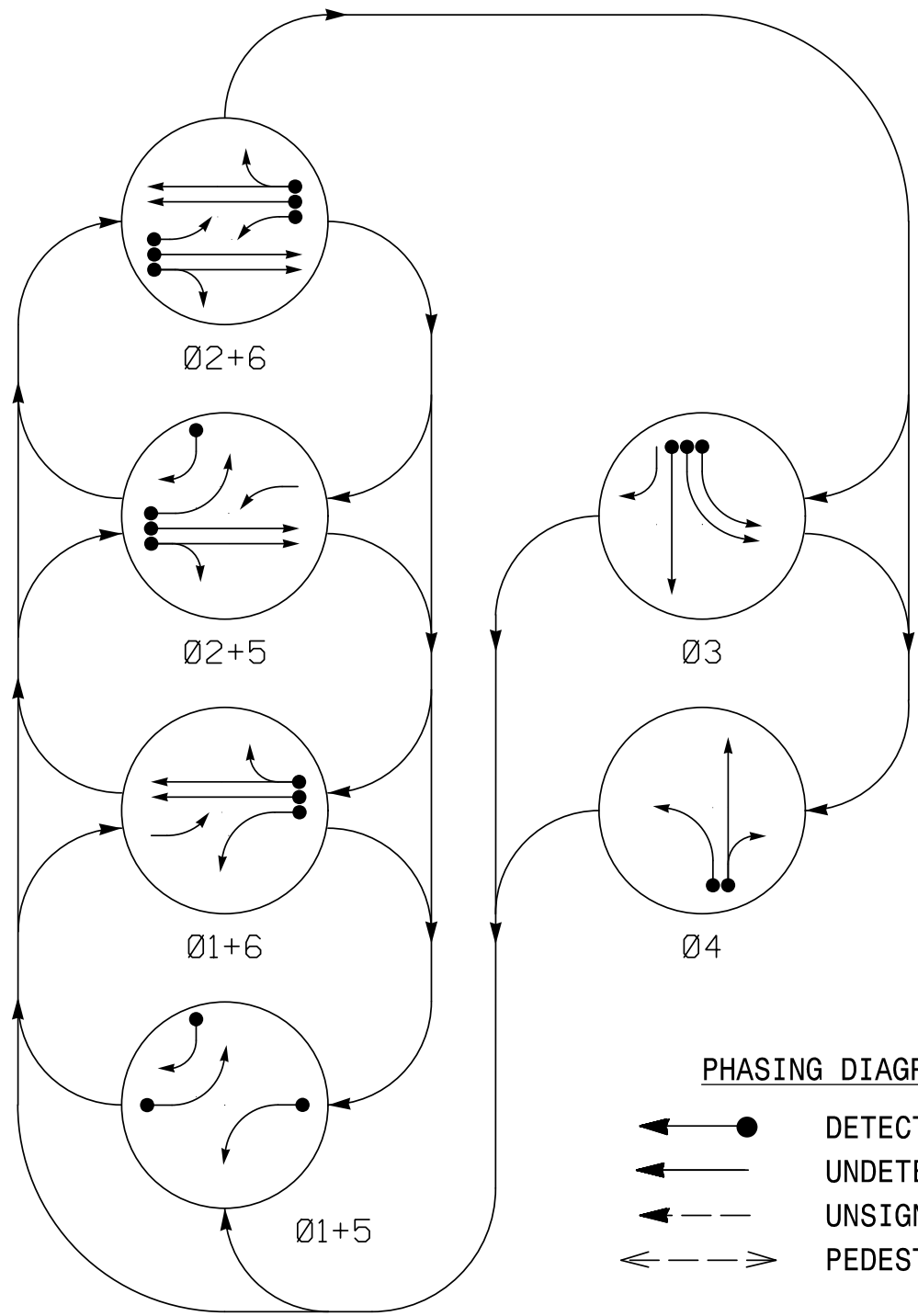


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

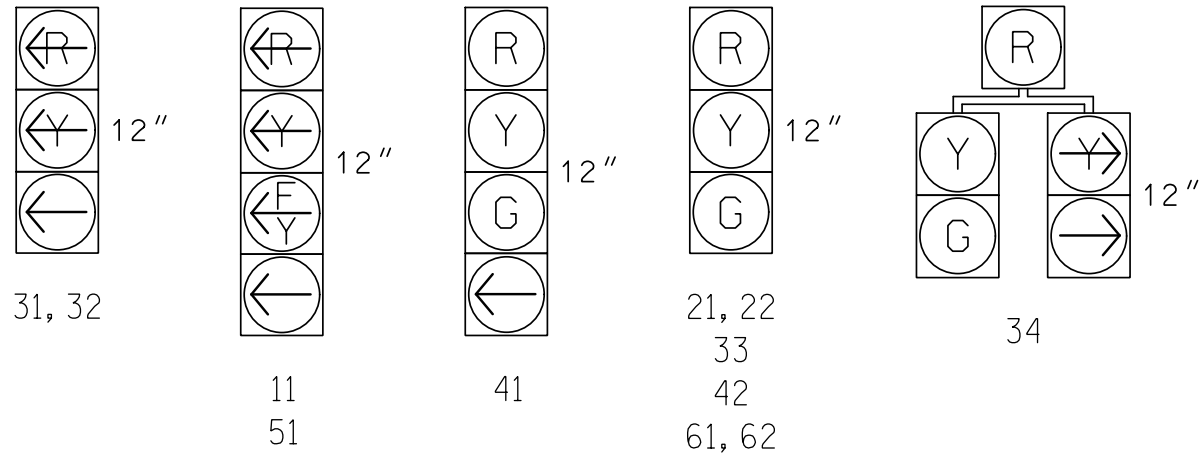
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE									
	Ø 1 + 5	Ø 1 + 6	Ø 2 + 5	Ø 2 + 6	Ø 3	Ø 4	FLTS	HS	IS	RS
II	←	←	←	←	←	←	←	←	←	←
21, 22	R	R	G	G	R	R	R	R	R	R
31, 32	←	←	←	←	←	←	←	←	←	←
33	R	R	R	R	G	R	R	R	R	R
34	←	←	←	←	R	G	R	R	R	R
41	R	R	R	R	R	G	R	R	R	R
42	R	R	R	R	G	R	R	R	R	R
51	←	←	←	←	←	←	←	←	←	←
61, 62	R	G	R	G	R	R	R	R	R	R

SIGNAL FACE I.D.

All Heads L.E.D.



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
1A	6X40	0	*	X	1	15	-	X	-	X
3A	6X40	0	*	X	3	-	-	X	-	X
3B	6X40	0	*	X	3	-	-	X	-	X
3C	6X40	0	*	X	3	-	-	X	-	X
4A	6X40	0	*	X	4	3	-	X	-	X
4B	6X40	0	*	X	4	10	-	X	-	X
4C	6X12	0	*	X	4	15	-	X	-	X
5A	6X40	0	*	X	5	15	-	X	-	X
5B	6X40	0	*	X	5	15	-	X	-	X

* Multi-zone Microwave Detection Zone

RADAR DETECTION SYSTEM

FUNCTION	SENSOR 1 - (2A)	SENSOR 1 - (6A)
Channel	1	2
Phase	2	6
Direction of Travel	SB	NB
Detection Zone (ft)	500 - 100	500 - 100
Enable Speed	Y	Y
Speed Range (mph)	35 - 100	35 - 100
Enable Estimated Time of Arrival	Y	Y
Estimated Time of Arrival (sec)	2.5 - 6.5	2.5 - 6.5

