

**TRAFFIC SIGNAL NOTES**

**A. NEW EQUIPMENT**

- ALL SIGNAL HEADS MOUNTED ON THE OVERHEAD STRUCTURE SHALL BE POLYCARBONATE. BACKPLATES SHALL BE REQUIRED ON ALL SIGNAL HEADS.
- ALL SIGNAL HEADS SHALL BE LIGHT EMITTING DIODES (LED).
- CABINET SHALL BE BASE MOUNTED. A DISCONNECT BREAKER FOR EACH CIRCUIT SHALL BE INSTALLED IN A RAINPROOF (NEMA 3R), LOCKED CABINET ON A STANCHION NEXT TO OR BELOW THE METER SOCKET. RECOMMEND OPTION #2 FROM STANDARD E-175. POWER SHALL BE OBTAINED FROM CIRCUITS PROVIDED BY CITY OF BARRE NEAR CABINET LOCATION.
- ALL SIGNAL EQUIPMENT SHALL BE PAINTED FLAT BLACK IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

**B. SIGNAL OPERATION**

- SIGNAL TIMING SHOWN ON THE PLANS SHALL BE IMPLEMENTED AT THE COMPLETION OF THE TRAFFIC SIGNAL CONSTRUCTION. SIGNAL TIMING SHOWN ON THE PLANS MAY REQUIRE FINE-TUNING IN THE FIELD BASED ON TRAFFIC PATTERNS AND CONDITIONS.
- THE SIGNAL SHALL BEGIN WITH PHASES 2 & 6 FOLLOWING FLASHING OPERATIONS.
- PEDESTRIAN MOVEMENTS ARE CONCURRENT WITH AUDIBLE INDICATIONS.

**C. TRAFFIC SIGNAL CONDUIT**

- ALL TRAFFIC SIGNAL WIRED CONDUIT SHALL BE 3-INCH OR 4-INCH PVC, SCHEDULE 80.
- WHEN CONDUIT IS PLACED BELOW THE TRAVELED ROADWAY, IT SHALL BE PLACED IN AN 8-INCH PVC ELECTRICAL CONDUIT SLEEVE, SCHEDULE 80.

**D. OPTICAL VEHICLE DETECTION**

- ALL OPTICAL DETECTION CABLES SHALL BE LABELED WITH THE PHASE NUMBERS AND APPROACH DIRECTION CONTROLLED BY THE OPTICAL DETECTION UNIT (PHASE 1&6, WB)
- ALL PROGRAMMED DETECTION ZONES SHALL FAIL IN THE 'ON' MODE.
- NO SPLICES SHALL BE PERMITTED IN THE OPTICAL DETECTION CABLES.
- VIDEO DETECTION ZONES SHALL BEGIN AT 5 FEET IN FRONT OF THE STOP LINE AND EXTEND AT LEAST 40 FEET.
- FINAL VIDEO DETECTION CAMERA AIM AND DETECTION ZONE PLACEMENT SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR AND THE RESIDENT ENGINEER.

