BWRR
BALTIMORE-WASHINGTON RAPID RAIL

Exhibit S

MDE Tidal Submission Package

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Baltimore Office
6 South Gay Street
Baltimore, MD 21202
(443) 759-8360

Washington Office
1212 New York Ave NW Suite 700
Washington, DC 20005
(202) 499-7933

March 11, 2021

Mr. Matt Wallach
Maryland Department of the Environment
Water Management Administration
Regulatory Services Coordination Office
1800 Washington Boulevard, Suite 430
Baltimore, Maryland 21230-1708

RE: Tidal Wetlands Application: 20-WL-1574
Tracking: 202061983
AI: 170244

Dear Mr. Wallach:

In response to your February 8, 2021 letter, BWRR is providing the additional information that was requested in order to complete our application and put the project on public notice. This submittal includes portions of the overall Project application relevant to Tidal Wetlands Division.

Attached please find the Comment Response document and the following excerpts relevant to Tidal Wetland Authorization exhibits (extracted from the Complete JPA Exhibits):

- TW-Exhibit A **(Updated** Impact plates and tables**)**
- TW-Exhibit L **(**Plan and Profile drawings**)**

If you have any questions or comments on this application or require any additional information, please contact Kris Frederes, BWRR Project Manager, at 443-759-8360 or via email at KFrederes@bwrapidrail.com. We thank you for your prompt attention to this request.

Kind regards,

Furqan Siddiqi
Executive Vice President

Encl.

cc: Branden Bracher, FRA
Pam McNicholas, WSP
Larry Pesesky, WSP
Joseph.DaVia
Matthew Hynson
Matthew Wallach
Joshua Tiralla
Tammy Roberson
William Seiger
Phatta Thapa
Angel Valdez
Gwendolyn Gibson
Heather Nelson -MDE
Dixie Henry -MDP
Amanda Sigillito

SCMAGLEV- Draft MDE Tidal Comment Responses (As of 3/2/2021)				
#	Agency	Comment	Official Comment Response	WSP Comment Status
MDE Tidal Wetlands Division Comment				
1	MDE TWD	Since the Tidal Wetlands License will be a separate license and include only the tidal crossings, please provide a plan set that will be used solely for the Tidal Wetlands Authorization. After a cursory review of the Exhibits, the Sheets that may be included, but are not limited to, are: Exhibit A: 2, 3, 5, 44, 47, 48, 49, 50, 51, 52, 60; and Exhibit L: 8, 9, 38, 41, 51, 53, 81, 82, 94	A separate plan set to be used for the Tidal Wetland Authorization is submitted with this response to comments. This plan set includes the relevant sheets from Exhibits A and L.	
2	MDE TWD	Cross Sections (Exhibit A, p.51, 51, 60): Please change measurements from meters to feet.	Feet measurements have been added in parentheses next to the metric dimensions. The metric measurements have been maintained to facilitate correlation with other project documents that are also using the metric system.	
3	MDE TWD	Exhibit A, p. 51 and Exhibit L, p. 9: These cross sections do not clearly show both tidal crossings through the Anacostia and Quincy Run. Please revise this cross section so this is clear.	The cross-section (tunnel profile) under Anacostia has been revised and extended to include Quincy Run.	
4	MDE TWD	Exhibit L, p. 41. The LOD extends over State Tidal Wetlands. If there are no tidal impacts in this area, please revise the LOD so it does not extend over State Tidal Wetlands.	The DEIS plans will be revised at FEIS to clarify the LOD doesn't overlap with the State Tidal Wetland in this area. The LOD shown on the wetland impact plates is correct.	
5	MDE TWD	Geotechnical Borings. There are currently no proposed borings in State Tidal Wetlands. If there is a potential need for any soil samples, please include these on the plan set.	Additional borings will be required at later stages of the project development. If geotechnical borings will be required in the State Tidal wetlands, this information will be submitted in a revised JPA at a later date.	

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Exhibit A – Impact Plates for Tidal Authorization

NOTES:

1. IMPACT PLATES ARE PROVIDED ONLY IN LOCATIONS WHERE IMPACTS ARE PRESENT.
2. THE WETLAND AND WATERS DELINEATION TOOK PLACE IN 2018, WITH ADDITIONAL AREAS DELINEATED IN 2020.
3. SOURCE OF MARYLAND AERIAL MAPPING: MARYLAND'S MAPPING & GIS DATA PORTAL MD iMAP 2017.
4. WETLANDS EXTENDING OUTSIDE THE STUDY AREA ARE DELINEATED BASED ON VISUAL ASSESSMENT AND READILY AVAILABLE PUBLISHED DATA.
5. STATE TIDAL WETLANDS ARE ALL WETLANDS LOCATED CHANNELWARD OF MEAN HIGH WATER (MHW). PRIVATE TIDAL WETLANDS ARE VEGETATED AREAS LOCATED LANDWARD OF MHW BUT STILL SUBJECT TO REGULAR OR PERIODIC TIDAL INFLUENCE, AND ARE LOCATED WITHIN THE HIGHEST ASTRONOMICAL TIDE (HAT) BOUNDARY. NO PRIVATE TIDAL WETLANDS ARE PRESENT ON THE IMPACT PLATES.
6. REFER TO WETLAND LOCATION MAPS FOR THE TYPE OF RESOURCE DELINEATION PERFORMED ON THIS PROJECT (FULL FIELD DELINEATION, PARTIAL FIELD DELINEATION OR DESKTOP EXTENSION).
7. WETLAND ABBREVIATIONS USED ON THESE PLATES:
   PFO = PALUSTRINE FORESTED
   PEM = PALUSTRINE EMERGENT
   PUB = PALUSTRINE UNCONSOLIDATED BOTTOM

DRAFT
3/10/2021

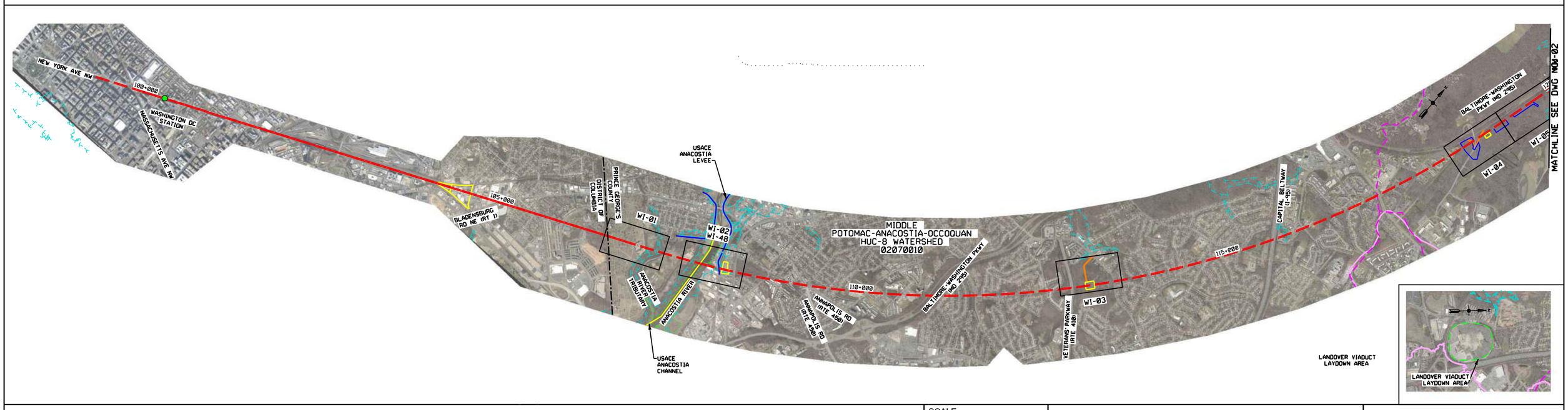
INDEX OF SHEETS

KEY MAP LEGEND

- EDGE OF ELEVATED STRUCTURE
- EDGE OF DEEP TUNNEL
- PRELIMINARY FACILITY LOD
- COUNTY BOUNDARY
- STORMWATER MANAGEMENT FACILITY
- FEDERAL HUC 8-DIGIT WATERSHED
- TIER II WATERSHED
- MEAN HIGH WATER (MHW) *
- STATION LOCATION
- 100-YR FEMA FLOODPLAIN

SOURCE FOR MEAN HIGH WATER AND HIGHEST ASTRONOMICAL TIDE BOUNDARY :

* https://www.ngs.noaa.gov



SCALE:

METERS 0 500 1000

FEET 0 500 2500

REVISION 1 MAR 11, 2021

BALTIMORE-WASHINGTON SCMAGLEV
WETLAND AND WATERWAY
IMPACT PLATES

IMPACT PLATES KEY MAP AND LEGEND KM-01

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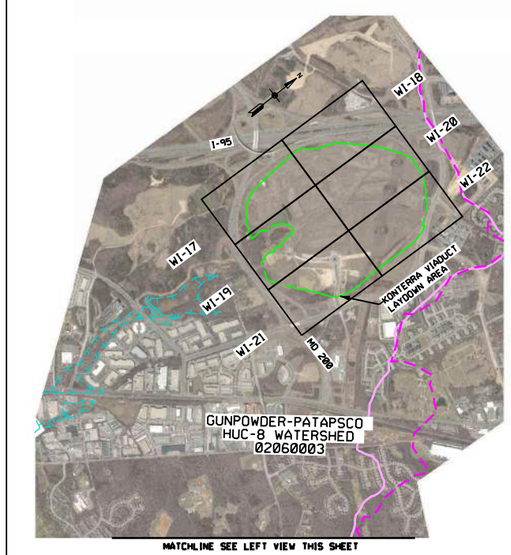

