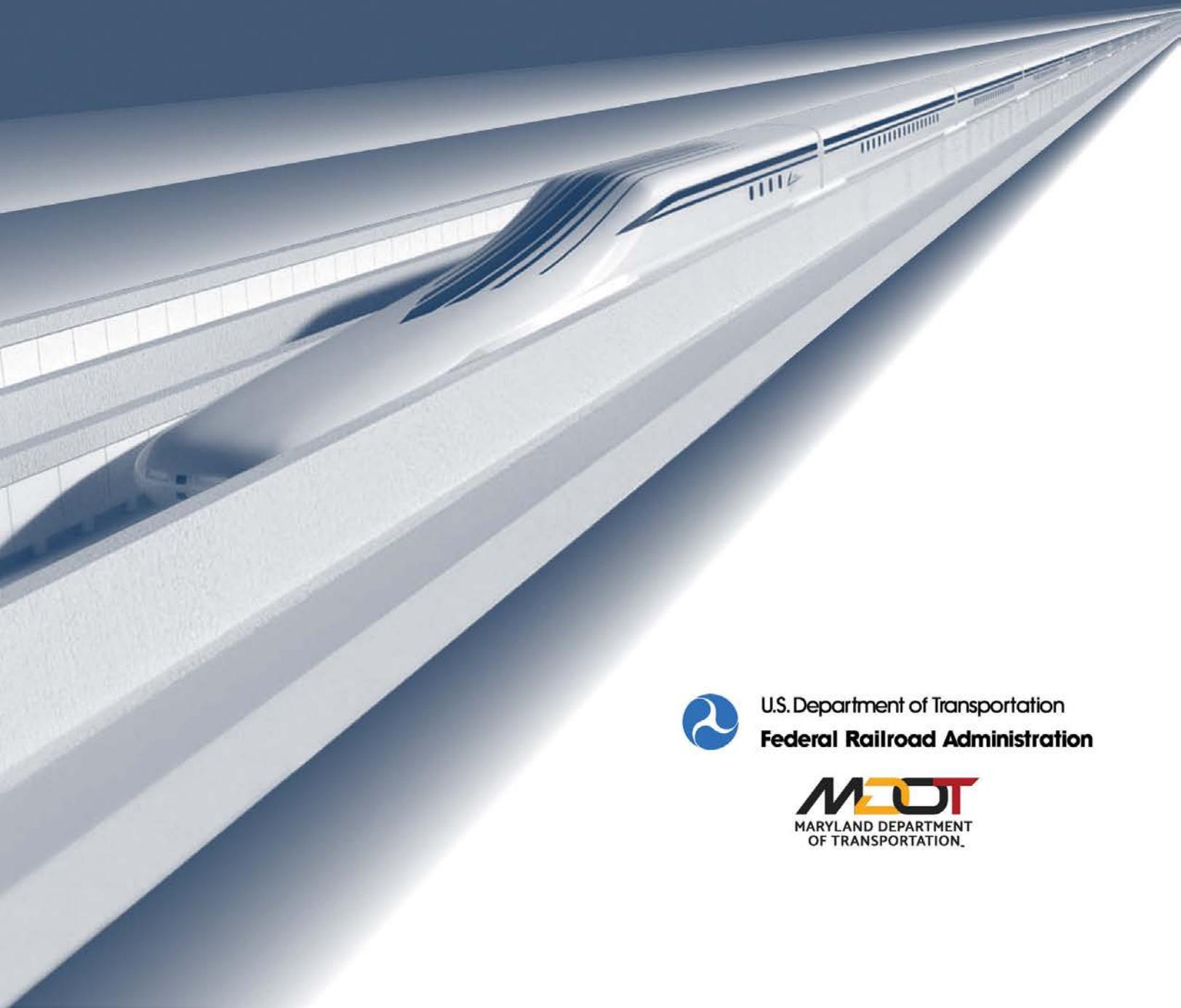


Section 4.20

Utilities

BALTIMORE-WASHINGTON SUPERCONDUCTING MAGLEV PROJECT

DRAFT ENVIRONMENTAL IMPACT STATEMENT AND
SECTION 4(f) EVALUATION



U.S. Department of Transportation
Federal Railroad Administration



4.20 Utilities

4.20.1 Introduction

This section describes existing utilities within the Superconducting Magnetic Levitation Project (SCMAGLEV Project) Affected Environment, identifies potential physical impacts to utilities from the No Build and Build Alternatives, and presents strategies the Project Sponsor will employ to avoid, minimize, or mitigate potential impacts to utilities. Additional information can be found in the Project Sponsor's Construction Planning Memorandum included in Appendix G.7.

