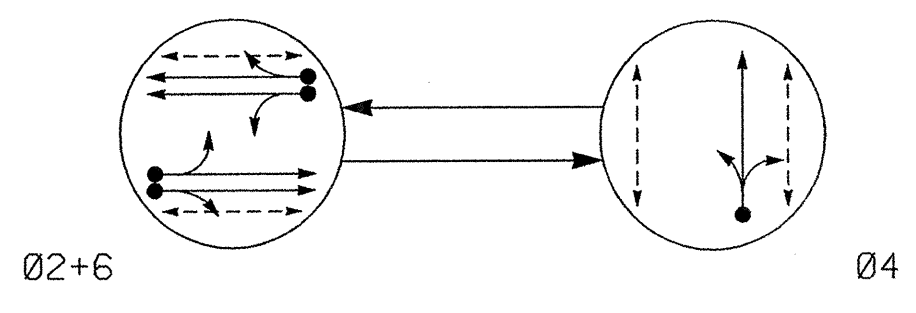


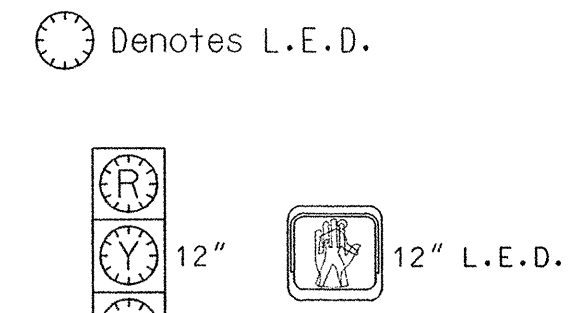
PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND
 ● DETECTED MOVEMENT
 ○ UNDETECTED MOVEMENT (OVERLAP)
 ○ UNSIGNALIZED MOVEMENT
 ○ PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE		
	Ø2+6	Ø4	FLASH
21,22	G	R	Y
41,42	R	G	R
61,62	G	R	Y
P21,P22 *	W	DW	DRK
P41,P42,P43,P44	DW	W	DRK
P61,P62 *	W	DW	DRK

SIGNAL FACE I.D.



