

# **REVISING THE TxDOT UNIFIED TRANSPORTATION PROGRAM**

## **CATEGORY 4: *Statewide Connectivity***

## ***RECOMMENDATIONS REPORT***

***March 2003***

*Submitted for Review to  
TxDOT Executive Management  
and the  
Texas Transportation Commission*



*Prepared by  
Texas Transportation Institute*



*In Cooperation with the  
Texas Department of Transportation*



*and the  
Association of Texas Metropolitan  
Planning Organizations*

## **EXECUTIVE SUMMARY**

### **RECOMMENDATIONS FOR THE 2004 STATEWIDE MOBILITY PROGRAM**

The Category 4 – Statewide Connectivity Workgroup (SCWG) supports the continued development of projects currently authorized in Category 4 and recommended by the districts for the 2004 Statewide Mobility Program (SMP). The SCWG recommends the prioritized projects that cannot be accomplished within the districts' individual authorized programming amounts be evaluated using the SCWG methodology outlined below, in order to be considered for inclusion in future SMPs.

### **RECOMMENDED CATEGORY 4 NETWORK**

The SCWG only considered corridors outside metropolitan planning area boundaries, while Categories 2 and 3 only considered corridors inside metropolitan planning area boundaries.

The SCWG consensus recommendation is that the Category 4 network include all roadways on the Texas Trunk System (TTS) and National Highway System (NHS), as well as corridor sections connecting the TTS and NHS to major ports-of-entry at international border crossings or Texas water ports. The SCWG's goal was for this highway network to consist of four or more lanes. A map showing major ports-of-entry at international border crossings and Texas water ports is located in Appendix B. Figure 1 on page 11 of this report shows the entire Category 4 - Statewide Connectivity Network.

### **CORRIDOR SECTIONS**

Each statewide corridor in the recommended Category 4 network is divided into sections with logical termini so they could be managed and prioritized.

Corridor sections were developed with logical termini located at:

- Intersections with other corridors on the recommended Category 4 network
- Metropolitan planning area boundaries
- The State of Texas boundary

### **CORRIDOR SELECTION CRITERIA AND WEIGHTING FACTORS**

The SCWG considered the Corridor Guidelines Workgroup's (CGWG's) recommended criteria and additional criteria suggested by SCWG members. Many recommended criteria were combined, some were kept as initially recommended, and others were eliminated from the Corridor Prioritization Formula. The SCWG performed several iterations of ranking and prioritizing all the criteria to select the most significant for inclusion in the final formula. The SCWG concluded the following six criteria would provide a manageable and meaningful formula to prioritize statewide connectivity corridors:

<b>Criteria</b>	<b>Weight</b>
Gap completion (Gap)	29
Accommodate traffic volumes (Traffic)	21
Alleviate congestion attributed to truck traffic (Truck Traffic)	19
Provide reasonable quality of service (QOS)	17
The importance of military/disaster preparedness and response (MDPR)	8
Connect ports of entry to the recommended Category 4 network (POE)	6
<b>TOTAL</b>	<b>100</b>

## CORRIDOR PRIORITIZATION FORMULA

Based upon the selected criteria and weights, a formula was developed to prioritize each of the networks. See pages 17-18 of the report for further information regarding the Corridor Prioritization Formula.

## NETWORK CORRIDORS

The SCWG considered it impractical to create a formula that adequately addressed the diversity of specific project-level improvements needed statewide. Therefore, in order to provide statewide distribution of prioritized corridor sections, the workgroup segregated the recommended Category 4 network into three groups: Mobility Corridors, Connectivity Corridors, and Strategic Corridors. These three sets of corridors, when combined with the Phase I TTS and committed improvements, will provide for statewide mobility and connectivity.

### Mobility Corridors

Mobility Corridors consist of all existing corridor sections on the recommended Category 4 network that are entirely four or more lanes. Corridor sections that are part of the Phase I TTS were not included in this group. The Mobility Corridors are shown in Figure 2 on page 20 of this report. Alternative solutions (e.g. operational improvements, parallel facilities, or Trans Texas Corridor (TTC)) should be investigated as possible improvements for Mobility Corridors needing more than six lanes to accommodate their anticipated capacity demand.

### Connectivity Corridors

Connectivity Corridors consist of corridor sections on the recommended Category 4 network currently having portions of two-lane highway that require upgrading to meet the SCWG goal of providing four-lane divided highways on the entire network. Again, corridor sections that are part of the Phase I TTS were not included in this group. The Connectivity Corridors are shown in Figure 4 on page 22 of this report.

## **Strategic Corridors**

Through an iterative process of applying the Corridor Prioritization Formula to the network and considering anticipated Category 4 funding level constraints, the SCWG determined that using the formula alone would not yield the desired result of connecting the state's metropolitan areas and major ports-of-entry at international border crossings and water ports with four-lane highways. To address this issue, the SCWG identified a set of "Strategic Corridors" recommended for future improvement to four-lane highways. The Strategic Corridors are shown in Figure 6 on page 25 of this report.

## **STATEWIDE CORRIDOR SELECTION APPROACH**

The entire recommended Category 4 network was scored and prioritized as a Mobility, Connectivity or Strategic corridor, allowing for evaluation of various funding scenarios. In order to demonstrate the amount of statewide connectivity network that could be funded in the 2015-2030 timeframe, the SCWG developed a Category 4 funding scenario of \$300 million per year, or \$4.5 billion over the fifteen-year planning period. Each of the three groups of network corridors (Mobility, Connectivity, and Strategic) received one-third of the Category 4 finds. Figure 9 on page 29 of this report depicts the highest priority corridors based on this funding scenario. A list of corridor sections that could be funded under this example is shown in Appendix I.

## **NEW LOCATION FARM-TO-MARKET/RANCH-TO-MARKET HIGHWAY RECOMMENDATIONS**

The SCWG recommends that new location FM / RM highways be funded through Category 11 – District Discretionary and Category 12 – Strategic Priority, as opposed to Category 4 – Statewide Connectivity. Recommended minimum requirements for new location FM / RM highways are found on pages 30-31 and in Appendix O of this report.

## **SUMMARY RECOMMENDATIONS**

The SCWG supports the continued development of projects currently authorized in Category 4 and recommended by the districts for the 2004 SMP.

The SCWG recommends building previously committed projects on the Phase I TTS before improving other priority corridor segments on the recommended Category 4 network. Projects that are not on the Phase I TTS, but are on the recommended Category 4 network, should receive the same priority as the corridor segment on which they are located. Previously committed projects that are not on the recommended Category 4 network should be funded through other categories.

The SCWG recommends the Commission consider the needs of each set of corridors (Mobility, Connectivity, and Strategic) when allocating funds.

The SCWG recommends Category 4 funds be allocated primarily for added capacity projects, and not be used for rehabilitation and maintenance of existing highway facilities. Other funding categories should be considered when need arises.

Due to the shortage of funds, the SCWG recommends four-lane undivided corridors remain as undivided corridors and not be improved to four-lane divided.

The SCWG recommends new location FM / RM highways be funded through Category 11 – District Discretionary and Category 12 – Strategic Priority.

The SCWG recommends the Corridor Prioritization Formula be used to evaluate future Category 4 – Statewide Connectivity projects.

The SCWG recommends corridors selected for future improvements be part of the recommended Category 4 network.

The SCWG recommends the Category 4 network and the corridor prioritization process be incorporated into the Texas Transportation Plan.

## **INTERIM REPORT**

### **THE DEVELOPMENT PROCESS**

#### **Membership**

The members of this workgroup were selected from across the state. Representatives from Texas Department of Transportation (TxDOT) Districts and Divisions, as well as representatives of metropolitan planning organizations (MPOs), regional planning organizations (RPOs), councils of government (COGs), and rural county judges were invited to participate in the workgroup. TxDOT Districts were represented by only one workgroup member. A few Districts were not represented on the workgroup. A list of workgroup members and the agency they represented is shown below:

Robert Cox  
Director of Regional Services  
Permian Basin RPC

Amando Garza, Jr.  
South Texas Development Council

Dan Kessler  
Assistant Director of Transportation  
NCTCOG Dallas-Fort Worth MPO

David DeLeon  
Transportation Planner  
Hidalgo County MPO

Molly Bosley  
MPO Director  
Killeen-Temple MPO

Randy Neugebauer  
Lubbock MPO

Gene Short  
MPO Policy Committee Chair  
Grayson County Commissioner  
Sherman-Denison MPO

Ray Miller  
MPO Director  
Victoria MPO

Lynn Passmore  
District Engineer  
TxDOT Brownwood District

Marty Smith  
Director of Transportation Planning & Development  
TxDOT Childress District

Mark Longenbaugh  
Director of Transportation Planning & Development  
TxDOT El Paso District

Harry W. Thompson  
Director of Transportation Planning & Development  
TxDOT Lufkin District

Gus Lopez  
District Design Engineer  
TxDOT Pharr District

Clay Smith  
Transportation Planning Engineer  
TxDOT San Antonio District

Mike Battles  
District Design Engineer  
TxDOT Tyler District

Randy Hopmann  
District Engineer  
TxDOT Lubbock District

Hon. Edmundo B. Garcia, Jr.  
County Judge, Duval County

Hon. Kenneth Liggett  
County Judge, Clay County

Jefferson Grimes  
Legislative Affairs Office  
Note: Informational Purposes Only

Elizabeth Hilton  
Director, Plan Development  
TxDOT Design Division

Robert Lopez  
TxDOT Public Information Office  
Note: Informational Purposes Only

Wayne Dennis  
Deputy Director  
TxDOT Transportation Planning & Programming  
Division

Tim Juarez  
Planning Supervisor  
TxDOT Transportation Planning & Programming  
Division

Tom Bruechert  
TxDOT Environmental Affairs Division

Michael Chamberlain  
Transportation Analysis System Support  
TxDOT Transportation Planning & Programming  
Division

A charge was developed for the workgroup prior to their first meeting. The Corridor Guidelines Workgroup (CGWG) met in April and May 2002 to develop charges for the Category 2, 3, and 4 workgroups. The charge to the Category 4 workgroup is listed below.

### **Charge to Category 4 Statewide Connectivity Corridor Prioritization Workgroup**

The statewide Corridor Guidelines Workgroup has proposed criteria for prioritizing corridor projects in the urban areas across the state. This process assumes that projects already prioritized will not be affected by the application of these criteria. Projects in the FY 2002 Unified Transportation Program (UTP) will not be affected by this process. In keeping with the Commission's desire to simplify TxDOT's procedures, we have categorized the criteria for the corridors while attempting to keep the criteria condensed, universal and to the point. Weighting of each element in the criteria is being left to your discretion. Your group shall consider all of the criteria proposed.

Statewide connectivity corridors provide highway connections, between cities, facilities, and other roadways that are vital to the statewide transportation system. Therefore there are access, operations, and connectivity issues.

1. Review existing and currently proposed priority corridors documents.
  - a. Texas Trunk System
  - b. Statewide Transportation Plan
  - c. Trans-Texas Corridors
2. Review the inclusion of the State's Farm-to-Market System in the Statewide Corridor Guidelines
3. Use the definitions developed by the Statewide Corridor Guidelines Task Force to assign weighting factors to the corridor selection criteria. It is recognized that improvements, which address current economic development, are significantly more important than those, which stimulate future economic growth, and this understanding should be addressed in criteria rating.
4. Review mobility projects referred by TxDOT and other impacted parties that fit the definition of a Statewide Connectivity Corridor.
5. Prioritize eligible mobility projects that fit the Statewide connectivity corridor.
6. Review regional funds distribution and highway system distribution to assure that goals of funding projects across the entire state and the entire highway system have been met as much as practical. Equitable consideration should also be given to mobility on the Texas Farm-to-Market Road system as well as Hurricane Evacuation Routes.
7. Prepare draft report of recommendations for review and final approval by the Texas Transportation Commission.

The Category 4 – Statewide Connectivity Workgroup (SCWG) met for discussion and deliberation on 12 separate occasions, each over one to three-day periods. Meetings were held at the Thompson Conference Center located on the University of Texas at Austin campus. Texas Transportation Institute (TTI) staff facilitated all meetings. Vic Holubec from TxDOT's Transportation Planning & Programming Division (TPP) recorded meeting notes. TTI staff prepared the final meeting notes and transmitted them to the workgroup for their review and comment after each meeting. A copy of all meeting notes can be obtained through an open records request from TPP. An attendance summary is provided in Appendix A.

The first meeting on July 22-24, 2002 brought the workgroup participants together to review their charge and begin work. TxDOT staff made several presentations related to statewide corridors.

TxDOT TPP staff produced a series of informational maps throughout this process to assist the SCWG. These maps are included in Appendix B.

### **Recommended Category 4 Network**

#### Development Process

Presentations were made on the Texas Trunk System (TTS), the Statewide Transportation Plan, the Trans Texas Corridor, IH 69 Corridor, Ports-to-Plains Trade Corridor, East-West Corridor (IH 10), Western States Corridor Study, Texas Farm-to-Market System, TxDOT Strategic Plan, Border Trade Corridors, Hurricane Evacuation Corridors, Green Carpet Corridor, and the SH 21 Corridor. The workgroup also reviewed information on the Roadway Functional Classification System.

After reviewing and discussing the information provided to them and the charge they received from the CGWG, the SCWG concluded that the primary goal of the workgroup was to identify a system of four-lane highways that would connect all 25 metropolitan areas and major ports-of-entry at international border crossings or Texas water ports to the TTS and National Highway System (NHS), and to develop a process for prioritizing needed corridor improvements on this system statewide. The prioritization process must ensure that corridor improvements in all regions of the state be considered and included in the final selections to sustain a statewide program of work and system development.

The SGWG's next step toward addressing their charge and goal was to designate a network of corridors eligible for Category 4 funding.

#### Recommended Network

The SCWG only considered corridors outside metropolitan planning area boundaries, while Categories 2 and 3 considered only corridors inside metropolitan planning area boundaries.

The SCWG consensus recommendation is that the Category 4 network include all roadways on the TTS, and NHS. The SCWG's goal was for this highway network to consist of four or more lanes. Figure 1 on page 11 of this report shows the entire Category 4 - Statewide Connectivity Network.

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### Corridor Sections

Each statewide corridor in the recommended Category 4 network was divided into sections with logical termini so they could be managed and prioritized.

Corridor sections were developed with logical termini located at:

- Intersections with other corridors on the recommended Category 4 network
- Metropolitan planning area boundaries
- The State of Texas boundary

### Other Considerations

The SCWG considered presenting the districts with the opportunity to review the recommended Category 4 network and allowing them to submit additions for consideration. However, due to the fiscal constraint of the Statewide Mobility Program (SMP), the SCWG concluded that additional corridors were not likely to be funded. In addition, the time and effort involved in presenting the districts with this opportunity would burden both the districts and the SCWG. It was also expressed that important corridors should already be part of the TTS.

Mario Jorge, Pharr District Engineer, submitted a memo to the SCWG requesting consideration of FM 755 from the ports-of-entry in Roma and Rio Grande City to US 281 and US 77 in Starr County. A copy of the memo is located in Appendix C. The SCWG decided that since the roadways were not on the TTS or NHS, it would not be included on the recommended Category 4 network.

The SCWG recommends alternative solutions, such as the Trans Texas Corridor, Intelligent Transportation Systems (ITS), operational improvements, or parallel facilities, be evaluated during the planning process for those corridors requiring more than six-lanes to address the anticipated capacity demands. Although the Trans Texas Corridor was considered by the SCWG as an important component of Category 4 projects, no specific funding recommendations were made.

It was a consensus of the SCWG that Category 4 funding be used to develop only corridor sections on the recommended Category 4 network.

## **Corridor Selection Criteria and Weighting Factors**

The SCWG considered the CGWG's recommended criteria and additional criteria suggested by SCWG members. Many recommended criteria were combined, some were kept as initially recommended, and others were eliminated from the Corridor Prioritization Formula.

The CGWG recommended the following criteria for consideration by the SCWG:

### Traffic Engineering

- Traffic
- Vehicle Mile Traveled
- Travel Time / Delay
- Quality of Service / Capacity / Access Management
- Safety
- Percent Trucks

### Financial

- Economic Development
- Leveraging and / or Tolls
- Cost-Benefit

### Special Significance

- International Traffic / Port of Entry
- Military or National Security Installations
- Serving Tourism and / or Recreational Areas
- Major Freight Routes
- Air Quality / Conformity

### Connectivity

- Closing System Gaps
- Connect with Principal Roadways from Adjoining States
- Intermodal Connectivity
- Fit with Other TxDOT Development
- Maximize the Use of Existing Transportation System

Members of the SCWG suggested the following criteria to also be considered:

- Population
- Hurricane Evacuation Routes

### Criteria Weighting Factors

The SCWG performed several iterations of ranking and prioritizing all the criteria to select the most significant ones for inclusion in the final formula. Group members were then asked to distribute 100 points among the remaining criteria. The results of this weighting exercise can be

found in Appendix D. The criteria points submitted by each member were averaged and adjusted to equal 100.

The SCWG concluded the following six criteria and weights would provide a manageable and meaningful formula for prioritizing statewide connectivity corridors:

**Table 1. – Criteria and Weights.**

<b>Criteria</b>	<b>Weight</b>
Gap completion (Gap)	29
Accommodate traffic volumes (Traffic)	21
Alleviate congestion attributed to truck traffic (Truck Traffic)	19
Provide reasonable quality of service (QOS)	17
The importance of military/disaster preparedness and response (MDPR)	8
Connect ports of entry (POE) to the recommended Category 4 network	6
<b>TOTAL</b>	<b>100</b>

#### Explanation of Criteria

#### *Traffic Engineering*

##### *Traffic – included at 21%*

Weighted AADT is used to measure “Traffic.” The SCWG discussed using VMT, but decided weighted AADT was a better indicator of traffic at a corridor level.

##### *Vehicle Miles Traveled - Not included*

Including both “Traffic” and “Vehicle Miles Traveled” as criteria was redundant. Weighted AADT is used to measure traffic in the formula; therefore VMT was removed from the criteria list.

##### *Travel Time / Delay - Not included*

This criterion does not pertain to rural areas, and statewide data is not readily available. Therefore, it was eliminated from the criteria list.

##### *Quality of Service (QOS) – included at 17% / Capacity - Not included / Access Management - Not included*

The SCWG concluded that “QOS” and “Capacity” are measurable; however quantifying “Access Management” is not possible with current data. Consensus was reached to remove “Access Management” from the criteria. “Capacity” was removed as an individual criterion because “QOS” accounts for “Capacity”. “QOS” was determined using a TTI research report prepared for TxDOT and frequently used by Department staff and members of the Commission. The QOS chart is included in Appendix E.

#### **Safety - Not included**

The SCWG recognized that “Safety” is very important and is incorporated into all of TxDOT’s work. The SCWG discussed assigning a weight to “Safety”, giving it a relative importance in comparison to other criteria.

In all probability, projects on the Category 4 priority corridors will not be built for 15-25 years. Significant safety issues should be addressed sooner than Category 4 funding would allow. Priority safety issues should be addressed immediately, using other funding sources.

The available accident data, in its current format, does not lend itself well to statewide evaluation. When such data is available, further consideration could be given to including safety as a criterion.

#### **Percent Trucks – Not included / Truck Traffic – included at 19%**

This criterion can yield undesirable results when analyzing corridors where overall AADT is low. Corridors with low overall AADTs and high proportion of trucks, have a high percentage of trucks. In these situations, this criterion may indicate improvements are warranted where they may not actually be needed. Having both “Percent Trucks”, and “Major Freight Routes” as criteria would be redundant. These two criteria were replaced with “Truck Traffic”. Truck traffic is measured using weighted truck AADT.

### ***Financial***

#### **Economic Development - Not included**

Due to the difficulty in accurately and consistently measuring “Economic Development”, it was removed from the criteria list.

#### **Leveraging and/or Tolls - Not included**

The SCWG recognized the importance of these criteria in future funding of needed improvements. However, there is no available basis for quantifying these factors at a statewide level.

#### **Cost-Benefit - Not included**

The SCWG considered using the Cost Effectiveness Index (CEI) as a tool for measuring “Cost-Benefit.” Although the CEI effectively evaluates congestion levels, it fails to fairly and accurately compare corridors at a statewide level. The SCWG also considered using cost per lane mile as a measure of “Cost-Benefit”, but decided that reliable figures were not available for these costs. In the end, the SCWG decided that measuring cost accurately was not feasible. Many SCWG members also felt that segment priorities should be determined based on needs, and that cost should not be considered in their weighting.

## *Special Significance*

### **International Traffic - Not included / Port of Entry – included at 6%**

The SCWG reached consensus to consider “Ports of Entry” but not “International Traffic” because determining which corridors would receive points for international traffic would be arbitrary.

Corridor sections of the Category 4 network connecting major ports-of-entry at international border crossings and water ports to the nearest four-lane or larger facility receive points.

### **Military or National Security Installations – Combined with Hurricane Evacuation Routes – included as Military / Disaster Preparedness and Response at 8%**

Hurricane evacuation routes and the Strategic Highway Network (STRAHNET) were combined to create the criteria “Military / Disaster Preparedness and Response.” Roadways that are part of the STRAHNET and / or hurricane evacuation routes will receive points.

### **Serving Tourism and / or Recreational Areas - Not included**

This criterion was eliminated from the list. The SCWG concluded that other criteria provide for roadway improvements near tourism / recreational areas if needed.

### **Major Freight Routes - Not included**

Including both “Percent Trucks” and “Major Freight Routes” would be redundant. Furthermore, neither of these criteria consistently measure the impacts of trucks on the various corridors on the Category 4 network. These two criteria were replaced with “Truck Traffic” measured using weighted truck AADT.

### **Air Quality / Conformity - Not included**

Since air quality and conformity are issues in urban non-attainment areas, the SCWG decided that this criterion did not pertain to Category 4. If air quality is a problem in a rural area, other traffic and capacity criteria will address the issue.

## *Connectivity*

### **Closing System Gaps – included at 29%**

A gap is defined as a two-lane portion of a corridor section adjacent to a portion that is four or more lanes in the same corridor section. If the entire corridor section is two-lane, it was not considered a gap. The SCWG recognized that during times of scarce funding, corridors that can be improved at relatively low expense should be given priority. Accordingly, this criterion proportionately awards gap points to corridor sections based on the ratio of gap length to the overall corridor section length.

### **Connect with Principal Roadways from Adjoining States - Not included**

The SCWG concluded that roadway facilities in other states should not affect the priority given to corridors in Texas. This criterion was removed from the list.

#### **Intermodal Connectivity - *Not included***

“Intermodal Connectivity” is mainly a metropolitan issue. Due to its low score from the weighting exercises, it was removed from the criteria list.

#### **Fit with Other TxDOT Development - *Not included***

This criterion was removed from the list due to the difficulty of determining how to quantify and measure it.

#### **Maximize the Use of Existing Transportation System - *Not included***

ITS deployment and other operational improvements are project level decisions that cannot be determined at this level. Therefore, the SCWG chose to remove this criterion from the recommended list.

### ***Criteria Suggested by SCWG***

#### **Population – *Not included***

This criterion was very difficult to apply at a corridor level and therefore, was removed from the recommended list.

#### **Hurricane Evacuation Routes – *Combined with Military or National Security Installations – included at 8%***

This criterion was chosen because the SCWG recognized the importance of hurricane evacuation routes. Hurricane evacuation routes were combined with the STRAHNET to create the category “Military / Disaster Preparedness and Response.” Corridor sections that are part of the STRAHNET and / or hurricane evacuation routes receive points.

### **Corridor Prioritization Formula**

The SCWG developed a Corridor Prioritization Formula by applying the recommended weights to each criterion and combining them to yield a total corridor section score. A measurement, or function, of each criterion was developed using available data. The recommended weight for each criterion was then multiplied with the corresponding function. The sum of all the weighted criteria functions equals the total score given to the corridor section. Corridor sections were then prioritized based upon their scores.

Corridor Prioritization Formula:

$$\text{Corridor Section Score} = 29(f_{\text{Gap}}) + 21(f_{\text{Traffic}}) + 19(f_{\text{Truck Traffic}}) + 17(f_{\text{QOS}}) + 8(f_{\text{MDPR}}) + 6(f_{\text{POE}})$$

### **Functions of Criteria**

The SCWG examined each criterion to determine a method for measuring it. Accuracy and availability of data were taken into consideration when determining how each criterion would be measured.

Each criterion needs a value, or function, that the assigned weight could be multiplied with to determine a criteria score. Some criteria required a formula to calculate a value while other criteria received a value of 1.0, 0.5, or 0.0 based on a conditional response. These functions are summarized below:

- $f_{Gap} = (S_L - G_L) / S_L$ 
  - $S_L$  = length of entire corridor section
  - $G_L$  = length of two-lane roadway within corridor section
  - If  $G_L = S_L$  then  $f_{gap} = 0$
  - If  $G_L = 0.1$  miles then  $f_{gap} = 0$
- $f_{Traffic} = AADT / 45,000$ , with a maximum value = 1
- $f_{Truck Traffic} = \text{Truck AADT} / 5,000$ , with a maximum value = 1
- $f_{QOS} = \sum (\text{Quality of Service of Data Segment} * \text{Length of Data Segment}) / \text{Corridor Section Length}$ 
  - If QOS of Data Segment = AB, then QOS of Data Segment = 0
  - If QOS of Data Segment = CD, then QOS of Data Segment = 0.5
  - If QOS of Data Segment= E, then QOS of Data Segment = 1.0
- $f_{MDPR} =$ 
  - If Corridor Section is on the STRAHNET, then  $f_{MDPR} = 0.5$
  - If Corridor Section is on a Department of Public Safety Hurricane Evacuation Route, then  $f_{MDPR} = 0.5$
  - If Corridor Section is on both the STRAHNET and a Department of Public Safety Hurricane Evacuation Route, then  $f_{MDPR} = 1.0$
  - If Corridor Section is on neither the STRAHNET nor a Department of Public Safety Hurricane Evacuation Route, then  $f_{MDPR} = 0$
- $f_{POE} =$ 
  - If Corridor Section is a Port of Entry Connection, then  $f_{POE} = 1$
  - If Corridor Section is not a Port of Entry Connection, then  $f_{POE} = 0$

## Data

All of the data used by the SCWG came from a TxDOT database containing information in data segments. Data segments are very short portions of a roadway. Each Category 4 recommended corridor section consists of a combination of many data segments.

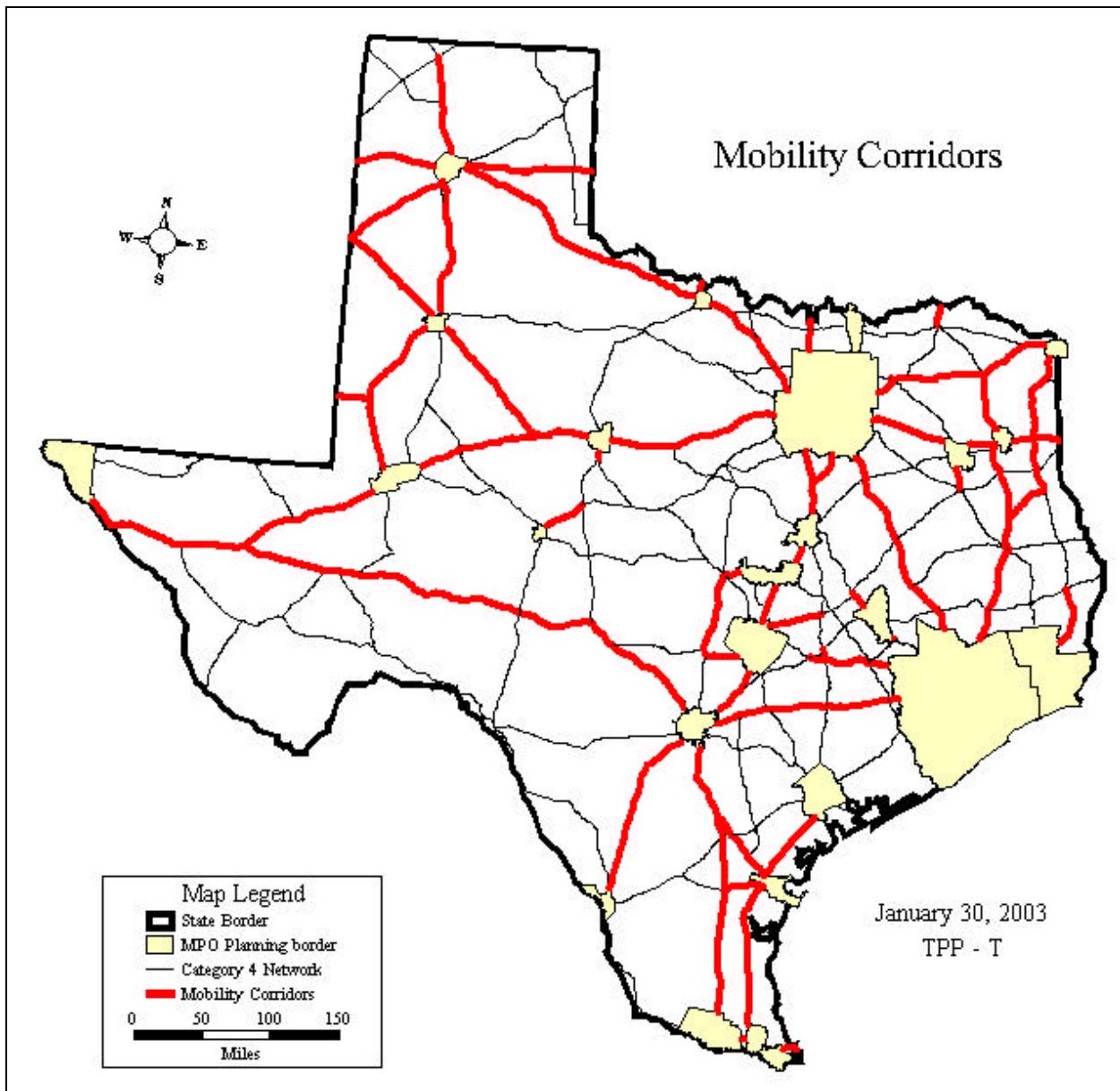
The accuracy of some of the data in the database raised concern with the SCWG. In response to these concerns, TPP sent each district maps depicting the number of lanes recorded in the database for the roadways in their district on the recommended Category 4 network. The districts verified or corrected the number of existing lanes for the roadways in their area. Several changes were made to the database as a result of this exercise. The data was also revised to reflect the improvements that will result from the projects TxDOT has already committed to undertake.

## **Network Corridors**

The SCWG considered it impractical to create a formula that adequately addressed the diversity of specific project-level improvements needed statewide. Therefore, in order to provide statewide distribution of prioritized corridor sections, the workgroup developed three groups of network corridors from the recommended Category 4 network: Mobility Corridors, Connectivity Corridors, and Strategic Corridors. These three sets of corridors, when combined with the Phase I TTS and other committed improvements, will provide for statewide mobility and connectivity.

## Mobility Corridors

Mobility Corridors consist of existing corridor sections on the recommended Category 4 network that are entirely four or more lanes. Corridor sections that are part of the Phase I TTS were not included in this group. The Mobility Corridors are shown in Figure 2.



**Figure 2. Mobility Corridors.**

All sections on the Mobility Corridors were evaluated using the Corridor Prioritization Formula. Figure 3 shows the relative score given to each corridor section on the Mobility Corridors.

The scores given to each corridor section on the Mobility Corridors can be found in Appendix F.

The highest scoring Mobility Corridors have the greatest need for improvement. Alternative solutions (e.g. operational improvements, parallel facilities, or the Trans Texas Corridor) should be investigated as possible improvements for Mobility Corridors needing more than six lanes to accommodate their anticipated capacity demand.

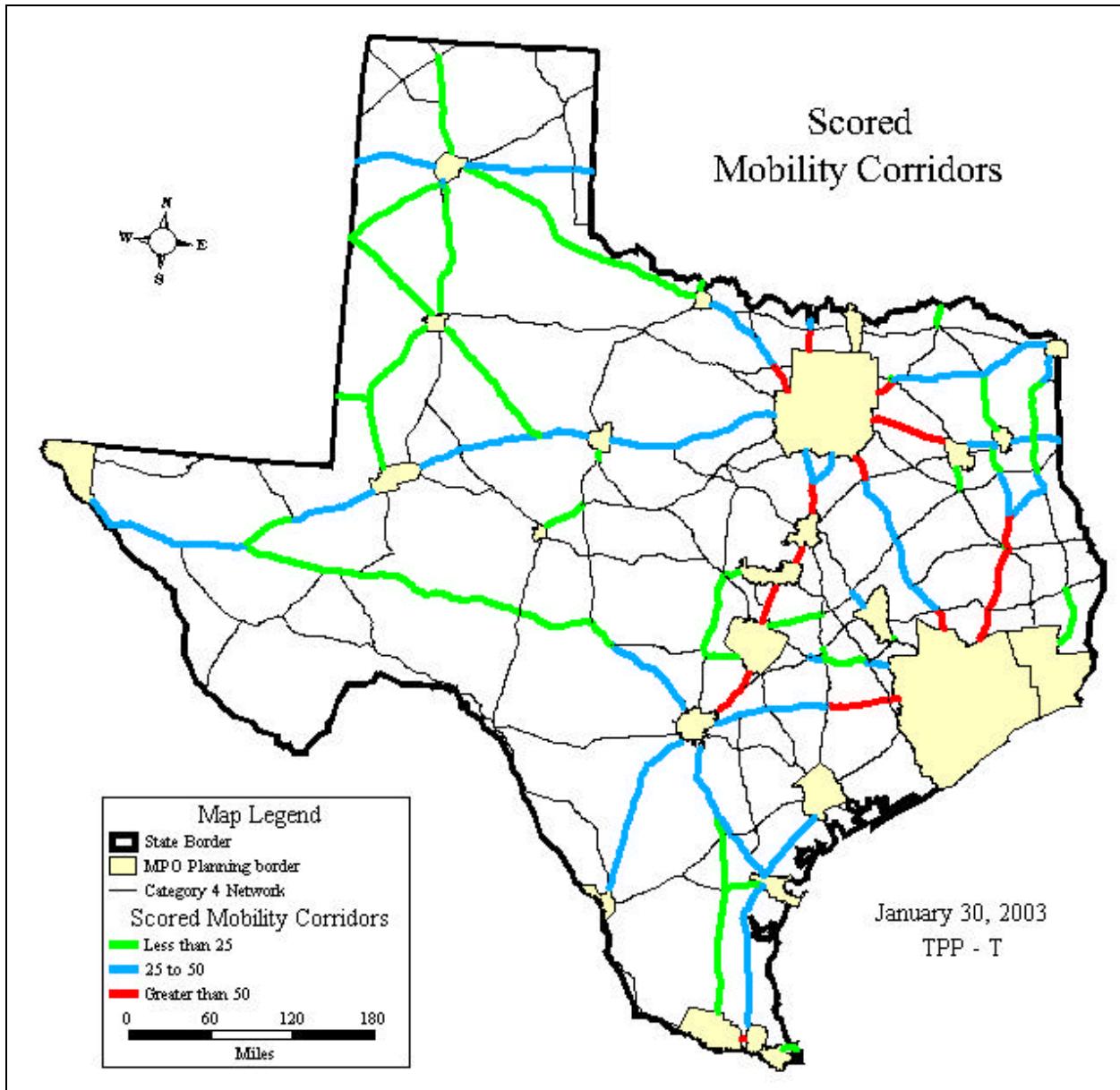
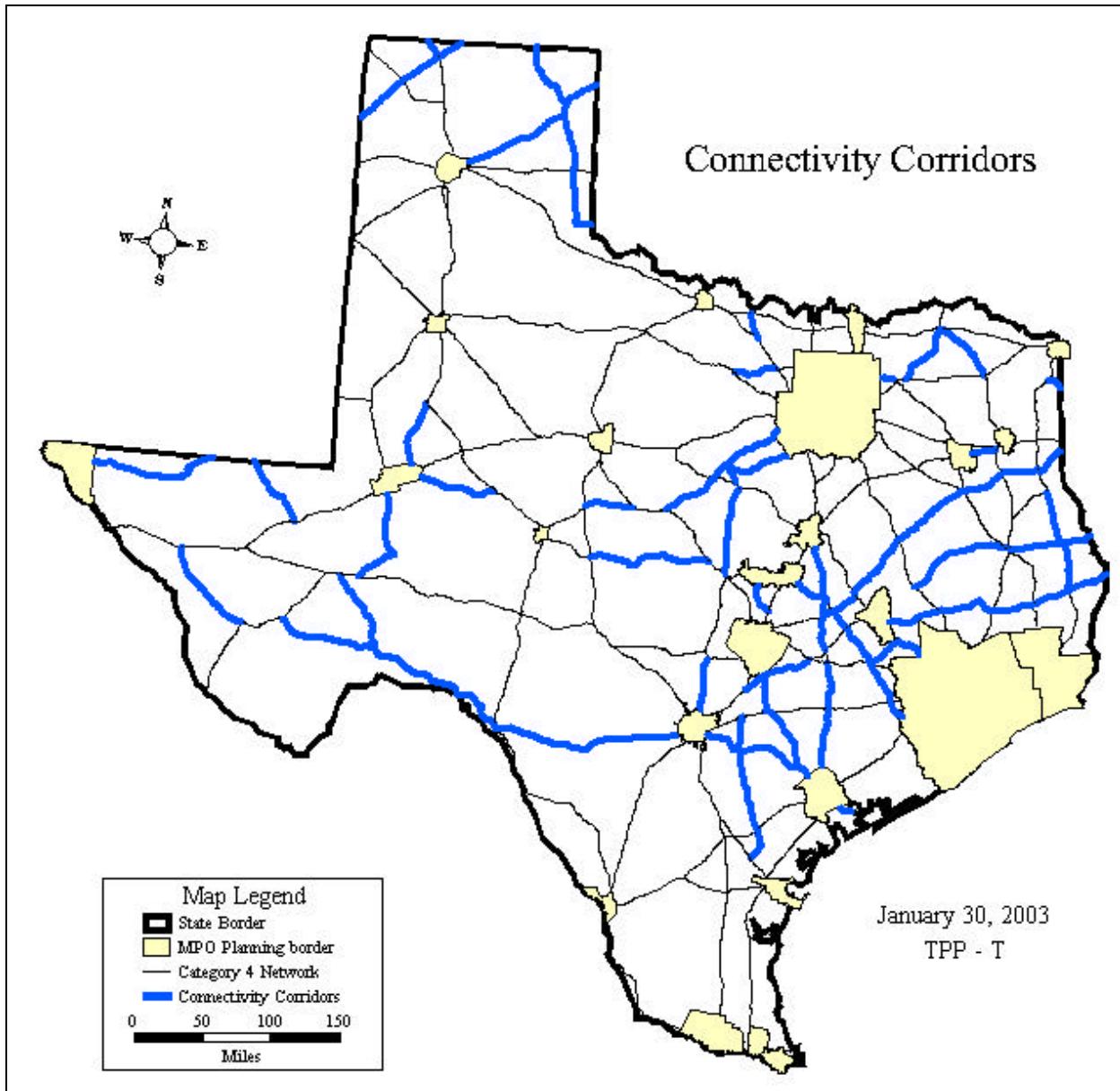


Figure 3. Scored Mobility Corridors.

## Connectivity Corridors

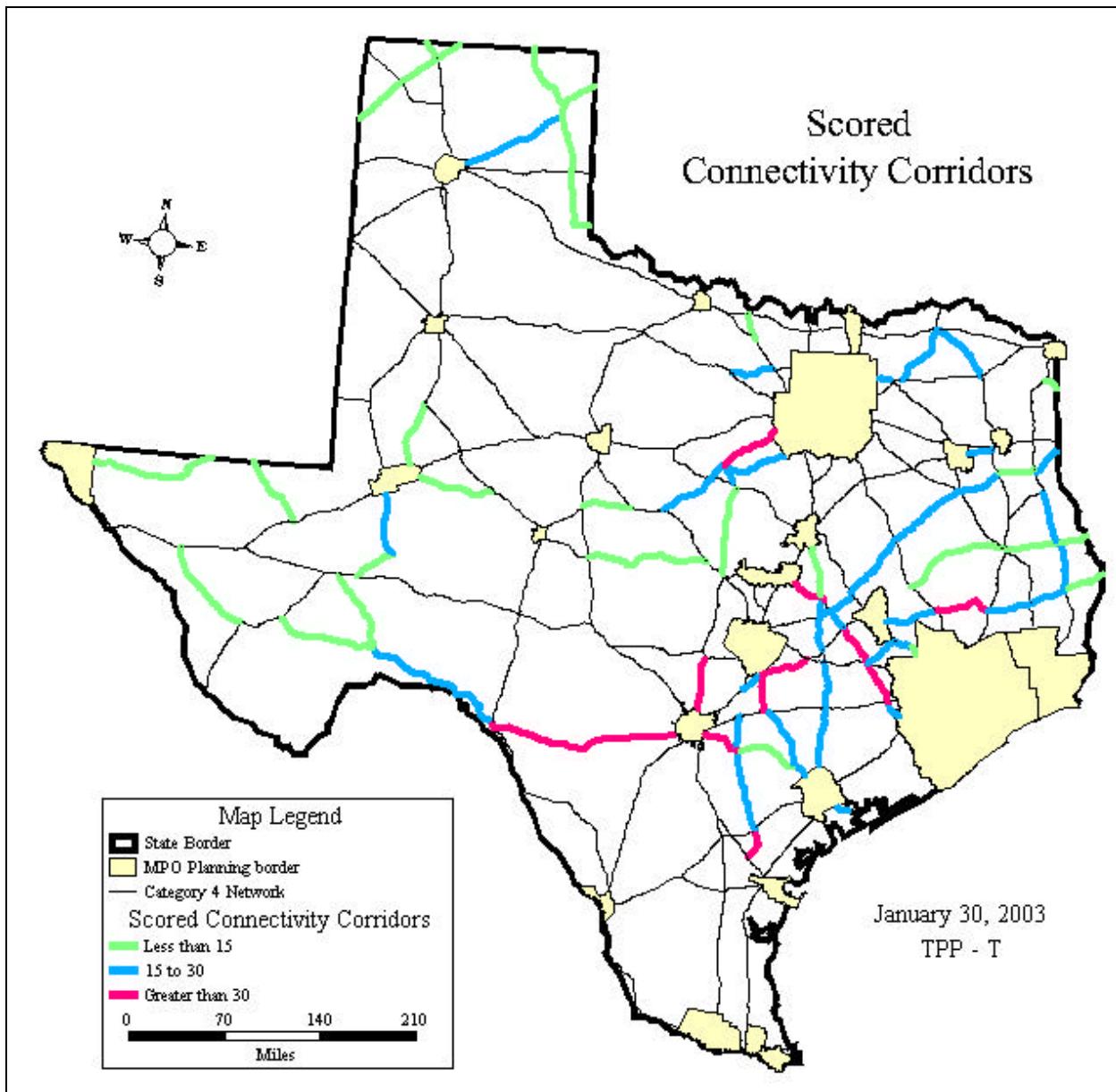
Connectivity Corridors consist of corridor sections on the recommended Category 4 network currently having portions of two-lane highway that require upgrading to meet the SCWG goal of providing four-lane divided highways on the entire network. Corridor sections that are part of the Phase I TTS were also not included in this group. The Connectivity Corridors are shown in Figure 4.



