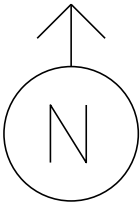


MS # 640

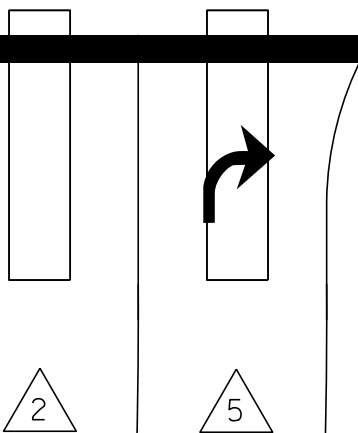
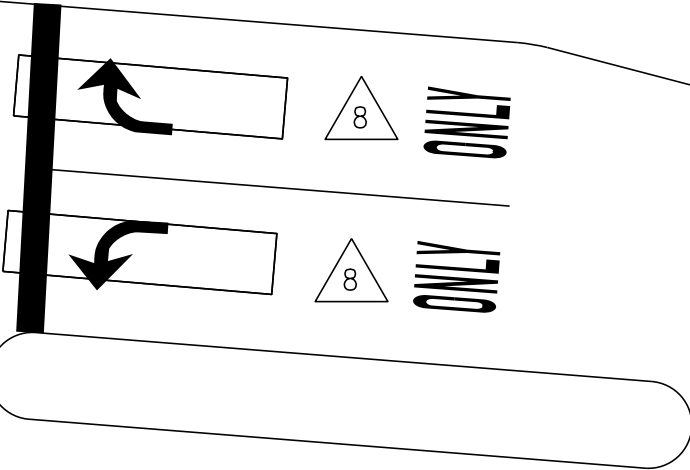
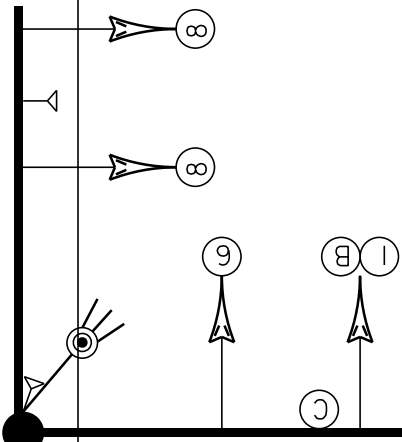
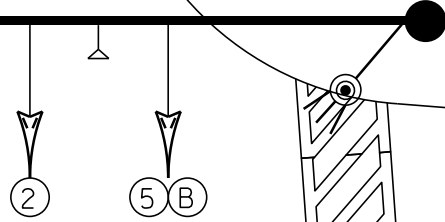


ONLY



VT 100 NORTH

SHAWS ENTRANCE



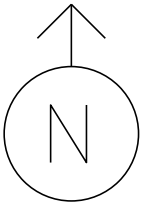
MOBIL

- | | |
|--|-----------------|
| | VIDEO CAMERA |
| | CONTROL BOX |
| | MAST ARM |
| | COORDINATION |
| | VIDEO DETECTION |
| | JUNCTION BOX |
| | LUMINAIRE |
| | STANCHION |
| | = |
| | = |

NOT TO SCALE

VT 100 SOUTH

MS # 640



12'

LANE LINE 75'

11'



STOP BAR 23'

VT 100 NORTH

SHAW'S ENTRANCE

STOP BAR 26'

CROSSWALK 62'

LANE LINE 75'

12'

ONLY



12'

ONLY



STOP BAR 26'

LANE LINE 75'

ONLY

12'

11'

