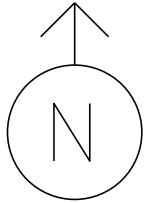


MS # 501



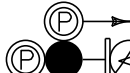
US-7 NORTH

- ⊙ PEDESTAL POST
- Ⓟ→ PEDESTRIAN SIGNAL
- ⊥ L.E.D REGULATORY SIGN
- ⊠ CONTROL BOX
- MAST ARM
- ⏏ COORDINATION
- ⋮ LOOP DETECTION
- Ⓜ JB JUNCTION BOX
- ⌘ LUMINAIRE
- ⋯ STANCHION
- ⓐ = Ⓢ
- ⓓ = Ⓡ



ONLY

ONLY

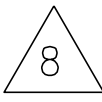
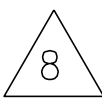
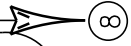
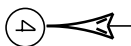


JB

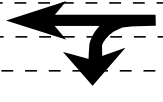
9

9

ⓓ ⓐ



ONLY



ⓓ 5

2

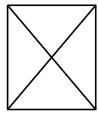
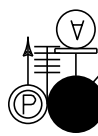
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Ⓟ

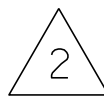
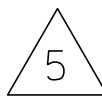
Ⓟ

Ⓟ

JB



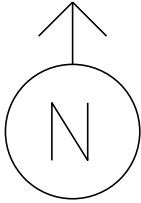
ONLY



MACDONALDS

US-7 SOUTH NOT TO SCALE

MS # 501



US-7 NORTH

12' 12' 12' 12'

ONLY



LANE LINE 225'

LANE LINE 225'

ONLY



STOP BAR 35'

CROSSWALK 58'

24'

11'

LANE LINE 75'

11'

STOP BAR 22'

CROSSWALK 15'

STOP BAR 22'

LANE LINE 75'

11'

11'

12'

CROSSWALK 12'

STOP BAR 25'



ONLY

LANE LINE 240'

12'

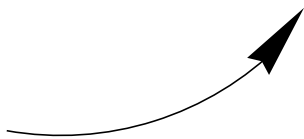
11'

13'

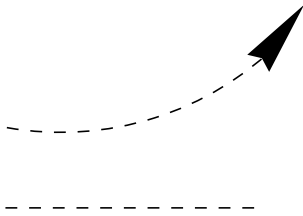
MACDONALDS

US-7 SOUTH NOT TO SCALE

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. TRANS. OFFICE

655 - 1580

NIGHTS & WEEKENDS : 250 - 0163

INTERSECTION NO. MS-501

DANGER

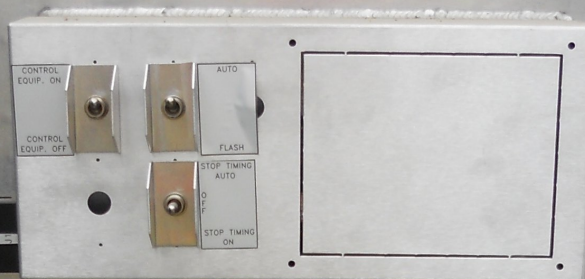
115 VOLTS A.C.

WARNING

DO NOT OPERATE
CABINET WITHOUT
CMU / MMU

TURN ON
6-30-07

2441187



BUS INTERFACE UNIT
POWER ON
TRANSMIT
VALID DATA
PORT
8010
ECONOLITE

LMD622t
DET FLT
CH 1 0
MODE FREQ SENS
DET FLT
CH 2 3
MODE FREQ SENS
ECONOLITE

LMD622t
DET FLT
CH 1 0
MODE FREQ SENS
DET FLT
CH 2 0
MODE FREQ SENS
ECONOLITE

LMD622t
DET FLT
CH 1 0
MODE FREQ SENS
DET FLT
CH 2 4
MODE FREQ SENS
ECONOLITE

LMD622t
DET FLT
CH 1 0
MODE FREQ SENS
DET FLT
CH 2 0
MODE FREQ SENS
ECONOLITE

DET SW MODULE
DET 1
DET 2
DET 3
DET 4
DET 5
DET 6
DET 7
DET 8
DET 9
DET 10
DET 11
DET 12
DET 13
DET 14
DET 15
DET 16
ECONOLITE

