

**PROJECT DESCRIPTION**

**I. GENERAL**

This project involves the installation of Accessible Pedestrian Signals for the North leg of the intersection. Crosswalks will be installed on the East and West legs.

**II. INTERSECTION OPERATION**

- The intersection is to operate in a NEMA 6-phase, semi-actuated mode with the North leg pedestrian crossing being pushbutton activated
- The pushbutton messages shall be as follows:

North Leg

WAIT MESSAGE—"Wait to cross Belair at Shopping Center. Wait."  
WALK MESSAGE shall be a rapid tick

**GENERAL NOTES**

- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
- FOR FINAL PAVEMENT MARKINGS REFER TO THE PAVEMENT MARKING PLANS. OTHER THAN THOSE DETAILED ON THE PLAN, ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH MSHA STANDARDS.
- ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
- THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES PRIOR TO INSTALLING PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITY CONFLICTS SHOULD ARISE THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER.
- ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
- LOCATIONS OF ACCESSIBLE PEDESTRIAN PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SECTION 4E-09 AND FIGURE 4E-2 AND THE NCHRP PUBLICATION "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE". IF THESE LOCATIONS CANNOT BE MET THE CONTRACTOR IS TO STOP WORK UNTIL THE CONFLICT IS RESOLVED OR A DESIGN WAIVER, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY, HAS BEEN OBTAINED
- PUSHBUTTONS ARE TO BE LOCATED SO THAT A PERSON IN A WHEELCHAIR LOCATED ON THE 60"x60" LEVEL LANDING AREA DOES NOT HAVE TO REACH MORE THAN 18". A LEVEL LANDING AREA IS DEFINED AS AN AREA WITH A CROSS SLOPE OF LESS THAN 2%.
- THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM THE FACES OF THE PUSHBUTTON, NOT THE CENTERS OF THE POLES.

**CONTACTS**

**DISTRICT**

MS. ERIN KUHN  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
410-229-2380

MR. MIKE PASQUIARELLO  
DISTRICT UTILITY ENGINEER  
410-229-2340

MR. ANDRE FUTRELL  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
410-229-2361

**OFFICE OF TRAFFIC AND SAFETY**

MR. RICHARD DAFF SR.  
CHIEF, TRAFFIC OPERATIONS  
410-787-7630

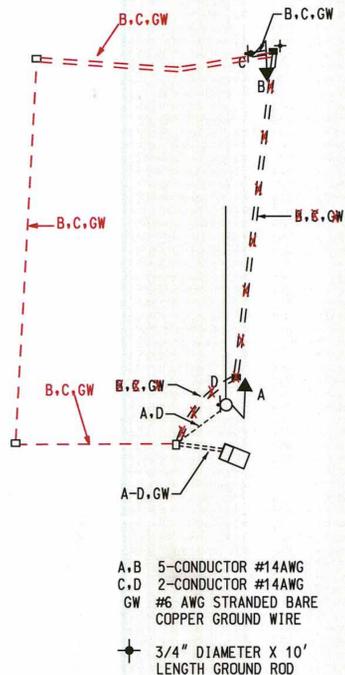
MR. ROBERT SNYDER  
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS  
410-787-7630

MR. ED RODENHIZER  
TEAM LEADER SIGNAL OPERATIONS  
410-787-7650

MR. EUGENE BAILEY  
TEAM LEADER SIGN OPERATIONS  
410-787-7670

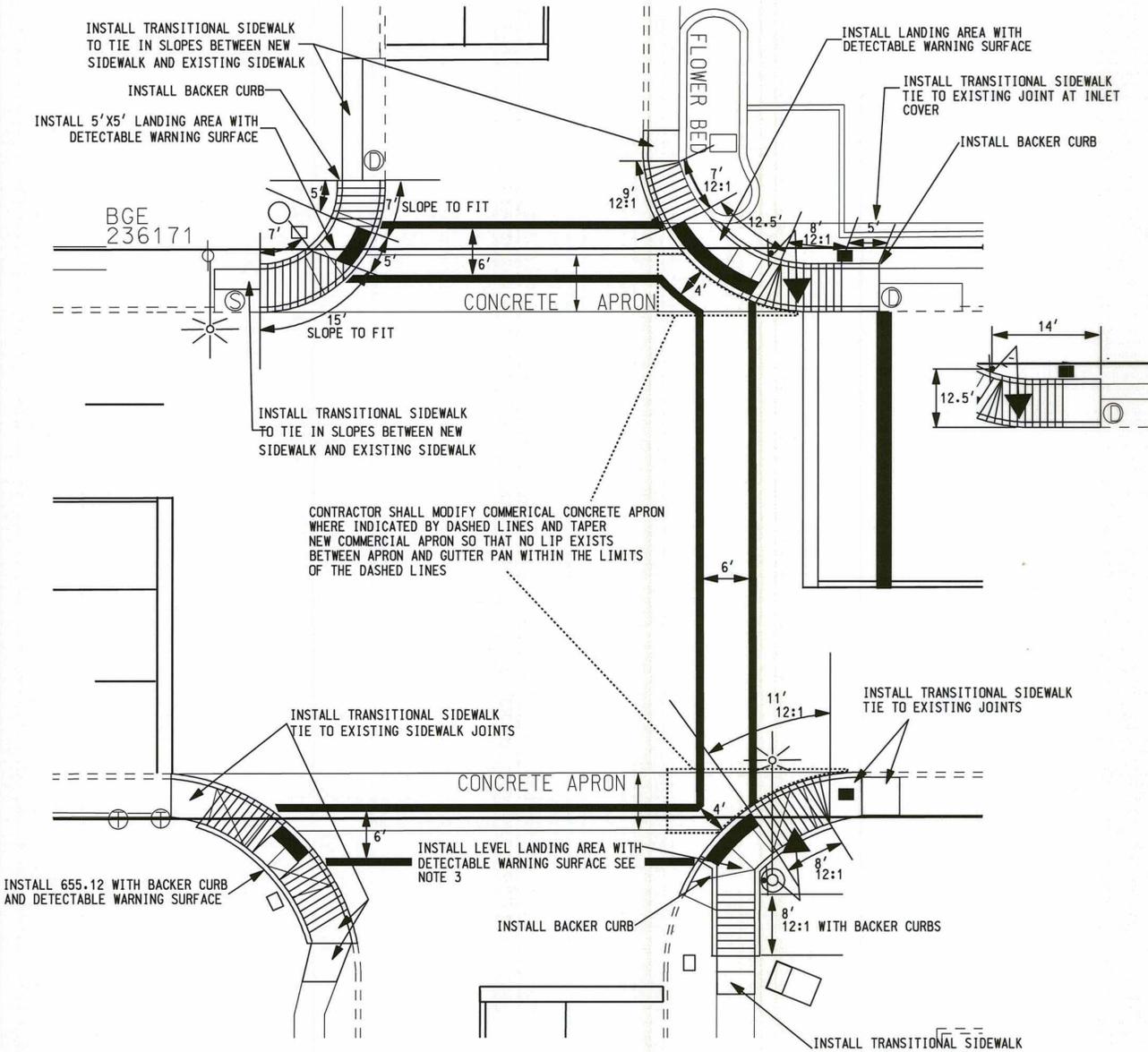
MR. MIKE STOCKER  
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)  
410-787-7668

**WIRING DIAGRAM**



**EQUIPMENT LIST**

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION		
NONE		
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR		
ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2002	1 CY	TEST PIT EXCAVATION
5001	<del>50</del> LF 0	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	225 LF	F&I 12" WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING
5005	<del>35</del> LF 0	F&I 24" WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
6001	225 LF	F&I STANDARD TYPE A COMBINATION CURB AND GUTTER 12" GUTTER PAN 8" DEPTH
6002	725 SF	F&I 5" CONCRETE SIDEWALK
6003	60 SF	F&I DETECTABLE WARNING SURFACES FOR CURB RAMPS (TYPE 3 BRICK PAVERS)
8002	1 EA	F&I 2 WIRE CENTRAL CONTROL UNIT
8008	2 EA	F&I AUDIBLE/TACTILE PUSHBUTTON STATION AND SIGNS
8009	1 EA	F&I BREAKAWAY PEDESTAL POLE ANY SIZE
8015	2 EA	F&I 16" LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
8023	1 EA	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
8036	<del>70</del> LF 0	F&I UP TO 4" SCH 80 RIGID PVC CONDUIT-BORED
8038	35 LF	F&I UP TO 4" SCH 80 RIGID PVC CONDUIT-TRENCHED
8042	150 LF	F&I #6 STRANDED BARE COPPER GROUND WIRE
8053	<del>175</del> LF 315 LF	F&I ELECTRICAL CABLE-2 CONDUCTOR #14AWG
8055	<del>175</del> LF 315 LF	F&I ELECTRICAL CABLE-5 CONDUCTOR #14AWG
8000-NEG	2 EA	F&I CONCRETE COMMERCIAL ENTRANCE
8038	70 LF	F&I UP TO 4" SCH 80 RIGID PVC CONDUIT-TRENCHED
8046	1 EA	F&I ELECTRICAL HANDHOLE
C. EQUIPMENT TO BE RETURNED TO SHA		
NONE. ALL EQUIPMENT THAT IS REMOVED IN ACCORDANCE WITH THESE PLANS SHALL BECOME THE PROPERTY OF THE CONTRACTOR		



**RAMP DETAIL NOTES**

- ALL SIDEWALK AND RAMP WIDTHS SHALL BE CONSTRUCTED WITH A 5' WIDTH UNLESS OTHERWISE NOTED.
- CLAY BRICK PAVERS SHALL BE INSTALLED FOR DETECTABLE WARNING SURFACES ON ALL PROPOSED ADA RAMPS AS REQUIRED BY BALTIMORE COUNTY
- ACTUAL DIMENSIONS FOR THIS SECTION WILL VARY. CONTRACTOR SHALL PROVIDE A FLAT, LEVEL LANDING AREA THAT DOES NOT EXTEND BEYOND THE BACK OF THE EXISTING SIDEWALK

REDLINE 1 APPROVED 5/17/2012: *Dennis Dook*  
DENNIS DOOK, TEAM LEADER, TEDD

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
US 1 (BELAIR RD) @ PERRY HALL MARKETPLACE/  
NORTHVIEW SHOPPING CENTER ENTRANCE

**RAMP DETAIL SHEET**

SCALE AS SHOWN. ADVERTISED DATE MARCH 2012. CONTRACT NO. XX6455185

DESIGNED BY C. STRAIN COUNTY BALTIMORE  
DRAWN BY C. STRAIN LOGMILE 030001021.12  
CHECKED BY D. DODA TMS NO. L300  
F.A.P. NO. N/A TOD NO.

TS NO. 3986 A DRAWING SG-2 OF 2 SHEET NO. 2 OF 2

BY: \$USER\$NAME\$

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