**Figure 4. Connectivity Corridors.**

All sections on the Connectivity Corridors were evaluated using the Corridor Prioritization Formula. Figure 5 shows the relative score given to each corridor section on the Connectivity Corridors. The highest scoring Connectivity Corridors should be improved to four-lane divided facilities.

The scores given to each corridor section on the Connectivity Corridors can be found in Appendix G.



**Figure 5. Scored Connectivity Corridors.**

## Strategic Corridors

Through an iterative process of applying the Corridor Prioritization Formula to the network, and considering the anticipated Category 4 funding level constraints, the SCWG determined that using the formula alone would not yield the desired result of connecting the state's metropolitan areas and major ports-of-entry at international border crossings and water ports with four-lane highways. To address this issue, the SCWG identified a set of "Strategic Corridors" recommended for future improvement to four-lane highways.

The following Strategic Corridors currently have two-lane sections that require upgrading to a four-lane divided highway:

- US 82, SH 114, and SH 199 between Lubbock and Dallas
- US 277 between Del Rio and San Angelo
- US 277 between Laredo and Del Rio
- US 82 between Wichita Falls and Texarkana
- US 83 between Abilene and IH 10
- US 67 between Presidio and IH 10
- SH 6, and US 281 between Waco and IH 20
- US 290 between Austin and IH 10
- US 84 / US 183 between Abilene and Austin

Figure 6 shows the strategic corridor network.

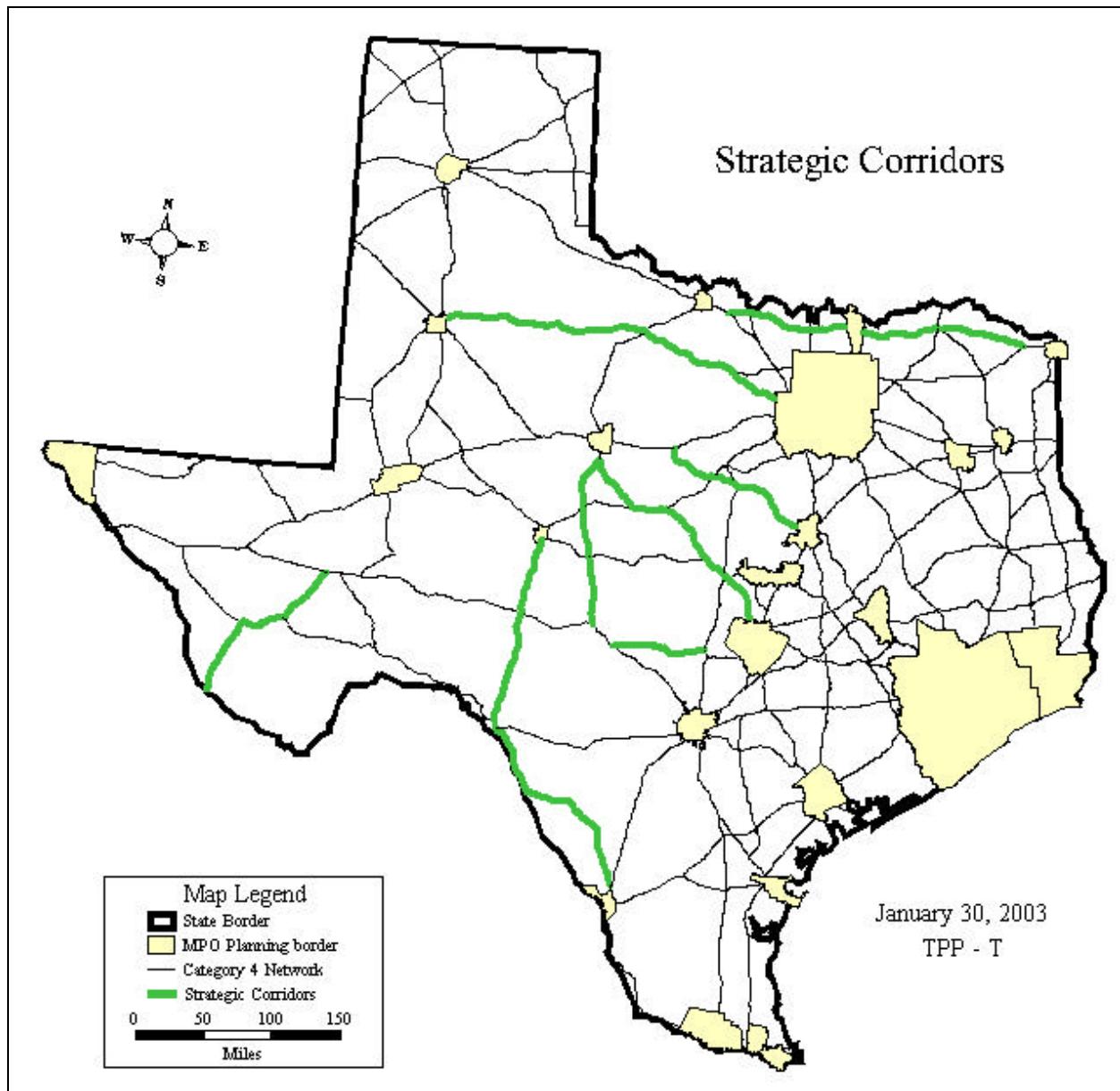


Figure 6. Strategic Corridors.

The Corridor Prioritization Formula was used to prioritize these corridors. The highest scoring Strategic Corridors have the greatest need for improvement. Figure 7 shows the relative score given to each corridor section on the strategic corridor network. The scores given to each corridor section on the Strategic Corridors can be found in Appendix H.

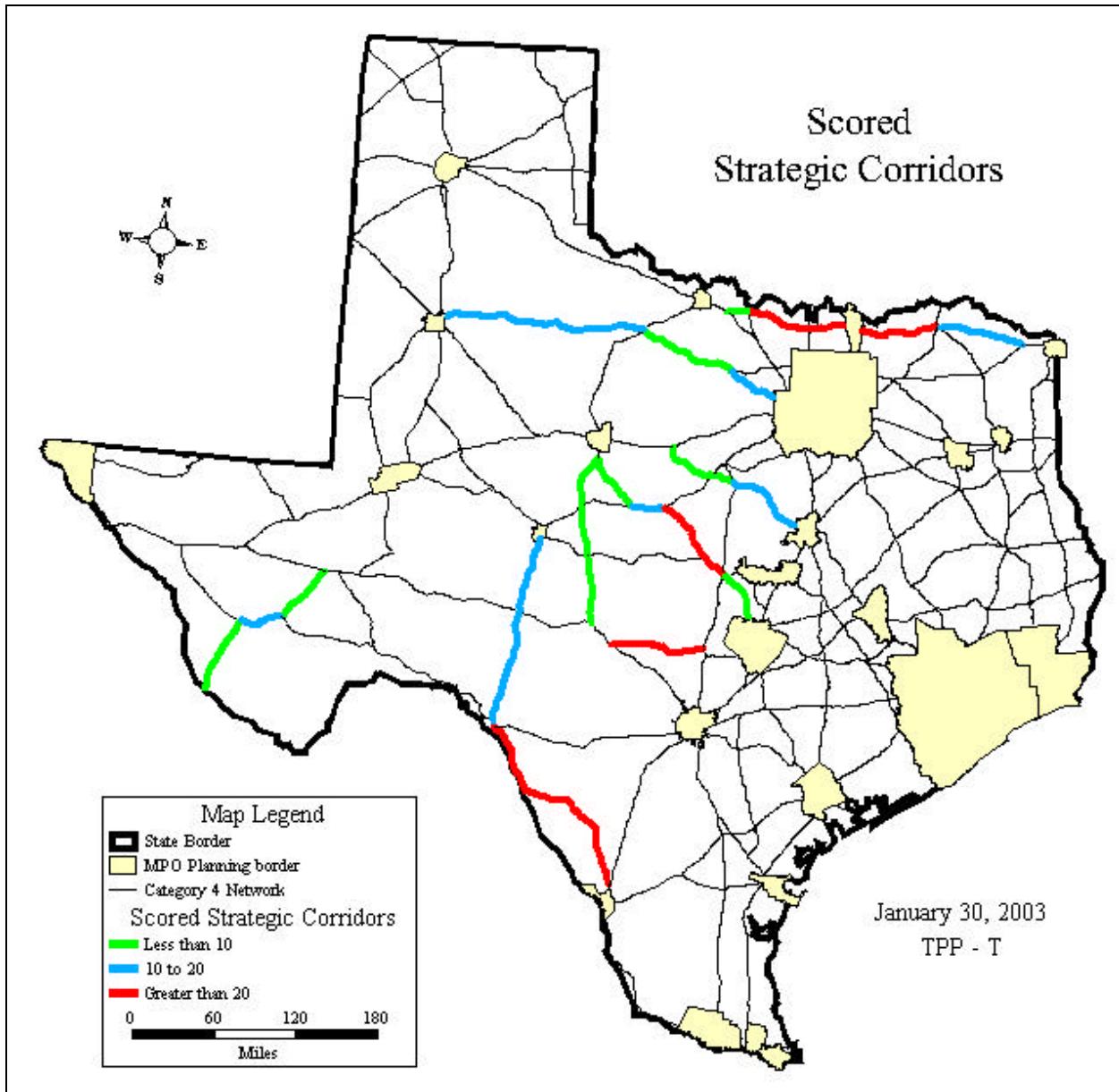


Figure 7. Scored Strategic Corridors.

#### Category 4 Statewide Corridor Classification

Figure 8 shows the combination of all three network corridors (Mobility, Connectivity, and Strategic) and the corridor sections on the Phase I TTS. Construction of these improvements to the system will provide needed statewide connectivity.

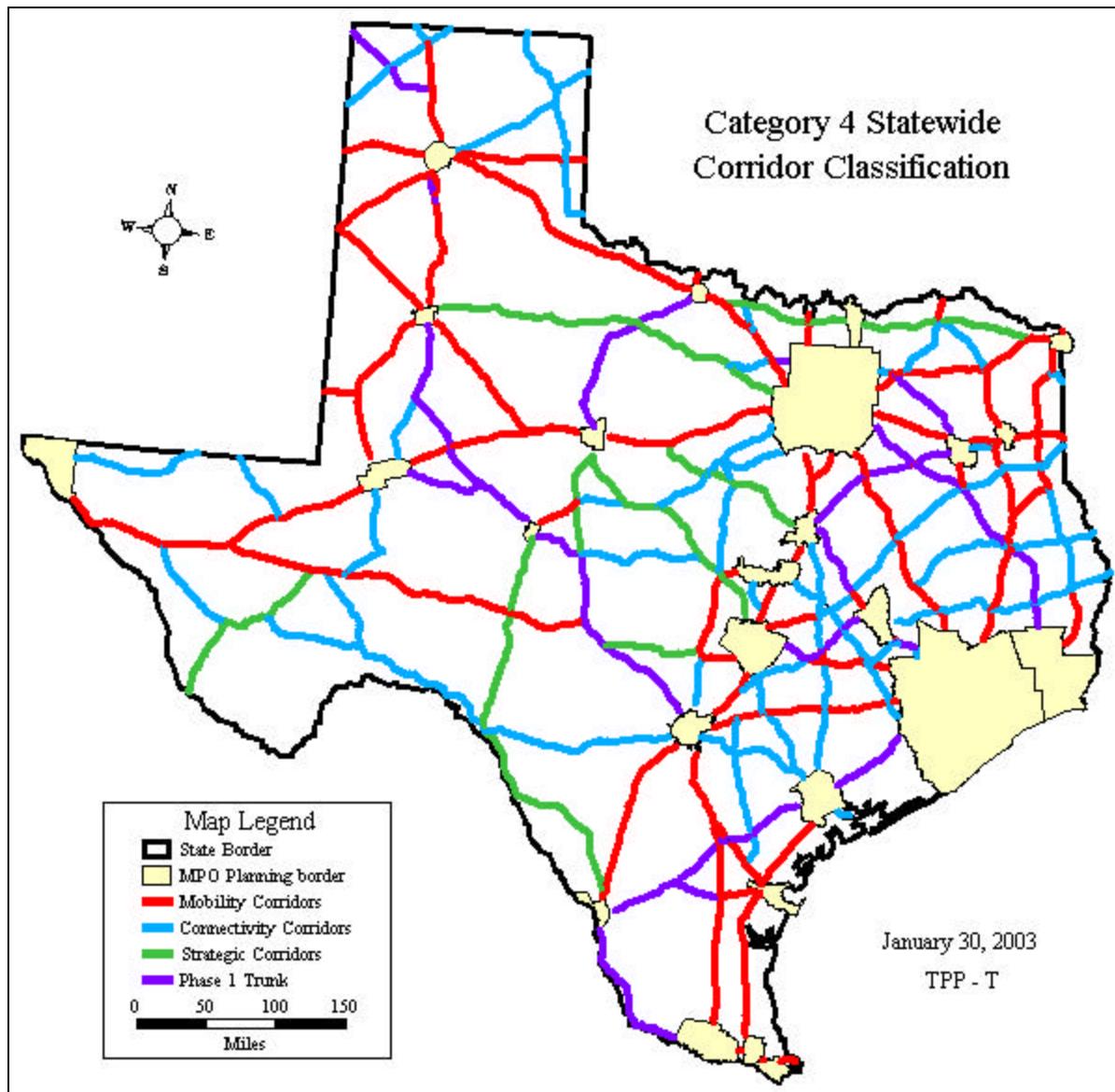
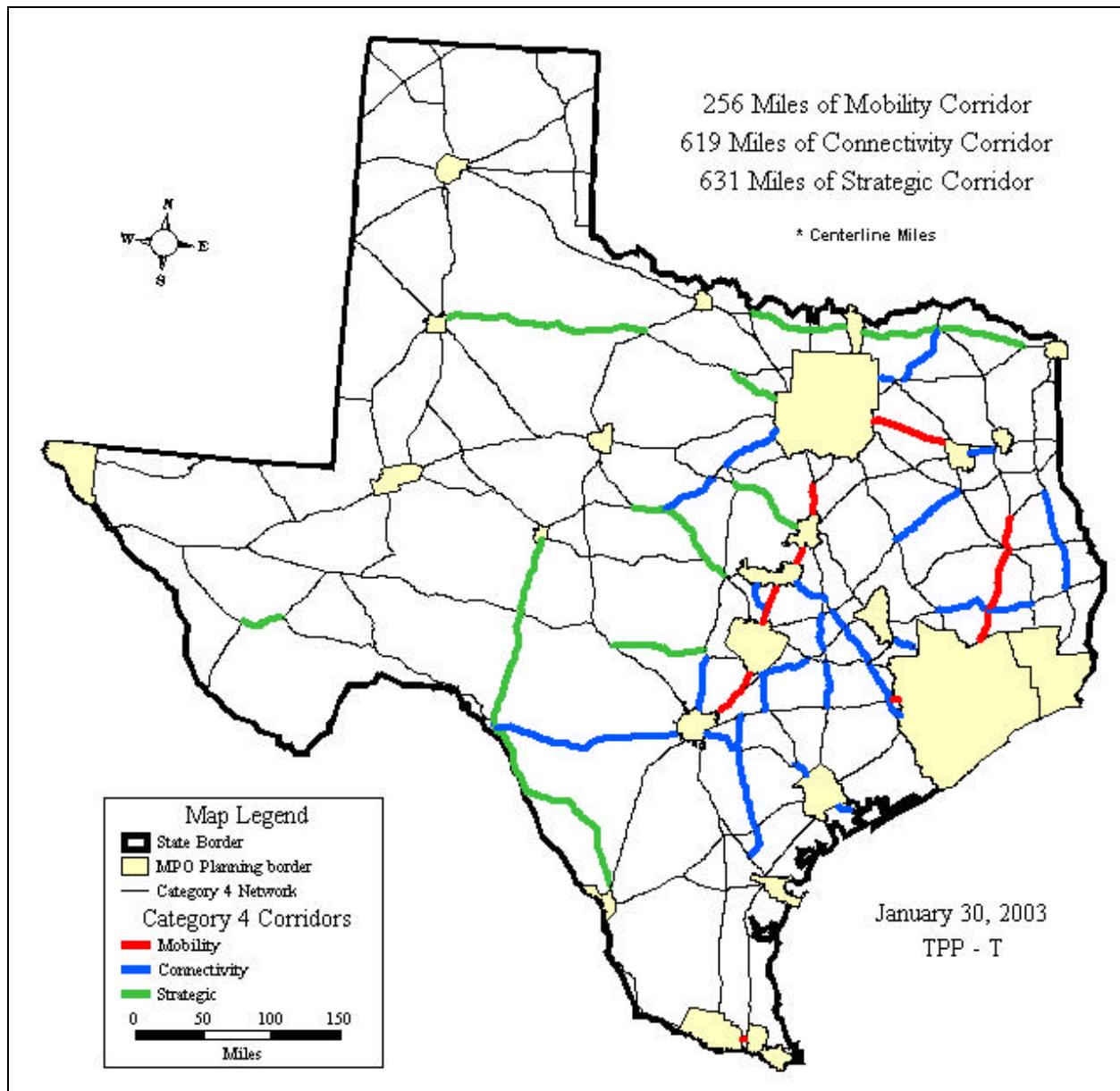


Figure 8. Category 4 Statewide Corridor Classification.

## **Statewide Priority Corridor Sections**

The recommended Category 4 network was scored and prioritized as either a Mobility, Connectivity or Strategic Corridor to allow evaluation of various funding scenarios. In order to demonstrate the amount of statewide connectivity network that could be funded in the 2015-2030 timeframe, the SCWG developed a Category 4 funding scenario of \$300 million per year, or \$4.5 billion over the fifteen-year planning period. Each of the three groups of network corridors (Mobility, Connectivity, and Strategic) received one-third of the Category 4 funds. Figure 9 depicts the selection of the highest priority corridors based on this funding scenario. Lists of corridor sections that could be funded under this example are shown in Appendices I-K.

The SCWG assumed the cost to improve a facility from four-lanes to six-lanes to be \$6 million per centerline mile, and the cost to improve a facility from two-lanes to four-lanes to be \$2.5 million per centerline mile in 2003 dollars. It should be noted that many portions of the corridors do not require additional improvement. These sections were not included in the cost estimates.



**Figure 9. Statewide Priority Corridor Sections.**

## **Previously Committed Projects**

The districts were informed in December 2002 that all projects in the current UTP could not be funded in the upcoming SMP based on adjusted estimates. The districts were asked to reprioritize their projects in the current UTP using the adjusted estimates and submit a list of projects that could not be funded within these financial constraints to TPP. Districts were asked to assure that Phase I TTS projects were prioritized ahead of other Category 4 projects. These lists of previously committed projects that could not be funded within existing financial constraints were then provided to the appropriate workgroups for further consideration.

The SCWG recommends all previously committed projects on the Phase I TTS be constructed before any projects on priority corridor segments identified by the SCWG. A list and a map depicting these projects are shown in Appendix L. Appendix M lists projects that are not on the Phase I TTS, but are on the Category 4 recommended network. The SCWG recommends that these projects be assigned the priority given to the corridor section on which it is located. Appendix N lists projects that are not on the recommended Category 4 network, or that do not address mobility needs. The SCWG recommends that these projects be funded through other categories.

## **I-35 Corridor from Williamson / Bell County Line to Hillsboro**

The SCWG was advised by TxDOT TPP that the TxDOT administration has proposed to construct an additional \$400 million worth of projects along the IH-35 corridor from the Williamson / Bell County Line to Hillsboro. This \$400 million is in addition to \$350 million already programmed. The SCWG recommends that due to funding limitations, parallel routes, such as the Trans Texas Corridor, should be considered for any further improvements required along IH-35 in excess of six-lanes.

## **New Location Farm-to-Market / Ranch-to-Market Highway Recommendations**

The SCWG recommends new location farm-to-market / ranch-to-market (FM/RM) highways be funded through Category 11 – District Discretionary and Category 12 – Strategic Priority, as opposed to Category 4 – Statewide Connectivity.

Any new location FM / RM highway should meet the following minimum requirements:

- Minimum ADT of 500 vpd. (This is an increase from 250 vpd.)
- New location FMs / RMs may not be built inside urban areas with a population greater than 50,000. (No change from current policy.)
- The local government(s) must provide documentation that they will be financially responsible for 100% of the right-of-way (ROW) acquisition and utility adjustment costs. The ROW width is usually a minimum of 120 feet. (No change from current policy.)
- The local government(s) must assume responsibility for the reversion of ownership and maintenance of an equal amount of mileage from the state highway system.

- Any new FM / RM constructed should provide improved regional mobility to the state highway system.

The full report may be found in Appendix O.

## **Project Selection**

The SCWG considered prioritizing projects on the Category 4 network, but concluded that they, as a workgroup, did not have the local knowledge needed to evaluate projects for the entire state. The SCWG considered asking the districts to submit a list of needed mobility (additional capacity) projects not in TxDOT's Long Range Plan (LRP) for prioritization, but concluded the districts would not be able to produce a list within the timeframe allotted to this workgroup by the Commission.

The workgroups for Categories 2, 3, and 4 have identified mobility needs in three separate areas of the state: metropolitan, other urbanized, and areas outside of any metropolitan planning boundary. Additional effort will be required to develop a unified list of statewide connectivity system improvements that is continuous and coordinated through each of these areas.

The SCWG recommends that the selection of projects from the prioritized corridors in Category 4 be accomplished through a group consisting of TPP staff, the staffs of the affected TxDOT districts, and representatives from the SCWG.

## **Summary**

The SCWG supports the continued development of projects currently authorized in Category 4 and recommended by the districts for the 2004 SMP.

The SCWG recommends building previously committed projects on the Phase I TTS before improving other priority corridor segments on the recommended Category 4 network. Projects that are not on the Phase I TTS, but are on the recommended Category 4 network, should receive the same priority as the corridor segment on which they are located. Previously committed projects that are not on the recommended Category 4 network should be funded through other categories.

The SCWG recommends the Commission consider the needs of each set of corridors (Mobility, Connectivity, and Strategic) when allocating funds.

The SCWG recommends Category 4 funds be allocated primarily for added capacity projects, and not be used for rehabilitation and maintenance of existing highway facilities. Other funding categories should be considered when need arises.

Due to the shortage of funds, the SCWG recommends four-lane undivided corridors remain as undivided corridors and not be improved to four-lane divided.

The SCWG recommends new location FM / RM highways be funded through Category 11 – District Discretionary and Category 12 – Strategic Priority.

The SCWG recommends the Corridor Prioritization Formula be used to evaluate future Category 4 – Statewide Connectivity projects.

The SCWG recommends corridors selected for future improvements be part of the recommended Category 4 network.

The SCWG recommends the Category 4 network and the corridor prioritization process be incorporated into the Texas Transportation Plan.

## Appendix A Attendance Summary

<b>Region Represented</b>	<b>Representative</b>	<b>July 22-24</b>	<b>Aug 14-15</b>	<b>Sept 4-5</b>	<b>Sept 24</b>	<b>Oct 8-9</b>	<b>Nov 12-13</b>	<b>Dec 5</b>	<b>Jan 7-8</b>	<b>Jan 14-15</b>	<b>Jan 28-29</b>	<b>Feb 11-12</b>	<b>Feb 18-19</b>
Permian Basin RPC	Robert Cox	X											
South Texas Development Council	Amando Garza, Jr.												
Dallas – Ft. Worth MPO	Dan Kessler	X	X	X	X	X	X	X	X	X			
Hidalgo County MPO	David DeLeon	X	X	X		X	X	X	X				X
Killeen Temple MPO	Molly Bosley	X	X	X	X								X
Lubbock MPO	Randy Neugebauer		X	X		X	X		X				
	Kevin Evans	X			X			X		X			X
	Duffy Hinkle											X	X
Sherman-Denison MPO	Gene Short	X	X	X	X	X	X	X	X	X	X	X	X
Victoria MPO	Ray Miller	X			X								X
Brownwood District	Lynn Passmore	X	X	X	X	X	X	X					X
Childress District	Marty Smith	X	X	X	X	X	X	X	X	X	X	X	
El Paso District	Mark Longenbaugh	X	X	X		X		X	X		X	X	X
Lufkin District	Harry Thompson	X	X	X	X	X		X	X	X	X	X	X
Pharr District	Gus Lopez	X	X	X	X	X	X	X					X
San Antonio District	Clay Smith	X	X	X	X	X	X	X	X	X	X	X	
Tyler District	Randy Hopmann	X	X	X		X							
	Mike Battles					X	X	X	X				X
Duval County	Hon. Edmundo B. Garcia Jr.												
Clay County	Judge Kenneth Liggett	X	X	X			X						
	John Barton					X		X		X	X	X	X
Legislative Affairs Office	Jefferson Grimes												
Design Division	Elizabeth Hilton	X	X		X		X	X	X			X	X
Public Information Office	Robert Lopez	X											
TP&P Programming and Scheduling	Wayne Dennis	X	X	X	X	X	X	X	X	X	X	X	X
TP&P System Planning	Seth Prince	X	X										
Environmental Division	Tom Bruechert	X		X		X							

## Appendix A

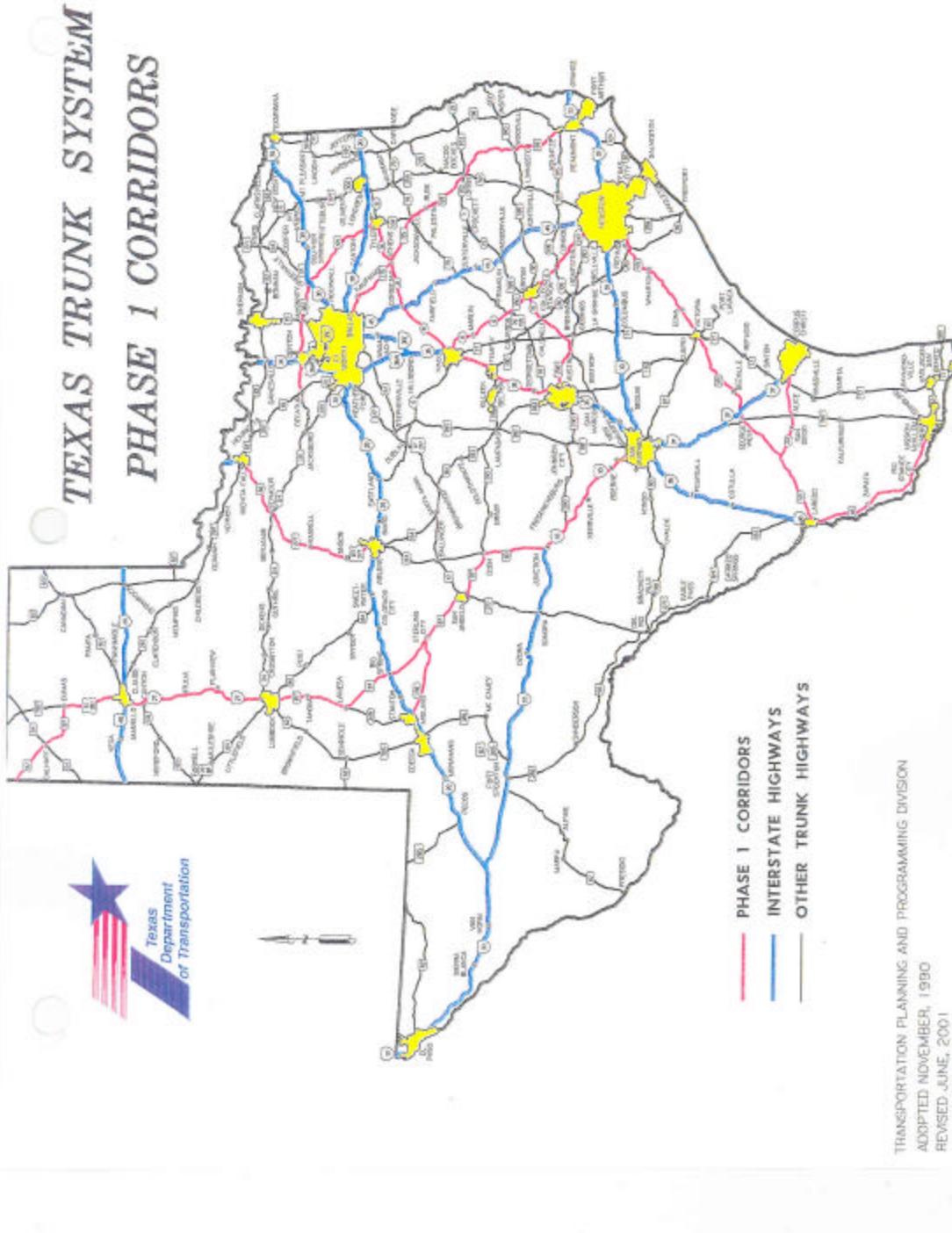
*UTP Restructuring Recommendations: Category 4 Workgroup*

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## Appendix B

## Appendix B-1 Texas Trunk System



## Appendix B-1

*UTP Restructuring Recommendations: Category 4 Workgroup*

## Appendix B-2

### Texas Trunk System Corridors

Region	Rank	Highway(s)	Corridor	Traffic	Gap	Bypass	Mexico	Total	2-lane miles	Cost \$	Cumulative \$
XXXXXX	Northwest	1 SH 214/H 25	Tyler to Austin	40	15	20	0	75.0	31	68,642,000	68,642,000
XXXXXX	Northwest	2 US 85/US 260	Falls to Dallas-Fort Worth	40	9	20	0	69.4	05	170,000,000	247,632,000
XXXXXX	Northwest	10 SH 24	Shreveport to Fort Worth	32	54	0	0	46.2	22	45,762,000	293,282,000
XXXXXX	Northwest	12 US 377	Arlington to Austin	34	19	0	0	43.9	27	56,192,000	349,442,000
XXXXXX	Northwest	14 US 84/US 183	Abilene to Wichita Falls	25	16	0	0	41.2	36	74,882,000	424,320,000
XXXXXX	Northwest	16 H 30/US 42	Wichita Falls to Wichita Falls	30	9	0	0	30.3	116	655,600,000	655,600,000
XXXXXX	Northwest	17 US 21/SH 106	Fort Worth to Dallas	31	7	0	0	38.1	55	114,402,000	790,000,000
XXXXXX	Northwest	25 US 67	El Paso to Dallas	20	10	0	0	20.7	116	24,726,000	1,021,280,000
XXXXXX	Northwest	31 H 20/SH 6	Abilene to Waco	20	6	0	0	25.7	127	264,162,000	1,285,442,000
XXXXXX	Northwest	5 US 277/US 85	Wichita Falls to Abilene	23	16	0	0	63.3	67	69,010,000	69,010,000
XXXXXX	Northwest	24 US 287	Abilene to Amarillo	15	13	0	0	31.4	17	26,510,000	86,520,000
XXXXXX	Northwest	35 US 380	Denton to Jacksboro	19	6	0	0	21.1	26	26,782,000	113,300,000
XXXXXX	Northwest	36 US 82/Sh 114/SH 199	Urbank to Dallas-Fort Worth	12	7	0	0	19.0	177	192,310,000	295,610,000
XXXXXX	Northwest	37 US 60	Dallas-Ft. Worth to Amarillo	9	10	0	0	18.4	58	56,740,000	395,250,000
XXXXXX	Northwest	43 US 80	Chileanilla to US 287	6	2	0	0	10.5	141	145,210,000	503,660,000
XXXXXX	South	4 US 68	Abilene to Marathon	22	8	20	0	65.3	175	152,520,000	192,520,000
XXXXXX	South	554/H 85	San Antonio to Corpus Christi	30	6	0	0	66.5	95	56,950,000	298,450,000
XXXXXX	South	61 SH 44	San Antonio to San Antonio	17	14	0	0	46.2	24	26,400,000	306,860,000
XXXXXX	South	19 US 87	Victoria to San Antonio	20	8	0	0	36.2	57	39,640,000	346,460,000
XXXXXX	South	20 US 7/H 35	Victoria to Dallas-Fort Worth	26	10	0	0	35.8	120	132,000,000	501,460,000
XXXXXX	South	21 US 90	Del Rio to San Antonio	21	10	0	4	35.0	67	73,702,000	575,260,000
XXXXXX	South	27 US 276/US 180	Victoria to Austin	17	13	0	0	29.2	41	45,100,000	620,360,000
XXXXXX	South	39 US 277/US 89	Del Rio to Laredo	15	1	0	0	16.2	161	171,000,000	797,360,000
XXXXXX	Southwest	3 US 178/US 89	Beaumont to Dallas-Fort Worth	30	11	20	0	67.2	106	216,240,000	216,240,000
XXXXXX	Southwest	7 SH 21/US 290	Bryan-College Station to Austin	32	13	0	0	49.4	11	22,440,000	238,680,000
XXXXXX	Southwest	8 SH 65/H 105/FM 177/H 249	Waco to Houston	40	8	0	0	47.3	87	177,480,000	416,160,000
XXXXXX	Southwest	9 SH 36/H 25	Brownsville to Dallas-Fort Worth	55	12	0	0	46.9	115	254,650,000	680,760,000
XXXXXX	Southwest	13 US 25/H 21/J 5/J 5/H 10	Laredo/Marfa to San Antonio	24	8	0	0	41.6	172	350,980,000	1,001,640,000
XXXXXX	Southwest	15 US 96/US 69	Houston to Beaumont	28	15	0	0	59.3	55	112,250,000	1,113,840,000
XXXXXX	Southwest	18 SH 21	US 289 to San Marcos	30	8	0	0	37.4	36	73,440,000	1,187,210,000
XXXXXX	Southwest	22 SH 107/H 124	Goliad to Beaumont	20	6	0	0	34.3	43	87,720,000	1,275,010,000
XXXXXX	Southwest	28 SH 30/US 160/H 63	Bryan-College Station to Louisiana	27	2	0	0	29.8	168	342,720,000	1,617,730,000
XXXXXX	Southwest	32 SH 103/H 161/H 21	Lufkin to Bryan/College Station	26	1	0	0	25.2	104	212,160,000	1,829,880,000
XXXXXX	West	33 SH 7/H 21/J 5/J 5/H 10	New Mexico to San Antonio	19	12	0	0	34.3	120	134,420,000	134,420,000
XXXXXX	West	270 SH 156/US 87	Midland to San Antonio	17	12	0	0	29.4	42	47,940,000	181,440,000
XXXXXX	West	29 US 385/H 10	Odessa to San Antonio	8	17	0	0	26.3	44	49,280,000	230,720,000
XXXXXX	West	30 SH 296	Austin to IH 10	8	18	0	0	28.1	13	14,560,000	245,280,000
XXXXXX	West	33 SH 34/H 87	Midland to Lubbock	12	10	0	0	22.4	94	95,480,000	305,760,000
XXXXXX	West	34 SH 62	Odessa to El Paso	17	10	0	0	21.8	150	122,200,000	428,960,000
XXXXXX	West	34 SH 10/H 20/AJ 99	El Paso to Del Rio	7	11	0	0	18.1	172	192,840,000	621,610,000
XXXXXX	West	40 US 93	Abilene to Odessa	14	2	0	0	16.2	78	87,960,000	708,960,000
XXXXXX	West	41 US 87/US 160	Edinburg to Laredo	15	1	0	0	15.4	91	212,930,000	920,910,000
XXXXXX	West	42 US 277	Del Rio to San Antonio	10	0	0	0	10.7	143	150,180,000	1,081,150,000
XXXXXX	West	44 US 67	Fresno to Ft. Stockton	7	1	0	0	7.5	145	156,860,000	1,237,250,000
								2-Lane total	37323	5,667,350,000	6,691,210,000
								Total Trunk % Campaña	10347		
									63%		

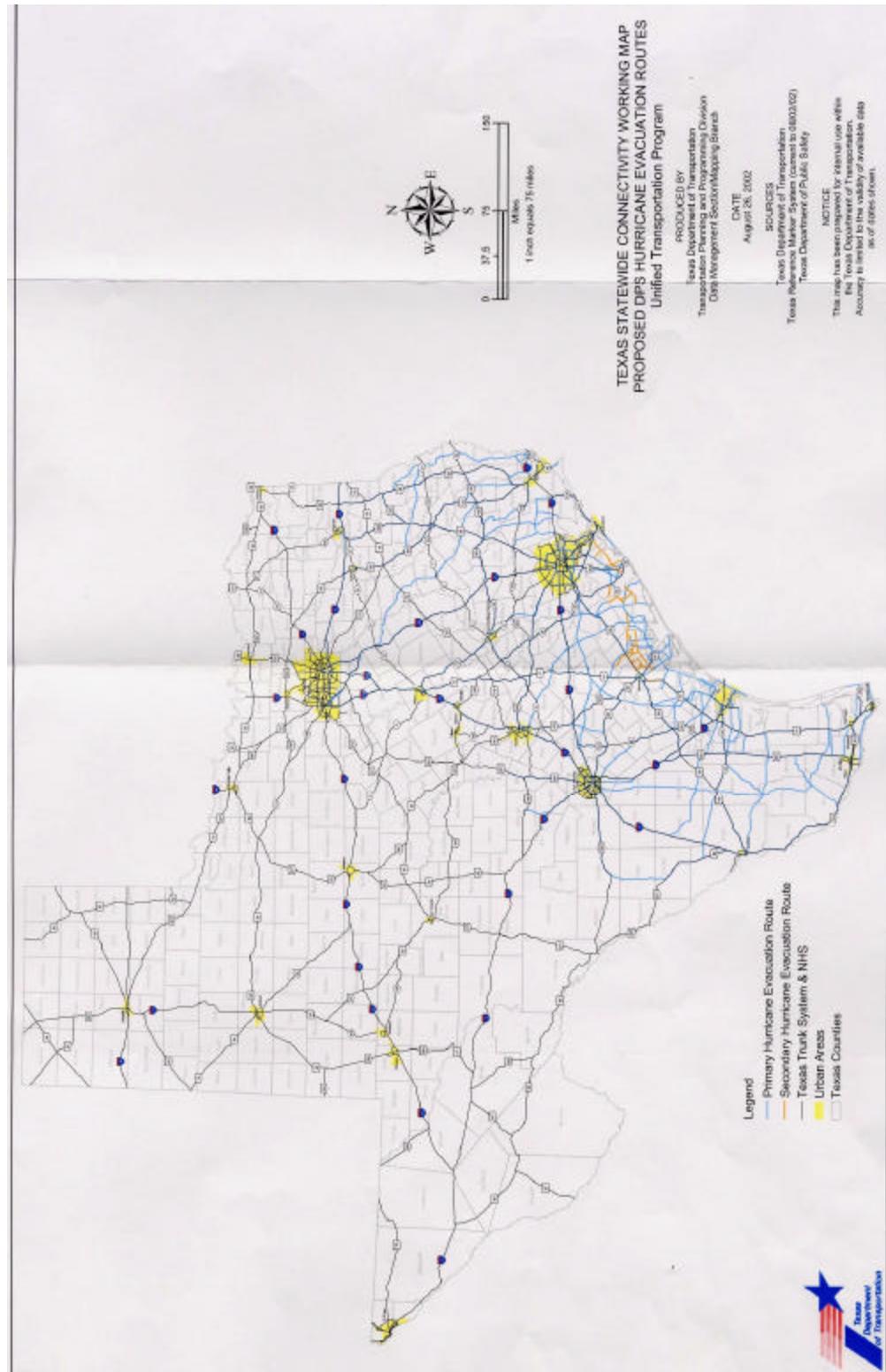
1995 truck and total traffic, averaged over the 2-lane segments of the corridor  
 Percentage of corridor with 4-lanes  
 Corridors that bypass Dallas-Fort Worth, Houston, and San Antonio (one million population or greater)  
 Corridors that have an endpoint on the Texas-Mexico border and carry over 2000 vehicles per day (1995 traffic)

### Trunk System Corridors

Trunk<sup>r</sup>

## Appendix B-3

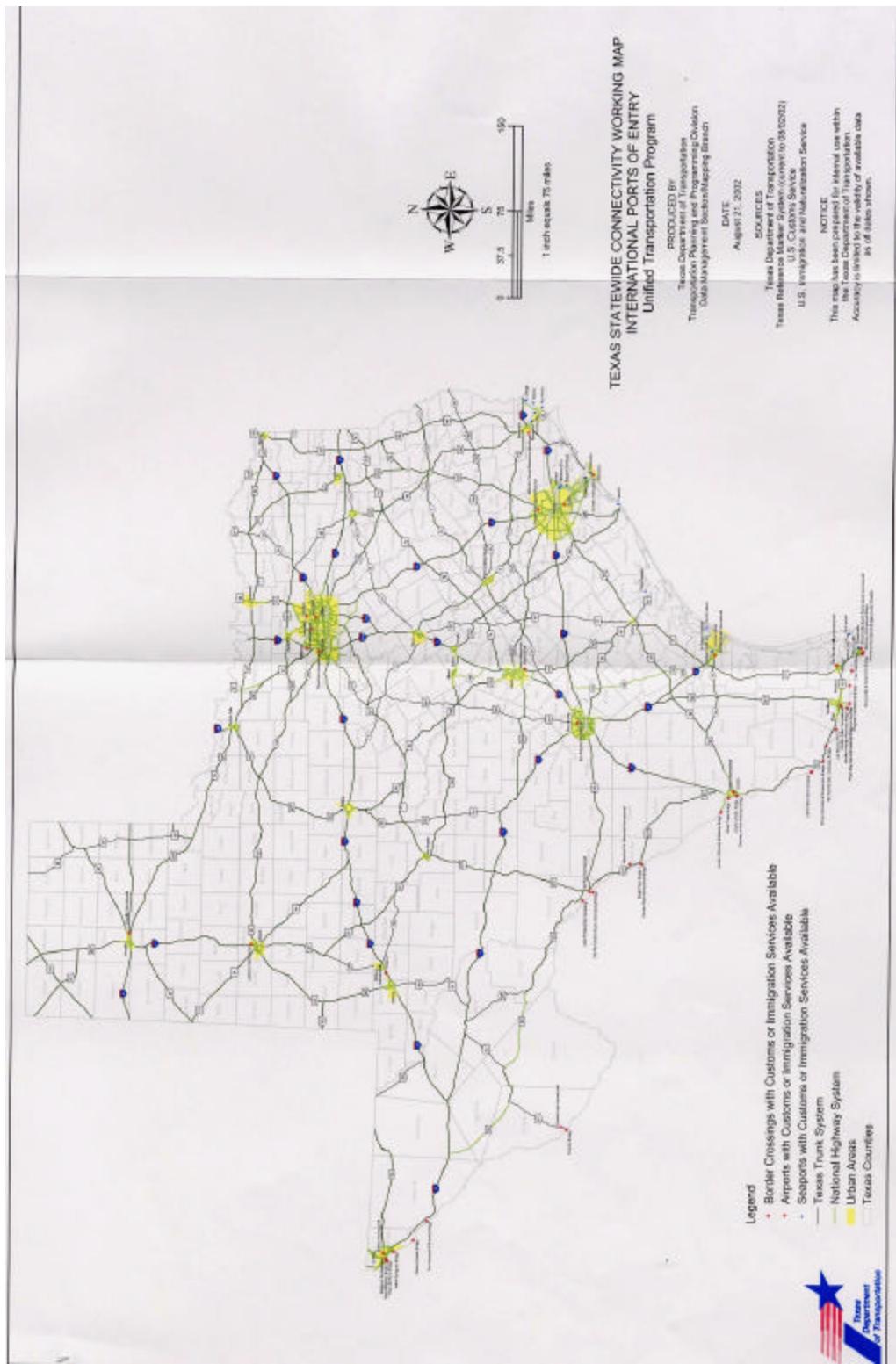
### Proposed Department of Public Safety Hurricane Evacuation Routes



