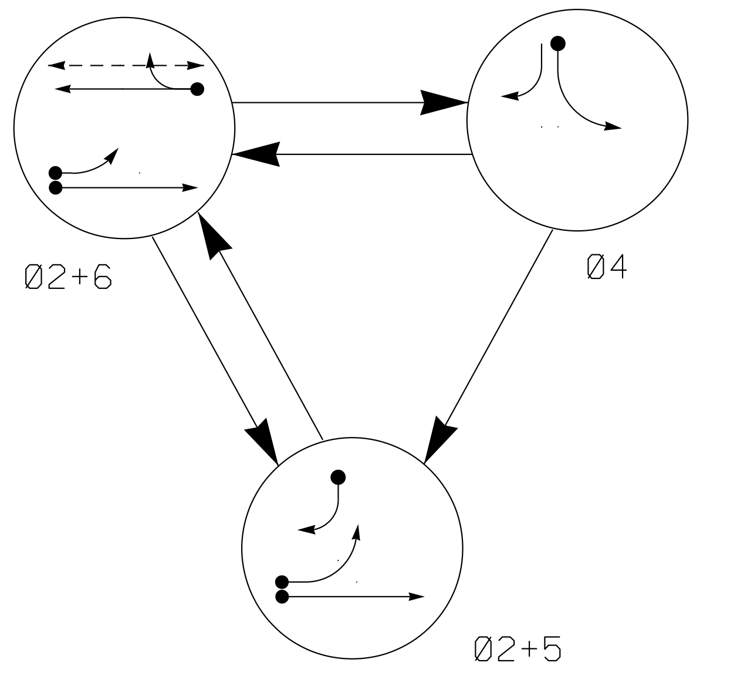
PROJECT REFERENCE NO.	SHEET NO.
U-5833	Sig.2.0

3 Phase
Fully Actuated
Isolated

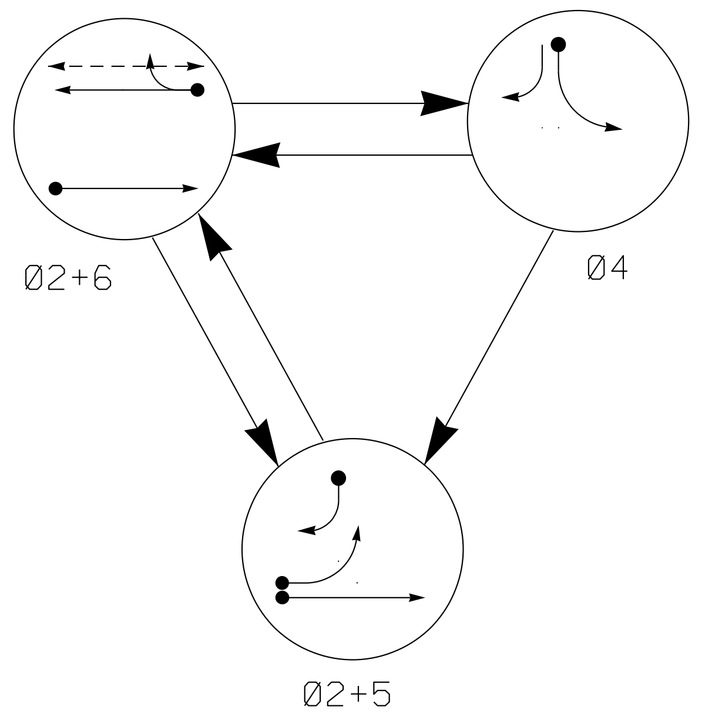
NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Enable Backup Protect for phase 2 to allow the controller to clear from phase 2+6 to phase 2+5 by progressing through an all red display.
4. Phase 5 may be lagged.
5. Set all detector units to presence mode.
6. Reposition all existing signal heads.
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 housing for signal heads, pedestals and housing for pedestrian signal heads should be black in color as specified in the project special provisions.
11. The Division Traffic Engineer will determine the hours of use for each phasing plan.

DEFAULT PHASING DIAGRAM



ALTERNATE PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

DEFAULT PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+5	Ø2+6	Ø4	FLASH
21, 22	G	G	R	Y
41	R	R	G	R
42	R / →	R	G	R
51	←	←F/Y	←R	←Y
61, 62	R	G	R	Y
P61, P62	DW	W	DW	DRK

ALTERNATE PHASING TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+5	Ø2+6	Ø4	FLASH
21, 22	G	G	R	Y
41	R	R	G	R
42	R / →	R	G	R
51	←	←R	←R	←Y
61, 62	R	G	R	Y
P61, P62	DW	W	DW	DRK

