

SHEET NUMBER								PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
3	4	8	13					01/NFP/44	EXT	TOTAL				
													ROADWAY	
			37.5					37.5	202	38000	37.5	FT	GUARDRAIL REMOVED	
			36					36	202	38001	36	FT	GUARDRAIL REMOVED, AS PER PLAN	4
			43					43	203	10000	43	CY	EXCAVATION	
			5					5	203	20000	5	CY	EMBANKMENT	
			37.5					37.5	606	13050	37.5	FT	GUARDRAIL, TYPE 5A	
LS								LS	623	50000	LS		PRECONSTRUCTION SURVEY MONUMENT VERIFICATION AND REPORT	
LS								LS	623	51000	LS		POST CONSTRUCTION SURVEY MONUMENT VERIFICATION AND REPORT	
													EROSION CONTROL	
	2							2	659	00100	2	EACH	SOIL ANALYSIS TEST	
	22							22	659	00300	22	CY	TOPSOIL	
	198							198	659	10000	198	SY	SEEDING AND MULCHING	
	10							10	659	14000	10	SY	REPAIR SEEDING AND MULCHING	
	10							10	659	15000	10	SY	INTER-SEEDING	
	0.03							0.03	659	20000	0.03	TON	COMMERCIAL FERTILIZER	
	0.04							0.04	659	31000	0.04	ACRE	LIME	
	1.1							1.1	659	35000	1.1	MGAL	WATER	
	70							70	670	00530	70	SY	SLOPE EROSION PROTECTION MAT, TYPE C	
								2,000	832	30000	2,000	EACH	EROSION CONTROL	
	220							220	611	00400	220	FT	4" CONDUIT, TYPE E	
													DRAINAGE	
													LIGHTING	
		8						8	625	00450	8	EACH	CONNECTION, FUSED PULL APART	
		15						15	625	00460	15	EACH	CONNECTION, UNFUSED PULL APART	
		3						3	625	18100	3	EACH	BRACKET ARM, 12'	
		1						1	625	18200	1	EACH	BRACKET ARM, 15'	
		1,203						1,203	625	23302	1,203	FT	NO. 6 AWG 2400 VOLT DISTRIBUTION CABLE	
		531						531	625	23400	531	FT	NO. 10 AWG POLE AND BRACKET CABLE	
		4						4	625	26252	4	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), IES-II-M, 10000 - 12000 LUMENS	
													TRAFFIC SIGNALS	
		256						256	625	25500	256	FT	CONDUIT, 3", 725.04	
		77						77	625	25600	77	FT	CONDUIT, 4", 725.04	
		433						433	625	25902	433	FT	CONDUIT, JACKED OR DRILLED, 725.04, 4"	
		333						333	625	29000	333	FT	TRENCH	
		5						5	625	30700	5	EACH	PULL BOX, 725.08, 18"	
		6						6	625	30706	6	EACH	PULL BOX, 725.08, 24"	
		11						11	625	32000	11	EACH	GROUND ROD	
		333						333	625	36010	333	FT	UNDERGROUND WARNING MARKING TAPE	
		3						3	625	76000	3	EACH	ARC FLASH CALCULATIONS AND LABEL, POWER SERVICE	
		25						25	632	05007	25	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN (BLACK)	4
		2						2	632	05087	2	EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN (BLACK)	5
		27						27	632	25000	27	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
		1,854						1,854	632	40500	1,854	FT	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	
		926						926	632	40700	926	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
		8						8	632	64010	8	EACH	SIGNAL SUPPORT FOUNDATION	
		212						212	632	68300	212	FT	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG	
		127						127	632	69800	127	FT	SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG	
		3						3	632	70001	3	EACH	POWER SERVICE, AS PER PLAN	4
		3						3	632	70400	3	EACH	CONDUIT RISER, 2" DIAMETER	
		3						3	632	71348	3	EACH	SIGNAL SUPPORT, TYPE TC-12.31 DESIGN 10 POLE, WITH MAST ARMS TC-81.22 DESIGN 12 AND DESIGN 12	
		1						1	632	72130	1	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12	
		1						1	632	79110	1	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 4	
		3						3	632	79140	3	EACH	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 13	
		3						3	632	90100	3	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	
		3						3	633	65511	3	EACH	CABINET, TYPE TS-2, AS PER PLAN	5
		3						3	633	67100	3	EACH	CABINET FOUNDATION	
		3						3	633	67200	3	EACH	CONTROLLER WORK PAD	

