Table of Contents

Summary / Overview

Regional Transportation Plan – *Maximize2040* **1**
Baltimore Regional Transportation Board (BRTB) 1
Moving Ahead for Progress in the 21st Century (MAP-21) 1
Regional Goals and Performance Measures **2**
Regional Transportation Goals 2
Regional Performance Measures – Emphasis Areas Required by MAP-21 3
Measures Beyond MAP-21 Requirements – Accessibility 3
Revenue Forecast / Fiscal Constraint **4**
Forecasted Revenues, 2020-2040 4
Total Estimated Year of Expenditure (YOE) Costs, Preferred Alternative, 2020-2040 4
Cost of Major Expansion Projects and Programs 5
Map – Locations of Major Expansion Projects and Programs **6**
Major Expansion Projects and Programs **7**
Anticipated Transit Projects, FY 2020-2029 7
Anticipated Highway Projects, 2020-2029 7
Anticipated Transit Projects, FY 2030-2040 9
Anticipated Highway Projects, 2030-2040 9
Supplementary Material – Where to Find It **11**
Predicting and Preparing for Future Conditions 11
Effects of Projects and Programs 12
Congestion Management Process 12
Public/Stakeholder Involvement Process 12

Chapter 1: Requirements and Policies

Regional Transportation Plan: What Is the Region Required to Do? 1
Requirements under Federal Law 1
Moving Ahead for Progress in the 21st Century (MAP-21) 1
Metropolitan Planning Organization 1
Baltimore Regional Transportation Board (BRTB) 2
Regional Plan / Regional Program 2
Planning Factors 3
Fiscal Constraint 4
Performance-Based Approach 4
Air Quality Conformity 6
Congestion Management Process 6
Consultation with Interested Parties and the Public 7
Title VI of the Civil Rights Act 7
Executive Order – Environmental Justice 7
Federal and Regional Policies 8
Federal Livability Principles 8
U.S. DOT Planning Emphasis Areas 9
The Opportunity Collaborative – *Regional Plan for Sustainable Development* 10

Chapter 2: Goals and Performance Measures

Where Do We Want to Go? How Can We Get There? 1
Definitions 1
Regional Transportation Goals 2
Regional Performance Measures and Targets 3
Regional Performance Measures – Emphasis Areas Required by MAP-21 3
Measures Beyond MAP-21 Requirements – Accessibility 4
System Performance Report – State of the System 4
Future Performance Monitoring 8

Chapter 3: Revenue Forecast

Baltimore Regional Financial Plan – 2020-2040 1
Fiscal Constraint 1
Available/Anticipated Revenues 1
Definitions 1
Forecasted Revenues by Year: 2020-2040 2
System Preservation Costs by Project Type 3
Fiscal Constraint: Forecasted Revenues vs. System Expansion Costs 3

Table of Contents

Chapter 4: Major Projects and Programs

Anticipated Projects and Funding – FY 2020-2040 **1**
Potential Projects Submitted for ***Maximize2040*** **1**
Preferred Alternative – Major Expansion Projects, FY 2020-2040 2
Fiscal Constraint of Preferred Alternative Expansion Projects – Anticipated Investments Compared to Forecasted Revenues 3
Map – Locations of Major Expansion Projects, FY 2020-2040 4
Anticipated Transit Projects, FY 2020-2029 5
Anticipated Highway Projects, 2020-2029 6
Anticipated Transit Projects, FY 2030-2040 8
Anticipated Highway Projects, 2030-2040 9
Small Program Set-Asides – 2020-2040 **12**
Transportation System Management and Operations Strategies / Programs 13
Ladders of Opportunity Strategies / Programs 14
Complete Streets and Bicycle-Pedestrian Strategies / Programs 15
Transportation Emissions Reduction Strategies / Programs 16
Maryland Transportation Authority Projects **17**
Committed Funding – FY 2016-2019 **18**
Illustrative Projects **19**
"Mega-Regional" Projects **21**

Baltimore Regional Transportation Board

Appendix A: Glossary

Appendix B: Future Needs and Conditions

Regional Growth and the Transportation System **1**
Population and Employment Growth – Cooperative Forecasting Group 1
Environmental Issues **3**
Greenhouse Gas Emissions and Climate Change 3
Chesapeake Bay 5
Freight Movement and Connections **6**
Regional Freight Netork 6
Freight Initiatives 7
Comprehensive Planning / Growth Management **8**
Priority Funding Act of 1997 8
Map – Priority Funding Areas 9

