## ITEM 614, WORK ZONE TRAFFIC SIGNAL

THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL WOOD POLES, DOWN GUYS, CONDUIT RISER, WEATHERHEAD, METER BASE, DISCONNECT SWITCH, MESSENGER WIRE (WITH ACCESSORIES), SIGNAL HEADS, CONTROLLER, WIRING AND ALL OTHER NECESSARY ITEMS IN ACCORDANCE WITH PLAN DETAILS FOR A COMPLETE WORK ZONE INSTALLATION AT THE NORTH RAMP INTERSECTION. MAINTENANCE OF ALL WORK ZONE TRAFFIC CONTROL EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE WORK ZONE SIGNALS ARE DESIGNED AND EXPECTED TO BE USED DURING EACH CONSTRUCTION STAGE.

DURING STAGE 1, THE CONTRACTOR SHALL:

INSTALL 45' TEMPORARY WOOD POLES AND APPURTENANCES AS SHOWN ON THE PLAN.

INSTALL 3/8"MESSENGER WIRE BETWEEN THE TEMPORARY WOOD POLES. MESSENGER WIRE ATTACHMENT HEIGHTS AT THE TEMPORARY WOOD POLES SHALL BE ADEQUATE TO PROVIDE A MINIMUM OF 16' CLEARANCE FOR SIGNAL HEADS WHEN INSTALLED.

INSTALL THE TEMPORARY CONTROLLER AND APPURTENANCES AT THE LOCATION SHOWN IN THE PLAN. REFER TO THE SCD TC-83.10 POWER SERVICE AND CONTROLLER MOUNTING ON WOOD POLES FOR MORE INFORMATION.

INSTALL THE TEMPORARY WORK ZONE SIGNAL HEADS AS SHOWN ON THE PLAN. COVER THE SIGNAL HEADS UNTIL NEEDED.

INSTALL THE SIGNAL CABLE FOR THE WORK ZONE SIGNAL HEADS IN ACCORDANCE WITH THE WIRING DIAGRAM. CABLE SHALL BE PROVIDED FROM THE HEAD TO THE CONTROLLER. COIL EXTRA WIRE FOR MOVING HEADS TO SERVE OTHER CONSTRUCTION STAGE PLACEMENTS.

PLACE THE WORK ZONE INSTALLATION INTO SERVICE.

THE CONTRACTOR IS RESPONSIBLE FOR REMOVING WORK ZONE INSTALLATION FROM SERVICE UPON COMPLETION OF THE PROJECT.

ALL MATERIALS FURNISHED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE PROJECT SITE.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, WORK ZONE TRAFFIC SIGNAL 4 EACH

# ITEM 615, PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN

PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A SHALL CONFORM TO *C&MS 615 AND AS SPECIFIES HEREIN.* 

PAYMENT FOR ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN INCLUDES THE INSTALLATION, MAINTENANCE AND REMOVAL OF ALL FENCING, EARTHWORK, GUARDRAIL, SIDEWALK, AND ALL OTHER ITEMS AS NECESSARY TO PROVIDE A COMPLETE, FUNCTIONAL, AND SAFE INSTALLATION FOR PUBLIC USE.

		· · · · · · · · · · · · · · · · · · ·		
PHASE	ALIGNMENT	STATION	LIMITS	AREA (SY)
PREPHASE 1	TECHNOLOGY DR.	5+61	9+55	694
PREPRASE 1	SPEEDWAY DR.	6+09	9+65	482
		73+10	78+75	492
		81+60	82+50	1,139
PHASE 1 STEP 1	CR 99	81+45	82+40	37
PHASE I STEP I		87+40	88+55	501
		87+55	89+00	41
	IR 75	1022+60	1025+40	182
	CR 99	82+10	82+40	294
	CR 99	87+45	88+10	160
PHASE 2	ID 75	1042+70	1043+25	12
	IR 75	1045+90	1046+90	32

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 615, PAVEMENT FOR MAINTANING TRAFFIC, CLASS A, AS PER PLAN 4,350 SY

## ITEM 614, MAINTAINING TRAFFIC, CR 99 WESTBOUND BRIDGE CONSTRUCTION

DURING THE CONSTRUCTION OF CR 99 WESTBOUND BRIDGE, LANES ON IR 75 MAY BE CLOSED FOR SHORT DURATIONS IN ACCORDACE WITH THE FOLLOWING PHASING: THE CONSTRUCTION ACTIVITIES FOR THE ERECTION OF PROPOSED BRIDGE GIRDERS. THE CONTRACTOR IS REQUIRED TO GET APPROVAL FROM THE PROJECT ENGINEER FOR CLOSURES AND COORDINATE WITH THE ODOT DISTRICT. HANCOCK COUNTY AND THE CITY OF FINDLAY.

FOR GIRDER ERECTION WORK OVER THE IR 75 SB LANES, ALL IR 75 SB LANES MAY BE CLOSED. SB TRAFFIC WILL BE REDUCED TO ONE LANE IN ACCORDANCE WITH ODOT STANDARD DRAWINGS AND BE DIVERTED TO THE IR 75 SB EXIT RAMP TO CR 99 AND TO THE IR 75 SB ENTRANCE RAMP FROM CR 99. CR 99 WILL BE CLOSED TO THROUGH TRAFFIC IN EACH DIRECTION. TYPE III BARRICADES WILL BE INSTALLED, SIGNAL ADJUSTED TO AN ALL-GREEN PHASE FOR IR 75 TRAFFIC. IR 75 NB LANES MAY BE REDUCED TO TWO LANES IN ACCORDANCE WITH ODOT STANDARD DRAWINGS AND SHIFTED TO THE EXISTING I-75 NB DRIVE LANE AND PAVED SHOULDER.

FOR GIRDER ERECTION WORK OVER THE IR 75 NB LANES, ALL IR 75 NB LANES MAY BE CLOSED. NB TRAFFIC WILL BE REDUCED TO ONE LANE IN ACCORDANCE WITH ODOT STANDARD DRAWINGS AND BE DIVERTED TO THE IR 75 NB EXIT RAMP TO CR 99. THEN PROCEED THROUGH THE INTERSECTION WITH CR 99 AND TO THE IR 75 NB ENTRANCE RAMP FROM CR 99. CR 99 WILL BE CLOSED TO THROUGH TRAFFIC IN EACH DIRECTION. TYPE III BARRICADES WILL BE INSTALLED, SIGNAL ADJUSTED TO AN ALL-GREEN PHASE FOR IR 75 TRAFFIC. IR 75 SB LANES MAY BE REDUCED TO TWO LANES IN ACCORDANCE WITH ODOT STANDARD DRAWINGS AND SHIFTED TO THE EXISTING IR 75 SB DRIVING LANE AND PAVED SHOULDER.

THE LIMITATIONS FOR THIS SHORT DURATION CLOSURE SHALL BE IN THE STIPULATIONS IN THE "APPROVED MAINTENANCE OF TRAFFIC (mot) POLICY EXCEPTION" NOTE: 6 OCCURRENCES IN TOTAL. CLOSURES OF IR 75 TRAFFIC TO RAMPS PERMITTED FROM 12 PM TO 6 PM. THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE AS DESIGNATED IN THE LANE VALUE CONTRACT TABLE FOR EACH MINUTE THAT IR 75 REMAINS CLOSED TO TRAFFIC (DIVERTED TO CR 99 RAMPS) BEYOND THE SPECIFIED PERIOD.

## APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTION

PORTIONS OF THE MOT PLANS AS DESCRIBED BELOW HAVE APPROVED MOT EXCEPTION(S) PER TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

APPROVED MOT EXCEPTION INCLUDE: - CLOSING IR 75 AT CR 99 - 6 OCCURRENCES IN TOTAL FROM 12 PM TO 6 AM - CR 99 WILL BE CLOSED TO MAINTAIN RAMPS FOR THROUGH MOVEMENT OF IR 75

A MAINTENANCE OF TRAFFIC MEETING SHALL BE HEALD A MINIMUM OF 30 CALENDER DAYS PRIOR TO IMPLEMENTATION ON EACH APPROVED MOT EXCEPTION. THIS MEETING SHALL INCLUDE THE DISTRICT WORK ZONE TRAFFIC MANAGER AND CITY OF FINDLAY AND HANCOCK COUNTY ENGINEER, AS WELL AS THE CONTRACTOR, WORKSITE TRAFFIC SUPERVISOR (WTS) AND ANY SUBCONTRACTORS INVOLVED WITH TEMPORARY TRAFFIC CONTROL.

IN ADDITION TO ANY NOTIFICATIONS REQUIRED IN OTHER NOTES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AT LEAST 3 BUSINESS DAYS IN ADVANCE OF IMPLEMENTATION OF THE APPROVED MOT EXCEPTION REFERENCED ABOVE SO THAT THE PROJECT ENGINEER CAN SEND EMAIL NOTIFICATION TO THE OFFICE OF ROADWAY ENGINEERING, STATEWIDE TMC, DWZTM AND SPECIAL HAULING PERMITS AT LEAST 2 BUSINESS DAYS IN ADVANCE OF THE IMPLEMENTATION OF THE APPROVED MOT EXCEPTION REFERENCED ABOVE. REFERENCE "EXCEPTION REQUEST APPROVAL DATED 2/5/2024 FOR PID 102375" IN THE NOTIFICATION AND OTHER CORRESPONDENCE.

ANY CHANGES TO THE MOT THAT IMPACT THE PREVIOUSLY APPROVED MOT EXCEPTION(S) LISTED ABOVE SHALL BE APPROVED IN WRITING BY THE MOT EXCEPTION COMMITTEE (MOTEC). IN THE EVENT THAT SUCH CHANGES ARE PROPOSED, THE REQUEST SHALL BE COORDINATED THROUGH THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM) A MINIMUM OF 30 CALENDAR DAYS PRIOR TO THE DESIRED IMPLEMENTATION DATE. IF THE DISTRICT AGREES WITH THE PROPOSED CHANGES THE DWZTM SHALL SEEK APPROVAL FROM THE MOTEC. IN THE EVENT THE PROPOSED CHANGES ARE APPROVED IN WRITING, THE CLOSURES ARE STILL SUBJECT TO NOTIFICATION REQUIREMENTS WITHIN THIS NOTE PRIOR TO IMPLEMENTATION.

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# MAINTENANCE OF TRAFFIC TYPICAL PLANS LEGEND

 $\overline{\mathbf{N}}$ TEMPORARY PAVEMENT

> TEMPORARY PAVEMENT CONST. IN PREVIOUS PHASE

DIRECTION OF EXISTING TRAFFIC



DIRECTION OF PROPOSED TRAFFIC

DRUMS

PORTABLE BARRIER

## **RUMBLE STRIPS**

TRAFFIC IS NOT PERMITTED TO RUN ON OR CROSS OVER ANY RUMBLE STRIPS AT ANY TIME. RUMBLE STRIPS WILL BE REMOVED TO A DEPTH OF 1 1/2" AND REPLACED WITH ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1 , (449), PG 64-22, 1 1/2" THICK. RUMBLE STRIPS MUST BE REMOVED AND FILLED WHEN THEY ARE IN CONFLICT WITH THE MAINTENANCE OF TRAFFIC LANE CONFIGURATION. THIS INLCUDES LOCATIONS OF THE LANE SHIFTS ENTERING AND EXITING A WORK ZONE, AS WELL AS, CONFLICTING RUMBLE STRIPS AT THE EXIT AND ENTRANC RAMPS. THE RUMBLE STRIPS SHALL BE FILLED OR ELIMINATED BY PLANING AND PAVING TO PROVIDE A SMOOTH RIDE TO THE SATISFACTION OF THE PROJECT ENGINEER. ONCE TRAFFIC IS IN ITS FINAL POSITION. RUMBLE STRIPS SHALL BE RETURNED TO THE PRE-CONSTRUCTION CONDITION. REPLACEMENT WITH ASPHALT PAVEMENT IS NOT ACCEPTABLE. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC. THE FOLLOWING ARE ESTIMATED LOCATIONS OF RUMBLE STRIP REMOVAL AND REPLACEMENT. THE ACTUAL LIMITS MAY VARY. PHASE 1 RAMP B *STA. 1020+99 TO STA. 1030+95* **IR 75 NORTHBOUND OUTSIDE SHOULDER** *STA. 1026+23 TO STA. 1044+50* IR 75 SOUTHBOUND OUTSIDE SHOULDER *STA. 1027+00 TO STA. 1045+69* PHASE 1 STEP 1 *IR 75 NORTHBOUND INSIDE SHOULDER STA. 1007+68 TO STA. 1046+73* IR 75 NORTHBOUND OUTSIDE SHOULDER *STA. 1026+39 TO STA. 1046+73* 

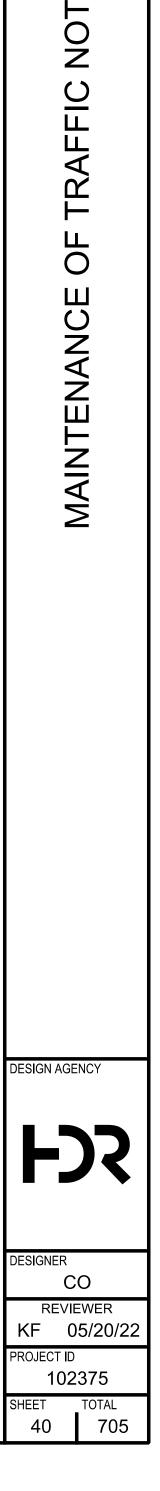
- IR 75 SOUTHBOUND INSIDE SHOULDER
- STA. 1007+81 TO STA. 1053+65