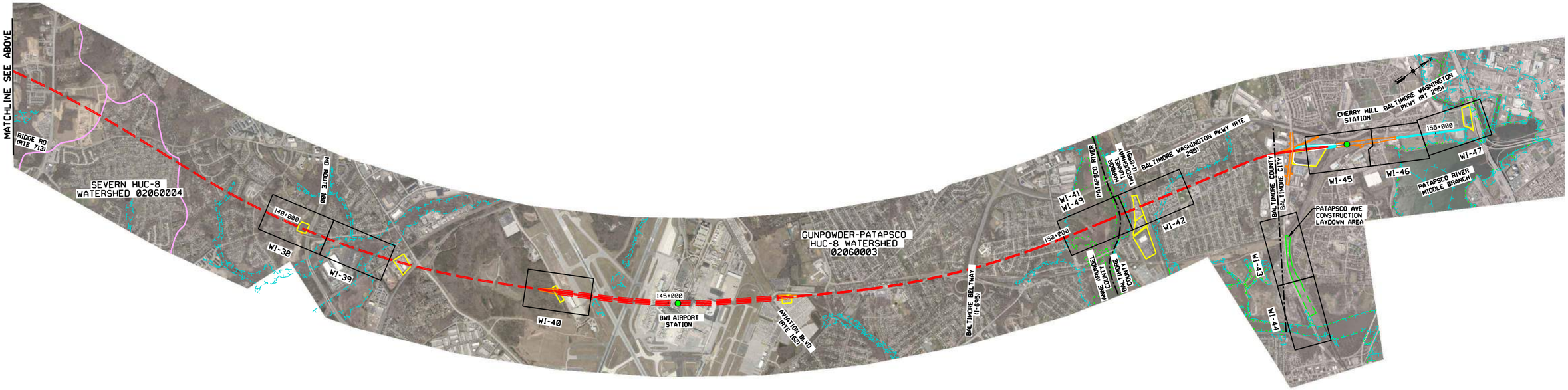

SCALE:

METERS 0 500 1000

FEET 0 500 2500

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BALTIMORE-WASHINGTON SCMAGLEV WETLAND AND WATERWAY IMPACT PLATES

IMPACT PLATES KEY MAP KM-02

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LEGEND

- WUS — WATER OF THE US
- WETLAND
- B — 25' WETLAND BUFFER
- B — 100' NTWSSC BUFFER
- STUDY AREA
- FEDERAL HUC 8-DIGIT WATERSHED
- TIER II WATERSHED
- HIGH ASTRONOMICAL TIDE (HAT)
- MEAN HIGH WATER (MHW)
- DIRECTION OF FLOW
- 100-YR FEMA FLOODPLAIN
- PERMANENT WETLAND IMPACT
- PERMANENT NTWSSC IMPACT
- PERMANENT WETLAND BUFFER IMPACT
- PERMANENT WATERWAY IMPACT
- PERMANENT WETLAND HABITAT CONVERSION
- TUNNEL CROSSING UNDER TIDAL WATERS
- TEMPORARY WETLAND IMPACT
- TEMPORARY NTWSSC IMPACT
- TEMPORARY WETLAND BUFFER IMPACT
- TEMPORARY WATERWAY IMPACT
- PROPERTY LINE
- LOD — LIMIT OF DISTURBANCE
- PRELIMINARY ROW TUNNEL PORTAL
- PRELIMINARY CUT-AND-COVER TUNNEL
- 5' CONTOURS
- PIER FOOTING
- PROPOSED OVERHEAD ELECTRIC LINE

SCALE:

METERS 0 20 40

FEET 0 20 100

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BALTIMORE-WASHINGTON SCMAGLEV WETLAND AND WATERWAY IMPACT PLATES

IMPACT PLATE WI-02

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Printed By: USMC082788
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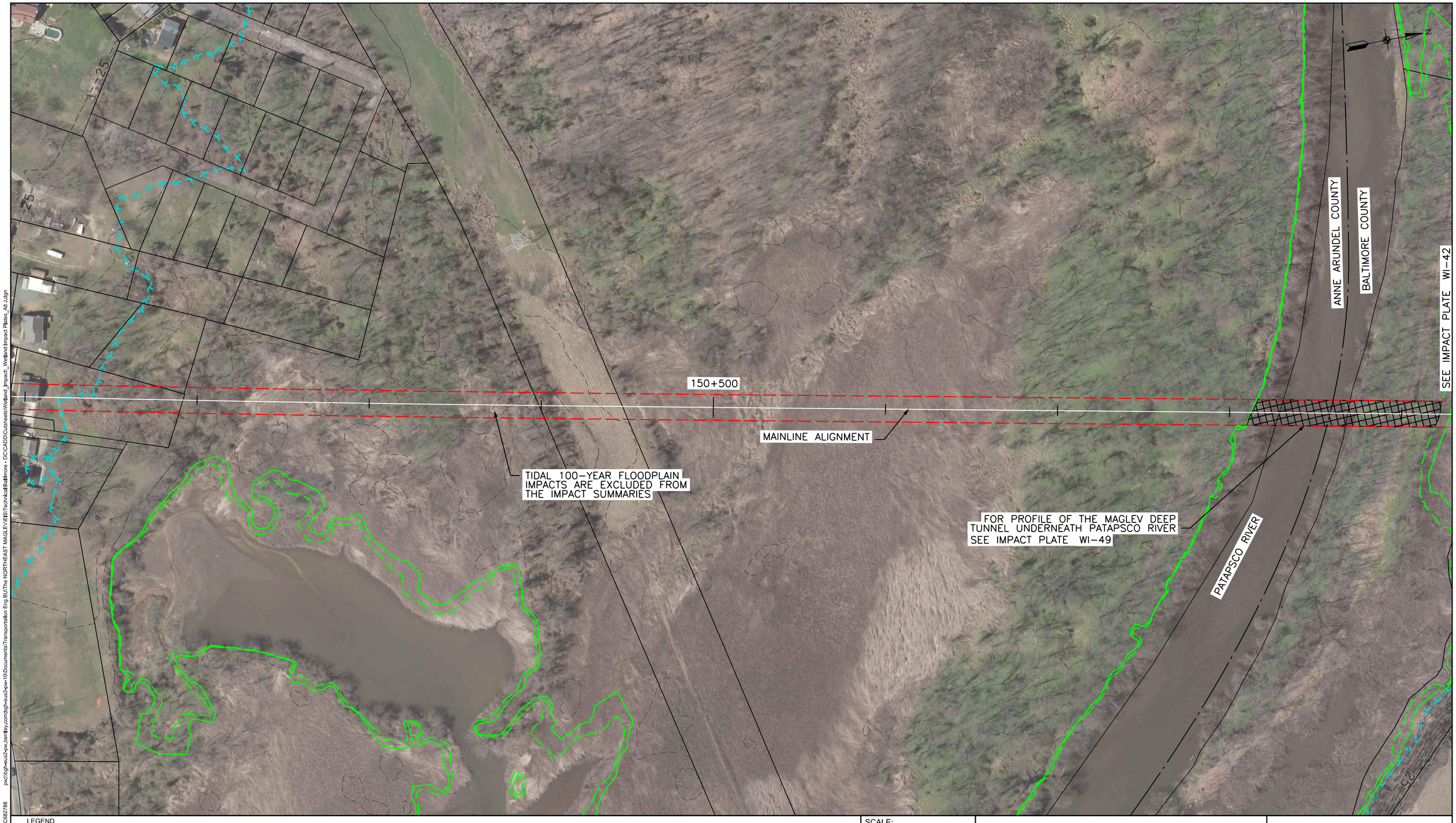
3/9/2021



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SCALE:

METERS 0 20 40

FEET 0 20 100

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BALTIMORE-WASHINGTON SCMAGLEV WETLAND AND WATERWAY IMPACT PLATES

IMPACT PLATE WI-41

BWRR BALTIMORE-WASHINGTON RAPID RAIL

WL097
Intermittent

WP096
PEM

WP098
PEM

TRANSMISSION
LINE CORRIDOR

HARBOR TUNNEL THROUGHWAY
(I-895)

ROAD REALIGNMENT

TEMPORARY LOD FOR
CONSTRUCTION

SEE IMPACT PLATE WI-41

EMERGENCY EGRESS FACILITY

YARNALL RD

SCOTIA RD

WALNUT RD

151+000

151+500

TBM RETRIEVAL SITE

TIDAL 100-YEAR FLOODPLAIN
IMPACTS ARE EXCLUDED FROM
THE IMPACT SUMMARIES

MAINLINE ALIGNMENT

SUBSTATION

ANNAPOLIS RD (RTE 648)

LEGEND

- WUS — WATER OF THE US
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SCALE:

METERS 0 20 40

FEET 0 20 100

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BALTIMORE-WASHINGTON SCMAGLEV WETLAND AND WATERWAY IMPACT PLATES

IMPACT PLATE WI-42

BWRR
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WL509
Perennial

MTA RAIL

CSX RAIL

PATAPSCO AVE

WP503
PEM

WP092B
PEM

WP093
PEM

WL094
Perennial

WP603
PEM

WP095
PFO

WP095B
PFO

WP506
PSS

TRANSMISSION LINE CORRIDOR

CONSTRUCTION LAYDOWN AREA

SEE IMPACT PLATE WI-44

LEGEND

- WUS — WATER OF THE US
- WETLAND
- B — 25' WETLAND BUFFER
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SCALE:
METERS 0 20 40
FEET 0 20 100

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BALTIMORE-WASHINGTON SCMAGLEV WETLAND AND WATERWAY IMPACT PLATES

IMPACT PLATE WI-43

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BALTIMORE-WASHINGTON RAPID RAIL

SEE IMPACT PLATE WI-43

WP504
PEM

CSX RAIL

PATAPSCO AVE

CONSTRUCTION LAYDOWN AREA

WP505
PUB

WP092
PEM

ROAD REALIGNMENT

ROAD REALIGNMENT

PATAPSCO RIVER

I-895

LEGEND

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SCALE:

METERS 0 20 40

FEET 0 20 100

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BALTIMORE-WASHINGTON SCMAGLEV WETLAND AND WATERWAY IMPACT PLATES

IMPACT PLATE WI-44

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BALTIMORE-WASHINGTON PKWY (MD 295)

WP195 PFO

WP195 PEM

WP196 PUB

154+000

153+500

200+000

CHERRY HILL STATION

WL5

WL6

WL7

WL197 Perennial

MAINLINE ALIGNMENT

MTA RAIL

WP194 PEM

CSX RAIL

MOW

WP502 PUB

CHERRY HILL RD

SEE IMPACT PLATE WI-46

WP501 PUB

LEGEND

- WUS — WATER OF THE US
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SCALE:

METERS 0 20 40

FEET 0 20 100

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BALTIMORE-WASHINGTON SCMAGLEV WETLAND AND WATERWAY IMPACT PLATES

IMPACT PLATE WI-45

BWRR BALTIMORE-WASHINGTON RAPID RAIL

MTA LRT

TRAIN STORAGE TRACKS

154+500

MAINLINE ALIGNMENT

SEE IMPACT PLATE WI-45

SEE IMPACT PLATE WI-47

CHERRY HILL RD

GWYNNS FALLS TRAIL

WATERVIEW AVE

WP513
PEM

PATAPSCO RIVER MIDDLE BRANCH

LOD

50

25

LEGEND

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SCALE:

METERS 0 20 40

FEET 0 20 100

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BALTIMORE-WASHINGTON SCMAGLEV WETLAND AND WATERWAY IMPACT PLATES

IMPACT PLATE WI-46

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SEE IMPACT PLATE WI-46

LEGEND

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SCALE:

METERS 0 20 40

FEET 0 20 100

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BALTIMORE-WASHINGTON SCMAGLEV WETLAND AND WATERWAY IMPACT PLATES

IMPACT PLATE WI-47

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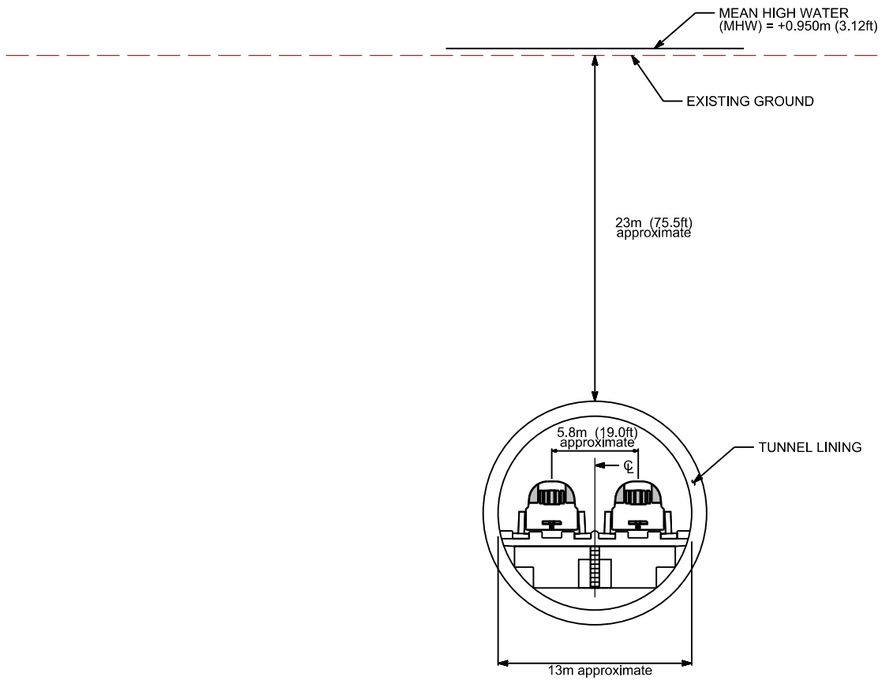
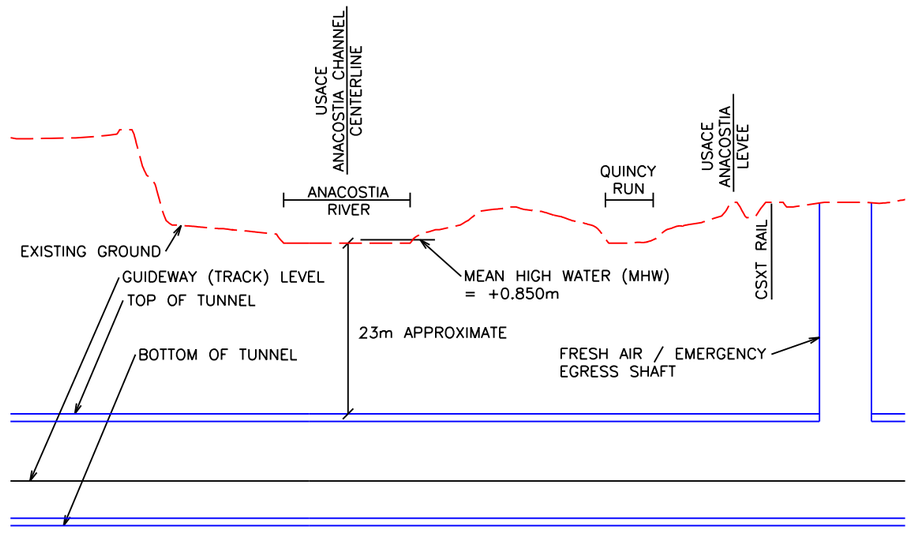
BALTIMORE-WASHINGTON RAPID RAIL



TUNNEL CROSS-SECTION STA. 107+830



TUNNEL PROFILE STA. 107+830

HORIZONTAL AND VERTICAL SCALE:

m: 0 10 20

ft: 0 10 20 50

NOTE:
MEAN LOW WATER
(MLW) = 0.0M

HORIZONTAL SCALE:

METERS: 0 40 80 160

FEET: 0 40 200 400

VERTICAL SCALE:

METERS: 0 10 20 30

FEET: 0 20 40 80

NOTE:
MEAN LOW WATER
(MLW) = 0.0M

NOTE:
TUNNEL WILL BE CONSTRUCTED WITH A TUNNEL BORING MACHINE PASSING UNDER THE RIVER. THEREFORE, THERE WILL BE NO SURFACE IMPACTS.
SEE IMPACT PLATE WI-02
FOR PLAN VIEW.

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BALTIMORE-WASHINGTON SCMAGLEV WETLAND AND WATERWAY IMPACT PLATES

ANACOSTIA RIVER CROSSING WI-48

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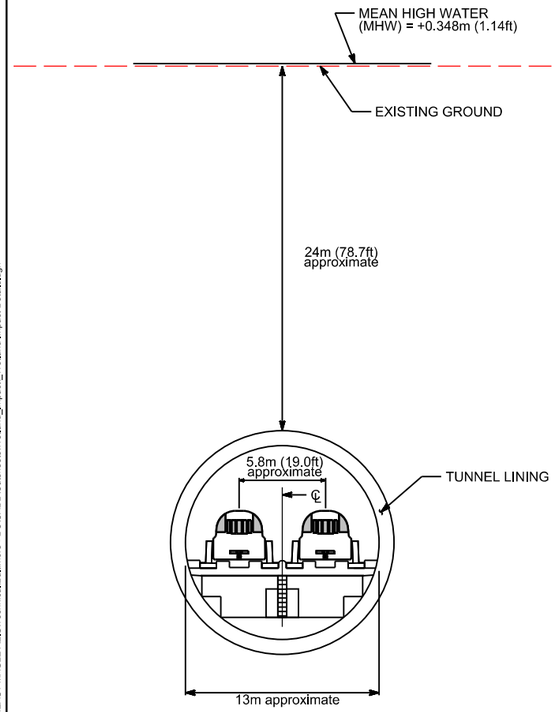
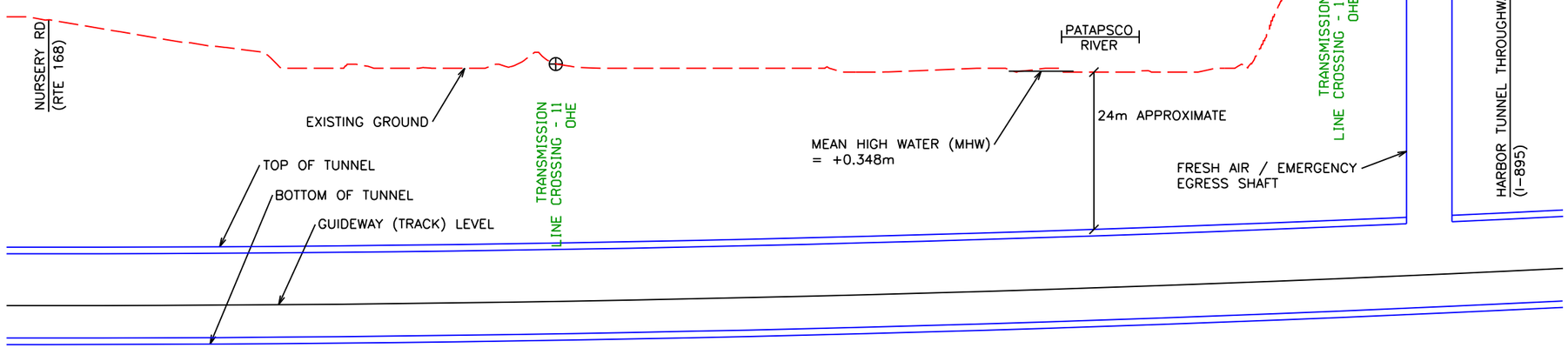


TUNNEL CROSS-SECTION STA. 150+850



TUNNEL PROFILE STA. 150+850

HORIZONTAL AND VERTICAL SCALE:

m 0 10 20

ft 0 10 20 50

NOTE:
MEAN LOW WATER
(MLW) = 0.0M

HORIZONTAL SCALE:

METERS 0 40 80 160

FEET 0 40 200 400

VERTICAL SCALE:

METERS 0 10 20 30

FEET 0 20 40 80

NOTE:
MEAN LOW WATER
(MLW) = 0.0M

NOTE:
TUNNEL WILL BE CONSTRUCTED WITH A TUNNEL BORING MACHINE PASSING UNDER THE RIVER. THEREFORE, THERE WILL BE NO SURFACE IMPACTS.
SEE IMPACT PLATE WI-41
FOR PLAN VIEW.

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BALTIMORE-WASHINGTON SCMAGLEV
WETLAND AND WATERWAY
IMPACT PLATES

PATAPSCO RIVER CROSSING WI-49

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MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) IMPACT TABLES

3/10/21

MDE Tunnel Crossing Underneath Tidal Waters

Alt J								
Tidal Water Crossing	**Federal HUC-8 Watershed**	**Plate #**	**Proposed Design Type**	**Open Water / Unvegetated**			**Vegetated**	
				SF	**LF**	**Channelward Extent from Mean High Water Line (FT)**	**SF**	**LF**
Anacostia River	Middle Potomac-Anacostia-Occoquan	2	Tunnel crossing underneath tidal waters	12,823	57	291	1,125	0
Quincy Run	Middle Potomac-Anacostia-Occoquan	2	Tunnel crossing underneath tidal waters	4,086.00	136	104	0	0
Patapsco River	Gunpowder-Patapsco	41	Tunnel crossing underneath tidal waters	12,744.00	50	358	4,800	0
TOTAL:				**29,653**	**242**	**753**	**5,925**	**-**

NOTE: State tidal wetlands, including waters, are located channelward of the mean high water line (MHWL)
Refer to the Wetland Delineation Location Mapping for Field Delineation vs. Desktop Delineation or Extension

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Exhibit L

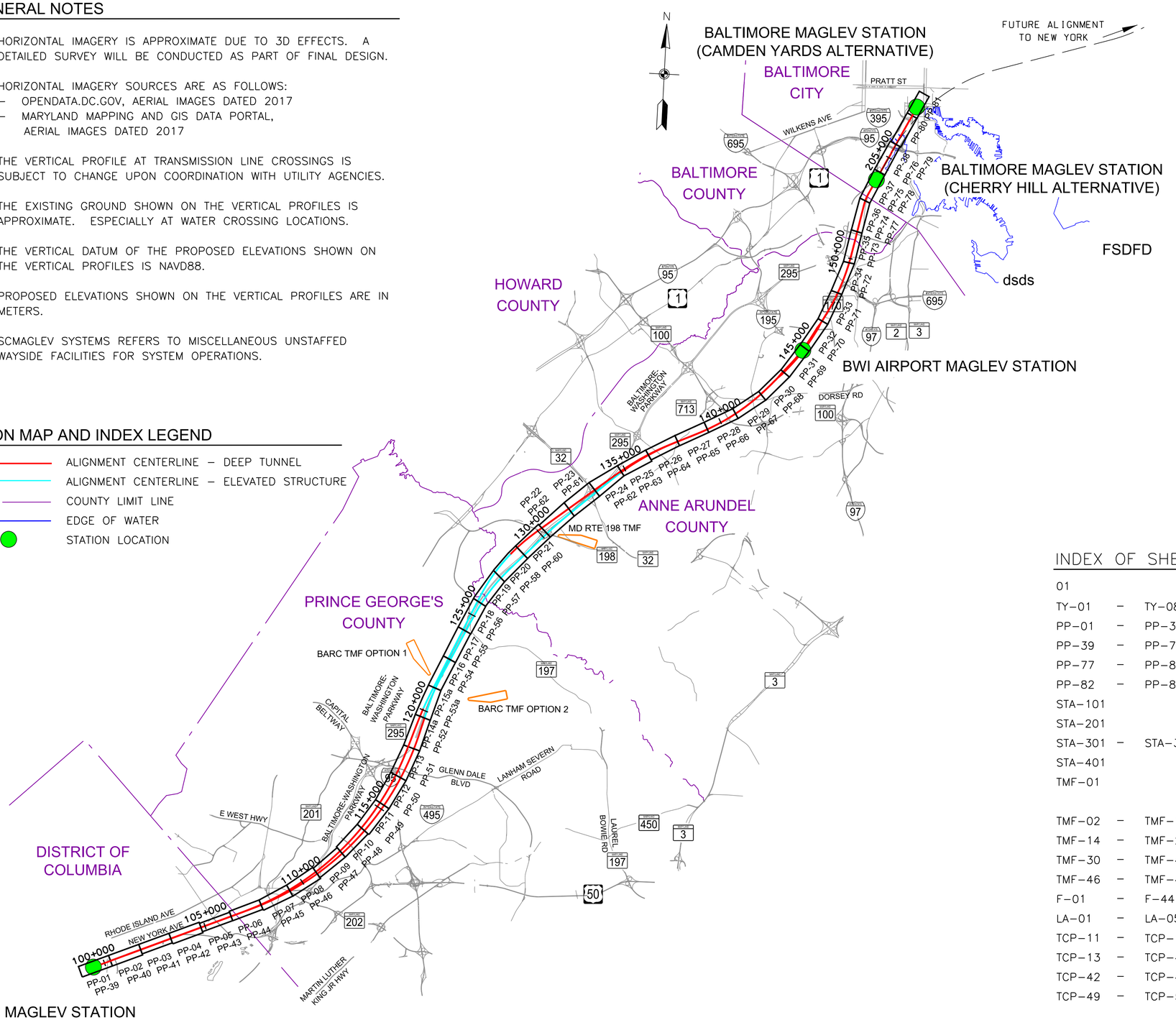
Plan & Profile Drawings for Tidal Authorization

GENERAL NOTES

1. HORIZONTAL IMAGERY IS APPROXIMATE DUE TO 3D EFFECTS. A DETAILED SURVEY WILL BE CONDUCTED AS PART OF FINAL DESIGN.
2. HORIZONTAL IMAGERY SOURCES ARE AS FOLLOWS:
   - OPENDATA.DC.GOV, AERIAL IMAGES DATED 2017
   - MARYLAND MAPPING AND GIS DATA PORTAL, AERIAL IMAGES DATED 2017
3. THE VERTICAL PROFILE AT TRANSMISSION LINE CROSSINGS IS SUBJECT TO CHANGE UPON COORDINATION WITH UTILITY AGENCIES.
4. THE EXISTING GROUND SHOWN ON THE VERTICAL PROFILES IS APPROXIMATE. ESPECIALLY AT WATER CROSSING LOCATIONS.
5. THE VERTICAL DATUM OF THE PROPOSED ELEVATIONS SHOWN ON THE VERTICAL PROFILES IS NAVD88.
6. PROPOSED ELEVATIONS SHOWN ON THE VERTICAL PROFILES ARE IN METERS.
7. SCMAGLEV SYSTEMS REFERS TO MISCELLANEOUS UNSTAFFED WAYSIDE FACILITIES FOR SYSTEM OPERATIONS.

