

S-PL-2 10-10-16 SAFETY PLAN AT SIDE ROADS OR PRIVATE DRIVES
 S-BPR-1 02-05-16 BIKE/PEDESTRIAN SAFETY RAIL

TRAFFIC CONTROL APPURTENANCES

T-FAB-1 05-27-97 FLASHING YELLOW ARROW BOARD
 T-FO-1 FIBER OPTIC AERIAL ENTRANCE DETAILS
 T-FO-2 FIBER OPTIC UNDERGROUND ENTRANCE DETAILS
 T-FO-3 FIBER OPTIC AERIAL CONNECTION DETAILS
 T-FO-4 FIBER OPTIC PULL BOX, CABINET & POLE DETAILS
 T-L-1 12-04-13 STANDARD LIGHTING FOUNDATION DETAILS
 T-L-1SA 09-11-13 STANDARD LIGHTING DETAILS FOR SINGLE ARM SUPPORTS
 T-L-1TM STANDARD LIGHTING DETAILS TENON MOUNTED OFFSET LIGHTING SUPPORTS
 T-L-2 12-04-13 FOUNDATION DETAIL FOR LUMINAIRE MOUNTED ON A CONCRETE MEDIAN BARRIER
 T-L-3 04-15-96 STANDARD LIGHTING DETAILS PULL BOXES
 T-L-4 05-25-11 STANDARD LIGHTING DETAILS CONDUIT, CABLE INSTALLATION
 T-M-1 07-24-14 DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
 T-M-2 10-10-16 DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
 T-M-3 07-24-14 MARKING STANDARDS FOR TRAFFIC ISLANDS, MEDIANS & PAVED SHOULDERS ON CONVENTIONAL ROADS
 T-M-4 10-10-16 STANDARD INTERSECTION PAVEMENT MARKINGS
 T-M-5 04-23-13 MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS
 T-M-6 06-22-12 MARKING DETAIL FOR EXPRESSWAY & FREEWAY INTERCHANGES
 T-M-7 01-12-12 GORE MARKING DETAILS FOR EXPRESSWAY & FREEWAY INTERCHANGES
 T-M-8 01-12-12 MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS
 T-M-9 11-01-11 MARKING DETAILS FOR RAMP INTERSECTIONS
 T-M-10 06-15-12 SIGNING AND PAVEMENT MARKINGS FOR SHARED-USE PATHS
 T-M-11 10-10-16 SIGNING AND PAVEMENT MARKINGS FOR BICYCLE LANES AND ROUTES ON RURAL ROADS
 T-M-12 01-30-15 SIGNING AND PAVEMENT MARKINGS FOR URBAN BICYCLE LANES
 T-M-13 SIGNING AND PAVEMENT MARKINGS FOR BICYCLE LANES
 T-M-14 11-01-11 SIGNING AND PAVEMENT MARKINGS FOR BICYCLE LANES AT INTERSECTIONS
 T-M-15 ASPHALT SHOULDER RUMBLE STRIP INSTALLATION DETAILS FOR INTERSTATE AND ACCESS CONTROLLED ROUTES
 T-M-15A 01-30-15 ASPHALT SHOULDER RUMBLE STRIP INSTALLATION DETAILS FOR NON-ACCESS CONTROLLED ROUTES
 T-M-16 01-30-15 ASPHALT SHOULDER RUMBLE STRIPE INSTALLATION DETAILS FOR NON-ACCESS CONTROLLED ROUTES
 T-M-16A 04-21-14 ASPHALT CENTER LINE RUMBLE STRIPE
 T-M-17 02-20-14 PAVEMENT MARKING DETAILS FOR ROUNDABOUTS
 T-PBR-1 06-30-09 INTERCONNECTED PORTABLE BARRIER RAIL
 T-PBR-2 11-01-11 DETAIL FOR VERTICAL PANELS AND FLEXIBLE DELINEATORS

T-RR-1 11-01-11 TYPICAL PAVEMENT MARKING AT RAILROAD HIGHWAY GRADE CROSSINGS AND RAILROAD ADVANCE WARNING SIGN
 T-RR-2 11-01-11 STANDARD DRAWING FOR RAILROAD AND HIGHWAY CROSSING SIGNAL WITH GATE
 T-RR-3 11-01-11 STANDARD DRAWING FOR RAILROAD-HIGHWAY CROSSING SIGNAL
 T-RR-4 11-01-11 STANDARD DRAWING FOR TYPICAL CURB & GUTTER PLAN FOR RAILROAD-HIGHWAY CROSSING WITH OR WITHOUT GATES
 T-RR-5 11-01-11 STANDARD DRAWING FOR RAILROAD-HIGHWAY CROSSING SIGNAL TYPICAL CANTILEVER SPAN
 T-RR-6 10-25-13 TYPICAL SIGNING AND MARKING AT PASSIVE RAILROAD HIGHWAY GRADE CROSSINGS
 T-S-6 02-12-91 STANDARD MOUNTING DETAILS - BOLTED EXTRUDED PANELS
 T-S-7 02-12-91 HIGHWAY SHIELDS USED ON INTERSTATE AND U.S. NUMBERED ROUTES
 T-S-8 07-15-91 HIGHWAY SHIELDS USED ON STATE NUMBERED ROUTES AND ARROWS
 T-S-9 06-10-14 STANDARD LAYOUT GROUND MOUNTED SIGNS
 T-S-10 04-04-12 STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
 T-S-11 06-06-11 DELINEATOR AND MILEPOST DETAILS
 T-S-12 07-02-15 STANDARD STEEL GROUND MOUNTED SIGNS, BREAKAWAY TYPE POST FOOTING DETAILS, SQUARE TUBES
 T-S-13 07-20-12 STANDARD STEEL GROUND MOUNTED SIGNS, BREAKAWAY TYPE POST FOOTING DETAILS, I-BEAMS
 T-S-14 08-17-12 STANDARD STEEL GROUND MOUNTED SIGNS, BREAKAWAY TYPE POST FOOTING DETAILS, WF-BEAMS
 T-S-15 12-07-90 STANDARD CONDUIT & GROUND DETAILS FOR OVERHEAD & CANTILEVER SIGN STRUCTURES
 T-S-16 07-02-15 GROUND MOUNTED ROADSIDE SIGN AND DETAILS
 T-S-16A 07-02-15 GROUND MOUNTED ROADSIDE SIGN PLACEMENT DETAILS
 T-S-17 07-02-15 STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
 T-S-19 07-19-15 STANDARD STEEL SIGN SUPPORTS
 T-S-20 11-01-11 SIGN DETAILS
 T-S-23A 07-02-15 MULTI-DIRECTIONAL SLIP BASE BREAKAWAY SQUARE TUBE SIGN SUPPORT
 T-S-23B 07-19-13 MULTI-DIRECTIONAL SLIP BASE BREAKAWAY STRUCTURAL PIPE SIGN SUPPORT
 T-S-23C 07-02-15 BREAKAWAY U-POST SIGN SUPPORTS
 T-S-24 08-02-13 DETAILS OF SIGN WITH SOLAR FLASHING ASSEMBLY
 T-SG-2 06-27-16 LOOP LEAD-INS, CONDUIT AND PULL BOXES
 T-SG-3A 06-27-16 ALTERNATE DETECTION DETAILS
 T-SG-5 06-27-16 CONTROLLER CABINET DETAILS
 T-SG-6 PEDESTRIAN SIGNAL DETAILS
 T-SG-7 06-27-16 SIGNAL HEAD ASSEMBLIES
 T-SG-7A TYPICAL SIGNAL HEAD PLACEMENT
 T-SG-7K TYPICAL SIGNAL HEAD PLACEMENT - FOUR LANE APPROACHES
 T-SG-9 06-27-16 DETAILS OF CANTILEVER SIGNAL SUPPORT
 T-SG-9A 06-27-16 MISCELLANEOUS SIGNAL DETAILS
 T-SG-10 06-27-16 MAST ARM POLE AND STRAIN POLES FOUNDATION DETAILS

