

PROJECT DESCRIPTION

THIS PORTION OF THE PROJECT INVOLVES THE INSTALLATION OF COUNTDOWN PEDESTRIAN SIGNALS AND ACCESSIBLE PEDESTRIAN SIGNALS FOR ALL LEGS AT THE INTERSECTION OF MD 650 (NEW HAMPSHIRE AVENUE) AT HOLTON LANE IN MONTGOMERY COUNTY. AS PART OF THE MODIFICATION, SELECTED SIDEWALK AND RAMP IMPROVEMENTS ARE INCLUDED TO MEET CURRENT ADA REQUIREMENTS.

MD 650 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA FIVE-PHASE, FULLY ACTUATED MODE WITH EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING FOR SB MD 650. THE EXISTING PEDESTRIAN PHASES ACROSS THE SOUTH AND EAST LEGS WILL BE REPLACED WITH APS. NEW PEDESTRIAN PHASES ARE PROPOSED TO CROSS THE NORTH AND WEST LEGS.

CONTROLLER REQUIREMENTS

THE EXISTING POLE-MOUNTED CABINET SHALL REMAIN.

APS WILL FUNCTION AS FOLLOWS:

TO CROSS MD 650 (NEW HAMPSHIRE AVENUE)

- A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS NEW HAMPSHIRE AT HOLTON, WAIT."
- B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

TO CROSS HOLTON LANE

- A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS HOLTON AT NEW HAMPSHIRE, WAIT."
- B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

PHONE DROP

THE EXISTING PHONE DROP WILL REMAIN.

LENHART TRAFFIC CONSULTING, INC.

645 BALTIMORE ANNAPOLIS BOULEVARD, SUITE 214

SEVERNA PARK, MD 21146 TEL: (410) 216-3333

www.lenharttraffic.com

FAX: (443) 782-2288

THE CONTACT PERSONS FOR DISTRICT #3/00TS ARE AS FOLLOWS: EQUIPMENT LIST 'A'

District #3

Ms. Anyesha Mookherjee Assistant District Engineer - Traffic Phone: 301-513-7404

Mr. John Nesbitt District Utility Engineer Phone: 301-513-7350

Mr. Tom Fountain Assistant District Engineer - Maintenance Phone: 301-513-7304

Phone: 301-513-7304

Mr. Victor Grafton
Assistant District Engineer - Construction
Phone: 301-513-7385

Office of Traffic & Safety

Ms. Corren Johnson
Chief, Traffic Operations Division
Phone: 410-787-7630

Ms. Kelly Caldwell-Harper
Assistant Division Chief, Traffic Operations Division
Phone: 410-787-7625

Mr. Edward Rodenhizer Chief, SHA Traffic Signal Shop Phone: 410-787-7650 Mr. Eugene Bailey Chief, SHA Sign Operation Phone: 410-787-7670

The Power Company Representative is: PEPCO 8300 Old Marlboro Pike Upper Marlboro, MD 20442 Phone: 301-961-5325

City of Tacoma Park Ms. Daryl Braithwaite Phone: 301-891-7615

WMATA
Mr. Jamie Cepler
Phone: 202-962-6085

Montgomery RIDE ON
Ms. Stacey Coletta

Phone: 240-777-5836

EQUIPMENT LIST 'B'

NONE

APPROVED SHA EQUIPMENT TO BE FURNISHED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

QUANTITY	DESCRIPTION
ILS	MAINTENANCE OF TRAFFIC
6 CY	CLASS 2 EXCAVATION
4 CY	TEST PIT EXCAVATION
500 LF	12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
105 LF	24 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
200 LF	REMOVAL OF EXISTING PAVEMENT MARKING LINES - ANY WIDTH
70 LF	STANDARD TYPE A CURB 8 INCH X 16 INCH
180 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
1400 SF	5 INCH CONCRETE SIDEWALK
80 SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
105 SF	FURNISH AND INSTALL SHEET ALUMINUM SIGNS - MAST ARM/GROUND MOUNT
	2 EA - D-3(I) (VAR×16") DUAL FACED "NEW HAMPSHIRE AVE"
	1 LS 6 CY 4 CY 500 LF 105 LF 200 LF 70 LF 180 LF 1400 SF 80 SF

IEA - MI-5(6) SHIELD ASSEMBLY (48"×72")
"NORTH, MD 650, LEFT ARROW"

I EA - MI-5(6) SHIELD ASSEMBLY (48"x72")
"SOUTH, MD 650, LEFT ARROW"

I EA - MI-5(6) SHIELD ASSEMBLY (30"×48") "NORTH, MD 650, RIGHT ARROW"

