

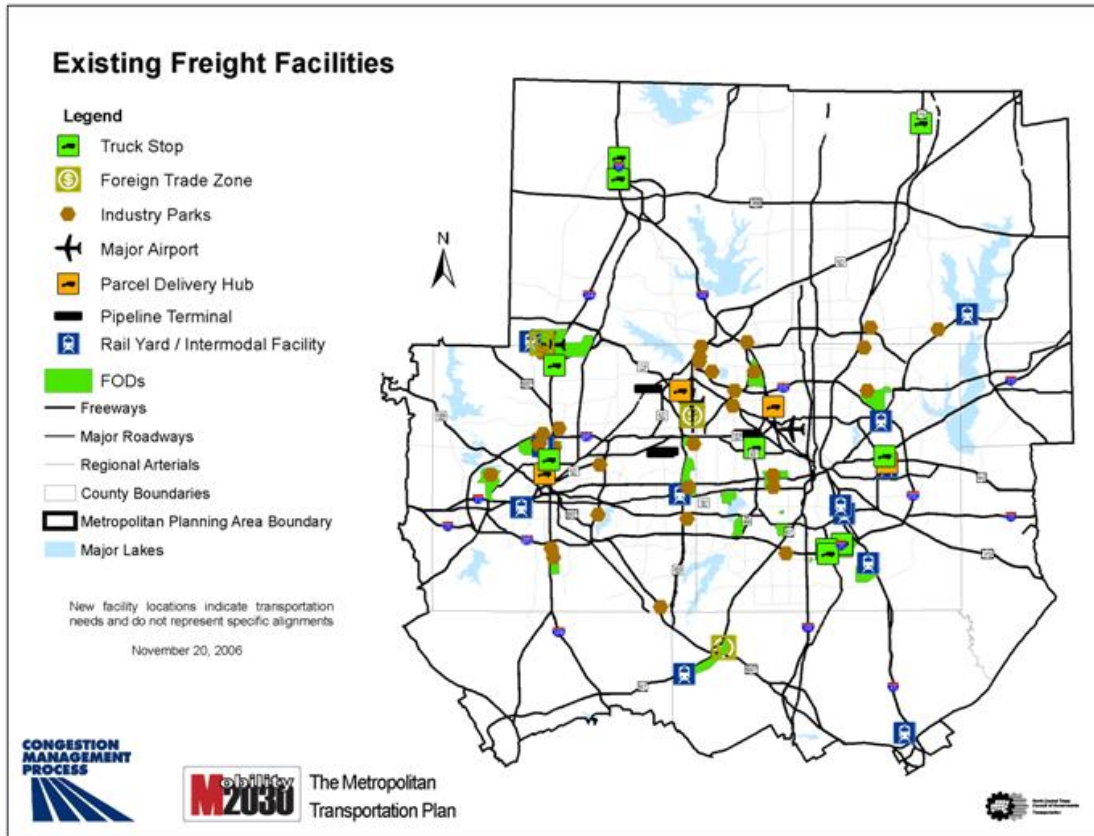
## **SECTION IV - INTERMODAL/FREIGHT SYSTEM**

### **SYSTEM IDENTIFICATION**

The North Central Texas region represents one of the largest “inland ports” in the nation where freight is moved, transferred, and distributed to destinations across the State and around the world. North Central Texas has one of the most extensive surface, air, and rail transportation networks in the world, providing trade opportunities for the more than 600 motor/trucking carriers and almost 100 freight forwarders that operate out of the DFW Metropolitan Area. The region is the primary economic engine in Texas, representing about one-third of the State’s total economic output. The nation’s largest rail lines operate in the region and coordinate with trucking shippers at four intermodal freight centers located on or near significant highway corridors. The region is the primary trucking/rail/air cargo center in the Southwest and will grow in importance as a principal international marketplace in the 21st century. An inventory of regional freight transportation facilities is shown in Exhibit IV-1.