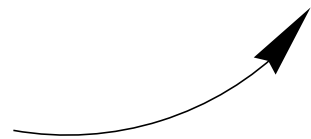


MOBIL

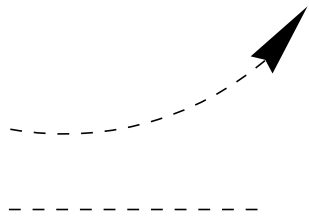
NOT TO SCALE

VT 100 SOUTH

D I A G R A M N ↑				
TIMING	G = Y =	G = Y =	G = Y =	G = Y =
D I A G R A M				
TIMING	G = Y =	G = Y =	G = Y =	G = Y =



PROTECTED
TURNS



PERMITTED
TURNS
PEDESTRIAN

CYCLE LENGTH, C= _____ S



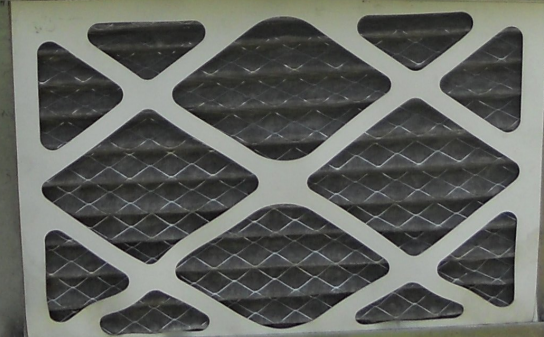
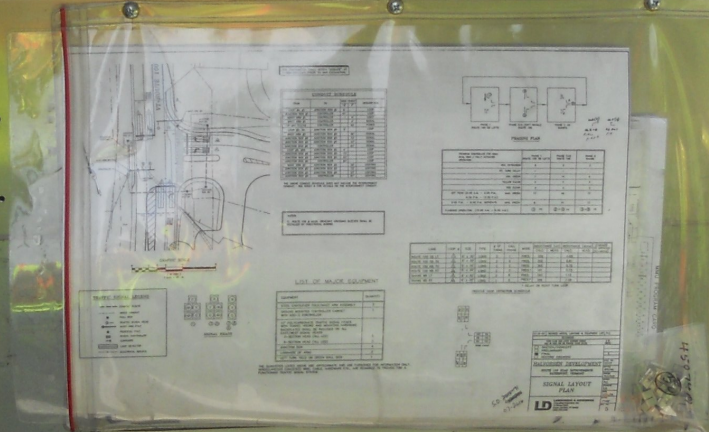
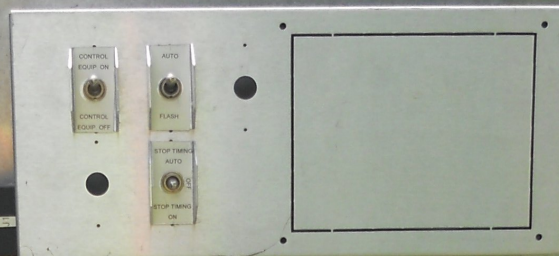
PROPERTY OF:
VT. AGENCY OF TRANS.
MAINTENANCE DIV.
IN EMERGENCY CALL
DIST. TRAIL OFFICE
NIGHTS & HOLIDAYS
INTERSECTION NO. [redacted]

1-GREEN = 22
2-GREEN = 26
2-RED = 28
~~2-RED =~~

115 VOLTS A.C.

TURN ON
12-8-05

DO NOT OPERATE
CABINET WITHOUT
CMU / MMU



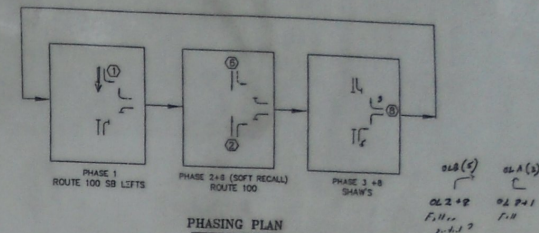
THE CONTRACTOR SHALL NOTIFY "DIGSAFE" AT 1-888-DIG-SAFE PRIOR TO ANY EXCAVATION.

CONDUIT SCHEDULE				
FROM	TO	WIRE CONDUIT	DESCRIPTION	
LOOP #1, #1	JUNCTION BOX #1	0'	LOOP	
JUNCTION BOX #1	CONTROLLER	4'	LOOP	
MAST ARM #1	CONTROLLER	4'	LIGHT	
MAST ARM #1	CONTROLLER	4'	SIGNAL	
UP #41 111/40	CONTROLLER	45'	POWER	
LOOP #2, 2A	JUNCTION BOX #4	0'	LOOP	
MAST ARM #2	JUNCTION BOX #2	30'	SIGNAL	
JUNCTION BOX #2	JUNCTION BOX #3	73'	SIGNAL	
JUNCTION BOX #3	JUNCTION BOX #4	23'	SIGNAL	
JUNCTION BOX #4	CONTROLLER	87'	SIGNAL	
LOOP #3, 3A	JUNCTION BOX #2	4'	LOOP	
JUNCTION BOX #2	JUNCTION BOX #3	23'	LOOP	
JUNCTION BOX #3	JUNCTION BOX #4	23'	LOOP	
JUNCTION BOX #4	CONTROLLER	87'	LOOP	
MAST ARM #2	JUNCTION BOX #2	73'	LIGHTING	
JUNCTION BOX #2	JUNCTION BOX #3	30'	LIGHTING	
JUNCTION BOX #3	JUNCTION BOX #4	23'	LIGHTING	
JUNCTION BOX #4	CONTROLLER	87'	LIGHTING	

THE ABOVE CONDUIT SCHEDULE DOES NOT INCLUDE THE INTERCONNECT CONDUIT. SEE SHEET 9 FOR DETAILS ON THE INTERCONNECT CONDUIT.