4.20.2 Regulatory Context and Methodology

4.20.2.1 Regulatory Context

In accordance with the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 et seq., the Council on Environmental Quality (CEQ) regulations, 40 C.F.R. Parts 1500 -1508, and the Federal Rail Administration's (FRA) Procedures for Considering Environmental Impacts, 64 Fed. Reg. 28545 (May 26, 1999) FRA assessed physical impacts to utilities from the construction of the SCMAGLEV Project.

4.20.2.2 Methodology

FRA developed a qualitative assessment of potential effects of the No Build and Build Alternatives on utilities by considering publicly available information from utility companies and localities on existing utilities in the SCMAGLEV Project Affected Environment. FRA also compared the Project Sponsor's preliminary Limit of Disturbance (LOD) anticipated for construction of the SCMAGLEV Project against existing utility infrastructure to identify potential physical impacts. FRA defined utilities to include electrical, natural gas, communications, water, and wastewater facilities.

4.20.3 SCMAGLEV Project Affected Environment

Major public utilities within the SCMAGLEV Project Affected Environment are listed in **Table 4.20-1**.

Table 4.20-1: Major Public Utilities in SCMAGLEV Project Affected Environment

Utility Type	Provider(s)	Location (County/City)
Electrical	Baltimore Gas and Electric (BGE)	Baltimore City, Baltimore, Howard, Anne Arundel, and Prince George's
	Potomac Electric Power Company (PEPCO)	Washington, D.C. and Prince George's
Natural Gas	Baltimore Gas and Electric (BGE)	Baltimore City, Baltimore, Howard, and Anne Arundel
	Washington Gas (WGL)	Washington, D.C. and Prince George's
Communications	Verizon, Comcast, RCN, HughesNet, Viasat, Cyberonic, et al.	Washington, D.C., Prince George's, Baltimore City, Baltimore, Howard, and Anne Arundel
Water and Wastewater	City of Baltimore, Bureau of Water and Wastewater	Baltimore City, Baltimore, Howard, and Anne Arundel
	DC Water	Washington, D.C. and Prince George's
	Washington Suburban Sanitary Commission	Prince George's

Source: Maryland Public Service Commission 2020

4.20.4 Environmental Consequences

4.20.4.1 No Build Alternative

Under the No Build Alternative, the SCMAGLEV Project would not be built, and therefore, no impacts related to the construction or operation of a SCMAGLEV system would occur. However, other planned and funded transportation projects will continue to be implemented in the area and could result in impacts to utilities, but there would be no impacts from the SCMAGLEV Project under the No Build Alternative.

4.20.4.2 Build Alternatives

FRA compared the proposed LOD against the existing transmission lines in the corridor and found two conflicts along the mainline viaduct portion. The existing high tension transmission towers and powerlines that cross the proposed mainline just south of MD 197 would be impacted by all Build Alternatives (J-01 thru J-06 and J1-01 thru J1-06). Also, the existing power transmission lines on the east side of the BWP for approximately 1.1 miles in the vicinity of MD 198 would be impacted with Build Alternatives J-01 thru J-06. However, the impact to the physical infrastructure (the transmission lines and transformers) due to potential power transmission congestion will not be fully known until the Project Sponsor applies for a long-term transmission service through the Pennsylvania-New Jersey-Maryland Power Pool (PJM), the regional transmission organization both PEPCO and BGE belong to in the Mid-Atlantic region. PJM would then initiate a Transmission Feasibility Study (TFS) and a subsequent System Impact Study (SIS), if necessary, in order to update the Regional Transmission Expansion Plan (RTEP). Therefore, the Project Sponsor will continue to coordinate with PJM, BGE and PEPCO as previously discussed in Section 4.19 Energy.

