Texas Highway-Rail Grade Crossing Safety Action Plan

August 2011

Texas Department of Transportation

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Photo: Roland Merz

Acknowledgements

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Executive Summary

Introduction

The U.S. Department of Transportation's Office of Inspector General (OIG) reported in June 2004 that a number of states continue to have a high number of grade crossing collisions at the same locations and suggested that these states should endeavor to create action plans to address the issue of multiple-collision locations. The multiple-collision crossing locations should be targeted for study and appropriate counter-measures employed to mitigate any identified deficiencies in the safety features at each location. Texas is one of the states that have had the most highway-rail grade crossing collisions during calendar years of 2006, 2007, and 2008 and therefore is required to develop a highway-rail grade crossing safety action plan as directed by 49 CFR 234. This action plan will identify specific solutions for improving safety at crossings and will have a specific focus for crossings that have experienced multiple accidents.

Texas has more than 10,743 miles of rail track and 301,796 miles of roadway. According to Federal Railroad Administration (FRA) 2009 statistics (Appendix I), Texas has the most public grade crossings of any other state at 9,817; 20% more crossings than the second highest state (Illinois with 7,838). Texas also reports the second highest number of fatalities at public crossings behind California. Compared to all of the states, Texas crossing fatality rates rank 14th per 100 crossings, 16th per 100,000 registered vehicles, and 22nd per 100,000 vehicle miles traveled (VMT).

Texas has been tasked by the FRA to develop and implement a highway-rail grade crossing safety action plan that 1) identifies specific solutions for improving safety at crossings, including highway-rail grade crossing closures or grade separations; 2) focus on crossings that have experienced multiple accidents or are at high risk for such accidents; and 3) cover a five-year time period. The Texas Department of Transportation's (TxDOT) Rail-Highway Section agreed to take the lead on the action plan and a stakeholder meeting was held in Austin, Texas, on May 14, 2007, to develop a consensus on mitigation strategies to include in the plan. Extensive data analysis was required to determine what might be contributing factors with multiple-collision locations. This action plan is the result of this effort and has been developed using a five year implementation timeline. Much of the implementation of the plan will be funded utilizing Federal Section 130 funding.

Texas Highway-Rail Grade Crossing Collision Data – 2003 through 2007, and Supplemental Collision Data Analysis 2005 through 2009

The Texas Highway-Rail Grade Crossing Safety Action Plan is designed to improve grade crossing safety in Texas. During the study period from 2003 through 2007, there were 1,328 collisions at public crossings in Texas which averages to 266 collisions per year. This represents a 13 percent decrease when compared to the previous five year period of 1998 through 2002, when 1,527 collisions resulted in an average of 305

collisions per year. This decrease is reflective of the collision decrease of 13.6 percent for all public collisions in the United States during the same two periods.

During the years 2003-2007, 466 multiple-incident collisions (35 percent of the 1,328 statewide collisions) occurred at 182 (17 percent) of the 1,044 grade crossings that experienced collisions. The purpose of this report is to examine the data and crossing information in order to better understand why crossing locations have experienced recurring collisions.

In response to the FRA publication of the Final Rule on June 28, 2010 (FRA-2009-0032: notice number five) regarding information to be included in the state safety action plans, the crash data analysis was updated using collision data from 2005 through 2009. This analysis was performed to include 2008 crash data as required by the FRA Final Rule. This supplemental new data (2008 and 2009) confirmed the significant findings of the initial 2003 through 2007 analysis. While the additional two (2) years of data showed slight improvement in reduced collisions and casualties at public highway-rail grade crossings, it does not warrant modifications to the original crash data analysis nor the conclusions and recommendations contained in this plan.

The 2005 through 2009 collision data identified 61 additional crossings reporting multiple incident collisions. These additional crossing locations are being investigated for possible safety improvements through the diagnostic inspection process of the Federal Section 130 program administered by the TxDOT Rail Division.

Grade Crossing Locations

The 1,328 collisions at public crossings occurred at 1,044 unique grade crossings. This analysis divides these crossings into two groups – the 862 crossings where single collisions occurred and the 182 other crossings referred to in this report as multiple-collision crossings where a total of 466 collisions occurred (Table 2 – Appendix A).

Sixty-one percent (812) of the collisions occurred at crossings equipped with active devices and 516 collisions occurred at crossings equipped with passive devices (Table 5 – Appendix A). For the 1,328 collisions there were 229 collisions where it was reported that “Active Devices” were “Interconnected with a Nearby Traffic Control Device.” Another 320 collisions were reported to be equipped with “Active Devices” but did not have an “Interconnection with a Traffic Signal” (Table 8 - Appendix A).

Casualty Information

Sixty percent (794) of the 1,328 statewide collisions did not result in casualties to either highway-users, railroad personnel or passengers; however, 114 of the statewide collisions were fatal collision events and 420 of the collisions were injury-only collisions. A total of 140 fatalities and 509 injuries occurred as a result of the collisions. Among the injuries reported were 38 injuries to railroad employees. The multiple-collision locations experienced 39.5 percent of the fatal collision events (Table 1 – Appendix A).

Highway-Users/Drivers

Male highway-users/drivers were involved in 78 percent of the collisions. No age was reported for eight percent of the male drivers, but 16 percent were reported to be ages 16-26, 41 percent were reported to be between ages 27 to 55 years and seven percent were 70 years of age or older. Females were involved in 20 percent of the collisions and no age was reported for two percent of the females; however, five percent were reported to be between ages 12-26, nine percent were reported to be between ages 27-55 and 1.6 percent were reported to be 70 years of age or older (Table 17 – Appendix A).

An Overview of Significant Findings for Multiple-Collision Locations

The following is a listing of the most significant findings related to the multiple-collision locations which have been used to develop the action plan.

● Sixty-one percent of the total statewide collisions occurred at crossings with active devices. Of the 466 collisions which occurred at multiple-collision locations, active devices were in place at 63 percent (292) of those crossings. The remaining 37 percent of the multiple-collision locations were equipped with passive devices at the time of the collision (Table 5 – Appendix A).

● Forty-five percent (599) of the 1,328 statewide collisions were located within 75 feet of an adjacent traffic intersection. Of these collisions, 45 percent (272) occurred at the multiple-collision locations (Table 6 – Appendix A).

● For the 229 statewide collisions reported to have occurred where the active device had the "warning device interconnected with a nearby highway signal," 63 percent are within 75 feet of an adjacent intersection and 84 of these (58 percent) were multiple-collision locations. This finding indicates that this configuration of crossing equipped with active devices and located in close proximity to a nearby traffic intersection may be contributing to the repeat collisions at these crossings (Table 8 – Appendix A).

● Forty-six percent (105) of this group of 229 collisions (with "active signal devices" which were "interconnected with a traffic signal at a nearby intersection") occurred at the multiple-collision locations. This indicates that there may be an issue related to the adequacy of the preemption at these crossings (Table 8 – Appendix A).

● There were 20 statewide collisions that provided a warning time of greater than 60 seconds. Half of those occurred at the multiple-collision locations (Table 5 – Appendix A)

● Passenger and commuter trains were involved in three percent (39) of the statewide collisions and of these, 36 percent occurred at multiple-collision crossings. Commuter trains alone were involved in eight collisions, however, 50 percent of these were at multiple-collision locations. In one other noteworthy category, "work trains" were involved in only a half percent of all statewide collisions and 43 percent of these occurred at multiple-collision locations (Table 9 – Appendix A).

● Forty-four percent (579) of statewide collisions occurred on Class 4 track (freight trains: 60 miles per hour and 80 mph for passenger trains) and the majority of those (65 percent) occurred at "single collision" locations. Only eight percent (103) of the statewide collisions were reported as having occurred on Class 5 track (rated for speeds 80 – 90 miles per hour) but 44 percent of these occurred at the multiple-collision locations (Table 10 – Appendix A).

● Forty-four percent (158) of truck-trailer collisions and 39 percent (35) of the truck

(large/one-ton, dual-axle type) were at the multiple-incident crossing locations. The multiple- collision locations are also noteworthy for being the location of the only two bus collisions during this period. While only 12 (one percent) of statewide collisions involved "Other" highway-users (e.g. electric wheel chair, bicycles), 50 percent (5) of these were at multiple-collision locations (Table 13 – Appendix A).

● While only two percent of the statewide collisions reported that the highway-user was "trapped on the crossing," 56 percent of them occurred at the multiple-collision locations. Being "trapped on a crossing" could be related to situations where traffic is queuing for adjacent intersections and drivers fail to keep a safe distance from the hazard zone at a crossing (Table 14 – Appendix A).

Texas Grade Crossing Action Plan Strategies

The following action plan strategies were developed by TxDOT and FRA staff based on the significant findings of the crash data analysis, along with the stakeholder guidance. These strategies include new methods of evaluation, more focused engineering improvements, coordinated education efforts and programmatic support of enforcement efforts.

Evaluation/Engineering Strategies

- Modify project selection criteria in the annual priority index ranking of projects selected under the annual Texas Section 130 program to include crossings with flashers and gates experiencing multiple collisions.
- Identify and mitigate signal preemption issues at signalized crossings experiencing multiple collisions located adjacent to highway intersections.
- Improve crossing inventory data on crossings with signal preemption.
- Continue to make passive-to-active upgrades at un-signalized crossings.
- Continue to identify and fund projects to close redundant crossings.
- Continue to identify and fund crossing corridor studies and projects.
- Sponsor regional preemption classes to improve knowledge base of road authority and rail industry personnel.
- Increase the number of crossing diagnostic team reviews at crossings equipped with flashers and gates experiencing multiple collisions. Determine causal factors of these continuing collisions and implement engineering, education and enforcement mitigation strategy plan.
- Monitor train-involved and non-train involved crash data from FRA and TxDOT Crash Records Information System (CRIS), as well as, near-hit reports from railroad companies. Disseminate information to TXOL and FRA.
- Continue to evaluate and identify crossings experiencing multiple collisions.
- Improve accuracy of state inventory database information by reconciliation of data in railroad and state and federal updates.

- Improve information on type of crossing signal controller in place and preemption timing at crossings interconnected with adjacent traffic signals.
- Conduct research to improve effectiveness of project prioritization formula and implementation of safety improvements.
- Establish new performance workload measure "percentage reduction of crossings experiencing multi-collisions" using baseline data from 2003-2007 crash data analysis and crossing project locations identified under the 2010 FSP program.

Education/Enforcement Strategies

- Develop web-based database for crossing inventory, collision data and project information. Create stakeholders website for database and information sharing.
- Develop and implement proactive mitigation strategies for identifying and targeting problem crossings, areas or regions. Included in these will be more involvement with engineering improvements, education outreach, and increased enforcement activity.
- Focus program planning and funding to implement effective engineering, education and enforcement counter measures at high incident locations in the three major metropolitan areas with high rates of multiple collisions.
- Provide web-based database access to crossing safety information and resources to regional and local project stakeholders and traffic safety professionals.

Section I - Introduction, Background and Stakeholder Guidance

Introduction

The U.S. Department of Transportation's Office of Inspector General (OIG) reported in June 2004 that six states have continued to have a high number of grade crossing collisions at the same locations and suggested that these states should endeavor to create action plans to address the issue of multiple-incident collision locations. Texas was one of the states named in the OIG's 2004 report. In January 2007, the Federal Railroad Administration FRA made a request to the Texas Department of Transportation (TxDOT) to work cooperatively on a highway-rail grade crossing safety action plan.

Background

Texas Grade Crossing Inventory and Crossing Safety Program

In 1993 the total number of public grade crossings in Texas exceeded 15,000. Since then rail line abandonments and the closing of redundant crossings have reduced the total number of grade crossings by one-third. Crossing consolidation has always been an important method for reducing grade crossing collisions. The action plan will focus considerable effort on closing redundant crossings in corridors with multiple-incident collision locations in order to improve the overall level of safety in the corridor.

According to the TxDOT TxRAIL crossing inventory database, as of July, 2011, the total number of public highway-rail grade crossings in the State of Texas is 9,884. This total is based on the following types of crossings:

- 6,061 Active Grade Crossings (public, train activated signals)
- 3,823 Passive Grade Crossings (public, un-signalized)

There are also a total of 6,735 private highway-railroad grade crossings for a statewide total of 16,619 at-grade crossings in Texas. Federal Section 130 funding cannot be used to upgrade private crossings and therefore collisions at private crossings were not included in the data analysis and are not addressed in the action plan. In May 2008, FRA published the Highway Rail Grade Crossing Safety Research and Inquiry report that addressed issues related to private crossing safety.

Section 130 Program/Crossing Closure and Consolidation Program – In addition to on-going efforts to install and upgrade flashing light signals and gates at public highway-rail grade crossings, one of the on-going goals of the safety action plan is to identify and close redundant and unnecessary highway-rail grade crossings. In addition to closing crossings by constructing highway-rail grade separations, TxDOT also utilizes federal Section 130 funds to facilitate closures by closing the road at the railroad right of way. See Appendix D for the Fiscal Year 2009 annual report to FHWA.

Currently there are two funding options available to local governments from TxDOT for the road crossing closure program in Texas. For locations that are identified for safety improvements under the Section 130 program through the priority index ranking system, up to $150,000 is made available to the local road authority for making traffic safety or other operational improvements to facilitate the road closure. In the event the local government agrees to close a crossing that has not been selected by TxDOT for safety improvement upgrades, up to $7,500 is available. In these types of closures, the operating railroad is required to provide matching funds. The federal funds are provided on a reimbursement basis and must be used for improvements associated with the closure of the grade crossing. The local authority must provide a project description, a cost estimate, pass a resolution by its governing body, and enter into a contract with TxDOT and the railroad company before funding is authorized.

Railroad Grade Separation Program – The railroad grade separation program addresses the construction of new grade separation structures at existing at-grade highway-rail crossings and the rehabilitation or replacement of deficient highway underpasses of railroads on the state highway system. TxDOT's Bridge Division administers this program. According to the TxDOT TxRAIL crossing inventory database, there are a total of 1,790 highway-rail grade separations of public roads in Texas (764 railroad over and 1,026 railroad under). The ultimate best solution to eliminate risk at highway-rail grade crossings is by constructing a grade separation and closing the existing grade crossing. This solution is also by far the most costly. Currently, TxDOT's Federal Railroad Grade Separation Program (RGS) is the only dedicated funding for railroad grade separations. This program of work is funded under the Federal Highway Bridge Program to construct railroad grade separations. Only crossings located on the state highway system (which includes most federal-aid highways) are eligible. Projects are currently authorized through FY 2016. Crossings are only eligible if the grade separation results in the closure of an existing grade crossing. The program is currently funded at $25 million per year, which allows for the construction of 1 to 3 bridges per year. The cost-benefit index used for selecting grade crossings for grade separation projects utilizes crash data as one of the selection criteria. In accordance with the Code of Federal Regulations (CFR), half of the federal Section 130 program funds (approximately $7.5 million per year) could be diverted from making safety improvements at existing highway-rail grade crossings for other safety improvements such as grade separations. TxDOT's position, however, is that since over 38 percent of existing public crossings are equipped with only passive warning devices, all Section 130 funds should continue to be directed toward the program goals identified in the action plan.

Grade Crossing Hazard Elimination in High-Speed Rail Corridors - Section 1103(f) of SAFETEA-LU allows federal monies to be used for hazard elimination along designated high-speed rail corridors. There are currently two designated high-speed rail corridors that traverse Texas – the Gulf Coast High Speed Rail Corridor (Houston, east through Beaumont to the Louisiana border to New Orleans) and the South Central High

Speed Rail Corridor (Texarkana, Arkansas to San Antonio via Dallas/Fort Worth, and Oklahoma City to Fort Worth). 1103(f) funds have been designated for grade crossing safety improvement projects in Fort Worth, Houston, Round Rock, and Terrell, Texas.

Stakeholder Guidance

In May of 2007, TxDOT held a meeting of 42 stakeholders in Austin, Texas (see Appendix B: Stakeholder Organization Participant List). The purpose of the meeting was to obtain guidance for developing a plan to address multiple-incident collision locations and other issues important to improving highway-rail grade crossing safety in Texas. FRA prepared the initial data report for the stakeholders meeting using data for the years 2000 through 2005. At the meeting the group drafted a guidance outline for an action plan which was finalized in September 2007. The stakeholder group requested additional data analysis to be done prior to developing the final draft of the action plan. By this time, a decision was made to revise the entire data analysis in order to look at collisions during the years 2003-2007. The data analysis was performed by TxDOT staff with FRA assistance and was done between June and December of 2008.

The Rail Safety Improvement Act of October 2008 (Section 202) directed the FRA to identify ten states with the most grade crossings collisions during the years 2006-2008. The FRA first published a directed final rule on the "State Highway-Rail Grade Crossing Action Plans" in the Federal Register on September 2, 2009 (49CFR 211.33-reference 74FR45336). FRA solicited comments at this time; TxDOT did not make any comments, but one comment was received from another party which prompted FRA to undergo a formal rule-making process. It was not until June 28, 2010, that the Final Rule on State Action Plans was published (FRA-2009-0032: notice number five).

During this period of time waiting for FRA's Final Rule, TxDOT and several of the stakeholders had already begun working on projects to address significant issues identified in the preliminary data analysis and/or the stakeholders guidance for the action plan. When the data analysis revealed several key indicators which might be contributing to multiple-collisions, TxDOT moved to address several significant aspects of the action plan and did not wait for the action plan document to be completed before starting to work on implementing some mitigation strategies. For example, in October of 2009, TxDOT began programming for 2010 with a new directive to include reviews of gated crossings which may have preemption issues. As a result, 67 crossings were programmed to have preemption reviews and 63 crossings with a history of multiple-collisions were also programmed for improvement in 2010.

As a result of the first Federal Register notice (September 2, 2009), TxDOT learned that FRA was requesting a five year time line for action plan implementation. TxDOT then began revising the written draft of the action plan to include a five-year implementation strategy (years 2010-2014). Several of the educational outreach projects suggested as guidance for the action plan were underway by other stakeholders beginning in 2008.

Those projects included: (1) the Texas Transportation Institute, which began and completed a law enforcement outreach project (Appendix E) and (2) Texas Operation Lifesaver Inc. which raised funds and produced and printed a second edition of the Texas Law Enforcement Pocket Guide and (3) the FRA - Region 5 Grade Crossing program which began an email newsletter in 2008 and has sent numerous mailings with engineering, safety and Operation Lifesaver documents to a large group of local community and state contacts through email.

At the May 14, 2007, stakeholders meeting a diverse group of local traffic engineers, railroad partners, Texas Operation Lifesaver, FHWA and FRA staff, as well as TxDOT staff, participated in a very productive brainstorming session. As a result of this meeting a list of action plan recommendations was developed under four program areas for grade crossing safety improvements: evaluation, engineering, education, and enforcement. This list was further developed through an email comment process and by the end of September 2007, the following list of guidance items for the "action plan" had been developed:

Evaluation:

(1) Perform additional analysis to study multiple-collision locations: Identify factors contributing to repeat collisions at the same crossings.

(2) Utilize analysis of collision data at highway-rail grade crossings: Perform initial data analysis for development of the Texas Highway-Rail Grade Crossing Safety Action Plan by identifying crossings with multiple-incident collisions for evaluation and safety upgrades. Establish a continued collision data analysis program for prioritizing and implementing safety improvements at multiple-incident locations.

(3) Update the Section 130 program priority index used by TxDOT: Develop TRIMS (Texas Railroad Information Management System) a new web-based information system which will serve as TxDOT's new grade crossing safety database, replacing the TxRAIL database. TRIMS is necessary to support ongoing efforts to update and maintain crossing inventory data utilizing GPS data and other geospatial systems available via the intranet. TRIMS will integrate information from several data sources (project history, project workflow, roadway inventory, railroad inventory, and collision data from FRA and TxDOT). These integrated data elements will incorporate a number of analysis tools to establish a new priority indexing method for selecting projects with geographic information capability to map traffic operations, collisions and other information to analyze rail corridors for improvement. The web-based component will provide ready access to TRIMS data for both public and private project stakeholders via a user password protected intranet portal.

A state research project is currently underway to develop warrants for passive to active upgrades at highway-rail grade crossings and implement a new priority index formula for selecting crossings for upgrade utilizing federal Section 130

program funds. Preliminary findings of the research recommend incorporating additional factors such as roadway approach and track sight distance, number of passenger trains, and number of tracks into the existing priority index formula. The research project will also establish minimum thresholds of vehicle and train traffic through a set of warrants which must be met before passive crossings could be upgraded with train-activated warning devices.

Engineering:

(1) Consolidation: Continue to promote crossing consolidation through the TxDOT Grade Crossing Closure Program and encourage the following: (A) Request federal authority to require consolidations when using federal funds for crossing safety improvements; (B) Incorporate and document cost participation by railroad companies and local government into program goals, objectives, and priority indexing analysis tools; and (C) Develop a check-list for corridor analysis to aid in identifying crossings that might be closed.

(2) Preemption: Emphasize the growing importance of preemption issues to grade crossing safety: (A) Hold a series of courses for traffic engineers and railroad signal personnel on "Highway-Rail Grade Crossing Signal and Traffic Signal Interconnections" in major metropolitan areas; (B) Make TxDOT crossing signal preemption time worksheet and other instructional information available via TxDOT web site; and (C) Research the state's grade crossing inventory and crash records system to identify grade crossings adjacent to traffic intersections which could benefit from engineering upgrades for simultaneous or advance preemption.

(3) Low cost engineering improvements for multiple-collision locations: Recommend low cost engineering improvement options for local jurisdictions to make contributions to grade crossing engineering improvement through such means as: (A) Add street lights, median devices, advance warning signs or signals, YIELD or STOP signs and additional regulatory signs such as the "Do Not Stop on Tracks" sign; (B) Encourage installation of LED enhanced grade crossing traffic control regulatory advance warning signs; (C) Develop a process for identifying a list of crossings which could benefit from low-cost improvements; and (D) Disseminate a list of lower risk crossings appropriate for low cost engineering improvements to local road authorities and public works personnel.

Education:

(1) Texas Operation Lifesaver: Support the statewide Texas Operation Lifesaver (TXOL) program to increase public education outreach using education, engineering and enforcement strategies to reduce grade crossing collisions and pedestrian incidents. Work with Texas Operation Lifesaver to: (A) Mitigate the high number of multiple collisions that continue to occur in high population regions, especially the Dallas-Fort

Worth metropolitan area and the Houston-Galveston metropolitan area; (B) Enhance the program's plans to train additional certified presenters; (C) Obtain increased media coverage on grade crossing safety information; and (D) Disseminate educational outreach materials to the judicial and law enforcement community in identified target counties and regions (Completed in 2009. See Appendix F for project to disseminate materials to judges and law enforcement and Appendix E for more information on Texas Operation Lifesaver).

(2) Driver Education: Increase grade crossing safety information available for driver education programs. The following strategies are recommended: (A) Research options for increasing grade crossing safety education for inclusion in the state approved driver education, commercial driver license and defensive driving courses and tests; (B) Develop recommendations for achieving greater inclusion of grade crossing safety education in these courses; (C) Research options for including the most recent Operation Lifesaver Inc. driver education videos in Texas driver education courses, defensive driving, and CDL licensing programs; and (D) Develop a process for funding and disseminating videos to appropriate courses and training programs.

(3) Public Safety Education Materials: Revise "Highway-Rail Grade Crossings: Public Education Materials Report No. 1469-4 and disseminate information through TxDOT and Texas Operation Lifesaver websites and via email.

(4) Improve Communication of Grade Crossing Safety Information: Better utilize technology to share information on grade crossing safety with stakeholders and the public: (A) Establish an email process for sharing information with metropolitan public works departments and others in high collision counties utilizing TxDOT internet web-site and new TxDOT web-based railroad crossing inventory database. Information will include web-links to the state and national Operation Lifesaver program websites, the current version of the FHWA "Rail-Highway Grade Crossing Handbook," TxDOT railroad crossing signal preemption time worksheet, TxDOT current crossing sign, signal and pavement marking plan sheets, and the FRA website on grade crossing collision reports, inventory information and the Train-Horn rule; and (B) Publish an annual FHWA report on the effectiveness of highway-rail grade crossing safety improvements funded by the Section 130 program (see Appendix D for report to FHWA on the effectiveness of the Texas Section 130 program).

Enforcement:

(1) Promote grade crossing enforcement initiatives: Develop recommendations to expand the partnership with Texas Operation Lifesaver and the FRA Regional Law Enforcement Liaison to provide law enforcement outreach in high collision jurisdictions with information such as: (A) Locations with multiple-incident collisions; and (B) Printed materials to encourage enforcement of motor vehicle laws at grade crossings (completed).

(2) Promote new enforcement technology: Support the expansion of camera enforcement programs: (A) Develop a list of crossings that would be good candidates for camera enforcement. This list would include, for example, gated crossings with multiple collisions or those frequently appearing on railroad near-collision or damaged gate reports; (B) Monitor success of pilot project in Grand Prairie, TX; and (C) Recommend grade crossings for a pilot camera enforcement project in the Houston metropolitan area.

Section II - Discussion of Methodology and Collision Analysis

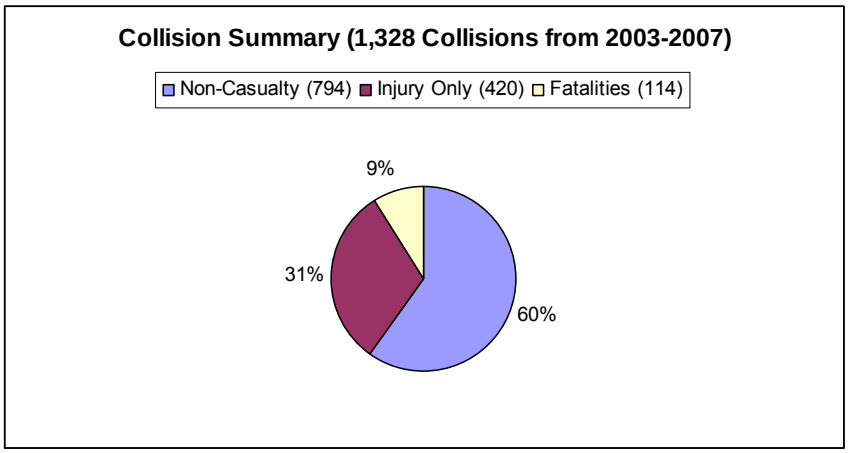
In order to study factors that may be contributing to the multiple collisions, a detailed data analysis was done for all statewide collisions that occurred at public crossings during the years 2003 through 2007. The collisions were analyzed in three groups – (1) all statewide collisions, (2) collisions at single collision crossings and, (3) collisions at multiple-collision crossings. The main purpose of the analysis was to identify significant factors related to the multiple collisions which might provide insight into why the repeat collisions are occurring.

The data used for the report was obtained from FRA collision data (records using FRA form 6180.57) and FRA grade crossing inventory information. The initial download from the FRA collision database showed that had been a total of 1,535 collisions at public and private at-grade crossings between January 2003 and December 2007. Next, the data was reconciled with the TxDOT grade crossing inventory records and checked for accuracy regarding county location and public versus private designation. Further review found that 207 collisions that were designated as "public collisions in the FRA data base actually occurred at private crossings (i.e. 192 were confirmed as private and 15 public crossing collisions were found to be at private crossings after checking state and federal inventory records). Additionally, five "private" crossing collisions were determined to be "public." Once the data verification was completed a data set was finalized for the analysis. The final set of collision data comprised the details for 1,328 statewide collisions at public grade crossings. (see Appendix C for "Data Verification Issues").

The methodology used for analyzing the data included a review of the Federal Railroad Administration (FRA 6180.57) reports for all highway-rail grade crossing collisions occurring in Texas at public grade crossings during the calendar years 2003 through 2007. A discussion of the findings of this analysis is summarized here and is based on the information presented in the cross-tabular summary, "Total Public Highway-Rail Crossing Collisions and Collisions at Single-Incident and Multiple–Incident Collision Locations - Tables 1-20" (see Appendix A for Tables 1-20).

Tables 1-20 present FRA collision report information compiled from Federal Railroad Administration (FRA) grade crossing collision reports (Form 6180.57) and FRA Grade Crossing Inventory records. The information is generally divided into three main categories: (1) Total Highway-Rail Collisions, (2) Single-Incident Highway-Rail Collisions and (3) Multiple-Incident Highway-Rail Collisions. The Single-Incident and Multiple-Incident groups are subsets of the Total Highway-Collision group. Tables 1-19 which present data indicators which provide the most useful information for understanding factors related to collisions at multiple-incident locations. Table 19 is a county-based listing of all of the 1,328 collisions and Table 20 is the county-based listing of each of the 466 multiple-incident collisions. In the following section, each of the 20 tables is summarized briefly:

Summary of Table 1: Collision Summary and Casualty Summary



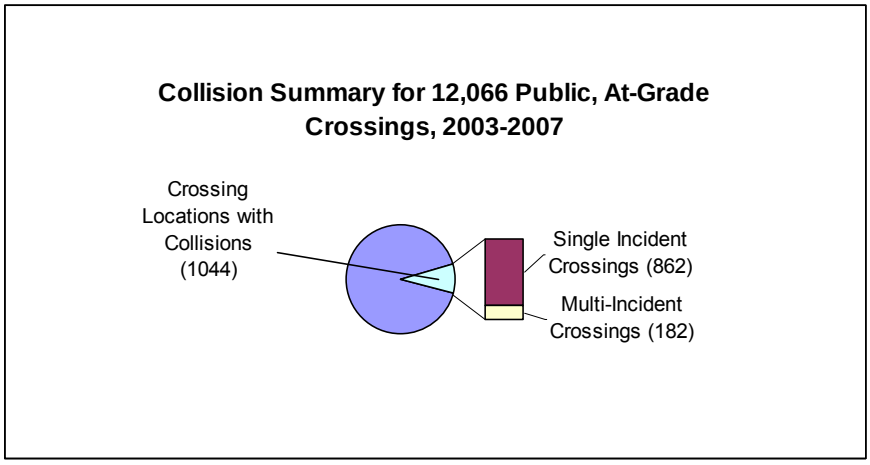
Collisions:

- 794 of 1,328 collisions (60 percent) were **non-casualty** collisions
- 420 of 1,328 collisions (31 percent) were **injury-only** collisions
- 114 of 1,328 collisions (9 percent) were **fatal** collisions with at least one or more fatalities
    - 69 fatal collisions (60.5 percent) occurred at single-incident collision locations
    - 45 fatal collisions (39.5 percent) occurred at multiple-incident collision locations

Casualties:

- 140 people died and 509 were injured (471 highway-users and 38 railroad employees) as a result of the 1,328 collisions
    - 87 fatalities (62 percent) and 319 injuries (68 percent) occurred at single-incident collision locations
    - 53 fatalities (38 percent) and 152 injuries (31 percent) occurred at multiple-incident collision locations

Summary of Table 2 –Grade Crossings Inventory Counts for Collision Locations

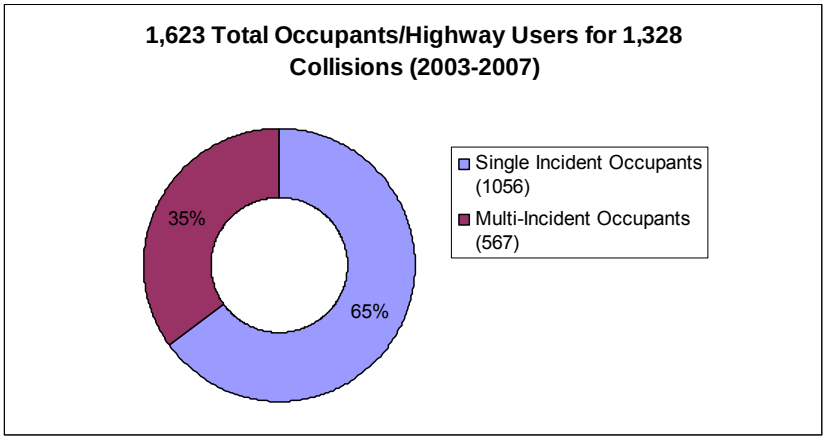


There were approximately 12,066 public at-grade crossings in Texas during the period of 2003 through 2007 according to the state's grade crossing inventory. Approximately nine percent (1,044) of these public grade crossings were involved in collisions:

- 1,044 total public grade crossings were locations for the 1,328 collisions:
  - 862 locations (83 percent of 1,044) had only single-incidents (862 collisions)
  - 182 locations (17 percent of 1,044) had multiple–incidents (466 collisions)

Summary of Table 3 – Total and Average Vehicle Occupants/Highway-Users by Collisions

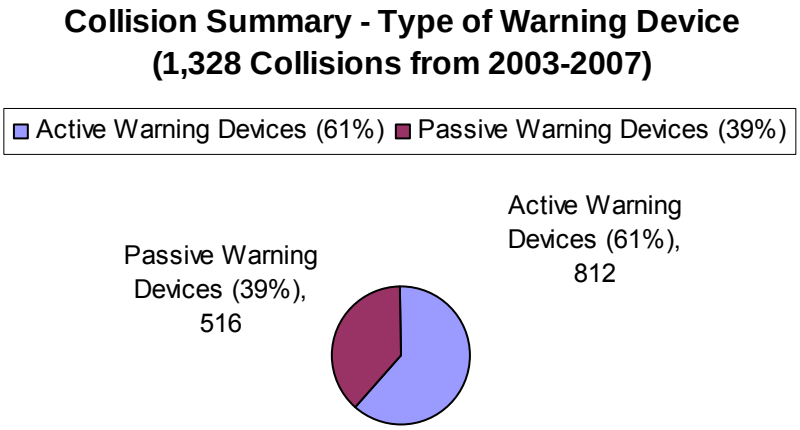
Table 3 provides a count of the total number and average for those "Occupants" (i.e. Highway-users) involved in the highway-rail collisions. This category also includes include "pedestrian at crossing" and "other highway-user" which can include electric wheelchair users and bicyclists. In this analysis, "occupant" includes all highway-users and passengers in the vehicle (see Table 13 for a complete summary of "Type of Highway-User"). The average number of occupants/highway users did not vary widely among the collision groups.

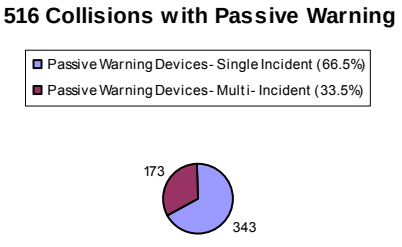


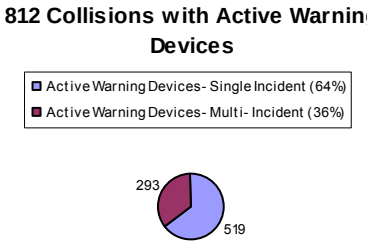
- An average of 1.222 occupants were involved in all 1, 328 collisions.
- An average of 1.225 occupants were involved in the 862 single-incident collisions.
- An average of 1.216 occupants were involved in the 466 multiple-incident collisions.

Summary of Table 4: Type of Warning Device (Active and Passive Device) in Place at Time of Collision

This table describes the types of warning devices in place at the time of the collision and is divided into two groups categorized by active or passive devices.







Active Devices:

- 812 (61%) of all 1,328 collisions had ***active warning devices*** in place:
  - 519 (64%) of 812 collisions occurred at single-incident collision locations
  - 293 (36%) of 812 collisions occurred at multiple-incident locations

  - 622 (47%) of all 1,328 collisions had warning devices equipped with ***gates and standard flashing lights or gates with cantilever lights***

(NOTE: 622 is derived by adding the total number of collisions at crossings gates and lights and gates with cantilever lights).

- 539 (41%) of the 1,328 collisions at gated crossings had warning devices equipped with ***gates and flashing lights*** and 83 more (six percent) had ***gates and cantilever flashers:***

- 349 (65%) of 862 collisions at single-incident collision locations were equipped with ***gates and standard flashing lights*** and another 59 collision locations (seven percent) were equipped with ***gates and cantilever flashers***;

- 190 (35%) of 466 collisions at multiple-incident collision locations were equipped with ***gates and standard flashing lights*** and another 24 collision locations (29%) were equipped with ***gates and cantilever lights***.

  - 141 (11%) of all 1,328 collisions had warning devices equipped with ***cantilever lights and no gates:***

    - 77 (55%) of 141 collisions occurred at single-incident locations;

    - 64 (45%) of 141 collisions occurred at multiple-incident locations.

- 45 (3%) of all 1,328 collisions had warning devices equipped with ***standard mast flashers and no gates.***

Passive Devices (equipped only with the Crossbuck and signs requiring no electricity):

- 516 (39%) of all 1,328 collisions had ***passive warning devices*** in place:
  - 343 (66%) of 516 collisions occurred at single-incident collision locations;
  - 173 (34%) of 516 collisions occurred at multiple-incident locations.

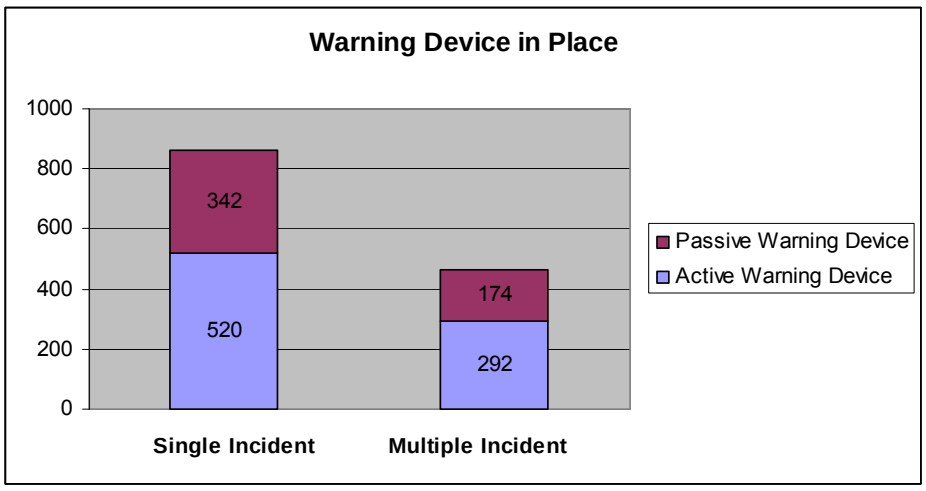
Summary of Table 5 - Active or Passive Devices and Warning Time for Active Warning Devices

Table 5 contains two parts: (1) collisions categorized by whether the crossing had active or passive devices in place at the time of the collision and (2) information about whether active devices provided the required warning times at the time of the collision.

The Code of Federal Regulations (CFR 49 - Part 234.225) requires that a "highway-rail grade crossing warning system shall be maintained to activate in accordance with the design of the warning system, but in no event shall it provide less than 20 seconds warning time for the normal operation of through trains before the grade crossing is occupied by rail traffic." Active warning devices may provide warning times greater than 20 seconds; however, warning times of greater than 30 seconds may actually cause highway-users to become impatient and ignore the devices. When active devices do not provide the required minimum warning time, the crossing must be flagged by railroad personnel or a law enforcement officer (see federal rule - CFR 49 - Part 234.105).

Of the 812 collisions which had active devices, most were reported as having provided the required warning time. However, it is significant that 50 percent of the 20 collisions which had warning times of greater than 60 seconds occurred at multiple-incident collision locations. This is a much higher percentage than should be expected at multiple-incident collision locations where 35 percent of all collisions occurred.

In addition to the information reported for Table 5 it should be noted that of the 460 of 862 collisions at single-incident collision locations were reported to have been flagged (53 percent) and 254 (55 percent) of 466 collisions at multiple-incident collision locations were reported to have been flagged. These percentages appear to be extremely high and are likely to be reporting errors made by the railroads.



Warning Devices - - Active or Passive:

- 812 (61%) of 1,328 collisions occurred at locations with ***active warning devices***:
  - 520 (64%) of the 812 were at single-incident collision locations
  - 292 (36%) of the 812 were at multiple-incident collision locations
- 516 (36%) of 1,328 collisions occurred at locations with *passive warning devices*:
  - 342 (66%) of the 516 were at single-incident collision locations
  - 174 (34%) of the 516 were at multiple-incident collision locations

Active Device -- Warning Time Reported:

- 767 (94.5%) of 812 collisions at the locations equipped with ***active warning devices provided the required minimum 20 second warning***
  - 488 (64%) of the 767 were at single-incident collision locations
  - 279 (36%) of the 767 were at multiple-incident collision locations

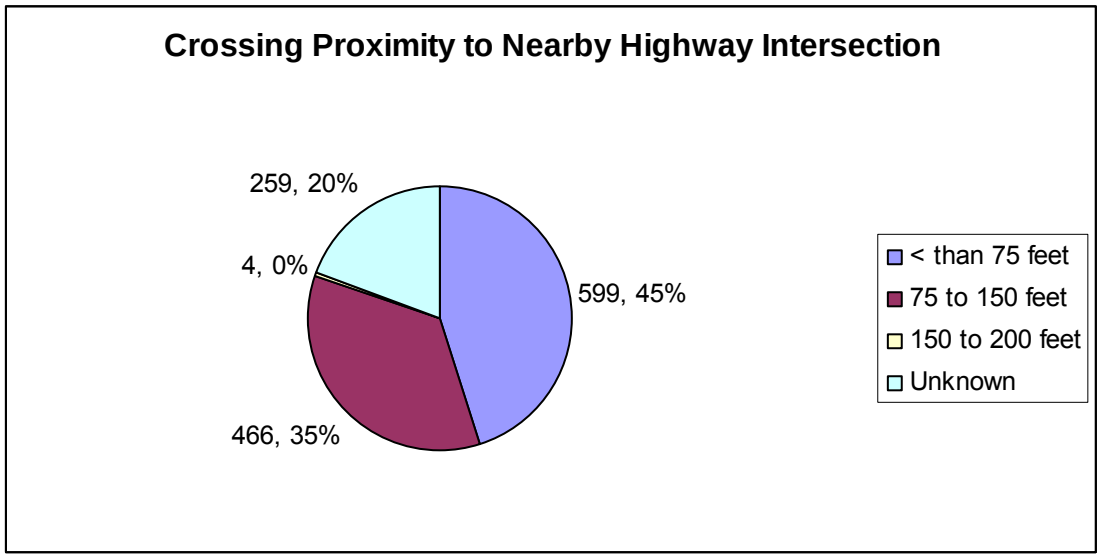
- 24 (2.5%) of all 812 collisions equipped with ***active devices provided a warning time of greater than 60 seconds*** (4 confirmed and 20 alleged – greater than 60 second warning)
  - 13 (54%) of 20 collisions occurred at single-incident collision locations
  - 11 (46%) of 20 collisions occurred at multiple-incident collision locations

- 19 (2.5%) of all 812 collisions equipped with ***active devices did not provide the minimum required 20 second warning time*** (1 confirmed and 1 alleged – no warning time)
  - 17 (90%) of the 19 collisions occurred at single-incident collision locations
  - 2 (10%) of the 19 collisions occurred at multiple-incident locations

Summary of Table 6 - Active and Passive Crossings by Proximity to Nearby Highway Intersection

Table 6 presents information derived from two sources with connections to the crossing locations: (1) the FRA Grade Crossing Inventory and (2) the FRA6180.57 accident/incident reporting form. No information on proximity to adjacent intersections was available for 259 (19.5 percent) of the 1,328 collision locations. However, for the 1,069 (80.5 percent) of the collisions for which inventory proximity information was available, 599 crossings (45 percent) were located within "less than 75 feet from a nearby highway intersection" and 272 (45 percent) of these were at multiple-incident collision locations and of these, 184 (45 percent) were at locations equipped with active devices. This provides an important indicator to help understand what may be unique about the multiple-incident locations in this analysis.

Another 466 were located within 75 to 150 feet from a nearby highway intersection. Only four crossings were reported by the Inventory to be located 150 to 200 feet from nearby highway intersection.



Crossings Located Less than 75 feet from Nearby Highway Intersection:

- 599 (45%) of all 1,328 collisions occurred at locations where we can confirm that the crossing was ***less then 75 feet*** from adjacent highway intersection; 420 (70 percent of these were equipped with active devices):
    - 327 (58%) of the 599 collisions occurred at single-incident locations
        - 236 (72%) of 327 collisions occurred at *active warning* locations
        - 91 (28%) of 327 collisions occurred at *passive warning* locations

- 272 (45%) of the 599 collisions occurred at multiple-incident locations:
  - 184 (68%) of 272 collisions occurred at active warning locations;
  - 88 (32%) of 272 collisions occurred at passive warning locations.

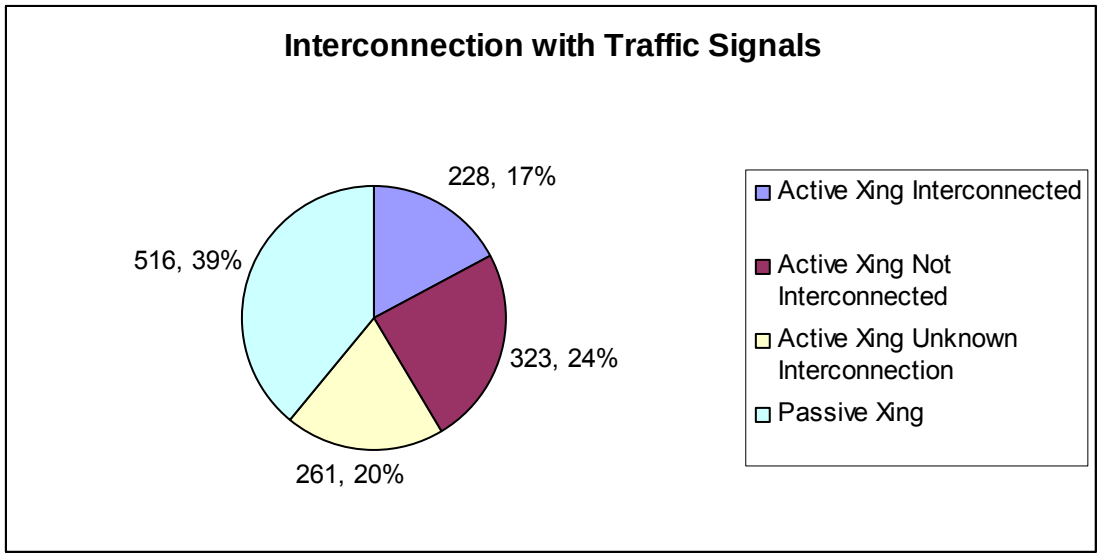
Crossings Located 75 to 150 feet from Nearby Highway Intersection:

- 466 (35%) of all 1,328 collisions occurred where we can confirm that the crossing is located ***75 to 150 feet from an adjacent highway intersection*** (61% of these were equipped with active devices):
  - 301 (65%) of 466 collisions occurred at single-incident collision locations;
  - 165 (35%) of 466 collisions occurred at multiple-incident collision locations.

Summary of Table 7 - Active Warning Device Interconnection with Traffic Signals at Nearby Highway Intersection and Passive Devices without Interconnection

Table 7 is a two part table derived from FRA6180.57 reports. The first part focuses on the 812 collisions which occurred at crossings with active devices. This group comprises 17 percent of the total number of collisions (1,328). It is significant that 46 percent of the 228 collisions occurred at multiple-incident collision locations and were reported to *have active warning devices interconnected with a traffic signal* at nearby intersections. According to the reports (FRA 6180.57) submitted by the railroad, there were 323 of the active devices (24 percent) which were "Not interconnected," and there were 261 (20 percent) active warning devices with "unknown interconnection" reported. Additional research using the TxDOT Inventory for these 261 locations will be necessary in order to determine if there are interconnections with nearby traffic signals.

Information for Table 7 is derived from two variables contained in the FRA 6180.57 collision report – “signal” found in Block 33 and “warnsig” found in Block 36 of the report form.* These two variables were reported for all 1,328 collision reports. Passive devices, however, were in place at 516 of the total collisions, and were assumed to be not interconnected with traffic signals.



Active Warning Device Interconnections:

- 228 (17%) of all 1,328 collisions were reported to have ***active warning devices interconnected with a traffic signal*** at nearby intersections:
  - 124 (54%) of 228 collisions occurred at single-incident collision locations;
  - 104 (46%) of 228 collisions occurred at the multiple-incident locations.

- 261 (20%) of all 1,328 collisions had active warning devices with "unknown interconnection"

- 323 (24%) of all 1,328 collisions had active devices reported to be "*not interconnected.*

* *RE: Block 33 and Block 36- See the FRA Guide for Preparing Accident/Incident Reports (DOT/FRA- RRS-22. May 1, 2003) U.S. Department of Transportation, Federal Railroad Administration. Refer to Chapter 10, pages 10-11 for an explanation of Block 33 (Signaled Crossing Warning – aka "signal") and see pages 11-12 for an explanation of Block 36 (Crossing Warning Interconnected with Highway Signals – aka "warnsig").*

Summary of Table 8: Warning Device Interconnection with Highway Signal by Proximity to Nearby Highway Intersection by Active and Passive Device

Table 8 uses information from (1) the FRA6180.57 collision reports and (2) the FRA Grade Crossing Inventory to categorize warning device interconnection with highway signals ("warnsig") for active and passive devices ("signal") and indicates the proximity of the crossing to a nearby highway intersection based on information from the FRA Grade Crossing Inventory.