T-SG-11 06-27-16 MAINTENANCE OF EXISTING SIGNALS DURING HIGHWAY CONSTRUCTION
 T-SG-12 06-27-16 TYPICAL WIRING FOR SIGNAL HEADS AND DETECTION LOOPS
 T-WZ-10 04-02-12 ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
 T-WZ-11 03-05-17 ONE LANE CLOSURE DETAIL ON DIVIDED HIGHWAYS
 T-WZ-14 03-05-17 TWO-OUTSIDE LANE CLOSURE ON INTERSTATES AND EXPRESSWAYS (PORTABLE BARRIER RAIL)
 T-WZ-15 03-05-17 INTERIOR LANE CLOSURE ON FREEWAYS OR EXPRESSWAYS
 T-WZ-16 03-05-17 LANE SHIFT ON DIVIDED HIGHWAYS AND FREEWAYS
 T-WZ-18 03-05-17 SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS
 T-WZ-21 03-05-17 LANE CLOSURE WITH LEFT HAND MERGE AND LANE SHIFT
 T-WZ-30 09-01-05 TRAFFIC CONTROL 2-LANE, 2-WAY DIVERSION (40 MPH OR LESS)
 T-WZ-31 09-01-05 TRAFFIC CONTROL 2-LANE, 2-WAY DIVERSION (GREATER THAN 40 MPH)
 T-WZ-36 03-05-17 LANE CLOSURE ON LOW-VOLUME 2-LANE HIGHWAY
 T-WZ-40 03-05-17 RIGHT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
 T-WZ-41 03-05-17 LEFT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
 T-WZ-42 03-05-17 CENTER LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
 T-WZ-55 03-05-17 SIDEWALK TRAFFIC CONTROL

EROSION PREVENTION AND SEDIMENT CONTROL

EC-STR-1 08-01-12 DEWATERING STRUCTURE
 EC-STR-3B 08-01-12 SILT FENCE
 EC-STR-3E 04-01-08 SILT FENCE FABRIC JOINING DETAILS
 EC-STR-19 04-01-08 CATCH BASIN PROTECTION
 EC-STR-25 08-01-12 TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD
 EC-STR-34 08-01-12 EROSION CONTROL BLANKET FOR SLOPE INSTALLATION
 EC-STR-37 06-10-14 SEDIMENT TUBE
 EC-STR-39A 08-01-12 CURB INLET PROTECTION TYPE 3 & 4

10-26-2017 REVISION:
 ADDED STD. DWG.
 S-BPR-1 BIKE/PEDESTRIAN SAFETY RAIL



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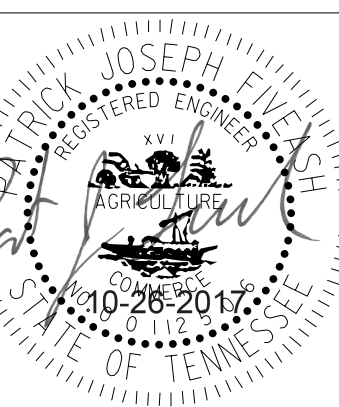
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ROADWAY IMPROVEMENTS
 MERCHANT DRIVE /
 CLINTON HIGHWAY
 INTERSECTION
 KNOX COUNTY, TENNESSEE

REVISION		
No.	Date	Revision



ROADWAY INDEX AND STANDARD DRAWINGS

1B

SCALE: 1"=50'
 PROJECT: 48009-00
 DATE: 2017

NOT PARTICIPATING

ESTIMATED ROADWAY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
716-12.03	ENHANCED FLATLINE THERMO PVMT MRKNG (8IN BARRIER LINE)	L.F.	529
717-01	MOBILIZATION	LS	1
18 730-02.17	SIGNAL HEAD ASSEMBLY (150 A2H WITH BACKPLATE)	EACH	2
27 730-02.08	SIGNAL HEAD ASSEMBLY (130 POLE MOUNTED)	EACH	1
18 730-02.09	SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE)	EACH	7
18,29 730-02.30	SIGNAL HEAD ASSEMBLY (130 A3)	EACH	3
730-03.21	INSTALL PULL BOX (TYPE B)	EACH	5
19 730-05.01	ELECTRICAL SERVICE CONNECTION	EACH	1
730-05.02	SERVICE CABLE (2 CONDUCTOR #8 AWG)	L.F.	300
730-08.01	SIGNAL CABLE - 3 CONDUCTOR	L.F.	1145
730-08.03	SIGNAL CABLE - 7 CONDUCTOR	L.F.	575
730-08.05	SIGNAL CABLE - 12 CONDUCTOR	L.F.	905
730-12.02	CONDUIT 2"DIAMETER (PVC)	L.F.	65
730-12.13	CONDUIT 2" DIAMETER (JACK AND BORE)	L.F.	790
25 730-13.07	VEHICLE DETECTOR (SIREN ACTIVATED PRIORITY CONTROL)	EACH	4
22 730-13.08	VEHICLE DETECTOR (STOP BAR RADAR DETECTION)	EACH	1
28 730-15.07	CABINET (SIXTEEN PHASE BASE MOUNTED)	EACH	1
28 730-16.02	EIGHT PHASE ACTUATED CONTROLLER	EACH	1
26 730-23.30	PEDESTAL POLE (10')	EACH	1
26 730-23.31	PEDESTAL POLE (20')	EACH	1
26,30 730-23.96	CANTILEVER SIGNAL SUPPORT (2@ 60' AND 75')	EACH	1
26,30 730-23.97	CANTILEVER SIGNAL SUPPORT (1 ARM @ 75')	EACH	1
730-26.06	PEDESTRIAN PUSHBUTTON POST	EACH	4
20 730-26.09	PEDESTRIAN PUSHBUTTON WITH 15" SIGN	EACH	8
21 730-26.05	COUNTDOWN PEDESTRIAN SIGNAL	EACH	8
24 730-35.06	BATTERY BACK-UP AND POWER CONDITIONER	EACH	1
26,29 740-10.03	GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	86
23 740-11.01	TEMPORARY SEDIMENT TUBE 8IN (EPSC)	L.F.	176
801-03	WATER (SEEDING & SODDING)	M.G.	1.1
30 803-01	SODDING (NEW SOD)	S.Y.	1219

ESTIMATED UTILITY QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
8) 791-02.02	2" MDPE GAS MAIN	L.F.	620
8) 791-02.06	8" MDPE GAS MAIN	L.F.	360
9) 791-06.02	CONNECT TO 2 IN EX. PE MAIN	EACH	6
9) 791-06.05	CONNECT TO 8 IN EX. PE MAIN	EACH	4
4) 791-07.01	2" PE GAS VALVE ASSEMBLY	EACH	1
4) 791-07.04	8" PE GAS VALVE ASSEMBLY	EACH	2
10) 791-10.10	RETIRE GAS MAIN	LS	1
1) 795-01.05	8IN DIP RESTRAINED JOINT WATER LINE	L.F.	1820
2) 795-06.01	CONNECT TO 2IN WATER LINE	EACH	1
2) 795-06.04	CONNECT TO 6IN WATER LINE	EACH	4
2) 795-06.05	CONNECT TO 8IN WATER LINE	EACH	4
5,1) 795-06.33	CUT AND CAP 6IN WATER LINE	EACH	1
5,1) 795-06.34	CUT AND CAP 8IN WATER LINE	EACH	2
3) 795-08.01	2IN GATE VALVE ASSEMBLY	EACH	1
3) 795-08.04	6IN GATE VALVE ASSEMBLY	EACH	1
3) 795-08.05	8IN GATE VALVE ASSEMBLY	EACH	23
6) 795-09.51	RECONNECT SERVICE ASSEMBLY	EACH	15
2,1) 795-11.02	FIRE HYDRANT ASSEMBLY	EACH	4
5) 795-13.01	DI FITTINGS	LB.	2500
5) 797-05.40	CURED IN PLACE PIPE, EXIST 8" CONC. SA.	L.F.	437
797-05.51	8IN PVC GRAVITY SEWER 0FT-6FT DEPTH	L.F.	13
797-05.52	8IN PVC GRAVITY SEWER 6FT-12FT DEPTH	L.F.	1040
3) 797-07.03	48IN MANHOLE 6FT-8FT DEPTH	EACH	3
797-07.60	ADJUST EXISTING MANHOLE	EACH	1
797-07.75	TRAFFIC RATED FRAMES AND COVERS	EACH	2
3,6) 797-08.20	6IN PVC PIPE FOR SERVICE LATERAL	L.F.	150
3) 797-08.08	6IN CLEAN OUT ASSEMBLY	EACH	10
7) 797-08.20	CONNECT SERVICE LINES (ALL SIZES)	EACH	10
797-10.09	CONNECT EX. 8IN SEWER TO NEW MANHOLE	EACH	1
797-10.02	CONNECT 8IN SEWER TO EXIST. MANHOLE	EACH	2
10) 797-11.31	RETIRE IN PLACE EXISTING SEWER 8IN-14IN	L.F.	1051
10) 797-11.38	BY-PASS PUMPING	LS	1

