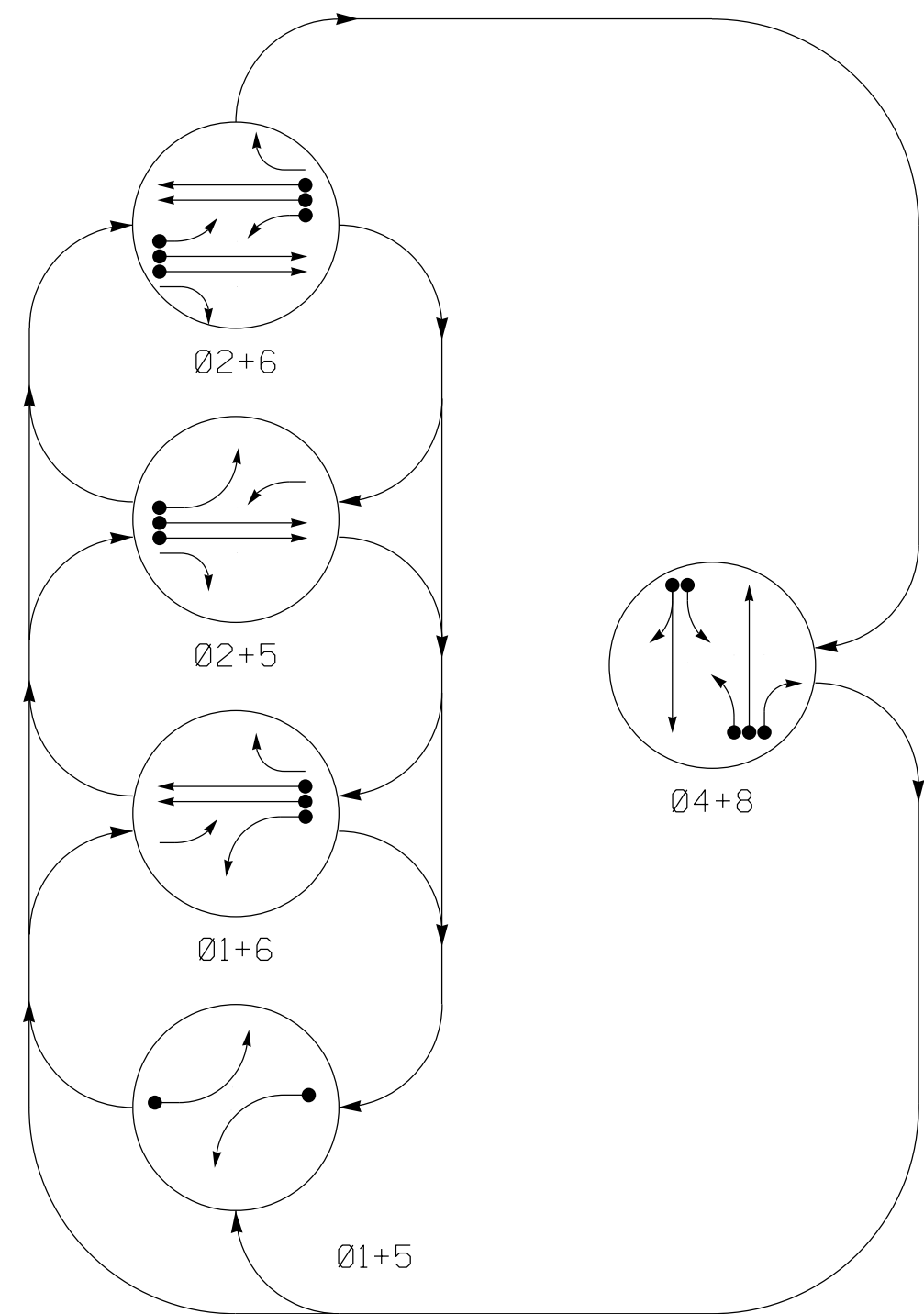
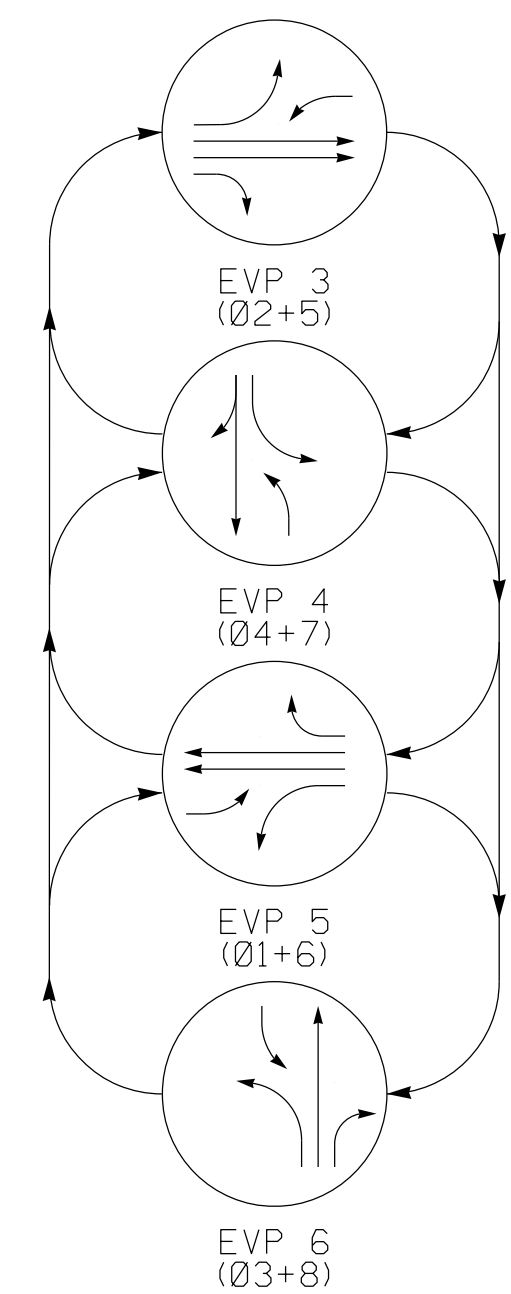


