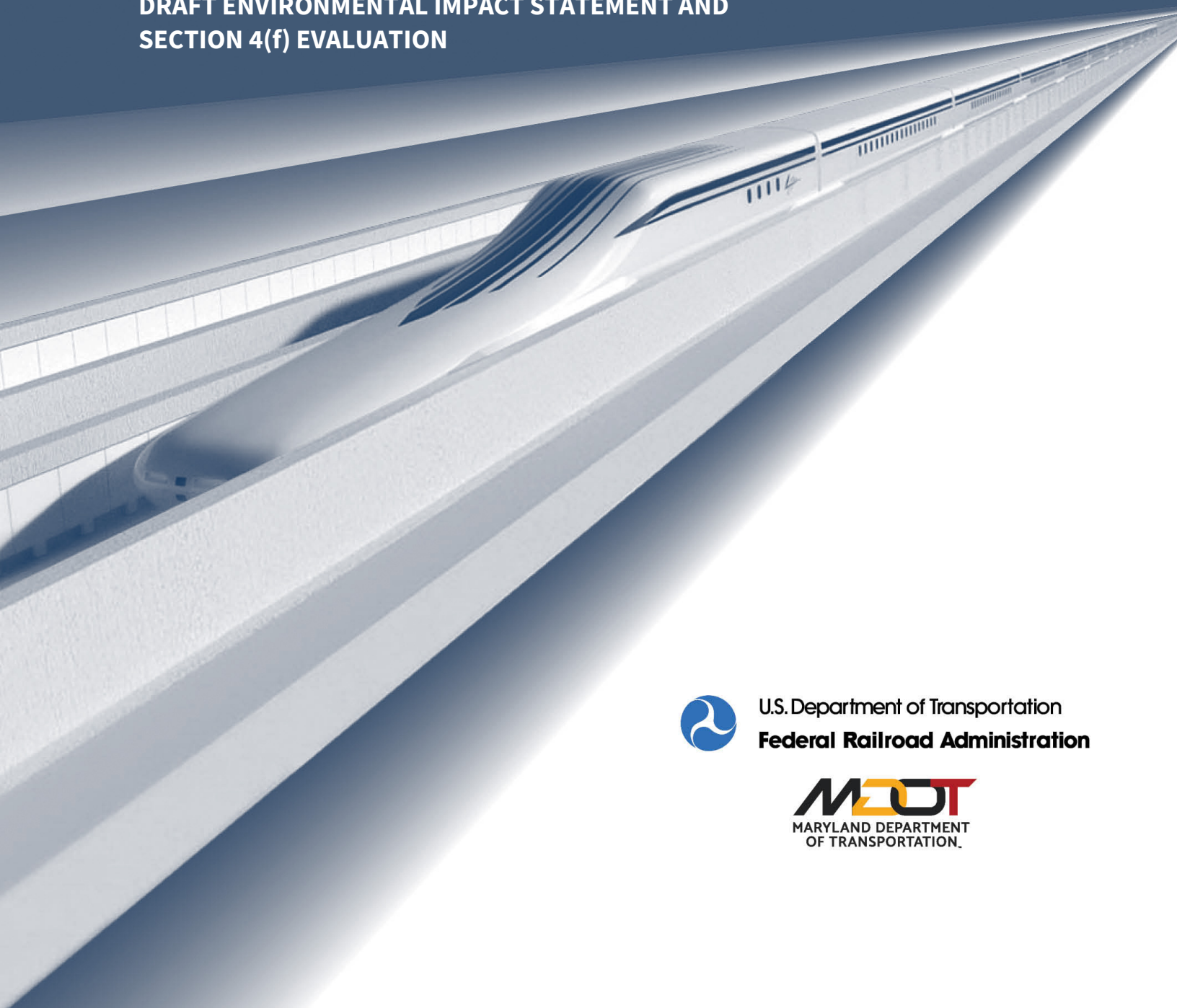
Appendix F
Draft 4(f) Evaluation

BALTIMORE-WASHINGTON SUPERCONDUCTING MAGLEV PROJECT

DRAFT ENVIRONMENTAL IMPACT STATEMENT AND SECTION 4(f) EVALUATION



U.S. Department of Transportation
Federal Railroad Administration

MARYLAND DEPARTMENT OF TRANSPORTATION

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F.1 Introduction

The Federal Railroad Administration (FRA) and the Maryland Department of Transportation, Maryland Transit Administration (MDOT MTA) prepared this Draft Section 4(f) Evaluation to comply with Section 4(f) of the US Department of Transportation (USDOT) Act of 1966 (49 United States Code [USC] 303(c)), hereinafter referred to as "Section 4(f)," and its implementing procedures, Procedures for Considering Environmental Impacts (64 Federal Register [FR] 28545, May 26, 1999, as amended by 78 FR 2713, Jan. 14, 2013).

This technical report contains the following chapters:

- F.1 Introduction
- F.2 Regulatory Context
- F.3 Project Description
- F.4 Identification of Section 4(f) Properties
- F.5 Description of Uses by the Alternatives
- F.6 Avoidance Analysis
- F.7 All Planning to Minimize Harm
- F.8 Coordination/Concurrence

FRA and MDOT will complete a least harm analysis during the Final EIS and Final Section 4(f) Evaluation. Prior to publication of the Final EIS and Final Section 4(f) Evaluation, the Project Sponsor will refine the design of the alternatives. In addition, FRA and MDOT will further coordinate with the owners and administrators of potentially affected properties to assess impacts and further develop measures to avoid or minimize harm to Section 4(f) properties. Completion of these activities when preparing the Final EIS and Final Section 4(f) Evaluation will enable FRA to compare the alternatives to identify the alternative with the least harm under Section 4(f). FRA will make its final determinations under Section 4(f) based on the outcomes of these activities prior to approving the Final Section 4(f) Evaluation.

F.2 Regulatory Context

Section 303 of Title 49 United States Code states, "The Secretary of Transportation may approve a transportation program or project requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as

determined by the Federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if--

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use."

Projects undertaken by FRA or that may receive Federal funding and/or discretionary approvals from FRA must demonstrate compliance with Section 4(f). FRA's Procedures for Considering Environmental Impacts contain FRA's processes and protocols for analyzing the potential use of Section 4(f) properties. In addition, although for the Superconducting Magnetic Levitation Project (SCMAGLEV Project) FRA is not subject to the regulations in 23 Code of Federal Regulations (CFR) part 774 regarding Section 4(f) for highways and transit projects, FRA uses these regulations and associated policy guidance as additional guidance when applying Section 4(f).[1] FRA also uses the Federal Highway Administration's (FHWA) 2012 Section 4(f) Policy Paper as guidance to interpreting and applying Section 4(f) and 23 CFR part 774.

F.2.1 Section 4(f) Use

A project uses a Section 4(f) property when:

- Land from the Section 4(f) property is permanently incorporated into a transportation facility;
- There is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose; or
- There is a "constructive" use of a Section 4(f) property.

Prior to approving a project that would use a Section 4(f) property, FRA must demonstrate that there is no feasible and prudent alternative to the use of the Section 4(f) property, and that the project includes all possible planning to minimize harm to the Section 4(f) property. In addition, FRA must coordinate with the official(s) with jurisdiction over the Section 4(f) property, the U.S. Department of the Interior (DOI), and if appropriate, with the U.S. Department of Housing and Urban Development (HUD) and

[1] FRA made the regulations at 23 CFR part 774 its Section 4(f) implementing regulations through a final rule that was effective November 28, 2018. Because the Notice of Intent (NOI) for the SCMAGLEV Project was published prior to the effective date of the final rule, FRA refers to the part 774 regulations as guidance only for the SMAGLEV Project.

the U.S. Department of Agriculture (USDA), prior to approving the use of a Section 4(f) property.[2]

F.2.2 De Minimis Impacts

Section 4(f) (49 USC 303(d)) authorizes FRA to make a determination that a transportation program or project will have a *de minimis* impact on an area, and therefore not be considered a use of the property, if the following criteria are met:

- For historic sites
  - FRA determines in accordance with the Section 106 of the National Historic Preservation Act of 1966 (Section 106) process under the National Historic Preservation Act (NHPA) that the project will have no adverse effect on the historic property or there will be no historic properties affected by the project;
  - FRA receives written concurrence from the State Historic Preservation Officer (SHPO) or the Tribal Historic Preservation Officer (THPO) and the Advisory Council on Historic Preservation (ACHP), if participating, on the no effect or no adverse effect determination; and
  - FRA has taken into account the views of consulting parties in the Section 106 process
- For parks, recreation areas, and wildlife or waterfowl refuges
  - FRA determines that the project will not adversely affect the activities, features, and attributes of the park, recreation area, or wildlife or waterfowl refuge;
  - FRA has provided notice and an opportunity for public comment on its determination
  - FRA receives concurrence from the officials with jurisdiction over the park, recreation area, or wildlife or waterfowl refuge

FRA may take into account any avoidance, mitigation, or enhancement measures required to be implemented as part of the project in making a *de minimis* impact determination. After FRA, through appropriate consultation and public involvement, and having received concurrence from the official(s) with jurisdiction, determines that a transportation use of a Section 4(f) property results in a *de minimis* impact, and documents that determination consistent with the requirements of FRA's *Procedures for Considering Environmental Impacts*, analysis of avoidance alternatives is not required and the Section 4(f) evaluation process is complete.

[2] For public parks, recreation areas, and wildlife and waterfowl refuges, the official(s) with jurisdiction are the official(s) from the agency or agencies that own and/or administer the property and who are empowered to represent the agency or agencies on matters related to the property. For historic sites, the official with jurisdiction is the relevant SHPO, as well as the ACHP if the ACHP has chosen to participate in consultation in accordance with Section 106 of the NHPA. There may be more than one official with jurisdiction for the same Section 4(f) property.

F.2.3 Constructive Use

A constructive use occurs when the proximity impacts from a project are so severe that the protected attributes, activities, or features that qualify a property for protection under Section 4(f) are substantially impaired, even though the property is not physically incorporated into the project. For example, a constructive use occurs when the project substantially interferes with the use and enjoyment of a noise-sensitive property; substantially impairs the aesthetic features or attributes of a property, and those features or attributes are important contributing elements for the value of the property; and the project restricts access and as a result substantially diminishes the utility of a property protected by Section 4(f). Situations when a constructive use does not occur include when: consultation under Section 106 results in a finding of "no historic properties affected" or "no adverse effect" and SHPO has concurred in that finding; noise levels do not exceed applicable USDOT guidelines; and as a result of consultation with the official with jurisdiction, proximity impacts will be mitigated to a condition as good as or better than the condition without the project.

F.2.4 Temporary Occupancy

Temporary occupancies of land may be so minimal as to not constitute a use within the meaning of Section 4(f) when the following conditions are met:

- Duration is temporary, or less than the time needed for construction of the project, with no change in ownership of the land;
- Scope of work is minor;
- There are no anticipated permanent adverse physical impacts;
- No temporary or permanent interference with the protected activities, features, or attributes of the property;
- The property is fully restored or returned to a condition which is at least as good as that which existed prior to the project; and
- There is documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

F.2.5 Section 4(f) Applicability

This Draft Section 4(f) Evaluation focuses on uses of protected properties by the portions of the Build Alternatives that would be on or above the ground surface, and in a cut/cover tunnel section. In these cases, the Build Alternatives would incorporate land from the protected properties and/or have the potential to cause direct or proximity uses of the properties.

In the case of each protected property under which a deep tunnel is proposed, FRA determined that Section 4(f) does not apply because placement of the alignment and any ancillary facilities underground below a 4(f) property would not require maintenance

access to the tunnel from those properties. Surface access to the deep tunnels would only occur at portals and fresh air and emergency egress (FA/EE) locations.

In addition, consistent with FHWA Policy (Question 28A, FHWA Section 4(f) Policy Paper), deep tunneling would not subject any of the public parks, recreation areas, wildlife or waterfowl refuges, or historic sites to the requirements of Section 4(f) for the following reasons:

1. Deep tunneling and project operation in deep tunnels would be deeper than potential or known archaeological sites and, therefore, no disturbances of archaeological sites on or eligible for the National Register of Historic Places (NRHP), which warrant preservation in place, would occur.
2. Deep tunneling and project operation in deep tunnels would be sufficiently deep to not cause disruption of surface or above-ground activities, features, or attributes of each property which would permanently harm the purposes for which the Section 4(f) property was established.
3. Deep tunneling and project operation in a deep tunnel would not impair the historic values of a historic site.
4. Deep tunneling would not require temporary occupancy at 4(f) properties during construction.

F.2.6 Avoidance Alternatives

When a project would use a Section 4(f) property, FRA must demonstrate that there is no feasible and prudent alternative to avoid the use of the property.

F.2.7 Least Overall Harm Alternative

If there is no feasible and prudent avoidance alternative to the use of a Section 4(f) resource, and multiple alternatives would use Section 4(f) resources, FRA approves only the alternative that causes the least overall harm in light of Section 4(f)'s preservation purpose. FRA's least overall harm analysis requires a balancing of seven factors when determining which alternative and options would cause the least overall harm.

- Factor 1 – Ability to mitigate adverse impacts on each Section 4(f) property;
- Factor 2 – Relative severity of the remaining harm, after mitigation;
- Factor 3 – Relative significance of each Section 4(f) property;
- Factor 4 – Views of the officials with jurisdiction over each Section 4(f) property;
- Factor 5 – Degree to which each alternative meets the purpose and need for the project;
- Factor 6 – The magnitude of adverse impacts on properties not protected by Section 4(f); and

- Factor 7 – Substantial differences in costs among the alternatives.

As noted above, FRA and MDOT will complete a least harm analysis during the Final EIS and Final Section 4(f) Evaluation.

F.3 Project Description

F.3.1 Purpose and Need

The purpose of the SCMAGLEV Project is to evaluate, and ultimately construct and operate, a safe, revenue-producing, high-speed ground transportation system that achieves the optimum operating speed of the SCMAGLEV technology to significantly reduce travel time in order to meet the capacity and ridership needs of the Baltimore-Washington region. The decision to deploy SCMAGLEV technology in the Washington, D.C. to Baltimore corridor is the result of Congressional appropriations to evaluate Maglev technology and previous studies that have identified this corridor as the location for development of a project under the Maglev Deployment Program (MDP).Studies to evaluate Maglev technology in the current corridor are discussed further in Chapter 1 of the DEIS. To achieve the operational and safety metrics needed for a SCMAGLEV system, the SCMAGLEV Project must include:

- Infrastructure, vehicles, and operating procedures required for the SCMAGLEV system.
- An alignment which allows the highest practical speed that can be attained by SCMAGLEV technology at a given location and which avoids the need for reduction in speed other than that imposed by the normal acceleration and braking curves into and out of passenger stations.
- A system that complies with Federal safety requirements.
- Avoidance, minimization, and mitigation of impacts to the human and natural environment.

The objectives of the SCMAGLEV Project are to:

- Improve redundancy and mobility options for transportation between the metropolitan areas of Baltimore and Washington, D.C.
- Provide connectivity to existing transportation modes in the region (e.g., heavy rail, light rail, bus, air).
- Provide a complementary alternative to future rail expansion opportunities on adjacent corridors.
- Support local and regional economic growth.

F.3.2 SCMAGLEV SYSTEM DESCRIPTION

The SCMAGLEV Project would provide a SCMAGLEV train system between Washington, D.C. and Baltimore, MD.[3] The SCMAGLEV Project would operate bidirectional service between Baltimore, MD and Washington, D.C. 18 hours a day, seven days a week. **Figure F-1** shows the Project Study Area of the SCMAGLEV Project. The Project follows existing transportation corridors, where reasonably feasible, and provides multimodal connections to existing rail and bus transportation services. Service headways (time between trains) would vary by time of day, ranging from 8 to 15 minutes to accommodate peak hour travel. The optimum train operating speed would be 311 miles per hour (mph) along most of the alignment.

The SCMAGLEV Project includes the following major elements, which are described in Section 3.3.2 of the DEIS and the following subsections:

- Dedicated Alignment and Ancillary Facilities
- Stations
- Trainset Maintenance Facilities

F.3.2.1 Dedicated Guideway and Ancillary Facilities

SCMAGLEV technology requires a grade-separated fixed alignment to operate. The alignment would be supported by a combination of tunnel segments for below ground operations and above-ground structures (also known as viaducts). Approximately 73 percent of the alignment would be in a tunnel; and 27 percent on above-ground structures. **Figure F-2** illustrates the typical tunnel and viaduct sections. Unlike typical electric trains in service in the Northeast, a SCMAGLEV system does not operate on standard steel railroad tracks. SCMAGLEV trains levitate between the walls of a unique U-shaped concrete structure that guides the trains along the alignment, which has walls surrounding the trains on both sides, making the system free from derailment.

[3] SCMAGLEV is a new technology used in Japan, but not currently in use in the United States. The system relies on powerful magnetic forces to operate and results in operating speeds of over 300 miles per hour.

Figure F.1 Project Study Area

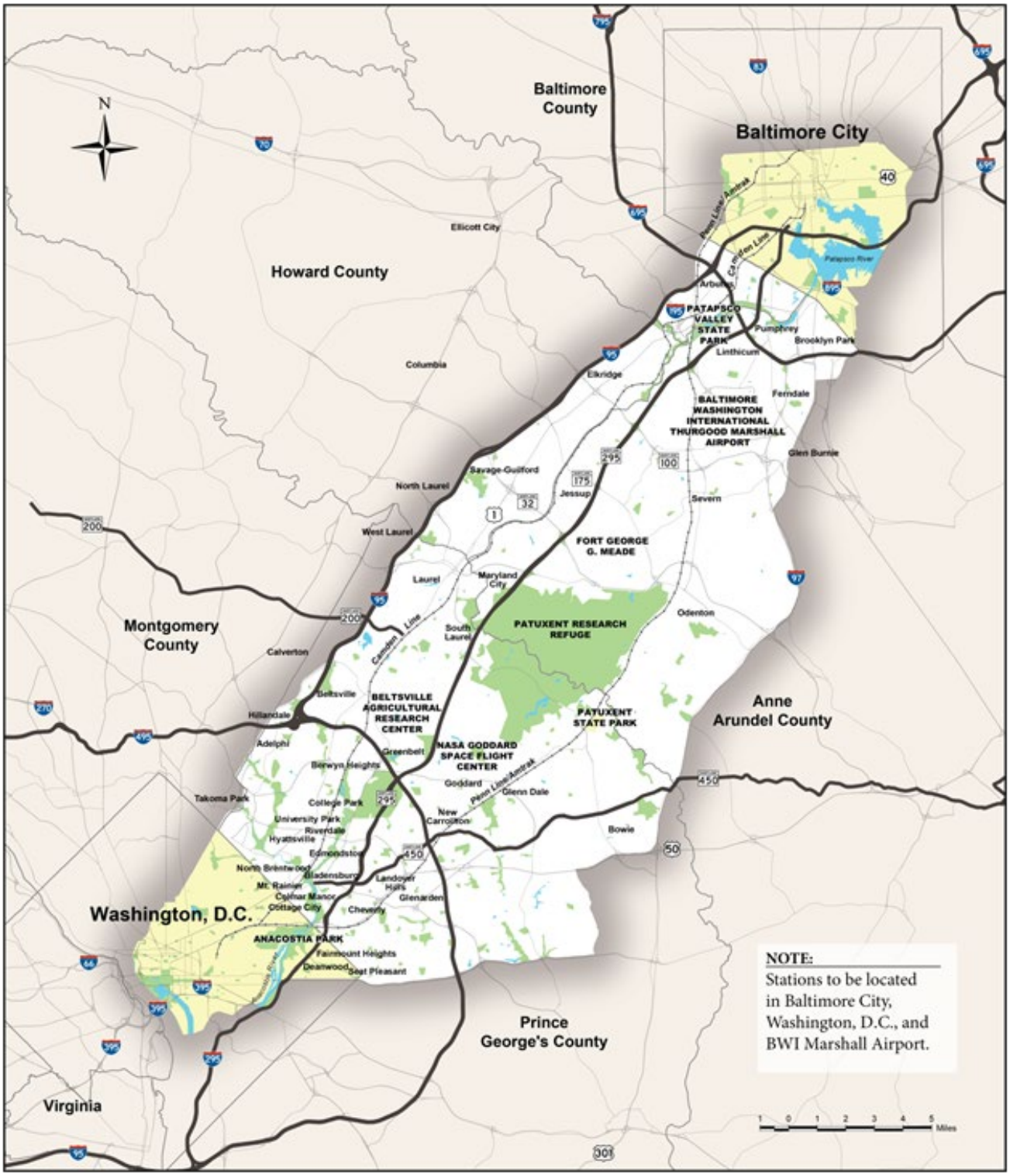
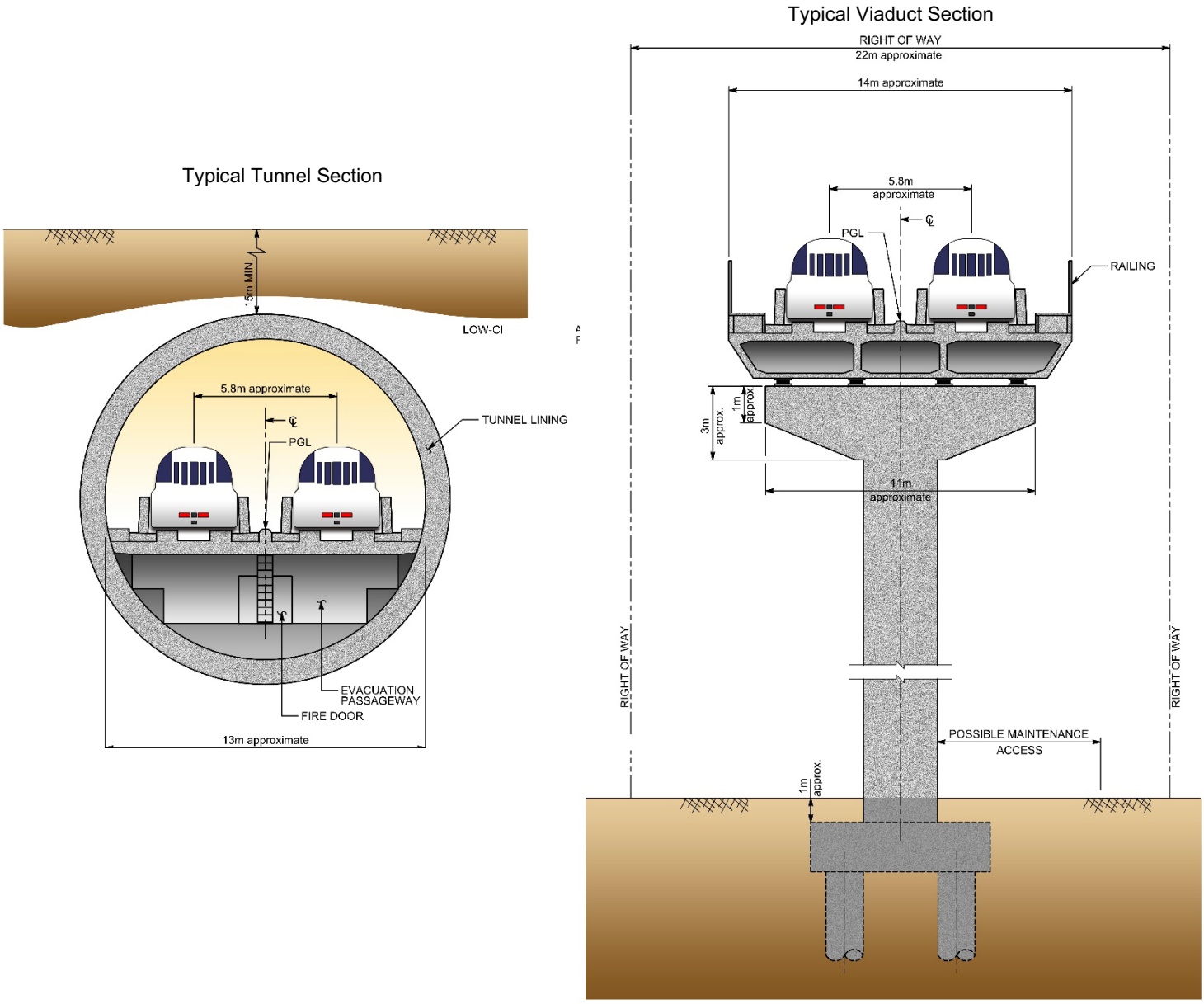


Figure F.2 Typical Tunnel and Viaduct Sections



Source: BWRR 2020

The SCMAGLEV technology requires the following ancillary facilities along the alignment to maintain operations and safety:

- **Fresh Air and Emergency Egress Sites** - Ventilation of underground facilities including tunnels and stations provides fresh air circulation during normal operations and in the event of fire. These sites also provide emergency evacuation stairs from the tunnel to the ground surface. Fresh air and emergency egress facilities are spaced every three to four miles along tunnel segments and

are either enclosed in aboveground buildings or installed underground. The sites would be approximately three acres in size and can be co-located with other ancillary facilities. In addition to fan equipment, airshafts and emergency exits, the sites house control facilities and emergency response equipment. In this SCMAGLEV Project, the sites would also serve as launch sites for tunnel boring machines (TBM) during construction. The 2018 *Alternatives Report* referred to these facilities as vent plants.

- **Tunnel Portals** - Tunnel portals are areas where the alignment emerges from a tunnel and rises to form a viaduct or vice versa. The portal length would vary from less than 330 feet to 1,600 feet or more depending on SCMAGLEV design criteria and on-site conditions. In operation, a train would emerge from a tunnel in an area with walls on either side, transition to an area where the alignment would be supported on retaining walls and would then rise to structural spans on piers.
- **Power Substations** - Power substations are needed near or at each station and approximately every 12 to 25 miles along the alignment route, including tunnel and viaduct segments. Substations provide power to the SCMAGLEV system, including facility requirements such as lighting and ventilation. Substations can be built above or below ground, and possibly combined with other facilities. The space required for a substation is approximately one and a half acres or larger, depending on the other functions that are provided at the site.
- **Operations Control Center** - The Operations Control Center (Center) serves as the facility that manages all operations related to the SCMAGLEV system: train movements, safety and emergency activities, power usage, and operations according to the established schedule. The Center is typically located at a station or the trainset maintenance facility (TMF). In the 2018 Alternatives Report, this facility was referred to as Rail/Operations Control Center.
- **Other Facilities** - Additional smaller facilities are located along the alignment route for power distribution, communications, alignment drainage, and other minor functions. These other facilities would generally be contained within the right-of-way (ROW) of the alignment, or possibly co-located with other facilities.

F.3.2.2 Stations

The SCMAGLEV Project includes three stations: a southern terminal station in Washington, D.C. (Mount Vernon Square- East Station); an intermediate station at Baltimore-Washington International Thurgood Marshall Airport Station (BWI Marshall Airport Station); and a northern terminal station in the Baltimore City, MD (either Cherry Hill Station or Camden Yards Station). Parking is proposed or available at each station. **Table F-1** provides a summary of the stations. See also Section F.6.2.

Table F-1: Stations

Station	Location	Access	Parking
Mount Vernon Square-East Station 1,378-ft long platform; 1,600 linear feet of underground tail track, 3,640-foot long underground station cavern	Underground along New York Avenue between 7th Street NW and 4th Street NW	Via Carnegie Library building; Massachusetts Avenue at Chinatown Park; or New York Avenue	5-level, 1,000-space underground facility
BWI Marshall Airport Station 1,304-ft long platform, track, and underground station cavern	Underground beneath the existing hourly parking garage and airport terminals on either side	Parking garage/airport terminal via new multimodal facility above the station	Parking will be available at new hourly garage (coordinated with BWI Marshall Airport)
Cherry Hill Station 984-ft long platform; 1,600 linear feet of tail track on elevated alignment approximately 52 feet above the ground	Elevated along and east of MD 295, south of Waterview Avenue, above the MDOT MTA Cherry Hill LRT	Via Cherry Hill Station and via new pedestrian connection to adjacent proposed parking facility	4-level, 5,000-space facility
Camden Yards Station 1,312-ft long platform and track	Underground beneath the Convention Center generally between Martin Luther King Jr Blvd to Pratt Street	Via Howard/Camden Streets; Camden MARC Station; or adjacent to Convention Center along Conway Street.	7-level, 5,000 space facility constructed north of Pratt Street between Sharp and Charles Streets

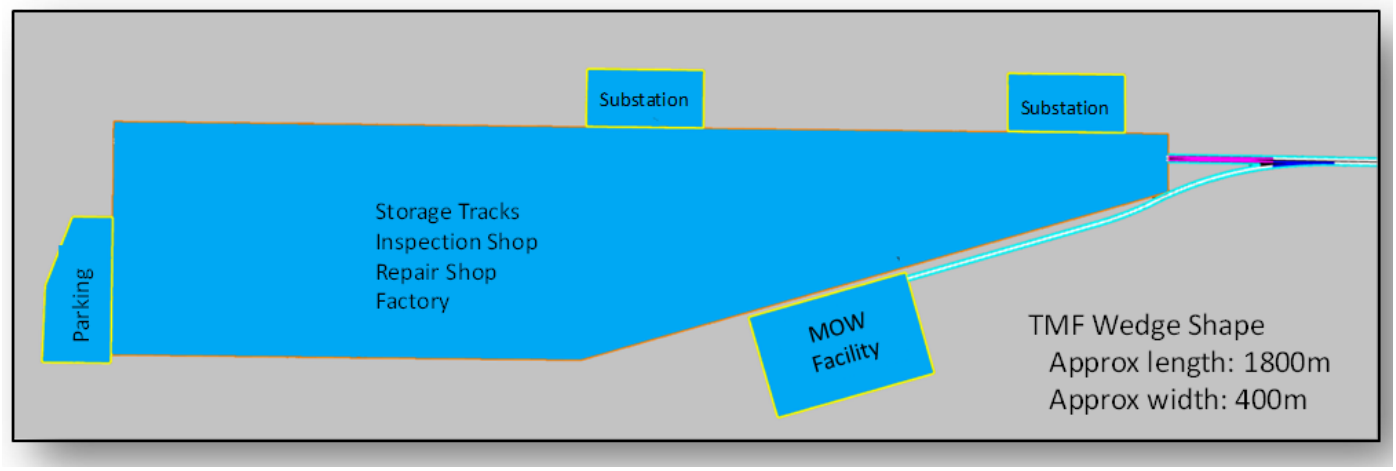
Sources: *Alternatives Report*, November 2018; *Baltimore-Washington SCMAGLEV Project, Washington, D.C. Station Comparison*, Revision 0, 2018-12-19

F.3.2.3 Trainset Maintenance Facility

The SCMAGLEV system will require one TMF[4] for storing, maintaining, repairing, and cleaning trainsets, and for all other aspects of train maintenance. The key elements at the TMF site are: storage yard for trains; maintenance building for inspection, factory, and repair shops; miscellaneous storage building; rail/operations control center; offices; and employee/visitor parking. **Figure F-3** shows a conceptual layout of a TMF. **Table F-2** summarizes the TMF.

[4] In the 2018 *Alternatives Report*, a TMF was referred to as a rolling stock depot or RSD facility.

Figure F.3 Conceptual TMF Layout



Source: BWRR

Table F-2: TMFs

TMF	Location	Acreage
TMF with MOW facility along the alignment	Three alternative TMF facility locations are proposed: BARC West, BARC Airstrip, and MD 198 (see also Section F.6.2)	180 acres

Source: BWRR 2020

An additional component of the TMF is a maintenance of way (MOW) facility, which houses workers and equipment for maintaining the system's physical infrastructure. A MOW facility is similar to a municipal public works yard, with one or two buildings and a parking area for vehicles. One MOW facility is required for the SCMAGLEV Project; three potential locations for a TMF are being evaluated in the FEIS Beltsville Agricultural Research Center (BARC) West, BARC Airstrip, and MD 198). See also Section F.6.2.

F.3.3 Route Description of the SCMAGLEV Project

The following is a description of the SCMAGLEV Project from south to north. The proposed alignment would be in a tunnel under Washington, D.C. from the southern terminus near Mount Vernon Square. An underground station (known as Mount Vernon Square East) would be provided at the southern terminus. The alignment would be in a deep tunnel (typically 80 feet to 260 feet deep, the variation primarily because of changes in the existing ground surface elevation along the tunnel alignment). However, the minimum depth would be one tunnel diameter, approximately 50 feet. After crossing under the Capital Beltway (I-95/I-495), the alignment would transition from tunnel to the viaduct, by means of a portal structure and would be along the east side (J) or the west side (J1) of the BWP. The minimum required distance or under clearance between the elevated alignment and the ground surface would be 18 feet, but the typical height would range between approximately 40 feet and 140 feet above the surface depending on variations in the ground surface elevation along the alignment.

A portal structure would be provided at each location where the alignment transitions between tunnel and viaduct. The alignment would return to a tunnel in Anne Arundel County in the vicinity of or just south of Fort George G. Meade. The alignment would continue north in tunnel toward an underground BWI Marshall Airport Station. North of the airport, the alignment would continue in a tunnel to the proposed Baltimore, MD station. Overall, the route of the alignment would be approximately 33 miles long.

F.3.4 Description of Alternatives

The Draft Section 4(f) analysis of avoidance, in Section F.7, considers the No Build Alternative. Section F.3.4.1 describes the No Build Alternative. The Draft Section 4(f) analysis of avoidance, in Section F.6, considers the Alternatives J and J1 as presented in the DEIS. **Table F-3** lists these alternatives. As discussed in Section F.3.2, each Build Alternative includes an alignment; three stations (one southern terminus station, one intermediate station, and one northern terminus station), and one TMF facility. By including the various elements of the SCMAGLEV Project, various end-to-end options are possible. Sections F.3.4.2 describes each of the Build Alternatives.

The Federal Railroad Administration (FRA) considered the No Build Alternative and Build Alternatives that focus on implementation of a SMAGLEV system. FRA did not include the evaluation of other transportation modes for the Build Alternatives because modes other than SCMAGLEV technology would not achieve the SCMAGLEV Project Purpose and Need, as discussed in Chapter 2 of the DEIS, nor be consistent with the FRA's Record of Decision (ROD) for the Programmatic Environmental Impact Statement (PEIS) for the Maglev Deployment Program (MDP) (see DEIS Section 1.2.1) and subsequent Federal legislation supporting development of an SCMAGLEV system between Washington, D.C. and Baltimore, MD.

F.3.4.1 No Build Alternative

The No Build Alternative includes the existing transportation network within the Project Study Area and additional network changes/improvements between current conditions and the 2045 horizon year. Network changes include modifications identified in the Constrained Long Range Plans (CLRP) of the Baltimore Metropolitan Council (BMC) and the Metropolitan Washington Council of Governments (MWCOG), as well as other major projects that are not yet in the regional CLRPs but have been identified as important changes to the network by key stakeholder and elected officials.

The No Build Alternative considers the following relevant transportation capacity improvements to existing modes between Washington, D.C. and Baltimore, MD:

- Major roadways that run parallel to or intersect the SCMAGLEV Project
- Transit operations in the vicinity of station areas
- Commuter rail operations between Washington, D.C. and Baltimore, MD
- Intercity rail operations between Washington, D.C. and Baltimore, MD

The No Build Alternative is described in greater detail in DEIS Chapter 3 Alternatives Considered. One of the improvements is the I-495 and I-270 Public-Private Partnership Managed Lane Study, which is currently evaluating alternatives that address roadway capacity improvements. The plan to add managed lanes would likely impact the activities, features and attributes of the BWP, resulting in a use of the BWP under Section 4(f)[5].

As described in DEIS Chapter 2 Purpose and Need, the purpose of the SCMAGLEV Project is to evaluate, and ultimately construct and operate, a safe, revenue-producing, high-speed ground transportation system that achieves the optimum operating speed of the SCMAGLEV technology to significantly reduce travel time in order to meet the capacity and ridership needs of the Baltimore-Washington region. Because the No Build Alternative does not include a SCMAGLEV system as described in the Project purpose, the No Build Alternative would not achieve the Project purpose and need. However, the No Build Alternative is retained for study in the DEIS for the purpose of comparing the benefits and impacts of the Build Alternatives, and as an alternative to undertaking the proposed action.

