

POLE SCHEDULE

TRAFFIC SIGNAL CONTROLLER				REMARKS	LOCATION				
CABINET	TYPE	AUX. CONTROL							
<p>EPAC 3608 M40 TS-1 CONTROLLER, WITH RTC Model TR-3 GPS CLOCK.</p>	IV	CONTROLLER: MPS 80 MENU DRIVEN WITH L.C.D. DISPLAY (SEE NOTES BELOW)		INSTALL CABINET MTD. P.E.C. & 20 AMP FUSED LIGHTING CONTACTOR, GPS CLOCK, & PHOTO CELL. (SEE NOTES BELOW)	SOUTH-EAST CORNER, APPROXIMATELY AS SHOWN, PER CITY SURVEY STAKES. PLACE 3'x 4'x 4" CONCRETE SIDEWALK AREA IN FRONT OF CABINET FOUNDATION, AT AN ELEVATION 2-IN. ABOVE THE ADJACENT SIDEWALK.				
NO.	POLE	TYPE	MAST ARM	SIGNALS	P.B. SIGN	REMARKS	LOCATION		
A		R	50'	20'	2-II V VII	3-F 2-M/H	T.S. 11-4 R10-4b (L) & (R)	250 W HPS, 240 V LUMINAIRE, GLASS LENSES, TYPE III MEDIUM CUTOFF	APPROXIMATELY AS SHOWN, AT CENTER OF SIDEWALK RAMP WITH 1" CLEARANCE BETWEEN RAMP CURB & SIGNAL POLE FOUNDATION.
B		K	50'	N/A	2-II V VII	3-F 2-M/H	T.S. 11-4 R10-4b (L) & (R)	X	APPROXIMATELY AS SHOWN, AT CENTER OF SIDEWALK RAMP WITH 1" CLEARANCE BETWEEN RAMP CURB & SIGNAL POLE FOUNDATION.
C		K	50'	N/A	2-II V VII	3-F 2-M/H	T.S. 11-4 R10-4b (R) & (L)	X	APPROXIMATELY AS SHOWN, AT CENTER OF SIDEWALK RAMP WITH 1" CLEARANCE BETWEEN RAMP CURB & SIGNAL POLE FOUNDATION.
D		R	55'	20'	2-II V VII	3-F 2-M/H	T.S. 11-4 R10-4b (L) & (R)	250 W HPS, 240 V LUMINAIRE, GLASS LENSES, TYPE III MEDIUM CUTOFF	APPROXIMATELY AS SHOWN, AT CENTER OF SIDEWALK RAMP WITH 1" CLEARANCE BETWEEN RAMP CURB & SIGNAL POLE FOUNDATION.

NOTES:

