5038 Nextec/1275 Traffic Link

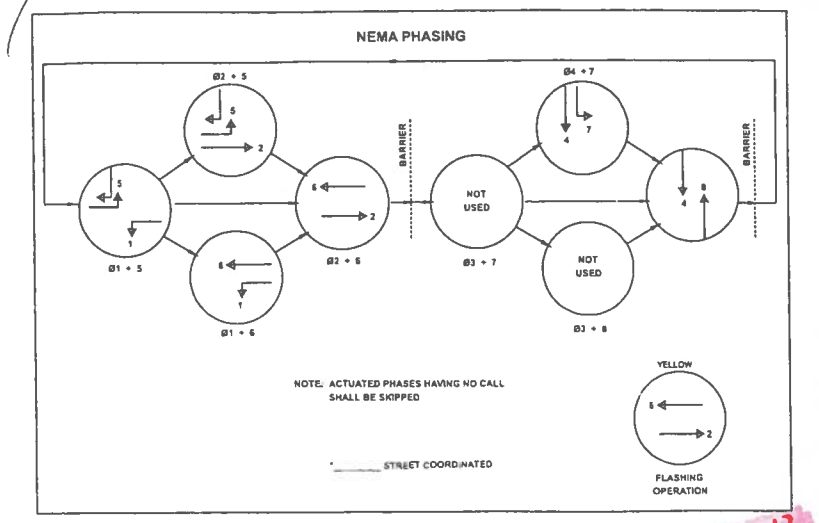
1258

INSTALLATION NOTES:

1. INSTALL SIGNAL HEADS, LOOPS, LOOP LEAD-INS, CABINET AND CONTROLLER, CONDUIT, SIGNAL SPAN CABLE AND WIRES AS SHOWN.
2. REMOVE EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH NEW MARKINGS.
3. INSTALL 24" STOP BAR AND PAVEMENT ARROWS AS SHOWN.
4. INSTALL 4" WHITE AND 4" YELLOW LANE LINE PAVEMENT MARKING AS SHOWN.

PROJECT NOTES:

1. POLE LOCATIONS ARE APPROXIMATE. 24 HOURS NOTICE SHALL BE GIVEN BY CONTRACTOR TO SCDOT INSPECTOR (803-737-6660) PRIOR TO DIGGING AND SETTING POLES. ALL POLES PER SCDOT SPECIFICATIONS.
2. A PRE-CONSTRUCTION MEETING SHALL BE HELD ON SITE WITH THE SCDOT DISTRICT SIGNAL SUPERVISOR PRIOR TO CONSTRUCTION. THE MEETING SHALL BE SCHEDULED AT LEAST 24 HOURS IN ADVANCE.
3. TRAFFIC SIGNAL ELECTRICAL SERVICE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. ALL EQUIPMENT, MATERIALS AND INSTALLATION PROCEDURES SHALL ADHERE TO THE SCDOT SIGNAL EQUIPMENT SPECIFICATIONS. FOR THE LATEST VERSION, CONTACT SCDOT TRAFFIC ENGINEERING IN COLUMBIA (803) 737-1646.
5. ALL PAVEMENT MARKINGS (REMOVAL AND REPLACEMENT) AS SHOWN ON THE PLANS, ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL INSTALLATION MUST BE PER SCDOT SPECIFICATIONS.
6. SCDOT SIGNAL INSPECTOR SHALL BE PRESENT FOR ALL LOOP CUTTING. PRIOR TO CUTTING LOOPS, 24 HOURS ADVANCE NOTICE SHALL BE GIVEN BY CONTRACTOR TO SCDOT SIGNAL INSPECTOR (803-737-6660).

