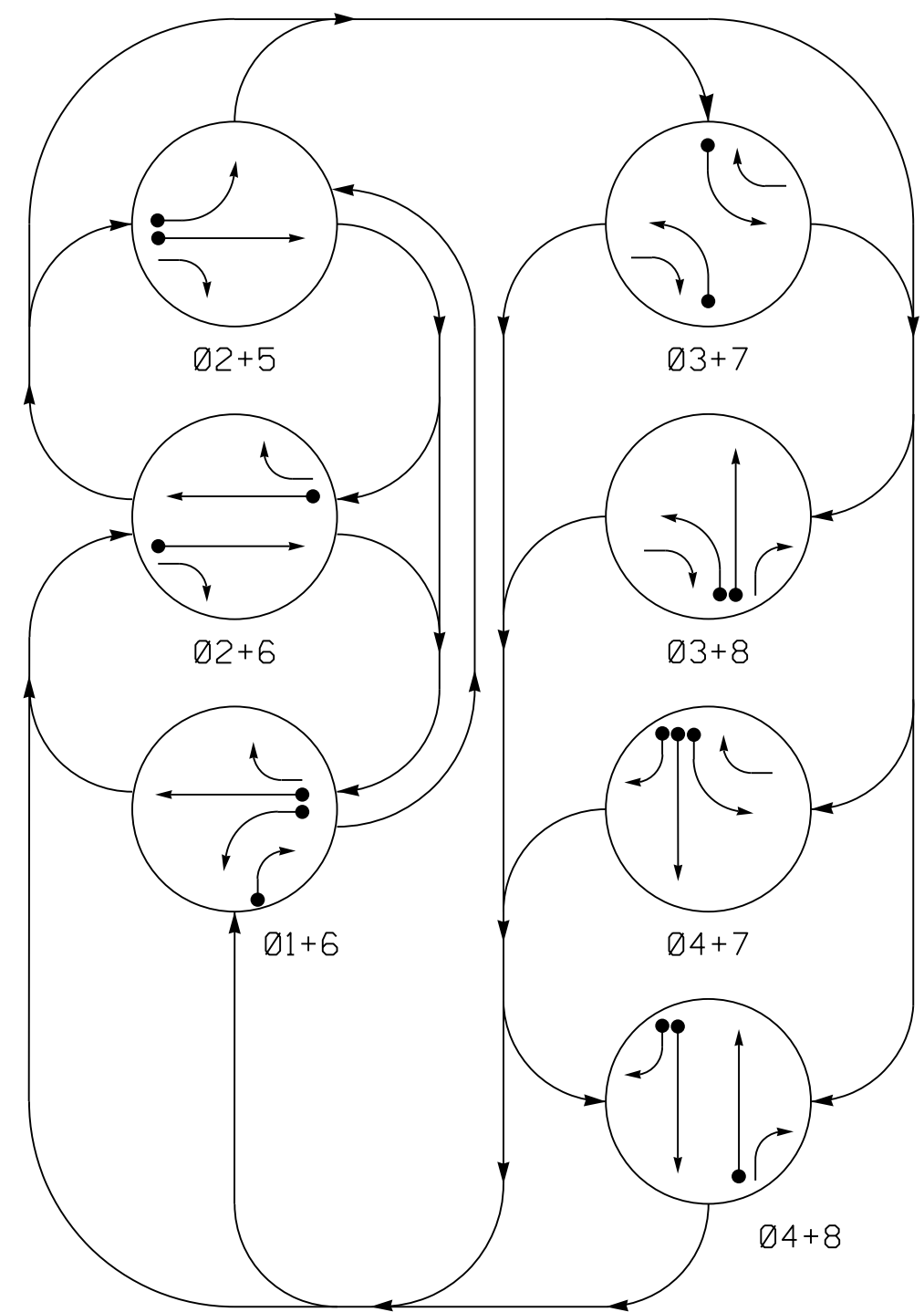


**PHASING DIAGRAM**



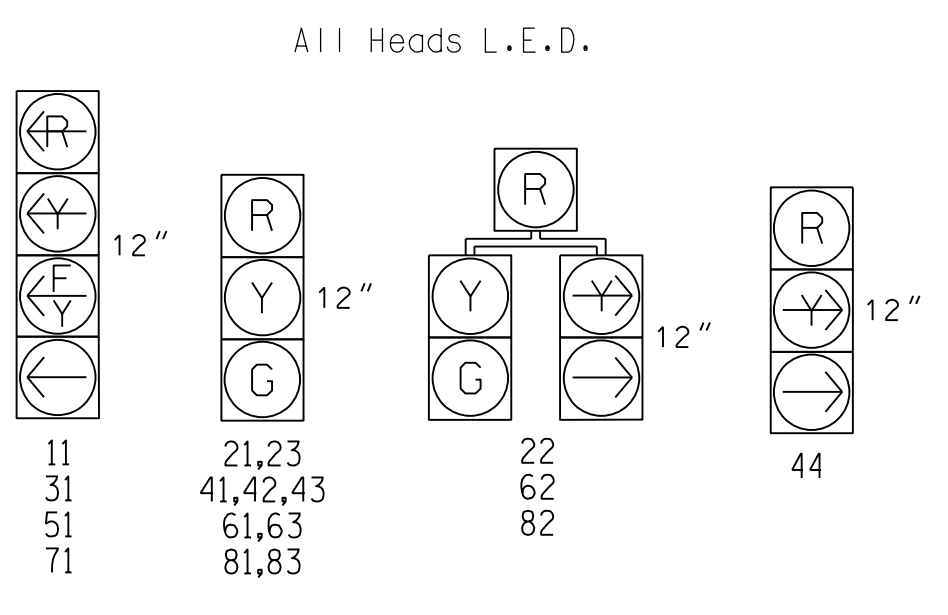
**PHASING DIAGRAM DETECTION LEGEND**

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

**TABLE OF OPERATION**

SIGNAL FACE	PHASE								FLASH
	Ø 1 + 6	Ø 2 + 5	Ø 3 + 7	Ø 3 + 8	Ø 4 + 7	Ø 4 + 8			
11	←	←	←	←	←	←	←	←	Y
21,23	R	G	G	R	R	R	R	R	Y
22	R	G	G	R	R	R	R	R	Y
31	←	←	←	←	←	←	←	←	Y
41, 42, 43	R	R	R	R	R	R	R	R	G
44	R	R	R	R	R	R	R	R	Y
51	←	←	←	←	←	←	←	←	Y
61,63	G	G	R	R	R	R	R	R	Y
62	G	G	R	R	R	R	R	R	Y
71	←	←	←	←	←	←	←	←	Y
81, 83	R	R	R	R	R	R	R	R	G
82	R	R	R	R	R	R	R	R	G

