

# Long Bridge Project

## *Draft Environmental Impact Statement and Draft Section 4(f) Evaluation*

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### Table of Contents

<b>1.0</b>	<b>Introduction .....</b>	<b>1-1</b>
1.1	Proposed Action .....	1-2
1.2	Project Area and Setting.....	1-2
1.3	Project Background .....	1-4
1.4	NEPA Process .....	1-4
1.4.1	Lead Agencies.....	1-5
1.4.2	Cooperating Agencies.....	1-5
1.4.3	Participating Agencies .....	1-7
1.4.4	Project Sponsor .....	1-7
1.5	Bike-Pedestrian Crossing Opportunities.....	1-7
<b>2.0</b>	<b>Purpose and Need .....</b>	<b>2-1</b>
2.1.	Introduction .....	2-1
2.2.	Previous Studies.....	2-1
2.2.1.	Long Bridge Phase I Study, January 2015 .....	2-1
2.2.2.	Long Bridge Phase II Study, 2016 .....	2-2
2.2.3.	2017 Virginia Statewide Rail Plan.....	2-2
2.2.4.	Washington, D.C. to Richmond Southeast High Speed Rail Project (DC2RVA) Tier II Final EIS, TBD 2019.....	2-2
2.2.5.	VRE System Plan 2040, January 2014.....	2-3
2.2.6.	Maryland Area Regional Commuter (MARC) Growth and Investment Plan Update 2013 – 2050, September 2013 .....	2-3
2.3.	Purpose and Need Statement .....	2-3
2.3.1.	Insufficient Railroad Capacity.....	2-4
2.3.2.	Insufficient Railroad Resiliency and Redundancy.....	2-7
2.3.3.	Maintain Transportation Network Connectivity .....	2-9
2.4.	Purpose and Need for the National Park Service Proposed Action.....	2-10
<b>3.0</b>	<b>Alternatives .....</b>	<b>3-1</b>
3.1	Alternatives Development and Screening .....	3-2

3.1.1	Pre-NEPA Preliminary Concept Development (Phases I and II).....	3-3
3.1.2	Scoping Process .....	3-3
3.1.3	Concept Screening Process.....	3-5
3.2	DEIS Alternatives .....	3-14
3.2.1	No Action Alternative .....	3-16
3.2.2	Action Alternative A (Preferred Alternative).....	3-18
3.2.3	Ohio Drive SW to Metrorail Portal .....	3-19
3.2.4	Action Alternative B.....	3-25
3.3	Conceptual Engineering for DEIS Alternatives.....	3-27
3.3.1	Maryland Avenue SW to L’Enfant Interlocking .....	3-27
3.3.2	Bridge Structure Types .....	3-28
3.4	Train Volumes.....	3-29
3.5	Construction Overview .....	3-30
3.5.1	Construction Methods and Activities .....	3-31
3.5.2	Action Alternative A (Preferred Alternative) Construction .....	3-32
3.5.3	Action Alternative B Construction .....	3-40
3.6	Comparison of Alternatives .....	3-43
3.7	Action Alternative A: Preferred Alternative .....	3-46
<b>4.0</b>	<b>Impact Analysis Framework .....</b>	<b>4-1</b>
4.1.	Introduction.....	4-1
4.2.	Methodology for Evaluating Impacts .....	4-1
4.2.1.	Descriptions of Effects.....	4-1
4.2.2.	Study Areas.....	4-3
4.3.	Format for Evaluating Impacts in this DEIS.....	4-3
<b>5.0</b>	<b>Natural Ecological Systems and Endangered Species.....</b>	<b>5-1</b>
5.1.	Introduction.....	5-1
5.2.	Regulatory Context and Methodology .....	5-1
5.2.1.	Regulatory Context.....	5-1
5.2.2.	Methodology .....	5-2
5.3.	Affected Environment .....	5-4
5.3.1.	Natural Ecological Systems.....	5-4
5.3.2.	Rare, Threatened, and Endangered Species.....	5-9

- 5.4. Permanent or Long-Term Effects..... 5-9
  - 5.4.1. Natural Ecological Systems..... 5-10
  - 5.4.2. RTE Species ..... 5-21
- 5.5. Temporary Effects ..... 5-22
  - 5.5.1. Natural Ecological Systems..... 5-22
  - 5.5.2. RTE Species ..... 5-27
- 5.6. Avoidance, Minimization, and Mitigation ..... 5-29
  - 5.6.1. Natural Ecological Systems..... 5-29
  - 5.6.2. RTE Species ..... 5-32
- 6.0 Water Resources and Water Quality ..... 6-1**
  - 6.1. Introduction ..... 6-1
  - 6.2. Regulatory Context and Methodology ..... 6-2
    - 6.2.1. Regulatory Context..... 6-2
    - 6.2.2. Methodology ..... 6-4
  - 6.3. Affected Environment ..... 6-7
    - 6.3.1. Water Quality ..... 6-7
    - 6.3.2. Wetlands and Other Waters of the U.S..... 6-13
    - 6.3.3. Flood Hazards and Floodplain Management..... 6-15
    - 6.3.4. Chesapeake Bay Preservation Areas ..... 6-17
    - 6.3.5. Coastal Zone Management ..... 6-17
  - 6.4. Permanent or Long-Term Effects..... 6-17
    - 6.4.1. Water Quality ..... 6-17
    - 6.4.2. Wetlands and Other Waters of the United States ..... 6-20
    - 6.4.3. Flood Hazards and Floodplain Management..... 6-24
    - 6.4.4. Chesapeake Bay Preservation Areas ..... 6-24
    - 6.4.5. Coastal Zone Consistency ..... 6-28
  - 6.5. Temporary Effects ..... 6-28
    - 6.5.1. Water Quality ..... 6-28
    - 6.5.2. Wetlands and Other Waters of the United States ..... 6-30
    - 6.5.3. Flood Hazards and Floodplain Management..... 6-32
    - 6.5.4. Chesapeake Bay Preservation Areas ..... 6-33
  - 6.6. Avoidance, Minimization, and Mitigation ..... 6-33
    - 6.6.1. Water Quality ..... 6-33

6.6.2.	Wetlands and Other Waters of the United States .....	6-34
6.6.3.	Flood Hazards and Floodplain Management.....	6-35
6.6.4.	Chesapeake Bay Preservation Areas .....	6-35
<b>7.0</b>	<b>Geologic Resources.....</b>	<b>7-1</b>
7.1.	Introduction.....	7-1
7.2.	Regulatory Context and Methodology .....	7-1
7.2.1.	Regulatory Context.....	7-1
7.2.2.	Methodology .....	7-2
7.3.	Affected Environment .....	7-2
7.3.1.	Geology and Soils .....	7-4
7.3.2.	Geomorphic Features .....	7-6
7.3.3.	Geologic Hazards .....	7-6
7.4.	Permanent or Long-Term Effects.....	7-6
7.4.1.	Geologic Resources .....	7-7
7.4.2.	Soils.....	7-8
7.5.	Temporary Effects .....	7-9
7.5.1.	Geologic Resources .....	7-9
7.5.2.	Soils.....	7-10
7.6.	Avoidance, Minimization, and Mitigation .....	7-11
7.6.1.	Geology.....	7-11
7.6.2.	Soils.....	7-11
<b>8.0</b>	<b>Solid Waste Disposal and Hazardous Materials .....</b>	<b>8-1</b>
8.1.	Introduction.....	8-1
8.2.	Regulatory Context and Methodology .....	8-2
8.2.1.	Regulatory Context.....	8-2
8.2.2.	Methodology .....	8-2
8.3.	Affected Environment .....	8-4
8.3.1.	Solid Waste .....	8-5
8.3.2.	Hazardous Materials.....	8-5
8.4.	Permanent or Long-Term Effects.....	8-8
8.4.1.	Solid Waste .....	8-8
8.4.2.	Hazardous Materials.....	8-9

