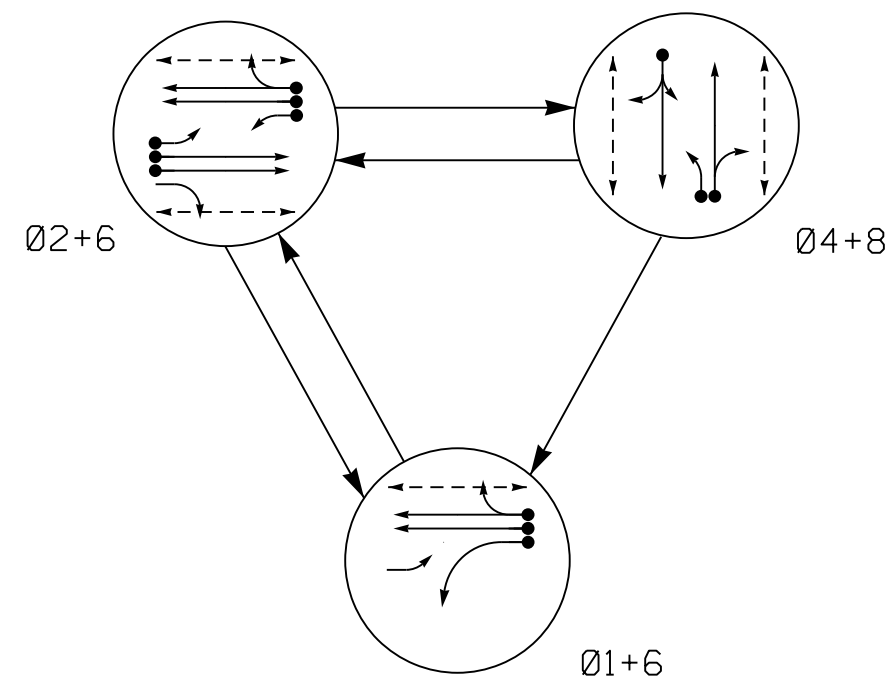


PHASING DIAGRAM



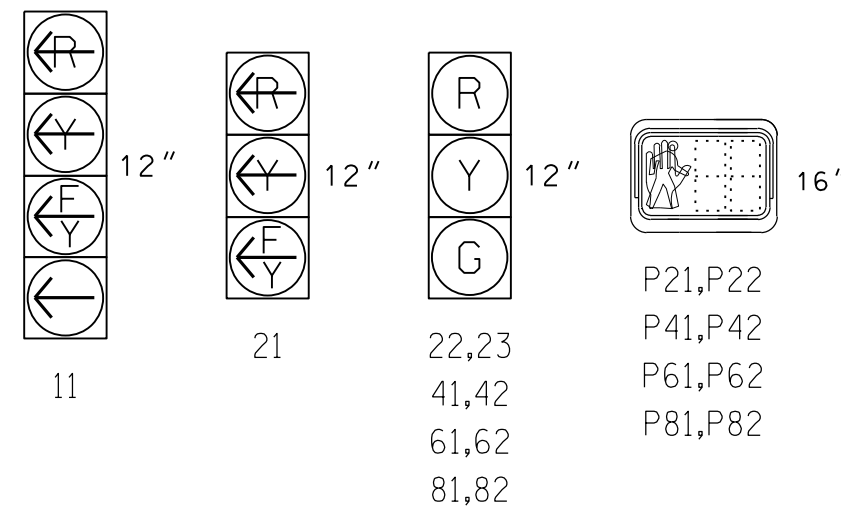
PHASING DIAGRAM DETECTION LEGEND

- ◄●► DETECTED MOVEMENT
- ◄◄◄ UNDETECTED MOVEMENT (OVERLAP)
- ◄---► UNSIGNALIZED MOVEMENT
- ◄- - - ► PEDESTRIAN MOVEMENT

SIGNAL FACE	PHASE			
	01+6	02+6	04+8	01+6
11	←	→	←	→
21	←	→	←	→
22,23	R	G	R	Y
41,42	R	R	G	R
61,62	G	G	R	Y
81,82	R	R	G	R
P21,P22	DW	W	DW	DRK
P41,P42	DW	DW	W	DRK
P61,P62	W	W	DW	DRK
P81,P82	DW	DW	W	DRK

SIGNAL FACE I.D.