NOTES:

- 1) ROUTE 100 & MOBIL DRIVEWAY CROSSING SLEEVES SHALL BE INSTALLED BY DIRECTIONAL BORING.



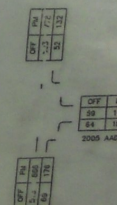
PHASING PLAN

PROGRAM CONTROLLER FOR NEMA DUAL RING / FULLY ACTUATED OPERATION	PHASE 1 ROUTE 100 SB LEFTS	PHASE 2+3 ROUTE 100	PHASE 4 SHAW'S
VEH. EXTENSION	2	2	2
RT. TURN DELAY	-	-	-
MIN. GREEN	7	14	8
YELLOW CLEAR	4	4	4
RED CLEAR	2	2	2
OFF PEAK (6:00 A.M. - 3:00 P.M., 6:00 P.M. - 12:00 P.M.)	MAX. GREEN 17	48	17
3:00 P.M. - 6:00 P.M. WEEKDAYS	MAX. GREEN 8	77	17
FLASHING OPERATION (12:00 A.M. - 6:00 A.M.)	① FY	②+③ FY	④+⑤ FR

LANE	LOOP #	SIZE	TYPE	# OF TURNS	CALL PHASE	MODE	INDUCTANCE (uH) CALC. MEAS.	RESISTANCE (ohms) CALC. MEAS.	LEAKAGE TO GROUND (m-ohms)
ROUTE 100 SB LT	1	6' x 30'	LONG	2	1	PRES.	355	0.65	
ROUTE 100 SB TH	2	6' x 30'	LONG	2	2	PRES.	352	0.61	
ROUTE 100 NB TH	3	6' x 30'	LONG	2	2	PRES.	365	0.75	
ROUTE 100 NB RT	4	6' x 30'	LONG	2	2	PRES.*	361	0.73	
SHAW'S NB LT	5	6' x 30'	LONG	2	5	PRES.	392	1.12	
SHAW'S NB RT	6	6' x 30'	LONG	2	6	PRES.*	389	1.08	

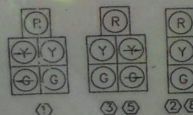
* DELAY ON RIGHT TURN LOOP

VEHICLE LOOP DETECTOR SCHEDULE



TRAFFIC SIGNAL LEGEND

- CONDUIT SLEEVE
- WIRE CONDUIT
- PULL BOX
- TRAFFIC SIGNAL HEAD
- MAST ARM POLE
- PEDESTAL POLE
- SIGNAL CONTROLLER
- LUMINAIRE
- LOOP DETECTOR
- ELECTRICAL SERVICE



SIGNAL HEADS

LIST OF MAJOR EQUIPMENT

EQUIPMENT	QUANTITY
STEEL CANTILEVER POLE/MAST ARM ASSEMBLY	2
GROUND MOUNTED CONTROLLER CABINET WITH ASC-2 CONTROLLER	1
12" POLYCARBONATE TRAFFIC SIGNAL HEADS WITH TUNNEL VISORS AND MOUNTING HARDWARE. BACKPLATES SHALL BE INCLUDED ON ALL EAST/WEST SIGNAL HEADS	3
3-SECTION HEAD (ALL LED)	3
5-SECTION HEAD (ALL LED)	3
JUNCTION BOX	4
LUMINAIRE (6' ARM)	2
LEFT TURN YIELD ON GREEN BALL SIGN	1

THE QUANTITIES LISTED ABOVE ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY. MISCELLANEOUS (UNLISTED) WIRE, CABLE, HARDWARE ETC., ARE REQUIRED TO PROVIDE FOR A FUNCTIONING TRAFFIC SIGNAL SYSTEM.

11-5-04 REVISED NOTES, LIGHTING & EQUIPMENT LIST PLC

REVISIONS

THIS PLAN HAS BEEN LATEST REVISIONS SINCE 11-5-04 AND IS THE ONLY ONE TO BE USED FOR THE PROJECT. OTHER REVISIONS ARE NOT TO BE USED.