- 229 (17%) of all 1,328 collisions had ***warning devices interconnected*** with nearby highway signals and all were equipped with active devices
    - 124 (54%) of 229 were located at single-incident collision locations
    - 105 (46%) of 229 were located at multiple-incident collision locations
    - 144 (63%) of these 229 collisions occurred ***within 75 feet of a nearby highway intersection***
        - 60 (42%) of the 144 collisions occurred at single-incident locations
        - 84 (58%) of the 144 collisions occurred at multiple-incident locations
    - 70 (31 percent) of 229 collisions occurred between ***75 feet and 150 feet nearby highway intersection***
        - 53 (76%) of 70 collisions occurred at single-incident locations
        - 17 (24%) of 70 collisions occurred at multiple-incident locations
    - 15 (7%) of the 229 collisions occurred with active devices in place but no proximity information was available
- 709 (53%) of all 1,328 collisions occurred where warning devices were reported to be ***not interconnected with a nearby highway signal*** (320 were equipped with active devices and 389 with passive devices):
    - 304 (43%) of 709 collision locations were ***within 75 feet*** of a nearby highway intersection
        - 154 (51%) of 304 occurred where ***active*** devices were in place
        - 150 (49%) of 304 occurred where ***passive*** devices were in place
    - 284 (40%) of 709 collision locations were ***75 to 150 fee***t from a nearby highway intersection
        - 127 (45%) of the 284 collisions occurred where active devices were in place

        - 157 (55%) of the 284 collisions occurred where passive devices were in place

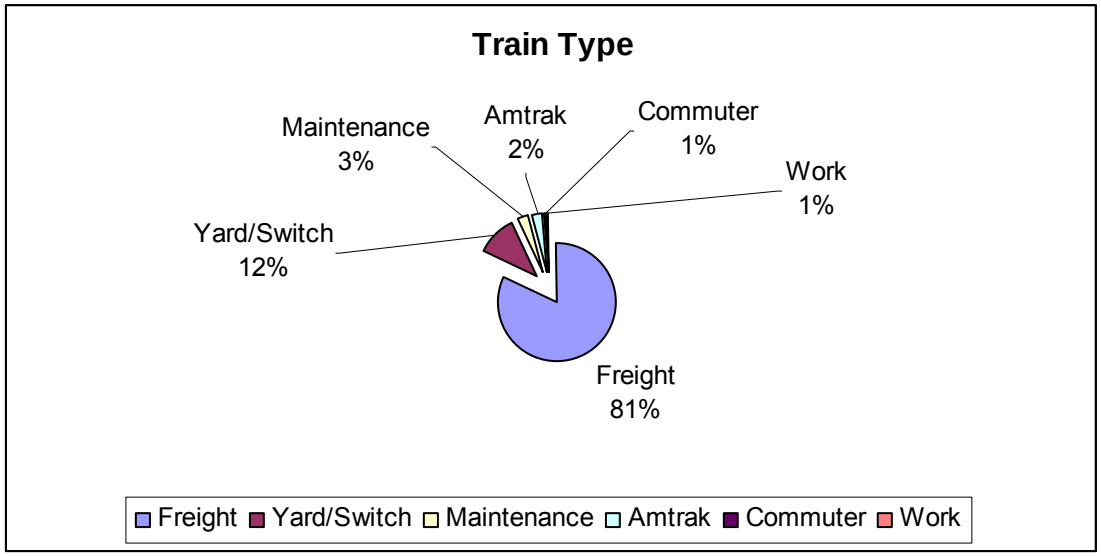
    - 117 (17%) of 709 collisions had ***no proximity information*** available from the FRA Inventory (37 were equipped with active and 80 with passive devices)

- 390 (29%) of all 1,328 collisions were reported to have ***unknown interconnection with highway signal*** (259 were equipped with active devices and 131 with passive devices):

    - 151 (39%) of 390 collisions occurred with active devices in place ***within 75 feet*** of a nearby highway intersection:
        - 92 (61%) of the 151 collisions occurred at single-incident collision locations (69 had active devices and 23 had passive devices in place)
        - 59 (39%) of the 151 collisions occurred at the multiple-incident collisions locations (53 had active devices and six had passive devices in place)

    - 29 (7%) of 390 collisions occurred at ***passive*** devices ***within 75 feet*** of an adjacent intersection

Summary of Table 9 - Type of Train Involved by Active or Passive Devices at Crossings



Freight trains were involved in 81% of the 1,328 collisions. Sixty-four percent of these collisions occurred at single-collision locations and 36 percent occurred at multiple-incident collisions locations. There were two categories, collisions involving "Commuter" trains and "Work" trains, which involved relatively few collisions (eight and seven collisions respectively) but both categories had a high percentage of the collisions occurring at multiple-incident collision locations (50 and 43 percent respectively)..

Few differences among the groups existed for the type of train by active or passive warning device. Slightly higher percentages were found in the multiple-incident collision locations for freight trains and active devices and yard/Switching Engines with active devices.

- 1,037 (78 percent) of all 1,328 collisions involved a ***freight train (60 percent of these were equipped with active devices)***:
  - o 665 (64 percent) of 1,037 collisions occurred at single-incident collision locations;
  - o 372 (36 percent) of 1,037 collisions occurred at multiple-incident collision locations.

- 146 (11 percent) of 1,328 collisions involved ***a yard /switching engine train (62 percent were equipped with active warning devices):***
  - o 94 (64 percent) of 146 collisions occurred at single-incident collision locations;

  - 52 (36 percent) of 146 collisions occurred at multiple-incident collision locations.

- 31 (2 percent) of 1,328 collisions involved ***Passenger trains (i.e. Amtrak***) ***(81 percent of these at crossings equipped with active devices):***
  - 21 (68 percent) of 31 collisions occurred at single-incident collision locations;
  - 10 (32 percent) of 31 collisions occurred at multiple-incident collision locations.

- 26 (2 percent) of 1,328 collisions involved Maintenance/Inspection Railcars ***(81 percent of these at crossings equipped with active devices):***
  - 22 (85 percent) of 26 collisions occurred at single-incident collision locations;
  - 4 (15 percent) of 26 collisions occurred at multiple-incident collision locations.

- **11 (1 percent) of** 1,328 **collisions** ***involved Special Maintenance-of-Way Equipment (82 percent of these at crossings were equipped with active devices):***
  - 10 (91 percent) of 11 collisions occurred at single-incident collision locations;
  - 1 (9 percent) of 11 collisions occurred at multiple-incident collision locations.

- **8 (1 percent) of** 1,328 **collisions** ***involved Commuter Trains (i.e. the Trinity Railway Express commuter railroad) (100 percent of these at crossings were equipped with active devices):***
  - 4 (50 percent) of 8 collisions occurred at single-incident collision locations;
  - 4 (50 percent) of 8 collisions occurred at multiple-incident collision locations.

- 7 (0.5 percent) of 1,328 collisions involved ***Work Trains (43 percent of these at crossings were equipped with active devices):***
  - 4 (57 percent) of 7 collisions occurred at single-incident collision locations;
  - 3 (43 percent) of 7 collisions occurred at multiple-incident collision locations.

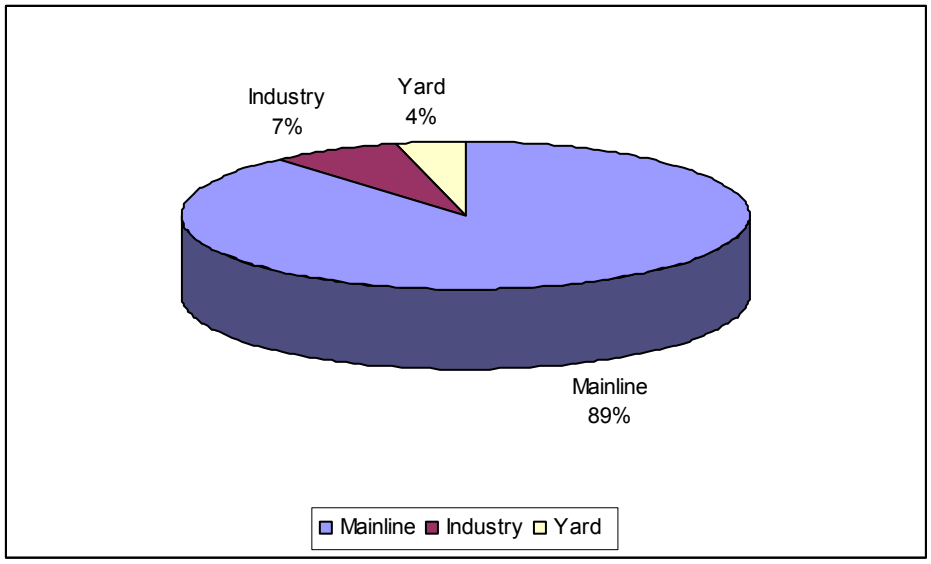
- 3 (0.2 percent) of 1,328 collisions involved ***a Cut of Rail Cars (33 percent of these at crossings were equipped with active devices):***
  - 3 (100 percent) of 3 collisions occurred at single-incident collision locations;
  - 0 (**---**) of 3 collisions occurred at multiple-incident collision locations.

Summary of Table 10 - Type of Track and Class of Track

Table 10 provides a two-part summary of (1) the type of track and (2) the class of track in place at the time of the collisions. Type of track is designated by the railroad depending on use. Eighty-nine percent (1,172) of the 1,328 collisions occurred on mainline track. Industry track, also know as industrial spur lines were the location of seven percent of the collisions and yard tracks experienced four percent of the collisions. Siding track was listed for only one half-percent of the collisions.

Specifications for Class of Track are outlined in the Federal Railroad Administration's track safety standards found in the 49 Code of Federal Regulations Part 213. Class 4 track was reported for 579 collisions (44 percent) of the 1,328 collisions and Class 5 track was reported for 103 collisions (8 percent). Multiple-incident collision locations had 45 (44 percent) of the collisions on Class 5 track. The maximum authorized train speed for Class 4 track is 60 miles per hour for freight trains and up to 80 miles per hour for passenger trains. Class 5 track has authorized train speeds of 80 miles per hour for freight trains and 90 miles per hour for passenger trains.

Type of Track:



- 1,172 (89 percent) of all 1,328 collisions occurred on ***Mainline track (62 percent of these collisions occurred at crossings equipped with active devices)***:
  - 746 (64 percent) of 1,172 collisions occurred at single-incident collision locations;
  - 426 (36 percent) of 1,172 collisions occurred at multiple-incident collision locations.

Note: 426 (91 percent) of the total 466 collisions at multiple-incident collision

locations were on mainline tracks

- 98 (7 percent) of all 1,328 collisions occurred on ***Industry track (45 percent of these collisions occurred at crossings equipped with active devices)***:
    - 73 (74.5 percent) of 98 occurred at single-incident collision locations;
    - 25 (25.5 percent) of 98 occurred at multiple-incident collision locations.

- 51 (4 percent) of all 1,328 collisions occurred on ***Yard track (27.5 percent of these collisions occurred at crossings equipped with active devices)***:
    - 37 (72.5 percent) of 51 occurred at single-incident collision locations;
    - 14 (27.5 percent) of 51 occurred at multiple-incident collision locations.

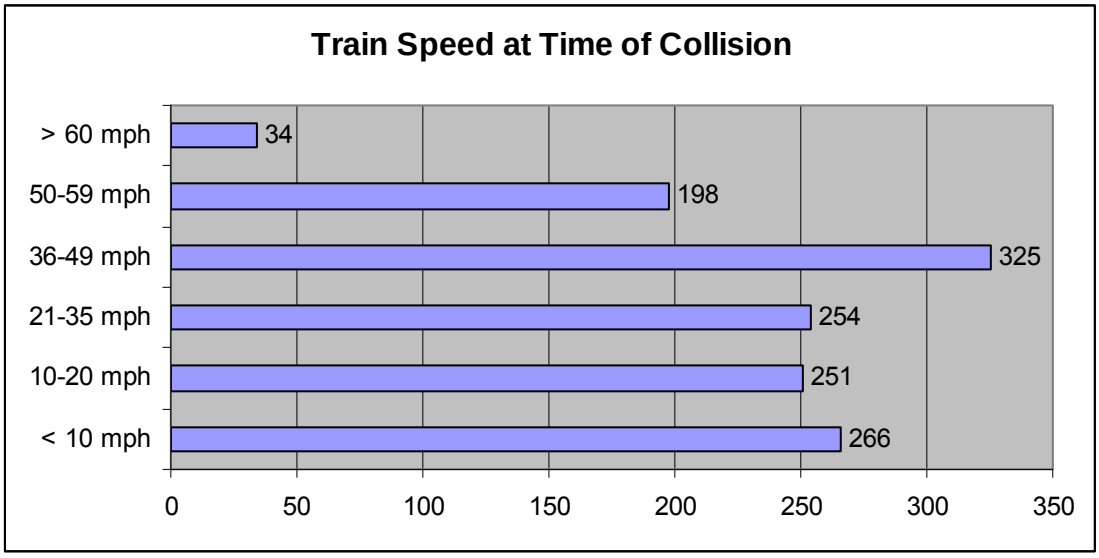
Class of Track:

- **579 (44 percent) of** all 1,328 collisions **occurred on *Class 4 track (62 percent of these collisions occurred at crossings equipped with active devices)***:
    - 376 (65 percent) of 579 occurred at single-incident collision locations;
    - 203 (35 percent) of 579 occurred at multiple-incident collision locations.

- **103 (8 percent) of** all 1,328 collisions **were reported as having occurred on Class 5 track *(70 percent of these collisions occurred at crossings equipped with active devices)***:
    - 58 (56 percent) of 103 occurred at single-incident collision locations;
    - 45 (44 percent) of 103 occurred at the multiple-incident collision locations.

Summary of Table 11 - Train Speed at Time of Collision

Train speed at the time of the collision is reported on the FRA 6180.57 report form as either estimated or recorded (in miles per hour). The six categories of train speeds listed on Table 11 were grouped for this analysis and divided by active and passive devices. Fifty-eight percent (771) of the 1,328 collisions occurred with train speeds of 35 miles per hour or less. The single largest group - 325 collisions (24.5 percent) - was grouped in the train speed category of "36 miles per hour to 49 miles per hour." Differences in train speeds at the time of collision were proportional to the percentage of collisions between the single-incident and multiple-incident collision location groups. There is no information to suggest that "train speed" can be considered a major factor related to collisions at multiple-incident collision locations.



- 251 (19%) of 1,328 collisions occurred at ***train speeds of 10 to 20 miles per hour*** (69 percent occurred at crossings equipped with active devices):
  - 157 (63%) of 251 collisions occurred at single-incident collision locations;
  - 94 (37%) of 251 collisions occurred at multiple-incident collision locations.

- 325 (24.5%) of all 1,328 collisions occurred at ***train speeds from 36 miles per hour to 49 miles per hour*** (54% of these were equipped with active devices):
  - 209 (64%) of 325 collisions occurred at single-incident collision locations;
  - 116 (36%) of 325 collisions occurred at multiple-incident collision locations.

- 266 (20 percent)of 1,328 collisions occurred at ***train speeds of less than 10 miles per hour*** (63.5 percent occurred at crossings equipped with active devices):
    - 193 (73%) of 266 collisions occurred at single-incident collision locations;
    - 73 (27%) of 266 collisions occurred at multiple-incident collision locations.

- 254 (19%)of 1,328 collisions occurred at ***train speeds of 21 to 35 miles per hour*** (65% occurred at crossings equipped with active devices):
    - 156 (61%) of 254 collisions occurred at single-incident collision locations;
    - 98 (39%) of 254 collisions occurred at multiple-incident collision locations.

- 34 (3%) of 1,328 collisions occurred at ***train speeds of greater than 60 miles per hour*** (68% occurred at crossings equipped with active devices):
    - 21 (62%) of 34 collisions occurred at single-incident collision locations;
    - 13 (38%) of 341 collisions occurred at multiple-incident collision locations.

Summary of Table 12 - Class I Railroads, Passenger and Commuter and Shortline Railroads

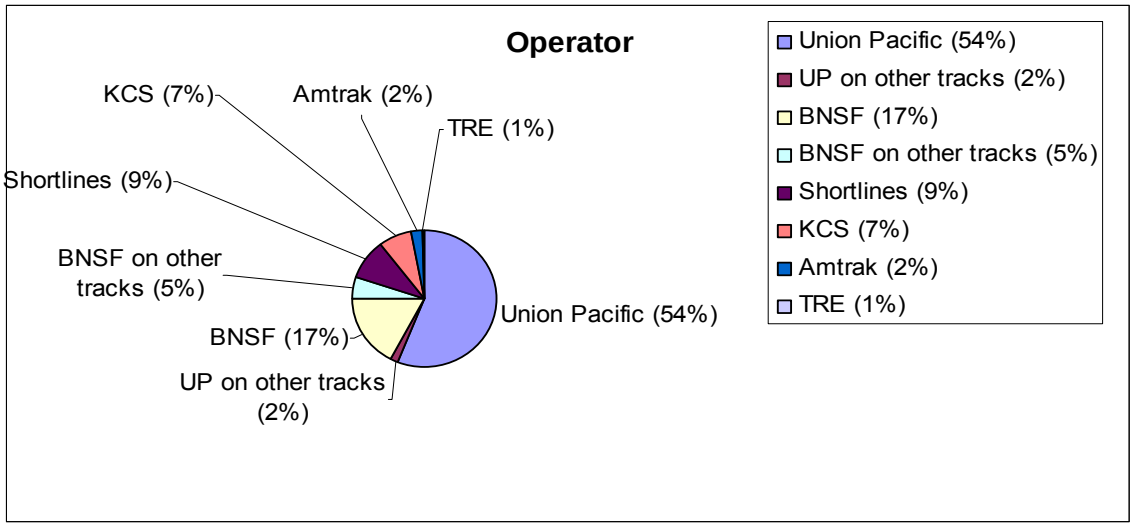


Table 12 summarizes the reporting railroads involved in the collision. The chart indicates if the reporting railroad is operating on another railroad's track or on their own track. During the time period of 2003 to 2007 there were three Class I railroads, 44 regional/shortline railroads, one commuter railroad and The National Railway Passenger Corporation (Amtrak) operating in Texas. As Table 12 indicates, 1,166 (88 percent) of 1,328 collisions involved Class I railroads, 125 (9 percent) involved 21 shortline railroads.

According to the Association of American Railroads, Class I railroads operate on approximately 10,386 miles of track in Texas (excluding trackage rights). According to the Texas Department of Transportation, Class I railroads have 7,567 of the 10, 176 public at-grade crossings in the state (Union Pacific Railroad – 4,872 public crossings; BNSF Railway – 2,141 public crossings and KCS Railway – 554 public crossings).

The multiple-incident collision locations comprised 35.5 percent of the 1,166 Class I railroad collisions and 35 percent of all the 1,328 collisions. Among the Class I railroads, the KCS Railway, which had seven percent of the total collisions, had the highest percentage (47 percent) of the railroad's crossing collisions occurring at multiple-incident collision incidents. Also, multiple-collision incidents were a high percentage of UP and BNSF collisions while operating on other railroads. These higher percentages do not identify a significant finding with multiple-incident collision locations related to railroad operations.

- 723 (54 percent) of all 1,328 collisions involved ***Union Pacific Railroad*** **(UP)** trains on its track:
    - 464 (64 percent) of the 723 collisions occurred at single-incident collision locations;
    - 259 (36 percent) of the 723 collisions occurred at multiple-incident collision locations.

- 27 (2 percent) of all 1,328 involved ***UP trains on other railroad tracks***:
    - 12 (44 percent) of 27 collisions occurred at single-incident collision locations;
    - 15 (55.5 percent) of 27 collisions occurred at multiple-incident collision locations.

- 224 (17) percent of all 1,328 collisions involved ***BNSF Railway*** **(BNSF)** trains on their tracks:
    - 169 (75 percent) of 224 collisions occurred at single-incident collision locations;
    - 55 (25 percent) of 224 collisions occurred at multiple-incident collision locations.

- 62 (5 percent) of all 1,328 involved ***BNSF on other railroads***:
    - 33 (53 percent) of 62 collisions occurred at single-incident collision locations;
    - 29 (47 percent) of 62 collisions occurred at multiple-incident collision locations.

- 94 (7 percent) of all 1,328 collisions involved ***Kansas City Southern Railway*** (KCS) on KCS tracks:
    - 50 (53 percent) of 94 collisions occurred at single-incident collision locations;
    - 44 (47 percent) of 94 collisions occurred at multiple-incident collision locations.

- 29 (2 percent) of all 1,328 collisions involved ***Amtrak*** trains:
    - 20 (69 percent) of 29 collisions occurred at signal incident locations;
    - 9 (31 percent) of 29 collisions occurred at multiple-incident collision locations.

- 8 (0.6 percent) of all 1, 328 collisions involved ***Trinity Railway Express commuter rail operations:***
    - 4 (50 percent) of 8 collisions occurred at single-incident collision locations;
    - 4 (50 percent) of 8 collisions occurred at multiple-incident collision locations.

- 122 (9 percent) of all 1,328 collisions involved 22 ***Regional/Shortline Railroad*** trains:
    - 85 (70 percent) of 122 collisions occurred at single-incident locations;
    - 37 (30 percent) of 122 collisions occurred at multiple-incident collision locations.

Summary of Table 13 - Type of Highway-User/Vehicle

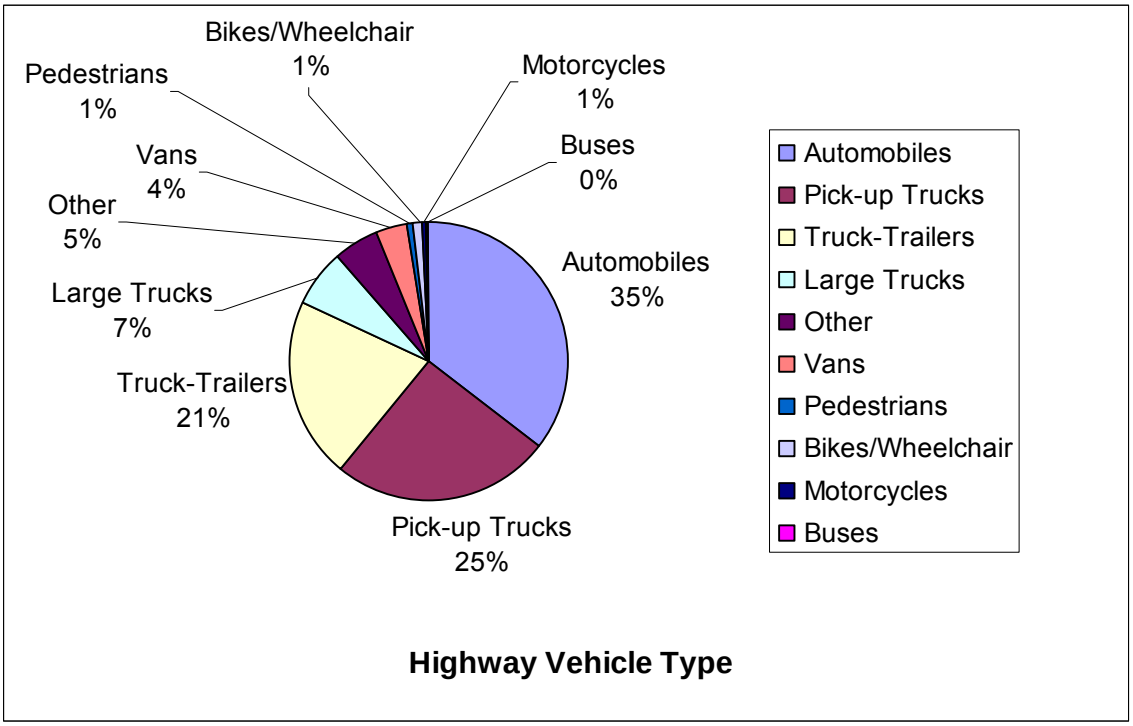


Table 13 summarizes 11 categories of highway-users for frequency of collisions based on whether the crossing was equipped with active or passive devices. School buses were the only category of highway-users for which zero collisions occurred during the 2003 through 2007 time period. Automobiles comprise the single largest group (35.5 percent) of highway-users involved in the 1,328 grade crossing collisions. The second largest group is among operators of pick-up trucks (25 percent) and the third largest group is among the operators of truck-trailers (semi-trucks, trucks with trailers/tractor-trailers).

A significant finding illustrated in Table 13 shows that among the 282 truck–trailer collisions, 44 percent occurred at multiple-incident collision locations. This fact provides a key to understanding more about multiple-incident collision locations. In addition, though there were a small number of total collisions (12) with "Other Highway-Users," 42 percent of these occurred at multiple-incident collision locations. Also both (100 percent) of the "Bus" collisions occurred at multiple-incident collision locations. All three of these groups involve professional drivers who have the most training of any group of motor vehicle operators. They also are operating vehicles with long-wheel bases that often have issues with inadequate storage at grade crossings adjacent to nearby highway intersections.

- 472 (35.5 percent) of all 1,328 collisions involved ***automobiles***:
  - 324 (69 percent) of 472 collisions occurred at single-incident collision locations;
  - 128 (31 percent) of 472 collisions occurred at multiple-incident collision locations.

- 335 (25 percent) of all 1,328 collisions involved ***pick-up trucks***:
  - 222 (66 percent) of 335 collisions occurred at single-incident collision locations;
  - 113 (34 percent) of 335 collisions occurred at multiple-incident collision locations.

- 282 (21 percent) of all 1,328 collisions involved ***truck-trailers (semi trucks, trucks with trailers):***
  - 159 (56 percent) of 282 collisions occurred at single-incident collision locations;
  - 123 (44 percent) of 282 collisions occurred at multiple-incident collision locations.

- 89 (7 percent) of all 1,328 collisions involved ***large trucks (1 ton, dump truck, flatbed, panel, etc.):***
  - 54 (61 percent) of 89 collisions occurred at single-incident collision locations;
  - 35 (39 percent) of 89 collisions occurred at multiple-incident collision locations.

- 70 (5 percent) of all 1,328 collisions involved Other Motor Vehicles ***(lawn mowers, off-road vehicles like 4-wheeler and all-terrain vehicles and "go-carts" etc.):***
  - 45 (64 percent) of 70 collisions occurred at single-incident collision locations;
  - 25 (36 percent) of 70 collisions occurred at multiple-incident collision locations.

- 47 (3.5 percent) of all 1,328 collisions involved ***Vans (including small vans and large 15 passenger commercial vans):***
  - 38 (81 percent) of 47 collisions occurred at single-incident collision locations;
  - 9 (19 percent) of 47collisions occurred at multiple-incident collision locations.

- 12 (one percent) of all 1,328 collisions ***involved Pedestrians (only at the grade crossings and does not include trespassers):***
  - 8 (67 percent) of 12 collisions occurred at single-incident collision locations;

  - 4 (33 percent) of 12 collisions occurred at multiple-incident collision locations.

- 12 (one percent) of all 1,328 collisions involved ***Other Highway-Users (including bicycles and electric wheel chairs):***
  - 7 (58 percent) of 12 collisions occurred at single-incident collision locations;
  - 5 (42 percent) of 12 collisions occurred at multiple-incident collision locations.

- 7 (0.05 percent) of all 1,328 collisions involved ***Motorcycles (including off-road two wheel cycles, scooters and small motorcycles):***
  - 5 (71 percent) of 7 collisions occurred at single-incident collision locations;
  - 2 (29 percent) of 7 collisions occurred at multiple-incident collision locations.

- 2 (0.2 percent) of all 1,328 collisions involved ***Buses (does not include school buses but does include transit or commercial buses operated by commercial drivers):***
  - 2 (100%) of two collisions occurred at multiple-incident locations.

Summary of Table 14 - Position of Highway-User at Time of Collision and Highway-User Action Prior to Collision

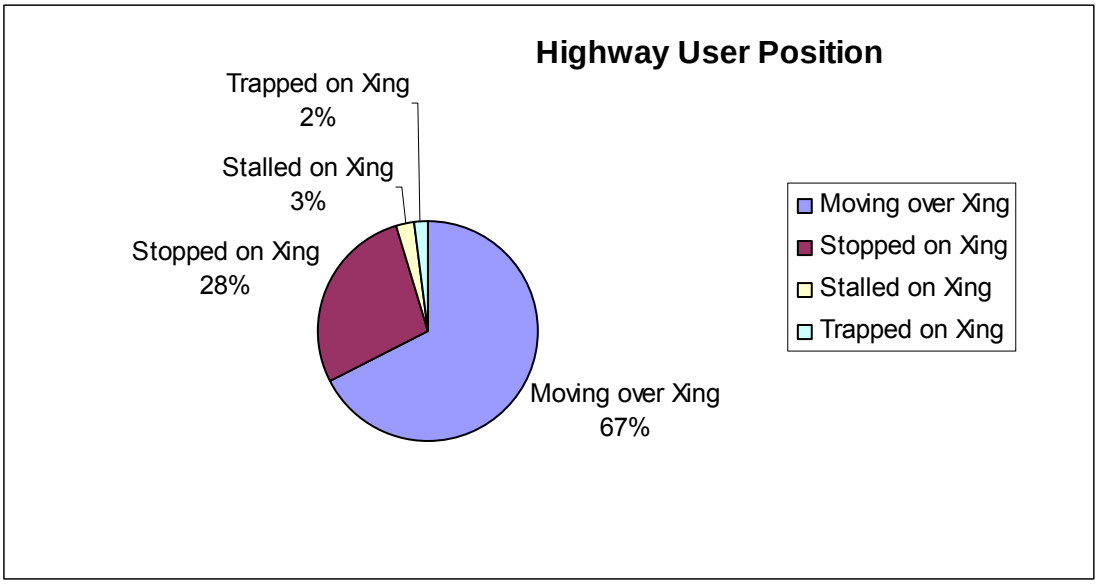


Table 14 is a two-part table which describes (1) "Position of the Highway-User" at the time of the collision as well as (2) the reported "Action" prior to the collision (reported by the railroad on form FRA6180.57). This table illustrates some important information about the multiple-incident collision locations. Of the 369 collisions in which highway-users were reported to have stopped on the crossings prior to the collision, 40 percent of these occurred at multiple-incident collision locations. For the 25 collisions in which the highway-user was reported to have been “trapped on the crossing,” 56 percent were at multiple-incident collision locations. These two factors are likely associated with nearby traffic intersections which are over-represented in the multiple-incident collision location group (also see Table 6 and Table 8).

"Highway-users Moving Over the Crossing" were reported in 898 of the collisions (67 percent). For the category of Highway-user Action Prior to the Collision," the largest percentage (38 percent) were reported as "Did Not Stop." For the 210 collisions in which the “Action” prior to the collision was reported as “Other,” 41 percent occurred at multiple-incident collision locations. Though the user action is not clear in this case, it is a high percentage for the multiple-incident collision locations. It is also should be noted for "Action" prior to the collision, there were 282 collisions (21 percent) in which highway-users were reported to have driven around gates, only 29 percent occurred at multiple-incident collision locations.

Highway-User Position at Time of Collision:

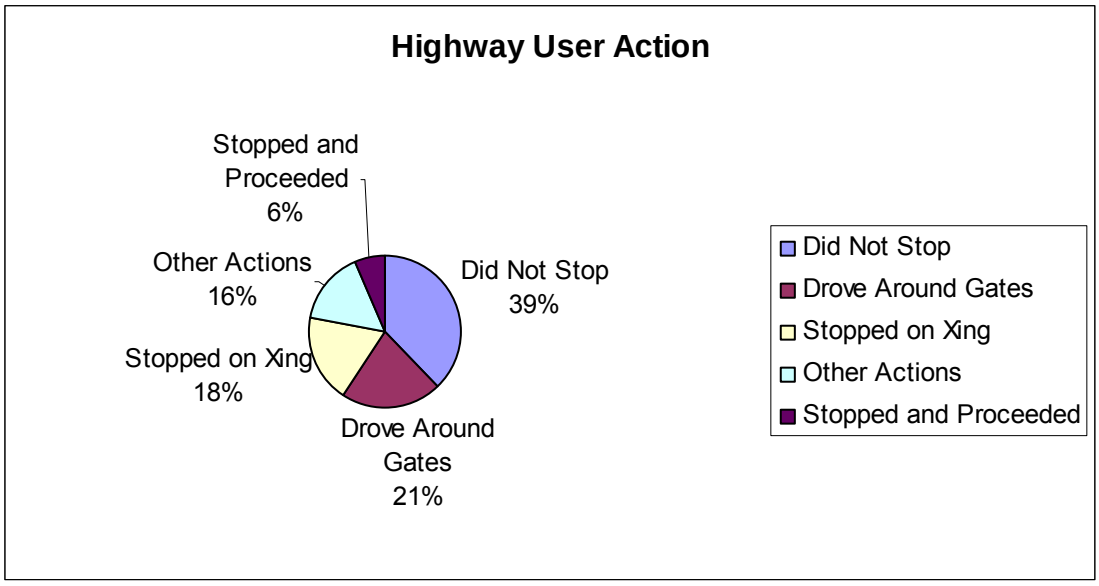
- 898 (67%) of all 1,328 collisions occurred while ***moving over the crossing***:
  - 604 (67%) of 898 collisions occurred at single-incident collision locations;
  - 294 (33%) of 898 collisions occurred at multiple-incident locations.

- 369 (28%) of all 1,328 collisions occurred while ***stopped on the crossing***:
  - 220 (60%) of 369 collisions occurred at single-incident collision locations;
  - 149 (40%) of 369 collisions occurred at multiple-incident locations.

- 36 (3%) of all 1,328 collisions occurred while ***stalled on the crossing***:
  - 27 (75%) of 36 collisions occurred at single-incident collision locations;
  - 9 (25%) of 36 collisions occurred at multiple-incident collision locations.

- 25 (2 percent) of all 1,328 collisions occurred while ***trapped on the crossing***:
  - 11 (44%) of the 25 collisions occurred at single-incident locations;
  - 14 (56%) of 25 collisions occurred at the multiple-incident locations.

NOTE: "trapped on crossing" could be related to situations where traffic is queuing/lining up for adjacent intersections and drivers fail to keep a safe distance from the hazard zone (3-4 feet on either side of the tracks) at a crossing and become boxed in or trapped.



Highway-User Action Prior to Collision:

- 498 (38%) of all 1,328 collisions reported the highway-user ***"did not stop:"***:
  - 326 (65%) of 498 collisions occurred at single crossing locations;
  - 172 (35%) of 498 collisions occurred at multiple-incident locations.

- 282 (21%) of all 1,328 collisions reported the highway-user ***"drove around or through the gates"***:
  - 200 (71%) of 282 collisions occurred at single crossing locations;
  - 82 (29%) of 282 collisions occurred at multiple-incident collision locations.

- 242 (18 percent) of all 1,328 collisions reported the highway-user ***"stopped on the crossing"***:
  - 148 (61%) of 242 collisions occurred at single crossing locations;
  - 94 (39%) of 242 collisions occurred at multiple-incident collision locations.

- 210 (16%) of all 1,328 collisions were reported as ***"other actions":***
  - 124 (59%) of 210 collisions occurred at single crossing locations;
  - 86 (41%) of 210 collisions occurred at multiple-incident collision locations.

- 84 (6 percent) of all 1,328 collisions the highway-user was reported to have ***"stopped and proceeded":***
  - 56 (67%) of 84 collisions occurred at single crossing locations;
  - 28 (33%) of 84 collisions occurred at multiple-incident collision locations.

Summary of Table 15 – Weather Condition and Frequency of Collisions by Time Period

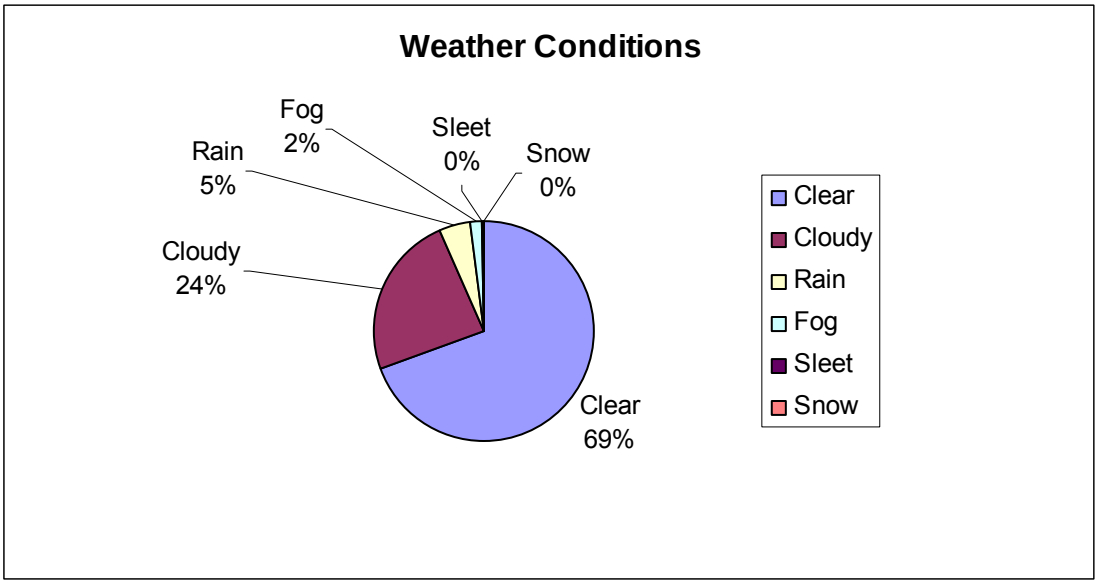


Table 15 is a two-part table designed to report the "Weather Condition" at the time of the collision (by active and passive devices) as well as the frequency of collisions during the time periods of the heaviest traffic volumes during the morning and evening commuter rush hours. These time periods as well as others were created by TxDOT staff for this analysis. The data available to create this table was the time reported for each collision (FRA 6180.57 form - Block 6) and these times were grouped into eight blocks of time and then categorized by active or passive warning device. Generally, the collisions were distributed evenly cross the eight time periods with peaks just after the morning and evening commuter rush hours. The FRA collision data does not contain a variable for day of the week and one was not created for this study.

There were no significant findings related to "Weather Conditions" for multiple-incident collision locations. Multiple-incident collisions were involved at higher than expected frequencies for three "Time Periods" (from 12:00 p.m. to 1:59 p.m., 4:00 p.m. to 6:59 p.m. and 12:00 a.m. to 12:59 a.m.).

Weather Conditions at the Time of Collision:

- 923 (69.5%) of all 1,328 collisions were reported to have occurred in ***clear*** weather:
  - 603 (65%) of 923 collisions occurred at single incident locations;
  - 320 (35%) of 923 collisions occurred at multiple-collision locations.

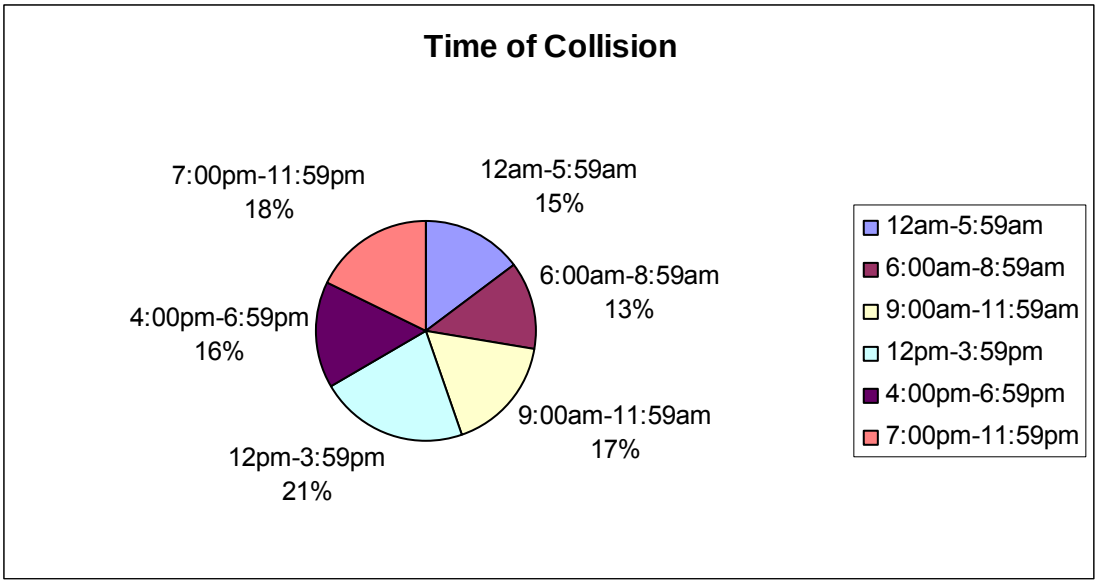
- 317 (24%) of all 1,328 collisions occurred in ***cloudy*** conditions:
  - 196 (62%) of 317 collisions occurred at single-incident collision locations;
  - 121 (38%) of 317 collisions occurred at multiple-collision locations.

- 62 (4.7%) of all 1,328 collisions occurred in ***rain*** conditions:
  - 46 (74%) of 62 collisions occurred at single-incident collision locations;
  - 16 (26%) of 62 collisions occurred at multiple-collision locations.

- 22 (1.07 percent) of all 1,328 collisions occurred in ***fog*** conditions:
  - 14 (64%) of 22 collisions occurred at single-incident collision locations;
  - 8 (36%) of 22 collisions occurred at multiple-collision locations.

- 3 (0.2 percent) of all 1,328 collisions occurred in ***sleet*** conditions:
  - 2 (67%) of 3 collisions occurred at single-incident collision locations;
  - 1 (33%) of 3 collisions occurred at multiple-collision locations.

- 1 (0.07%) of all 1,328 collisions occurred in ***snow*** conditions:
  - 1 (100%) of 1 collisions occurred at single-incident collision locations.



Frequency of Collisions by Time Period:

- 170 (12.8 %) of all 1,328 collisions occurred between ***6:00 a.m. through 8:59 a.m***.:
  - 120 (71%) of 170 collisions occurred at single-incident collision locations;
  - 50 (29%) of 170 collisions occurred at multiple-collision locations.

- 229 (17.2%) of all 1,328 collisions occurred between ***9:00 a.m. through 11:59 a.m***.:
  - 164 (72%) of 229 collisions occurred at single-incident collision locations;

  - 65 (28%) of 229 collisions occurred at multiple-collision locations.

- 138 (10.4%) of all 1,328 collisions occurred between ***12:00 p.m. through 1:59 p.m***.:
  - 81 (59%) of 138 collisions occurred at single-incident locations;
  - 57 (41%) of 138collisions occurred at multiple-collision locations.

- 155 (11.7%) of all 1,328 collisions occurred between ***2:00 p.m. through 3:59 p.m***.:
  - 100 (64.5%) of 155 collisions occurred at single-incident collision locations;
  - 55 (35.5%) of 155collisions occurred at multiple-collision locations.

- 207 (15.6%) of all 1,328 collisions occurred between ***4:00 p.m. through 6:59 p.m.***:
  - 119 (57.5%) of 207 collisions occurred at single-incident collision locations;
  - 88 (42.5%) of 207collisions occurred at multiple-collision locations.

- 235 (17.7%) of all 1,328 collisions occurred between ***7:00 p.m. through 11:59 p.m***.:
  - 150 (64%) of 235 collisions occurred at single-incident collision locations;
  - 85 (36%) of 235collisions occurred at multiple-collision locations.

- 34 (2.6%) of all 1,328 collisions occurred between ***12:00 a.m. through 12:59 a.m***.:
  - 19 (56%) of 34 collisions occurred at single-incident collision locations;
  - 15 (44%) of 34 collisions occurred at multiple-collision locations.

- 160 (12%) of all 1,328 collisions occurred between ***1:00 a.m. through 5:59 a.m****.:*
  - 109 (68%) of 160 collisions occurred at single-incident collision locations;
  - 51 (32%) of 160 collisions occurred at multiple-collision locations.

Summary of Table 16 – Visibility by Time of Day at Active/Passive Devices and Crossing Illumination/Street Lights at Crossings

Table 16 reviews two factors (1) "Visibility at Time of Day" and (2) "Crossing Illumination" by Street Lights (or other light source) at crossings depending on "active" or "passive" devices that were in place at the time of the collision. Crossing illumination (street lights) serves to make it easier for highway-users to see the area around the grade crossing and is most effective during the lower visibility times of dawn, dusk and dark.

For 373 (28 percent) of the 1,328 collisions, no information is available on illumination. Of the 955 collisions (72 percent) for which we do have information reported, a large percentage of these collisions (58 percent) occurred at crossings ***with No Street Lights*** and 320 (58 percent) of those collisions were at passive crossings. Thirty-one percent of these 320 collisions at passive crossings with ***No Street Lights*** occurred at multiple-incident collision locations.

Information on Street Lights by Visibility by Time of Day by Active and Passive Devices:

- 552 (42% of all 1,328 crossings occurred at crossings ***with No Street Lights***:
  - 320 (58%) of 552 occurred at passive crossings -
    - 221 (69%) of the 320 occurred at single collision locations --
      - 49 (22%) of 221 occurred at either ***dawn, dusk or dark;***
      - 172 (78%) of 221 occurred ***during daylight hours.***
    - 99 (31%) of the 320 occurred at multiple-incident collision locations --
      - 30 (30%) of 99 occurred at either ***dawn, dusk or dark;***
      - 69 (70%) of 99 occurred ***during daylight hours.***
  - 232 (42%) of the 552 occurred at ***active*** crossings:
    - 163 (70%) of the 232 occurred at single collision locations;
    - 69 (30%) of the 232 occurred at multiple-incident collision locations.
- 403 (30%) of all 1,328 crossings occurred at crossings ***with Street Light illumination installed:***
  - 356 (88%) of 403 occurred at ***active*** crossings -
    - 213 (60%) of 356 occurred at single collision locations;
    - 143 (40%) of 356 occurred at multi-locations.
  - 47 (12%) of 403 occurred at ***passive*** crossings -
    - 30 (64%) of 47 occurred at single collision locations;
    - 17 (36%) of 47 occurred at multiple-incident collision locations.

- 373 (28%) of 1,328 occurred at crossings ***with no information on Street Lights:***
    - 224 (60%) of 373 occurred at ***active*** crossings -
        - 144 (64%) of 224 occurred at single crossing locations;
        - 80 (36%) of 224 occurred at multiple-incident collision locations.
    - 149 (40%) of 373 occurred at ***passive*** crossings -
        - 91 (61%) of 149 occurred at single crossing locations;
        - 58 (39%) of 149 occurred at multiple-incident collision locations.

Summary of Table 17 - Highway-Users by Age and Gender

Table 17 depicts the gender and age group of highway-users involved in the 1,328 collisions. Highway-users involved in vehicle-train collisions may be motor vehicle operators (autos, trucks, buses etc.) and "Other" motor vehicle operators (including all types of motorcycles and off-road vehicles etc., pedestrians, cyclists (bicyclist, unicyclist etc.), persons in wheel chairs, on riding lawn mowers, on horseback etc. Seven age groups were created for this report to make it possible to analyze age information reported in FRA form 6180.57 (Block 38). The majority (78%) of those involved in these collisions were males, 20 percent were females. The single largest group of highway-users involved in the 1,328 collisions were the 286 males (21.5 percent) in the age group of 27 through 39 years. The second largest group were the 259 males in the 40 through 55 year age group and of this group, 41 percent were involved in the multiple-incident collision locations. Twenty-seven (2 percent) of all 1,328 collisions did not have age and gender reported. For two percent of collisions, neither age or gender was reported.

Male Highway-Users:

- 1083 (78%) of all 1,328 collisions involved male highway-users.

- Males - ages 12 to 26:
    - 217 (16%) of all 1,328 collisions involved of males of this age group -
        - 151 (70%) of 217 collisions occurred at single-incident locations;
        - 66 (30%) of 217 collisions occurred at multiple-incident locations.

- Males - ages 27 to 39:
    - 286 (21.5 percent) of all 1,328 collisions involved males of this age group-
        - 178 (62%) of 286 collisions occurred at single-incident locations;
        - 108 (38%) of 286 collisions occurred at multiple-incident locations.

- Males - ages 40 to 55:
    - 259 (20%) of all 1,328 collision involved of males of this age group -
        - 152 (59%) of 259 collisions occurred at single-incident locations;
        - 107 (41%) of 259 collisions occurred at multiple-incident locations.

- Males - ages 56 to 69:
    - 102 (8%) of all 1,328 collision involved of males of this age group -
        - 61 (60%) of 102 collisions occurred at single-incident locations;
        - 41 (40%) of 102 collisions occurred at multiple-incident locations.

- Males - ages 70 to 79:
    - 47 (3.5%) of all 1,328 collisions involved males of this age group -
        - 27 (57%) of 47 collisions occurred at single-incident locations;
        - 20 (42%) of 47 collisions occurred at multiple-incident locations.

- Males - ages 80 to 99:
    - 23 (1.7%) of all 1,328 collisions involved males of this age group -
        - 14 (61%) of 23 collisions occurred at single-incident locations;
        - 9 (39%) of 23 collisions occurred at multiple-incident locations.

- 104 (8%) of all 1,328 collisions involved males, age unknown.

Female Highway-Users:

- 263 (20%) of all 1,328 collision involved female highway-users.

- Females - ages 12 to 26:
  66 (5%) of all 1,328 collisions involved females of this age group -
    - 46 (70%) of 66 collisions occurred at single-incident collision locations;
    - 20 (30%) of 66 collisions occurred at multiple-incident collision locations.

- Females - ages 27 to 39:
  57 (4%) of all 1,328 collisions involved females of this age group -
    - 35 (61%) of 57 collisions occurred at single-incident collision locations;
    - 22 (39%) of 57 collisions occurred at multiple-incident collision locations.

- Females - ages 40 to 55:
  65 (5%) of all 1,328 collision involved of females of this age group -
    - 45 (69%) of 65 collisions occurred at single-incident collision locations;
    - 20 (31%) of 65 collisions occurred at multiple-incident collision locations.

- Females - ages 56 to 69:
  24 (2%) of all 1,328 collisions involved females of this age group -
    - 20 (83%) of 24 collisions occurred at single-incident collision locations;
    - 4 (17%) of 24 collisions occurred at multiple-incident collision locations.

- Females - ages 70 to 79:
  18 (1%) of all 1,328 collisions involved females of this age group -
    - 14 (78%) of 18 collisions occurred at single-incident collision locations;
    - 4 (22%) of 18 occurred at multiple-incident collision locations.

- Females - ages 80 to 99:
  4 (0.3%) of all 1,328 collisions involved females of this age group -
    - 3 (75%) of 18 collisions occurred at single-incident collision locations;
    - 1 (25%) of 18 occurred at multiple-incident collision locations.

Summary of Table 18 - Highway-Users View of Track Obscured by Visual Obstruction

Table 18 contains information obtained from FRA Form 6180.57 (Block 43) as reported by the railroad involved in the collision. The railroads have reported that there were "No Obstructions" for the highway-user in 98 percent of the 1,328 collisions.

Though there are very small numbers of collisions involved, a high percentage of permanent structures, standing railroad equipment and highway vehicles (such as large trucks) were reported as visual obstructions at multiple-incident collision locations.

- 1,297 (98 percent) of all 1,328 collisions reported as having ***no obstruction*** at the time of the collision:
  - 840 (65%) of 1,297 collisions occurred at single-incident locations;
  - 457 (35%) of 1,297 collisions occurred at multiple-incident locations.

- 8 (0.6%) of all 1,328 collisions reported highway-users view obstructed by ***permanent structure***:
  - 4 (50%) of 8 collisions occurred at single-incident collision locations;
  - 4 (50%) of 8 collisions occurred at multiple-incident collision locations.

- 7 (0.53 %) of all 1,328 collisions reported highway-user view obstructed by ***other***:
  - 7 (100%) of 7 collisions occurred at single-incident collision locations.

- 5 (0.38 percent) of all 1,328 collisions reported highway-users view obstructed by ***passing train***:
  - 3 (60%) of 5 collisions occurred at single-incident collision locations;
  - 2 (40%) of 5 collisions occurred at multiple-incident collision locations.