**E. GENERAL**

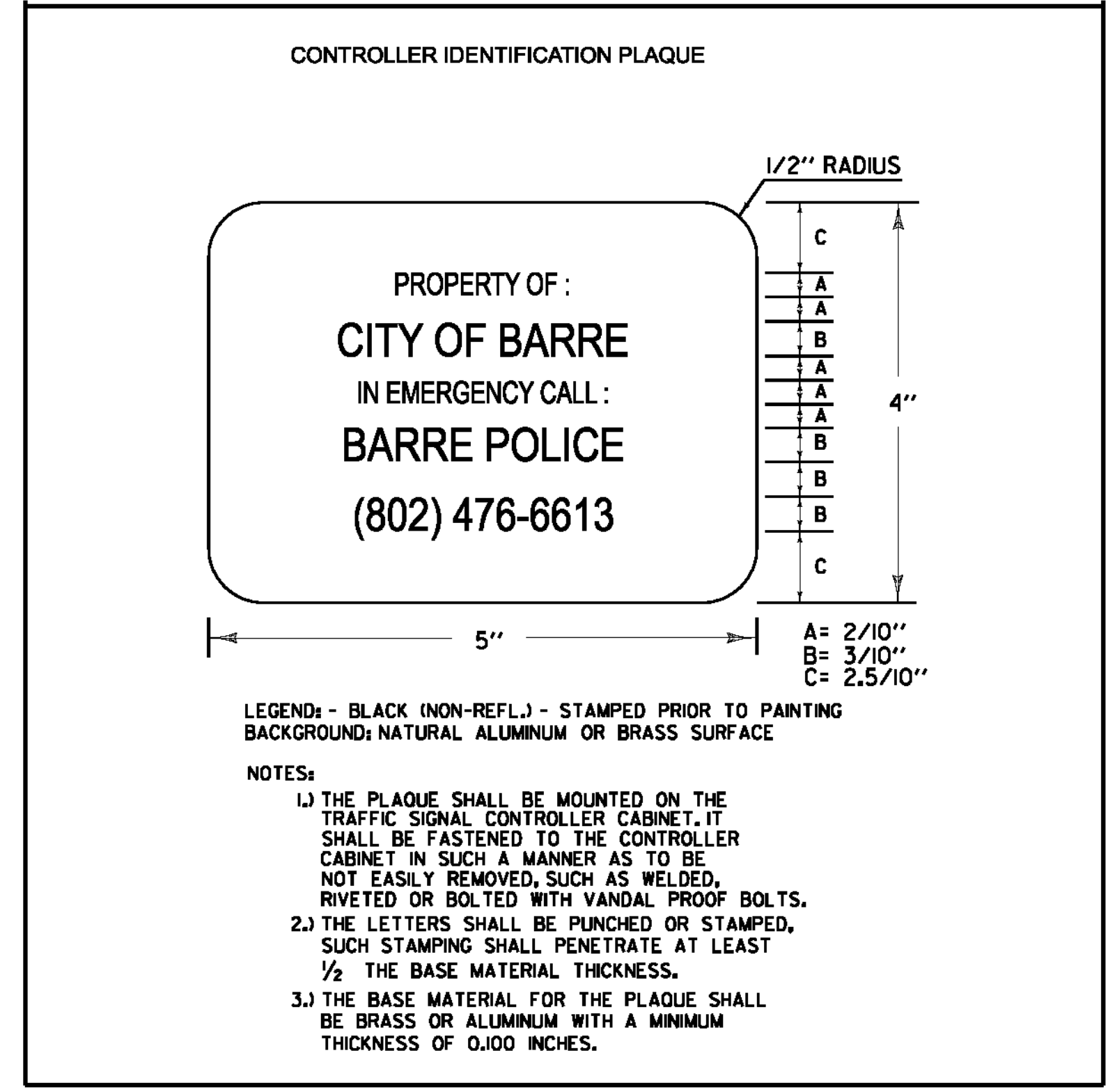
- THE CONTRACTOR SHALL ACQUIRE ALL NECESSARY PERMITS AND MAKE ALL NECESSARY ARRANGEMENTS WITH THE UTILITY PROVIDER (CITY OF BARRE) TO PROVIDE A PERMANENT POWER SUPPLY TO THE SIGNAL EQUIPMENT.
- SEE THE CONTROLLER ID PLAQUE DETAIL ON THIS SHEET.
- INTERSECTION SHALL BE INTERCONNECTED WITH THE INTERSECTION AT N./S. MAIN ST. AND PROSPECT ST./CHURCH ST. ANTENNA SHALL BE SECURELY MOUNTED TO LIGHTING ARM EXTENSION OR AS DIRECTED BY THE ENGINEER.
- INTERSECTION SHALL BE INTERCONNECTED WITH THE INTERSECTION AT SUMMER STREET AND ELM STREET/WELLINGTON STREET. ANTENNA SHALL BE SECURELY MOUNTED TO LIGHTING ARM EXTENSION OR AS DIRECTED BY THE ENGINEER.
- INTERSECTION SHALL INCLUDE AN EMERGENCY VEHICLE PREEMPTION SYSTEM AS APPROVED BY THE CITY OF BARRE FIRE DEPARTMENT.  
 PREEMPT #3 - RECEIVER 1 CALLS PHASES 1 & 6  
 PREEMPT #4 - RECEIVER 2 CALLS PHASES 2 & 5  
 PREEMPT #5 - RECEIVER 3 CALLS PHASE 3 & 8  
 PREEMPT #6 - RECEIVER 4 CALLS PHASE 4 & 7

