



# CMP

CONGESTION MANAGEMENT PROCESS  
2021 UPDATE



North Central Texas  
Council of Governments

## What is NCTCOG?

The **North Central Texas Council of Governments** (NCTCOG) is a voluntary association of, by, and for **local governments** within the 16-county North Central Texas Region. The agency was established by state enabling legislation in 1966 to assist local governments in **planning** for common needs, **cooperating** for mutual benefit, and **coordinating** for sound regional development. Its purpose is to strengthen both the individual and collective power of local governments, and to help them recognize regional opportunities, resolve regional problems, eliminate unnecessary duplication, and make joint regional decisions – as well as to develop the means to implement those decisions.

North Central Texas is a 16-county **metropolitan region** centered around Dallas and Fort Worth. The region has a population of more than 7 million (which is larger than 38 states), and an area of approximately 12,800 square miles (which is larger than nine states). NCTCOG has 229 member governments, including all 16 counties, 169 cities, 19 independent school districts, and 25 special districts.

NCTCOG's **structure** is relatively simple. An elected or appointed public official from each member government makes up the **General Assembly** which annually elects NCTCOG's **Executive Board**. The Executive Board is composed of 17 locally elected officials and one ex-officio non-voting member of the legislature. The Executive Board is the policy-making body for all activities undertaken by NCTCOG, including program activities and decisions, regional plans, and fiscal and budgetary policies. The Board is supported by policy development, technical advisory and study **committees** – and a professional staff led by **R. Michael Eastland**, Executive Director.

NCTCOG's offices are located in Arlington in the Centerpoint Two Building at 616 Six Flags Drive (approximately one-half mile south of the main entrance to Six Flags Over Texas).



**North Central Texas Council of Governments**  
P. O. Box 5888  
Arlington, Texas 76005-5888

**(817) 640-3300**

**FAX: (817) 640-7806**

**Internet: <http://www.nctcog.org>**

### **NCTCOG's Department of Transportation**

Since 1974 NCTCOG has served as the Metropolitan Planning Organization (MPO) for transportation for the Dallas-Fort Worth area. NCTCOG's Department of Transportation is responsible for the regional planning process for all modes of transportation. The department provides technical support and staff assistance to the Regional Transportation Council and its technical committees, which compose the MPO policy-making structure. In addition, the department provides technical assistance to the local governments of North Central Texas in planning, coordinating, and implementing transportation decisions.

---

Prepared in cooperation with the U.S. Department of Transportation (Federal Highway Administration and Federal Transit Administration) and the Texas Department of Transportation. *The contents of this report reflect the views of the authors who are responsible for the opinions, findings, and conclusions presented herein. The contents do not necessarily reflect the views or policies of the Federal Highway Administration, the Federal Transit Administration, or the Texas Department of Transportation.*



## NCTCOG Executive Board 2021-2022

President  
**David Sweet**  
County Judge, Rockwall County

Vice President  
**Andrew Piel**  
Councilmember, City of Arlington

Secretary-Treasurer  
**Bill Heidemann**  
Mayor, City of Corinth

Past President  
**Ray Smith**  
Mayor, Town of Prosper

Director  
**Alfonso Campos**  
County Judge, Erath County

Director  
**Rick Carmona**  
Mayor, City of Terrell

Director  
**Jorja Clemson**  
Councilmember, City of Grand Prairie

Director  
**Tammy Dana-Bashian**  
Mayor, City of Rowlett

Director  
**Kevin Falconer**  
Mayor, City of Carrollton

Director  
**Clyde Hairston**  
Mayor, City of Lancaster

Director  
**Chris Hill**  
County Judge, Collin County

Director  
**Clay Lewis Jenkins**  
County Judge, Dallas County

Director  
**Bobbie Mitchell**  
Commissioner, Denton County

Director  
**Kayci Prince**  
Mayor Pro Tem, City of Plano

Director  
**B. Glen Whitley**  
County Judge, Tarrant County

Ex Officio, Non-Voting Member  
**Glenn Rogers**  
Member of the Texas Legislature

Executive Director  
**R. Michael Eastland**

---

## Regional Transportation Council 2021-2022

Theresa Daniel, Ph.D., Chair  
Commissioner, Dallas County

Duncan Webb, Vice Chair  
Commissioner, Collin County

Cary Moon, Secretary  
Councilmember, City of Fort Worth

Tennell Atkins  
Councilmember, City of Dallas

Richard E. Aubin  
Councilmember, City of Garland

Dennis Bailey  
Commissioner, Rockwall County

Mohamed "Mo" Bur, P.E.  
District Engineer, Texas Department of  
Transportation, Dallas District

Dianne Costa  
Board Member, Denton County  
Transportation Authority

Jeff Davis  
Chair, Trinity Metro

Pat Deen  
County Judge, Parker County

Andy Eads  
County Judge, Denton County

Kevin Falconer  
Mayor, City of Carrollton

Gary Fickes  
Commissioner, Tarrant County

George Fuller  
Mayor, City of McKinney

Barry L. Gordon  
Mayor, Duncanville

Rick Grady  
Councilmember, City of Plano

Lane Grayson  
Commissioner, Ellis County

Mojoy Haddad  
Board Member, North Texas Tollway  
Authority

Roger Harmon  
County Judge, Johnson County

Clay Lewis Jenkins  
County Judge, Dallas County

Ron Jensen  
Mayor, City of Grand Prairie

Carl L. Johnson, P.E.  
District Engineer, Texas Department of  
Transportation, Fort Worth District

Brandon Jones  
Councilmember, City of Lewisville

John Keating  
Councilmember, City of Frisco

Mike Leyman  
Mayor Pro Tem, City of Mansfield

Alison Maguire  
Councilmember, City of Denton

B. Adam McGough  
Councilmember, City of Dallas

William Meadows  
Board Member, Dallas Fort Worth  
International Airport

Allan E. Meagher  
Councilmember, City of Irving

Cara Mendelsohn  
Councilmember, City of Dallas

Robert Miklos  
Mayor Pro Tem, City of Mesquite

Philip J. Ritter  
Citizen Representative, City of Dallas

Jim R. Ross  
Mayor, City of Arlington

Chris Schulmeister  
Councilmember, City of Allen

Casey Thomas II  
Councilmember, City of Dallas

Jeremy Tompkins  
Councilmember, City of Euless

T. Oscar Trevino, Jr., P.E.  
Mayor, City of North Richland Hills

William Tsao, P.E.  
Citizen Representative, City of Dallas

Paul N. Wageman  
Chair, Dallas Area Rapid Transit

B. Glen Whitley  
County Judge, Tarrant County

Michael Morris, P.E.  
Director of Transportation, NCTCOG

---

## Surface Transportation Technical Committee

**Tanya Brooks, Chair**  
Assistant Director, Traffic Management Division  
Transportation and Public Works  
City of Fort Worth

## **AUTHORS**

**AUGUST 2021**

This document is a collaborative effort by the North Central Texas Council of Governments' Congestion Management team. This document was approved by the Regional Transportation Council in August 2021.

## **CONGESTION MANAGEMENT TEAM**

Natalie Bettger  
Sr. Program Manager  
[nbettger@nctcog.org](mailto:nbettger@nctcog.org)

Eric Quintana  
Transportation Planner III  
[equintana@nctcog.org](mailto:equintana@nctcog.org)

Michael Bills  
Transportation Planner I  
[mbils@nctcog.org](mailto:mbils@nctcog.org)



# Congestion Management Process – 2021 Update

## Table of Contents

<b>CHAPTER 1</b> .....	<b>1</b>
<b>OVERVIEW OF THE CONGESTION MANAGEMENT PROCESS</b> .....	<b>1</b>
Traffic Congestion In The Dallas-Fort Worth Region.....	1
Congestion Management Process: A Management Solution .....	1
CMP Goals and Objectives .....	3
Integrating the CMP into the Metropolitan Transportation Plan .....	6
Integrating the CMP into the Corridor Study and NEPA Process.....	8
Relationship of the CMP with Corridor/NEPA Studies.....	8
Corridor/NEPA Study Recommendations.....	11
Integrating the CMP into the Transportation Improvement Program Process	12
<b>CMP Compliance Process</b> .....	<b>12</b>
Single Occupant Vehicle Analysis .....	12
CMP Implementation and Monitoring .....	13
<b>Summary</b> .....	<b>14</b>
<b>CHAPTER 2</b> .....	<b>16</b>
<b>SYSTEM IDENTIFICATION</b> .....	<b>16</b>
<b>Regional Freeway and Tollway System</b> .....	<b>16</b>
Regional Arterial System .....	20
Regional Transit System .....	21
Bicycle / Pedestrian System.....	24
<b>Summary</b> .....	<b>27</b>
<b>CHAPTER 3</b> .....	<b>28</b>
<b>TRANSPORTATION SYSTEM PERFORMANCE CRITERIA AND ASSET INVENTORY</b> .....	<b>28</b>
<b>System Performance</b> .....	<b>28</b>
<b>Data Collection and System Performance Monitoring</b> .....	<b>30</b>
<b>Corridor-Level Analysis</b> .....	<b>31</b>
<b>Performance Criteria</b> .....	<b>32</b>
Recurring Congestion (Expected Delay) – Travel Time Index.....	32
Safety - Crash Rate.....	32
Non-Recurring (Unexpected Delay) – Level of Travel Time Reliability.....	33

# Congestion Management Process – 2021 Update

Bridge and Pavement Conditions – Percentage of Pavement and Bridges in Poor Condition..... 34

**Asset Inventory ..... 36**

    Roadway Infrastructure Assets..... 36

**Alternative Modal Assets ..... 38**

    Transit Rail and Bus ..... 38

    Park-and-Ride Facilities ..... 38

**Operational Assets ..... 41**

    Intelligent Transportation Systems ..... 41

    Tolled Managed Lanes and Express/HOV Lanes..... 42

    Shoulders ..... 42

    Truck Lane Restrictions..... 43

    Traffic Incident Management Training ..... 45

    Roadway Assistance Patrols ..... 47

**Summary ..... 48**

**CHAPTER 4..... 49**

**Corridor Analysis and Strategy Identification ..... 49**

**CMP Strategy Identification ..... 54**

**Project Performance Evaluation..... 56**

**Summary ..... 56**



# Congestion Management Process – 2021 Update

## LIST OF EXHIBITS

Exhibit 1-1: CMP Processes and Planning Products .....	2
Exhibit 1-2: Congestion Management Process .....	3
Exhibit 1-3: CMP Integration .....	5
Exhibit 1-4: Mobility 2045 Update Expenditure Summary .....	7
Exhibit 1-5: CMP Strategy Development In Corridor Studies .....	10
Exhibit 1-6: CMP Compliance Process .....	14
Exhibit 2-1: Freeway/Tollway Lane Miles Per County .....	17
Exhibit 2-2: Mobility 2045 Major Roadway Recommendations .....	18
Exhibit 2-3: Network Of Tolled Roads And Tolled Managed Lanes Recommended In Mobility 2045 .....	19
Exhibit 2-4: Express/HOV/Tolled Managed Lane Miles Per County .....	19
Exhibit 2-5: Designated Regionally Significant Arterials .....	20
Exhibit 2-6: Funded Arterial Improvements .....	21
Exhibit 2-7: Public Transportation Provider Service Areas .....	22
Exhibit 2-8: Existing Regional Passenger Rail .....	24
Exhibit 2-9: Combined Regional Veloweb Community Paths, and On-Street Bikeway Network Map .....	25
Exhibit 2-10: Combined Regional Veloweb Community Paths, and on-Street Bikeway Network Table .....	26
Exhibit 3-1: 2018 Peak Period Congestion Levels .....	28
Exhibit 3-2: 2045 Peak Period Congestion Levels .....	29
Exhibit 3-3: CMP Goals, Objectives, and Assets .....	31
Exhibit 3-4: Travel Time Index .....	32
Exhibit 3-5: Regional Crash Rates .....	33
Exhibit 3-6: Level of Travel Time Reliability by Corridor .....	34
Exhibit 3-7: Pavement Condition Ranking by Corridor .....	35
Exhibit 3-8: Bridge Deck Condition Ranking by Corridor .....	36
Exhibit 3-9: Alternative Roadway Infrastructure by Corridor .....	37
Exhibit 3-10: Existing, Planned, and Candidate Park-and-Ride Facilities .....	39
Exhibit 3-11: Alternative Modal Options .....	40
Exhibit 3-12: Regional ITS Technology .....	42
Exhibit 3-13: Regional Controlled Access Facilities with Shoulders .....	43
Exhibit 3-14: Potential Truck Lane Restriction Corridors .....	44
Exhibit 3-15: Operational Asset Evaluation .....	45
Exhibit 3-16: Traffic Incident Management Training, Police Attendance Map .....	46
2003 – October 2020 .....	46
Exhibit 3-17: Traffic Incident Management Training, Fire Department Attendance Map .....	47
2003 – October 2020 .....	47
Exhibit 3-18: Coverage Area by Agency .....	48
Exhibit 4-1: CMP Corridors by Category .....	49
Exhibit 4-2: IH 20 corridor from IH 35W to IH 820 (East) .....	50
Exhibit 4-3: IH 183 corridor from SH 121 to SH 360 .....	51
Exhibit 4-4: Loop 12 corridor from IH 20 to IH 30 .....	52
Exhibit 4-5: IH 30 corridor from IH 635 to PGBT .....	53
Exhibit 4-6: Dallas North Tollway (DNT) corridor from PGBT to IH 635 .....	54

# Congestion Management Process – 2021 Update

---

## APPENDICES

[APPENDIX A](#) – CORRIDOR FACT SHEETS

[APPENDIX B](#) – CORRIDOR OUTPUTS

[APPENDIX C](#) – CMP STRATEGIES

[APPENDIX D](#) – SCORING SYSTEM



# Congestion Management Process – 2021 Update

---

## CHAPTER 1

### OVERVIEW OF THE CONGESTION MANAGEMENT PROCESS

#### Traffic Congestion In The Dallas-Fort Worth Region

With the Dallas-Fort Worth (DFW) urban area as its center, the North Central Texas region plays an important role in the State of Texas, as well as the entire southwestern United States. The region provides critical air and ground transportation hubs for the movement of people and goods throughout the United States and internationally. Locally, these transportation systems support many high technology manufacturers and telecommunications firms, large retail and wholesale distribution centers, and a growing convention and tourism industry.

In 2018, the 12-county DFW Metropolitan Planning Area (MPA) had a population of approximately 7.4 million.<sup>1</sup> By the year 2045, these same 12 counties are forecasted to grow to approximately 11.2 million residents. This growth represents a 50 percent increase in the population of North Central Texas over 27 years.

Urban activity in this area is supported by various ground transportation systems, including:

- 5,599 freeway and tollway lane miles
- 280 express/high-occupancy vehicle (HOV)/tolled managed lane miles
- 93 miles of light rail transit
- 82 miles of commuter rail transit
- 2,395 miles of regional arterials
- Over 7,000 miles of regional veloweb, community shared-use paths, and on-street bikeways

These systems will help alleviate a growing traffic congestion problem in the region. The rapid growth of the DFW region in the past decade has led to increasing transportation problems. A favorable business environment, tax advantages, and the availability of developable land continue to attract many businesses. While growth has many benefits, the recent rate of growth has so overloaded the transportation system that available financial resources to improve transportation have not kept pace. The effects are now evident in increased traffic congestion and delay and substandard air quality.

#### **Congestion Management Process: A Management Solution**

The Congestion Management Process (CMP) seeks a “management” solution to a growing traffic problem by targeting resources to operational management and travel demand reduction strategies. Although major capital investments are needed to meet the growing travel demand, the CMP also develops lower cost strategies that complement major capital recommendations. The result is a more efficient and effective transportation system, increased mobility, and safer travel.

Integrating a management approach into the provision of transportation services and infrastructure is a challenge. Traditional modeling and decision-making systems are biased to the evaluation and implementation of capacity improvements. Tempering these systems with a congestion management approach offers opportunities for stretching transportation resources and is a component of Fixing America’s Surface Transportation Act (FAST) metropolitan planning legislation.

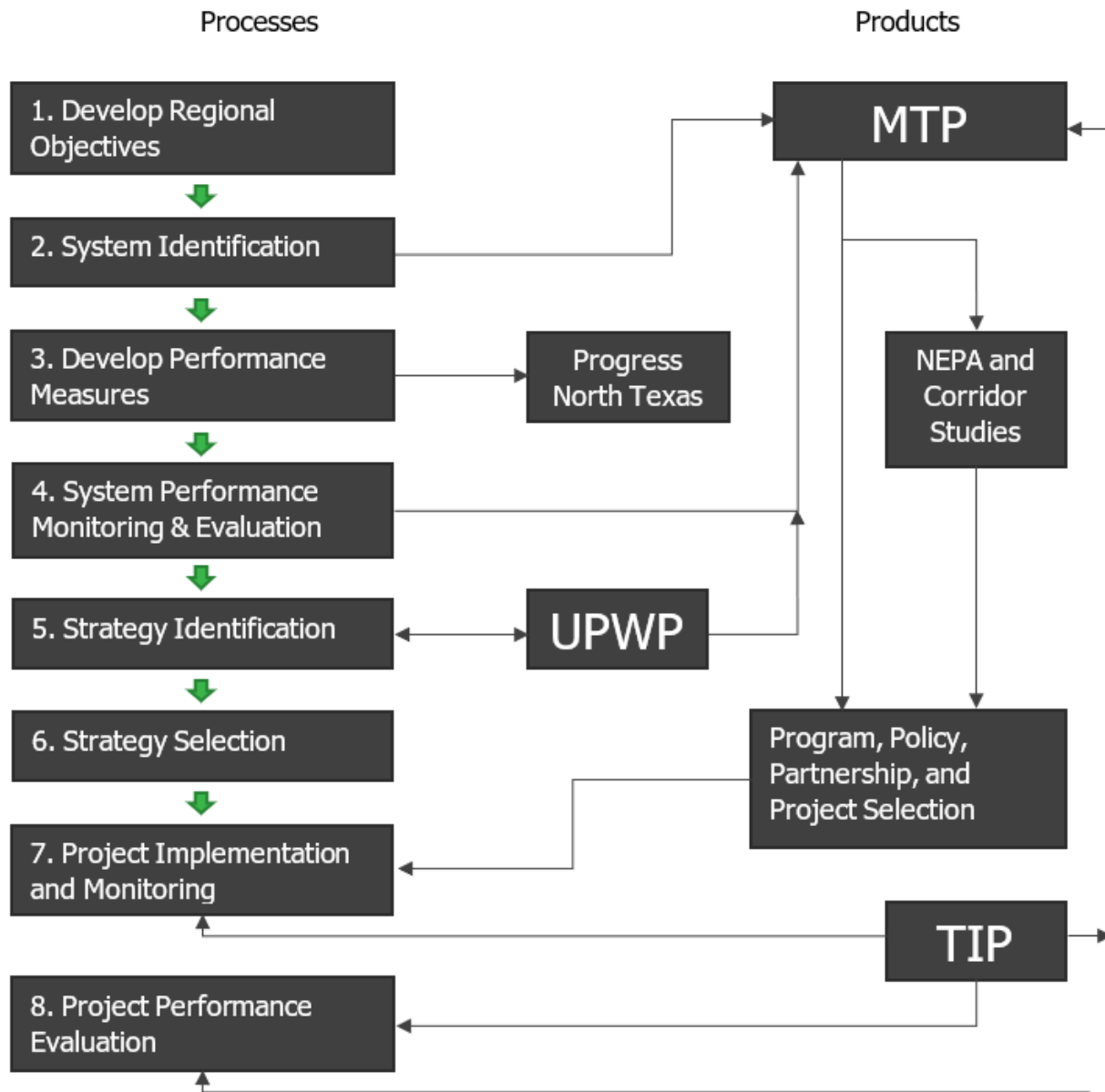
---

<sup>1</sup> 2010 Census, [www.census.gov](http://www.census.gov)

# Congestion Management Process – 2021 Update

As shown in Exhibit 1-1, the CMP is fully integrated into the region’s transportation planning and programming processes. The diagram below illustrates the eight components of the CMP and the role of the conforming Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP), the Unified Planning Work Program (UPWP), and Progress North Texas in this process.

**Exhibit 1-1: CMP Processes and Planning Products**

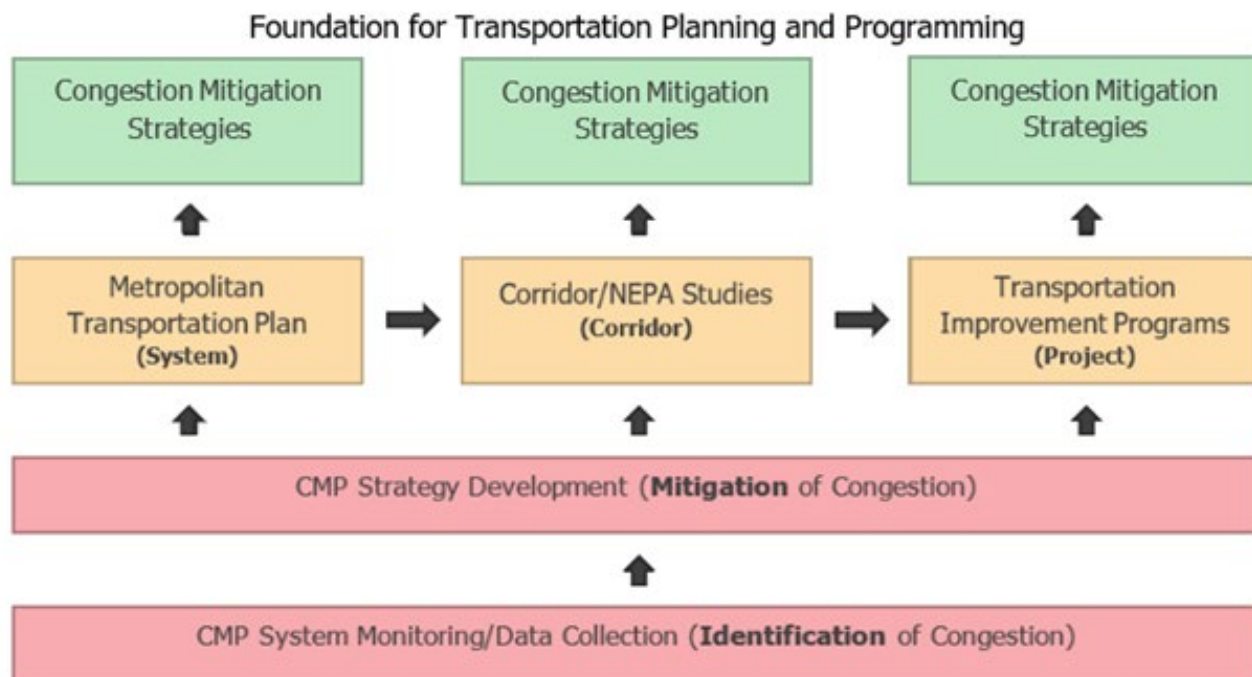


To complement Exhibit 1-1, Exhibit 1-2 identifies how the CMP is integrated into various planning functions. With the identification and mitigation of current and future traffic congestion as the foundation of planning and programming decision making, strategies for congestion mitigation are developed on the system level (in the MTP), on the corridor level (in corridor/National Environmental Policy Act [NEPA] studies), and on the project level (in the TIP).



# Congestion Management Process – 2021 Update

Exhibit 1-2: Congestion Management Process



The need to operate the current transportation system as efficiently as possible is a top priority, because of the air quality and financial challenges faced by the DFW Metropolitan Area. The CMP comprises two types of management approaches proven to be cost-effective tools in addressing these challenges. Transportation System Management and Operations (TSM&O) and Travel Demand Management (TDM) are cost-effective, quick-implementation projects, policies, and programs that encourage the use of alternate travel modes and improve the efficiency of the existing transportation system.

TSM&O seeks to identify and implement cost-effective congestion mitigation strategies to improve traffic flow, safety, system reliability and capacity. Compared to major capacity and infrastructure improvements, management and operations projects are usually low-cost improvements that can be implemented or constructed quickly and with minimal impacts to the transportation network. TSM&O strategies include intersection improvements, traffic signal improvements, bottleneck removals, and Intelligent Transportation System (ITS).

TDM strategies address the demand side of travel behavior, by reducing the number of vehicles that travel on roadways, through the promotion of alternatives to driving alone. TDM strategies include employer trip reduction programs, rideshare programs (vanpool and carpool), park-and-ride facilities, and the operation of transportation management associations. Appendix C highlights the DFW TDM and TSM&O strategies.

## CMP Goals and Objectives

The CMP goals and objectives are aligned with the overall Mobility 2045: The Metropolitan Transportation Plan for North Central Texas goal themes. Mobility 2045 goals support and advance the development of a transportation system that contributes to the region's mobility,

# Congestion Management Process – 2021 Update

---

quality of life, system sustainability, and continued project implementation. The three CMP goals are:

- **Goal One:** Identify quick-to-implement low-cost strategies and solutions to better operate the transportation system.
- **Goal Two:** More evenly distribute congestion across the entire transportation corridor.
- **Goal Three:** Ensure corridors have options and available alternate routes/modes to relieve daily congestion and congestion during incidents and accidents.

Exhibit 1-3 illustrates the integration of Mobility 2045 goals with CMP Goals, Objectives, and Performance.

Exhibit 1-3: CMP Integration

INTEGRATION OF MOBILITY 2045 GOALS WITH CMP GOALS, OBJECTIVES AND PERFORMANCE

Mobility 2045 Goals	CMP Goals and Action	Objectives	Performance Measures
<p><b>Mobility:</b> Support travel efficiency measures and system enhancements targeted at congestion reduction and management.  <b>Implementation:</b> Develop cost-effective projects and programs aimed at reducing the costs associated with constructing, operating, and maintaining the regional transportation system.</p>	<p><b>Goal:</b> Identify quick-to-implement low cost strategies and solutions to better operate the transportation system.  <b>Action:</b> Implement quick-to-implement low cost strategies and solutions to better operate the transportation system.</p>	<ul style="list-style-type: none"> <li>• Reduce SOV trips through travel demand management strategies.</li> <li>• Increase usage of park-and-ride lots.</li> <li>• Provide all users with travel alerts and alternate routes in the case of incidents, special events, weather, construction, and severe congestion at choke points.</li> <li>• Increase the number of intersections that are equipped and operating with traffic signals that enable real-time monitoring and management of traffic flows.</li> <li>• Reduce mean roadway clearance time per incident (the time between awareness of an incident and restoration of lanes to full operational status).</li> </ul>	<ul style="list-style-type: none"> <li>• Number of users in the region participating in Try Parking It</li> <li>• Utilization rate of regional park-and-ride lots</li> <li>• Percent of routes where traveler alerts and alternate route information is provided in the case of incidents, special events, weather, construction, and severe congestion choking points</li> <li>• Percent of intersections in the region equipped and operating with traffic signals that enable real-time monitoring and management of traffic flows.</li> <li>• Average roadway clearance times</li> </ul>
<p><b>Mobility:</b> Improve the availability of transportation options for people and goods.  <b>Mobility:</b> Assure all communities are provided access to the regional transportation system and planning process.  <b>Quality of Life:</b> Preserve and enhance the natural environment, improve air quality, and promote active lifestyles.</p>	<p><b>Goal:</b> More evenly distribute congestion across the entire transportation corridor.  <b>Action:</b> Conduct inventory of corridor system to identify availability of existing options.</p>	<ul style="list-style-type: none"> <li>• Reduce the percentage of facility miles (highway, arterial, rail, etc.) experiencing recurring congestion during the peak period.</li> <li>• Maintain the rate of growth in facility miles experiencing recurring congestion as less than the population growth rate (or employment growth rate).</li> <li>• Increase the number of HOV/Managed lanes in the region.</li> <li>• Increase alternative (non-SOV) mode share for all trips.</li> <li>• Increase active (bike/ped) mode share.</li> <li>• Increase mode share in transit.</li> <li>• Increase access to transit (within two miles) to specified percentage of the population.</li> </ul>	<ul style="list-style-type: none"> <li>• Percent of lane-miles operating at LOS F or V/C &gt; 1.0</li> <li>• Population growth rate</li> <li>• Total number of HOV/Managed lanes in the region</li> <li>• Share of employees walking, biking, telecommuting, carpooling/vanpooling, riding transit, driving tracked through Try Parking It website</li> <li>• Share of trips by each mode of travel</li> <li>• Percent of trips that take transit as a mode of travel</li> <li>• Percent of population within two miles of a transit station</li> </ul>
<p><b>System Sustainability:</b> Ensure adequate maintenance and enhance the safety and reliability of the existing transportation system.</p>	<p><b>Goal:</b> Ensure corridors have options and available alternate routes/modes to relieve daily congestion and during incidents and accidents.  <b>Action:</b> Prioritize corridors based on available options and alternate/modes routes.</p>	<ul style="list-style-type: none"> <li>• Reduce buffer index on freeway system during peak and off-peak periods.</li> <li>• Reduce delay associated with incidents on arterials.</li> <li>• Conduct joint training exercises among operators and emergency responders in the region.</li> <li>• Increase the percentage of regional staff with incident management responsibilities that have completed and participated in the regional Freeway Incident Management Training.</li> </ul>	<ul style="list-style-type: none"> <li>• The buffer index (represents the extra time “buffer” travelers add to their average travel time when planning trips in order to arrive on-time 95 percent of the time)</li> <li>• Incident response and clearance times</li> <li>• Number of participants and joint training exercises conducted among operators and emergency responders</li> <li>• Percent of staff in a corridor that have completed regional Freeway Incident Management Training</li> </ul>

# Congestion Management Process – 2021 Update

---

As indicated in Exhibit 1-3, each CMP goal has an associated action, objectives, and performance measures. The section below discusses each CMP goal and the specified action.

## ***Goal One: Identify quick-to-implement low-cost strategies and solutions to better operate the transportation system.***

To achieve CMP Goal One, the CMP offers an action of applying quick-to-implement low cost strategies and solutions to better operate the transportation system. These quick-to-implement strategies are incorporated into two types of management approaches; Travel Demand Management and Transportation System Management and Operations. Examples of quick-to-implement strategies and projects are included in Appendix C.

## ***Goal Two: More evenly distribute congestion across the entire transportation corridor.***

To achieve CMP Goal Two, the CMP recommends an action of conducting an inventory of the corridor characteristics to identify availability of existing options. To achieve this action, a corridor inventory of regional controlled access facilities was conducted. As part of this evaluation, each corridor was inventoried to determine the various options that exist along that corridor to help alleviate congestion from the main roadway facility. The inventory looked at four categories of options that may influence congestion levels: assets roadway infrastructure, alternative modes, and operational assets. More information on this inventory and analysis is included in the Chapter 3 Transportation System Performance Criteria and Asset Inventory Section of this document.

## ***Goal Three: Ensure corridors have options and available alternate routes/modes to relieve daily congestion and congestion during incidents and accidents.***

To satisfy Goal Three, the CMP recommends an action of prioritizing corridors based on available options and alternate routes and modes. To satisfy this action, the information collected through the corridor inventory was used in the CMP Corridor Scoring Criteria. This allowed the controlled access facilities to be scored and ranked to determine the current corridor system deficiencies. More information on this CMP Corridor performance criteria and identification of corridor areas of deficiency are included in the Chapter 3 Transportation System Performance Criteria and Asset Inventory Section.

## **Integrating the CMP into the Metropolitan Transportation Plan**

Mobility 2045 was developed amidst growing concern for increased congestion, poor air quality, and the lack of financial resources to fund many desired transportation projects and programs. To maximize available funds, a prioritization process was followed to maximize the existing transportation system, then invest strategically in infrastructure improvements. The principles used to allocate financial resources include:

- Maintain and operate existing facilities;
- Improve efficiency of existing facilities and reduce single-occupancy trips;
- Improve land-use/transportation connections;
- Increase transit trips;
- Increase auto occupancy; and
- Add roadway capacity.

# Congestion Management Process – 2021 Update

The process began by assuming that the current infrastructure and other transportation strategies were in place. Funding necessary to maintain and operate the current transportation system was then allocated. Next, an assessment of MTP 2045 travel demand was done to identify future congested locations and to identify transportation system deficiencies. The first priority was to squeeze as much efficiency out of the current transportation system as possible and to eliminate as many trips as possible from peak travel times. Congestion mitigation strategies were developed to increase transportation system efficiency through transportation systems management and to reduce drive-alone travel through travel demand management, including bicycle and pedestrian strategies.

With these strategies assumed, alternative rail systems were developed in an effort to reduce automobile travel. If trips could not be eliminated altogether, a mode change to transit was modeled. Following the identification of a recommended rail system, HOV and managed lane facilities were evaluated as a strategy to increase auto occupancy of the remaining trips. Finally, to accommodate the remaining demand, single-occupant vehicle capacity was evaluated in congested corridors. Throughout the development of each of these components, air quality and financial impacts were evaluated to ensure that financial feasibility and air quality conformity requirements could be met. In addition, each component was also reviewed for sustainable development and intermodal opportunities so that the recommendations minimized community impacts and accommodated freight movement.

Surface transportation projects, programs, and policies were developed that aggressively target traffic congestion and improve air quality for the DFW Metropolitan Area in a cost-effective manner. The recommendations reflect a balanced transportation system, both in terms of providing multimodal options and financial constraint. Exhibit 1-4 indicates the cost of each plan component, demonstrating a continued investment in traditional capital improvements, while prioritizing funds in more non-traditional modes, as well as a system-oriented approach to management and operations.

**Exhibit 1-4: Mobility 2045 Update Expenditure Summary**

<b>Mobility 2045 Expenditures</b>	
Infrastructure Maintenance	\$36.8
Management and Operations Strategies	\$9.5
Growth, Development, and Land-Use Strategies	\$3.2
Public Transportation	\$33.3
Roadway System	\$53.6
<b>Total (Actual \$, Billions)</b>	<b>\$136.4</b>
<i>Values may not sum due to independent rounding</i>	

Congestion mitigation is an integral element of the MTP. It serves as a guide for implementing both near-term and long-range regional transportation improvements. The Congestion Management Process (CMP) identifies where congestion occurs or is expected, evaluates strategies to mitigate congestion, and develops plans for implementation of the most cost-effective strategies. While CMP strategies will be implemented across the entire area, the congested area has been targeted for more intensive data collection and monitoring efforts as part of the ongoing congestion management process.

# Congestion Management Process – 2021 Update

---

The performance of the current and future transportation system was measured in conjunction with the plan development process. A variety of quantifiable system performance measures were used to identify the extent and duration of traffic congestion. Candidate strategies were assessed for their effectiveness and feasibility of implementation in the region. A number of regional congestion mitigation strategies were recommended for implementation. These were relatively low-cost measures designed to manage the transportation system and reduce travel demand.

This program includes operational management and travel demand reduction strategies anticipated to be the most cost-effective for this region. Total program cost for the congestion mitigation element of the plan is approximately \$9.5 billion. This is in addition to the freeway, tollway, express/HOV, and tolled managed lane system; public transportation; infrastructure maintenance; and sustainable development strategies that together total \$136.4 billion.

The adopted congestion mitigation strategies include traffic signal and intersection improvements aimed at reducing delay on arterial streets. Freeway bottleneck removals combined with deployment of incident detection and response systems, including motorist assistance and accident clearance, are proposed to maintain traffic flow on the limited access highway system. TDM strategies such as employer trip reduction programs, park-and-ride facilities, and rideshare programs are also included.

## **Integrating the CMP into the Corridor Study and NEPA Process**

Federal law prohibits single-occupant vehicle (SOV) capacity from being added in transportation management areas (urbanized areas with a population greater than 200,000) which are also nonattainment areas for ozone unless the recommendation is part of the regional CMP. The CMP focuses on balancing additional capacity with congestion mitigation strategies to complement each other in a corridor analysis. The result may be that a given corridor may not include all of the capacity that would be required to eliminate all congestion at all times of day but may provide enough physical capacity to eliminate much of the congestion in the off-peak periods and shoulders of the peak period but will rely on identified congestion mitigation strategies to improve traffic flow in the peak periods. This approach allows for a series of scaled-back projects that may be proposed across the region rather than concentrating resources in a few heavily congested areas and providing no improvements in other areas.

Since these recommendations are the result of the system planning process, which is aimed at maximizing system-level performance and financial issues, the result in each corridor must be refined to reflect the specific issues associated with the corridor. This refinement of the MTP and CMP is the result of corridor studies and National Environmental Policy Act (NEPA). The corridor study refines the recommendations identified in the MTP while the NEPA process evaluates the environmental and social impacts of the proposed corridor recommendations. Often, the corridor study and NEPA evaluation are performed concurrently. If the recommendations of the corridor/NEPA studies are different than those of the MTP or CMP, including the financial placeholder assumption, the MTP and CMP must be updated to reflect the recommendations. As the MTP, including the TDM and TSM&O strategies, is financially constrained, any change in the financial assumption for the corridor will have impacts for the entire MTP and should be thoroughly evaluated.

## Relationship of the CMP with Corridor/NEPA Studies

As the Dallas-Fort Worth region seeks to integrate a management philosophy into all aspects of transportation planning and programming, it is intended that congestion mitigation strategies be developed as part of all corridor studies and subsequently included as part of the NEPA



# Congestion Management Process – 2021 Update

---

evaluation. NCTCOG staff provides guidance and support to all corridor study lead agencies, as they seek to incorporate TSM&O and TDM reduction strategies on proposed facilities. The evaluation of all reasonable congestion mitigation strategies is viewed as essential to progressive transportation planning in this region.

The CMP will have a role in all corridor studies conducted in the region. The CMP will conduct an analysis of expected benefits and costs for all TDM and TSM&O strategies to be considered in these corridors. This analysis will be done on an as-needed basis and will become part of the corridor study and subsequent NEPA documentation. In this way, the regional strategies identified in the MTP will be applied on a corridor level. Any additional congestion mitigation strategies identified will then be evaluated for their application on the corridor or sub-area level and, pending results of the corridor analyses, will be considered for inclusion in the regional MTP.

As portrayed in Exhibit 1-5, the development of CMP strategies in corridor studies is conducted by first evaluating the effects of the adopted regional congestion mitigation strategies in the corridor. This is done by:

1. Identifying the committed TDM and TSM&O strategies from the TIP, the CMP, and local government bond programs;
2. Quantifying the effects of the committed TDM strategies with regional travel model trip table adjustments; and
3. Quantifying the effects of the committed TSM&O strategies with regional travel model network speed and capacity adjustments.

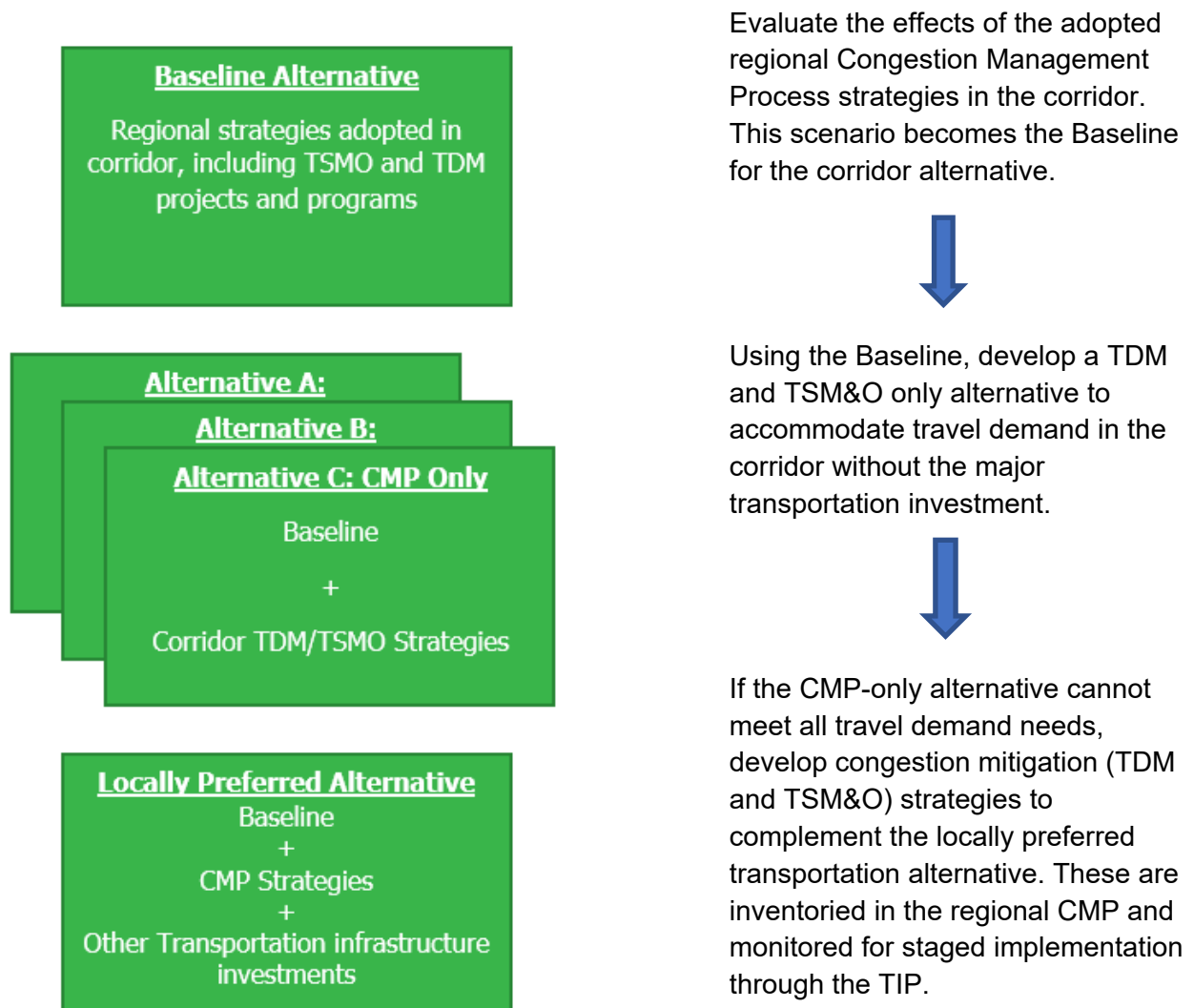
This CMP scenario becomes the baseline for all the corridor alternatives.

Next, using this CMP baseline, a TSM&O/TDM-only alternative is developed which attempts to accommodate travel demand in the corridor without the major transportation investment. This is done using the following steps:

1. Conduct an inventory of the corridor's transportation systems and facilities;
2. Assess current and future corridor conditions;
3. Identify transportation deficiencies and problems in the corridor;
4. Identify strategies which can be implemented directly by individual agencies without needing evaluation;
5. Identify corridor-level TDM and TSM&O strategies which address the problems and deficiencies in the sub-area, and the specific actions which support those strategies; and
6. Conduct an evaluation of the actions to assess their impacts in the corridor, documenting the extent to which these actions can alleviate travel demand in the corridor.

# Congestion Management Process – 2021 Update

Exhibit 1-5: CMP Strategy Development In Corridor Studies



# Congestion Management Process – 2021 Update

---

If the CMP-only alternative cannot satisfactorily address the congestion issues, additional capacity alternatives are evaluated along with appropriate CMP strategies which complement the capital investment. This is done through the following tasks:

1. Identify problems and deficiencies in the corridor that are unique to the locally preferred alternative;
2. Review strategies for their compatibility with the locally preferred alternative and identify opportunities for staged implementation;
3. Identify TDM and TSM&O actions which address the problems and deficiencies in the corridor and enhance the operation of the facility
4. Conduct an evaluation of the locally preferred alternative (which includes the CMP complement);
5. Recommend a program of TDM and TSM&O strategies that can be incorporated into the facility and in the corridor. Identify implementation responsibilities and outline an implementation schedule; and
6. Incorporate recommended CMP strategies into the NEPA evaluation and commit to them as part of the corridor development planning.

Using the strategies described above, the following questions are addressed:

- What are the effects of TDM and TSM&O strategies in the corridor?
- How much travel demand can be accommodated by TDM and TSM&O strategies?
- Is the major transportation investment really needed? Can it be scaled down?
- What is the most appropriate mix of transportation infrastructure and management strategies for this corridor?

## Corridor/NEPA Study Recommendations

As the Metropolitan Planning Organization (MPO) for the DFW region, NCTCOG is involved in several ongoing corridor/NEPA studies. These studies represent very different transportation challenges in the region and are varying in scope. Once the lead agency has completed a draft corridor/NEPA study, the recommendations must be endorsed by the lead agency. The recommendations of the corridor/NEPA study must be the same as the recommendations in the MTP and CMP for the subject corridor.

The operational management and travel demand reduction strategies identified in a corridor/NEPA study are seen as commitments being made by the DFW region at two levels; project-level and program-level implementation. In February 1998, the RTC passed Resolution Number R98-01 (Appendix B), which requires that all major investment studies (MIS) (now referred to as corridor/NEPA studies) include an evaluation of operational management and travel demand reduction solutions to congestion and air quality concerns. The resolution also required that an inventory of all commitments made in environmental documents be created and used to monitor the timely implementation of these commitments. In July 2013, the RTC adopted a policy directive that requires the review and application of congestion mitigation strategies to correct corridor deficiencies identified in the CMP, when performing corridor and environmental studies and report findings back to NCTCOG. Program-level commitments are inventoried in the financially constrained MTP, and future resources are earmarked for their implementation. At the project implementation level, these projects are monitored so they can be added to the regional TIP at the appropriate time with respect to the single-occupancy vehicle facility implementation.

# Congestion Management Process – 2021 Update

---

CMP strategy development is critical to the successful integration of congestion mitigation into the Corridor Study process. However, traditional evaluation tools and decision-making systems, geared to supporting major capital investment decisions, are perhaps relied upon too heavily to make decisions on the appropriate level of TMS&O and travel demand reduction strategies. Additionally, the need for developing management strategies as part of a corridor/NEPA study is not clearly understood by some individuals who may serve on technical and policy groups. For these reasons, it is imperative that the MPO play an active role in educating strategy development committees on the need for an open debate of all reasonable congestion mitigation strategies.

## **Integrating the CMP into the Transportation Improvement Program Process**

The MTP is both a strategic planning document and a detailed, long-range plan for future investment in the DFW region. It identifies and prioritizes projects and programs designed to enhance the roadway network, transit services, and goods movement through the year 2045. The long-range plan is constrained by available revenues to fund the maintenance, operation, and construction of the transportation system and by vehicle emissions budgets established to attain clean air standards. Candidate MTP projects have been identified from city, county, state, and transit agency submittals. Additional projects have been added to the list based upon needs identified by the MPO.

To make sound programming decisions, and to ensure that selected projects conform to air quality and financial planning mandates, it is necessary to evaluate programs and projects proposed for inclusion in the TIP. This evaluation process is described in the following paragraphs.

## **CMP Compliance Process**

Compliance with the CMP is the implementation of CMP principles into programmed projects. Since the CMP focuses, by definition, on short-term, simple solutions to solving deficiencies, the majority of compliance is done through implementing projects in the Transportation Improvement Program, or TIP, a federally-required plan covering at least four years. Each edition of the TIP is developed much like a metropolitan or comprehensive plan but is typically modified four or more times per year in what NCTCOG calls a “TIP modification cycle.” The CMP is integrated into these TIP processes through two different policies; SOV Analysis and Project Implementation and Monitoring.

### Single Occupant Vehicle Analysis

Single-Occupant Vehicle (SOV) analysis determines if additional capacity is needed in a roadway. Since DFW is an air quality non-attainment area, any project which adds significant capacity to general purpose lanes must first go through SOV analysis. For additional capacity to be justified, it must be shown through modeled or observed traffic counts that the roadway will be severely congested without the proposed addition of lanes. There are also certain additions of lanes that can be considered exempt from SOV analysis and are therefore justified. This calculation is done by determining the ratio of the roadways volume over capacity ratio. The capacity is determined by the type of roadway (e.g., freeway, minor arterial, principal arterial) and the type of land use surrounding the project (e.g., urban, suburban, rural). Volume is estimated based on NCTCOG’s travel demand model, or by various traffic count collection programs. If a roadway would still be over 80% at capacity during the peak hour, it is considered justified for additional capacity and can be codified in the TIP after meeting additional CMP requirements.

# Congestion Management Process – 2021 Update

---


Certain projects add capacity in such a way that the additional capacity itself is an implementation of congestion management strategies. Solving safety problems, bottleneck improvements, congestion pricing, and access management are all strategies that reduce overall congestion in the system and contribute additional benefits of health, safety, and welfare to the region's residents. Safety problems are a major source of non-recurring congestion, that is, congestion not experienced during peak traffic times, that reduces the reliability of the transportation system. Bottleneck improvements target specific roadway design or operational problems in order to reduce traffic conflicts such as dropped lanes, weaving areas, and work zones.

Congestion pricing is implemented through Express and Tolled Management and helps reduce the number of vehicles in free general purpose lanes and increases HOV travel by offering free or discounted express facilities. (A portion of toll revenue is collected for financial assistance of locally funded projects.) Access management provides a safer, more efficient means of accessing the transportation system through decreasing travel times, intersection design, signal timing, and driveway management and spacing, among other strategies. These capacity-related projects complement TDM, and TSM&O strategies to decrease the overall congestion of corridors and systems.

## CMP Implementation and Monitoring

The second part of CMP compliance is Implementation and Monitoring. As SOV-justified capacity projects are added to the TIP, NCTCOG staff correspond with TxDOT and other implementing agencies to communicate the deficiencies in the project corridor, as well as suggested CMP strategies to correct the deficiencies. This is done through an email directed to the project manager of the project's, or to the submitter of the modification if sent from another implementing agency. The email acts as official transmittal and correspondence between NCTCOG and government agencies and allows both sides to proactively assess local and regional needs to successfully implement the goals and objectives of the CMP.

NCTCOG staff use data collected by various transportation department program areas to continually evaluate regional performance, as well as congestion-related deficiencies found throughout major corridors of the transportation system. These evaluations are summarized, and any new capacity project added to the TIP is reviewed to determine if its limits fall within a CMP corridor. If it does, the corridor is reviewed for consistency and currency, then the deficiencies of the project's corridor are compiled in an email, along with alleviating strategies, for review by the project manager. A reply of intended commitments to program CMP strategies in the corridor is required before CMP compliance is complete. Once commitments have been sent to NCTCOG and reviewed for accuracy, CMP staff "sign-off" on the project in the TIP project database.

Once commitments are received and approved, they are recorded by CMP staff for monitoring and tracking in future revisions of the TIP using the TIP database. Modifications to the TIP are numbered by project and by modification, so CMP staff use the project number to ensure future modifications are made in the projects limits that are consistent with the agreed upon commitment. CMP staff monitors overall development of the initial TIP and modifications in order to generate commitments and implement CMP strategies as early in the project planning and delivery process as possible. Exhibit 1-6 illustrates the compliance process through the TIP/STIP implementation and monitoring phases. 

# Congestion Management Process – 2021 Update

**Exhibit 1-6: CMP Compliance Process**



## Summary

The CMP is a systematic process for determining acceptable congestion levels in a region, measuring the congestion performance of the transportation system, and prioritizing strategies for managing that congestion. Federal requirements define the required elements of a CMP and specify that areas with populations over 200,000 must implement and maintain a CMP.

The CMP for the DFW region is fully implemented into the planning and programming process performed as an MPO. The process is integrated in the development of the MTP, the TIP, the UPWP, and Progress North Texas, as well as corridor studies. Three goals have been established for the CMP that align with the overall Mobility 2045. These goals include the



## Congestion Management Process – 2021 Update

---

identification of quick-to-implement low cost strategies and solutions to better operate the transportation system; more evenly distribute congestion across the entire transportation corridor, and; ensure corridors have options and available alternate routes/modes to relieve congestion daily and during incident and accidents.

Based on the demographics highlighted at the beginning of this section, the DFW region is expected to continue to grow at a magnitude never before experienced. As the region continues to grow, traffic congestion is expected to increase. The CMP will continue to be a critical component of the planning process, and operational management and travel demand reduction strategies will be necessary to keep the region desirable for future residents and employers.

# Congestion Management Process – 2021 Update

---

## CHAPTER 2 SYSTEM IDENTIFICATION

The DFW Metropolitan Transportation System is comprised of three major components – the regional freeway and tollway system, the regional arterial system, and the regional transit system. The regional freeway and tollway system is typically characterized by controlled-access general purpose lanes, HOV lanes, managed lanes, and frontage roads. The freeway and tollway system carries nearly half of all vehicle travel in the area, and this is anticipated to continue through the year 2045. The regional arterial system provides support and access to the freeway and tollway system. Lastly, the regional transit system is comprised of passenger rail, bus routes, and park-and-ride facilities. The regional transit system is operated by the Dallas Area Rapid Transit (DART), the Denton County Transportation Authority (DCTA), and Trinity Metro. These agencies provide traditional transit service throughout much of the DFW Metropolitan Area.

In addition to the regional freeway and tollway system, the regional arterial system and the regional transit system, the regional active transportation network is another transportation mode for travelers in the DFW region to utilize. The regional active transportation network cannot be treated as standalone facilities, sidewalks, off-street shared-use paths, and on-street bikeways should be integrated as part of Complete Streets, and they should be interconnected with transit services and other modes of transportation. This seamless multimodal transportation network can connect housing and key destinations, including employment centers, education, medical, retail and entertainment centers, and others. Much of the region's 2045 active transportation network of pedestrian facilities and on-street bikeways will be implemented through Complete Streets designed and operated to enable safe access and travel for users of all ages and abilities.

Despite ongoing technological advances, expanded transit systems, and increased awareness/sensitivity to environmental concerns, there will continue to be significant demand placed on the regional transportation system. The continued demand will warrant continued system improvements and expansion well into the future.

### **Regional Freeway and Tollway System**

System expansion, operation and maintenance of the regional freeway and tollway system are expensive ventures. Mobility 2045 faces the challenge of balancing a huge demand on an already overused system with less than adequate funding resources from traditional fuel tax and vehicle registration fee revenues.

Historically, TxDOT financed highway projects on a “pay-as-you-go” basis, using motor fuel taxes and other revenue deposited in the State highway fund. However, population increases, and traffic demand outpaced the efficiency of this traditional finance mechanism, leading to increasing use of tolled facilities. Developing projects as toll roads can help bridge the gap between transportation needs and financial resources.

Past sessions of the State Legislature have focused on the reliance on tolls and the need to reevaluate the balance between tolled and non-tolled roadways. A guiding principle in the development of Mobility 2045 considered this pendulum swing away from tolled roadways and back toward more tax-funded facilities. State Proposition 1 and State Proposition 7 have provided the region with more transportation funding toward general-purpose lanes, and the state gas tax will no longer be diverted to non-transportation uses.

## Congestion Management Process – 2021 Update

The funding from these changes only accounts for approximately one-third of the identified need for transportation projects in Mobility 2045. For this reason, Mobility 2045 still includes recommendations for toll roads and tolled managed lanes both to manage congestion and to leverage funds to deliver both tolled and non-tolled capacity. These recommendations are the result of analyses of the current and proposed freeway/tollway system in conjunction with the proposed managed facility system. There is recognition that the freeway and managed facilities work together and thus are analyzed in that manner. Exhibit 2-1 shows the lane miles per county for the regional freeway and tollway system for 2018 and 2045.

**Exhibit 2-1: Freeway/Tollway Lane Miles Per County**

<b>County</b>	<b>Year 2018</b>	<b>Year 2045</b>
Collin	484	754
Dallas	2,083	2,520
Denton	402	744
Ellis	388	481
Hood	0	0
Hunt	118	176
Johnson	155	208
Kaufman	223	246
Parker	159	193
Rockwall	77	105
Tarrant	1,498	1,955
Wise	12	39
<b>Total</b>	<b>5,599</b>	<b>7,421</b>

Exhibit 2-2 highlights the funded controlled access facility recommendations for Mobility 2045. The total cost for the implementation of the freeway, tollway, and managed facility improvements is \$40 billion. Costs from the plan are based on current planning and engineering studies, were reviewed by TxDOT and NTTA, and represent total project cost reflected in year of expenditure dollars consistent with federal planning requirements.

# Congestion Management Process – 2021 Update

Exhibit 2-2: Mobility 2045 Major Roadway Recommendations

## Major Roadway Recommendations

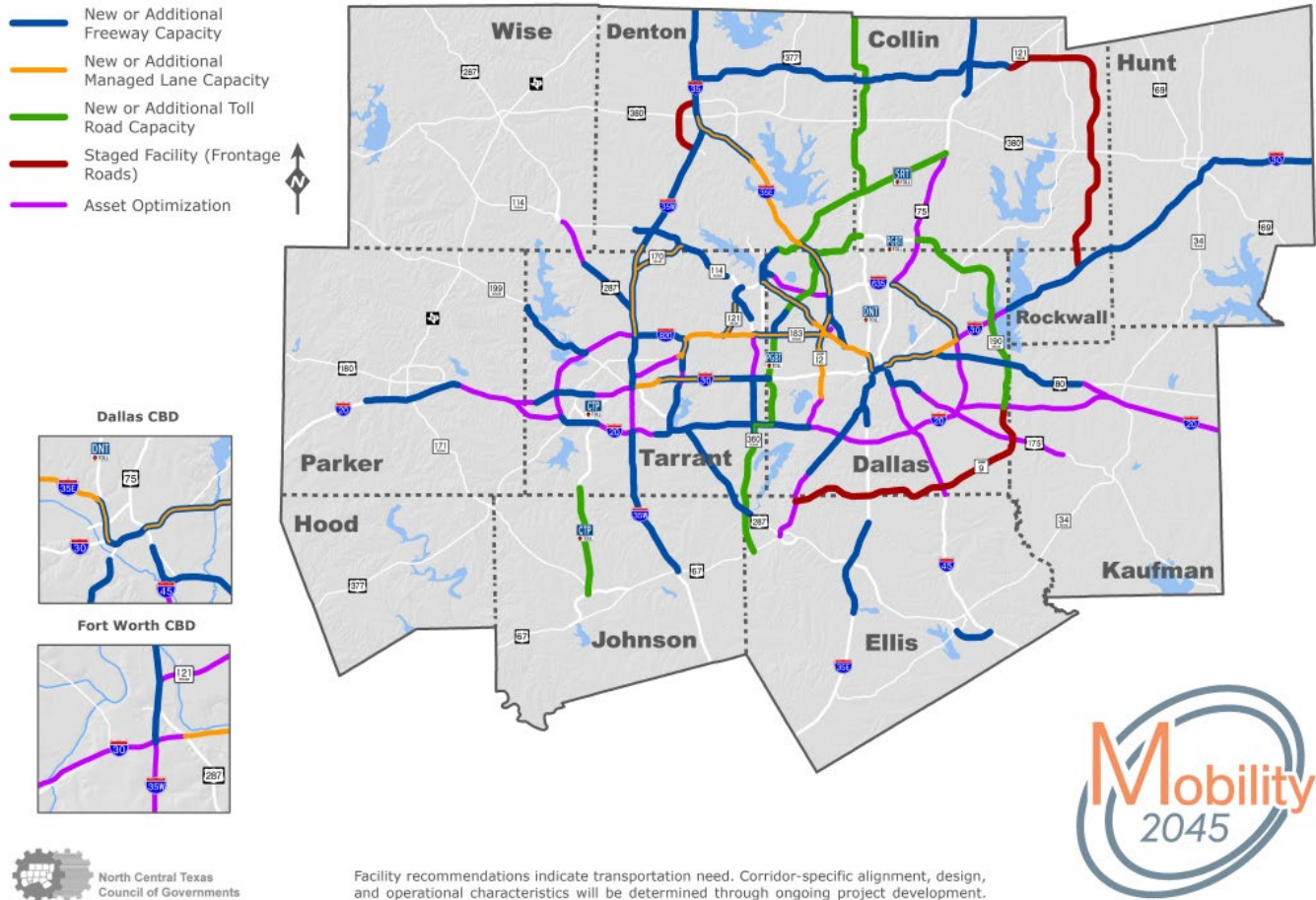


Exhibit 2-3 displays the network of tolled roads and tolled managed lanes recommended in Mobility 2045. The network shown in this map includes the existing toll road system managed by North Texas Tollway Authority (NTTA); new tollways that are expected to be constructed by local toll authorities, regional mobility authorities, and TxDOT; and the express/HOV and tolled managed lane system that is being developed cooperatively between NCTCOG, TxDOT, and NTTA. Exhibit 2-4 includes the Express/HOV/Tolled/Tolled Managed Lane miles per county.

# Congestion Management Process – 2021 Update

Exhibit 2-3: Network Of Tolled Roads And Tolled Managed Lanes Recommended In Mobility 2045

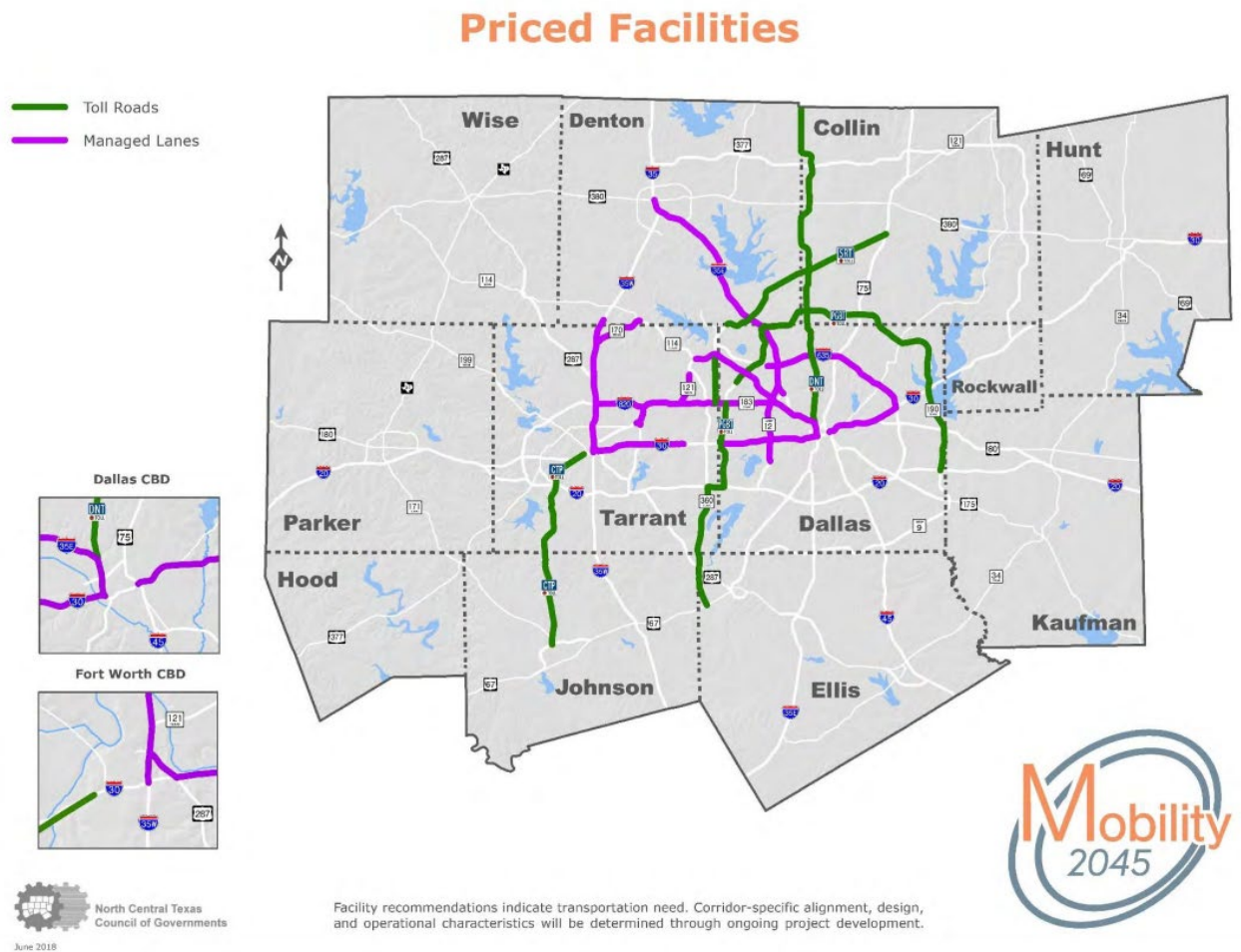


Exhibit 2-4: Express/HOV/Tolled Managed Lane Miles Per County

County	Year 2018	Year 2045
Collin	11	0
Dallas	151	296
Denton	23	83
Tarrant	95	210
<b>Total</b>	<b>280</b>	<b>589</b>

Source: Expanded Dallas-Fort Worth Regional Travel Model, NCTCOG



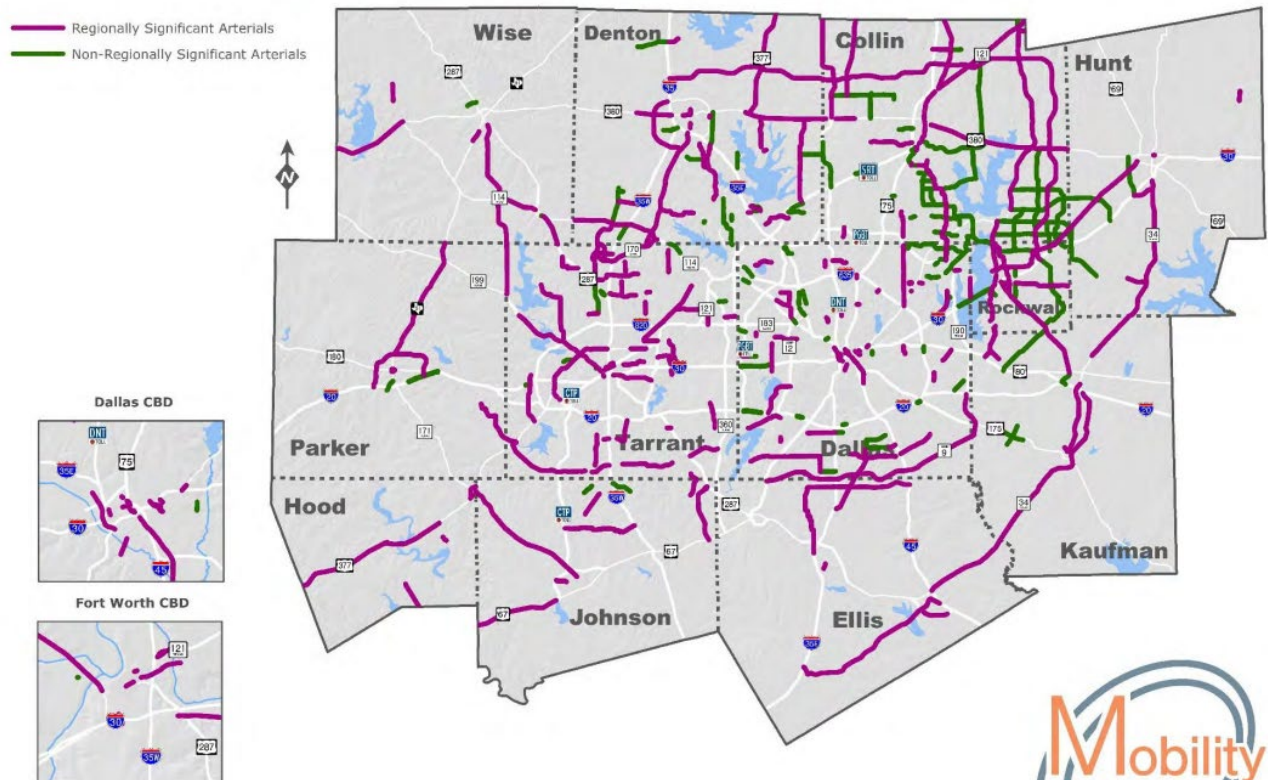
# Congestion Management Process – 2021 Update

## Regional Arterial System

The Designated Regionally Significant Arterial System, shown in Exhibit 2-5 is a critical component of Mobility 2045 in providing transportation support and access. This system of arterials is forecasted to carry approximately 39 percent of all vehicular traffic in the region by 2045. The significance of regional arterials to the region’s transportation system becomes increasingly essential as reliever facilities to parallel controlled access facilities, as well as supporting accessibility to other regional facilities to and from local land uses.

**Exhibit 2-5: Designated Regionally Significant Arterials**

## Arterial Capacity Improvements



North Central Texas  
Council of Governments  
November 2018

Lines on this map depict arterials with funds for improvement. Facility recommendations indicate transportation need. Corridor-specific alignment, design, and operational characteristics will be determined through ongoing project development.



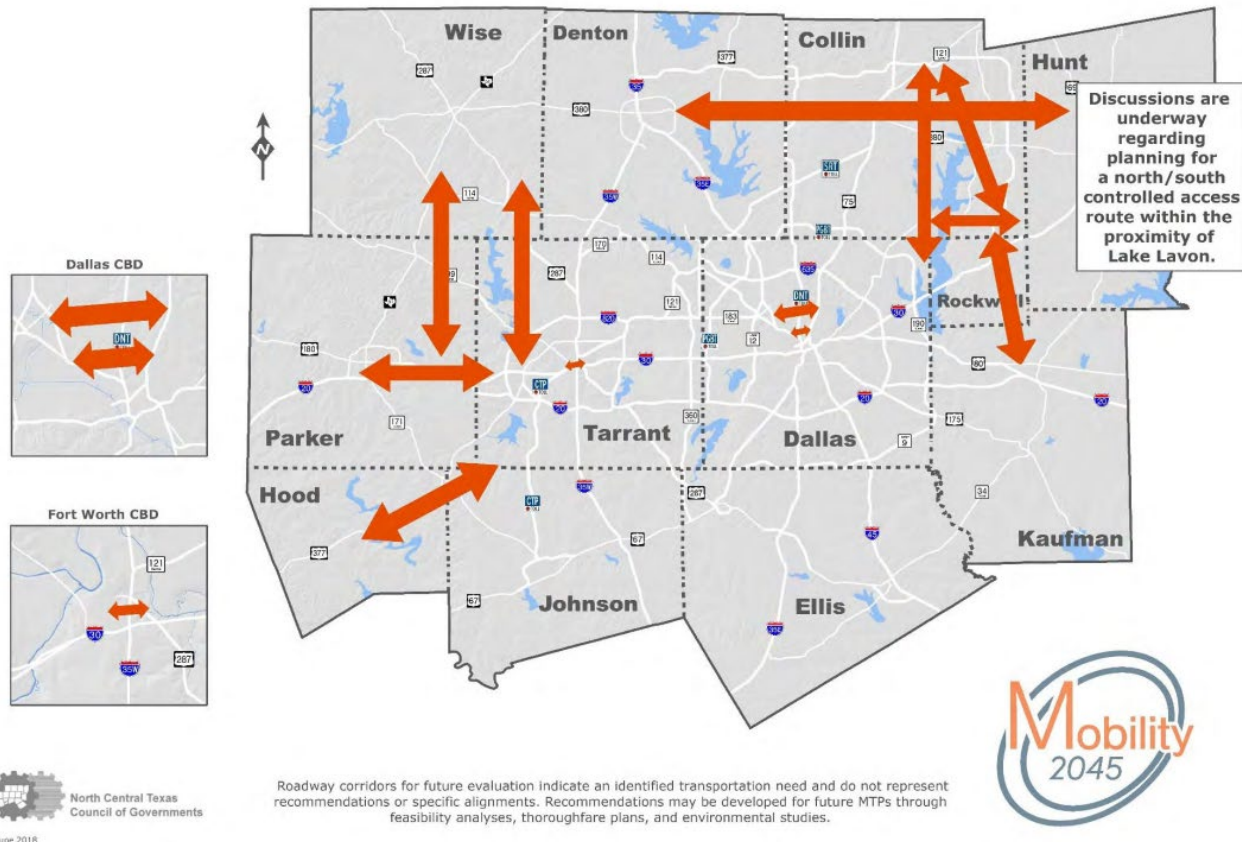


# Congestion Management Process – 2021 Update

The regionally significant arterials that are currently funded for improvement or anticipated to be funded within the timeframe of Mobility 2045 are shown in Exhibit 2-6. Mobility 2045 has designated \$8.8 billion for regionally significant arterial improvements; a majority of this funding will come from traditional federal and state revenue.

**Exhibit 2-6: Funded Arterial Improvements**

## Roadway Corridors for Future Evaluation

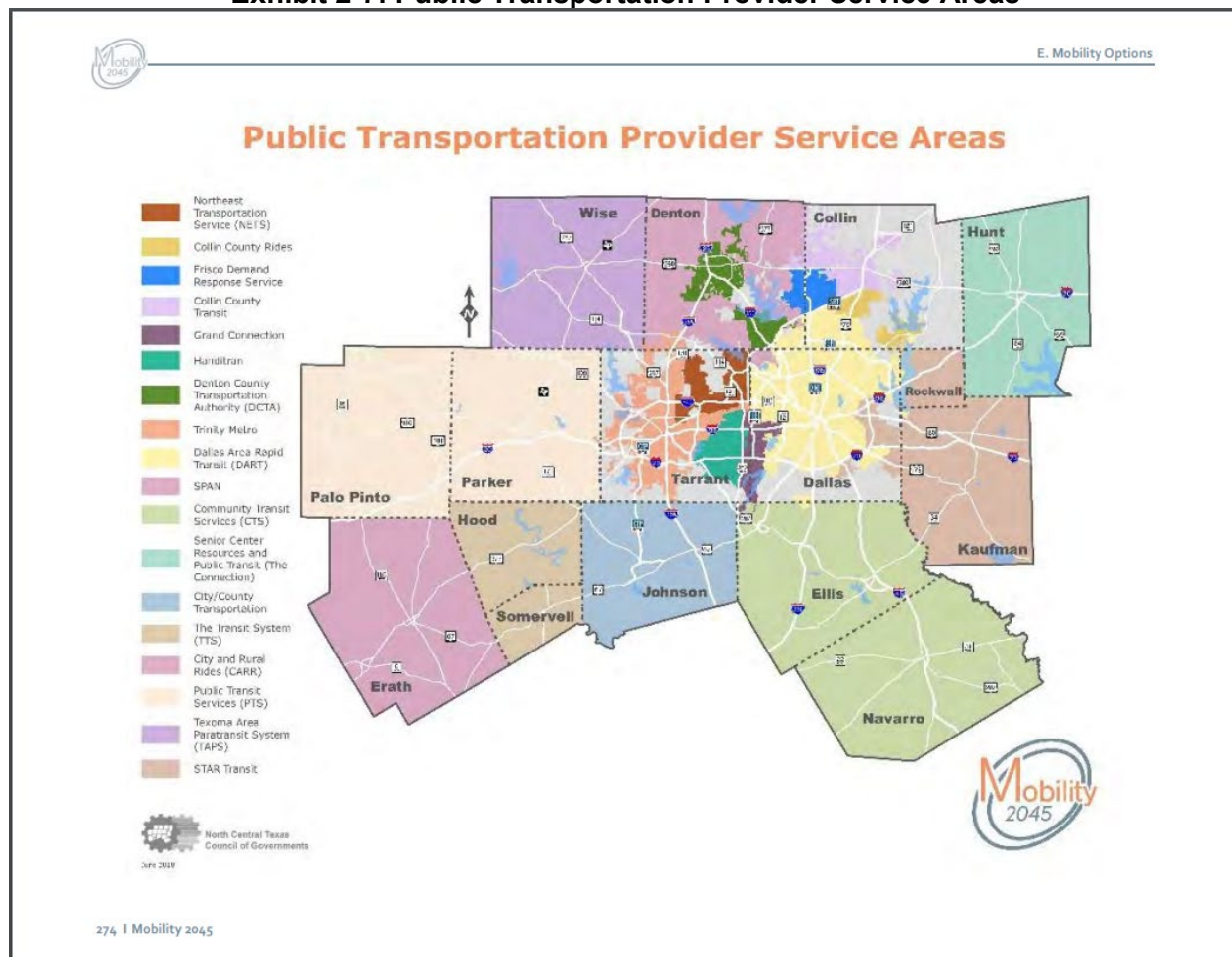


### Regional Transit System

Public transportation services throughout the DFW Metropolitan Area are provided by small and large transit-focused organizations. The three largest organizations (DART, DCTA, and Trinity Metro) provide traditional transit service throughout much of the DFW Metropolitan Area. Other local organizations provide complementary services that coordinate transit operations and human services in less densely populated areas in North Central Texas. There are an additional 80 known public, private, and specialized transportation service providers in North Central Texas. Exhibit 2-7 highlights the service areas for some of the larger transit providers.

# Congestion Management Process – 2021 Update

Exhibit 2-7: Public Transportation Provider Service Areas



DART was created by voters in 1983 and is funded with a one-cent sales tax by 13 member cities. DART’s nearly 700-square-mile service area includes a broad range of services such as 145 bus routes, 93 miles of light rail transit (LRT), ADA paratransit service for the mobility impaired, on-call zones, Dallas Streetcar, and vanpools. DART continually expands and upgrades transit facilities throughout their service area by reviewing routes to maximize efficiency. Local feeder routes improve the potential for increased rail ridership by providing reliable connections from residential areas to rail stations.

### Dallas Area Rapid Transit - Member Cities: 13

- |                   |                     |
|-------------------|---------------------|
| 1. Addison        | 8. Highland Park    |
| 2. Carrollton     | 9. Irving           |
| 3. Cockrell Hill  | 10. Plano           |
| 4. Dallas         | 11. Richardson      |
| 5. Farmers Branch | 12. Rowlett         |
| 6. Garland        | 13. University Park |
| 7. Glenn Heights  |                     |

**Service Area: 689 square miles; Service Area Population: 2.4 million**  
**Source: 2019 National Transit Database**

DCTA includes three municipalities; Denton, Highland Village, and Lewisville that provide a half-cent sales tax to fund various transportation services in their cities. DCTA services include

## Congestion Management Process – 2021 Update

---

operation of the A-train, joint operation of the North Texas Xpress, fixed-route buses, shuttles, ADA paratransit service, vanpools, and contracted services in Collin County, including Frisco, and McKinney Urban Transit District. Other aspects of the service plan are a park-and-ride transfer network along the rail corridor to connect to all planned services, regional connector bus service as an interim measure where rail service will eventually be implemented, local fixed-route bus services operating in Denton and Lewisville serving the most dense portions of the county, demand response service to member cities for the elderly and disabled, and a local assistance program to help improve traffic mobility in the near term.

### **Denton County Transportation Authority - Member Cities: 3**

- 1. Denton**
- 2. Highland Village**
- 3. Lewisville**

**Service Area: 284 square miles; Service Area Population: 608,520**  
**Source: 2019 National Transit Database**

Trinity Metro provides express bus routes, local bus service, ADA paratransit service, shuttle service and vanpools throughout Fort Worth and Blue Mound. Trinity Metro also operates the TEXRail, a 27-mile commuter rail line from downtown Fort Worth to Dallas Fort Worth International Airport Terminal B. Express routes allow virtually non-stop travel weekdays from downtown Fort Worth and the Trinity Railway Express (TRE) commuter rail station at the Intermodal Transportation Center (ITC). Park-and-ride locations offer a convenient meeting point for carpools and vanpools since all-day free parking is provided by Trinity Metro, participating businesses, and churches.

### **Fort Worth Transportation Authority - Member Cities: 2**

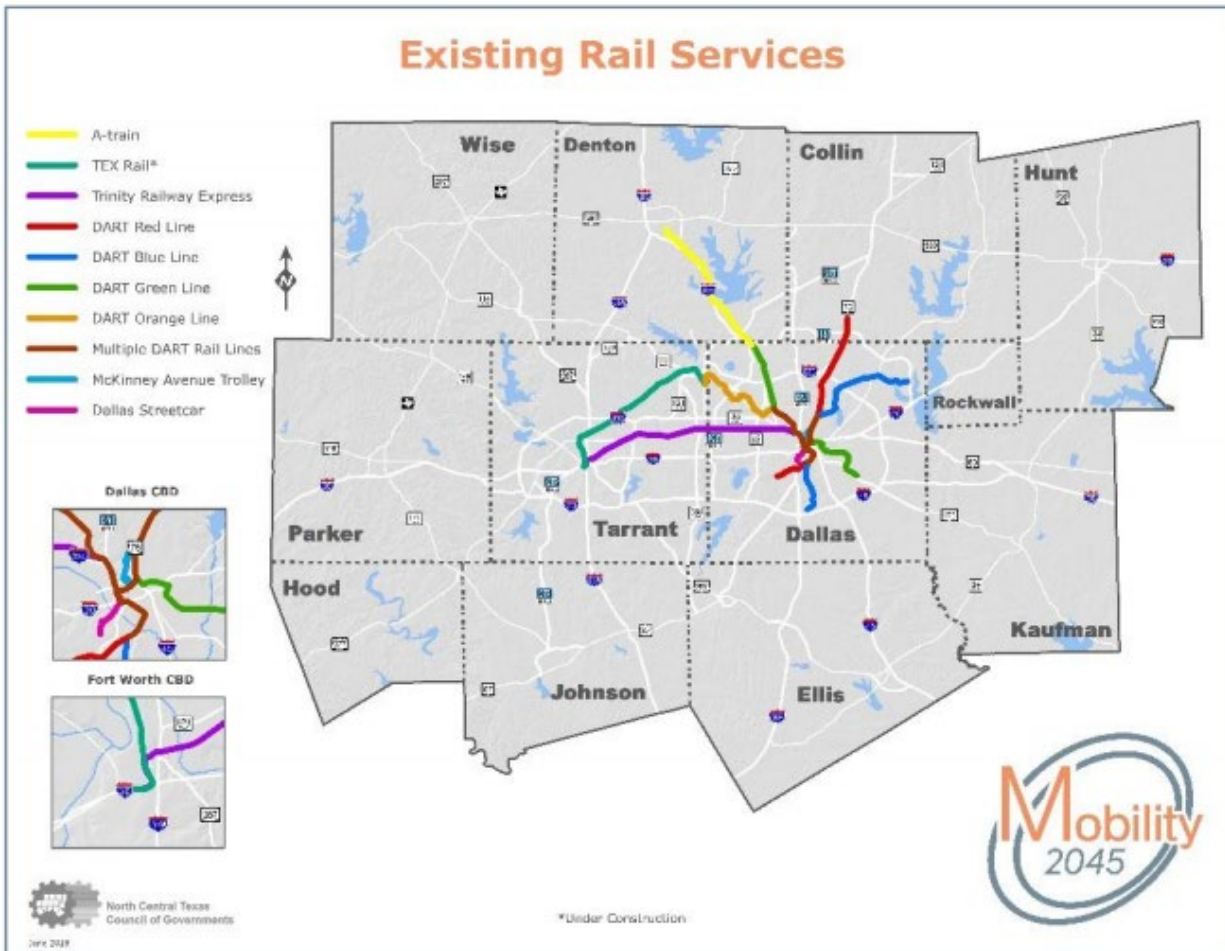
- 1. Blue Mound**
- 2. Fort Worth**

**Service Area: 350 square miles; Service Area Population: 879,939**  
**Source: 2019 National Transit Database**

The TRE is a cooperative commuter rail service provided by DART and Trinity Metro. The TRE includes approximately 34 miles of track, linking downtown Fort Worth, downtown Dallas, and Dallas Fort Worth International Airport. Scheduled train service is provided Monday through Saturday. No regularly scheduled service is available on Sunday. Special Sunday service may be promoted for announced special events only. Exhibit 2-8 highlights the existing regional passenger rail lines for DART, DCTA, and Trinity Metro.

# Congestion Management Process – 2021 Update

Exhibit 2-8: Existing Regional Passenger Rail



The funding of management and operations, transit system improvements, and expansions are included as part of the development of specific recommendations in Mobility 2045 and in Regional Connections: Next Generation Transit Program, including a broad range of innovative bus and rail services and concepts as part of the regions robust transit network. The program includes, but is not limited to, regional rail, light rail, stacked commuter rail and special event rail; and high intensity bus and guaranteed transit. Project examples include, but are not limited to, double tracking, rail station improvements, bus stop improvements, and system modernization and safety improvements for the system and railroad crossings.

### Bicycle / Pedestrian System

Active transportation, or bicycle and pedestrian modes, is an integral component of the transportation system. Active transportation offers numerous options to improve the existing transportation system through a variety of systematic enhancements. Active transportation benefits all road users and creates more livable, safe, cost-efficient communities. The region's active transportation network is used as a mode of transportation by people of all ages and abilities to walk and bicycle. The network is used for non-recreational trips and a variety of purposes such as traveling to work or school, and as first/last mile connections with transit services, including bus stops and rail stations.

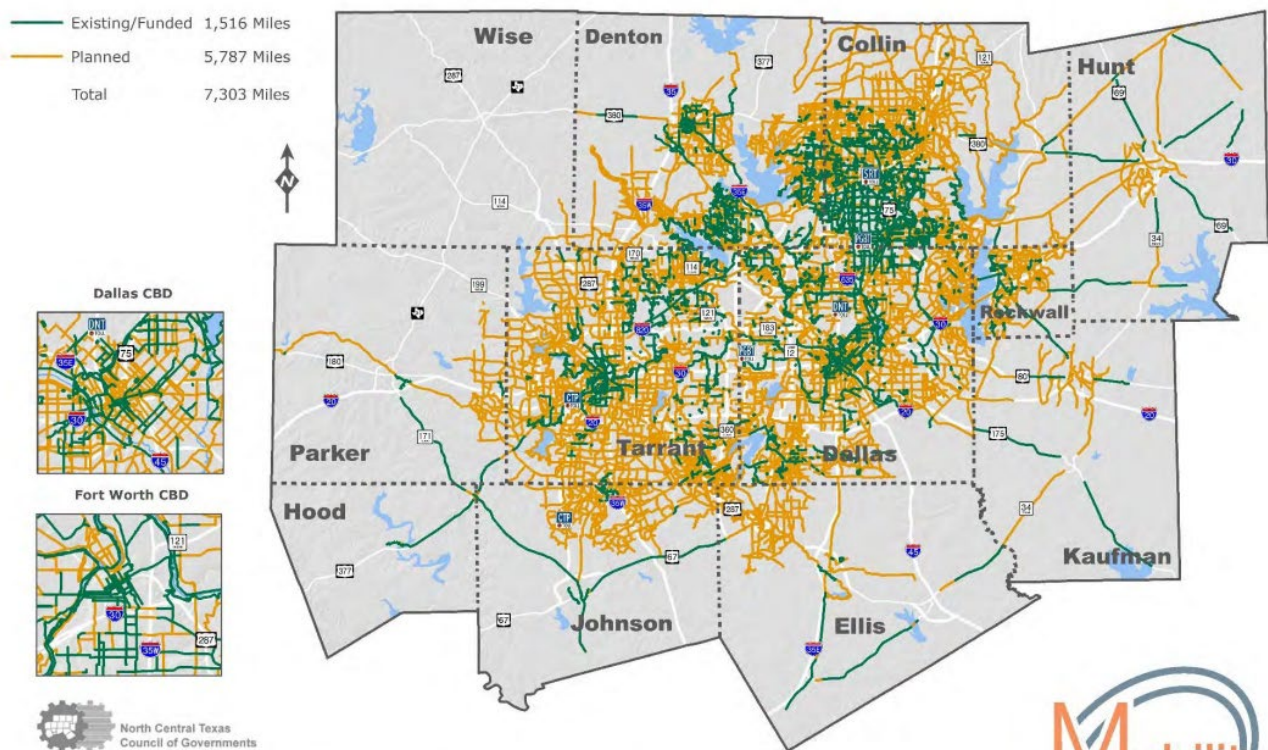


# Congestion Management Process – 2021 Update

The active transportation network in the region consists of regional shared-use paths (Regional Veloweb), supporting community shared-use paths, and the on-street bikeway network (including on-street wide shoulders in rural areas). The original Regional Veloweb map was developed in 1997 based on an extensive study conducted by the NCTCOG Bicycle and Pedestrian Advisory Committee. In 2008, work began to update the Regional Veloweb alignments based on feedback received by local governments and community members and the general need to reassess the functionality and alignment of the Veloweb. The results of the Regional Veloweb update included approximately 1,024 miles of added facilities, bringing the total Veloweb to approximately 1,668 miles. This network is reflected in the map in Exhibit 2-9 and the table in Exhibit 2-10. This network plays a key role in supporting Mobility 2045 and the implementation of the multimodal Complete Streets and transit infrastructure that safely accommodate all travelers throughout the region.

**Exhibit 2-9: Combined Regional Veloweb Community Paths, and On-Street Bikeway Network Map**

## Combined Regional Veloweb, Community Paths, and On-Street Bikeway Network



The Regional Veloweb and Community Shared-Use Path network does not include recreational paths/loops, private paths, equestrian or nature trails, or wide sidewalks less than 10 feet in width.  
 On-street bikeways in the urbanized area include: separated or protected bike lanes/cycle tracks, bike lanes, marked shared lanes, and marked bicycle boulevards.  
 On-street bikeways in the urbanized area do not include: signed bike "routes"; signed "share the road", unmarked wide outside lanes, or signed wide shoulders.  
 The use of wide shoulders is included on various roadways linking rural communities outside of the urbanized area.  
 Facility recommendations indicate transportation need. Corridor-specific alignment, design, and operational characteristics for the network will be determined through ongoing project development.

June 2018

# Congestion Management Process – 2021 Update

Exhibit 2-10: Combined Regional Veloweb Community Paths, and On-Street Bikeway Network Table

Facility Type*	Miles
<b>Regional Veloweb Paths<sup>1</sup></b>	
Regional Veloweb, Existing	455
Regional Veloweb, Funded	143
Regional Veloweb, Planned	1,285
<b>Total Veloweb Paths</b>	<b>1,883</b>
<b>Community Shared-Use Paths<sup>1</sup></b>	
Community Shared-Use Paths, Existing	318
Community Shared-Use Paths, Funded	57
Community Shared-Use Paths, Planned	2,584
<b>Total Community Paths</b>	<b>2,959</b>
<b>Total Regional Veloweb and Community Paths</b>	<b>4,842</b>
<b>On-Street Bikeways<sup>2</sup></b>	
On-Street Bikeways, Existing	212
On-Street Bikeways, Funded	84
On-Street Bikeways, Planned	1,817
<b>Total On-Street Bikeways (Urbanized Area)</b>	<b>2,113</b>
On-Street Wide Shoulders, Existing (rural areas between communities)	247
On-Street Wide Shoulders, Planned (rural areas between communities)	101
<b>Total On-Street Wide Shoulders (Rural Area)</b>	<b>348</b>
<b>Total On-Street Bikeways</b>	<b>2,461</b>
<b>Total All Facilities</b>	<b>7,303</b>

<sup>1</sup> The Regional Veloweb and Community Shared-Use Path network does not include recreational paths/loops, private paths, equestrian or nature trails, or wide sidewalks less than 10 feet in width.

<sup>2</sup> On-street bikeways in the urbanized area include separated or protected bike lanes/cycle tracks, bike lanes, marked shared lanes, and marked bicycle boulevards. On-street bikeways in the urbanized area do not include signed bike "routes", signed "share the road", unmarked wide outside lanes, or signed wide shoulders. The use of wide shoulders is included on various roadways linking rural communities outside of the urbanized area.



# Congestion Management Process – 2021 Update

---

Mobility 2045 represents extensive research on, and compilation of, the locally-adopted master plans for active transportation infrastructure throughout the region. By working with local and regional stakeholders, the plan prioritizes corridors for improvement as represented by the Regional Veloweb and other policies for active transportation infrastructure investment and safety. Mobility 2045 represents the compilation of 63 locally-adopted plans with shared-use paths (trails) and 61 locally-adopted plans that include on-street bikeway facilities. Various new or updated plans are adopted each year throughout the region, and the North Central Texas Council of Governments regularly coordinates with local jurisdictions to update a database of existing, funded, and planned active transportation facilities.

Active transportation is an important element in providing for the region's diverse needs and enhancing transportation choice. Walking and bicycling provide low-cost mobility options that place fewer demands on local roads and highways. Increased commitment to, and investment in, walking networks and bicycle facilities can help meet goals for cleaner, healthier air; less congested roadways; and more livable, safe, cost-efficient communities. The total cost for the implementation of active transportation improvements is \$4.2 billion. The recommendations made in Mobility 2045 seek to increase active transportation as a viable transportation mode for the residents of North Central Texas.

## **Summary**

With a population that is expected to grow to 11.2 million residents by 2045, the need for a reliable transportation system in North Central Texas is particularly important. Transportation professionals and policy makers are working to develop creative solutions to these challenges. Recent bills by the Texas Legislatures have provided innovative ways to finance and build these highway projects that are shown of greatest needs through toll bonds, concession fees, and excess revenues. The Regional Arterial System, which is forecasted to carry approximately 39 percent of vehicular traffic in the region, is also designated for \$8.8 billion in improvements, according to Mobility 2045.

The proven ability of rail service that DART, DCTA, Trinity Metro, and other local transit operators provide will help improve mobility in the region. These joint efforts by the transit agencies will play a crucial role in meeting those future transportation needs and the current system demand in North Central Texas. Finally, the Regional Active Transportation Network that is interconnected with transit services and other modes of transportation will provide a seamless multimodal transportation network to connect housing and key destinations, including employment centers, education, medical, retail and entertainment centers, and others.

# Congestion Management Process – 2021 Update

## CHAPTER 3

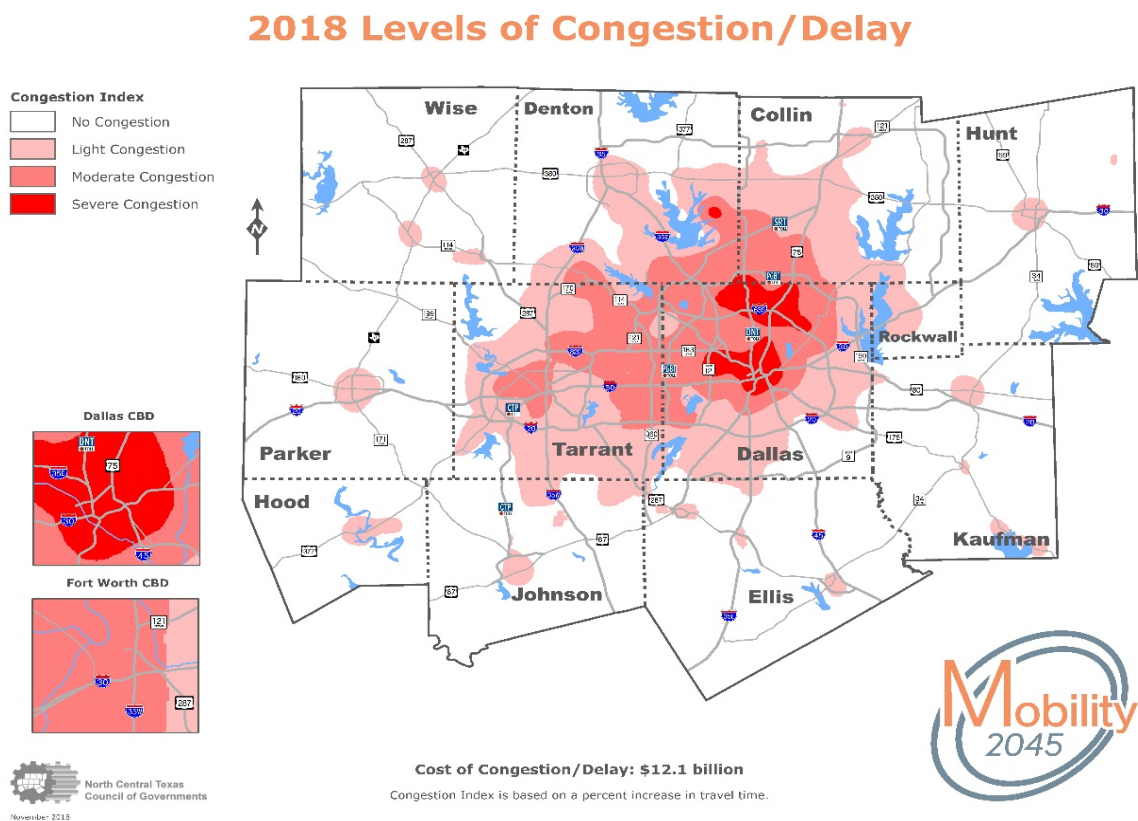
### TRANSPORTATION SYSTEM PERFORMANCE CRITERIA AND ASSET INVENTORY

#### System Performance

A transportation system's performance can be measured in several ways, especially when that system is multimodal. A successful multimodal transportation system is often measured in terms of efficiently reducing roadway traffic congestion and providing reliable and accessible modal options. If multimodal options, trip reduction programs, system management projects, and other travel policies are effective, the result will be reflected through reduced congestion and increased traveler through-put. However, demographic growth may increase faster than transportation system capacity can be provided, either due to implementation issues or financial constraint.

In 2018, the regional daily vehicle miles of travel were over 212 million. Currently, travel throughout the region takes approximately 41 percent longer to complete due to congestion, resulting in nearly 1.7 million daily vehicles hours spent in delay. This delay equates to an annual cost of congestion of \$12.1 billion for the region. Exhibit 3-1 illustrates the regional peak period congestion levels for 2018.

**Exhibit 3-1: 2018 Peak Period Congestion Levels**

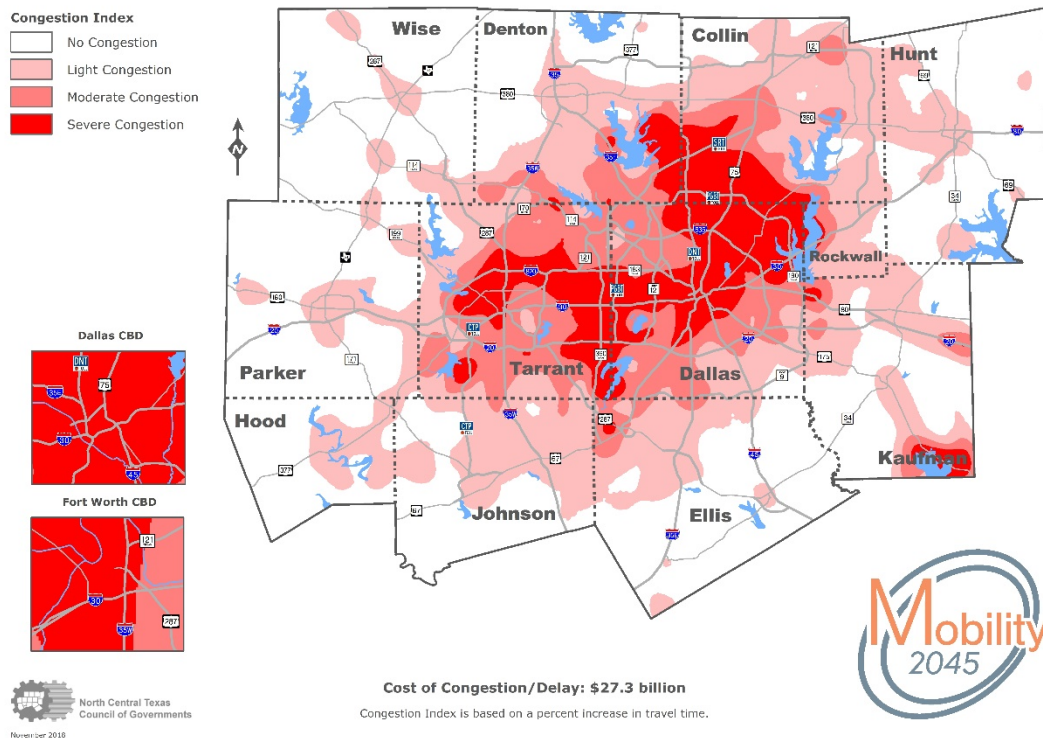


# Congestion Management Process – 2021 Update

If the projects, programs, and policies contained in Mobility 2045 are implemented, the travel time increase due to congestion is expected to be approximately 59 percent, with an annual congestion cost of \$27.3 billion in 2045. Severe congestion will spread to include southeast Denton County, central and eastern Tarrant County, northwest and southeast Kaufman County, and additional portions of northern and western Dallas and southern Collin counties. Financial, environmental, and social constraints will make it difficult to accommodate the increased demand for travel, resulting from the regional growth. If the region is to meaningfully reduce congestion levels, additional congestion mitigation strategies aimed at reducing drive-alone travel and enhancing the efficiency of transportation system operations will need to be pursued. Exhibit 3-2 highlights the regional peak period congestion levels for 2045, with planned improvements.

**Exhibit 3-2: 2045 Peak Period Congestion Levels**

## 2045 Levels of Congestion/Delay



The implementation of congestion mitigation strategies continues to involve the public sector, private sector, and public/private partnerships. Transportation policies need to be developed to strengthen land-use/transportation decision-making processes and to guide investment toward cost-effective solutions. Mobility 2045 emphasizes that we cannot afford to build our way out of our traffic congestion problem. While the construction of new facilities will take place, we must also find effective and practical solutions to address the air quality and travel congestion challenges that confront us.

# Congestion Management Process – 2021 Update

---

## Data Collection and System Performance Monitoring

Data collection and system performance monitoring provide a high-level overview and the severity of congested facilities. The mix of data collection and performance measures evaluated through the Congestion Management Process (CMP) examine multiple elements that affect traffic congestion on our metropolitan transportation system. Some of those data elements include corridor analysis, reliability and speed data, crash rate, truck lane restrictions, light rail and commuter rail coverage, and availability of alternative routes.

The mix of data collection and performance measures outlined in this chapter were chosen to study specific elements that affect traffic congestion on our metropolitan transportation system. These performance measures focus on congestion, condition and availability of assets, and safety. The data collection and performance measures continue to expand over time as more data becomes available and as other performance measures mature. There are multiple levels of performance measures collected and monitored through programs and projects. Performance measures are collected and monitored at the federal, state, regional, area, corridor, or project-level. The CMP focuses on two of these areas; corridor- and project-level. Corridor level performance measures are used to evaluate the performance of the corridor to identify deficiencies and recommend strategies to remedy the deficiencies. Project-level performance measures evaluate the effectiveness of an implemented project or strategy.

Exhibit 3-3 highlights the CMP goals and actions as well as asset inventory elements that help us identify needed infrastructure, modal, or operational project.

# Congestion Management Process – 2021 Update

**Exhibit 3-3: CMP Goals, Objectives, and Assets**

CMP Goals and Action	Asset Inventory
<p><b>Goal:</b> Identify quick-to-implement low cost strategies and solutions to better operate the transportation system.</p> <p><b>Action:</b> Implement quick-to-implement low cost strategies and solutions to better operate the transportation system.</p>	<p><b>Operational Assets</b> ITS coverage, HOV/Tolled Managed Lane, Truck Lane Restrictions, Regional Freight Routes, TIM Attendance Coverage, Mobility Assistance Patrol Routes and Shoulders</p>
<p><b>Goal:</b> More evenly distribute congestion across the entire transportation corridor and evaluate alternative routes that can be utilized during crashes.</p> <p><b>Action:</b> Conduct inventory of corridor system to identify availability of existing options.</p>	<p><b>Infrastructure Assets</b> Parallel Arterials, Frontage Roads, Parallel Freeway/Tollways</p>
<p><b>Goal:</b> Ensure corridors have options and available alternate modes to relieve daily congestion and utilized during crashes.</p> <p><b>Action:</b> Prioritize corridors based on available options and alternate modes.</p>	<p><b>Alternative Modal Assets</b> Park-and-Ride Facilities, Light Rail, Commuter Rail and Bus Routes</p>

## Corridor-Level Analysis

System performance for the transportation system is measured in several different ways. Performance measures are used to show both recurring (expected) and non-recurring (unexpected) congestion on controlled access facilities. The CMP utilizes various performance measures to conduct a transportation system corridor analysis to evaluate the overall transportation system. The initial step in the process is to conduct a corridor performance analysis to determine the causes of congestion using criteria including recurring congestion, safety, non-recurring congestion and pavement and bridge conditions. As corridors are evaluated on each of these criteria the corridor deficiencies are identified.

The second step is to conduct a corridor-level asset inventory to determine various options that exist along the corridor that may assist in alleviating congestion on the main roadway facility. This asset inventory looks at three types of assets, roadway infrastructure, alternative modes, and operational assets. This section provides an overview of the performance criteria and the asset inventory to complete this two-step process.

# Congestion Management Process – 2021 Update

## Performance Criteria

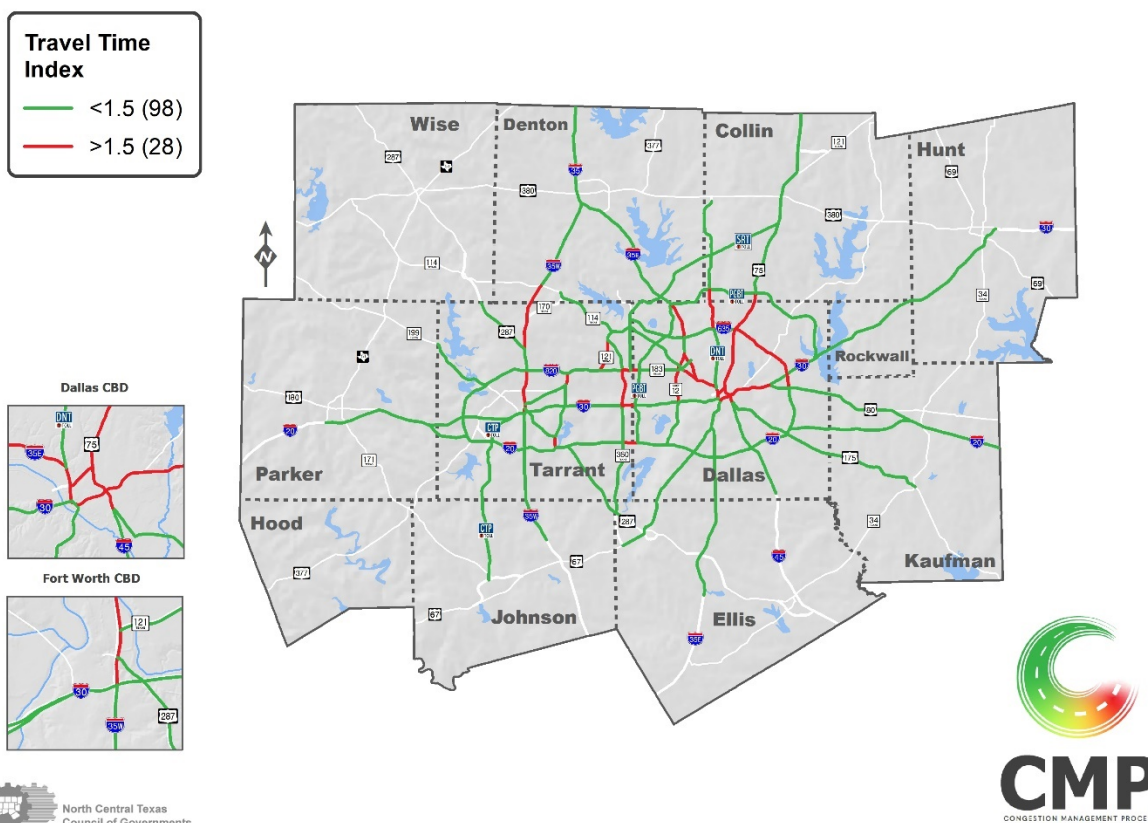
### Recurring Congestion (Expected Delay) – Travel Time Index

NCTCOG receives the Travel Time Index (TTI) information through the Federal Highway Administration (FHWA) National Performance Management Research Data Set (NPMRDS). This metric was calculated from the NPMRDS travel time dataset using observed travel times on weekdays in 2019. This metric is an index comparing median travel times during peak periods to median travel times during free-flow conditions. If a corridor has a travel time index of 1.0, travel takes the same amount of time during peaks as it does during free-flow conditions. If a corridor has a travel time index of 2.0, travel takes twice as long during the peak.

Exhibit 3-4 displays the TTI ranking by corridor. The corridors with deficiencies in the TTI ranking are shown in red, while corridors in green are sufficient in this performance rating.

**Exhibit 3-4: Travel Time Index**

## Travel Time Index



North Central Texas  
Council of Governments  
January 2021

### Safety - Crash Rate

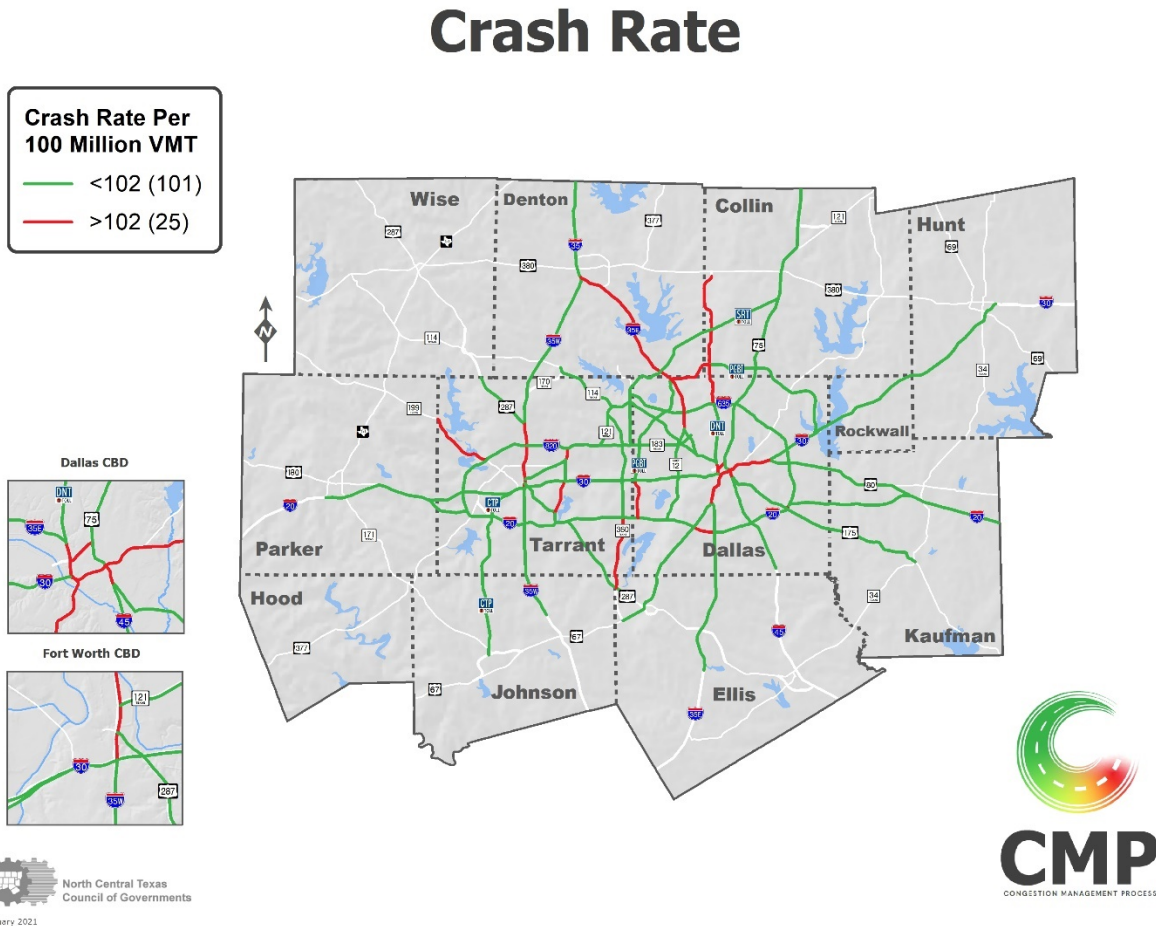
NCTCOG receives crash data from Texas Department of Transportation (TxDOT's) Crash Records Information System (CRIS) annually. The collected data helps to identify crash hotspots and assist in the development of safety improvement projects, programs, and strategies. This metric includes crash data from 2014-2018. The rate is calculated by taking all



# Congestion Management Process – 2021 Update

reported crashes per 100 million Vehicle Miles of Travel (VMT) on each corridor. Exhibit 3-5 displays crash rates ranking by corridor. The corridors with deficiencies in crash rate ranking are shown in red, while corridors in green are sufficient in this performance rating.

Exhibit 3-5: Regional Crash Rates



### Non-Recurring (Unexpected Delay) – Level of Travel Time Reliability

Like the TTI, the Level of Travel Time Reliability (LOTRR) is also calculated from the NPMRDS travel time dataset using observed travel times on weekdays in 2019. It uses a similar calculation procedure to the reliability measures in the PM3 Federal performance measure rulemaking. This metric is essentially an index indicating how much extra time needs to be added to trip planning time to arrive on time 80% of the time. If a corridor's median travel time is 5 minutes and the LOTRR index is 1.0, no additional time needs to be added to trip planning. If the same corridor's LOTRR is 1.5, 7.5 minutes (1.5 x 5 minutes) needs to be planned for travel time.

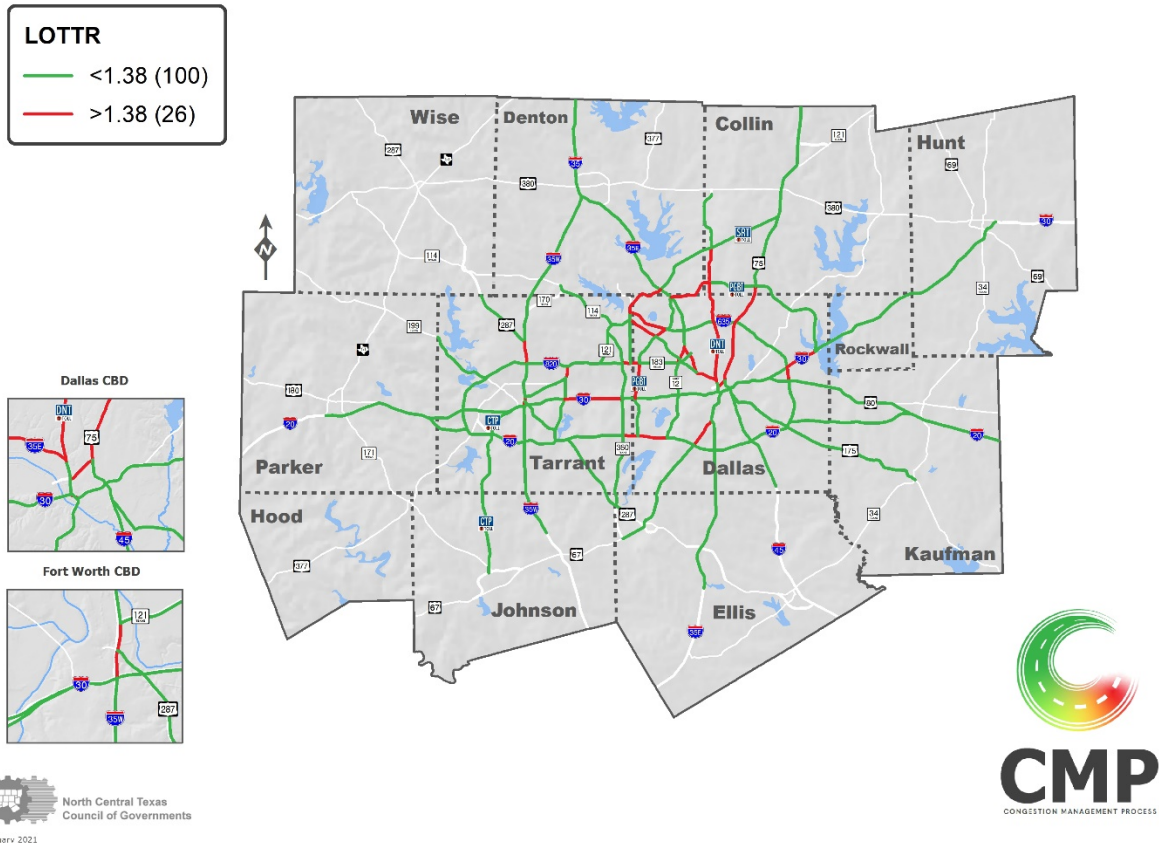
Exhibit 3-6 displays the LOTRR ranking by corridor. The corridors with deficiencies in LOTRR ranking are shown in red, while corridors in green are sufficient in this performance rating.



# Congestion Management Process – 2021 Update

Exhibit 3-6: Level of Travel Time Reliability by Corridor

## Level of Travel Time Reliability



### Bridge and Pavement Conditions – Percentage of Pavement and Bridges in Poor Condition

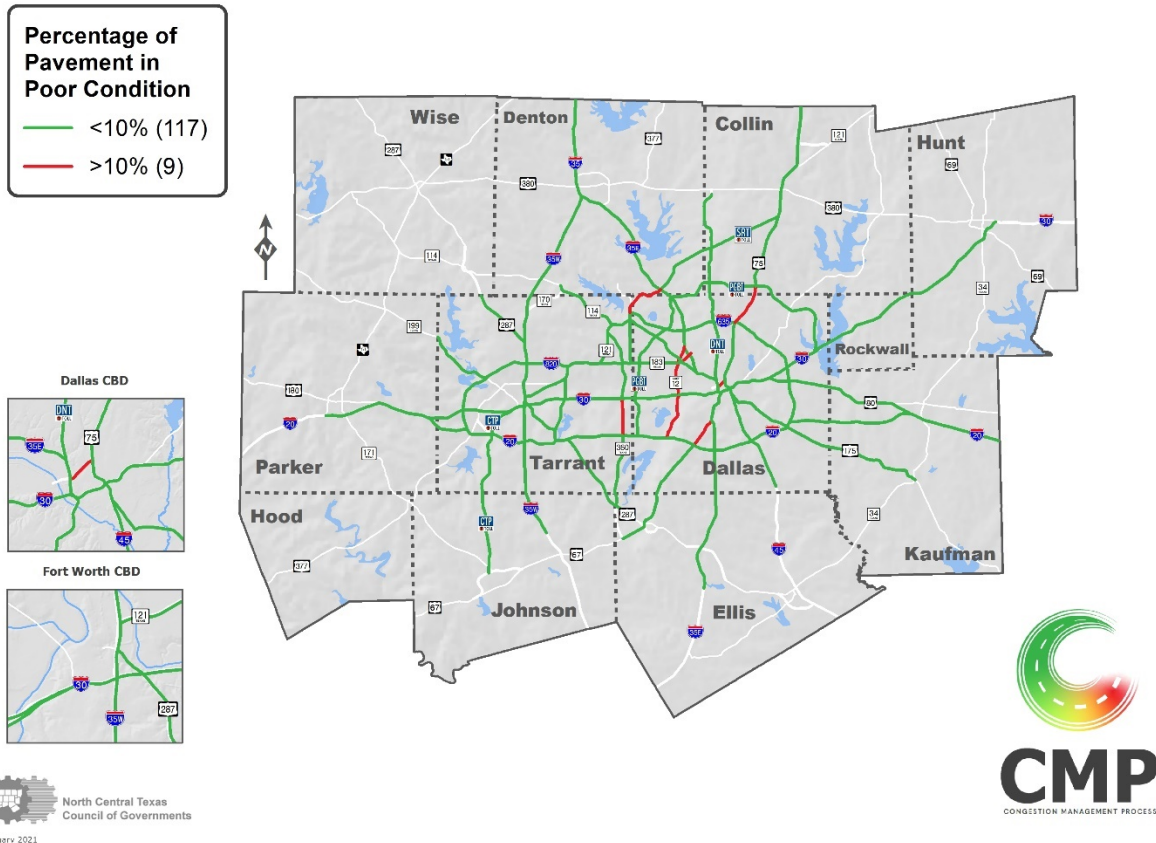
The percentage of pavement in poor condition was calculated from the 2018 Texas Department of Transportation Pavement Management Information System (PMIS) data set. This is the same data that is used to calculate the PM2 Federal pavement condition measures. As part of the PM2 measure calculation process, small pavement segments are assigned scores of “Good”, “Fair”, or “Poor”. Dozens to hundreds of these segments nest into CMP corridors. This metric is the percentage of the corridor’s length that is classified as “Poor” for pavement conditions. In addition, data from the North Texas Tollway Authority pavement condition data set was used for the roadway operated by NTTA.

Exhibit 3-7 displays the percentage of pavement in poor condition ranking by corridor. The corridors with deficient rating in percentage of pavement in poor condition ranking are shown in red, while corridors in green are sufficient in this performance rating.

# Congestion Management Process – 2021 Update

Exhibit 3-7: Pavement Condition Ranking by Corridor

## Pavement Condition



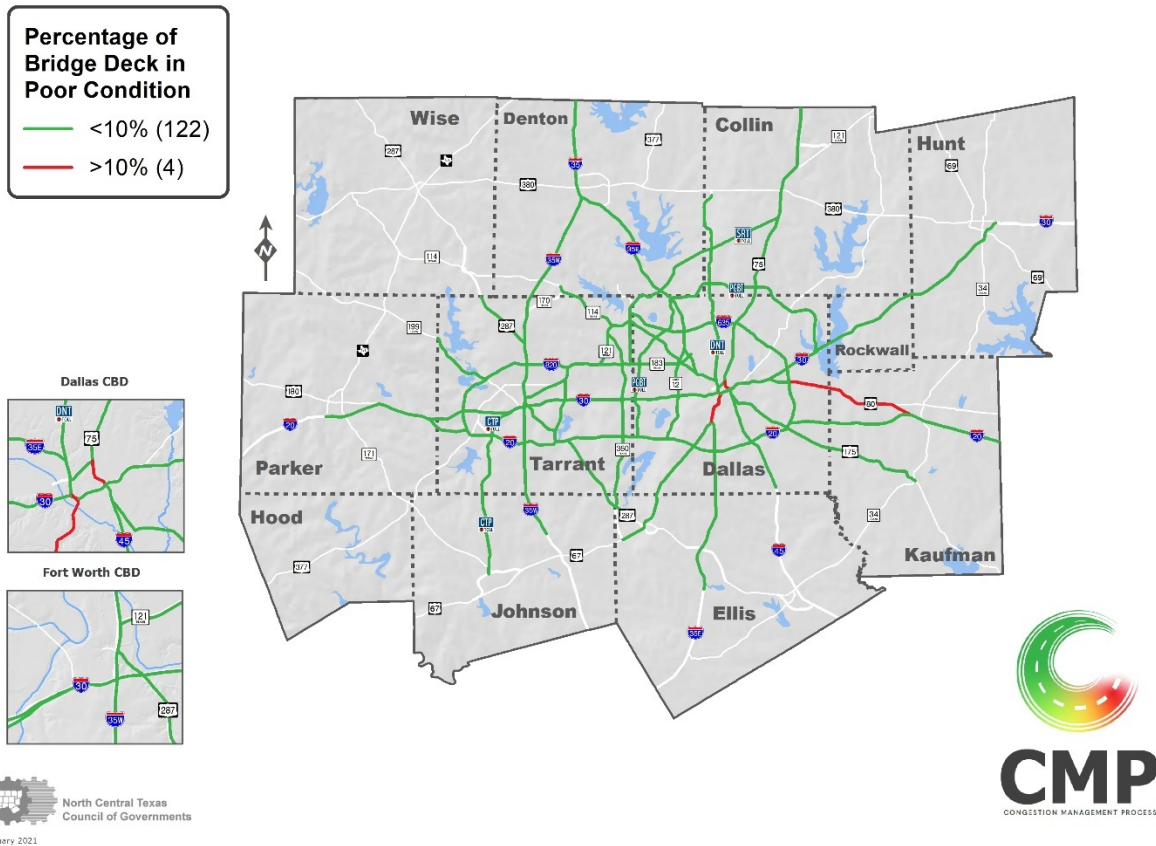
The percentage of bridge deck area in poor condition was calculated from the 2018 TxDOT MPO Bridge Dashboard dataset. This is the same data that was used to calculate the PM2 Federal bridge condition measures. As part of the PM2 measure calculation process, individual bridges are assigned scores of “Good”, “Fair”, or “Poor”. This metric is the percentage of the total bridge deck area of bridges on the corridor that are classified as “Poor.”

Exhibit 3-8 displays the percentage of bridge deck area in poor condition ranking by corridor. The corridors with the deficient percentage of bridge deck area in poor condition ranking are shown in red, while corridors in green are sufficient in this performance rating.

# Congestion Management Process – 2021 Update

Exhibit 3-8: Bridge Deck Condition Ranking by Corridor

## Bridge Condition



### Asset Inventory

The asset inventory is the second step in the process following the performance criteria for each corridor. The performance criteria identify deficiencies and in the next step in the process will determine if other assets are availability in the corridor to remedy the deficiencies identified. The asset inventory collects information in three areas, roadway infrastructure, modal options, and operational assets. Each of these areas are outlined in the following sections.

#### Roadway Infrastructure Assets

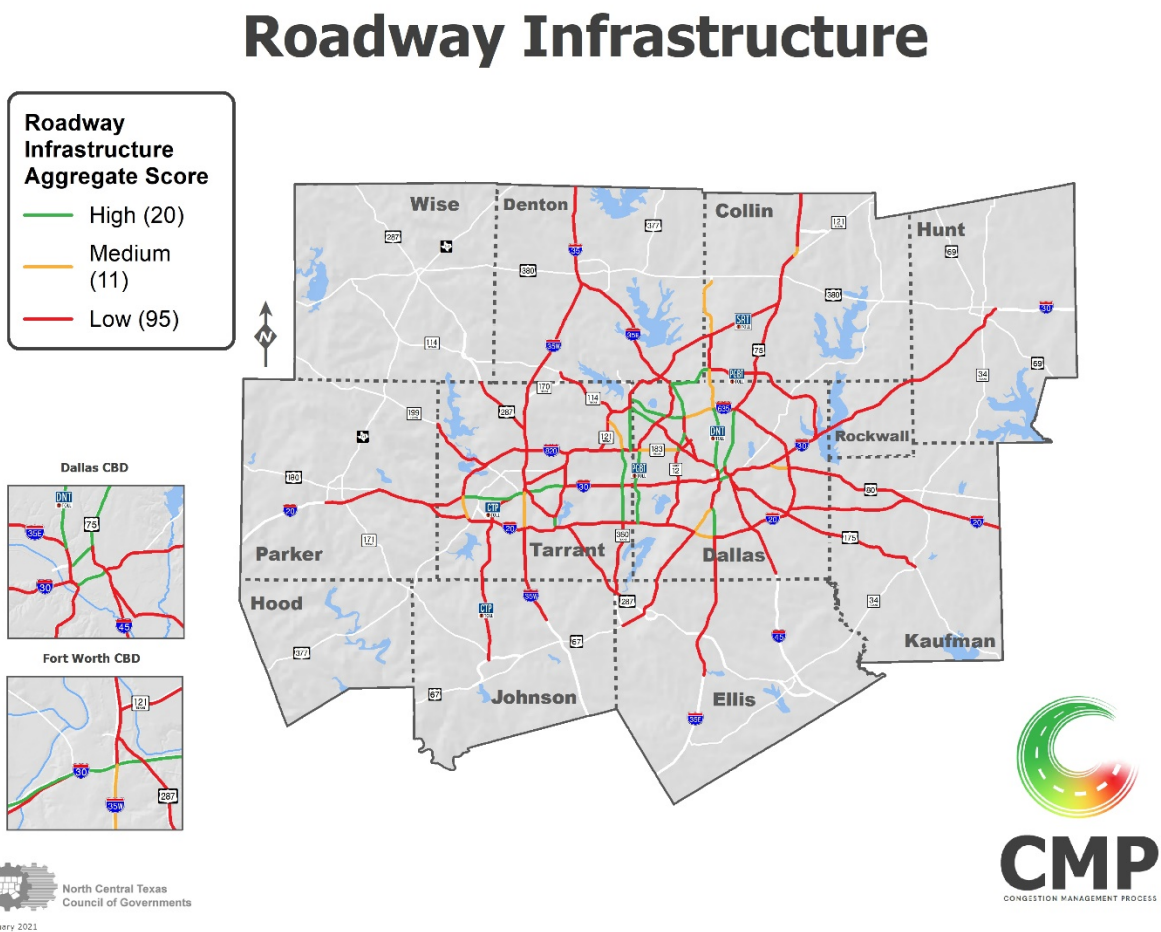
The factors that influence roadway infrastructure include the presence of parallel freeways, toll roads, frontage roads, and parallel arterials. These elements are critical components of the regional transportation system. Freeways and tollways facilities in North Central Texas are characterized by controlled-access lanes. The freeway and tollway system accounts for a small percentage of the total roadway lane miles in the DFW Metropolitan Area but carries nearly half of all vehicular travel in the region.

# Congestion Management Process – 2021 Update

In addition to freeway and tollway system, regionally significant arterials are identified based on their role to complement and enhance the major roadway and transit systems by providing the necessary transportation support and access to and from local land uses. This network is comprised of several key components including facilities which serve regional transportation needs, provide service to regional activity centers, aid in intra-community connectivity, and maintain access to and from areas outside of the region. More information on these components is included in Chapter 2 System Identification.

Exhibit 3-9 highlights the corridors within the DFW region that have alternative roadway infrastructure assets that can help balance the demand on the primary corridor. The corridors highlighted with red do not have available infrastructure, corridors highlighted in yellow have some available infrastructure and corridors highlighted in green have roadway infrastructure available to balance the demand.

**Exhibit 3-9: Alternative Roadway Infrastructure by Corridor**



# Congestion Management Process – 2021 Update

---

## Alternative Modal Assets

The factors that influence alternative modes include the presence of transit options including bus and rail as well as park-and-ride facilities. The following section describes these assets in more detail.

### Transit Rail and Bus

Transit rail services are provided by multiple transit providers within the region including Dallas Area Rapid Transit, Denton County Transportation Authority and Trinity Metro. The rail system carries a large portion of transit riders and operates as a system to allow seamless connections for regional commuters. To compliment the rail system, bus routes provide connections to allow users to reach local land use destinations. Transit provides another modal option for travelers in our region to access the places they need to travel and allow transportation operators to balance the demand across a corridor to improve the commuters travel. More information on transit system components is included in Chapter 2 System Identification.

### Park-and-Ride Facilities

Park-and-ride facilities serve as collection areas for persons transferring to higher-occupancy vehicles. They are normally located and designed to serve bus or rail transit, but many are used by car- and vanpoolers as well. Park-and-ride facilities can be located near a central business district to serve public transit and pedestrian activity areas or in suburban areas to collect riders near the origin of their trips. Combined with Express/HOV Lanes and Tolled Managed Lanes, park-and-ride facilities can be an effective incentive for increasing vehicle occupancy, thus reducing congestion and vehicle emissions. Existing, planned, and candidate park-and-ride facilities in the DFW region are provided in Exhibit 3-10.



# Congestion Management Process – 2021 Update

Exhibit 3-10: Existing, Planned, and Candidate Park-and-Ride Facilities

## Park and Ride

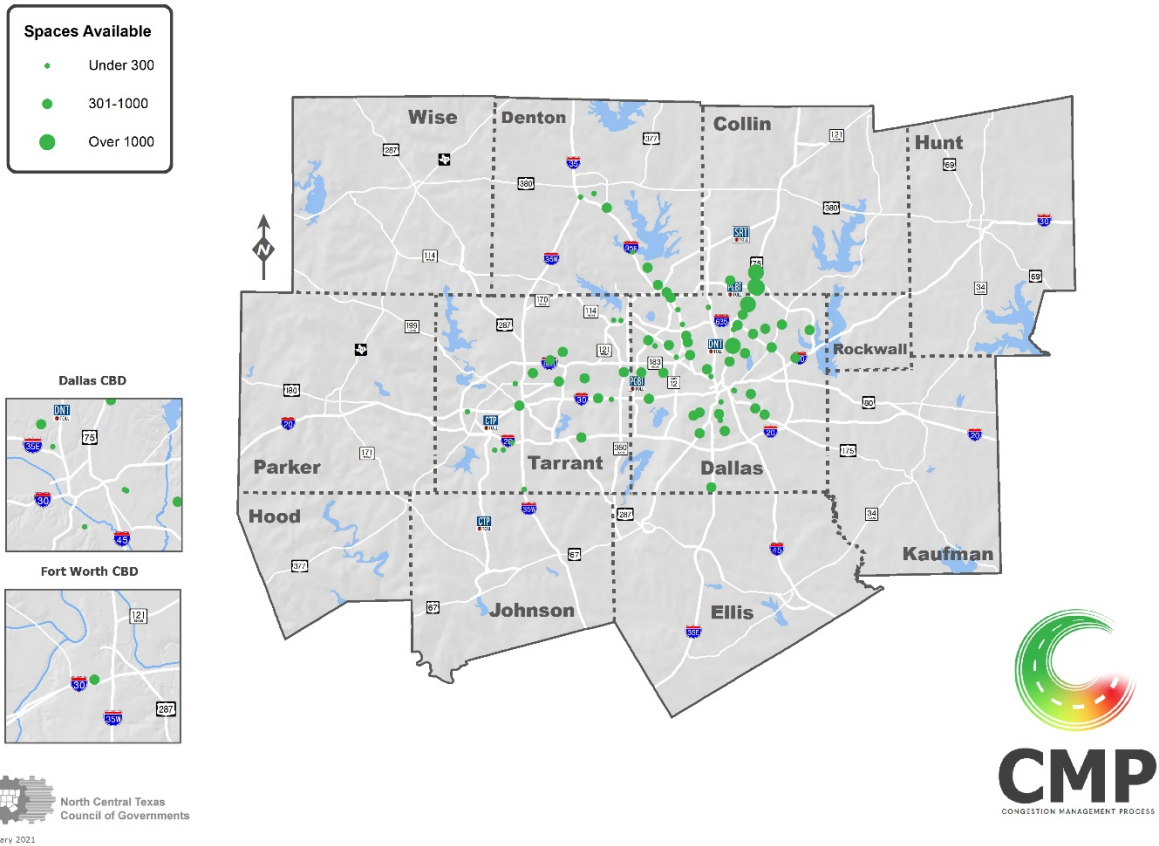
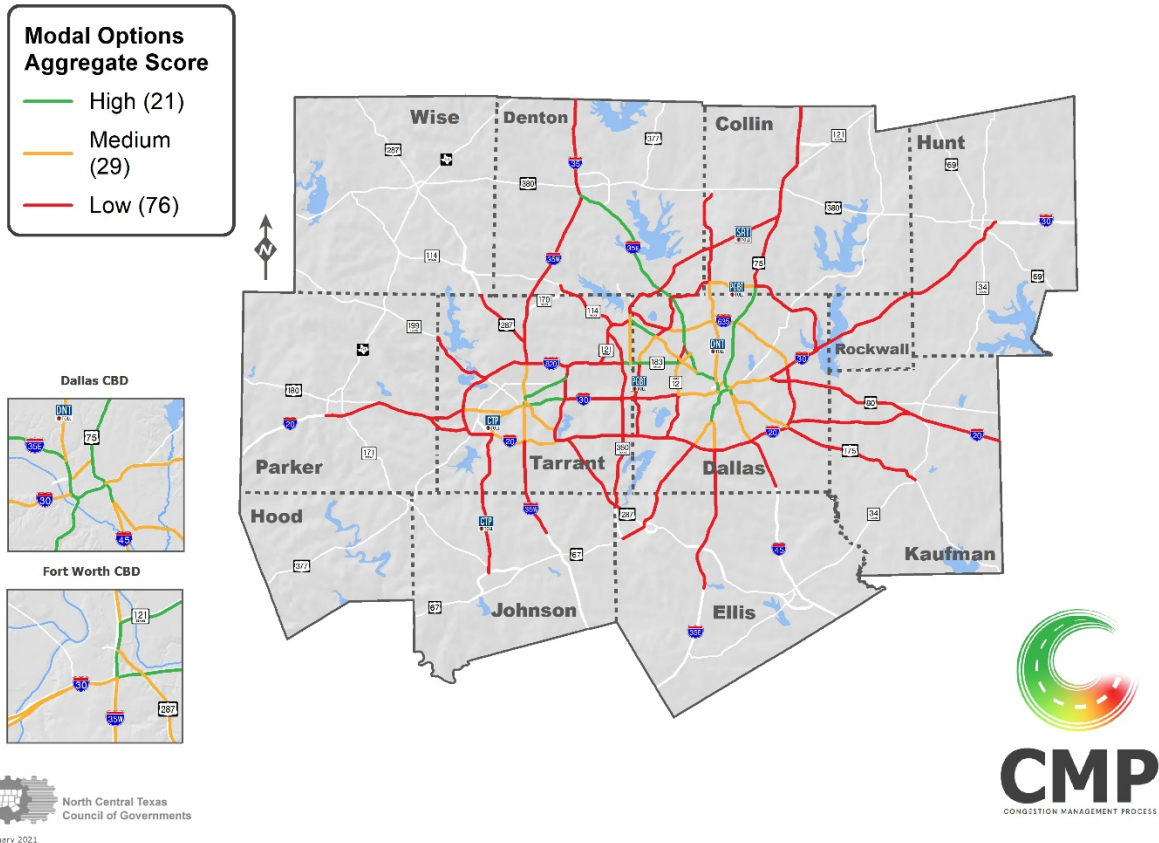


Exhibit 3-11 highlights the corridors within the DFW region that have alternative modal options available that can help balance the demand on the primary corridor. The corridors highlighted with red do not have alternative modal available, corridors highlighted in yellow have some alternative modal options available and corridors highlighted in green have an adequate modal option available to balance the demand.



Exhibit 3-11: Alternative Modal Options

## Modal Options



Another model option is active transportation that consists of regional shared-use paths (Regional Veloweb), supporting community shared-use paths, and on-street bikeway network (including on-street wide shoulders in rural areas). The Regional Veloweb was not included in the analysis of modal option assets due to the nature of the short trips or last mile connections. Although, the regional veloweb should be highlighted as a complimentary system to the assets used in the modal option evaluation. The veloweb provides another option for user to get to their destination by using a combined trip scenario.

The Regional Veloweb is a network of off-street shared-use paths designed for use by bicyclists, pedestrians, and other non-motorized forms of transportation. The Veloweb serves as the regional expressway for bicycle transportation. Facilities of this type have a proven track of attracting users and provide recreational, air quality, health, economic development, and mobility benefits to communities across the nation. Linking high quality facilities together to provide intraregional routes which favor bicycle travel will encourage increased use of the bicycle for utilitarian trip purposes. More information on Regional Veloweb is included in Chapter 2 System Identification section.

# Congestion Management Process – 2021 Update

---

## Operational Assets

In addition to roadway and transit assets, operational assets were inventory through the CMP to determine if existing operational infrastructure can be utilized to improve the flow of commuters and safety of commuters along the corridor. The operational assets that were inventoried include Intelligent Transportation System deployment, tolled managed and express/HOV lanes, availability of shoulders along the corridor and location of truck lane restrictions. The operational assets inventoried are outlined in the following section.

### Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) applies advanced technologies of electronics, communications, computers, control, sensing and detection to transportation systems in order to improve safety, efficiency and service, and travel time reliability through transmitting and applying real-time information.<sup>2</sup> In the DFW region, ITS aids transportation operators and emergency response personnel as they monitor traffic, detect and respond to incidents, and inform the public of traffic conditions via mobile devices/vehicles, roadway devices, and the media.

Traffic monitoring and incident detection and response systems are operating on portions of the freeway system in Collin, Dallas, Denton, and Tarrant counties. TxDOT Dallas and Fort Worth Districts each manage and operate traffic management centers (TMC) in Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant counties. In addition, the North Texas Tollway Authority (NTTA) manages and operates the TMC for the tolled facilities and LBJ/NTE Express manages and operates the TMC for the tolled managed lane corridors. The ITS components of the TxDOT, NTTA, and LBJ/NTE Express TMCs include closed-circuit television, lane control signals, dynamic message signs, and vehicle detectors on controlled access facilities that have ITS deployed. The corridors highlighted in red do not have good coverage of ITS, corridors highly in yellow have some coverage of ITS and corridors highlighted in green have adequate coverage of ITS to allow the traffic monitoring and responses. Exhibit 3-12 highlights regional corridor ITS coverage.

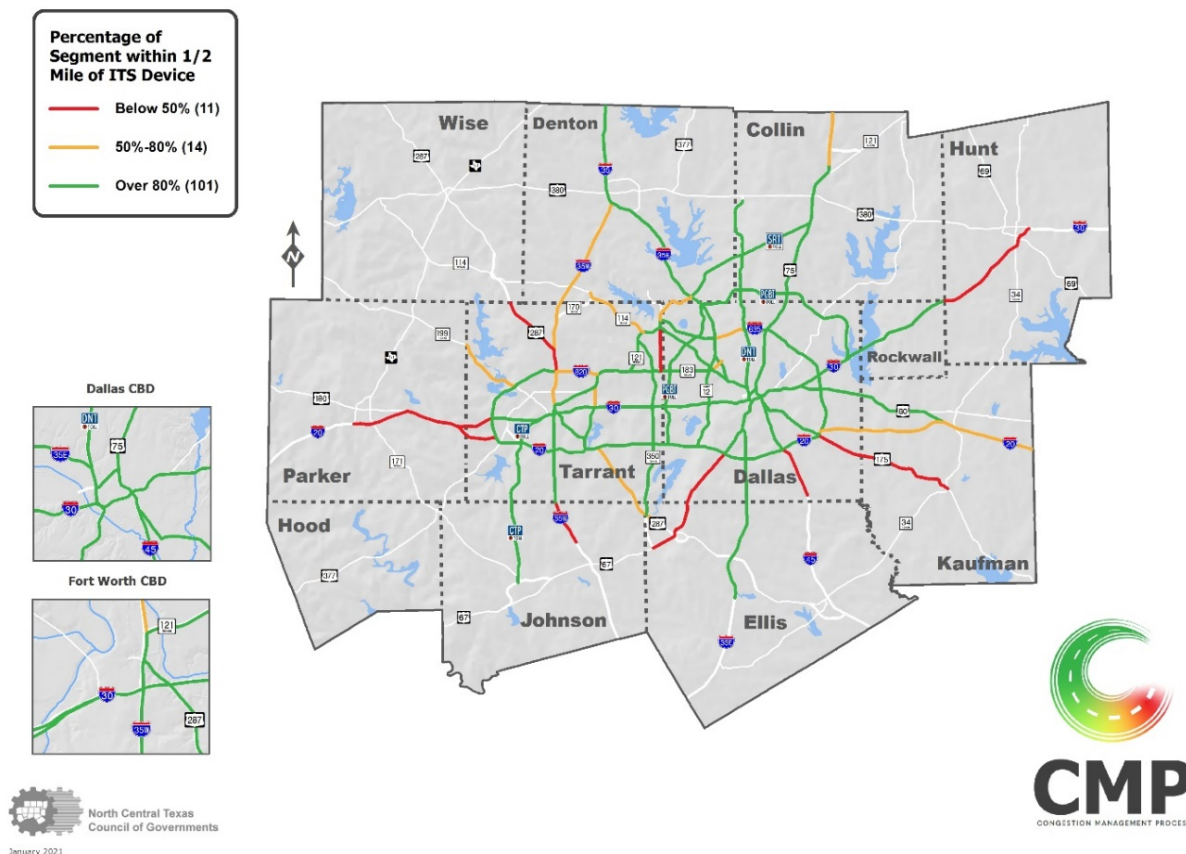
---

2

<http://www.freeway.gov.tw/UserFiles/File/Traffic/A1%20Brief%20introduction%20to%20Intelligent%20Transportation%20System,%20ITS.pdf>.

Exhibit 3-12: Regional ITS Technology

## Intelligent Transportation Systems



### Tolled Managed Lanes and Express/HOV Lanes

Tolled managed lanes are another operational strategy for the DFW regions transportation system. These lanes are dynamically priced to allow the price to change based on travel demand within the corridor. These lanes also allow for a 50% discount for vehicles with two or more people during the peak periods. Similar to the tolled managed lanes, the express/HOV lanes allow for demand to be managed by encouraging travelers to ride together or carpool to reduce the number of vehicles on the roadway. These users are provided with a dedicated lane to provide an incentive for quicker travel through the corridor. The tolled managed lanes and express/HOV lanes are integrated to provide a system for travelers to use within the region. The corridors within our region that have tolled managed lanes or express/HOV lanes available for travelers are highlighted in Chapter 2 System Identification section.

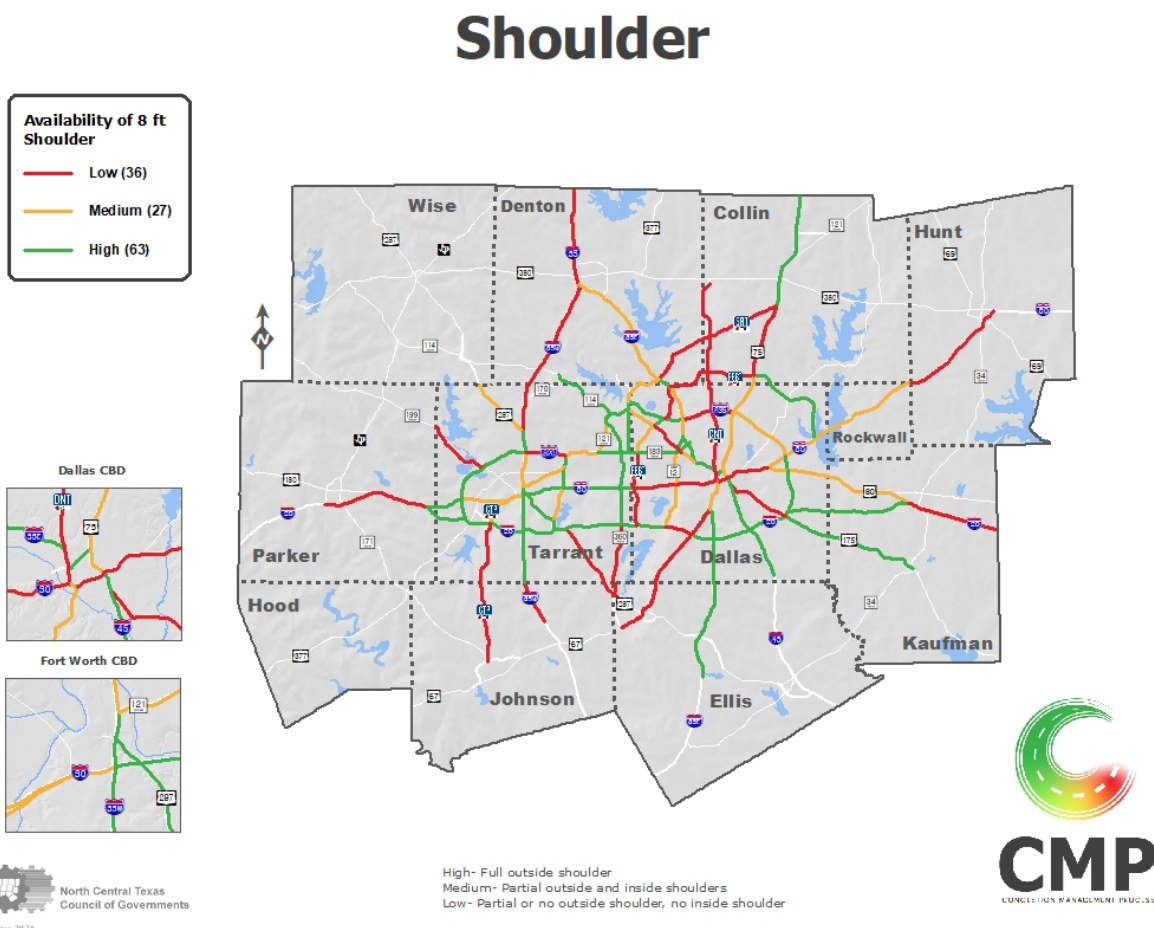
### Shoulders

As it relates to system reliability, shoulders are extremely important in the management of traffic crashes. One advantage of shoulders is that the space can be used for vehicles to stop because of mechanical difficulties or other emergencies. Emergency vehicles and responders can also utilize the shoulder when responding to traffic crashes or making traffic stops. The

# Congestion Management Process – 2021 Update

effective utilization of shoulders during traffic crashes is a main component of the NCTCOG Traffic Incident Management (TIM) Training Course. Exhibit 3-13 highlights the corridors within the DFW region that have shoulders available. The corridors in red have no shoulders available, corridors in yellow have some shoulders available, and corridors in green have both inside and outside shoulders.

**Exhibit 3-13: Regional Controlled Access Facilities with Shoulders**



## Truck Lane Restrictions

The concept of a truck lane restriction is to improve safety and mobility on the roadway system by providing additional guidance to the interaction of two classes of vehicles with very different operating characteristics. Based on traffic studies, truck lane restrictions have been shown to improve mobility, safety, and air quality. For a corridor to be eligible to be considered for truck lane restrictions there must be three or more traffic lanes (excluding frontage roads) in each direction, be a controlled access facility, on the State system, and there cannot be left exits/entrances.

Truck lane restrictions currently exist along sections of IH 20 in Dallas, Kaufman, and Tarrant Counties; IH 30 in Tarrant County; IH 45 in Dallas and Ellis Counties; and IH 820 in Tarrant County. The majority of the operational truck lane restrictions are in Dallas and Tarrant counties.



# Congestion Management Process – 2021 Update

Plans for future truck lane restrictions, which will eventually reach Denton County. Combined, these truck lane restrictions are expected to improve highway safety and mobility and the region’s air quality. Exhibit 3-14 provides a map of corridors with existing and planned corridors for truck lane restrictions.

**Exhibit 3-14: Potential Truck Lane Restriction Corridors**

## Truck Lane Restrictions

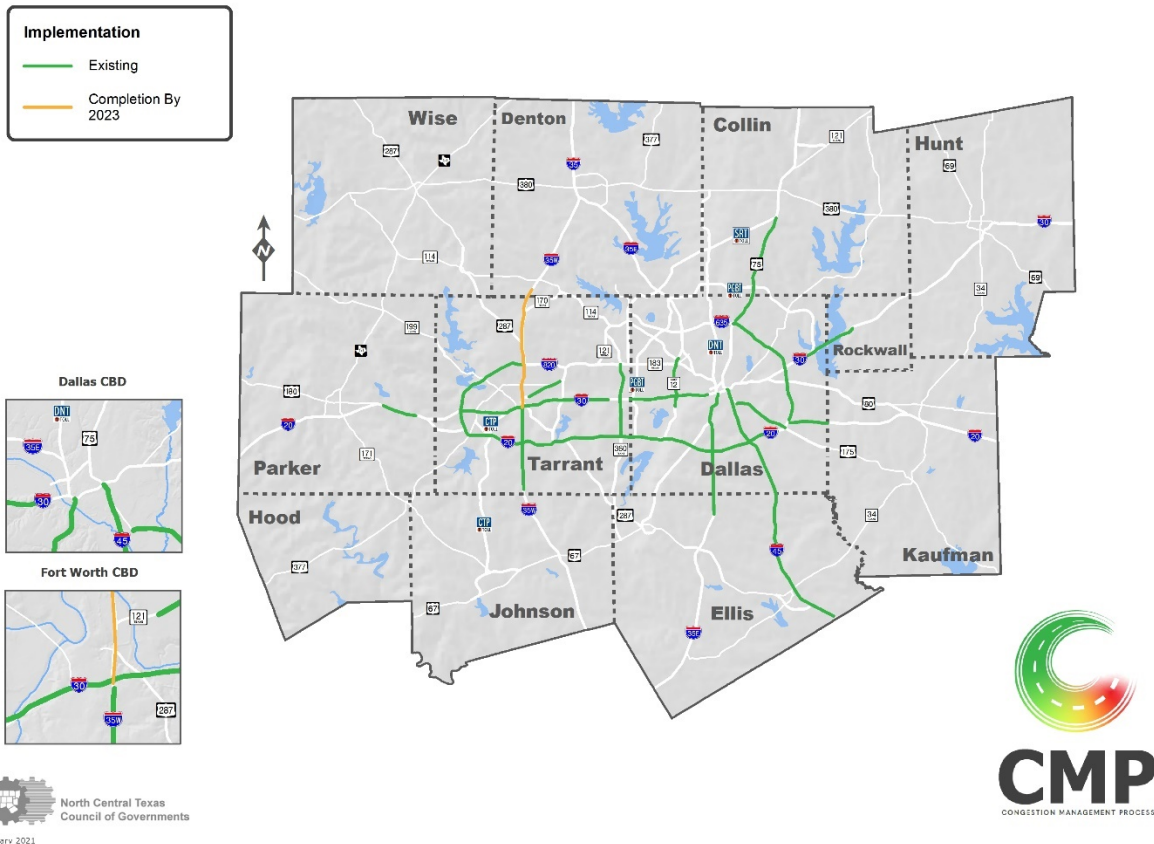
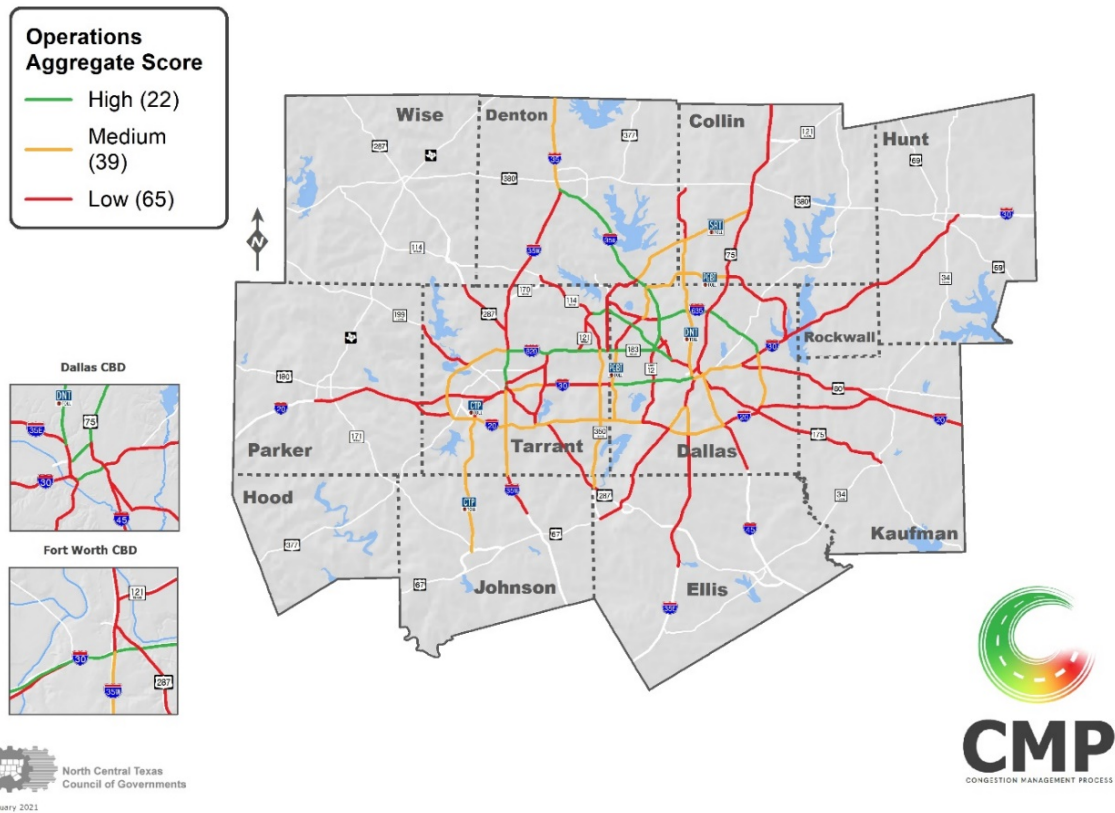


Exhibit 3-15 highlights the corridors within the DFW region that have operational assets that can improve the operations of the existing corridor. The corridors highlighted with red do not have operational assets available, corridors highlighted in yellow have some operational assets available and corridors highlighted in green have an adequate operational asset available to improve the operations of the corridor.

# Congestion Management Process – 2021 Update

Exhibit 3-15: Operational Asset Evaluation

## Operations



The following two criteria were not utilized in the operational asset evaluation but are complimentary assets that improve corridor flow as well as improve the safety of the corridor.

### Traffic Incident Management Training

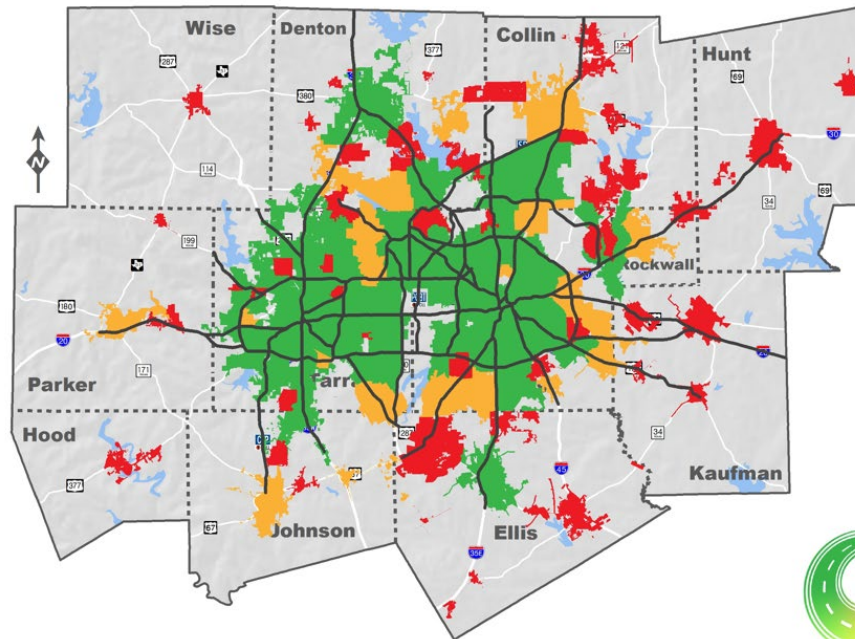
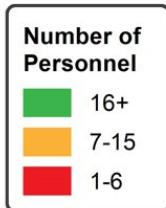
NCTCOG was the first agency in the nation to formalize incident management training for all responders in the region. Initiated in 2003, the goal of the FIM training course is to initiate a common, coordinated response to traffic incidents that will build partnerships, enhance safety for emergency personnel, reduce upstream traffic accidents, improve the efficiency of the transportation system, and improve air quality in the DFW region. The courses are designed to increase awareness of responder safety issues, improve multi-agency coordination, reduce response and clearance times for traffic incidents, and reduce confusion over roles, responsibilities, and jurisdictional lines. The inventory of agencies that participate in this training identifies corridors that have been trained and support quick, safe clearance of crashes to improve the safety and reliability of the transportation system. Exhibits 3-16 and 3-17 display police and fire department attendance for the FIM Training courses.



# Congestion Management Process – 2021 Update

Exhibit 3-16: Traffic Incident Management Training, Police Attendance Map  
2003 – October 2020

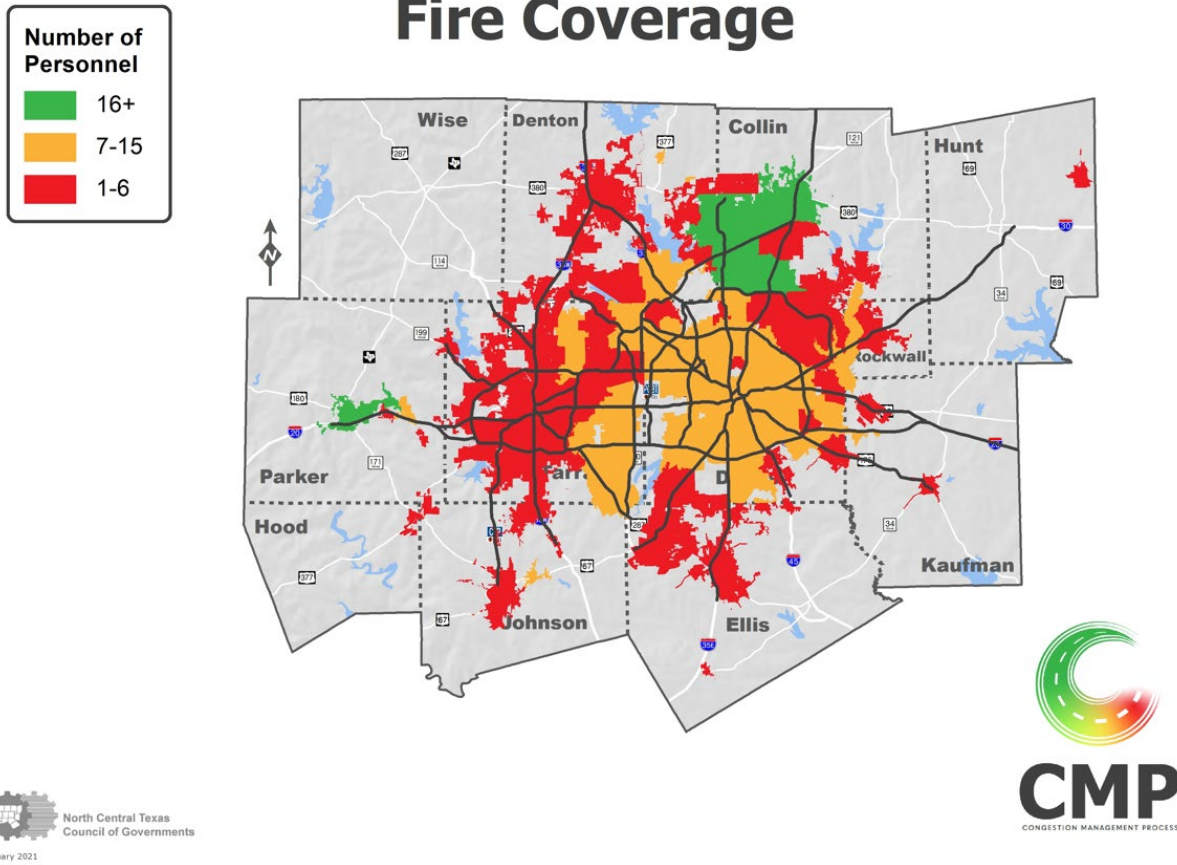
## Traffic Incident Management Police Coverage



# Congestion Management Process – 2021 Update

Exhibit 3-17: Traffic Incident Management Training, Fire Department Attendance Map  
2003 – October 2020

## Traffic Incident Management Fire Coverage



North Central Texas  
Council of Governments  
January 2021



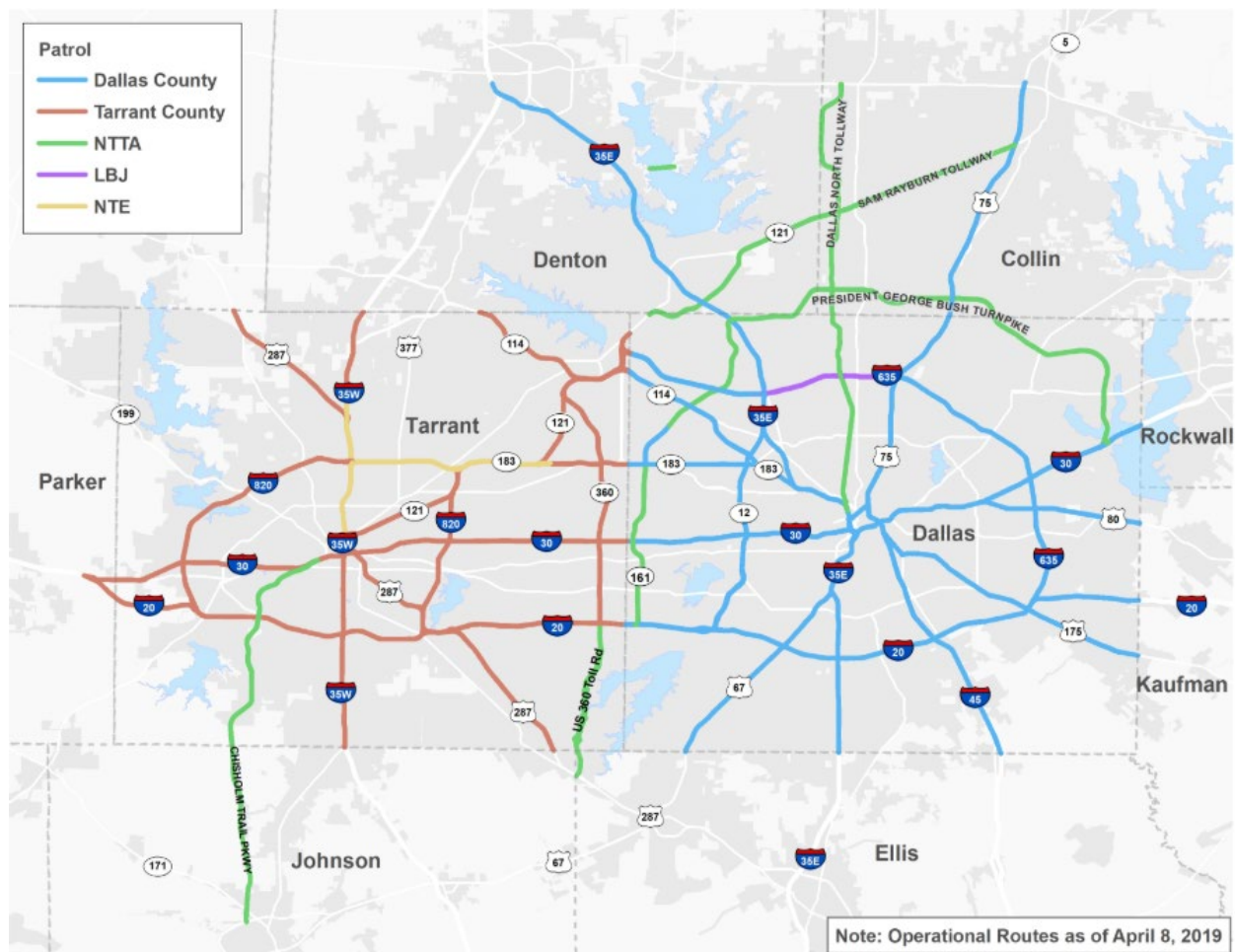
### Roadway Assistance Patrols

The goal of the regional Roadway Assistance Patrol (RAP) is to improve roadway safety and help reduce congestion on regional highways, toll roads, and managed lane facilities in Dallas and Tarrant Counties and portions of Collin, Denton, and Johnson Counties. The RAP provides free assistance to stalled and stranded motorists by assisting with flat tires and stalled vehicles, with the ultimate purpose of getting the vehicles operating or off the roadway completely. Vital to the region's Traffic Incident Management operations, the RAP assists first responders by providing traffic control assistance at the scene of traffic crashes on the patrolled roadways.

RAP is currently operated by the Dallas County Sheriff's Office, Tarrant County Sheriff's Office, and the North Texas Tollway Authority (NTTA). RAP services on the LBJ TEXpress and NTE TEXpress corridors are provided by private sector partners. Exhibit 3-18 highlights each agency's coverage area.

# Congestion Management Process – 2021 Update

Exhibit 3-18: Coverage Area by Agency



## Summary

Evaluating a transportation system’s performance and assets are an integral aspect of the CMP. The mix of data collection, performance measures and asset inventories evaluated through the Congestion Management Process look at multiple elements that effect traffic congestion on our metropolitan transportation system. There are several ways data can be measured, especially when dealing with a multimodal transportation system. It is often measured in terms of how successful the system is in reducing roadway traffic congestion.

If multimodal options, trip reduction programs, system management projects, and other travel policies are effective, the result will be reflected through reduced congestion on the roadway system and improved air quality for the region. In the next Chapter, an overview of the evaluation by corridor will be provided as well as identification of next steps for each corridor.

# Congestion Management Process – 2021 Update

## CHAPTER 4

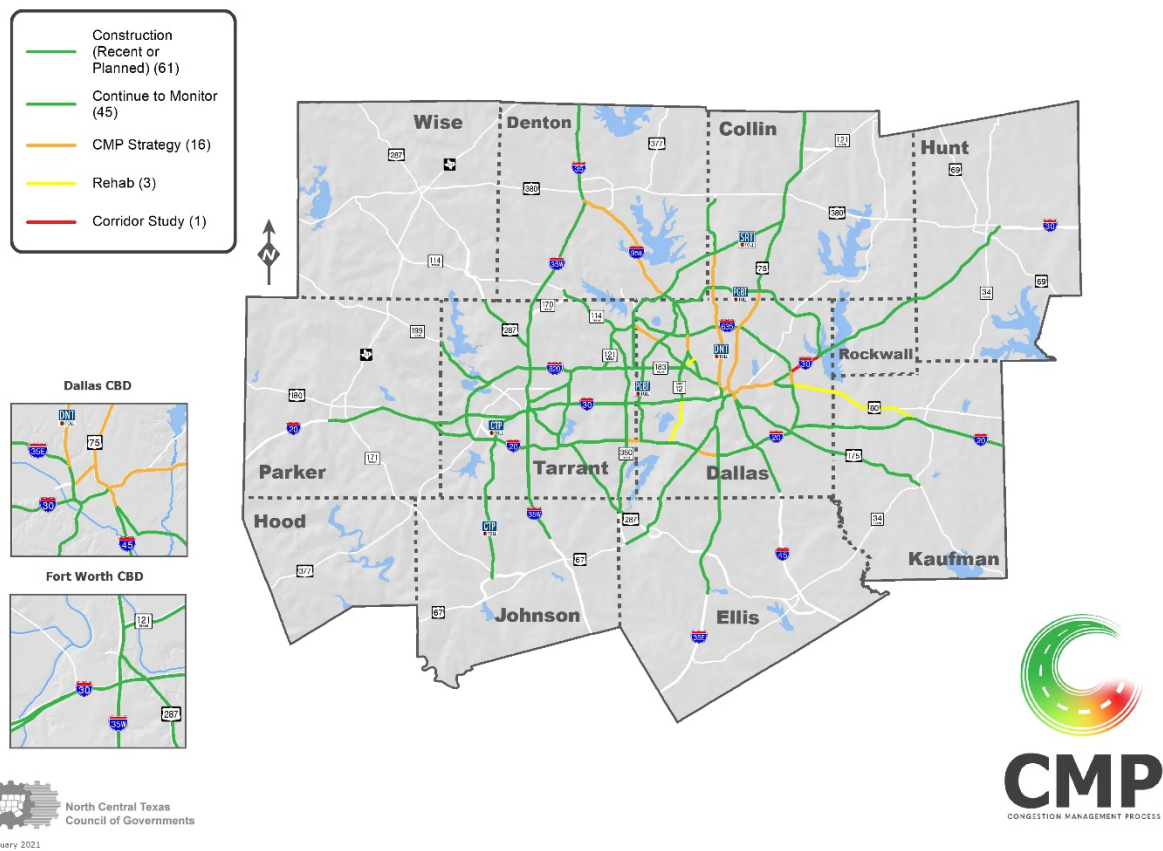
### Corridor Analysis and Strategy Identification

The final step in the Congestion Management Process (CMP) is to identify within which category, or bucket, the corridor falls based on the performance criteria and assets available within the corridor. Using the performance criteria and asset information outlined in Chapter 3, several corridor categories/buckets have been identified; **Continue to Monitor, Under Construction, Rehabilitation, CMP Strategy** or **Corridor Study**.

Exhibit 4-1 identifies the CMP corridors by category. As part of this evaluation, there are 45 corridors that met sufficient ratings and will continue to be monitored; 61 corridors are under construction and will also continue to be monitored; 3 corridors are recommended for rehabilitation; 16 corridors will continue in the process to identify CMP strategies and 1 corridor will be recommended to be considered for a detailed corridor study. A fact sheet for each CMP corridor segment, outlining the output from the corridor performance criteria as well as available assets along the corridor, is provided in Appendix A. A list detailing the evaluation of each corridor by CMP corridor segment is available in Appendix B.

Exhibit 4-1: CMP Corridors by Category

## Process Outputs



In the following pages, an example of each of the CMP corridor categories will be provided.



# Congestion Management Process – 2021 Update

The **IH 20 corridor from IH 35W to IH 820 (East)** falls into the category of **Continue to Monitor**. See Exhibit 4-2. To be part of this category or bucket a corridor needs to rank sufficient for all performance criteria (crash rate, travel time index, level of travel time reliability, pavement conditions and bridge conditions). This corridor will continue to be monitored for performance as part of the CMP and a collection of available assets will continue to be collected.

**Exhibit 4-2: IH 20 corridor from IH 35W to IH 820 (East)**

## Corridor Map

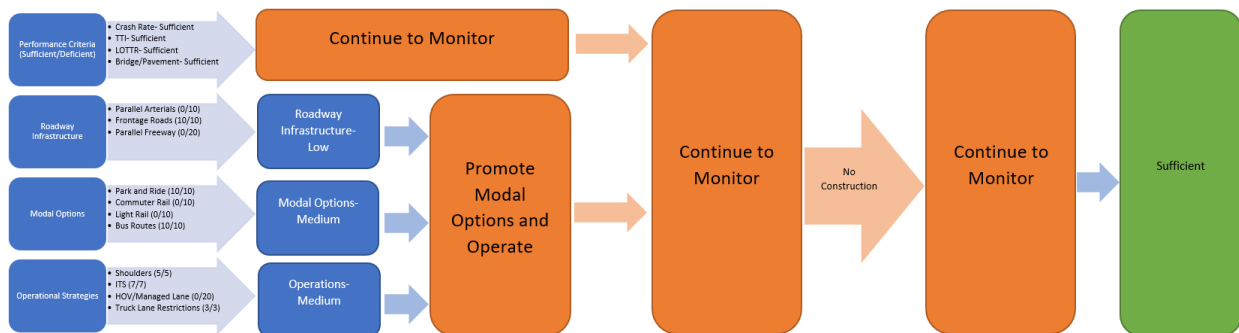
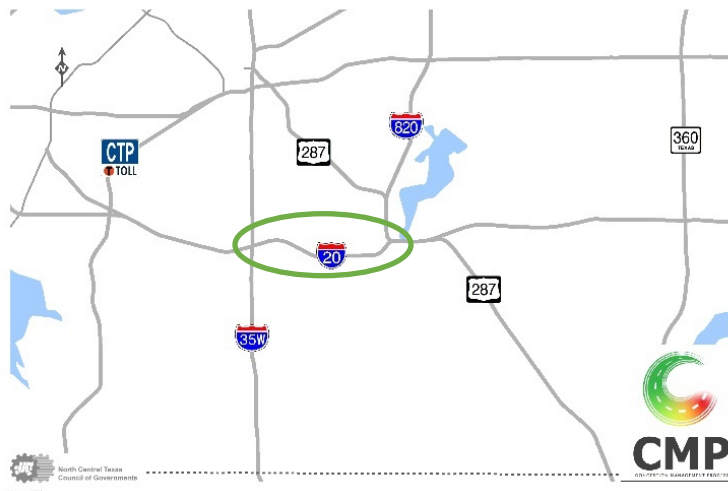
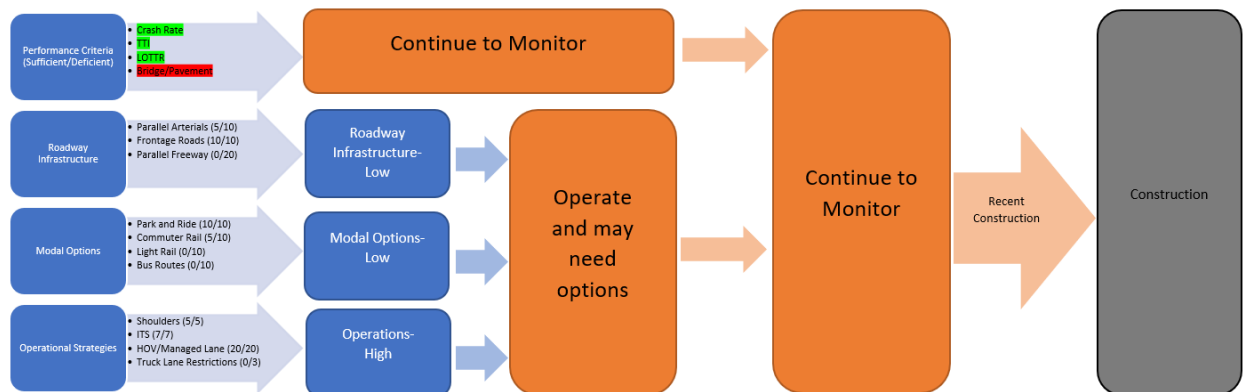
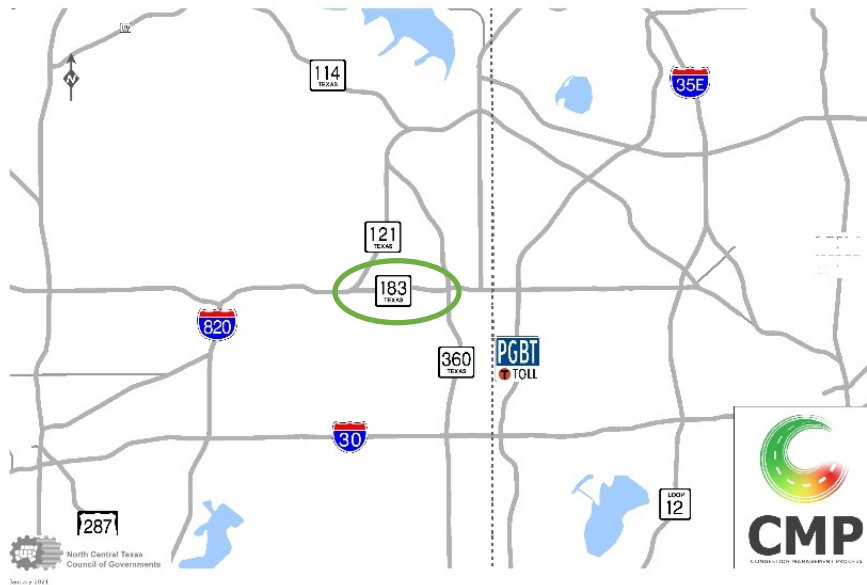


Exhibit 4-3 represents the **IH 183 corridor from SH 121 to SH 360** and falls into the category of **Construction**. To be part of this category or bucket a corridor needs have recently completed construction (2018 to present), currently under construction or is programmed for construction within the next 5 years. Please note for construction corridors, this includes full construction of the corridor limits or partial construction within the corridor limits. This corridor will continue to be monitored for performance as part of the CMP as the improvement being implemented should help to improve the overall operations corridor.

# Congestion Management Process – 2021 Update

Exhibit 4-3: IH 183 corridor from SH 121 to SH 360

## Corridor Map



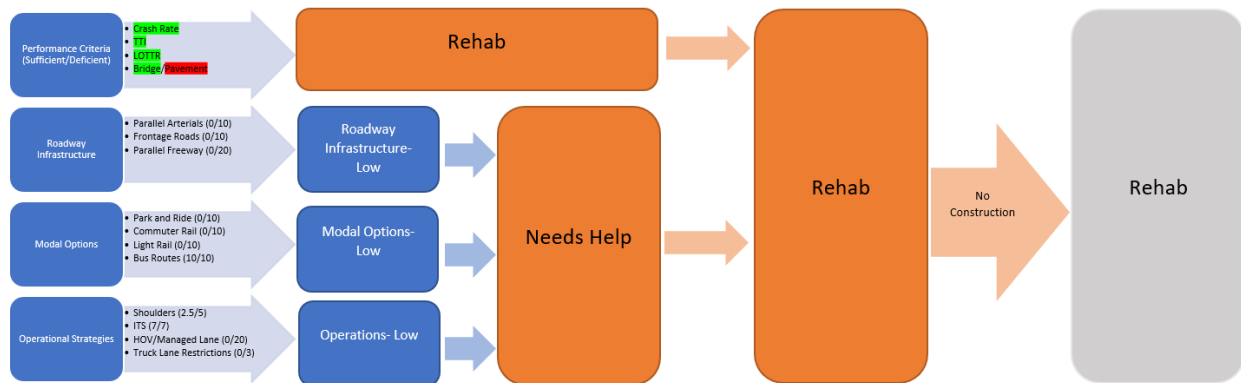
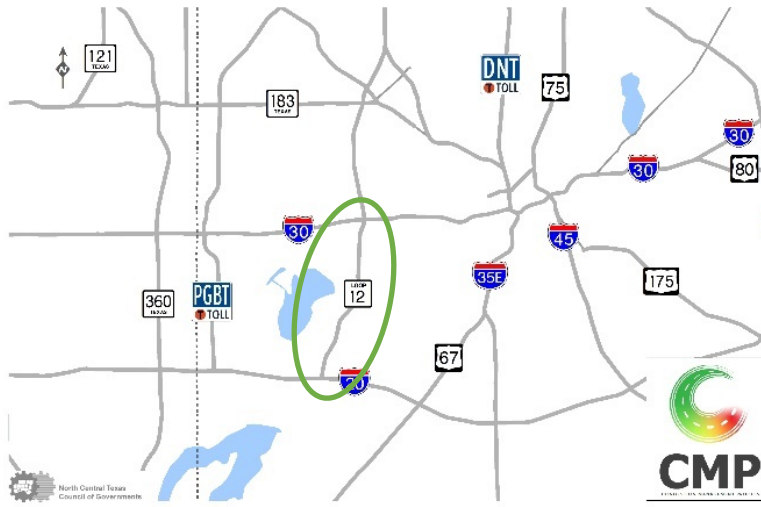
The **Loop 12 corridor from IH 20 to IH 30**, Exhibit 4-4, falls into the category of **Rehabilitation**. To be part of this category or bucket a corridor needs to rank sufficient for all performance criteria except pavement or bridge conditions. This corridor will continue to be monitored for performance outline as part of the CMP and a collection of available assets will continue to be collected. In addition, this corridor will be recommended to the operating agency to consider improving through roadway maintenance funding.



# Congestion Management Process – 2021 Update

Exhibit 4-4: Loop 12 corridor from IH 20 to IH 30

## Corridor Map

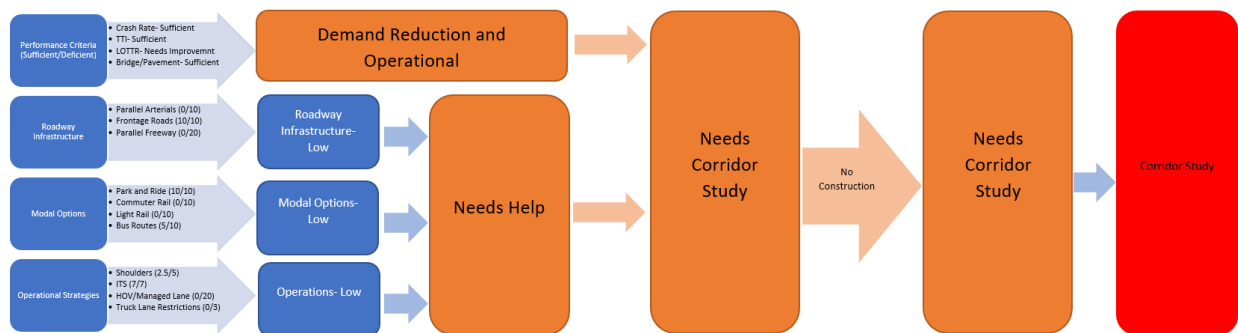
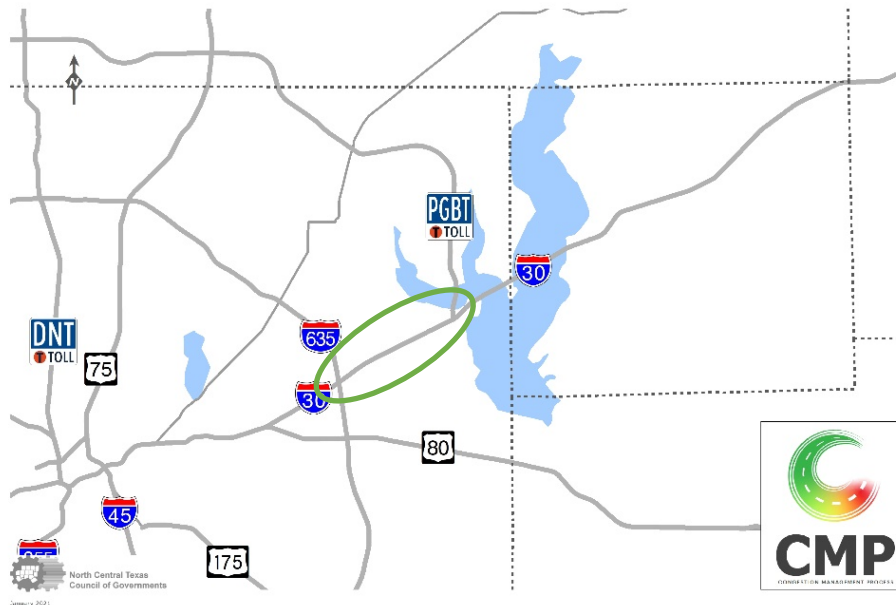


The **IH 30 corridor from IH 635 to PGBT** falls into the category of **Corridor Study**. See Exhibit 4-5. To be part of this category or bucket a corridor needs improvement in one or all the performance criteria (crash rate, travel time index, level of travel time reliability, pavement conditions and bridge conditions) and the corridor does not have available assets to solve for the areas where improvements are needed in performance. This corridor is beyond on the scope of the CMP. This category needs more than CMP strategies to resolve the performance deficiencies and has limited available assets that could be utilized. Corridors within this group will be recommended to be reviewed in-depth through a corridor study.

# Congestion Management Process – 2021 Update

Exhibit 4-5: IH 30 corridor from IH 635 to PGBT

## Corridor Map

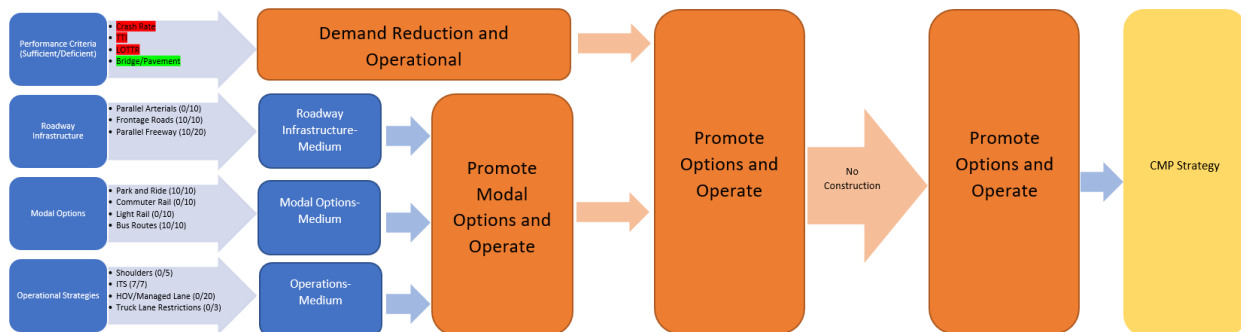
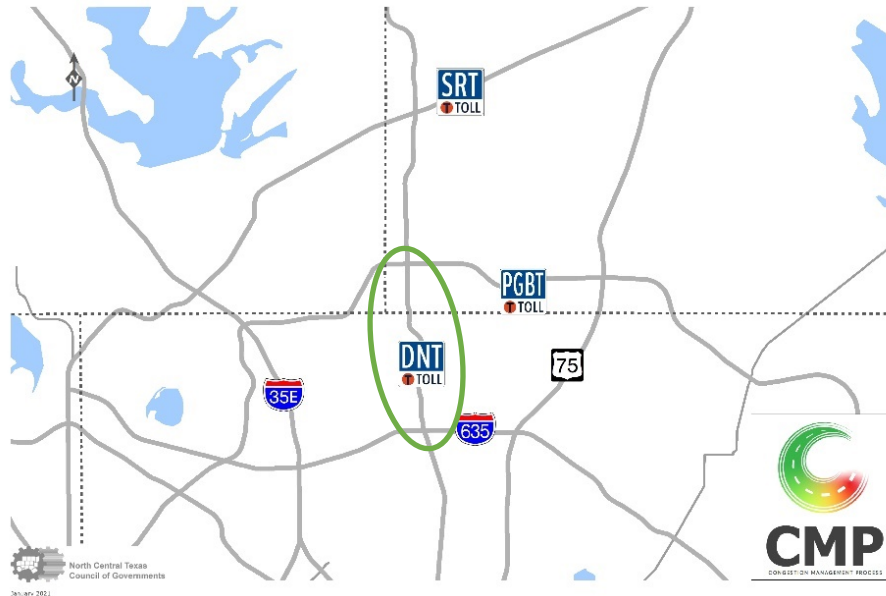


The **Dallas North Tollway (DNT) corridor from PGBT to IH 635** falls into the category of **CMP Strategy**. To be part of this category or bucket a corridor needs improvement in one or all of the performance criteria (crash rate, travel time index, level of travel time reliability, pavement conditions and bridge conditions) and the corridor needs to have available assets to solve for the areas where improvements are needed in performance. This corridor will continue within the CMP to identify specific strategies that can be implemented along the corridor to improve performance and utilize all available assets. See Exhibit 4-6.

# Congestion Management Process – 2021 Update

Exhibit 4-6: Dallas North Tollway (DNT) corridor from PGBT to IH 635

## Corridor Map



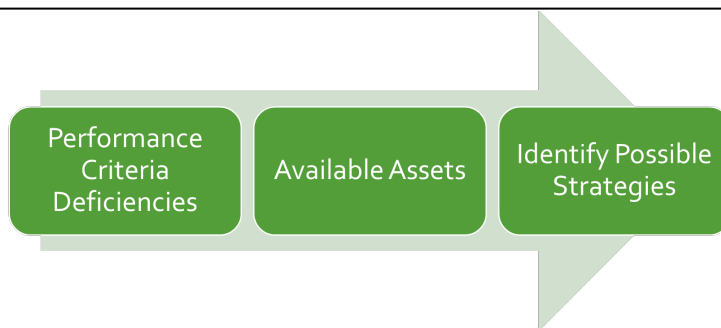
The CMP is a continuous process and will examine the performance criteria and available assets on a regular basis to identify corridors that need transportation improvements as well as assessing the impact of previous corridor improvements implemented. This provides indicators of where specific strategies were most effective to be considered in future strategy selection.

### CMP Strategy Identification

Congestion management strategies on the transportation system include the implementation of Travel Demand Management (TDM) and Transportation Systems Management and Operations (TSM&O) improvements. All TDM and TSM&O strategies are outlined in Appendix C. A variety of strategies can be deployed to alleviate congestion on the transportation system.

The type of strategy implemented depends on the type of congestion experienced. TDM strategies attempt to reduce the demand for single-occupant vehicle (SOV) travel on roadways by offering alternatives to driving alone. Some TDM strategies include employer trip reduction programs, vanpool programs, and rideshare programs.

## Congestion Management Process – 2021 Update

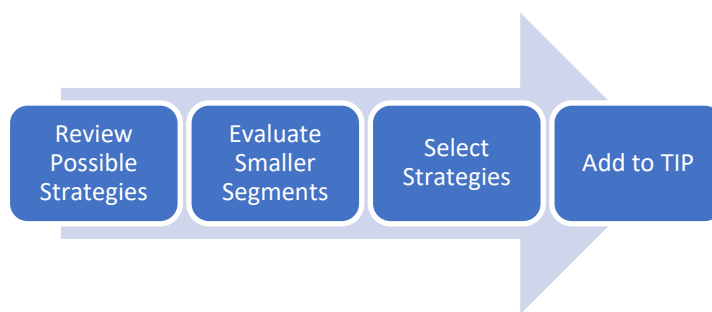


Operational strategies offer low-cost improvements to get more capacity out of the existing transportation network. Some recommended TSM&O strategies include operation of traveler information systems to divert traffic around crashes and special events, closed-circuit television for traffic monitoring, incident verification and clearance to allow crashes to be removed from the roadway quickly and safely and bottleneck remove projects to better balance ramps and lane drops.

Of the 16 corridors that fall within the CMP Strategy category, strategies will be identified based on performance criteria deficiencies and available asset along the corridor. The combination of these two areas identifies possible strategies for each corridor. The possible strategies will be evaluated further to determine which strategies have the most potential to improve the corridor operations. These strategies will be identified and scoped to be put into the Transportation Improvement Program (TIP) for funding.

Strategies are tied to performance deficiencies and available assets. To identify which strategies are the best fit for a given corridor, the strategies for each corridor will be ranked based upon the percentage of associated performance deficiencies and assets matching those on the corridor. Strategies identified to be the best fit for the corridor will be presented to a working group for the corridor. The flow chart below illustrates the first phase in the strategy identification process.

The working group for the corridor will consider available congestion management strategies. Group members will include staff from relevant NCTCOG program areas, local governments, NTTA/TxDOT, transit agencies, roadway operators and other relevant stakeholders as identified. Corridor performance information, available assets, and potential strategies will be discussed. Strategy selection and project implementation are initiated through the TIP. The selection of operational and travel demand reduction strategies are based on the type of strategies that yield the largest benefit cost ratio. Transportation funds will be allocated to a variety of strategies and recommended for approval in the TIP as a CMP Program of Projects. The flow chart below illustrates the second phase in the strategy identification process.



## Congestion Management Process – 2021 Update

These strategies could include, but not limited to, freeway bottleneck removal, ITS deployment, and bicycle and pedestrian trails. In addition to these operational strategies, travel demand reductions strategies are implemented along the corridor in cooperation with transit agencies and major employers. Some of these strategies include vanpools, ride-matching, and discounted transit passes.

As a strategy is identified, NCTCOG works with local partners to identify the cost, scope, schedule and implementing agency for the project to be included in the TIP. Some CMP strategies will be implemented by NCTCOG while others implemented by regional partners. For example, a traffic signal upgrade would be implemented by a local jurisdiction since they are responsible to operate and maintain a traffic signal. NCTCOG would be more appropriate to implement a regional single-occupant vehicle trip reduction program. As NCTCOG as the implementing agency, this type of program can be implemented region-wide for an economy of scale. Implementing agency is an important component to this process since this agency will be responsible for the project and needs to be committed to complete the project.

### Project Performance Evaluation

The goal of the project performance evaluation is to have an on-going program to evaluate the benefits of congestion management strategies implemented to improve the efficiency of our existing transportation system through demand reduction and operational improvements.

Examples of performance evaluation could include any of the following items:

- Before/After Speeds
- Before/After Volumes
- Before/After Crash Rate
- Transit Ridership/Mode Split
- Changes in Asset Condition
- Changes in Criteria Performance Measures, Peak Hour LOS, Crash Rate, Travel Time Reliability

### Summary

The goal of the CMP is to balance the travel demand across all available assets and maximize the operations of available infrastructure within a corridor. This is accomplished by evaluating corridor performance criteria to identify deficiencies and inventorying available asset. Based on this analysis, stakeholders are able to determine appropriate strategies to apply allowing the region to better utilize the transportation system in North Texas. In addition, this process allows coordination with partner agencies to evaluate and identify strategies and determine appropriate implementation agencies. As the strategies are identified, project implementation timelines can be developed to allow regional transportation resources to be staged and infrastructure to operate as a cohesive system. Although major capital investments are needed to meet the growing travel demand, the CMP identifies major capital investments as a last option. To complement major capital investments, when needed, the CMP also develops lower cost strategies to sustain the life and operation of the capacity that is added. This process allows the region to maximize the use of available funding, balance available resources, reduce congestion, enhance safety, and improve air quality. Leading to a more sustainable, livable, accessible, balanced and healthy transportation system.

# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	3.1
Facility	IH 35
From	Denton C/L
To	IH 35E/IH35W
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	47	Sufficient
Travel Time Index (Recurring Congestion)	1.02	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.06	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	2	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	38	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	99	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	11	
<i>Bus Trip Density*</i>	32	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability which impacts Modal Options Score</i>

## Operations

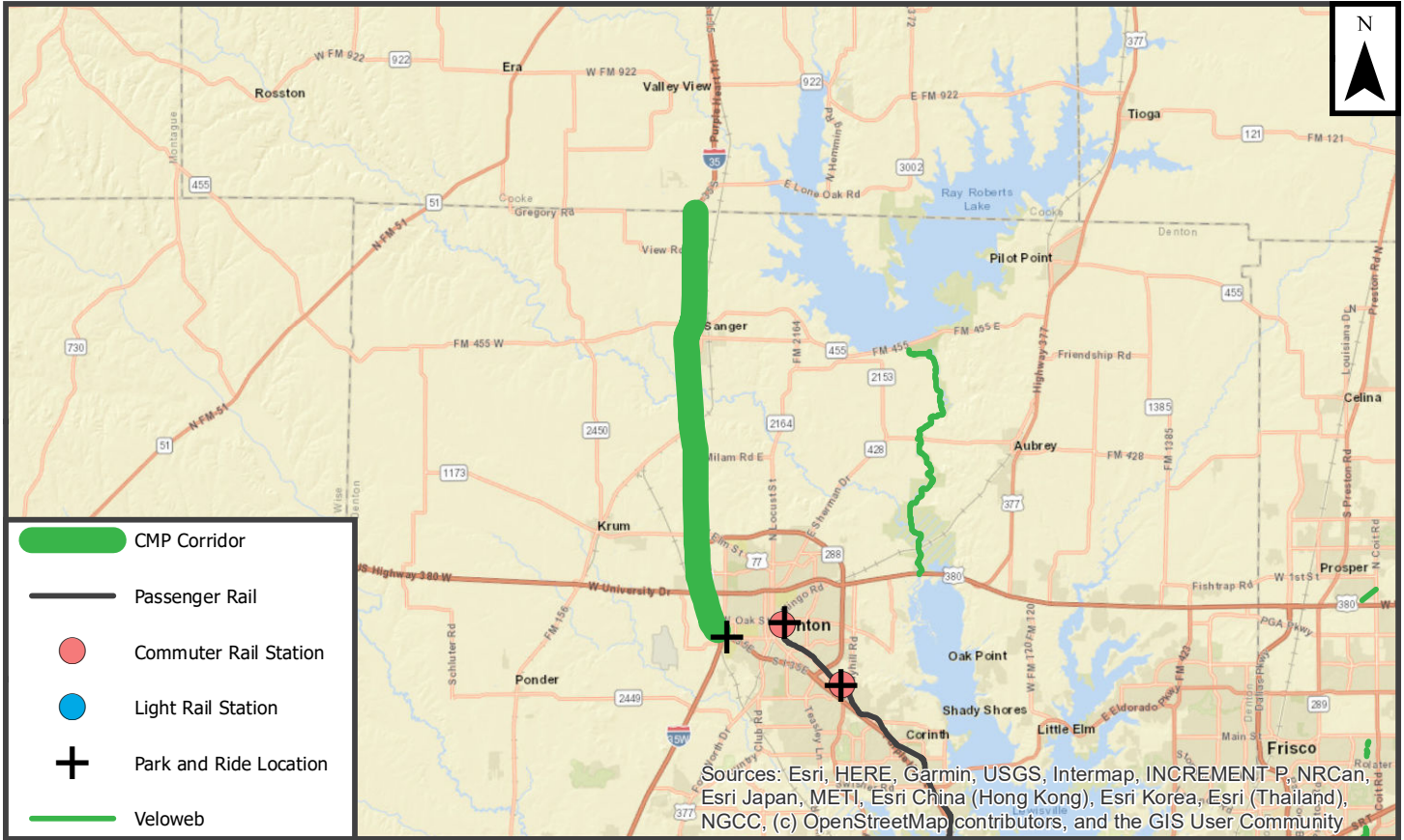
Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	93	Medium
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	





# Congestion Management Process Corridor 3.1

## IH 35 between Denton C/L and IH 35E/IH35W



### Performance Statement

Continue to monitor

### Asset Statement

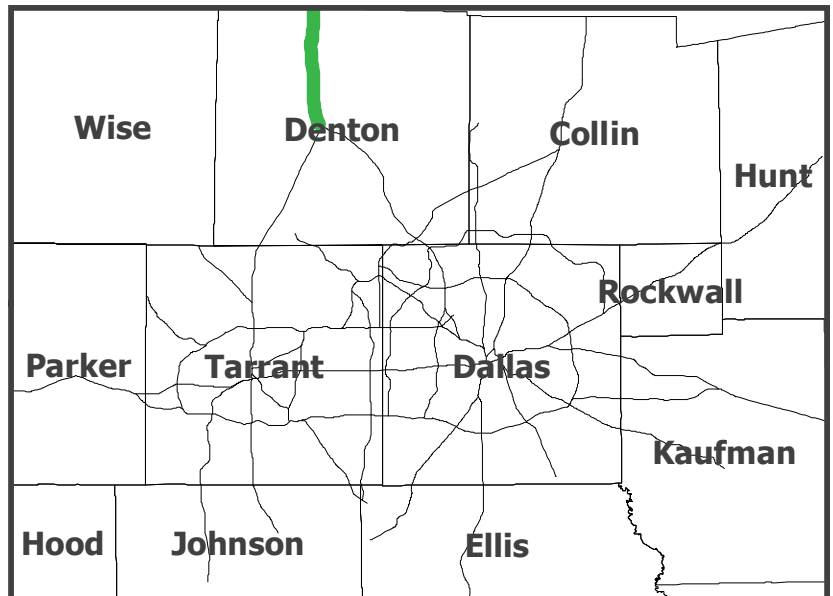
Operate and may need options

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	5.1
Facility	IH 35W
From	IH 35E
To	SH 114
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	27	Sufficient
Travel Time Index (Recurring Congestion)	1.01	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.05	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	14	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	13	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	35	
Combined Bus Availability	Medium	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

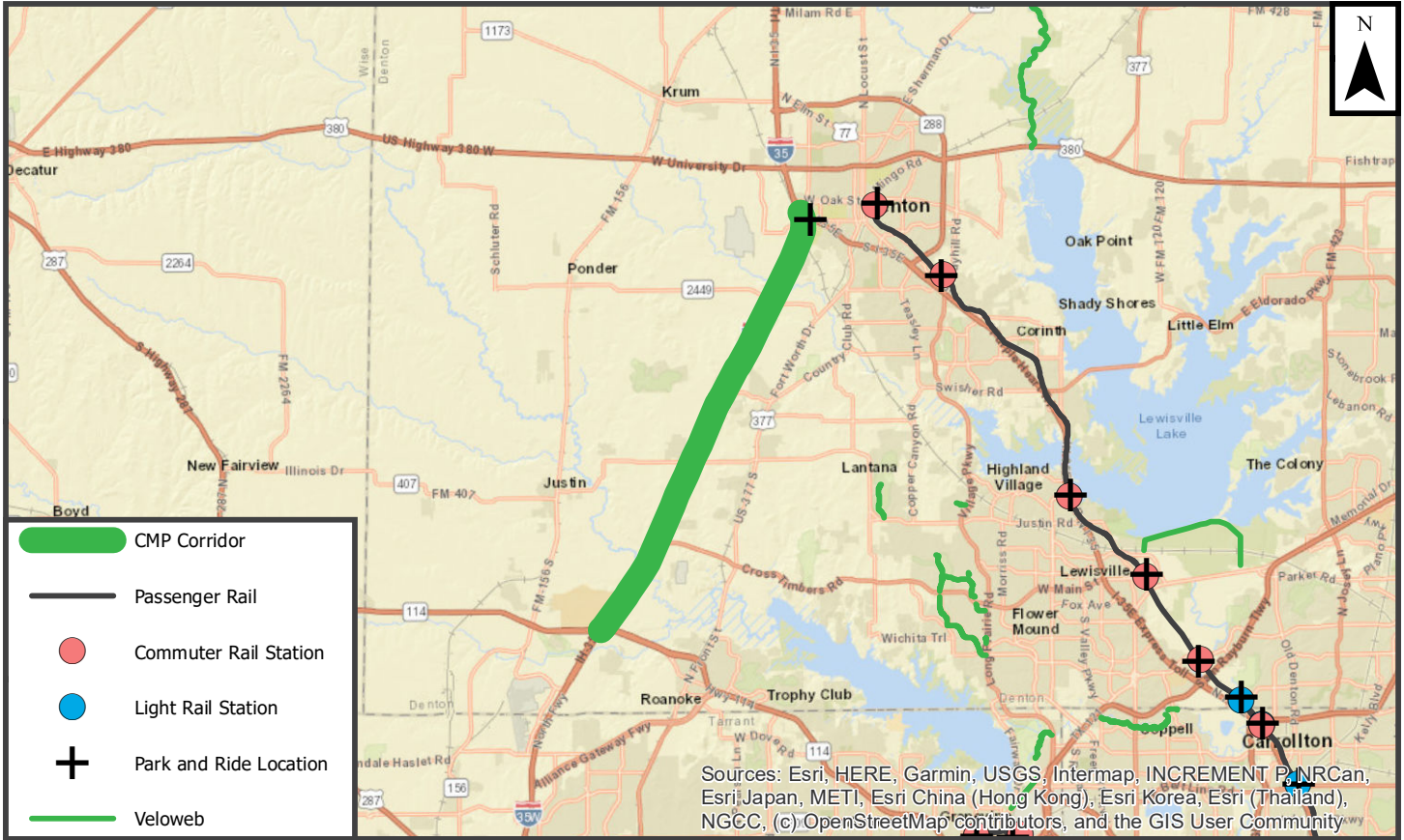
Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	57	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 5.1

IH 35W between IH 35E and SH 114



## Performance Statement

Continue to monitor

## Asset Statement

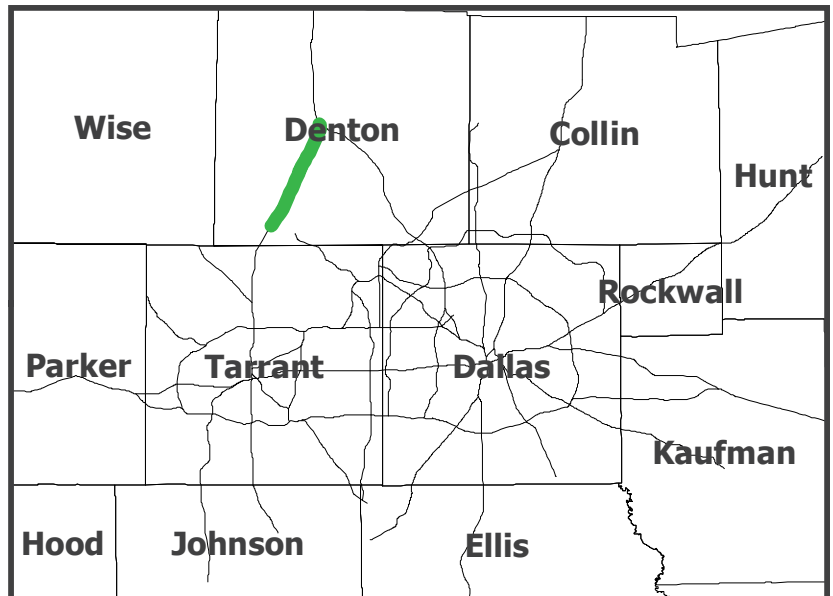
Needs help

## Corridor Statement

Continue to monitor

## Corridor Output

Partial Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	21.1
Facility	DNT
From	S of US 380
To	SRT
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	119	Needs Improvement
Travel Time Index (Recurring Congestion)	1.24	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.20	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	96	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	0	Medium

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	10	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

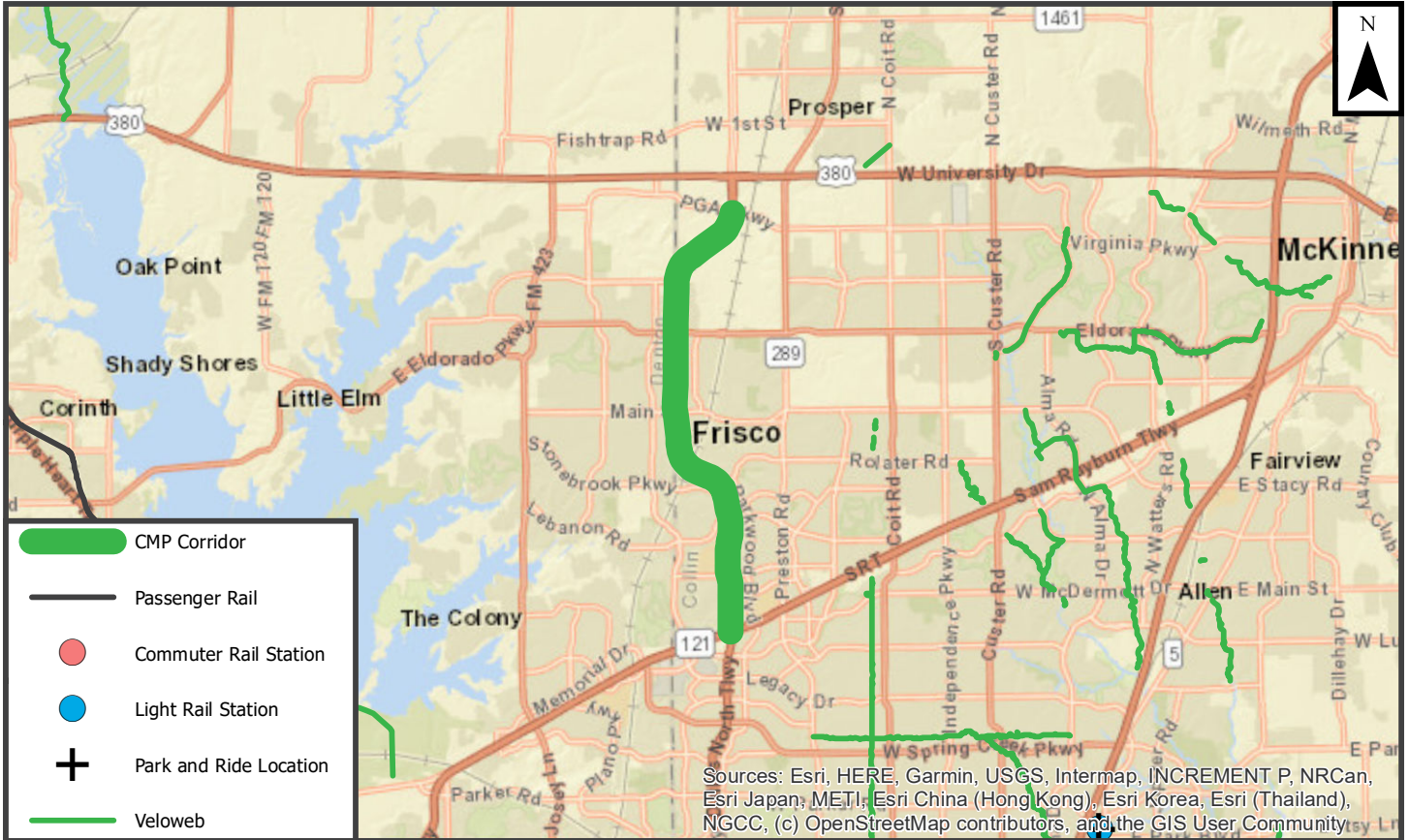
More detail on corridor evaluation and scoring criteria available in Appendix D





# Congestion Management Process Corridor 21.1

DNT between S of US 380 and SRT



## Performance Statement

Operational

## Asset Statement

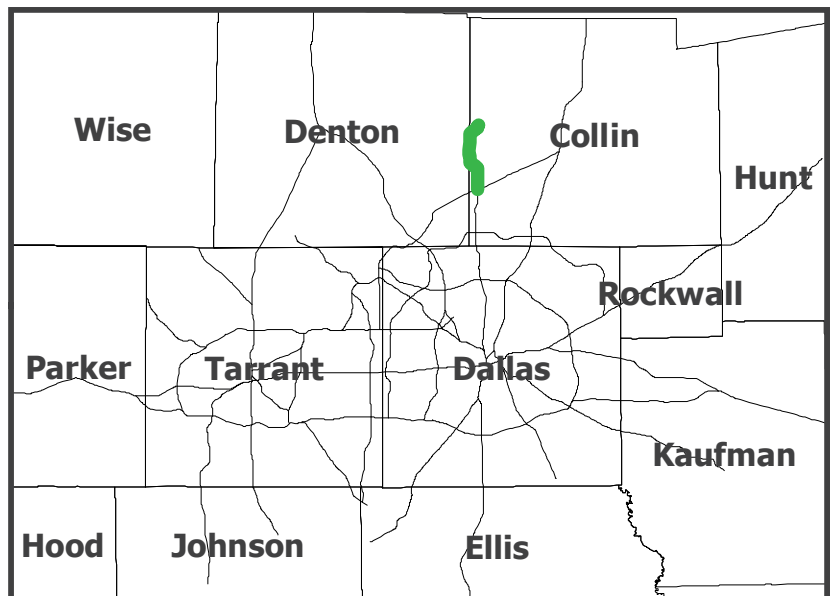
Need modal options and operations

## Corridor Statement

Implement operational strategies

## Corridor Output

Partial Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	21.2
Facility	DNT
From	SRT
To	PGBT (North)
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	129	Needs Improvement
Travel Time Index (Recurring Congestion)	1.21	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.76	Needs Improvement
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	53	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	89	
<i>Bus Trip Density*</i>	49	
Combined Bus Availability	Medium	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	100	
Truck Lane Restriction Percentage	0	Medium
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D

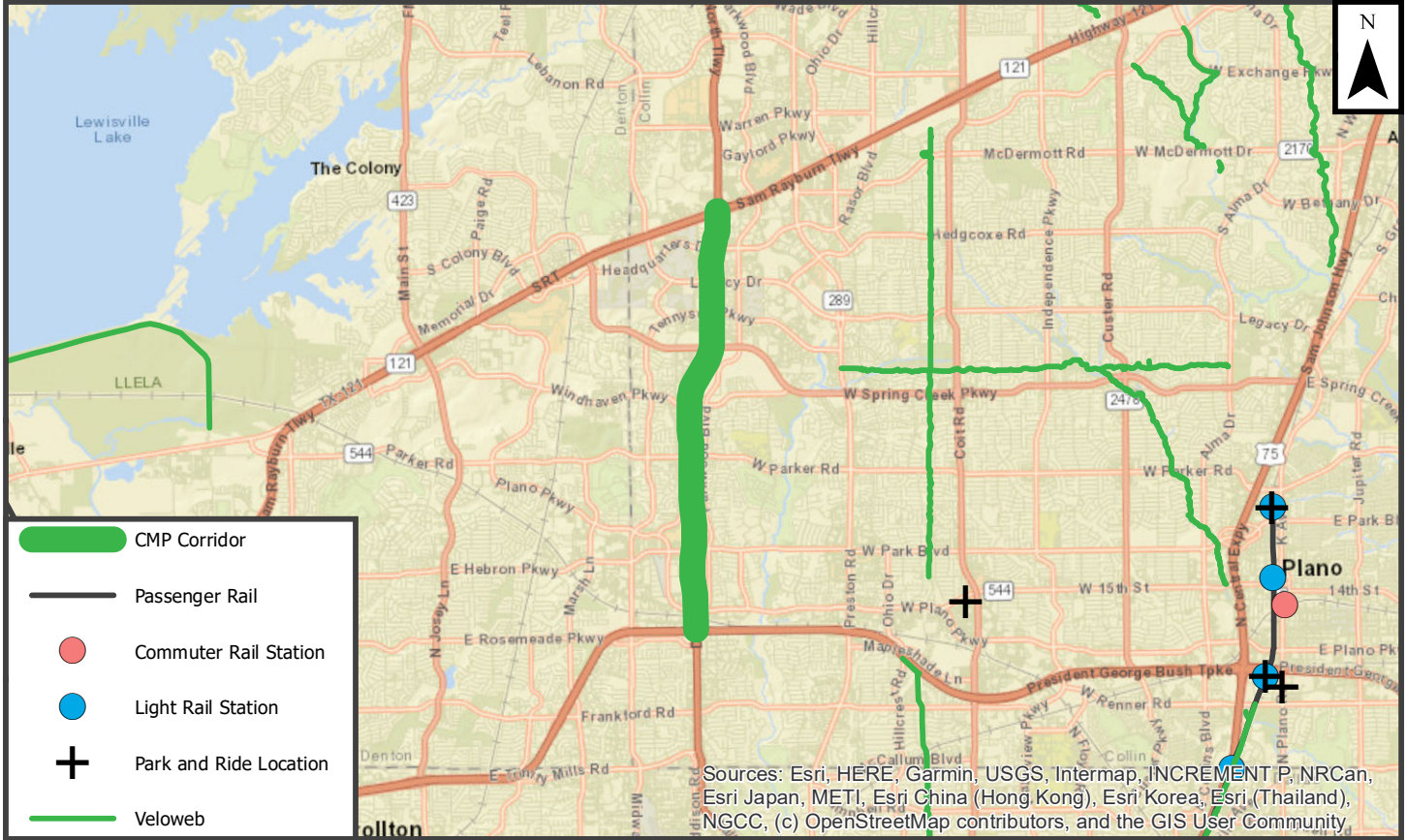




**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 21.2

## DNT between SRT and PGBT (North)



### Performance Statement

Demand reduction and operational

### Asset Statement

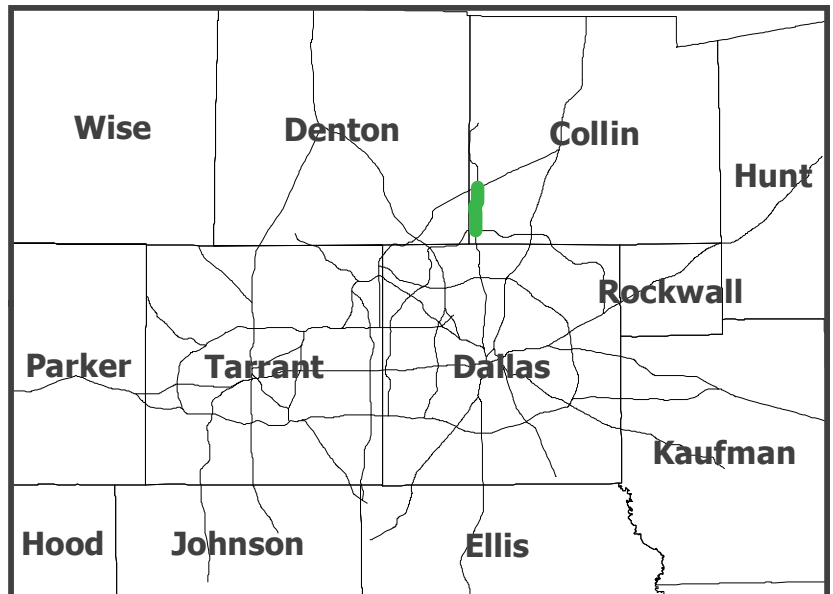
Operate and may need options

### Corridor Statement

Promote trip reduction strategies and optimize existing operations

### Corridor Output

CMP Strategy



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	11.4
Facility	SRT
From	DNT
To	IH 35E
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	23	Sufficient
Travel Time Index (Recurring Congestion)	1.31	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.37	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	20	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	87	
Parallel Freeway Percentage	21	Low

## Modal Options

Park and Rides within 1 mile of corridor	2	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	15	
<i>Bus Trip Density*</i>	18	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Medium
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

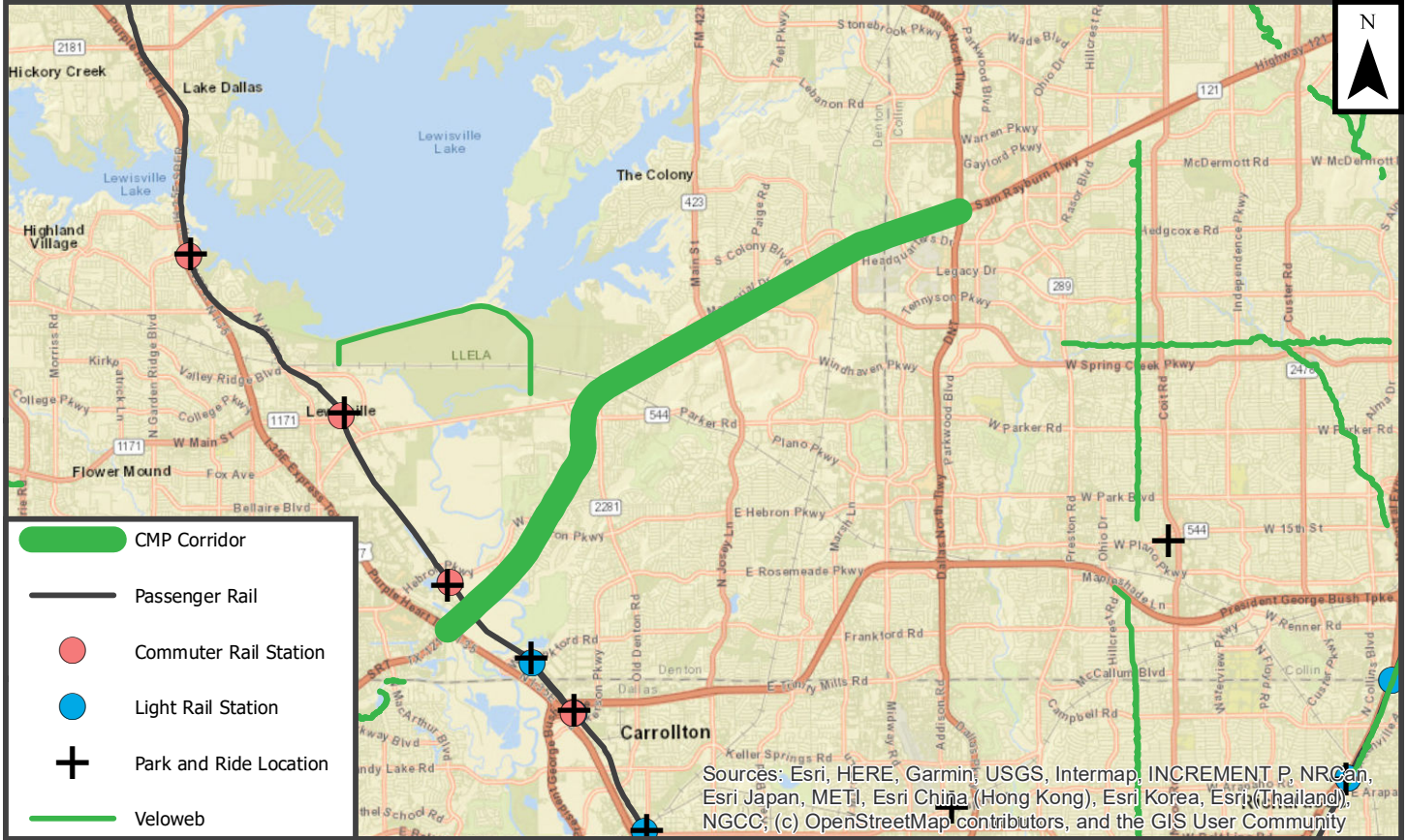
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 11.4

## SRT between DNT and IH 35E



### Performance Statement

Continue to monitor

### Asset Statement

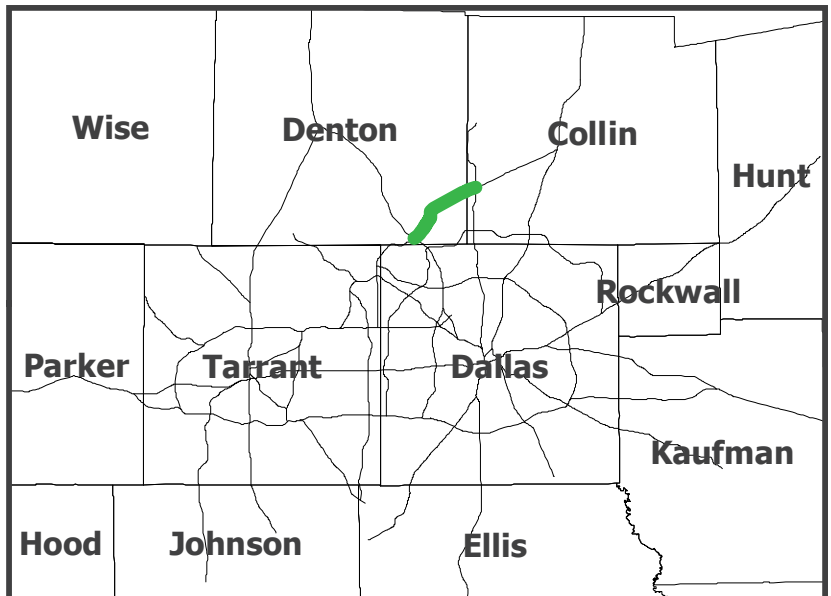
Operate and may need options

### Corridor Statement

Continue to monitor

### Corridor Output

Full Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	120.2
Facility	PGBT (North)
From	DNT
To	US 75
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	84	Sufficient
Travel Time Index (Recurring Congestion)	1.07	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.17	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	72	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	47	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	81	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

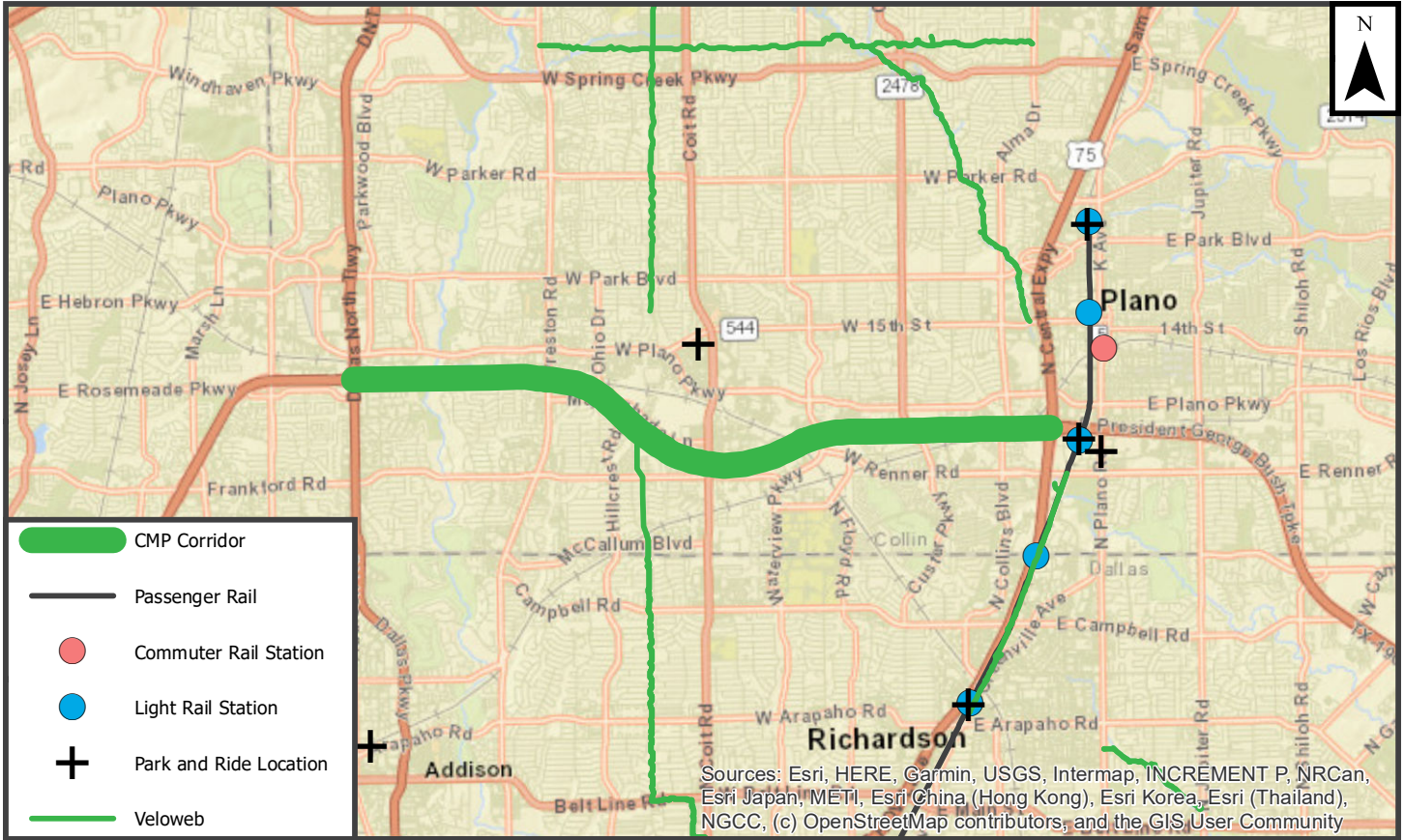
Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	99	Medium
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 120.2

## PGBT (North) between DNT and US 75



### Performance Statement

Continue to monitor

### Asset Statement

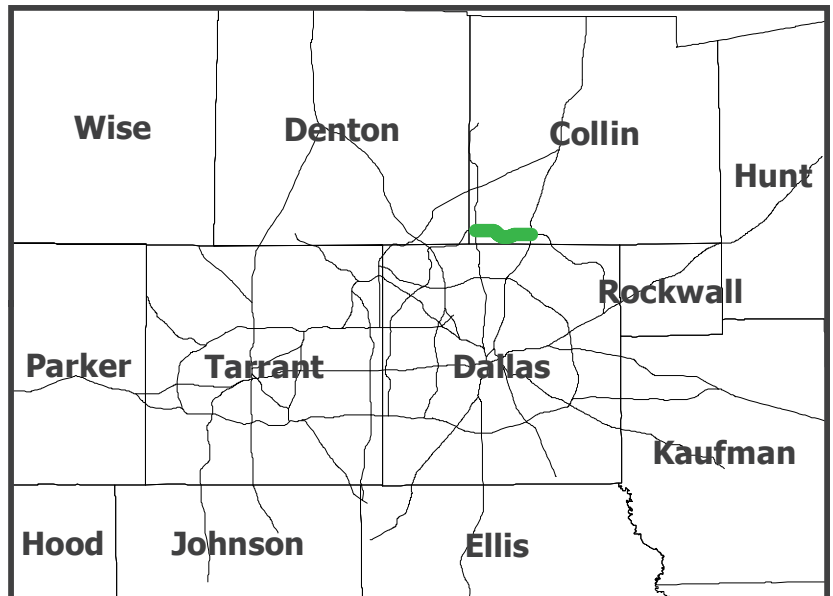
Promote modal options and operate

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	121.1
Facility	PGBT (East)
From	US 75
To	IH 30
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	81	Sufficient
Travel Time Index (Recurring Congestion)	1.01	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.11	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	40	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	69	
Parallel Freeway Percentage	14	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	39	
<i>Bus Trip Density*</i>	24	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	
Truck Lane Restriction Percentage	0	Low
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 121.1

## PGBT (East) between US 75 and IH 30



### Performance Statement

Continue to monitor

### Asset Statement

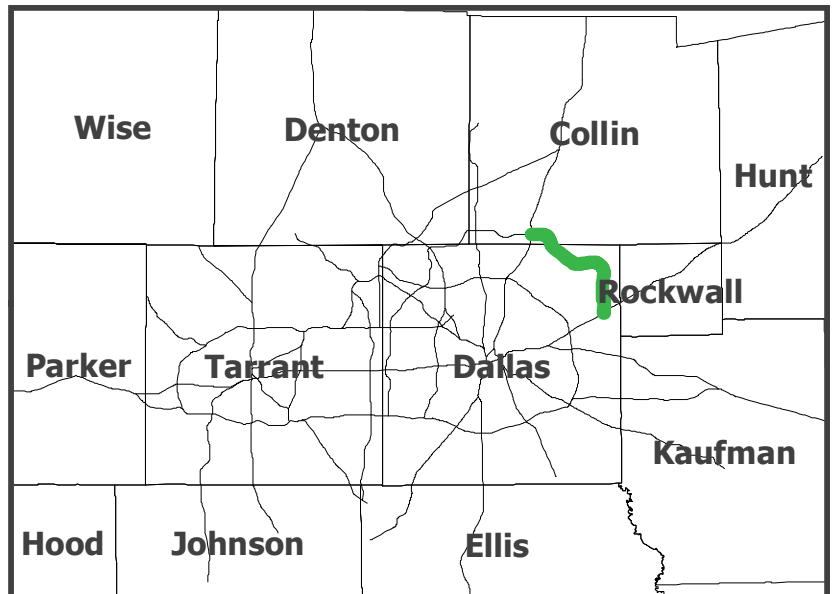
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	130.4
Facility	IH 635 (North)
From	DNT
To	US 75
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	50	Sufficient
Travel Time Index (Recurring Congestion)	1.39	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.26	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	25	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	192	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

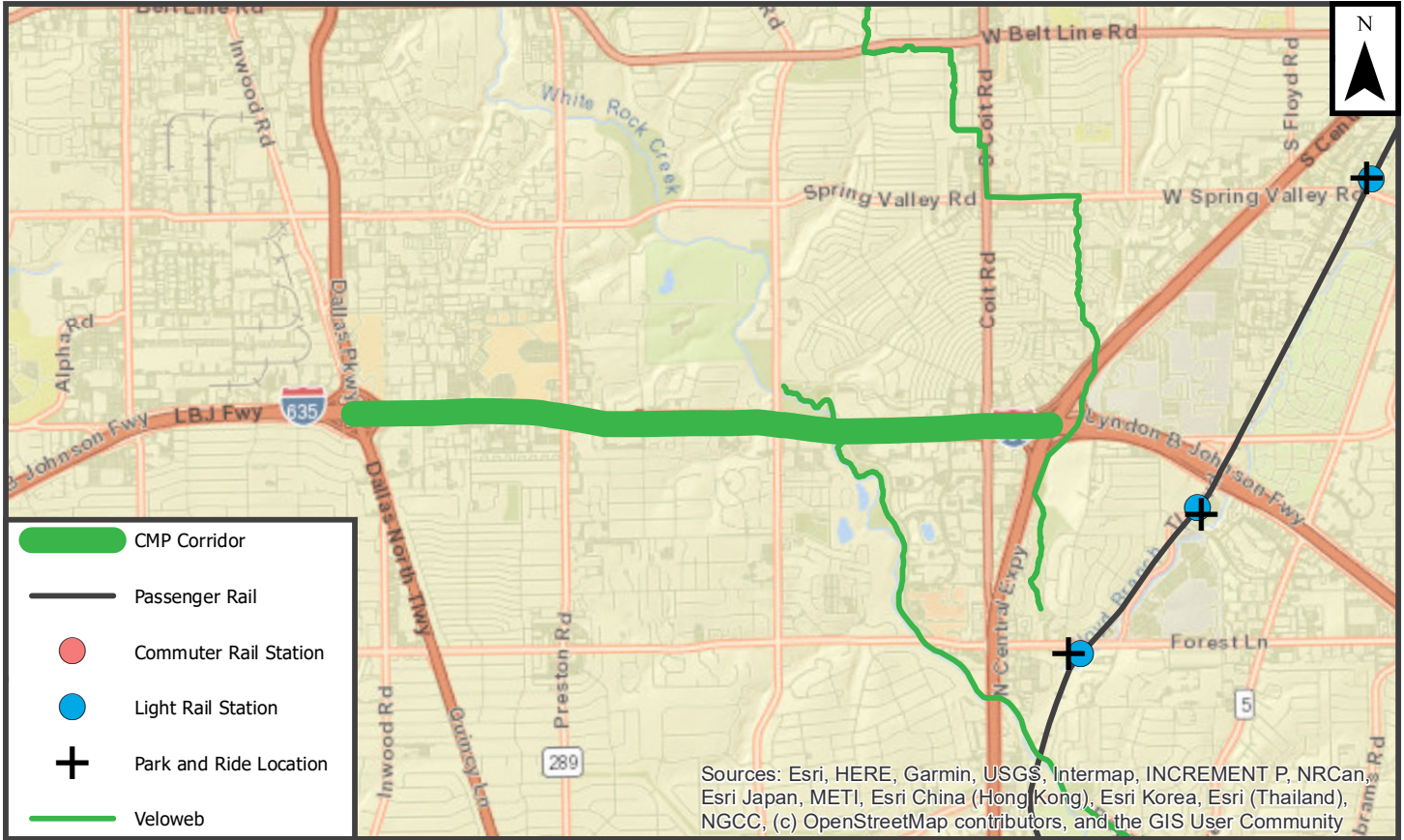
Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	100	High
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	100	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 130.4

## IH 635 (North) between DNT and US 75



### Performance Statement

Continue to monitor

### Asset Statement

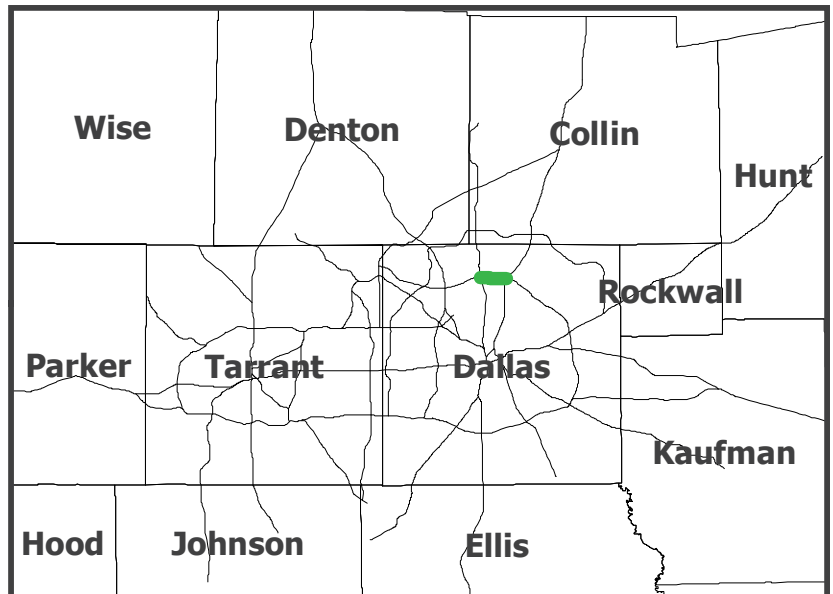
Promote modal options and operate

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	131.1
Facility	IH 635 (East)
From	US 75
To	IH 30
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	101	Sufficient
Travel Time Index (Recurring Congestion)	1.61	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.23	Sufficient
Pavement in Poor Condition	5	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	19	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	43	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	7	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	58	
<i>Bus Trip Density*</i>	143	
Combined Bus Availability	High	<small>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</small>