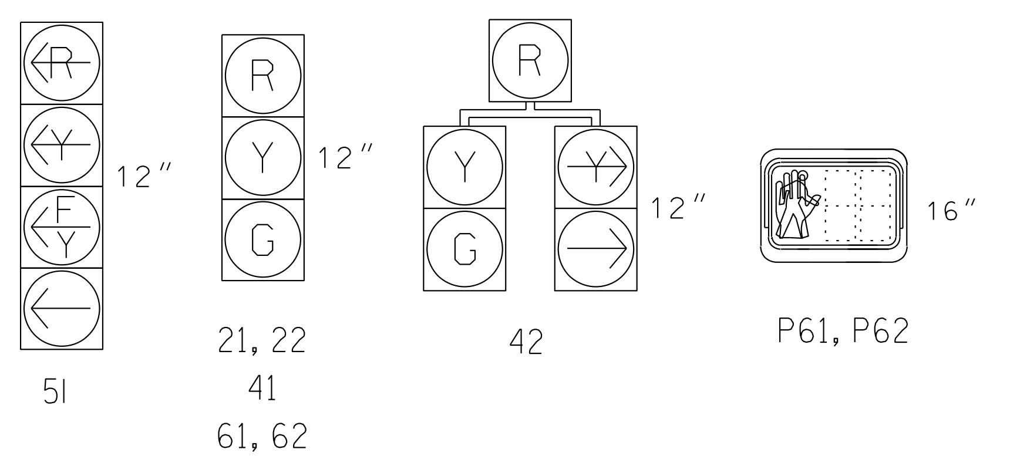
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

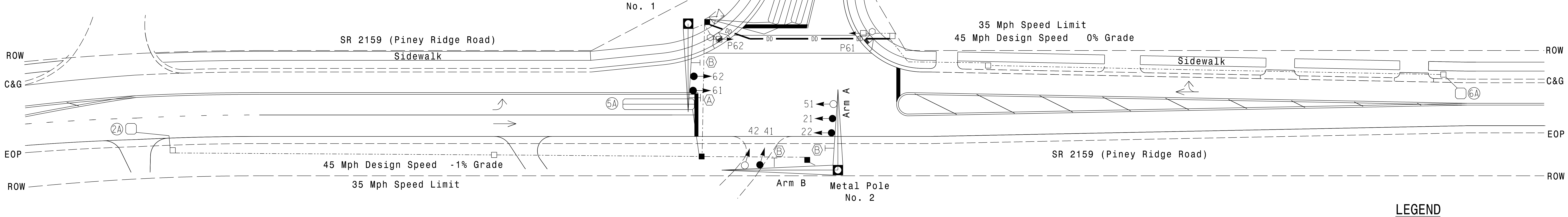
INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A	6X6	300	5	Y	2	Y	Y	-	-	-	-	Y
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	3	-	Y
5A	6X40	0	2-4-2	Y	5	Y	Y	-	-	15**	-	Y
					2*	Y	Y	Y	-	3	-	Y
5B	6X40	0	2-4-2	Y	5	Y	Y	-	-	15	-	Y
6A	6X6	300	5	Y	6	Y	Y	-	-	-	-	Y

* Disable phase call during Alternate Phasing operaion.
** Reduce delay to 3 sec during Alternate Phasing operation.

SIGNAL FACE I.D.

All Heads L.E.D.