F.3.4.2 Description of Build Alternatives

This section defines the Build Alternatives and the various project elements that when combined create multiple Build Alternatives. Each Build Alternative consists of an alignment for the dedicated guideway, three stations, one TMF, and other ancillary facilities:

- Each Build Alternative follows the same common alignment in deep tunnel from the Washington, D.C. Station to just west of the Anacostia River. The alignments then split and follow along either the east or west side of the BWP in a combination of deep tunnel and elevated viaduct. The alignments re-converge just north of MD 175 near Fort George G. Meade. The alignments then continue in deep tunnel north through the BWI Marshall Airport tunnel and ultimately terminate at the Cherry Hill Station or Camden Yards Station.

- Each Build Alternative includes one of two primary alignments - Build Alternatives J or J1, each with six variations, as noted below. Both alignments generally follow a common route and the BWP; Build Alternatives J is on the east side of the BWP and Build Alternatives J1 is on the west side of the BWP.

- Each Build Alternative includes stations at three locations: a station in Washington, D.C.; at the BWI Marshall Airport; and in the Baltimore area. There are two options for the Baltimore area station – Cherry Hill or Camden Yards –

[5] The I-495 & I-270 Managed Lanes Study estimates 69.3 acres of impact at Baltimore-Washington Parkway under all six Build Alternatives due to reconfiguration of the I-495/Baltimore-Washington Parkway interchange. The Draft Section 4(f) Evaluation is available at https://495-270-p3.com/wp-content/uploads/2020/11/2020-06-02_DEIS_05_Section_4f.pdf.

each of which has a corresponding MOW facility and a Systems Operations Center.

- Each Build Alternative includes one TMF, which could be one of three locations adjacent to the alignment. A MOW facility is associated with each TMF. The location of the MOW is determined by TMF selected.

- Each Build Alternative would have the same types of ancillary facilities; however, the locations of these facilities may vary among the Build Alternatives.

DEIS Section 3.3.2 provides more detail regarding the Build Alternatives. **Table F-3** provides a summary of the Build Alternatives. **Figures F-4, F-5, F-6,** and **F-7** show the locations of each Build Alternative. See DEIS Appendix G.2 for more detailed engineering, including plan and profiles.

Table F-3: Build Alternatives

Build Alternative	Alignment	Stations				TMF		
	BWP	Mount Vernon Square East	BWI Marshall Airport	Cherry Hill	Camden Yards	BARC Airstrip	BARC West	MD 198
J-01	EAST	✓	✓	✓	-	-	-	✓
J-02	EAST	✓	✓	✓	-	✓	-	-
J-03	EAST	✓	✓	✓	-	-	✓	-
J-04	EAST	✓	✓	-	✓	-	-	✓
J-05	EAST	✓	✓	-	✓	✓	-	-
J-06	EAST	✓	✓	-	✓	-	✓	-
J1-01	WEST	✓	✓	✓	-	-	-	✓
J1-02	WEST	✓	✓	✓	-	✓	-	-
J1-03	WEST	✓	✓	✓	-	-	✓	-
J1-04	WEST	✓	✓	-	✓	-	-	✓
J1-05	WEST	✓	✓	-	✓	✓	-	-
J1-06	WEST	✓	✓	-	✓	-	✓	-

Notes:
Alignment = alignment between station limits and ancillary facilities (fresh air and emergency egress sites; stormwater management; substations; and portal areas)
Stations = station footprint and parking (if parking is included at the station), plus surface access points, underground access tunnels to the stations or parking, and maintenance of way facility in the case of the Camden Yards Station Option
TMF = TMF footprint (includes the connecting tracks, portals and cut/cover areas) plus maintenance of way facilities
Source: AECOM 2020.

Figure F.4 Build Alternative J-01 thru J-02

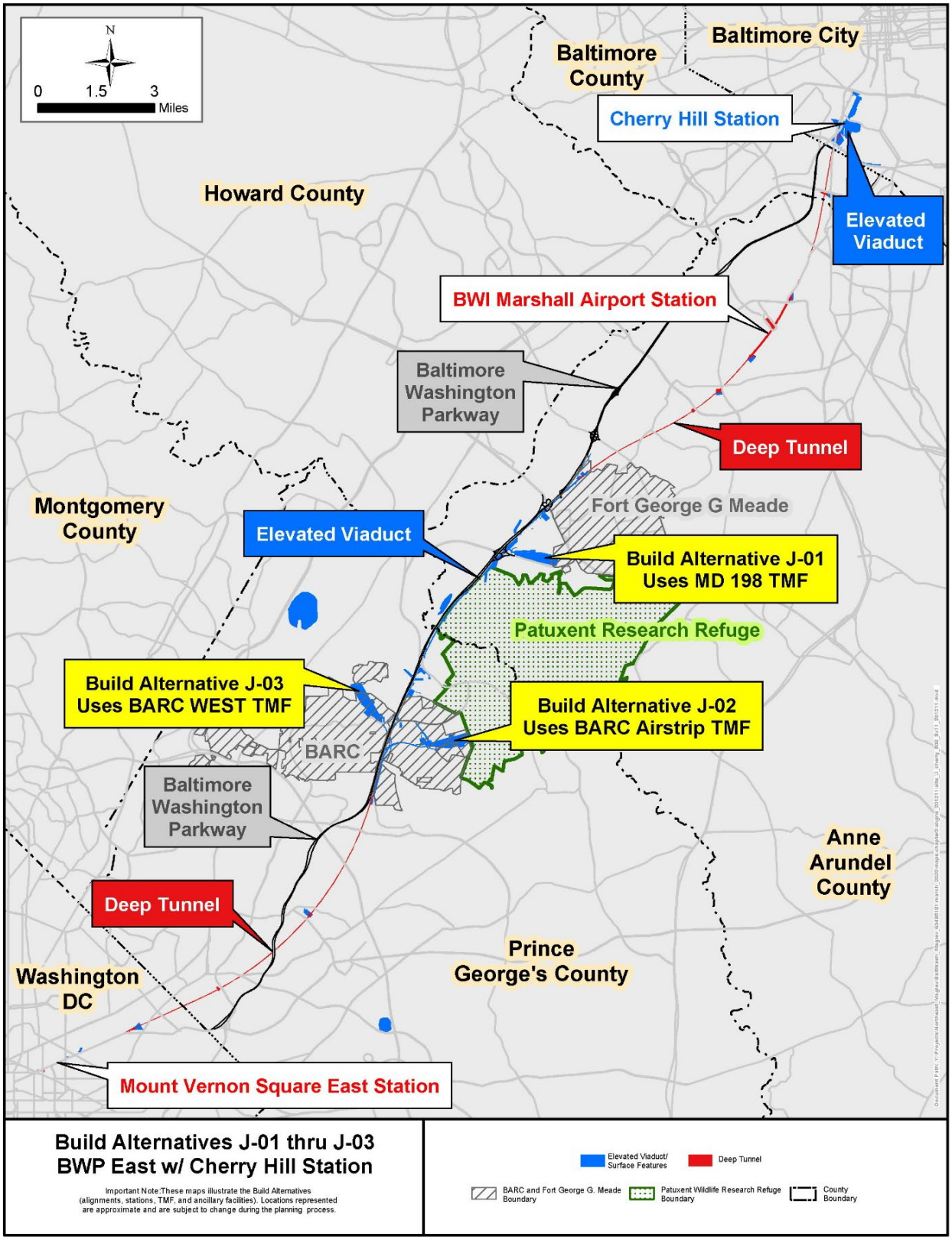


Figure F.5 Build Alternative J-04 thru J-06

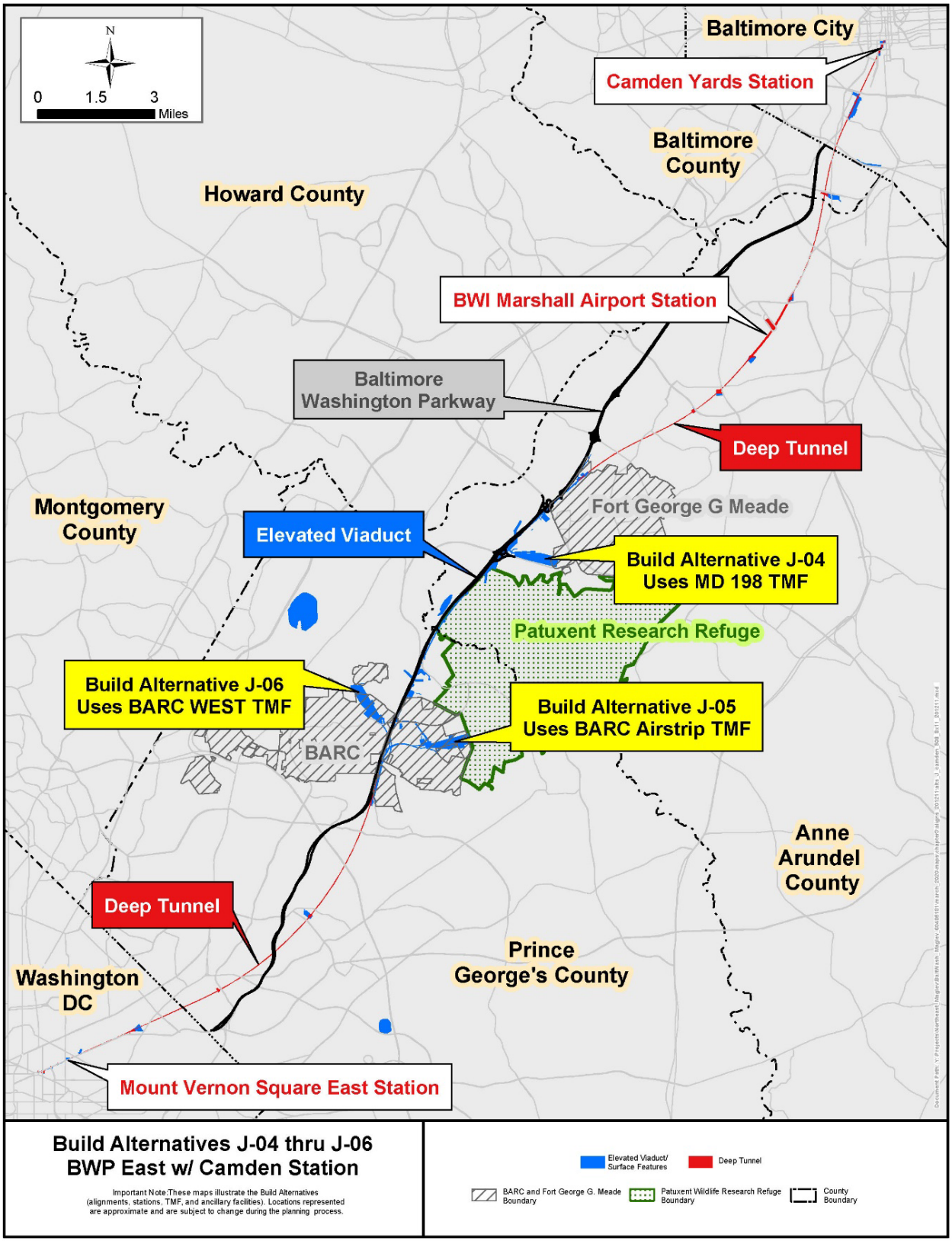


Figure F.6 Build Alternative J1-01 thru J1-03

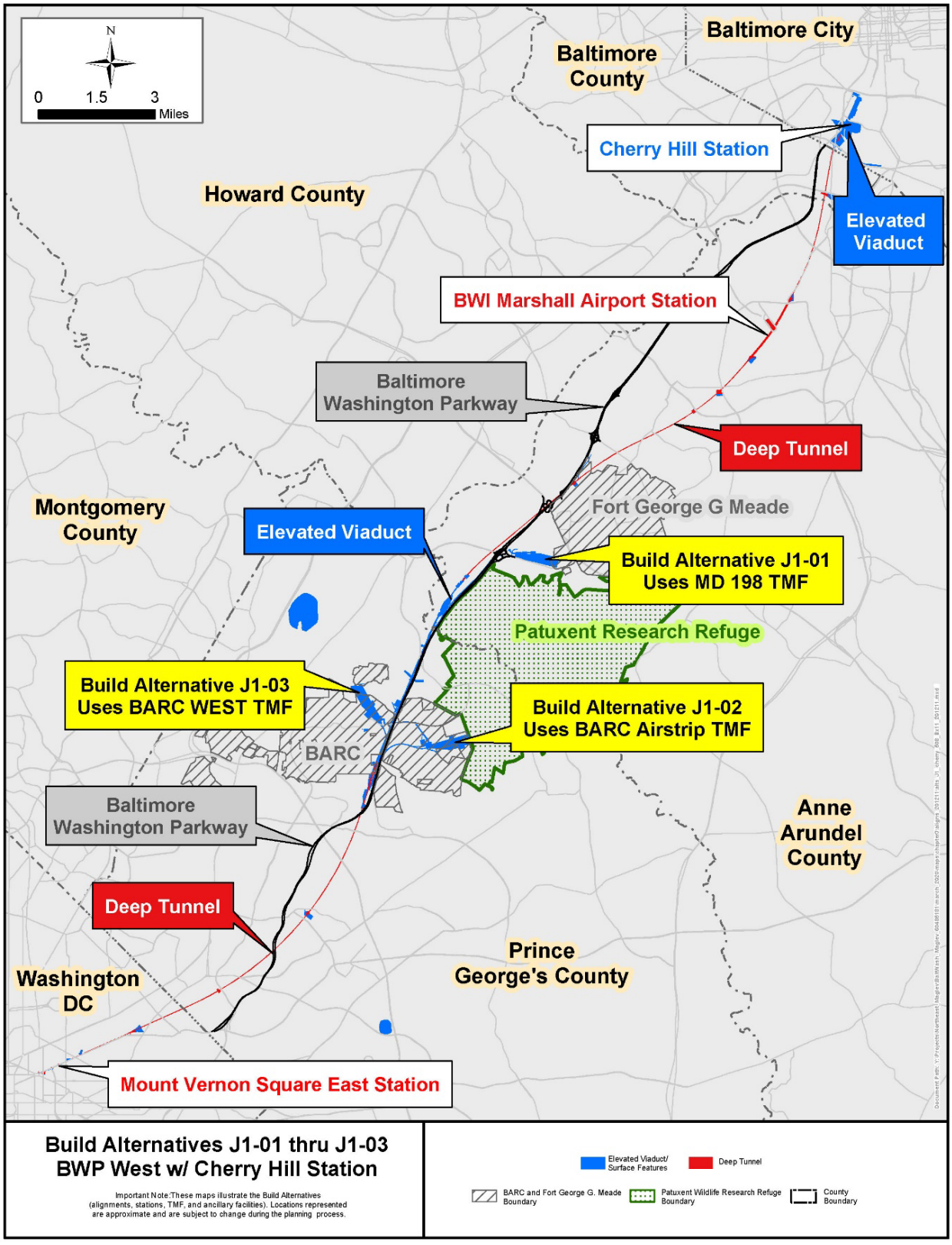
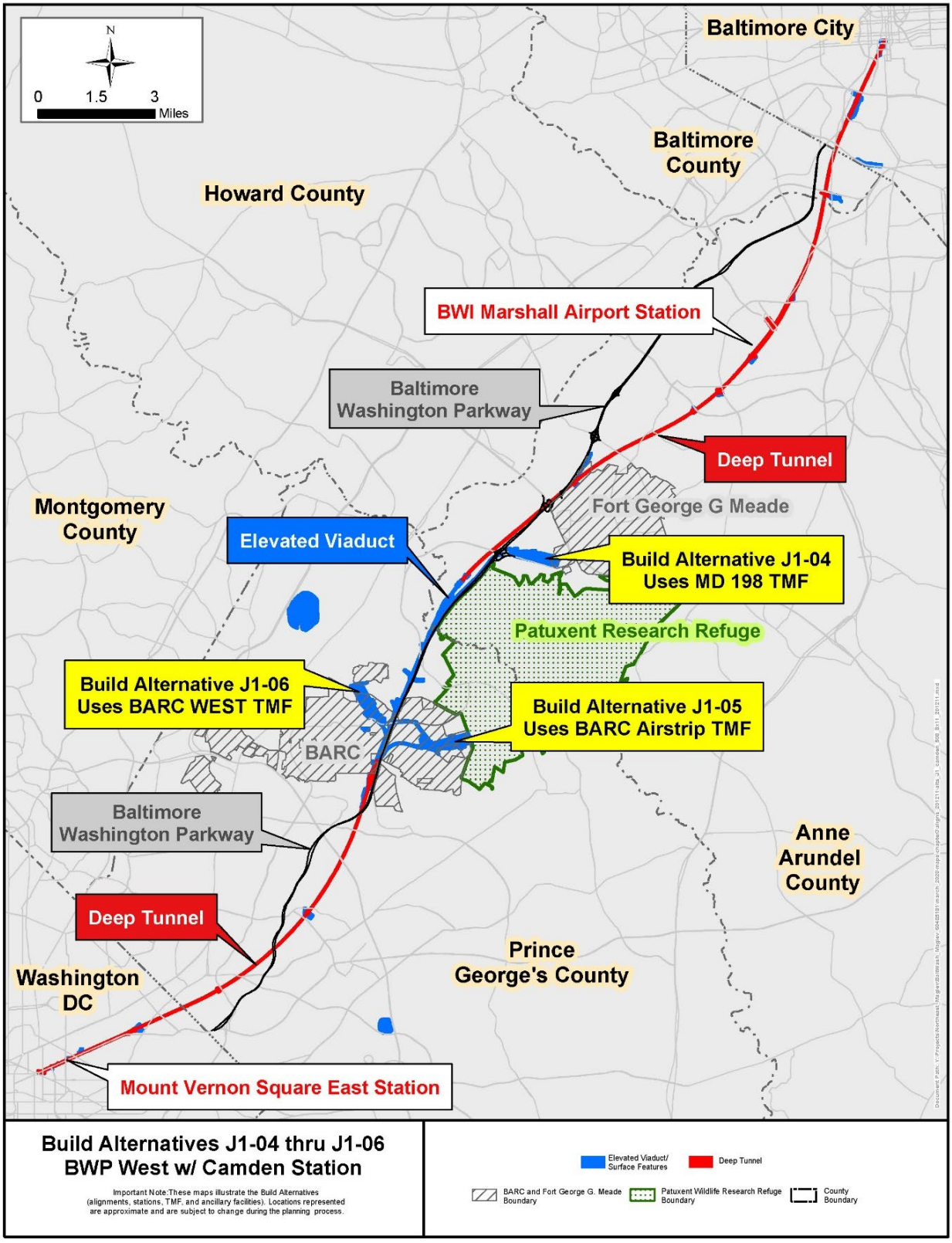


Figure F.7 Build Alternative J1-04 thru J1-06



F.4 Identification of Section 4(f) Properties

F.4.1 Methodology

FRA reviewed existing maps (including Geographic Information System (GIS) – based data and online maps available from Federal, state, county, and city agencies), searched property records, and consulted with officials with jurisdiction to identify properties protected by Section 4(f) within a Project Study Area. A Project Study Area was defined around each alternative using the following methodology:

- Parks, recreation areas, and wildlife and waterfowl refuges: The Project Study Area as an area within 800 feet of the alignment, stations, and ancillary facilities (an area that represents the outer limits of potential visual, noise, and other effects from the SCMAGLEV Project and is defined by the screening distance used in the noise analysis); and,
- Historic properties: The Project Study Area is the Area of Potential Effects determined through consultation under Section 106, as defined in DEIS Section 4.8 Cultural Resources.

The following types of properties were identified:

- Parks and recreational areas of national, state or local significance that are both publicly owned and open to the public;
- Publicly owned wildlife and waterfowl refuges of national, state or local significance that are open to the public to the extent that public access does not interfere with the primary purpose of the refuge; and
- Historic sites of national, state or local significance in public or private ownership regardless of whether they are open to the public.

FRA verified public ownership and administration of parks, recreation areas and wildlife and waterfowl refuges through available documentation and coordination with the officials with jurisdiction over those properties identified in Section F.4.2 below. Additional information about park properties can be found in DEIS Section 4.7 Recreation Facilities and Parklands.

For the purpose of the Section 4(f) evaluation, the term “historic site” has the same meaning as “historic property” under Section 106. The term historic property includes prehistoric or historic districts, sites, buildings, structures, or objects that are listed in or eligible for listing in the National Register of Historic Places (36 CFR § 800.16(l)).

FRA identified significant historic sites using GIS-based systems managed by the SHPO offices in Maryland and D.C. that serve as consolidated informational networks of recorded cultural resources. The databases include prehistoric and historic sites and properties, as well as surface surveys within the state of Maryland. FRA is consulting with the Maryland State Historic Preservation Office/Maryland Historical Trust (MD

SHPO) and District of Columbia Historic Preservation Office (DC SHPO) (the officials with jurisdiction over historic sites), Native American tribes, and other consulting parties through the Section 106 process to evaluate and assess effects to historic sites. FRA is using the preliminary findings of Section 106 consultation[6] in this Draft Section 4(f) Evaluation to evaluate Section 4(f) use and in planning to minimize harm. More detail regarding historic properties and Section 106, such effects determinations, may be found in Section 4.8 Cultural Resources and Appendix D.5.

F.4.2 Section 4(f) Properties

Tables F-4 and F-5 list the Section 4(f) properties within the Project Study Area of the Build Alternatives. **Figures F-8 and F-9** show the parks Section 4(f) properties South (1-25) and North (25-40) and **Figures F-10 and F-11** show the historic resources Section 4(f) properties, South (1-30) and North (30-44). In coordination with officials with jurisdiction, FRA determined that each property is of national, state, or local significance and is classified by the following types:

- Publicly owned park (or schools with public park uses), parkway, recreation area/center or wildlife and waterfowl refuge
- Recreational Trail
- Publicly or privately-owned historic site

Table F-4: Section 4(f) Properties – Parks, Recreation Areas, Wildlife and Waterfowl Refuges, Trails

Map ID # and/or Property Name	Classification	Location	Officials with Jurisdiction	Significant Features/Attributes
1. Small Park Reservations - L'Enfant Plan (Reservations 71, 72, 73, 74, 176,177A, 178, 179, 180, 181, 182, 183, 184, and 185)	Park	Fourteen reservations, central Washington, D.C.	National Park Service (NPS)	Paths, benches, lawn, landscaping, art
2. Dunbar Aquatic Center	Recreation Center	101 N Street, NW, Washington, D.C.	D.C. Department of Parks and Recreation (D.C. DPR)	Pool
3. New York Avenue Recreation Center	Park, Recreation Center	100 N Street, NW Washington, D.C.	D.C. DPR	Ballfields, playgrounds, recreation center

[6] While both Section 106 and Section 4(f) are considered in the NEPA process, Section 106 applies to all Federal undertakings and Section 4(f) applies to only USDOT actions. Section 106 considers the "effect" of an undertaking while Section 4(f) considers the "use" of a property by an undertaking. Section 4(f) is not integral to Section 106, but Section 106 is integral to Section 4(f) compliance insofar as historic sites are concerned.

Map ID # and/or Property Name	Classification	Location	Officials with Jurisdiction	Significant Features/Attributes
4. R.H. Terrell Recreation Center	Recreation Center	155 L Street, NW Washington, D.C.	D.C. DPR	Basketball court, computer lab, gymnasium, multi-purpose room, fitness center, football/soccer field
5. Butler-Wyatt Clubhouse #2 Boys & Girls Club	Recreation Center	Perry School Community Services Center, 128 M Street, NW Washington, D.C.	D.C. DPR	Gymnasium
6. Loomis Park	Park	Bryant Street, NE at Lawrence Street, NE Washington, D.C.	D.C. DPR	None.
7. Bladensburg South Community Park	Park	52nd Ave, Bladensburg, MD 20710	M-NCPPC	Undeveloped; master plan documents plans for future use as publicly accessible park.
10. Bladensburg Waterfront Park	Park	4601 Annapolis Road, Bladensburg, MD	M-NCPPC	Boating, biking, walking, fishing, picnic pavilions, playground/play features.
11. Anacostia River Trail	Recreational Trail	4601 Annapolis Road, Bladensburg, MD	M-NCPPC	Hiking and biking trail
18. Greenbelt Forest Preserve	Park	Northway, Greenbelt, MD	City of Greenbelt	Observatory, ballfields, trail system
19. Baltimore-Washington Parkway	Park, Historic Parkway	Eastern border of District of Columbia, through Prince George's County and Anne Arundel County, Maryland	NPS	Historic scenic parkway, landscape architecture - heavy slope vegetation, opposing roadways with variable-width median, curvilinear road alignments, stone-faced bridge abutments and other contributing stone-faced structures, contour-grading fit to the topography

Map ID # and/or Property Name	Classification	Location	Officials with Jurisdiction	Significant Features/Attributes
20. South Laurel Neighborhood Park	Park	South Laurel Road Laurel, MD	M-NCPPC	Playground, trail, basketball court
21. Springfield Road Park	Park	11300 Springfield Road Laurel, MD	M-NCPPC	Undeveloped.
22. Muirkirk Park	Park	Muirkirk Road at Hermosa Drive	M-NCPPC	Undeveloped.
23. Montpelier Park	Park	12741 Laurel Bowie Road Laurel, MD	M-NCPPC	Ball fields, basketball court, tennis courts, playground
24. Patuxent River Park I	Park	Brock Bridge Road, Laurel, MD	M-NCPPC	Undeveloped parkland; part of larger multi-parcel Patuxent River Park.
25. Maryland City Park	Park	565 Brock Bridge Road Laurel, MD	Anne Arundel County DRP	Baseball fields, multipurpose field, overlay field, picnic and playground areas, dog park, parking, restroom and concession storage buildings, a trail connecting the two land bays
26. Brock Bridge Elementary School/Brick Bridge Park	Public School/Park	405 Brock Bridge Road Laurel, MD 20724	Anne Arundel County BOE	Baseball fields, soccer field
27. Patuxent Research Refuge	National Wildlife Refuge	South Tract - 10901 Scarlet Tanager Loop, Laurel, MD North Tract - 230 Bald Eagle Drive Laurel, MD	United States Fish and Wildlife Service (USFWS)	Hunting, hiking, fishing, wildlife viewing, wildlife and natural resource conservation, wildlife-based research. Single largest source of intact forest in the Baltimore-Washington area.
30. Lindale Middle School	Public School/Park	415 Andover Road Linthicum Heights, MD	Anne Arundel County BOE	Baseball fields, basketball courts, tennis courts, track

Map ID # and/or Property Name	Classification	Location	Officials with Jurisdiction	Significant Features/Attributes
32. Patapsco Valley State Park	Park	North side of Patapsco River, east of Baltimore-Washington Parkway and south of I-895	Maryland Department of Natural Resources (MD DNR)	Hiking, fishing, camping, canoeing, horseback riding, mountain biking, and picnicking
33. Lakeland Park	Park	2767 Wegworth Lane Baltimore, MD	Baltimore Department of Recreation and Parks (Baltimore DRP)	Ballfields, basketball courts, fitness equipment, swings, walking path
34. Middle Branch Park	Park	3301 Waterview Ave, Baltimore, MD	Baltimore DRP	View of the city skyline, kayaking, canoeing, boating, crabbing, fishing, trails, and picnicking
35. Indiana Avenue Park	Park	Indiana Avenue at Sidney Avenue Baltimore, MD	Baltimore DRP	Playground.
36. Gwynns Falls Trail	Recreational Trail	Southwest Baltimore, MD	Baltimore DRP	Hiking, biking, access to historic greenway stream valley
37. McKeldin Plaza	Park/Plaza	East Pratt Street at Light Street Baltimore, MD	Baltimore DRP	Lawn, plaza, fountain, memorial
38. Liberty Park Dog Walk	Park	8 Park Avenue Baltimore, MD	Baltimore DRP	Dog walk, benches
39. Ravens' Walk	Park	West Lee Street Baltimore, MD	Baltimore DRP	Path

Figure F-8: Section 4(f) Parks Properties, South

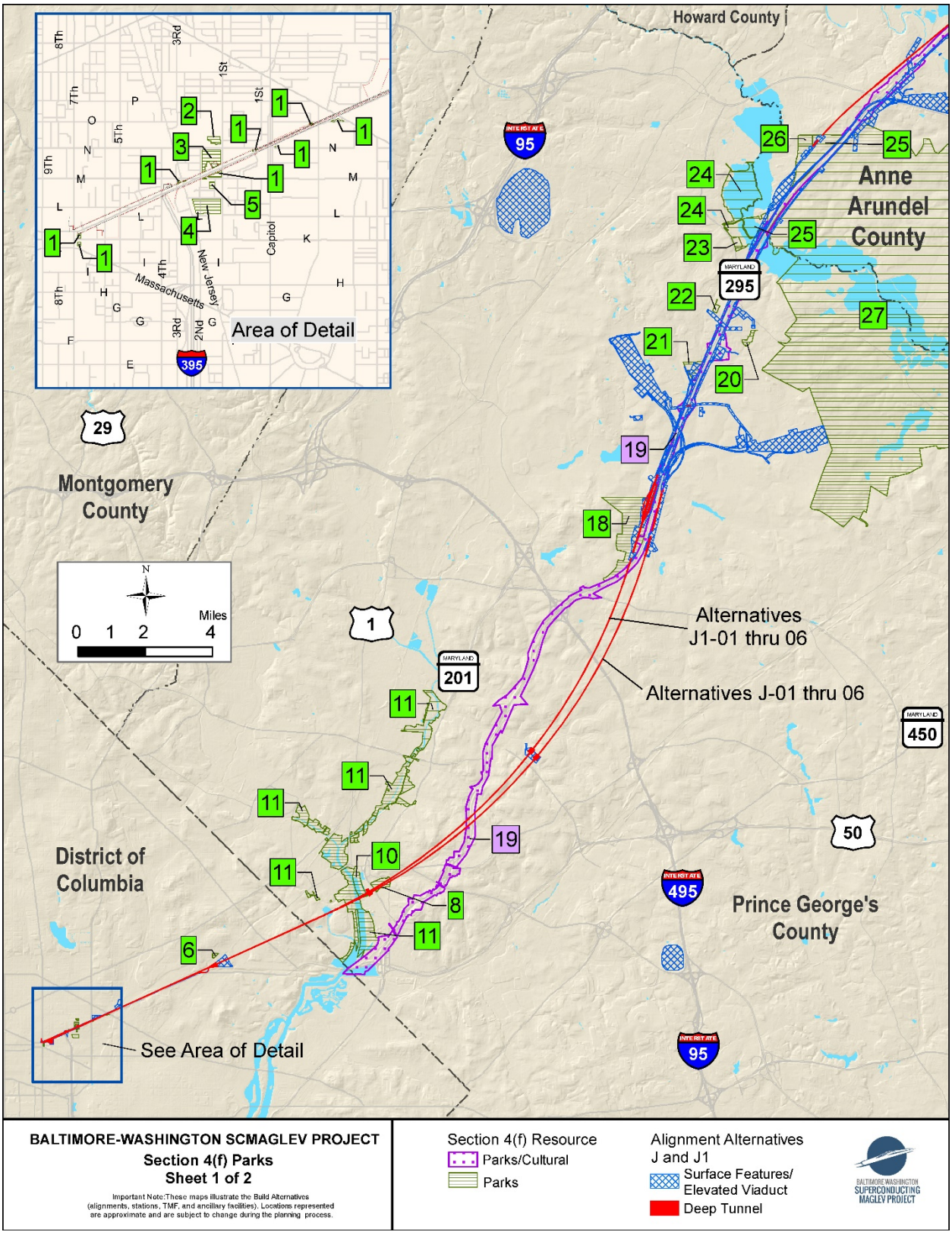


Figure F-8: Section 4(f) Parks Properties, North

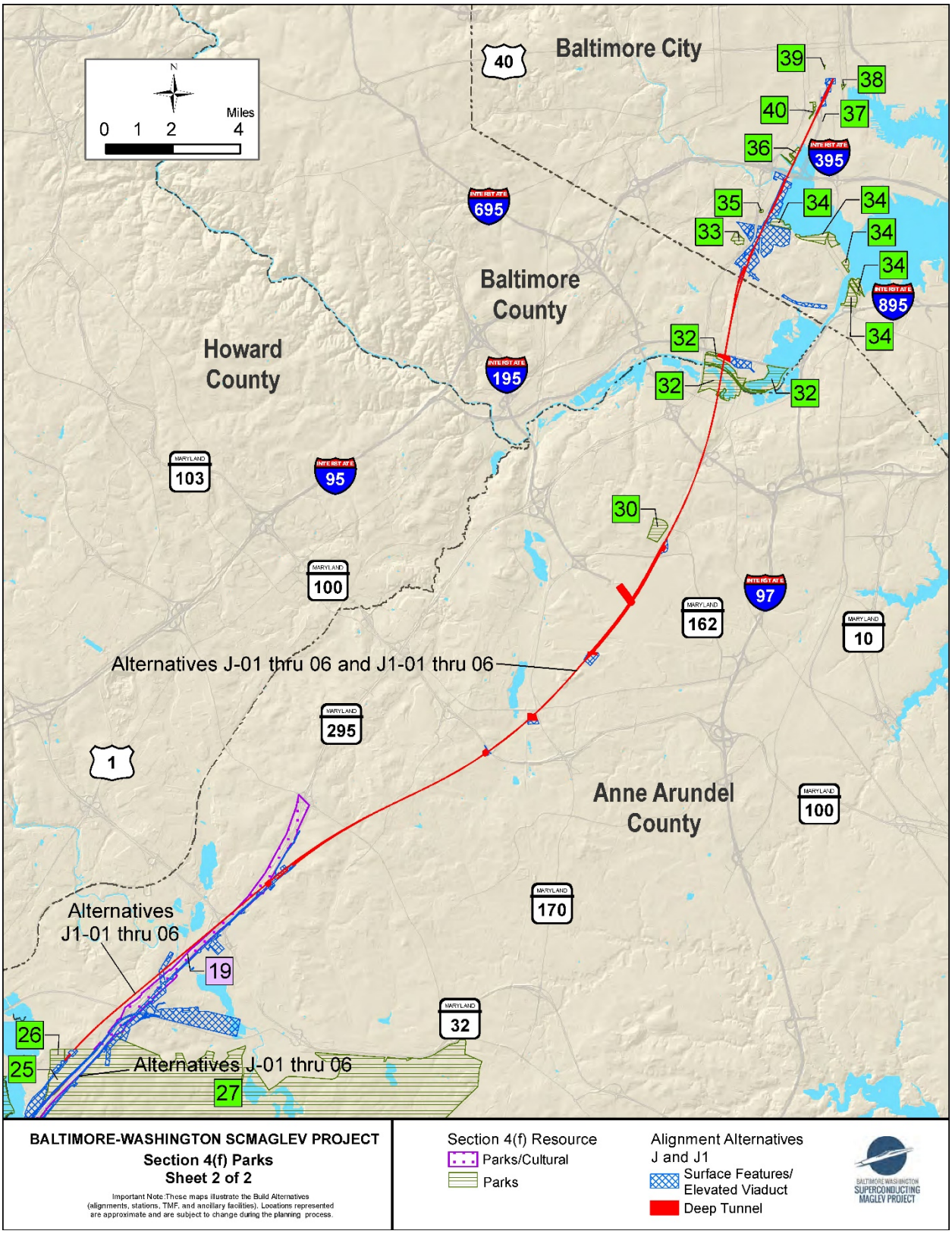


Table F-5: Section 4(f) Properties – Historic Properties

Map ID # and/or Property Name	Classification	Location	Officials with Jurisdiction	Significant Features/Attributes
1. L'Enfant Plan (NRIS ID# 97000332)	Historic Property	Various roadways, reservations, and vistas central Washington, D.C.	NPS, DC SHPO	NRHP-listed under Evaluation Criteria A and C
2. Central Public Library (Carnegie Library) (NRIS ID# 69000290)	Historic Property	Central Washington, D.C.	DC SHPO	NRHP-listed under Evaluation Criteria A and C
3. Seventh St NW, East Side of 1000 Block (#84000861)	Historic Property	1000 Block of Seventh Street, NW Washington, D.C.	DC SHPO	NRHP-listed under Evaluation Criterion C
4. Mount Vernon Square Historic District and Addition (NRIS ID# 99001071)	Historic District	Central Washington, D.C.	DC SHPO	NRHP-listed under Evaluation Criteria A and C
5. Yale Steam Laundry (NRIS ID# 99000332)	Historic Property	437 and 443 New York Avenue, NW Washington, D.C.	DC SHPO	NRHP-listed under Evaluation Criteria A and C
6. Fletcher Chapel	Historic Property	401 New York Avenue, NW; Washington, D.C.	DC SHPO	NRHP-listed under Evaluation Criteria A and C
7. (Former) Peoples Congregational Church	Historic Property	628 M Street, NW Washington, D.C.	DC SHPO	NRHP-eligible under Evaluation Criteria A and C; Criteria Consideration A
8. Buildings North Side 600 Block K St NW	Historic Property	600 Block K St NW Washington, D.C.	DC SHPO	Pending clarification on eligibility criteria from DC SHPO
9. Mount Vernon Triangle Historic District (NRIS ID# 060000191	Historic District	Central Washington, D.C.	DC SHPO	NRHP-listed under Evaluation Criteria A, C, and D
10. 917-921 6th Street NW	Historic Property	917-921 6th Street NW Washington, D.C.	DC SHPO	Pending clarification on eligibility criteria from DC SHPO
11. Downtown Historic District and Addition	Historic District	Central Washington, D.C.	DC SHPO	NRHP-listed under Evaluation Criteria A and C
12. Bible Way Church and Temple	Historic Property	1100-1130 New Jersey Avenue, NW Washington, D.C.	DC SHPO	NRHP-listed under Evaluation Criteria A, B, and C
13. Augusta and Louisa Apartment Buildings (#94001032	Historic Property	1151 New Jersey Avenue, NW Washington, D.C.	DC SHPO	NRHP-listed under Evaluation Criteria A and C
14. Holy Redeemer Catholic Church and School	Historic Property	200-210 New York Avenue, NW (church and convent) 1135 New Jersey Avenue, NW (school) Washington, D.C.	DC SHPO	NRHP-eligible under Evaluation Criteria A and C