All Heads L.E.D.

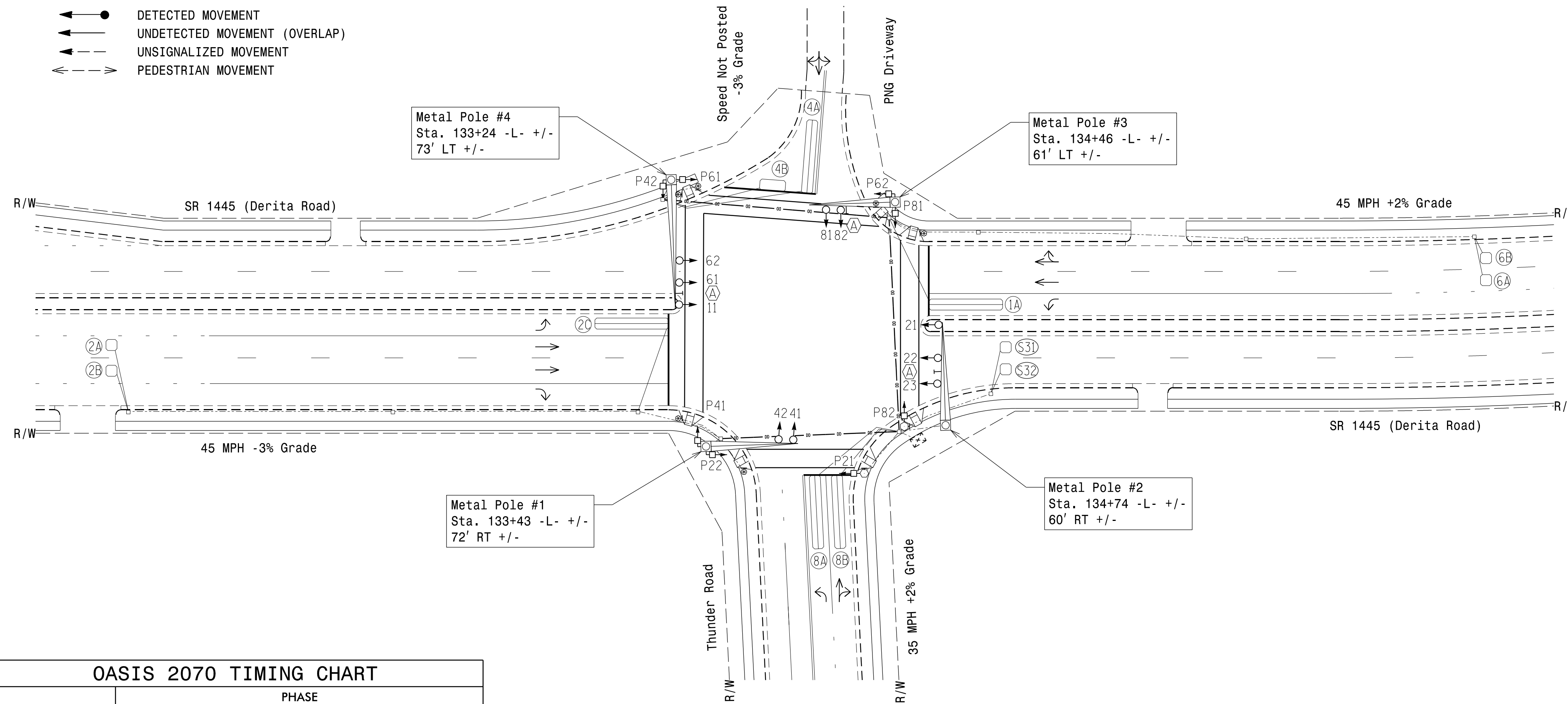


OASIS 2070 LOOP & DETECTOR INSTALLATION CHART												
INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	Y	1	Y	Y	-	-	15	-	Y
2A	6X6	300	5	Y	2	Y	Y	-	-	3	-	Y
2B	6X6	300	5	Y	2	Y	Y	-	-	-	-	Y
2C	6X40	0	2-4-2	Y	2	Y	Y	-	-	3	-	Y
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	10	-	Y
4B	6X15	0	3	Y	4	Y	Y	-	-	15	-	Y
6A	6X6	300	5	Y	6	Y	Y	-	-	-	-	Y
6B	6X6	300	5	Y	6	Y	Y	-	-	-	-	Y
8A	6X40	0	2-4-2	Y	8	Y	Y	-	-	3	-	Y
8B	6X40	0	2-4-2	Y	8	Y	Y	-	-	10	-	Y
S31	6X6	+180	3	Y	-	-	-	-	-	-	-	Y
S32	6X6	+180	3	Y	-	-	-	-	-	-	-	Y

3 Phase Fully Actuated Concord City Signal System

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012, "Standard Specifications for Roads and Structures" dated January 2012, and all applicable sections of the latest version of the generic Project Special Provisions.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Disable Backup Protect for phase 6.
4. Phase 1 may be lagged.
5. Install backplates for all signal heads.
6. Set all detector units to presence mode.
7. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
8. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
9. Pedestrian pedestals are conceptual and shown for reference only. See sheets P1-P3 for pushbutton location details.
10. All pedestrian pushbuttons shall be located in the field by the Division Traffic Engineer before installation.
11. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
12. Closed loop system data: Controller Asset #2010.
13. Remove existing video detection system and return to the City of Concord.