- THE CONTROL CABINET SHALL BE WIRED AND LABELED WITH THE SAME PHASE NUMBER DESIGNATIONS FOR INITIAL AND FUTURE PHASES, AS SHOWN IN THE SIGNAL PHASE DIAGRAMS OR AS NOTED ON THE PLANS. EACH CONNECTOR SHALL HAVE ALL PINS WITHIN THE CONNECTOR BROUGHT TO THE CABINET TIE POINTS. ANY CONTROL CABINET NOT WIRED ACCORDINGLY WILL BE REJECTED BY THE ENGINEER. THE CABINET SHALL BE EQUIPPED WITH AN INTERIOR FLUORESCENT LIGHT FOR NIGHT-TIME USE.
- THE MPS-80 CONTROLLER SHALL HAVE ALL THE SPECIAL PROGRAM APPLICATIONS PER STANDARD SPECIFICATIONS SUB-SECTION 734-2.02 C(3)(a), EXCEPT FOR THE ARTERIAL MASTER CONTROLLER APPLICATION.
- ALL TRAFFIC SIGNAL INDICATIONS SHALL BE 12-INCH DIAMETER LIGHT EMITTING DIODE (LED) MODULES MEETING THE SPECIFICATIONS SET FORTH BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (I.T.E.) AND THE SPECIAL PROVISIONS.
- ALL 12" SIGNAL FACES SHALL HAVE 5" LOUVERED BACKPLATES PER SECT. 733 OF THE STANDARD SPECIFICATIONS.
- ALL PEDESTRIAN SIGNALS SHALL BE THE LED INTERNATIONAL "MAN/HAND" NEON TYPE.
- POLE LOCATIONS SHALL BE FIELD VERIFIED BY THE ENGINEER PRIOR TO CONSTRUCTION ACTIVITIES.
- ALL POLES & MAST ARMS SHALL BE MADE OF TAPERED, GALVANIZED STEEL.
- ALL LUMINAIRES TO BE CONTROLLED BY A SINGLE PHOTOCELL AT THE CONTROL CABINET.
- CONDUIT FOR ELECTRIC SERVICE TO BE 2-INCH DIAMETER P.V.C. (SCH. 40, HEAVY WALL) INSTALLED PER ELECTRIC SERVICE CONDUIT TRENCH DETAIL, THIS SHEET, WITH 24-INCH SWEEPS AT ALL POINTS OF DEFLECTION AND WARNING TAPE MEETING THE REQUIREMENTS OF A.D.O.T. STD. SPECIFICATIONS, SECTION 732-2.
- ALL EXPOSED CONDUIT AND FITTINGS INSTALLED ABOVE GROUND SHALL BE RIGID METAL TYPE PER SECT. 732-2.02 OF THE STANDARD SPECIFICATIONS.
- CONDUIT RUNS FOR CONDUCTORS BE SCHEDULE 40 HEAVY WALL PVC AND HAVE 36-INCHES MINIMUM COVER IN ALL AREAS.
- THE CONTROL CABINET SHALL CONTAIN FOUR EACH: FOUR CHANNEL LOOP DETECTOR MODULES.
- ALL CONDUCTOR WIRES SHALL BE PULLED FOR ALL FUTURE PHASES FROM PULL BOXES TO SIGNAL HEAD LOCATIONS AND FROM ALL PULL BOXES TO THE CONTROLLER CABINET, AS NECESSARY FOR FUTURE CONNECTIONS, FUTURE SIGNAL HEAD REPLACEMENTS, AND FUTURE LEFT TURN ARROWS.
- SIGNAL FACES SHALL BE BAGGED OR OTHERWISE OBSCURED FROM VIEW FROM THE TIME THEY ARE INSTALLED UNTIL SIGNAL ACTIVATION.
- SPECIAL A.D.A. PEDESTRIAN PUSH BUTTONS SHALL BE INSTALLED PER THE AMERICANS WITH DISABILITIES ACT (A.D.A.) AND THE SPECIAL PROVISIONS, AND WILL INCLUDE PUSH BUTTON SIGNS AS CALLED OUT IN POLE SCHEDULE.
- THE EAGLE SIGNAL CORP. EPAC 3608 M40, TS-1 CONTROLLER (INCLUDING AN RTC MANUFACTURING Model TR-3 GPS CLOCK) SHALL BE USED ON THIS PROJECT WITH THE FOLLOWING SPECIAL PROGRAMS: MPS-S1 COMPUTER SUPERVISED UNIT, MPS-P PREEMPTION, MPS-T-C TIME BASE AND TRAFFIC ACTUATED COORDINATION, AND MPS-M ARTERIAL MASTER CONTROLLER WITH ADOT APPROVED NEMA CONFLICT MONITOR.
- ALL PULLBOXES SHALL BE LEFT IN A CLEAN CONDITION FREE OF DIRT AND DEBRIS, UPON COMPLETION OF THE WORK.
- ALL SIGNING & STRIPING SHALL BE COMPLETE BEFORE TRAFFIC SIGNAL IS ACTIVATED PER SIGNING & STRIPING PLAN, SHT. 4/4.

