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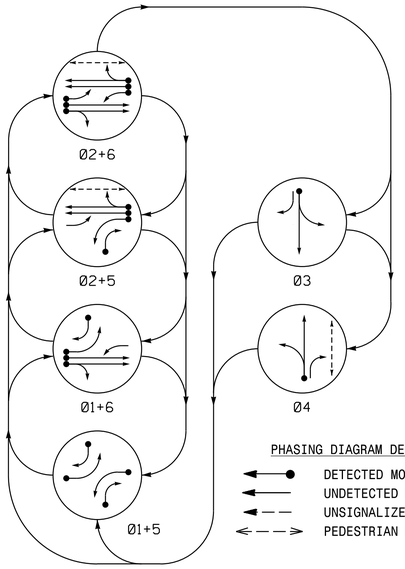
PROJECT REFERENCE NO.	SHEET NO.
U-5839	Sig 8.7

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

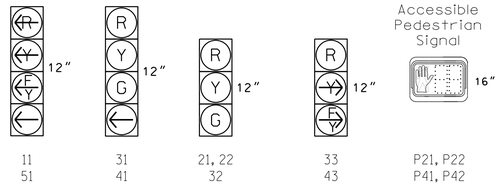
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03	04	FLASH
11	←	←	F Y	F Y	R	R	Y
21, 22	R	R	G	G	R	R	Y
31	R	R	R	R	G ←	R	R
32	R	R	R	R	G	R	R
33	F Y →	F Y →	R	R	F Y →	R	R
41	R	R	R	R	R	G ←	R
42	R	R	R	R	R	G	R
43	F Y →	R	F Y →	R	R	F Y →	R
51	←	F Y	←	F Y	R	R	Y
61, 62	R	G	R	G	R	R	Y
P21, P22	DW	DW	W	W	DW	DW	DRK
P41, P42	DW	DW	DW	DW	DW	W	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



MAXTIME DETECTOR INSTALLATION CHART

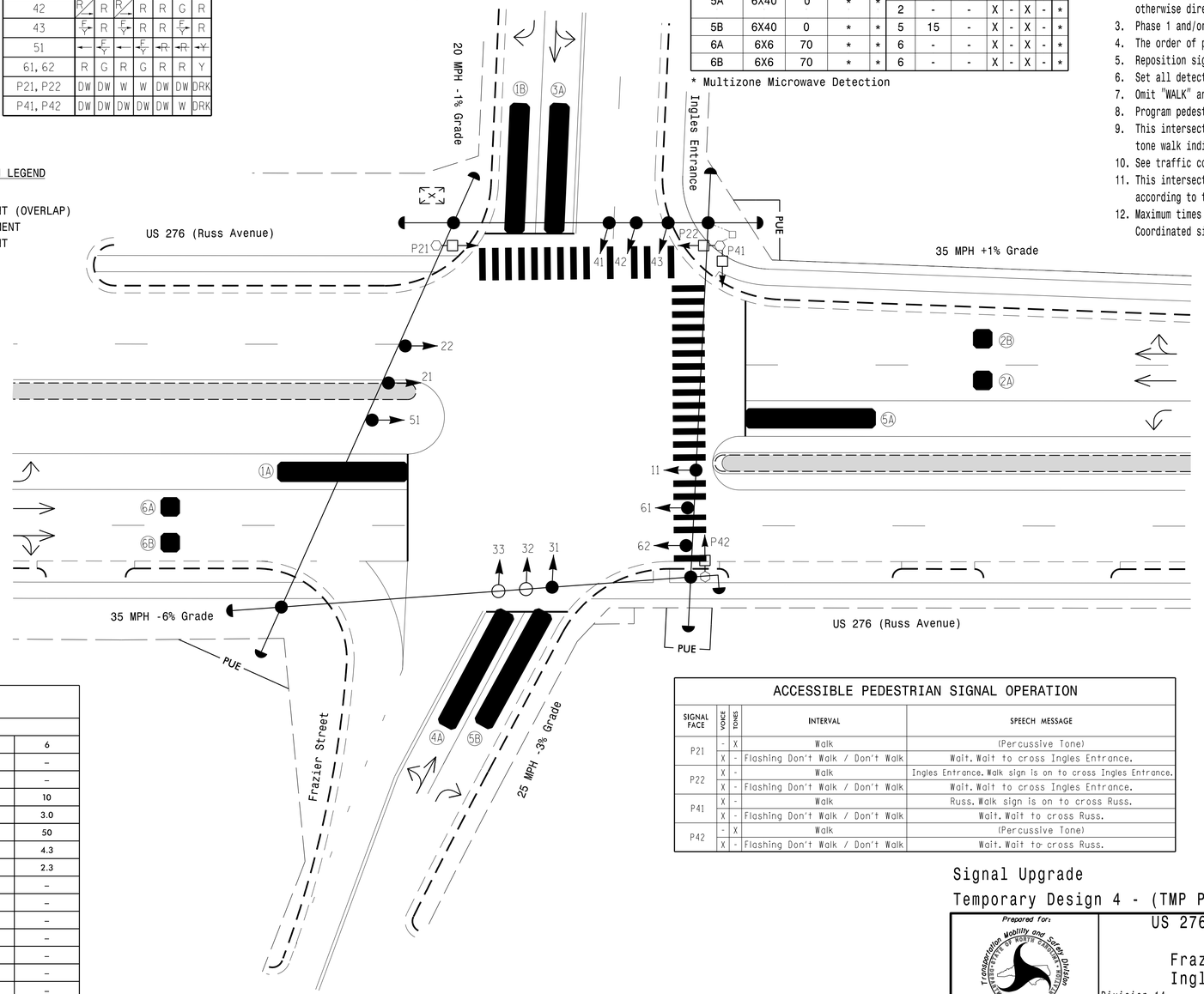
DETECTOR					PROGRAMMING							
ZONE	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN	NEW CARD
1A	6X40	0	*	*	1	15	-	X	-	X	-	*
					6	-	-	X	-	X	-	*
2A	6X6	70	*	*	2	-	-	X	-	X	-	*
2B	6X6	70	*	*	2	-	-	X	-	X	-	*
3A	6X40	0	*	*	3	10	-	X	-	X	-	*
4A	6X40	0	*	*	4	3	-	X	-	X	-	*
5A	6X40	0	*	*	5	15	-	X	-	X	-	*
					2	-	-	X	-	X	-	*
5B	6X40	0	*	*	5	15	-	X	-	X	-	*
6A	6X6	70	*	*	6	-	-	X	-	X	-	*
6B	6X6	70	*	*	6	-	-	X	-	X	-	*