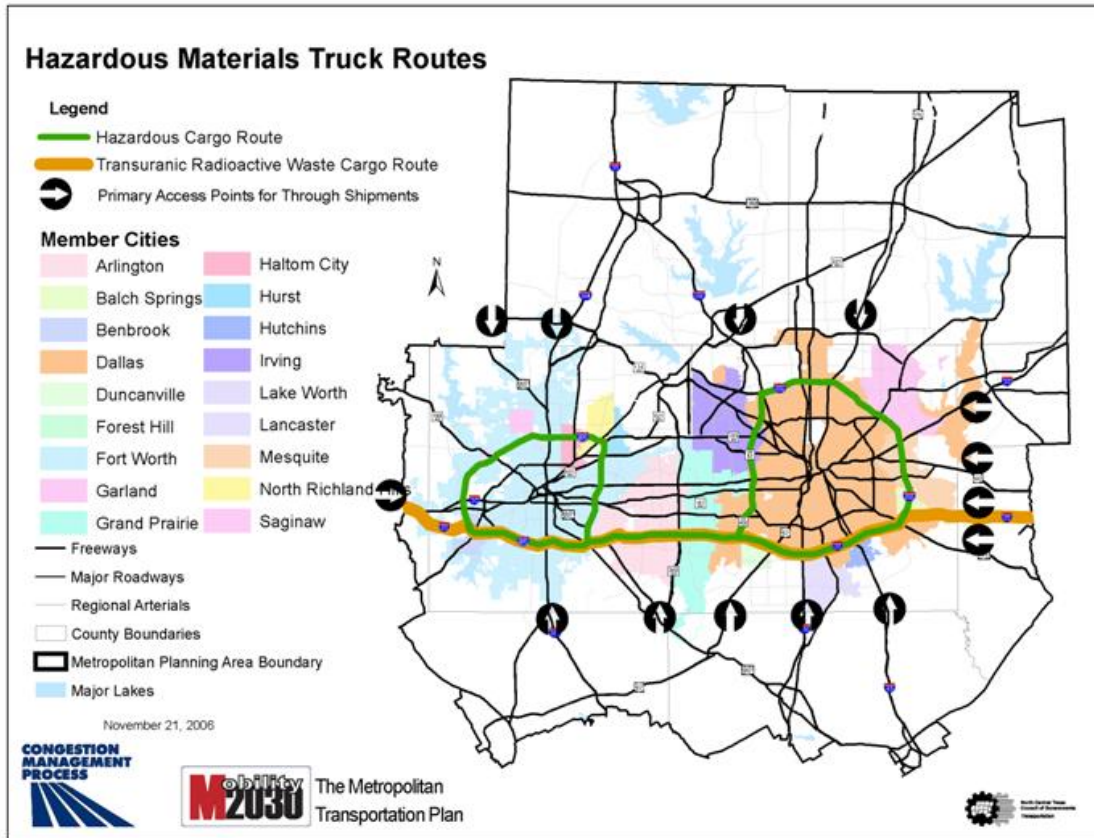
Numerous trade routes intersect in the DFW region creating a need for efficient goods movement flows. Interstate Highway 35 extends from the Texas-Mexico border to northern Minnesota. Referred to as the North American Free Trade Agreement (NAFTA) Superhighway, this major north-south route also passes through the Fort Worth and Dallas central business districts.

## EXHIBIT IV-1



Two critical goals of the intermodal/freight transportation planning process in the region are increased mobility and improved safety. By working with local governments and private-sector partners, strategic projects that address these goals can be identified and funding opportunities for these improvements can be sought. The Strategic Routing System, for instance, identifies the NAFTA corridor and other major freight corridors as roadways that should be targeted for improvements. The Hazardous Materials Truck Route is another important element of the freight route system as displayed in Exhibit IV-2.

## EXHIBIT IV-2



### DEVELOP PERFORMANCE MEASURES

The goal of system monitoring and data collection programs is to develop on-going system monitoring and reporting that relies heavily on data already collected or planned to be collected in the Dallas-Fort Worth Region. Exhibit IV-3 outlines the existing and planned system monitoring and data collection programs at NCTCOG.

**EXHIBIT IV-3**  
**DATA COLLECTION EFFORTS**  
**INTERMODAL/MULTIMODAL FREIGHT**

<b>Observed or Modeled Data</b>	<b>Data Element</b>	<b>Source</b>
Modeled	Freight Rail Forecast	DFW Regional Travel Model
Modeled	Truck Traffic Forecast	DFW Regional Travel Model
Observed	Vehicle Classification Counts	TxDOT TAP Skycomp
Observed	Train Volumes at Spot Locations	Freight Railroads
Observed	Crash Data	DPS/TxDOT

Gray shading = possible future data elements.

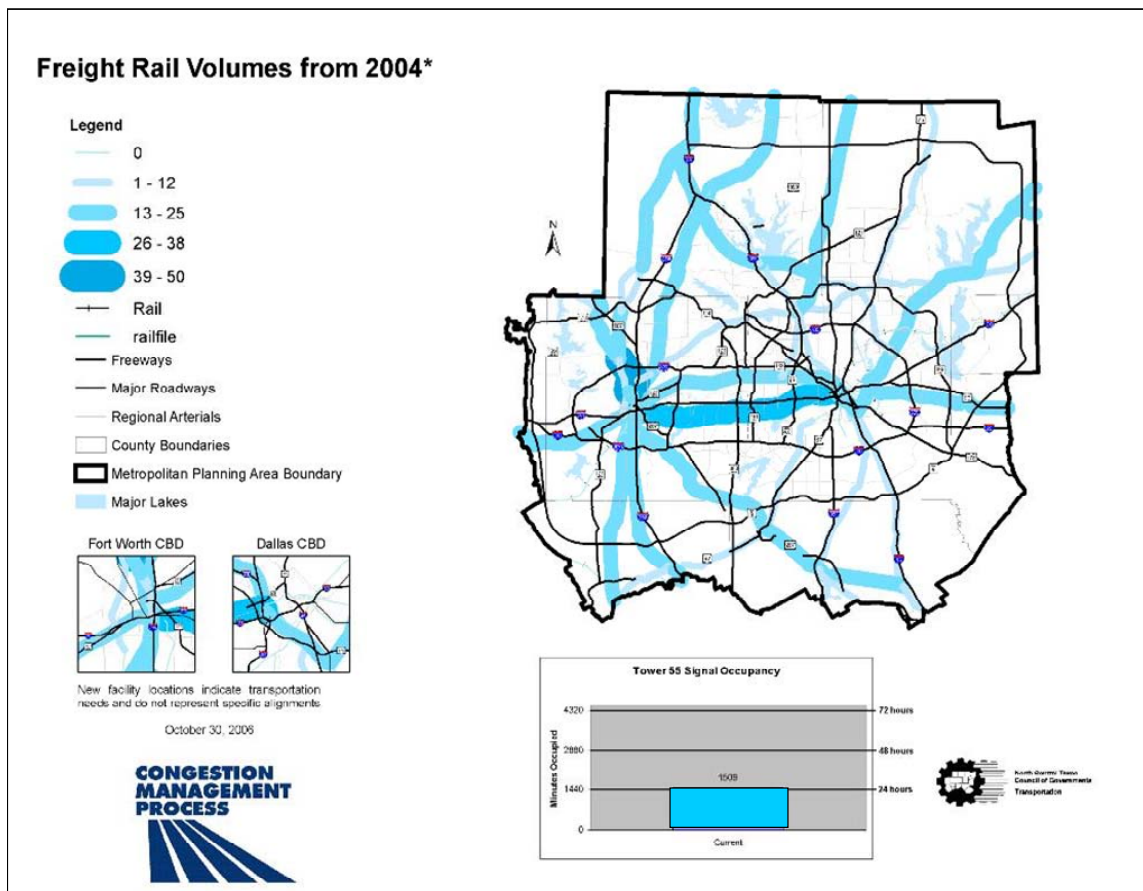
The performance measures identified above will support the two critical goals of the intermodal/freight transportation planning process, mobility and safety. Vehicle classification counts are used to identify corridors with a high percentage of truck traffic on the roadway system. Freight rail forecast and truck traffic forecast are used to identify future bottleneck locations on the rail and the roadway system. Using this data, strategies can be identified to alleviate these bottlenecks in the future. The future collection of accident data will be used to identify high incident locations to develop strategies that may decrease the number of incidents at these locations. All of these allow us to better plan and accommodate for intermodal/freight transportation movement in and around the region.