PHASE 1 STEP 2

**IR 75 NORTHBOUND OUTSIDE SHOULDER** *STA. 1016+00 TO STA. 1026+00* 

PHASE 2

**IR 75 NORTHBOUND INSIDE SHOULDER** *STA. 1028+46 TO STA. 1055+32* IR 75 SOUTHBOUND INSIDE SHOULDER *STA.* 1037+15 TO STA. 1060+48 



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					SHEET	Γ NUM.	 ŧ		PA	RT.		ITEM	ITEM	GRAND	UNIT	DE
	144	510	511	514	571			01/SK5/03	02/IMS/08	03/IMS/13	04/SK5/04		EXT	TOTAL	UNIT	
	40										40	611	97400	40	FT	
	40										40	611	97400 99654	40	EACH	CONDUIT, MISC.: 6" SANITARY FORCE MAIN MANHOLE ADJUSTED TO GRADE
	6										6	611	99660	6	EACH	MANHOLE RECONSTRUCTED TO GRADE
					54			54				625	00450	54	EACH	CONNECTION, FUSED PULL APART
					63			63				625	00480	63	EACH	CONNECTION, UNFUSED PERMANENT
					13			 13				625	10490	13	EACH	LIGHT POLE, CONVENTIONAL, AT8B30, BLACK
					14 13			14 13				625 625	11200 14100	14 13	EACH EACH	LIGHT TOWER, BB100 LIGHT POLE FOUNDATION, 24" X 8' DEEP
					14			14				625	15200	14		LIGHT TOWER FOUNDATION, 36" X 25' DEEP
					933			 933				625	23200	933	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE
					1,191 1,295			1,191 1,295				625 625	23300 23410	1,191 1,295	FT FT	NO. 2 AWG 2400 VOLT DISTRIBUTION CABLE NO. 12 AWG POLE AND BRACKET CABLE
					4,077			4,077				625	24320	4,077	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VO
					A 654			 4.654				60F	24220	4.654		
					4,651 148			4,651 148				625 625	24330 25200	4,651 148	FT FT	1-1/2" DUCT CABLE WITH THREE NO. 2 AWG 2400 VO CONDUIT, 1-1/4", 725.04
					606			606				625	25402	606	FT	CONDUIT, 2", 725.05
					575			575				625	25904	575	FT	CONDUIT, JACKED OR DRILLED, 725.05, 3"
					12		 	 12				625	25920	12	FT	CONDUIT, MISC.: <sup>3</sup> / <sub>4</sub> " LIQUID TIGHT FLEXIBLE CONDUIT
┢					13			 13				625	26253	13	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS P
					28			 28				625	26263	28	EACH	LUMINAIRE, HIGH MAST, SOLID STATE (LED), AS PER P
					4			4				625	27503	4	EACH	LUMINAIRE, UNDERPASS, SOLID STATE (LED), AS PER P
					8,342 8			 8,342				625 625	29002 29901	8,342 8	FT EACH	TRENCH, 24" DEEP JUNCTION BOX, AS PER PLAN
					0			0				025	23301	0	LACIT	JOINCHON BOX, AS FER FLAN
					21			21				625	30706	21	EACH	PULL BOX, 725.08, 24"
					25			 25				625	32000	25	EACH	GROUND ROD
					2			2				625 625	33000 34001	2	EACH EACH	STRUCTURE GROUNDING SYSTEM POWER SERVICE, AS PER PLAN
					8,342			8,342				625	36010	8,342	FT	UNDERGROUND WARNING/MARKING TAPE
					4			4				625 631	70001 85000	4	EACH EACH	LIGHTING CONTACTOR, AS PER PLAN DISCONNECT SWITCH, 30 AMP
																TRA
		773						 773				621	00100	773	EACH	RPM
				21				21				625	32000	21	EACH	GROUND ROD
				1,456				1,354			102	630	03100	1,456	FT	GROUND MOUNTED SUPPORT, NO. 3 POST
				106 120				 106 120				630 630	08302 08600	106 120	FT EACH	GROUND MOUNTED WOODEN BOX BEAM SUPPORT, SIGN POST REFLECTOR
				120										120		
				1				1 1				630 630	72320 72340	1	EACH EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 6 OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 12
				2			 	 2				630	72410	2	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1
				1				1				630	72420	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2
				1			 					630	72430	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 3
				3				3				630	72550	3	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-16.22, DESIGN 13
				9				9				630	79500	9	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED
				810				 765.5			44.5	630	80100	810	SF	SIGN, FLAT SHEET
				2,752				 2,752 27				630 630	80224 80500	2,752 27	SF EACH	SIGN, OVERHEAD EXTRUSHEET SIGN, DOUBLE FACED, STREET NAME
				27												
				27								630	84510	21	EACH	
			440	27			 	21				C 2 2	04000	440		RIGID OVERHEAD SIGN SUPPORT FOUNDATION
			<u> </u>					104			6	630 630	84900 85400	110 10	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSA
			110 10 110								6 7	630 630 630	84900 85400 86002	110 10 110		
			10					104 10			6 7	630	85400	10	EACH EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSA REMOVAL OF GROUND MOUNTED MAJOR SIGN AND
			10 110					104 10 103			6 7	630 630 630	85400 86002 86102	10 110	EACH EACH EACH EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSA REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REMOVAL OF GROUND MOUNTED POST SUPPORT AN REMOVAL OF GROUND MOUNTED STRUCTURAL BEAN
			10 110					104 10 103			6 7	630 630	85400 86002	10 110	EACH EACH EACH EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSA REMOVAL OF GROUND MOUNTED MAJOR SIGN AND REMOVAL OF GROUND MOUNTED POST SUPPORT AN
			10 110					104 10 103			6 7	630 630 630 630 630 630	85400 86002 86102 87500 87520 97700	10 110	EACH EACH EACH EACH EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAREMOVAL OF GROUND MOUNTED MAJOR SIGN ANDREMOVAL OF GROUND MOUNTED POST SUPPORT ANREMOVAL OF GROUND MOUNTED STRUCTURAL BEANREMOVAL OF POLE MOUNTED SIGN AND DISPOSAL
		2.52	10 110					104 10 103			6 7	630 630 630 630 630	85400 86002 86102 87500 87520	10 110	EACH EACH EACH EACH EACH EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSA         REMOVAL OF GROUND MOUNTED MAJOR SIGN AND         REMOVAL OF GROUND MOUNTED POST SUPPORT AN         REMOVAL OF GROUND MOUNTED STRUCTURAL BEAN         REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL         REMOVAL OF POLE MOUNTED SIGN AND REERECTION

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DESCRIPTION	SHEET NO.	
SANITARY SEWER	499	
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LIGHTING		
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UIT, NON-METALLIC	570	Σ
S PER PLAN, TYPE III	570	Σ
R PLAN, TYPE A1 OR TYPE A2	570	I N
R PLAN, TYPE IV	570	
	570	[A]
	570	
		GENERAL SUMMARY
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RAFFIC CONTROL		
T, TYPE M BEAM		
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		DESIGN AGENCY
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ID DISPOSAL AND DISPOSAL		ŕ
EAM SUPPORT AND DISPOSAL		
		designer <b>MJL</b>
-		<b>IVIJL</b> REVIEWER
ON RAPID FLASHING BEACON (RRFB) ASSEMBLY		PHF 11/22/22
		PROJECT ID 102375
		SHEET TOTAL
		122 705

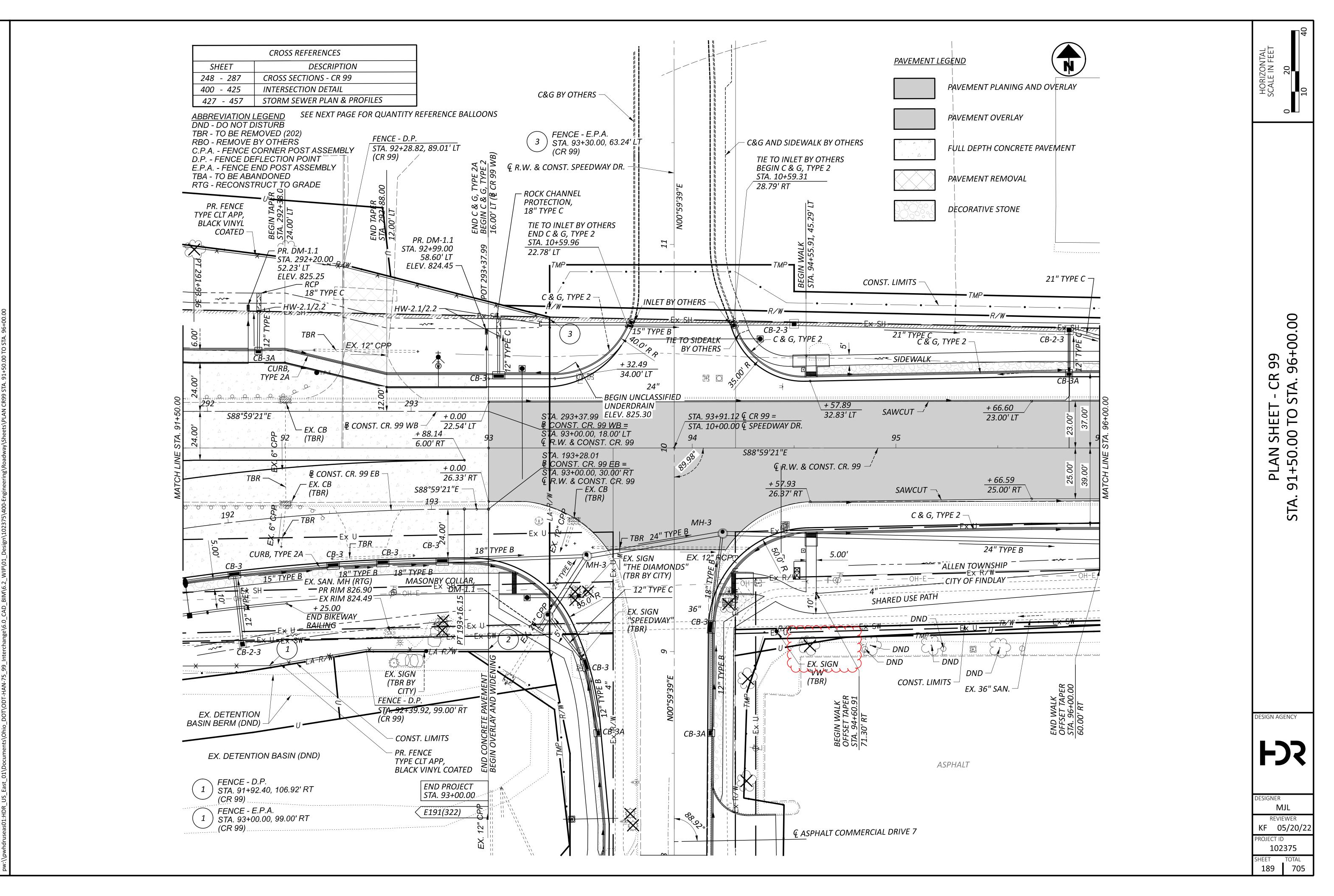
				SHEET	NUM.					PA	RT.		Ţ┯┍Ň∦	ITEM	GRAND		
510	547	548	551	552	554	567			01/SK5/03	02/IMS/08	03/IMS/13	04/SK5/04	ITEM	EXT	TOTAL	UNIT	DE
1.98									1.98				646	10110	1.98	MILE	TRAFFI LANE LINE, 6"
1.36									1.36				646	10110	1.36	MILE	CENTER LINE
3,694									3,694				646	10300	3,694	FT	CHANNELIZING LINE, 8"
606									606				646	10400	606	FT	STOP LINE
646									646				646	10520	646	FT	CROSSWALK LINE, 24"
633									633				646	10600	633	FT	TRANSVERSE/DIAGONAL LINE
636									636				646	10620	636	FT	CHEVRON MARKING
133									133				646	20300	133	EACH	LANE ARROW
6									6				646	20320	6	EACH	WRONG WAY ARROW
9									9				646	20350	9	EACH	LANE REDUCTION ARROW
1,468									1,468				646	20504	1,468	FT	DOTTED LINE, 6"
233									233				646	50100	233	FT	REMOVAL OF PAVEMENT MARKING
2.92									2.92				807	10010	2.92	MILE	WET REFLECTIVE TRAFFIC PAINT, EDGE LINE, 6"
0.05									0.05				807	10110	0.05	MILE	WET REFLECTIVE TRAFFIC PAINT, LANE LINE, 6"
1,957									1,957				807	10300	1,957	FT	WET REFLECTIVE TRAFFIC PAINT, CHANNELIZING LINE,
2,448									2,448					10410	2,448	FT	WET REFLECTIVE TRAFFIC PAINT, DOTTED LINE, 6"
2.98									2.98				850	20010	2.98	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING
2,448									2,448				850	20110	2,448	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING
1,957									1,957				850	20120	1,957	FT	GROOVING FOR 8" RECESSED PAVEMENT MARKING
																	TRAFF
						96			96				625	25604	96	FT	CONDUIT, 4", 725.051
						694			694				625	29000	694	FT	TRENCH
						1			1				625	30700	1	EACH	PULL BOX, 725.08, 18"
						9			9				625 625	30710 30730	9	EACH EACH	PULL BOX, 725.08, 32"
						<u> </u>			3				U23	30730	<b>ک</b>		PULL BOX, 725.08, 48", TYPE 1
						686			686				625	36011	686	FT	UNDERGROUND WARNING/MARKING TAPE, AS PER P
						2,644			2,644				804	15010	2,644	FT	FIBER OPTIC CABLE, 24 FIBER
						4		ļ[	4				804	37000	4	EACH	SPLICE ENCLOSURE, BUTT STYLE
						694 1			694 1				809 809	25000 60040	694 1	FT EACH	CONDUIT, MULTICELL, MISC.: 4"
													2003	00040			CCTV IP-CAMERA SYSTEM, QUAD MULTI-VIEW FIXED \
						1			1				809	61002	1	EACH	CCTV CONCRETE POLE, 70 FEET
						1			1				809	61090	1	EACH	CCTV LOWERING UNIT
						1			1				809	65000	1	EACH	ITS CABINET - GROUND MOUNTED
																	TRA
	100								100				611	00400	100	FT	4" CONDUIT, TYPE E
		24							24				614	11110	24	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR
					4				4				625	18200	4	EACH	BRACKET ARM, 15'
					653 200				653 200				625 625	22900 23400	653 200	FT FT	NO. <sup>1</sup> ⁄ <sub>0</sub> AWG 2400 VOLT DISTRIBUTION CABLE NO. 10 AWG POLE AND BRACKET CABLE
					200				200				023	23400	200		TNO. TO AVVO FOLL AND DRACKET CADLE
					212				212				625	25300	212	FT	CONDUIT, 1-1/2", 725.04
					29				29				625	25402	29	FT	CONDUIT, 2", 725.05
			335	305	63			ļ[	703				625	25502	703	FT	CONDUIT, 3", 725.05
			227	301	121				649 225				625	25602	649 225	FT FT	CONDUIT, 4", 725.05
					225				225				625	25902	225		CONDUIT, JACKED OR DRILLED, 725.04, 4"
					225				225				625	25902	225	FT	CONDUIT, JACKED OR DRILLED, 725.04, 1 ½"
					4				4				625	26250	4	EACH	LUMINAIRE, CONVENTIONAL, 80 WATT (LED), 120 VOL
			554	672	241			ļ [	1,467				625	29002	1,467	FT	TRENCH, 24" DEEP
			8	11	г Г				19 5				625	30706	19 5	EACH	PULL BOX, 725.08, 24"
					5				S				625	30707	5	EACH	PULL BOX, 725.08, 24", AS PER PLAN
			7	8	8				23				625	32000	23	EACH	GROUND ROD
			554	672	241				1,467				625	36010	1,467	FT	UNDERGROUND WARNING/MARKING TAPE
			12	13	11			[	36				632	05006	36	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS
			<b>)</b>	Л	<u>4</u> л				4 10				632 632	05086 20731	4 10	EACH EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDO
			۷	4	4				10				052	20731	10		T LULJINIAN JIONAL HEAD (LED), TTPE DZ, COUNTDU
			2	4					6				632	20751	6	EACH	ACCESSIBLE PEDESTRIAN PUSHBUTTON, AS PER PLAN
			12	13	15				40				632	25001	40	EACH	COVERING OF VEHICULAR SIGNAL HEAD, AS PER PLAN
			2	4	4				10				632	25010	10	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD
					I 4	I	1	1	4				632	26001	4	EACH	PEDESTRIAN PUSHBUTTON, AS PER PLAN
					498				498				632	40200	498	FT	SIGNAL CABLE, 2 CONDUCTOR, NO. 14 AWG

