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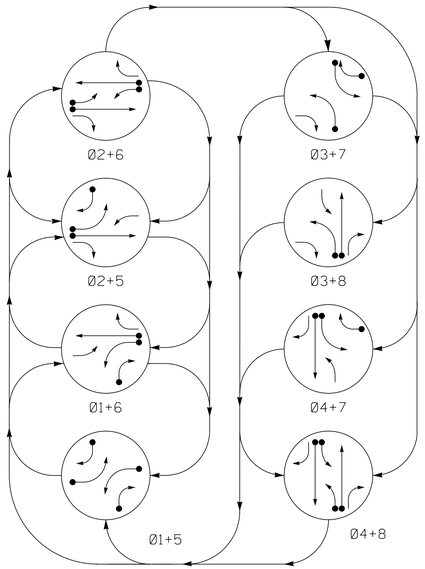
PROJECT REFERENCE NO.	SHEET NO.
U-5798A	Sig. 13.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

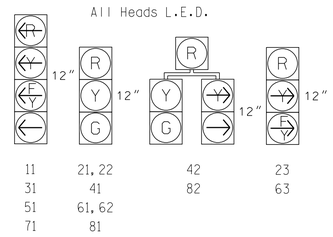
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

DEFAULT TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	FLASH
11	↚	↚	F Y	F Y	R̸	R̸	R̸	R̸	Y̸
21, 22	R	R	G	G	R	R	R	R	Y
23	R	R	F Y	F Y	F Y	F Y	R	R	Y
31	R̸	R̸	R̸	R̸	↚	↚	F Y	F Y	R̸
41	R	R	R	R	R	R	G	G	R
42	R̸	R	R̸	R	R	R	G	G	R
51	↚	F Y	↚	F Y	R̸	R̸	R̸	R̸	Y̸
61, 62	R	G	R	G	R	R	R	R	Y
63	R	F Y	R	F Y	F Y	R	F Y	R	Y
71	R̸	R̸	R̸	R̸	↚	F Y	↚	F Y	R̸
81	R	R	R	R	R	G	R	G	R
82	R̸	R̸	R	R	R	G	R	G	R

SIGNAL FACE I.D.

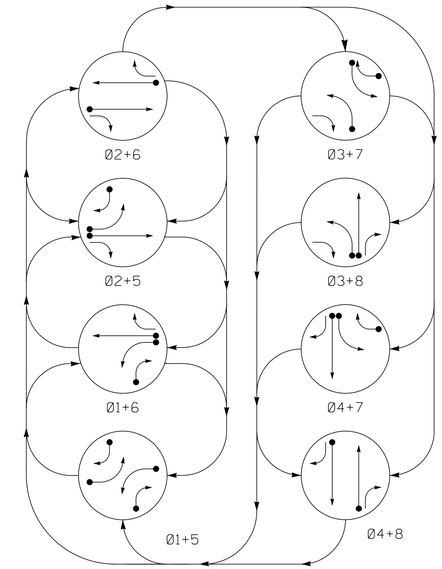
All Heads L.E.D.



ALTERNATE TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	FLASH
11	↚	↚	R̸	R̸	R̸	R̸	R̸	R̸	Y̸
21, 22	R	R	G	G	R	R	R	R	Y
23	R	R	F Y	F Y	F Y	F Y	R	R	Y
31	R̸	R̸	R̸	R̸	↚	↚	R̸	R̸	R̸
41	R	R	R	R	R	R	G	G	R
42	R̸	R	R̸	R	R	R	G	G	R
51	↚	R̸	↚	R̸	R̸	R̸	R̸	R̸	Y̸
61, 62	R	G	R	G	R	R	R	R	Y
63	R	F Y	R	F Y	F Y	R	F Y	R	Y
71	R̸	R̸	R̸	R̸	↚	R̸	↚	R̸	R̸
81	R	R	R	R	R	G	R	G	R
82	R̸	R̸	R	R	R	G	R	G	R

