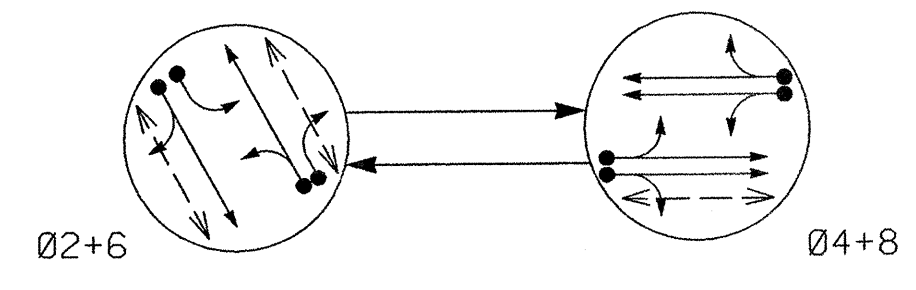


PHASING DIAGRAM



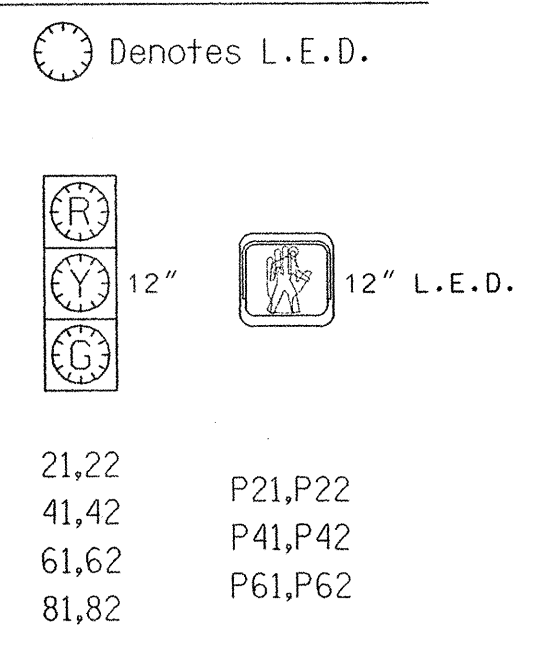
PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE		
	Ø 2 + 6	Ø 4 + 8	F L H S
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

SIGNAL FACE I.D.



2070L LOOP & DETECTOR INSTALLATION

LOOP	SIZE (FT)	TURNS	DISTANCE FROM STOPBAR (FT)	DETECTOR PROGRAMMING							
				NEW LOOP	PHASE	CALLING EXTENSION	FULL TIME DELAY	SYSTEM LOOP	STRETCH TIME	DELAY TIME	NEW CARD
2A	6X60	2-4-2	0	Y	2	Y	Y	-	-	-	Y
4A	6X60	2-4-2	0	Y	4	Y	Y	-	-	3	Y
4B	6X60	2-4-2	0	Y	4	Y	Y	-	-	10	Y
6A	6X60	2-4-2	0	Y	6	Y	Y	-	-	-	Y
6B	6X60	2-4-2	0	Y	6	Y	Y	-	-	-	Y
8A	6X60	2-4-2	0	Y	8	Y	Y	-	-	-	Y
8B	6X60	2-4-2	0	Y	8	Y	Y	-	-	10	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 #: 0252
- Omit "Walk" and Flashing "Don't Walk" with no pedestrian calls.
- All vehicular and pedestrian signal heads shall be dark green in color.