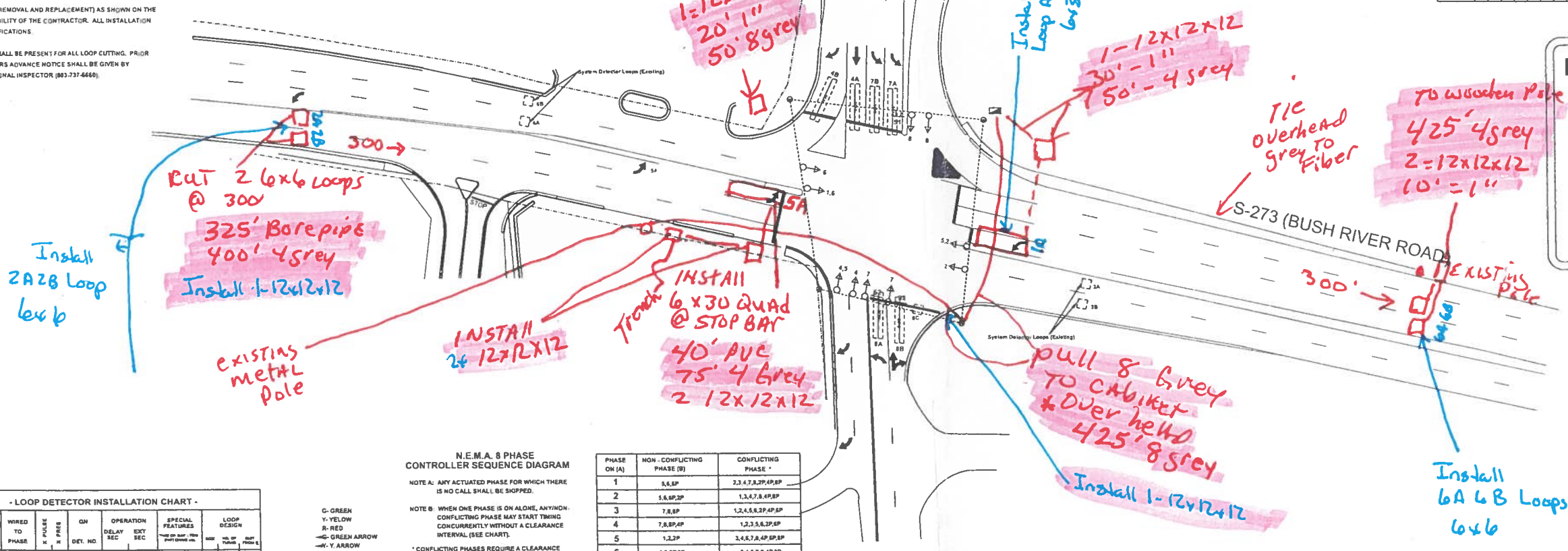



SIGNAL DISPLAY SEQUENCE (PREFERENTIAL PHASING)

| SIGNAL HEAD NUMBER | Phase 1 & 5 CLEAR TO 1-6 | 2-5 | 2-6 | Phase 2 & 6 CLEAR TO BARR. | CLEAR TO BARR. | Phase 4 & 8 CLEAR TO BARR. |
|---|---|---|---|---|---|---|
| Y 1,6 | R R R R R R | R R R R R R | R R R R R R | G Y R | | R R R |
| Y 5,2 | R R R R R R | R R R R R R | R R R R R R | G Y R | | R R R |
| Y 2 | R R R R R R | R R R R R R | R R R R R R | G Y R | | R R R |
| R 4 | R R R R R R | R R R R R R | R R R R R R | R R R | | Y R R |
| R 4,5 | R R R R R R | R R R R R R | R R R R R R | R R R | BARRIER | G R R |
| Y 6 | R R R R R R | R R R R R R | R R R R R R | G Y R | | G R R |
| R 7 | R R R R R R | R R R R R R | R R R R R R | R R R | | R R R |
| R 8 | R R R R R R | R R R R R R | R R R R R R | R R R | | G Y R |

ALTERNATE PHASES

| SIGNAL HEAD NUMBER | Phase 1 & 6 CLEAR TO 2-6 | Phase 2 & 5 CLEAR TO 2-6 | Phase 4 & 7 CLEAR TO 4-8 BARR. | CLEAR TO BARR. |
|---|---|---|---|---|
| 1,6 | G G G | R R R | R R R | R R |
| 5,2 | R R R | G G G | R R R | R R |
| 2 | R R R | G G G | R R R | R R |
| 4 | R R R | R R R | G G G | Y R |
| 4,5 | R R R | R R R | G G G | Y R |
| 6 | G G G | R R R | R R R | R R |
| 7 | R R R | R R R | R R R | R R |
| 8 | R R R | R R R | R R R | R R |