**SIGNAL FACE I.D.**



**ASC/3 DETECTOR INSTALLATION CHART**

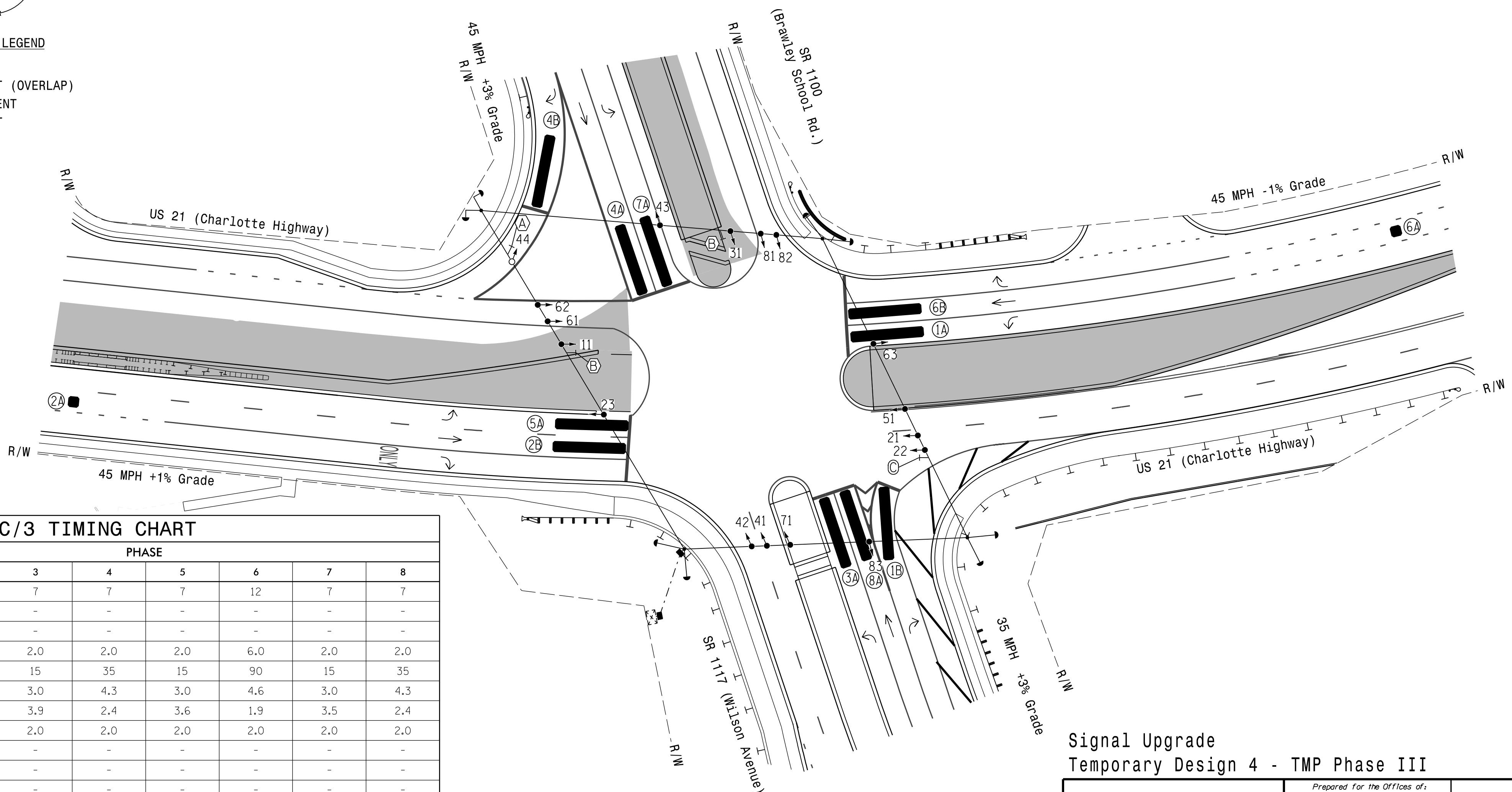
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING							
					PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	SYSTEM LOOP	NEW CARD
1A	6X40	0	*	*	1	Yes	-	-	-	N	-	*
1B	6X40	0	*	*	1	Yes	-	15	-	N	-	*
2A	6X6	300	*	*	2	Yes	-	-	-	N	-	*
2B	6X40	0	*	*	2	Yes	2.0	5	-	G	-	*
3A	6X40	0	*	*	3	Yes	-	-	-	N	-	*
4A	6X40	0	*	*	4	Yes	-	-	-	N	-	*
4B	6X40	0	*	*	4	Yes	-	-	-	N	-	*
5A	6X40	0	*	*	5	Yes	-	-	-	N	-	*
6A	6X6	300	*	*	6	Yes	-	-	-	N	-	*
6B	6X40	0	*	*	6	Yes	2.0	5	-	G	-	*
7A	6X40	0	*	*	7	Yes	-	-	-	N	-	*
8A	6X40	0	*	*	8	Yes	-	-	-	N	-	*

