AUSTIN

The most congested sections of Austin roadways are basically the same problem—traveling north-south in the central Austin area (Exhibit A-1). As such, a project that addresses congestion on one of the corridors will also address several others. A few of the major congestion reduction projects that have been accomplished in recent years or are under construction are illustrated in Exhibit A-2. They have addressed some of the interchange bottlenecks and operations problems. In addition the extension of SH 130 to IH 10 near Seguin may attract some long distance traffic away from IH 35.

Significant right-of-way constraints on IH 35 north of downtown make expanding the roadway “footprint” difficult, but expanding parallel roads may provide reasonable alternatives. MoPac, US 183, and SH 130 provide opportunities to either expand the roads or the travel markets served (and therefore the volume of people and freight moved on those roads). Some of the ideas from the My35 study offer several alternatives ranging from adding capacity to other roads to switching the designations of IH 35 and SH 130 and managing the travel volume on the existing IH 35 roadway using demand-based pricing or tolling.

Other concepts involve a combination of incentives for freight or multi-occupant vehicles (carpools or buses) to change departure times or routes and operational alternatives that seek to gain as much service from the existing infrastructure and funding as possible.

Other Highlights

- The MoPac Improvement project is proposing two new toll express lanes north of downtown and may also include intelligent transportation system infrastructure and traffic management strategies (including Active Traffic Management) to improve the operation of the general purpose lanes. It may also be possible to extend the express lanes to MoPac south of downtown.
- Incident clearance has benefitted from the HERO program on IH 35.
- US 183 South has the potential to serve as an alternate route to IH 35 (as identified in the My35 study); the expansion project includes six toll lanes and six lanes of frontage roads.

A summary and map of the recommended actions that will affect each congested corridor is included in Exhibits A-3 and A-4 after the individual corridor summaries. Information regarding large projects with significant congestion reduction potential, their estimated implementation cost, and implementation timeframe is included in Exhibit A-5.
Exhibit A-1: Austin’s Most Congested Corridors
Exhibit A-2: Austin Under Construction or Recently Constructed

#39: Constructed north and west direct connectors

#4: Constructing direct connectors

#43: Constructed freeway on Ben White Blvd

#4: Constructing freeway on US 183

#4: Extending freeway on Ben White Blvd

Constructing Manor Tollway (open 2014)

xx: Congested Section Addressed by Project

Completed Projects: Projects Under Construction
IH 35
SH 71 (Ben White Blvd) to US 183

Current Conditions
Between US 183 and Airport Boulevard in Austin, IH 35 operates with four lanes in each direction. At Airport Boulevard, IH 35 converts to an upper/lower deck split, with two lanes in each direction on each deck to Martin Luther King (MLK) Boulevard. South of the split, IH 35 operates with three lanes in each direction. This portion of IH 35 experiences near equal congestion in both directions throughout the day. Slowdowns are heaviest in both directions during the evening rush hour period with only light slowdowns in the mornings.

- Segment Length: 10.2 miles
- Road Type: 6- to 8-Lane freeway
- Annual Hours of Delay: 4,642,000
- Texas Congestion Index: 1.73
- Commuter Stress Index: 2.15

Possible Congestion Causes
Most of IH 35 was originally constructed in the 1950s, and has not been substantially improved since the original construction. In 1975, a second deck was added for a two-mile stretch north of downtown, and lanes were added to the north of the upper/lower split. IH 35 suffers from heavy traffic volumes, poor design, and a large volume of truck traffic. The rapid growth of Austin over the last several decades has exacerbated traffic congestion on IH 35 as the city has nearly doubled in size every 20 years. Land uses, including commercial and retail developments, contribute to the limited right-of-way, complicating expansion plans. Significant choke points exist in the following locations:
  - Lower deck (North and Southbound) from MLK to Airport Boulevard
  - Merging of US 290 East onto IH 35 Southbound
  - IH 35 Northbound from Woodward to Riverside

Projects in Progress or Completed
Direct Connector Ramps
Four direct connectors at the IH 35 and SH 71 (Ben White) interchange completed and open to traffic in December 2011.

