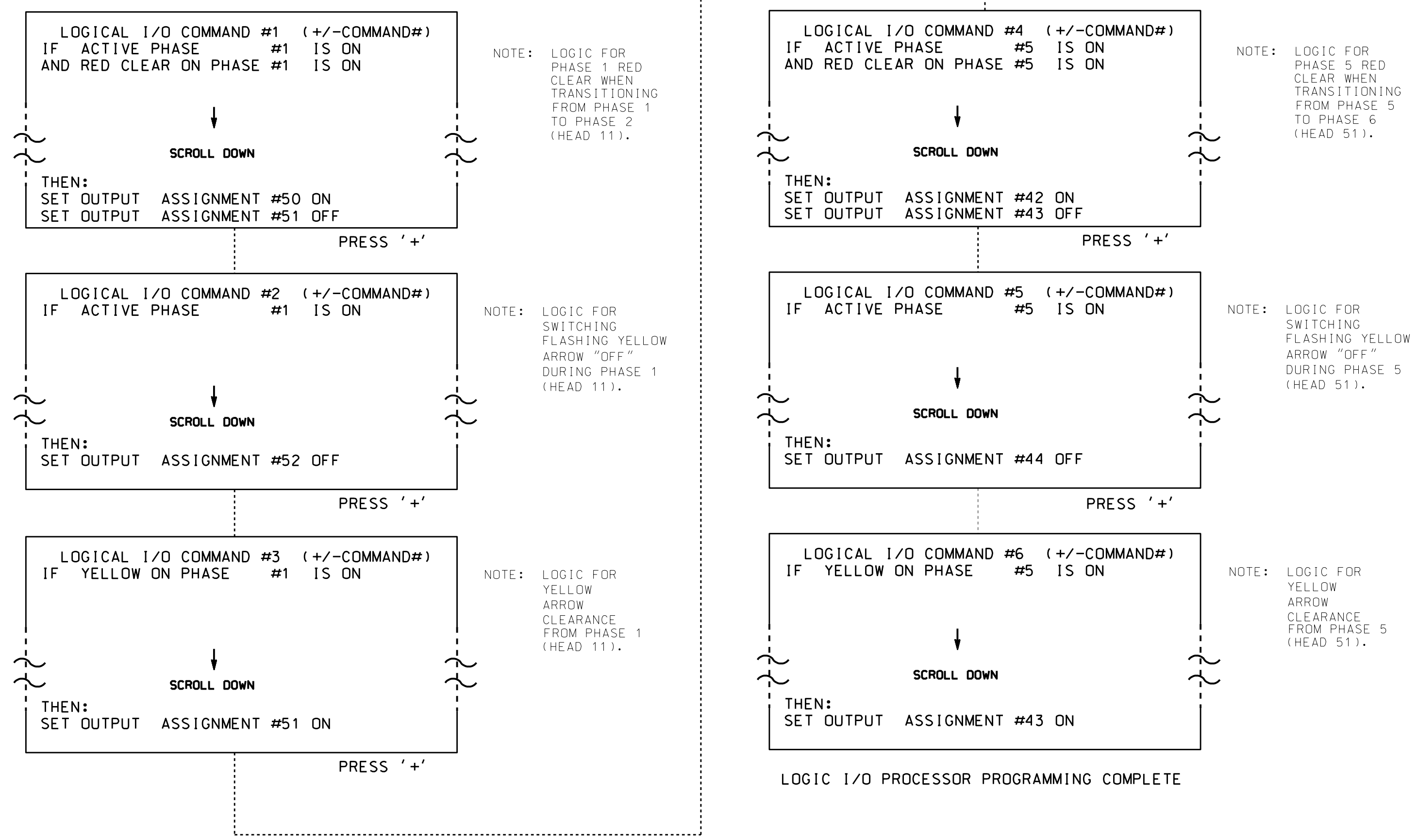# LOGICAL I/O PROCESSOR PROGRAMMING DETAIL

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 AND 6.

