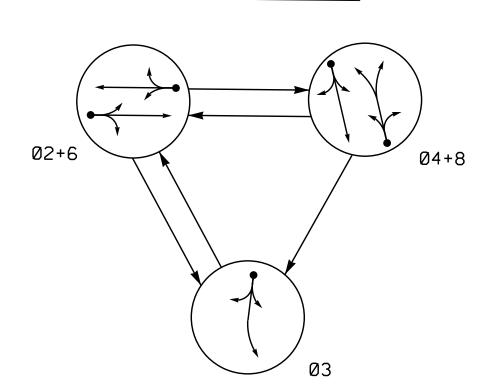
## PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

UNSIGNALIZED MOVEMENT

UNDETECTED MOVEMENT (OVERLAP)

DETECTED MOVEMENT

← − − > PEDESTRIAN MOVEMENT

TABLE OF OPERATION						
	PHASE					
SIGNAL FACE	<b>0</b> 2+6	Ø 4 + 8	03	FLAOI		
21, 22	G	R	R	Υ		
31	R	R	<b>√</b>	R		
32	R	R	G	R		
41, 42	R	G	R	R		
61, 62	G	R	R	Υ		
81, 82	R	G	R	R		

Install new base-mounted

cabinet on existing foundation.

SIGNAL	FACE	I.D.
AII He	eads L.E.	D.
R Y G	2"	12"
31	21, 3 41, 61,	2 42
	81,	82

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART												
INDUCTIVE LOOPS DE				DETI	DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A	6X6	70	5	-	2	Υ	Υ	-	-	-	-	Υ
3A	6X40	0	2-4-2	-	3	Υ	Υ	-	-	3	-	Υ
4A	6X40	0	2-4-2	1	4	Y	Υ	-	-	-	-	Υ
4B	6X15	0	2-4-2	-	4	Υ	Υ	-	-	15	1	Υ
6A	6X6	70	5	_	6	Υ	Υ	-	-	-	-	Υ
8.8	6X40	0	2-4-2	-	8	Υ	Υ	-	-	5	-	Υ

SR 3412 (Sand Hill Rd.)

## 3 Phase Fully Actuated Asheville Signal System

## **NOTES**

- 1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
- 2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- 3. Set all detector units to presence mode.
- 4. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- 5. Pavement markings are existing.
- 6. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

						<b>~</b>
		SR 3	3412 (Sand	Hill Rd.)		
			. – – – –			<b>^</b>
					2 <u>A</u> 1_1	=
				Grade		
		35	MPH +2%			
	ASIS 20	)70 TI	MING C	 ΗΔΒΤ		
		7.0 121	PHASE	117 (11 1		
FEATURE	2	3	4	6	8	
Min Green 1 *		7				
Extension 1 *	10	7	7	10	7	
Max Green 1 *	3.0	2.0	7 2.0	10 3.0		
Max Green 1					7	
Yellow Clearance	3.0	2.0	2.0	3.0	7 2.0	
Yellow Clearance Red Clearance	3.0 45 3.7 2.6	2.0 15	2.0	3.0 45	7 2.0 20	
Yellow Clearance Red Clearance Red Revert	3.0 45 3.7	2.0 15 3.0	2.0 20 4.1	3.0 45 3.7	7 2.0 20 4.1	
Yellow Clearance Red Clearance	3.0 45 3.7 2.6	2.0 15 3.0 2.5	2.0 20 4.1 2.3	3.0 45 3.7 2.6	7 2.0 20 4.1 2.3	

OASIS 2070 TIMING CHART								
	PHASE							
FEATURE	2	3	4	6	8			
Min Green 1 *	10	7	7	10	7			
Extension 1 *	3.0	2.0	2.0	3.0	2.0			
Max Green 1 *	45	15	20	45	20			
Yellow Clearance	3.7	3.0	4.1	3.7	4.1			
Red Clearance	2.6	2.5	2.3	2.6	2.3			
Red Revert	2.0	2.0	2.0	2.0	2.0			
Walk 1 *	_	-	-	-	_			
Don't Walk 1	-	_	-	-	_			
Seconds Per Actuation *	-	_	-	-	_			
Max Variable Initial *	-	_	-	-	_			
Time Before Reduction *	-	-	-	-	_			
Time To Reduce *	-	-	-	-	-			
Minimum Gap	-	-	_	-	-			
Recall Mode	MIN RECALL	-	_	MIN RECALL	_			
Vehicle Call Memory	YELLOW	-	_	YELLOW	-			
Dual Entry	-	-	ON	-	ON			
Simultaneous Gap	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.

	<u>LEGEND</u>	
<u>PROPOSED</u>		<u>EXISTING</u>
$\bigcirc$	Traffic Signal Head	<b></b>
<b>O</b>	Modified Signal Head	N/A
$\dashv$	Sign	$\dashv$
$\downarrow$	Pedestrian Signal Head With Push Button & Sign	•
$\bigcirc$	Signal Pole with Guy	•
S	ignal Pole with Sidewalk Guy	, •
	Inductive Loop Detector	$\subseteq = = = = = = = = = = = = = = = = = = =$
	Controller & Cabinet	<b>~</b> ∠3
	Junction Box	
<del></del>	2-in Underground Conduit	
N/A	Right of Way	
$\longrightarrow$	Directional Arrow	$\longrightarrow$
⟨∆⟩ "N	O TURN ON RED" Sign (R10-11	) (A)

Signal Upgrade

SR 3412 (Sand Hill Rd.) SR 1224 (Sand Hill School Rd./ W. Oakview Rd.)/Grandview Road

Division 13 Buncombe County near Asheville PLAN DATE: July 2016 REVIEWED BY: T. J. Williams 750 N.Greenfleid Pkwy.Garner.NC 27529 PREPARED BY: C. Pierce REVIEWED BY:

SIG. INVENTORY NO. 13-1287

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED