

8 Phase Fully Actuated (US 401 Closed Loop System #29) Signal System #: D05-09_Garner

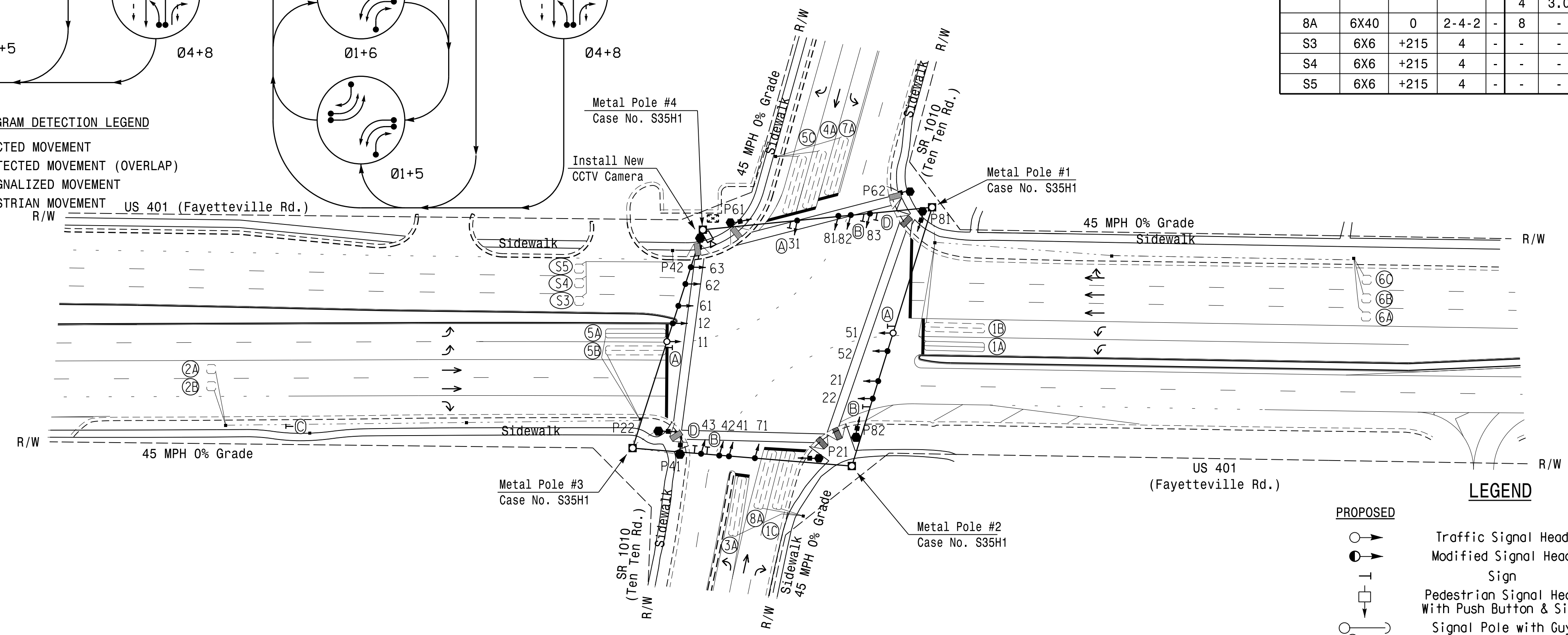
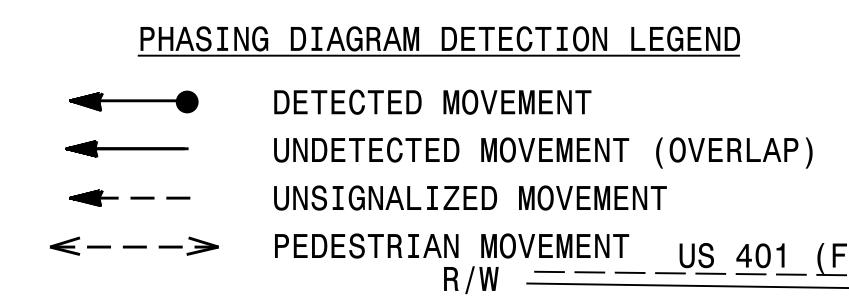
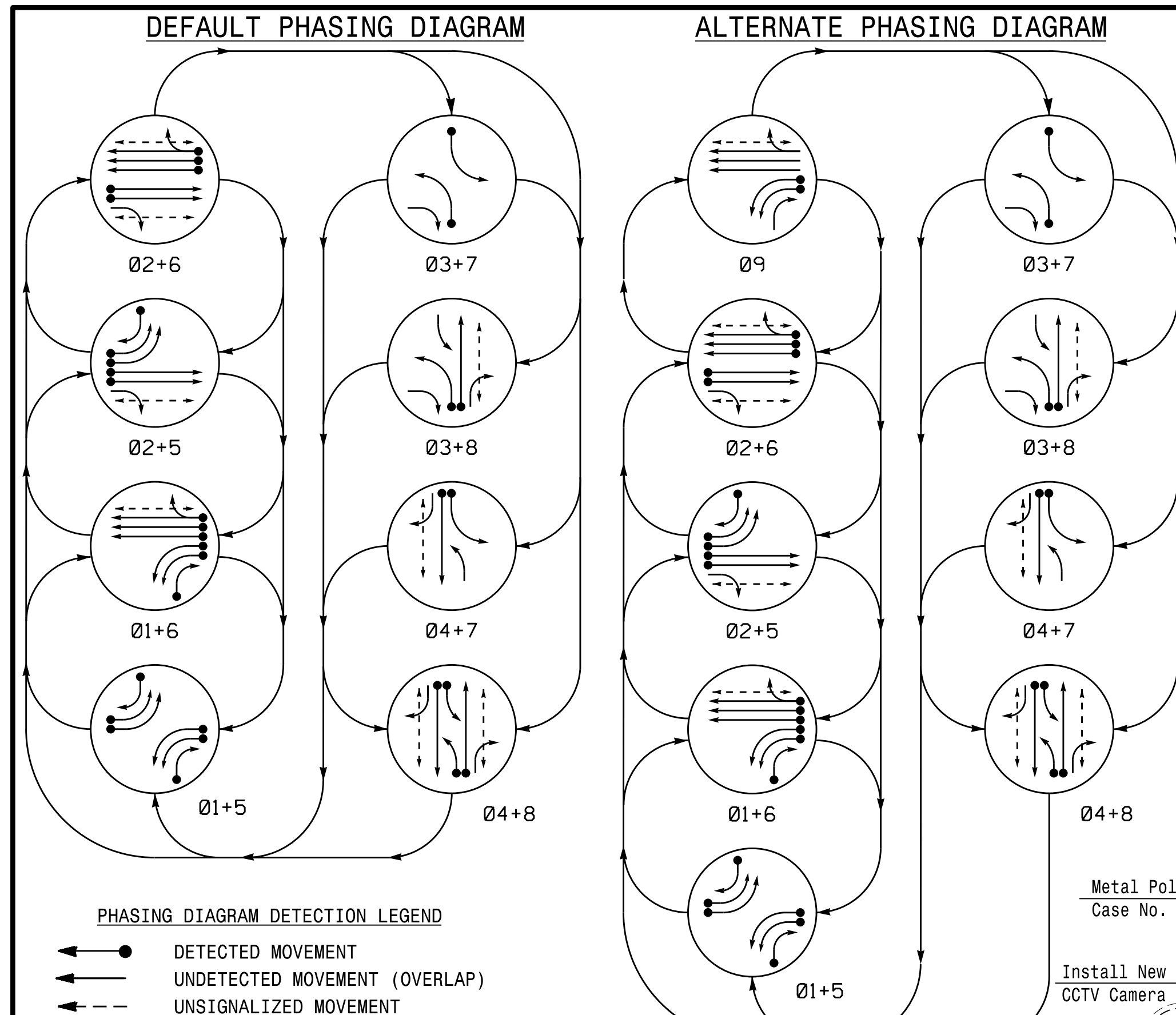
NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- 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.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- The Division Traffic Engineer will determine the hours of use for each phasing plan.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- To provide a leading pedestrian interval on phase 4, program FYA heads numbered 31 and 43 to delay for 7 seconds after the start of phase 4 WALK interval. See Electrical Details for Programming.
- To provide a leading pedestrian interval on phase 8, program FYA heads numbered 71 and 83 to delay for 7 seconds after the start of phase 8 WALK interval. See Electrical Details for Programming.

