

ITEM 809 - ADVANCE RADAR DETECTION, AS PER PLAN:

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A WAVETRONIX SMARTSENSOR ADVANCE EXTENDED RANGE DETECTION UNIT (MODEL SS-200E). THE DETECTION UNIT SHALL INCLUDE THE FOLLOWING:

- POWER SHALL BE PROVIDED FROM THE TRAFFIC CABINET.
- ALL REQUIRED INPUTS CARDS SHALL BE INCLUDED IN THE TRAFFIC CABINET AND SHALL BE COMPATIBLE WITH CALTRANS, NEMA TS1 AND NEMA TS2 DETECTOR RACKS. THE CARDS SHALL PROVIDE TRUE PRESENCE DETECTOR CALLS OR CONTACT CLOSURE TO THE TRAFFIC CONTROLLER.
- THE UNIT SHALL BE MOUNTED DIRECTLY TO A POLE OR MAST ARM, AS RECOMMENDED BY THE MANUFACTURER. CABLE(S) SHALL BE PROVIDED AS REQUIRED AND RECOMMENDED BY THE MANUFACTURER.
- SURGE PROTECTION DEVICES, AS RECOMMENDED BY THE MANUFACTURER SHALL BE INCLUDED BOTH AT THE POLE WHERE THE UNIT IS LOCATED TO PROTECT THE UNIT AND IN THE TRAFFIC CABINET TO PROTECT THE CABINET ELECTRONICS.
- THE MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING AND SHALL PROVIDE ONSITE TRAINING ON THE SETUP, OPERATION AND MAINTENANCE OF THE UNIT.
- A SERIAL TO ETHERNET COMMUNICATIONS MODULE AND ETHERNET CABLE (MIN. 7 FEET)
- THE POWER SUPPLY AND COMMUNICATION MODULES SHALL BE SECURED TO A SINGLE PANEL THAT CAN BE MOUNTED INTERIOR TO THE TRAFFIC CABINET. THE PANEL SHALL INCLUDE MODULAR-PLUG STYLE CONNECTIONS FOR A UP TO FOUR (4) SENSOR CABLES. ADDITIONAL SENSORS MAY BE HARD-WIRED TO THE COMMUNICATION MODULES, AS NECESSARY.
- PRIOR TO PROGRAMMING, THE CONTRACTOR SHALL CONTACT THE ODOT DISTRICT 6 DISTRICT TRAFFIC ENGINEER AT 740-833-8198. A DISTRICT 6 TRAFFIC DEPARTMENT REPRESENTATIVE SHALL BE PRESENT DURING THE PROGRAMMING OF THE SYSTEM.

PAYMENT FOR ITEM 809 ADVANCE RADAR DETECTION UNIT SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH UNIT, COMPLETE AND IN PLACE INCLUDING ALL REQUIRED CABINET HARDWARE, MOUNTING BRACKETS, CABLES, CONDUIT, CONNECTIONS TESTED AND ACCEPTED, AND ANY OTHER NECESSARY HARDWARE TO ESTABLISH A FULLY FUNCTIONAL DETECTION SYSTEM.

ITEM 809 - STOP LINE RADAR DETECTION, AS PER PLAN:

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A WAVETRONIX SMARTSENSOR MATRIX DETECTION UNIT. THE DETECTION UNIT SHALL INCLUDE THE FOLLOWING:

