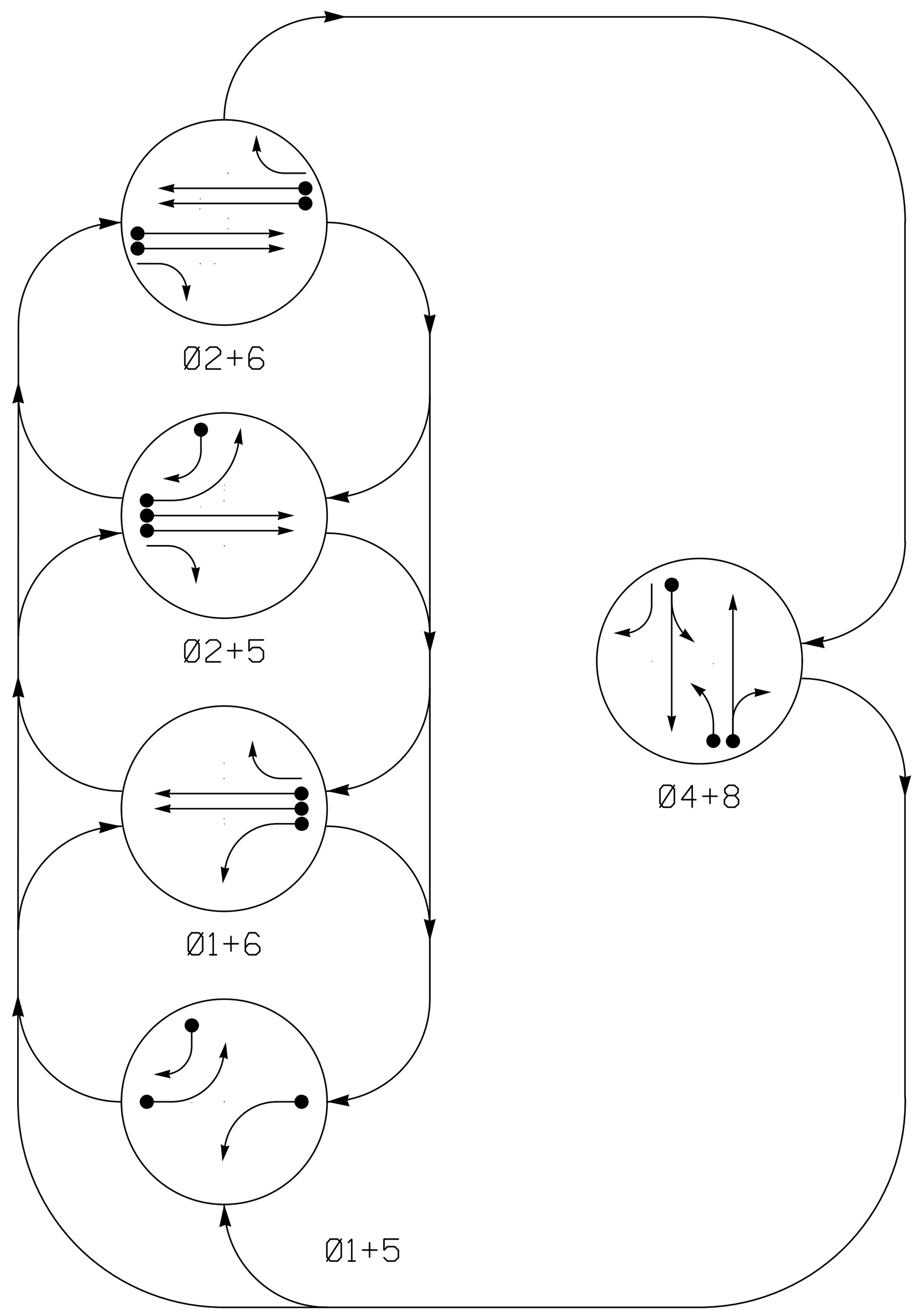
PROJECT REFERENCE NO.	SHEET NO.
U-4700 CC	Sig. 3.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

