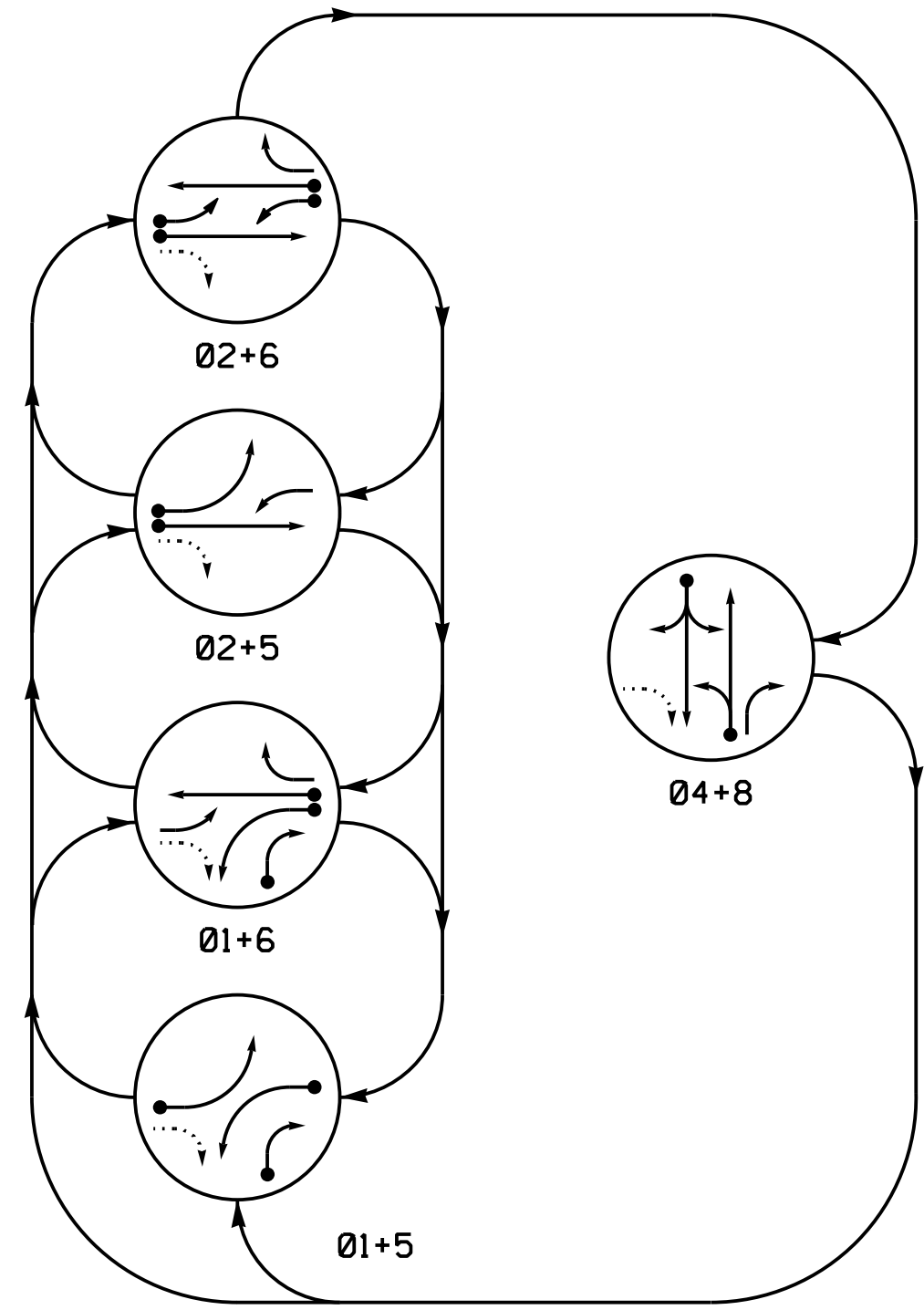
