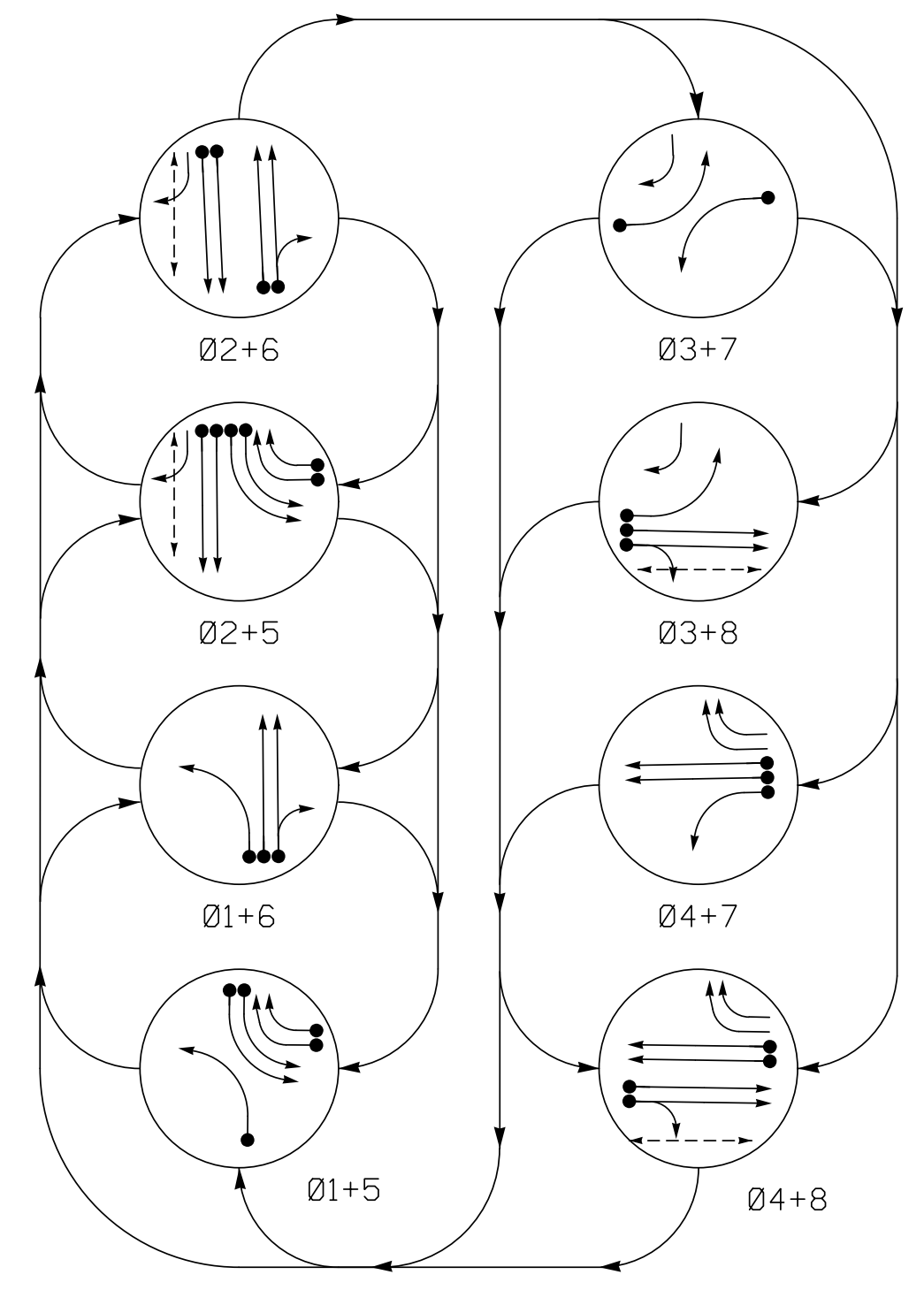


8 Phase Fully Actuated Gastonia Signal System

PHASING DIAGRAM

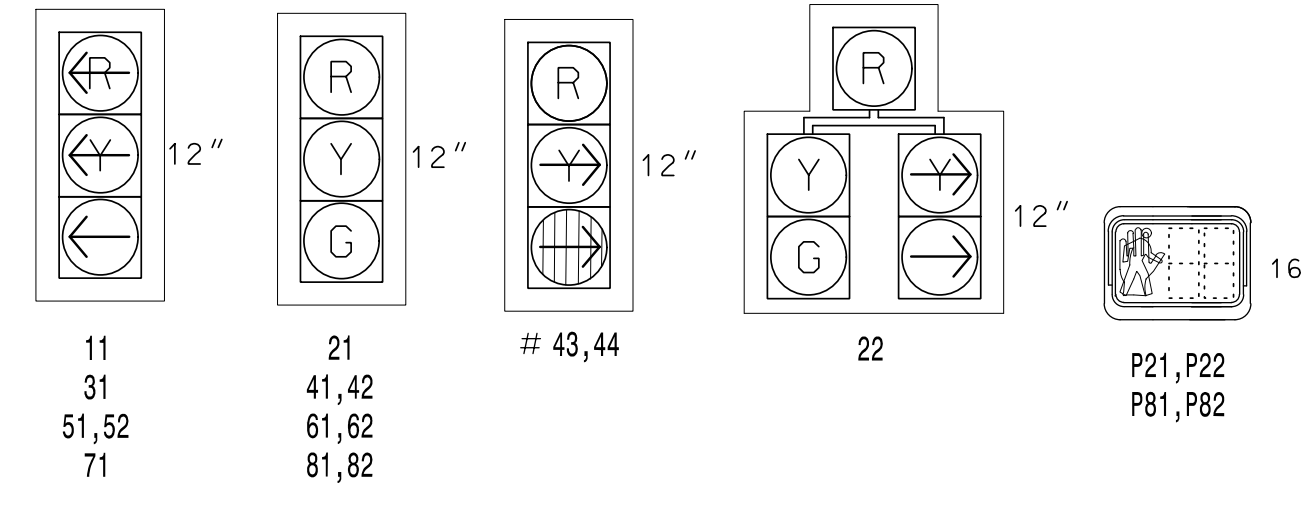


PHASING DIAGRAM DETECTION LEGEND

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

SIGNAL FACE	PHASE							
	01+5	02+5	02+6	03+7	03+8	04+7	04+8	FLASH
11	←	←	←	←	←	←	←	←
21	R	R	G	G	R	R	R	Y
22	R	R	G	G	R	R	R	Y
31	←	←	←	←	←	←	←	←
41,42	R	R	R	R	R	G	G	R
43,44	←	←	←	←	←	←	←	←
51,52	←	←	←	←	←	←	←	←
61,62	R	G	R	G	R	R	R	Y
71	←	←	←	←	←	←	←	←
81,82	R	R	R	R	R	G	G	R
P21,P22	DW	DW	W	DW	DW	DW	DW	DRK
P81,P82	DW	DW	DW	DW	W	DW	W	DRK

SIGNAL FACE I.D.
All Heads L.E.D.
Louvers in Green sections of heads 43 & 44
All Heads have Backplates with reflective borders