Map ID # and/or Property Name	Classification	Location	Officials with Jurisdiction	Significant Features/Attributes
15. M Street High School (Perry School)	Historic Property	128 M Street, NW Washington, D.C.	DC SHPO	NRHP-listed under Evaluation Criterion C
16. The New York	Historic Property	115 New York Ave NW Washington, D.C.	DC SHPO	NRHP-eligible under Evaluation Criteria A and C
17. Southern Baptist Church	Historic Property	134 L Street, NW Washington, D.C.	DC SHPO	NRHP-eligible under Criterion C
18. Slater School	Historic Property	45 P Street, NW Washington, D.C	DC SHPO	NRHP-listed under Evaluation Criteria A and C
19. John Mercer Langston School	Historic Property	43 P Street, NW Washington, D.C.	DC SHPO	NRHP-listed under Evaluation Criteria A and C
20. Margaret Murray Washington School (#11000843)	Historic Property	27 O Street, NW Washington, D.C	DC SHPO	NRHP-listed under Evaluation Criteria A and C
21. Baltimore & Ohio (B&O) Railroad Bridge over Montana Avenue, NE	Historic Property	Montana Avenue, NE; Washington, D.C.	DC SHPO	NRHP-listed under Evaluation Criteria A and C
22. (Former) F.P. May Hardware Company Warehouse and Office	Historic Property	1818 New York Avenue, NE; Washington, D.C.	DC SHPO	NRHP-listed under Evaluation Criteria A, B, and C
23. Pennsylvania Railroad Bridge over Montana Avenue, NE	Historic Property	Pennsylvania Railroad over Montana Avenue NE; Washington, D.C.	DC SHPO	NRHP-eligible under Evaluation Criteria A and C
24. Hecht Warehouse	Historic Property	1401 New York Avenue, NE; Washington, D.C.	DC SHPO	NRHP-listed under Evaluation Criterion C
25. Martin's Woods (MIHP # PG:72-68)	Historic Property	West of Finns Lane at Riverdale Road Lanham, MD	Maryland Historical Trust (MD SHPO)	NRHP-eligible under Evaluation Criterion C
26. Greenbelt Historic District (MIHP# PG:67-4, NRIS #80004331)	Historic District/NHL	Greenbelt, MD	MD SHPO	NRHP-listed under Evaluation Criteria A and C
27. Baltimore-Washington Parkway (NRIS ID# 91000532)	Park, Historic Parkway	Eastern border of District of Columbia, through Prince George's County and Anne Arundel County, MD	NPS, MD SHPO	NRHP-listed under Evaluation Criteria A and C
28. Goddard Space Flight Center (MIHP# PG:64-19)	Historic Property	8800 Greenbelt Road Greenbelt, MD	MD SHPO	NRHP-eligible under Evaluation Criteria A and C

Map ID # and/or Property Name	Classification	Location	Officials with Jurisdiction	Significant Features/Attributes
29. Beltsville Agricultural Research Center (MIHP# PG:62-14)	Historic Property	Washington Boulevard (US 1) and Powder Mill Road; Beltsville, MD	MD SHPO	NRHP-eligible under Evaluation Criteria A and C
30. District of Columbia Children's Center (D.C.CC) – Forest Haven District (MIHP# AA-2364)	Historic Property	River Road, Laurel, MD	MD SHPO, DC SHPO	NRHP-eligible under Evaluation Criteria A and C
31. Westport Historic District (MIHP# B-1342)	Historic District	Southwest Baltimore, MD	MD SHPO	NRHP-eligible under Evaluation Criteria A and C
32. Cherry Hill Homes District (B-5080)	Historic District	South Baltimore, MD	MD SHPO	NRHP-eligible under Evaluation Criterion C
33. Cherry Hill Homes Extension 1 (B-5321)	Historic Property	South Baltimore, MD	MD SHPO	NRHP-eligible under Evaluation Criterion C
34. Bridge over Annapolis Road (BC-5401)	Historic Property	South Baltimore, MD	MD SHPO	NRHP-listed under Evaluation Criteria A and C
36. Spring Garden Bridge (B-3668)	Historic Property	Middle Branch of the Patapsco River	MD SHPO	NRHP-eligible under Criteria A and C
40. Howard St Tunnel & Power House (B-79)	Historic Property	Central Baltimore, MD	MD SHPO	NRHP-listed under Evaluation Criteria A and C
41. Baltimore and Ohio (B&O) Railroad Baltimore Belt Line (B-5287)	Historic Property	Central Baltimore, MD	MD SHPO	NRHP-eligible under Evaluation Criteria A and C
42. Pratt Furniture Company (B-2387)	Historic Property	204-208 W. Pratt Street Baltimore, MD	MD SHPO	NRHP-eligible under Evaluation Criterion C
43. George H. Fallon Federal Building	Historic Property	31 Hopkins Plaza Baltimore, MD	MD SHPO	NRHP-eligible under Evaluation Criterion A
44. (Downtown Baltimore) Business and Government Historic District (B-3935)	Historic District	Central Baltimore, MD	MD SHPO	NRHP-eligible under Evaluation Criterion A
45. Otterbein Church (B-11)	Historic Property	112 West Conway Street; Baltimore, MD	MD SHPO	NRHP-listed under Evaluation Criteria A and C
46. Otterbein Historic District (B-3934)	Historic District	Central Baltimore	MD SHPO	NRHP-eligible under Evaluation Criteria A and C
47. U.S. Fidelity and Guaranty (USF&G) Building (B-5318)	Historic Property	100 Light Street Baltimore, MD	MD SHPO	NRHP-listed under Evaluation Criterion A, Criteria Consideration G

Figure F-10: Section 4(f) Historic Properties, South

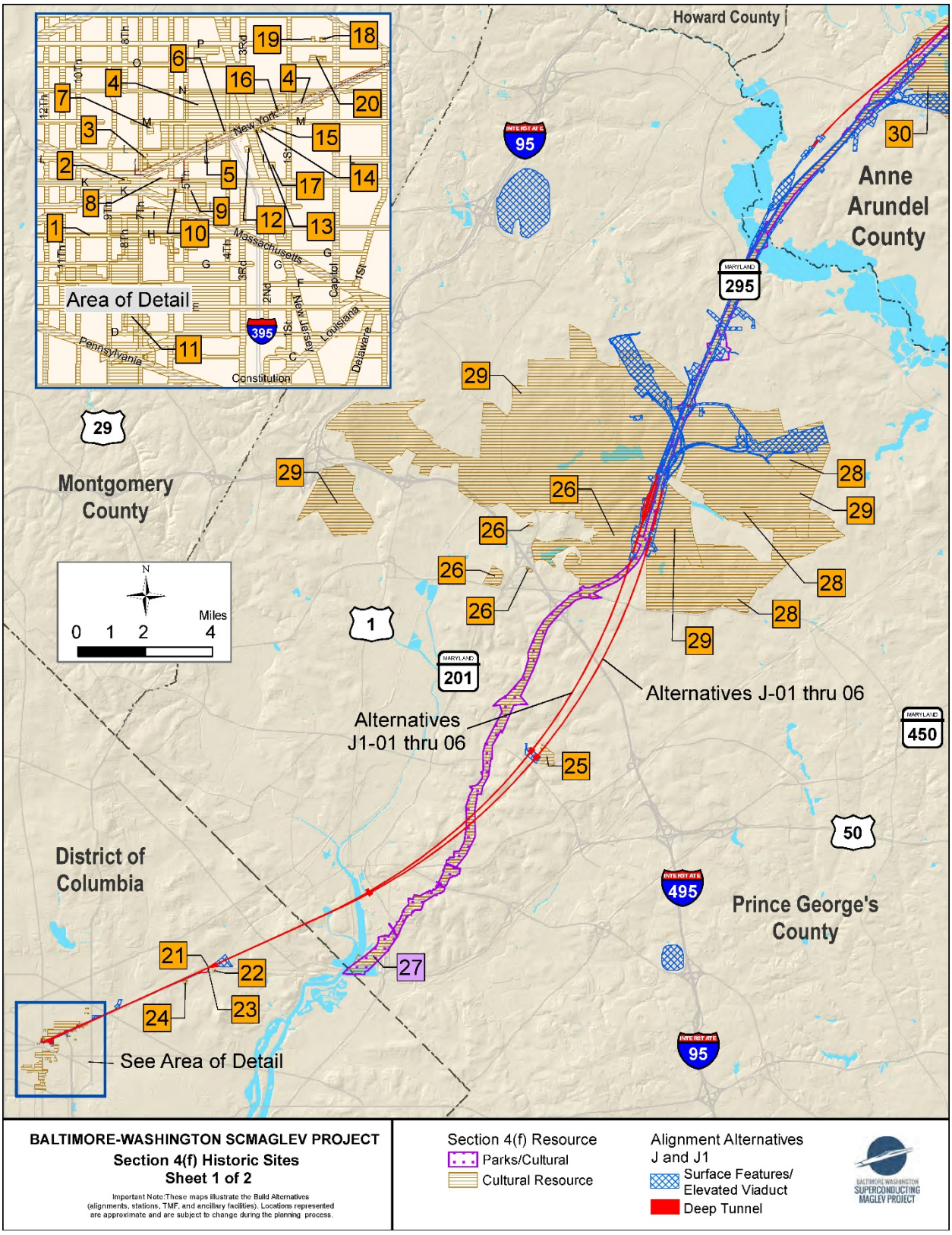
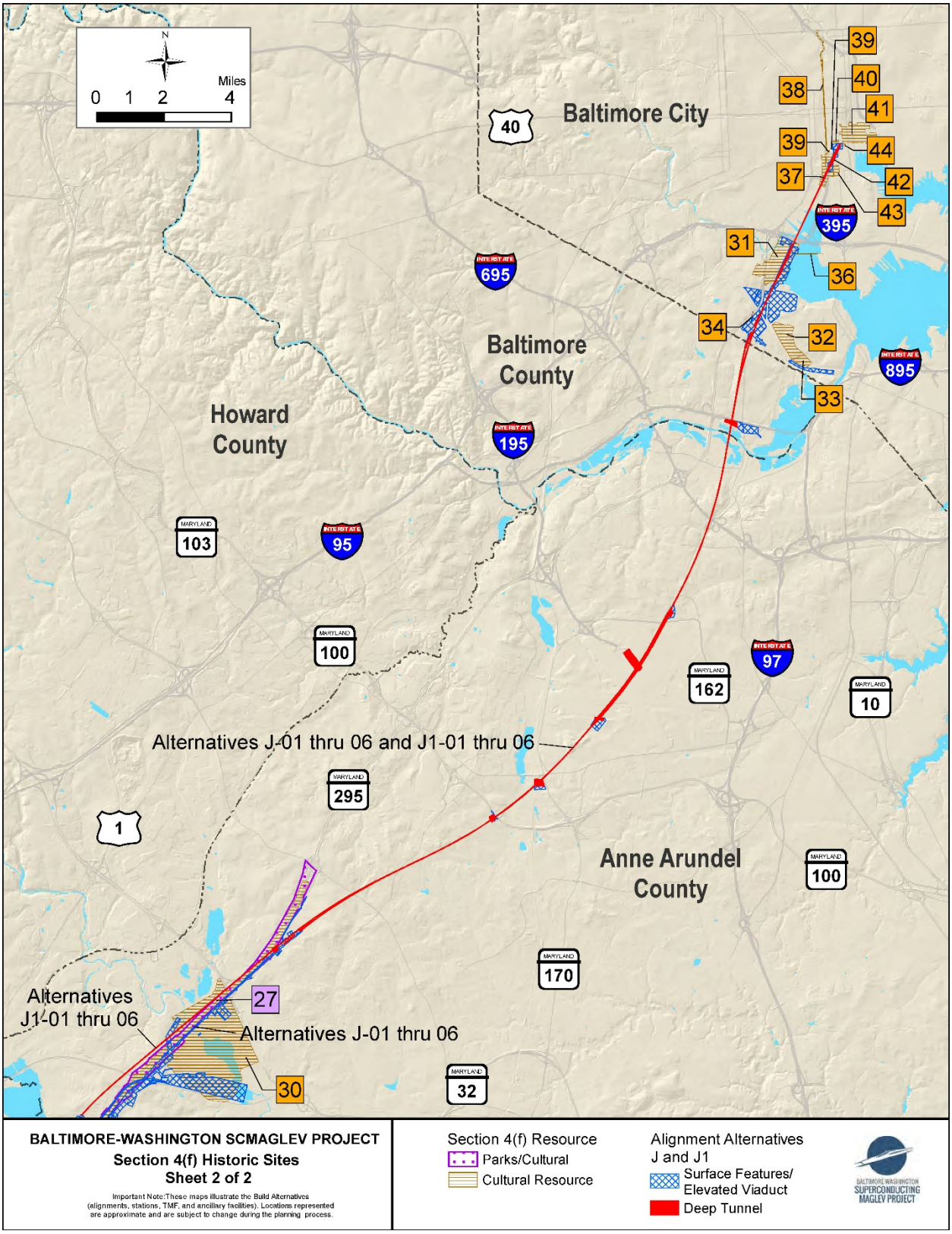


Figure F-11: Section 4(f) Historic Properties, North



F.5 Description of Section 4(f) Properties and Uses by the Build Alternatives

F.5.1 Publicly Owned Parks, Refuges, Trails, and Recreational Areas

The SCMAGLEV Project would potentially use 37 park properties within the Project Study Area. **Table F-6** summarizes FRA's proposed determinations of Section 4(f) use of parks, refuges, trails, and recreational areas. The following subsections describe the impacted park properties, arranged south to north by proposed use determination. FRA will make final determinations of use of Section 4(f) properties in the Final Section 4(f) Evaluation.

Figures are provided in Attachment A for each Section 4(f) property; the figures show each park, refuge, trail, and recreational area, and the surface limits of disturbance (LOD)[7] of the Build Alternatives in relation to those properties.

Table F-6: Proposed Determinations of Section 4(f) Uses by Build Alternatives - Parks, Trails, and Recreational Areas; No Use (X); Permanent Use (P); *De Minimis* Impact (D); Constructive Use (C), Temporary Occupancy (T)

Section 4(f) Property	Build Alternative											
	J-01	J-02	J-03	J-04	J-05	J-06	J1-01	J1-02	J1-03	J1-04	J1-05	J1-06
L'Enfant Plan - Small Park Reservations 71, 72, 73, 74, 183, and 185	X	X	X	X	X	X	X	X	X	X	X	X
L'Enfant Plan - Small Park Reservations 176, 177A, 178, 179, 180, 181,182, and 184	**T**	**T**	**T**	**T**	**T**	**T**	**T**	**T**	**T**	**T**	**T**	**T**
Dunbar Aquatic Center	X	X	X	X	X	X	X	X	X	X	X	X
New York Avenue Recreation Center	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**
R.H. Terrell Recreation Center	X	X	X	X	X	X	X	X	X	X	X	X
Butler-Wyatt Clubhouse #2 Boys & Girls Club	X	X	X	X	X	X	X	X	X	X	X	X
Loomis Park	X	X	X	X	X	X	X	X	X	X	X	X

[7] The surface LOD is the geographic area of proposed disturbance to construct and operate the SCMAGLEV Project.

Section 4(f) Property	Build Alternative											
	J-01	J-02	J-03	J-04	J-05	J-06	J1-01	J1-02	J1-03	J1-04	J1-05	J1-06
Bladensburg South Community Park	X	X	X	X	X	X	X	X	X	X	X	X
Bladensburg Waterfront Park	X	X	X	X	X	X	X	X	X	X	X	X
Anacostia River Trail	X	X	X	X	X	X	X	X	X	X	X	X
Bladensburg Community Center	X	X	X	X	X	X	X	X	X	X	X	X
Greenbelt Forest Preserve	X	X	X	X	X	X	**P**	**P**	**P**	**P**	**P**	**P**
Baltimore-Washington Parkway	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**
South Laurel Neighborhood Park	X	X	X	X	X	X	X	X	X	X	X	X
Springfield Road Park	X	X	X	X	X	X	**P**	**P**	**P**	**P**	**P**	**P**
Muirkirk Park	X	X	X	X	X	X	X	X	X	X	X	X
Montpelier Park	X	X	X	X	X	X	X	X	X	X	X	X
Patuxent River Park I	X	X	X	X	X	X	**P**	**P**	**P**	**P**	**P**	**P**
Maryland City Park	X	X	X	X	X	X	**P**	**P**	**P**	**P**	**P**	**P**
Brock Bridge Elementary School/Brockbridge Park	X	X	X	X	X	X	**D**	**D**	**D**	**D**	**D**	**D**
Patuxent Research Refuge	**P**	**P**	**P**	**P**	**P**	**P**	X	X	X	X	X	X
Lindale Middle School	X	X	X	X	X	X	X	X	X	X	X	X
Patapsco Valley State Park	X	X	X	X	X	X	X	X	X	X	X	X
Lakeland Park	X	X	X	X	X	X	X	X	X	X	X	X
Middle Branch Park	X	X	X	X	X	X	X	X	X	X	X	X
Indiana Avenue Park	X	X	X	X	X	X	X	X	X	X	X	X
Gwynn's Falls Trail	**T**	**T**	**T**	X	X	X	**T**	**T**	**T**	X	X	X
McKeldin Plaza	X	X	X	X	X	X	X	X	X	X	X	X
Liberty Park Dog Walk	X	X	X	X	X	X	X	X	X	X	X	X
Ravens' Walk	X	X	X	X	X	X	X	X	X	X	X	X

Note: This table indicates FRA's proposed determinations. FRA will make final determinations of use of Section 4(f) properties in the Final Section 4(f) Evaluation.

F.5.1.1 Properties with Use

Seven Section 4(f) parks properties would have land permanently incorporated into the SCMAGLEV Project under the Build Alternatives (as indicated by "P" in Table F-6). Maps of parks properties with permanent uses can be found in Attachment A. **Tables**

F-7 and F-8 summarize temporary and permanent impacts by Build Alternative for parks properties.

New York Avenue Recreation Center

The New York Avenue Recreation Center is a publicly accessible recreation facility owned and administered by D.C. Department of Parks and Recreation (D.C. DPR) (**Figure F-12**). The New York Avenue Recreation Center is protected by Section 4(f) because it is publicly owned and publicly accessible property with the primary purpose of recreation.

New York Avenue Recreation Center is located at 100 N Street NW, on the north side of New York Avenue NW. The center operates from 3:30 pm to 9:00 pm, Monday through Friday and is closed on weekends. The recreation center building contains a multi-purpose room. Outdoor facilities include a playground, two basketball courts, and a baseball diamond, which are inside a perimeter fence.

Figure F-12: New York Avenue Recreation Center

The Mount Vernon Square East Station portion of the Build Alternatives would be primarily underground along New York Avenue NW. The Project Sponsor proposes to provide an above ground station entrance on the north side of New York Avenue NW between First Street NW and Kirby Street NW. The purpose of the station location in the vicinity of First Street NW is to provide access to the station at the easternmost point of the station along New York Avenue NW. The proposed station entrance location would be on a portion of the New York Avenue Recreation Center property adjacent to New York Avenue NW. The station entrance would consist of a building on approximately 0.06 acre of land that is part of the New York Avenue Recreation Center property. Existing park amenities within the station building footprint include an area of lawn and trees on the south side of the baseball outfield that is used as a gathering place for social and passive recreational activities, a concrete access path (one of multiple

access points to the park. Each Build Alternative would permanently incorporate land from the New York Avenue Recreation Center as part of the Project to provide the station entrance. FRA proposes a determination under Section 4(f) of Permanent Use of the New York Avenue Recreation Center because land from the New York Avenue Recreation Center would be permanently incorporated into the SCMAGLEV Project and the park amenities within the station footprint would be removed. The Kennedy Recreation Center, approximately 2,200 feet northwest at 6th and O Streets NW, offers similar space of lawn and trees adjacent to a baseball diamond and other ballfields/courts.

Under the Build Alternatives, the Project Sponsor would temporarily occupy approximately 0.16 acres of the New York Avenue Recreation Center during project construction to build the station entrance using cut/cover construction, and provide worker, equipment, and materials access to the construction work location.

Use Assessment and Property-Specific Avoidance and Minimization

FRA proposes a determination of Permanent Use of the New York Avenue Recreation Center property under Section 4(f) for all Build Alternatives because land from the center would be permanently incorporated into the SCMAGLEV Project.

FRA analyzed the potential to avoid a permanent incorporation of land from the New York Avenue Recreation Center property by considering property specific alignment shifts and design refinements. Each Build Alternative would incorporate land from the New York Avenue Recreation Center; therefore, none is an avoidance alternative.[8]

The Project Sponsor examined the potential to avoid incorporating land from the New York Avenue Recreation Center property by placing the easternmost station entrance in another location along New York Avenue NW. In this area, existing land use is primarily residential, but includes parcels with other uses. They are the New Birth Baptist Church at the corner of Kirby Street NW and New York Avenue, Perry School Community Services south of New York Avenue NW, and L'Enfant Plan – Reservation 181 (Section F.5.1.1), also on the south side of New York Avenue NW. The New Birth Baptist Church property is smaller in size than the required design criteria for a station entrance and was eliminated from consideration by the Project Sponsor as not feasible and prudent as a matter of sound engineering judgment. The Perry School Community Services building is an historic property and would not avoid use of a Section 4(f) property. The L'Enfant Plan – Reservation 181 is protected by Section 4(f) and is not an avoidance alternative.

The Project Sponsor developed a concept design for the Mount Vernon Square Station elements, including the station entrance on the New York Avenue Recreation Center property. Refinements to the concept design of the station and station entrance to

[8] Corridor wide avoidance and minimization strategies for all Section 4(f) properties are discussed in Section F.7.1.

reduce impacts to the New York Avenue Recreation Center property will be undertaken by the Project Sponsor during and subsequent to development of the FEIS and Final Section 4(f) Evaluation. At that time, the Project Sponsor will further consider adjusting the location and size of the proposed station entrance to avoid or reduce the need to incorporate land from the New York Avenue Recreation Center property into the Project.

FRA is coordinating with the D.C. DPR regarding SCMAGLEV Project effects to New York Avenue Recreation Center in the context of Section 4(f) (Section F.8). The Final Section 4(f) Evaluation will report the outcome of coordination with the D.C. DPR regarding the SCMAGLEV Project and the New York Avenue Recreation Center property.

Greenbelt Forest Preserve (North Woods Tract, Hamilton Tract)

Property Description

The Greenbelt Forest Preserve consists of 200 acres of woodland owned and administered by the City of Greenbelt within four tracts – the Boxwood, North Woods, Hamilton Woods, and Belle Point Tracts. The Project Study Area is located within two of these tracts – North Woods and Hamilton Woods. The tracts are bordered to the east by the Baltimore Washington Parkway, to the south by the Baltimore Washington Parkway interchange with MD 193, and to the west by development in the City of Greenbelt, MD. The Greenbelt Forest Preserve is part of the Greenbelt Historic District's historically significant greenbelt. Some recreational opportunities at Greenbelt Forest Preserve such as hiking and viewing wildlife are replicated nearby at PRR, but the Observatory and location of the Preserve are unique elements of the greenbelt.

Hiking trails are the primary amenity in the Preserve. Other amenities include the Northway Fields, which consist of two softball fields, and the City of Greenbelt Observatory. Greenbelt Forest Preserve was formally designated as a forest preserve district by City of Greenbelt in 2003 by an act of legislation, with the primary purposes of preserving land and accommodating public recreation[9]. The City's adopted Management and Maintenance Guidelines provide for public use of Greenbelt Forest Preserve for recreation, such as hiking trails and viewing nature. The Preserve is protected by Section 4(f) because it is a publicly owned and accessible park with a primary purpose of recreation. Some recreational opportunities at Greenbelt Forest Preserve such as hiking and viewing wildlife are replicated nearby at PRR, and ballfields are located within other parks in Greenbelt, but the Observatory and location of the Preserve are unique elements of the greenbelt.

[9] Ordinance 1243

Build Alternatives J1 (J1-01 and J1-04)

Build Alternatives J1 (J1-01 and J1-04) would approach the Greenbelt Forest Preserve from the south, in tunnel. Approximately 300 feet north of the Preserve boundary, the alignment would begin its transition from tunnel to viaduct in an open cut portal. The open cut portal would traverse the Preserve property in a northeasterly direction for 4,800 feet until it enters BARC property. An SCMAGLEV systems facility would be located on the east side of the portal. Permanent stormwater management facilities and temporary tunnel construction laydown areas would be located on either side of the portal. Although laydown areas are temporary, the loss of trees would result in long-term impacts, lasting well beyond the period of construction.

Build Alternatives J1 (J1-01 and J1-04) alignment features would permanently incorporate 39.68 acres of the Greenbelt Forest Preserve property for the portal (9.41 acres), stormwater management (28.16 acres), SCMAGLEV systems (0.98 acre), and right of way for the viaduct (1.11 acres). Hiking trails, ballfields and access to the Observatory would be permanently impacted. Build Alternatives J1 (J1-01 and J1-04) would temporarily occupy 5.83 acres of the Greenbelt Forest Preserve for the tunnel construction laydown areas.

Build Alternatives J1 (J1-01 and J1-04) would result in noise and visual intrusion caused by the viaduct that would affect viewing wildlife in an area of the Greenbelt Forest Preserve property intended for such viewing, and the ecological intrusion would substantially diminish the value of wildlife habitat and substantially reduce wildlife use within the Greenbelt Forest Preserve property.

Build Alternatives J1 (J1-02 and J1-05)

Build Alternatives J1 (J1-02 and J1-05) would approach the Greenbelt Forest Preserve from the south, in tunnel. Approximately 300 feet north of the Preserve boundary, the alignment would begin its transition from tunnel to viaduct in an open cut portal. The open cut portal would traverse the Preserve property in a northeasterly direction for 4,800 feet until it enters BARC property. Approximately 1,650 feet south of the Forest Preserve/BARC boundary, two ramps to the BARC Airstrip TMF branch from either side of the main alignment and transition from tunnel to viaduct. SCMAGLEV systems would be located on the east side of the portal. Permanent stormwater management facilities and temporary tunnel construction laydown areas would be located on either side of the portal. Although laydown areas are temporary, the loss of trees would result in long-term impacts, lasting well beyond the period of construction.

Build Alternatives J1 (J1-02 and J1-05) would permanently incorporate 35.94 acres of the Greenbelt Forest Preserve property for the portal (8.28 acres), SCMAGLEV systems (0.98 acres), stormwater management (26.67 acres). Hiking trails, ballfields and access to the Observatory would be permanently impacted. Build Alternatives J1 (J1-02 and J1-05) would temporarily occupy 6.58 acres of the Greenbelt Forest Preserve for the tunnel construction laydown areas.

The Build Alternatives J1 (J1-02 and J1-05) BARC Airstrip TMF would permanently incorporate 4.60 acres for cut/cover tunnel (2.32 acres) and viaduct (2.28 acres). BARC Airstrip TMF elements would temporarily occupy 1.04 acres for the construction LOD.

Build Alternatives J1 (J1-02 and J1-05) would result in noise and visual intrusion caused by the viaduct that would affect viewing wildlife in an area of the Greenbelt Forest Preserve property intended for such viewing, and the ecological intrusion would substantially diminish the value of wildlife habitat and substantially reduce wildlife use within the Greenbelt Forest Preserve property.

Build Alternatives J1 (J1-3 and J1-6)

Build Alternatives J1 (J1-03 and J1-06) would approach the Greenbelt Forest Preserve from the south, in tunnel. Approximately 300 feet north of the Preserve boundary, the train would begin its transition from tunnel to viaduct in an open cut portal. The open cut portal would traverse the Preserve property in a northeasterly direction for 4,800 feet until it enters BARC property. Approximately 1,650 feet south of the Forest Preserve/BARC boundary, two ramps to the BARC West TMF would branch from either side of the main alignment and transition from tunnel to viaduct. SCMAGLEV systems would be located on the east side of the portal. Permanent stormwater management facilities and temporary tunnel construction laydown areas would be located on either side of the portal. Although laydown areas are temporary, the loss of trees would result in long-term impacts, lasting well beyond the period of construction.

Build Alternatives J1 (J1-03 and J1-06) would permanently incorporate 37.46 acres of the Greenbelt Forest Preserve property for the portal (8.28 acres), SCMAGLEV systems (0.99 acres), stormwater management (28.16 acres), and above-ground viaduct (0.02 acres). Hiking trails, ballfields and access to the Observatory would be permanently impacted. Build Alternatives J1 (J1-03 and J1-06) would temporarily occupy 4.48 acres of the Greenbelt Forest Preserve for the tunnel laydown areas.

The Build Alternatives J1 (J1-03 and J1-06) BARC West TMF would permanently incorporate 4.51 acres for the portal (3.20 acres) and viaduct (1.31 acres). BARC West TMF elements would temporarily occupy 1.04 acres for the construction LOD.

Build Alternatives J1 (J1-03 and J1-06) would result in noise and visual intrusion caused by the viaduct that would affect viewing wildlife in an area of the Greenbelt Forest Preserve property intended for such viewing, and the ecological intrusion would substantially diminish the value of wildlife habitat and substantially reduce wildlife use within the Greenbelt Forest Preserve property.

Use Assessment and Property-Specific Avoidance and Minimization

FRA proposes a determination of Permanent Use of the Greenbelt Forest Preserve under Section 4(f) for Build Alternatives J1 (J1-01, J1-02, J1-03, J1-04, J1-05, and J1-06) because land from the Forest Preserve would be permanently incorporated into the SCMAGLEV Project. Some recreational opportunities at Greenbelt Forest Preserve

such as hiking and viewing wildlife are replicated nearby at PRR, but the Observatory and location of the Preserve are unique elements of the historically significant greenbelt.

Each of the Build Alternatives J1 would incorporate land from the Greenbelt Forest Preserve. The Build Alternatives J avoid the property, but they result in Section 4(f) uses at other properties and the Build Alternatives J cannot be considered avoidance alternatives.

FRA analyzed the potential to avoid a permanent incorporation of land from the Greenbelt Forest Preserve by considering property specific alignment shifts and design refinements. The Project Sponsor examined the potential to avoid incorporation of land from the Greenbelt Forest Preserve by placing the portal to the north, on BARC property. However, to accommodate the grade requirements of the TMF ramps to either the MD 198, BARC Airstrip, or BARC West TMF ramps, which must be above ground, the portal must be provided south of BARC property. Likewise, tunnel laydown, SCMAGLEV system facilities and stormwater management facilities must be adjacent to and at intervals along the alignment. For this reason, design changes would not allow avoidance of the Greenbelt Forest Preserve under Section 4(f).

Should one of the J1 Build Alternatives move forward in design as FRA's preferred alternative, refinements to the concept designs of these facilities to reduce impacts to the Greenbelt Forest Preserve will be undertaken by the Project Sponsor during preparation of and subsequent to the FEIS. For alignment shifts the impacts of some facilities such as the TMF ramps potentially could be reduced, but design criteria constrain the ability to completely eliminate incorporating land from the Greenbelt Forest Preserve. FRA and the Project Sponsor will coordinate with the City of Greenbelt to examine refinements to the J1 Build Alternatives alignments as well as the ancillary facilities to incorporate less land from the Greenbelt Forest Preserve. The Final Section 4(f) Evaluation will report the outcome of coordination with the City of Greenbelt regarding Build Alternatives J1 (J1-01, J1-02, J1-03, J1-04, J1-05, and J1-06) and the Greenbelt Forest Preserve.

Baltimore-Washington Parkway (BWP)

Property Description

The BWP is one of several scenic parkways in the National Capital Area, established by Congress on August 3, 1950, Public Law 81-643, and opened in 1954. It is one of four parkways in the nation's capital that integrates a majestic parkway design and serves as a scenic entry to the capital city. The BWP is a cultural landscape intended to retain a combination of thick woodland forest and grassy lawn within the median in accordance with the landscape standards of mid-20th century parkway construction (**Figure F-13**). The native forests provide scenic views for visitors, including drivers and passengers, and serve as an increasingly important corridor for wildlife, from forest-dwelling species to migratory birds. The forested areas have evolved from a hardwood forest of dominantly red and white oak, sweet gum, and tulip trees in the early twentieth century

to include scrub growth such as Virginia pine, blackjack oak, and black locust in areas where land was cleared in constructing the BWP. Southern yellow pine, oaks, ash, and sweet birch have grown up on the property, in addition to the occasional mountain laurel, American holly, and tupelo (Leach 1990).

Figure F-13: Baltimore-Washington Parkway MD Route 193 overpass

The BWP exemplifies the last period of construction for this type of park and is the only fully developed parkway of its kind in Maryland. The roadway extends northeast for nineteen miles from the Anacostia River north of the eastern border of the District of Columbia, through Prince George's County and Anne Arundel County, Maryland. Within the Project Study Area, the BWP property encompasses 1,472.30 acres, crossing the Patuxent and Little Patuxent Rivers and four railroads. The nineteen miles are federally owned and operated by NPS as an NRHP-listed historic scenic parkway, from Washington, D.C. to just below Jessup Road (MD 175) at the Baltimore County Line. An additional ten miles of the roadway that extends north to I-95 in Baltimore is also known as the BWP, but is operated by the state of Maryland (Leach 1990); this portion of the roadway is neither historic nor a park or recreational facility; it is not protected by Section 4(f) and is not assessed in the Draft Section 4(f) Evaluation.

FRA determined through coordination with NPS that the BWP is a designated park and is therefore, protected by Section 4(f). In addition, the BWP is individually listed in the NRHP as a historic district and is protected by Section 4(f) as such. Because the Section 4(f) evaluation criteria for parks and historic sites are different, the park and

historic site aspects of the BWP are evaluated separately. In this Draft Section 4(f) Evaluation, this section discusses the property and Project impacts to it as a protected park. Section F.5.2.1 discusses the property and the Project impacts to it as a protected historic site.