- 5 (0.38 percent) of all 1,328 collisions reported highway-users view obstructed by ***standing railroad equipment***:
  - 3 (60%) of 5 collisions occurred at single-incident collision locations;
  - 2 (40%) of 5 collisions occurred at multiple-incident collision locations.

- 4 (0.3 percent) of all 1,328 collisions reported highway-users view obstructed by ***vegetation***:
  - 4 (100%) of 4 collisions occurred at single-incident collision locations.

- 2 (0.15 percent) of all 1,328 collisions reported highway-users view obstructed by ***highway vehicles***:
  - 1 (50%) of 2 collisions occurred at single-incident collision locations;
  - 1 (50%) of 2 collisions occurred at multiple-incident collision locations.

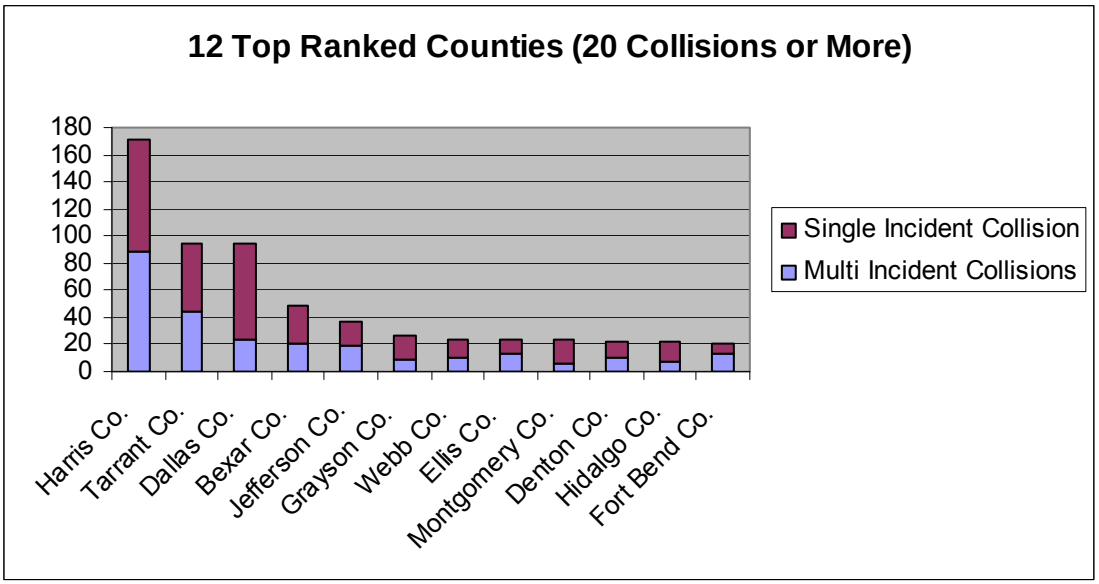
Summary of Table 19: Crossing Collisions by County Location

Table 19 provides a ranked listing of the 157 counties in Texas where highway-rail grade crossings occurred from 2003 through 2007. The ranking is from the highest number of total collsisions to the least. For each of the ranked counties, the number of single-incident collisions and multiple-incident collisions are also listed as well as the percentage of total collisions which occurred at multiple-incident collision locations.

The top five counties in Texas with the highest number of total highway-rail collisions were all counties with large metropolitan areas. These counties: Harris (City of Houston), Tarrant (City of Fort Worth), Dallas (City of Dallas), Bexar (City of San Antonio) and Jefferson (Cities of Beaumont and Orange) had 31% of the total collisions and 42% of the multiple-incident collisions.

The top five counties with the highest percentage of their total collisions occurring at multiple-incident locations are: Ector (80%), Fort Bend and Brazoria (both with 66.6 %), Cass (64.28%), Ellis (56.52%).

Collisions in Texas Counties:



- **157** of Texas' total of 254 counties had one or more collisions during the 2003-2007 period.
- **87** of the counties had no collisions at multiple-incident locations; 41 of the counties had a high percentage of multiple incidents (i.e. 40 percent or more).

- **35** of the counties had 10 or more collisions.

- **12** top-ranked counties **had more than 20 collisions** each and are listed here:

  (1) Harris County had 171 of the 1,328 collisions (12.876 percent) and of these collisions 88 (51.46 percent) occurred at multiple-incident locations (major city: Houston, TX);

  (2) Tarrant County had 95 collisions (7.153 percent); 45 (47.3) percent) occurred at multiple-incident locations (major city: Fort Worth, TX);

  (3) Dallas County had 95 collisions (7.153 percent); 23 (37.70 percent) occurred at multiple-incident locations (major city: Dallas, TX);

  (4) Bexar County had 48 collisions (3.61 percent); 21 (43.75 percent) occurred at multiple-incident locations (major city: San Antonio, TX);

  (5) Jefferson County had 37 collisions (2.786 percent); 19 (51.35 percent) occurred at multiple-incident locations (major city: Beaumont, TX);

  (6) Grayson County had 27 collisions (2.033 percent); 9 (33.33 percent) occurred at multiple-incident locations (major cities: Sherman and Dennison, TX);

  (7) Webb County had 24 collisions (1.81 percent); 11 (45.83 percent) occurred at multiple-incident locations (major city: Laredo, TX);

  (8) Ellis County had 23 collisions (1.73 percent); 13 (56.52 percent) occurred at multiple-incident locations (major cities: Waxahachie and Ennis, TX);

  (9) Montgomery County had 23 collisions (1.73 percent); 6 (26.09 percent) occurred at multiple-incident locations (major city: Conroe, TX);

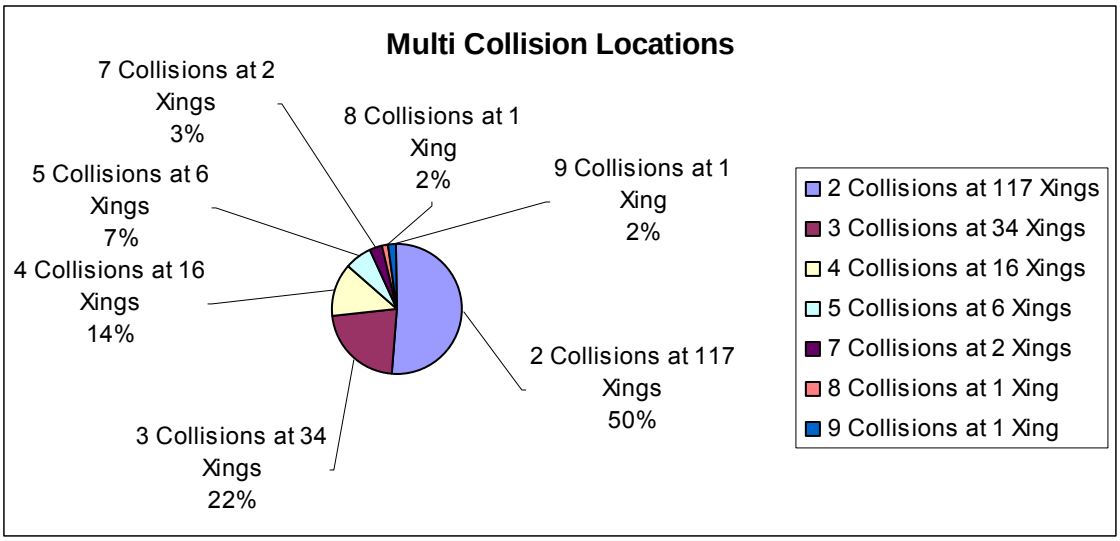
  (10) Denton County had 22 collisions (1.656 percent); 10 (45.45 percent) occurred at multiple-incident locations (major city: Denton, TX);

  (11) Hidalgo County had 22 collisions (1.656 percent); 7 (31.82 percent) occurred at multiple-incident locations (major city: Harlingen and McAllen, TX);

  (12) Fort Bend County had 21 collisions (1.581 percent); 14 (66.66 percent) occurred at multiple-incident locations (major cities: Sugar Land and Rosenberg, TX).

Summary of Table 20 – Collisions at Multiple-Incident Collision Locations by County and by Date of Collision

Table 20 provides a list of the 466 multiple-incident collisions by the DOT number. The list is categorized by an alphabetical listing of county locations and includes the date of the collision, the highway name reported and whether or not the warning device in place at the time of the collision included gates and lights.



Section III - Strategies for Developing the Highway-Rail Grade Crossing Safety Action Plan

The foremost directive for developing this state action plan was to mitigate incidents at multiple-collision locations. Crash data analysis for the years 2003-2007 showed that a number of reported factors were higher for multiple-incident collisions than would be expected since multiple-collisions comprised 35 percent of the total collisions. The strategies developed for the "Texas Highway-Rail Grade Crossing Safety Action Plan" are designed to improve the overall level of grade crossing safety at all public crossings, with an additional emphasis for strategies to reduce the number of collisions that continue to occur at multiple-incident locations in Texas.

Significant Findings for Multiple-Incident Collision Locations

The following is a listing of the most significant findings related to the multiple-incident collision locations. This information is important for identifying the mitigation strategies needed for the action plan.

● Sixty-one percent of the total statewide collisions occurred at crossings with active devices. Of the 466 collisions which occurred at multiple-collision locations, active devices were in place at 63 percent (292) of those crossings. The remaining 37 percent of the multiple-collision locations were equipped with passive devices at the time of the collision. (Table 5 – Appendix A)

● Forty-five percent (599) of the 1,328 statewide collisions were located within75 feet of an adjacent traffic intersection. Of these collisions, 45 percent (272) occurred at the multiple-collision locations. (Table 6 – Appendix A)

● Forty-six percent (105) of this group of 229 collisions (with “active signal devices” which were “interconnected with a traffic signal at a nearby intersection”) occurred at the multiple-collision locations. This is a higher number than would be expected and indicates that there may be an issue related to the adequacy of the preemption at these crossings. (Table 8 – Appendix A)

● For the 229 statewide collisions reported to have occurred where the active device had the “warning device interconnected with a nearby highway signal,” 63 percent are within 75 feet of an adjacent intersection and 84 of these (58 percent) were multiple-collision locations. This finding indicates that this configuration of crossing equipped with active devices and located in close proximity to a nearby traffic intersection may be contributing to the repeat collisions at these crossings. (Table 8 – Appendix A)

● There were 24 statewide collisions that provided a warning time of greater than 60 seconds. Half of those occurred at the multiple-collision locations and that is greater than would be expected based on the number of crossings in this group compared to the statewide group. (Table 5 – Appendix A)

● Passenger and commuter trains were involved in three percent (39) of the statewide collisions and of these, 36 percent occurred at multiple-collision crossings. Commuter trains alone were involved in eight collisions, however, 50 percent of these were at multiple-collision locations. In one other noteworthy category, "work trains" were involved in only a half percent of all statewide collisions and yet 43 percent of these occurred at multiple-collision locations. (See Table 9 – Appendix A)

● Forty-four percent (579) of statewide collisions occurred on Class 4 (freight trains: 60 miles per hour and 80 for passenger trains) and the majority of those (65 percent) occurred at "single collision" locations. Only eight percent (103) of the statewide collisions were reported as having occurred on Class 5 track (rated for speeds 80 – 90 miles per hour) but 44 percent of these occurred at the multiple-collision locations. (See Table 10 – Appendix A)

● Forty-four percent (158) of truck-trailer collisions and 39 percent (35) of the truck (large/one-ton, dual-axle type) were at the multiple incident crossing locations. The multiple- collision locations are also noteworthy for being the location of the only two bus collisions during this period. While only 12 (one percent) of statewide collisions involved "Other" highway-users (e.g. electric wheel chair, bicycles), 50 percent (5) of these were at multiple-collision locations. (See Table 13 – Appendix A)

● While only two percent of the statewide collisions reported that the highway-user was "trapped on the crossing," 56 percent of them occurred at the multiple-collision locations. Being "trapped on a crossing" could be related to situations where traffic is queuing for adjacent intersections and drivers fail to keep a safe distance from the hazard zone at a crossing. (See Table 14 – Appendix A)

Texas Grade Crossing Action Plan Strategies

The following action plan strategies were developed by TxDOT and FRA staff based on the significant findings of the crash data analysis, along with the stakeholder guidance (see Section 1 – Stakeholder Guidance). These strategies include new methods of evaluation; more focused engineering improvements, coordinated education efforts and programmatic support of enforcement efforts. The strategies set forth below are neither prioritized nor listed in any particular order.

Evaluation/Engineering Strategies

- Modify project selection criteria in the annual priority index ranking of projects selected under the annual Texas Section 130 program to include crossings with flashers and gates experiencing multiple collisions.
- Identify and mitigate signal preemption issues at signalized crossings experiencing multiple collisions located adjacent to highway intersections.
- Improve crossing inventory data on crossings with signal preemption.

- Continue to make passive-to-active upgrades at un-signalized crossings.
- Continue to identify and fund projects to close redundant crossings.
- Continue to identify and fund crossing corridor studies and projects.
- Sponsor regional preemption classes to improve knowledge base of road authority and rail industry personnel
- Increase the number of crossing diagnostic team reviews at crossings equipped with flashers and gates experiencing multiple collisions. Determine causal factors of these continuing collisions and implement engineering, education and enforcement mitigation strategy plan
- Monitor train-involved and non-train involved crash data from FRA and TxDOT Crash Records Information System (CRIS), as well as, near-hit reports from railroad companies. Disseminate information to TXOL and FRA
- Continue to evaluate and identify crossings experiencing multiple collisions.
- Improve accuracy of state inventory database information by reconciliation of data in railroad and state and federal updates.
- Improve information on type of crossing signal controller in place and preemption timing at crossings interconnected with adjacent traffic signals.
- Conduct research to improve effectiveness of project prioritization formula and implementation of safety improvements.
- Establish new performance workload measure “percentage reduction of crossings experiencing multi-collisions” using baseline data from 2003-2007 crash data analysis and crossing project locations identified under 2011 program.

Education/Enforcement Strategies

- Develop web-based database for crossing inventory, collision data and project information. Create stakeholders website for database and information sharing.
- Develop and implement proactive mitigation strategies for identifying and targeting problem crossings, areas or regions. Included in these will be more involvement with engineering improvements, education outreach, and increased enforcement activity.
- Focus program planning and funding to implement effective engineering, education and enforcement counter measures at high-incident locations in the 3 major metropolitan areas with high incident of multiple collisions.
- Provide web-based database access to crossing safety information and resources to regional and local project stakeholders and traffic safety professionals.
- Develop pilot project to implement photo enforcement technology at one or more high-incident crossings in the Houston metropolitan area.

Section IV - Safety Action Plan: 5-year Implementation Timeline

The federal requirement for developing the Texas Grade Crossing Safety Action Plan includes development of a 5-year implementation timeline. The following 5-year implementation timeline is based on the TxDOT fiscal year (from September 1 through August 31). The action items listed for implementation in each year are organized by "Evaluation & Engineering" tasks and "Education & Enforcement" tasks. Many of the implementation plan activities are repeated from year to year, and are more fully developed each year. Progress for annual activities will be tracked by current and new performance workload measures (See Appendix G for tracking chart timeline). Plan Year 1 began in Fiscal Year 2010 because that is when the initial crash data analysis was completed. Rather than delay plan implementation until the FRA had completed the rule making process, TxDOT implemented the conclusions and recommendations revealed by the crash data analysis in an effort to mitigate further crashes at the multiple-incident crossings. As of July, 2011, the following implementation plan work items completed to date are marked with a 'check'. Work items identified with a 'bullet' are yet to be implemented.

Plan Year 1: FY 2010 (September 1, 2009 - August 31, 2010)

Evaluation & Engineering

- ✓ Work with FRA to complete data gathering and draft Texas Action Plan.
- ✓ Identify crossings from crash data analysis experiencing multiple collisions.
- ✓ Obligate FHWA Section 130 funds to perform diagnostic team inspections at the multiple-collision crossings located adjacent to highway intersections.
- ✓ Perform diagnostic team inspections.
- ✓ Identify corridor projects and develop project scope of work for multiple-collision crossings, authorize Plans, Specifications & Estimates (PS&E) preparation and approval (i.e. crossing signals, preemption upgrades, crossing closures).
- • Contract with Class I railroads for statewide YIELD/STOP sign projects at all passive public crossings to comply with 2009 MUTCD updates.
- ✓ Select vendor to develop web-based database application (TRIMS).
- ✓ Monitor and update annual performance workload measure: "percentage of signalized public railroad crossings".
- ✓ Establish new performance workload measure "percentage reduction of crossings experiencing multiple-collisions"
- ✓ Provide annual report to FHWA on effectiveness of Texas Section 130 Program.
- ✓ Select university to conduct research on prioritization criteria for passive to active warning signal upgrades at highway-rail grade crossings

Education & Enforcement

- ✓ Print second edition of Grade Crossing Law Enforcement pocket guides.

- ✓ Coordinate with Texas Operation Lifesaver to strengthen crossing safety mitigation efforts in regions of the state reporting multiple-incident collisions.
- ✓ Establish e-mail group account to communicate events, new information, and safety advisories to state and local crossing safety stakeholders.

Plan Year 2: FY 2011 (September 1, 2010 - August 31, 2011)

Evaluation & Engineering

- ✓ TxDOT coordination meeting with FHWA and FRA to discuss Texas Action Plan.
- ✓ Continue to perform diagnostic team inspections at identified crossings under 2011 program.
- ✓ Identify projects scope of work, authorize PS&E preparation and approval; obligate FHWA funding & approval for construction (i.e. crossing signals, preemption upgrades, crossing closures).
- ✓ Update 2003-2007 crash data analysis with 2005-2009 crash data.
- ✓ Identify any additional crossings from updated crash data analysis experiencing multiple collisions.
- ✓ Include any additional crossings from updated crash data analysis experiencing multiple-collisions in annual 2012 Section 130 program of project locations for diagnostic review.
- ✓ Evaluate opportunities and encourage installation of low cost supplementary safety measures at select multiple-collision locations (video enforcement, channelization devices, advance warning flashers and additional signage)
- ✓ Continue contracting for YIELD /STOP sign program projects with Class I railroads.
- ✓ Contract for YIELD/STOP sign program projects with short line railroads
- ✓ Develop TRIMS web-based database application.
- ✓ Conduct research on prioritization criteria for passive to active warning signal upgrades at highway-rail grade crossings.
- ✓ Participate in workshops to include Safety Action Plan in Strategic Highway Safety Plan update.
- ✓ Promote Railroad-Highway Signal Preemption Training Workshop at National Grade Crossing Safety Conference. Target audience is state and local traffic signal supervisors and technicians, and railroad signal supervisors and technicians.
- ✓ Evaluate effectivenesss of multiple-collision crossings equipped with "Do Not Stop on Tracks" signs with LED flasher outline arrays.
- ✓ Monitor work load measure: “percentage of signalized public railroad crossings”.
- ✓ Monitor performance workload measure “percentage reduction of crossings experiencing multiple-collisions”
- ✓ Provide annual report to FHWA on effectiveness of Texas Section 130 Program.

Education & Enforcement

- ✓ TxDOT immediately communicates rail safety hot line crossing and pedestrian incident reports to FRA safety managers and the Operation Lifesaver state coordinator.
- ✓ Coordinate with Texas Operation Lifesaver to strengthen crossing safety mitigation efforts in regions of the state reporting multiple-incident collisions.

- ✓ Communicate events, new information, and safety advisories to e-mail group account of state and local crossing safety stakeholders.
- ✓ Begin work with Texas Operation Lifesaver and FRA Region 5 Grade Crossing managers to develop outreach project for driver education programs. Develop project in two stages; (A) Commercial driver education begun in FY 2011; and (B) Driver Education and Defensive Driving Course outreach for FY 2013.

Plan Year 3: FY 2012 (September 1, 2011 - August 31, 2012)

Evaluation & Engineering

- Update crash data analysis and priority index rankings.
- Identify crossings from updated crash data analysis/priority index ranking experiencing multiple-collisions.
- Fund identified crossings from updated crash data analysis for diagnostic review.
- Continue to perform diagnostic team inspections at identified multiple-collision crossings from 2011 program.
- Develop project scope of work for multiple-collision crossings, authorize PS&E preparation and approval; obligate FHWA funding & approval for construction (i.e. crossing signals, preemption upgrades, crossing closures).
- Continue YIELD/STOP sign program projects with Class I railroads.
- Continue YIELD /STOP sign program with short line railroads.
- Continue development of TRIMS web-based database application.
- Conduct and complete research on prioritization criteria for passive to active warning signal upgrades at highway-rail grade crossings.
- Sponsor Railroad-Highway Signal Preemption Training Workshops (402 Safety Fund). Target audience is state and local traffic signal supervisors and technicians, and railroad signal supervisors and technicians.
- Continue evaluation of multiple-collision crossings equipped with "Do Not Stop on Tracks" signs with LED flasher outline arrays. Recommend deployment at additional crossings as practicable.
- Monitor and update annual work load measure: “percentage of signalized public railroad crossings”
- Monitor performance workload measure “percentage reduction of crossings experiencing multiple-collisions”
- Provide annual report to FHWA on effectiveness of Texas Section 130 Program.

Education & Enforcement

- Update & republish TxDOT Highway-Rail Grade Crossing Public Safety Education Materials handbook (Report No. 1469-4) on TxDOT website. Update section on crossing consolidation in an easily re-producible format, to educate local communities about closing crossings to improve public safety.
- TxDOT immediately communicates rail safety hot line crossing and pedestrian incident reports to FRA safety managers and Texas Operation Lifesaver state coordinator.
- Coordinate with Texas Operation Lifesaver to strengthen crossing safety mitigation efforts in regions of the state reporting multiple-incident collisions.
- Communicate events and new information to e-mail group account of crossing stakeholders.

- Propose to work with Texas Operation Lifesaver to request 402 Safety Grant funds for media outreach programs in two stages; (A) Develop radio public service announcement outreach project for FY 2012; and (B) develop social media networking for FY 2013 or 2014.

Plan Year 4: FY 2013 (September 1, 2012 - August 31, 2013)

Evaluation & Engineering

- Update crash data analysis and priority index rankings.
- Identify crossings from updated crash data analysis/priority index ranking experiencing multiple-collisions.
- Obligate FHWA funding for identified crossings from updated crash data analysis for diagnostic review (2013 Program).
- Continue to perform diagnostic team inspections at identified crossings from 2012 program.
- Identify projects scope of work, authorize PS&E preparation and approval; obligate FHWA funding & approval for construction (i.e. crossing signals, preemption upgrades, crossing closures).
- Complete YIELD/STOP sign program projects with Class I railroads.
- Complete YIELD/STOP sign program with short line railroads.
- Complete development of TRIMS web-based database application.
- Implement research on prioritization criteria for passive to active warning signal upgrades at highway-rail grade crossings.
- Sponsor Railroad-Highway Signal Preemption Training Workshops (402 Safety Fund). Target audience is state and local traffic signal supervisors and technicians, and railroad signal supervisors and technicians.
- Assess effectiveness of mitigation efforts and project safety improvements at completed crossing project locations.
- Monitor and update annual work load measure: “percentage of signalized public railroad crossings”.
- Monitor performance workload measure “percentage reduction of crossings experiencing multiple-collisions”
- Provide annual report to FHWA on effectiveness of Texas Section 130 Program.

Education & Enforcement

- TxDOT immediately communicates rail safety hot line crossing and pedestrian incident reports to FRA safety managers and Texas Operation Lifesaver.
- Coordinate with Texas Operation Lifesaver to strengthen crossing safety mitigation efforts in regions of the state reporting multiple-incident collisions.
- Communicate events and new information to e-mail group account of crossing safety stakeholders.
- Propose to work with Texas Operation Lifesaver and FRA Region 5 Grade Crossing managers to develop outreach project for driver education programs. Develop project in two stages; (A) Commercial driver education began in FY 2011; and (B) Driver Education and Defensive Driving Course outreach for FY 2013.

Plan Year 5: FY 2014 (September 1, 2013 - August 31, 2014)

Evaluation & Engineering

- Update crash data analysis and priority index rankings.
- Identify crossings from updated crash data analysis/priority index ranking experiencing multiple-collisions.
- Obligate FHWA funding for identified crossings from updated crash data analysis for diagnostic review (2014 Program).
- Continue to perform diagnostic team inspections at identified crossings from 2013 program.
- Identify projects scope of work, authorize PS&E preparation and approval; obligate FHWA funding & approval for construction (i.e. crossing signals, preemption upgrades, crossing closures).
- Evaluate effectiveness of YIELD/STOP sign program projects with Class I railroads.
- Evalaute effectiveness of YIELD /STOP sign program with short line railroads.
- Assess effectiveness of mitigation efforts and project safety improvements at completed crossing project locations.
- Monitor and update annual work load measure: “percentage of signalized public railroad crossings”
- Monitor performance workload measure “percentage reduction of crossings experiencing multiple-collisions”
- Provide annual report to FHWA on effectiveness of Texas Section 130 Program.

Education & Enforcement

- TxDOT immediately communicates rail safety hot line crossing and pedestrian incident reports to FRA safety managers and Texas Operation Lifesaver state coordinator.
- Coordinate with Texas Operation Lifesaver to strengthen crossing safety mitigation efforts in regions of the state reporting multiple-incident collisions.
- Communicate events and new information to e-mail group account of crossing safety stakeholders.

APPENDIX

(A1) Tables 1 - 20: Total Public Highway-Rail Grade Crossing Collisions/Collisions at Single-Incident Locations and Multiple-Incident Collision Locations – Calendar Years 2003 to 2007

(A2) Tables 1 - 20: Total Public Highway-Rail Grade Crossing Collisions/Collisions at Single-Incident Locations and Multiple-Incident Collision Locations – Calendar Years 2005 to 2009

--- State of Texas Highway-Rail Grade Crossing Safety Action Plan ---
Total Public Highway-Rail Grade Crossing Collisions
and Collisions at Single-Incident and Multiple-Incident Collision Locations
Calendar Years 2003 to 2007
Tables 1 to 20

Table 1 –Public Crossing Collisions - 2003 to 2007
Collision Summary and Casualty Summary

Collision Summary and Casualty Summary	**Total No. Highway-Rail Crossing Collisions: 1,328**		**Total Single-Incident Collisions: 862**	**Total Multiple-Incident Collisions: 466**	**% of Total Collisions at Multiple-Incident Collision Locations**
	Total No.	**% of incidents**	**Total No.**	**Total No.**	
Non-Casualty Collisions	**794**	**60%**	**511**	**283**	***36%***
Injury Only Collisions	420	31%	282	138	***33%***
Fatal Collisions	114	9%	69	45	***39.5%***
Total Collisions	1,328	100%	862	466	**35%**
Casualty Summary	**Total No.**		**Total No.**	**Total No.**	
Highway-User Fatalities	140		87	53	*38%*
Rail Employee Fatalities	0		0	0	---
Total Fatalities	**140**		**87**	**53**	***38%***
Highway-User Injuries	471		319	152	*31%*
Rail Employee Injuries	38		26	12	*21%*
Total Injuries	**509**		**345**	**164**	***30%***
Total Casualties	**649**		**432**	**217**	***33%***

Table 2 – Public Crossing Collisions - 2003 to 2007
Grade Crossing Inventory Counts for Collision Locations

Public Highway-Rail Grade Crossings	Total Grade Crossing Locations for 1,328 collisions:	Single-Incident Collision Locations for 862 collisions:	Multiple-Incident Collision Locations for 466 collisions:	Multiple-Incident Collision Locations as % of Total Grade Crossings:
Crossing Inventory Count - Grade Crossing Collision Locations	1,044 crossings	862 crossings	182 crossings	17%

Table 3 –Public Crossing Collisions - 2003 to 2007
Total and Average Vehicle Occupants/Highway-Users by Collisions

Vehicle Occupants and Collision Summary	Total No. Collisions: 1,328	Total Single-Incident Collisions: 862	Total Multiple-Incident Collisions: 466	Total Multiple-Incident Collision Occupants as % of Total Occupants
Total Vehicle Occupants	1,623	1,056	567	35%
Average Occupants per Collision	1.222	1.225	1.216	---

Table 4 – Public Crossing Collisions – 2003 to 2007
Type of Warning Device (Active and Passive Devices) in Place at Time of Collision

Data Category *(*FRA variable name)*	Total No. Highway-Rail Crossing Collisions Total: 1,328		No. Collisions at Crossings with Single-Incidents Total: 862	No. Collisions at Crossings with Multiple-Incidents Total: 466	% of Total Collisions at Multiple-Collision Locations
Type of Warning Devices *(*crossing)*	**Total No.**	**% of Incidents**	**Total No.**	**Total No.**	
Active Devices					
Gates and Standard Mast Flashing Lights	539	41%	349	**190**	*35%*
Gates with Cantilever Lights	83	6%	59	**24**	*29%*
Cantilever Lights with NO Gates	141	11%	77	**64**	***45%***
Standard Mast Flashing Light Signals with NO Gates	45	3%	31	**14**	*31%*
Unknown Active Device	1	.1%	1	**0**	*0*
Traffic Signals No other devices reported	3	.2%	2	**1**	*33%*
Total Active Devices	**812**	**61%**	**519**	**293**	***36%***
Passive Devices					
Crossbuck Only	422	32%	283	**139**	*33%*
Crossbuck With Flagging reported	7	.5%	5	**2**	*29%*
Stop Signs with Crossbuck	85	6%	53	**32**	*38%*
None	2	.2%	2	**0**	*0*
Total Passive Devices	**516**	**39%**	**343**	**173**	**33.5%**
Total Active and Passive	**1,328**	**100%**	**862**	**466**	**35%**

Table 5 – Public Crossing Collisions - 2003 – 2007
Active or Passive Devices and Warning Time for Active Warning Devices

Data Category *(*FRA variable name)*	Total No. Highway-Rail Crossing Collisions Total: 1,328		No. Collisions at Crossings with Single-Incidents Total: 862	No. Collisions at Crossings with Multiple-Incidents Total: 466	% of Total Collisions at Multiple-Incident Collision Locations
Active or Passive Device (*signal)	**Total No.**	**% of Incidents**	**Total No.**	**Total No.**	
1. Collisions with Active Devices	**812**	**61%**	**520**	**292**	***36%***
2. Collisions with Passive Devices	**516**	**39%**	**342**	**174**	**34%**
Total Collisions	**1,328**	**100%**	**862**	**466**	**35%**
Active Device Warning Time *(*signal = 1-7 if *crossing =1-6)*	**Total No.**	**% of Incidents with Active Devices**	**Total No.**	**Total No.**	**% Total at Multi-**
1. Min. 20 second warning	767	94.5%	488	279	*36%*
2. Alleged > 60 sec. warn.	20	2.5%	10	10	***50%***
3. Alleged < 20 sec. warn.	1	.1%	1	0	*0*
4. Alleged – no warning	1	.1%	1	0	*0*
5. Confirmed > 60 sec.	4	.5%	3	1	*25%*
6. Confirmed <20 sec.	0	0	0	0	*0*
7. Confirmed – no warning	19	3%	17	2	*10.5%*
Total Active Devices	**812**	**100%**	**520**	**292**	**36%**

Table 6 – Public Crossing Collisions – 2003 to 2007
Proximity to Nearby Highway Intersection by Active and Passive Crossings

Data Category (*FRA variable name for Active/Passive - * signal = 1 or 2)	Total No. Highway-Rail Crossing Collisions Total: 1,328			No. Collisions at Crossings with Single-Incidents Total: 862		No. Collisions at Crossings with Multiple-Incidents Total: 466		% of Total Collisions at Multiple-Incident Collision Locations
Proximity to Nearby Highway Intersection *(per FRA Inventory)*	**Active / Passive**	**Total No.**	**% of Total Incidents**	**Active / Passive**	**Total No.**	**Active / Passive**	**Total No.**	
(A) < 75 Ft	420 / 179	599	45%	236/91	327	184/88	**272**	***45%***
(B) 75 to 150 Ft.	283/183	466	35%	207/94	301	76/89	**165**	35%
(C) 150 to 200 Ft.	2 / 2	4	0.3%	2 / 2	4	0/0	**0**	---
Sub-total for (A), (B) and (C) - up to 200 Ft.	**705/364**	**1069**	**80.5%**	**445/187**	**632**	**260/177**	**437**	***41%***
Information Not Available	103/156	259	19.5%	72/158	230	16/13	**29**	11%
TOTAL	**808/520**	**1,328**	**100%**	**517/345**	**862**	**276/191**	**466**	35%

NOTE: Proximity information on Tables 6 and 8 is from the FRA Grade Crossing Inventory and is not available through FRA Form 6180.57 grade crossing collision reports.

Table 7 – Public Crossing Collisions – 2003 to 2007
Active Warning Device Interconnection with Traffic Signals at Nearby Highway Intersection and Passive Devices Without Interconnection

Data Category ***(*FRA variable name)***	**Total No. Highway-Rail Crossing Collisions Total: 1,328**		**No. Collisions at Crossings with Single-Incidents Total: 862**	**No. Collisions at Crossings with Multiple-Incidents Total: 466**	**% of Total Collisions at Multiple-Incident Collision Locations**
(*signal=1) and (*warnsig=1-3)	**Total No.**	**% of Total Incidents**	**Total No.**	**Total No.**	
1. Active Warning Device - Interconnected with Traffic Signal at Nearby Intersection	229	17%	124	**105**	***46%***
2. Active Warning Device - Unknown Interconnection	259	20%	164	**95**	*36%*
3. Active Warning Device – Not interconnected	320	24%	228	**92**	*29%*
Sub-Total Active Devices	**812**	**61%**	**516**	**292**	**36%**
Passive Device – Not interconnected *(*signal=2)*	**516**	**39%**	**346**	**174**	**34%**
TOTAL Active and Passive	**1,328**	**100%**	**862**	**466**	**35%**

Table 8 – Public Crossing Collisions – 2003 to 2007
Warning Device Interconnection with Highway Signal by Proximity to Nearby Highway by Active and Passive Device

Data Category *(*FRA Variable Name)*	Total No. Highway-Rail Crossing Collisions Total: 1,328				No. Collisions at Crossings with Single-Incidents Total: 862		No. Collisions at Crossings with Multiple-Incidents Total: 466		% of Total Collisions at Multiple-Incident Collision Locations
I. (Yes) Warning Device IS Interconnectedw/highway signal *(*warnsig = 1)*									
Proximity to Nearby Highway	**Active/ Passive**	**Total No.**	**% of Sub-total incidents**	**% of All incidents**	**Active / Passive**	**Total No.**	**Active / Passive**	**Total No.**	
(1) < 75 Ft	144 / 0	144	63%	10.8%	60 / 0	60	84 / 0	**84**	***58%***
(2) 75 to 150 Ft.	70 / 0	70	30.5%	5.5%	53 / 0	53	17 / 0	**17**	*24%*
(3) > 200 Ft.	0 / 0	0	---	---	0 / 0	0	0 / 0	**0**	---
(4) Not Available	15 / 0	15	6.5%	1.1%	11 / 0	11	4 / 0	**4**	*27%*
Sub-Total	**229/ 0**	**229**	**100%**	**17%**	**124 /0**	**124**	**105 / 0**	**105**	46%
II.(No)Warning Device NOT Interconnected w/highway signal (warnsig = 2)***									
Proximity to Nearby Highway	**Active/ Passive**	**Total No.**	**% of Sub-total incidents**	**% of All incidents**	**Active/ Passive**	**Total No.**	**Active/ Passive**	**Total No.**	**% Total at Multi-**
(1) < 75 Ft	154 / 150	304	42.8%	23%	106 / 92	198	48 / 58	**106**	35%
(2) 75 to 150 Ft.	127 / 157	284	40%	21%	95 / 95	190	32 / 62	**94**	33%
(3) > 200 Ft.	2 / 2	4	0.56%	0.3%	2 / 2	4	0 / 0	**0**	---
(4) Not Available	37 / **80**	**117**	**16.5%**	**9%**	25 / **52**	**77**	12 / **28**	**40**	34%
Sub-Total	**320 / 389**	**709**	100%	**53.3%**	**228 / 242**	**469**	**92 / 148**	**240**	34%
III. Unknown Connection *(*warnsig=3)*									
Proximity to Nearby Highway	**Active/ Passive**	**Total No.**	**Sub-total incidents**	**% of All incidents**	**Active/ Passive**	**Total No.**	**Active/ Passive**	**Total No.**	**% Total at Multi-**
(1) <75 Ft	122 / 29	151	38.7%	11.37%	69 / 23	92	53 / 6	59	39%
(2) 75 to 150 Ft.	86 / 26	112	28.7%	8.43%	59 / 23	82	27 / 3	30	27%
(3) >200 Ft	0 / 0	0 / 0	---	---	0 / 0	0	0 / 0	0	---
(4) Not Available	51 / 76	127	32.56%	9.56%	36 / 59	95	16 / 13	32	25%
Sub-Total	**259 / 131**	**390**	**100%**	**29.37%**	**164 / 105**	**269**	**95 / 26**	**121**	31%
TOTAL	**808/520**	**1,328**		**100%**	**515/347**	**862**	**290/176**	**466**	**35%**

Table 9 – Public Crossing Collisions – 2003 to 2007
Type of Train Involved by Active or Passive Devices at Crossing

Data Category *(*FRA variable name)*	Total No. Highway-Rail Crossing Collisions Total: 1,328			No. Collisions at Crossings with Single-Incidents Total: 862		No. Collisions at Crossings with Multiple-Incidents Total: 466		% of Total Collisions at Multiple-Incident Collision Locations
Type of Train Involved *(*typeq)*	**Active/ Passive**	**Total No.**	**% of incidents**	**Active/ Passive**	**Total No.**	**Active/ Passive**	**Total No.**	
1. Freight train	626 / 411	**1,037**	**78%**	395 / 270	665	231 / 141	372	*36%*
2. Passenger train	25 / 6	31	2.3%	17 / 4	21	8 / 2	10	*32%*
3. Commuter train	8 / 0	8	0.6%	4 / 0	4	4 / 0	4	***50%***
4. Work train	3 / 4	7	0.5%	2 / 2	4	1 / 2	3	***43%***
5. Single rail car	0	0	---	0 / 0	0	0 /0	0	---
6. Cut of rail cars	1/ 2	3	0.2%	1 / 2	3	0 / 0	0	---
7. Yard/Switching Engine	90 / 56	**146**	**11%**	56 / 38	94	34 / 18	52	*36%*
8. Light locomotives	29 / 30	59	4%	19 / 20	39	10 / 10	20	*34%*
9. Maintenance/ Inspection Railcar	21 / 5	26	2%	18 / 4	22	3 / 1	4	*15%*
A. Special M-O-W equipment	9 / 2	11	1%	8 / 2	10	1 / 0	1	*9%*
Total	**812/516**	**1,328**	**100%**	**520/342**	**862**	**292/174**	**466**	**35%**

Table 10 – Public Crossing Collisions – 2003 to 2007
Type of Track and Class of Track

Data Category *(*FRA variable name)*	Total No. Highway-Rail Crossing Collisions Total: 1,328			No. Collisions at Crossings with Single-Incidents Total: 862		No. Collisions at Crossings with Multiple-Incidents Total: 466		% of Total Collisions at Multiple-Incident Collision Locations
Track Type *(*typtrk)*	**Active / Passive**	**Total No.**	**% of incidents**	**Active/ Passive**	**Total No.**	**Active / Passive**	**Total No.**	
1. Mainline	727 / 445	1,172	88%	455 / 291	746	272 / 154	426	36%
2. Yard	36 / 15	51	4%	26 / 11	37	10 / 4	14	27.5%
3. Siding	5 / 2	7	0.5%	5 / 1	6	0 / 1	1	14%
4. Industry	44 / 54	98	7%	34 / 39	73	10 / 15	25	25%
Total	**812/516**	**1,328**	**100%**	**520/342**	**862**	**292/174**	**466**	**35%**
Track Class *(*trkclas)* 49 CFR – 213.9 – max. authorized speed - (freight/passenger)	**Active / Passive**	**Total No.**	**% of incidents**	**Active / Passive**	**Total No.**	**Active / Passive**	**Total No.**	**% Total at Multi-**
1. Class I (10 mph/15 mph)	106 / 85	191	14%	73 / 60	133	33 / 25	58	30%
2. Class 2 (25 mph/30 mph)	102 / 66	168	13%	71 / 46	117	31 / 20	51	30%
3. Class 3 (40 mph/60 mph)	162 / 96	257	19%	94 / 66	160	68 / 29	97	38%
4. Class 4 (60 mph/80 mph)	359 / 220	579	44%	232 / 144	376	127 / 76	203	35%
5. Class 5 (80 mph/90 mph)	72 / 30	103	8%	43 / 15	58	30 / 15	45	**44%**
X. Excepted (10 mph/none)	8 / 20	28	2%	6 / 11	17	2 / 9	11	39%
Left blank	2 / 0	2	0.2%	1 / 0	1	1 / 0	1	100%
Total	**812/516**	**1,328**	**100%**	**520/342**	**862**	**292/174**	**466**	**35%**

Table 11 – Public Crossing Collisions – 2003 to 2007
Train Speed at Time of Collision

Data Category *(*FRA variable name)*	Total No. Highway-Rail Crossing Collisions Total: 1,328			No. Collisions at Crossings with Single-Incidents Total: 862		No. Collisions at Crossings with Multiple-Incidents Total: 466		% of Total Collisions at Multiple-incident Collision Locations
Train Speed (mph - reported/estimated) *(*trnspd)*	**Active / Passive**	**Total No.**	**% of incidents**	**Active / Passive**	**Total No.**	**Active / Passive**	**Total No.**	
a. Less than 10 mph	169 / 97	266	20%	121 / 72	193	48 / 25	73	*27%*
b. 10 to 20 mph	174 / 77	251	19%	107 / 50	157	67 / 27	94	*37%*
c. 21 to 35 mph	166 / 88	254	19%	98 / 58	156	68 / 30	98	*39%*
d. 36 to 49 mph	176 / 149	325	24.5%	108 / 101	209	68 / 48	116	*36%*
e. 50 to 60mph	79 / 72	151	11%	52 / 43	95	27 / 29	56	*37%*
f. Over 60mph	23 / 11	34	3%	16 / 5	21	7 / 6	13	*38%*
Left Blank	25 / 22	47	3.5%	18 / 13	31	7 / 9	16	*34%*
Total	**812 / 516**	**1,328**	**100%**	**520 / 342**	**862**	**292 / 174**	**466**	**35%**

Table 12 – Public Crossing Collisions – 2003 to 2007
Class 1 Railroads, Passenger and Commuter Rail and Shortline Railroads

Data Category *(*FRA variable name)*	Total No. Highway-Rail Crossing Collisions Total: 1,328		No. Collisions at Crossings with Single-Incidents Total: 862	No. Collisions at Crossings with Multiple-Incidents Total: 466	% of Total Collisions at Multiple-Incident Collision Locations
Class I Railroads *(*RR – 1 * 2)*	**Total No.**	**% of Incidents**	**Total No.**	**Total No.**	
Union Pacific Railroad on UP	723	54%	464	259	*36%*
UP on other RR	27	2%	12	15	***55.5%***
BNSF Railway on BNSF	224	17%	169	55	*24.5%*
BNSF on Other Railroads	62	5%	33	29	***47%***
Kansas City Southern Railway on KCS	94	7%	50	44	***47%***
KCS on Other Railroads	36	2.5%	24	12	***33%***
Sub-total Class 1s	**1,166**	**88%**	**752**	**414**	**35.5%**
Passenger/Commuter Rail					
Amtrak on UP and BNSF	29	9%	20	9	*31%*
Trinity Railway Express(commuter rail)	8	.6%	4	4	***50%***
Sub-total Passenger/Commuter Rail	**37**	**3%**	**24**	**13**	**35%**

Class I Railroad Public Crossing Inventory Counts as of 2007*:*
UPRR - Total Public Crossings: 4,872
BNSF - Total Public Crossings: 2,141
KCS - Total Public Crossings: 554
(source: Texas Department of Transportation)

Table 12 (continued)

Data Category	Total No. Highway-Rail Crossing Collisions Total: 1,328		No. Collisions at Crossings with Single-Incidents Total: 862	No. Collisions at Crossings with Multiple-Incidents Total: 466	% of Total Collisions at Multiple-Incident Collision Locations
	Total No.	% of Incidents	Total No.	Total No.	
Shortline Railroads					
DGNO	25	2%	16	9	36%
RVSC	24	2%	17	7	29%
FWWR	20	1.5%	15	5	25%
TIBR	15	1%	13	2	13%
PTRA	18	1%	6	12	38%
AUAR	3	0.2%	1	2	67%
BRG	2	0.1%	2	0	---
SW	2	0.1%	2	0	---
TXTX	2	0.1%	2	0	---
WATX on UP	2	0.1%	0	2	100%
BLR	1	0.1%	1	0	---
CCPN	1	0.1%	1	0	---
GVSR	1	0.1%	1	0	---
ITSL on KCS	1	0.1%	1	0	---
PCN	1	0.1%	1	0	---
PNR	1	0.1%	1	0	---
RASX on UP	1	0.1%	1	0	---
RCIB on EXMZ	1	0.1%	1	0	---
TCT	1	0.1%	1	0	---
TN	1	0.1%	1	0	---
TXNW	1	0.1%	1	0	---
TXPF	1	0.1%	1	0	---
Shortline Subtotal	**125**	**9%**	**76**	**39**	**31%**
TOTAL	**1,328**	**100%**	**862**	**466**	**35%**

Table 13 – Public Crossing Collisions – 2003 to 2007
Type of Highway-User/Vehicle

Data Category *(*FRA variable name)*	Total No. Highway-Rail Crossing Collisions Total: 1,328			No. Collisions at Crossings with Single-Incidents Total: 862		No. Collisions at Crossings with Multiple-Incidents Total: 466		% of Total Collisions at Multiple-Incident Collision Locations
Type of Highway User/Vehicle *(*typveh)*	**Active / Passive**	**Total No.**	**% of incidents**	**Active / Passive**	**Total No.**	**Active / Passive**	**Total No.**	
A. Automobile	313 / 159	472	35.5%	215 / 109	324	98 / 50	148	*31%*
B. Truck (panel, flatbed tow, etc.)	43 / 46	89	7%	21 / 33	54	22 / 13	35	*39%*
C. Truck-Trailer (semi, tractor trailer, or truck w/ trailer)	166 / 116	282	21%	92 / 67	159	74 / 49	123	***44%***
D. Pick-up Truck	191 / 144	335	25%	129 / 93	222	62 / 51	113	*34%*
E. Van	32 / 15	47	3.5%	24 / 14	38	8 / 1	9	*19%*
F. Bus	1 / 1	2	0.2%	0 / 0	0	1 / 1	2	*100%*
G. School Bus	0 / 0	---	.--	0 / 0	0	0 / 0	0	*0*
H. Motor Cycle	4 / 3	7	0.5%	3 / 2	5	1 / 1	2	*29%*
J. Other Motor Vehicle (lawn mower, go-cart, ATV)	43 / 27	70	5.3%	25 / 20	45	18 / 7	25	*36%*
K. Pedestrian at crossing	11 / 1	12	1%	7 / 1	8	4 / 0	4	*33%*
M. Other Highway User (electric wheelchair, bicycle)	8 / 4	12	1%	4 / 3	7	4 / 1	5	***42%***
Total	**812 / 516**	**1,328**	**100%**	**520 / 342**	**862**	**292 / 174**	**466**	**35%**

Table 14 – Public Crossing Collisions – 2003 to 2007
Position of Highway-User at Time of Collision and Highway-User Action Prior to Collision

Data Category *(*FRA variable name)*	Total No. Highway-Rail Crossing Collisions Total: 1,328			No. Collisions at Crossings with Single-Incidents Total: 862		No. Collisions at Crossings with Multiple-Incidents Total: 466		% of Total Collisions at Multiple-Incident Collision Locations
Position of Highway User at Time of Collision *(*position)*	**Active / Passive**	**Total No.**	**% of incidents**	**Active / Passive**	**Total No.**	**Active / Passive**	**Total No.**	
1. Stalled on Crossing	29 / 7	36	3%	22 / 5	27	7 / 2	9	*25%*
2. Stopped on Crossing	270 / 99	369	28%	152 / 68	220	118 / 31	149	***40%***
3. Moving over Crossing	488 / 410	898	67%	335 / 269	604	153 / 141	294	*33%*
4. Trapped on Crossing	25 / 0	25	2%	11 / 0	11	14 / 0	14	***56%***
Total	**812 / 516**	**1,328**	**100%**	**520 / 342**	**862**	**292 / 174**	**466**	**35%**

Data Category *(*FRA variable name)*	Total No. Highway-Rail Crossing Collisions Total: 1,328			No. Collisions at Crossings with Single-Incidents Total: 862		No. Collisions at Crossings with Multiple-Incidents Total: 466		% of Total Collisions at Multiple-Incident Collision Locations
Highway-User Action Prior to Collision *(*motorist)*	**Active / Passive**	**Total No.**	**% of incidents**	**Active / Passive**	**Total No.**	**Active / Passive**	**Total No.**	
1. Drove Around Gates	282 / 0	282	21%	200 / 0	200	82 / 0	82	*29%*
2. Stopped and then Proceeded	35 / 49	84	6%	25 / 31	56	10 / 18	28	*33%*
3. Did not Stop	144 / 354	498	38%	92 / 234	326	52 / 120	172	*35%*
4. Stopped on Crossing	143 / 99	242	18%	80 / 68	148	63 / 31	94	*39%*
5. Other	197 / 13	210	16%	116 / 8	124	81 / 5	**86**	***41%***
Unknown	11 / 1	12	1%	7 / 1	8	4 / 0	4	*33%*
Total	**812 / 516**	**1,328**	**100%**	**520 / 342**	**862**	**292 / 174**	**466**	**35%**

Table 15 - Public Crossing Collisions - 2003 to 2007
Weather Condition and Frequency of Collisions by Time Period