"NORTH, MD 650, RIGHT ARROW"

I EA - R4-7 (24"×30") "KEEP RIGHT"

I EA - MI-5(6) SHIELD ASSEMBLY (30"×48")

EQUIPMENT LIST 'B' (CONT'D)

CAT CODE	QUANTITY	DESCRIPTION
801004	2 CY	CONCRETE FOR SIGNAL FOUNDATION
801104	I5 LF	WOOD SIGN SUPPORTS, 4 INCH X 4 INCH
802146	3 EA	ADJUST HANDHOLE TO GRADE AND REPLACE FRAME AND COVER
802501	450 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805125	100 LF	2 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHE
805140	30 LF	4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHE
805155	225 LF	4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - SLOTTED
811001	4 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
816010	3 EA	CONTROL CABLE, 500 FOOT, CAMERA TO CONTROLLER
818004	8 EA	10 FOOT BREAKAWAY PEDESTAL POLE
822500	I EA	AS-BUILT FOR TRAFFIC SIGNAL
837001	6 EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
860285	8 EA	16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
861105	1450 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	1500 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG)
861108	1000 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
865210	8 EA	AUDIBLE/TACTILE PEDESTRIAN PUSH BUTTON STATION AND SIGN
865300	IEA	2 WIRE APS CENTRAL CONTROL UNIT
873002	ILS	REMOVE AND DISPOSE OF EXISTING SIGNAL EQUIPMENT

EQUIPMENT LIST 'C'

NONE

PHASE CHART

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PHASE 2 + 5	R	R	G/6	G G G G G	G	R	R	R	R	R	R	W	DW	DW	W	DW	DW	DW	DW	• _	
PHASE 5 CHANGE	R	R	G/X	G/+	G	R	R	R	R	R	R	W	DW	DW	W	DW	DW	DW	DW	Η	√ ⊤
PHASE 2 + 6	G	G	G	G	G	R	R	R	R	R	R	W	W	W	W	DW	DW	DW	DW	• —	
PEDESTRIAN CLEARANCE	G	G	G	G	G	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW		\
PHASE 2 + 6 CHANGE	Y	Y	Υ	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW	٥ <u> </u>	
PHASE 4 + 8	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW		Ŷ
PHASE 4 + 8 CHANGE	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW	H ∜	
PHASE 4 + 8 ALT	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	W	W	W	W	9	
PED CLEARANCE	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW]	Ą
PHASE 4 + 8 ALT CHANGE	R	R	R	R	R	Y	Y	Y	Υ	Y	Υ	DW	DW	DW	DW	DW	DW	DW	DW	H	
FLASHING OPERATION	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	+	→ ↑ - ↓

WIRING DIAGRAM

PEPCO
81H12-388

BKR EPO
PEPCO
903H19-430880

PEPCO
903H19-430880

CDEFGLIMN
OPSTJJVWX

FGOPR

STJJVWX

FGOPR

STJJVWX

FGORDER

TOTAL

TOTA

WIRING LEGEND

-ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)

-ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG)

R NO. 6 AWG STRANDED BARE COPPER GROUND WIRE

-CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER

ELECTRICAL CABLE - 7 CONDUCTOR (NO.14 AWG)

Y -USE EXISTING WIRING

-EXISTING GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH

+-PROPOSED GROUND ROD - 3/4 INCH DIAMETER X IO FOOT LENGTH

EXISTING VIDEO DETECTION CAMERA

EPS -EXISTING POWER SOURCE

EPD -EXISTING PHONE DROP

NOTE:

THESE PLANS ARE APPROVED FOR CONSTRUCTION FOR A PERIOD OF ONE (I) YEAR. SHOULD CONSTRUCTION NOT BEGIN WITHIN THIS TIME FRAME, THESE PLANS SHALL BE NULL AND VOID WITH A RE-REVIEW REQUIRED FROM THE TRAFFIC ENGINEERING DESIGN DIVISION.

AMD PERMIT NO. I5APM039XX

Sm (3) 3.25.16 HOLTON LANE
(LANGLEY PARK, MARYLAND)

GENERAL INFORMATION-01

SHEET NO. 02 OF 03

 SCALE
 NTS
 DATE
 MARCH 2016
 CONTRACT NO.
 BW966M82

 DESIGNED BY
 LTC/BAB
 COUNTY
 MONTGOMERY

 DRAWN BY
 LTC/BAB
 LOGMILE
 15065000.83

 CHECKED BY
 LTC/BAB
 TIMS NO.
 N423

 F.A.P. NO.
 TOD NO.
 NO.