Build Alternatives J (J-01 and J-04)

Build Alternatives J (J-01 and J-04) alignment features would approach the BWP property from the south through a tunnel in the vicinity of Greenbelt, MD in an area of undeveloped woodlands. The alignment would emerge from tunnel east of the BWP property through a portal on NASA Goddard Space Flight Center property and transition to viaduct after straddling BWP/USDA BARC property in an open cut portal for approximately one mile. After transitioning to viaduct, the alignment enters BWP approximately 1,000 feet north of the BWP/Beaver Dam Road overpass. The alignment would cross the interchange on viaduct and continue to parallel the east side of the BWP property, sometimes within and sometimes adjacent to the BWP property, all within areas of undeveloped woodland, much of which serves as buffer between the BWP and development that is adjacent to the BWP.

After approximately ten miles on viaduct adjacent to the BWP, the alignment would enter a portal on a wooded, undeveloped portion of Fort George G. Meade north of MD 32, adjacent to the BWP property. Along the east and west sides of the viaduct, stormwater management facilities would be constructed both on and adjacent to BWP property, also in areas of undeveloped woodland. Ramp relocation of the NASA Goddard Space Flight Center employee entrance would occur partially on BWP property.

SCMAGLEV system facilities would be located at least partially on BWP property in three locations south of the BWP/MD 197 interchange and in two locations on the north side of the interchange. Just south of the Patuxent River, the viaduct would enter PRR property. On the north side of PRR, the viaduct would re-enter BWP at the BWP/MD 198 interchange. North of the interchange, BWP crosses a transmission line corridor. The powerlines in the corridor would need to be relocated to allow construction of the viaduct.

Approximately 2,200-2,400 feet north of the BWP/MD 198 interchange, two SCMAGLEV systems facilities would be within BWP property, within areas of undeveloped woodland. At 2,400 feet north of MD 32, the viaduct enters a portal and veers northeastward outside of BWP property. A permanent access road would extend south from Max Blobs Park Road through undeveloped woodlands along the Baltimore-Washington Parkway boundary with Fort Meade for a distance of 3,500 feet.

A pair of MD 198 TMF ramps diverge from the main alignment on viaduct on PRR property adjacent to the BWP property, approximately 3,675 feet south of the BWP/MD 198 interchange. Both ramps enter BWP property 2,000 feet south of the interchange and cross over the southeastern loop of the interchange before they turn

east towards the location of the MD 198 TMF. The MOW facility associated with the MD 198 TMF would be located within wooded BWP property 4,500 feet north of the BWP/Powder Mill Road interchange on the east side of the parkway and main SCMAGLEV alignment.

Build Alternatives J (J-01 and J-04) would permanently incorporate 88.87 acres of the BWP property for alignment and MD 198 TMF elements.

For the main alignment, impacts would result from portal construction (2.54 acres), installation of overhead electrical lines (0.0002 acres), road relocation and reconstruction of the NASA Goddard Space Flight Center Employees' Entrance road ramps (0.88 acres), the permanent access road (0.26 acres), viaduct (43.79 acres), long-term construction laydown areas (0.04 acres) and SCMAGLEV systems (11.20 acres). The permanent impacts associated with the construction of the MD 198 TMF include 28.70 of the total 88.87 acres; permanent impacts include 12.33 acres for the MOW facility, 16,18 acres for ramp viaduct, 0.17 acres for permanent access road to the MOW facility, and 10.91 acres for construction of the viaduct to the MD 198 TMF.

Build Alternatives J (J-01 and J-04) would temporarily occupy 27.16 acres of the BWP property for alignment and MD 198 TMF elements. For the main alignment, 25.52 acres of temporary occupancy would result from the construction LOD for relocation of powerlines and other system elements, 1.34 acres of temporary occupancy would result from the construction of a temporary viaduct workzone access road. Temporary occupancy associated with the MD 198 TMF include 0.28 acres of temporary occupancy for the construction LOD.

Build Alternatives J (J-02 and J-05)

Build Alternatives J (J-02 and J-05) alignment features within BWP would be identical to those provided for Build Alternatives J (J-01 and J-04).

A pair of ramps associated with the BARC Airstrip TMF diverge from the main alignment on viaduct on both BWP and BARC property, approximately 1,350 feet south of the BWP overpass of Beaver Dam Road. Both ramps travel on or adjacent to BWP property for 2,700 feet before they turn east towards the location of the BARC Airstrip TMF on BARC property.

Build Alternatives J (J-02 and J-05) would permanently incorporate 68.76 acres of the BWP property for alignment and BARC Airstrip TMF elements. For the main alignment, impacts would result from portal construction (2.71 acres), installation of overhead electrical lines (3.62 acres), road relocation and reconstruction of the NASA Goddard Employees' Entrance road ramps (1.10 acres), construction of the permanent access road (0.26 acres), viaduct (42.67 acres), long-term construction laydown areas (0.04 acres) and SCMAGLEV systems (11.35 acres). The permanent impacts associated with the construction of the BARC Airstrip TMF include 3.29 acres of the total 68.76 acres;

0.12 acres for installation of overhead electric lines, and 3.17 acres for construction of the viaduct to the BARC Airstrip TMF.

Build Alternatives J (J-02 and J-05) would temporarily occupy 36.62 acres of the BWP property for alignment and BARC Airstrip TMF elements. For the main alignment, 34.50 acres of temporary occupancy would result from the relocation of existing powerlines, installation of new powerlines, and other miscellaneous construction and 1.40 acres of temporary occupancy would result from the construction of a temporary viaduct workzone access road. At the BARC Airstrip TMF, 0.60 acres would be temporarily impacted for installation of new powerlines and another 0.12 acres for miscellaneous construction.

Build Alternatives J (J-03 and J-06)

Build Alternatives J (J-03 and J-06) alignment features within BWP would be identical to those provided for Build Alternatives J (J-01 and J-04).

Two ramps for the BARC West TMF would emerge from portals partially on BWP property and partially on BARC property, approximately 1,475 feet south of Beaver Dam Road. One of the BARC West TMF ramps would transition to viaduct on BWP property, cross into BARC property, and both TMF ramps would cross BWP on viaduct 2,000 feet south of the BWP/Powder Mill Road interchange.

Build Alternatives J (J-03 and J-06) would permanently incorporate 67.38 acres of the BWP property for alignment and TMF elements. For the main alignment, impacts would result from portal construction (3.42 acres), installation of overhead electrical lines (3.73 acres), road relocation and reconstruction of the NASA Goddard Employees' Entrance road ramps (1.10 acres), construction of the permanent access road (0.26 acres), viaduct (14.55 acres), long-term construction laydown areas (0.04 acres) and SCMAGLEV systems (11.32 acres). The permanent impacts associated with the construction of the BARC West TMF include 3.14 acres; 0.18 acres of cut/cover underground electric lines, 0.43 acres for overhead electric lines, and 2.52 acres for construction of the viaduct to the BARC West TMF.

Build Alternatives J (J-03 and J-06) would temporarily occupy 35.98 acres of the BWP property. For the main alignment, 12.12 acres of temporary occupancy would result from the construction LOD for powerlines and other system elements, 18.87 acres of temporary occupancy would result from the construction LOD for relocation of existing powerlines, and 1.35 acres of temporary occupancy would result from construction of a temporary viaduct workzone access road. The temporary impacts associated with the BARC West TMF include 3.36 acres for construction of powerlines and 0.27 acres for construction of the TMF.

Build Alternatives J1 (J1-01 and J1-04)

Build Alternatives J1 (J1-01 and J1-04) would approach the BWP property from the south through a tunnel in the vicinity of Greenbelt, MD. The alignment would emerge

from tunnel west of the BWP property through a portal on City of Greenbelt/Greenbelt Forest Preserve property, adjacent to the BWP and would be located within an open cut portal through GFP and into BARC property (adjacent to BWP) for a distance of just over a mile. After transitioning to viaduct, the alignment enters BWP approximately 840 feet south of Beaver Dam Road in an area of woodlands and fields associated with BARC operations. The alignment would cross Beaver Dam Road, Beck Branch, and Beaver Dam Creek on viaduct and continue to parallel the west side of the BWP on both BARC and BWP property largely through areas of undeveloped woodlands that serve as buffer between the BWP and adjacent development. After approximately 6.6 miles on viaduct both within and adjacent to BWP, the alignment would enter a portal on a wooded, undeveloped portion of Maryland City Park, 890 feet from the BWP property. Beyond the portal location, Build Alternatives J1, J1-01 and J1-04 would be located in tunnel below Maryland City and the Russett community in Laurel, crossing BWP in tunnel north of the Connector Road overpass of BWP.

Along the east and west sides of the viaduct, stormwater management facilities, tunnel laydown areas, and LOD for construction would be constructed both on and off BWP property in areas of undeveloped woodland. SCMAGLEV system facilities would be located adjacent to or partially on BWP property in five areas: 1,700 feet north of the BWP overpass of Beaver Dam Road; 1,900 feet north of the BWP/Powder Mill Road interchange at Springfield Road Park; 4,300 feet north of the BWP/Powder Mill Road interchange; 3,100 feet of the BWP/MD 197 interchange; and along the MD 197 southbound exit ramp from southbound BWP.

At 2,400 feet north of MD 32, the viaduct enters a portal and veers northeastward outside of BWP property. A permanent access road would extend south from Max Blobs Park Road along the BWP boundary with Fort Meade for a distance of 3,500 feet. A Fresh Air and Emergency Egress (FA/EE) facility and construction laydown area would be located partially within BWP property, within undeveloped woodlands, on the east side of the parkway.

Approximately 2,000 feet north of the BWP/MD 197 interchange, two viaduct ramps diverge from the main alignment and would be located adjacent to the southbound lanes of BWP. At the BWP/MD 198 interchange, the ramps cross over BWP towards the MD 198 TMF.

Build Alternatives J1 (J1-01 and J1-04) would permanently incorporate 52.71 acres of the BWP property for alignment and MD 198 TMF elements. For the main alignment, impacts would result from portal construction (1.44 acres), installation of a power interconnection switchyard (0.53 acres), construction of the permanent access road (0.29 acres), viaduct (19.43 acres), long-term construction laydown areas (0.04 acres), SCMAGLEV systems (5.78 acres), and stormwater management (7.34 acres). The permanent impacts associated with the construction of the MD 198 TMF include 17.85 of the total 52.71 acres. Permanent impacts include 17.18 acres for viaduct, 0.51 acres for the MOW ramp, and 0.16 acres for road relocation.

Build Alternatives J1 (J1-01 and J1-04) would temporarily occupy 13.58 acres of the BWP property for alignment and MD 198 TMF elements. For the main alignment, 7.01 acres of temporary occupancy would result from the construction LOD for relocation of powerlines and other system elements, 0.41 acres from the construction of a temporary viaduct workzone access road, and 0.004 acres from construction laydown areas. Temporary occupancy associated with the MD 198 TMF include 6.15 acres for the construction LOD.

Build Alternatives J1 (J1-02 and J1-05)

Build Alternatives J1 (J1-02 and J1-05) alignment features within BWP would be identical to those provided for Build Alternatives J1 (J1-01 and J1-04).

Approximately 4,200 feet south of the BWP overpass of Beaver Dam Road, two viaduct ramps for the BARC Airstrip TMF diverge from the main alignment. They merge together on BARC property west of the parkway and cross over BWP at the Beaver Dam Road overpass towards the BARC Airstrip TMF.

Build Alternatives J1 (J1-02 and J1-05) would permanently incorporate 39.57 acres of the BWP property for alignment and BARC Airstrip TMF elements. For the main alignment, impacts would result from portal construction (1.44 acres), installation of a power interconnection switchyard (0.53 acres), construction of the permanent access road (0.29 acres), viaduct (17.60 acres), long-term construction laydown areas (0.04 acres), SCMAGLEV systems (4.85 acres), and stormwater management (6.71 acres). The permanent impacts associated with the construction of the BARC Airstrip TMF include 2.62 of the total 39.57 acres. All permanent impacts are associated with the TMF viaduct.

Build Alternatives J1 (J1-02 and J1-05) would temporarily occupy 14.79 acres of the BWP property for alignment and MD 198 TMF elements. For the main alignment, 10.87 acres of temporary occupancy would result from the construction LOD for relocation of powerlines and other system elements, 0.41 acres from the construction of a temporary viaduct workzone access road, and 0.004 acres from construction laydown areas. Temporary occupancy associated with the BARC Airstrip TMF includes 2.09 acres for the construction LOD.

Build Alternatives J1 (J1-03 and J1-06)

Build Alternatives J1 (J1-03 and J1-06) alignment features within BWP would be identical to those provided for Build Alternatives J1 (J1-01 and J1-04).

Approximately 4,200 feet south of the BWP overpass of Beaver Dam Road, two viaduct ramps for the BARC West TMF diverge from the main alignment. They merge together on BWP property adjacent to the southbound parkway lanes and then curve westwards towards the BARC West TMF on BARC property.

Build Alternatives J1 (J1-03 and J1-06) would permanently incorporate 41.38 acres of the BWP property for alignment and BARC West TMF elements. For the main alignment, impacts would result from portal construction (1.44 acres), installation of a power interconnection switchyard (0.53 acres), construction of the permanent access road (0.29 acres), viaduct (17.62 acres), long-term construction laydown areas (0.04 acres), SCMAGLEV systems (4.20 acres), and stormwater management 7.34 acres). The permanent impacts associated with the construction of the BARC West TMF include 4.57 of the total 41.38 acres. All permanent impacts are associated with the TMF viaduct.

Build Alternatives J1 (J1-03 and J1-06) would temporarily occupy 14.06 acres of the BWP property for alignment and BARC West TMF elements. For the main alignment, 8.69 acres of temporary occupancy would result from the construction LOD for relocation of powerlines and other system elements, 2.62 acres from installation of new powerlines, 0.38 acres from the construction of a temporary viaduct workzone access road, and 0.004 acres from tunnel laydown areas. Temporary occupancy associated with the BARC West TMF includes 2.36 acres for the construction LOD associated with new powerlines and other system elements.

Use Assessment and Property-Specific Avoidance and Minimization

FRA proposes a determination of Permanent Use of the BWP property under Section 4(f) for all Build Alternatives because land from the BWP would be permanently incorporated into the SCMAGLEV Project. The Final Section 4(f) Evaluation will report the outcome of coordination with the NPS regarding the Build Alternatives and the BWP property.

FRA analyzed the potential to avoid or minimize use of the BWP property by considering property-specific alignment shifts and design refinements. Each Build Alternative would incorporate land from the BWP; therefore, none is an avoidance alternative. The avoidance analysis for the BWP property identified the opportunity for design refinements to reduce impacts of the Build Alternatives to the BWP property. For alignment shifts, the impacts of some facilities such as the TMF ramps potentially could be reduced, but design criteria constrain the ability to completely eliminate incorporating land from the BWP property because the TMF ramps would have to run along and cross over the BWP property. Similarly, the substation and stormwater management facilities must be adjacent to and at intervals along the alignment. For this reason, design changes would not allow avoidance of BWP under Section 4(f).

FRA is coordinating with the NPS regarding SCMAGLEV Project effects to the BWP property in the context of Section 4(f) (Section F.8). The NPS stated the following concerns and preferences to FRA during alternatives screening and preparation of the DEIS: The NPS prefers an alternative that does not impact the BWP property, either because the alignment is not on or near the BWP property or because the Project is in a tunnel. The NPS prefers no new crossings over the BWP, and that the Project does not preclude the ability to widen the BWP roadway in the future. The NPS noted that “least

harm" in Section 4(f) does not mean that Project impacts have been minimized or that the Project impacts are minimal.

During development of the FEIS, in coordination with the NPS, FRA and the Project Sponsor will examine the ability to refine the Build Alternatives alignments as well as the ancillary facilities to incorporate less land from the BWP property and reduce impacts to the BWP. At the request of the NPS, the Project Sponsor will also consider the feasibility of refining the design to reduce the visual impact of the Project on the BWP property, such as by reducing the size of the viaduct support piers, using vegetation to screen the viaduct from view from the BWP travel lanes, and consulting with FHWA Eastern Federal Lands Division on design issues related to the design of ramps crossing over the BWP property.

Springfield Road Park

Property Description

Springfield Road Park is an undeveloped, wooded park property at 11300 Springfield Road. The 26.8-acre property was conveyed to M-NCPPC by the Federal government under the National Park Service's Federal Lands to Parks Program (FLP)The NPS FLP Program deeds former surplus Federal land to local government entities solely for public parks and recreation use in perpetuity under authority of 40 U.S.C. 550 (b) and (e).

Build Alternatives J1 (J1-01 and J1-04)

Under Build Alternatives J1 (J1-01 and J1-04), a maintenance of way facility associated with the MD 198 TMF would be located within Springfield Road Park. The maintenance of way facility would be accessed by vehicles from Springfield Road and by SCMAGLEV trains via a viaduct. An SCMAGLEV systems facility would be located partially within the south area of the park. Incorporation of the SCMAGLEV systems facility would require rerouting of an 1,800-foot long segment of Springfield Road to the west. The mainline viaduct would be located within BWP property, adjacent to the southeast boundary of Springfield Road Park.

Build Alternatives J1 (J1-01 and J1-04) would permanently incorporate 13.53 acres of Springfield Road Park for alignment and MD 198 TMF elements. For the main alignment, impacts would result from MOW Facility construction (0.08 acre) and SCMAGLEV systems (0.71 acre). The permanent impacts associated with the construction of the MD 198 TMF include 12.74 of the total 13.53 acres and include 12.40 acres of impact associated with the MOW Facility and ramp, 0.13 acres associated with the permanent access road to the facility, 0.08 acres associated with relocation of Springfield Road, and 0.12 acres associated with viaduct.

Build Alternatives J1 (J1-01 and J1-04) would temporarily occupy 0.11 acre of Springfield Road Park during construction to support construction of the MD 198 TMF.

Build Alternatives J1 (J1-02, 03, 05, and 06)

Under Build Alternatives J1 (J1-02, 03, 05, and 06), the main alignment viaduct would be located adjacent to the southeast boundary of Springfield Road Park, on BWP property. SCMAGLEV systems would be located on the west side of the alignment, partially within Springfield Road Park.

Build Alternatives J1 (J1-02, 03, 05, and 06) would permanently incorporate 1.69 acres of Springfield Road Park for SCMAGLEV systems and would temporarily occupy 0.70 acres for construction of new powerlines.

Use Assessment and Property-Specific Avoidance and Minimization

FRA proposes a determination of Permanent Use under Section 4(f) for Build Alternatives J1 (J1-01, J1-02, J1-03, J1-04, J1-05, and J1-06) because land from the Springfield Road Park would be permanently incorporated into the SCMAGLEV Project.

Each of the Build Alternatives J1 would incorporate land from Springfield Road Park; therefore, none is an avoidance alternative. Build Alternatives J avoid Springfield Road Park but result in uses at other Section 4(f) properties. The greatest acreage impacts to the park are caused by the MOW Facility for the MD 198 TMF under Build Alternatives J1-01 and J1-04. The MOW Facility would require almost half of the land area of the park. Choosing a Build Alternatives J1 with the BARC Airstrip or BARC West TMFs would minimize use of Springfield Road Park to the southeast edge of the park.

FRA analyzed the potential to avoid or minimize a use of Springfield Road Park by considering property-specific alignment shifts and design refinements. For alignment shifts the impacts of some facilities such as the area of the MOW Facility could potentially be reduced, but design criteria constrain the ability to completely eliminate impacts from Springfield Road Park because there are constraints on placement of the MOW Facility and SCMAGLEV system facilities, which need to be placed at regular intervals along the alignment. If the MOW Facility is shifted further south, it would impact other 4(f) property (BARC) and if moved further north, it would impact residential subdivisions such as Sumner Grove or Montpelier Hills north of Springfield Road Park For this reason, design changes would not allow avoidance of Springfield Road Park under Section 4(f).

Refinements to the concept designs of these facilities to reduce impacts to Springfield Road Park will be undertaken by the Project Sponsor during development of and subsequent to the FEIS, following selection of a preferred alternative. Should one of the Build Alternatives J1 move forward in design as FRA's preferred alternative, the avoidance analysis for the Springfield Road Park will focus on the opportunity for design refinements to reduce impacts of the alternative during development of and subsequent to the FEIS. In coordination with M-NCPPC, FRA and the Project Sponsor will examine the ability to refine the Build Alternatives alignments as well as the ancillary facilities to incorporate less land from the Springfield Road Park. The Final Section 4(f) Evaluation will report the outcome of coordination with M-NCPPC.

Patuxent River Park I

Patuxent River Park I contains undeveloped parkland in Prince George's County on Brock Bridge Road in Laurel, MD. It is part of the larger, multi-parcel Patuxent River Park (over 2,000 acres) with recreational activities centered on Jug Bay in southern Prince George's County. Patuxent River Park I occupies 226.6 acres and is managed by the M-NCPPC/Prince George's County Department of Parks and Recreation. Patuxent River Park I functions as a conservation area with undeveloped marshes, swamps, and woodlands. The park is not designated as an area open for public recreation although its conservation supports recreational uses downstream.

Build Alternatives J1 (J1-01 and J1-04)

Under Build Alternatives J1 (J1-01 and J1-04) the mainline viaduct and MD 198 TMF ramps would cross Patuxent River Park 1 just within its southeast boundary.

Build Alternatives J1 (J1-01 and J1-04) would permanently incorporate 1.82 acres of Patuxent River Park 1 for alignment and MD 198 TMF elements. For the main alignment, impacts would result from viaduct construction (1.13 acre). The permanent impacts associated with the construction of the MD 198 TMF include 0.69 acres for construction of the viaduct.

Build Alternatives J1 (J1-01 and J1-04) would temporarily occupy 0.26 acre of Patuxent River Park 1 during construction of the alignment viaduct and another 0.26 acre for construction of the MD 198 TMF viaduct.

Build Alternatives J1 (J1-02, J1-03, J1-05, and 06)

Under Build Alternatives J1, J1-02, 03, 05, and 06 the mainline viaduct would cross Patuxent River Park 1 just within its southeast boundary.

Build Alternatives J1 (J1-02, J1-03, J1-05, and J1-06) would permanently incorporate 1.35 acres of Patuxent River Park 1 for alignment elements. For the main alignment, impacts would result from viaduct construction (1.00 acre) and installation of overhead electric lines (0.35 acre).

Build Alternatives J1 (J1-02, J1-03, J1-05, and J1-06) would temporarily occupy 0.80 acre of Patuxent River Park 1 during installation of overhead electric lines and construction of the alignment viaduct.

Use Assessment and Property-Specific Avoidance and Minimization

FRA proposes a determination of Permanent Use under Section 4(f) for Build Alternatives J1 (J1-01, J1-02, J1-03, J1-04, J1-05, and J1-06) because land from Patuxent River Park 1 would be permanently incorporated into the SCMAGLEV Project.

Each of the Build Alternatives J1 would incorporate land from Patuxent River Park 1; therefore, none is an avoidance alternative. The Build Alternatives J would avoid Patuxent River Park 1 but result in uses at other Section 4(f) properties. The greatest

acreage impacts to the park are caused by Build Alternatives J1 (J1-01 and J1-04) because they contain viaduct for the MD 198 TMF. Choosing a Build Alternative with a BARC TMF would minimize the impact at Patuxent River Park 1 but cause greater impact at BARC.

FRA analyzed the potential to avoid or minimize a use of Patuxent River Park 1 by considering property-specific alignment shifts and design refinements. There is little opportunity to minimize impacts of the J1 alignment through alignment shifts as there is only viaduct within the park boundaries, and most opportunities to shift the alignment result from minimizing or moving the footprint of ancillary facilities. Design criteria constrain the ability to completely eliminate impacts from Patuxent River Park 1 because there are constraints on placement of the viaduct due to the curvature that the viaduct needs to achieve. For this reason, design changes would not allow avoidance of Patuxent River Park 1 under Section 4(f).

Refinements to the concept designs of these facilities to reduce impacts to Patuxent River Park 1 will be undertaken by the Project Sponsor during preparation of and subsequent to the FEIS, following selection of a preferred alternative. Should one of the Build Alternatives J1 move forward in design as FRA's preferred alternative, the avoidance analysis for Patuxent River Park 1 will focus on the opportunity for design refinements to reduce impacts of the alternative to Patuxent River Park 1 during preparation of and subsequent to the FEIS. In coordination with M-NCPPC, FRA and the Project Sponsor will examine the ability to refine the Build Alternatives alignments to incorporate less land from the Patuxent River Park 1. The Final Section 4(f) Evaluation will report the outcome of coordination with M-NCPPC.

Maryland City Park

Property Description

Maryland City Park is owned and administered by the Anne Arundel County DRP and is located west of the BWP at 565 Brock Bridge Road. It is split into two roughly triangular-shaped parcels. Amenities include baseball fields, two multipurpose fields, a dog park, a playground, picnic area, and the Chuck Rounds Trail. Maryland City Park was conveyed to Anne Arundel County DRP by the Federal government under the National Park Service's Federal Lands to Parks Program (FLP). The NPS FLP Program deeds former surplus Federal land to local government entities solely for public parks and recreation use in perpetuity under authority of 40 U.S.C. 550 (b) and (e). Maryland City Park serves an area of the County less well served than others by ball fields and courts due to the presence of large federal land areas such as Fort Meade and PRR (Anne Arundel County 2019).

Build Alternatives J1 (J1-01 and J1-04)

Under Build Alternatives J1 (J1-01 and J1-04) the mainline viaduct and MD 198 TMF ramps would cross Maryland City Park. In the southernmost parcel comprising the park, the viaduct would cross and area of undeveloped woodland before crossing three

baseball fields and a multi-purpose field. Adjacent to the park, the viaduct enters the former Suburban Airport property which would be the site of a tunnel laydown area, substation and SCMAGLEV systems facilities. The alignment would cross into the northern parcel of Maryland City Park over the trail that joins the two park parcels into an area of undeveloped woodlands. The alignment would be flanked by SCMAGLEV systems and stormwater management facilities. The main alignment would transition from viaduct to tunnel via a portal on the Maryland City Park property, transitioning entirely to tunnel as the alignment enters the residential area north of the park. The viaduct associated with the MD 198 TMF would cross over areas of undeveloped woodlands in both Maryland City Park parcels.

Build Alternatives J1 (J1-01 and J1-04) would permanently incorporate 24.47 acres of Maryland City Park for alignment and MD 198 TMF elements. For the main alignment, impacts would result from portal construction (4.64 acres), viaduct (3.04 acres), SCMAGLEV systems (4.01 acres), and installation of stormwater management facilities (6.05 acres). The permanent impacts associated with the construction of the MD 198 TMF include 6.74 acres for construction of the viaduct.

Build Alternatives J1 (J1-01 and J1-04) would temporarily occupy 2.55 acres of Maryland City Park for the construction LOD associated with the alignment viaduct and other facilities and another 1.23 acres for construction LOD associated with the MD 198 TMF ramp viaduct.

Build Alternatives J1 (J1-02, J1-03, J1-05, and J1-06)

Under Build Alternatives J1 (J1-02, J1-03, J1-05, and J1-06) of the mainline viaducts would cross Maryland City Park. In the southernmost parcel comprising the park, the viaduct would cross an area of undeveloped woodland before crossing three baseball fields and a multi-purpose field. Adjacent to the park, the viaduct enters the former Suburban Airport property which would be the site of a tunnel laydown area, substation and SCMAGLEV systems. The alignment would cross into the northern parcel of Maryland City Park over the trail that joins the two park parcels into an area of undeveloped woodlands. The alignment would be flanked by SCMAGLEV systems and stormwater management facilities. The main alignment would transition from viaduct to tunnel via a portal on the Maryland City Park property, transitioning entirely to tunnel as the alignment enters the residential area north of the park.

Build Alternatives J1 (J1-02, J1-03, J1-05, and J1-06) would permanently incorporate 18.34 acres of Maryland City Park for alignment elements. For the main alignment, impacts would result from deep tunnel areas (0.04 acres), portal construction (4.64 acres), viaduct construction (2.61 acre), construction of SCMAGLEV systems facilities (4.01 acres), installation of stormwater management facilities (6.05 acres), and installation of overhead electric lines (0.99 acre).

Build Alternatives J1 (J1-02, J1-03, J1-05, and J1-06) would temporarily occupy 3.13 acres of Maryland City Park during installation of overhead electric lines and

construction of the alignment viaduct and 1.16 acres during construction for tunnel laydown areas.

Use Assessment and Property-Specific Avoidance and Minimization

FRA proposes a determination of Permanent Use under Section 4(f) for Build Alternatives J (J-01, J-02, J-03, J-04, J-05, and J-06) because land from the Maryland City Park would be permanently incorporated into the SCMAGLEV Project. The land incorporated includes ball fields and courts in an area less well served by such facilities than elsewhere in the County.

Each of the Build Alternatives J1 would incorporate land from Maryland City Park; therefore, none is an avoidance alternative. The Build Alternatives J avoid Maryland City Park but result in uses at other Section 4(f) properties. The greatest acreage impacts to the park are caused by Build Alternatives J1 (J1-01 and J1-04) because they contain viaduct for the MD 198 TMF. Choosing a Build Alternatives with a BARC TMF would minimize the impact at Maryland City Park but cause greater impact at BARC.

FRA analyzed the potential to avoid or minimize a use of Maryland City Park by considering property-specific alignment shifts and design refinements. For alignment shifts, the impacts of some facilities such as the stormwater management, SCMAGLEV systems facilities, and tunnel laydown areas could potentially be reduced, but design criteria constrain the ability to completely eliminate incorporating land from the Maryland City Park as these facilities need to be accommodated on land surrounding the portal. For this reason, design changes would not allow avoidance of Maryland City Park under Section 4(f).

Refinements to the concept designs of these facilities to reduce impacts to Maryland City Park will be undertaken by the Project Sponsor during development of and subsequent to the FEIS, following selection of a preferred alternative. Should one of the Build Alternatives J1 move forward in design as FRA's preferred alternative, the avoidance analysis for Maryland City Park will focus on the opportunity for design refinements to reduce impacts of the alternative to Maryland City Park during development of and subsequent to the FEIS. In coordination with Anne Arundel County DRP, FRA and the Project Sponsor will examine the ability to refine the Build Alternatives alignments to incorporate less land from Maryland City Park. The Final Section 4(f) Evaluation will report the outcome of coordination with Anne Arundel County DRP.

Patuxent Research Refuge (PRR)

Property Description

The PRR is owned and managed by USFWS and was established by Executive Order 7514, signed by Franklin D, Roosevelt in 1936. Executive Order 7514 designates the PRR property as "a wildlife experiment and research refuge" with the purpose being "to effectuate further the purposes of the Migratory Bird Conservation Act, 43 Statute

1222)."[10] The PRR property is publicly accessible for activities such as hunting, fishing, wildlife observation, nature photography, trails, and interpretive programs provided by the USFWS. The PRR property is protected by Section 4(f) because it is a publicly owned, publicly accessible, and formally designated national wildlife refuge. In 1991, 7,600 acres of land that was previously part of Fort George G. Meade were transferred to the USFWS by the Military Construction Appropriations Act (US Public Law 101-519). The transfer was completed under conditions that use of the property, which became known as the North Tract, was to be for preservation of the land, wildlife research, and compatible public use (USFWS 2012).

The PRR consists of 13,178.30 acres of land in Prince George's County and Anne Arundel County, MD. The property is bounded by the NASA Goddard Space Flight Center to the south, Fort George G. Meade and Tipton Airport to the north, BWP to the west, and Amtrak's NEC/MDOT MTA's MARC commuter rail system to the east (**Figure F-14**). The PRR consists of three geographic areas, each offering different amenities and levels of public access (USFWS 2013):

- North Tract – Publicly accessible land; activities permitted: hunting, fishing, wildlife observation, nature photography, trail walking, and interpretive programming (e.g., events, public programs, and tram tours)
- Central Tract – Not publicly accessible; facilities include offices, study sites, and United States Geological Survey (USGS) Patuxent Wildlife Research Center
- South Tract – Publicly accessible land, National Wildlife Visitor Center; activities permitted: wildlife observation, nature photography, trail walking, and interpretive programming

The visitor center operates daily from 9:00 am until 4:30 pm, and wildlife observation trails and grounds are open from sunrise until sunset. All areas are closed on Federal holidays.

[10] *Code of Federal Regulations, Title 3 – The President, 1936-1938 Compilation*, Chapter 2 Executive Orders, published in 1968.

Figure F-14: Patuxent Research Refuge fishing access point

Build Alternatives J would approach the PRR from the south, entering the PRR at the Prince George's County/Anne Arundel County border. The alignment would travel parallel to the east side of the BWP for approximately 2.77 miles within the PRR property, exiting the PRR property at the northern border near the existing BWP/MD 198 interchange. In this location, the alignment would enter and run within the existing BG&E utility corridor that parallels the east side of the BWP near the BWP/MD 198 interchange.

Build Alternatives J (J-01, J-02, J-03, J-04, J-05, and J-06)

Build Alternatives J (J-01, J-02, J-03, J-04, J-05, and J-06) would permanently incorporate 23.53 acres of PRR for alignment elements. For the main alignment, impacts would result from viaduct construction (13.29 acres) and SCMAGLEV systems (7.12 acres). The land to be incorporated into the Project for the alignment and ancillary facilities is forested; publicly accessible amenities in the area of Project impact include hunting areas for deer and turkey, and a U-shaped bend of Wild Turkey Way, one of the trails within the North Tract trail system that provides access to fishing at Blue Heron Pond. Under Build Alternatives J (J-01 and J-04) there are 0.29 acres of permanent impacts associated with the MD 198 TMF viaduct within the BG&E utility corridor.

Under all Build Alternatives J, utility lines would be buried to eliminate potential conflict between the overhead lines and the alignment on viaduct and to achieve design requirements for the Project as well as BG&E utility operations. This work would take place within a 0.5-mile section of the BG&E right-of-way near the BWP/MD 198

interchange within the BG&E utility corridor and would require safety measures such as fencing. The protrusion of fencing into the refuge would result in habitat fragmentation, interruption of conservation programs, and restriction of access to portions of the refuge by hunters and other visitors.

Build Alternatives J (J-01 and J-04) would temporarily occupy 25.87 acres of PRR for the construction LOD associated with the alignment viaduct (5.08 acres) and relocation of existing powerlines (20.80 acres). Build Alternatives J (J-02, J-03, J-05, and J-06) would temporarily occupy 25.46 acres of PRR for the construction LOD associated with the alignment viaduct (4.67 acres) and relocation of existing powerlines (20.80 acres).

Build Alternatives J (J-01, J-02, J-03, J-04, J-05, and J-06) would result in noise and visual intrusion caused by the viaduct that would affect viewing wildlife in an area of a wildlife refuge intended for such viewing, and the ecological intrusion would substantially diminish the value of wildlife habitat and substantially reduce wildlife use within the wildlife refuge.

In addition to the 23.5 acres of permanent physical impact to PRR and 25.5 to 29.9 acres of temporary physical construction impact, construction and operation of the SCMAGLEV system would adversely affect recreation activities in two areas of the PRR; a strip of land between Build Alternative J alignment and the BWP, and an area extending approximately 300 feet southwest of the alignment and ancillary facilities. Land below and adjacent to the viaduct and ancillary facilities or between the viaduct infrastructure and the BWP would become unavailable or undesirable for recreational activities. Hunting would be affected for safety reasons, and habitat fragmentation caused by the SCMAGLEV system would impact conservation programs that support wildlife viewing and other recreation such as bird watching or fishing along the North Tract trail system. The areas total approximately 165 acres, but the acreage may change as design refinements are made.

The BARC Airstrip TMF is adjacent to PRR property. It would have no physical impacts to PRR, but because it is adjacent to the PRR boundary, FRA applied a 300-foot buffer requested by USFWS to estimate impacts to wildlife and conservation programs, as impacts to these programs affect recreational use of PRR. The area of impact to PRR within the 300-foot buffer would be approximately 13 acres.