UTILITY FOOTNOTES

FOOTNOTE 1:

INCLUDES ALL MATERIALS, LABOR, EQUIPMENT FOR COMPLETE INSTALLATION OF PIPE INCLUDING BUT NOT LIMITED TO TRAFFIC CONTROL, MATERIALS, EQUIPMENT, EXCAVATION IN BOTH UNCONSOLIDATED AND ROCK, REMOVAL AND REPLACEMENT OF UNSUITABLE SOIL, ENVELOPE/BEDDING MATERIAL, BACKFILLING, FLOWABLE FILL, THRUST BLOCKING, CONCRETE DEADMAN, PIPE FUSION, TRACER WIRE, WARNING TAPE, APPURTENANCES, TEMPORARY/PERMANENT SHORING, MAINTAINING THE TRENCH, TESTING, FLUSHING, DISINFECTION, BACTERIOLOGICAL SAMPLING, TEMPORARY/PERMANENT SURFACE RESTORATION, AND ANY OTHER LABOR OR MATERIAL REQUIRED TO COMPLETE THE WORK AS SPECIFIED ON THE PLANS.

FOOTNOTE 2:

INCLUDES ALL MATERIALS, LABOR, AND EQUIPMENT NECESSARY FOR CONNECTING TO AN EXISTING WATER LINE INCLUDING TRAFFIC CONTROL.

FOOTNOTE 3:

INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT INCLUDING BUT NOT LIMITED TO TAPPING SLEEVE, VALVE, VALVE BOX, BOX ADJUSTMENT, VALVE BOX COLLAR, VALVE MARKER, EXCAVATION, BEDDING, BACKFILL, BLOCKING AND RESTRAINT, TAP OF EXISTING LINE, AND TRAFFIC CONTROL.

FOOTNOTE 4:

INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT INCLUDING BUT NOT LIMITED TO FITTINGS, VALVE, VALVE STEM EXTENSIONS, VALVE BOX AND COVER, BOX ADJUSTMENT, VALVE BOX COLLAR, VALVE MARKER, EXCAVATION, BEDDING, BACKFILL, BLOCKING, AND TRAFFIC CONTROL.

FOOTNOTE 5:

INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT INCLUDING BUT NOT LIMITED TO MACHINERY, TOOLS OR APPARATUS NECESSARY FOR INSTALLATION OF ASSEMBLIES AS DESCRIBED IN THE PLANS AND SPECS EXCEPT FOR SERVICE LINE WHICH IS PAID SEPERATELY FOR EACH FOOT INSTALLED.

FOOTNOTE 6:

INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT FOR COMPLETE INSTALLATION OF SERVICE LINE OR CASING FOR SERVICE LINE ON LONG SIDE AND SHORT SIDE OF MAIN.

FOOTNOTE 7:

INCLUDES ALL MATERIALS, LABOR AND EQUIPMENT FOR REMOVAL OF EXISTING WATER SERVICE METER ASSEMBLY AND INSTALLING AT NEWLY IDENTIFIED LOCATION

FOOTNOTE 8:

INCLUDES ALL MATERIALS INCLUDING SAND/STONE BEDDING, FLOWABLE FILL, TEMPORARY PAVEMENT IN OR OUT OF ROW, LABOR, EQUIPMENT FOR COMPLETE INSTALLATION OF PIPE INCLUDING BUT NOT LIMITED TO TRAFFIC CONTROL, EXCAVATION INCLUDING DIRT/ROCK, BACKFILLING, CREEK CROSSINGS PER SWPPP, COUPLINGS, FITTINGS, PIPE FUSION, APPURTENANCES, MAINTAINING THE TRENCH, PURGE POINT INSTALLATION, TESTING BY UTILITY SPECIFICATIONS TO INCLUDE BUT NOT LIMITED TO AIR, NITROGEN, HYDROSTATIC OR X-RAY, DEW POINT OR DRYING, AND ANY OTHER LABOR OR MATERIAL REQUIRED TO COMPLETE THE WORK AS SPECIFIED ON THE PLANS.

FOOTNOTE 9:

INCLUDES ALL MATERIALS, LABOR, AND EQUIPMENT, NECESSARY FOR CONNECTING TO EXISTING GAS LINE INCLUDING TRAFFIC CONTROL.

FOOTNOTE 10:

INCLUDES ALL MATERIALS, LABOR, AND EQUIPMENT FOR RETIREMENT OF ITEM INCLUDING STABILIZING THE ITEM OF PLANT PER UTILITY SPECIFICATIONS.



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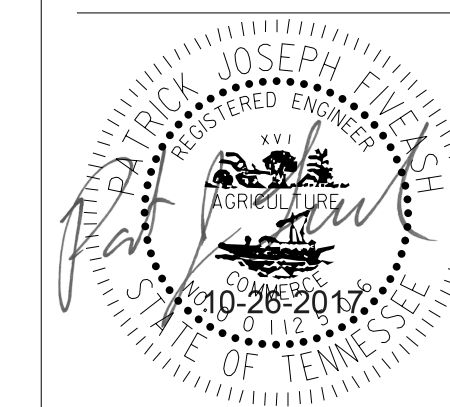
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ROADWAY IMPROVEMENTS
MERCHANT DRIVE /
CLINTON HIGHWAY
INTERSECTION
KNOX COUNTY, TENNESSEE

REVISION		
No.	Date	Revision



10-26-2017 REVISION:
REMOVED ITEM NUMBERS
730-13.06 AND 730-15.32.
ADDED ITEM NUMBERS
730-13.07 AND 730-15.07.

ESTIMATED ROADWAY
AND UTILITY
QUANTITIES

2A

SCALE: 1"=50'
PROJECT: 48009-00
DATE: 2017

STORM DRAINAGE PIPES

SHEET NO.	FROM		TO		% GRADE	RCP CLASS III		
	CODE	OUTLET ELEV.	CODE	INLET ELEV.		607-03.02	607-05.02	607-06.02
						18" (L.F.)	24" (L.F.)	30" (L.F.)
5A	CB-1	1062.58	CB-2	1061.50	5.32	20		
5A	CB-2	1061.25	JB-1	1060.00	4.05	31		
5A	CB-3	1058.00	CB-4	1054.25	3.55	106		
5A/6A	CB-4	1053.75	CB-5	1043.51	5.39		190	
6A	CB-5	1043.34	CB-6	1043.00	3.46		10	
6A	CB-6	1042.50	CB-7	1038.82	3.93			94
6A	CB-7	1038.44	CB-8	1034.38	2.40			169
6A	CB-8	1034.20	CB-9	1029.95	3.59			119
6A/7A	CB-9	1029.57	CB-10	1026.00	2.06			174
7A	CB-10	1025.75	EX-3	1024.45	1.64			79
6A	CB-11	1044.67	CB-12	1044.27	2.32	17		
6A	CB-12	1043.93	CB-14	1039.49	3.13	142		
6A	CB-13	1038.96	EX-6	1034.38	2.35	CONNECT TO EX. 18" RCP		
6A	CB-14	1039.15	CB-13	1039.12	0.51	6		
5A	CB-15	1059.79	MH-1	1053.25	4.58	143		
5A/6A	MH-1	1053.08	EX-2	1040.45	4.59	275		
5A	EX-1	1063.94	CB-15	1059.96	4.61	86		
5A	JB-1	1059.75	CB-3	1058.17	2.80	56		
5A	EX-4	1064.43	CB-2	1062.00	5.10	48		
TOTALS						931	200	635