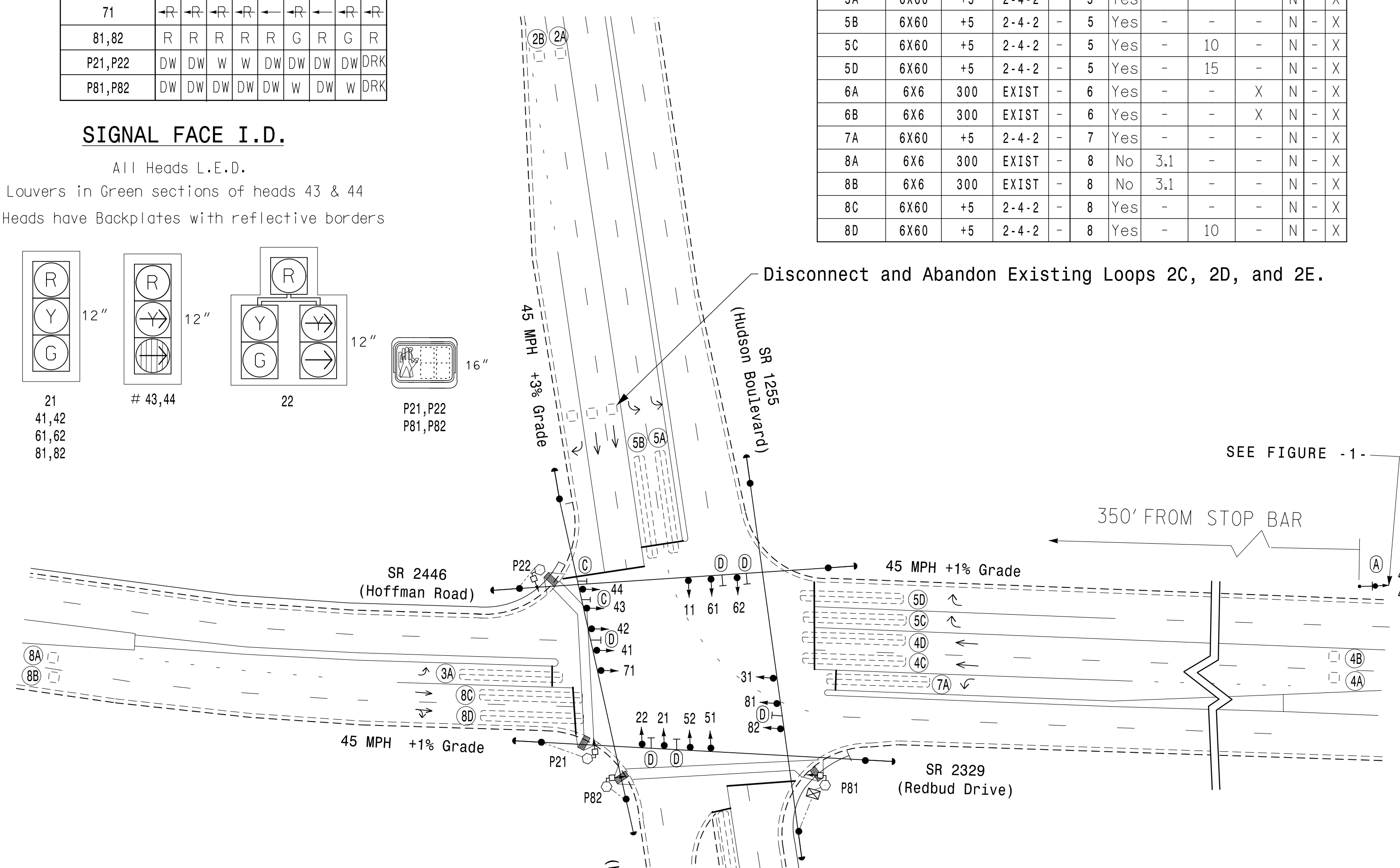
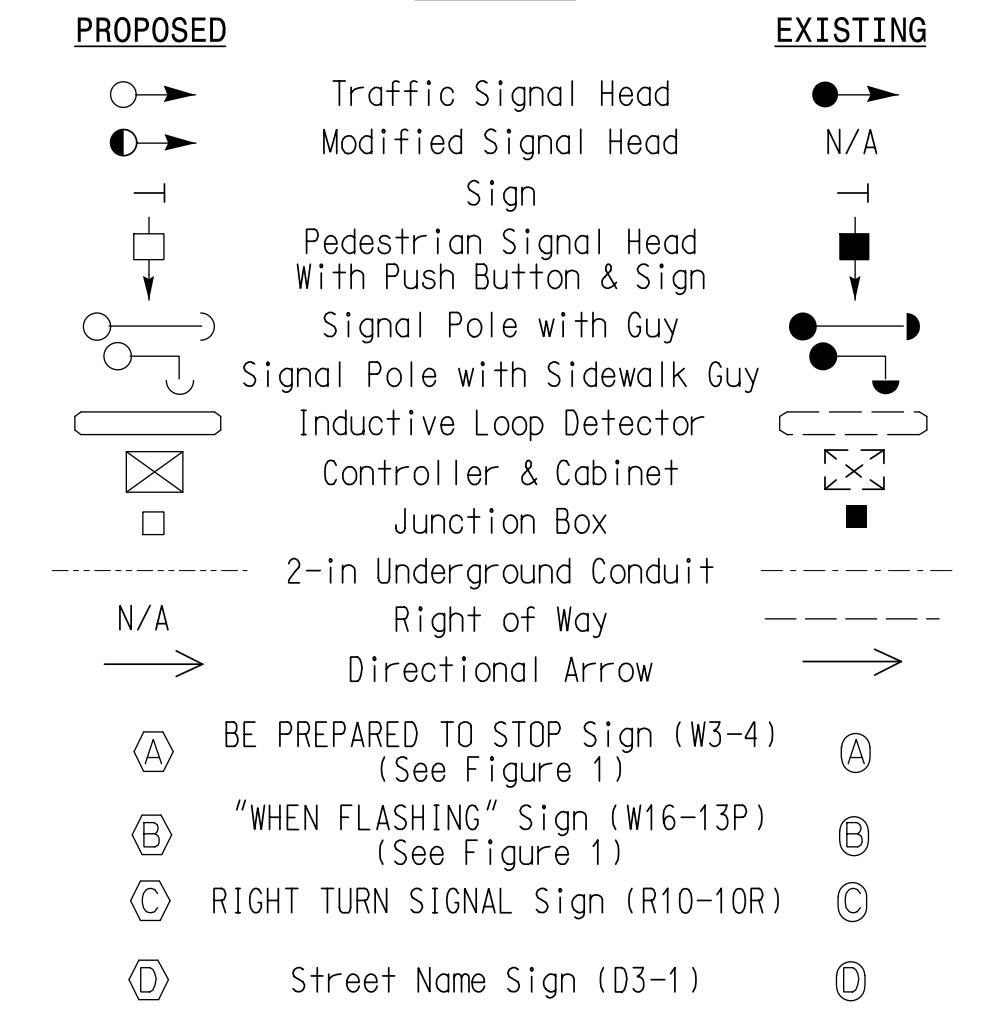
DETECTOR INSTALLATION CHART												
DETECTOR					PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	LOOP SYSTEM	NEW CARD
1A	6X60	0	2-4-2	-	1	Yes	-	-	-	N	-	X
2A	6X6	300	EXIST	-	2	Yes	-	-	X	N	-	X
2B	6X6	300	EXIST	-	2	Yes	-	-	X	N	-	X
3A	6X60	+5	2-4-2	-	3	Yes	-	-	-	N	-	X
4A	6X6	300	EXIST	-	4	No	3.1	-	-	N	-	X
4B	6X6	300	EXIST	-	4	No	3.1	-	-	N	-	X
4C	6X60	+5	2-4-2	-	4	Yes	-	-	-	N	-	X
4D	6X60	+5	2-4-2	-	4	Yes	-	-	-	N	-	X
5A	6X60	+5	2-4-2	-	5	Yes	-	-	-	N	-	X
5B	6X60	+5	2-4-2	-	5	Yes	-	-	-	N	-	X
5C	6X60	+5	2-4-2	-	5	Yes	-	10	-	N	-	X
5D	6X60	+5	2-4-2	-	5	Yes	-	15	-	N	-	X
6A	6X6	300	EXIST	-	6	Yes	-	-	X	N	-	X
6B	6X6	300	EXIST	-	6	Yes	-	-	X	N	-	X
7A	6X60	+5	2-4-2	-	7	Yes	-	-	-	N	-	X
8A	6X6	300	EXIST	-	8	No	3.1	-	-	N	-	X
8B	6X6	300	EXIST	-	8	No	3.1	-	-	N	-	X
8C	6X60	+5	2-4-2	-	8	Yes	-	-	-	N	-	X
8D	6X60	+5	2-4-2	-	8	Yes	-	10	-	N	-	X

