

SHEET NUM.

PART.

ITEM

ITEM EXT

GRAND TOTAL

UNIT

DESCRIPTION

SEE SHEET NO.

P.5	P.6	P.11	P.12	P.13	P.14	P.15	P.28	P.30	P.31	P.32	P.33	P.34	01/SAF/OT	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
TRAFFIC SIGNALS																			
								2	1	2	3	2	10	625	00450	10	EACH	CONNECTION, FUSED PULL APART	
										1	1		2	625	14000	2	EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP	
								1				1	2	625	17961	2	EACH	BRACKET ARM, 8', AS PER PLAN	P.28
											1		1	625	18001	1	EACH	BRACKET ARM, 10', AS PER PLAN	P.28
								1	1		1		3	625	18201	3	EACH	BRACKET ARM, 15', AS PER PLAN	P.28
										1		1	2	625	18401	2	EACH	BRACKET ARM, 20', AS PER PLAN	P.28
								400	200	200	505	400	1705	625	23000	1705	FT	NO. 4 AWG 600 VOLT DISTRIBUTION CABLE	
								160	80	80	160	160	640	625	23400	640	FT	NO. 10 AWG POLE AND BRACKET CABLE	
								115	128	135	109	42	529	625	25408	529	FT	CONDUIT, 2", 725.051	
								45	6	197	80	74	402	625	25604	402	FT	CONDUIT, 4", 725.051	
								234	704		263	163	1364	625	25906	1364	FT	CONDUIT, JACKED OR DRILLED, 725.051, 4"	
								2	1	1	2	2	8	625	27551	8	EACH	LUMINAIRE, DECORATIVE, AS PER PLAN (AS PER THE PLAN NOTE)	P.28
								123	126	207	160	84	700	625	29000	700	FT	TRENCH	
									1				1	625	30700	1	EACH	PULL BOX, 725.08, 18"	
								6	9	2	6	6	29	625	30706	29	EACH	PULL BOX, 725.08, 24"	
								9	6	3	10	7	35	625	32000	35	EACH	GROUND ROD	
										1	1		2	625	35010	2	EACH	REMOVE AND REERECT EXISTING LIGHT POLE	
								123	109	207	150	76	665	625	36010	665	FT	UNDERGROUND WARNING/MARKING TAPE	
											1		1	625	75402	1	EACH	LIGHT POLE REMOVED FOR STORAGE	
										1	2		3	625	75500	3	EACH	LIGHT POLE FOUNDATION REMOVED	
								1		1	1	1	4	625	76000	4	EACH	ARC FLASH CALCULATIONS AND LABEL - SIGNAL CONTROLLER	
								8	4	4	8	8	32	632	05007	32	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	P.27
								8	6	2	8	8	32	632	20731	32	EACH	PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN	P.28
								8	4	4	8	8	32	632	25000	32	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
								8	6	2	8	8	32	632	25010	32	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD	
								2		2	2	2	10	632	26500	8	EACH	DETECTOR LOOP	
								8	6	2	8	8	32	632	26000	32	EACH	PEDESTRIAN PUSHBUTTON	
								2		2	2	2	10	632	27104	8	EACH	LOOP DETECTOR UNIT, 2 CHANNEL, DELAY AND EXTENSION TYPE	P.27
								1866	1748	1016	1722	1718	8070	632	40500	8070	FT	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	
								983	519	432	681	737	3352	632	40700	3352	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
								3	1	1	2	3	10	632	64010	10	EACH	SIGNAL SUPPORT FOUNDATION	
								5	5	1	6	3	20	632	64020	20	EACH	PEDESTAL FOUNDATION	
							4						4	632	64950	4	EACH	TEST HOLE PERFORMED	
								307	533	333	218	215	1606	632	65300	1606	FT	LOOP DETECTOR LEAD-IN CABLE, 2 CONDUCTOR, NO. 14 AWG	
								113		57	161	38	369	632	69200	369	FT	POWER CABLE, 2 CONDUCTOR, NO. 4 AWG	
								139	126	439	83	184	971	632	69900	971	FT	SERVICE CABLE, 3 CONDUCTOR, NO. 4 AWG	
								1		1	1	1	4	632	70000	4	EACH	POWER SERVICE	
										2			2	632	70400	2	EACH	CONDUIT RISER, 2" DIAMETER	
								1				1	2	632	72101	2	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 2, AS PER PLAN	P.28
											2	1	3	632	78245	3	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-12.31 DESIGN 6 POLE, WITH MAST ARMS TC-81.22 DESIGN 12 AND DESIGN 4, AS PER PLAN	P.27
									1	1			2	632	78369	2	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-12.31 DESIGN 10 POLE, WITH MAST ARMS TC-81.22 DESIGN 13 AND DESIGN 12, AS PER PLAN	P.27
								1				1	2	632	79101	2	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 2, AS PER PLAN	P.27
								1					1	632	79421	1	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22 DESIGN 12 POLE, WITH MAST ARMS TC-81.22 DESIGN 4 AND DESIGN 2, AS PER PLAN	P.27
								5	5	1	6	3	20	632	89905	20	EACH	PEDESTAL, 10', TRANSFORMER BASE, AS PER PLAN	P.28
								1	1		1	1	4	632	90100	4	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	
								1		1	1		3	633	45000	3	EACH	GPS (GLOBAL POSITIONING SYSTEM) CLOCK ASSEMBLY	
								1		1	1	1	4	633	65523	4	EACH	CABINET, TYPE 332L, AS PER PLAN	P.27
								1		1	1	1	4	633	67101	4	EACH	CABINET FOUNDATION, AS PER PLAN	P.29
								1		1	1	1	4	633	67201	4	EACH	CONTROLLER WORK PAD, AS PER PLAN	P.29
								1		1	1	1	4	809	69123	4	EACH	ATC CONTROLLER, AS PER PLAN	P.27
MAINTENANCE OF TRAFFIC																			
	40												40	614	11110	40	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
	0.08												0.08	614	21000	0.08	MILE	WORK ZONE CENTER LINE, CLASS I	
	0.24												0.24	614	21100	0.24	MILE	WORK ZONE EDGE LINE, CLASS I, 4"	
	102												102	614	26000	102	FT	WORK ZONE STOP LINE, CLASS I	
INCIDENTALS																			
													LS	614	11000	LS		MAINTAINING TRAFFIC	
													LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
													LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER

JGB

REVIEWER

WAA 09/29/21

PROJECT ID

110443

SHEET

P.10A

TOTAL

51

MOE-26-1685

GROUNDING AND BONDING

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) AND THE TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

1. ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH.

A. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04) IN ADDITION TO THE CONDUCTORS SPECIFIED AND BOND THE CONDUIT TO THIS GROUNDING CONDUCTOR.

B. WHEN AN EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED IN PLASTIC CONDUIT (725.05), THE INSTALLATION SHALL INCLUDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUCTORS SPECIFIED.

C. IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, ONLY ONE EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED.

D. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE USED IN THE CONDUIT.

2. CONDUITS.

A. THE 725.05 CONDUIT SHALL HAVE THE INSIDE AND OUTSIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS.

3. WIRE FOR GROUNDING AND BONDING.

A. USE INSULATED, COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SIZE SHALL BE AS FOLLOWS:

I. USE 4 AWG BETWEEN THE POWER SERVICE AND SUPPORTS, POLES, PEDESTALS, CONTROLLER OR FLASHER CABINETS.

II. USE A MINIMUM 8 AWG BETWEEN LOOP DETECTOR PULL BOXES AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.

III. THE INSULATION SHALL BE GREEN OR GREEN WITH YELLOW STRIPE(S). FOR 4 AWG OR LARGER, INSULATION MAY ALSO BE BLACK WITH GREEN TAPE/LABELS INSTALLED AT ALL ACCESS POINTS.

4. GROUND ROD.

A. A 3/4 INCH SCHEDULE 40 PVC CONDUIT WILL BE USED IN FOUNDATIONS AND CONCRETE WALLS FOR THE GROUNDING CONDUCTOR (GROUND WIRE) RACEWAY TO THE GROUND ROD. SHOULD METALLIC CONDUIT BE USED, BOTH ENDS OF THE CONDUIT SHALL BE BONDED TO THE GROUNDING CONDUCTOR.

B. THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED, COPPER.

GROUNDING AND BONDING, CONTINUED

5. THE GREEN CONDUCTOR IN SIGNAL CABLES (CONDUCTOR #4) SHALL NOT BE USED TO SUPPLY POWER TO A SIGNAL INDICATION. IT WILL BE CONNECTED TO THE SIGNAL BODY AS AN EQUIPMENT GROUND IN ALUMINUM HEADS AND IT WILL BE UNUSED IN PLASTIC HEADS. UNUSED CONDUCTORS SHALL BE GROUNDED IN THE CABINET. TYPICAL USE OF CONDUCTORS IS AS FOLLOWS:

COND. NO.	COLOR	VEHICLE SIGNAL	PEDESTRIAN SIGNAL
1	BLACK	GREEN BALL	#1 WALK
2	WHITE	AC NEUTRAL	AC NEUTRAL
3	RED	RED BALL	#1 DW/FDW
4	GREEN	EQUIPMENT GROUND	EQUIPMENT GROUND
5	ORANGE	YELLOW BALL	#2 DW/FDW
6	BLUE	GREEN ARROW	#2 WALK
7	WHITE/BLACK STRIPE	YELLOW ARROW	NOT USED

6. POWER SERVICE AND DISCONNECT SWITCH.

A. AT THE POWER SERVICE LOCATION, THE GROUNDING CONDUCTOR (GROUND WIRE) FROM THE DISCONNECT SWITCH NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS, UNSPLICED CONDUCTOR. IF SPLICED, IT SHALL BE AN EXOTHERMIC WELD BUTT SPLICE.

B. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE PRIMARY POWER SERVICE DISCONNECT SWITCH.

I. NEMA CONTROLLER CABINETS: IF A POWER SERVICE DISCONNECT SWITCH IS LOCATED BEFORE THE CONTROLLER CABINET, THE NEUTRAL (AC-) AND THE GROUNDING BARS IN THE CONTROLLER CABINET SHALL NOT BE CONNECTED TOGETHER AS SHOWN IN NEMA TS-2, FIGURE 5-4.

II. IF SECONDARY DISCONNECT SWITCHES ARE CONNECTED AFTER THE PRIMARY DISCONNECT SWITCH, THE NEUTRAL (AC-) SHALL ONLY BE GROUNDED AT THE PRIMARY SWITCH. EQUIPMENT GROUNDING CONDUCTORS SHALL BE BROUGHT TO THE PRIMARY SWITCH, BUT SHALL BE GROUNDED AT BOTH SECONDARY AND PRIMARY SWITCHES.

7. PAYMENT - ALL MATERIALS AND WORK REQUIRED TO COMPLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY CONTRACT.

ITEM 625 ARC FLASH CALCULATIONS AND LABEL SIGNAL CONTROLLER

FOR THE FOLLOWING LOCATION(S), PERFORM AND SUBMIT ARC FLASH HAZARD CALCULATIONS, PREPARE THE NECESSARY LABEL, AND AFFIX THE LABEL TO THE ELECTRICAL DEVICE PER SS 825.

LOCATIONS:
- SIGNAL CONTROLLER

632 PEDESTRIAN SIGNAL HEAD (LED), (COUNTDOWN), TYPE D2, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 632 AND 732 THE FOLLOWING SHALL APPLY:

- SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF BLACK POLYCARBONATE PLASTIC AND MEET ITE SPECIFICATIONS. THE BLACK COLOR SHALL BE FEDERAL COLOR NO. 17038.
- PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING.
- PIPE, SPACERS AND FITTINGS CONSTRUCTED OF POLYCARBONATE PLASTIC MAY BE USED IN LIEU OF GALVANIZED STEEL OR ALUMINUM.
- THE PEDESTRIAN SIGNAL HEAD SHALL BE OF THE LED COUNTDOWN TYPE.
- NEW ATTACHMENT HARDWARE AND FITTINGS SHALL BE USED.
- THE LIGHT EMITTING DIODE (LED) MODULES SHALL MEET THE REQUIREMENTS OF C&MS 732.04-C. THE CONTRACTOR SHALL PROVIDE ODOT, IN WRITING, WITH THE LED MANUFACTURER NAME, SERIAL NUMBER, PART NUMBER, DESCRIPTION OF LAMP, AND DATE OF MANUFACTURE FOR ALL LED UNITS THAT ARE TO BE USED IN THE SIGNAL HEAD PRIOR TO INSTALLATION, FOR ACCEPTANCE AND WARRANTY PURPOSES.