**MONITOR AND EVALUATE PERFORMANCE**

System performance is measured in a number of different ways. Maps are used to show how intermodal/freight is moved and how this affects congestion in general across the region. Rail Reliever Studies show how goods are moved via rail and how congestion is affected. They also

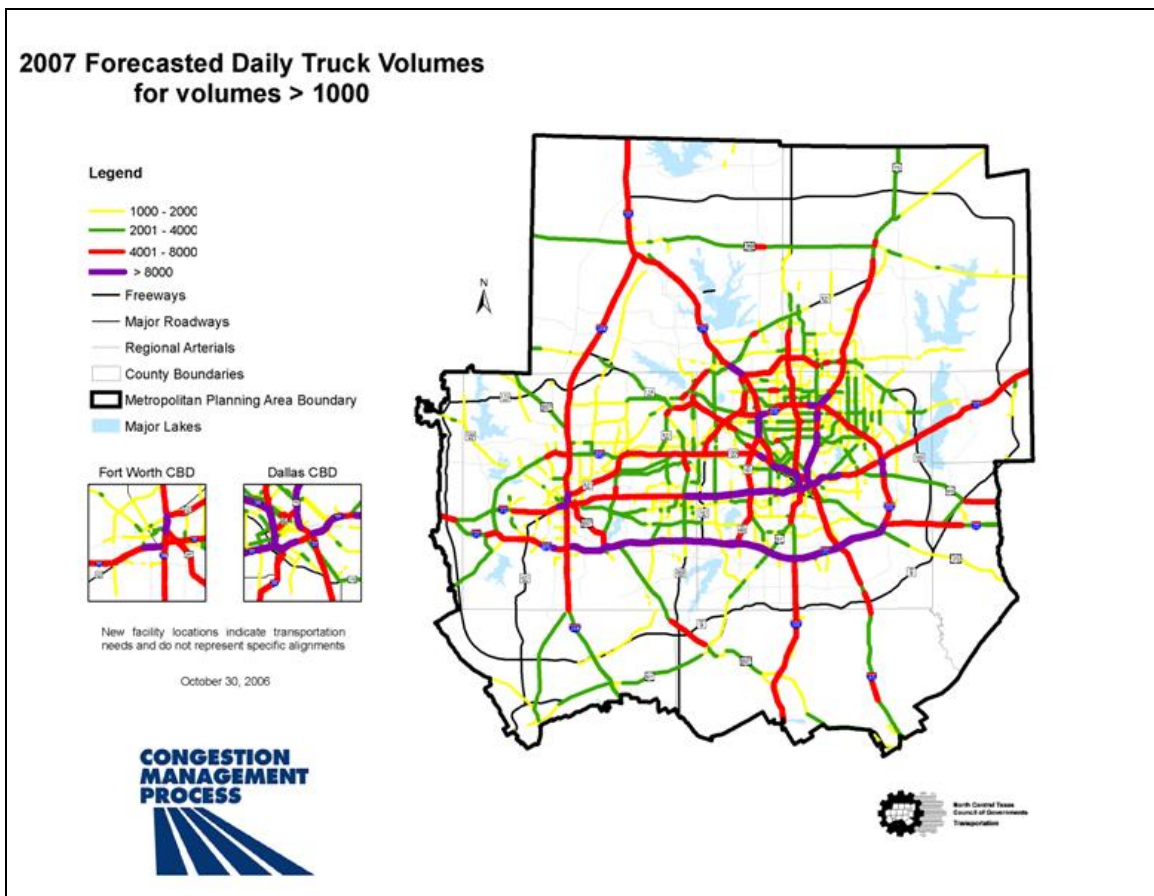
help determine mobility needs and assist in planning for coordinating improvements from other studies. Exhibit IV-4 illustrates freight rail volumes in the region. The Dallas-Fort Worth Regional Travel Model (DFWRTM) uses information such as roadway networks and population data to calculate the expected demand for transportation facilities in the region.

