

Table of Contents

SUMMARY

1. INTRODUCTION, AND PURPOSE AND NEED	1-1
1.1. Project Background	1-1
1.2. Project Context	1-2
1.3. Purpose	1-7
1.4. Need	1-7
1.5. Performance Objectives	1-18
1.6. Other Transportation-related Goals	1-19
1.7. Permits and Approvals	1-21
2. ALTERNATIVES ANALYSIS	2-1
2.1. Alternatives Considered but Dismissed	2-3
2.2. Build Alternative	2-11
2.3. No Build Alternative	2-14
3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES	3-1
3.1. Introduction	3-1
3.2. Air Quality	3-1
3.3. Noise and Vibration	3-5
3.4. Water Resources and Water Quality	3-11
3.5. Wetlands	3-15
3.6. Floodplains and Sea Level Rise	3-20
3.7. Waterways and Coastal Zone Management	3-23
3.8. Energy and Greenhouse Gas Emissions	3-26
3.9. Aesthetics and Design Quality Impacts	3-29
3.10. Transportation	3-34
3.11. Possible Barriers to Handicapped and Elderly	3-45
3.12. Land Use and Zoning	3-46
3.13. Socioeconomic	3-49
3.14. Environmental Justice	3-53
3.15. Public Health and Safety	3-58

3.16. Parks and Recreation Areas	3-63
3.17. Cultural Resources	3-65
3.18. Construction Period Impacts	3-73
3.19. Indirect and Cumulative Impacts.....	3-77
4. SECTION 4(f) DETERMINATION.....	4-1
4.1. Introduction	4-1
4.2. Project Overview	4-1
4.3. Section 4(f) Protections and Definitions.....	4-1
4.4. Existing Conditions.....	4-2
4.5. Potential Impacts to Section 4(f) Resources.....	4-9
4.6. Summary and Conclusions.....	4-13
5. PUBLIC INVOLVEMENT AND AGENCY COORDINATION	5-1
5.1. Public and Agency Involvement Goals.....	5-1
5.2. Stakeholders	5-2
5.3. Methods for Engaging the Public and Agencies	5-2
5.4. Communication Tools.....	5-4
5.5. Coordination with Ongoing Projects	5-6
5.6. Meeting Summaries and Issues Tracking	5-6
6. CONCLUSION.....	6-1
7. DISTRIBUTION LIST	7-1
ACRONYMS	
REFERENCES	
APPENDIX A – STATION HEADHOUSE ALTERNATIVES ANALYSIS	
APPENDIX B – INDIRECT AND CUMULATIVE IMPACTS	
APPENDIX C – SECTION 7 AGENCY CORRESPONDENCE	
APPENDIX D – SECTION 106 CONSULTATION CORRESPONDENCE	
APPENDIX E – MEPA REVIEW CERTIFICATES	

List of Figures

1-1	South Station Site – Existing Conditions	1-3
1-2	Schematic of South Station Terminal and Interlockings	1-5
1-3	Level of Service Diagram	1-13
1-4	Existing Layover Facilities	1-15
1-5	Project Location Map, showing Proposed Layover Facilities and South Station Site Boundary	1-16
2-1	SSX Project Alternatives Analysis Process	2-2
2-2	Dorchester Avenue – Typical Cross-Section (Proposed) Looking Northeast	2-13
2-3	South Station Site – Proposed Platform Level	2-16
2-4	South Station Site – Proposed Elevated Concourse Level	2-17
2-5	Widett Circle – Concept Plan	2-18
2-6	Readville – Yard 2 – Concept Plan	2-19
3-1	Typical A-Weighted Sound Levels	3-6
3-2	South Station Proposed Noise Barrier	3-10
3-3	Wetlands Resources – South Station and Widett Circle Layover Facility	3-17
3-4	Wetlands Resources – Readville – Yard 2 Layover Facility	3-18
3-5	Existing Conditions: View of South Station Headhouse, Looking South from Dewey Square	3-30
3-6	Existing Conditions: View of Dorchester Avenue, Looking South from Summer Street	3-31
3-7	View of Widett Circle, Looking North	3-31
3-8	Proposed SSAR Project	3-32
3-9	Proposed Dorchester Avenue Cross-Section Looking Northeast	3-33
3-10	South Station Historic Architectural Area of Potential Effects	3-68
3-11	Widett Circle Layover Facility Historic Architectural Area of Potential Effects	3-69
3-12	Readville – Yard 2 Layover Facility Historic Architectural Area of Potential Effects	3-70
4-1	Potential Section 4(f) Parks and Recreation Areas in the South Station Study Area	4-5
4-2	Potential Section 4(f) Parks and Recreation Areas in the Widett Circle Study Area	4-6
4-3	Potential Section 4(f) Parks and Recreation Areas in the Readville – Yard 2 Study Area	4-7
4-4	South Station Historic Architectural Area of Potential Effects	4-8
4-5	Proposed Seawall Improvements – Before and After (View 1)	4-10
4-6	Proposed Seawall Improvements – Before and After (View 2)	4-11