GENERAL SUMMARY

DESIGN AGENCY
DISTRICT 3



ENGINEERING TEAM THREE

DESIGNER
MAE

REVIEWER
ACM 01/22/24

PROJECT ID
115000

SHEET TOTAL
P.10 29

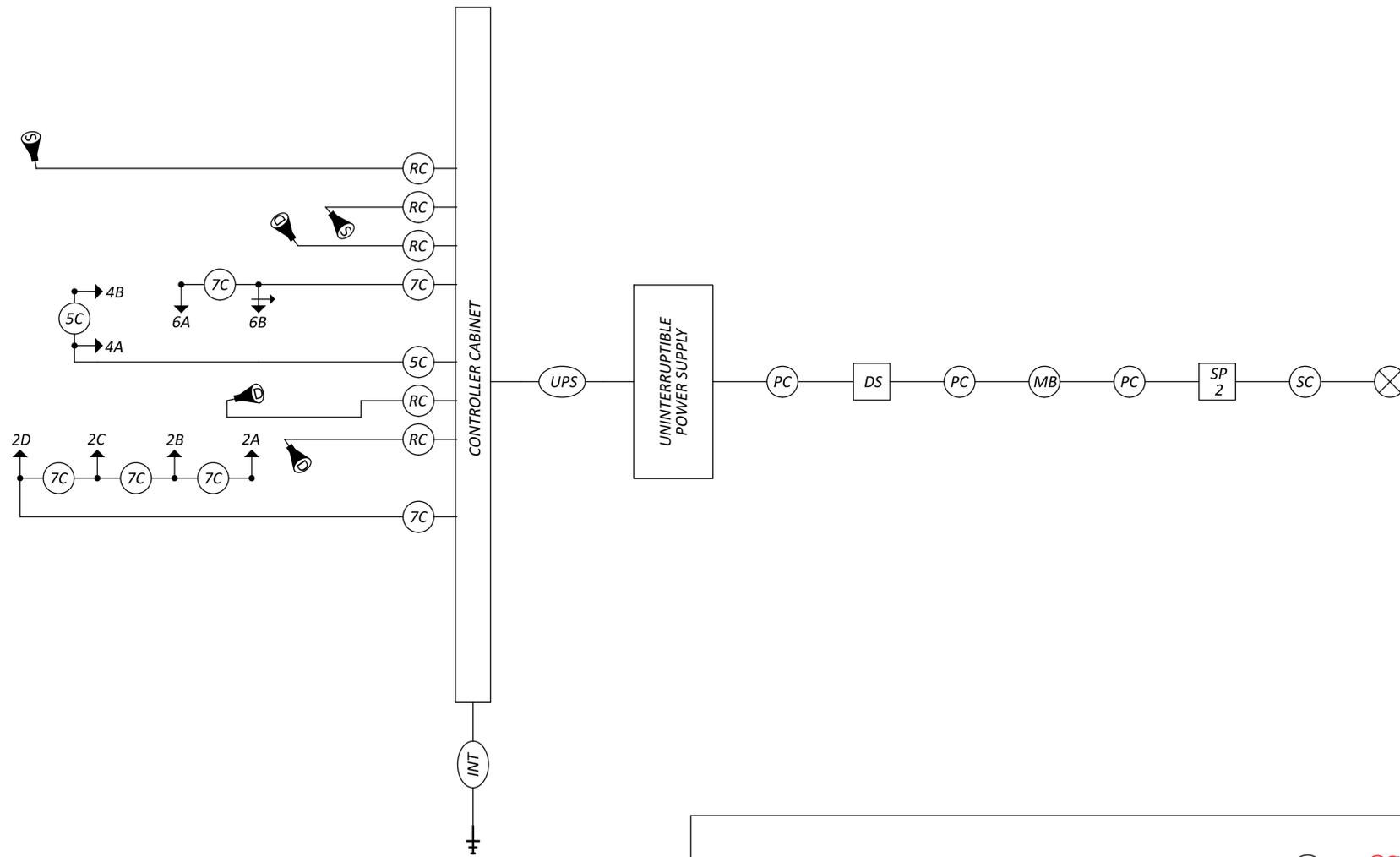
LOCATION	625	625	625	625	625	625	625	625	625	625	632	632	632	632	632	632	632	632	632	632	632	632	632	632	633	633	633	633	633	809	809	809		
	CONDUIT, 3", 725.04	CONDUIT, 4", 725.04	CONDUIT, JACKED OR DRILLED, 725.04, 4"	TRENCH	PULL BOX, 725.08, 18"	PULL BOX, 725.08, 24"	GROUND ROD	UNDERGROUND WARNING/MARKING TAPE	ARC FLASH CALCULATIONS AND LABEL, POWER SERVICE	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE (BLACK)	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE (BLACK)	COVERING OF VEHICULAR SIGNAL HEAD	SIGNAL CABLE, 5 CONDUCTOR, NO 14 AWG	SIGNAL CABLE, 7 CONDUCTOR, NO 14 AWG	SIGNAL SUPPORT FOUNDATION	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG	SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG	POWER SERVICE, AS PER PLAN	CONDUIT RISER, 2" DIAMETER	SIGNAL SUPPORT, TYPE TC-12.31 DESIGN 10 POLE, WITH MAST ARMS TC-81.22 DESIGN 12 AND DESIGN 