B.I.U. DETECTOR #1
L3 95
L4 92

L1 91
L2 96

L7 98
L8 94 DELAY

L5 94
L6 94 DELAY

L11
L12

L9
L10

L15
L16

L13
L14

PREEMPTOR EVP# 3
EVP# 4

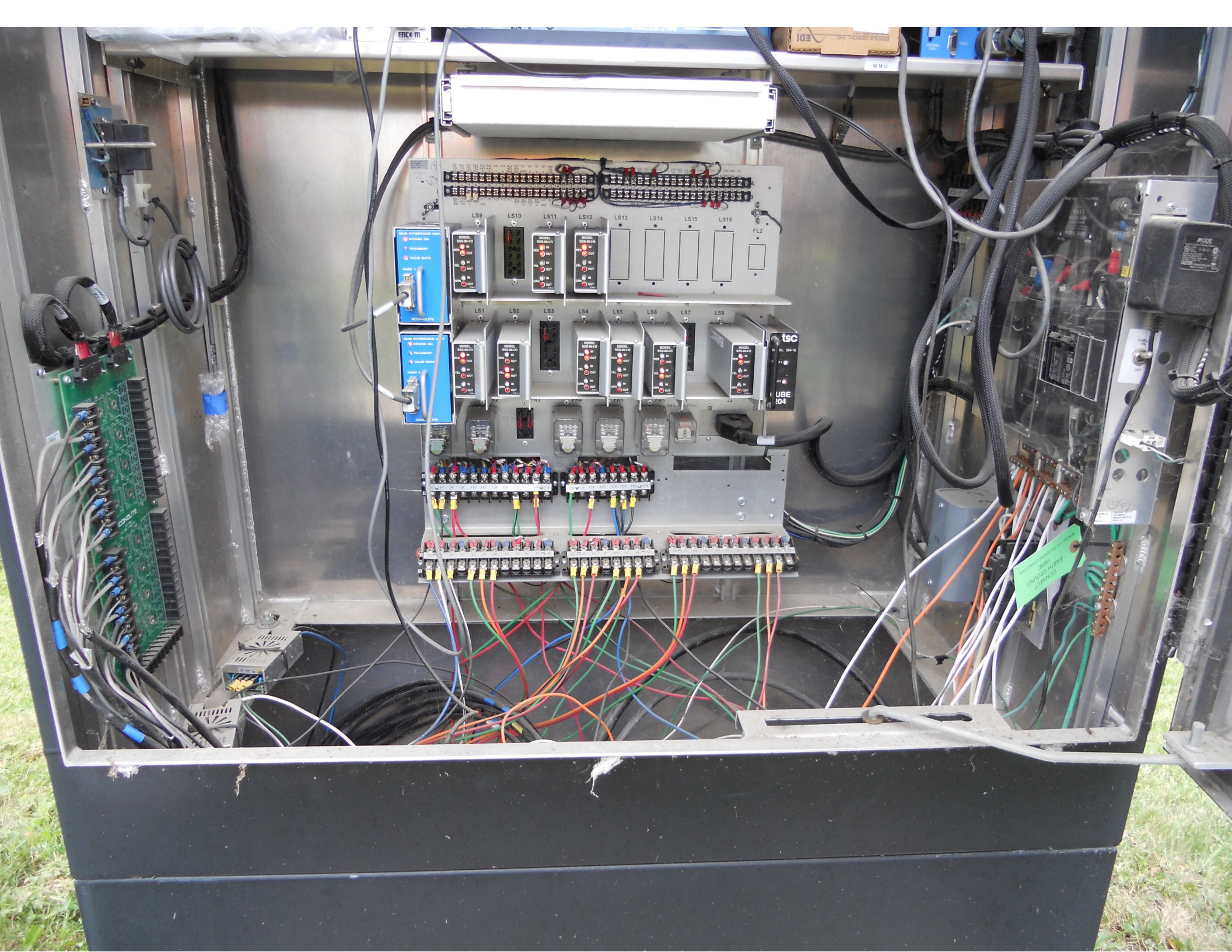
PREEMPTOR EVP# 5
EVP# 6

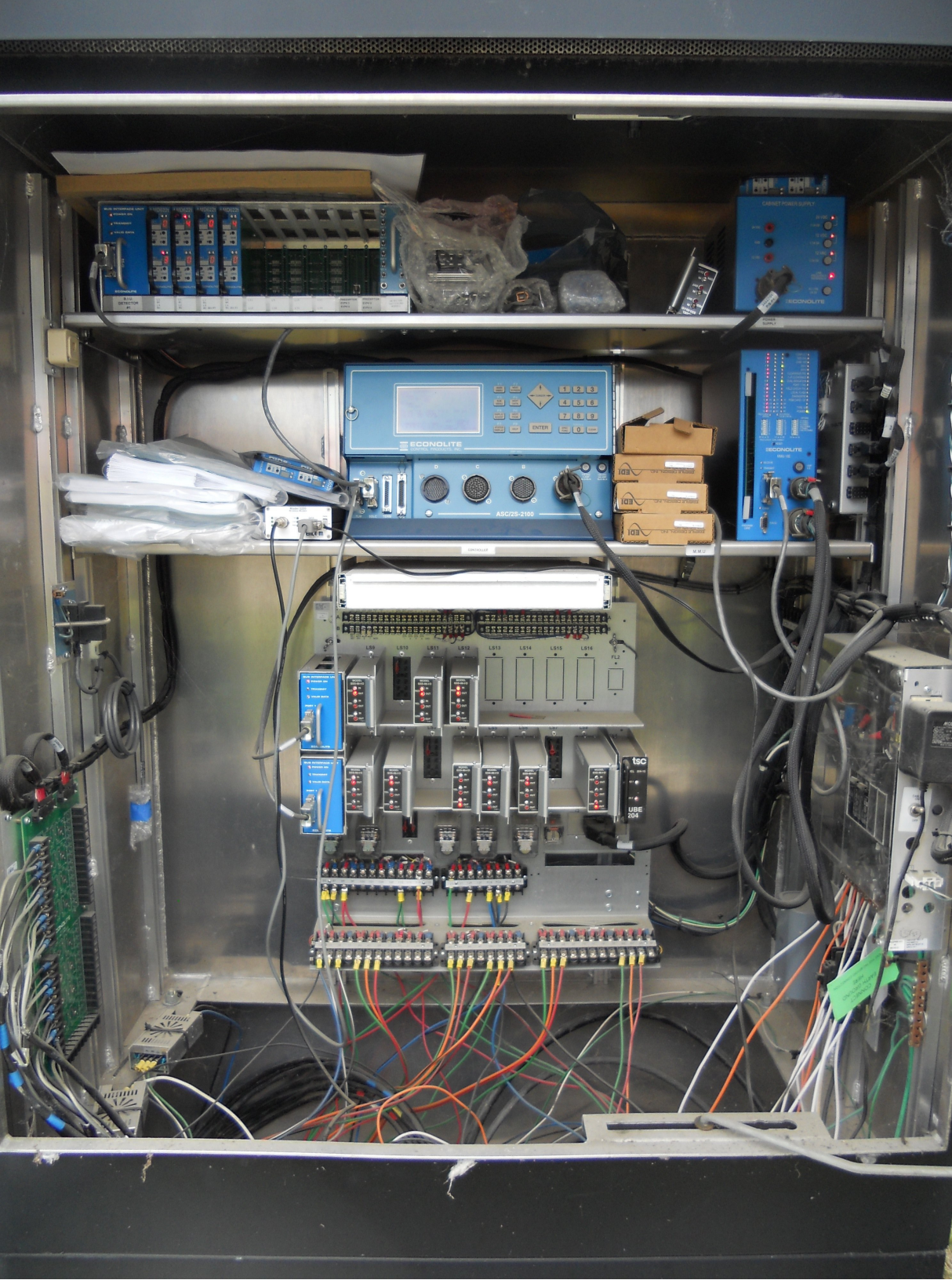
