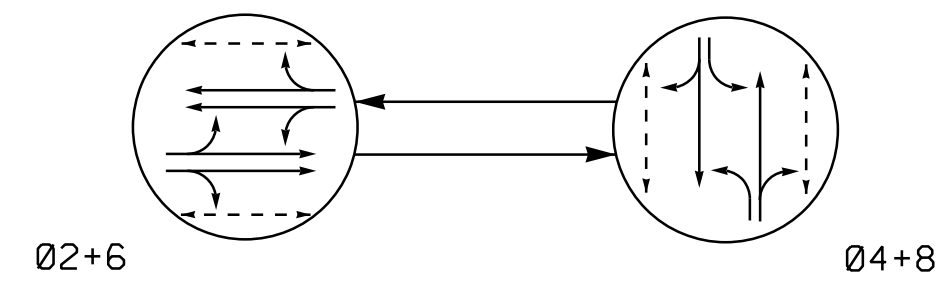


PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

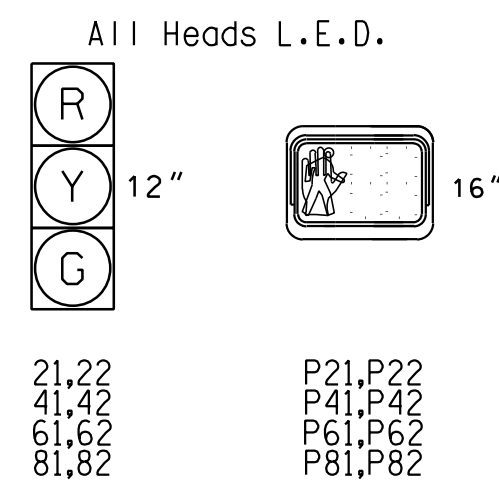
- ←●→ DETECTED MOVEMENT
- ←○→ UNDETECTED MOVEMENT (OVERLAP)
- ←---→ UNSIGNALIZED MOVEMENT
- ←- - -> PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE		
	02+6	04+8	F L E
21,22	G	R	Y
41,42	R	G	R
61,62	G	R	Y
81,82	R	G	R
P21,P22	W	DW	DRK
P41,P42	DW	W	DRK
P61,P62	W	DW	DRK
P81,P82	DW	W	DRK

W - Walk
DW - Don't Walk
DRK - Dark

SIGNAL FACE I.D.



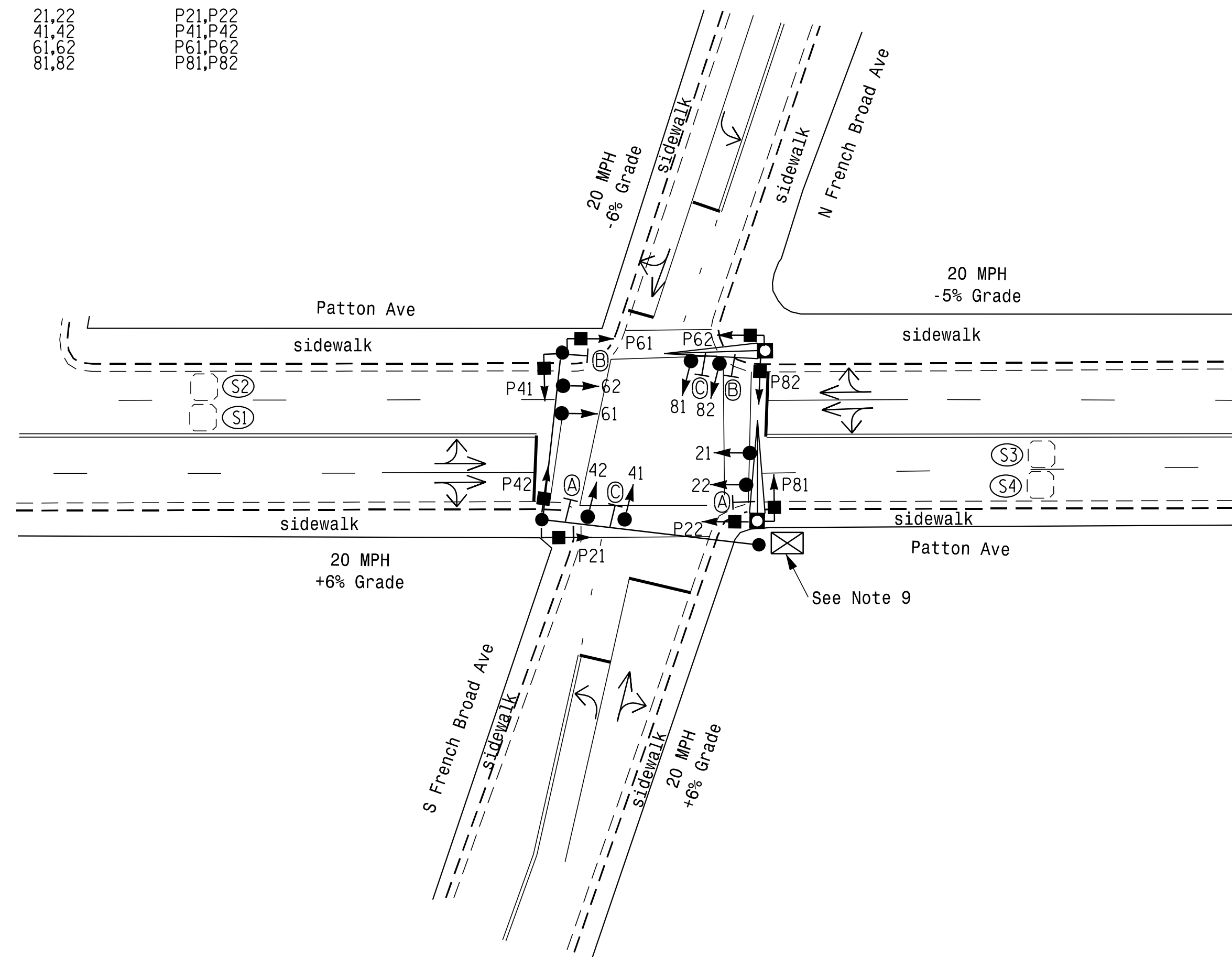
OASIS 2070E LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING							
					PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
S1	6X6	+100	4	-	-	-	-	-	-	-	Y	Y
S2	6X6	+100	4	-	-	-	-	-	-	-	Y	Y
S3	6X6	+150	3	-	-	-	-	-	-	-	Y	Y
S4	6X6	+150	3	-	-	-	-	-	-	-	Y	Y