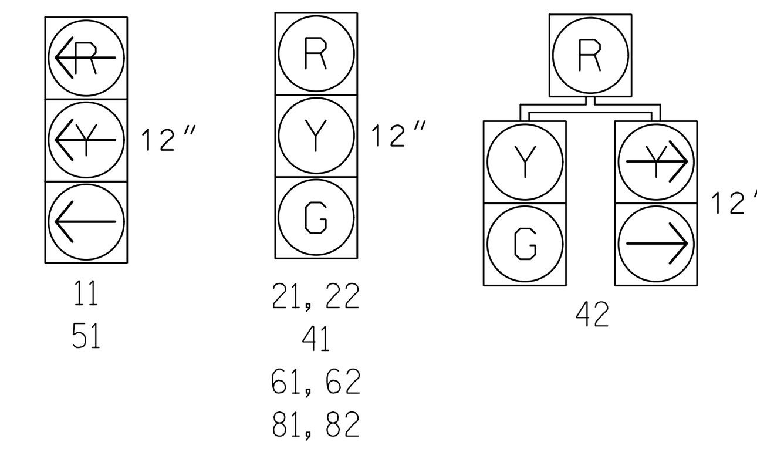
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø4+8	FLASH
11	←	←	←R	←R	←R	←R
21, 22	R	R	G	G	R	Y
41	R	R	R	R	G	R
42	R/→	R	R/→	R	G	R
51	←	←R	←	←R	←R	←R
61, 62	R	G	R	G	R	Y
81, 82	R	R	R	R	G	R

SIGNAL FACE I.D.

All Heads L.E.D.



