PROJECT DESCRIPTION

I. PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 755 (EDGEWOOD ROAD) AND WILLOUGHBY BEACH ROAD IN HARFORD COUNTY. AUDIBLE TACTILE PUSHBUTTON SYSTEMS AND COUNTDOWN PEDESTRIAN SIGNALS WILL BE INSTALLED ON THE NORTH LEG OF MD 755 (EDGEWOOD ROAD) AND THE EAST LEG OF WILLOUGHBY BEACH ROAD. MD 755 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

II. INTERSECTION OPERATION

THE INTERSECTION SHALL OPERATE IN A NEMA (5) FIVE PHASE, FULLY-ACTUATED MODE. THE NORTH AND SOUTH MOVEMENTS ALONG MD 755 (EDGEWOOD ROAD) SHALL OPERATE IN A CONCURRENT PHASE WITH A SOUTHBOUND LEFT-TURN EXCLUSIVE/PERMISSIVE PHASE AND A PUSHBUTTON ACTUATED PEDESTRIAN MOVEMENT ALONG THE WEST LEG OF WILLOUGHBY BEACH ROAD. THE EASTBOUND AND WESTBOUND MOVEMENTS ALONG WILLOUGHBY BEACH ROAD WILL OPERATE CONCURRENTLY WITH A PUSHBUTTON ACTUATED PEDESTRIAN MOVEMENT ALONG THE SOUTH LEG OF EDGEWOOD ROAD.

III. CONTROLLER REQUIREMENTS

INSTALL A NEMA EIGHT-PHASE, FULLY-ACTUATED CONTROLLER HOUSED IN A NEMA TYPE 'S' BASE-MOUNTED CABINET. INSTALL WITH, PHONE DROP, AND ALL NECESSARY EQUIPMENT FOR AN UNDERGROUND FEED (BY POWER COMPANY).

IV. APS OPERATION

FOR MD 755 (EDGEWOOD ROAD)
- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL READ "WAIT TO CROSS EDGEWOOD AT WILLOUGHBY BEACH, WAIT".
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

FOR WILLOUGHBY BEACH ROAD
- A. WHEN A PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL READ "WAIT TO CROSS WILLOUGHBY BEACH AT EDGEWOOD, WAIT".
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

THE CONTRACTOR SHALL CONTACT ED RODENHIZER AT THE SIGNAL SHOP 410-787-7650 TO DELIVER APS EQUIPMENT FOR TESTING.

PROJECT CONTACTS

DISTRICT 4:

MR. DAVID PEAKE
DISTRICT ENGINEER
410-229-2310

MS. ERIN KHUN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
410-229-2381

MR. MICHAEL PASQUARIELLO
ASSISTANT DISTRICT ENGINEER - UTILITIES
410-229-2341

MR. DONALD SCHAEFER
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
410-229-2421

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

OFFICE OF TRAFFIC AND SAFETY:

MS. CORREN JOHNSON
DIVISION CHIEF, TRAFFIC OPERATIONS
410-787-7630

VACANT
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

MS. MIKE STORKER
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7668

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PHASE 2 AND 5	R	R	G	G	G	R	R	R	R	R	R	WK	WK	DW	DW
5 CHANGE	R	R	Y	Y	G	R	R	R	R	R	R	WK	WK	DW	DW
PHASE 2 AND 6	G	G	G	G	G	R	R	R	R	R	R	WK	WK	DW	DW
PED CLEARANCE	G	G	G	G	G	R	R	R	R	R	R	FL/DW	FL/DW	DW	DW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 4 AND 8	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW
4 AND 8 CHANGE	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4 AND 8 ALT	R	R	R	R	R	G	G	G	G	G	G	DW	DW	WK	WK
PED CLEARANCE	R	R	R	R	R	G	G	G	G	G	G	DW	DW	FL/DW	FL/DW
4 AND 8 ALT CHANGE	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA.