Data Category *(*FRA variable name)*	Total No. Highway-Rail Crossing Collisions Total: 1,328			No. Collisions at Crossings with Single-Incidents Total: 862		No. Collisions at Crossings with Multiple-Incidents Total: 466		% of Total Collisions at Multiple-Incident Collision Locations
Weather Condition *(*weather)*	**Active / Passive**	**Total No.**	**% of incidents**	**Active / Passive**	**Total No.**	**Active / Passive**	**Total No.**	
1. Clear	547 / 376	923	69.5%	351 / 252	603	196 / 124	320	*35%*
2. Cloudy	208 / 109	317	24%	129 / 67	196	79 / 42	121	*38%*
3. Rain	40 / 22	62	4.7%	27 / 19	46	13 / 3	16	*26%*
4. Fog	13 / 9	22	1.7%	10 / 4	14	3 / 5	8	*36%*
5. Sleet	3 / 0	3	0.2%	2 / 0	2	1 / 0	1	*33%*
6. Snow	1 / 0	1	0.07%	1 / 0	1	0 / 0	0	---
Total	**812/516**	**1,328**	**100%**	**520/342**	**862**	**292/174**	**466**	**35%**
Time Period *(*timehr/timemin/ampm)* *TxDot selected groups*	**Active / Passive**	**Total No.**	**% of incidents**	**Active / Passive**	**Total No.**	**Active / Passive**	**Total No.**	**% Total at Multi-**
6:00 a.m. – 8:59 a.m.	106 / 64	170	12.8%	74 / 46	120	32 / 18	50	29%
9:00 a.m. - 11:59 a.m.	121 / 108	229	17.2%	86 / 78	164	35 / 30	65	28%
12:00 p.m. – 1:59 p.m.	82 / 56	138	10.4%	43 / 38	81	39 / 18	57	**41%**
2:00 p.m. – 3:59 p.m.	86 / 69	155	11.7%	57 / 43	100	29 / 26	55	35.5%
4:00 p.m. – 6:59 p.m.	116 / 91	207	15.6%	60 / 59	119	56 / 32	88	**42.5%**
7:00 p.m. – 11:59 p.m.	162 / 73	235	17.7%	104 / 46	150	58 / 27	85	36%
12:00 a.m. – 12:59 a.m.	24 / 10	34	2.6%	14 / 5	19	10 / 5	15	**44%**
1:00 a.m. – 5:59 a.m.	115 / 45	160	12%	82 / 27	109	33 / 18	51	32%
Total	**812/516**	**1,328**	**100%**	**520/342**	**862**	**292/174**	**466**	**35%**

Table 16 – Public Crossing Collisions – 2003 – 2007
Visibility by Time of Day at Active/Passive Devices and Crossing Illumination/Street Lights at Crossings

Data Category (*FRA variable name)	Total No. Highway-Rail Crossing Collisions Total: 1,328				No. Collisions at Crossings with Single-Incidents Total: 862				No. Collisions at Crossings with Multiple-Incidents Total: 466			
ACTIVE DEVICES	Crossing Illumination *Street Lights (*lights)*				Crossing Illumination *Street Lights (*lights)*				Crossing Illumination *Street Lights (*lights)*			
Visibility by Time of Day (*visibility)	**Lights**	**No Lights**	**N/A**	**Total No.**	**Lights**	**No Lights**	**N/A**	**Total No.**	**Lights**	**No Lights**	**N/A**	**Total No.**
1. Dawn	3	7	4	14	4	2	1	7	3	2	2	7
2. Daylight	171	150	147	468	94	107	94	295	77	43	53	173
3. Dusk	15	10	4	29	5	7	3	15	10	3	1	14
4. Dark	163	68	70	301	110	47	46	203	53	21	24	98
Total Active	**356**	**232**	**224**	**812**	**213**	**163**	**144**	**520**	**143**	**69**	**80**	**292**
PASSIVE DEVICES	Crossing Illumination *Street Lights (*lights)*				Crossing Illumination *Street Lights (*lights)*				Crossing Illumination *Street Lights (*lights)*			
Visibility by Time of Day (*visibility)	**Lights**	**No Lights**	**N/A**	**Total No.**	**Lights**	**No Lights**	**N/A**	**Total No.**	**Lights**	**No Lights**	**N/A**	**Total No.**
1. Dawn	1	10	5	16	1	5	4	10	0	5	1	6
2. Daylight	19	241	106	366	14	172	67	253	5	69	39	113
3. Dusk	7	9	6	22	3	7	1	11	4	2	5	11
4. Dark	20	60	32	112	12	37	19	68	8	23	13	44
Total Passive	**47**	**320**	**149**	**516**	**30**	**221**	**91**	**342**	**17**	**99**	**58**	**174**
Active/Passive TOTAL	**403**	**552**	**373**	**1,328**	**243**	**384**	**235**	**862**	**160**	**168**	**138**	**466**

N/A = Not Available

Table 17 – Public Crossing Collisions – 2003 to 2007
Highway-Users by Age and Gender

Data Category *(*FRA variable name)*	Total No. Highway-Rail Crossing Collisions Total: 1.328		No. Collisions at Crossings with Single-Incidents Total: 862	No. Collisions at Crossings with Multiple-Incidents Total: 466	% of Total Collisions at Multiple-Incident Collision Locations
Age and Gender of Highway-user *(*drivage) and (*drivgen)*	**Total No.**	**% of All incidents**	**Total No.**	**Total No.**	
Male Highway-Users					
Male Ages 12-26	217	16%	151	**66**	*30%*
Male Ages 27-39	286	21.5%	178	**108**	*38%*
Male Ages 40-55	259	19.5%	152	**107**	***41%***
Male Ages 56-69	102	8%	61	**41**	***40%***
Male Ages 70 -79	47	3.5%	27	**20**	***42,5%***
Male Ages 80 -99	23	2%	14	**9**	*39%*
Male Age Unknown	104	8%	73	**31**	*30%*
Sub-Total Male	**1,038**	**78%**	**656**	**382**	**37%**
Female Highway-Users	**Total No.**	**% of All incidents**	**Total No.**	**Total No.**	**% Total at Multi-**
Female Ages 12-26	66	5%	46	**20**	*30%*
Female Ages 27-39	57	4%	35	**22**	*39%*
Female Ages 40-55	65	5%	45	**20**	*31%*
Female Ages 56-69	24	2%	20	**4**	*17%*
Female Ages 70-79	18	1%	14	**4**	*22%*
Female Ages 80-99	4	.3%	3	**1**	*25%*
Female Age Unknown	29	2%	23	**6**	*21%*
Sub-Total Female	**263**	**20%**	**186**	**77**	**29%**
Age & Gender Not Reported	**27**	**2%**	**20**	**7**	**26%**
Total	**1,328**	**100%**	**862**	**466**	**35%**

Table 18 – Public Crossing Collisions – 2003 to 2007
Highway-Users View of Track Obscured by Visual Obstruction

Data Category *(*FRA variable name)*	Total No. Highway-Rail Crossing Collisions Total: 1,328			No. Collisions at Crossings with Single-Incidents Total: 862		No. Collisions at Crossings with Multiple-Incidents Total: 466		% of Total Collisions at Multiple-Incident Collision Locations
Highway-Users View Obscured By **(view)*	**Active / Passive**	**Total No.**	**% of incidents**	**Active / Passive**	**Total No.**	**Active / Passive**	**Total No.**	
1. Permanent Structure	5 / 3	8	0.6%	2 / 2	4	3 / 1	**4**	***50%***
2. Standing Railroad Equipment	2 / 3	5	0.376%	2 / 1	3	0 / 2	**2**	***40%***
3. Passing Train	4 / 1	5	0.376%	2 / 1	3	2 / 0	**2**	***40%***
4. Topography	0 / 0	0	—	0 / 0	0	0 / 0	**0**	*0*
5. Vegetation	2 / 2	4	0.3%	2 / 2	4	0 / 0	**0**	*0*
6. Highway Vehicles	2 / 0	2	0.15%	1 / 0	1	1 / 0	**1**	***50%***
7. Other	2 / 5	7	0.53%	2 / 5	7	0 / 0	**0**	*0*
8. Not Obstructed	795 / 502	1,297	97.665%	509 / 331	840	286 / 171	**457**	*35%*
Total	**812 / 516**	**1,328**	**100%**	**529 / 342**	**862**	**292 / 174**	**466**	**35%**

Table 19 – Public Crossing Collisions - 2003 to 2007
Collisions by County Location

Collisions by County Locations	Total No. Collisions: 1,328	% of Total incidents	No. Collisions at Crossings with Single-Incidents Total: 862	No. Collisions at Crossings with Multiple-Incidents Total: 466	% of Total Collisions at Multiple-Incident Collision Locations
1. HARRIS	171	12.876%	83	88	**51.46%**
2. TARRANT	95	7.153%	50	45	**47.37%**
3. DALLAS	61	4.59%	38	23	37.70%
4. BEXAR	48	3.61%	27	21	**43.75%**
5. JEFFERSON	37	2.786%	18	19	**51.35%**
6. GRAYSON	27	2.033%	18	9	33.33%
7. WEBB	24	1.81%	13	11	**45.83%**
8. ELLIS	23	1.73%	10	13	**56.52%**
9. MONTGOMERY	23	1.73%	17	6	26.09%
10. DENTON	22	1.656%	12	10	**45.45%**
11. HIDALGO	22	1.656%	15	7	31.82%
12. FORT BEND	21	1.581%	7	14	**66.66%**
13. EL PASO	19	1.430%	15	4	21.05%
14. CAMERON	18	1.355%	16	2	11.11%
15. BRAZORIA	18	1.355%	6	12	**66.66%**
16. JIM WELLS	18	1.355%	9	9	**50%**
17. ORANGE	18	1.355%	10	8	**44.44%**
18. HALE	18	1.355%	11	7	38.88%
19. HOPKINS	18	1.355%	11	7	38.88%
20. ECTOR	15	1.129%	3	12	**80%**
21. COLLIN	15	1.129%	8	7	**46.66%**
22. MEDINA	15	1.129%	13	2	13.33%
23. CASS	14	1.054%	5	9	**64.28%**
24. JOHNSON	13	0.978%	11	2	15.38%
25. WILLIAMSON	13	0.978%	10	3	23.07%
26. MCLENNAN	12	0.903%	10	2	16.66%
27. GUADALUPE	11	0.828%	6	5	**45.45%**

Collisions by County Locations	Total No. Collisions: 1,328	% of Total incidents	. Total Single-Incident Collisions: 862	Total Multi-Incident Collisions: 466	Multi-Incident Collisions as % of Total Collisions
28. GALVESTON	11	0.828%	9	2	18.18%
29. LIBERTY	11	0.828%	9	2	18.18%
30. BRAZOS	11	0.828%	11	0	---
31. GRIMES	11	0.828%	11	0	---
32. MATAGORDA	10	0.753%	10	0	---
33. HARRISON	10	0.753%	8	2	20%
34. NUECES	10	0.753%	8	2	20%
35. CAMP	10	0.753%	6	4	**40%**
36. LIMESTONE	9	0.677%	5	4	**44.44%**
37. SMITH	9	0.677%	9	0	---
38. VICTORIA	9	0.677%	9	0	---
39. WISE	9	0.677%	9	0	---
40. BELL	9	0.677%	9	0	---
41. MARTIN	8	0.602%	2	6	**75%**
42. MIDLAND	8	0.602%	5	3	37.55%
43. SAN PATRICIO	8	0.602%	5	3	37.55%
44. ROBERTSON	8	0.602%	6	2	25%
45. KAUFMAN	7	0.527%	4	3	**42.86%**
46. CHEROKEE	7	0.527%	5	2	28.57%
47. COLORADO	7	0.527%	5	2	28.57%
48.COOKE	7	0.527%	5	2	28.57%
49.HUNT	7	0.527%	5	2	28.57%
50. LUBBOCK	7	0.527%	5	2	28.57%
51. PARMER	7	0.527%	5	2	28.57%
52. COMAL	7	0.527%	6	1	14.28%
53. GREGG	7	0.527%	7	0	---
54. CALDWELL	6	0.451%	6	0	---
55. FRIO	6	0.451%	6	0	---
56. HARDIN	6	0.451%	6	0	---
57. LAMB	6	0.451%	6	0	---

Collisions by County Locations	Total No. Collisions: 1,328	% of Total incidents	. Total Single-Incident Collisions: 862	Total Multi-Incident Collisions: 466	Multi-Incident Collisions as % of Total Collisions
58. MILAM	6	0.451%	6	0	---
59.SHELBY	6	0.451%	6	0	---
60. WICHITA	6	0.451%	6	0	---
61. POLK	6	0.451%	2	4	66.66%
62. POTTER	6	0.451%	2	4	66.66%
63. TITUS	6	0.451%	2	4	66.66%
64. COMANCHE	5	0.376%	5	0	---
65. NAVARRO	5	0.376%	5	0	---
66. REFUGIO	5	0.376%	5	0	---
67.TAYLOR	5	0.376%	5	0	---
68. CHAMBERS	5	0.376%	3	2	40%
69.HAYS	5	0.376%	3	2	40%
70. RUSK	5	0.376%	3	2	40%
71. BASTROP	5	0.376%	0	5	100%
72. PALO PINTO	5	0.376%	0	5	100%
73. BOWIE	5	0.376%	4	1	20%
74. EASTLAND	4	0.301%	4	0	---
75. LEON	4	0.301%	4	0	---
76. MARION	4	0.301%	4	0	---
77. MOORE	4	0.301%	4	0	---
78. MORRIS	4	0.301%	4	0	---
79. REEVES	4	0.301%	4	0	---
80. VAN ZANDT	4	0.301%	4	0	---
81. HOOD	4	0.301%	1	3	75%
82. FREESTONE	4	0.301%	2	2	50%
83. GARZA	4	0.301%	2	2	50%
84. GRAY	4	0.301%	2	2	50%
85. HOWARD	4	0.301%	2	2	50%
86. NOLAN	4	0.301%	2	2	50%
87. HILL	3	0.225%	0	3	100%

Collisions by County Locations	Total No. Collisions: 1,328	% of Total incidents	. Total Single-Incident Collisions: 862	Total Multi-Incident Collisions: 466	Multi-Incident Collisions as % of Total Collisions
88. ERATH	3	0.225%	1	2	**66.66%**
89. NACOGDOCHES	3	0.225%	1	2	**66.66%**
90. PANOLA	3	0.225%	1	2	**66.66%**
91. SAN AUGUSTINE	3	0.225%	1	2	**66.66%**
92. ANDERSON	3	0.225%	3	0	**---**
93. AUSTIN	3	0.225%	3	0	**---**
94. CLAY	3	0.225%	3	0	**---**
95. DEAF SMITH	3	0.225%	3	0	**---**
96. DUVAL	3	0.225%	3	0	**---**
97. FAYETTE	3	0.225%	3	0	**---**
98. JASPER	3	0.225%	3	0	**---**
99. LIVE OAK	3	0.225%	3	0	**---**
100. MONTAGUE	3	0.225%	3	0	**---**
101. PARKER	3	0.225%	3	0	**---**
102. RANDALL	3	0.225%	3	0	**---**
103. SWISHER	3	0.225%	3	0	**---**
104. VAL VERDE	3	0.225%	3	0	**---**
105. WALLER	3	0.225%	3	0	**---**
106. WHARTON	3	0.225%	3	0	**---**
107. WILLACY	3	0.225%	3	0	**---**
108. BURNET	2	0.151%	0	2	**100%**
109. DE WITT	2	0.151%	0	2	**100%**
110. HAEDEMAN	2	0.151%	0	2	**100%**
111. JIM HOGG	2	0.151%	0	2	**100%**
112. WALKER	2	0.151%	0	2	**100%**
113. HARTLEY	2	0.151%	2	0	**---**
114. ATASCOSA	2	0.151%	2	0	**---**
115. BROWN	2	0.151%	2	0	**---**
116. CALHOUN	2	0.151%	2	0	**---**
117. CORYELL	2	0.151%	2	0	**---**

Collisions by County Locations	Total No. Collisions: 1,328	% of Total incidents	. Total Single-Incident Collisions: 862	Total Multi-Incident Collisions: 466	Multi-Incident Collisions as % of Total Collisions
118. FALLS	2	0.151%	2	0	---
119. HANSFORD	2	0.151%	2	0	---
120. HENDERSON	2	0.151%	2	0	---
121. HUDSPETH	2	0.151%	2	0	---
122. LA SALLE	2	0.151%	2	0	---
123. MITCHELL	2	0.151%	2	0	---
124. PRESIDIO	2	0.151%	2	0	---
125. TRAVIS	2	0.151%	2	0	---
126. WARD	2	0.151%	2	0	---
127. WILBARGER	2	0.151%	2	0	---
128. ANGELINA	1	0.075%	1	0	---
129. BOSQUE	1	0.075%	1	0	---
130. BURLESON	1	0.075%	1	0	---
131. CARSON	1	0.075%	1	0	---
132. COLEMAN	1	0.075%	1	0	---
133. DALLAM	1	0.075%	1	0	---
134. DONLEY	1	0.075%	1	0	---
135. FISHER	1	0.075%	1	0	---
136. FRANKLIN	1	0.075%	1	0	---
137. GONZALES	1	0.075%	1	0	---
138. HALL	1	0.075%	1	0	---
139. HOUSTON	1	0.075%	1	0	---
140. HUTCHINSON	1	0.075%	1	0	---
141. JACKSON	1	0.075%	1	0	---
142. KENEDY	1	0.075%	1	0	---
143. KLEBERG	1	0.075%	1	0	---
144. LAVACA	1	0.075%	1	0	---
145. MADISON	1	0.075%	1	0	---
146. MAVERICK	1	0.075%	1	0	---
147.MCCULLOCH	1	0.075%	1	0	---

Collisions by County Locations	Total No. Collisions: 1,328	% of Total incidents	. Total Single-Incident Collisions: 862	Total Multi-Incident Collisions: 466	Multi-Incident Collisions as % of Total Collisions
148.MILLS	1	0.075%	1	0	---
149. SAN JACINTO	1	0.075%	1	0	---
150. SCURRY	1	0.075%	1	0	---
151. SHERMAN	1	0.075%	1	0	---
152. TOM GREEN	1	0.075%	1	0	---
153. TRINITY	1	0.075%	1	0	---
154. UPSHUR	1	0.075%	1	0	---
155. UVALDE	1	0.075%	1	0	---
156. WASHINGTON	1	0.075%	1	0	---
157. WOOD	1	0.075%	1	0	---
Total	**1,328**	**100%**	**862**	**466**	**35%**

Table 20 – Public Crossing Collisions – 2003 to 2007
Collisions at Multiple-Incident Collision Locations by County by Date of Collision

No.	COUNTY	DOT #	Date	HIGHWAY	City/Nearest City	Device	RR	YEAR
1	BASTROP	416311D	07/03/03	CR157 AND MAIN ST.	BASTROP	Not Gates	UP	2003
2	BASTROP	416311D	10/09/03	CITY ROAD 157	BASTROP	Not Gates	UP	2003
5	BASTROP	416311D	04/04/06	CR 157/PHELAN	BASTROP	Not Gates	UP	2006
3	BASTROP	416314Y	01/10/03	CARTER STREET		Not Gates	BNSF	2003
4	BASTROP	416314Y	12/11/03	CARTER STREET	BASTROP	Not Gates	UP	2003
12	BEXAR	415624P	05/28/05	IH 35 FRONTAGE ROAD	SAN ANTONIO	Gates	UP	2005
22	BEXAR	415624P	01/12/07	IH 35 FRONTAGE ROAD	SAN ANTONIO	Gates	UP	2007
6	BEXAR	432492B	02/21/03	THOUSAND OAKS DRIVE	SAN ANTONIO	Gates	UP	2003
13	BEXAR	432492B	10/04/05	THOUSAND OAKS	SAN ANTONIO	Gates	UP	2005
7	BEXAR	742931N	07/31/03	DIRECTOR STREET	SAN ANTONIO	Not Gates	UP	2003
14	BEXAR	742931N	01/14/05	DIRECTOR DRIVE	SAN ANTONIO	Not Gates	UP	2005
15	BEXAR	764270J	10/27/05	CENTER ROAD	SAN ANTONIO	Not Gates	UP	2005
18	BEXAR	764270J	11/30/06	CENTER ROAD	SAN ANTONIO	Not Gates	UP	2006
23	BEXAR	764270J	01/09/07	CENTER ROAD	SAN ANTONIO	Not Gates	UP	2007
9	BEXAR	764292J	03/01/04	HOEFGEN STREET	SAN ANTONIO	Gates	UP	2004
19	BEXAR	764292J	09/17/06	HOEFGEN STREET	SAN ANTONIO	Gates	UP	2006
24	BEXAR	764292J	06/08/07	HOEFGEN STREET	SAN ANTONIO	Gates	UP	2007
8	BEXAR	764295E	02/01/03	S. PRESA STREET	SAN ANTONIO	Gates	UP	2003
10	BEXAR	764295E	07/08/04	SOUTH PRESA STREET	SAN ANTONIO	Gates	UP	2004
11	BEXAR	764300Y	12/17/04	SOUTH FLORES STREET	SAN ANTONIO	Gates	UP	2004
20	BEXAR	764300Y	04/23/06	SOUTH FLORES STREET	SAN ANTONIO	Gates	UP	2006
16	BEXAR	764302M	11/13/05	S. SAN MARCOS STREET	SAN ANTONIO	Gates	UP	2005
25	BEXAR	764302M	03/18/07	S. SAN MARCOS ST.	SAN ANTONIO	Gates	UP	2007
17	BEXAR	764305H	03/06/05	ZARZAMORA STREET	SAN ANTONIO	Gates	UP	2005
21	BEXAR	764305H	06/28/06	S ZARZAMORA ST	SAN ANTONIO	Gates	UP	2006
26	BEXAR	764305H	02/11/07	SOUTH ZARZAMORA ST.	SAN ANTONIO	Gates	UP	2007

27	BOWIE	415055L	10/06/07	EAST SEARS ST.	DENISON	Not Gates	DGNO	2007
31	BRAZORIA	023201F	04/23/05	COUNTY ROAD 128	ALVIN	Gates	UP	2005
38	BRAZORIA	023201F	05/05/07	COUNTY ROAD		Gates	BNSF	2007
32	BRAZORIA	023204B	11/27/05	BROADWAY ST	PEARLAND	Not Gates	BNSF	2005
35	BRAZORIA	023204B	12/02/06	BROADWAY STREET	PEARLAND	Gates	UP	2006
36	BRAZORIA	023204B	05/17/06	BROADWAY STREET	PEARLAND	Not Gates	UP	2006
28	BRAZORIA	448606J	10/12/03	SO VELASCO ST/BS 288	ANGLETON	Not Gates	UP	2003
33	BRAZORIA	448606J	04/28/05	SH 228	ANGLETON	Not Gates	UP	2005
39	BRAZORIA	448606J	11/10/07	SH 228B		Not Gates	BNSF	2007
29	BRAZORIA	448649C	08/28/03	COUNTY RD 706	ANGLETON	Not Gates	UP	2003
30	BRAZORIA	448649C	08/14/03	COUNTY RD 706	ANGLETON	Not Gates	UP	2003
34	BRAZORIA	448675S	01/03/05	FM 523/VELASCO BLVD	FREEPORT	Gates	UP	2005
37	BRAZORIA	448675S	11/20/06	FM 523/VELASCO BLVD	FREEPORT	Gates	UP	2006
40	BURNET	745259H	06/29/06	HWY 281		Not Gates	AUAR	2006
41	BURNET	745259H	05/24/07	CR 121		Not Gates	AUAR	2007
42	CAMERON	758596L	03/01/04	FM 803	LOZANO	Not Gates	UP	2004
43	CAMERON	758596L	05/05/06	FM 803		Not Gates	UP	2006
44	CAMP	789775M	08/14/03	COUNTY ROAD 2110	PITTSBURG	Not Gates	UP	2003
47	CAMP	789775M	01/27/07	CR 2110	PITTSBURG	Not Gates	UP	2007
45	CAMP	789780J	01/11/03	CYPRESS	PITTSBURG	Not Gates	UP	2003
46	CAMP	789780J	08/15/04	CYPRESS STREET	PITTSBURG	Not Gates	UP	2004
51	CASS	331471D	09/09/05	POWER PLANT ROAD	AVINGER	Not Gates	KCS	2005
52	CASS	331471D	10/07/05	WILKES POWER PLANT	AVINGER	Not Gates	KCS	2005
53	CASS	331484E	07/20/05	PINE STREET	HUGHES SPRINGS	Not	KCS	2005

						Gates		
54	CASS	331484E	07/11/06	SOUTH PINE STREET	HUGHES SPRINGS	Not Gates	KCS	2006
55	CASS	331487A	11/01/06	FM 250	HUGHES SPRINGS	Gates	KCS	2006
56	CASS	331487A	05/23/06	FM 250	HUGHES SPRINGS	Gates	KCS	2006
48	CASS	794533C	12/02/03	COUNTY ROAD 3129	DOMINO	Gates	UP	2003
49	CASS	794533C	04/25/03	FM 3129	QUEEN CITY	Gates	UP	2003
50	CASS	794533C	09/06/03	FM 3129	QUEEN CITY	Gates	UP	2003
57	CHAMBERS	762810V	09/30/05	FM 565	BAYTOWN	Not Gates	UP	2005
58	CHAMBERS	762810V	12/08/06	FM 565		Not Gates	UP	2006
59	CHEROKEE	426623N	12/24/05	FM 2750	TROUP	Not Gates	UP	2005
60	CHEROKEE	426623N	03/30/06	FM 2750	TROUP	Not Gates	UP	2006
66	COLLIN	022122R	05/27/05	CR 605	FARMERSVILLE	Not Gates	KCS	2005
67	COLLIN	022122R	12/06/05	RD 605	FARMERSVILLE	Not Gates	KCS	2005
61	COLLIN	331712P	08/19/03	RD699	FARMERSVILLE	Not Gates	KCS	2003
62	COLLIN	331712P	06/08/03	CR699	FARMERSVILLE	Not Gates	KCS	2003
63	COLLIN	789632P	01/28/03	PLANO PARKWAY	PLANO	Gates	KCS	2003
64	COLLIN	789632P	01/30/04	US 75 NTH PLANO	PLANO	Gates	KCS	2004
65	COLLIN	789632P	04/19/04	PLANO PARKWAY	PLANO	Gates	KCS	2004
68	COLORADO	743818Y	07/10/06	FM 3013	EAGLE LAKE	Gates	UP	2006
69	COLORADO	743818Y	07/24/07	FM 3013	EAGLE LAKE	Gates	UP	2007
70	COMAL	742632G	09/07/07	FM 1518 (1ST STREET)	SCHERTZ	Gates	UP	2007
71	COOKE	020597B	05/24/03	COUNTY ROAD		Not Gates	BNSF	2003
72	COOKE	020597B	05/19/07	COUNTY ROAD		Not Gates	BNSF	2007
73	DALLAS	414842T	08/15/03	CEDAR SPRING	DALLAS	Not Gates	DGNO	2003
88	DALLAS	414842T	04/07/06	CEDAR SPRINGS	DALLAS	Not Gates	DGNO	2006
74	DALLAS	672151U	09/08/03	BELT LINE ROAD	CARROLLTON	Gates	BNSF	2003
89	DALLAS	672151U	11/30/06	BELT LINE RD	CARROLLTON	Gates	BNSF	2006
92	DALLAS	763660T	10/12/07	LENWAY STREET	DALLAS	Gates	UP	2007

93	DALLAS	763660T	06/21/07	LENWAY STREET	DALLAS	Gates	UP	2007
76	DALLAS	789632P	01/20/04	PLANO PKWY.	PLANO	Not Gates	DGNO	2004
77	DALLAS	794832J	08/23/04	ST 0000; SAM HOUSTON	DALLAS	Gates	ATK	2004
82	DALLAS	794832J	03/22/05	SAM HOUSTON ROAD	DALLAS	Gates	UP	2005
90	DALLAS	794832J	06/11/06	SAM HOUSTON RD	DALLAS	Gates	UP	2006
94	DALLAS	794832J	02/24/07	SAM HOUSTON ROAD	MESQUITE	Gates	UP	2007
78	DALLAS	794926K	01/02/04	WESTMORELAND ROAD	DALLAS	Gates	UP	2004
83	DALLAS	794926K	08/05/05	WESTMORELAND ROAD	DALLAS	Gates	UP	2005
84	DALLAS	794926K	01/02/05	WESTMORELAND ROAD	DALLAS	Gates	UP	2005
91	DALLAS	794926K	04/26/06	WESTMORELAND ROAD	DALLAS	Gates	UP	2006
79	DALLAS	794952A	09/12/04	FM 1382; SE 8TH	GRAND PRAIRIE	Gates	ATK	2004
95	DALLAS	794952A	10/23/07	SE 8TH	GRAND PRAIRIE	Gates	UP	2007
75	DALLAS	794960S	04/30/03	SW 19TH STREET	GRAND PRAIRIE	Gates	UP	2003
80	DALLAS	794960S	01/10/04	SW 19TH STREET	GRAND PRAIRIE	Gates	UP	2004
81	DALLAS	794960S	02/25/04	NW 19TH STREET	GRAND PRAIRIE	Gates	UP	2004
85	DALLAS	794960S	10/10/05	ST 0000; SW 19TH ST	GRAND PRAIRIE	Gates	ATK	2005
86	DALLAS	795462L	03/13/05	JEFFERSON	GRAND PRAIRIE	Not Gates	UP	2005
87	DALLAS	795462L	09/28/05	JEFFERSON STREET	GRAND PRAIRIE	Not Gates	UP	2005
96	DE WITT	746505U	09/20/06	FORDTRAN	THOMASTON	Not Gates	KCS	2006
97	DE WITT	746505U	05/14/07	FORDTRAN	THOMASTON	Not Gates	UP	2007
101	DENTON	020554H	09/16/05	ST 0000	JUSTIN	Not Gates	ATK	2005
102	DENTON	020554H	01/10/06	1ST STREET	JUSTIN	Not Gates	BNSF	2006
99	DENTON	020566C	09/14/04	TN SKILES RD	PONDER	Not Gates	BNSF	2004
100	DENTON	020566C	06/28/04	T N SKILES	PONDER	Not Gates	KCS	2004
98	DENTON	795285J	04/01/03	WEST WALCOTT STREET	PILOT POINT	Gates	UP	2003
105	DENTON	795285J	05/26/07	FM 1192/WALCOTT ST	PILOT POINT	Gates	UP	2007
103	DENTON	795301R	08/03/06	NEW HOPE ROAD	AUBREY	Not Gates	UP	2006
106	DENTON	795301R	07/26/07	NEW HOPE	AUBREY	Not Gates	UP	2007
104	DENTON	795346X	02/08/06	CR/HENRIETTA CREEK	ROANOKE	Gates	UP	2006
107	DENTON	795346X	06/14/07	HENRIETTA CREEK ROAD	ROANOKE	Gates	UP	2007

112	ECTOR	796242U	03/03/05	KELLEY	ODESSA	Gates	UP	2005
113	ECTOR	796242U	12/15/05	KELLY STREET	ODESSA	Gates	UP	2005
115	ECTOR	796242U	05/23/06	KELLY	ODESSA	Gates	UP	2006
116	ECTOR	796293E	08/22/06	MEADOW STREET	ODESSA	Gates	UP	2006
117	ECTOR	796293E	04/13/07	MEADOW	ODESSA	Gates	UP	2007
108	ECTOR	796308S	04/16/03	CARGO STREET	ODESSA	Not Gates	UP	2003
109	ECTOR	796308S	01/18/04	CARGO STREET	ODESSA	Not Gates	UP	2004
110	ECTOR	796308S	07/22/04	CARGO STREET	ODESSA	Not Gates	UP	2004
111	ECTOR	796308S	02/07/04	CARGO STREET	ODESSA	Not Gates	UP	2004
114	ECTOR	796308S	01/22/05	CARGO STREET	ODESSA	Not Gates	UP	2005
118	ECTOR	796308S	11/28/07	CARGO STREET	ODESSA	Gates	UP	2007
119	ECTOR	796308S	05/10/07	CARGO STREET	ODESSA	Gates	UP	2007
120	EL PASO	741200E	09/09/03	SAN MARCIAL RD	EL PASO	Gates	UP	2003
121	EL PASO	741200E	11/05/04	SAN MARCIAL RD	EL PASO	Gates	UP	2004
122	EL PASO	741229C	10/29/04	PENDALE ROAD	EL PASO	Gates	UP	2004
123	EL PASO	741229C	03/16/05	PENDALE ROAD	EL PASO	Gates	UP	2005
124	ELLIS	765203T	06/07/03	HIGHLAND AVE	WAXAHACHIE	Not Gates	UP	2003
126	ELLIS	765203T	12/15/04	HIGHLAND AVENUE	WAXAHACHIE	Not Gates	UP	2004
128	ELLIS	765869V	03/05/05	MUNCHUS STREET	WAXAHACHIE	Not Gates	UP	2005
132	ELLIS	765869V	01/05/06	MUNCHUS STREET	WAXAHACHIE	Not Gates	UP	2006
127	ELLIS	765870P	10/22/04	AIKEN STREET	WAXAHACHIE	Not Gates	UP	2004
129	ELLIS	765870P	09/11/05	AIKEN STREET	WAXAHACHIE	Not Gates	UP	2005
133	ELLIS	765870P	09/11/06	AIKEN STREET	WAXAHACHIE	Not Gates	UP	2006
130	ELLIS	765876F	02/20/05	US 77	WAXAHACHIE	Not Gates	UP	2005
135	ELLIS	765876F	01/01/07	US 77/ELM STREET	WAXAHACHIE	Not Gates	UP	2007
125	ELLIS	765883R	07/22/03	MONROE STREET	WAXAHACHIE	Not Gates	UP	2003

131	ELLIS	765883R	03/12/05	MONROE STREET	WAXAHACHIE	Not Gates	UP	2005
134	ELLIS	765895K	01/18/06	SEVENTH STREET	FERRIS	Not Gates	UP	2006
136	ELLIS	765895K	11/21/07	SEVENTH STREET	FERRIS	Not Gates	UP	2007
137	ERATH	020968J	01/04/07	FM 847		Not Gates	FWWR	2007
138	ERATH	020968J	03/26/07	FM 847		Not Gates	FWWR	2007
139	FORT BEND	743689L	02/06/03	SOUTH GESSNER		Gates	BNSF	2003
144	FORT BEND	743689L	06/09/06	S. GESSNER	MISSOURI CITY	Gates	UP	2006
141	FORT BEND	743691M	04/15/04	STAFFORD ROAD	STAFFORD	Gates	UP	2004
145	FORT BEND	743691M	02/12/06	STAFFORD-BELLAIR	STAFFORD	Gates	UP	2006
147	FORT BEND	743691M	07/25/07	ST 0000; STAFFORD BE	STAFFORD	Gates	ATK	2007
148	FORT BEND	743691M	11/02/07	STAFFORD - BELLAIRE	STAFFORD	Gates	UP	2007
140	FORT BEND	743692U	11/05/03	FM 1092 MURPHY RD	STAFFORD	Gates	UP	2003
142	FORT BEND	743692U	06/04/04	FM 1092/MURPHY RD	STAFFORD	Gates	UP	2004
143	FORT BEND	743692U	04/15/05	FM-1092		Gates	BNSF	2005
149	FORT BEND	743692U	04/20/07	FM-1092	STAFFORD	Gates	UP	2007
150	FORT BEND	743692U	10/15/07	FM 1092	STAFFORD	Gates	UP	2007
146	FORT BEND	745044J	09/12/06	DAIRY ASHFORD WAY	SUGAR LAND	Gates	UP	2006
151	FORT BEND	745044J	10/18/07	DAIRY ASHFORD WAY	SUGAR LAND	Gates	UP	2007
152	FORT BEND	745044J	05/24/07	DAIRY ASHFORD WAY		Gates	BNSF	2007
153	FREESTONE	597188E	04/07/06	MAIN ST.	TEAGUE	Gates	BNSF	2006
154	FREESTONE	597188E	04/11/07	MAIN ST.	TEAGUE	Gates	BNSF	2007
155	GALVESTON	859509K	02/01/06	ROSS STREET	LA MARQUE	Gates	UP	2006
156	GALVESTON	859509K	09/17/07	ROSS STREET	LA MARQUE	Not Gates	UP	2007
157	GARZA	015027D	09/07/06	CR 235		Not Gates	BNSF	2006
158	GARZA	015027D	07/27/07	CR 235		Not Gates	BNSF	2007
159	GRAY	014543G	9/26/03	STARKWEATHER ST	PAMPA	Gates	BNSF	2003
160	GRAY	014543G	12/08/07	STARKWEATHER ST	PAMPA	Gates	BNSF	2007
164	GRAYSON	415055L	11/04/04	SEARS ST..	DENTON	Not Gates	DGNO	2004
165	GRAYSON	415440P	10/04/05	MAIN ST.	DENISON	Not Gates	DGNO	2005
166	GRAYSON	415440P	10/17/05	MAIN ST.	DENISON	Not Gates	DGNO	2005

161	GRAYSON	672948X	02/18/03	PUBLIC	DENISON	Not Gates	DGNO	2003
162	GRAYSON	672948X	09/19/03	MAIN ST.	DENISON	Not Gates	DGNO	2003
163	GRAYSON	795278Y	02/14/03	GENE AUTRY/S MAIN ST	TIOGA	Not Gates	UP	2003
167	GRAYSON	795278Y	05/25/05	GENE AUTRY DRIVE	TIOGA	Not Gates	UP	2005
168	GRAYSON	795278Y	01/20/06	GENE AUTRY DRIVE	TIOGA	Not Gates	UP	2006
169	GRAYSON	795278Y	02/18/06	GENE AUTRY DRIVE	TIOGA	Not Gates	UP	2006
170	GUADALUPE	742628S	11/29/03	FM3009	CIBOLO	Gates	UP	2003
171	GUADALUPE	742628S	07/29/04	FM 3009	SCHERTZ	Gates	UP	2004
173	GUADALUPE	742628S	04/14/06	FM 3009	SCHERTZ	Gates	UP	2006
172	GUADALUPE	742632G	12/07/04	FM 1518 (FIRST ST)	SCHERTZ	Gates	UP	2004
174	GUADALUPE	742632G	02/04/06	FM 1518/FIRST STREET	SCHERTZ	Gates	UP	2006
176	HALE	017259A	02/03/04	PUBLIC		Not Gates	BNSF	2004
178	HALE	017259A	03/31/05	COUNTY ROAD 55		Not Gates	BNSF	2005
179	HALE	017259A	07/02/05	COUNTY RD 55		Not Gates	BNSF	2005
180	HALE	017259A	11/30/05	COUNTY ROAD 55		Not Gates	BNSF	2005
181	HALE	017259A	08/06/07	COUNTY ROAD 55		Not Gates	BNSF	2007
175	HALE	017280F	08/22/03	FM ROAD		Not Gates	BNSF	2003
177	HALE	017280F	02/20/04	FM ROAD	PLAINVIEW	Not Gates	BNSF	2004
182	HARDEMAN	274745V	10/18/05	MAIN ST	QUANAH	Gates	BNSF	2005
183	HARDEMAN	274745V	06/27/06	MAIN ST	QUANAH	Gates	BNSF	2006
184	HARRIS	023210E	09/04/03	EB BELLFORT	HOUSTON	Not Gates	BNSF	2003
252	HARRIS	023210E	03/09/07	EB BELLFORT	HOUSTON	Not Gates	UP	2007
185	HARRIS	023214G	08/04/03	LONG DRIVE	HOUSTON	Not Gates	UP	2003
217	HARRIS	023214G	11/10/05	LONG DRIVE	HOUSTON	Not Gates	UP	2005
218	HARRIS	023214G	12/07/05	LONG DR	HOUSTON	Not	BNSF	2005

						Gates		
239	HARRIS	023214G	06/20/06	LONG DRIVE	HOUSTON	Not Gates	UP	2006
253	HARRIS	023214G	09/26/07	LONG DRIVE	HOUSTON	Not Gates	UP	2007
186	HARRIS	023215N	11/29/03	GRIGGS ROAD	HOUSTON	Not Gates	UP	2003
187	HARRIS	023215N	09/28/03	GRIGGS RD	HOUSTON	Not Gates	BNSF	2003
199	HARRIS	023215N	10/15/04	GRIGGS ROAD	HOUSTON	Not Gates	UP	2004
219	HARRIS	023215N	07/14/05	GRIGGS RD		Not Gates	BNSF	2005
188	HARRIS	023226B	02/24/03	KOPMAN DRIVE	HOUSTON	Not Gates	BNSF	2003
220	HARRIS	023226B	03/15/05	KOPMAN DRIVE	HOUSTON	Not Gates	BNSF	2005
189	HARRIS	023228P	08/26/03	AIRPORT BLVD	HOUSTON	Gates	UP	2003
200	HARRIS	023228P	08/05/04	AIRPORT BLVD	HOUSTON	Gates	BNSF	2004
254	HARRIS	023228P	09/08/07	AIRPORT BLVD.	HOUSTON	Gates	UP	2007
221	HARRIS	276125N	07/12/05	BINGLE	HOUSTON	Not Gates	BNSF	2005
240	HARRIS	276125N	11/03/06	BINGLE	HOUSTON	Not Gates	BNSF	2006
241	HARRIS	288050B	07/27/06	LAWNDALE	HOUSTON	Gates	BNSF	2006
255	HARRIS	288050B	08/17/07	LAWNDALE	HOUSTON	Gates	UP	2007
201	HARRIS	288259W	11/30/04	BROOKS STREET	HOUSTON	Gates	UP	2004
256	HARRIS	288259W	01/25/07	BROOK STREET	HOUSTON	Not Gates	KCS	2007
202	HARRIS	447977R	10/25/04	ALEMEDA-GENOA ROAD	HOUSTON	Not Gates	UP	2004
222	HARRIS	447977R	06/18/05	ALMEDA-GENOA ROAD	HOUSTON	Not Gates	UP	2005
242	HARRIS	447977R	02/23/06	ALMEDA-GEONA ROAD	HOUSTON	Not Gates	UP	2006
243	HARRIS	447977R	03/06/06	ALMEDA - GENOA ROAD	HOUSTON	Not Gates	UP	2006
257	HARRIS	447977R	06/07/07	ALMEDA - GENOA ROAD	HOUSTON	Not Gates	UP	2007
223	HARRIS	447989K	03/18/05	MOWERY ROAD	HOUSTON	Not Gates	UP	2005
224	HARRIS	447989K	06/24/05	MOWERY ROAD	HOUSTON	Not	UP	2005

						Gates		
203	HARRIS	448400J	12/08/04	RICHEY ROAD	SPRING	Gates	UP	2004
258	HARRIS	448400J	11/09/07	RICHEY RD		Gates	BNSF	2007
204	HARRIS	450654Y	08/06/04	FM 2100		Gates	BNSF	2004
244	HARRIS	450654Y	05/16/06	FM 2100	HUFFMAN	Gates	UP	2006
205	HARRIS	597084X	05/01/04	ANTOINE STREET	HOUSTON	Gates	BNSF	2004
206	HARRIS	597084X	05/06/04	ANTOINE DR	HOUSTON	Gates	BNSF	2004
245	HARRIS	743120T	02/23/06	MAURY STREET	HOUSTON	Gates	UP	2006
246	HARRIS	743120T	10/12/06	MAURY STREET	HOUSTON	Gates	UP	2006
190	HARRIS	743633S	08/01/03	SPRING DR/CYPRESS DR	CYPRESS	Not Gates	UP	2003
191	HARRIS	743633S	12/06/03	CYPRESS DRIVE	CYPRESS	Not Gates	UP	2003
247	HARRIS	743633S	06/23/06	CYPRESS DRIVE	CYPRESS	Not Gates	UP	2006
259	HARRIS	743633S	03/02/07	CYPRESS DRIVE	CYPRESS	Not Gates	UP	2007
260	HARRIS	743633S	12/02/07	CYPRESS DRIVE	CYPRESS	Not Gates	UP	2007
225	HARRIS	745046X	11/06/05	SOUTH 75TH ST		Gates	BNSF	2005
248	HARRIS	745046X	02/22/06	SOUTH 75TH STREET	HOUSTON	Gates	BNSF	2006
192	HARRIS	755373K	03/20/03	LAPORTE FWY SREB	HOUSTON	Not Gates	WATX	2003
261	HARRIS	755373K	11/24/07	LA PORTE FWY	SOUTH HOUSTON	Not Gates	WATX	2007
193	HARRIS	755621G	12/17/03	CHIMNEY ROCK & SMAIN	HOUSTON	Gates	UP	2003
194	HARRIS	755621G	06/20/03	CHIMENY ROCK RD		Gates	BNSF	2003
207	HARRIS	755621G	08/02/04	CHIMNEY ROCK ROAD	HOUSTON	Gates	UP	2004
208	HARRIS	755621G	01/19/04	CHIMNEY ROCK ROAD	HOUSTON	Gates	UP	2004
209	HARRIS	755621G	02/03/04	ST 0000; CHIMNEY ROC	HOUSTON	Gates	ATK	2004
210	HARRIS	755621G	11/30/04	CHIMNEY ROCK		Gates	BNSF	2004
262	HARRIS	755621G	03/30/07	ST0000 ; CHIMNEY ROC	HOUSTON	Gates	ATK	2007
211	HARRIS	755622N	07/15/04	HILLCROFT & US90A	HOUSTON	Gates	UP	2004
212	HARRIS	755622N	04/13/04	HILLCROFT STREET		Gates	BNSF	2004
226	HARRIS	755622N	05/09/05	HILLCROFT STREET	HOUSTON	Gates	UP	2005
227	HARRIS	755622N	06/16/05	HILLCROFT STREET	HOUSTON	Gates	UP	2005
228	HARRIS	755622N	02/08/05	HILLCROFT STREET	HOUSTON	Gates	UP	2005
229	HARRIS	755624C	08/20/05	FONDEREN ROAD	MISSOURI CITY	Gates	UP	2005
230	HARRIS	755624C	08/08/05	FONDREN ROAD	MISSOURI CITY	Gates	UP	2005
231	HARRIS	755624C	07/28/05	FONDREN ROAD		Gates	BNSF	2005

195	HARRIS	755626R	05/07/03	SOUTH WAYSIDE DR		Gates	BNSF	2003
232	HARRIS	755626R	10/31/05	SOUTH WAYSIDE DR		Gates	BNSF	2005
213	HARRIS	755627X	04/28/04	GRIGGS	HOUSTON	Not Gates	UP	2004
263	HARRIS	755627X	11/22/07	MYKAWA ROAD		Not Gates	BNSF	2007
264	HARRIS	755627X	12/13/07	MYKAWA ROAD		Not Gates	BNSF	2007
265	HARRIS	755627X	12/16/07	MYKAWA ROAD		Not Gates	BNSF	2007
214	HARRIS	755628E	10/13/04	LONG DRIVE	HOUSTON	Not Gates	UP	2004
233	HARRIS	755628E	09/09/05	GRIGGS RD		Not Gates	BNSF	2005
266	HARRIS	755628E	09/14/07	LONG DR.	HOUSTON	Not Gates	UP	2007
234	HARRIS	758731C	11/12/05	LORRAINE STREET	HOUSTON	Gates	UP	2005
235	HARRIS	758731C	01/15/05	LORRAINE ST		Gates	BNSF	2005
236	HARRIS	758743W	11/03/05	MELBOURNE STREET	HOUSTON	Not Gates	UP	2005
237	HARRIS	758743W	05/28/05	MELBOURNE STREET	HOUSTON	Not Gates	UP	2005
249	HARRIS	762904W	11/02/06	CR 3477		Gates	BNSF	2006
267	HARRIS	762904W	08/22/07	FM 526 CE KING PARKW		Gates	ATK	2007
268	HARRIS	762904W	01/21/07	C E KING PARKWAY	HOUSTON	Gates	KCS	2007
269	HARRIS	762904W	07/11/07	CR 34777		Gates	BNSF	2007
238	HARRIS	762907S	01/22/05	JOHN RALSTON RD	HOUSTON	Gates	UP	2005
250	HARRIS	762907S	01/01/06	RALSTON RD		Gates	BNSF	2006
270	HARRIS	762907S	01/30/07	JOHN RALSTON RD	HOUSTON	Gates	UP	2007
215	HARRIS	859518J	07/31/04	MILBY STREET	HOUSTON	Gates	UP	2004
271	HARRIS	859518J	12/05/07	MILBY STREET	HOUSTON	Gates	UP	2007
196	HARRIS	869748M	07/20/03	BATTLEGROUND ROAD		Not Gates	PTRA	2003
216	HARRIS	869748M	07/10/04	BATTLE GROUND RD	DEER PARK	Gates	PTRA	2004
197	HARRIS	869795V	11/17/03	FEDERAL ROAD	GALENA PARK	Gates	PTRA	2003
198	HARRIS	869795V	10/01/03	FEDERAL ROAD	HOUSTON	Gates	PTRA	2003
251	HARRIS	869795V	05/07/06	FEDERAL RD	GALENA PARK	Gates	PTRA	2006
272	HARRISON	794623B	12/17/03	LANSING SWITCH ROAD	LONGVIEW	Gates	UP	2003
273	HARRISON	794623B	08/09/06	LANSING SW ROAD	LONGVIEW	Gates	UP	2006
274	HAYS	415513X	03/23/03	FM 3407		Gates	BNSF	2003

275	HAYS	415513X	02/18/05	FM 3407	SAN MARCOS	Gates	UP	2005
276	HIDALGO	448849L	07/15/03	29TH ST.	MCALLEN	Not Gates	RVSC	2003
277	HIDALGO	448849L	11/14/03	29TH ST	MCALLEN	Not Gates	RVSC	2003
281	HIDALGO	448851M	10/23/04	29TH	MCALLEN	Not Gates	RVSC	2004
282	HIDALGO	448851M	02/19/07	29TH ST.	MCALLEN	Gates	RVSC	2007
278	HIDALGO	758659N	12/10/03	CLOSNER	EDINBURG	Not Gates	RVSC	2003
279	HIDALGO	758659N	08/01/03	NORTH CLOSNER	EDINBURG	Not Gates	RVSC	2003
280	HIDALGO	758659N	05/05/03	CLOSNER	EDINBURG	Not Gates	RVSC	2003
283	HILL	416043V	11/26/03	WEST FRANKLIN STREET	HILLSBORO	Gates	UP	2003
284	HILL	416043V	03/29/04	FRANKLIN ST	HILLSBORO	Gates	UP	2004
285	HILL	416043V	12/15/06	FRANKLIN STREET	HILLSBORO	Gates	UP	2006
286	HOOD	020871M	11/05/04	US 377	CRESSON	Not Gates	FWWR	2004
287	HOOD	020871M	06/11/07	US 377	CRESSON	Not Gates	FWWR	2007
288	HOOD	020871M	02/05/07	US 377		Not Gates	FWWR	2007
292	HOPKINS	331584J	11/06/04	FM 269	PICKTON	Not Gates	KCS	2004
293	HOPKINS	331584J	05/10/04	FM269	PICKTON	Not Gates	KCS	2004
289	HOPKINS	331585R	08/15/03	RD 2417	PICKTON	Not Gates	KCS	2003
290	HOPKINS	331585R	03/14/03	RD2417	PICKTON	Not Gates	KCS	2003
291	HOPKINS	331625L	09/16/03	JACKSON STREET	SULPHUR SPRINGS	Not Gates	KCS	2003
294	HOPKINS	331625L	05/26/05	JACKSON ST	SULPHUR SPRINGS	Not Gates	KCS	2005
295	HOPKINS	331625L	12/27/06	JACKSON ST	SULPHUR SPRINGS	Not Gates	KCS	2006
296	HOWARD	796165W	12/29/05	MIDWAY	BIG SPRING	Not Gates	UP	2005
297	HOWARD	796165W	07/12/06	MIDWAY	BIG SPRING	Not Gates	UP	2006
298	HUNT	331665J	02/25/03	RD 4117	CUMBY	Not	KCS	2003