## Operations

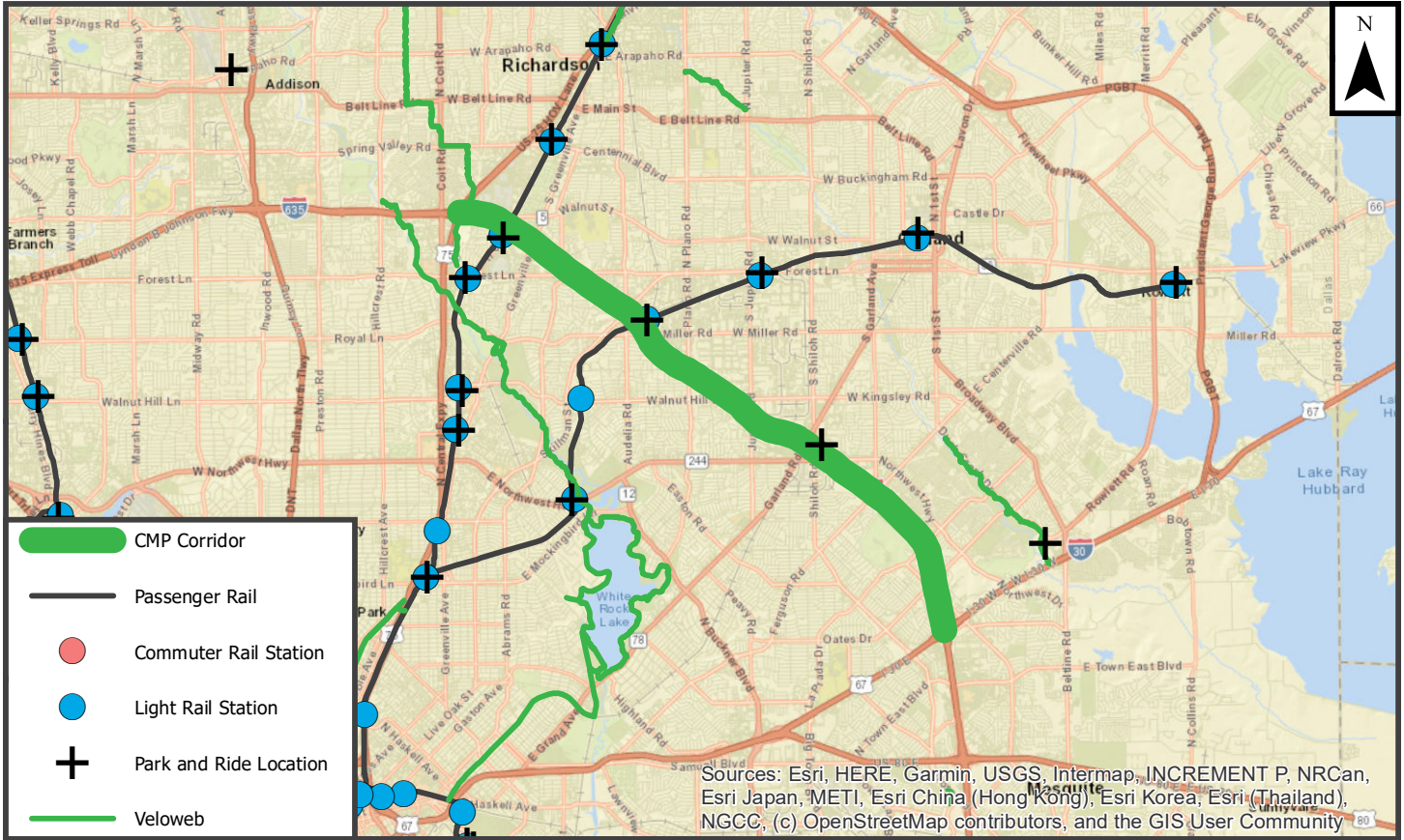
Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	100	High
Truck Lane Restriction Percentage	100	
HOV/Managed Lane Percentage	100	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 131.1

IH 635 (East) between US 75 and IH 30



## Performance Statement

Demand reduction

## Asset Statement

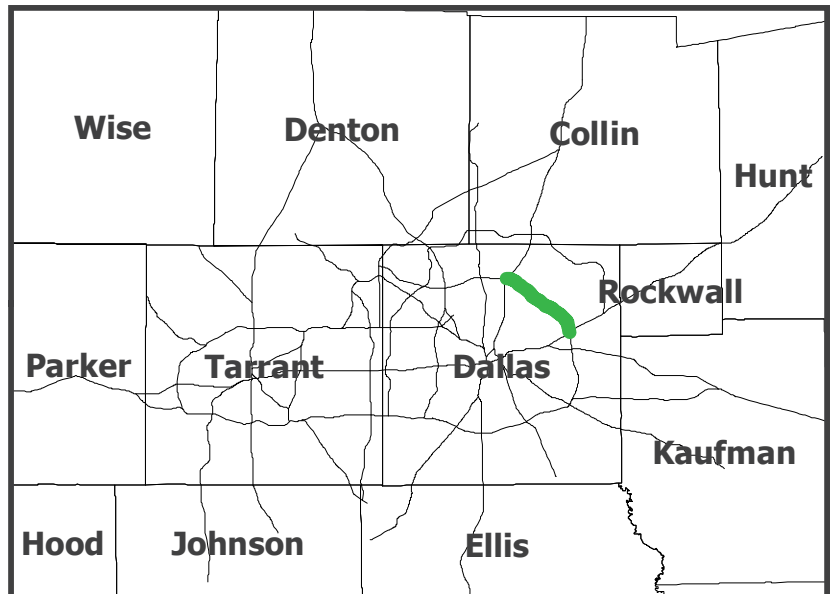
Promote modal options and operate

## Corridor Statement

Promote modal options and operate

## Corridor Output

Full Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	28.11
Facility	IH 30
From	US 80
To	IH 635 (East)
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	34	Sufficient
Travel Time Index (Recurring Congestion)	1.14	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.25	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	66	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	96	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

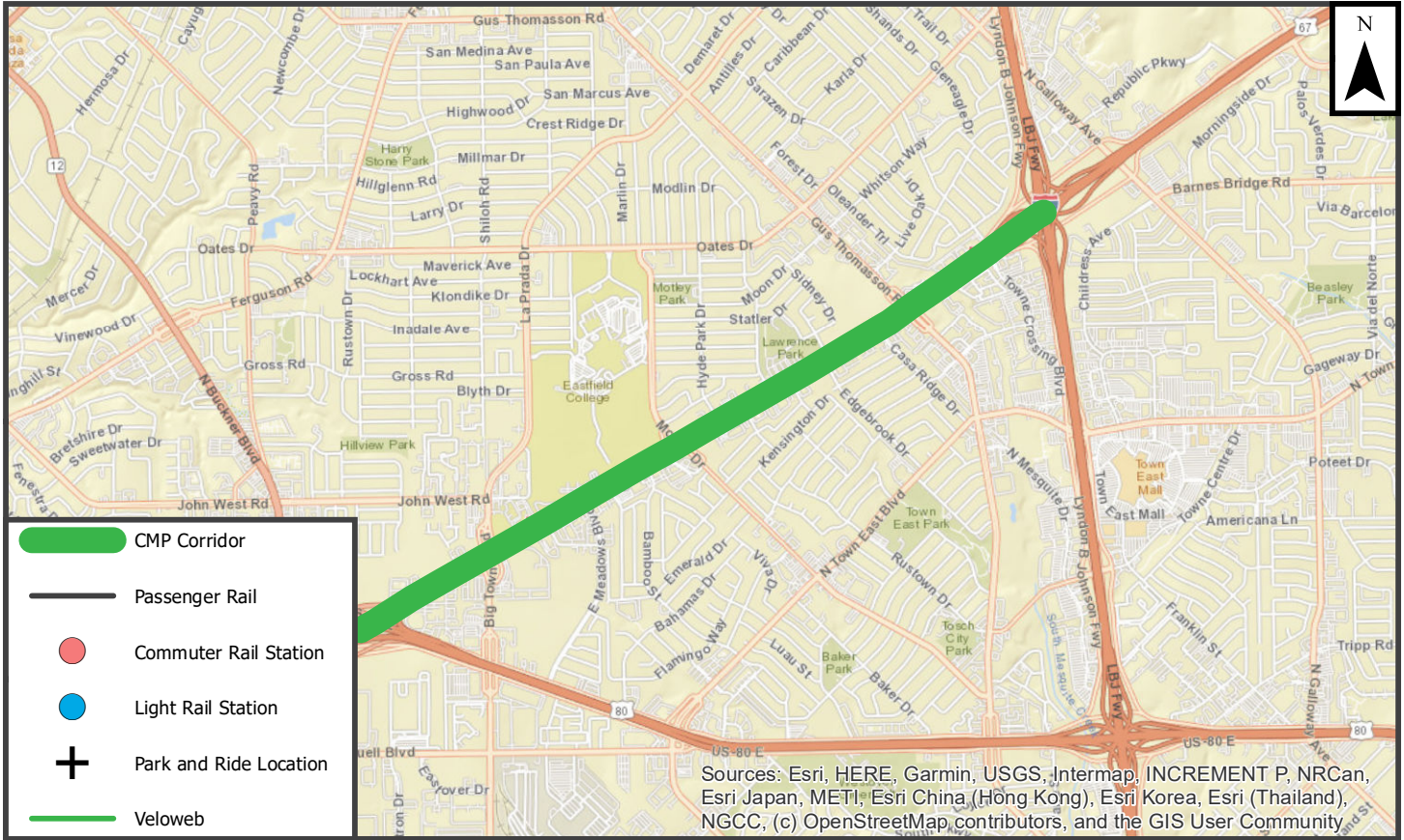
Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	100	
Truck Lane Restriction Percentage	0	Low
HOV/Managed Lane Percentage	100	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 28.11

## IH 30 between US 80 and IH 635 (East)



### Performance Statement

Continue to monitor

### Asset Statement

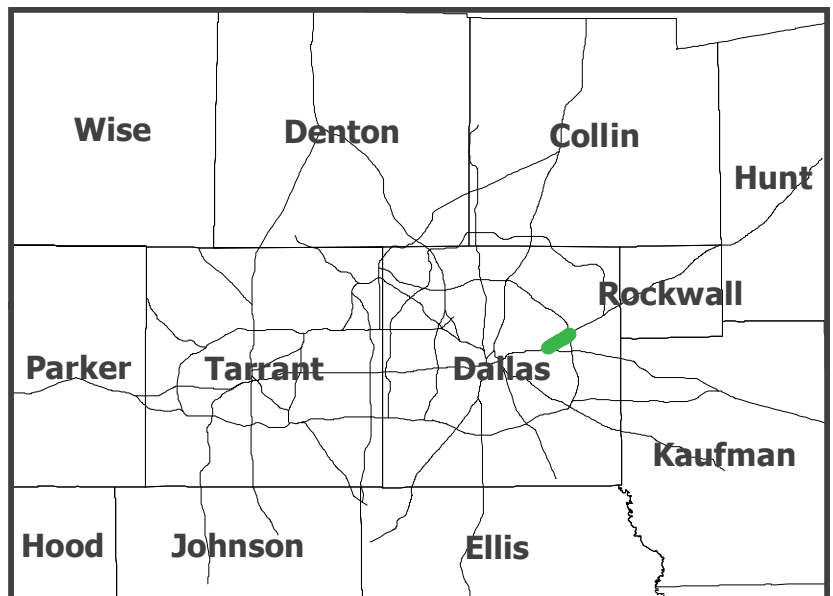
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	28.12
Facility	IH 30
From	IH 635 (East)
To	PGBT
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	28	Sufficient
Travel Time Index (Recurring Congestion)	1.46	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.59	Needs Improvement
Pavement in Poor Condition	6	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	37	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	93	
<i>Bus Trip Density*</i>	18	
Combined Bus Availability	Medium	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Low
Truck Lane Restriction Percentage	55	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 28.12

## IH 30 between IH 635 (East) and PGBT



### Performance Statement

Demand reduction and operational

### Asset Statement

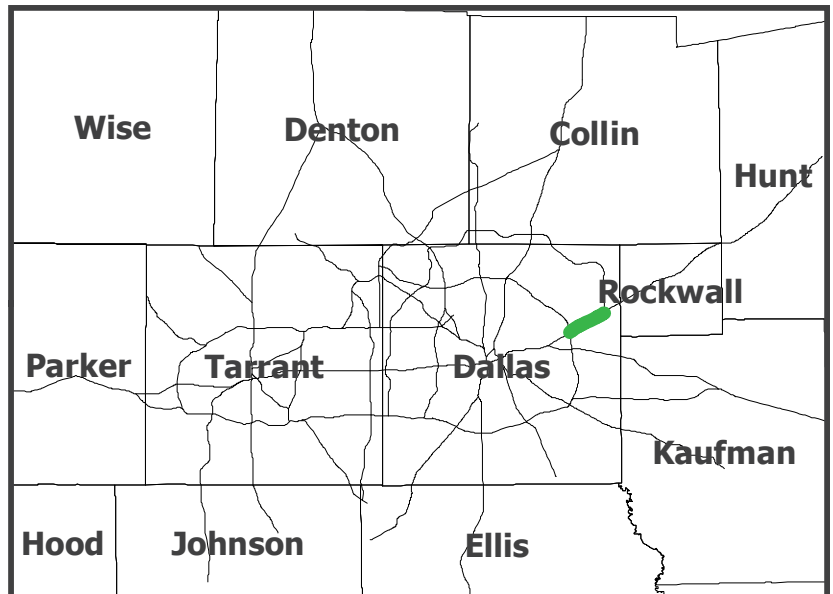
Needs help

### Corridor Statement

Needs corridor study

### Corridor Output

Corridor Study





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	28.13
Facility	IH 30
From	PGBT
To	Rockwall C/L
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	45	Sufficient
Travel Time Index (Recurring Congestion)	1.13	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.25	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	18	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	75	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	4	
<i>Bus Trip Density*</i>	0	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	86	Low
Truck Lane Restriction Percentage	41	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D





**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 28.13

## IH 30 between PGBT and Rockwall C/L



### Performance Statement

Continue to monitor

### Asset Statement

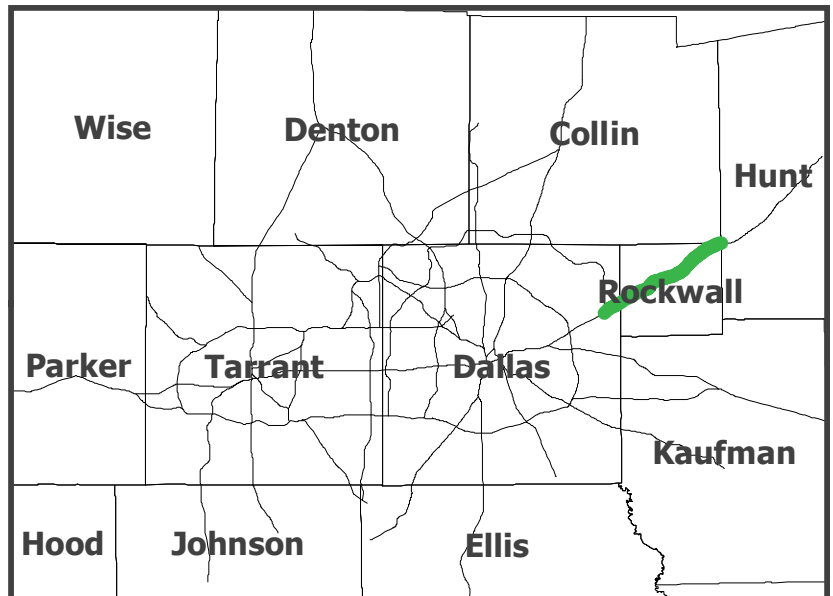
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Partial Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	30.1
Facility	IH 20
From	SS 312
To	IH 30
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	46	Sufficient
Travel Time Index (Recurring Congestion)	1.01	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.10	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	42	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	87	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	0	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	30	Low
Truck Lane Restriction Percentage	33	
HOV/Managed Lane Percentage	0	

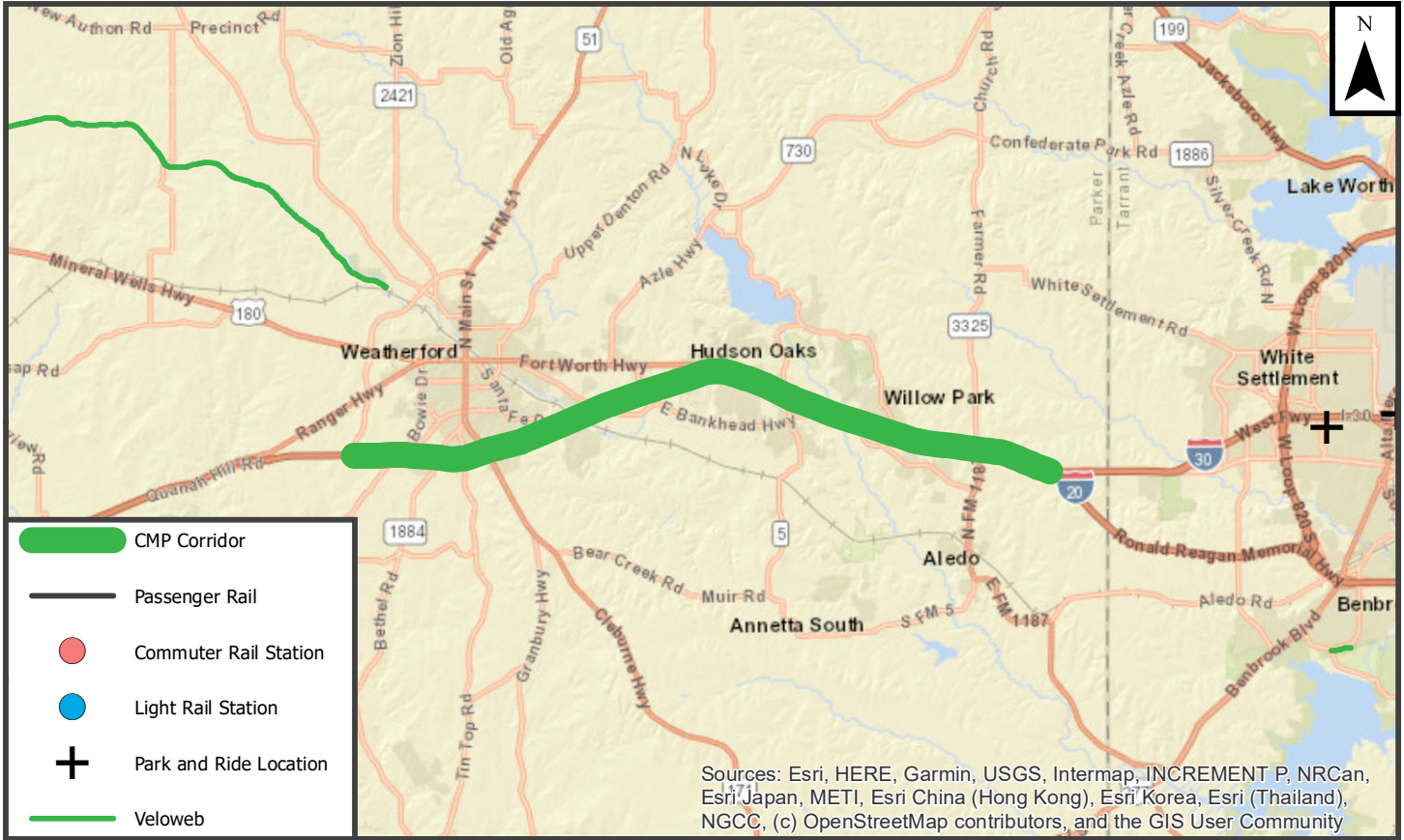
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 30.1

## IH 20 between SS 312 and IH 30



### Performance Statement

Continue to monitor

### Asset Statement

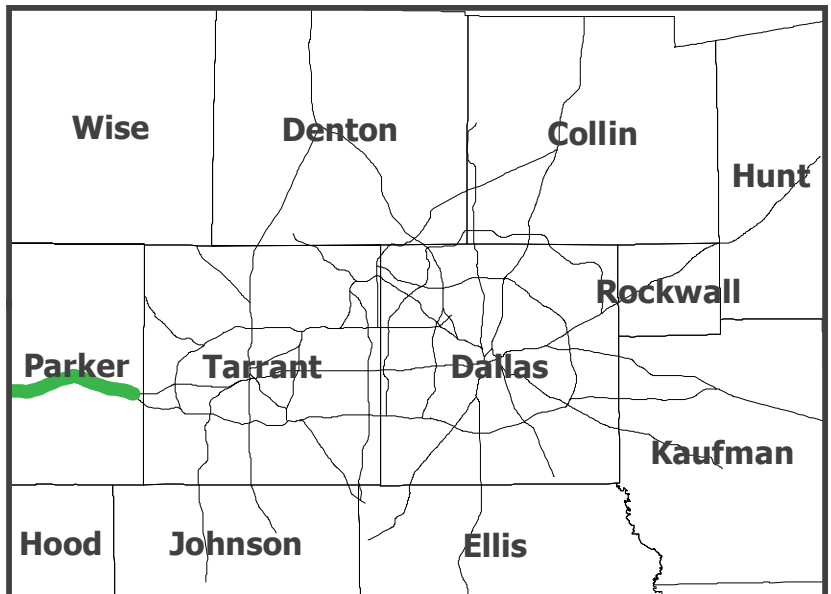
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Partial Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	31.1
Facility	CTP
From	IH 30
To	IH 20
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	21	Sufficient
Travel Time Index (Recurring Congestion)	1.00	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.04	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	31	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	17	
Parallel Freeway Percentage	2	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	61	
<i>Bus Trip Density*</i>	136	
Combined Bus Availability	High	<small>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</small>

## Operations

Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Low
Truck Lane Restriction Percentage	18	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D

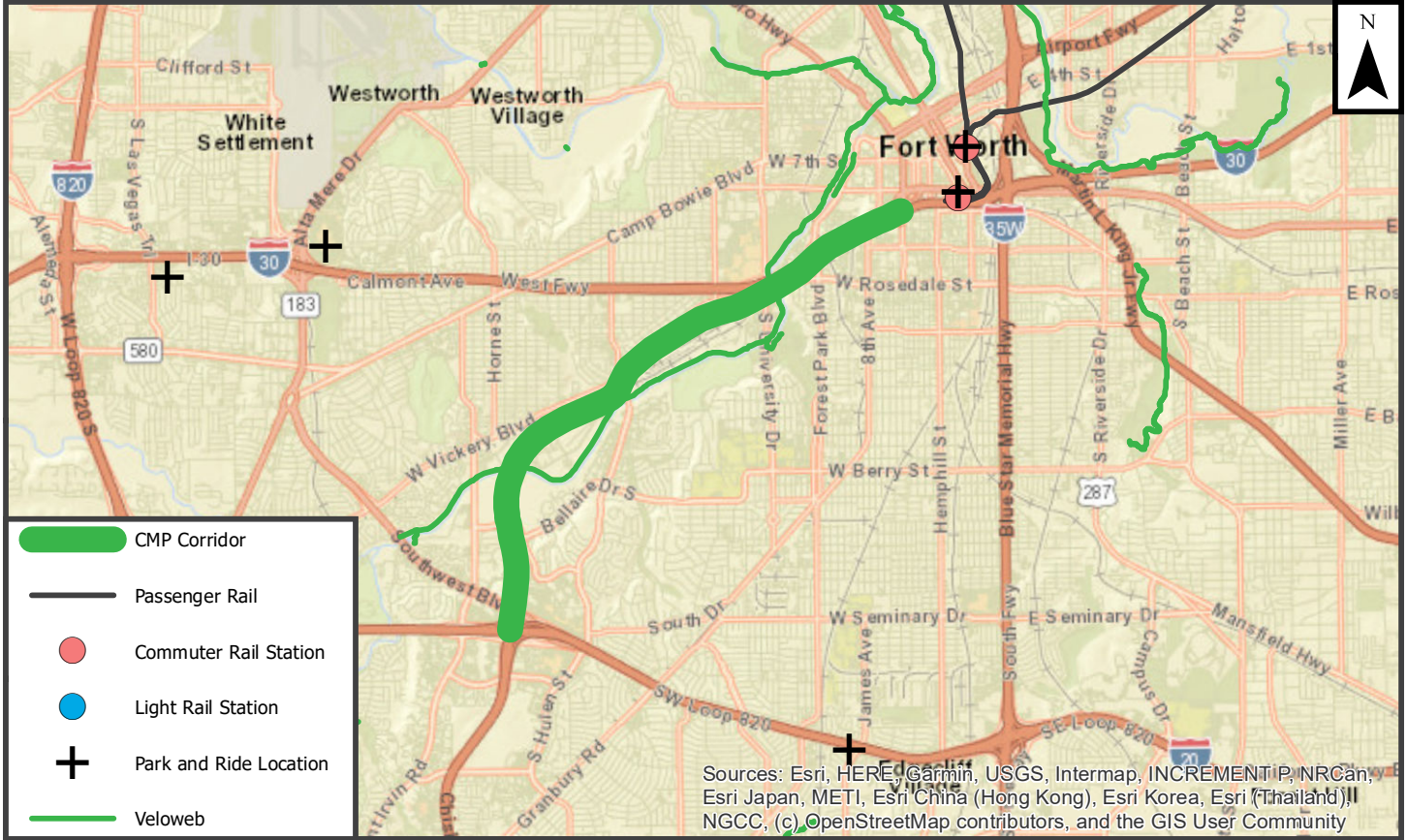




**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 31.1

## CTP between IH 30 and IH 20



### Performance Statement

Continue to monitor

### Asset Statement

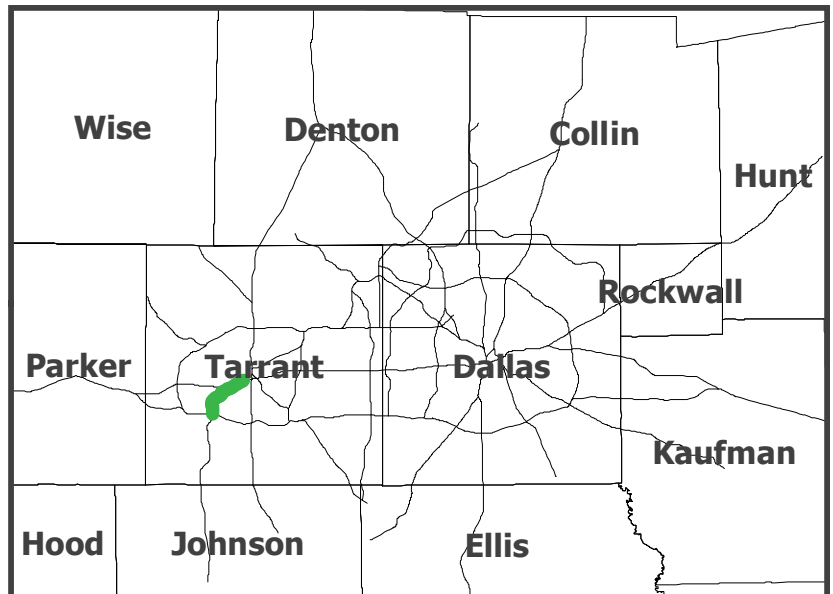
Promote options, may need roadway capacity

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	28.2
Facility	IH 30
From	IH 820 (West)
To	IH 35W
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	72	Sufficient
Travel Time Index (Recurring Congestion)	1.07	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.19	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	1	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	76	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	58	
Parallel Freeway Percentage	94	High

## Modal Options

Park and Rides within 1 mile of corridor	5	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	95	
<i>Bus Trip Density*</i>	114	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Low
Truck Lane Restriction Percentage	99	
HOV/Managed Lane Percentage	0	

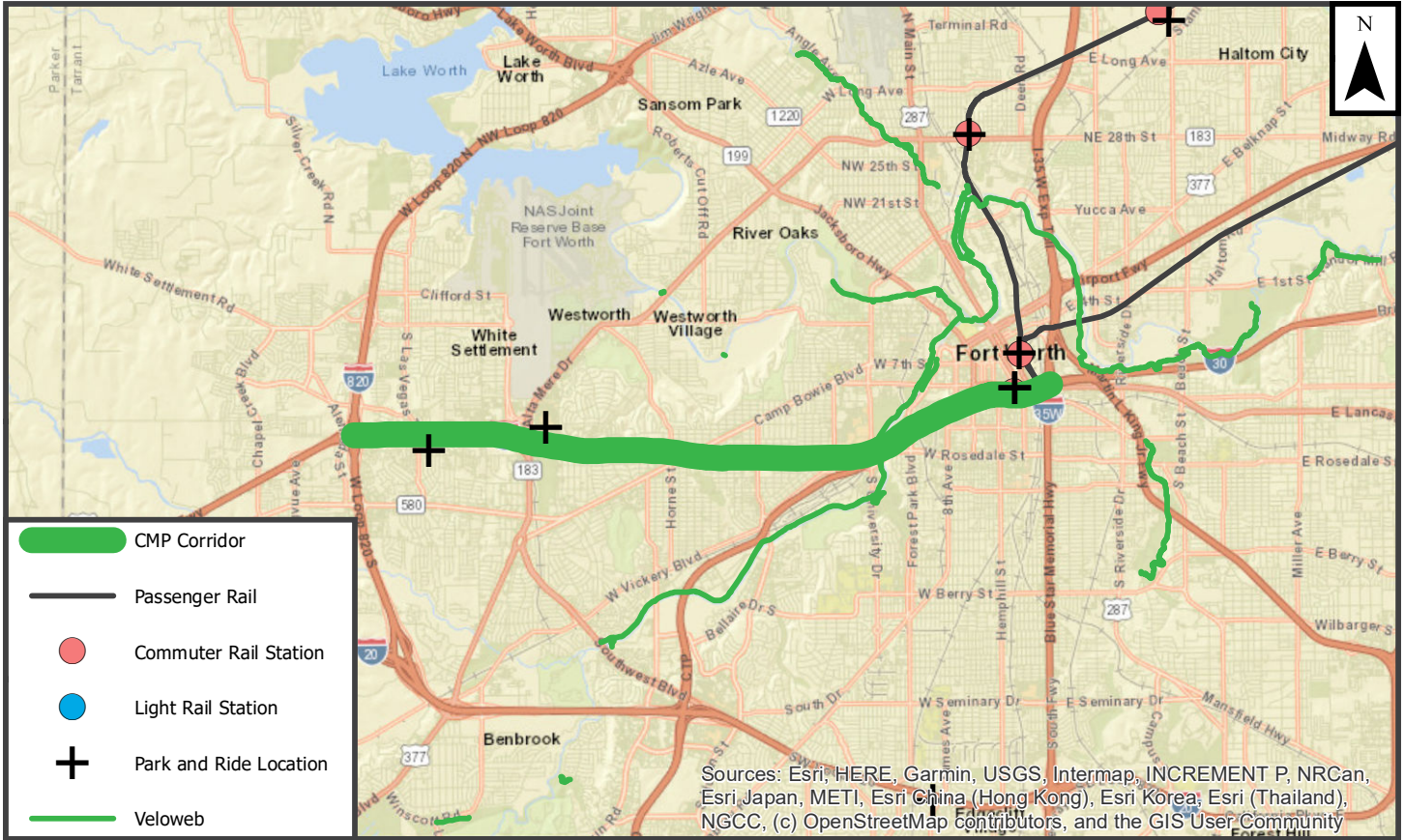
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 28.2

## IH 30 between IH 820 (West) and IH 35W



### Performance Statement

Continue to monitor

### Asset Statement

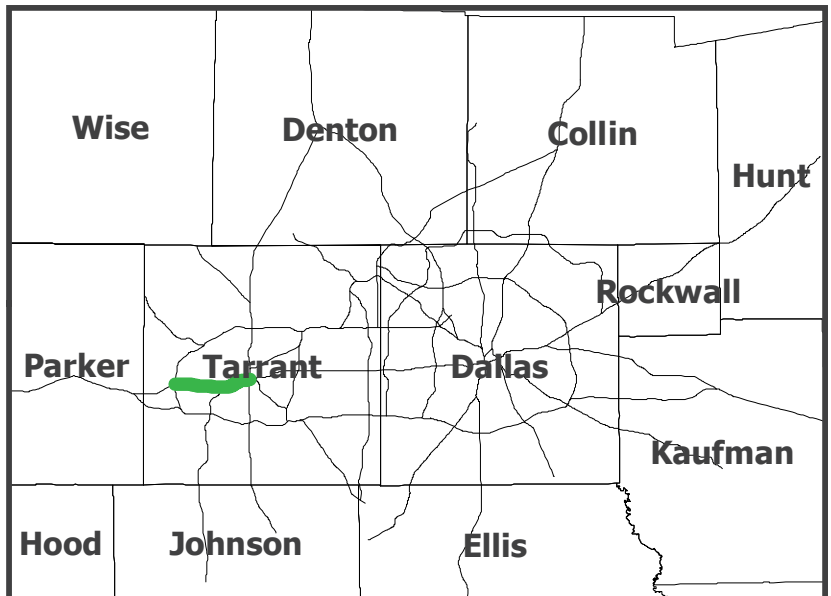
Promote options and needs operations

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	30.2
Facility	IH 20
From	IH 30
To	IH 820 (West)
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	13	Sufficient
Travel Time Index (Recurring Congestion)	1.00	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.03	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	37	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	5	
Parallel Freeway Percentage	42	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	10	
<i>Bus Trip Density*</i>	2	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

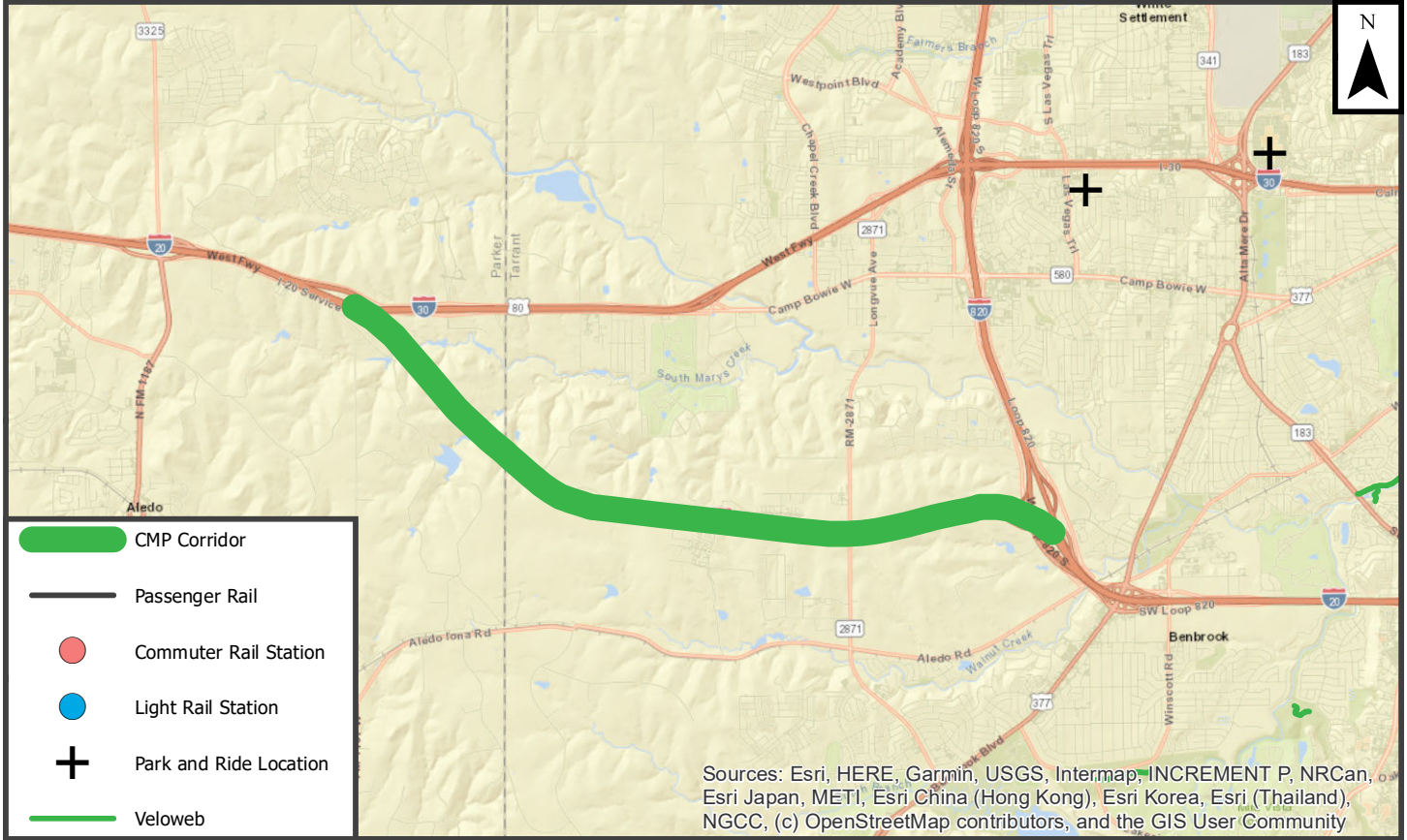
Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	1	
Truck Lane Restriction Percentage	0	Low
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 30.2

## IH 20 between IH 30 and IH 820 (West)



### Performance Statement

Continue to monitor

### Asset Statement

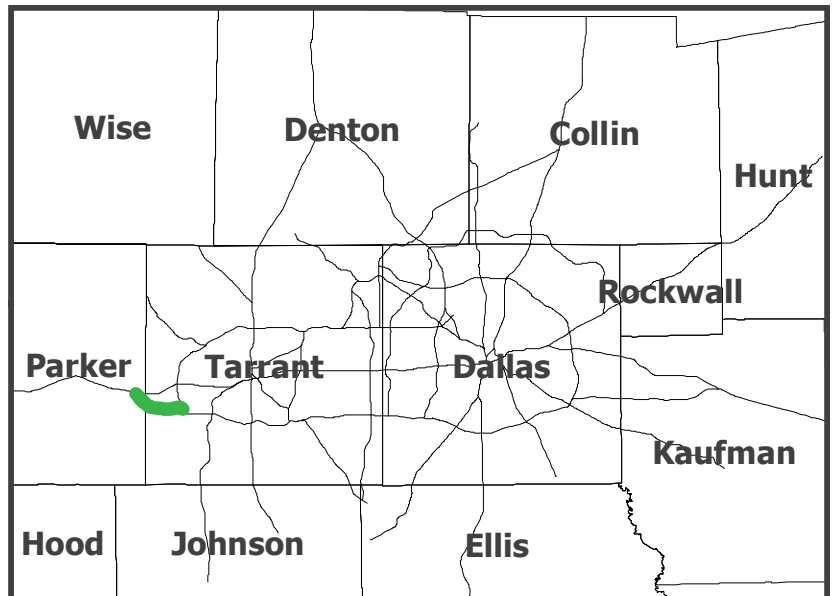
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	28.1
Facility	IH 30
From	IH 20
To	IH 820 (West)
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	34	Sufficient
Travel Time Index (Recurring Congestion)	1.05	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.20	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	15	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	81	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	6	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	35	
Truck Lane Restriction Percentage	0	Low
HOV/Managed Lane Percentage	0	

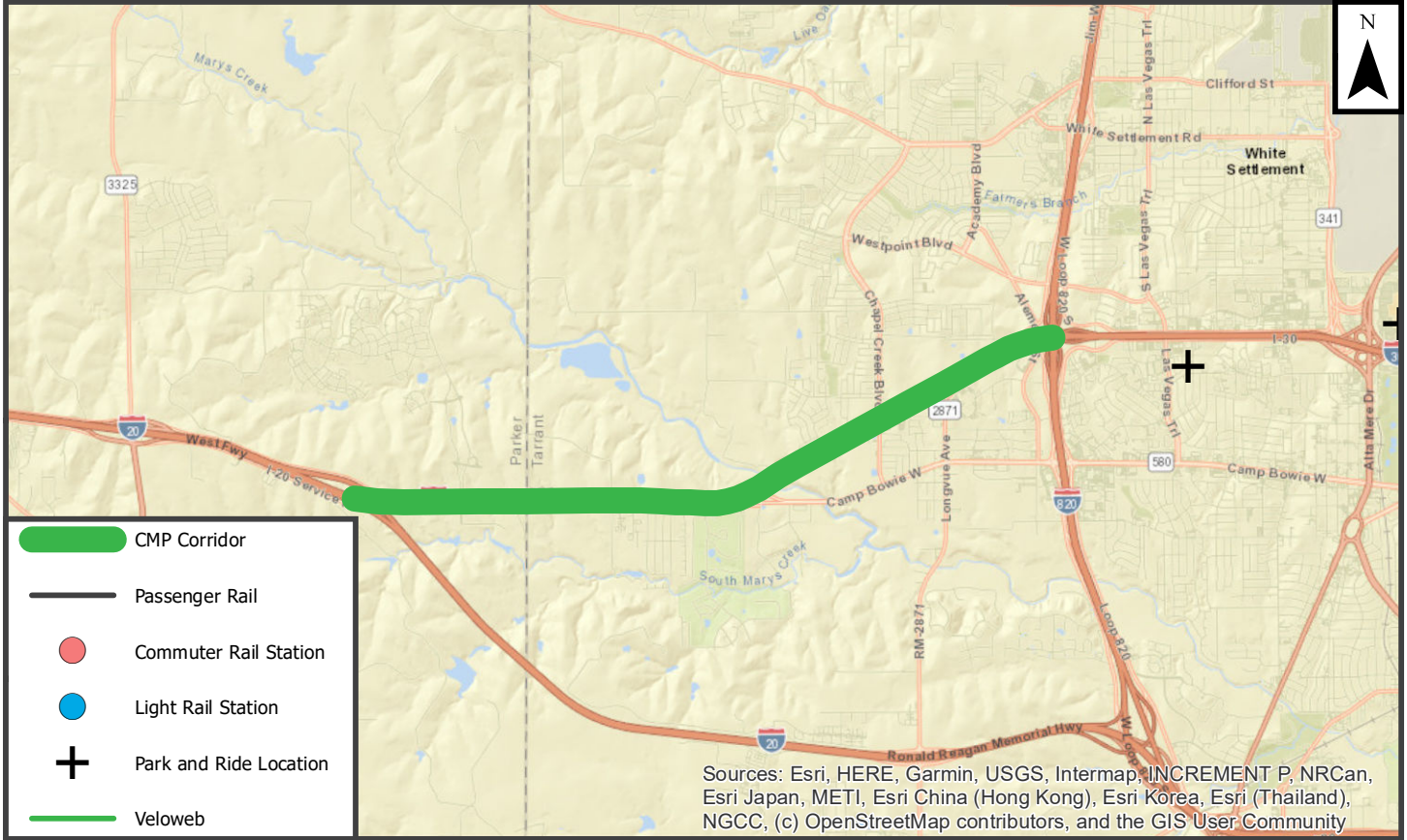
More detail on corridor evaluation and scoring criteria available in Appendix D





# Congestion Management Process Corridor 28.1

## IH 30 between IH 20 and IH 820 (West)



### Performance Statement

Continue to monitor

### Asset Statement

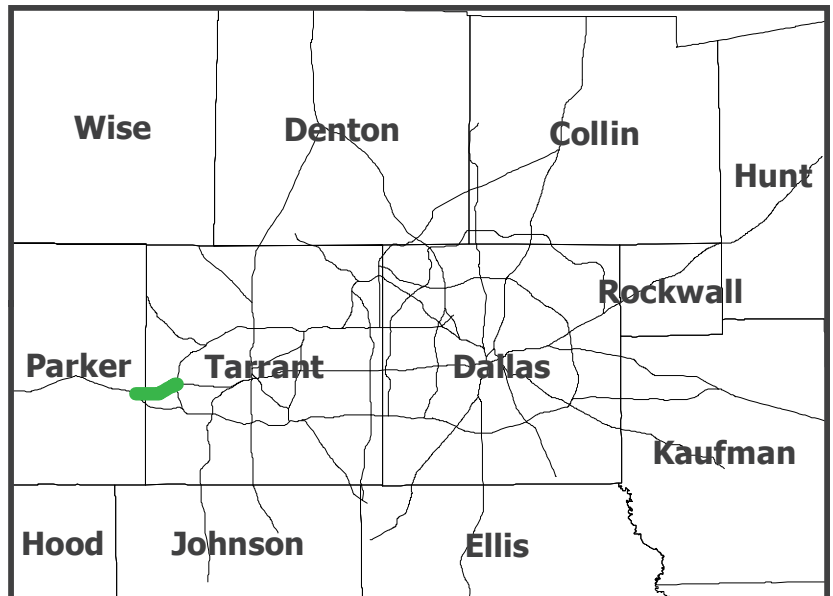
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	30.3
Facility	IH 20
From	IH 820 (West)
To	CTP
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	53	Sufficient
Travel Time Index (Recurring Congestion)	1.02	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.19	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	28	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	80	
Parallel Freeway Percentage	28	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	22	
<i>Bus Trip Density*</i>	19	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

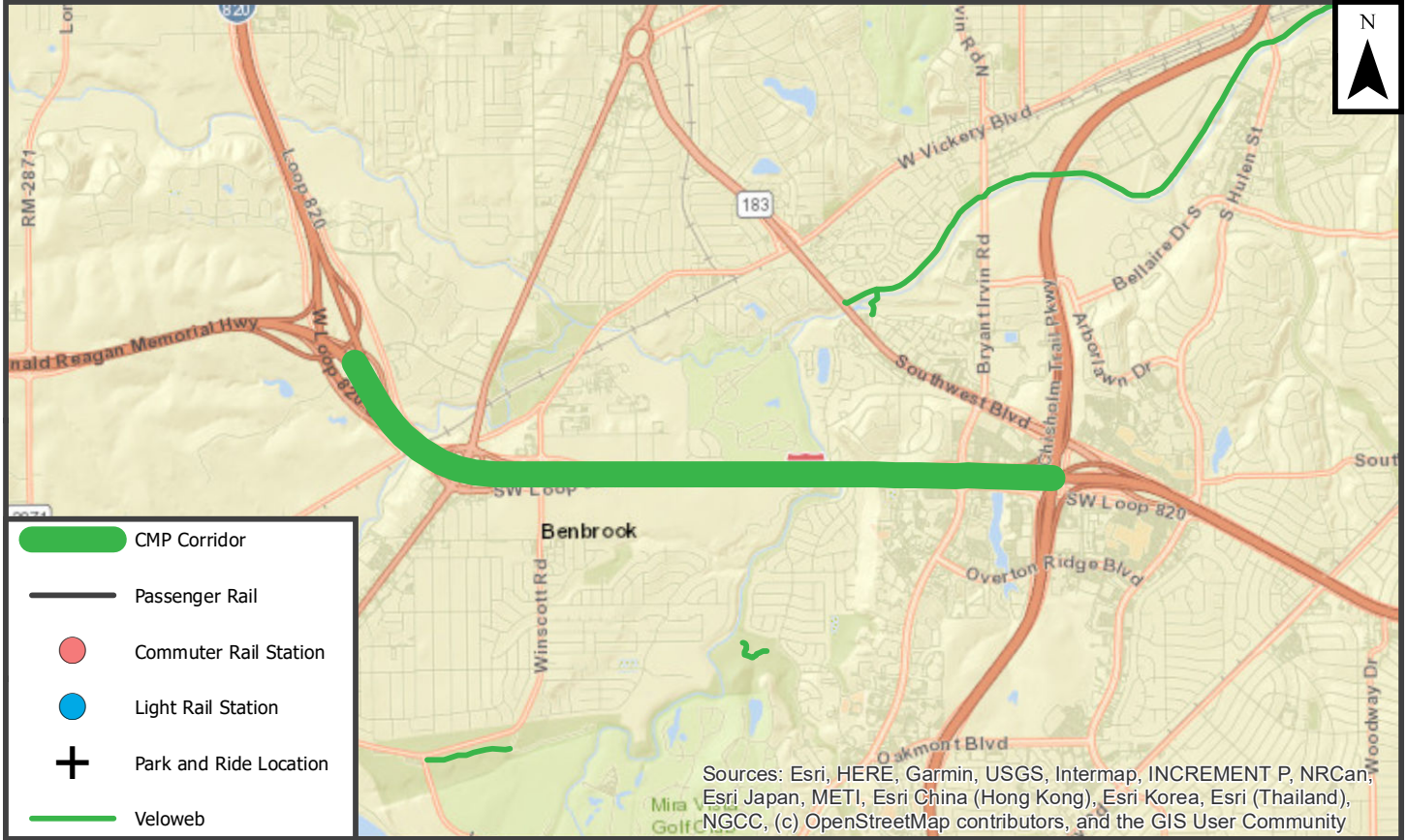
Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	87	Medium
Truck Lane Restriction Percentage	100	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 30.3

## IH 20 between IH 820 (West) and CTP



### Performance Statement

Continue to monitor

### Asset Statement

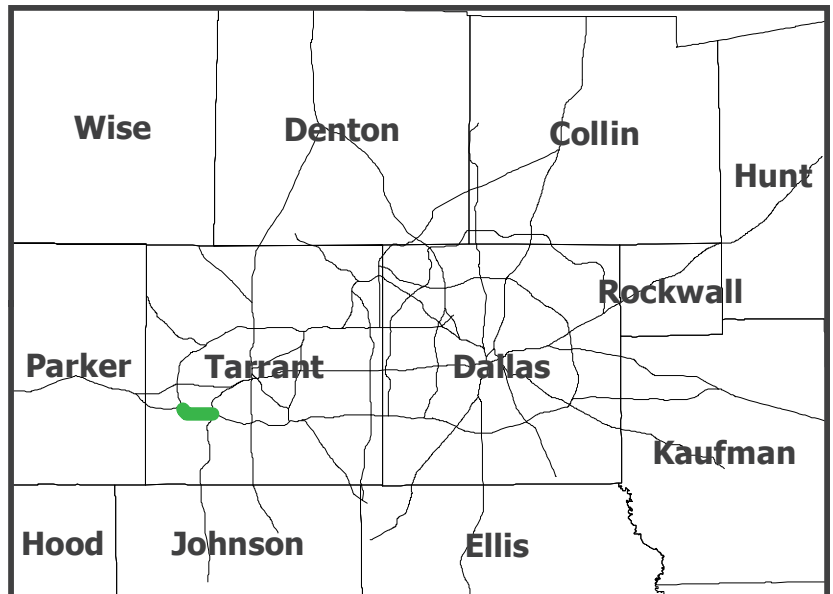
Operate and may need options

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	30.4
Facility	IH 20
From	CTP
To	IH 35W
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	69	Sufficient
Travel Time Index (Recurring Congestion)	1.04	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.11	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	46	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	83	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	89	
<i>Bus Trip Density*</i>	61	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Medium
Truck Lane Restriction Percentage	100	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D







# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	30.5
Facility	IH 20
From	IH 35W
To	IH 820 (East)
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	79	Sufficient
Travel Time Index (Recurring Congestion)	1.10	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.30	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	33	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	87	
Parallel Freeway Percentage	2	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	90	
<i>Bus Trip Density*</i>	59	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

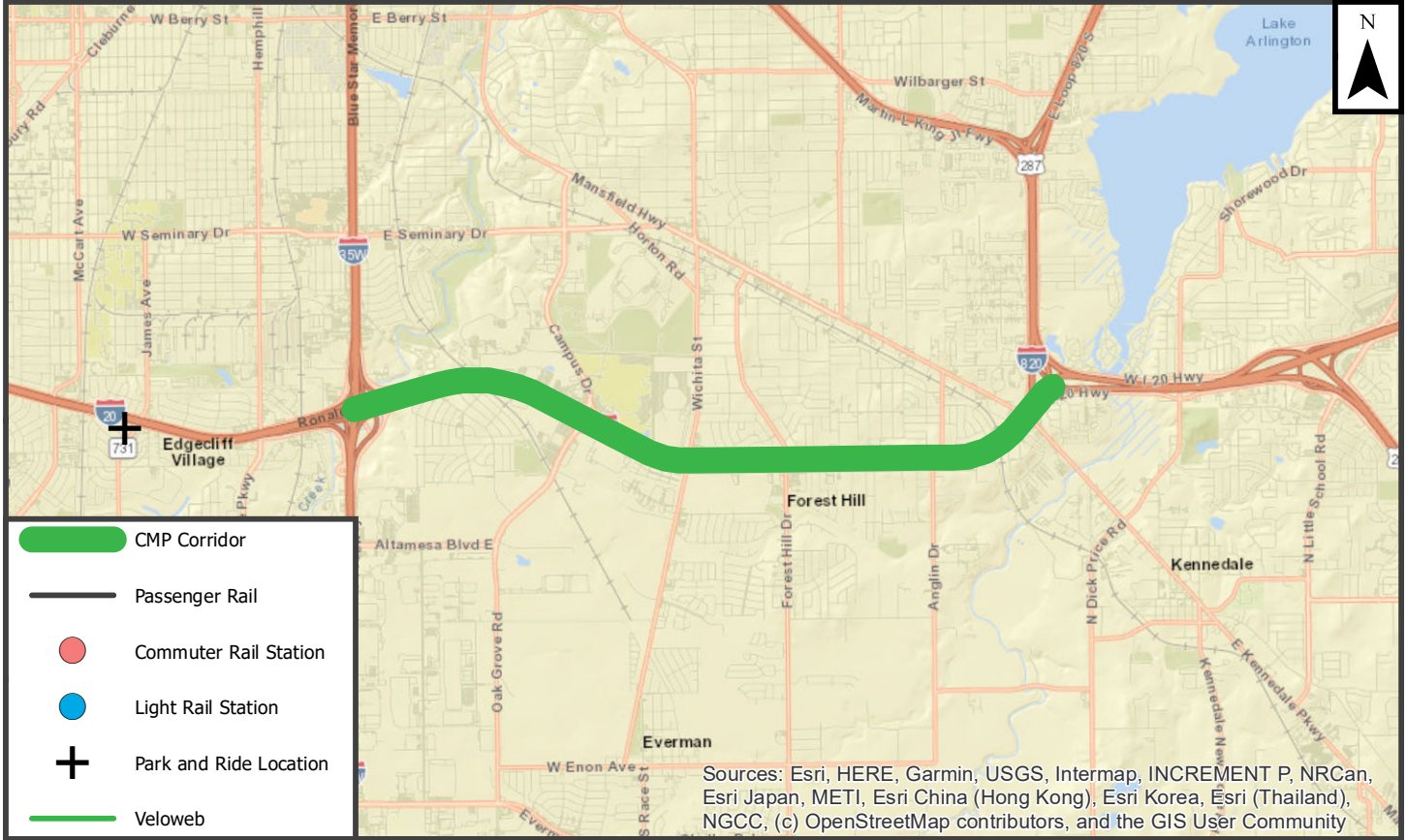
Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Medium
Truck Lane Restriction Percentage	100	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 30.5

## IH 20 between IH 35W and IH 820 (East)



### Performance Statement

Continue to monitor

### Asset Statement

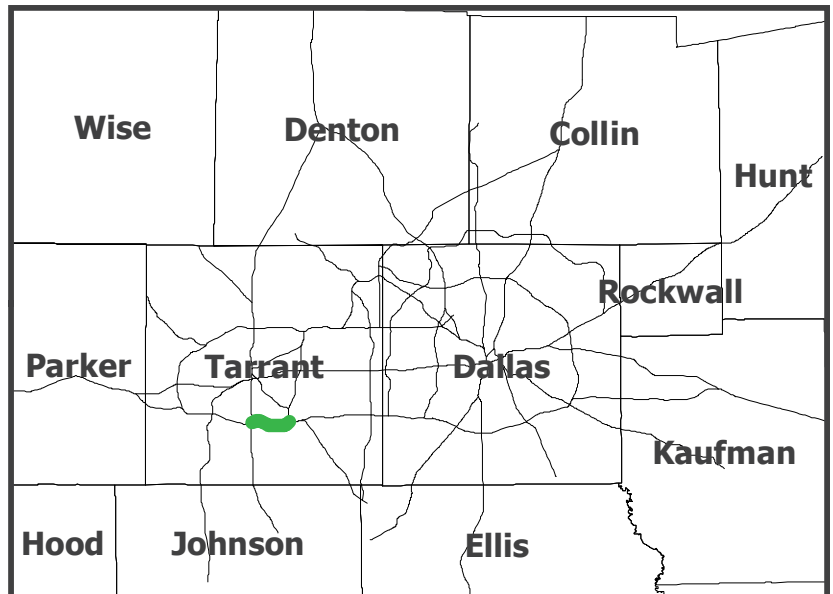
Promote modal options and operate

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	28.3
Facility	IH 30
From	IH 35W
To	IH 820 (East)
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	83	Sufficient
Travel Time Index (Recurring Congestion)	1.03	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.26	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	100	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	4	
Parallel Freeway Percentage	107	High

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	85	High
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	148	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	86	
Truck Lane Restriction Percentage	100	Medium
HOV/Managed Lane Percentage	0	

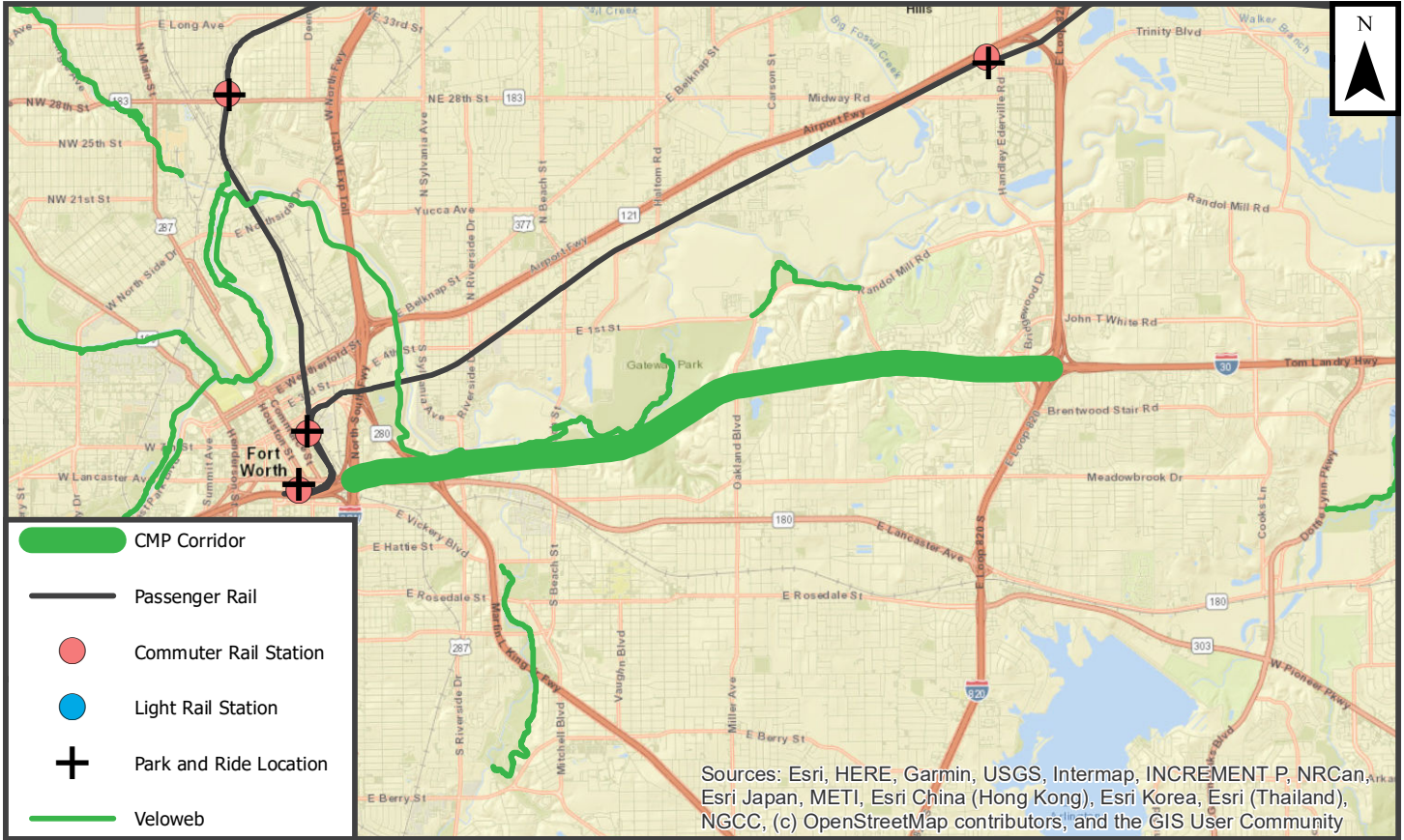
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 28.3

## IH 30 between IH 35W and IH 820 (East)



### Performance Statement

Continue to monitor

### Asset Statement

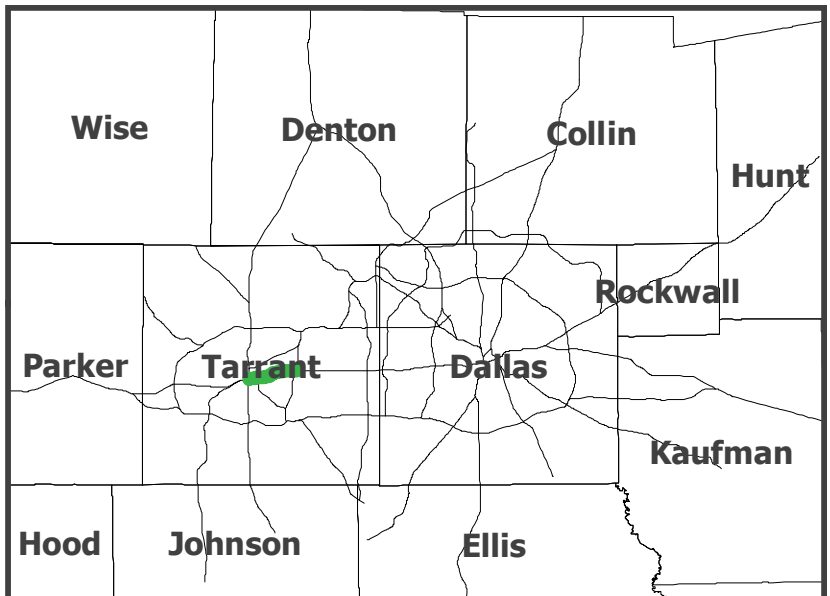
Promote options and operate

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	5.6
Facility	IH 35W
From	SH 121
To	IH 30
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	188	Needs Improvement
Travel Time Index (Recurring Congestion)	1.51	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.52	Needs Improvement
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	65	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	31	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	High
Parallel Commuter Rail as percentage of corridor length	93	
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	233	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	High
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	100	

More detail on corridor evaluation and scoring criteria available in Appendix D

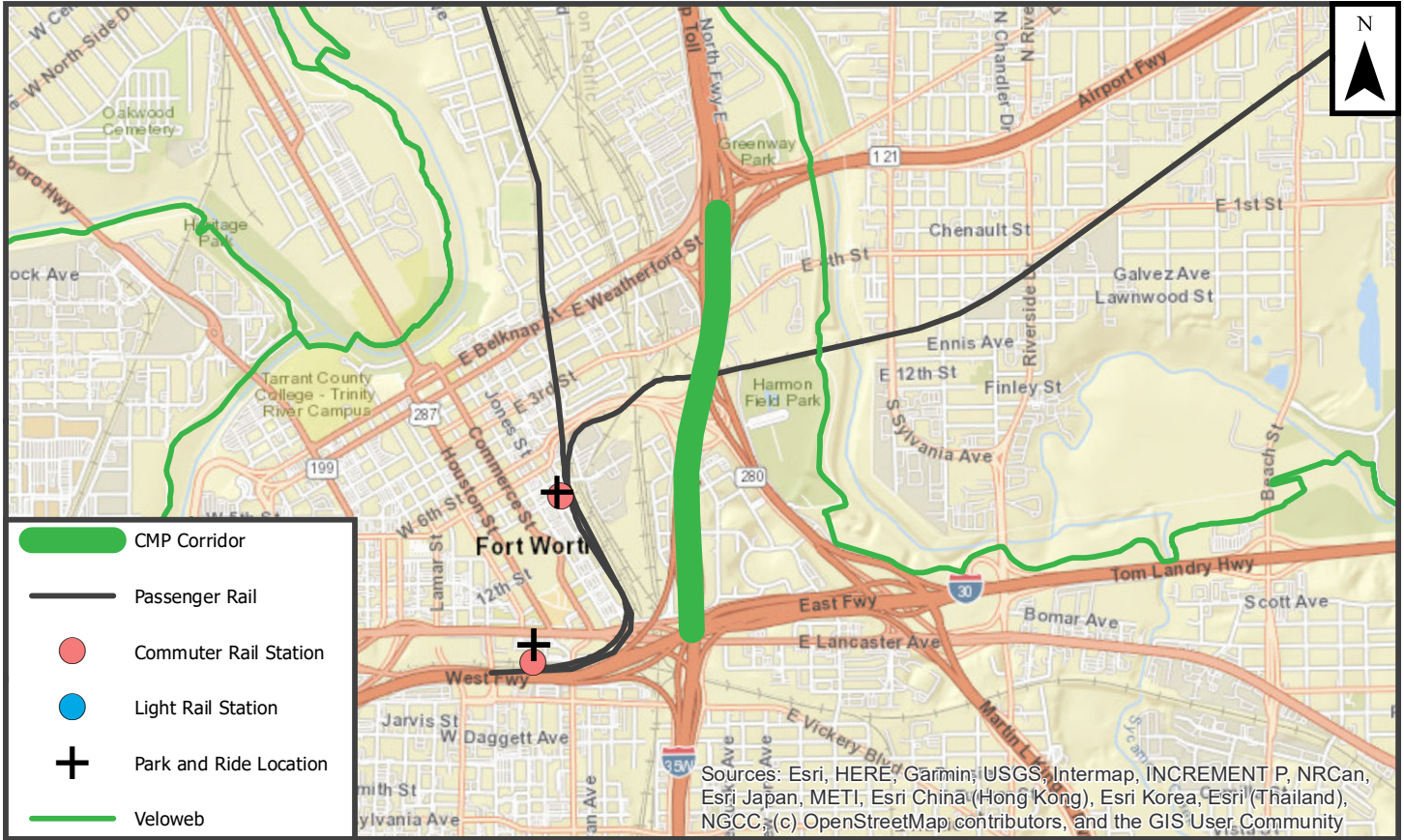




**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 5.6

## IH 35W between SH 121 and IH 30



### Performance Statement

Demand reduction and operational

### Asset Statement

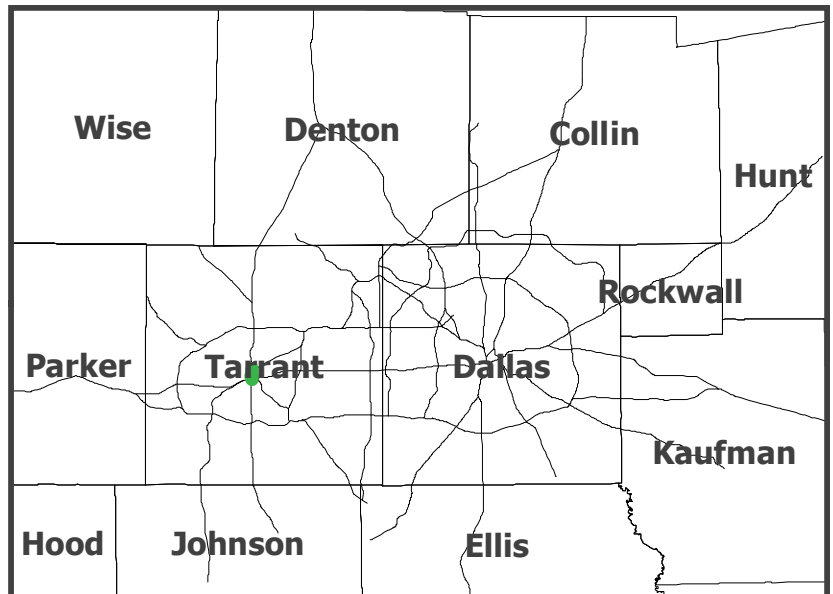
Promote modal options and operate

### Corridor Statement

Promote modal options and operate

### Corridor Output

Partial Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	52.1
Facility	SS 280
From	IH 35W
To	IH 30
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	61	Sufficient
Travel Time Index (Recurring Congestion)	1.23	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.27	Sufficient
Pavement in Poor Condition	10	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	19	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	27	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	76	
<i>Bus Trip Density*</i>	240	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Low
Truck Lane Restriction Percentage	15	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 52.1

## SS 280 between IH 35W and IH 30



### Performance Statement

Continue to monitor

### Asset Statement

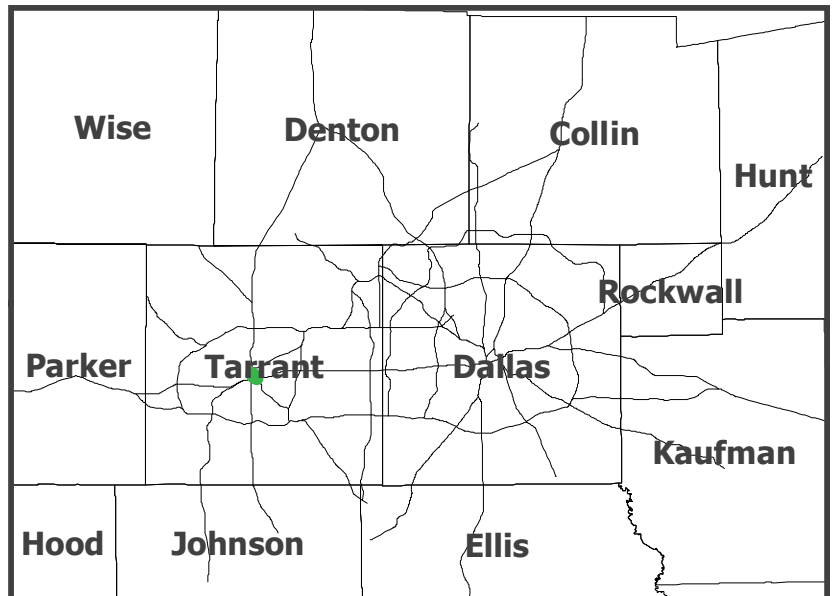
Promote options, may need roadway capacity

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	150.1
Facility	IH 820 (North)
From	SH 199
To	IH 35W
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	75	Sufficient
Travel Time Index (Recurring Congestion)	1.19	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.20	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	23	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	57	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	52	
<i>Bus Trip Density*</i>	31	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

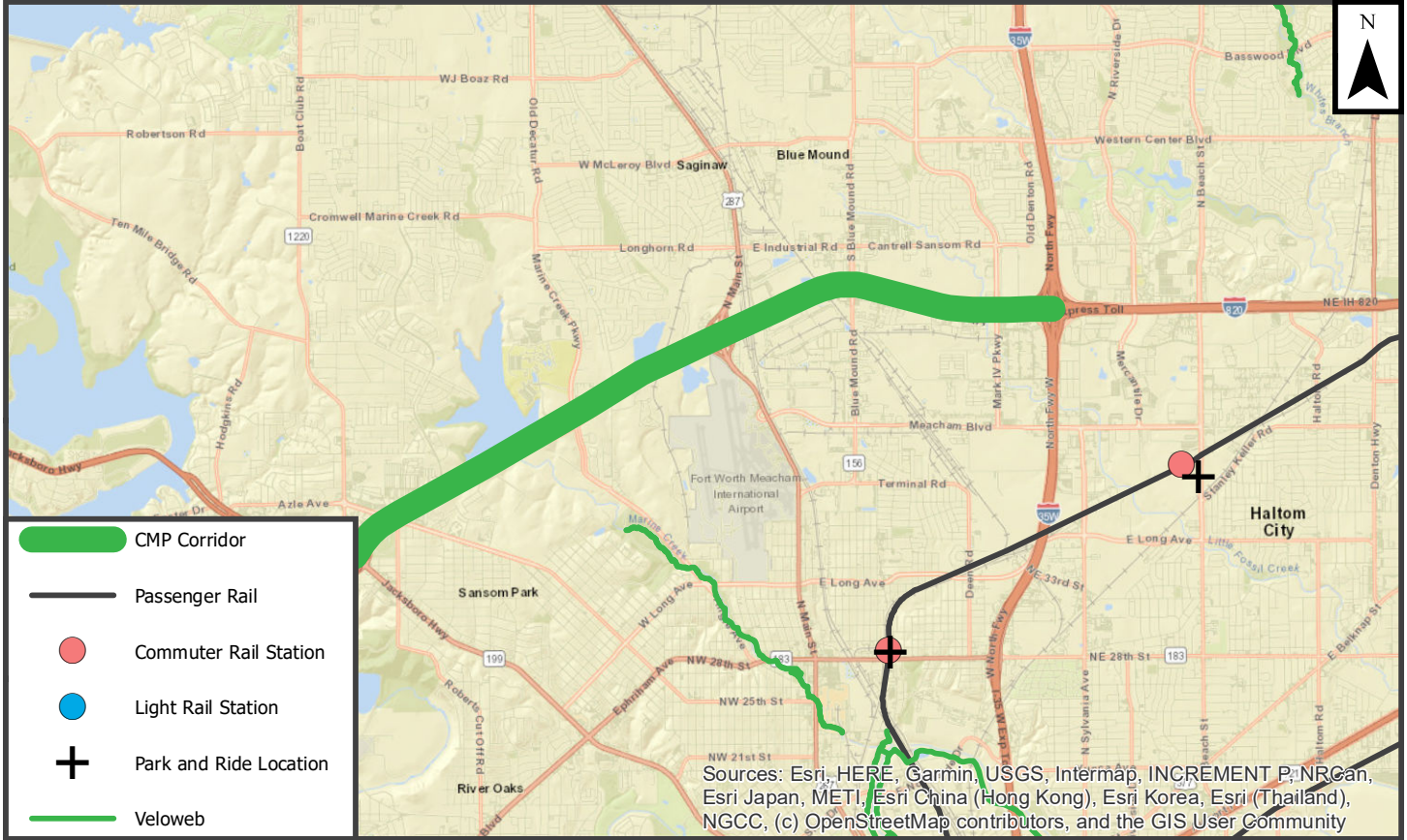
Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	94	
Truck Lane Restriction Percentage	94	Medium
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 150.1

## IH 820 (North) between SH 199 and IH 35W



### Performance Statement

Continue to monitor

### Asset Statement

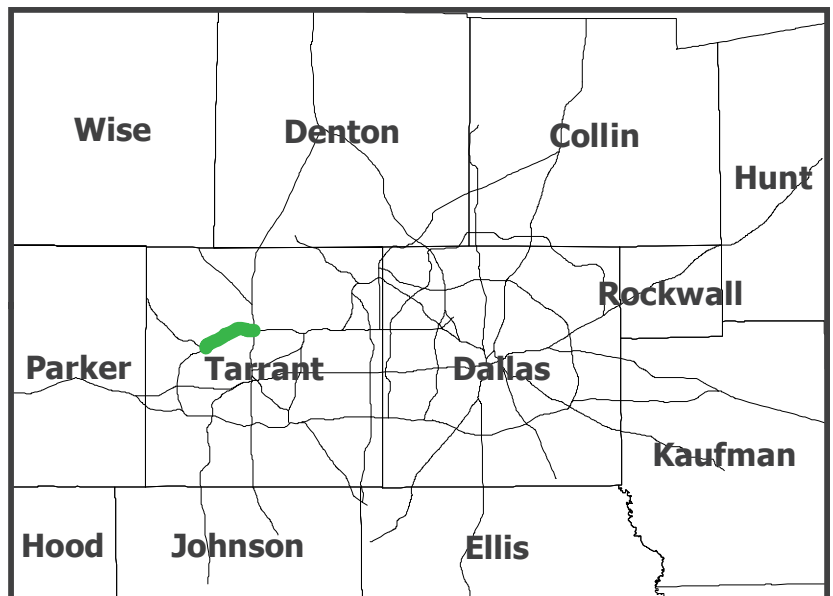
Operate and may need options

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	1.5
Facility	US 287
From	IH 35W
To	IH 820 (East)
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	29	Sufficient
Travel Time Index (Recurring Congestion)	1.18	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.18	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	1	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	21	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	84	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	51	
<i>Bus Trip Density*</i>	143	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	93	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

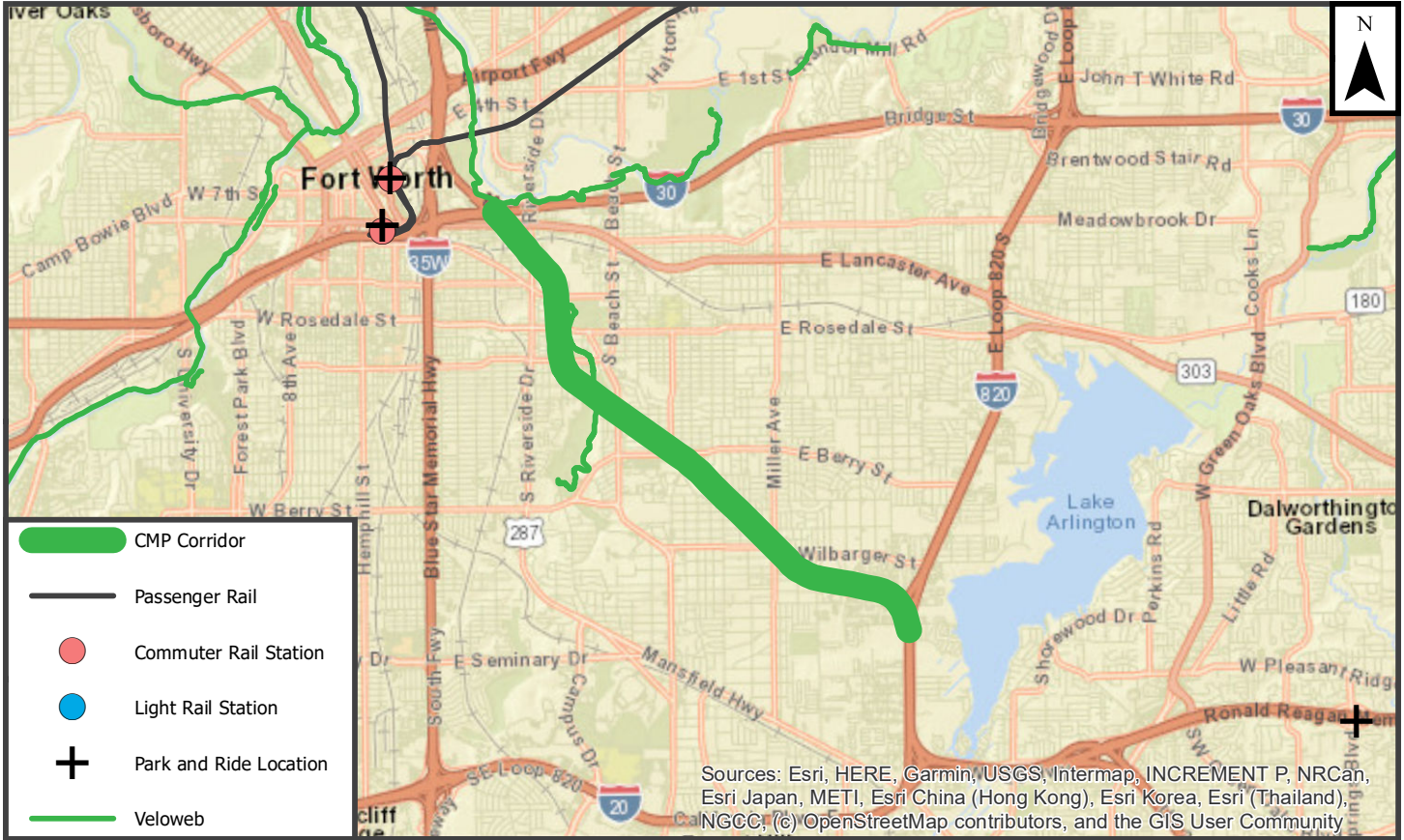
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 1.5

## US 287 between IH 35W and IH 820 (East)



### Performance Statement

Continue to monitor

### Asset Statement

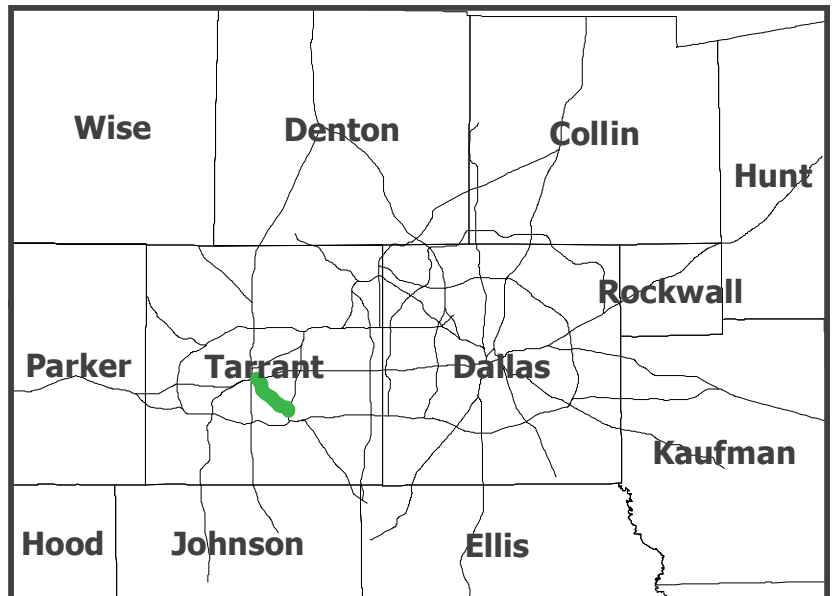
Promote options, may need roadway capacity

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	151.3
Facility	IH 820 (East)
From	IH 30
To	US 287
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	108	Needs Improvement
Travel Time Index (Recurring Congestion)	1.12	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.23	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	59	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	90	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	97	
<i>Bus Trip Density*</i>	66	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	91	
Truck Lane Restriction Percentage	0	Low
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D

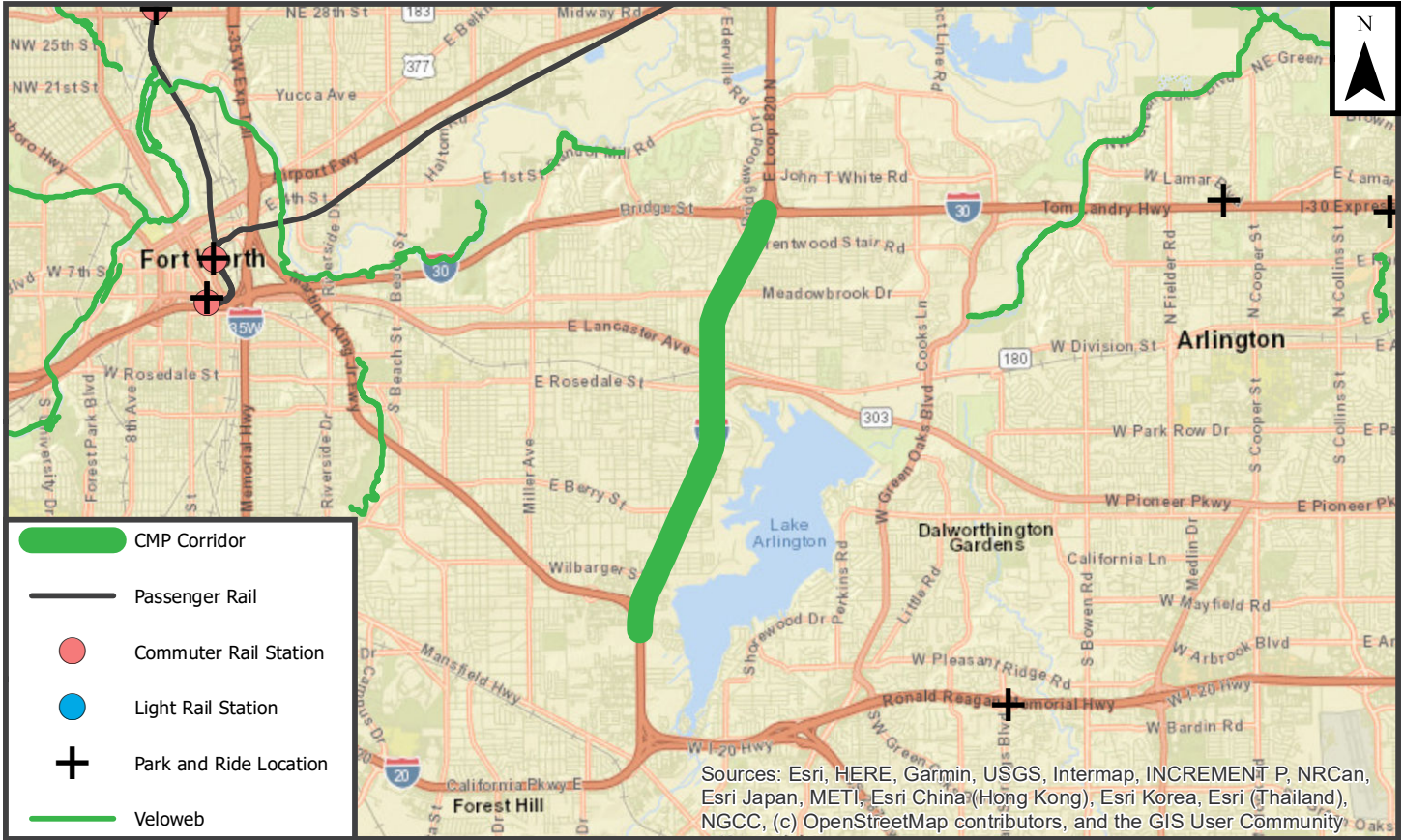




**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 151.3

## IH 820 (East) between IH 30 and US 287



### Performance Statement

Operational

### Asset Statement

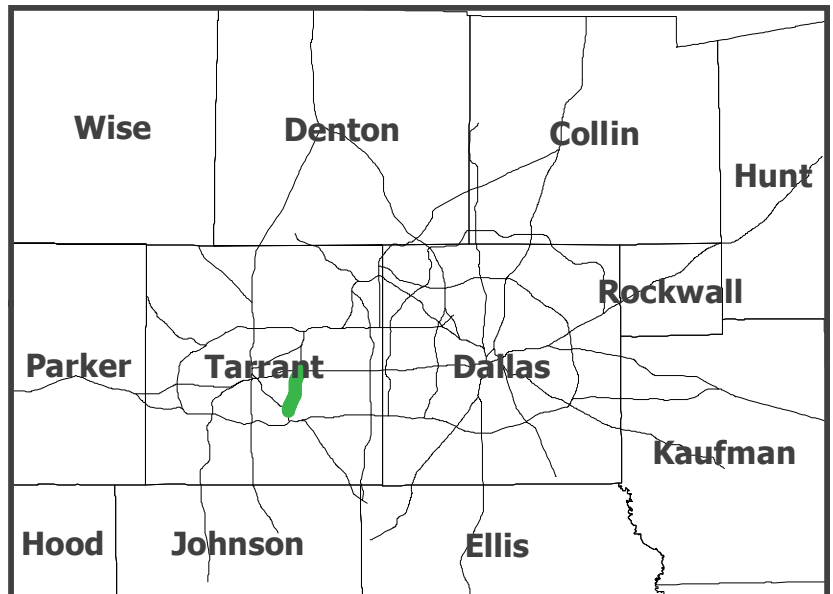
Needs help

### Corridor Statement

Implement operational strategies

### Corridor Output

Full Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	151.4
Facility	IH 820 (East)
From	US 287
To	IH 20
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	99	Sufficient
Travel Time Index (Recurring Congestion)	1.91	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.22	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	41	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	229	High

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	99	
<i>Bus Trip Density*</i>	34	
Combined Bus Availability	Medium	<small>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</small>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	82	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

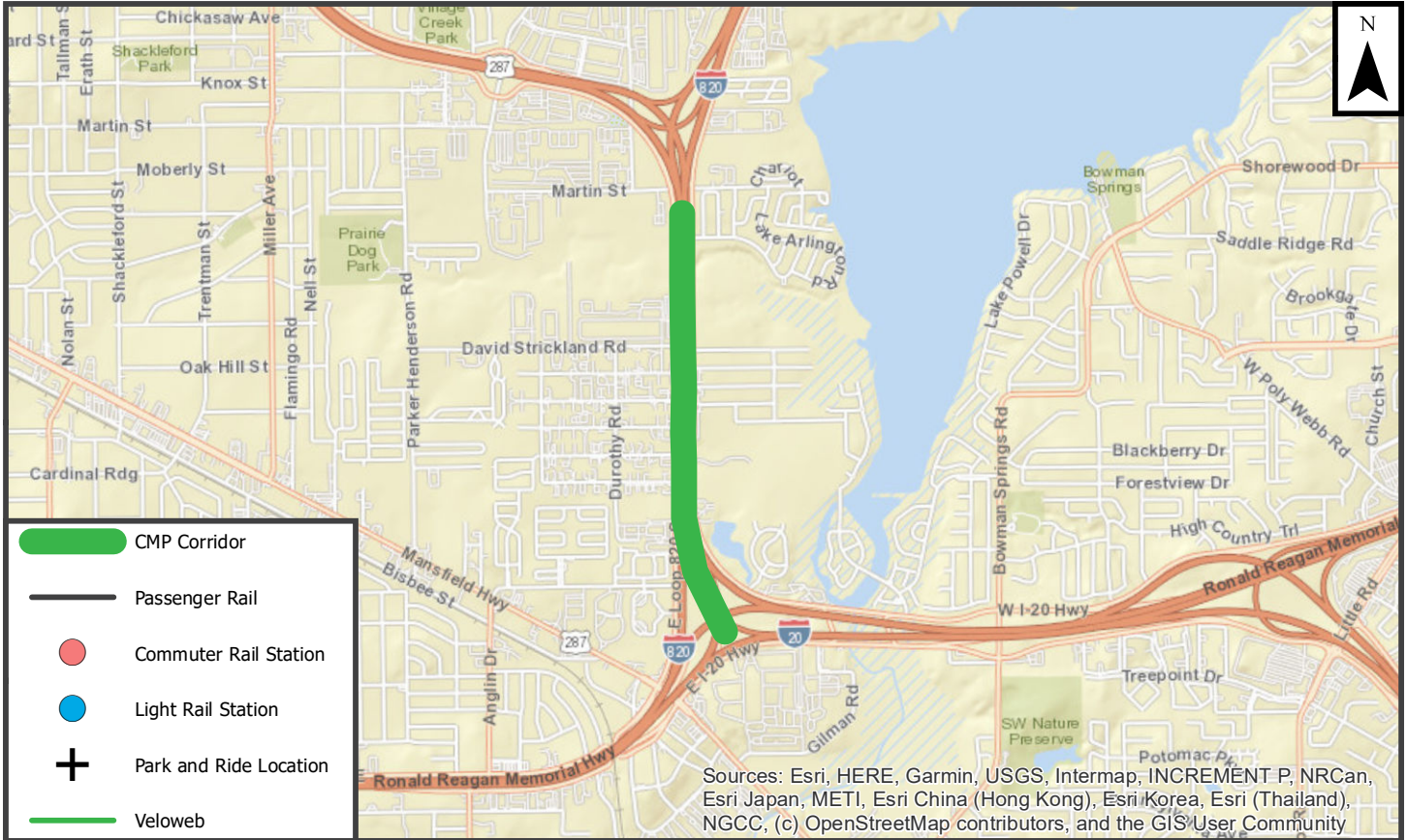
More detail on corridor evaluation and scoring criteria available in Appendix D





# Congestion Management Process Corridor 151.4

## IH 820 (East) between US 287 and IH 20



### Performance Statement

Demand reduction

### Asset Statement

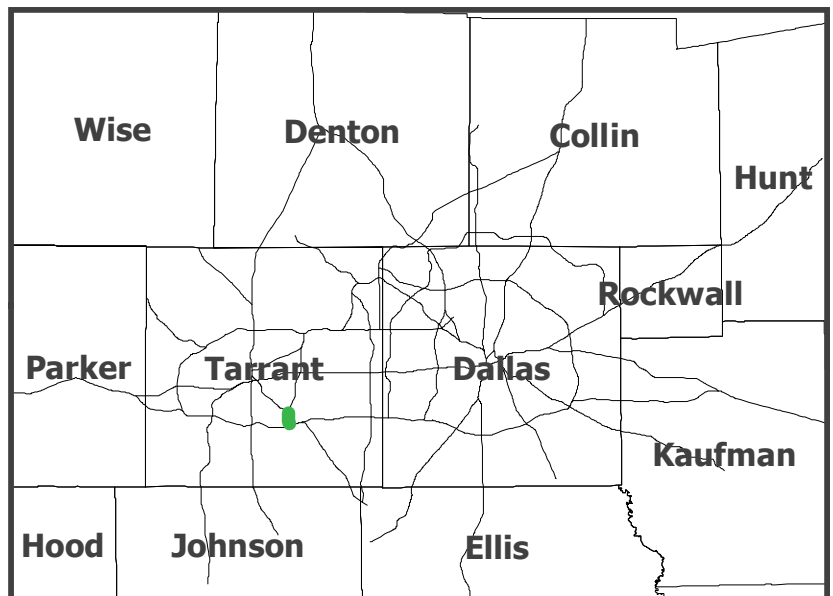
Promote alternate routes, need modal options and operations

### Corridor Statement

Needs corridor study

### Corridor Output

Full Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	151.2
Facility	IH 820 (East)
From	SH 121
To	IH 30
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	82	Sufficient
Travel Time Index (Recurring Congestion)	1.49	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.27	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	33	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	51	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	69	
<i>Bus Trip Density*</i>	44	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

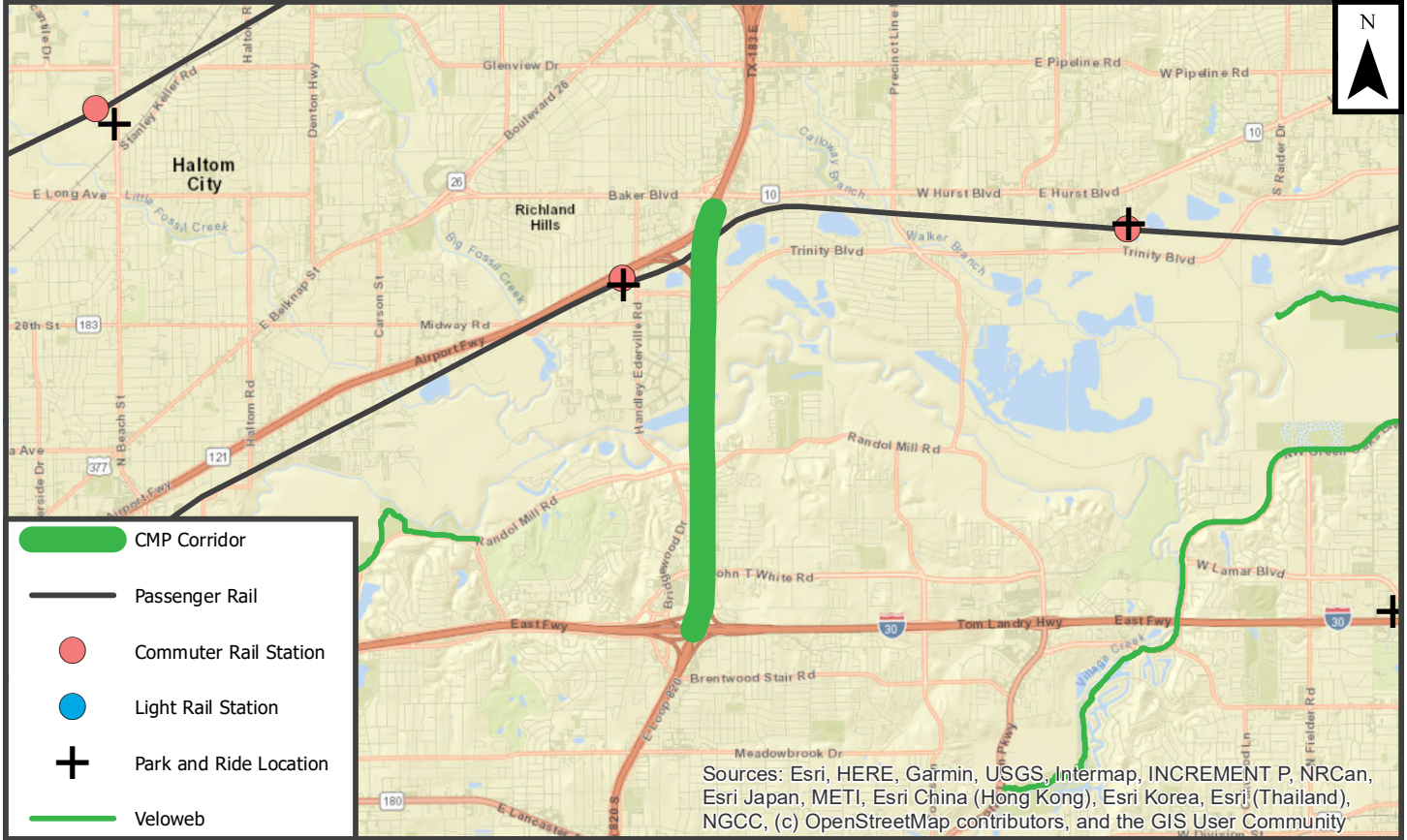
Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	75	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 151.2

## IH 820 (East) between SH 121 and IH 30



### Performance Statement

Continue to monitor

### Asset Statement

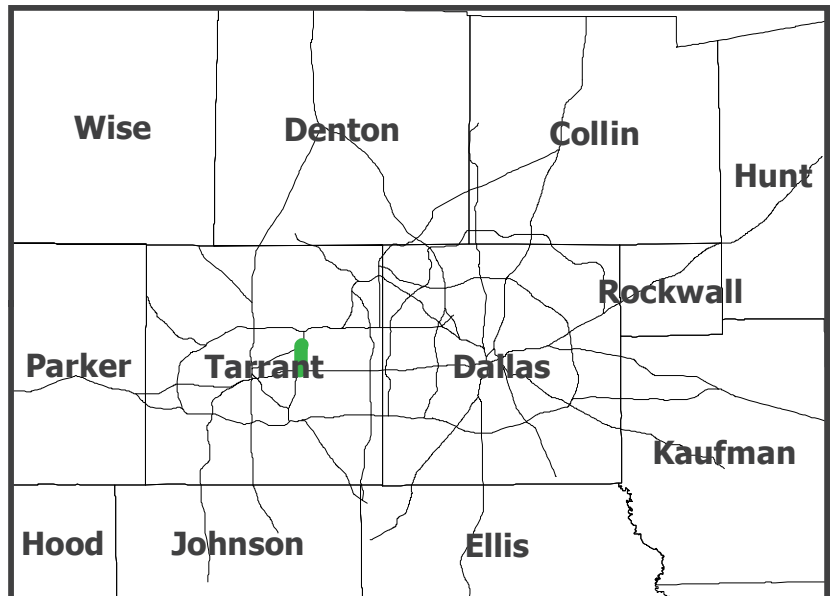
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Partial Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	151.1
Facility	IH 820 (East)
From	SH 183
To	SH 121
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	148	Needs Improvement
Travel Time Index (Recurring Congestion)	1.83	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.47	Needs Improvement
Pavement in Poor Condition	6	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	40	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	90	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	89	
<i>Bus Trip Density*</i>	12	
Combined Bus Availability	Medium	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	98	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

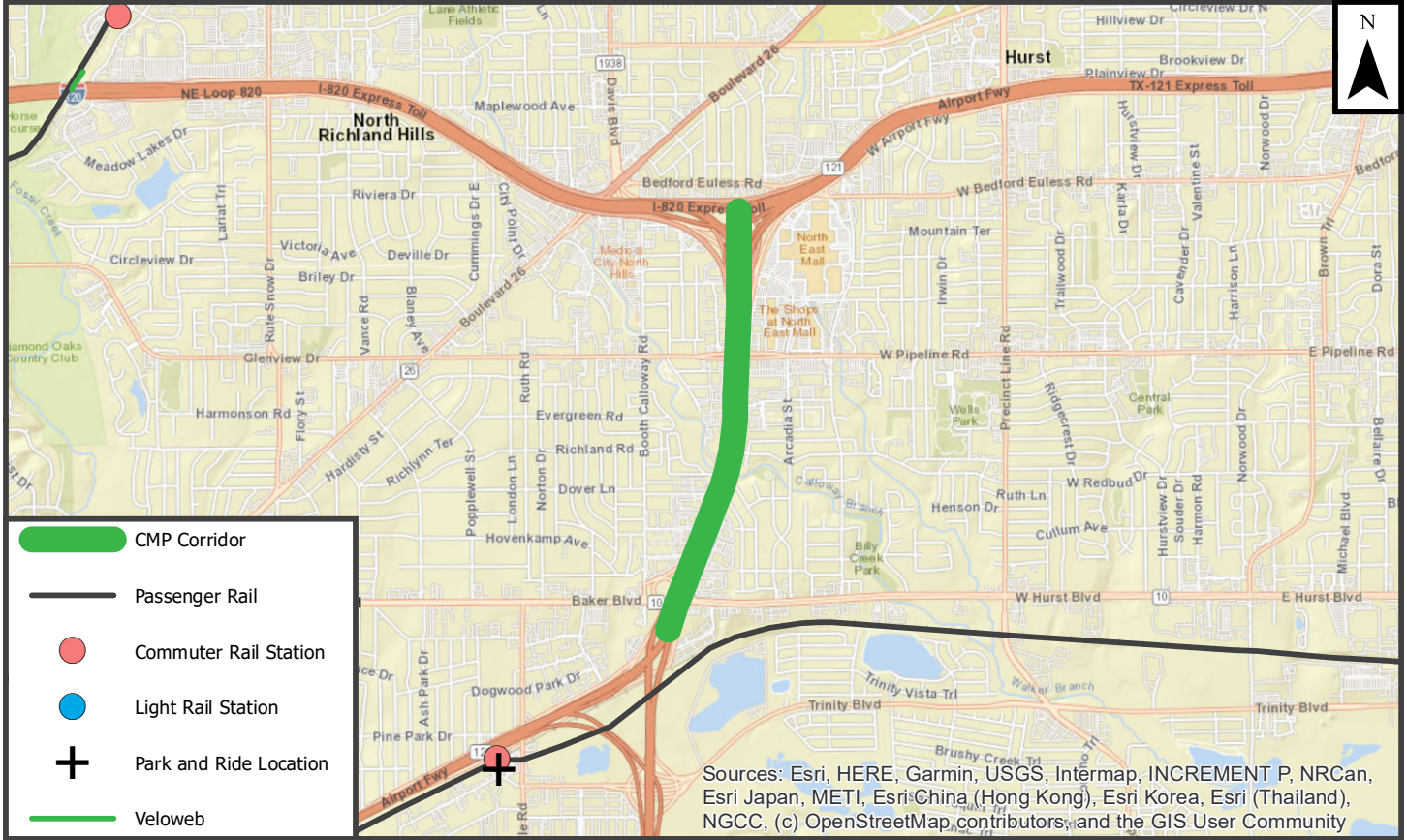
More detail on corridor evaluation and scoring criteria available in Appendix D





# Congestion Management Process Corridor 151.1

## IH 820 (East) between SH 183 and SH 121



### Performance Statement

Demand reduction and operational

### Asset Statement

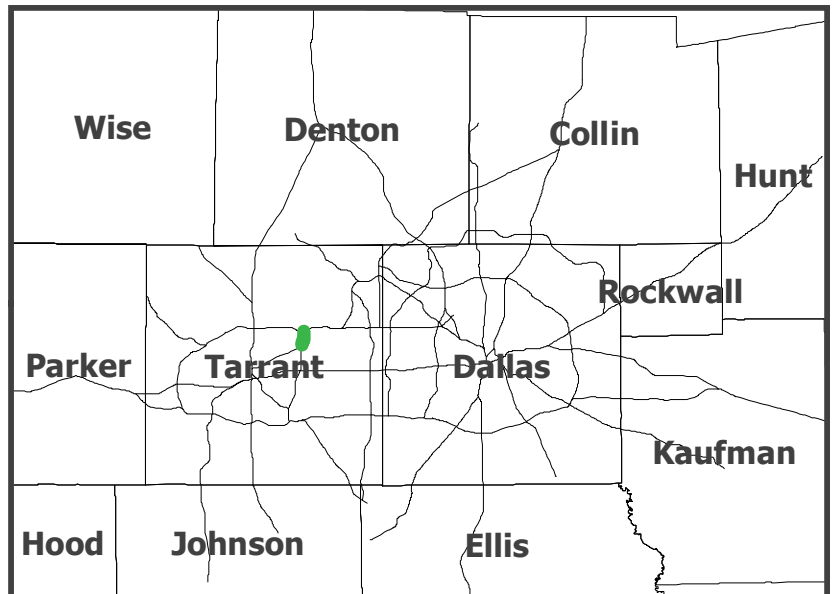
Needs help

### Corridor Statement

Needs corridor study

### Corridor Output

Full Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	11.9
Facility	SH 183
From	SH 121
To	IH 820 (East)
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	80	Sufficient
Travel Time Index (Recurring Congestion)	1.23	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.26	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	44	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	98	
Parallel Freeway Percentage	18	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	26	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	17	
<i>Bus Trip Density*</i>	5	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

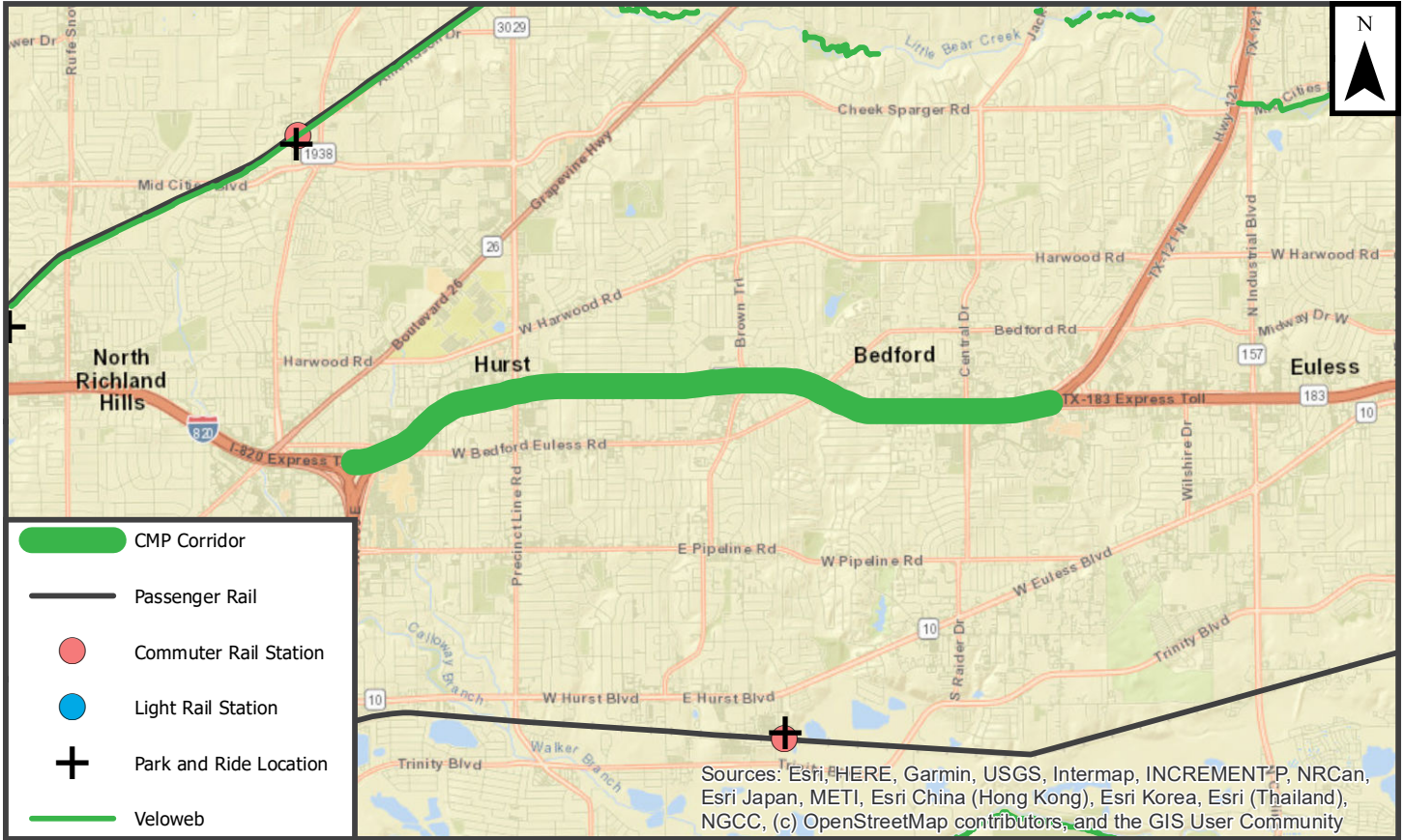
Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	94	
Truck Lane Restriction Percentage	0	High
HOV/Managed Lane Percentage	100	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 11.9

## SH 183 between SH 121 and IH 820 (East)



### Performance Statement

Continue to monitor

### Asset Statement

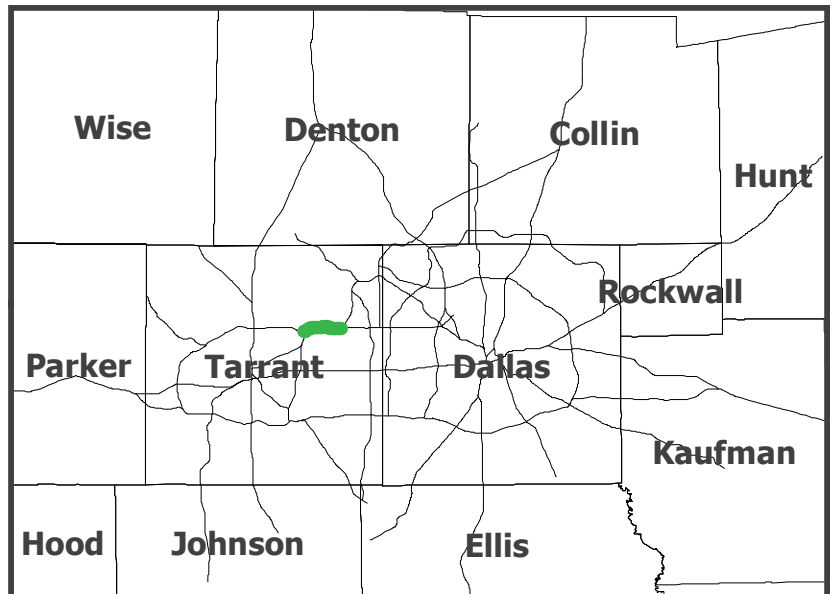
Operate and may need options

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	11.8
Facility	SH 121
From	SH 360
To	SH 183
Construction Status	Recent Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	69	Sufficient
Travel Time Index (Recurring Congestion)	1.70	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.21	Sufficient
Pavement in Poor Condition	2	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	5	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	99	
Parallel Freeway Percentage	14	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	0	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	98	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

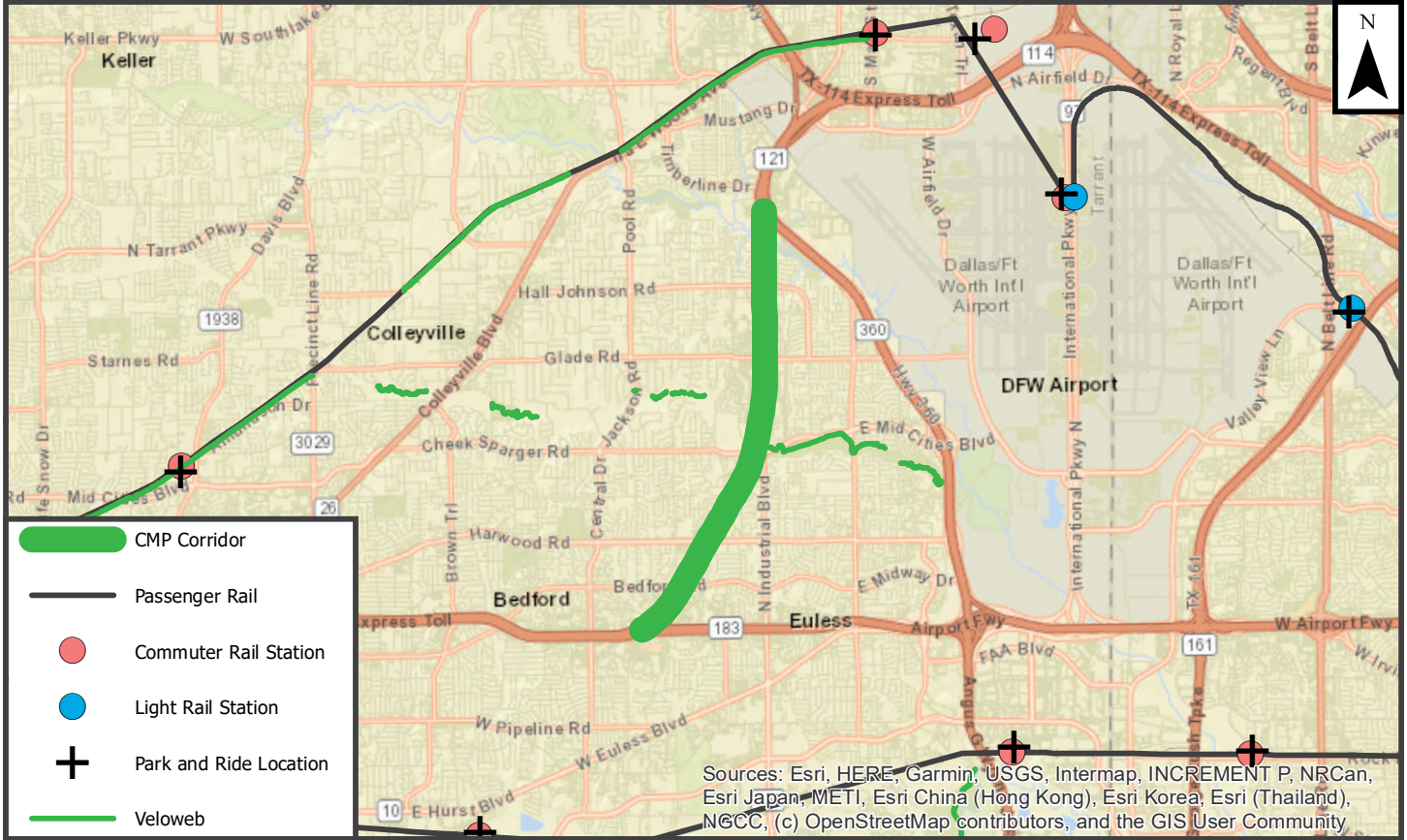
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 11.8

## SH 121 between SH 360 and SH 183



### Performance Statement

Demand reduction

### Asset Statement

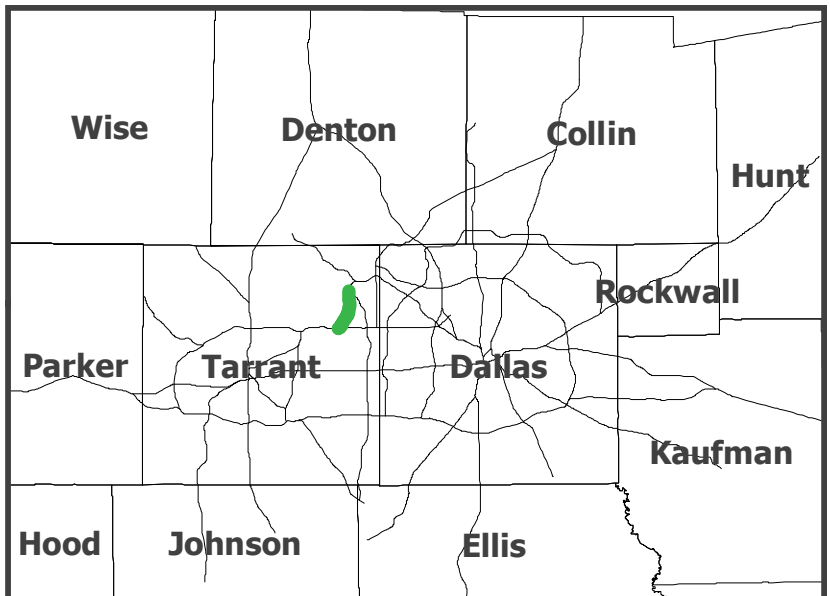
Needs help

### Corridor Statement

Needs corridor study

### Corridor Output

Recent Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	22.1
Facility	SH 183
From	SH 121
To	SH 360
Construction Status	Recent Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	76	Sufficient
Travel Time Index (Recurring Congestion)	1.26	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.22	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	54	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	87	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	79	
<i>Parallel Bus Route as percentage of corridor length*</i>	19	
<i>Bus Trip Density*</i>	34	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	98	High
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	100	

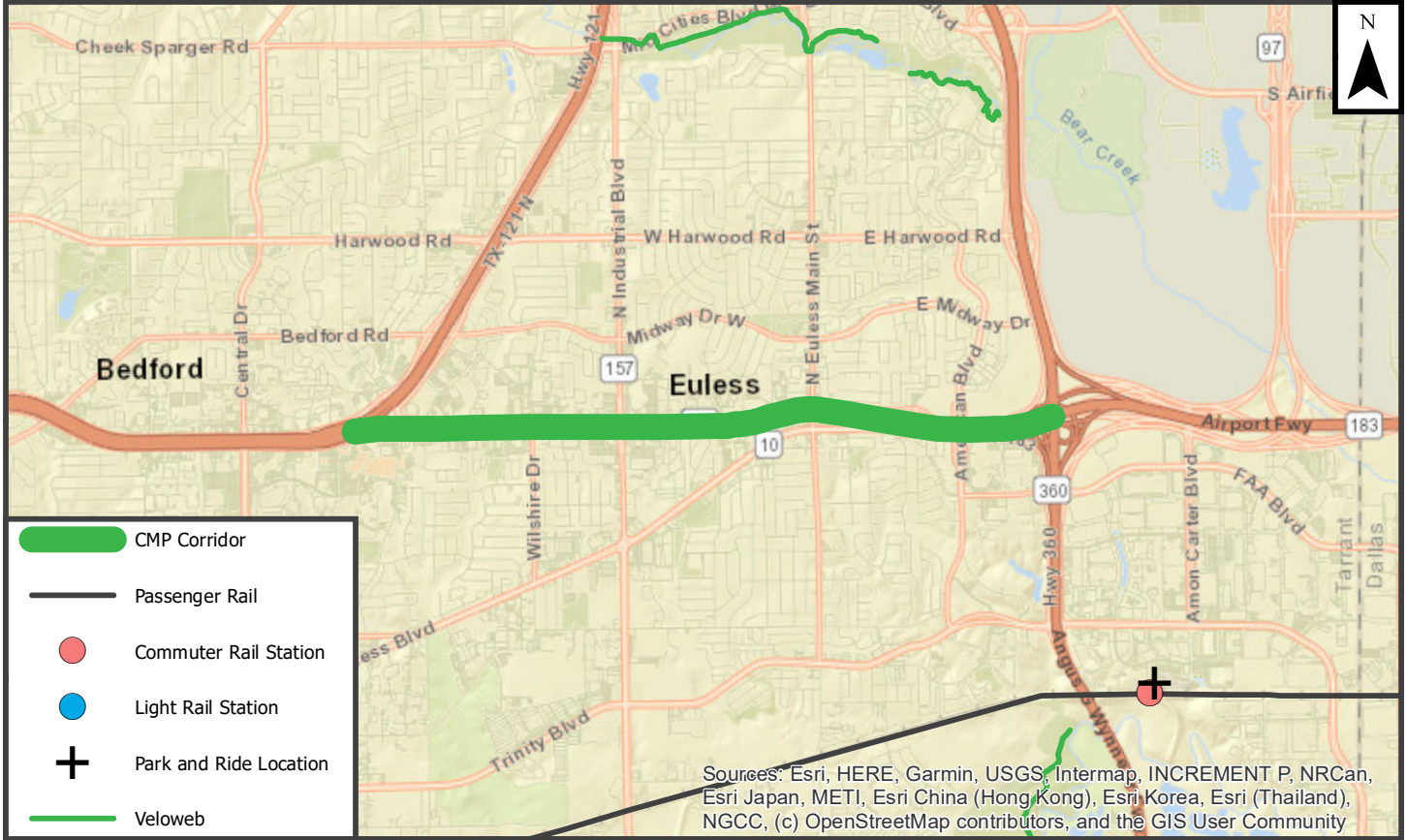
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 22.1

## SH 183 between SH 121 and SH 360



### Performance Statement

Continue to monitor

### Asset Statement

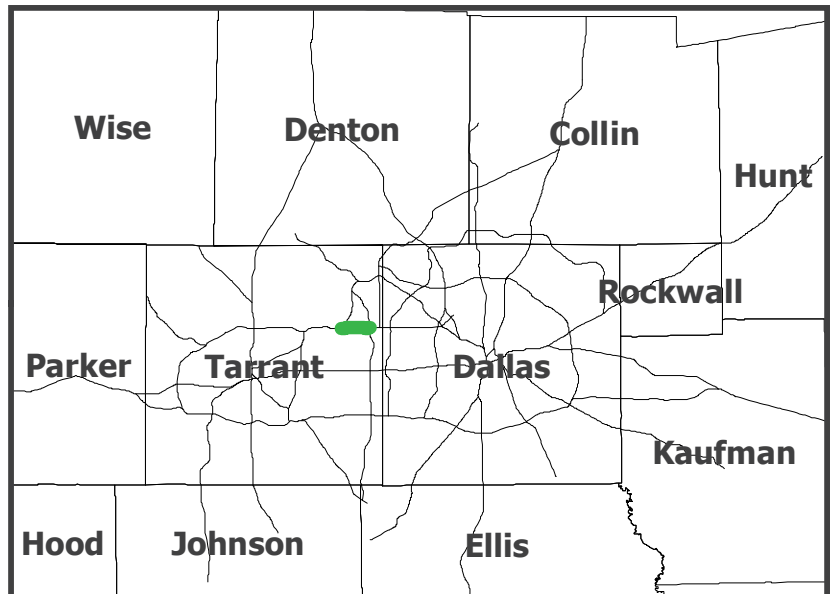
Operate and may need options

### Corridor Statement

Continue to monitor

### Corridor Output

Recent Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	9.1
Facility	SH 360
From	SH 121
To	SH 183
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	28	Sufficient
Travel Time Index (Recurring Congestion)	1.07	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.11	Sufficient
Pavement in Poor Condition	2	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	29	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	94	
Parallel Freeway Percentage	59	Medium

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	32	
<i>Bus Trip Density*</i>	56	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	97	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

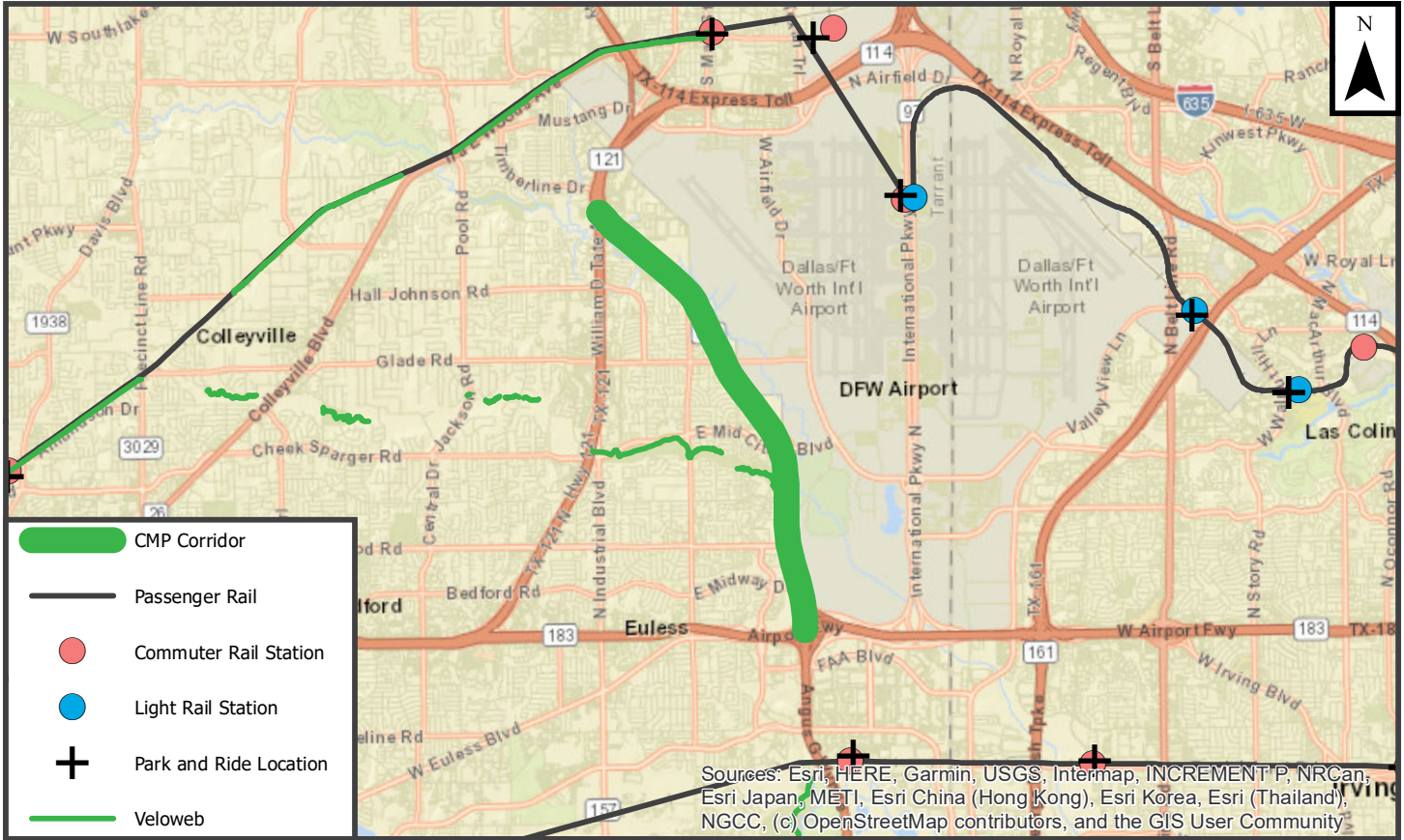
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 9.1

## SH 360 between SH 121 and SH 183



### Performance Statement

Continue to monitor

### Asset Statement

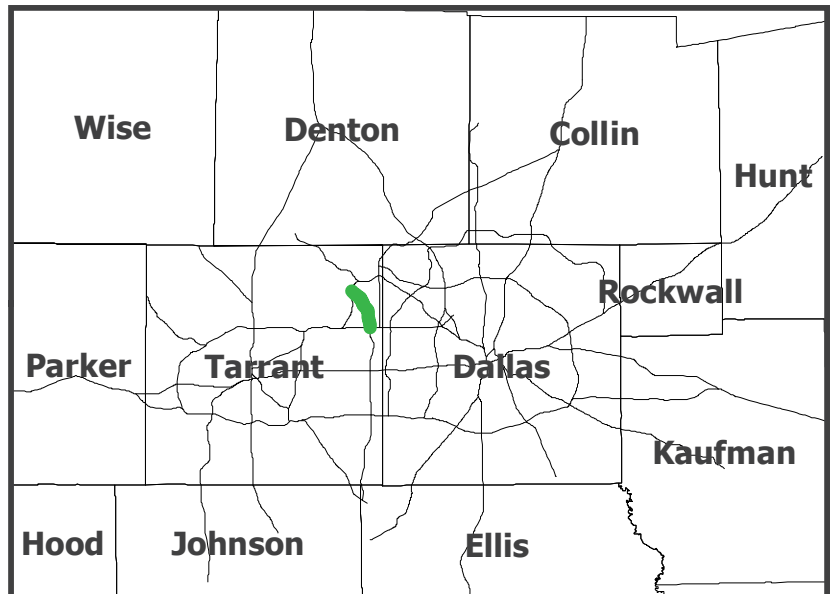
Need modal options and operations

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	22.2
Facility	SH 183
From	SH 360
To	PGBT
Construction Status	Recent Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	61	Sufficient
Travel Time Index (Recurring Congestion)	1.65	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.40	Needs Improvement
Pavement in Poor Condition	8	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	33	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	57	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	2	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	97	High
<i>Parallel Bus Route as percentage of corridor length*</i>	94	
<i>Bus Trip Density*</i>	84	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

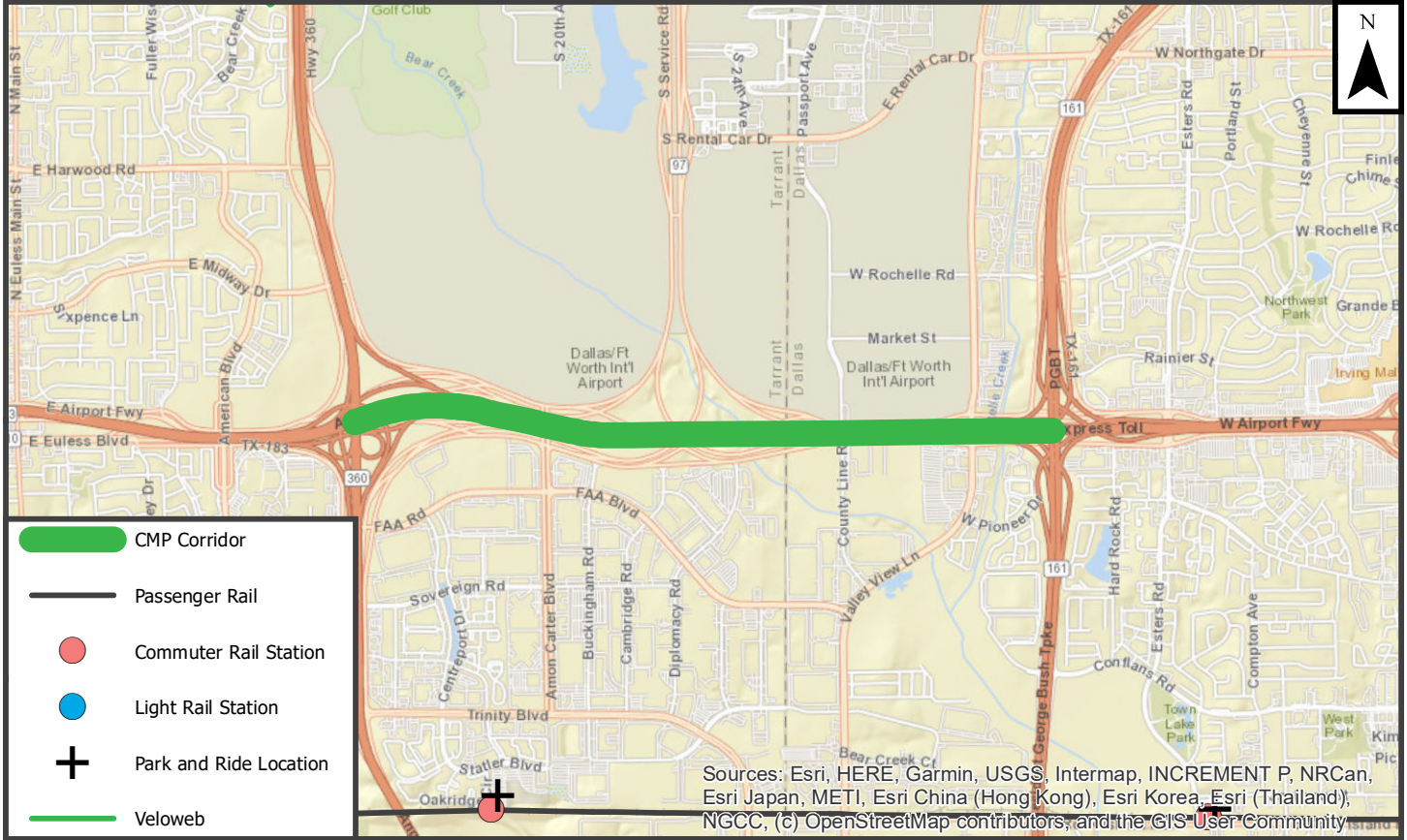
Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	
Truck Lane Restriction Percentage	0	High
HOV/Managed Lane Percentage	100	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 22.2

## SH 183 between SH 360 and PGBT



### Performance Statement

Demand reduction and operational

### Asset Statement

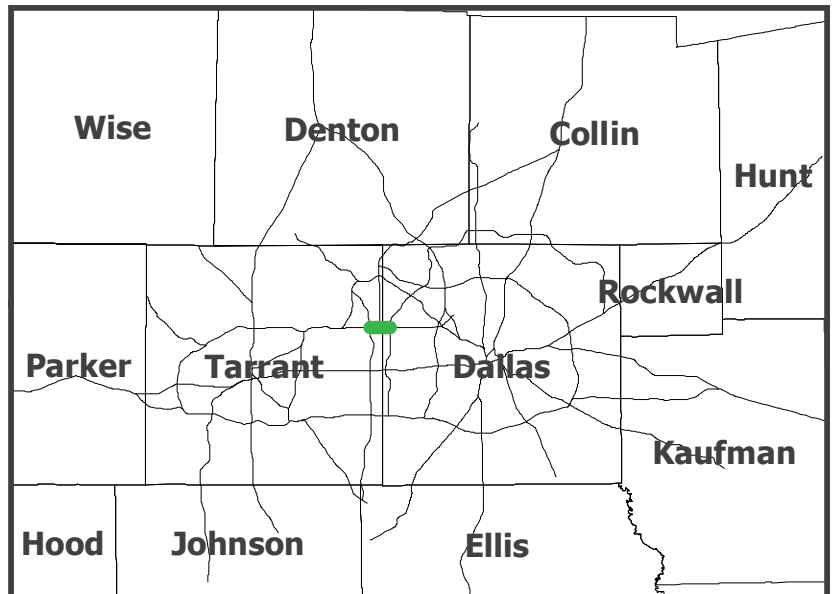
Promote modal options and operate

### Corridor Statement

Promote modal options and operate

### Corridor Output

Recent Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	13.1
Facility	International Parkway
From	SH 114
To	SH 183
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	15	Sufficient
Travel Time Index (Recurring Congestion)	1.02	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.12	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	47	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	22	
Parallel Freeway Percentage	83	High

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	32	
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	119	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	18	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

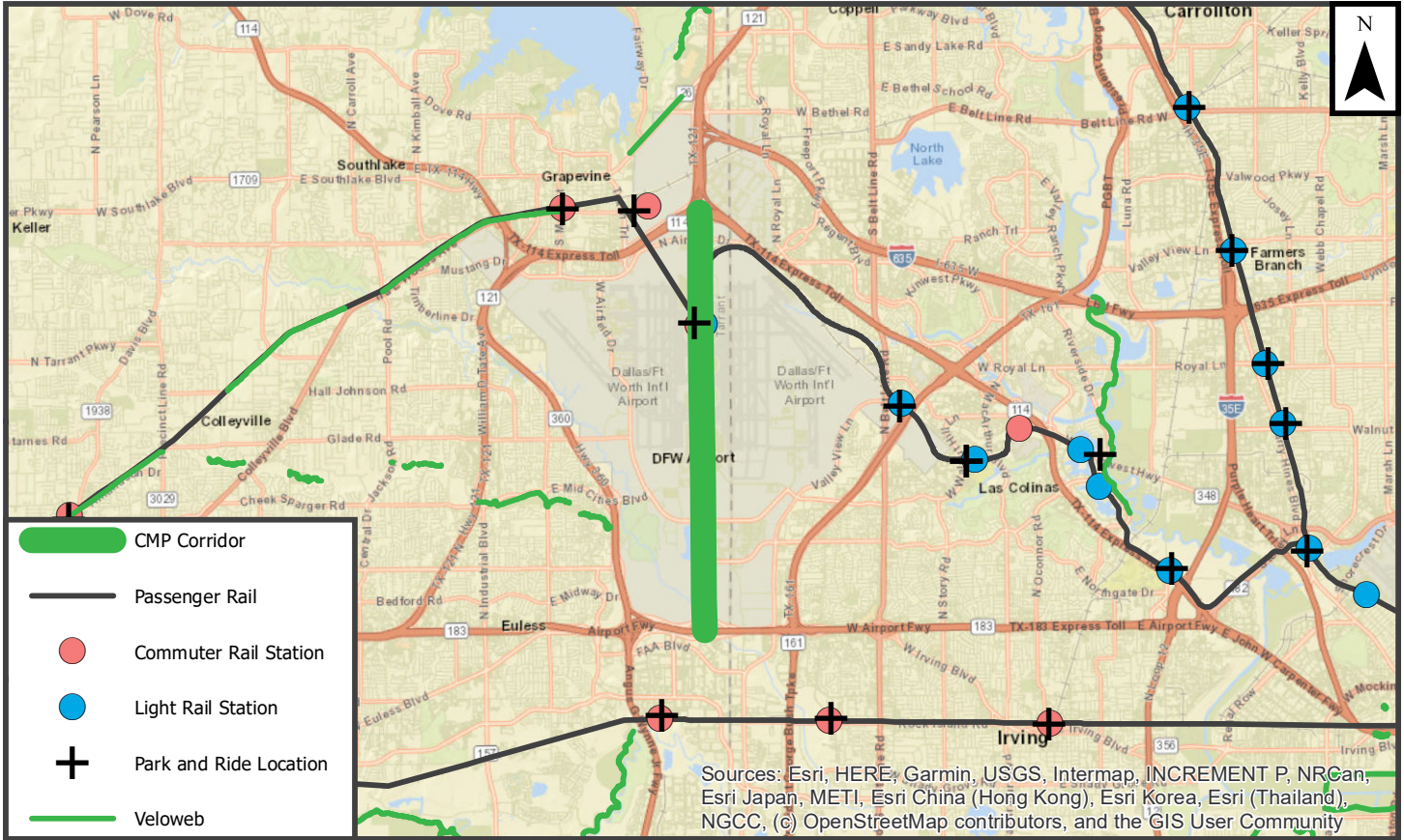
More detail on corridor evaluation and scoring criteria available in Appendix D





# Congestion Management Process Corridor 13.1

## International Parkway between SH 114 and SH 183



### Performance Statement

Continue to monitor

### Asset Statement

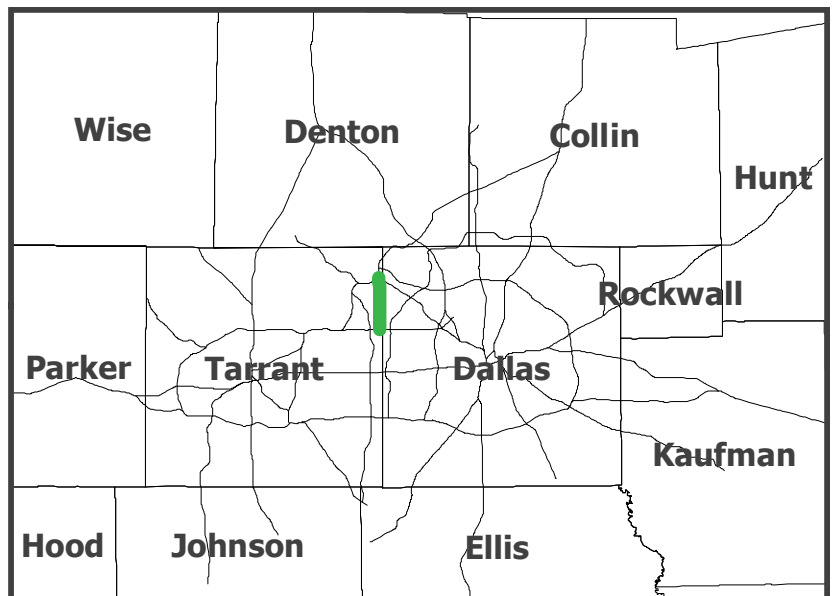
Promote options and needs operations

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	11.7
Facility	SH 121
From	SH 114
To	SH 360
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	41	Sufficient
Travel Time Index (Recurring Congestion)	1.32	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.25	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	18	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	89	
Parallel Freeway Percentage	12	Low

## Modal Options

Park and Rides within 1 mile of corridor	2	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	18	
<i>Bus Trip Density*</i>	0	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

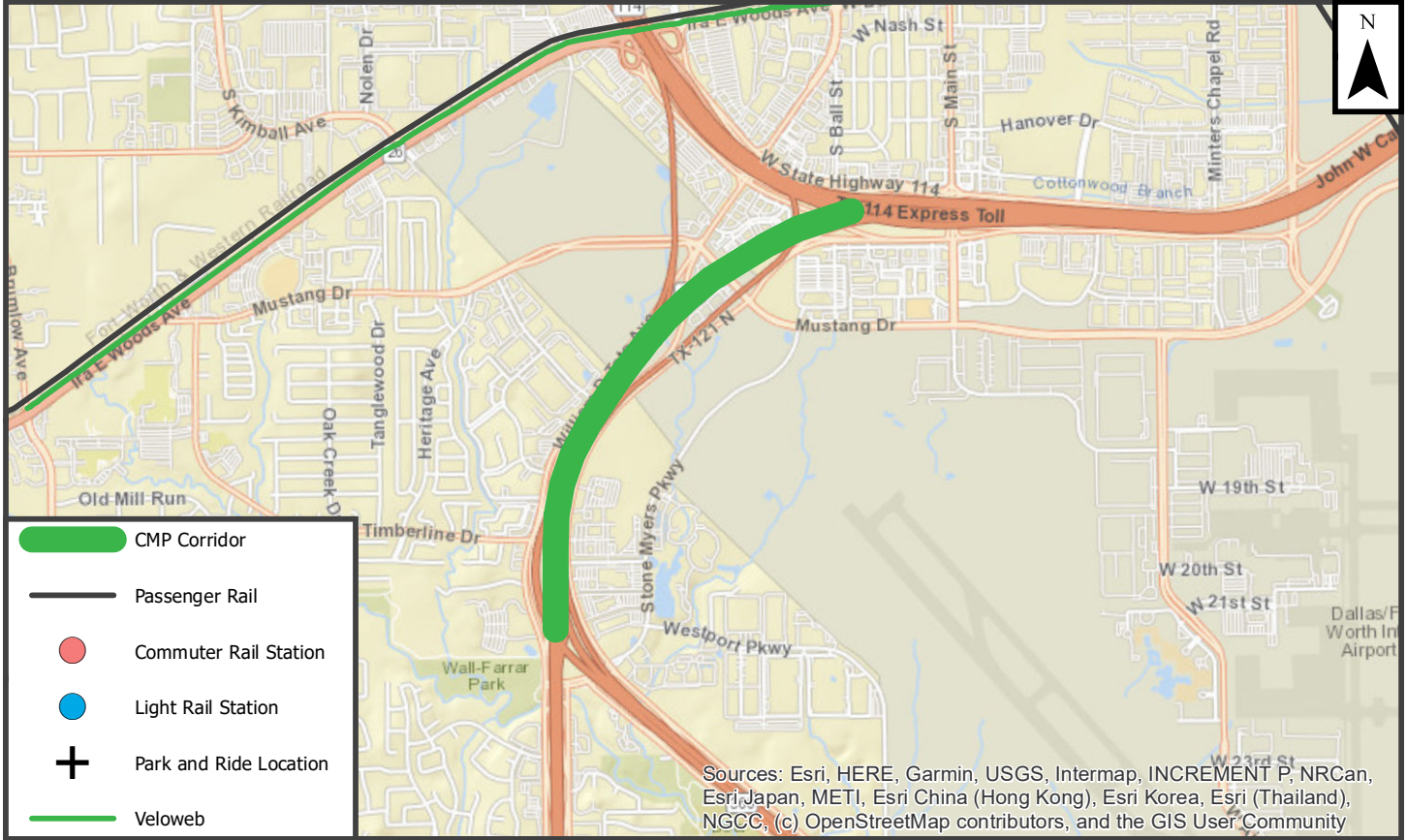
Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 11.7

## SH 121 between SH 114 and SH 360



### Performance Statement

Continue to monitor

### Asset Statement

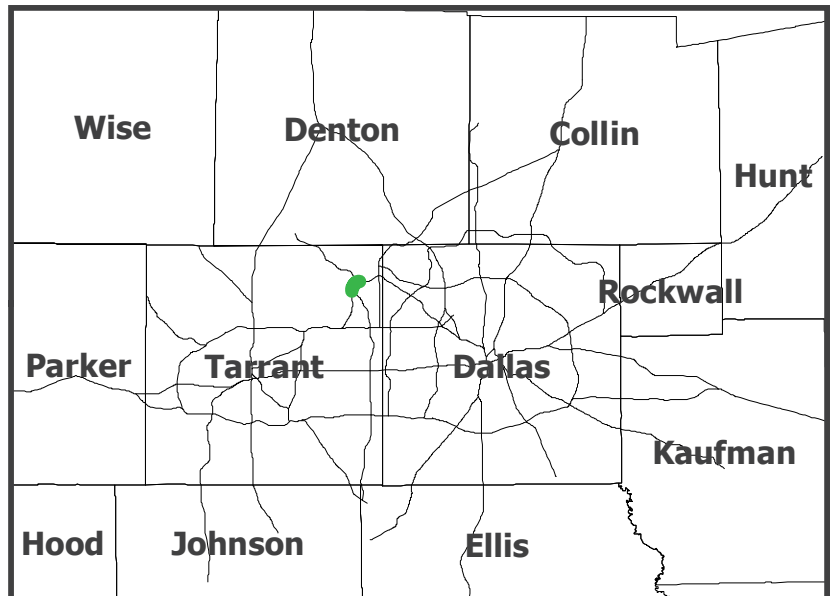
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	12.4
Facility	SH 114
From	SH 121
To	International Parkway/DFW Connector
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	33	Sufficient
Travel Time Index (Recurring Congestion)	1.15	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.30	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	19	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	74	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	44	
<i>Parallel Bus Route as percentage of corridor length*</i>	78	
<i>Bus Trip Density*</i>	68	
Combined Bus Availability	Medium	<small>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</small>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	High
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	100	

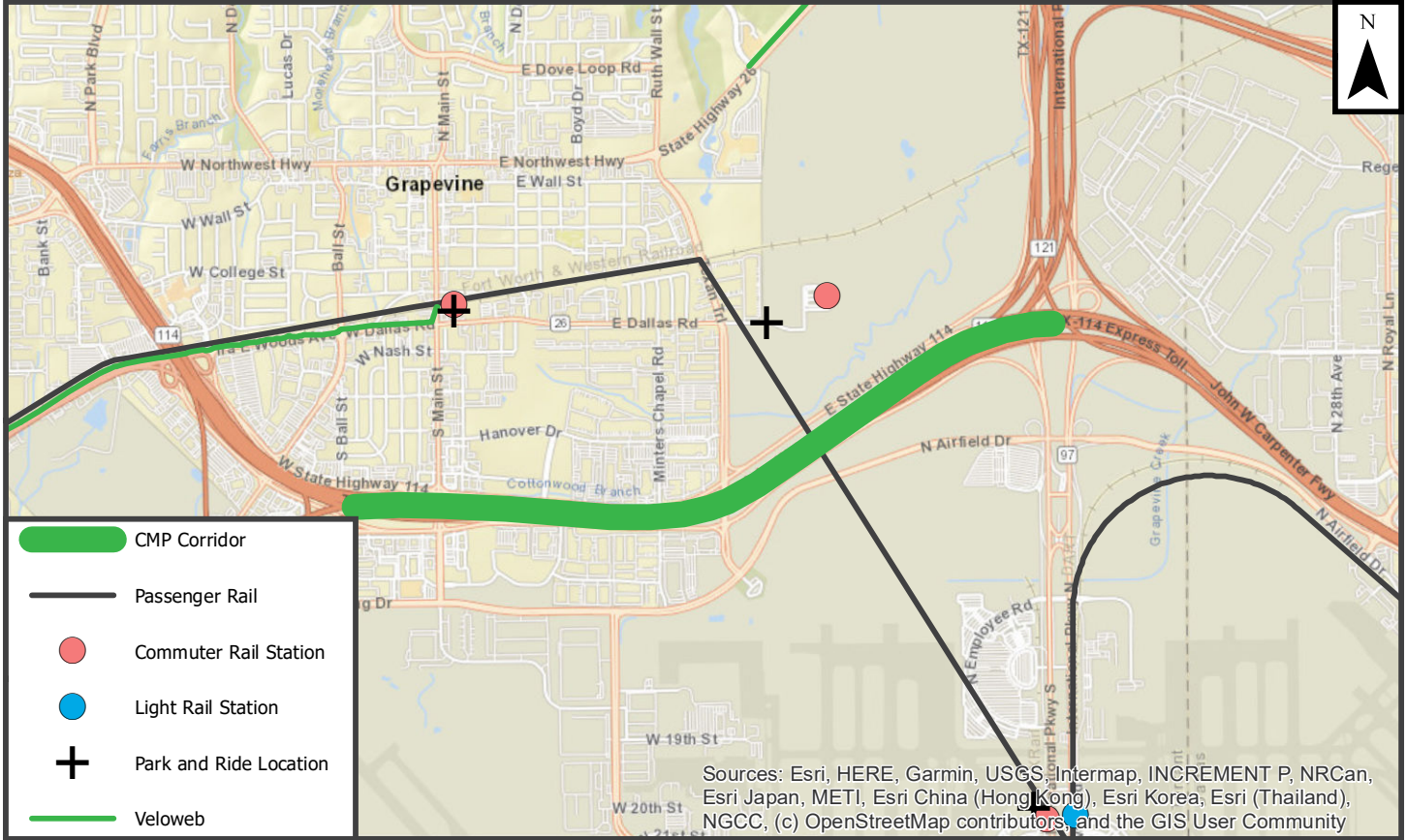
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 12.4

## SH 114 between SH 121 and International Parkway/DFW Connector



### Performance Statement

Continue to monitor

### Asset Statement

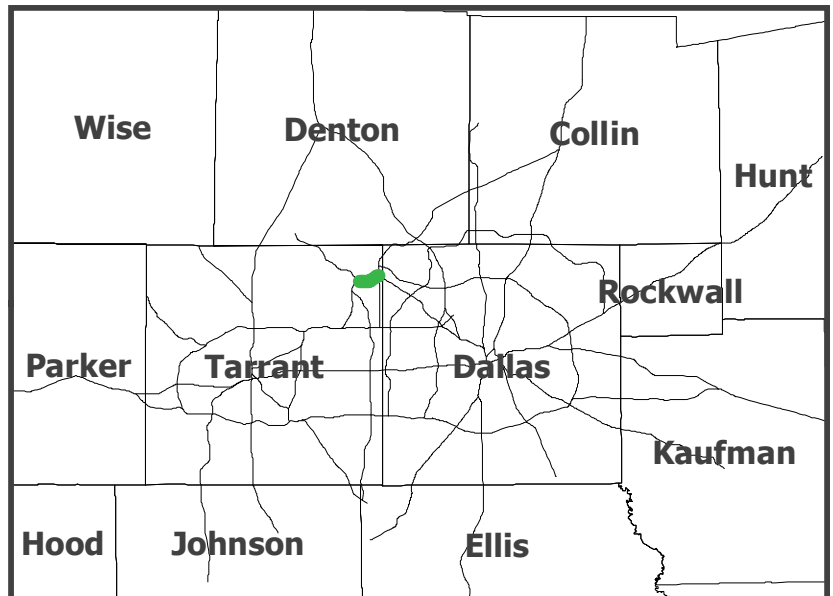
Operate and may need options

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	12.5
Facility	SH 114
From	International Parkway
To	PGBT (West)
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	19	Sufficient
Travel Time Index (Recurring Congestion)	1.07	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.38	Needs Improvement
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	30	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	51	
Parallel Freeway Percentage	119	High

## Modal Options

Park and Rides within 1 mile of corridor	5	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	88	High
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	91	
<i>Bus Trip Density*</i>	100	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	100	High
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	100	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 12.5

## SH 114 between International Parkway and PGBT (West)



### Performance Statement

Demand reduction and operational

### Asset Statement

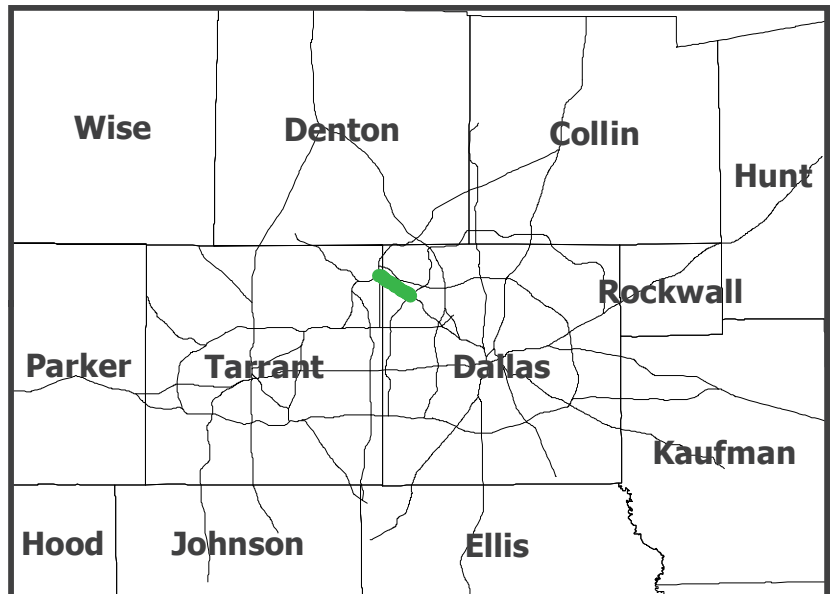
Promote options and operate

### Corridor Statement

Promote options and operate

### Corridor Output

CMP Strategy



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	123.1
Facility	PGBT (West)
From	SL 12
To	IH 635 (North)
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	24	Sufficient
Travel Time Index (Recurring Congestion)	1.21	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.43	Needs Improvement
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	18	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	25	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	36	
<i>Bus Trip Density*</i>	78	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

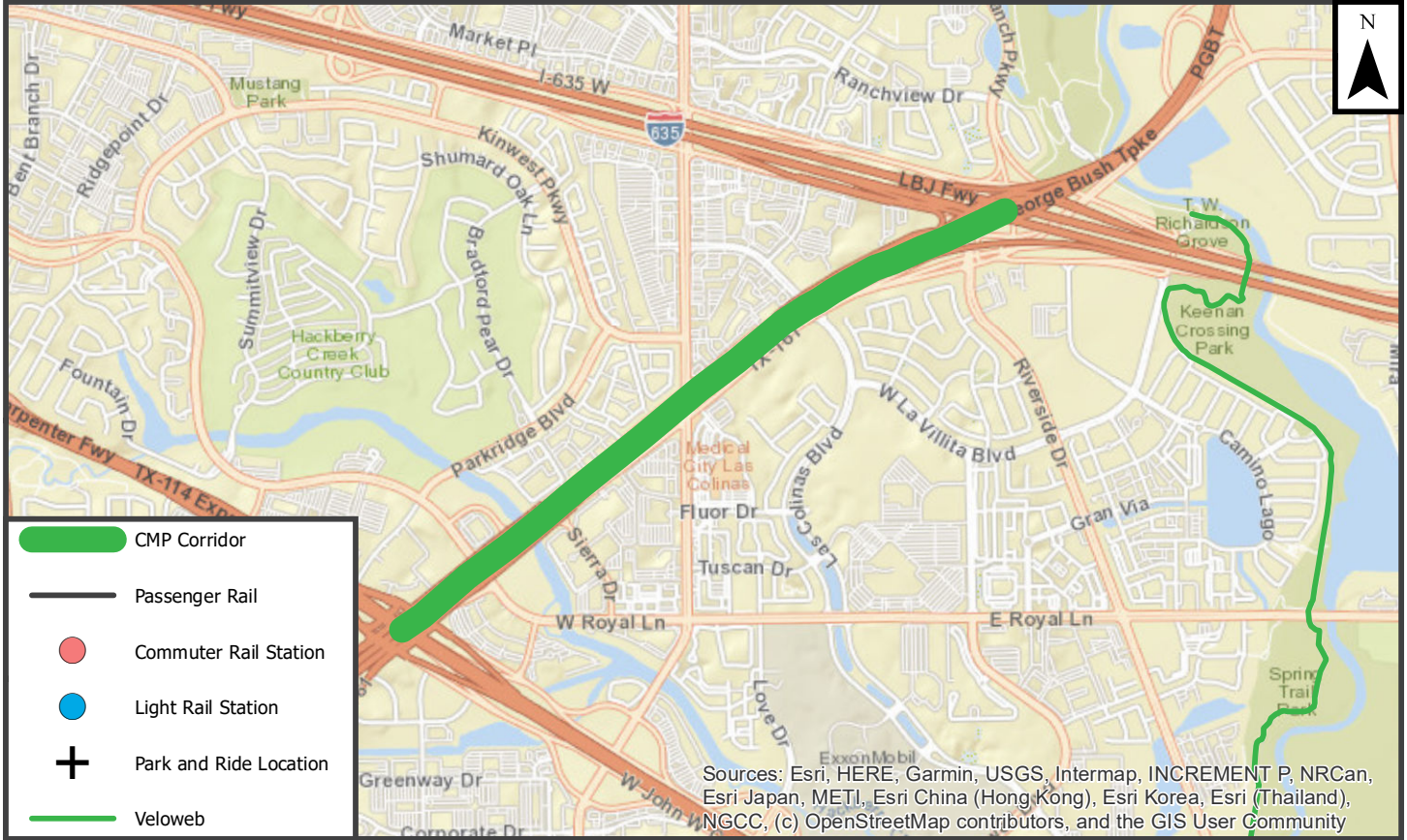
## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	
Truck Lane Restriction Percentage	0	Low
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 123.1 PGBT (West) between SL 12 and IH 635 (North)



## Performance Statement

Demand reduction and operational

## Asset Statement

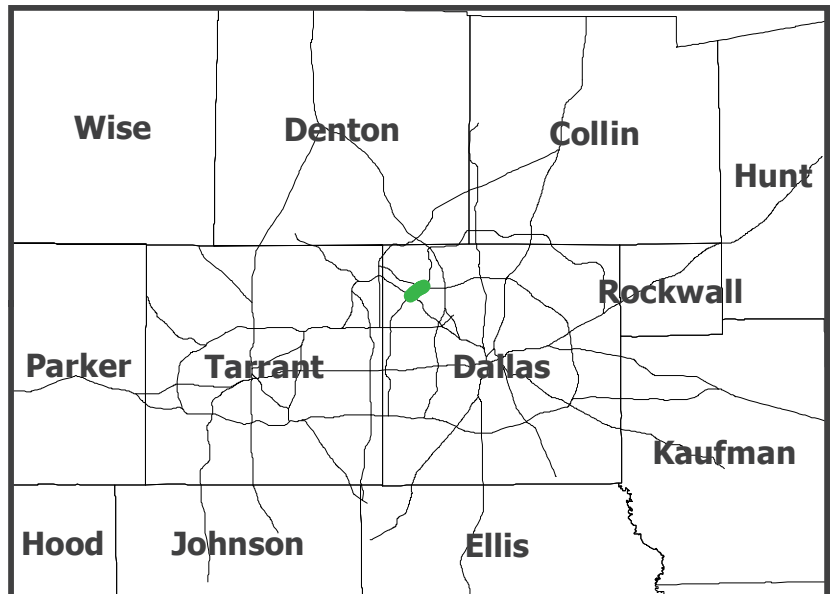
Needs help

## Corridor Statement

Needs corridor study

## Corridor Output

Full Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	15.1
Facility	PGBT/SH 161
From	SH 114
To	SH 183
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	26	Sufficient
Travel Time Index (Recurring Congestion)	1.26	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.19	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	10	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	25	Low

## Modal Options

Park and Rides within 1 mile of corridor	4	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	16	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	53	
<i>Bus Trip Density*</i>	99	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	99	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

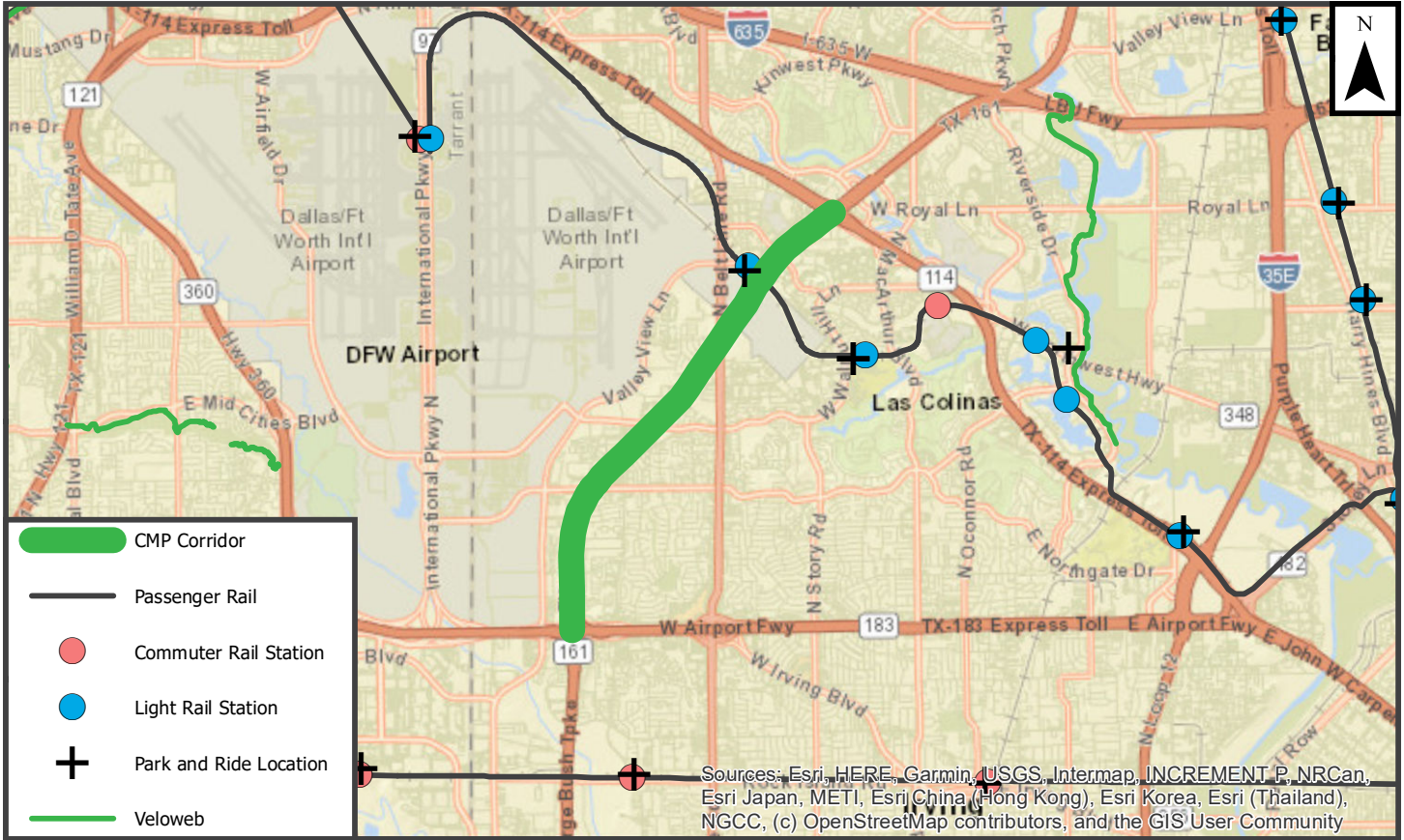
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 15.1

## PGBT/SH 161 between SH 114 and SH 183



### Performance Statement

Continue to monitor

### Asset Statement

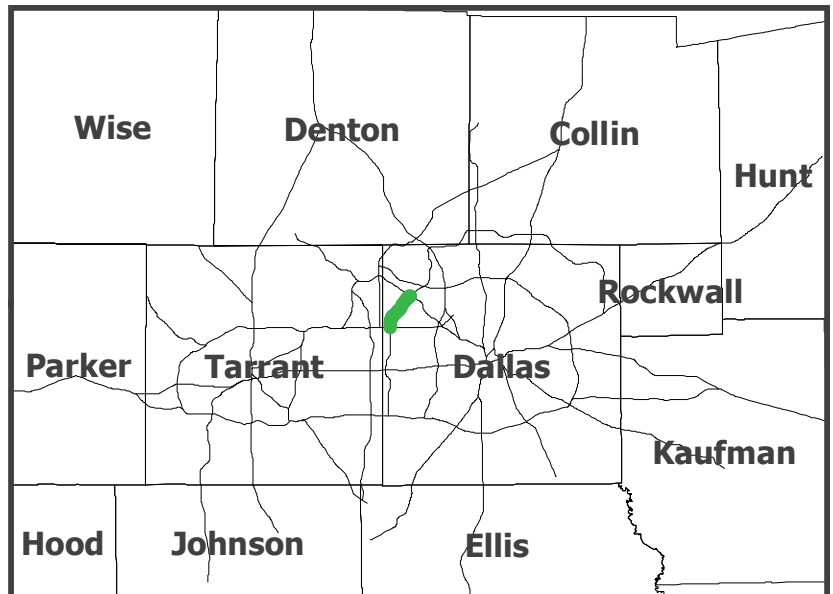
Promote options, may need roadway capacity

### Corridor Statement

Continue to monitor

### Corridor Output

Full Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	130.1
Facility	IH 635 (North)
From	SH 121
To	PGBT (West)
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	18	Sufficient
Travel Time Index (Recurring Congestion)	1.20	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.41	Needs Improvement
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	51	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	49	
Parallel Freeway Percentage	110	High

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	65	Low
Parallel Commuter Rail as percentage of corridor length	5	
<i>Parallel Bus Route as percentage of corridor length*</i>	74	
<i>Bus Trip Density*</i>	46	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

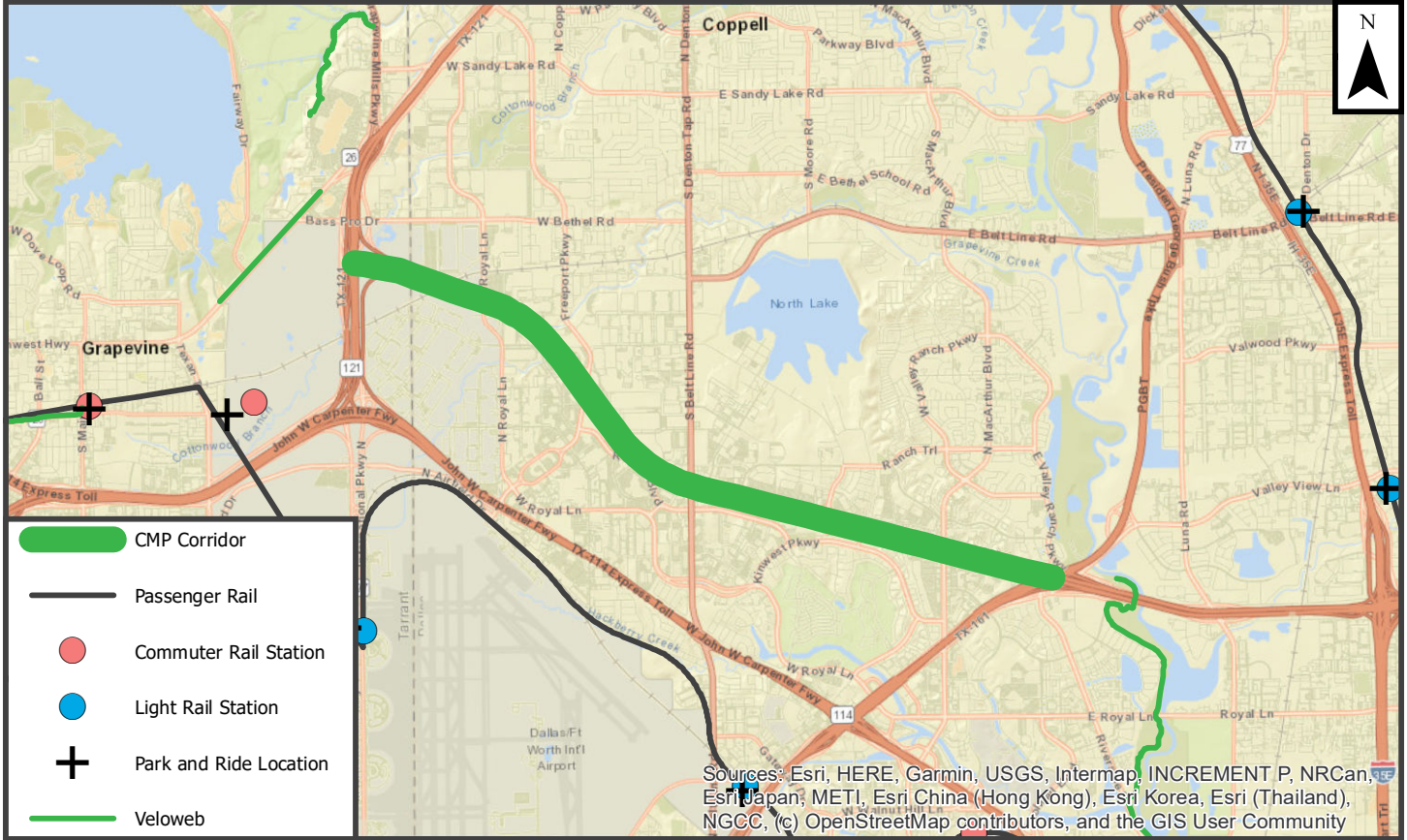
Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	97	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 130.1

## IH 635 (North) between SH 121 and PGBT (West)



### Performance Statement

Demand reduction and operational

### Asset Statement

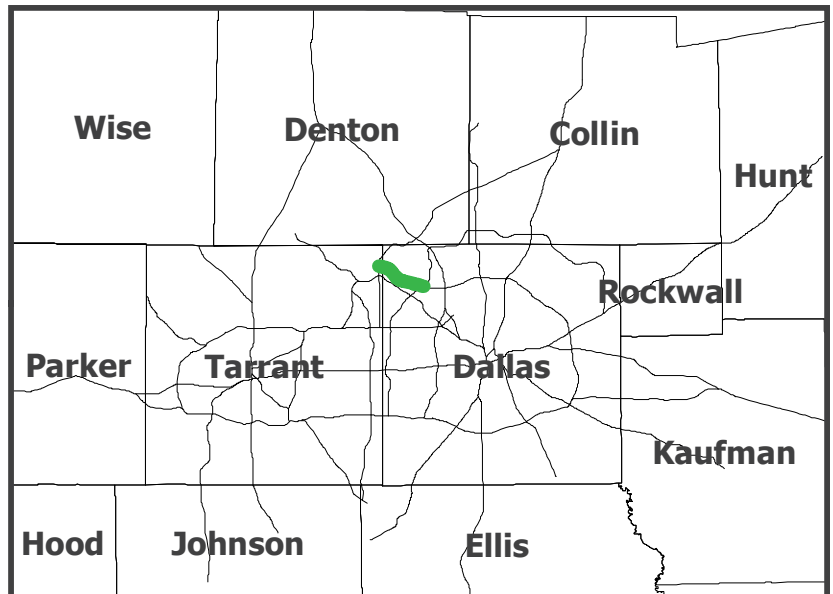
Promote alternate routes, need modal options and operations

### Corridor Statement

Promote alternate routes

### Corridor Output

Partial Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	130.2
Facility	IH 635 (North)
From	PGBT (West)
To	IH 35E
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	59	Sufficient
Travel Time Index (Recurring Congestion)	1.10	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.19	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	26	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	73	
Parallel Freeway Percentage	107	High

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	82	
<i>Bus Trip Density*</i>	105	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

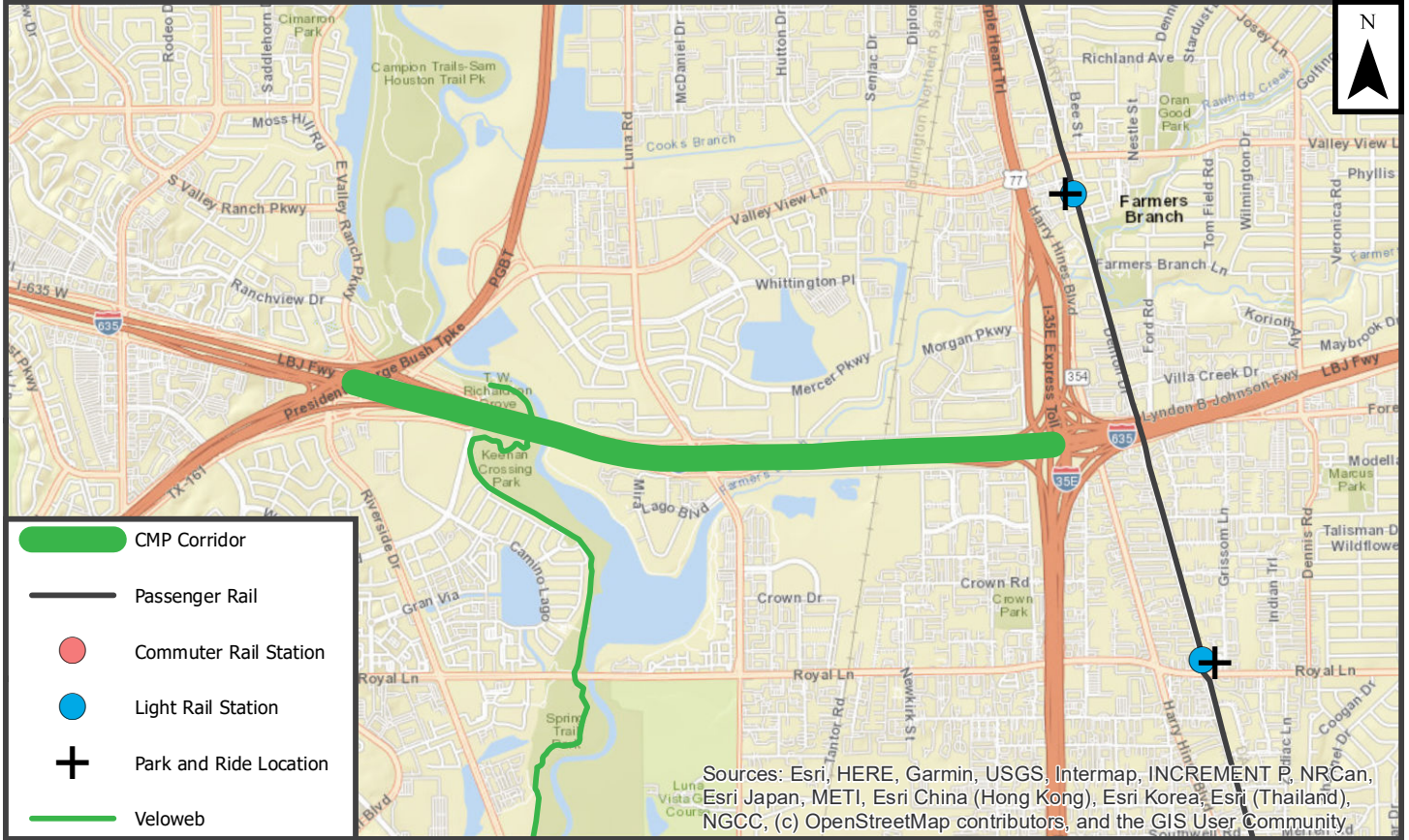
Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	97	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 130.2

## IH 635 (North) between PGBT (West) and IH 35E



### Performance Statement

Continue to monitor

### Asset Statement

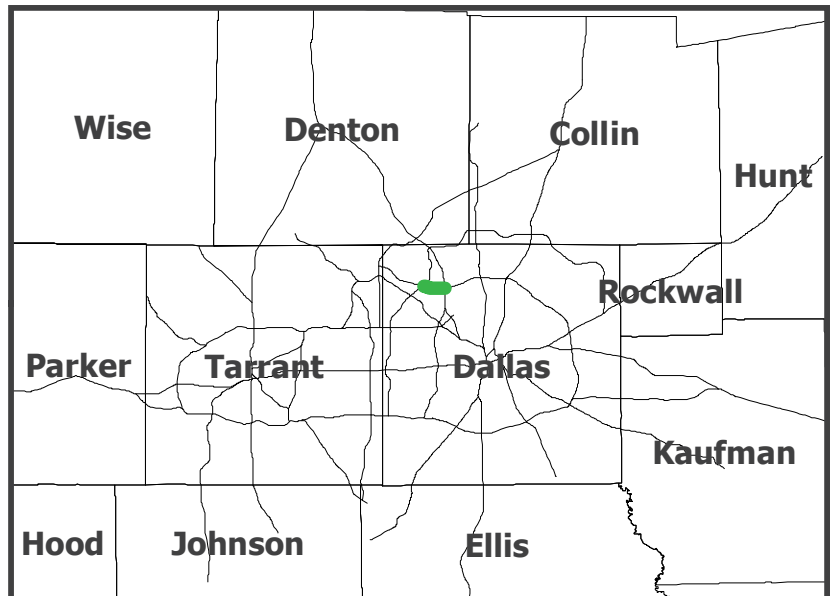
Promote options and needs operations

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	123.2
Facility	PGBT (West)
From	IH 635 (North)
To	IH 35E
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	44	Sufficient
Travel Time Index (Recurring Congestion)	1.03	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.30	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	17	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	15	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	28	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	30	
<i>Bus Trip Density*</i>	48	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	100	
Truck Lane Restriction Percentage	0	Medium
HOV/Managed Lane Percentage	0	

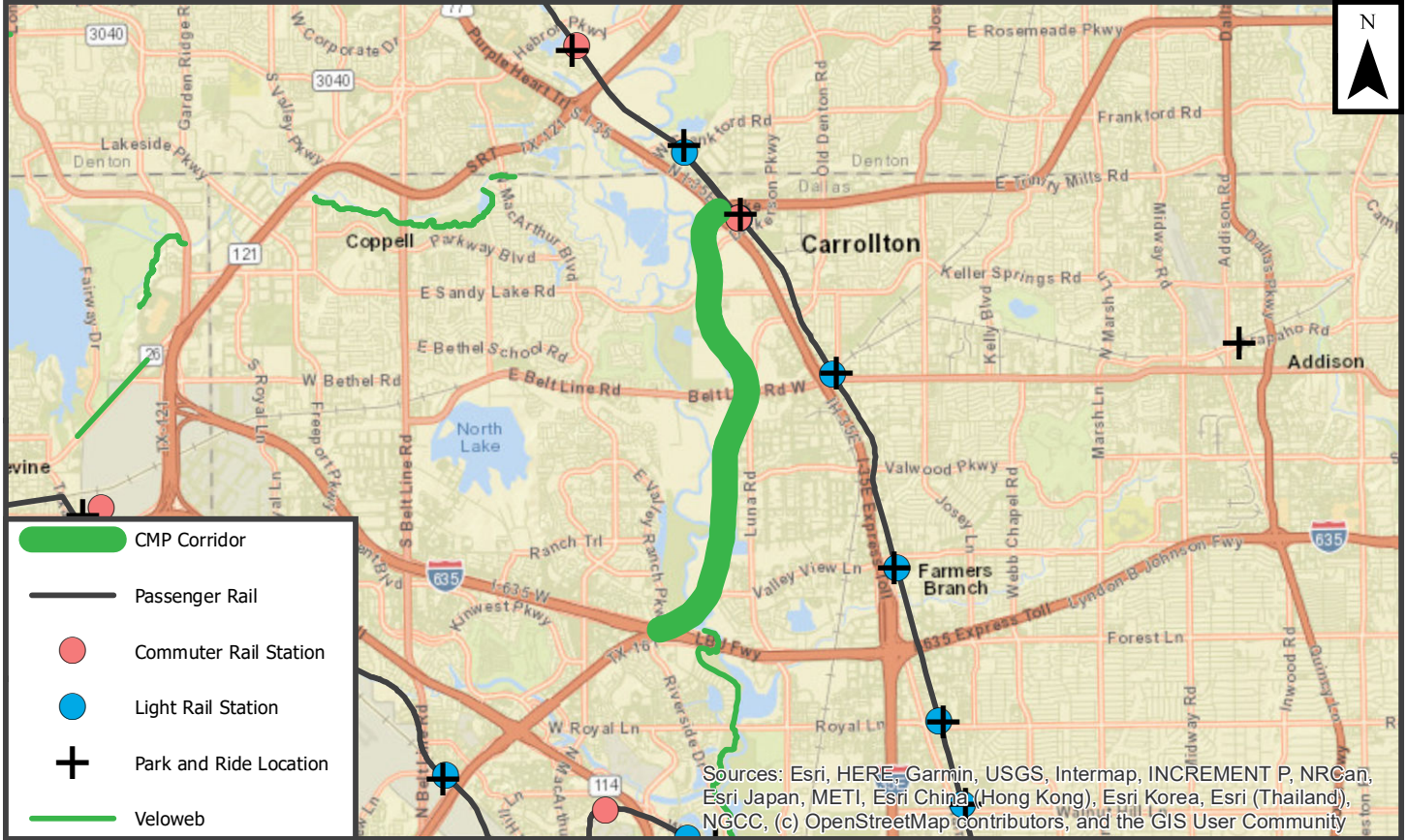
More detail on corridor evaluation and scoring criteria available in Appendix D





# Congestion Management Process Corridor 123.2

## PGBT (West) between IH 635 (North) and IH 35E



### Performance Statement

Continue to monitor

### Asset Statement

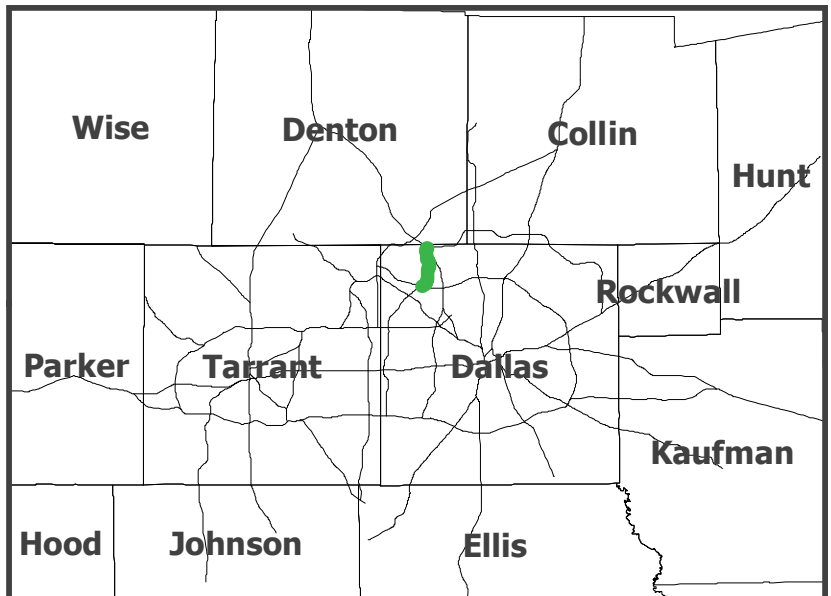
Operate and may need options

### Corridor Statement

Continue to monitor

### Corridor Output

Full Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	7.3
Facility	IH 35E
From	PGBT
To	IH 635 (North)
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	163	Needs Improvement
Travel Time Index (Recurring Congestion)	2.04	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.29	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	31	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	93	
Parallel Freeway Percentage	86	High

## Modal Options

Park and Rides within 1 mile of corridor	6	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	106	High
Parallel Commuter Rail as percentage of corridor length	6	
<i>Parallel Bus Route as percentage of corridor length*</i>	66	
<i>Bus Trip Density*</i>	76	
Combined Bus Availability	Medium	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

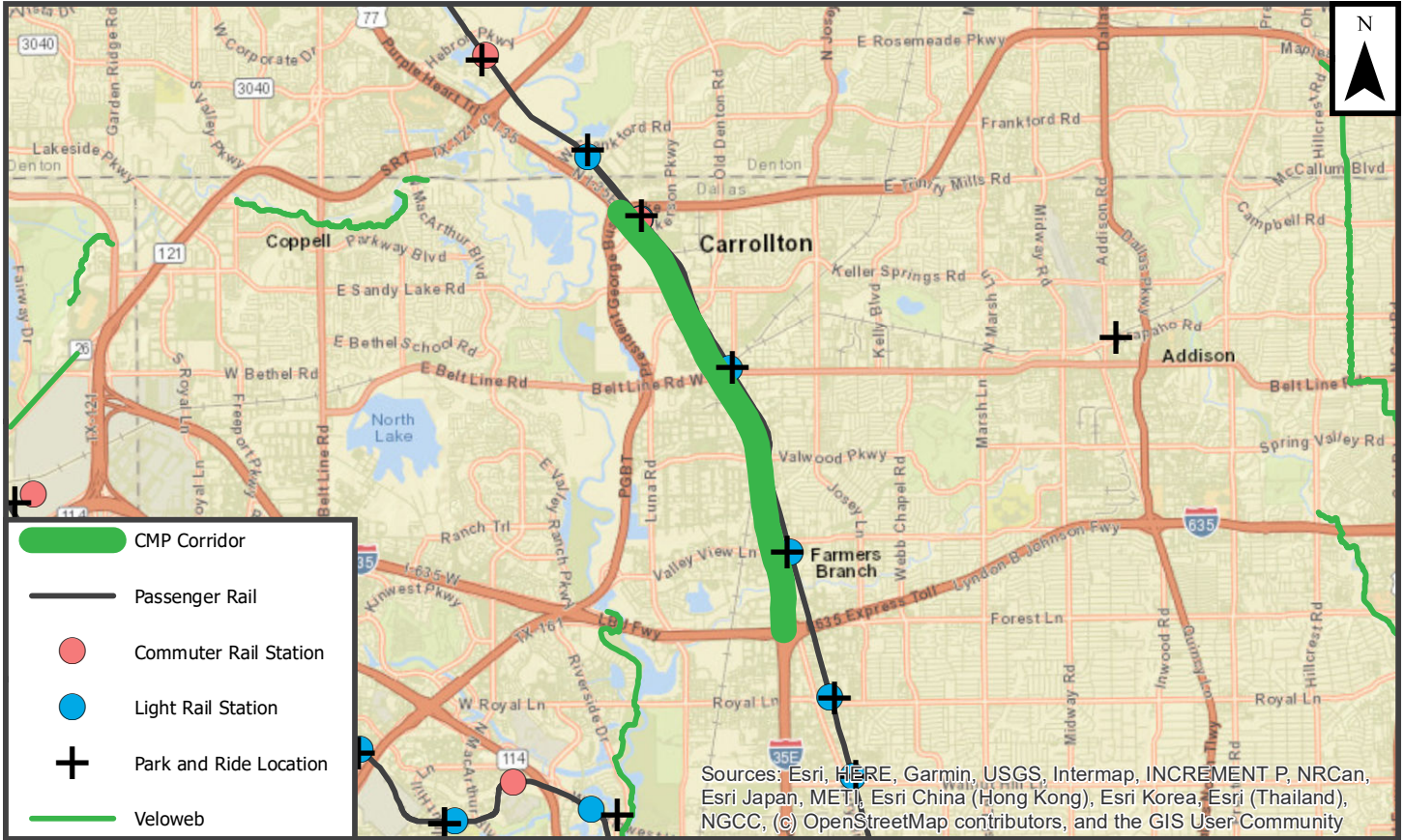
Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	100	High
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	100	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 7.3

## IH 35E between PGBT and IH 635 (North)



### Performance Statement

Demand reduction and operational

### Asset Statement

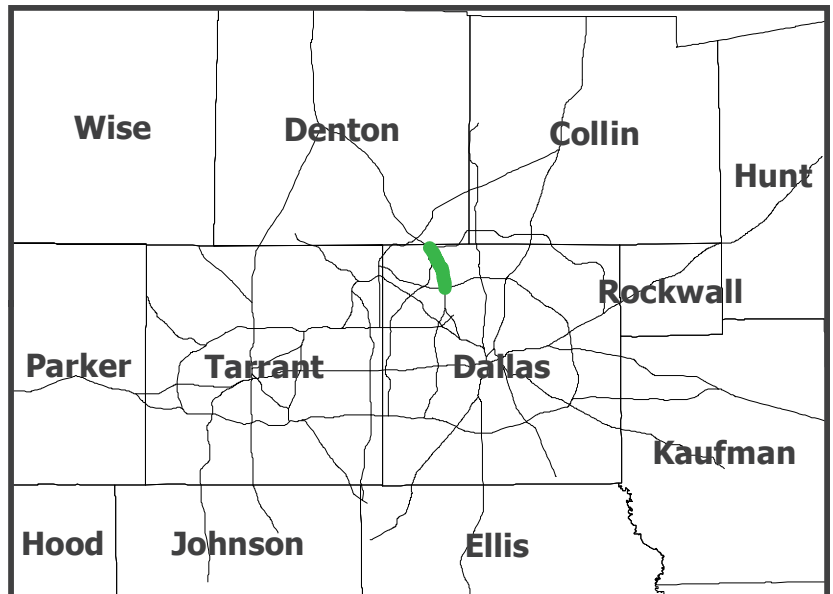
Promote options and operate

### Corridor Statement

Promote options and operate

### Corridor Output

Full Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	7.2
Facility	IH 35E
From	SRT
To	PGBT
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	124	Needs Improvement
Travel Time Index (Recurring Congestion)	1.09	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.16	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	8	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	41	
Parallel Commuter Rail as percentage of corridor length	114	High
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	30	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	
Truck Lane Restriction Percentage	0	High
HOV/Managed Lane Percentage	100	

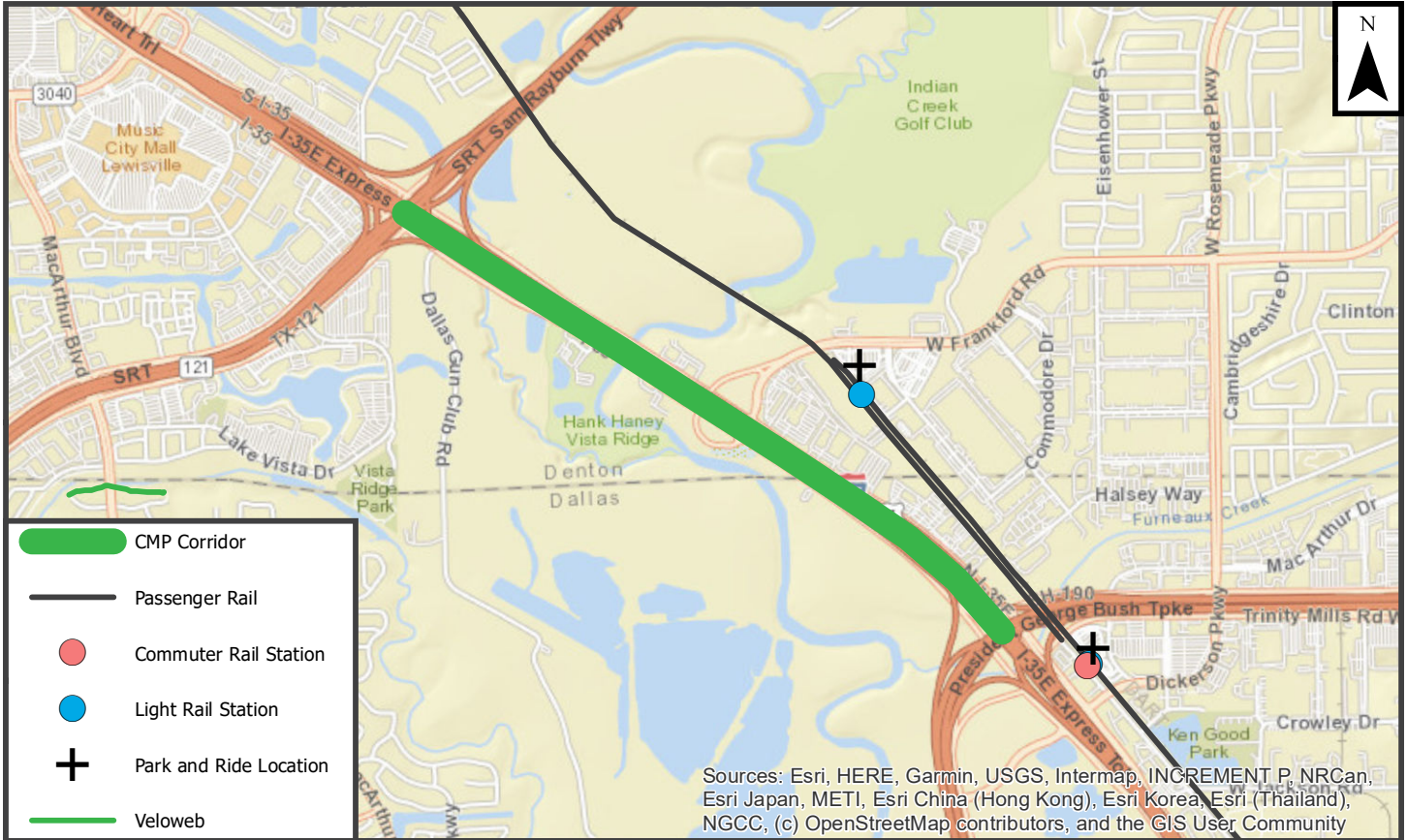
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 7.2

## IH 35E between SRT and PGBT



### Performance Statement

Operational

### Asset Statement

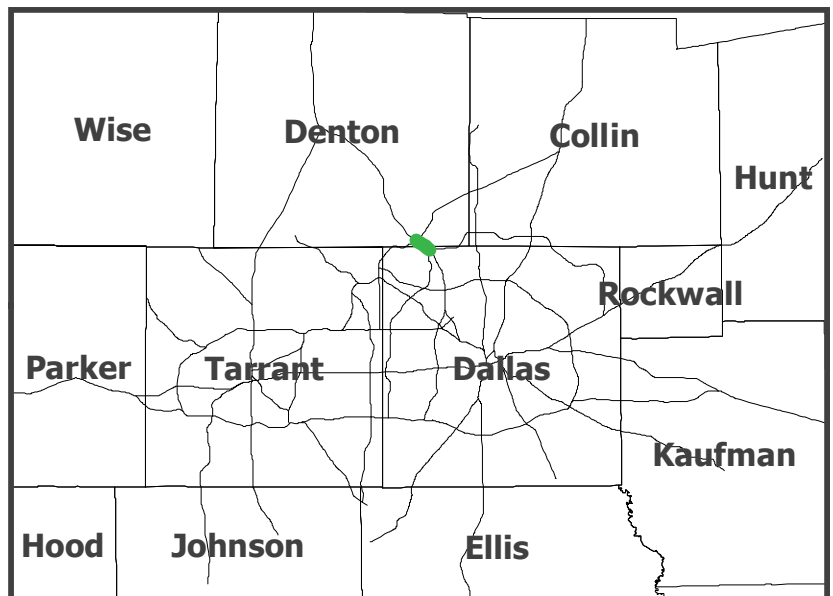
Promote modal options and operate

### Corridor Statement

Promote modal options and operate

### Corridor Output

Full Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	11.6
Facility	SH 121
From	IH 635 (North)
To	SH 114
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	21	Sufficient
Travel Time Index (Recurring Congestion)	1.18	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.21	Sufficient
Pavement in Poor Condition	9	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	29	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	20	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	2	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	72	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

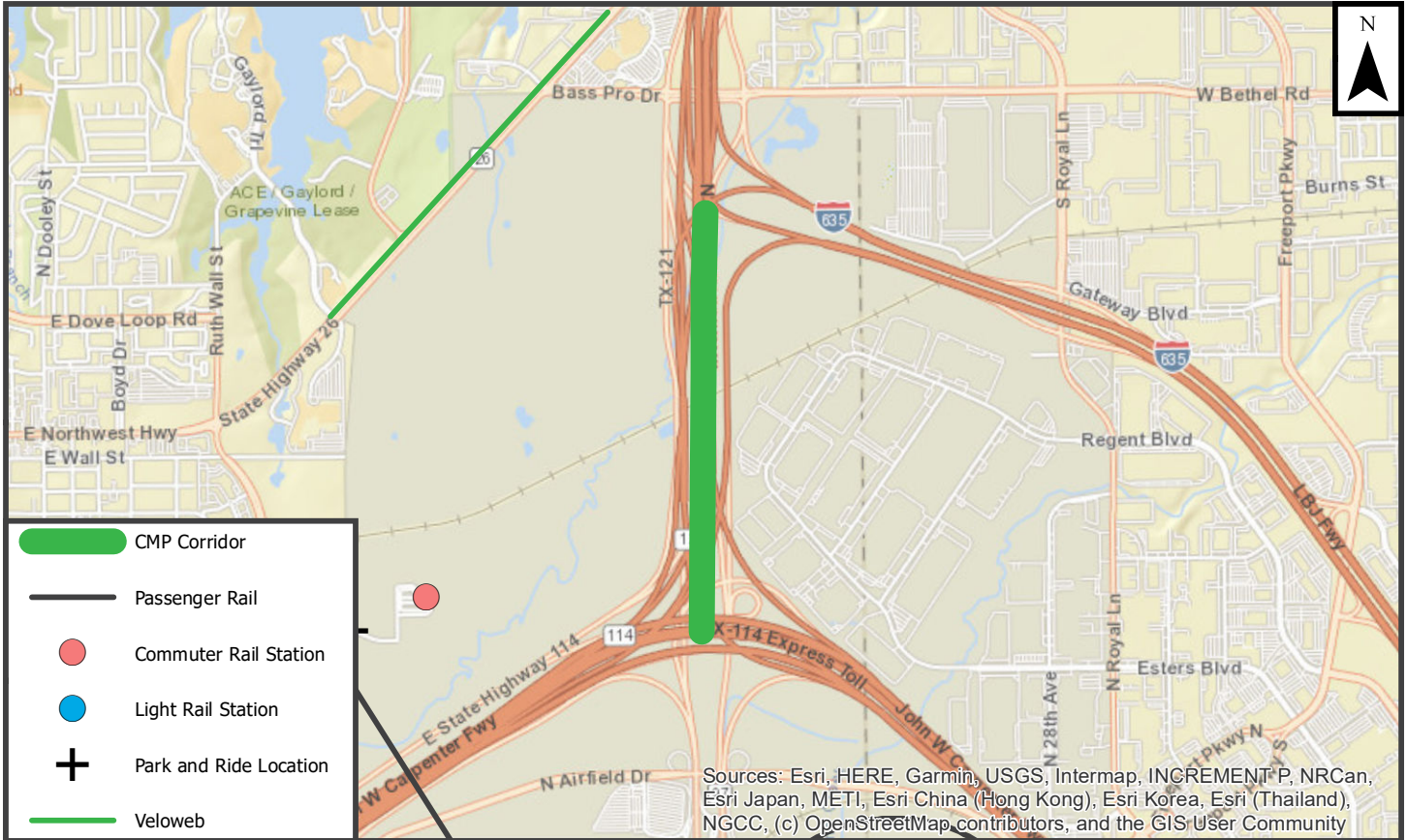
Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 11.6

## SH 121 between IH 635 (North) and SH 114



### Performance Statement

Continue to monitor

### Asset Statement

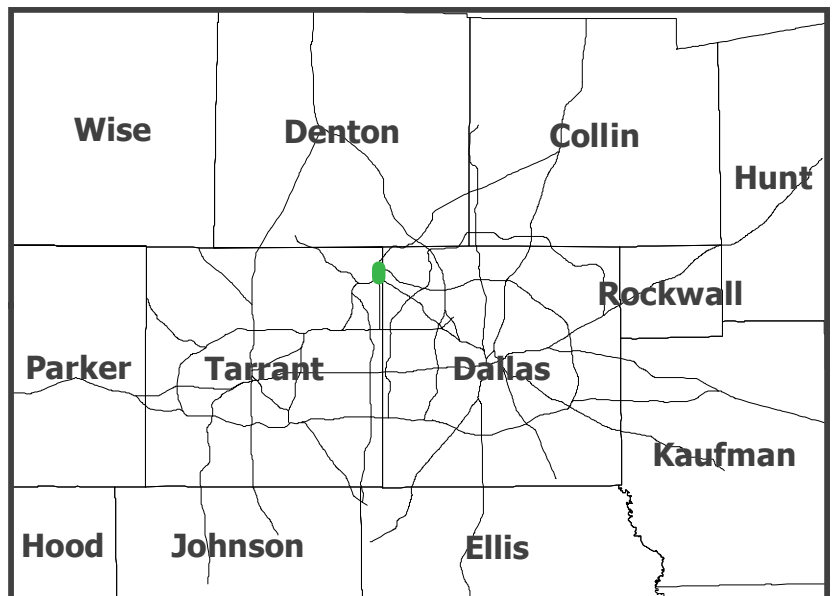
Promote options, may need roadway capacity

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	5.2
Facility	IH 35W
From	SH 114
To	US 287
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	28	Sufficient
Travel Time Index (Recurring Congestion)	1.82	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.23	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	42	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	89	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	95	
<i>Bus Trip Density*</i>	12	
Combined Bus Availability	Medium	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	70	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

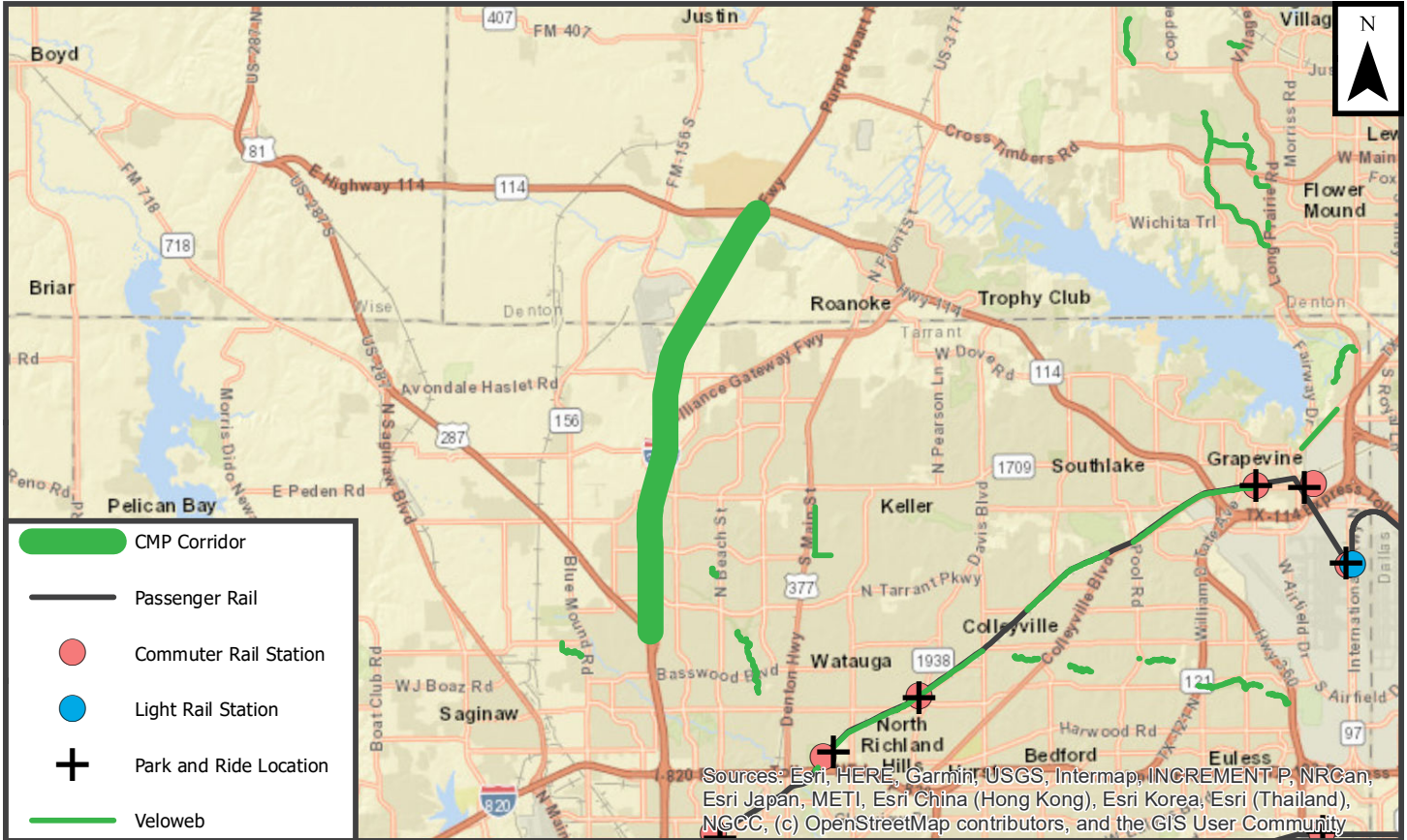
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 5.2

IH 35W between SH 114 and US 287



## Performance Statement

Demand reduction

## Asset Statement

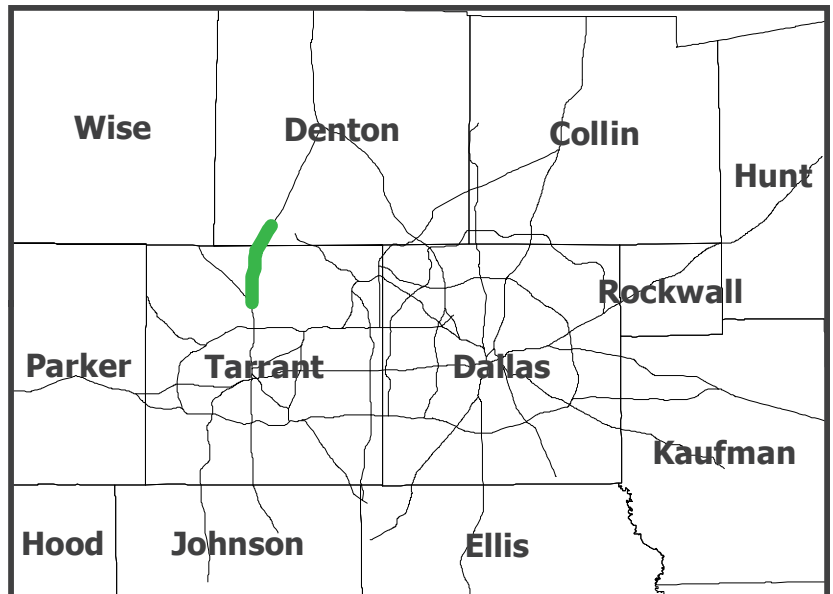
Needs help

## Corridor Statement

Needs corridor study

## Corridor Output

Partial Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	130.3
Facility	IH 635 (North)
From	IH 35E
To	DNT
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	80	Sufficient
Travel Time Index (Recurring Congestion)	1.40	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.21	Sufficient
Pavement in Poor Condition	2	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	42	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	99	
Parallel Freeway Percentage	51	Medium

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	99	
<i>Bus Trip Density*</i>	137	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	79	High
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	100	

More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 130.3

## IH 635 (North) between IH 35E and DNT



### Performance Statement

Continue to monitor

### Asset Statement

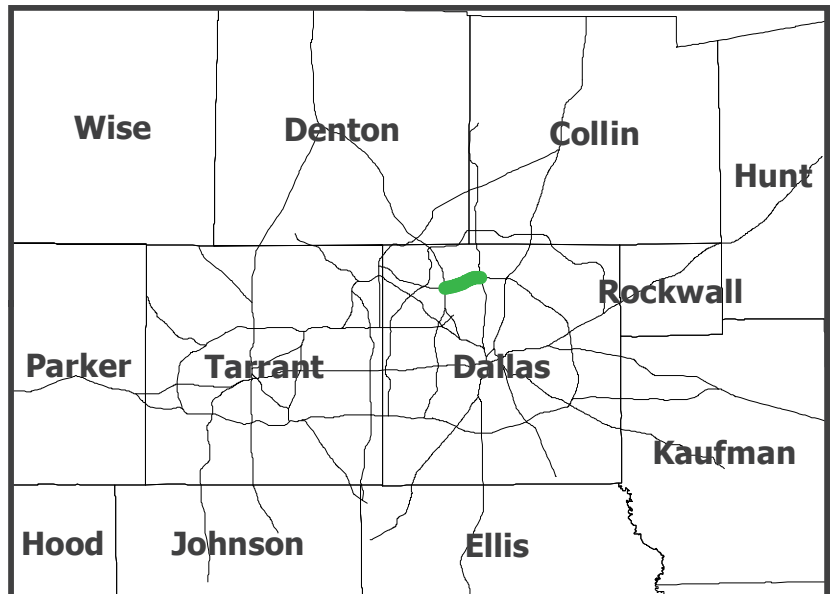
Promote options and operate

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	120.1
Facility	PGBT (North)
From	IH 35E
To	DNT
Construction Status	Recent Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	128	Needs Improvement
Travel Time Index (Recurring Congestion)	1.14	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.41	Needs Improvement
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	37	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	66	
Parallel Freeway Percentage	141	High

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	75	
<i>Bus Trip Density*</i>	48	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

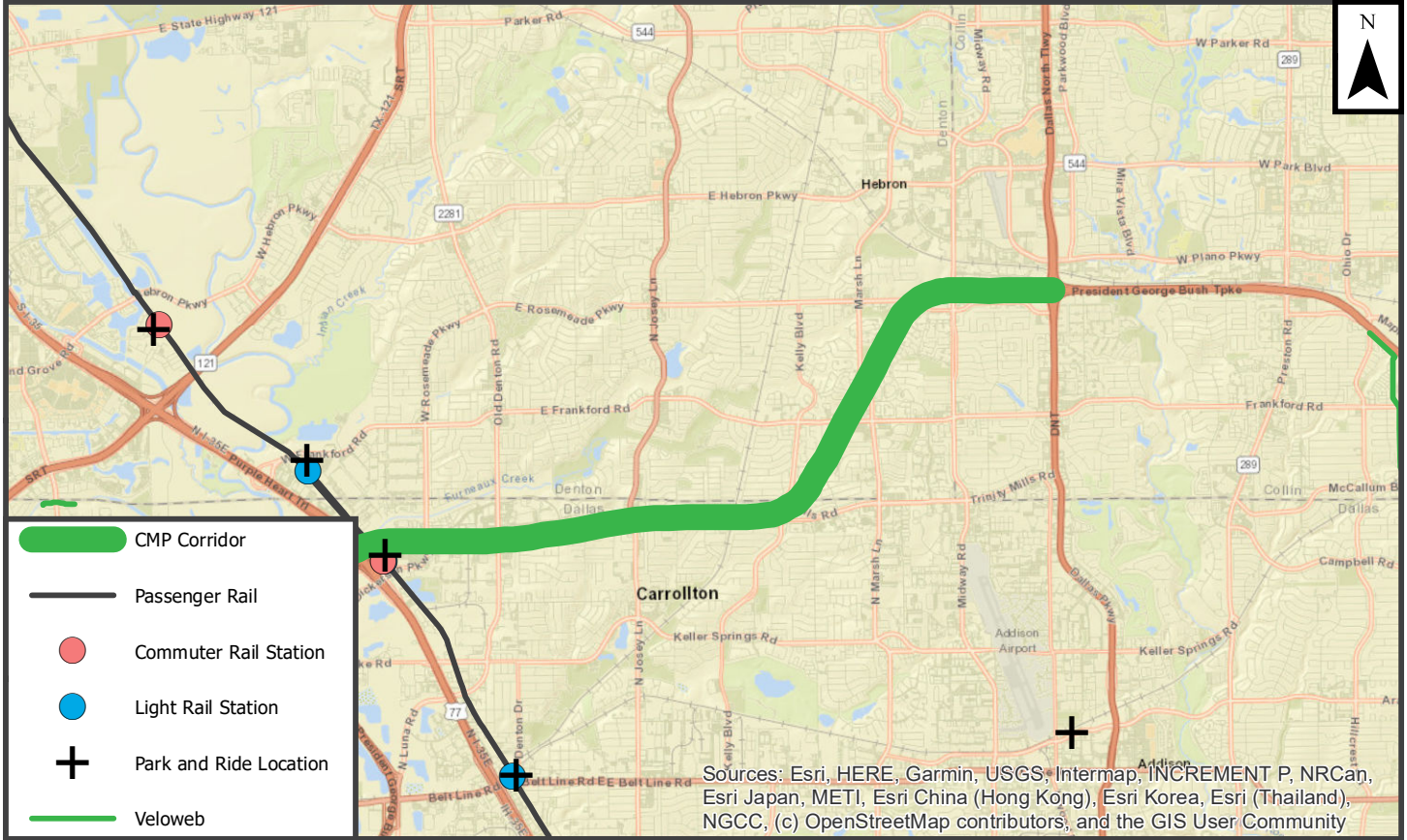
Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Medium
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 120.1

## PGBT (North) between IH 35E and DNT



### Performance Statement

Demand reduction and operational

### Asset Statement

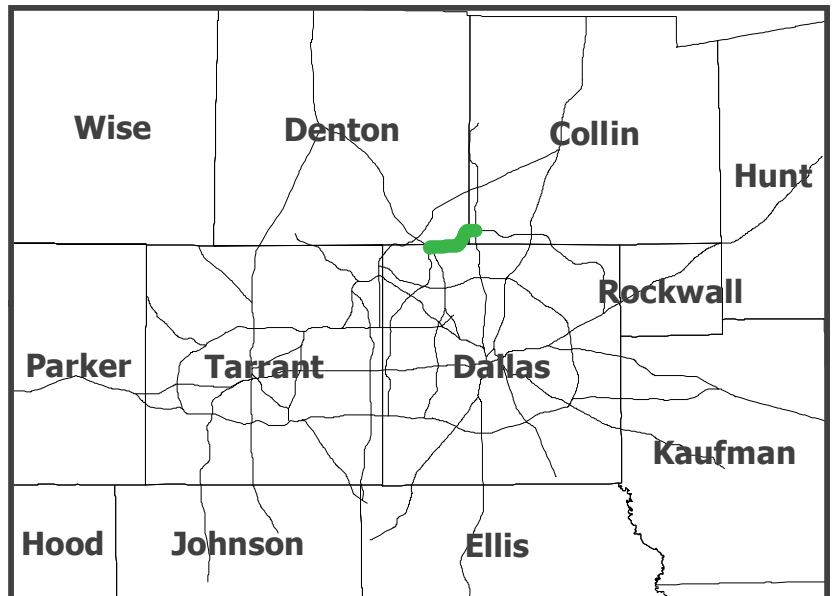
Promote alternate routes and operate

### Corridor Statement

Promote alternate routes and operate

### Corridor Output

Recent Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	23.3
Facility	US 75
From	SH 121
To	SRT
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	53	Sufficient
Travel Time Index (Recurring Congestion)	1.00	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.03	Sufficient
Pavement in Poor Condition	1	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	50	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	0	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	98	
Truck Lane Restriction Percentage	0	Low
HOV/Managed Lane Percentage	0	

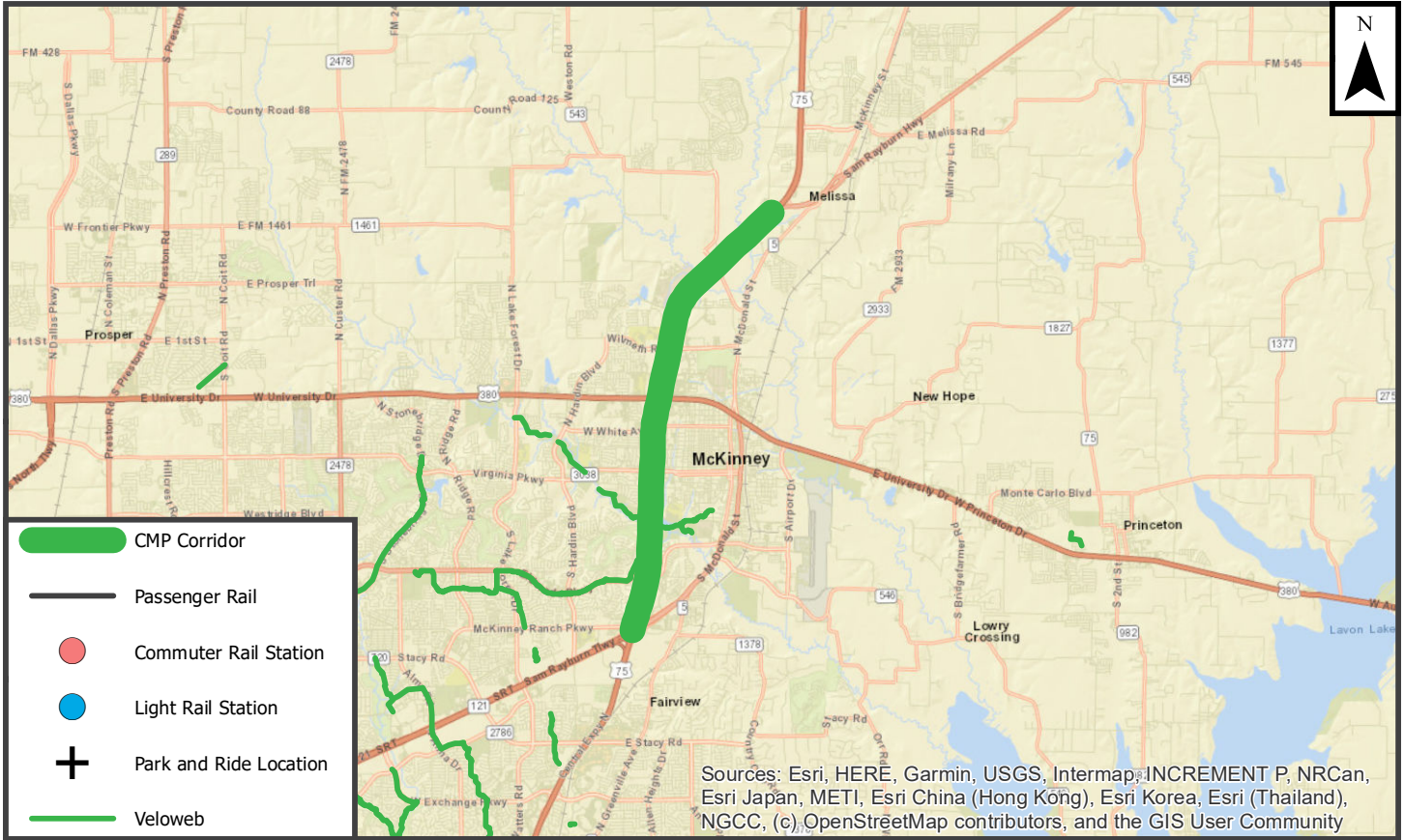
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 23.3

## US 75 between SH 121 and SRT



### Performance Statement

Continue to monitor

### Asset Statement

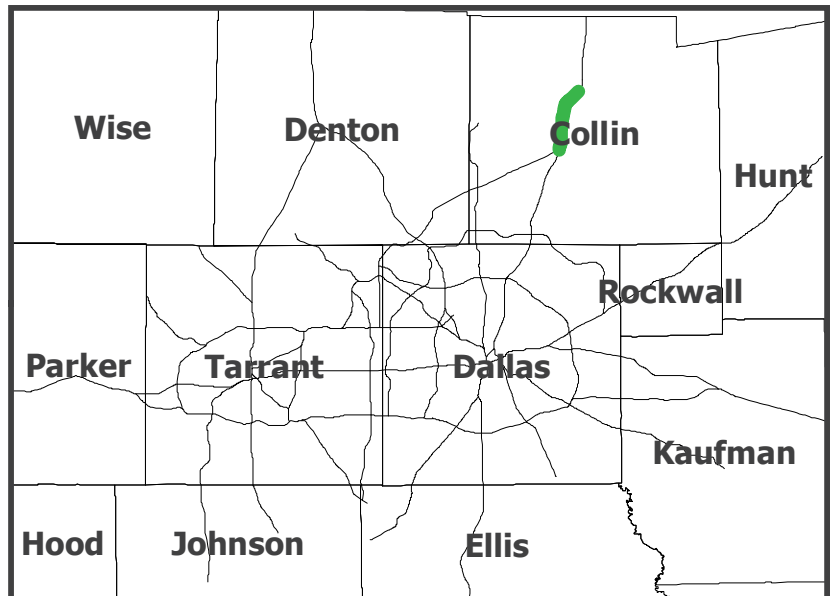
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	23.2
Facility	US 75
From	FM 545
To	SH 121
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	57	Sufficient
Travel Time Index (Recurring Congestion)	1.00	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.03	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition		Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	100	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	0	Medium

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	0	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

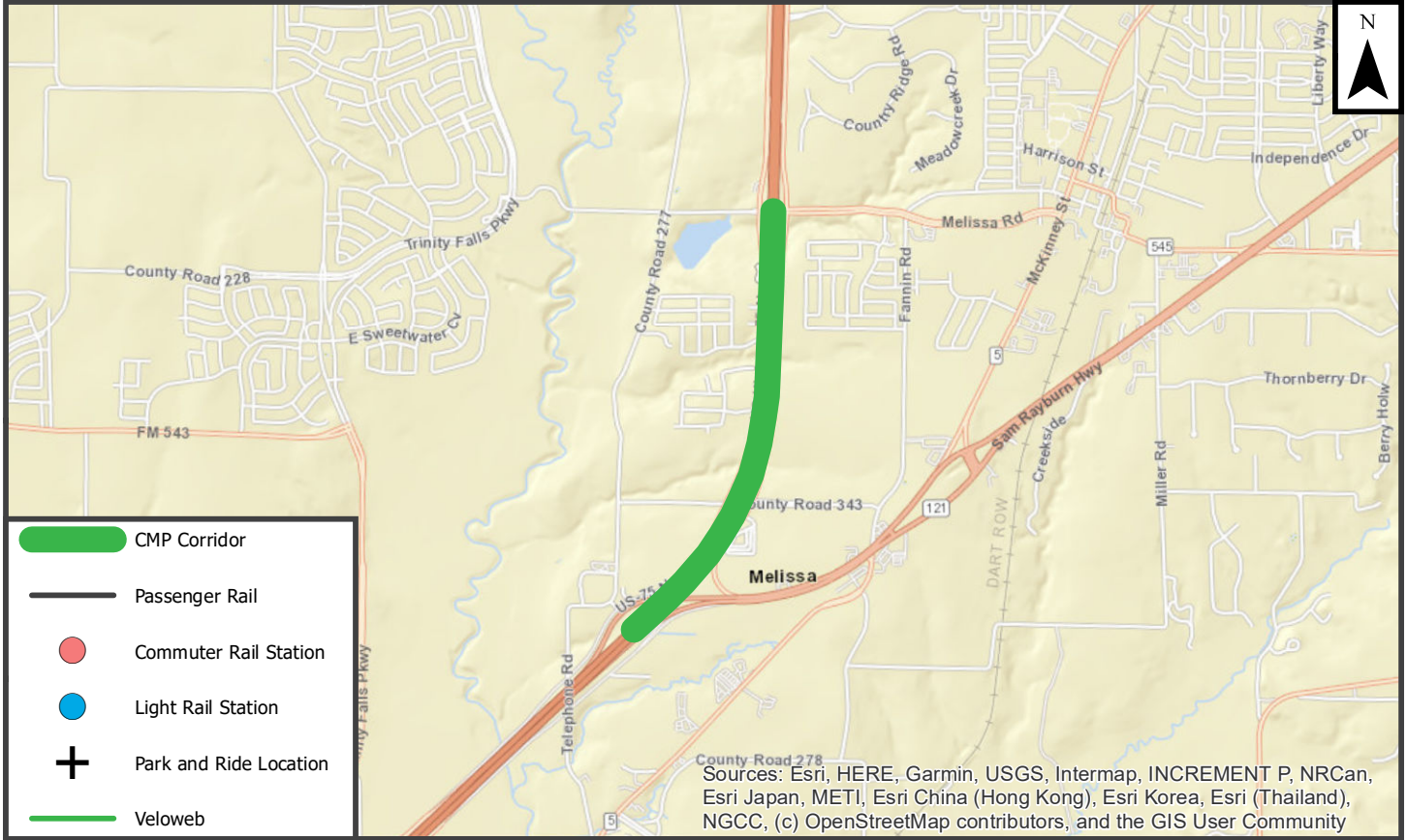
Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	86	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 23.2

## US 75 between FM 545 and SH 121



### Performance Statement

Continue to monitor

### Asset Statement

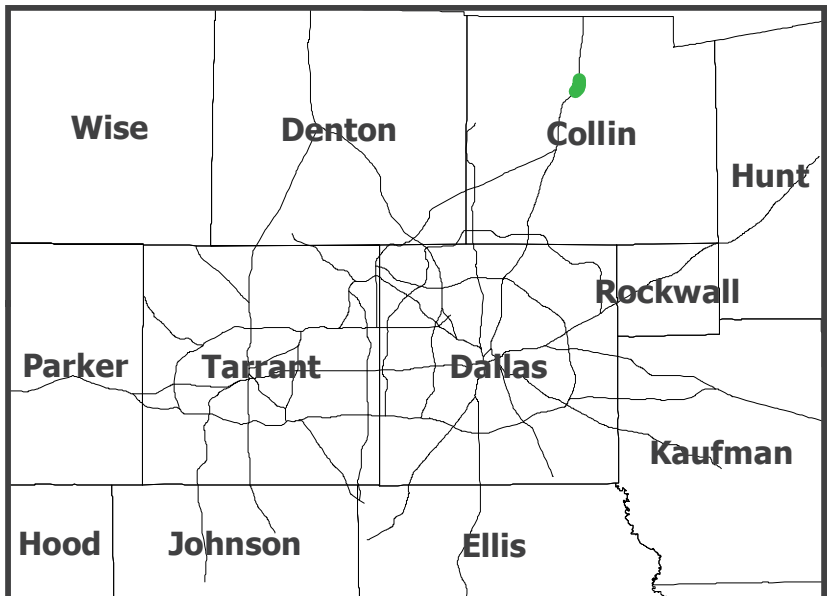
Need modal options and operations

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	23.1
Facility	US 75
From	Collin C/L
To	FM 545
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	76	Sufficient
Travel Time Index (Recurring Congestion)	1.00	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.03	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	57	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	0	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	56	
Truck Lane Restriction Percentage	0	Low
HOV/Managed Lane Percentage	0	

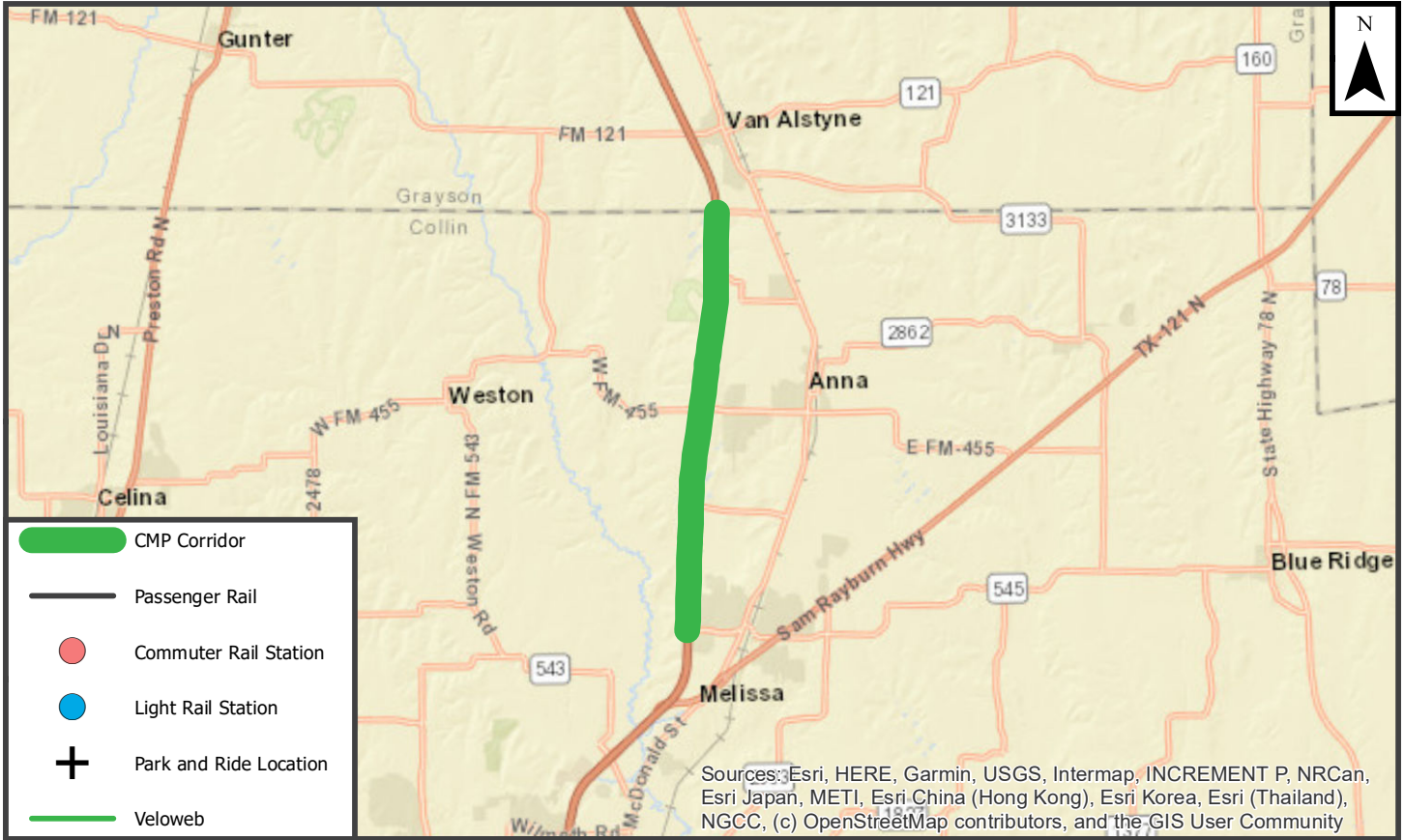
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 23.1

## US 75 between Collin C/L and FM 545



### Performance Statement

Continue to monitor

### Asset Statement

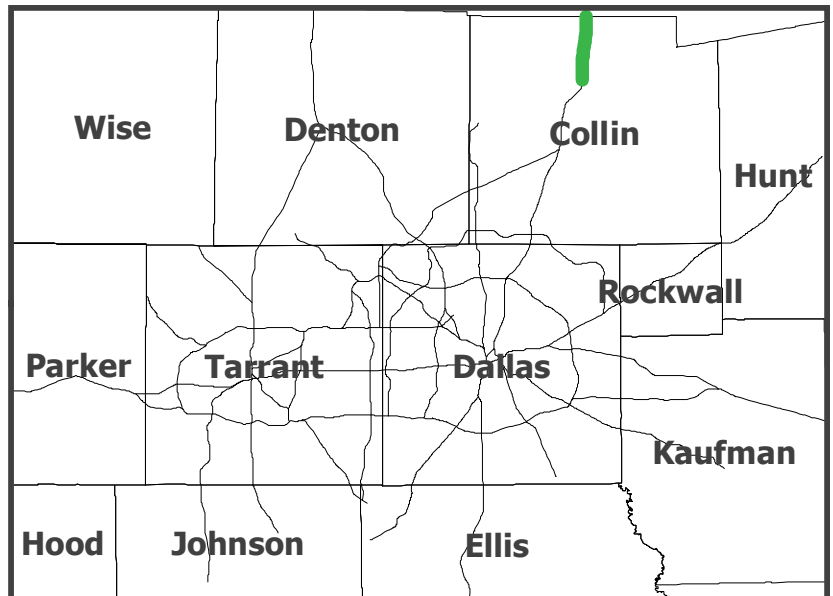
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	131.2
Facility	IH 635 (East)
From	IH 30
To	US 80
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	44	Sufficient
Travel Time Index (Recurring Congestion)	1.56	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.60	Needs Improvement
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	55	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	85	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	22	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Medium
Truck Lane Restriction Percentage	100	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 131.2

## IH 635 (East) between IH 30 and US 80



### Performance Statement

Demand reduction and operational

### Asset Statement

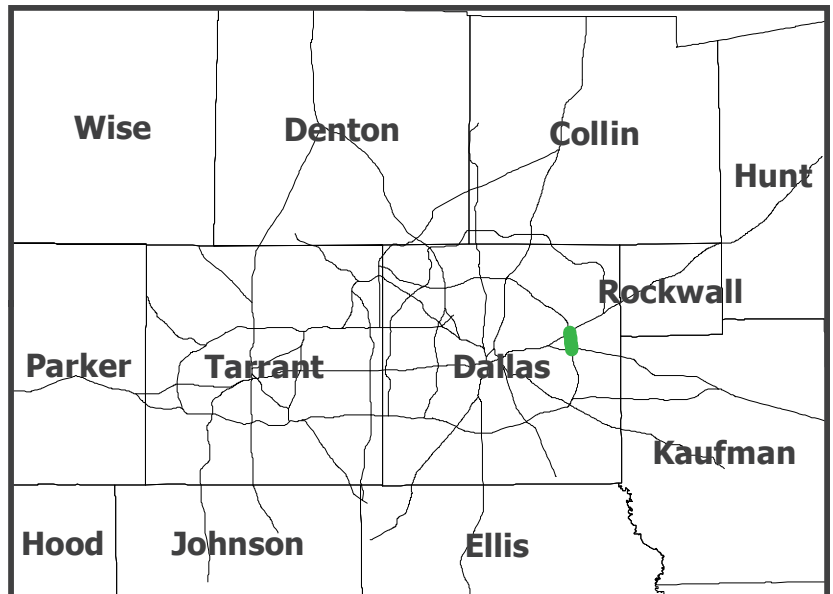
Operate and may need options

### Corridor Statement

Promote trip reduction strategies and optimize existing operations

### Corridor Output

CMP Strategy





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	32.1
Facility	US 80
From	IH 30
To	IH 635 (East)
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	39	Sufficient
Travel Time Index (Recurring Congestion)	1.07	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.16	Sufficient
Pavement in Poor Condition	8	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	100	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	0	Medium

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	84	
<i>Bus Trip Density*</i>	91	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

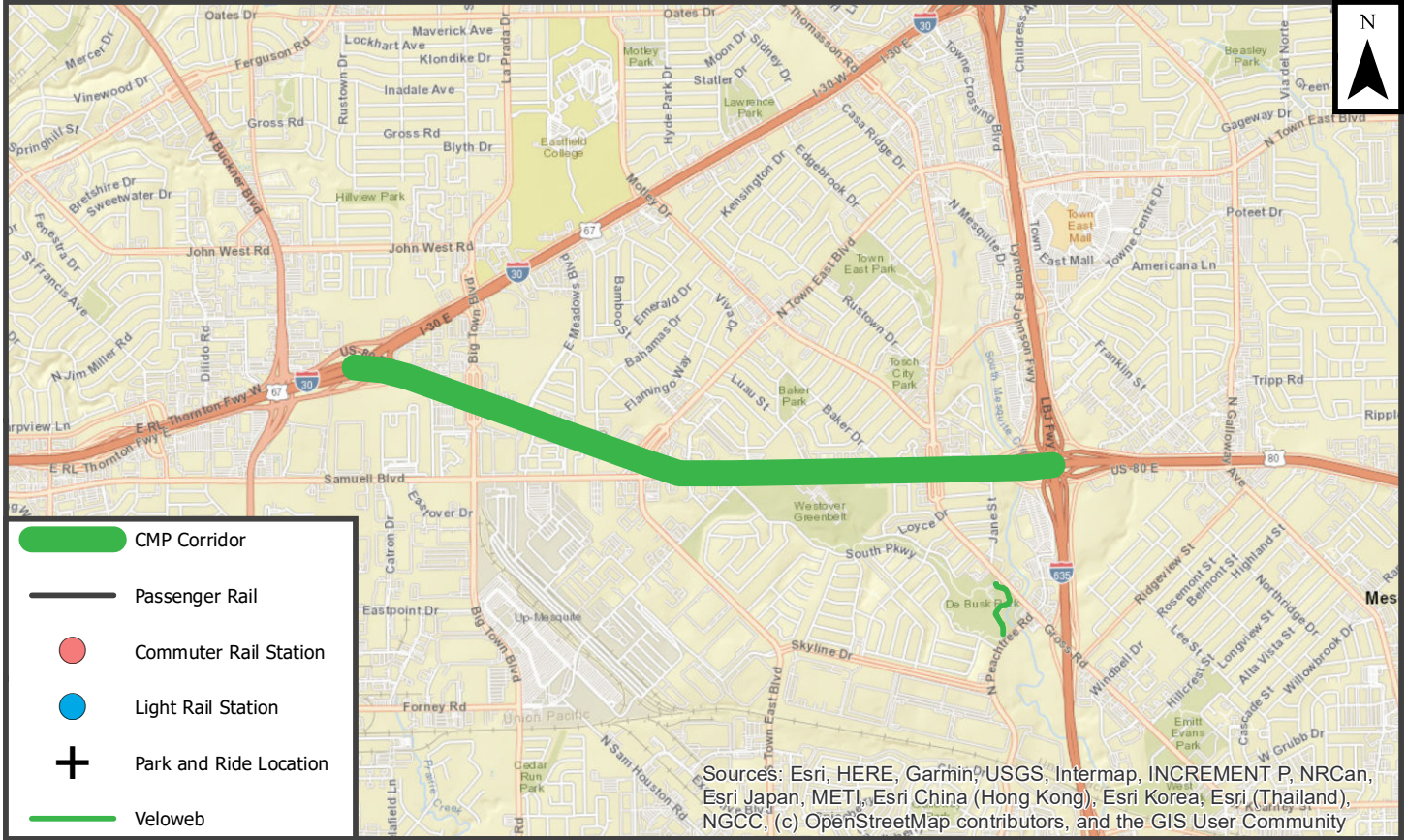
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 32.1