\* Video Detection Area

**7 Phase Fully Actuated Isolated**

**NOTES**

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Phase 1 and/or phase 5 may be lagged.
- Phase 3 and/or phase 7 may be lagged.
- Set all detector units to presence mode.
- This intersection features a video detection system. Detectors should be placed to ensure the desired operation parameters are achieved.
- Reposition existing signal heads 11,31,41,42,43,61,62,63,71,81, & 82.



**ASC/3 TIMING CHART**

FEATURE	PHASE							
	1	2	3	4	5	6	7	8
Min Green *	7	12	7	7	7	12	7	7
Walk *	-	-	-	-	-	-	-	-
Ped Clear	-	-	-	-	-	-	-	-
Veh. Extension *	2.0	6.0	2.0	2.0	2.0	6.0	2.0	2.0
Max 1 *	15	90	15	35	15	90	15	35
Yellow	3.0	4.6	3.0	4.3	3.0	4.6	3.0	4.3
Red Clear	3.5	1.9	3.9	2.4	3.6	1.9	3.5	2.4
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Actuations B4 Add *	-	-	-	-	-	-	-	-
Seconds / Actuation *	-	-	-	-	-	-	-	-
Max Initial *	-	-	-	-	-	-	-	-
Time Before Reduction *	-	15	-	-	-	15	-	-
Time To Reduce *	-	30	-	-	-	30	-	-
Minimum Gap	-	3.0	-	-	-	3.0	-	-
Locking Detector	-	X	-	-	-	X	-	-
Recall Position	-	VEH. RECALL	-	-	-	VEH. RECALL	-	-
Dual Entry	-	-	-	X	-	-	-	X
Simultaneous Gap	X	X	X	X	X	X	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.

**LEGEND**

- | PROPOSED   | EXISTING  |
|--|-----------|
| ○ → Traffic Signal Head                            | ● → N/A   |
| ○ → Modified Signal Head                           | ○ → N/A   |
| ○ → Pedestrian Signal Head With Push Button & Sign | ○ → 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   |
| N/A → Right of Way                                 | N/A → N/A |
| → → Directional Arrow                              | → → N/A   |
| ■ → Video Detection Area                           | ■ → N/A   |
| ■ → Construction Zone                              | ■ → N/A   |
| Ⓞ → Oversized Junction Box                         | Ⓞ → N/A   |
| Ⓐ → "NO TURN ON RED" Sign (R10-11)                 | Ⓐ → N/A   |
| Ⓑ → "U-TURN YIELD TO RIGHT TURN" Sign (R10-16)     | Ⓑ → N/A   |
| Ⓒ → Right Arrow "ONLY" Sign (R3-5R)                | Ⓒ → N/A   |

**Signal Upgrade Temporary Design 4 - TMP Phase III**

US 21 (Charlotte Highway) at SR 1100 (Brawley School Road) / SR 1117 (Wilson Avenue)

Division 12 Iredell County Mooresville

PLAN DATE: May 2022 REVIEWED BY: E D Harris

PREPARED BY: J. Hambright REVIEWED BY: R M Muncey

REVISIONS	INIT.	DATE

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**

3/22/2023  
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 User: jhambrigt