8.5.	Temporary Effects .....	8-10
8.5.1.	Solid Waste .....	8-11
8.5.2.	Hazardous Materials.....	8-12
8.6.	Avoidance, Minimization, and Mitigation .....	8-14
8.6.1.	Solid Waste .....	8-14
8.6.2.	Hazardous Materials.....	8-14
<b>9.0</b>	<b>Transportation and Navigation .....</b>	<b>9-1</b>
9.1.	Introduction .....	9-1
9.2.	Regulatory Context and Methodology .....	9-1
9.2.1.	Regulatory Context.....	9-1
9.2.2.	Methodology .....	9-2
9.3.	Affected Environment .....	9-6
9.3.1.	Railroad Infrastructure and Operations .....	9-6
9.3.2.	Transit.....	9-7
9.3.3.	Pedestrian and Bicycle Network.....	9-9
9.3.4.	Roadway Network .....	9-11
9.3.5.	Parking.....	9-13
9.3.6.	Aviation.....	9-14
9.3.7.	Navigation.....	9-14
9.4.	Permanent or Long-Term Effects.....	9-15
9.4.1.	Railroad Infrastructure and Operations .....	9-17
9.4.2.	Transit.....	9-18
9.4.3.	Pedestrian and Bicycle Network.....	9-20
9.4.4.	Roadway Network .....	9-20
9.4.5.	Parking.....	9-21
9.4.6.	Aviation.....	9-21
9.4.7.	Navigation.....	9-22
9.5.	Temporary Effects .....	9-23
9.5.1.	Railroad Infrastructure and Operations .....	9-23
9.5.2.	Transit.....	9-24
9.5.3.	Pedestrian and Bicycle Network.....	9-26
9.5.4.	Roadway Network .....	9-29

9.5.5.	Parking .....	9-32
9.5.6.	Aviation.....	9-33
9.5.7.	Navigation.....	9-34
9.6.	Avoidance, Minimization, and Mitigation .....	9-34
9.6.1.	Railroad Infrastructure and Operations .....	9-34
9.6.2.	Transit.....	9-35
9.6.3.	Pedestrian and Bicycle Network.....	9-35
9.6.4.	Roadway Network .....	9-36
9.6.5.	Parking.....	9-37
9.6.6.	Aviation.....	9-38
9.6.7.	Navigation.....	9-38
<b>10.0</b>	<b>Air Quality and Greenhouse Gases.....</b>	<b>10-1</b>
10.1.	Introduction .....	10-1
10.2.	Regulatory Context and Methodology .....	10-1
10.2.1.	Regulatory Context.....	10-1
10.2.2.	Methodology .....	10-2
10.3.	Affected Environment .....	10-5
10.3.1.	Ambient Air Quality.....	10-5
10.3.2.	Air Quality Index .....	10-6
10.3.3.	Regional Greenhouse Gas Emissions.....	10-6
10.4.	Permanent or Long-Term Effects.....	10-7
10.4.1.	No Action Alternative .....	10-7
10.4.2.	Action Alternative A (Preferred Alternative).....	10-8
10.4.3.	Action Alternative B.....	10-11
10.5.	Temporary Effects .....	10-11
10.5.1.	No Action Alternative .....	10-11
10.5.2.	Action Alternative A (Preferred Alternative).....	10-11
10.5.3.	Action Alternative B.....	10-12
10.6.	Avoidance, Minimization, and Mitigation .....	10-12
<b>11.0</b>	<b>Energy .....</b>	<b>11-1</b>
11.1.	Introduction .....	11-1
11.2.	Regulatory Context and Methodology .....	11-1

11.2.1.	Regulatory Context .....	11-1
11.2.2.	Methodology .....	11-2
11.3.	Affected Environment .....	11-4
11.4.	Permanent or Long-Term Effects.....	11-4
11.4.1.	No Action Alternative .....	11-4
11.4.2.	Action Alternative A (Preferred Alternative).....	11-5
11.4.3.	Action Alternative B.....	11-6
11.5.	Temporary Effects .....	11-6
11.5.1.	No Action Alternative .....	11-6
11.5.2.	Action Alternative A (Preferred Alternative).....	11-6
11.5.3.	Action Alternative B.....	11-7
11.6.	Avoidance, Minimization, and Mitigation .....	11-7
<b>12.0</b>	<b>Land Use and Property.....</b>	<b>12-1</b>
12.1.	Introduction .....	12-1
12.2.	Regulatory Context and Methodology .....	12-1
12.2.1.	Regulatory Context.....	12-1
12.2.2.	Methodology .....	12-3
12.3.	Affected Environment .....	12-5
12.3.1.	Existing Land Use .....	12-5
12.3.2.	Existing Property Ownership .....	12-5
12.3.3.	Planned Future Land Use (2040) .....	12-10
12.4.	Permanent or Long-Term Effects.....	12-12
12.4.1.	Land Use .....	12-12
12.4.2.	Property.....	12-20
12.4.3.	Consistency with Local and Federal Plans .....	12-21
12.5.	Temporary Effects .....	12-24
12.5.1.	Land Use .....	12-24
12.5.2.	Property.....	12-25
12.5.3.	Consistency with Local and Federal Plans .....	12-30
12.6.	Avoidance, Minimization, and Mitigation .....	12-30
12.6.1.	Land Use .....	12-30
12.6.2.	Property.....	12-31

12.6.3.	Consistency with Local and Federal Plans .....	12-31
<b>13.0</b>	<b>Noise and Vibration .....</b>	<b>13-1</b>
13.1.	Introduction .....	13-1
13.2.	Regulatory Context and Methodology .....	13-1
13.2.1.	Regulatory Context .....	13-2
13.2.2.	Methodology .....	13-2
13.3.	Affected Environment .....	13-5
13.3.1.	Noise and Vibration Sensitive Land Use .....	13-5
13.3.2.	Existing Noise and Vibration Conditions .....	13-6
13.4.	Permanent or Long-Term Effects.....	13-7
13.4.1.	Noise .....	13-7
13.4.2.	Vibration .....	13-11
13.5.	Temporary Effects .....	13-12
13.5.1.	No Action Alternative .....	13-12
13.5.2.	Action Alternative A (Preferred Alternative).....	13-13
13.5.3.	Action Alternative B.....	13-13
13.6.	Avoidance, Minimization, and Mitigation .....	13-15
13.6.1.	Operational Noise Mitigation .....	13-15
13.6.2.	Operational Vibration Mitigation .....	13-16
13.6.3.	Construction Noise and Vibration Mitigation .....	13-16
<b>14.0</b>	<b>Aesthetics and Visual Resources .....</b>	<b>14-1</b>
14.1.	Introduction .....	14-1
14.2.	Regulatory Context & Methodology.....	14-1
14.2.1.	Regulatory Context .....	14-1
14.2.2.	Methodology .....	14-2
14.3.	Affected Environment .....	14-4
14.3.1.	Existing Population and Viewers .....	14-4
14.3.2.	Existing Visual Quality .....	14-5
14.3.3.	Landscape Composition and Vividness .....	14-6
14.3.4.	Existing Views and Viewsheds .....	14-7
14.3.5.	Nighttime Conditions.....	14-8
14.4.	Permanent or Long-Term Effects.....	14-8