10-26-2017 REVISION:
REMOVED ITEM NUMBER
403-01 AND REPLACED
IT WITH ITEM NUMBER
403-02.01 IN THE
PAVEMENT QUANTITIES



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PAVEMENT QUANTITIES

LOCATION	PAY ITEMS						
	303-01 (TON)	307-02.01 (TON)	307-02.08 (TON)	402-01 (TON)	402-02 (TON)	403-02.01 (TON)	411-02.10 (TON)
Full Depth and Concrete	2219.3	361.8	355.5	3.8	131.0	0.8	2849.2
Driveways	199.1	80.8					53.2
TOTALS	2418.4	443	356	3.8	131.0	1.0	2902.3

*CONTRACTOR TO FIELD VERIFY AT&T DUCT BANK
BEFORE INSTALLING THE PIPE AND CB-2. THE AT&T
DUCT BANK IS NOT TO BE DISTURBED

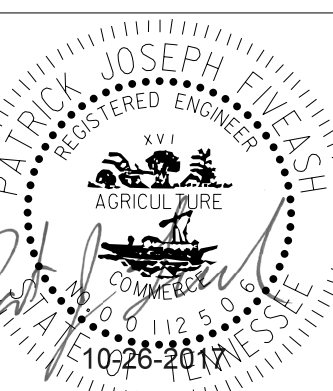
CATCH BASINS AND JUNCTION BOXES

SHEET NO.	LOCATION	STATION	OFFSET (FT.)	DRAINAGE CODE	GRATE/TOP ELEV.	STRUCTURE TYPE	INSIDE DIMENSION	DEPTH (FT.)	STANDARD DRAWINGS	ROUND	TYPE 12	TYPE 14	TYPE 3	REMARKS
										J.B. 611-02.41 EA.	C.B. 611-12.02 4' - 8'	C.B. 611-14.02 4' - 8'	MH 611-01.02 4' - 8'	
5A	CLINTON HWY	106+21.49	65.69	CB-1	1066.6	#14	8X3	4.02	D-CB-14P			1		CONNECT EX. 6" DIP
5A	CLINTON HWY	106+36.77	88.29	CB-2	1066.23	#14	8X3	4.98	D-CB-14P			1		VERIFY DUCT BANK DEPTH
5A	CLINTON HWY	106+61.70	63.71	JB-1	1064.5	JB	4' DIA	4.75	D-CB-99RB	1				
5A	CLINTON HWY	107+00.00	-68.85	CB-15	1063.84	#12	4' DIA	4.05	D-CB-12RA		1			
5A	CLINTON HWY	108+29.00	52.07	CB-4	1058.19	#14	8X3	4.44	D-CB-14P			1		
5A	CLINTON HWY	108+47.50	-68.17	MH-1	1057.93	MH	4' DIA	4.85	D-MH-2				1	
6A	CLINTON HWY	110+25.00	49.4	CB-5	1047.93	#12	4X4	4.59	D-CB-12SB		1			
6A	CLINTON HWY	110+25.00	61.14	CB-6	1047.68	#12	4X3	5.18	D-CB-12P		1			
6A	CLINTON HWY	110+25.00	-11.34	CB-11	1048.72	#12	4X3	4.05	D-CB-12P		1			
6A	CLINTON HWY	110+24.90	8.89	CB-12	1048.38	#14	8X3	4.45	D-CB-14P			1		
6A	CLINTON HWY	111+25.00	65.63	CB-7	1044.32	#14	9X9	5.88	D-CB-14SE			1		
6A	CLINTON HWY	111+75.00	0.4	CB-13	1043.3	#12	4X3	4.34	D-CB-12P		1			
6A	CLINTON HWY	111+75.00	7.32	CB-14	1043.54	#14	8X3	4.39	D-CB-14P			1		
6A	CLINTON HWY	113+00.00	48.8	CB-8	1039.34	#12	4X4	5.14	D-CB-12SB		1			CONNECT EX. 4" RCP
6A	CLINTON HWY	114+25.00	49.04	CB-9	1035.45	#14	9X9	5.88	D-CB-14SE			1		CONNECT EX. 4" RCP
7A	CLINTON HWY	116+05.00	49.39	CB-10	1030.4	#12	4X4	4.65	D-CB-12SB		1			
7A	CLINTON HWY	116+89.71	53.97	EX-3	1029.55	#12	7X7	5.39	D-CB-12SD		1			REPLACE EX. CB IN PLACE
5A	MERCHANT RD	8+03.00	23.38	CB-3	1064.62	#12	4X3	6.62	D-CB-12P		1			
TOTALS										1	9	7	1	

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ROADWAY IMPROVEMENTS
MERCHANT DRIVE /
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KNOX COUNTY, TENNESSEE

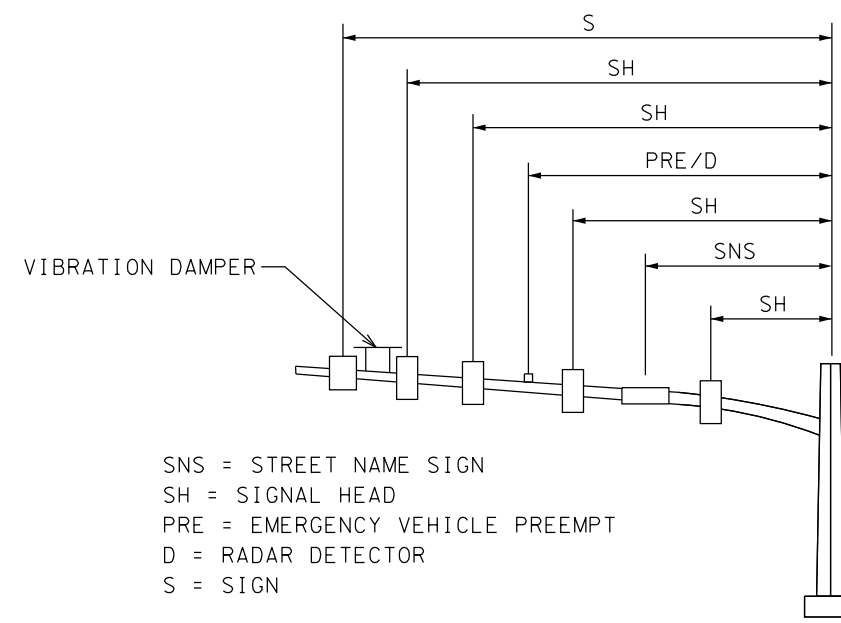
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No.	Date	Revision



TABULATED QUANTITIES

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SCALE: 1"=50'
PROJECT: 48009_00
DATE: 2017

MAST ARM DETAILS



POLE NO.	NORTHING	EASTING	GRD ELEV. @ POLE	ATTACH ELEV.	ARM LENGTH **	FOOTING DIAMETER	FOOTING DEPTH *
S1	614377.2600	2565501.9500	1064.76	1084.76	60' & 75'	4'-0"	21'-0"
S2	614357.1400	2565577.9000	1061.08	1081.08	0'	2'-0"	3'-0" MIN.
S3	614254.8800	2565486.1200	1063.78	1083.78	75'	4'-0"	19'-0"
S4	614301.3300	2565412.6200	1066.59	1086.59	0'	2'-0"	6'-0" MIN.
S5	614384.6500	2565514.4500	1064.09	1084.09	0'	2'-0"	2'-0" MIN.
S6	614346.0900	2565579.8900	1060.67	1080.67	0'	2'-0"	2'-0" MIN.
S7	614251.9500	2565508.8400	1063.04	1083.04	0'	2'-0"	2'-0" MIN.
S8	614292.4800	2565415.4700	1066.50	1086.50	0'	2'-0"	2'-0" MIN.

* FOOTING DEPTH IS GIVEN FOR BIDDING PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR FOUNDATION AND POLE DESIGN.