PHASING DIAGRAM



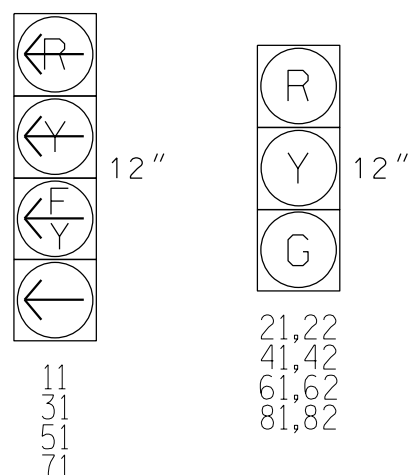
EV PREEMPT PHASES



SIGNAL FACE	PHASE								
	Ø 1+5	Ø 1+6	Ø 2+5	Ø 2+6	Ø 4+8	EVP 3	EVP 4	EVP 5	EVP 6
11	←	←	←	←	←	←	←	←	←
21, 22	R	R	G	G	R	G	R	R	Y
31	←	←	←	←	←	←	←	←	←
41, 42	←	←	R	R	G	R	G	R	R
51	←	←	←	←	←	←	←	←	←
61, 62	R	G	R	G	R	R	R	G	Y
71	←	←	←	←	←	←	←	←	←
81, 82	R	R	R	R	G	R	R	R	G

SIGNAL FACE I.D.

All Heads L.E.D.