		-
	SEE	
DESCRIPTION	SHEET	
	NO.	
FFIC CONTROL CONT.		
NE, 8"		
$\sim$		
G (CONCRETE)		≻.
G (CONCRETE)		AR
		Ň
AFFIC SURVEILLANCE		Σ
		D.S.
		GENERAL SUMMARY
R PLAN	566	U
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D WITH PTZ		
TRAFFIC SIGNALS		
OR ASSISTANCE		
VOLTS		
		DESIGN AGENCY
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		FSS
ENS, 1-WAY, POLYCARBONATE, BLACK ENS, 1-WAY, POLYCARBONATE, BLACK		
DOWN, AS PER PLAN	548	DESIGNER
		MJL
4N	548	PHF 11/22/22
AN	549	PROJECT ID 102375
	548	SHEET TOTAL
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				<u>.</u>	SHEET	NUM.						
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		1,095 997 4 3	1,089 1,063 4 4	168	2,991 1,005 4 3 107						5,175 3,065 12 10 275	
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ANGE REHAB DATE: 2/26/2024 TIME: 8:56:03 AM USER: COZA NODT-HAN-75_99_Interchange\6.0_CAD_BIM\6.2_WIP\01_Design\102375\400-Engineering\Roadway\Sheets\General Summary	530 38,687 4,738 330 50 470 35 50 295 180 312										530 38,687 4,738 330 50 470 35 50 295 180 312	
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HAN-75/CR99 INTERCHANGE REHAB MODEL: GENERAL SUMMARY 6 PAPERSIZE: 34x22 (in.) DATE: 2/26/2024 TIME: 8:56:03 AM pw:\\pwhdruseas01:HDR_US_East_01\Documents\Ohio_DOT\ODT-HAN-75_99_Interchange\6.0_												
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Bit         Bit <th></th> <th>PAI</th> <th>RT.</th> <th></th> <th></th> <th>ITEM</th> <th>GRAND</th> <th></th> <th></th> <th>SEE</th> <th></th>		PAI	RT.			ITEM	GRAND			SEE	
7.3     9     90     <	K5/03	02/IMS/08	03/IMS/13	04/SK5/04	ITEM	EXT	TOTAL	UNIT	DESCRIPTION		
Bit         Bit <td>175</td> <td></td> <td></td> <td></td> <td>632</td> <td>40500</td> <td>5,175</td> <td>FT</td> <td></td> <td></td> <td>-</td>	175				632	40500	5,175	FT			-
N         N	065				632	40700	3,065	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG		
5     - <td>12</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>548</td> <td>-</td>	12									548	-
A         A	75										-
Image: Problem         Image:	70				632	69900	570	FT	SERVICE CABLE, 3 CONDUCTOR, NO. 4 AWG		
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Control         Control <t< td=""><td>2</td><td></td><td></td><td></td><td></td><td></td><td><b>E</b>22</td><td></td><td></td><td></td><td>-</td></t<>	2						<b>E</b> 22				-
Component         Component <t< td=""><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td>EACH</td><td>SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12, AS PER PLAN</td><td></td><td></td></t<>	2							EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12, AS PER PLAN		
1         0         632         79311         1         Deck         Construction         State         State </td <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td>	2										-
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2         4         633         67.01         2         EACH         CARRENT FOUNDATION, AS PER PLAN         548         548           3         -         633         67.01         3         EACH         CONTROL BUNCK RAD, SPER PLAN         548         548           3         -         633         77.01         3         EACH         CUNNERSUPER USA SPER PLAN         548           3         -         633         67.01         2         EACH         CUNNERSUPER USA         548           3         -         630         6501         2         EACH         PORTHY RELYNOU UNT, AS PER PLAN         548           3         -         630         6501         2         EACH         PERMIT RELYNOU UNT, AS PER PLAN         550           3         -         638         6921         32         EACH         PERMIT RELYNOU UNT, AS PER PLAN         550           2         -         638         6921         32         EACH         PERMIT RELYNOU UNT, AS PER PLAN         550           3         -         -         -         RELAIN RELYNOU UNT, AS PER PLAN         550           3         -         638         5001         2         EACH         PERMAT SOUNDINT, AS PER P											
8         -         633         67201         3         EACI         CONTROLLER WORK PAD, AS SEE PLAN         540         See         Se	1						2				
3         633         7001         3         EACH         UNITER/PIELE PORES SUPPLY (P), 100 WATT, SA PER PLAN         549           2         800         6001         1         EACH         UNITER/PIELE PORES SUPPLY (P), 100 WATT, SA PER PLAN         543           2         900         6001         1         12         EACH         PORESUME GUINE, SA PER PLAN         543           2         900         60211         12         EACH         PORESUME GUINE, SA PER PLAN         550           2         800         60211         12         EACH         PRESUME GUINE, SA PER PLAN         550           2         800         60211         12         EACH         PRESUME GUINE, SA PER PLAN         550           3         EACH         SREAD SPECTAIN RADID, AS PER PLAN         550         550         550           3         EACH         SREAD SPECTAIN RADID, AS PER PLAN         550	3						3				
2         0         800         59011         12         EACH         ADVANCE RADAR DETECTION, AS PR PLAN         558           61         800         69221         3,251         FT         PREAMT RECOMMUNIT, AS PR P LAN         550           2         0         800         69221         3,251         FT         PREAMT PECTATION CARE, AS PER P LAN         550           2         0         800         69231         12         EACH         PREAMT PECTATION CARE, AS PER P LAN         550           2         0         800         69231         12         EACH         PREAMT PECTATION COMPLICATION CARE, AS PER P LAN         550           2         0         813         30001         2         EACH         PREAMT PECTATION STEIN, AS PER P LAN         550           3         0         599         20001         50         FT         PREAMT PECTATION STEIN, AS PER P LAN         550           33         0         599         20001         510         500         500         500           33         0         599         20000         470         37         FT         NO CONSTROLTER, MENDERODERANT         FT         PREAMT PACE SECONT         FT         PREAMT PACE SECONT         FT         PREA	3				633	75001	3	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN	549	
Still         Bits         Bits         Bits         Bits         Security Distribution         S	2				809	69001	2	EACH	ADVANCE RADAR DETECTION, AS PER PLAN	548	
2         1         809         6921         12         EACH         PREEMPT PHASE SELECTION, SAPER PLAN         550           2         0         809         69241         12         EACH         PREEMPT CHANKARION LIGHT, AS PER PLAN         550           3         0         815         30001         2         EACH         PREEMPT CHANKARION LIGHT, AS PER PLAN         550           4         0         815         30001         3         EACH         VIEDD DETECTION SYSTEM, AS PER PLAN         550           0         0         503         20100         550         CV         VIEDD DETECTION SYSTEM, AS PER PLAN         550           0         0         0         503         20100         550         CV         VIEDD DETECTION SYSTEM, AS PER PLAN         550           0         0         0         503         20100         38, 57         18         PREAM CONCENTER MICE CHANTON         0           80         0         503         30000         47,0         57         CLASS OC CONCETE WITH CONCENTER MICE CHANTON WALL NCUDING FOTING         422           0         0         511         53012         50         CV         CLASS OC CONCETE WITH CONCENTER VIEW CONCOUND THILER         422	12										
2         1         6         899         6924         12         EACH         PREMAPTICONFIRMATION LIGHT_AS PER PLAN         550           2         8         6         8.83         30001         2         EACH         SPREADOSPECTAUM RADIO, SPER PLAN         588           3         6         8.86         30001         2         EACH         SPREADOSPECTAUM RADIO, SPER PLAN         598           0         6         6         6.86         50001         538         EACH         SPREADOSPECTAUM RADIO, SPER PLAN         591           0         6         6         6.93         21100         538         EACH         SPREADOSPECTAURON         FETAINING WALLS (WALLOOJ)         501           0         6         6         509         30000         4,788         EPOX CONTENTSTEL REINFORCEMENT         501           38         6         511         46212         330         CY         CLASS CI CONCRETE WITH CIC/A, RETAINING/WINGWALL INCLUDING FOOTING         422           50         6         511         46212         3300         SY         TYPE CAME DOWN RETAINING/WINGWALL INCLUDING FOOTING         422           51         53000         530         SY         TYPE CAME DOWN RETAINING WALLOWN RETAINING WALLOWN RETAINING W	12										-
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Image: Constraint of the	23										-
B87         S09         10000         38,697         LB         EPOW COATES DEEL REINFORCEMENT         Image: Control of the											
38         6         509         302020         4/38         FT         NO. 4 DEFONDED GRAP REINFORCEMENT         1           0         511         5012         330         CY         CLASS GC1 CONCRETE SURFACE SERIOS CONCRETAINING WALL INCLUDING FOOTING         492           0         511         53012         50         CY         CLASS GC1 CONCRETE SURFACE SERIOS CONCRETAINING WALL         492           70         512         10100         470         SY         SEALING OF CONCRETE SURFACE SERIOS (PCNY LICTHARE)         492           70         512         10100         470         SY         SEALING OF CONCRETE SURFACE SERIOS (PCNY LICTHARE)         492           5         516         13500         50         SY         TYPE COMBER SEXANSION JOINT FILLER         50         516         13700         295         SP         "PREFORMED EXPANSION JOINT FILLER         50         518         20200         180         CY         POROUS BACKTOR PLASTIC PIRE         50         518         40010         10         FT         6"PERPORTED CORRUCATED PLASTIC PIRE         50         56         57         PREFORMED CORRUCATED PLASTIC PIRE         56           0         518         40010         10         FT         6"PERPORTED CORRUCATED PLASTIC PIRE         56	30								UNCLASSIFIED EXCAVATION		
0       511       46212       330       CY       CLASS QC2 CONCRETE WITH QC/QA, RETAINING/WALLINGLIDING FOOTING       492         70       511       53012       50       CY       CLASS QC2 CONCRETE WITH QC/QA, RETAINING WALL       492         70       511       53012       50       CY       CLASS QC2 CONCRETE WITH QC/QA, RETAINING WALL       492         70       511       5102       10100       470       SY       SEALING OF CONCRETE SURACES (FPOXY-URETHANE)       492         5       6       512       31000       35       SY       TYPE 2 WARENSKON JOINT FILLER       516       13600       50       57       1"PREFORMED EXPANSION JOINT FILLER       516       138000       312       FT       6" PREFORATED CORRUGATED PLASTIC PIPE       516       518       40000       312       FT       6" PREFORATED CORRUGATED PLASTIC PIPE       518       40010       10       FT       6" NON-PREFORATED CORRUGATED PLASTIC PIPE       518       587       587         12       13       14 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>,</td> <td></td> <td></td> <td></td> <td>-</td>							,				-
70         512         10100         470         5Y         SEALING OF CONCRETE SUBFACES (EPOXY-URETHANE)         Image: Constraint of	30						-				
5       1       512       33000       35       SY       TYPE 2 WATERPROFING       Image: Constraint of the constrain	50									492	-
0       516       13600       50       SF       1"PREFORMED EXPANSION JOINT FILLER       Image: constraint of the second	35										-
80         1         518         21200         180         CY         POROUS BACKFILL WITH GEOTEXTILE FABRIC         1           12         518         40000         312         FT         6" PERFORATED CORFUGATED PLASTIC PIPE, INCLUDING SPECIALS         1           0         518         40010         10         FT         6" NON-PERFORATED CORFUGATED PLASTIC PIPE, INCLUDING SPECIALS         1           0         1         10         FT         6" NON-PERFORATED CORFUGATED PLASTIC PIPE, INCLUDING SPECIALS         1           0         1         10         FT         6" NON-PERFORATED CORFUGATED PLASTIC PIPE, INCLUDING SPECIALS         1           0         1         1         1         1         1         1         1           1         1         1         1         1         1         1         1         1         1           1	50				516	13600		SF	1" PREFORMED EXPANSION JOINT FILLER		
12     1     518     40000     312     FT     6" PERFORATED CORRUGATED PLASTIC PIPE     1     1       0     1     518     40010     10     FT     6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1     1   <	95										-
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Image: Second									STRUCTURE OVER 20 FOOT SPAN (HAN-C0099-000)	587	-
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-				MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	EACH	EACH	EACH	FT	) FT	EACH	EACH	MILE	MILE	MILE	FT	FT	MILE	FT	FT	3	
-			TO CR-99																										
	EW-1	515	54+42.00 LT 59+58.00 LT	0.13																									
-	EW-2 CL-1	515 515	54+65.00         RT         59+48.00         RT           53+39.00         LT         59+08.00         LT	0.11			0.11																						
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F	A-1	515	58+31.00 RT										1																
ŀ	A-2 EW-4	515 515-517	58+97.00         RT           59+77.00         RT         75+50.00	0.30						<u>├</u> ───┤							+									+			BS
ŀ	EW-3	515-517	59+79.00 LT 80+68.00 LT	0.40																									SU
-	L-1	515-517	60+34.00 RT 81+19.00 RT			0.39	0.16																						U U
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-	L-2 CH-4	516-517 517	65+00.00LT81+48.00LT176+00.00RT179+78.00RT			0.31		378																					
-	A-10	517	76+12.00 RT										1																
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	A-14	517	77+82.00 RT										1																
-	A-15 A-16	517 517	77+82.00 RT 178+48.00 LT										1																
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	EY-2 EY-1	517 517	178+80.00LT181+41.00LT278+80.00RT281+44.00RT		0.05					<u>├</u>							+									+			
	A-19	517	179+14.00 LT										1																
CMA	A-20 A-21	517 517	179+14.00 RT 179+14.00 RT										1																
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3:13:5 FIME	A-24 A-25	517	180+46.00 LT	1									1				+		+							+			
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ın 2/26 2/26/2	DW-1 A-27	517 517	280+67.00         LT         281+25.00         LT           181+12.00         LT							<u>├</u>			1			58													
201.dg DATE:	A-28	517	181+12.00 RT										1																
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\10237 4x22 (	DW-2 EW-8	517 517	181+24.00C181+94.00C281+25.00LT281+71.00LT	0.01												70													
77071 <sup>'</sup> IZE: 3	DY-1	517	181+41.00 LT 181+80.00 LT													39													IGNER CMS
1\d14	DY-2	517 517	281+44.00         RT         281+83.00         RT           181+69.00         PT         182+08.00         PT													39													REVIEWER
\east0	DW-3 DW-4	517 517	181+69.00RT182+08.00RT281+72.00LT282+11.00LT							+ +						39 39													<b>1L 11/29/22</b>
orking L: She	EY-6	517	181+80.00 LT 182+90.00 LT		0.02																								DJECT ID 102375
::\pww 10DE	EY-5	517 <b>TC</b>	281+83.00 RT 283+25.00 RT	0.99	0.03	0.71	0.70	1121	28		374	121	28	0	0	284	∩	∩	   ∩	0.00	0.00	0.00	∩	∩	0.00	0			ET TOTAL
~ <i>~</i>			VIALU JIILLI I	0.00		0.71	1 0.70	'''				1 - 1								0.00	0.00	0.00			1 0.00			50	,00