SKETCH/CONCEPT

PRELIMINARY

FINAL

RECORD DRAWING

HALVORSEN DEVELOPMENT

ROUTE 100 ROAD IMPROVEMENTS WATERBURY, VERMONT

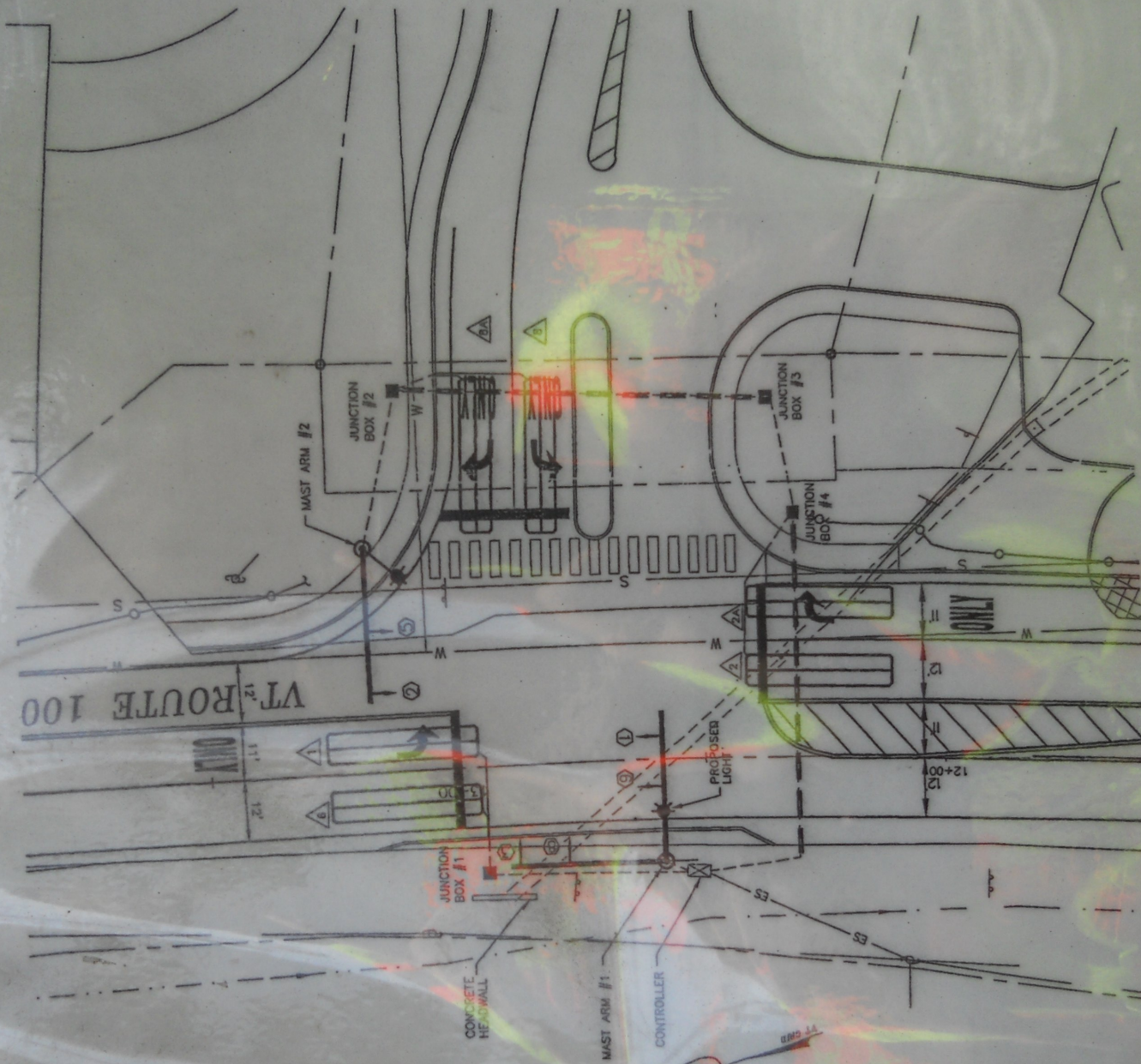
SIGNAL LAYOUT PLAN

DATE: 7/21/04

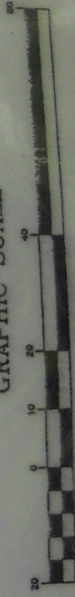
BY: [Signature]

SCALE: 1"=50'

5



GRAPHIC SCALE



(IN FEET)
1 inch = 20 ft.