14.4.1.	No Action Alternative .....	14-9
14.4.2.	Action Alternative A (Preferred Alternative).....	14-9
14.4.3.	Action Alternative B.....	14-11
14.5.	Temporary Effects .....	14-25
14.5.1.	No Action Alternative .....	14-25
14.5.2.	Action Alternative A (Preferred Alternative).....	14-25
14.5.3.	Action Alternative B.....	14-27
14.6.	Avoidance, Minimization, and Mitigation .....	14-27
<b>15.0</b>	<b>Cultural Resources .....</b>	<b>15-1</b>
15.1.	Introduction .....	15-1
15.2.	Regulatory Context and Methodology .....	15-2
15.2.1.	Regulatory Context.....	15-2
15.2.2.	Methodology .....	15-2
15.2.3.	Archaeological Resources.....	15-5
15.3.	Affected Environment .....	15-5
15.3.1.	Listed and Eligible Resources.....	15-5
15.3.2.	Phase IA Archaeological Assessment .....	15-9
15.4.	Permanent or Long-Term Effects.....	15-12
15.4.1.	No Action Alternative .....	15-12
15.4.2.	Action Alternative A (Preferred Alternative).....	15-12
15.4.3.	Action Alternative B.....	15-13
15.5.	Temporary Effects .....	15-14
15.5.1.	No Action Alternative .....	15-14
15.5.2.	Action Alternative A (Preferred Alternative).....	15-14
15.5.3.	Action Alternative B.....	15-15
15.6.	Avoidance, Minimization, and Mitigation .....	15-14
15.6.1.	Summary of Consultation .....	15-15
15.6.2.	Action Alternative A (Preferred Alternative).....	15-17
15.6.2.	Action Alternative B.....	15-18

<b>16.0 Recreation and Parks .....</b>	<b>16-1</b>
16.1. Introduction .....	16-1
16.2. Regulatory Context and Methodology .....	16-1
16.2.1. Regulatory Context .....	16-1
16.2.2. Methodology .....	16-2
16.3. Affected Environment .....	16-2
16.4. Permanent or Long-Term Effects.....	16-5
16.4.1. No Action Alternative .....	16-6
16.4.2. Action Alternative A (Preferred Alternative).....	16-6
16.4.3. Action Alternative B.....	16-11
16.5. Temporary Effects .....	16-11
16.5.1. No Action Alternative .....	16-11
16.5.2. Action Alternative A (Preferred Alternative).....	16-11
16.5.3. Action Alternative B.....	16-13
16.6. Avoidance, Minimization, and Mitigation .....	16-13
<b>17.0 Social and Economic Resources.....</b>	<b>17-1</b>
17.1. Introduction .....	17-1
17.2. Regulatory Context and Methodology .....	17-1
17.2.1. Regulatory Context .....	17-1
17.2.2. Methodology .....	17-1
17.3. Affected Environment .....	17-4
17.3.1. Demographics.....	17-4
17.3.2. Community Facilities .....	17-5
17.3.3. Employment, Commercial Activity, and Current Economic Conditions .....	17-7
17.3.4. Taxes, Public Revenue, and Local Government Services.....	17-9
17.4. Permanent or Long-Term Effects.....	17-9
17.4.1. Social.....	17-10
17.4.2. Economic .....	17-11
17.5. Temporary Effects .....	17-13
17.5.1. Social.....	17-13
17.5.2. Economics.....	17-14
17.6. Avoidance, Minimization, and Mitigation .....	17-17
17.6.1. Social.....	17-17

17.6.2. Economic .....17-18

**18.0 Safety and Security ..... 18-1**

18.1 Introduction ..... 18-1

18.2 Regulatory Context and Methodology ..... 18-1

18.2.1. Regulatory Context .....18-1

18.2.2. Methodology ..... 18-2

18.3 Affected Environment ..... 18-5

18.3.1. Railroad Safety..... 18-5

18.3.2. Emergency Response..... 18-5

18.3.3. Crime ..... 18-6

18.3.4. Schools..... 18-6

18.3.5. Security ..... 18-7

18.4 Permanent or Long-Term Effects..... 18-8

18.4.1 Railroad Safety..... 18-8

18.4.2 Public Safety ..... 18-9

18.4.3 Security ..... 18-9

18.5 Temporary Effects ..... 18-10

18.5.1 Railroad Safety..... 18-10

18.5.2 Public Safety ..... 18-11

18.5.3 Security ..... 18-11

18.6 Avoidance, Minimization, and Mitigation ..... 18-12

18.6.1 Railroad Safety..... 18-12

18.6.2 Public Safety ..... 18-13

18.6.3 Security ..... 18-13

**19.0 Public Health, Elderly, and Persons with Disabilities ..... 19-1**

19.1. Introduction ..... 19-1

19.2. Regulatory Context and Methodology ..... 19-1

19.2.1. Regulatory Context .....19-1

19.2.2. Methodology ..... 19-2

19.3. Affected Environment ..... 19-2

19.4. Permanent or Long-Term Effects..... 19-4

19.4.1 Public Health..... 19-4

19.4.2 Elderly Persons ..... 19-5

19.4.3	Persons with Disabilities .....	19-6
19.5.	Temporary Effects .....	19-6
19.5.1.	Public Health.....	19-6
19.5.2	Elderly Persons .....	19-7
19.5.3	Persons with Disabilities.....	19-7
19.6.	Avoidance, Minimization, and Mitigation Measures .....	19-8
<b>20.0</b>	<b>Environmental Justice.....</b>	<b>20-1</b>
20.1.	Introduction .....	20-1
20.2.	Regulatory Context and Methodology .....	20-1
20.2.1.	Regulatory Context.....	20-1
20.2.2.	Methodology .....	20-2
20.3.	Affected Environment .....	20-5
20.3.1.	Minority Populations.....	20-5
20.3.2.	Low-Income Populations .....	20-8
20.4.	Permanent or Long-Term Effects.....	20-10
20.4.1.	No Action Alternative .....	20-11
20.4.2.	Action Alternative A (Preferred Alternative).....	20-11
20.4.3.	Action Alternative B.....	20-11
20.5.	Temporary Effects .....	20-12
20.5.1.	No Action Alternative .....	20-12
20.5.2.	Action Alternative A (Preferred Alternative).....	20-12
20.5.3.	Action Alternative B.....	20-13
20.6.	Avoidance, Minimization, and Mitigation .....	20-14
20.7.	Coordination with Environmental Justice Communities .....	20-14
<b>21.0</b>	<b>Cumulative Impacts .....</b>	<b>21-1</b>
21.1.	Introduction.....	21-1
21.2.	Regulatory Context and Methodology .....	21-1
21.2.1.	Regulatory Context.....	21-1
21.2.2.	Methodology .....	21-2
21.2.3.	Past, Present, and Reasonably Foreseeable Actions .....	21-3
21.3.	Permanent or Long-Term Effects.....	21-9
21.3.1.	Transportation and Navigation .....	21-12