21,22 P21,P22 *
 41,42 P41,P42
 61,62 P43,P44
 P61,P62 *

* SEE NOTE 8

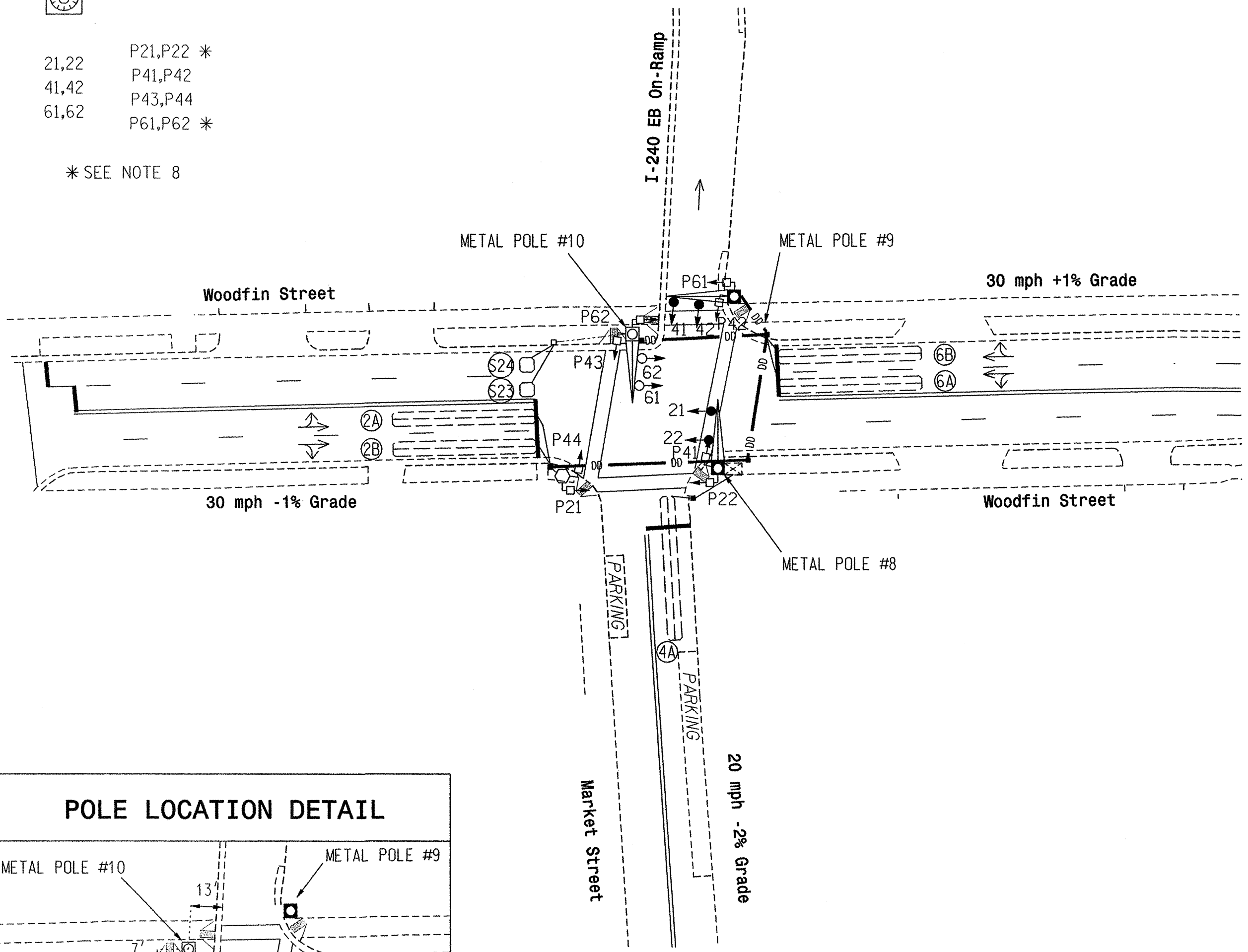
PLAN QUANTITIES	
Pay Item	Feet
Signal Cable	600
Messenger Cable	00
Lead-in Cable	160

2070L LOOP & DETECTOR INSTALLATION												
INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	TURNS	DISTANCE FROM STOPBAR (FT)	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	SYSTEM LOOP	STRETCH TIME	DELAY TIME	NEW CAB
2A	6X60	2-4-2	0	-	2	Y	Y	-	-	-	-	Y
2B	6X60	2-4-2	0	-	2	Y	Y	-	-	-	-	Y
4A	6X60	2-4-2	+15	-	4	Y	Y	-	-	-	10	Y
6A	6X60	2-4-2	0	-	6	Y	Y	-	-	-	-	Y
6B	6X60	2-4-2	0	-	6	Y	Y	-	-	-	-	Y
S23	6X6	4	+120	Y	NA	-	-	-	Y	-	-	Y
S24	6X6	4	+120	Y	NA	-	-	-	Y	-	-	Y

2 Phase Fully Actuated (Merrimon Avenue Closed Loop Signal System)

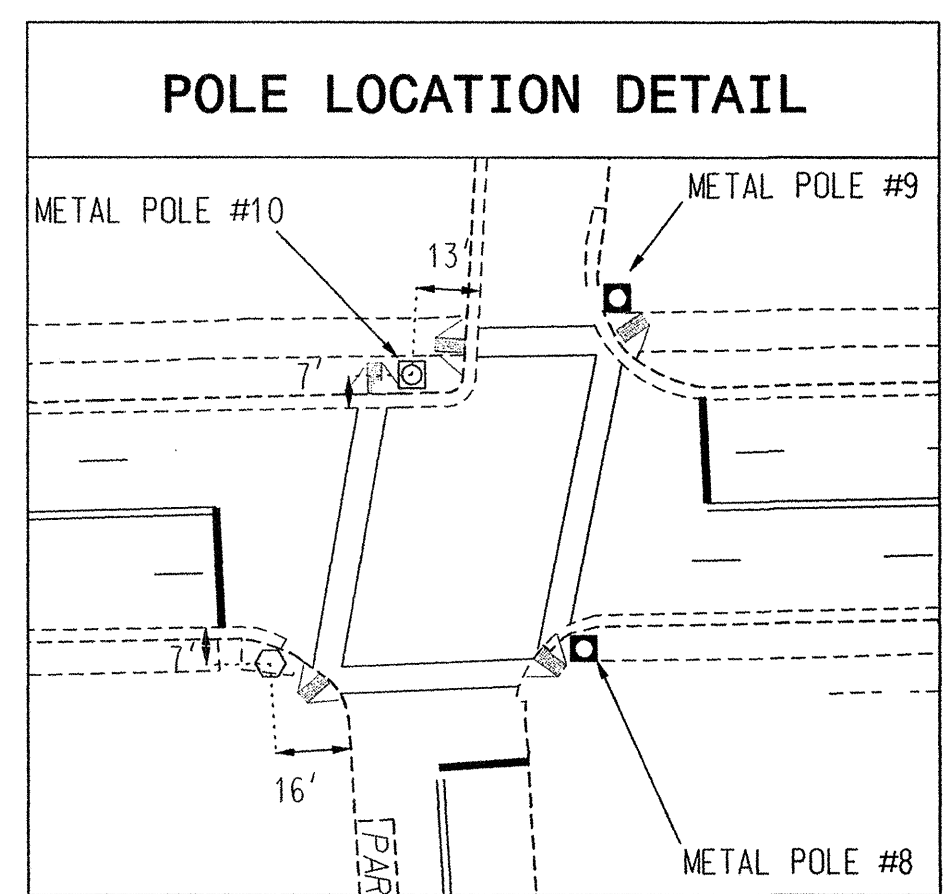
NOTES

- Refer to "Roadway Standard Drawings NCDOT," dated January 2002, and "Standard Specifications for Roads and Structures" dated January 2002.
- Do not program signal for late night flashing operation unless otherwise directed by the engineer.
- Set all detector units to presence mode.
- Place cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values shall supersede these values.
- Closed loop system data:
Controller Asset #: 0253
- Omit "Walk" and Flashing "Don't Walk" with no pedestrian calls.
- Pedestrian heads P21, P22, P61, and P62 do not include a push button. Program phases 2Ped and 6Ped for Ped Recall.
- All vehicular and pedestrian signal heads shall be dark green in color.



2070L TIMING CHART			
FEATURE	PHASE		
	2	4	6
Min Green 1 *	10	7	10
Extension 1 *	1.0	1.0	1.0
Max Green 1 *	30	20	30
Yellow Clearance	4.0	4.0	4.0
Red Clearance	2.0	2.0	2.0
Walk 1 *	4.0	4.0	4.0
Don't Walk 1	6.0	11.0	3.0
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	-	-	-
Simultaneous Gap	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.



PROPOSED	LEGEND	EXISTING
○	Traffic Signal Head	●
○	Modified Signal Head	N/A
T	Sign	T
○	Pedestrian Signal Head With Push Button & Sign	○
○	Signal Pole with Guy	○
○	Signal Pole with Sidewalk Guy	○
○	Metal Pole with Mastarm	○
○	Inductive Loop Detector	○
○	Controller & Cabinet	○
○	Junction Box	○
○	2-in Underground Conduit	○
N/A	Right of Way	---
→	Directional Arrow	→
→	Pavement Marking Arrow	→
○	Pedestrian Signal Pedestal	○
○	Directional Drill	N/A
○	Wheelchair Ramp	○

Signal Upgrade Final

This Plan Shall Supersede The Plan Previously Signed and Sealed On 6/28/04

Mattern & Craig
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 12 BROAD STREET
 ASHEVILLE, NORTH CAROLINA 28801
 (828) 254-2201
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Prepared in the Offices of:

Woodfin Street at Market Street/I-240 EB On-Ramp
 Division 13 Buncombe County Asheville
 PLAN DATE: April 2004 REVIEWED BY: Voso
 PREPARED BY: Richardson REVIEWED BY:
 REVISIONS: INIT. DATE
 SCALE: 1"=40'
 SIGNED: James B. Voso DATE: 12/17/04
 SIG. INVENTORY NO. 13-0253F