2 Phase Pre-Timed (Asheville Signal System)

NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.
- In the event of loop replacement, refer to the current ITS and Signals Design Manual and submit a Plan of Record to the Signal Design Section.
- 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 supersede these values.
- Program pedestrian heads to countdown the flashing "Don't Walk" time only.
- Locate new cabinet on existing foundation.
- Program controller to allow an Advance Walk movement before serving the vehicle phase.
- Existing Yellow change interval for phase 2 and 6 may be decreased by 0.2 seconds per week until the required value is reached.
- Program Phase 2 and 6 for Rest-in-Walk.



OASIS 2070E TIMING CHART

FEATURE	PHASE			
	2	4	6	8
Min Green 1 *	10	7	10	7
Extension 1 *	0.0	0.0	0.0	0.0
Max Green 1 *	30	20	30	20
Yellow Clearance	3.0	3.1	3.1	3.0
Red Clearance	2.1	2.9	2.1	2.6
Red Revert	2.0	2.0	2.0	2.0
Walk 1 *	20	10	24	10
Don't Walk 1	10	10	6	10
Walk Advance **	3.0	3.0	3.0	3.0
Seconds Per Actuation *	-	-	-	-
Max Variable Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Recall Mode	MAX/PED	MAX/PED	MAX/PED	MAX/PED
Vehicle Call Memory	-	-	-	-
Dual Entry	-	-	-	-
Simultaneous Gap	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.
** See Note 10.

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 Guy | | Existing Signal Pole with Guy |
| | Proposed Signal Pole with Sidewalk Guy | | Existing Signal Pole with Sidewalk Guy |
| | 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 Metal Pole with Mastarm | | Existing Metal Pole with Mastarm |
| | Proposed 'NO TURN ON RED' Sign (R10-11) | | Existing 'NO TURN ON RED' Sign (R10-11) |
| | Proposed 'NO TURN ON RED' Sign (R10-11a) | | Existing 'NO TURN ON RED' Sign (R10-11a) |
| | Proposed 'LEFT TURN YIELD ON GREEN' Sign (R10-12) | | Existing 'LEFT TURN YIELD ON GREEN' Sign (R10-12) |

Signal Upgrade

 Prepared for the Offices of: City of Asheville 161 S. Charlotte St., Asheville, NC 28802	Patton Ave at N French Broad Ave and S French Broad Ave		SEAL NORTH CAROLINA PROFESSIONAL ENGINEER JAMES B. VOSS 140600378E041F 12/13/2016
	Division 13 Buncombe County Asheville PLAN DATE: MAY 2016 REVIEWED BY: SMH PREPARED BY: BGR REVIEWED BY: JBV	REVISIONS INIT. DATE	

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