List of Tables

1-1	Amtrak NEC Service On-Time Performance Trends	1-9
1-2	MBTA Commuter Rail Service On-Time Performance Trends	1-10
1-3	Existing and Projected 2035 Daily Revenue Trips at South Station	1-11
1-4	Existing and Projected 2035 Daily Non-Revenue Trips	1-12
1-5	Anticipated Permits, Approvals, and Notifications	1-21
3-1	Total Project-Related Criteria Pollutant Emissions at the South Station and Layover Sites	3-3
3-2	Existing Measured Noise Levels at South Station Site and Vicinity	3-7
3-3	Results of the Noise Analysis for the Peak-hour Leq Noise Level at Non-Residential Receptors	3-8
3-4	Results of the Noise Analysis for the 24-hour Ldn Noise Level at Residential Receptors.....	3-8
3-5	Estimated Existing and Proposed Water Usage and Wastewater Generation	3-13
3-6	South Station Peak Flow Rates and Runoff Volumes.....	3-14
3-7	Widett Circle Peak Flow Rates and Runoff Volumes.....	3-14
3-8	Readville – Yard 2 Peak Flow Rates and Runoff Volumes	3-14
3-9	Coastal Jurisdiction of SSX Project Sites.....	3-24
3-10	Consistency of SSX Project with Applicable Massachusetts Coastal Zone Management Policies ...	3-25
3-11	2035 Project Related Net CO ₂ Emission Increases at South Station (metric tpy)	3-28
3-12	Amtrak Service at South Station	3-35
3-13	Existing Weekday MBTA Commuter Rail Boardings and Alightings at South Station.....	3-35
3-14	Existing Weekday MBTA Bus Rapid Transit Boardings and Alightings at South Station	3-36
3-15	Existing Weekday MBTA Local Bus Boardings and Alightings at South Station	3-36
3-16	Existing Conditions at South Station Area Intersections – Levels of Service	3-38
3-17	Daily Combined South Station Boardings and Alightings.....	3-40
3-18	South Station Area Intersections – Levels of Service, 2025/2035	3-43
3-19	Population Trends, Layover Facility Study Areas, 2000-2010.....	3-51
3-20	Percentages by Population and Area of SSX Project Study Areas Meeting EJ Criteria	3-56
3-21	Race and Ethnicity Characteristics in SSX Project Study Areas, 2010	3-56
3-22	Historic Resources within the SSX Areas of Potential Effects	3-67
4-1	Parks and Recreation Areas in the SSX Study Area	4-3
4-2	National Register Listed or Eligible Properties or Districts within the South Station APE.....	4-4
4-3	South Station Determination of Section 4(f) Use.....	4-13

5-1	Summary of Stakeholder Meetings, 2012-2016	5-3
5-2	Summary of Media Advertisements	5-5
6-1	Environmental Resources, Potential Impacts and Proposed Mitigation	6-3

This Page Intentionally Left Blank