LEFT TURN YIELD ON GREEN

S1

LEFT TURN SIGNAL

S2

- LOOP DETECTOR INSTALLATION CHART -

| PHASE & LOOP LET # | RACK SLOT CHAN NO. NO. | WIRED TO PHASE | PULSE X | X FREE | QM DET. NO. | OPERATION DELAY SEC | OPERATION EXT SEC | SPECIAL FEATURES *THIS DET. SLOT = TEEN (NOT COUNTED VEH.) | LOOP DESIGN SIZE | NO. OF TURNS | SLOT FROM E |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1E | 11 : U | | | | 14 | | | | 6 | | |
| | : L | | | | | | | | | | |
| 1A | 18 : U | 1 | | X | 16 | | | | 6x30 | QUAD | 50 |
| 1B | 12 : U | | | | 1 | | | | | | |
| 2A | 12 : L | | | | 5 | | | | | | |
| 2B | 13 : U | | | | 21 | | | | | | |
| 2C | 13 : L | | | | 29 | | | | | | |
| 2D | 14 : U | | | | 5 | | | | | | |
| | : L | | | | | | | | | | |
| 3 | 15 : U | | | | 16 | | | | | | |
| | : L | | | | | | | | | | |
| 3 | 18 : L | | | | 28 | | | | | | |
| 4A | 16 : U | 4 | | X | 3 | | | | 6x30 | QUAD | +5 |
| 4B | 18 : L | 4 | | X | 7 | | | | 6x36 | QUAD | +5 |
| 4 | 17 : U | | | | 29 | | | | | | |
| 4 | 17 : L | | | | 31 | | | | | | |
| 4 | 18 : U | | | | 11 | | | 6,7 | | | |
| | : L | | | | | | | | | | |
| 5A | 21 : U | 5 | | X | | | | | 6x30 | QUAD | 50 |
| | : L | | | | | | | | | | |
| 5 | 20 : U | | | | 17 | | | | | | |
| 5A | 22 : L | | | | 3 | | | | | | |
| 5B | 22 : L | | | | 8 | | | | | | |
| 5C | 13 : U | | | | 32 | | | | | | |
| 5D | 21 : L | | | | 30 | | | | | | |
| 5E | 24 : U | | | | 19 | | | | | | |
| | : L | | | | | | | | | | |
| 7A | 15 : U | 7 | | X | 15 | | | | 6x30 | QUAD | +5 |
| | : L | | | | | | | | | | |
| 7B | 19 : L | 7 | | X | 18 | | | | 6x30 | QUAD | +5 |
| 8A | 25 : U | 8 | | X | 4 | | | | 6x30 | QUAD | +5 |
| 8B | 25 : L | 8 | | X | 8 | | | | 6x30 | QUAD | +5 |
| 8 | 27 : U | | | | 34 | | | | | | |
| 8 | 27 : L | | | | 32 | | | | | | |
| 8 | 26 : U | | | | 12 | | | 6,7 | | | |
| | : L | | | | | | | | | | |

N.E.M.A. 8 PHASE CONTROLLER SEQUENCE DIAGRAM

NOTE A: ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.

NOTE B: WHEN ONE PHASE IS ON ALONE, ANY NON-CONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART).

* CONFLICTING PHASES REQUIRE A CLEARANCE INTERVAL

** WHEN CALLED, TIMES WALK, THEN FLASHING DON'T WALK, THEN GOES STEADY DON'T WALK.

G- GREEN
Y- YELOW
R- RED
-G- GREEN ARROW
-Y- Y. ARROW
W- WALK **
D- DON'T WALK
W/FDW- WALK/ FLASHING DON'T WALK

| PHASE ON (A) | NON - CONFLICTING PHASE (B) | CONFLICTING PHASE * |
|---|---|---|
| 1 | 5,6,8P | 2,3,4,7,8,2P,4P,6P |
| 2 | 5,6,8P,3P | 1,3,4,7,8,4P,6P |
| 3 | 7,8,6P | 1,2,4,5,6,2P,4P,6P |
| 4 | 7,8,6P,4P | 1,2,3,5,6,2P,6P |
| 5 | 1,2,3P | 3,4,6,7,8,4P,6P,8P |
| 6 | 1,2,2P,8P | 3,4,5,7,8,4P,8P |
| 7 | 3,4,4P | 1,2,5,6,8,2P,6P,8P |
| 8 | 3,4,4P,6P | 1,2,5,6,7,2P,6P |

PHASE BANK 1

| | | PHASE 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| WALK | 0 | | | | | | | | |
| DON'T WALK | 1 | | | | | | | | |
| MIN | 2 | 8 | 15 | | 6 | 6 | 15 | 6 | 6 |
| TYPE 3 LIMIT | 3 | | | | | | | | |
| ADD/VEH | 4 | | | | | | | | |
| VEH EXT | 5 | 3.0 | | | 3.0 | 3.0 | | 3.0 | 3.0 |
| TIM B/R REDUC | 6 | | | | | | | | |
| MIN GAP | 7 | 3.0 | | | 3.0 | 3.0 | | 3.0 | 3.0 |
| MAX LIMIT | 8 | 15 | 30 | | 34 | 24 | 30 | 20 | 34 |
| MAXIMUM II | 9 | | | | | | | | |
| DELAYED WALK | A | | | | | | | | |
| PRMT PED CLR | B | | | | | | | | |
| COND SV MOV | C | | | | | | | | |
| TIME REDUC | D | | | | | | | | |
| YELLOW | E | 4.0 | 4.3 | | 4.0 | 4.0 | 4.3 | 4.0 | 4.0 |
| RED CLEAR | F | 2.0 | 2.0 | | 2.5 | 2.0 | 2.0 | 2.8 | 2.5 |

EXCLUSIVE PED:
WALK (F+0=E)=_____
FLASH DON'T WALK (F+E+1)=_____
RED CLEARANCE (F+0+2)=_____
LONG POWER DOWN CORRECTION FACTOR (F+0+1):_____
SHORT POWER DOWN CORRECTION FACTOR (F+0+7)=_____

| | 8 | A | B | C | D | |
|---|---|---|---|---|---|---|
| | | | | | | RR1 DLY |
| 0 | | | | | | RR1 CLR |
| 1 | PHASE 1 | | | | | EV4 DLY |
| 2 | PHASE 2 | | | | | EV4 CLR |
| 3 | PHASE 3 | | | | | EV3 DLY |
| 4 | PHASE 4 | | | | | EV3 CLR |
| 5 | PHASE 5 | | | | | EV2 DLY |
| 6 | PHASE 6 | | | | | EV2 CLR |
| 7 | PHASE 7 | | | | | EV1 DLY |
| 8 | PHASE 8 | | | | | EV1 CLR |
| | | | | | | RR2 DLY |
| | | | | | | RR2 CLR |
| | | | | | | EV DLY |
| | | | | | | EV CLR |
| | | | | | | RR DLY |
| | | | | | | RR CLR |

RED REVERT (F+0+F)=_____
ALL RED START (F+0+0)=_____

ADV WARN SIGN #1:
PHASE 8 (F+0+F)=_____
TIME BEFORE YELLOW (F+0+E)=_____

ADV WARN SIGN #2:
PHASE 8 (F+0+F)=_____
TIME BEFORE YELLOW (F+0+E)=_____

-SIGNAL EQUIPMENT-

| SIGNAL NUMBER | 1,6 | 2 | 4 | 4,5 | 5,2 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| LENS | R Y G | R Y G | R Y G | R Y G | R Y G | R Y G | R Y G | R Y G |
| PHASE | 1,6 | 7 | 4 | 4,5 | 5,2 | 6 | 7 | 8 |
| SIZE | 12" | 12" | 12" | 12" | 12" | 12" | 12" | 12" |
| QUANTITY | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |

ONE (1), 8 PHASE FULLY ACTUATED STANDARD 170 CONTROLLER WITH FLASHER, SIGNAL MONITOR UNIT, AND BASE MOUNTED CABINET.

(6) VEHICLE DETECTOR UNITS

1000 FT. FIBER OPTIC CABLE FOR INTERCONNECT

OLA=_____ OLC=_____

OLB=_____ OLD=_____

WOOD POLES : EXT. (W)
STEEL POLES : EXT. (S)
PEDESTRIAN POLES : EXT. PROP. (P)

VEHICLE SIGNALS: EXT. PROP.

| ROUTE NUMBER | Bush River Road | | I-26 Ramp | |
|---|---|---|---|---|
| APPROACH DIRECTION | EB | WB | NB | SB |
| SIGNAL DESIGN SPEED | 40 | 40 | 35 | 35 |
| GRADE (ASSUMED) | -1% | 1% | 0% | 0% |

SOUTH CAROLINA No. 14571 REGISTERED PROFESSIONAL ENGINEER FRANCIS SCOTT DAVENPORT III

TRAFFIC SIGNAL PLAN

S-273 (Bush River Road)

&

I-26 Eastbound Off-Ramp

Richland County South Carolina

APPROVED _____ DISTRICT TRAFFIC ENGINEER

APPROVED _____ DISTRICT ENGINEERING ADMINISTRATOR

DATE 01-16-07
SCALE 1" = 40'
DRAWN BY
CHECKED BY
PROJECT NO.