12	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 4	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12	COMBINATION SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 13	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	CABINET, TYPE TS-2, AS PER PLAN (SIZE 6)	CABINET FOUNDATION	CONTROLLER WORK PAD	CONTROLLER ITEM, MISC.: COMMUNICATIONS	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT	ADVANCE RADAR DETECTION, AS PER PLAN	STOP LINE RADAR DETECTION, AS PER PLAN	ATC CONTROLLER, AS PER PLAN (PROGRAM & INSTALL ONLY)		
	FT	FT	FT	FT	EACH	EACH	EACH	FT	EACH	EACH	EACH	EACH	FT	FT	EACH	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
ERI US 250 & SR 13	106	62	80	168	1	1	3	168	1	7	1	8	323	519	2	118	48	1	1	1		1		1		1		1		1		3	2	1
ERI US 250 & SR 113	79	6	266	85	1	4	5	85	1	10	1	11	811	407	4	51	50	1	1		1		3	1		1		1		1		2	3	1
HUR SR 61 & SR 601	71	9	87	80	3	1	3	80	1	8		8	720		2	43	29	1	1	2				1		1		1		1		4	2	1
TOTALS CARRIED TO GENERAL SUMMARY:	256	77	433	333	5	6	11	333	3	25	2	27	1854	926	8	212	127	3	3	3	1	1	3	3	3	3	3	3	9	7	3			