**TIMING AND PHASING**

	PHASE 2+6 (DWELL)				PHASE 3+7				PHASE 4+8				PHASE 1+5				FLASHING OPERATION
	VEHICLE	MINIMUM	MAXIMUM	MAXIMUM	VEHICLE	MINIMUM	MAXIMUM	MAXIMUM	VEHICLE	MINIMUM	MAXIMUM	MAXIMUM	VEHICLE	MINIMUM	MAXIMUM	MAXIMUM	
OFF PEAK REST OF DAY	2	8	10	15	2	8	10	15	2	8	10	15	2	8	10	15	
AM PEAK 4-8 AM	2	8	10	15	2	8	10	15	2	8	10	15	2	8	10	15	
PM PEAK 4-8 AM	2	8	10	15	2	8	10	15	2	8	10	15	2	8	10	15	
FACE 1	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	
FACE 2	RYR	RYR	RYR	RYR	RYR	RYR	RYR	RYR	RYR	RYR	RYR	RYR	RYR	RYR	RYR	RYR	
FACE 3	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	
FACE 4	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	
FACE 5	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	
FACE 6	RYR	RYR	RYR	RYR	RYR	RYR	RYR	RYR	RYR	RYR	RYR	RYR	RYR	RYR	RYR	RYR	
FACE 7	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	
FACE 8	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	
FACE 8A	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	RRR	
PED (N-S)	W	FD	FD	FD	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	
PED (E-W)	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	

W = WALK, FD = FLASHING DON'T WALK, DW = DON'T WALK, B = BLANK, FR = FLASHING RED, FY = FLASHING YELLOW

- FACE NUMBERS ARE BASED ON NEMA PHASES
- ALL LEFT-TURN PHASES SHALL OPERATE UNDER PROTECTED LEFT-TURN PHASING.
- EASTBOUND RIGHT TURNS (8A) SHALL OVERLAP PHASE 1



**PROGRAM PERIODS OF OPERATION**

	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
	AM												PM											
SUNDAY																								
MONDAY																								
TUESDAY																								
WEDNESDAY																								
THURSDAY																								
FRIDAY																								
SATURDAY																								

- NOTES:
- PLAN 1 - MIDDAY (MAXIMUM 1): 6:00 AM TO 7:00 AM, M-F  
9:00 AM TO 3:00 PM, M-F  
6:00 PM TO 10:00 PM, M-F
- PLAN 2 - AM PEAK (MAXIMUM 2): 7:00 AM TO 9:00 AM, M-F
- PLAN 3 - PM PEAK (MAXIMUM 2): 3:00 PM TO 6:00 PM, M-F
- PLAN 4 - OFFPEAK (MAXIMUM 1): MIDNIGHT TO 6:00 AM, M-F  
10:00 PM TO MIDNIGHT, M-F  
ALL DAY SATURDAYS AND SUNDAYS

**COORDINATION CYCLE/SPLIT OFFSET SCHEDULE**

	PLAN 1	PLAN 2	PLAN 3	PLAN 4
CYCLE LENGTH	80	90	80	FREE
COS	III	II	III	-
OFFSET	0	0	0	-
SPLIT TIME 01	17	19	17	-
SPLIT TIME 02	27	27	27	-
SPLIT TIME 03	II	II	II	-
SPLIT TIME 04	25	33	25	-
SPLIT TIME 05	15	16	17	-
SPLIT TIME 06	29	30	27	-
SPLIT TIME 07	II	II	II	-
SPLIT TIME 08	25	30	25	-

COORDINATION NOTES:  
1. OFFSET IS REFERENCED TO BEGINNING OF THE COORDINATED PHASE (01, NBL)

**NORTH MAIN ST AND ELM ST/WASHINGTON ST**

PROJECT NAME:	BARRE CITY	FILE NAME:	z09B240_TSPS2A.dgn	PLOT DATE:	4/5/2010
PROJECT NUMBER:	FEGC F 026-(134) C/1	PROJECT LEADER:	G. BAKOS	DRAWN BY:	DMP / JAR
DESIGNED BY:	DMP / MDS	CHECKED BY:			
TRAFFIC SIGNAL PLAN 2, SHEET 2					

DATUM	
VERTICAL	NAVD 1929
HORIZONTAL	NAD 27