						Gates		
299	HUNT	331665J	05/16/05	CO 4117	CUMBY	Not Gates	KCS	2005
308	JEFFERSON	023691A	10/29/05	MAGNOLIA AVE		Gates	BNSF	2005
317	JEFFERSON	023691A	10/30/07	MAGNOLIA AVE	BEAUMONT	Not Gates	BNSF	2007
302	JEFFERSON	023704Y	12/02/04	CALDER AVE	BEAUMONT	Not Gates	BNSF	2004
313	JEFFERSON	023704Y	03/12/06	CALDER AVE	BEAUMONT	Not Gates	KCS	2006
300	JEFFERSON	329443A	09/27/03	HWY 366	PORT NECHES	Not Gates	KCS	2003
309	JEFFERSON	329443A	11/29/05	HWY 366	GROVES	Not Gates	KCS	2005
303	JEFFERSON	329546A	01/18/04	7TH AVE	PORT ARTHUR	Not Gates	KCS	2004
310	JEFFERSON	329546A	04/17/05	7TH AVE	PORT ARTHUR	Not Gates	KCS	2005
301	JEFFERSON	329556F	02/05/03	14TH STREET	PORT ARTHUR	Not Gates	KCS	2003
304	JEFFERSON	329556F	04/06/04	14TH STREET	PORT ARTHUR	Not Gates	KCS	2004
305	JEFFERSON	329556F	03/20/04	14TH STREET	PORT ARTHUR	Not Gates	KCS	2004
318	JEFFERSON	329556F	10/19/07	14TH STREET	PORT ARTHUR	Not Gates	KCS	2007
311	JEFFERSON	329558U	11/11/05	9TH STREET	PORT ARTHUR	Not Gates	KCS	2005
314	JEFFERSON	329558U	03/06/06	9TH STREET	PORT ARTHUR	Not Gates	KCS	2006
315	JEFFERSON	329558U	10/18/06	9TH STREET	PORT ARTHUR	Not Gates	KCS	2006
306	JEFFERSON	329559B	12/18/04	W 7TH STREET	PORT ARTHUR	Not Gates	KCS	2004
316	JEFFERSON	329559B	03/02/06	7TH STREET	PORT ARTHUR	Not Gates	KCS	2006
307	JEFFERSON	762721D	07/10/04	MAJOR DR		Gates	BNSF	2004
312	JEFFERSON	762721D	11/02/05	MAJOR DR		Gates	BNSF	2005
319	JIM HOGG	923779H	09/29/06	SIGRID ST	HEBBRONVILLE	Not Gates	KCS	2006
320	JIM HOGG	923779H	02/14/07	SIGRID STREET	HEBBRONVILLE	Not Gates	KCS	2007

326	JIM WELLS	793811M	11/06/06	JOHNSON	ALICE	Gates	KCS	2006
329	JIM WELLS	793811M	03/07/07	JOHNSON STREET	ALICE	Gates	KCS	2007
321	JIM WELLS	793812U	12/12/04	ARANSAS	ALICE	Not Gates	TM	2004
325	JIM WELLS	793812U	04/13/05	ARANSAS	ALICE	Not Gates	TM	2005
322	JIM WELLS	793815P	06/17/04	REYNOLDS	ALICE	Gates	TM	2004
323	JIM WELLS	793815P	03/29/04	REYNOLDS STREET	ALICE	Gates	TM	2004
327	JIM WELLS	793815P	08/28/06	REYNOLDS STREET	ALICE	Gates	KCS	2006
324	JIM WELLS	793816W	04/04/04	ADAMS STREET	ALICE	Not Gates	TM	2004
328	JIM WELLS	793816W	01/05/06	ADAMS STREET	ALICE	Not Gates	TM	2006
330	JOHNSON	023166U	05/07/03	S 2ND ST	CLEBURNE	Gates	BNSF	2003
331	JOHNSON	023166U	12/11/03	S 2ND STREET	CLEBURNE	Gates	BNSF	2003
332	KAUFMAN	794794C	05/08/04	COUNTY RD 211	TERRELL	Not Gates	UP	2004
333	KAUFMAN	794794C	04/06/05	CR 211	TERRELL	Not Gates	UP	2005
334	KAUFMAN	794794C	11/30/07	CR 211	TERRELL	Gates	UP	2007
335	LIBERTY	762758T	08/20/03	FM 2830	RAYWOOD	Not Gates	UP	2003
336	LIBERTY	762758T	10/23/07	FM 2830	RAYWOOD	Not Gates	UP	2007
338	LIMESTONE	744868F	04/29/06	FOURTEENTH STREET	THORNTON	Not Gates	UP	2006
339	LIMESTONE	744868F	05/29/06	FOURTEENTH STREET	THORNTON	Not Gates	UP	2006
337	LIMESTONE	763680E	08/05/03	LCR 462	MEXIA	Not Gates	UP	2003
340	LIMESTONE	763680E	03/13/06	COUNTY ROAD 462	MEXIA	Not Gates	UP	2006
341	LUBBOCK	017349Y	04/24/04	KEUKA		Not Gates	BNSF	2004
342	LUBBOCK	017349Y	10/11/06	KEUKA		Not Gates	BNSF	2006
343	MARTIN	796358V	08/09/03	ST JOSEPH STREET	STANTON	Not Gates	UP	2003
344	MARTIN	796358V	12/24/05	SAINT BONIFACE	STANTON	Not Gates	UP	2005
345	MARTIN	796358V	07/06/06	ST BONIFACE	STANTON	Not Gates	UP	2006

346	MARTIN	796359C	04/26/06	ST PETER	STANTON	Not Gates	UP	2006
347	MARTIN	796359C	02/08/06	ST PETERS	STANTON	Not Gates	UP	2006
348	MARTIN	796359C	12/31/06	ST PETER	STANTON	Not Gates	UP	2006
349	MCLENNAN	023065H	03/27/03	FM 3047		Gates	BNSF	2003
350	MCLENNAN	023065H	06/01/03	NEW WINDSOR PKY		Not Gates	BNSF	2003
351	MEDINA	742754L	12/01/04	COUNTY ROAD 5217	DHANIS	Not Gates	UP	2004
352	MEDINA	742754L	08/13/06	COUNTY ROAD 5217	DHANIS	Not Gates	UP	2006
353	MIDLAND	796328D	08/10/05	EISENHOWER STREET	MIDLAND	Gates	UP	2005
354	MIDLAND	796328D	07/18/07	EISENHOWER DRIVE	MIDLAND	Gates	UP	2007
355	MIDLAND	796328D	03/08/07	EISENHOWER STREET	MIDLAND	Gates	UP	2007
358	MONTGOMERY	430090M	12/21/04	MISTY MEADOW LANE	MAGNOLIA	Gates	UP	2004
360	MONTGOMERY	430090M	05/14/05	MISTY MEADOW LANE	MAGNOLIA	Gates	UP	2005
359	MONTGOMERY	755876D	08/24/04	KINGWOOD DRIVE	HUMBLE	Gates	UP	2004
361	MONTGOMERY	755876D	10/16/07	KINGWOOD DRIVE	HUMBLE	Gates	UP	2007
356	MONTGOMERY	755901J	08/10/03	KINGPORT ROAD	SPLENDORA	Not Gates	UP	2003
357	MONTGOMERY	755901J	07/16/03	KINGSPORT ROAD	SPLENDORA	Not Gates	UP	2003
362	NACOGDOCHES	756003K	05/17/04	PECAN STREET	NACOGDOCHES	Not Gates	UP	2004
363	NACOGDOCHES	756003K	10/12/05	CRAVEN STREET	NACOGDOCHES	Not Gates	UP	2005
364	NOLAN	796122D	12/12/04	CR 111	ROSCOE	Not Gates	UP	2004
365	NOLAN	796122D	07/05/07	CR 111		Not Gates	UP	2007
366	NUECES	793665J	12/20/06	CR 103	AGUA DULCE	Not Gates	KCS	2006
367	NUECES	793665J	09/09/07	CR 103	AGUA DULCE	Not Gates	KCS	2007
371	ORANGE	329472K	11/05/04	NORTH DEWITT	VIDOR	Gates	KCS	2004
374	ORANGE	329472K	09/08/07	DEWITT STREET	VIDOR	Gates	KCS	2007
368	ORANGE	436104N	11/05/03	TULANE AVE	ORANGE	Not Gates	UP	2003
369	ORANGE	436104N	05/21/03	TULANE ROAD	ORANGE	Not Gates	UP	2003

372	ORANGE	436104N	05/03/04	WEST TULANE DRIVE	ORANGE	Not Gates	UP	2004
373	ORANGE	436104N	10/04/04	WEST TULANE DRIVE	ORANGE	Not Gates	UP	2004
370	ORANGE	447490G	04/30/03	WESTERN AVE HWY/105	ORANGE	Not Gates	UP	2003
375	ORANGE	447490G	11/19/07	WESTERN AVENUE	ORANGE	Not Gates	UP	2007
376	PALO PINTO	839244F	10/28/03	HWY 16/GRANT ST	STRAWN	Gates	UP	2003
378	PALO PINTO	839244F	05/21/07	SH 16 / GRANT ST	STRAWN	Gates	UP	2007
377	PALO PINTO	839393G	04/14/03	WASHINGTON		Not Gates	BNSF	2003
379	PALO PINTO	839393G	07/15/07	WASHINGTON STREET	STRAWN	Not Gates	UP	2007
380	PALO PINTO	839393G	03/16/07	WASHINGTON	STRAWN	Not Gates	UP	2007
381	PANOLA	024072W	09/08/03	NORTH LOOP 436		Gates	BNSF	2003
382	PANOLA	024072W	06/02/07	US HWY 79		Gates	BNSF	2007
383	PARMER	014833P	08/05/03	FM 3333		Not Gates	BNSF	2003
384	PARMER	014833P	06/02/05	PUBLIC		Not Gates	BNSF	2005
385	POLK	755948E	09/14/03	JACKSON AVENUE	LIVINGSTON	Gates	UP	2003
386	POLK	755948E	08/25/04	JACKSON AVENUE	LIVINGSTON	Gates	UP	2004
387	POLK	755949L	05/13/05	CHURCH ST./US 190	LIVINGSTON	Gates	UP	2005
388	POLK	755949L	06/15/06	US - 190	LIVINGSTON	Gates	UP	2006
390	POTTER	014602G	10/23/04	EASTERN STREET	AMARILLO	Gates	BNSF	2004
392	POTTER	014602G	05/30/06	EASTERN STREET	AMARILLO	Gates	BNSF	2006
389	POTTER	275775R	12/04/03	S E 3RD ST.	AMARILLO	Gates	UP	2003
391	POTTER	275775R	12/01/04	EAST 3RD ST		Not Gates	BNSF	2004
393	ROBERTSON	432250F	04/05/06	PIN OAK RD	FRANKLIN	Not Gates	UP	2006
394	ROBERTSON	432250F	01/13/07	PIN OAK ROAD	FRANKLIN	Not Gates	UP	2007
395	RUSK	426656B	04/10/03	CR 138	KILGORE	Not Gates	UP	2003
396	RUSK	426656B	02/12/06	CR 138		Not Gates	UP	2006
397	SAN AUGUSTINE	023917J	02/03/04	FM 3230		Not Gates	TIBR	2004

398	SAN AUGUSTINE	023917J	10/31/04	FARM RD 3230	SAN AUGUSTINE	Not Gates	TIBR	2004
399	SAN PATRICIO	746288W	12/09/05	SH - 361	INGLESIDE	Not Gates	UP	2005
400	SAN PATRICIO	746288W	08/12/05	SH - 361	INGLESIDE	Not Gates	UP	2005
401	SAN PATRICIO	746288W	04/04/06	SH - 361	INGLESIDE	Not Gates	UP	2006
417	TARRANT	020468L	11/02/05	CUNNINGHAM ST	FORT WORTH	Not Gates	BNSF	2005
426	TARRANT	020468L	01/30/06	CUNNIGHAM ST	FORT WORTH	Not Gates	BNSF	2006
411	TARRANT	020644G	06/12/04	INTERMODAL PKWY		Gates	BNSF	2004
433	TARRANT	020644G	11/14/07	INTERMODAL PKWY		Gates	UP	2007
434	TARRANT	020644G	08/30/07	ST 0000; INTERMODAL		Gates	ATK	2007
402	TARRANT	274643C	12/16/03	HICKS FIELD RD		Gates	BNSF	2003
403	TARRANT	274643C	09/28/03	HICKS FIELD ROAD		Gates	BNSF	2003
418	TARRANT	598303M	03/10/05	CR-TINSLEY LANE	NEWARK	Not Gates	UP	2005
427	TARRANT	598303M	07/09/06	CR - TINSLEY LANE	NEWARK	Not Gates	UP	2006
412	TARRANT	598307P	03/16/04	HICKS FIELD ROAD	SAGINAW	Not Gates	UP	2004
419	TARRANT	598307P	06/01/05	CR-HICKS FIELD ROAD	SAGINAW	Not Gates	UP	2005
420	TARRANT	598307P	11/07/05	HICKS FIELD ROAD	SAGINAW	Not Gates	UP	2005
404	TARRANT	598310X	11/20/03	MINTON ROAD	SAGINAW	Gates	UP	2003
413	TARRANT	598310X	06/16/04	MINTON ROAD	SAGINAW	Gates	UP	2004
435	TARRANT	598310X	09/13/07	MINTON ROAD	SAGINAW	Gates	UP	2007
436	TARRANT	598310X	06/06/07	MINTON ROAD	SAGINAW	Gates	UP	2007
437	TARRANT	598310X	06/11/07	MINTON RD	SAGINAW	Gates	UP	2007
438	TARRANT	598310X	06/14/07	MINTON ROAD	SAGINAW	Gates	UP	2007
439	TARRANT	598310X	03/23/07	MINTON ROAD	SAGINAW	Gates	UP	2007
440	TARRANT	598310X	09/21/07	MINTON ROAD	SAGINAW	Gates	UP	2007
441	TARRANT	598310X	10/25/07	MINTON ROAD	SAGINAW	Gates	UP	2007
405	TARRANT	598311E	07/24/03	MCLEROY STREET	SAGINAW	Not Gates	UP	2003
406	TARRANT	598311E	07/03/03	MCLEROY BLVD	SAGINAW	Not Gates	UP	2003
414	TARRANT	598311E	01/21/04	MCLEROY BLVD	SAGINAW	Not	UP	2004

						Gates		
421	TARRANT	598311E	09/20/05	MCLEROY BLVD	SAGINAW	Not Gates	UP	2005
428	TARRANT	598311E	09/28/06	MCLEROY BLVD	SAGINAW	Not Gates	UP	2006
442	TARRANT	598311E	09/27/07	MCLEROY BLVD	SAGINAW	Not Gates	UP	2007
443	TARRANT	598311E	09/19/07	MCLEROY BLVD.	SAGINAW	Not Gates	UP	2007
444	TARRANT	598311E	11/09/07	MCLEROY BLVD.	SAGINAW	Not Gates	UP	2007
407	TARRANT	598321K	03/25/03	DECATUR STREET	FORT WORTH	Gates	UP	2003
429	TARRANT	598321K	11/27/06	DECATUR AVENUE	FORT WORTH	Gates	UP	2006
422	TARRANT	598341W	04/28/05	BEACH STREET	FORT WORTH	Gates	TRE	2005
430	TARRANT	598341W	07/12/06	BEACH ST.	FORT WORTH	Gates	TRE	2006
415	TARRANT	598361H	02/07/04	CEMETARY RD	HURST	Gates	BNSF	2004
423	TARRANT	598361H	03/05/05	CALLOWAY CEMETERY RD	HURST	Gates	TRE	2005
424	TARRANT	598361H	12/07/05	CALLOWAY CEMETERY RD	HURST	Gates	TRE	2005
408	TARRANT	765245E	07/21/03	ANGLIN DRIVE	FOREST HILL	Gates	UP	2003
416	TARRANT	765245E	06/07/04	ANGLIN DR		Gates	BNSF	2004
409	TARRANT	794971E	08/22/03	GREAT SOUTHWEST PKW	GRAND PRAIRIE	Gates	UP	2003
431	TARRANT	794971E	06/23/06	GREAT SW PARKWAY	GRAND PRAIRIE	Gates	UP	2006
425	TARRANT	794974A	03/10/05	STADIUM DRIVE EAST	ARLINGTON	Gates	UP	2005
445	TARRANT	794974A	12/07/07	STADIUM DR EAST	ARLINGTON	Gates	UP	2007
410	TARRANT	795430F	09/05/03	WESTPORT PKWY	ROANOKE	Gates	UP	2003
432	TARRANT	795430F	04/11/06	WESTPORT PKWY	ROANOKE	Gates	UP	2006
446	TARRANT	795430F	10/30/07	WESTPORT PKWY	ROANOKE	Gates	UP	2007
447	TITUS	331510S	10/06/04	HWY 11	PITTSBURG	Not Gates	KCS	2004
448	TITUS	331510S	04/06/05	HWY 11	CASON	Not Gates	KCS	2005
449	TITUS	789424N	01/20/05	BELMONT STREET	MOUNT PLEASANT	Not Gates	UP	2005
450	TITUS	789424N	05/17/06	BELMONT	MOUNT PLEASANT	Not Gates	UP	2006
451	WALKER	428002A	10/11/04	PHELPS SLAB ROAD	HUNTSVILLE	Not Gates	UP	2004
452	WALKER	428002A	12/15/06	PHELPS SLAP ROAD		Not Gates	UP	2006
453	WEBB	446694P	11/24/03	SAN LORENZO	LAREDO	NotGates	UP	2003

457	WEBB	446694P	12/28/04	SAN LORENZO STREET	LAREDO	Not Gates	UP	2004
462	WEBB	446694P	10/24/07	SAN LORENZO	LAREDO	Not Gates	UP	2007
454	WEBB	446700R	07/09/03	MANN ROAD	LAREDO	Not Gates	UP	2003
455	WEBB	446700R	08/05/03	MANN ROAD	LAREDO	Not Gates	UP	2003
458	WEBB	446802J	10/14/04	SANCHEZ STREET	LAREDO	Gates	UP	2004
459	WEBB	446802J	01/23/05	SANCHEZ STREET	LAREDO	Gates	UP	2005
456	WEBB	793617U	11/24/03	JENNING ROAD	AGUILARES	Not Gates	TM	2003
460	WEBB	793617U	11/24/06	JENNINGS ROAD	AGUILARES	Not Gates	KCS	2006
461	WEBB	793617U	11/29/06	JENNINGS DRIVE	AGUILARES	Not Gates	KCS	2006
463	WEBB	793617U	02/15/07	JENNING ROAD	LAREDO	Not Gates	KCS	2007
464	WILLIAMSON	439680P	05/20/03	HWY 79/BRUSHY CREEK	ROUND ROCK	Gates	UP	2003
465	WILLIAMSON	439680P	08/01/04	C.R. 122/RED BUD LN	ROUND ROCK	Gates	UP	2004
466	WILLIAMSON	439680P	10/10/05	CR 122/RED BUD LA	HUTTO	Gates	UP	2005

Table 1 - Public Crossing Collisions - 2005 - 2009
Collision Summary, Casualty Summary

Collision Summary and Casualty Summary	Total No. Highway Rail Crossing Collisions: 1,160		Total Single-Incident Collisions: 773	Total Multiple-Incident Collisions: 387	% of Total Collisions at Multiple-Incident Collision Locations
	Total No.	% of Incidents	Total No.	Total No.	
Non-Casualty Collisions	714	61%	476	238	33.33%
Injury Only Collisions	346	30%	239	107	30.92%
Fatal Collisions	100	9%	58	42	42.00%
Total Collisions	1,160	100%	773	387	33.36%
Casualty Summary	Total No.		Total No.	Total No.	
Highway-User Fatalities	121		71	50	41.32%
Rail Employee Fatalities	0		0	0	0.00%
Total Fatalities	121		71	50	41.32%
Highway-User Injuries	417		300	117	28.06%
Rail Employee Injuries	71		43	28	39.44%
Total Injuries	488		343	145	29.71%
Total Casualties	609		414	195	32.02%

Table 2 - Public Crossing Collisions - 2005 to 2009
Grade Crossing Inventory Counts for Collision Locations

Public Highway-Rail Grade Crossings	Total Grade Crossing Locations for 1,160 collisions:	Single-Incident Collision Locations for 773 collisions:* (30 with no inventory record)	Multiple-Incident Collision Locations for 387 (12 with no inventory records)	Multiple-Incident Collision Locations as % of Total Grade Crossings:
Crossing Inventory Count - Grade Crossing Collision Locations	872	745	159	18.23%

Table 3 - Public Crossing Collisions - 2005 to 2009
Total and Average Vehicle Occupants/Highway Users by Collisions

Vehicle Occupants and Collision Summary	Total No. Collisions: 1,160	Total Single-Incident Collisions: 773	Total Multiple-Incident Collisions: 387	% of Total Multiple-Incident Collision Occupants as % of Total Occupants
Total Vehicle Occupants	1,359	924	435	32%
Average Occupants per Collision	1.17	1.20	1.12	

Table 4 - Public Crossing Collisions - 2005 to 2009
Type of Warning Device (Active and Passive Devices) in Place at Time of Collision

Data Category (FRA variable name)	Total No. Highway-Rail Crossing Collisions Total: 1,160		No. Collisions at Crossings with Single-Incidents Total: 773	No. Collisions at Crossings with Multiple-Incidents Total: 387	% of Total Collisions at Multiple-Collision Locations
Type of Warning Devices (*crossing)	Total No.	% of Incidents	Total No.	Total No.	
Active Devices					
Gates only	59	5.09%	38	21	35.59%
Standard Flashing Lights only	40	3.45%	30	10	25.00%
Cantilever Flashing Lights only	13	1.12%	8	5	
Audible	1	0.09%	1	0	0.00%
Wig Wags only	0	0.00%	0	0	0.00%
Highway Traffic Signals	1	0.09%	1	0	0.00%
Flagged by crew	2	0.17%	2	0	0.00%
Gates and Flashing Lights	457	39.40%	299	158	34.57%
Gates with Cantilever Lights	80	6.90%	64	16	20.00%
Cantilever Lights with NO Gates	99	8.53%	46	53	53.54%
Active Unknown	0	0.00%	0	0	0.00%
Total Active Devices	752	64.83%	489	263	34.97%
Passive Devices					
Traffic Signals No other devices reported	0	0.00%	0	0	0.00%
Crossbucks Only	278	23.97%	193	85	30.58%
Crossbuck with Flagging reported	61	5.26%	39	22	36.07%
Stop signs only	1	0.09%	1	0	0.00%
Stop Signs with Crossbuck	0	0.00%	0	0	0.00%
Crossbucks and other devices	66	5.69%	49	17	25.76%
Other	0	0.00%	0	0	0.00%
None	2	0.17%	2	0	0.00%
Total Passive Devices	408	35.17%	284	124	30.39%
Total Active and Passive	1,160	100.00%	773	387	33.36%

Table 5 - Public Crossing Collisions - 2005 to 2009
Active or Passive Devices and Warning Time for Active Warning Devices

Data Category (*FRA variable name)	**Total No. Highway-Rail Crossing Collisions Total: 1,160**		**No. Collisions at Crossings with Single-incidents Total: 773**	**No. Collisions at Crossings with Multiple-incidents Total: 387**	**% of Total Collisions at Multiple-Incident Collision Locations**
Active or Passive Device (*signal)	Total No.	% of Incidents	Total No.	Total No.	
1. Collisions with Active Device	752	64.83%	489	263	34.97%
2. Collisions with Passive Devices	408	35.17%	284	124	30.39%
Total Collisions	1,160	100.00%	773	387	33.36%
Active Device Warning Time (*signal = 1-7)	Total No.	% of Incidents with Active Devices	Total No.	Total No.	
1. Min. 20 second warning	699	60.26%	453	246	35.19%
2. Alleged > 60 sec. warn.	17	1.47%	5	12	70.59%
3. Alleged < 20 sec. warn.	5	0.43%	2	3	60.00%
4. Alleged - no warning	0	0.00%	0	0	0.00%
5. Confirmed > 60 sec.	3	0.26%	3	0	0.00%
6. Confirmed < 20 sec.	0	0.00%	0	0	0.00%
7. Confirmed - no warning	26	2.24%	24	2	7.69%
8. Field left blank	410	35.34%	286	124	30.24%
Total Active Devices	1,160	100.00%	773	387	33.36%

Table 6a - Public Crossing Collisions - 2005 to 2009
Length of Warning Time

Data Category (*FRA Variable Name_)	Total No. Highway-Rail Crossing Collisions Total: 1,160			No. Collisions at Crossings with Single-Incidents Total: 773		No. Collisions at Crossings with Multiple-Incidents Total: 387		% of Total Collisions at Multiple-Incident Collision Locations
Timing of Signal (*signal field)	Active / Passive	Total No.	% of Incidents	Active/Passive	Total No.	Active/Passive	Total No.	
1. Provided minimum 20-sec warning	699 / 0	699	60.26%	453 / 0	453	246 / 0	246	35.19%
2. Alleged warning time greater than 60 sec	17 / 0	17	1.47%	5 / 0	5	12 / 0	12	70.59%
3. Alleged warning time less than 20 sec	5 / 0	5	0.43%	2 / 0	2	3 / 0	3	60.00%
4. Alleged no warning	0 / 0	0	0.00%	0 / 0	0	0 / 0	0	0.00%
5. Confirmed warning time greater than 60 sec	3 / 0	3	0.26%	3 / 0	3	0 / 0	0	0.00%
6. Confirmed warning time less than 20 sec	0 / 0	0	0.00%	0 / 0	0	0 / 0	0	0.00%
7. Confirmed no warning	26 / 0	26	2.24%	24 / 0	24	2 / 0	2	7.69%
8. Field left blank	2 / 408	410	35.34%	2 / 284	286	0 / 124	124	30.24%
TOTAL	752 / 408	1,160	100.00%	489 / 284	773	263 / 124	387	33.36%

Table 6b - Public Crossing Collisions - 2005 to 2009
Distance to Nearby Highway Intersection

Data Category (*FRA Variable Name_)	Total No. Highway-Rail Crossing Collisions Total: 1,086 (*total change due to accident with no inventory records)			No. Collisions at Crossings with Single-Incidents Total: 717		No. Collisions at Crossings with Multiple-Incidents Total: 369		% of Total Collisions at Multiple-Incident Collision Locations
Nearby Highway Intersection	Active / Passive	Total No.	% of Incidents	Active/Passive	Total No.	Active/Passive	Total No.	
1. Less than 75 Feet	408 / 157	565	52.03%	233 / 93	326	175 / 64	239	42.30%
2. 75 to 200 Feet	4 / 1	5	0.46%	4 / 1	5	0 / 0	0	0.00%
3. 200 to 500 Feet	1 / 1	2	0.18%	1 / 1	2	0 / 0	0	0.00%
4. N/A	311 / 203	514	47.33%	232 / 152	384	79 / 51	130	25.29%
5. Field Left Blank	0 / 0	0	0.00%	0 / 0	0	0 / 0	0	0.00%
TOTAL	724 / 362	1,086	100.00%	524 / 295	717	254 / 115	369	33.98%

Table 7 - Public Crossing Collisions - 2005 to 2009
Interconnection with Traffic Signals at Nearby Intersection

Data Category (*FRA Variable Name_)	Total No. Highway-Rail Crossing Collisions Total: 1,160		No. Collisions at Crossings with Single-Incidents Total: 773	No. Collisions at Crossings with Multiple-Incidents Total: 387	% of Total Collisions at Multiple-Incident Collision Locations
Interconnected with traffic signals at nearby intersection	Total No - Active Crossings	% of Incidents	Total No - Active Crossings	Total No - Active Crossings	
1. Interconnected with traffic signal at nearby intersection	204	17.59%	110	94	46.08%
2. Not interconnected with traffic signal at nearby intersection	354	30.52%	249	105	29.66%
3. Unknown	133	11.47%	89	44	33.08%
4. Field left blank	61	5.26%	41	20	32.79%
SUBTOTAL	752	64.83%	489	263	34.97%
PASSIVE INFORMATION					
1. Interconnected with traffic signal at nearby intersection	5	0.43%	2	3	60.00%
2. Not interconnected with traffic signal at nearby intersection	315	27.16%	215	100	31.75%
3. Unknown	57	4.91%	43	14	24.56%
4. Field left blank	31	2.67%	24	7	22.58%
SUBTOTAL	408	35.17%	284	124	30.39%
TOTAL	1,160	100.00%	773	387	33.36%

Table 8 - Public Crossing Collisions - 2005 to 2009
Proximity to Nearby Highway

Data Category (*FRA Variable Name)	Total No. Highway-Rail Crossing Collisions Total: 1,086				No. Collisions at Crossings with Single-Incidents Total: 717		No. Collisions at Crossings with Multiple-Incidents Total: 369		% of Total Collisions at Multiple-Incident Collision Locations
1. Yes - Warning Device IS Interconnected with highway signal (*warnsig = 1)	Active/ Passive	Total No.	% of Sub-total Incidents	% of All Incidents	Active / Passive	Total No.	Active / Passive	Total No.	
Proximity to Nearby Highway									
1. < 75 Ft.	133 / 2	135	67.84%	12.43%	64 / 0	64	69 / 2	71	52.59%
2. 75 to 150 Ft.	0 / 0	0	0.00%	0.00%	0 / 0	0	0 / 0	0	0.00%
3. > 200 Ft.	1 / 0	1	0.50%	0.09%	1 / 0	1	0 / 0	0	0.00%
4. Not Available	60 / 3	63	31.66%	5.80%	40 / 2	42	20 / 1	21	33.33%
5. Field left blank	0 / 0	0	0.00%	0.00%	0 / 0	0	0 / 0	0	0.00%
Sub-total	194 / 5	199		18.32%	136 / 5	107	89 / 3	92	46.23%
2. No - Warning Device NOT Interconnected w/highway signal (*warnsig = 2)									
Proximity to Nearby Highway									
1. < 75 Ft.	175 / 116	291	46.94%	26.80%	109 / 68	177	66 / 48	114	39.18%
2. 75 to 150 Ft.	2 / 1	3	0.48%	0.28%	2 / 1	3	0 / 0	0	0.00%
3. > 200 Ft.	0/ 1	1	0.16%	0.09%	0 / 1	1	0 / 0	0	0.00%
4. Not Available	165 / 160	325	52.42%	29.93%	129 / 114	243	36 / 46	82	25.23%
5. Field left blank	0 / 0	0	0.00%	0.00%	0 / 0	0	0 / 0	0	0.00%
Sub-total	342 / 278	620		57.09%	240 / 184	424	102 / 94	196	31.61%
3. Unknown Connection (*warnsig = 3)									
Proximity to Nearby Highway									
1. < 75 Ft.	70 / 27	97	53.59%	8.93%	39 / 19	58	31 / 8	39	40.21%
2. 75 to 150 Ft.	2 / 0	2	1.10%	0.18%	2 / 0	2	0 / 0	0	0.00%
3. > 200 Ft.	0 / 0	0	0.00%	0.00%	0 / 0	0	0 / 0	0	0.00%
4. Not Available	57 / 25	82	45.30%	7.55%	45 / 21	66	12 / 4	16	19.51%
5. Field left blank	0 / 0	0	0.00%	0.00%	0 / 0	0	0 / 0	0	0.00%
Sub-total	129 / 52	181		16.67%	86 / 40	126	43 / 12	55	30.39%
4. Field left blank									
Proximity to Nearby Highway									
1. < 75 Ft.	30 / 12	42	48.84%	3.87%	21 / 6	27	9 / 6	15	35.71%

Table 8 - Public Crossing Collisions - 2005 to 2009
Proximity to Nearby Highway

2. 75 to 150 Ft.	0 / 0	0	0.00%	0.00%	0 / 0	0	0 / 0	0	0.00%
3. > 200 Ft.	0 / 0	0	0.00%	0.00%	0 / 0	0	0 / 0	0	0.00%
4. Not Available	29 / 15	44	51.16%	4.05%	18 / 15	33	11 / 0	11	25.00%
5. Field left blank	0 / 0	0	0.00%	0.00%	0 / 0	0	0 / 0	0	0.00%
Sub-total	59 / 27	86		7.92%	39 / 21	60	20 / 6	26	30.23%
TOTAL	724 / 362	1086		100.00%	470 / 247	717	158 / 85	369	33.98%

Table 9 - Public Crossing Collisions - 2005 to 2009
Train Type

Data Category (*FRA Variable Name_)	Total No. Highway-Rail Crossing Collisions Total: 1,160			No. Collisions at Crossings with Single-Incidents Total: 773		No. Collisions at Crossings with Multiple-Incidents Total: 387		% of Total Collisions at Multiple-Incident Collision Locations
Type of Train Involved (*typeq)	Active / Passive	Total No.	% of Incidents	Active/Passive	Total No.	Active/Passive	Total No.	
1. Freight train	570 / 322	892	76.90%	364 / 216	580	206 / 106	312	34.98%
2. Passenger train	24 / 7	31	2.67%	15 / 5	20	9 / 2	11	35.48%
3. Commuter train	8 / 0	8	0.69%	2 / 0	2	6 / 0	6	75.00%
4. Work train	4 / 5	9	0.78%	2 / 4	6	2 / 1	3	33.33%
5. Single rail car	0 / 0	0	0.00%	0 / 0	0	0 / 0	0	0.00%
6. Cut of rail cars	1 / 2	3	0.26%	1 / 1	2	0 / 1	1	33.33%
7. Yard/switching engine	75/43	118	10.17%	52 / 33	85	23 / 10	33	27.97%
8. Light locomotives	32 / 23	55	4.74%	18 / 20	38	14 / 3	17	30.91%
9. Maintenance/ Inspection Railcar	24 / 4	28	2.41%	22 / 3	25	2 / 1	3	10.71%
A. Special M-O-W equipment	14 / 2	16	1.38%	13 / 2	15	1 / 0	1	6.25%
Total	752/408	1,160	100.00%	489 / 284	773	263 / 124	387	33.36%

Table 10 - Public Crossing Collisions - 2005 to 2009
Track Type and Track Class

Data Category (*FRA Variable Name_)	Total No. Highway-Rail Crossing Collisions Total: 1,160			No. Collisions at Crossings with Single-Incidents Total: 773		No. Collisions at Crossings with Multiple-Incidents Total: 387		% of Total Collisions at Multiple-Incident Collision Locations
TRACK TYPE (*typtrk)	Active / Passive	Total No.	% of Incidents	Active/Passive	Total No.	Active/Passive	Total No.	
Main	685/353	1,038	89.48%	433 / 240	673	252 / 113	365	35.16%
Yard	29/11	40	3.45%	25 / 8	33	4 / 3	7	17.50%
Siding	3/1	4	0.34%	2 / 1	3	1 / 0	1	25.00%
Industry	35/43	78	6.72%	29 / 35	64	6 / 8	14	17.95%
TOTAL	752/408	1,160	100.00%	489 / 284	773	263 / 124	387	33.36%
Track Class (*trkclas) 49 CFR - 213.9 - max. authorized speed -	Active/Passive	Total No.	% of Incidents	Active/Passive (all railroads)	Total No. (all railroads)	Active/ Passive (all railroads)	Total No. (all railroads)	
Class 1 (10/15 mph)	91 / 69	160	13.79%	67 / 54	121	24 / 15	39	24.38%
Class 2 (25/30 mph)	89 / 41	130	11.21%	59 / 35	94	30 / 6	36	27.69%
Class 3 (40/60 mph)	162 / 85	247	21.29%	94 / 57	151	68 / 28	96	38.87%
Class 4 (60/80 mph	315 / 170	485	41.81%	218 / 111	329	97 / 59	156	32.16%
Class 5 (80/90 mph)	84 / 29	113	9.74%	43 / 16	59	41 / 13	54	47.79%
Class 6 (110 mph)	2 / 0	2	0.17%	1 / 0	1	1 / 0	1	50.00%
Class X Excepted (10 mph/none)	7 / 14	21	1.81%	5 / 11	16	2 / 3	5	23.81%
Left Blank	2 / 0	2	0.17%	2 / 0	2	0 / 0	0	0.00%
TOTAL	752 / 408	1,160	100.00%	489 / 284	773	263 / 124	387	33.36%

Table 11 - Public Crossing Collisions - 2005 to 2009
Train Speed

Data Category (*FRA Variable Name_)	Total No. Highway-Rail Crossing Collisions Total: 1,160			No. Collisions at Crossings with Single-Incidents Total: 773		No. Collisions at Crossings with Multiple-Incidents Total: 387		% of Total Collisions at Multiple-Incident Collision Locations
Train Speed (mph) (*trnspd)	Active / Passive	Total No.	% of Incidents	Active/Passive	Total No.	Active/Passive	Total No.	
a. Less than 10 mph	159 / 80	239	20.60%	117 / 62	179	42 / 18	60	25.10%
b. 10 to 20 mph	54 / 25	79	6.81%	36 / 20	56	18 / 5	23	29.11%
c. 21 to 35 mph	3 / 0	3	0.26%	2 / 0	2	1 / 0	1	33.33%
d. 36 to 49 mph	15 / 3	18	1.55%	8 / 1	9	7 / 2	9	50.00%
e. 50 to 60 mph	27 / 14	41	3.53%	19 / 8	27	8 / 6	14	34.15%
f. Over 60 mph	34 / 13	47	4.05%	18 / 8	26	16 / 5	21	44.68%
Left Blank	460 / 273	733	63.19%	289 / 185	474	171 / 88	259	35.33%
TOTAL	752 / 408	1,160	100.00%	489 / 284	773	263 / 124	387	33.36%

Table 12 - Public Crossing Collisions - 2005 to 2009
Railroads

Data Category (*FRA Variable Name_)	Total No. Highway-Rail Crossing Collisions Total: 1,160		No. Collisions at Crossings with Single-Incidents Total: 773	No. Collisions at Crossings with Multiple-Incidents Total: 387	% of Total Collisions at Multiple-Incident Collision Locations
Class I Railroads	Total No.	% of Incidents	Total No.	Total No.	
BNSF ON BNSF	193	16.64%	135	58	30.05%
BNSF ON OTHER RR	72	6.21%	43	29	40.28%
KCS ON KCS	83	7.16%	48	35	42.17%
KCS ON OTHER RR	25	2.16%	18	7	28.00%
UP ON UP	625	53.88%	415	210	33.60%
UP ON OTHER RR	25	2.16%	15	10	40.00%
SUB-TOTAL CLASS 1'S	1,023	88.19%	674	349	34.12%
Passenger/Commuter Rail					
ATK	29	2.50%	19	10	34.48%
GRVV	1	0.09%	1	0	0.00%
TREX	8	0.69%	2	6	75.00%
Sub-total Passenger/Commuter Rail	38	3.28%	22	16	42.11%
Other Railroads					
ANR	1	0.09%	1	0	0.00%
AUAR	2	0.17%	0	2	100.00%
AWRR	3	0.26%	2	1	33.33%
BLR	1	0.09%	1	0	0.00%
DGNO	16	1.38%	14	2	12.50%
FWWR	29	2.50%	18	11	37.93%
GVSR	1	0.09%	1	0	0.00%
ITSL	1	0.09%	1	0	0.00%
PNR	1	0.09%	1	0	0.00%
PTRA	8	0.69%	6	2	25.00%
RASX	2	0.17%	0	2	100.00%
RCIB	1	0.09%	1	0	0.00%
RVSC	15	1.29%	13	2	13.33%
TIBR	12	1.03%	12	0	0.00%
TXNW	1	0.09%	1	0	0.00%
TXPF	1	0.09%	1	0	0.00%
TXTX	1	0.09%	1	0	0.00%
WATX	1	0.09%	1	0	0.00%
WTJR	1	0.09%	1	0	0.00%
WTLC	1	0.09%	1	0	0.00%
Sub-total Other	99	8.53%	77	22	22.22%
GRAND TOTAL	1,160	100.00%	773	387	33.36%

Table 13 - Public Crossing Collisions - 2005 to 2009
Highway Vehicle Type

Data Category (*FRA Variable Name_)	Total No. Highway-Rail Crossing Collisions Total: 1,160			No. Collisions at Crossings with Single-Incidents Total: 773		No. Collisions at Crossings with Multiple-Incidents Total: 387		% of Total Collisions at Multiple-Incident Collision Locations
Type of Highway User/Vehicle (*typveh)	Active / Passive	Total No.	% of Incidents	Active/Passive	Total No.	Active/Passive	Total No.	
Car	296 / 114	410	35.34%	194 / 86	280	102 / 28	130	31.71%
Truck	35 / 34	69	5.95%	22 / 28	50	13 / 6	19	27.54%
Trk & Trail	163 / 98	261	22.50%	95 / 53	148	68 / 45	113	43.30%
Pickup Trk	164 / 115	279	24.05%	115 / 78	193	49 / 37	86	30.82%
Van	23 / 13	36	3.10%	16 / 13	29	7 / 0	7	19.44%
Bus	0 / 2	2	0.17%	0 / 2	2	0 / 0	0	0.00%
School Bus	0 / 0	0	0.00%	0 / 0	0	0 / 0	0	0.00%
Motorcycle	3 / 2	5	0.43%	2 / 1	3	1 / 1	2	40.00%
Oth Mtr. V.	41 / 25	66	5.69%	26 / 19	45	15 / 6	21	31.82%
Pedestrian	17 / 1	18	1.55%	11 / 1	12	6 / 0	6	33.33%
Other	10 / 4	14	1.21%	8 / 3	11	2 / 1	3	21.43%
TOTAL	752 / 408	1160	100.00%	616 / 370	773	136 / 40	387	33.36%

Table 14 - Public Crossing Collisions - 2005 to 2009
Highway User Action

Data Category (*FRA Variable Name_)	Total No. Highway-Rail Crossing Collisions Total: 1,160			No. Collisions at Crossings with Single-Incidents Total: 773		No. Collisions at Crossings with Multiple-Incidents Total: 387		% of Total Collisions at Multiple-Incident Collision Locations
Position of Highway User at Time of Collision (*position)	Active / Passive	Total No.	% of Incidents	Active/Passive	Total No.	Active/Passive	Total No.	
1. Stalled	34 / 5	39	3.36%	20 / 4	24	14 / 1	15	38.46%
2. Stopped	259 / 80	339	29.22%	152 / 54	206	107 / 26	133	39.23%
3. Moving over	443 / 323	766	66.03%	310 / 226	536	133 / 97	230	30.03%
4. Trapped	16 / 0	16	1.38%	7 / 0	7	9 / 0	9	56.25%
TOTAL	752 / 408	1,160	100.00%	489 / 284	773	263 / 124	387	33.36%
Data Category (*FRA Variable Name_)	Total No. Highway-Rail Crossing Collisions Total: 1,160			No. Collisions at Crossings with Single-Incidents Total: 773		No. Collisions at Crossings with Multiple-Incidents Total: 387		% of Total Collisions at Multiple-Incident Collision Locations
Highway-User Action Prior to Collision (*motorist)	Active / Passive	Total No.	% of Incidents	Active/Passive	Total No.	Active/Passive	Total No.	
1. Drove around	254 / 0	254	21.90%	184 / 0	184	70 / 0	70	27.56%
2. Stopped then proceeded	31 / 35	66	5.69%	21 / 23	44	10 / 12	22	33.33%
3. Did not stop	122 / 281	403	34.74%	81 / 198	279	41 / 83	124	30.77%
4. Stopped on Crossing	108 / 81	189	16.29%	61 / 54	115	47 / 27	74	39.15%
5. Other	220 / 10	230	19.83%	131 / 8	139	89 / 2	91	39.57%
6. Unknown	17 / 1	18	1.55%	11 / 1	12	6 / 0	6	33.33%
TOTAL	752 / 408	1,160	100.00%	489 / 284	773	263 / 124	387	33.36%

Table 15 - Public Crossing Collisions - 2005 to 2009
Weather Conditions and Time of Collision

Data Category (*FRA Variable Name_)	Total No. Highway-Rail Crossing Collisions Total: 1,160			No. Collisions at Crossings with Single-Incidents Total: 773		No. Collisions at Crossings with Multiple-Incidents Total: 387		% of Total Collisions at Multiple-Incident Collision Locations
Weather Condition (*weather)	Active / Passive	Total No.	% of Incidents	Active/Passive	Total No.	Active/Passive	Total No.	
1. Clear	524/ 300	824	71.03%	344 / 216	560	180 / 84	264	32.04%
2. Cloudy	181 / 82	263	22.67%	113 / 48	161	68 / 34	102	38.78%
3. Rain	31 / 17	48	4.14%	24 / 14	38	7 / 3	10	20.83%
4. Fog	13 / 9	22	1.90%	7 / 6	13	6 / 3	9	40.91%
5. Sleet	2 / 0	2	0.17%	1 / 0	1	1 / 0	1	50.00%
6. Snow	1 / 0	1	0.09%	0 / 0	0	1 / 0	1	100.00%
TOTAL	752 / 410	1,160	100.00%	489 / 284	773	263 / 124	387	33.36%

Data Category (*FRA Variable Name_)	Total No. Highway-Rail Crossing Collisions Total: 1,160			No. Collisions at Crossings with Single-Incidents Total: 773		No. Collisions at Crossings with Multiple-Incidents Total: 387		% of Total Collisions at Multiple-Incident Collision Locations
Time Period (*timehr/timemin/ampm)	Active / Passive	Total No.	% of Incidents	Active/Passive	Total No.	Active/Passive	Total No.	
6:00 a.m. - 8:59 a.m.	93 / 63	156	13.45%	55 / 41	96	38 / 22	60	38.46%
9:00 a.m. - 11:59 a.m.	107 / 90	197	16.98%	69 / 65	134	28 / 25	63	31.98%
12:00 a.m. - 12:59 a.m.	29 / 8	37	3.19%	19 / 4	23	10 / 4	14	37.84%
1:00 a.m. - 5:59 a.m.	114 / 25	139	11.98%	75 / 18	93	39 / 7	46	33.09%
12:00 p.m. - 1:59 p.m.	72 / 38	110	9.48%	49 / 27	76	23 / 11	34	30.91%
2:00 p.m. - 3:59 p.m.	85 / 49	134	11.55%	60 / 32	92	25 / 17	42	31.34%
4:00 p.m. - 6:59 p.m.	97 / 81	178	15.34%	64 / 56	120	33 / 25	58	32.58%
7:00 p.m. - 11:59 p.m.	155 / 54	209	18.02%	98 / 41	139	57 / 13	70	33.49%
TOTAL	752 / 410	1,160	100.00%	489 / 284	773	263 / 124	387	33.36%

Table 16 - Public Crossing Collisions - 2005 to 2009
Visibility

Data Category (*FRA Variable Name_)	Total No. Highway-Rail Crossing Collisions Total: 1,160				No. Collisions at Crossings with Single-Incidents Total: 773				No. Collisions at Crossings with Multiple-Incidents Total: 387			
Active Devices	Crossing Illumination Street Lights (*lights)				Crossing Illumination Street Lights (*lights)				Crossing Illumination Street Lights (*lights)			
Visibility by time of day (*visibility)	Lights	No lights	N/A	Total No.	Lights	No lights	N/A	Total No.	Lights	No Lights	N/A	Total No.
1. Dawn	7	6	2	15	2	6	0	8	5	0	2	7
2. Day	158	145	112	415	94	104	74	272	64	41	38	143
3. Dusk	12	5	2	19	9	3	2	14	3	2	0	5
4. Dark	180	80	43	303	107	58	30	195	73	22	13	108
Total Active Devices	357	236	159	752	212	171	106	489	145	65	53	263
Passive Devices	Crossing Illumination Street Lights				Crossing Illumination Street Lights				Crossing Illumination Street Lights (*lights)			
Visibility by time of day (*visibility)	Lights	No lights	N/A	Total No.	Lights	No lights	N/A	Total No.	Lights	No Lights	N/A	Total No.
1. Dawn	0	11	4	15	0	7	4	11	0	4	0	4
2. Day	14	202	85	301	8	147	53	208	6	55	32	93
3. Dusk	6	9	1	16	2	6	0	8	4	3	1	8
4. Dark	22	37	17	76	14	32	11	57	8	5	6	19
Total Passive Devices	42	259	107	408	24	192	68	284	18	67	39	124
TOTAL	399	495	266	1,160	236	363	174	773	163	132	92	387

Table 17 - Public Crossing Collisions - 2005 to 2009
Age and Gender of Highway Users

Data Category (*FRA Variable Name_)	Total No. Highway-Rail Crossing Collisions Total: 1,160		No. Collisions at Crossings with Single-Incidents Total: 773	No. Collisions at Crossings with Multiple-Incidents Total: 387	% of Total Collisions at Multiple-Incident Collision Locations
Age and Gender of Highway-user (*drivage) and (*drivgen)	Total No.	% of Incidents	Total No.	Total No.	
Unknown Gender					
Unknown Age 27-39	1	0.09%	1	0	0.00%
Unknown -Unknown Age	31	2.67%	22	9	29.03%
Sub-Total Unknown	32	2.76%	23	9	28.13%
Male Highway-Users					
Male Age 0 - 11	0	0.00%	0	0	0.00%
Male Age 12 - 26	187	16.12%	130	57	30.48%
Male Age 27 - 39	232	20.00%	150	82	35.34%
Male Age 40 - 55	235	20.26%	137	98	41.70%
Male Age 56 - 69	91	7.84%	59	32	35.16%
Male Age 70 - 79	44	3.79%	30	14	31.82%
Male Age 80 - 99	17	1.47%	12	5	29.41%
Male Age - Unknown	94	8.10%	65	29	30.85%
Sub-Total Male	900	77.59%	583	317	35.22%
Female Highway-User					
Female Ages 12 - 26	64	5.52%	49	15	23.44%
Female Ages 27 - 39	46	3.97%	33	13	28.26%
Female Ages 40 - 55	58	5.00%	41	17	29.31%
Female Ages 56 - 69	20	1.72%	14	6	30.00%
Female Ages 70 - 79	16	1.38%	10	6	37.50%
Female Ages 80 - 99	3	0.26%	3	0	0.00%
Female Age Unknown	21	1.81%	17	4	19.05%
Sub-Total Female	228	19.66%	167	61	26.75%
Grand-Total	1,160	100.00%	773	387	33.36%