HERO Patrols
The HERO patrol, minimizing congestion and improving safety by clearing damaged or disabled vehicles from the roadway.
**Tolled SH 130**
Construct a 4-lane tolled freeway with intermittent frontage roads on SH 130 from SH 45 to IH 10 near Seguin.

**Planning Efforts to Date**

**Corridor Development Study**
The City of Austin and TxDOT are undertaking a corridor development study (including public engagement) focusing on transportation management and multimodal treatments between SH 71 and US 290E.

**My35**
The My35 Program uses a holistic approach to addressing needs on the entire corridor:

- Use SH 45SE and SH 130 as alternative routes by converting one general purpose lane on IH 35 in each direction to a dynamically priced managed lane and re-designating IH 35 to a non-interstate facility. SH 130 (from US 195 to SH 45SE) and SH 45SE (from Mustang Ridge to I-35) will have tolls removed and be re-designated as IH 35.
- Upgrade US 183 from US 290 to SH 45SE to a 4-lane freeway (Total cost: $550-$800 million).
- Widen IH 35 from the Williamson/Bell County line to IH 10 in San Antonio to at least an 8-lane freeway ($2.7-$3.85 billion).

**Transit Alternatives**
Capital Metro is currently studying transit alternatives to IH 35 including a new spur on the Red Line, managed lanes, Lone Star rail, bus rapid transit, and the MoKan corridor.

**US 183 Expansion**
Expansion of US 183 between Springdale Rd. and Patton Ave. to a 6-lane turnpike with non-toll frontage roads.

**Travel Options Marketing**
The Downtown Transportation Management Association (TMA) has initiated a transportation demand management marketing program to reduce single occupancy vehicles. The TMA will assist with trip planning and travel coaching.

**Freight Alternatives**
Incentivizing freight to take alternate routes like SH 45SE and SH 130 instead of IH 35.

**Land Use Planning**
The City of Austin, TxDOT, Capital Metro, and other agencies are evaluating current land use along the corridor and parallel routes for accessibility, the implementation of form-based code, transit-oriented development, and other bike and transit options.

**IH 35 HOV Lane Study**
The IH 35 Major Investment Study (1998) analyzed the construction of HOV lanes (either separate from the roadway or within the median) and reconfiguring the upper and lower decks.

**Public Engagement/ Communication in the Austin Region**
The Capital Regional Metropolitan Planning Organization (CAMPO) engages in regular public outreach activities when developing and amending the long range plan, the transportation improvement plan, and the unified planning work program. Recently, CAMPO has undertaken a tiered approach to public input that identifies and refines the best methods to solicit public participation in planning efforts. A tiered approach allows minor plan, project, or funding changes to be expedited through the planning process. More concentrated efforts can be focused on projects or plans that have more substantial changes. The intent of this approach is to more effectively utilize limited resources.

**Public Engagement in IH 35**
Outreach in Austin’s IH 35 corridor has benefited from two efforts. The first effort was the result of action by the Texas Transportation Commission in the formation of an IH 35 Advisory Committee and four segment committees that reported to the Advisory
Committee. The segment committees were tasked with examining the corridor challenges from a local perspective, identifying possible solutions and offering recommendations to the committee. The committee engaged local stakeholders, citizens and community leaders in developing options and alternatives in the Austin area. This ‘from the ground-up’ approach with significant public involvement activities resulted in a plan that reflects the interests and concerns of citizens through local and regional recommendations for meeting the mobility needs along Texas’ IH 35 corridor. The recommendations are documented in the August 2011 IH 35 Corridor Advisory Committee Plan.

