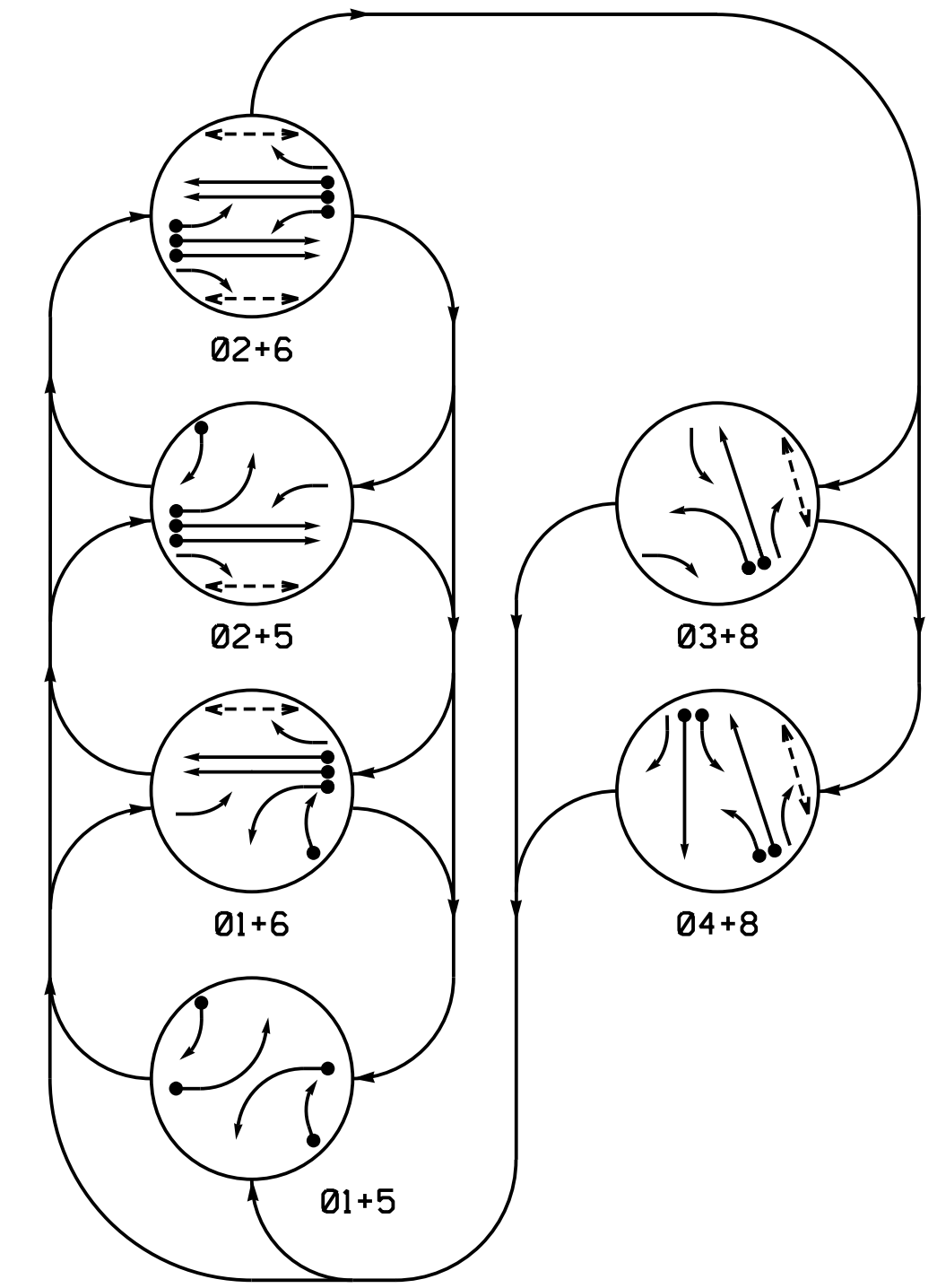


DEFAULT PHASING DIAGRAM



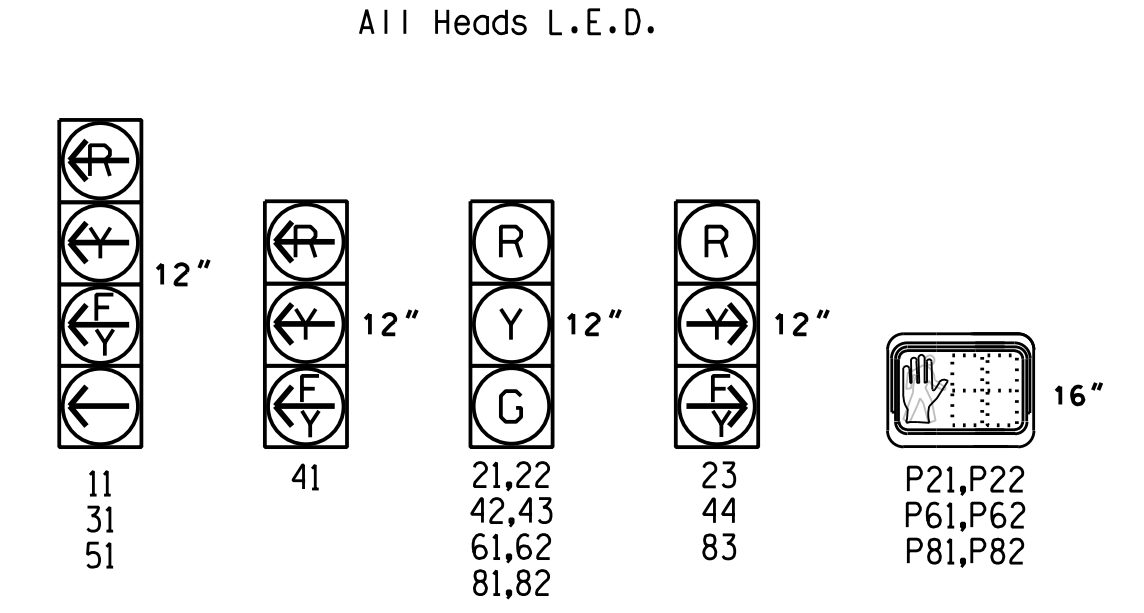
PHASING DIAGRAM DETECTION LEGEND

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

DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE							
	01+5	01+6	02+5	02+6	03+8	04+8	FLASH	
11			F	F	R	R	Y	
21,22	R	R	G	G	R	R	Y	
23	R	R	F	F	R	R	Y	
31	R	R	R	R	F	F	R	
41	R	R	R	R	F	F	R	
42,43	R	R	R	R	R	G	R	
44	F	R	F	R	R	F	R	
51		F		F	R	R	Y	
61,62	R	G	R	G	R	R	Y	
81,82	R	R	R	R	G	G	R	
83	F	F	R	R	F	F	R	
P21,P22	DW	DW	W	W	DW	DW	DRK	
P61,P62	DW	W	DW	W	DW	DW	DRK	
P81,P82	DW	DW	DW	DW	W	W	DRK	

