Waco Metropolitan Planning Organization

Technical Committee Meeting

Thursday, March 7, 2019
2:00 p.m.
2045 MTP: Guiding Principles and Objectives

Review and Discussion regarding an initial draft of guiding principles and objectives for Connections 2045: The Waco Metropolitan Transportation Plan
What is the Metropolitan Transportation Plan (MTP)?

- Identify regional transportation goals
- Identify projects to be constructed or implemented by 2045
  - Projects that help achieve plan goals
  - Includes regionally significant projects from each mode
    - Highways, Public Transportation, Aviation, Rail
  - Inclusion required for federally funded highway & transit projects
- Projects must be constrained against a realistic estimate of future revenues
2045 MTP: Guiding Principles

• Why do we have guiding principles?
  – Ensure value driven decision making
  – Inform strategy
  – Set expectations for desired changes
  – Mix of Aspirational & Core Values
    • What we should accomplish by 2045?
      – Develop improvements to multi-modal transportation system
      – Anticipate future transportation challenges
    • Beyond resources forecasted to be available
2045 MTP: Guiding Principles

Factors influencing revisions

• FAST Act Requirements
  – Performance indicators should guide funding prioritization

• Disruptive Technologies – Are We Capturing Trends Now?
  – Shared mobility and micro-mobility
  – Automated vehicles
  – Expected trends during 25-year planning horizon

• Trends revealed through other processes (examples)
  – Local comprehensive plans (land use, development nodes)
  – Freight studies (local freight delivery)
  – Public transportation studies (equitable access to jobs & essential services)
Proposed Guiding Principle #1

Satisfactorily maintain existing transportation facilities

• Refine existing objectives:
  – Facility improvements
  – Performance assessment measures
  – Preventative maintenance measures

• Create new objectives:
  – Consider performance assessment measures for transit
  – Consider impacts of disruptive technologies (automated vehicles)
  – Consider multi-modal transportation needs (bicycle and pedestrian)
Proposed Guiding Principle #2

*Improve the safety and security of the transportation system*

- Refine existing objectives:
  - Performance assessment measures
  - Pedestrian access measures

- Create new objectives:
  - Consider specific safety needs of bicyclists and pedestrians
  - Consider impacts of significant storm events
Proposed Guiding Principle #3

Maximize the use of existing transportation facilities before system expansion

• Refine existing objectives:
  – Performance assessment measures
  – Incident management strategies
  – Consider right-sizing solutions
  – Change focus from LOS to most congested corridors
  – Leveraging of existing funding?

• Create new objectives:
  – Consider impacts of disruptive technologies (automated vehicles)
  – Consider needs of bicyclists and pedestrians in roadway retrofit projects
Proposed Guiding Principle #4

Preserve regional air quality and environmental standards

• Create new objectives:
  – Consider impacts of disruptive technologies (shared mobility/micro-mobility)
  – Consider impacts of preferred land use trends
  – Consider potential project impacts to culturally and environmentally sensitive sites
Proposed Guiding Principle #5

Support regional freight movement and economic development efforts

• Refine existing objectives:
  – Performance assessment measures
  – Role of freight as part of economic development

• Create new objectives:
  – Consider local and regional freight accommodations
  – Consider impacts of disruptive technologies (connected and automated vehicles) and parcel delivery industry
NEW Proposed Guiding Principle #6

*Improve access to economic opportunities and essential services*

- Create new objectives:
  - Define performance assessment measures
  - Consider equitable access to opportunity
  - Consider different needs for urban v. rural populations
2045 MTP: Regional Transportation Issues & Development Timeline

Review and Discussion regarding significant long-range regional transportation trends & issues and proposed development timeline for Connections 2045: The Waco Metropolitan Transportation Plan
MTP Candidate Projects

• What is ‘regionally significant’?
  – Facility providing access to/from the area outside the region
  – Facility providing access to/from major activity centers in the region
  – Facility providing access to/from major planned developments (retail centers, sports complexes, major employment centers, transportation terminals)
  – Principal arterial highways and fixed guideway transit facilities that offer an alternative to regional highway travel
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<th>Monitoring of driving environment</th>
<th>Fallback when automation fails</th>
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</table>

GM “Super Cruise”

Tesla Model S

Waymo (Google)

Levels of Automation

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A Unique Opportunity . . .