**EXHIBIT IV-4**



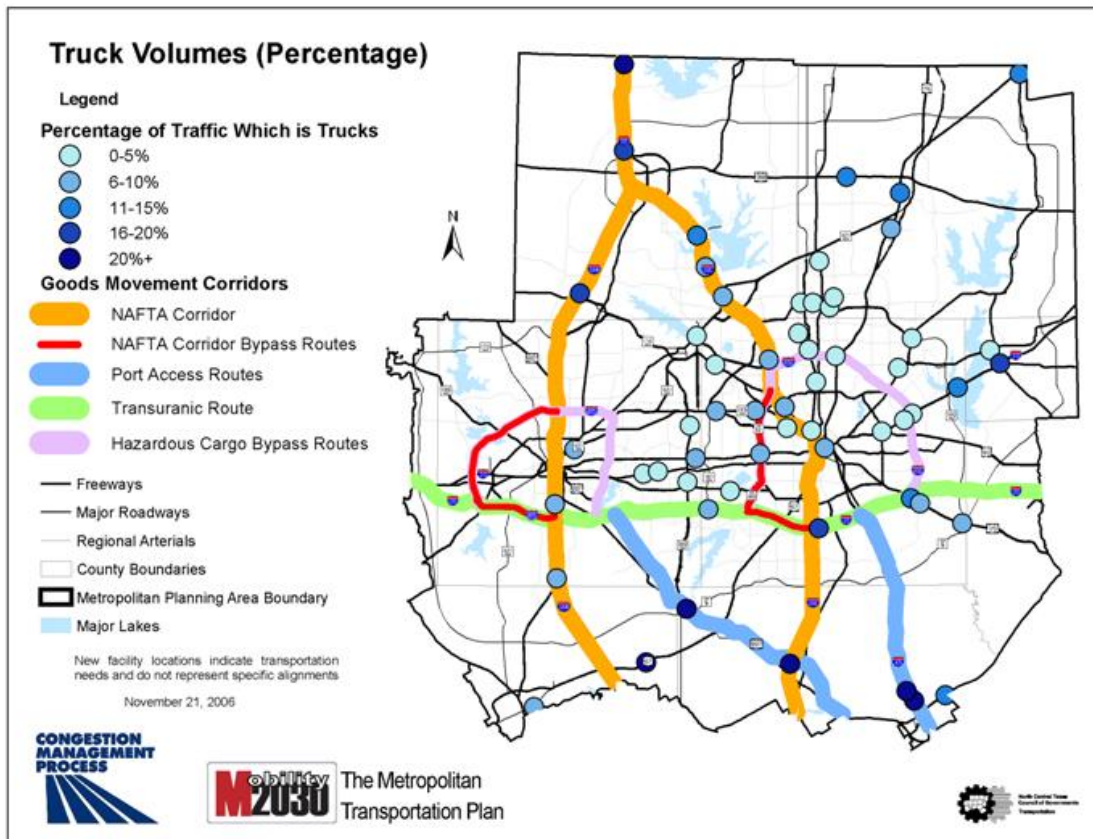
A complement to the freight rail volumes, Exhibit IV-5 illustrates daily truck volume on major roadways within the Dallas-Fort Worth region. The areas highlighted in purple represent the corridors with the highest truck volumes, which include I.H. 20 and sections of I.H. 30, I.H. 35E, and U.S. 75 near downtown Dallas.

### EXHIBIT IV-5



In addition to freight forecasting efforts, NCTCOG also uses TxDOT vehicle classification observed count data, which allows us to monitor truck traffic throughout the region, as shown in Exhibit IV-6.

## EXHIBIT IV-6



### STRATEGY IDENTIFICATION

Congestion management strategies on the intermodal freight system include the implementation to Transportation System Management (TSM), Travel Demand Management (TDM), and Intelligent Transportation System (ITS) improvements. All TSM, TDM, and ITS strategies are outlined in Appendices A, B, and C. The intermodal freight facilities have a variety of strategies that can be deployed to alleviate congestion. The type of strategy implemented depends on the type of congestion experiences.

Strategies are developed to assist in determining mobility needs and in planning for coordinating improvements. Exhibit IV-7 is an inventory of strategies that have been identified to improve the intermodal/freight system in the region.