## Appendix B-3

*UTP Restructuring Recommendations: Category 4 Workgroup*

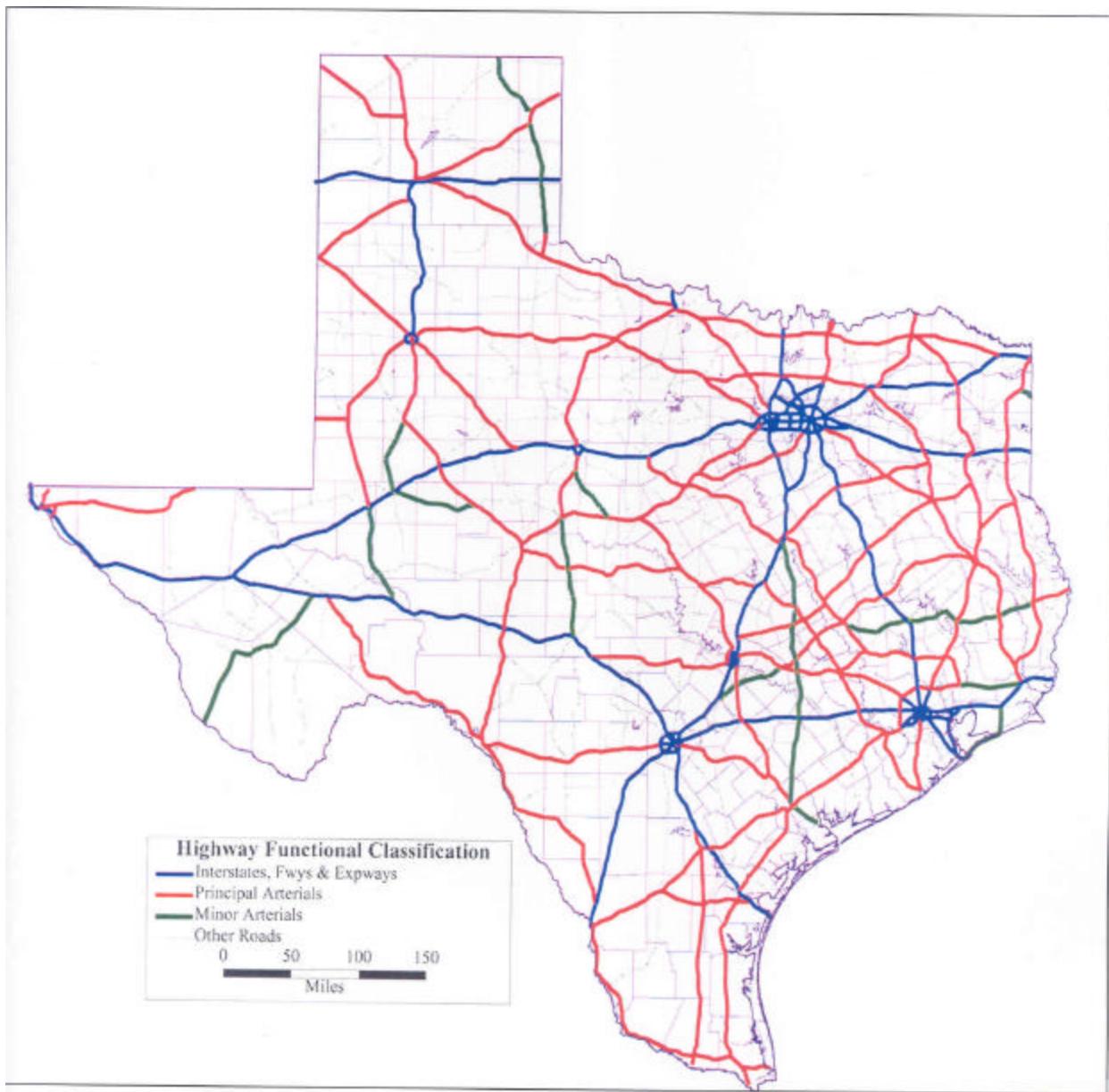
## Appendix B-4 International Ports of Entry



## Appendix B-4

*UTP Restructuring Recommendations: Category 4 Workgroup*

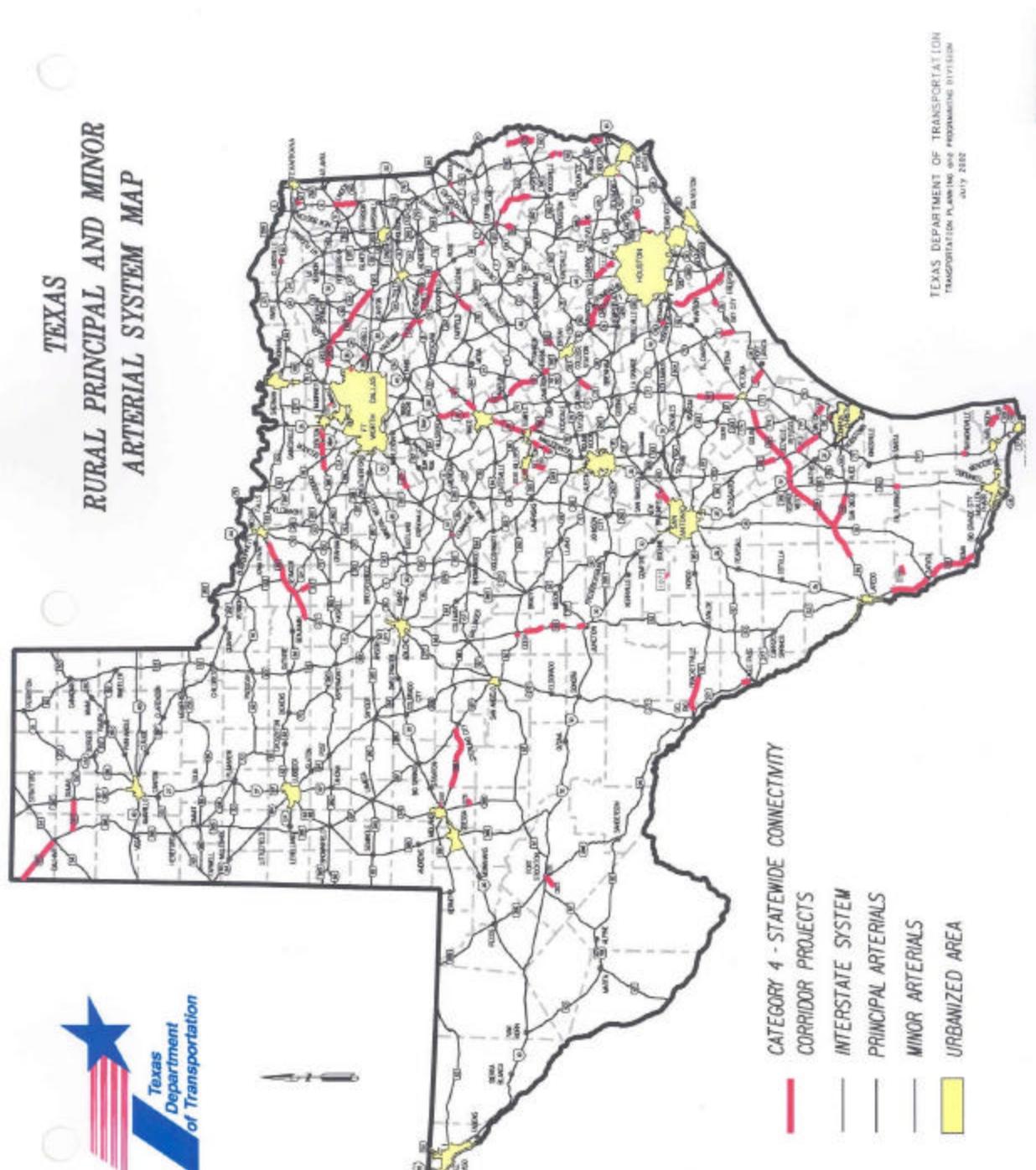
## Appendix B-5 Highway Functional Classification



Appendix B-5

*UTP Restructuring Recommendations: Category 4 Workgroup*

**Appendix B-6**  
**Texas Rural Principal and Minor Arterial System**



**Appendix B-6**

*UTP Restructuring Recommendations: Category 4 Workgroup*

**Appendix B-7**  
**Trans Texas Corridor – Conceptual Map**

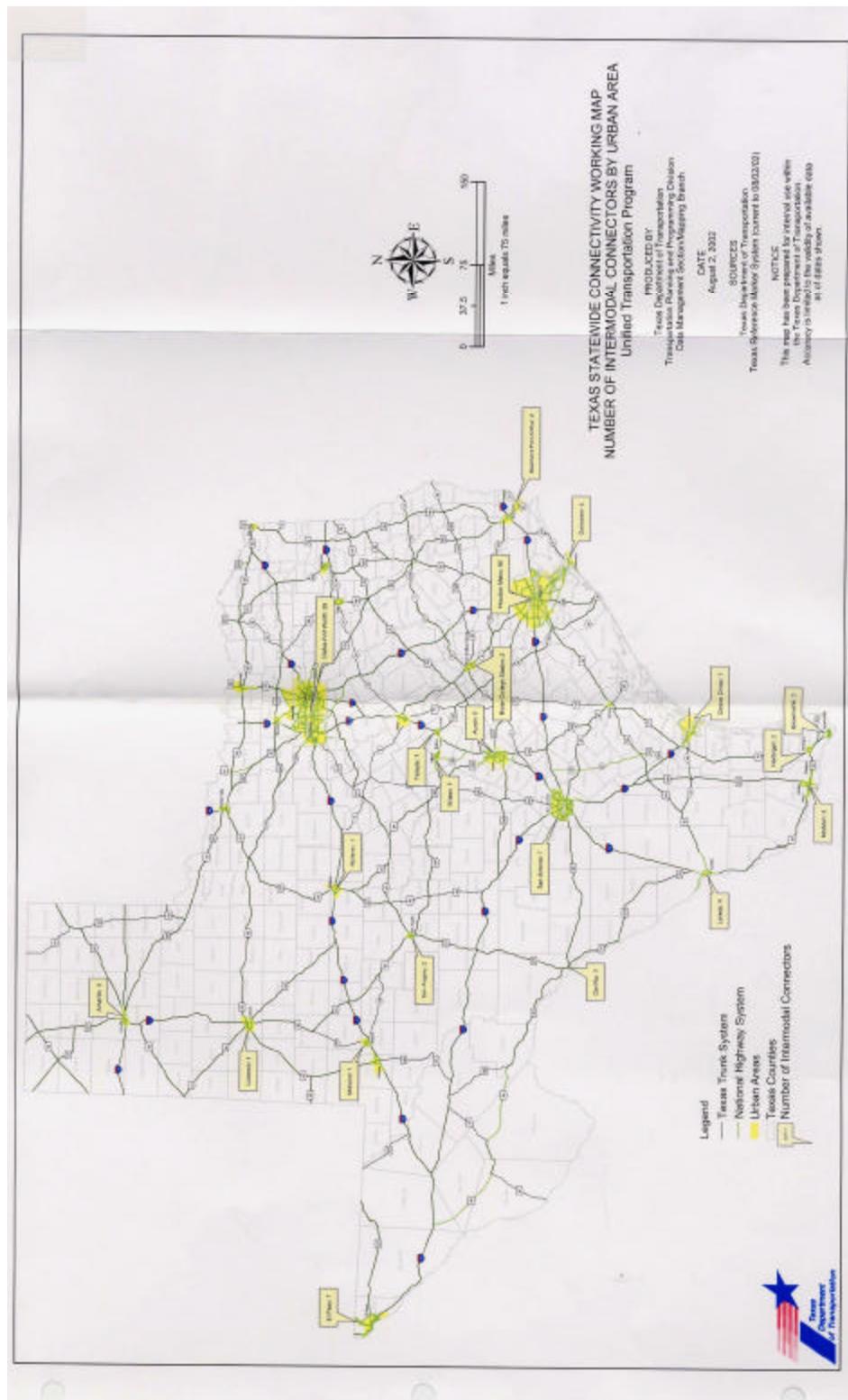


Appendix B-7

*UTP Restructuring Recommendations: Category 4 Workgroup*

## Appendix B-8

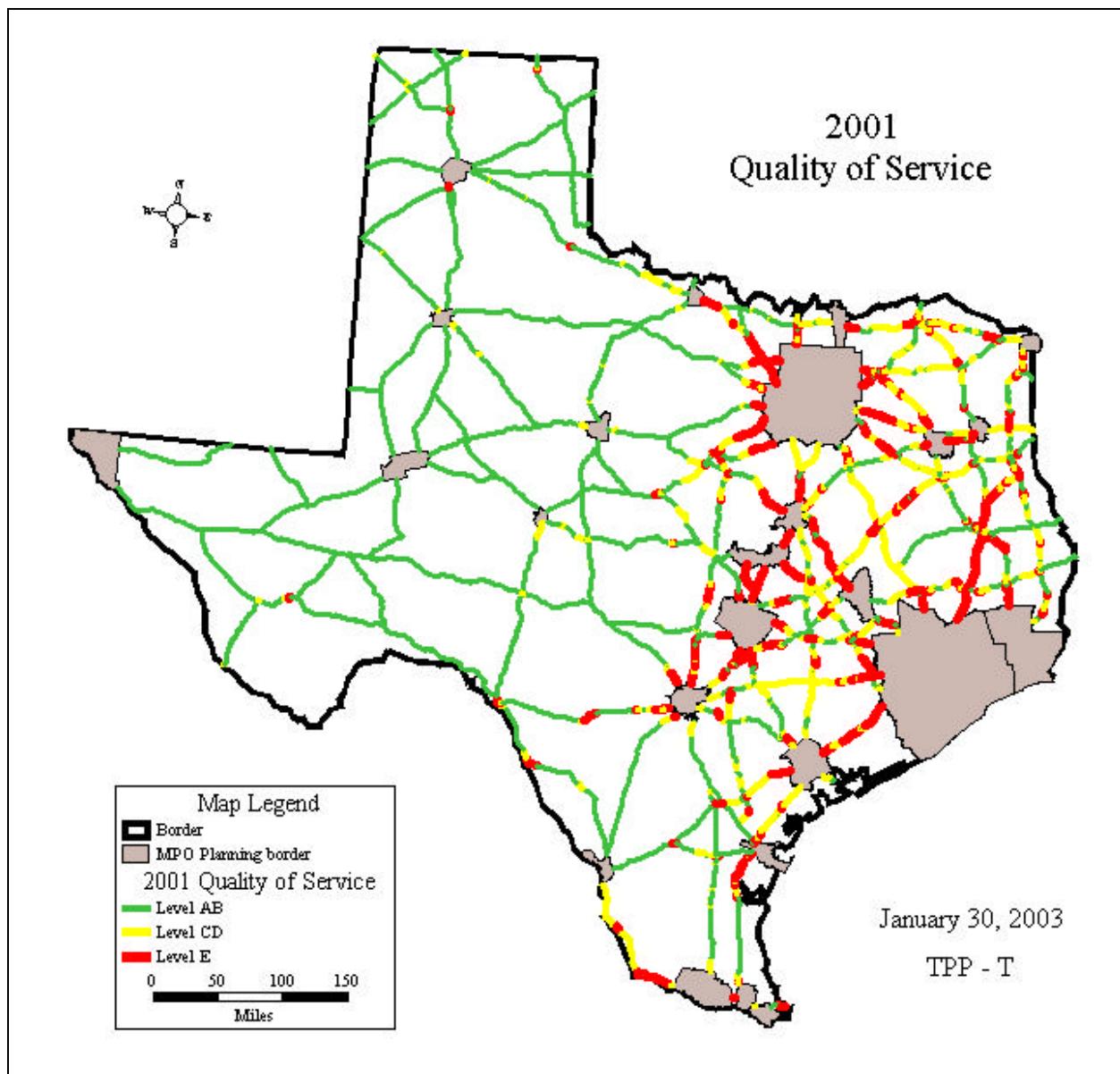
### Number of Intermodal Connectors by Urban Area



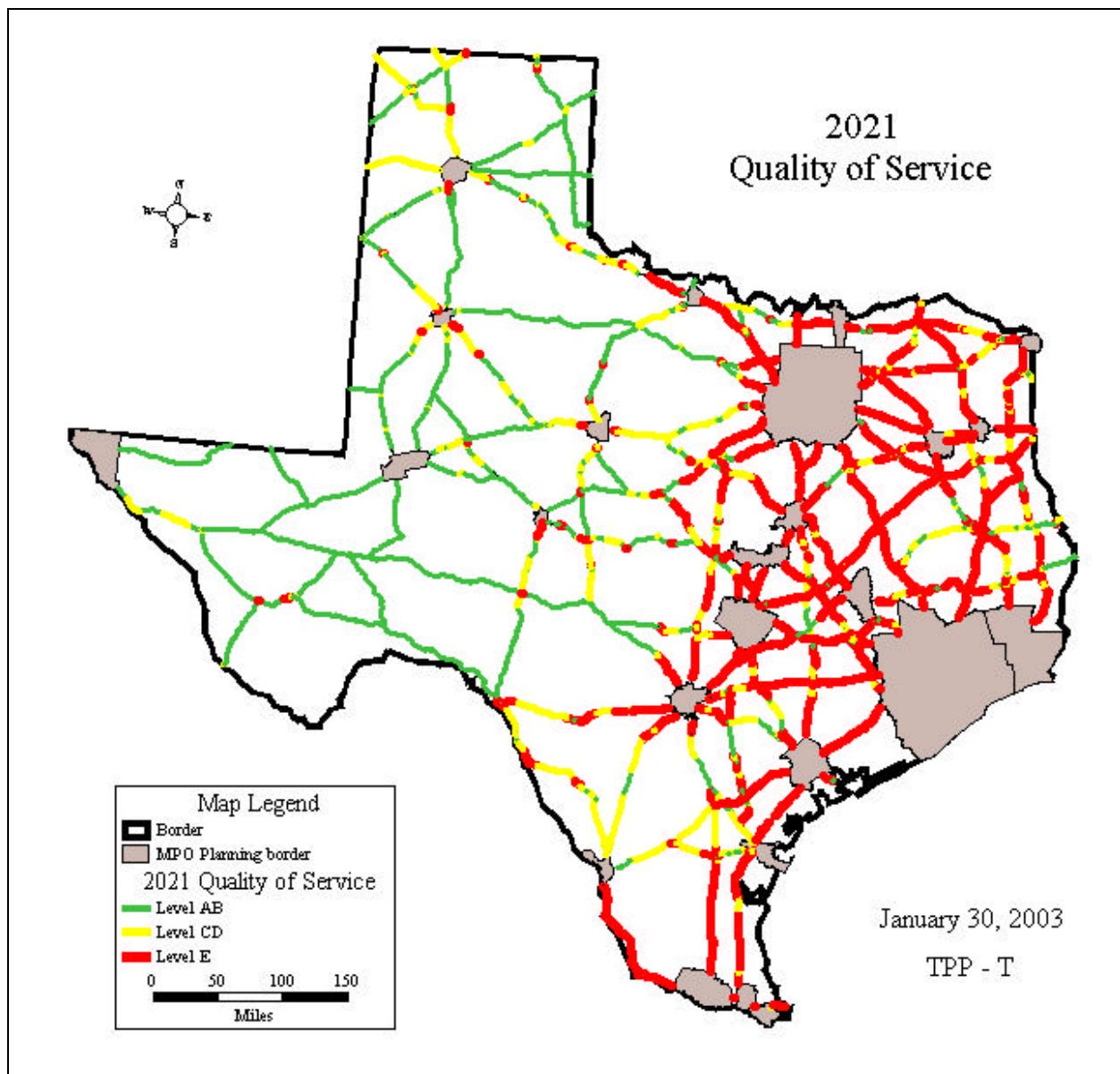
## Appendix B-8

*UTP Restructuring Recommendations: Category 4 Workgroup*

**Appendix B-9  
2001 Quality of Service**



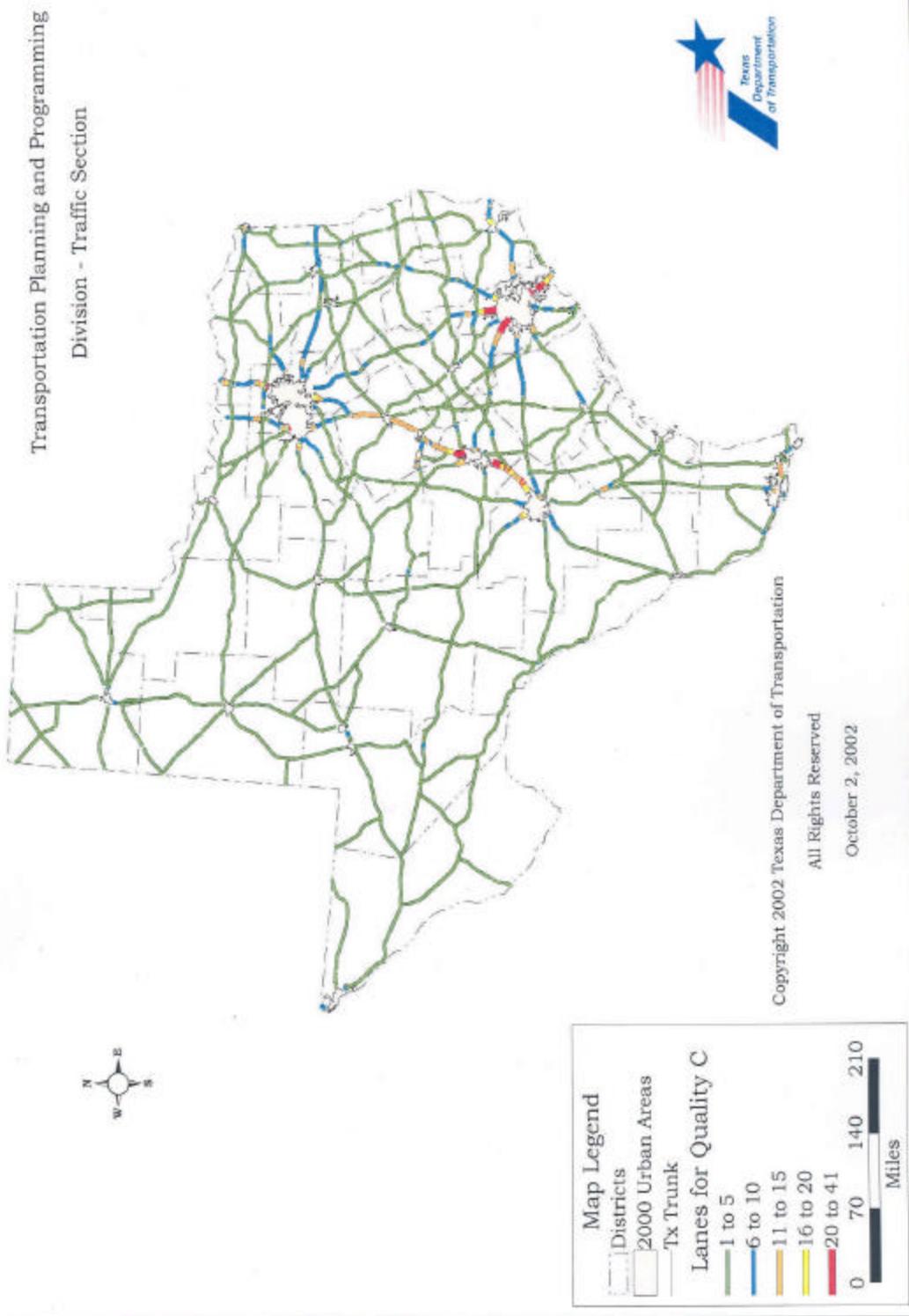
**Appendix B-10  
2021 Quality of Service**



Appendix B-10

*UTP Restructuring Recommendations: Category 4 Workgroup*

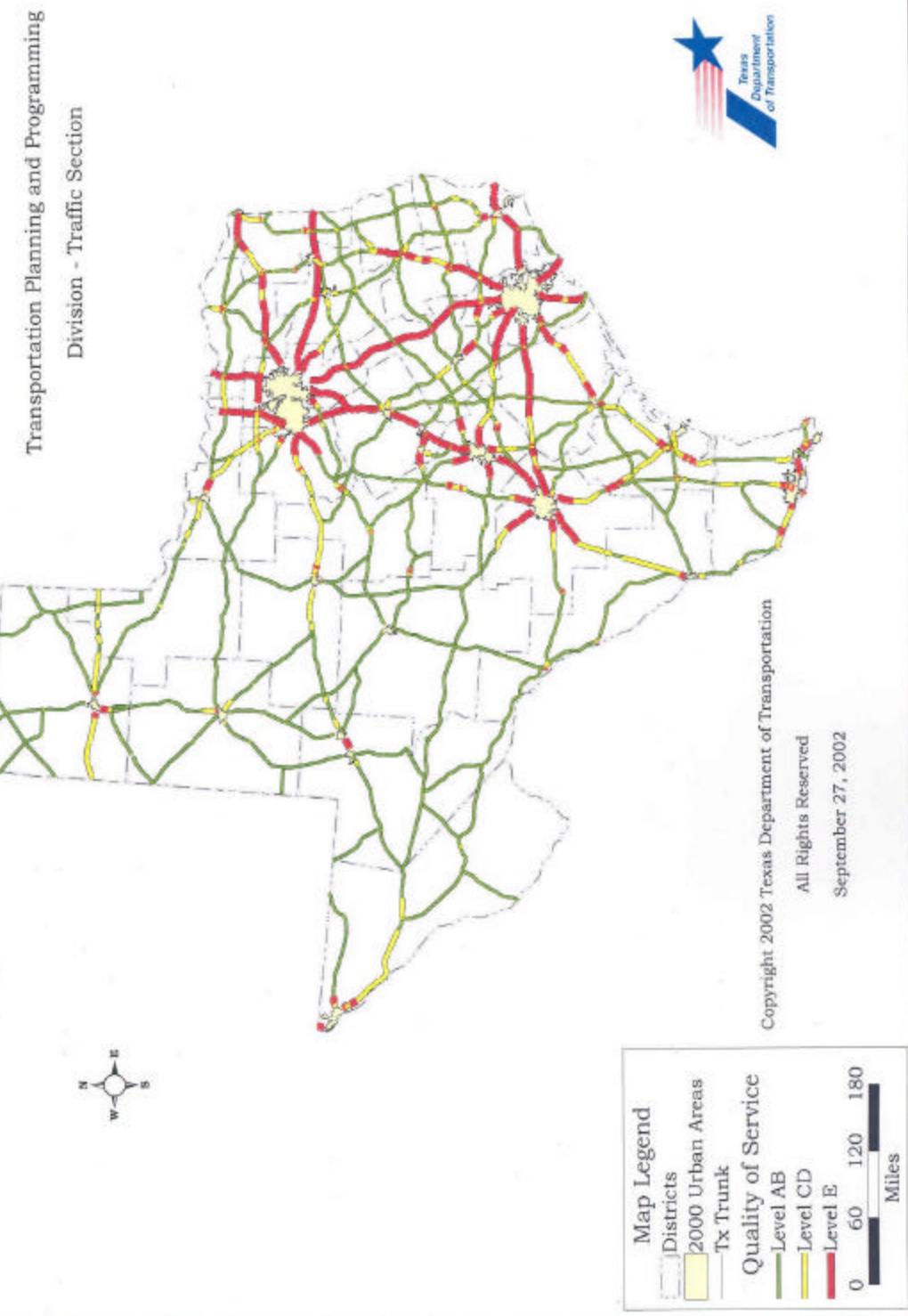
## Number of Lanes for Quality of Service C 2020 Data



## Appendix B-11

*UTP Restructuring Recommendations: Category 4 Workgroup*

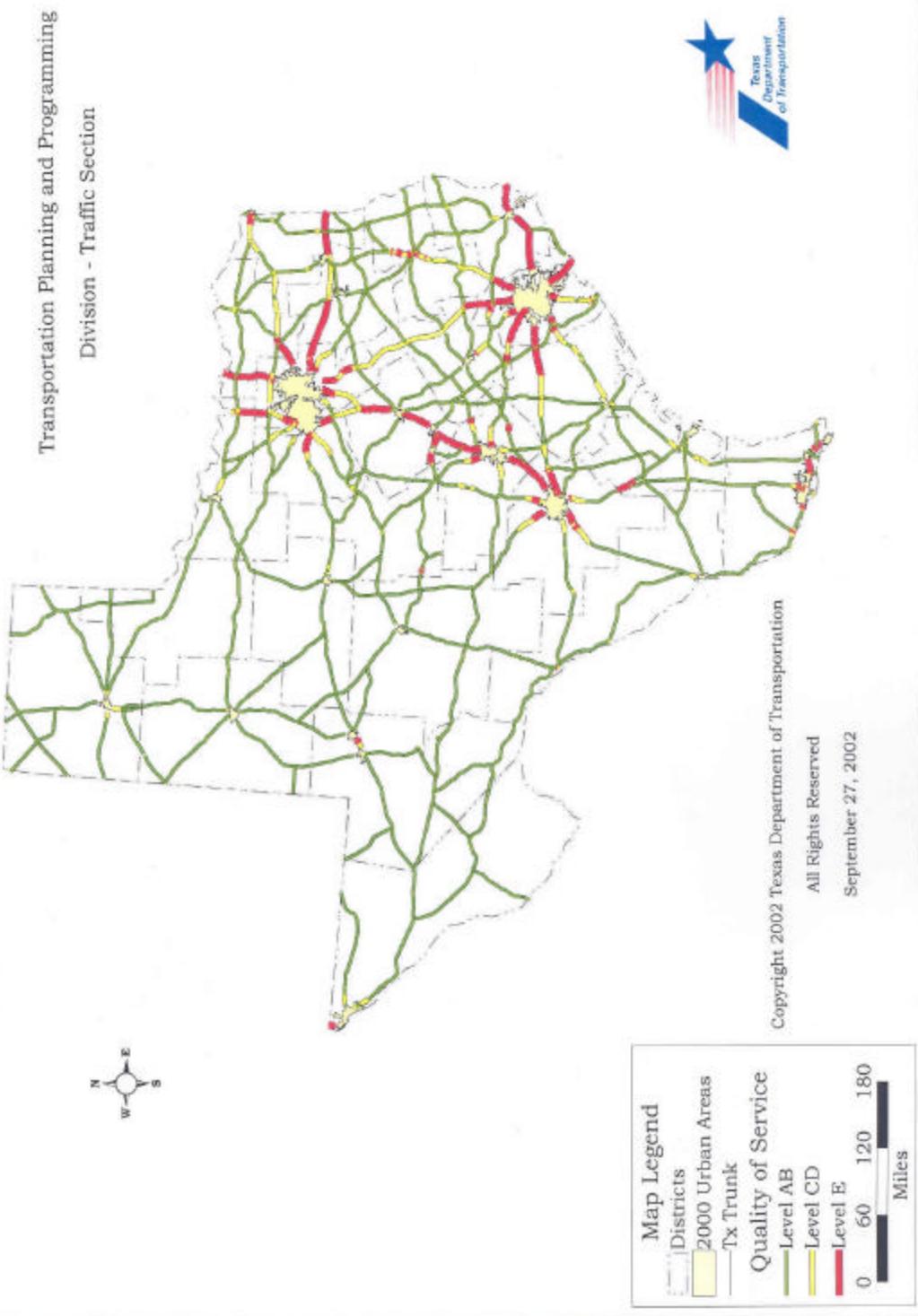
## 4 Lane Quality of Service Map 2020 Data



## Appendix B-12

*UTP Restructuring Recommendations: Category 4 Workgroup*

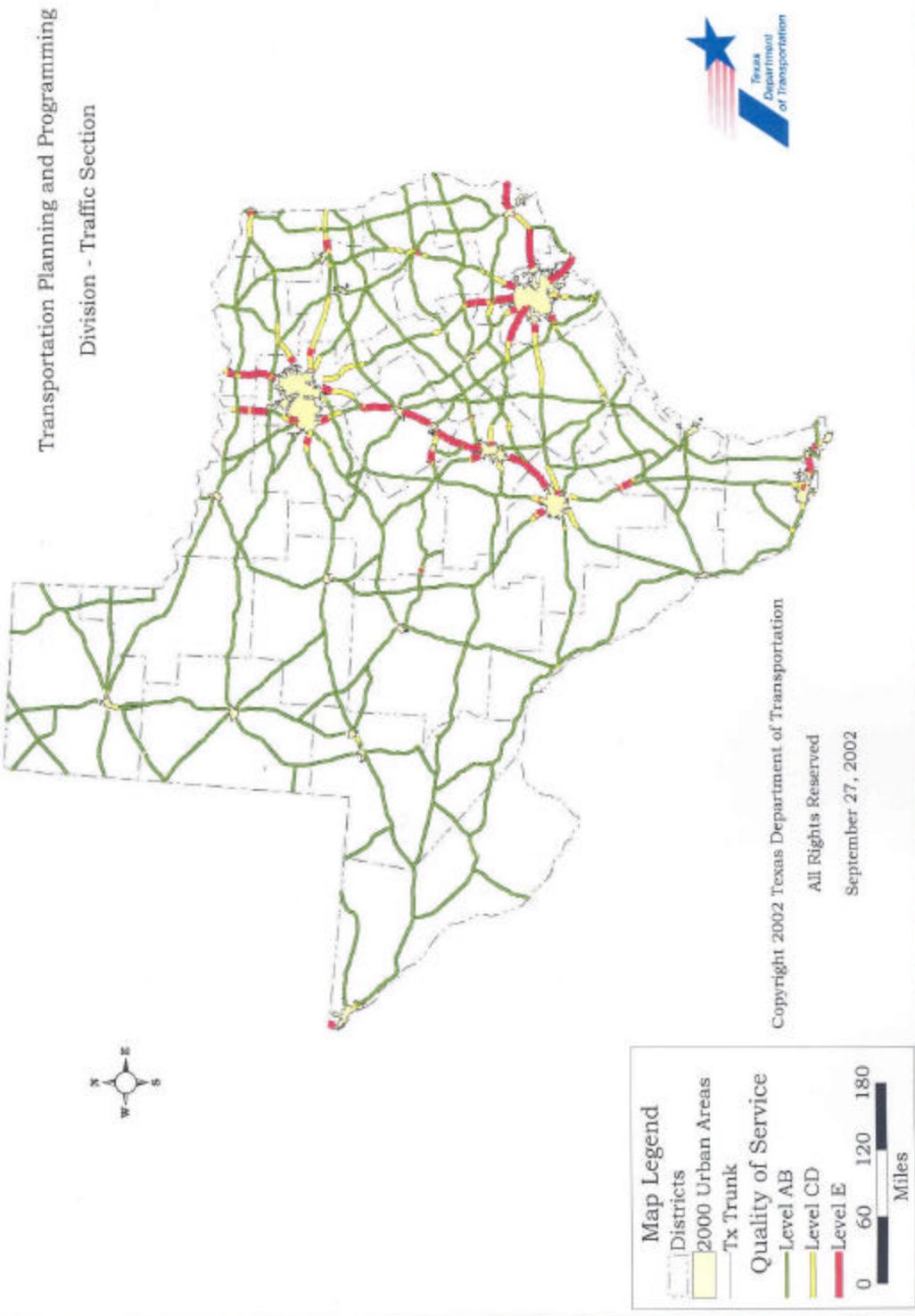
## 6 Lane Quality of Service Map 2020 Data



## Appendix B-13

*UTP Restructuring Recommendations: Category 4 Workgroup*

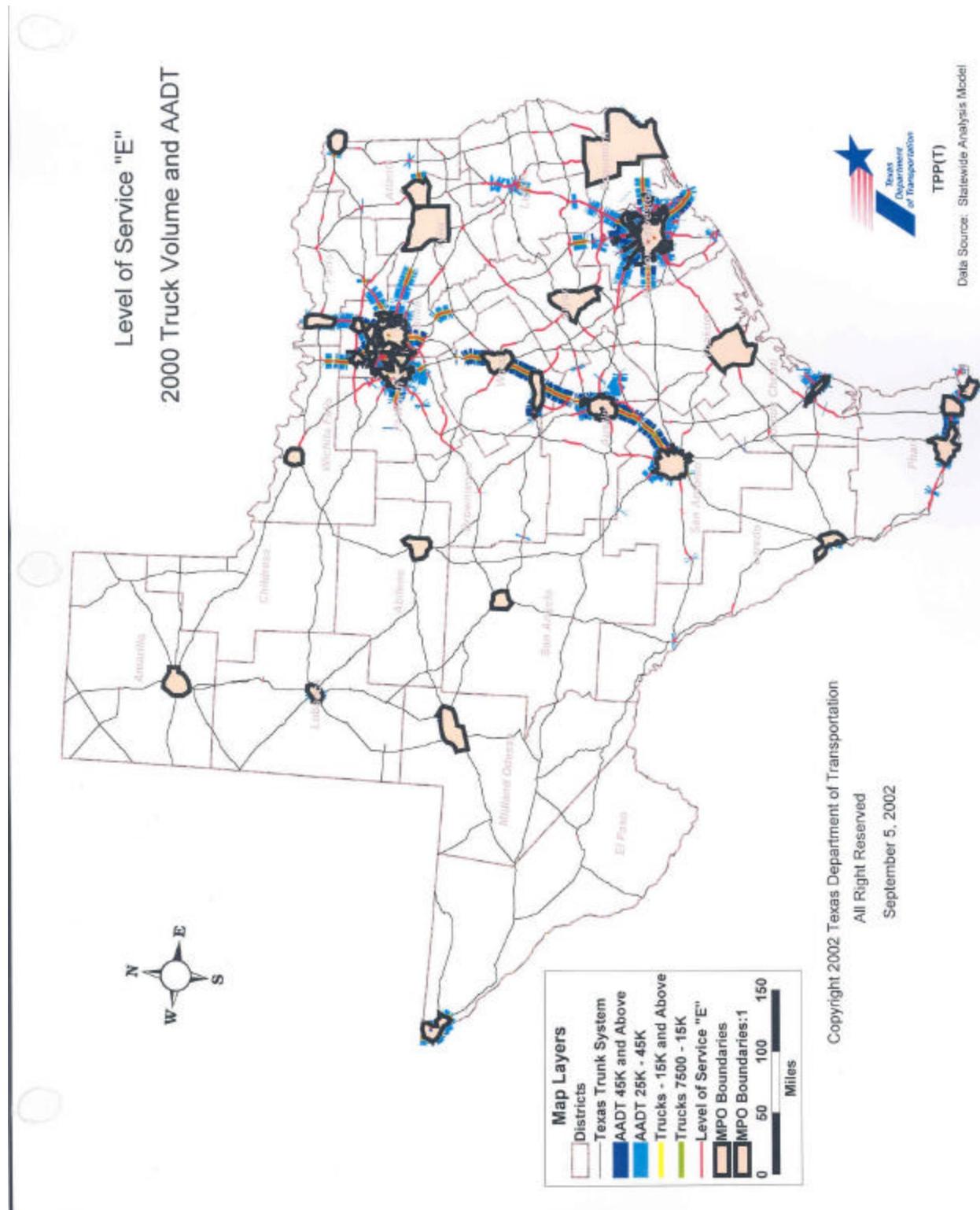
## 8 Lane Quality of Service Map 2020 Data



