PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF AUDIBLE PEDESTRIAN SIGNAL PUSHBUTTONS AND LED PEDESTRIAN HEADS AT THE INTERSECTIONS OF MD 542 (LOCH RAVEN BLVD.) AND TAYLOR AVENUE AND MD 542 AND PUTTY HILL AVENUE IN BALTIMORE COUNTY. MD 542 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

1. MD 542 (LOCH RAVEN BLVD) AND TAYLOR AVENUE

   THE INTERSECTION WILL OPERATE IN A NEMA EIGHT-PHASE,FULL-TRAFFIC ACTUATED MODE WITH THE MD 542 (LOCH RAVEN BLVD) APPROACHES OPERATING CONCURRENTLY AND THE TAYLOR AVE. APPROACHES OPERATING CONCURRENTLY.

   EXCLUSIVE/PERMISSIVE LEFT-TURN PHASES ARE PROVIDED FOR ALL APPROACHES.

   ALTERNATE PEDESTRIAN PHASES ARE PROVIDED ACROSS BOTH LEGS OF MD 542 (LOCH RAVEN BLVD) AND AND BOTH LEGS OF TAYLOR AVENUE.

2. MD 542 (LOCH RAVEN BLVD) AND PUTTY HILL AVENUE

   THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE,FULL-TRAFFIC ACTUATED MODE WITH THE MD 542 (LOCH RAVEN BLVD) APPROACHES OPERATING CONCURRENTLY AND THE PUTTY HILL AVE. APPROACHES OPERATING CONCURRENTLY.

   EXCLUSIVE/PERMISSIVE LEFT-TURN PHASES ARE PROVIDED FOR THE MD 542 (LOCH RAVEN BLVD) APPROACHES.

   LEADING PEDESTRIAN PHASES ARE PROVIDED ACROSS BOTH LEGS OF MD 542 (LOCH RAVEN BLVD). AND BOTH LEGS OF PUTTY HILL AVENUE.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED AT EACH INTERSECTION.

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. RANDALL SCOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 321-2780

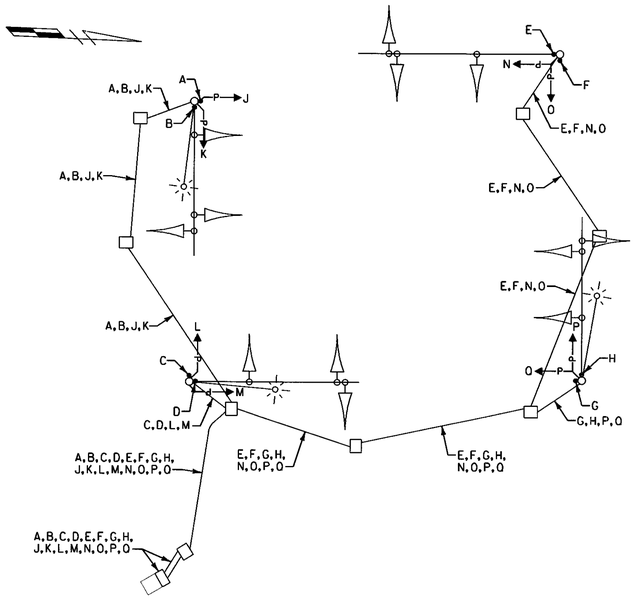
MR. DAVE RAMSEY
ACTING ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 321-2761

MR. JOE McMAHON
ACTING DISTRICT UTILITIES ENGINEER
PHONE: (410) 321-2841

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

WIRING DIAGRAMS

MD 542 (LOCH RAVEN BLVD) AND TAYLOR AVE/GOUCHER BLVD

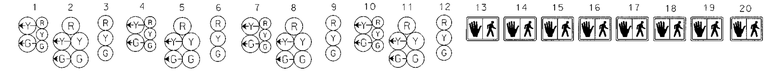


WIRING KEY

A B C D / E F G H — BELDEN #8691 6 PAIR 18 A.W.G. (FOR PEDESTRIAN SIGNAL, BUTTON AND VIBRATING ARROW)

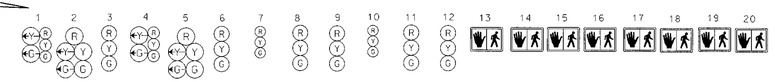
J K L M / N O P O — BELDEN #8760 SHIELDED MICROPHONE CABLE (FOR MICROPHONE)

