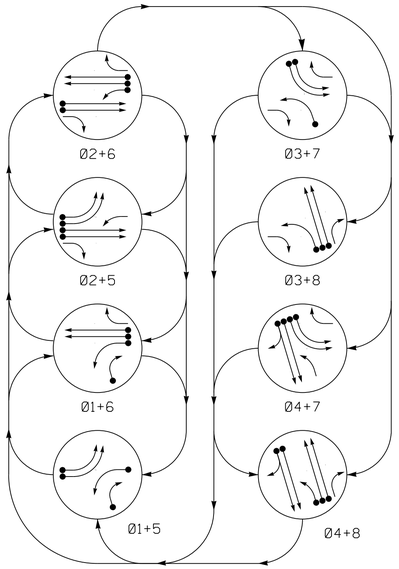
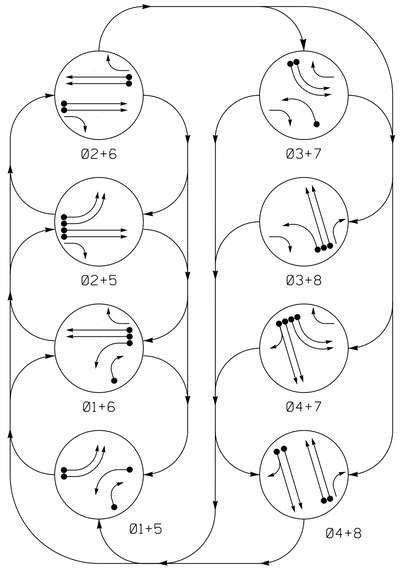
PROJECT REFERENCE NO.	SHEET NO.
R-2577A	Sig. 33.0

8 Phase Fully Actuated (US 158 Signal System) Signal System #: D09-11_Winston-Salem

DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM

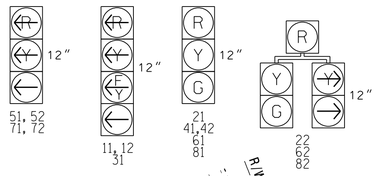


PHASING DIAGRAM DETECTION LEGEND

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

SIGNAL FACE I.D.

All Heads L.E.D.



