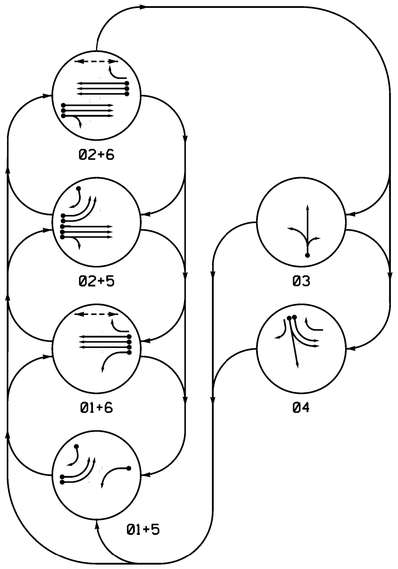
PROJECT REFERENCE NO.	SHEET NO.
U-6038	Sig 13.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03	04	FLASH
11	~~←~~	~~—~~	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
21,22,23	R	R	G	G	R	R	Y
31	R	R	R	R	G	R	R
32	R	R	R	R	G	R	R
41	R	R	R	R	R	G	R
42	R/~~R~~	R	R/~~R~~	R	R	G	R
51,52	~~←~~	~~R~~	~~←~~	~~R~~	~~R~~	~~R~~	~~R~~
61,62	R	G	R	G	R	R	Y
63	R	G	R	G	R	R/~~R~~	Y
P61,P62	DW	W	DW	W	DW	DW	DRK

SIGNAL FACE I.D.

All Heads L.E.D.