LOCATION MAP AND INDEX LEGEND

- ALIGNMENT CENTERLINE – DEEP TUNNEL
- ALIGNMENT CENTERLINE – ELEVATED STRUCTURE
- COUNTY LIMIT LINE
- EDGE OF WATER
- STATION LOCATION



DC MAGLEV STATION (MOUNT VERNON SQUARE EAST)

NOTE: PP-XX DENOTES DRAWING NUMBER

PLAN LEGEND

- EXISTING ROW LINE
- DEEP TUNNEL OUTSIDE DIAMETER
- ELEVATED STRUCTURE EDGE OF GUIDEWAY
- SCMAGLEV TURNOUTS AND CROSSOVERS
- PIER
- STRADDLE BENT
- PROPOSED RETAINING WALL
- LOW-CLEARANCE VIADUCT SECURITY FENCE
- GEOTECHNICAL BORING LOCATION
- UNDERGROUND PARKING ENTRANCE
- CAVERN WALL/STATION FOOTPRINT
- PRELIMINARY FACILITY FOOTPRINT
- PRELIMINARY ROW ELEVATED STRUCTURE
- PRELIMINARY ROW TUNNEL PORTAL
- PRELIMINARY LOD FOR CUT-AND-COVER TUNNEL
- PRELIMINARY LOD FOR CONSTRUCTION
- PRELIMINARY LOD FOR CONSTRUCTION AT WATER CROSSINGS
- PRELIMINARY OVERHEAD SCMAGLEV POWER SUPPLY
- PRELIMINARY UNDERGROUND SCMAGLEV POWER SUPPLY

PROFILE LEGEND

- EXISTING GROUND ALONG PROPOSED ALIGNMENT
- PROPOSED GUIDEWAY PROFILE
- VERTICAL CURVE HIGH POINT
- VERTICAL CURVE LOW POINT

INDEX OF SHEETS

BWRR BALTIMORE-WASHINGTON RAPID RAIL

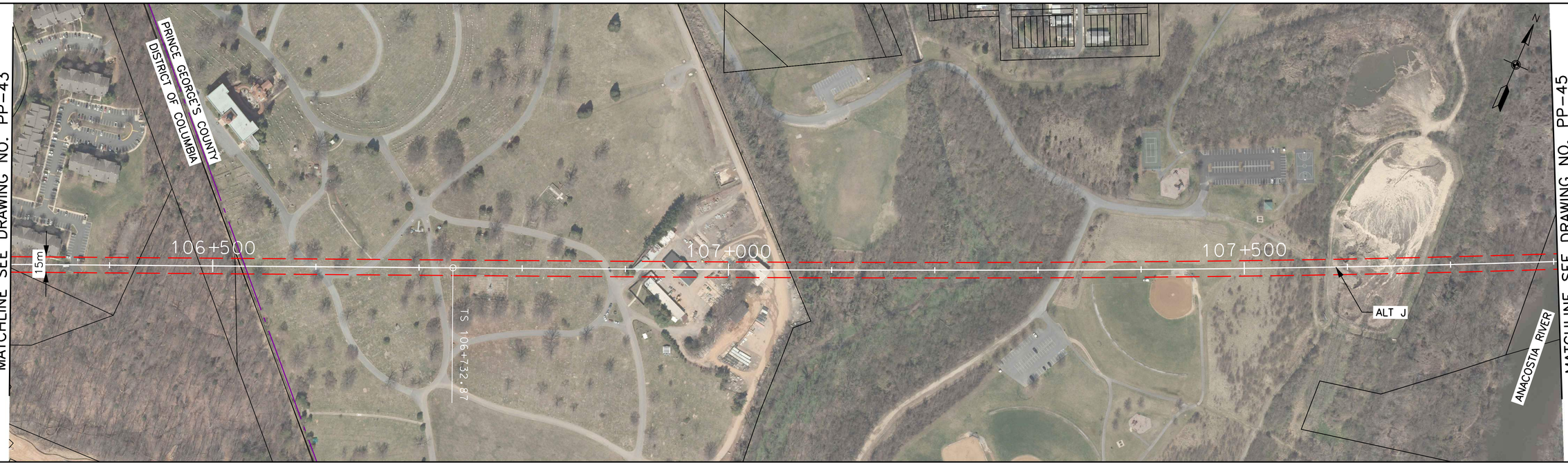
HORIZONTAL SCALE:
METERS 0 2000 4000 8000
FEET 0 2000 10000 20000

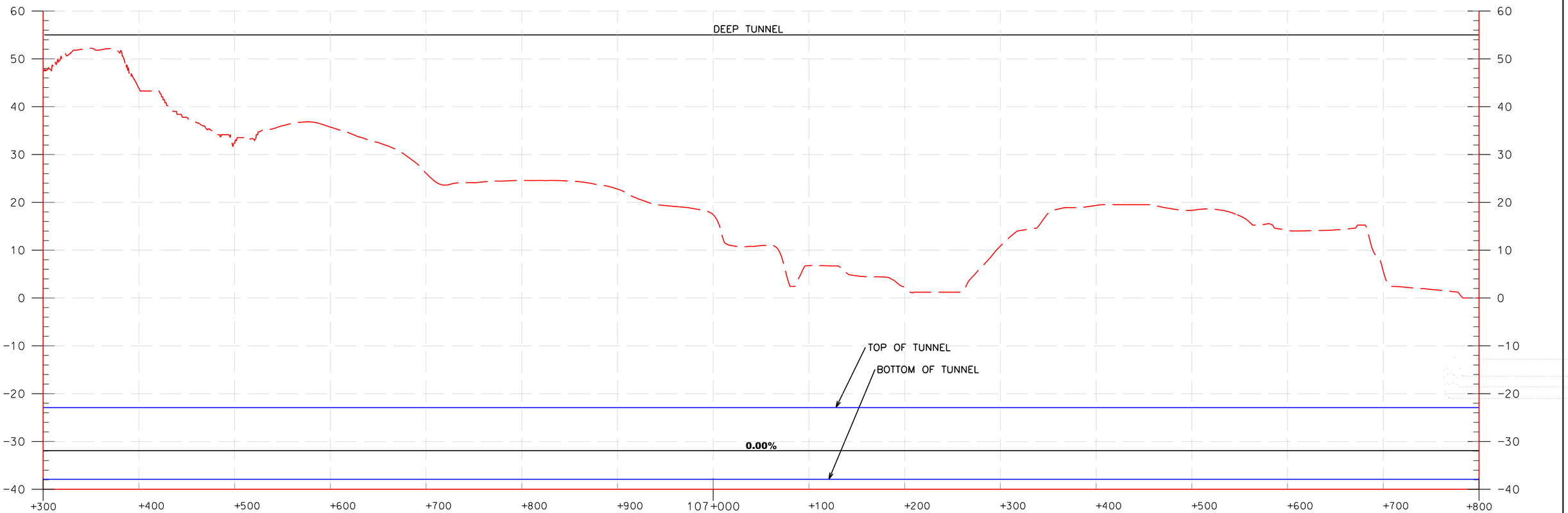
VERTICAL SCALE:

BALTIMORE-WASHINGTON SCMAGLEV

LOCATION MAP, INDEX AND LEGEND

DATE: 6/15/2020
DRAWING NO. 01
SHEET NO. -- OF --





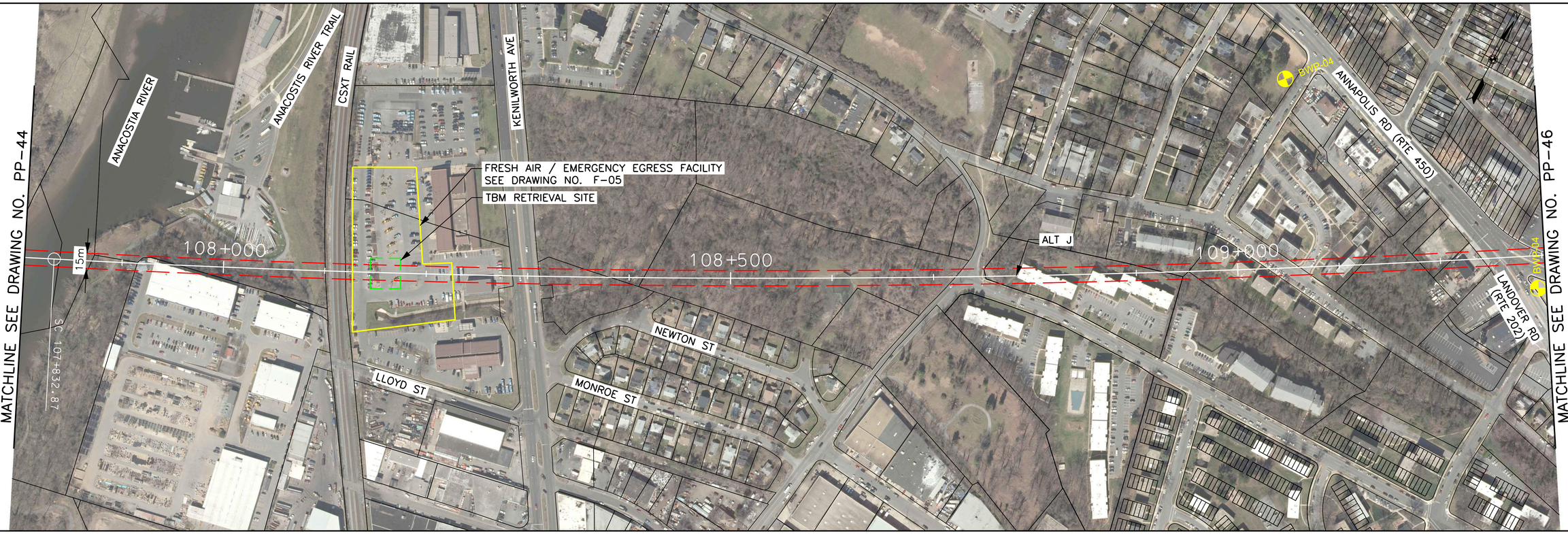
BWRR
BALTIMORE-WASHINGTON RAPID RAIL

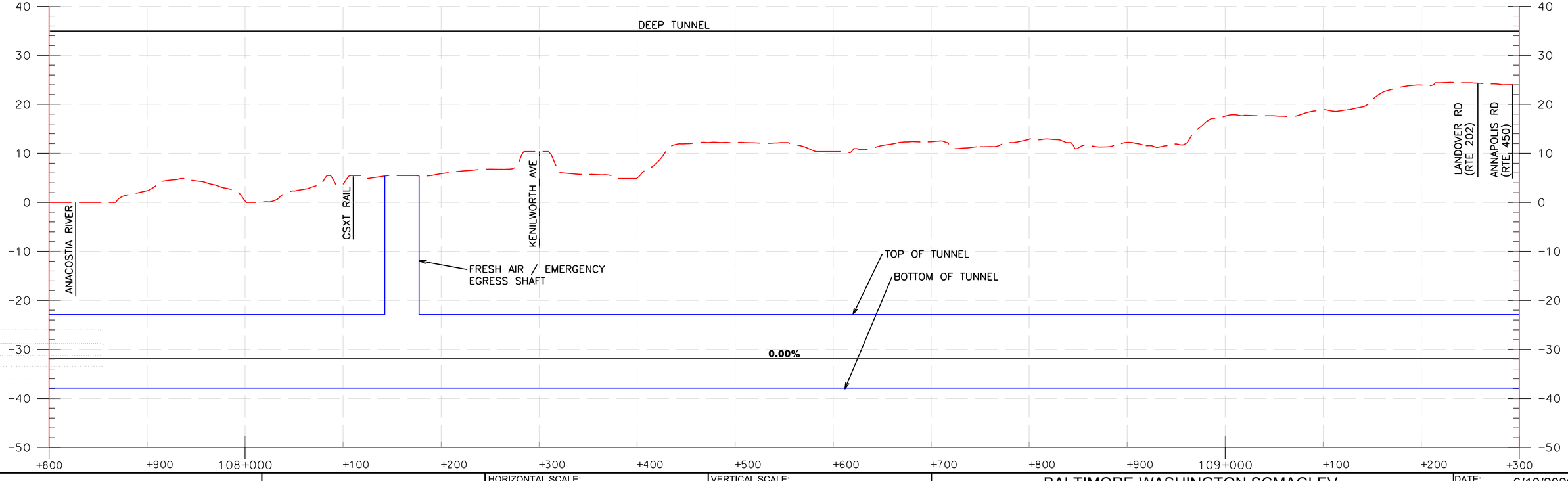
HORIZONTAL SCALE:
METERS 0 40 80 160
FEET 0 40 200 400

VERTICAL SCALE:
METERS 0 10 20 30
FEET 0 20 40 80

BALTIMORE-WASHINGTON SCMAGLEV
J ALIGNMENT
STA. 106+300 TO STA. 107+800

DATE: 6/10/2020
DRAWING NO. PP-44
SHEET NO. -- OF --





BWRR
BALTIMORE-WASHINGTON RAPID RAIL

HORIZONTAL SCALE:
METERS 0 40 80 160
FEET 0 40 200 400

VERTICAL SCALE:
METERS 0 10 20 30
FEET 0 20 40 80

BALTIMORE-WASHINGTON SCMAGLEV
J ALIGNMENT
STA. 107+800 TO STA. 109+300

DATE: 6/10/2020
DRAWING NO. PP-45
SHEET NO. -- OF --

MATCHLINE SEE DRAWING NO. PP-72

MATCHLINE SEE DRAWING NO. PP-74

MANSION RD

PATAPSCO RD

NURSERY RD (RTE 168)

15m

150+000

150+500

151+000

ALT J

ST 150+613.44

ANNE ARUNDEL COUNTY

BALTIMORE COUNTY

PATAPSCO RIVER

FRESH AIR / EMERGENCY EGRESS FACILITY SEE DRAWING NO. F-43

TBM RETRIEVAL SITE

ACCESS TO FRESH AIR / EMERGENCY EGRESS FACILITY AND SUBSTATION

SUBSTATION SEE DRAWING NO. F-43

HARBOR TUNNEL THROUGHWAY (I-895)

YARNALL RD

ANNAPOLIS RD (648)

DEEP TUNNEL

TOP OF TUNNEL

BOTTOM OF TUNNEL

TRANSMISSION LINE CROSSING - 11 OHE

PATAPSCO RIVER

PVI 150+730.000
Elev -38.039 m

FRESH AIR / EMERGENCY EGRESS SHAFT

HARBOR TUNNEL THROUGHWAY (I-895)

40 30 20 10 0 −10 −20 −30 −40 −50

+800 +900 150+000 +100 +200 +300 +400 +500 +600 +700 +800 +900 151+000 +100 +200 +300

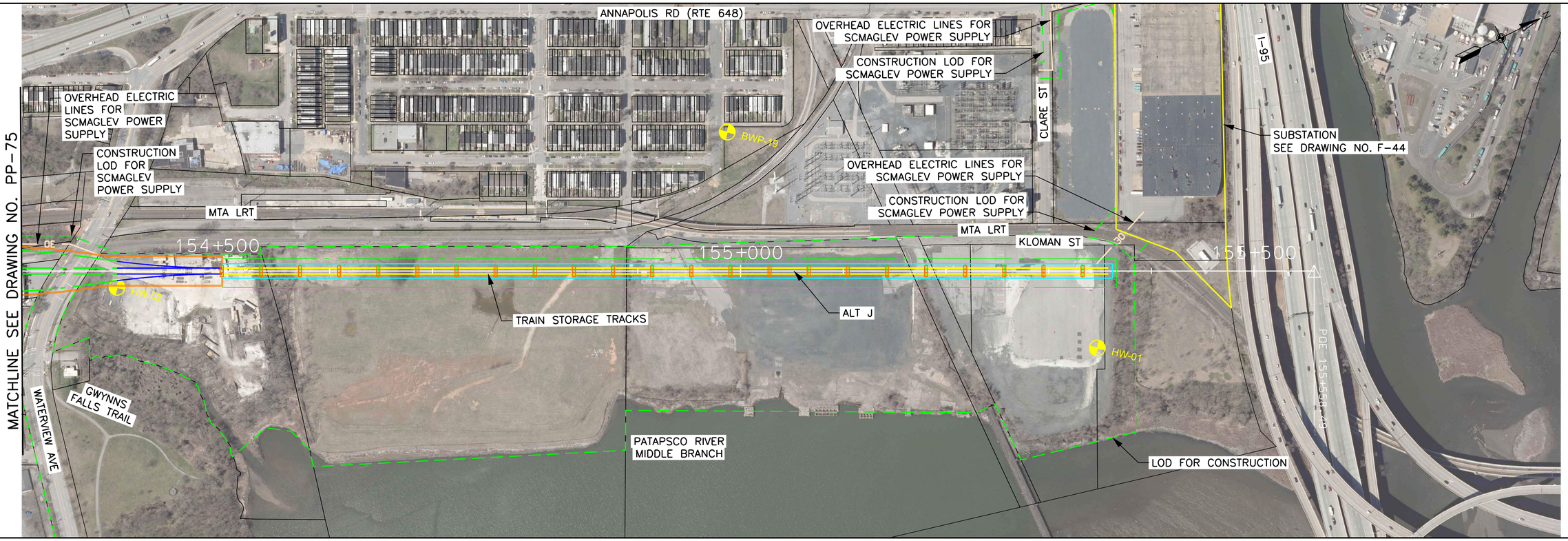
BWRR
BALTIMORE-WASHINGTON RAPID RAIL

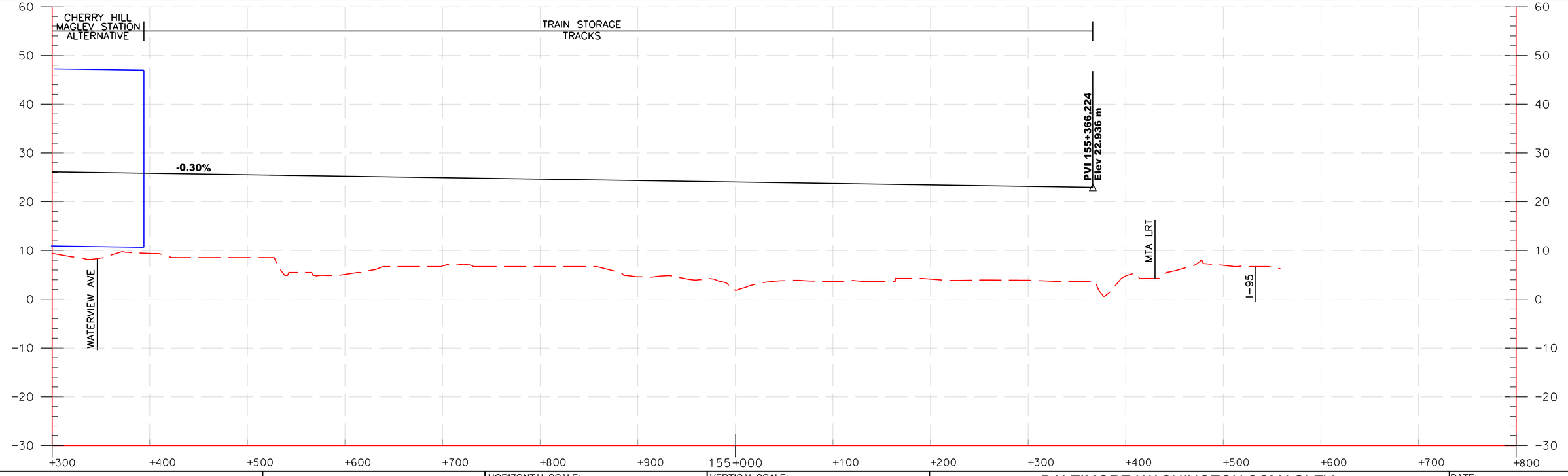
HORIZONTAL SCALE:
METERS 0 40 80 160
FEET 0 40 200 400

