



**SOUTHWEST**  
transitway

green means go.

# Southwest Transitway DEIS

DRAFT

PRELIMINARY  
FOR REVIEW ONLY

April 2009

# **Southwest Transitway**

**Draft Environmental Impact Statement (DEIS)**

**Hennepin County Regional Rail Authority**

**PRELIMINARY  
FOR REVIEW ONLY**

**April 2009**



HDR Engineering, Inc. 701 Xenia Avenue South, Suite 600 Address, Suite #  
Minneapolis, Minnesota 55416

## Table of Contents

<b>1.0 PROPOSED ACTION .....</b>	<b>1</b>
1.1 PROJECT HISTORY .....	1
1.2 BASIS FOR THE DEIS .....	1
1.3 PURPOSE AND NEED .....	1
1.3.1 Corridor Description .....	1
1.3.2 Roadway System .....	1
1.3.3 Transit .....	1
1.3.4 Parking .....	1
1.4 PLANNING CONTEXT .....	1
<b>2.0 ALTERNATIVES CONSIDERED .....</b>	<b>1</b>
2.1 NO-BUILD ALTERNATIVE .....	1
2.1.1 Highway/Roadway Network .....	1
2.1.2 Transit Network .....	1
2.1.3 Transit Fleet .....	1
2.1.3.1 Bus .....	1
2.1.3.2 Rail .....	1
2.2 ALTERNATIVES RECOMMENDED BY THE ALTERNATIVES ANALYSIS (AA) .....	1
2.2.1 Alternatives Analysis (AA) .....	1
2.2.1.1 Background .....	1
2.2.1.2 Modes .....	1
2.2.1.3 Alignments .....	1
2.2.1.4 Public Involvement .....	1
2.2.1.5 Agency Coordination .....	1
2.2.2 Alternatives Recommended for DEIS Evaluation .....	2
2.3 DEIS SCOPING .....	2
2.3.1 Alternatives Identified During Scoping .....	2
2.3.2 Evaluation of Alternatives Identified During Scoping .....	2
2.3.3 Alternatives Recommended for Further Evaluation in DEIS .....	2
2.4 DESIGN REFINEMENTS THE FOR THE AA/DEIS SCOPING ALTERNATIVES IDENTIFIED DURING SCOPING AND CONCEPTUAL ENGINEERING .....	2

2.5 BUILD ALTERNATIVES EVALUATED IN THE DEIS .....	2
2.5.1 LRT Alignments for Evaluation by Segment .....	2
2.5.2 Definition of Alternatives and Station Locations .....	2
2.5.3 Intersection and Roadway Improvements .....	2
2.5.4 Park and Ride and Transit Center Facilities.....	2
2.5.5 LRT Support Facilities .....	2
2.5.5.1 OCS/TPSS/Signals and Communications Facilities .....	2
2.5.5.2 Operations Center .....	2
2.5.5.3 Maintenance and Storage (M&S) Facility .....	2
2.5.6 LRT Operating Plan .....	3
2.5.6.1 Interlining Assumptions.....	3
2.5.6.2 Operating Frequencies .....	3
2.5.6.3 LRV Fleet Requirement .....	3
2.5.6.4 LRV Description.....	3
2.5.6.5 Support Vehicles.....	3
2.5.7 Build Alternative Bus Service .....	3
2.5.8 Build Alternative Bus Facilities .....	3
2.6 COST ESTIMATE .....	3
2.6.1 Capital Cost Per Alternative .....	3
2.6.2 Operating Cost Per Alternative .....	3
2.7 (5309) NEW STARTS COST EFFECTIVENESS INDEX (CEI) .....	3
2.7.1 Description of Baseline Alternative .....	3
2.7.2 CEI by Alternative .....	3
2.8 FINANCIAL FEASIBILITY .....	3
2.8.1 Assumptions and Data Sources.....	3
2.8.2 Costs and Revenue.....	3
2.8.2.1 Funding Sources.....	3
2.8.2.2 Reliance on Existing Funding Sources .....	3
2.8.2.3 Financing Requirements .....	3
2.9 MAJOR ISSUES TO BE RESOLVED .....	3
<b>3.0 SOCIAL EFFECTS .....</b>	<b>3</b>
3.1 LAND USE AND SOCIOECONOMICS .....	3
3.1.1 Methodology.....	3
3.1.2 Existing Conditions and Future Projections .....	3
3.1.3 Socioeconomics .....	3
3.1.4 Long-Term Effects.....	3
3.1.5 Short-Term Construction Effects .....	3
3.1.6 Mitigation .....	4