PAYMENT FOR ITEM 632 PEDESTRIAN SIGNAL HEAD (LED), (COUNTDOWN), TYPE D2, AS PER PLAN SHALL BE MADE FOR THE NUMBER OF COMPLETE SIGNAL HEAD FURNISHED AND INSTALLED, INCLUDING ALL LABOR, EQUIPMENT, MATERIALS AND NEW ATTACHMENT HARDWARE.

632 TEST HOLE PERFORMED

IT IS ANTICIPATED THAT THE CONTRACTOR WILL ENCOUNTER UNDERGROUND UTILITIES WHILE EXCAVATING FOR SIGNAL SUPPORT FOUNDATIONS OR SIMILAR FOUNDATIONS. AFTER ACCURATELY IDENTIFYING THE PROPOSED LOCATION OF THE FOUNDATION, AS SHOWN IN THE PLANS AND AFTER MODIFYING THAT LOCATION, IF NECESSARY, BASED ON THE FIELD MARKING OF UNDERGROUND UTILITY LOCATION, THE CONTRACTOR DISCOVERS A UTILITY CONFLICT DURING THE EXCAVATION OPERATION, THE CONTRACTOR WILL BE COMPENSATED FOR EACH PARTIAL FOUNDATION EXCAVATION ACCORDING TO THE BID PRICE.

BEFORE THE CONTRACTOR BEGINS THE EXCAVATION AT THE MODIFIED LOCATION, THE CONTRACTOR SHALL VERIFY THAT THERE WILL BE NO OVERHEAD UTILITY CONFLICTS RESULTING FROM THE NEW SIGNAL SUPPORT LOCATION. NEW SUPPORT LOCATIONS ARE TO BE APPROVED BY THE ENGINEER.

THE WORK WILL INCLUDE BACKFILLING, COMPACTING, AND RESTORATION OF THE EXCAVATION TO THE SITE'S ORIGINAL CONDITION. EXCAVATIONS SHALL NOT BE LEFT OPEN OVERNIGHT. PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT PRICE BID PER EACH ITEM 632 TEST HOLE PERFORMED TO BE USED AT THE DIRECTION OF THE ENGINEER.

632, TEST HOLE PERFORMED: 4 EACH

632 SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 2, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 632, A BLACK COATING SHALL BE APPLIED AS PER SUPPLEMENTAL SPECIFICATION 916. THE BLACK COLOR SHALL BE FEDERAL COLOR NO. 17038.

632 PEDESTAL 10' TRANSFORMER BASE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 632, A BLACK COATING SHALL BE APPLIED AS PER SUPPLEMENTAL SPECIFICATION 916. THE BLACK COLOR SHALL BE FEDERAL COLOR NO. 17038.

- 625 BRACKET ARM, 8', AS PER PLAN
- 625 BRACKET ARM, 10', AS PER PLAN
- 625 BRACKET ARM, 15', AS PER PLAN
- 625 BRACKET ARM, 20', AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 625, A BLACK COATING SHALL BE APPLIED AS PER SUPPLEMENTAL SPECIFICATION 916. THE BLACK COLOR SHALL BE FEDERAL COLOR NO. 17038.

625, LUMINAIRE, DECORATIVE, AS PER PLAN

THIS ITEM CONSISTS OF SUPPLYING AND INSTALLING A DECORATIVE ACORN-STYLE LED LUMINAIRE FOR ROADWAY ILLUMINATION. THIS ITEM CONSISTS OF A BASE FITTER, GLOBE AND A BASIC HOUSING. NO FEATURES SUCH AS FINIAL, CROWN, BAND OR RIBS ARE REQUIRED, BUT CAN BE INCLUDED IF PART OF THE BASE MODEL. PROVIDE A LUMINAIRE COMPATIBLE WITH THE LIGHTING BRANCH CIRCUIT SHOWN IN THE PLANS. ASSURE THE LUMINAIRE CAN MOUNT A PHOTOCELL OR WIRELESS CONTROL THAT USES A NEMA STANDARD PHOTOCELL RECEPTACLE. PROVIDE A LUMINAIRE WITH 3G VIBRATION RATING.

PROTECT EACH LUMINAIRE USING A SURGE PROTECTIVE DEVICE (SPD) CONFORMING TO ODOT SUPPLEMENTAL SPEC 913.

ASSURE THE LUMINAIRE HAS A NOMINAL COLOR TEMPERATURE (CCT) OF 3000K, NOMINAL 19000 LUMENS AND TYPE 3 DISTRIBUTION.

PROVIDE A LUMINAIRE WITH FACTORY-APPLIED BLACK FINISH MEETING SUPPLEMENTAL SPECIFICATION 916.

THE LUMINAIRE SHALL BE ONE OF THE FOLLOWING, OR AN APPROVED EQUAL:

STERNBERG LIBERTYVILLE
1A-1914LED-3L-30-T3-MDL09-A-HSHN-BKT

KING CORONET SR
K804-P4SH-111-200-(SSL)-8084-120V-KPL21-3K-BK

HOLOPHANE ESPLANADE
ESL2-P505-30K-MVOLT-BK-TG3-NPT

TRAFFIC SIGNAL NOTES
####



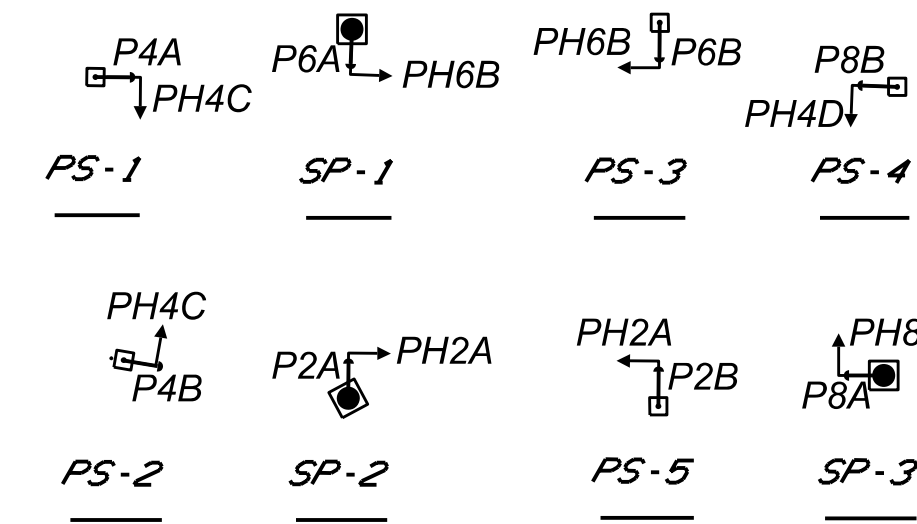
DESIGN AGENCY	Mead & Hunt
DESIGNER	DAD
REVIEWER	DLW 06-30-2020
PROJECT ID	110443
SHEET	P.28
TOTAL	51

PULL BOX TABLE

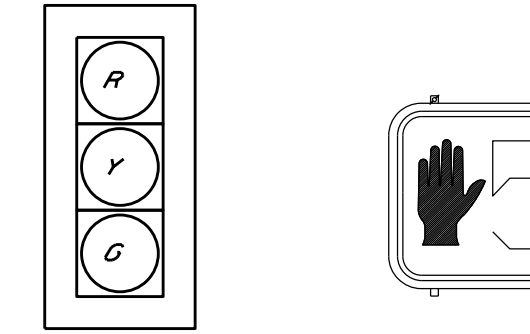
PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	2+00	LEFT	64'	24
PB-2	1+86	LEFT	37'	24
PB-3	NOT USED			
PB-4	1+89	RIGHT	20'	24
PB-5	2+43	LEFT	36'	24
PB-6	2+42	RIGHT	24'	24
PB-7	2+31	RIGHT	56'	24
-	-	-	-	-

NOTES: FOR PAVEMENT MARKING AND SIGNING SEE SHEETS 26 & 27.
FOR SIGNAL QUANTITIES SEE SUB SUMMARY SHEET 30.

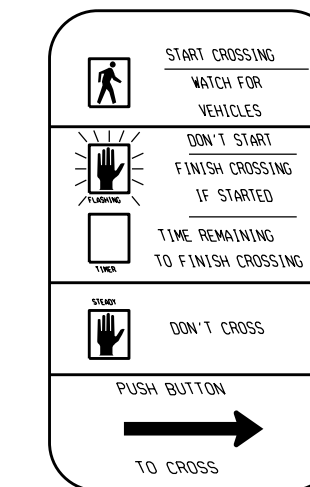
SIGNAL POLE & PEDESTRIAN POLE DETAILS



SIGNAL HEADS



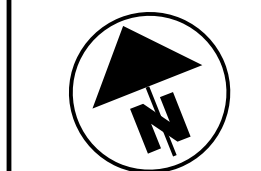
PEDESTRIAN SIGNS



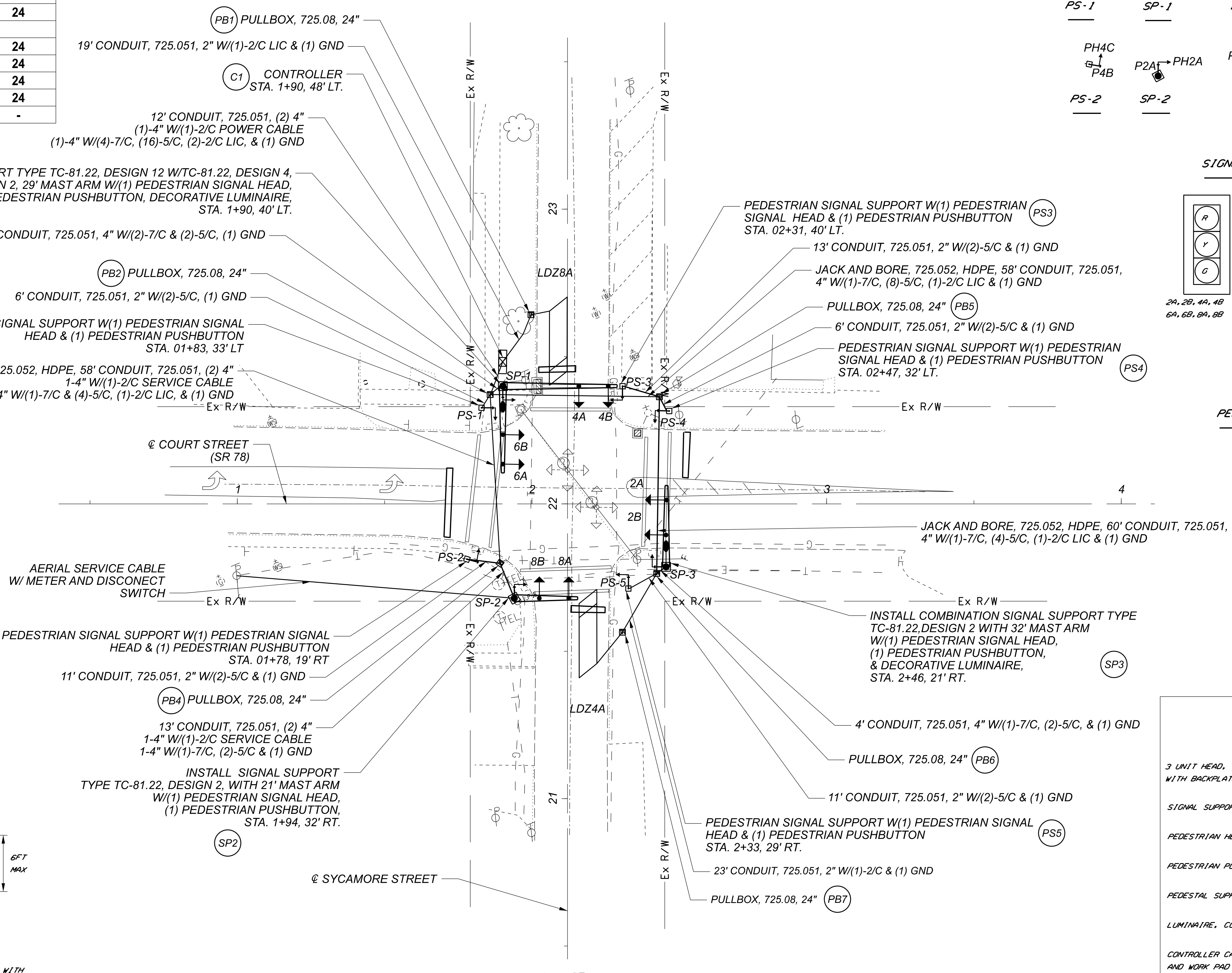
R18-3E-9
4 - LEFT ARROWS
4 - RIGHT ARROWS