The City of Austin is undertaking an IH 35 corridor development study. The study has a robust public engagement component. The study began with a needs assessment conducted by key city staff and consultants. In this assessment, problems were identified and key roadblocks were addressed. The project sponsors held an open house to brief the public on the project in downtown Austin on September 28, 2011. The open house was designed to allow for small group discussion by having people sign up for group session times that began each half hour. Reservations were requested but not required. This new approach was designed to provide an opportunity for interested participants to engage in a focused discussion regarding potential solutions in the corridor. Using a smaller, more focused discussion may elicit more feedback, especially from those that may be reluctant to speak in a large group setting. Each of these efforts is a “good practice” approach early in a project. However, attendance at this event was very low. An inconvenient location and difficult accessibility may have led to a low turnout. The consultant has since engaged in several smaller group meetings with representatives from neighborhoods, universities, business, and civic groups. A technical steering committee also guides outreach activities.
Other planned outreach/communication activities include:

- Development of context sensitive solution (CSS) strategy and process.
- Establishment of a stakeholder working group (SWG) representing different travel markets, communities and interests.
- Creation of communication materials – hard copy, electronic, or social media.

**Next Steps**

- The City of Austin’s IH 35 Corridor Development Program covers a wide range of potential short and mid-term traffic and demand management strategies to improve the operation of the IH 35 section within the existing freeway footprint. The **study scope should be extended** to encompass the bottleneck at the IH 35/US 183 interchange and address potential managed lane operations in connecting segments.

- Aggressive incident clearance is one practice that is not sufficiently addressed in the scope of the IH 35 Corridor Development Program. The AIMHigh Program is a locally sponsored effort that has identified tools and strategies for improving incident clearance; however, resources and support for implementation are required to advance the strategies. The AIM High program has identified the **development of a pre-positioning plan for incident management equipment and preparation of incident diversion plans for IH 35 and other congested corridors** as a high priority. Additionally, there is a need for integrated system management and operation to ensure that an institutional framework is in place to operate IH 35 and other congested corridors in a seamless way under both recurring and non-recurring congestion.

- Austin is lagging behind its peers in the application of traditional and innovative demand management strategies. The formation of the Downtown TMA will **support employer outreach** for downtown commuters and should be closely linked and coordinated with the University of Texas program, Commute Solutions (to reach employers outside of the central area that may have employees who utilize IH 35 for commuting), and State government, which employs over 24,000 people in the urban core.

- **US 183 South has the potential to serve as an alternate route to IH 35** as identified in the My35 study, and funding should be dedicated to conduct engineering associated with the planned expansion to 6 toll lanes and 6 lanes of frontage roads. As a potential alternate to IH 35, connectivity to downtown and at north and south ends should be examined and addressed.

- The IH 35 Corridor Development Program will examine actions with a life of up to 10 years, but beyond 10 years the plan is unclear. **The IH 35 Corridor is a candidate for advanced modeling to assess long-term conditions with a mix of solutions** (alternate routes, transit, freight, land use, etc.), incorporating multiple strategies within a limited footprint expansion.

- There is an opportunity for **agencies to work together to provide public information and strategic outreach on actions related to the development and potential changes to IH-35 and other congested corridors via web-based strategies.** Providing project updates would allow all of the agencies involved to offer the same level and detail of information at a single source, simplifying the message and ensuring consistent communication.
NORTH LAMAR
West 45th St. to West 6th St.

Current Conditions
North Lamar is a major arterial in central Austin, running from North IH 35 to Ben White Boulevard (Highway 71) on the south side. Lamar is a five-lane arterial with two lanes in both directions and a center turn lane. Much of the road is flanked with commercial development, and the section from 30th to 15th streets borders a greenbelt that contains parks and a running trail. North Lamar does not experience the drastic speed decreases of other congested freeways, but rather remains congested for most of the day. The street does experience additional slowdowns in the evening with both north- and southbound directions matching each other throughout the day.

- Segment Length: 3.4 miles
- Road Type: 4- to 6-Lane street
- Annual Hours of Delay: 430,000
- Texas Congestion Index: 1.36
- Commuter Stress Index: 1.44

Possible Congestion Causes
Lamar is a viable alternative to MoPac through central Austin, although the roadway experiences heavy congestion throughout the day, particularly during the AM and PM commuter rush. Additionally, the section of Lamar from 45th to 5th Street has limited potential for expansion due to the greenbelt between 30th and 15th Streets, and commercial developments that abut the road from 45th to 30th and 15th to 6th Streets. There are numerous driveways servicing the commercial developments that create access/egress congestion points. Traffic backs up in both left turn lanes at 29th and 24th streets where access is provided to the University of Texas campus.
Projects in Progress or Completed

*Bus Rapid Transit*
A bus rapid transit line on North Lamar running from downtown via Guadalupe that includes traffic signal priority, limited stops and articulated buses. Capital Metro expects service to begin in 2013.