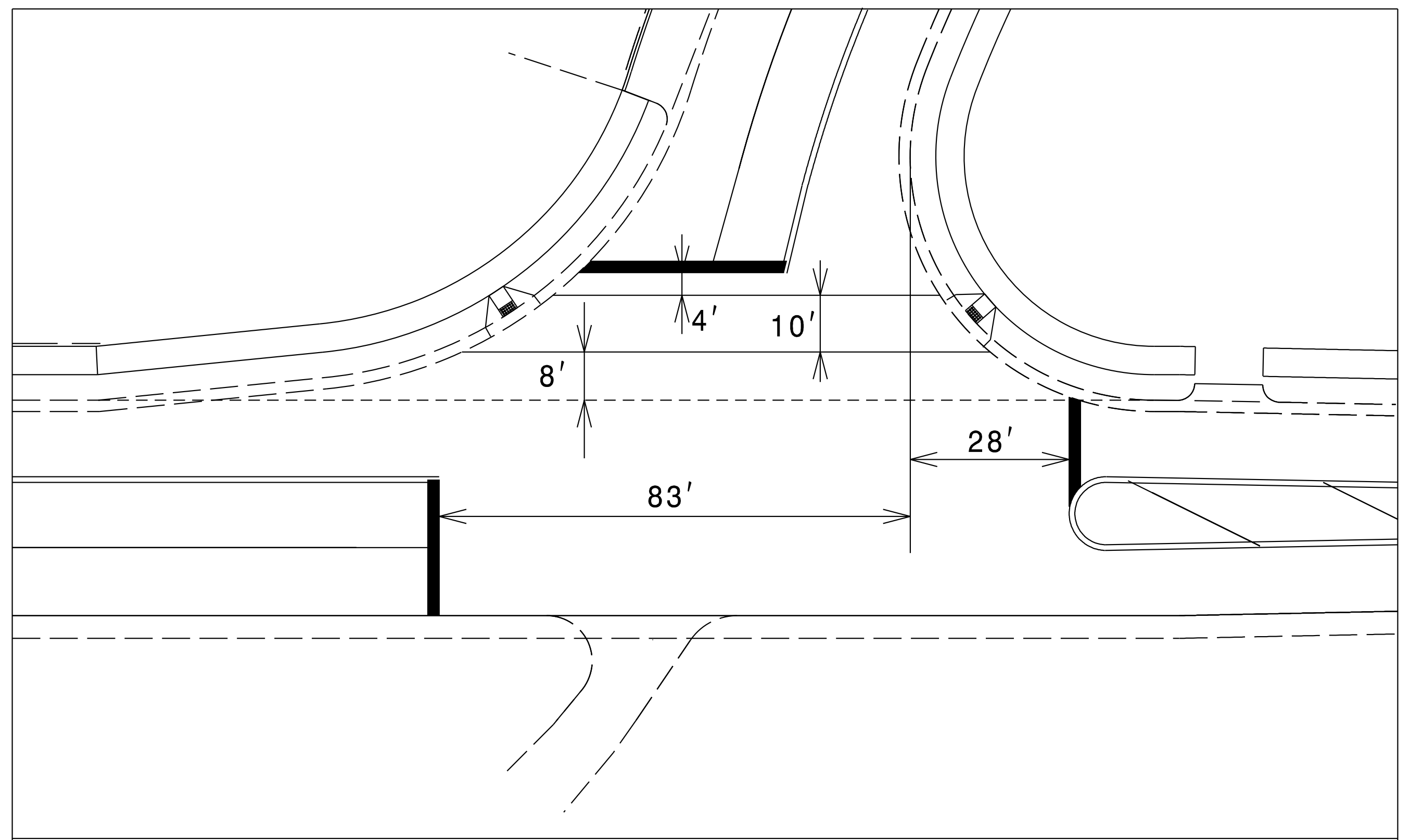




OASIS 2070 TIMING CHART

FEATURE	PHASE 2	4	5	6
Min Green 1 *	12	7	7	12
Extension 1 *	6.0	2.0	2.0	6.0
Max Green 1 *	90	30	20	90
Yellow Clearance	4.6	3.0	3.0	4.6
Red Clearance	1.8	2.1	2.4	1.8
Red Revert	5.0	2.0	2.0	2.0
Walk 1 *	-	-	-	7
Don't Walk 1	-	-	-	20
Advance Walk Time	-	-	-	-
Seconds Per Actuation *	2.5	-	-	2.5
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	-	-	-	-
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.



STOPBAR AND CROSSWALK LOCATIONS

LEGEND

PROPOSED		EXISTING
○→	Traffic Signal Head	●→
⊣	Sign	⊣
□	Pedestrian Signal Head With Push Button & Sign	■
▭	Inductive Loop Detector	▭
☒	Controller & Cabinet	☒
□	Junction Box	■
-·-·-·-	2-in Underground Conduit	-·-·-·-
N/A	Right of Way	— — —
→	Directional Arrow	→
○▷	Metal Pole with Mastarm	●▷
○	Type II Signal Pedestal	●
—DD—	Directional Drill	N/A
⩘	Curb Ramp	⩘
A	No U-Turn Sign (R 3-4)	A
B	Street Name Sign (D3-1)	B

NC Dept of Transportation
Division of Highways

Final Drawing Date: 1/12/2018

ITS & Signals Unit

DocuSigned by:
R. N. Zinser
F1388973472248F...

940 Main Campus Drive, Suite 500
Raleigh, NC 27606
NC License No. C-3705
919.829.0328

Signal Upgrade-Final Design

Prepared for the Offices of:
Transportation Mobility and Safety Division
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

SR 2159 (Piney Ridge Road)
at
SR 2241 (Oak Street Extension)

Division 13 Rutherford County Forest City

PLAN DATE:	Dec. 2017	REVIEWED BY:	J. L. Lewis
PREPARED BY:	J. Ma	VHB PROJECT NO.:	38536.09

SCALE
0 30
1"=30'

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL
SEAL 033108
JIANXIN MA

Jianxin Ma 2017.12.15 10:13:36 -05'00'

SIGNATURE DATE

SIG. INVENTORY NO. 13-1241

12/15/2017
**vhb*proj*Raleigh*38536.09 U-5833_Oak St_TGS*tech*Signal Plans*signal design*2.0 13-1241_sig_dsn_201712.dgn
User:jma