DEFAULT PHASING TABLE OF OPERATION

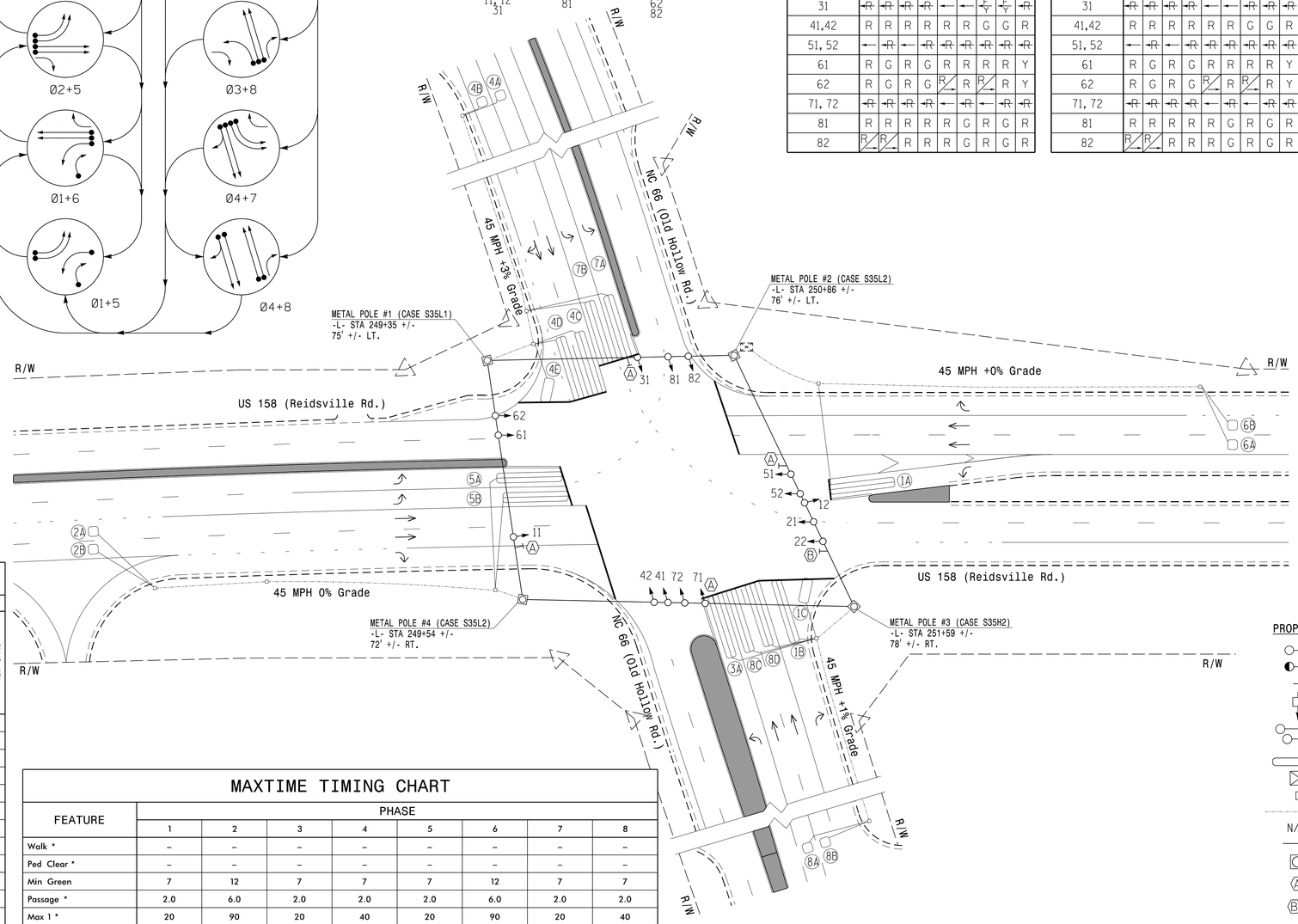
SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	FLASH
11, 12	↚	↚	F.Y	F.Y	R̸	R̸	R̸	R̸	Y̸
21	R	R	G	G	R	R	R	R	Y
22	R	R	G	G	R/→	R/→	R	R	Y
31	R̸	R̸	R̸	R̸	↚	↚	F.Y	F.Y	R̸
41, 42	R	R	R	R	R	R	G	G	R
51, 52	↚	R̸	↚	R̸	R̸	R̸	R̸	R̸	R̸
61	R	G	R	G	R	R	R	R	Y
62	R	G	R	G	R/→	R	R/→	R	Y
71, 72	R̸	R̸	R̸	R̸	↚	R̸	↚	R̸	R̸
81	R	R	R	R	R	G	R	G	R
82	R/→	R/→	R	R	R	G	R	G	R

ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03+7	03+8	04+7	04+8	FLASH
11, 12	↚	↚	R̸	R̸	R̸	R̸	R̸	R̸	Y̸
21	R	R	G	G	R	R	R	R	Y
22	R	R	G	G	R/→	R/→	R	R	Y
31	R̸	R̸	R̸	R̸	↚	↚	R̸	R̸	R̸
41, 42	R	R	R	R	R	R	G	G	R
51, 52	↚	R̸	↚	R̸	R̸	R̸	R̸	R̸	R̸
61	R	G	R	G	R	R	R	R	Y
62	R	G	R	G	R/→	R	R/→	R	Y
71, 72	R̸	R̸	R̸	R̸	↚	R̸	↚	R̸	R̸
81	R	R	R	R	R	G	R	G	R
82	R/→	R/→	R	R	R	G	R	G	R

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
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. The Division (City) Traffic Engineer will determine the hours of use for each phasing plan.
7. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