VERTICAL SCALE:
METERS 0 10 20 30
FEET 0 20 40 80

BALTIMORE-WASHINGTON SCMAGLEV
J ALIGNMENT
STA. 149+800 TO STA. 151+300

DATE: 6/10/2020
DRAWING NO. PP-73
SHEET NO. -- OF --



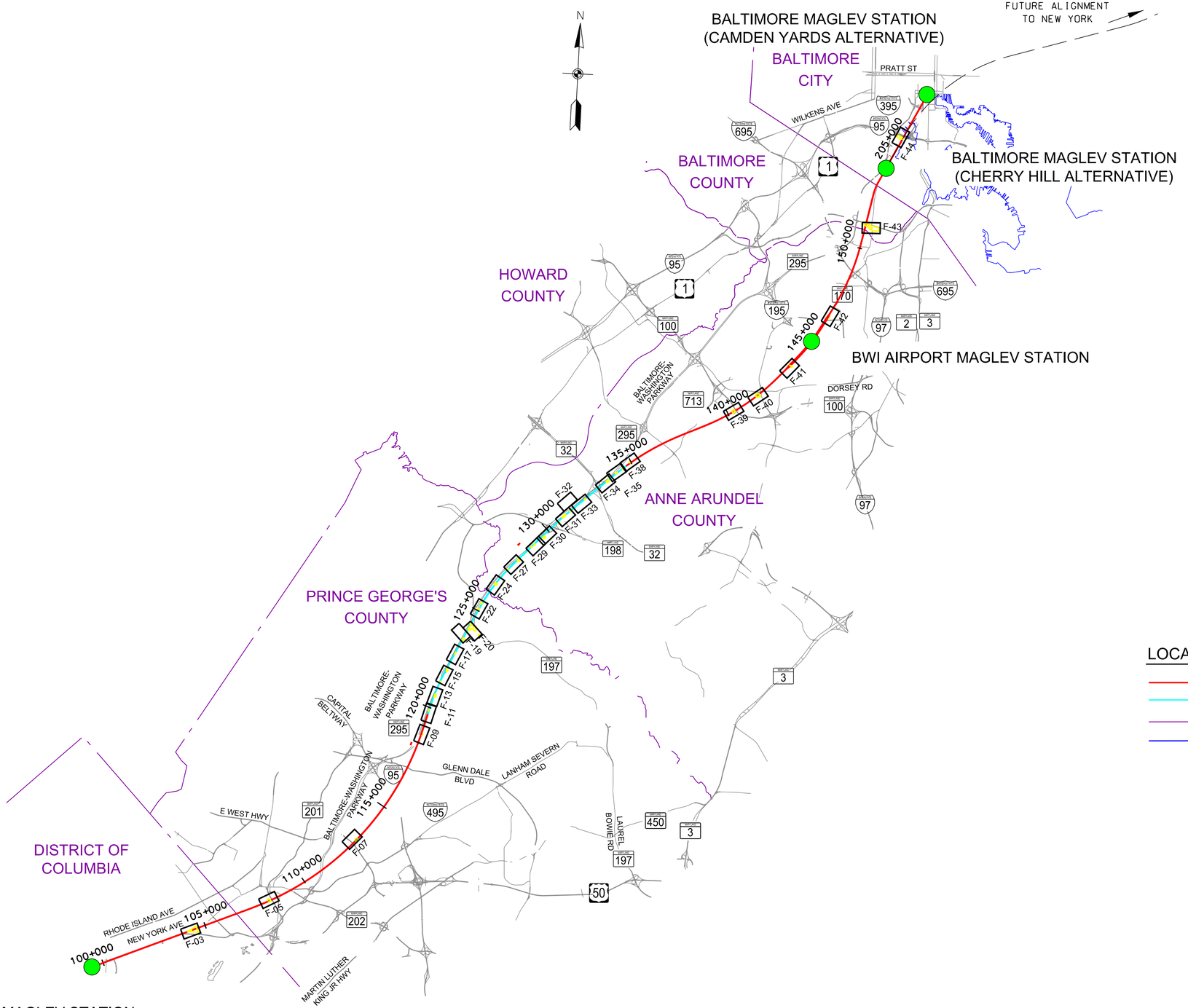


HORIZONTAL SCALE:
METERS 0 40 80 160
FEET 0 40 200 400

VERTICAL SCALE:
METERS 0 10 20 30
FEET 0 20 40 80

BALTIMORE-WASHINGTON SCMAGLEV
J ALIGNMENT
STA. 154+300 TO STA. 155+800

DATE: 6/10/2020
DRAWING NO. PP-76
SHEET NO. -- OF --



NOTE: F-XX DENOTES DRAWING NUMBER

LOCATION MAP AND INDEX LEGEND

- ALIGNMENT CENTERLINE – DEEP TUNNEL
- ALIGNMENT CENTERLINE – ELEVATED STRUCTURE
- COUNTY LIMIT LINE
- EDGE OF WATER
- STATION LOCATION

BWRR
BALTIMORE-WASHINGTON RAPID RAIL

HORIZONTAL SCALE:
METERS 0 2000 4000 8000
FEET 0 2000 10000 20000

VERTICAL SCALE:

BALTIMORE-WASHINGTON SCMAGLEV
J ALIGNMENT
FACILITIES KEY MAP

DATE: 6/10/2020
DRAWING NO. F-01
SHEET NO. -- OF --

	BWRR BALTIMORE-WASHINGTON RAPID RAIL	HORIZONTAL SCALE: METERS 0 20 40 80; FEET 0 20 100 200	VERTICAL SCALE: NONE	BALTIMORE-WASHINGTON SCMAGLEV J ALIGNMENT FRESH AIR / EMERGENCY EGRESS FACILITY STA. 108+150	DATE: 6/10/2020 DRAWING NO. F-05 SHEET NO. -- OF --

	BWRR BALTIMORE-WASHINGTON RAPID RAIL	HORIZONTAL SCALE: METERS 0 20 40 80; FEET 0 20 100 200	VERTICAL SCALE: NONE	BALTIMORE-WASHINGTON SCMAGLEV J1 AND J ALIGNMENTS FA / EE FACILITY & SUBSTATION STA. 151+100	DATE: 6/10/2020 DRAWING NO. F-43 SHEET NO. -- OF --

CONSTRUCTION LOD FOR SCMAGLEV POWER SUPPLY

OVERHEAD ELECTRIC LINES FOR SCMAGLEV POWER SUPPLY

ACCESS TO SUBSTATION

ANNAPOLIS RD (RTE 648)

CAPITAL BELTWAY (I-95)