Use Assessment and Property-Specific Avoidance and Minimization

FRA proposes a determination of Permanent Use under Section 4(f) for Build Alternatives J (J-01, J-02, J-03, J-04, J-05, and J-06) because land from the PRR property would be permanently incorporated into the SCMAGLEV Project.

Each of the Build Alternatives J would incorporate land from PRR; therefore, none is an avoidance alternative. The Build Alternatives J1 avoid PRR but result in uses at other Section 4(f) properties. Build Alternatives J1-01 and J1-04 contain viaduct for the MD

198 TMF. Choosing a Build Alternative with a BARC TMF would minimize the impact at PRR but cause greater impact at BARC.

FRA analyzed the potential to avoid or minimize a use of PRR by considering property-specific alignment shifts and design refinements. For alignment shifts, the impacts of some facilities such as the area of the SCMAGLEV systems facilities could potentially be reduced, but design criteria constrain the ability to completely eliminate impacts from PRR because there are constraints on placement of the SCMAGLEV system facilities and the viaduct. For this reason, design changes would not allow avoidance of PRR under Section 4(f).

FRA is coordinating with the USFWS regarding SCMAGLEV Project effects to the PRR property in the context of Section 4(f) (Section F.8). The USFWS stated the following concerns and preferences to FRA during alternatives screening and preparation of the DEIS: The USFWS is concerned about the effects of Project noise and air displacement on wildlife, habitat, and recreational uses on the PRR property; the USFWS recommended using a 300-foot impact zone on either side of the alignment. USFWS noted that Public Law 101-519, § 126(c), 104 Stat. 2247 applies to the Project. The law states that “the Secretary of the Interior may not convey, lease, transfer, declare excess or surplus, or otherwise dispose of any portion of the property” and that doing so would require a Compatibility Determination to be completed. The USFWS noted that the project is likely incompatible with the purposes for which the National Wildlife Refuge System and Patuxent Research Refuge were established.

Refinements to the concept designs of ancillary facilities to reduce impacts to PRR will be undertaken by the Project Sponsor during development of and subsequent to the FEIS, following selection of a preferred alternative. Should one of the Build Alternatives J move forward in design as FRA’s preferred alternative, the avoidance analysis for PRR will focus on the opportunity for design refinements to reduce impacts of the alternative to PRR during development of and subsequent to the FEIS. In coordination with USFWS, FRA and the Project Sponsor will examine the ability to refine the Build Alternatives’ alignments to incorporate less land from the PRR. The Final Section 4(f) Evaluation will report the outcome of coordination with USFWS.

Gwynns Falls Trail

The Gwynns Falls Trail is a recreational trail owned and administered by Baltimore City DRP that offers hiking and biking across 22 continuous miles. The trail allows access to a scenic, historic greenway stream valley and is located largely within the public parks along it, including Gwynns Falls Park, Leakin Park, Leon Day Park, Carroll Park, Solo Gibbs Park, and Middle Branch Park. The Gwynns Falls Trail connects over 30 urban neighborhoods in west and southwest Baltimore with environmental, recreational, and cultural resources (Gwynns Falls Trail Advocates n.d.). The trail travels south from the Inner Harbor, along its western perimeter, in the direction of the Middle Branch of the Patapsco River, terminating in Cherry Hill Park in Baltimore City. The Gwynns Falls Trail Advocates, Parks and People Foundation, and other community partners are involved

with trail use and improvements. In the Project Study Area, the Gwynns Falls Trail is located on the north side of Waterview Avenue on an asphalt path.

Build Alternatives J and J1 (J-01, J-02, J-03, J1-01, J1-02, and J1-03)

Under all Build Alternatives featuring the Cherry Hill Station (J-01, J-02, J-03 and J1-01, J1-02, J1-03), the elevated station platform would extend across Waterview Avenue and the Gwynns Falls Trail, 1.6 miles from the southern end of the trail. The trail would be closed at the boundary of Cherry Hill and Westport, at the western edge of Middle Branch Park. Closure would reduce access to and from the Cherry Hill community and the two parks within Cherry Hill that contain portions of the trail – Middle Branch Park and Cherry Hill Park. Construction of the station and associated powerlines would impact 161.2 linear feet of the trail. Although the trail is located below the station and no permanent acquisition or easements of trail property is required, the trail would be closed during the estimated 30-month civil phase of construction, and closures may extend into the following estimated 24-month long architectural phase. A trail detour would be required and will be coordinated with Baltimore City DRP. The detour route may be circuitous (following Annapolis Road, Patapsco Avenue, and Potee Street) in order to detour the trail around existing MTA Light Rail and CSX Rail infrastructure. The detoured trail would likely detour the entire southern 1.6-mile segment of the Gwynns Falls Trail and would not offer the recreational attributes or features provided by the existing trail to trail users.

Use Assessment and Property-Specific Avoidance and Minimization

FRA proposes a determination under Section 4(f) of Temporary Occupancy of the Gwynn's Falls Trail for Build Alternatives J-01, J-02, J-03 and J1-01, J1-02, and J1-03. The temporary occupancy would result in a Section 4(f) use due to the 2.5 to 5.5-year duration of construction at the station, the length of the detour required around the trail closure, and the lack of recreational attributes and features on the likely detour route.

FRA analyzed the potential to minimize impacts to the Gwynns Falls Trail and is developing a detour route in coordination with Baltimore City DRP around the area that would be closed during construction of the Cherry Hill Station.

FRA is coordinating with the Baltimore City DRP regarding SCMAGLEV Project effects to the Gwynns Falls Trail in the context of Section 4(f) (Section F.8). The Final Section 4(f) Evaluation will report the outcome of coordination with the Baltimore City DRP regarding the SCMAGLEV Project and the Gwynns Falls Trail.

Table F-7: Permanent (P) and Temporary (T) Property Impacts to Recreational Facilities and Parklands, Build Alternative J [in Acres]

Build Alternative	Impact	Alignment	Stations				TMF		
			Mount Vernon Square East	BWI Marshall Airport	Cherry Hill	Camden Yards	MD 198	BARC Airstrip	BARC West
J-01	P	BWP: 60.18 PRR: 23.53	SPR: 0 NYARC: 0.16	--	--	--	BWP: 28.70 PRR: 0.29	--	--
	T	BWP: 26.87 PRR: 25.87	SPR: 0.14 NYARC: 0.06	--	--	--	BWP: 0.29	--	--
J-02	P	BWP: 65.47 PRR: 23.53	SPR: 0 NYARC: 0.16	--	--	--	--	BWP: 3.29	--
	T	BWP: 35.90 PRR: 25.46	SPR: 0.14 NYARC: 0.06	--	--	--	--	BWP: 0.72	--
J-03	P	BWP:64.24 PRR: 23.53	SPR: 0 NYARC: 0.16	--	--	--	--	--	BWP: 3.14
	T	BWP: 32.35 PRR: 25.46	SPR: 0.14 NYARC: 0.06	--	--	--	--	--	BWP: 3.63
J-04	P	BWP:60.18 PRR: 23.53	SPR: 0 NYARC: 0.16	--	--	--	BWP: 28.70 PRR: 0.29	--	--
	T	BWP: 26.87 PRR: 25.87	SPR: 0.14 NYARC: 0.06	--	--	--	BWP: 0.29	--	--
J-05	P	BWP: 65.47 PRR: 23.53	SPR: 0 NYARC: 0.16	--	--	--	--	BWP: 3.29	--
	T	BWP: 35.90 PRR: 25.46	SPR: 0.14 NYARC: 0.06	--	--	--	--	BWP: 0.72	--
J-06	P	BWP: 64.24 PRR: 23.53	SPR: 0 NYARC: 0.16	--	--	--	--	--	BWP: 3.14
	T	BWP: 32.35 PRR: 25.46	SPR: 0.14 NYARC: 0.06	--	--	--	--	--	BWP: 3.63

SPR: Small Park Reservations
NYARC: New York Avenue Recreation Center
GFP: Greenbelt Forest Preserve
BWP: Baltimore-Washington Parkway
SRP: Springfield Road Par
PRP: Patuxent River Park 1
MCP: Maryland City Park
PRR: Patuxent Research Refuge
MHP: Montpelier Hills Park
Source: AECOM/Straughan, August 2020

Table F-8: Permanent (P) and Temporary (T) Property Impacts to Recreational Facilities and Parklands, Build Alternative J1 [in Acres]

Build Alternative	Impact	Alignment	Stations				TMF		
			Mount Vernon Square East	BWI Marshall Airport	Cherry Hill	Camden Yards	MD 198	BARC Airstrip	BARC West
J1-01	P	BWP: 34.86 BRP: 0.0008 GFP: 39.68 MCP: 17.7 PRP: 1.13 SRP: 0.80 MHP: 0.57	SPR: 0 NYARC: 0.16	--	--	--	BWP: 17.85 MCP: 6.74 PRP: 0.69	--	--
	T	BWP: 7.42 BRP: 0.005 GFP: 5.83 MCP: 2.55 PRP: 0.26 SRP: 0 MHP: 0.3	SPR: 0.14 NYARC: 0.06	--	--	--	BWP: 6.15 MCP: 1.23 PRP: 0.26	--	--
J1-02	P	BWP: 36.96 BRP: 0.0008 GFP: 35.94 MCP: 18.30 PRP: 1.35 SRP: 1.69 MHP: 0.57	SPR: 0 NYARC: 0.16	--	--	--	--	BWP: 2.62 GFP: 4.60	--
	T	BWP: 12.71 BRP: 0.005 GFP: 6.58 MCP: 4.30 PRP: 0.80 SRP: 0.70 MHP: 0.3	SPR: 0.14 NYARC: 0.06	--	--	--	--	BWP: 2.09 GFP: 1.04	--

Build Alternative	Impact	Alignment	Stations				TMF		
			Mount Vernon Square East	BWI Marshall Airport	Cherry Hill	Camden Yards	MD 198	BARC Airstrip	BARC West
J1-03	P	BWP: 36.80 BRP: 0.0008 GFP: 37.46 MCP: 18.30 PRP: 1.35 SRP: 1.69 MHP: 0.57	SPR: 0 NYARC: 0.16	--	--	--	--	--	BWP: 4.57 GFP: 4.51
	T	BWP: 11.70 BRP: 0.005 GFP: 4.48 MCP: 4.30 PRP: 0.80 SRP: 0.70 MHP: 0.3	SPR: 0.14 NYARC: 0.06	--	--	--	--	--	BWP: 2.36 GFP: 1.26
J1-04	P	BWP: 34.86 BRP: 0.0008 PRP: 1.13 GFP: 39.68 MCP: 17.7 PRP: 1.13 SRP: 0.80 MHP: 0.57	SPR: 0 NYARC: 0.16	--	--	--	BWP: 17.85 MCP: 6.74 PRP: 0.69	--	--
	T	BWP: 7.42 BRP: 0.005 PRP: 0.26 GFP: 5.83 MCP: 2.55 PRP: 0.26 SRP: 0 MHP: 0.3	SPR: 0.14 NYARC: 0.06	--	--	--	BWP: 6.15 MCP: 1.23 PRP: 0.26	--	--

Build Alternative	Impact	Alignment	Stations				TMF		
			Mount Vernon Square East	BWI Marshall Airport	Cherry Hill	Camden Yards	MD 198	BARC Airstrip	BARC West
J1-05	P	BWP: 36.96 BRP: 0.0008 GFP: 35.94 MCP: 18.30 PRP: 1.35 SRP: 1.69 MHP: 0.57	SPR: 0 NYARC: 0.16	--	--	--	--	BWP: 2.62 GFP: 4.60	--
	T	BWP: 12.71 BRP: 0.005 GFP: 6.58 MCP: 4.30 PRP: 0.80 SRP: 0.70 MHP: 00.3	SPR: 0.14 NYARC: 0.06	--	--	--	--	BWP: 2.09 GFP: 1.04	--
J1-06	P	BWP: 36.80 BRP: 0.0008 GFP: 37.46 MCP: 18.30 PRP: 1.35 SRP: 1.69 MHP: 0.57	SPR: 0 NYARC: 0.16	--	--	--	--	--	BWP: 4.57 GFP: 4.51
	T	BWP: 11.7 BRP: 0.005 GFP: 4.48 MCP: 4.30 PRP: 0.80 SRP: 0.70 MHP: 0.3	SPR: 0.14 NYARC: 0.06	--	--	--	--	--	BWP: 2.36 GFP: 1.26

SPR: Small Park Reservations
NYARC: New York Avenue Recreation Center
GFP: Greenbelt Forest Preserve
BWP: Baltimore-Washington Parkway
SRP: Springfield Road Par
PRP: Patuxent River Park 1
MCP: Maryland City Park
PRR: Patuxent Research Refuge
MHP: Montpelier Hills Park

Source: AECOM/Straughan, August 2020

F.5.1.2 Properties with *De Minimis* Impact

FRA proposes that the Build Alternatives would incorporate land from one park/school property within the Project Study Area, resulting in a de minimis use impact (as indicated by "D" in **Table F-6**). Under all Build Alternatives J1, SCMAGLEV system elements would permanently incorporate a small (0.0008 acre) portion of a wooded, undeveloped edge of Brock Bridge Elementary School/Brockbridge Park. There would be no change to park access or functions.

The Anne Arundel County Department of Parks and Recreation and Board of Education, as officials with jurisdiction over Brock Bridge Elementary School/Brockbridge Park, will be informed of the intent to make a *de minimis* impact finding based on the adverse effect finding and must concur on the no adverse effect finding.

F.5.1.3 Properties with Temporary Occupancy

Temporary occupancies of land may be so minimal as to not constitute a use within the meaning of Section 4(f) when the following conditions are met:

- Duration is temporary, or less than the time needed for construction of the project, with no change in ownership of the land;
- Scope of work is minor;
- There are no anticipated permanent adverse physical impacts;
- No temporary or permanent interference with the protected activities, features, or attributes of the property;
- The property is fully restored or returned to a condition which is at least as good as that which existed prior to the project; and
- There is documented agreement of the official(s) with jurisdiction over the Section 4(f) property regarding the above conditions.

FRA anticipates that eight of the L'Enfant Plan-Small Park Reservations would be temporarily occupied during construction of the SCMAGLEV Project, but that the temporary occupancy would not result in an adverse impact or Section 4(f) Use. The proposed temporary occupancies are described below.

L'Enfant Plan - Small Park Reservations 176, 177A, 178, 179, 180, 181, 182, and 184

The historic L'Enfant Plan[11] contains Federally owned reservation properties that are managed by NPS as small parks. The L'Enfant Plan held some reservations as places for buildings, monuments, and parks, although the small park reservations within the

[11] In addition to containing parks that are 4(f) resources, the L'Enfant Plan is a historic property listed on the NRHP. It is described in greater detail in Section F.5.2.1.

Project Study Area were not designated specifically for such uses on the L'Enfant Plan. In general, these small parks are publicly accessible and provide sites for national and local commemoration, neighborhood recreation, and playgrounds and contribute to an urban park system that is unique within the broader national park network (NPS 2017). The study area contains 14 of these small park properties; each property is protected by Section 4(f) because each property is publicly owned and publicly accessible, and each has the primary purpose as a park according to the NPS, the official with jurisdiction over the properties. Six small park properties are within 800 feet of the study area, but beyond the LODs, and are discussed in Section F.5.1.4. Eight of the 14 small park reservations would be temporarily occupied during construction of the Mount Vernon Square Station Entrance. The eight properties are:

- Triangle Park - Reservation 176: This triangle park is on New York Avenue NW between 7th Street NW and K Street NW and is one of four parks that surround Mount Vernon Square. The park contains landscaped beds and small internal plaza accessed from four internal sidewalks. The perimeter sidewalk is associated with the roadway network, not Reservation 176. This 0.15-acre park was acquired by NPS through purchase from the original Federal grant (Act of July 16, 1790-1 Stat. 130; NPS 2011).
- Triangle Park – Reservation 177A: This triangle park in on New York Avenue between 5th and L Streets, NW. The 0.07-acre park contains lawn and a sidewalk and was transferred from the District of Columbia to NPS (NPS 2011).
- Rigo Walled Park - Reservation 178: This triangle park is on the south side of New York Avenue NW near the intersection of 5th Street NW and L Street NW (**Figure F-15**). The park contains mature trees and small-scale planting areas in a grassed area that is protected by a fence, internal walkways. The perimeter sidewalk is associated with the roadway network, not the Rigo Walled Park. This 0.2-acre park was acquired by NPS through purchase from the original Federal grant (Act of July 16, 1790-1 Stat. 130; NPS 2011).
- Center Parking - Reservation 179: This 0.06-acre park is bounded by 3rd Street NW to the west, M Street NW to the north, New Jersey Avenue NW to the east, and New York Avenue NW to the north. The perimeter sidewalk is associated with the roadway network, not Reservation 179. This park is currently unplanted and being re-built as part of ongoing improvements to New York Avenue. NPS acquired this park from the District of Columbia on an unknown date (NPS 2011).

Figure F-15: Rigo Walled Park - Reservation 178

- Triangle Park - Reservation 180: This 0.02-acre park is bounded by New Jersey Avenue NW to the west, M Street NW to the northeast, and New York Avenue NW to the south. This triangle park features a lawn; the perimeter sidewalk is associated with the roadway network, not Reservation 180. NPS acquired this park from the District of Columbia on an unknown date (NPS 2011).
- Triangle Park - Reservation 181: This 0.53-acre park is bounded by M Street NW to the south, New York Avenue NW to the northeast, and 1st Street NW to the east, with a small triangular segment located across M Street NW to the west. Park features within both segments include a lawn and several trees. The perimeter sidewalk is associated with the roadway network, not Reservation 181. NPS acquired this park through purchase from the original Federal grant (Act of July 16, 1790-1 Stat. 130; NPS 2011).
- Triangle Park -Reservation 182: This triangle park is on New York Avenue at N Street, west of North Capitol Street, NW. The park contains lawn and trees. The perimeter sidewalk is associated with the roadway network, not Reservation 182. This 0.04-acre park was acquired by NPS through purchase from the original Federal grant (Act of July 16, 1790-1 Stat. 130; NPS 2011).
- Triangle Park -Reservation 184: This triangle park is on New York Avenue between Florida Avenue, NW and O Street, NE. The park contains lawn and trees. The perimeter sidewalk is associated with the roadway network, not Reservation 184. This 0.06-acre park was acquired by NPS through purchase from the original Federal grant (Act of July 16, 1790-1 Stat. 130; NPS 2011).

The Build Alternatives would not permanently incorporate land from any of the L'Enfant Plan - Small Park Reservations. The Project Sponsor would temporarily occupy an area

for construction activities along both sides of New York Avenue, including approximately 0.10 acres of L'Enfant Plan - Small Park Reservations 176, 177A, 178, 179, 180, 181, 182, and 184 during Project construction to build the alignment in tunnel using cut/cover construction, and provide worker, equipment, and materials access to the construction work location. The areas of the L'Enfant Plan – Small Park Reservations the Project Sponsor would temporarily occupy during construction include slivers of these parks adjacent to New York Avenue right of way. **Table F-9 and F-10** summarize temporary occupancy of Small Park Reservations.

Table F-9: Summary of Temporary Occupancy of Small Park Reservations

Small Park Reservation Name	Area of Temporary Occupancy (Acres)	Percent of Park Temporarily Occupied	Description of Area Temporarily Occupied During Project Construction
Triangle Park - Reservation 176	0.01 acres	13.3%	Planting areas, internal sidewalk
Triangle Park - Reservation 177A	0.01 acre	85.7%	Lawn, curb, and sidewalk
Rigo Walled Park – Reservation 178	0.03 acre	16.7%	Mature trees, planting areas, lawn, and fencing
Center Parking – Reservation 179	0.001 acre	1.7%	Lawn and curb
Triangle Park - Reservation 180	0.01 acre	50.0%	Lawn and curb
Triangle Park - Reservation 181	0.02 acre	3.8%	Lawn and curb
Triangle Park - Reservation 182	0.005 acre	12.5%	Lawn and curb
Triangle Park - Reservation 184	0.01 acre	16.7%	Lawn and curb

Table F-10: Temporary Occupancy Assessment

Temporary Occupancy Criterion	Small Park Reservations 176, 177A, 178, 179, 180, 181, 182, 184 – L'Enfant Plan *All Build Alternatives*
Duration is temporary, or less than the time needed for construction of the project, with no change in ownership of the land	Temporary occupancy of small park reservations would occur during the portion of the project involving construction of the underground station cavern below New York Avenue. For underground stations, the preferred method of construction is top-down. Similar to cut/cover for the tunnels, the Project Sponsor would require a temporary construction easement on the property to excavate the surface area, build the underground station, and restore the ground surface on top of the station. The duration of surface impacts for construction staging, including for park areas, would last from eight to 23 months, and parks would then be restored to their existing condition. No permanent acquisition of the Small Park Reservations property would be required; no change in land ownership would occur. In addition, station construction is anticipated to take less time than construction of the overall project because construction of the viaduct/tunnels between Baltimore, MD and Washington, D.C. will be longer in duration than station construction phase.
Scope of work is minor	The scope of work on the Small Park Reservations is considered to be minor because the permanent SCMAGLEV Project elements would be below ground, or adjacent to small parks; temporary impacts to the Small Parks Reservations would result due to the need to provide worker, equipment, and materials access to the construction work location where the cut/cover tunnel would be constructed along and under New York Avenue NW and may require removal of curbs and lawn/landscaping to provide a flat surface to access work areas. Small Parks Reservations would be restored to their existing condition once construction work is complete. For these reasons, the nature and magnitude of changes to the Small Parks Reservations would be minimal.
There are no anticipated permanent adverse physical impacts No temporary or permanent interference with the protected activities, features, or attributes of the property The property is fully restored or returned to a condition which is at least as good as that which existed prior to the project	All permanent SCMAGLEV Project elements in the vicinity of the Small Park Reservations would be underground, or in the case of station entrances, adjacent to small parks. During construction, parks would remain open although slivers of the parks adjacent to New York Avenue would be part of the construction work area and restricted to access. After project construction and park property restoration is completed, Small Parks Reservations would retain the features that qualify them as 4(f) properties, including areas of open lawn, trees, internal walkways and benches. The temporarily impacted L'Enfant Plan - Small Park Reservations would be restored to a condition that is at least as good as that which existed prior to the Project and re-opened for public use. Restoration would include re-installing and replanting landscaped areas and re-installing walkways. No permanent adverse physical impacts to Small Parks Reservations would occur.
There is documented agreement of the official(s) with jurisdiction over the Section 4(f) property regarding the above conditions	Prior to completion of the FEIS, FRA will seek concurrence from NPS on the proposed temporary occupancy exception determination.

The officials with jurisdiction must agree that the foregoing conditions are met in order for FRA to make a temporary occupancy determination. FRA is coordinating with the NPS in regard to the L'Enfant Plan - Small Park Reservations. The Final Section 4(f) Evaluation will report the outcome of coordination and FRA's final determinations under Section 4(f) for the L'Enfant Plan - Small Park Reservations.

F.5.1.4 Properties with Potential Constructive Use

FRA assessed the potential for the Build Alternatives to have a constructive use on Section 4(f) Parks properties. The assessment considered the potential for noise, visual, access, and vibration impacts to properties because of the proximity of the Build Alternatives to each property and the potential for permanent changes in public access to these properties. FRA determined that a constructive use occurs within a park, refuge, trail, recreation area or historic site when one or more of the following conditions occurs:

- The projected noise level increase attributable to the project substantially interferes with the use and enjoyment of a noise-sensitive facility of a property protected by Section 4(f), such as:
  - Hearing the performances at an outdoor theater
  - Sleeping in the sleeping area of a campground
  - Enjoyment of an urban park where serenity and quiet are significant attributes; or
  - Viewing wildlife in an area of a wildlife and waterfowl refuge intended for such viewing.
- The proximity of the proposed project substantially impairs aesthetic features or attributes of a property protected by Section 4(f), where such features or attributes are considered important contributing elements to the value of the property.
- The project results in a restriction of access which substantially diminishes the utility of a significant publicly owned park, recreation area, or a historic site.
- The vibration impact from construction or operation of the project substantially impairs the use of a Section 4(f) property, such as projected vibration levels that are great enough to physically damage a historic building or substantially diminish the utility of a building, unless the damage is repaired and fully restored consistent with the Secretary of the Interior's Standards for the Treatment of Historic properties.
- The ecological intrusion of the project substantially diminishes the value of wildlife habitat in a wildlife and waterfowl refuge adjacent to the project, substantially interferes with the access to a wildlife and waterfowl refuge when such access is necessary for established wildlife migration or critical life processes, or substantially reduces the wildlife use of a wildlife and waterfowl refuge.

Properties with potential constructive use are listed in **Table F-11.** With the exception of the Greenbelt Forest Preserve and PRR, none of the properties listed in **Table F-11** are noise-sensitive; none of the properties contains outdoor theaters, campgrounds, and serenity and quiet are not significant attributes. Only PRR and Greenbelt Forest Preserve host activities such as viewing wildlife. At no parks, refuges, trails, or refuges would access be restricted that would substantially diminish the utility of the property. The distance of each park, refuge, trail, or recreation area to SCMAGLEV system element(s) is provided, with an analysis of the potential constructive use to the activities, features, or attributes that make the Section 4(f) properties significant.

Table F-11: Section 4(f) Properties with Potential Constructive Use - Parks, Trails, and Recreational Areas

Park, Refuge, Trail, or Recreational Area/Relevant Build Alternative	Distance from LOD	Activities, Features, Attributes	Constructive Use Assessment
L'Enfant Plan - Small Park Reservations 71, 72, 73, 74, 183, 185 *All Build Alternatives*	<100 feet	F.5.1.5 Paths, benches, lawn, landscaping, art	**No use**. Park activities are not noise sensitive. Mount Vernon Square station elements would largely be underground and not visible from parks. Station entrances may be visible from some of the parks but would be designed to be consistent with the urban visual character of these parks.
Dunbar Aquatic Center *All Build Alternatives*	360 feet from Mount Vernon Square Station entrance	F.5.1.6 Indoor pool	**No use**. The pool is located indoors, which would shield the activities at the facility from noise or visual effects associated with the station entrance.
R.H. Terrell Recreation Center *All Build Alternatives*	275 feet from Mount Vernon Square underground station	Basketball court, computer lab, gymnasium, multi-purpose room, fitness center, football/soccer field	**No use**. Many facility activities are located indoors, which would shield them from noise or visual effects. Outdoor ball fields are not noise-sensitive or visually sensitive, and Mount Vernon Square station elements closest to the facility would be not be visible or produce noise because they are underground.
Butler-Wyatt Clubhouse #2 Boys & Girls Club *All Build Alternatives*	175 feet from Mount Vernon Square underground station	Gymnasium	**No use**. The gymnasium is not noise-sensitive and is located indoors, which would shield the activities at the facility from any noise or visual effects.

Park, Refuge, Trail, or Recreational Area/Relevant Build Alternative	Distance from LOD	Activities, Features, Attributes	Constructive Use Assessment
Bladensburg South Community Park *All Build Alternatives*	315 feet from FA/EE facility	Undeveloped.	**No use**. There are no current or planned noise-sensitive or visually sensitive uses on the property. The FA/EE Facility would be constructed in an existing commercial/industrial area and is compatible with the visual character of the area.
Bladensburg Waterfront Park *All Build Alternatives*	100 feet from FA/EE Facility	Boating, biking, walking, fishing, picnic pavilions, playground/play features.	**No use**. There are no current or planned noise-sensitive or visually sensitive uses on the property and the facility would be located within an existing industrial/commercial area. The FA/EE Facility would be compatible with the visual character of the area.
Anacostia River Trail *All Build Alternatives*	100 feet from FA/EE facility	Hiking/biking trail	**No use**. The hiking/biking trail is not a noise-sensitive use and the FA/EE Facility, located within an area of existing industrial use, would be compatible with the visual character of the area.
Greenbelt Forest Preserve *Build Alternatives J*	500 feet from open cut tunnel for alignment	Trails, ballfields, observatory, wildlife viewing	**No Use**. Noise associated with the SC MAGLEV System operations would not result in impacts that would substantially interfere with noise-sensitive uses within GFP.
South Laurel Neighborhood Park *Build Alternatives J*	150 feet from power interconnection switchyard.	Playground, trail, baseball field, basketball court	**No use**. Park activities are not noise-sensitive, and the switchyard would be located within an existing utility corridor and would be compatible with the existing visual character of land adjacent to the park.
Springfield Road Park *All Build Alternatives J*	300 feet from viaduct	Undeveloped.	**No use**. No current or planned park activities are noise- or visually sensitive.
Muirkirk Park *All Build Alternatives J1*	500 feet from viaduct	Undeveloped.	**No use**. No current or planned park activities are noise- or visually sensitive.
Montpelier Park *All Build Alternatives J*	600 feet from viaduct	Ball fields, basketball court, tennis courts, playground	**No use**. No current or planned park activities are noise-sensitive or visually sensitive.
Patuxent River Park 1 *All Build Alternatives J*	585 feet from viaduct	Undeveloped parkland; part of larger multi-parcel Patuxent River Park.	**No use**. No current or planned park activities are noise-sensitive or visually sensitive.

Park, Refuge, Trail, or Recreational Area/Relevant Build Alternative	Distance from LOD	Activities, Features, Attributes	Constructive Use Assessment
Maryland City Park *All Build Alternatives J*	520 feet from viaduct	Baseball fields, multipurpose field, overlay field, picnic and playground areas, dog park, parking, restroom and concession storage buildings, trail	**No use**. No current or planned park activities are noise-sensitive or visually sensitive.
Patuxent Research Refuge *All Build Alternatives J1*	330 to 600 feet from viaduct of J alignment or MD 198 TMF viaduct alignment.	Hunting, hiking, fishing, wildlife viewing, research	**No use**. PRR has noise-sensitive uses, including wildlife viewing in an area of a wildlife refuge intended for such viewing. However, noise associated with the SC MAGLEV System operations would not result in impacts that would substantially interfere with noise-sensitive uses within PRR, including wildlife viewing.
Patapsco Valley State Park *All Build Alternatives*	Adjacent	Hiking, fishing, camping, canoeing, horseback riding, mountain biking, and picnicking	**No use**. No current or planned park activities are noise or visually sensitive.
Lindale Middle School *All Build Alternatives*	460 feet from FA/EE Facility	Baseball fields, basketball courts, tennis courts, track	**No use**. No current or planned park activities are noise or visually sensitive.
Lakeland Park *Build Alternatives J and J1 (*J-01, 02, 03 and J1-01, 02, 03*)*	785 feet from Cherry Hill Station	ballfields, basketball courts, fitness equipment, swings, walking path	**No use**. No current or planned park activities are noise or visually sensitive.
Middle Branch Park *All Build Alternatives*	Adjacent to laydown area (All Build Alternatives); 60 feet east of MOW Facility and 200 feet north of parking garages (J and J1 J-04, 05, and 06 and J1-04, 05, and 06); 200 feet north of parking garages (J and J1 J-01, 02, 03 and J1-01, 02, 03)	View of the city skyline, kayaking, canoeing, boating, crabbing, fishing, trails, and picnicking	**No use**. No current or planned park activities are noise sensitive. Although the park features a view of the city skyline, the view is towards the north. Build Alternative elements are to the west of the park and would not affect the view towards the city skyline.
Indiana Avenue Park *Build Alternatives J and J1 (*J-01, 02, 03 and J1-01, 02, 03*)*	600 feet from Cherry Hill Station and 460 feet from Cherry Hill Station's tail track	Playground	**No use**. No current or planned park activities are noise or visually sensitive.

Park, Refuge, Trail, or Recreational Area/Relevant Build Alternative	Distance from LOD	Activities, Features, Attributes	Constructive Use Assessment
Solo Gibbs Park *Build Alternatives J and J1 J-04, 05, and 06 and J1-04, 05, and 06)*	500 feet from Camden Yards Station	Baseball field, basketball courts, walking paths, plaza with chess tables, playground, recreation center Planned: new recreation center, multi-purpose fields, expanded playgrounds	**No use**. No current or planned park activities are noise-sensitive and station elements would not be visible above ground.
McKeldin Plaza *Build Alternatives J and J1 (J-04, 05, and 06 and J1-04, 05, and 06)*	500 feet from Camden Yards Station Entrances	Lawn, plaza, fountain, memorial	**No use**. No current or planned park activities are noise-sensitive and station elements would not be visible above ground.
Liberty Park Dog Walk *Build Alternatives J and J1* (J-04, 05, and 06 and J1-04, 05, and 06*)*	750 feet from Camden Yards Station	Dog walk, benches	**No use**. No current or planned park activities are noise-sensitive and station elements would not be visible above ground.
Ravens' Walk *Build Alternatives J and J1 (J-04, 05, and 06 and J1-04, 05, and 06)*	285 feet from Camden Yards Station	Path	**No use**. No current or planned park activities are noise-sensitive and station elements would not be visible above ground.

F.5.2 Historic Properties

This section identifies and describes the historic properties within the APE of the Build Alternatives. The discussions of each property explain the following elements:

- Property location;
- Property significance under Section 106;
- The impacts of the Build Alternatives on each property;
- FRA's proposed finding under Section 106, pending on-going consultation with the SHPOs;
- FRA's proposed finding under Section 4(f);
- A description of the potential to avoid permanent incorporation of land that is not a *de minimis* impact; and,
- A description of coordination activities with officials with jurisdiction.

Table F-12 summarizes FRA's proposed determinations of Section 4(f) use of each historic property. The following subsections describe the impacted historic properties, arranged south to north. FRA will make final determinations of use of Section 4(f)

properties in the Final Section 4(f) Evaluation. Figures of Section 4(f) properties are provided in Attachment A; the figures show historic properties and the limits of disturbance (LOD)[12] of the Build Alternatives in relation to those properties.

Table F-12: Proposed Determinations of Section 4(f) Uses by the Build Alternatives– Historic Properties; No Use (X); Permanent Use (P); De Minimis Impact (D); Constructive Use (C), Temporary Occupancy (T); (*) Pending

Section 4(f) Property	Build Alternative											
	J-01	J-02	J-03	J-04	J-05	J-06	J1-01	J1-02	J1-03	J1-04	J1-05	J1-06
L'Enfant Plan (NRIS ID# 97000332)	D	D	D	D	D	D	D	D	D	D	D	D
Central Public Library (Carnegie Library) (NRIS ID# 69000290)	X	X	X	X	X	X	X	X	X	X	X	X
Seventh St NW, East Side of 1000 Block (#84000861)	X	X	X	X	X	X	X	X	X	X	X	X
Mount Vernon Square Historic District and Addition (NRIS ID# 99001071)	P	P	P	P	P	P	P	P	P	P	P	P
Yale Steam Laundry (NRIS ID# 99000332)	X	X	X	X	X	X	X	X	X	X	X	X
Fletcher Chapel	X	X	X	X	X	X	X	X	X	X	X	X
(Former) Peoples Congregational Church	X	X	X	X	X	X	X	X	X	X	X	X
Buildings North Side 600 Block K St NW	X	X	X	X	X	X	X	X	X	X	X	X
Mount Vernon Triangle Historic District (NRIS ID# 060000191	X	X	X	X	X	X	X	X	X	X	X	X
917-921 6th Street NW	X	X	X	X	X	X	X	X	X	X	X	X
Downtown Historic District and Addition	X	X	X	X	X	X	X	X	X	X	X	X
Bible Way Church and Temple	X	X	X	X	X	X	X	X	X	X	X	X

[12] The surface LOD is the geographic area of proposed disturbance to construct and operate the SCMAGLEV Project.