DRAWING SG-02 OF

TS NO.TS-3390B

STATE OF MARYLAND

DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY

TRAFFIC ENGINEERING DESIGN DIVISION

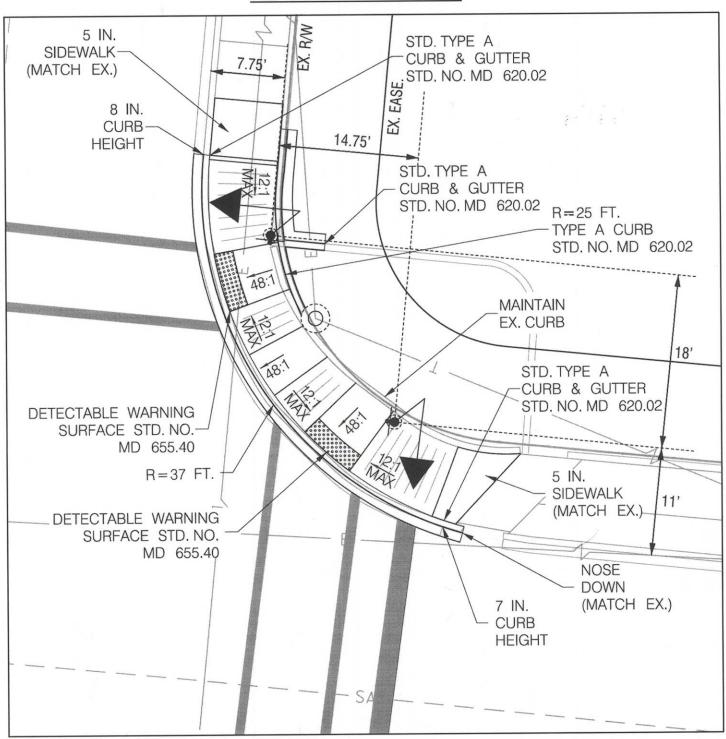
MD 650 (NEW HAMPSHIRE AVENUE) AT

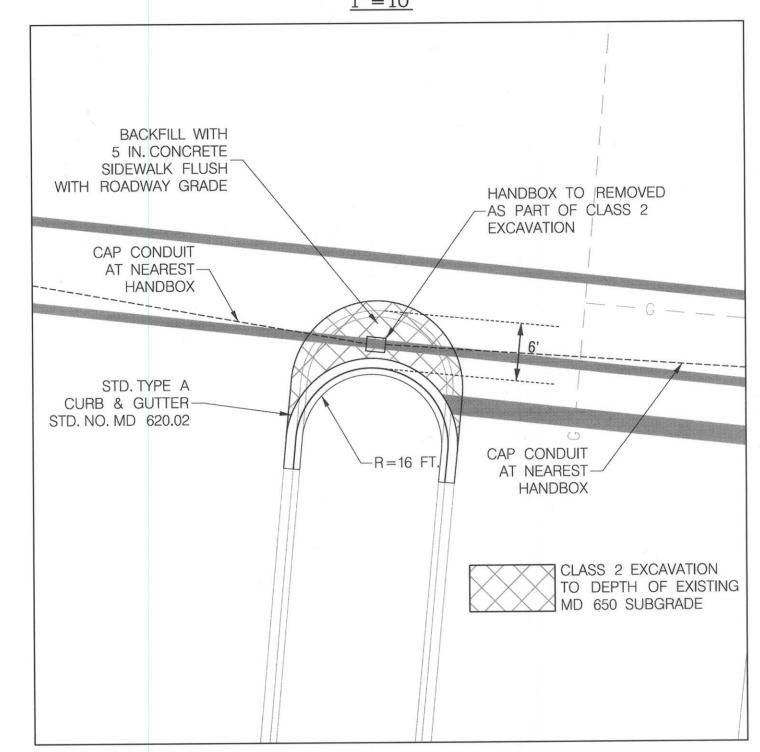
PLOTTED: Friday, March 25, 2016 AT 07:48 AM

ADA SIDEWALK RAMP AND TRAFFIC SIGNAL DETAIL NW CORNER - 1"=10"