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L-4	517-518	TO 181+94.00 C	187+83.00 C	<u> </u>	·····	0.11	uu			uu		<u> </u>		<u> </u>													<u> </u>	1		
L-3	517-518	281+97.00 C	288+26.00 C			0.12																								
EW-12 EW-11	517-518 517-518	182+08.00 RT 282+09.00 LT	188+02.00 RT 288+13.00 LT	0.11																								-		
CW-2	517	282+59.00 C	200110.00 ET	0.11						42																		-		
ST-5	517	282+73.00 C							29																			_	RY	
A-32 A-33	517 517	282+85.00 LT 282+85.00 RT																										-		
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EY-9 A-34	517-518 517	183+26.00 LT 283+51.00 LT	186+50.00 LT		0.06								1															-		
A-34 A-35	517	283+51.00 LT 283+51.00 RT		1									1				+											-	IBS	
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A-37	518	284+17.00 LT											1															_	X N	
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L-5	518	285+47.00 RT	288+41.00 RT			0.06																						_		
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A-47	518	285+49.00 RT											1															_	-	
A-48 A-49	518 518	185+73.00 LT 185+73.00 RT											1															_		
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A-51	518	186+39.00 RT	(00.05.00										1															_		
DW-6 EY-14	518 518	186+43.00 C 186+95.00 LT	186+95.00 LT 188+30.00 LT		0.03											55												_		
A-52	518	187+05.00 LT											1															-		
A-53 EY-13	518	187+05.00 RT 287+37.00 RT	288+55.00 RT		0.02								1															_		
CW-3	518 518	287+37.00 KT 287+66.00 C	200+55.00 KT		0.02					56																		_		
A-57	518	187+71.00 LT		[									1															]		
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й DW-9	518	187+83.00 C	188+75.00 C													92														
SN DW-10 MO MA DW-7	518 518	188+02.00 RT 288+13.00 LT	188+61.00 RT 288+55.00 LT													59 42												-		
<b>DW-7</b>	518	288+27.00 C	288+98.00 C	1												42	+											-		
4:45 H	518	188+30.00 LT	188+89.00 LT	1												59	1											]		
DY-4	518 518	288+41.00 RT 288+55.00 RT	288+98.00 RT 288+92.00 RT													57 37												-	DESIGN AGENO	CY
EW-18	518	288+55.00 LT	289+58.00 LT	0.02																										ERS
005.dgn 2 учте: 2// DW-14	518 518	188+61.00 RT 188+71.00 RT	188+95.00 RT 189+70.00 C	0.01												135												-		
	518	188+75.00 C	193+48.00 C	1		0.09											+											-		
EY-17	518	188+89.00 LT	191+32.00 LT		0.05																							]	<b>U</b>	<b>1</b> 8
EY-18 542 542 542 542 542 542 542 542 542 542	518 518	288+92.00 RT 188+96.00 RT	291+38.00 RT 189+59.00 LT		0.05											70												-	DESIGNER	—
CHU CH147 DM-13	518	188+96.00 RT	189+72.00 RT													81												_	CMS REVIEWE	
ST-10	518	288+98.00 C	200+01.00					102	42																			_	CML 11/2	/29/22
CH-14 CH-15 CH-15	518 518	288+98.00 C 288+98.00 RT	290+91.00 C 290+91.00 RT					193 193																				-	PROJECT ID 10237	
A-59	518	289+10.00 LT											1															1	SHEET TO	OTAL
Ξ. Ξ	TC	TALS SHEET 2		0.25	0.27	0.38	0.00	562	99	98	0	0	25	0	0	848	0	0	0	0.00	0.00	0.00	0	0	0.00	0	0		506	/05

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A-60         518         289+10.00         RT         Image: Constraint of the second seco	
A-61       518       289+10.00       RT       Image: Contract of the second	
CH-13       518       289+58.00       LT       292+38.00       LT       280 <t< td=""><td></td></t<>	
EW-19         518         189+72.00         RT         193+64.00         RT         0.13         Image: Comparison of the second seco	
A-63 518 289+76.00 LT 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
A-64       518       289+76.00       RT       Image: Constraint of the second seco	$\underline{ }$
A-65         518         289+76.00         RT         1         1           A-66         518         290+42.00         LT         Image: Comparison of the second seco	
A-67 518 290+42.00 LT 1 1 1 1	
A-68       518       290+42.00       RT       Image: Constraint of the second seco	BSB SE Company and the second se
A-09     S18     290+42.00 Kl     CH-10     S18     190+59.00 LT     193+48.00 LT     CH     289     CH	S S S S
CH-17       518       190+59.00       RT       193+48.00       RT       289       1       1       1         A 70       510       510       100+74.00       LT       1 <td< td=""><td></td></td<>	
A-70         518         190+74.00         LT         1         1         1           A-71         518         190+74.00         LT         Image: Comparison of the second	
A-72 518 190+74.00 RT 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
A-73         518         190+74.00         RT         1         1           I         518         200+01.00         C         202+55.00         C         0.05	<u></u> Σ Ι Ι Ι Ι Ι Ι Ι Ι Ι Ι Ι Ι Ι Ι Ι Ι Ι Ι Ι
L-7       518       290+91.00       C       293+55.00       C       0.05  <	
A-74 518 291+08.00 LT 1 1 1 1	
A-75         518         291+08.00         LT         1         1           A-76         518         291+08.00         RT         Image: Constraint of the second seco	
A-77     518     291+08.00     RT     Image: Construction of the second of	
CL-8         518         191+32.00         LT         193+48.00         LT         0.04         Image: Close of the second sec	
CL-7       518       291+38.00       RT       293+55.00       RT       0.04       0	
A-79 518 191+40.00 LT 1 10 10 10 10 10 10 10 10 10 10 10 10 1	
A-80         518         191+40.00         RT         1         1         1           A-81         518         191+40.00         RT         Image: Comparison of the second	
A-82     518     291+74.00     LT     Image: Constraint of the state of the stateo	
A-83         518         291+74.00         LT         1         1           A-84         518         291+74.00         LT         1         1         1	
A-84       518       291+74.00       RT       Image: Constraint of the second seco	
A-86 518 192+06.00 LT 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
A-87       518       192+06.00       LT       1       1         A-88       518       192+06.00       RT       Image: Comparison of the second se	
A-89     518     192+06.00     RT     Image: A-80     Image	
A-90 518 192+72.00 LT 1 1 1	
No       A-91       518       192+72.00       LT       Image: A-91       518       192+72.00       RT       Image: A-92       1       Image: A-92	
A-93 518 192+72.00 RT 1 10 10 10 10 10 10 10 10 10 10 10 10 1	
EW-20       518       292+88.00       LT       93+65.00       LT       0.03         A 00       A 04       518       193+38.00       LT       0.03       Image: Comparison of the comparison o	
A-94     510     193+30.00     L1     1     1     1       No     No     No     No     No     No     No     No       No     No     No     No     No     No     No     No       No     No     No     No     No     No     No     No	
No. 200       State	Image: Constraint of the second se
N TO NOT TA NOT TO NOT TA N	
S R R R       S R R       101+94.00 RT       0.15       Image: S R R	
B M - 22         519         94+10.00         LT         101+90.00         LT         0.15         Image: Comparison of the second se	
CW-0     S19     94+58.00     C       In the state     ST-14     S19     94+70.00     LT	
L-9       519       94+70.00       RT       101+70.00       RT       0.13       Image: Comparison of the second	
L-10       519       94+70.00       LT       101+70.00       LT       0.13       Image: Comparison of the state of the	DESIGNER CMS
CL-11 519 94+70.00 RT 100+70.00 C 0.11 0.11	REVIEWER CML 11/2
CH-21 519 94+70.00 C 97+20.00 C 250 250 26 26 26 26 26 26 26 26 26 26 26 26 26	PROJECT ID
보 :       A-106       519       94+80.00       RT       1       1         A-107       519       95+46.00       RT       Image: Contract of the second secon	102375 SHEET TOT
TOTALS SHEET 3       0.46       0.00       0.50       0.20       1108       102       77       0       0       40       0	0 0 0.00 0.00 0.00 0 0 0.00 0 0 0 0 0 0

