

**TRAFFIC SIGNAL NOTES**

**A. NEW EQUIPMENT**

1. ALL SIGNAL HEADS MOUNTED ON CANTILEVER ARMS SHALL BE POLYCARBONATE. BACKPLATES SHALL BE REQUIRED ON ALL SIGNAL HEADS. SIGNAL HEADS SHALL BE EQUIPPED FOR RIGID MOUNTING ON MAST ARMS.
2. ALL SIGNAL HEADS SHALL BE LIGHT EMITTING DIODES (LED).
3. ALL SIGNAL EQUIPMENT SHALL BE PAINTED FLAT BLACK IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

**B. SIGNAL OPERATION**

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

**C. TRAFFIC SIGNAL CONDUIT**

1. ALL TRAFFIC SIGNAL WIRED CONDUIT SHALL BE 3-INCH OR 4-INCH PVC, SCHEDULE 80.
2. 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**

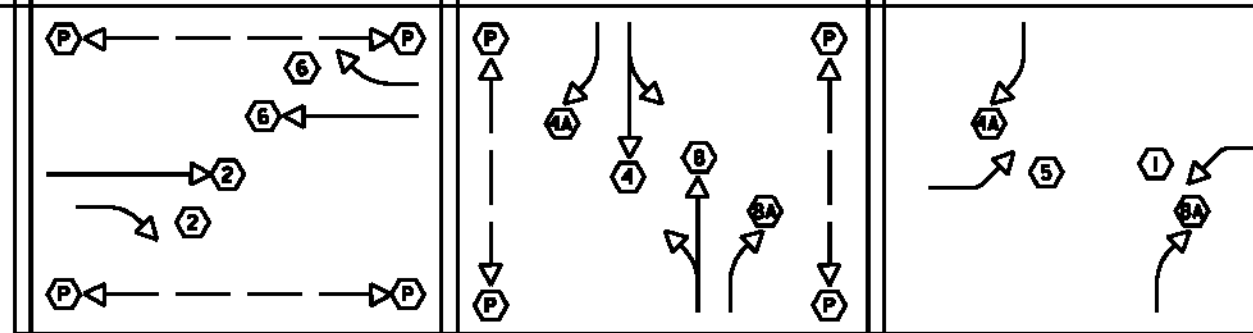
1. ALL OPTICAL DETECTION CABLES SHALL BE LABELED WITH THE PHASE NUMBERS AND APPROACH DIRECTION CONTROLLED BY THE OPTICAL DETECTION UNIT (PHASE 1&6, WB)
2. ALL PROGRAMMED DETECTION ZONES SHALL FAIL IN THE 'ON' MODE.
3. NO SPLICES SHALL BE PERMITTED IN THE OPTICAL DETECTION CABLES.
4. VIDEO DETECTION ZONES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

**E. GENERAL**

1. INTERSECTION SHALL BE INTERCONNECTED WITH THE INTERSECTION AT MAPLE AVENUE AND SUMMER STREET VIA WIRELESS RADIO SYSTEM. ANTENNA SHALL BE SECURELY MOUNTED TO MAST ARM POLE EXTENSION OR AS DIRECTED BY THE ENGINEER.
2. 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 8
  - PREEMPT \*6 - RECEIVER 4 CALLS PHASE 4