LEGEND

	PROP	EXIST
3 UNIT HEAD, 12" LED WITH BACKPLATE		
SIGNAL SUPPORT POLE		
PEDESTRIAN HEAD		
PEDESTRIAN PUSH BUTTON		
PEDESTAL SUPPORT		
LUMINAIRE, CONVENTIONAL		
CONTROLLER CABINET AND WORK PAD -332-		
TRAFFIC PULL BOX		
DETECTOR LOOP		
SINGLE POST SIGN, POLE MOUNTED		

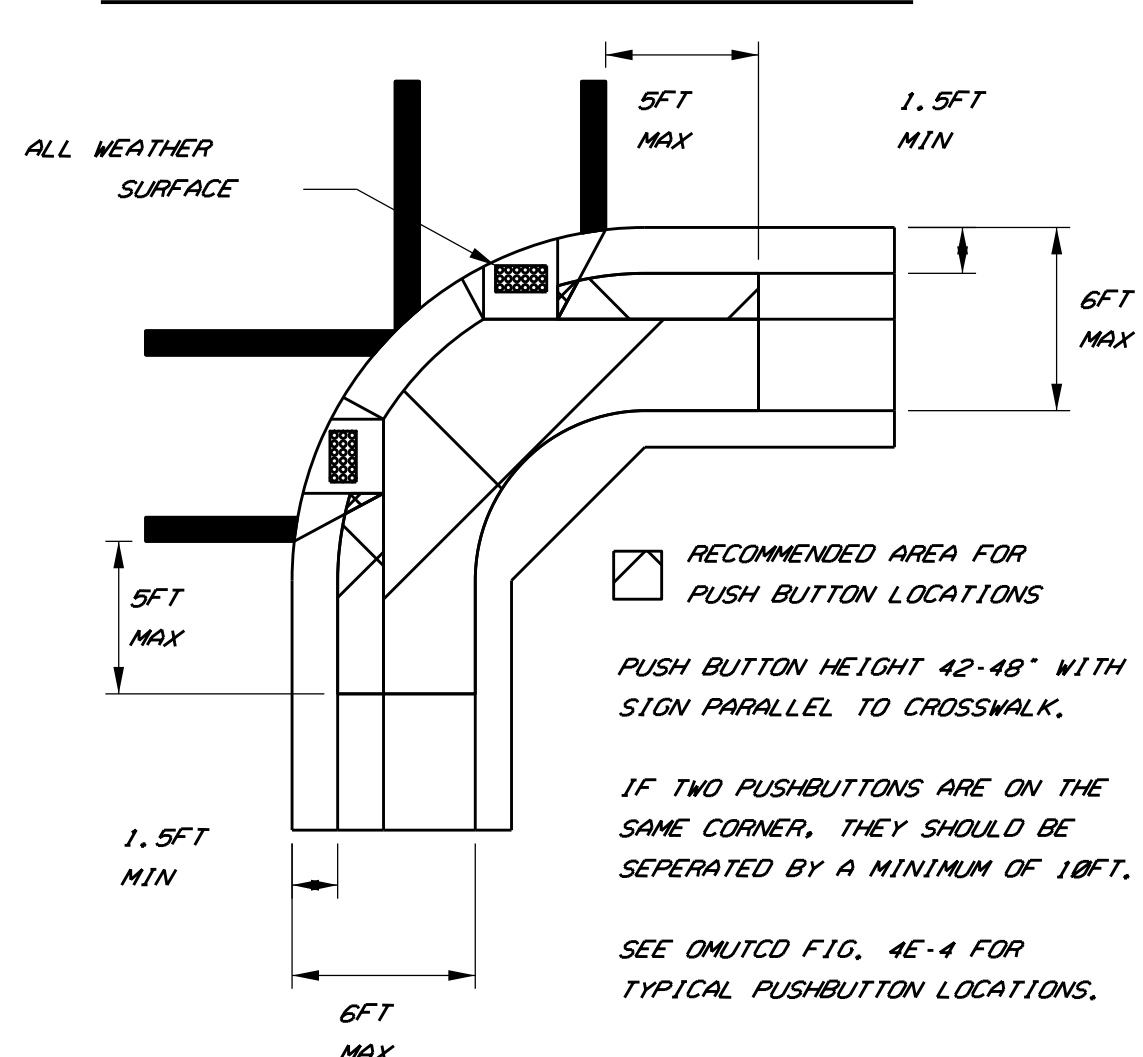


TRAFFIC SIGNAL PLAN
SR 78 & SYCAMORE ST



PLAN VIEW

ADA PUSHBUTTON & STRUCTURE DIAGRAM



MOE-26-1685

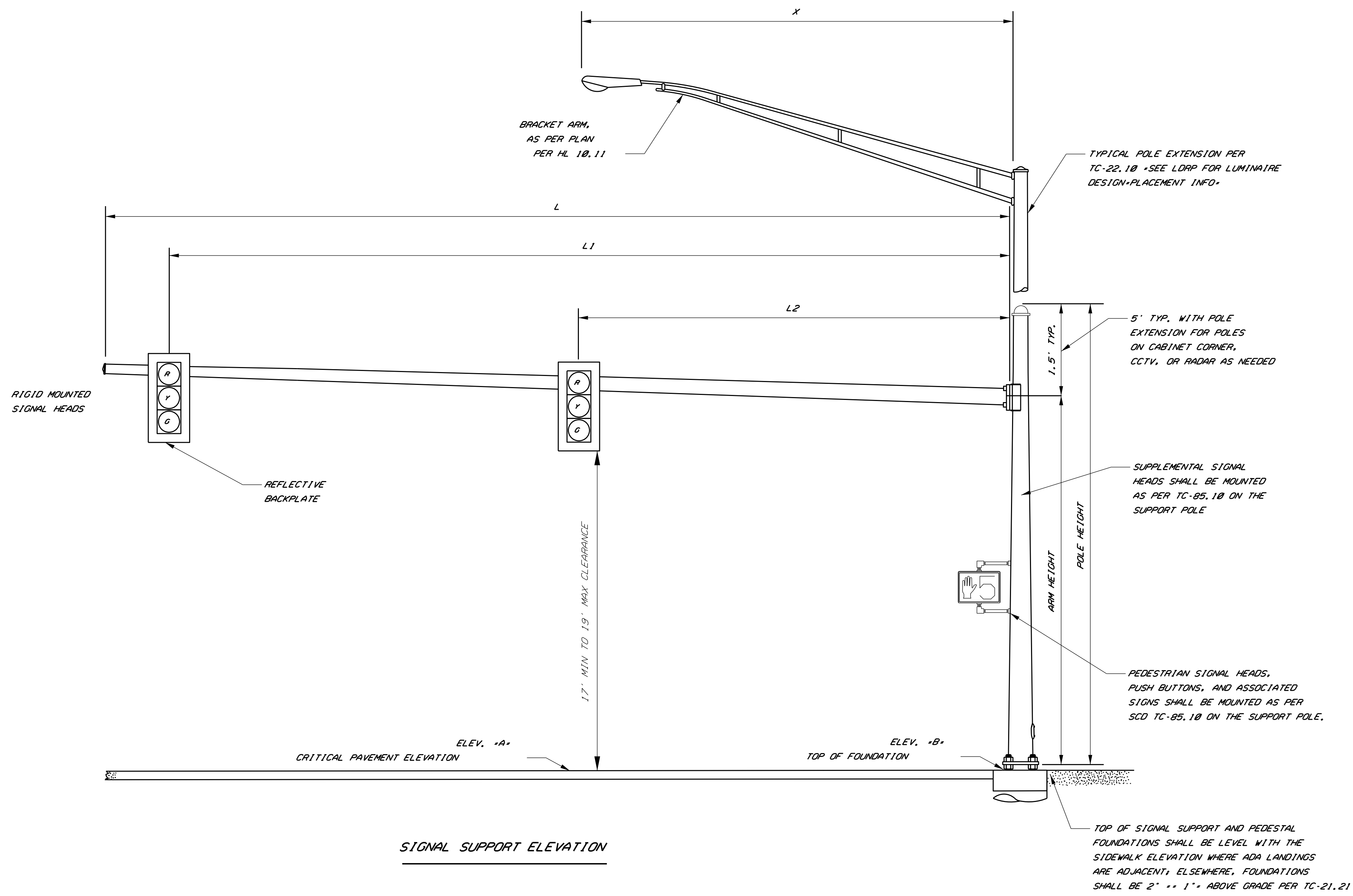
DESIGN AGENCY
Mead & Hunt
CLIENT

DESIGNER
DAD

REVIEWER
DLW 06-12-2020

PROJECT ID
110443

SHEET TOTAL
P.35 51



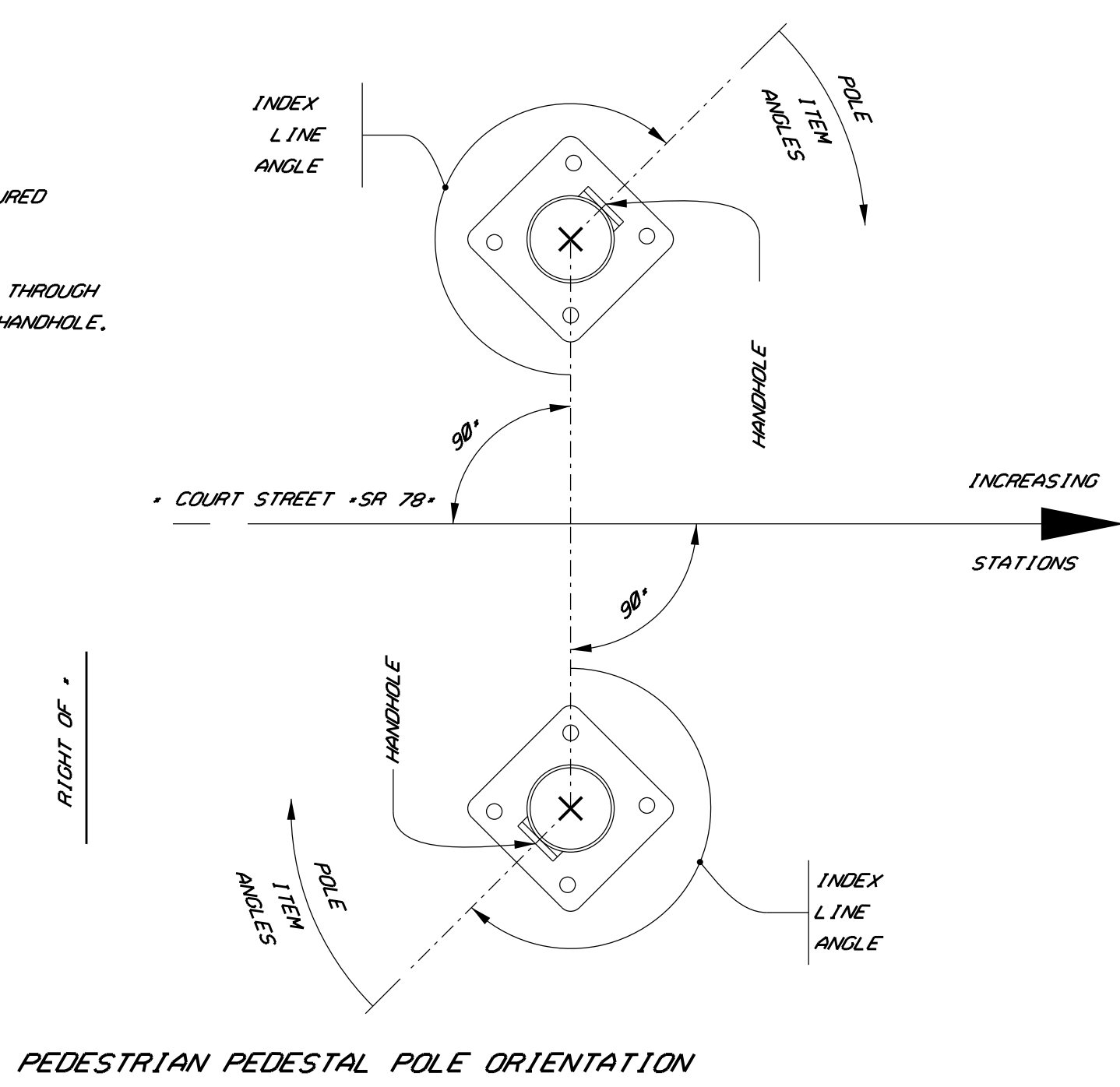
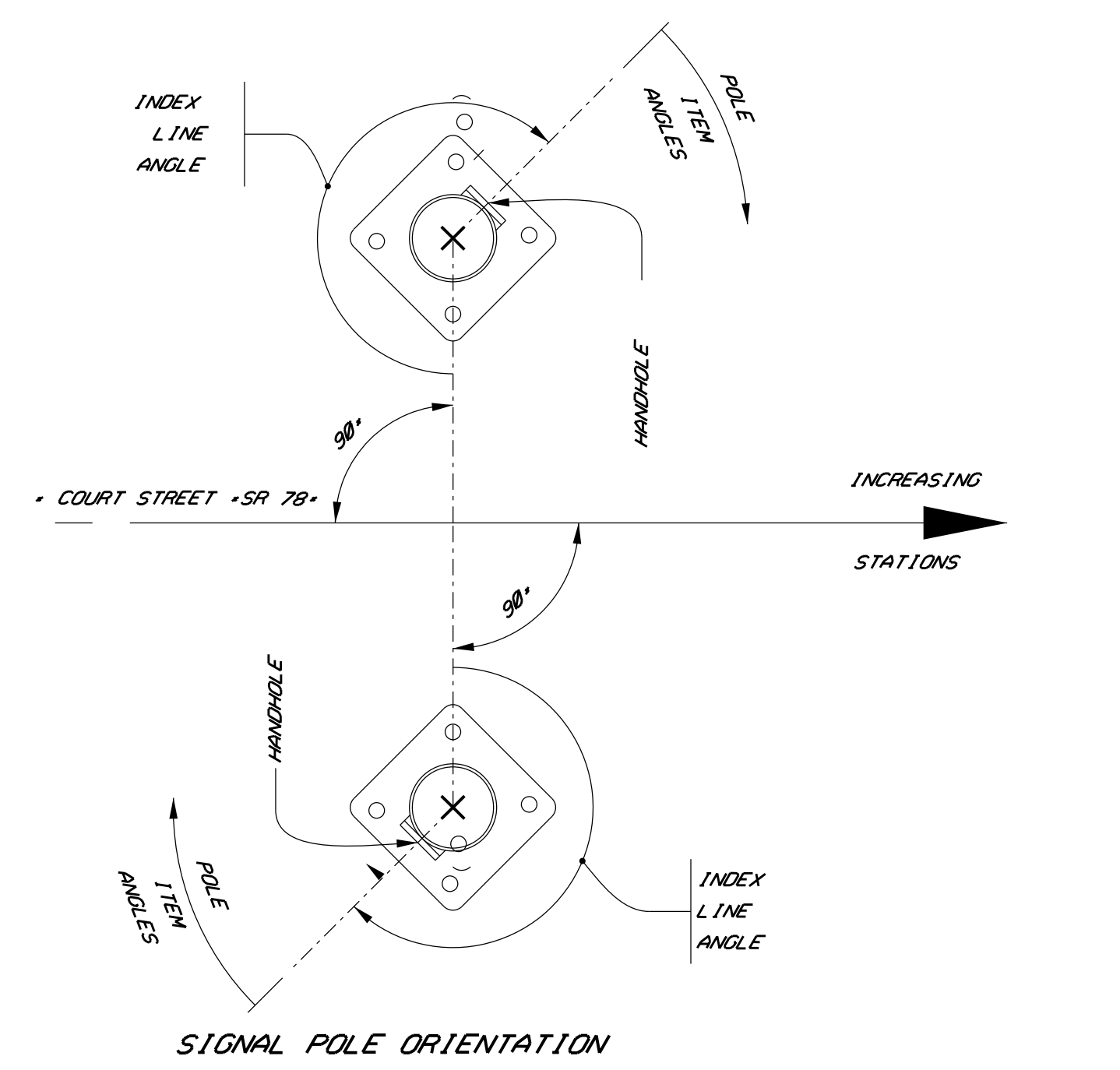
SIGNAL SUPPORT ELEVATION