PLAN QUANTITIES

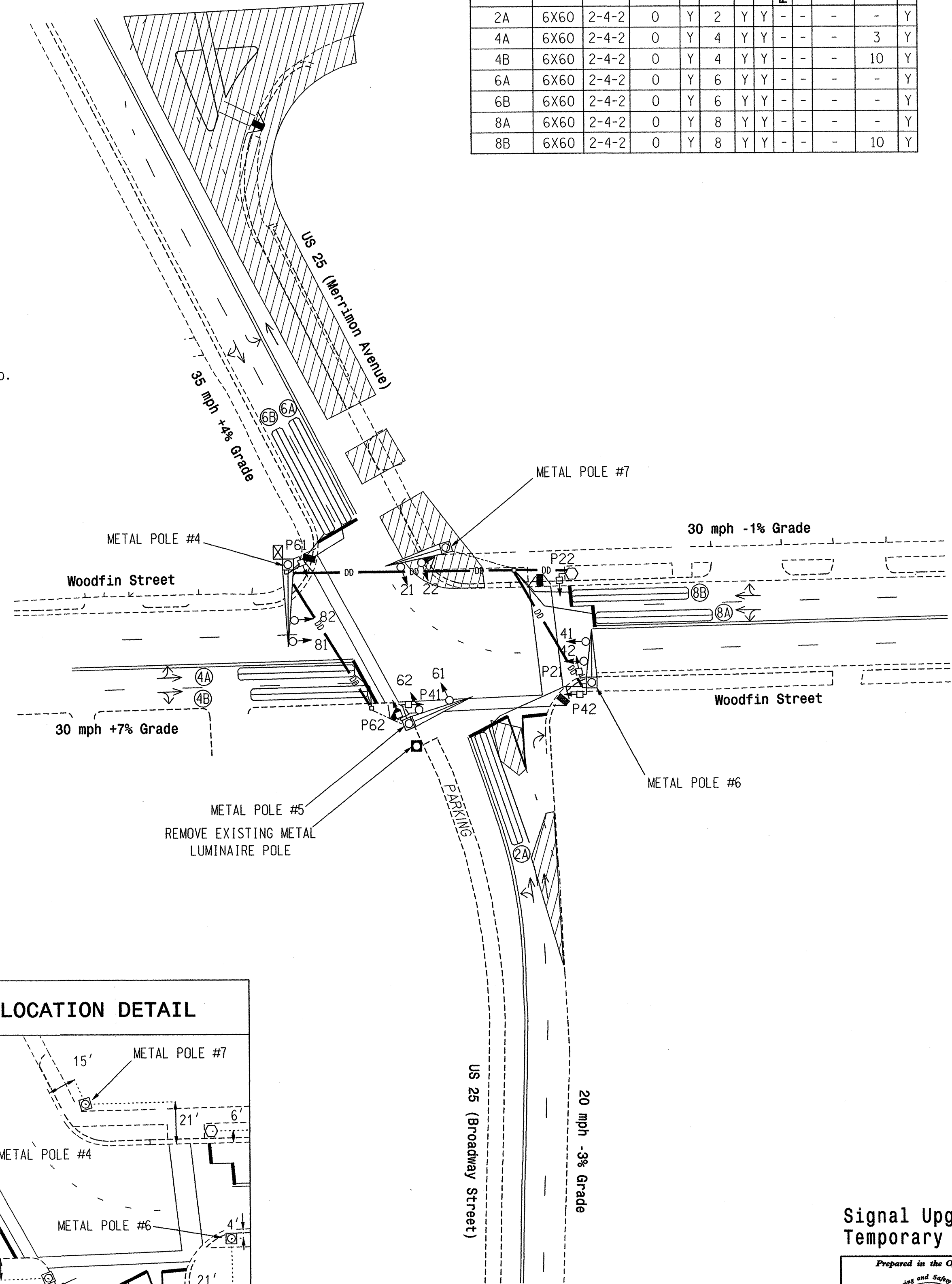
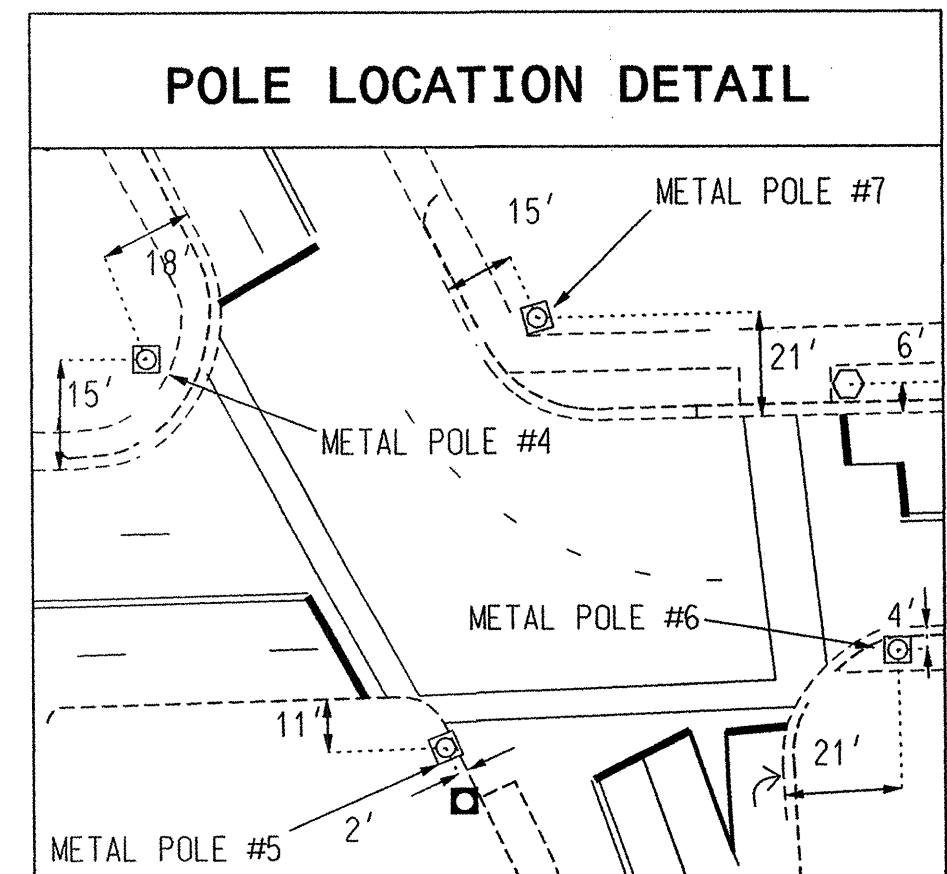
Pay Item	Feet
Signal Cable	1800
Messenger Cable	00
Lead-in Cable	1500