MAXTIME DETECTOR INSTALLATION CHART											
DETECTOR					PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND INITIAL	ADDED INITIAL	CALL	DELAY DURING GREEN
1A	6X40	0	2-4-2	X	1/9	-	-	X	X	-	-
1B	6X40	0	2-4-2	-	1/9	-	-	X	X	-	-
1C	6X40	0	2-4-2	-	1	15.0	-	X	X	-	-
2A	6X6	300	5	-	2	-	-	X	X	X	-
2B	6X6	300	5	-	2	-	-	X	X	X	-
3A	6X40	0	2-4-2	-	3	15.0	-	X	X	-	-
4A	6X40	0	2-4-2	-	4	-	-	X	X	-	-
5A	6X40	0	2-4-2	X	5	-	-	X	X	-	-
5B	6X40	0	2-4-2	-	5	-	-	X	X	-	-
5C	6X40	0	2-4-2	-	5	15.0	-	X	X	-	-
6A	6X6	300	5	-	6	-	-	X	X	-	-
6B	6X6	300	5	-	6	-	-	X	X	-	-
6C	6X6	300	5	-	6	-	-	X	X	-	-
7A	6X40	0	2-4-2	-	7	15.0	-	X	X	-	-
8A	6X40	0	2-4-2	-	8	-	-	X	X	-	-
S3	6X6	+215	4	-	-	-	-	X	X	-	-
S4	6X6	+215	4	-	-	-	-	X	X	-	-
S5	6X6	+215	4	-	-	-	-	X	X	-	-