LOCATION	202	606		625	625	625	625	625	625	625		203	203		670																				
	GUARDRAIL REMOVED	GUARDRAIL, TYPE 5A		CONNECTION, FUSED PULL APART	CONNECTION, UNFUSED PERMANENT	BRACKET ARM, 12'	BRACKET ARM, 15'	NO. 6 AWG 2400 VOLT DISTRIBUTION CABLE	NO. 10 AWG POLE AND BRACKET CABLE	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), IES-II-M, 10000 - 12000 LUMENS		EXCAVATION	EMBANKMENT		SLOPE EROSION PROTECTION MAT, TYPE C																				
	FT	FT		EACH	EACH	EACH	EACH	FT	FT	EACH		CY	CY		SY																				
ERI US 250 & SR 13																																			
ERI US 250 & SR 113	37.5	37.5		8	15	3	1	1203	531	4		43	5		70																				
HUR SR 61 & SR 601																																			
TOTALS CARRIED TO GENERAL SUMMARY:	37.5	37.5		8	15	3	1	1203	531	4		43	5		70																				

TRAFFIC SIGNAL SUBSUMMARY

DESIGN AGENCY	DISTRICT 3
ENGINEERING TEAM THREE	
DESIGNER	MAE
REVIEWER	ACM
PROJECT ID	115000
SHEET	P.13
TOTAL	29

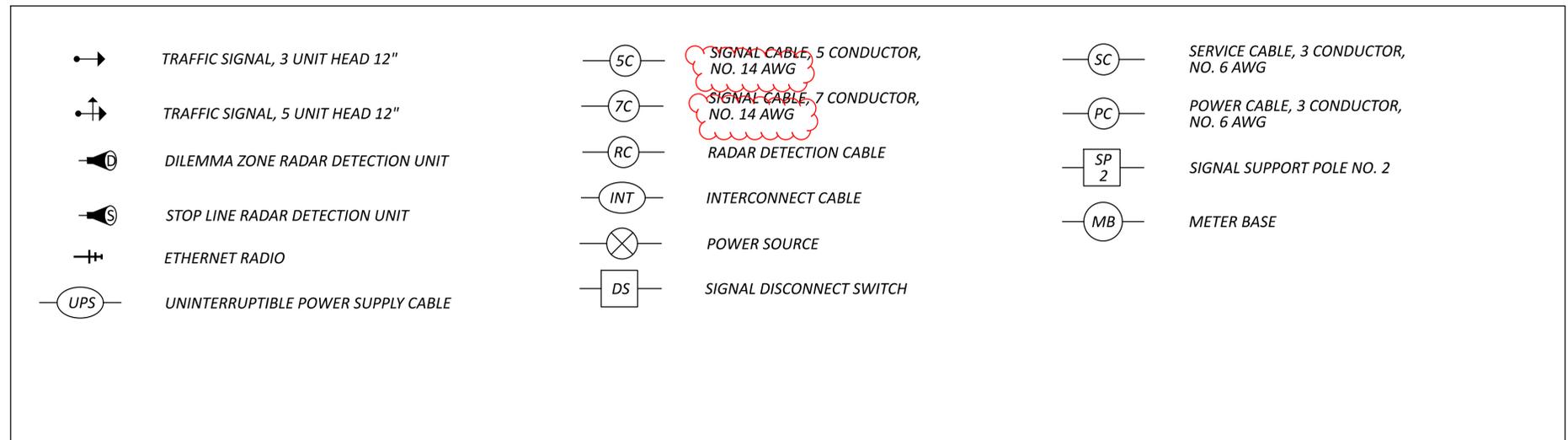
WIRING DIAGRAM (TYPICAL)



