

## LOGICAL I/O PROCESSOR PROGRAMMING DETAIL TO PRODUCE SPECIAL FYA-PPLT SIGNAL SEQUENCE

(program controller as shown below)

1. FROM MAIN MENU PRESS '2' (PHASE CONTROL), THEN '1' (PHASE CONTROL FUNCTIONS), SCROLL TO THE BOTTOM OF THE MENU AND ENABLE ACT LOGIC COMMANDS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11.
2. FROM MAIN MENU PRESS '6' (OUTPUTS), THEN '3' (LOGICAL I/O PROCESSOR).

LOGICAL I/O COMMAND #1 (+/-COMMAND#)  
IF ACTIVE PHASE #1 IS ON  
AND RED CLEAR ON PHASE #1 IS ON

↓  
SCROLL DOWN

THEN:  
SET OUTPUT ASSIGNMENT #50 ON  
SET OUTPUT ASSIGNMENT #51 OFF

PRESS '+'

NOTE: LOGIC FOR PHASE 1 RED CLEAR WHEN TRANSITIONING FROM PHASE 1 TO PHASE 2 (HEAD 11).

LOGICAL I/O COMMAND #2 (+/-COMMAND#)  
IF ACTIVE PHASE #1 IS ON

↓  
SCROLL DOWN

THEN:  
SET OUTPUT ASSIGNMENT #52 OFF

PRESS '+'

NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 1 (HEAD 11).

LOGICAL I/O COMMAND #3 (+/-COMMAND#)  
IF YELLOW ON PHASE #1 IS ON

↓  
SCROLL DOWN

THEN:  
SET OUTPUT ASSIGNMENT #51 ON

PRESS '+'

NOTE: LOGIC FOR YELLOW ARROW CLEARANCE FROM PHASE 1 (HEAD 11).

LOGICAL I/O COMMAND #4 (+/-COMMAND#)  
IF ACTIVE PHASE #5 IS ON  
AND RED CLEAR ON PHASE #5 IS ON

↓  
SCROLL DOWN

THEN:  
SET OUTPUT ASSIGNMENT #42 ON  
SET OUTPUT ASSIGNMENT #43 OFF

PRESS '+'

NOTE: LOGIC FOR PHASE 5 RED CLEAR WHEN TRANSITIONING FROM PHASE 5 TO PHASE 6 (HEAD 51).

LOGICAL I/O COMMAND #5 (+/-COMMAND#)  
IF ACTIVE PHASE #5 IS ON

↓  
SCROLL DOWN

THEN:  
SET OUTPUT ASSIGNMENT #44 OFF

PRESS '+'

NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 5 (HEAD 51).

LOGICAL I/O COMMAND #6 (+/-COMMAND#)  
IF YELLOW ON PHASE #5 IS ON

↓  
SCROLL DOWN

THEN:  
SET OUTPUT ASSIGNMENT #43 ON

PRESS '+' twice

NOTE: LOGIC FOR YELLOW ARROW CLEARANCE FROM PHASE 5 (HEAD 51).

LOGICAL I/O COMMAND #07 (+/-COMMAND#)  
IF ACTIVE PHASE #7 IS ON  
AND RED CLEAR ON PHASE #7 IS ON

↓  
SCROLL DOWN

THEN:  
SET OUTPUT ASSIGNMENT #39 ON  
SET OUTPUT ASSIGNMENT #40 OFF

PRESS '+'

NOTE: LOGIC FOR PHASE 7 RED CLEAR WHEN TRANSITIONING FROM PHASE 7 TO PHASE 8 (HEAD 71).

LOGICAL I/O COMMAND #08 (+/-COMMAND#)  
IF ACTIVE PHASE #7 IS ON

↓  
SCROLL DOWN

THEN:  
SET OUTPUT ASSIGNMENT #41 OFF

PRESS '+'

NOTE: LOGIC FOR SWITCHING FLASHING YELLOW ARROW "OFF" DURING PHASE 7 (HEAD 71).

LOGICAL I/O COMMAND #09 (+/-COMMAND#)  
IF YELLOW ON PHASE #7 IS ON

↓  
SCROLL DOWN

THEN:  
SET OUTPUT ASSIGNMENT #40 ON

PRESS '+'

NOTE: LOGIC FOR YELLOW ARROW CLEARANCE FROM PHASE 7 (HEAD 71).

LOGICAL I/O COMMAND #10 (+/-COMMAND#)  
IF INPUT ASSIGNMENT #14 IS ON  
OR ACTIVE PREEMPTION #2 IS ON

↓  
SCROLL DOWN

THEN:  
SET OUTPUT ASSIGNMENT #33 ON

PRESS '+'

NOTE: FIRE HOUSE PILOT LAMP LOGIC.

LOGICAL I/O COMMAND #11 (+/-COMMAND#)  
IF INPUT ASSIGNMENT #14 IS OFF  
AND ACTIVE PREEMPTION #2 IS OFF

↓  
SCROLL DOWN

THEN:  
SET OUTPUT ASSIGNMENT #33 OFF

PRESS '+'

NOTE: FIRE HOUSE PILOT LAMP LOGIC.