ASC/3 DETECTOR INSTALLATION CHART											
DETECTOR					PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	-	1	Yes	-	15	-	S	X
2A/S1	6X6	420	EXIST	-	2	Yes	-	3	-	G	X
2B/S2	6X6	420	EXIST	-	2	Yes	-	-	X	N	X
4A	6X40	0	2-4-2	-	4	Yes	-	-	-	S	X
4B	6X40	0	2-4-2	-	4	Yes	-	10	-	S	X
5A	6X40	0	2-4-2	-	5	Yes	-	15	-	S	X
6A/S3	6X6	420	EXIST	-	6	Yes	-	-	X	N	X
6B/S4	6X6	420	EXIST	-	6	Yes	-	-	X	N	X
8A	6X40	0	2-4-2	-	8	Yes	-	-	-	S	X
8B	6X40	0	2-4-2	-	8	Yes	-	-	-	S	X
8C	6X40	0	2-4-2	-	8	Yes	-	15	-	S	X

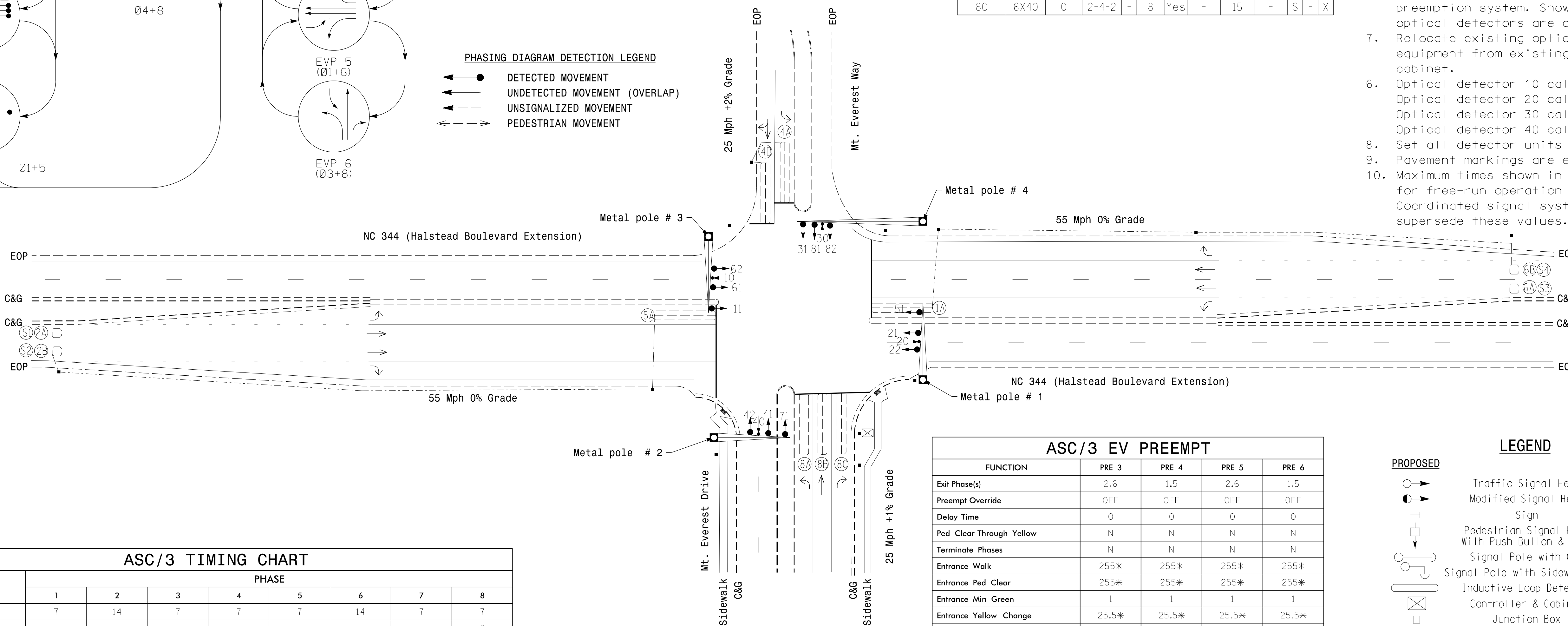
5 Phase Fully Actuated W/ EV Preemption (Elizabeth City Signal System)