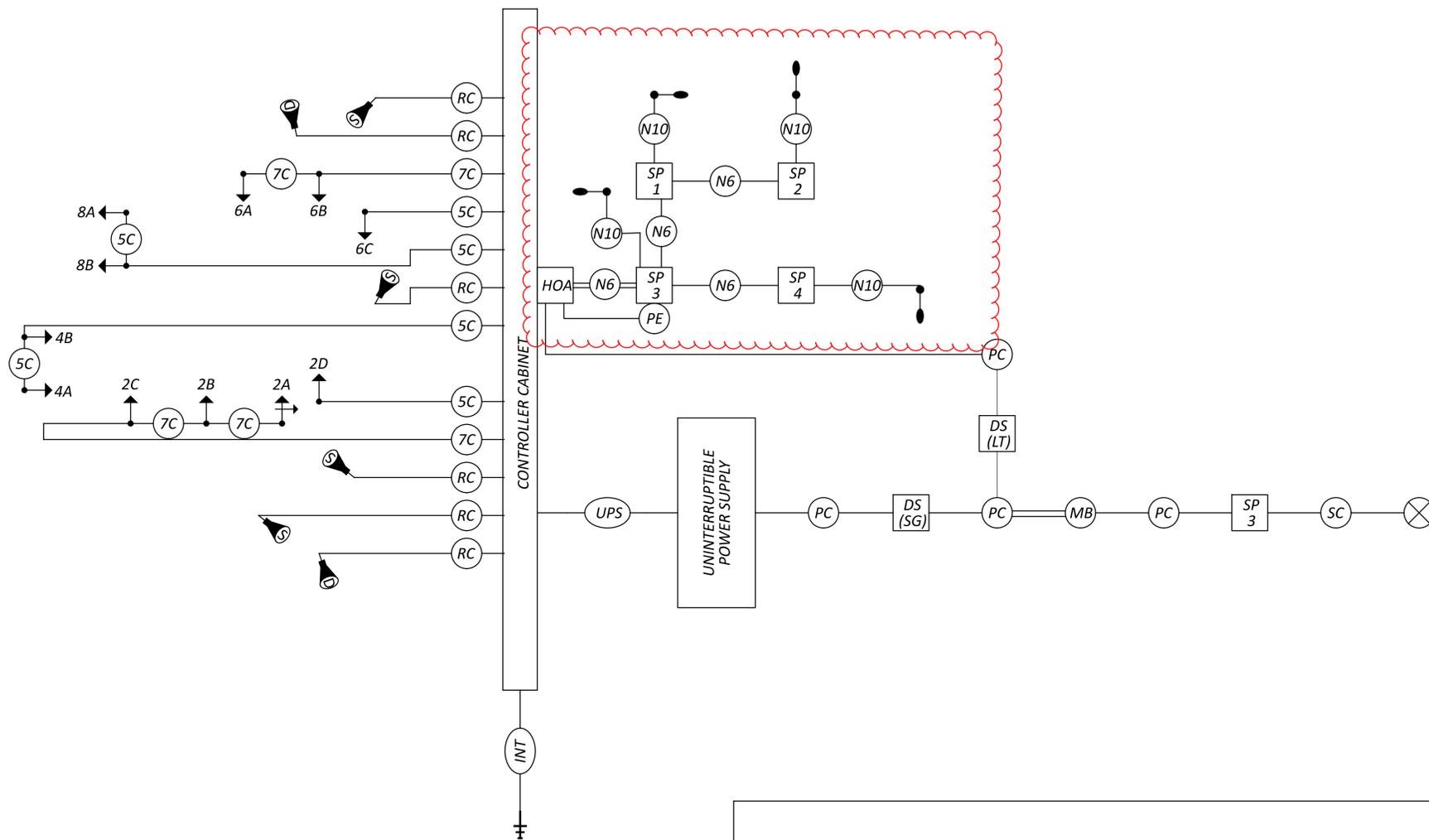
FIELD WIRING HOOKUP CHART

SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
2A (EB)	R	φ2 R	R
	Y	φ2 Y	
	G	φ2 G	
2B (EB)	R	φ2 R	R
	Y	φ2 Y	
	G	φ2 G	
2C (EB)	R	φ2 R	R
	Y	φ2 Y	
	G	φ2 G	
2D (EB)	R	φ2 R	R
	Y	φ2 Y	
	G	φ2 G	
4A (SB)	R	φ4 R	R
	Y	φ4 Y	
	G	φ4 G	
4B (SB)	R	φ4 R	R
	Y	φ4 Y	
	G	φ4 G	
6A (WB)	R	φ6 R	R
	Y	φ6 Y	
	G	φ6 G	
6B (WB)	R	φ6 R	R
	Y	φ6 Y	
	G	φ6 G	
	-Y→	φ7 Y	
	-G→	φ7 G	