Table 18 - Public Crossing Collisions - 2005 to 2009
Visual Obstruction

Data Category (*FRA Variable Name_)	Total No. Highway-Rail Crossing Collisions Total: 1,160			No. Collisions at Crossings with Single-Incidents Total: 773		No. Collisions at Crossings with Multiple-Incidents Total: 387		% of Total Collisions at Multiple-Incident Collision Locations
Highway-Users View Obscured by *(view)	Active / Passive	Total No.	% of Incidents	Active/Passive	Total No.	Active/Passive	Total No.	
1. Permanent Structure	5/ 1	6	0.52%	3 / 0	3	2 / 1	3	50.00%
2. Standing Railroad Equipment	3 / 2	5	0.43%	3 / 1	4	0 / 1	1	20.00%
3. Passing Train	3 / 1	4	0.34%	2 / 1	3	0 / 1	1	25.00%
4. Topography	1 / 0	1	0.09%	1 / 0	1	0 / 0	0	0.00%
5. Vegetation	1 / 2	3	0.26%	1 / 2	3	0 / 0	0	0.00%
6. Highway Vehicles	2 / 0	2	0.17%	1 / 0	1	1 / 0	1	50.00%
7. Other	3 / 3	6	0.52%	3 / 2	5	0 / 1	1	16.67%
8. Not Obstructed	734 / 399	1,133	97.67%	475 / 278	753	259 / 121	380	33.54%
9 . Field left blank	0 / 0	0	0.00%	0 / 0	0	0 / 0	0	0.00%
TOTAL	752 / 408	1,160	100.00%	489 / 284	773	263 / 124	387	33.36%

Table 19 - Public Crossing Collisions - 2005 to 2009
Collisions by County

Collisions by County Locations	Total No. Collisions: 1,160	% of Total incidents	No. Collisions at Crossings with Single-Incidents Total: 773	No Collisions at Crossings with Multiple-Incidents Total: 387	% of Total Collisions at Multiple-Incident Collision Locations
HARRIS	162	13.97%	87	75	46.30%
TARRANT	81	6.98%	41	40	49.38%
BEXAR	50	4.31%	27	23	46.00%
DALLAS	47	4.05%	31	16	34.04%
JEFFERSON	36	3.10%	25	11	30.56%
ELLIS	24	2.07%	12	12	50.00%
GRAYSON	21	1.81%	16	5	23.81%
DENTON	20	1.72%	11	9	45.00%
FORT BEND	19	1.64%	9	10	52.63%
JOHNSON	19	1.64%	13	6	31.58%
WEBB	19	1.64%	10	9	47.37%
EL PASO	18	1.55%	14	4	22.22%
BRAZORIA	15	1.29%	6	9	60.00%
MONTGOMERY	15	1.29%	15	0	0.00%
GREGG	13	1.12%	8	5	38.46%
HIDALGO	13	1.12%	11	2	15.38%
LIBERTY	13	1.12%	9	4	30.77%
NUECES	13	1.12%	6	7	53.85%
ECTOR	12	1.03%	2	10	83.33%
CAMERON	11	0.95%	11	0	0.00%
JIM WELLS	11	0.95%	7	4	36.36%
HALE	10	0.86%	6	4	40.00%
HARRISON	10	0.86%	8	2	20.00%
MATAGORDA	10	0.86%	7	3	30.00%
MEDINA	10	0.86%	10	0	0.00%
ORANGE	10	0.86%	8	2	20.00%
ROBERTSON	10	0.86%	8	2	20.00%
SAN PATRICIO	10	0.86%	5	5	50.00%
BRAZOS	9	0.78%	7	2	22.22%
CASS	9	0.78%	3	6	66.67%
GALVESTON	9	0.78%	7	2	22.22%
HOOD	9	0.78%	2	7	77.78%
HOPKINS	9	0.78%	7	2	22.22%
MCLENNAN	9	0.78%	7	2	22.22%
COLLIN	8	0.69%	6	2	25.00%
COLORADO	8	0.69%	6	2	25.00%
COMAL	8	0.69%	7	1	12.50%
GRIMES	8	0.69%	7	1	12.50%
GUADALUPE	8	0.69%	3	5	62.50%
LUBBOCK	8	0.69%	6	2	25.00%
MIDLAND	8	0.69%	3	5	62.50%
WILLIAMSON	8	0.69%	8	0	0.00%
BOWIE	7	0.60%	5	2	28.57%
NAVARRO	7	0.60%	7	0	0.00%
SMITH	7	0.60%	7	0	0.00%

Table 19 - Public Crossing Collisions - 2005 to 2009
Collisions by County

VICTORIA	7	0.60%	5	2	28.57%
WISE	7	0.60%	5	2	28.57%
BELL	6	0.52%	6	0	0.00%
CAMP	6	0.52%	6	0	0.00%
CHEROKEE	6	0.52%	2	4	66.67%
HAYS	6	0.52%	6	0	0.00%
KAUFMAN	6	0.52%	2	4	66.67%
LIMESTONE	6	0.52%	4	2	33.33%
MARTIN	6	0.52%	1	5	83.33%
PARMER	6	0.52%	2	4	66.67%
POLK	6	0.52%	4	2	33.33%
ANGELINA	5	0.43%	5	0	0.00%
CALDWELL	5	0.43%	5	0	0.00%
COOKE	5	0.43%	5	0	0.00%
HARDIN	5	0.43%	5	0	0.00%
MILAM	5	0.43%	5	0	0.00%
NOLAN	5	0.43%	3	2	40.00%
POTTER	5	0.43%	3	2	40.00%
REEVES	5	0.43%	3	2	40.00%
TAYLOR	5	0.43%	5	0	0.00%
TITUS	5	0.43%	3	2	40.00%
WICHITA	5	0.43%	5	0	0.00%
CHAMBERS	4	0.34%	2	2	50.00%
DUVAL	4	0.34%	4	0	0.00%
EASTLAND	4	0.34%	4	0	0.00%
FALLS	4	0.34%	4	0	0.00%
FREESTONE	4	0.34%	1	3	75.00%
HARDEMAN	4	0.34%	2	2	50.00%
HOWARD	4	0.34%	2	2	50.00%
HUNT	4	0.34%	4	0	0.00%
JASPER	4	0.34%	4	0	0.00%
LEON	4	0.34%	4	0	0.00%
NACOGDOCHES	4	0.34%	4	0	0.00%
RANDALL	4	0.34%	4	0	0.00%
RUSK	4	0.34%	4	0	0.00%
WALLER	4	0.34%	4	0	0.00%
ANDERSON	3	0.26%	3	0	0.00%
AUSTIN	3	0.26%	3	0	0.00%
BURNET	3	0.26%	0	3	100.00%
CLAY	3	0.26%	3	0	0.00%
COMANCHE	3	0.26%	3	0	0.00%
DEAF SMITH	3	0.26%	1	2	66.67%
ERATH	3	0.26%	1	2	66.67%
FRIO	3	0.26%	3	0	0.00%
GARZA	3	0.26%	1	2	66.67%
GRAY	3	0.26%	1	2	66.67%
JIM HOGG	3	0.26%	1	2	66.67%
LAMB	3	0.26%	3	0	0.00%
LIVE OAK	3	0.26%	3	0	0.00%
MOORE	3	0.26%	3	0	0.00%

Table 19 - Public Crossing Collisions - 2005 to 2009
Collisions by County

PALO PINTO	3	0.26%	1	2	66.67%
PANOLA	3	0.26%	1	2	66.67%
SHELBY	3	0.26%	1	2	66.67%
SWISHER	3	0.26%	3	0	0.00%
WARD	3	0.26%	1	2	66.67%
WASHINGTON	3	0.26%	3	0	0.00%
WILBARGER	3	0.26%	3	0	0.00%
WILLACY	3	0.26%	3	0	0.00%
BASTROP	2	0.17%	2	0	0.00%
BURLESON	2	0.17%	2	0	0.00%
DALLAM	2	0.17%	2	0	0.00%
DE WITT	2	0.17%	0	2	100.00%
FAYETTE	2	0.17%	2	0	0.00%
HARTLEY	2	0.17%	2	0	0.00%
HENDERSON	2	0.17%	2	0	0.00%
HILL	2	0.17%	2	0	0.00%
HOUSTON	2	0.17%	2	0	0.00%
JACKSON	2	0.17%	2	0	0.00%
LA SALLE	2	0.17%	2	0	0.00%
MADISON	2	0.17%	1	1	50.00%
MARION	2	0.17%	2	0	0.00%
MAVERICK	2	0.17%	2	0	0.00%
MITCHELL	2	0.17%	2	0	0.00%
MONTAGUE	2	0.17%	2	0	0.00%
MORRIS	2	0.17%	2	0	0.00%
PARKER	2	0.17%	2	0	0.00%
REFUGIO	2	0.17%	2	0	0.00%
SHERMAN	2	0.17%	2	0	0.00%
VAL VERDE	2	0.17%	2	0	0.00%
VAN ZANDT	2	0.17%	2	0	0.00%
WHARTON	2	0.17%	2	0	0.00%
ATASCOSA	1	0.09%	1	0	0.00%
BAILEY	1	0.09%	1	0	0.00%
BOSQUE	1	0.09%	1	0	0.00%
BREWSTER	1	0.09%	1	0	0.00%
BROOKS	1	0.09%	1	0	0.00%
CALHOUN	1	0.09%	1	0	0.00%
COLEMAN	1	0.09%	1	0	0.00%
CORYELL	1	0.09%	1	0	0.00%
FISHER	1	0.09%	1	0	0.00%
FRANKLIN	1	0.09%	1	0	0.00%
GONZALES	1	0.09%	1	0	0.00%
HALL	1	0.09%	1	0	0.00%
HUDSPETH	1	0.09%	1	0	0.00%
HUTCHINSON	1	0.09%	1	0	0.00%
LAVACA	1	0.09%	1	0	0.00%
MCCULLOCH	1	0.09%	0	1	100.00%
MILLS	1	0.09%	1	0	0.00%
PRESIDIO	1	0.09%	1	0	0.00%
SAN AUGUSTINE	1	0.09%	1	0	0.00%

Table 19 - Public Crossing Collisions - 2005 to 2009
Collisions by County

SAN JACINTO	1	0.09%	1	0	0.00%
SCURRY	1	0.09%	1	0	0.00%
TOM GREEN	1	0.09%	1	0	0.00%
TRAVIS	1	0.09%	1	0	0.00%
TRINITY	1	0.09%	1	0	0.00%
UPSHUR	1	0.09%	1	0	0.00%
UVALDE	1	0.09%	1	0	0.00%
WALKER	1	0.09%	1	0	0.00%
WOOD	1	0.09%	1	0	0.00%
STATE	1,160	100.00%	773	387	33.36%

Obs	COUNTY	GXID	DATE	HIGHWAY	CITY	TYPE * VEHICLE	DEVICE	RR	YEAR4
1	BEXAR	764305H	3/6/2005	ZARZAMORA STREET	SAN ANTONIO	Car	Gates and Flashing Lights	UP	2005
2	BEXAR	415624P	5/28/2005	IH 35 FRONTAGE ROAD	SAN ANTONIO	Oth Mtr V.	Gates and Flashing Lights	UP	2005
3	BEXAR	415618L	6/14/2005	TEJASCO DRIVE	SAN ANTONIO	Car	Cantilever Lights and No Gates	UP	2005
4	BEXAR	764270J	10/27/2005	CENTER ROAD	SAN ANTONIO	Trk& Trail	Crossbucks and flagging	UP	2005
5	BEXAR	764302M	11/13/2005	S. SAN MARCOS STREET	SAN ANTONIO	Van	Gates and Flashing Lights	UP	2005
6	BRAZORIA	448675S	1/3/2005	FM 523/VELASCO BLVD	FREEPORT	Pickup Trk	Gates and Flashing Lights	UP	2005
7	BRAZORIA	023201F	4/23/2005	COUNTY ROAD 128	ALVIN	Pickup Trk	Gates and Flashing Lights	UP	2005
8	BRAZORIA	448606J	4/28/2005	SH 228	ANGLETON	Pickup Trk	Cantilever Lights and No Gates	UP	2005
9	BRAZORIA	023204B	11/27/2005	BROADWAY ST	PEARLAND	Car	Standard Fl	BNSF	2005
10	CASS	331484E	7/20/2005	PINE STREET	HUGHES SPRINGS	Car	Crossbucks only	KCS	2005
11	CASS	331471D	9/9/2005	POWER PLANT ROAD	AVINGER	Trk& Trail	Crossbucks only	KCS	2005
12	CASS	331471D	10/7/2005	WILKES POWER PLANT	AVINGER	Trk& Trail	Crossbucks only	KCS	2005
13	CHAMBERS	762810V	9/30/2005	FM 565	BAYTOWN	Car	Cantilever Lights and No Gates	UP	2005
14	CHEROKEE	426623N	12/24/2005	FM 2750	TROUP	Truck	Cantilever Lights and No Gates	UP	2005
15	COLLIN	022122R	5/27/2005	CR 605	FARMERSVILLE	Truck	Crossbucks only	KCS	2005
16	COLLIN	022122R	12/6/2005	RD 605	FARMERSVILLE	Car	Crossbucks only	KCS	2005
17	DALLAS	794926K	1/2/2005	WESTMORELAND ROAD	DALLAS	Pickup Trk	Gates and Flashing Lights	UP	2005
18	DALLAS	795462L	3/13/2005	JEFFERSON	GRAND PRAIRIE	Pickup Trk	Crossbucks only	UP	2005
19	DALLAS	794832J	3/22/2005	SAM HOUSTON ROAD	DALLAS	Car	Gates and Flashing Lights	UP	2005
20	DALLAS	794926K	8/5/2005	WESTMORELAND ROAD	DALLAS	Car	Gates and Flashing Lights	UP	2005
21	DALLAS	795462L	9/28/2005	JEFFERSON STREET	GRAND PRAIRIE	Car	Crossbucks only	UP	2005
22	DENTON	020632M	6/22/2005	EAGLE PKWY		Trk& Trail	Gates and Cantilever Lights	BNSF	2005
23	DENTON	020554H	9/16/2005	ST 0000	JUSTIN	Pickup Trk	Crossbucks only	ATK	2005
24	ECTOR	796308S	1/22/2005	CARGO STREET	ODESSA	Pickup Trk	Crossbucks only	UP	2005
25	ECTOR	796242U	3/3/2005	KELLEY	ODESSA	Trk& Trail	Gates and Flashing Lights	UP	2005
26	ECTOR	796242U	12/15/2005	KELLY STREET	ODESSA	Trk& Trail	Gates and Flashing Lights	UP	2005
27	EL PASO	741229C	3/16/2005	PENDALE ROAD	EL PASO	Car	Gates and Flashing Lights	UP	2005

28	ELLIS	765876F	2/20/2005	US 77	WAXAHACHIE	Car	Cantilever Lights and No Gates	UP	2005
29	ELLIS	765869V	3/5/2005	MUNCHUS STREET	WAXAHACHIE	Car	Crossbucks only	UP	2005
30	ELLIS	765870P	9/11/2005	AIKEN STREET	WAXAHACHIE	Car	Crossbucks and flagging	UP	2005
31	FORT BEND	743692U	4/15/2005	FM-1092		Trk& Trail	Gates and Flashing Lights	BNSF	2005
32	GRAYSON	795278Y	5/25/2005	GENE AUTRY DRIVE	TIOGA	Pickup Trk	Crossbucks and flagging	UP	2005
33	GRAYSON	415440P	10/4/2005	MAIN ST.	DENISON	Pickup Trk	Crossbucks only	DGNO	2005
34	GRAYSON	415440P	10/17/2005	MAIN ST.	DENISON	Motorcycle	Crossbucks only	DGNO	2005
35	HALE	017304S	9/6/2005	COUNTY ROAD 135		Trk& Trail	Crossbucks only	BNSF	2005
36	HARDEMAN	274745V	10/18/2005	MAIN ST	QUANAH	Truck	Gates and Flashing Lights	BNSF	2005
37	HARRIS	758731C	1/15/2005	LORRAINE ST		Pedestrian	Gates and Flashing Lights	BNSF	2005
38	HARRIS	762907S	1/22/2005	JOHN RALSTON RD	HOUSTON	Pickup Trk	Gates and Flashing Lights	UP	2005
39	HARRIS	755622N	2/8/2005	HILLCROFT STREET	HOUSTON	Car	Gates and Flashing Lights	UP	2005
40	HARRIS	447989K	3/18/2005	MOWERY ROAD	HOUSTON	Pickup Trk	Crossbucks only	UP	2005
41	HARRIS	755622N	5/9/2005	HILLCROFT STREET	HOUSTON	Truck	Gates and Flashing Lights	UP	2005
42	HARRIS	758743W	5/28/2005	MELBOURNE STREET	HOUSTON	Car	Crossbucks only	UP	2005
43	HARRIS	755622N	6/16/2005	HILLCROFT STREET	HOUSTON	Car	Gates and Flashing Lights	UP	2005
44	HARRIS	447977R	6/18/2005	ALMEDA-GENOA ROAD	HOUSTON	Trk& Trail	Cantilever Lights and No Gates	UP	2005
45	HARRIS	447989K	6/24/2005	MOWERY ROAD	HOUSTON	Trk& Trail	Crossbucks only	UP	2005
46	HARRIS	276125N	7/12/2005	BINGLE	HOUSTON	Car	Crossbucks and other devices	BNSF	2005
47	HARRIS	755624C	7/28/2005	FONDREN ROAD		Car	Gates and Flashing Lights	BNSF	2005
48	HARRIS	755624C	8/8/2005	FONDREN ROAD	MISSOURI CITY	Pickup Trk	Gates and Flashing Lights	UP	2005
49	HARRIS	755624C	8/20/2005	FONDEREN ROAD	MISSOURI CITY	Pickup Trk	Gates and Flashing Lights	UP	2005
50	HARRIS	755628E	9/9/2005	GRIGGS RD		Car	Cantilever Lights and No Gates	BNSF	2005
51	HARRIS	288268V	10/10/2005	CALVACADE	HOUSTON	Car	Gates and Flashing Lights	UP	2005
52	HARRIS	758743W	11/3/2005	MELBOURNE STREET	HOUSTON	Pickup Trk	Crossbucks only	UP	2005
53	HARRIS	745046X	11/6/2005	SOUTH 75TH ST		Truck	Gates	BNSF	2005
54	HARRIS	023214G	11/10/2005	LONG DRIVE	HOUSTON	Trk& Trail	Cantilever Lights and No Gates	UP	2005

55	HARRIS	758731C	11/12/2005	LORRAINE STREET	HOUSTON	Pickup Trk	Gates and Flashing Lights	UP	2005
56	HARRIS	023214G	12/7/2005	LONG DR	HOUSTON	Trk& Trail	Cantilever Lights and No Gates	BNSF	2005
57	HOPKINS	331625L	5/26/2005	JACKSON ST	SULPHUR SPRINGS	Pickup Trk	Crossbucks only	KCS	2005
58	HOWARD	796165W	12/29/2005	MIDWAY	BIG SPRING	Trk& Trail	Crossbucks and flagging	UP	2005
59	JEFFERSON	023691A	10/29/2005	MAGNOLIA AVE		Truck	Gates and Flashing Lights	BNSF	2005
60	JEFFERSON	329558U	11/11/2005	9TH STREET	PORT ARTHUR	Car	Crossbucks only	KCS	2005
61	JOHNSON	021549P	6/5/2005	800 W. INDUSTRIAL BD	CLEBURNE	Trk& Trail	Crossbucks only	FWWR	2005
62	KAUFMAN	794794C	4/6/2005	CR 211	TERRELL	Oth Mtr V.	Crossbucks and flagging	UP	2005
63	MARTIN	796358V	12/24/2005	SAINT BONIFACE	STANTON	Pickup Trk	Crossbucks and other devices	UP	2005
64	MCLENNAN	430336H	7/8/2005	LIVESTOCK	WACO	Pickup Trk	Crossbucks only	UP	2005
65	MIDLAND	796328D	8/10/2005	EISENHOWER STREET	MIDLAND	Trk& Trail	Gates and Flashing Lights	UP	2005
66	NUECES	427602Y	11/16/2005	COUNTY ROAD 34	ROBSTOWN	Trk& Trail	Crossbucks only	UP	2005
67	PARMER	014787R	8/9/2005	US 70/84	FARWELL	Car	Gates and Flashing Lights	BNSF	2005
68	POLK	755949L	5/13/2005	CHURCH ST./US 190	LIVINGSTON	Trk& Trail	Gates and Flashing Lights	UP	2005
69	SAN PATRICIO	746288W	8/12/2005	SH - 361	INGLESIDE	Car	Cantilever Lights and No Gates	UP	2005
70	SAN PATRICIO	746288W	12/9/2005	SH - 361	INGLESIDE	Car	Cantilever Lights and No Gates	UP	2005
71	TARRANT	598361H	3/5/2005	CALLOWAY CEMETARY RD	HURST	Pickup Trk	Gates	TRE	2005
72	TARRANT	598303M	3/10/2005	CR-TINSLEY LANE	NEWARK	Trk& Trail	Crossbucks and flagging	UP	2005
73	TARRANT	794974A	3/10/2005	STADIUM DRIVE EAST	ARLINGTON	Car	Gates and Flashing Lights	UP	2005
74	TARRANT	598341W	4/28/2005	BEACH STREET	FORT WORTH	Trk& Trail	Gates	TRE	2005
75	TARRANT	598307P	6/1/2005	CR-HICKS FIELD ROAD	SAGINAW	Trk& Trail	Standard Fl	UP	2005
76	TARRANT	598311E	9/20/2005	MCLEROY BLVD	SAGINAW	Pickup Trk	Cantilever Lights and No Gates	UP	2005
77	TARRANT	020468L	11/2/2005	CUNNINGHAM ST	FORT WORTH	Trk& Trail	Crossbucks and other devices	BNSF	2005
78	TARRANT	598307P	11/7/2005	HICKS FIELD ROAD	SAGINAW	Trk& Trail	Standard Fl	UP	2005
79	TARRANT	598361H	12/7/2005	CALLOWAY CEMETERY RD	HURST	Car	Gates	TRE	2005
80	TITUS	789424N	1/20/2005	BELMONT STREET	MOUNT PLEASANT	Trk& Trail	Crossbucks only	UP	2005
81	BEXAR	764305H	6/28/2006	S ZARZAMORA ST	SAN ANTONIO	Car	Gates and Flashing Lights	UP	2006
82	BEXAR	764298A	8/26/2006	PROBANDT (SPUR 53)	SAN ANTONIO	Car	Gates and Flashing Lights	UP	2006

83	BEXAR	764292J	9/17/2006	HOEFGEN STREET	SAN ANTONIO	Car	Gates and Flashing Lights	UP	2006
84	BEXAR	764270J	11/30/2006	CENTER ROAD	SAN ANTONIO	Trk& Trail	Crossbucks and flagging	UP	2006
85	BRAZORIA	023204B	5/17/2006	BROADWAY STREET	PEARLAND	Oth Mtr V.	Standard Fl	UP	2006
86	BRAZORIA	448675S	11/20/2006	FM 523/VELASCO BLVD	FREEPORT	Car	Gates and Flashing Lights	UP	2006
87	BRAZORIA	023204B	12/2/2006	BROADWAY STREET	PEARLAND	Car	Gates and Flashing Lights	UP	2006
88	BURNET	745259H	6/29/2006	HWY 281		Car	Cantilever Fl Only	AUAR	2006
89	CASS	331487A	5/23/2006	FM 250	HUGHES SPRINGS	Car	Gates and Flashing Lights	KCS	2006
90	CASS	331484E	7/11/2006	SOUTH PINE STREET	HUGHES SPRINGS	Truck	Crossbucks only	KCS	2006
91	CASS	331487A	11/1/2006	FM 250	HUGHES SPRINGS	Pickup Trk	Gates and Cantilever Lights	KCS	2006
92	CHAMBERS	762810V	12/8/2006	FM 565		Oth Mtr V.	Cantilever Lights and No Gates	UP	2006
93	CHEROKEE	426623N	3/30/2006	FM 2750	TROUP	Pickup Trk	Cantilever Lights and No Gates	UP	2006
94	CHEROKEE	426599P	4/23/2006	CR 3304	JACKSONVILLE	Pickup Trk	Crossbucks only	UP	2006
95	COLORADO	743818Y	7/10/2006	FM 3013	EAGLE LAKE	Pickup Trk	Gates and Flashing Lights	UP	2006
96	DALLAS	794926K	4/26/2006	WESTMORELAND ROAD	DALLAS	Trk& Trail	Gates and Flashing Lights	UP	2006
97	DALLAS	794832J	6/11/2006	SAM HOUSTON RD	DALLAS	Car	Gates and Flashing Lights	UP	2006
98	DE WITT	746505U	9/20/2006	FORDTRAN	THOMASTON	Car	Crossbucks only	KCS	2006
99	DENTON	020554H	1/10/2006	1ST STREET	JUSTIN	Trk& Trail	Crossbucks and other devices	BNSF	2006
100	DENTON	795346X	2/8/2006	CR/HENRIETTA CREEK	ROANOKE	Trk& Trail	Gates and Flashing Lights	UP	2006
101	DENTON	795301R	8/3/2006	NEW HOPE ROAD	AUBREY	Pickup Trk	Crossbucks only	UP	2006
102	ECTOR	796242U	5/23/2006	KELLY	ODESSA	Other	Gates and Flashing Lights	UP	2006
103	ECTOR	796293E	8/22/2006	MEADOW STREET	ODESSA	Pickup Trk	Gates and Flashing Lights	UP	2006
104	EL PASO	764225P	1/18/2006	CR / MOON ROAD	EL PASO	Van	Gates and Flashing Lights	UP	2006
105	ELLIS	765869V	1/5/2006	MUNCHUS STREET	WAXAHACHIE	Car	Crossbucks only	UP	2006
106	ELLIS	765895K	1/18/2006	SEVENTH STREET	FERRIS	Car	Crossbucks and flagging	UP	2006
107	ELLIS	765870P	9/11/2006	AIKEN STREET	WAXAHACHIE	Pickup Trk	Crossbucks and flagging	UP	2006
108	FORT BEND	743691M	2/12/2006	STAFFORD-BELLAIR	STAFFORD	Car	Gates and Flashing Lights	UP	2006
109	FORT BEND	745044J	9/12/2006	DAIRY ASHFORD WAY	SUGAR LAND	Car	Gates and Flashing Lights	UP	2006

110	FORT BEND	743695P	10/9/2006	KIRKWOOD ROAD	STAFFORD	Car	Gates and Flashing Lights	UP	2006
111	FREESTONE	597188E	4/7/2006	MAIN ST.	TEAGUE	Pickup Trk	Gates	BNSF	2006
112	GALVESTON	859509K	2/1/2006	ROSS STREET	LA MARQUE	Car	Gates and Flashing Lights	UP	2006
113	GARZA	015027D	9/7/2006	CR 235		Pickup Trk	Crossbucks and other devices	BNSF	2006
114	GRAYSON	795278Y	1/20/2006	GENE AUTRY DRIVE	TIOGA	Pickup Trk	Crossbucks and flagging	UP	2006
115	GRAYSON	795278Y	2/18/2006	GENE AUTRY DRIVE	TIOGA	Pickup Trk	Crossbucks and flagging	UP	2006
116	GUADALUPE	742632G	2/4/2006	FM 1518/FIRST STREET	SCHERTZ	Car	Gates and Flashing Lights	UP	2006
117	HARDEMAN	274745V	6/27/2006	MAIN ST	QUANAH	Car	Gates and Flashing Lights	BNSF	2006
118	HARRIS	762907S	1/1/2006	RALSTON RD		Pickup Trk	Gates	BNSF	2006
119	HARRIS	745046X	2/22/2006	SOUTH 75TH STREET	HOUSTON	Pickup Trk	Gates and Flashing Lights	BNSF	2006
120	HARRIS	447977R	2/23/2006	ALMEDA-GEONA ROAD	HOUSTON	Car	Cantilever Lights and No Gates	UP	2006
121	HARRIS	743120T	2/23/2006	MAURY STREET	HOUSTON	Pedestrian	Gates and Flashing Lights	UP	2006
122	HARRIS	447977R	3/6/2006	ALMEDA - GENOA ROAD	HOUSTON	Trk& Trail	Cantilever Lights and No Gates	UP	2006
123	HARRIS	758757E	3/17/2006	LITTLE YORK ROAD	HOUSTON	Trk& Trail	Gates and Flashing Lights	UP	2006
124	HARRIS	924337G	6/10/2006	RAILWOOD	HOUSTON	Pickup Trk	Crossbucks only	UP	2006
125	HARRIS	023214G	6/20/2006	LONG DRIVE	HOUSTON	Trk& Trail	Cantilever Lights and No Gates	UP	2006
126	HARRIS	743633S	6/23/2006	CYPRESS DRIVE	CYPRESS	Truck	Crossbucks and flagging	UP	2006
127	HARRIS	288050B	7/27/2006	LAWNDALE	HOUSTON	Pickup Trk	Gates and Flashing Lights	BNSF	2006
128	HARRIS	743120T	10/12/2006	MAURY STREET	HOUSTON	Pickup Trk	Gates and Flashing Lights	UP	2006
129	HARRIS	762904W	11/2/2006	CR 3477		Trk& Trail	Gates and Flashing Lights	BNSF	2006
130	HARRIS	276125N	11/3/2006	BINGLE	HOUSTON	Pickup Trk	Crossbucks and other devices	BNSF	2006
131	HARRISON	794623B	8/9/2006	LANSING SW ROAD	LONGVIEW	Trk& Trail	Gates and Flashing Lights	UP	2006
132	HIDALGO	448821V	6/16/2006	FM 2061 MCCOLL ST	MCALLEN	Car	Cantilever Fl Only	RVSC	2006
133	HOPKINS	331625L	12/27/2006	JACKSON ST	SULPHUR SPRINGS	Oth Mtr V.	Crossbucks only	KCS	2006
134	HOWARD	796165W	7/12/2006	MIDWAY	BIG SPRING	Pickup Trk	Crossbucks and flagging	UP	2006
135	JEFFERSON	329558U	3/6/2006	9TH STREET	PORT ARTHUR	Car	Crossbucks only	KCS	2006
136	JEFFERSON	023704Y	3/12/2006	CALDER AVE	BEAUMONT	Car	Cantilever Lights and No Gates	KCS	2006

137	JEFFERSON	329558U	10/18/2006	9TH STREET	PORT ARTHUR	Car	Crossbucks only	KCS	2006
138	JIM HOGG	923779H	9/29/2006	SIGRID ST	HEBBRONVILLE	Pickup Trk	Crossbucks only	KCS	2006
139	JIM WELLS	793815P	8/28/2006	REYNOLDS STREET	ALICE	Oth Mtr V.	Gates and Flashing Lights	KCS	2006
140	JIM WELLS	793811M	11/6/2006	JOHNSON	ALICE	Pickup Trk	Gates and Flashing Lights	KCS	2006
141	LIMESTONE	744868F	4/29/2006	FOURTEENTH STREET	THORNTON	Other	Crossbucks only	UP	2006
142	LIMESTONE	744868F	5/29/2006	FOURTEENTH STREET	THORNTON	Car	Crossbucks only	UP	2006
143	MARTIN	796359C	2/8/2006	ST PETERS	STANTON	Trk& Trail	Crossbucks only	UP	2006
144	MARTIN	796359C	4/26/2006	ST PETER	STANTON	Oth Mtr V.	Crossbucks only	UP	2006
145	MARTIN	796358V	7/6/2006	ST BONIFACE	STANTON	Car	Crossbucks only	UP	2006
146	MARTIN	796359C	12/31/2006	ST PETER	STANTON	Pickup Trk	Crossbucks only	UP	2006
147	NUECES	793824N	10/10/2006	CR 38	BANQUETE	Trk& Trail	Crossbucks only	KCS	2006
148	NUECES	793665J	12/20/2006	CR 103	AGUA DULCE	Trk& Trail	Crossbucks only	KCS	2006
149	POLK	755949L	6/15/2006	US - 190	LIVINGSTON	Pickup Trk	Gates and Flashing Lights	UP	2006
150	POTTER	014602G	5/30/2006	EASTERN STREET	AMARILLO	Car	Gates	BNSF	2006
151	ROBERTSON	432250F	4/5/2006	PIN OAK RD	FRANKLIN	Trk& Trail	Crossbucks only	UP	2006
152	SAN PATRICIO	746288W	4/4/2006	SH - 361	INGLESIDE	Car	Cantilever Lights and No Gates	UP	2006
153	TARRANT	020468L	1/30/2006	CUNNIGHAM ST	FORT WORTH	Trk& Trail	Crossbucks and other devices	BNSF	2006
154	TARRANT	795430F	4/11/2006	WESTPORT PKWY	ROANOKE	Trk& Trail	Gates and Flashing Lights	UP	2006
155	TARRANT	794971E	6/23/2006	GREAT SW PARKWAY	GRAND PRAIRIE	Car	Gates and Flashing Lights	UP	2006
156	TARRANT	598303M	7/9/2006	CR - TINSLEY LANE	NEWARK	Truck	Crossbucks and flagging	UP	2006
157	TARRANT	598341W	7/12/2006	BEACH ST.	FORT WORTH	Pickup Trk	Gates and Flashing Lights	TRE	2006
158	TARRANT	598311E	9/28/2006	MCLEROY BLVD	SAGINAW	Trk& Trail	Cantilever Lights and No Gates	UP	2006
159	TITUS	789424N	5/17/2006	BELMONT	MOUNT PLEASANT	Trk& Trail	Crossbucks only	UP	2006
160	WEBB	793617U	11/24/2006	JENNINGS ROAD	AGUILARES	Trk& Trail	Crossbucks only	KCS	2006
161	WEBB	793617U	11/29/2006	JENNINGS DRIVE	AGUILARES	Truck	Crossbucks only	KCS	2006
162	BEXAR	764270J	1/9/2007	CENTER ROAD	SAN ANTONIO	Trk& Trail	Crossbucks and flagging	UP	2007
163	BEXAR	415624P	1/12/2007	IH 35 FRONTAGE ROAD	SAN ANTONIO	Other	Gates and Flashing Lights	UP	2007
164	BEXAR	764305H	2/11/2007	SOUTH ZARZAMORA ST.	SAN ANTONIO	Car	Gates and Flashing Lights	UP	2007
165	BEXAR	764302M	3/18/2007	S. SAN MARCOS ST.	SAN ANTONIO	Pickup Trk	Gates and Flashing Lights	UP	2007
166	BEXAR	764292J	6/8/2007	HOEFGEN STREET	SAN ANTONIO	Car	Gates and Flashing Lights	UP	2007

167	BEXAR	764362W	6/29/2007	RITTMAN RD		Pickup Trk	Gates	ATK	2007
168	BRAZORIA	023201F	5/5/2007	COUNTY ROAD		Pickup Trk	Gates and Flashing Lights	BNSF	2007
169	BRAZORIA	448606J	11/10/2007	SH 228B		Pickup Trk	Cantilever Lights and No Gates	BNSF	2007
170	BRAZOS	743215B	10/31/2007	GEO. BUSH FM 2347	COLLEGE STATION	Car	Gates and Flashing Lights	UP	2007
171	BURNET	745259H	5/24/2007	CR 121		Truck	Crossbucks only	AUAR	2007
172	COLORADO	743818Y	7/24/2007	FM 3013	EAGLE LAKE	Trk& Trail	Gates and Cantilever Lights	UP	2007
173	COMAL	742632G	9/7/2007	FM 1518 (1ST STREET)	SCHERTZ	Truck	Gates and Flashing Lights	UP	2007
174	DALLAS	794832J	2/24/2007	SAM HOUSTON ROAD	MESQUITE	Oth Mtr V.	Gates and Flashing Lights	UP	2007
175	DALLAS	597759W	5/18/2007	MARKET CTR BLVD	DALLAS	Car	Gates and Flashing Lights	BNSF	2007
176	DALLAS	763660T	6/21/2007	LENWAY STREET	DALLAS	Trk& Trail	Gates and Flashing Lights	UP	2007
177	DALLAS	763660T	10/12/2007	LENWAY STREET	DALLAS	Trk& Trail	Gates and Flashing Lights	UP	2007
178	DE WITT	746505U	5/14/2007	FORDTRAN	THOMASTON	Trk& Trail	Crossbucks only	UP	2007
179	DEAF SMITH	014734S	5/30/2007	PROGRESSIVE RD		Trk& Trail	Gates	BNSF	2007
180	DENTON	795346X	6/14/2007	HENRIETTA CREEK ROAD	ROANOKE	Trk& Trail	Gates and Flashing Lights	UP	2007
181	DENTON	795301R	7/26/2007	NEW HOPE	AUBREY	Trk& Trail	Crossbucks only	UP	2007
182	ECTOR	796293E	4/13/2007	MEADOW	ODESSA	Pickup Trk	Gates and Flashing Lights	UP	2007
183	ECTOR	796308S	5/10/2007	CARGO STREET	ODESSA	Car	Gates and Flashing Lights	UP	2007
184	ECTOR	796308S	11/28/2007	CARGO STREET	ODESSA	Trk& Trail	Gates and Flashing Lights	UP	2007
185	ELLIS	765876F	1/1/2007	US 77/ELM STREET	WAXAHACHIE	Car	Cantilever Lights and No Gates	UP	2007
186	ELLIS	765895K	11/21/2007	SEVENTH STREET	FERRIS	Pickup Trk	Crossbucks only	UP	2007
187	ERATH	020968J	1/4/2007	FM 847		Car	Cantilever Lights and No Gates	FWWR	2007
188	ERATH	020968J	3/26/2007	FM 847		Car	Cantilever Lights and No Gates	FWWR	2007
189	FORT BEND	743692U	4/20/2007	FM-1092	STAFFORD	Pickup Trk	Gates and Flashing Lights	UP	2007
190	FORT BEND	745044J	5/24/2007	DAIRY ASHFORD WAY		Pickup Trk	Gates and Flashing Lights	BNSF	2007
191	FORT BEND	743691M	7/25/2007	ST 0000; STAFFORD BE	STAFFORD	Car	Gates and Flashing Lights	ATK	2007
192	FORT BEND	743692U	10/15/2007	FM 1092	STAFFORD	Pickup Trk	Gates and Flashing Lights	UP	2007
193	FORT BEND	745044J	10/18/2007	DAIRY ASHFORD WAY	SUGAR LAND	Trk& Trail	Gates and Flashing Lights	UP	2007

194	FORT BEND	743691M	11/2/2007	STAFFORD - BELLAIRE	STAFFORD	Pickup Trk	Gates and Flashing Lights	UP	2007
195	FREESTONE	597188E	4/11/2007	MAIN ST.	TEAGUE	Pickup Trk	Gates	BNSF	2007
196	GALVESTON	859509K	9/17/2007	ROSS STREET	LA MARQUE	Pickup Trk	Standard Fl	UP	2007
197	GARZA	015027D	7/27/2007	CR 235		Trk& Trail	Crossbucks only	BNSF	2007
198	GRAY	014543G	12/8/2007	STARKWEATHER ST	PAMPA	Oth Mtr V.	Gates and Flashing Lights	BNSF	2007
199	GREGG	448229X	5/2/2007	TEXAS IRON & STEEL	LONGVIEW	Trk& Trail	Crossbucks and flagging	UP	2007
200	GREGG	794658C	5/26/2007	US 271/ MAIN	GLADEWATER	Car	Gates and Cantilever Lights	UP	2007
201	GRIMES	597143X	8/31/2007	PLEASENT GROVE	NORTH ZULCH	Pickup Trk	Crossbucks and other devices	BNSF	2007
202	HALE	017306F	10/4/2007	COUNTY ROAD 145		Pickup Trk	Crossbucks only	BNSF	2007
203	HARRIS	762901B	1/2/2007	VAN HUT RD		Trk& Trail	Gates and Flashing Lights	BNSF	2007
204	HARRIS	762904W	1/21/2007	C E KING PARKWAY	HOUSTON	Car	Gates and Flashing Lights	KCS	2007
205	HARRIS	762907S	1/30/2007	JOHN RALSTON RD	HOUSTON	Car	Gates and Flashing Lights	UP	2007
206	HARRIS	597086L	1/31/2007	ALABONSON RD	HOUSTON	Car	Gates and Flashing Lights	BNSF	2007
207	HARRIS	743633S	3/2/2007	CYPRESS DRIVE	CYPRESS	Trk& Trail	Crossbucks and flagging	UP	2007
208	HARRIS	755630F	3/4/2007	CULLEN BLVD	HOUSTON	Truck	Gates and Cantilever Lights	BNSF	2007
209	HARRIS	755621G	3/30/2007	ST0000 ; CHIMNEY ROC	HOUSTON	Van	Gates and Flashing Lights	ATK	2007
210	HARRIS	911817F	5/4/2007	JACINTOPORT BLVD. IG	HOUSTON	Trk& Trail	Crossbucks only	PTRA	2007
211	HARRIS	447977R	6/7/2007	ALMEDA - GENOA ROAD	HOUSTON	Pickup Trk	Cantilever Lights and No Gates	UP	2007
212	HARRIS	762904W	7/11/2007	CR 34777		Pickup Trk	Gates and Flashing Lights	BNSF	2007
213	HARRIS	288050B	8/17/2007	LAWNDALE	HOUSTON	Oth Mtr V.	Gates and Flashing Lights	UP	2007
214	HARRIS	762904W	8/22/2007	FM 526 CE KING PARKW		Car	Gates and Flashing Lights	ATK	2007
215	HARRIS	755628E	9/14/2007	LONG DR.	HOUSTON	Oth Mtr V.	Cantilever Lights and No Gates	UP	2007
216	HARRIS	023214G	9/26/2007	LONG DRIVE	HOUSTON	Trk& Trail	Cantilever Lights and No Gates	UP	2007
217	HARRIS	755627X	11/22/2007	MYKAWA ROAD		Car	Cantilever Lights and No Gates	BNSF	2007
218	HARRIS	743633S	12/2/2007	CYPRESS DRIVE	CYPRESS	Car	Crossbucks and flagging	UP	2007
219	HARRIS	430064X	12/6/2007	HARDY ROAD	SPRING	Van	Gates and Flashing Lights	UP	2007
220	HARRIS	755627X	12/13/2007	MYKAWA ROAD		Truck	Cantilever Lights and No Gates	BNSF	2007

221	HARRIS	755627X	12/16/2007	MYKAWA ROAD		Car	Cantilever Lights and No Gates	BNSF	2007
222	HOOD	020871M	2/5/2007	US 377		Trk& Trail	Cantilever Lights and No Gates	FWWR	2007
223	HOOD	020871M	6/11/2007	US 377	CRESSON	Car	Cantilever Lights and No Gates	FWWR	2007
224	JEFFERSON	329556F	10/19/2007	14TH STREET	PORT ARTHUR	Car	Crossbucks only	KCS	2007
225	JEFFERSON	023691A	10/30/2007	MAGNOLIA AVE	BEAUMONT	Car	Cantilever Lights and No Gates	BNSF	2007
226	JIM HOGG	923779H	2/14/2007	SIGRID STREET	HEBBRONVILLE	Oth Mtr V.	Crossbucks only	KCS	2007
227	JIM WELLS	793811M	3/7/2007	JOHNSON STREET	ALICE	Truck	Gates and Flashing Lights	KCS	2007
228	JOHNSON	416001J	4/1/2007	CR 106	GRANDVIEW	Pickup Trk	Crossbucks only	UP	2007
229	JOHNSON	020460G	9/30/2007	COUNTY ROAD		Car	Gates	BNSF	2007
230	KAUFMAN	794794C	11/30/2007	CR 211	TERRELL	Trk& Trail	Gates and Flashing Lights	UP	2007
231	LIBERTY	755919U	1/10/2007	JUNCTION STREET	CLEVELAND	Pickup Trk	Gates and Flashing Lights	UP	2007
232	MCCULLOCH	742709S	9/29/2007	AUSTIN ST (SH-123		Car	Gates and Flashing Lights	BNSF	2007
233	MIDLAND	796328D	3/8/2007	EISENHOWER STREET	MIDLAND	Car	Gates and Flashing Lights	UP	2007
234	MIDLAND	796328D	7/18/2007	EISENHOWER DRIVE	MIDLAND	Trk& Trail	Gates and Flashing Lights	UP	2007
235	NOLAN	796122D	7/5/2007	CR 111		Trk& Trail	Crossbucks only	UP	2007
236	NUECES	793665J	9/9/2007	CR 103	AGUA DULCE	Car	Crossbucks only	KCS	2007
237	ORANGE	447477T	10/15/2007	2739 FM 1006	ORANGE	Car	Cantilever Lights and No Gates	RASX	2007
238	PALO PINTO	839393G	3/16/2007	WASHINGTON	STRAWN	Car	Crossbucks only	UP	2007
239	PALO PINTO	839393G	7/15/2007	WASHINGTON STREET	STRAWN	Pickup Trk	Crossbucks only	UP	2007
240	PANOLA	024072W	6/2/2007	US HWY 79		Trk& Trail	Gates	BNSF	2007
241	PARMER	014787R	12/14/2007	HWY 70/84	FARWELL	Pickup Trk	Gates and Flashing Lights	BNSF	2007
242	REEVES	796230A	7/26/2007	FM 2119		Pickup Trk	Cantilever Lights and No Gates	UP	2007
243	ROBERTSON	432250F	1/13/2007	PIN OAK ROAD	FRANKLIN	Trk& Trail	Crossbucks and flagging	UP	2007
244	SHELBY	755492U	3/23/2007	COUNTY ROAD 33794	JOAQUIN	Trk& Trail	Crossbucks only	UP	2007
245	TARRANT	020532H	2/20/2007	PUBLIC	SAGINAW	Car	Crossbucks and other devices	BNSF	2007
246	TARRANT	598310X	3/23/2007	MINTON ROAD	SAGINAW	Trk& Trail	Gates and Flashing Lights	UP	2007
247	TARRANT	598337G	5/22/2007	GALVEZ AVENUE	FORT WORTH	Car	Gates and Flashing Lights	TRE	2007
248	TARRANT	598310X	6/6/2007	MINTON ROAD	SAGINAW	Trk& Trail	Gates and Flashing Lights	UP	2007

249	TARRANT	598310X	6/11/2007	MINTON RD	SAGINAW	Trk& Trail	Gates and Flashing Lights	UP	2007
250	TARRANT	598310X	6/14/2007	MINTON ROAD	SAGINAW	Trk& Trail	Gates and Flashing Lights	UP	2007
251	TARRANT	020644G	8/30/2007	ST 0000; INTERMODAL		Trk& Trail	Gates and Cantilever Lights	ATK	2007
252	TARRANT	598310X	9/13/2007	MINTON ROAD	SAGINAW	Trk& Trail	Gates and Flashing Lights	UP	2007
253	TARRANT	598311E	9/19/2007	MCLEROY BLVD.	SAGINAW	Oth Mtr V.	Cantilever Lights and No Gates	UP	2007
254	TARRANT	598310X	9/21/2007	MINTON ROAD	SAGINAW	Trk& Trail	Gates and Flashing Lights	UP	2007
255	TARRANT	598311E	9/27/2007	MCLEROY BLVD	SAGINAW	Trk& Trail	Cantilever Lights and No Gates	UP	2007
256	TARRANT	598310X	10/25/2007	MINTON ROAD	SAGINAW	Trk& Trail	Gates and Flashing Lights	UP	2007
257	TARRANT	795430F	10/30/2007	WESTPORT PKWY	ROANOKE	Trk& Trail	Gates and Flashing Lights	UP	2007
258	TARRANT	598311E	11/9/2007	MCLEROY BLVD.	SAGINAW	Car	Standard Fl	UP	2007
259	TARRANT	020644G	11/14/2007	INTERMODAL PKWY		Trk& Trail	Gates and Cantilever Lights	UP	2007
260	TARRANT	794974A	12/7/2007	STADIUM DR EAST	ARLINGTON	Pickup Trk	Gates and Flashing Lights	UP	2007
261	VICTORIA	435952L	8/16/2007	FM 1432	VICTORIA	Car	Crossbucks only	UP	2007
262	WARD	796260S	1/4/2007	CR - 138	BARSTOW	Trk& Trail	Crossbucks only	UP	2007
263	WEBB	793617U	2/15/2007	JENNING ROAD	LAREDO	Pickup Trk	Crossbucks only	KCS	2007
264	WEBB	793618B	3/29/2007	VAQUILLAS ROAD	AGUILARES	Trk& Trail	Crossbucks only	KCS	2007
265	WEBB	446796H	10/15/2007	JEFFERSON	LAREDO	Van	Gates and Flashing Lights	UP	2007
266	WISE	274636S	7/10/2007	CR4923		Trk& Trail	Crossbucks and other devices	BNSF	2007
267	BEXAR	764305H	1/1/2008	SOUTH ZARZAMORA	SAN ANTONIO	Car	Gates and Flashing Lights	UP	2008
268	BEXAR	764362W	1/17/2008	RITTIMAN RD	KIRBY	Car	Gates and Flashing Lights	UP	2008
269	BEXAR	764292J	10/7/2008	HOEFGEN STREET	SAN ANTONIO	Car	Gates and Flashing Lights	UP	2008
270	BRAZOS	743215B	4/12/2008	GEORGE BUSH FM2347	COLLEGE STATION	Pickup Trk	Gates and Flashing Lights	UP	2008
271	CHEROKEE	426599P	5/17/2008	COUNTY ROAD 3304		Car	Crossbucks only	UP	2008
272	DALLAS	794955V	9/5/2008	SW 2ND STREET	GRAND PRAIRIE	Trk& Trail	Gates and Flashing Lights	UP	2008
273	DEAF SMITH	014734S	10/26/2008	PROGRESSIVE RD		Car	Gates	BNSF	2008
274	ECTOR	796308S	11/4/2008	CARGO STREET		Trk& Trail	Gates and Flashing Lights	UP	2008
275	ECTOR	796242U	11/15/2008	KELLY STREET	ODESSA	Oth Mtr V.	Gates and Flashing Lights	UP	2008