SIGNAL FACE I.D.



OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

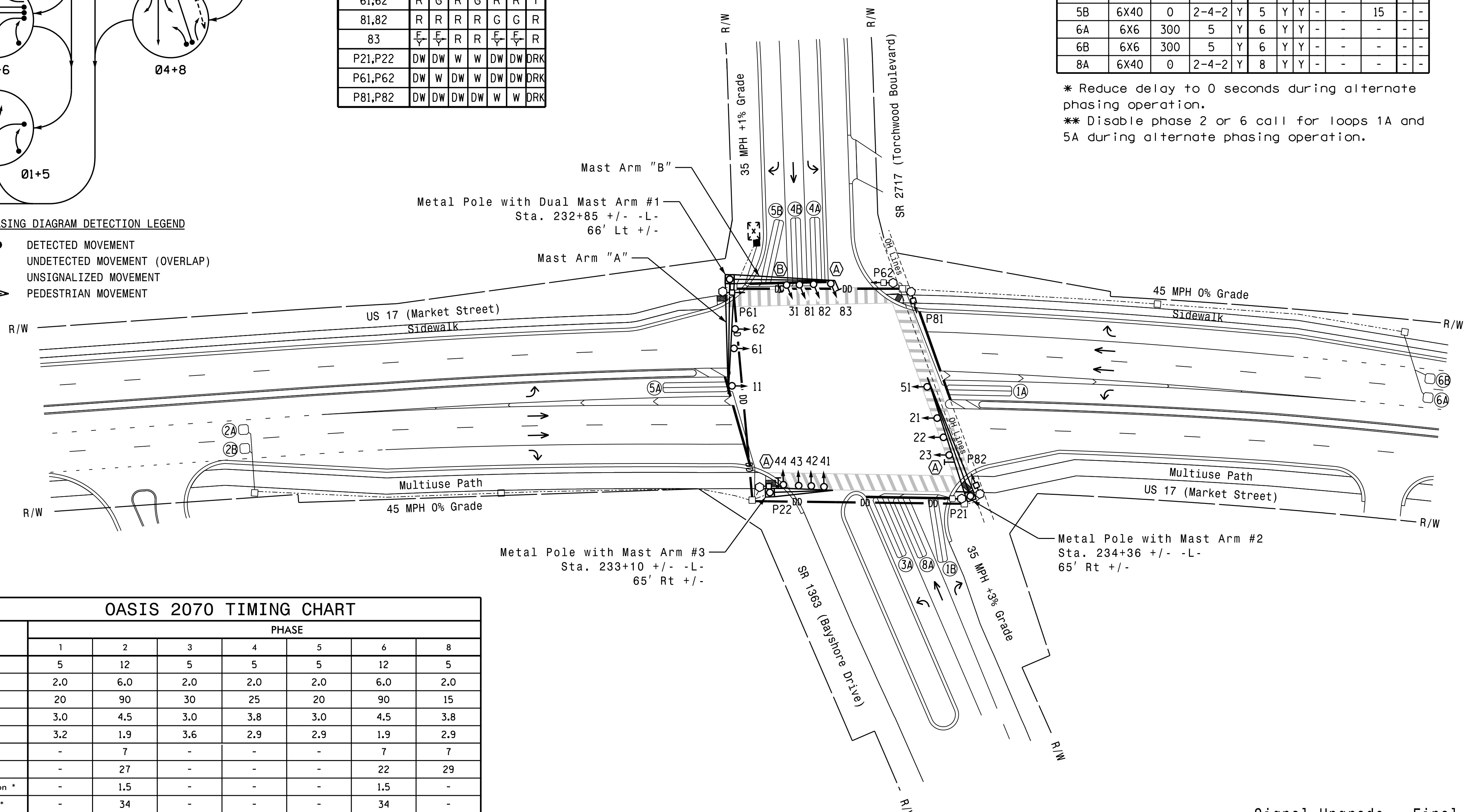
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING				SYSTEM LOOP	NEW CARD
					PHASE	CALLING	EXTENSION	STRETCH TIME		
1A	6X40	0	2-4-2	Y	1	Y	Y	-	*10	-
1B	6X40	0	2-4-2	Y	**6	Y	Y	-	-	-
2A	6X6	300	5	Y	2	Y	Y	-	-	-
2B	6X6	300	5	Y	2	Y	Y	-	-	-
3A	6X40	0	2-4-2	Y	3	Y	Y	-	10	-
4A	6X40	0	2-4-2	Y	4	Y	Y	-	3	-
4B	6X40	0	2-4-2	Y	4	Y	Y	-	-	-
5A	6X40	0	2-4-2	Y	5	Y	Y	-	*10	-
5B	6X40	0	2-4-2	Y	**2	Y	Y	-	-	-
6A	6X6	300	5	Y	6	Y	Y	-	-	-
6B	6X6	300	5	Y	6	Y	Y	-	-	-
8A	6X40	0	2-4-2	Y	8	Y	Y	-	-	-