MAST ARM TABLE

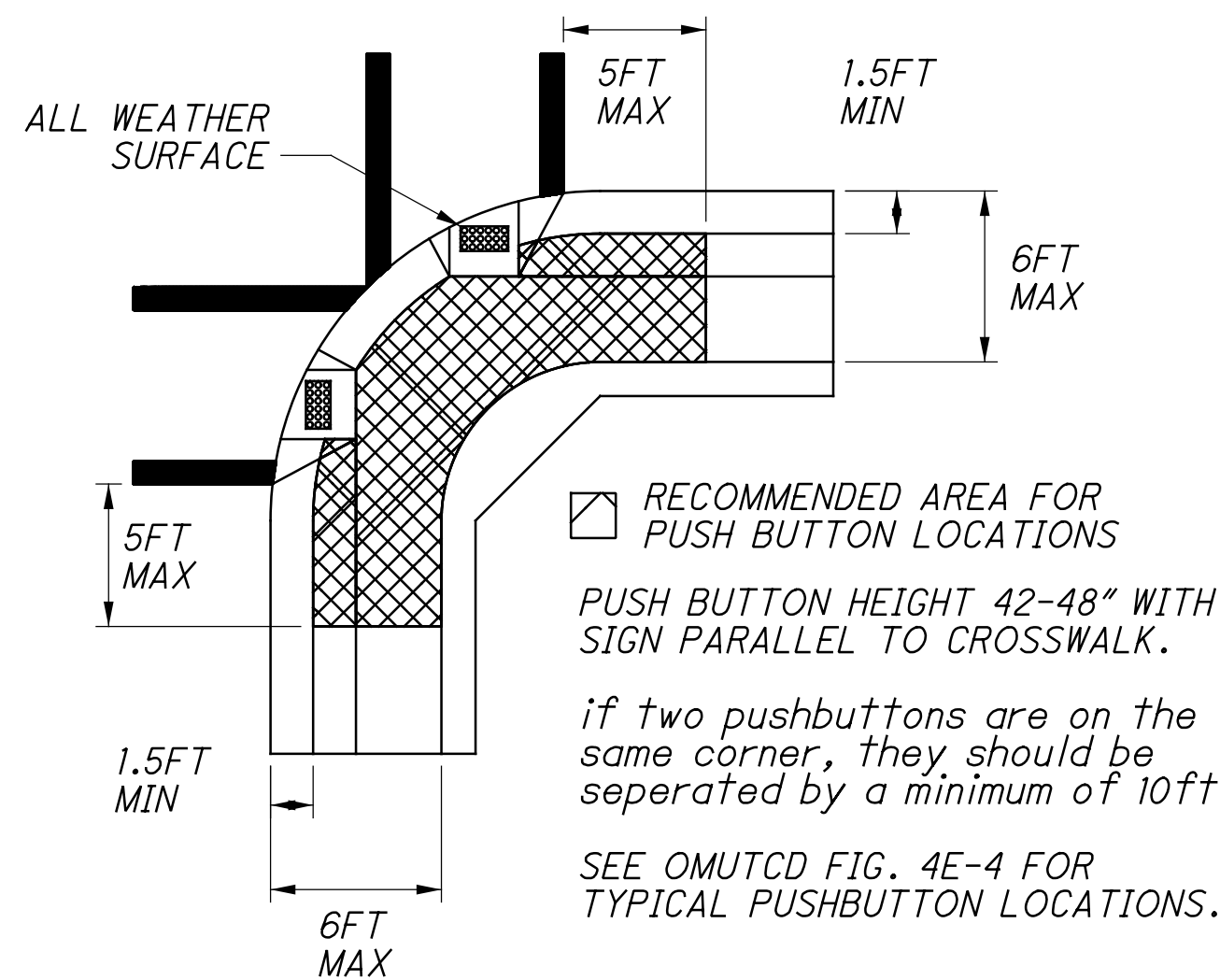
SUPPORT NO.	STATION	OFFSET	ELEVATION		SIGNAL SUPPORT DETAILS								ORIENTATION ANGLES FROM MAST ARM							
			A (Pavt. Elev.)	B (Top of Found.)	DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L	L1	L2	X	MAST ARM A ANGLE	MAST ARM B ANGLE	PEDESTRIAN SIGNAL	PEDESTRIAN PUSHBUTTON	POWER SERVICE	BRACKET ARM	HANDHOLE	CABLE ENTRANCE 12" FROM TOP
SP-1	1+90	40' LT	-	1200.87	TC-81.22	12	36	-	-	-	-	-	-	90	-	-	90	180	-	
ARM A	-	-	1201.05	-	TC-81.22	4	-	21	38	35	25	-	270	-	-	-	-	-	-	
ARM B	-	-	1200.01	-	TC-81.22	2	-	20	29	26	16	15	-	0	-	-	-	-	-	
SP-2	1+94	32' RT	1198.69	1198.99	TC-81.22	2	23	21	21	18	8	-	90	-	270	270	176	-	61	176
SP-3	2+46	21' RT	1200.76	1199.97	TC-81.22	2	37	22	32	29	17	8	0	-	270	270	-	0	180	-
PS-1	1+83	33' LT	-	1200.55	-	-	10	-	-	-	-	-	-	-	90	90	-	-	180	-
PS-2	1+78	19' RT	-	1199.42	-	-	10	-	-	-	-	-	-	-	172	180	-	-	288	-
PS-3	2+31	40' LT	-	1201.17	-	-	10	-	-	-	-	-	-	-	90	90	-	-	270	-
PS-4	2+47	32' LT	-	1201.26	-	-	10	-	-	-	-	-	-	-	270	270	-	-	180	-
PS-5	2+33	29' RT	-	1199.26	-	-	10	-	-	-	-	-	-	-	270	270	-	-	90	-

NOTES:

- ALL ANGLES ARE MEASURED CLOCKWISE.
- THE INDEX LINE GOES THROUGH THE CENTER OF THE HANDHOLE.



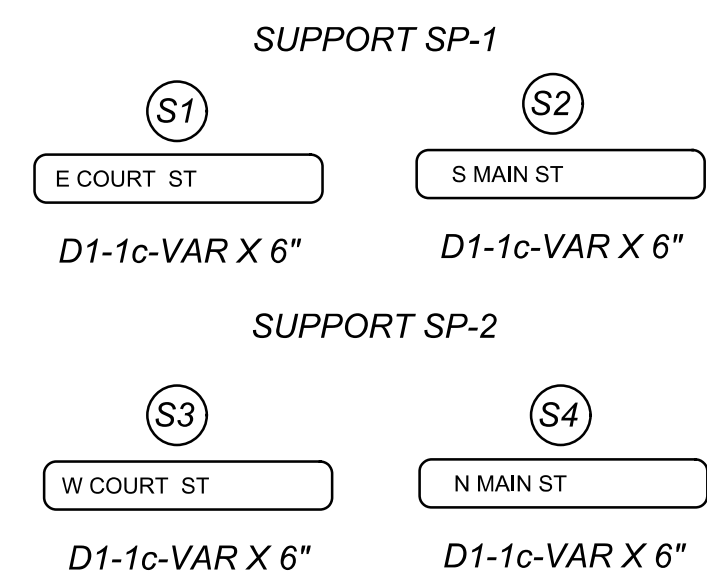
ADA PUSHBUTTON & STRUCTURE DIAGRAM



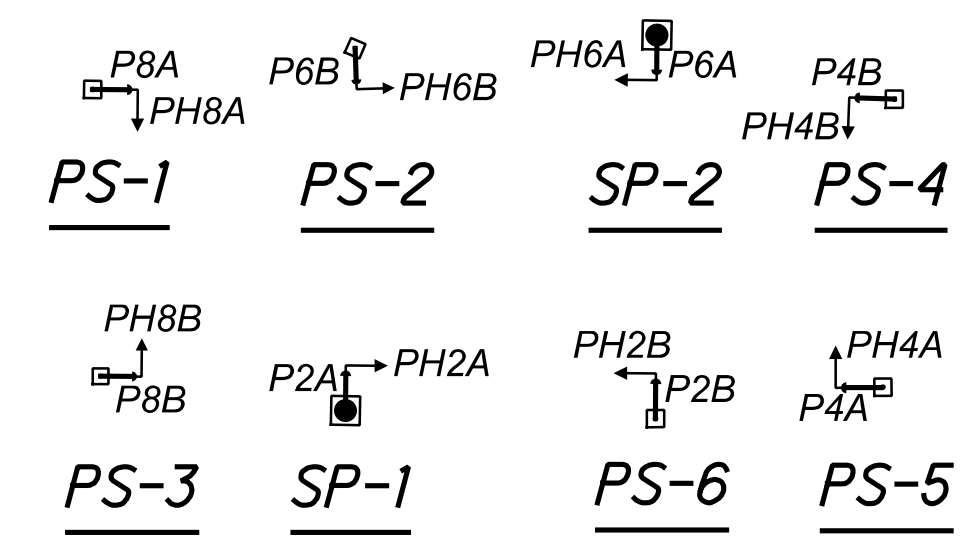
PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	5+14	LEFT	40'	24
PB-2	6+21	LEFT	27'	24
PB-3	6+31	RIGHT	23'	18
PB-4	6+11	RIGHT	37'	24
PB-5	4+91	LEFT	14'	24
PB-6	5+15	RIGHT	36'	24
PB-7	109+51	LEFT	48'	24
PB-8	109+52	RIGHT	0.3'	24
PB-9	108+20	LEFT	1'	24
PB-10	108+10	RIGHT	55'	24