LEGEND

PROPOSED		EXISTING
○→	Traffic Signal Head	●→
◐→	Modified Signal Head	N/A
⊣	Sign	⊣
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
□	Junction Box	■
	2-in Underground Conduit	
N/A	Right of Way	
→	Directional Arrow	→
◯	Metal Strain Pole	◘
Ⓐ	"U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	Ⓐ
Ⓑ	Right Arrow "ONLY" Sign (R3-5R)	Ⓑ

MAXTIME DETECTOR INSTALLATION CHART

DETECTOR					PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL CALL	DELAY DURING GREEN	NEW CARD
1A	6X40	0	2-4-2	X	1	15*	-	X	- X	-	X
					6#	-	-	X	- X	X	X
1B	6X40	0	2-4-2	X	1	15	-	X	- X	-	X
1C	6X15	0	4	X	1	15	-	X	- X	-	X
2A	6X6	300	4	X	2	-	-	X	X X	-	X
2B	6X6	300	4	X	2	-	-	X	X X	-	X
3A	6X40	0	2-4-2	X	3	15*	-	X	- X	-	X
					8#	-	-	X	- X	-	X
4A	6X6	300	6	X	4	-	-	X	X -	-	X
4B	6X6	300	6	X	4	-	-	X	X -	-	X
4C	6X40	0	2-4-2	X	4	5	2.0	X	- X	X	X
4D	6X40	0	2-4-2	X	4	5	2.0	X	- X	X	X
4E	6X15	0	4	X	4	15	-	X	- X	-	X
5A	6X40	0	2-4-2	X	5	-	-	X	- X	-	X
5B	6X40	0	2-4-2	X	5	-	-	X	- X	-	X
6A	6X6	300	4	X	6	-	-	X	X X	-	X
6B	6X6	300	4	X	6	-	-	X	X X	-	X
7A	6X40	0	2-4-2	X	7	-	-	X	- X	-	X
7B	6X40	0	2-4-2	X	7	-	-	X	- X	-	X
8A	6X6	300	6	X	8	-	-	X	X -	-	X
8B	6X6	300	6	X	8	-	-	X	X -	-	X
8C	6X40	0	2-4-2	X	8	5	2.0	X	- X	X	X
8D	6X40	0	2-4-2	X	8	5	2.0	X	- X	X	X

✳ Disable Delay During Alternate Phasing Operation.
\# Disable Phase Call For Loop(s) During Alternate Phasing Operation.

MAXTIME TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6	7	8
Walk *	–	–	–	–	–	–	–	–
Ped Clear *	–	–	–	–	–	–	–	–
Min Green	7	12	7	7	7	12	7	7
Passage *	2.0	6.0	2.0	2.0	2.0	6.0	2.0	2.0
Max 1 *	20	90	20	40	20	90	20	40
Yellow Change	3.0	4.5	3.0	4.4	3.0	4.5	3.0	4.4
Red Clear	3.7	2.4	4.2	2.8	3.2	2.4	4.7	2.8
Added Initial *	–	1.5	–	–	–	1.5	–	–
Maximum Initial *	–	34	–	–	–	34	–	–
Time Before Reduction *	–	15	–	5	–	15	–	5
Time To Reduce *	–	30	–	15	–	30	–	15
Minimum Gap	–	3.0	–	3.0	–	3.0	–	30
Advance Walk	–	–	–	–	–	–	–	–
Non Lock Detector	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.

Signal Upgrade - Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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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 27529

SCALE 0 40 1" = 40'

US 158 (Reidsville Rd.) at NC 66 (Old Hollow Rd.)
Division 9 Forsyth County Walkertown

PLAN DATE:	February 2024	REVIEWED BY:	WP Erickson-Jones
PREPARED BY:	H Townsend	REVIEWED BY:	DTSears

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 056142 ENGINEER PORTER JONES

DocuSigned by: Porter Jones
SIGNATURE 2/12/2024 DATE

SIG. INVENTORY NO. 09-0264

2/12/2024
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wplones