- POWER SHALL BE PROVIDED FROM THE TRAFFIC CABINET.
- ALL REQUIRED INPUTS CARDS SHALL BE INCLUDED IN THE TRAFFIC CABINET AND SHALL BE COMPATIBLE WITH CALTRANS, NEMA TS1 AND NEMA TS2 DETECTOR RACKS. THE CARDS SHALL PROVIDE TRUE PRESENCE DETECTOR CALLS OR CONTACT CLOSURE TO THE TRAFFIC CONTROLLER.
- THE UNIT SHALL BE MOUNTED DIRECTLY TO A POLE OR MAST ARM, AS RECOMMENDED BY THE MANUFACTURER. CABLE(S) SHALL BE PROVIDED AS REQUIRED AND RECOMMENDED BY THE MANUFACTURER.
- SURGE PROTECTION DEVICES, AS RECOMMENDED BY THE MANUFACTURER SHALL BE INCLUDED BOTH AT THE POLE WHERE THE UNIT IS LOCATED TO PROTECT THE UNIT AND IN THE TRAFFIC CABINET TO PROTECT THE CABINET ELECTRONICS.
- THE MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION AND TESTING AND SHALL PROVIDE ONSITE TRAINING ON THE SETUP, OPERATION AND MAINTENANCE OF THE UNIT.
- A SERIAL TO ETHERNET COMMUNICATIONS MODULE AND ETHERNET CABLE (MIN. 7 FEET)
- THE POWER SUPPLY AND COMMUNICATION MODULES SHALL BE SECURED TO A SINGLE PANEL THAT CAN BE MOUNTED INTERIOR TO THE TRAFFIC CABINET. THE PANEL SHALL INCLUDE MODULAR-PLUG STYLE CONNECTIONS FOR A UP TO FOUR (4) SENSOR CABLES. ADDITIONAL SENSORS MAY BE HARD-WIRED TO THE COMMUNICATION MODULES, AS NECESSARY.
- PRIOR TO PROGRAMMING, THE CONTRACTOR SHALL CONTACT THE ODOT DISTRICT 6 DISTRICT TRAFFIC ENGINEER AT 740-833-8198. A DISTRICT 6 TRAFFIC DEPARTMENT REPRESENTATIVE SHALL BE PRESENT DURING THE PROGRAMMING OF THE SYSTEM.

PAYMENT FOR ITEM 809 STOP LINE RADAR DETECTION SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH UNIT, COMPLETE AND IN PLACE INCLUDING ALL REQUIRED CABINET HARDWARE, MOUNTING BRACKETS, CABLES, CONDUIT AND CONNECTIONS TESTED AND ACCEPTED.

ITEM 809 ATC V6.24 CONTROLLER, AS PER PLAN:

THE CONTROLLER UNIT SHALL BE FURNISHED AND INSTALLED PER SS 809 AND BE LISTED ON THE TRAFFIC AUTHORIZED PRODUCTS (TAP) LIST.

THE CONTROLLER SHALL BE AN ECONOLITE COBALT AND COMPATIBLE WITH THE CABINET TYPE BEING INSTALLED.

I:\ProjectData\098241\06-ELEC-FY20\Design\Roadway\Sheets\098241\GN001.dgn 6/3/2020 8:24:13 AM Vpotel

CALCULATED
VHP
CHECKED
DC

GENERAL NOTES - SIGNALS

D06 - ELEC - FY21

I:\ProjectData\098241\06-ELEC-FY20\Design\Roadway\Sheets\098241_G001.dgn 098241_G0102 6/2/2020 2:05:29 PM Vpatel