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A-108	519	96+12.00 RT											1																
A-109	519	96+78.00 RT					0.00						1																
CL-12 A-110	519 519	97+20.00 C 98+01.00 RT	101+70.00 C				0.09						2																
A-111	519	99+86.00 RT											2															1	
CH-22 A-112	519 519	100+70.00 RT 100+94.00 RT	101+70.00 RT					100					1																AR
A-112 A-113	519	101+60.00 RT											1															1	
EW-24	519-520	102+20.00 RT	112+15.00 RT	0.19																								1	Σ
EW-23 CL-13	519-520 519-520	102+22.00 LT 102+52.00 RT	112+15.00 LT 109+06.00 C	0.19			0.12																						SU
L-12	519-520	102+52.00 LT	111+73.00 LT			0.17																						1	
L-13 CH-23	519-520 519-520	102+52.00 RT 102+52.00 C	111+73.00 RT 105+00.00 C			0.17		248																					SL
L-14	519-520	102+52.00 LT	105+00.00 LT			0.05		240																					ש
A-114	519	102+62.00 RT											1																
A-115 A-116	519 519	103+28.00 RT 103+94.00 RT																											ARI
A-117	520	104+60.00 RT											1																
CL-14	520	105+00.00 RT	111+73.00 C				0.13				250																		
TY-3 CH-24	520 520	105+00.00 RT 109+06.00 RT	109+06.00 C 111+73.00 RT					267			259																		
A-118	520	109+65.00 RT											1																Σ
A-119 A-120	520 520	110+31.00 RT 110+97.00 RT											1																
A-120	520	111+63.00 RT											1																PA
ST-17	520	111+73.00 C							37	75																			
CW-8 EW-25	520 520	111+83.00 C 112+73.00 RT	113+22.00 RT	0.01						75																			
EW-26	520	112+79.00 LT	113+24.00 LT																										
R-1 R-2	520 520	113+11.00 LT 113+11.00 LT	113+31.00 LT 113+31.00 LT														20 20												
R-3	520	113+11.00 LT	113+31.00 LT														20												
R-4	520	113+11.00 C								07							38												
CW-10 ST-18	520 520	113+21.00 C 113+31.00 C							36	67																			
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CL-4	TI 515	ECHNOLOGY DRIVE 8+00.00 C	9+17.00 C				0.02																						
ST-1	515	9+17.00 RT							20																				
ST-2	515 515	10+50.00 LT					0.04		12																				
SN CL-3	515	10+50.00 C	12+40.00 C				0.04						+				+												
5 PM 17:15		RAMP AA																										1	
91:2: EW-5 DW-16	517, 521-522 521	413+78.00 LT 413+78.00 C	441+58.00 RT 421+96.00 RT																	0.52				818	0.52	818			
5024 307-10 024 11 70 80 71 80 71 80 71	521-522	421+96.00 RT	427+55.00 RT															14	(	D.11					0.11			1	DESIGN AGENCY
EW-28	521-522	421+96.00 RT	430+55.00 RT																(	D.17				070	0.17	070		1	
04.dgn 94.dgn 94.dgn 64.dgn 64.dgn	522 517, 522	426+50.00 RT 427+55.00 RT	430+20.00 C 436+00.00 RT																535		0.16			370	0.16	370			6
SL ( L-15	522	430+20.00 C	432+95.00 C																			0.05			0.05			1	
V102375 34x22 (ir 34x26 (ir	522 522	430+20.00 LT 430+20.00 RT	432+95.00 LT												1									275		275			
7071/1 ZE: 34 PT 7071/1	522	430+20.00 RT 431+23.00 RT		1																								1	DESIGNER
P-AL	522	432+41.00 LT	404:07:00 ==									400			1													1	CMS REVIEWER
CV-3	517 517, 522	432+95.00 RT 432+95.00 C	434+37.00 RT 436+00.00 C									123											305				305		CML 11/29/22
6-M3	517	432+95.00	435+51.00 LT	1														7	(	0.05					0.05			1	PROJECT ID 102375
CH-6	517 <b>TO</b>	434+13.00 LT TALS SHEET 4	436+00.00 LT	0.40	0.00	0.40	0.39	615	105	142	259	123	16	∩	3	0	98	21	535 (	0.84	0.16	0.05	187 492	1463	1.06	1463	187 492	1	SHEET TOTAL 508 705
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CV-4 EY-3	517 517	435+30.00 LT 4432+95.00 C	435+51.00 LT 4437+34.00 C									30							11		0.08				0.08			-	
LA-2	517	4433+19.00 LT													1														
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CW-1 CV-2	517 517	4435+88.00 C 4436+34.00 RT	4437+34.00 RT							21		71																	≿
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	521-522 3. 521-522	520+93.00 LT 520+93.00 LT	524+25.00 LT 536+30.00 RT															39		0.29				332	0.29	332			$\leq$
EW-19 510	521-522 522	524+25.00 LT	527+13.00 LT															8		0.25					0.05				SU
EW-30	522	524+25.00 LT	529+19.00 LT																	0.10			050		0.10		050		JB
	518, 522 518, 522	531+79.00 C 532+54.00 LT	535+37.00 C 534+02.00 LT																				358 148				358 148		SL
A-122	522	532+61.00 LT		1									1																U Z
A-123	522	532+61.00 LT											1																N N
A-124 EY-16	522 518	532+61.00 RT 534+02.00 LT	536+00.00 LT										1						5		0.04				0.04				R I
CV-8	518	534+02.00 LT	534+66.00 LT									42									0.04				0.04				
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ST-9	518	535+37.00 C							31	40																			A
CW-4 EY-12 5	518 518, 522	535+50.00 C 5527+13.00 LT	5535+38.00 C							43									11		0.16				0.16				9
EW-14	518	5534+02.00 RT	5535+32.00 RT															4		0.02	0.10				0.02				
WA-4		5535+15.00 RT												1														-	
ST-7	518	5535+35.00 C							14																			-	
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CH-9 5 ST-6	517, 523 517	635+95.00 RT 635+99.00 C	639+12.00 RT						41														317				317	4	
CV-6	517	635+99.00 ``	637+30.00 RT									88																j l	
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WA-2	517	636+09.00 C												1														j l	
CV-5	517	636+71.00 LT	637+30.00 LT									31																4	
S CH-7 5 S A-29	517, 523 517	637+30.00 LT 637+75.00 LT	642+44.00 LT	+									1				+						514				514	{	
M 67.82 A-30	517	637+75.00 RT											1															<u> </u>	
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<sup>36</sup> Eq A-129 A-130	523 523	640+85.00 RT 642+35.00 LT											1															- I \\	
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warkin Berling WA-1	517	6635+54.00 RT												1	-													102	)2375
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REF NO.	SHEET NO.	STATION	TO STATION	EDGE LINE, 6", WHITE	EDGE LINE, 6", YELLOW	LANE LINE, 6"	CENTER LINE	CHANNELIZING LINE, 8"	STOP LINE	CROSSWALK LINE, 24"	TRANSVERSE/DIAGONAL LINE	CHEVRON MARKING	LANE ARROW	WRONG WAY ARROW	LANE REDUCTION ARROW	DOTTED LINE, 6"	REMOVAL OF PAVEMENT MARKING	RPM, WHITE/RED	RPM, YELLOW/RED	WET REFLECTIVE TRAFFIC PAINT, EDGE LINE, 6", WHITE	WET REFLECTIVE TRAFFIC PAINT, EDGE LINE, 6", YELLOW	WET REFLECTIVE TRAFFIC PAINT, LANE LINE, 6"	WET REFLECTIVE TRAFFIC PAINT, CHANNELIZING LINE, 8"	WET REFLECTIVE TRAFFIC PAINT, DOTTED LINE, 6"	GROOVING FOR 6 INCH RECESSED PAVEMENT MARKING, (CONCRETE)	GROOVING FOR 6 INCH RECESSED PAVEMENT MARKING, (CONCRETE)	GROOVING FOR 8 INCH RECESSED PAVEMENT MARKING, (CONCRETE)		
			TO	MILE	MILE	MILE	MILE	FT	FT	FT	FT	FT	EACH	EACH	EACH	FT	FT	EACH	EACH	MILE	MILE	MILE	FT	FT	MILE	FT	FT	)	
	540 500	RAMP D																	40		0.44				0.44				
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CV-10	518	7735+00.00 LT	7735+44.00 LT									26																	U N
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A-100	519	8+43.00 RT 9+09.00 LT											1																VEI
A-101 A-102	518 518	9+09.00 LT 9+09.00 RT											1																PA
A-103 ST-12	519 518-519	9+09.00 RT 9+19.00 C							37				1													!			
DW-15A	518	9+19.00 LT	10+69.00 LT						57							151													
CW-5 CL-10	518-519 518	9+33.00 C 10+69.00 C	10+89.00 C				0.004			87																			
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Ng 16:61 <b>R-5</b>	520	9+06.00 LT	9+37.00 LT														31												
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614 LAW ENFORCEMENT OFFICER (WITH PATROL CAR) 614 LAW ENFORCEMENT OFFICER (WITH PATROL CAR), CON'T. USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FLAGGERS BE USED. FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY. IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF FOR ASSISTANCE 24 HOURS THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS: THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED. ANY ADDITIONAL COSTS 1. DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REOUIRED. OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR 2. DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE ASSISTANCE. NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS 632 PEDESTRIAN SIGNAL HEAD (LED), (COUNTDOWN), TYPE D2, THROUGH A RED LIGHT). AS PER PLAN IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A IN ADDITION TO THE REQUIREMENTS OF C&MS 632 AND 732 THE UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED FOLLOWING SHALL APPLY: EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR 1. SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF BLACK THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER: POLYCARBONATE PLASTIC AND MEET ITE SPECIFICATIONS. 1. FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN 2. PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW PLASTIC MATERIAL RATHER THAN PAINTING. LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE 3. PIPE, SPACERS AND FITTINGS CONSTRUCTED OF POLYCARBONATE PLASTIC CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP). MAY BE USED IN LIEU OF GALVANIZED STEEL OR ALUMINUM. 2. FOR OPERATIONS WITHOUT POSITIVE PROTECTION OCCURRING WITHIN 4. THE PEDESTRIAN SIGNAL HEAD SHALL BE OF THE LED COUNTDOWN 10 FEET OF AN OPEN TRAVELED LANE THAT MEET ALL OF THE FOLLOWING TYPE. CRITERIA: 5. NEW ATTACHMENT HARDWARE AND FITTINGS SHALL BE USED. A. ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND AN AUTHORIZED SPEED LIMIT OF 45 MPH OR 6. THE LIGHT EMITTING DIODE (LED) MODULES SHALL MEET THE GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND, REQUIREMENTS OF C&MS 732.04. THE CONTRACTOR SHALL PROVIDE AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT ODOT, IN WRITING, WITH THE LED MANUFACTURER NAME, SERIAL TRUCKS) 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 "WITHOUT POSITIVE PROTECTION" MEANS USE OF DRUMS, CONES, SHADOW VEHICLE, ETC, WITHOUT PROTECTION FROM PORTABLE BARRIER OR OTHER PURPOSES. RIGID BARRIER ALONG THE WORK AREA. THIS PHRASE DOES NOT APPLY TO CASES WHERE POSITIVE PROTECTION IS REQUIRED. MOBILE OPERATIONS PAYMENT FOR ITEM 632 PEDESTRIAN SIGNAL HEAD (LED), (COUNTDOWN), ARE REGARDED AS "WITHOUT POSITIVE PROTECTION". FOR WORK ZONES TYPE D2, AS PER PLAN SHALL BE MADE FOR THE NUMBER OF COMPLETE USING A COMBINATION OF BARRIER AND TEMPORARY TRAFFIC CONTROL SIGNAL HEAD FURNISHED AND INSTALLED, INCLUDING ALL LABOR, DEVICES (CONES, DRUMS, ETC), THE DESIGNATION SHALL BE BASED UPON EQUIPMENT, MATERIALS AND NEW ATTACHMENT HARDWARE. THE TYPE OF DEVICES USED IN THE AREA THAT WORKERS ARE LOCATED. 632 SIGNAL SUPPORT FOUNDATION, AS PER PLAN IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION. PER MAINLINE TRAFFIC DIRECTION. PROVIDE A PRIOR TO ORDERING THE SIGNAL SUPPORTS, THE CONTRACTOR SHALL UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF: CONTACT OUPS TO HAVE ALL THE UTILITIES LOCATED IN THE FIELD. THEN THE CONTRACTOR SHALL MEET THE PROJECT ENGINEER TO LOCATE THE 1. THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER; OR THE PROPOSED SUPPORT LOCATIONS TO INSURE THERE ARE NO CONFLICTS ACTIVE WORK AREA LATERALLY CLOSEST TO THE OPEN TRAVELED LANE; OR WITH UTILITIES. IF THERE ARE ISSUES, THE PROJECT ENGINEER SHALL PROVIDE GUIDANCE AS TO THE RELOCATION OF THE SUPPORTS. OTHER LOCATION AS APPROVED BY THE ENGINEER. THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE AS THE OPERATIONS PROCEED IN THE LOCALIZED DUE TO THE FURTHER POSSIBILITY OF CONFLICT WITH EXISTING OR **OUALIFYING WORK AREAS.** PROPOSED UNDERGROUND OBSTRUCTIONS (INCLUDING THE POSSIBILITY OF UNRECORDED OBSTRUCTIONS) WHICH COULD AFFECT THE LOCATION OF IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE THE FOUNDATION FOR THIS ITEM, AND CONSEQUENTLY, THE DESIGN OF SAME SIDE AS THE LANE RESTRICTION (OR AT THE POINT OF ROAD CLOSURE), THE SUPPORT AND/OR ARMS, THE CONTRACTOR SHALL NOT PLACE FINAL AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED ORDERS FOR THE ITEM UNTIL THE FOUNDATIONS HAVE BEEN INSTALLED, INTERSECTIONS IN WORK ZONES. AT FINAL GRADE, AND THE CONTRACTOR HAS RECEIVED, FROM ENGINEER, WRITTEN NOTICE TO PROCEED WITH THE ORDERS FOR THE ITEM. LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF ANY FOUNDATION LOCATIONS MUST BE ADJUSTED, THE CONTRACTOR IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT SHALL NOTIFY THE ENGINEER AND MAINTAINING AGENCY, WHO WILL OF THE MOTORIST IS APPROPRIATE. DETERMINE THE REVISED LOCATION AND IF NEEDED. THE SUPPORT DESIGN. THE CONTRACTOR WILL NOT BE RESPONSIBLE FOR DETERMINING THE REVISED DESIGN. THE ENGINEER WILL INFORM THE CONTRACTOR OF ANY THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS CHANGES NECESSARY AND AUTHORIZE THE CONTRACTOR TO ORDER THE WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS SUPPORT. OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL THE CONTRACTOR SHALL, WHEN DEVELOPING THE PROGRESS SCHEDULE, RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES. AND THOSE OF SUBCONTRACTORS, ENSURE THAT THE FOUNDATIONS ARE INSTALLED AT THE EARLIEST TIME AS IS FEASIBLE AND PRACTICAL, AND SHALL ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB INCLUDE SUFFICIENT TIME IN THE PROGRESS SCHEDULE FOR ORDERING, MANUFACTURING, DELIVERY, AND INSTALLATION OF THE SUPPORT ITEMS DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03. AFTER THE FOUNDATIONS ARE IN PLACE. THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF NO PAYMENTS FOR DELIVERED MATERIALS FOR THE FOUNDATION OR SUPPORT ITEMS SHALL BE MADE UNTIL THE FOUNDATIONS ARE IN PLACE, THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AND IF CHANGES IN THE DESIGN OF THIS ITEM ARE REQUIRED, NO PAYMENT AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE SHALL BE MADE FOR THE ITEMS MANUFACTURED TO THE ORIGINAL DESIGN. LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL PAYMENT WILL BE AT THE CONTRACT UNIT PRICE AND WILL BE FULL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND OTHER INCIDENTALS NECESSARY FOR EACH SUPPORT FURNISHED, IN PLACE, TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. COMPLETE AND ACCEPTED.

