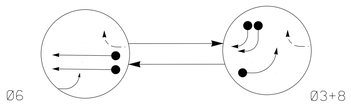
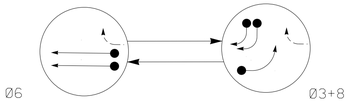
DEFAULT PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

ALTERNATE PHASING DIAGRAM



DEFAULT PHASING TABLE OF OPERATION

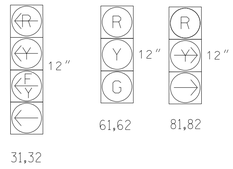
SIGNAL FACE	PHASE Ø6	PHASE Ø3+8	PHASE FLASH
31,32	FY	←	~~R~~
61,62	G	R	R
81,82	R	→	R

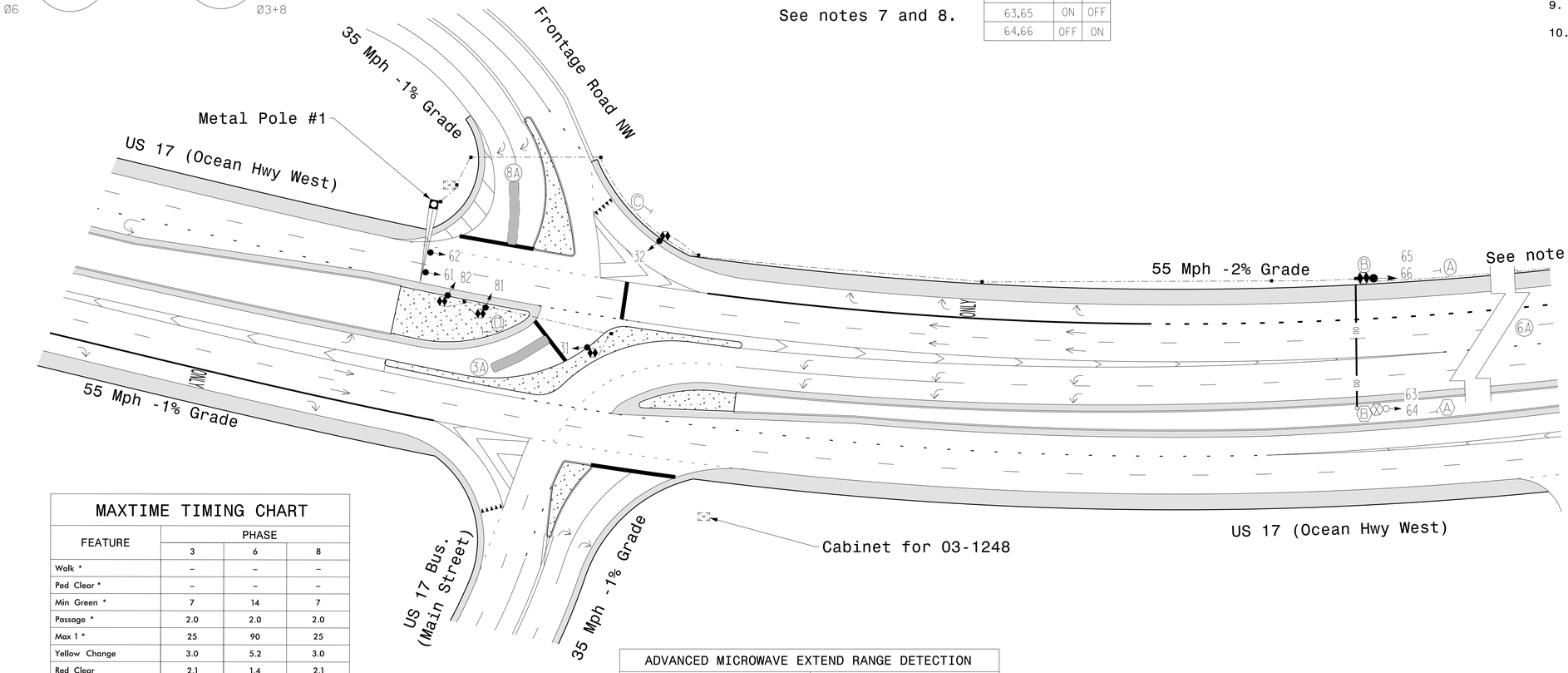
ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE Ø6	PHASE Ø3+8	PHASE FLASH
31,32	~~R~~	←	~~R~~
61,62	G	R	R
81,82	R	→	R

SIGNAL FACE I.D.