END OF PROGRAMMING

**REFERENCE SCHEDULE**  
USE TO INTERPRET LOGIC PROCESSOR

OUTPUT 39 =	Overlap D Red
OUTPUT 40 =	Overlap D Yellow
OUTPUT 41 =	Overlap D Green
OUTPUT 42 =	Overlap C Red
OUTPUT 43 =	Overlap C Yellow
OUTPUT 44 =	Overlap C Green
OUTPUT 50 =	Overlap A Red
OUTPUT 51 =	Overlap A Yellow
OUTPUT 52 =	Overlap A Green
OUTPUT 33 =	Phase 2 Ped Yellow.
INPUT 14 =	Preempt 2 Input.

## OVERLAP PROGRAMMING DETAIL

(program controller as shown below)

FROM MAIN MENU PRESS '8' (OVERLAPS), THEN '1' (VEHICLE OVERLAP SETTINGS).

PAGE 1: VEHICLE OVERLAP 'A' SETTINGS  
PHASE: 12345678910111213141516  
VEH OVL PARENTS: XX  
VEH OVL NOT VEH:  
VEH OVL NOT PED:  
VEH OVL GRN EXT:  
STARTUP COLOR: - RED - YELLOW - GREEN  
FLASH COLORS: - RED - YELLOW X GREEN  
SELECT VEHICLE OVERLAP OPTIONS: (Y/N)  
FLASH YELLOW IN CONTROLLER FLASH?...Y  
GREEN EXTENSION (0-255 SEC)...0.0  
YELLOW CLEAR (0=PARENT,3-25.5 SEC)...0.0  
RED CLEAR (0=PARENT,0.1-25.5 SEC)...0.0  
OUTPUT AS PHASE # (0=NONE, 1-16)...0

PRESS '+' TWICE

NOTICE GREEN FLASH

PAGE 1: VEHICLE OVERLAP 'C' SETTINGS  
PHASE: 12345678910111213141516  
VEH OVL PARENTS: XX  
VEH OVL NOT VEH:  
VEH OVL NOT PED:  
VEH OVL GRN EXT:  
STARTUP COLOR: - RED - YELLOW - GREEN  
FLASH COLORS: - RED - YELLOW X GREEN  
SELECT VEHICLE OVERLAP OPTIONS: (Y/N)  
FLASH YELLOW IN CONTROLLER FLASH?...Y  
GREEN EXTENSION (0-255 SEC)...0.0  
YELLOW CLEAR (0=PARENT,3-25.5 SEC)...0.0  
RED CLEAR (0=PARENT,0.1-25.5 SEC)...0.0  
OUTPUT AS PHASE # (0=NONE, 1-16)...0

PRESS '+'

NOTICE GREEN FLASH

PAGE 1: VEHICLE OVERLAP 'D' SETTINGS  
PHASE: 12345678910111213141516  
VEH OVL PARENTS: XX  
VEH OVL NOT VEH:  
VEH OVL NOT PED:  
VEH OVL GRN EXT:  
STARTUP COLOR: - RED - YELLOW - GREEN  
FLASH COLORS: - RED - YELLOW X GREEN  
SELECT VEHICLE OVERLAP OPTIONS: (Y/N)  
FLASH YELLOW IN CONTROLLER FLASH?...N  
GREEN EXTENSION (0-255 SEC)...0.0  
YELLOW CLEAR (0=PARENT,3-25.5 SEC)...0.0  
RED CLEAR (0=PARENT,0.1-25.5 SEC)...0.0  
OUTPUT AS PHASE # (0=NONE, 1-16)...0

PRESS '+'

NOTICE GREEN FLASH

OVERLAP PROGRAMMING COMPLETE

## FLASHER CIRCUIT MODIFICATION DETAIL

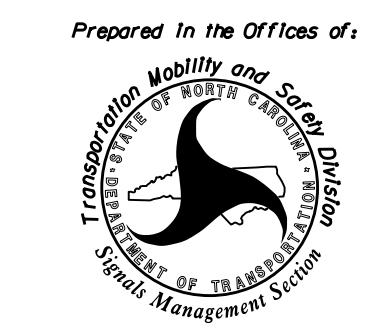
IN ORDER TO INSURE THAT SIGNALS FLASH CONCURRENTLY ON THE SAME APPROACH, MAKE THE FOLLOWING FLASHER CIRCUIT CHANGES:

1. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-4 AND TERMINATE ON T2-2.
2. ON REAR OF PDA - REMOVE WIRE FROM TERM. T2-5 AND TERMINATE ON T2-3.
3. REMOVE FLASHER UNIT 2.

THE CHANGES LISTED ABOVE TIES ALL PHASES AND OVERLAPS TO FLASHER UNIT 1.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 07-1834  
DESIGNED: April 2014  
SEALED: 4-08-15  
REVISED: N/A

ELECTRICAL DETAIL SHEET 2 OF 3

 Prepared In the Offices of: 750 N. Greenfield Pkwy, Garner, NC 27529	DETAILS FOR: <b>SR 1541 (W. Wendover Avenue)</b> at <b>Morris Farm Drive</b>	SEAL JOHN T. ROWE, JR. PROFESSIONAL ENGINEER No. 008453 State of North Carolina	Division 7 Guilford County High Point PLAN DATE: July 2014 REVIEWED BY: JTR PREPARED BY: James Peterson REVIEWED BY:
REVISIONS: _____ INIT. DATE		DocuSigned by: John T. Rowe, Jr. 4/21/2015 DATE: _____	
		SIG. INVENTORY NO. 07-1834	

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 J. Peterson