* Multizone Microwave Detection

6 Phase
Fully Actuated
D14-12_Waynesville

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. The order of phase 3 and phase 4 may be reversed.
5. Reposition signal heads 21, 22, 31 and 51.
6. Set all detector units to presence mode.
7. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
8. Program pedestrian heads to countdown flashing "Don't Walk" time only.
9. This intersection features accessible pedestrian signals utilizing percussive tone walk indications and/or speech messages.
10. See traffic control plans for stop bar and crosswalk locations.
11. This intersection uses multizone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
12. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



ACCESSIBLE PEDESTRIAN SIGNAL OPERATION

SIGNAL FACE	VOICE	TONES	INTERVAL	SPEECH MESSAGE
P21	-	X	Walk	(Percussive Tone)
	X	-	Flashing Don't Walk / Don't Walk	Wait. Wait to cross Ingles Entrance.
P22	X	-	Walk	Ingles Entrance. Walk sign is on to cross Ingles Entrance.
	X	-	Flashing Don't Walk / Don't Walk	Wait. Wait to cross Ingles Entrance.
P41	X	-	Walk	Russ. Walk sign is on to cross Russ.
	X	-	Flashing Don't Walk / Don't Walk	Wait. Wait to cross Russ.
P42	-	X	Walk	(Percussive Tone)
	X	-	Flashing Don't Walk / Don't Walk	Wait. Wait to cross Russ.

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	
	Microwave Detection Zone	N/A
	Construction Zone	N/A
	Type II Signal Pedestal	
— PUE —	Proposed Utility Easement	N/A

MAXTIME TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6
Walk *	–	7	–	7	–	–
Ped Clear *	–	17	–	24	–	–
Min Green	7	10	7	7	7	10
Passage *	2.0	3.0	2.0	2.0	2.0	3.0
Max 1 *	15	50	20	20	15	50
Yellow Change	3.1	4.3	3.0	3.3	3.0	4.3
Red Clear	2.9	2.3	3.4	2.9	3.1	2.3
Added Initial *	–	–	–	–	–	–
Maximum Initial *	–	–	–	–	–	–
Time Before Reduction *	–	–	–	–	–	–
Time To Reduce *	–	–	–	–	–	–
Minimum Gap	–	–	–	–	–	–
Advance Walk	–	–	–	–	–	–
Non Lock Detector	X	–	X	X	X	–
Vehicle Recall	–	MIN RECALL	–	–	–	MIN RECALL
Dual Entry	–	–	–	–	–	–

* 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
Temporary Design 4 - (TMP Phase III)

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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750 N.Greenfield Pkwy.Garner,NC 27529

US 276 (Russ Avenue) at Frazier Street / Ingles Entrance
Division 14 Haywood County Waynesville

PLAN DATE:	April 2023	REVIEWED BY:	WJ Hamilton
PREPARED BY:	TS Popelka	RKA PROJ. NO.:	16085 (040)

SCALE 0 20 1"=20'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 32396 ENGINEER WILLIAM J. HAMILTON
Docusigned by: William J. Hamilton
A0560D704684B4
SIGNATURE 04/11/2023 DATE
SIG. INVENTORY NO. I4-107574