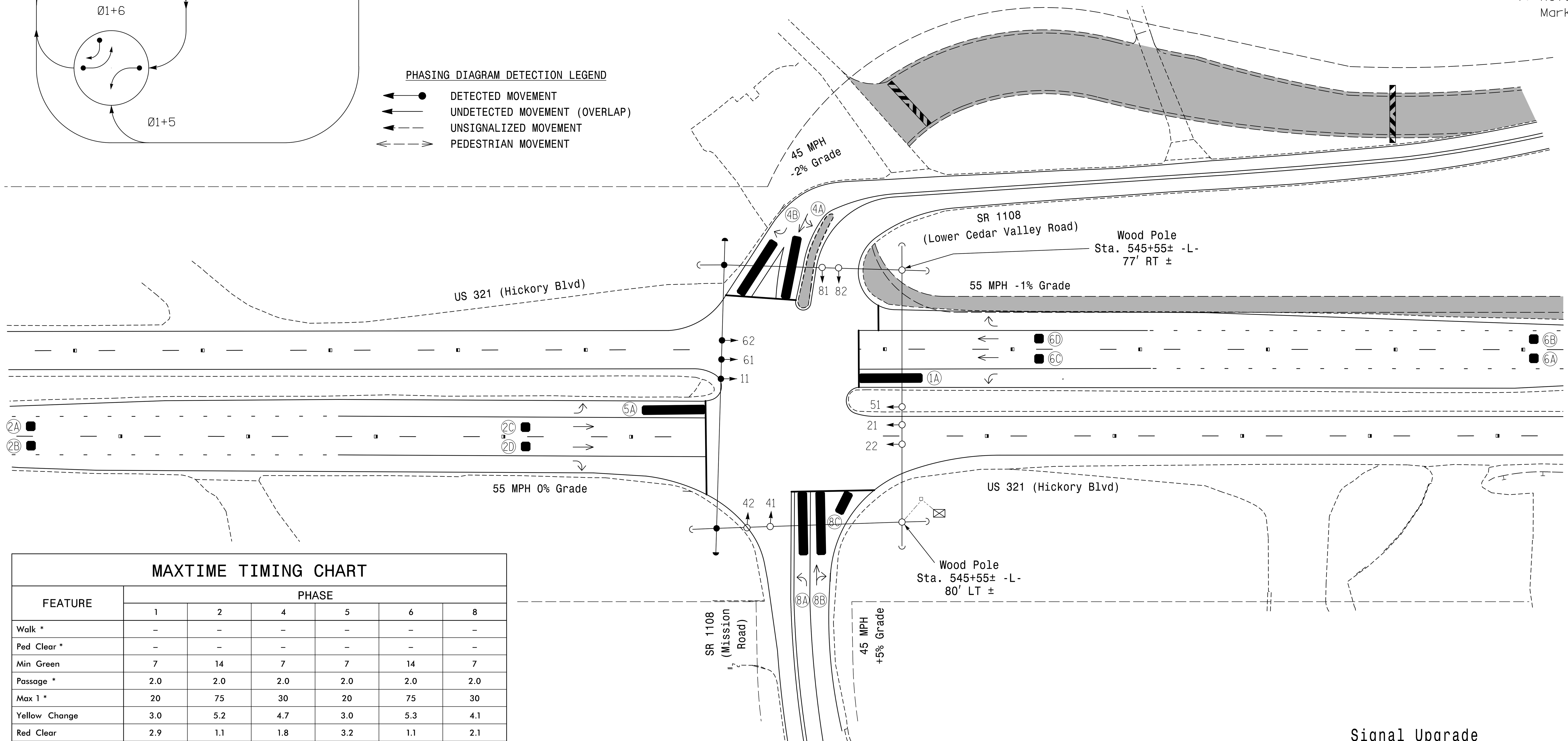
MAXTIME DETECTOR INSTALLATION CHART

DETECTOR: LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PROGRAMMING: CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN	NEW CARD
1A	6X40	0	★	★	1	-	-	X	-	X	-	★
2A,2B	6X6	420	★	★	2	-	2.2	X	-	X	-	★
2C,2D	6X6	110	★	★	2	-	-	X	-	X	-	★
4A	6X40	0	★	★	4	-	-	X	-	X	-	★
4B	6X40	0	★	★	4	15.0	-	X	-	X	-	★
5A	6X40	0	★	★	5	-	-	X	-	X	-	★
6A,6B	6X6	420	★	★	6	-	2.2	X	-	X	-	★
6C,6D	6X6	110	★	★	6	-	-	X	-	X	-	★
8A	6X40	0	★	★	8	3.0	-	X	-	X	-	★
8B	6X40	0	★	★	8	10.0	-	X	-	X	-	★
8C	6X15	0	★	★	8	15	-	X	-	X	-	★

★ Video Detection Zone

5 Phase
Fully Actuated
Isolated

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. Reposition existing signal heads numbered 11, 61, and 62.
4. Set all detector units to presence mode.
5. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
6. This intersection uses video detection. Install detectors according to the manufacturer's instructions to achieve the desired detection.
7. Refer to Roadway and/or Pavement Marking plans for stop bar locations.



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head	
	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	
	Video Detection Zone	
	Construction Zone	N/A
	Guardrail	
	Type III Barricade	N/A

MAXTIME TIMING CHART

FEATURE	PHASE 1	2	4	5	6	8
Walk *	–	–	–	–	–	–
Ped Clear *	–	–	–	–	–	–
Min Green	7	14	7	7	14	7
Passage *	2.0	2.0	2.0	2.0	2.0	2.0
Max 1 *	20	75	30	20	75	30
Yellow Change	3.0	5.2	4.7	3.0	5.3	4.1
Red Clear	2.9	1.1	1.8	3.2	1.1	2.1
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	–	–	X	–	–	X

* These values may be field adjusted. Do not adjust Min Green and Extension times for phase 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

Signal Upgrade
Temporary Design 1 - TMP Phase I

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

SCALE 0 40 1"=40'

Prepared for the Offices of: Transportation Mobility and Safety Division, Signal Design Section

750 N.Greenfield Pkwy,Garner,NC 27529

US 321 (Hickory Boulevard) NB at SR 1108 (Mission Road)/ SR 1108 (Lower Cedar Valley Rd)

Division 11	Caldwell County		Hudson
PLAN DATE:	Sept 2023	REVIEWED BY:	D.J. Darity
PREPARED BY:	R. Leon	REVIEWED BY:	T.M. Moody

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 19713 ENGINEER DONALD J. DARITY

DocuSigned by: Donald J. Darity
SIGNATURE 10/18/2023 DATE

SIG. INVENTORY NO. 11-0066T1