3.2 NEIGHBORHOODS, COMMUNITY SERVICES AND COMMUNITY COHESION .....	4
3.2.1 Methodology.....	4
3.2.2 Existing Conditions.....	4
3.2.3 Long-Term Effects.....	4
3.2.4 Short-Term Construction Effects.....	4
3.2.5 Mitigation .....	4
3.3 ACQUISITIONS AND DISPLACEMENTS/RELOCATIONS.....	4
3.3.1 Legal and Regulatory Overview .....	4
3.3.2 Methodology.....	4
3.3.3 Existing Conditions.....	4
3.3.4 Long-Term Effects.....	4
3.3.5 Short-Term Construction Effects .....	4
3.3.6 Mitigation .....	4
3.4 CULTURAL RESOURCES .....	4
3.4.1 Legal and Regulatory Overview .....	4
3.4.2 Methodology.....	4
3.4.3 Existing Conditions.....	4
3.4.4 Long-Term Effects.....	4
3.4.5 Short-Term Construction Effects .....	4
3.4.6 Mitigation .....	4
3.5 PARKLANDS AND RECREATION .....	4
3.5.1 Legal and Regulatory Overview .....	4
3.5.2 Methodology.....	4
3.5.3 Existing Conditions.....	4
3.5.4 Long-Term Effects.....	4
3.5.5 Short-Term Construction Effects .....	4
3.5.6 Mitigation .....	5
3.6 VISUAL QUALITY AND AESTHETICS.....	5
3.6.1 Methodology.....	5
3.6.2 Existing Conditions.....	5
3.6.3 Long-Term Effects.....	5
3.6.4 Short-Term Construction Effects .....	5
3.6.5 Mitigation .....	5
3.7 SAFETY AND SECURITY .....	5
3.7.1 Legal and Regulatory Overview .....	5
3.7.2 Existing Conditions.....	5
3.7.3 Long-Term Effects.....	5
3.7.4 Short-Term Construction Effects .....	5

3.7.5 Mitigation .....	5
<b>3.8 ENVIRONMENTAL JUSTICE .....</b>	<b>5</b>
3.8.1 Introduction and Summary .....	5
3.8.2 Methodology.....	5
3.8.3 Existing Conditions.....	5
3.8.4 Long-Term Effects.....	5
3.8.5 Short-Term Construction Effects .....	5
3.8.6 Mitigation .....	5
<b>4.0 ENVIRONMENTAL EFFECTS.....</b>	<b>5</b>
<b>4.1 GROUNDWATER AND SOIL RESOURCES.....</b>	<b>5</b>
4.1.1 Methodology.....	5
4.1.2 Existing Conditions.....	5
4.1.3 Long-Term Effects.....	5
4.1.4 Short-Term Construction Effects .....	5
4.1.5 Mitigation .....	5
<b>4.2 WATER RESOURCES .....</b>	<b>6</b>
4.2.1 Legal and Regulatory Overview .....	6
4.2.2 Methodology.....	6
4.2.3 Existing Conditions.....	6
4.2.4 Long-Term Effects.....	6
4.2.5 Short-Term Construction Effects .....	6
4.2.6 Mitigation .....	6
<b>4.3 BIOTA AND HABITAT .....</b>	<b>6</b>
4.3.1 Legal and Regulatory Overview .....	6
4.3.2 Methodology.....	6
4.3.3 Existing Conditions.....	6
4.3.4 Long-Term Effects.....	6
4.3.5 Short-Term Construction Effects .....	6
4.3.6 Mitigation .....	6
<b>4.4 THREATENED AND ENDANGERED SPECIES .....</b>	<b>6</b>
4.4.1 Legal and Regulatory Overview .....	6
4.4.2 Methodology.....	6
4.4.3 Existing Conditions.....	6
4.4.4 Long-Term Effects.....	6
4.4.5 Short-Term Construction Effects .....	6
4.4.6 Mitigation .....	6
<b>4.5 AIR QUALITY .....</b>	<b>6</b>