## US 80 between IH 30 and IH 635 (East)



### Performance Statement

Continue to monitor

### Asset Statement

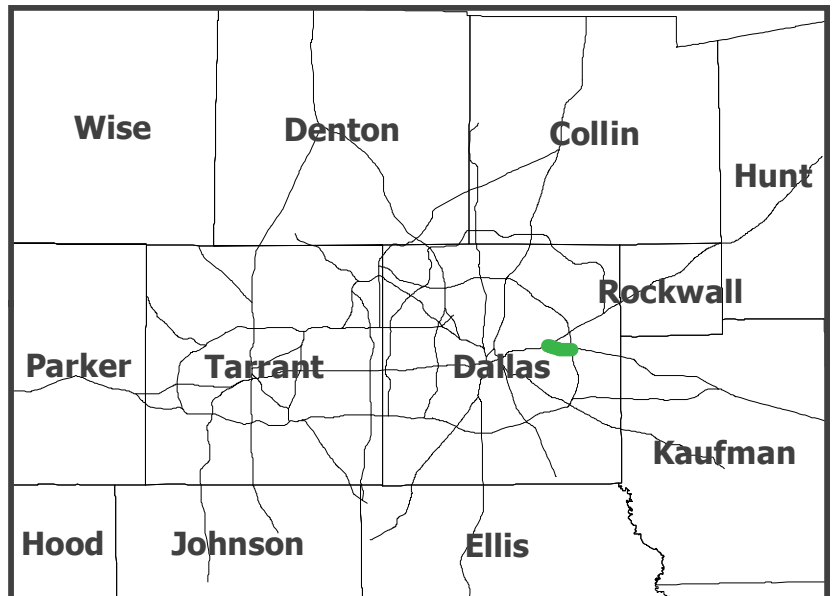
Need modal options and operations

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	32.2
Facility	US 80
From	IH 635 (East)
To	IH 20
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	50	Sufficient
Travel Time Index (Recurring Congestion)	1.14	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.19	Sufficient
Pavement in Poor Condition	4	Sufficient
Bridge Deck in Poor Condition	13	Needs Improvement

## Roadway Infrastructure

Available Arterial Capacity %	40	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	79	
Parallel Freeway Percentage	47	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	16	
<i>Bus Trip Density*</i>	2	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	94	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D

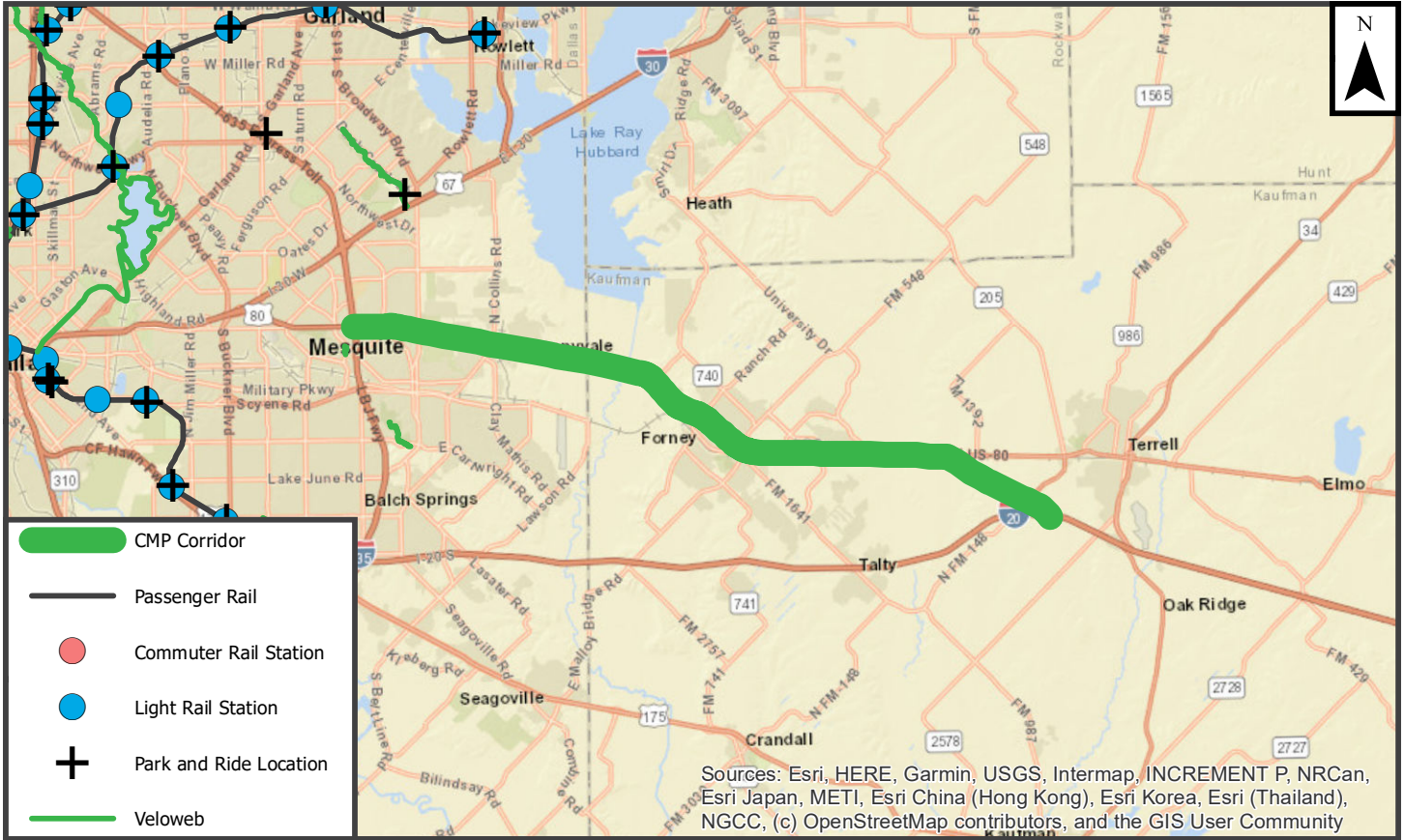




**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 32.2

US 80 between IH 635 (East) and IH 20



## Performance Statement

Rehab

## Asset Statement

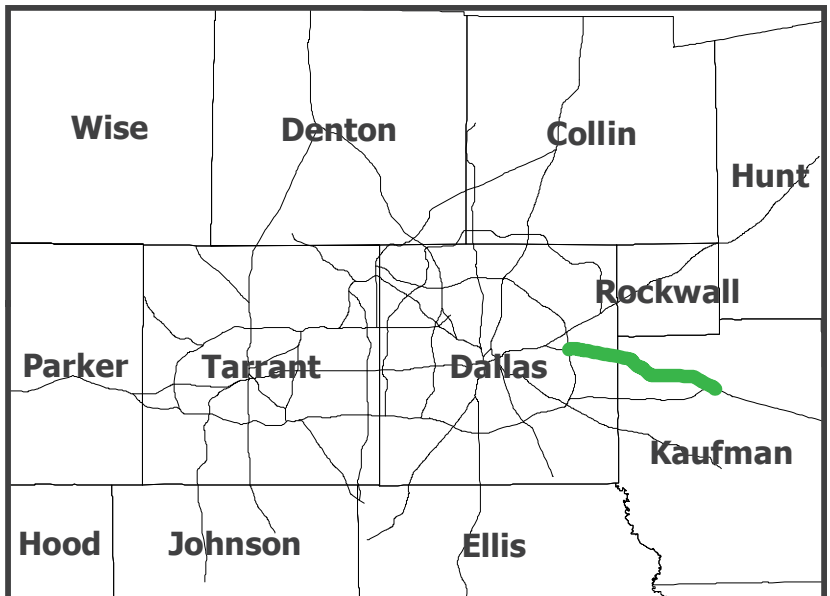
Needs help

## Corridor Statement

Rehab only

## Corridor Output

Rehab





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	131.3
Facility	IH 635 (East)
From	US 80
To	IH 20
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	58	Sufficient
Travel Time Index (Recurring Congestion)	1.14	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.36	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	74	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	11	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	59	
<i>Bus Trip Density*</i>	21	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	
Truck Lane Restriction Percentage	90	Medium
HOV/Managed Lane Percentage	0	

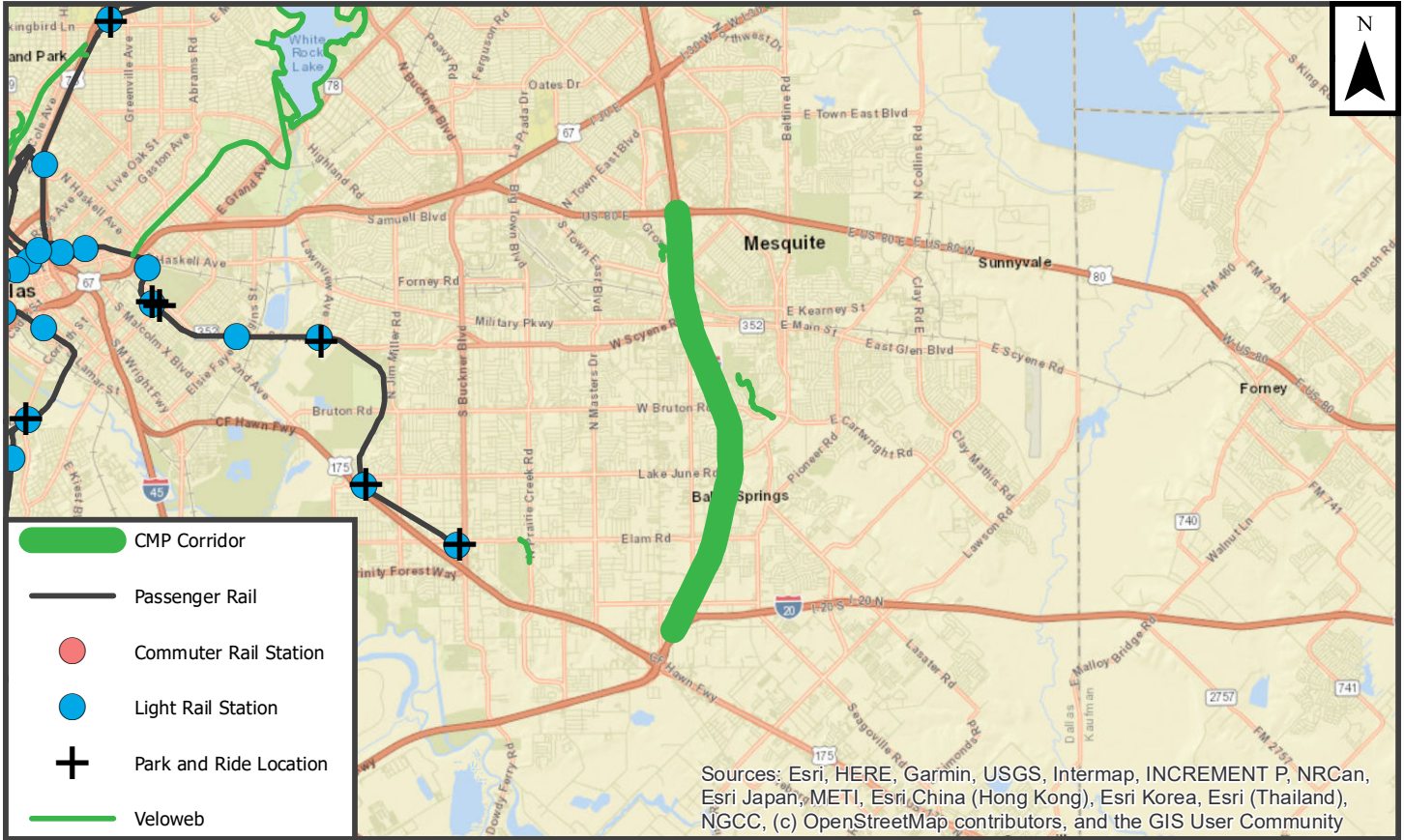
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 131.3

## IH 635 (East) between US 80 and IH 20



### Performance Statement

Continue to monitor

### Asset Statement

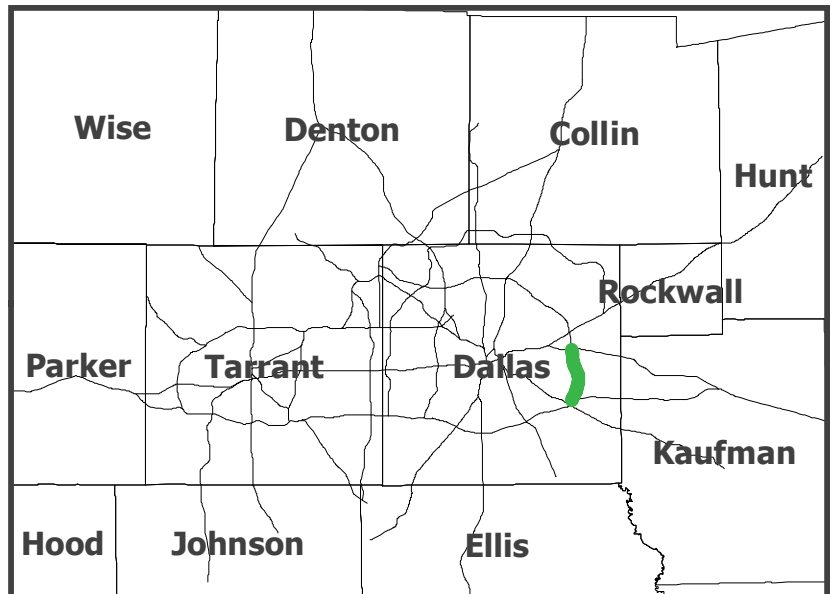
Operate and may need options

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	30.14
Facility	IH 20
From	US 175
To	IH 635 (East)
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	136	Needs Improvement
Travel Time Index (Recurring Congestion)	1.07	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.17	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	76	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	17	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	23	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	
Truck Lane Restriction Percentage	0	Low
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 30.14

## IH 20 between US 175 and IH 635 (East)



### Performance Statement

Operational

### Asset Statement

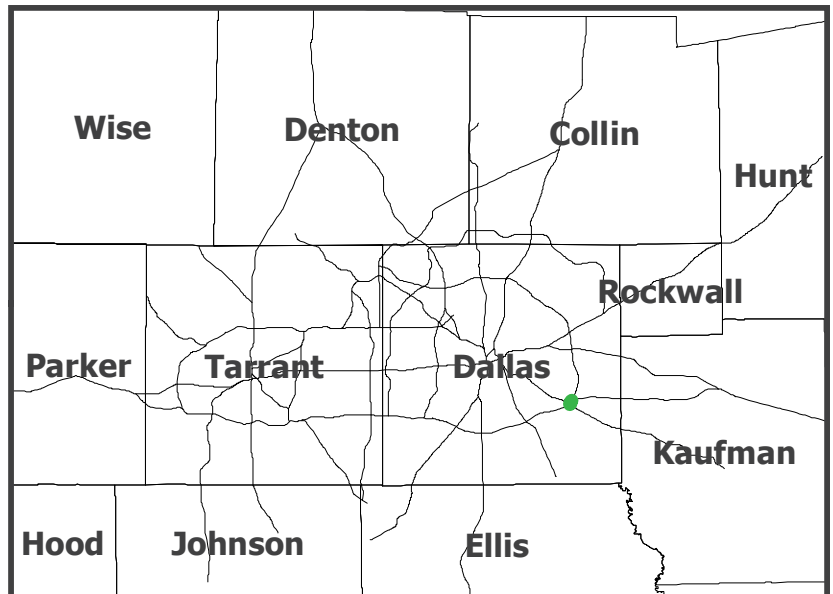
Needs help

### Corridor Statement

Implement operational strategies

### Corridor Output

CMP Strategy





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	30.15
Facility	IH 20
From	IH 635 (East)
To	US 80
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	36	Sufficient
Travel Time Index (Recurring Congestion)	1.00	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.06	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	30	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	17	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	18	
<i>Bus Trip Density*</i>	4	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	73	
Truck Lane Restriction Percentage	31	Low
HOV/Managed Lane Percentage	0	

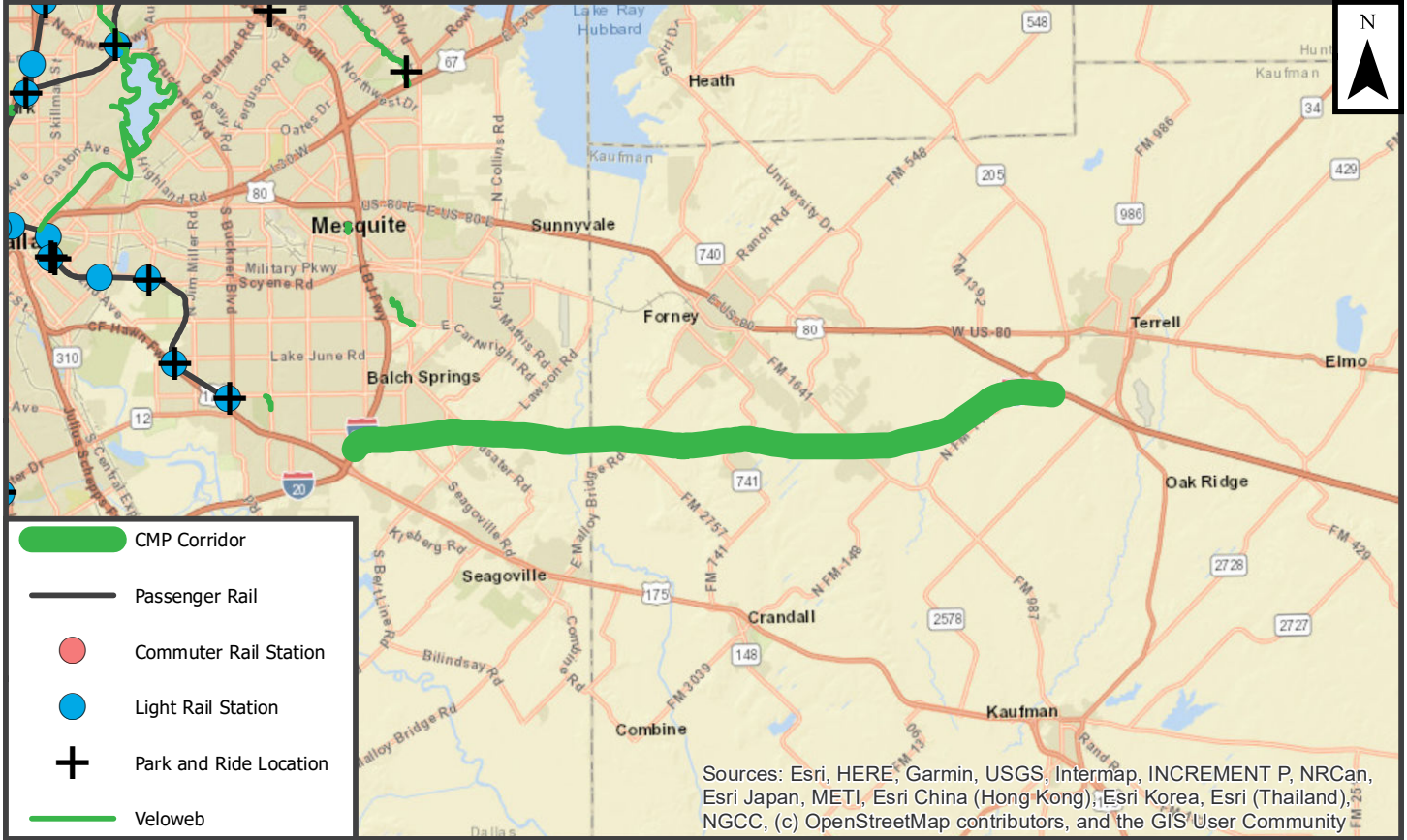
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 30.15

## IH 20 between IH 635 (East) and US 80



### Performance Statement

Continue to monitor

### Asset Statement

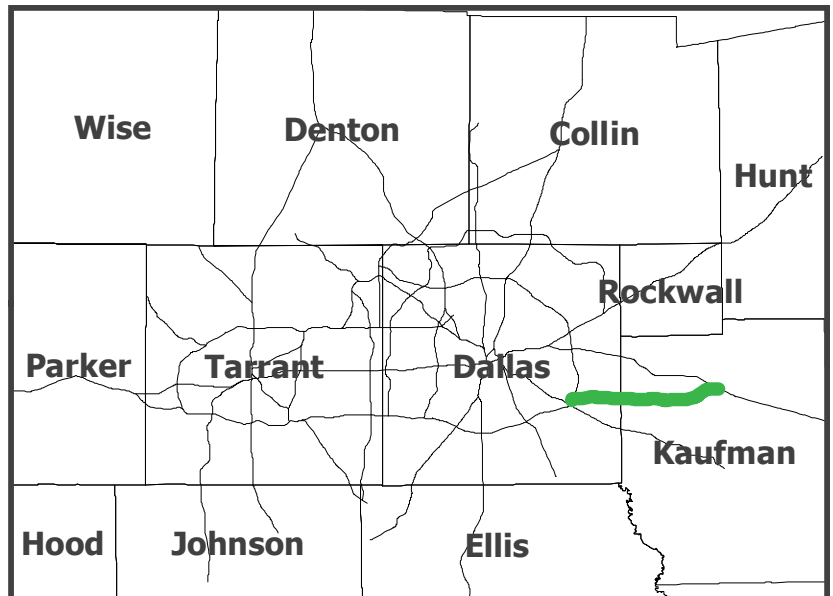
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	30.13
Facility	IH 20
From	IH 45
To	US 175
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	52	Sufficient
Travel Time Index (Recurring Congestion)	1.02	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.14	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	14	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	9	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	14	
<i>Bus Trip Density*</i>	16	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Low
Truck Lane Restriction Percentage	78	
HOV/Managed Lane Percentage	0	

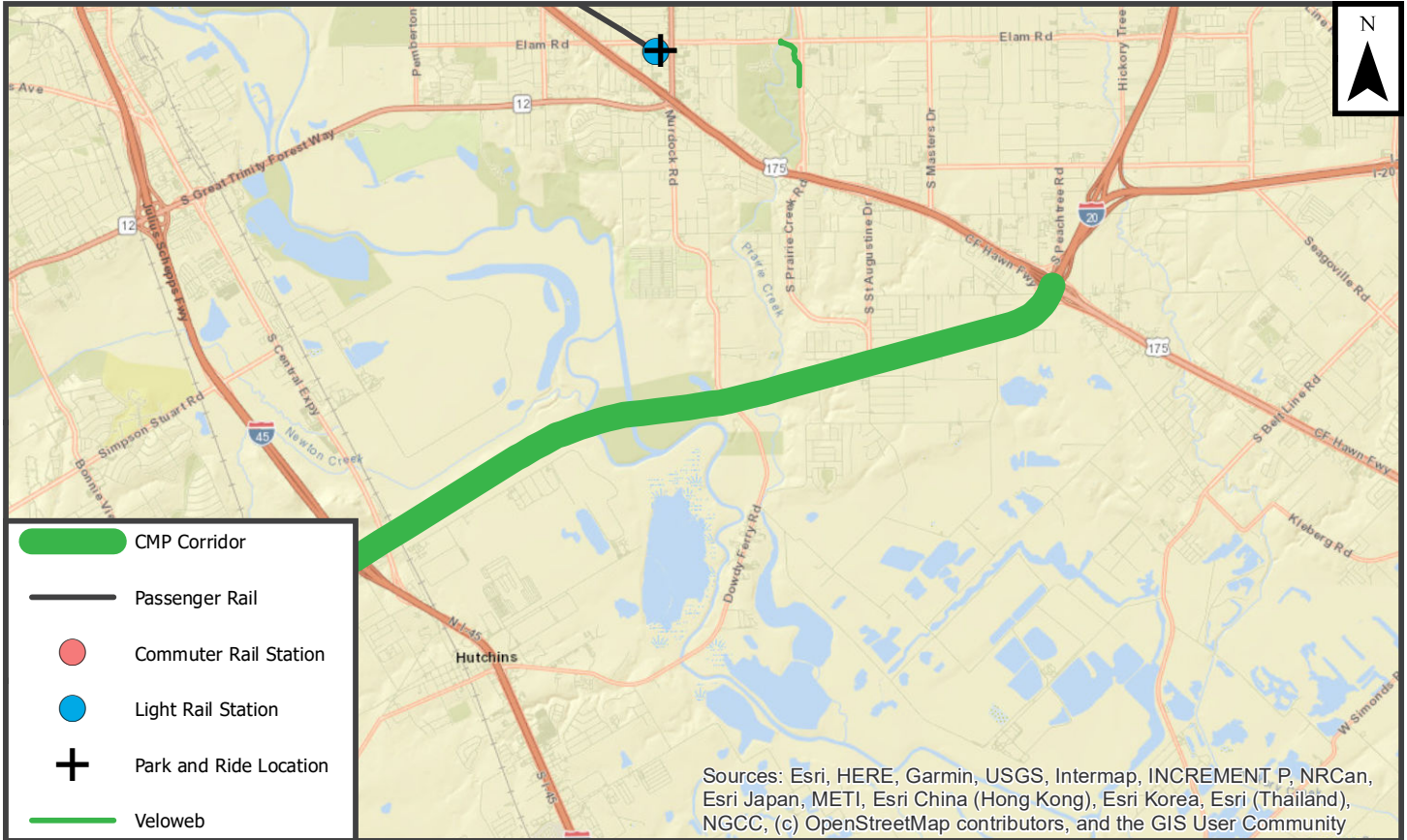
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 30.13

## IH 20 between IH 45 and US 175



### Performance Statement

Continue to monitor

### Asset Statement

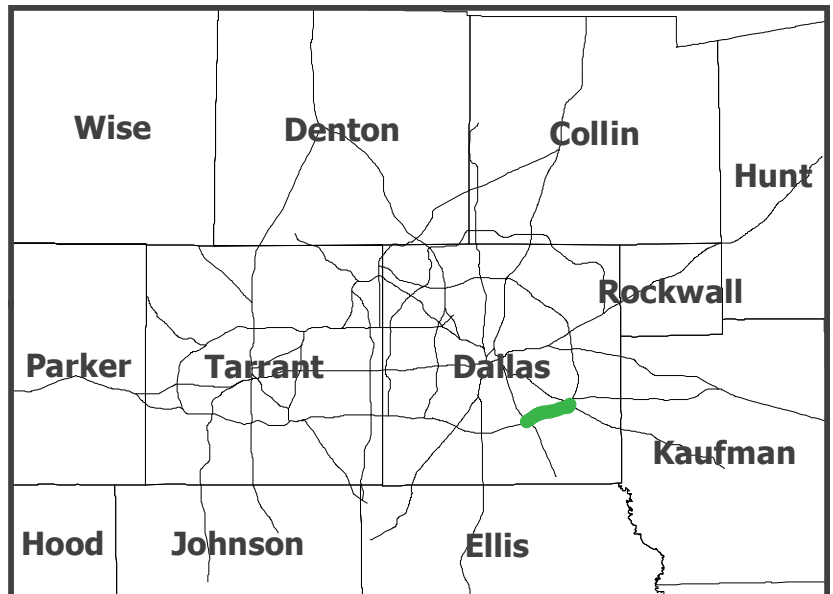
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	30.11
Facility	IH 20
From	US 67
To	IH 35E
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	105	Needs Improvement
Travel Time Index (Recurring Congestion)	1.19	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.21	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	90	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	91	
Parallel Freeway Percentage	0	Medium

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	96	
<i>Bus Trip Density*</i>	105	
Combined Bus Availability	High	<small>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</small>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Medium
Truck Lane Restriction Percentage	100	
HOV/Managed Lane Percentage	0	

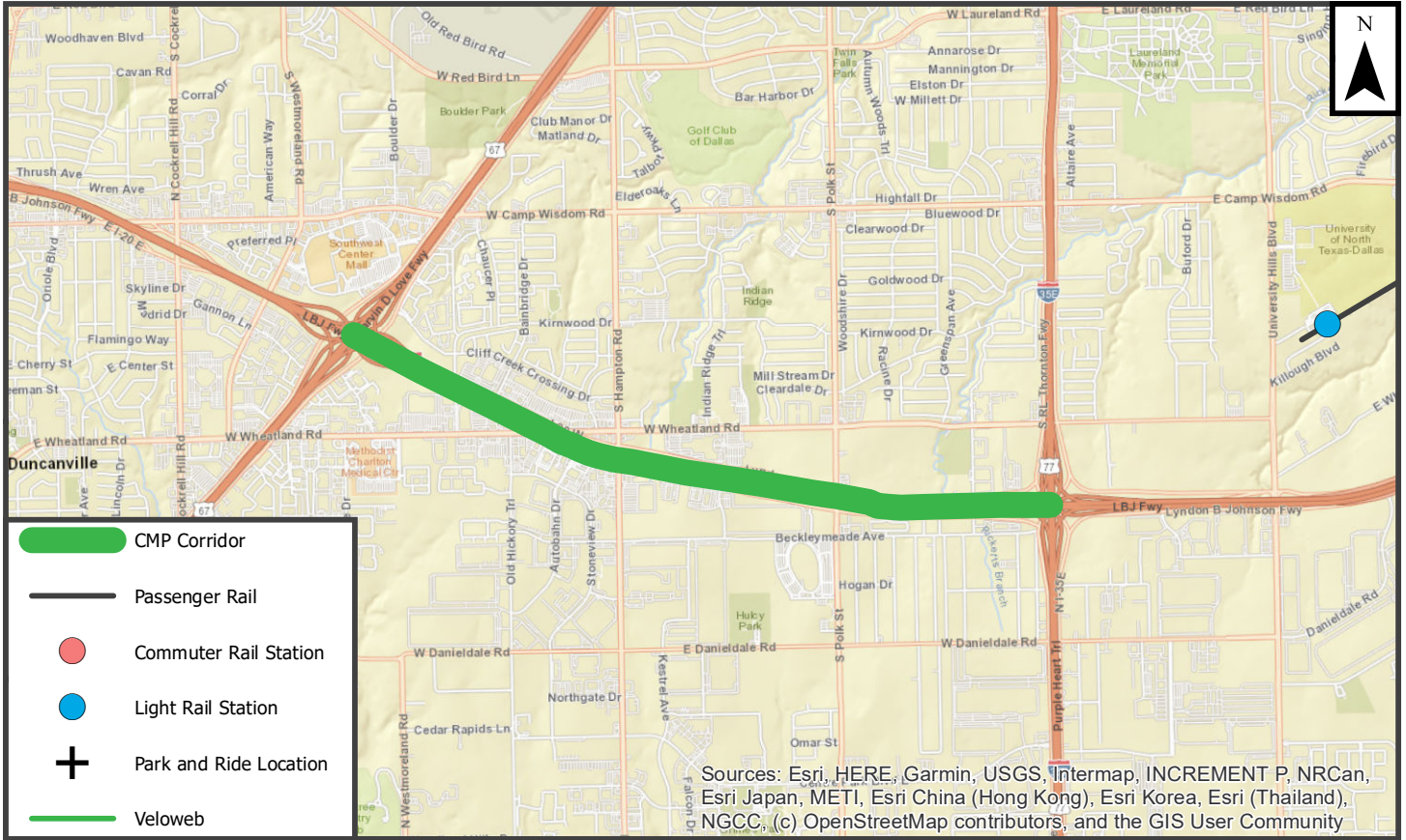
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 30.11

## IH 20 between US 67 and IH 35E



### Performance Statement

Operational

### Asset Statement

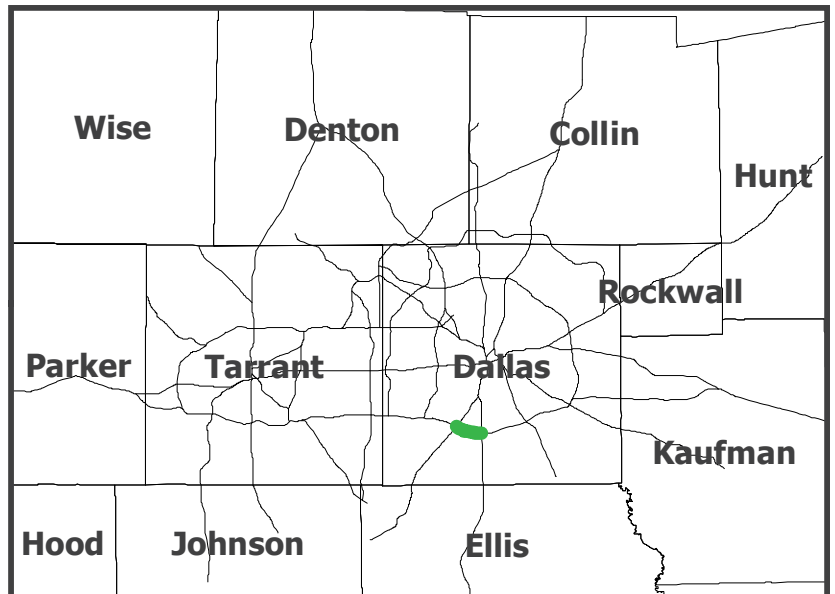
Promote alternate routes and operate, may need modal options

### Corridor Statement

Optimize existing operations

### Corridor Output

CMP Strategy



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	30.9
Facility	IH 20
From	PGBT
To	SS 408
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	47	Sufficient
Travel Time Index (Recurring Congestion)	1.28	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.43	Needs Improvement
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	26	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	13	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	5	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Medium
Truck Lane Restriction Percentage	87	
HOV/Managed Lane Percentage	0	

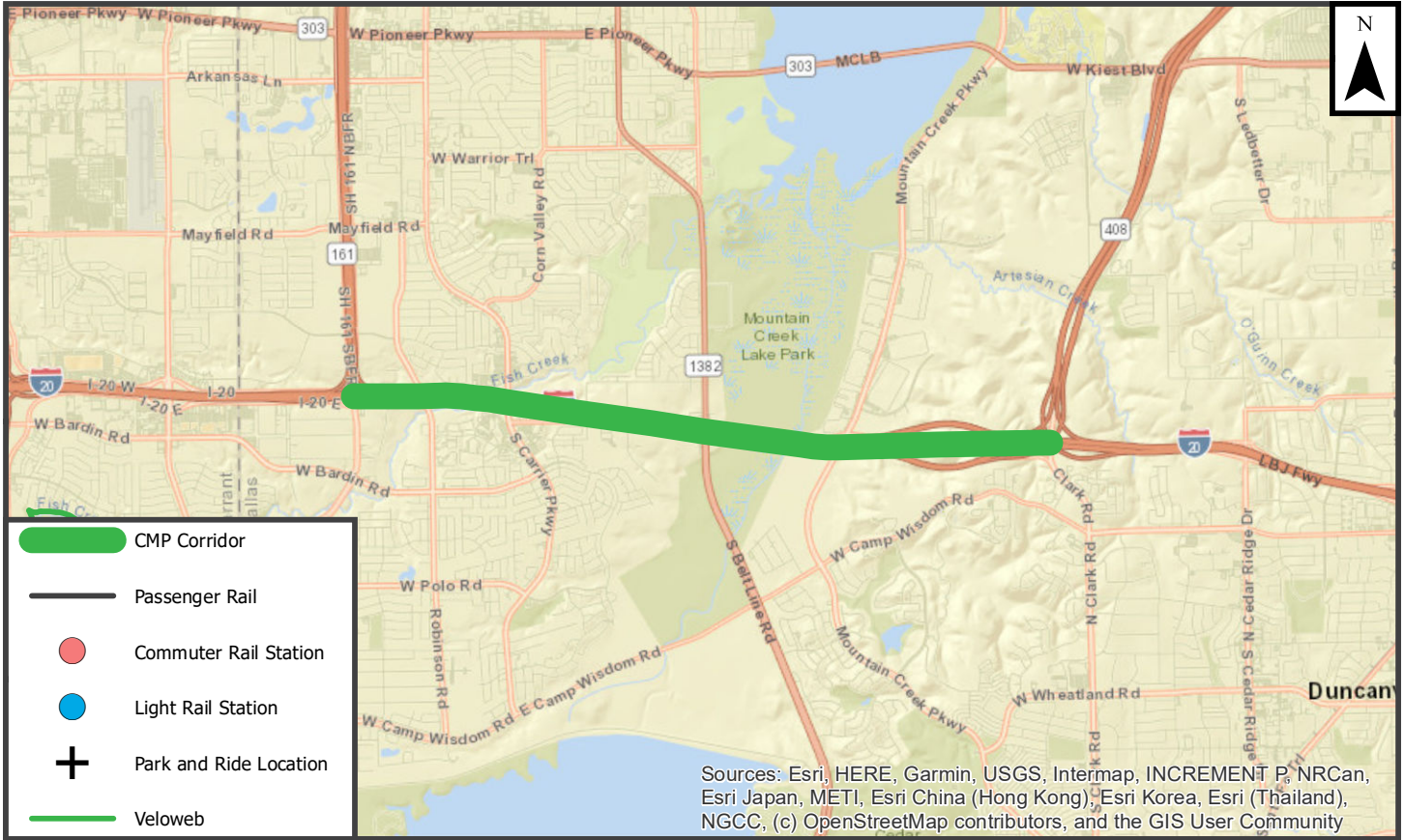
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 30.9

## IH 20 between PGBT and SS 408



### Performance Statement

Demand reduction and operational

### Asset Statement

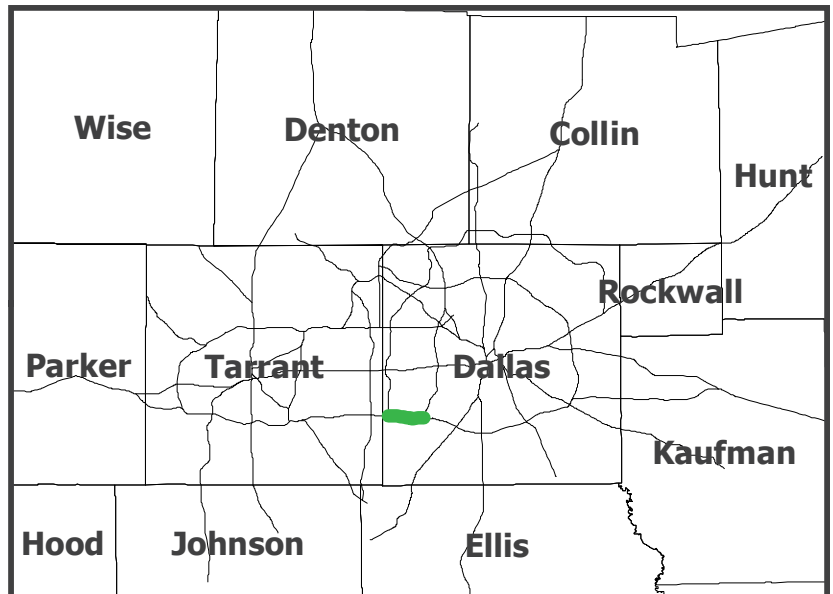
Operate and may need options

### Corridor Statement

Promote trip reduction strategies and optimize existing operations

### Corridor Output

Partial Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	30.8
Facility	IH 20
From	SH 360
To	PGBT
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	80	Sufficient
Travel Time Index (Recurring Congestion)	1.88	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.43	Needs Improvement
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	73	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	95	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	4	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	92	
Truck Lane Restriction Percentage	100	Medium
HOV/Managed Lane Percentage	0	

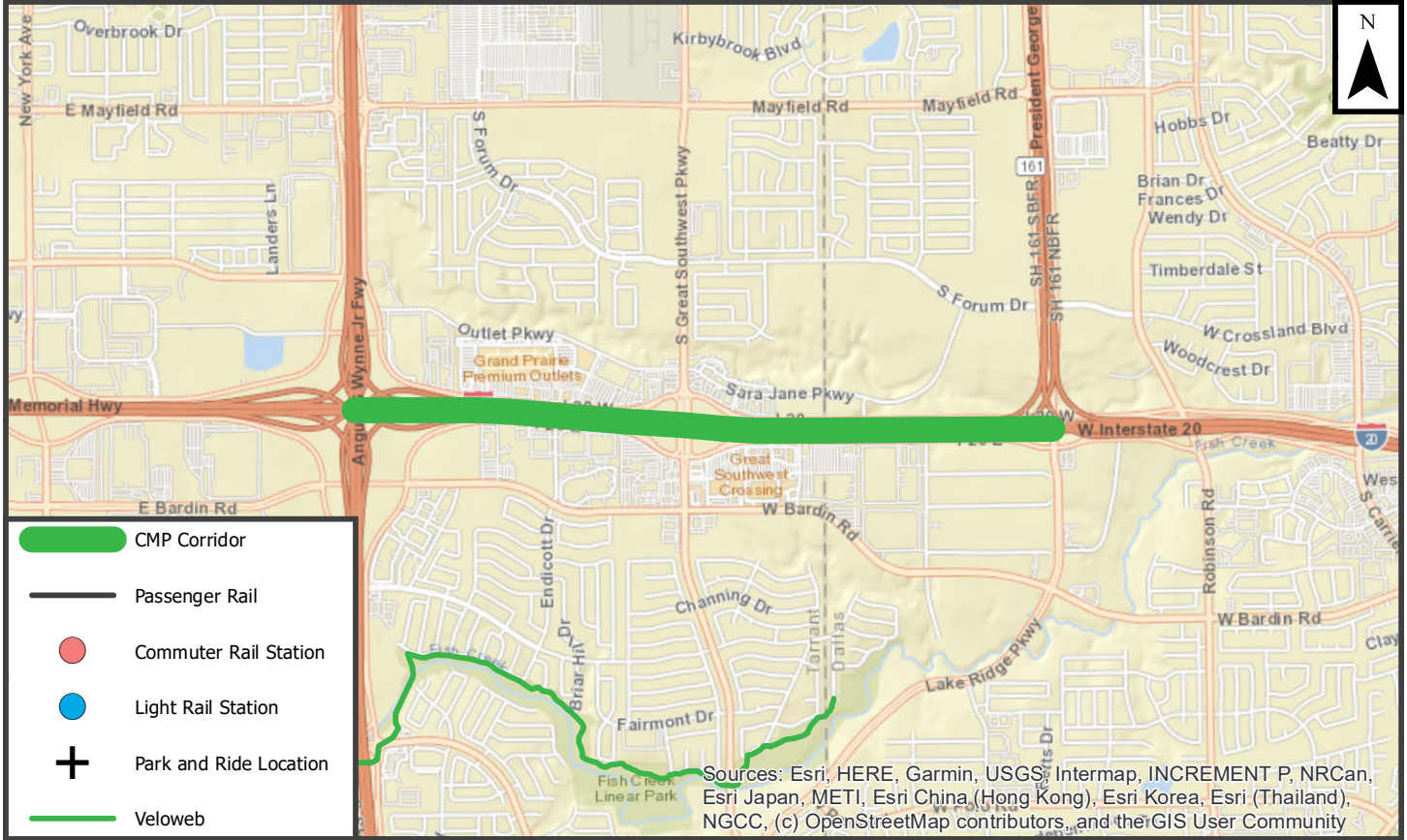
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 30.8

## IH 20 between SH 360 and PGBT



### Performance Statement

Demand reduction and operational

### Asset Statement

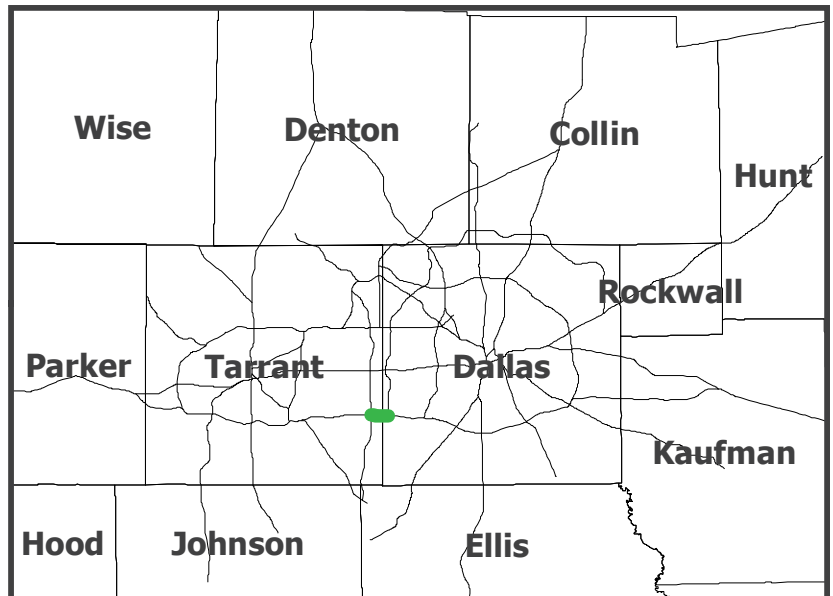
Operate and may need options

### Corridor Statement

Promote trip reduction strategies and optimize existing operations

### Corridor Output

CMP Strategy



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	30.6
Facility	IH 20
From	IH 820 (East)
To	US 287
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	55	Sufficient
Travel Time Index (Recurring Congestion)	1.46	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.26	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	20	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	94	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	99	
<i>Bus Trip Density*</i>	18	
Combined Bus Availability	Medium	<small>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</small>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Medium
Truck Lane Restriction Percentage	100	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D





# Congestion Management Process Corridor 30.6

## IH 20 between IH 820 (East) and US 287



### Performance Statement

Continue to monitor

### Asset Statement

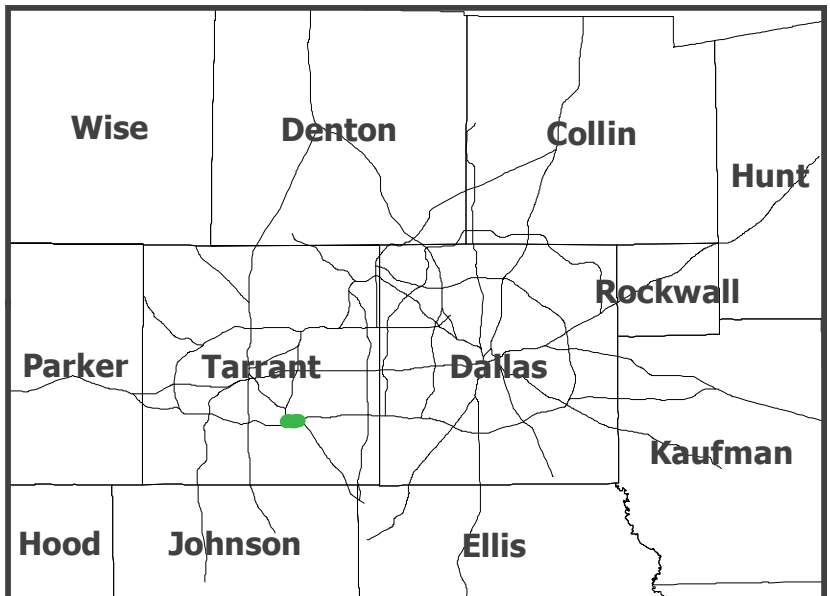
Operate and may need options

### Corridor Statement

Continue to monitor

### Corridor Output

Partial Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	1.6
Facility	US 287
From	IH 20
To	SH 360
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	35	Sufficient
Travel Time Index (Recurring Congestion)	1.04	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.13	Sufficient
Pavement in Poor Condition	3	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	44	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	73	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	2	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	64	Low
Truck Lane Restriction Percentage	2	
HOV/Managed Lane Percentage	0	

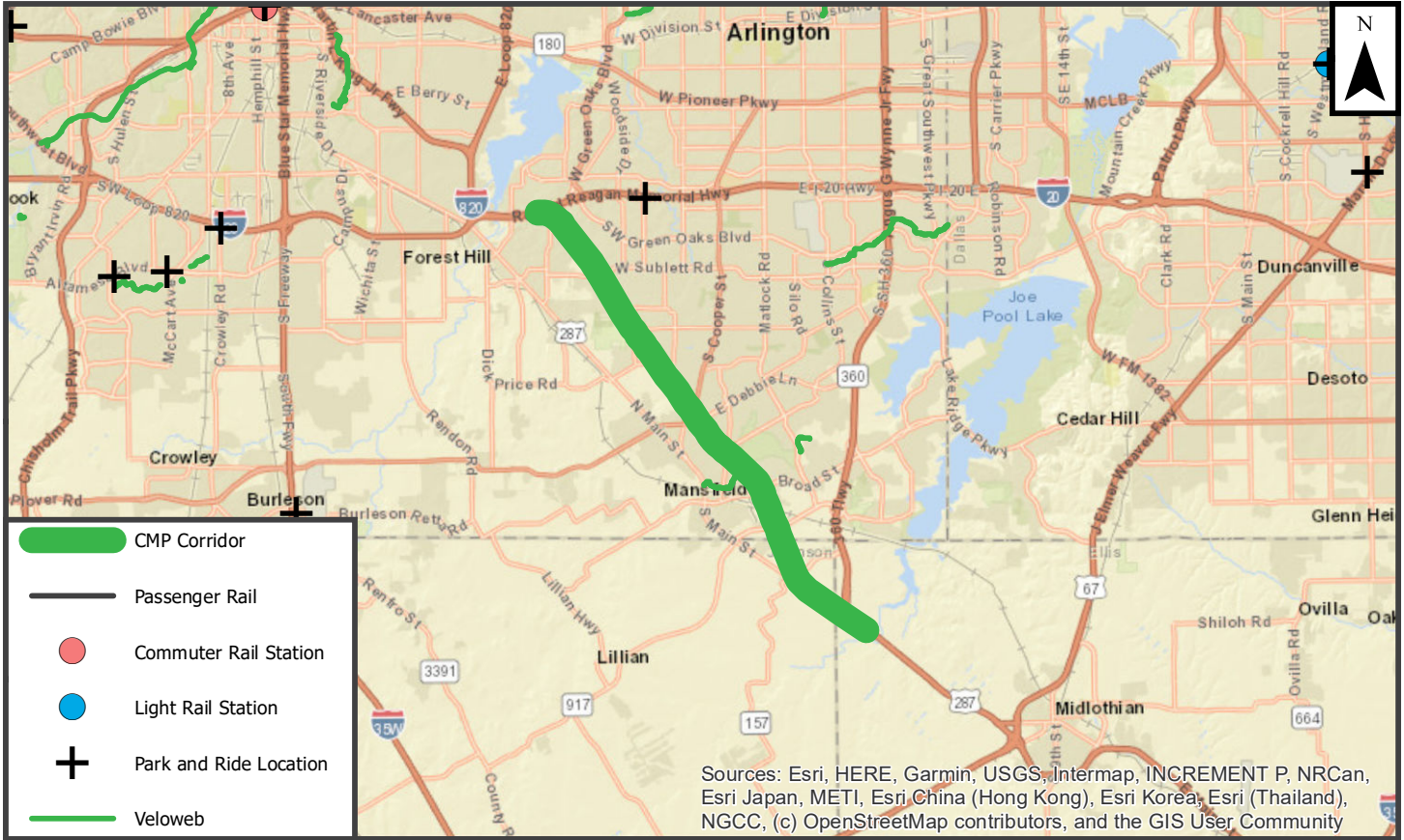
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 1.6

## US 287 between IH 20 and SH 360



### Performance Statement

Continue to monitor

### Asset Statement

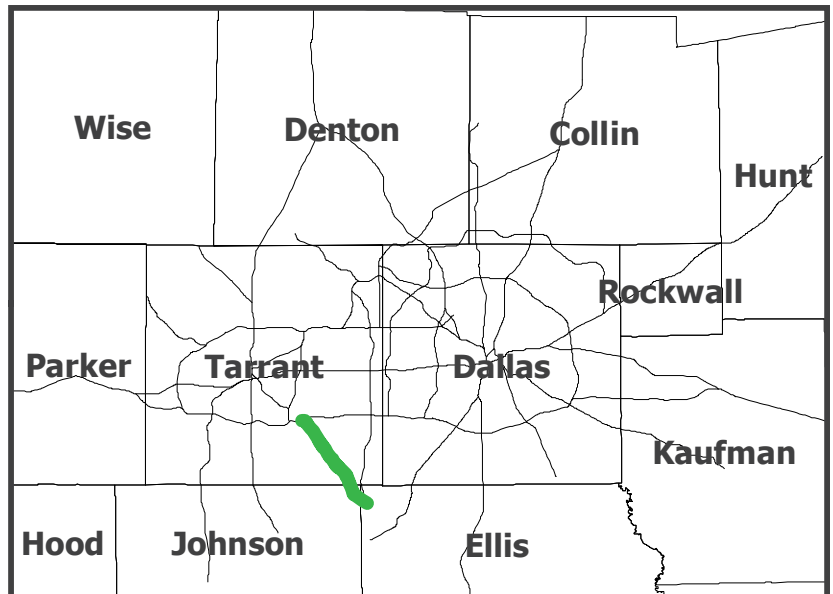
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	9.4
Facility	SH 360
From	IH 20
To	US 287
Construction Status	Recent Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	108	Needs Improvement
Travel Time Index (Recurring Congestion)	1.28	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.32	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	70	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	94	
Parallel Freeway Percentage	2	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	23	
<i>Bus Trip Density*</i>	2	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

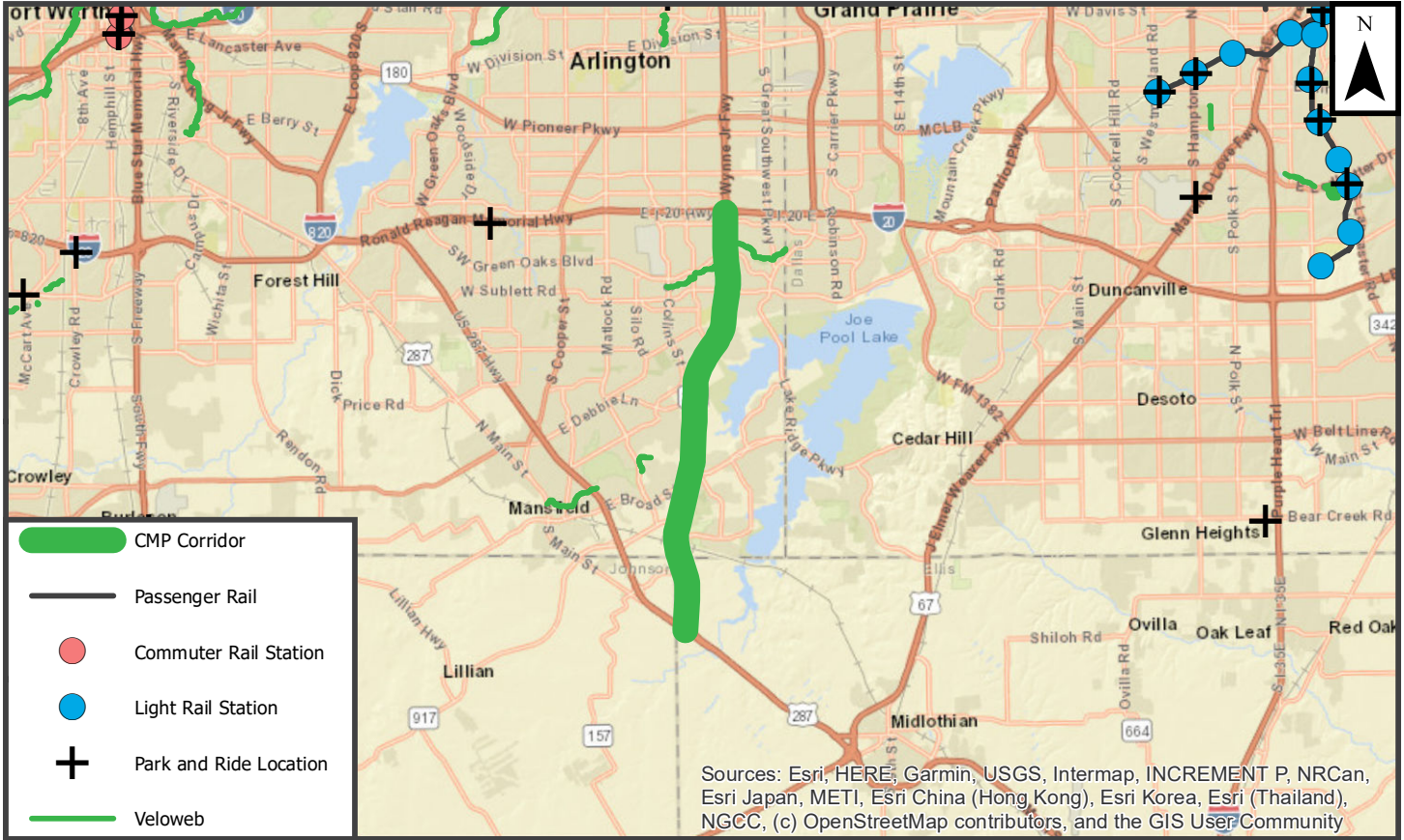
Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	99	Medium
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 9.4

SH 360 between IH 20 and US 287



## Performance Statement

Operational

## Asset Statement

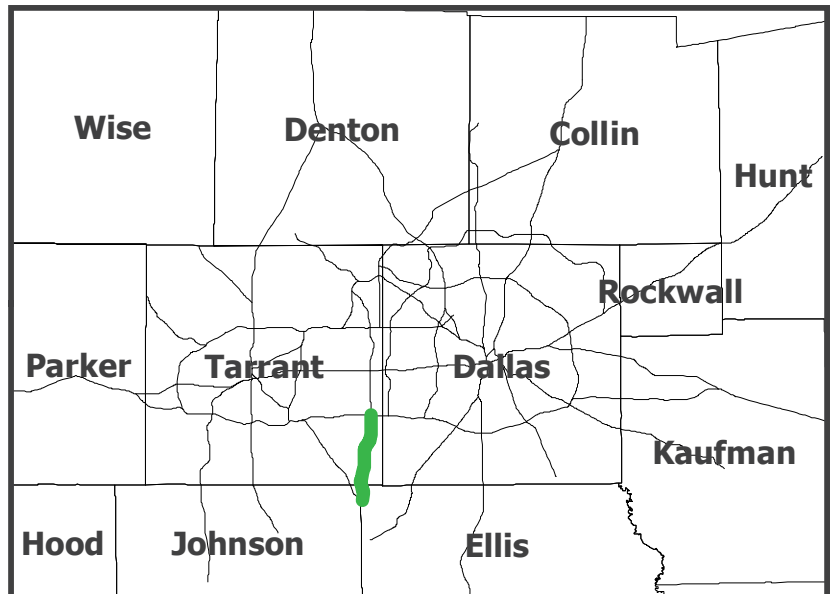
Operate and may need options

## Corridor Statement

Implement operational strategies

## Corridor Output

Recent Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	9.3
Facility	SH 360
From	IH 30
To	IH 20
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	91	Sufficient
Travel Time Index (Recurring Congestion)	1.44	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.24	Sufficient
Pavement in Poor Condition	27	Needs Improvement
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	57	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	99	
Parallel Freeway Percentage	107	High

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	3	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Medium
Truck Lane Restriction Percentage	100	
HOV/Managed Lane Percentage	0	

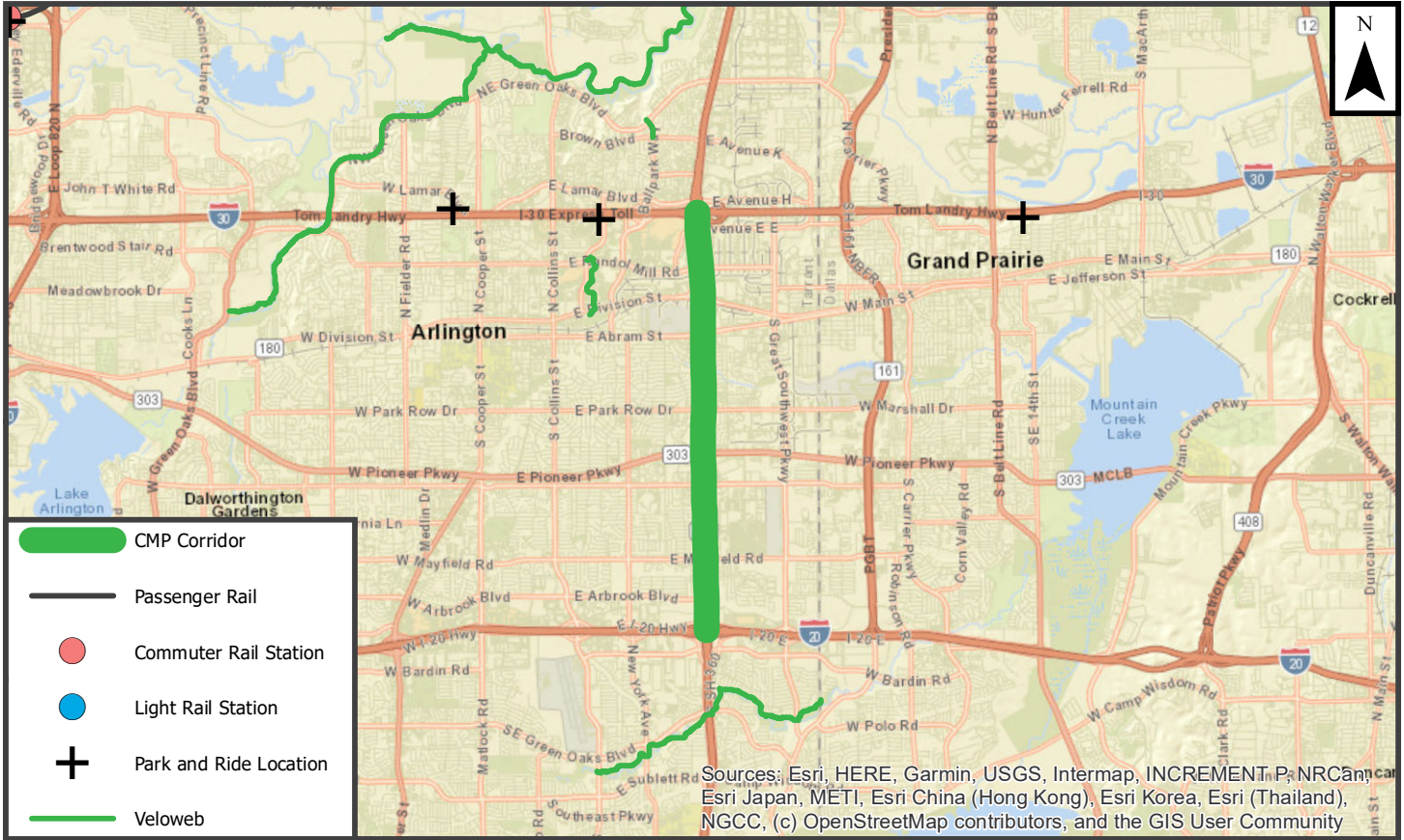
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 9.3

SH 360 between IH 30 and IH 20



## Performance Statement

Rehab

## Asset Statement

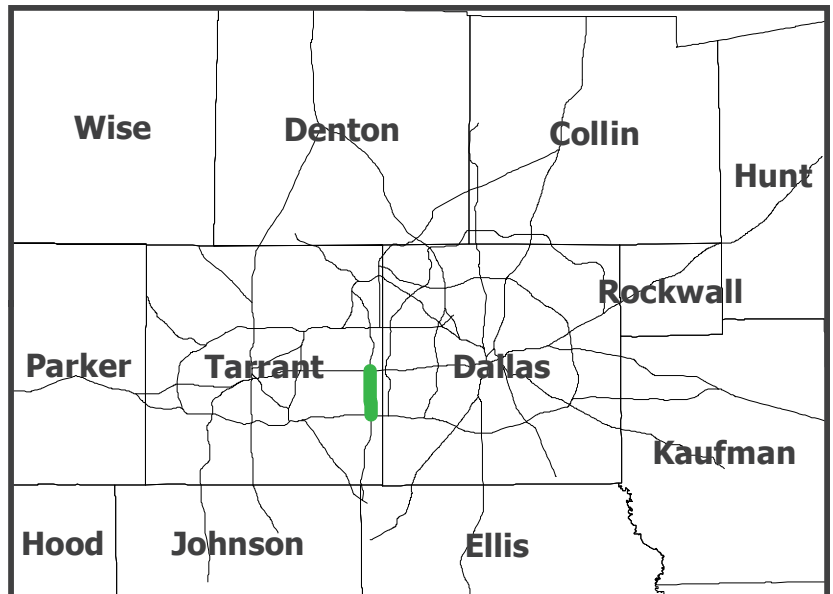
Promote alternate routes and operate

## Corridor Statement

Rehab only

## Corridor Output

Full Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	15.3
Facility	PGBT (West)
From	IH 30
To	IH 20
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	106	Needs Improvement
Travel Time Index (Recurring Congestion)	1.29	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.28	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	100	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	100	High

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	0	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Medium
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D

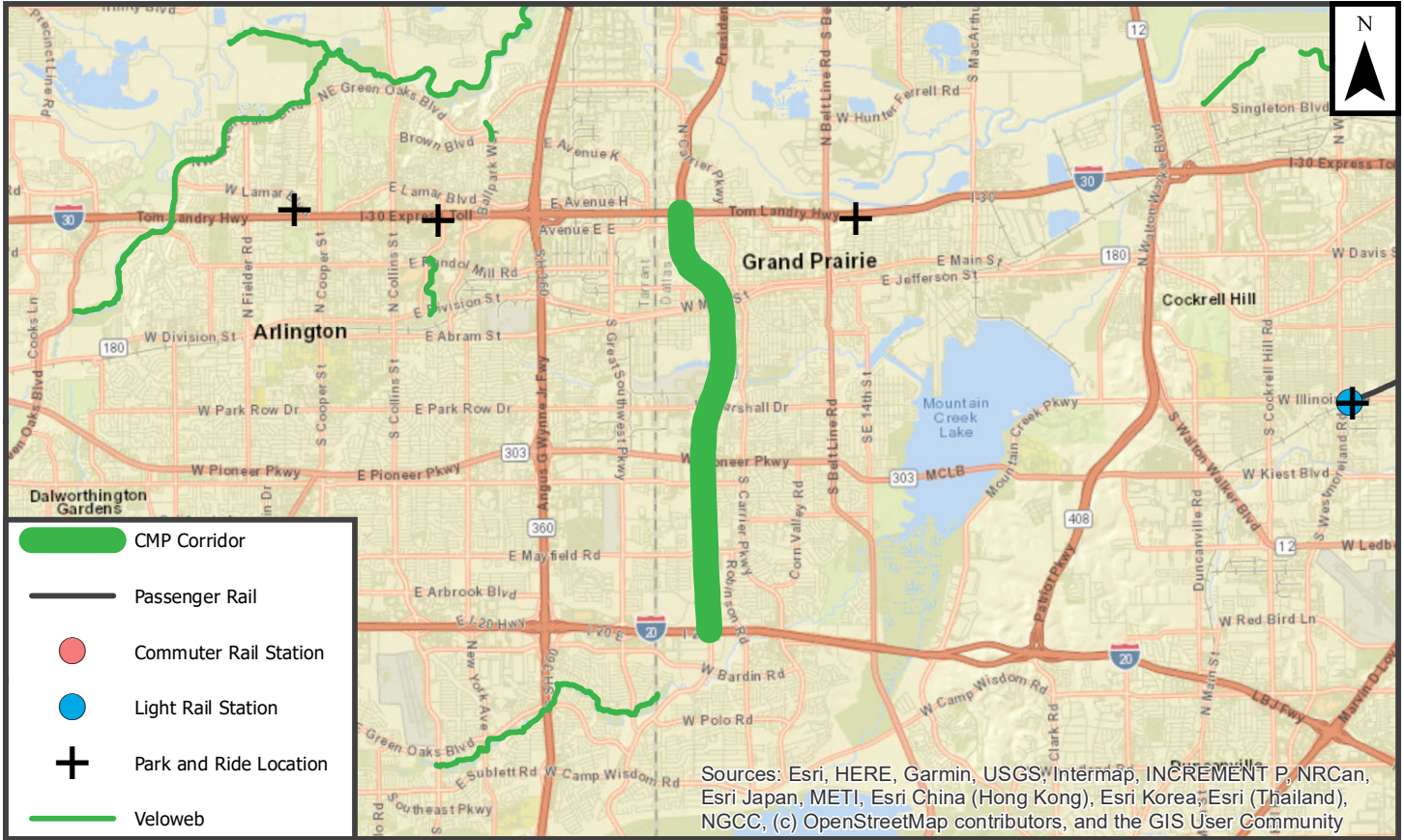




**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 15.3

## PGBT (West) between IH 30 and IH 20



### Performance Statement

Operational

### Asset Statement

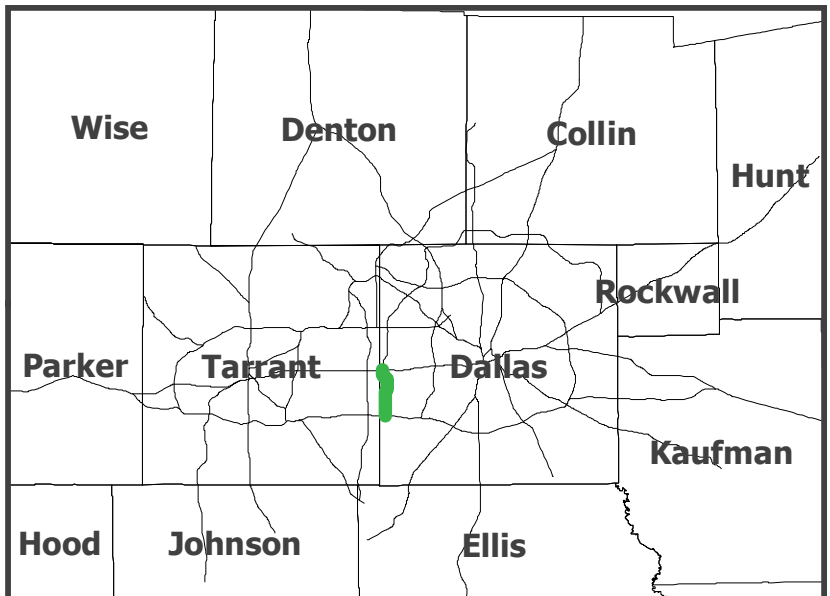
Promote alternate routes and operate

### Corridor Statement

Promote options and operate

### Corridor Output

Full Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	17.3
Facility	SL 12/SS 408
From	IH 30
To	IH 20
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	30	Sufficient
Travel Time Index (Recurring Congestion)	1.26	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.24	Sufficient
Pavement in Poor Condition	15	Needs Improvement
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	32	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	41	
Parallel Freeway Percentage	34	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	87	
<i>Bus Trip Density*</i>	52	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

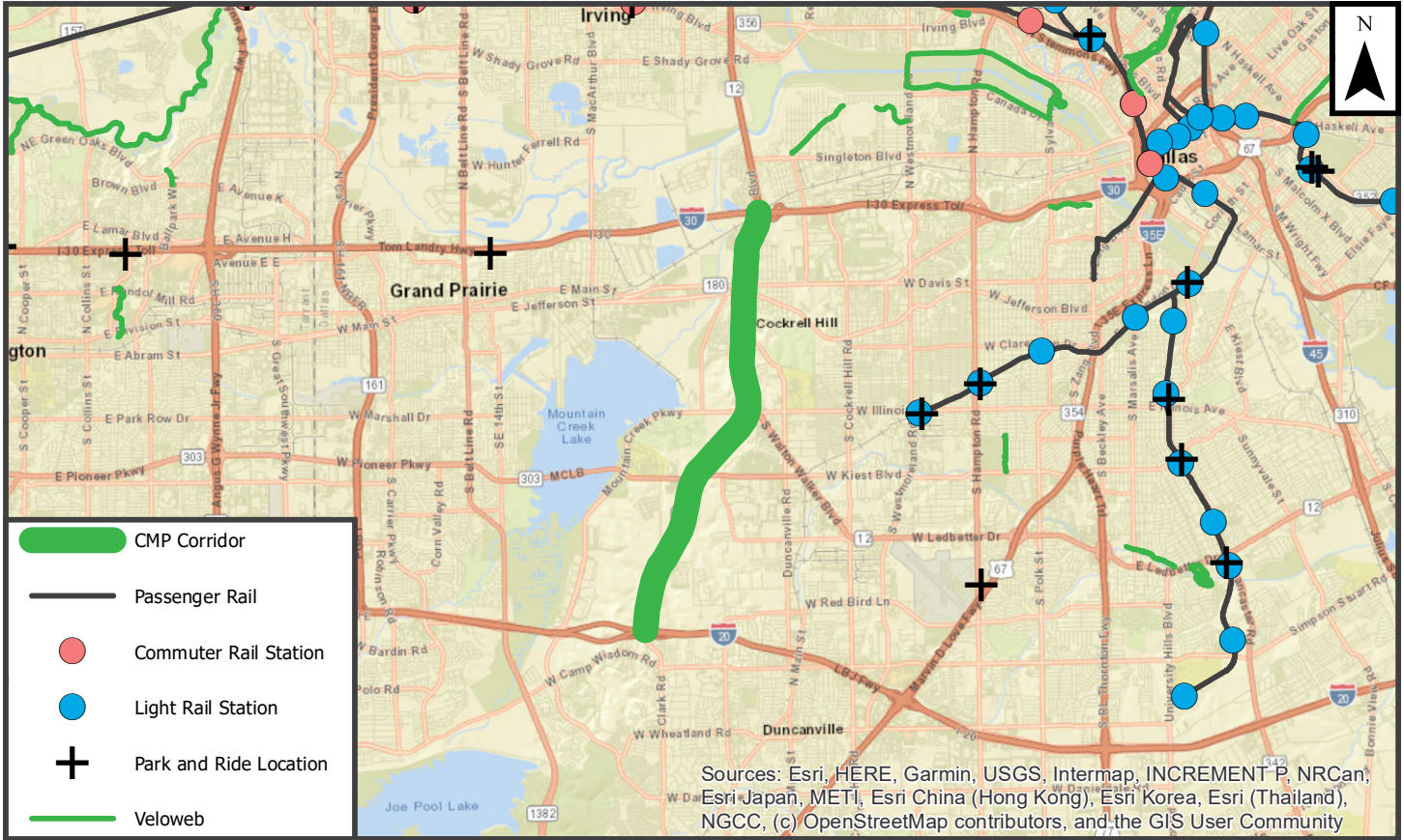
Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Low
Truck Lane Restriction Percentage	24	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 17.3

SL 12/SS 408 between IH 30 and IH 20



## Performance Statement

Rehab

## Asset Statement

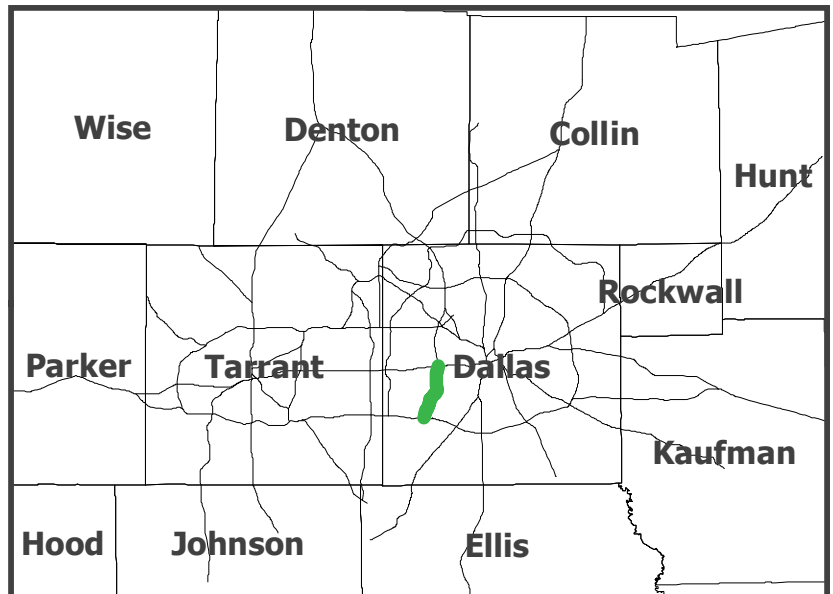
Needs help

## Corridor Statement

Rehab only

## Corridor Output

Rehab



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	38.1
Facility	US 67
From	IH 35E
To	IH 20
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	98	Sufficient
Travel Time Index (Recurring Congestion)	1.28	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.42	Needs Improvement
Pavement in Poor Condition	20	Needs Improvement
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	13	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	96	
Parallel Freeway Percentage	61	Medium

## Modal Options

Park and Rides within 1 mile of corridor	4	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	215	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Medium
Truck Lane Restriction Percentage	3	
HOV/Managed Lane Percentage	0	

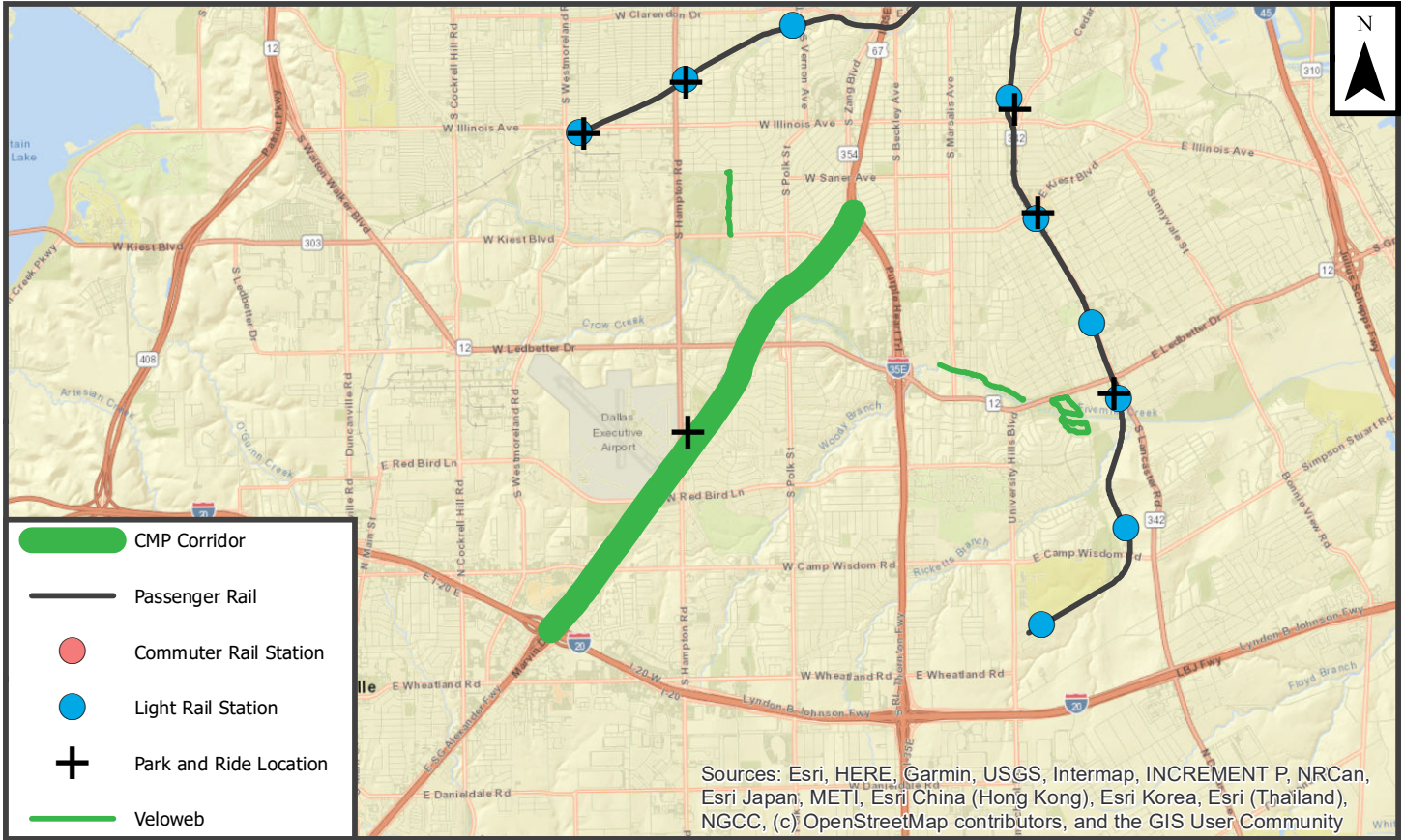
More detail on corridor evaluation and scoring criteria available in Appendix D





# Congestion Management Process Corridor 38.1

US 67 between IH 35E and IH 20



## Performance Statement

Rehab, demand reduction and operational

## Asset Statement

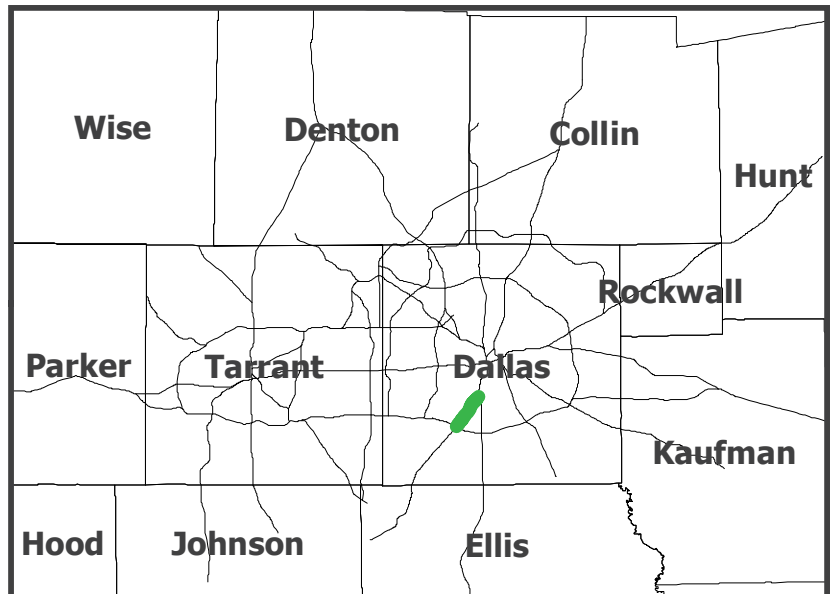
Promote options and operate

## Corridor Statement

Promote options and operate

## Corridor Output

Full Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	7.9
Facility	IH 35E
From	US 67
To	IH 20
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	91	Sufficient
Travel Time Index (Recurring Congestion)	1.29	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.23	Sufficient
Pavement in Poor Condition	2	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	100	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	86	
Parallel Freeway Percentage	99	High

## Modal Options

Park and Rides within 1 mile of corridor	5	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	78	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	202	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Medium
Truck Lane Restriction Percentage	100	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 7.9

## IH 35E between US 67 and IH 20



### Performance Statement

Continue to monitor

### Asset Statement

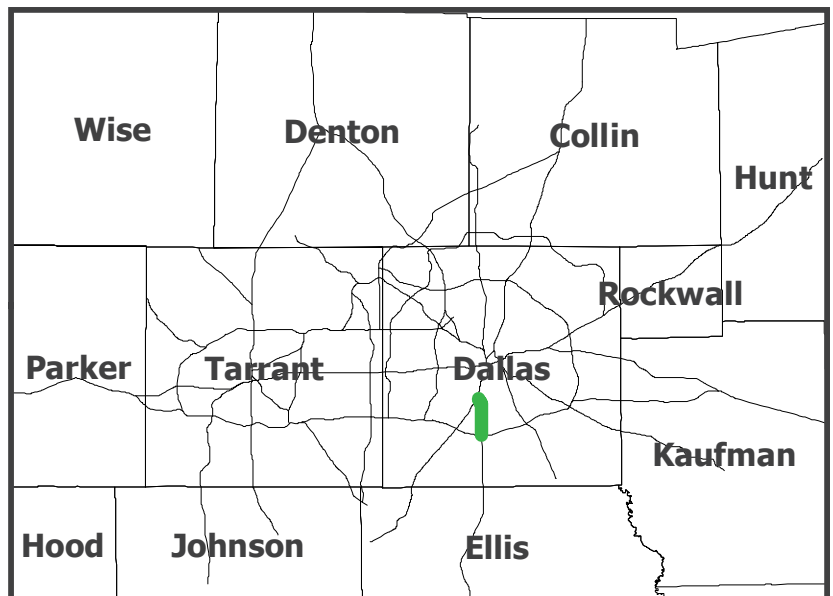
Promote options and operate

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	28.4
Facility	IH 30
From	IH 820 (East)
To	SH 360
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	64	Sufficient
Travel Time Index (Recurring Congestion)	1.37	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.44	Needs Improvement
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	100	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	35	
Parallel Freeway Percentage	11	Low

## Modal Options

Park and Rides within 1 mile of corridor	2	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	38	
<i>Bus Trip Density*</i>	25	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

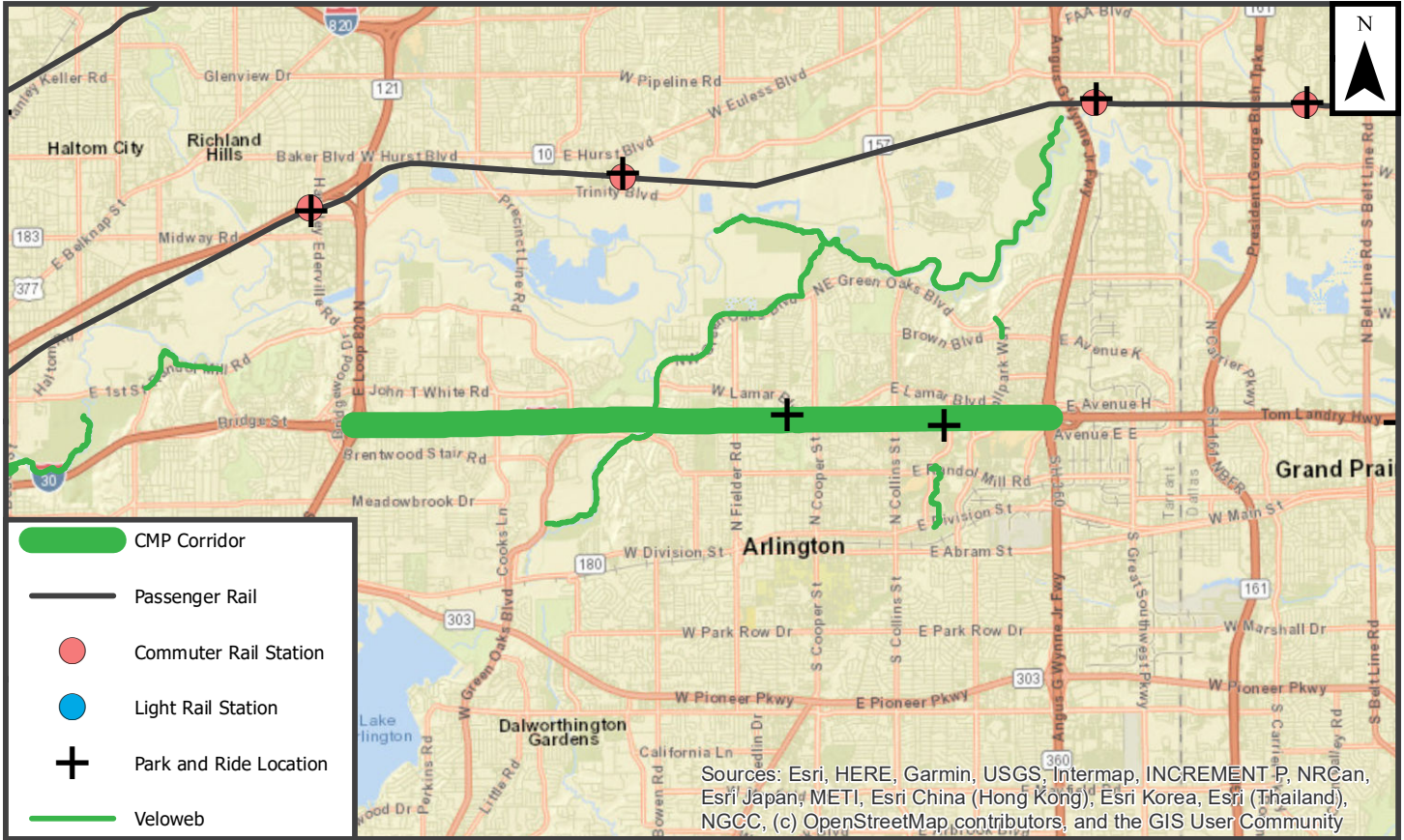
Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	94	
Truck Lane Restriction Percentage	80	Low
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 28.4

IH 30 between IH 820 (East) and SH 360



## Performance Statement

Demand reduction and operational

## Asset Statement

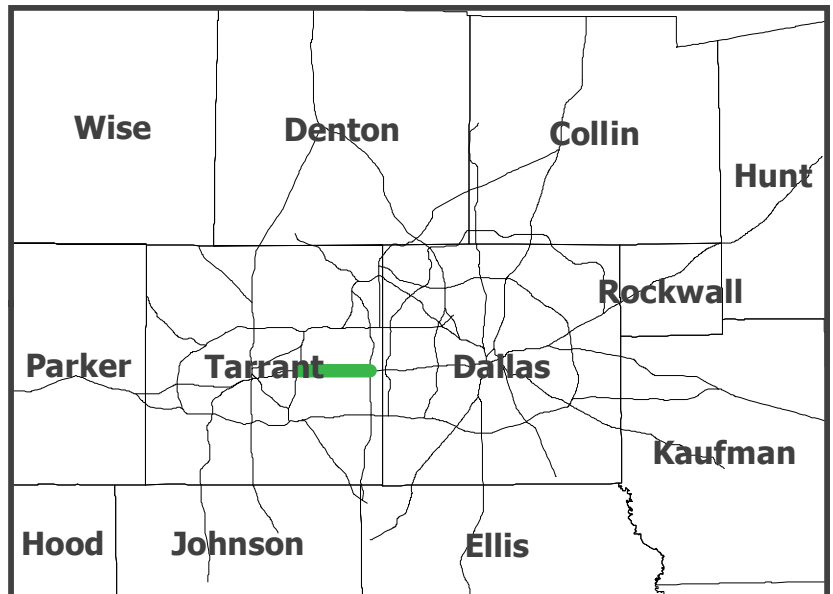
Needs help

## Corridor Statement

Needs corridor study

## Corridor Output

Partial Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	28.5
Facility	IH 30
From	SH 360
To	PGBT
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	35	Sufficient
Travel Time Index (Recurring Congestion)	1.52	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.19	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	4	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	100	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	55	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	0	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

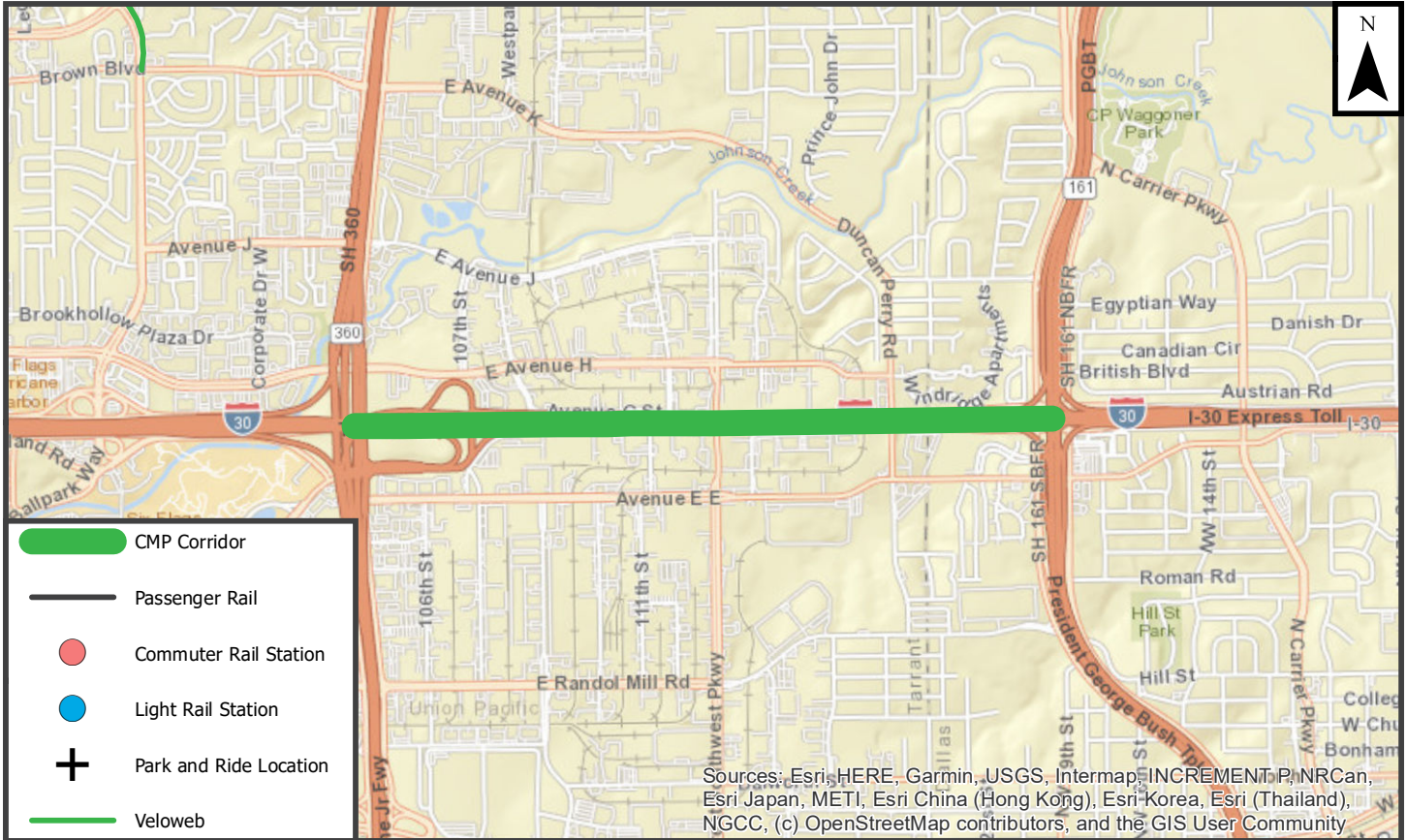
Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Low
Truck Lane Restriction Percentage	28	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 28.5

IH 30 between SH 360 and PGBT



## Performance Statement

Demand reduction

## Asset Statement

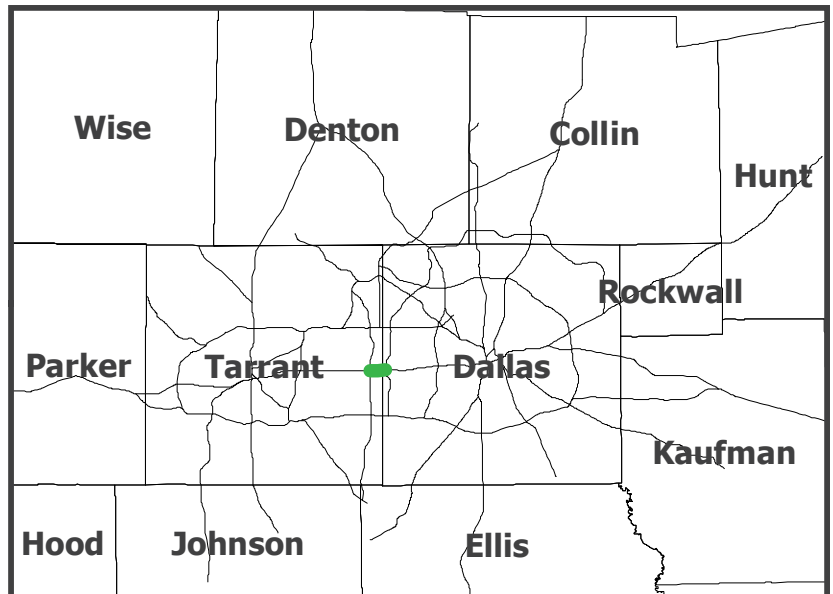
Needs help

## Corridor Statement

Needs corridor study

## Corridor Output

Full Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	28.6
Facility	IH 30
From	PGBT
To	SL 12
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	49	Sufficient
Travel Time Index (Recurring Congestion)	1.04	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.16	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	61	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	58	
Parallel Freeway Percentage	33	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	20	
<i>Bus Trip Density*</i>	23	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	100	High
Truck Lane Restriction Percentage	100	
HOV/Managed Lane Percentage	100	

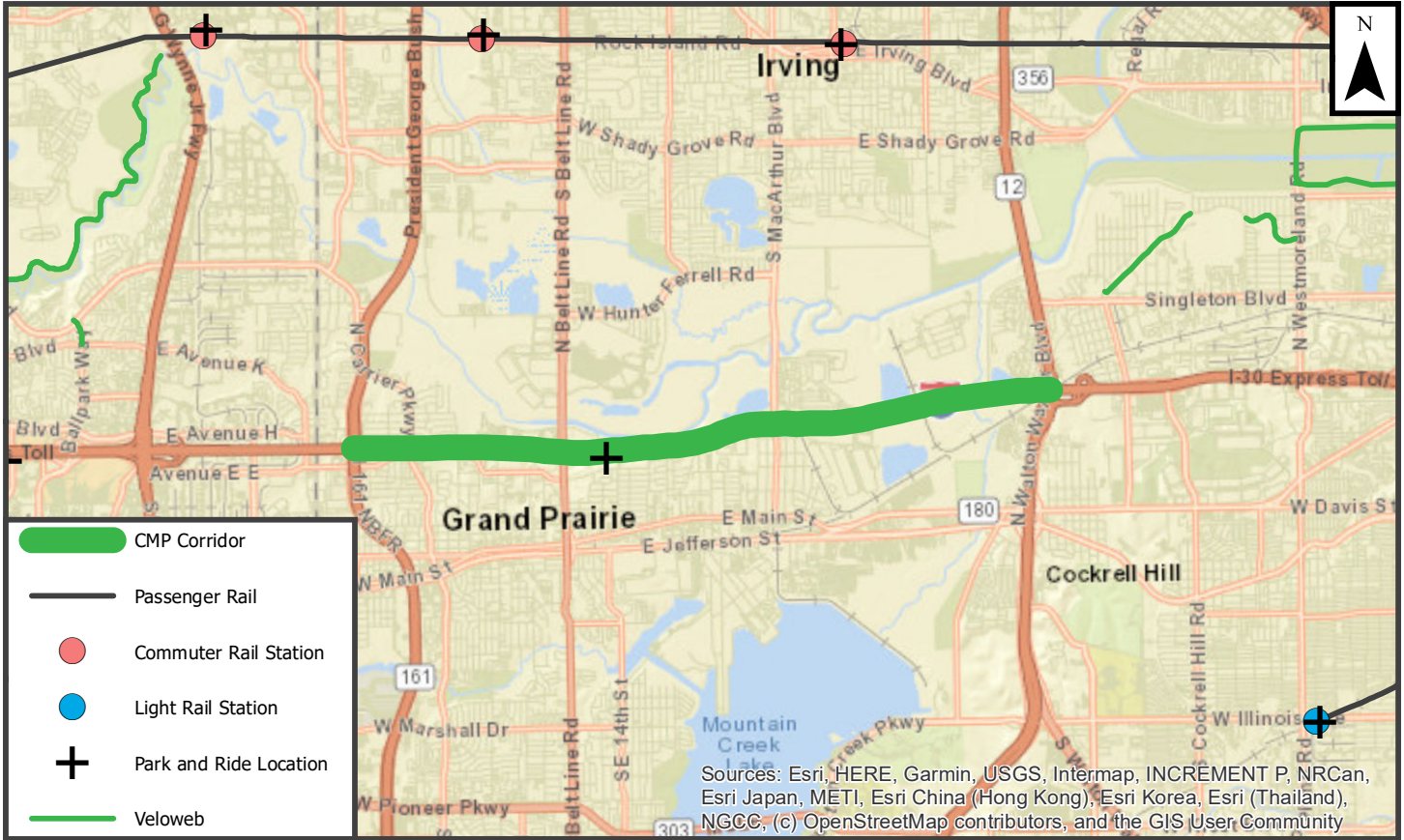
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 28.6

## IH 30 between PGBT and SL 12



### Performance Statement

Continue to monitor

### Asset Statement

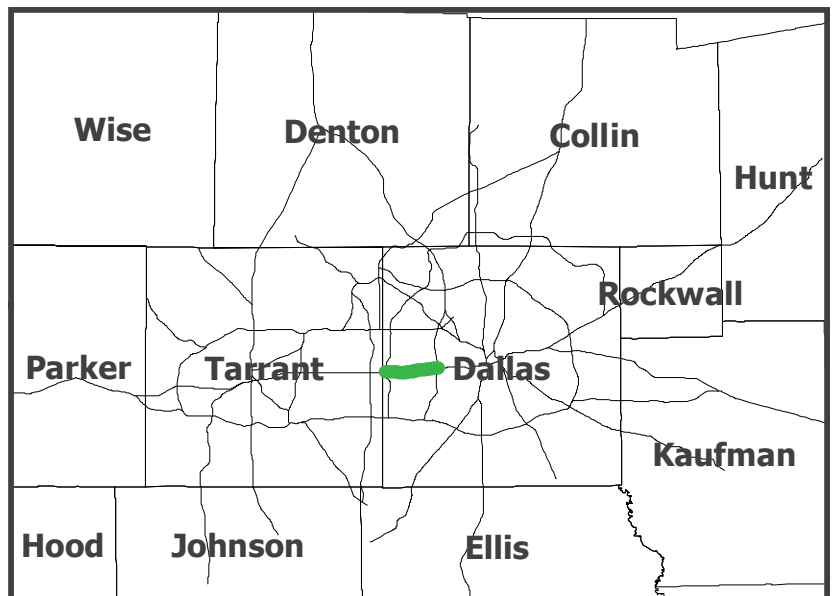
Operate and may need options

### Corridor Statement

Continue to monitor

### Corridor Output

Partial Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	9.2
Facility	SH 360
From	SH 183
To	IH 30
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	64	Sufficient
Travel Time Index (Recurring Congestion)	1.52	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.26	Sufficient
Pavement in Poor Condition	5	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	41	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	78	
Parallel Freeway Percentage	107	High

## Modal Options

Park and Rides within 1 mile of corridor	2	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	42	
<i>Bus Trip Density*</i>	28	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	98	Medium
Truck Lane Restriction Percentage	100	
HOV/Managed Lane Percentage	0	

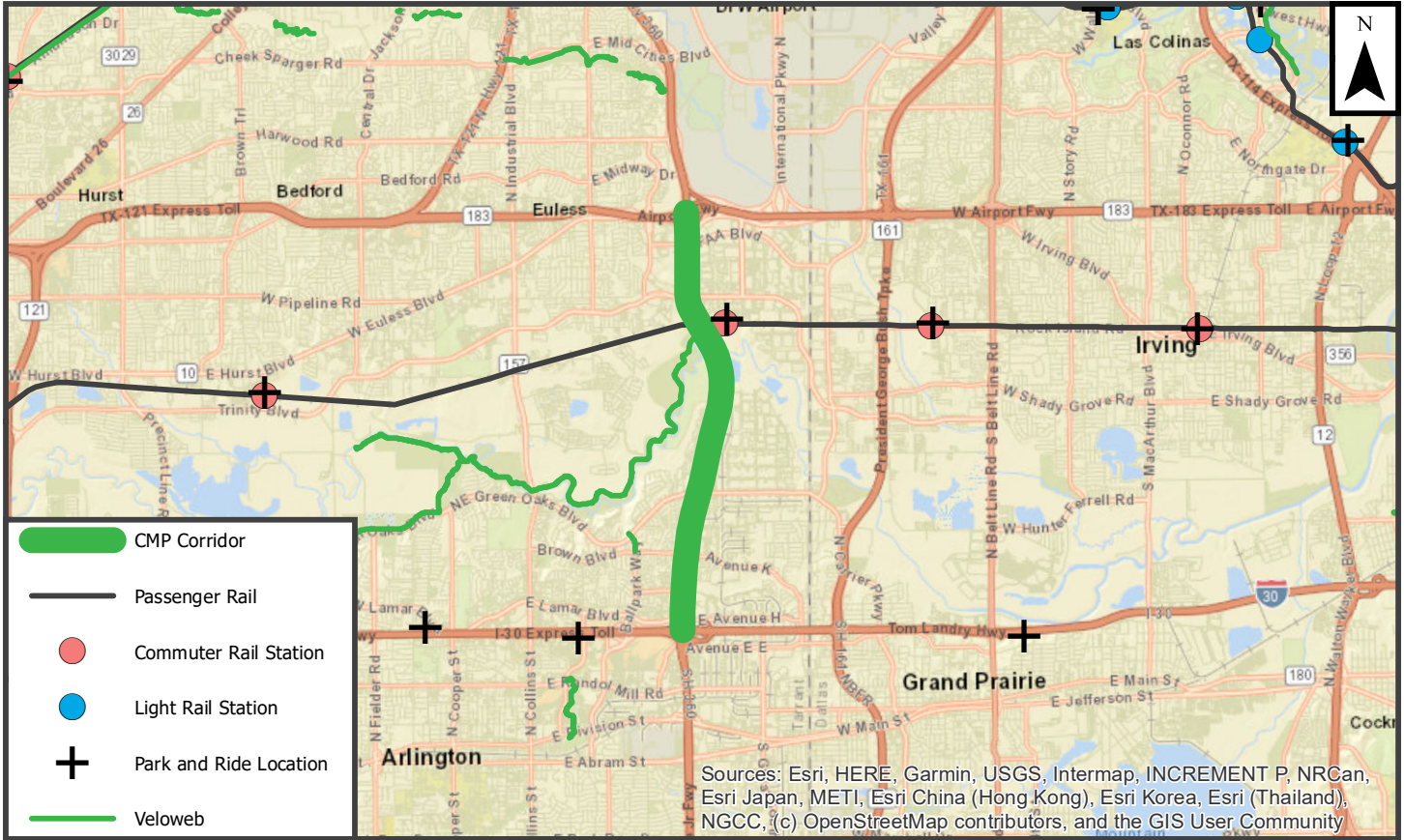
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 9.2

## SH 360 between SH 183 and IH 30



### Performance Statement

Demand reduction

### Asset Statement

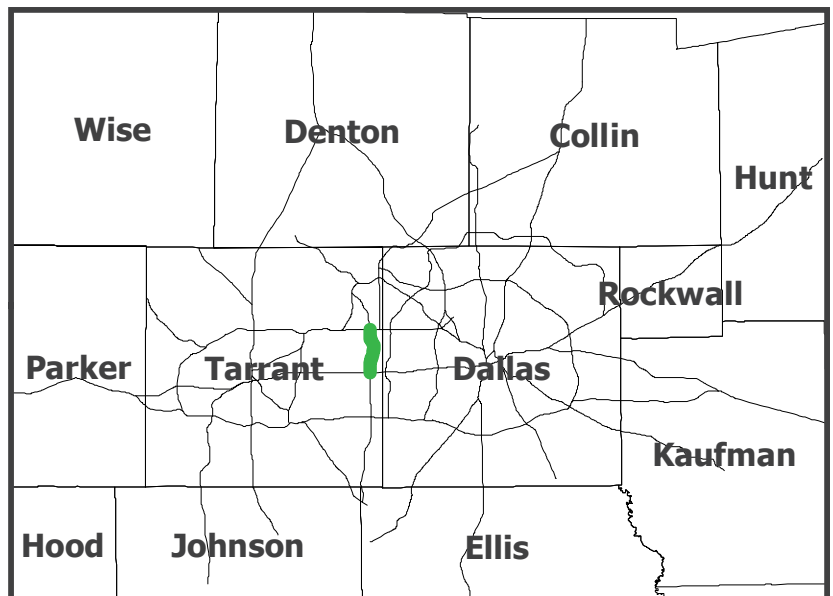
Promote alternate routes and operate

### Corridor Statement

Promote trip reduction strategies and optimize existing operations

### Corridor Output

Full Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	15.2
Facility	PGBT (West)
From	SH 183
To	IH 30
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	34	Sufficient
Travel Time Index (Recurring Congestion)	1.24	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.40	Needs Improvement
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	43	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	60	
Parallel Freeway Percentage	104	High

## Modal Options

Park and Rides within 1 mile of corridor	2	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	39	
<i>Bus Trip Density*</i>	44	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Medium
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

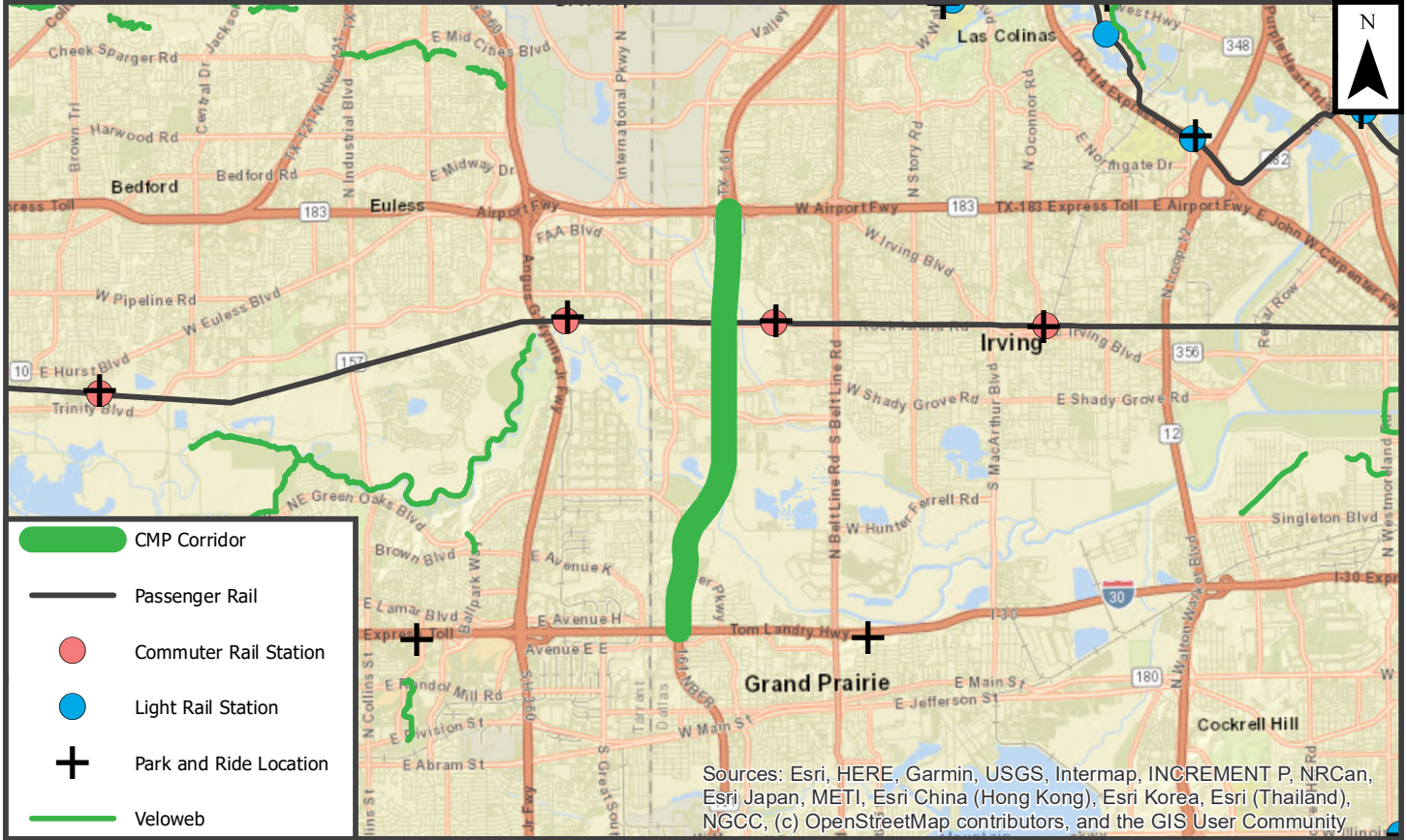
More detail on corridor evaluation and scoring criteria available in Appendix D





# Congestion Management Process Corridor 15.2

## PGBT (West) between SH 183 and IH 30



### Performance Statement

Demand reduction and operational

### Asset Statement

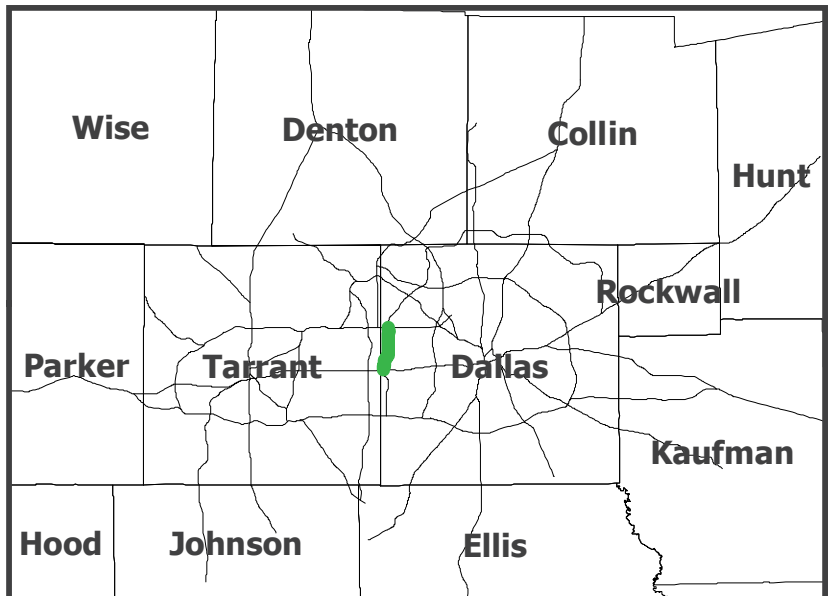
Promote alternate routes and operate

### Corridor Statement

Promote alternate routes and operate

### Corridor Output

Full Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	17.2
Facility	SL 12
From	SH 183
To	IH 30
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	45	Sufficient
Travel Time Index (Recurring Congestion)	1.64	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.28	Sufficient
Pavement in Poor Condition	14	Needs Improvement
Bridge Deck in Poor Condition	2	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	21	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	84	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	2	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	94	
<i>Bus Trip Density*</i>	78	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

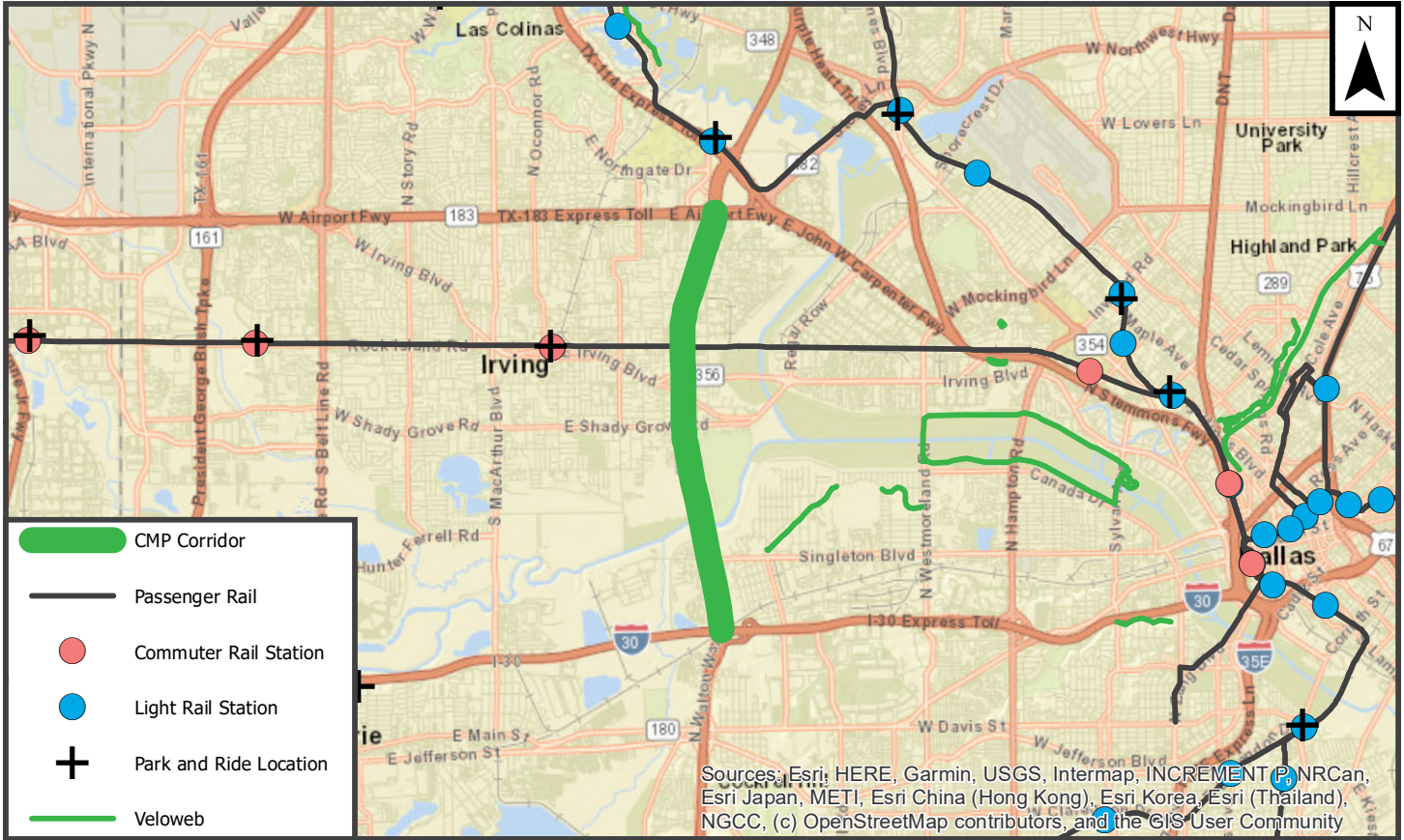
Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	99	Low
Truck Lane Restriction Percentage	100	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 17.2