**EXHIBIT IV-7**  
**INVENTORY OF STRATEGIES**

<b>Intermodal/Freight System Strategies</b>	<b>Program Examples</b>
<b>Truck Lane Restrictions</b>	Dedicated Truck Lanes/Truck Lane Recommendations
	Hazardous Material Truck Planning Route
<b>Intelligent Transportation System  (Commercial Vehicle Operations)</b>	Fleet Administration
	Freight Administration
	Electronic Clearance
	CV Administrative Processes
	International Border Electronic Clearance
	Weigh-In-Motion
	Roadside CVO Safety
	On-Board CVO and Freight Safety & Security
	CVO Fleet Maintenance
	HAZMAT Management
	Roadside HAZMAT Security Detection and Mitigation
	CV Driver Security Authentication
	Freight Assignment Tracking
<b>Highway/Railroad Crossings</b>	Railroad Crossing Improvements
	Trans-Texas Corridor
	Freight Railroads
	Quiet Zones
	Rail Abandonment
	Tower 55

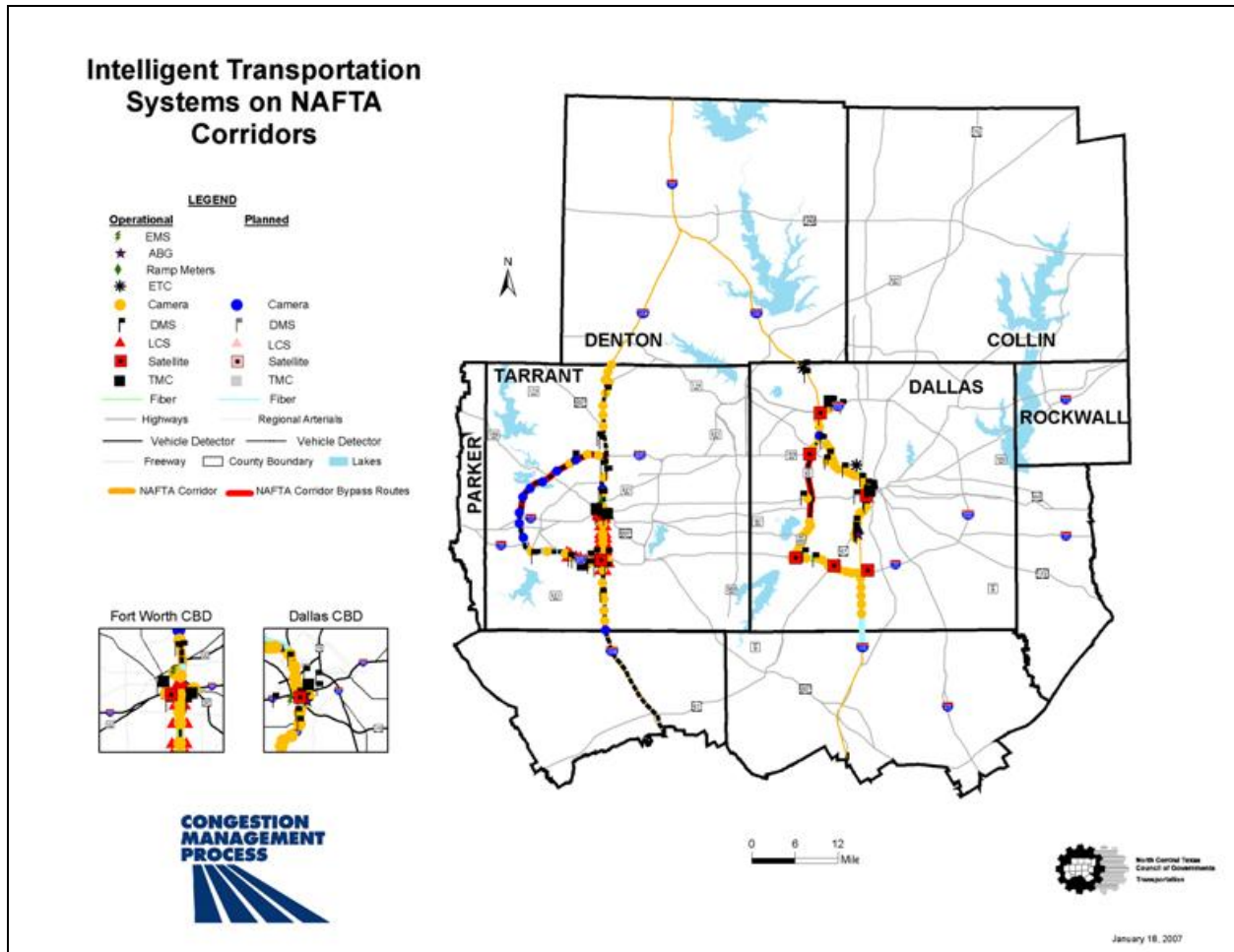
**STRATEGY SELECTION/PROJECT IMPLEMENTATION**

As mentioned in Section I of this document, the Regional Transportation Council (RTC) passed resolution number R98-01 (Appendix D), which requires that all Major Investment Studies (MIS) include an evaluation of operation management and travel demand reduction solutions to congestion and air quality concerns. Each congestion management recommendation and commitment documented in the inventory will be monitored to ensure its inclusion in the Metropolitan Transportation Plan (MTP) and the Transportation Improvement Program (TIP) by an applicable deadline.

The Regional Transportation Council (RTC) recognizes the importance of goods movement in this region. As transportation funds are made available, careful consideration will be given to projects that impact the mobility and safety of the transportation system, particularly in the context of freight transportation and intermodal accessibility.

One project that has been identified is the Goods Movement Corridors Technology Deployment Project that includes the installation of Intelligent Transportation System (ITS) technologies and highway capacity enhancements along the NAFTA corridor as it passes through urban areas. ITS improvements will include traveler information dissemination, advanced traffic management, and weather/ice prediction stations. Deployment of this system on I.H. 35 will prepare the region for future implementation of such technologies on other major freight corridors and connector routes. Exhibit IV-8 shows ITS on NAFTA corridors.

## EXHIBIT IV-8



Another project is the Railroad Crossing Reliability Partnership Program (RCRPP) that began with local partners assisting in the identification of crossings that had safety and/or reliability problems. That portion of the data review process resulted in a list of 492 rail crossings identified for potential improvement. In August 2003, the RTC solicited applications related to improvements at those 492 crossings. A total of 106 eligible applications for funding were received from ten cities, two counties, and two transit authorities. Project selection recommendations for projects were approved in July 2004. Staff will continue coordinating activities with all entities during the project implementation process.