SIGNAL SUPPORT MOUNTED SIGNS

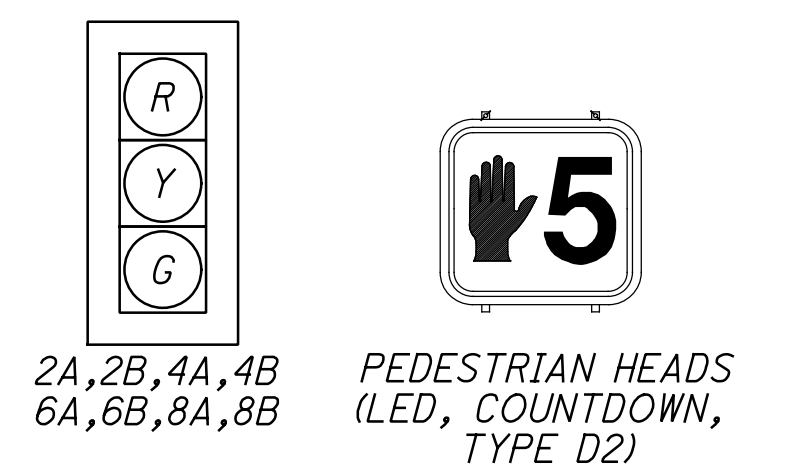


SIGNAL POLE & PEDESTRIAN POLE DETAILS

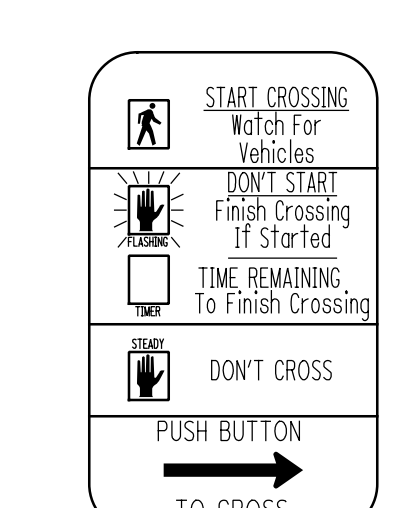


NOTES: FOR PAVEMENT MARKING AND SIGNING SEE SHEETS 26 & 27.
 FOR SIGNAL QUANTITIES SEE SUB SUMMARY SHEET 31 & 32.
 CONDUIT FOR PARKING PAY STATIONS ARE INCLUDED IN PAYMENT UNDER THE SIGNAL ITEMS.

SIGNAL HEADS



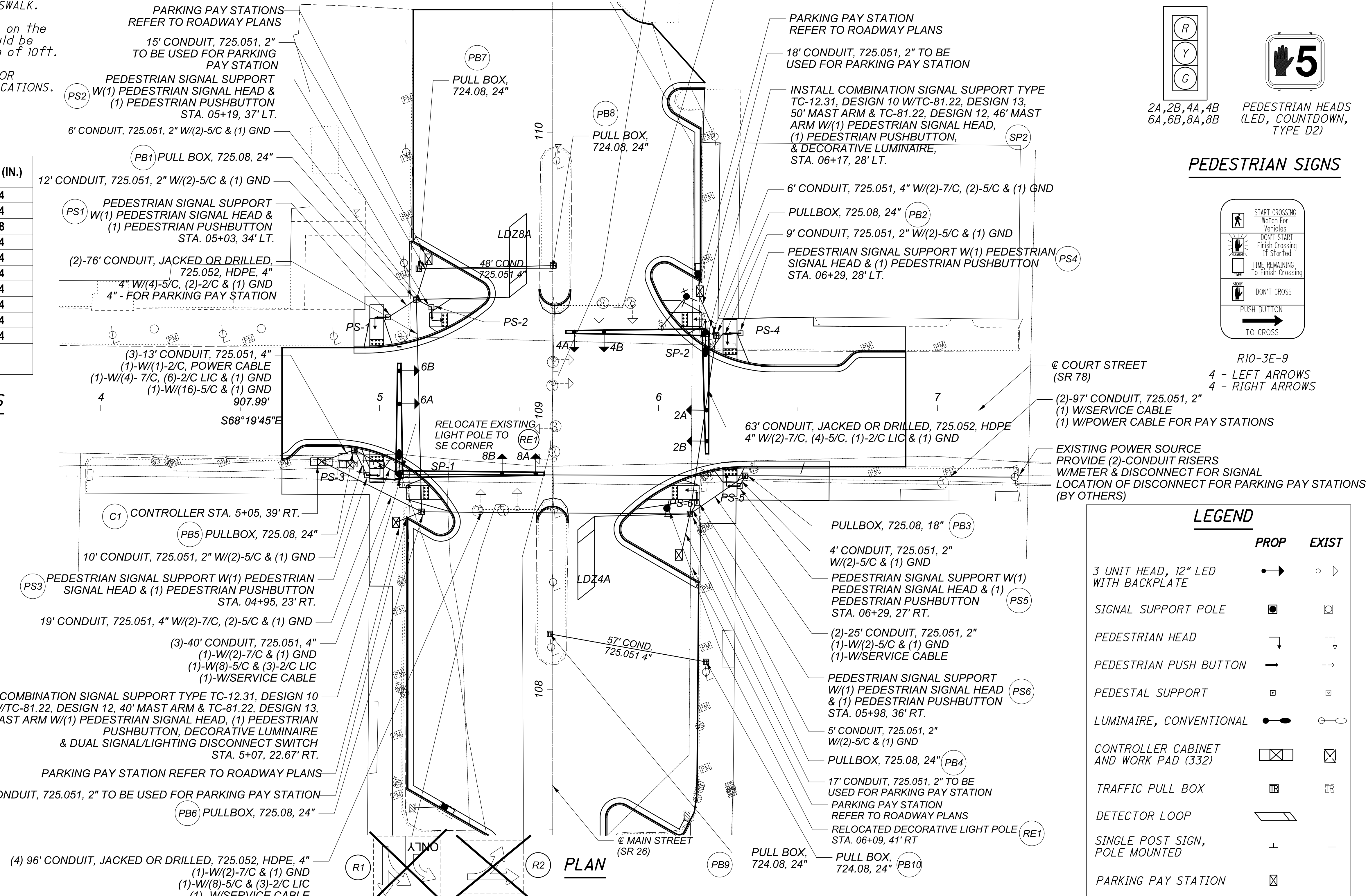
PEDESTRIAN SIGNS



R10-3E-9
 4 - LEFT ARROWS
 4 - RIGHT ARROWS

LEGEND

	PROP	EXIST
3 UNIT HEAD, 12" LED WITH BACKPLATE	→	→
SIGNAL SUPPORT POLE	■	■
PEDESTRIAN HEAD	⌋	⌋
PEDESTRIAN PUSH BUTTON	—	—
PEDESTAL SUPPORT	□	□
LUMINAIRE, CONVENTIONAL	●	●
CONTROLLER CABINET AND WORK PAD (332)	⊠	⊠
TRAFFIC PULL BOX	⊞	⊞
DETECTOR LOOP	▭	▭
SINGLE POST SIGN, POLE MOUNTED	⊥	⊥
PARKING PAY STATION	⊠	⊠