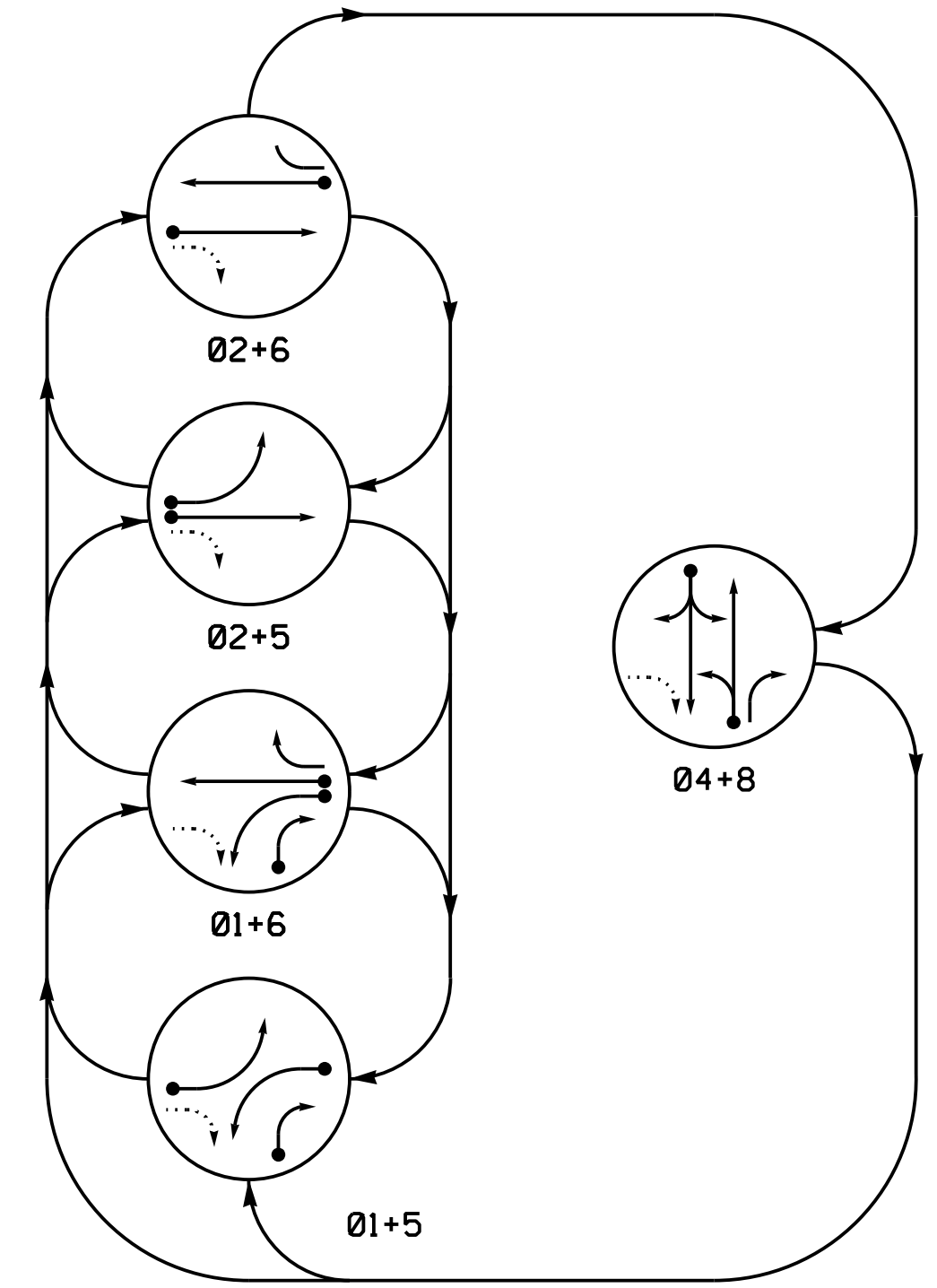


DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

- ←●→ DETECTED MOVEMENT
- ←○→ UNDETECTED MOVEMENT (OVERLAP)
- ←...→ UNSIGNALIZED MOVEMENT
- ←---→ PEDESTRIAN MOVEMENT

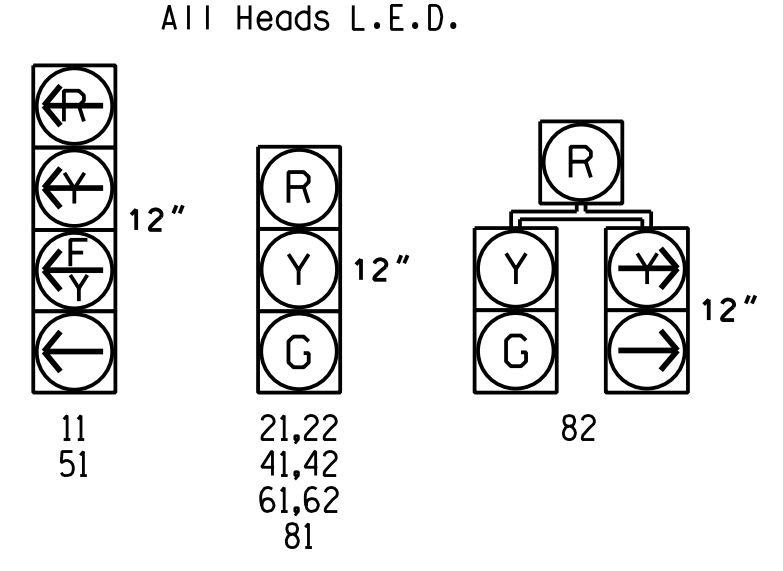
DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE					
	01+5	01+6	02+5	02+6	04+8	F L
11	—	—	—	—	—	—
21,22	R	R	G	G	R	Y
41,42	R	R	R	R	G	R
51	—	—	—	—	—	—
61,62	R	G	R	G	R	Y
81	R	R	R	R	G	R
82	R	R	R	R	G	R

ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE					
	01+5	01+6	02+5	02+6	04+8	F L
11	—	—	R	R	R	Y
21,22	R	R	G	G	R	Y
41,42	R	R	R	R	G	R
51	—	—	R	R	R	Y
61,62	R	G	R	G	R	Y
81	R	R	R	R	G	R
82	R	R	R	R	G	R

SIGNAL FACE I.D.



OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

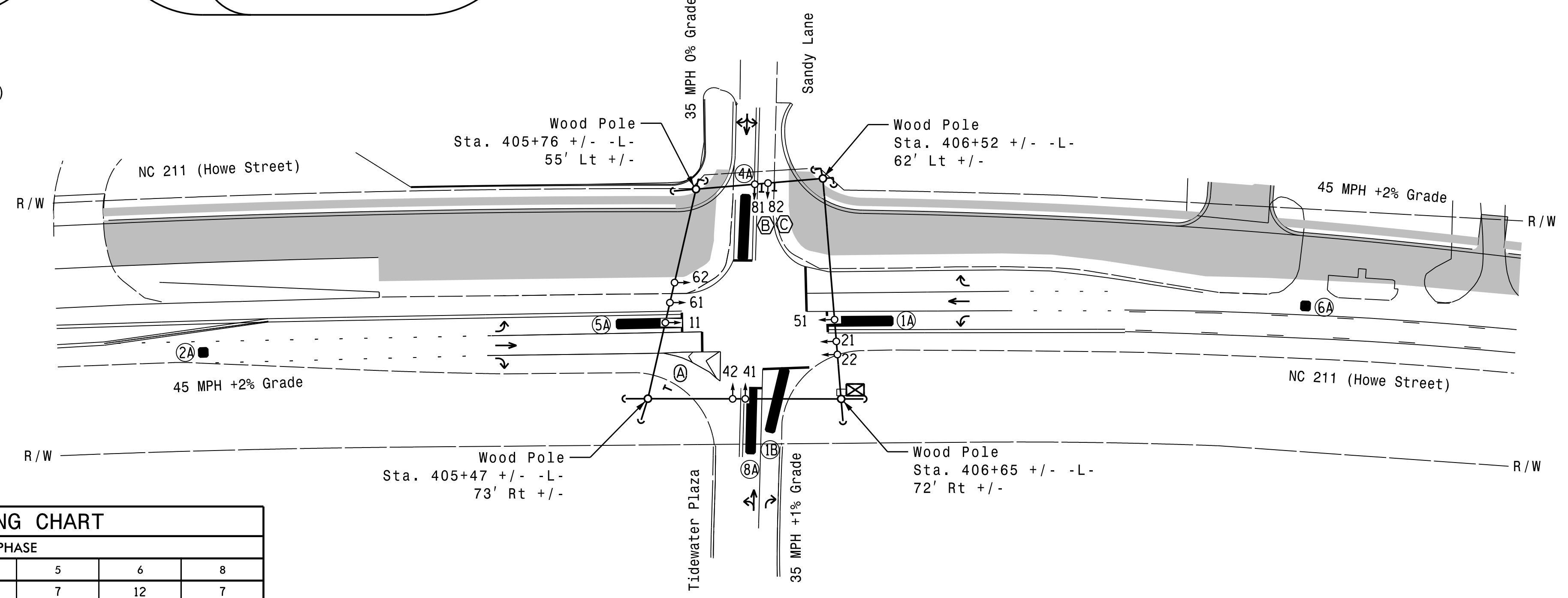
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING				SYSTEM LOOP	NEW CARD		
					PHASE	CALLING	EXTENSION	FULL TIME DELAY				
1A	6X40	0	*	*	1	Y	Y	-	-	***15	-	Y
1B	6X40	0	*	*	1	Y	Y	-	-	15	-	Y
2A	6X6	300	*	*	2	Y	Y	-	-	-	-	Y
4A	6X40	0	*	*	4	Y	Y	-	-	10	-	Y
5A	6X40	0	*	*	5	Y	Y	-	-	***15	-	Y
6A	6X6	300	*	*	6	Y	Y	-	-	-	-	Y
8A	6X40	0	*	*	8	Y	Y	-	-	3	-	Y