Appendix C: Scenario Thinking

Preparing for an Uncertain Future **1**
A Different Approach: Scenario Thinking **2**
Survey to Gather Public Input 3
Refining Public Input through a Focus Group 4
Developing and Applying Scenarios to Support the Regional Transportation Plan 4
Scenario Exercises: Workshops to Engage Regional Stakeholders 5
Scenario Findings: Trends and Measures **6**
September Workshop 6
December Workshop 8
Scenario Findings: Investment Strategies **10**
September Workshop 10
December Workshop 11
Scenario Thinking: Where Does the Region Go from Here? 12

Appendix D: Regional Goals and Strategies

Applying Strategies to Achieve Regional Transportation Goals **1**
Improve System Safety 2
Improve and Maintain the Existing Infrastructure 3
Improve Accessibility 4
Increase Mobility 5
Conserve and Enhance the Environment 6
Improve System Security 7
Promote Prosperity 8
Foster Participation and Cooperation among All Stakeholder Groups 9
Promote Informed Decision Making 10

Table of Contents

Appendix E: Revenues and Cost Estimates

Baltimore Regional Financial Plan – 2020-2040 **1**
- Fiscal Constraint 1
- Available/Anticipated Revenues 1
- Cost Estimating Methodology 14
- Year of Expenditure Cost Estimates 16

Appendix F: Project Evaluation Criteria

Evaluation and Scoring Process **1**
- Technical Score 1
- Policy Score 1
- Maximum Score 1
- Technical Criteria and Scoring Methodologies 2
- Evaluation and Scoring of Candidate Projects 4

Appendix G: Effects of Projects and Programs

Analysis of Preferred Alternative – Air Quality Conformity **1**
- Table – Air Quality Conformity – Final Emissions Results 2

Analysis of Preferred Alternative – Travel Demand Model **2**
- Chart – Simulated Household Person Trips and Non-Household Vehicle Trips 3
- Map – 2040 Congested Roadway Forecast – E + C Projects Only 4
- Map – 2040 Congested Roadway Forecast – E + C and Preferred Alternative 5
- Table – Travel Demand Performance Measures for Baltimore Region 6

Analysis of Preferred Alternative – Environmental Justice **7**
- Background 7
- Definitions from FTA Circular 4703.1 – Identification of Minority and Low-Income Populations 8
- Methodology 9
- Map – Baltimore Region TAZs by Minority Population 10
- Map – Baltimore Region TAZs by Income 11
- Estimating Accessibility for Environmental Justice Populations 12
- Charts – Concentrations of Attractions – Minority Status and Income 12
- Results of Environmental Justice Analyses 21

Analysis of Preferred Alternative – Natural and Cultural Resources **21**
- Consultation to Improve Environmental Impact Mitigation 22
- Maps – Environmental Resources 23
- Specific Impact Mitigation Strategies and Measures 33
- Examples of Mitigation Measures 33

Appendix H: Congestion Management Process

What Is Congestion Management? 1
Why Is Congestion Management Important? 1
Managing Congestion in Larger Metropolitan Areas – Air Quality Concerns 2
1. CMP Objectives 2
Goal: Improve System Safety 2
Goal: Improve and Maintain Existing Infrastructure 3
Goal: Improve Accessibility 3
Goal: Increase Mobility 3
Goal: Conserve and Enhance the Environment 3
2. CMP Network 4
3. CMP Performance Measures 4
Volume-to-Capacity-Based Measures 4
Travel Time Measures 4
Variability of Congestion/Reliability 5
4. Data Collection and Monitoring System Performance 5
Using Vehicle Probe Data to Monitor Traffic 5
5. Congestion Analysis 8
Analysis Based on VPP Data 8
Jurisdictional Priority Letters 12
6. Implement/Manage Strategies 12
Integrated Corridor Management: Focus on MD 295 12
Maximize2040 Strategies 14
Congestion Management Strategies – Projects in the Preferred Alternative 15
CHART 25
7. Monitor Effectiveness of Strategies 25

Appendix I: Public Involvement Process

Public Outreach and Engagement 1
Public Participation Plan 1
Engaging All Stakeholders 1
Flyer and E-Newsletters 1
Twitter and Facebook 2
Public / Stakeholder Input 2
Goals and Strategies 2
Critical Future Trends and Forces 2
Ideas for Large-Scale / Long-Term Projects 3
Informing Stakeholders about the Plan Development Process 5
Public Comments on Preferred Alternative 6