## Appendix B-14

*UTP Restructuring Recommendations: Category 4 Workgroup*

**Appendix B-15**  
**Quality of Service E Map Showing 2000 Truck Volume and AADT**



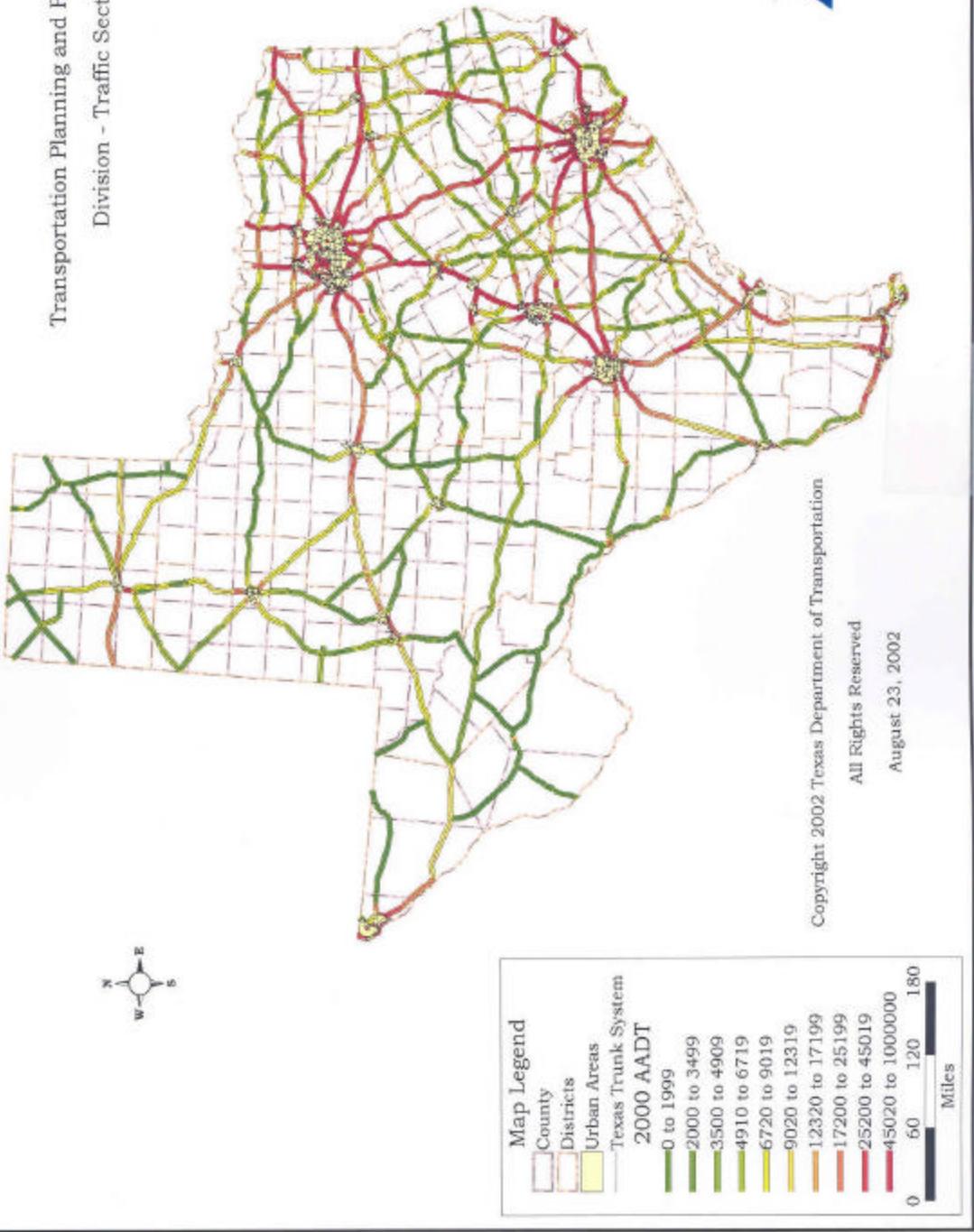
Appendix B-15

*UTP Restructuring Recommendations: Category 4 Workgroup*

## 2000 AADT Map

Transportation Planning and Programming

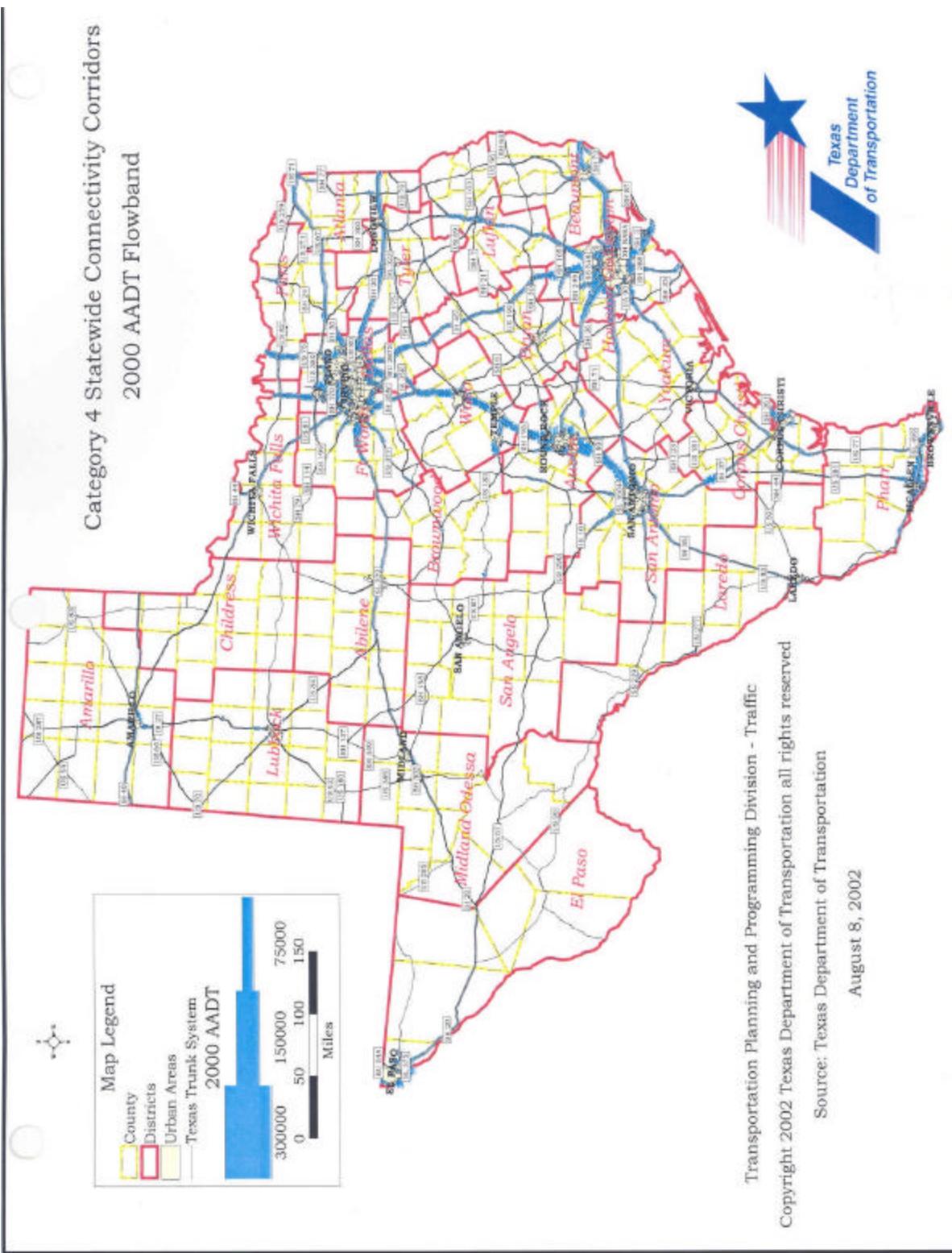
Division - Traffic Section



## Appendix B-16

*UTP Restructuring Recommendations: Category 4 Workgroup*

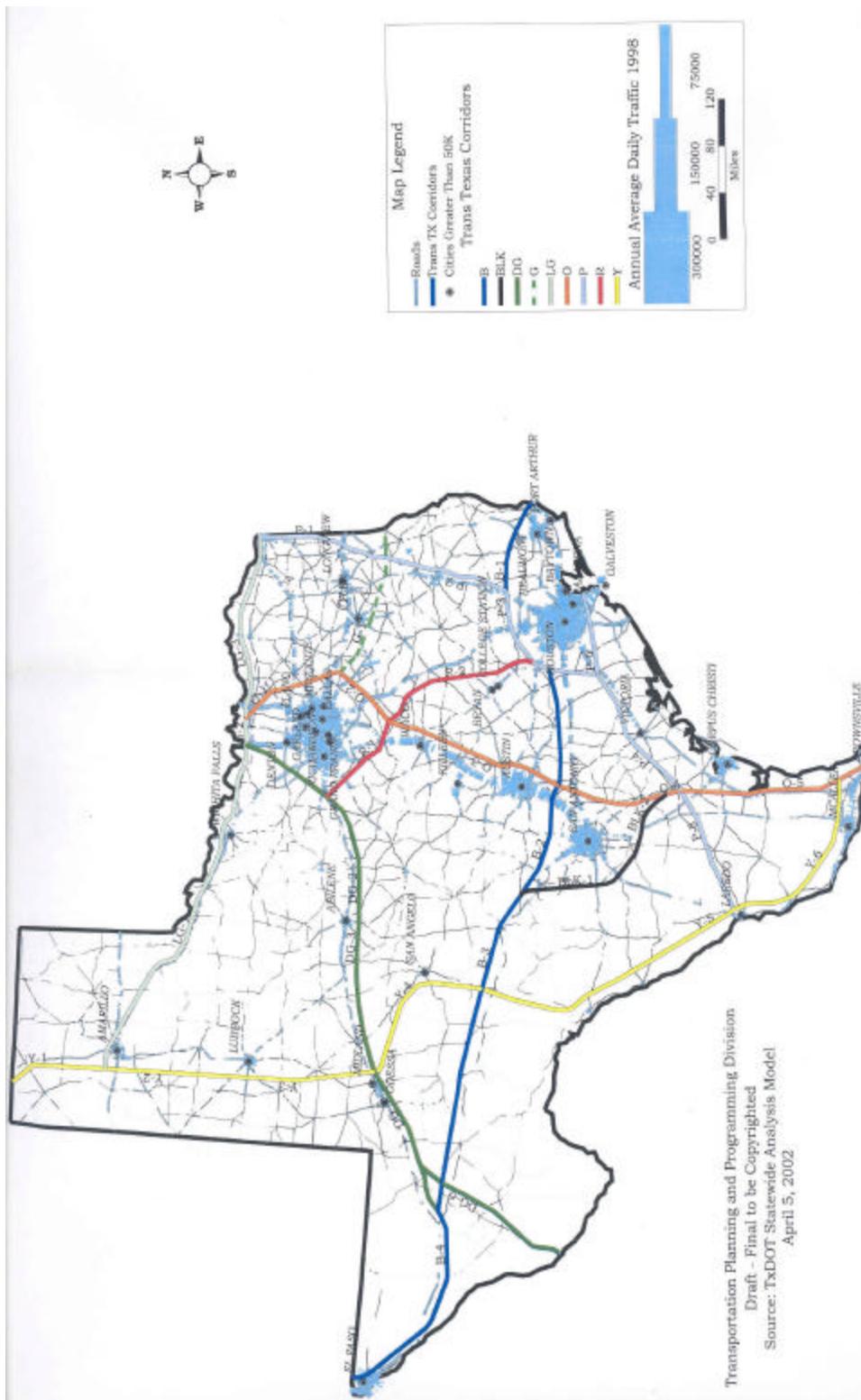
## Appendix B-17 2000 AADT Flowband



## Appendix B-17

*UTP Restructuring Recommendations: Category 4 Workgroup*

## Appendix B-18 AADT Flowband and the Trans Texas Corridor



Appendix B-18

*UTP Restructuring Recommendations: Category 4 Workgroup*

## Appendix B-19 2000 Truck Volume

### 2000 Truck Volume Map

Transportation Planning and Programming

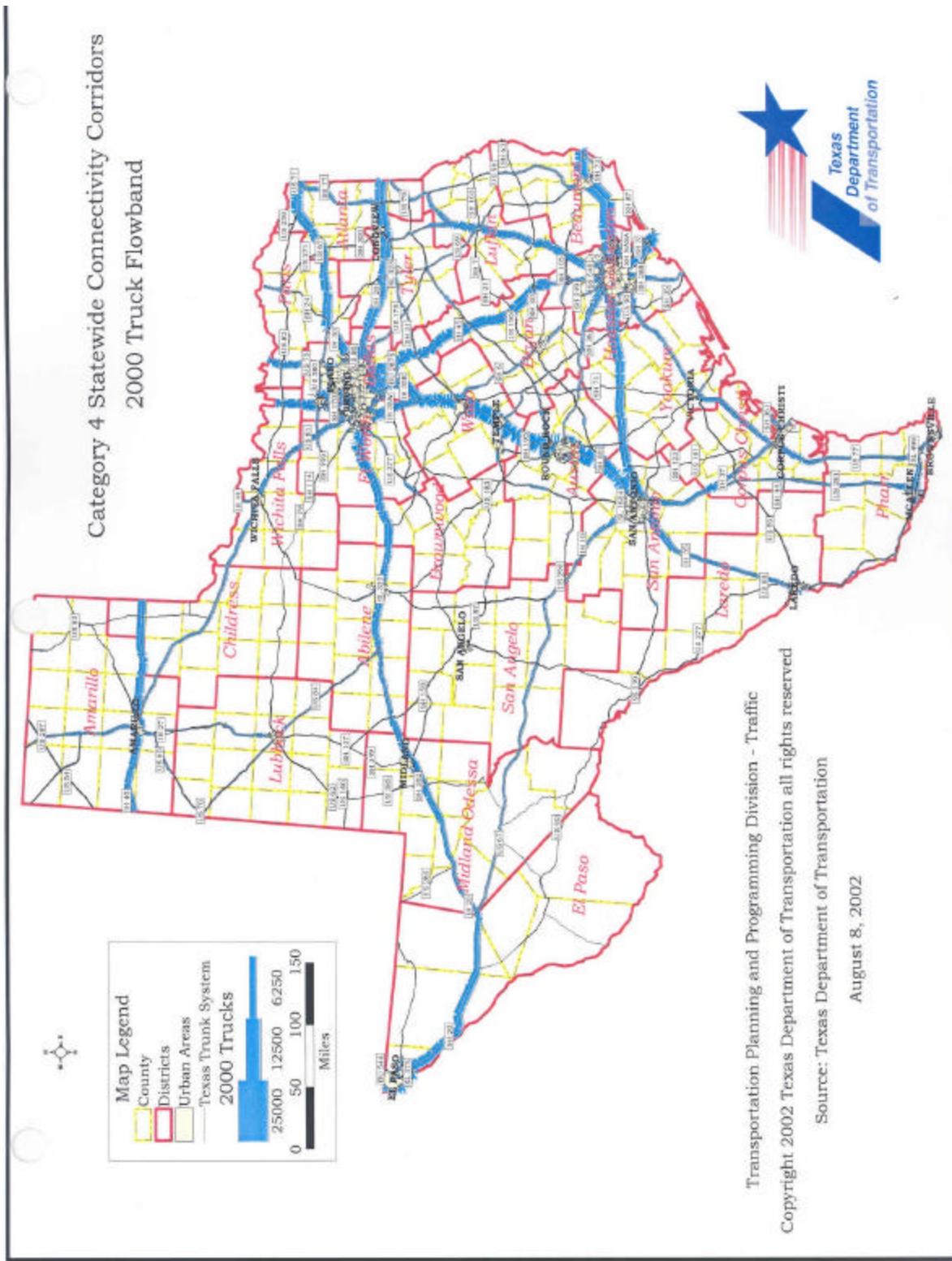
Division - Traffic Section



## Appendix B-19

*UTP Restructuring Recommendations: Category 4 Workgroup*

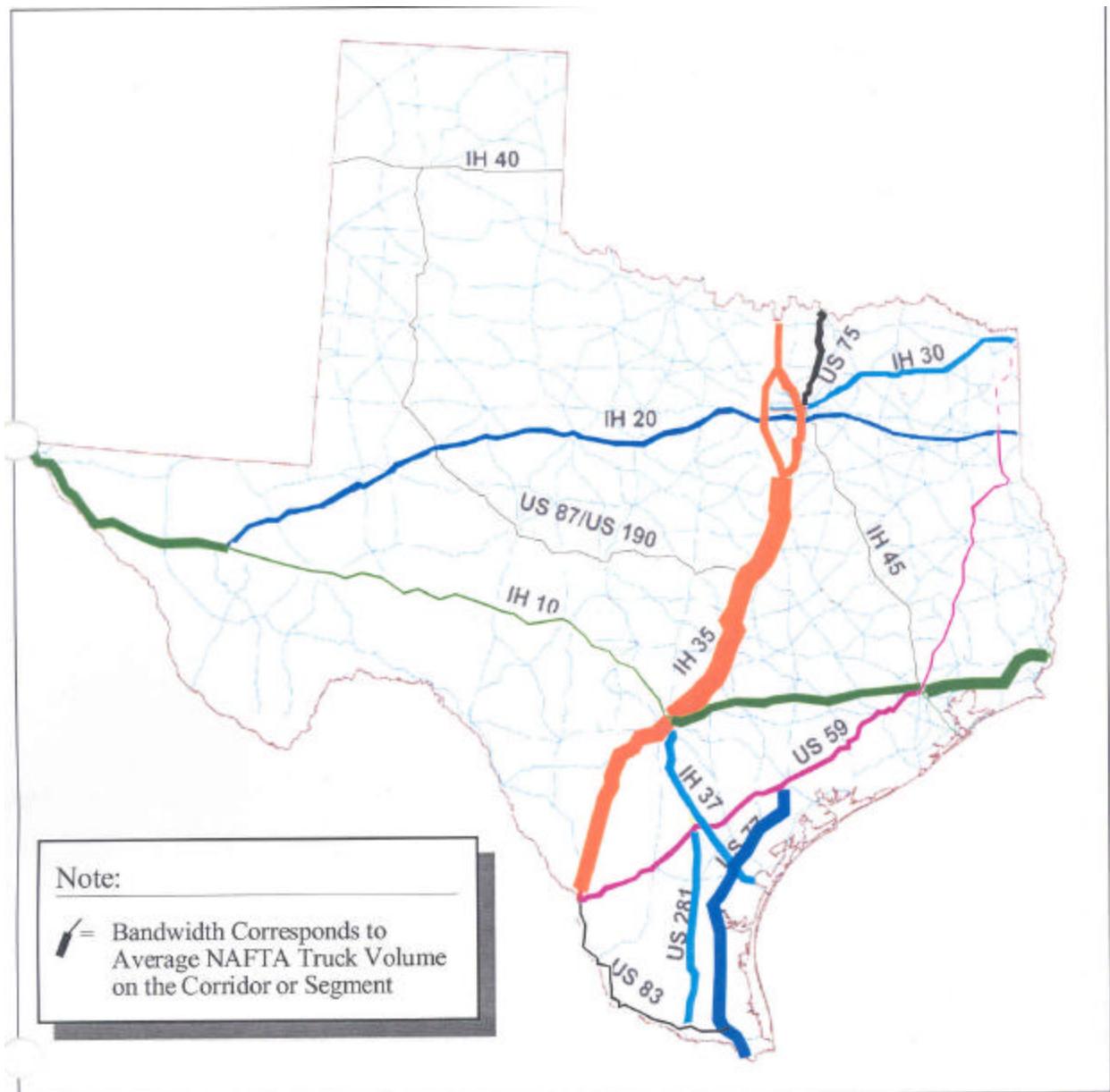
## Appendix B-20 2000 Truck Flowband



## Appendix B-20

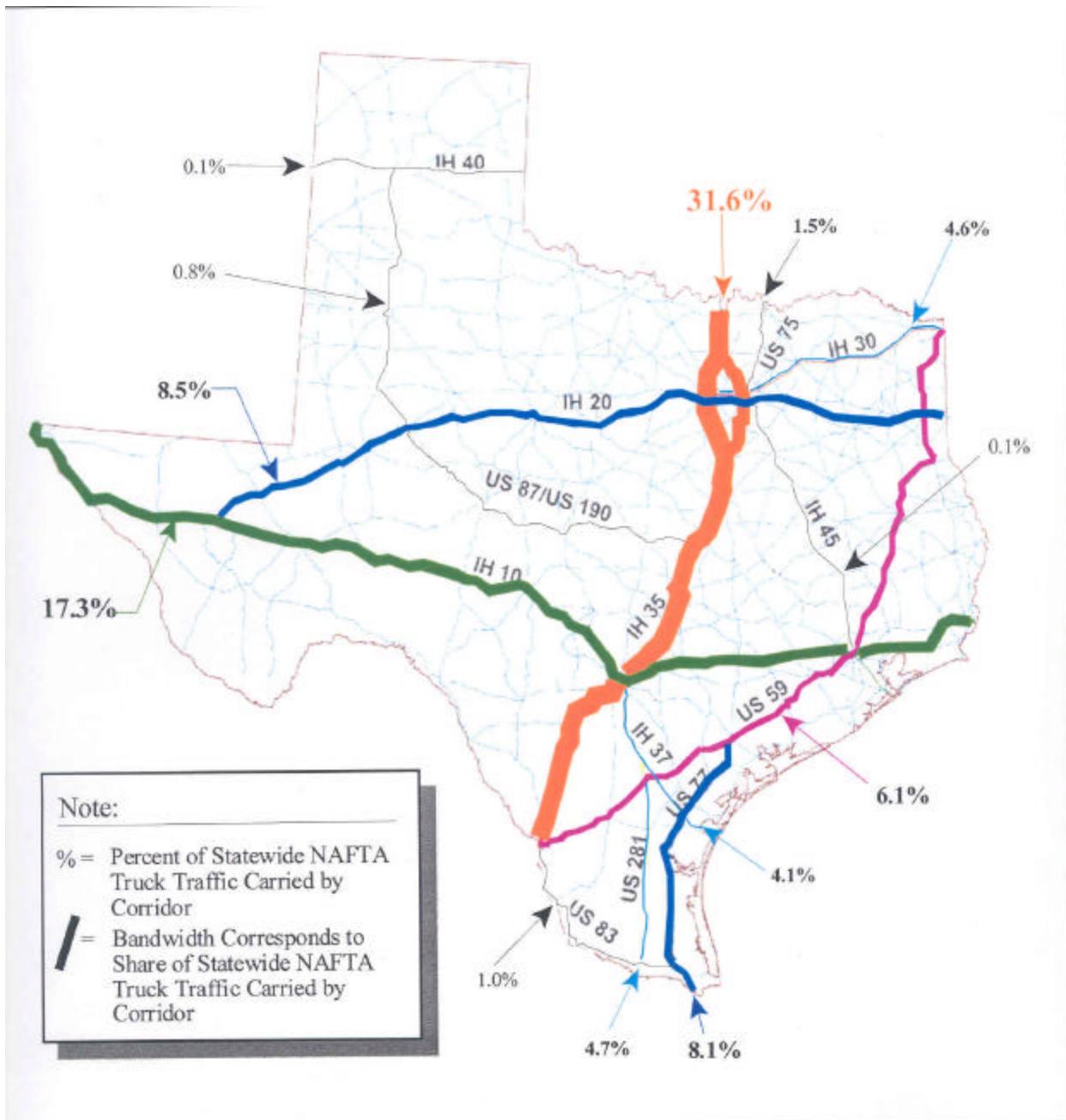
*UTP Restructuring Recommendations: Category 4 Workgroup*

## Appendix B-21 NAFTA Truck Volume

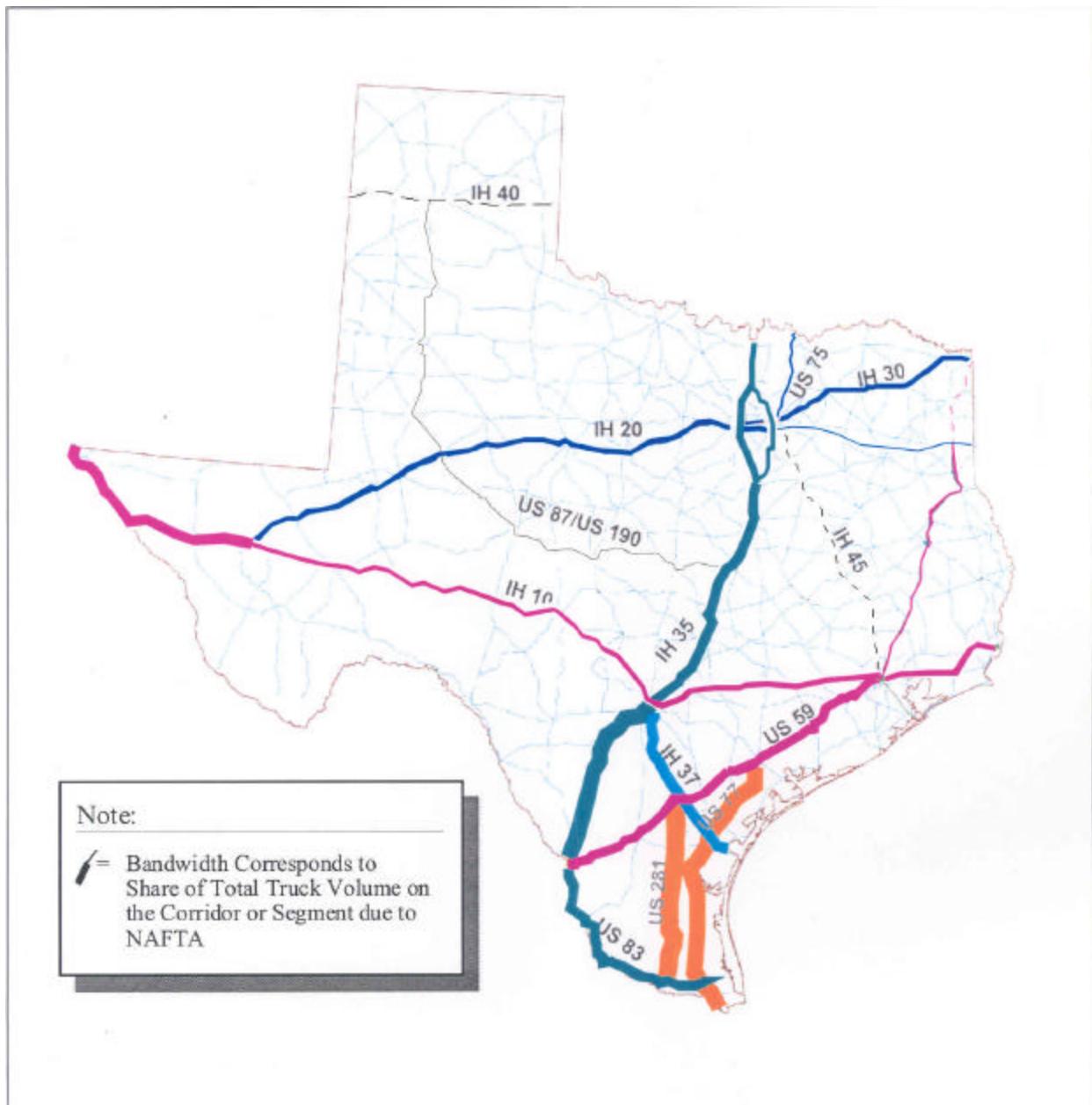


## Appendix B-22

### Percent of Statewide NAFTA Truck Traffic

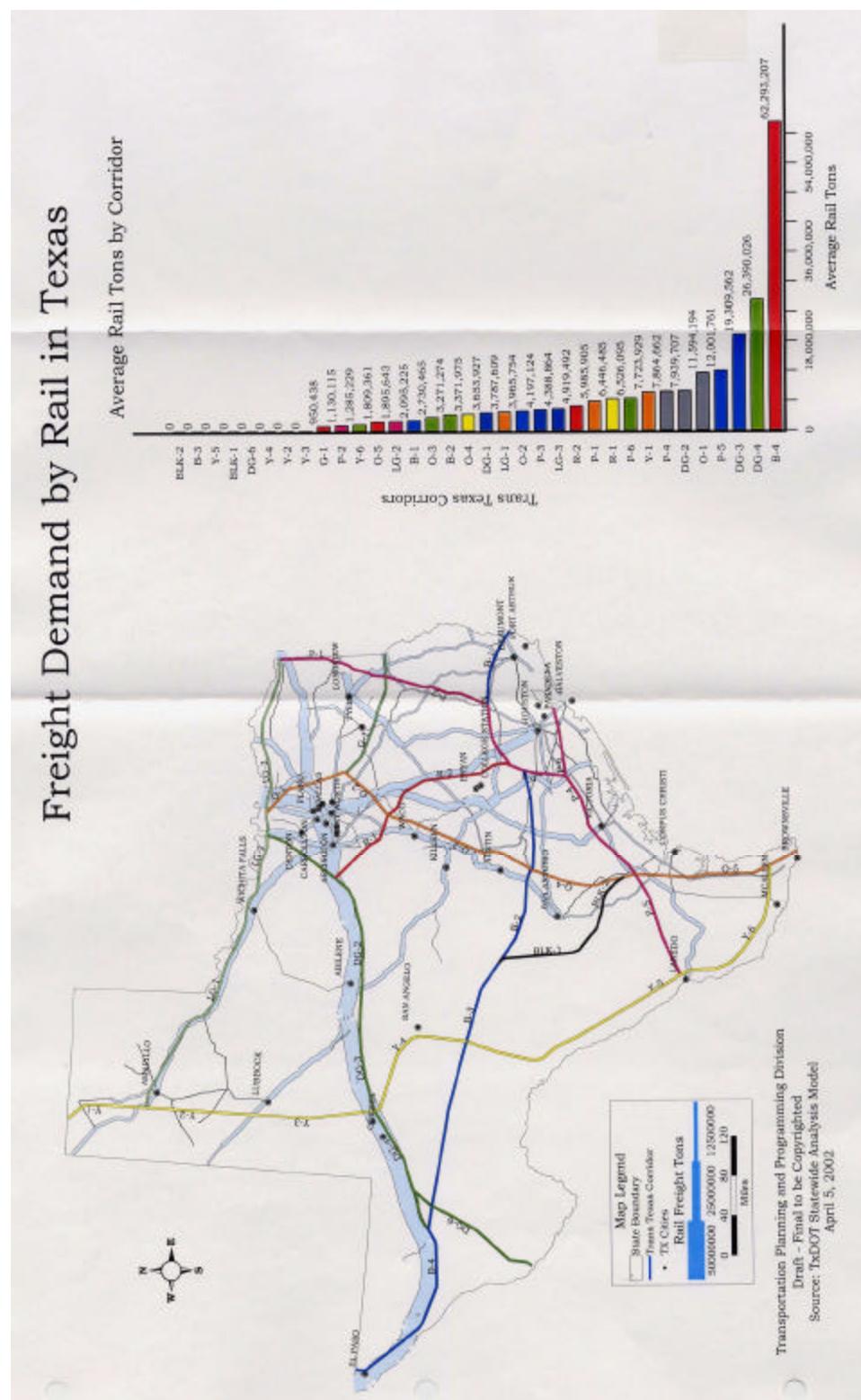


## Appendix B-23 NAFTA Share of Total Truck Volume



## Appendix B-24

### Freight Demand by Rail



## Appendix B-24

*UTP Restructuring Recommendations: Category 4 Workgroup*

**Appendix C**  
**Memo From Mario Jorge, Pharr DE**



**M E M O R A N D U M**

**TO:** UTP Category 4 Prioritization Work Group                   **DATE:** October 30, 2002  
**FROM:** Mario R. Jorge, P.E.   **Pharr District**  
**SUBJECT:** Consideration of FM 755 in the Network

---

It has been brought to my attention the exclusion of FM 755 in Starr County for consideration in the Statewide Connectivity Corridor Network. I would like to assure the work group that this roadway plays a vital role in the connectivity of international cargo traffic from the Ports of Entry at Roma and Rio Grande City. Both of these Ports of Entry utilize very heavily this corridor to connect international trade to US 281 and US 77 going North to Houston and beyond.

Contrary to common opinion the traffic from these Ports of Entry will not utilize US 83 going to Laredo or US 83 going to the metropolitan area in Mc Allen to then go North on US 281. It is of outmost importance that these direct links from the Ports of Entry get due consideration for competition under category 4.

Even though this roadway is currently an FM route, it is a vital link of the future I69. Regardless of this effort, the role of this highway is such that leaving it without due consideration will heavily circumvent the very essence of your work group goal which is statewide connectivity.

I am in full agreement with Mr. Gus Lopez as the representative of the Border Districts to this work group. Please consider this highway as part of the proposed Connectivity Corridor Network.

A handwritten signature in blue ink, appearing to read "Mario R. Jorge".

---

Mario R. Jorge, P.E.  
Pharr District Engineer

Appendix C

**Appendix D**  
**Weighting Exercise**

Criteria	Group Members													Sum	Mean	Med	Std. Dev.
	1	2	3	4	5	6	7	8	9	10	11	12	13				
Gaps	40	25	30	25	30	35	15	20	30	20	15	20	35	340	26.15	25	7.95
Traffic	15	15	20	18	15	20	20	20	25	20	20	20	15	243	18.69	20	2.98
Truck Traffic	10	15	20	18	20	20	15	20	15	20	20	20	15	228	17.54	20	3.23
Cost	15	0	10	9	5	0	15	20	12	15	10	20	10	141	10.85	10	6.43
LOS/Cap	10	25	10	18	10	10	20	20	10	12	20	10	15	190	14.62	12	5.33
Military/Disaster Preparedness and Response	5	10	5	10	10	15	5	0	6	8	10	5	5	94	7.23	6	3.77
Int Traf/PoE	5	10	5	2	10	0	10	0	2	5	5	5	5	64	4.92	5	3.45
	100	100	100	100	100	100	100	100	100	100	100	100	100	1300			

Appendix D

*UTP Restructuring Recommendations: Category 4 Workgroup*

## Appendix E

### Quality of Service Chart

**AVERAGE DAILY TRAFFIC (ADT) RANGES  
OF VARIOUS HIGHWAY CLASSES FOR VARIOUS QUALITIES OF FLOW**

<u>LEVELS OF SERVICE FOR TYPICAL ADT VOLUME RANGE</u>				
<u>HIGHWAY CLASS*</u>	<u>NO. OF LANES</u>	<u>GOOD LOS A-B</u>	<u>TOLERABLE C-D</u>	<u>UNDESIRABLE LOS E (CAPACITY)</u>
<b>URBAN FREEWAYS:</b>				
4 Lane	0 - 44000	44001 - 52800	52801 - 64400	
6 Lane	0 - 66000	66001 - 79200	79201 - 96600	
8 Lane	0 - 88000	88001 - 105600	105601 - 128800	
Ea. Addl. Lane	0 - 11000	11001 - 13200	13201 - 16100	
<b>URBAN DIVIDED STREETS**:</b>				
4 Lane	0 - 16100	16101 - 19100	19101 - 23000	
6 Lane	0 - 23500	23501 - 27900	27901 - 33000	
8 Lane	0 - 29400	29401 - 34900	34901 - 42000	
<b>URBAN UNDIVIDED STREETS**:</b>				
2 Lane	0 - 7700	7701 - 9100	9101 - 11000	
4 Lane	0 - 12600	12601 - 14900	14901 - 18000	
6 Lane	0 - 19800	19801 - 23500	23501 - 28300	
<b>RURAL FREEWAYS:</b>				
4 Lane	0 - 20800	20801 - 31600	31601 - 42000	
6 Lane	0 - 31200	31201 - 47400	47401 - 63000	
<b>RURAL DIVIDED HIGHWAYS**:</b>				
4 Lane	0 - 12000	12001 - 17500	17501 - 35000	
6 Lane	0 - 18000	18001 - 26200	26201 - 52500	
<b>RURAL UNDIVIDED HIGHWAYS**:</b>				
Rolling Terrain-- 2 Lane	0 - 2800	2801 - 4700	4701 - 14700	
Level Terrain-- 2 Lane	0 - 3700	3701 - 6100	6101 - 17400	
4 Lane	0 - 9500	9501 - 13000	13001 - 26000	
6 Lane	0 - 15000	15001 - 19500	19501 - 39000	

\* For the purposes of this chart a "divided" facility includes a flush or depressed median with sufficient width for storage of left turning vehicles. On "undivided" facilities, left turns are made from a through lane.

\*\* "Urban Street" conditions , as opposed to "Rural Highway" conditions, prevail whenever the intensity of roadside development, speed zoning, signals, stop/yield signs, etc. result in interrupted flow conditions and reduced traffic speeds.

## Appendix E

**Appendix F**  
**Mobility Corridor Scores**

**(Corridor Sections are identified by LS Number. The LS Number Reference Guide is located in Appendix P)**

LS NUMBER	ROUTE	WT '01 AADT	WT '01 TRK	GAP LEN	SEC LEN	SCORE
1065	IH0035	49526	13836	0.00	10.13	65.00
2348	IH0035	46474	13387	0.00	17.90	65.00
477	US0083	48820	5126	0.00	2.18	65.00
1508	IH0010	43024	11147	0.00	7.14	64.06
1216	IH0035	48492	13174	0.00	23.23	60.93
2347	IH0035	66875	16443	0.00	9.24	57.90
2349	IH0035	68037	12775	0.00	35.66	57.80
1650	US0059	35651	4116	0.00	2.59	57.32
2373	US0059	26655	7440	0.00	24.30	56.44
1812	IH0020	34236	8173	0.00	54.90	56.17
1907	US0059	25793	6262	0.00	23.18	55.64
1651	US0059	24088	6712	0.00	46.34	55.24
1544	IH0045	34842	8668	0.00	15.91	54.96
1268	IH0045	34370	8366	0.00	17.75	54.07
1654	US0059	29691	3900	0.00	1.82	53.65
1045	IH0010	30754	9127	0.00	46.19	52.77
1345	US0081	24963	5474	0.00	21.38	51.65
1748	IH0030	33087	5852	0.00	15.38	51.63
1354	IH0035	33498	7871	0.00	15.36	51.16
2135	IH0020	28414	9156	0.00	18.33	48.75
1948	IH0020	28755	9209	0.00	16.04	47.89
2261	US0082	19295	4828	0.00	12.90	47.69
1203	US0081	19217	4739	0.00	24.52	47.55
1780	IH0030	34182	10259	0.00	6.93	47.18
1249	IH0035E	23877	7927	0.00	25.42	46.64
1005	IH0010	23729	7932	0.00	46.20	46.57
1572	IH0045	24863	9018	0.00	25.51	46.54
2358	IH0020	26049	8785	0.00	20.24	46.38
1686	IH0045	25125	8683	0.00	52.74	46.31
1233	IH0035W	22171	6197	0.00	23.55	45.85
925	IH0010	28371	6867	0.00	18.81	45.49
1535	IH0045	22188	8560	0.00	36.36	45.16
1498	US0290	20783	3486	0.00	12.74	44.98
615	US0077	15433	4552	0.00	57.97	42.32
2361	US0259	19191	2191	0.00	2.30	42.22
2019	IH0030	25472	8897	0.00	14.90	41.72
2370	IH0010	20865	7403	0.00	17.99	40.51
1783	IH0030	22607	7735	0.00	59.08	40.45
2292	IH0035	21698	6177	0.00	6.34	37.84
317	US0060	19440	2954	0.00	2.38	37.34

Appendix F

LS NUMBER	ROUTE	WT '01 AADT	WT '01 TRK	GAP LEN	SEC LEN	SCORE
3	US0287	15956	4507	0.00	30.51	37.32
1921	US0059	11841	4296	0.00	32.29	36.40
1105	US0190	15455	2313	0.00	12.19	36.09
319	IH0027	25590	2994	0.00	1.20	35.93
1191	IH0020	20980	7871	0.00	79.24	34.74
1850	US0069	16000	1776	0.00	0.22	34.64
2354	US0077	13482	3755	0.00	106.20	34.04
2367	IH0030	19106	7842	0.00	38.46	34.02
2356	SH0044	17740	1317	0.00	1.37	33.97
2125	US0059	13818	3101	0.00	16.72	33.39
1496	US0290	19911	3379	0.00	2.51	32.41
778	IH0020	18103	7269	0.00	35.78	32.30
2167	US0059	15882	3777	0.00	20.43	32.13
555	IH0037	15955	4047	0.00	54.25	32.08
848	IH0020	17657	6650	0.00	47.35	31.81
915	IH0035	14347	4123	0.00	126.04	31.20
722	IH0010	15248	3427	0.00	73.54	30.73
1103	US0079	14689	3230	0.00	2.19	30.41
186	IH0020	13629	6391	0.00	31.91	29.36
2351	IH0037	15785	3601	0.00	18.99	29.05
461	IH0040	14395	4718	0.00	59.39	28.65
2212	IH0040	11839	6543	0.00	14.09	28.53
347	IH0040	11625	6488	0.00	79.82	28.42
9	IH0010	11277	7452	0.00	78.27	28.26
230	IH0020	12522	4840	0.00	61.02	28.23
38	IH0010	10058	6042	0.00	46.67	27.69
1038	US0290	12095	2160	0.00	12.88	26.92
83	IH0020	8214	5337	0.00	61.98	26.83
1916	US0259	9730	2685	0.00	33.24	26.77
2355	US0077	10661	3608	0.00	2.25	26.69
1722	US0175	13800	2028	0.00	0.78	26.67
561	IH0037	13323	3234	0.00	20.56	26.51
545	IH0037	13044	3195	0.00	16.36	26.23
1056	US0290	12788	2227	0.00	32.38	24.71
50	IH0020	6054	4508	0.00	42.25	23.96
2159	US0059	12101	3015	0.00	45.39	23.09
2331	US0271	13805	2393	0.00	13.60	22.57
1933	US0259	9771	1476	0.00	18.82	22.48
346	US0287	9587	3179	0.00	200.73	22.21
1773	US0069	17957	1345	0.00	3.59	22.09
16	US0281	11333	2869	0.00	90.40	21.72
1094	US0079	12947	2494	0.00	40.35	21.28
1526	SH0006	16683	2378	0.00	2.60	20.83
502	SH0100	12975	504	0.00	12.31	19.79
2090	US0096	10024	1980	0.00	43.50	19.69

## Appendix F

*UTP Restructuring Recommendations: Category 4 Workgroup*

LS NUMBER	ROUTE	WT '01 AADT	WT '01 TRK	GAP LEN	SEC LEN	SCORE
677	IH0010	6512	3048	0.00	55.52	18.62
1871	US0069	11582	1000	0.00	16.35	18.11
2134	US0059	10505	1658	0.00	23.92	17.55
686	IH0010	8183	2369	0.00	21.76	16.82
2353	SH0044	9841	1700	0.00	27.28	16.64
123	IH0010	5289	2630	0.00	128.41	16.46
245	US0087	9573	2942	0.00	38.65	16.21
2273	IH0044	11856	1757	0.00	5.42	16.21
977	US0281	9430	1899	0.00	57.23	16.16
772	US0084	8957	1916	0.00	107.87	15.97
544	US0281	9197	1799	0.00	14.72	15.74
118	IH0010	4865	2479	0.00	13.23	15.69
286	IH0027	8877	1976	0.00	78.36	15.65
2368	BU0281R	8242	1962	0.00	40.47	15.49
71	IH0010	3996	2263	0.00	10.40	14.46
49	IH0010	3834	2231	0.00	61.92	14.27
1656	US0069	13367	1063	0.00	2.82	14.26
1051	US0077	6961	1710	0.00	8.53	13.75
315	IH0027	7699	1591	0.00	20.40	13.64
2001	SH0300	9540	1390	0.00	44.39	13.17
378	US0287	6237	2645	0.00	32.97	13.12
930	US0290	10064	631	0.00	24.59	12.80
785	US0083	7983	1331	0.00	4.79	12.79
933	US0281	8251	841	0.00	5.93	12.26
305	US0060	6179	1224	0.00	78.24	11.53
989	US0190	8023	783	0.00	12.12	10.71
780	US0067	4842	854	0.00	1.07	9.51
767	US0067	4726	819	0.00	30.11	9.32
262	US0070	6267	1157	0.00	82.71	7.69
277	US0062	6059	930	0.00	68.02	6.38
99	US0062	4769	904	0.00	24.54	5.67
165	US0385	5129	706	0.00	49.74	5.07
988	US0183	3900	690	0.00	0.01	4.06

## Appendix F

*UTP Restructuring Recommendations: Category 4 Workgroup*

**Appendix G**  
**Connectivity Corridor Scores**

**(Corridor Sections are identified by LS Number. The LS Number Reference Guide is located in Appendix P)**

LS NUMBER	ROUTE	WT '01 AADT	WT '01 TRK	GAP LEN	SEC LEN	SCORE
956	US0183	9590	1245	1.09	27.05	47.89
931	US0281	13972	993	19.81	38.82	42.61
2340	US0090	7686	1034	64.71	137.42	39.97
1101	SH0036	7477	1457	14.55	32.77	38.32
1281	US0377	13967	1317	26.17	46.98	37.43
1098	US0077	8712	1905	3.20	3.50	37.01
2375	US0087	8522	1299	11.85	29.26	36.97
914	SH0021	11898	1663	17.85	37.37	36.88
1077	US0190	8501	1880	22.25	23.59	36.30
15	SH0359	5573	728	12.11	23.49	31.83
2371	US0090	16567	1032	0.00	5.08	31.36
6	US0190	8168	714	28.77	43.04	30.75
1494	SH0036	7419	1359	24.45	31.00	30.54
21	SH0195	8129	1232	22.95	24.03	30.00
1784	SH0019	6679	1543	20.27	48.90	29.86
1060	US0077	4175	729	9.12	26.53	29.30
638	US0087	5667	1360	8.54	10.12	29.09
2084	US0096	6690	1557	25.03	35.75	28.90
13	SH0123	6705	650	21.69	26.37	28.12
622	US0087	6985	956	11.02	12.43	28.09
2359	SH0031	8488	841	14.14	19.37	28.04
1757	US0380	7925	1962	8.49	8.49	27.73
858	US0067	5506	862	19.83	44.61	27.02
1501	SH0105	7840	1213	13.69	15.14	26.01
1482	SH0036	5025	1655	11.93	13.74	25.84
1710	US0079	7658	1874	52.06	61.52	25.52
1091	SH0036	5262	1366	15.48	15.67	25.30
7	US0190	5862	631	20.93	33.73	24.25
1048	US0077	5112	1067	28.46	36.11	24.12
14	SH0123	3983	600	40.63	60.04	24.06
2112	US0096	4972	1393	28.69	40.16	23.66
2377	SH0021	8283	1134	18.22	19.54	22.26
1093	US0079	6428	1689	7.02	8.44	22.01
113	US0385	3330	554	19.28	47.02	20.77
1847	US0079	6258	1391	27.91	32.18	20.54
2245	US0060	3562	656	35.21	79.88	20.41
1100	US0079	5324	1113	16.34	19.61	18.92
1109	US0079	5528	1312	49.05	50.65	18.36
2343	US0090	2550	790	46.06	58.26	18.26
1042	US0077	4684	721	40.46	42.52	17.28

Appendix G

LS NUMBER	ROUTE	WT '01 AADT	WT '01 TRK	GAP LEN	SEC LEN	SCORE
10	US0190	5009	600	25.21	27.23	17.24
2137	US0079	8645	2803	1.99	22.95	17.12
1991	US0271	5339	1114	43.49	46.76	16.97
2345	US0067	12609	1509	0.76	13.72	16.96
1195	US0380	7048	1226	30.84	33.81	16.92
1092	US0077	4145	725	12.03	12.03	16.74
1497	SH0105	5758	777	24.06	25.01	16.63
1131	US0281	5114	683	14.46	14.46	15.97
1221	US0067	5447	856	45.90	48.09	15.77
1541	SH0030	5121	470	39.34	39.77	15.48
2341	US0090	1599	607	106.92	116.34	15.41
960	US0183	4043	594	39.44	46.26	15.18
745	US0087	4557	812	0.05	0.05	14.30
1097	US0077	4093	733	38.08	38.08	13.89
1646	SH0103	3929	731	28.47	38.63	12.50
2342	US0090	659	244	74.02	74.79	11.54
1932	US0079	4005	1082	26.97	27.45	10.47
2211	US0062	1512	401	37.30	50.60	9.85
2158	SH0077	3151	434	8.90	11.37	9.42
384	US0054	3127	1567	19.71	19.71	8.80
620	US0087	2650	545	46.73	47.96	8.44
377	US0287	3139	1631	15.01	15.01	8.19
2284	US0081	2590	883	18.57	20.84	7.90
2088	SH0063	2264	304	30.47	31.50	7.73
30	US0285	984	245	63.62	63.84	7.49
1124	US0281	3395	681	63.71	64.75	7.04
1655	SH0021	3358	646	76.23	80.58	6.82
370	US0054	2617	1025	39.97	41.21	6.19
2250	US0060	3908	706	3.11	9.96	5.88
2243	US0090	921	286	72.71	73.32	5.83
401	US0083	2091	712	49.69	51.61	5.36
2099	SH0021	1982	398	20.32	22.27	4.97
368	US0054	2194	931	30.65	31.06	4.94
756	US0190	2138	419	90.52	94.25	4.21
2210	US0083	1611	388	39.71	42.32	4.01
836	US0067	1866	511	35.52	36.94	3.92
28	US0062	2155	393	93.80	98.06	3.76
1515	FM1774	3356	399	7.11	7.11	3.71
82	US0285	1276	455	52.10	53.92	3.31
201	SH0349	2402	416	48.46	49.33	3.21
2369	US0067	668	234	31.41	32.14	1.86
2249	US0060	970	287	25.11	25.11	1.54

## Appendix G

*UTP Restructuring Recommendations: Category 4 Workgroup*

**Appendix H**  
**Strategic Corridor Scores**

**(Corridor Sections are identified by LS Number. The LS Number Reference Guide is located in Appendix P)**

LS NUMBER	ROUTE	WT '01 AADT	WT '01 TRK	GAP LEN	SEC LEN	SCORE
852	US0183	4121	868	19.21	52.09	29.37
733	US0290	3953	568	12.24	71.12	28.22
2291	US0081	5414	820	12.61	48.24	27.54
24	US0082	6186	988	42.58	60.15	23.82
986	US0183	5637	943	14.38	17.21	22.95
414	US0083	3394	1022	101.61	103.77	21.82
8	US0277	4350	875	48.60	55.16	21.77
2297	US0082	14671	1172	0.00	25.32	20.01
1306	SH0199	6085	705	27.11	37.15	19.82
51	US0067	3124	651	29.41	34.48	19.19
2218	US0082	2271	500	71.44	150.08	18.20
1141	US0281	6085	1037	4.23	4.23	17.82
26	US0082	5443	1047	58.11	63.91	17.02
1117	SH0006	5396	921	56.03	56.03	15.13
841	US0067	8908	1202	0.00	23.63	14.74
139	US0277	1382	567	76.45	86.78	12.45
681	US0277	3179	812	57.32	58.79	11.17
787	US0083	2982	662	35.99	38.48	9.79
788	US0084	3480	667	2.09	44.11	8.15
996	US0183	6195	831	0.00	41.26	8.10
2276	US0082	3254	612	14.27	16.29	7.72
63	US0067	1156	265	47.12	47.12	7.55
2219	SH0114	2407	358	63.38	74.86	7.14
35	US0067	1203	113	60.40	60.40	7.08
690	US0083	3143	1043	48.79	50.83	6.85
660	SH0006	3032	649	40.27	40.27	6.22
779	US0083	1984	837	36.48	36.92	4.46
1133	SH0006	2400	553	16.11	16.60	4.24

Appendix H

*UTP Restructuring Recommendations: Category 4 Workgroup*

**Appendix I**  
**Statewide Priority Corridor Section Scores – Mobility Corridors**  
**(Corridor Sections are identified by LS Number. The LS Number Reference Guide is located in Appendix P)**

LS NUMBER	ROUTE	WT '01 AADT	WT '01 TRK	GAP LEN	SEC LEN	SCORE
1065	IH0035	49526	13836	0.00	10.13	65.00
2348	IH0035	46474	13387	0.00	17.90	65.00
477	US0083	48820	5126	0.00	2.18	65.00
1508	IH0010	43024	11147	0.00	7.14	64.06
1216	IH0035	48492	13174	0.00	23.23	60.93
2347	IH0035	66875	16443	0.00	9.24	57.90
2349	IH0035	68037	12775	0.00	35.66	57.80
1650	US0059	35651	4116	0.00	2.59	57.32
2373	US0059	26655	7440	0.00	24.30	56.44
1812	IH0020	34236	8173	0.00	54.90	56.17
1907	US0059	25793	6262	0.00	23.18	55.64
1651	US0059	24088	6712	0.00	46.34	55.24
				Mileage	256.79	

Appendix I

*UTP Restructuring Recommendations: Category 4 Workgroup*

**Appendix J**  
**Statewide Priority Corridor Section Scores – Connectivity Corridors**  
**(Corridor Sections are identified by LS Number. The LS Number Reference Guide is located in Appendix P)**

LS NUMBER	ROUTE	WT '01 AADT	WT '01 TRK	GAP LEN	SEC LEN	SCORE
956	US0183	9590	1245	1.09	27.05	47.89
931	US0281	13972	993	19.81	38.82	42.61
2340	US0090	7686	1034	64.71	137.42	39.97
1101	SH0036	7477	1457	14.55	32.77	38.32
1281	US0377	13967	1317	26.17	46.98	37.43
1098	US0077	8712	1905	3.20	3.50	37.01
2375	US0087	8522	1299	11.85	29.26	36.97
914	SH0021	11898	1663	17.85	37.37	36.88
1077	US0190	8501	1880	22.25	23.59	36.30
15	SH0359	5573	728	12.11	23.49	31.83
2371	US0090	16567	1032	0.00	5.08	31.36
6	US0190	8168	714	28.77	43.04	30.75
1494	SH0036	7419	1359	24.45	31.00	30.54
21	SH0195	8129	1232	22.95	24.03	30.00
1784	SH0019	6679	1543	20.27	48.90	29.86
1060	US0077	4175	729	9.12	26.53	29.30
638	US0087	5667	1360	8.54	10.12	29.09
2084	US0096	6690	1557	25.03	35.75	28.90
13	SH0123	6705	650	21.69	26.37	28.12
622	US0087	6985	956	11.02	12.43	28.09
2359	SH0031	8488	841	14.14	19.37	28.04
1757	US0380	7925	1962	8.49	8.49	27.73
858	US0067	5506	862	19.83	44.61	27.02
1501	SH0105	7840	1213	13.69	15.14	26.01
1482	SH0036	5025	1655	11.93	13.74	25.84
1710	US0079	7658	1874	52.06	61.52	25.52
1091	SH0036	5262	1366	15.48	15.67	25.30
7	US0190	5862	631	20.93	33.73	24.25
1048	US0077	5112	1067	28.46	36.11	24.12
14	SH0123	3983	600	40.63	60.04	24.06
2112	US0096	4972	1393	28.69	40.16	23.66
			Mileage	619.76		

Appendix J

*UTP Restructuring Recommendations: Category 4 Workgroup*

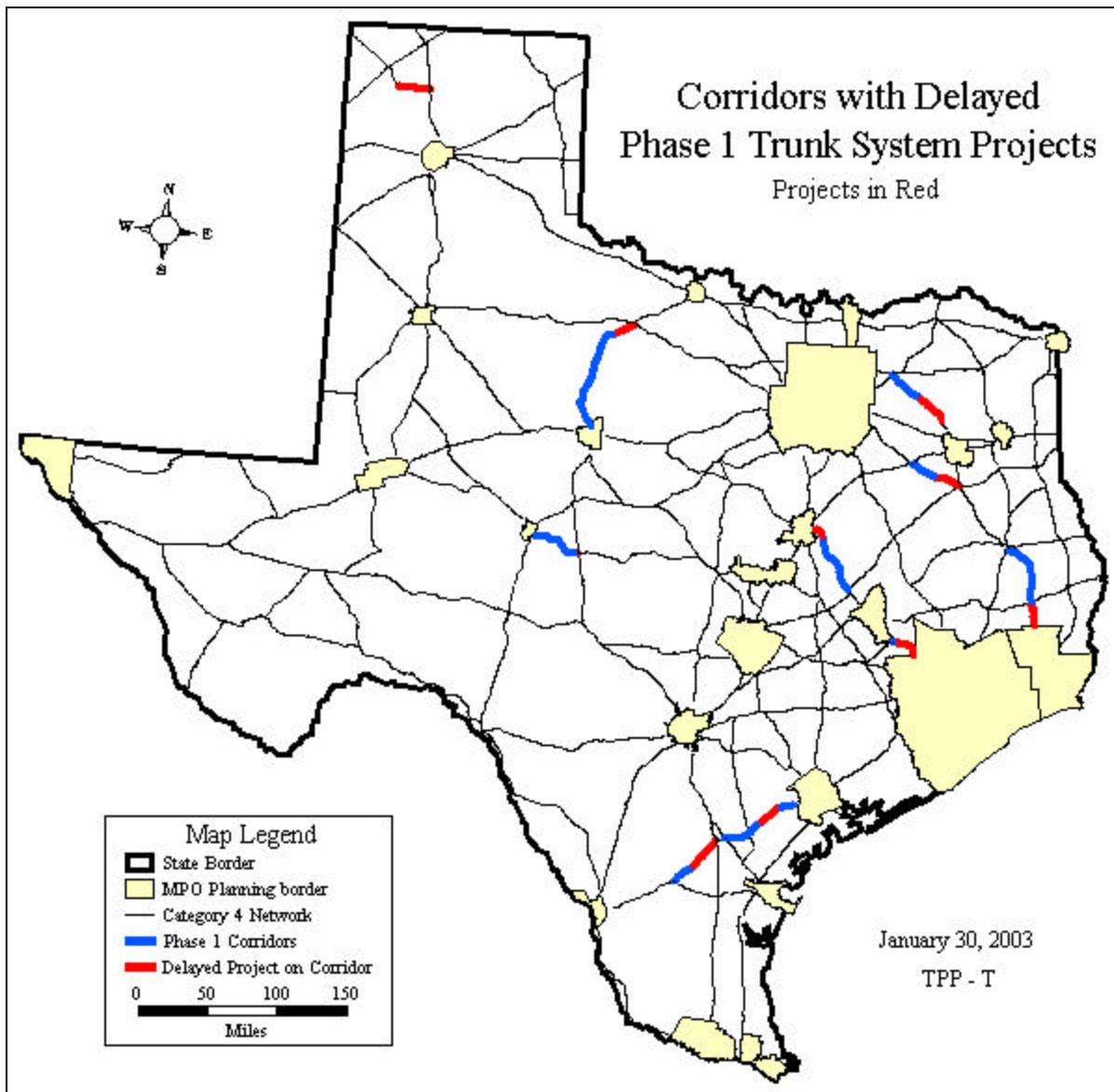
**Appendix K**  
**Statewide Priority Corridor Section Scores – Strategic Corridors**  
**(Corridor Sections are identified by LS Number. The LS Number Reference Guide is located in Appendix P)**

LS NUMBER	ROUTE	WT '01 AADT	WT '01 TRK	GAP LEN	SEC LEN	SCORE
852	US0183	4121	868	19.21	52.09	29.37
733	US0290	3953	568	12.24	71.12	28.22
2291	US0081	5414	820	12.61	48.24	27.54
24	US0082	6186	988	42.58	60.15	23.82
986	US0183	5637	943	14.38	17.21	22.95
414	US0083	3394	1022	101.61	103.77	21.82
8	US0277	4350	875	48.60	55.16	21.77
2297	US0082	14671	1172	0.00	25.32	20.01
1306	SH0199	6085	705	27.11	37.15	19.82
51	US0067	3124	651	29.41	34.48	19.19
2218	US0082	2271	500	71.44	150.08	18.20
1141	US0281	6085	1037	4.23	4.23	17.82
26	US0082	5443	1047	58.11	63.91	17.02
1117	SH0006	5396	921	56.03	56.03	15.13
841	US0067	8908	1202	0.00	23.63	14.74
139	US0277	1382	567	76.45	86.78	12.45
681	US0277	3179	812	57.32	58.79	11.17
			Mileage	631.33		

Appendix K

*UTP Restructuring Recommendations: Category 4 Workgroup*

**Appendix L-1**  
**Delayed Projects – Phase I Trunk System**



Appendix L-1

*UTP Restructuring Recommendations: Category 4 Workgroup*

**Appendix L-2**  
**Delayed Projects – Phase I Trunk System**

District	Hwy	LimitsFrom	LimitsTo	CSJ	Score	Cost	Remarks
Amarillo	US 87	Moore C/L	US 385 S. of Hartley	042501014	8.20	\$21,632,000	
Amarillo	US 87	Dumas	Hartley C/L	042502025	8.20	\$15,358,720	
Beaumont	US 69	1.5 Mi north of US 190	FM 1013	020007043	28.79	\$76,960,000	
Beaumont	US 69	0.1 Mi south of Black Creek	Hardin C/L	020008049	28.79	\$34,710,000	
Beaumont	US 69	FM 1013	1 Mi south of Black Creek	020008050	28.79	\$38,480,000	
Beaumont	US 69	Tyler C/L	0.75 Mi south of FM 1003	020009069	28.79	\$57,850,000	
Bryan	SH 105	Navasota City Limits	FM 1774	033801045	25.82	\$59,779,772	
Bryan	FM 1774	SH 105 in Plantersville	Waller C/L	140002018	3.86	\$19,576,960	
Corpus Christi	US 59	Bee C/L	SH 239	008802050	24.90	\$32,621,056	Consider impacts of I-69
Corpus Christi	US 59	SH 239	Goliad West City Limit	008802051	24.90	\$2,249,728	Consider impacts of I-69
Corpus Christi	US 59	BU 59 Intersection	West of IH 37	044701045	24.90	\$12,896,521	Consider impacts of I-69
Corpus Christi	US 59	Bee C/L	IH 37	044701046	24.90	\$14,424,637	Consider impacts of I-69
Corpus Christi	US 59	Live Oak C/L	0.3 Miles east of FM 351	044702038	24.90	\$18,347,126	Consider impacts of I-69
Corpus Christi	US 59	US 281 in George West	McMullen C/L	054206031	24.90	\$45,436,492	Consider impacts of I-69
Paris	US 69	SH 19	Wood C/L	020304024	18.72	\$23,800,000	
San Angelo	US 87	3.1 Mi west of US 833	US 83	007004026	26.40	\$1,950,009	
San Antonio	US 59	Duval C/L	McMullen/Live Oak C/L	054205013	9.72	\$7,000,000	Consider impacts of I-69
Tyler	US 69	SH 37, in Mineola South	0.6 Mi S of US 80 (McDaniel St)	019003056	18.72	\$10,500,000	
Tyler	US 175	0.4 MI SE of SH 155, SE	Cherokee C/L at Neches River	019803026	24.25	\$31,271,219	
Tyler	US 175	Anderson C/L, SE	SP 386 in Jacksonville	019804029	24.25	\$64,792,166	
Tyler	US 69	Rains C/L, SE	SH 37 in Mineola	020305030	18.72	\$48,931,584	
Waco	SH 6	0.6 Mi N of FM 1860 in Riesel	Falls C/L	004901072	35.31	\$7,697,000	
Wichita Falls	US 277	Knox C/L	1.53 Mi W of US 183 at CR 141	015701062	30.62	\$22,068,258	
<b>TOTAL</b>						<b>\$668,333,248</b>	

Appendix L-2

*UTP Restructuring Recommendations: Category 4 Workgroup*

**Appendix M**  
**Previously Committed Projects – Non-Phase I Trunk System on Category 4 Recommended Network**

District	Hwy	LimitsFrom	LimitsTo	CSJ	Score	Cost	Remarks
Austin	SH 195	SH 138	3.4 Mi S of SH 138	044001035	30.05	\$23,265,674	
Corpus Christi	US 181	0.8 Mi S of FM 1465 N of Normanna	0.3 Mi N of BU 181-J	010008056	24.53	\$7,500,000	
Fort Worth	US 377	Erath C/L NE	LP 426 W of Granbury	008003032	39.2	\$42,436,619	
Lufkin	US 59	FM 2108	1.15 Mi S of White Oak CR	017603097	56.19	\$71,000,000	Consider impacts of I-69
Waco	SH 36	1.960 Mi S of FM 436	Milam C/L	018501030	37.05	\$50,698,000	
Waco	IH 35	Williamson Co	Hillsboro			\$400,000,000	Consider impacts of TTC
Yoakum	SH 36	Ft. Bend C/L	1.0 Mi. N. of Wallis	018704900	29.02	\$8,904,000	
Yoakum	US 77	FM 531	0.9 Mi N of SH 111	037001025	17.59	\$10,800,000	
<b>TOTAL</b>						<b>\$614,604,293</b>	

Appendix M

*UTP Restructuring Recommendations: Category 4 Workgroup*

**Appendix N**  
**Previously Committed Projects – Not on Category 4 Recommended Network**

District	Hwy	LimitsFrom	LimitsTo	CSJ	Cost	Remarks
Abilene	CR	JonesC/L (on CR 154 & CR 156)	SH 351	090828008	\$3,300,000	Not on Cat 4 Recom. Network
Abilene	FM 3522	Existing FM 3522 (on CR 303)	Jones C/L	097408003	\$800,000	Not on Cat 4 Recom. Network
Beaumont	SH 87	0.85 Mi S of Sabine C/L	1.5 Mi S of RR 255	030405026	\$9,237,000	Not on Cat 4 Recomm. Network, Not Mobility Project
Beaumont	SH 87	2.5 Mi S of RR 255	3.1 Mi S of RR 255	030405027	\$1,540,000	Not on Cat 4 Recomm. Network, Not Mobility Project
Beaumont	SH 87	4 Mi S of RR 255	0.1 Mi N of FM 1415	030405028	\$3,849,080	Not on Cat 4 Recomm. Network
Beaumont	SH 87	0.1 Mi N of FM 1415	FM 1414	030406061	\$15,549,000	Not on Cat 4 Recomm. Network
Beaumont	SH 99	Harris C/L	SH 99 at FM 1405	318702006	\$14,562,000	Not on Cat 4 Recomm Network (Inside MPO boundary)
Brownwood	FM 3536	FM 2313	Coreyll C/L	103204001	\$2,950,000	Not on Cat 4 Recomm. Network
EI Paso	RM 169	25 Mi S of US 67	FM 170	095601016	\$33,280,000	Not on Cat 4 Recomm. Network
Houston	SH 36	FM 522	1.13 Mi N of SH 332	018804025	\$22,497,280	Not on Cat 4 Recomm Network (Inside MPO boundary)
Houston	SH 36	SH 35	FM 522	018804035	\$2,812,160	Not on Cat 4 Recomm. Network (Inside MPO boundary)
Houston	SH 36	S of Brazoria	Jones Creek Bridge	018805027	\$35,184,448	Not on Cat 4 Recomm. Network (Inside MPO boundary)
Houston	SH 36	Jones Creek Bridge	0.2 Mi N of Brazos Riv Diverson Channel	018806046	\$8,319,667	Not on Cat 4 Recomm Network (Inside MPO boundary)
Laredo	FM 1472	Interamerica	5.0 Mi W	215004900	\$9,579,982	Not on Cat 4 Recomm. Network
Laredo	US 90	5.8 Mi W of Brackettville	2.0 Mi E of Brackettville	002303037	\$7,354,880	Recommend relief routes funded through another cat.
Laredo	VA	US 90 NORTH	US 90 EAST	092211015	\$16,449,147	Not on Cat 4 Recomm Network
Laredo	VA	US 277 SOUTH	International Bridge	092211904	\$13,918,509	Not on Cat 4 Recomm Network
Laredo	VA	Del Rio-Ciudad Acuna Int Bridge	US 277 NORTH	092211905	\$14,905,458	Not on Cat 4 Recomm Network
Odessa	FM 1208	CR 1090 (FM 1208) From IH 20	FM 307	182302009	\$2,194,000	Not on Cat 4 Recomm Network
Odessa	FM 3532	CR 313 (FM 3532) from SH 115	SH 302	035410001	\$902,000	Not on Cat 4 Recomm Network
Paris	SH 34	0.2 MI S of IH 30 (Traders Rd)	FM 1570	017307027	\$3,640,000	Not on Cat 4 Recomm Network
Pharr	CR	FM 3169 – Zapata/Jim Hogg C/L	FM 649/FM 3073 Int.	092124005	\$750,000	Not on Cat 4 Recomm Network
Pharr	CR	FM 490 - FM 755 , West	US 83/FM 2098 Int.	092126007	\$12,000,000	Not on Cat 4 Recomm Network
Pharr	CR	FM 3169-24.2 Mi. NE of San Ygnacio	Zapata/Jim Hogg C/L	092128005	\$12,000,000	Not on Cat 4 Recomm Network
Pharr	FM 3169	17.7 Mi NE of San Ygnacio	24.2 Mi N of San Ygnacio	309902004	\$3,787,700	Not on Cat 4 Recomm Network
San Angelo	FM 2169	Current SE Terminus of FM 2169	US 377 In Junction	246901007	\$2,812,160	Not on Cat 4 Recomm Network
San Antonio	RM 1077	End of RM 1077, 8.10 Mi W of FM 689	1.40 Mi W	314301007	\$1,771,447	Not on Cat 4 Recomm Network
Waco	CR	Coryell Co Ln	SH 317 near Crawford	090922116	\$18,929,000	Not on Cat 4 Recomm Network

Appendix N

*UTP Restructuring Recommendations: Category 4 Workgroup*

District	Hwy	LimitsFrom	LimitsTo	CSJ	Cost	Remarks
Waco	CR	US 84 NW of Gatesville	SH 36	090939017	\$16,282,240	Not on Cat 4 Recomm Network
Waco	CR	FM 929	McLennan Co Ln	090939024	\$2,007,000	Not on Cat 4 Recomm Network
Waco	IH 35	McLennan C/L	0.2 MI S of FM 1304 (FRTG Rd only)	001407078	\$9,192,560	Consider Impacts of TTC
Waco	IH 35	McLennan C/L	0.2 MI S of FM 1304 MN LN & FRTG Rd	001407082	\$75,226,320	Consider Impacts of TTC
Waco	IH 35	@ Abest Rd	.	001407088	\$1,479,920	Consider Impacts of TTC
Waco	IH 35	FM 1858	Hill C/L (FRTG Rd only)	001408066	\$6,927,440	Consider Impacts of TTC
Waco	IH 35	1.13 Mi N of FM 308 (Hilltop Rd)	FM 1858 (Frontage Rd)	001408070	\$10,835,760	Consider Impacts of TTC
Waco	IH 35	FM 1858	Hill C/L (ML & FRTG Rd)	001408071	\$56,738,240	Consider Impacts of TTC
Waco	IH 35	@ Ross Rd, FM 3149	Wiggins Rd & FM 1858	001408073	\$5,920,720	Consider Impacts of TTC
Waco	IH 35	@ Marabel Rd & County	Line RD	001408074	\$2,960,880	Consider Impacts of TTC
Waco	IH 35	1.13 Mi N of FM 308 (Hilltop Rd)	FM 1858 (ML & frtg Rds)	001408075	\$70,149,040	Consider Impacts of TTC
Waco	IH 35	S. FM 2837	FM 2063 (FRTG Rd only)	001501165	\$10,618,067	Consider Impacts of TTC
Waco	IH 35	0.5 Mi S of BU 77 (ML & FRTG RD)	0.27 Mi S @ Craven Ave in Lacy-Lakeview	001501170	\$120,077,360	Consider Impacts of TTC
Waco	IH 35	LP 396 (Valley Mills Dr)	0.5 Mi S of BU 77(ML & FRTG RD)	001501171	\$116,998,960	Consider Impacts of TTC
Waco	IH 35	Irving Lee	Valley Mills Dr(FRTG RD ONLY)	001501181	\$4,618,640	Consider Impacts of TTC
Waco	IH 35	LP 574 (Lake Brazos/MLK/Peach)	0.2 Mi N of BU 77 (frtg rd)	001501182	\$7,697,040	Consider Impacts of TTC
Waco	IH 35	@ Brazos River	(FRTG Rds Only)	001501183	\$15,394,080	Consider Impacts of TTC
Waco	IH 35	4.0 Mi N of SH 7	S FM 2837 (FRTG Rd only)	001501184	\$3,928,371	Consider Impacts of TTC
Waco	IH 35	S FM 2837	FM 2063 (ML & FRTG Rd)	001501186	\$80,730,624	Consider Impacts of TTC
Waco	IH 35	4.0 Mi N of SH 7	S FM 2837 (M/L & FRTG Rd)	001501187	\$37,945,773	Consider Impacts of TTC
Waco	IH 35	Falls C/L	4.0 Mi N of SH 7 (FRTG Rd only)	001502048	\$6,432,400	Consider Impacts of TTC
Waco	IH 35	Falls C/L	4.0 Mi N of SH 7 (M/L & FRTG RD)	001502054	\$62,132,720	Consider Impacts of TTC
Waco	IH 35	@ Old Blevins Rd	.	001503029	\$1,170,000	Consider Impacts of TTC
Waco	IH 35	Bell C/L	McLennan C/L (FRTG Rd only)	001503032	\$3,159,000	Consider Impacts of TTC
Waco	IH 35	Bell C/L	McLennan C/L (M/L & FRTG RD)	001503035	\$22,677,200	Consider Impacts of TTC

## Appendix N

*UTP Restructuring Recommendations: Category 4 Workgroup*

District	Hwy	LimitsFrom	LimitsTo	CSJ	Cost	Remarks
Waco	IH 35	LP 363 (N of Temple)	N. of Troy (FRTG Rd only)	001504062	\$7,685,600	Consider Impacts of TTC
Waco	IH 35	LP 363 (NORTH)	N. of Troy (M/L & FRTG Rd)	001504067	\$96,429,840	Consider Impacts of TTC
Waco	IH 35	@ Big Elm Rd	.	001504071	\$1,170,000	Consider Impacts of TTC
Waco	IH 35	N. of Troy	Falls C/L (FRTG Rd only)	001504072	\$4,441,050	Consider Impacts of TTC
Waco	IH 35	N. of Troy	Falls C/L (ML & FRTG Rd)	001504073	\$74,011,725	Consider Impacts of TTC
Waco	IH 35	@ Shaklin Rd	.	001506067	\$1,124,864	Consider Impacts of TTC
Waco	IH 35	Amity Rd	LP 121 (FRTG Rd)	001506077	\$4,679,000	Consider Impacts of TTC
Waco	IH 35	@ North Prairie Dell	& FM 2115	001507058	\$2,340,000	Consider Impacts of TTC
Waco	IH 35	Williamson C/L	S FM 2268 (ML & FRTG Rd)	001507063	\$71,607,000	Consider Impacts of TTC
Waco	IH 35	@ FM 2484 & AMITY ROAD	.	001507064	\$2,249,728	Consider Impacts of TTC
Waco	IH 35	S. FM 2268	FM 2484 (ML & FRTG Rd)	001507065	\$100,656,941	Consider Impacts of TTC
Waco	IH 35	Williamson C/L	FM 2268 (FRTG Rd)	001507070	\$6,317,000	Consider Impacts of TTC
Waco	IH 35	FM 2484	Amity Rd (FRTG RD)	001507071	\$1,755,000	Consider Impacts of TTC
Waco	IH 35	0.6 MI S of LP 363/US 190 in Temple	Avenue H (ML & FRTG Rd)	001514091	\$97,379,360	Consider Impacts of TTC
Waco	IH 35	0.7 Mi N of SH 53	LP 363 (NORTH)	001514102	\$79,760,429	Consider Impacts of TTC
Waco	IH 35	1.2 MI N of SH 53	Spur 290 (FRTG Rd only)	001514113	\$13,159,120	Consider Impacts of TTC
Waco	IH 35	Avenue H	0.7 Mi N of SH 53 (ML & FRTG Rd)	001514114	\$39,478,400	Consider Impacts of TTC
Wichita Falls	FM 422	US 82	E. City Limits of Seymour	081401027	\$1,311,776	Not on Cat 4 Recomm Network
Yoakum	SH 71	Wharton C/L	SH 35	026607017	\$3,900,000	Not on Cat 4 Recomm Network
Yoakum	US 87	Guadalupe River and relief bridges	STR # 0143-08-037 & 0143-08-038	014308900	\$11,400,000	Recomm. Fund through Cat 6

## Appendix N

*UTP Restructuring Recommendations: Category 4 Workgroup*

**Appendix O**  
**New Location Farm –to-Market / Ranch-to-Market Recommendations**

**Category 4 – Statewide Connectivity Workgroup**  
**Recommendations for funding new location Farm-to-Market Highways**  
**1-7-03**

The Statewide Connectivity Workgroup came to consensus that funding for new location Farm-to-Market (FM)/ Ranch-to-Market (RM) highways be continued. Any new location FM highway should meet the following criteria at a minimum:

- Minimum ADT of 500 vpd. (This is an increase from 250 vpd.)
- New location FMs / RMs may not be built inside urban areas with a population greater than 50,000. (No change from current policy.)
- The local government(s) must provide documentation that they will be financially responsible for 100% of the right-of-way (ROW) acquisition and utility adjustment costs. The ROW width is usually a minimum of 120 feet. (No change from current policy.)
- The local government(s) must assume responsibility for the reversion of ownership and maintenance of an equal amount of mileage from the state highway system.
- Any new FM / RM constructed should provide improved regional mobility to the state highway system.

**Funding Criteria for New Location FM/RM**

New location and expansion of FMs/RMs should not be funded through Category 4.

New location FMs/RMs can be funded by one of the following, provided all the above criteria are met.

1. Any group may go before the commission and request Strategic Priority (Category 12) funding. The Commission will consider their request.
2. A district may fund any new location FM from the district discretionary program (Category 11), but without any increase in that district's allocation.

**Appendix P**  
**LS Number Reference Guide**

**Mapbook Index**

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10	17	411	1,3	977	14,15
13	8	414	3,6,7	986	15
14	4,8	444	3	988	15
15	4	447	3,4	989	15
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21	15	477	2	1005	8
24	30	502	2	1035	15
25	30	518	3,4	1037	15
26	30,31	543	4	1038	15
28	18,19	544	4,8	1042	8
30	12	545	4	1045	8,9
35	5,11	555	7,8	1048	8,15
38	11	561	4	1051	15
49	11,12	615	4,8	1054	15
50	11,19	620	8	1056	15,16
51	11	622	8	1060	15
63	11,12	626	4,8	1065	15,23
71	12	638	8,9	1077	15
82	19	660	22,23	1091	15
83	19,20	677	13,14	1092	15
99	19,26	681	13,21	1093	15
113	12,20	683	14,21,22	1094	15
118	12	686	14	1095	15
123	12,13	690	14	1097	15,23
139	6,13	722	7,14	1098	15
165	20,26	733	14	1100	15,16
186	20,21	745	14	1101	15,16
201	20,26	756	14,22	1102	15,16
206	20,21,26	763	21	1103	16
212	26	767	21,22	1104	15,16,23
222	21	772	21,26,27	1105	16
230	21	778	21,22	1109	16,24
245	35	779	14,22	1117	23
253	35	780	22	1124	15,23
262	26,32	785	22	1131	23
277	26	787	22	1133	23
286	26,32,33	788	22	1141	23
305	32	836	22	1191	22,23,29
309	32	841	22	1195	29
315	32	848	22	1202	29
317	32	852	14,22	1203	29
319	32	858	22,23	1216	23
346	28,33,34	889	22,28	1221	23
347	33	914	15	1233	23
368	35	915	3,7	1249	23
370	35	925	8	1268	24

Appendix P

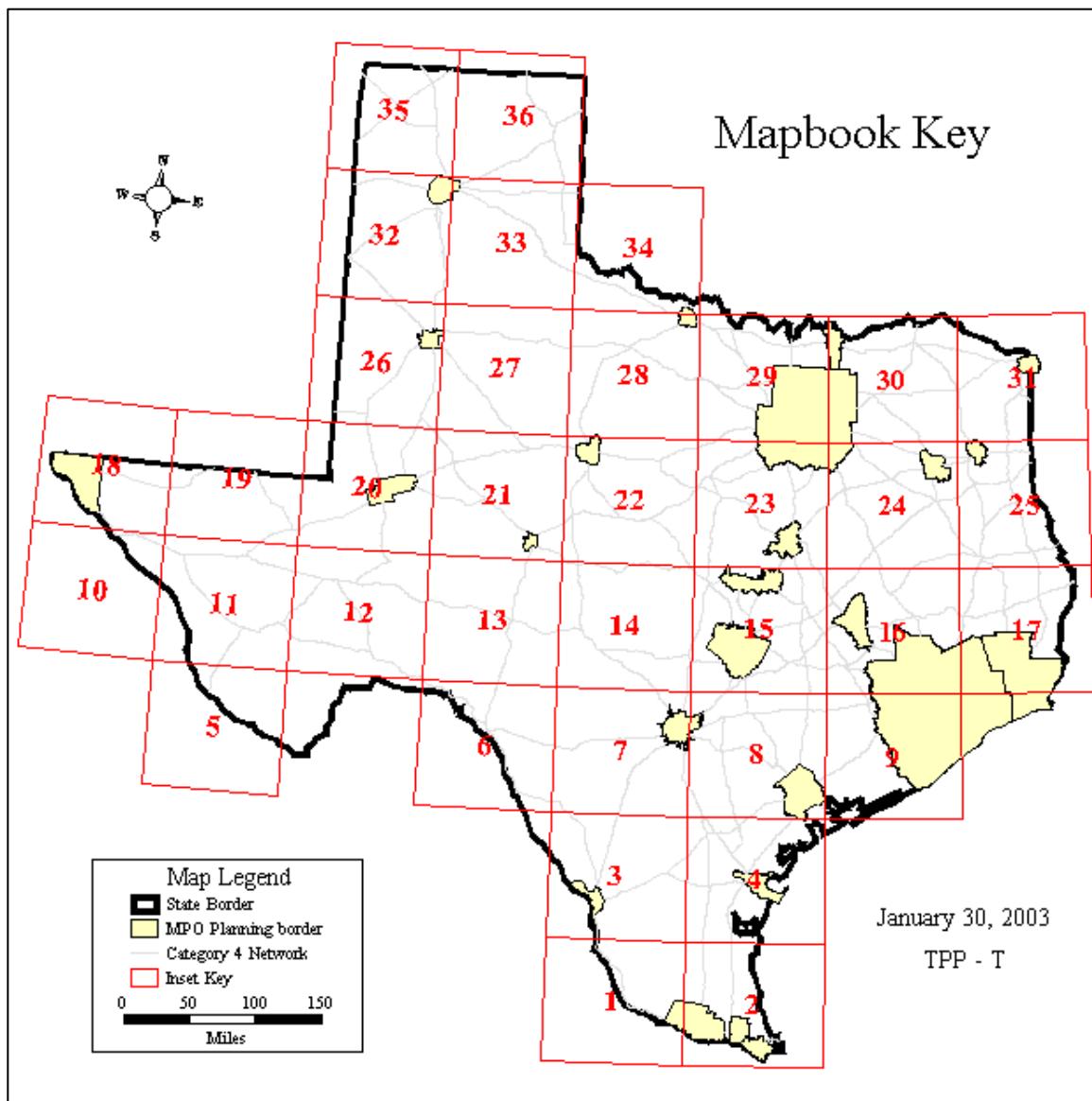
*UTP Restructuring Recommendations: Category 4 Workgroup*

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1480	8,9	2088	17	2371	6
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1497	16	2125	25	2375	8
1498	16	2134	25	2376	25
1501	16	2135	25	2377	15
1508	9	2137	25		
1515	16	2158	31		
1526	16	2159	25,31		
1535	16,24	2167	31		
1541	16	2210	33,36		
1544	16	2211	33,34		
1572	16	2212	33,34		
1646	25	2218	26,27,28		
1650	25	2219	28,29		
1651	17,25	2221	28		
1652	17,25	2243	11		
1654	25	2245	33,36		
1655	16,24,25	2249	36,49		
1656	25	2250	36		
1686	24	2261	28,29		
1688	23,24	2273	34		
1695	24	2276	29		
1710	24	2284	29		
1720	24	2291	29		
1721	24	2292	29		
1722	24	2297	29		
1726	24	2331	30		
1748	30	2340	6,7		
1757	30	2341	6,12,13		
1773	30	2342	11,12		
1780	30	2343	11,20,21		
1783	30	2345	23		
1784	30	2347	15		
1810	30	2348	15		
1812	24,30	2349	8,15		
1847	24,25	2351	4		
1850	24	2353	4		
1864	24,25	2354	2,4		
1871	24	2355	4		
1907	25	2356	4		
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1932	25	2359	24,25		
1933	25	2361	25		
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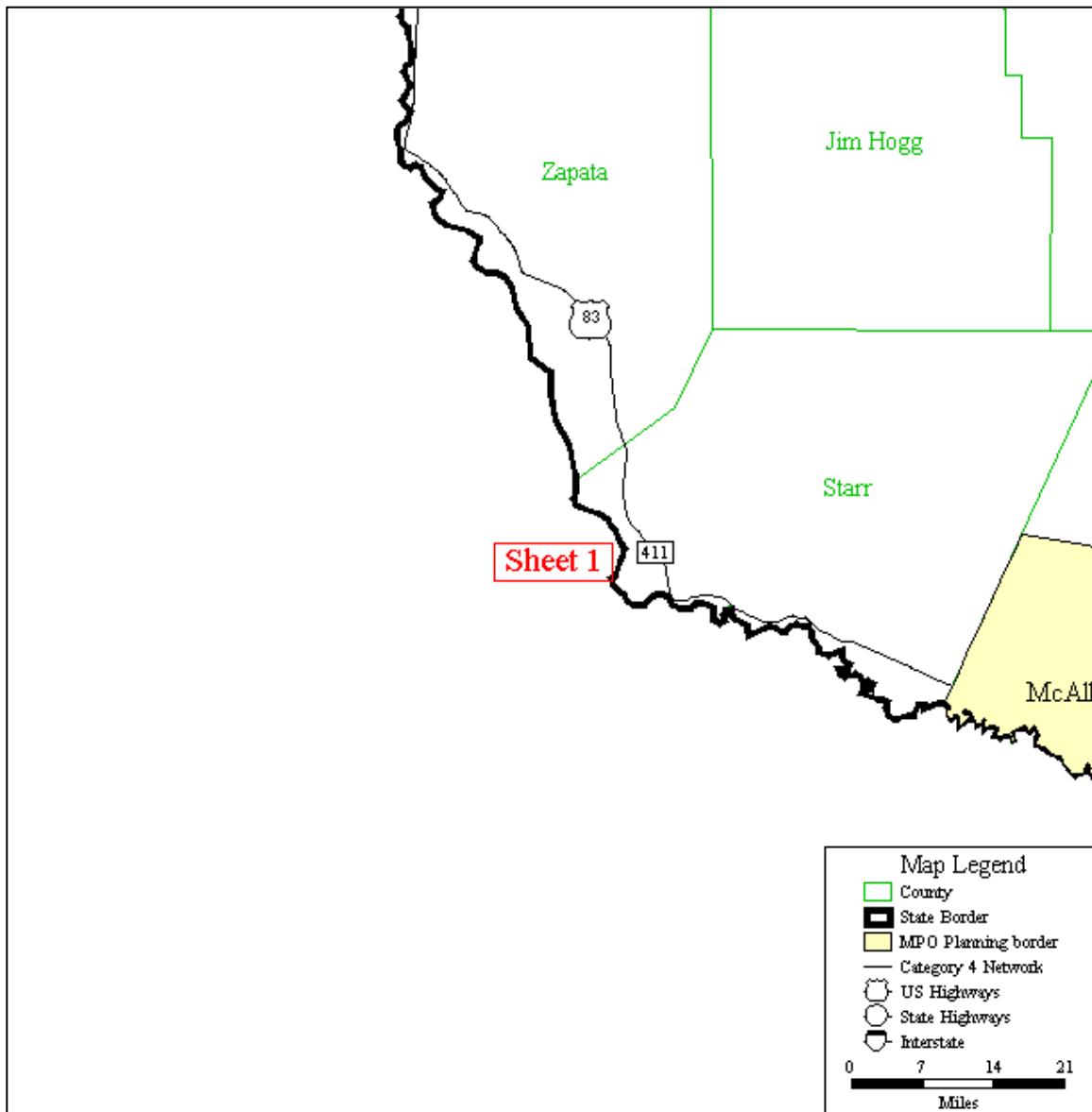
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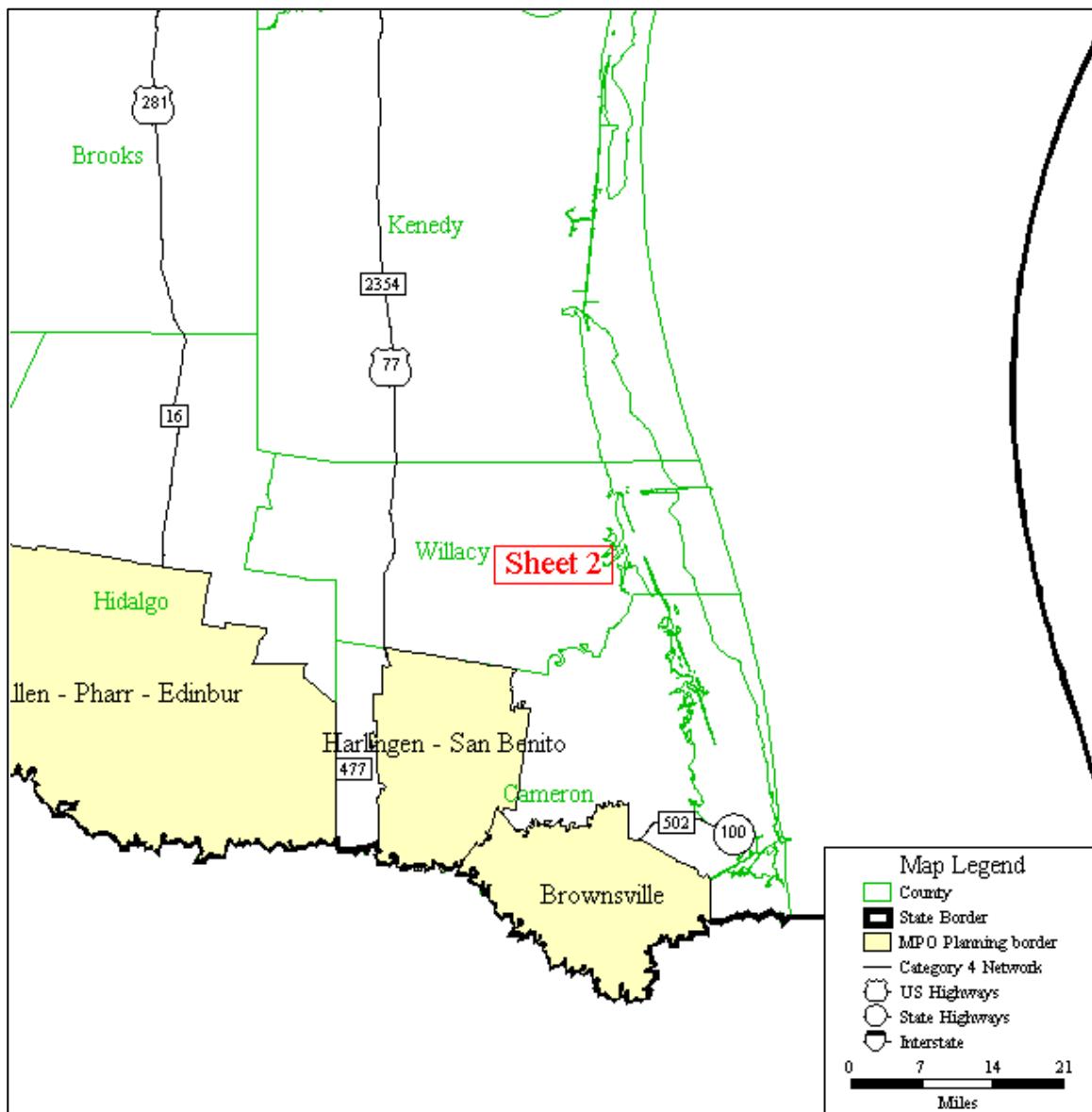
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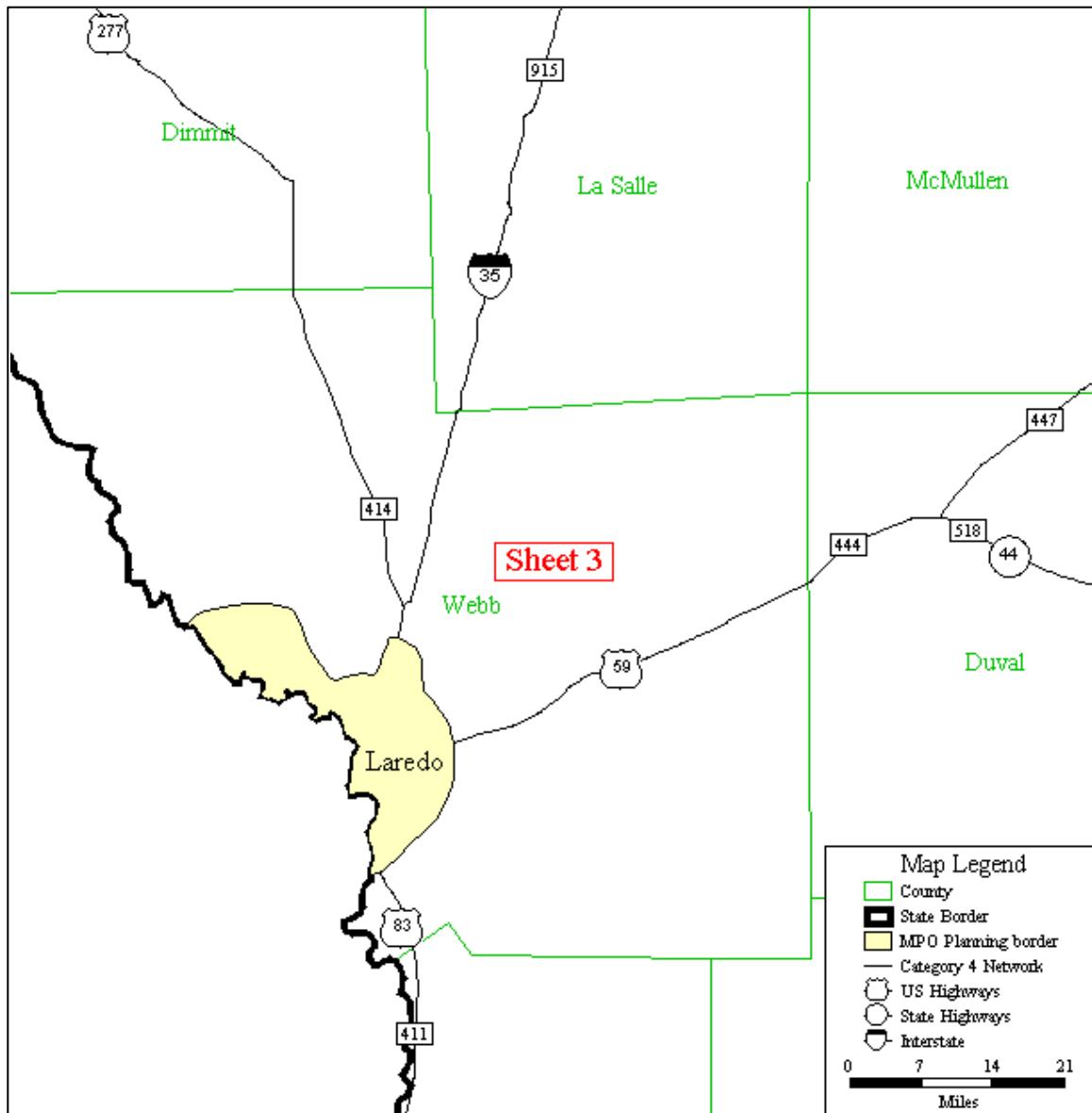
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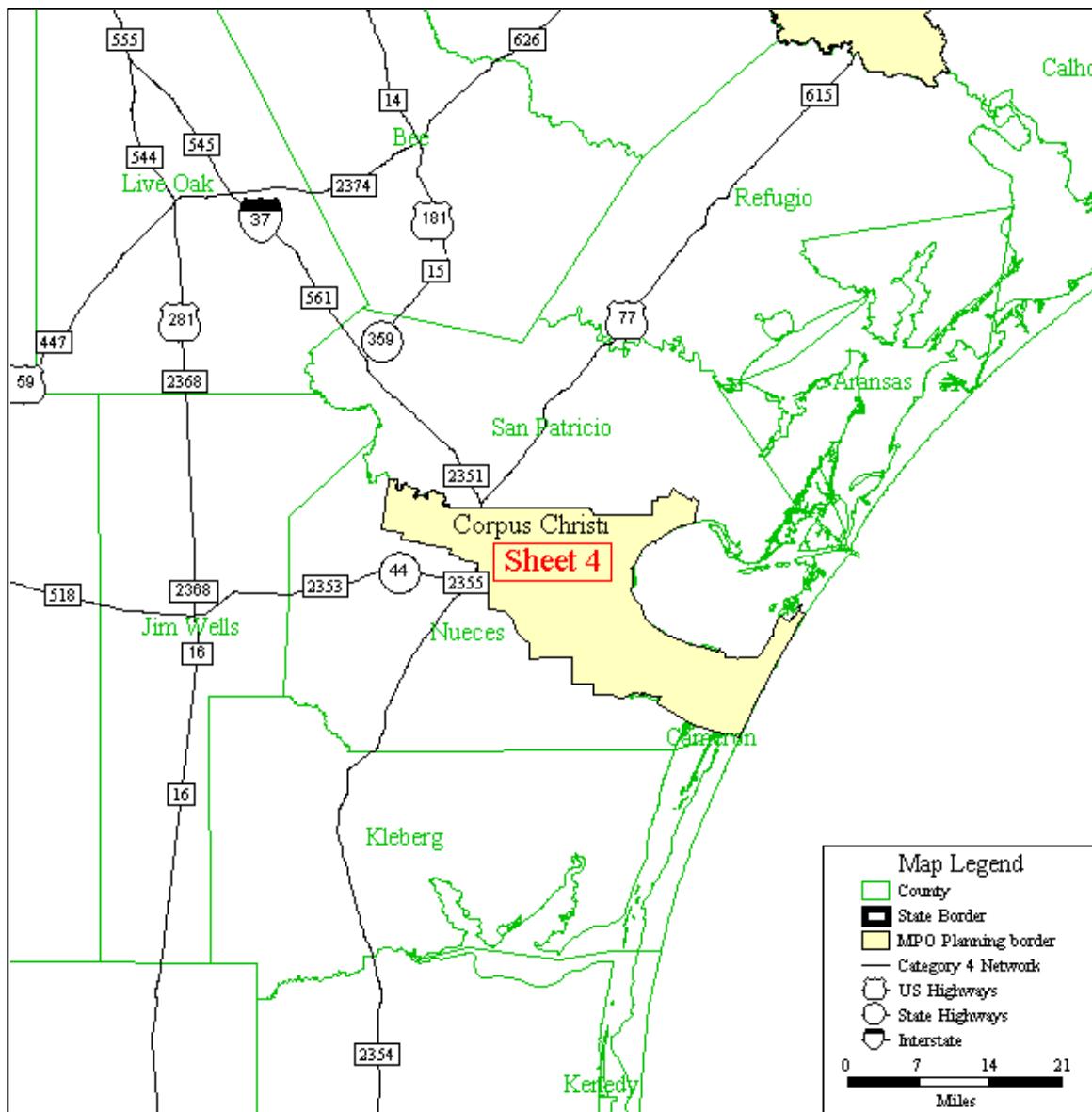
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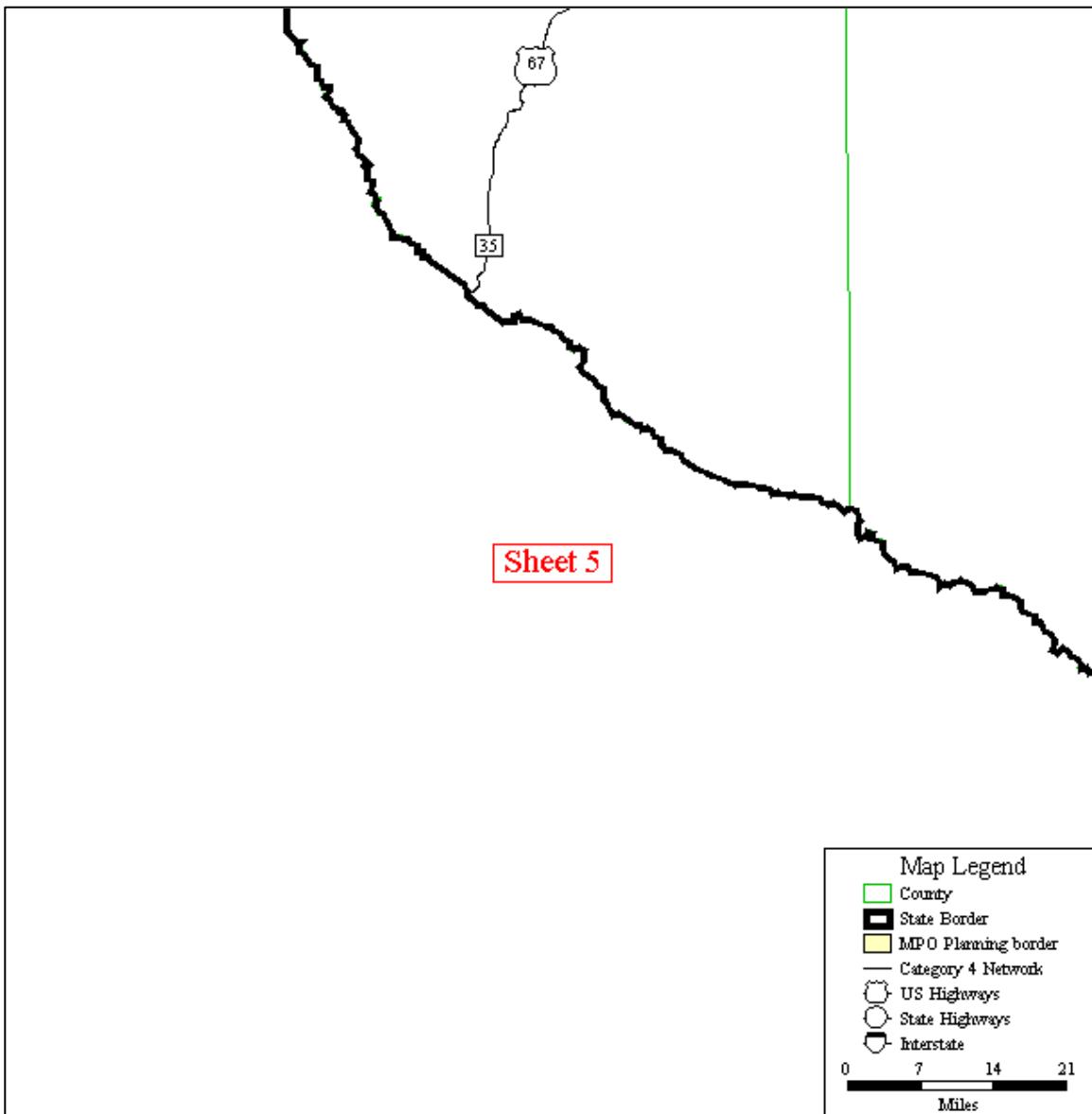
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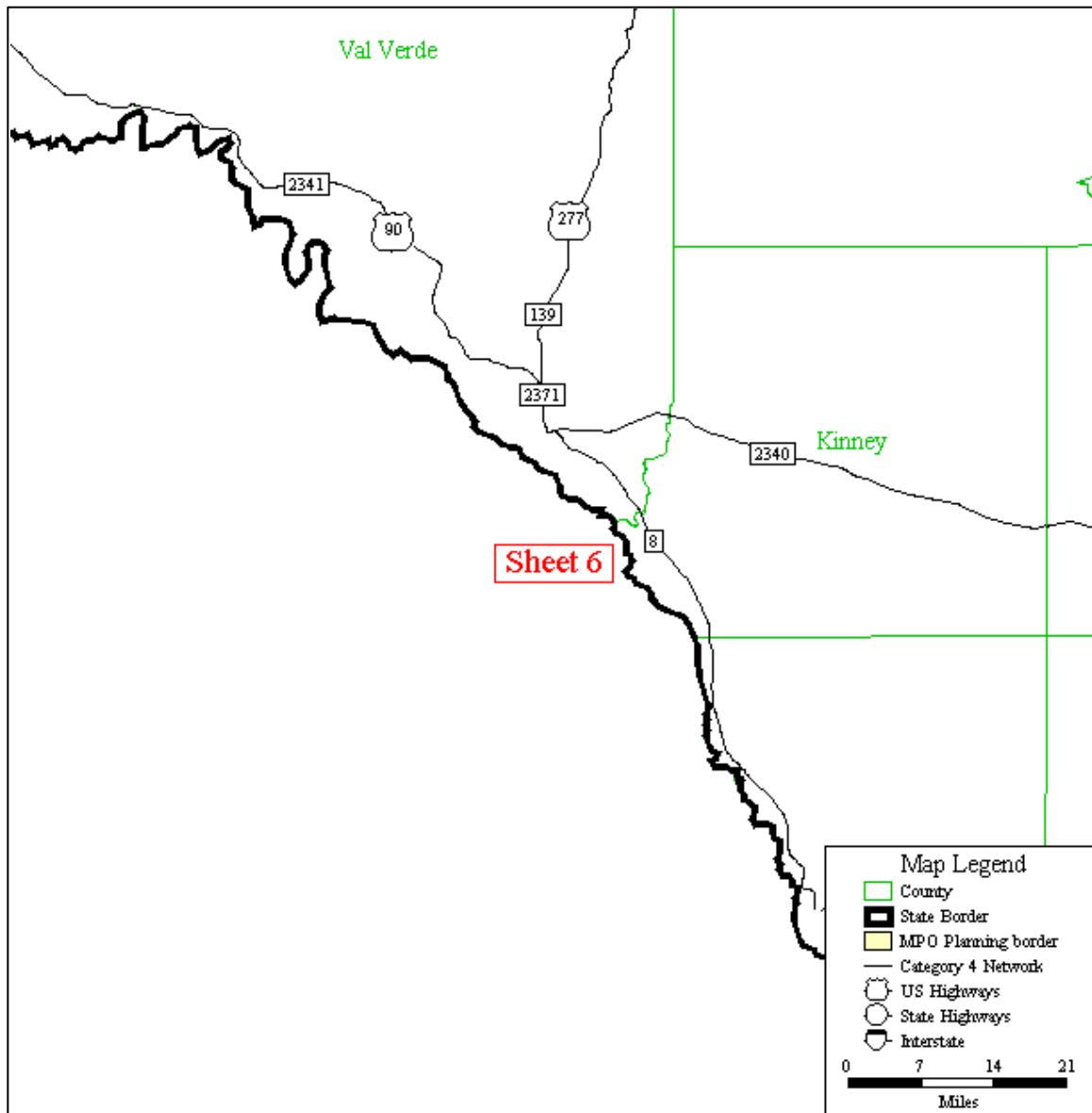