IMSA CABLE 19-1, #14 AWG, 20 CONDUCTOR

CABLE #1	CABLE #2	CONDUCTOR COLOR		SIGNAL INTERVAL
		BASIC COLOR	TRACER STRIPE	
01	OVERLAP A	RED	WHITE	RED
		BLACK	WHITE	YELLOW
		GREEN	WHITE	GREEN
02	OVERLAP B	RED	WHITE	RED
		ORANGE	WHITE	YELLOW
		GREEN	WHITE	GREEN
03	OVERLAP C	BLACK	RED	RED
		ORANGE	RED	YELLOW
		BLUE	RED	GREEN
04	OVERLAP D	RED	BLACK	RED
		ORANGE	BLACK	YELLOW
		GREEN	BLACK	GREEN
02 PEDS.	06 PEDS.	BLUE	WHITE	WALK
		BLACK	WHITE	DON'T WALK
		WHITE	BLACK	PUSH BUTTON
04 PEDS.	08 PEDS.	BLUE	WHITE	WALK
		RED	GREEN	DON'T WALK
		WHITE	RED	PUSH BUTTON
ALL 0'S	ALL 0'S	WHITE	BLACK	P.B. COMMON
		BLUE	BLACK	SPARE

CABLE #2 SHALL BE MARKED WITH 2 INDIVIDUAL 3/8 INCH WIDE STAINLESS STEEL BANDS, SIDE BY SIDE WITH A 1/2 INCH GAP BETWEEN WRAPS, AT EACH PULL BOX LOCATION. INDIVIDUAL CONDUCTORS IN THE CABLE SHALL BE TAGGED TO THE ASSIGNED PHASE.

IMSA CABLE 19-1, #14 AWG, 4 CONDUCTOR & 7 CONDUCTOR

SIGNAL HEADS OUTBOARD & FAR LEFT		SIGNAL HEADS INBOARD & SIDEMOUNT		PEDESTRIAN HEADS		PUSH BUTTON	
7 CONDUCTOR CABLE		4 CONDUCTOR CABLE		4 CONDUCTOR CABLE		4 CONDUCTOR CABLE	
BASIC COLOR	SIGNAL INTERVAL	BASIC COLOR	SIGNAL INTERVAL	BASIC COLOR	SIGNAL INTERVAL	BASIC COLOR	PUSH BUTTON STATION
RED	RED	RED	RED	GREEN	DON'T WALK	WHITE	P.B. COM.
BLACK	YELLOW	BLACK	YELLOW	GREEN	WALK	GREEN	SPARE
GREEN	GREEN	GREEN	GREEN	WHITE	PED. COM.	BLACK	SPARE
ORANGE	YELLOW ARROW	WHITE	VEH. COM.	BLACK	SPARE		
BLUE	GREEN ARROW						
WHITE	VEH. COM.						
WHITE/BLK TRI	VEH. COM.						

THE CABLE SHALL BE TAGGED AS TO ASSIGNED PHASE.