LEGEND



WIRING DIAGRAM (TYPICAL)



LEGEND

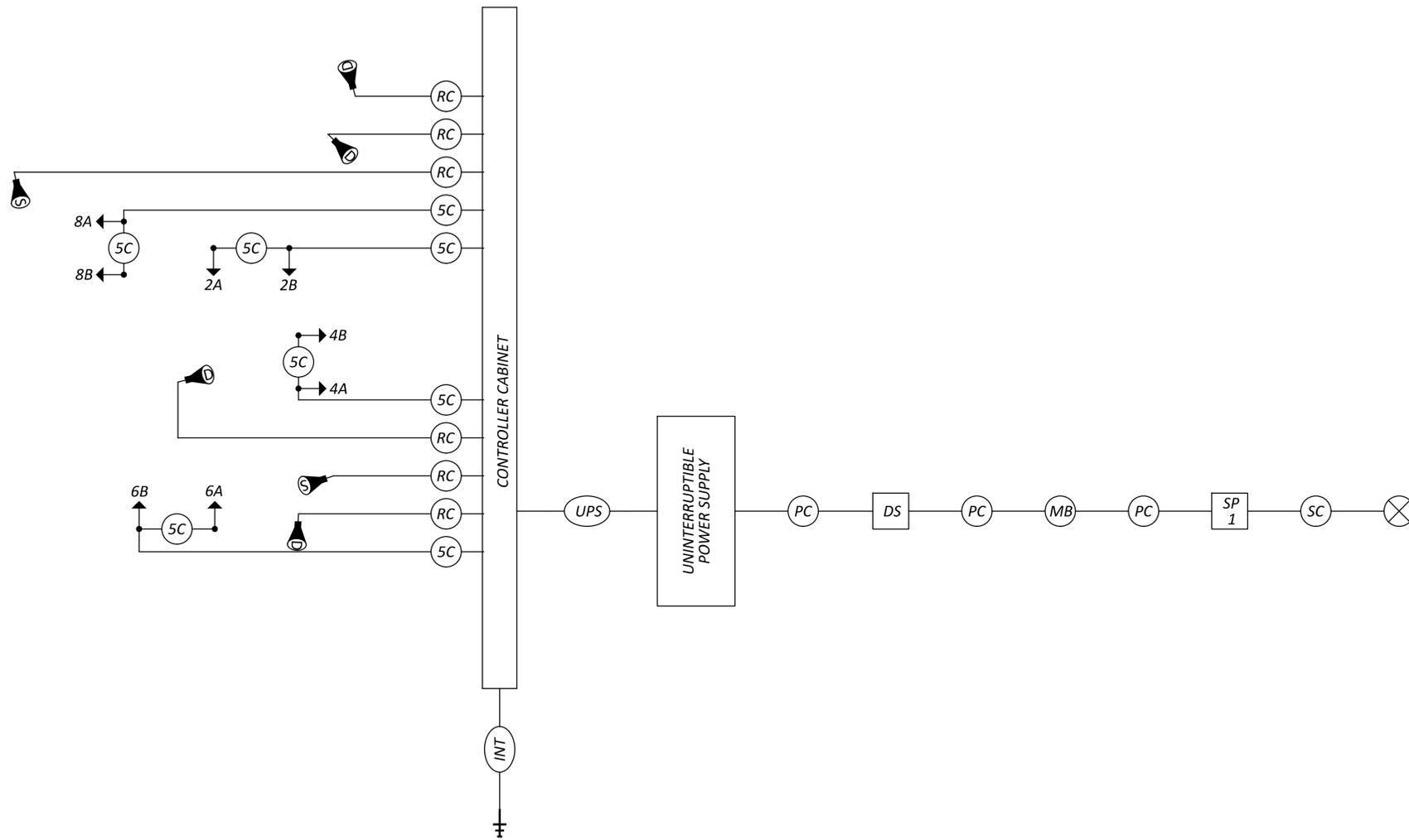
	TRAFFIC SIGNAL, 3 UNIT HEAD, 12"		LUMINAIRE, CONVENTIONAL		SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG
	TRAFFIC SIGNAL, 5 UNIT HEAD, 12"		SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG		POWER CABLE, 3 CONDUCTOR, NO. 6 AWG
	DILEMMA ZONE RADAR DETECTION UNIT		SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG		SIGNAL SUPPORT POLE NO. 3
	STOP LINE RADAR DETECTION UNIT		RADAR DETECTION CABLE		METER BASE
	ETHERNET RADIO		INTERCONNECT CABLE		NO. 6 AWG DISTRIBUTION CABLE
	UNINTERRUPTIBLE POWER SUPPLY CABLE		PHOTOELECTRIC CELL		NO. 10 AWG POLE & BRACKET CABLE
	HAND/ ON/ AUTO SWITCH		POWER SOURCE		SEPERATE LIGHTING/SIGNAL DISCONNECT SWITCH