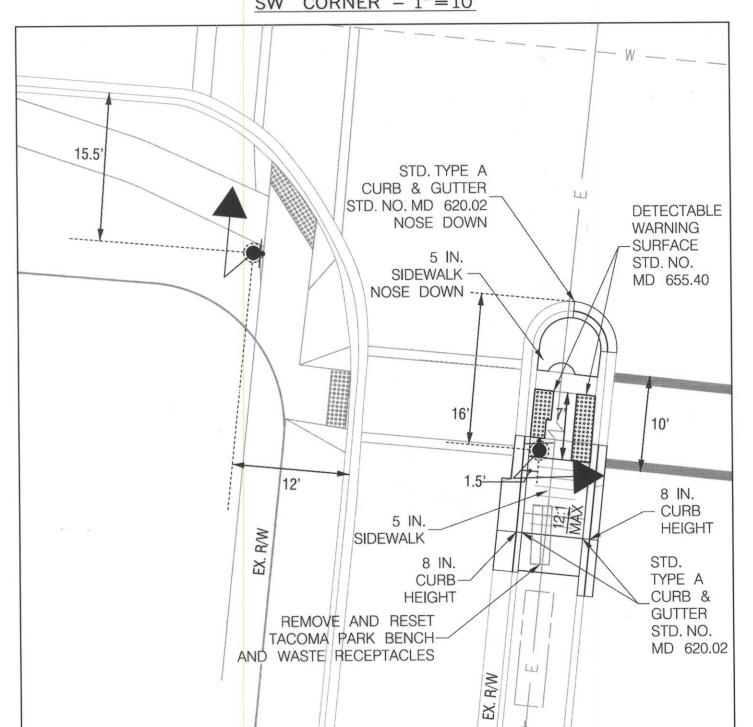
8 IN. -CURB HEIGHT RECONSTRUCT EXISTING 8 FT.-SIDEFLARE CONSTRUCT REMOVE 2 FT. SIDEFLARE EXISTING 6 FT. SIDEFLARE/ STD. TYPE A CURB = - CURB & GUTTER HEIGHT STD. NO. MD 620.02 - - SAN - - -

ADA SIDEWALK RAMP AND TRAFFIC SIGNAL DETAIL NE CORNER - 1"=10"

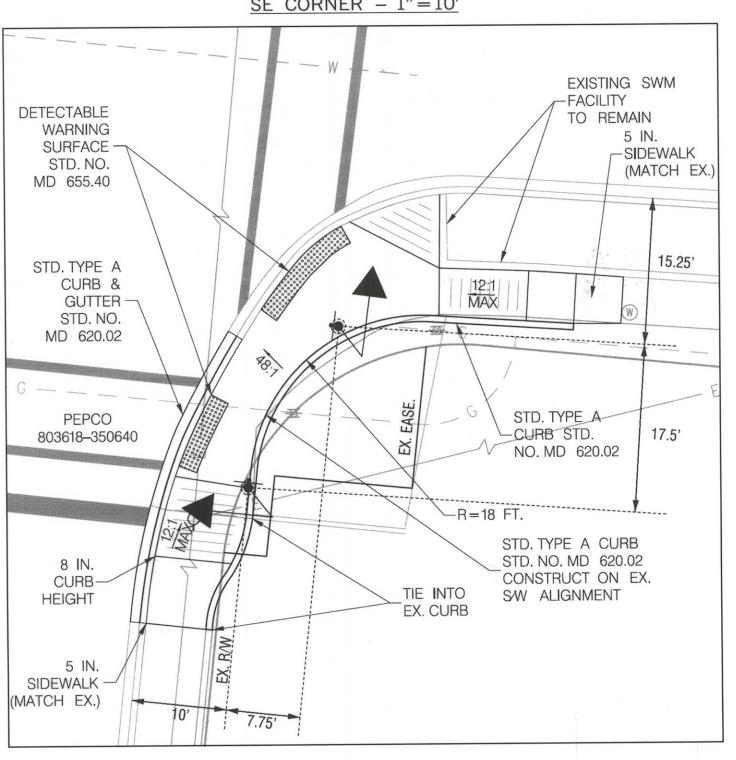




ADA SIDEWALK RAMP AND TRAFFIC SIGNAL DETAIL SW CORNER - 1"=10"



DA SIDEWALK RAMP AND
TRAFFIC SIGNAL DETAIL



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AMD PERMIT NO. ______ I5APM0039XX

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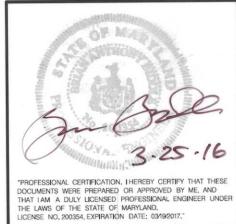
TS NO.TS-3390B

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 650 (NEW HAMPSHIRE AVENUE) AT

HOLTON LANE (LANGLEY PARK, MARYLAND)



GENERAL INFORMATION-02

 SCALE
 NTS
 DATE
 MARCH 2016
 CONTRACT NO.
 BW966M82

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 LTC/BAB
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 MONTGOMERY

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