Section 4(f) Property	Build Alternative											
	J-01	J-02	J-03	J-04	J-05	J-06	J1-01	J1-02	J1-03	J1-04	J1-05	J1-06
Augusta and Louisa Apartment Buildings (#94001032)	X	X	X	X	X	X	X	X	X	X	X	X
Holy Redeemer Catholic Church and School	X	X	X	X	X	X	X	X	X	X	X	X
M Street High School (Perry School)	X	X	X	X	X	X	X	X	X	X	X	X
The New York	P	P	P	P	P	P	P	P	P	P	P	P
Southern Baptist Church	X	X	X	X	X	X	X	X	X	X	X	X
Slater School	X	X	X	X	X	X	X	X	X	X	X	X
John Mercer Langston School	X	X	X	X	X	X	X	X	X	X	X	X
Margaret Murray Washington School (#11000843)	X	X	X	X	X	X	X	X	X	X	X	X
Baltimore & Ohio (B&O) Railroad Bridge over Montana Avenue, NE	X	X	X	X	X	X	X	X	X	X	X	X
(Former) F.P. May Hardware Company Warehouse and Office	X	X	X	X	X	X	X	X	X	X	X	X
Pennsylvania Railroad Bridge over Montana Avenue, NE	X	X	X	X	X	X	X	X	X	X	X	X
Hecht Warehouse	X	X	X	X	X	X	X	X	X	X	X	X
Martin's Woods (MIHP # PG:72-68)	P	P	P	P	P	P	P	P	P	P	P	P
Greenbelt Historic District (MIHP# PG:67-4, NRIS #80004331)	X	X	X	X	X	X	P	P	P	P	P	P
Baltimore-Washington Parkway (NRIS ID# 91000532)	P	P	P	P	P	P	P	P	P	P	P	P
Goddard Space Flight Center (MIHP# PG:64-19)	X	P	X	X	P	X	X	P	X	X	P	X
Beltsville Agricultural Research Center (MIHP# PG:62-14)	P	P	P	P	P	P	P	P	P	P	P	P
District of Columbia Children's Center (D.C.CC)	P	P	P	P	P	P	P	X	X	P	X	X

Section 4(f) Property	Build Alternative											
	J-01	J-02	J-03	J-04	J-05	J-06	J1-01	J1-02	J1-03	J1-04	J1-05	J1-06
– Forest Haven District (MIHP# AA-2364)												
Westport Historic District (MIHP# B-1342)	P	P	P	P	P	P	P	P	P	P	P	P
Cherry Hill Homes District (B-5080)	X	X	X	X	X	X	X	X	X	X	X	X
Cherry Hill Homes Extension 1 (B-5321)	X	X	X	X	X	X	X	X	X	X	X	X
Bridge over Annapolis Road (BC-5401)	D	D	D	X	X	X	D	D	D	X	X	X
Mount Auburn Cemetery	X	X	X	X	X	X	X	X	X	X	X	X
Spring Garden Bridge (B-3668)	T	T	T	T	T	T	T	T	T	T	T	T
Howard St Tunnel & Power House (B-79)	D	D	D	D	D	D	D	D	D	D	D	D
Baltimore and Ohio (B&O) Railroad Baltimore Belt Line (B-5287)	D	D	D	D	D	D	D	D	D	D	D	D
Pratt Furniture Company (B-2387)	X	X	X	X	X	X	X	X	X	X	X	X
George H. Fallon Federal Building	X	X	X	X	X	X	X	X	X	X	X	X
(Downtown Baltimore) Business and Government Historic District (B-3935)	X	X	X	X	X	X	X	X	X	X	X	X
Otterbein Church (B-11)	P	P	P	P	P	P	P	P	P	P	P	P
Otterbein Historic District (B-3934)	X	X	X	X	X	X	X	X	X	X	X	X
U.S. Fidelity and Guaranty (USF&G) Building (B-5318)	X	X	X	X	X	X	X	X	X	X	X	X

Note: This table indicates FRA's proposed determinations. FRA will make final determinations of use of Section 4(f) properties in the Final Section 4(f) Evaluation.

F.5.2.1 Properties with Use

Ten Section 4(f) historic properties would have land permanently incorporated into the SCMAGLEV Project under the Build Alternatives. Maps of historic properties with permanent uses can be found in Attachment A. **Tables F-13** and **F-14** summarize temporary and permanent impacts by Build Alternative for historic properties.

Mount Vernon Square Historic District and Addition

Property Description

The Mount Vernon Square Historic District and Addition is located northeast of Mount Vernon Square in northwest Washington, D.C. The historic district is roughly bounded by New York Avenue NW on the south, 7th Street NW on the west, M and N Streets NW on the north, and 1st Street NW on the east. The historic boundary of the district is the centerline of each street. The historic district's building stock reflects the rapid growth of the area around Mount Vernon Square after the Civil War when the area grew into an economically and racially mixed neighborhood, served by the public market in the square and the streetcar line along 7th Street NW.

The historic district's buildings comprise an intact and cohesive collection of brick, flat- and bay-fronted row houses executed in a variety of architectural styles, including Italianate, Richardsonian Romanesque, Colonial Revival, and Queen Anne, as well many vernacular dwellings. The Mount Vernon Square neighborhood is also significant for its commercial properties, which generally front 7th Street NW and New York Avenue NW and stand two- to three- stories in height with storefronts on the first floor, and often displaying elaborately decorated upper stories and cornices.

The Mount Vernon Square Historic District and Addition (NRIS ID# 99001071) was listed in the NRHP in 1999. The district is significant under Criterion A in the area of Community Planning and Development on the local level, reflecting the surge in Washington's population after the Civil War, leading to much speculative residential development within the original L'Enfant Plan boundaries. The historic district is also listed under Criterion C in the area of Architecture and embodies a full range of late 19th and early-20th century residential architectural styles, as well as vernacular housing. The commercial buildings fronting on New York Avenue NW and Seventh Street NW also contribute to the district's architectural significance.

The Build Alternatives include a proposed Mount Vernon Square East Station within or near the Mount Vernon Square Historic District and Addition. The station includes above ground and underground elements:

- Mount Vernon Square East Station (Underground Elements): The underground element includes passenger concourses, as well as track and boarding platform areas. The underground elements would be aligned along and under the New York Avenue NW right-of-way. Cut/cover tunnel construction technology would be used to build the underground station components. The New York Avenue NW right-of-way would be restored at the end of construction. An underground pedestrian connection would be made to the convention center.
- Mount Vernon Square East Station (Aboveground Elements): The above ground station building would be adjacent to the historic district on the south side of New York Avenue NW. The station building would be in the block formed by 5th and 6th Streets NW, and the northeast portion of the block west of 6th Street NW. The

property is outside the boundaries of the Mount Vernon Historic District and Addition. Underground station parking would be provided beneath the station building.

- Mount Vernon Square East Station entrance (3rd and 4th Streets NW): The Project Sponsor proposes a station entrance on the property of an existing surface parking lot on the north side of New York Avenue NW between 3rd and 4th Streets NW. The existing parking lot would be removed to provide the station entrance.
- Mount Vernon Square East Station entrance (First Street NW and Kirby Street NW): The Project Sponsor proposes a station entrance on a portion of the property of the New York Avenue Recreation Center, between First Street NW and Kirby Street NW. An existing access path, grassed area, shade trees, and a portion of the perimeter fence would be removed to provide the station entrance. Section F.5.1.1 describes the impacts of the Build Alternatives to this property in more detail.

During Project construction, all Build Alternatives would temporarily occupy 3.98 acres of the historic district on multiple properties (New York Avenue NW (roadway and sidewalks, New York Avenue Recreation Center, parking lot on north side of New York Avenue between 3rd and 4th Streets) to build the Mount Vernon Square East Station, and station elements would permanently incorporate 0.46 acres within the District.

Use Assessment and Property-Specific Avoidance and Minimization

Under Section 4(f), FRA assessed that a permanent use may occur because of the physical changes associated with the proposed Mount Vernon Square East station entrances within the NRHP-listed historic district.

FRA analyzed the potential to avoid or minimize a use of the Mount Vernon Square Historic District and Addition by considering property-specific alignment shifts and design refinements. Each Build Alternative would incorporate land from the historic district; therefore, none is an avoidance alternative.[13]

Because the station entrances must be adjacent to the station under New York Avenue NW, the Project Sponsor examined the potential to avoid incorporating land from the Mount Vernon Square Historic District and Addition by placing the station entrances in other locations:

- Mount Vernon Square East Station entrance (3rd and 4th Streets NW): The purpose of the station entrance in the vicinity of 3rd and 4th Streets NW is to provide access to the station at the approximately midpoint of the station along New York Avenue NW. In this area, existing land use is residential and business.

[13] Corridor wide avoidance and minimization strategies for all Section 4(f) properties are discussed in Section F.7.1.

Other uses outside the historic district include the existing surface parking lot adjacent to I-395 and Rigo Walled Park at 5th and L Streets NW. The surface parking lot is the proposed location for realignment of the I-395 ramps as part of the Project. In addition, this location is the terminus for I-395 and the site of traffic congestion. Pedestrian activity related to a station entrance is not contemplated by the Project Sponsor for reasons of safety. As a result, the property was eliminated from consideration by the Project Sponsor as not feasible and prudent because of unacceptable safety problems. The Rigo Walled Park is protected by Section 4(f) and placing a station entrance in this location would not be an avoidance alternative (Section F.5.1.1).

- Mount Vernon Square East Station entrance (First Street NW and Kirby Street NW): The purpose of the station entrance in the vicinity of First Street NW is to provide access to the station at the easternmost point of the station along New York Avenue NW. In this area, existing land use is primarily residential, but includes parcels with other uses. They are the New Birth Baptist Church at the corner of Kirby Street NW and New York Avenue, Perry School Community Services south of New York Avenue NW, and L'Enfant Plan – Reservation 181 (Section F.5.1.1), also on the south side of New York Avenue NW. The New Birth Baptist Church property is smaller in size than the required design criteria for a station entrance and was eliminated from consideration by the Project Sponsor as not feasible and prudent as a matter of sound engineering judgment. The L'Enfant Plan – Reservation 181 is protected by Section 4(f) and is not an avoidance alternative.

Refinements to the concept design of the Mount Vernon East Station and station entrance to reduce impacts to the Mount Vernon Square Historic District and Addition will be undertaken by the Project Sponsor during and subsequent to the FEIS and Final Section 4(f) Evaluation At that time, the Project Sponsor will consider adjusting the location and size of the proposed station entrance to avoid or reduce the need to incorporate land from the Mount Vernon Square Historic District and Addition for the Project.

FRA is coordinating with the DC SHPO regarding SCMAGLEV Project effects to Mount Vernon Square Historic District and Addition in the context of Section 4(f) (Section F.8). The Final Section 4(f) Evaluation will report the outcome of coordination with the DC SHPO regarding the SCMAGLEV Project and the Mount Vernon Square Historic District and Addition.

The New York

Property Description

The New York is an apartment building at 115 New York Avenue NW in Washington, D.C. It is a contributing element to the Mount Vernon Square Historic District. Although the parcel boundary containing the apartment building is adjacent to but not within the LODs, the historic boundary extends approximately 10 feet south of the parcel boundary into the New York Avenue right of way.

The Build Alternatives include a proposed Mount Vernon Square East Station on the east side of The New York, within the grounds of the New York Avenue Recreation Center. The station includes above ground and underground elements in the vicinity of The New York:

- Mount Vernon Square East Station (Underground Elements): The underground elements include passenger concourses, as well as track and boarding platform areas. The underground elements would be aligned along and under the New York Avenue NW right-of-way. Cut/cover tunnel construction technology would be used to build the underground station components. The New York Avenue NW right-of-way would be restored at the end of construction. An underground pedestrian connection would be made to the convention center.
- Mount Vernon Square East Station entrance (First Street NW and Kirby Street NW): The Project Sponsor proposes a station entrance on a portion of the property of the New York Avenue Recreation Center, between First Street NW and Kirby Street NW. An existing access path, grassed area, shade trees, and a portion of the perimeter fence that are adjacent to The New York's historic boundary would be removed to provide the station entrance. Section F.5.1.1 describes the impacts of the Build Alternatives to the New York Avenue Recreation Center in more detail.

During SCMAGLEV Project construction, each Build Alternative would temporarily occupy 0.003 acres (130 square feet) within the front landscaping of The New York's historic boundary for the construction LODs of the Mount Vernon Square East Station. Prior to the end of construction, the Project Sponsor would restore temporarily impacted areas within the historic boundary to their existing condition.

Use Assessment and Property-Specific Avoidance and Minimization

Under Section 4(f), FRA assessed that a use of The New York property may occur because of the impacts to a contributing property of an NRHP-listed Mount Vernon Square Historic District. Temporarily disturbed areas on The New York property would be restored at the end of SCMAGLEV Project construction as described above.

FRA analyzed the potential to avoid or minimize a use of The New York by considering property-specific alignment shifts and design refinements. Each Build Alternative would have an Eastern Station Entrance adjacent to The New York; therefore, none is an avoidance alternative. However, placement of the station within the New York Avenue Recreation Center property avoids physical use of the New York and other buildings within the Mount Vernon Square Historic District and minimizes the use of The New York. The avoidance discussion for the Mount Vernon Square Historic District and Addition Section provides details on the challenges in placing the station elsewhere to avoid a use of the district, of which the New York is a contributing element.

Refinements to the concept design of the Mount Vernon Square East Station and station entrance to reduce impacts to the Mount Vernon Square Historic District and Addition will be undertaken by the Project Sponsor during development of and

subsequent to the FEIS. At that time, the Project Sponsor will consider adjusting the location and size of the proposed station entrance to avoid or reduce the adverse visual impact to The New York.

Martins Woods

Property Description

Dean W. Martin, an employee of the United States Forest Service (USFS), built the 30.75-acre Martins Woods compound for his family and friends in Lanham, Prince George's County, Maryland from 1930-1941. Martin constructed six log houses, one stone house, and several outbuildings, which are physically and visually separated from adjacent mid-twentieth century subdivisions by a park and by a forested area. The houses and outbuildings were constructed in the Rustic architectural style extensively used by the United States Forest Service and NPS during the New Deal era. The Martins Woods district includes the main stone house, six log cabins, and several outbuildings including a wood storage shed (which was used to store well-cured logs for future repairs to the cabins), a concrete swimming pool, and a former tennis court associated with the stone house. The historic boundary of Martins Woods is comprised of seven parcels that contain structures and woodland.

The MD SHPO determined Martins Woods (MIHP# PG:72-68) eligible for listing in the NRHP as a historic district in 2011 under Criterion C (Architecture). Under this criterion, the district is eligible as an intact collection of 1930s vernacular Rustic architecture, which is rare both for its proximity to Washington, D.C., and for its integrity of architecture and natural setting. The eligibility determination for the property notes that "the preservation of the surrounding wooded area as well as the preservation of the original natural building materials contributes to the integrity of the historic district". The period of significance was determined to coincide with the period of construction, from 1930 to 1941 (D'Agostini 2011).

Build Alternatives J (J-01, J-02, J-03, J-04, J-05, and J-06)

The Build Alternatives J would cross the western, forested portion of the Martin's Woods property in deep tunnel. At the crossing location, the Project Sponsor would provide a fresh air and emergency egress site combined with the TBM launch-retrieval site and a tunnel laydown area within an approximately 12-acre footprint. The above ground portion of the FA/EE structure would be housed in a building that is 40 to 50 feet tall. The TBM launch site would be in the same location as the fresh air and emergency egress site. During construction, the TBM launch site would serve as a point of entry and exit for the TBM. The laydown site would be rectangular in shape and would include the fresh air and emergency egress site within the laydown site boundaries.

The FA/EE Facility would permanently incorporate 0.14 acres of the Martins Woods historic boundary. The tunnel laydown site would temporarily occupy approximately 1.29 acres of the laydown western portion of the Martins Woods historic boundary, in an area

that is forested. No existing buildings on the Martin's Woods property would be physically impacted by the Build Alternatives J.

Build Alternatives J1 (J1-01, J1-02, J1-03, J1-04, J1-05, and J1-06)

Like the Build Alternatives J, the Build Alternatives J1 would cross the western, forested portion of the Martin's Woods property in deep tunnel, although the tunnel and some facilities above the tunnel would be shifted approximately 550 feet to the west, farther from Martin's Woods.

The Build Alternatives J1 would cross west of the Martin's Woods property in deep tunnel. The Project Sponsor would provide a fresh air and emergency egress site combined with the TBM launch-retrieval site and a tunnel laydown area within an approximately 12-acre footprint. The above ground portion of the FA/EE structure would be housed in a building that is 40 to 50 feet tall, 600 feet west of the Martin's Woods historic boundary. The TBM launch site would be in the same location as the fresh air and emergency egress site. During construction, the TBM launch site would serve as a point of entry and exist for the TBM. The laydown site would be rectangular in shape and would include the fresh air and emergency egress site within the laydown site boundaries.

No portion of the FA/EE Facility would permanently incorporate any portion of Martins Woods. The tunnel laydown site would temporarily occupy approximately 1.43 acres of the western portion of the Martins Woods historic boundary, requiring tree removal in an area that is forested. No existing buildings on the Martin's Woods property would be physically impacted by the Build Alternatives J1.

Use Assessment and Property-Specific Avoidance and Minimization

Under Section 4(f), FRA assessed that a Permanent Use may occur under the Build Alternatives J because of the physical impact of the FA/EE Facility within the Martins Woods historic boundary. Temporarily disturbed areas within Martins Woods would be restored at the end of Project construction, however restoration of mature forest would take several decades to achieve.

FRA assessed that although Build Alternatives J1 would only temporarily occupy the undeveloped southwest portion of the Martins Woods property, the temporary occupancy criteria may not be met and Build Alternatives J1 may result in a use of the property. Specifically, although the land will be fully restored, it will not be restored to a condition at least as good as that which existed prior to the project. Maturation of reforestation and planting areas will take several decades.

FRA analyzed the potential to avoid a permanent incorporation of land from the Martins Woods property. The six J Build Alternatives would incorporate land from Martins Woods; therefore, none of the J Build Alternatives is an avoidance alternative. The J1 Build Alternative would not avoid Martins Woods but would minimize use relative to the J Build Alternatives.

The Project Sponsor developed concept designs for the locations of ancillary facilities. Refinements to the concept designs of these facilities to reduce impacts to the Martin's Woods property included consideration of shifting the FA/EE Facility either north or south along the alignment but doing so would place the FA/EE Facility in residential neighborhoods. The 40- to 50-foot tall facility would cause severe disruption to established minority communities. The structure would introduce incompatible industrial/public utility use into an area of residential land use. Houses would be demolished to accommodate the 12-acre footprint required by the facility. Placement of the facility would potentially affect patterns of circulation and restrict access to roadways, sidewalks, and walking trails within the community. Further refinements will be undertaken by the Project Sponsor during development of and subsequent to the FEIS (Section F.7.2). At that time, the Project Sponsor will consider reducing the footprint of the proposed fresh air and emergency egress site, TBM launch site, and laydown area to avoid or reduce the need to incorporate land from the Martin's Woods property for the Project.

FRA is coordinating with the MD SHPO regarding SCMAGLEV Project effects to Martin's Woods in the context of Section 106 and Section 4(f) (Section F.8). The Final Section 4(f) Evaluation will report the outcome of coordination with the MD SHPO regarding the Build Alternatives and Martin's Woods.

Greenbelt Historic District

Property Description

The Greenbelt Historic District includes the original developed section of the City of Greenbelt. Greenbelt was established in 1935 and expanded through 1941 as one of three "green towns" founded by the United States government under the New Deal as an attempt to solve social and economic problems confronting the nation. Greenbelt is the only "green town" to retain many of the original features such as the buildings and sections of the surrounding "greenbelt." Greenbelt also continues the concept of community responsibility as the majority of the housing is owned by a cooperative. The building of historic Greenbelt took advantage of the natural topography in the form of a crescent-shaped plateau, or "greenbelt." Houses encircle the center, where stores, the post office, and community building/school are located. The apartment buildings form an inner circle. At a lower level, in a natural bowl, is the athletic field and the rec center. The government purchased a total of 3,371 acres for the community and surrounding "greenbelt."

The Greenbelt Historic District (NRIS ID# 80004331) was listed in the NRHP in 1980 and listed as a National Historic Landmark in 1997. It is significant as one of the only "green towns" established during the New Deal to still retain many of its original features and surrounding greenbelt.

The Build Alternatives J would not impact the Greenbelt Historic District.

The Build Alternatives J1 (J1-01, J1-02, J1-03, J1-04, J1-05, and J1-06) would enter the Greenbelt Historic District within its greenbelt, more familiarly called the Greenbelt Forest Preserve (North Woods and Hamilton Tracts), which includes the Northway Fields and Greenbelt Observatory. Project impacts within the Greenbelt Historic District are identical to those reported for the Greenbelt Forest Preserve in Section F.5.1.

Use Assessment and Property-Specific Avoidance and Minimization

Under Section 4(f), FRA assessed that Build Alternatives J1 may have a Permanent Use of the Greenbelt Historic District because land from the district would be incorporated into the SCMAGLEV Project.

Property-specific avoidance and minimization measures considered for the Greenbelt Historic District are the same as those considered for the Greenbelt Forest Preserve. As noted above, the Greenbelt Forest Preserve forms the greenbelt that is a historically significant feature of the historic district. Refer to the avoidance measures in Section F.5.1.1. FRA analyzed the potential to avoid a permanent incorporation of land from the Greenbelt Forest Preserve by considering property specific alignment shifts and design refinements. Each of the Build Alternatives J1 would incorporate land from the Greenbelt Forest Preserve. The Build Alternatives J avoid the Greenbelt Historic District, but result in Section 4(f) uses of other properties; thus, the Build Alternatives J are not avoidance alternatives.

FRA is coordinating with the MD SHPO, NPS, and the Department of the Interior regarding SCMAGLEV Project effects to the Greenbelt Historic District in the context of Section 106 and Section 4(f) (Section F.8). The Final Section 4(f) Evaluation will report the outcome of coordination with MD SHPO and NPS regarding the Build Alternatives and the Greenbelt Historic District.

Baltimore-Washington Parkway

Property Description

BWP is one of several scenic parkways in the National Capital Area and travels through mature forests in a parkland setting. It provides access for regional visitors, commuters, and residents to Federal facilities such as the PRR, the NASA Goddard Space Flight Center Visitor Center, and Greenbelt Park. The BWP extends northeast for nineteen miles from the Anacostia River north of the eastern border of the District of Columbia, through Prince George's County and Anne Arundel County, Maryland. The historic boundary of the BWP is generally the property boundary. The BWP encompasses 1,472.30 acres, crossing the Patuxent and Little Patuxent rivers and four railroads. The nineteen miles are federally owned and operated by NPS as an NRHP-listed historic scenic parkway, from Washington, D.C. to just below Jessup Road (MD 175) at the Baltimore County Line. An additional ten miles of the roadway that extends south from the Anacostia River is also known as the BWP, but is operated by the state of Maryland (Leach 1990); this portion of the roadway is neither historic nor a park or recreational

facility; it is not protected by Section 4(f) and is not assessed in the Draft Section 4(f) Evaluation.

The BWP was individually listed in the NRHP in 1991 as a cultural landscape and is protected by Section 4(f) as such. In addition, FRA determined through coordination with NPS that the BWP is a designated park and is therefore, protected by Section 4(f) as both types of property. Because the Section 4(f) evaluation criteria for parks and historic sites are different, the park and historic site aspects of the BWP are evaluated separately. In this Draft Section 4(f) Evaluation, this section discusses the property and the Section 4(f) uses as a protected historic site. Section F.5.1.1 discusses the property and Section 4(f) uses as a protected park.

The BWP features an irregular shape, ranging from 400 to 800 feet wide. This width includes a dual-lane roadway separated by a median of varying in width from fifteen to 200 feet, with ground cover varying from mown grass to mature woodland. The roadway is flanked by a buffer of natural forest and native vegetation. The terrain is characterized by gentle hills (reaching a peak of 300 feet above sea level), and modest vistas. The roadway is crossed by approximately twenty bridges of three major construction types: rigid arches of reinforced concrete, beams with steel or concrete, and steel girders. According the NRHP form for the BWP, “running beneath the roadway are approximately 175 box and pipe culverts, 100 of which along the Federal-owned portion have dressed headwalls or wingwalls (Leach 1990). The forested areas have evolved from a hardwood forest of dominantly red and white oak, sweet gum, and tulip trees in the early twentieth century to include scrub growth such as Virginia pine, blackjack oak, and black locust in areas where land was cleared in constructing the BWP. Southern yellow pine, oaks, ash, and sweet birch have grown up in the ROW, in addition to the occasional mountain laurel, American holly, and tupelo (Leach 1990.) The roadway was rehabilitated in 1999 to create a wider shoulder and to add concrete curbs and gutters (HAER 1999).”

The BWP is included in the Parkways of the National Capital Area Multiple Property Listing (NRIS ID# 64500258) and was individually listed in the NRHP in 1991 as a historic district with approximately 125 contributing resources (NRIS ID# 91000532). The NRHP identifies the BWP as having state and local significance in the areas of transportation and landscape architecture under Criteria A and C. It is associated with urban development of the National Capital as a federal center; it exemplifies the last period of construction for this type of road; and it is the only fully developed parkway of its kind in Maryland. The BWP also achieves national significance under criterion A for its important role in the planning of the national capital landscape and management of regional public lands in the late 19th and early 20th centuries. Its location, alignment, and design aesthetic extend the national capital's regional parkway system and are a lasting legacy of a vision for conserving the land between Washington, DC, and Baltimore as a "National Capital Forest."

Since the BWP opened in 1954, maintenance on road and park land has been aimed at the preservation of five aesthetic qualities with the objective of not only minimizing negative impacts, but also of enhancing parkway character wherever possible. Features

to be preserved include right-of-way with heavy slope vegetation; opposing roadways separated by a variable-width median; curvilinear road alignments; stone-faced bridge abutments; and contour grading fit to the topography.

The Build Alternatives elements within the BWP and the permanent and temporary impacts of the Build Alternatives on the BWP as an historic property are identical to those described for BWP as a park in Section F.5.1.1.

Use Assessment and Property-Specific Avoidance and Minimization

Under Section 4(f), FRA proposes that the Build Alternatives would result in a Permanent Use of the BWP because permanent incorporation of land from the historic property would be required to provide the SCMAGLEV Project viaducts and ancillary facilities.

FRA analyzed the potential to avoid or minimize a use of the BWP property by considering property-specific alignment shifts and design refinements. The results of this analysis, which are identical to the avoidance and minimization efforts for the BWP property as a park, are described in Section F.5.1.1.

FRA is coordinating with the MD SHPO and NPS regarding SCMAGLEV Project effects to the BWP in the context of Section 106 and Section 4(f) (Sections F.1.8 and F.5.1.1). The Final Section 4(f) Evaluation will report the outcome of coordination with the MD SHPO and NPS regarding the SCMAGLEV Project and the BWP.

Goddard Space Flight Center

Property Description

NASA founded the 1,297-acre Goddard Space Flight Center (GSFC), a research facility, in 1959. The site has since played a significant role in the American space program as NASA's first space research facility. The facility was modeled on research campuses constructed privately and publicly during the 1950s and 1960s, and it grew rapidly after its founding.

The facility is characterized by buildings primarily of brick, built on a monumental scale with little to no ornamentation and flat roofs. The buildings are linked by curvilinear roads that traverse gently rolling hills. It is organized in five geographic zones around the main campus, with the 100 area and 200 area to the north, and the 300 and 400 areas to the west (Peeler 2012). The site also includes 149 acres managed by the USDA.

There is a variety of property types in the developed core of the property, including administrative buildings, combination administrative/laboratory buildings, communications facilities, optical facilities and observatories, testing and evaluation facilities, and storage facilities. Character-defining features include buildings made up of modules across a double-loaded hallway, with L- or T-shaped footprints, allowing flexible and re-configurable workspaces. The suburban, university-like setting is also a

character-defining feature and was intended to give researchers an environment in which they could thrive (Peeler 2012).

The MD SHPO determined that the GSFC is eligible for listing in the NRHP as an historic district in 2012 (MIHP# PG:64-19). It is significant under Criteria A and C in the area of Science, with 65 contributing resources, including 61 buildings, one site, two structures, and one object. The period of significance is 1960 to 1969, which represents the first decade of development at the site. The historic boundary of the GSFC is the perimeter of the main campus and the perimeter of the 300 and 200 areas. The 100 and 400 areas were determined not eligible for inclusion in the historic district (Peeler 2012). The Spacecraft Magnetic Test Facility at GSFC is in the 300 area and was individually designated an NHL in 1985 (NRIS ID# 85002811) as part of the Man in Space Theme Study (Butowsky 1984).

Build Alternatives J (J-01, 03, 04, and 06)

The Build Alternatives J (J-01, J-03, J-04, and J-06) would not have alignment or TMF impacts within the GSFC historic boundary.

The alignment would cross within the northwestern portion of GSFC in the vicinity of the ramps from BWP to Explorer Road, but not within the historic boundary and would be 1,000 feet from any contributing resources within the historic district. Build Alternatives J-01, J-03, J-04, and J-06 are not anticipated to have adverse visual, noise or vibration impacts on the GSFC historic district.

Build Alternatives J (J-02 and J-05)

Build Alternatives J (J-02 and J-05) have identical alignment impacts as Build Alternatives J-01, J-03, J-04, and J-6.

The BARC Airstrip TMF would be located partially on land leased by NASA as Area 200 within BARC. Area 200 is an out-parcel within the GSFC historic boundary. The TMF footprint and a permanent access road would be located within undeveloped wooded land north of the Area 200 complex of structures.

The BARC Airstrip TMF features associated with Build Alternatives J (J-02 and J-05) would permanently incorporate 17.88 acres within the GSFC historic boundary for the BARC Airstrip TMF footprint (16.25 acres), road relocation and reconstruction (0.03 acre) and permanent access road (1.61 acres). Build Alternatives J (J-02 and J-05) would temporarily occupy 3.61 acres of the GSFC historic boundary for the construction LOD associated with the BARC Airstrip TMF.

Build Alternative J1 (J1-01, J1-03, J1-04, and J1-06)

The Build Alternatives J1 (J1-01, J1-03, J1-04, and J1-06) would not have alignment or TMF impacts within the GSFC historic boundary.

The alignment would be adjacent to the northwestern portion of GSFC in the vicinity of the ramps from BWP to Explorer Road. This area is 1,000 feet from any contributing resources within the historic boundary and Build Alternatives J1-01, J1-03, J1-04, and J1-06 are not anticipated to have adverse visual, noise or vibration effects on the GSFC historic district.

Build Alternative J1 (J1-02 and J1-05)

The Build Alternatives, J1-02 and J1-05 would not have alignment impacts within the GSFC historic boundary.

The alignment would cross within the northwestern portion of GSFC in the vicinity of the ramps from BWP to Explorer Road, but not within the historic boundary and would be 1,000 feet from any contributing resources within the historic district.

The BARC Airstrip TMF would be located partially on land leased by NASA as Area 200 within BARC. Area 200 is an out-parcel within the GSFC historic boundary. The TMF footprint and a permanent access road would be located within undeveloped wooded land north of the Area 200 complex of structures.

The BARC Airstrip TMF features associated with Build Alternatives J (J-02 and J-05) would permanently incorporate 17.88 acres within the GSFC historic boundary for the BARC Airstrip TMF footprint (16.25 acres), road relocation and reconstruction (0.03 acre) and permanent access road (1.61 acres). Build Alternatives J (J-02 and J-05) would temporarily occupy 3.53 acres of the GSFC historic boundary for the construction LOD associated with the BARC Airstrip TMF.

Use Assessment and Property-Specific Avoidance and Minimization

Under Section 4(f), FRA proposes that under all Build Alternatives J and J1, a Permanent Use may occur because land within the GSFC historic boundary would be incorporated into the SCMAGLEV Project. However, a *de minimis* impact finding may be appropriate for some Build Alternatives because the physical and visual changes resulting from the SCMAGLEV Project may not result in an adverse effect to the NRHP-eligible GSFC Historic District under Section 106. FRA is continuing to assess the effects of the SCMAGLEV Project to the GSFC property under Section 106. Temporarily disturbed areas would be restored at the end of Project construction.

FRA analyzed the potential to avoid a permanent incorporation of land from the GSFC property by considering property specific alignment shifts and design refinements. Each of the Build Alternatives would incorporate land from the GSFC property, but they result in Section 4(f) uses at other properties and the Build Alternatives J cannot be considered avoidance alternatives.

FRA considered property specific avoidance and minimization for Build Alternatives J and J1 (J-02, J-05 and J1-02, J1-05).The impacts of some facilities such as the TMF Footprint, TMF ramps, MOW Facility, surface parking, two substations, overhead

electric, and road relocation and reconstruction potentially could be reduced, but design criteria constrain the ability to completely eliminate incorporating land from Area 200 within the GSFC property. For this reason, design changes would not allow avoidance of the GSFC property under Section 4(f).

Should one of Build Alternatives J or J1 (J-02, J-05 and J1-02, J1-05) move forward in design as FRA's preferred alternative, refinements to the concept designs of these facilities to reduce impacts to GSFC property will be undertaken by the Project Sponsor during and subsequent to the FEIS.

FRA is coordinating with NASA and the MD SHPO regarding the SCMAGLEV Project effects to the GSFC property in the context of Section 106 and Section 4(f) (Section F.8). In coordination with MD SHPO and NASA, FRA and the Project Sponsor will examine the ability to refine the Build Alternatives alignments as well as the ancillary facilities to incorporate less land from the GSFC. The Final Section 4(f) Evaluation will report the outcome of coordination with MD SHPO regarding the Build Alternatives and the GSFC property.

Beltsville Agricultural Research Center

Property Description

The USDA Agricultural Research Service's BARC comprises 6,582 acres divided into five farms: the 367-acre South Farm, 549-acre North Farm, 460-acre Linkage Farm, 2,980-acre Central Farm, and the 2,225-acre East Farm. BARC's landscape consists of vast open space, cultivated research fields, and hundreds of buildings and structures scattered throughout the facility **(Figure F-16).** Historically, buildings were constructed in groupings associated with individual bureaus/divisions of the USDA or other Federal agencies that leased or were assigned portions of the facility. The majority of BARC's buildings are farm research outbuildings, such as sheds, greenhouses, barns, and poultry houses, and the remainder are laboratories, dwellings, and office buildings (Farris 2017). Portions of the East Farm are used by the USDA's Soil Conservation Services for testing and improving erosion-resistant plants, while other parts of the East Farm are forested. Character-defining features of Georgian Revival style at BARC buildings include multi-story brick rectangular buildings emphasizing symmetry and order with prominent chimneys. Agricultural buildings are purpose built for their function, feature brick, concrete block or wood construction, and are set in a rural landscape. Character-defining features of the rural landscape include a flat to rolling landscape featuring open fields, pasture lands, and meadows divided by tree lines and forests. Paved secondary roads and gravel roads provide access.

Figure F-16: Beltsville Agricultural Research Center

On October 16, 1998, MD SHPO determined that BARC was eligible in its entirety for listing in the NRHP under Criteria A and C as the largest national research facility for the USDA and for its role as the most diversified agricultural research complex in the world (MIHP# PG:62-14). The history and development of the agricultural research facility also reflects New Deal policies and programs, and contains notable landscape architecture, Georgian Revival architecture, and experimental agricultural architecture (Farris 2017). The historic boundary of the BARC property is the property boundary.

Under Criterion A, BARC is significant at the national level for its association with events that have made significant contributions to the broad pattern of our history with agricultural experimentation. Many aspects of twentieth century living for the farmer and consumer were influenced by the scientific research conducted at BARC. BARC is a prominent example of the Federal role in agricultural research, scientific agricultural research in general, and New Deal policies and programs, such as the 1930s agricultural policies and funding, the Public Works Administration (PWA), and the Civilian Conservation Corps (CCC), which all played important roles in shaping the experimental farm. BARC's scientists and researchers have made major contributions toward scientific knowledge that have resulted in incredible advances in crop production, plant and animal disease control, and pest control (Farris 2017).

Under Criterion C, BARC embodies the distinctive characteristics of a type, period, or method of construction. The physical appearance of BARC was strongly influenced in

the 1930s by the planning team of A.D. Taylor, landscape architect, and Delos Smith, architect. The majorities of BARC's buildings share a Georgian Revival style and/or display the characteristics of experimental agricultural architecture. Contributing landscape elements includes major paved roads (including Powder Mill Road), minor service roads, field and research crops, pasture lands, seasonal ponds, forests, sustainable meadows, and other landscape features (Farris 2017). BARC's period of significance extends from its inception in 1910 to its reclassification as a regional center in 1984 (Farris 2017).

