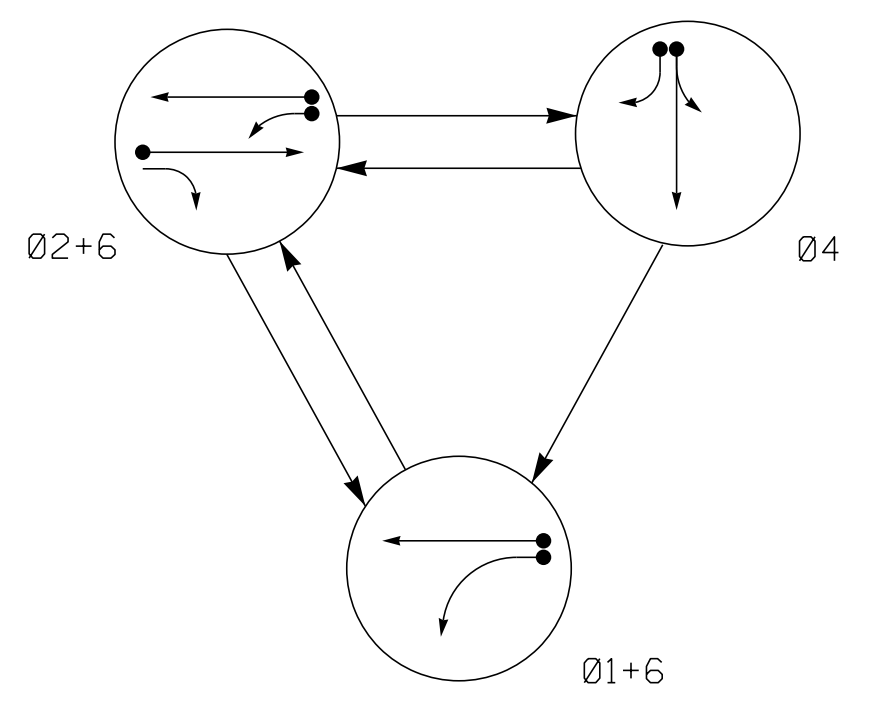


**PHASING DIAGRAM**



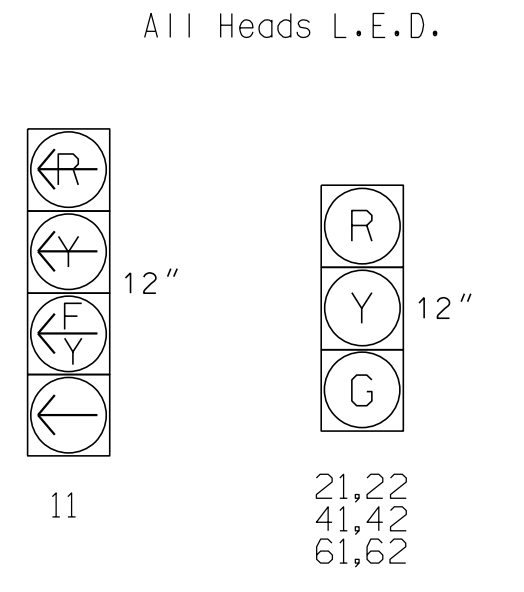
**PHASING DIAGRAM DETECTION LEGEND**

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

**TABLE OF OPERATION**

SIGNAL FACE	PHASE			
	Ø 1 + 6	Ø 2 + 6	Ø 4	FLASH
11	←	→	→	Y
21,22	R	G	R	Y
41,42	R	R	G	R
61,62	G	G	R	Y

**SIGNAL FACE I.D.**



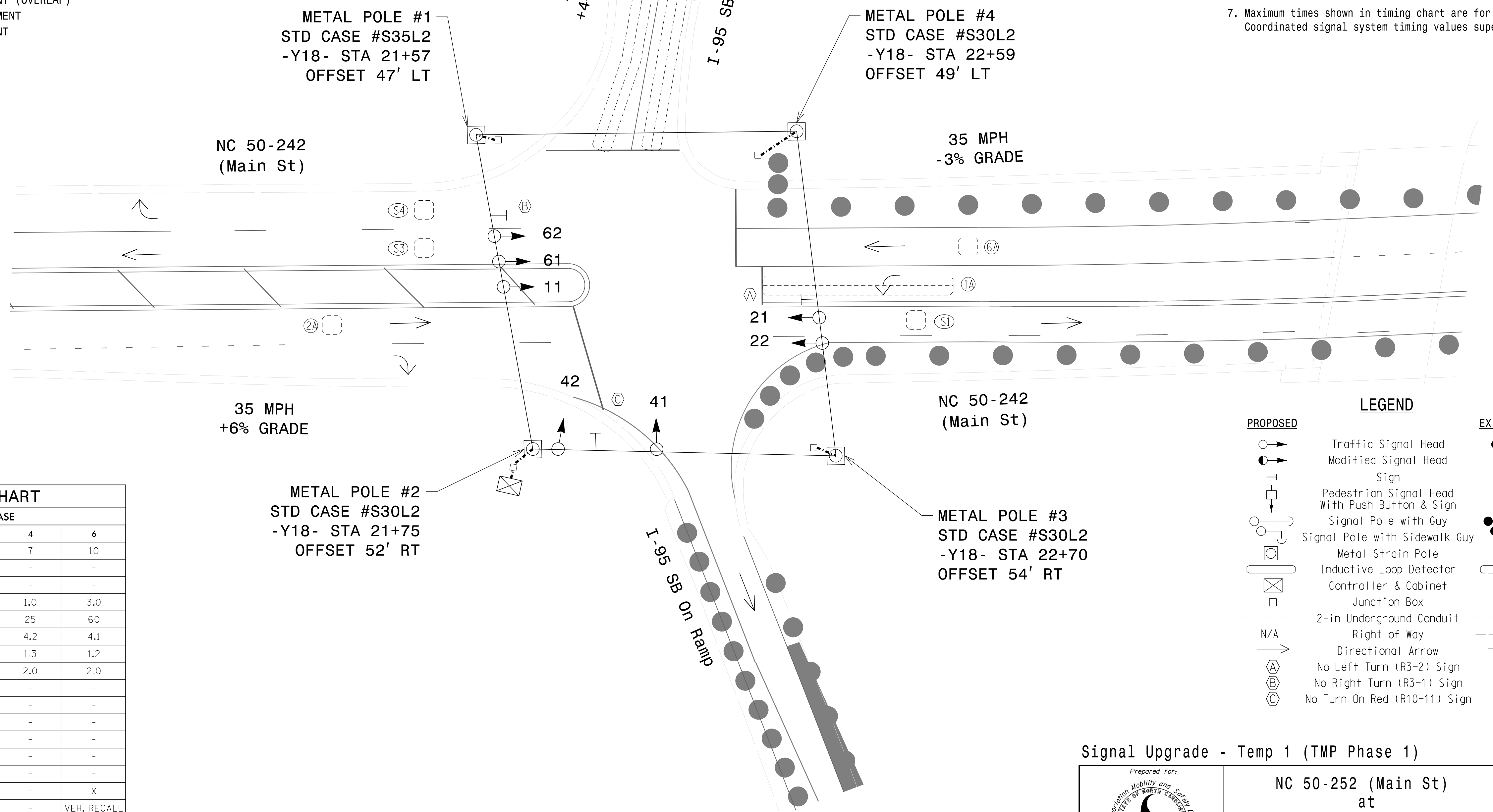
**ASC/3 DETECTOR INSTALLATION CHART**

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	PROGRAMMING								
				NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	-	1	Yes	-	15	-	N	-	X
					6	Yes	-	-	-	N	-	X
2A	6X6	70	EXIST	-	2	Yes	-	-	-	N	-	X
4A	6X60	0	2-4-2	-	4	Yes	-	-	-	N	-	X
4B	6X60	0	2-4-2	-	4	Yes	-	-	-	N	-	X
6A	6X6	70	EXIST	-	6	Yes	-	-	-	N	-	X
S1	6X6	+95	EXIST	-	-	No	-	-	-	N	X	X
S3	6X6	+95	EXIST	-	-	No	-	-	-	N	X	X
S4	6X6	+95	EXIST	-	-	No	-	-	-	N	X	X

**3 Phase Fully Actuated Signal System #D04-20 Benson NC 50-242 (Main St)**

**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 may be lagged.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Pavement markings are existing.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values superseded these values.



**ASC/3 TIMING CHART**

FEATURE	PHASE			
	1	2	4	6
Min Green *	7	10	7	10
Walk *	-	-	-	-
Ped Clear	-	-	-	-
Veh. Extension *	1.0	3.0	1.0	3.0
Max 1 *	25	60	25	60
Yellow	3.0	4.1	4.2	4.1
Red Clear	1.9	1.2	1.3	1.2
Red Revert	2.0	2.0	2.0	2.0
Actuations B4 Add *	-	-	-	-
Seconds /Actuation *	-	-	-	-
Max Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Locking Detector	-	X	-	X
Recall Position	-	VEH. RECALL	-	VEH. RECALL
Dual Entry	-	-	-	-