21.3.2.	Noise and Vibration .....	21-13
21.3.3.	Aesthetics and Visual Resources .....	21-13
21.3.4.	Cultural Resources .....	21-15
21.3.5.	Safety and Security .....	21-16
21.4.	Temporary Effects .....	21-16
21.4.1.	Resources with No Cumulative Temporary Effects .....	21-17
21.4.2.	Resources with Negligible to Minor Cumulative Temporary Effects .....	21-18
21.4.3.	Resources with Moderate Cumulative Temporary Effects .....	21-21
21.5.	Bike-Pedestrian Crossing .....	21-22
21.5.1	Permanent or Long-Term Effects.....	21-24
21.6	Avoidance, Minimization, Mitigation .....	21-26
<b>22.0</b>	<b>Bike-Pedestrian Crossing Opportunities</b>	
22.1	Overview .....	22-1
22.1.1	Previous Plans and Studies .....	22-2
22.1.2	Public and Agency Comments .....	22-3
22.1.3	Development of Bike-Pedestrian Crossing Options .....	22-5
22.1.4	Bike-Pedestrian Crossing Option Screening .....	22-10
22.2	Environmental Consequences of the Preferred Option .....	22-13
22.2.1	Natural Ecological Systems and Endangered Species .....	22-13
22.2.2	Water Resources and Water Quality.....	22-19
22.2.3	Geologic Resources .....	22-27
22.2.4	Solid Waste and Hazardous Materials.....	22-29
22.2.5	Transportation and Navigation .....	22-32
22.2.6	Air Quality and Greenhouse Gas Emissions.....	22-35
22.2.7	Energy.....	22-36
22.2.8	Land Use and Property .....	22-38
22.2.9	Noise and Vibration .....	22-40
22.2.10	Aesthetics and Visual Resources .....	22-40
22.2.11	Cultural Resources.....	22-45
22.2.12	Recreation and Parks.....	22-47
22.2.13	Social and Economic Resources.....	22-50
22.2.14	Safety and Security .....	22-51

22.2.15 Public Health, Elderly, and Persons with Disabilities..... 22-53

22.2.16 Environmental Justice ..... 22-55

**23.0 Commitment of Resources..... 23-1**

23.1. Introduction ..... 23-1

23.2. Irreversible and Irretrievable Commitment of Resources..... 23-1

23.3. Relationship Between Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity..... 23-2

23.3.1. Short-Term Uses ..... 23-2

23.3.2. Long-Term Productivity ..... 23-2

23.3.3. Short-Term Uses Versus Long-Term Productivity ..... 23-2

**24.0 Draft Section 4(f) Evaluation ..... 24-1**

24.1. Introduction ..... 24-1

24.2. Section 4(f) Applicability..... 24-1

24.3. Project Purpose and Need ..... 24-2

24.4. Alternatives..... 24-2

24.5. Section 4(f) Protected Properties ..... 24-3

24.6. Use of Section 4(f) Properties..... 24-6

24.6.1. Long Bridge Park..... 24-8

24.6.2. George Washington Memorial Parkway (including Mount Vernon Memorial Highway) ..... 24-13

24.6.3. Mount Vernon Trail ..... 24-16

24.6.4. East Potomac Park/East and West Potomac Parks Historic District..... 24-17

24.6.5. Hancock Park ..... 24-22

24.6.6. Plan of the City of Washington..... 24-27

24.7. Avoidance Alternatives Analysis ..... 24-28

24.7.1. No Action Alternative ..... 24-29

24.7.2. Tunnel Concepts ..... 24-29

24.7.3. New Corridors..... 24-31

24.7.4. Construction Staging and Access..... 24-31

24.8. Planning Undertaken to Minimize Harm ..... 24-32

24.8.1. Long Bridge Park..... 24-32

24.8.2. George Washington Memorial Parkway and Mount Vernon Trail..... 24-35

24.8.3. East Potomac Park..... 24-35

24.8.4. Hancock Park ..... 24-36

24.9. Least Overall Harm Analysis .....	24-36
24.9.1. Factor 1: The ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property) .....	24-37
24.9.2. Factor 2: Relative Severity of the Remaining Harm after Mitigation .....	24-40
24.9.3. Factor 3: Relative Significance of Each Section 4(f) Property .....	24-41
24.9.4. Factor 4: Views of the Officials with Jurisdiction over Each Section 4(f) Property .....	24-42
24.9.5. Factor 5: Degree to Which Each Alternative Meets the Purpose and Need for the Project .....	24-42
24.9.6. Factor 6: After Reasonable Mitigation, the Magnitude of Any Adverse Impacts to Resources Not Protected by Section 4(f) .....	24-42
24.9.7. Factor 7: Substantial Differences in Costs Among Alternatives .....	24-43
24.10. Coordination and Consultation .....	24-43
24.10.1. Coordination with Officials with Jurisdiction .....	24-43
24.10.2. Coordination with Cooperating Agencies .....	24-44
24.10.3. Section 106 Consultation .....	24-44
24.10.4. Public Involvement .....	24-44
24.11. Final Section 4(f) Evaluation .....	24-45
<b>25.0 Public Involvement and Agency Coordination .....</b>	<b>25-1</b>
25.1. Pre-NEPA Outreach .....	25-2
25.2. Scoping .....	25-3
25.2.1. Public Scoping .....	25-4
25.2.2. Agency Scoping .....	25-4
25.3. Public Involvement .....	25-6
25.3.1. Public Meeting, May 16, 2017: Level 1 Concept Screening .....	25-7
25.3.2. Public Meeting, December 14, 2017: Proposed Alternatives .....	25-8
25.3.3. Public Meeting, November 29, 2018: Preferred Alternative Selection .....	25-9
25.4. Agency Coordination .....	25-10
25.4.1. Cooperating Agencies .....	25-13
25.4.2. Participating Agencies .....	25-14
25.4.3. Agency Consultation .....	25-14
25.5. Bike-Pedestrian Crossing .....	25-15
25.6. Section 106 Consultation .....	25-16
25.7. Public Review of the DEIS and Draft Section 4(f) Evaluation .....	25-17
<b>26.0 Distribution of DEIS .....</b>	<b>26-1</b>

26.1. Federal Agencies.....	26-1
26.2. District Agencies .....	26-1
26.3. Commonwealth of Virginia Agencies.....	26-1
26.4. Regional Agencies and Organizations.....	26-2
26.5. Local Government Agencies and Organizations .....	26-2
26.6. Railroad and Transit Operators .....	26-2
26.7. Elected Officials .....	26-2
26.7.1. Federal.....	26-2
26.7.2. District of Columbia.....	26-2
26.7.3. Commonwealth of Virginia.....	26-3
26.7.4. Local.....	26-3
26.8. Potentially Impacted Section 4(f) Property Officials with Jurisdiction .....	26-3
26.9. Stakeholders and General Public.....	26-3
26.10. DEIS Document Availability Locations .....	26-4
<b>27.0 List of Preparers.....</b>	<b>27-1</b>
<b>28.0 References.....</b>	<b>28-1</b>
28.1. Laws and Regulations .....	28-1
28.2. Guidance.....	28-6
28.3. Reports .....	28-10
28.4. Websites and Databases.....	28-12
28.5. Correspondence .....	28-13
<b>29.0 Glossary.....</b>	<b>29-1</b>

## List of Tables

Table 3-1: Preliminary Concepts Presented During Scoping .....	3-4
Table 3-2: Level 1 Concept Screening Metrics .....	3-6
Table 3-3: Level 1 Concept Screening Results.....	3-7
Table 3-4: Level 2 Concept Screening Metrics .....	3-9
Table 3-5: Results of Level 2, Step 1 Concept Screening .....	3-10
Table 3-6: Alignment Options Evaluated in Level 2, Step 2 Concept Screening .....	3-11
Table 3-7: Results of Level 2, Step 2 Concept Screening .....	3-13
Table 3-8: Projects Included in the No Action Alternative.....	3-16
Table 3-9: Train Volumes in the Long Bridge Corridor.....	3-29



Table 3-10: Estimated Construction Duration – Action Alternative A ..... 3-39

Table 3-11: Estimated Construction Duration – Action Alternative B ..... 3-43

Table 3-12: Summary of the Structure Elements Included in the Action Alternatives..... 3-44

Table 3-13: Summary of the Potential Benefits and Costs of the Alternatives ..... 3-45

Table 5-1: Permanent Impacts to Terrestrial Vegetation ..... 5-10

Table 5-2: Temporary Impacts to Terrestrial Vegetation ..... 5-22

Table 6-1: Surface Water Impairments..... 6-9

Table 6-2: Stormwater Runoff Volume for the Local Study Area ..... 6-13

Table 6-3: Action Alternative A SWRv Comparison to No Action Alternative ..... 6-18

Table 6-4: Action Alternative B SWRv Comparison to No Action Alternative ..... 6-20

Table 6-5: Permanent Impacts to Waters of the United States (Including Wetlands) by Feature ..... 6-21

Table 6-6: Temporary Impacts to Waters of the United States (Including Wetlands) by Feature ..... 6-31

Table 8-1: Environmental Listings in the Regional Study Area ..... 8-7

Table 9-1: 2015 Traffic Volumes and Description of Major Roadways in the Local Study Area..... 9-12

Table 9-2: On-Street Parking in the Study Area ..... 9-13

Table 9-3: Off-Street Parking in the Study Area..... 9-14

Table 9-4: Freight and Intercity Train Volumes in the Long Bridge Corridor ..... 9-18

Table 9-5: Commuter Rail Transit Volumes in the Long Bridge Corridor..... 9-19

Table 10-1: Regional Background Air Quality Concentrations..... 10-6

Table 10-2: Air Quality Index and Associated Health Effects..... 10-7

Table 10-3: No Action Alternative Regional Emissions Inventory ..... 10-8

Table 10-4: Alternative A Regional Emissions Inventory ..... 10-9

Table 10-5: Action Alternative A Stationary Source GHG Emissions ..... 10-10

Table 10-6: Action Alternative A Peak Year Emissions Inventory ..... 10-12

Table 12-1: Land Uses by Sub-Area..... 12-6

Table 12-2: Property Ownership by Land Use Sub-Area..... 12-9

Table 12-3: Action Alternative A Permanent Property Impacts ..... 12-21

Table 12-4: Action Alternative A Temporary Property Impacts..... 12-29

Table 13-1: FTA Land Use Categories and Metrics for Transit Noise Impact Criteria ..... 13-5

Table 13-2: Noise and Vibration-Sensitive Receptors..... 13-6

Table 13-3: Existing and No Action Alternative Noise Conditions ..... 13-7

Table 13-4: Existing, No Action, and Action Alternative A Noise Levels ..... 13-8

Table 13-5: Existing, No Action, and Action Alternative A Vibration Levels ..... 13-11

Table 14-1: Direct Visual Impacts of Action Alternative A .....	14-10
Table 14-2: Direct Visual Impacts of Action Alternative B .....	14-12
Table 14-3: Action Alternative A Summary of Temporary Visual Impacts .....	14-26
Table 15-1: Listed, Eligible, Potentially Eligible Resources .....	15-6
Table 15-2: Summary of Impacts and Comparison of Determinations, Action Alternative A .....	15-13
Table 15-3: Summary of Impacts and Comparison of Determinations, Action Alternative B .....	15-14
Table 15-4: Section 106 Consulting Parties Meetings .....	15-16
Table 16-1: Parks and Recreation Areas that Intersect with the Local Study Area .....	16-4
Table 16-2: Action Alternative A Acres of Permanent Impact on Recreation Areas and Parks.....	16-6
Table 16-3: Action Alternative A Acres of Temporary Impact on Recreation Areas and Parks.....	16-12
Table 17-1: Local Study Area Population by Age .....	17-5
Table 17-2: Community Facilities in the Local Study Area .....	17-7
Table 17-3: Local Study Area Employment .....	17-8
Table 17-4: Annual Construction Employment, Action Alternative A .....	17-15
Table 17-5: Annual Construction Employment, Action Alternative B .....	17-17
Table 20-1: Minority Populations in Local Study Area.....	20-7
Table 20-2: Low-Income Population in Local Study Area .....	20-8
Table 20-3: Affordable Housing Units in the Local Study Area.....	20-10
Table 21-1: Transportation Projects Included in the No Action Alternative .....	21-5
Table 21-2: Reasonably Foreseeable Development Project in Proximity to Project Area.....	21-7
Table 22-1: Agency Comments and Positions on the Bike-Pedestrian Crossing Received During NEPA Process .....	22-4
Table 22-2: Preferred Option Property Impacts .....	22-39
Table 24-1: Summary of Uses to Section 4(f) Properties in the Study Area .....	23-7
Table 24-2: Section 4(f)-Protected Historic Properties with No Section 4(f) Use.....	23-8
Table 24-3: Section 4(f) Screening Evaluation of Alternatives Developed During the NEPA Process ...	23-30
Table 24-4: Comparison of Mitigable Use Impacts to Section 4(f) Resources Between Action Alternatives .....	23-38
Table 25-1: Summary of Pre-NEPA Public Outreach.....	25-3
Table 25-2: Long Bridge Project Lead, Cooperating, and Participating Agencies.....	25-5
Table 25-3: Long Bridge Project Agency Key Coordination Milestones.....	25-11
Table 25-4: Section 106 Consulting Parties Meetings .....	25-16

## List of Figures

Figure 1-1: Long Bridge Project Area .....	1-3
Figure 2-1: Train Volumes in the Long Bridge Corridor .....	2-5
Figure 2-2: Rerouting for CSXT Trains with Long Bridge out of Service .....	2-8
Figure 3-1: Alternative Development and the EIS Process .....	3-2
Figure 3-2: Long Bridge Project Screening Process .....	3-5
Figure 3-3: Alignment Options Evaluated in Level 2, Step 2 Concept Screening .....	3-12
Figure 3-4: Corridor View: Action Alternative A .....	3-15
Figure 3-5: Corridor View: Action Alternative B .....	3-15
Figure 3-6: No Action Alternative Projects .....	3-17
Figure 3-7: Action Alternative A – Long Bridge Park to GWMP .....	3-19
Figure 3-8: Action Alternative A –Ohio Drive SW to Metrorail Portal .....	3-20
Figure 3-9: Action Alternative A – I-395 to Ohio Drive SW .....	3-21
Figure 3-10: Action Alternative A – Washington Channel to Maine Avenue SW .....	3-22
Figure 3-11: Action Alternative A –Maryland Avenue SW Overbuild .....	3-24
Figure 3-12: Action Alternative A – Cross Section A-A of Bays Below the Maryland Avenue SW Overbuild .....	3-24
Figure 3-13: Action Alternative B – Long Bridge Park to GWMP .....	3-25
Figure 3-14: Action Alternative B – Ohio Drive SW to Metrorail Portal .....	3-26
Figure 3-15: Structure Types Under Consideration .....	3-28
Figure 3-16: Action Alternative A Construction Access and Staging Locations – RO Interlocking to Potomac River .....	3-34
Figure 3-17: Action Alternative A Construction Access and Staging Locations –Potomac River .....	3-35
Figure 3-18: Construction Access and Staging Locations – Potomac River to Maine Avenue SW .....	3-36
Figure 3-19: Construction Access and Staging Locations – Maryland Avenue to L’Enfant Plaza .....	3-38
Figure 3-20: Action Alternative B Construction Access and Staging Locations -RO Interlocking to River .....	3-41
Figure 3-21: Action Alternative B Construction Access and Staging Locations – Potomac River .....	3-42
Figure 5-1: Natural Ecological Systems, RTE Species, and SAV Local Study Area .....	5-3
Figure 5-2: Terrestrial and Wetland Vegetation Map .....	5-6
Figure 5-3: Locations of Submerged Aquatic Vegetation from 2013-2017 .....	5-7
Figure 5-4: Action Alternative A Permanent and Temporary Impacts to Vegetated Areas, RO Interlocking to the Potomac River .....	5-11