## SL 12 between SH 183 and IH 30



### Performance Statement

Rehab and demand reduction

### Asset Statement

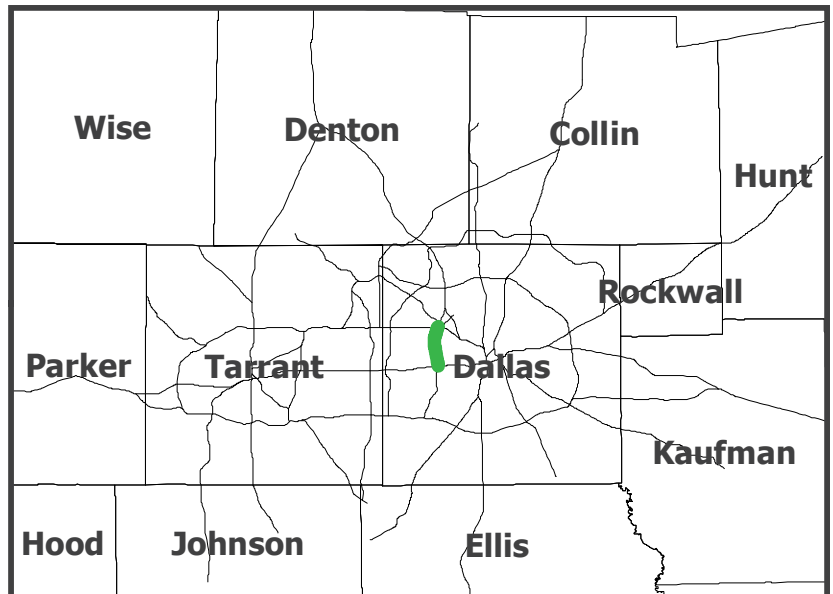
Promote options, may need roadway capacity

### Corridor Statement

Promote modal options and implement operational strategies

### Corridor Output

Partial Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	22.3
Facility	SH 183
From	PGBT
To	SL 12
Construction Status	Recent Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	75	Sufficient
Travel Time Index (Recurring Congestion)	1.13	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.24	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	51	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	55	Medium

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	High
Parallel Commuter Rail as percentage of corridor length	103	
<i>Parallel Bus Route as percentage of corridor length*</i>	98	
<i>Bus Trip Density*</i>	97	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	High
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	100	

More detail on corridor evaluation and scoring criteria available in Appendix D

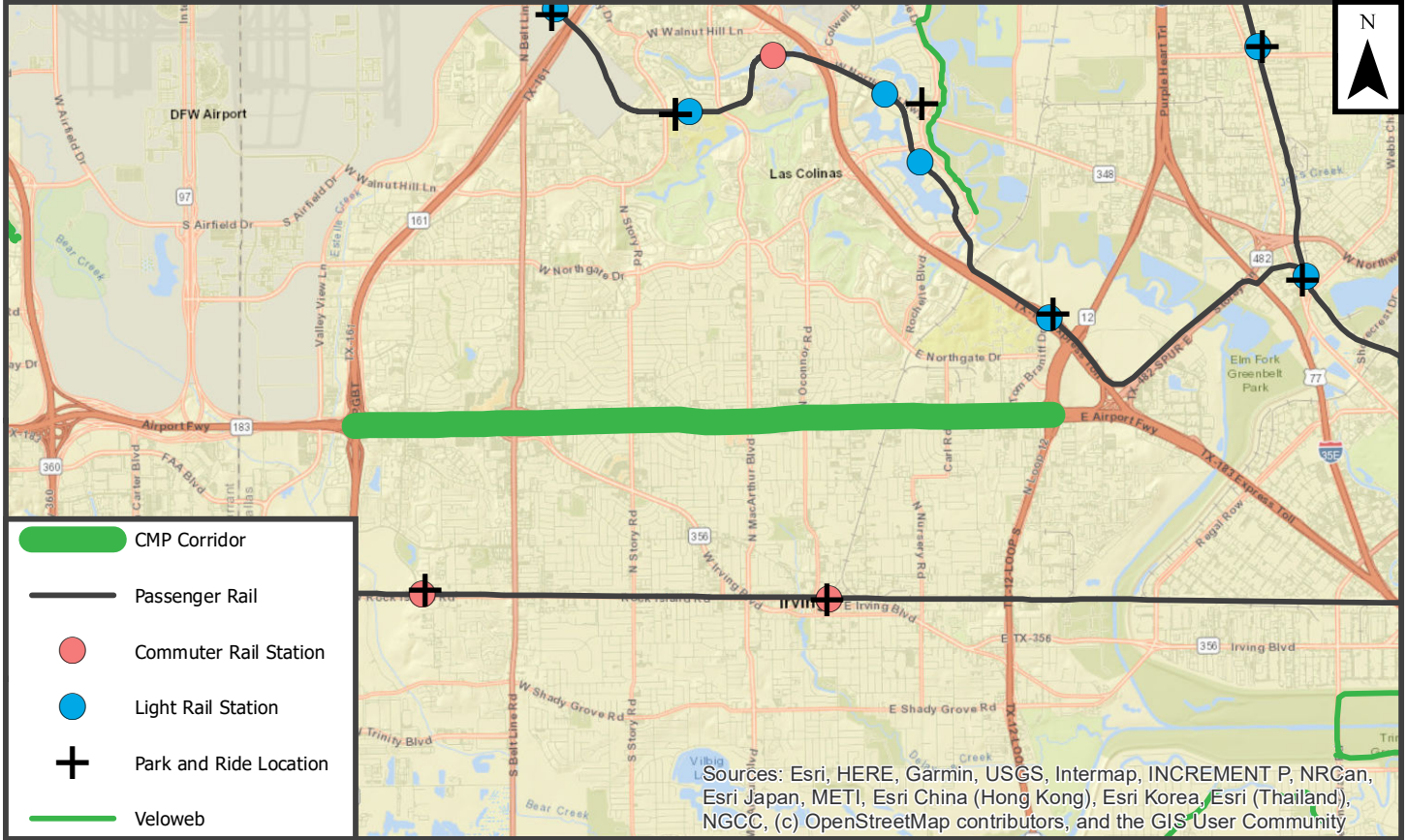




**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 22.3

## SH 183 between PGBT and SL 12



### Performance Statement

Continue to monitor

### Asset Statement

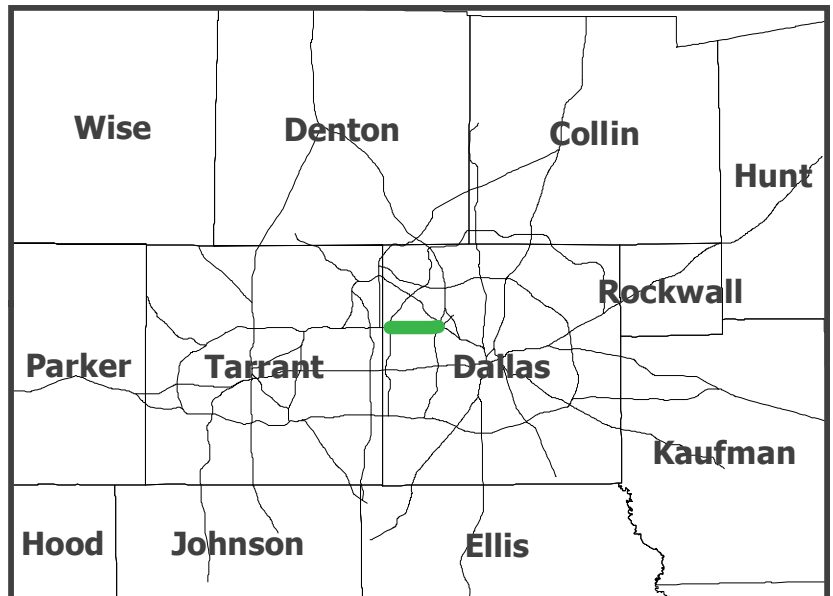
Promote options and operate

### Corridor Statement

Continue to monitor

### Corridor Output

Recent Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	7.4
Facility	IH 35E
From	IH 635 (North)
To	SL 12
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	113	Needs Improvement
Travel Time Index (Recurring Congestion)	1.15	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.16	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	39	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	41	
Parallel Freeway Percentage	49	Low

## Modal Options

Park and Rides within 1 mile of corridor	5	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	113	High
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	136	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

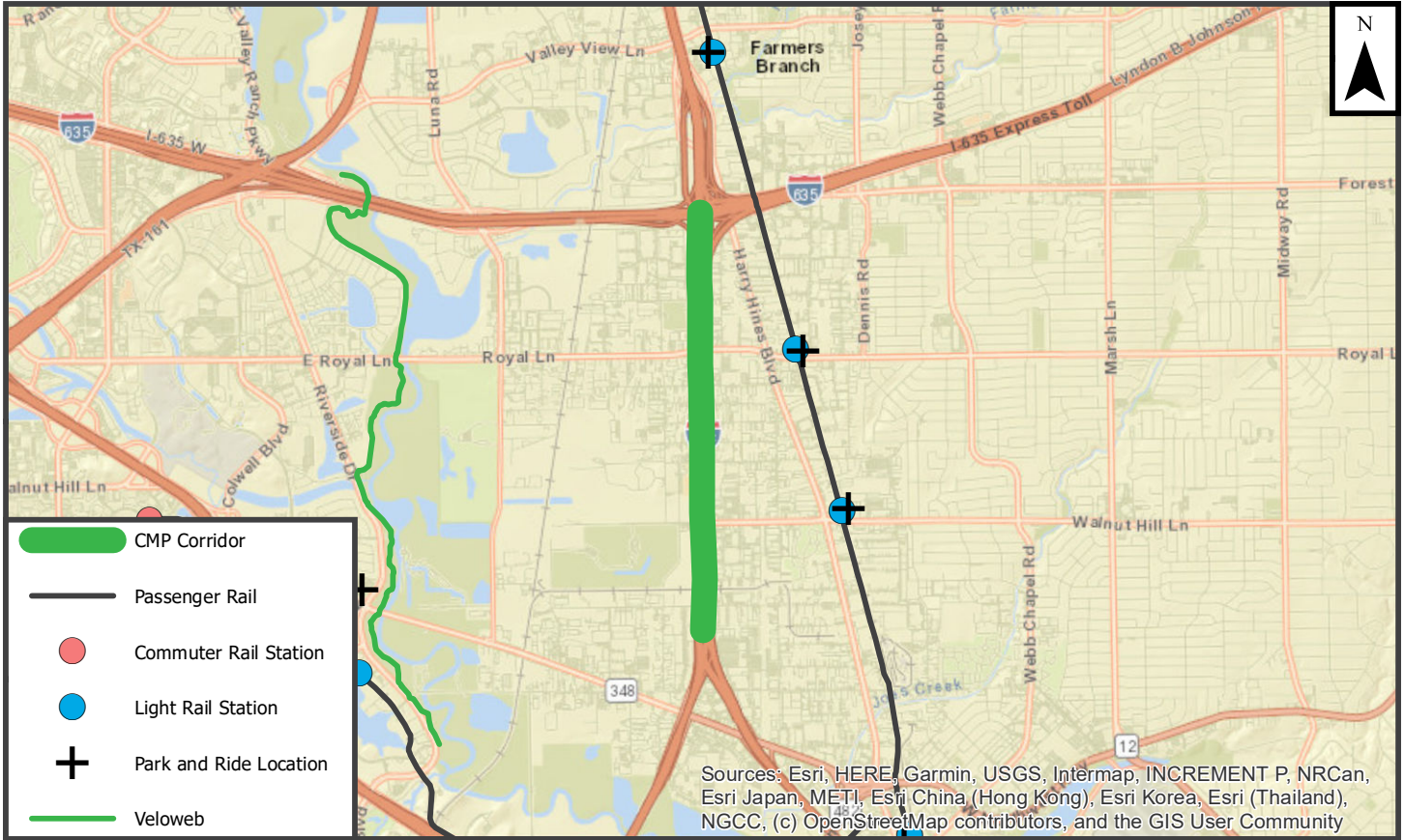
Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	100	High
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	100	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 7.4

## IH 35E between IH 635 (North) and SL 12



### Performance Statement

Operational

### Asset Statement

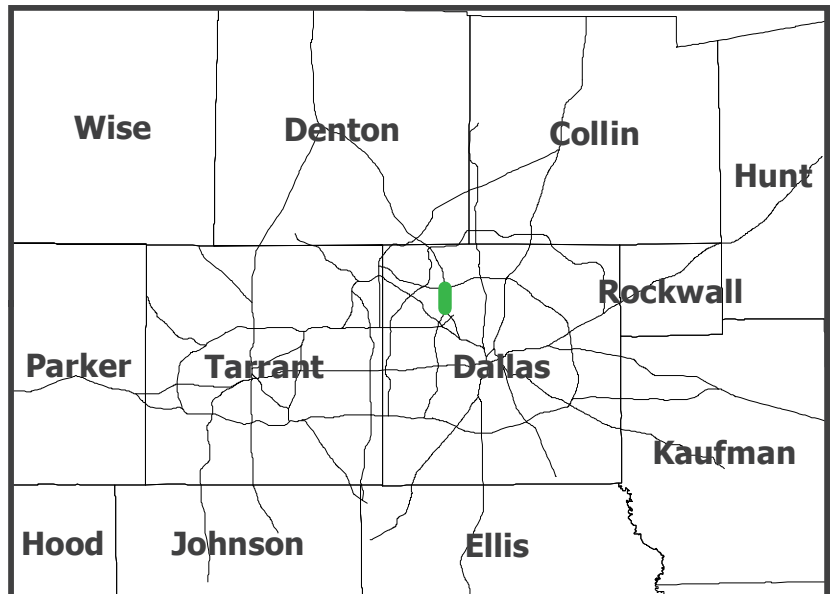
Promote modal options and operate

### Corridor Statement

Promote modal options and operate

### Corridor Output

CMP Strategy



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	31.2
Facility	CTP
From	IH 20
To	US 67
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	35	Sufficient
Travel Time Index (Recurring Congestion)	1.00	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.06	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	100	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	4	
Parallel Freeway Percentage	4	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	13	
<i>Bus Trip Density*</i>	6	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	93	
Truck Lane Restriction Percentage	0	Medium
HOV/Managed Lane Percentage	0	

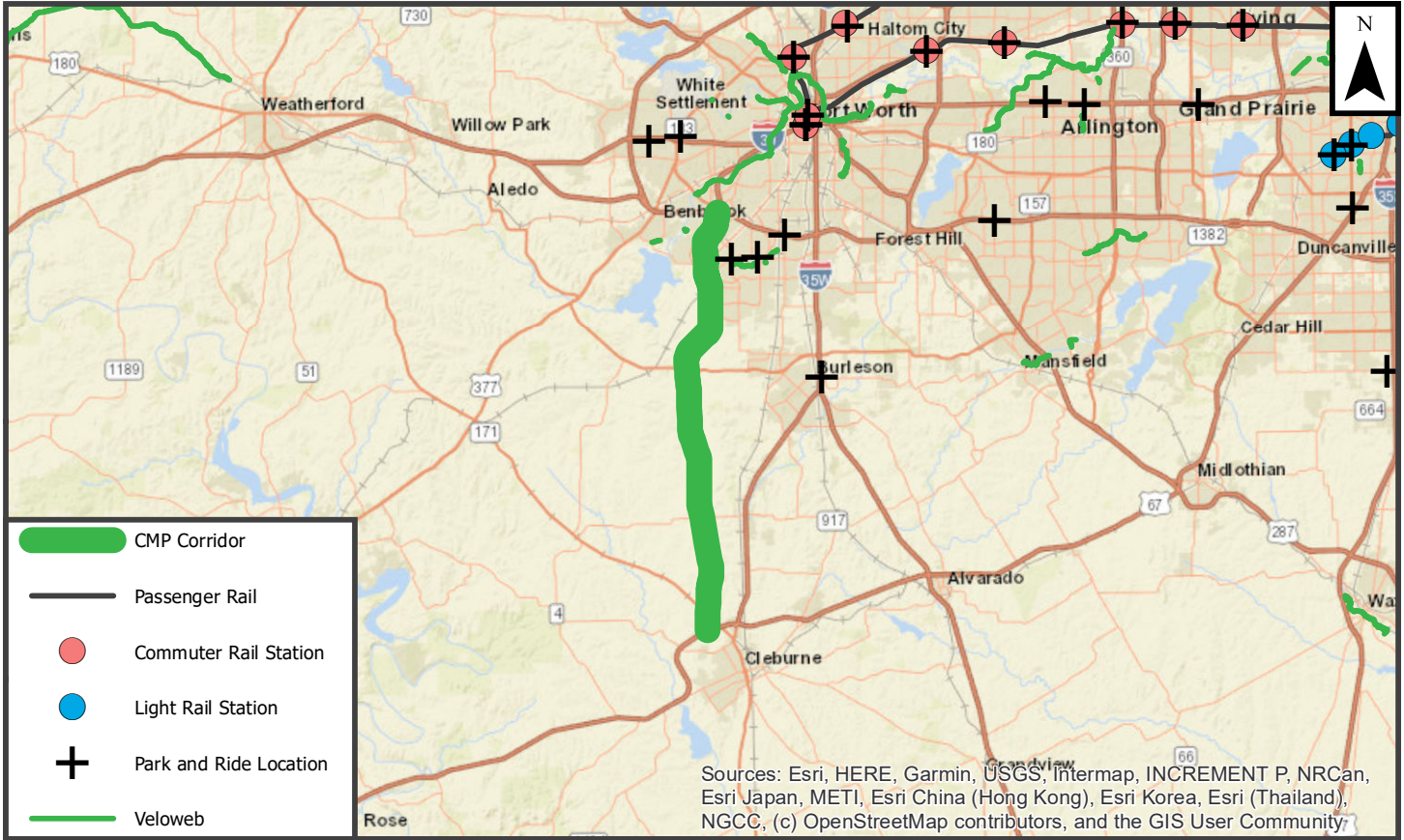
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 31.2

## CTP between IH 20 and US 67



### Performance Statement

Continue to monitor

### Asset Statement

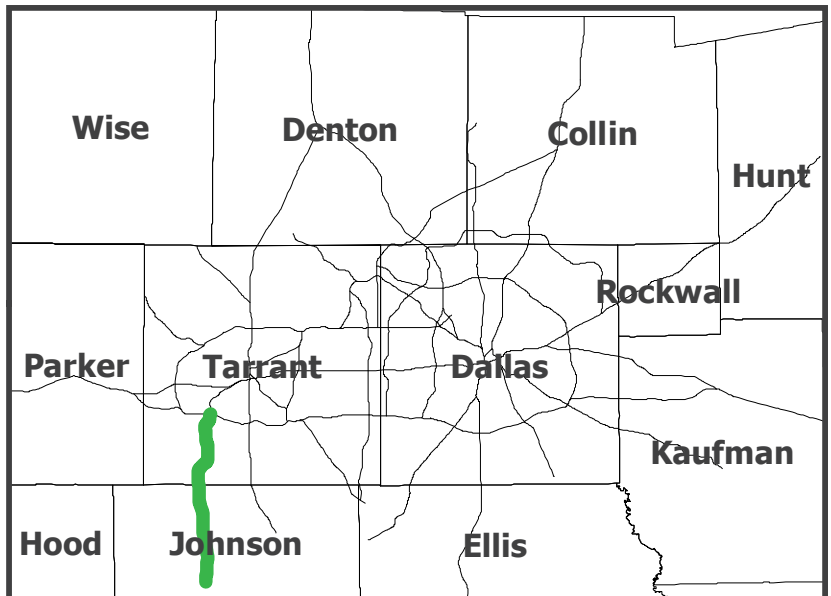
Operate and may need options

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	5.9
Facility	IH 35W
From	Tarrant C/L
To	FM 917
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	40	Sufficient
Travel Time Index (Recurring Congestion)	1.00	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.03	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	44	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	1	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

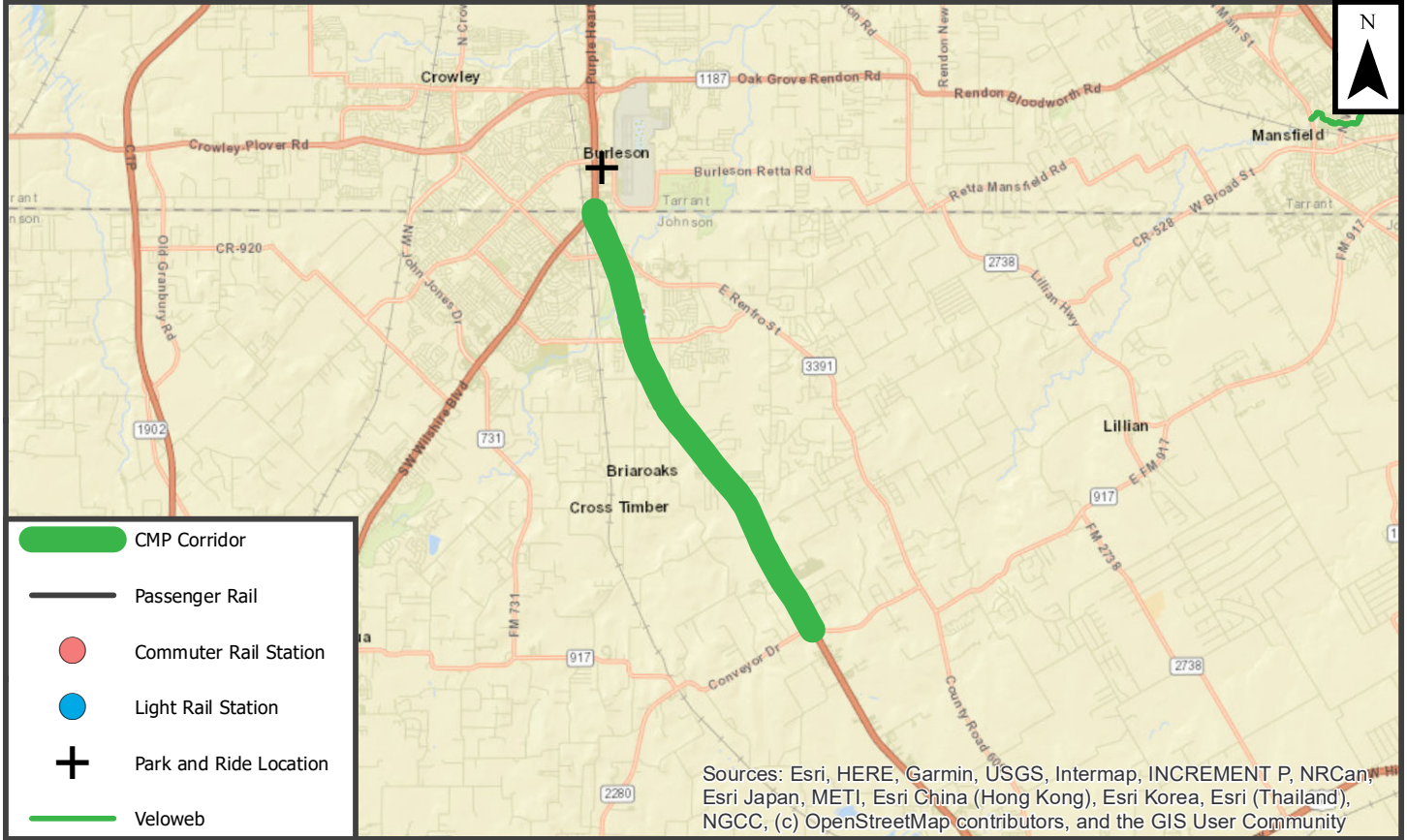
Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	38	
Truck Lane Restriction Percentage	0	Low
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 5.9

## IH 35W between Tarrant C/L and FM 917



### Performance Statement

Continue to monitor

### Asset Statement

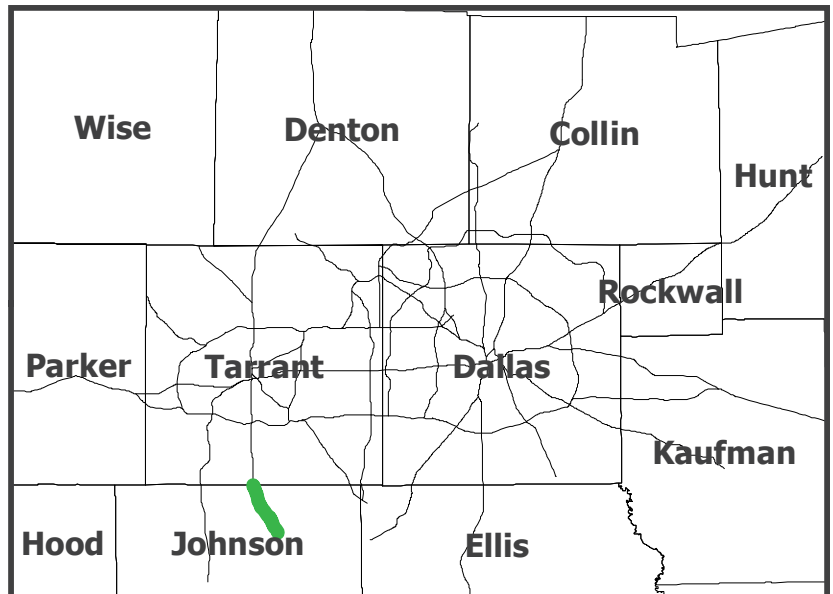
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Full Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	27.3
Facility	IH 45
From	IH 20
To	SL 9
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	29	Sufficient
Travel Time Index (Recurring Congestion)	1.01	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.03	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	27	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	89	
Parallel Freeway Percentage	5	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	8	
<i>Bus Trip Density*</i>	6	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	34	
Truck Lane Restriction Percentage	100	Low
HOV/Managed Lane Percentage	0	

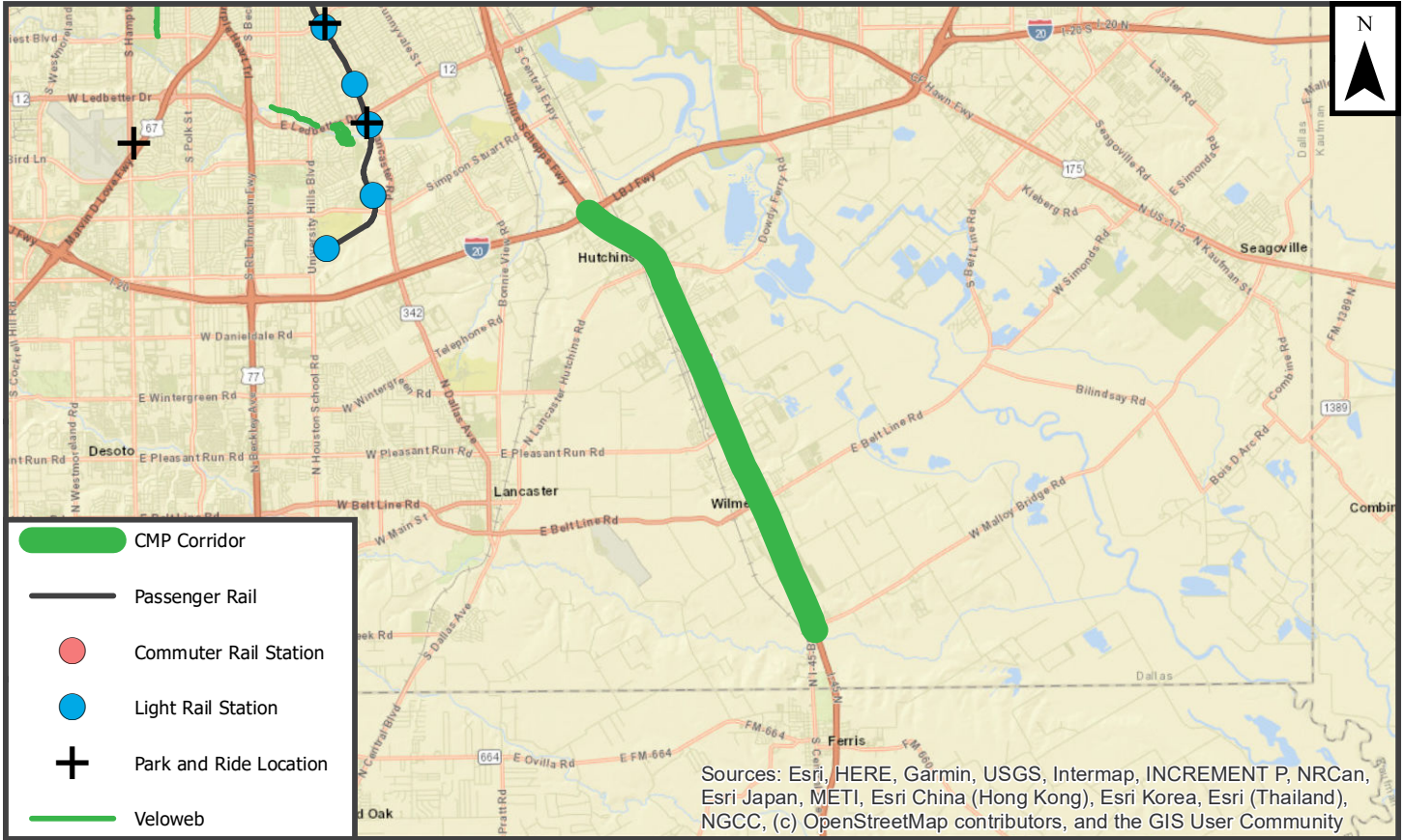
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 27.3

## IH 45 between IH 20 and SL 9



### Performance Statement

Continue to monitor

### Asset Statement

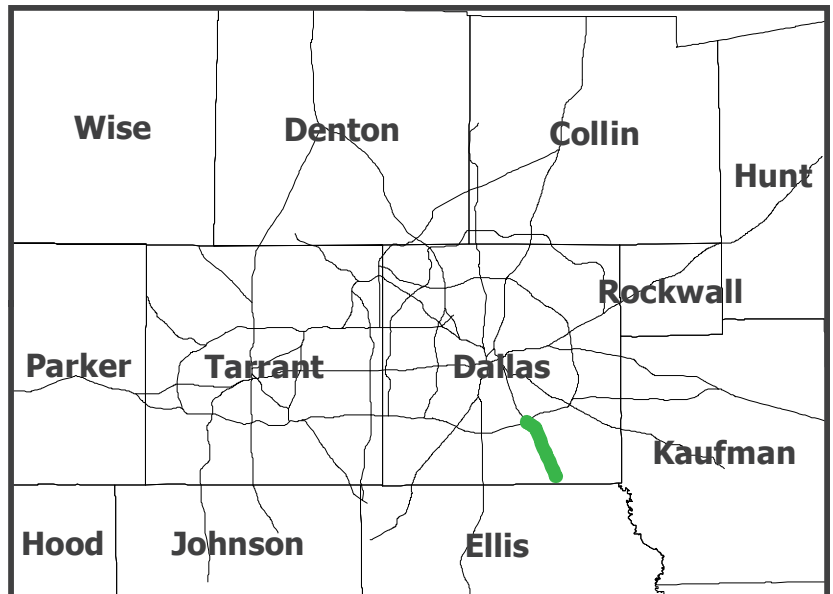
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	36.3
Facility	US 175
From	IH 20
To	SH 34
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	37	Sufficient
Travel Time Index (Recurring Congestion)	1.01	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.09	Sufficient
Pavement in Poor Condition	4	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	17	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	79	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	32	
<i>Bus Trip Density*</i>	3	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	7	
Truck Lane Restriction Percentage	0	Low
HOV/Managed Lane Percentage	0	

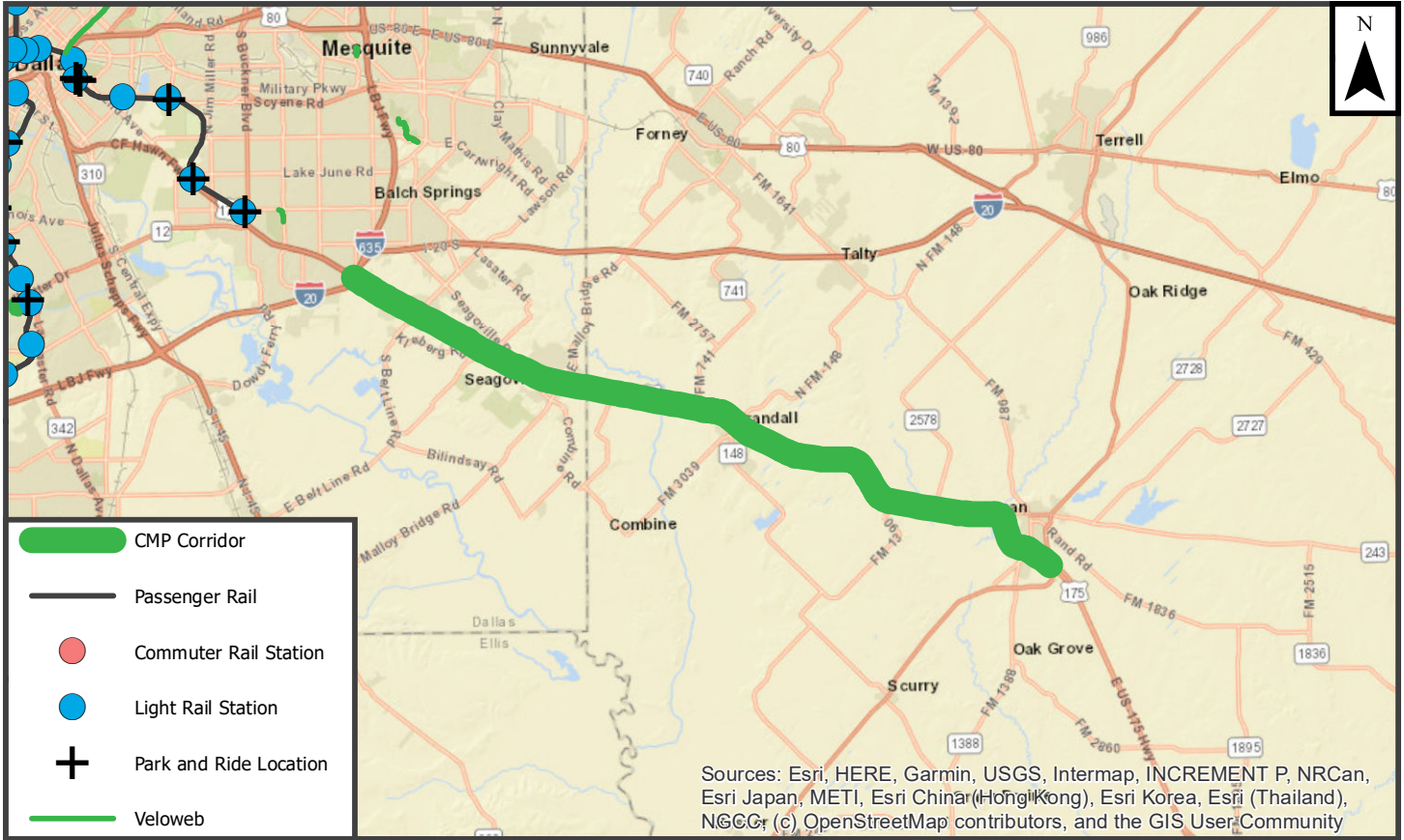
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 36.3

## US 175 between IH 20 and SH 34



### Performance Statement

Continue to monitor

### Asset Statement

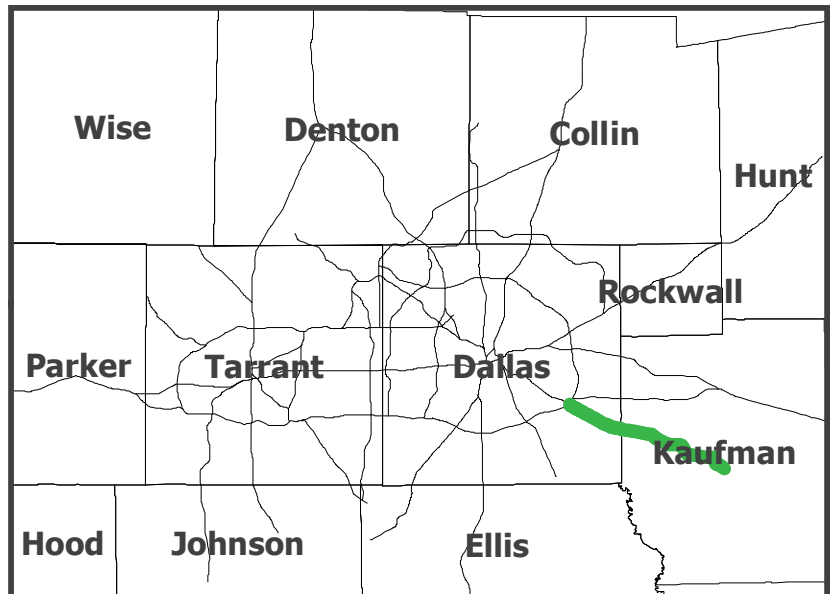
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	30.16
Facility	IH 20
From	US 80
To	Kaufman C/L
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	40	Sufficient
Travel Time Index (Recurring Congestion)	1.00	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.03	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	28	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	4	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	15	
<i>Bus Trip Density*</i>	0	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	66	
Truck Lane Restriction Percentage	0	Low
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 30.16

## IH 20 between US 80 and Kaufman C/L



### Performance Statement

Continue to monitor

### Asset Statement

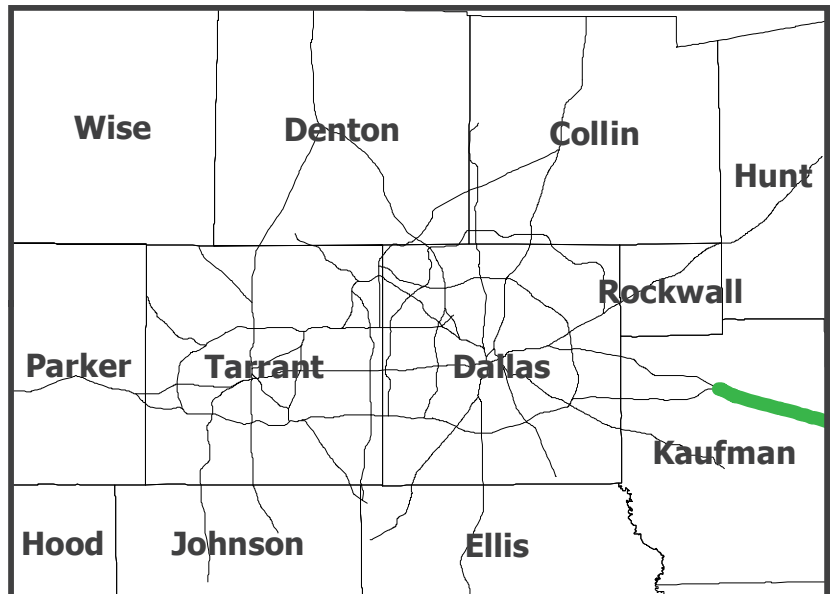
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	23.6
Facility	US 75
From	IH 635 (North)
To	SS 366
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	97	Sufficient
Travel Time Index (Recurring Congestion)	2.37	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.53	Needs Improvement
Pavement in Poor Condition	3	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	52	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	118	High

## Modal Options

Park and Rides within 1 mile of corridor	7	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	90	
Parallel Commuter Rail as percentage of corridor length	0	High
<i>Parallel Bus Route as percentage of corridor length*</i>	99	
<i>Bus Trip Density*</i>	315	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	100	
Truck Lane Restriction Percentage	0	Low
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 23.6

US 75 between IH 635 (North) and SS 366



## Performance Statement

Demand reduction and operational

## Asset Statement

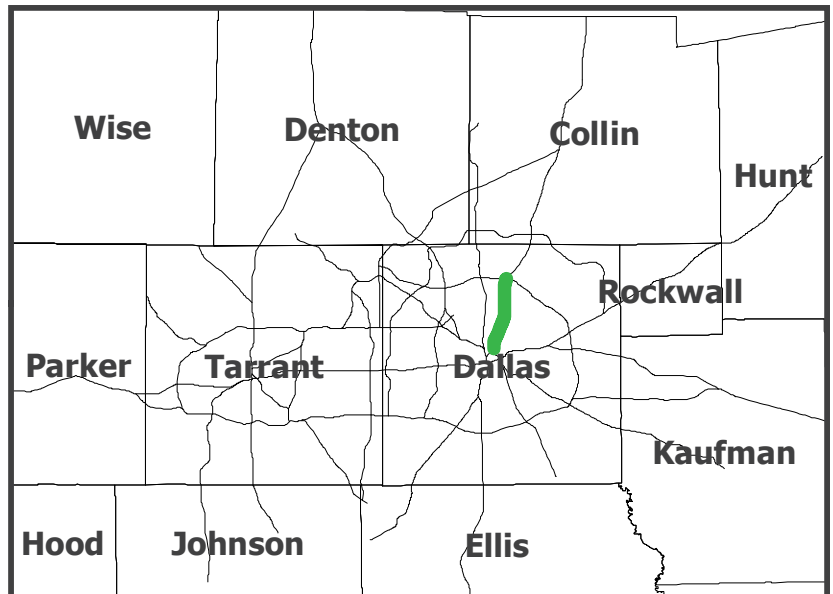
Promote options

## Corridor Statement

Promote alternate routes and modal options

## Corridor Output

CMP Strategy



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	7.5
Facility	IH 35E
From	SL 12
To	SH 183
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	94	Sufficient
Travel Time Index (Recurring Congestion)	1.62	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.67	Needs Improvement
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	1	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	30	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	45	
Parallel Freeway Percentage	17	Low

## Modal Options

Park and Rides within 1 mile of corridor	4	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	83	High
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	96	
<i>Bus Trip Density*</i>	200	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	2	

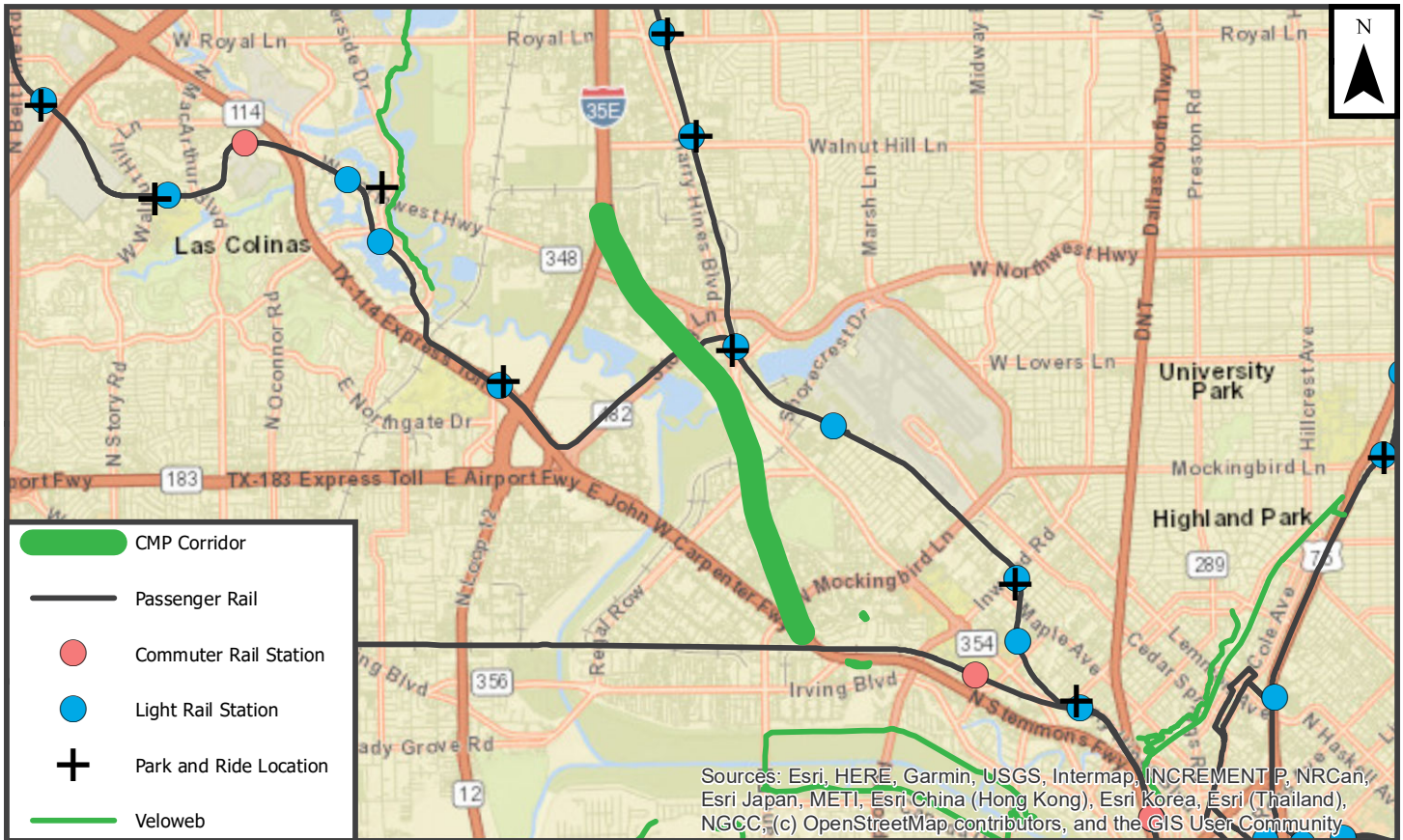
More detail on corridor evaluation and scoring criteria available in Appendix D





# Congestion Management Process Corridor 7.5

IH 35E between SL 12 and SH 183



## Performance Statement

Demand reduction and operational

## Asset Statement

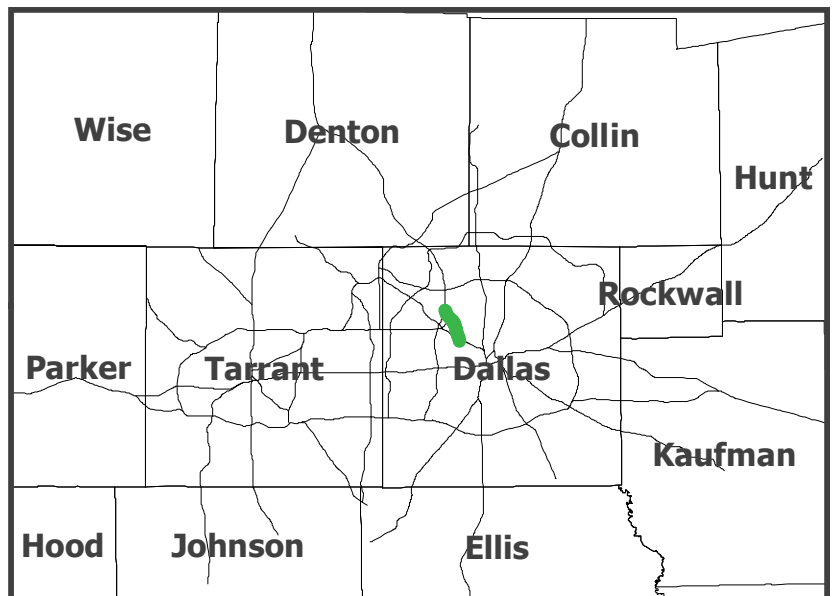
Promote modal options and needs operations

## Corridor Statement

Promote modal options

## Corridor Output

Full Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	42.1
Facility	SS 482
From	SH 183
To	IH 35E
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	74	Sufficient
Travel Time Index (Recurring Congestion)	1.04	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.16	Sufficient
Pavement in Poor Condition	13	Needs Improvement
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	44	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	46	
Parallel Freeway Percentage	74	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	59	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	83	
<i>Bus Trip Density*</i>	118	
Combined Bus Availability	High	<small>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</small>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	73	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

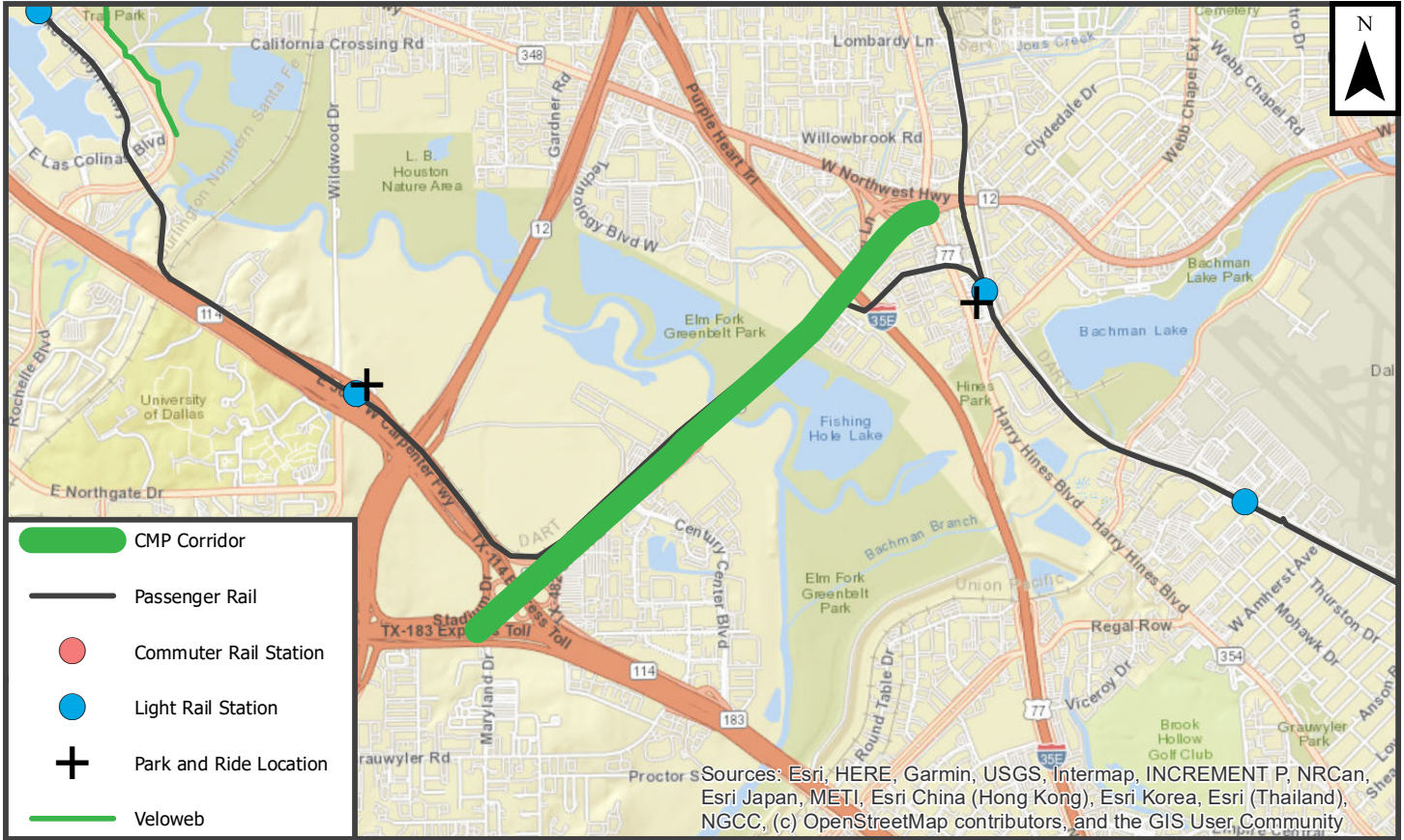
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 42.1

## SS 482 between SH 183 and IH 35E



### Performance Statement

Rehab

### Asset Statement

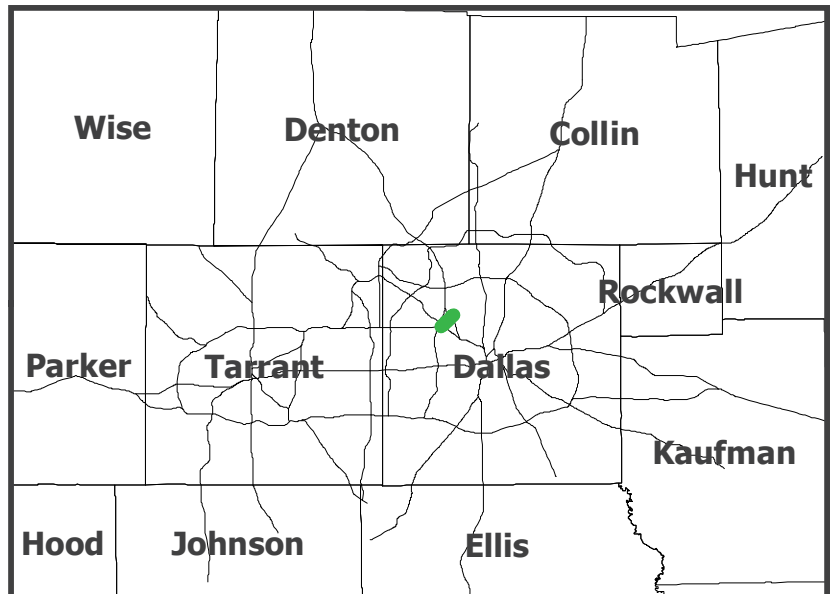
Promote options, may need roadway capacity

### Corridor Statement

Rehab only

### Corridor Output

Rehab



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	17.1
Facility	SL 12
From	IH 35E
To	SH 183
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	78	Sufficient
Travel Time Index (Recurring Congestion)	2.16	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.58	Needs Improvement
Pavement in Poor Condition	12	Needs Improvement
Bridge Deck in Poor Condition	1	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	17	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	90	
Parallel Freeway Percentage	95	High

## Modal Options

Park and Rides within 1 mile of corridor	4	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	49	
<i>Bus Trip Density*</i>	102	
Combined Bus Availability	Medium	<small>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</small>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	High
Truck Lane Restriction Percentage	40	
HOV/Managed Lane Percentage	100	

More detail on corridor evaluation and scoring criteria available in Appendix D

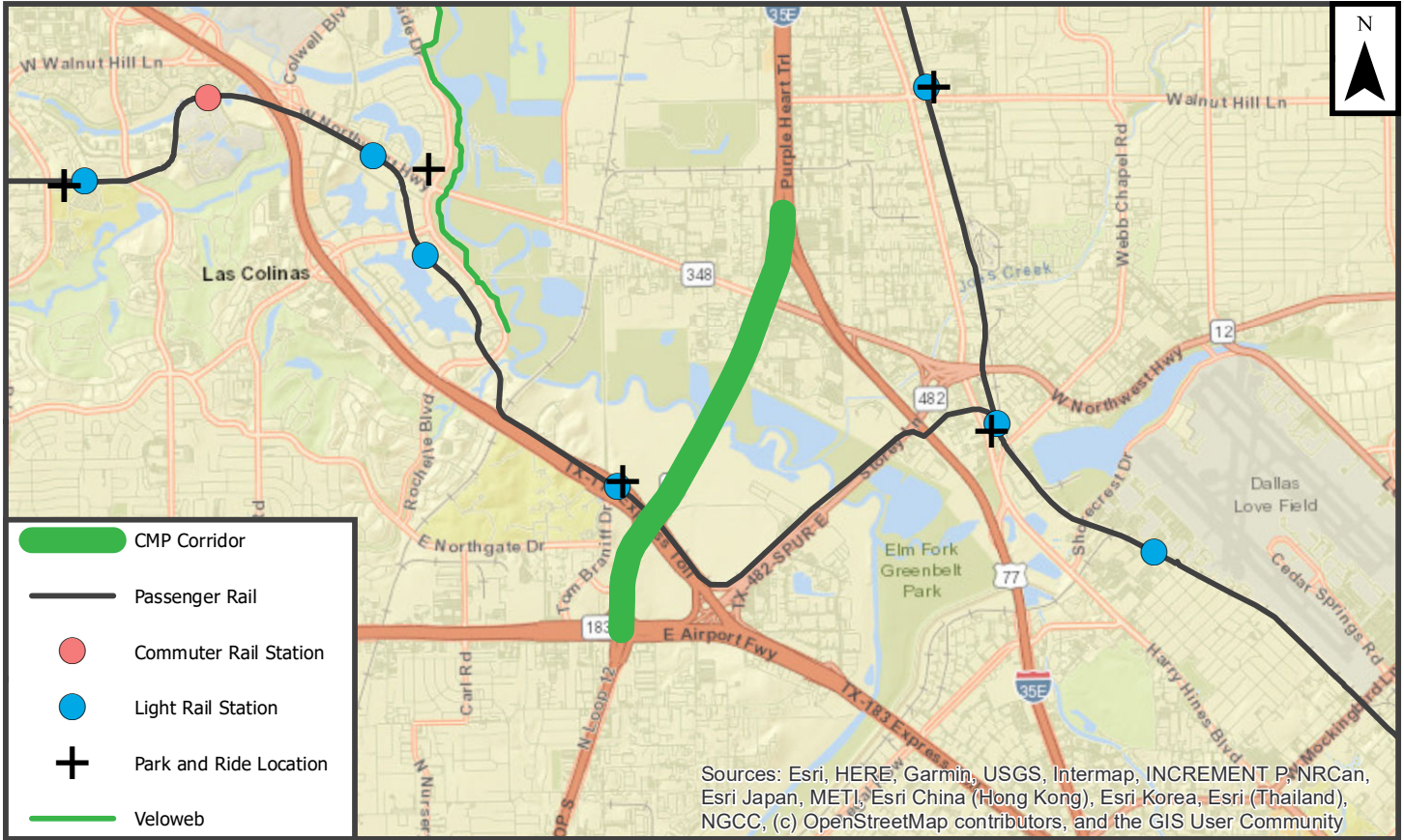




**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 17.1

## SL 12 between IH 35E and SH 183



### Performance Statement

Rehab, demand reduction and operational

### Asset Statement

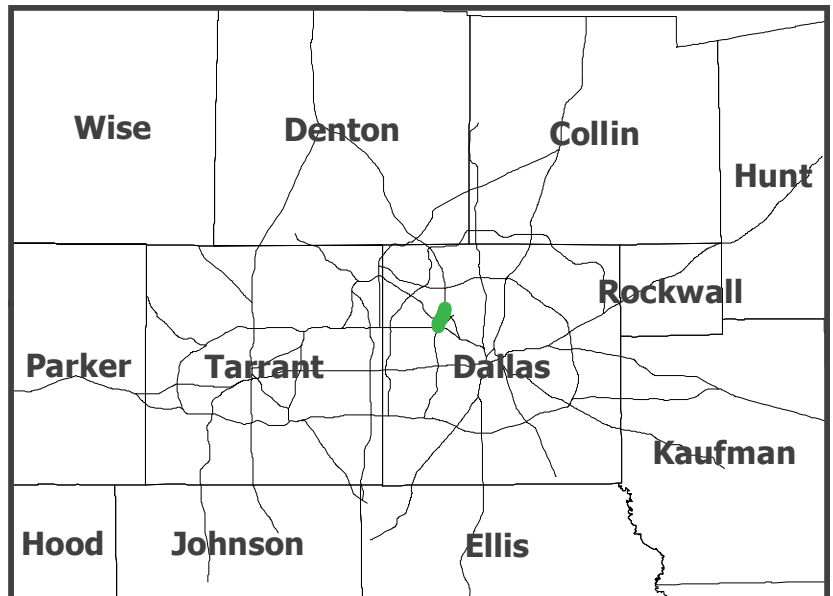
Promote alternate routes and operate

### Corridor Statement

Needs corridor study

### Corridor Output

Full Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	22.4
Facility	SH 183
From	SL 12
To	SH 114
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	56	Sufficient
Travel Time Index (Recurring Congestion)	1.04	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.11	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	87	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	227	High

## Modal Options

Park and Rides within 1 mile of corridor	2	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	164	High
Parallel Commuter Rail as percentage of corridor length	79	
<i>Parallel Bus Route as percentage of corridor length*</i>	90	
<i>Bus Trip Density*</i>	91	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	High
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	100	

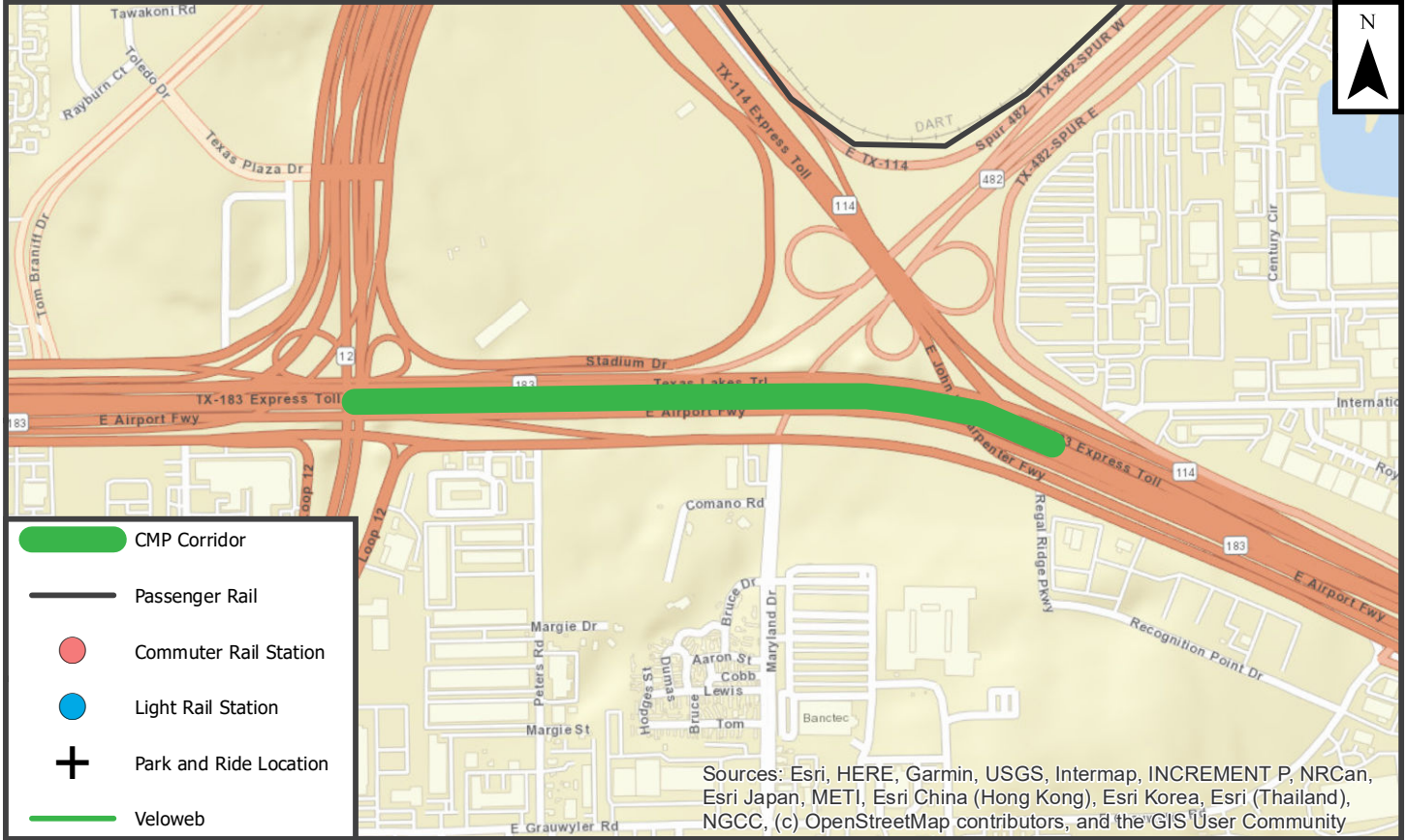
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 22.4

## SH 183 between SL 12 and SH 114



### Performance Statement

Continue to monitor

### Asset Statement

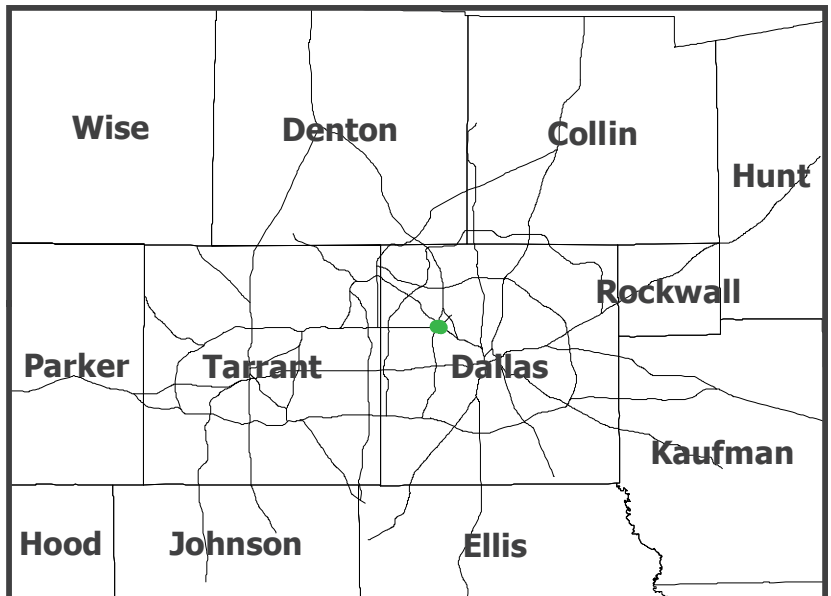
Promote options and operate

### Corridor Statement

Continue to monitor

### Corridor Output

Full Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	44.1
Facility	SS 366
From	IH 35E
To	US 75
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	187	Needs Improvement
Travel Time Index (Recurring Congestion)	2.73	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.67	Needs Improvement
Pavement in Poor Condition	43	Needs Improvement
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	99	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	98	
Parallel Freeway Percentage	119	High

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	33	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	522	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

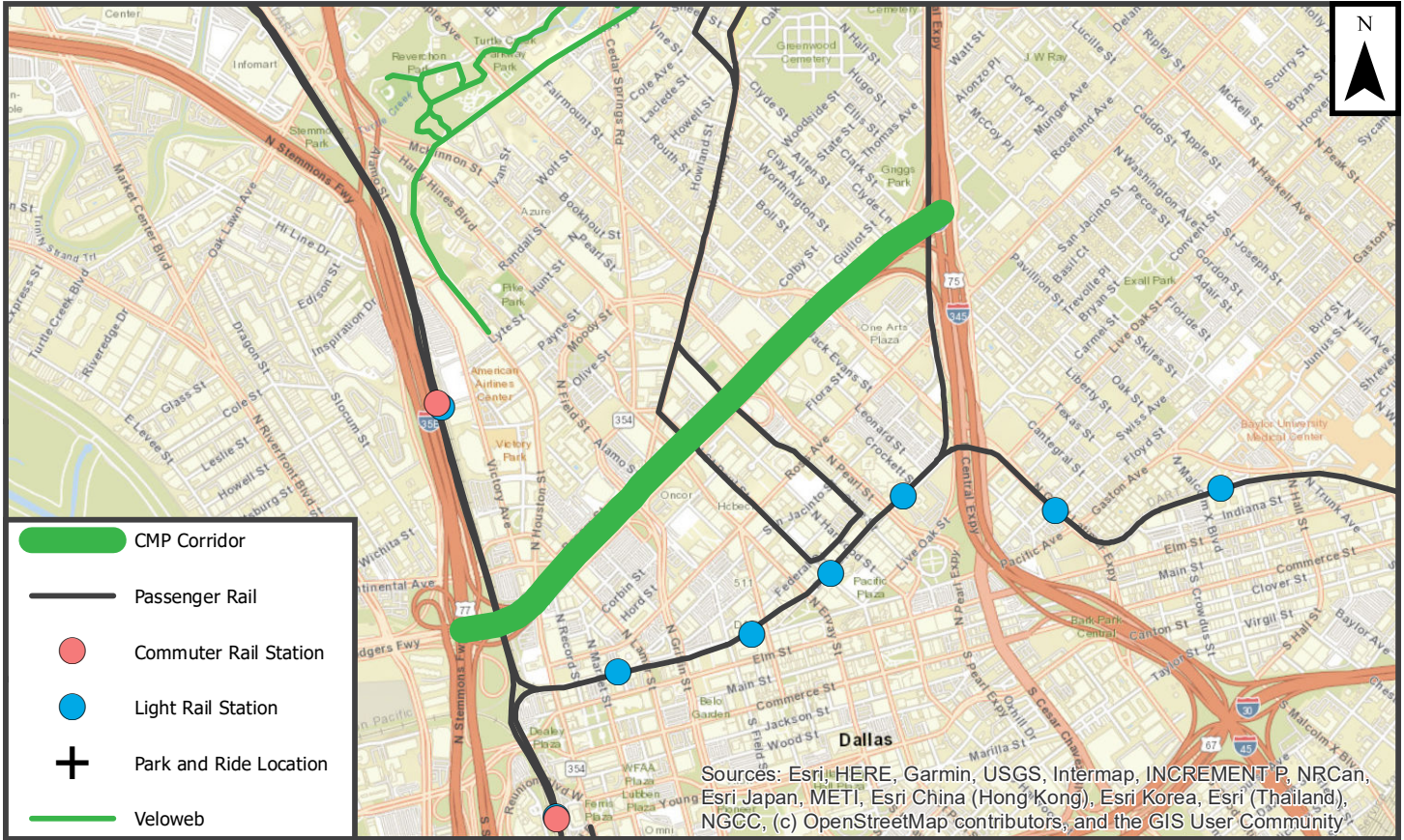
More detail on corridor evaluation and scoring criteria available in Appendix D





# Congestion Management Process Corridor 44.1

SS 366 between IH 35E and US 75



## Performance Statement

Rebuild with capacity

## Asset Statement

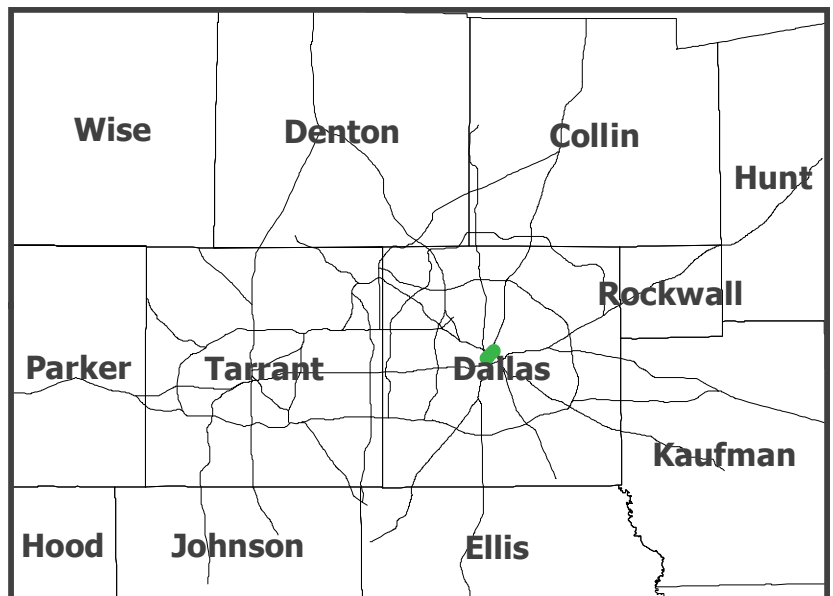
Promote options and needs operations

## Corridor Statement

Promote alternate routes and modal options, implement operational strategies

## Corridor Output

CMP Strategy





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	25.1
Facility	IH 345
From	SS 366
To	IH 30
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	98	Sufficient
Travel Time Index (Recurring Congestion)	1.94	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.30	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	69	Needs Improvement

## Roadway Infrastructure

Available Arterial Capacity %	100	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	44	
Parallel Freeway Percentage	22	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	144	
Parallel Commuter Rail as percentage of corridor length	96	High
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	535	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	100	
Truck Lane Restriction Percentage	0	Low
HOV/Managed Lane Percentage	0	

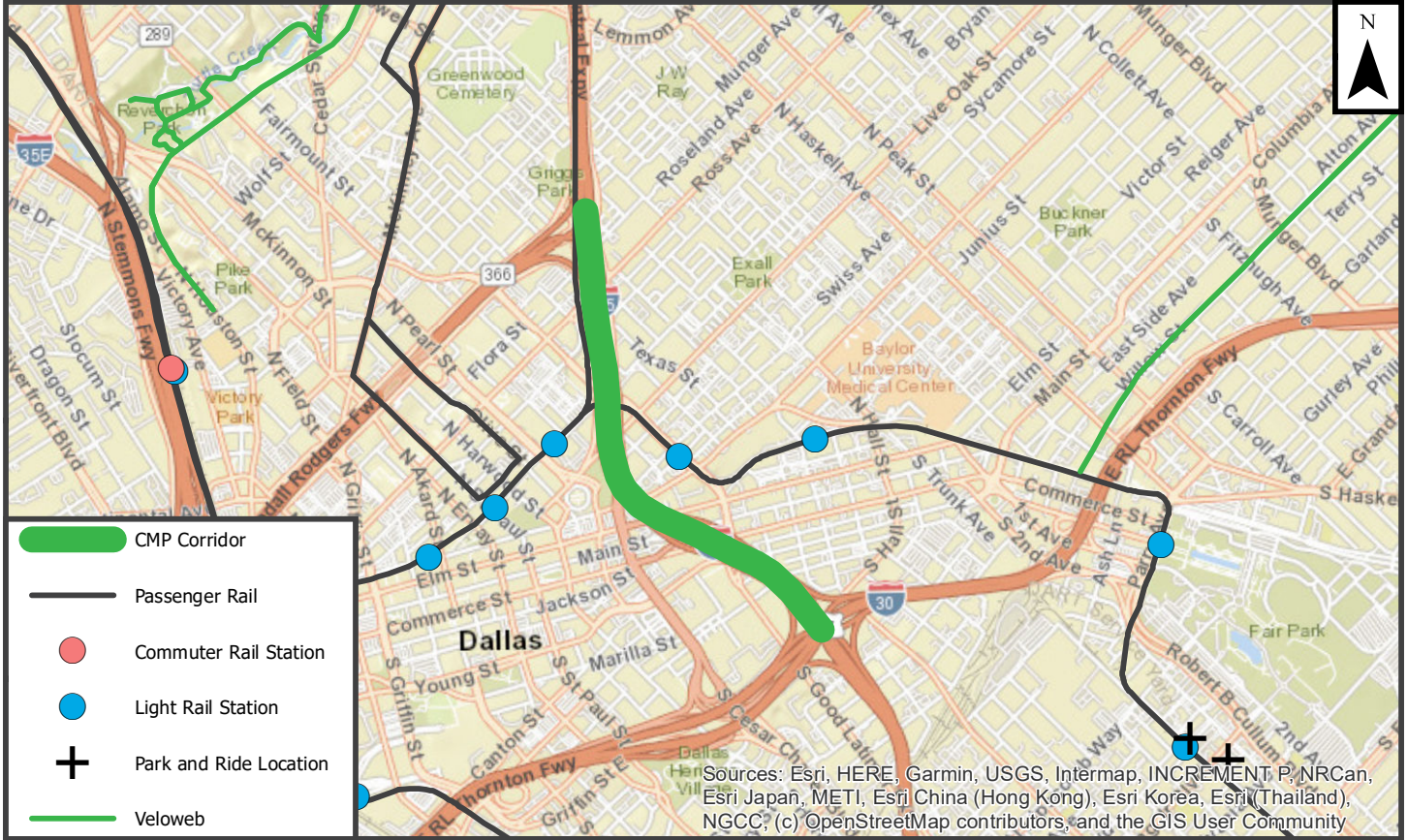
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 25.1

## IH 345 between SS 366 and IH 30



### Performance Statement

Rehab and demand reduction

### Asset Statement

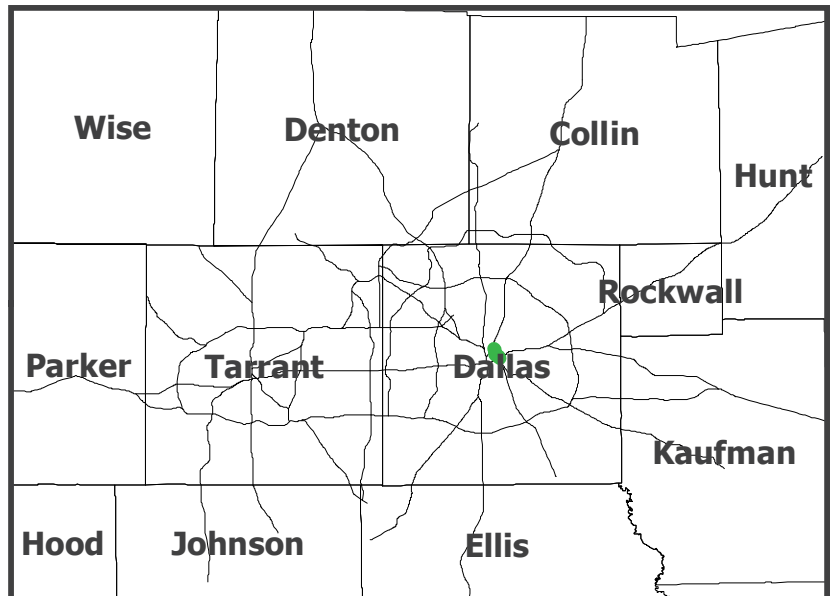
Promote modal options and needs operations

### Corridor Statement

Promote modal options

### Corridor Output

CMP Strategy



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	7.7
Facility	IH 35E
From	DNT
To	IH 30
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	205	Needs Improvement
Travel Time Index (Recurring Congestion)	2.15	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.33	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	58	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	54	
Parallel Freeway Percentage	32	Low

## Modal Options

Park and Rides within 1 mile of corridor	2	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	98	High
Parallel Commuter Rail as percentage of corridor length	91	
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	539	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Medium
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D

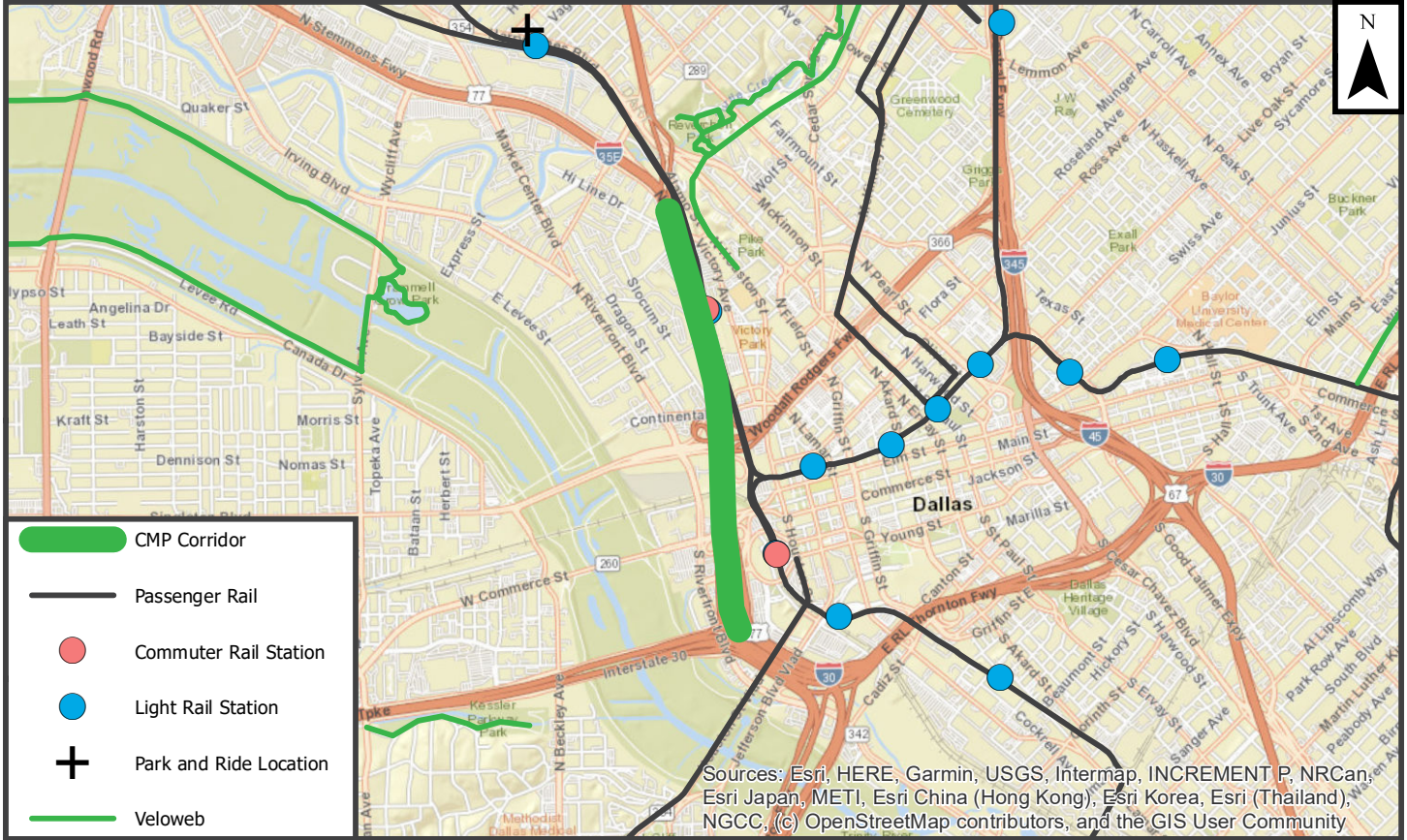




**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 7.7

## IH 35E between DNT and IH 30



### Performance Statement

Demand reduction and operational

### Asset Statement

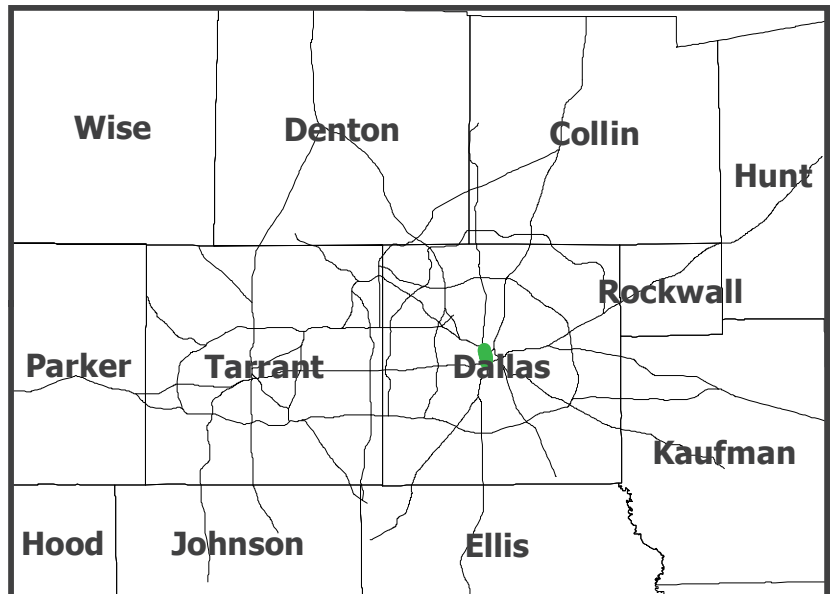
Promote modal options and operate

### Corridor Statement

Promote modal options and operate

### Corridor Output

Partial Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	36.1
Facility	US 175
From	IH 45
To	IH 20
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	85	Sufficient
Travel Time Index (Recurring Congestion)	1.23	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.16	Sufficient
Pavement in Poor Condition	4	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	36	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	71	
Parallel Freeway Percentage	33	Low

## Modal Options

Park and Rides within 1 mile of corridor	6	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	31	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	62	
<i>Bus Trip Density*</i>	182	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	97	Low
Truck Lane Restriction Percentage	85	
HOV/Managed Lane Percentage	0	

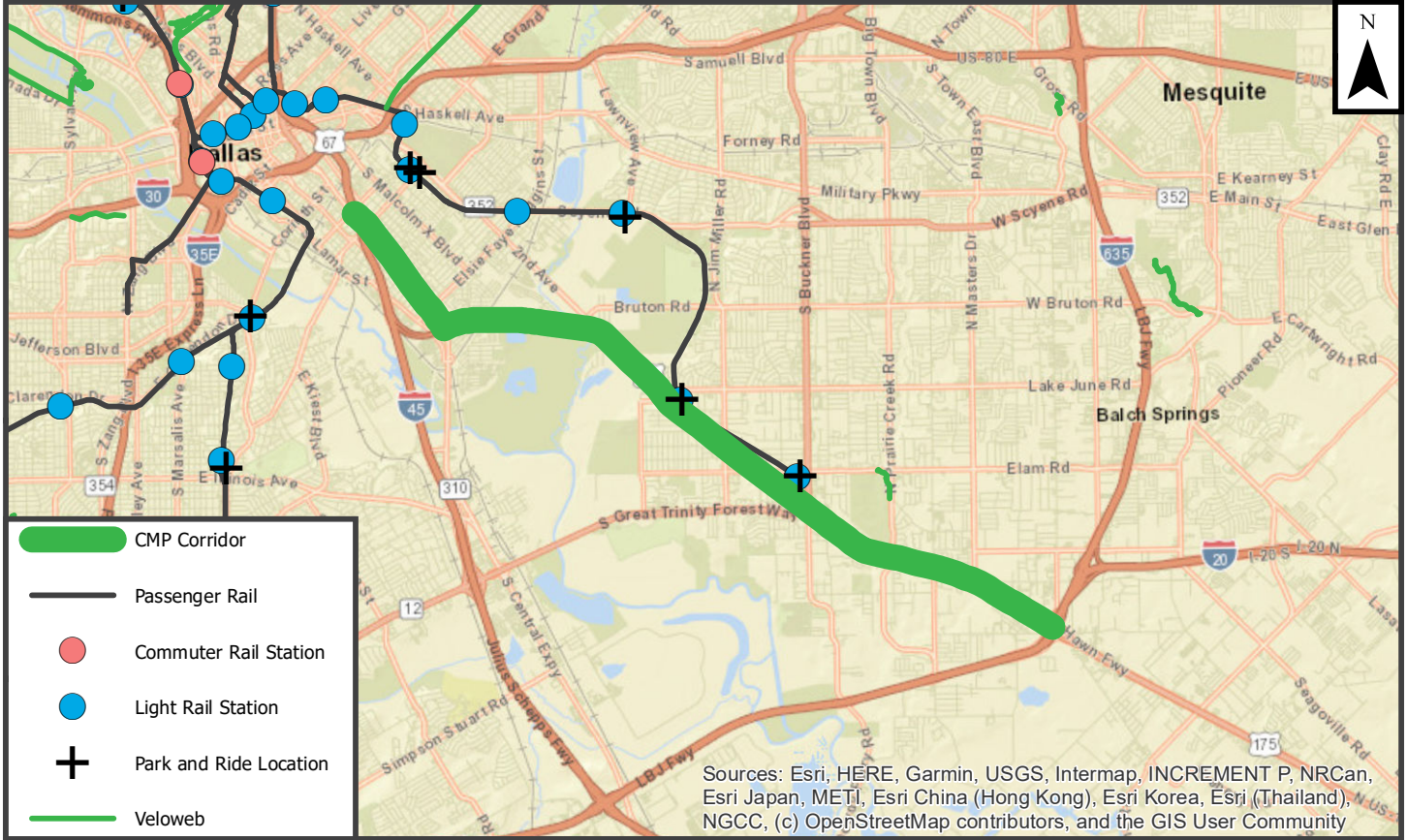
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 36.1

## US 175 between IH 45 and IH 20



### Performance Statement

Continue to monitor

### Asset Statement

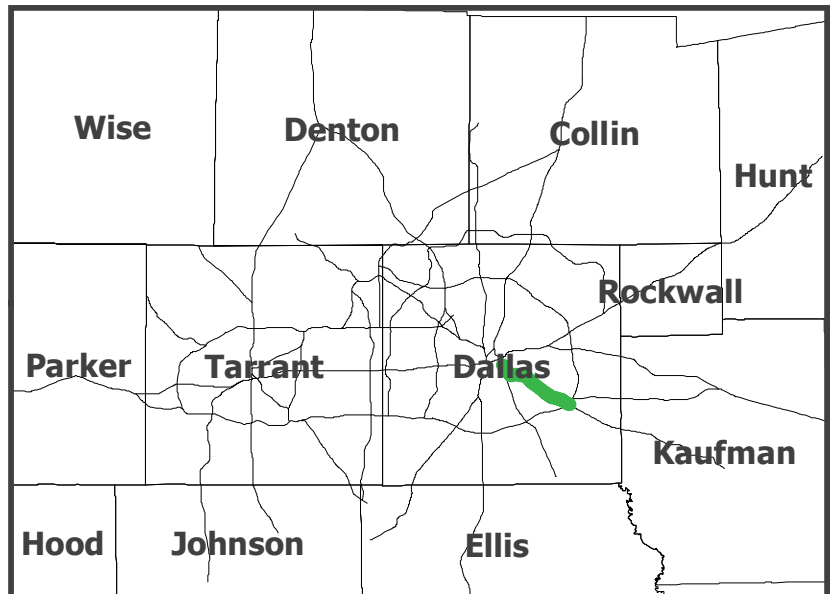
Promote options, may need roadway capacity

### Corridor Statement

Continue to monitor

### Corridor Output

Partial Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	27.2
Facility	IH 45
From	US 175
To	IH 20
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	64	Sufficient
Travel Time Index (Recurring Congestion)	1.16	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.22	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	73	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	15	
Parallel Freeway Percentage	53	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	77	
<i>Bus Trip Density*</i>	207	
Combined Bus Availability	High	<small>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</small>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	87	Medium
Truck Lane Restriction Percentage	100	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D

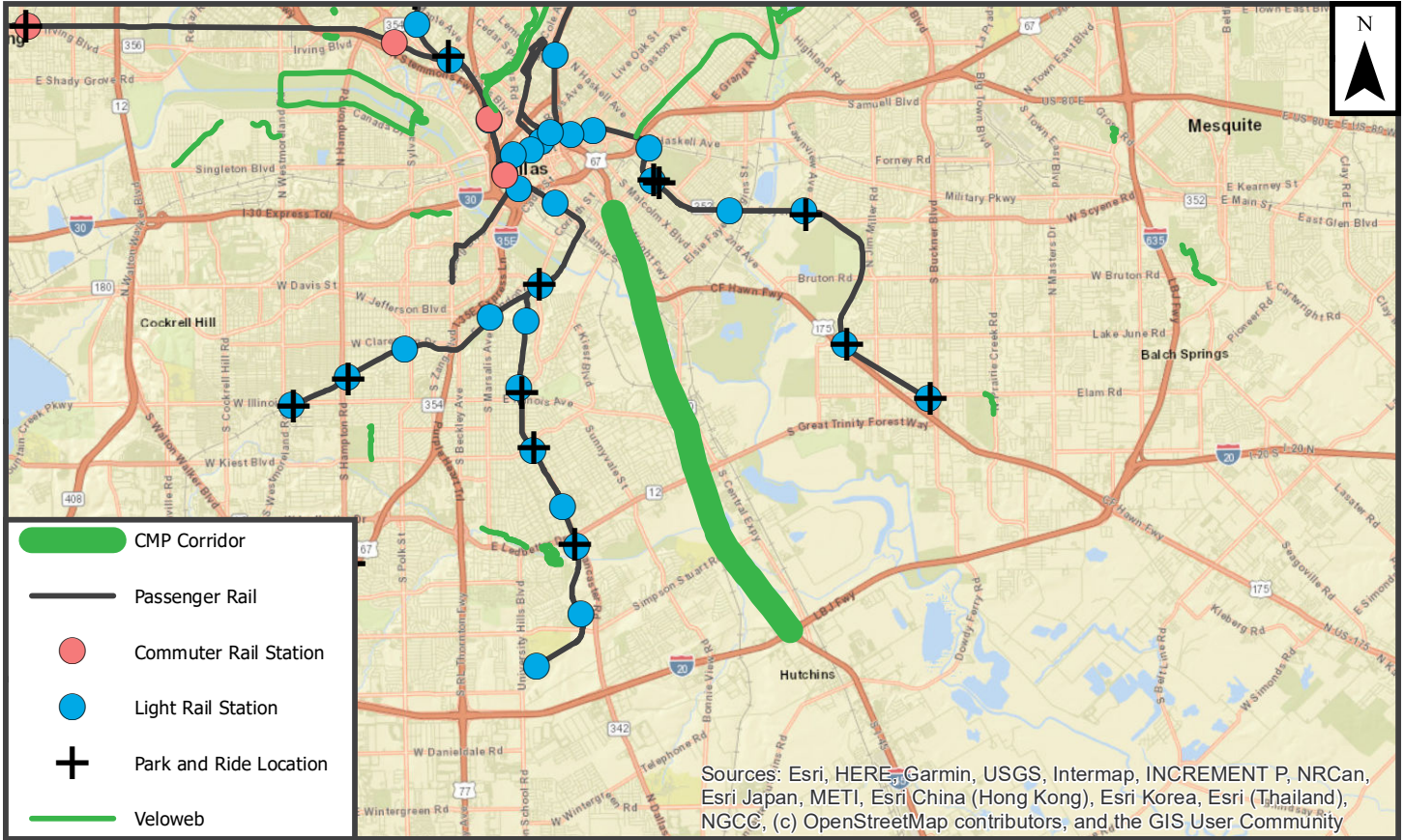




**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 27.2

## IH 45 between US 175 and IH 20



### Performance Statement

Continue to monitor

### Asset Statement

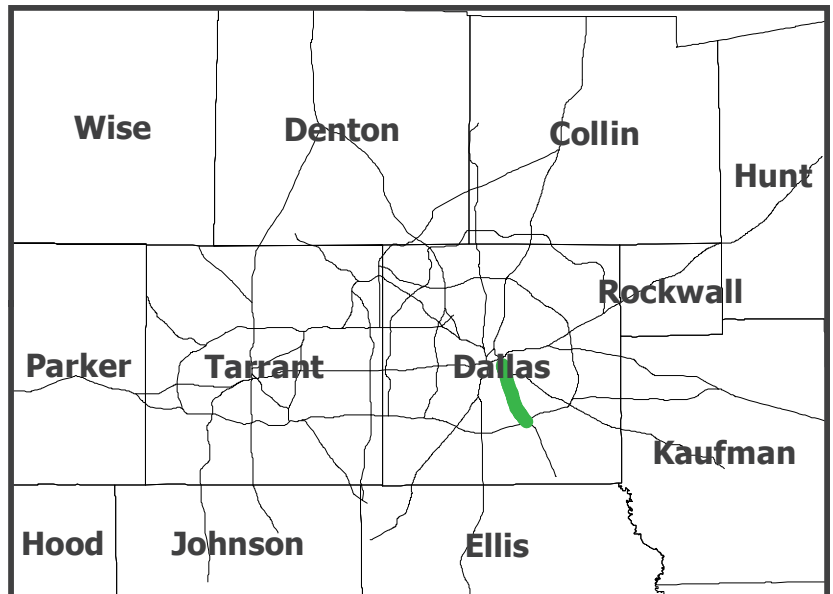
Promote modal options and operate

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	27.1
Facility	IH 45
From	IH 30
To	US 175
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	109	Needs Improvement
Travel Time Index (Recurring Congestion)	1.92	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.24	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	91	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	3	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	184	
Parallel Commuter Rail as percentage of corridor length	0	High
<i>Parallel Bus Route as percentage of corridor length*</i>	73	
<i>Bus Trip Density*</i>	533	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	
Truck Lane Restriction Percentage	100	Medium
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 27.1

## IH 45 between IH 30 and US 175



### Performance Statement

Demand reduction and operational

### Asset Statement

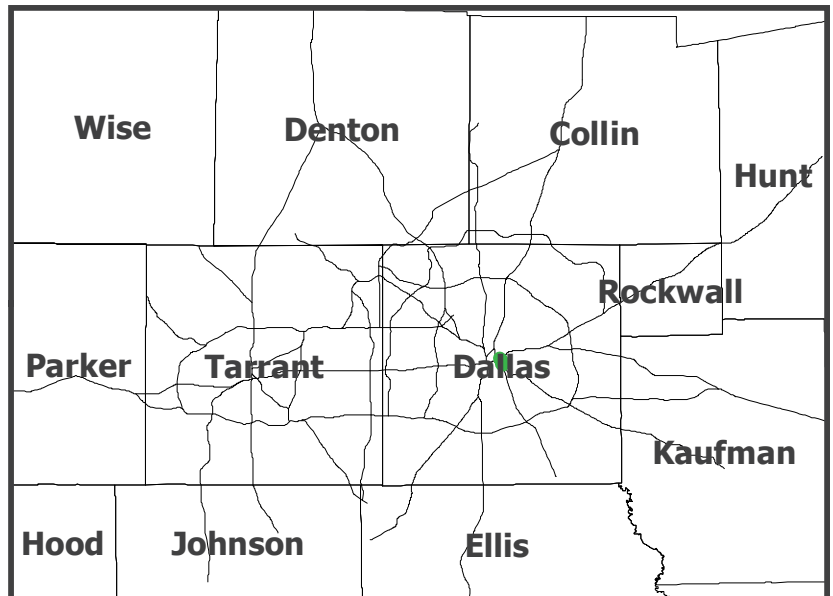
Promote modal options and operate

### Corridor Statement

Promote modal options and operate

### Corridor Output

CMP Strategy



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	28.8
Facility	IH 30 "Horseshoe"
From	IH 35E
To	IH 35E
Construction Status	Recent Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	531	Needs Improvement
Travel Time Index (Recurring Congestion)	2.26	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.51	Needs Improvement
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	79	Needs Improvement

## Roadway Infrastructure

Available Arterial Capacity %	100	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	70	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	158	
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	94	
<i>Bus Trip Density*</i>	542	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

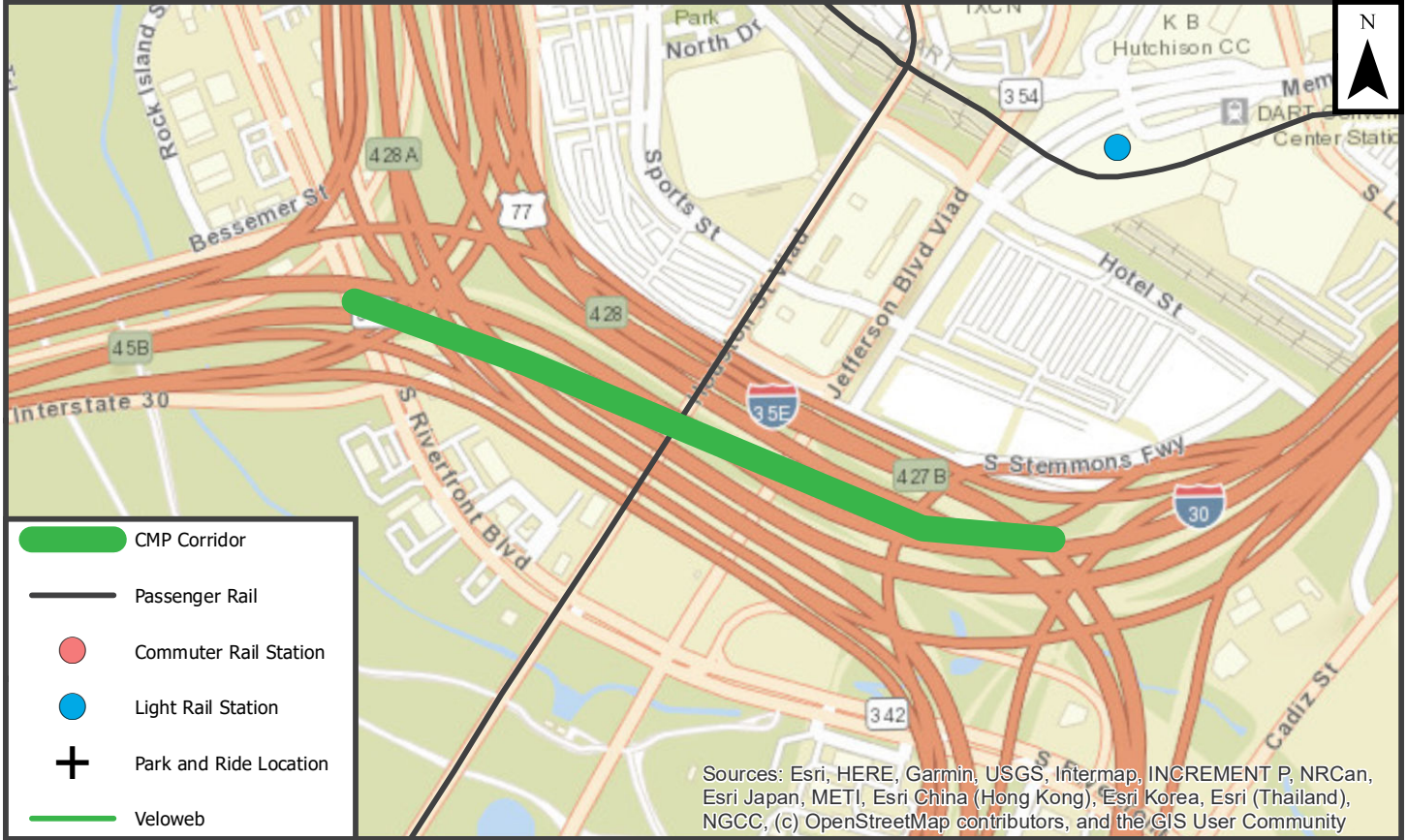
More detail on corridor evaluation and scoring criteria available in Appendix D





# Congestion Management Process Corridor 28.8

IH 30 "Horseshoe" between IH 35E and IH 35E



## Performance Statement

Rebuild with capacity

## Asset Statement

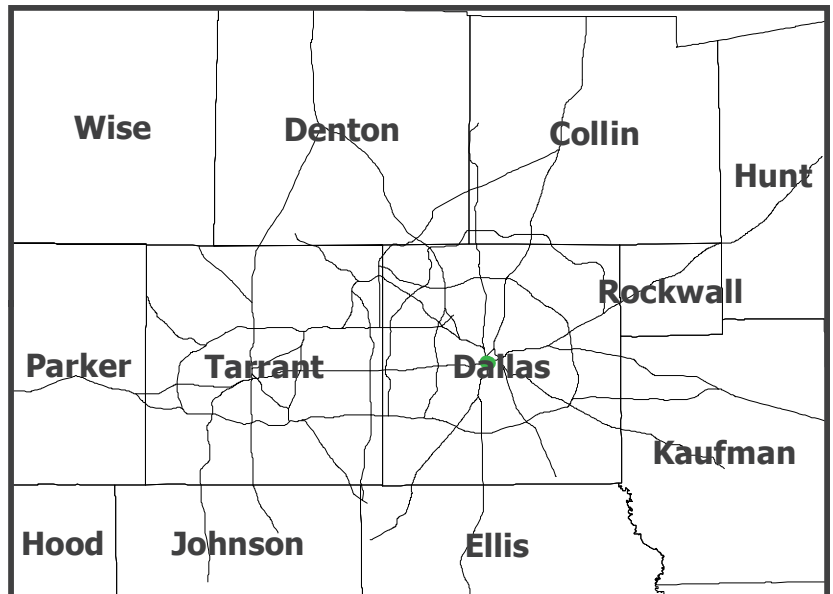
Promote modal options and needs operations

## Corridor Statement

Promote modal options

## Corridor Output

Recent Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	7.8
Facility	IH 35E
From	IH 30
To	US 67
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	122	Needs Improvement
Travel Time Index (Recurring Congestion)	1.49	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.21	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	35	Needs Improvement

## Roadway Infrastructure

Available Arterial Capacity %	14	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	36	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	4	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	82	
Parallel Commuter Rail as percentage of corridor length	0	High
<i>Parallel Bus Route as percentage of corridor length*</i>	90	
<i>Bus Trip Density*</i>	406	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

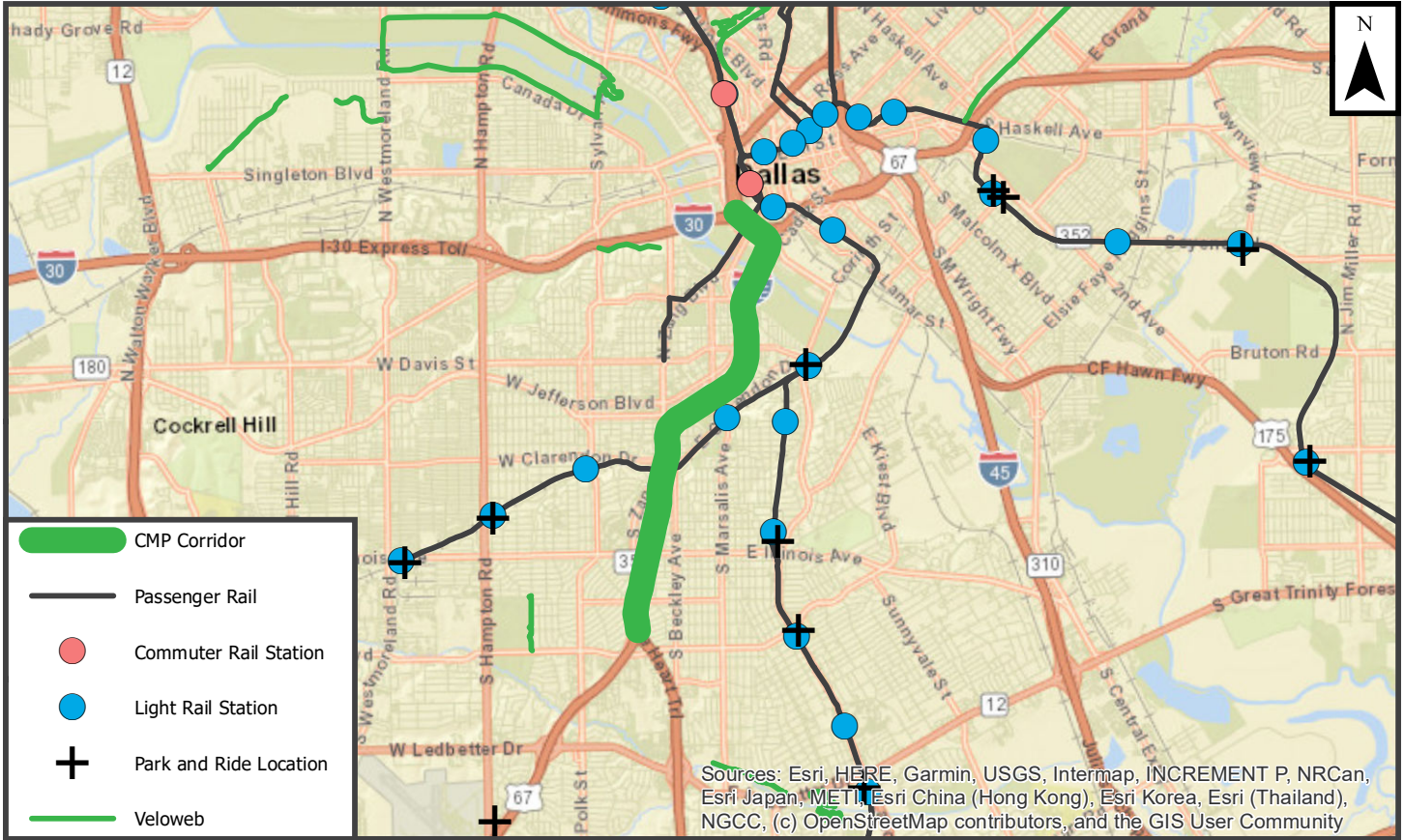
Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	100	
Truck Lane Restriction Percentage	95	Low
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 7.8

IH 35E between IH 30 and US 67



## Performance Statement

Rehab and operational

## Asset Statement

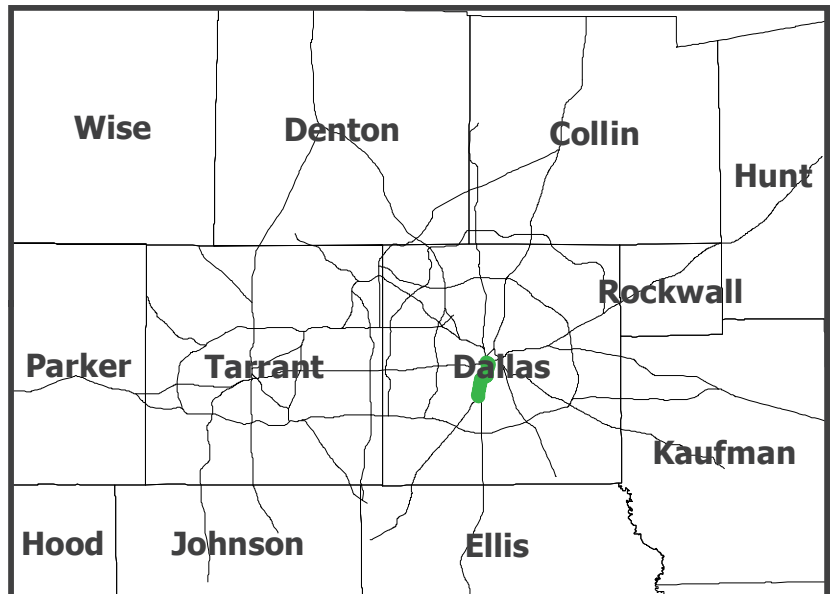
Promote modal options and needs operations

## Corridor Statement

Implement operational strategies

## Corridor Output

Full Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	28.9
Facility	IH 30
From	IH 35E
To	IH 45
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	225	Needs Improvement
Travel Time Index (Recurring Congestion)	2.31	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.31	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	100	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	44	
Parallel Freeway Percentage	95	High

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	102	
Parallel Commuter Rail as percentage of corridor length	0	High
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	540	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	100	
Truck Lane Restriction Percentage	0	Medium
HOV/Managed Lane Percentage	27	

More detail on corridor evaluation and scoring criteria available in Appendix D





**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 28.9

## IH 30 between IH 35E and IH 45



### Performance Statement

Demand reduction and operational

### Asset Statement

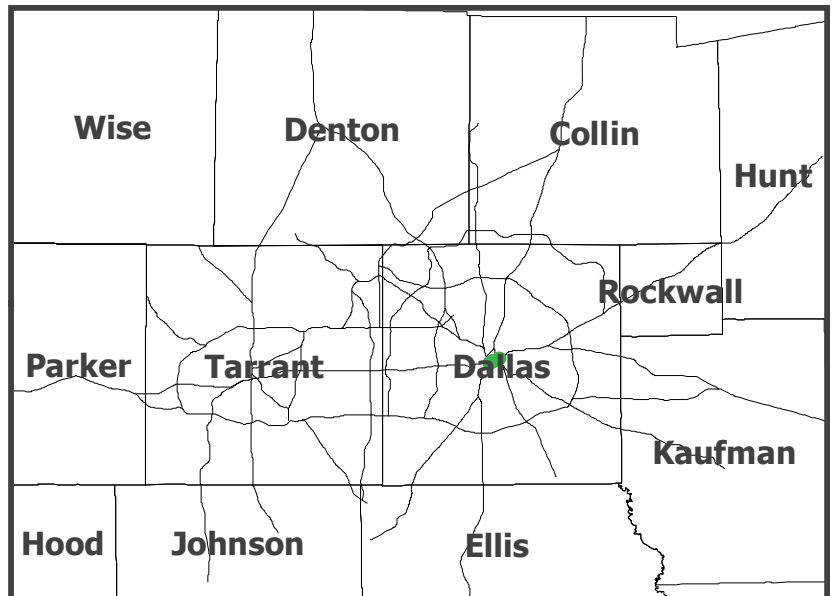
Promote options and operate

### Corridor Statement

Promote options and operate

### Corridor Output

Full Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	28.7
Facility	IH 30
From	SL 12
To	IH 35E
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	63	Sufficient
Travel Time Index (Recurring Congestion)	1.18	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.22	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	65	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	69	
Parallel Freeway Percentage	16	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	293	
Combined Bus Availability	High	<small>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</small>

## Operations

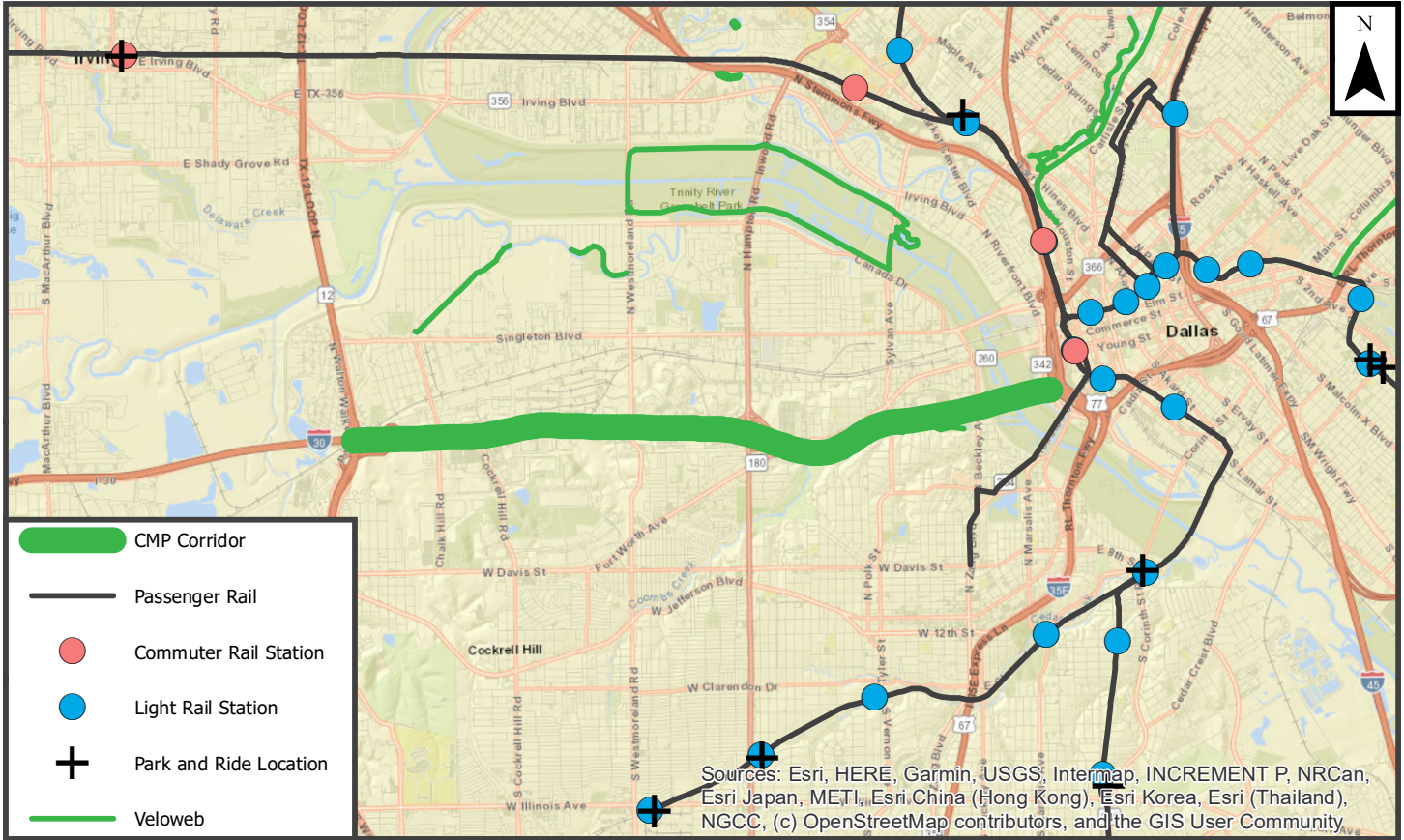
Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	100	High
Truck Lane Restriction Percentage	75	
HOV/Managed Lane Percentage	100	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 28.7

IH 30 between SL 12 and IH 35E



## Performance Statement

Continue to monitor

## Asset Statement

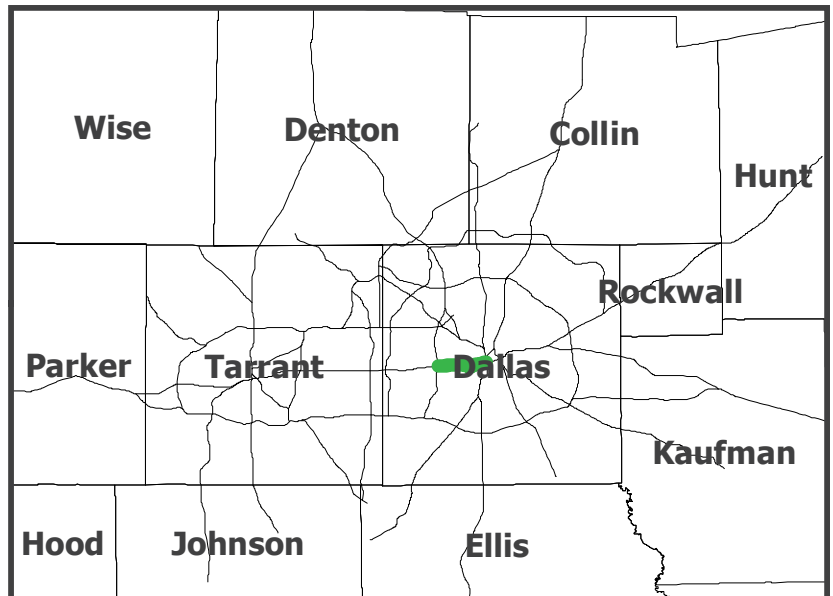
Promote modal options and operate

## Corridor Statement

Continue to monitor

## Corridor Output

Partial Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	21.3
Facility	DNT
From	PGBT (North)
To	IH 635 (North)
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	115	Needs Improvement
Travel Time Index (Recurring Congestion)	1.72	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.58	Needs Improvement
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	38	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	55	Medium

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	130	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Medium
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D