PHASE CHARTS



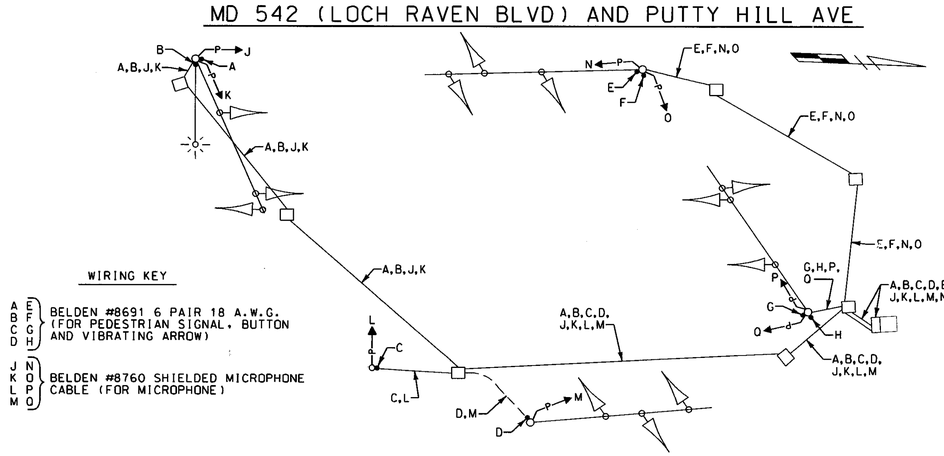
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PHASE 1 + 5	R G	R G	R	R G	R G	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1 + 5 CHANGE	PHASE 1 + 5 MAY CHANGE TO PHASE 1 + 6, PHASE 2 + 5 OR PHASE 2 + 6																			
PHASE 1 + 6	G G	G G	G	R	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW	DW	DW
1 + 6 CHANGE	G Y	G Y	G	R	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW	DW	DW
PHASE 2 + 5	R	R	R	G G	G G	G	R	R	R	R	R	R	WK	DW	DW	WK	DW	DW	DW	DW
2 + 5 CHANGE	R	R	R	G Y	G Y	G	R	R	R	R	R	R	WK	DW	DW	WK	DW	DW	DW	DW
PHASE 2 + 6	G	G	G	G	G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 + 6 ALT	G	G	G	G	G	G	R	R	R	R	R	R	WK	WK	WK	WK	DW	DW	DW	DW
PED CLEARANCE	G	G	G	G	G	G	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
2 + 6 ALT CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 + 7	R	R	R	R	R	R	R G	R G	R	R G	R G	R	DW	DW	DW	DW	DW	DW	DW	DW
3 + 7 CHANGE	PHASE 3 + 7 MAY CHANGE TO PHASE 3 + 8, PHASE 4 + 7 OR PHASE 4 + 8																			
PHASE 3 + 8	R	R	R	R	R	R	R	R	R	G G	G G	G	DW	DW	DW	DW	WK	DW	DW	WK
3 + 8 CHANGE	R	R	R	R	R	R	R	R	R	G Y	G Y	G	DW	DW	DW	DW	WK	DW	DW	WK
PHASE 4 + 7	R	R	R	R	R	R	G G	G G	G	R	R	R	DW	DW	DW	DW	DW	WK	WK	DW
4 + 7 CHANGE	R	R	R	R	R	R	G Y	G Y	G	R	R	R	DW	DW	DW	DW	DW	WK	WK	DW
PHASE 4 + 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4 + 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 + 8 ALT	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEARANCE	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
4 + 8 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

MD 542 (LOCH RAVEN BLVD) AND TAYLOR AVE/GOUCHER BLVD



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PHASE 1 + 5	R G	R G	R	R G	R G	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1 + 5 CHANGE	PHASE 1 + 5 MAY CHANGE TO PHASE 1 + 6, PHASE 2 + 5 OR PHASE 2 + 6																			
PHASE 1 + 6	G G	G G	G	R	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW	DW	DW
1 + 6 CHANGE	G Y	G Y	G	R	R	R	R	R	R	R	R	R	DW	WK	WK	DW	DW	DW	DW	DW
PHASE 2 + 5	R	R	R	G G	G G	G	R	R	R	R	R	R	WK	DW	DW	WK	DW	DW	DW	DW
2 + 5 CHANGE	R	R	R	G Y	G Y	G	R	R	R	R	R	R	WK	DW	DW	WK	DW	DW	DW	DW
PHASE 2 + 6	G	G	G	G	G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 + 6	G	G	G	G	G	G	R	R	R	R	R	R	WK	WK	WK	WK	DW	DW	DW	DW
LEADING PED	G	G	G	G	G	G	R	R	R	R	R	R	WK	WK	WK	WK	DW	DW	DW	DW
PED CLEARANCE	G	G	G	G	G	G	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 + 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4 + 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 + 8 ALT	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	WK	WK	WK	WK
LEADING PED	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEARANCE	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
4 + 8 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

MD 542 (LOCH RAVEN BLVD) AND PUTTY HILL AVE



WIRING KEY

A B C D / E F G H — BELDEN #8691 6 PAIR 18 A.W.G. (FOR PEDESTRIAN SIGNAL, BUTTON AND VIBRATING ARROW)

J K L M / N O P O — BELDEN #8760 SHIELDED MICROPHONE CABLE (FOR MICROPHONE)

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION

NO EQUIPMENT SHALL BE SUPPLIED BY SHA.

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
8048	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT AS PER ASSIGNMENT
NEG.	16 EACH	FURNISH AND INSTALL POLARA NAVIGATOR AUDIBLE PEDESTRIAN SIGNAL WITH BLACK FACE PLATE OPTION
NEG.	16 EACH	FURNISH AND INSTALL MD SPECIAL PEDESTRIAN HEAD CONTROL UNIT CONSTANT POWER MD SPEC
NEG.	2500 L.F.	BELDEN #8691 6 PAIR (NO. 18 A.W.G.) ELECTRICAL CABLE
NEG.	2500 L.F.	BELDEN #8760 SHIELDED MICROPHONE CABLE
NEG.	16 EACH	FURNISH AND INSTALL 16 IN. CLAMSHELL L.E.D. PEDESTRIAN TRAFFIC SIGNAL HEAD SECTION

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

ALL REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

WR&A
Whitman, Requardt and Associates, LLP
801 South Caroline Street
Baltimore, Maryland 21231
(410) 235-3450

MARYLAND DOT - STATE HIGHWAY ADMINIS
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVI
GENERAL INFORMATION SHEET
MD 542 (LOCH RAVEN BLVD)
AT TAYLOR AVE. AND PUTTY HILL

DRAWN BY: S. BLOSS	F.A.P. NO.		TS NO.
CHECKED BY: N. LEARY	S.H.A. NO.	BA7606A5A/BA	
SCALE: NONE	COUNTY:	BALTIMORE	T.I.M.S. NO.
DATE: 6/3/02	LOG MILE:	00.73 - 01.75	E987

M:\20008\md542AudibleSig