DETECTOR SWITCHING MODULE

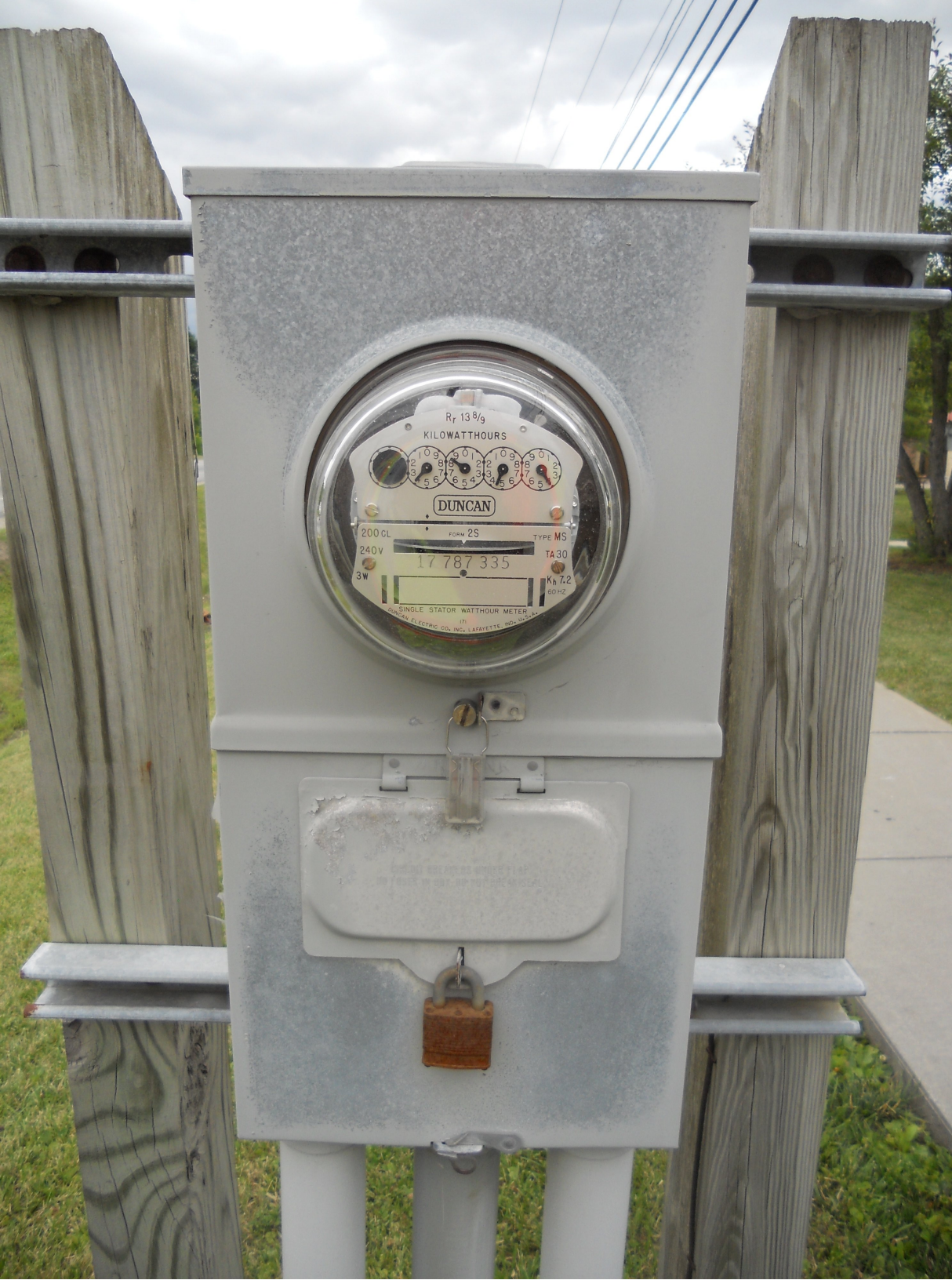
STATUS DISPLAY

CH 1	0	CH 2	3
MODE	FREQ	MODE	FREQ
SENS	SENS	SENS	SENS
DET	DET	DET	DET
FLT	FLT	FLT	FLT
PRIORITY	1	PRIORITY	2
1 2 3 4 5 6	7 8 9 10	11 12 13 14	15 16 17 18