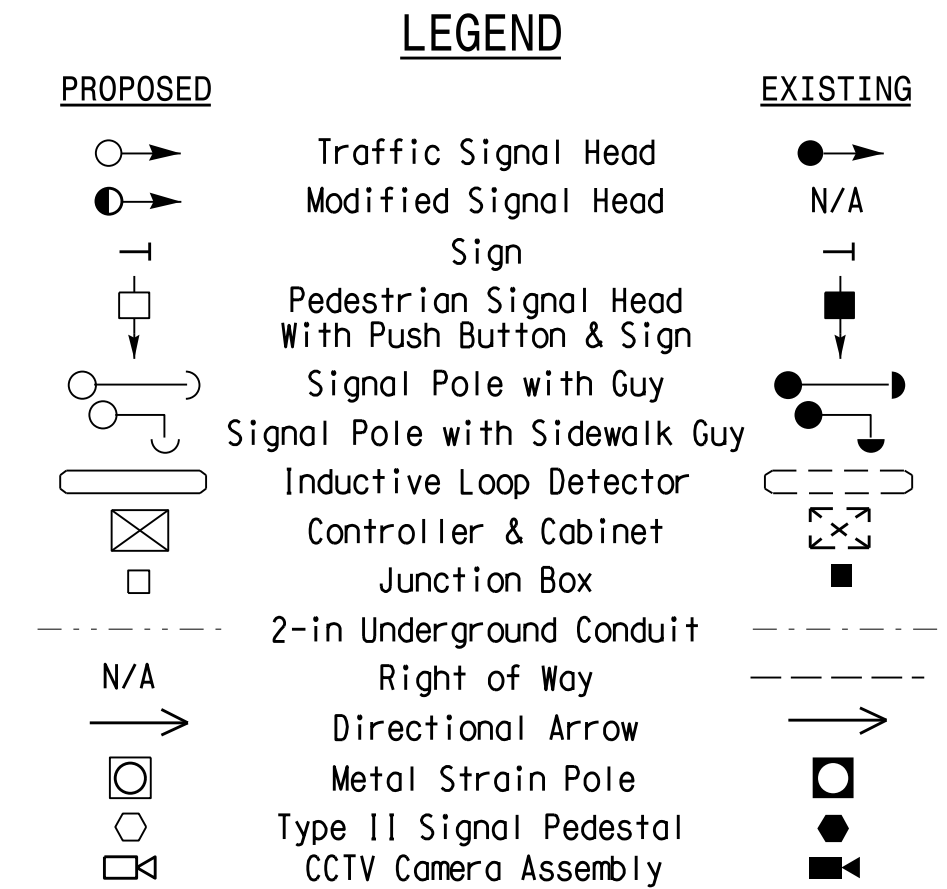
DEFAULT PHASING TABLE OF OPERATION												
SIGNAL FACE	PHASE											
	01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	OL 7	OL 8	ISD	FS
11, 12	-	-	-	-	-	-	-	-	-	-	-	-
21	R	R	G	G	R	R	R	R	R	R	R	R
22	R	R	G	G	R	R	R	R	R	R	R	R
31	-	-	-	-	-	-	-	-	-	-	-	-
41, 42	R	R	R	R	R	R	G	G	R	R	R	R
43	-	-	-	-	-	-	-	-	-	-	-	-
51, 52	-	-	-	-	-	-	-	-	-	-	-	-
61, 62, 63	R	G	R	G	R	R	R	R	R	R	R	R
71	-	-	-	-	-	-	-	-	-	-	-	-
81, 82	R	R	R	R	R	G	R	G	R	R	R	R
83	-	-	-	-	-	-	-	-	-	-	-	-
P21, P22	DW	DW	W	W	DW	DW	DW	DW	DRK	DRK	DRK	DRK
P41, P42	DW	DW	DW	DW	DW	DW	W	W	DRK	DRK	DRK	DRK
P61, P62	DW	W	DW	W	DW	DW	DW	DW	DRK	DRK	DRK	DRK
P81, P82	DW	DW	DW	DW	DW	W	DW	W	DRK	DRK	DRK	DRK

ALTERNATE PHASING TABLE OF OPERATION												
SIGNAL FACE	PHASE											
	01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	OL 7	OL 8	ISD	FS
11, 12	-	-	-	-	-	-	-	-	-	-	-	-
21	R	R	G	G	R	R	R	R	R	R	R	R
22	R	R	G	G	R	R	R	R	R	R	R	R
31	-	-	-	-	-	-	-	-	-	-	-	-
41, 42	R	R	R	R	R	R	R	G	G	R	R	R
43	-	-	-	-	-	-	-	-	-	-	-	-
51, 52	-	-	-	-	-	-	-	-	-	-	-	-
61, 62, 63	R	G	R	G	R	R	R	R	R	R	R	R
71	-	-	-	-	-	-	-	-	-	-	-	-
81, 82	R	R	R	R	R	G	R	G	R	R	R	R
83	-	-	-	-	-	-	-	-	-	-	-	-
P21, P22	DW	DW	W	W	DW	DW	DW	DW	DRK	DRK	DRK	DRK
P41, P42	DW	DW	DW	DW	DW	DW	W	W	DRK	DRK	DRK	DRK
P61, P62	DW	W	DW	W	DW	DW	DW	DW	DRK	DRK	DRK	DRK
P81, P82	DW	DW	DW	DW	DW	W	DW	W	DRK	DRK	DRK	DRK