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.
- Activate flashers 3 seconds prior to the end of green for phase 4.
- Flash vertically mounted beacons alternately.
- In the event of loop replacement, refer to the current ITS and Signal Design Manual and submit a Plan of Record to the Signal Design Section.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- 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 shall supersede these values.
- Reconnect lead-in cable to separate loops 4A, 4B, 8A & 8B, as shown.
- Disconnect and abandon existing loops 2C, 2D, 2E, 6C, and 6D.
- Install new cabinet on the existing cabinet foundation.
- All new cabinets and base extenders shall be black in color. See Project Special Provisions for details.
- All proposed pedestrian signal heads shall be black in color. See Project Special Provisions for details.
- All proposed pedestrian pedestals and pushbutton posts shall be black in color. See Project Special Provisions for details.
- City system data:

Controller Asset #1460

LEGEND



TIMING CHART

FEATURE	PHASE							
	1	2	3	4	5	6	7	8
Min Green *	7	12	7	7	7	12	7	7
Walk *	-	4	-	-	-	-	-	4
Ped Clear	-	25	-	-	-	-	-	28
Veh. Extension *	1.0	2.0	1.0	2.0	2.0	2.0	1.0	2.0
Max 1 *	20	45	15	30	20	45	15	30
Yellow	3.0	4.3	3.0	4.4	3.0	4.8	3.0	4.4
Red Clear	3.6	1.9	3.3	2.0	3.7	1.8	3.4	1.8
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Actuations B4 Add *	-	-	-	-	-	-	-	-
Seconds /Actuation *	-	1.5	-	-	-	1.5	-	-
Max Initial *	-	34	-	-	-	34	-	-
Time Before Reduction *	-	15	-	-	-	15	-	-
Time To Reduce *	-	30	-	-	-	30	-	-
Minimum Gap	-	3.0	-	-	-	3.0	-	-
Locking Detector	-	X	-	-	-	X	-	-
Recall Position	-	MIN RECALL	-	-	-	MIN 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.

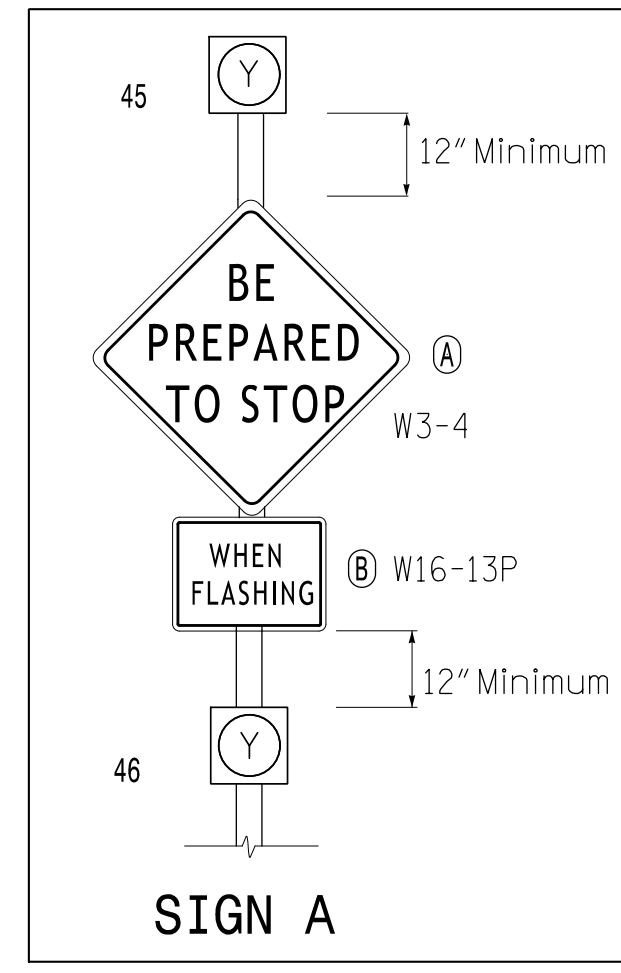
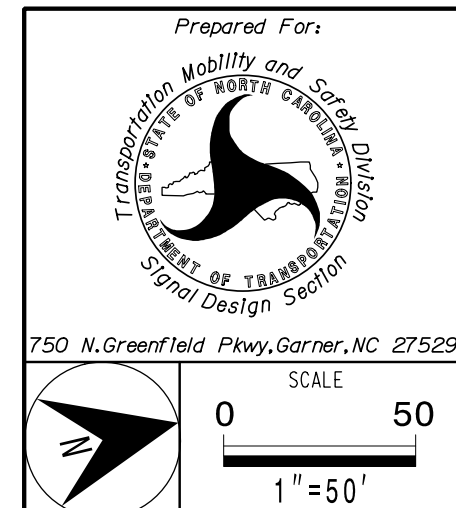


FIGURE -1-

Signal Upgrade

PLANS PREPARED IN THE OFFICE OF:
Kimley-Horn
NC License #0102
421 Fayetteville Street, Suite 600
Raleigh, NC 27601
(919) 677-2000



SR 1255 (Hudson Boulevard)
at
SR 2446 (Hoffman Road)
/ SR 2329 (Redbud Drive)
Division 12 Gaston County Gastonia
PLAN DATE: May 2021 REVIEWED BY: SL Phillips
PREPARED BY: CF Davis REVIEWED BY: KP Baumann

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

3/11/2022
DATE

3/9/2022 11:14:53 AM Dantelle.Curran - Signal Design\121460-2021.dgn