POLE	SH1	SNS	SH2	D	SNS	S	SH3	SH4	PRE
S1 A1	15'-10"	40'-0"	28'-11"	45'-0"		63'-2"	67'-2"		35'-0"
S1A2	12'-8"	19'-2"	25'-8"	64'-10"	47'-3"	28'-11"	38'-8"	51'-9"	36'-6"
S3	33'-5"	52'-1"	45'-7"	52'-0"			58'-9"	72'-6"	65'-0"

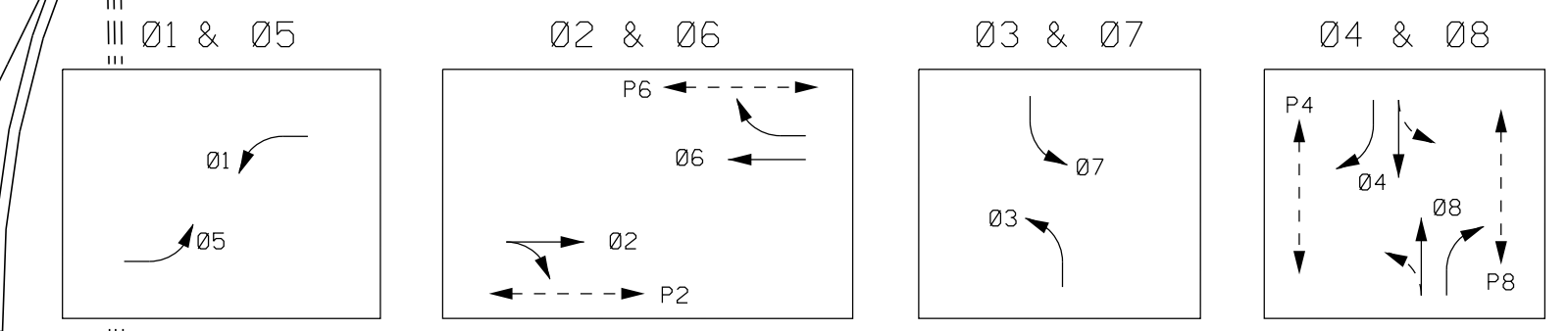
INSTALL 5' PUSHBUTTON POLE S5
1-PED. PUSH BUTTON
1-2" CONDUIT TO PB4

INSTALL TYPE B PULL BOX PB4
W/4-2" CONDUIT TO PB3

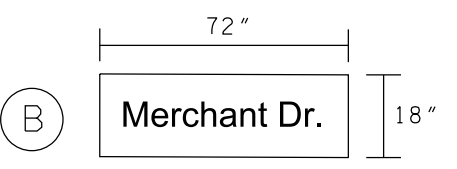
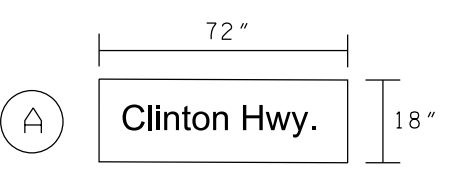
INSTALL 20' SIGNAL POLE S1
W/60 & 70' DOUBLE MAST ARM,
2-PED. SIGNALS,
1-PED. PUSH BUTTONS
2-RADAR DETECTION UNITS
4-2" CONDUIT TO PB4

10-26-2017 REVISION:
ADDED SEAL AND SIGNATURE

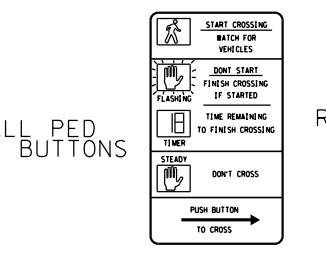
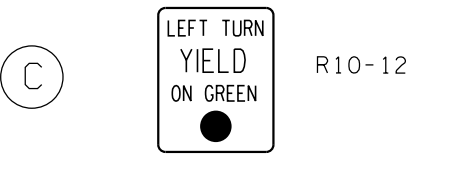
PHASING DIAGRAM



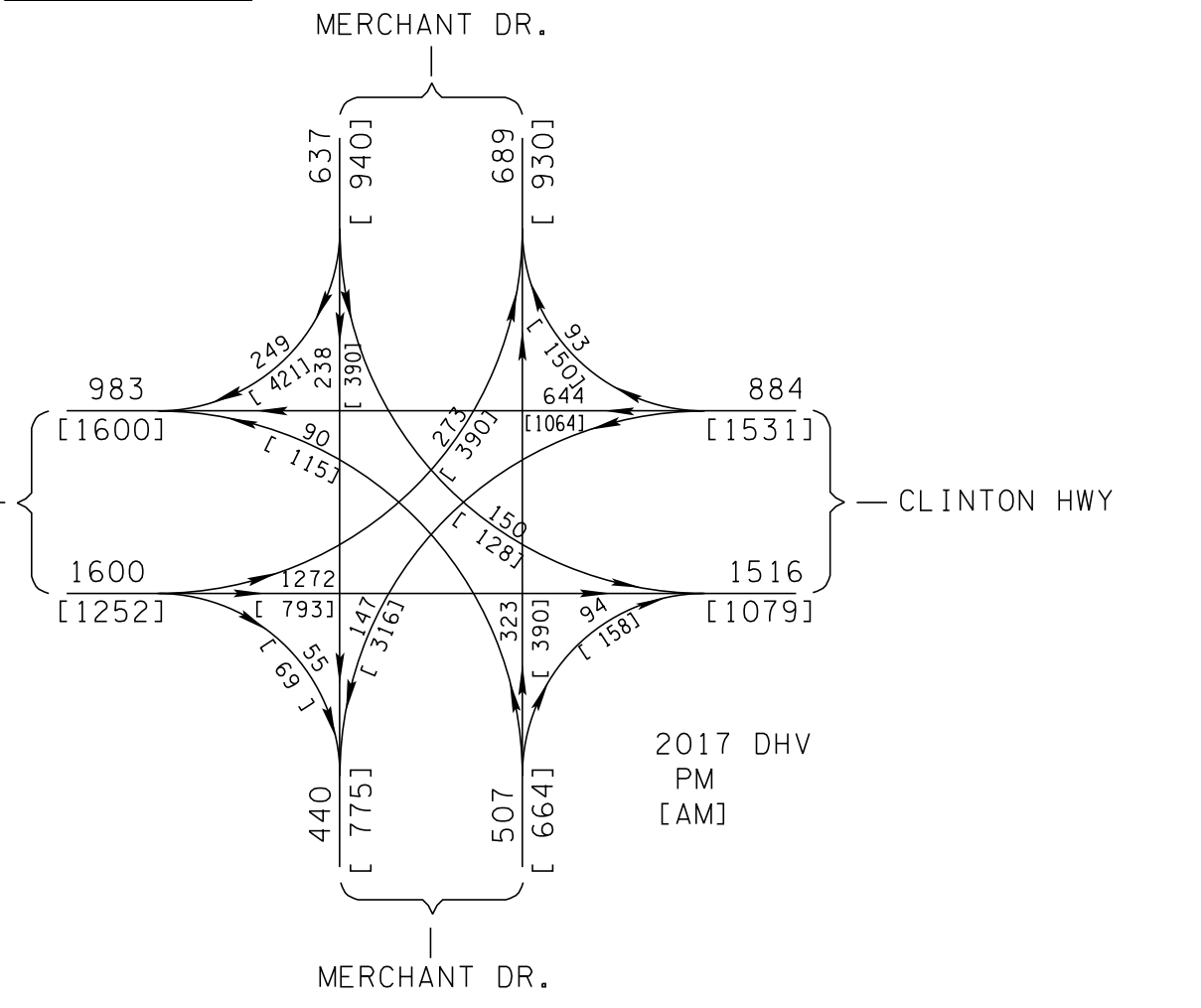
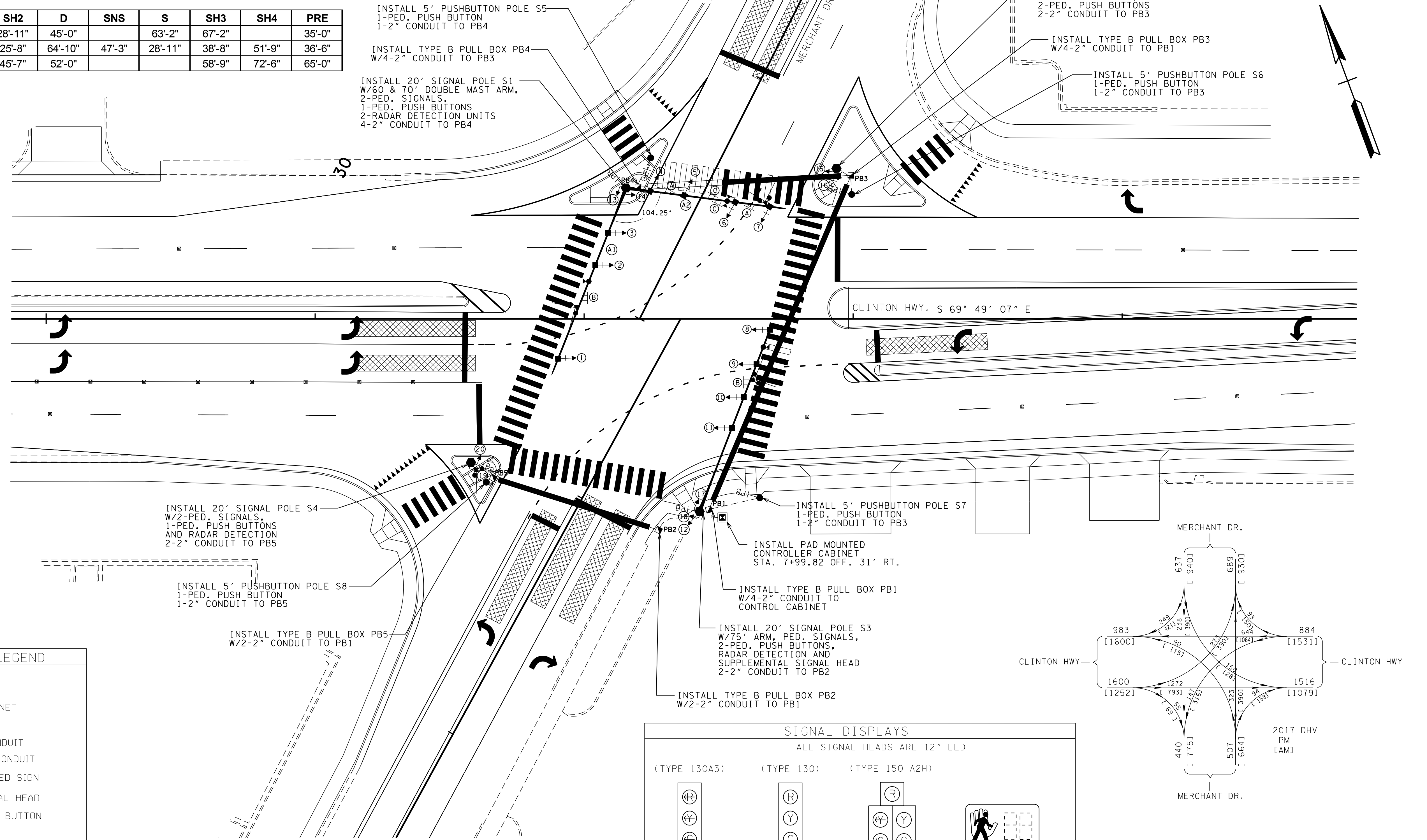
SIGN DETAIL