TRAFFIC SIGNAL LEGEND

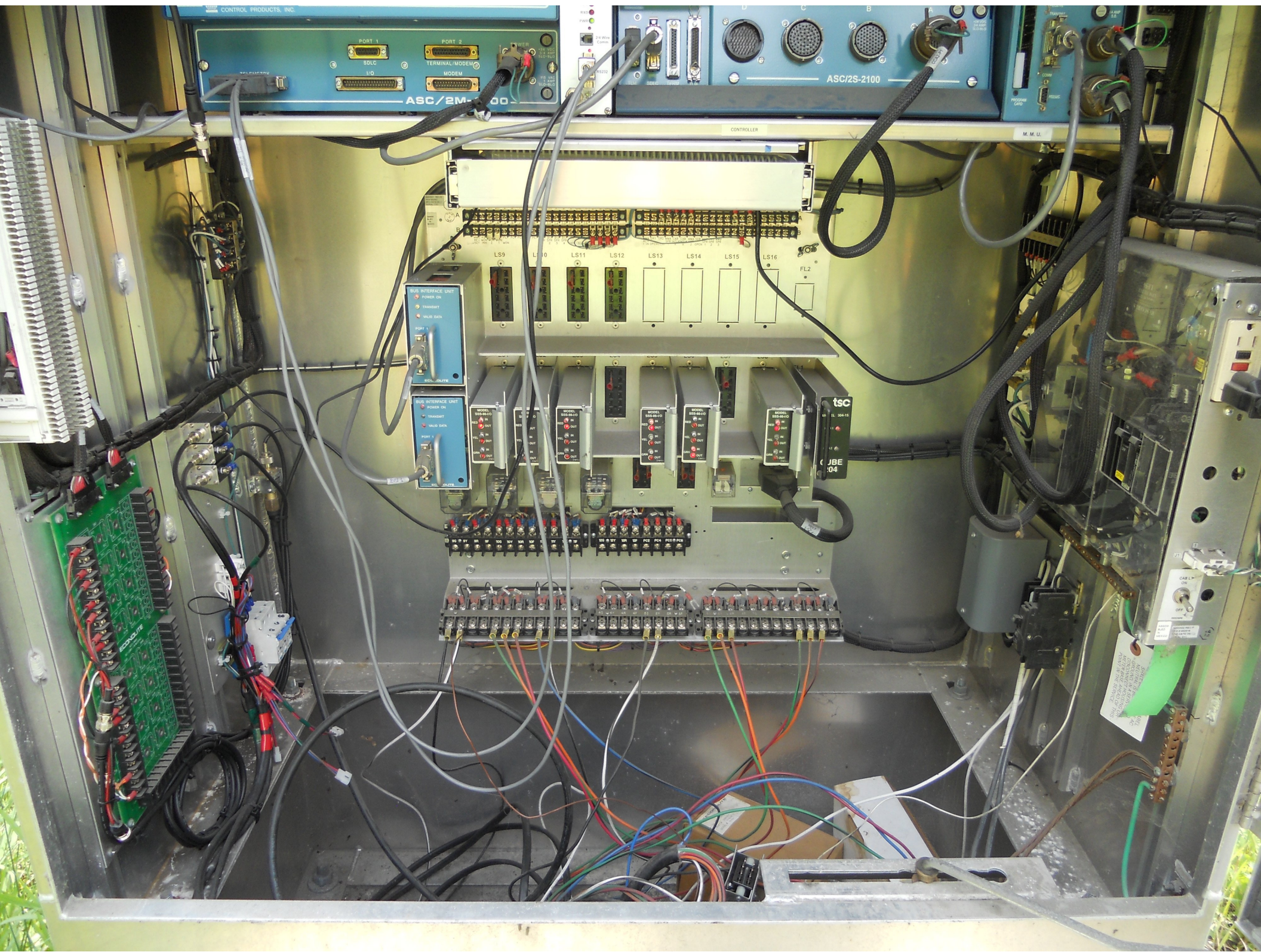
- CONDUIT SLEEVE
WIRED CONDUIT
BULL BOX

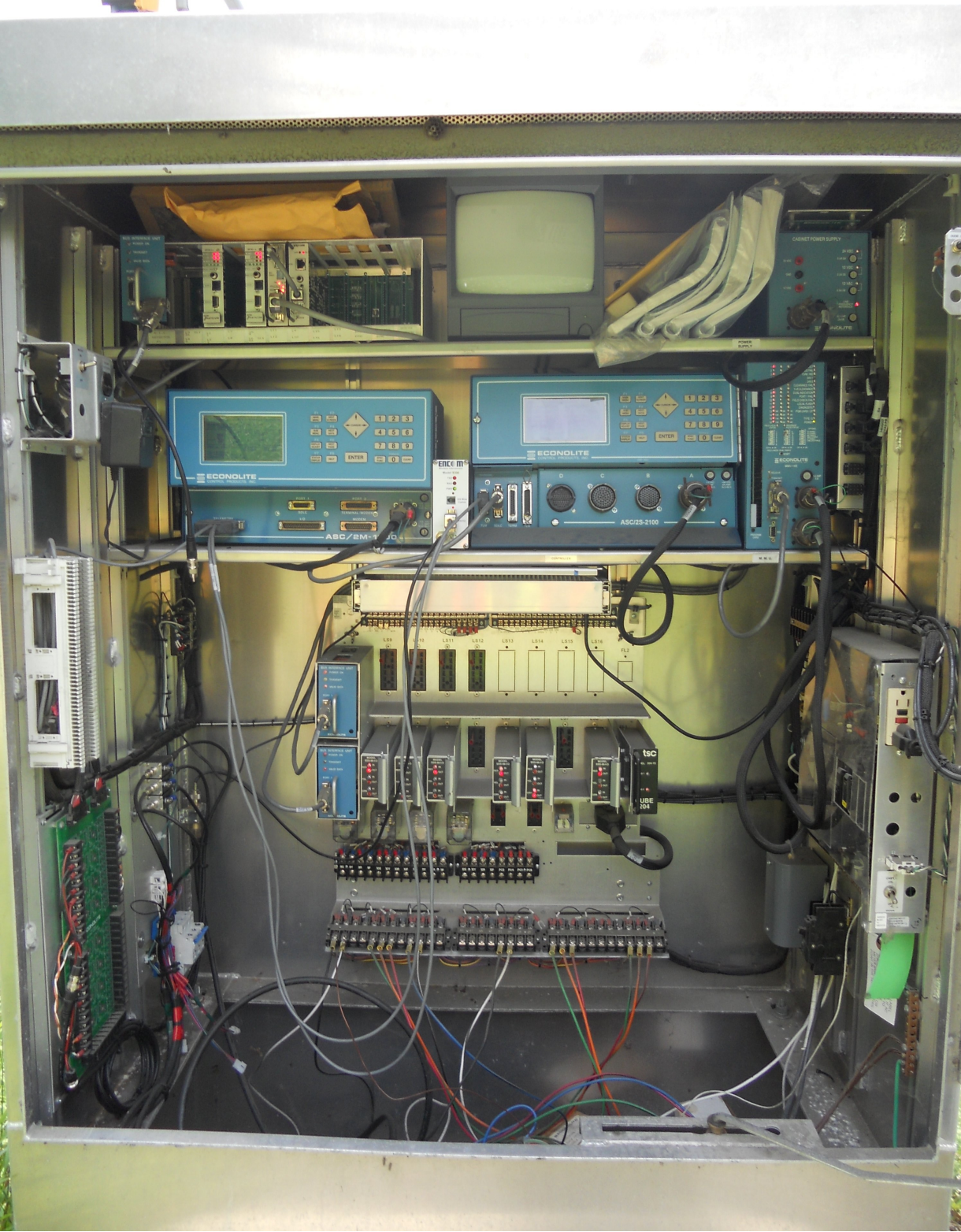
EQUIPMENT	STEEL CANTILEVER	GROUND MOUNT	WITH ASC-2 C	12" POLYCARBONATE	WITH TUNNEL VIEW	1.5" DIA
-----------	------------------	--------------	--------------	-------------------	------------------	----------

Three dominoes are shown, each with a letter and a symbol. The first domino has 'R' and 'Y'. The second domino has 'R' and 'G'. The third domino has 'R' and 'G'.