* Multizone Microwave Detection.
 ** Disable phase 2 and 6 call for 1A and 5A during alternate phasing operation.
 *** Reduce delay to 3 seconds during alternate phasing operation.

5 Phase Fully Actuated (NC 133 Closed Loop 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 phase 5 may be lagged.
- Set all detector units to presence mode.
- The Division Traffic Engineer will determine the hours of use for each phasing plan.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Incorporate Microwave Detection system for vehicle detection.
- Provide the Engineer with the Manufacturer's approved Microwave Detection locations and mounting heights to obtain detection zones as shown.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Closed loop system data: Controller Asset #: 0897.



OASIS 2070 TIMING CHART

FEATURE	PHASE					
	1	2	4	5	6	8
Min Green 1*	7	12	7	7	12	7
Extension 1*	2.0	6.0	2.0	2.0	6.0	2.0
Max Green 1*	20	90	25	20	90	25
Yellow Clearance	3.0	4.3	3.8	3.0	4.3	3.8
Red Clearance	2.1	1.0	1.3	2.1	1.0	1.5
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1*	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-
Seconds Per Actuation*	-	2.5	-	-	2.5	-
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

* 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	●→ Traffic Signal Head
●→ Modified Signal Head	N/A
⊥ Sign	⊥ Sign
⊥ Pedestrian Signal Head With Push Button & Sign	⊥ Pedestrian Signal Head With Push Button & Sign
⊥ Signal Pole with Guy	⊥ Signal Pole with Guy
⊥ Signal Pole with Sidewalk Guy	⊥ Signal Pole with Sidewalk Guy
⊥ Controller & Cabinet	⊥ Controller & Cabinet
⊥ Junction Box	⊥ Junction Box
⊥ 2-in Underground Conduit	⊥ 2-in Underground Conduit
N/A Right of Way	— Right of Way
→ Directional Arrow	→ Directional Arrow
▬ Microwave Detection Zone	▬ Microwave Detection Zone
▬ Construction Zone	N/A
(A) Yield (R1-2)	(A) Yield (R1-2)
(B) Combined Through and Left Arrow Sign (R3-6L)	(B) Combined Through and Left Arrow Sign (R3-6L)
(C) Right Arrow "ONLY" Sign (R3-5R)	(C) Right Arrow "ONLY" Sign (R3-5R)

Signal Upgrade
 Temporary Design 1
 Construction Phases 1,1a-1b

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

	NC 211 (Howe Street) at Tidewater Plaza/Sandy Lane		
	Division 03 Brunswick Co. Southport PLAN DATE: June 2017 REVIEWED BY: A.D. Klinksiek	PREPARED BY: A.H. Thornburg REVIEWED BY: N.R. Simmons	

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