MOBILITY 2030: THE METROPOLITAN TRANSPORTATION PLAN FOR THE DALLAS-FORT WORTH METROPOLITAN AREA

North Central Texas Council of Governments Transportation Department
WHAT IS THE METROPOLITAN TRANSPORTATION PLAN?

Represents Blueprint for Multimodal Transportation System

Responds to Adopted Goals
  Mobility
  Quality of Life
  Financial/Air Quality

Identifies Policies, Programs, and Projects for Continued Development

Guides Expenditures of Federal and State Funds
Maintenance and Operation of Existing Facilities

- Improve Efficiency of Existing Facilities
  - Trans. System Management
  - Intelligent Trans. Systems
- Remove Trips From System
  - Carpool/Vanpool Program
  - Pedestrian/Bicycle Facilities
- Induce Switch to Transit
  - Bus/Commuter Rail/Light Rail
- Increase Auto Occupancy
  - HOV System
- Additional Single Occupant Vehicle Capacity
  - Freeway/Tollway
  - Regional Arterial

Management & Operations (ITS, TSM/TDM, Bike/Ped)

Financial/Air Quality Constraint

Rail and Bus

HOV/Managed

Freeway/Tollway and Arterial

2030 Plan

Intermodal Planning Efforts • System Safety • System Security • Alternative Land Use and Growth Scenarios

Policy Discussion

MOBILITY 2030

Prioritization of Improvements
Funding Definitions

The Mobility Plan finances transportation elements. The plan functions as a “savings account”.

The Transportation Improvement Program programs plan recommendations to selected planning activities, policy initiatives, transportation programs, and transportation projects (including engineering, right-of-way purchase, and construction). The TIP functions as a “checking account”.
<table>
<thead>
<tr>
<th>Category</th>
<th>Total Cost (Millions, $ 2006)</th>
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<tbody>
<tr>
<td>Operations/Maintenance/Rehabilitation/Safety/Facility Reconstruction</td>
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<td>Transit Operations/Maintenance</td>
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<td>Rail Capital *</td>
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<td>Regional Arterial System</td>
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<td>Other Arterials</td>
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<td>Freeway/Tollway Facilities</td>
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<tr>
<td>HOV/Managed System</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>70,916</strong></td>
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</tbody>
</table>

* Includes $3.4 billion through Regional Transit Initiative
MOBILITY 2030 HIGHLIGHTS
Financially-Constrained Recommendations

Includes $9.6 billion of rail recommendations, including $3 billion of Regional Transit Initiative (RTI) rail lines

Includes $29.8 billion of roadway recommendations, including $17.7 billion of Innovative Funding Strategies

Includes additional unfunded roadway needs for illustrative purposes

Includes policy-level discussion of alternative future and demographic considerations

Includes Environmental Mitigation Strategies

Includes Safety and Security policies and programs

Includes incorporation of Trans-Texas Corridor (TTC-35) into recommendations
Corridor specific design and operational characteristics for the Freeway/Tollway system will be determined through ongoing project development.

Additional and improved Freeway/Tollway interchanges and service roads should be considered on all Freeway/Tollway facilities in order to accommodate a balance between mobility and access needs.

All Freeway/Tollway corridors require additional study for capacity, geometric, and safety improvements related to truck operations.

New facility locations indicate transportation needs and do not represent specific alignments.

Operational strategies to manage the flow of traffic should be considered in the corridors where additional freeway or tollway lanes are being considered.

$29.8 Billion Regional Roadway System
Additional Freeway/Tollway lane miles = 3,444
Additional HOV/Managed lane miles = 626

January 11, 2007
The Metropolitan Transportation Plan

Priced Facilities

Legend
- Existing Toll Facilities
- Proposed Toll Facilities
- Proposed HOV/Managed Facilities*
- Freeways/Tollways

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* Existing lanes in corridor remain free. Toll charged on new capacity only and will include HOV incentives.
Legend

- Freeways / Tollways
- Regionally Significant Arterials*

Fort Worth CBD

Dallas CBD

*Regionally Significant Arterials are derived from the following sources:

1) The National Highway System and National Highway System Intermodal Connectors (1995);
2) The Federal Functional Classification System (1997 Update) in addition to the locally approved (2005 Update); and
3) Regional Arterials as defined and adopted in NCTCOG's Regional Thoroughfare Plan (Amended May 10, 2001).