All Heads L.E.D.





MAXTIME TIMING CHART

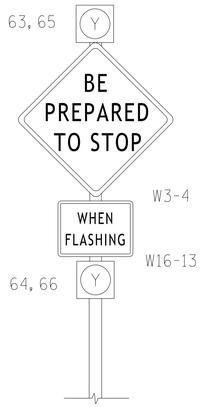
FEATURE	PHASE 3	PHASE 6	PHASE 8
Walk *	–	–	–
Ped Clear *	–	–	–
Min Green *	7	14	7
Passage *	2.0	2.0	2.0
Max 1 *	25	90	25
Yellow Change	3.0	5.2	3.0
Red Clear	2.1	1.4	2.1
Added Initial *	–	–	–
Maximum Initial *	–	–	–
Time Before Reduction *	–	–	–
Time To Reduce *	–	–	–
Minimum Gap	–	–	–
Advance Walk	–	–	–
Pre-Clearance	–	3.0	–
Non Lock Detector	X	–	X
Vehicle 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.

ADVANCED MICROWAVE EXTEND RANGE DETECTION

FUNCTION	Sensor 1 (6A)		
Channel	1		
Phase	6		
Direction of Travel	NB		
Type	PRIORITY		
Level	1	2	QUEUE
Discovery Zone (ft)	>=750	<750	N/A
Range (ft)	100-900	100-600	100-150
Enable Speed	Y	Y	Y
Speed Range (mph)	35-100	35-100	1-35
Enable Estimated Time of Arrival	Y	Y	N
Estimated Time of Arrival (sec)	2.5-10.0	2.5-6.5	-

Figure 1



See notes 7 and 8.

TABLE OF OPERATION

SIGNAL FACE	INTERVAL 1	INTERVAL 2
63,65	ON	OFF
64,66	OFF	ON

MAXTIME DETECTOR INSTALLATION CHART

DETECTOR LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURNS	NEW LOOP	PROGRAMMING CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN	NEW CARD
3A	*	0	*	X	3	15**	-	X	-	X	-	*
8A	*	0	*	-	8	15	-	X	-	X	-	*

* Multizone microwave detection zone.
** Disable delay during alternate phasing operation

PROJECT REFERENCE NO.	SHEET NO.
R-5857	Sig. 14.0

2 Phase Fully Actuated Signal System #:DO3-14_Shallotte

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. Set all detector unitS to presence mode.
4. The Division Traffic Engineer will determine the hours of use for each phasing plan.
5. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
6. This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
7. Activate flashers 3 seconds prior to end of phase 6 green.
8. Flash vertically-mounted beacons alternately.
9. Install new conduit as close as possible to edge of pavement.
10. Refer to the Pavement Marking Plans for pavement marking details.

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	
⊗	Type III Signal Pedestal	
	Detection Zone	
⊠	Controller & Cabinet	⊡
□	Junction Box	■
N/A	Curb Ramp	
----------	2-in Underground Conduit	----------
—DD—	Directional Drill	N/A
N/A	Right of Way	— — — —
→	Directional Arrow	→
	Metal Pole with Mastarm	
(A)	Signal Ahead Sign (W3-3)	(A)
(B)	"BE PREPARED TO STOP" Sign (W3-4) w/ "WHEN FLASHING" Plaque (W16-3) (See Figure 1)	(B)
(C)	"YIELD" Sign (R1-2)	(C)
(D)	No U-Turn Sign (R3-4)	(D)

Signal Upgrade-Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for: Transportation Mobility and Safety Division, NC DEPARTMENT OF TRANSPORTATION, Signal Design Section
750 N.Greenfield Pkwy.Garner,NC 27529

US 17 (Ocean Highway W) at Frontage Rd NW

Division 3 Brunswick County Shallotte

PLAN DATE: March 2025 REVIEWED BY: G. G. Murr, Jr.
PREPARED BY: Nadia Degbotse REVIEWED BY:

SCALE 0 40 1"=40'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 14543 ENGINEER GENE G. MURR JR.
Signed by: Gene G. Murr Jr. AA6F5076CAB34CF... 3/31/2025
SIG. INVENTORY NO. 03-1249

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3/31/2025
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