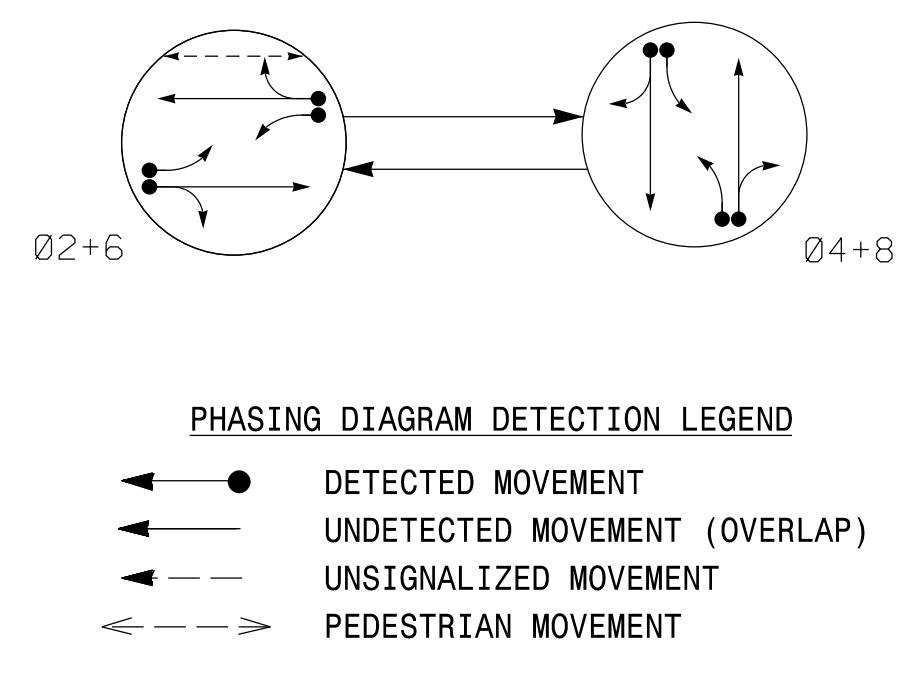


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND
DETECTED MOVEMENT
UNDETECTED MOVEMENT (OVERLAP)
UNSIGNALIZED MOVEMENT
PEDESTRIAN MOVEMENT

EV Preempt Phases

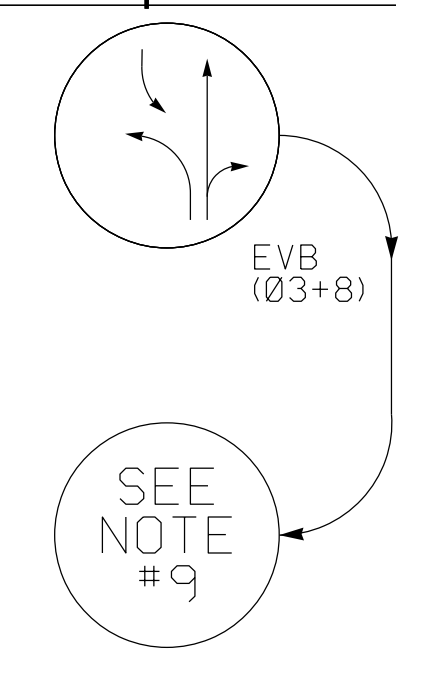


TABLE OF OPERATION

Table with columns: SIGNAL FACE, PHASE (02, 04, EVB, 06, 08, OL1, OL3, OL4), and various signal states.

2033 SOFTWARE w/ 2070 CONTROLLER LOOP & DETECTOR UNIT INSTALLATION CHART

Large table detailing inductive loops, detector programming, timing, and attributes for various loop numbers (2A-8B).