A known major utility along the mainline tunnel portion is the DC Water Combined Sewer System (CSO) Northeast Boundary tunnel (under construction). The CSO tunnel crosses New York Avenue south of Montana Avenue NE at a depth of approximately 90 feet. The Project Sponsor designed the SCMAGLEV tunnel to go under the CSO tunnel and therefore avoiding it completely (see Plan and Profile drawings in Appendix G.2).

The Project Sponsor has included preliminary LOD anticipated to relocate and/or raise/lower the known power transmission lines mentioned above, and for construction of the SCMAGLEV power supply and LOD to connect to proposed SCMAGLEV power substation locations (see drawings in Appendix B.1 and Appendix G.2). The LOD areas for potential utility work are conceptual and the Project Sponsor would continue to refine the utility plan based on continued coordination with utility companies as the design is finalized.

4.20.4.3 Short-Term Construction Effects

The Build Alternatives have the potential to affect utilities during SCMAGLEV Project construction activities. Each major Build Alternative element has the potential to conflict with existing utilities in the SCMAGLEV Project Affected Environment. Given the proximity and similarity of Build Alternatives J-01 thru J-06 and J1-01 thru J1-06, FRA anticipates the type of potential impacts of the Build Alternatives to utilities would be similar.

Since the Project Sponsor plans to construct the mainline tunnels using tunnel boring machines (TBM) at depths of 49 feet or greater, the tunnel portions are generally expected to avoid direct impacts to existing utilities. The mainline viaduct portions have a potential to impact existing utilities on the surface and underground (piers/foundations).

Utility impacts could also occur at the transition portals, the underground guideway switching locations, the underground station locations, and the TBM launch/retrieval sites, where top-down construction methods will be applied. In addition, coordination is on-going between the Project Sponsor and Washington Suburban Sanitary Commission (WSSC) about potentially using one of its maintenance/administrative facilities in Bladensburg, MD as a TBM retrieval site and FA/EE facility.

The precise configuration of stations and Trainset Maintenance Facility (TMF) sites will be determined by the Project Sponsor during final design with concurrence from MDOT MTA and FRA. Underground stations will be constructed using top-down methods to the extent reasonably feasible, and station excavation work has the potential to affect underground utilities. As an initial phase of the construction work, utilities will be relocated, replaced, or, in some cases, supported in place, to allow station excavation to proceed. The above-ground station alternative at Cherry Hill and the TMF sites could also require some utility relocation work, particularly for building foundations. These construction impacts for the above-ground construction are anticipated to be less extensive than for underground facilities. However, impacts could include temporary service disruptions, which may impact nearby operations. At BARC, temporary service disruptions may impact the power needs of BARC facilities. Proposed parking garages

associated with the Baltimore-Washington International Thurgood Marshall Airport (BWI Marshall Airport) and elevated Cherry Hill Stations could also affect existing utilities. The Project Sponsor is in ongoing dialogue with the relevant utility companies to determine whether utility conflicts will be removed, relocated, re-routed, adjusted vertically, or otherwise modified in the final engineering design.

4.20.5 Potential Mitigation Measures

The Project Sponsor will continue to coordinate with utility operators between preliminary engineering and final design and incorporate measures to avoid, minimize, and mitigate potential utility conflicts. Design modifications could be made to avoid utility conflicts, such as modifying viaduct pier locations or tunnel depth where reasonably feasible to avoid underground utilities. For example, the Project Sponsor will design, obtain permits and rights-of-way, and construct the SCMAGLEV Project to avoid the utility conflict at the WSSC CSO tunnel. Prior to completion of final design, the Project Sponsor will develop a utility relocation plan as part of the overall Project construction plan. The utility relocation plan will identify the utilities to be relocated, the procedures for relocation and the responsible parties, and the schedule for utility work. Typically, utility relocations are accomplished in the initial phase of a construction project.

Construction activities will be planned and scheduled to minimize temporary service disruptions to the greatest extent possible. The Project Sponsor will coordinate with utility owners regarding planned outages, and the prior notification of outages to affected utility users.

For utility conflicts that cannot be avoided, the Project Sponsor will identify and implement appropriate measures to mitigate conflicts, in coordination with the relevant utilities. Mitigation strategies could include raising, lowering, burying, relocating and protecting utilities.