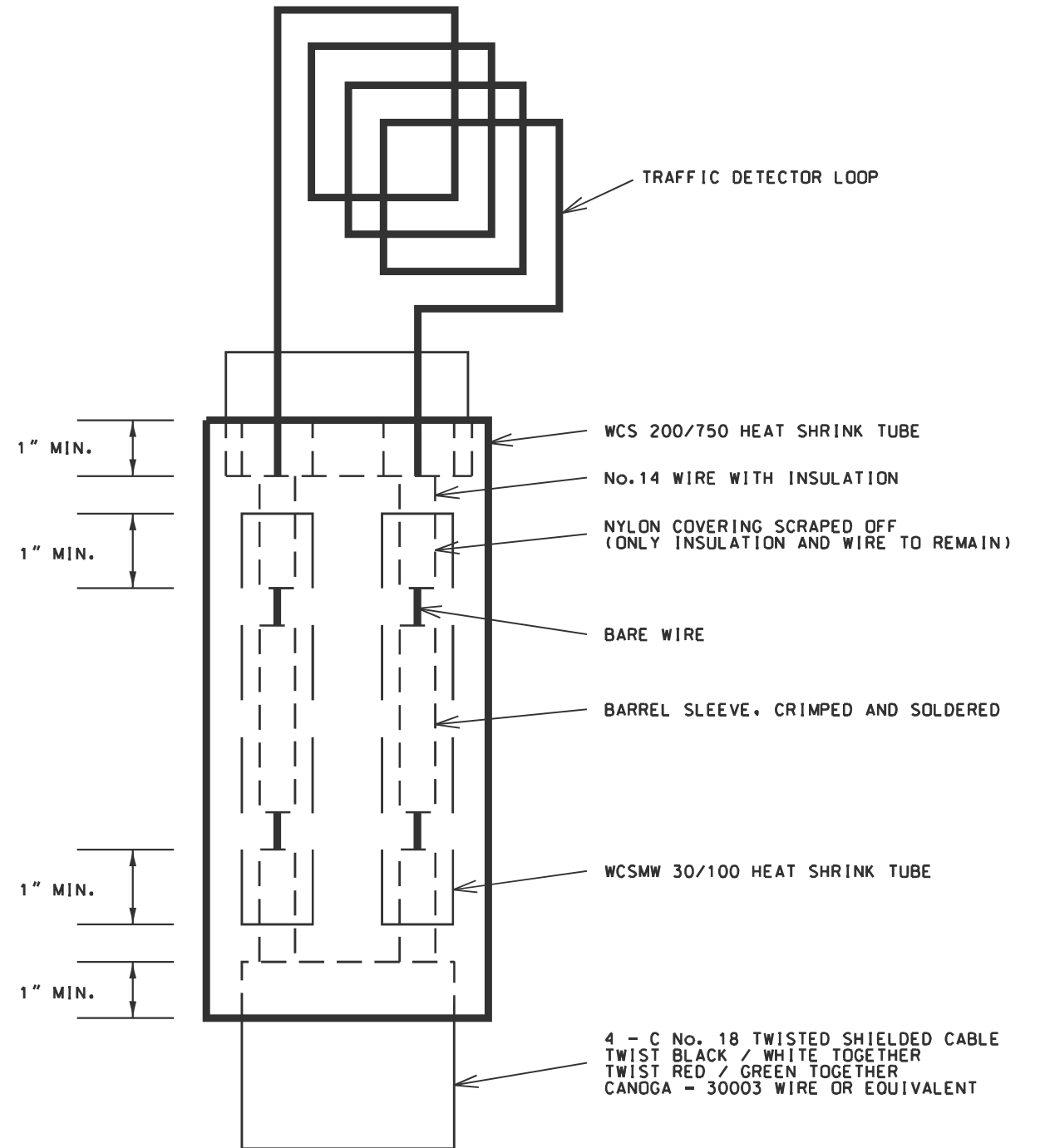
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 ** VARIOUS **** D7 ELECTRICAL REPAIRS 2026-1

LOOP SPLICING REQUIREMENTS



PIEZO DETAIL



MINIMUM 1" HEAT SHRINK TUBE OVERLAP ON WIRE.
PVC & SHIELDED CABLE TO FORM WATER TIGHT SEAL.

NOTE: NOT TO SCALE

MODEL: Detail-1 (Sheet)
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USER NAME = jessica.hille	DESIGNED -	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL - PIEZO & LOOP SPLICING REQUIREMENTS

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
**	****	VARIOUS	6	6
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