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
900000	1 EA	FURNISH CONTROLLER CABINET, SIZE 'S' W/ CONTROL INTERFACE, VIDEO INTERFACE (1-8 CAMERAS)
973023	8 SF	FURNISH OVERHEAD SIGNS 1 - R3-5L (30"X36")

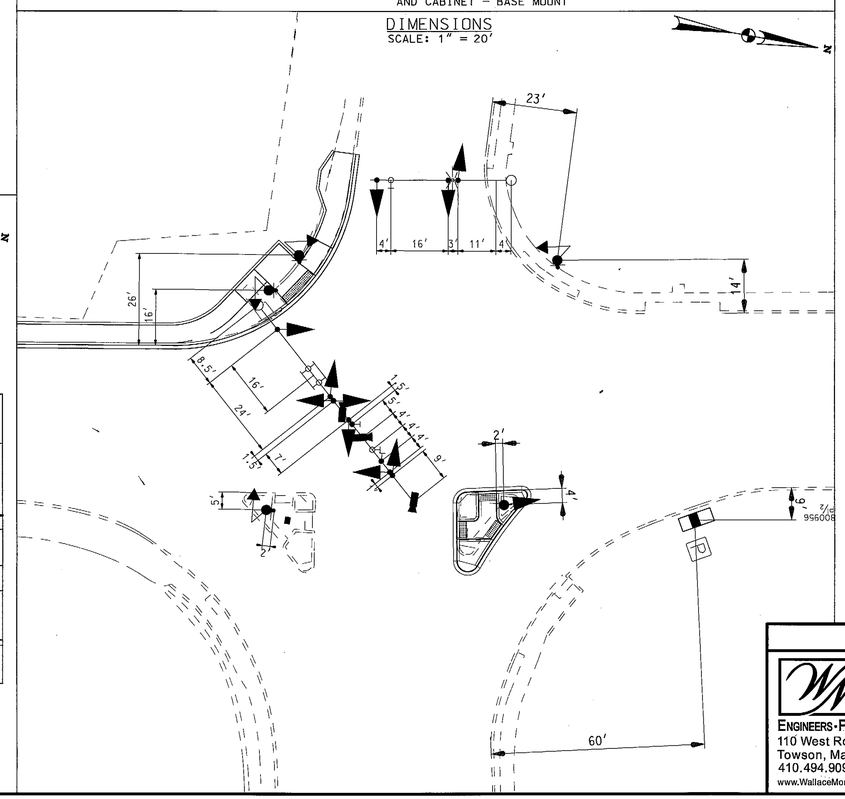
EQUIPMENT LIST "B"