Build Alternatives J (J-01 and J-04)

Build Alternatives J (J-01 and J-04) would enter the BARC property at the southern property line with the NASA GSFC property and would be along the western, forested edge of the BARC property, known as the East Farm, for approximately two miles. At the point of entry, the alignment would be transitioning at a portal from tunnel to viaduct. The alignment remains in portal until it transitions to viaduct 800 feet south of Beaver Dam Road in the vicinity of Beck Branch and the western edge of fields associated with the Norman A. Berg National Plant Materials Center (not within the historic property boundary of BARC). The alignment crosses Beaver Dam Road on viaduct, traversing undeveloped woodlands and Beaverdam Creek. It shifts to BWP property, traveling along the west boundary of the East Farm until the alignment passes beyond the northern extent of BARC at Powder Mill Road.

An MD 198 TMF ramp would branch from the main alignment at the portal located 800 feet south of Beaver Dam Road. The ramp is located almost entirely on BWP property, adjacent to the west boundary of BARC's East Farm.

Build Alternatives J (J-01 and J-04) alignment features would permanently incorporate 22.72 acres within the BARC historic boundary for the alignment and ancillary facilities, including 5.45 acres for the portal, 0.32 acres for viaduct, 12.53 acres for stormwater management facilities, 2.85 acres for SCMAGLEV systems facilities, and 1.58 acres for road relocation and reconstruction. Build Alternatives J (J-01 and J-04) alignment features would temporarily occupy 23.81 acres for construction LOD (0.64 acre), TBM Launch-Retrieval (2.11 acres), tunnel and viaduct laydown (21.01 acres) and a viaduct workzone access road (0.05 acre).

The MD 198 TMF ramps are primarily adjacent to BARC property on BWP property, but 0.06 acres of viaduct would be located on BARC property.

Build Alternatives J (J-02 and J-05)

Build Alternatives J (J-02 and J-05) has nearly identical alignment features and impacts as Build Alternatives J, J-01 and J-04, with minor differences (less than a half-acre) in the acreage impacts of the portal and SCMAGLEV systems.

The BARC Airstrip TMF would be located entirely within the BARC historic boundary. The TMF ramps would curve eastward from the portal south of Beaver Dam Road,

crossing undeveloped woodlands and along the edges of agricultural fields. The BARC Airstrip TMF would be located primarily on property currently occupied by an airstrip, and also on undeveloped, wooded land leased to NASA as part of the GSFC property. The MOW Facility would be located within an agricultural field and the TMF footprint would be located on agricultural fields, open grassland, woodlands, and an airstrip on the East Farm. A substation would be constructed at the site of a small complex of buildings that includes a former airport hangar, and a parking lot would be constructed south of the TMF on the site of one of the former runways.

Build Alternatives J (J-02 and J-05) alignment features would permanently incorporate 22.28 acres within the BARC historic boundary for the alignment and ancillary facilities, including 5.51 acres for the portal, 0.32 acres for viaduct, 12.53 acres for stormwater management facilities, 2.34 acres for SCMAGLEV systems facilities, and 1.58 acres for road relocation and reconstruction. Build Alternatives J (J-02 and J-05) alignment features would temporarily occupy 23.81 acres for construction LOD (0.64 acre), TBM Launch-Retrieval (2.11 acres), tunnel and viaduct laydown (21.01 acres) and a viaduct workzone access road (0.05 acre).

BARC Airstrip TMF features would permanently incorporate 195.62 acres within the BARC historic boundary for the TMF footprint (138.82 acres), surface parking (6.18 acres), an MOW Facility (12.46 acres), a substation (9.66 acres), overhead electric lines (4.20 acres), permanent access road (2.25 acres), Springfield Road relocation (5.71 acres), and viaduct (16.35 acres).

Build Alternatives J (J-03 and J-06)

Build Alternatives J (J-03 and J-06) has nearly identical alignment features and impacts as Builds Alternative J, J-01 and J-04, with minor differences (less than a half-acre) in the acreage impacts of the portal, SCMAGLEV systems, and viaduct at the portal area 800 feet south of Beaver Dam Road.

The BARC West TMF ramps would branch from the main alignment at the portal located 800 feet south of Beaver Dam Road within the BARC historic boundary in an undeveloped wooded area. The ramps would curve northeastward through undeveloped woodland before curving westward and crossing over BWP to the BARC's Central Farm. The BARC West TMF ramps would travel through undeveloped woodlands on the Central Farm, leading to the TMF on the north side of Powder Mill Road. The footprint of the TMF, including a substation, MOW Facility, and parking lot, would occupy undeveloped woodlands, agricultural fields, and a complex of vacant buildings and greenhouses associated with former Entomology Research Division at the northern end of Entomology Road. A portion of Odell Road at the north extent of the TMF would be relocated to the north to accommodate the TMF.

Build Alternatives J (J-03 and J-06) alignment features would permanently incorporate 23.27 acres within the BARC historic boundary for the alignment and ancillary facilities, including 5.96 acres for the portal, 0.36 acres for viaduct, 12.53 acres for stormwater

management facilities, 2.84 acres for SCMAGLEV systems facilities, and 1.58 acres for road relocation and reconstruction. Build Alternatives J (J-03 and J-06) alignment features would temporarily occupy 23.15 acres for construction LOD (0.60 acre), TBM Launch-Retrieval (2.11 acres), tunnel and viaduct laydown (21.01 acres) and a viaduct workzone access road (0.05 acre).

The BARC West TMF features would permanently incorporate 152.24 acres within the BARC historic boundary for the TMF footprint and ancillary facilities, including 112.34 acres for the TMF footprint, 12.36 acres for the MOW Facility, 9.88 acres for a substation, 0.33 acres for road relocation and reconstruction, 0.39 acres for a permanent access road,16.04 acres for viaduct, and 0.91 acres for installation of overhead electric lines. The BARC West TMF would temporarily occupy 9.91 acres within the BARC historic boundary for construction LOD for the facility and powerlines.

Build Alternatives J1 (J1-01 and J1-04)

Build Alternatives J1 (J1-01 and J1-04) would enter the BARC property at the southern property boundary with the Greenbelt Forest Preserve. The alignment would enter the BARC historic boundary on the west side of BWP in an open cut portal and cross the BARC property for 1,800 feet. The portal would cross an area that includes a water tower and isolated buildings once associated with the Soil Conservation Service's hillculture research facility. These structures are not contributing elements to the BARC historic boundary. The alignment transitions to viaduct 800 feet south of Beaver Dam Road, and travels on viaduct through the east side of the Central Farm in undeveloped woodland and agricultural fields until it transitions to BWP property just south of the BWP/Powder Mill interchange.

A ramp to the MOW Facility associated with the MD 198 TMF would branch from the main alignment at a portal located within the Greenbelt Historic District/Greenbelt Forest Preserve. The ramp would be located west of and adjacent to the main alignment. Like the main alignment, on the south side of BARC, it would travel through open cut portal (for 1,140 feet) before transitioning to viaduct. Like the main alignment, the ramp enters BWP south of the BWP/Powder Mill interchange but re-enters BARC historic boundary for 850 feet in an area of undeveloped woodland west of Springfield Road.

Build Alternatives J1 (J1-01 and J1-04) alignment features would permanently incorporate 15.10 acres within the BARC historic boundary for the alignment and ancillary facilities, including 4.31 acres for the portal, 4.35 acres for viaduct, 1.28 acres for stormwater management facilities, and 1.84 acres for SCMAGLEV systems facilities. Build Alternatives J1 (J1-01 and J1-04) alignment features would temporarily occupy 13.78 acres for construction LOD (2.20 acre), tunnel and viaduct laydown (11.28 acres) and a viaduct workzone access road (0.30 acre).

The MD 198 TMF ramp to the MOW Facility would permanently incorporate 7.96 acres within the BARC historic boundary for the MOW viaduct and ramp. There would be no temporary occupancy within the BARC historic boundary for the MD 198 TMF facilities.

Build Alternatives J1 (J1-02 and J1-05)

Build Alternative J1 (J1-02 and J1-05) have nearly identical alignment features as Build Alternatives J1-01 and J1-04, with minor differences in the acreage impacts (less than one acre) associated with the portal, SCMAGLEV systems, stormwater management, and viaduct.

The BARC Airstrip TMF ramps would branch from the main alignment at the open cut portal located north of the Greenbelt Forest Preserve within the BARC historic boundary in an undeveloped wooded area. The ramps would curve outwards from the main alignment, rejoining south of Beaver Dam Road to cross over BWP. The TMF ramps curve eastward on the East Farm in an area of undeveloped woodlands, crossing agricultural fields on either side of Soil Conservation Road, and back through undeveloped woodlands to the western edge of the TMF footprint and a MOW Facility on the west side of Springfield Road. The MOW Facility would be located within an agricultural field and the TMF footprint would be located on agricultural fields, open grassland, woodlands, and an airstrip on the East Farm. A substation would be constructed at the site of a small complex of buildings that includes a former airport hangar, and a parking lot would be constructed south of the TMF on the site of one of the former runways.

Build Alternatives J (J-02 and J-05) alignment features would permanently incorporate 13.07 acres within the BARC historic boundary for the alignment and ancillary facilities, including 3.43 acres for the portal, 6.71 acres for viaduct, 1.08 acres for stormwater management facilities, and 1.84 acres for SCMAGLEV systems facilities. Build Alternatives J (J-02 and J-05) alignment features would temporarily occupy 15.58 acres for construction LOD (2.82 acres), tunnel and viaduct laydown (12.38 acres) and a viaduct workzone access road (0.39 acre).

The BARC Airstrip TMF features would permanently incorporate 194.01 acres within the BARC historic boundary for the TMF footprint and ancillary facilities, including 140.86 acres for the TMF footprint, 12.46 acres for the MOW Facility, 9.89 acres for a substation, 6.18 acres for a parking lot, 5.74 acres for road relocation and reconstruction, 2.28 acres for a permanent access road,14.74 acres for viaduct, and 1.86 acres for installation of overhead electric lines. The BARC Airstrip TMF would temporarily occupy 9.91 acres within the BARC historic boundary for facility construction and powerlines.

Build Alternatives J1 (J1-03 and J1-06)

Build Alternatives J1 (J1-03 and J1-06) have similar alignment features and impacts as Build Alternatives J1-01 and J1-04, with minor differences in the acreage impacts of the portal, SCMAGLEV systems, and viaduct.

The BARC West TMF ramps would branch from the main alignment at the open cut portal located north of the Greenbelt Forest Preserve within the BARC historic boundary in an undeveloped wooded area. The ramps would curve outwards from the main

alignment, rejoining approximately 1,000 feet north of Beaver Dam Road within the BARC historic boundary in an undeveloped wooded area. The ramps would curve northwestward through undeveloped woodland and adjacent to agricultural fields before crossing over Powder Mill Road to join the TMF. The footprint of the TMF, including a substation, MOW Facility, and parking lot, would occupy undeveloped woodlands, agricultural fields, and a complex of vacant buildings and greenhouses associated with former Entomology Research Division at the northern end of Entomology Road. A portion of Odell Road at the north extent of the TMF would be relocated to the north to accommodate the TMF.

Build Alternatives J1 (J1-03 and J1-06) alignment features would permanently incorporate 12.47 acres within the BARC historic boundary for the alignment and ancillary facilities, including 3.62 acres for the portal, 5.90 acres for viaduct, 1.28 acres for stormwater management facilities, and 1.67 acres for SCMAGLEV systems facilities. Build Alternatives J1 (J1-03 and J1-06) alignment features would temporarily occupy 13.47 acres for construction LOD (2.56 acres), tunnel and viaduct laydown (10.56 acres) and a viaduct workzone access road (0.36 acre).

The BARC West TMF features would permanently incorporate 152.23 acres within the BARC historic boundary for the TMF footprint and ancillary facilities, including 111.13 acres for the TMF footprint, 12.33 acres for the MOW Facility, 9.33 acres for a substation, 0.33 acres for road relocation and reconstruction, 0.40 acres for a permanent access road,14.79 acres for viaduct, 1.26 acres for portal, and 2.66 acres for installation of overhead electric lines. The BARC West TMF would temporarily occupy 11.84 acres within the BARC historic boundary for construction LOD for the facility and powerlines.

Use Assessment and Property-Specific Avoidance and Minimization

Under Section 4(f), FRA proposes that under each Build Alternative, a Permanent Use of BARC property may occur because the land would be permanently incorporated into the SCMAGLEV Project. These include contributing elements to BARC, such as portions of the existing farm including paved roads (Powder Mill Road and Springfield Road); existing farm buildings; service roads; airfield; field and research crops; and forests. Temporarily disturbed areas within BARC would be restored at the end of Project construction.

Each Build Alternative would incorporate land from BARC; therefore, none is an avoidance alternative. Choosing a Build Alternatives with the MD 198 Alignment (Build Alternatives J-01 and J-04 and J1-01 and J1-04) would reduce the quantity of the impacts associated with the TMFs on BARC property, the BARC West and BARC Airstrip TMFs. However, the MD 198 TMF impacts other Section 4(f) properties.

FRA analyzed the potential to avoid or minimize a use of BARC by considering property-specific alignment shifts and design refinements. For alignment shifts, the impacts of some TMF facilities potentially could be reduced, but design criteria for the

TMF layout and the elements required at the TMFs constrain the ability to eliminate incorporating land from BARC. The TMF facilities would still be located on BARC property. For this reason, design changes would not allow avoidance of BARC under Section 4(f). The avoidance analysis for the BARC property identified the opportunity for design refinements to reduce impacts of the Build Alternatives to the BARC property. Refinements to the concept designs of these facilities to reduce or eliminate impacts to BARC will be undertaken by the Project Sponsor during development of and subsequent to the FEIS.

FRA is coordinating with USDA the MD SHPO regarding SCMAGLEV Project effects within the BARC historic boundary in the context of Section 106 and Section 4(f) (Section F.8). In coordination with the USDA and MD SHPO, FRA and the Project Sponsor will examine the ability to refine the Build Alternatives as well as the ancillary facilities to incorporate less land from the BWP property. The Final Section 4(f) Evaluation will report the outcome of coordination with the MD SHPO and USDA regarding the Build Alternatives and BARC.

District of Columbia Children's Center (DCCC) – Forest Haven District

Property Description

The Forest Haven District of the District of Columbia Children's Center (DCCC) is located east of Laurel, in Anne Arundel County, Maryland (see **Figure F-17**). Forest Haven was built to support, treat, and house Washington, D.C.'s intellectually disabled population in what was then a rural setting. Initial construction of the campus took place between 1927 and 1939, with additional expansions in the 1940s and late 1950s to 1960s. The campus evolved over time to reflect the changes taking place in the medical field's treatment of the intellectually disabled. The center was closed in 1991; however, some buildings continue to be used for youth and rehabilitation programs. The property is owned by the U.S. government, though it is administered by the District of Columbia.[14]

[14] District of Columbia Appropriation Act, Public Law 457, 67th Cong., 4th Session (February 28, 1923), 1327.

Figure F-17: District of Columbia Children's Center

The DCCC includes approximately 232 acres, sloping downhill from the southern edge of the property towards the northeast where the Little Patuxent River is located. The facility was built as a physically segregated, self-enclosed institution, accessed by a rural highway and bordered to the east by a wildlife refuge, and to the northwest by the BWP. The parcel perimeters have been left undeveloped and forested throughout the history of the district. Between 1927 and 1939, five identical dormitories, an infirmary, an employee dormitory, a superintendent's residence, and supporting facilities (sometimes constructed in part by the labor of the staff and "large boys") were built mostly in brick, along an axis running roughly north-south. The campus was twice expanded: in the 1940s several buildings were slowly added as needed, including a hospital and administrative building with three dorms flanking it, a power plant and laundry facilities to the north of the older campus, and a two-story apartment complex and fifty-room dormitory for employees to the southwest. Between 1956 and 1961, several larger buildings were added to the perimeter, which doubled the number of buildings on the campus (Knight 2007).

In 2007, the MD SHPO determined the DCCC – Forest Haven District eligible for listing in the NRHP as a historic district under Criteria A and C (MIHP# AA-2364). The district includes 18 buildings, one structure, and two sites that contribute to the site's significance. The district also includes 16 non-contributing buildings and two non-contributing sites. The historic boundary of the DCCC includes these buildings and the largely undeveloped woodlands surrounding them. The historic district satisfies Criterion

A for its association with the historic treatment and care of the mentally disadvantaged, and Criterion C for its campus made up of colonial revival brick buildings along the north-south axis (Knight 2007).

Build Alternatives J (J-01 and J-04)

The alignment of Build Alternatives J (J-01 and J-04) would be located on viaduct along the east side of the BWP, entering the DCCC historic boundary on the north side of the Little Patuxent River in a largely wooded and undeveloped area. In the northern portion of the historic boundary, the viaduct would cross over the current Department of Youth and Rehabilitative Services (DYRS) Building in the northwest corner of the campus, which would be demolished. The building is not listed as a contributing element to the DCCC. River Road, on the south and east sides of the building would be improved as a workzone access road for a 15-acre viaduct laydown area. Existing powerlines in the vicinity of the BWP/MD 32 interchange would be relocated to accommodate the viaduct.

The MD 198 TMF would be located along the southern portion of the DCCC property with the long side of the TMF parallel with the property line and MD 198. The TMF would be rectangular in form, and oriented in an east to west orientation. Associated facilities adjacent to the TMF within the DCCC historic boundary would include two power substations, a 600-space parking facility for SCMAGLEV employees, and electrical powerlines. Because the land slopes downhill from MD 198 toward the Little Patuxent River, and because the design criteria for a TMF require the ground within the facility to be essentially level, the Project Sponsor would bring fill to the MD 198 TMF site to bring the land elevation to the required level condition. The fill would be stabilized with perimeter retaining walls approximately 150 feet in height. The MD 198 TMF would impact and require demolition of the easternmost group of DCCC Forest Haven District buildings on Central Avenue, would require closure of the portion of Central Avenue that connects the westernmost group of buildings to MD 198, and would remove forested land on the southern portion of the DCCC – Forest Haven District property (both sides of Central Avenue). Access to the western portion of the DCCC would be re-established by extending River Road to MD 198. The River Road bridge over the Little Patuxent River would be reconstructed as part of the roadway relocation and reconstruction.

Build Alternatives J (J-01 and J-04) alignment features would permanently incorporate 8.98 acres within the DCCC historic boundary for the alignment and SCMAGLEV systems facility. Build Alternatives J (J-01 and J-04) alignment features would temporarily occupy 29.76 acres for bridge reconstruction of the River Road Bridge (0.26 acres) construction LOD for facilities and powerlines (2.05 acres), LOD for relocating powerlines (12.64 acres), viaduct laydown areas (14.36 acres), and viaduct workzone access road (0.45 acre).

The MD 198 TMF would permanently incorporate 116.28 acres within the DCCC historic boundary for the footprint of the TMF and ancillary facilities. The TMF footprint would occupy 104.94 acres, overhead electric lines would incorporate 0.6 acres, road relocation and reconstruction 0.11 acre, substations 9.46 acres, and surface parking

would incorporate 0.78 acres. The MD 198 TMF would temporarily occupy 1.73 acres for the construction LOD associated with new powerlines.

Build Alternatives J (J-02, J-03, J-05, and J-06)

Build Alternatives J (J-02, J-03, J-05, and J-06) alignment impacts are identical to those reported for Build Alternatives J (J-01 and J-04).

There are no TMF or station impacts associated with Build Alternatives J (J-02, J-03, J-05, and J-06).

Build Alternatives J1 (J1-01 and J1-04)

There are no alignment impacts associated with Build Alternatives J1 (J1-01 and J1-04) as the J1 alignment crosses under the DCCC historic boundary in tunnel. Tunneled areas below DCCC would require a real estate transaction, potentially in the form of a permanent easement for maintenance. Whether DCCC property is purchased outright, or a permanent easement is required, the result is permanent incorporation of DCCC land into the Project. The nature and quantity of permanent impact would be determined during later design refinement.

The impacts associated with the MD 198 TMF Facility are identical to those reported for Build Alternatives J (J-01 and J-04).

Build Alternatives J1 (J1-02, J1-03, J1-05, and J1-06)

As with Build Alternatives J1 (J1-01 and J1-04), Build Alternatives J1 (J1-02, J1-03, J1-05, and J1-06) also crosses under the DCCC historic boundary in tunnel.

There are no TMF or station impacts associated with Build Alternatives J1 (J1-02, J1-03, J1-05, and J1-06).

Use Assessment and Property-Specific Avoidance and Minimization

Under Section 4(f), FRA assessed that the Build Alternatives J and Build Alternatives J1 (J1-01 and J1-04) a Permanent Use may occur as a result of a permanent incorporation of land from the DCCC – Forest Haven District property to provide the SCMAGLEV Project viaducts and ancillary facilities.

FRA analyzed the potential to avoid a permanent incorporation of land from the DCCC – Forest Haven District property by considering property-specific alignment shifts and design refinements. Build Alternatives J and Build Alternatives J1-02, J1-03, J1-05, and J1-06 would incorporate land from the historic district, therefore none is an avoidance alternative. Build Alternatives J1-01 and J1-04 avoid the DCCC.

The Project Sponsor examined the potential to avoid incorporating land from the DCCC – Forest Haven District property using horizontal alignment shifts of the Build Alternatives alignments as part of the avoidance analysis. Shifting the alignment would move the alignment to the east or west. Shifting the alignment to the west to be outside

the DCCC – Forest Haven District property would avoid the property but would require crossing the BWP property. As a result, a shift to the west is not an avoidance alternative under Section 4(f). Shifting the alignment to the east of the DCCC – Forest Haven District property, toward the MD 198/MD 32 interchange, would require the alignment to be straightened between Greenbelt and Hanover. The alignment would cut across the central portions of other properties protected by Sections 4(f) including the GSFC, BARC, and PRR. As a result, a shift to the west is not an avoidance alternative under Section 4(f).

The Project Sponsor developed concept designs for the locations of ancillary facilities. Refinements to the concept designs of these facilities to reduce impacts to the DCCC-Forest Haven District property will be undertaken by the Project Sponsor during development of and subsequent to the FEIS (Section F.7.2). At that time, the Project Sponsor will consider adjusting the location of the proposed alignment, TMF, and laydown area to avoid or reduce the need to incorporate land from the DCCC-Forest Haven District property for the Project.

FRA is coordinating with the DC SHPO regarding SCMAGLEV Project effects to the DCCC property in the context of Section 106 and Section 4(f) (Section F.8). The Final Section 4(f) Evaluation will report the outcome of coordination with the DC SHPO regarding the SCMAGLEV Project and the DCCC property.

Westport Historic District

The Westport Historic District in Baltimore, Maryland, is an early twentieth-century, self-contained industrial village. The City of Baltimore annexed the Westport neighborhood in 1918, which at that time was a working-class neighborhood of primarily German immigrants. As Westport factories, such as Carr-Lowrey Glass Works, expanded and began providing employee housing, the neighborhood expanded; however, the NRHP-listed Mount Auburn Cemetery limited development to the southeast. In the mid-twentieth century MD 295 was built over what was previously the Washington, D.C., Baltimore, Annapolis Railway, which ran on an excavated roadbed. The construction of MD 295 and interchanges at either end of Westport split the neighborhood and ushered in a period of decline. By the early 1970s, Westport was considered a blighted neighborhood. Industries along the waterfront declined and eventually abandoned their plants. Despite this period of neglect, Westport retains a “distinct physical identity” (Bird 2008).

The Westport Historic District includes variety of building types, including rowhouses, low-rise commercial buildings, industrial and manufacturing buildings, transportation-related structures, a firehouse, a school, and a former public library. The neighborhood is defined by its topography, which steeply rises from the Middle Branch of the Patapsco River to a plateau 300 feet above sea level near the Westport school, and by the modes of transportation that extend through it. The rectangular-shaped historic district is divided by circulation routes laid out roughly north-south into three vertical segments: by MD 295, a depressed six-lane freeway; an elevated light rail line that runs roughly

parallel to Kloman Street; and Maryland Avenue, an extension of Annapolis Road, which acts like a spine to the residential and commercial core, which is primarily two-story brick buildings (Bird 2008).

In 2002, the Westport Historic District was determined eligible for listing in the NRHP by the MD SHPO under Criteria A and C in the area of City Expansion (MIHP# B-1342). The contributing resources include approximately 436 buildings. The district is eligible under Criterion A for its connection to the expansion and growth of Baltimore's industrial heritage and under Criterion C for its unique architectural expression of that heritage. The historic boundary of the Westport Historic District is generally defined by Gwynns Falls/I-95 to the north, the Middle Branch of the Patapsco to the east, Maryland Route 295/Nevada Street to the west, and Waterview Avenue to the south.

Build Alternatives J (J-01, J-02, J-03)

Under the Build Alternatives J-01, 02, and 03, the northern edge of the elevated Cherry Hill Station would extend into the Westport Historic District, crossing into the district over Waterview Avenue. The proposed tail track (an extension of the rail line to allow train storage) would be aligned on vacant properties that were industrial sites (Westport Power Station, Carr-Lowrey Glass Works, and the Baltimore Novelty Steam Boiler Works) prior to demolition of the structures between 2005 and 2007. The tail track would end 350 feet south of the north boundary of the Westport Historic District. A long-term construction laydown area would be located throughout the area of vacant industrial land east of Kloman Avenue. A substation would be located at the current site of a warehouse and distribution facility at 1915 Annapolis Road. The structure would be demolished. Electrical powerlines would be installed to serve the substation and SCMAGLEV system.

The Cherry Hill Station features would permanently incorporate 45.78 acres within the Westport Historic District Boundary for the Station platform (0.44 acres), long-term construction laydown (32.05 acres), overhead electric lines (0.40 acres), viaduct (6.02 acres) and substation (6.86 acres). The station features would temporarily occupy 0.43 acres within the historic district for the construction LOD associated with the installation of the overhead electric lines.

Build Alternatives J (J-04, J-05, and J-06)

Under the Build Alternatives J (J-04, J-05, and J-06), Camden Yard Station features would be located within the Westport Historic District. The alignment would travel parallel to the east side of Kloman Avenue in tunnel. A MOW Facility would be located in a currently vacant industrial area adjacent to the Middle Branch of the Patapsco River. A substation would be located at the current site of a warehouse and distribution facility at 1915 Annapolis Road. The structure would be demolished. Electrical powerlines would be installed to serve the substation and SCMAGLEV system. During construction, a tunnel boring machine would be deployed from a TBM Launch-Retrieval site, and the remainder of the vacant industrial area east of Kloman Avenue would serve as construction LOD.

The Camden Yards Station features would permanently incorporate 19.44 acres within the Westport Historic District Boundary for the MOW Facility (12.58 acres) and substation (6.86 acres). The station features would temporarily occupy 25.94 acres within the historic district for the construction LOD.

Build Alternatives J1 (J1-01, J1-02, J1-03)

Build Alternatives J1 (J1-01, J1-02, J1-03) have identical Cherry Hill Station features and impact quantities as Build Alternatives J (J1-01, J1-02, J1-03).

Build Alternatives J1 (J1-04, 05, and 06)

Build Alternatives J1 (J1-04, J1-05, and J1-06) have identical Camden Yards Station features and impact quantities as Build Alternatives J (J-01, 04, 05, and 06).

Use Assessment and Property-Specific Avoidance and Minimization

Under Section 4(f), FRA assessed that under all Build Alternatives J and J1 a Permanent Use may occur because the alternatives would permanently incorporate land from the Westport Historic District property. However, a *de minimis* impact finding may be appropriate because the physical and visual changes resulting from the SCMAGLEV Project may not result in an adverse effect under Section 106. FRA is continuing to assess the effects of the SCMAGLEV Project to the Westport Historic District under Section 106.

FRA analyzed the potential to avoid or minimize a use of the Westport Historic District by considering property-specific alignment shifts and design refinements. For alignment shifts, the impacts of some facilities such as the TMF ramps potentially could be reduced, but design criteria constrain the ability to completely eliminate incorporating land from the Westport Historic District. Likewise, tunnel laydown, SCMAGLEV system facilities and stormwater management facilities must be adjacent to and at intervals along the alignment. For this reason, design changes would not allow avoidance of the Westport Historic District under Section 4(f).

Should one of the Build Alternatives J or J1 with Cherry Hill Station move forward in design as FRA's preferred alternative, refinements to the concept designs of ancillary facilities to reduce impacts to the Westport Historic District will be undertaken by the Project Sponsor during development of and subsequent to the FEIS. The Final Section 4(f) analysis for the Westport Historic District will focus on the opportunity for design refinements to reduce visual impacts of the Cherry Hill Station and tail track on the Westport Historic District. In coordination with the MD SHPO and Baltimore Commission for Historical and Architectural Preservation (CHAP), FRA and the Project Sponsor will examine the ability to refine the Build Alternatives alignments as well as the ancillary facilities to incorporate less land and reduce the visual impact of the Cherry Hill Station and Tail Track on the Westport Historic District.

FRA is coordinating with MD SHPO and CHAP regarding the SCMAGLEV Project effects in the Westport Historic District in the context of Section 106 and Section 4(f). The Final Section 4(f) Evaluation will report the outcome of coordination with MD SHPO.

Otterbein Church

Property Description

The Otterbein Church is the only eighteenth-century church building of any denomination in continuous use which remains in Baltimore. It was built in 1785-1786 for a congregation of Germans who, under the leadership of Pastor Phillip Wilhelm Otterbein, had separated from the Lutheran Church.

The Otterbein Church is the only continuously used 18th-century church building in the city of Baltimore. It was built in 1785-86 by Jacob Small, Sr., a local carpenter. The design for the building is also attributed to Small. Here, in 1789, the first Conference of United Brethren preachers was held, resulting in the official organization of the Church of the United Brethren in Christ, and in the election of Pastor Otterbein as a bishop of the new church. Otterbein's grave, in the churchyard, is marked by a monument, erected in 1913, one hundred years following his death. In 1969, the Otterbein Church was listed in the National Register of Historic Places The church (NRIS# 69000324) is significant for its architecture, art, and religion.

Build Alternatives J and J1 (J-04, J-05, and J-06 and J1-04, J1-05, and J1-06), which feature the Camden Yards Station, would require 0.308 acres within the Otterbein Church parcel for the Camden Yards Underground Station Cavern and provide tunnel laydown areas. Construction of these elements would require demolition of the church.

Use Assessment and Property-Specific Avoidance and Minimization

Under Section 4(f), FRA assessed that a Permanent Use would occur under Build Alternatives J and J1 (J-04, J-05, and J-06 and J1-04, J1-05, and J1-06) because the SCMAGLEV Project would permanently incorporate land from the Otterbein Church and the Underground Station Cavern would demolish the church.

The Build Alternatives J and J1 (J-01, 02, 03 and J1-01, J1-02, J1-03), which include the Cherry Hill Station and tail track infrastructure would avoid a Section 4(f) use of the Otterbein Church. However, the Build Alternatives that incorporate Cherry Hill Station cannot be considered avoidance alternatives because they result in 4(f) uses at other properties.

FRA analyzed the potential to avoid or minimize a use of the Otterbein Church by considering property-specific alignment shifts and design refinements. Alignment shifts could reduce the impacts of station facilities, but design criteria constrain the ability to shift the alignment or to completely eliminate incorporating land from the Otterbein Church. Likewise, tunnel laydown must be adjacent to and at intervals along the

alignment. For this reason, design changes would not avoid the Otterbein Church under Section 4(f).

Should one of the Build Alternatives J or J1 with a Camden Yards Station move forward in design as FRA's preferred alternative, refinements to the concept designs of these facilities to reduce impacts to the Otterbein Church will be undertaken by the Project Sponsor during and subsequent to the FEIS. The Final Section 4(f) Evaluation for the Otterbein Church will focus on design refinements to reduce impacts to the church during and subsequent to the FEIS; this activity will be undertaken by the Project Sponsor in coordination with the MD SHPO and Baltimore CHAP.

FRA is coordinating with MD SHPO and CHAP regarding the SCMAGLEV Project effects on the Otterbein Church in the context of Section 106 and Section 4(f). The Final Section 4(f) Evaluation will report the outcome of coordination with MD SHPO and CHAP.

Table F-13: Summary of Permanent (P) and Temporary (T) Impacts Property to Historic Property, Build Alternative J (in acres)

Build Alternative	Impact	Alignment	Stations				TMF		
			Mount Vernon Square East	BWI Marshall Airport	Cherry Hill	Camden Yards	MD 198	BARC East	BARC West
J-01	P	MW: 0.14 BWP: 60.18 BARC: 22.72 DCCC: 8.98	MVSHD: 0.46	--	WHD: 45.78	--	BWP: 28.70 BARC: 0.06 DCCC: 116.28	--	--
	T	MW: 1.29 BWP: 26.87 BARC: 23.81 DCCC: 29.76	MVSHD: 5.50 TNY:0.004	--	WHD: 0.43	--	BWP: 0.29 DCCC: 1.73	--	--
J-02	P	MW: 0.14 BWP: 65.47 BARC: 22.28 DCCC: 8.98	MVSHD: 0.46	--	WHD: 45.78	--	--	BWP: 3.29 GSFC: 17.88 BARC: 195.62	
	T	MW: 1.29 BWP: 35.90 BARC: 23.14 DCCC: 29.76	MVSHD: 5.50 TNY:0.004		WHD: 0.43	--	--	BWP: 0.69 GSFC: 3.61 BARC: 22.38	
J-03	P	MW: 0.14 BWP: 64.24 BARC: 23.27 DCCC: 8.98	MVSHD: 0.46	--	WHD: 45.78	--	--	--	BWP: 3.14 BARC: 152.24
	T	MW: 1.29 BWP: 32.35 BARC: 23.15 DCCC: 29.76	MVSHD: 5.50 TNY:0.004	--	WHD: 0.43	--	--	--	BWP: 3.63 BARC: 9.91
J-04	P	MW: 0.14 BWP: 60.18 BARC: 22.72 DCCC: 8.98	MVSHD: 0.46	--	--	WHD: 19.44 OC: 0.31	BWP: 28.70 BARC: 0.06 DCCC: 116.28		

Build Alternative	Impact	Alignment	Stations				TMF		
			Mount Vernon Square East	BWI Marshall Airport	Cherry Hill	Camden Yards	MD 198	BARC East	BARC West
	T	MW: 1.29 BWP: 26.87 BARC: 23.81 DCCC: 29.76	MVSHD: 5.50 TNY:0.004	--	--	WHD: 26.17	BWP: 0.29 DCCC: 1.73	--	--
J-05	P	MW: 0.14 BWP: 65.47 BARC: 22.28 DCCC: 8.98	MVSHD: 0.46	--	--	WHD: 19.44 OC: 0.31	--	BWP: 3.29 GSFC: 17.88 BARC: 195.62	--
	T	MW: 1.29 BWP: 35.90 BARC: 23.14 DCCC: 29.76	MVSHD: 5.50 TNY:0.004	--	--	WHD: 26.17	--	BWP: 0.69 GSFC: 3.61 BARC: 22.38	--
J-06	P	MW: 0.14 BWP: 64.24 BARC: 23.27 DCCC: 8.98	MVSHD: 0.46	--	--	WHD: 19.44 OC: 0.31	--	--	BWP: 3.14 BARC: 152.24
	T	MW: 1.29 BWP: 32.35 BARC: 23.15 DCCC: 29.76	MVSHD: 5.50 TNY:0.004	--	--	WHD: 26.17	--	--	BWP: 3.63 BARC: 9.91

MVSHD: Mt Vernon Square Historic District
TNY: The New York
MW: Martins Woods
GHD: Greenbelt Historic District
BWP: Baltimore-Washington Parkway
GSFC: Goddard Space Flight Center
BARC: Beltsville Agricultural Center
DCCC: District of Columbia Children's Center
WHD: Westport Historic District
OC: Otterbein Church

Source: AECOM/Straughan, August 2020

Table F-14: Summary of Permanent (P) and Temporary (T) Impacts Property to Historic Properties, Build Alternative J1

Build Alternative	Impact	Alignment	Stations				TMF		
			Mount Vernon Square East	BWI Marshall Airport	Cherry Hill	Camden Yards	MD 198	BARC East	BARC West
J1-01	P	GHD: 39.68 BWP: 34.86 BARC: 15.10	MVSHD: 0.46	--	WHD: 45.78	--	BWP: 17.85 BARC: 0.06 DCCC: 116.28	--	--
	T	MW: 1.43 GHD: 5.83 BWP: 7.42 BARC: 13.78	MVSHD: 5.50 TNY:0.004	--	WHD: 0.43	--	BWP: 6.15 DCCC: 1.73	--	--
J1-02	P	GHD: 35.94 BWP: 36.96 BARC: 13.07	MVSHD: 0.46	--	WHD: 45.78	--	--	GHD: 4.60 BWP: 2.62 GSFC: 17.88 BARC: 194.01	--
	T	MW: 1.43 GHD: 6.58 BWP: 12.71 BARC: 15.58	MVSHD: 5.50 TNY:0.004	--	WHD: 0.43	--	--	GHD: 1.04 BWP: 2.09 GSFC: 3.53 BARC: 22.75	--
J1-03	P	GHD: 37.46 BWP: 36.80 BARC: 12.47	MVSHD: 0.46	--	WHD: 45.78	--	--	--	GHD: 4.51 BWP: 3.14 BARC: 152.24
	T	MW: 1.43 GHD: 4.48 BWP: 11.70 BARC: 13.47	MVSHD: 5.50 TNY:0.004		WHD: 0.43	--	--	--	GHD: 1.26 BWP: 3.63 BARC: 11.84
J1-04	P	GHD: 39.68 BWP: 34.86 BARC: 15.10	MVSHD: 0.46	--	--	WHD: 19.44 OC: 0.31	BWP: 17.85 BARC: 0.06 DCCC: 116.28	--	--
	T	MW: 1.43 GHD: 5.83 BWP: 7.42 BARC: 13.78	MVSHD: 5.50 TNY:0.004	--	--	WHD: 26.17	BWP: 6.15 DCCC: 1.73	--	--

Build Alternative	Impact	Alignment	Stations				TMF		
			Mount Vernon Square East	BWI Marshall Airport	Cherry Hill	Camden Yards	MD 198	BARC East	BARC West
J1-05	P	GHD: 35.94 BWP: 36.96 BARC: 13.07	MVSHD: 0.46	--	--	WHD: 19.44 OC: 0.31	--	GHD: 4.60 BWP: 2.62 GSFC: 17.88 BARC: 194.01	--
	T	MW: 1.43 GHD: 6.58 BWP: 12.71 BARC: 15.58	MVSHD: 5.50 TNY:0.004	--	--	WHD: 26.17	--	GHD: 1.04 BWP: 2.09 GSFC: 3.53 BARC: 22.75	--
J1-06	P	GHD: 37.46 BWP: 36.80 BARC: 12.47	MVSHD: 0.46	--	--	WHD: 19.44 OC: 0.31	--	--	GHD: 4.51 BWP: 3.14 BARC: 152.24
	T	MW: 1.43 GHD: 4.48 BWP: 11.70 BARC: 13.47	MVSHD: 5.50 TNY:0.004	--	--	WHD: 26.17	--	--	GHD: 1.26 BWP: 3.63 BARC: 11.84

MVSHD: Mt Vernon Square Historic District
TNY: The New York
MW: Martins Woods
GHD: Greenbelt Historic District
BWP: Baltimore-Washington Parkway
GSFC: Goddard Space Flight Center
BARC: Beltsville Agricultural Center
DCCC: District of Columbia Children's Center
WHD: Westport Historic District
OC: Otterbein Church

Source: AECOM/Straughan, August 2020

F.5.2.2 Properties with a *De Minimis* Impact

FRA proposes that the SCMAGLEV Project would have a *de minimis* impact to several historic properties within the Project Study Area because the Project would have minimal physical, visual, or audible effects to the properties and are not anticipated to result in adverse effect findings under Section 106.