276	EL PASO	764225P	4/5/2008	CR/MOON ROAD	EL PASO	Trk& Trail	Gates and Flashing Lights	UP	2008
277	ELLIS	765540J	5/12/2008	EAST TYLER STREET	ENNIS	Pickup Trk	Crossbucks only	UP	2008
278	ELLIS	765876F	12/13/2008	US 77/ELM STREET	WAXAHACHIE	Car	Cantilever Lights and No Gates	UP	2008
279	FREESTONE	597188E	11/4/2008	MAIN ST.	TEAGUE	Van	Gates	BNSF	2008
280	GRAY	014543G	4/7/2008	STARKWEATHER ST	PAMPA	Pickup Trk	Gates and Flashing Lights	BNSF	2008
281	GREGG	448229X	6/4/2008	TEXAS IRON AND STEEL	LONGVIEW	Trk& Trail	Crossbucks and flagging	UP	2008
282	GREGG	794658C	11/23/2008	HIGHWAY 271/MAIN	GLADEWATER	Car	Gates and Cantilever Lights	UP	2008
283	GUADALUPE	742632G	8/7/2008	FM 1518 (FIRST ST)	SCHERTZ	Pedestrian	Gates and Flashing Lights	UP	2008
284	GUADALUPE	742709S	11/10/2008	AUSTIN STREET (SH-12	SEGUIN	Oth Mtr V.	Gates and Flashing Lights	UP	2008
285	HALE	017306F	10/27/2008	COUNTY ROAD 145		Trk& Trail	Crossbucks only	BNSF	2008
286	HARRIS	755628E	3/12/2008	LONG DRIVE	HOUSTON	Car	Cantilever Lights and No Gates	UP	2008
287	HARRIS	924337G	4/29/2008	RAILWOOD	HOUSTON	Trk& Trail	Crossbucks only	UP	2008
288	HARRIS	762901B	5/16/2008	VAN HUT RD		Trk& Trail	Gates and Flashing Lights	BNSF	2008
289	HARRIS	911817F	6/12/2008	TEXAS TERMINAL EAST	HOUSTON	Trk& Trail	Crossbucks and other devices	PTRA	2008
290	HARRIS	597086L	6/20/2008	ALABONSON RD	HOUSTON	Car	Gates and Flashing Lights	BNSF	2008
291	HARRIS	762904W	7/23/2008	C.E. KING ROAD	HOUSTON	Pickup Trk	Gates and Flashing Lights	UP	2008
292	HARRIS	288268V	7/29/2008	CAVALCADE GILBERT	HOUSTON	Car	Gates and Flashing Lights	BNSF	2008
293	HARRIS	762904W	8/21/2008	C E KING ROAD	HOUSTON	Car	Gates and Flashing Lights	UP	2008
294	HARRIS	430064X	9/19/2008	HARDY ROAD	SPRING	Trk& Trail	Gates and Flashing Lights	UP	2008
295	HARRIS	023207W	10/1/2008	ALAMEDA GENOA RD	HOUSTON	Car	Gates and Flashing Lights	BNSF	2008
296	HARRIS	762904W	10/27/2008	CR 3477	HOUSTON	Trk& Trail	Gates and Flashing Lights	KCS	2008
297	HARRIS	755627X	11/20/2008	MYKAWA ROAD		Car	Cantilever Lights and No Gates	BNSF	2008
298	HARRIS	023214G	11/25/2008	LONG DRIVE	HOUSTON	Car	Standard Fl	UP	2008
299	HARRIS	755630F	12/26/2008	CULLEN BLVD		Pedestrian	Gates and Cantilever Lights	BNSF	2008
300	HARRISON	794623B	10/7/2008	LANSING SW ROAD	LONGVIEW	Trk& Trail	Gates and Flashing Lights	UP	2008
301	HOOD	020871M	4/25/2008	US 377	CRESSON	Trk& Trail	Cantilever Lights and No Gates	FWWR	2008
302	HOOD	020871M	5/9/2008	US 377	CRESSON	Van	Standard Fl	FWWR	2008

303	HOOD	020871M	7/27/2008	SH 377	CRESSON	Car	Standard Fl	FWWR	2008
304	JEFFERSON	329556F	1/17/2008	14TH STREET	PORT ARTHUR	Car	Crossbucks only	KCS	2008
305	JEFFERSON	329557M	1/25/2008	THOMAS BLVD	PORT ARTHUR	Car	Cantilever Lights and No Gates	KCS	2008
306	JIM WELLS	793815P	8/12/2008	REYNOLDS STREET	ALICE	Car	Gates and Flashing Lights	KCS	2008
307	JOHNSON	021549P	6/10/2008	INDUSTRIAL BLVD.	CLEBURNE	Trk& Trail	Crossbucks only	FWWR	2008
308	JOHNSON	416001J	10/14/2008	COUNTY ROAD 106	GRANDVIEW	Trk& Trail	Crossbucks only	UP	2008
309	KAUFMAN	748507P	6/28/2008	METROCREST WAY	TERRELL	Trk& Trail	Gates and Flashing Lights	UP	2008
310	LIBERTY	762790L	5/23/2008	US 90	DAYTON	Trk& Trail	Gates and Flashing Lights	BNSF	2008
311	LIBERTY	762790L	12/18/2008	US 90		Truck	Gates and Cantilever Lights	BNSF	2008
312	MADISON	597143X	11/4/2008	PLEASENT GROVE	NORTH ZULCH	Pickup Trk	Crossbucks and other devices	BNSF	2008
313	MATAGORDA	023371A	9/19/2008	GRACE	BAY CITY	Car	Crossbucks and other devices	BNSF	2008
314	MATAGORDA	023371A	9/22/2008	GRACE	BAY CITY	Car	Crossbucks and other devices	BNSF	2008
315	MCLENNAN	430336H	1/11/2008	LIVE STOCK	WACO	Pickup Trk	Crossbucks only	UP	2008
316	MIDLAND	796348P	1/20/2008	US 80 FRONTAGE RD	MIDLAND	Trk& Trail	Gates and Flashing Lights	UP	2008
317	MIDLAND	796348P	6/15/2008	US 80 FRONTAGE ROAD	MIDLAND	Trk& Trail	Gates and Flashing Lights	UP	2008
318	NOLAN	796122D	6/5/2008	COUNTY ROAD 111	ROSCOE	Pickup Trk	Crossbucks only	UP	2008
319	NUECES	793824N	5/7/2008	CR 38	BANQUETE	Pickup Trk	Crossbucks only	KCS	2008
320	ORANGE	447477T	2/23/2008	FM1006	ORANGE	Car	Cantilever Lights and No Gates	RASX	2008
321	PARMER	014764J	4/28/2008	FM 3140		Trk& Trail	Cantilever Lights and No Gates	BNSF	2008
322	REEVES	796230A	9/23/2008	FM 2119	PECOS	Car	Cantilever Lights and No Gates	UP	2008
323	SAN PATRICIO	436013H	4/5/2008	S RACHAL STREET	SINTON	Car	Gates	KCS	2008
324	TARRANT	020532H	2/6/2008	PUBLIC	SAGINAW	Pickup Trk	Crossbucks and other devices	BNSF	2008
325	TARRANT	794971E	4/12/2008	GREAT SOUTHWEST PKWY	GRAND PRAIRIE	Pickup Trk	Gates and Flashing Lights	UP	2008
326	TARRANT	598337G	9/9/2008	GALVEZ AVENUE	FORT WORTH	Car	Gates	TRE	2008
327	TARRANT	020632M	11/14/2008	EAGLE PKWY		Trk& Trail	Gates and Cantilever Lights	BNSF	2008
328	VICTORIA	435952L	1/22/2008	FM 1432	VICTORIA	Pickup Trk	Crossbucks only	UP	2008
329	WEBB	793617U	2/13/2008	JENNINGS ROAD	AGUILARES	Trk& Trail	Crossbucks only	KCS	2008
330	WEBB	446796H	3/12/2008	JEFFERSON STREET	LAREDO	Car	Gates and Flashing Lights	UP	2008

331	WEBB	793617U	6/25/2008	JENNINGS ROAD	AGUILARES	Trk& Trail	Crossbucks only	KCS	2008
332	WISE	274636S	2/8/2008	CR 4923		Oth Mtr V.	Crossbucks and other devices	BNSF	2008
333	BEXAR	415618L	2/27/2009	TEJASCO DRIVE	SAN ANTONIO	Pickup Trk	Cantilever Lights and No Gates	UP	2009
334	BEXAR	764298A	3/14/2009	LP 0536; PROBANDT RD	SAN ANTONIO	Pickup Trk	Gates and Flashing Lights	ATK	2009
335	BEXAR	764304B	5/23/2009	SAN JACINTO ST	SAN ANTONIO	Oth Mtr V.	Gates and Flashing Lights	UP	2009
336	BEXAR	764304B	8/24/2009	SAN JACINTO ST.	SAN ANTONIO	Trk& Trail	Gates and Flashing Lights	UP	2009
337	BEXAR	764298A	11/1/2009	PROBANDT (SPUR 53)	SAN ANTONIO	Pedestrian	Gates and Flashing Lights	UP	2009
338	BOWIE	789573P	2/23/2009	LAKE STREET	TEXARKANA	Car	Cantilever Lights and No Gates	UP	2009
339	BOWIE	789573P	7/11/2009	LAKE STREET	TEXARKANA	Motorcycle	Cantilever Lights and No Gates	UP	2009
340	BURNET	745259H	5/6/2009	TX HWY 281		Pickup Trk	Cantilever Fl Only	AWRR	2009
341	DALLAS	597759W	7/18/2009	MARKET CENTER BLVD	DALLAS	Pickup Trk	Gates and Flashing Lights	BNSF	2009
342	DALLAS	794926K	7/24/2009	WESTMORELAND ROAD	DALLAS	Trk& Trail	Gates and Flashing Lights	UP	2009
343	DALLAS	794955V	10/17/2009	SW 2ND STREET	GRAND PRAIRIE	Trk& Trail	Gates and Flashing Lights	UP	2009
344	DALLAS	794926K	12/9/2009	WESTMORELAND ROAD	DALLAS	Car	Gates and Cantilever Lights	UP	2009
345	DENTON	795346X	1/30/2009	HENRIETTA CREEK	ROANOKE	Trk& Trail	Gates and Flashing Lights	UP	2009
346	DENTON	020632M	7/13/2009	ST 0000; EAGLE PKWY		Truck	Gates and Cantilever Lights	ATK	2009
347	EL PASO	741229C	2/20/2009	PENNDALE ROAD	EL PASO	Car	Gates and Flashing Lights	UP	2009
348	ELLIS	765876F	1/16/2009	US 77 / ELM STREET	WAXAHACHIE	Oth Mtr V.	Cantilever Lights and No Gates	UP	2009
349	ELLIS	765540J	7/31/2009	EAST TYLER STREET	ENNIS	Car	Crossbucks only	UP	2009
350	GREGG	448229X	2/12/2009	TEXAS IRON AND STEEL	LONGVIEW	Trk& Trail	Crossbucks and flagging	UP	2009
351	GUADALUPE	742637R	2/24/2009	CO 0000; E. CIBOLO		Car	Gates	ATK	2009
352	GUADALUPE	742637R	4/10/2009	COUNTRY LANE	CIBOLO	Car	Gates and Flashing Lights	UP	2009
353	HALE	017304S	4/17/2009	COUNTY ROAD 135		Trk& Trail	Crossbucks only	BNSF	2009
354	HARRIS	023214G	2/24/2009	LONG DRIVE	HOUSTON	Car	Standard Fl	UP	2009
355	HARRIS	023214G	3/4/2009	LONG DR	HOUSTON	Car	Cantilever Lights and No Gates	BNSF	2009
356	HARRIS	755621G	3/4/2009	CHIMNEY ROCK ROAD		Car	Gates and Flashing Lights	BNSF	2009
357	HARRIS	023207W	3/6/2009	ALAMEDA GENOA RD	HOUSTON	Truck	Gates and Flashing Lights	BNSF	2009

358	HARRIS	755624C	4/4/2009	FONDREN ROAD		Car	Gates and Flashing Lights	BNSF	2009
359	HARRIS	755624C	4/15/2009	ST 0000; FONDREN ROA	HOUSTON	Pedestrian	Gates and Flashing Lights	ATK	2009
360	HARRIS	758757E	7/4/2009	LITTLE YORK ROAD	HOUSTON	Car	Gates and Flashing Lights	UP	2009
361	HARRIS	755624C	8/24/2009	FONDREN ROAD	MISSOURI CITY	Car	Gates and Flashing Lights	KCS	2009
362	HARRIS	743695P	11/3/2009	KIRKWOOD ST	STAFFORD	Car	Gates	BNSF	2009
363	HIDALGO	448821V	8/28/2009	MCOLL & BUS 83	MCALLEN	Car	Cantilever Fl Only	RVSC	2009
364	HOOD	020871M	2/19/2009	US 377	CRESSON	Car	Cantilever Fl Only	FWWR	2009
365	HOOD	020871M	7/20/2009	US 377	CRESSON	Trk& Trail	Cantilever Lights and No Gates	FWWR	2009
366	JEFFERSON	329557M	3/2/2009	Thomas Blvd	PORT ARTHUR	Car	Cantilever Lights and No Gates	KCS	2009
367	JEFFERSON	023704Y	4/16/2009	CALDER AVENUE	BEAUMONT	Car	Cantilever Lights and No Gates	UP	2009
368	JOHNSON	020460G	12/8/2009	COUNTY ROAD		Oth Mtr V.	Gates and Flashing Lights	BNSF	2009
369	KAUFMAN	748507P	7/24/2009	METROCREST WAY	TERRELL	Trk& Trail	Gates and Flashing Lights	UP	2009
370	LIBERTY	755919U	9/14/2009	JUNCTION STREET	CLEVELAND	Pickup Trk	Gates and Flashing Lights	UP	2009
371	LUBBOCK	014992W	1/16/2009	COUNTY RD 2900		Oth Mtr V.	Crossbucks only	BNSF	2009
372	LUBBOCK	014992W	12/4/2009	COUNTY ROAD 2900		Trk& Trail	Crossbucks and flagging	BNSF	2009
373	MATAGORDA	023371A	11/12/2009	GRACE	BAY CITY	Car	Crossbucks and other devices	BNSF	2009
374	NUECES	793665J	1/27/2009	CR 103	AGUA DULCE	Pickup Trk	Crossbucks only	KCS	2009
375	NUECES	427602Y	5/14/2009	COUNTY ROAD 34		Car	Crossbucks only	UP	2009
376	PANOLA	024072W	6/12/2009	US HWY 79		Trk& Trail	Gates and Flashing Lights	BNSF	2009
377	PARMER	014764J	8/11/2009	FM 3140		Trk& Trail	Gates and Flashing Lights	BNSF	2009
378	POTTER	014602G	10/3/2009	EASTERN STREET	AMARILLO	Car	Gates and Flashing Lights	BNSF	2009
379	SAN PATRICIO	436013H	11/13/2009	S RACHAL STREET	SINTON	Car	Gates	KCS	2009
380	SHELBY	755492U	10/12/2009	CR 33794		Trk& Trail	Crossbucks only	UP	2009
381	TARRANT	020486J	1/9/2009	HEMPHILL ST	FORT WORTH	Oth Mtr V.	Gates and Cantilever Lights	BNSF	2009
382	TARRANT	020632M	3/1/2009	EAGLE PARKWAY		Trk& Trail	Gates and Cantilever Lights	BNSF	2009
383	TARRANT	020478S	3/22/2009	W SEMINARY DR	FORT WORTH	Truck	Gates	BNSF	2009
384	TARRANT	020478S	4/5/2009	W SEMINARY DR	FORT WORTH	Car	Gates	BNSF	2009

385	TARRANT	020486J	11/22/2009	HEMPHILL ST	FORT WORTH	Pickup Trk	Gates and Cantilever Lights	BNSF	2009
386	WARD	796260S	7/3/2009	COUNTY ROAD 138		Pickup Trk	Crossbucks only	UP	2009
387	WEBB	793618B	6/8/2009	Vaquillas Road	AGUILARES	Pickup Trk	Crossbucks only	KCS	2009

APPENDIX

(B1) Data Integrity Issues: 2003-2007

FRA Data Form 6180.57 is a required report following a railroad's involvement with any type of highway-rail grade crossing collision. Form 57 has 57 data fields which should be completed by the railroad and submitted to FRA within a specified period of time (30 days following the last day of the month in which the collision occurred.) During the five year period, there were 15 collision reports designated as "private" crossings that were actually "public" crossings and five marked as "private" that were actually "public."

The Form 57 field number 32 for "Type of Crossing Warning" is one that the railroad can report up to seven types of warning at the crossing. For the 1,328 collision reports there were 614 marked "flagged" in addition to the other types of warning at the crossing. This represents 46 percent of the collisions. The data analysts felt that "flagging" was too often selected in error since this was much more than would be expected to have occurred during the five year period. For this reason, "flagging" was not included in the analysis.

TXDOT is committed to supporting ongoing efforts to update and maintain accurate data in the FRA crossing inventory. The following is a list of grade crossings that the data analysts noted exceptions to what was reported by the railroad in the Form 57. Data analysts compared the FRA Grade Crossing Inventory with two state rail databases used to maintain inventory information.

(1) 014833P (June 2, 2005) changed private to public
(2) 017259A (5 collisions) 3 changed from private to public
(3) 906647D – 2 changed from public to private
(4) 902597N (7/21/04) changed from public to private
(5 &6) Rail yard – 2 with no DOT numbers changed from public to private
(7) 911803X – changed from public to private329574D changed from public to private
(8) 017259A – changed from private to public
(9) 758421H – (Mississippi ST) private crossing within port – CLOSED
(10) 911807A – (PTRA - Jacinto Port Blvd. Harris Co.) - CLOSED
(11) 755340X – (Holmes RD – one way frontage with gates) – changed private to public
(12) 435449F (Haden RD) changed private to public
(13) 023228P (BNSF 2006 – Airport Blvd. Harris Co) changed private to public
(14) 411968P (UP 2007 – I-20 SB frontage) changed private to public

(B2) Data Integrity Issues: 2005-2009

(1) 020554H in Justin - CLOSED
(2) 430336H changed public to private
(3) 448229X (Texas Iron & Steel in Longview) changed public to private
(4) 743633P (Cypress Drive) changed public to private
(5) 789573P (Lake Street in Texarkana) - CLOSED

APPENDIX

(C)Texas Grade Crossing Safety Action Plan Stakeholder Participants:

Local Government:
City of Fort Worth, TX
City of Houston, TX
Harris County

Railroads/Commuter Rail:
BNSF Railway
Dallas Area Rapid Transit
KCS Railway
Union Pacific Railroad

State and Federal Government:
Texas Department of Public Safety
Texas Department of Transportation
Federal Highway Administration
Federal Railroad Administration

Safety and Planning and Research Organizations:
Texas Operation Lifesaver
Texas Transportation Institute
Houston-Galveston Area Council

APPENDIX

(D) Highway-Railway Crossing Safety Improvement Program: Annual Reporting Period: July 1, 2010 – June 30, 2011

RAILWAY-HIGHWAY CROSSING SAFETY IMPROVEMENT PROGRAM

ANNUAL REPORT

REPORTING PERIOD:

JULY 1, 2010 – JUNE 30, 2011

General Program Information

In Texas, the Texas Department of Transportation (TxDOT) administers the Section 130, Federal Railway-Highway Signal Program under an oversight agreement with the Federal Highway Administration (FHWA). This program of work is the Railway-Highway Grade Crossing portion of the Highway Safety Improvement Program (HSIP), which implements safety projects with the objective to reduce the number and severity of auto-train collisions by decreasing the potential for crashes at public highway-rail grade crossings.

Proposed railroad crossing protection and railroad grade crossing hazard elimination projects are selected by TxDOT - Rail Division from data verified by the twenty-five TxDOT district offices located throughout the state, and the railroad companies. TxDOT uses the Texas Priority Index Formula (TxPI) for selecting public highway-rail grade crossings for safety improvement projects. Eligible crossings are prioritized using six factors in the TxPI, which include the average daily vehicle traffic, average daily school bus traffic, average daily train traffic, maximum train speed, existing type of warning device and past five-year auto-train involved crash history. The TxPI is essentially an exposure index. A program is then developed according to priority index ranking of each eligible crossing location and available funding.

The Federal Railway-Highway Signal Program is authorized by the Texas Transportation Commission and included in the TxDOT Statewide Transportation Improvement Program (STIP). Following authorization, crossings are selected, federal funds are obligated for preliminary engineering and field studies, preliminary plans are developed, diagnostic inspections are performed, final plans and estimates are approved. Federal funds are obligated for construction and the railroad company is issued a work order (upon request) to proceed with the signal installation. After the warning devices are installed the state and railroad perform a joint final inspection. The final inspection confirms the warning devices are operating correctly, and an inventory of materials is verified for use in the final audit of the railroad's project costs. TxDOT provides FHWA with a final project certification.

Cost participation on these projects is typically 90% Federal and 10% State. Additional cost participation by the railroad company may be necessary if the work involved requires replanking the crossing surface, upgrades to the wayside (train control) signal system and/or adjacent crossing warning systems. The local road authority (i.e. state, county or city government) is responsible for performing roadway modifications as necessary to complete the project, and may also cost participate in the total cost of the project. Typically, this roadway modification work involves installing curb and gutter, raised medians, drainage structures, and/or clearing vegetation.

Texas has 10,386 miles of rail lines and 301,796 miles of roadway. As of June 30, 2011, TxDOT crossing inventory database records report the total number of public highway-rail grade crossings in the State of Texas is 9,884, which is the highest number of grade crossings than any other state. Significant efforts have been made to provide highway-rail grade separations, close redundant, unnecessary crossings, and equip more crossings with flashing light signals and gates. Of the total 9,884 public crossings,

6,061 (61.4%) are equipped with train activated warning devices, and 3,823 (38.6%) are equipped with passive traffic control devices. There are also a total of 1,790 highway-railroad grade separations of public roads, and 6,735 private grade crossings.

TxDOT is currently working with FRA to implement new crossing safety initiatives enacted by passage of the 2008 Federal Rail Safety Act. The FRA issued a Final Rule on June 28, 2010, which requires the ten states with the most grade crossing fatalities implement a safety action plan. Texas, with 7% of all public crossings in the U.S., also has the highest number of auto-train collisions and fatalities than other states. The law mandates TxDOT develop a Crossing Safety Action Plan to focus safety improvement projects on public crossings that continue to experience multiple auto-train involved collisions by August 26, 2011. Working with FRA, we have completed the initial analysis of 2005-2009 auto-train involved crash data, and the action plan which includes 5-year safety implementation plan with new performance workload measures to address safety needs at the identified multiple crash crossings.

Based on the results of a 2003-2009 crash data analysis, TxDOT identified a statistically high number of crossings equipped with flashing light signals and gates (gated crossings) reporting multiple collisions. TxDOT implemented a change in the priority indexing of crossings eligible for Section 130 funding to include gated crossings experiencing multiple collisions. The crash data analysis also indicated a higher number of multiple collision crossings located adjacent to highway-highway intersections. These two factors (gated crossings located adjacent to a highway intersection) indicate there may be an issue with vehicles queuing on the crossing due in part to timing of the railroad signal preemption of the adjacent traffic signal. In response to these findings, the crossings reporting multiple collisions from 2003 - 2007 have been selected for diagnostic study under the 2011 Federal Railway-Highway Signal Program. The 2012 program will include additional crossings identified by the 2005-2009 crash data analysis.

Projects Funded Under the Section 130 Program

The following narrative reports on the number of estimated cost, and types of Section 130 funded projects for the reporting period of July 1, 2010 - June 30, 2011.

A. Active Grade Crossing Equipment Installation/Upgrades

These improvements involved installing and/or upgrading railroad crossing warning devices at open, public highway-rail grade crossings in Texas. The typical upgrades are to install flashing light signals with bells and gates arms activated by constant warning control circuits. Improvements may be made from passive warning to active warning (i.e. crossbuck signs to flashers and gates), or active warning to improved active warning (i.e. flashers only to flashers and gates). Project work includes the installation of new advance warning signs, pavement markings and Crossing DOT No. Emergency Notification Signs, using the state 1-800 emergency reporting number. Other types of safety improvements include: improving railroad signal interconnection and preemption of adjacent traffic signals by providing simultaneous or advance preemption time, installing advance-warning flashing signals, closing non-essential crossings, and making

other safety improvements.

During this reporting period, Section 130 funds were obligated for preliminary engineering in the amount of $537,108.00 to study 211 highway-rail crossings for safety improvements. A total amount of $17,365,594.00 from FY 2011 Section 130 funds was obligated to install active warning devices at 83 of the 211 locations studied for safety improvement. The remaining FY 2011 funds will be combined and used for construction of the projects that will be obligated for safety improvements projects identified in the preliminary engineering studies for 2012. (See Attachment 1).

The functional classification of the 83 crossings selected for preliminary engineering studies are:

- **Urban**
  - 18 Crossings
- **Small Urban**
  - 34 Crossings
- **Rural**
  - 31 Crossings

In addition to obligating Federal funds to begin work on the above projects, attached are spreadsheets documenting completion of work activities on previously authorized projects. The work activities include: issuing approved plans, specifications and estimates to the Railroad (See Attachment 2, EXHIBIT B tab) for 53 projects for a total estimated cost of $12,805,306.00; issuing project work orders to the Railroad to begin construction (See Attachment 3, WORK ORDERS tab) on 92 projects for a total estimated cost of $22,292,645.00; and projects completed by the Railroads (See Attachment 4, COMPLETED PROJECTS tab) on 80 projects for a total estimated cost of $16,113,128.00.

B. Crossing Closures and Consolidation of Crossings

The closing and consolidation of public highway-rail grade crossings is actively promoted as a safety program goal within TxDOT. Identifying potential crossings for closure is included in every grade crossing safety improvement diagnostic inspection. Representatives from the road authority that has jurisdiction over the roadway are advised that funding is available to close crossings in lieu of upgrading the crossing with train-activated traffic warning devices. There are two (2) funding options available to local governments for the crossing closure program in Texas. For locations that are identified for safety improvements under the Section 130 program through the priority index ranking system, up to $200,000 is made available to the local road authority. In the event the local government agrees to close a crossing that has not been selected by TxDOT for safety improvement upgrades, up to $7,500 is available. In these types of closures, the operating railroad is required to provide matching funds. The federal funds are provided on a reimbursement basis and must be used for improvements associated with the closure of the grade crossing. The local authority must provide a project description, a cost estimate, pass a resolution by the governing body, and enter

into contract with TxDOT and the railroad company, before funding is authorized.

During the reporting period, 9 crossings were identified for closure utilizing Section 130 funding as described above for a total of $705,500.00 (See Attachment 5, CROSSING CLOSURES tab). Agreements were executed with the operating railroad and the various local governments across the State of Texas to effectuate the highway-rail grade crossing closure process.

C. YIELD / STOP Sign Installation Program

Our new program initiative for deployment of YIELD / STOP signs at passive public crossings will also result in further reductions in auto-train involved crashes. The 2009 Manual on Uniform Traffic Control Devices requires YIELD or STOP signs be installed at each open public passive highway-rail grade crossings. TxDOT is currently in negotiations with the three (3) Class 1 Railroads operating in Texas to initiate the installation of the signs. TXDOT has proposed to reimburse the railroad for the cost of the sign and mounting hardware and the railroad will assume the cost of the installation of the signs. Contracts have not been executed and no federal funds have been expended. It is anticipated that the installation of the signs at crossings operated by the Class 1 Railroads will be completed in FY 2012. Additionally, TxDOT will begin contacting the numerous Short Line Railroads during FY 2012 to initiate the YIELD / STOP Signs Installation Program. TxDOT plans to use Section 130 funds previously approved in FY 2007 under Federal Project Number STP 2007 (715) FRS. This project was to reimburse local governments in making safety improvements at public passive crossings. Due to the complexities of this project, it was determined that the Railroad companies should assume the responsibilities for installing the traffic signs at the public passive crossings.

D. Highway-Rail Grade Crossing Information Database Upgrade Project

Effectiveness of the Section 130 Program

The Federal Section 130 program in Texas has proven to be very effective in reducing the number and severity of auto-train involved collisions at public highway-rail grade crossings. Over a 20-year period (1991 to 2010), collisions have decreased 61.33% (from 543 to 210), fatalities have decreased 71.27% (from 66 to 23), and injuries have decreased 69.32% (from 221 to 101) (See Attachment 6, PROGRAM EFFECTIVENESS tab). This reduction occurred despite substantial growth in population, registered vehicles; miles traveled, and rail traffic throughout Texas.

The attached 3-year before and 3-year after crash data analysis includes an assessment of the railroad signal projects completed during 2007 (See Attachment 6, PROGRAM EFFECTIVENESS tab). Of the 140 projects completed during the 2007 analysis period, a total of 26 crossings reported auto-train crashes occurring within the 3-year period prior to the signal upgrade. The “before” crash data included a total of 26 crashes involving 34 vehicle occupants, resulting in 7 fatalities and 14 injuries. The

"after" crash data at the crossings experiencing "before" crashes during the 3-year period after the signal upgrade was completed reported a total of 4 crashes, involving 4 occupant, resulting in 0 fatalities and 2 injuries. More detailed collision data is available upon request.

The recently completed crossing inventory update project has greatly improved our ability to study crossings for safety improvements through the use of the digital photographs and GPS coordinates for mapping the crossing locations. Numerous crossings that were originally identified as private crossings have since been converted to public crossings, missing data has been collected, and erroneous data corrected. Upon completion of the crossing inventory update project, the data has been corrected and updates furnished to the FRA. We have recently compared our data with the FRA's data and the results show several discrepancies. We are working with the FRA to get their data updated.

We are administering a project to place our crossing inventory data and project management information on a geo-spatial web-based platform. This mapping analysis capability will allow us to better study and implement crossing corridor improvement projects. We anticipate a continued reduction in crashes which will allow us to focus more attention on reducing traffic delays due to train operations. We are also focusing on identifying crossing locations which continue to experience train involved and non-train involved collisions by improving signal activation and signal preemption of adjacent traffic signals, eliminating those crossings through grade separation, consolidation (closure), or relocation of the roadway or railroad. The upgraded database and renewed emphasis on addressing crossing safety needs at locations experiencing multiple collisions will result in further reductions in collisions, injuries, and fatalities.

A new program initiative is intended to address changes enacted by FHWA upon release of the 2009 Manual on Uniform Traffic Control Devices, on December 15, 2009,. The new manual requires YIELD or STOP signs be placed at each open public passive highway-rail grade crossing. TxDOT is currently working with two of the class one railroads to assist in sponsoring a project with each of the two railroad companies to reimburse the cost of the YIELD or STOP signs and mounting hardware.

The effectiveness of the Section 130 program in Texas and continued success in reducing collisions and casualties at public highway-rail crossings is a shared responsibility of both the public road authorities and private railroad companies involved. Continuing the tremendous success of this program depends on dedicated federal funding through a safety set-aside under the Surface Transportation Program. Over the past two reporting periods, we have been working with the Class I Railroad Companies in Texas to increase the number of Federal Section 130 projects completed and placed-in-service. The railroad companies have performed very well in reducing the number of projects awaiting installation.

During the current reporting period, Section 130 funds were obligated through the FHWA for TxDOT to conduct preliminary engineering studies at 211 highway-rail crossings, to address safety needs at the identified locations. The remaining portion of the FY 2010 and the FY 2011 funds will be used for construction of the 83 highway-rail

crossings locations that were identified for safety improvements. A total of 53 projects were approved for construction by TxDOT for installation of additional warning signals and gates. The railroads requested a total of 93 work orders to install the upgraded warning devices, and 80 new crossing warning systems were placed-in-service.

Other Highway-Rail Safety Improvement Projects Funded

To provide a more complete picture of the level of effort being made by TxDOT to improve highway-rail grade crossing safety in Texas, the following is a summary of projects funded with other federal or state transportation dollars.

- Fifteen (15) new highway-rail overpass structures. These projects resulted in closing five (5) existing grade crossings, and opening one (1) new frontage road grade crossing. Three (3) were BRG federal funds.
- Five (5) existing highway-rail overpass structures were replaced
- Five (5) highway-rail grade separation maintenance projects.
- One (1) railroad signal preemption project at existing intersections.
- Eight (8) highway widening projects involving upgrading existing crossing signals and resurfacing.
- Four (4) joint drainage or common ditch improvement projects, and nine (9) joint use projects.
- Sixty six (66) milling and overlay/seal coat projects to improve roadway approaches at existing crossings.

Online Reporting Tool

Railway - Highway Grade Crossing Program
Texas - 2011

Report Status:

Reported By: Debra, Vermillion

General Program

Question # 2 - Railway-highway grade crossing program reporting period.

Response 1- State Fiscal Year: July 1 To June 30

Supporting Text: Texas State Fiscal Year is September 1 - August 31.

Question # 3 - Describe the overall efforts funded by Section 130.

Response 1- In Texas, the Texas Department of Transportation (TxDOT) administers the Section 130, Federal Railroad Signal Program under an oversight agreement with the Federal Highway Administration (FHWA). This program of work is the Railway-Highway Grade Crossing portion of the Highway Safety Improvement Program (HSIP), which implements safety projects with the objective to reduce the number and severity of auto-train collisions by decreasing the potential for crashes at public highway-rail grade crossings.

Proposed railroad crossing protection and railroad grade crossing hazard elimination projects are selected by TxDOT - Traffic Operations Division from data verified by the twenty-five TxDOT district offices located throughout the state, and the railroad companies. TxDOT uses the Texas Priority Index Formula (TxPI) for selecting public highway-rail grade crossings for safety improvement projects. Eligible crossings are prioritized using six factors in the TxPI, which include the average daily vehicle traffic, average daily school bus traffic, average daily train traffic, maximum train speed, existing type of warning device and past five-year auto-train involved crash history. The TxPI is essentially an exposure index. A program is then developed according to priority index ranking of each eligible crossing location and available funding.

The Federal Railroad Signal Program is authorized by the Texas Transportation Commission and included in the TxDOT Statewide Transportation Improvement Program (STIP). Following authorization, crossings are selected, Federal funds for the selected projects are obligated, preliminary plans are developed, diagnostic inspections are performed, final plans and estimates are approved, and the railroad company is issued a work order (upon request) to proceed with the signal installation. After the warning devices are installed the state and railroad perform a joint final inspection. The final inspection confirms the warning devices are operating correctly, and an inventory of materials is verified for use in the final audit of the railroad's project costs.

Cost participation on these projects is typically 90% Federal and 10% State. Additional cost participation by the railroad company may be necessary if the work involved requires upgrades to their wayside signal system and/or adjacent crossing warning systems. The local road authority (i.e. city or county government) may also cost participate, and/or perform roadway modifications as necessary to complete the project. Typically, this work involves installing curb and gutter, raised medians, drainage structures, and/or clearing vegetation.

The total number of public highway-rail grade crossings in the State of Texas is 10,045.

Supporting Text:

Online Reporting Tool

Railway - Highway Grade Crossing Program
Texas - 2011

Report Status:

Reported By: Debra, Vermillion

General Program

Question # 4 - Describe the status of data acquisition and analysis efforts (including inventory and other efforts utilizing the two percent funding allowance)

Response 1- Texas currently utilizes a Microsoft ACCESS database program, known as “TxRAIL” that compiles data from several sources used to maintain the highway-rail grade crossing information. While this database provides some of the functionality needed, it has shortcomings including data storage limitations, accessibility issues, scalability limitations, and an inability to incorporate mapping programs. To improve and upgrade the existing database program, a project known as TRAX (TxRAIL II) was initiated during this reporting period. The TRAX project, later renamed the Texas Railroad Information Management System (TRIMS), will integrate the highway-rail grade crossing inventory data into a web-based system, adding a geospatial component and incorporate an automated workflow process. This will allow multiple users, both internal and external, to access the data and related information (and in limited cases make updates) via the internet. During this reporting period, Request for Proposal (RFP) was finalized and Jacobs Engineering was selected as the provider.

Federal funds are being utilized for the TRIMS project pursuant to the provisions established in Title 23, USC, Section 130 allowing no more than two percent (2%) of the apportioned funds for compilation and analysis of data in support of the highway-rail grade crossing program. During the reporting year, a contracted project manager assisted in the administrative and analysis functions. During the current reporting period, $281,766 in cost was incurred by Jacobs Engineering.

Supporting Text:

Question # 5 - Reporting period for railway-highway grade crossing program funding.

Response 1- State Fiscal Year: July 1 To June 30

Supporting Text: Texas State Fiscal Year is September 1 - August 31.

Question # 6 - Input the number of projects and estimated costs by roadway functional class.

Response 1

Functional Classification of Projects	Number of Projects	Estimated Costs	Federal Share (%)
Rural major collector	18	$4,082,042	90%
Rural minor collector	34	$7,009,259	90%
Rural local	31	$6,274,293	90%

Supporting Text:

Report Status:

Reported By: Debra, Vermillion

General Program

Question # 7 - Input the number of crossings and program emphasis areas by crossing type.

Response 1

Crossing Type	Number of Crossings
At-grade active warning devices	6061
Grade-seperated RR over road	1790
At-Grade passive warning devices	3823

Supporting Text:

Question # 8 - Reporting period for railway-highway grade crossing program evaluation

Response 1- State Fiscal Year: July 1 To June 30

Supporting Text: Texas State Fiscal Year is September 1 - August 31.

Report Status:

Reported By: Debra, Vermillion

General Program

Question # 9 - Input data on a variety of performance measures.

Serious Injuries

Year	Number of Incidents
2011	2

Fatalities

Year	Number of Incidents
2011	0
2010	27
2009	23
2008	17

Supporting Text: The attached 3-year before and 3-year after crash data analysis includes an assessment of the railroad signal projects completed during 2007 (See Attachment 6, PROGRAM EFFECTIVENESS tab). Of the 140 projects completed during the 2007 analysis period, a total of 26 crossings reported auto-train crashes occurring within the 3-year period prior to the signal upgrade. The “before” crash data included a total of 26 crashes involving 34 vehicle occupants, resulting in 7 fatalities and 14 injuries. The “after” crash data at the crossings experiencing “before” crashes during the 3-year period after the signal upgrade was completed reported a total of 4 crashes, involving 4 occupant, resulting in 0 fatalities and 2 injuries. More detailed collision data is available upon request.

Question # 10 - Describe any other aspects of the Section 130 program effectiveness on which you would like to elaborate.

Report Status:

Reported By: Debra, Vermillion

General Program

Response 1- The Federal Section 130 program in Texas has proven to be very effective in reducing the number and severity of auto-train involved collisions at public highway-rail grade crossings. Over a 20-year period (1991 to 2010), collisions have decreased 61.33% (from 543 to 210), fatalities have decreased 71.27% (from 66 to 23), and
injuries have decreased 69.32% (from 221 to 101) (See Attachment 6, PROGRAM EFFECTIVENESS tab). This reduction occurred despite a substantial growth in population, registered vehicles; miles traveled, and rail traffic throughout Texas.

The attached 3-year before and 3-year after crash data analysis includes an assessment of the railroad signal projects completed during 2007 (See Attachment 6, PROGRAM EFFECTIVENESS tab). Of the 140 projects completed during the 2007 analysis period, a total of 26 crossings reported auto-train crashes occurring within the 3-year period prior to the signal upgrade. The “before” crash data included a total of 26 crashes involving 34 vehicle occupants, resulting in 7 fatalities and 14 injuries. The “after” crash data at the crossings experiencing “before” crashes during the 3-year period after the signal upgrade was completed reported a total of 4 crash, involving 4 occupant, resulting in 0 fatalities and 2 injuries. More detailed collision data is available upon request.

The recently completed crossing inventory update project has greatly improved our ability to study crossings for safety improvements through the use of the digital photographs and GPS coordinates for mapping the crossing locations. Numerous crossings that were originally identified as private crossings have since been converted to public crossings, missing data has been collected, and erroneous data corrected. With the completion of the crossing inventory update project, and the data within our database being corrected and updated. We have recently compared our data with the FRA’s data and the results show several discrepancies. We are working with the FRA to get their data updated.

We are administering a project to place our crossing inventory data and project management information on a geo-spatial web-based platform. This mapping analysis capability will allow us to better study and implement crossing corridor improvement projects. We anticipate a continued reduction in crashes which will allow us to focus more attention on reducing traffic delays due to train operations. We are also focusing on identifying crossing locations which continue to experience train involved and non-train involved collisions by improving signal activation and signal preemption of adjacent traffic signals, eliminating those crossings through grade separation, consolidation (closure), or relocation of the roadway or railroad. The upgraded database and renewed emphasis on addressing crossing safety needs at locations experiencing multiple collisions will result in further reductions in collisions, injuries, and fatalities.

A new program initiative for the next reporting period is intended to address changes enacted by FHWA upon release of the 2009 Manual on Uniform Traffic Control Devices, on December 15, 2009,. The new manual requires YIELD or STOP signs be placed at each open public passive highway-rail grade crossing. TxDOT is currently under the agreement process with two of the class one railroads to assist in sponsoring a project with each of the two railroad companies to reimburse the cost of the YIELD or STOP signs and mounting hardware.

The effectiveness of the Section 130 program in Texas and continued success in reducing collisions and casualties at public highway-rail crossings is a shared responsibility of both the public road authorities and private railroad companies involved. Continuing the tremendous success of this program depends on dedicated federal funding through a safety set-aside under the Surface Transportation Program. Over the past two reporting periods.

Supporting Text:

Report Status:

Reported By: Debra, Vermillion

Project Metrics

Question # 11 - List the projects obligated using RHGCP funds for the reporting period.

Response 1

Project Number	Location	USDOT Crossing Number	Project Type	Crossing Protection	Crossing Type	Total Project Cost	Funding Type	Before Crash Data (Years)	After Crash Data (Years)
STP 2011(374) FRS	DALLAM	275317C	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(374) FRS	DEAF SMITH	014743R	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(374) FRS	GRAY	014549X	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(374) FRS	MOORE	017050E	Active grade crossing equipment Installation/upgrade	Passive	At-Grade passive warning devices	246993	Section 130	5	1
STP 2011(374) FRS	SHERMAN	017083S	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	160753	Section 130	5	1
STP 2011(375) FRS	BOWIE	789590F	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	200000	Section 130	5	1

Online Reporting Tool

Railway - Highway Grade Crossing Program
Texas - 2011

Report Status:

Reported By: Debra, Vermillion

Project Metrics

STP 2011(375) FRS	BOWIE	789605T	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	200000	Section 130	5	1
STP 2011(375) FRS	CALDWELL	742689H	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	211000	Section 130	5	1
STP 2011(374) FRS	JEFFERSON	023730N	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	159620	Section 130	5	1
STP 2011(374) FRS	JEFFERSON	023731V	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	200000	Section 130	5	1
STP 2011(374) FRS	JEFFERSON	023732C	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	200000	Section 130	5	1
STP 2011(373) FRS	JEFFERSON	329523T	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(373) FRS	JEFFERSON	329527V	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(373) FRS	JEFFERSON	329529J	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(373) FRS	JEFFERSON	329556F	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	211000	Section 130	5	1

Online Reporting Tool

Railway - Highway Grade Crossing Program
Texas - 2011

Report Status:

Reported By: Debra, Vermillion

Project Metrics

STP 2011(373) FRS	JEFFERSON	329559B	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	JEFFERSON	762721D	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(374) FRS	LIBERTY	024386T	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	231680	Section 130	5	1
STP 2011(373) FRS	ORANGE	329472K	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	ORANGE	447490G	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	BRAZOS	743197F	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	BRAZOS	743207J	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	BRAZOS	743211Y	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	BRAZOS	743212F	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1

Online Reporting Tool

Railway - Highway Grade Crossing Program
Texas - 2011

Report Status:

Reported By: Debra, Vermillion

Project Metrics

STP 2011(375) FRS	BRAZOS	743215B	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	BRAZOS	745037Y	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(374) FRS	FREESTONE	597179F	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	168182	Section 130	5	1
STP 2011(374) FRS	GRIMES	597125A	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	187183	Section 130	5	1
STP 2011(375) FRS	LEON	432336P	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	LEON	432353F	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	LEON	432359W	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	LEON	432378B	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	LEON	432379H	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	211000	Section 130	5	1

Online Reporting Tool

Railway - Highway Grade Crossing Program
Texas - 2011

Report Status:

Reported By: Debra, Vermillion

Project Metrics

STP 2011(375) FRS	ROBERTSON	745227C	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	NUECES	427604M	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	180373	Section 130	5	1
STP 2011(375) FRS	SAN PATRICIO	435549K	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	197785	Section 130	5	1
STP 2011(375) FRS	KAUFMAN	794788Y	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	329710	Section 130	5	1
STP 2011(375) FRS	JOHNSON	416003X	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	TARRANT	794971E	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	TARRANT	795430F	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	BRAZORIA	435891X	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	211000	Section 130	5	1
STP 2011(374) FRS	HARRIS	023219R	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	261824	Section 130	5	1

Online Reporting Tool

Railway - Highway Grade Crossing Program
Texas - 2011

Report Status:

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Project Metrics

STP 2011(374) FRS	HARRIS	023226B	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	281858	Section 130	5	1
STP 2011(375) FRS	HARRIS	448400J	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(374) FRS	HARRIS	597084X	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	248056	Section 130	5	1
STP 2011(374) FRS	MONTGOMERY	024355U	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	217594	Section 130	5	1
STP 2011(375) FRS	MONTGOMERY	430087E	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	MONTGOMERY	435478R	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	MONTGOMERY	435479X	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	MONTGOMERY	755876D	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	MONTGOMERY	755899K	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1

Report Status:

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Project Metrics

STP 2011(375) FRS	LA SALLE	447854E	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	170037	Section 130	5	1
STP 2011(375) FRS	LA SALLE	448980C	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	177319	Section 130	5	1
STP 2011(375) FRS	WEBB	446694P	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	170049	Section 130	5	1
STP 2011(374) FRS	GARZA	015031T	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	419820	Section 130	5	1
STP 2011(374) FRS	Hale	017304S	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	221529	Section 130	5	1
STP 2011(374) FRS	HOCKLEY	014894F	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	3500	Section 130	5	1
STP 2011(374) FRS	PARMER	014841G	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	185761	Section 130	5	1
STP 2011(375) FRS	SHELBY	755249E	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	150000	Section 130	5	1
STP 2011(375) FRS	CAMERON	432658D	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	211000	Section 130	5	1

Report Status:

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Project Metrics

STP 2011(375) FRS	CAMERON	758592J	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	211000	Section 130	5	1
STP 2011(174) FRS	HIDALGO	432632B	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	211000	Section 130	5	1
STP 2011(174) FRS	HIDALGO	448851M	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	211000	Section 130	5	1
STP 2011(174) FRS	STARR	450294D	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	CHEROKEE	426599P	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	214779	Section 130	5	1
STP 2011(375) FRS	SMITH	426741R	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	200000	Section 130	5	1
STP 2011(375) FRS	SMITH	789803N	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	200000	Section 130	5	1
STP 2011(375) FRS	SMITH	789818D	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	232466	Section 130	5	1
STP 2011(375) FRS	VAN ZANDT	794722Y	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	174507	Section 130	5	1

Online Reporting Tool

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Project Metrics

STP 2011(374) FRS	BELL	024540N	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	272214	Section 130	5	1
STP 2011(374) FRS	CORYELL	024547L	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(374) FRS	CORYELL	024548T	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	211000	Section 130	5	1
STP 2011(375) FRS	FALLS	430273F	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	200412	Section 130	5	1
STP 2011(375) FRS	LIMESTONE	763680E	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	202244	Section 130	5	1
STP 2011(375) FRS	MCLENNAN	416101N	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	281493	Section 130	5	1
STP 2011(375) FRS	MCLENNAN	790615V	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	220874	Section 130	5	1
STP 2011(375) FRS	CALHOUN	435932A	Active grade crossing equipment Installation/upgrade	Active	At-grade active warning devices	293327	Section 130	5	1
STP 2011(375) FRS	VICTORIA	427518R	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	192191	Section 130	5	1

Report Status:

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Project Metrics

STP 2011(375) FRS	VICTORIA	435947P	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	189200	Section 130	5	1
STP 2011(375) FRS	VICTORIA	746515A	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	206159	Section 130	5	1
STP 2011(375) FRS	VICTORIA	746751E	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	150717	Section 130	5	1
STP 2011(375) FRS	VICTORIA	746754A	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	150680	Section 130	5	1
STP 2011(375) FRS	VICTORIA	748559G	Active grade crossing equipment Installation/upgrade	Passive	At-grade active warning devices	163705	Section 130	5	1
STP 2006(637) FRS	Ellis	765885E	Grade crossing elimination	Passive	At-grade active warning devices	170000	Section 130	5	1
STP 2006(637) FRS	Upshur	794676A	Grade crossing elimination	Passive	Grade-seperated RR over road	170000	Section 130	5	1
STP 2010(922) RGS	Bell	023182D	Grade crossing elimination	Passive	Grade-seperated RR over road	113000	Section 130	5	1
C 15-1-180	McLennan	416104J	Grade crossing elimination	Passive	Grade-seperated RR over road	113000	Section 130	5	1

Report Status:

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Project Metrics

STP 2010(903) RGS	Harris	859525U	Grade crossing elimination	Passive	Grade-seperated RR over road	100000	Section 130	5	1
STP 2010(903) RGS	Harris	859526B	Grade crossing elimination	Active	Grade-seperated RR over road	100000	Section 130	5	1
STP 2002(765) RGS	Liberty	450639W	Grade crossing elimination	Passive	Grade-seperated RR over road	113000	Section 130	5	1
STP 2008(858) FRS	Bosque	416103C	Grade crossing elimination	Passive	At-Grade passive warning devices	7500	Section 130	5	1
STP 2009(329) FRS	McLennan	023125P	Grade crossing elimination	Active	At-grade active warning devices	158000	Section 130	5	1

Supporting Text:

Question # 12 - Enter the crash data that is used to measure project effectiveness for both the before and after period.

Supporting Text:

Question # 13 - Describe any other aspects of the project metrics on which you would like to elaborate

Response 1- All projects completed during this report period (Q_FY 11), a total of 26 crossings reported crashes occurring within a 5-year period, prior to the signal upgrades.

The “Before” crash data reports a total of 26 crashes, involving 34 occupants, resulting in 7 fatalities and 14 injuries.

The “After” crash data at the crossings reporting “Before” crashes experienced a total of 4 crashes, involving 4 occupants with 2 injuries, resulting in 0 fatalities.

Supporting Text:

Online Reporting Tool

Railway - Highway Grade Crossing Program
Texas - 2011

Report Status:

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Optional Attachments:

Sections	Files Attached
General Program	RRD-FHWA FY11 Annual Report Narrative(08-20-2011).doc
Project Metrics	FHWA_Q11_upload.xls

APPENDIX

(E) Texas Operation Lifesaver:

Texas Operation Lifesaver is a non-profit organization committed to educating the public about safety at highway-rail grade crossings and on railroad rights-of-way in Texas. The program is sponsored through partnerships with the railroads, grants and corporate contributions. Since 1977, Texas Operation Lifesaver has been training volunteer Presenters and providing free rail safety education programs to the public. The presentations are group and age-appropriate, however they do have five target audiences: Driver education, professional drivers, school bus drivers, law enforcement and emergency responders. There are currently 230 Certified Presenters throughout the state who can make rail safety presentations to any type or size audience. Volunteer presenters represent business, educators, school bus trainers, railroad employees, law enforcement, first responders, retirees and government employees.