FIELD WIRING HOOKUP CHART

SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
2A (EB) 250	R	φ2 R	R
	Y	φ2 Y	
	G	φ2 G	
	←Y-	φ5 Y	
2B (EB) 250	←G-	φ5 G	R
	R	φ2 R	
	Y	φ2 Y	
2C (EB) 250	G	φ2 G	R
	R	φ2 R	
2D (EB) 250	Y	φ2 Y	R
	G	φ2 G	
	R	φ2 R	
4A (WB) 113	R	φ4 R	R
	Y	φ4 Y	
	G	φ4 G	
4B (WB) 113	R	φ4 R	R
	Y	φ4 Y	
	G	φ4 G	
6A (WB) 250	R	φ6 R	R
	Y	φ6 Y	
	G	φ6 G	
6B (WB) 250	R	φ6 R	R
	Y	φ6 Y	
	G	φ6 G	
6C (WB) 250	R	φ6 R	R
	Y	φ6 Y	
	G	φ6 G	
8A (EB) 113	R	φ8 R	R
	Y	φ8 Y	
	G	φ8 G	
8B (EB) 113	R	φ8 R	R
	Y	φ8 Y	
	G	φ8 G	

SIGNAL DETAILS
 ERI US 250 & SR 113

WIRING DIAGRAM (TYPICAL)



FIELD WIRING HOOKUP CHART

SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
2A (NB)	R	φ2 R	R
	Y	φ2 Y	
	G	φ2 G	
2B (NB)	R	φ2 R	R
	Y	φ2 Y	
	G	φ2 G	
4A (NB) 601	R	φ4 R	R
	Y	φ4 Y	
	G	φ4 G	
4B (NB) 601	R	φ4 R	R
	Y	φ4 Y	
	G	φ4 G	
6A (SB)	R	φ6 R	R
	Y	φ6 Y	
	G	φ6 G	
6B (SB)	R	φ6 R	R
	Y	φ6 Y	
	G	φ6 G	
8A (SB) 601	R	φ8 R	R
	Y	φ8 Y	
	G	φ8 G	
8B (SB) 601	R	φ8 R	R
	Y	φ8 Y	
	G	φ8 G	

LEGEND

	TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD 12"		POWER SOURCE		SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG
	DILEMMA ZONE RADAR DETECTION UNIT		SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG		POWER CABLE, 3 CONDUCTOR, NO. 6 AWG
	STOP LINE RADAR DETECTION UNIT		RADAR DETECTION CABLE		SIGNAL SUPPORT POLE NO. __
	ETHERNET RADIO		INTERCONNECT CABLE		METER BASE
	UNINTERRUPTIBLE POWER SUPPLY CABLE		SIGNAL DISCONNECT SWITCH		