LEGEND

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

2070L TIMING CHART

FEATURE	PHASE			
	2	4	6	8
Min Green 1 *	10	7	10	7
Extension 1 *	1.0	1.0	1.0	1.0
Max Green 1 *	30	30	30	30
Yellow Clearance	4.0	4.0	4.0	4.0
Red Clearance	2.5	2.5	2.5	2.5
Walk 1 *	4.0	4.0	4.0	-
Don't Walk 1	10.0	15.0	16.0	-
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	-	ON	-	ON
Simultaneous Gap	ON	ON	ON	ON



Signal Upgrade Temporary

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

Prepared in the Offices of: **Mattern & Craig** CONSULTING ENGINEERS • SURVEYORS
122 N. McDowell St., Raleigh, NC 27603
12 BROAD STREET ASHEVILLE, NORTH CAROLINA 28801 (828) 254-2201 FAX (828) 254-4562

US 25 (Merrimon Ave. / Broadway St.) at Woodfin Street
Division 13 Buncombe County Asheville
PLAN DATE: April 2004 REVIEWED BY: Voso
PREPARED BY: Richardson REVIEWED BY:
REVISIONS INIT. DATE

SEAL NORTH CAROLINA PROFESSIONAL ENGINEER JAMES B. VOSO 022599
Signature: *James B. Voso* 12/17/04
DATE: 12/17/04
SIG. INVENTORY NO. 13-0252 T

* 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.