OASIS 2070 TIMING CHART					
FEATURE	PHASE				
	1	2	4	6	8
Min Green 1 *	7	12	7	12	7
Extension 1 *	2.0	6.0	2.0	6.0	2.0
Max Green 1 *	20	90	30	90	30
Yellow Clearance	3.0	4.8	3.3	4.8	3.7
Red Clearance	3.4	2.1	3.5	2.1	2.9
Red Revert	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	7	7	7	7
Don't Walk 1	-	13	30	25	23
Seconds Per Actuation *	-	1.5	-	1.5	-
Max Variable Initial *	-	34	-	34	-
Time Before Reduction *	-	15	-	15	-
Time To Reduce *	-	30	-	30	-
Minimum Gap	-	3.0	-	3.0	-
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.

LEGEND	
PROPOSED	EXISTING
○ → Traffic Signal Head	● → N/A
◐ → Modified Signal Head	■ → N/A
◑ → Pedestrian Signal Head	◑ → Metal Pole with Mastarm
◓ → Inductive Loop Detector	◓ → Junction Box
⊠ → Controller & Cabinet	⊠ → 2-in Underground Conduit
□ → Junction Box	--- Right of Way
N/A → Directional Arrow	⊕ → Type I Pushbutton Post
⊗ → Type II Signal Pedestal	● → Pushbutton & Sign
⊕ → Sign	⊕ → Sign
⊖ → Street Name Sign (D3-1)	⊖ → Street Name Sign (D3-1)

Signal Upgrade - Final Design

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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701 Corporate Center Drive
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Phone: 919-854-6200

SR 1445 (Derita Road) at Thunder Road / PNG Driveway

Division 10 Cabarrus County Concord

PLAN DATE: March 2016 REVIEWED BY: C.L. Kalencik

PREPARED BY: S W COX REVIEWED BY:

7/7/2016

Scale: 0 40
1" = 40'

7/7/2016 01:46:30 471:4900: \\cork\prod\docs\CAD\07_NCDOT_Traffic\cas\gnal\102010_sig.dsn - dgn