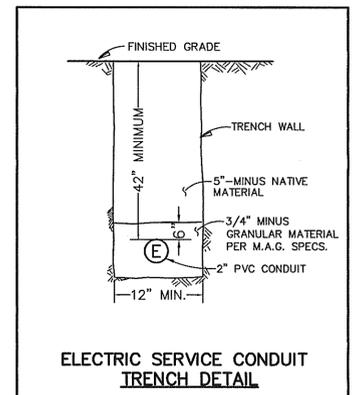
CONDUCTOR SCHEDULE

AWG	CIRCUIT	PHASE	Existing																									
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
	CONDUIT RUN NUMBER		2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
	CONDUIT SIZE IN INCHES		2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
#14 IMSA 19-1*	IMSA CABLE	20 CONDUCTOR CABLE	2		2	2	2	2																				
		7 CONDUCTOR CABLE																										
	4 CONDUCTOR CABLE																											
	SIGNAL 01 (FUTURE USE)																											
	SIGNAL 02																											
	SIGNAL 03 (FUTURE USE)																											
	SIGNAL 04																											
	SIGNAL 05 (FUTURE USE)																											
	SIGNAL 06																											
	SIGNAL 07 (FUTURE USE)																											
	SIGNAL 08																											
	SIGNAL COMMON																											
	PED. SIGNAL 02																											
	PED. SIGNAL 04																											
PED. SIGNAL 06																												
PED. SIGNAL 08																												
PED SIGNAL COMMON																												
PED. P.B. 02																												
PED. P.B. 04																												
PED. P.B. 06																												
PED. P.B. 08																												
PED. P.B. COMMON																												
SPARES																												
DET. LOOP 06 (FUTURE 01)																												
DET. LOOP 02																												
DET. LOOP 08 (FUTURE 03)																												
DET. LOOP 04																												
DET. LOOP 02 (FUTURE 05)																												
DET. LOOP 06																												
DET. LOOP 04 (FUTURE 07)																												
DET. LOOP 08																												
#14 AWG	LIGHTING	240V	2																									
#12 AWG	SIGNAL COMMON		1																									
#8 AWG	INSULATED BOND (GREEN)		1																									
◇	SERVICE	120/240 VOLTS	◇																									
◇	EMERGENCY VEHICLE PRE-EMPTION																											

- LIGHTING CONDUCTORS IN CONDUIT (4) TO BE SAFELY CAPPED/ TAPED ON NORTH-EAST CORNER, FOR FUTURE USE.
- CONTENT OF CONDUIT (7) TO BE INSTALLED FOR FUTURE USE, AND NOT CONNECTED TO ANYTHING ON NORTH-EAST/ NORTH-WEST CORNERS.

LEGEND:

- △ LOOP DUCT - NO. 14 THWN IN ORANGE PVC TUBING, IMSA 51-5.
- 2 CONDUCTOR SHIELDED COMMUNICATION CABLE, IMSA 50-2.
- THE INSULATED BOND SHALL HAVE THE INSULATION STRIPPED INSIDE THE PULL BOXES.
- * THE IMSA 20-CONDUCTOR, 7-CONDUCTOR, AND 4-CONDUCTOR CABLES SHALL BE #14 AWG.
- ⊙ A CRIMP CONNECTION SHALL BE USED FOR SPLICING IN PULL BOX.
- ◇ TRENCH, CONDUIT, & CONDUCTORS BY CONTRACTOR PER UNISOURCE ELECTRIC DIVISION REQUIREMENTS.
- ◇ EMERGENCY VEHICLE PRE-EMPTION CABLE SHALL BE INSTALLED ON THIS PROJECT. THE CABLE SHALL BE 3M MODEL 138 CABLE, OR APPROVED EQUAL. THE CABLE SHALL RUN CONTINUOUSLY (NO SPLICES) FROM THE END OF THE SIGNAL MAST ARM TO THE CONTROL CABINET.



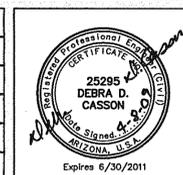
REVISION	DESCRIPTION	BY	DATE	APP.

ASBULT INFORMATION	
DATE OF ACCEPTANCE	
INSPECTED BY	
REVISD BY	
CHECKED BY	
ADEQ FILE NUMBER	
DATE OF ADEQ APPROVAL	
CITY CONTRACT NUMBER	
CONTRACTOR	

REFERENCE DRAWINGS	
03-ST-0033	
03-W-0022	
03-S-0023	
01-ST-0057	

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DESIGNED BY	D. CASSIN
DRAWN BY	D. CASSIN
CHECKED BY	G. HENRY
DATE DRAWN	4-6-09
HORIZ. SCALE	N.T.S.
VERT. SCALE	N.T.S.



ELECTRICAL PLAN
N. BANK STREET
 AT GORDON DRIVE

SHEET	3
OF	4
DRAWING	
ENG07-022	