ALTERNATE PHASING DIAGRAM



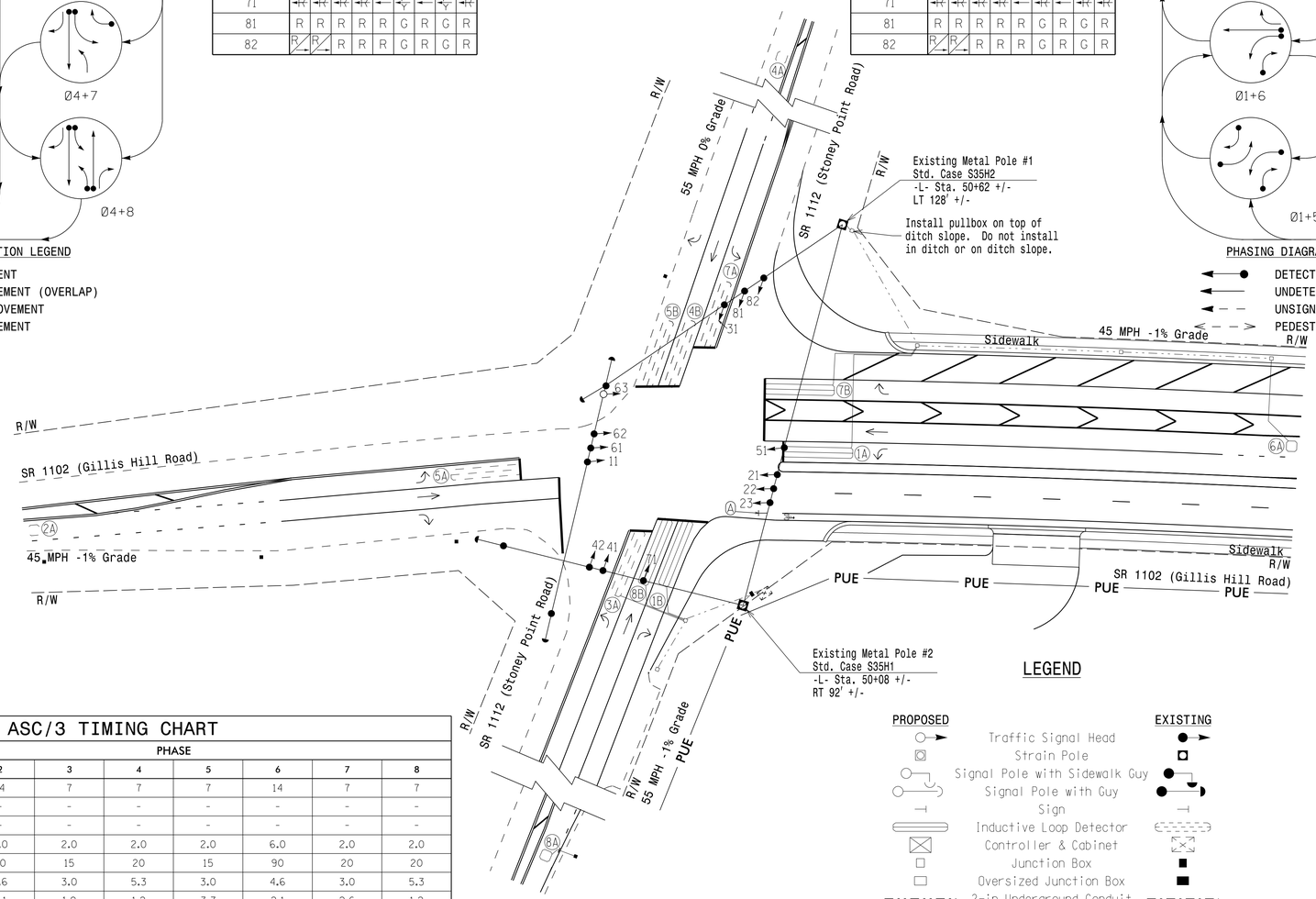
PHASING DIAGRAM DETECTION LEGEND

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

8 Phase
Fully Actuated
Fayetteville Signal System

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 and/or phase 5 may be lagged.
4. Phase 3 and/or phase 7 may be lagged.
5. Set all detector units to presence mode.
6. Reposition existing signal heads 61, and 62.
7. Install new lead-in cable for all proposed and existing detectors.
8. The Division Traffic Engineer will determine the hours of use for each phasing plan.



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Strain Pole	
	Signal Pole with Sidewalk Guy	
	Signal Pole with Guy	
	Sign	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	Oversized Junction Box	
	2-in Underground Conduit	
	Directional Arrow	
	Right of Way	
	Perm. Utility Easement	N/A
Ⓐ	Right Arrow "ONLY" Sign (R3-5R)	Ⓐ

ASC/3 DETECTOR INSTALLATION CHART

DETECTOR					PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	USED ADDED INITIAL	TYPE	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	X	1	YES	-	15 +	-	N	-	X
					6 @	YES	-	3	-	G	-	X
1B	6X40	0	2-4-2	X	1	YES	-	15	-	N	-	X
2A	6X6	300	5	-	2	YES	-	-	X	N	-	X
3A	6X40	0	2-4-2	-	3	YES	-	15 +	-	N	-	X
					8 @	YES	-	-	-	N	-	X
4A	6X6	420	6	-	4	NO	3.2	-	-	N	-	X
4B	6X40	0	2-4-2	-	4	YES	-	3	-	N	-	X
5A	6X40	0	2-4-2	-	5	YES	-	15 +	-	N	-	X
					2 @	YES	-	3	-	G	-	X
5B	6X40	0	2-4-2	-	5	YES	-	15	-	N	-	X
6A	6X6	300	5	X	6	YES	-	-	X	N	-	X
7A	6X40	0	2-4-2	-	7	YES	-	15 +	-	N	-	X
					4 @	YES	-	-	-	N	-	X
7B	6X40	0	2-4-2	X	7	YES	-	15	-	N	-	X
8A	6X6	420	6	X	8	NO	3.2	-	-	N	-	X
8B	6X40	0	2-4-2	X	8	YES	-	-	-	N	-	X

+ Reduce to 3 sec during Alt Phasing Ops
@ Disable call during Alt Phasing Ops

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 *	-	-	-	-	-	-	-	-
Ped Clear	-	-	-	-	-	-	-	-
Veh. Extension *	2.0	6.0	2.0	2.0	2.0	6.0	2.0	2.0
Max 1 *	30	90	15	20	15	90	20	20
Yellow	3.0	4.6	3.0	5.3	3.0	4.6	3.0	5.3
Red Clear	3.2	2.1	1.9	1.2	3.7	2.1	2.6	1.2
Actuations B4 Add *	-	0	-	-	-	0	-	-
Seconds /Actuation *	-	2.5	-	-	-	2.5	-	-
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	-	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.

Signal Upgrade - Final

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for the Offices of:
Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

SR 1102 (Gillis Hill Road) at SR 1112 (Stoney Point Road)

Division 6 Cumberland County Fayetteville

PLAN DATE: January 2022 REVIEWED BY: S.G. Haynie
PREPARED BY: S. N. Matthews REVIEWED BY:

REVISIONS	INIT.	DATE

SCALE 0 40 1"=40'

RS&H
NC FIRM LICENSE No: F-0493
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
(919) 926-4100

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 046989 ENGINEER NICK MATTHEWS

Developed by:
SIGNATURE 1/5/2022 DATE
SIG. INVENTORY NO. 06-1131

04-Jan-22 16:47:23
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16:47:23