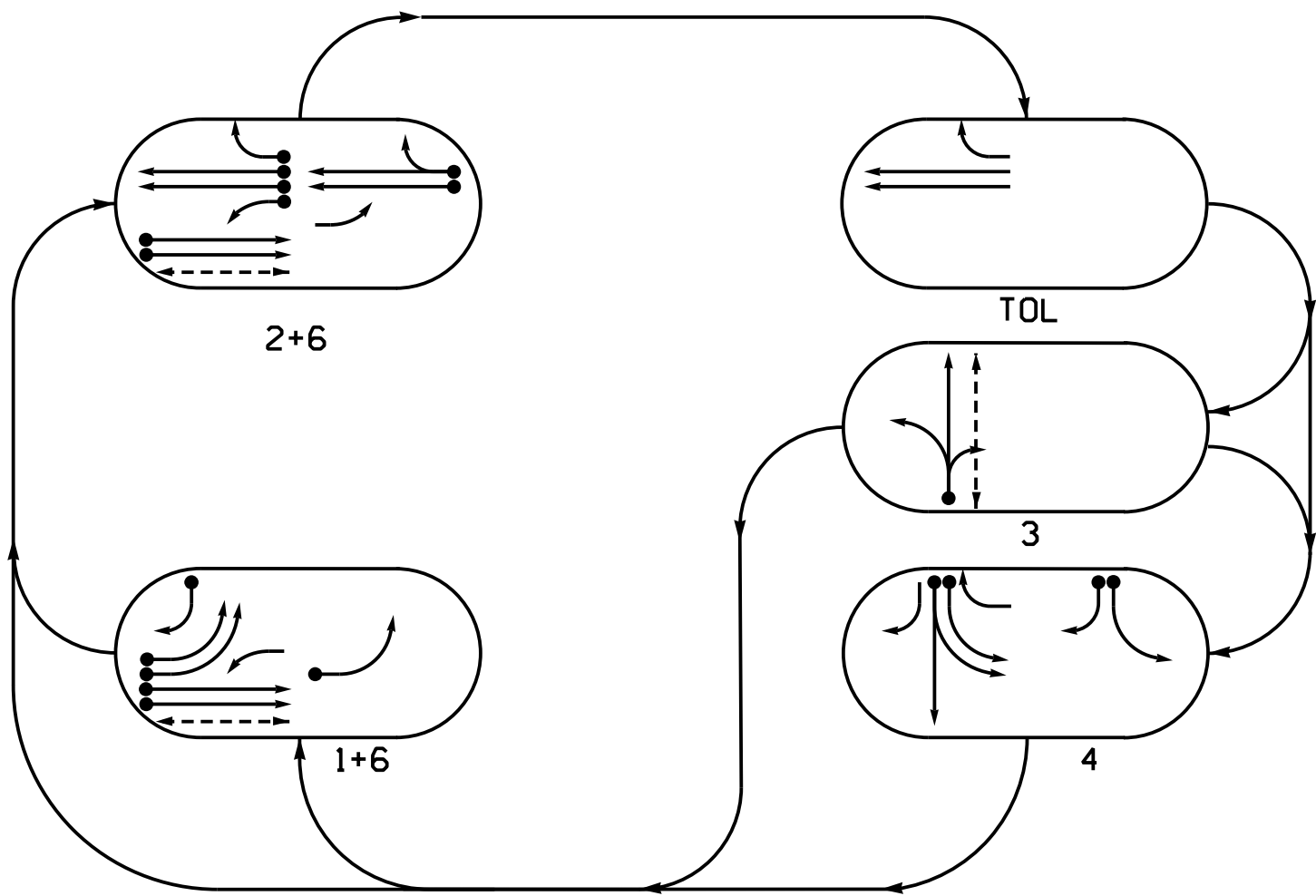


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE					FLASH
	1 + 6	2 + 6	TOL	3	4	
11,12	←	←	←	←	←	←
13	←	←	←	←	←	←
21,22	R	G	R	R	R	R
23	←	←	←	←	←	←
24	R	G	R	R	R	R
25	R	G	G	R	R	R
31	R	R	R	G	R	R
32	R	R	R	G	R	R
41,43,44	←	←	←	←	←	←
42	R	R	R	←	R	←
45	←	←	←	←	G	←
46	←	←	R	R	G	←
61,62	G	G	R	R	R	G
P31,P32	DW	DW	DW	W	DW	DRK
P61,P62	W	W	DW	DW	DW	DRK

MAXTIME DETECTOR INSTALLATION CHART												
DETECTOR						PROGRAMMING						
LOOP/ZONE	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURN	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	INITIAL	ADDED	CALL	RELAY DURING GREEN
1A	6X40	0	2-4-2	-	1	-	-	-	X	-	X	-
1B	6X40	0	2-4-2	X	1	-	-	-	X	-	X	-
1C	6X60	0	2-4-2	-	1	15.0	-	-	X	-	X	-
1D	6X40	0	2-4-2	-	1	15.0	-	-	X	-	X	-
2A	6X6	70	3	-	2	-	-	-	X	-	X	-
2B	6X6	70	3	-	2	-	-	-	X	-	X	-
2C	6X6	70	3	-	2	-	-	-	X	-	X	-
2D	6X6	70	3	-	2	-	-	-	X	-	X	-
2E	6X40	0	2-4-2	X	2	-	-	-	X	-	X	-
3A*	6X40	0	*	*	3	3.0	-	-	X	-	X	*
4A	6X40	0	2-4-2	-	4	3.0	-	-	X	-	X	-
4B	6X40	0	2-4-2	-	4	15.0	-	-	X	-	X	-
4C	6X40	0	2-4-2	-	4	3.0	-	-	X	-	X	-
4D	6X40	0	2-4-2	-	4	-	-	-	X	-	X	-
6A	6X6	70	3	-	6	-	-	-	X	-	X	-
6B	6X6	70	3	-	6	-	-	-	X	-	X	-