4.5.1 Legal and Regulatory Overview .....	6
4.5.2 Methodology.....	6
4.5.3 Existing Conditions.....	6
4.5.4 Long-Term Effects.....	6
4.5.5 Short-Term Construction Effects .....	6
4.5.6 Mitigation .....	7
<b>4.6 NOISE .....</b>	<b>7</b>
4.6.1 Human Perception Levels .....	7
4.6.2 Evaluation Criteria.....	7
4.6.3 Methodology.....	7
4.6.4 Existing Conditions.....	7
4.6.5 Long-Term Effects.....	7
4.6.6 Short-Term Construction Effects .....	7
4.6.7 Mitigation .....	7
<b>4.7 VIBRATION.....</b>	<b>7</b>
4.7.1 Human Perception Levels .....	7
4.7.2 Evaluation Criteria.....	7
4.7.3 Methodology.....	7
4.7.4 Existing Conditions.....	7
4.7.5 Long-Term Effects.....	7
4.7.6 Short-Term Construction Effects .....	7
4.7.7 Mitigation .....	7
<b>4.8 HAZARDOUS/REGULATED MATERIALS .....</b>	<b>7</b>
4.8.1 Preliminary Site Identification .....	7
4.8.2 Impact Assessment Methodology .....	7
4.8.3 Long-Term Effects.....	7
4.8.4 Short-Term Construction Effects .....	7
4.8.5 Mitigation .....	7
<b>4.9 ELECTROMAGNETIC FIELDS AND UTILITIES .....</b>	<b>7</b>
4.9.1 Legal and Regulatory Overview .....	7
4.9.2 Methodology.....	7
4.9.3 Existing Conditions.....	7
4.9.4 Long-Term Effects.....	8
4.9.5 Short-Term Construction Effects .....	8
4.9.6 Mitigation .....	8
<b>4.10 ENERGY .....</b>	<b>8</b>
4.10.1 Methodology.....	8
4.10.2 Long-Term Effects.....	8
4.10.3 Short-Term Construction Effects .....	8

4.10.4 Mitigation .....	8
<b>5.0 ECONOMIC EFFECTS .....</b>	<b>8</b>
5.1 ECONOMIC CONDITIONS .....	8
5.1.1 Effects from Capital and O&M Expenditures .....	8
5.1.2 Long-Term Effects .....	8
5.1.3 Short-Term Effects .....	8
5.2 STATION AREA REDEVELOPMENT .....	8
5.2.1 Station Area Planning and Design Guidelines .....	8
5.2.1.1 Downtown Minneapolis .....	8
5.2.1.2 Minneapolis .....	8
5.2.1.3 St. Louis Park .....	8
5.2.1.4 Hopkins .....	8
5.2.1.5 Minnetonka .....	8
5.2.1.6 Eden Prairie .....	8
5.2.2 Station Area Characteristics and Development Potential .....	8
5.2.2.1 Downtown Minneapolis .....	8
5.2.2.2 Minneapolis .....	8
5.2.2.3 St. Louis Park .....	8
5.2.2.4 Hopkins .....	8
5.2.2.5 Minnetonka .....	8
5.2.2.6 Eden Prairie .....	8
5.3 LONG-TERM EFFECTS .....	8
5.3.1 No-Build Alternative .....	9
5.3.2 Key Project Elements .....	9
5.3.3 Corridor Development Projections .....	9
5.3.4 Joint Development Opportunities .....	9
5.4 MITIGATION .....	9
<b>6.0 TRANSPORTATION.....</b>	<b>9</b>
6.1 TRANSIT EFFECTS .....	9
6.1.1 Methodology .....	9
6.1.2 Existing Conditions .....	9
6.1.3 Description of Transit Service Plan .....	9
6.1.4 Long-Term Effects .....	9
6.1.5 Short-Term Construction Effects .....	9
6.1.6 Mitigation .....	9
6.2 EFFECTS ON ROADWAYS .....	9

