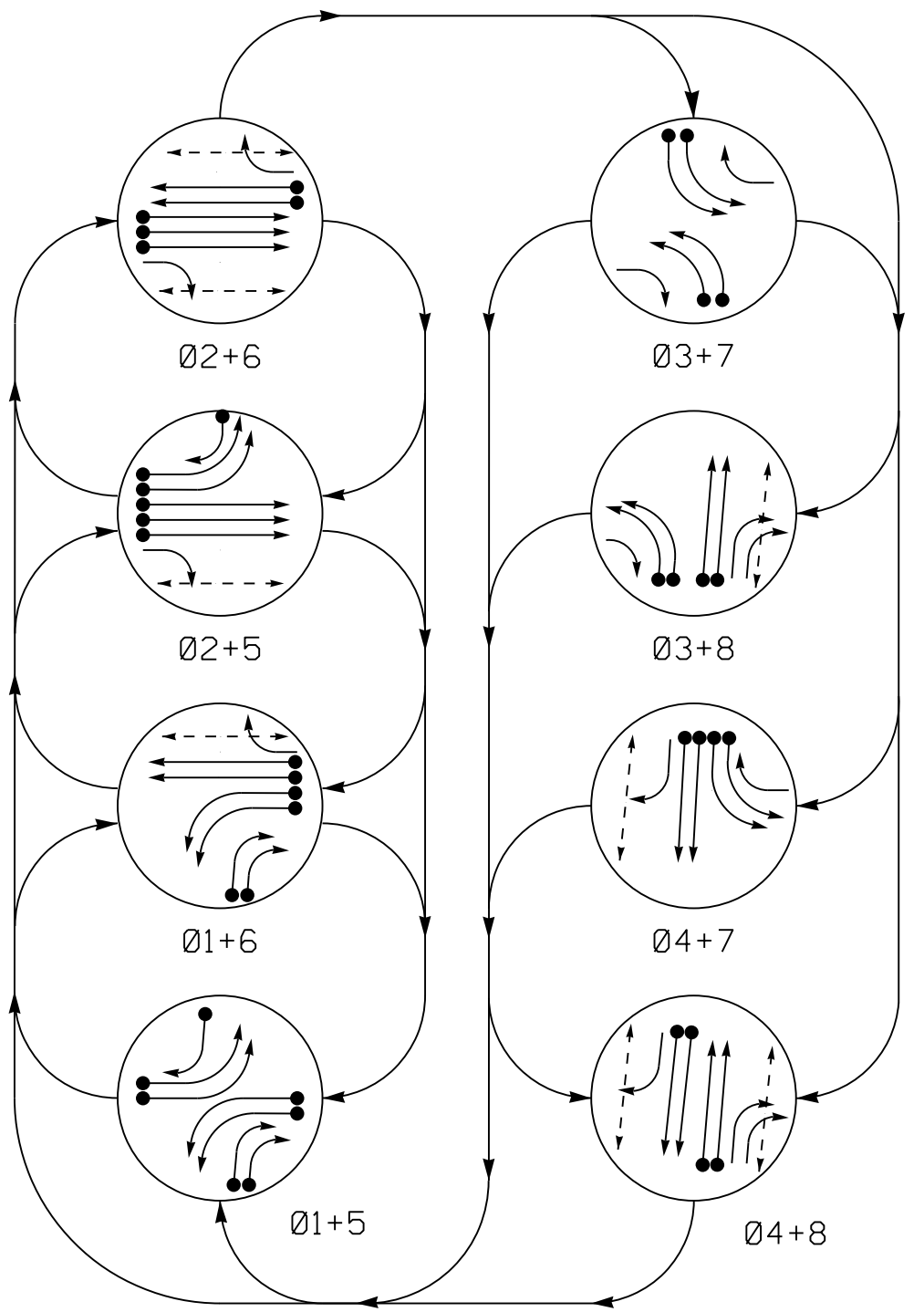


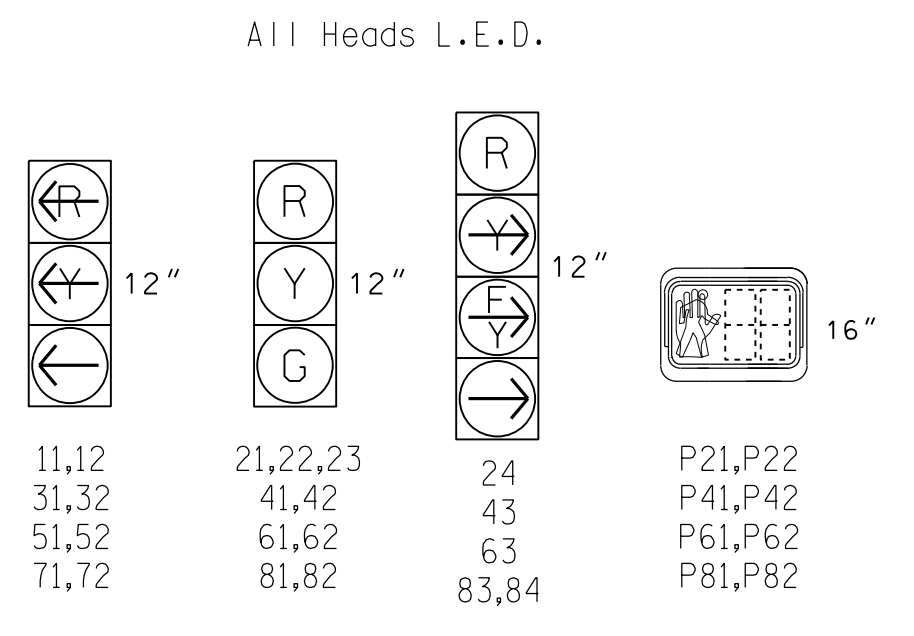
**PHASING DIAGRAM**



**TABLE OF OPERATION**

SIGNAL FACE	PHASE							
	Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø3+7	Ø3+8	Ø4+7	Ø4+8
11,12	←	←	←	←	←	←	←	←
21,22,23	R	R	G	G	R	R	R	Y
24	R	R	F	F	F	F	F	Y
31,32	←	←	←	←	←	←	←	←
41,42	R	R	R	R	R	R	G	R
43	←	R	←	R	R	R	F	R
51,52	←	←	←	←	←	←	←	←
61,62	R	G	R	G	R	R	R	Y
63	R	F	R	F	←	←	←	Y
71,72	←	←	←	←	←	←	←	←
81,82	R	R	R	R	R	G	G	R
83,84	←	←	R	R	F	F	F	R
P21,P22	DW	DW	W	W	DW	DW	DW	DRK
P41,P42	DW	DW	DW	DW	DW	DW	W	DRK
P61,P62	DW	W	DW	W	DW	DW	DW	DRK
P81,P82	DW	DW	DW	DW	DW	DW	W	DRK

**SIGNAL FACE I.D.**



**ASC/3 DETECTOR INSTALLATION CHART**

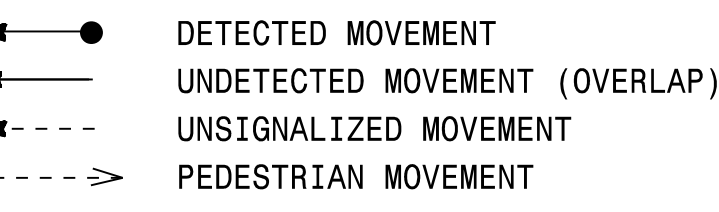
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING							
					PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	LOOP SYSTEM	NEW CARD
1A	6X40	0	*	-	1	Yes	-	-	-	S	-	-
1B	6X40	0	*	-	1	Yes	-	-	-	S	-	-
1C	6X40	0	*	-	1	Yes	-	15	-	S	-	-
1D	6X40	0	*	-	1	Yes	-	15	-	S	-	-
2A	6X6	300	*	-	2	Yes	-	-	-	N	-	-
2B	6X6	300	*	-	2	Yes	-	-	-	N	-	-
2C	6X6	300	*	-	2	Yes	-	-	-	N	-	-
2D	6X40	0	*	-	2	Yes	2.0	5	-	G	-	-
2E	6X40	0	*	-	2	Yes	2.0	5	-	G	-	-
2F	6X40	0	*	-	2	Yes	2.0	5	-	G	-	-
3A	6X40	0	*	-	3	Yes	-	3	-	S	-	-
3B	6X40	0	*	-	3	Yes	-	-	-	S	-	-
4A	6X40	0	*	-	4	Yes	-	-	-	S	-	-
4B	6X40	0	*	-	4	Yes	-	-	-	S	-	-
5A	6X40	0	*	-	5	Yes	-	-	-	S	-	-
5B	6X40	0	*	-	5	Yes	-	-	-	S	-	-
5C	6X40	0	*	-	5	Yes	-	15	-	S	-	-
6A	6X6	300	*	-	6	Yes	-	-	-	N	-	-
6B	6X6	300	*	-	6	Yes	-	-	-	N	-	-

**8 Phase Fully Actuated Fayetteville 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 phase 5 may be lagged.
- Phase 3 and/or phase 7 may be lagged.
- Reposition existing signal head 24 and 63.
- Set all detector units to presence mode.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Pedestrian pedestals are conceptual and shown for reference only. See 2018 NCDOT Roadway Standard Drawings 1705.04 Sheets 1-3 for push button location details.

**PHASING DIAGRAM DETECTION LEGEND**



\*Video Detection Area. Camera locations should be confirmed in the field by the contractor in order to provide detection of the areas indicated.

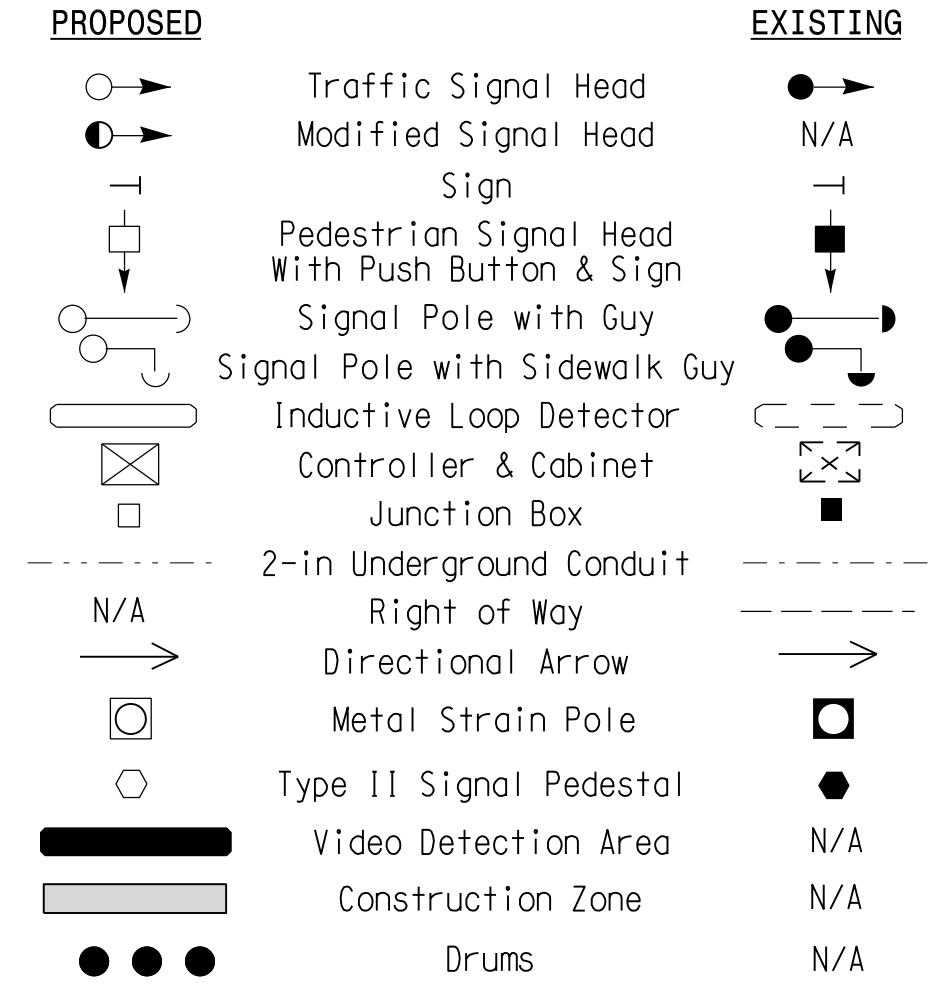
**DETECTOR INSTALLATION CHART CONTINUED BELOW**

**ASC/3 DETECTOR INSTALLATION CHART- CONTINUED**

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING							
					PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	LOOP SYSTEM	NEW CARD
6C	6X40	0	*	-	6	Yes	2.0	5	-	G	-	-
6D	6X40	0	*	-	6	Yes	2.0	5	-	G	-	-
7A	6X40	0	*	-	7	Yes	-	-	-	S	-	-
7B	6X40	0	*	-	7	Yes	-	-	-	S	-	-
8A	6X40	0	*	-	8	Yes	-	-	-	S	-	-
8B	6X40	0	*	-	8	Yes	-	-	-	S	-	-

\*Video Detection Area. Camera locations should be confirmed in the field by the contractor in order to provide detection of the areas indicated.

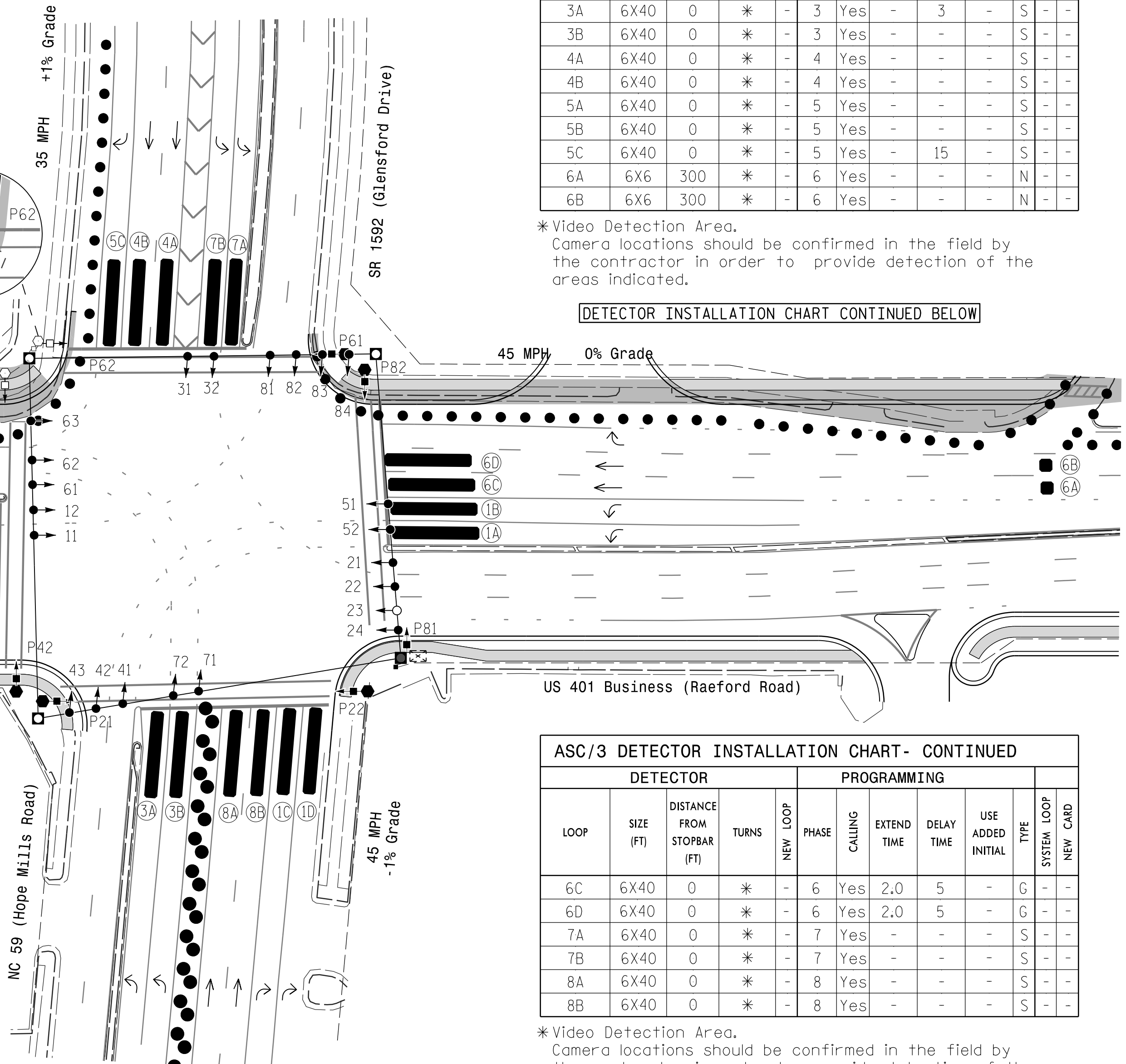
**LEGEND**



**ASC/3 TIMING CHART**

FEATURE	PHASE							
	1	2	3	4	5	6	7	8
Min Green *	7	12	7	7	7	12	7	7
Walk *	-	7	-	7	-	7	-	7
Ped Clear	-	30	-	30	-	30	-	26
Veh. Extension *	2.0	6.0	2.0	2.0	2.0	6.0	2.0	2.0
Max I *	20	90	20	40	20	90	40	20
Yellow	3.0	4.5	3.0	3.8	3.0	4.5	3.0	4.6
Red Clear	4.2	2.6	3.9	3.1	4.2	2.6	3.8	2.4
Red Revert	-	-	-	-	-	-	-	-
Actuations B4 Add *	-	-	-	-	-	-	-	-
Seconds /Actuation *	-	-	-	-	-	-	-	-
Max Initial *	-	-	-	-	-	-	-	-
Time Before Reduction *	-	15	-	-	-	15	-	-
Time To Reduce *	-	30	-	-	-	30	-	-