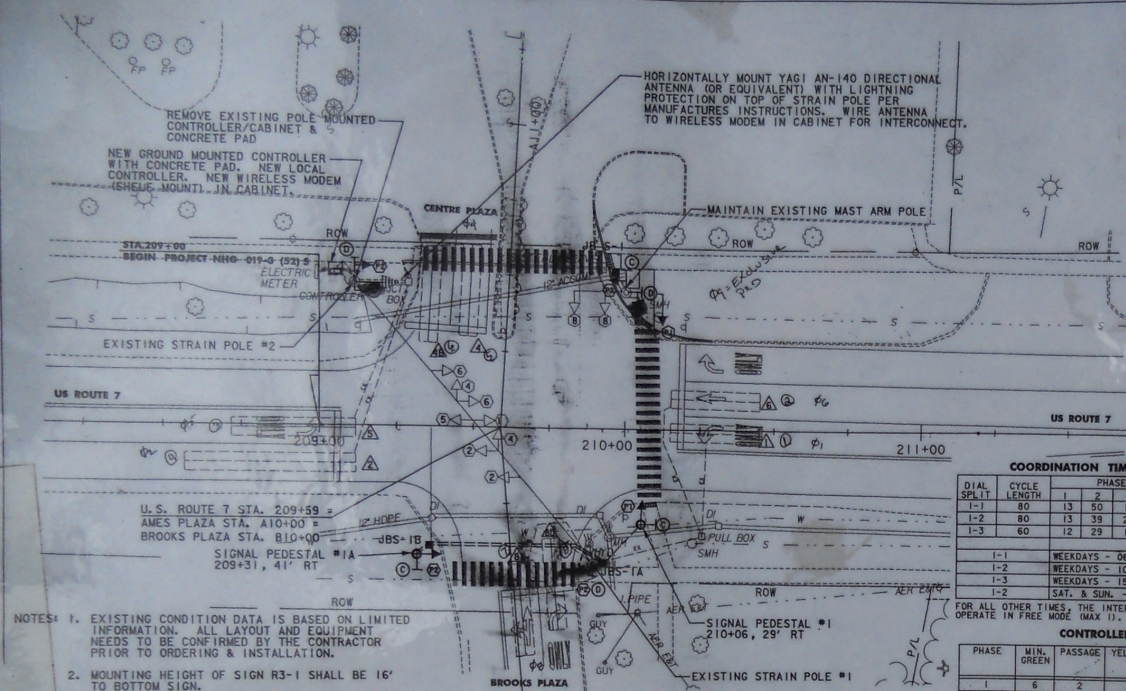




PVC ELECTRICAL CONDUIT SLEEVE	
LOCATION	DIAL
209+91, 53' LT - 209+96, 53' LT	6"
209+93, 44' RT - 209+35, 35' RT	8"

WIRED CONDUIT (PVC)		
NO.	DIAL	REMARKS
1	1"	SIGNAL
2	3"	LOOPS & SIGNALS
1	2"	POWER
1	2"	SIGNAL
2	2"	LOOPS & SIGNAL

JUNCTION	
LOCATION	REMARKS
209+15, 44' RT - 209+35, 35' RT	209+35, 35' RT



- NOTES:
- EXISTING CONDITION DATA IS BASED ON LIMITED INFORMATION. ALL LAYOUT AND EQUIPMENT NEEDS TO BE CONFIRMED BY THE CONTRACTOR PRIOR TO ORDERING & INSTALLATION.
 - MOUNTING HEIGHT OF SIGN R3-1 SHALL BE 16' TO BOTTOM SIGN.
 - ALL NEW SIGNAL HEADS AND PEDESTRIAN SIGNALS SHALL BE LED. SIGN @ SHALL BE LED.
 - ALL EXISTING SIGNAL EQUIPMENT THAT IS BEING REMOVED SHALL BE RETURNED TO THE VERMONT AGENCY OF TRANSPORTATION'S TRAFFIC SHOP AT THE CENTRAL GARAGE IN MONTPELIER AT THE COST OF THE CONTRACTOR. THE CONTRACTOR SHALL CALL THE TRAFFIC SHOP AT (802) 828-2680 TO ARRANGE A TIME TO DROP OFF THE EQUIPMENT.
 - ALL CONDUIT SLEEVES CROSSING PAVED ROADWAYS SHALL BE INSTALLED USING TRENCHLESS EXCAVATION. CONTRACTOR MAY REQUEST PERMISSION FROM RESIDENT ENGINEER TO USE TRENCH EXCAVATION IF SITE CONSTRAINTS EXIST. TRENCH EXCAVATION FOR ROUTE 7 CROSSINGS MAY BE REQUIRED TO BE DONE DURING EVENING HOURS, 6 PM - 6 AM. CONTRACTOR SHALL OBTAIN APPROVAL FOR NIGHT TIME WORK SEVEN DAYS IN ADVANCE FROM TOWN AND RESIDENT ENGINEER.