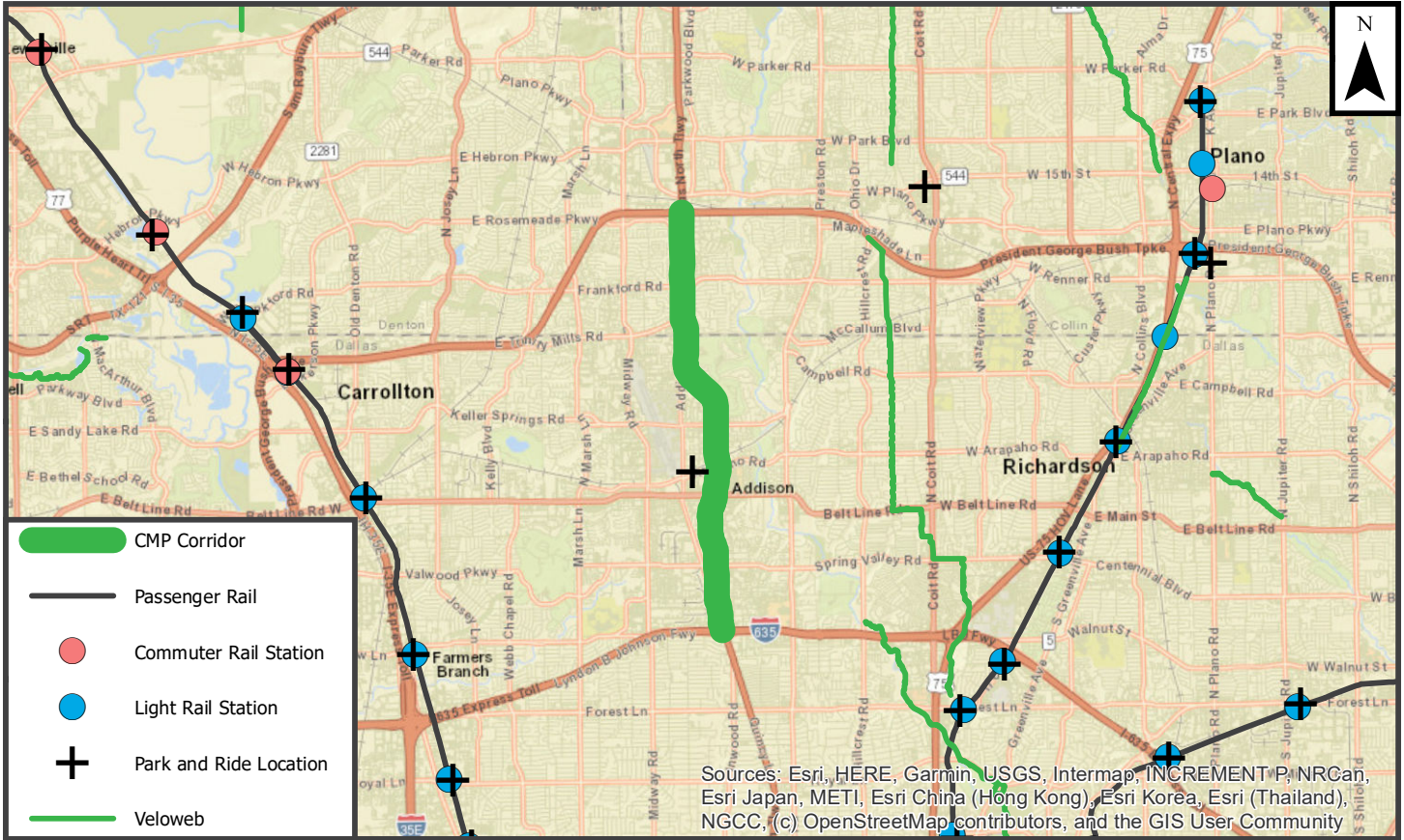




**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 21.3

## DNT between PGBT (North) and IH 635 (North)



### Performance Statement

Demand reduction and operational

### Asset Statement

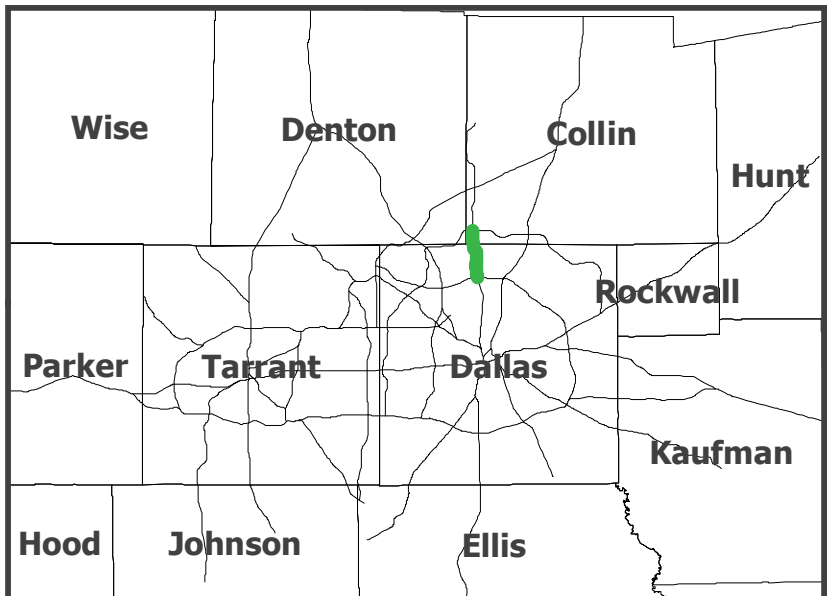
Promote options and operate

### Corridor Statement

Promote options and operate

### Corridor Output

CMP Strategy





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	23.5
Facility	US 75
From	PGBT
To	IH 635 (North)
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	84	Sufficient
Travel Time Index (Recurring Congestion)	1.54	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.50	Needs Improvement
Pavement in Poor Condition	22	Needs Improvement
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	12	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	6	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	102	
Parallel Commuter Rail as percentage of corridor length	0	High
<i>Parallel Bus Route as percentage of corridor length*</i>	69	
<i>Bus Trip Density*</i>	135	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	100	
Truck Lane Restriction Percentage	93	Low
HOV/Managed Lane Percentage	100	

More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 23.5

## US 75 between PGBT and IH 635 (North)



### Performance Statement

Rehab, demand reduction and operational

### Asset Statement

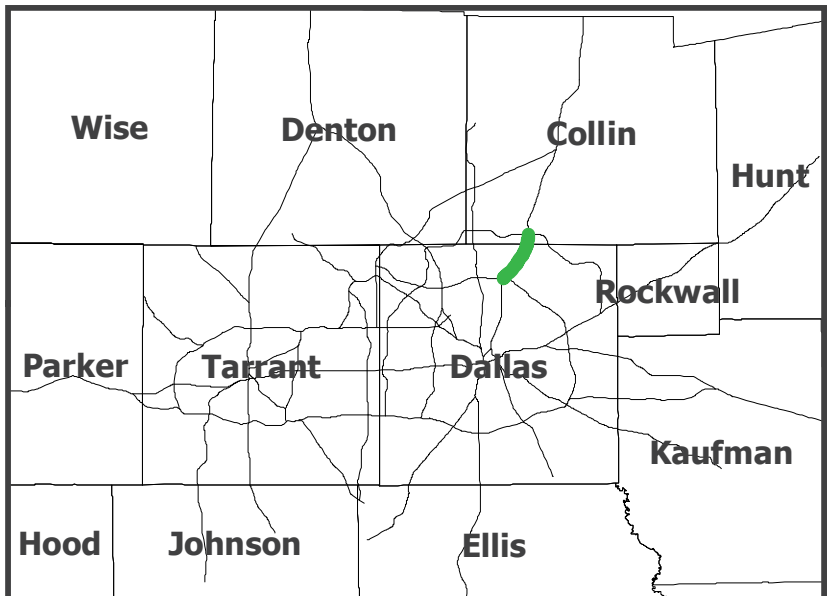
Promote modal options and needs operations

### Corridor Statement

Promote modal options and implement operational strategies

### Corridor Output

CMP Strategy



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	14.2
Facility	SH 199
From	Tarrant C/L
To	IH 820 (North)
Construction Status	Recent Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	134	Needs Improvement
Travel Time Index (Recurring Congestion)	1.13	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.18	Sufficient
Pavement in Poor Condition	7	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	44	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	93	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	5	
<i>Bus Trip Density*</i>	7	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	75	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

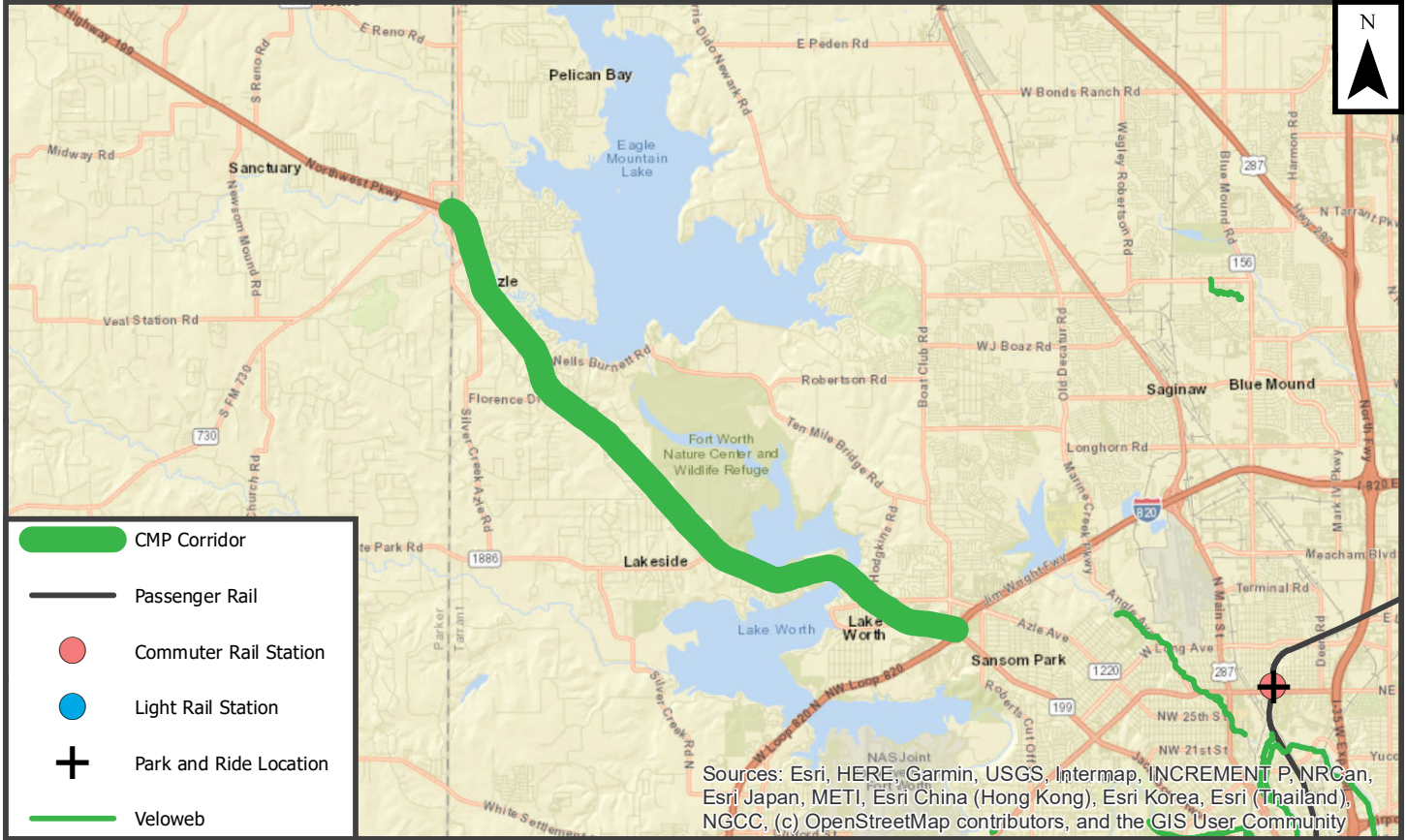
More detail on corridor evaluation and scoring criteria available in Appendix D





# Congestion Management Process Corridor 14.2

## SH 199 between Tarrant C/L and IH 820 (North)



### Performance Statement

Operational

### Asset Statement

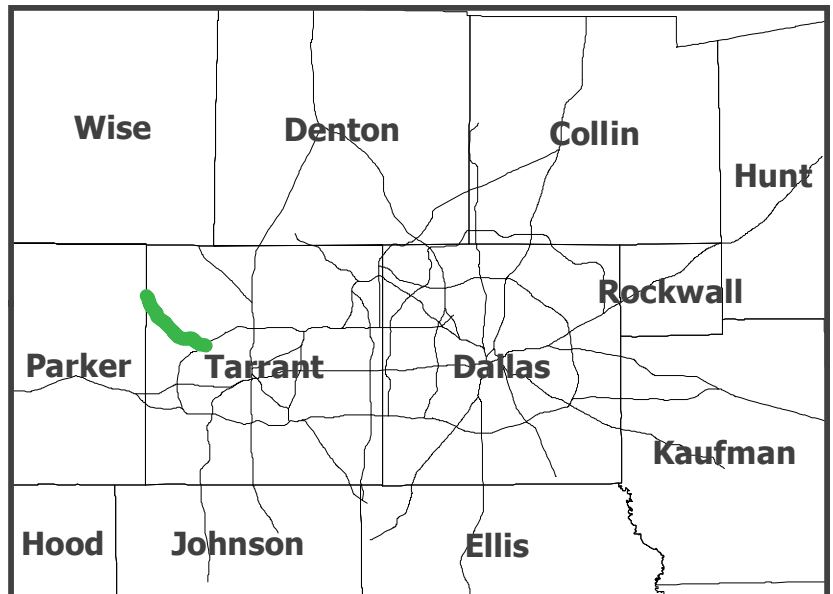
Needs help

### Corridor Statement

Implement operational strategies

### Corridor Output

Recent Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	153.2
Facility	IH 820 (West)
From	IH 30
To	SH 199
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	29	Sufficient
Travel Time Index (Recurring Congestion)	1.00	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.04	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	18	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	85	
Parallel Freeway Percentage	1	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	8	
<i>Bus Trip Density*</i>	15	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

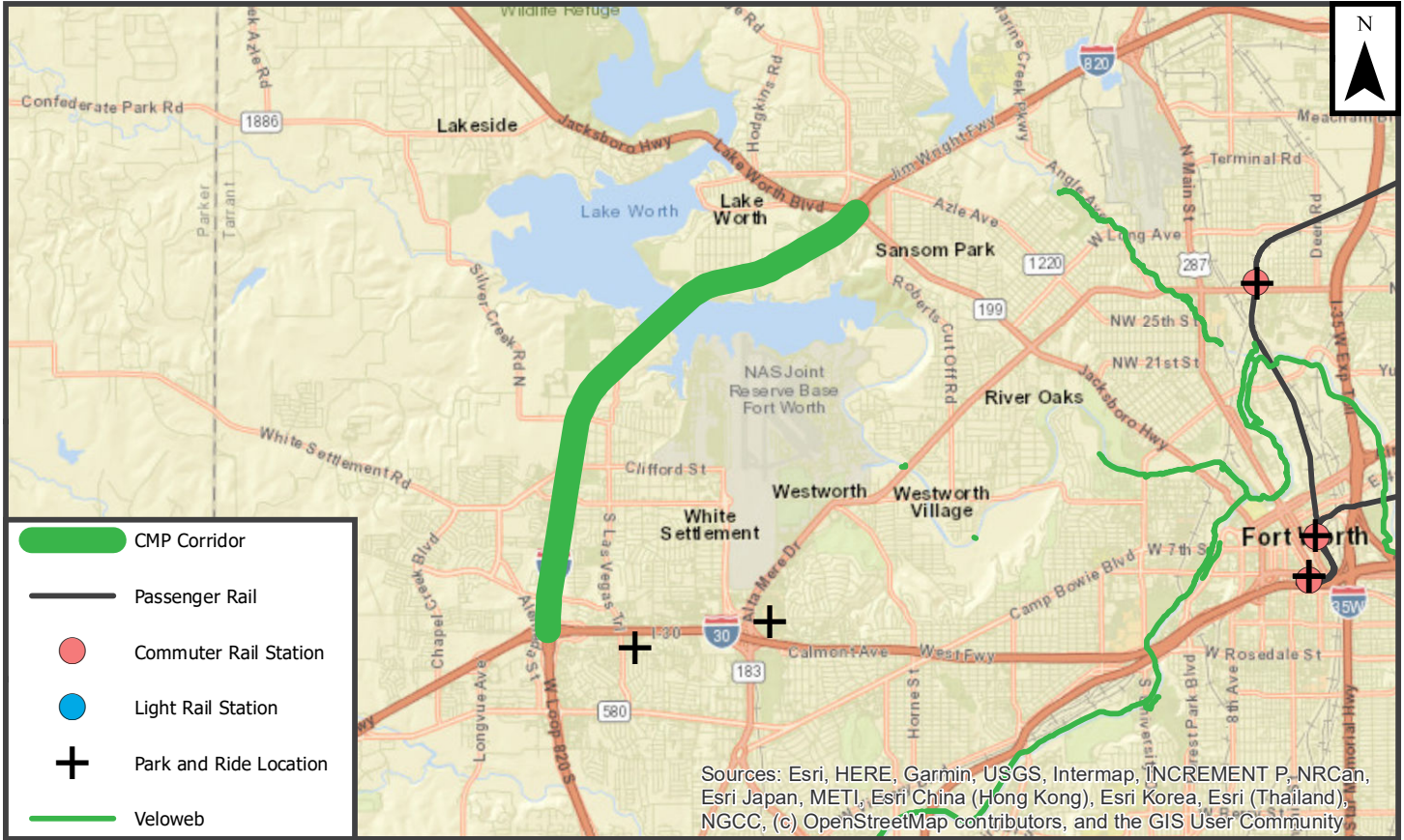
Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	94	
Truck Lane Restriction Percentage	100	Medium
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 153.2

## IH 820 (West) between IH 30 and SH 199



### Performance Statement

Continue to monitor

### Asset Statement

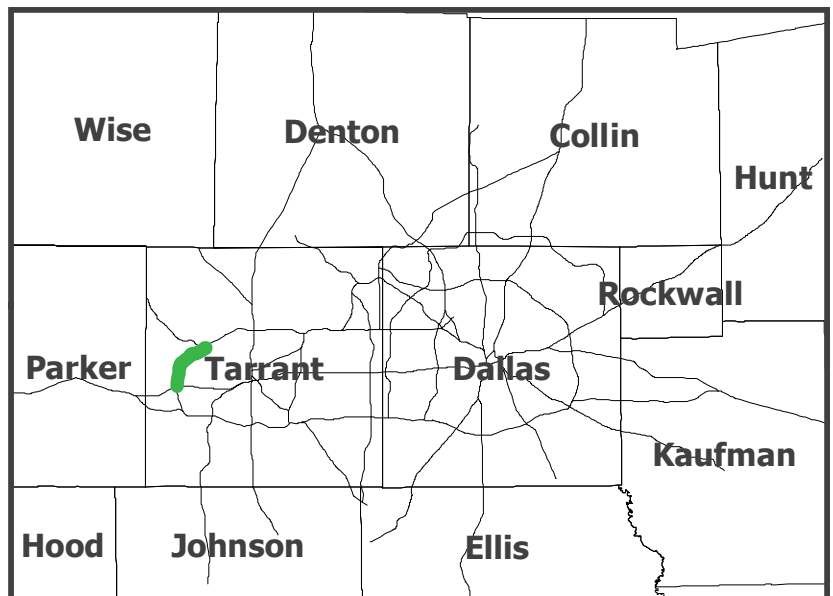
Operate and may need options

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	153.1
Facility	IH 820 (West)
From	IH 20
To	IH 30
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	37	Sufficient
Travel Time Index (Recurring Congestion)	1.00	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.05	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	100	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	80	
Parallel Freeway Percentage	0	Medium

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	47	
<i>Bus Trip Density*</i>	9	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	89	Medium
Truck Lane Restriction Percentage	100	
HOV/Managed Lane Percentage	0	

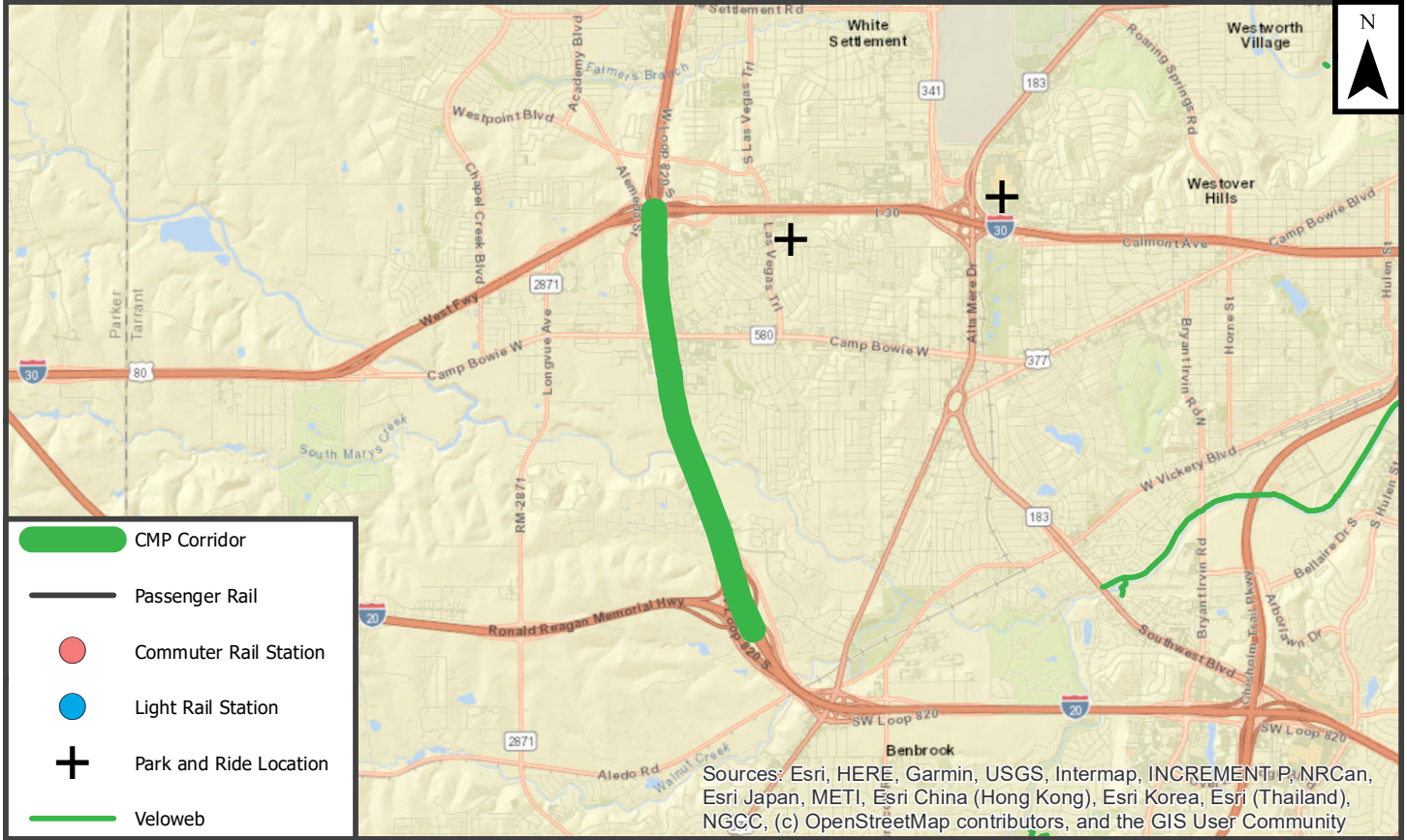
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 153.1

## IH 820 (West) between IH 20 and IH 30



### Performance Statement

Continue to monitor

### Asset Statement

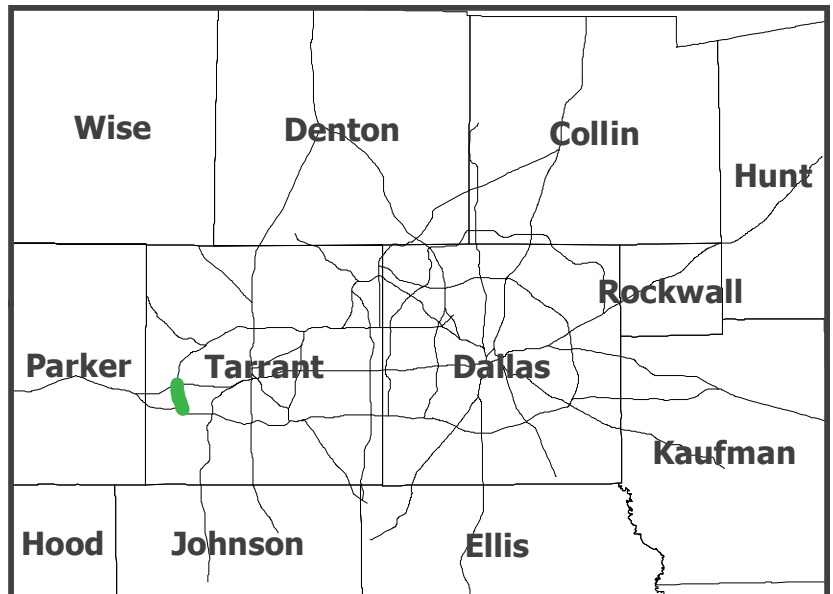
Promote alternate routes and operate, may need modal options

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	5.7
Facility	IH 35W
From	IH 30
To	IH 20
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	81	Sufficient
Travel Time Index (Recurring Congestion)	1.31	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.26	Sufficient
Pavement in Poor Condition	2	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	65	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	99	
Parallel Freeway Percentage	59	Medium

## Modal Options

Park and Rides within 1 mile of corridor	4	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	173	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Medium
Truck Lane Restriction Percentage	97	
HOV/Managed Lane Percentage	0	

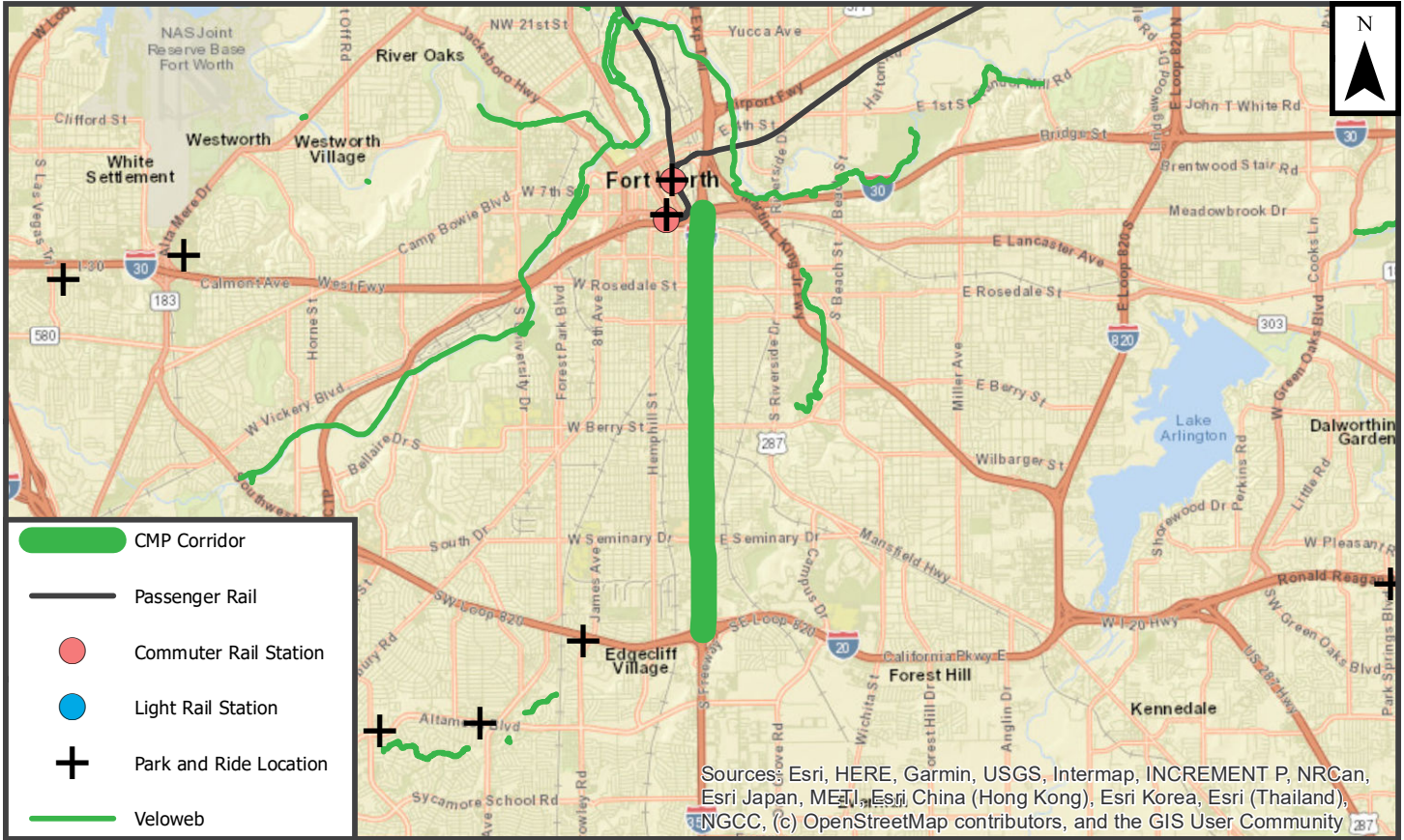
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 5.7

## IH 35W between IH 30 and IH 20



### Performance Statement

Continue to monitor

### Asset Statement

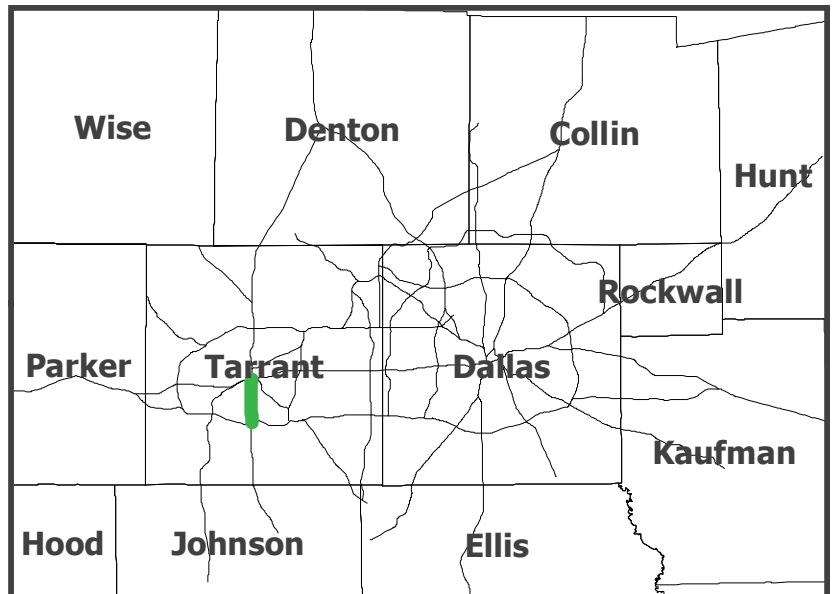
Promote options and operate

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	5.8
Facility	IH 35W
From	IH 20
To	Tarrant C/L
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	46	Sufficient
Travel Time Index (Recurring Congestion)	1.28	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.27	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	25	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	4	Low

## Modal Options

Park and Rides within 1 mile of corridor	2	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	91	
<i>Bus Trip Density*</i>	31	
Combined Bus Availability	Medium	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	85	
Truck Lane Restriction Percentage	92	Medium
HOV/Managed Lane Percentage	0	

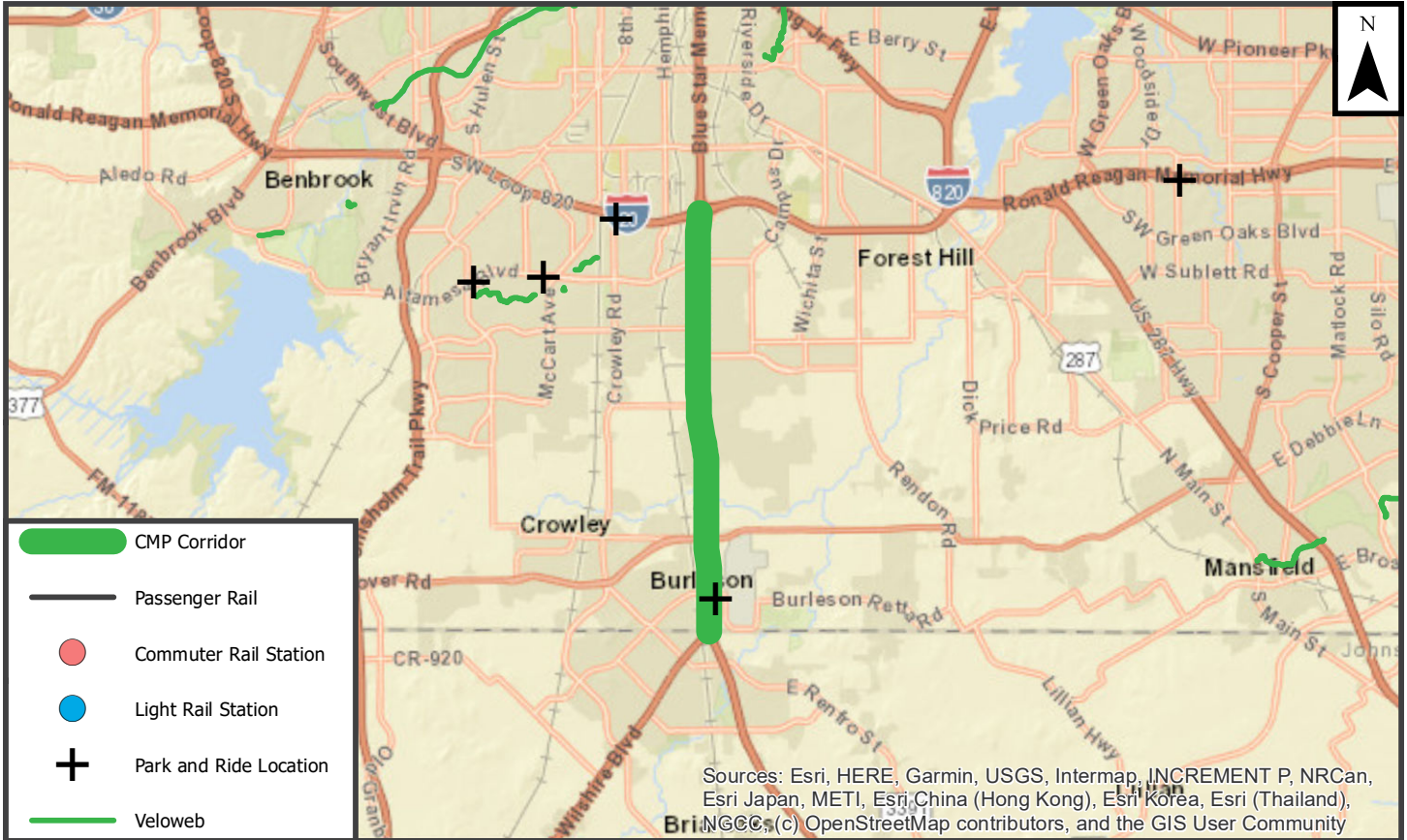
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 5.8

## IH 35W between IH 20 and Tarrant C/L



### Performance Statement

Continue to monitor

### Asset Statement

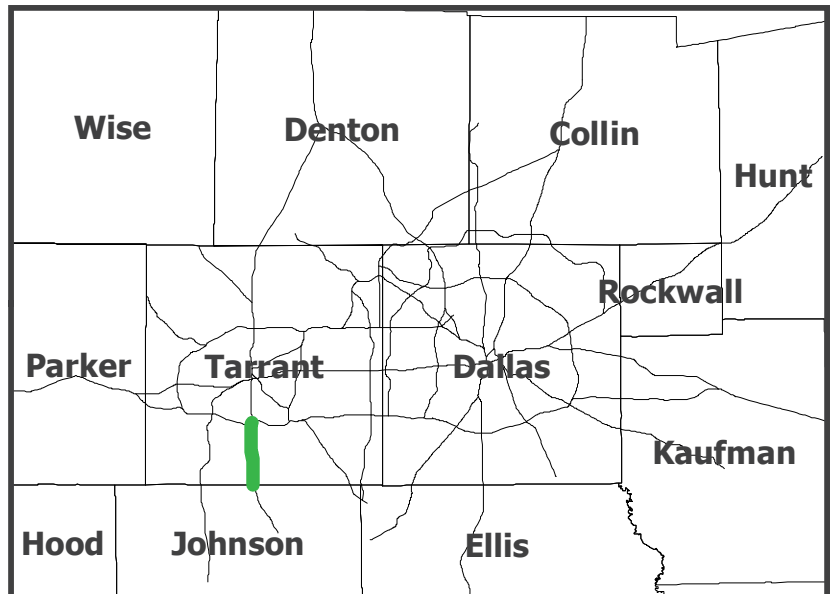
Operate and may need options

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	5.5
Facility	IH 35W
From	IH 820 (North)
To	SH 121
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	145	Needs Improvement
Travel Time Index (Recurring Congestion)	1.56	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.27	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	43	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	64	
Parallel Freeway Percentage	2	Low

## Modal Options

Park and Rides within 1 mile of corridor	5	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Medium
Parallel Commuter Rail as percentage of corridor length	48	
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	144	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

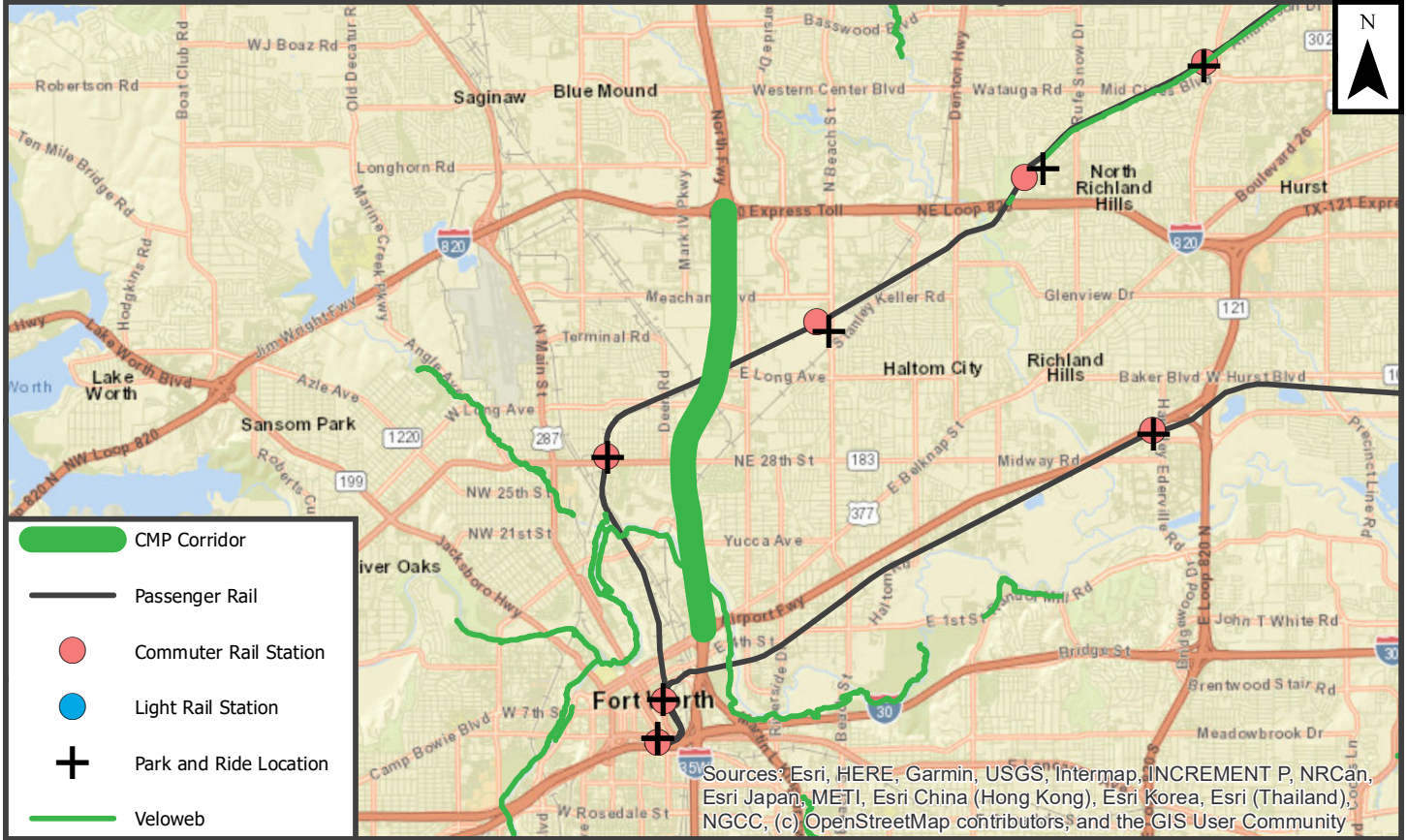
Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	70	High
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	100	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 5.5

IH 35W between IH 820 (North) and SH 121



## Performance Statement

Demand reduction and operational

## Asset Statement

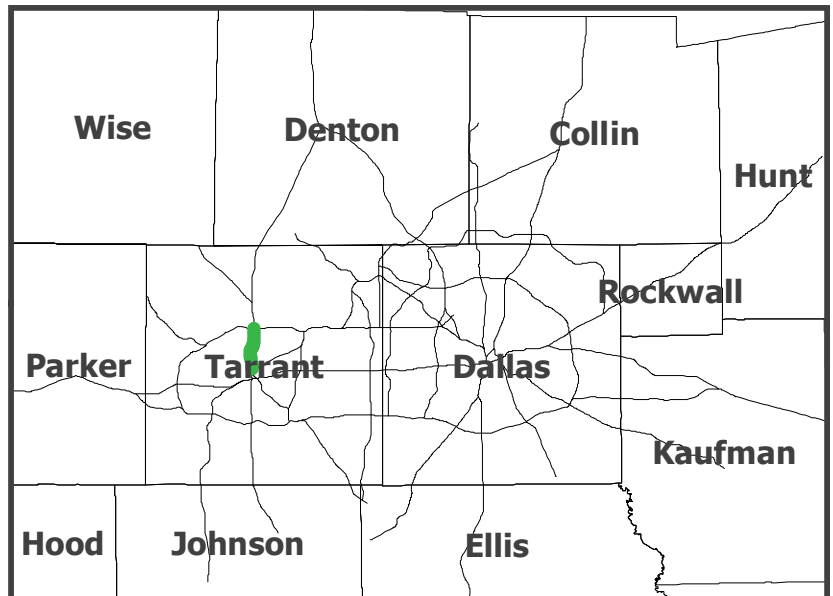
Promote modal options and operate

## Corridor Statement

Promote modal options and operate

## Corridor Output

Partial Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	11.10
Facility	SH 121
From	IH 820 (East)
To	IH 35W
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	34	Sufficient
Travel Time Index (Recurring Congestion)	1.11	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.23	Sufficient
Pavement in Poor Condition	1	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	33	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	85	
Parallel Freeway Percentage	49	Low

## Modal Options

Park and Rides within 1 mile of corridor	4	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	High
Parallel Commuter Rail as percentage of corridor length	104	
<i>Parallel Bus Route as percentage of corridor length*</i>	35	
<i>Bus Trip Density*</i>	90	
Combined Bus Availability	Medium	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	99	Low
Truck Lane Restriction Percentage	77	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D

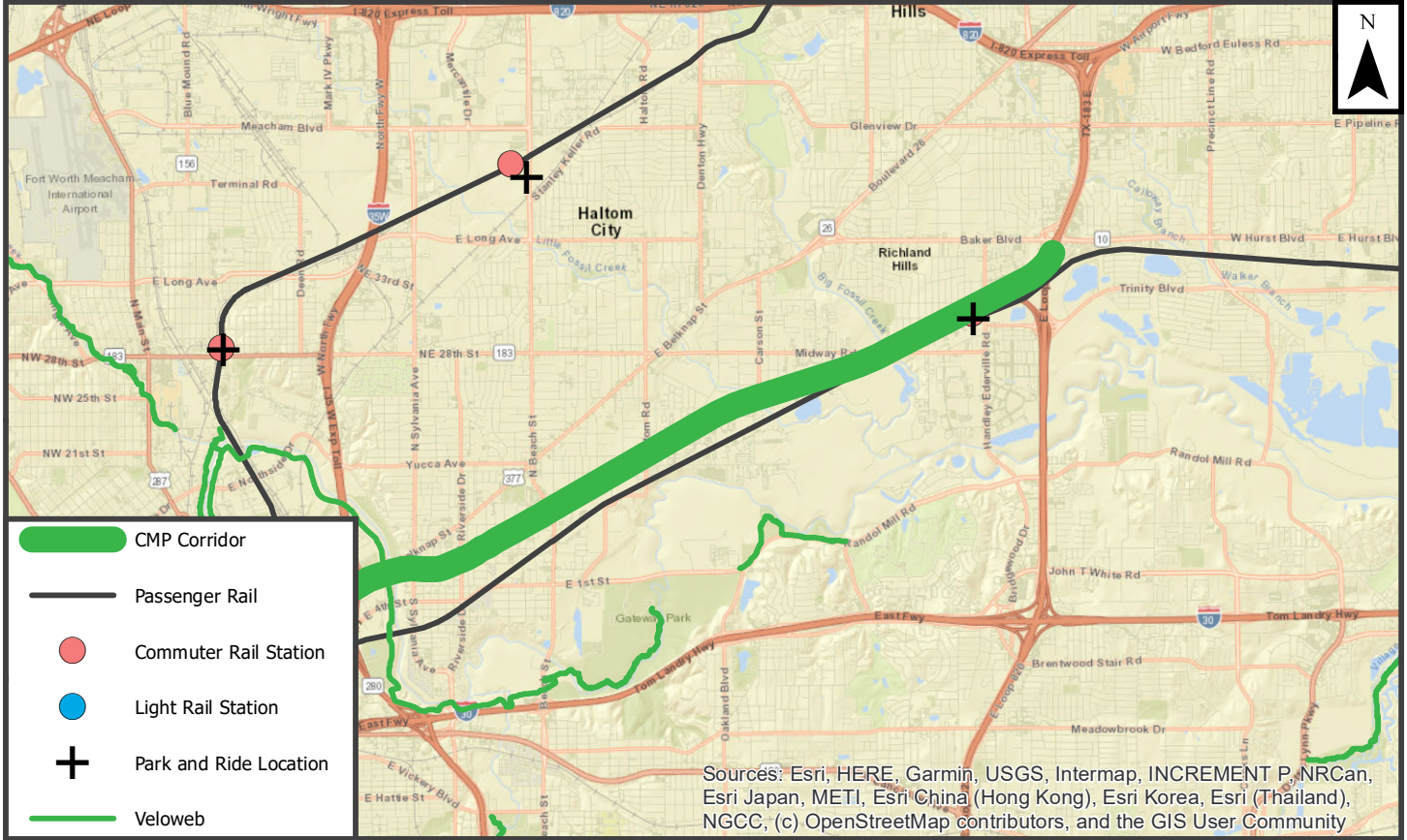




**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 11.10

## SH 121 between IH 820 (East) and IH 35W



### Performance Statement

Continue to monitor

### Asset Statement

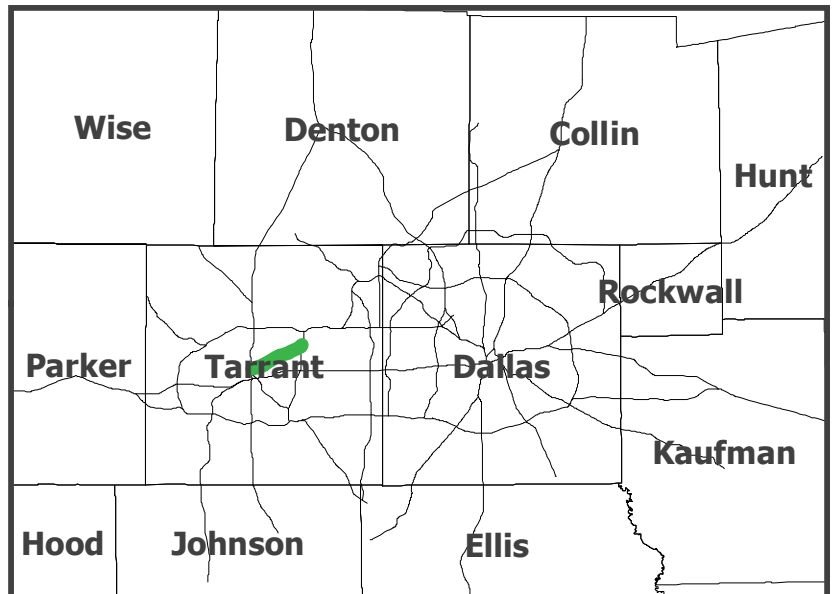
Promote modal options and needs operations

### Corridor Statement

Continue to monitor

### Corridor Output

Partial Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	1.4
Facility	US 287
From	Tarrant C/L
To	IH 35W
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	22	Sufficient
Travel Time Index (Recurring Congestion)	1.01	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.05	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	9	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	37	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	7	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

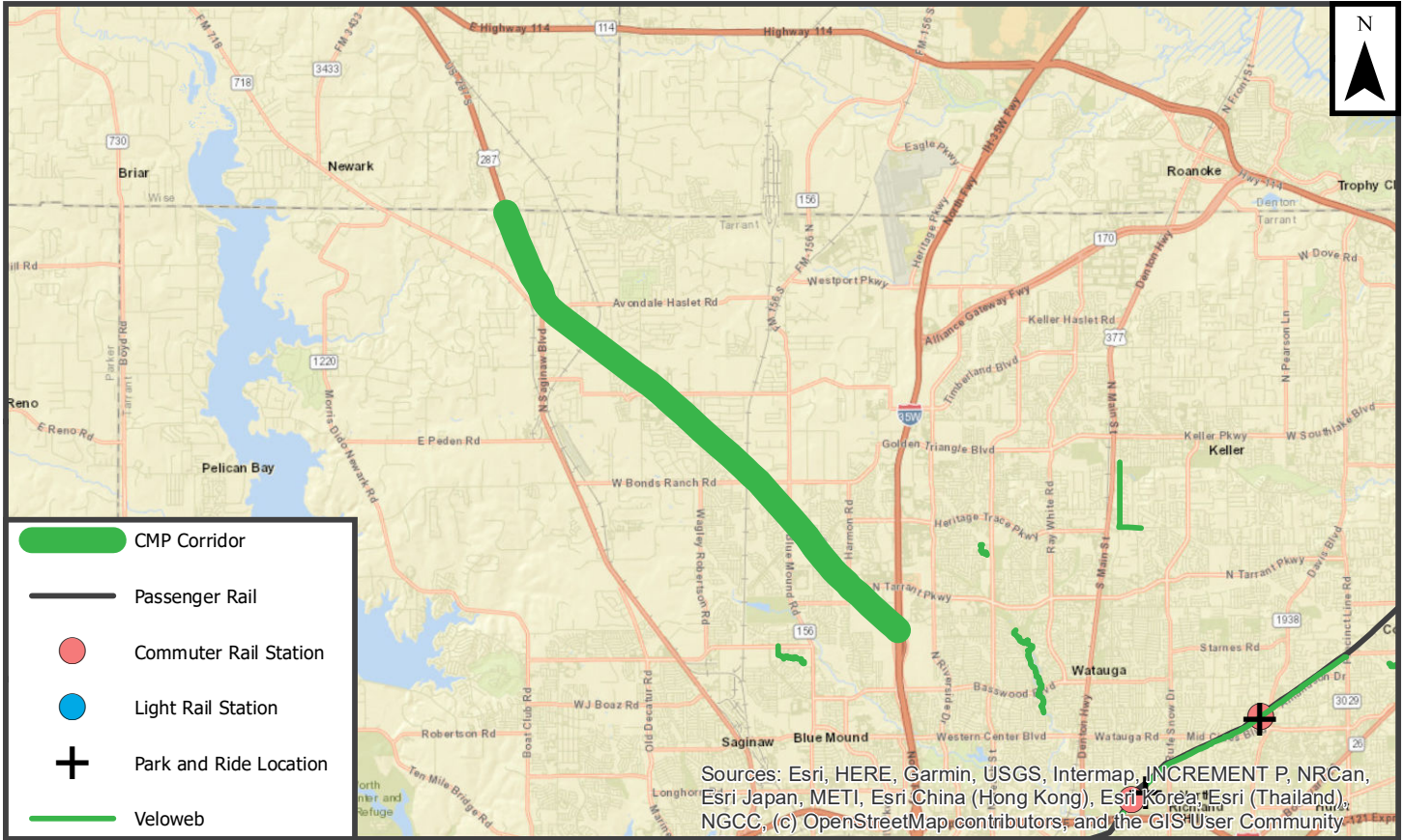
Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	27	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 1.4

## US 287 between Tarrant C/L and IH 35W



### Performance Statement

Continue to monitor

### Asset Statement

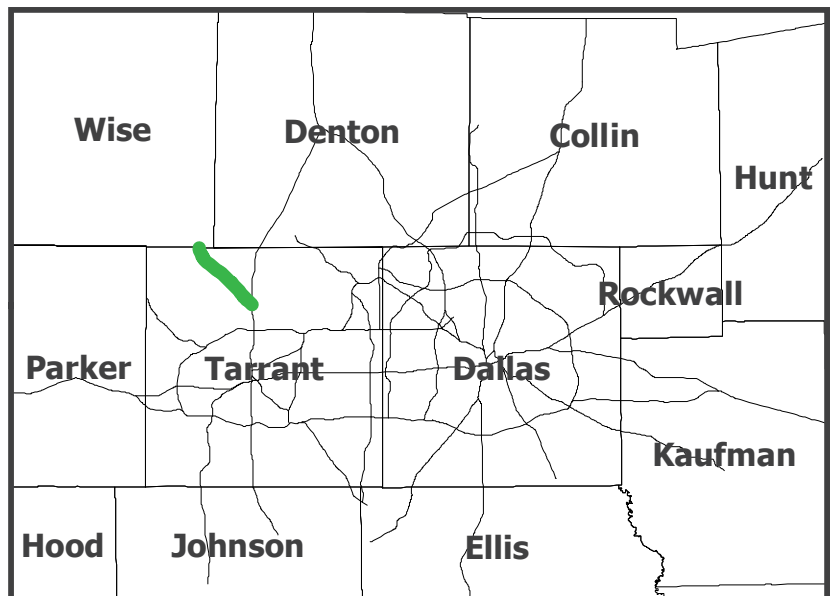
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Partial Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	5.4
Facility	IH 35W
From	US 287
To	IH 820 (North)
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	158	Needs Improvement
Travel Time Index (Recurring Congestion)	1.46	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.42	Needs Improvement
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	40	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	71	
Parallel Freeway Percentage	3	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	34	
Combined Bus Availability	Medium	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

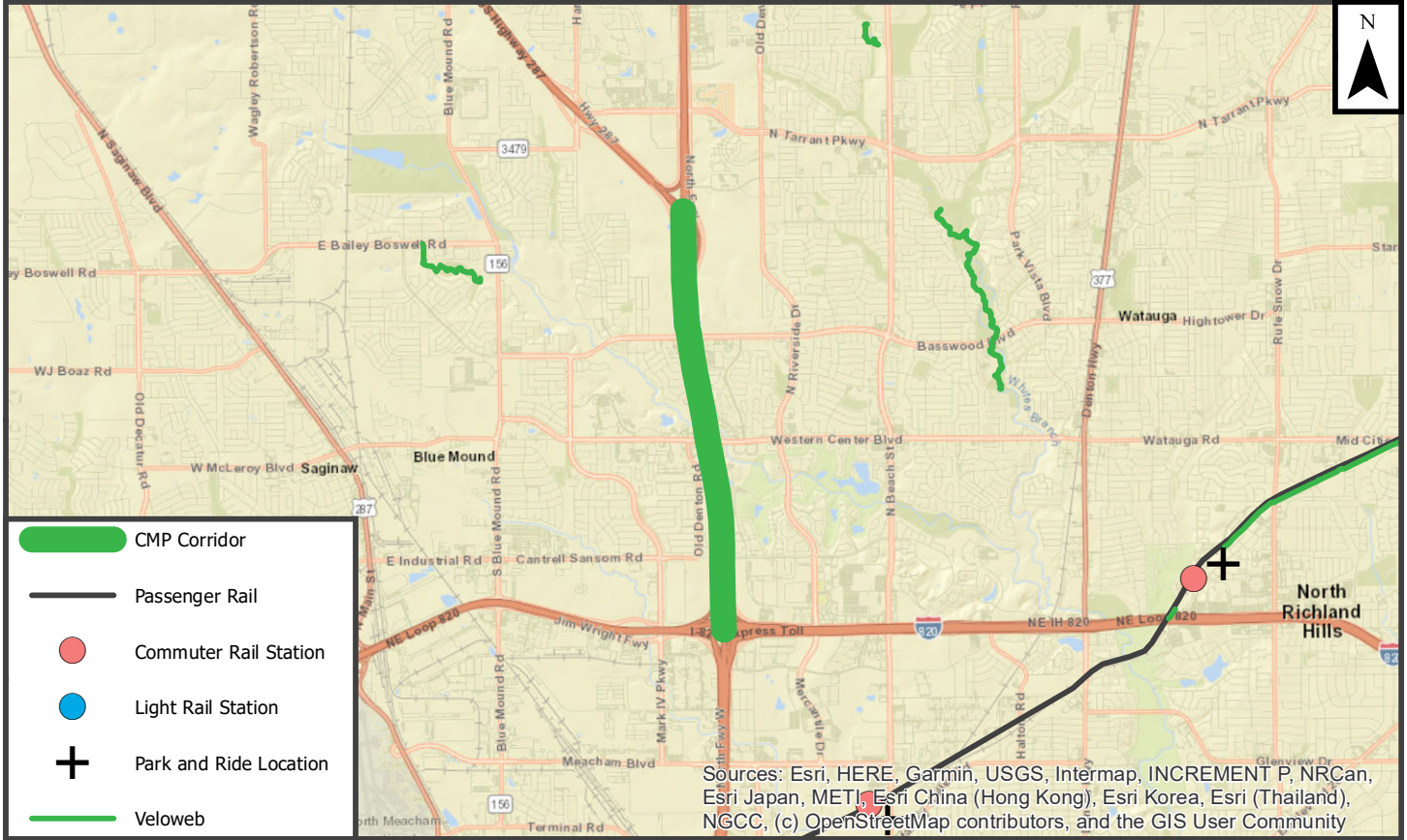
Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	30	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	72	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 5.4

IH 35W between US 287 and IH 820 (North)



## Performance Statement

Demand reduction and operational

## Asset Statement

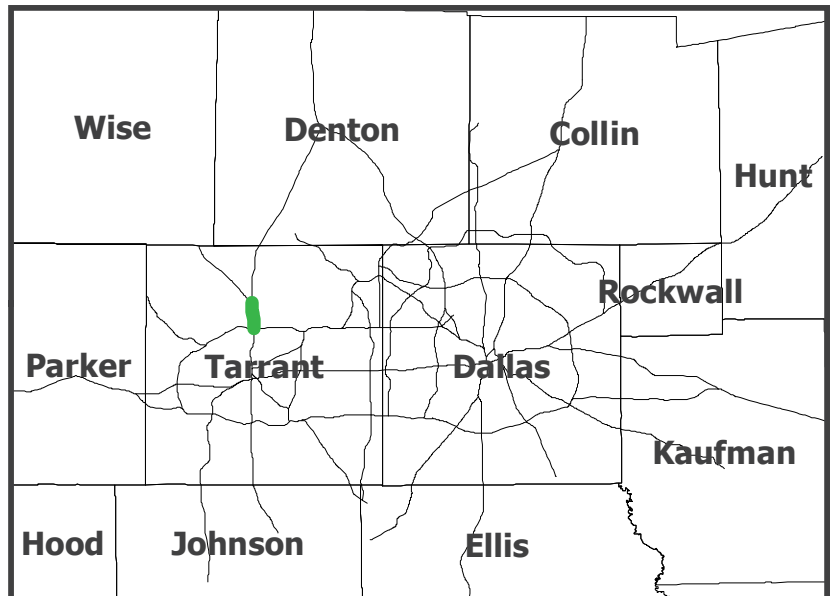
Needs help

## Corridor Statement

Needs corridor study

## Corridor Output

Partial Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	150.2
Facility	IH 820 (North)
From	IH 35W
To	SH 183
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	69	Sufficient
Travel Time Index (Recurring Congestion)	1.37	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.23	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	55	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	80	
Parallel Freeway Percentage	20	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	27	
<i>Bus Trip Density*</i>	20	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	67	High
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	100	

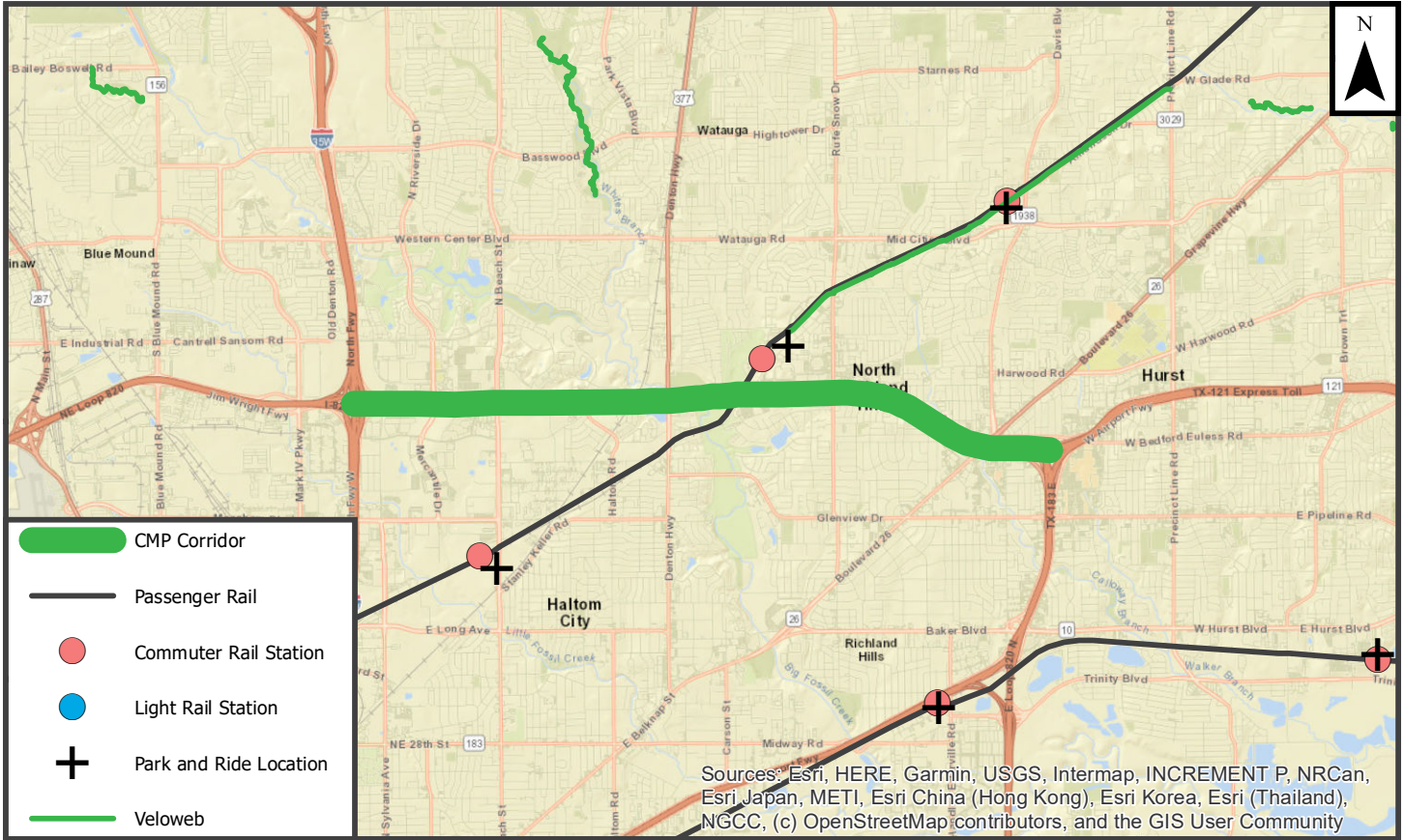
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 150.2

## IH 820 (North) between IH 35W and SH 183



### Performance Statement

Continue to monitor

### Asset Statement

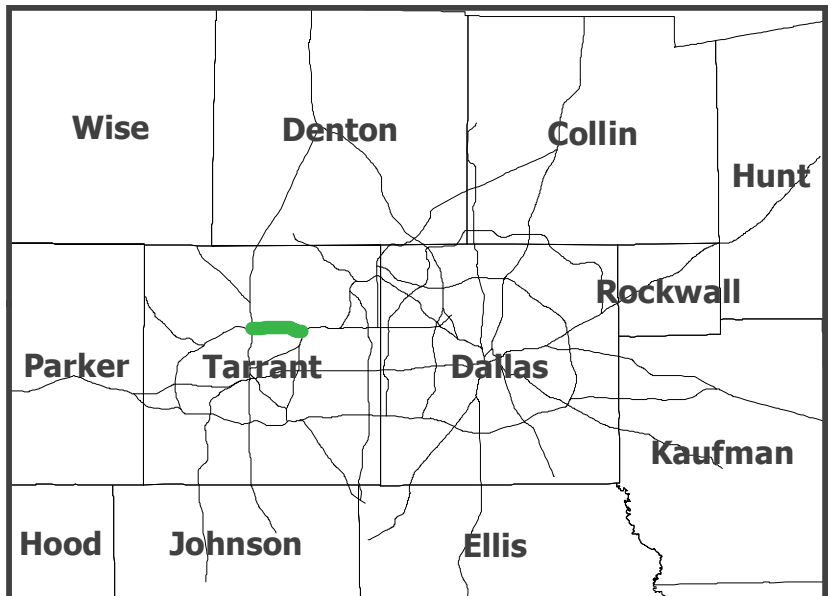
Operate and may need options

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	7.1
Facility	IH 35E
From	IH 35W
To	SRT
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	104	Needs Improvement
Travel Time Index (Recurring Congestion)	1.12	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.14	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	1	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	16	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	7	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	94	
<i>Parallel Bus Route as percentage of corridor length*</i>	79	
<i>Bus Trip Density*</i>	47	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	100	
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	62	

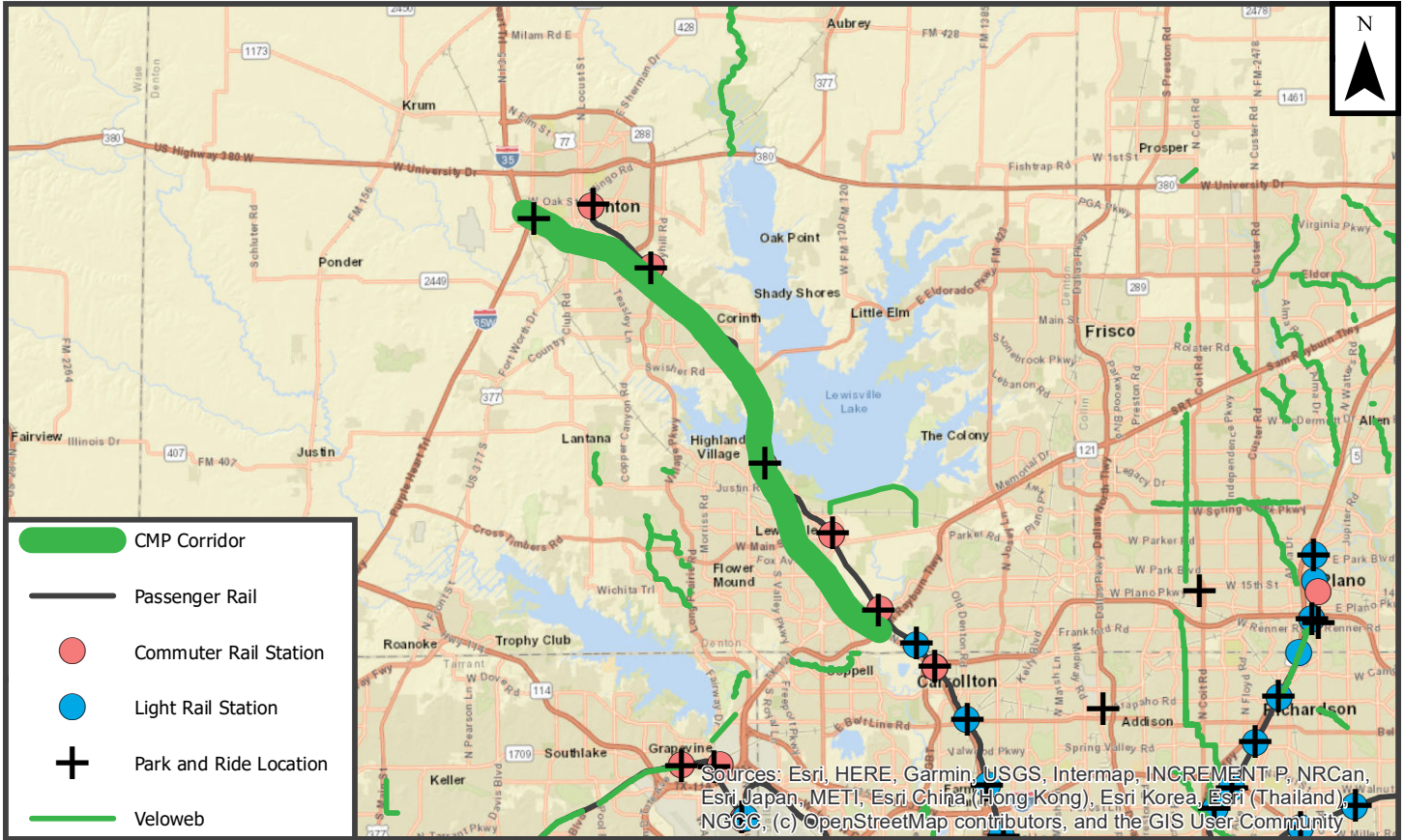
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 7.1

## IH 35E between IH 35W and SRT



### Performance Statement

Operational

### Asset Statement

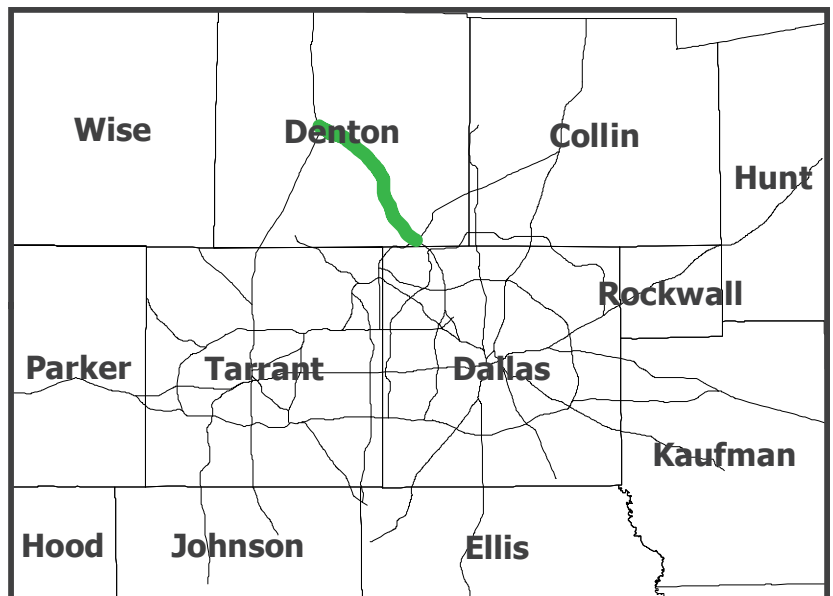
Promote modal options and operate

### Corridor Statement

Promote modal options and operate

### Corridor Output

CMP Strategy





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	11.5
Facility	SH 121
From	IH 35E
To	IH 635 (North)
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	14	Sufficient
Travel Time Index (Recurring Congestion)	1.23	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.39	Needs Improvement
Pavement in Poor Condition	15	Needs Improvement
Bridge Deck in Poor Condition	1	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	27	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	93	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	33	
<i>Bus Trip Density*</i>	20	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	72	
Truck Lane Restriction Percentage	0	Low
HOV/Managed Lane Percentage	0	

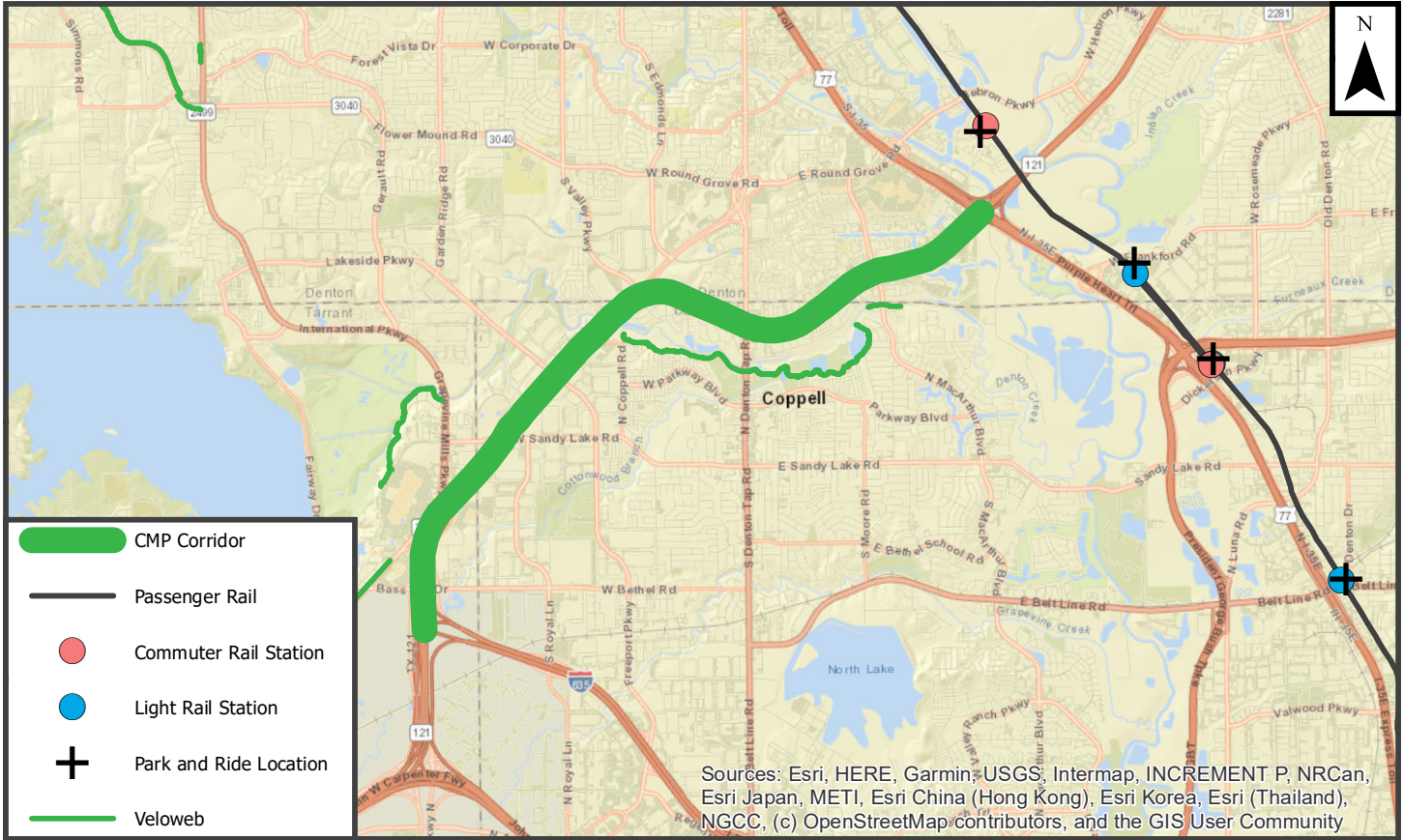
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 11.5

## SH 121 between IH 35E and IH 635 (North)



### Performance Statement

Rehab, demand reduction and operational

### Asset Statement

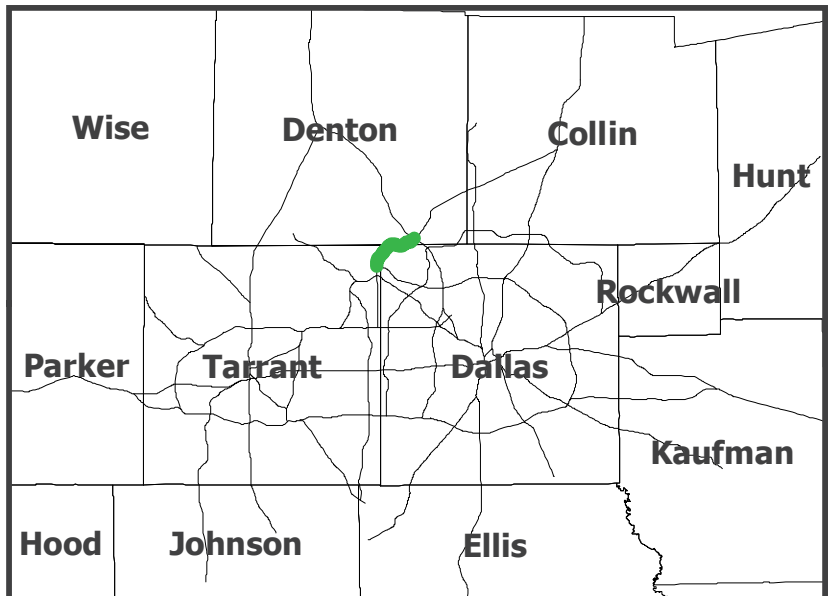
Needs help

### Corridor Statement

Needs corridor study

### Corridor Output

Partial Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	12.3
Facility	SH 114
From	SH 170
To	SH 121
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	29	Sufficient
Travel Time Index (Recurring Congestion)	1.12	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.38	Sufficient
Pavement in Poor Condition	1	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	11	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	87	
Parallel Freeway Percentage	5	Low

## Modal Options

Park and Rides within 1 mile of corridor	2	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	2	
<i>Bus Trip Density*</i>	0	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	56	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

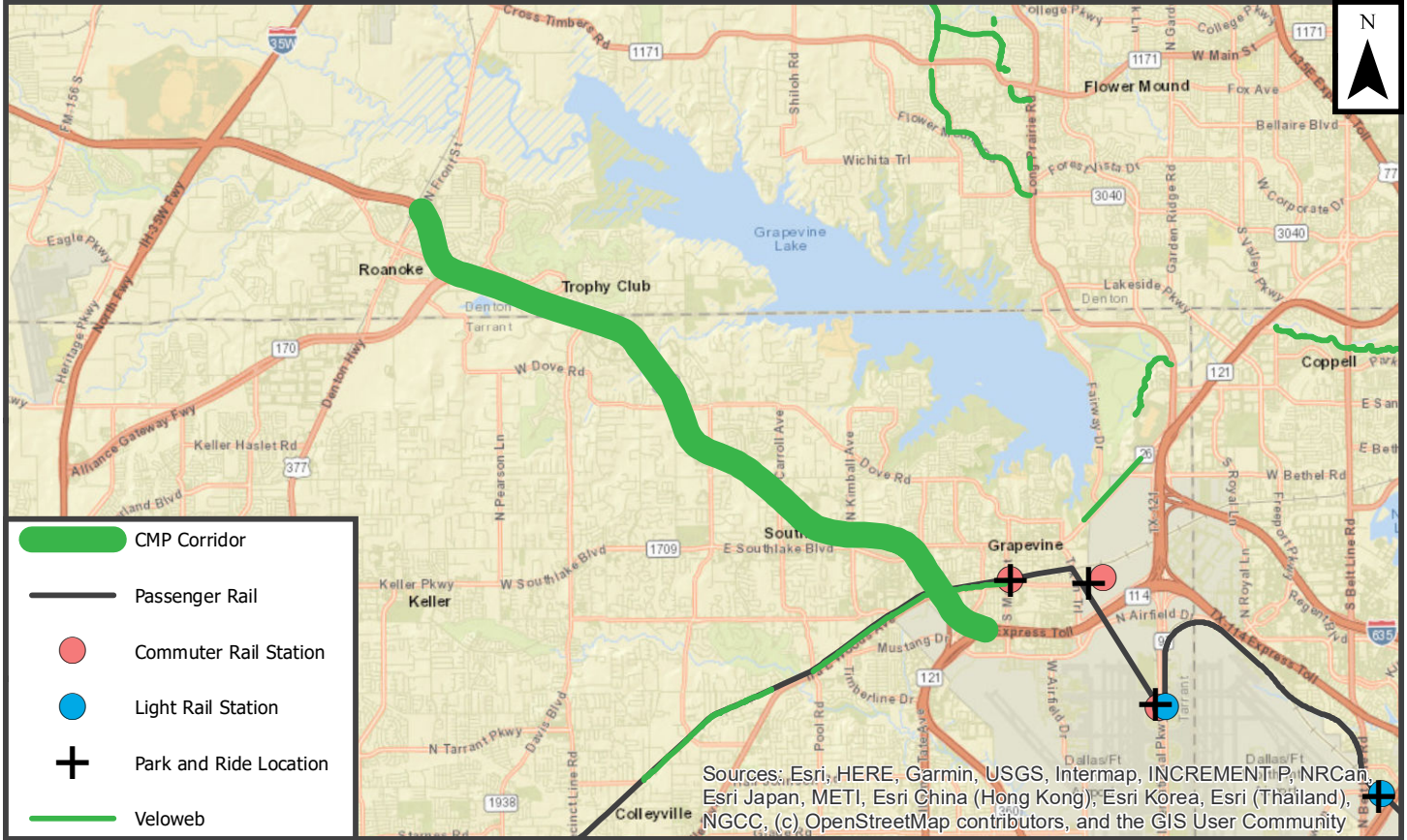
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 12.3

## SH 114 between SH 170 and SH 121



### Performance Statement

Continue to monitor

### Asset Statement

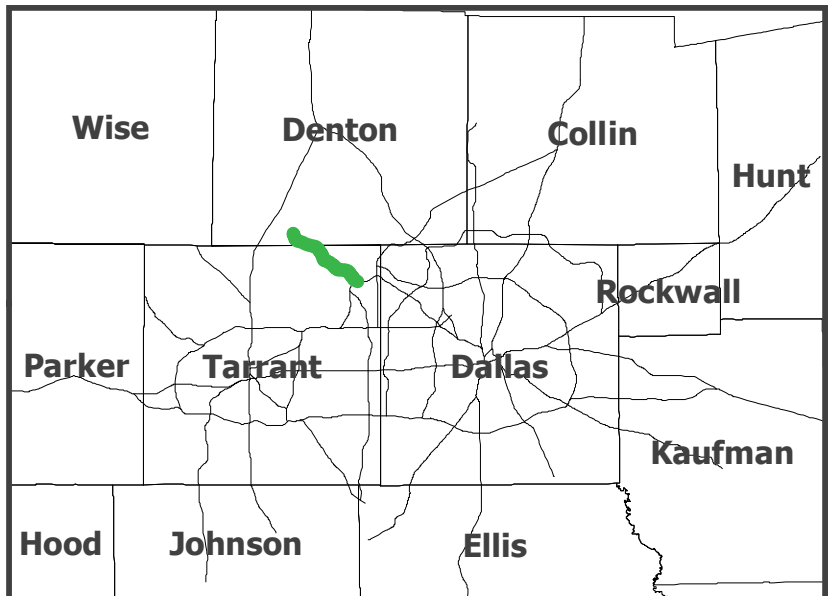
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Partial Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	30.7
Facility	IH 20
From	US 287
To	SH 360
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	66	Sufficient
Travel Time Index (Recurring Congestion)	1.26	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.35	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	54	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	61	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	99	
<i>Bus Trip Density*</i>	6	
Combined Bus Availability	Medium	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	98	Medium
Truck Lane Restriction Percentage	100	
HOV/Managed Lane Percentage	0	

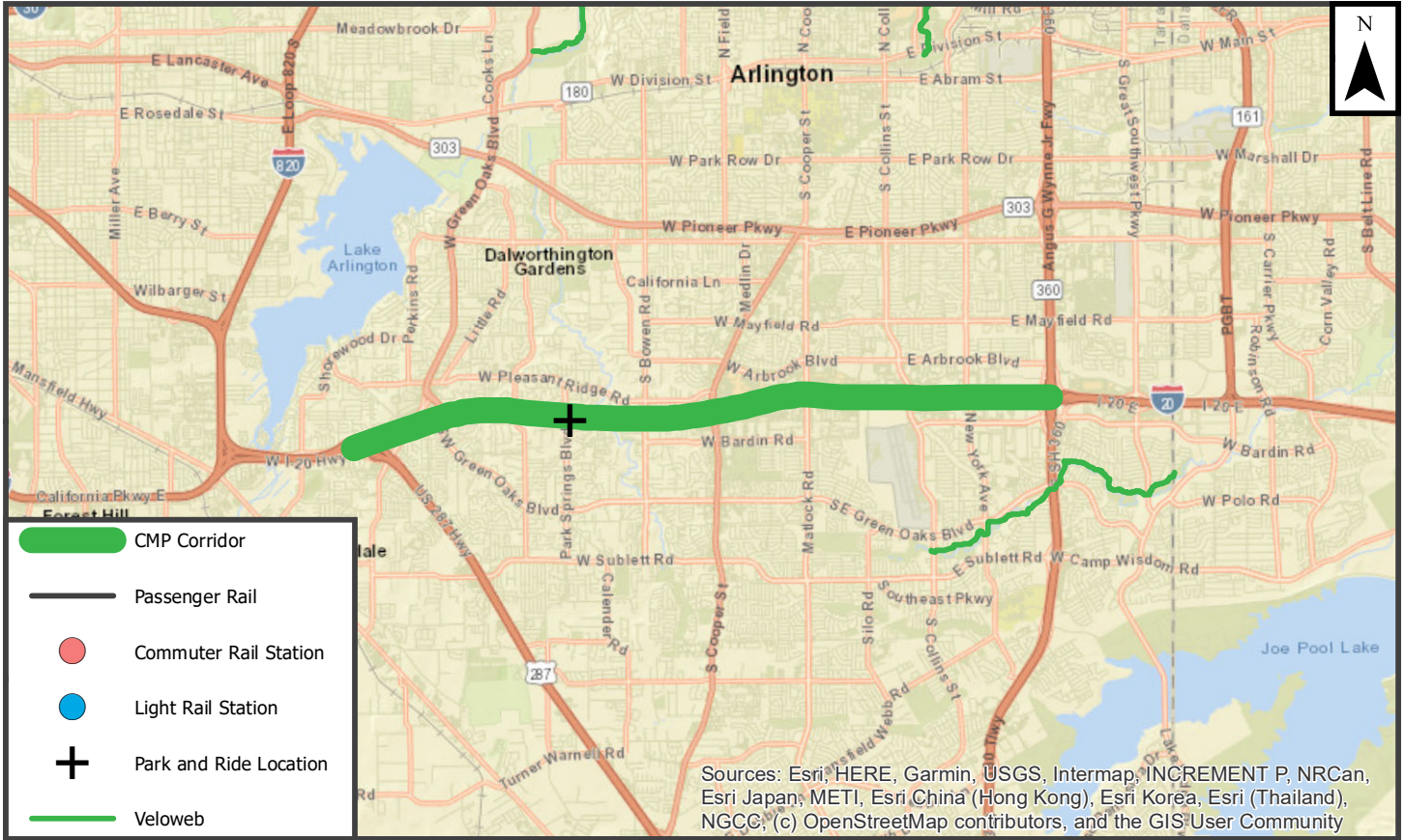
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 30.7

## IH 20 between US 287 and SH 360



### Performance Statement

Continue to monitor

### Asset Statement

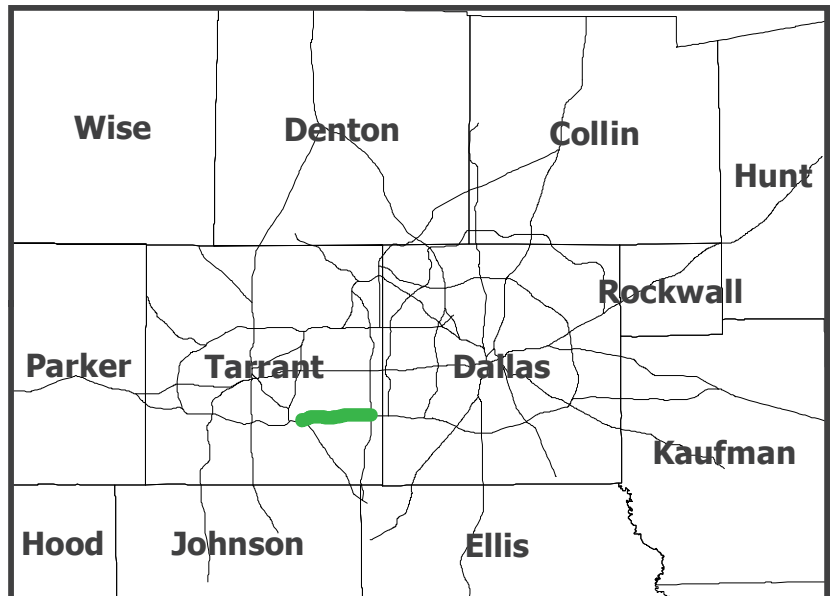
Operate and may need options

### Corridor Statement

Continue to monitor

### Corridor Output

Partial Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	38.2
Facility	US 67
From	IH 20
To	SH 360
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	38	Sufficient
Travel Time Index (Recurring Congestion)	1.05	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.12	Sufficient
Pavement in Poor Condition	4	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	18	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	87	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	2	
<i>Bus Trip Density*</i>	19	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

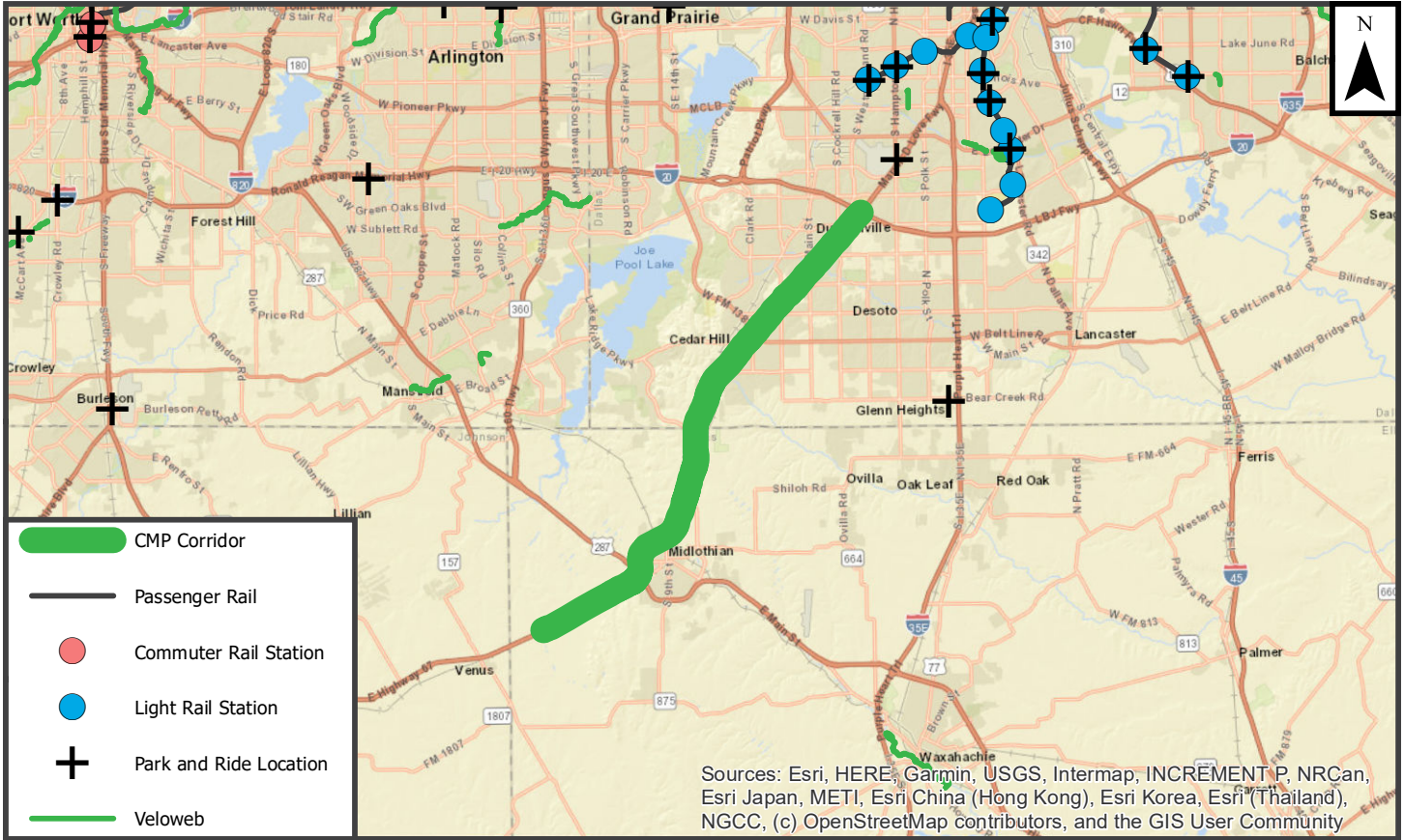
Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	35	
Truck Lane Restriction Percentage	0	Low
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 38.2

## US 67 between IH 20 and SH 360



### Performance Statement

Continue to monitor

### Asset Statement

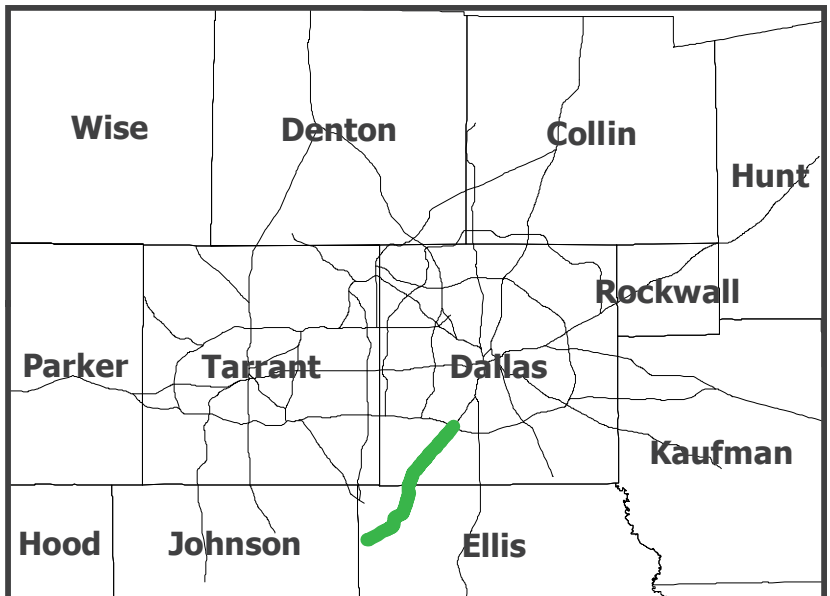
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Partial Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	7.10
Facility	IH 35E
From	IH 20
To	US 77
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	43	Sufficient
Travel Time Index (Recurring Congestion)	1.01	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.05	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	41	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	92	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	1	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	26	
<i>Bus Trip Density*</i>	14	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	90	
Truck Lane Restriction Percentage	44	Low
HOV/Managed Lane Percentage	0	

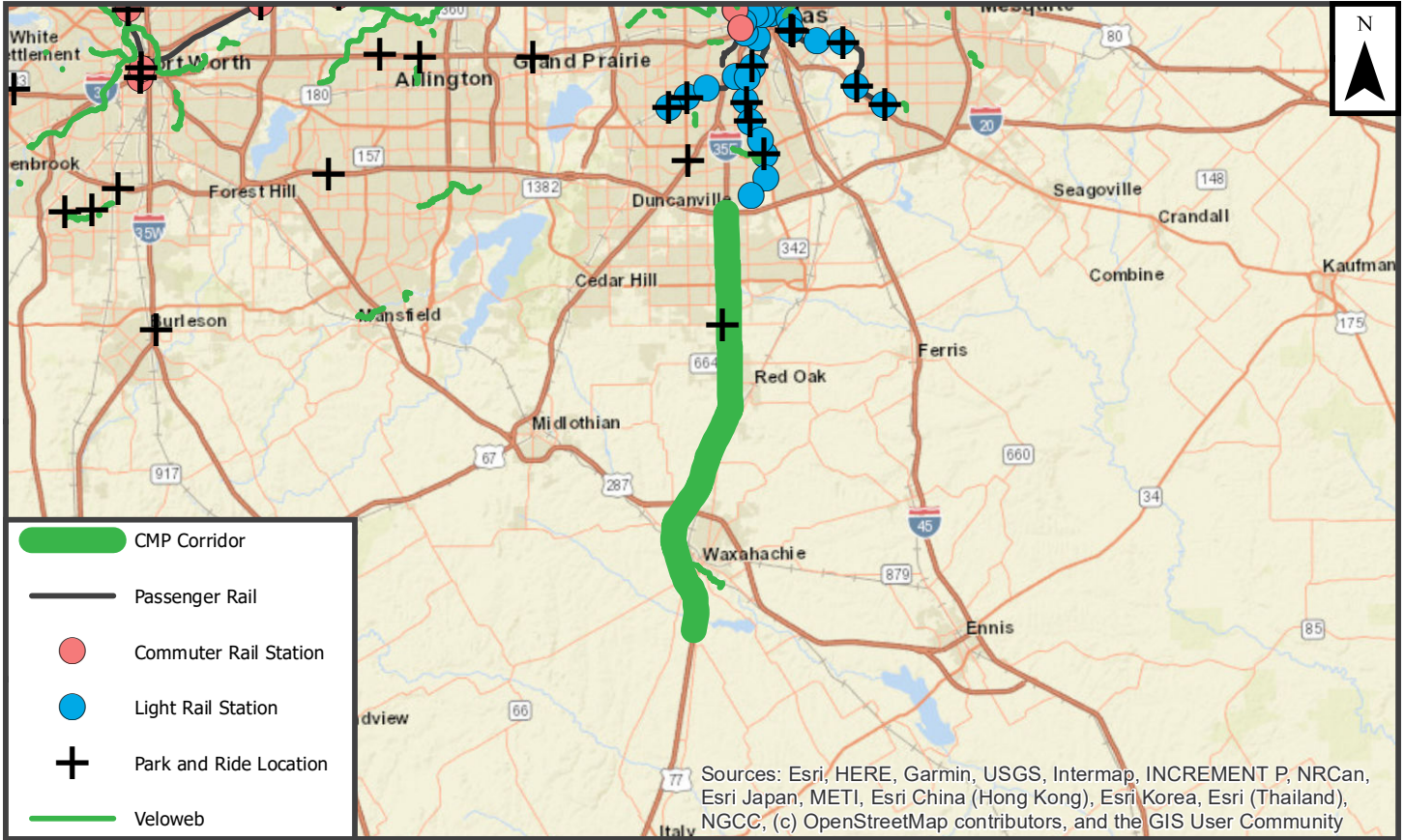
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 7.10

## IH 35E between IH 20 and US 77



### Performance Statement

Continue to monitor

### Asset Statement

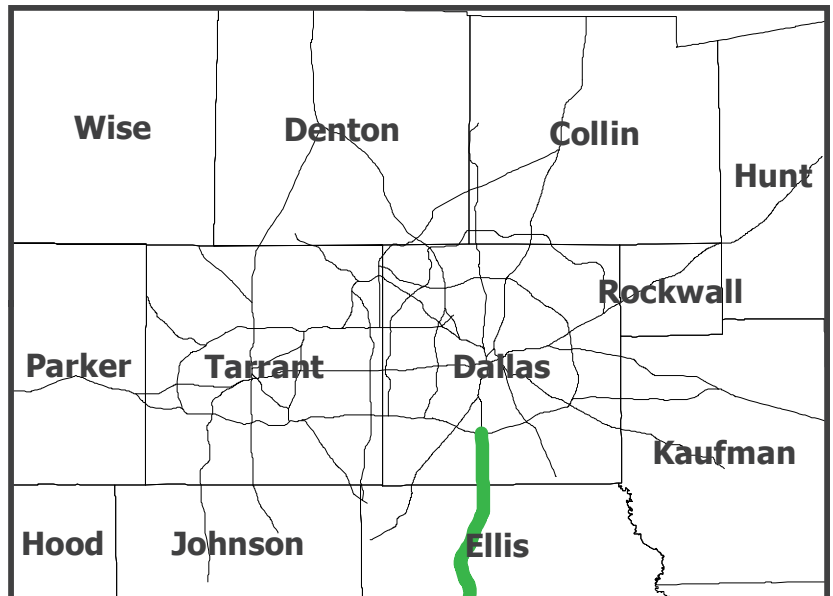
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Partial Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	30.10
Facility	IH 20
From	SL 12
To	US 67
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	73	Sufficient
Travel Time Index (Recurring Congestion)	1.05	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.20	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	100	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	28	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	40	
<i>Bus Trip Density*</i>	69	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	99	
Truck Lane Restriction Percentage	100	Low
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 30.10

## IH 20 between SL 12 and US 67



### Performance Statement

Continue to monitor

### Asset Statement

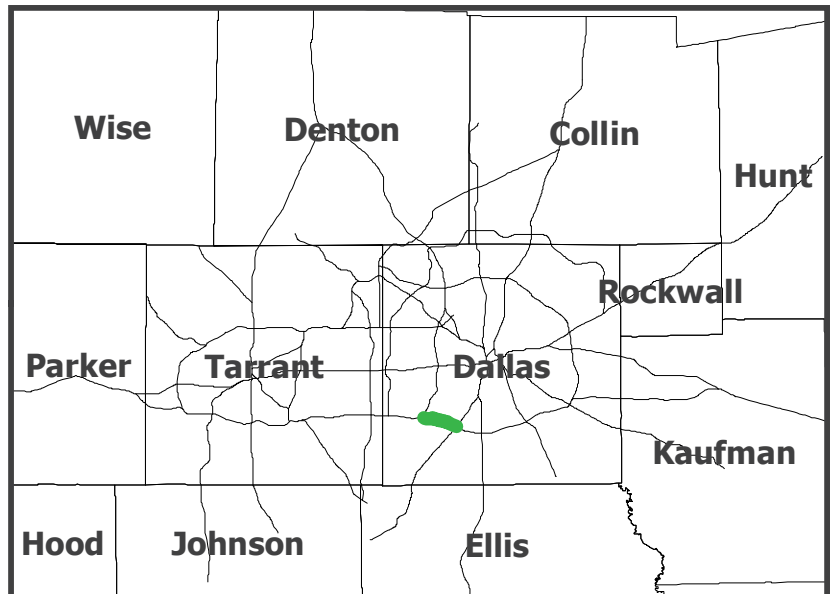
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Partial Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	7.6
Facility	IH 35E
From	SH 183
To	DNT
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	94	Sufficient
Travel Time Index (Recurring Congestion)	1.89	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.47	Needs Improvement
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	20	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	99	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	2	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	77	High
Parallel Commuter Rail as percentage of corridor length	113	
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	441	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 7.6

IH 35E between SH 183 and DNT



## Performance Statement

Demand reduction and operational

## Asset Statement

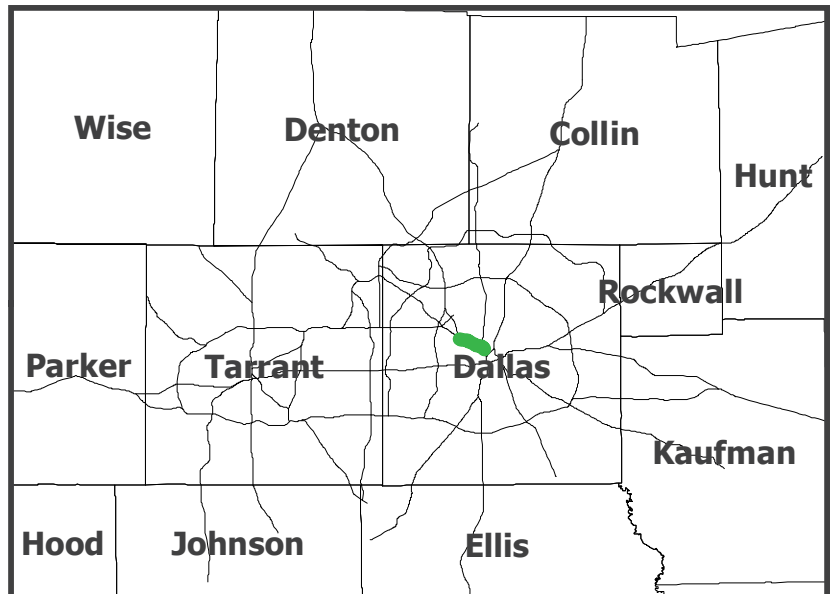
Promote modal options and needs operations

## Corridor Statement

Promote modal options

## Corridor Output

Full Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	22.5
Facility	SH 183
From	SH 114
To	IH 35E
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	85	Sufficient
Travel Time Index (Recurring Congestion)	1.51	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.27	Sufficient
Pavement in Poor Condition	4	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	14	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	90	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	2	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	72	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	95	
<i>Bus Trip Density*</i>	208	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Medium	<b>Operations Score</b>
ITS Device Coverage Percentage	100	High
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	68	

More detail on corridor evaluation and scoring criteria available in Appendix D

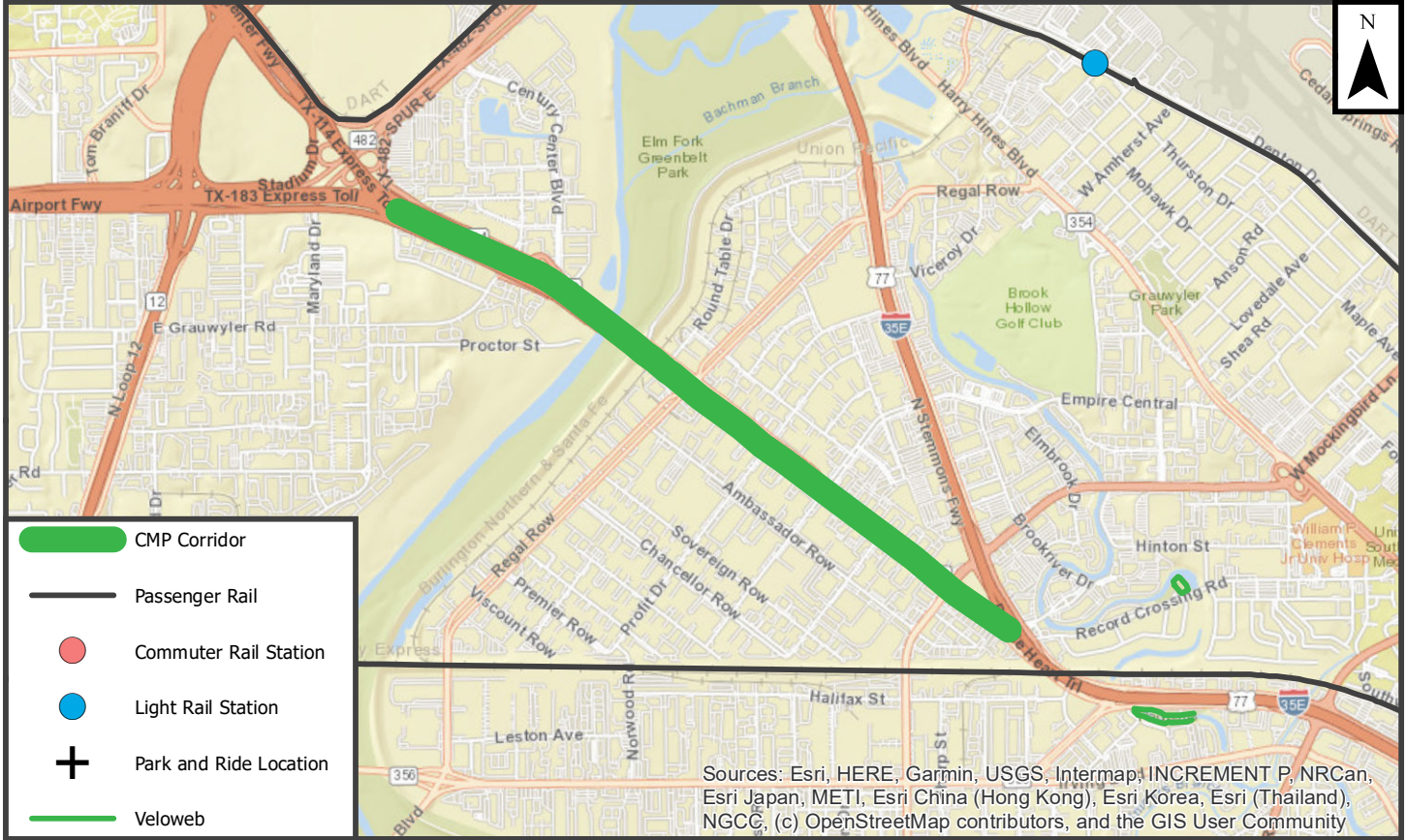




**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 22.5

## SH 183 between SH 114 and IH 35E



### Performance Statement

Demand reduction

### Asset Statement

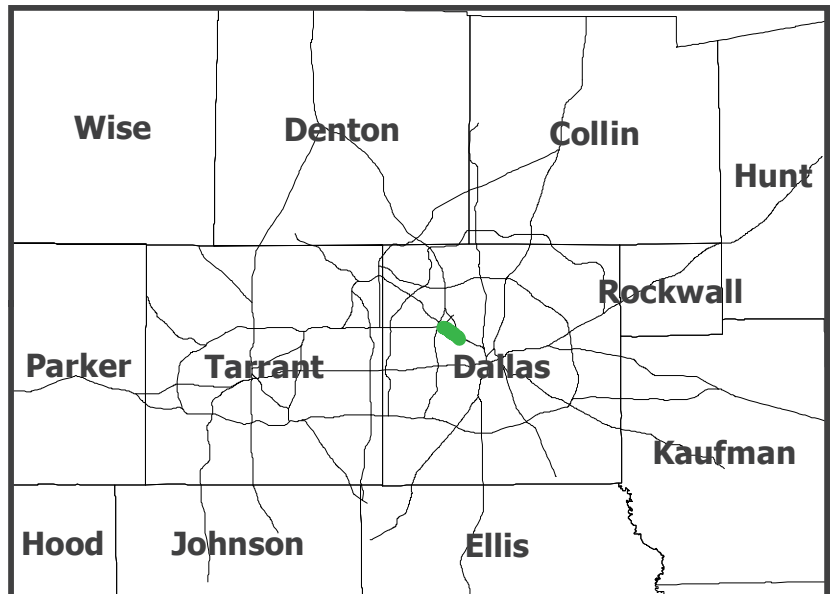
Promote modal options and operate

### Corridor Statement

Promote modal options and operate

### Corridor Output

Full Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	12.6
Facility	SH 114
From	PGBT (West)
To	SH 183
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	34	Sufficient
Travel Time Index (Recurring Congestion)	1.18	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.29	Sufficient
Pavement in Poor Condition	2	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	44	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	30	Low

## Modal Options

Park and Rides within 1 mile of corridor	6	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	63	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	63	
<i>Bus Trip Density*</i>	91	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	100	High
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	100	

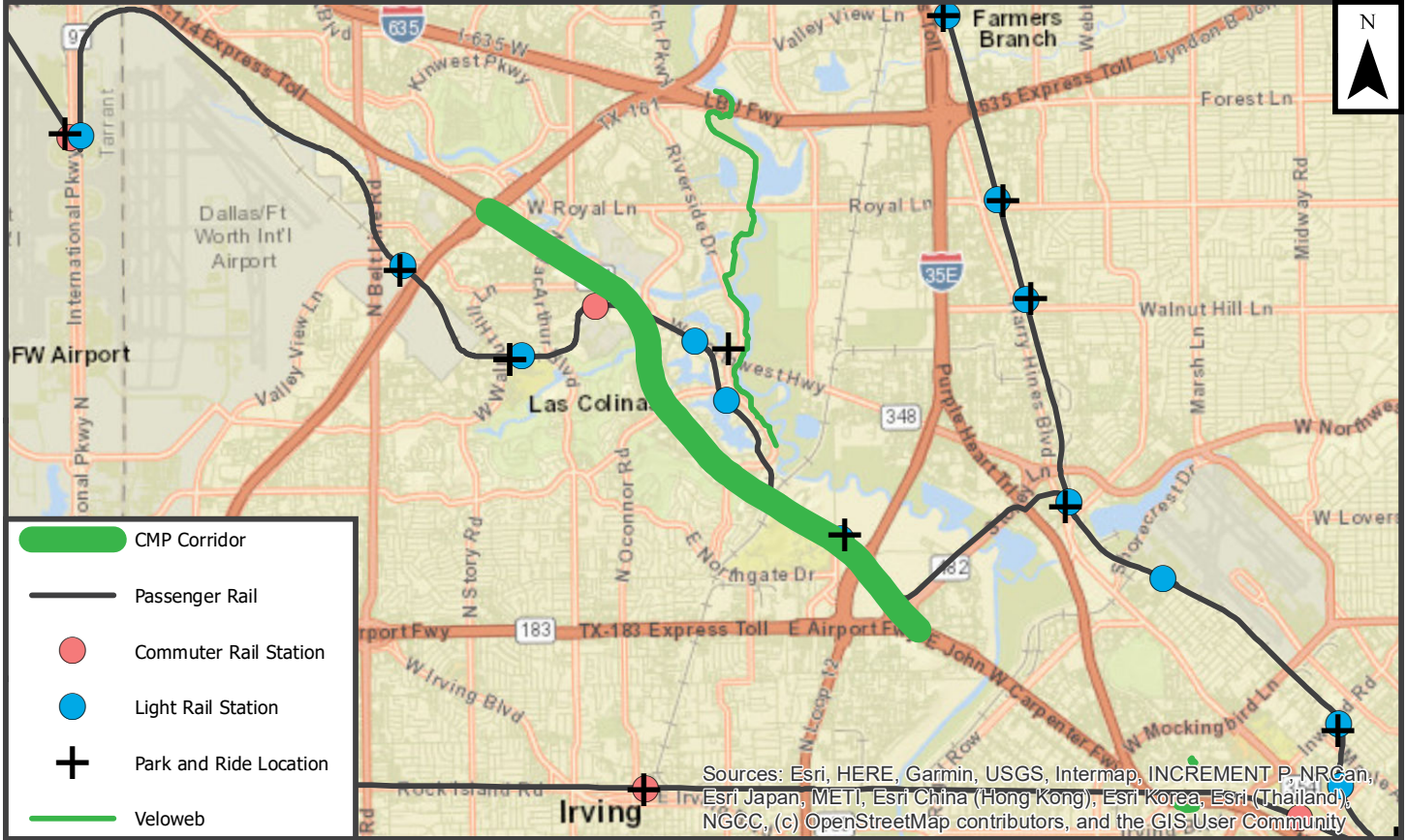
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 12.6

## SH 114 between PGBT (West) and SH 183



### Performance Statement

Continue to monitor

### Asset Statement

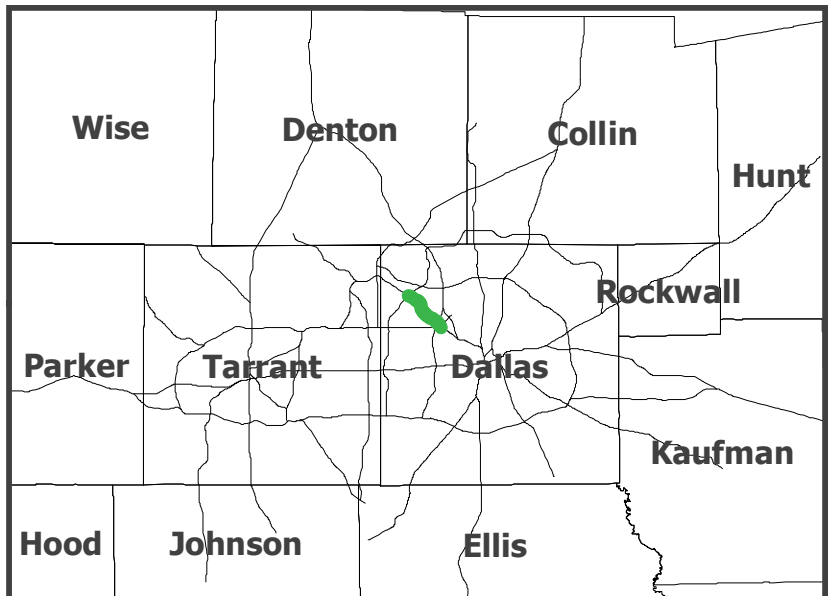
Promote modal options and operate

### Corridor Statement

Continue to monitor

### Corridor Output

Partial Construction



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	11.3
Facility	SRT
From	US 75
To	DNT
Construction Status	Full Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	73	Sufficient
Travel Time Index (Recurring Congestion)	1.24	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.26	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	40	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	5	
<i>Bus Trip Density*</i>	9	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	100	
Truck Lane Restriction Percentage	0	Medium
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D