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

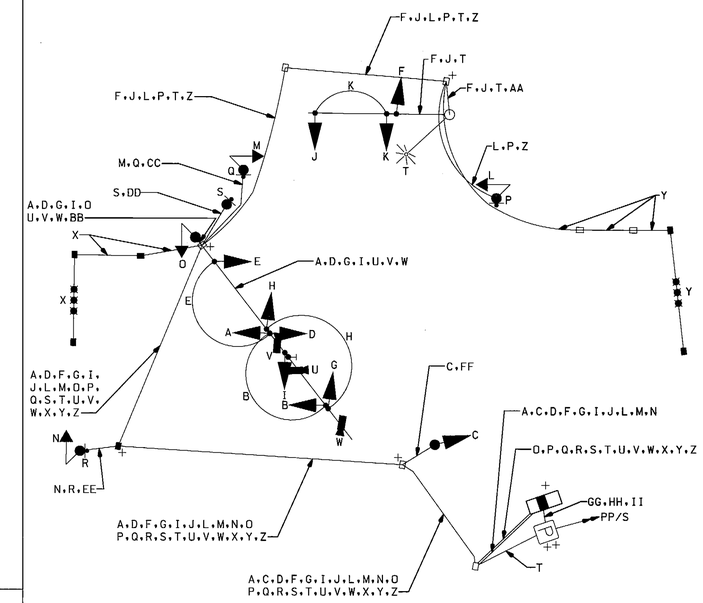
CATEGORY CODE NO.	SPECIFICATION NUMBER	QUANTITY	DESCRIPTION
114280	104	170 LF	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS, ANY WIDTH
203030	205	2 CY	TEST PIT EXCAVATION
585621	549.556	140 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
585625	549.556	30 LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
800000	800	1 LS	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
800000	814	4 EA	16 INCH LED PEDESTRIAN COUNTDOWN SIGNAL HEAD
800000	817	4 EA	AUDIBLE TACTILE PEDESTRIAN PUSH BUTTON & SIGN ASSEMBLY
800000	816	1 EA	2 WIRE CENTRAL CONTROL UNIT (FOR APS BUTTON)
800000	800	3 EA	IP BASED VIDEO DETECTION CAMERA AND CABLES
801004	812	32 LF	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
801106	801	3 CY	CONCRETE FOR SIGNAL FOUNDATION
801605	813	44 SF	SHEET ALUMINUM SIGN
802501	804	435 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805115	805	240 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
805118	805	160 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUTI - BORED
805125	805	110 LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805135	805	350 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805140	805	115 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
807500	807	1 EA	100 AMP METERED SERVICE PEDESTAL
810605	800	2 EA	NONINVASIVE DETECTOR, 1000 FOOT LEAD IN CABLE
811001	811	6 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813015	813	8 SF	INSTALL OVERHEAD SIGN
818004	818.821	3 EA	10 FOOT BREAKAWAY PEDESTAL POLE
818010	818.821	2 EA	14 FOOT BREAKAWAY PEDESTAL POLE
837001	804	7 EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
860284	814	37 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861105	810	1000 LF	ELECTRICAL CABLE- 2 CONDUCTOR (NO. 14 AWG)
861107	810	2140 LF	ELECTRICAL CABLE- 5 CONDUCTOR (NO. 14 AWG)
861108	810	1930 LF	ELECTRICAL CABLE- 7 CONDUCTOR (NO. 14 AWG)
861116	810	330 LF	ELECTRICAL CABLE- 2 CONDUCTOR (NO. 12 AWG) T/C
871117	816	1 EA	INSTALL EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT

DIMENSIONS

SCALE: 1" = 20'



WIRING DIAGRAM



WIRING LEGEND

A,C,D,F,G,I,J	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	U,V,W	VIDEO DETECTION CABLE
B,E,H,K,L,M,N,O	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	X,Y	MICRO-LOOP PROBE
P,Q,R,S	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)	Z,AA,BB,CC, DD,EE,FF	BARE COPPER GROUND WIRE (NO. 6 AWG)
T	2-CONDUCTOR ELECTRICAL WIRE (NO. 12 AWG) T/C	PP/S	PROPOSED POWER SERVICE
		+	GROUND ROD
		GG,HH,II	1-CONDUCTOR ELECTRICAL CABLE (NO. 8 AWG) THHN/THWN

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 755 (EDGEWOOD RD) AT WILLOUGHBY BEACH ROAD

EDGEWOOD, MD

REVISION E CONSULTANT

WALLACE MONTGOMERY
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A Limited Liability Partnership

GENERAL INFORMATION

SCALE AS SHOWN DATE 09-06-2013 CONTRACT NO. HA2145184

DESIGNED BY DMJ
DRAWN BY DMJ
CHECKED BY JLR
F.A.P. NO.

COUNTY HARFORD
LOGMILE 12075500.55
T.I.M.S. NO. I.808
TOD NO.

TS NO. 1732E DRAWING NO. SG-02 OF 02 SHEET NO. 68 OF 94

PLOTTED: Wednesday, September 25, 2013 AT 07:48 AM
FILE: M:\PROJ\3070104.4\Traffic_Cadd_\pSG-N000_MD755.dgn