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# 632 PEDESTRIAN PUSHBUTTON, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 632 AND 732, THE FOLLOWING REQUIREMENTS SHALL APPLY:

PUSHBUTTONS SHALL BE "ADA AUDIBLE" AT ALL LOCATIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND ASSEMBLING ANY HARDWARE NECESSARY TO ACCOMPLISH THE CO-LOCATION AT NO ADDITIONAL COST TO THE PROJECT.

# 632 SIGNAL SUPPORT, MECHANICAL DAMPER FOR TC-81.22 MAST ARM (GREATER THAN 39' IN LENGTH), AS PER PLAN

THIS ITEM SHALL REVISE NOTE 18 ON SCD TC-81.22 SIGNAL ARM OVERHEAD SIGNAL SUPPORT TO READ "ON ARMS LONGER THAN 39 FEET,..." INSTEAD OF THE STATED "ON ARMS LONGER THAN 59 FEET,...".

PAYMENT FOR ITEM 632 "SIGNAL SUPPORT, MECHANICAL DAMPER FOR TC-81.22 MAST ARM (GREATER THAN 39' IN LENGTH), AS PER PLAN" SHALL BE MADE AT THE CONTRACT UNIT PRICE PER EACH COMPLETE AND IN PLACE, AND SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE THE WORK.

# 632 REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN

TRAFFIC SIGNAL INSTALLATIONS, INCLUDING SIGNAL HEADS, CABLE, MESSENGER WIRE, STRAIN POLES, CABINET, CONTROLLER, ETC., SHALL BE REMOVED IN ACCORDANCE WITH C&MS 632.26 AND AS INDICATED ON THE PLANS. REMOVED ITEMS SHALL BE REUSED AS PART OF A NEW INSTALLATION ON THE PROJECT OR STORED ON THE PROJECT FOR SALVAGE BY THE OHIO DEPARTMENT OF TRANSPORATION IN ACCORDANCE WITH THE LISTING GIVEN HEREIN.

ITEMS TO BE STORED: SIGNAL HEADS, STRAIN POLES, SIGNAL POLES, CABINETS, CONTROLLERS

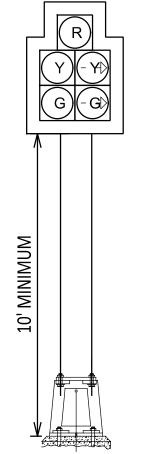
REMOVED ITEMS SHALL BE DELIVERED TO THE CITY OF FINDLAY FACILITY WHOSE ADDRESS IS LISTED BELOW:

CITY OF FINDLAY ATTN: JEREMY KALB (419-424-7121) 318 DORNEY PLAZA FINDLAY, OHIO 45840

IN THE EVENT THE ITEMS STORED ON THE PROJECT FOR SALVAGE BY THE LOCAL AGENCY ARE NOT REMOVED, THE CONTRACTOR SHALL, WHEN DIRECTED BY THE ENGINEER IN WRITING. REMOVE AND DISPOSE OF THE ITEMS AT NO ADDITIONAL COST TO THE PROJECT.

# 632 PEDESTAL, MISC.: 15', TRANSFORMER BASE

THE PEDESTAL SHALL BE IN ACCORDANCE WITH 632.19 WITH THE EXCEPTION THE HEIGHT ABOVE THE GROUND SHALL BE 15' THE POLE/BASE SHALL *BE PER HL-10.13.* 



15' PEDESTAL DETAIL

# 809 ADVANCE RADAR DETECTION, AS PER PLAN

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

1. POWER SHALL BE PROVIDED FROM THE TRAFFIC CABINET.

2. 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.

3. 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.

4. 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.

5. 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.

6. A SERIAL TO ETHERNET COMMUNICATIONS MODULE AND ETHERNET CABLE (MINIMUM 7 FEET).

7. 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 UP TO FOUR (4) SENSOR CABLES. ADDITIONAL SENSORS MAY BE HARD-WIRED TO THE COMMUNICATION MODULES. AS NECESSARY.

8. THE CONTRACTOR SHALL INSTALL THE RADAR DETECTION PRIOR TO MILLING/DISABLING EXISTING LOOPS.

9. THE INSTALLATION SHALL INCLUDE ALL CONTROLLER PROGRAMMING FOR COMPLETE INSTALLATION, WHICH INCLUDES MODIFICATIONS FOR REMOVAL OF EXISTING DETECTION. PAYMENT FOR ITEM 809 ADVANCE RADAR DETECTION, AS PER PLAN 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.

PAYMENT FOR ITEM 809 ADVANCE RADAR DETECTION, AS PER PLAN 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.  $( \cdots ) ( \cdots$ 

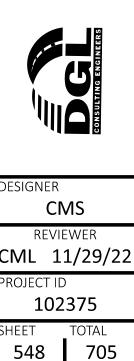
# 815 SPREAD SPECTRUM RADIO, AS PER PLAN

THE SPREAD SPECTRUM RADIO SHALL BE "MDS INET-II-AD/DG" BRAND, AS SUPPLIED BY BALDWIN & SOURS, OR APPROVED EQUAL, AND SHALL BE FURNISHED WITH APPLICABLE FEATURES AND ACCESSORIES, AS REQUIRED IN SUPPLEMENTAL SPECIFICATIONS 815.

PAYMENT FOR ITEM 815 SPREAD SPECTRUM RADIO, AS PER PLAN SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH UNIT IN PLACE. COMPLETELY INSTALLED IN THE LOCAL CONTROLLER SHOWN IN THE PLANS, WIRED, TESTED AND ACCEPTED.

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ESIGN AGENCY



<i>632 COVERING OF VEHICULAR SIGNAL HEAD, AS PER PLAN</i> COVER VEHICULAR SIGNAL HEADS IF ERECTED AT INTERSECTIONS WHERE TRAFFIC IS MAINTAINED BEFORE ENERGIZING THE SIGNALS. USE A STURDY	632 SIGNAL SUPPORT, (BY TYP 632 COMBINATION SIGNAL SU LIGHT POLE EXTENSION), AS P
<i>OPAQUE COVERING MATERIAL SPECIFICALLY MADE FOR USE WITH TRAFFIC SIGNALS, AND ENSURE THAT THE COLOR OF THE COVER IS DIFFERENT THAN THE SIGNAL HEAD, TAN OR BEIGE, SO THAT IT IS CLEAR TO DRIVERS</i>	IN ADDITION TO PROVISIONS C SIGNAL POLES AS SPECIFIED IN
THAT HEADS ARE COVERED, NOT DARK. USE A METHOD OF COVERING TO COVER ATTACHMENT AND MATERIALS, INCLUDING BACK-PLATES, AS APPROVED BY THE ENGINEER. COVERS ARE TO BE FREE OF TEXT, PICTURES, OR ANY TYPE OF ADVERTISING. MAINTAIN COVERS, AND REMOVE THEM	THE SIGNAL SUPPORT DESIGNE SUPPORT WITH STRUCTURAL A COMPLIANCE WITH THE AASHT
<ul> <li>WHEN DIRECTED BY THE ENGINEER.</li> <li>633 CONTROLLER ITEM, MISC.: CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1, AS PER PLAN</li> <li>THE CONTROLLER UNIT FÜRNISHED SHALL BE AN EAGLE BRAND P44, TS2 CABINET, OR APPROVED EQUAL, WITH A SIEMENS M60 CONTROLLER. THE CONFLICT MONITOR SHALL BE AN EDI BRAND MMU. IN ADDITION TO ITEM 633.06 AND ITEM 733.02, THIS SPECIFICATION SHALL GOVERN WHERE DIFFERENCES OCCUR IN THE ODOT STANDARD CONSTRUCTION AND MATERIAL SPECIFICATION. THE CONTROLLER SHALL BE FURNISHED WITH THE MOST RECENT SOFTWARE AND PROVIDE ALL FEATURES OF THE LATEST MODEL AVAILABLE.</li> <li>LOCAL CONTROLLER EQUIPMENT THE FOLLOWING SHALL BE FURNISHED:</li> <li>1. EXTENDED MONITORING</li> <li>2. MANUAL CONTROL AND PUSHBUTTON</li> </ul>	SUBMIT, TO THE ENGINEER PR THE SIGNAL SUPPORT DRAWIN AND DESCRIBE EACH MANUFA SUPPORT ITEM WHICH IS BEIN THE SIGNAL SUPPORT DRAWIN REVIEWED, SEALED, STAMPED, PROFESSIONAL ENGINEERS. ALL NEW SIGNAL SUPPORT ITE SHALL BE PAINTED OR POWDE THE PAINTING SHALL BE A FOU TWO-PART SURFACE PREPARAT THE CONTRACTOR SHALL TAKE WITH POLLUTION LAWS, RULES LOCAL AGENCIES. THE MATERIA TO THE HEALTH OF THE APPLIC ARE NOT FOLLOWED. THE CON AND THE LABEL ON THE PAINT INCLUDE THE USE OF RESPIRAT SPECIFIED. THE CONTRACTOR S
3. SWITCHES MOUNTED ON INSIDE DOOR: A. CONTROLLER: ON/OFF B. STOP TIME: ON/OFF C. SIGNALS: AUTO/FLASH	AND LOCATIONS WILL NOT ENL IN GENERAL. THE ENGINEER SH CLEANING OR COATING OPERA BE PROVIDED.
D. COORDINATION: ON/OFF E. DETECTOR TEST SWITCHES	WORK INCLUDED:
4. SWITCHES ON POLICE DOOR	1. PAINTING SIGNAL SUPPORTS
A. SIGNALS: AUTO/FLASH (MUST ALSO STOP TIMING IN CONTROLLER	SUBMITTALS:
WHEN ACTIVATED) B. AUTOMATIC/MANUAL C. SIGNALS: ON/OFF	1. COLORS AND FINISHES: SUBI EACH COLOR CHIP IN SCHED APPLICATION ON THIS PROJE SUBMISSION IS OBTAINED FF
5. INTERCONNECT ISOLATION PANEL AND FULL D-CONNECTOR MOUNTED ON LEFT SIDE	2. SUBMIT PRODUCT DATA.
6. CONTROLLER OUTPUTS SHALL USE JUMPERS ON THE FRONT OF THE BACK	DELIVERY AND STORAGE:
PANEL NOT HARDWIRED ON BACK	1. DELIVER ALL MATERIALS TO
7. SLIDE OUT LAP TO SHELF	UNOPENED PACKAGES AND NAME AND LABEL AND APPL
8. POWER HARNESS FOR TYPE 1 AND TYPE 2 CONTROLLER 9. SURGE SUPPRESSOR IN MODULAR PACKAGING UTILIZING A 12 PIN BEAU CONNECTOR WITH LED FAILURE INDICATORS	2. PROVIDE LABELS ON EACH C INFORMATION:
10. LED GOOSENECK LIGHT ON INSIDE OF DOOR	A. NAME OR TITLE OF M.
11. THE APPLICABLE DATAKEY SHALL BE PROVIDED FOR CONNECTIVITY	B. FEDERAL SPECIFICATIO
WITH THE EXISTING RADIO INTERCONNECT SYSTEM	C. MANUFACTURER'S STO
<i>12. ARC FLASH HAZARD WARNING SIGN ON THE OUTSIDE OF THE FRONT DOOR OF THE ENCLOSURE IN ACCORDANCE WITH THE 2011 NATIONAL</i>	D. MANUFACTURER'S NA
ELECTRIC CODE PARAGRAPH 110.16	E. THINNING INSTRUCTIO
13. ALL CABINET EQUIPMENT SHALL BE IP ADDRESSABLE AND ETHERNET READY	F. APPLICATION INSTRUC
14. A CABINET RISER OF 18" SHALL BE SUPPLIED IN ACCORDANCE WITH ODOT SPECIFICATION 733.04. THE CABINET DOOR HINGES SHALL BE MOUNTED ON THE RIGHT SIDE WHEN FACING THE FRONT OF THE CABINET.	3. STORE MATERIAL IN AN APP IN METAL CONTAINERS AND EACH WORK DAY. TAKE ALL F OF FIRE.
THE CONTRACTOR SHALL COIL 10' OF SLACK FOR EACH CABLE TO BE	PRODUCTS:
CONNECTED TO THE CONTROLLER. ALL CONNECTIONS SHALL BE MADE BY CITY FORCES. THE CONTRACTOR SHALL COORDINATE SCHEDULING FOR THE	1. PAINTS FOR METAL SURFACE
CONNECTION WITH THE CITY OF FINDLAY TRAFFIC ENGINEERING OFFICE. TWO SETS OF CABINET WIRING DIAGRAMS, SERVICE MANUALS,	A. PRIMER FOR STEEL AN CARBOMASTIC 15 EPC
PROGRAMMING AND MAINTENANCE INSTRUCTIONS SHALL BE FURNISHED FOR EACH CABINET AND EQUIPMENT ITEM. THE CABINET WIRING DIAGRAMS SHALL BE SUPPLIED IN A CLEAR PLASTIC POUCH FASTENED TO THE INSIDE OF THE CONTROLLER CABINET.	B. MID AND FINISH COAT SHALL BE CARBOLINE ( BLACK (17038).
PAYMENT WILL BE AT THE CONTRACT UNIT PRICE FOR EACH, IN PLACE.	EXECUTION:
ALL CONNECTIONS MADE AND WIRING COMPLETED, TESTED AND ACCEPTED.	1. PREPARATION
	A. SURFACES SHALL BE C TO REMOVE DIRT, DUS THAT COULD INTERFEN ACCORDANCE WITH SS

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# PE), AS PER PLAN IPPORT, TYPE TC-81.22 (WITH ER PLAN

OF THE ODOT C&MS, FURNISH AND INSTALL THE PLANS.