Figure 5-5: Action Alternative A Permanent and Temporary Impacts to Vegetated Areas, Potomac River to Maine Avenue SW ..... 5-12

Figure 5-6: Action Alternative A Permanent and Temporary Impacts to Vegetated Areas, Maine Avenue SW to LE Interlocking ..... 5-13

Figure 5-7: Action Alternative B Permanent and Temporary Impacts to Vegetated Areas, RO Interlocking to the Potomac River ..... 5-15

Figure 5-8: Action Alternative B Permanent and Temporary Impacts to Vegetated Areas, Potomac River to Maine Avenue SW ..... 5-16

Figure 5-9: Permanent and Temporary Impacts to Submerged Aquatic Vegetation ..... 5-19

Figure 6-1: Study Area for Water Resources and Water Quality ..... 6-5

Figure 6-2: Surface Waters, Sewer Systems, and Water Quality in the Local Study Area ..... 6-10

Figure 6-3: Wetlands and Watercourses in the Local Study Area ..... 6-14

Figure 6-4: Flood Hazard Zones in the Local Study Area ..... 6-16

Figure 6-5: Action Alternative A Permanent and Temporary Impacts to Wetlands and Waterways..... 6-22

Figure 6-6: Action Alternative B Permanent and Temporary Impacts to Wetlands and Waterways..... 6-23

Figure 6-7: Action Alternative A Impacts to Vegetation within the RPA ..... 6-26

Figure 6-8: Action Alternative B Impacts to Vegetation within the RPA ..... 6-27

Figure 7-1: Local Study Area for Geological Resources..... 7-3

Figure 7-2: NRCS Soil Survey of Arlington County and District of Columbia..... 7-5

Figure 8-1: Regional Study Area for Solid Waste and Hazardous Materials ..... 8-3

Figure 8-2: Map of Environmental Listings in the Regional Study Area ..... 8-6

Figure 9-1: Local Study Area for Transportation and Navigation ..... 9-3

Figure 9-2: Regional Study Area for Transportation ..... 9-4

Figure 9-3: VRE and Metrorail Lines and Stations ..... 9-8

Figure 9-4: Trails, Bike Lanes, and Bikeshare Locations..... 9-10

Figure 9-5: Potomac River Depths, with Virginia Channel Identified ..... 9-16

Figure 9-6: Mount Vernon Trail Rerouting during Construction ..... 9-27

Figure 9-7: Elevation and Plan View of Mount Vernon Trail Relocation during Construction ..... 9-28

Figure 10-1: Local Study Area for Air Quality..... 10-3

Figure 11-1: Local Study Area for Energy Resources ..... 11-3

Figure 12-1: Land Use Local Study Area..... 12-4

Figure 12-2: Land Use Sub-Areas ..... 12-7

Figure 12-3: Existing Land Use ..... 12-8

Figure 12-4: Planned Future Land Use (2040) ..... 12-11

Figure 12-5: Permanent and Temporary Land Use and Property Impacts – Long Bridge Park to Potomac River (Action Alternative A) ..... 12-14

Figure 12-6: Permanent and Temporary Land Use and Property Impacts – Potomac River to I-395 (Action Alternative A) ..... 12-15

Figure 12-7: Permanent and Temporary Land Use and Property Impacts – I-395 to Washington Channel (Action Alternative A) ..... 12-16

Figure 12-8: Permanent and Temporary Land Use and Property Impacts – Zoomed in to NAMA Headquarters (Action Alternative A) ..... 12-17

Figure 12-9: Permanent and Temporary Land Use and Property Impacts – Washington Marina and Portals Development (Action Alternative A)..... 12-18

Figure 12-10: Permanent and Temporary Land Use and Property Impacts – 12<sup>th</sup> Street SW to 9<sup>th</sup> Street SW (Action Alternative A) ..... 12-19

Figure 12-11: Permanent and Temporary Land Use and Property Impacts – Potomac River to I-395 (Action Alternative B)..... 12-22

Figure 12-12: Temporary Land Use Impacts – Crystal City (Action Alternative A) ..... 12-26

Figure 12-13: Temporary Land Use and Property Impacts – I-395 Cloverleaf (Action Alternative A) ... 12-27

Figure 12-14: Temporary Land Use and Property Impacts – Hancock Park ..... 12-28

Figure 13-1: Local Study Area and Noise and Vibration Measurement Locations ..... 13-3

Figure 13-2: Action Alternative A Noise Impact Assessment Results ..... 13-9

Figure 13-3: Construction Noise and Vibration Impact Assessment Results ..... 13-14

Figure 14-1: Local and Regional Study Areas and Viewsheds Selected for Analysis ..... 14-3

Figure 14-2: View A: Arlington House, the Robert E. Lee Memorial ..... 14-13

Figure 14-3: View B: Arlington National Cemetery, Tomb of the Unknown Soldier ..... 14-14

Figure 14-4: View C: George Washington Memorial Parkway Southbound, Approaching Metrorail Bridge ..... 14-15

Figure 14-5: View D: George Washington Memorial Parkway Northbound, Approaching Long Bridge ..... 14-16

Figure 14-6: View E: George Washington Memorial Parkway Northbound, Approaching Long Bridge ..... 14-17

Figure 14-7: View F: Mount Vernon Trail, Approaching Long Bridge from Gravelly Point ..... 14-18

Figure 14-8: View G: Mount Vernon Trail at Long Bridge ..... 14-19

Figure 14-9: View H: Metrorail Bridge Looking South Towards Long Bridge..... 14-20

Figure 14-10: View I: Potomac River, South of Long Bridge ..... 14-21

Figure 14-11: View J: East Potomac Park, Ohio Drive SW at Long Bridge ..... 14-22

Figure 14-12: View K: East Potomac Park, Near Buckeye Drive Looking Northwest ..... 14-23

Figure 14-13: View L: East Potomac Park at South End of Golf Course Looking Northwest ..... 14-24

Figure 15-1: Local Study Area and Area of Potential Effects for Cultural Resources..... 15-4

Figure 15-2: Map of APE with Designated and Eligible Historic Properties and Undesignated Properties (At or Greater than 45 Years of Age) ..... 15-10

Figure 15-3: Results of the Phase IA Archaeological Assessment..... 15-11

Figure 16-1: Parks and Recreation Areas within the Local Study Area..... 16-3

Figure 16-2: Impacts of Action Alternative A on Long Bridge Park and GMWP ..... 16-7

Figure 16-3: Impacts of Action Alternative A on East Potomac Park..... 16-8

Figure 16-4: Impacts of Action Alternative A on East Potomac Park..... 16-9

Figure 16-5: Temporary Impacts of Action Alternative A on Hancock Park ..... 16-14

Figure 17-1: Local Study Area for Social and Economic Resources ..... 17-3

Figure 17-2: Community Facilities in the Local Study Area..... 17-6

Figure 18-1: Local Study Area for Safety and Security ..... 18-3

Figure 18-2: Regional Study Area for Safety and Security ..... 18-4

Figure 19-1: Local Study Area for Public Health, Elderly, and Persons with Disabilities ..... 19-3

Figure 20-1: Local Study Area for Environmental Justice ..... 20-3

Figure 20-2: Minority Population in the Local Study Area..... 20-6

Figure 20-3: Low-Income Populations and Affordable Housing in the Local Study Area ..... 20-9

Figure 21-1: Local Study Areas Used to Identify Cumulative Actions..... 21-4

Figure 22-1: Level 2 Bike-Pedestrian Crossing Alignment Options ..... 22-7

Figure 22-2: Section of New Upstream Railroad Bridge and Bike-Pedestrian Crossing Option 1A ..... 22-8