TRAFFIC SIGNAL PLAN
 SR 78 & SR 26

MOE-26-1685

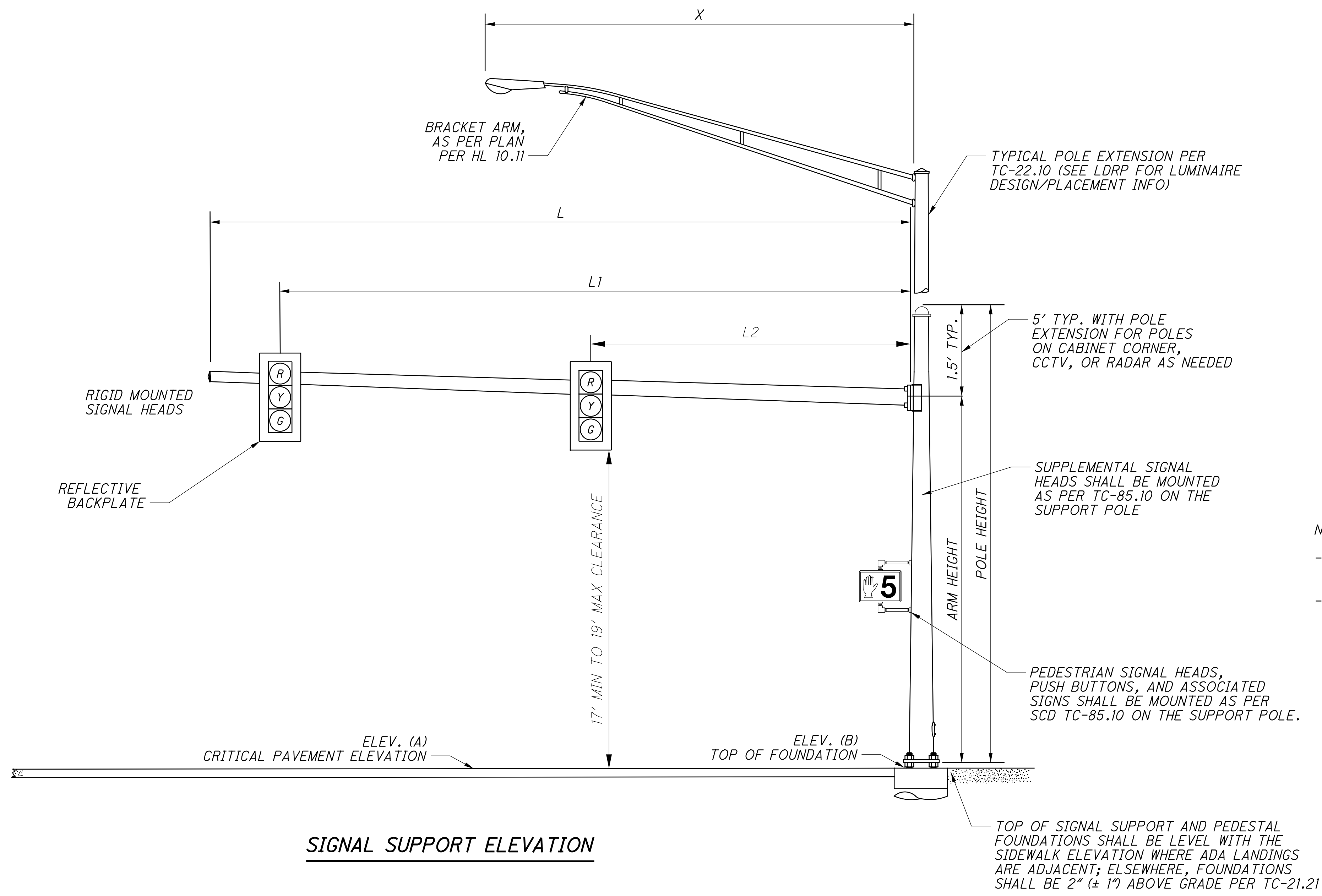
DESIGN AGENCY
Mead & Hunt
 CLIENT

DESIGNER
 DAD

REVIEWER
 DLW 06-30-20

PROJECT ID
 110443

SHEET TOTAL
 P.39 | 51

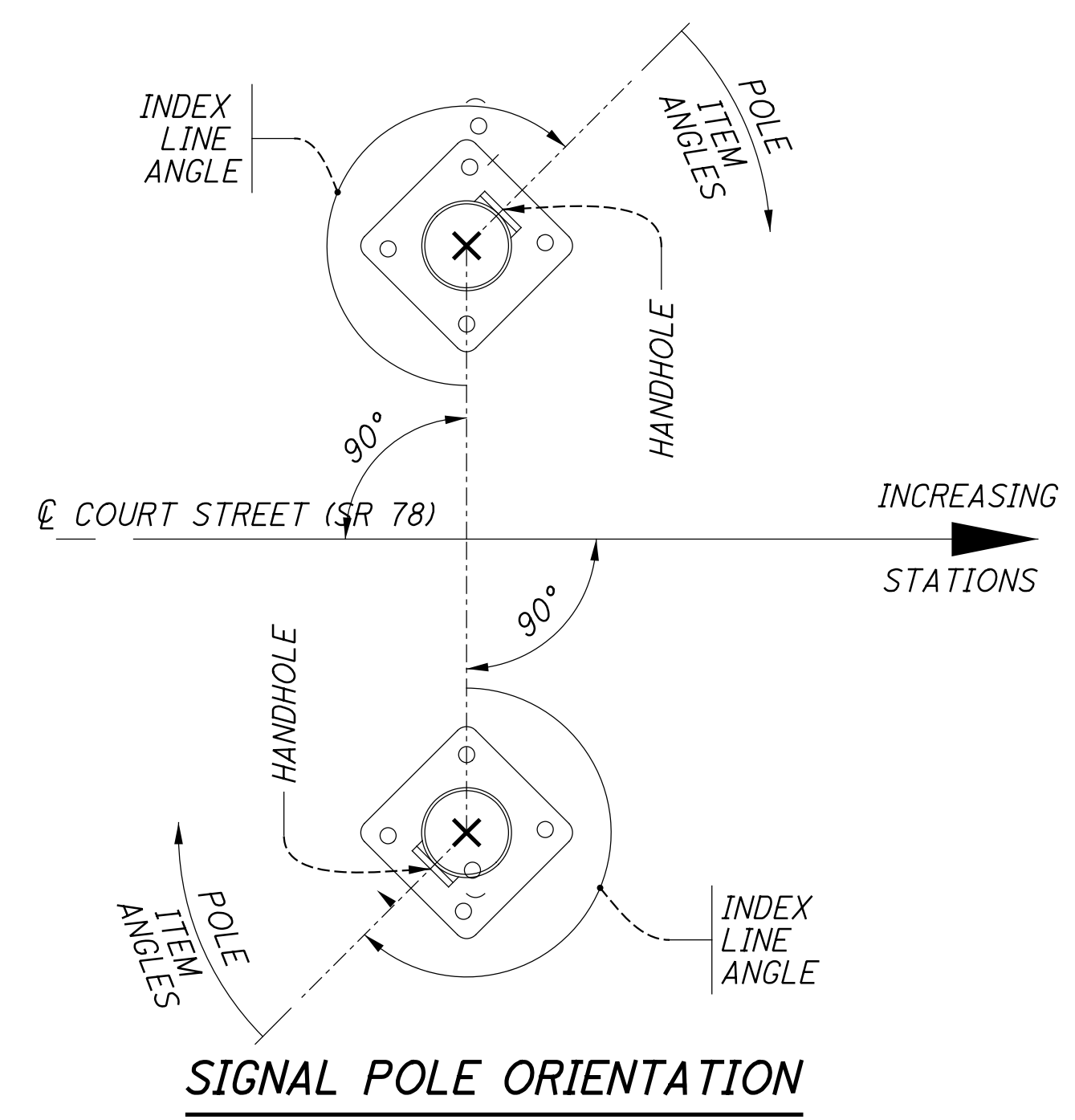


SIGNAL SUPPORT ELEVATION

MAST ARM TABLE

SUPPORT NO.	STATION	OFFSET	ELEVATION		SIGNAL SUPPORT DETAILS										ORIENTATION ANGLES FROM MAST ARM								
			A (Pavt. Elev.)	B (Top of Found.)	DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L	L1	L2	S1	S2	X	MAST ARM A ANGLE	MAST ARM B ANGLE	PEDESTRIAN SIGNAL	PEDESTRIAN PUSHBUTTON	POWER SERVICE	BRACKET ARM	HANDHOLE	CABLE ENTRANCE 12" FROM TOP	
			FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	
SP-1	5+07	22.67' RT	-	1206.80	TC-12.31	10	37	-	-	-	-	-	-	-	-	-	-	270	270	357	270	180	357
ARM A	-	-	1207.32	-	TC-81.22	12	-	22	40	37	25	-	-	20	90	-	-	-	-	-	-	-	-
ARM B	-	-	1207.44	-	TC-81.22	13	-	21	52	49	37	-	-	-	-	0	-	-	-	-	-	-	
SP-2	6+17	28' LT	-	1207.46	TC-12.31	10	36	-	-	-	-	-	-	-	-	-	-	270	270	-	270	180	-
ARM A	-	-	1208.33	-	TC-81.22	12	-	21	43	40	28	-	-	15	90	-	-	-	-	-	-	-	-
ARM B	-	-	1207.11	-	TC-81.22	13	-	20	50	47	36	-	-	-	-	0	-	-	-	-	-	-	-
PS-1	5+03	34' LT	-	1207.38	-	-	10	-	-	-	-	-	-	-	-	-	-	180	180	-	-	90	-
PS-2	5+19	37' LT	-	1207.52	-	-	10	-	-	-	-	-	-	-	-	-	-	245	245	-	-	113	-
PS-3	4+95	23' RT	-	1206.68	-	-	10	-	-	-	-	-	-	-	-	-	-	270	270	-	-	180	-
PS-4	6+29	28' LT	-	1207.06	-	-	10	-	-	-	-	-	-	-	-	-	-	180	180	-	-	270	-
PS-5	6+29	27' RT	-	1206.28	-	-	10	-	-	-	-	-	-	-	-	-	-	180	180	-	-	90	-
PS-6	5+98	36' RT	-	1206.52	-	-	10	-	-	-	-	-	-	-	-	-	-	180	180	-	-	180	-

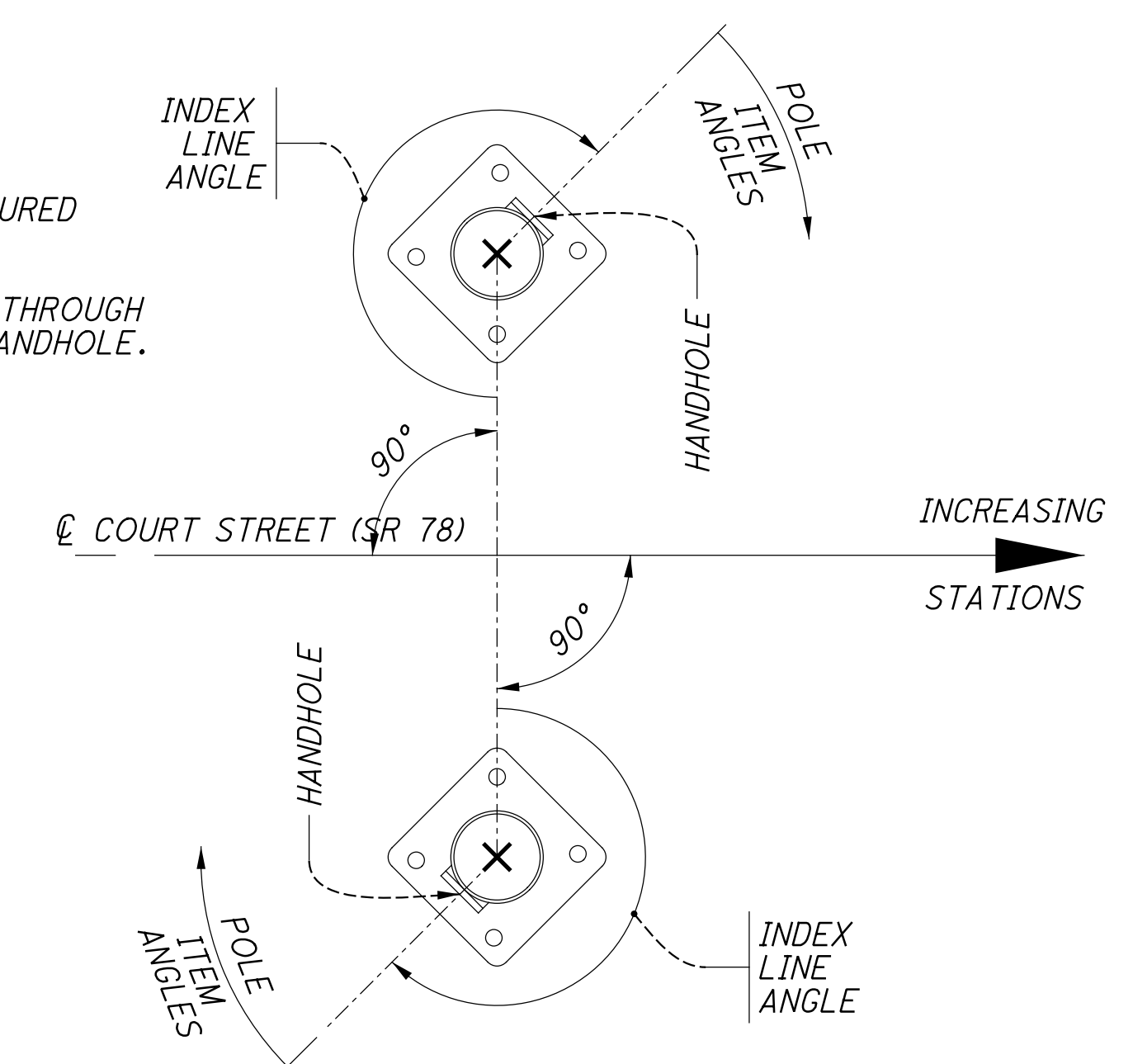
RIGHT OF \mathcal{L}



SIGNAL POLE ORIENTATION

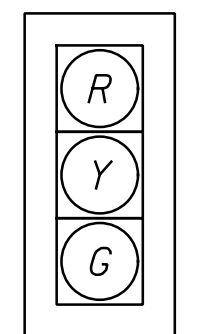
- NOTES:
- ALL ANGLES ARE MEASURED CLOCKWISE.
 - THE INDEX LINE GOES THROUGH THE CENTER OF THE HANDHOLE.

RIGHT OF \mathcal{L}



PEDESTRIAN PEDESTAL POLE ORIENTATION

SIGNAL HEADS

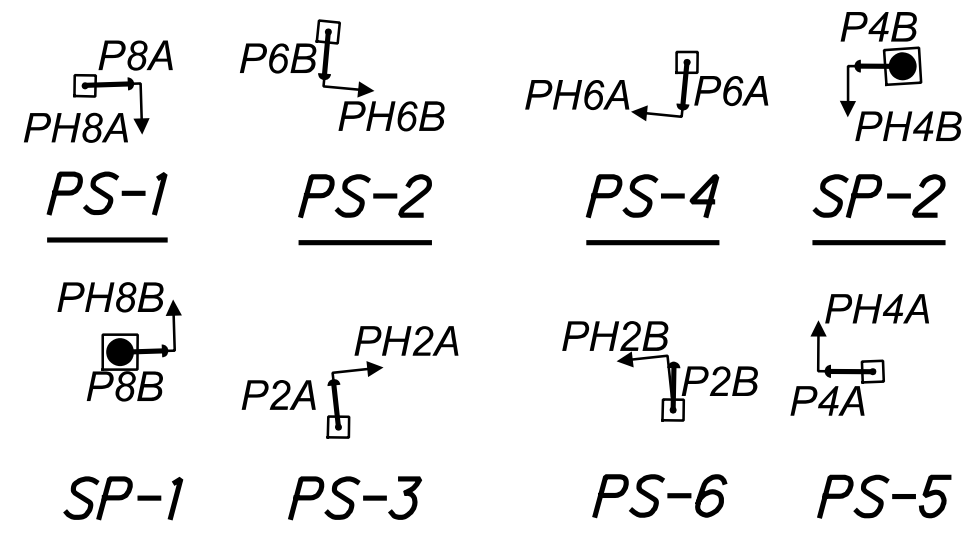


2A, 2B, 4A, 4B
6A, 6B, 8A, 8B



PEDESTRIAN HEADS
(LED, COUNTDOWN,
TYPE D2)

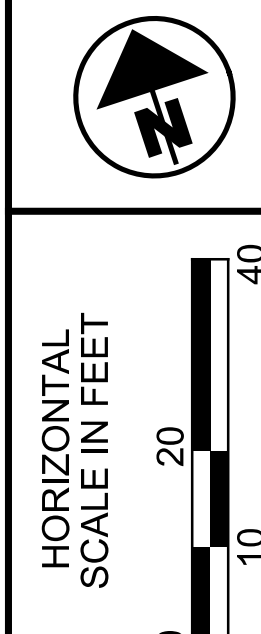
SIGNAL POLE & PEDESTRIAN POLE DETAILS



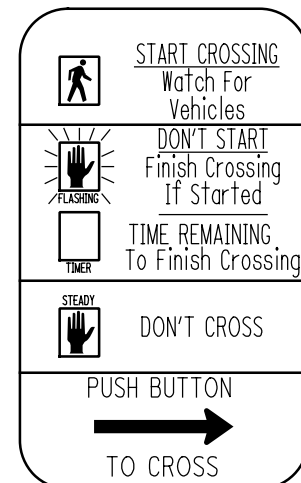
NOTES: FOR PAVEMENT MARKING AND SIGNING SEE SHEETS 26 & 27.
FOR SIGNAL QUANTITIES SEE SUB SUMMARY SHEET 34.