* Video Detection Zone

2 Phase Fully Actuated W/ EV Preemption (Durham Signal System)

NOTES

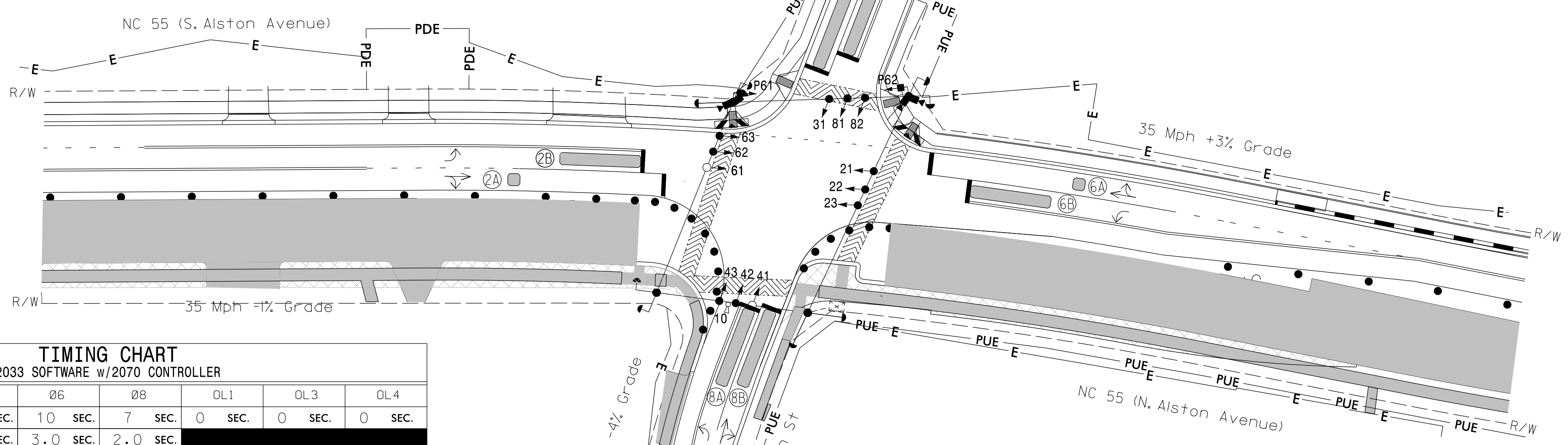
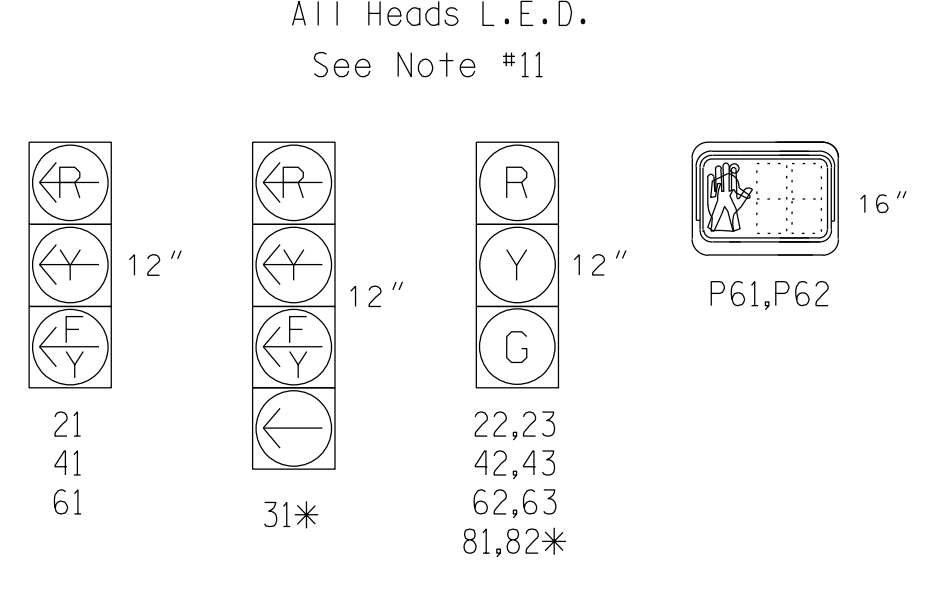
- 1. Refer to "Road Standard Drawings NCDOT" dated January 2012...
2. Do not program signal for late night flashing operation...
3. Set all detector units to presence mode...
4. Program all timing information into phase banks 1,2, and 3...
5. Set phase bank 3 maximum limit to 250 seconds...
6. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls...
7. Program pedestrian heads to countdown the flashing "Don't Walk" time...
8. This intersection features an optical preemption system...
9. Upon completion of Emergency Vehicle Preemption, controller returns to normal operation...
10. Maximum times shown in timing chart are for free-run operation only...
11. Reconnect and unbag signal heads #31, #81 and #82 during this phase of construction...
12. Contractor shall adjust video detection zones as required.

2033 EV PREEMPTION

Table with columns: FUNCTION and EV6 (SECONDS). Rows include DELAY BEFORE PREEMPT, MIN. PED. CLEAR BEFORE PREEMPT, MIN. GREEN BEFORE PREEMPT, CLEARANCE TIME, and PREEMPT EXTEND**.

* See Timing Chart for Min Ped Clearance
** Program Timing on Optical Detector Unit

SIGNAL FACE I.D.



LEGEND

Legend table defining symbols for PROPOSED and EXISTING elements: Traffic Signal Head, Modified Signal Head, Pedestrian Signal Head, Signal Pole, Inductive Loop Detector, Controller & Cabinet, Junction Box, 2-in Underground Conduit, Right of Way, Directional Arrow, Work Area, Drums, Construction Easement, Permanent Utility Easement, Permanent Drainage Easement, Barricades, Direct Bury, Optical Detector, Video Detector, Video Detection Area.

TIMING CHART 2033 SOFTWARE w/2070 CONTROLLER

Timing chart table with columns: PHASE, 02, 03, 04, 06, 08, OL1, OL3, OL4. Rows include MINIMUM INITIAL, VEHICLE EXTENSION, YELLOW CHANGE INT., RED CLEARANCE, MAXIMUM LIMIT, RECALL POSITION, VEHICLE CALL MEMORY, DOUBLE ENTRY, WALK, FLASHING DON'T WALK, MIN PED CLEARANCE, TYPE 3 LIMIT, ALTERNATE EXTENSION, ADD PER VEHICLE, MAXIMUM INITIAL, MAXIMUM GAP, REDUCE 0.1 SEC EVERY, and MINIMUM GAP.

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Signal Upgrade - Temporary Design 4 (TMP Phase 2, Steps 1-6)

SEPI ENGINEERING & CONSTRUCTION logo and contact information: 1025 Wade Avenue, Raleigh, NC 27605, Tel: 919-789-9977, Fax: 919-789-9591, License #: C-2197

Professional Engineer Seal for J. Hochanadel, State of North Carolina, License No. 28430.

Project information: NC 55 (South/North Alston Avenue) at E. Main St, Durham County, Durham. Plan Date: September 2014. Prepared by: A Drayton. Reviewed by: J Hochanadel.

Professional Engineer Seal for J. Hochanadel, State of North Carolina, License No. 28430.

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