CLARE ST

SUBSTATION

OVERHEAD ELECTRIC LINES FOR SCMAGLEV POWER SUPPLY

CONSTRUCTION LOD FOR SCMAGLEV POWER SUPPLY

LOD FOR CONSTRUCTION

MTA LRT

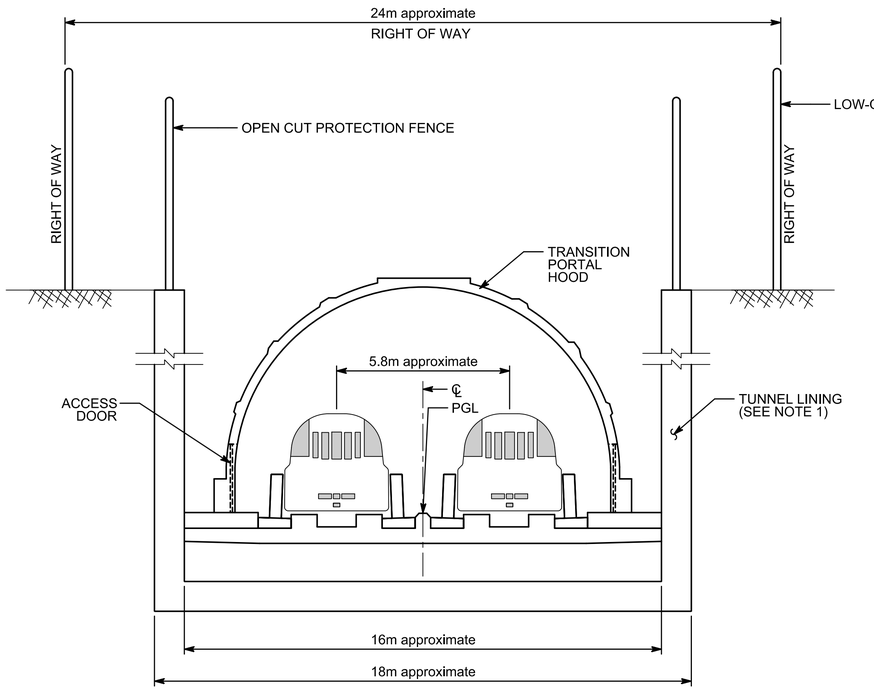
KLOMAN ST

ALTS J1 & J

155+500

N

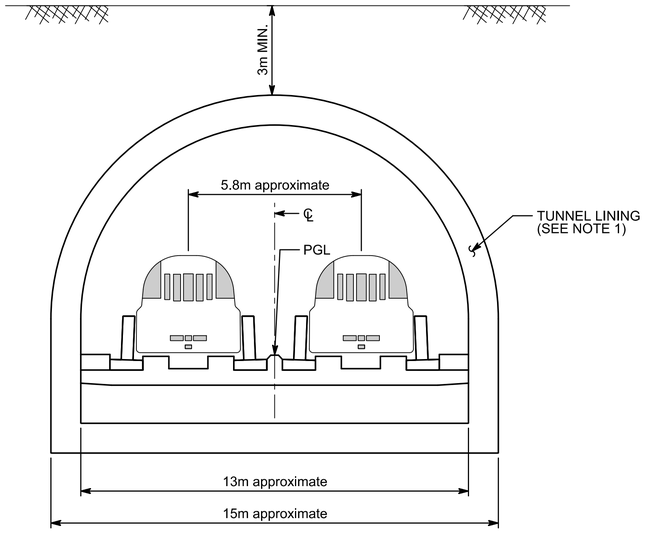
	BWRR BALTIMORE-WASHINGTON RAPID RAIL	HORIZONTAL SCALE: METERS 0 20 40 80; FEET 0 20 100 200	VERTICAL SCALE: NONE	BALTIMORE-WASHINGTON SCMAGLEV J1 AND J ALIGNMENTS WESTPORT SUBSTATION	DATE: 6/10/2020; DRAWING NO. F-44; SHEET NO. -- OF --



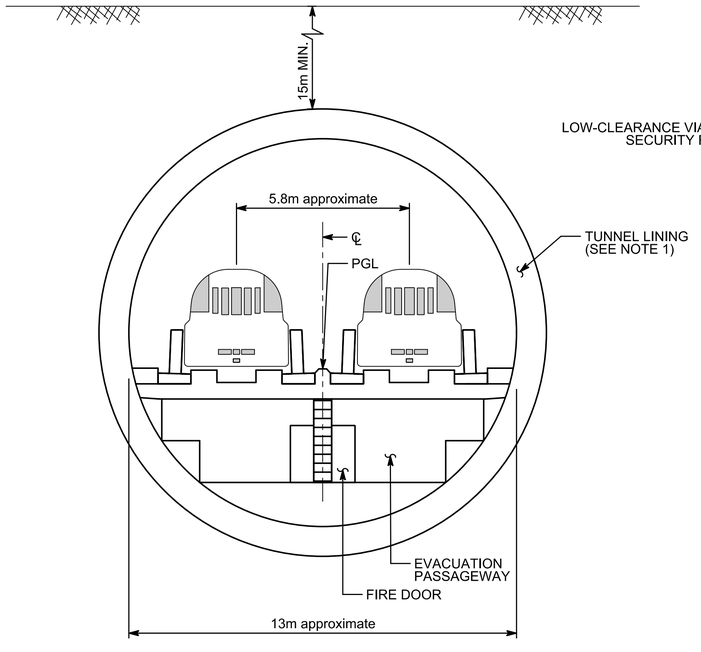
D TY-03 OPEN CUT PORTAL SECTION (SEE NOTE 2 AND 3)

NOTES:

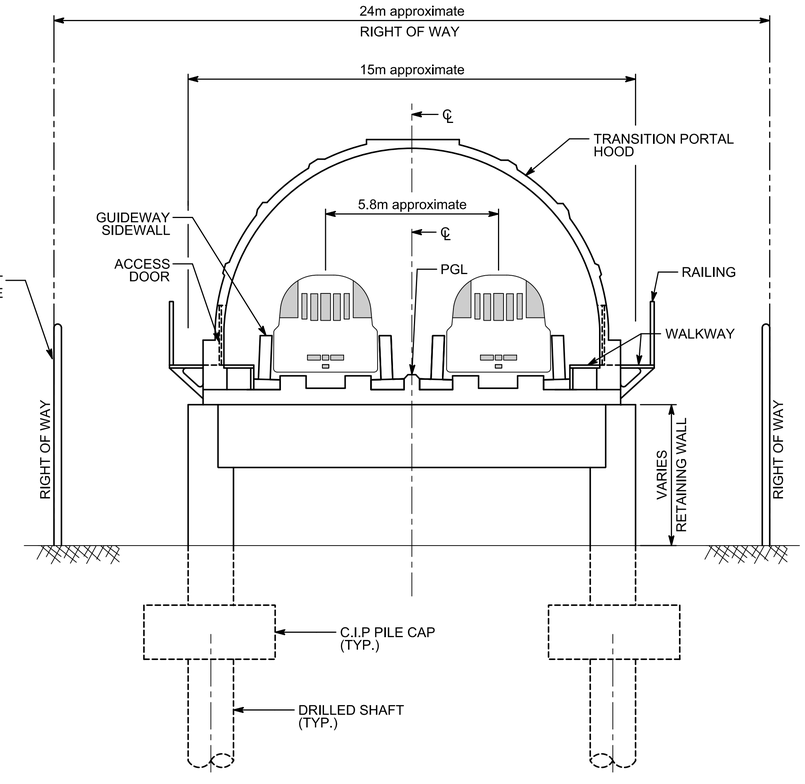
1. TUNNEL LINING THICKNESS FOR DEEP TUNNEL, CUT-AND-COVER TUNNEL, AND OPEN CUT PORTAL IS APPROXIMATELY 1m, TO BE DETERMINED IN DETAILED DESIGN.
2. EMERGENCY EGRESS STAIRS TO THE SURFACE WILL BE PROVIDED FOR OPEN CUT SECTION AND CUT-AND-COVER SECTION AT APPROXIMATELY 762m SPACING AS REQUIRED PER NFPA-130.
3. BRACING COULD BE PROVIDED TO OPEN CUT SECTION FOR LIMITED LENGTH ON THE DEEPER SEGMENT, TO BE DETERMINED IN DETAILED DESIGN.



B TY-03 SECTION (CUT-AND-COVER TUNNEL SEE NOTE 2)



A TY-03 SECTION (DEEP TUNNEL)



C TY-03 SECTION (TUNNEL PORTAL BEFORE THE ABUTMENT)

BWRR BALTIMORE-WASHINGTON RAPID RAIL

SCALE:
m 0 5 10
ft 0 5 10 25

BALTIMORE-WASHINGTON SCMAGLEV
DEEP TUNNEL, CUT AND COVER TUNNEL, AND OPEN CUT PORAL AND TUNNEL PORTAL SECTIONS

DATE: 10/09/2020
DRAWING NO. TY-06
SHEET NO. -- OF --

MATCHLINE SEE DRAWING NO. PP-72

MATCHLINE SEE DRAWING NO. PP-74

MANSION RD

PATAPSCO RD

NURSERY RD (RTE 168)

15m

150+000

150+500

151+000

ALT J

ST 150+613.44

ANNE ARUNDEL COUNTY

BALTIMORE COUNTY

PATAPSCO RIVER

FRESH AIR / EMERGENCY EGRESS FACILITY SEE DRAWING NO. F-43

TBM RETRIEVAL SITE

ACCESS TO FRESH AIR / EMERGENCY EGRESS FACILITY AND SUBSTATION

SUBSTATION SEE DRAWING NO. F-43

HARBOR TUNNEL THROUGHWAY (I-895)

YARNALL RD

ANNAPOLIS RD (648)

DEEP TUNNEL

TOP OF TUNNEL

BOTTOM OF TUNNEL

TRANSMISSION LINE CROSSING - 11 OHE

PATAPSCO RIVER

PVI 150+730.000
Elev -38.039 m

FRESH AIR / EMERGENCY EGRESS SHAFT

HARBOR TUNNEL THROUGHWAY (I-895)

40 30 20 10 0 −10 −20 −30 −40 −50

+800 +900 150+000 +100 +200 +300 +400 +500 +600 +700 +800 +900 151+000 +100 +200 +300

BWRR
BALTIMORE-WASHINGTON RAPID RAIL

HORIZONTAL SCALE:
METERS 0 40 80 160
FEET 0 40 200 400

VERTICAL SCALE:
METERS 0 10 20 30
FEET 0 20 40 80

BALTIMORE-WASHINGTON SCMAGLEV
J ALIGNMENT
STA. 149+800 TO STA. 151+300

DATE: 6/10/2020
DRAWING NO. PP-73
SHEET NO. -- OF --