LEGEND

	PROP	EXIST
3 UNIT HEAD, 12" LED WITH BACKPLATE		
SIGNAL SUPPORT POLE		
PEDESTRIAN HEAD		
PEDESTRIAN PUSH BUTTON		
PEDESTAL SUPPORT		
LUMINAIRE, CONVENTIONAL		
CONTROLLER CABINET AND WORK PAD (332)		
TRAFFIC PULL BOX		
DETECTOR LOOP		
SINGLE POST SIGN, POLE MOUNTED		



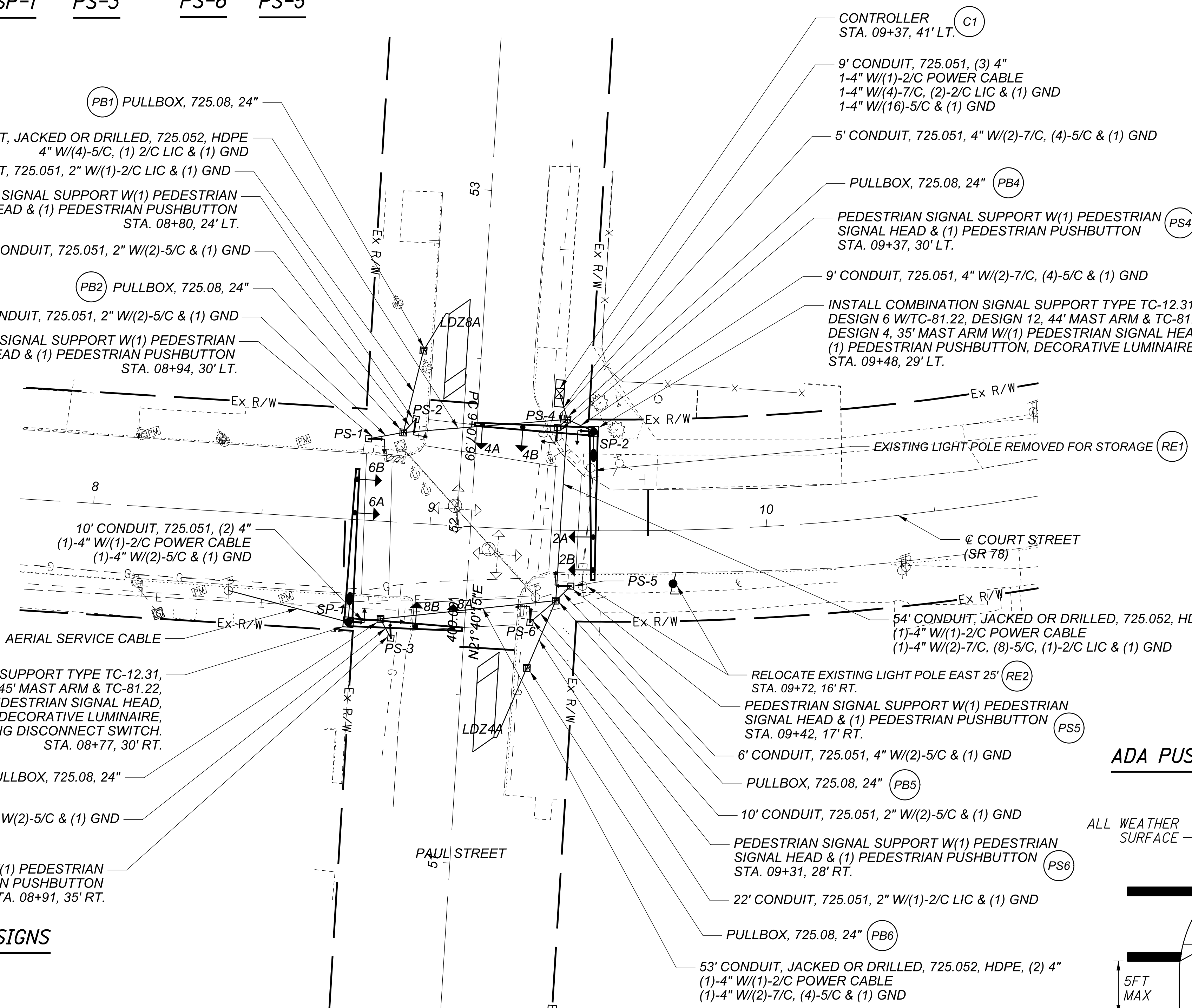
PEDESTRIAN SIGNS



R10-3E-9
4 - LEFT ARROWS
4 - RIGHT ARROWS

PULL BOX TABLE

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	8+95	LEFT	51'	24
PB-2	8+90	LEFT	27'	24
PB-3	8+87	RIGHT	29'	24
PB-4	9+40	LEFT	33'	24
PB-5	9+38	RIGHT	21'	24
PB-6	9+30	RIGHT	41'	24



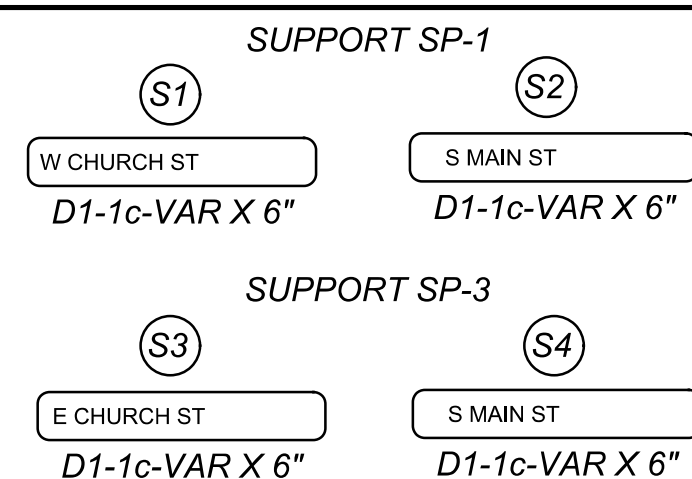
INSTALL COMBINATION SIGNAL SUPPORT TYPE TC-12.31, DESIGN 6 W/T-C-81.22, DESIGN 12, 45' MAST ARM & TC-81.22, DESIGN 4, 34' MAST ARM W(1) PEDESTRIAN SIGNAL HEAD, (1) PEDESTRIAN PUSHBUTTON, DECORATIVE LUMINAIRE, & DUAL SIGNAL/LIGHTING DISCONNECT SWITCH. STA. 08+77, 30' RT.

PULLBOX, 725.08, 24"

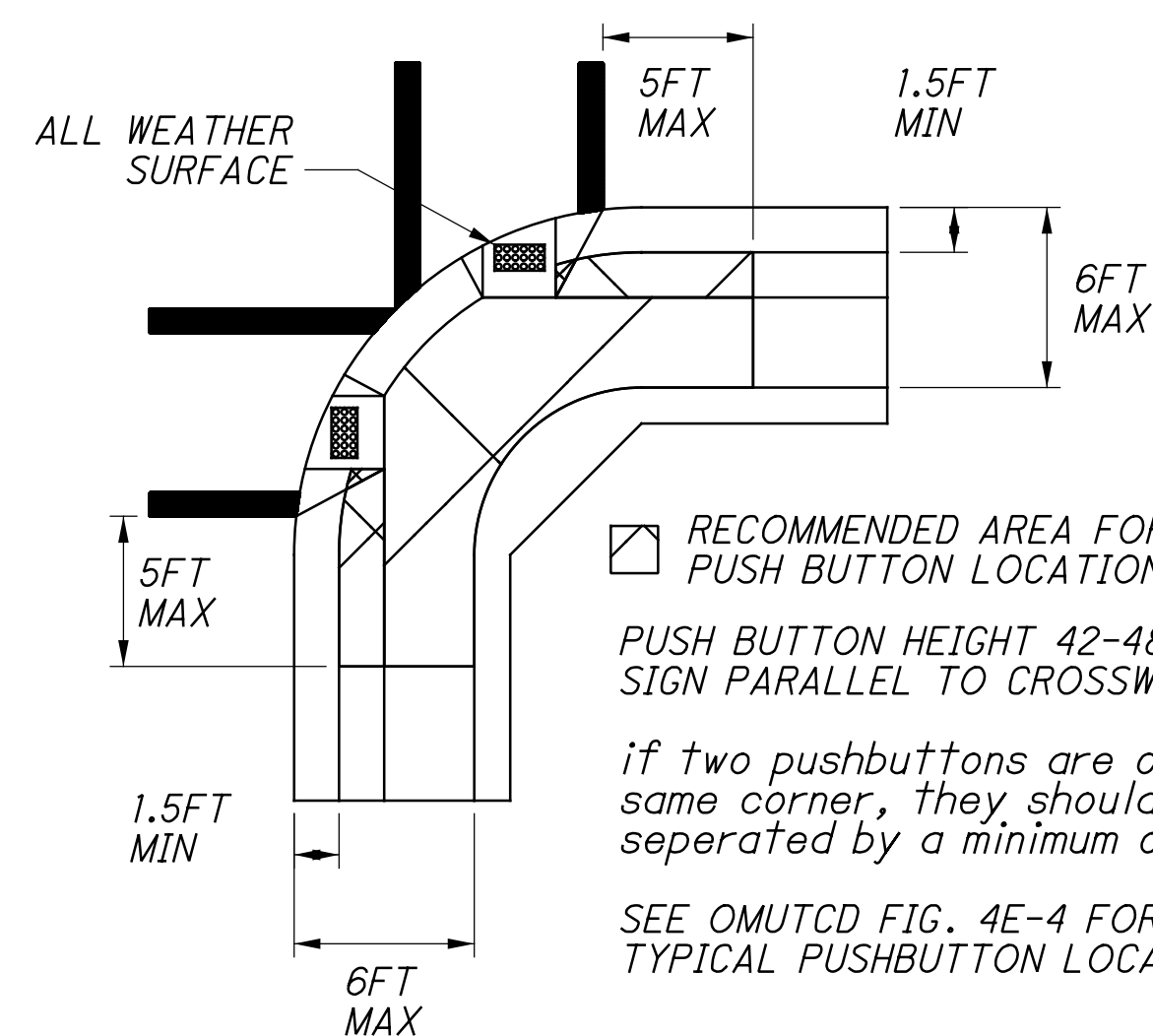
7' CONDUIT, 725.051, 2" W(2)-5/C & (1) GND

PEDESTRIAN SIGNAL SUPPORT W(1) PEDESTRIAN SIGNAL HEAD & (1) PEDESTRIAN PUSHBUTTON STA. 08+91, 35' RT.

SIGNAL SUPPORT MOUNTED SIGNS



ADA PUSHBUTTON & STRUCTURE DIAGRAM



RECOMMENDED AREA FOR PUSH BUTTON LOCATIONS

PUSH BUTTON HEIGHT 42-48" WITH SIGN PARALLEL TO CROSSWALK.

if two pushbuttons are on the same corner, they should be separated by a minimum of 10ft.

SEE OMUTCD FIG. 4E-4 FOR TYPICAL PUSHBUTTON LOCATIONS.