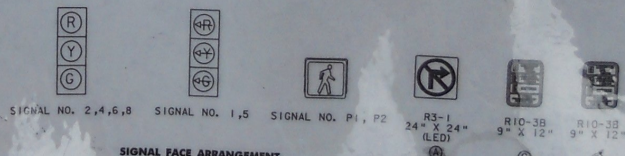
PLAN: 1-1 C = 88 SEC	01 (7)(6) 02 (44) 04 (6)(11)(6) 05 (7)(6) 06 (44) 08 (6)(11)(6)
OFFSET = 73 SEC OR 91X	30 0 17
FORCE OFF (**) =	
PLAN: 1-2 C = 88 SEC	01 (7)(6) 02 (44) 04 (6)(11)(6) 05 (7)(6) 06 (44) 08 (6)(11)(6)
OFFSET = 5 SEC OR 6X	41 0 28
FORCE OFF (**) =	
PLAN: 1-3 C = 68 SEC	01 (6)(6) 02 (23) 04 (6)(13) 05 (6)(6) 06 (23) 08 (6)(13) 10
OFFSET = 9 SEC OR 15X	31 0 19
FORCE OFF (**) =	

COORDINATION TIMINGS (SECONDS)	
DIAL SPLIT	CYCLE LENGTH
1-1	80
1-2	80
1-3	60

FOR ALL OTHER TIMES, THE INTERSECTION SHALL OPERATE IN FREE MODE (MAX 1).

CONTROLLER TIMINGS (SECONDS)	
PHASE	MIN. GREEN
1	6
2	16
4	8
5	6
6-PED 2	16
8	8
9	-

- NOTES:
- TOO COORDINATION SHALL CALL SYSTEM TO MAX 2.
 - MAX 1 SHALL BE IN EFFECT FOR FREE OPERATION.
 - PHASES 2 AND 6 SHALL BE IN HARD RECALL DURING COORDINATION.
 - DURING COORDINATION, MAXIMUM TIMES ON COORDINATION PHASES 2 AND 6 SHALL BE DISABLED.
 - PHASE 2 SHALL BE RECALLED WITH PHASE 6.
 - PHASE 9 SHALL BE CALLED ONLY UPON ACTIVATION OF PUSH BUTTONS FOR SIGNAL HEAD P1.



SIGNAL FACE ARRANGEMENT

EXISTING	NEW	LEGEND
○	○	UTILITY POLE
○	○	LUMINAIRE
○	○	LIGHT OR WOOD POLE
○	○	STRAIN POLE
○	○	CONTROLLER CABINET
○	○	PULL BOX/JUNCTION BOX
○	○	SIGNAL HEAD
○	○	CONDUIT
○	○	VEHICLE LOOPS
○	○	PEDESTAL POST
○	○	SIGNS
○	○	DOUBLE JUNCTION BOX