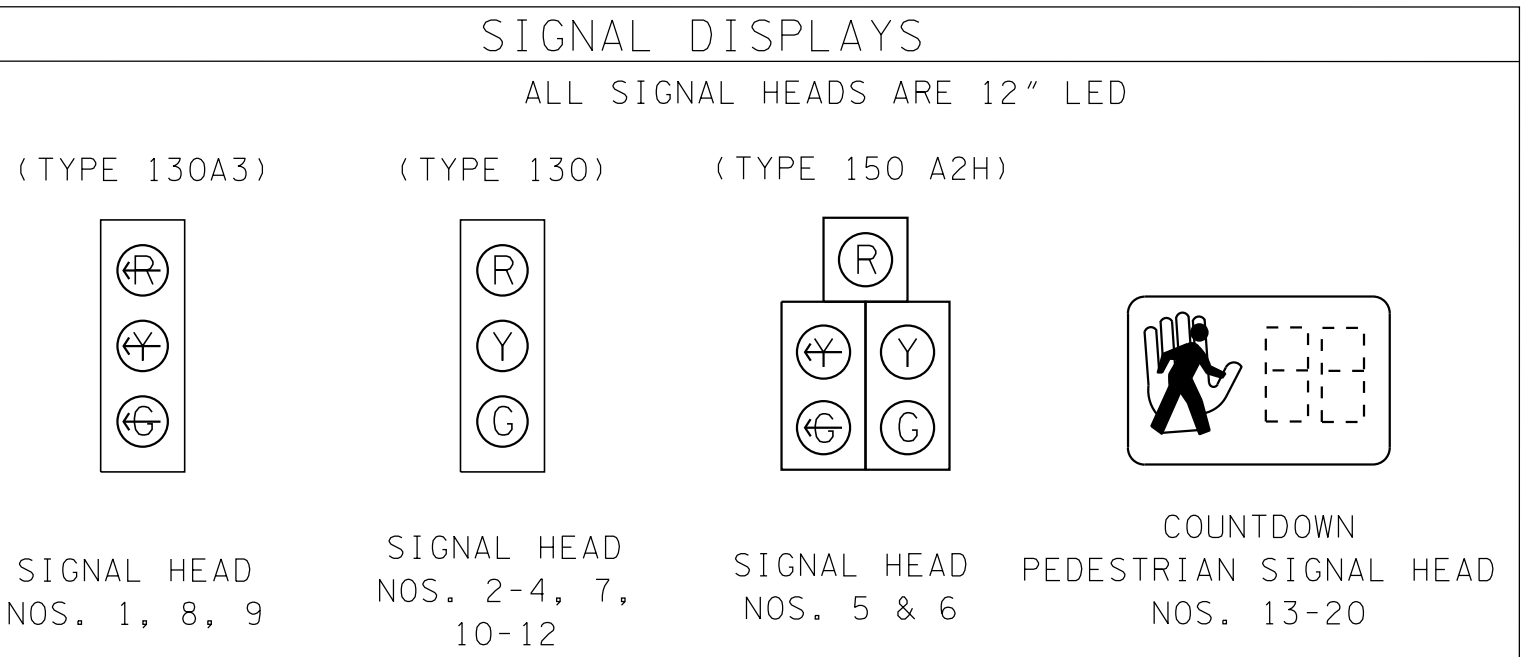
- 8" U.C. LETTERS
- 6" L.C. LETTERS
- WHITE LETTERING
- GREEN BACKGROUND



AT ALL PED PUSH BUTTONS



TRAFFIC SIGNAL LEGEND	
	SIGNAL HEAD
	MAST ARM POLE
	CONTROLLER CABINET
	PULL BOX
	UNDERGROUND CONDUIT
	JACK AND BORE CONDUIT
	MAST ARM MOUNTED SIGN
	PEDESTRIAN SIGNAL HEAD
	PEDESTRIAN PUSH BUTTON
	DETECTION ZONE
	RADAR DETECTION UNIT
	EMERGENCY PREEMPTION



NOTE: CONTRACTOR SHALL COORDINATE POWER SERVICE FROM SIDE STREET FEED.



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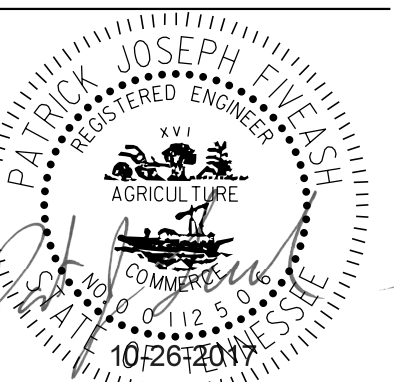
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ROADWAY IMPROVEMENTS
MERCHANT DRIVE / CLINTON HIGHWAY INTERSECTION
KNOX COUNTY, TENNESSEE

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No.	Date	Revision



SIGNAL LAYOUT

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SCALE: 1"=20'
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TRAFFIC SIGNAL NOTES

GENERAL

THIS TRAFFIC SIGNALIZATION PLAN CONSISTS OF A NEW TRAFFIC CONTROL SIGNAL UTILIZING MAST ARM POLES.

EQUIPMENT AND INSTALLATION SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE FOLLOWING TENNESSEE DEPARTMENT OF TRANSPORTATION PUBLICATIONS:

- A) "SPECIAL PROVISIONS" SECTION 730K - TRAFFIC SIGNALS.
- B) "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (JANUARY 1 2015)
- C) "STANDARD ROADWAY, TRAFFIC OPERATIONS, AND STRUCTURE DRAWINGS"

THE SIGNAL CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE CITY SIGNAL MAINTENANCE SUPERVISOR, PHILLIP REYES AT 865-306-9223 TO OBTAIN WIRING COLOR-CODE FOR 12 POSITION QUICK DISCONNECTS REQUIRED BY CITY.