Figure 22-3: Section of New Upstream Railroad Bridge and Bike-Pedestrian Crossing Option 1B ..... 22-8

Figure 22-4: Section of New Upstream Railroad Bridge and Bike-Pedestrian Crossing Option 2 ..... 22-9

Figure 22-5: Preferred Bike-Pedestrian Crossing Option – Independent Bridge Structure ..... 22-12

Figure 22-6: Preferred Option Permanent Impacts to Vegetated Areas ..... 22-14

Figure 22-7: Preferred Option Impacts to Wetlands and Waterways ..... 22-21

Figure 22-8: Preferred Option Impacts to Vegetation within the RPA ..... 22-23

Figure 22-9: Permanent Direct Impacts of the Preferred Option to Parks and Recreation Areas ..... 22-48

Figure 24-1: Section 4(f) Properties and Index Map ..... 24-4

Figure 24-2: Historic Properties ..... 24-5

Figure 24-3: Alternative A Section 4(f) Use: Long Bridge Park, GMWP, and MVT..... 24-9

Figure 24-4: Alternative A Section 4(f) Use: Crystal City and Long Bridge Park ..... 24-12

Figure 24-5: Alternative B Section 4(f) Use: Long Bridge Park, GMWP, and MVT..... 24-19

Figure 24-6: Alternative A Section 4(f) Use: East Potomac Park (Potomac River to I-395) ..... 24-20

Figure 24-7: Alternative A Section 4(f) Use: East Potomac Park (I-395 to Washington Channel) ..... 24-23

Figure 24-8: Alternative B Section 4(f) Use: East Potomac Park (Potomac River to I-395) ..... 24-24

Figure 24-9: Alternative B Section 4(f) Use: East Potomac Park (I-395 to Washington Channel) ..... 24-26

Figure 24-10: Alternatives A and B Section 4(f) Use: Hancock Park ..... 24-33

Figure 24-11: Alternative A Minimization of Temporary Use Comparison ..... 24-34

Figure 24-12: Alternative B Minimization of Temporary Use Comparison..... 24-39

## Appendices

### Appendix A: Agency and Public Coordination

- Appendix A1: Scoping Report
- Appendix A2: Agency and Public Coordination Plan
- Appendix A3: December 2017 Public Meeting Summary
- Appendix A4: November 2018 Public Meeting Summary

### Appendix B: Alternatives Development

- Appendix B1: Alternatives Development Report
- Appendix B2: Basis of Design Report
- Appendix B3: Geotechnical Engineering Report
- Appendix B4: Structures Study Report
- Appendix B5: Maryland Avenue SW to L’Enfant Interlocking Clearance Assessment
- Appendix B6: Conceptual Engineering Plans
- Appendix B7: Conceptual Engineering Construction Cost Estimates Report

### Appendix C: Project Correspondence

### Appendix D: NEPA Technical Reports

- Appendix D1: Methodology Report
- Appendix D2: Affected Environment Report
- Appendix D3: Environmental Consequences Report

### Appendix E: Section 106 Coordination and Reports

- Appendix E1: Section 106 Area of Potential Effects and Historic Properties Technical Report
- Appendix E2: Section 106 Correspondence
- Appendix E3: Section 106 Assessment of Effects Report
- Appendix E4: Phase IA Archaeological Assessment Public Summary
- Appendix E5: Section 106 Draft Programmatic Agreement

## How to Read this Document

### Purpose of this Environmental Impact Statement

The Federal Railroad Administration (FRA) and District Department of Transportation (DDOT) prepared this Environmental Impact Statement (EIS) in accordance with the National Environmental Policy Act of 1969 (NEPA) to disclose the environmental consequences of a Proposed Action (the Long Bridge Project, or “Project”). The EIS informs decision-makers and the public of any reasonable alternatives that would avoid or minimize adverse impacts to the natural or human environment. Agencies that are considering an action on the proposed Long Bridge Project can use this EIS to help plan and make decisions.

### Abbreviations and Acronyms

The **Abbreviations and Acronyms** section lists all of the abbreviations and acronyms used in this document. This section follows **How to Read this Document**.

### Executive Summary

The **Executive Summary** succinctly describes the Project, the NEPA process, and major conclusions to acquaint readers with the EIS.

### Chapter 1 – Introduction

**Chapter 1** describes the history of the Project, the Project Area and setting, and identifies the roles and jurisdiction of Lead and Cooperating Agencies.

### Chapter 2 – Purpose and Need

**Chapter 2** describes the purpose of the Project and the transportation needs that the Project will address. It also highlights related studies relevant to the Project.

### Chapter 3 – Alternatives

**Chapter 3** describes the development and screening process for the Action Alternatives, and gives a detailed description of the infrastructure elements included in the Action Alternatives. This chapter also describes the No Action Alternative (planning year 2040), which provides a base scenario against which to compare the effects of the Project. Additionally, the chapter provides information on the construction methods and activities for the Action Alternatives. Finally, the chapter identifies the Lead Agencies’ Preferred Alternative.

### Chapter 4 – Impact Analysis Framework

**Chapter 4** defines the framework and methodology used to analyze the potential impacts of the Project. This chapter notes that the impact analysis evaluates operational (long-term) and construction (short-term) direct, indirect, and cumulative impacts for each environmental resource. This chapter also defines key impact analysis terms.



## Chapters 5 through 21 – Analysis of Resource Categories

**Chapters 5 through 21** include descriptions of the resource study area, the methodology used to evaluate impacts, and the affected environment for each resource. The chapters also summarize the potential short-term and long-term impacts of the No Action Alternative and Action Alternatives on various resources (the environmental consequences). Measures to avoid, minimize, or mitigate adverse impacts to the resources are identified. The full analysis for each resource is in **Appendix D3, Environmental Consequences Report**. The chapters address the following resources:

- Chapter 5 – Natural Ecological Systems and Endangered Species
- Chapter 6 – Water Resources and Water Quality
- Chapter 7 – Geologic Resources
- Chapter 8 – Solid Waste Disposal and Hazardous Material
- Chapter 9 – Transportation and Navigation
- Chapter 10 – Air Quality and Greenhouse Gases
- Chapter 11 – Energy
- Chapter 12 – Land Use and Property
- Chapter 13 – Noise and Vibration
- Chapter 14 – Visual and Aesthetic Impacts
- Chapter 15 – Cultural Resources
- Chapter 16 – Parks and Recreation
- Chapter 17 – Social and Economic Resources
- Chapter 18 – Safety and Security
- Chapter 19 – Public Health, Elderly, and Persons with Disabilities
- Chapter 20 – Environmental Justice
- Chapter 21 – Cumulative Impacts

## Chapter 22 – Bike-Pedestrian Crossing

**Chapter 22** describes the evaluation of the bike-pedestrian crossing proposed as mitigation for the Project. This chapter reviews the process for developing the bike-pedestrian crossing as mitigation for impacts to properties protected under Section 4(f) of the United States Department of Transportation Act of 1966,<sup>1</sup> and addresses the potential impacts of the bike-pedestrian crossing to the human and natural environment.

## Chapter 23 – Commitment of Resources

**Chapter 23** describes the irreversible or irretrievable commitment of resources resulting from implementation of either Action Alternative. This chapter also analyzes the relationship between the Project's potential short-term uses of the human and natural environment, as well as the maintenance and enhancement of long-term productivity throughout the life of the Project.