*Signal Timing*
The city has made downtown signal timing improvements that will alleviate some congestion.

*Planning Efforts to Date*

*Loop 1 Express Lanes*
Add express lanes to Loop 1 (MoPac) to provide a suitable alternate route for traffic.

*Roadway Improvements*
The City of Austin plans to install full bike lanes from Guadalupe to downtown and will include new signal timing for the corridor.

*Travel Options Marketing*
The Downtown Transportation Management Association (TMA) has initiated a demand management marketing campaign to reduce single occupancy vehicles. It will also assist with trip planning and travel coaching.

*Next Steps*
- There are severe limitations to expanding the footprint of North Lamar due to urban development and the presence of parkland.

Given its proximity, Loop 1/MoPac is a logical alternate route to North Lamar. Current plans to **improve Loop 1 by expanding the footprint to add two express lanes** could draw longer trips from North Lamar onto Loop 1.

- The planned bus rapid transit and the City of Austin’s signal timing effort will support congestion relief. However, there is no comprehensive effort to examine **traffic and demand reduction strategies** in the corridor. Possible strategies to consider include the following:
  - Access management
  - Reversible lanes
  - Traveler information
  - Overnight truck deliveries
  - Grade separation
  - Intersection improvements
  - Super street arterials
  - Bicycle/pedestrian options

- Austin is lagging behind its peers in the application of traditional and innovative demand management strategies. The formation of the **Downtown TMA will support employer outreach** for downtown commuters and should be closely linked and coordinated with the University of Texas program, Commute Solutions (to reach employers outside of the central area that may have employees...
who utilize North Lamar for commuting), and State government, which employs over 24,000 people in the urban core.

The AIM High program has identified the development of a pre-positioning plan for incident management equipment and preparation of incident diversion plans for North Lamar, Loop 1, and other congested corridors as a high priority. Additionally, there is a need for integrated system management and operation, to ensure that an institutional framework is in place to operate North Lamar and other congested corridors in a seamless way under both recurring and non-recurring congestion.

There is an opportunity for agencies to work together to provide public information and strategic outreach on actions related to the development and potential changes to North Lamar and other congested corridors via web-based strategies. Providing project updates would allow all of the agencies involved to offer the same level and detail of information at a single source, simplifying the message, and ensuring consistent communication.
LOOP 1 (MoPac)
US 183 to US 290

Current Conditions
From US 183 to US 290, MoPac operates primarily with six lanes, three northbound and three southbound. While there is access to the highway throughout the stretch, the majority of parallel arterials is through residential areas that become congested during peak periods. Due to the residential and commercial development parallel to MoPac, the potential for future road widening is limited. Similar to traffic slowdowns on IH 35, MoPac experiences near equal speed reductions in both directions, with the heaviest during the evening rush.

- Segment Length: 11.9 miles
- Road Type: 6-Lane freeway
- Annual Hours of Delay: 2,177,000
- Texas Congestion Index: 1.50
- Commuter Stress Index: 1.68

Possible Congestion Causes
The MoPac Expressway (Loop 1) was initially conceived of as part of the 1961 City of Austin Master Plan and Circulation Plan when only 160,000 people lived in Travis County. Since then, the city of Austin has experienced significant growth, and there are now over one million people in Travis County. Nearly 180,000 cars and trucks drive on MoPac every day. Due to the rapid growth and land use limitations, MoPac experiences heavy congestion on the main lanes as well as parallel arterials. Much of the congestion is unpredictable and is worsened by traffic collisions. Further, emergency vehicles have limited access due to congestion and lack of consistent emergency parking shoulders.

Projects in Progress or Completed
US 290/Loop 1 Interchange
Construction of the US 290 West/Loop 1 interchange to be completed in the spring of 2012 ($13 million).