Table F-15 presents the historic properties with proposed *de minimis* impact findings. FRA will continue to consult with the DC SHPO and/or the MD SHPO, as the officials with jurisdiction, regarding the effects to these historic properties. Maps of historic properties with proposed *de minimis* impacts can be found in Attachment A.

Table F-15 Proposed Determinations of *De Minimis* Impact of Build Alternatives – Historic Properties

Historic Property/Relevant Build Alternative	Significant Features/Attributes	*De minimis* Impact Rationale for No Adverse Effect on Features, Attributes, or Activities
L'Enfant Plan (NRIS ID# 97000332) *All Build Alternatives*	F.5.2.3 NRHP-listed under Evaluation Criteria A and C	Physical and visual changes associated with the permanent station entrances are not expected to result in an adverse effect under Section 106.
Bridge over Annapolis Road (BC-5401) *Build Alternatives J and J1 (*J-01, 02, 03 and J1-01, J1-02, J1-03*)*	NRHP-listed under Evaluation Criteria A and C	Road relocation and reconstruction would occur on the south bridge approach and would only affect the roadway surface. The SCMAGLEV Project is not expected to result in an adverse effect under Section 106.
Spring Garden Bridge (B-3668) *Build Alternatives J and J1 (*J-01, 02, 03 and J1-01, J1-02, J1-03*)*	NRHP-eligible under Criteria A and C	A tunnel laydown area, where soil from tunnel excavation would be placed and graded, would be located west of the bridge approach, but within the historic boundary of the bridge. Placement of soils would not physically affect the bridge or character-defining aspects of its engineering that make it historically significant. The SCMAGLEV Project is not expected to result in an adverse effect under Section 106.
Howard St Tunnel & Power House (B-79) *Build Alternatives J and J1 (*J-04, 05, 06 and J1-04, J1-05, J1-06*)*	NRHP-listed under Evaluation Criteria A and C	Physical and visual changes associated with the proposed station entrance are not expected to result in an adverse effect under Section 106.

Historic Property/Relevant Build Alternative	Significant Features/Attributes	*De minimis* Impact Rationale for No Adverse Effect on Features, Attributes, or Activities
Baltimore and Ohio (B&O) Railroad Baltimore Belt Line (B-5287) *Build Alternatives J and J1 (*J-04, 05, 06 and J1-04, J1-05, J1-06*)*	NRHP-eligible under Evaluation Criteria A and C	Physical and visual changes associated with the proposed station entrance are not expected to result in an adverse effect under Section 106.

F.5.2.4 Properties with Temporary Occupancy

Temporary occupancies of land may be so minimal as to not constitute a use within the meaning of Section 4(f) when the following conditions are met:

- Duration is temporary, or less than the time needed for construction of the project, with no change in ownership of the land;
- Scope of work is minor;
- There are no anticipated permanent adverse physical impacts;
- No temporary or permanent interference with the protected activities, features, or attributes of the property;
- The property is fully restored or returned to a condition which is at least as good as that which existed prior to the project; and
- There is documented agreement of the official(s) with jurisdiction over the Section 4(f) property regarding the above conditions.

FRA anticipates that one historic property, the Spring Garden Bridge (B-3668), would be temporarily occupied by the Build Alternatives with a Camden Yards Station (Build Alternatives J-04, J-05, J-06, J1-04, J1-05, and J1-06) during construction of the SCMAGLEV Project. However, the temporary occupancy is not anticipated to be adverse and therefore FRA proposes that no Section 4(f) Use would occur. See **Table F-16**.

Table F-16: Proposed Determinations of Temporary Occupancy of Build Alternatives – Historic Properties

Temporary Use Criterion	Spring Garden Bridge (B-3668) *Build Alternatives J-04, J-05, J-06, J1-04, J1-05, and J1-06*
Duration is temporary, or less than the time needed for construction of the project, with no change in ownership of the land	A small portion of the western bridge approach within the historic boundary of the Spring Garden Bridge is located within the area required for construction staging of the Camden Yards Station. All work would occur within a 48 to 66 month time frame, and would be less than the duration of overall project construction associated with the Camden Yards Station, which would extend for an additional 24 months during the architectural phase.

Temporary Use Criterion	Spring Garden Bridge (B-3668) *Build Alternatives J-04, J-05, J-06, J1-04, J1-05, and J1-06*
Scope of work is minor	A large area west of the bridge on vacant industrial property would be used as a staging area to support construction of the MOW facility and cut/cover tunnel associated with the Camden Yards Station. The area of construction would occur west of the bridge in an area of vacant industrial use. The work would occur within the western edge of the historic boundary but would not physically affect the bridge.
There are no anticipated permanent adverse physical impacts	Work would occur on the former rail bed within the bridge approach area and would not result in adverse physical impacts within the bridge's historic boundary.
No temporary or permanent interference with the protected activities, features, or attributes of the property	Engineering features that make the bridge significant would not be affected by the SCMAGLEV Project.
The property is fully restored or returned to a condition which is at least as good as that which existed prior to the project	The construction staging area would be restored to its current condition following project construction.
There is documented agreement of the official(s) with jurisdiction over the Section 4(f) property regarding the above conditions	Prior to publication of the FEIS, FRA will seek concurrence from the MD SHPO on the proposed temporary occupancy determination.

Spring Garden Bridge

The Spring Garden Bridge (MIHT: B-3668) carried the former Western Maryland Railroad (WMR) over the middle branch of the Patapsco River in the Hanover subdivision of Baltimore near Swann Park, south of Interstate 95. The bridge was constructed in 1904 by the Western Maryland Tidewater Railroad Company, a subsidiary of the WMR, to extend the rail line into the Locust Point area of Baltimore. The through-truss, steel swing bridge is 220 feet long with 1,732 feet of pile and timber approaches. A frame operator's house is located on the revolving span. The bridge and trestle retain their original appearance given all required timber replacements have been in-kind. The bridge has undergone only minor alterations and repairs, such as adding guardrail and a foot walk and replacing the motor and operator's house. Currently, the bridge is inactive, and the swing span is fixed in an open position. Although the operator cabin suffered fire damage the bridge, is in fair condition (Hannold 1991).

The Pennsylvania Steel Company fabricated the Spring Garden Bridge and the Uegnon Contracting Company provided the foundation and timber work at a cost of over $177,000 to include the bridge, approaches and dredging. With the construction of the Spring Garden Bridge, there was a double track mainline that ran from Gwynns Falls into Port Covington across the Spring Garden Bridge. Previously the WMR had only a small rail yard located in northwest Baltimore. The construction of the bridge was part of a larger effort to improve the railroad's Baltimore facilities and gain a marine terminal. In the first years of the twentieth century, the WMR constructed the Port Covington Yard, on the eastern side of Locust Point. The yard included grain elevators, coal piers,

turntable, and shops and made the railroad's Baltimore facilities competitive with those of the Baltimore & Ohio (B&O) Railroad, also located on Locust Point and the Pennsylvania Railroad in Canton, MD (MHT 2002). The Port Covington Yard provided the important marine link for the expansion of the WMR and helped to fuel Baltimore's development as an industrial center in the first decades of the twentieth century. The Spring Garden Bridge is the only remaining structure from the Western Maryland's Port Covington Yard. Successors of the MWR included the B&O Railroad in 1968 and was absorbed into the Chessie System in 1977; the yard was sold for development in the 1980s (Hannold 1991).

The Spring Garden Bridge was determined eligible for listing in the NRHP at the local level on June 19, 1991 (Criterion not specified) and July 30, 2002 (under Criteria A and C) under Criterion A (Transportation) for its association with the development of the rail transportation system in Maryland and the growth of Baltimore as an industrial power at the turn of the twentieth century. Under Criterion C (Engineering), though once a commonly used movable bridge type, the Spring Garden Bridge is significant as a rare surviving example of a through-truss steel bridge in the Baltimore area. The period of significance is 1904, the bridge’s date of construction (Hannold 1991; MD SHPO 2002).

Build Alternatives with a Camden Yards Station (J-04, J-05, J-06, J1-04, J1-05, and J1-06) would require 0.03 acres of temporary occupancy at the western bridge approach for the construction staging area associated with an adjacent tunnel laydown area and MOW Facility. The area of temporary occupancy includes the approach area of the bridge within the historic boundary, but not the bridge itself.

Under Section 106, the temporary occupancy of the Build Alternatives may not have an adverse effect on the Spring Garden Bridge because the SCMAGLEV Project would not physically or visually affect the bridge and would not diminish the integrity of setting, feeling, and design of the bridge (association with transportation and engineering) that make the bridge significant under Section 106. Temporarily disturbed areas west of the bridge would be restored at the end of SCMAGLEV Project construction according to the stipulations of a Section 106 Programmatic Agreement that is in development for the SCMAGLEV Project.

Under Section 4(f), FRA assessed that under the Build Alternatives J-04, J-05, J-06, J1-04, J1-05, and J1-06, a permanent use would not occur because the SCMAGLEV Project would temporarily occupy land west of the bridge within the historic property boundary during construction only. FRA assessed that the SCMAGLEV Project would not adversely affect the activities, features, and attributes that make the bridge significant under Section 4(f). FRA proposes a determination of Temporary Occupancy under Section 4(f) resulting from the Build Alternatives J-04, J-05, J-06, J1-04, J1-05, and J1-06 impacts to the Spring Garden Bridge.

F.5.2.5 Properties with Potential Constructive Use

FRA assessed the potential for the Build Alternatives to have a constructive use on Section 4(f) historic properties. The assessment considered the potential for noise, visual, access, and vibration impacts to properties because of the proximity of the Build Alternatives to each property and the potential for permanent changes in public access to these properties. Section F.2.3 lists the criterion FRA uses to determine when a constructive use occurs.

Properties with potential constructive use are listed in **Table F-17**. The distance of each historic property to SCMAGLEV system element(s) is provided, with an analysis of the potential for constructive use to the activities, features, or attributes that make each Section 4(f) property significant. The table presents FRA's assessment for each property; consultation under Section 106 with MD SHPO, DC SHPO and Section 106 stakeholders is ongoing.

Table F-17: Section 4(f) Properties with Potential Constructive Use – Historic Properties

Historic Property/Relevant Build Alternative	Distance from LOD	Significant Features/Attributes	Constructive Use Assessment
Central Public Library (Carnegie Library) (NRIS ID# 69000290) *All Build Alternatives*	150 feet from DC Underground Station, 230 feet from station entrance	F.5.2.6 NRHP-listed under Evaluation Criteria A and C	**No use.** Visual and auditory changes associated with the permanent station entrances are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance (in the areas of community planning, development, transportation, politics, government, and landscape architecture).
Seventh St NW, East Side of 1000 Block (#84000861) *All Build Alternatives*	Adjacent to DC Underground Station, 65 feet from station entrance	F.5.2.7 NRHP-listed under Evaluation Criterion C	**No use.** Visual and auditory changes associated with the station entrances are not expected to diminish the property's integrity of setting, feeling, and design (community planning, development, transportation, politics, government, and landscape architecture) that makes the property significant.
Yale Steam Laundry (NRIS ID# 99000332) *All Build Alternatives*	Adjacent to Underground Station and Cavern	NRHP-listed under Evaluation Criteria A and C	**No use.** Visual and auditory changes associated with the Underground Station and Cavern are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance (in areas of architecture, industry, and commerce) that makes the property significant.

Historic Property/Relevant Build Alternative	Distance from LOD	Significant Features/Attributes	Constructive Use Assessment
Fletcher Chapel *All Build Alternatives*	Adjacent to Underground Station and Cavern	NRHP-listed under Evaluation Criteria A and C	**No use.** Visual and auditory changes associated with the Underground Station and Cavern are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance (in the area of architecture) that makes the property significant.
(Former) Peoples Congregational Church *All Build Alternatives*	165 feet to FA/EE Facility	NRHP-eligible under Evaluation Criteria A and C; Criteria Consideration A	**No use**. Visual and auditory changes associated with the FA/EE Facility are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance
Buildings North Side 600 Block K St NW *All Build Alternatives*	88 feet to DC Parking Garage and Station	Pending clarification on eligibility criteria from DC SHPO	**No use.** Visual and auditory changes associated with the DC Parking Garage and Station are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance.
Mount Vernon Triangle Historic District (NRIS ID# 060000191 *All Build Alternatives*	75 feet to DC Parking Garage and Station	NRHP-listed under Evaluation Criteria A, C, and D	**No use.** Visual and auditory changes associated with the Parking Garage and Station are not expected to diminish the property's integrity of setting, feeling, and design (community planning, development, transportation, politics, government, and landscape architecture) that makes the district significant.
Downtown Historic District and Addition *All Build Alternatives*	610 feet to DC Parking Garage and Station	NRHP-listed under Evaluation Criteria A and C	**No use**. Visual and auditory changes are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance (in the areas of architecture; commerce; religion; and social, ethnic, and local history) that makes the district significant.
Bible Way Church and Temple *All Build Alternatives*	270 feet to DC Underground Station and Cavern	NRHP-listed under Evaluation Criteria A, B, and C	**No use**. Visual and auditory changes are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance (in the areas of social history, associations with people important in history, and architecture) that makes the property significant.

Historic Property/Relevant Build Alternative	Distance from LOD	Significant Features/Attributes	Constructive Use Assessment
Augusta and Louisa Apartment Buildings (#94001032) *All Build Alternatives*	25 feet to DC Underground Station and Cavern	NRHP-listed under Evaluation Criteria A and C	**No use**. Visual and auditory changes associated with the Underground Station and Cavern are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the areas of community planning and development and architecture.
Holy Redeemer Catholic Church and School *All Build Alternatives*	28 feet to DC Underground Station and Cavern	NRHP-eligible under Evaluation Criteria A and C	**No use**. Visual and auditory changes associated with the Underground Station and Cavern are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the areas of religion/education and architecture.
M Street High School (Perry School) *All Build Alternatives*	66 feet to DC Underground Station and Cavern	NRHP-listed under Evaluation Criterion A	**No use**. Visual and auditory changes associated with the Underground Station and Cavern are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the areas of education.
Southern Baptist Church *All Build Alternatives*	692 feet to DC Underground Station and Cavern	NRHP-eligible under Criterion C	**No use**. Visual and auditory changes associated with the Underground Station and Cavern are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the areas of architecture.
Slater School *All Build Alternatives*	875 feet to DC Underground Station and Cavern	NRHP-listed under Evaluation Criteria A and C	**No use**. Visual and auditory changes associated with the Underground Station and Cavern are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the areas of cultural heritage – African American education and architecture.
John Mercer Langston School (#13000143) *All Build Alternatives*	900 feet to DC Underground Station	NRHP-listed under Evaluation Criteria A and C	**No use**. Visual and auditory changes associated with the Underground Station are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the areas of cultural heritage – African American education and architecture.

Historic Property/Relevant Build Alternative	Distance from LOD	Significant Features/Attributes	Constructive Use Assessment
Margaret Murray Washington School (#11000843) *All Build Alternatives*	275 feet to long term construction laydown area	NRHP-listed under Evaluation Criteria A and C	**No use**. Visual and auditory changes associated with the long-term construction laydown area are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the areas of education and architecture.
Baltimore & Ohio (B&O) Railroad Bridge over Montana Avenue, NE *All Build Alternatives*	40 feet to FA/EE Facility	NRHP-listed under Evaluation Criteria A and C	**No use**. Visual and auditory changes associated with the FA/EE Facility are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance.
(Former) F.P. May Hardware Company Warehouse and Office *All Build Alternatives*	160 feet to FA/EE Facility	NRHP-listed under Evaluation Criteria A, B, and C	**No use**. Visual and auditory changes associated with the FA/EE Facility are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the areas of commerce and architecture.
Pennsylvania Railroad Bridge over Montana Avenue, NE *All Build Alternatives*	Above underground electrical line installation.	NRHP-eligible under Evaluation Criteria A and C	**No use**. Visual and auditory changes associated with installation of electrical lines below Montana Ave, NE are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the areas of transportation/community planning and architecture.
Hecht Warehouse *All Build Alternatives*	75 feet from tunnel	NRHP-listed under Evaluation Criterion C	**No use**. There would be no visual or auditory changes as the alignment would be in tunnel. The tunnel elements are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the area of architecture.
Goddard Space Flight Center *Build Alternatives J1* (J-01, 03, 04, 06 and J1-01, 03, 04, 06)	Adjacent to portal	NRHP-eligible under Evaluation Criteria A and C	**No use**. There would be no visual or auditory changes to contributing elements of the historic district. The alignment elements are not expected to the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance.

Historic Property/Relevant Build Alternative	Distance from LOD	Significant Features/Attributes	Constructive Use Assessment
Cherry Hill Homes District (B-5080) *Build Alternatives J and J1 (*J-01, 02, 03 and J1-01, J1-02, J1-03*)*	430 feet from MOW Facility, 150 feet from SCMAGLEV Operations	NRHP-eligible under Evaluation Criterion C	**No use**. Visual and auditory changes associated with the MOW and SCMAGLEV Operations Facilities are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the area of architecture.
Cherry Hill Homes Extension 1 (B-5321) *All Build Alternatives*	Adjacent to long term construction laydown area	NRHP-eligible under Evaluation Criterion C	**No use**. Visual and auditory changes associated with the long term construction laydown area are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the area of the history of housing reform, building types and streetscape.
Bridge over Annapolis Road (BC-5401) *Build Alternatives J and J1 (*J-01, 02, 03 and J1-01, J1-02, J1-03*)*	440 feet from open cut portal, adjacent to road reconstruction, 615 feet from parking garage	NRHP-listed under Evaluation Criteria A and C	**No use**. Visual and auditory changes associated with the portal, road reconstruction, and parking garages are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the area of engineering.
Mount Auburn Cemetery	Adjacent to SCMAGLEV Operations Facility	NRHP-listed under Evaluation Criteria A and D	**No use**. Visual and auditory changes associated with the SCMAGLEV Operations Facility are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the area of Social History-African American Heritage.
Spring Garden Bridge (B-3668) *All Build Alternatives*	Adjacent to long term construction laydown area	NRHP-eligible under Evaluation Criterion A and C	**No use.** Visual and auditory changes associated with the long term construction laydown area are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the areas of transportation and engineering.
Howard St Tunnel & Power House (B-79)	Adjacent to Camden Yards Underground Station Cavern	NRHP-listed under Evaluation Criteria A and C	**No use.** Visual and auditory changes associated with the Camden Yards Underground Station Cavern are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the area of engineering.

Historic Property/Relevant Build Alternative	Distance from LOD	Significant Features/Attributes	Constructive Use Assessment
Pratt Furniture Company (B-2387)	170 feet from Camden Yards Station	NRHP-eligible under Evaluation Criterion C	**No use.** Visual and auditory changes associated with the Camden Yards Underground Station Cavern are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the area of commerce/trade and architecture.
George H. Fallon Federal Building	600 feet from Camden Yards Station	NRHP-eligible under Evaluation Criterion A	**No use.** Visual and auditory changes associated with the Camden Yards Underground Station Cavern are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the area of commerce/trade and architecture.
(Downtown Baltimore) Business and Government Historic District (B-3935)	280 feet from Camden Yards Station, 820 feet from Camden Yards Station Entrance	NRHP-eligible under Evaluation Criterion A	**No use.** Visual and auditory changes associated with the Camden Yards Underground Station Cavern are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the area of development, planning, architecture.
Otterbein Historic District (B-3934)	120 feet from Camden Yards Station, 610 feet from Camden Yards Station Entrance	NRHP-eligible under Evaluation Criteria A and C	**No use.** Visual and auditory changes associated with the Camden Yards Underground Station Cavern are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the area of the founding of Baltimore and architecture.
U.S. Fidelity and Guaranty (USF&G) Building (B-5318)	294 feet from Camden Yards Station, 650 feet from Camden Yards Station Entrance	NRHP-listed under Evaluation Criterion A, Criteria Consideration G	**No use.** Visual and auditory changes associated with the Camden Yards Underground Station and Station Entrance are not expected to diminish the property's integrity of setting, feeling, and design or limit the ability of the property to convey its significance in the area urban planning, development, and engineering.

F.6 Avoidance Analysis

Because each of the Build Alternatives would use a Section 4(f) property, FRA worked with MDOT MTA, and the Project Sponsor to determine whether a true avoidance

alternative was possible for the SCMAGLEV Project. FRA evaluated the No Build Alternatives and the following types of build alternatives as identified in FHWA's *Section 4(f) Policy Paper* as potential avoidance alternatives:

- **Location Alternatives** – A location alternative refers to the rerouting of the SCMAGLEV Project along a different alignment.
- **Alternative Actions** – An alternative action is one that does not require construction or that consists of a different mode of transportation.
- **Alignment Shifts and Design Changes to Existing Alternatives** - An alignment shift and/or design change is the re-routing of a portion of the project to a different alignment to avoid a specific property or a modification of the proposed design in a manner that would avoid impacts.

FRA's avoidance analysis examined corridor wide alternatives and actions as well as property specific alternatives, actions, shifts, and design changes. The result of the analysis is that FRA was unable to identify an avoidance alternative as defined in 23 CFR § 774.17.

F.6.1 Location Alternatives

Early in the NEPA process, FRA evaluated whether an alternative route that avoids Section 4(f) properties existed. FRA considered above-ground and in-tunnel versions of the above-ground alternatives. The following SCMAGLEV Project reports describe these early analyses and results: MDOT MTA's November 2018 *Preliminary Alternatives Screening Report* (PASR), and MDOT MTA's 2018 *Alternatives Report*. In these analyses, alternative alignments were developed. FRA and MDOT MTA were required by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) to study an SCMAGLEV system between Washington, D.C. and Baltimore with an intervening stop at BWI Marshall Airport Station. To achieve the technical and engineering requirements of SCMAGLEV technology, design had to achieve specific alignment curve and grade requirements. These requirements provided limited flexibility in where the alignment and associated facilities could be located. In this context, the developed nature of the corridor includes many parks, recreational areas, historic properties and other properties that are protected by Section 4(f). FRA found during these early studies that none of the alternatives could avoid use of Section 4(f) properties. Even in the in-tunnel alternatives, the requirements for above-ground fresh air and emergency egress facilities and substations at regular intervals along the alignments, and station access facilities, would require the use of Section 4(f) properties. As a result, **none of the alternatives is an avoidance alternative.** In addition, the early studies eliminated the alternatives from further consideration for the following reasons: non-achievement of the purpose and need, design and constructability problems, and transportation system impacts.

The DEIS and this Draft Section 4(f) Evaluation examine 12 Build Alternatives. None of the Build Alternatives is an avoidance alternative.

F.6.2 Alternative Actions

During NEPA, FRA evaluated the ability to achieve the SCMAGLEV Project purpose and need with alternative actions that would not use Section 4(f) properties. In this evaluation, different modes of transportation and non-construction solutions were considered.

Alternative modes – The purpose and need of the SCMAGLEV Project prescribes high-speed ground transportation that achieves the optimum operating speed of a SCMAGLEV technology between Baltimore and Washington, D.C. As a project that is intended to demonstrate SCMAGLEV technology in the US, FRA did not consider other modes.

Non-construction alternative – The alternative to building the SCMAGLEV Project would be the No Build Alternative (Section F.3.4.1). In the No Build Alternative, all planned and programmed transportation projects in the region (roadway improvements and new or expanded transit and rail services) would be implemented by 2040, the project design year, except for the SCMAGLEV Project. As described in Section DEIS Section 3.3.1, the No Build Alternative includes a number of transportation network changes and improvements between current conditions and the 2045 horizon year. One of these changes is the I-495 & I-270 Public-Private Partnership Managed Lane Study which is currently evaluating alternatives that address roadway capacity improvements. The plan to add managed lanes would likely impact the activities, features and attributes of the BWP, resulting in a use of the BWP under Section 4(f). Therefore, the No Build Alternative does not avoid all Section 4(f) properties and is, thus, not an avoidance alternative.

F.6.3 Alignment Shifts and Design Changes

FRA examined the potential to apply alignment shifts and design changes to avoid individual Section 4(f) properties; the results of these analyses are reported for each property in Sections F.5.1 and F.5.2.1 The SCMAGLEV design criteria, as well as other environmental factors (such as existing development), limit the ability to make alignment shifts and design changes to eliminate Section 4(f) uses. As a result, alignment shifts and design changes cannot produce an avoidance alternative.

F.7 All Planning to Minimize Harm

F.7.1 Minimization

Throughout the alternatives and DEIS development, FRA applied the following strategies to minimize or mitigate impacts to Section 4(f) properties:

- Coordinating with the NPS and USFWS as officials with jurisdiction over federally owned Section 4(f) properties to identify protected properties early in alternatives development, determine plans for the properties by the NPS and USFWS, and

discuss the potential for SCMAGLEV Project impacts on those properties (Section F.8);

- Seeking input from stakeholders and the public regarding the effects of the Build Alternatives on Section 4(f) properties and other properties;
- Using existing transportation and utility corridors as reasonably feasible to keep additional ROW needs to a minimum;
- Using tunneled or elevated alignment to minimize the physical impact of the SCMAGLEV Project on Section 4(f) properties to the extent reasonably feasible; and,
- Avoiding or reducing impacts to Section 4(f) properties using design refinements.

The determinations in this Draft Section 4(f) Evaluation are preliminary. During the FEIS, the Project Sponsor will refine the design of the alternatives; in addition, FRA and MDOT will undertake further coordination with the officials with jurisdiction over potentially affected properties to assess impacts and further develop measures to avoid or minimize harm to Section 4(f) properties. FRA and MDOT, in coordination with the Project Sponsor, will complete these activities during the Final EIS and Final Section 4(f) Evaluation, which will enable the alternatives to be compared and enable identification of the alternative with the least harm under Section 4(f). Coordination will focus on:

- Identifying appropriate and reasonable minimization and mitigation strategies, and
- Receiving the concurrence of the officials with jurisdiction prior to the FRA making its determinations in a Final Section 4(f) Evaluation.

F.7.2 Mitigation

FRA and MDOT, in coordination with the Project Sponsor and the officials with jurisdiction over affected Section 4(f) properties, will develop mitigation measures during the FEIS and prior to publication of the Final Section 4(f) Evaluation. Mitigation measures involving parks, recreation areas, or wildlife and waterfowl refuges may involve replacement of land or facilities of comparable value and function, or monetary compensation to enhance the remaining land. Mitigation of historic sites typically consists of those measures necessary to preserve the historic integrity of the property as agreed to in accordance with the regulations of Section 106 by FRA, the SHPO, and other consulting parties.

Based on initial coordination activities with the officials with jurisdiction of Section 4(f) properties, the following is a preliminary list of minimization and mitigation strategies that will be considered by FRA, the Project Sponsor and the officials with jurisdiction over the potentially impacted Section 4(f) properties during the FEIS and prior to completion of the Final Section 4(f) Evaluation. The preliminary list broadly identifies the types of strategies the Project Sponsor will incorporate into the SCMAGLEV Project if

the SCMAGLEV Project design warrants such measures and such measures are determined to be appropriate and reasonably feasible. A final list of measures to minimize harm will be included in the Final Section 4(f) Evaluation that is part of the FEIS.

- Design refinements to reduce or eliminate physical impacts to Section 4(f) properties;
- Replacement land and/or facilities of comparable value and function;
- Relocation of existing Section 4(f) facilities;
- Monetary compensation;
- Visual buffering; for example, in the vicinity of the BWP, applying strategies to complement the features of the existing park, such as:
  - Shape, scale and finishes to complement existing park bridges,
  - Position of alignment supporting structures to not block views of existing park bridges,
  - Avoid the need to remove existing vegetation on park property where reasonably feasible; and
  - Where vegetation removal on park property cannot be avoided, coordinate with the NPS regarding appropriate mitigation where feasible
- Noise abatement as reasonably feasible, such as a hood or structural cover over the alignment at tunnel portals

F.8 Coordination/Concurrence

As part of the NEPA process, FRA met with officials with jurisdiction to share SCMAGLEV Project information and seek input. **Table F-18** summarizes the comments officials with jurisdiction provided at Section 4(f) coordination meetings. Correspondence with MD SHPO and DC SHPO is included in Appendix A of the project Section 106 Programmatic Agreement (PA) (Appendix D.5 Attachment A),The dialogue between FRA and the officials with jurisdiction was used in this Draft Section 4(f) Evaluation to identify properties that are protected by Section 4(f), assess potential use of the properties by the Build Alternatives, determine potential means to avoid or minimize potential use of Section 4(f)-protected properties, identify the alternative with the least harm and identify measures to minimize harm.

During development of the FEIS and ROD, FRA will continue coordinating with officials with jurisdiction to avoid, minimize, mitigate or enhance protected Section 4(f) properties. This coordination activity will enable FRA to make determinations of potential use and complete the Final Section 4(f) Evaluation in accordance with the requirements of Section 4(f).

Table F-18: Summary of Comments from Officials with Jurisdiction over Section 4(f) Properties

Official with Jurisdiction	Date and Context	Summary of Comments Related to Section 4(f) Properties
NPS	10/23/2018 Meeting	NPS asked for more information about the fresh air and emergency egress facility (size and locations); status of avoidance alternative analysis; lists of Section 4(f) properties shared with request for NPS review and comment
	12/11/2018 Meeting	The fresh air and emergency egress facility were explained; NPS to review and comment on lists of Section 4(f) properties; discussion of cut/cover construction along New York Avenue
	2/26/2019 Meeting	NPS clarified the properties they own/manage; NPS identified potential impacts to existing utilities along New York Avenue as a concern; the absence of flyover ramps over the BWP in the Build Alternatives J/Patapsco Avenue TMF scenario is preferred by NPS to having flyovers
	5/23/2019 Meeting	Notified NPS of intent to seek temporary occupancy for small park reservations. Shared status of Section 106 consultation and Programmatic Agreement being prepared for the SCMAGLEV Project. NPS would like further consideration of a full tunnel alignment. NPS noted that the viaduct piers would be massive and should be scaled down if possible, and some piers appear to be too close to travel lanes. Vegetation should be used to visually screen the viaduct. NPS prefers no flyovers of the BWP, if possible. The Project Sponsor should consult with FHWA Eastern Federal Lands Division. NPS noted that "least harm" does not equal minimal harm and doesn't mean impacts won't be significant.
Maryland Department of Natural Resources	3/19/2018 Meeting	Interest in tunnel construction methods; Patapsco State Park boundaries
	May 6, 2019 meeting	FRA presented use assessment of Patapsco State Park, noting that there are no recreational areas or public access to the area of park use. DNR to verify park boundaries, which appear to be inaccurate.
Anne Arundel County	4/2/2018 Meeting	Forested area south of Maryland City was part of the Federal lands-to-parks program
	2/24/2019 Letter, Anne Arundel County to FRA	Provided information on amenities and significance of Maryland City Park, and nature of Program Open Space (POS) funding and FLP transfer.

Official with Jurisdiction	Date and Context	Summary of Comments Related to Section 4(f) Properties
District of Columbia Department of Parks and Recreation	June 6, 2019 Meeting	FRA noted that impacts to the New York Avenue Recreation Center are likely to be avoided, but could include sliver impacts to the south side of the New York Avenue Recreation Center. D.C. DRP noted these areas do not include active recreational use, but that DRP is considering plans for a community garden in the currently undeveloped southwest portion of the property. D.C. DRP verified that Dunbar High School has a shared use agreement for use of the recreation center property.
USFWS	April 29, 2019 Meeting	USFWS noted that FRA should consider USFWS's mission, and that the SCMAGLEV Project alignment within the PRR property would be incompatible with the property missions of wildlife research and wildlife conservation. The USFWS land transfer process was discussed. USFWS expressed concern with the SCMAGLEV Project effects of noise, air displacement, and shading on the PRR property. Also noted was the historic Snowden cemetery near the proposed alignment. In addition, the SCMAGLEV Project could interfere with prescribed burns the USFWS undertakes on the property in the vicinity of Blue Heron Pond.
Baltimore City Department of Recreation and Parks	May 29, 2019 Meeting	BCRP noted that it is not ideal to have a parking garage facing Middle Branch Park, and that the Project Sponsor should consider an active edge/façade along the north elevation of the garage. BCRP noted that a design competition for improvements at Middle Branch Park was being kicked off at the time of the meeting. BCRP acknowledged need to develop detour route for Gwynns Falls Trail during construction.

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