TURN ON
12-8-05









Shaw's Shop





#4 - 250W - H.P.S. - III

U.M.C. 07/05
3E-12.0X32'0"
3E-8.50X30'0"
55KSI















LEFT TURN
YIELD
ON GREEN

BEGIN
CENTER
LANE



Coordination Patterns

Pattern 1
Cycle Length . . . 100 COS 111
Offset 0
Vehicle Permissive . . [1] 0 [2] 0
Vehicle Perm 2 Displacement 0 Phase Reservice. . NO
Splits: Phase 1- 23 2- 54 3- 0 4- 0
 Phase 5- 0 6- 54 7- 0 8- 23
 Phase 9- 0 10- 0 11- 0 12- 0 Split Sum: 0
Split Extension/Ring [1] 0 [2] 0
Split Demand Pattern [1] 0 [2] 0
XRT Pattern. . . 0
 Phase Number: 1 2 3 4 5 6 7 8 9 10 11 12
Coord Phases . . . X . . . X
Veh Recall
Veh Max Recall
Ped Recall
Veh Omit
Alt Sequence . . . A: . B: . C: . D: . E: . F: .

Pattern 2
Cycle Length . . . 120 COS 211
Offset 0
Vehicle Permissive . . [1] 0 [2] 0
Vehicle Perm 2 Displacement 0 Phase Reservice. . NO
Splits: Phase 1- 14 2- 83 3- 0 4- 0
 Phase 5- 0 6- 83 7- 0 8- 23
 Phase 9- 0 10- 0 11- 0 12- 0 Split Sum: 0
Split Extension/Ring [1] 0 [2] 0
Split Demand Pattern [1] 0 [2] 0
XRT Pattern. . . 0
 Phase Number: 1 2 3 4 5 6 7 8 9 10 11 12
Coord Phases . . . X . . . X
Veh Recall
Veh Max Recall
Ped Recall
Veh Omit
Alt Sequence . . . A: . B: . C: . D: . E: . F: .

.....

[illegible][illegible]

NIC Program Steps

Step	Program	Step Begins	Pattern	Override
1	1	0600	1	NO
2	1	1500	2	NO
3	1	1800	1	NO
4	1	1900	3	NO
5	1	2200	0	NO
7	2	0600	1	NO
8	2	0000	0	NO

TOD Program Steps

Step 1 Program 1 Step Begins 0600

Flash.	Dimming Enable.
Red Rest	Alt Veh Extension
Spare 5.	Det Log Enable.
Spare 3.	Spare 4
Type 0 Dly Enable. . .	Spare 2
Det Diag Plan. . . . 0	

	Phase Number											
	1	2	3	4	5	6	7	8	9	10	11	12
Max 2 Enable	.	.	.	.	.	.	.	.	.	.	.	.
Max 3 Enable	.	.	.	.	.	.	.	.	.	.	.	.
Veh Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Max Recall	.	.	.	.	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.	.	.	.	.
Cond Service Inhibit.	.	.	.	.	.	.	.	.	.	.	.	.
Phase Omit	.	.	.	.	.	.	.	.	.	.	.	.
Special Function	.	.	.	.	.	.	.	.	.	.	.	.

	A	B	C	D	E	F
Alt Sequence	.	.	.	.	.	.

Step 2 Program 1 Step Begins 1500

Flash.	Dimming Enable.
Red Rest	Alt Veh Extension
Spare 5.	Det Log Enable.
Spare 3.	Spare 4
Type 0 Dly Enable. . .	Spare 2
Det Diag Plan. . . . 0	

	Phase Number											
	1	2	3	4	5	6	7	8	9	10	11	12
Max 2 Enable	X	X	.	.	.	X	.	X	.	.	.	.
Max 3 Enable	.	.	.	.	.	.	.	.	.	.	.	.
Veh Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Max Recall	.	.	.	.	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.	.	.	.	.
Cond Service Inhibit.	.	.	.	.	.	.	.	.	.	.	.	.
Phase Omit	.	.	.	.	.	.	.	.	.	.	.	.
Special Function	.	.	.	.	.	.	.	.	.	.	.	.

	A	B	C	D	E	F
Alt Sequence	.	.	.	.	.	.

TOD Program Steps

Step 3 Program 1 Step Begins 1800

Flash.	Dimming Enable.
Red Rest	Alt Veh Extension
Spare 5.	Det Log Enable.
Spare 3.	Spare 4
Type 0 Dly Enable. . .	Spare 2
Det Diag Plan. . . . 0	

	Phase Number											
	1	2	3	4	5	6	7	8	9	10	11	12
Max 2 Enable	.	.	.	.	.	.	.	.	.	.	.	.
Max 3 Enable	.	.	.	.	.	.	.	.	.	.	.	.
Veh Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Max Recall	.	.	.	.	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.	.	.	.	.
Cond Service Inhibit.	.	.	.	.	.	.	.	.	.	.	.	.
Phase Omit	.	.	.	.	.	.	.	.	.	.	.	.
Special Function	.	.	.	.	.	.	.	.	.	.	.	.