Bottleneck Removal
Intersection improvements along Loop 360, which serves as an alternative to Loop 1, will address bottleneck issues at Westlake Dr., Cedar St, and Courtyard and will be completed in 2014 ($5 million).
Planning Efforts to Date

Express Lane Study
The Central Texas Regional Mobility Authority (CTRMA) in partnership with TxDOT is sponsoring an environmental and preliminary engineering study to add northbound and southbound express lanes from FM 734 to the Cesar Chavez interchange, with project letting anticipated in 2014 ($253 million).

Transit Service Options
Capital Metro is planning enhanced bus service in conjunction with the express lanes project, adding express bus service, bus on shoulder options, and additional park-and-ride opportunities.

Travel Options Marketing
The Downtown Transportation Management Association (TMA) has initiated a demand management marketing program to reduce single occupancy vehicles. It will also assist with trip planning and travel coaching.

Public Engagement/Communication in the Austin Region
The Capital Regional Metropolitan Planning Organization (CAMPO) engages in regular public outreach activities when developing and amending the long range plan, the transportation improvement plan, and the unified planning work program. Recently, CAMPO has undertaken a tiered approach to public input that identifies and refines the best methods to solicit public participation in planning efforts. A tiered approach allows minor plan, project, or funding changes to be expedited through the planning process. More concentrated efforts can be focused on projects or plans that have more substantial changes. The intent of this approach is to more effectively utilize limited resources.

The North Loop 1/MoPac improvement project is being jointly developed by TxDOT and CTRMA, with CTRMA taking the lead on public engagement activities. A comprehensive Public Outreach Plan has been drafted. Specific activities highlighted in the plan include:

- One-on-one meetings with neighbor leaders, businesses and organization in the corridor.
- One-on-one meetings with other community stakeholder groups that may be outside of the corridor.
- Engagement of stakeholders previously opposed to MoPac improvements to proactively seek their input as new solutions are identified.
- Regular updates and presentations to boards and staff of other transportation agencies.
- Elected and Community leader briefings.
- Education workshops to introduce unfamiliar concepts to key stakeholders.
- Targeted outreach to corridor users.
- Virtual open house meetings.
- Brown bag lunches for major employers.
- Variety of communication tools, including:
  - Project maps
  - Fact sheets
  - PowerPoint presentation
  - Multi-media demonstration
  - Virtual tour
  - E-newsletters
  - E-mail hotline
- Comprehensive website, including FAQs, maps, videos, history, and social media tools.

The above tools and techniques take advantage of technology to provide a comprehensive picture of the project and its potential solutions. Practices such as identifying and targeting specific users will allow the messages to be tailored to particular audiences.
**Next Steps**

- **An environmental study to add northbound and southbound express lanes on Loop 1 South from the Cesar Chavez interchange to Slaughter Lane** should be advanced. The current activities to improve North and South Loop 1 by adding express lanes should be expanded to comprehensively examine general purpose lane operations in addition to express lanes, including strategies such as ramp flow signals, acceleration/deceleration lanes, and active traffic management.

- **Aggressive incident clearance will need to be implemented** in the development of the North and South Loop 1 projects. The AIMHigh program is a locally-sponsored effort that has identified tools and strategies for improving incident clearance; however, resources and support for implementation are required to advance the strategies. The AIM High program has identified the development of a pre-positioning plan for incident management equipment and preparation of incident diversion plans for Loop1 and other congested corridors as a high priority. Additionally, there is a need for integrated system management and operation, to ensure that an institutional framework is in place to operate Loop 1 and other congested corridors in a seamless way under both recurring and non-recurring congestion.

- **Long-term plans for addressing congestion in the corridor** have not been formulated. Given the limitations in right-of-way, multiple solutions will need to be considered, including:
  - Freight rail relocation.
  - Alternative modes.
  - Improvements to alternative routes, such as Loop 360 and Lamar.