**TIMING AND PHASING**

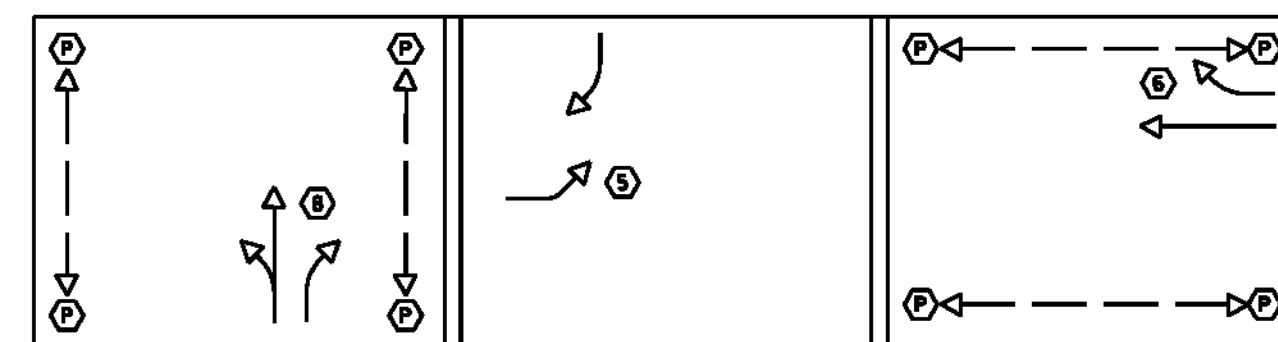
	PHASE 2+6 (DWELL)				PHASE 4+8				PHASE 1+5				FLASHING OPERATION
	CLEAR TO				CLEAR TO				CLEAR TO				
VEHICLE	1/4	1/2	3/4	1	1/4	1/2	3/4	1	1/4	1/2	3/4	1	
MINIMUM	1/2	4	3	4	3	2	4	2	4	2	4	2	
MAXIMUM	30	4	3	4	3	25	4	2	4	2	25	4	2
MAXIMUM2	45	4	3	4	3	30	4	2	4	2	30	4	2
PED ACT													
VEHICLE	-					2			2				
MINIMUM	1/2	4	3	4	3	1/2	4	2	4	2	1/2	4	2
MAXIMUM	45	4	3	4	3	25	4	2	4	2	25	4	2
MAXIMUM3	60	4	3	4	3	40	4	2	4	2	40	4	2
PED ACT													
VEHICLE	-					2			2				
MINIMUM	1/2	4	3	4	3	1/2	4	2	4	2	1/2	4	2
MAXIMUM	45	4	3	4	3	35	4	2	4	2	35	4	2
MAXIMUM3	60	4	3	4	3	50	4	2	4	2	50	4	2
PED ACT													
FACE 1	G	Y	R	Y	R	R	R	R	R	R	R	R	FY
FACE 2	G	Y	R	Y	R	R	R	R	R	R	R	R	FY
FACE 4	R	R	R	R	R	G	Y	R	Y	R	R	R	FR
FACE 4A	R	R	R	R	R	G	Y	R	Y	R	R	R	FR
FACE 5	G	Y	R	Y	R	R	R	R	R	R	R	R	FY
FACE 6	G	Y	R	Y	R	R	R	R	R	R	R	R	FY
FACE 8	R	R	R	R	R	G	Y	R	Y	R	R	R	FR
FACE 8A	R	R	R	R	R	G	Y	R	Y	R	R	R	FR
PED (N-S)	DW	DW	DW	DW	DW	FD	FD	DW	DW	DW	DW	DW	B
PED (E-W)	FD	FD	DW	DW	DW	FD	FD	DW	DW	DW	DW	DW	B



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

1. FACE NUMBERS ARE BASED ON NEMA PHASES
2. EASTBOUND AND WESTBOUND LEFT-TURNS SHALL OPERATE UNDER LEADING PROTECTED ONLY LEFT-TURN PHASING.

**RAILROAD PRE-EMPTION**



DWELL IN PHASE 6 UNTIL THE END OF PREEMPTION

AT THE COMPLETION OF THE PREEMPTION CYCLE, RETURN TO PHASES 2+6

**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 - OFFPEAK (MAXIMUM 1): MIDNIGHT TO 7:00 AM, M-F  
9:00 AM TO 3:00 PM, M-F  
6:00 PM TO MIDNIGHT, M-F  
ALL DAY SATURDAY AND SUNDAY
  - PLAN 2 - AM PEAK (MAXIMUM 2): 7:00 AM TO 9:00 AM, M-F
  - PLAN 3 - PM PEAK (MAXIMUM 3): 3:00 PM TO 6:00 PM, M-F

**COORDINATION CYCLE/SPLIT OFFSET SCHEDULE**

	PLAN 1	PLAN 2	PLAN 3	PLAN 4
CYCLE LENGTH	80	80	80	FREE
COS	111	121	131	-
OFFSET	49	49	50	-
SPLIT TIME 01	11	11	13	-
SPLIT TIME 02	38	37	36	-
SPLIT TIME 03	0	0	0	-
SPLIT TIME 04	31	32	31	-
SPLIT TIME 05	27	20	21	-
SPLIT TIME 06	22	28	28	-
SPLIT TIME 07	0	0	0	-
SPLIT TIME 08	31	32	31	-

- COORDINATION NOTES:
- 1. OFFSET IS REFERENCED TO BEGINNING OF THE COORDINATED GREEN PHASE (04 & 08)

NORTH MAIN ST AND MAPLE AVE / RT 62

PROJECT NAME: BARRE CITY  
PROJECT NUMBER: FEGC F 026-1(34) C/2

FILE NAME: z85b010\_TSPSIA.dgn  
PROJECT LEADER: G. BAKOS  
DESIGNED BY: DMP / MDS  
TRAFFIC SIGNAL PLAN

PLOT DATE: 3/9/2011  
DRAWN BY: DMP / JAR  
CHECKED BY:  
SHEET 166 OF 339

**VHB** Vanasse Hangen Brustlin, Inc.

DATUM  
VERTICAL: NAVD 1929  
HORIZONTAL: NAD 27