SHEET NUMBER			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
2 - 11 01/NFP/OT	2-11 02/NHS/OT	12 - 15 01/NFP/OT						
TRAFFIC SURVEILLANCE								
			625	14000	1	EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP	
100			625	22990	100	FT	NO. 6 AWG 600 VOLT DISTRIBUTION CABLE	
100			625	25606	100	FT	CONDUIT, 4", 725.052	
100			625	25740	100	FT	CONDUIT, MULTICELL, 4", 725.20 SCHEDULE 80, JACKED OR DRILLED	6
100			625	25750	100	FT	CONDUIT, 4", MULTICELL, 725.20, EPC-40	6
100			625	25908	100	FT	CONDUIT, JACKED OR DRILLED, 725.052, 4"	
100			625	29010	100	FT	TRENCH, 30" DEEP	
1			625	30711	1	EACH	PULLBOX, 725.08, 32", AS PER PLAN	6
1			632	64021	1	EACH	PEDESTAL FOUNDATION, AS PER PLAN	6
1			633	67101	1	EACH	CABINET FOUNDATION, AS PER PLAN	6
1			633	67201	1	EACH	CONTROLLER WORK PAD, AS PER PLAN	6
TRAFFIC CONTROL								
	1		630	74601	1	EACH	OVERHEAD SIGN SUPPORT, INSTALLATION ONLY, AS PER PLAN	7
TRAFFIC SIGNALS								
1			632	05006	1	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE	
1			632	05086	1	EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE	
1			632	25000	1	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
1			632	26500	1	EACH	DETECTOR LOOP	7
1			632	27200	1	EACH	LOOP DETECTOR TIE IN	7
500			632	30200	500	FT	MESSENGER WIRE, 7 STRAND, 3/8" DIAMETER WITH ACCESSORIES	
500			632	30601	500	FT	TETHER WIRE, WITH ACCESSORIES, AS PER PLAN	7
2000			632	40701	2000	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG, AS PER PLAN	8
1	6		632	64000	7	EACH	STRAIN POLE FOUNDATION, AS PER PLAN	8
	1		632	64010	1	EACH	SIGNAL SUPPORT FOUNDATION, AS PER PLAN	8
1			632	64020	1	EACH	PEDESTAL FOUNDATION	
1000			632	65200	1000	FT	LOOP DETECTOR LEAD-IN CABLE	
100			632	67190	100	FT	POWER CABLE, 1 CONDUCTOR, NO. 8 AWG	
100			632	69800	100	FT	SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG	
1			632	70000	1	EACH	POWER SERVICE	
1			632	70400	1	EACH	CONDUIT RISER, 2" DIAMETER	
1	6		632	83507	7	EACH	STRAIN POLE, TYPE TC-81.10, DESIGN 10, INSTALLATION ONLY, AS PER PLAN	8
1			632	89300	1	EACH	WOOD POLE	
1			632	89400	1	EACH	DOWN GUY	
1			632	89900	1	EACH	PEDESTAL, 8', TRANSFORMER BASE	
1			632	90020	1	EACH	REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM: CONTROLLER AND CABINET	8
1			632	90020	1	EACH	REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM: STRAIN POLE	
1			632	90020	1	EACH	REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM: STRAIN POLE FOUNDATION	
1			632	90020	1	EACH	REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM: VEHICULAR SIGNAL HEAD	
500			632	90030	500	FT	REMOVAL OF MISCELLANEOUS TRAFFIC SIGNAL ITEM: OVERHEAD CABLE/MESSENGER WIRE	
8			632	90200	8	EACH	REUSE OF VEHICULAR SIGNAL HEAD	
1000			632	90500	1000	FT	SIGNALIZATION, MISC.: UNLASH AND RELASH MESSENGER WIRE	8
500			632	90500	500	FT	SIGNALIZATION, MISC.: TRAFFIC SIGNAL CABLE, INSTALL ONLY, AS PER PLAN	8
500			632	90500	500	FT	SIGNALIZATION, MISC.: WAVETRONIX CABLE	
1			633	65511	1	EACH	CABINET, TYPE TS2, AS PER PLAN	8
4			633	99000	4	EACH	CONTROLLER ITEM, MISC.: ANCHOR BOLT INSTALLATION	8
4			809	69001	4	EACH	ADVANCE RADAR DETECTION, AS PER PLAN	9
4			809	69101	4	EACH	STOP LINE RADAR DETECTION, AS PER PLAN	9
1			809	69123	1	EACH	ATC V0.24 CONTROLLER, AS PER PLAN	9
MAINTENANCE OF TRAFFIC								
		60	614	1110	60	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	12
		5	614	13600	5	EACH	MAINTENANCE OF TRAFFIC, ONE LANE CLOSURE ON A TWO LANE HIGHWAY	12
		5	614	13700	5	EACH	MAINTENANCE OF TRAFFIC, ONE LANE CLOSURE ON A FOUR LANE UNDIVIDED HIGHWAY	12
		5	614	13800	5	EACH	MAINTENANCE OF TRAFFIC, ONE LANE CLOSURE ON A FOUR LANE OR GREATER DIVIDED HIGHWAY	12
		30	614	13900	30	EACH	MAINTENANCE OF TRAFFIC FOR SHOULDER CLOSURE	12
INCIDENTALS								
LUMP	LUMP		623	10000	LUMP		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
10	1		624	15001	11	EACH	MOBILIZATION, AS PER PLAN A (SIGNAL MAINTENANCE/UPGRADE)	3
20			624	15001	20	EACH	MOBILIZATION, AS PER PLAN B (HIGHWAY LIGHTING MAINTENANCE/UPGRADE)	3

CALCULATED VHP CHECKED XXX	GENERAL SUMMARY	D06 - ELEC - FY21	14 15
-------------------------------------	-----------------	-------------------	----------