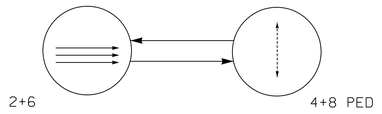
PROJECT REFERENCE NO.	SHEET NO.
B-6051/U-6143	Sig.14.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE 2+6 DARK	ACTIVATION	STEADY YELLOW	ALL RED	4+8 PED WALK	4+8 PED CLEAR	FLASH
21,22,23	DRK	FY	Y	R	R	FR*	Y
P41	DW	DW	DW	DW	W	FDW	DRK
P81	DW	DW	DW	DW	W	FDW	DRK

✳ ALTERNATING FLASH

Y- Steady Yellow
FY - Flashing Yellow
R - Steady Red
FR - Flashing Red
W - Walk
DW - Don't Walk
FDW - Flashing Don't Walk
DRK - Dark

SIGNAL FACE I.D.

All Heads L.E.D.

Figure 1

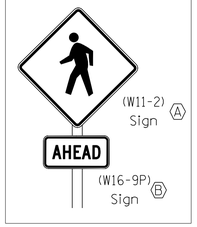
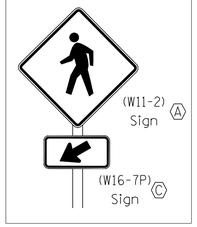


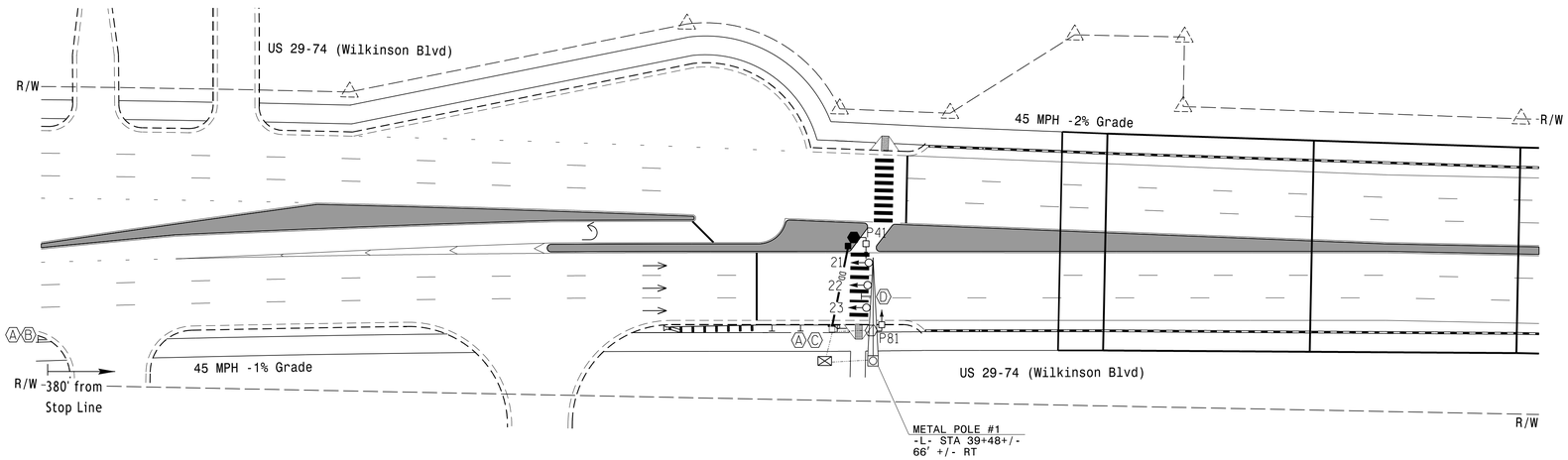
Figure 2



2 Phase
Semi-Actuated
Pedestrian Hybrid Beacon
(Belmont Signal System)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specification for Roads and Structures" dated January 2024.
2. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
3. Enable Ped Clear During Red Clear for phases 4+8.
4. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
5. Locate Pedestrian and Crosswalk advance signs in accordance with Table 2C-3 in Section 2C.04 of the 2023 MUTCD or as otherwise directed by the Engineer.



MAXTIME TIMING CHART

FEATURE	PHASE 2	4 PED	6	8 PED
Walk *	–	7	–	7
Ped Clear	–	8	–	8
Min Green *	12	7	12	7
Passage *	0.0	0.0	0.0	0.0
Max 1 *	90	7	90	7
Yellow Change	4.6	3.0	4.6	3.0
Red Clear	5.0	0.0	5.0	0.0
Added Initial *	–	–	–	–
Maximum Initial *	–	–	–	–
Time Before Reduction *	–	–	–	–
Time To Reduce *	–	–	–	–
Minimum Gap	–	–	–	–
Pre Clearance	5.0	–	5.0	–
Advance Walk	–	–	–	–
Non Lock Detector	–	X	–	X
Vehicle Recall	MIN RECALL	–	MIN RECALL	–
Dual Entry	–	–	–	–

Serves as Steady Yellow Clearance Time
Serves as All Red Clearance Time
Serves as Flashing Yellow Time

* 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	●→
◐→	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	→
N/A	Guardrail	⊥—⊥
⬡	Type II Signal Pedestal	⬢
N/A	Curb Ramp	◢
Ⓐ	Pedestrian Warning Sign (W11-2)	Ⓐ
Ⓑ	"AHEAD" Sign (W16-9P)	Ⓑ
Ⓒ	Left Downward Arrow Sign (W16-7P)	Ⓒ
Ⓓ	"STOP ON RED - YIELD ON FLASHING RED AFTER STOP" Sign (R10-23a)	Ⓓ

New Installation

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

RK&K
P: (919) 878-9560
8601 Six Forks Road Suite 700 | Raleigh, North Carolina 27615-2965
NC License No. F-0112
Engineers | Construction Managers | Planners | Scientists
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Prepared for the Offices of:
North Carolina Department of Transportation, Traffic Engineering Branch, Signal Design Section
750 N.Greenfield Pkwy.Garner,NC 27529

SCALE 0 40 1"=40'

Pedestrian Hybrid Beacon:
US 29-74 (Wilkinson Blvd) at
Eastbound U-Turn Bulb
West of Catawba River Bridge
Division 12 Gaston County Belmont

PLAN DATE: August 2025 REVIEWED BY: DT Sears
PREPARED BY: WP Erickson-Jones REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 044558 ENGINEER DAVID T. SEARS

DocuSigned by: David T Sears
069183F2B65741E...
SIGNATURE 8/1/2025 DATE

SIG. INVENTORY NO. 12-1921

8/1/2025
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dsears