## PROJECT PERFORMANCE EVALUATION

The goal of the measure of effectiveness studies is to have an on-going program to evaluate the benefits of transportation programs and projects that reduce congestion of the intermodal freight system in the Dallas-Fort Worth region. Exhibit IV-9 identifies current and future measures of effectiveness studies.

### EXHIBIT IV-9

#### MEASURES OF EFFECTIVENESS INTERMODAL/MULTIMODAL FREIGHT

<b>Studies of Effectiveness</b>	<b>Source</b>	<b>Implementation/Action Steps</b>	<b>Comments</b>
Truck Lane Demonstration Corridor Project	NCTCOG	Determine if implementation of a truck only lane adds substantial benefits (i.e. reduced congestion, improved air quality, etc).	Measured mobility and safety aspects. (See Section II, Attachment 1.)
Freight Bottleneck Study	NCTCOG	In multiple instances, it is necessary to monitor for freight and passenger capacity constraints. In some instances, costs associated with bottleneck removal will need to be considered and included as commuter rail is implemented.	Identified both freight and truck bottlenecks. See attached Goods Movement Regional Mobility Initiatives for full explanation.
Tower 55 Study	NCTCOG	There are eight major improvement options for Tower 55 to include operational and infrastructure improvements.	Identified Rail mobility. See pages 10-11 of attached Goods Movement Regional Mobility Initiatives for full explanation.
Trans-Texas Corridor Study	NCTCOG	Rail Mode - a rail bypass is an essential and viable option to help alleviate congestion. Truck Mode – pursue Intelligent Transportation Systems, as well as capacity, safety, and geometric improvements, and network supporting truck movements on truck routes, determine applicability of truck lanes and truck lane restrictions, review hazardous cargo routing system, and expand idle reduction technologies.	Studied both rail and truck mobility. See page 13 of attached Goods Movement Regional Mobility Initiatives for full explanation.

## **SUMMARY**

As intermodal freight/goods movement planning continues to develop and expand, a variety of projects, programs, and policies are necessary to support NCTCOG's transportation planning efforts. Goods Movements–Regional Mobility Initiative, Vol. X, No. 1 summarizes the recommendations laid out in this chapter to support efficient, safe, reliable goods movement in our region. These projects, programs, and policies will allow the region to move forward on a variety of important initiatives throughout our community.