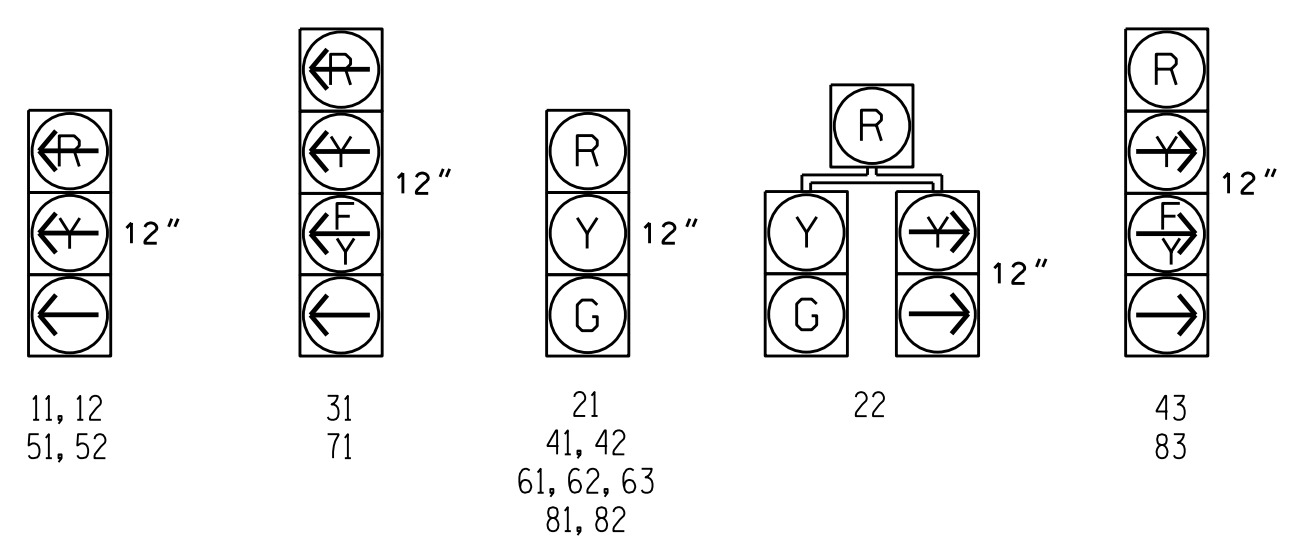


MAXTIME TIMING CHART											
FEATURE	PHASE									OL 7	OL 8
	1	2	3	4	5	6	7	8	9		
Walk *	-	14	-	14	-	14	-	14	-	-	-
Ped Clear *	-	23	-	32	-	26	-	37	-	-	-
Min Green	7	12	7	7	7	12	7	7	7	-	-
Passage *	2.0	6.0	2.0	2.0	2.0	6.0	2.0	2.0	2.0	-	-
Max I *	25	90	15	45	25	90	15	45	25	-	-
Yellow Change	3.0	4.5	3.0	4.5	3.0	4.5	3.0	4.5	3.0	3.0	4.5
Red Clear	4.3	2.2	3.5	2.6	4.2	2.2	3.4	2.6	4.3	4.3	2.2
Added Initial *	-	1.5	-	-	-	1.5	-	-	-	-	-
Maximum Initial *	-	34	-	-	-	34	-	-	-	-	-
Time Before Reduction *	-	15	-	-	-	15	-	-	-	-	-
Time To Reduce *	-	30	-	-	-	30	-	-	-	-	-
Minimum Gap	-	3.0	-	-	-	3.0	-	-	-	-	-
Advance Walk	-	7	-	**	-	7	-	**	-	-	-
Non Lock Detector	X	-	X	X	X	-	X	X	X	-	-
Vehicle Recall	-	MIN RECALL	-	-	-	MIN RECALL	-	-	-	-	-
Dual Entry	-	-	-	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.
 ** See Note 10.
 *** See Note 11.



SIGNAL FACE I.D.



Signal Upgrade - Final Design

US 401 (Fayetteville Rd.) at SR 1010 (Ten Ten Rd.)

Division 5 Wake County Fuquay-Varina

PLAN DATE: July 2024 REVIEWED BY:

PREPARED BY: I.O. Umozurike REVIEWED BY:

SCALE 0 50 1"=50'

REVISIONS

INIT. DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL NORTH CAROLINA PROFESSIONAL ENGINEER ROBERT J. ZIEMBA SEAL 026486

08/12/2024

SIG. INVENTORY NO. 05-0184

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