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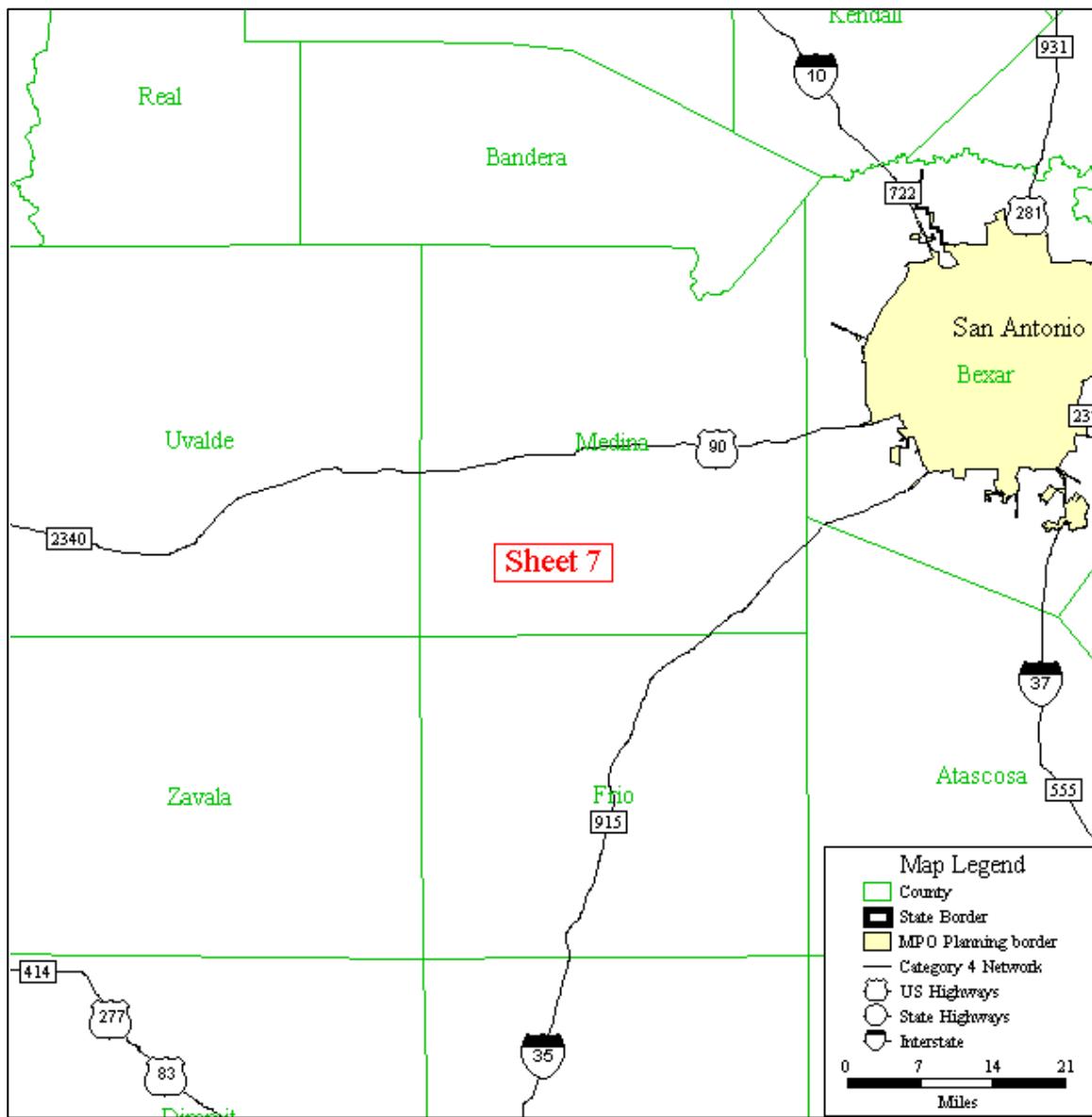
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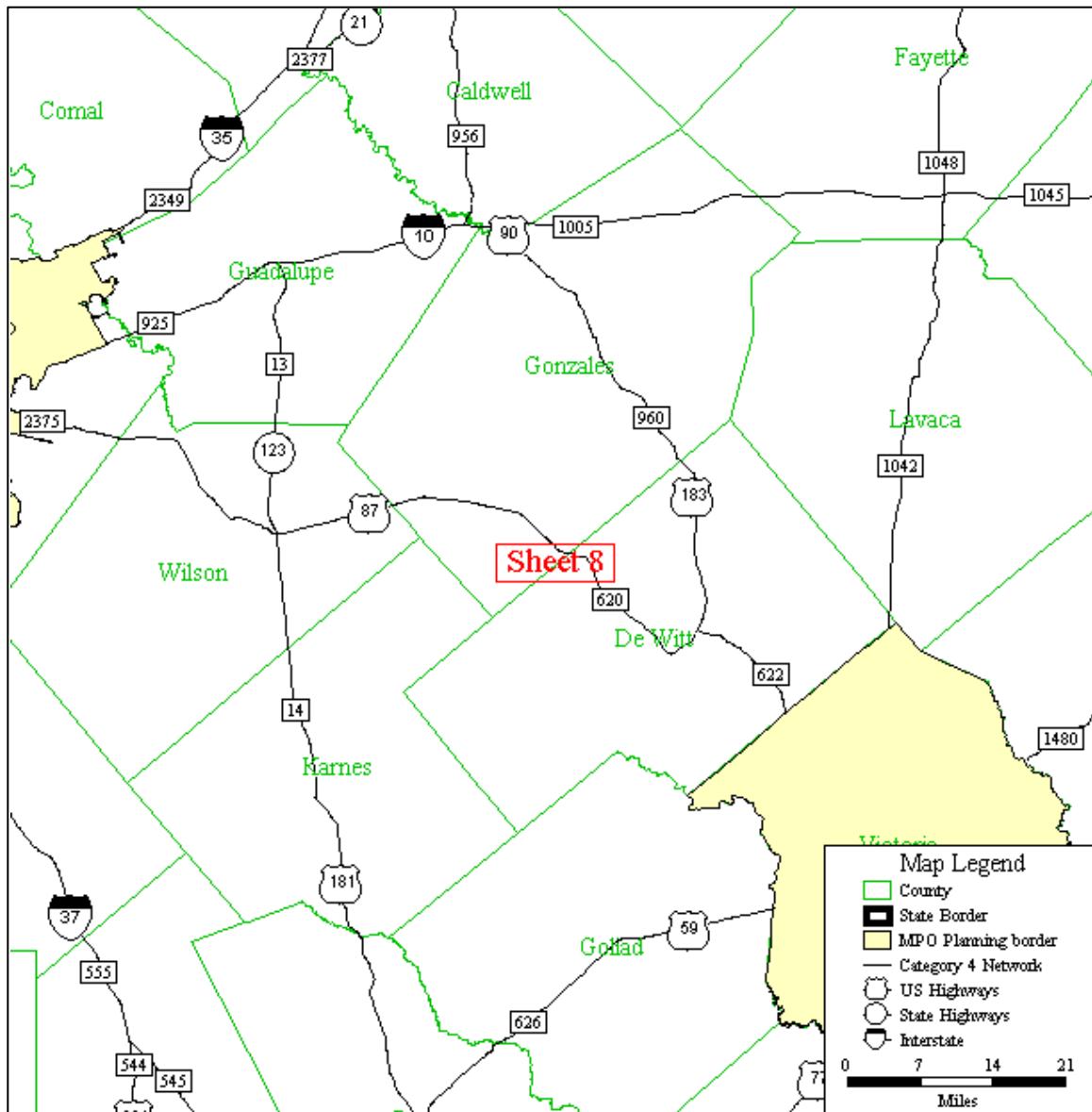
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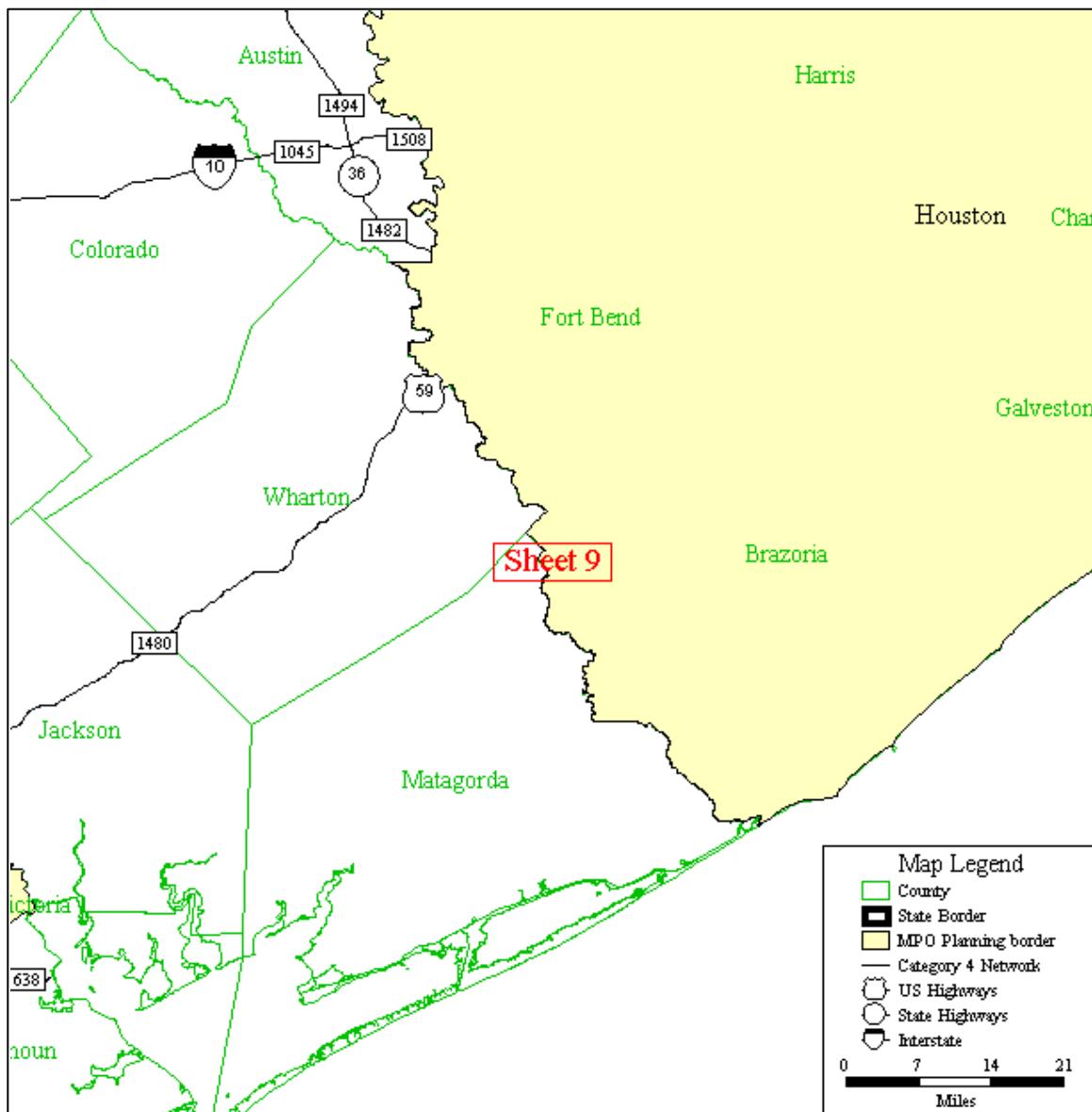
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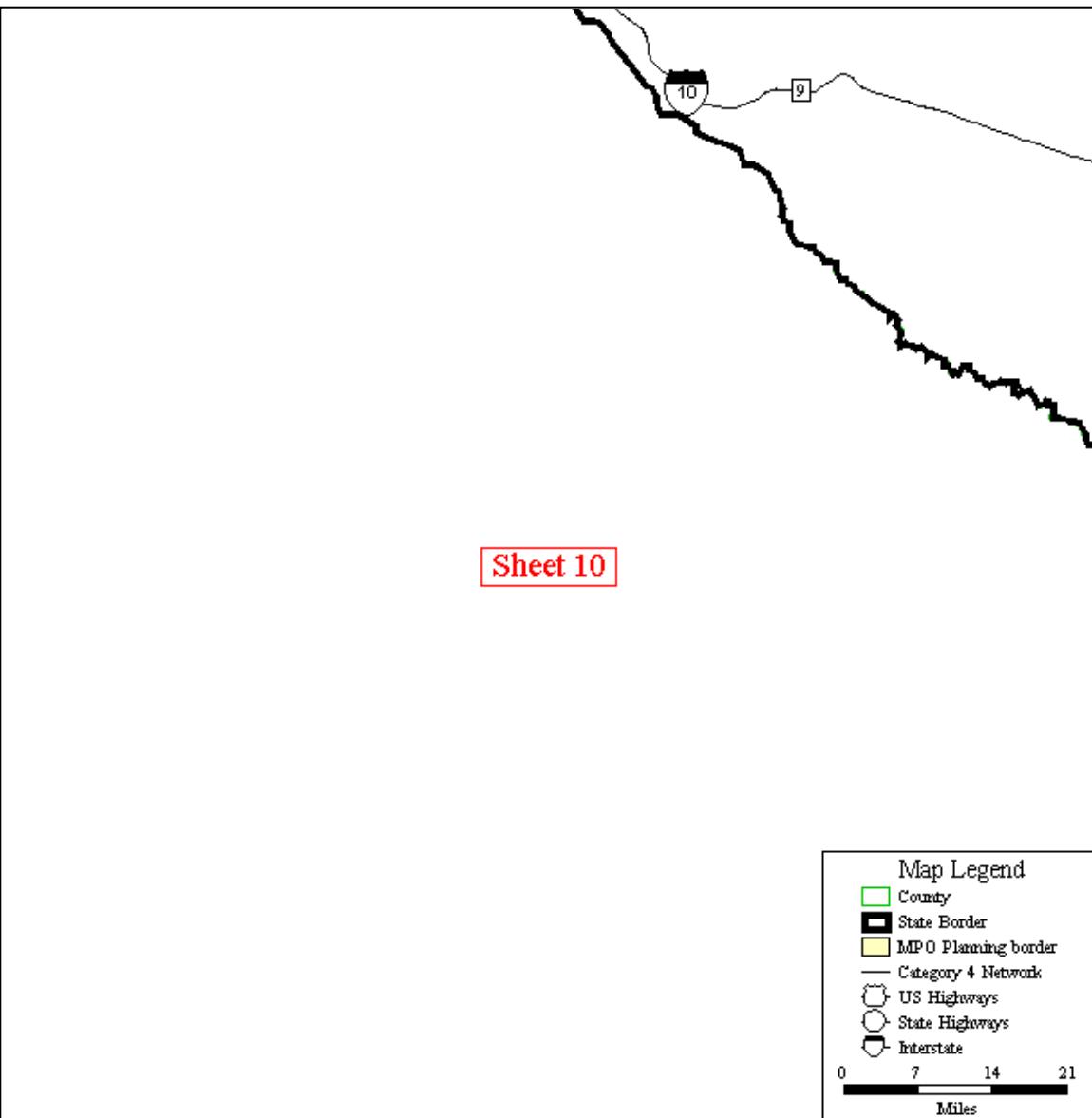
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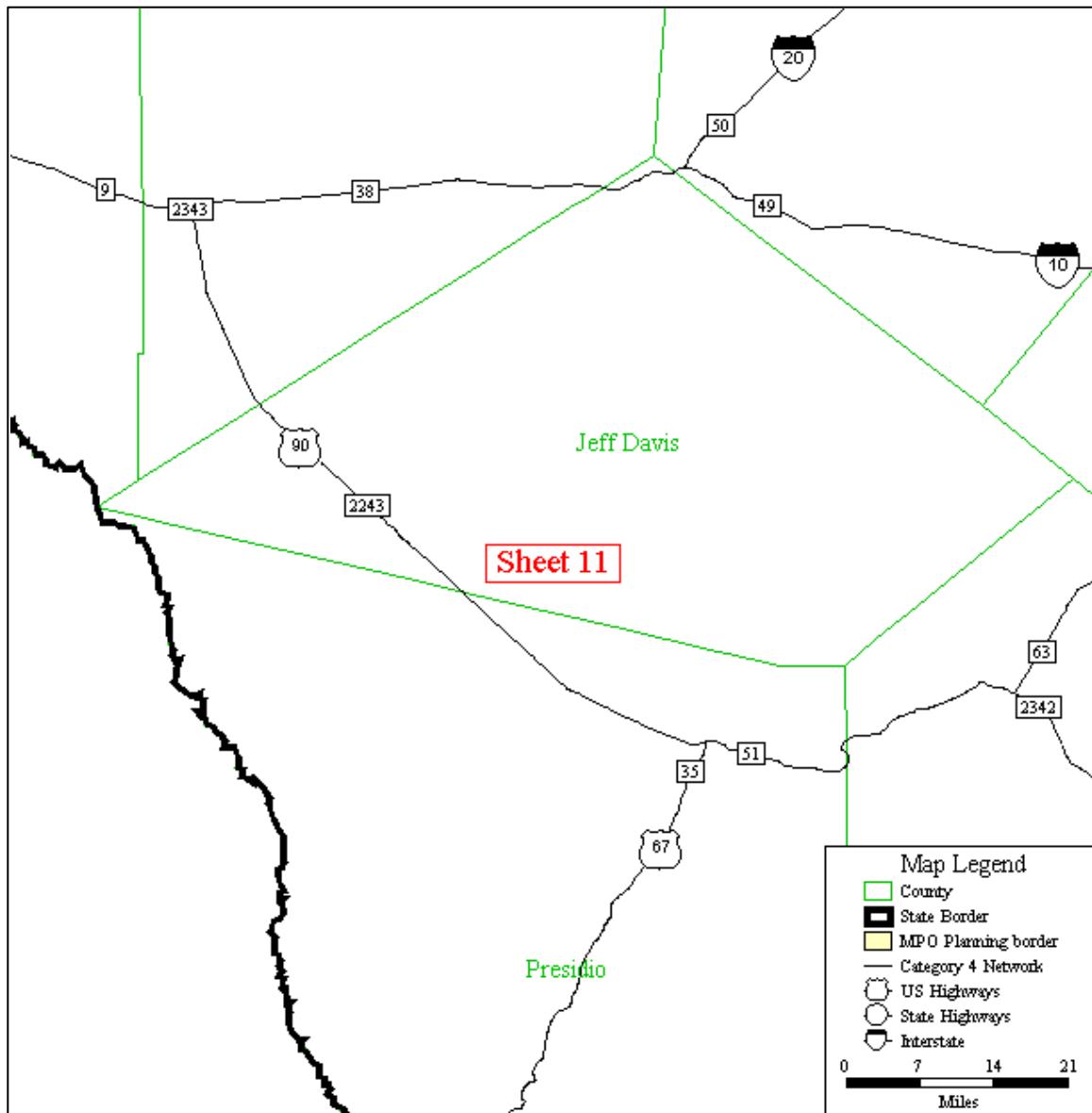
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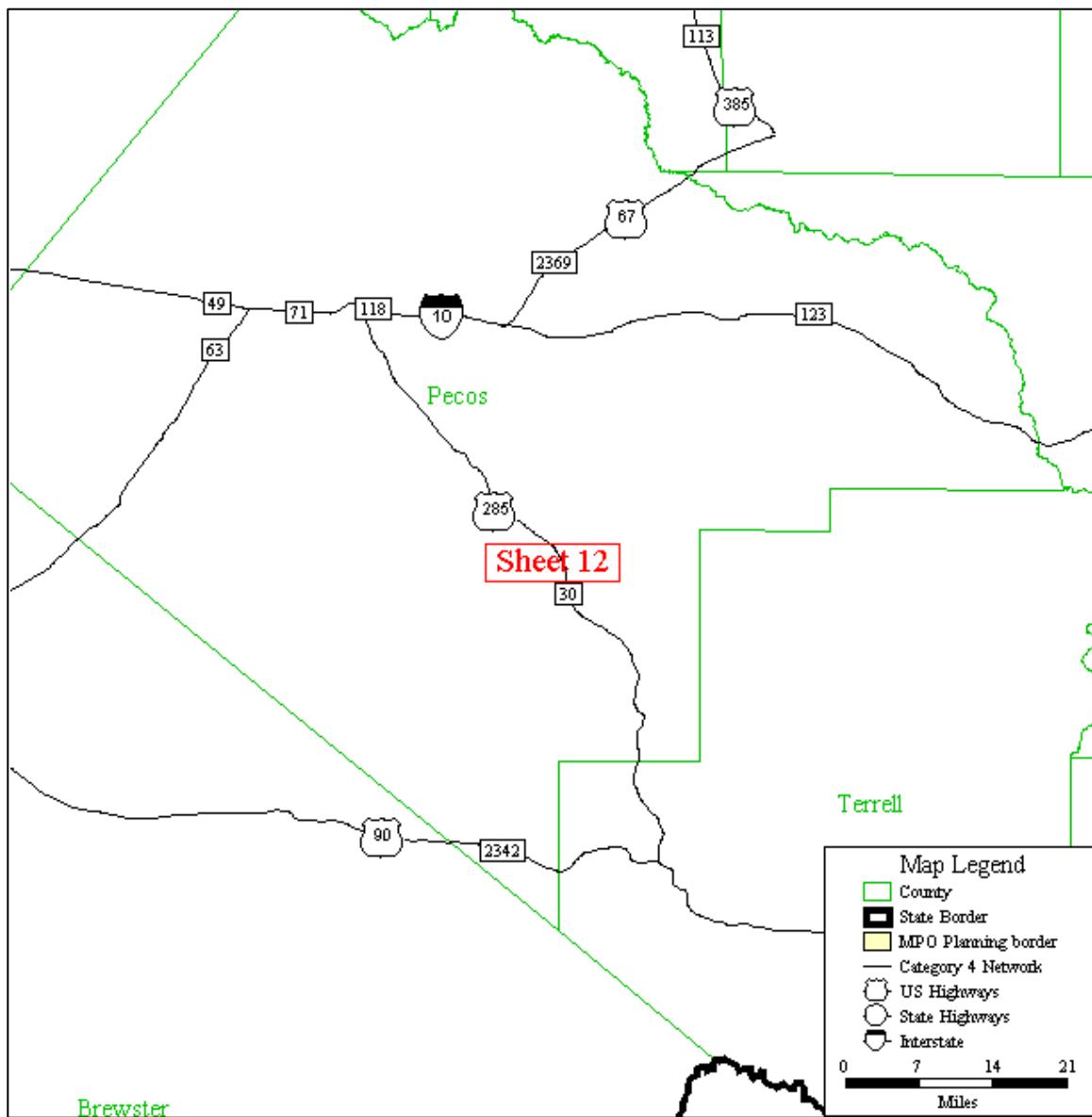
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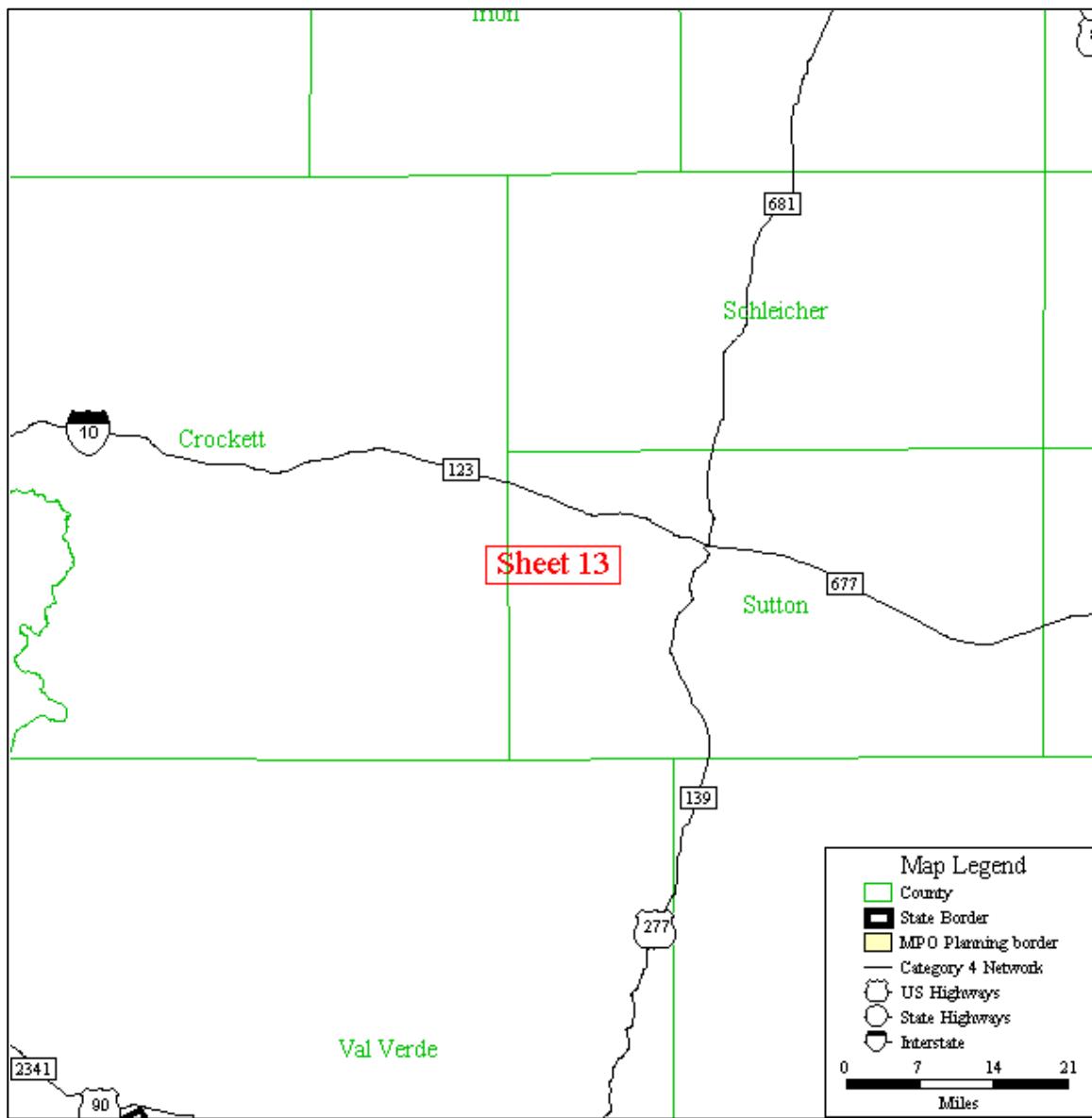
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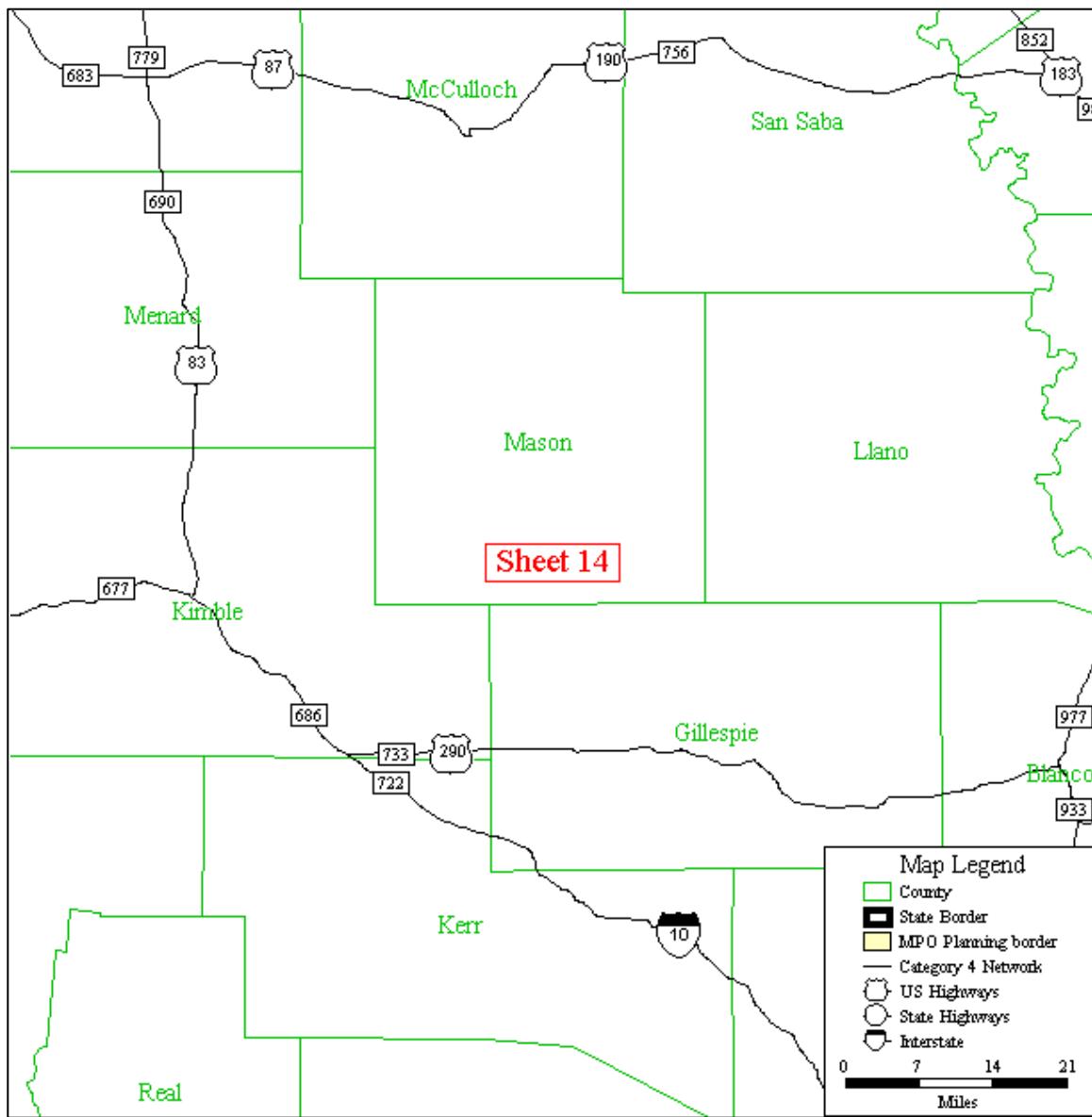
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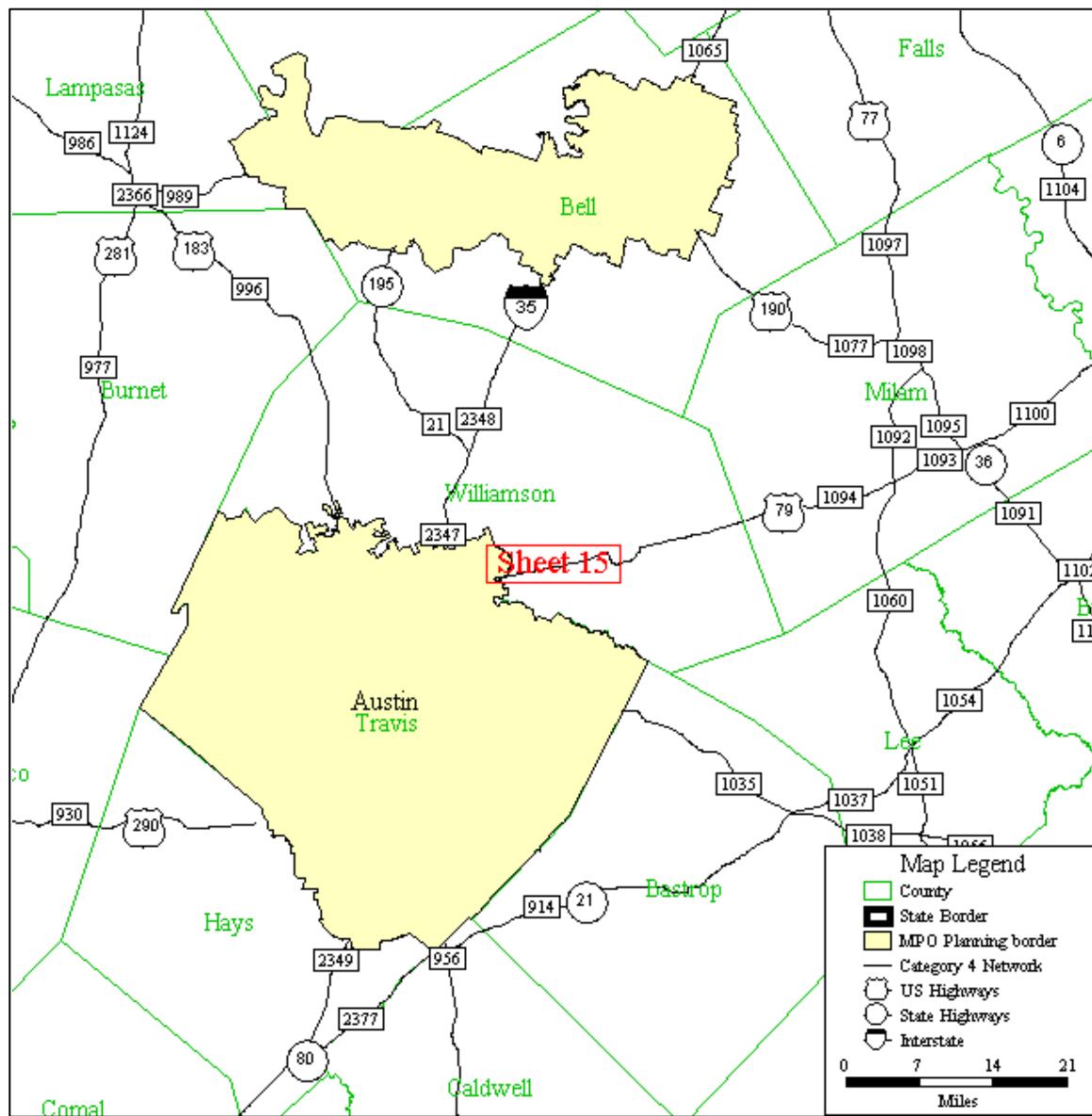
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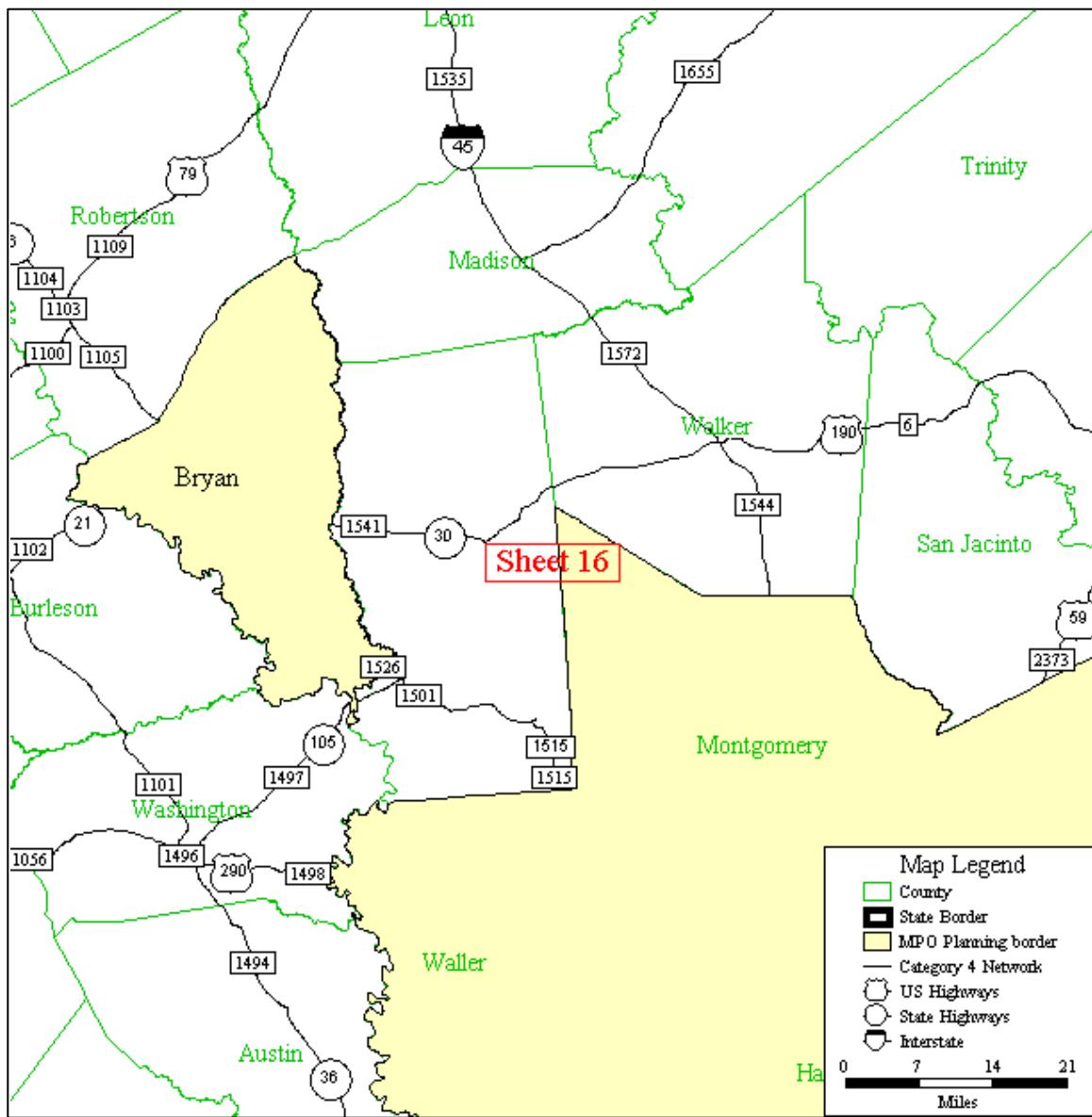
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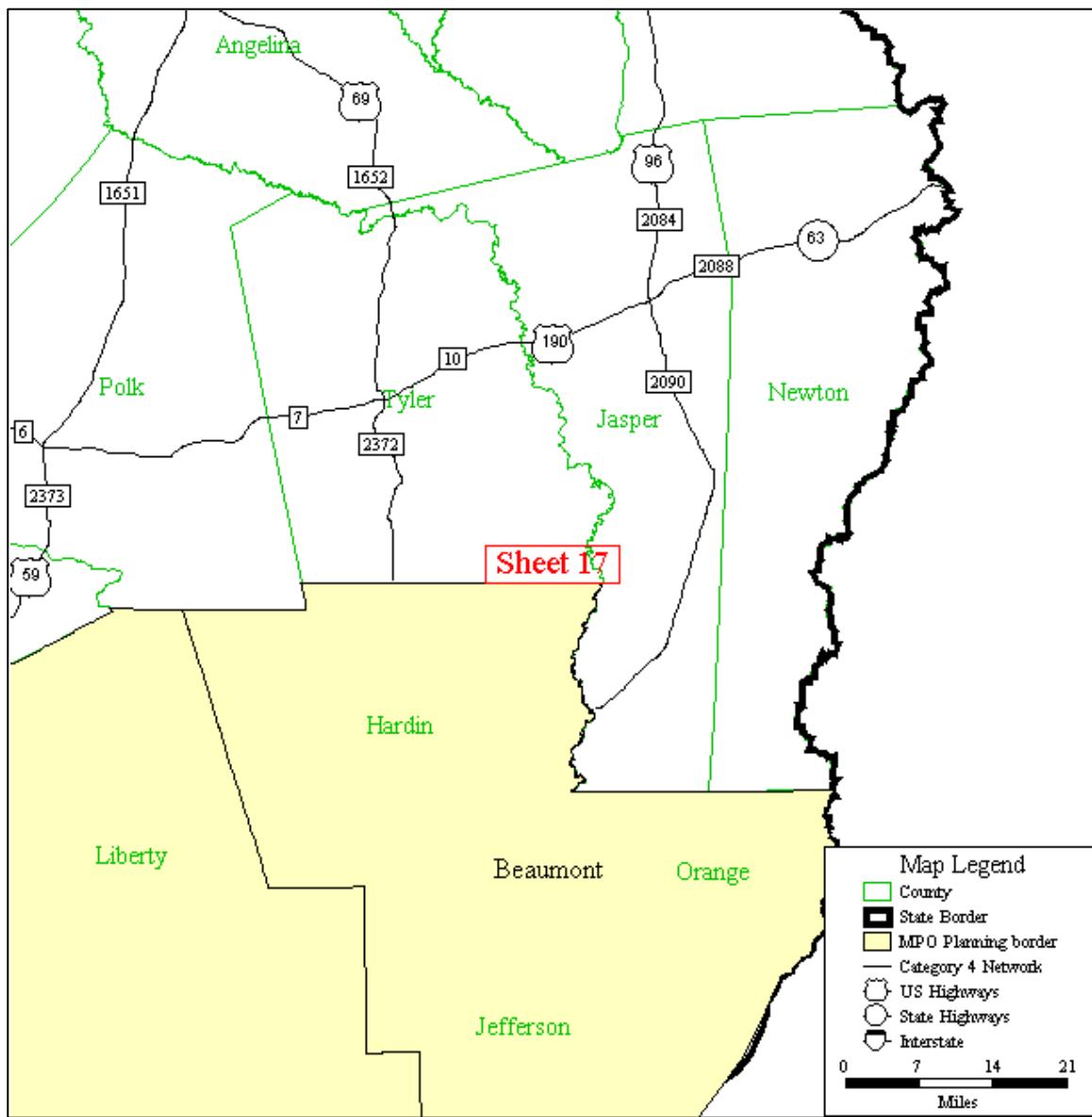
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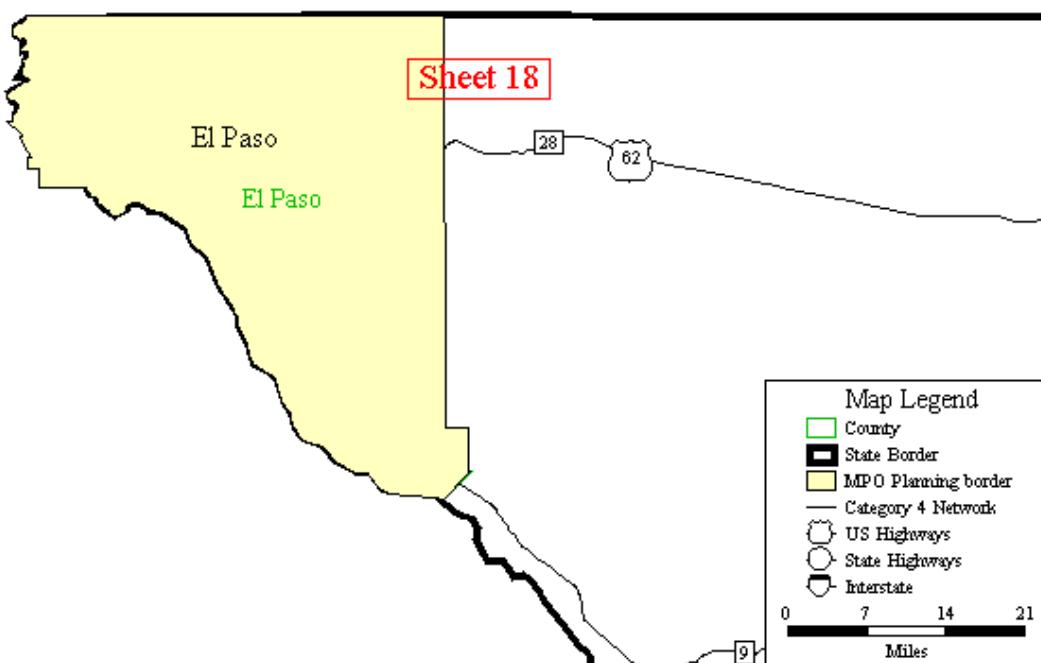
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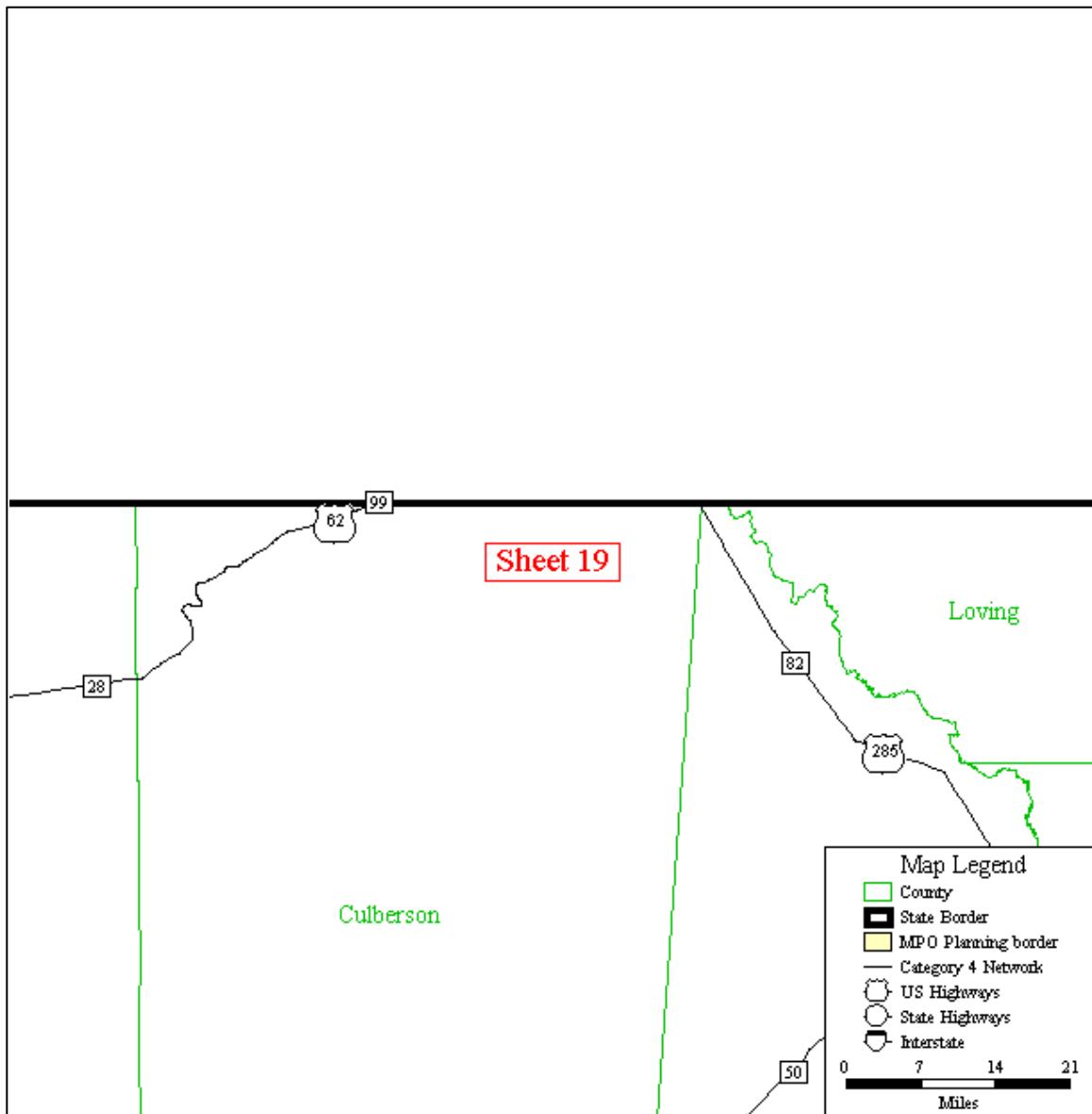
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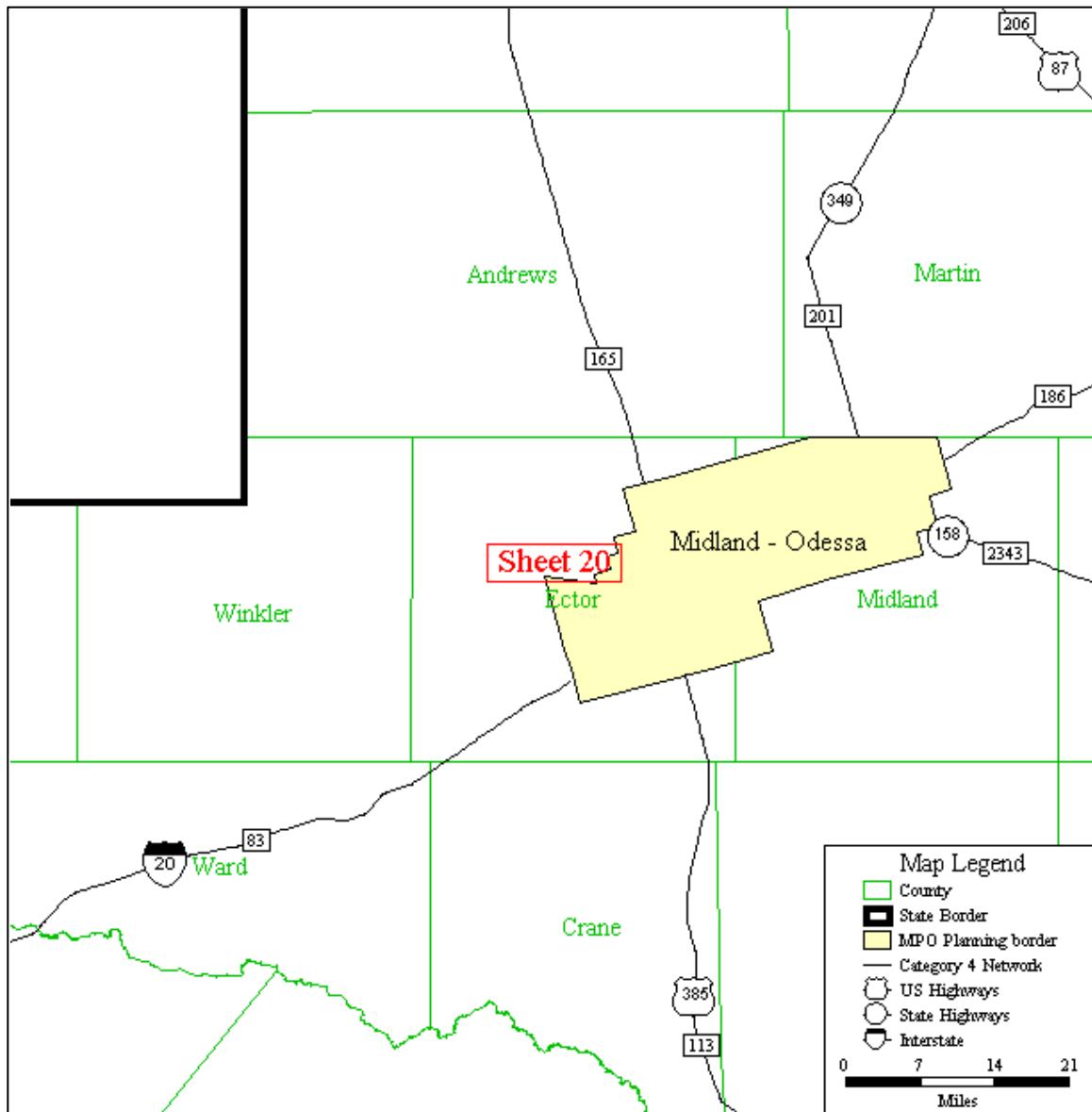
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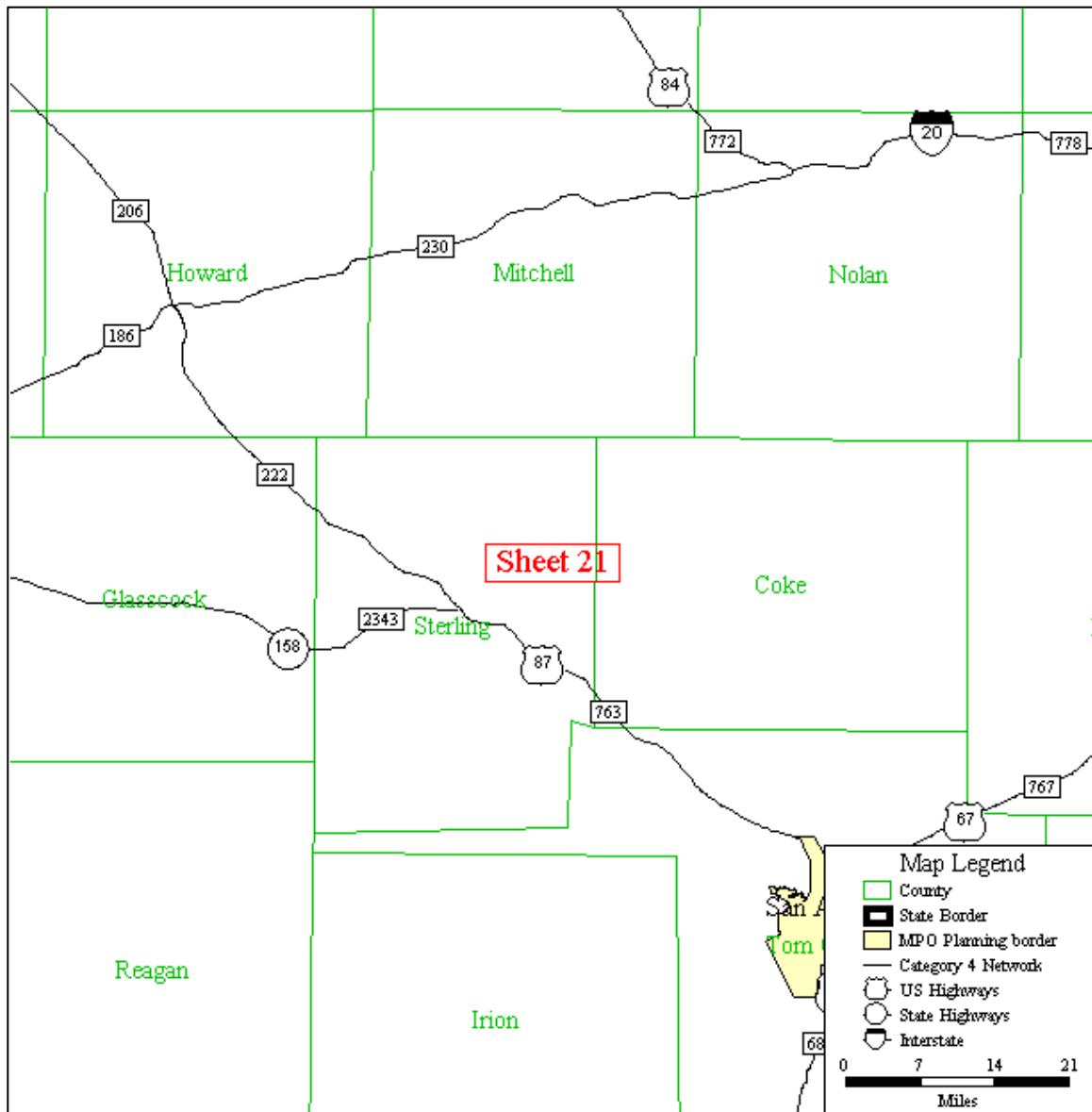
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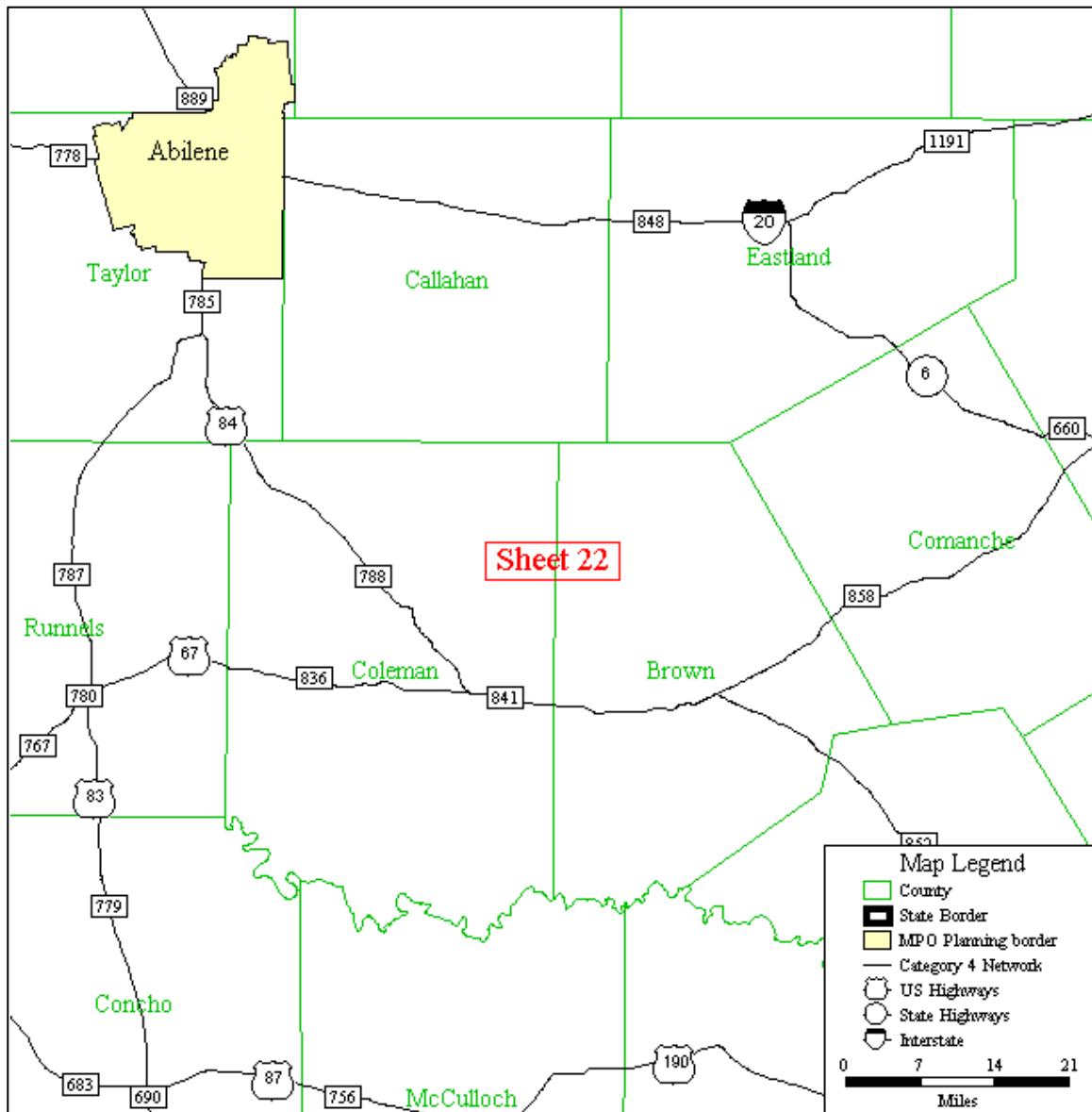