TRAFFIC SIGNAL PLAN
SR 78 & PAUL STREET

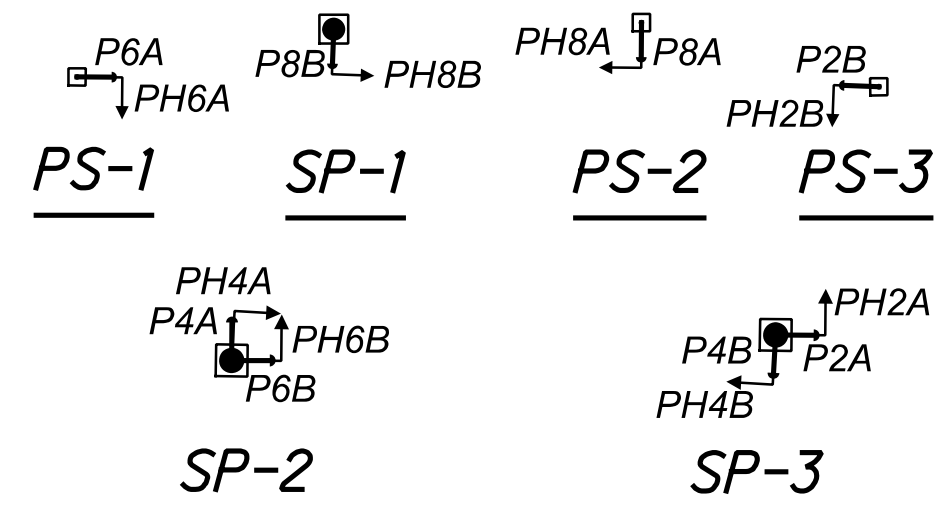
MOE-26-1685

PULL BOX TABLE

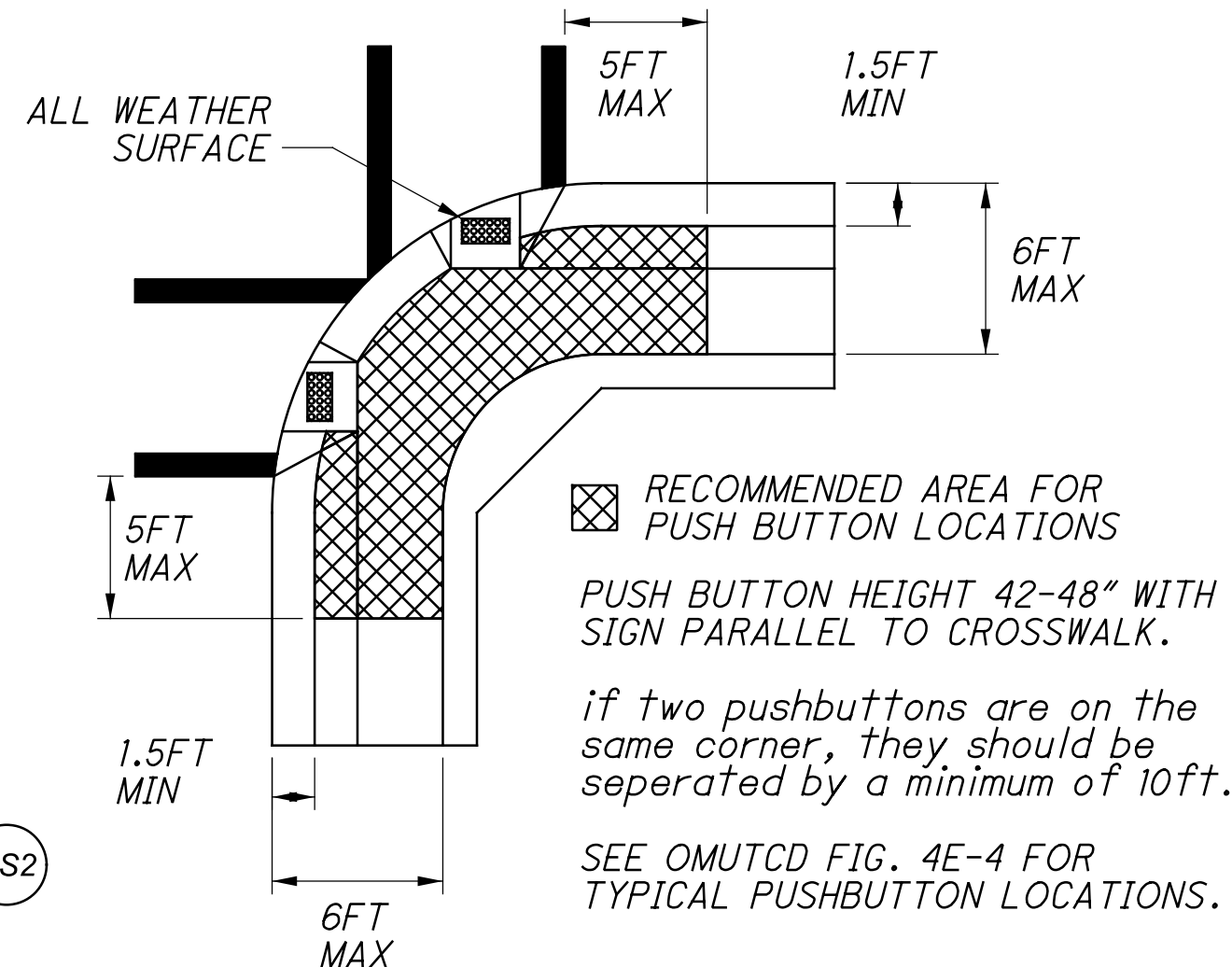
PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	103+09	LEFT	31'	24
PB-2	102+71	LEFT	63'	24
PB-3	102+63	LEFT	35'	24
PB-4	103+09	RIGHT	24'	24
PB-5	103+01	RIGHT	55'	24
PB-6	102+61	RIGHT	24'	24
-	-	-	-	-

NOTES: FOR PAVEMENT MARKING AND SIGNING SEE SHEETS 26 & 27.
FOR SIGNAL QUANTITIES SEE SUB SUMMARY SHEET 35.

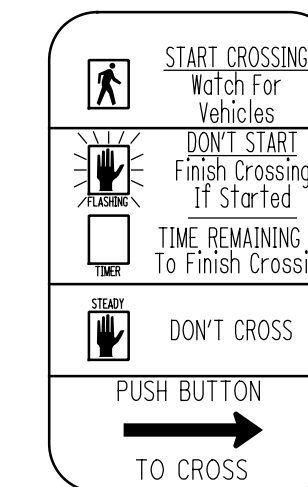
SIGNAL POLE & PEDESTRIAN POLE DETAILS



ADA PUSHBUTTON & STRUCTURE DIAGRAM

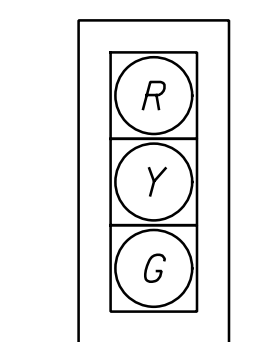


PEDESTRIAN SIGNS



R10-3E-9
4 - LEFT ARROWS
4 - RIGHT ARROWS

SIGNAL HEADS

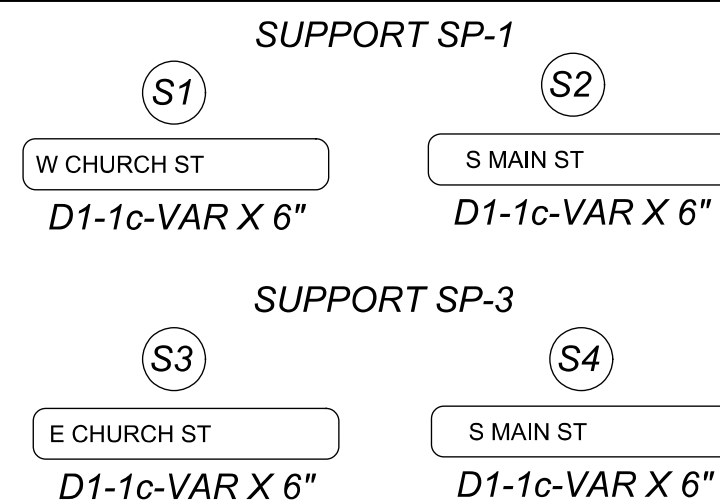


2A, 2B, 4A, 4B
6A, 6B, 8A, 8B



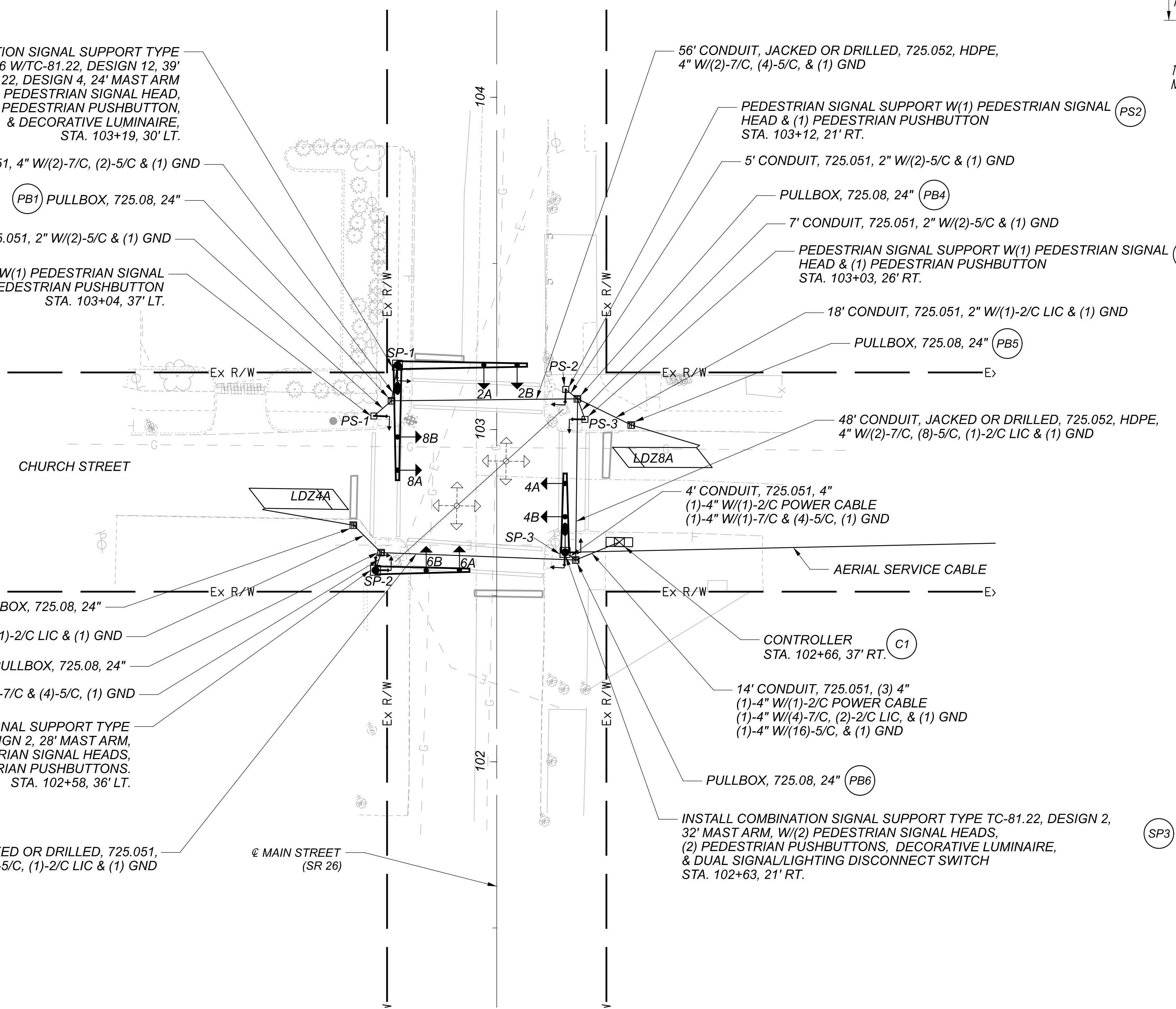
PEDESTRIAN HEADS
(LED, COUNTDOWN,
TYPE D2)

SIGNAL SUPPORT MOUNTED SIGNS



MOE-26-1685

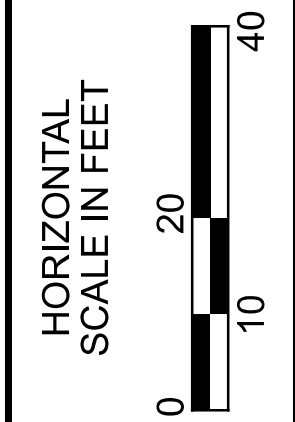
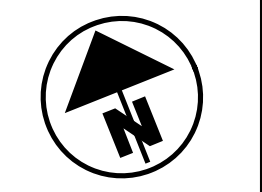
MODEL: Plan 4 [Sheet] PAPER SIZE: 34x22 (in.) DATE: 11/4/2021 TIME: 8:53:27 AM USER: AMcHan
pw:\trc-pw\ben\ley.com\trc-pw-0\Documents\5 - Projects\Ohio Department of Transportation (0001)\345242 - MOE-26-16.85.4 - CAD_Design\10443\400-Engineering\Signals\Sheets\10443_CFD004.dgn



PLAN

LEGEND

	PROP	EXIST
3 UNIT HEAD, 12" LED WITH BACKPLATE		
SIGNAL SUPPORT POLE		
PEDESTRIAN HEAD		
PEDESTRIAN PUSH BUTTON		
PEDESTAL SUPPORT		
LUMINAIRE, CONVENTIONAL		
CONTROLLER CABINET AND WORK PAD (332)		
TRAFFIC PULL BOX		
DETECTOR LOOP		
SINGLE POST SIGN, POLE MOUNTED		



TRAFFIC SIGNAL PLAN
SR 26 & CHURCH STREET

DESIGN AGENCY	Mead & Hunt
CLIENT	
DESIGNER	DAD
REVIEWER	
PROJECT ID	DLW 06-12-2020
SHEET	110443
TOTAL	P.47 51