6.2.1 Methodology.....	9
6.2.2 Existing and Planned Roadway System .....	9
6.2.3 Long-Term Effects.....	9
6.2.4 Short-Term Construction Effects.....	9
6.2.5 Mitigation .....	9
<b>6.3 OTHER TRANSPORTATION IMPACTS .....</b>	<b>9</b>
6.3.1 Existing Conditions and Planned Facilities .....	9
6.3.2 Parking .....	9
6.3.3 Freight Rail and Trucking Movements.....	9
6.3.4 Bikeways and Major Pedestrian Networks.....	9
6.3.5 Long-Term Effects.....	9
6.3.6 Short-Term Construction Impacts .....	9
6.3.7 Mitigation .....	9
<b>7.0 SECTION 4(F) EVALUATION.....</b>	<b>10</b>
7.1 BACKGROUND INFORMATION AND REGULATORY REQUIREMENTS .....	10
7.2 DESCRIPTION OF SECTION 4(F) AND 6(F) RESOURCES .....	10
7.2.1 Methodology and Affected Resources .....	10
7.2.2 Impacts to Historic Property .....	10
7.2.3 Use of Parks and Recreational Areas .....	10
7.3 MEASURES TO MINIMIZE HARM .....	10
7.4 AGENCY COORDINATION .....	10
<b>8.0 FINANCIAL ANALYSIS.....</b>	<b>10</b>
8.1 CAPITAL FUNDING STRATEGY .....	10
8.1.1 Capital Cost Estimate.....	10
8.1.2 Methodology.....	10
8.1.3 Capital Funding Strategy.....	10
8.1.4 Funding Secured to Date .....	10
8.1.5 Capital Financing Plan .....	10
8.2 OPERATING FUNDING STRATEGY .....	10
8.2.1 Operating and Maintenance Costs.....	10
8.2.2 Operating Revenues .....	10
<b>9.0 INDIRECT AND CUMULATIVE IMPACTS .....</b>	<b>10</b>
9.1 INTRODUCTION.....	10
9.2 METHODOLOGY .....	10

9.2.1 Study Area Definition .....	10
9.2.2 Time Frame .....	10
9.2.3 Factors Considered .....	10
9.2.4 Existing Conditions and Development Trends .....	10
9.2.5 Anticipated (Reasonable and Foreseeable Future) Actions .....	10
9.2.6 Resource Identification.....	11
9.3 POTENTIAL FOR INDIRECT IMPACTS AND CUMULATIVE EFFECTS .....	11
9.4 CONCLUSION .....	11
9.4.1 Long-Term Effects.....	11
9.4.2 Mitigation .....	11
<b>10.0 EVALUATION OF ALTERNATIVES.....</b>	<b>11</b>
10.1 EVALUATION RELATIVE TO PROJECT GOALS AND OBJECTIVES.....	11
10.2 NEW STARTS CRITERIA.....	11
10.3 ISSUES TO BE RESOLVED.....	11
<b>11.0 PUBLIC AND AGENCY COORDINATION AND COMMENTS .....</b>	<b>11</b>
11.1 PUBLIC INVOLVEMENT .....	11
11.1.1 Public and Agency Involvement During the DEIS .....	11
11.1.2 Outreach During the DEIS Scoping Process.....	11
11.1.3 Outreach During the DEIS .....	11
11.2 AGENCY COORDINATION .....	11
11.2.1 Early Agency Coordination and Scoping.....	11
11.2.2 Key Project Decisions .....	11
11.2.3 Additional Agency Coordination .....	11
11.2.4 Coordination Plan and Letters.....	11
11.2.5 Section 106 Coordination .....	11

## Appendices

- APPENDIX A: LIST OF PREPARERS
- APPENDIX B: LIST OF RECIPIENTS
- APPENDIX C: LIST OF REFERENCES
- APPENDIX D: AGENCY CORRESPONDENCE
- APPENDIX E: PUBLIC OUTREACH
- APPENDIX F: PROGRAMMATIC AGREEMENT