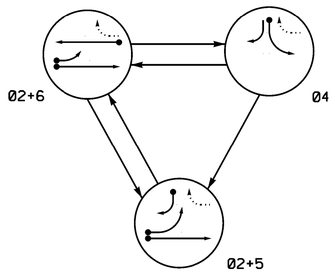
PROJECT REFERENCE NO.	SHEET NO.
U-6038	Sig 10.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

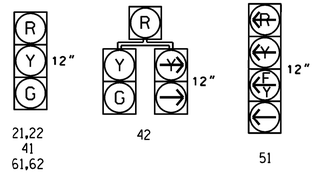
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE 02+5	PHASE 02+6	PHASE 04	PHASE 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

SIGNAL FACE I.D.

All Heads L.E.D.



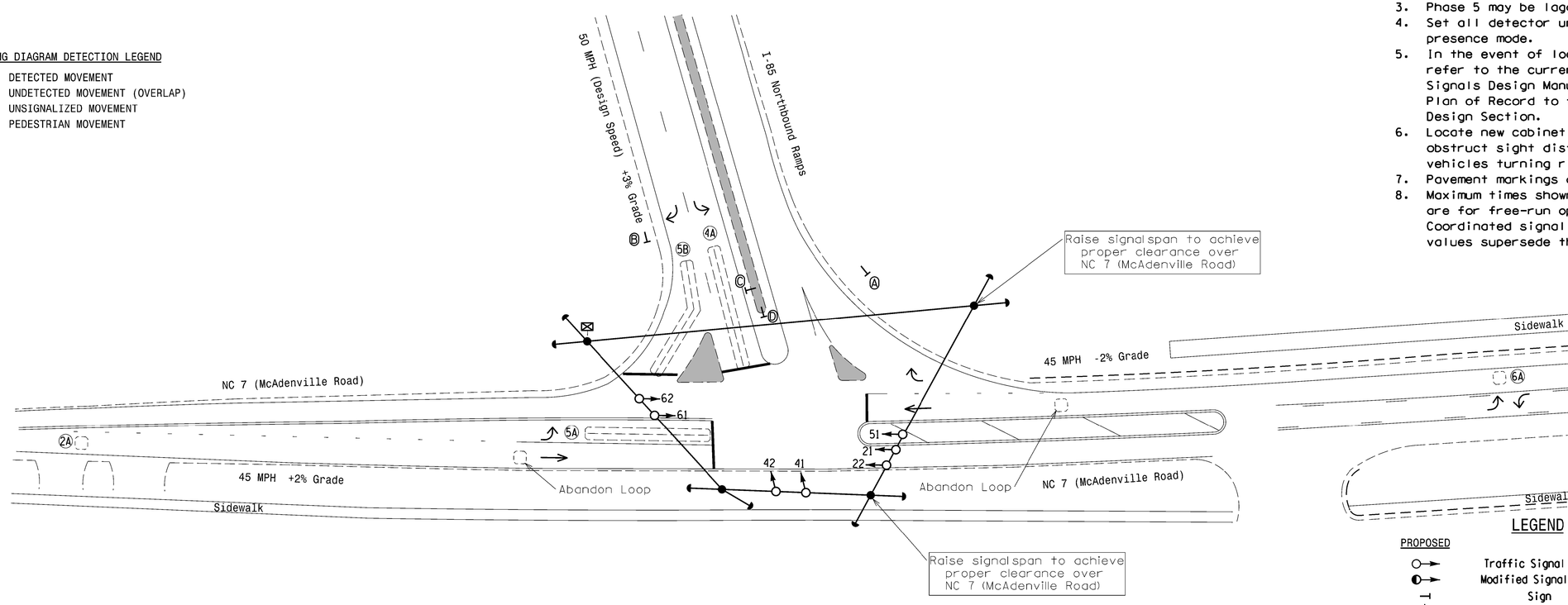
ASC/3 DETECTOR INSTALLATION CHART

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
2A	6X6	300	4	-	2	Yes	-	-	X	N	-	X
4A	6X60	0	2-4-2	-	4	Yes	-	-	-	S	-	X
5A	6X60	0	2-4-2	-	5	Yes	-	15	-	S	-	X
					2	Yes	-	3	-	G	-	X
5B	6X60	0	2-4-2	-	5	Yes	-	15	-	S	-	X
6A	6X6	300	4	-	6	Yes	-	-	X	N	-	X

3 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 5 may be lagged.
4. Set all detector units to presence mode.
5. In the event of loop replacement, refer to the current ITS and Signals Design Manual and submit a Plan of Record to the Signal Design Section.
6. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
7. Pavement markings are existing.
8. 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	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
⊠	Controller & Cabinet	
□	Junction Box	■
	2-in Underground Conduit	
N/A	Right of Way	
→	Directional Arrow	→
Ⓐ	"YIELD" Sign (R1-2)	Ⓐ
Ⓑ	"DO NOT ENTER" Sign (R5-1)	Ⓑ
Ⓒ	"ONE WAY" Sign (R6-1)	Ⓒ
Ⓓ	Keep Right Sign (R4-7)	Ⓓ

ASC/3 TIMING CHART

FEATURE	PHASE 2	PHASE 4	PHASE 5	PHASE 6
Min Green *	12	7	7	12
Walk *	0	0	0	0
Ped Clear	0	0	0	0
Veh. Extension *	6.0	1.0	1.0	6.0
Max 1 *	60	30	20	60
Yellow	4.7	3.0	3.0	4.7
Red Clear	1.9	2.6	1.8	1.9
Actuations B4 Add *	0	-	-	0
Seconds /Actuation *	2.5	-	-	2.5
Max Initial *	34	-	-	34
Time Before Reduction *	15	-	-	15
Time To Reduce *	30	-	-	30
Minimum Gap	3.0	-	-	3.0
Locking Detector	X	-	-	X
Recall Position	VEH. RECALL	-	-	VEH. RECALL
Dual Entry	-	-	-	-
Simultaneous Gap	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.

Signal Upgrade

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
SUMMIT DESIGN AND ENGINEERING SERVICES
NC FIRM LICENSE No: P-0339
504 Meadowlands Drive
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(919) 732-3883
(919) 732-6676 (FAX)

Prepared For:
Transportation Mobility and Safety Division
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section
750 N.Greenfield Pkwy.Garner,NC 27529

NC 7 (McAdenville Road)
at
I-85 Northbound Ramps

Division 12 Gaston County Belmont

PLAN DATE:	December 2018	REVIEWED BY:	E. Sirgany
PREPARED BY:	J. Smith	REVIEWED BY:	

REVISIONS	INIT.	DATE

SCALE 0 30 1"=30'

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 018174 ENGINEER EDWARD W. SIRGANY
DocuSigned by: Edward W Sirgany 2/7/2019
DATE

SIG. INVENTORY NO. 12-1537

$$$$USERNAME$$$$
$$$$SYSTIME$$$$
$$$$SYSDATE$$$$
$$$$DGN$$$$