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<sup>1</sup> 49 USC 303

## **Chapter 24 - Draft Section 4(f) Evaluation**

**Chapter 24** identifies uses of Section 4(f) of the United States Department of Transportation Act of 1966 (Section 4(f)) protected-properties for each Action Alternative based on the analyses presented in **Chapters 5 through 21**. This chapter also summarizes the planning efforts undertaken to identify avoidance alternatives, minimize harm to Section 4(f) resources, and the opportunities for agencies to consult on the Draft Section 4(f) Evaluation.

## **Chapter 25 – Public Involvement and Agency Coordination**

**Chapter 25** summarizes the efforts of FRA and DDOT to inform the public and agencies about the Project and to solicit input on the EIS.

## **Chapter 26 – Distribution of DEIS**

**Chapter 26** lists the entities and officials who received a copy of the EIS.

## **Chapter 27 – List of Preparers**

**Chapter 27** identifies persons involved in the analysis and development of the EIS.

## **Chapter 28 – References**

**Chapter 28** lists sources and references for the analysis and documentation presented.

## **Chapter 29 – Glossary**

**Chapter 29** explains terminology used throughout the EIS.

## **Appendices**

The appendices provide the detailed technical documentation and relevant coordination materials that support the findings presented in the EIS chapters. The appendices contain supporting documentation to keep the EIS concise and no longer than absolutely necessary to comply with NEPA, as instructed by the Council on Environmental Quality Implementing Regulations for NEPA.<sup>2</sup>

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<sup>2</sup> 40 CFR Part 1500-1508

## Abbreviations and Acronyms

ACS	American Community Survey
ACZO	Arlington County Zoning Ordinance
ADA	Americans with Disabilities Act of 1990
Amtrak	National Railroad Passenger Corporation
ANC	Advisory Neighborhood Commission
APE	Area of Potential Effects
AQI	Air Quality Index
AREMA	American Railway Engineering and Maintenance-of-Way Association
ASL	American Sign Language
BMP	Best Management Practice
CAA	Clean Air Act of 1970
CCTV	Closed-Circuit Television
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CESQG	Conditionally Exempt Small Quantity Generator
CFA	United States Commission of Fine Arts
CFR	Code of Federal Regulations
CH <sub>4</sub>	Methane
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
CSXT	CSX Transportation
CWA	Clean Water Act of 1972
CZMA	Coastal Zone Management Act of 1972
CZMP	Coastal Zone Management Program
dB	Decibels
dba	A-weighted decibel
dBV	Vibration levels express in decibel notation
DC	District of Columbia
DC FEMS	District of Columbia Fire and Emergency Medical Services Department
DC SHPO	District of Columbia State Historic Preservation Office
DC2RVA	Washington, DC to Richmond Southeast High Speed Rail
DCA	Ronald Reagan Washington National Airport
DCEPA	District of Columbia Environmental Policy Act
DCMR	District of Columbia Municipal Regulations
DCOP	District of Columbia Office of Planning
DCRA	District of Columbia Department of Consumer and Regulatory Affairs

DEIS	Draft Environmental Impact Statement
DDOT	District Department of Transportation
DHS	United States Department of Homeland Security
District	District of Columbia
DOD	Department of Defense
DOE	Determination of Eligibility
DOEE	District Department of Energy and Environment
DOI	United States Department of the Interior
DRPT	Virginia Department of Rail and Public Transportation
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act
EJ	Environmental Justice
EO	Executive Order
EPA	United States Environmental Protection Agency
ERNS	Emergency Release Notification System
ESA	Endangered Species Act of 1973
FAA	Federal Aviation Administration
FAST Act	Fixing America’s Surface Transportation Act of 2015
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FINDS	Facility Index System
FR	Federal Register
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FWIS	Fish and Wildlife Information Service
FY	Fiscal Year
GHG	Greenhouse Gas
GIS	Geographic Information System
GLUP	General Land Use Plan
GSA	United States General Services Administration
GWMP	George Washington Memorial Parkway
HCS	Highway Capacity Software
HHS	United States Department of Health and Human Services
HOV	High Occupancy Vehicle
HSEMA	Homeland Security and Emergency Management Agency
HSP	Health and Safety Plan
IPaC	Information, Planning and Conservation
LCT	Loudoun County Transit

Ldn	A-weighted average day-night sound level
LE Interlocking	L'Enfant Interlocking
Leq(h)	A-weighted hourly equivalent sound level
LOD	Limits of Disturbance
LOS	Level of Service
LUST	Leaking Underground Storage Tank
MARC	Maryland Area Regional Commuter
MMBtu	Million British Thermal Units
MOA	Memorandum of Agreement
MOT	Maintenance of Traffic
MOU	Memorandum of Understanding
MPD	Metropolitan Police Department
MSAT	Mobile Source Air Toxics
MVMH	Mount Vernon Memorial Highway
MVT	Mount Vernon Trail
MWCOG	Metropolitan Washington Council of Governments
N2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NAMA	National Mall and Memorial Parks
NCHRP	National Cooperative Highway Research Program
NCPC	National Capital Planning Commission
NCR	National Capital Region
NEC	Northeast Corridor
NEPA	National Environmental Policy Act of 1969
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
NMFS	National Marine Fisheries Service
NO	Nitrous Oxide
NO <sub>2</sub>	Nitrogen Dioxide
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOx	Oxides of Nitrogen
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NS	Norfolk Southern
O <sub>3</sub>	Ozone

OHM	Oil and/or Hazardous Materials
OSHA	Occupational Safety and Health Administration
OWJ	Official with Jurisdiction
PA	Programmatic Agreement
PAH	Polycyclic Aromatic Hydrocarbons
Pb	Lead
PCBs	Polychlorinated Biphenyls
PE	Preliminary engineering
PFO	Palustrine Forested
PM	Particulate Matter
PM10	Particulate Matter Sized 10 Micrometers or Less
PM2.5	Particulate Matter Sized 2.5 Micrometers or Less
Portals V	The Portals Residential Tower
PPB	Parts Per Billion
PPM	Parts Per Million
PSS	Palustrine Scrub-Shrub
RCRA	Resource Conservation and Recovery Act of 1976
RF&P	Richmond, Fredericksburg and Potomac
ROD	Record of Decision
RPA	Resource Protection Area
RTE	Rare, Threatened, and Endangered
SAV	Submerged Aquatic Vegetation
SCC	State Cororation Commission – Commonwealth of Virginia
SDWA	Safe Drinking Water Act of 1974
SFHAs	Special Flood Hazard Areas
SHPO	State Historic Preservation Office
SMP	Soil Management Plan
SO <sub>2</sub>	Sulfur Dioxide
SO <sub>x</sub>	Sulfur Oxides
SWPPP	Stormwater Pollution Prevention Plan
SWRv	Stormwater Retention Volume
TAC	Technical Advisory Committee
TMDL	Total Maximum Daily Load
TMP	Traffic Management Plan
TSA	Transportation Security Agency
ULSD	Ultra Low Sulfer Diesel
USACE	United States Army Corps of Engineers
USC	United States Code
USCG	United States Coast Guard
USCP	United States Capitol Police

USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
USPP	United States Park Police
VA Interlocking	Virginia Interlocking
VAC	Virginia Administrative Code
VdB	Vibration Decibels
VDCR	Virginia Department of Conservation and Recreation
VDEQ	Virginia Department of Environmental Quality
VDGIF	Virginia Department of Game and Inland Fisheries
VDHR	Virginia Department of Historic Resources
VDOT	Virginia Department of Transportation
VIMS	Virginia Institute of Marine Science
VLR	Virginia Landmarks Register
VMS	Variable Message Signs
VRE	Virginia Railway Express
VRP	Voluntary Remediation Program
WMATA	Washington Metropolitan Area Transit Authority
WQS	Water Quality Standards
WUS	Washington Union Station