CENTRE & BROOKS PLAZAS

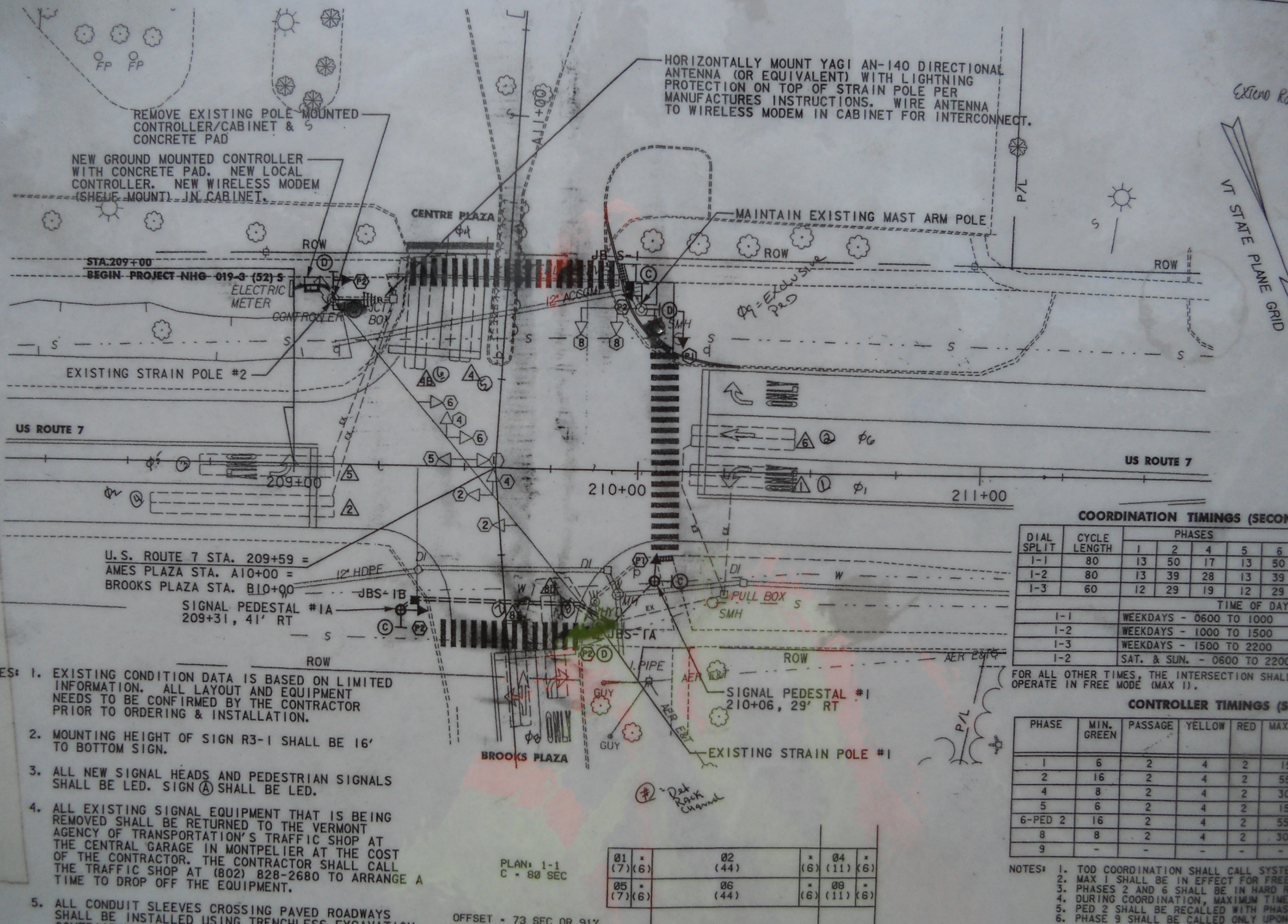
TRAFFIC SIGNAL DETAILS



PROJECT NAME: U.S. ROUTE 7/COURT STREET
 PROJECT NUMBER: NHG 019-3 (52)S
 FILE NAME: tr-0008.dwg
 PROJECT LEADER: MGS
 DESIGNED BY: GGG
 PLOT DATE: 04/18/2006
 DRAWN BY: TPL
 CHECKED BY: GAE
 SHEET 27 OF 32

CONTRACT PLANS
 JANUARY 2006

2006 "AVERAGE WEEKDAY" HOURLY VOLUMES



- NOTES: 1. EXISTING CONDITION DATA IS BASED ON LIMITED INFORMATION. ALL LAYOUT AND EQUIPMENT NEEDS TO BE CONFIRMED BY THE CONTRACTOR PRIOR TO ORDERING & INSTALLATION.
2. MOUNTING HEIGHT OF SIGN R3-1 SHALL BE 16' TO BOTTOM SIGN.
3. ALL NEW SIGNAL HEADS AND PEDESTRIAN SIGNALS SHALL BE LED. SIGN (A) SHALL BE LED.
4. ALL EXISTING SIGNAL EQUIPMENT THAT IS BEING REMOVED SHALL BE RETURNED TO THE VERMONT AGENCY OF TRANSPORTATION'S TRAFFIC SHOP AT THE CENTRAL GARAGE IN MONTPELIER AT THE COST OF THE CONTRACTOR. THE CONTRACTOR SHALL CALL THE TRAFFIC SHOP AT (802) 828-2680 TO ARRANGE A TIME TO DROP OFF THE EQUIPMENT.
5. ALL CONDUIT SLEEVES CROSSING PAVED ROADWAYS SHALL BE INSTALLED USING TRENCHLESS EXCAVATION.

PLAN: 1-1
C = 80 SEC

OFFSET = 73 SEC OR 917

01	*	02	*	04	*
(7)	(6)	(44)	(6)	(11)	(6)
05	*	06	*	08	*
(7)	(6)	(44)	(6)	(11)	(6)

COORDINATION TIMINGS (SECOND)

DIAL SPLIT	CYCLE LENGTH	PHASES					
		1	2	4	5	6	
1-1	80	13	50	17	13	50	
1-2	80	13	39	28	13	39	
1-3	60	12	29	19	12	29	
TIME OF DAY							
1-1	WEEKDAYS - 0600 TO 1000						
1-2	WEEKDAYS - 1000 TO 1500						
1-3	WEEKDAYS - 1500 TO 2200						
1-2	SAT. & SUN. - 0600 TO 2200						

FOR ALL OTHER TIMES, THE INTERSECTION SHALL OPERATE IN FREE MODE (MAX 1).

CONTROLLER TIMINGS (SEC)

PHASE	MIN. GREEN	PASSAGE	YELLOW	RED	MAX
1	6	2	4	2	15
2	16	2	4	2	55
4	8	2	4	2	30
5	6	2	4	2	15
6-PED 2	16	2	4	2	55
8	8	2	4	2	30
9	-	-	-	-	-

- NOTES: 1. TOD COORDINATION SHALL CALL SYSTEM
2. MAX 1 SHALL BE IN EFFECT FOR FREE
3. PHASES 2 AND 6 SHALL BE IN HARD R
4. DURING COORDINATION, MAXIMUM TIME
5. PED 2 SHALL BE RECALLED WITH PHASE
6. PHASE 9 SHALL BE CALLED ONLY UPON