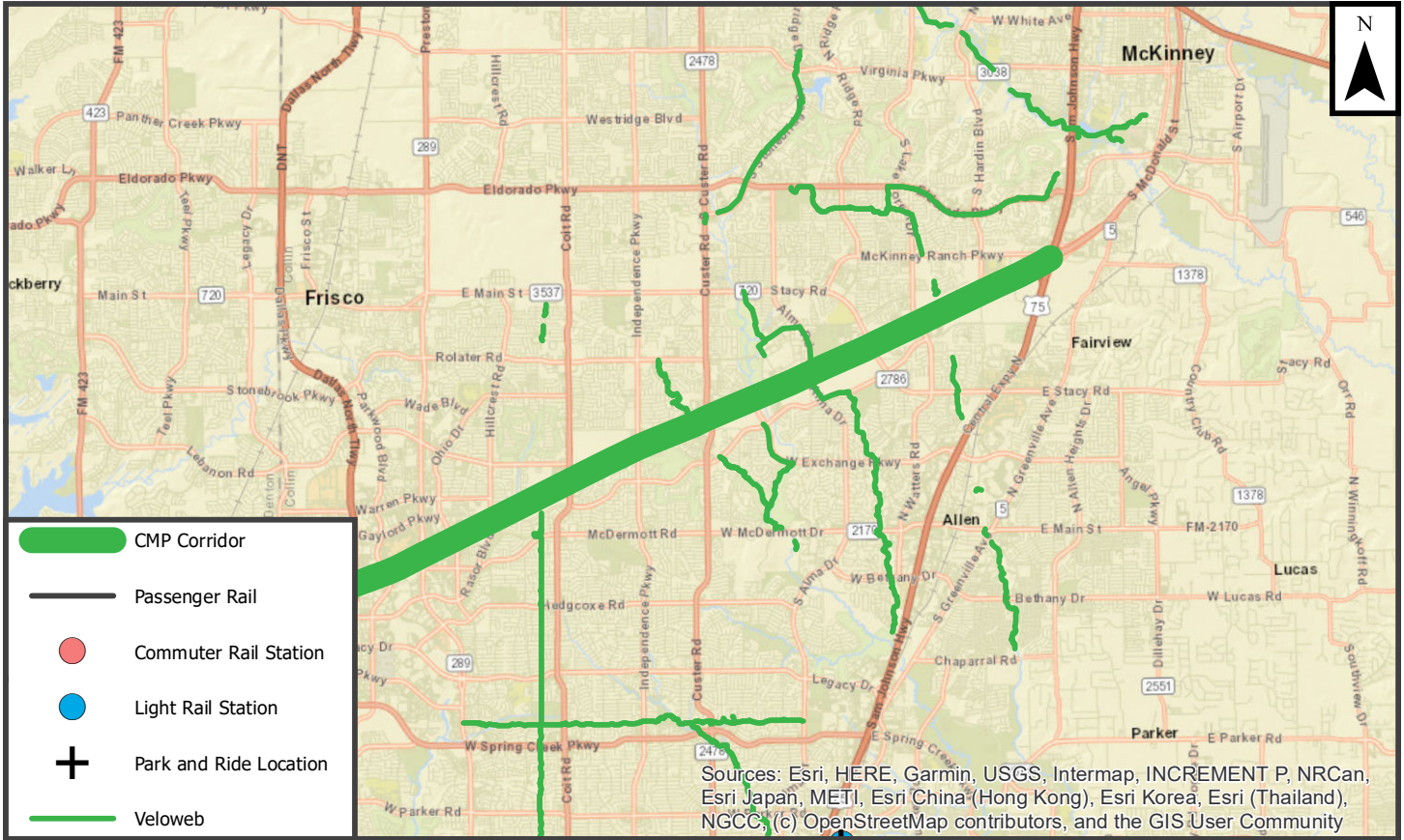




**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 11.3

## SRT between US 75 and DNT



### Performance Statement

Continue to monitor

### Asset Statement

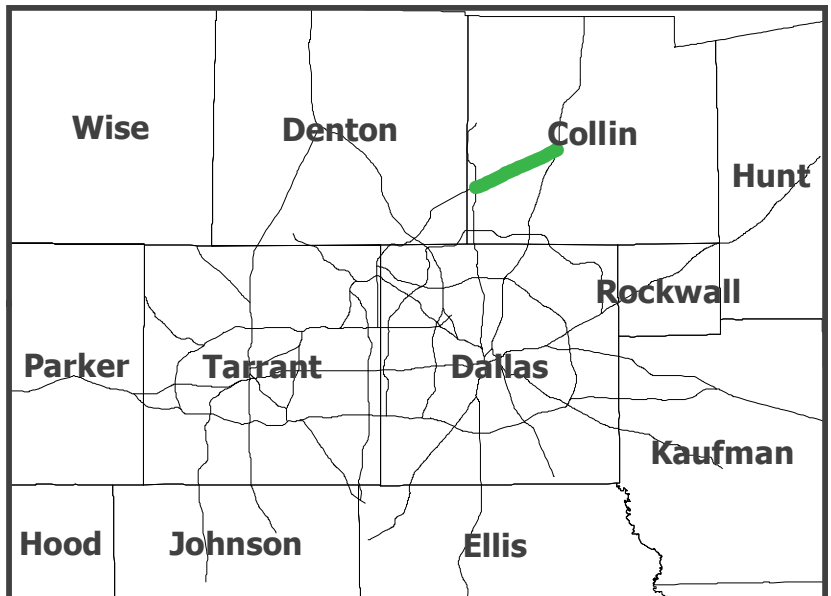
Operate and may need options

### Corridor Statement

Continue to monitor

### Corridor Output

Full Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	23.4
Facility	US 75
From	SRT
To	PGBT
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	92	Sufficient
Travel Time Index (Recurring Congestion)	1.22	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.36	Sufficient
Pavement in Poor Condition	6	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	35	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	100	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	19	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	30	
<i>Bus Trip Density*</i>	23	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	96	
Truck Lane Restriction Percentage	100	Low
HOV/Managed Lane Percentage	55	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	21.4
Facility	DNT
From	IH 635 (North)
To	IH 35E
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	67	Sufficient
Travel Time Index (Recurring Congestion)	1.42	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.65	Needs Improvement
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	71	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	10	
Parallel Freeway Percentage	126	High

## Modal Options

Park and Rides within 1 mile of corridor	2	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	38	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	279	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Medium
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D





**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 21.4

## DNT between IH 635 (North) and IH 35E



### Performance Statement

Demand reduction and operational

### Asset Statement

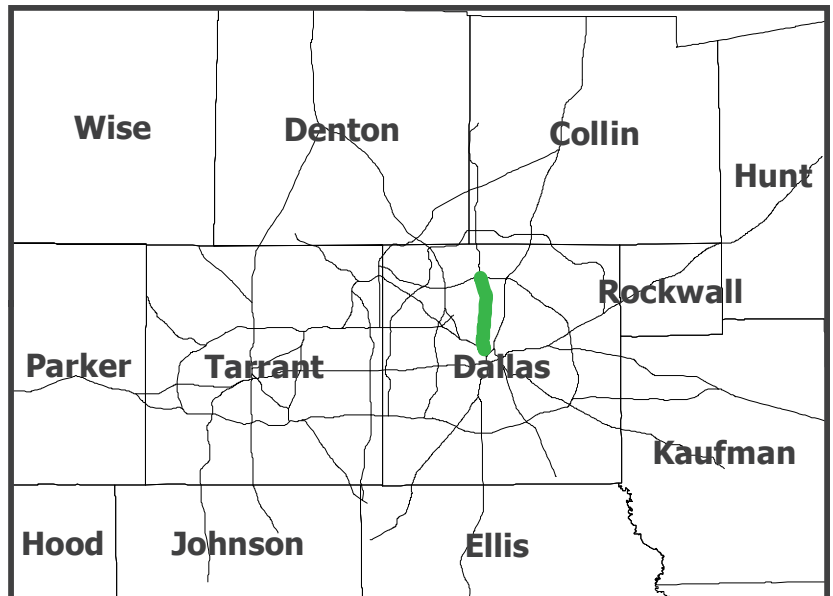
Promote options and operate

### Corridor Statement

Promote options and operate

### Corridor Output

CMP Strategy





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	30.12
Facility	IH 20
From	IH 35E
To	IH 45
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	85	Sufficient
Travel Time Index (Recurring Congestion)	1.20	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.35	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	0	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	67	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	98	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	
Parallel Commuter Rail as percentage of corridor length	0	Low
<i>Parallel Bus Route as percentage of corridor length*</i>	100	
<i>Bus Trip Density*</i>	62	
Combined Bus Availability	High	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

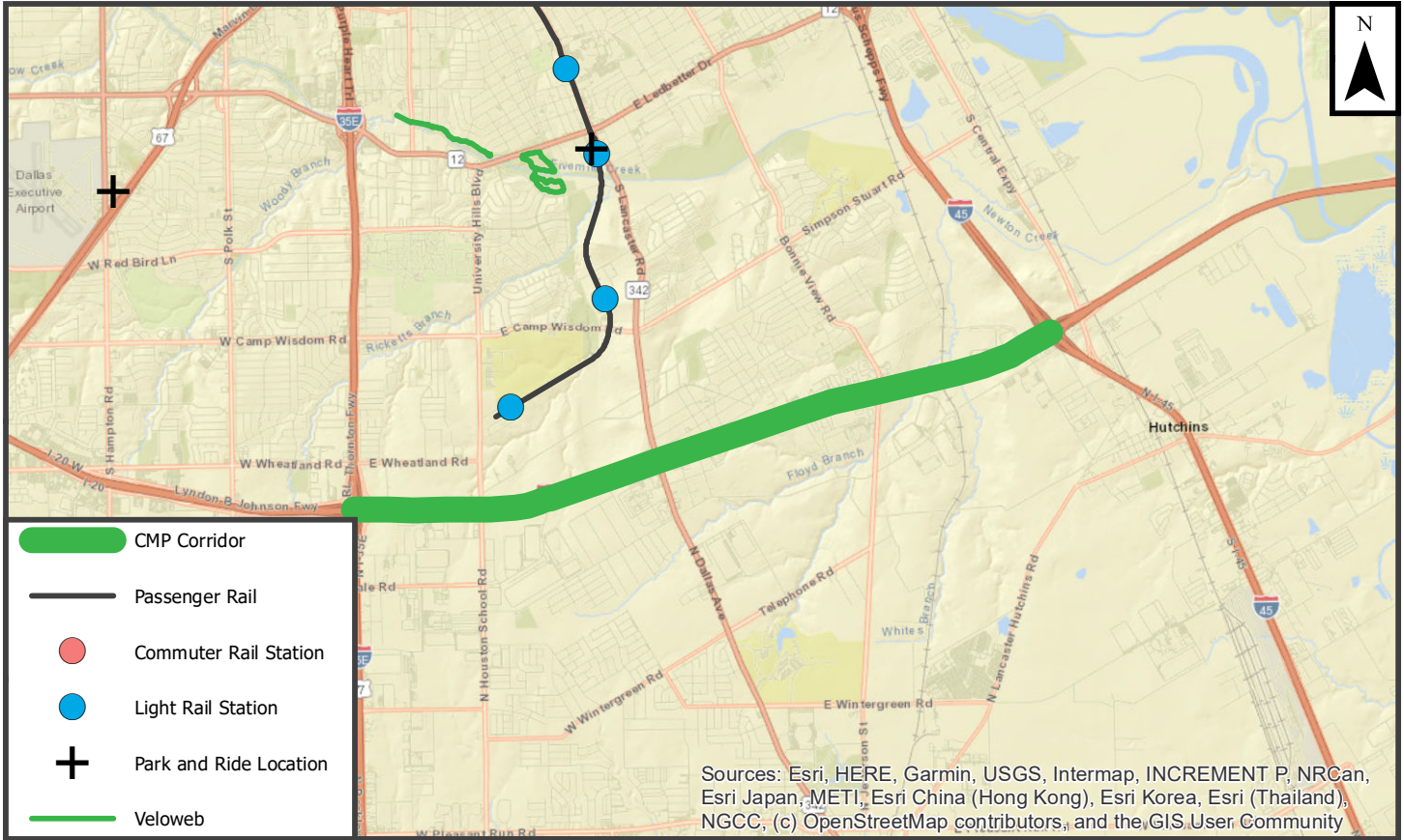
Shoulder Availability	High	<b>Operations Score</b>
ITS Device Coverage Percentage	98	
Truck Lane Restriction Percentage	100	Medium
HOV/Managed Lane Percentage	0	

More detail on corridor evaluation and scoring criteria available in Appendix D



# Congestion Management Process Corridor 30.12

## IH 20 between IH 35E and IH 45



### Performance Statement

Continue to monitor

### Asset Statement

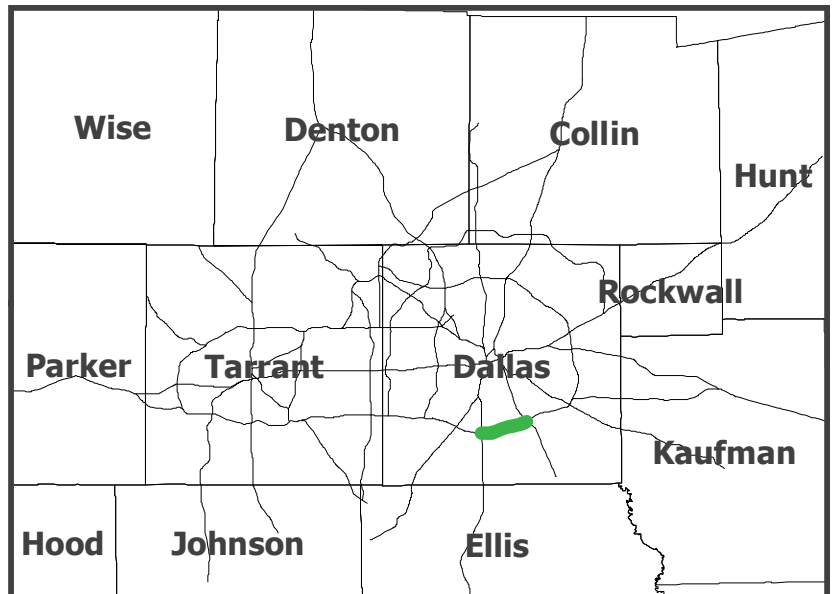
Operate and may need options

### Corridor Statement

Continue to monitor

### Corridor Output

Continue to Monitor



# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	28.14
Facility	IH 30
From	Rockwall C/L
To	SS 302
Construction Status	Partial Construction

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	50	Sufficient
Travel Time Index (Recurring Congestion)	1.00	Sufficient
Level of Travel Time Reliability (Non-Recurring Congestion)	1.02	Sufficient
Pavement in Poor Condition	1	Sufficient
Bridge Deck in Poor Condition	3	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	17	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	99	
Parallel Freeway Percentage	0	Low

## Modal Options

Park and Rides within 1 mile of corridor	0	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	0	Low
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	0	
<i>Bus Trip Density*</i>	0	
Combined Bus Availability	Low	<i>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</i>

## Operations

Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	2	Low
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	0	

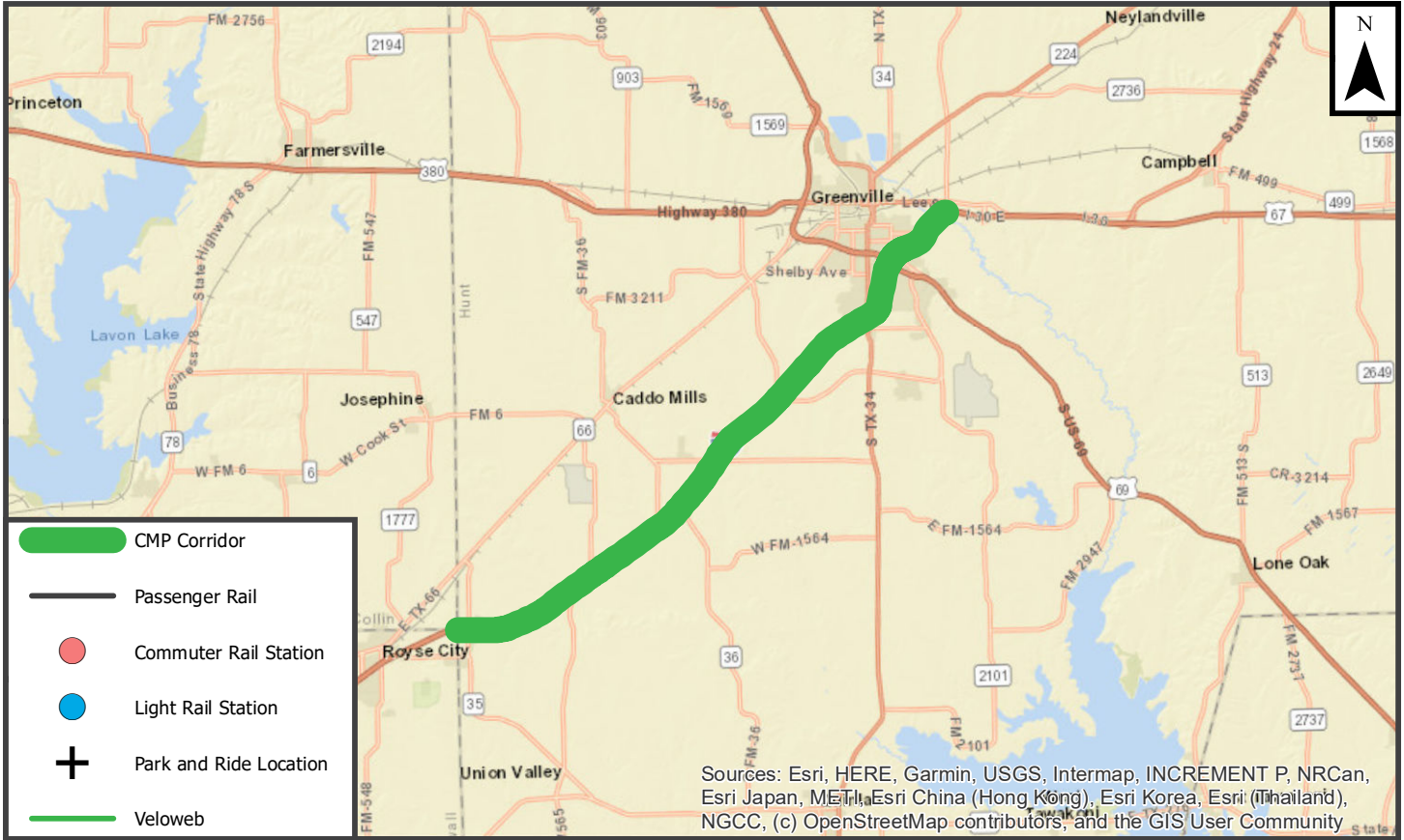
More detail on corridor evaluation and scoring criteria available in Appendix D



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 28.14

## IH 30 between Rockwall C/L and SS 302



### Performance Statement

Continue to monitor

### Asset Statement

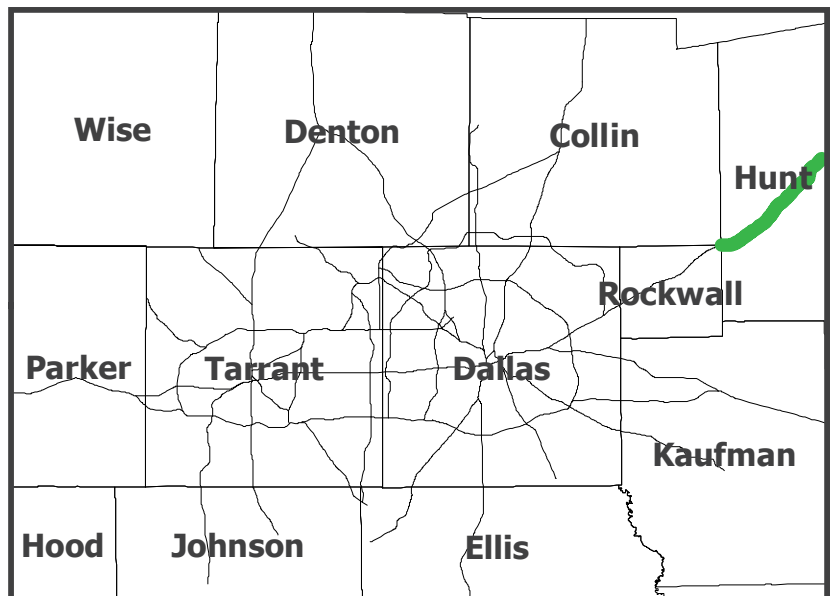
Needs help

### Corridor Statement

Continue to monitor

### Corridor Output

Partial Construction





# Congestion Management Corridor Fact Sheet



## Corridor Information

Corridor Number	28.10
Facility	IH 30
From	IH 45
To	US 80
Construction Status	None

## Performance Measures

Crash Rate (Crashes per 100 million VMT)	124	Needs Improvement
Travel Time Index (Recurring Congestion)	1.68	Needs Improvement
Level of Travel Time Reliability (Non-Recurring Congestion)	1.33	Sufficient
Pavement in Poor Condition	0	Sufficient
Bridge Deck in Poor Condition	1	Sufficient

## Roadway Infrastructure

Available Arterial Capacity %	56	<b>Roadway Infrastructure Score</b>
Frontage Road Percentage	47	
Parallel Freeway Percentage	48	Low

## Modal Options

Park and Rides within 1 mile of corridor	3	<b>Modal Options Score</b>
Parallel Light Rail as percentage of corridor length	26	Medium
Parallel Commuter Rail as percentage of corridor length	0	
<i>Parallel Bus Route as percentage of corridor length*</i>	99	
<i>Bus Trip Density*</i>	327	
Combined Bus Availability	High	<small>*Parallel Bus Route and Bus Density combine to form Combined Bus Availability, which impacts Modal Options Score</small>

## Operations

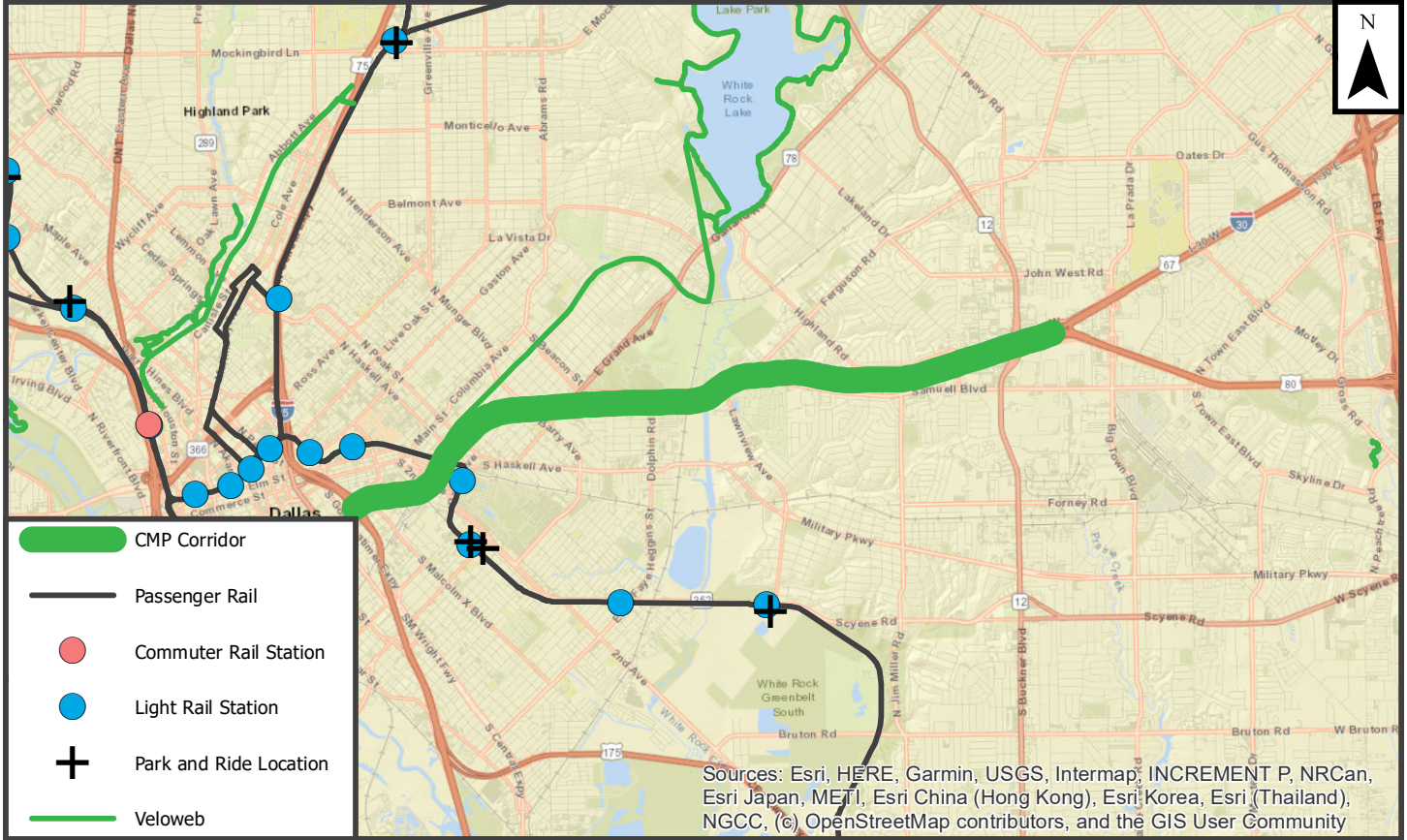
Shoulder Availability	Low	<b>Operations Score</b>
ITS Device Coverage Percentage	100	Medium
Truck Lane Restriction Percentage	0	
HOV/Managed Lane Percentage	100	



**CMP**  
CONGESTION MANAGEMENT PROCESS

# Congestion Management Process Corridor 28.10

## IH 30 between IH 45 and US 80



### Performance Statement

Demand reduction and operational

### Asset Statement

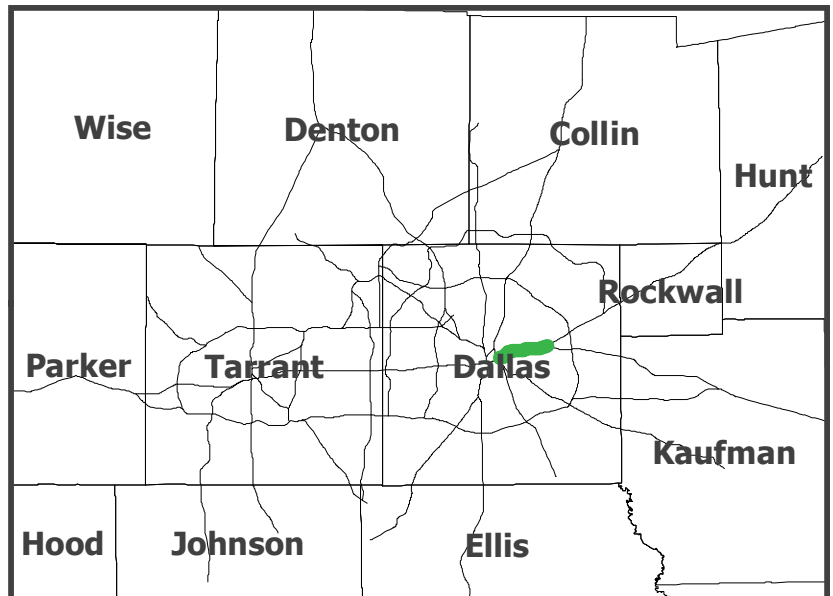
Promote modal options and operate

### Corridor Statement

Promote modal options and operate

### Corridor Output

CMP Strategy



Congestion Management Process Corridor Output Table

<b>CMP Segment ID</b>	<b>Facility</b>	<b>From Facility</b>	<b>To Facility</b>	<b>CMP Output</b>
<b>31.1</b>	CTP	IH 30	IH 20	Continue to Monitor
<b>31.2</b>	CTP	IH 20	US 67	Continue to Monitor
<b>21.4</b>	DNT	S of US 380	SRT	CMP Strategy
<b>21.1</b>	DNT	SRT	PGBT (North)	Partial Construction
<b>21.2</b>	DNT	IH 635 (North)	IH 35E	CMP Strategy
<b>21.3</b>	DNT	PGBT (North)	IH 635 (North)	CMP Strategy
<b>30.4</b>	IH 20	SS 312	IH 30	Continue to Monitor
<b>30.2</b>	IH 20	SL 12	US 67	Continue to Monitor
<b>30.12</b>	IH 20	US 67	IH 35E	Continue to Monitor
<b>30.5</b>	IH 20	IH 35E	IH 45	Continue to Monitor
<b>30.13</b>	IH 20	IH 45	US 175	Continue to Monitor
<b>30.15</b>	IH 20	US 175	IH 635 (East)	Continue to Monitor
<b>30.6</b>	IH 20	IH 635 (East)	US 80	Partial Construction
<b>30.3</b>	IH 20	US 80	Kaufman C/L	Continue to Monitor
<b>30.9</b>	IH 20	IH 30	IH 820 (West)	Partial Construction
<b>30.8</b>	IH 20	IH 820 (West)	CTP	CMP Strategy
<b>30.10</b>	IH 20	CTP	IH 35W	Partial Construction
<b>30.1</b>	IH 20	IH 35W	IH 820 (East)	Partial Construction
<b>30.14</b>	IH 20	IH 820 (East)	US 287	CMP Strategy
<b>30.7</b>	IH 20	US 287	SH 360	Partial Construction
<b>30.11</b>	IH 20	SH 360	PGBT	CMP Strategy
<b>30.16</b>	IH 20	PGBT	SS 408	Continue to Monitor
<b>28.1</b>	IH 30	IH 20	IH 820 (West)	Continue to Monitor
<b>28.9</b>	IH 30	IH 45	US 80	Full Construction
<b>28.3</b>	IH 30	US 80	IH 635 (East)	Continue to Monitor
<b>28.10</b>	IH 30	IH 635 (East)	PGBT	CMP Strategy
<b>28.12</b>	IH 30	PGBT	Rockwall C/L	Corridor Study
<b>28.4</b>	IH 30	Rockwall C/L	SS 302	Partial Construction
<b>28.2</b>	IH 30	IH 820 (West)	IH 35W	Continue to Monitor
<b>28.13</b>	IH 30	IH 35W	IH 820 (East)	Partial Construction
<b>28.6</b>	IH 30	IH 820 (East)	SH 360	Partial Construction
<b>28.14</b>	IH 30	SH 360	PGBT	Partial Construction
<b>28.5</b>	IH 30	PGBT	SL 12	Full Construction
<b>28.7</b>	IH 30	SL 12	IH 35E	Partial Construction
<b>28.11</b>	IH 30	IH 35E	IH 45	Continue to Monitor
<b>28.8</b>	IH 30 "Horseshoe"	IH 35E	IH 35E	Recent Construction

<b>CMP Segment ID</b>	<b>Facility</b>	<b>From Facility</b>	<b>To Facility</b>	<b>CMP Output</b>
<b>25.1</b>	IH 345	SS 366	IH 30	CMP Strategy
<b>3.1</b>	IH 35	Denton C/L	IH 35E/IH35W	Continue to Monitor
<b>7.7</b>	IH 35E	IH 35W	SRT	Partial Construction
<b>7.10</b>	IH 35E	IH 20	US 77	Partial Construction
<b>7.8</b>	IH 35E	SRT	PGBT	Full Construction
<b>7.1</b>	IH 35E	PGBT	IH 635 (North)	CMP Strategy
<b>7.4</b>	IH 35E	IH 635 (North)	SL 12	CMP Strategy
<b>7.3</b>	IH 35E	SL 12	SH 183	Full Construction
<b>7.6</b>	IH 35E	SH 183	DNT	Full Construction
<b>7.5</b>	IH 35E	DNT	IH 30	Full Construction
<b>7.2</b>	IH 35E	IH 30	US 67	Full Construction
<b>7.9</b>	IH 35E	US 67	IH 20	Continue to Monitor
<b>5.1</b>	IH 35W	IH 35E	SH 114	Partial Construction
<b>5.8</b>	IH 35W	SH 114	US 287	Continue to Monitor
<b>5.7</b>	IH 35W	US 287	IH 820 (North)	Continue to Monitor
<b>5.5</b>	IH 35W	IH 820 (North)	SH 121	Partial Construction
<b>5.2</b>	IH 35W	SH 121	IH 30	Partial Construction
<b>5.6</b>	IH 35W	IH 30	IH 20	Partial Construction
<b>5.9</b>	IH 35W	IH 20	Tarrant C/L	Full Construction
<b>5.4</b>	IH 35W	Tarrant C/L	FM 917	Partial Construction
<b>27.3</b>	IH 45	IH 30	US 175	Continue to Monitor
<b>27.1</b>	IH 45	US 175	IH 20	CMP Strategy
<b>27.2</b>	IH 45	IH 20	SL 9	Continue to Monitor
<b>131.2</b>	IH 635 (East)	US 75	IH 30	CMP Strategy
<b>131.1</b>	IH 635 (East)	IH 30	US 80	Full Construction
<b>131.3</b>	IH 635 (East)	US 80	IH 20	Continue to Monitor
<b>130.4</b>	IH 635 (North)	SH 121	PGBT (West)	Continue to Monitor
<b>130.3</b>	IH 635 (North)	PGBT (West)	IH 35E	Continue to Monitor
<b>130.2</b>	IH 635 (North)	IH 35E	DNT	Continue to Monitor
<b>130.1</b>	IH 635 (North)	DNT	US 75	Partial Construction
<b>151.3</b>	IH 820 (East)	SH 183	SH 121	Full Construction
<b>151.2</b>	IH 820 (East)	SH 121	IH 30	Partial Construction



<b>CMP Segment ID</b>	<b>Facility</b>	<b>From Facility</b>	<b>To Facility</b>	<b>CMP Output</b>
<b>151.1</b>	IH 820 (East)	IH 30	US 287	Full Construction
<b>151.4</b>	IH 820 (East)	US 287	IH 20	Full Construction
<b>150.2</b>	IH 820 (North)	SH 199	IH 35W	Continue to Monitor
<b>150.1</b>	IH 820 (North)	IH 35W	SH 183	Continue to Monitor
<b>153.1</b>	IH 820 (West)	IH 20	IH 30	Continue to Monitor
<b>153.2</b>	IH 820 (West)	IH 30	SH 199	Continue to Monitor
<b>13.1</b>	International Parkway	SH 114	SH 183	Continue to Monitor
<b>121.1</b>	PGBT (East)	US 75	IH 30	Continue to Monitor
<b>120.2</b>	PGBT (North)	IH 35E	DNT	Continue to Monitor
<b>120.1</b>	PGBT (North)	DNT	US 75	Recent Construction
<b>15.3</b>	PGBT (West)	SL 12	IH 635 (North)	Full Construction
<b>123.2</b>	PGBT (West)	IH 635 (North)	IH 35E	Full Construction
<b>15.2</b>	PGBT (West)	SH 183	IH 30	Full Construction
<b>123.1</b>	PGBT (West)	IH 30	IH 20	Full Construction
<b>15.1</b>	PGBT/SH 161	SH 114	SH 183	Full Construction
<b>12.5</b>	SH 114	SH 170	SH 121	CMP Strategy
<b>12.6</b>			International Parkway/DFW Connector	Partial Construction
	SH 114	SH 121		
<b>12.4</b>		International Parkway	PGBT (West)	Continue to Monitor
	SH 114			
<b>12.3</b>	SH 114	PGBT (West)	SH 183	Partial Construction
<b>11.5</b>	SH 121	IH 820 (East)	IH 35W	Partial Construction
<b>11.6</b>	SH 121	IH 35E	IH 635 (North)	Continue to Monitor
<b>11.10</b>	SH 121	IH 635 (North)	SH 114	Partial Construction
<b>11.7</b>	SH 121	SH 114	SH 360	Continue to Monitor
<b>11.9</b>	SH 121	SH 360	SH 183	Continue to Monitor
<b>11.8</b>	SH 183	SH 121	IH 820 (East)	Recent Construction
<b>22.3</b>	SH 183	SH 121	SH 360	Recent Construction
<b>22.5</b>	SH 183	SH 360	PGBT	Full Construction
<b>22.1</b>	SH 183	PGBT	SL 12	Recent Construction
<b>22.2</b>	SH 183	SL 12	SH 114	Recent Construction

<b>CMP Segment ID</b>	<b>Facility</b>	<b>From Facility</b>	<b>To Facility</b>	<b>CMP Output</b>
<b>22.4</b>	SH 183	SH 114	IH 35E	Full Construction
<b>14.2</b>	SH 199	Tarrant C/L	IH 820 (North)	Recent Construction
<b>9.3</b>	SH 360	SH 121	SH 183	Full Construction
<b>9.1</b>	SH 360	SH 183	IH 30	Continue to Monitor
<b>9.2</b>	SH 360	IH 30	IH 20	Full Construction
<b>9.4</b>	SH 360	IH 20	US 287	Recent Construction
<b>17.3</b>	SL 12	IH 35E	SH 183	Rehab
<b>17.1</b>	SL 12	SH 183	IH 30	Full Construction
<b>17.2</b>	SL 12/SS 408	IH 30	IH 20	Partial Construction
<b>11.4</b>	SRT	US 75	DNT	Full Construction
<b>11.3</b>	SRT	DNT	IH 35E	Full Construction
<b>52.1</b>	SS 280	IH 35W	IH 30	Continue to Monitor
<b>44.1</b>	SS 366	IH 35E	US 75	CMP Strategy
<b>42.1</b>	SS 482	SH 183	IH 35E	Rehab
<b>36.3</b>	US 175	IH 45	IH 20	Continue to Monitor
<b>36.1</b>	US 175	IH 20	SH 34	Partial Construction
<b>1.6</b>	US 287	Tarrant C/L	IH 35W	Continue to Monitor
<b>1.5</b>	US 287	IH 35W	IH 820 (East)	Continue to Monitor
<b>1.4</b>	US 287	IH 20	SH 360	Partial Construction
<b>38.2</b>	US 67	IH 35E	IH 20	Partial Construction
<b>38.1</b>	US 67	IH 20	SH 360	Full Construction
<b>23.1</b>	US 75	Collin C/L	FM 545	Continue to Monitor
<b>23.2</b>	US 75	FM 545	SH 121	Continue to Monitor
<b>23.6</b>	US 75	SH 121	SRT	CMP Strategy
<b>23.5</b>	US 75	SRT	PGBT	CMP Strategy
<b>23.3</b>	US 75	PGBT	IH 635 (North)	Continue to Monitor
<b>23.4</b>	US 75	IH 635 (North)	SS 366	Continue to Monitor
<b>32.1</b>	US 80	IH 30	IH 635 (East)	Continue to Monitor
<b>32.2</b>	US 80	IH 635 (East)	IH 20	Rehab

## Transportation System Management and Operations Strategies

<u>Strategy</u>	<u>Performance Measures Not Need Improvement</u>	<u>Primary Available Assets</u>	<u>Secondary Available Assets</u>
Adaptive/Demand Responsive Signal Systems/ Traffic Signal Improvements	Travel Time Index Travel Time Reliability	Bus Routes Frontage Roads Parallel Arterials	
Bike Parking Facilities	Travel Time Index Travel Time Reliability	Parallel Arterials	Light Rail Commuter Rail Bus
Bike Share	Travel Time Index Travel Time Reliability	Parallel Arterials	Bus
Bike/Ped Improvements	Travel Time Index Travel Time Reliability	Parallel Arterials	Light Rail Commuter Rail Bus
Bike/Transit Integration	Travel Time Index Travel Time Reliability	Commuter Rail Light Rail Bus	
Bus Loading Bays	Travel Time Index Travel Time Reliability Crash Rate	Bus Routes	Parallel Arterials
Context Sensitive Design	Crash Rate	No Assets Needed	
Demand Response Transit Operations	Travel Time Index	No Assets Needed	
Park and Ride	Travel Time Index Travel Time Reliability	Commuter Rail Light Rail Bus	*No Current Park and Ride on corridor
Pedestrianized Streets	Travel Time Index Crash Rate	Parallel Arterials	
Ridesharing and Ride matching-Carpool/Vanpool	Travel Time Index		
SOV Trip Reduction Programming / Commuter Financial Incentives	Travel Time Index Travel Time Reliability		
Transit	Travel Time Index		
Transit Fixed-Route Operations	Travel Time Index	Bus Routes HOV/Managed Lanes Frontage Roads Parallel Arterials	
Transit Management	Travel Time Index Travel Time Reliability	Light Rail Commuter Rail Bus HOV/Managed Lane Parallel Arterials	
Transit System Signal Priority	Travel Time Index	No Assets Needed	
Transit Vehicle Tracking	Travel Time Index	Light Rail Commuter Rail Bus	
511 DFW	Travel Time Index Travel Time Reliability	No Assets Needed	
Access Management Improvements (Turn Lanes, Close Driveways)	Travel Time Index Travel Time Reliability Crash Rate	Frontage Roads Parallel Arterials	

<u>Strategy</u>	<u>Performance Measures Not Need Improvement</u>	<u>Primary Available Assets</u>	<u>Secondary Available Assets</u>
Active Parking Management	Travel Time Index Travel Time Reliability	No Assets Needed	
Active Traffic Management (Lane Assignment, Re-Striping, Turning Movement and lane use restrictions)	Travel Time Index Travel Time Reliability	Parallel Arterials Frontage Roads	
Bottleneck Removal	Travel Time Index Travel Time Reliability Crash Rate		*Lane Drop must be identified on corridor
Dynamic Pricing		No Assets Needed	*Must be on tolled facilities
Dynamic Routing		No Assets Needed	
Emergency Routing	Travel Time Reliability	Parallel Arterials Parallel Freeway ITS Frontage	
Freight Railroad Grade Crossing	Travel Time Index Travel Time Reliability	Parallel Arterials	
HOV/Managed Lane Management	Travel Time Index Travel Time Reliability	HOV/Managed Lane ITS	
Integrated Transportation Management/Route Guidance	Travel Time Index Travel Time Reliability	No Assets Needed	
Intersection Improvements	Travel Time Index Travel Time Reliability Crash Rate	Frontage Roads Parallel Arterials	
ITS Devices (CCTV, Cameras, DMS, etc.)	Travel Time Index Travel Time Reliability Crash Rate		*If ITS is not densely deployed on corridor
Mobility Assistance Patrol / Courtesy Patrol	Travel Time Index Travel Time Reliability Crash Rate	ITS	Shoulder Availability
Probe Surveillance	Travel Time Index Travel Time Reliability Crash Rate	No Assets Needed	
Regional Traffic Control	Travel Time Index Travel Time Reliability Crash Rate	Parallel Arterials Parallel Freeway ITS Frontage	
Reversible Lane Management	Travel Time Index Travel Time Reliability Crash Rate		Parallel Arterials
Shoulder Utilization Program	Travel Time Index Travel Time Reliability Crash Rate	Shoulder Availability	
Speed Harmonization and Monitoring	Travel Time Index Travel Time Reliability Crash Rate	No Assets Needed	
Strategic Incident Response and Clearance Time Program	Travel Time Index Travel Time Reliability Crash Rate	ITS Shoulder Availability	Frontage Roads Parallel Freeway Parallel Arterials
Traffic Incident Management Training	Travel Time Reliability Crash Rate	No Assets Needed	
Truck Lane Restrictions	Travel Time Index Travel Time Reliability Crash Rate	No Assets Needed	*If Truck Lane Restrictions are not on corridor



## Transportation System Management Projects Definition Guide

**511 DFW** – one-stop phone and web source for up-to-the minute transportation information.

**Access Management Improvements (Turn Lanes, Close Driveways)** – regulation of interchanges, intersections, driveways and median openings to a roadway.

**Active Parking Management** – includes a variety of strategies that encourage more efficient use of existing parking facilities, improve the quality of service provided to parking facility users and improve parking facility design.

**Adaptive/Demand Responsive Signal Systems/ Traffic Signal Improvements** – to improve the efficiency of a signal by upgrading the hardware or through retiming, equipment, installation of new signals or signal improvements that allow traffic signal timing to change or adapt based on traffic demand.

**Bike/Ped Improvements** – improving conditions for bicycling and walking.

**Bike Parking Facilities** – involves the infrastructure and equipment (bike racks, bicycle locks, etc.) to enable secure and convenient parking of bicycles.

**Bike Share** – a service in which bicycles are made available for shared use to individuals on a very short-term basis.

**Bike/Transit Integration** – the merging of bicycle transport with transit services to further enhance both modes of travel.

**Bottleneck Removal** – removal of “bottlenecks” where the number of lanes decreases at ramps and interchanges and where there are roadway alignment changes (sharp curves, steep hill, etc.).

**Bus Loading Bays** – a multi-stop feature for bus stations that can handle a much higher capacity of traffic.

**SOV Trip Reduction Program** – a program that give commuters resources and incentives to reduce their automobile trips through ridesharing, biking, walking, transit, alternative work schedules, telecommuting, etc.

**Commuter Financial Incentives** – monetary benefit offered to commuters or employees to encourage behavior or action change which otherwise would not take place.

**Context Sensitive Design** – refers to roadway standards and development practices that are flexible and sensitive to community values. CSD allows roadway design decisions to better balance economic, social and environmental objectives.

**Demand Response Transit Operations** – comprised of vehicles operating in response to calls from passengers or their agents to the transit operator, who then dispatches a vehicle to pick up the passengers and transport them to their destinations.

**Dynamic Pricing** – to improve traffic flow along a corridor by changing or adjusting the price to travel on the facility based on traffic demand.

**Dynamic Routing** – a device or app that supports automated vehicle location and adjust route the vehicle is traveling based on traffic demand.

**Emergency Routing** – a device that supports automated vehicle location and dynamic routing of emergency vehicles.

**Freight Railroad Grade Crossing** – an installation at points where a railroad track crosses a highway at grade.

**HOV/Managed Lane Management** – highway facilities or a set of lanes where operational strategies are proactively implemented and managed in response to changing conditions. Conceptually, Managed Lanes are based upon flexible operating strategies and active management of the transportation system and provide the perspective needed for integrated operations leading to improved performance.

**Integrated Transportation Management/Route Guidance** – generates a trip plan, including a multimodal route and associated service information (e.g., parking information), based on traveler preferences and constraints. Routes may be based on static information or reflect real time network conditions.

**Intersection Improvements** – improving the safety and efficiency of an intersection to increase the performance of the facility.

**ITS Devices (CCTV, Cameras, DMS, etc.)** – advanced applications which, without embodying intelligence as such, aim to provide innovative services relating to different modes of transport and traffic management and enable various users to be better informed and make safer, more coordinated, and 'smarter' use of transport networks.

**Active Traffic Management (Lane Assignment, Re-Striping, Turning Movement and lane use restrictions)** – to change the lane markings or other markings on a road, runway or other path.

**Mobility Assistance Patrol / Courtesy Patrol** – provides assistance to stalled and stranded motorists by helping them to move disabled vehicles from the main lanes of regional highway/freeway facilities and ultimately getting the vehicles operating or off the facility completely.

**Park and Ride** – serve as collection areas for people transferring to higher occupancy vehicles. Park-and-Rides are often located and designed to serve bus or rail transit, but many are used by carpoolers and vanpoolers as well.

**Pedestrianized Streets** – areas of a city or town reserved for pedestrian use only in which some or all automobile traffic may be prohibited.

**Probe Surveillance** – a field-to-vehicle application that covers the interface between roadside equipment and vehicles that are equipped with a short-range communications device. The probe data collected by the field equipment may include link travel times, average speeds, road conditions, environmental conditions, surface weather information, and any other data that can be measured and communicated by passing vehicles. The collected probe information could be sent to a center for processing and distribution.

**Regional Traffic Control** – an operation center that monitors and controls the traffic signal systems.

**Reversible Lane Management** – a lane in which traffic may travel in either direction, depending on certain conditions.

**Ridesharing and Ride matching - Carpool and Vanpool** – two or more people sharing a ride in a car constitutes a carpool. A vanpool constitutes a group of six to fifteen commuters.

**Shoulder Utilization Program** – the opening of a shoulder to vehicular traffic. Shoulders may be opened to alleviate traffic during peak periods of travel or at the time of an incident.

**Speed Harmonization and Monitoring** – reduces the speed differential between and within lanes and creates a more uniform and acceptable headway distribution thus reducing the potential for the occurrence of primary accidents.

**Strategic Incident Response and Clearance Time Program** – incident response and clearance times are collected to gauge the ability for police, fire, emergency medical services and the mobility assistance patrol to respond to and clear a traffic incident.

**Traffic Incident Management Training** – training program for first responders focusing on a response effort that protect motorist and responders while minimizing traffic impact.

**Transit** – conveyance or transportation from one place to another, as persons or goods, especially, local public transportation.

**Transit Fixed-Route Operations** – a service that performs vehicle routing and scheduling, as well as automatic operator assignment and system monitoring for fixed-route and flexible-route transit services.

**Transit Management** – provides real-time computer analysis of vehicles and facilities to improve transit operations and maintenance. It monitors the location of transit vehicles, identifies deviations from the schedule, and offers potential solutions to dispatchers and operators.

**Transit System Signal Priority** – an operational strategy that facilitates the movement of transit vehicles (usually those in-service), either buses or streetcars, through traffic-signal controlled intersections.

**Transit Vehicle Tracking** – monitors current transit vehicle location using an Automated Vehicle Location System. The location data may be used to determine real time schedule adherence and update the transit system's schedule in real-time.

**Truck Lane Restrictions** – restricting trucks to operate only in certain lanes of the corridor.

## **CORRIDOR EVALUATION**

This document will provide a detailed review of the evaluation of corridors as part of the 2021 Congestion Management Process (CMP).

The first step in the process is to evaluate the following performance criteria to determine if the corridor has any deficiencies and needs improvements. Based on the deficiencies identified, performance criteria statements were created and are described below.

### **Performance Criteria**

#### 1. Crash Rate

Procedure: Average daily volumes are joined to CMP segments from Regional Travel Model MOBLOS 2018 volumes output. The 2014-2018 crash data was combined with the MOBLOS volumes to create a crash rate for each CMP corridor. It is the rate of all reported crashes per 100 million Vehicle Miles Traveled (VMT) on each corridor.

Rationale: Top 25 Corridors were selected as corridors in need of help.

Cutoff Number – 102 crashes per 100 million VMT or greater

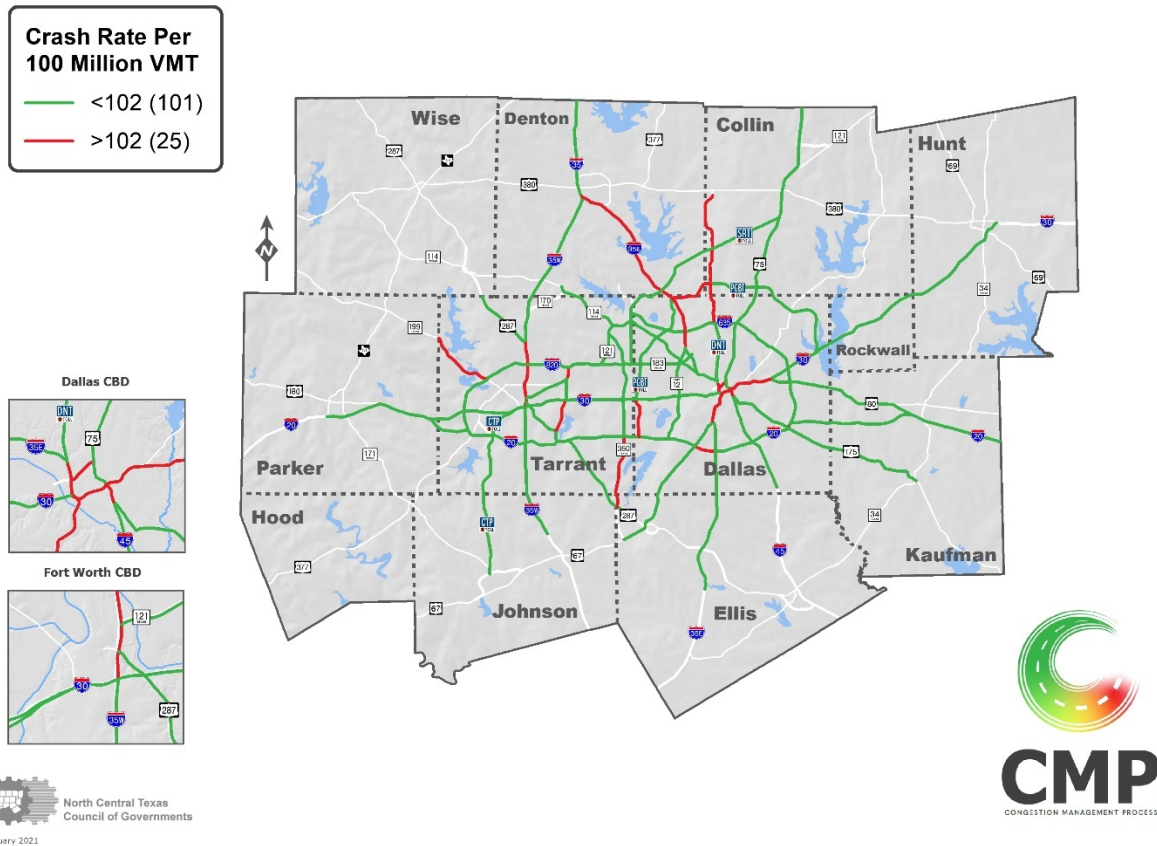
Number of Segments

Sufficient – 101

Needs Improvement – 25



# Crash Rate



## 2. Travel Time Index (TTI)

**Procedure:** The TTI metric is calculated from National Performance Management Research Dataset (NPMRDS) travel time data. This data is used for calculation of several Federal performance measures and other purposes. CMP segments are spatially joined with Traffic Message Channel (TMC) segments within 200 feet of the corridor. The segment-level TTI metric is calculated by taking a length-weighted average of reported TTI on these joined segments.

**More Information:** This metric was calculated from the NPMRDS travel time dataset using observed travel times on weekdays in 2019. This metric is an index comparing median travel times during peak periods to median travel times during free-flow conditions. If a corridor has a travel time index of 1.0, travel takes the same amount of time during peaks as it does during free-flow conditions. If a corridor has a travel time index of 2.0, travel takes twice as long during the peak. Since this metric uses medians, it is less influenced by higher-than-usual travel times during non-recurring congestion events and is more comparable to similar metrics produced by the travel demand model.

**Rationale:** Top 25 Corridors were selected as corridors in need of help, then adjusted to a natural break in the dataset.

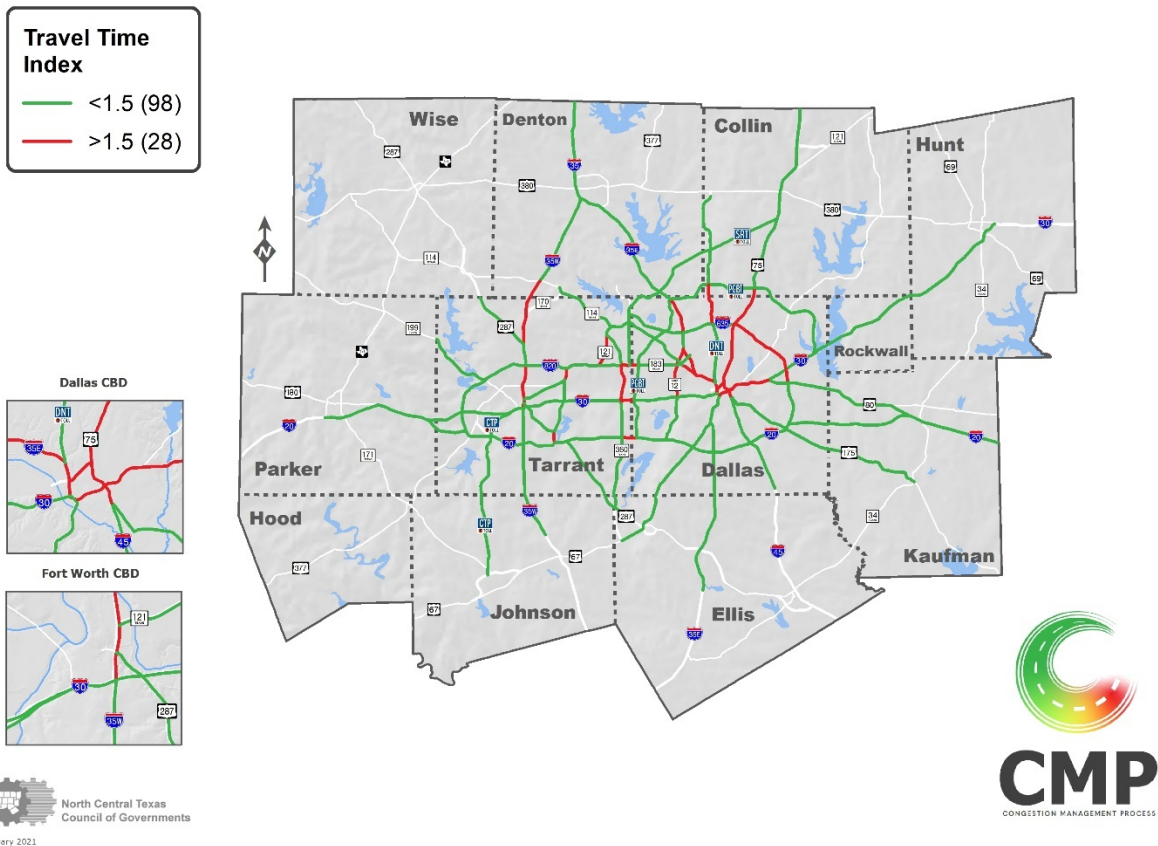
Cutoff Number – Travel Time Index of 1.5 or greater

Number of Segments

Sufficient – 101

Needs Improvement – 28

## Travel Time Index



### 3. Level of Travel Time Reliability (LOTTR)

**Procedure:** The LOTTR metric is calculated from National Performance Management Research Dataset (NPMRDS) travel time data. This data is used for calculation of several Federal performance measures and other purposes. CMP segments are spatially joined with TMC segments within 200 feet of the corridor. The segment-level LOTTR metric is calculated by taking a length-weighted average of reported LOTTR on these joined segments.

**More Information:** This metric was calculated from the NPMRDS travel time dataset using observed travel times on weekdays in 2019. It uses a similar calculation procedure to the reliability measures in the PM3 Federal performance measure (PM) rulemaking. This metric is essentially an index indicating how much extra time needs to be added to trip planning time to arrive on time 80% of the time. If a corridor's median travel time is 5 minutes and the

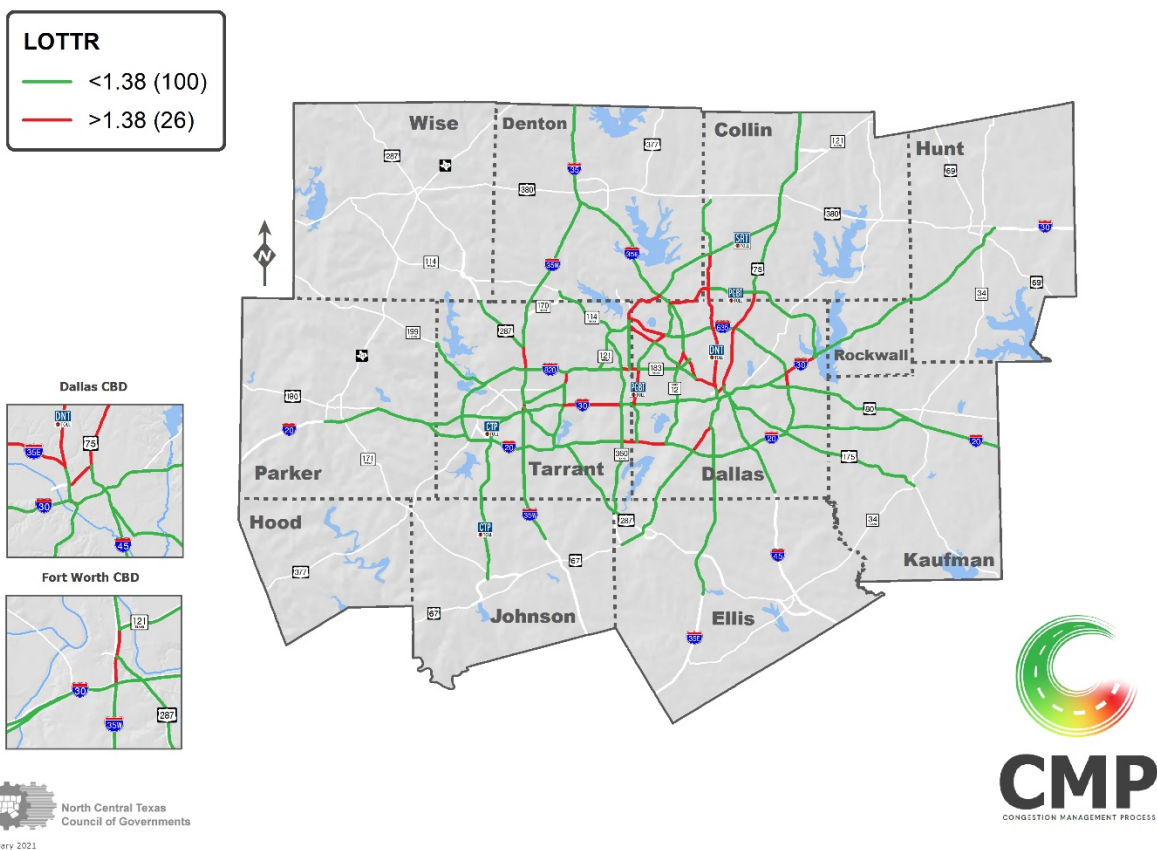
## 2021 CMP Update – Corridor Evaluation and Scoring Criteria

LOTTR index is 1.0, no additional time needs to be added to trip planning. If the same corridor's LOTTR is 1.5, 7.5 minutes (1.5 x 5 minutes) needs to be planned for travel time.

Rationale: The top 25 Corridors were originally selected as corridors in need of help, cutoff moved slightly to include a segment within .001 of other deficient segments.

Cutoff Number – Level of Travel Time Reliability of 1.38 or greater  
Number of Segments  
Sufficient – 100  
Needs Improvement – 26

### Level of Travel Time Reliability



#### 4. Pavement Condition

Procedure: Provided annually or biennially by the Texas Department of Transportation (TxDOT) as part of PM2 pavement and bridge condition performance measure target-setting activities. The 2018 dataset was utilized for this analysis. CMP segments are spatially joined with pavement segments within 150 feet of the corridor. Each pavement section is rated “Good,” “Fair,” and “Poor,” and the final metric is the percentage of the total length of joined segments that are in “Poor” condition.

# 2021 CMP Update – Corridor Evaluation and Scoring Criteria

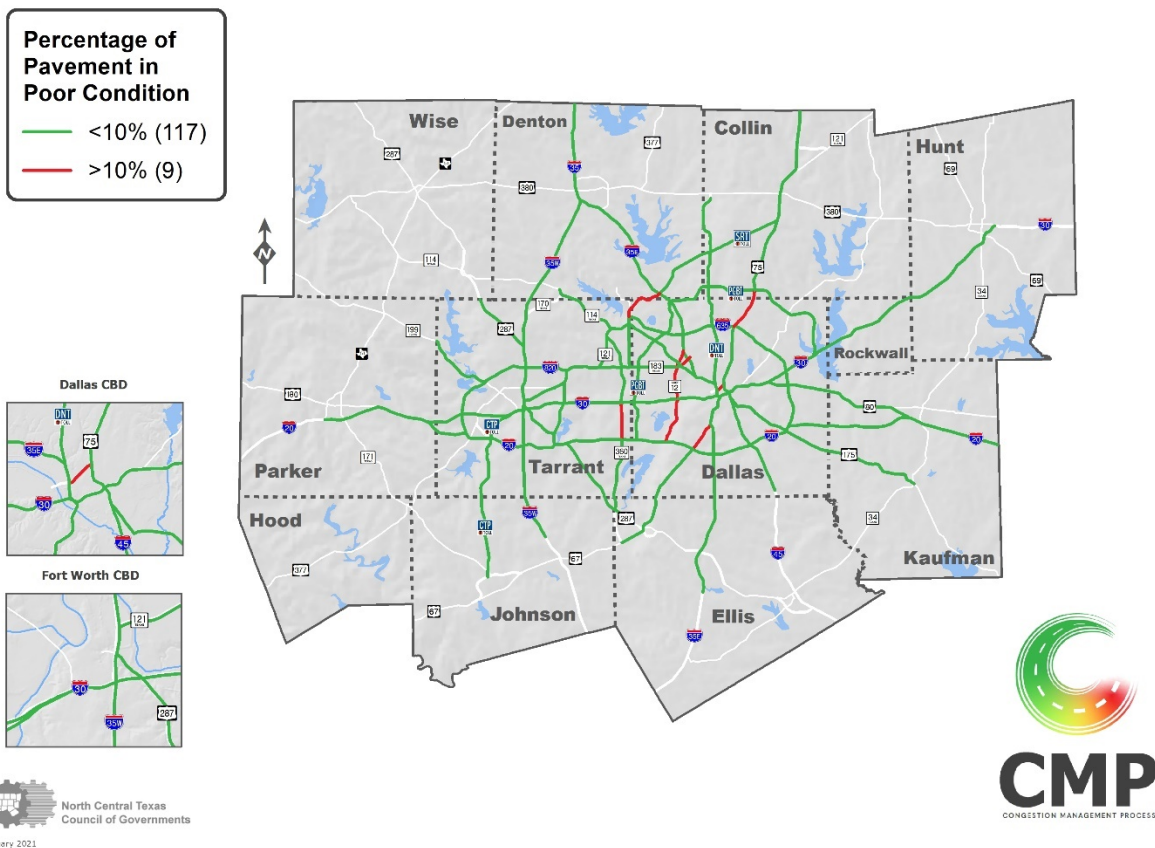
More Information: This is the same data that was used to calculate the PM2 Federal pavement condition measures. As part of the PM2 measure calculation process, small pavement segments are assigned scores of “Good,” “Fair,” or “Poor.” Dozens to hundreds of these segments nest into CMP corridors. This metric is the percentage of the corridor’s length that is classified as “Poor.”

Note: North Texas Tollway Authority (NTTA) segments are rated based on NTTA’s performance criteria. Due to being considered off-system in TxDOT’s Pavement Management Information System (PMIS), NTTA’s corridors had only been evaluated based on International Roughness Index. NTTA’s performance system provides a more comprehensive evaluation of those corridors.

Rationale: Evaluated based on percentage of pavement in poor condition (rather than good) because poor pavement condition can determine whether pavement should be a part of the corridor strategy.

- Cutoff Number – 10% or more pavement in poor condition
- Number of Segments
  - Sufficient – 117
  - Needs Improvement – 9

## Pavement Condition





### 5. Bridge Condition

Procedure: Provided annually or biennially by TxDOT as part of Performance Measure (PM) 2 pavement and bridge condition performance measure target-setting activities. The 2018 data set was utilized for this analysis. The input bridge dataset is queried from data from the latest available year and then projected using the provided coordinates. For each CMP corridor, all bridges within 500 feet of the corridor are spatially joined to the corridor. Subsequent calculations sum the total bridge deck area along the corridor in “Good,” “Fair,” “Poor” condition. The final output is the percentage of the corridor’s total bridge deck area that is in “Poor” condition.

More Information: This metric was calculated from the 2018 TxDOT Metropolitan Planning Organization Bridge Dashboard dataset. This is the same data that was used to calculate the PM2 Federal bridge condition measures. As part of the PM2 measure calculation process, individual bridges are assigned scores of “Good,” “Fair,” or “Poor.” This metric is the percentage of the total bridge deck area of bridges on the corridor that are classified as “Good.”

Rationale: Evaluated based on percentage of bridge deck in poor condition (rather than good) because poor bridge deck condition can determine whether pavement should be a part of the corridor strategy.

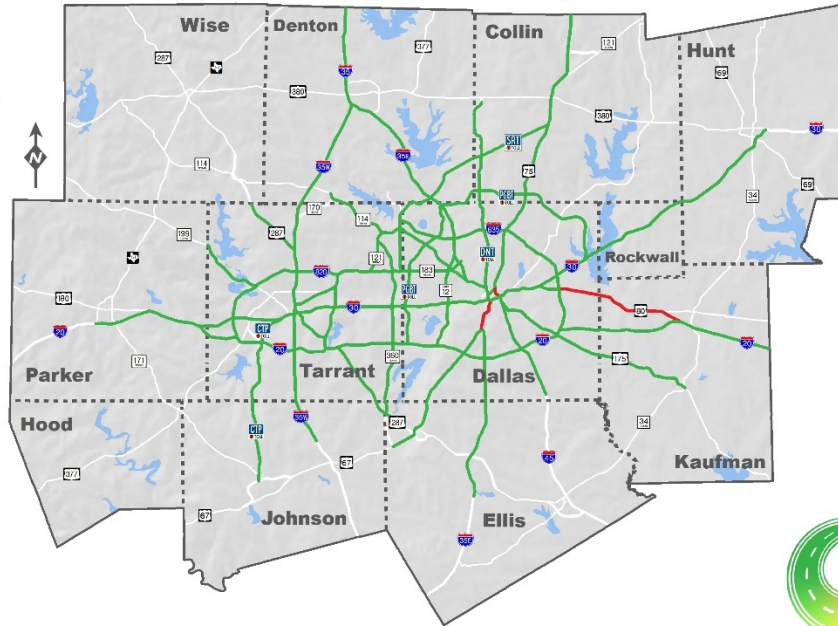
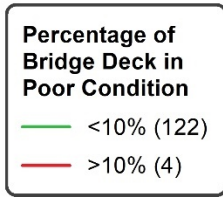
Cutoff Number – 10% or more bridge deck in poor condition

Number of Segments

Sufficient – 122

Needs Improvement – 4

# Bridge Condition



The table below identified possible performance criteria statements based on the combination of performance criteria that are sufficient or needs improvement.

Travel Time Index (Demand Reduction)	Crash Rate (Operational)	Level of TT Reliability (Demand Reduction and Operational)	Poor/Bridge Pavement (Rehad or Rebuild)	Corridor Statements
Needs Improvement	Sufficient	Sufficient	Sufficient	Demand Reduction
Needs Improvement	Needs Improvement	Sufficient	Sufficient	Demand Reduction and Operational
Needs Improvement	Sufficient	Needs Improvement	Sufficient	Demand Reduction and Operational
Needs Improvement	Needs Improvement	Needs Improvement	Sufficient	Demand Reduction and Operational
Sufficient	Needs Improvement	Needs Improvement	Sufficient	Demand Reduction and Operational
Sufficient	Needs Improvement	Sufficient	Sufficient	Operational
Needs Improvement	Needs Improvement	Needs Improvement	Needs Improvement	Rebuild with Capacity
Sufficient	Sufficient	Sufficient	Needs Improvement	Rehab
Sufficient	Needs Improvement	Sufficient	Needs Improvement	Rehab and Operational
Needs Improvement	Sufficient	Needs Improvement	Needs Improvement	Rehab, Demand Reduction and Operational
Needs Improvement	Needs Improvement	Sufficient	Needs Improvement	Rehab, Demand Reduction and Operational
Sufficient	Sufficient	Needs Improvement	Needs Improvement	Rehab, Demand Reduction and Operational
Sufficient	Needs Improvement	Needs Improvement	Needs Improvement	Rehab, Demand Reduction and Operational
Needs Improvement	Sufficient	Sufficient	Needs Improvement	Rehad and Demand Reduction

Following the performance criteria evaluation to determine the corridor performance criteria statement, a review of available corridor assets was completed. Corridors were given scores based on available corridor assets inventoried. These assets are described below.

## **Asset Inventory**

### 1. Roadway Infrastructure

#### a. Parallel Arterial (10 Points)

Procedure: For each CMP segment, this model finds arterial segments within 5 miles that are generally parallel to the CMP segment. For these parallel arterials, the model determines their available capacity mileage by subtracting the segment's modeled VMT from total capacity mileage.<sup>1</sup> A formula based on gravity is used to determine how much of this available capacity could serve as an effective detour under the assumption that arterials become less attractive as detours with increasing distance away from the facility. The final output is a daily volume that could reasonably be detoured from the CMP segment to nearby arterials.

Rationale: Using the percentage of corridor volume that can be detoured from the corridor on parallel arterials, corridors were broken into three categories.

#### Cutoff Number

High >80%

Medium 50-79.99%

Low <50%

#### Points

High – 10 points

Medium – 5 points

Low – 0 points

#### Number of Segments

High – 18

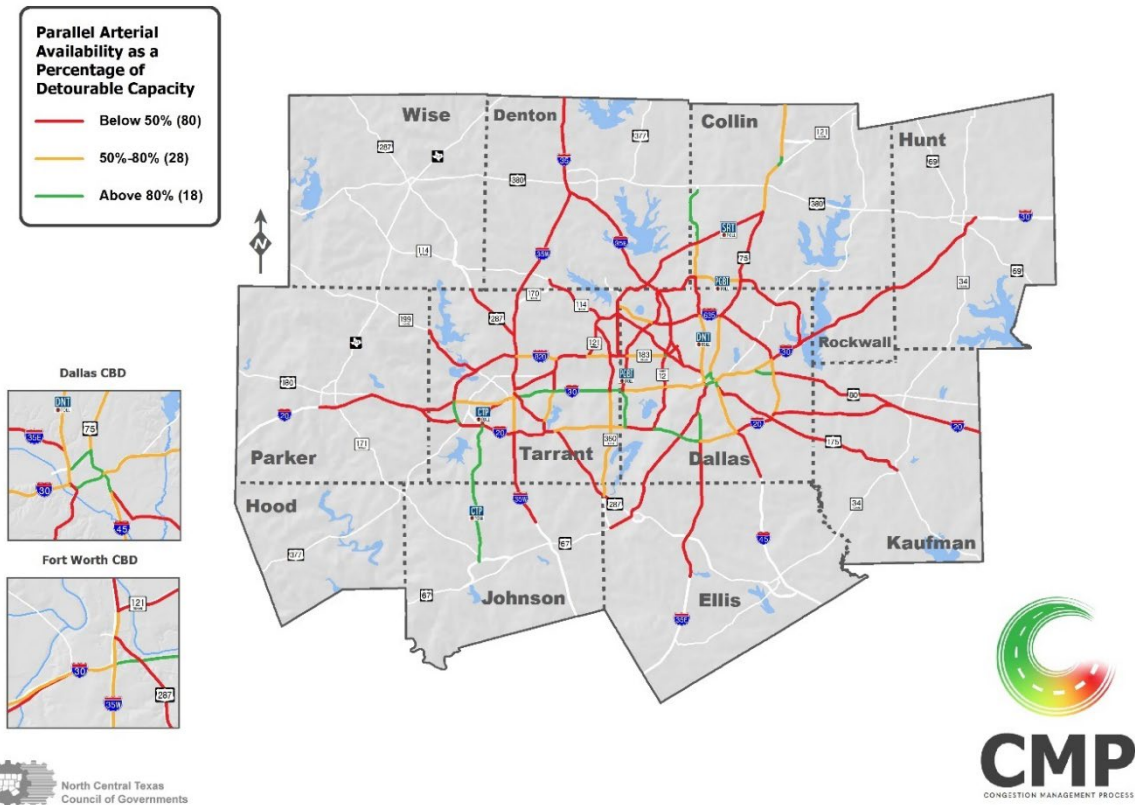
Medium – 28

Low – 80

---

<sup>1</sup> This assumes that only arterials with volumes below their total capacity can serve as effective detours.

# Parallel Arterials



b. Frontage Roads (10 Points)

Procedure: This model finds roadway links classified as frontage roads within 500 ft. of each CMP corridor. The total length of these nearby frontage roads is compared to the length of the CMP corridor itself to determine completeness of frontage roads. The final output is a percentage of frontage road completeness along the corridor, where a value of 100% indicates that frontage roads are present along both sides of the corridor for its entire length.

Rationale: Using Percentage of frontage road to corridor length, corridors were broken into three categories.

- Cutoff Number
  - High >80%
  - Medium 50-79.99%
  - Low <50%
- Points
  - High – 10 points
  - Medium – 5 points
  - Low – 0 points

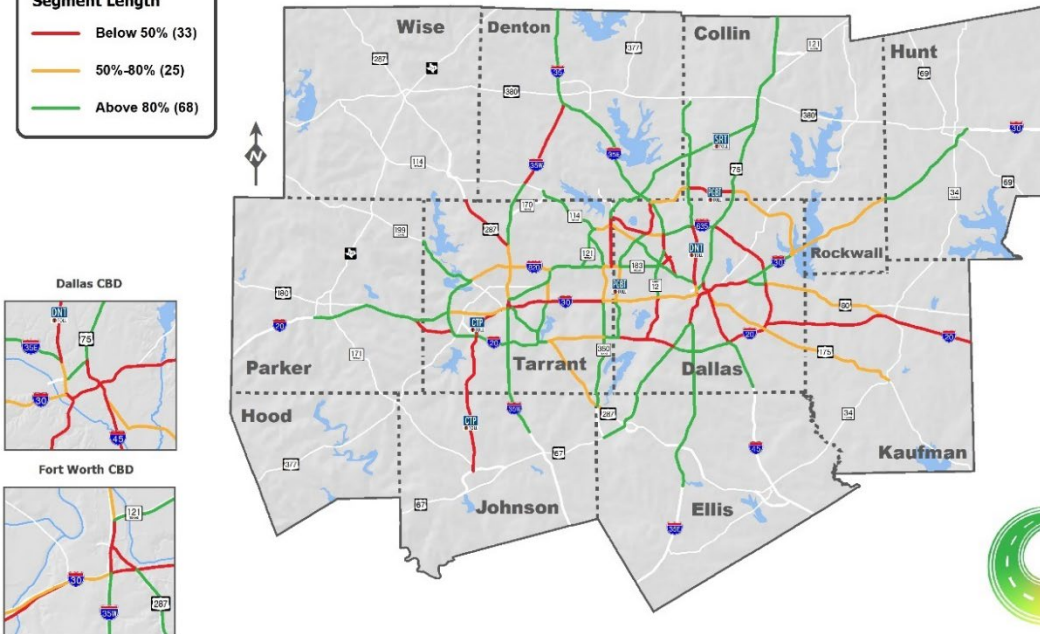


Number of Segments  
 High – 68  
 Medium – 25  
 Low – 33

## Frontage Roads

**Frontage Road Availability as a Percentage of Segment Length**

- Below 50% (33)
- 50%-80% (25)
- Above 80% (68)



North Central Texas Council of Governments  
 January 2021



c. Parallel Freeway (20 Points)

Procedure: For each CMP corridor, this model finds other freeway/tollway facilities that are generally parallel within 5 miles. The length of these parallel facilities is compared to the length of CMP segment to yield a final percentage representing the extent to which the CMP segment is paralleled by another nearby freeway/tollway facility. A value of 100% indicates that the corridor is fully paralleled, but this value can rise above 100% in situations where more than one parallel facility exists.

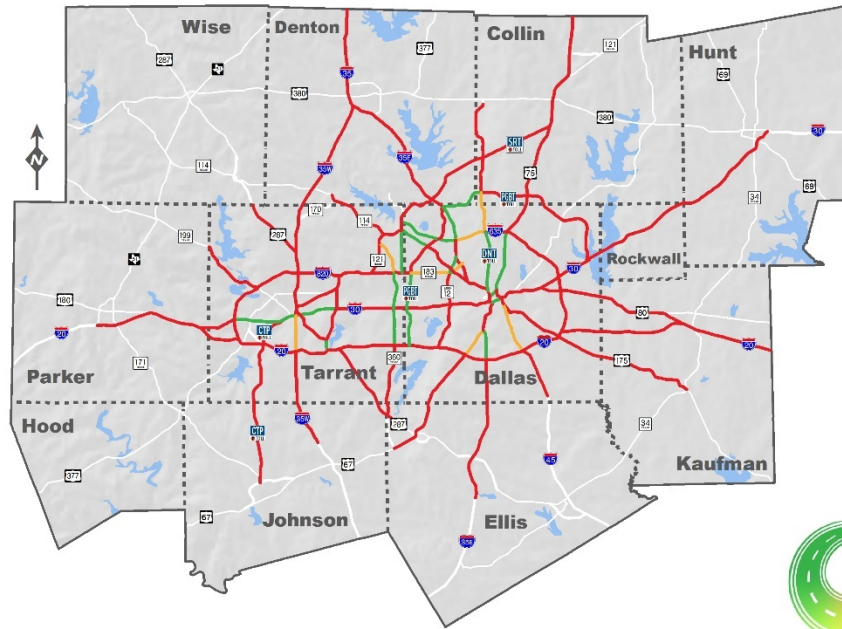
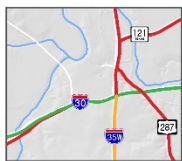
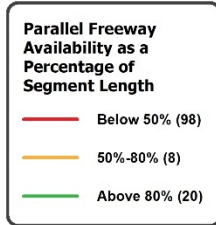
Rationale: Using Percentage of parallel freeway to corridor length, corridors were broken into three categories.

Cutoff Number  
 High >80%  
 Medium 50-79.99%  
 Low <50%

Points  
 High – 20 points

Medium – 10 points  
 Low – 0 points  
 Number of Segments  
 High – 20  
 Medium – 8  
 Low – 98

## Parallel Freeway



### Roadway Infrastructure Total Points for Category

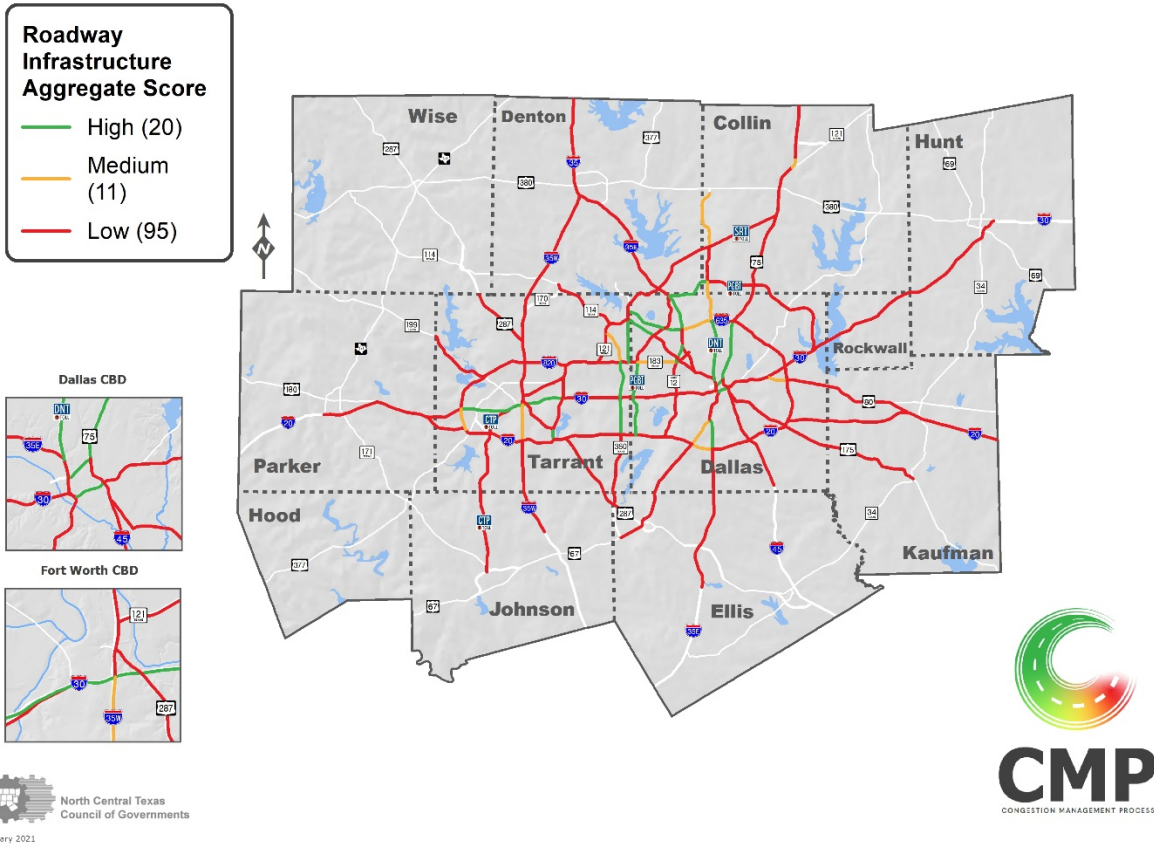
For each roadway infrastructure asset listed above, the points are aggregated to determine availability of road infrastructure assets within the CMP segment. Based on the aggregated score, a high, medium, or low ranking is identified that will allow that asset to be considered when identifying CMP strategies in a future step.

High >30 Points  
 Medium 20-29 Points  
 Low <20 points

### Exceptions to Scoring Cutoffs

All corridors receiving maximum points in Parallel Freeway were scored as high.

# Roadway Infrastructure



## 2. Modal Options

### a. Park and Ride (10 Points)

**Procedure:** The model identifies the locations of park and ride lots provided by the Travel Demand Management team in an excel file, using listed coordinates. The model then counts how many of these park and ride locations are within a two-mile buffer of each CMP corridor.

**Rationale:** Any corridor with a park and ride was given maximum points, all with zero park and rides received no points.

#### Cutoff Number

High >0 park and ride lots

Low 0 park and ride lots

#### Points

High – 10 points

Low – 0 points

#### Number of Segments

High – 86

Low – 40

b. Light Rail (10 Points)

Procedure: The input transit dataset is queried to exclude people mover modes. For each CMP corridor, the model searches for parallel light rail segments within two miles of the corridor. The length of these parallel segments is compared to the total length of the corridor to yield a percentage of the corridor that is paralleled by fixed-rail transit. A value of 100% indicates that the corridor is paralleled along its whole length by a transit facility. Note that values may rise above 100% in areas where multiple nearby transit facilities are present.

Rationale: Using Percentage of parallel light rail to corridor length, corridors were broken into three categories.

Cutoff Number

High >80%

Medium 50-79.99%

Low <50%

Points

High – 10 points

Medium – 5 points

Low – 0 points

Number of Segments

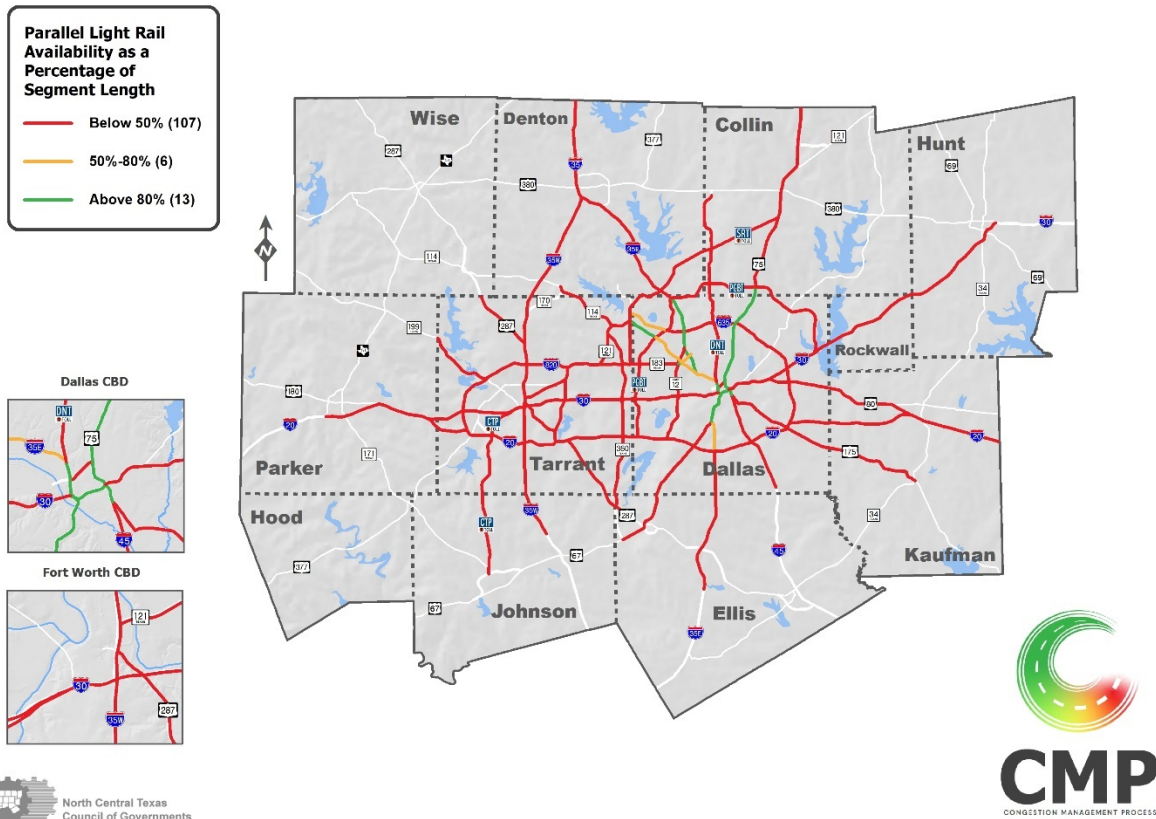
High – 13

Medium – 6

Low – 107



## Light Rail



North Central Texas Council of Governments  
January 2021

c. Commuter Rail (10 Points)

Procedure: The input transit dataset is queried to exclude people mover modes. For each CMP corridor, the model searches for parallel commuter rail segments within two miles of the corridor. The length of these parallel segments is compared to the total length of the corridor to yield a percentage of the corridor that is paralleled by fixed-rail transit. A value of 100% indicates that the corridor is paralleled along its whole length by a transit facility. Note that values may rise above 100% in areas where multiple nearby transit facilities are present.

Rationale: Using a percentage of parallel commuter rail to corridor length, corridors were broken into three categories.

Cutoff Number

- High >80%
- Medium 50-79.99%
- Low <50%

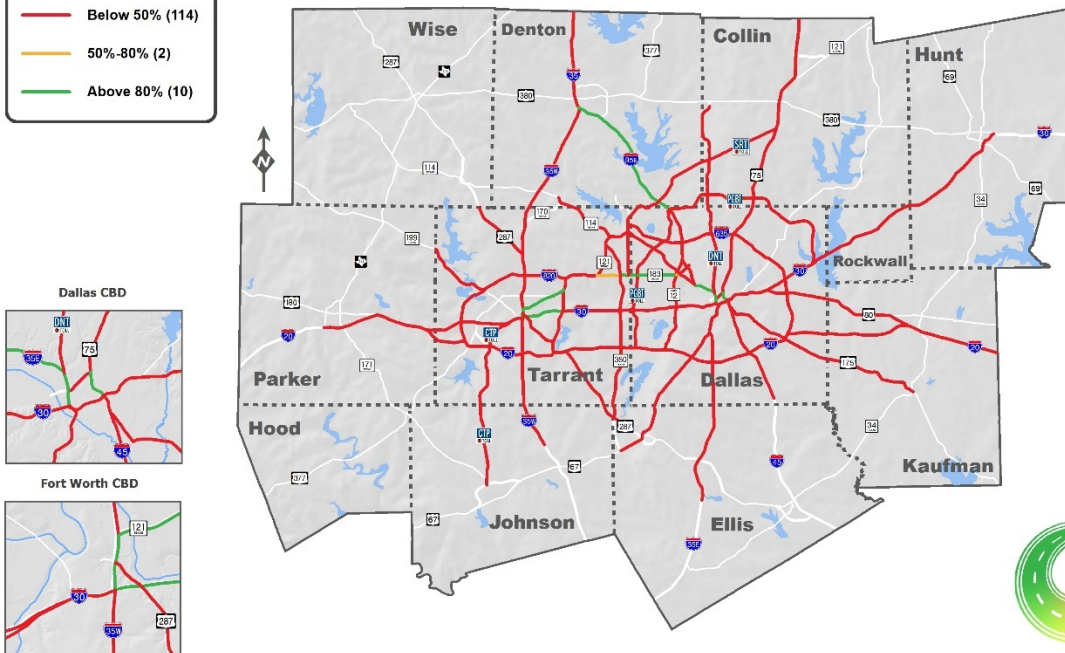
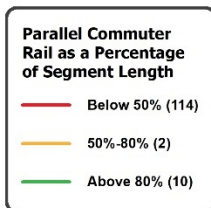
Points

- High – 10 points
- Medium – 5 points
- Low – 0 points

Number of Segments

- High – 10
- Medium – 2
- Low – 114

## Commuter Rail



January 2021



d. Bus Routes (10 Points)

Procedure: Two models were used to calculate the outcome for this item. The first model functions identically to the previous fixed-rail transit model. For each CMP corridor, the model searches for parallel bus route segments within 2 miles of the corridor. The length of these parallel segments is compared to the total length of the corridor to yield a percentage of the corridor that is paralleled by bus routes. A value of 100% indicates that the corridor is paralleled along its whole length by a bus route. Note that values may rise above 100% in areas where multiple nearby bus routes are present.

Additionally, a second metric was included to reflect density of bus service. This model used General Transit Feed Specification data feeds to analyze how frequent service is in a given area, making a trip substitution more likely. These two metrics were combined to evaluate bus service performance based on geometry and density.

## 2021 CMP Update – Corridor Evaluation and Scoring Criteria

---

Rationale: Using two different bus metrics, corridors were split into three categories.

Cutoff Number (Max 5 points for each metric)

High >80%

Medium 50-79.99%

Low <50%

Combined Bus Score

High – Both High or High and Medium

Medium – Both Medium or Medium and Low

Low – Both Low

Points

High – 10 points

Medium – 5 points

Low – 0 points

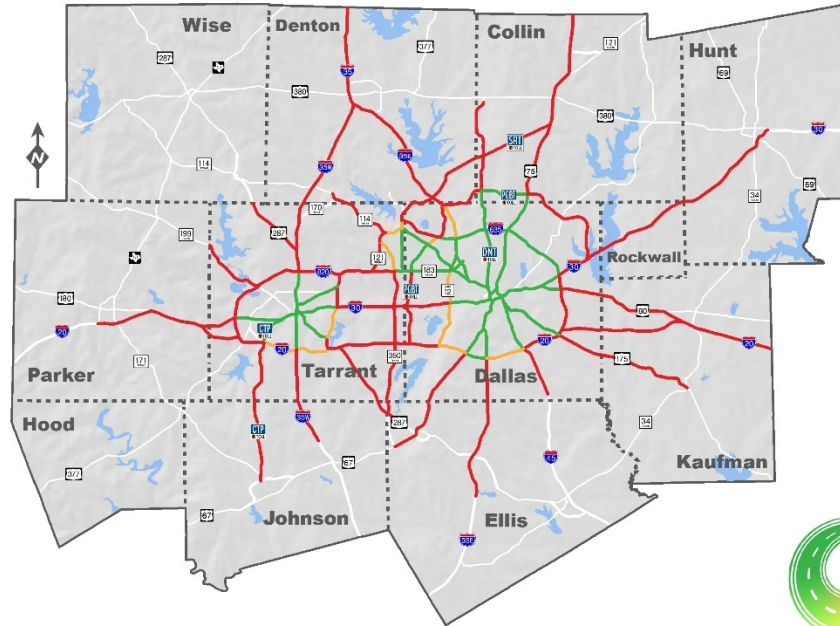
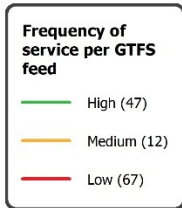
Number of Segments

High – 52

Medium – 14

Low – 60

# Bus Route Density

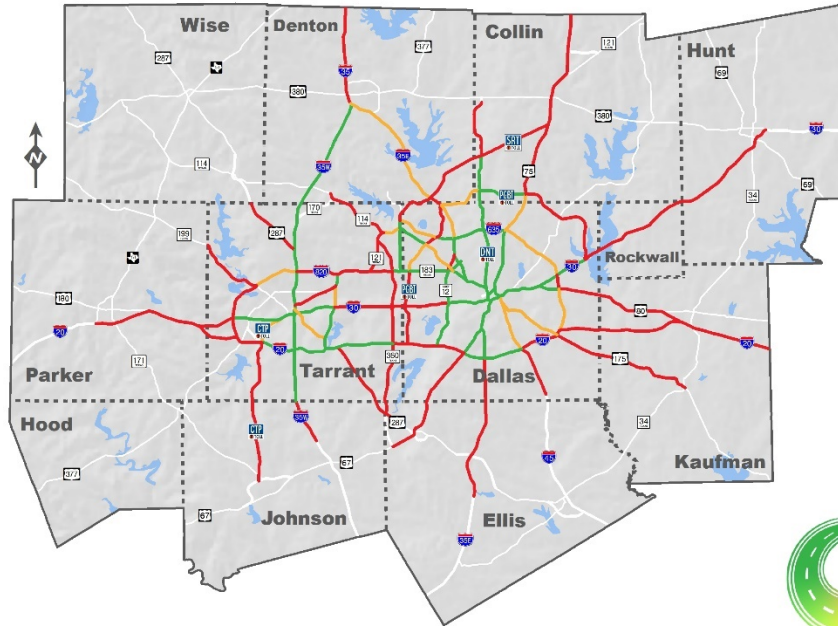
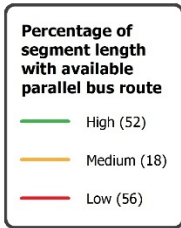


 North Central Texas Council of Governments  
January 2021



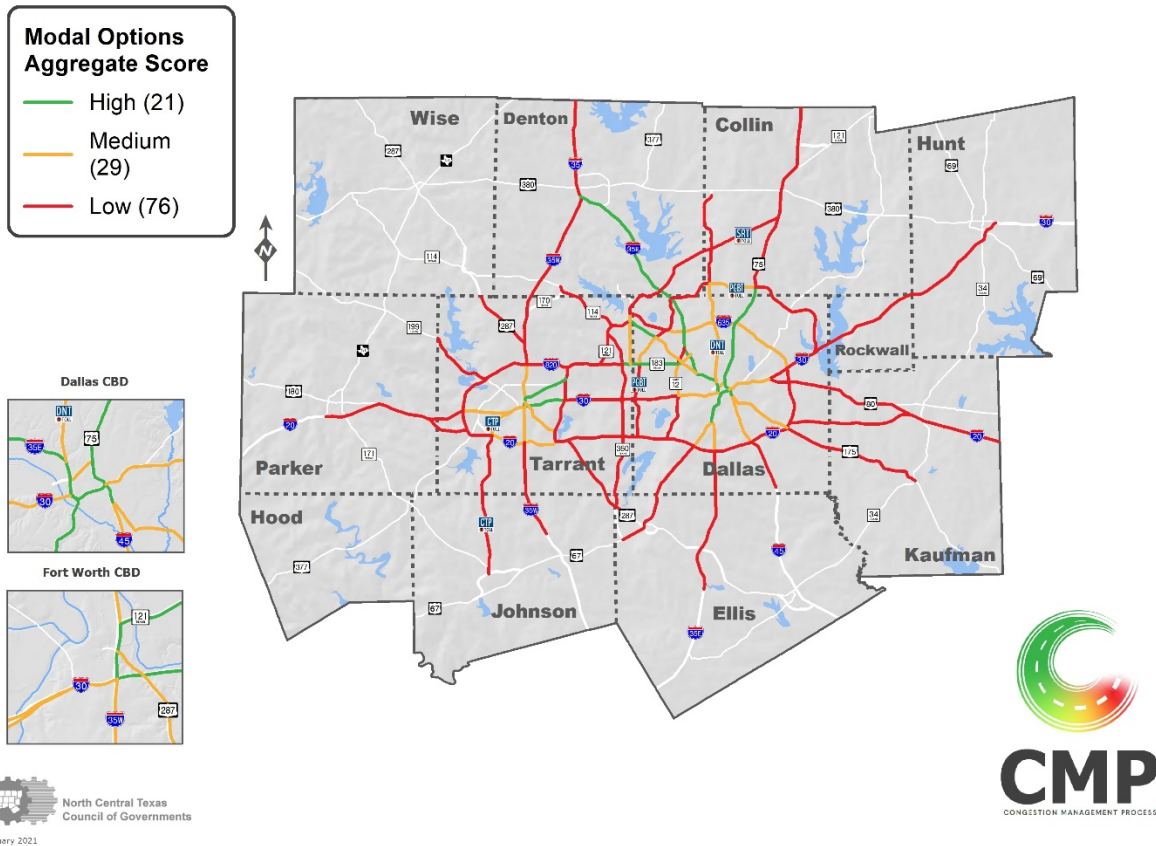


# Parallel Bus Route





# Modal Options



### 3. Roadway Operations

#### a. ITS (7 Points)

**Procedure:** Based on the assumption that ITS equipment could potentially influence travel on facilities within a 1000-foot radius, this model buffers the input points to 1000 feet and dissolves the resulting polygon to yield a single ITS “area of influence” polygon. The model then intersects the CMP corridors with this polygon to yield their total length inside the ITS “area of influence.” This is then compared to the corridor’s total length, yielding a percentage of each corridor that is influenced by ITS equipment.

**Rationale:** Using a 1000-foot buffer from ITS devices, corridors were split into three categories based on percentage of corridor falling within a distance of an ITS device.

#### Cutoff Number

High >80%

Medium 50-79.99%

Low <50%

#### Points

High – 7 points

Medium – 3.5 points

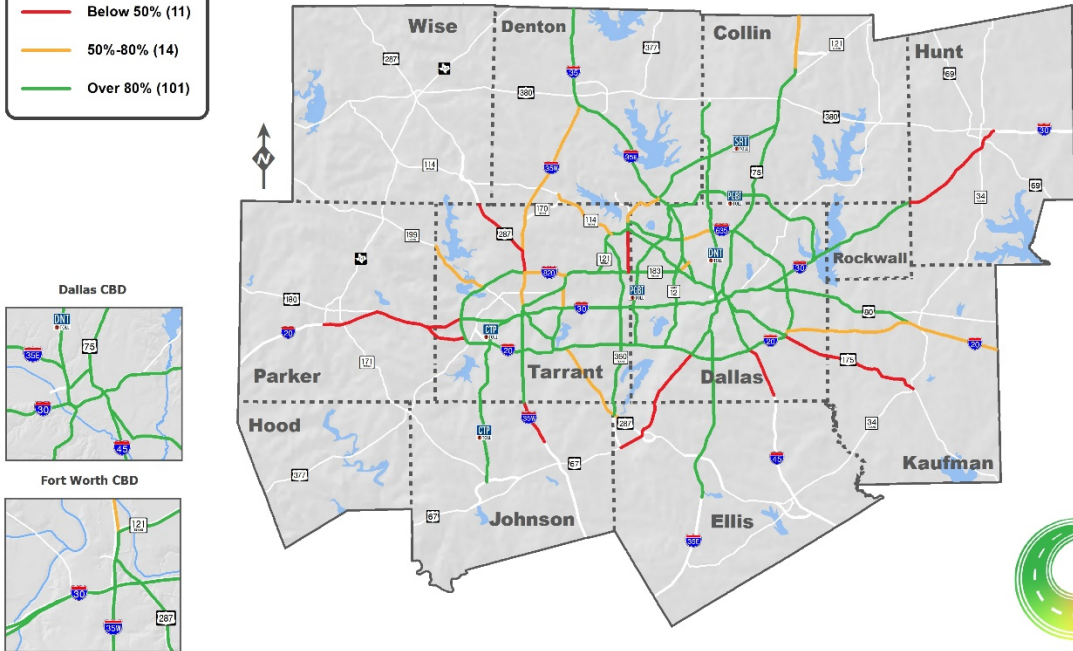
Low – 0 points

Number of Segments  
 High – 36  
 Medium – 48  
 Low – 42

## Intelligent Transportation Systems

**Percentage of Segment within 1/2 Mile of ITS Device**

- Below 50% (11)
- 50%-80% (14)
- Over 80% (101)



North Central Texas Council of Governments  
 January 2021



**b. Shoulder (5 Points)**

Procedure: Segments were manually evaluated using a shapefile from TxDOT’s public data portal supplemented with imagery from Google Earth and Google maps to verify due to incomplete data on some corridors.

Rationale: High, medium, and low shoulder classes assigned based on availability of 8 ft. shoulder on inside or outside of segment.

High – Full Outside Shoulder Available

Medium – Partial outside shoulder available, partial, or full inside shoulder available

Low – Partial or no outside shoulder available, no inside shoulder available

**Points**

High – 5 points

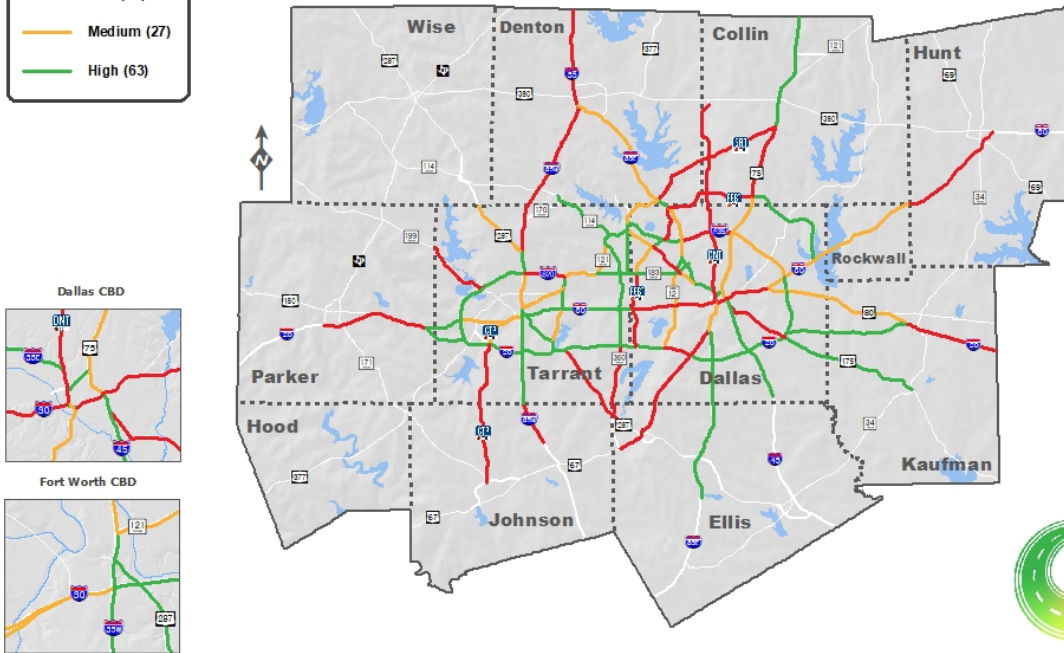
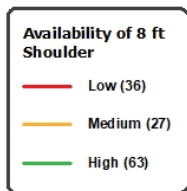
Medium – 2.5 points

Low – 0 points



Number of Segments  
 High – 63  
 Medium – 27  
 Low – 36

## Shoulder



High- Full outside shoulder  
 Medium- Partial outside and inside shoulders  
 Low- Partial or no outside shoulder, no inside shoulder



c. HOV/Managed Lane (20 Points)

Procedure: This model searches for parallel HOV/managed lane facilities within each CMP corridor using a small 150-foot buffer. The length of these parallel HOV/managed lane facilities is compared to the total length of the CMP corridor to yield a percentage of each corridor that contains an HOV/managed lane facility.

Rationale: Percentage of HOV or managed lane to corridor length was used to break corridors into three categories.

Cutoff Number  
 High >80%  
 Medium 50-79.99%  
 Low <50%

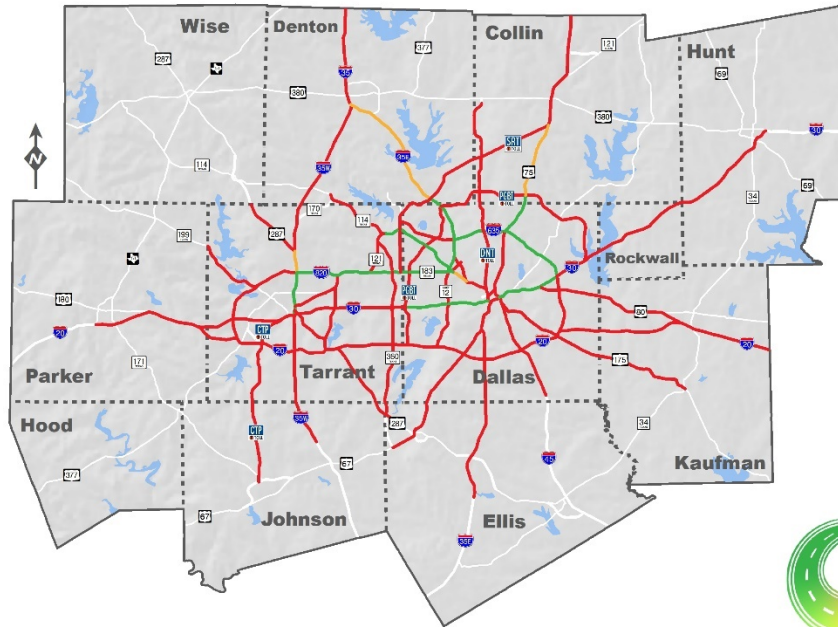
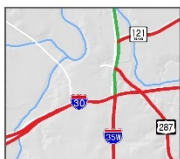
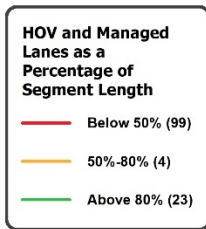
Points

- High – 20 points
- Medium – 10 points
- Low – 0 points

Number of Segments

- High – 23
- Medium – 4
- Low – 99

## HOV and Managed Lanes



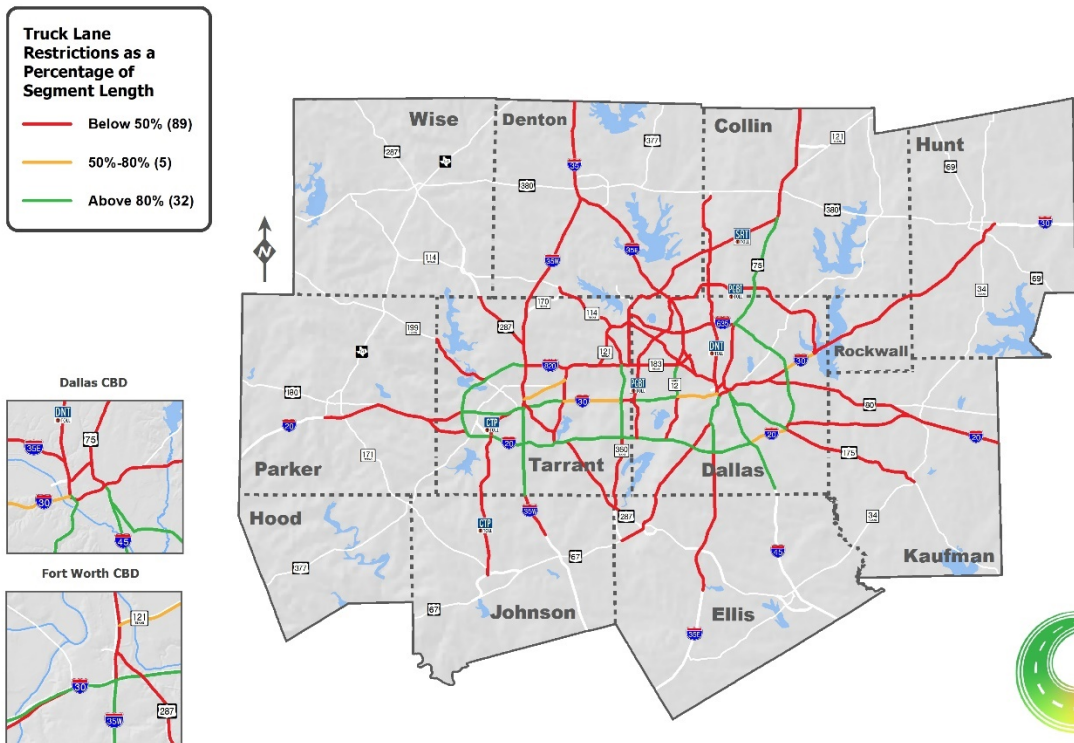
d. Truck Lane Restriction (3 Points)

Procedure: This model searches for parallel truck lane restrictions within each CMP corridor using a small 400-foot buffer. The length of the CMP corridor with nearby parallel truck lane restrictions is compared to the total length of the CMP corridor to yield a percentage of each corridor that contains truck lane restrictions.

Rationale: Percentage of truck lane restrictions to corridor length was used to break corridors into three categories.

- Cutoff Number
  - High >80%
  - Medium 50-79.99%
  - Low <50%
- Points
  - High – 3 points
  - Medium – 1.5 points
  - Low – 0 points
- Number of Segments
  - High – 37
  - Low – 89

## Truck Lane Restrictions



## Roadway Operations Asset Points

For each roadway operations asset listed above, the points are aggregated to determine availability of roadway operations assets within the CMP segment. Based on the aggregated score, a high, medium, or low ranking is identified that will allow that asset to be considered when identifying CMP strategies in a future step.

- High >30 Points
- Medium 20-29 Points
- Low <20 points

## Exceptions to Scoring Cutoffs

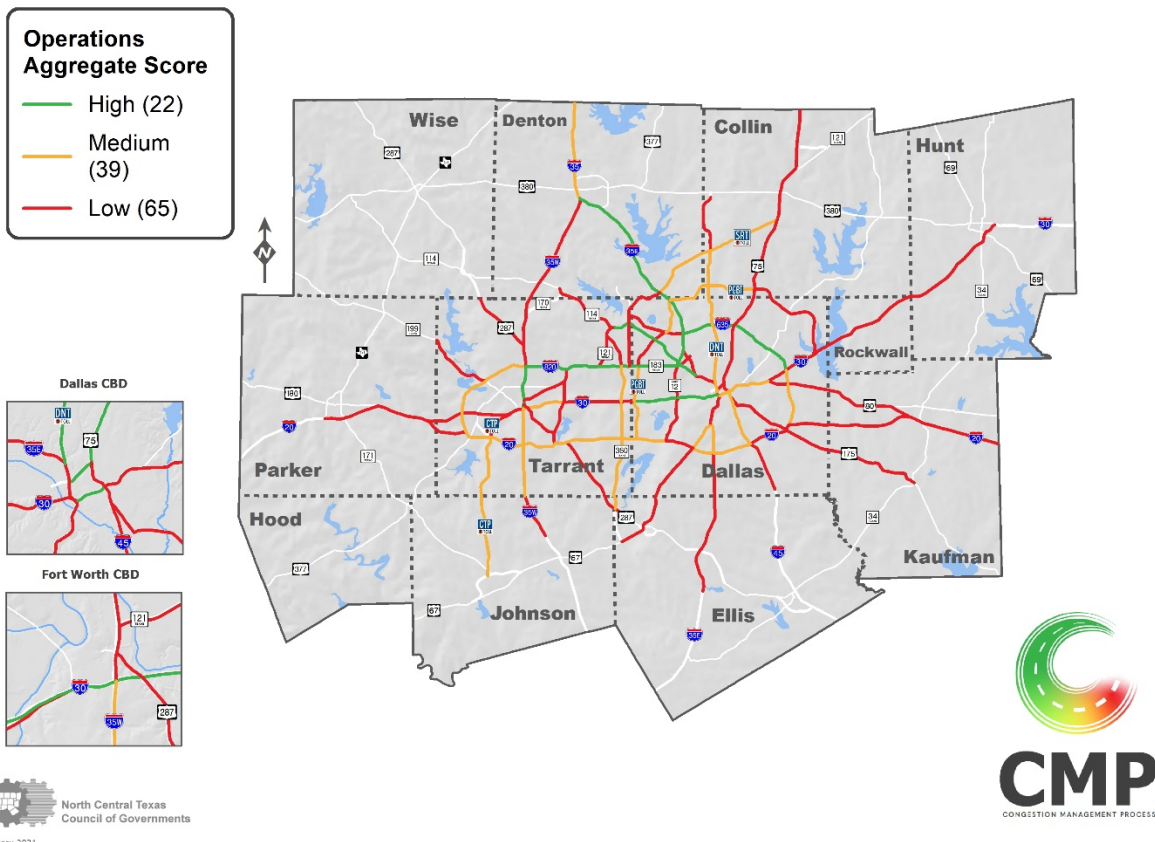
Corridors receiving maximum points for HOV/Managed Lanes were scored as high.

Corridors receiving maximum points in ITS received a minimum score of medium.

Please note the following assets were considered but were not evaluated in the roadway operations asset inventory:

- Freight Route
- Traffic Incident Management Participation Percentages
- Mobility Assistance/Courtesy Patrol Coverage

# Operations





## 2021 CMP Update – Corridor Evaluation and Scoring Criteria

---

Asset statements were written based on combinations of scores from each of the three categories; roadway infrastructure, modal options, and roadway operations assets. These statements were written based on asset availability in each category to be used with corridor performance statements. The link below provides a table with the various corridor statements.

CMP tables: [CMP Scenario Calculator.xlsx](#)

The next step in the process was to evaluate construction within each corridor limits. The congestion management statement was combined with construction information.

### **Construction Inventory**

Procedure: This process assumes that corridor deficiencies will be resolved with major construction completed after data collection. Additionally, corridors with major construction programmed in the Transportation Improvement Program were removed from consideration for the assumption that these projects would be underway prior to congestion management intervention. Resources utilized to identify these corridors included the TxDOT Project Tracker Website and the Transportation Improvement Program. For this effort, corridors that were recently constructed, as of 2018, were included in the listing. In addition, this inventory considered construction of the entire corridor as well as any partial corridor construction.

Rationale: Segments were manually examined for portions of segments currently under construction. All construction project types were considered in analysis.

#### Number of Segments

##### Full Construction – 25

These are corridors with existing or funded construction the entire length of the corridor. These corridors will fall in the category of continue to monitor as construction activity has a positive impact on the corridor and should resolve performance deficiencies.

##### Partial Construction – 28

These are corridors with existing or funded construction on a portion of the corridor. These corridors will fall in the category of continue to monitor as construction activity has a positive impact on the corridor and should resolve performance deficiencies.

##### Recent Construction – 8

These are corridors with full or partial construction that was completed between 2018 and present. These corridors will fall in the category of continue to monitor as construction activity has a positive impact on the corridor and should resolve performance deficiencies.

##### No Construction – 65

Following the three steps above, the Corridor Asset Statements were combined with Corridor Performance Statements to determine a corridor category. This information was used to place corridors in “Action Groups,” listed below.

#### i. Continue to Monitor (45)

Corridors that were sufficient in all categories. These corridors were not noted as needing improvement in the five categories considered in performance criteria.

- ii. Construction (61)
  - Full (25), Partial (28), Recent (8)
  - These corridors may be considered under their pre-construction statement following completion of construction. Ideally, construction activity has a positive impact on the corridor, resolving performance deficiencies.
- iii. Rehab (3)

These corridors fall into a category which only raises performance issue in bridge or pavement conditions. These items will not be considered for CMP strategies and will be passed along to our partner agency maintenance contacts.
- iv. CMP Strategies (16)

These corridors were noted as strong candidates for congestion management strategies based on matching performance deficiency with asset availability. These corridors can be improved through implementation of a CMP strategy.
- v. Corridor Study (1)

These corridors are deficient in aspects that cannot be solved using CMP strategies.

The final step in the process is to identify possible congestion management strategies for all corridors that fell in the category of CMP Strategies.

### **CMP Strategies**

Congestion management strategies are selected using the process outlined below:

- All feasible congestion management strategies are identified.
- Following evaluation previously outlined, corridors resulting in a “CMP Strategy” output are identified.
- Using the tables linked below, each strategy is assigned a score for corridors based on matching assets with those identified for each strategy.
  - Assets are selected based on which infrastructure is necessary to implement a given strategy.
  - Assets are sorted into primary and secondary categories.
  - Corridors are given one point for any primary assets present and one-half point for any secondary assets present.
  - Assets and performance measures are evaluated on the same criteria as outlined in the evaluation previously, receiving points for assets for corridors that were evaluated as “high” availability.
  - Corridors are evaluated based on what percentage of maximum points it received for each given strategy, then evaluated manually for a potential fit.
  - Strategies with no necessary infrastructure will be considered for all corridors which are candidates for CMP strategies.
- Process will be used to narrow list of CMP strategies used for selection by an expert working group, to review and recommend strategies for funding in the Transportation Improvement Program.

List of CMP Strategies and associated items: [CMPStrategyTables.docx](#)

---