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or 5 may be lagged.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- This intersection features an optical preemption system. Shown locations of optical detectors are conceptual only.
- Relocate existing optical detection equipment from existing cabinet to new cabinet.
- Optical detector 10 calls EVP5; Optical detector 20 calls EVP3; Optical detector 30 calls EVP6; Optical detector 40 calls EVP4;
- Set all detector units to presence mode.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

PHASING DIAGRAM DETECTION LEGEND

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



ASC/3 TIMING CHART

FEATURE	PHASE							
	1	2	3	4	5	6	7	8
Min Green *	7	14	7	7	7	14	7	7
Walk *	-	-	-	-	-	-	-	Ø
Ped Clear	-	-	-	-	-	-	-	-
Veh. Extension *	2.0	6.0	-	2.0	2.0	6.0	-	2.0
Max 1 *	25	70	-	25	25	70	-	25
Yellow	3.0	5.2	3.0	3.1	3.0	5.2	3.0	3.1
Red Clear	2.9	1.2	2.6	3.1	2.9	1.2	3.2	3.1
Actions B4 Add *	-	0	-	-	-	0	-	-
Seconds / Actuation *	-	1.5	-	-	-	1.5	-	-
Max Initial *	-	46	-	-	-	46	-	-
Time Before Reduction *	-	15	-	-	-	15	-	-
Time To Reduce *	-	45	-	-	-	45	-	-
Minimum Gap	-	3.4	-	-	-	3.4	-	-
Locking Detector	-	X	-	-	-	X	-	-
Recall Position	-	VEH. RECALL	-	-	-	VEH. RECALL	-	-
Dual Entry	-	-	-	X	-	-	-	X
Simultaneous Gap	X	X	X	X	X	X	X	X

* 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.

ASC/3 EV PREEMPT

FUNCTION	PRE 3	PRE 4	PRE 5	PRE 6
Exit Phase(s)	2,6	1,5	2,6	1,5
Preempt Override	OFF	OFF	OFF	OFF
Delay Time	0	0	0	0
Ped Clear Through Yellow	N	N	N	N
Terminate Phases	N	N	N	N
Entrance Walk	255*	255*	255*	255*
Entrance Ped Clear	255*	255*	255*	255*
Entrance Min Green	1	1	1	1
Entrance Yellow Change	25.5*	25.5*	25.5*	25.5*
Entrance Red Clear	25.5*	25.5*	25.5*	25.5*
Minimum Dwell Time	14	7	14	7
Preempt Input Extension Time	2	2	2	2
Preempt Max Time	120	120	120	120
Exit Yellow Change	25.5*	25.5*	25.5*	25.5*
Exit Red Clear	25.5*	25.5*	25.5*	25.5*

* Allows normal phase times to be used.

LEGEND

- | PROPOSED | EXISTING |
|--|----------|
| ○ Traffic Signal Head | ● N/A |
| ○ Modified Signal Head | ○ N/A |
| — Sign | — |
| ○ Pedestrian Signal Head With Push Button & Sign | ○ |
| ○ 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 | — |
| → Directional Arrow | → |
| ○ Optical Detector | ○ |
| ○ Metal Pole with Mastarm | ○ |
| N/A Truncated Domes | ○ |

Signal Upgrade

Prepared for the Offices of:
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 SIGNAL DESIGN SECTION

750 N. Greenfield Pkwy, Garner, NC 27529

PLANS PREPARED BY: **DRMP**
 DRMP, Inc.
 8000 Regency Parkway, Suite 175
 Cary, NC 27513
 NC License No. C-2213 (919) 650-1038

NC 344 (Halstead Blvd. Ext.)
 at
 Mt. Everest Way/
 Mt. Everest Drive

Division 1 Pasquotank County Elizabeth City
 PLAN DATE: March 2018 REVIEWED BY: AJ Davis
 PREPARED BY: JA Le REVIEWED BY: LM Moon

REVISIONS: _____ INIT. DATE _____

Seal: **Lisa M. Moon**, ENGINEER, License No. 022516
 DATE: 9/20/2018
 SIG. INVENTORY NO. 01-0755

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED