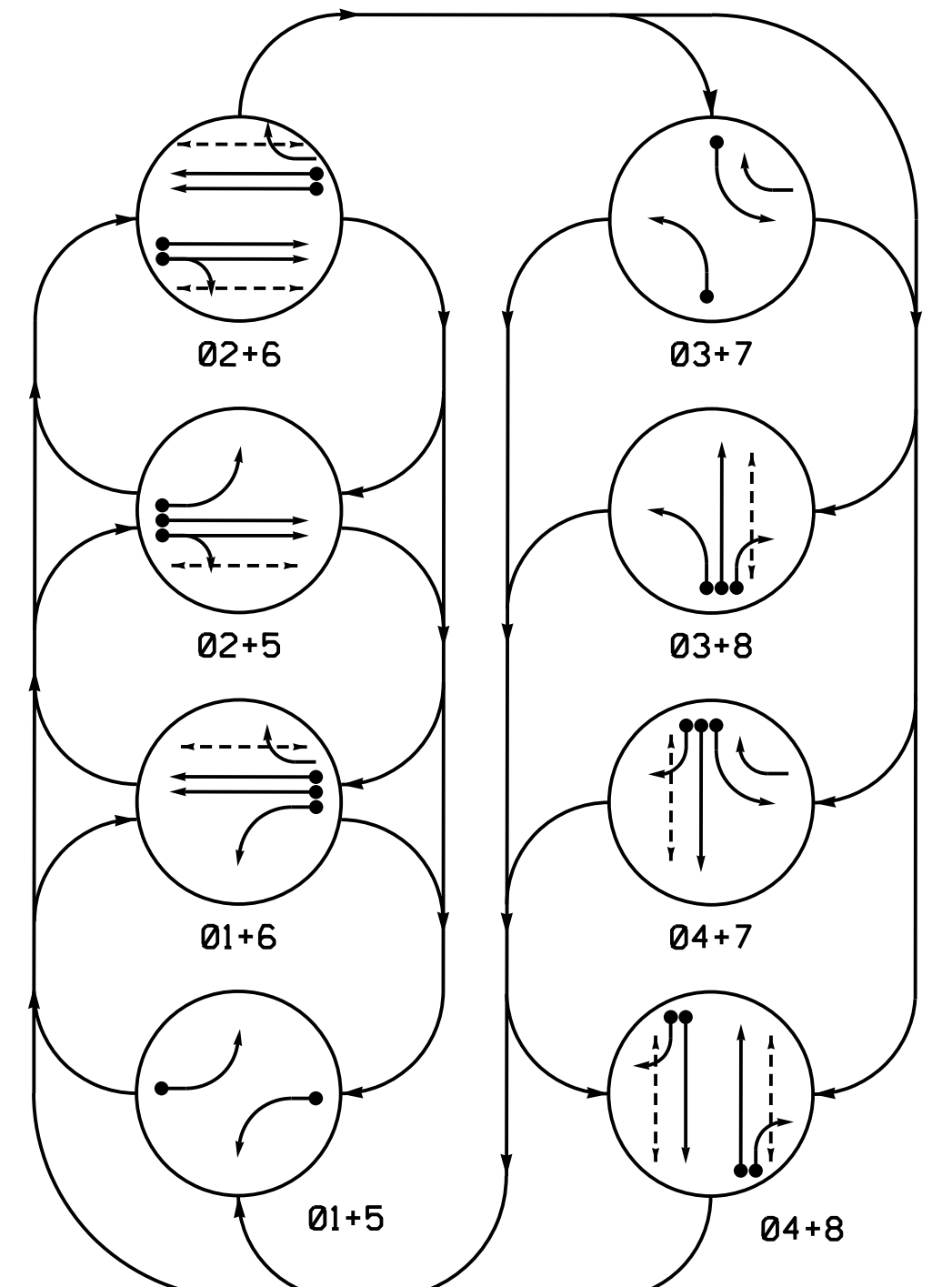


**PHASING DIAGRAM**



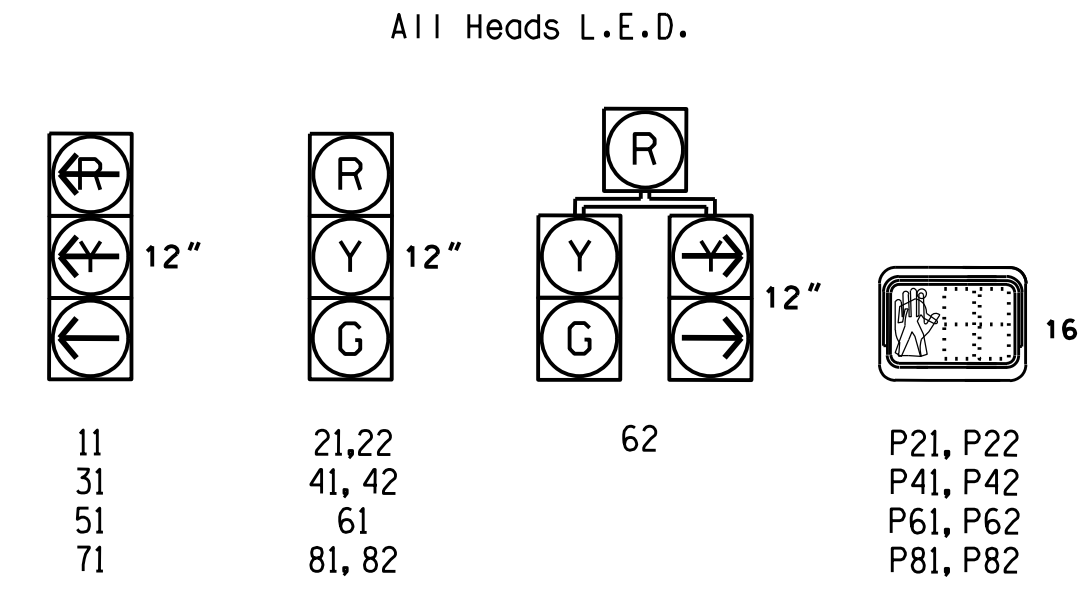
**PHASING DIAGRAM DETECTION LEGEND**

- ← ● → DETECTED MOVEMENT
- ← ○ → UNDETECTED MOVEMENT (OVERLAP)
- ← - - - UNSIGNALIZED MOVEMENT
- ← - - - PEDESTRIAN MOVEMENT

**TABLE OF OPERATION**

SIGNAL FACE	PHASE							
	01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8
11	-	-	-	-	-	-	-	-
21,22	R	R	G	G	R	R	R	Y
31	-	-	-	-	-	-	-	-
41, 42	R	R	R	R	R	R	G	G
51	-	-	-	-	-	-	-	-
61	R	G	R	G	R	R	R	Y
62	R	G	R	G	R	R	R	Y
71	-	-	-	-	-	-	-	-
81, 82	R	R	R	R	G	R	G	R
P21, P22	DW	DW	W	DW	DW	DW	DW	DRK
P41, P42	DW	DW	DW	DW	DW	DW	W	DRK
P61, P62	DW	W	DW	DW	DW	DW	DW	DRK
P81, P82	DW	DW	DW	DW	W	DW	W	DRK

**SIGNAL FACE I.D.**



**ASC/3 DETECTOR INSTALLATION CHART**

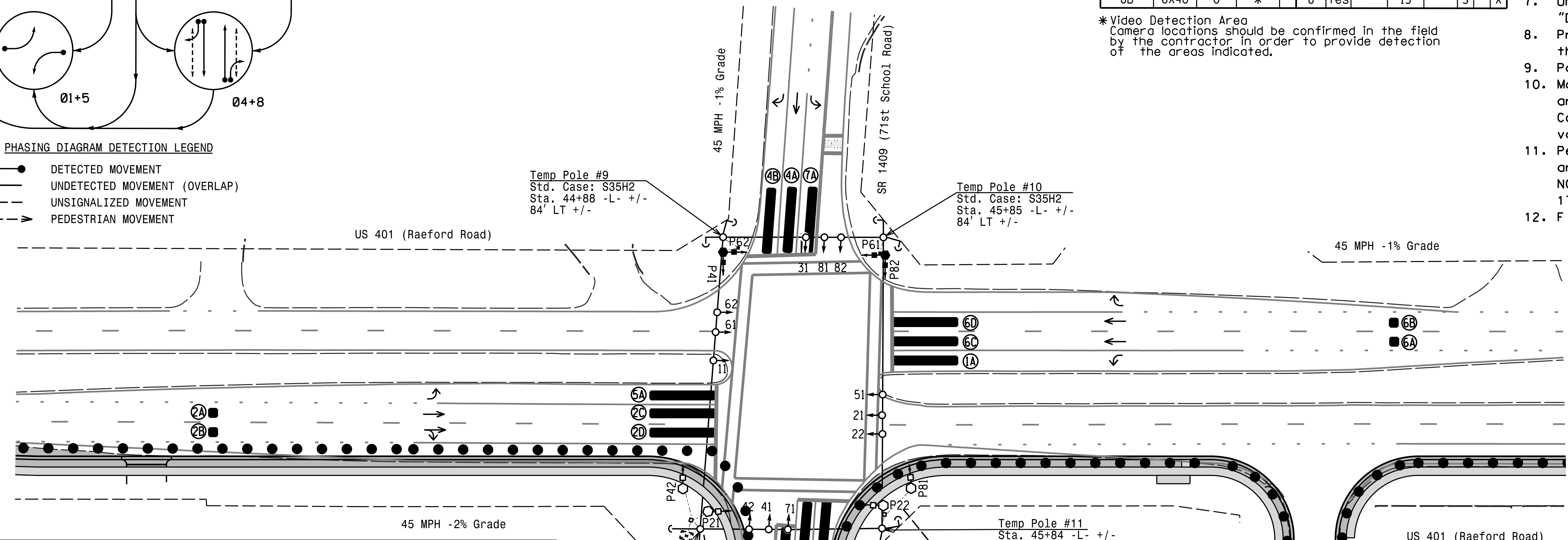
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING							
					PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	LOOP NEW CARD	
1A	6X40	0	*	-	1	Yes	-	-	-	S	-	X
2A	6X6	300	*	-	2	Yes	-	-	-	N	-	X
2B	6X6	300	*	-	2	Yes	-	-	-	N	-	X
2C	6X40	0	*	-	2	Yes	2.0	5	-	G	-	X
2D	6X40	0	*	-	2	Yes	2.0	5	-	G	-	X
3A	6X40	0	*	-	3	Yes	-	3	-	S	-	X
4A	6X40	0	*	-	4	Yes	-	-	-	S	-	X
4B	6X40	0	*	-	4	Yes	-	15	-	S	-	X
5A	6X40	0	*	-	5	Yes	-	-	-	S	-	X
6A	6X6	300	*	-	6	Yes	-	-	-	N	-	X
6B	6X6	300	*	-	6	Yes	-	-	-	N	-	X
6C	6X40	0	*	-	6	Yes	2.0	5	-	G	-	X
6D	6X40	0	*	-	6	Yes	2.0	5	-	G	-	X
7A	6X40	0	*	-	7	Yes	-	3	-	S	-	X
8A	6X40	0	*	-	8	Yes	-	-	-	S	-	X
8B	6X40	0	*	-	8	Yes	-	15	-	S	-	X

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

**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.
- Set all detector units to presence mode.
- Locate new cabinet foundation so as not to obstruct sight distance of vehicles turning right on red. Relocate existing cabinet and controller onto new foundation.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Pavement markings are existing.
- 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 are shown for reference only. See 2018 NCDOT Roadway Standard Drawings 1705.04 sheets 1-3 for push button details.
- Field adjust temporary poles as needed.



**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	-	20	-	36	-	17	-	30
Veh. Extension *	2.0	6.0	2.0	2.0	2.0	6.0	2.0	2.0
Max I *	20	90	25	35	20	90	25	35
Yellow	3.0	4.7	3.0	4.6	3.0	4.6	3.0	4.3
Red Clear	3.6	1.5	3.5	2.2	3.4	1.4	3.3	2.2
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.

**LEGEND**

- |  |  |  |  |
|--|--|--|--|
|  | Proposed Traffic Signal Head           |  | Existing Traffic Signal Head           |
|  | Proposed Modified Signal Head          |  | Existing Modified Signal Head          |
|  | Proposed Pedestrian Signal Head        |  | Existing Pedestrian Signal Head        |
|  | Proposed Signal Pole with Guy          |  | Existing Signal Pole with Guy          |
|  | Proposed Signal Pole with Sidewalk Guy |  | Existing Signal Pole with Sidewalk Guy |
|  | Proposed Inductive Loop Detector       |  | Existing Inductive Loop Detector       |
|  | Proposed Controller & Cabinet          |  | Existing Controller & Cabinet          |
|  | Proposed Junction Box                  |  | Existing Junction Box                  |
|  | Proposed 2-in Underground Conduit      |  | Existing 2-in Underground Conduit      |
|  | Proposed Right of Way                  |  | Existing Right of Way                  |
|  | Proposed Directional Arrow             |  | Existing Directional Arrow             |
|  | Proposed Video Detection Area          |  | Existing Video Detection Area          |
|  | Proposed Construction Zone             |  | Existing Construction Zone             |
|  | Proposed Drums                         |  | Existing Drums                         |
|  | Proposed Type II Signal Pedestal       |  | Existing Type II Signal Pedestal       |

**Signal Upgrade Temporary Signal Design 1 - TMP Phase I**

US 401 (Raeford Road) at SR 1409 (71st School Road) / SR 1105 (Graham Road)

Division 6 Cumberland County Fayetteville

PLAN DATE: June 2019 REVIEWED BY: E D Harris

PREPARED BY: M Wilson REVIEWED BY: B L Watson

REVISIONS	INIT.	DATE

DocuSigned by: Betsy L. Watson, 6/5/2019

SIG. INVENTORY NO. 06-051611

6/5/2019 10:45 AM User: jhambert.rpt