ER SHALL PROVIDE DRAWINGS OF A SIGNAL ASPECTS OF THE DESIGN AND MATERIALS IN TO LRFDLTS-1.

IOR TO INCORPORATION: TWO COPIES OF IGS AND SHOP DRAWINGS. WHICH IDENTIFY CTURED SIGNAL SUPPORT AND SIGNAL G INCORPORATED INTO THE CONSTRUCTION. IGS AND SHOP DRAWINGS SHALL EACH BE AND DATED BY TWO OHIO REGISTERED

MS ALONG CR-99 IN THE CITY OF FINDLAY R COATED PER C&MS SPECIFICATION 916. IR-PART PROCESS CONSISTING OF A TION FOLLOWED BY A TWO-COAT PAINT SYSTEM.

ALL NECESSARY PRECAUTIONS TO COMPLY S OR REGULATIONS OF FEDERAL, STATE OR ALS AND WORK SPECIFIED CAN BE HAZARDOUS CATOR IF THE MANUFACTURER'S INSTRUCTIONS ITRACTOR SHALL FOLLOW THE DATA SHEET CONTAINERS. THESE PRECAUTIONS SHALL ORS AND EYE AND SKIN PROTECTION AS SHALL ALSO INSURE THAT HIS OPERATIONS DANGER OR ADVERSELY AFFECT THE PUBLIC HALL BE NOTIFIED 24 HOURS PRIOR TO ANY ATIONS SO THAT INSPECTION SERVICES CAN

SALONG CR-99 IN THE CITY OF FINDLAY.

MIT 8-1/2" X 11" PAPER SAMPLES MATCHING ULE. DO NOT ORDER PAINT MATERIAL OR ECT UNTIL COMPLETE APPROVAL OF COLOR ROM THE LANDSCAPE ARCHITECT/ENGINEER.

THE JOB SITE IN ORIGINAL, NEW AND CONTAINERS BEARING MANUFACTURER'S LICATION INSTRUCTIONS THEREON.

CONTAINTER WITH THE FOLLOWING

IATERIAL.

ON NUMBER, IF APPLICABLE.

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CTIONS.

ROVED LOCATION. KEEP RAGS AND WASTE REMOVE FROM THE PREMISES AT END OF PRECAUTIONS NECESSARY FOR PREVENTION

ES - CARBOLINE COATINGS

ND GALVANIZED STEEL SHALL BE CARBOLINE DXY MASTIC. COLOR: PRIMER RED (M500).

FOR BARE STEEL AND GALVANIZED STEEL CARBOTHANE 134 HG. COLOR FEDERAL

LEAN AND DRY. EMPLOY ADEQUATE METHODS ST, OIL, RUST, AND ALL OTHER CONTAMINANTS RE WITH ADHESION OF THE COATING IN SPC-SP 3.

# 632 SIGNAL SUPPORT, (BY TYPE), AS PER PLAN, CONT. 632 COMBINATION SIGNAL SUPPORT, TYPE TC-81.22 (WITH LIGHT POLE EXTENSION), AS PER PLAN, CONT.

- B. CLEAN AND LIGHTLY ABRADE PREVIOUSLY PAINTED SURFACES TO ROUGHEN AND DEGLOSS THE SURFACE, REMOVE STRATIFIED RUST, WELD SLAG, AND MILL SCALE USING ROTARY, IMPACT, OR POWER ABRADING TOOLS. EXISTING COATING MUST ATTAIN A MINIMUM 3A RATING IN ACCORDANCE WITH ASTM ADHESION TEST.
- 2. PRIMER COAT
  - A. PRIMER MAY BE THINNED UP TO 32 OZ/GAL WITH CARBOLINE THINNER 10 OR THINNER 230 (IF APPLYING TO A HOT SUBSTRATE. UP TO 200 DEGREES F) OR THINNER 72 FOR HOT OR WINDY CONDITIONS. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR THINNING.
  - B. SPOT PRIME, BY BRUSHING OR ROLLING, ANY BARE OR RUSTED METAL, AND THEN FULL PRIME, BY BRUSHING OR ROLLING, ALL SURFACES WITH ONE (1) COAT, 3-5 MILS, PRIMER AS RECOMMENDED BY MANUFACTURER. SURFACE SHALL BE FIELD APPLIED PER MANUFACTURER'S RECOMMENDATION.
- 3. MID COAT AND FINISH COAT:
  - A. MID COAT AND FINISH COAT MAY BE THINNED UP TO 25 OZ/GAL WITH CARBOLINE THINNER 25, 214, OR 215. FOR APPLICATION DURING HOT, WINDY, AND/OR HUMID CONDITIONS, SLOWER **EVAPORATING SOLVENTS SUCH AS THINNER 214 AND THINNER** 215 MAY BE RECOMMENDED. FOLLOW MANUFACTURER'S **RECOMMENDATIONS FOR THINNING.**
  - B. FIELD APPLY MID COAT BY BRUSHING OR ROLLING ONE (1) COAT. 2-3 MILS, MID COAT AS SPECIFIED.
  - C. FIELD APPLY FINISH COAT BY BRUSHING OR ROLLING ONE (1) COAT. 2-3 MILS, FINISH COAT AS SPECIFIED.
- 4. APPLICATION:
  - A. WHEN BRUSHING, FLOW ON A LIBERAL COAT WITH MINIMUM BRUSHING.
  - B. APPLY ADDITIONAL COATS WHEN UNDERCOATS, PRIMER OR OTHER CONDITIONS SHOW THROUGH THE FINAL COAT OF PAINT UNTIL THE PAINT FILM IS OF UNIFORM FINISH, COLOR AND APPEARANCE. GIVE SPECIAL ATTENTION TO ENSURE THAT SURFACES SUCH AS EDGES, CORNERS, CREVICES, MORTAR JOINTS, WELDS AND EXPOSED FASTENERS RECEIVE A DRY FILM THICKNESS EQUAL TO THAT ON FLAT SURFACES.
  - C. SAND LIGHTLY BETWEEN COATS.
  - D. APPLY FIRST COAT MATERIALS TO SURFACES THAT HAVE BEEN CLEANED, PRE-TREATED TO OTHERWISE PREPARED FOR PAINTING AS SOON AS PRACTICABLE AND BEFORE SURFACE DETERIORATION.
  - E. ALLOW SUFFICIENT TIME BETWEEN SUCCESSIVE COATS TO PERMIT PROPER DRYING. DO NOT RECOAT UNTIL PAINT HAS DRIED TO WHERE IT FEELS FIRM, DOES NOT DEFORM OR FEEL STICKY UNDER MODERATE THUMB PRESSURE. RECOAT WHEN THE NEXT COAT DOES NOT CAUSE LIFTING OR LOSS OF ADHESION OF UNDERCOAT.
- 5. CLEAN UP AND PROTECTION
  - A. DURING PROGRESS OF WORK, REMOVE FROM SITE DISCARDED PAINT MATERIALS. RUBBISH, CANS AND RAGS AT END OF EACH WORK DAY.
  - B. CONTRACTOR SHALL TAKE SPECIAL CARE NOT TO DAMAGE PAINTED SURFACES IN TRANSIT, DURING INSTALLATIONS OR DURING SUBSEQUENT CONSTRUCTION. ANY SUCH DAMAGE THAT OCCURS SHALL BE TOUCHED UP.
  - C. WHEN FIELD APPLYING PAINT, CONTRACTOR SHALL TAKE SPECIAL CARE TO ENSURE THAT PAINT IS NOT APPLIED TO ADJACENT OR NEARBY SURFACES THAT ARE NOT INTENDED TO BE PAINTED. CONTRACTOR SHALL COMPLETELY REMOVE ALL PAINT THAT IS INADVERTENTLY APPLIED TO ADJACENT OR NEARBY SURFACES WITHOUT DAMAGING THOSE SURFACES.
  - D. CONTRACTOR SHALL PROTECT NEWLY PAINTED SURFACES FROM VANDALISM DURING DRYING TIME.

PAYMENT FOR ITEM 632 "SIGNAL SUPPORT, (BY TYPE), AS PER PLAN" AND "COMBINATION SIGNAL SUPPORT, TYPE TC-81.22 (WITH LIGHT POLE EXTENSION), AS PER PLAN" SHALL BE MADE AT THE CONTRACT UNIT PRICE PER EACH COMPLETE AND IN PLACE, AND SHALL INCLUDE ALL SIGNAL SUPPORT DESIGN, LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE THE WORK.

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THE UPS CABINET SHALL INCLUDE A GENERATOR POWER PANEL WITH A HEAVY-DUTY POWER RELAY VERSUS THE LINE VOLTAGE GENERATOR SWITCH. THE GENERATOR INLET SHALL BE A RECESSED PANEL WITH A DOOR THAT IS FLUSH WITH THE EXTERNAL SIDE OF THE UPS CABINET. IT SHALL INCLUDE A RECESSED PLUG. AUTOMATIC TRANSFER SWITCH AND A DOOR THAT SECURELY CLOSES OVER THE POWER CORD.

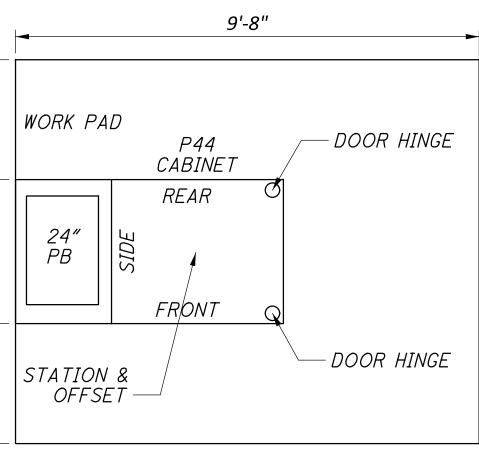
AFTER FOUR (4) HOURS OF BATTERY RUNTIME, THE SYSTEM SHALL BE PROGRAMMED TO SWITCH THE INTERSECTION FROM FULL OPERATION TO CONTROLLER AUTOMATIC FLASH OPERATION THROUGH THE MONITOR. THE CONTROLLER SHALL BE PROGRAMMED SO THAT FLASH OPERATION SHALL BEGIN ONCE THE INTERSECTION RUNS MINOR STREET GREEN (TYP. PH. 4 &8), ALL-RED CLEARANCE, AND THEN FLASH OPERATION.

THE UPS OUTPUT NOTIFICATIONS FOR ON BATTERY, BATTERY 2-HOUR TIMER, AND LOW BATTERY SHALL BE WIRED INTO THE TRAFFIC SIGNAL CABINET BACK PANEL OR THROUGH THE CONTROLLER WITH A C11 TO PROVIDE SPECIAL STATUS ALARMS FOR EACH OUTPUT INTO THE SIGNAL CONTROLLER.

THIS ITEM SHALL INCLUDE A RED LED STATUS INDICATOR LAMP TO ALLOW MAINTENANCE PERSONNEL AND LAW ENFORCEMENTTO QUICKLY ASSESS WHETHER A TRAFFIC SIGNAL CABINET IS BEING POWERED BY A UPS. THE LED HOUSING SHALL BE NEMA 4X, IP65 OR IP66, RATED FOR OUTDOOR USE AND BE TAMPER/SHATTER RESISTANT. IT SHALL BE A DOMED ENCLOSURE CONTAINING A RED LENS WITH LED THAT IS VISIBLE FROM 100 FOOT MINIMUM. THE ENCLOSURE AND LED MODULE SHOULD BE PLACED ON THE SIDE OF THE UPS CABINET FACING TOWARDS THE MAINLINE ROADWAY AND SEALED FROM WATER INTRUSION. IT SHOULD BE WIRED USING MINIMUM 20GA STRANDED, INSULATED HOOKUP WIRE TO THE STATUS RELAY OUTPUTS OF THE UPS. THE WIRES SHALL BE TERMINATED BY LUGS AT THE DISPLAY END AND PERMANENTLY LABELED "BACKUP POWER STATUS DISPLAY,"WITH WIRE POLARITY INDICATED. THE RED LED SHALL ONLY ILLUMINATE TO INDICATE THE CABINET IS OPERATING UNDER UPS BACKUP POWER (THE "BACKUP" OPERATING CONDITION). THIS ITEM INCLUDES PROGRAMMING THE UPS STATUS RELAY OUTPUTS TO PRODUCE THE LAMP STATUS DISPLAYS. THESE STATUS DISPLAYS WILL BE SOLID 100% DUTY CYCLE (NOT FLASHING) DISPLAYS. THE OPERATING VOLTAGE OF THE LED LAMP SHALL BE 120V AC UNLESS OTHERWISE INDICATED.