Simultaneous Gap	X	X	X	X

**LEGEND**

	Proposed Traffic Signal Head		Existing Traffic Signal Head
	Proposed Modified Signal Head		Existing Modified Signal Head
	Proposed Pedestrian Signal Head		Existing Pedestrian Signal Head
	Proposed Signal Pole with Sidewalk Guy		Existing Signal Pole with Sidewalk Guy
	Proposed Metal Strain Pole		Existing Metal Strain Pole
	Proposed Inductive Loop Detector		Existing Inductive Loop Detector
	Proposed Controller & Cabinet		Existing Controller & Cabinet
	Proposed Junction Box		Existing Junction Box
	Proposed 2-in Underground Conduit		Existing 2-in Underground Conduit
	Proposed Right of Way		Existing Right of Way
	Proposed Directional Arrow		Existing Directional Arrow
	Proposed No Left Turn (R3-2) Sign		Existing No Left Turn (R3-2) Sign
	Proposed No Right Turn (R3-1) Sign		Existing No Right Turn (R3-1) Sign
	Proposed No Turn On Red (R10-11) Sign		Existing No Turn On Red (R10-11) Sign

\* 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 - Temp 1 (TMP Phase 1)**

NC 50-252 (Main St) at I-95 SB Ramps

Division 4 Johnston County Benson

PLAN DATE: March 2021 REVIEWED BY: A Donald

PREPARED BY: K M Cory REVIEWED BY:

REVISIONS: \_\_\_\_\_ INIT. DATE

**Michael Baker INTERNATIONAL**  
8000 Regency Pkwy, Ste. 600, Cary, NC 27518  
Phone: (919) 463-5490 - MBAKERINTL.COM  
NC License No.: F-1084

750 N. Greenfield Pkwy, Garner, NC 27529

SCALE: 0" = 20' 1" = 20'

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL: Kelly M Cory, Professional Engineer, No. 038970, State of North Carolina

SIGNATURE: Kelly M Cory DATE: 4/26/2021

SIG. INVENTORY NO. 04-021811