* Reduce delay to 0 seconds during alternate phasing operation.
 ** Disable phase 2 or 6 call for loops 1A and 5A during alternate phasing operation.

6 Phase Fully Actuated Wilmington Signal System

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 5 may be lagged.
- Phase 3 may be lagged.
- Set all detector units to presence mode.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "DON'T WALK" time only.
- All pedestrian pushbuttons shall be located in the field by the Division Traffic Engineer before installation.
- The Division Traffic Engineer will determine the hours of use for each phasing plan.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Signal system data: Controller Asset #0369



OASIS 2070 TIMING CHART

FEATURE	PHASE							
	1	2	3	4	5	6	8	
Min Green 1 *	5	12	5	5	5	12	5	
Extension 1 *	2.0	6.0	2.0	2.0	2.0	6.0	2.0	
Max Green 1 *	20	90	30	25	20	90	15	
Yellow Clearance	3.0	4.5	3.0	3.8	3.0	4.5	3.8	
Red Clearance	3.2	1.9	3.6	2.9	2.9	1.9	2.9	
Walk 1 *	-	7	-	-	-	7	7	
Don't Walk 1	-	27	-	-	-	22	29	
Seconds Per Actuation *	-	1.5	-	-	-	1.5	-	
Max Variable Initial *	-	34	-	-	-	34	-	
Time Before Reduction *	-	15	-	-	-	15	-	
Time To Reduce *	-	30	-	-	-	30	-	
Minimum Gap	-	3.0	-	-	-	3.0	-	
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL	-	
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW	-	
Dual Entry	-	-	-	ON	-	-	ON	
Simultaneous Gap	ON	ON	ON	ON	ON	ON	ON	

* 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 Traffic Signal Head | ● | EXISTING Traffic Signal Head |
| ⊥ | PROPOSED Sign | ⊥ | EXISTING Sign |
| ⊥ | PROPOSED Pedestrian Signal Head With Push Button & Sign | ⊥ | EXISTING Pedestrian Signal Head With Push Button & Sign |
| ⊠ | 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 |
| N/A | PROPOSED Right of Way | - - - | EXISTING Right of Way |
| → | PROPOSED Directional Arrow | → | EXISTING Directional Arrow |
| DD | PROPOSED Directional Drill | N/A | EXISTING Directional Drill |
| ○ | PROPOSED Type II Signal Pedestal | ● | EXISTING Type II Signal Pedestal |
| ▲ | PROPOSED Wheelchair Ramp | ▲ | EXISTING Wheelchair Ramp |
| Ⓐ | PROPOSED "RIGHT TURN MUST YIELD TO U-TURN" Sign | Ⓐ | EXISTING "RIGHT TURN MUST YIELD TO U-TURN" Sign |
| Ⓑ | PROPOSED "U-TURN YIELD TO RIGHT TURN" Sign (R10-16) | Ⓑ | EXISTING "U-TURN YIELD TO RIGHT TURN" Sign (R10-16) |

Signal Upgrade - Final Design
 Sheet 1 of 2

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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	US 17 (Market Street) at SR 1363 (Bayshore Drive) / SR 2717 (Torchwood Boulevard)		
	Division 03 New Hanover Co. Wilmington PLAN DATE: February 2018 PREPARED BY: A.H. Thornburg	REVIEWED BY: A.D. Klinksiek REVIEWED BY: N.R. Simmons	