New facility locations indicate transportation needs and do not represent specific alignments.
The Metropolitan Transportation Plan

Additional Roadway System Needs

Legend
- Red: Unfunded Projects: Previously funded in Mobility 2025, 2005 Amendment
- Yellow: Other Unfunded Corridor Needs
- Black: Freeways/Tollways

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(1) Represents additional needs above and beyond those of the financially-constrained recommendations.
(2) Projects that are funded in Mobility 2025, 2005 Amendment, however, due to financial constraints issues, will be deferred until after 2030 ($27.7 Billion deferred).
(3) General Transportation Corridors requiring additional capacity, as identified in 2008 TMMP: Needs do not represent specific alignments or modes.

North Central Texas Council of Governments
Transportation

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The Metropolitan Transportation Plan

Passenger Rail Recommendations

Legend
- Light Rail
- Light Rail - New Technology
- Regional Rail
- Regional Rail - Special Events Only
- Existing Rail Corridors
- Highways

Corridor specific design and operation characteristics for the Intercity Passenger, Regional Passenger and Freight Rail Systems will be determined through capacity evaluation and ongoing project development. Refined rail forecasts are necessary to determine technology and alignment in Future Rail corridors.

All existing railroad rights-of-way should be monitored for potential future transportation corridors. New facility locations represent transportation needs and do not reflect specific alignments.

Institutional structure being reviewed for the region.

The need for additional rail capacity in the Dallas CBD, Fort Worth CBD, DFW International Airport, and other inter-modal centers will be monitored. A grade separation is needed for the Dallas CBD second alignment.

397 Additional Rail Miles
$9.8 Billion
The Metropolitan Transportation Plan

Rail Recommendations Dependent on Regional Transit Initiative Funds

Legend
- Existing Service, Programmed Projects and Projects Under Development
- Projects Pending Alternative Funding
- Existing Rail Corridors
- Highways

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239 Rail Miles in Jeopardy
The Metropolitan Transportation Plan

Rail Corridors Identified For Further Evaluation (1)

Legend
- 2030 Rail Recommendations
- Rail Corridors Identified For Further Evaluation
- Existing Rail Corridors
- Highways

Corridor specific design and operation characteristics for the Intercity Passenger, Regional Passenger and Freight Rail Systems will be determined through capacity evaluation and ongoing project development. Refined rail forecasts are necessary to determine technology and alignment in Future Rail corridors.

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(1) Represents additional transportation needs above and beyond those of the financially constrained recommendations.

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The Metropolitan Transportation Plan

Inter-Regional Passenger Rail Connectivity Recommendations

Legend
- Intercity Rail e.g. Amtrak
- Potential TTC High Speed Rail
- Existing Rail Corridors
- Highways

Corridor specific design and operation characteristics for the Intercity Passenger, Regional Passenger and Freight Rail Systems will be determined through capacity evaluation and ongoing project development. Refined rail forecasts are necessary to determine technology and alignment in Future Rail corridors.

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Benefit/Cost Ratio of Plan: 1.51

The Metropolitan Transportation Plan

System Performance Levels of Congestion

- Areas with No Congestion
- Areas with Light Congestion
- Areas with Moderate Congestion
- Areas with Severe Congestion
- Roadways

Benefit/Cost Ratio of Plan: 1.51

2007
Annual Cost of Congestion $4.2 Billion

2030
Annual Cost of Congestion $6.6 Billion

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Demographic Activity: 2030

Transportation System: 2030
Recommended Mobility 2030 projects minus $17.7 billion worth of projects that would be in jeopardy without revenue generated from priced facilities.

Annual Cost of Congestion $7.8 Billion
New facility locations indicate transportation needs and do not represent specific alignments.

All regional recommended corridors should be targeted for right-of-way preservation.

