

Table of Contents

1.0 Introduction 1-1

 1.1 Purpose and Need 1-2

 1.1.1 Statement of Purpose..... 1-2

 1.1.2 Project Background 1-2

 1.1.3 Regional Setting/Study Area 1-2

 1.1.4 Regional Mobility 1-3

 1.1.5 Related Projects 1-4

 1.1.6 Traffic Volumes and Levels of Service 1-6

 1.1.7 Physical Condition of Existing 1-12

 1.1.8 Safety 1-15

 1.2 Previous Reports 1-17

 1.2.1 Planning Study Report..... 1-17

 1.2.2 Conceptual Alternatives Study 1-17

2.0 Assessment of Feasible Alternatives 2-1

 2.1 Methodology for Step 6 2-1

 2.2 Design Issues 2-3

 2.2.1 Assessment of Mainline Feasible Alternative 2-3

 2.2.2 Assessment of Interchange Feasible Alternatives 2-8

 2.3 Traffic Analysis 2-12

 2.3.1 Refined Planning Level Traffic 2-12

 2.3.2 Capacity Analyses 2-12

 2.4 Utility Issues..... 2-13

 2.5 Cost Estimate 2-17

 2.6 Potential Design Exceptions 2-18

 2.7 Drainage Issues 2-18

 2.8 Maintenance of Traffic 2-19

 2.9 Highway Lighting 2-19

 2.10 Railroad Coordination 2-20

 2.11 Aesthetic Options 2-20

 2.12 Retaining Walls 2-20

 2.13 Value Engineering Study Results 2-20

3.0 Affected Environment and Environmental Consequences 3-1

 3.1 Geology 3-1

 3.2 Floodplains 3-3

 3.3 Ground Water/Sole Source Aquifer 3-3

 3.4 Wetlands 3-3

 3.5 Streams, Rivers and Water Bodies 3-4

 3.6 Wildlife, Vegetation and Threatened and Endangered Species 3-5

 3.7 Agriculture/Farmlands 3-6

 3.8 Noise 3-6

 3.9 Air Quality 3-7

 3.10 Municipal, Industrial and Hazardous Waste 3-8

 3.11 Property Impacts and Relocations 3-10

 3.12 History/Architecture 3-12

 3.13 Parks and Recreation/Section 4(f) 3-14

 3.14 Land Use and Population 3-17

 3.15 Social, Community & Environmental Justice 3-18

 3.16 Secondary and Cumulative Impacts 3-21

 3.17 Preliminary Environmental Impact Summary 3-23

4.0 Comments and Coordination 4-1

 4.1 Implementation Committee..... 4-1

 4.2 Public Meetings and Notifications..... 4-2

 4.3 Public Meetings..... 4-3

 4.3.1 Public Meeting I: Conceptual Alternatives..... 4-3

 4.3.2 Public Meeting II: Feasible Alternatives 4-3

 4.4 Mobile Display 4-4

 4.5 Website 4-5

 4.6 Section 106 Consultation Process..... 4-5

 4.7 Agency Coordination 4-6

 4.7.1 Cultural Resources 4-6

 4.7.2 Transit Issues 4-6

 4.7.3 Comments on Conceptual Alternatives Study..... 4-7

5.0 Recommended Alternative 5-1



Exhibits

Recommended Alternative

- Typical Sections
- Plan/Profile Sheets
- Mass/Haul Diagram
- Boring Profiles

Other Alternatives Considered

Environmental Features Map

Appendices

A-Traffic

B-Environmental Data

C-Agency Coordination

D-Section 4(f) Photolog

E- Public Involvement

F- Previous Reports

Figures

Figure 1-1: Project Development Process Road Map	1-1
Figure 1-2: I-75 Mill Creek Expressway Project Study Area	1-2
Figure 1-3: Brent Spence Bridge Corridor Study Area	1-4
Figure 1-4: Thru the Valley Study Area	1-5
Figure 2-1: St. Bernard east shift option	2-6
Figure 2-2: Paddock Road Bridge Over I-75	2-7
Figure 2-3: Modified end span at Mitchell Avenue	2-10
Figure 2-4: SR 562 eastbound ramp terminal with inside merge (PDP Step 5)	2-11
Figure 2-5: SR 562 eastbound ramp terminal with auxiliary lane (PDP Step 6)	2-11
Figure 3-1: Project Area Census Tract Map	3-18
Figure 4-1: Implementation Committee Meeting	4-1
Figure 4-2: Public Meeting at Este Conference Center	4-3
Figure 4-3: Public Meeting at St. Bernard Municipal Building	4-3
Figures 4-4 and 4-5: Public Meeting Photographs 9/28/06	4-4
Figure 4-6: Mobile Display	4-4
Figure 4-7: SORTA Route Map	4-6

Tables

Table 1-1: Access Modification Projects	1-3
Table 1-2: 2004 Freeway Capacity Analyses	1-6
Table 1-3: 2004 Ramp Capacity Analyses	1-7
Table 1-4: 2004 Intersection Capacity Analyses	1-8
Table 1-5: 2030 Freeway Capacity Analyses	1-9
Table 1-6: 2030 Ramp Capacity Analyses	1-10
Table 1-7: 2030 Intersection Capacity Analyses	1-11
Table 1-8: Study Area Pavement Condition Ratings	1-14
Table 1-9: Study Area Bridge Condition Ratings	1-14
Table 1-10: General Bridge Appraisal Codes and Operational Status	1-15
Table 1-11: Highway Safety Program Listings in Study Area	1-15
Table 1-12: Safety Hot Spots	1-16
Table 2-1: Design Designations	2-1
Table 2-2: Geometric Design Criteria	2-2
Table 2-3: Opinion of estimated costs for recommended preferred alternative	2-17
Table 3-1: Historical Work within Study Area and related Geotechnical Issues	3-2
Table 3-2: Wildlife Observed within the HAM-75-2.30 Study Area	3-5
Table 3-3: Phase I ESA Sites	3-8
Table 3-4: Study Area Population by Census Tract	3-17
Table 3-5: Surrounding Area Population	3-17
Table 3-6: Study Area Employment Data by Census Tract	3-18
Table 3-7: Surrounding Area Employment Data	3-18
Table 3-8: Disadvantaged Populations	3-19
Table 3-9: Auto Ownership by Percentage	3-20
Table 3-10: Commuting Patterns by Percentage	3-20
Table 3-11: Summary of Reasonably Foreseeable Actions and Impacts	3-22
Table 4-1: Implementation Committee	4-1
Table 5-1: Local Access Ramps Travel Time Study Results	5-2