6 Phase
Fully Actuated
Signal System #D06-17 Lumberton
US 301 and SR 1997 (Fayetteville Road)

NOTES

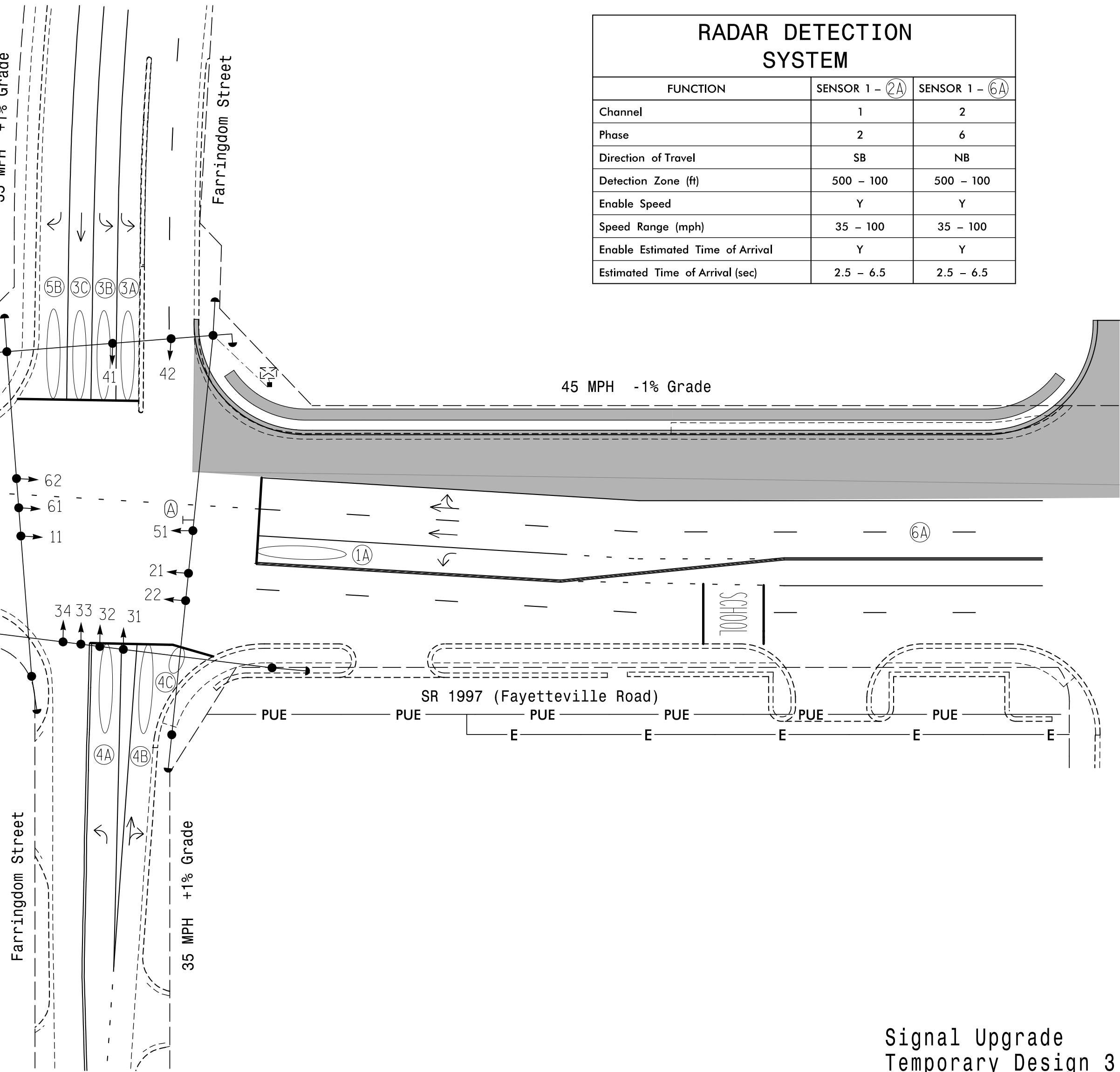
- Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- The order of phase 3 and phase 4 may be reversed.
- Reposition existing signal heads numbered 11, 21, 22, 61, and 62.
- Set all detector units to presence mode.
- This intersection uses multi-zone microwave detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Remove bags from signal heads numbered 11 and 31.

LEGEND

PROPOSED	EXISTING
Traffic Signal Head	N/A
Modified Signal Head Sign	N/A
Pedestrian Signal Head	N/A
Signal Pole with Guy	N/A
Signal Pole with Sidewalk Guy	N/A
Inductive Loop Detector	N/A
Controller & Cabinet	N/A
Junction Box	N/A
2-in Underground Conduit	N/A
Right of Way	N/A
Directional Arrow	N/A
Right of Way	N/A
Directional Arrow	N/A
Construction Zone	N/A
Microwave Detection Zone	N/A
"U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	N/A

MAXTIME TIMING CHART						
FEATURE	PHASE					
	1	2	3	4	5	6
Walk *	-	-	-	-	-	-
Ped Clear *	-	-	-	-	-	-
Min Green	7	12	7	7	7	12
Passage *	2.0	2.0	2.0	2.0	2.0	2.0
Max 1 *	20	90	30	30	20	90
Yellow Change	3.0	4.6	3.8	3.8	3.0	4.6
Red Clear	2.8	1.6	2.3	1.6	2.8	1.6
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 3 - TMP Phase IV, Step 1

STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
(704) 372-1885
NC License Number F-0991

Prepared for the Offices of:
Transportation Mobility and Safety
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section
750 N. Greenfield Pkwy, Garner, NC 27529
SCALE
0 40
1" = 40'

SR 1997 (Fayetteville Road)
at
Farrington Street

Division 6	Robeson County	Lumberton
PLAN DATE:	Feb 2025	REVIEWED BY: H.M. Surti
PREPARED BY: J.C. Grimm	REVIEWED BY: T.M. Woody	
REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
RENT M. MOODY
2/10/2025
DATE
SIC. INVENTORY NO. 06-0757T3