* Video Detection

4 Phase
w/ Timed Overlap
Fully Actuated
Isolated
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.
- Enable Backup Prevent to allow the controller to clear from phase 2 to phase 1 by progressing through phase 4.
- The order of phase 3 and phase 4 may be reversed.
- Set all detector units to presence mode.
- In the event of loop replacement, refer to the current ITS and Signals Design Manual and submit a Plan of Record to the Signal Design Section.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown when the flashing "Don't Walk" time only.
- This intersection uses video detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
- Suppress FYA for signal head numbered 23 during the first 6 seconds of the phase 6 ped.
- See R-5759 pavement marking plans for existing and proposed pavement markings.

LEGEND

PROPOSED	EXISTING

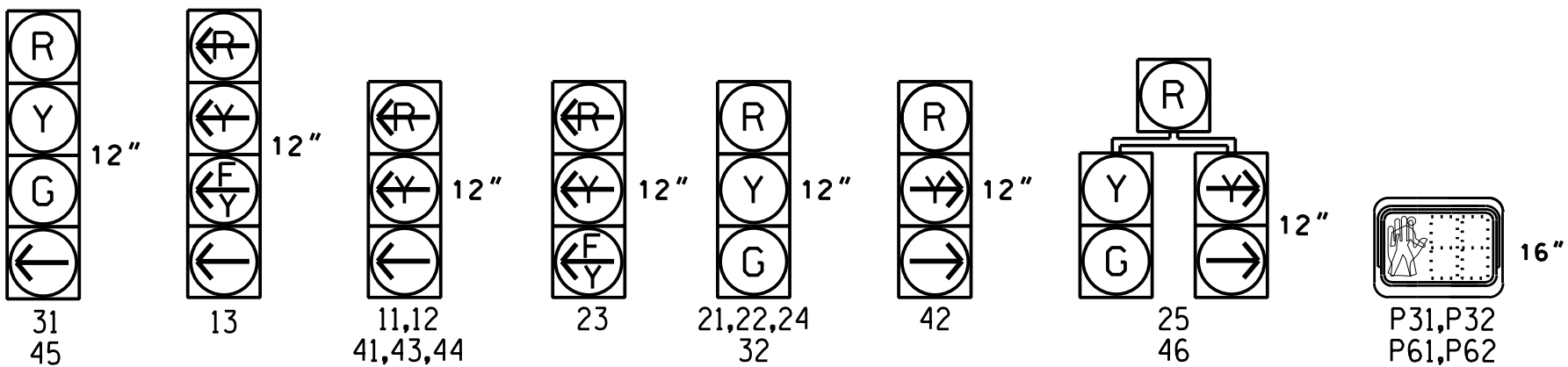
MAXTIME TIMING CHART

FEATURE	PHASE					
	1	2	3	4	6	TOL
Walk *	-	-	14	-	13	
Ped Clear	-	-	24	-	7	
Min Green *	7	10	7	7	10	7
Passage *	1.0	3.0	1.0	1.0	3.0	
Max I *	20	45	25	25	45	
Yellow Change	3.3	4.5	3.0	3.9	4.5	3.5
Red Clear	2.9	2.1	3.8	2.4	2.1	4.2
Added Initial *	-	-	-	-	-	
Maximum Initial *	-	-	-	-	-	
Time Before Reduction *	-	-	-	-	-	
Time To Reduce *	-	-	-	-	-	
Minimum Gap	-	-	-	-	-	
Advance Walk	-	-	7	-	-	
Non Lock Detector	X	-	X	X	-	
Vehicle Recall	-	MIN RECALL	-	-	MIN RECALL	
Dual Entry	-	-	-	-	-	

* These values may be field adjusted. Do not adjust Min Green and Passage 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 FACE I.D.

All Heads L.E.D.



Signal Upgrade - Final Design

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

	US 421 Bus-NC 18-268 (Second St) at US 421 Bus-NC 115 (Statesville Rd) /"D" Street and SR 2333 (River Rd)		
	Division 11 Wilkes County Wilkesboro		
	PLAN DATE: November 2023	REVIEWED BY: N.K. Vianich	
	PREPARED BY: E.E. Tiller	REVIEWED BY: N.R. Simmons	
REVISIONS		INIT.	DATE
0			
1"=40'			
SIGNATURE		DATE	
SIG. INVENTORY NO.		11-1012	

HNTB

HNTB NORTH CAROLINA, P.C.
4000 Center at North Hills St
Suite 500
Raleigh, North Carolina 27609
NC License No: C-1554
(919) 546-8997