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

LOGIC I/O PROCESSOR PROGRAMMING COMPLETE

OUTPUT REFERENCE SCHEDULE

```
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
```

OVERLAP PROGRAMMING DETAIL

(program controller as shown below)

FROM MAIN MENU PRESS '8' (OVERLAPS), THEN '1' (VEHICLE OVERLAP SETTINGS).
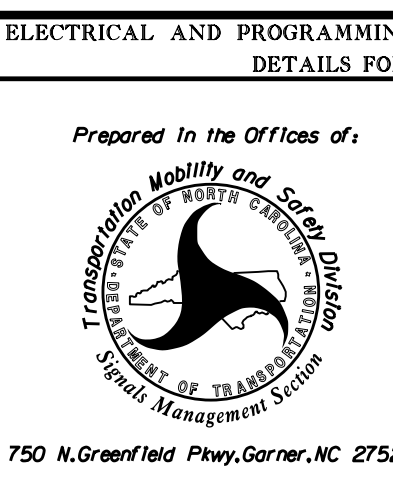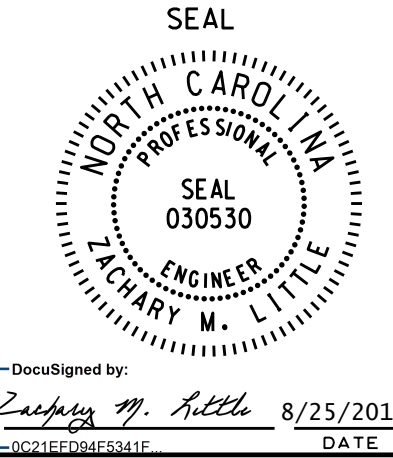
```
PAGE 1: VEHICLE OVERLAP 'A' SETTINGS
PHASE:           !1234567891011121314151 6
VEH OVL PARENTS: !XX
VEH OVL NOT VEH: !
VEH OVL NOT PED: !
VEH OVL GRN EXT: !
STARTUP COLOR: _ RED  _ YELLOW  _ GREEN
FLASH COLORS:  _ RED  _ YELLOW  X GREEN   ← NOTICE GREEN FLASH
SELECT VEHICLE OVERLAP OPTIONS:   (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?...Y
GREEN EXTENSION (0-255 SEC)........O
YELLOW CLEAR (O=PARENT,3-25.5 SEC)..O.O
RED CLEAR (O=PARENT,0.1-25.5 SEC)...O.O
OUTPUT AS PHASE # (O=NONE, 1-16)....O
```
PRESS '+' TWICE

```
PAGE 1: VEHICLE OVERLAP 'C' SETTINGS
PHASE:           !1234567891011121314151 6
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   ← NOTICE GREEN FLASH
SELECT VEHICLE OVERLAP OPTIONS:   (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?...Y
GREEN EXTENSION (0-255 SEC)........O
YELLOW CLEAR (O=PARENT,3-25.5 SEC)..O.O
RED CLEAR (O=PARENT,0.1-25.5 SEC)...O.O
OUTPUT AS PHASE # (O=NONE, 1-16)....O
```

OVERLAP PROGRAMMING COMPLETE

```
THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 13-1193
DESIGNED: February 2016
SEALED: 8/18/2016
REVISED:
```

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared in the Offices of:

Transportation Mobility and Safety Division
DEPARTMENT OF TRANSPORTATION
Signals Management Section
750 N.Greenfield Pkwy,Garner,NC 27529

US 25 (Hendersonville Road)
at
Valley Springs Road/
Deerlake Drive

Division 13	Buncombe County	Biltmore Forest
PLAN DATE: July 2016	REVIEWED BY: BAS	
PREPARED BY: C. Strickland	REVIEWED BY:	

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA
PROFESSIONAL
SEAL
030530
ENGINEER
ZACHARY M. LITTLE

DocuSigned by:
Zachary M. Little 8/25/2016
DC31EFD94F5341E   DATE

SIG. INVENTORY NO. 13-1193