Minimum Gap	-	3.0	-	-	-	3.0	-	-
Locking Detector	-	-	-	-	-	-	-	-
Recall Position	-	VEH. RECALL	-	-	-	VEH. RECALL	-	-
Dual Entry	-	-	-	-	-	-	-	-
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.



**Signal Upgrade Temporary Design 2 - TMP Phase II**

**Stantec**  
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Prepared for the Offices of:  
 Transportation Mobility and Safety Division  
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 SIGNAL DESIGN SECTION  
 750 N. Greenfield Pkwy, Garner, NC 27526  
 SCALE: 0 40  
 1" = 40'

**US 401 Business (Raeford Road) at NC 59 (Hope Mills Road) / SR 1592 (Glensford Drive)**  
 Division 6 Cumberland County Fayetteville  
 PLAN DATE: March 2018 REVIEWED BY: E D Harris  
 PREPARED BY: R M Muncey REVIEWED BY: B L Watson

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**

Professional Engineer Seal: 29449  
 Signature: E D Harris  
 Date: 3/29/2018  
 Inventory No. 06-015512

3/29/2018 10:11:11 AM  
 User: rlmuncey  
 Design: Signal Design Section  
 Project: US 401 Business (Raeford Road) at NC 59 (Hope Mills Road) / SR 1592 (Glensford Drive)  
 Sheet: SIG-37.0