- Austin is lagging behind its peers in the application of traditional and innovative demand management strategies. The formation of the **Downtown TMA will support employer outreach** for downtown commuters and should be closely linked and coordinated with the University of Texas program, Commute Solutions (to reach employers outside of the central area that may have employees who utilize Loop 1 for commuting), and State government, which employs over 24,000 people in the urban core.
There is an opportunity for **agencies to work together to provide public information and strategic outreach on actions related to the development and potential changes to Loop 1 and other congested corridors via web-based strategies.** Providing project updates would allow all of the agencies involved to offer the same level and detail of information at a single source, simplifying the message and ensuring consistent communication.
The most congested corridors in Austin were examined to identify the most appropriate actions that will have the greatest impact on relieving traffic congestion. Many of these actions can be funded by Proposition 12 funds and are consistent with the goals of Rider 42, while other actions are being funded or performed by other agencies. Exhibit A-3 summarizes the recommended actions to address traffic congestion in each Austin corridor.

**Exhibit A-3: Austin Summary of Congested Corridor Recommendations**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Corridor</th>
<th>Actions Funded by Others</th>
<th>Recommended Early Actions Affecting Congested Corridor</th>
</tr>
</thead>
</table>
| 4    | IH 35    | City of Austin—Traffic management and travel options study. | ▪ Expand City of Austin study limits; express lane operations and travel options.  
     | (SH 71 to US 183) | | ▪ Integrated Traffic Management—Engineering study. |
| 24   | N. Lamar | Loop 1 North express lanes. | ▪ Integrated Traffic Management—Engineering study.  
     | (West 45th St to West 6th St) | | ▪ IH 35 express lane operations and travel options.  
     | | | ▪ Loop 1 South express lanes. |
| 39   | Loop 1 (MoPac) | Loop 1 North express lanes. | ▪ Engineering, design and environmental for tolled express lanes on Loop 1 South.  
### #4: IH 35 Traffic Management & Travel Options Study

- **Exhibit A-4:** Austin Early Recommendations—February 2012
  - Design Loop 1 South tolled express lanes
  - Study integrated system operations
  - Congested Section Addressed by Project: Proposition 12 Funds
  - Study Funded by Others

- **#39:** Loop 1 North express lanes preliminary engineering
  - Congested Section Addressed by Project

- **All Congested Corridors**
  - Study integrated system operations

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**Information:**
- All information is sourced from the exhibit on the page, with additional context from Exhibit A-4.
- The map illustrates various express lanes and studies proposed for different routes in Austin.
The early recommendations described above represent the first step in the process of reducing congestion on the worst corridors in the state. A larger project involving construction, operation, management, and travel option strategies will follow the early recommended actions. Exhibit A-5 identifies possible projects in the Austin metropolitan area and the amount of funds and timeframe for project implementation. In Austin, the recommended actions coincided with the large projects occurring in the region, primarily on Loop 1 South and IH 35. However, an appropriate long-term solution for IH 35 has not yet been determined and must wait for the results of the extended IH 35 study.

### Exhibit A-5: Summary of Possible Large Projects for Austin Congested Corridors

<table>
<thead>
<tr>
<th>Rank</th>
<th>Corridor</th>
<th>Large Projects</th>
<th>Rider 42 Funding Estimate</th>
<th>Estimated Implementation Funds Needed*</th>
<th>Implementation Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td>Loop 1 South Managed Lanes</td>
<td>Engineering (preliminary, final and procurement) for tolled managed lanes</td>
<td>$16.5M</td>
<td>$290M</td>
<td>2017</td>
</tr>
<tr>
<td>4</td>
<td>IH 35 Study Extension</td>
<td>Expand study limits and scope to address potential managed lane operations and to assess TDM strategies for IH 35 commuters</td>
<td>$1.2M</td>
<td>$7M to $200M</td>
<td>2013 to 2019</td>
</tr>
</tbody>
</table>

**All Congested Corridors**

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Large Projects</th>
<th>Rider 42 Funding Estimate</th>
<th>Estimated Implementation Funds Needed*</th>
<th>Implementation Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated Traffic Management</td>
<td>Engineering study to develop an integrated system management &amp; operation project that includes comprehensive incident management</td>
<td>$800K</td>
<td>$3M</td>
<td>2013 to 2018</td>
</tr>
</tbody>
</table>

**TOTAL**: $18.5M $110M to $303M

Remaining Austin Rider 42 allocation: $12.78M.

*Source of implementation funds unknown.