# 633 CONTROLLER WORKPAD. AS PER PLAN

THE CONTROLLER WORKPAD SHALL BE CONSTRUCTED TO ACCOMMODATE THE TS-2 CABINET MODEL P44 PER THE DETAIL BELOW. CONDUIT AND WIRING SHALL BE INSTALLED THROUGH THE CABINET RISERS. EACH CABINET SHALL HAVE AN 18" RISER.



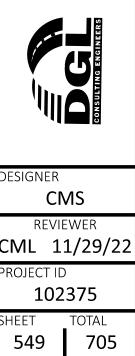
CABINET & WORK PAD DETAIL

633 UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN IN ADDITION TO THE REQUIREMENTS OF C&MS 633 AND 733, POLE ATTACHMENT HARDWARE WILL BE INCLUDED FOR POLE-MOUNTED CABINETS, AND A CABINET RISER (8-INCH MINIMUM) AND ANCHOR BOLTS WILL BE PROVIDED FOR BASE-MOUNTED CABINETS. BEFORE PERFORMING THE WORK, THE CONTRACTOR, THE DISTRICT TRAFFIC ENGINEER AND THE PROJECT ENGINEER WILL PERFORM A SITE INSPECTION TO ESTABLISH THE LOCATION OF THE UPS CABINET AND FOUNDATION.

THE CABINET SHALL HAVE A DOOR STOP MECHANISM AND THERMOSTATICALLY CONTROLLED FAN.

THE CABINET SHALL INCLUDE A BATTERY BALANCING DEVICE THAT REGULATES THE BATTERIES AND OPTIMIZES PERFORMANCE.

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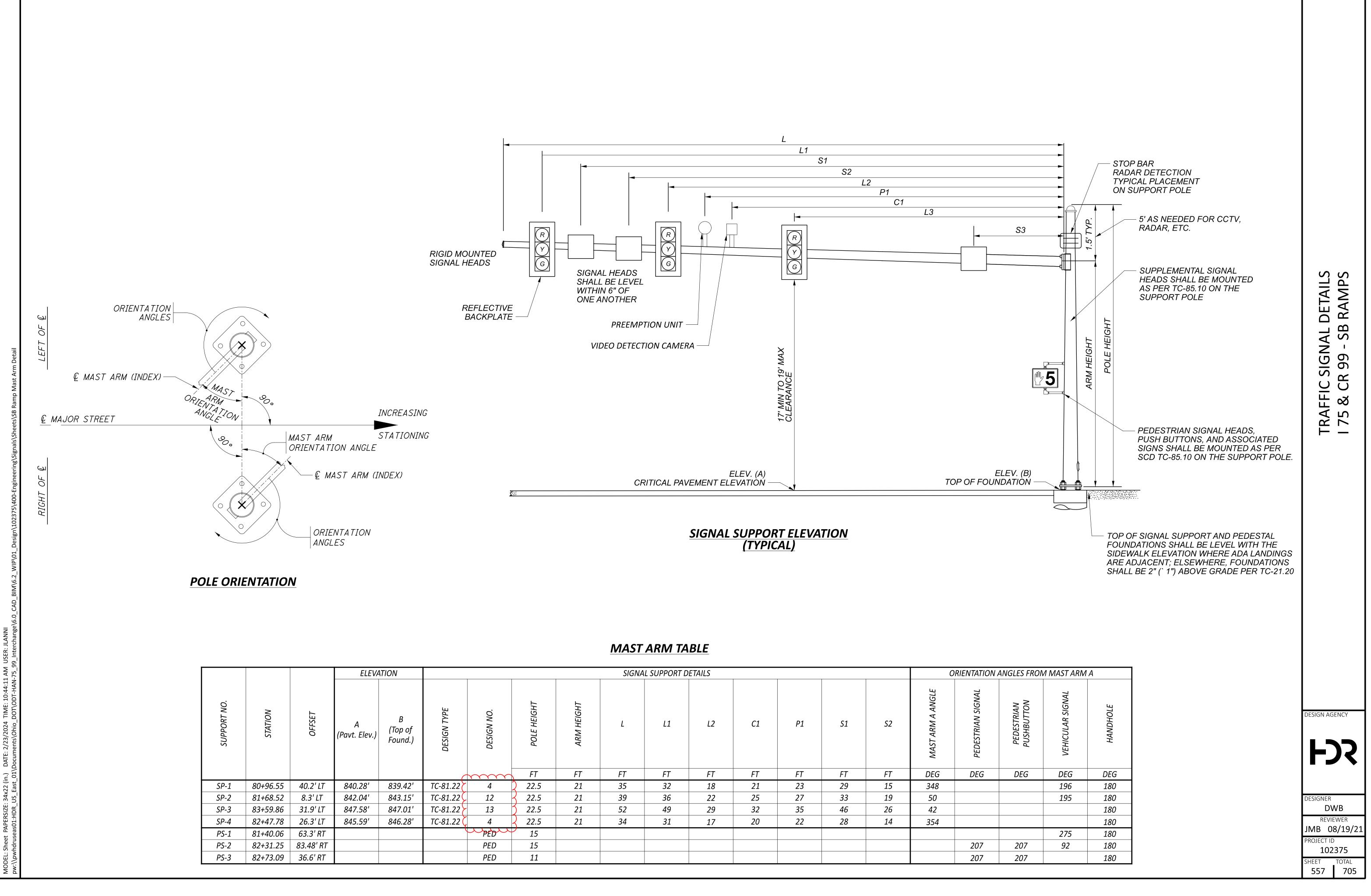
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					DESIGN AGENCY
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	 		 		DECIGNED
 		 			DESIGNER JLL
					REVIEWER DWB 05/20/22
					PROJECT ID 102375
	 ļ			ļ	SHEET TOTAL
					553 705

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VIDEO DETECTION SYSTEM, AS PER PLAN	EACH							<u> </u>	<u> </u>			<u> </u>								1		<u> </u>	<u> </u>	<u>                                     </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		í I			╷╴┻	
PREEMPTION CONFIRMATION LIGHT, AS PER PLAN	H EACH	1	_						_				+	++	++	++	++	++	++																	4
PREEMPTION PHASE SELECTOR, AS PER PLAN	EAC	3 1	_			6 1							_	_		+	_	+	+	_									<u> </u>							<u> </u>
PREEMPTION RECEIVING UNIT, AS PER PLAN PREEMPTION DETECTOR CABLE, AS PER PLAN	ACH FT	1 343				1 236					1 96	- <del> </del>																	1 270							4 945
SPREAD SPECTRUM RADIO, AS PER PLAN	EACH E																			1																1
UNIN LEKKUPTIBLE POWEK SUPPLY (UPS), 1000 WALL, AS PEK PLAN 50 ADVANCE RADAR DETECTION, AS PER PLAN 608	CH EACH					_ 1														1	<u> </u>								1							<u>  2  </u>
CONTROLLER WORK PAD, AS PER PLAN				<u> </u>				+						+		+	+		+			+	+	+		+	+	<u> </u>	<u> </u>							_ 1
CABINET FOUNDATION			_	<u> </u>		_						+	+	+	+	+	+	+	+	1	+ 1			<u> </u>	_				_						<u> </u>	1
REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN       50         CONTROLLER ITEM, MISC.: CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE       50         TS1, AS PER PLAN       50	ACHEACH																			1 1																1 1
PEDESTAL MISC.: 15', TRANSFORMER BASE	ACH E/							1											-+																	1
PEDESTAL, 8', AS PER PLAN	EACH E/	+						<u> </u>			<u>+</u>						·				<u> </u>	<u> </u>	<u>+ .</u>		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>					<u> </u>	2
COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 14, AS PER PLAN	I EACH										_		-												_	_	_		1							1
COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12, AS FER FLAN 75 COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 13, AS PER PLAN 75	CH EACH	1				_ 1					1	<u> </u>																								1   2
SIGNAL SUPPORT, MECHANICAL PAMPER FOR TC-81.22 MAST ARM (GREATER 39' IN LENGTH), AS PER PLAN	EACH EA	1				1					1	1																	1							4
POWER CABLE, 3 CONDUCTOR, NO. 2 AWG	FT [												10		40				12	45	J															107
PEDESTAL FOUNDATION	I EACH							1								1						+	<u> </u>													3
SIGNAL SUPPORT FOUNDATION, AS PER PLAN	EACH	_				1					1			+	1	+		+	+										1					T		4
SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	FT FT	168 80 45 15	45 15	387 129		283	76	36		990 110	53 105		10 20			18			180 60	225 60		99 66	40	18			216 216		103 122	22 22						991   1008
SIGNAL CABLE, 2 CONDUCTOR, NO. 14 AWG	FT								18	110						14	15		48			66		14		11	108			11						498
PEDESTRIAN PUSHBUTTON, AS PER PLAN	H EACH							1								1						_	_			_	_	_	1							4
COVERING OF PEDESTRIAN SIGNAL HEAD	CH EAC							1									1							1					1							9 4
PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN 89	EACH EA					4		1				<b>`</b>				1	•							I					1 :							4   1
VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN, BLACK	EACH E	1									2	2									+	<u> </u>	<u> </u>	<u>                                     </u>	ļ			ļļ.	1							4
VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PI AN RI ACK	T EACI	3	0	4		4	4	1	3 F	5	1		;		5		0		,		<u> </u>					5	8		2	)						11   11
POWER SERVICE, AS PER PLAN	ACH F		1	5			1			2				1	.3		1					2					2			(						1 2
PULL BOX, 725.08, 24", AS PER PLAN	EACH E		1		1					1												4	I					1								5
TRENCH , 24" DEEP	FT	10	10	54			14		13	25	<u> </u>	<u> </u>	5		35		10		7			28				6	28			6						241
LUMINAIRE, CONVENTIONAL, 80 WATT (LED), 120 VOLTS	EACH	1				1					1									+ +	+				ļļ				1							4
CONDUIT, JACKED OR DRILLED, 725.04, 1 $1\%$	FT			70					00	80																	75									225
CONDUIT, JACKED OR DRILLED, 725.04, 4"	FT			70						80																	75									225
CONDUIT, 4", 725.05	FT			54					05	25									14								28									121
CONDUIT, 3", 725.05	FT FT	40	10				14		3				5				)					28								6						9   63
CONDUIT, 1-1/2", 725.04 CONDUIT, 2", 725.05	T FT	10		54			14		13	25			5	-	35	-	10		7	·	20	20				6	28			6						12   29
NO. % AWG 2400 VOLT DISTRIBUTION CABLE	FT	15	15	129			19		000	220			10						48	60		33					108			11						653 2
NO. 10 AWG POLE AND BRACKET CABLE	FT	50				50					50	50																	50							200
BRACKET ARM, 15'	EACH	1				1					1										<u>                                      </u>			<u> </u>	ļ ļ				1							4
625 GROUND ROD	EACH	1				1		1			1	I				1	•			1				I					1							8
TO STATION	EAC TO	1	93+22 46.4' LT	94+46 47.3' LT		1	94+46 47.3' LT	1	94+46 47.3' LT	94+48 57.3' RT			94+48 57.3' RT		94+44 54.0' RT		94+48 57.3' RT		94+51 62.6' RT	4		94+26 74.8' RT		1		94+26 74.8' RT	93+24 76.1' RT		1	93+24 76.1' RT						KY 8
STATION		93+17 39.0' LT	93+17 39.0' LT 93+22 46.4' LT	93+22 46.4' LT	94+46 47.3' LT	94+33 53.6' LT	94+33 53.6' LT	94+66 38.7' LT	94+66 38.7' LT	94+46 47.3' LT	94+48 57.3' RT 94+44 54.0' RT	טייד <del>י דיידט</del> טיידי טיידי	94+44 54.0' RT	TBD	TBD	94+55 50.5' RT	94+55 50.5' RT		94+48 57.3' RT	94+51 62.6' RT		94+48 57.3' RT	94+26 74.8' RT	94+22 72.9' RT		94+22 72.9' RT	94+26 74.8' RT	93+24 76.1' RT	93+19 73.5' RT	93+19 73.5' RT			 			NERAL SUMM
SHEET NO.																			R + +																	U IU GEN
REF NO.		SP-1	SP-1 TO PB-1 PB-1	PB-1 TO PB-3	PB-3	SP-3	SP-3 TO PB-3	PS-1	PS-1 TO PB-3	PB-3 TO PB-4	PB-4 SP-4	JL-4	SP-4 TO PB-4	POWER SOURCE	WER SOURCE TO SP-	PS-2	PS-2 TO PB-4		PB-4 TO CONTROLLER	CONTROLLER		PB-4 TO PB-5	PB-5	PS-3		PS-3 TO PB-5	PB-5 TO PB-2	PB-2	SP-2	SP-2 TO PB-2						LS CARRIED



			SIGNA	L SUPPORT D	ETAILS					C	RIENTATION	ANG
DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L	L1	L2	C1	Ρ1	S1	S2	MAST ARM A ANGLE	PEDESTRIAN SIGNAL	
$\sim$	FT	FT	FT	FT	FT	FT	FT	FT	FT	DEG	DEG	
4	22.5	21	35	32	18	21	23	29	15	348		
12	22.5	21	39	36	22	25	27	33	19	50		
13	22.5	21	52	49	29	32	35	46	26	42		
4	22.5	21	34	31	17	20	22	28	14	354		
PED	15											
PED	15										207	
PED	11										207	