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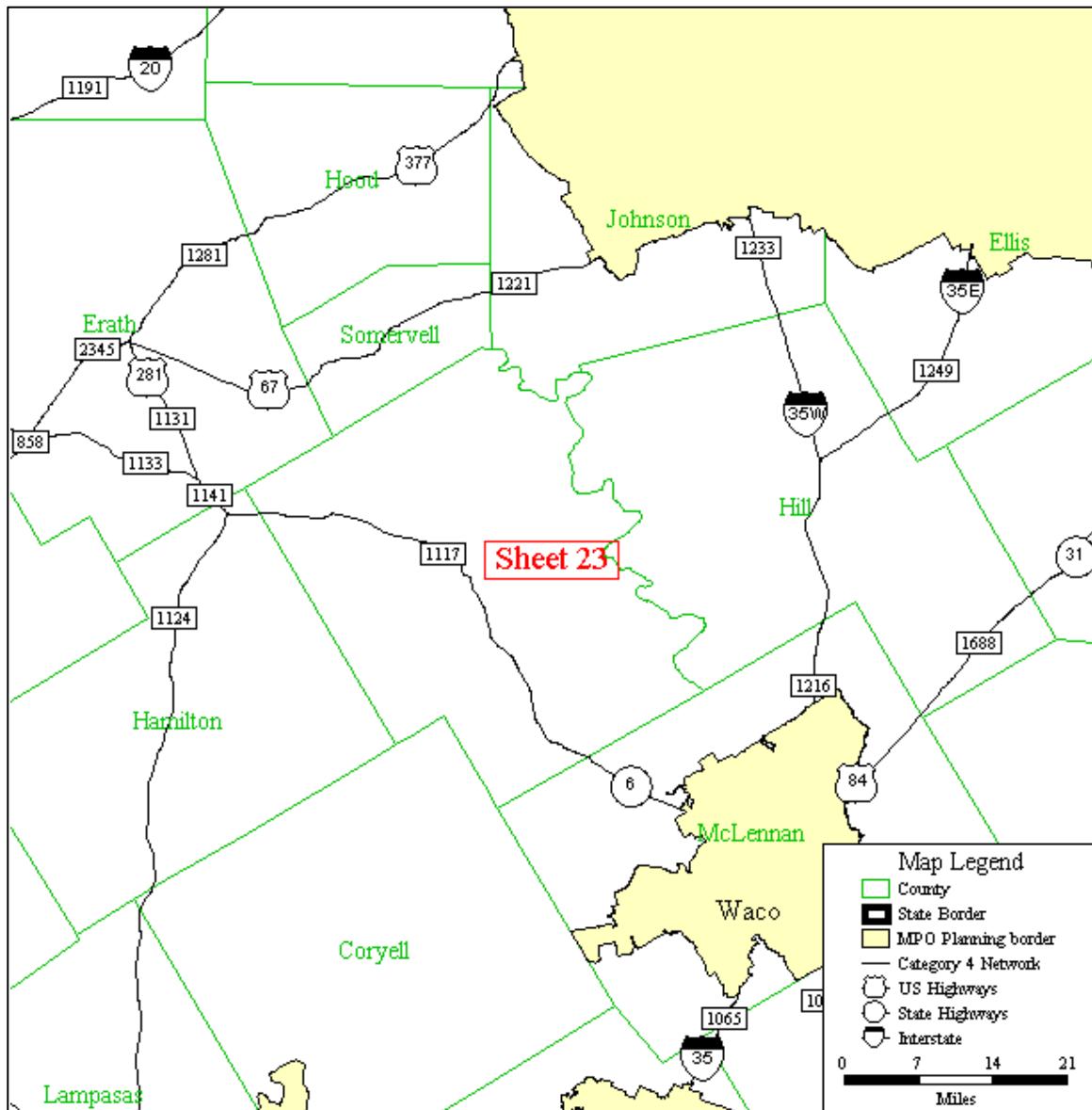
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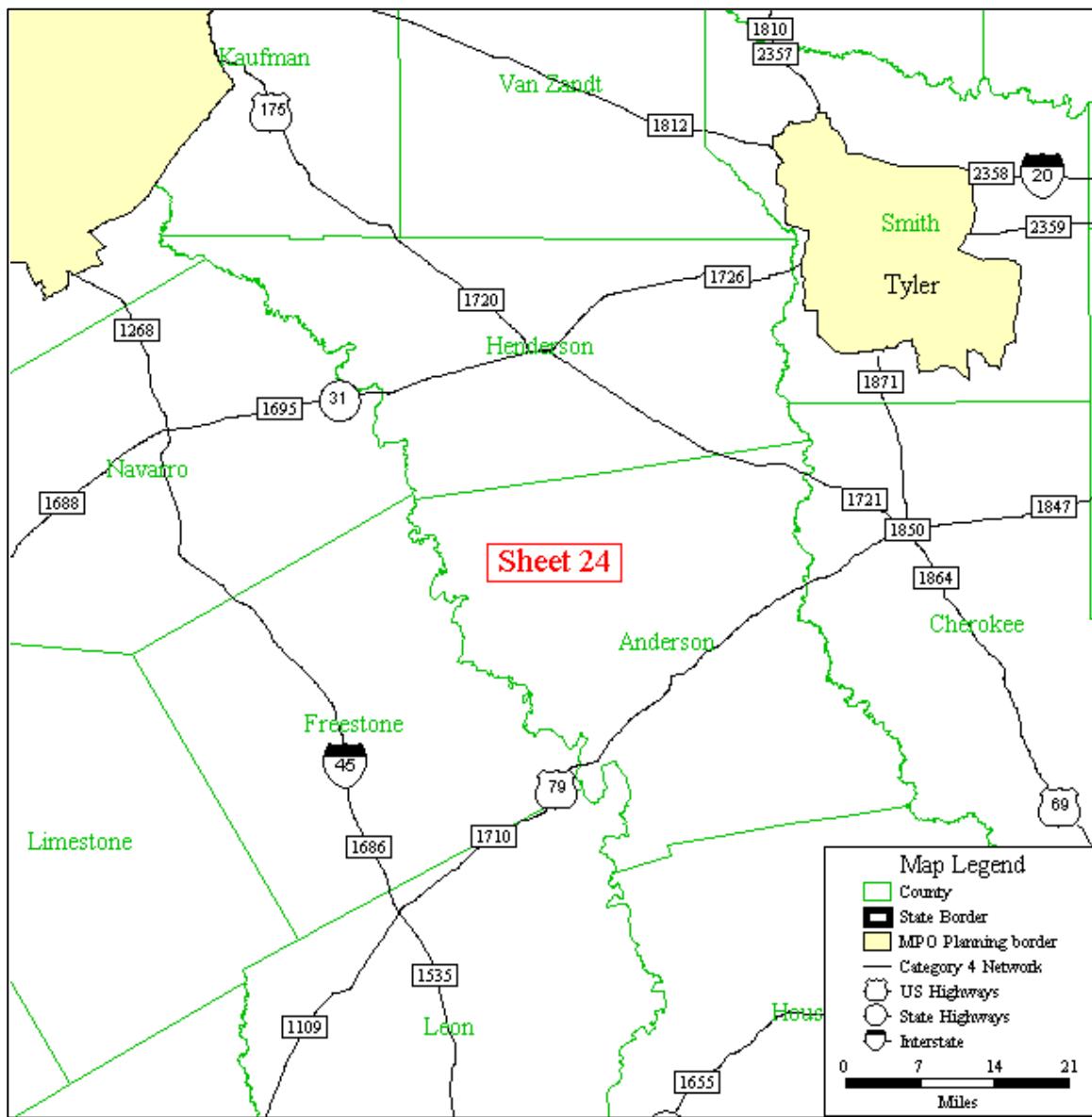
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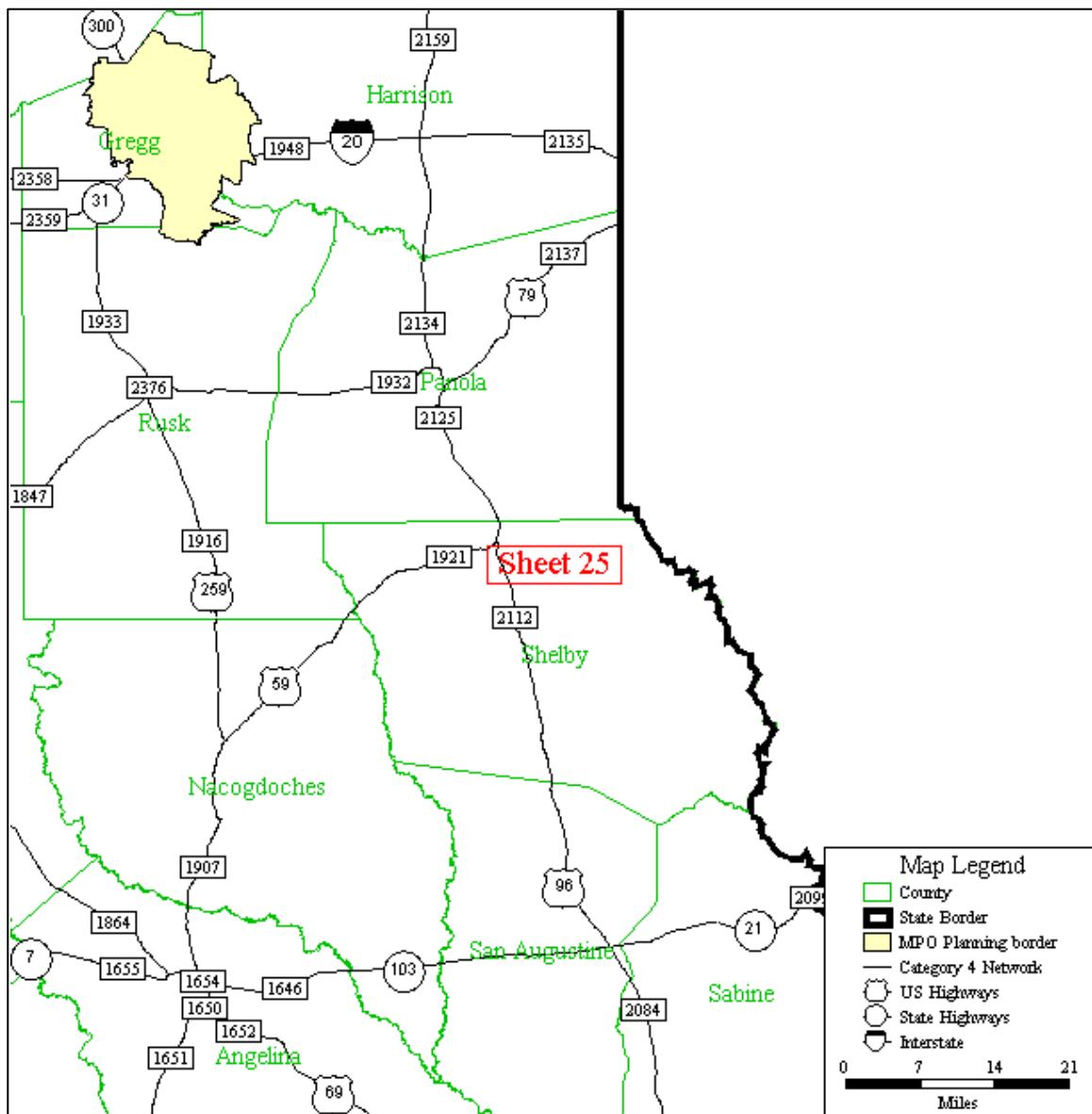
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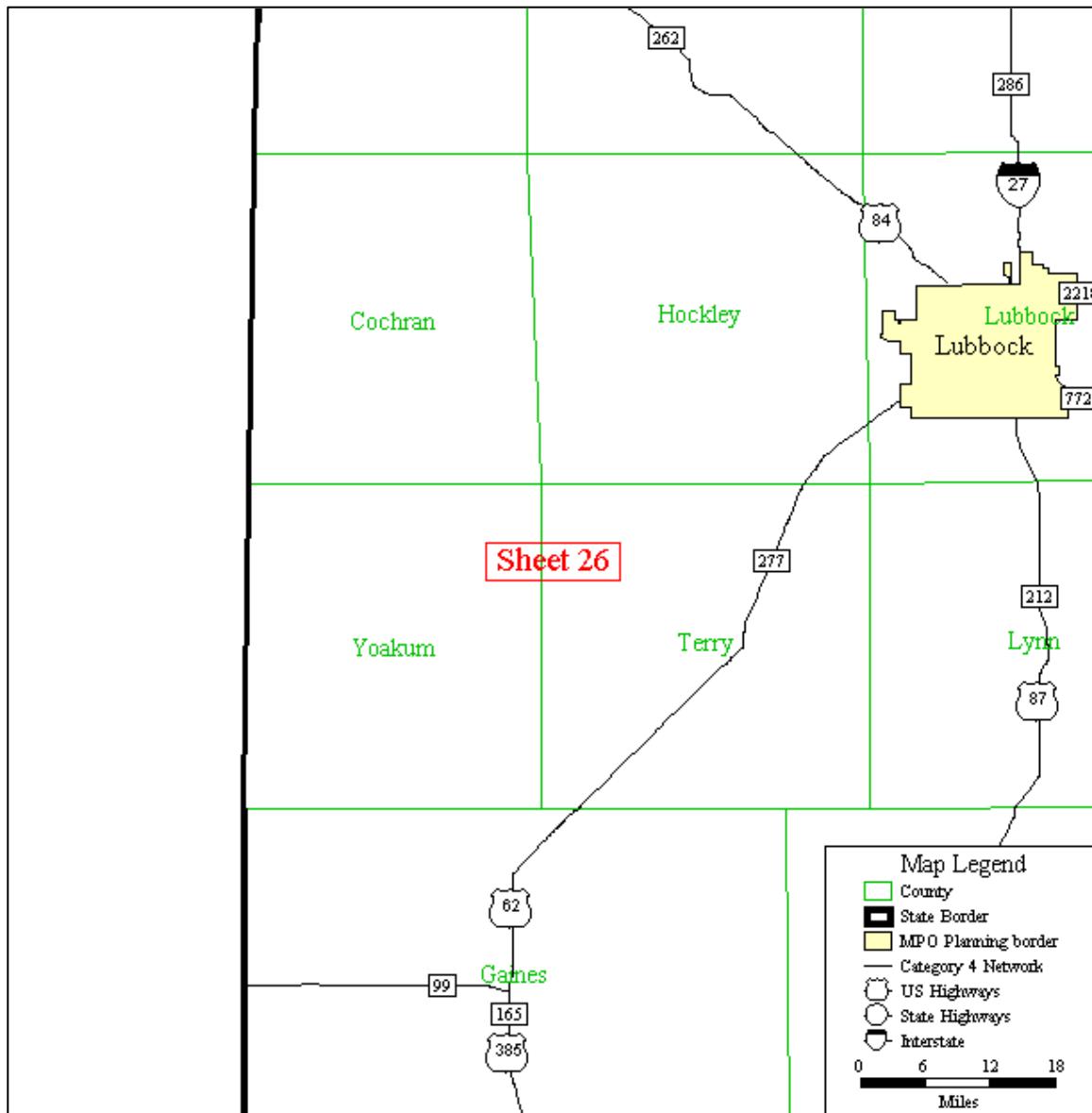
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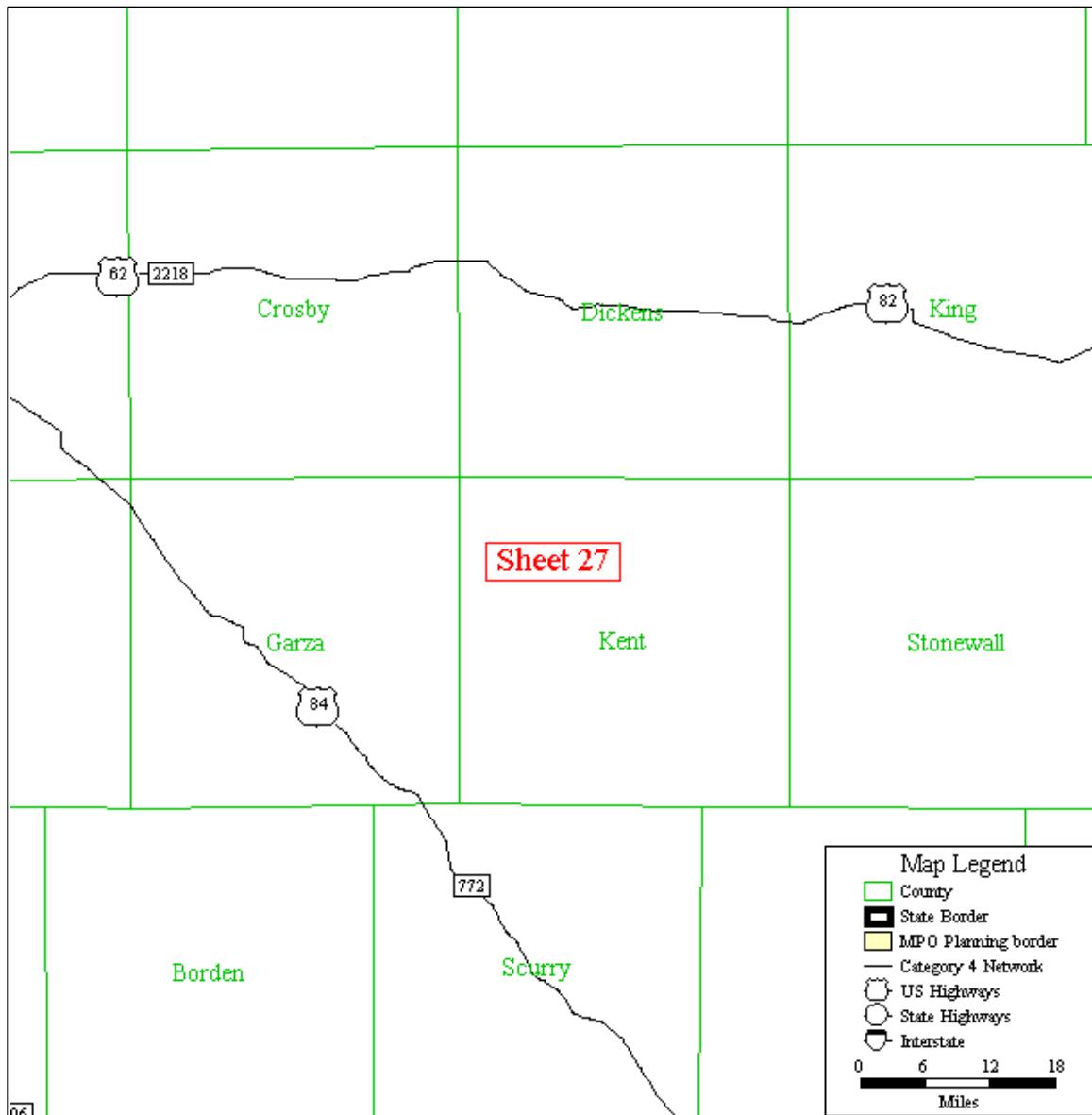
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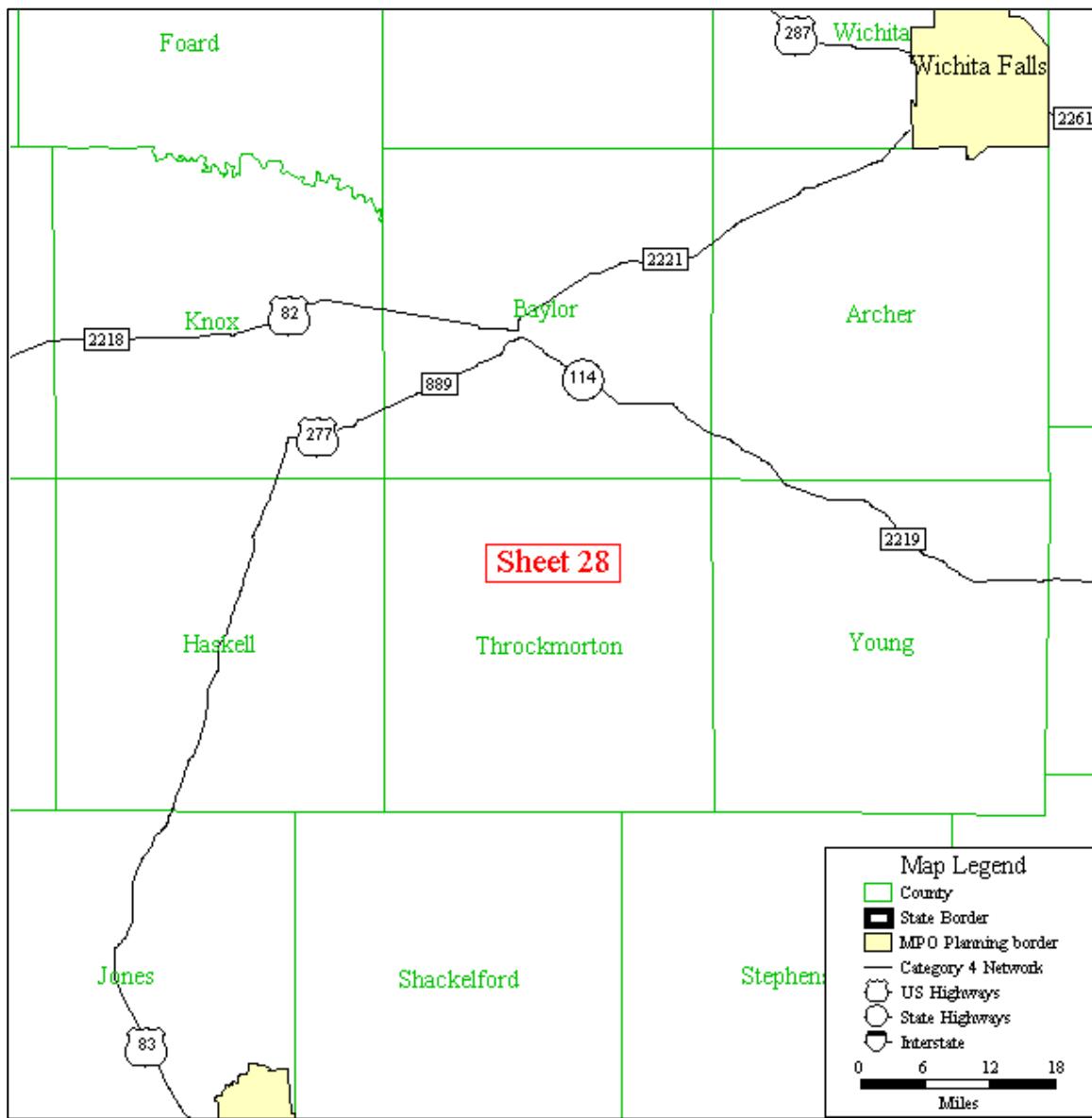
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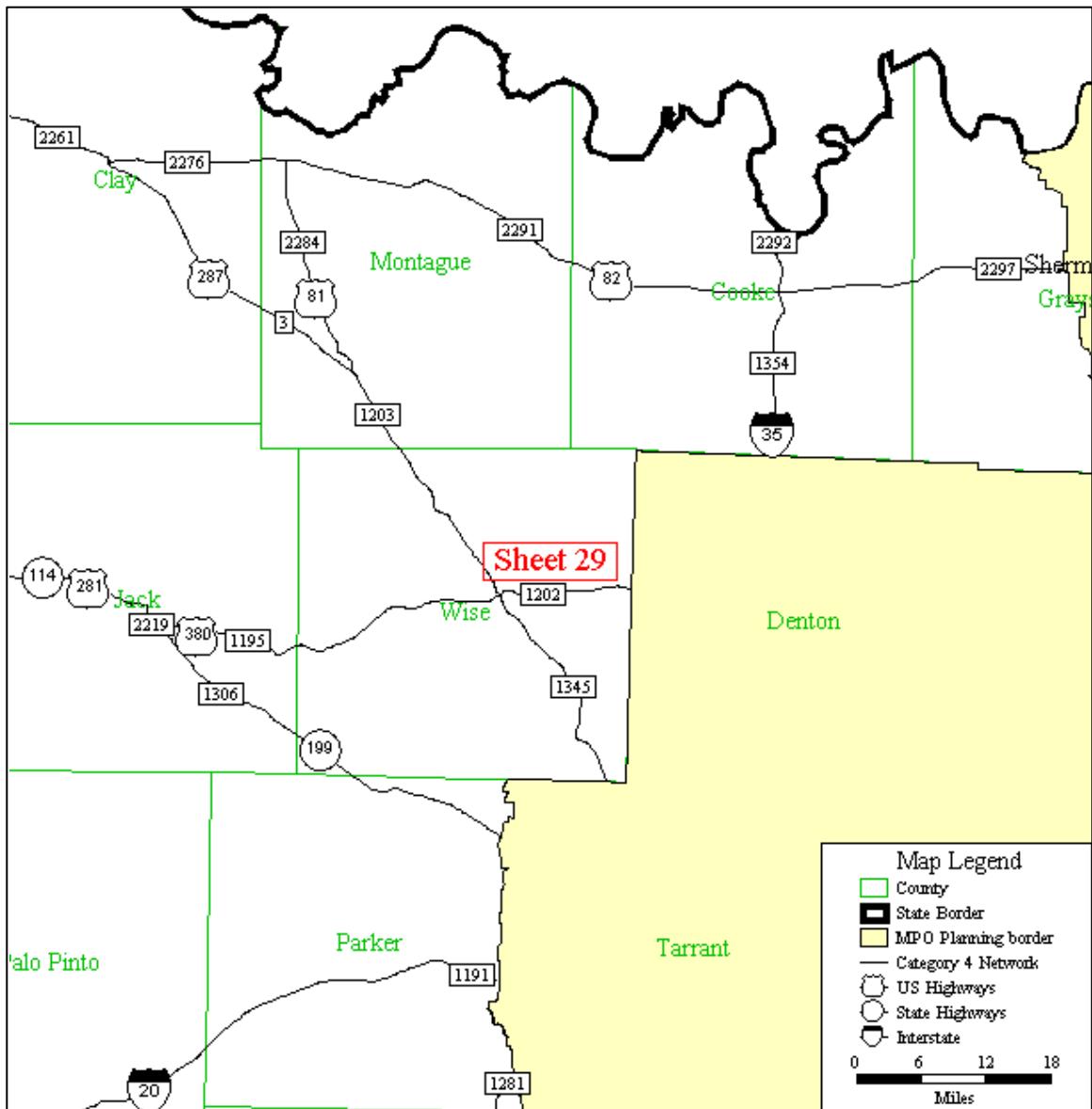
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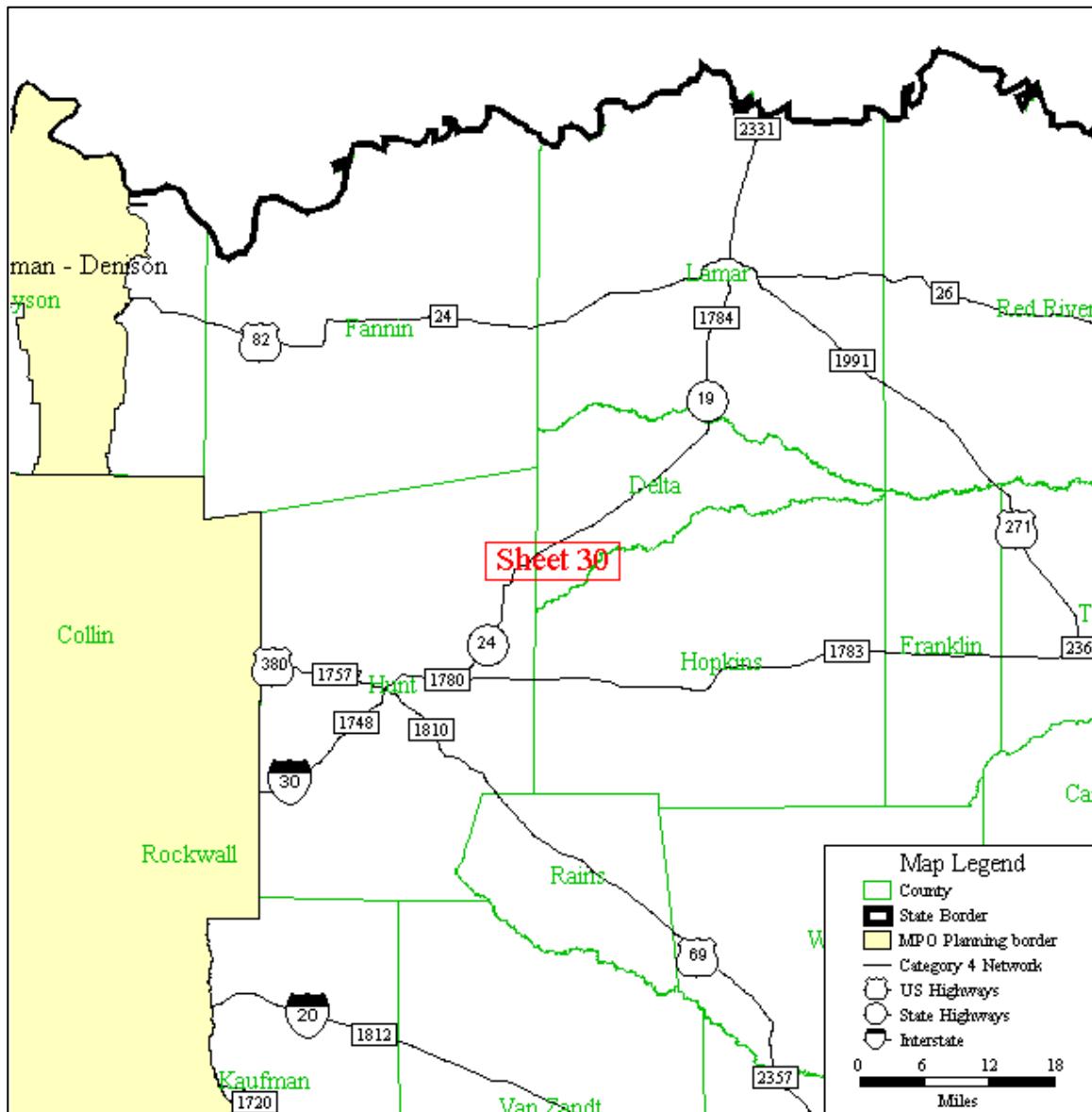
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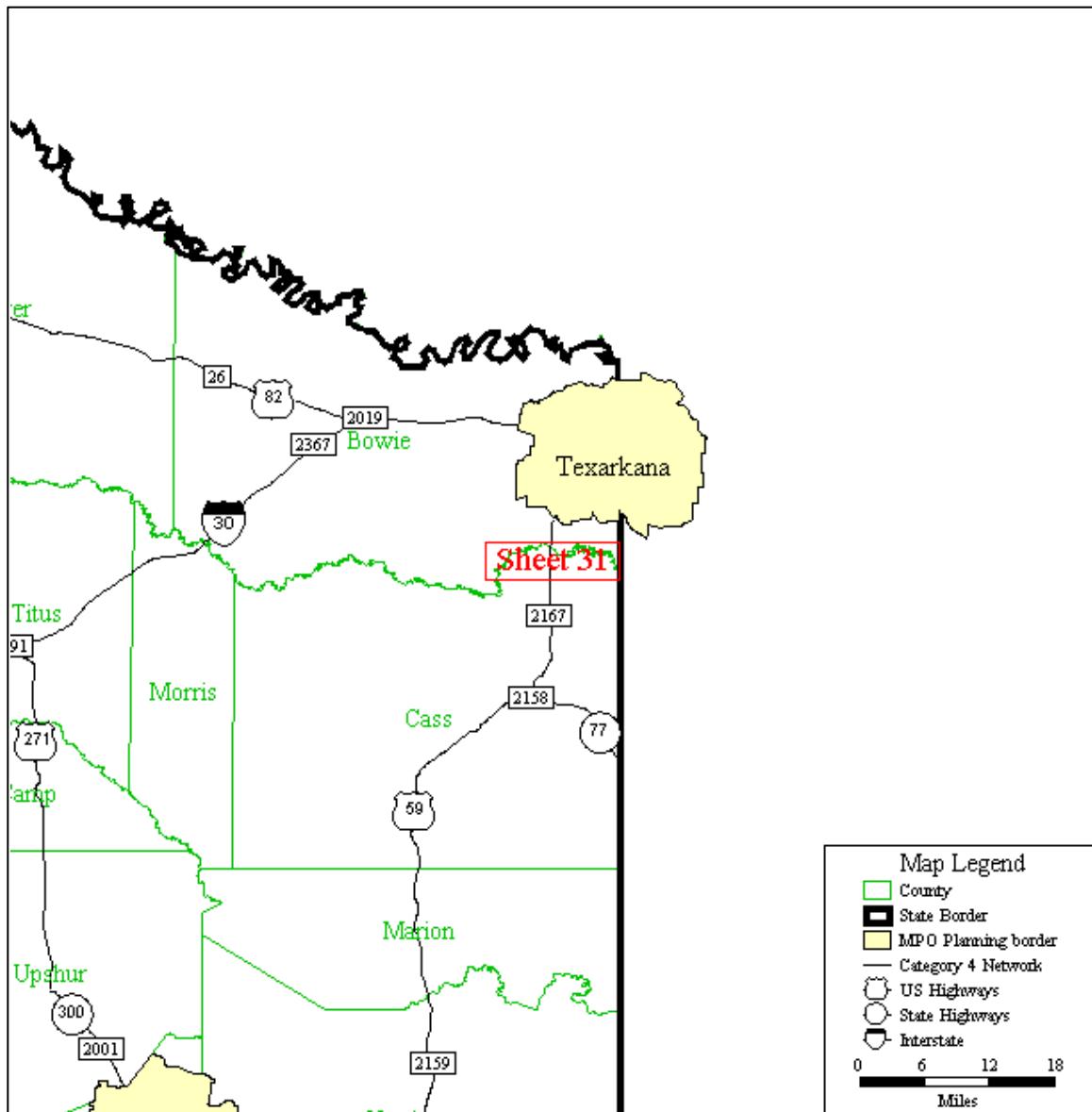
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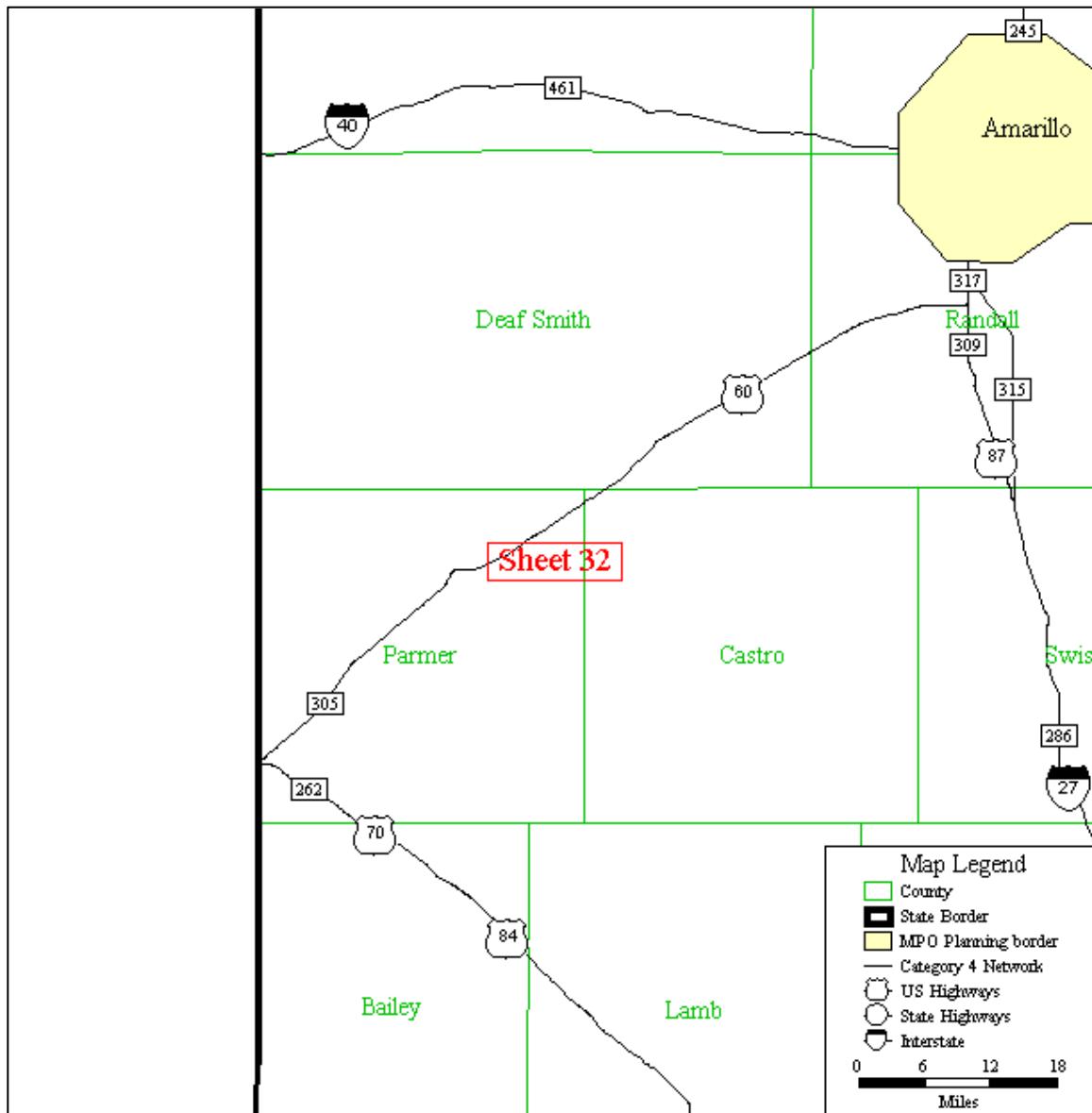
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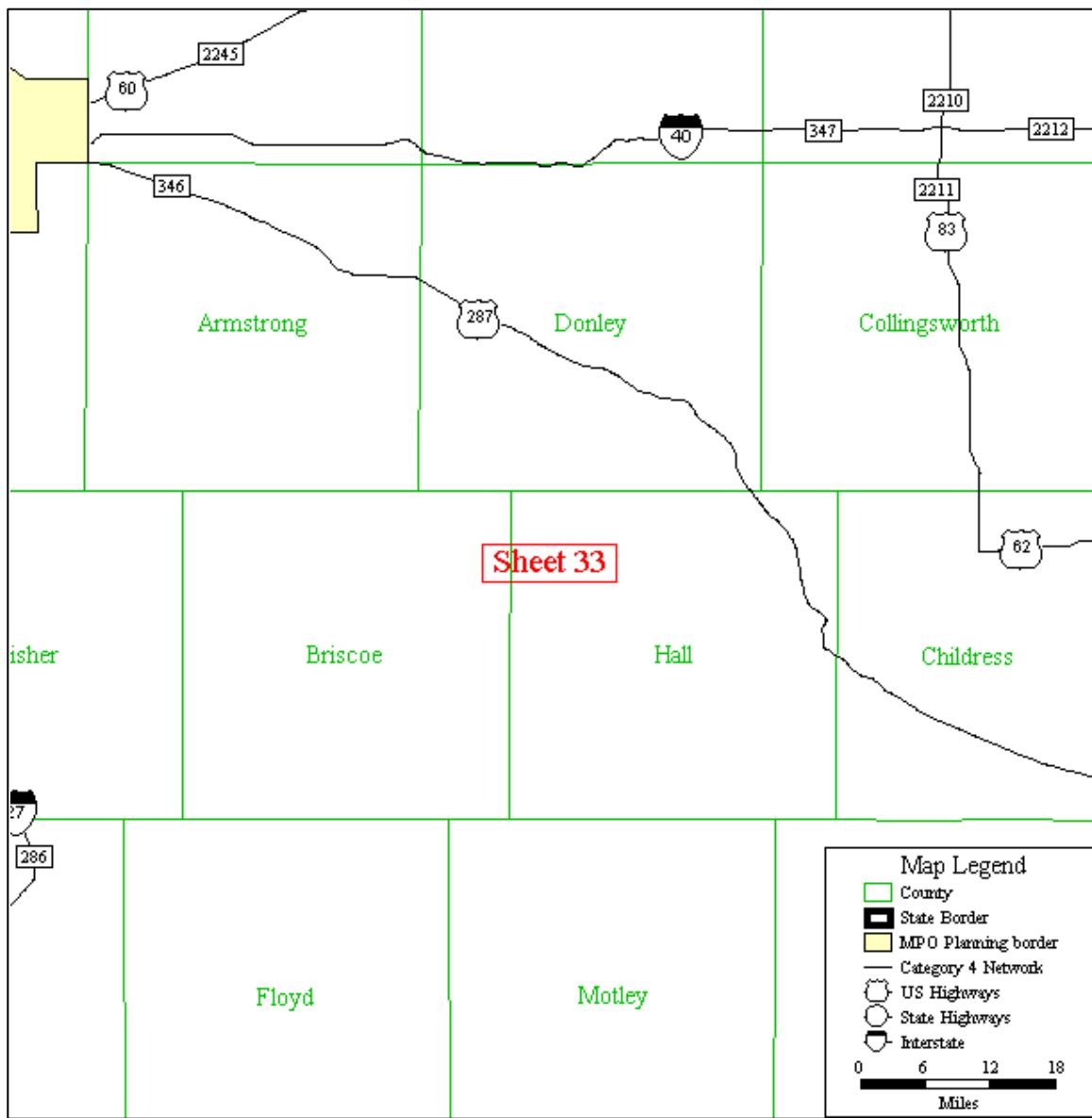
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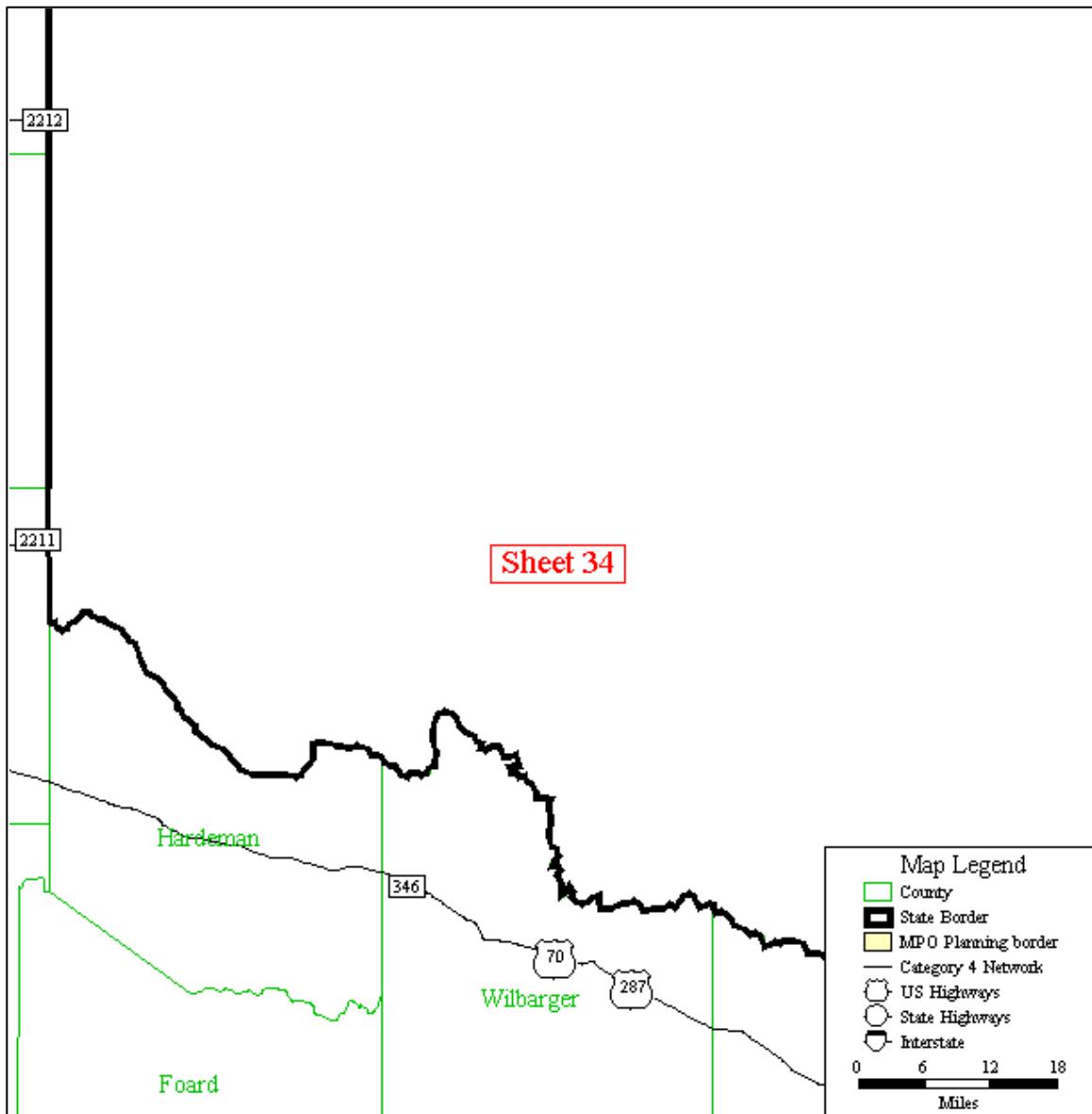
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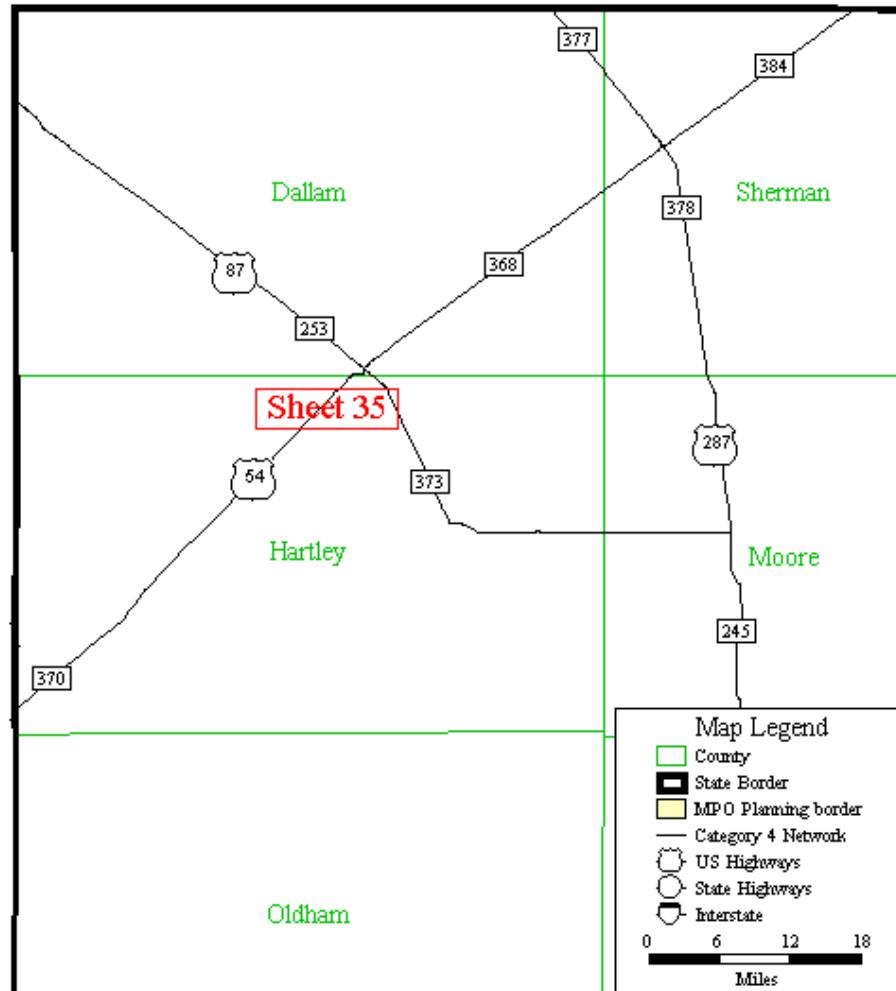
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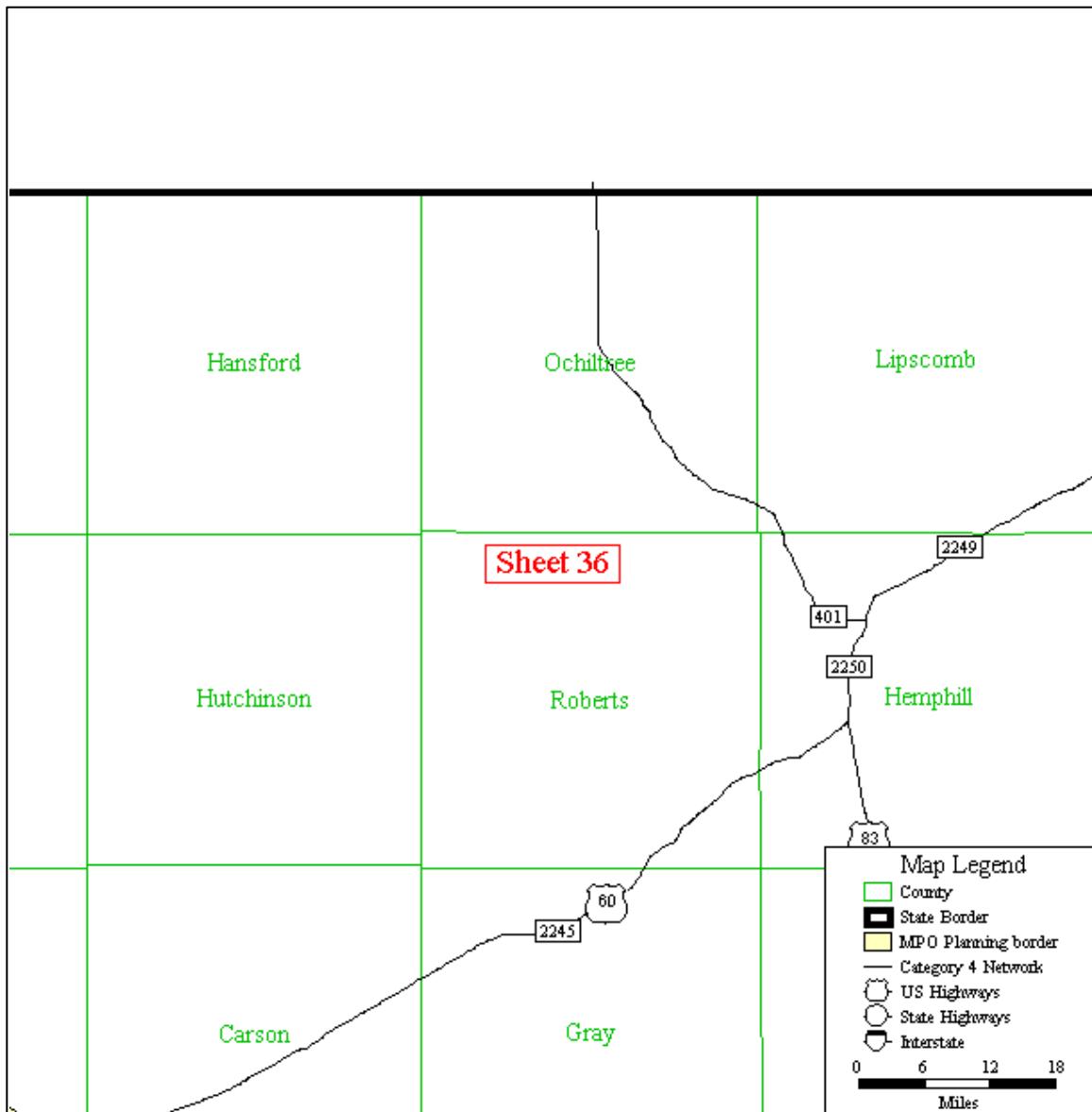
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## **Appendix Q**

### **Meeting Notes**

Notes from the SCWG meetings are on file at TPP. They can be obtained through an open records request.

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