- New Travel Choices
- Ridesharing
- Reduced Car Ownership

- Repurposed Parking
- Space for Housing
- Public Space

- Safer Streets
- Improved User Experience
- Efficient Network Management

- Higher Efficiency Transit
- Lower Operating Costs

...but not without risks

- Increased VMT
- Empty Vehicle Circulation
- Fight for the Market

- Urban Sprawl
- Higher Congestion
- Longer Travel Times

- Cyber Attacks
- Privacy Concerns

- Declined in Transit Use
- Inequity
Average Bridge Sufficiency Rating
McLennan County

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Highway Fatalities and Serious Injuries
McLennan County - 2010 to 2017
Total Pedestrian Involved Crashes
McLennan County: 2010 to 2017
Total Bicycle Involved Crashes
McLennan County: 2010 to 2017
Percent of Persons Below Census Poverty Level in 2015

Source: US Department of Commerce; Bureau of the Census American Community Survey; 2009-2012

Disclaimer: This product is for informational purposes and may not have been prepared for or suitable for legal, engineering, or surveying purposes. It does not represent an on-ground survey and represents only the approximate relative location of property boundaries, if applicable.
Draft Recommendation:

- **Preferred Alignment #2**
  - Capital cost: $18.3M to $19.4M
  - Annual operating cost: $3.5M to $4M
  - Ridership (System / RTC)*:
    - 3,990 / 900 (year 2023)
    - 4,630 / 980 (year 2040)

- **2-way operation on Franklin**
  - Better safety, connectivity and service operations
  - More Transit Oriented Development opportunities

- **Increase Hours of Operations**
  - Terminate at 10:00 pm weekdays
  - Add Sunday service

- **Next Steps**
  - Initiate FTA Small Starts application for Bus Rapid Transit Service
  - Continue study of realigned fixed routes to optimize system

* - WTS fixed route bus service not optimized for RTC
Optimizing Future Network

- Realign other fixed routes
  - 20 to 30 minute loops with transfer points to RTC
  - Multiple system time savings
  - Realignments may be phased
  - Requires increased operating funding

- Average 1-way RTC travel time: 50 min
- Results in additional ridership
  - Current system (2,400 daily)
  - 2040 Optimized RTC (1,600 daily)
  - 2040 Optimized system (5,700 daily)

Changes based on public input

- Additional study required
2045 MTP Development

- Proposed timeline for 2045 update to the Waco Metropolitan Transportation Plan
  - Data Acquisition and Development: In Process
  - Needs / Gap Analysis: In Process
    - Various Studies / Concurrent Processes
  - Project Identification / Call for Projects – Spring, 2019
  - Project Cost Estimation / Fiscal Constraint Analysis: Summer 2019
  - Public Involvement:
    - Public / Stakeholder Workshop: Spring 2019
    - Public Meetings – Review of Final Draft: Fall 2019
  - Adoption: January 2020
MPO Work Tasks - 2020 & 2021
Unified Planning Work Program (UPWP)

Review and Discussion regarding MPO work tasks under consideration for fiscal years 2020 and 2021
What is the Unified Planning Work Program (UPWP)?

- UPWP serves as the operating budget for the MPO for FY 2020 & 2021
  - Currently operating under FY 2018-19 UPWP

- Identifies how federal highway and transit planning funds are intended to be used
  - Estimates amount of federal planning funds available

- Identifies each task MPO intends to accomplish and total funds to be used
2020 - 2021 UPWP Development

• **New Tasks - Areas of Emphasis**
  – Thoroughfare Plan - 2020
    • NHS Review
    • Municipal changes
  – MTP Update - 2020
  – 2021-2024 TIP Development - 2021
  – 2022-2023 UPWP Development - 2021
2020 - 2021 UPWP Development

• Other Tasks for Consideration?
  – Special Studies/Analysis
    • Feasibility/Need Study
    • Corridor or Network Study
    • Impact Study
  – Emphasis Area
    • Safety
    • Freight
    • Technology/Innovation
  – Must be eligible for federal planning funds
Waco Metropolitan Planning Organization

Directors Report
Directors Report

• Request for Agenda Items to be considered for future meetings

  – Next Meeting:
    • Thursday, April 4, 2019 at 2:00pm
      – ATP Update
  
  – July Meeting
    • Normal schedule would fall on July 4\textsuperscript{th}
    • Cannot spend federal funds on Hot Dogs, Hamburgers, etc.
    • Propose moving meeting to July 11\textsuperscript{th}