ALL PAVEMENT MARKINGS SHOWN ON THE PLANS, E.G., STOP BARS, LANE LINES, ETC. SHALL BE IN PLACE PRIOR TO ACTIVATION OF THE TRAFFIC SIGNAL START UP FLASH SEQUENCE.

ANY SIGNAL HEADS, WHEN VISIBLE TO DRIVERS BUT NOT OPERATIONAL, SHALL BE COMPLETELY COVERED UNTIL SIGNAL IS OPERATIONAL.

ALL CONSTRUCTION ACTIVITIES SHALL BE COMPLETED IN FULL COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) AND ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD, FEDERAL REGISTER 36 CFR PARTS 1190 AND 1191.

THE CONTRACTOR SHALL COORDINATE WITH PHILLIP REYES AT 865-306-9223 SIGNAL MAINTENANCE 1025 ELM STREET, KNOXVILLE, TN 37921.

THE CONTRACTOR SHALL COORDINATE ALL SIGNS AND MARKINGS WITH BRYAN GILBERT, SIGNS & MARKINGS SUPERVISOR, 865-215-6720 AT 1025 ELM STREET, KNOXVILLE, TN 37921.

CONTRACTOR SHALL NOTIFY THE CITY IN WRITING WHEN SIGNAL INSTALLATION IS COMPLETE FOR ACCEPTANCE.

THE TRAFFIC SIGNALS ARE THE RESPONSIBILITY OF THE SIGNAL CONTRACTOR UNTIL FINAL INSPECTION HAS BEEN PERFORMED(SIGNALS, MARKINGS AND SIGNAGE). BEFORE THE CONTRACTOR IS RELEASED OF THIS RESPONSIBILITY THE CITY MUST APPROVE THE ENTIRE INSTALLATION AND ACCEPT MAINTENANCE RESPONSIBILITY FOR THE SIGNALS. THE CONTRACTOR IS TO NOTIFY THE CITY IN WRITING WHEN SIGNAL IS INSTALLED AND COMPLETED.

THE SIGNAL CONTRACTOR IS ALSO RESPONSIBLE FOR ANY EXISTING SIGNAL RELOCATIONS, REMOVALS OR ALTERATIONS DURING THE COURSE OF THE PROJECT ONCE WORK BEGINS ON THE ROADWAY AND SIGNAL CONSTRUCTION. COST TO BE INCLUDED IN SIGNAL REMOVAL ITEM NUMBER.

SIGNAL HEADS

ALL SIGNAL HEADS SHALL MEET THE SPECIFICATIONS REFERENCED IN THESE PLANS AND T.D.O.T. STANDARD DRAWING T-SG-7, T-SG-7J, T-SG-7O, T-SG-6.

ALL CIRCULAR AND ARROW INDICATIONS WITHIN ALL VEHICULAR SIGNAL HEADS PROPOSED FOR THIS PROJECT SHALL CONSIST OF AN LED (LIGHT EMITTING DIODE) WITH CLEAR LENS SIGNAL MODULE UNLESS OTHERWISE NOTED IN THE PLANS.

INCANDESCENT OR SCREW-IN LED MODULES ARE NOT ACCEPTABLE.

COMPATIBILITY WITH CONFLICT MONITORS AND LOAD SWITCHES SHALL BE TESTED AND CONFIRMED.

MANUFACTURER SHALL PROVIDE A MINIMUM 15 YEAR WARRANTY FOR OPERATION OF THE UNIT.

SIGNAL HEADS SHALL BE BLACK IN COLOR WITH ALUMINUM TOP SECTION AND TWO POLYCARBONATE BOTTOM SECTIONS HAVING 12-INCH SIGNAL FACES AND HAVE POLYCARBONATE VACUUM FORMED BACKPLATES WITH LOUVERS.

ONCE WORK BEGINS, CONTRACTOR IS RESPONSIBLE FOR SIGNAL MAINTENANCE.

BACKPLATES SHALL INCLUDE A YELLOW RETROREFLECTIVE BORDER AROUND THE PERIMETER OF THE FACE OF THE BACKPLATE. THE RETRREFLECTIVE BORDER IS TO BE MADE OF A TYPE III PRISMATIC OR BETTER MATERIAL. SEE T-SG-9A FOR DETAILS.

PULL BOXES

ALL PULL BOXES SHALL MEET THE SPECIFICATIONS REFERENCED IN THESE PLANS AND T.D.O.T. STANDARD DRAWING T-SG-2 AND T-FO-4 AND HAVE A "TRAFFIC" LOGO ON THE COVER.

UTILITY

ALL UTILITY LOCATIONS, AS SHOWN, ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR CONTACTING LOCAL UTILITY COMPANIES TO LOCATE UNDERGROUND UTILITIES BEFORE CONSTRUCTION BEGINS.

RADAR DETECTION

THE RADAR DETECTION SYSTEM SHALL BE WAVETRONIX STOPBAR DETECTION SYSTEM OF EQUIVALENT.

THE RADAR DETECTOR SYSTEM LOCATIONS ON THESE PLANS ARE APPROXIMATE. CONTRACTOR SHALL REVIEW DETECTOR LOCATIONS WITH MANUFACTURER'S REPRESENTATIVE PRIOR TO ORDERING DETECTORS AND DETECTOR CABLE LENGTHS TO DETERMINE BEST POSITION. CABLE LENGTH SHALL INCLUDE ANY SLACK NEEDED TO MOVE THE DETECTOR ON THE POLE OR MAST ARM, AS REQUIRED BY THE MANUFACTURER.

PAYMENT FOR ITEM INCLUDES THE COMPLETE FURNISH AND INSTALLATION OF A STOP BAR RADAR DETECTION SYSTEM INCLUDING RADAR DETECTOR, MOUNTS, DETECTOR CABLING, 2-CHANNEL DETECTOR RACK CARDS FOR ALL PHASES SHOWN ON THE PLANS, CONNECTORS AND CABLE INTERFACE DEVICE. THE CABLE INTERFACE DEVICE SHALL SUPPLY DETECTOR POWER AND PROVIDE SURGE PROTECTION FOR THE DETECTOR.

THE CONTRACTOR SHALL SUBMIT THE RADAR DETECTION SYSTEM SPECIFICATIONS FOR APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION.

EACH RADAR SHALL HAVE A SEPARATE CONTINUOUS LEAD-IN CABLE TO THE CONTROLLER CABINET. ALL LEAD-IN CABLES SHALL BE LABELED WITH THE APPROPRIATE PHASE AND APPROACH TO WHICH THEY ARE ATTACHED BOTH IN THE PULL BOX AND CONTROLLER CABINET.

CONTROLLER CABINET

THE CONTROLLER CABINET SHALL MEET THE SPECIFICATIONS REFERENCED IN THESE PLANS AND T.D.O.T. STANDARD DRAWING T-SG-5 AND 730K SPECS.

THE TRAFFIC CONTROL CABINET SHALL BE AT TS-2 TYPE 2 CABINET WITH ATC CONTROLLER AND ETHERNET READY.

THE CABINET SHALL HAVE A BLACK POWDER COAT FINISH.