BUS INTERFACE UNIT

POWER ON

TRANSMIT

VALID DATA

PORT

SSDLC

B.I.U.
DETECTOR
#1

LMD622t
DET FLT

CH 1
DEFLECTOMETER

0

MODE
FREQ

DET FLT

CH 2
DEFLECTOMETER

3

MODE
FREQ

L3
Φ5
L4
Φ2

LMD622t
DET FLT

CH 1
DEFLECTOMETER

0

MODE
FREQ

DET FLT

CH 2
DEFLECTOMETER

5

MODE
FREQ

L1
Φ1
L2
Φ6

LMD622t
DET FLT

CH 1
DEFLECTOMETER

4

MODE
FREQ

DET FLT

CH 2
DEFLECTOMETER

4

MODE
FREQ

L7
Φ8
L8
Φ8 DELAY

LMD622t
DET FLT

CH 1
DEFLECTOMETER

9

MODE
FREQ

DET FLT

CH 2
DEFLECTOMETER

4

MODE
FREQ

L5
Φ4
L6
Φ4 DELAY

L11

L12





LEFT LANE
MUST
TURN LEFT











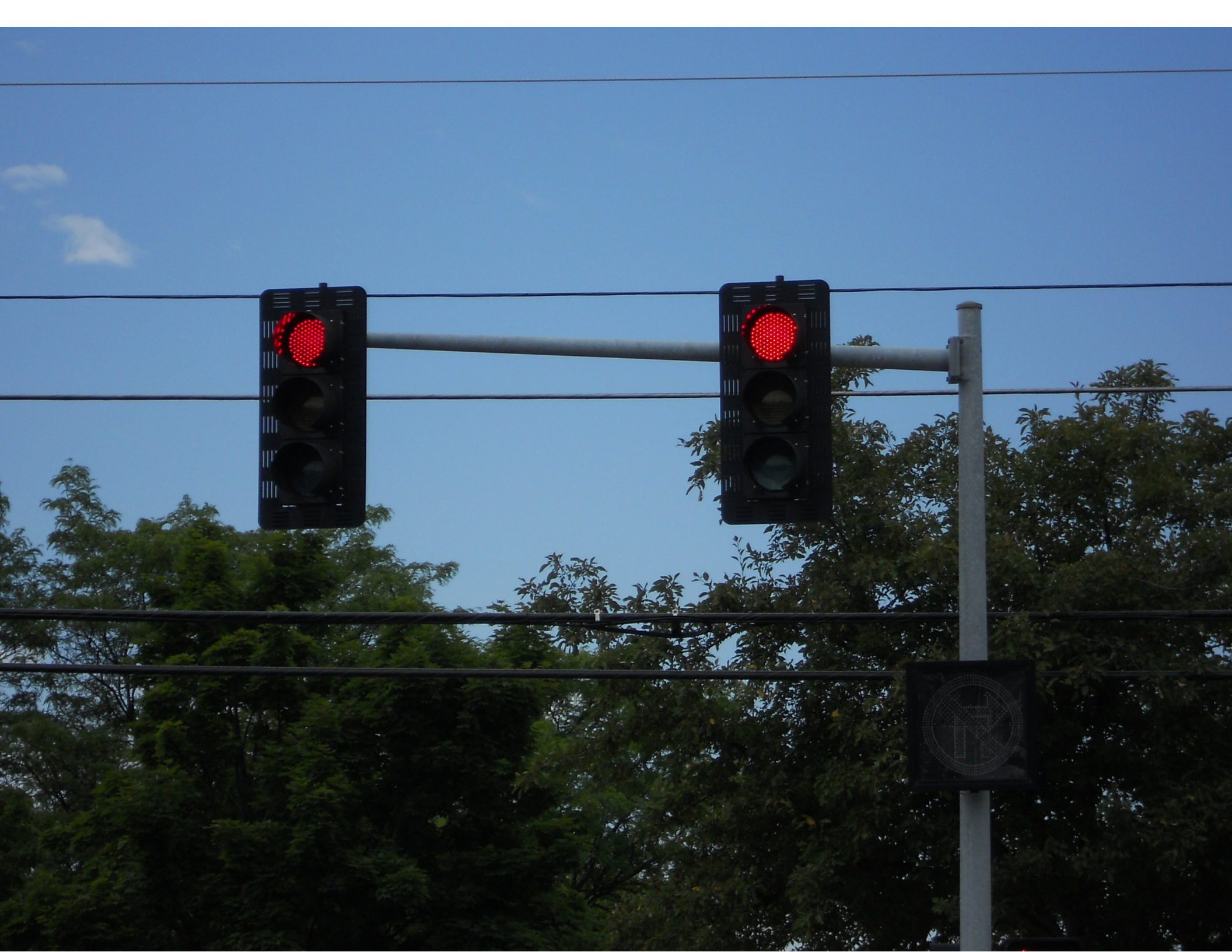
















POLE 11E-8.0/21FT. - 55K51
ARM 11E-5.0X12FT. - 55K51
UNION METAL CORPORATION

















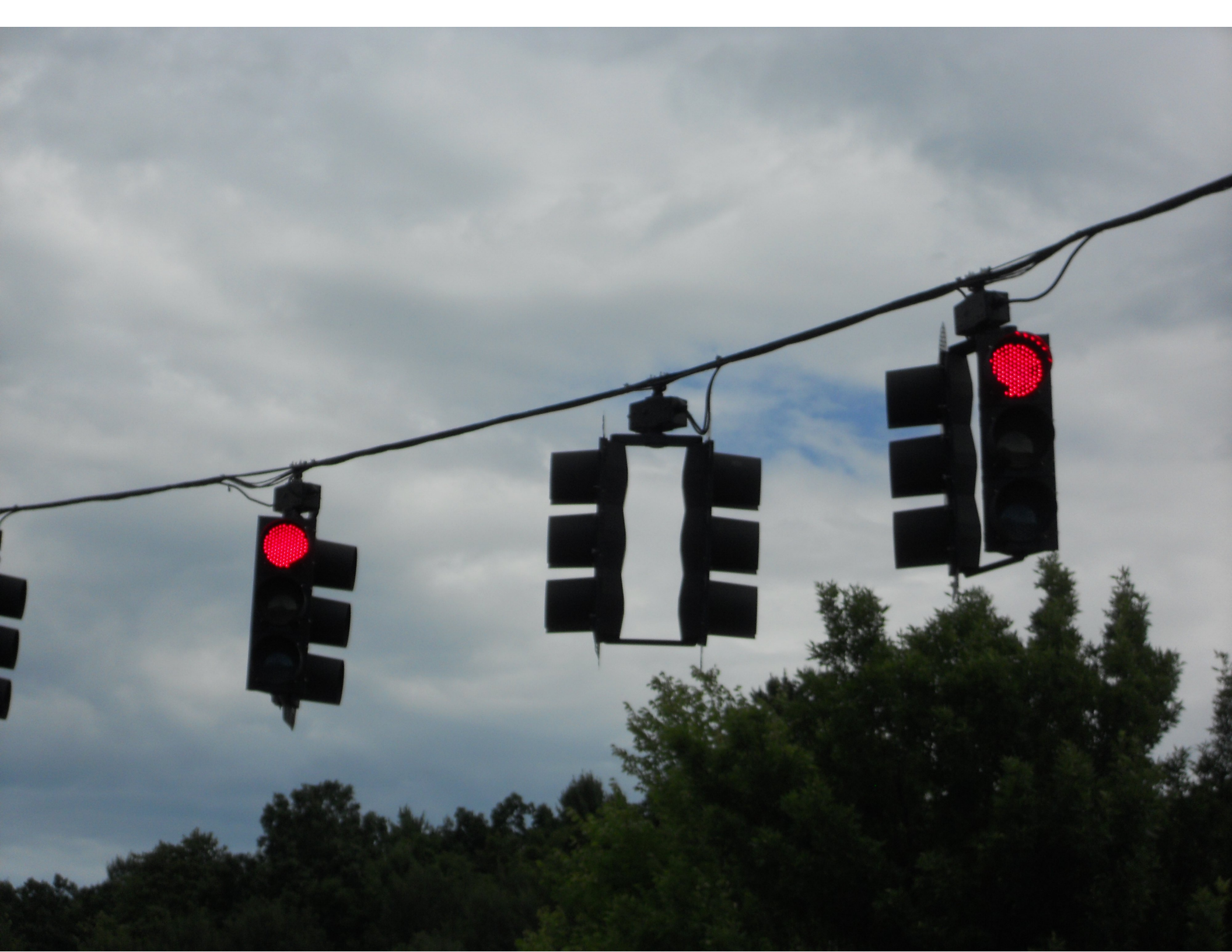


ONE WAY



STOP
HERE ON
RED













START CROSSING
Watch for
Vehicles

DON'T START
Flash Crossing
If Stopped

DON'T CROSS

TO CROSS
← PUSH BUTTON





10-75 11/30
43K 2106A

Coordination Patterns

Pattern 1

Cycle Length . . . 80 COS 111

Offset 68

Vehicle Permissive . . [1] 0 [2] 0

Vehicle Perm 2 Displacement 0 Phase Reservice. . NO

Splits: Phase 1- 13 2- 50 3- 0 4- 17

Phase 5- 13 6- 50 7- 0 8- 17

Phase 9- 20 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 . . . 80 COS 211

Offset 78

Vehicle Permissive . . [1] 0 [2] 0

Vehicle Perm 2 Displacement 0 Phase Reservice. . NO

Splits: Phase 1- 13 2- 39 3- 0 4- 28

Phase 5- 13 6- 39 7- 0 8- 28

Phase 9- 20 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 3

Cycle Length . . . 80 COS 311

Offset 75

Vehicle Permissive . . [1] 0 [2] 0

Vehicle Perm 2 Displacement 0 Phase Reservice. . NO

Splits: Phase 1- 13 2- 47 3- 0 4- 20

Phase 5- 13 6- 47 7- 0 8- 20

Phase 9- 20 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]

NIC Program Steps

Step	Program	Step Begins	Pattern	Override
1	1	0600	1	NO
2	1	1000	2	NO
3	1	1500	3	NO
4	1	2200	0	NO
5	2	0600	2	NO
6	2	2200	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	X	X	.	X	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	.	.	.	.	.	.

Step 2 Program 1 Step Begins 2200

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 3 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	X	X	.	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	.	.	.	.	.	.

Step 4 Program 2 Step Begins 2200

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	.	.	.	.	.	.