	A	B	C	D	E	F
Alt Sequence	.	.	.	.	.	.

Step 4 Program 1 Step Begins 1900

Flash.	Dimming Enable.
Red Rest	Alt Veh Extension
Spare 5.	Det Log Enable.
Spare 3.	Spare 4
Type 0 Dly Enable. . .	Spare 2
Det Diag Plan. . . . 0	

	Phase Number											
	1	2	3	4	5	6	7	8	9	10	11	12
Max 2 Enable	.	.	.	.	.	.	.	.	.	.	.	.
Max 3 Enable	.	.	.	.	.	.	.	.	.	.	.	.
Veh Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Max Recall	.	.	.	.	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.	.	.	.	.
Cond Service Inhibit.	.	.	.	.	.	.	.	.	.	.	.	.
Phase Omit	.	.	.	.	.	.	.	.	.	.	.	.
Special Function	.	.	.	.	.	.	.	.	.	.	.	.

	A	B	C	D	E	F
Alt Sequence	.	.	.	.	.	.

TOD Program Steps

Step 5 Program 1 Step Begins 2200

Flash.	X	Dimming Enable.
Red Rest	.	Alt Veh Extension
Spare 5.	.	Det Log Enable.
Spare 3.	.	Spare 4
Type 0 Dly Enable. . .	.	Spare 2
Det Diag Plan.	0	

	Phase Number											
	1	2	3	4	5	6	7	8	9	10	11	12
Max 2 Enable	.	.	.	.	.	.	.	.	.	.	.	.
Max 3 Enable	.	.	.	.	.	.	.	.	.	.	.	.
Veh Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Max Recall	.	.	.	.	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.	.	.	.	.
Cond Service Inhibit.	.	.	.	.	.	.	.	.	.	.	.	.
Phase Omit	.	.	.	.	.	.	.	.	.	.	.	.
Special Function	.	.	.	.	.	.	.	.	.	.	.	.

	A	B	C	D	E	F
Alt Sequence	.	.	.	.	.	.

Step 6 Program 2 Step Begins 0600

Flash.	.	Dimming Enable.
Red Rest	.	Alt Veh Extension
Spare 5.	.	Det Log Enable.
Spare 3.	.	Spare 4
Type 0 Dly Enable. . .	.	Spare 2
Det Diag Plan.	0	

	Phase Number											
	1	2	3	4	5	6	7	8	9	10	11	12
Max 2 Enable	.	.	.	.	.	.	.	.	.	.	.	.
Max 3 Enable	.	.	.	.	.	.	.	.	.	.	.	.
Veh Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Max Recall	.	.	.	.	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.	.	.	.	.
Cond Service Inhibit.	.	.	.	.	.	.	.	.	.	.	.	.
Phase Omit	.	.	.	.	.	.	.	.	.	.	.	.
Special Function	.	.	.	.	.	.	.	.	.	.	.	.

	A	B	C	D	E	F
Alt Sequence	.	.	.	.	.	.

TOD Program Steps

Step 7 Program 2 Step Begins 0000

Flash.	X	Dimming Enable.	.
Red Rest	.	Alt Veh Extension	.
Spare 5.	.	Det Log Enable.	.
Spare 3.	.	Spare 4	.
Type 0 Dly Enable.	.	Spare 2	.
Det Diag Plan.	0		

	Phase Number											
	1	2	3	4	5	6	7	8	9	10	11	12
Max 2 Enable	.	.	.	.	.	.	.	.	.	.	.	.
Max 3 Enable	.	.	.	.	.	.	.	.	.	.	.	.
Veh Recall	.	.	.	.	.	.	.	.	.	.	.	.
Veh Max Recall	.	.	.	.	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.	.	.	.	.
Cond Service Inhibit.	.	.	.	.	.	.	.	.	.	.	.	.
Phase Omit	.	.	.	.	.	.	.	.	.	.	.	.
Special Function	.	.	.	.	.	.	.	.	.	.	.	.

	A	B	C	D	E	F
Alt Sequence	.	.	.	.	.	.