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The Metropolitan Transportation Plan

Regional Outer Loop Staging

Segment Staging
- Operational By 2015
- Operational By 2025
- Operational By 2030
- Further Evaluation Needed
- North/South Interregional Corridors
- Segment Dividers
- Year 2030 Freeway Network

A - North Collin County Outer Loop
B - North/East Collin County Outer Loop
C - East Collin County Outer Loop
D - Rockwall/Kaufman County Outer Loop
E - Loop 9 - Dallas/Ellis/Kaufman County
F - F.M. 917 Corridor
G - Southwest Corridor Outer Loop
H - Parker County Outer Loop
I - Wise County Outer Loop
J - S.H. 170 / I.H. 35 Corridor*
K - Northern Denton County Outer Loop

*The I-35/S.H-170 corridor can be developed as an interim Trans Texas Corridor/Regional Outer Loop segment until segment "I" is warranted.

New facility locations indicate transportation needs and do not represent specific alignments.

Approximately 240 Center Main Line Miles
Approximately 1440 Main Lane Miles

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Truck Lane Recommendations

Legend
- Green: Recommended Near-term Truck Lane Restrictions
- Gray: Potential Long-term Intercity Truck Lane Restrictions
- Black: Freeways
- Dark Gray: Major Roadways
- Light Gray: Regional Arterials
- White: County Boundaries
- Purple: Metropolitan Planning Area Boundary
- Blue: Major Lakes

Recommendations Include:
- 3+ lanes
- Moderate to High Truck Volumes
- Continuous system

Further site specific study needed to evaluate:
- Segments with geometric constraints
- Current or pending reconstruction
- Capacity and congestion levels
- Public opinion

New facility locations indicate transportation needs and do not represent specific alignments.
Legend

**Recommended Veloweb Routes**
- Completed: 112 miles
- Funded: 34 miles
- Needed: 289 miles

**Candidate Veloweb Routes**
- Completed: 7 miles
- Needed: 202 miles
- Freeways

- County Boundary
- Metropolitan Planning Area Boundary
- Major Lakes

New facility locations indicate transportation needs and do not represent specific alignments.

All existing railroad rights-of-way should be monitored for potential future transportation corridors.

All Veloweb routes should be targeted for right-of-way preservation.
Travel Time Contours: DFW Airport

Contours Based on Modeled Average Peak Period Speeds in 2007 and in 2030

Travel Times to Airport
- Red: Up to 15 minutes
- Green: Up to 30 minutes
- Blue: Up to 45 minutes
- Gray: Up to 60 minutes
# IDENTIFIED FUNDING NEEDS
## DALLAS-FORT WORTH REGION
### (Updated Based on Mobility 2030 Funding Levels)

<table>
<thead>
<tr>
<th>Metropolitan Transportation System Components</th>
<th>Funded Needs (Billions/2006 $)</th>
<th>Unfunded Needs (Billions/2006 $)</th>
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</thead>
<tbody>
<tr>
<td>Operation &amp; Maintenance</td>
<td>$18.7</td>
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<tr>
<td>Congestion Mitigation Strategies</td>
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<td>Bicycle &amp; Pedestrian Facilities and Transportation Enhancements</td>
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<td>Rail and Bus Transit System</td>
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<td>HOV and Managed Facilities</td>
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<td>Freeway and Toll Road System</td>
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<td>$12.7&lt;sup&gt;2&lt;/sup&gt;</td>
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<td>Regional Arterial and Local Thoroughfare System</td>
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<td>Additional Cost to Purchase Right-of-Way</td>
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<td>Rehabilitation Costs</td>
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<td>Goods Movement/Rail Freight Costs (Trans-Tx Corridor)</td>
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<td><strong>TOTAL</strong></td>
<td>$70.9 (55 %)</td>
<td>$58.6 (45 %)</td>
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**TOTAL** $129.5 Billion

<sup>1</sup> $3.4 billion obtained through Regional Transit Initiative
<sup>2</sup> Includes Freeway-to-Freeway Interchanges

Revised: February 28, 2007
TEXAS METROPOLITAN MOBILITY PLAN

Dallas-Fort Worth Corridor Needs

Range of Capacity Deficiencies to Solve Level of Service "F" Conditions

Least Severe

Most Severe

Areas with No Congestion
Areas with Light Congestion
Areas with Moderate Congestion
Areas with Severe Congestion

The deficiencies shown reflect out-year needs and represent the additional need above and beyond the financially-constrained Metropolitan Transportation Plan, currently Mobility 2030.

Update: October 18, 2007