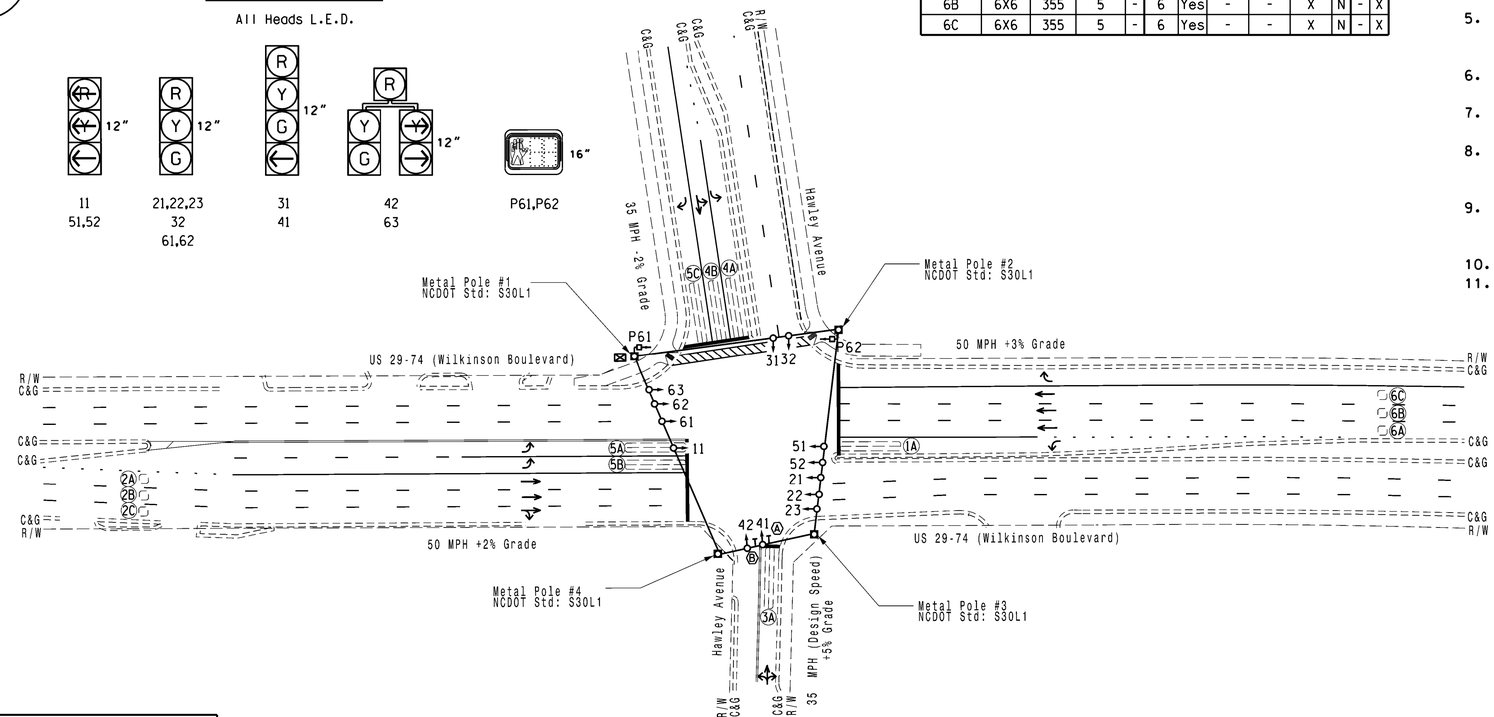
ASC/3 DETECTOR INSTALLATION CHART

DETECTOR					PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTEND TIME	DELAY TIME	USE ADDED INITIAL	TYPE	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	-	1	Yes	-	-	-	S	-	X
2A	6X6	355	5	-	2	Yes	-	-	X	N	-	X
2B	6X6	355	5	-	2	Yes	-	-	X	N	-	X
2C	6X6	355	5	-	2	Yes	-	-	X	N	-	X
3A	6X40	0	2-4-2	-	3	Yes	-	5	-	S	-	X
4A	6X40	0	2-4-2	-	4	Yes	-	-	-	S	-	X
4B	6X40	0	2-4-2	-	4	Yes	-	-	-	S	-	X
5A	6X40	0	2-4-2	-	5	Yes	-	3	-	S	-	X
5B	6X40	0	2-4-2	-	5	Yes	-	-	-	S	-	X
5C	6X40	0	2-4-2	-	5	Yes	-	15	-	S	-	X
6A	6X6	355	5	-	6	Yes	-	-	X	N	-	X
6B	6X6	355	5	-	6	Yes	-	-	X	N	-	X
6C	6X6	355	5	-	6	Yes	-	-	X	N	-	X

6 Phase
Fully Actuated
Belmont Signal System

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. Phase 1 and/or phase 5 may be lagged.
4. The order of phase 3 and phase 4 may be reversed.
5. Install backplates for signal heads numbered 11, 21, 22, 23, 51, 52, 61, 62 and 63.
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. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
10. Pavement markings are existing.
11. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



LEGEND

PROPOSED		EXISTING
○→	Traffic Signal Head	●→
◐→	Modified Signal Head	N/A
⊣	Sign	⊣
□↓	Pedestrian Signal Head With Push Button & Sign	■↓
◎	Metal Strain Pole	◘
▭	Inductive Loop Detector	▭
⊠	Controller & Cabinet	▣
□	Junction Box	■
-----	2-in Underground Conduit	-----
N/A	Right of Way	------
→	Directional Arrow	→
N/A	Curb Ramp	◢
Ⓐ	Left Arrow "ONLY" Sign (R3-5L)	Ⓐ
Ⓑ	Combined Through and Left Arrow Sign (R3-6L)	Ⓑ

ASC/3 TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6
Min Green *	7	14	7	7	7	14
Walk *	0	0	0	0	0	7
Ped Clear	0	0	0	0	0	22
Veh. Extension *	2.0	6.0	2.0	2.0	2.0	6.0
Max 1 *	20	90	40	30	20	90
Yellow	3.0	4.6	3.6	4.0	3.0	4.6
Red Clear	2.8	1.0	2.7	2.4	3.3	1.3
Actuations B4 Add *	-	0	-	-	-	0
Seconds /Actuation *	-	1.5	-	-	-	1.5
Max Initial *	-	40	-	-	-	40
Time Before Reduction *	-	15	-	-	-	15
Time To Reduce *	-	45	-	-	-	45
Minimum Gap	-	3.1	-	-	-	3.1
Locking Detector	-	X	-	-	-	X
Recall Position	-	VEH. RECALL	-	-	-	VEH. RECALL
Dual Entry	-	-	-	-	-	-
Simultaneous Gap	X	X	X	X	X	X

* 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.

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