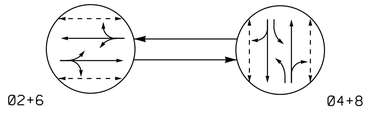
PROJECT REFERENCE NO.	SHEET NO.
U-4715B	Sig. 269.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

ACCESSIBLE PEDESTRIAN SIGNAL OPERATION

SIGNAL FACE	INTERVAL	MESSAGE/TONE*
P41	Walk	Hillard Avenue: "Walk sign is on to cross Hillard Avenue"
	Flashing Don't Walk/Don't Walk	Pushbutton Locator Tone Only**
P42	Walk	Percussive tone repeated @ 8-10 ticks/sec
	Flashing Don't Walk/Don't Walk	Pushbutton Locator Tone Only**
P81	Walk	Hillard Avenue: "Walk sign is on to cross Hillard Avenue"
	Flashing Don't Walk/Don't Walk	Pushbutton Locator Tone Only**
P82	Walk	Percussive tone repeated @ 8-10 ticks/sec
	Flashing Don't Walk/Don't Walk	Pushbutton Locator Tone Only**
P21	Walk	Percussive tone repeated @ 8-10 ticks/sec
	Flashing Don't Walk/Don't Walk	Pushbutton Locator Tone Only**
P22	Walk	Coxe Avenue: "Walk sign is on to cross Coxe Avenue"
	Flashing Don't Walk/Don't Walk	Pushbutton Locator Tone Only**
P61	Walk	Percussive tone repeated @ 8-10 ticks/sec
	Flashing Don't Walk/Don't Walk	Pushbutton Locator Tone Only**
P62	Walk	Coxe Avenue: "Walk sign is on to cross Coxe Avenue"
	Flashing Don't Walk/Don't Walk	Pushbutton Locator Tone Only**

* Volume should be set to 5 db over the ambient noise level.

** Pushbutton locator tones shall have a duration of 0.15 seconds or less, and shall repeat at 1-second intervals.

OASIS 2070E TIMING CHART

FEATURE	PHASE 2	PHASE 4	PHASE 6	PHASE 8
Min Green 1 *	10	7	10	7
Extension 1 *	0.0	0.0	0.0	0.0
Max Green 1 *	20	20	20	20
Yellow Clearance	3.1	3.1	3.1	3.0
Red Clearance	2.3	1.8	2.3	1.9
Red Revert	2.0	2.0	2.0	2.0
Walk 1 *	10	11	10	11
Walk Advance**	3.0	3.0	3.0	3.0
Don't Walk 1	10	9	10	9
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 8.

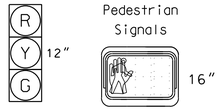
TABLE OF OPERATION

SIGNAL FACE	PHASE 02+6	PHASE 04+8	FLASH
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

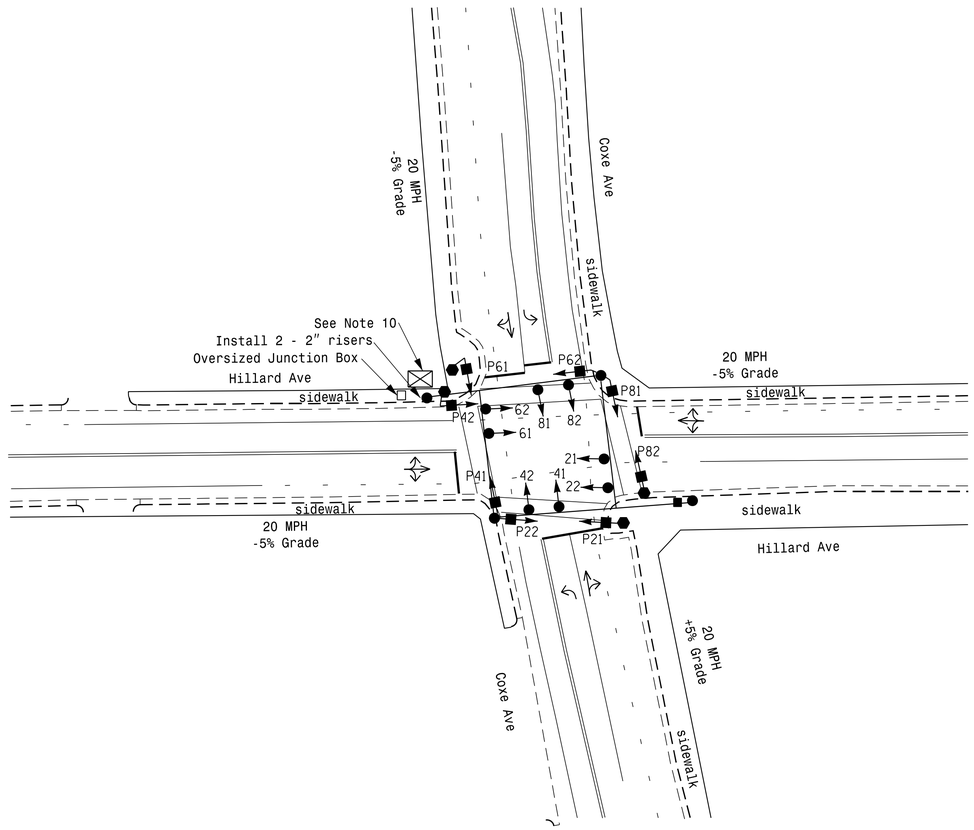
SIGNAL FACE I.D.

All Heads L.E.D.



21,22
41,42
61,62
81,82

P21,P22
P41,P42
P61,P62
P81,P82



2 Phase Pre-Timed (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. 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.
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.
7. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
8. Program controller to allow an Advance Walk movement before serving the vehicle phase.
9. Program phases 2 and 6 for Rest-in-Walk.
10. Locate new cabinet on existing foundation.

LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	Type II Signal Pedestal	

Signal Upgrade

Prepared for the Offices of:
CITY OF ASHEVILLE NORTH CAROLINA
161 S.Charlotte St. Asheville NC 28802

Hillard Ave at Coxe Ave

Division 13 Buncombe County Asheville

PLAN DATE:	MAY 2016	REVIEWED BY:	SMH
PREPARED BY:	BGR	REVIEWED BY:	JBV

REVISIONS	INIT.	DATE

SCALE 0 30 1"=30'

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 022599 JAMES B. VOSO
DocuSigned by: James Void 140FD60379E041F...
12/13/2016
SIGNATURE DATE

SIG. INVENTORY NO. COA-0303

Mattern & Craig
SINCE 1975
CONSULTING ENGINEERS • SURVEYORS
FIRM LICENSE No. C-1154
12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201
FAX (828) 254-4562

4:08:26 PM
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bgross