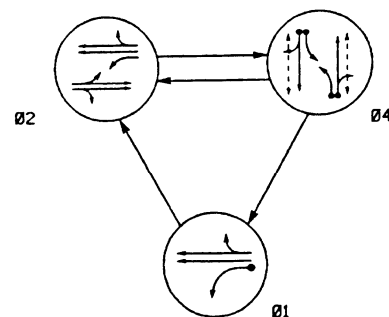


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND





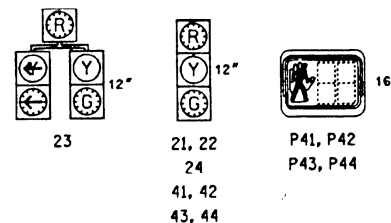
-  DETECTED MOVEMENT
 UNDETECTED MOVEMENT (OVERLAP)
 UNSIGNALIZED MOVEMENT
 PEDESTRIAN MOVEMENT

TABLE OF OPERATION

| SIGNAL FACE | PHASE | | | |
|----------------|--------------|-----|-----|--------|
| | Ø 1 | Ø 2 | Ø 4 | FLIGHT |
| 21, 22 | R | G | R | Y |
| 23 | G | G | R | Y |
| 24 | G | G | R | Y |
| 41, 42 | R | R | G | R |
| 43, 44 | R | R | G | R |
| P41, P42 | DW | DW | W | DRK |
| P43, P44 | DW | DW | W | DRK |

SIGNAL FACE I.D.

 Denotes L.E.D.



STANDARD SIGNAL FACE CLEARANCES

[illegible]

W - WALK
FDW - FLASHING DON'T WALK
DW - DON'T WALK

3 PHASE
SEMI-ACTUATED
(RALEIGH CITY SYSTEM)

NOTES

1. Locate all underground utilities prior to pole drilling and conduit trenching.
2. Perform all work in accordance with the 1993 NCDOT "Traffic Signal Specifications" and any subsequent addenda.
3. Omit phase 1 during phase 2 on.
4. Wire cabinet to allow the controller to clear from phase 2 to phase 1 by progressing through phase 4 (see Electrical Details for wiring).
5. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
6. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
7. Set signal on flash from 11:00 PM until 6:00 AM unless otherwise directed by the Area Traffic Engineer.
8. Set all detector units to presence mode.
9. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
10. This is a test location for the use of pedestrian countdown heads and lighted pedestrian pushbutton call indicators.

TIMING CHART























| PHASE | 01 | 02 | 04 |
|---------------------|----------|-------------|----------|
| MINIMUM GREEN | 5 SEC. | 10 SEC. | 7 SEC. |
| PASSAGE GAP | 2 SEC. | 0 SEC. | 2 SEC. |
| YELLOW CHANGE INT. | 4.0 SEC. | 4.0 SEC. | 4.0 SEC. |
| RED CLEARANCE | 2.0 SEC. | 2.0 SEC. | 2.0 SEC. |
| MAX. 1 | 20 SEC. | 35 SEC. | 30 SEC. |
| RECALL POSITION | NONE | MAX. RECALL | NONE |
| VEH. CALL MEMORY | NONLOCK | NA | NONLOCK |
| WALK | - SEC. | 1 SEC. | 7 SEC. |
| FLASHING DON'T WALK | - SEC. | 1 SEC. | 8 SEC. |

LOOP & DETECTOR UNIT INSTALLATION CHART

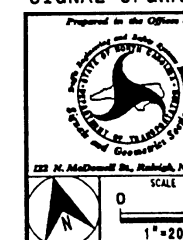
NEMA CONTROLLER WITH TS-1 CABINET

| INDUCTIVE LOOPS | | | | | | | | | | DETECTOR UNITS | | | | |
|-----------------|-----------|-------|-------------------------|-----|----------|----------|-----|----------|-----------|----------------|---------|------|-------------------------------|----------------------------------|
| LOOP NO. | SIZE (ft) | TURNS | DIST. FROM STOPBAR (ft) | NEW | EXISTING | UNIT NO. | NEW | EXISTING | C-SQUARED | NEMA PHASE | TIMING | | PLACE CALL DURING GREEN PHASE | INHIBIT DELAY DURING GREEN PHASE |
| | | | | | | | | | | | FEATURE | TIME | | |
| 1A | 6' X 60' | 1 | + 5' | X | 1 | X | 1 | 1 | C-DELAY | 5 SEC. | ALL | YES | | |
| 4A, 4B | 6' X 60' | 1 | + 5' | X | 2 | X | - | 4 | - | - SEC. | ALL | NO | | |
| 4C, 4D | 6' X 60' | 1 | + 5' | X | 3 | X | - | 4 | - | - SEC. | ALL | NO | | |

LEGEND

- | PROPOSED | | EXISTING |
|---|-----------------------------------|---|
|  | Traffic Signal Head |  |
|  | Modified Signal Head | N/A |
|  | Signal |  |
|  | Pedestrian Signal Head |  |
|  | Signal Pole with Guy |  |
|  | Signal Pole with Sidewalk Guy |  |
|  | Inductive Loop Detector |  |
|  | Controller & Cabinet Junction Box |  |
|  | 2-In Underground Conduit |  |
| N/A | Right of Way with Marker |  |
|  | Directional Arrow |  |
|  | Pavement Marking Arrow |  |
| (A) | "NO TURN ON RED" Sign (R10-11) | (A) |
| (B) | Left Arrow "ONLY" Sign (R3-5L) | (B) |

SIGNAL UPGRADE



SR 3007 (HILLSBOROUGH STREET)
AT
SR 1687 (DIXIE TRAIL)

| | | | |
|--------------|---------------|--------------|---------|
| Division 05 | | Wake County | Raleigh |
| PLAN DATE: | MAY 2001 | REVIEWED BY: | |
| OPERATED BY: | Alexander/Mee | REVIEWED BY: | |

| | | | | |
|---|-------------|-------------------|-------------|------|
| 0 | PREPARED BY | ALABASTINI / R002 | REVIEWED BY | |
| | REVISIONS | | INIT. | DATE |
| | | | | |
| | | | | |
| | | | | |

SEAL

NORTH CAROLINA

PROFESSIONAL

SEAL
022599

ENGINEER

JAMES B. VOSO

R. Voso 5/10

DATE

INVENTORY NO. 05-002

PROPOSED CROSSWALK