THE CABINET SHALL INCLUDE BUT SHALL NOT BE LIMITED TO THE FOLLOWING:

- A) A TS-2 TYPE 2 SIXTEEN PHASE CABINET;
- B) A NAZTEC TRAFFICWARE SERIES 900 ATC CONTROLLER MODEL NUMBER 980-B240 WITH FLASH MEMORY / ETHERNET PORTS.(SEPERATE PAY ITEM)
- C) A NAZTEC MALFUNCTION MANAGEMENT UNIT (MMU) MODEL NUMBER 516E
- D) SIGNAL MONITOR WITH ETHERNET PORTS AND CABLE.
- E) SIXTEEN LOAD SWITCHES;
- F) EIGHT FLASH TRANSFER RELAYS;
- G) FLASHER AND ANY OTHER EQUIPMENT NECESSARY TO MAKE AN OPERATIONAL TRAFFIC SIGNAL BASED ON THE DESIGN PLANS PROVIDED;

- I) CLOSED LOOP SIDE PANEL;
- J) BACKUP POWER SUPPLY SYSTEM WITH NICKEL ZINC BATTERIES FOR A COMPLETE SYSTEM. BATTERY BACKUP RUN TIME SHALL BE AT A MINIMUM 4 HOURS.
- K) EMERGENCY VEHICLE PREEMPTION UNIT WITH RECEIVERS FOR ALL APPROACHES. SHALL BE SONEM MODEL 2000

ALL EQUIPMENT WILL MEET ALL NATIONAL ELECTRICAL MANUFACTURER ASSOCIATION STANDARDS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH COPIES OF THE PAID INVOICES FOR ALL TRAFFIC SIGNAL EQUIPMENT INSTALLED ON THIS PROJECT.

THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING AND DELIVERING THE CONTROLLER AND SIGNAL MONITOR TO THE CITY SIGNAL MAINTENANCE SUPERVISOR, ALLEN ARNETT AT 865-215-6732 OR 865-215-6100 FOR TESTING A MINIMUM OF FOURTEEN (14) WORKING DAYS PRIOR TO PLACING THE SIGNAL IN THE INITIAL START-UP FLASH SEQUENCE.

SIGNAL CABLE

THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE CITY MAINTENANCE SUPERVISOR, ALLEN ARNETT AT 865-215-6730 OR 865-215-6100 TO OBTAIN WIRING COLOR CODE FOR 12-POSITION QUICK DISCONNECTS REQUIRED BY CITY.

ALL SIGNAL CABLE SHALL BE INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION (IMSA) APPROVED CABLE:

- A) TRAFFIC SIGNAL CABLE SHALL BE IMSA SPECIFICATION 19-1, 12 CONDUCTOR STRANDED WIRE.
- B) PEDESTRIAN SIGNAL CABLE SHALL BE IMSA SPECIFICATION 19-1, 7 CONDUCTOR STRANDED WIRE.
- C) PEDESTRIAN PUSHBUTTON CABLE SHALL BE IMSA SPECIFICATION 50-2, 3 CONDUCTOR STRANDED WIRE.

CONDUIT

ALL CONDUIT FOR SIGNAL CABLES SHALL BE SCHEDULE 80 PVC. ALL CONDUIT FOR FIBER OPTIC CABLE SHALL BE ORANGE HDPE. ALL CONDUIT SHALL BE LAID AT A MINIMUM DEPTH OF 24 INCHES BELOW FINISHED GRADE AND SHALL COMPLY WITH T.D.O.T. TRENCHING DETAILS (T-SG-2) AND CONDUIT PLACEMENT. ALL CONDUIT, WITH OR WITHOUT CABLES, SHALL CONTAIN A TRACE WIRE. CONDUIT FOR FIBER SHALL USE LARGE RADIUS BENDS (MIN. 6 INCH). NO ELBOW JOINTS ALLOWED FOR FIBER.

THE CONTRACTOR SHALL SEAL ALL CONDUIT ENTRANCE HOLES, WITH OR WITHOUT CABLES, WITH CONDUIT DUCT SEAL PUTTY. WHERE CABLES ENTER CONDUIT, THE SEALANT SHALL BE APPLIED AFTER INSTALLING THE CABLE. THESE LOCATIONS SHALL CONSIST OF CONDUIT ENDS AND PULL BOXES, CABINET BASES AND WEATHER HEADS.

SUBMITTALS

ALL EQUIPMENT CUT SHEETS SHALL BE SUBMITTED TO THE CITY OF KNOXVILLE FOR REVIEW AND ACCEPTANCE PRIOR TO INSTALLATION.

SIGNAL TIMING

THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE CITY OF KNOXVILLE, TO OBTAIN THE SIGNAL TIMING AT LEAST THIRTY (30) DAYS PRIOR TO THE INSTALLATION OF THE SIGNAL TIMING INTO THE CONTROLLER.

THE CONTRACTOR IS RESPONSIBLE FOR THE PROGRAMMING OF THE TRAFFIC CONTROLLER WITH THE PHASING AND SIGNAL TIMING PROVIDED BY THE CITY.

ELECTRICAL SERVICE

ELECTRICAL SERVICE CONNECTION SHALL INCLUDE A MINIMUM 1-INCH STEEL CONDUIT RISER WITH WEATHER HEAD. ALL ELECTRICAL PERMITS REQUIRED BY CITY ORDINANCES SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR AND AFTER COMPLETION OF THE WORK, THE ENGINEER SHALL BE FURNISHED A CERTIFICATE OF FINAL INSPECTION AND APPROVAL FROM THE ELECTRICAL INSPECTION DEPARTMENT OF THE CITY OF KNOXVILLE.

THE CONTRACTOR SHALL PROVIDE A COMPLETE ELECTRICAL SERVICE AND SHALL COORDINATE THIS ACTIVITY WITH THE LOCAL UTILITY, INCLUDING THE PROVISION FOR ANY REQUIRED METERING OR OTHER SPECIAL EQUIPMENT. THE SIGNAL CONTRACTOR WILL NOT CONTACT THE CITY OF KNOXVILLE TO REQUEST SERVICE HOOKUP UNTIL THE SIGNAL IS READY TO BE PLACED INTO OPERATION AND READY FOR FINAL INSPECTION BY THE CITY OF KNOXVILLE.

SIGNAL STRUCTURES

TRAFFIC SIGNAL SUPPORT POLES SHALL BE TDOT STANDARD ROUND, TAPERED, GALVANIZED STEEL MAST ARM POLES IN ACCORDANCE WITH TDOT STANDARD DRAWINGS T-SG-9 AND T-SG-10. THE POLES SHALL HAVE A BLACK POWDER-COAT FINISH ELECTROSTATICALLY APPLIED BY THE POLE MANUFACTURER AND A BLACK CAST ALUMINUM CLAMSHELL BASE COVER

THE PROPOSED LOCATIONS FOR THE SIGNAL SUPPORT POLES, AS SHOWN ON THESE PLANS, ARE APPROXIMATE. SOME FIELD ADJUSTMENT MAY BE REQUIRED IN ORDER TO AVOID CONFLICT WITH EITHER OVERHEAD OR UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING AND STAKING THE OPTIMUM LOCATION FOR THESE POLES AND FOR RECEIVING APPROVAL FROM THE ENGINEER AND THE APPROPRIATE UTILITIES BEFORE INSTALLATION BEGINS. PROPER ROADSIDE CLEAR ZONES SHALL BE OBSERVED.

SHAFTS FOR FOOTINGS SHALL BE DRILLED THROUGH FIRM, UNDISTURBED, UNSATURATED SOIL AND SHALL BE VISUALLY INSPECTED BY THE ENGINEER OR ENGINEERING REPRESENTATIVE PRIOR TO PLACEMENT OF REINFORCEMENT. THE ENGINEER OR ENGINEERING REPRESENTATIVE SHALL BE ADVISED BY THE CONTRACTOR OF ANY GROUND WATER OR LOOSE SOIL ENCOUNTERED DURING DRILLING. FOOTINGS SHALL COMPLY WITH TDOT STANDARD DRAWING T-SG-10.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF POLE AND FOUNDATION AS SPECIFIED IN TDOT STANDARD T-SG-6, T-SG-9, T-SG-10.

EACH POLE SHALL BE PROVIDED WITH A GROUND ROD WITH THE GROUND WIRE VISIBLE IN THE PULL BOX ADJACENT TO THE POLE.

SEE TDOT STANDARD DRAWING T-SG-5 FOR CONTROL CABINET BASE DESIGN.

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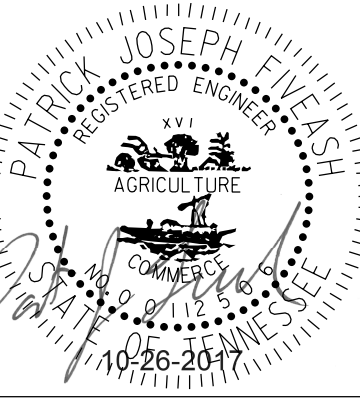
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SIGNAL NOTES

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