Texas Operation Lifesaver's three program components are:
1. ***Education*** **-** increasing public awareness of rail safety through education programs, printed materials, videos and public service announcements.
2. ***Engineering*** - endorsement of continuous safety improvements at crossings through design and technology.
3. ***Enforcement*** **-** encouraging active enforcement of existing laws regarding railroad crossings and trespassing on railroad property.

Texas Operation Lifesaver initiatives have included:
• *Rail Safety Education for schools near train tracks* - working with schools, especially in Houston, that are significantly impacted by train traffic to educate students, parents, and the general community regarding rail safety and the dangers of playing around trains and tracks.
• *Rail Safety Education Campaign in four counties affected by new Kansas City Southern (KCS) Line* – KCS is in the second year of operating on a new 85 mile long corridor between Rosenberg and Victoria and reintroducing train traffic through Fort Bend, Jackson, Wharton and Victoria counties. Texas Operation Lifesaver has worked with communities in these counties to educate drivers, students, first responders and law enforcement agencies about rail safety and enforcement.
• *Trespass Prevention* - The operation of All Terrain Vehicles (ATVs) along railroad right-of-ways is trespassing. It is dangerous and can cause erosion of the soil substructure of the rail line. Texas Operation Lifesaver is working with Union Pacific and law enforcement agencies between Houston and Arkansas along US Highway 59 to increase awareness and stop ATV trespassing along railroad right-of-ways. Other rail safety training sponsored by Texas Operation Lifesaver is Grade Crossing Collision Investigation (GCCI) for law enforcement officers and Rail Safety for Emergency Responders (RSER). Additional information about Texas Operation Lifesaver can be found on its website at www.**texasoperationlifesaver**.com or on the national program's website at www.oli.org.

APPENDIX

(F) Law Enforcement and Judicial Outreach:

TxDOT 402 Safety Projects: Law Enforcement and Judicial Training for Highway-Rail Grade Crossing Laws – Executive Summary

INTRODUCTION

The Texas Transportation Institute (TTI) performed two separate projects focused on educating law enforcement and judicial entities on laws governing highway-railroad grade crossings (grade crossings) and rail property trespassing (trespassing). The first year project, titled "Lack of Law Enforcement and Prosecution at Highway-Rail Grade Crossings," focused on municipal law enforcement and municipal judicial entities, while the second year project, titled "Continued Highway-Rail Grade Crossing Law Enforcement and Judicial Training," focused on County Sheriff's Departments and Justices of the Peace offices in Texas.

In addition to providing education material from Operation Lifesaver, Inc. (OLI) for review, the project also set out to gauge the understanding of the laws by these entities and their familiarity to possible changes to traffic control devices at grade crossings. The desire to improve the understanding of the laws comes from the identified Texas traffic safety strategy to educate law enforcement on highway-rail grade crossing laws, as a strategy to reduce the crashes at highway-rail grade crossings. These projects added the judicial community to the focus since issuing citations only works if commensurate punishment is also issued. Thus the relationship between the law enforcement and judicial communities for this topic is critical to improving safety at grade crossings.

PROJECT ACTIVITIES

Both projects achieved the following activities:

- Determined the target Judicial and Law Enforcement agencies;
- Purchased and distributed OLI videos and other materials to target entities within the State of Texas;
- Distributed and evaluated surveys regarding responses to the materials; and
- Identified gaps in existing training material.

Each of the activities is described below in more detail.

Selection Process

Each project focused on a different target audience and thus utilized separate selection processes.

First Year Project

TTI purchased 250 DVDs for this project, which were distributed to municipal law enforcement agencies and municipal courts. Because the five counties with the largest numbers of highway-rail grade crossing collisions had been previously targeted by a FY 2007 project undertaken by Texas OLI and TxDOT, the first year project focused on reaching out to smaller towns and rural areas along Texas' highest traffic density rail lines that were not in those counties. So, for this project police departments and municipal courts in 125 cities were chosen to receive program materials based upon the following criteria:

- the city was within two miles of a high density rail line,
- the city was not within the top five counties in Texas with the highest number of accidents in 2007,
- the county had two or more automobile-train crashes per year,
- the population of the city was less than 50,000, and
- the city has both a police department and a municipal court.

Second Year Project

This project did not restrict the possible counties for this project to distribute the 250 DVDs. The selection process included determining a set of criteria in which to compare Texas counties and develop an analysis that scored the counties based on the criteria. The selection criteria areas of interest selected for this project were:

- Counties with active rail lines;
- Number of grade crossings within the county;
- Number of accidents, both highway-rail and trespassing;
- County population; and
- Counties with the most significant rail activity, with miles of track used as the measure.

Counties that did not have an active rail line scored a zero (lowest possible score) in the analysis. The other criteria pinpointed the desire to send the educational materials to counties that have higher numbers of grade crossings, higher levels of incidents, higher population, and higher levels of rail activity.

The project team used a multi-criteria evaluation methodology to rank the counties. The final chosen weighting system was: 40 percent for the number of grade crossings located in the county, 20 percent for number of grade crossing incidents in the county, 20 percent for the number of trespassing casualties in the county, 10 percent for the county population, and 10 percent for the miles of track within the county.

Based on the selection analysis 249 entities (34 law enforcement agencies and 215 judicial agencies) received the educational materials for review and were asked to complete the survey pertaining to those materials.

Content of Materials Distributed

For both projects the content involved both a video developed by OLI and two additional materials. All the materials are described below.

Videos

- **Roll Call: Highway-Rail Grade Crossing Safety** – This video targets law enforcement and takes a quick look at the life and death reasons why it's important for law enforcement agencies to enforce the laws governing highway-rail crossings. Some specific items included within the video are:
- - Reasons for enforcement,
  - Types of warning devices at highway-rail grade crossings,
  - Laws and civil rulings,
  - Enforcement tools, such as locations to park and officer on train,
  - Trespass dangers,
  - Collision investigation,
  - How to stop a train, and
  - Addressing malfunctioning active warning signals.

- **It's Your Call: Increasing Judicial Awareness of Highway-Rail Safety** – This video is designed to increase judicial awareness of their crucial role in reducing tragic incidents at highway-rail crossings and along rail rights-of-way. Some specific items included within the video are:
- - Significance of trespassing and vandalism,
  - Seriousness of collisions,
  - Decisions that may not deter future actions, and
  - Should be seen as reckless driving behavior.

Other Materials

- **Railroad Trespassing** – This ticket jacket contains specific safety issues and tips related to trespassing on railroad property. The jackets were provided by the Federal Railroad Administration (FRA).
- **Law Enforcement Railroad Safety Pocket Guide** – This small pamphlet provides specific Texas Penal Codes related to violations at highway-rail grade crossings and trespassing. This pocket guide was produced by Texas OLI during the previous TxDOT-OLI project mentioned earlier in this summary.

SURVEY AND SURVEY RESULTS

The survey instruments created for both projects were very similar, with one survey instrument for the judicial entities and one for the law enforcement entities. The surveys set out to evaluate the knowledge and enforcement likelihood of each surveyed entity; the effectiveness of the training materials; and the comprehensiveness of the material content.

First Year Project

The first year project distributed 125 law enforcement and 121 judicial surveys, with the response rates equaling 22 percent and 16 percent, respectively. Generally both law enforcement and judiciary respondents found the training materials helpful although most already knew and were enforcing existing highway-rail grade crossing laws. Levels of enforcement of grade crossing laws varied greatly, as can be seen from the response of law enforcement to Question 11 of the survey:

11. Before receiving these materials, how likely were you to issue a ticket related to highway-rail grade crossings or rail trespassing?

    8 responded (5) consistently enforced the laws regarding highway-rail crossings and trespassing
    5 responded (4) selectively enforced the laws regarding highway-rail crossings and trespassing
    6 responded (3) sometimes enforced the laws regarding highway-rail crossings and trespassing
    6 responded (2) rarely enforced the laws regarding highway-rail crossings and trespassing
    2 responded (1) never enforced the laws regarding highway-rail crossings and trespassing

12. After watching the video, how likely are you to issue a ticket for these violations?

    14 responded (5) will consistently enforce the laws regarding highway-rail crossings and trespassing
    6 responded (4) will selectively enforce the laws regarding highway-rail crossings and trespassing
    0 responded (3) will sometimes enforce the laws regarding highway-rail crossings and trespassing
    2 responded (2) will rarely enforce the laws regarding highway-rail crossings and trespassing
    2 responded (1) will never enforce the laws regarding highway-rail crossings and trespassing
    2 responded N/A

The responses to Question 12 seem to indicate that viewing the DVD and other training materials did have an effect on the respondents in stressing the importance of enforcing these laws. Law enforcement was also approximately evenly split with 14 yes and 12 no when asked if they had seen OLI or grade crossing safety materials before.

Judiciary responses indicated a higher awareness of the laws and regular enforcement of them by the responding judges. When asked if they had seen OLI materials, more of the judges replied that they had not. Only two responded that they had while 15 responded that they had not and 17 responses stated that they had never seen OLI videos specifically but that they had seen similar material from the Emergency Medical Services community. Fourteen of the responding judges stated that they thought grade crossing safety should be included in information and training materials for newly elected judges or newly hired police officers.

Second Year Project

The second year project distributed 249 surveys (34 law enforcement agencies and 215 judicial agencies), with the response rates equaling 20 percent and 11 percent, respectively.

Law Enforcement Agencies

Some of the law enforcement survey results included:

- All of the responding agencies indicated that in an average year they do not write any citations for grade crossing or trespassing violations;
- Six out of the seven indicated that they feel grade crossing safety and trespassing are important safety issues for their communities;
- Before reviewing the educational material five respondents indicated they were somewhat familiar with the rules and regulations, one indicated they were aware, and one indicated they knew the rules and regulations and used their judgment to selectively enforce them;
- None of the seven respondents indicated that they consistently enforced the laws regarding grade crossings and trespassing. The responses were distributed from selectively enforced to never enforced the laws;
- After reviewing the material, the responses shifted more toward enforcing the laws, with one indicating consistent enforcement, four indicating selective enforcement, one indicating occasional enforcement, and one indicating rare enforcement;
- All of the respondents felt the video thoroughly explained the topic; and
- No additional topics were recommended for inclusion in future versions of the video or materials.

Judicial Agencies

Below are some of the findings from the survey of the judicial community.

- Responses to the number of average number of grade crossing or trespassing citations per year ranged as follows: zero (6 responses), less than/equal to five (9 responses), six to ten (1 response), and greater than ten (3 responses)
- Eight respondents indicated they did not feel grade crossing and trespassing are recognized as important safety issues in their jurisdiction, while sixteen responded they felt they were important issues.
- The judicial community indicated a fairly good understanding of grade crossing and trespassing rules and regulations prior to viewing the educational material.
- The responses to upholding grade crossing and trespassing violations, both prior to and after watching the video, indicate a firm commitment to consistently uphold violations.
- All twenty-five respondents indicated the video thoroughly explained the topic.

Gap Analysis

Based on the surveys received as part of this project, both the law enforcement and judicial respondents did not feel that the videos and other materials lacked coverage of any major topics. There were a few comments received within the surveys that help identify several information gaps. These comments, along with a project team investigation of the provided material, statistics, and grade crossing and trespassing documents, provide the basis for the gap analysis. The gaps identified include:

- Inclusion of prosecutors, not just the judges – It was indicated that prosecutor action may keep the citation from reaching the judge;
- State-specific state laws; and
- Additional hard-copy versions of the video material, such as wall posters for placement at law enforcement agencies.

The gap analysis also provided some thoughts on future training opportunities for specific entities and other beneficial materials. Below are some ideas that surfaced from this project.

- Educational material for prosecutors on the topic, as indicated above.
- Several Justices of the Peace indicated they may choose education over another form of punishment. Material focused on violators of both highway-grade crossing and railroad property trespassing would be necessary for this purpose.
- Additionally, it was indicated that a poster that could be placed in a waiting room would provide educational material for those waiting. This poster could be placed in any of a number of locations, such as place for vehicle registrations, driver's license, or courts.

SURVEY CONCLUSIONS

The two projects, combined, provided education materials that focused on highway-rail grade crossing safety to almost 500 law enforcement and judicial entities in the state of Texas. Although the response rate was not overwhelming for either law enforcement or judicial agencies, providing each type of entity with the education material allows them to disseminate the information readily when necessary or desired.

Findings from the surveys indicate that:

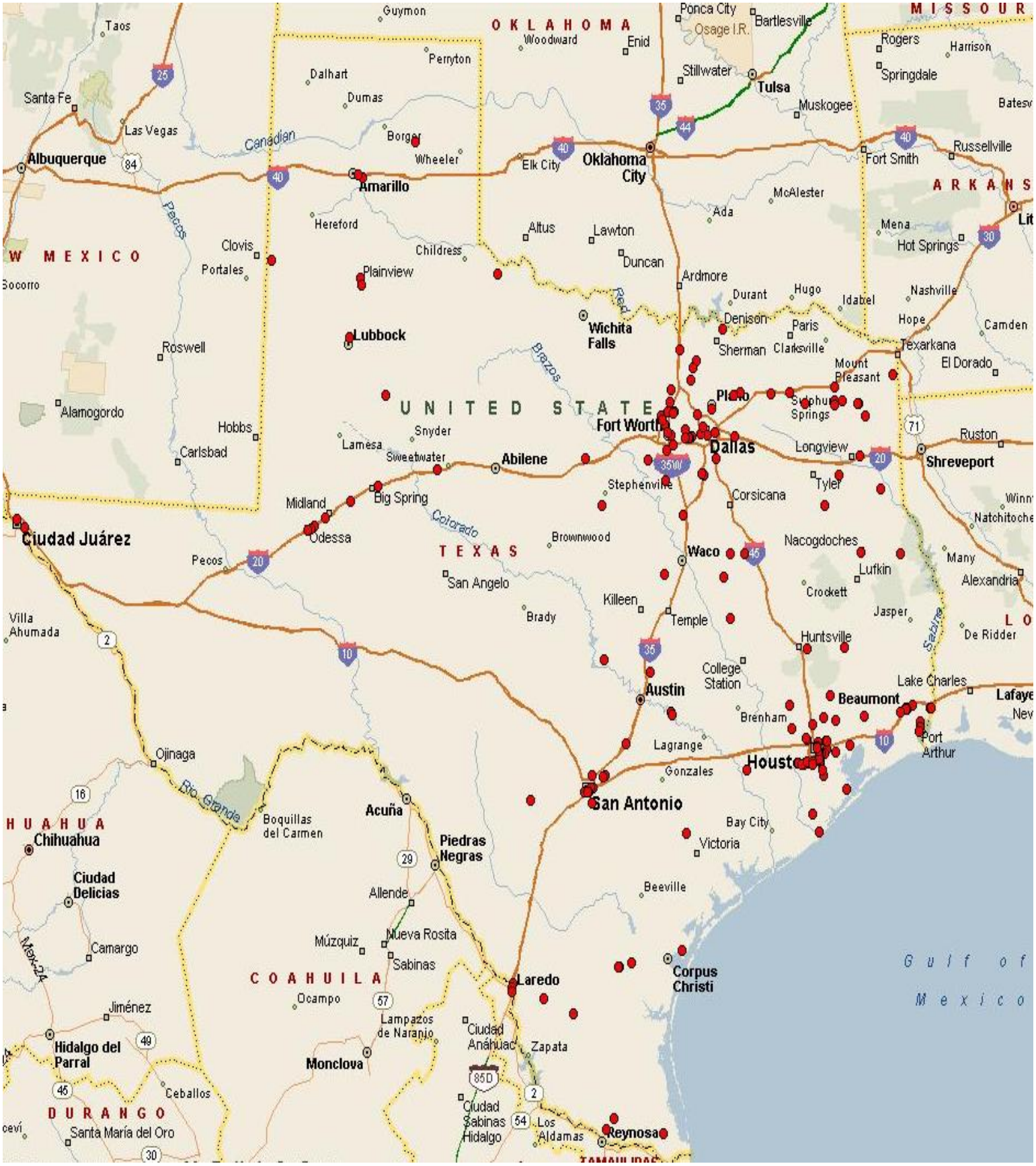
- Very few grade crossing or rail property trespassing violations are routinely handled in the areas surveyed;
- Both agency groups generally knew the laws prior to reviewing the materials;
- Both agency groups indicated a willingness to consistently enforce the laws and uphold violation after viewing the videos;
- Both agency groups felt the videos thoroughly explained the topic; and
- Both believed new hires in both law enforcement and judicial roles should be exposed to the videos or information contained in the videos.

Some additional resources suggested for development by the survey respondents include focused material for prosecutors (may not make it to judge), material specific for violators of these infractions (review could be used as punishment), and waiting room posters.

APPENDIX

(G) Maps

Multi Crash Locations for Texas



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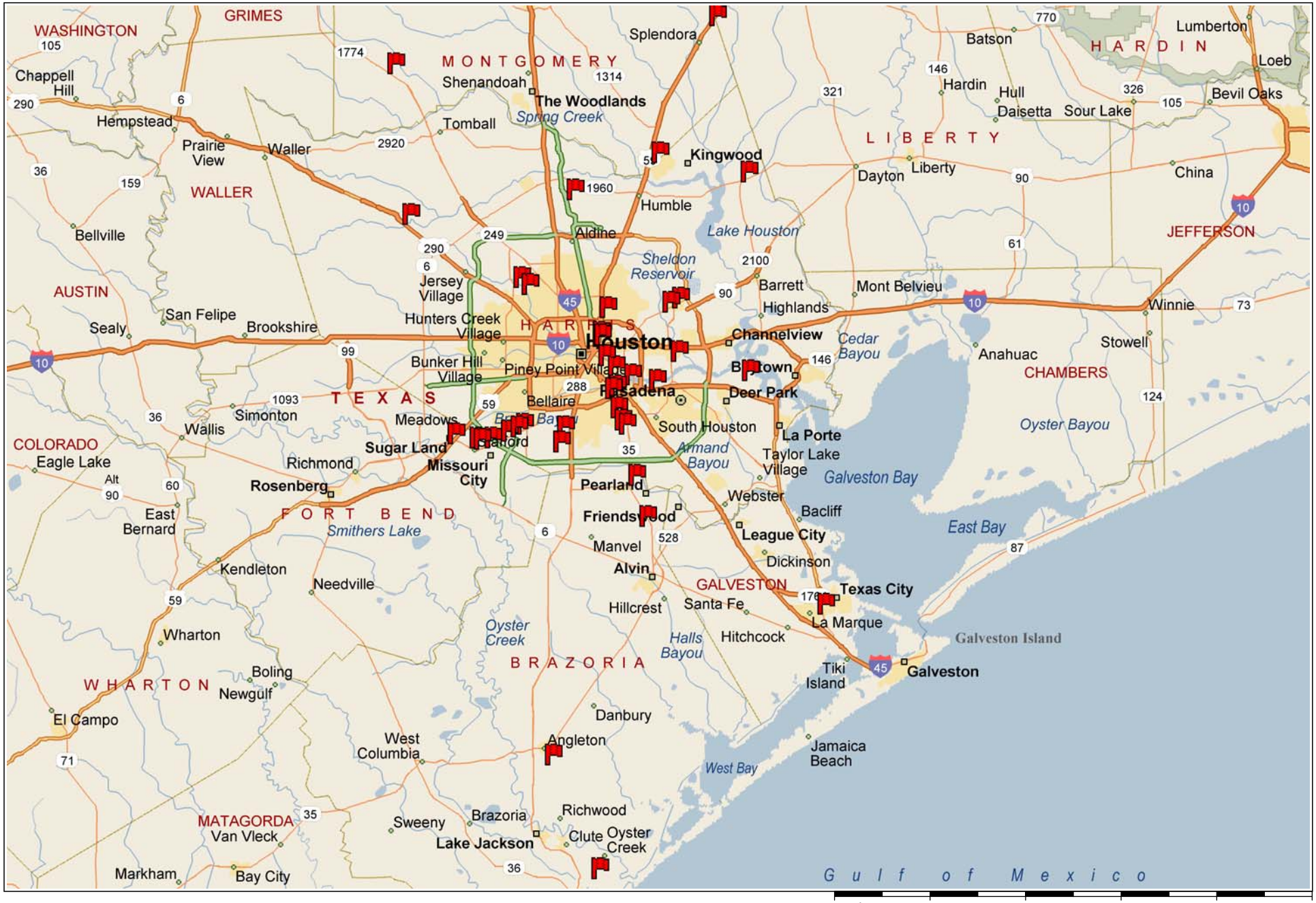
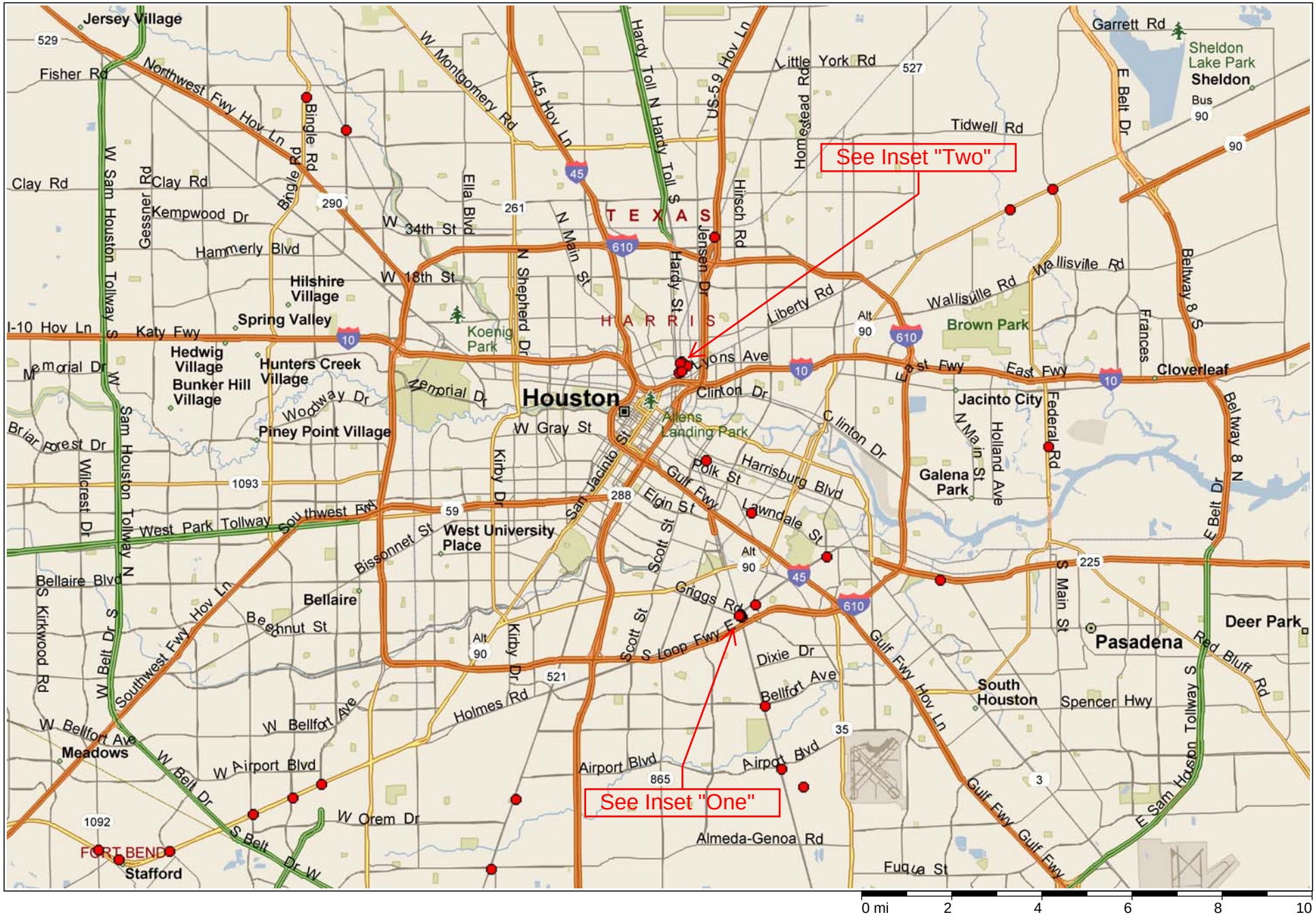
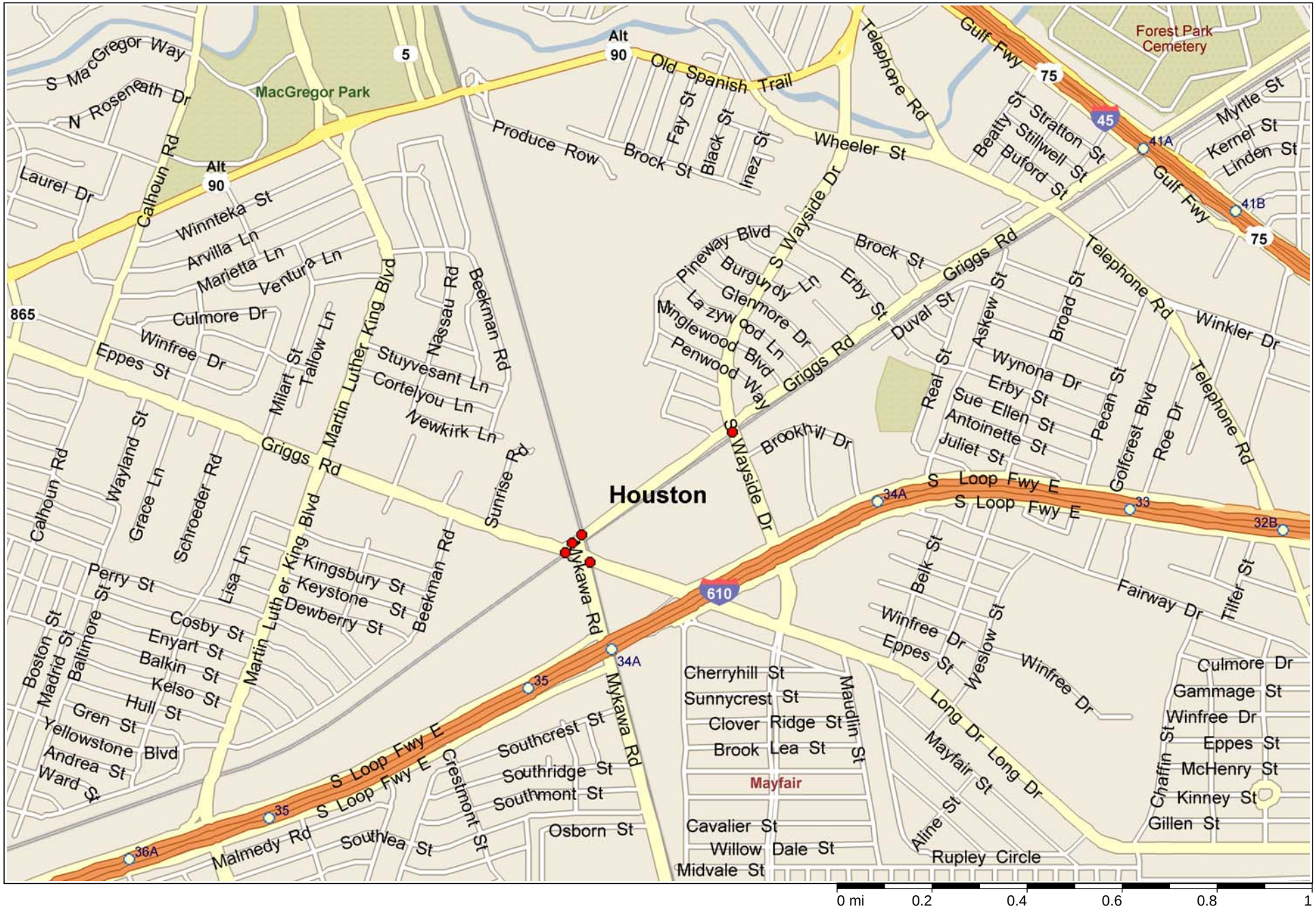


0 mi 10 20 30 40 50

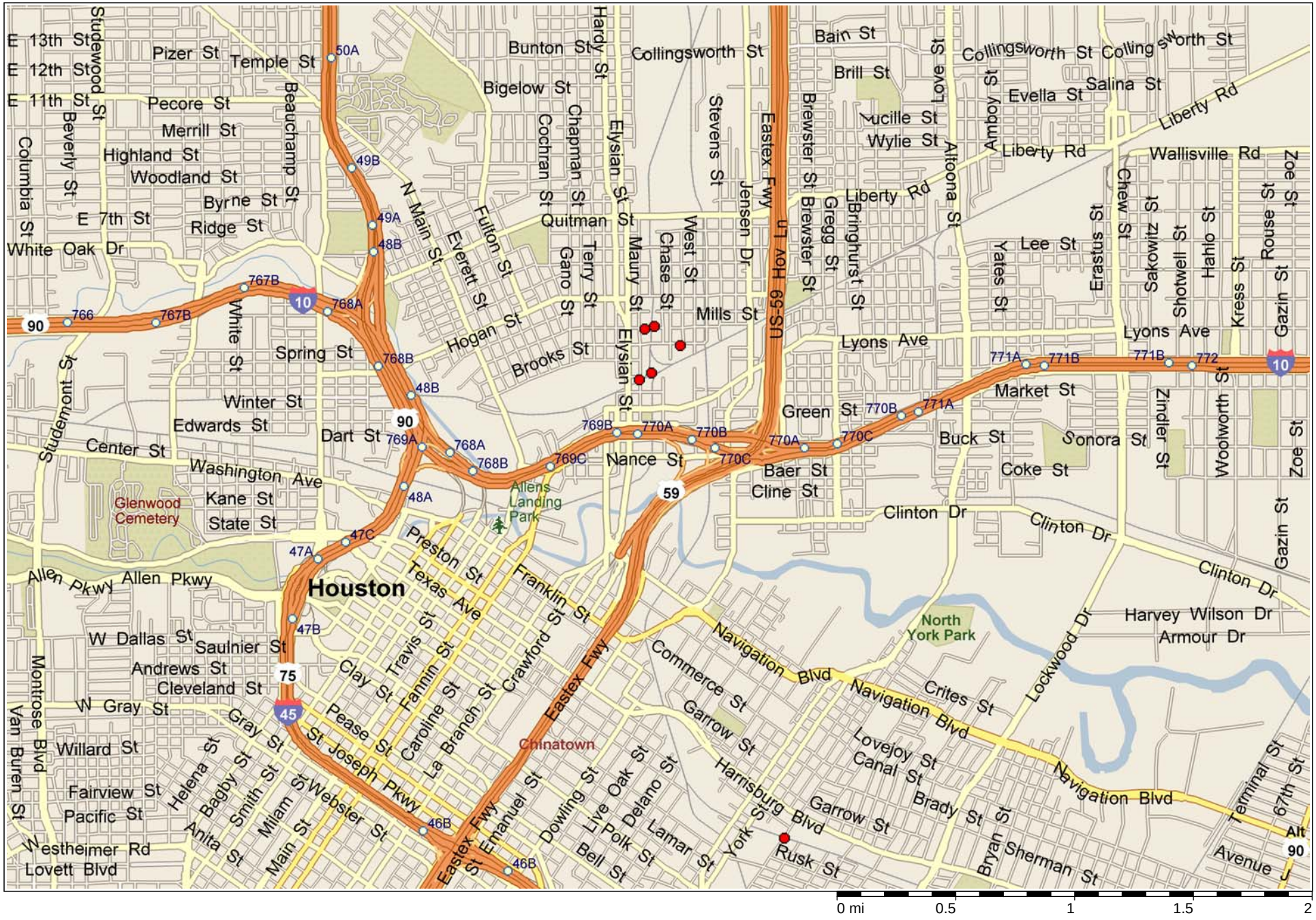
Multi Crash Locations for Harris County



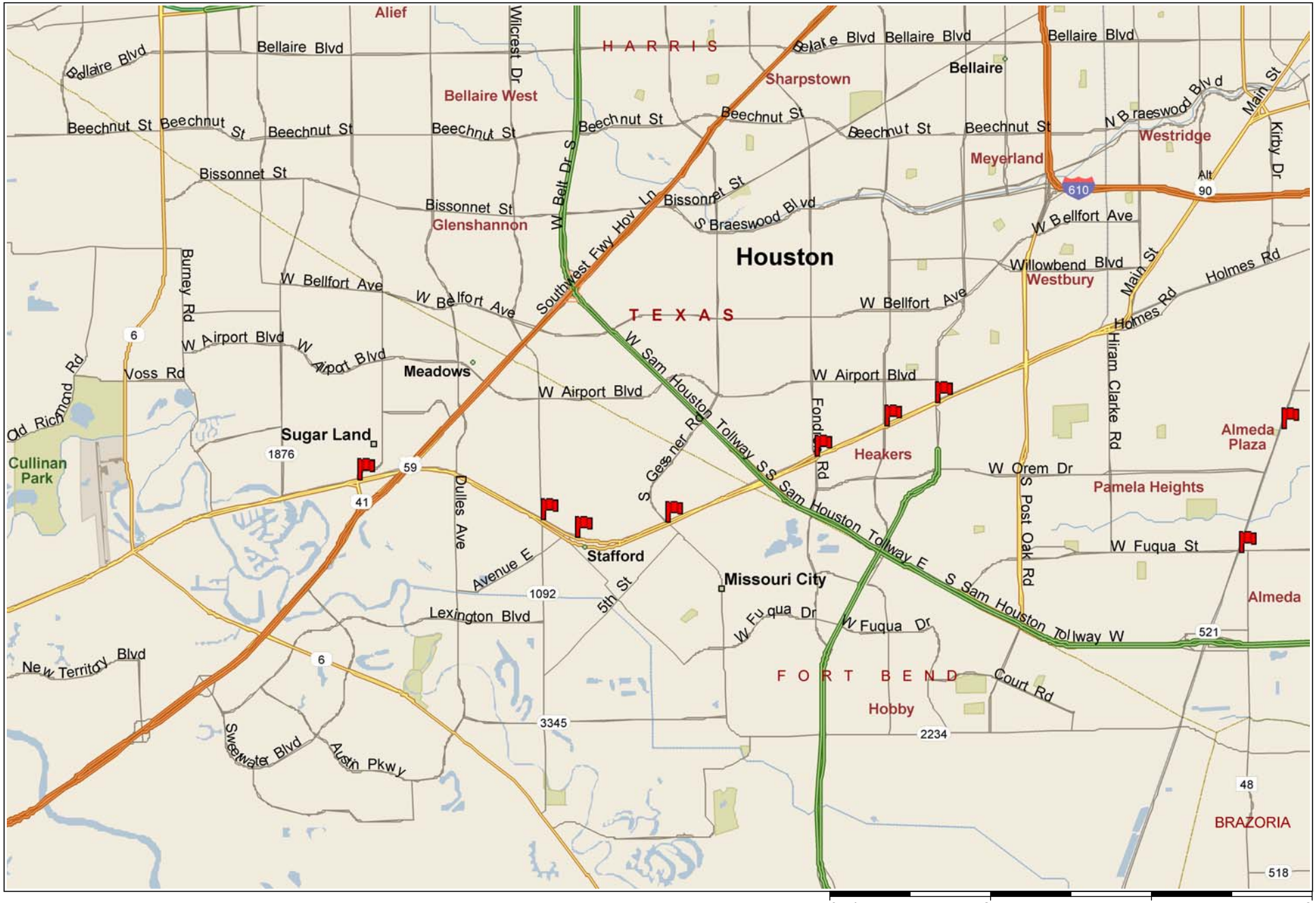
Multi Crash Locations for Harris Co. -"Inset One"



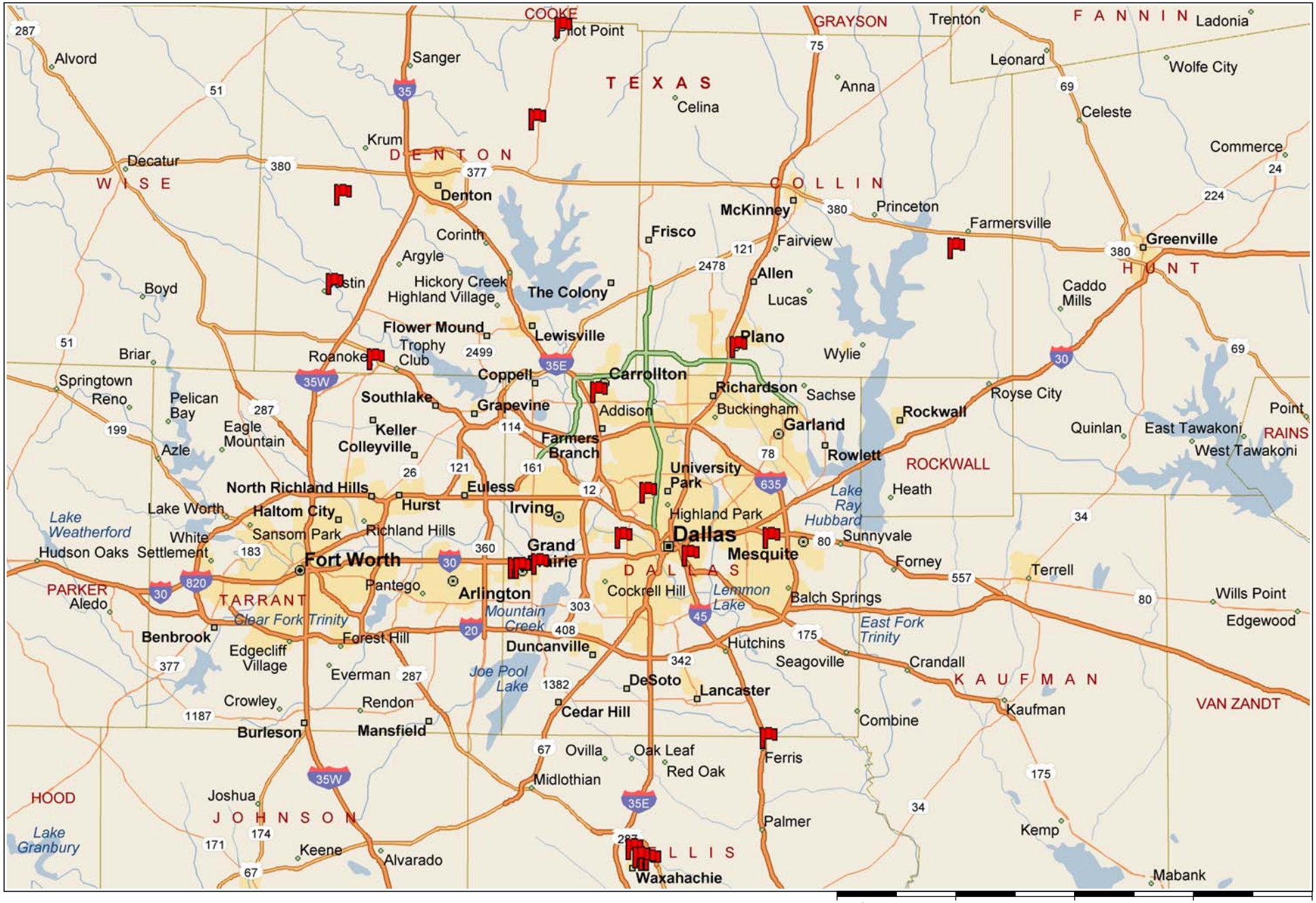
Multi Crash Locations for Harris Co - "Inset Two"



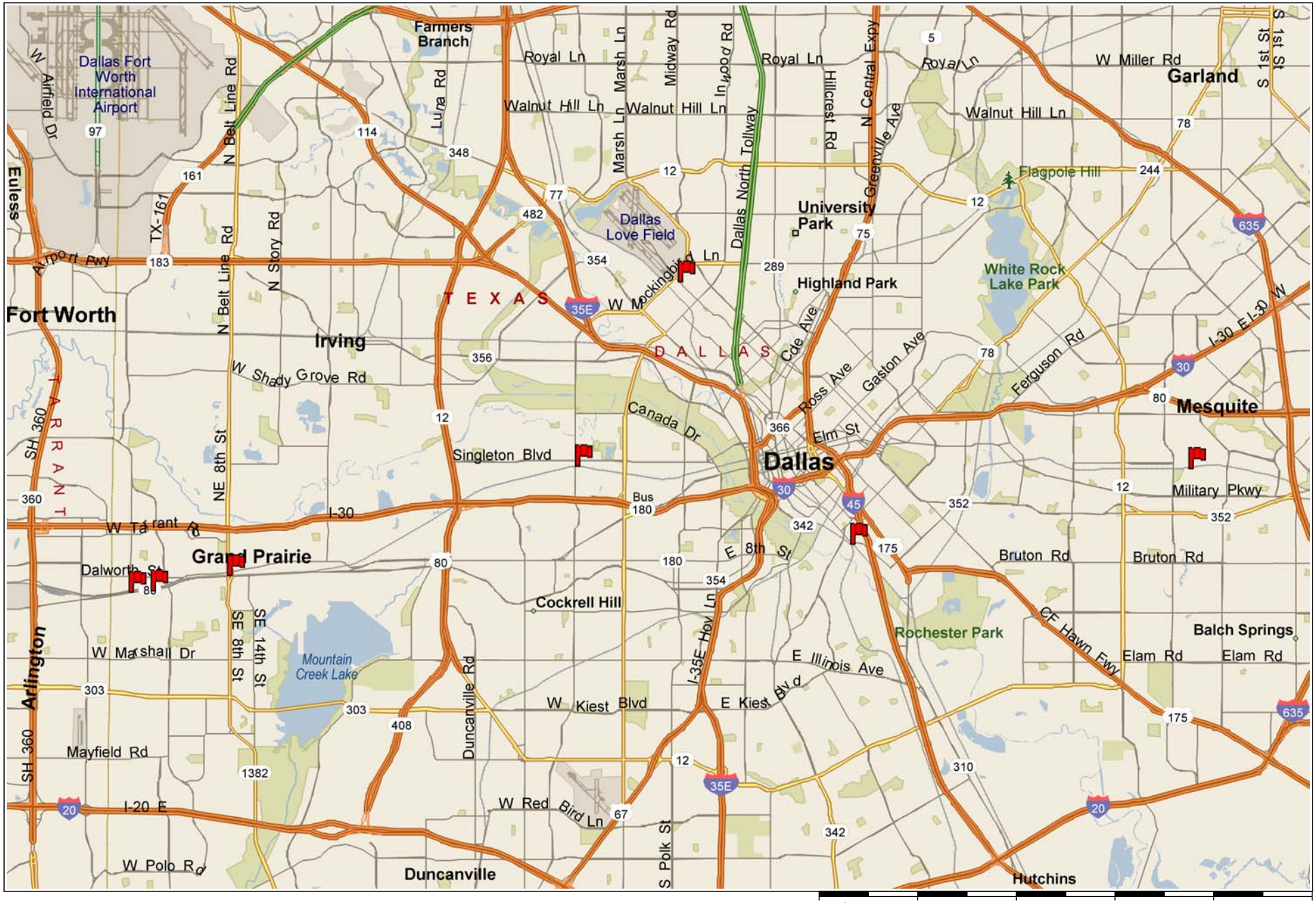
Fort Bend Co. (Inset)



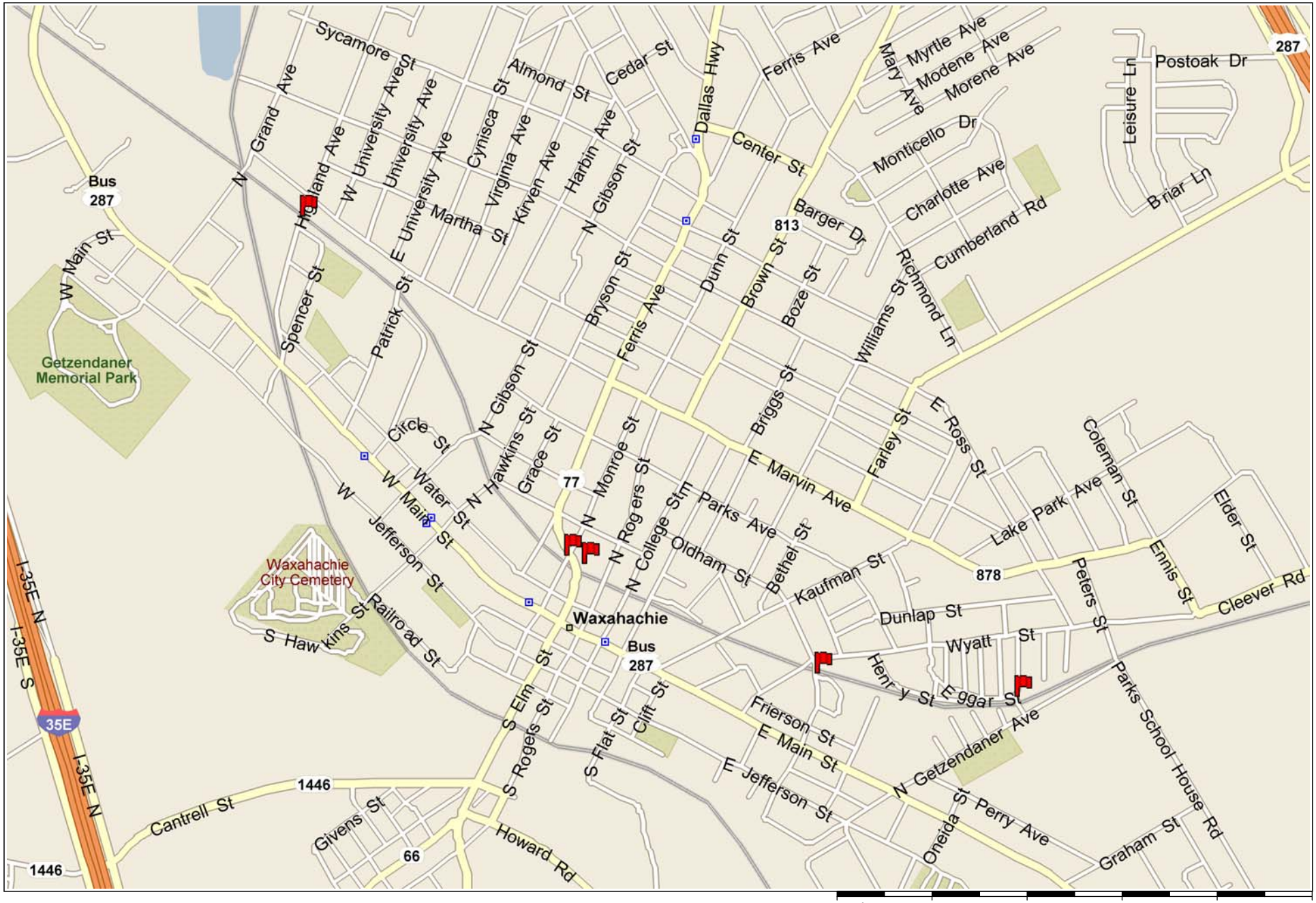
Dallas District



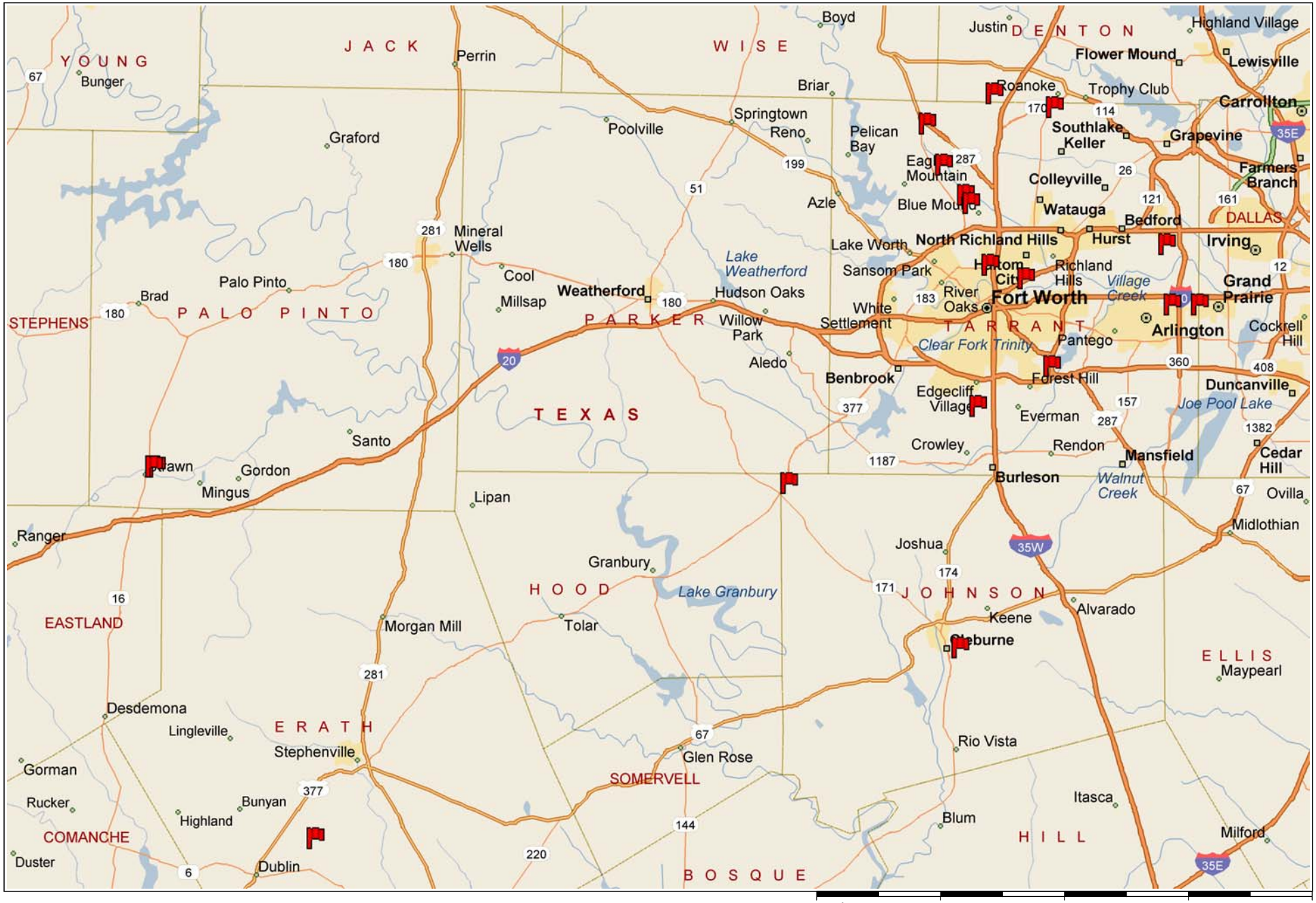
Dallas Co. (Inset)



Waxahachie (Inset)



Forth Worth District



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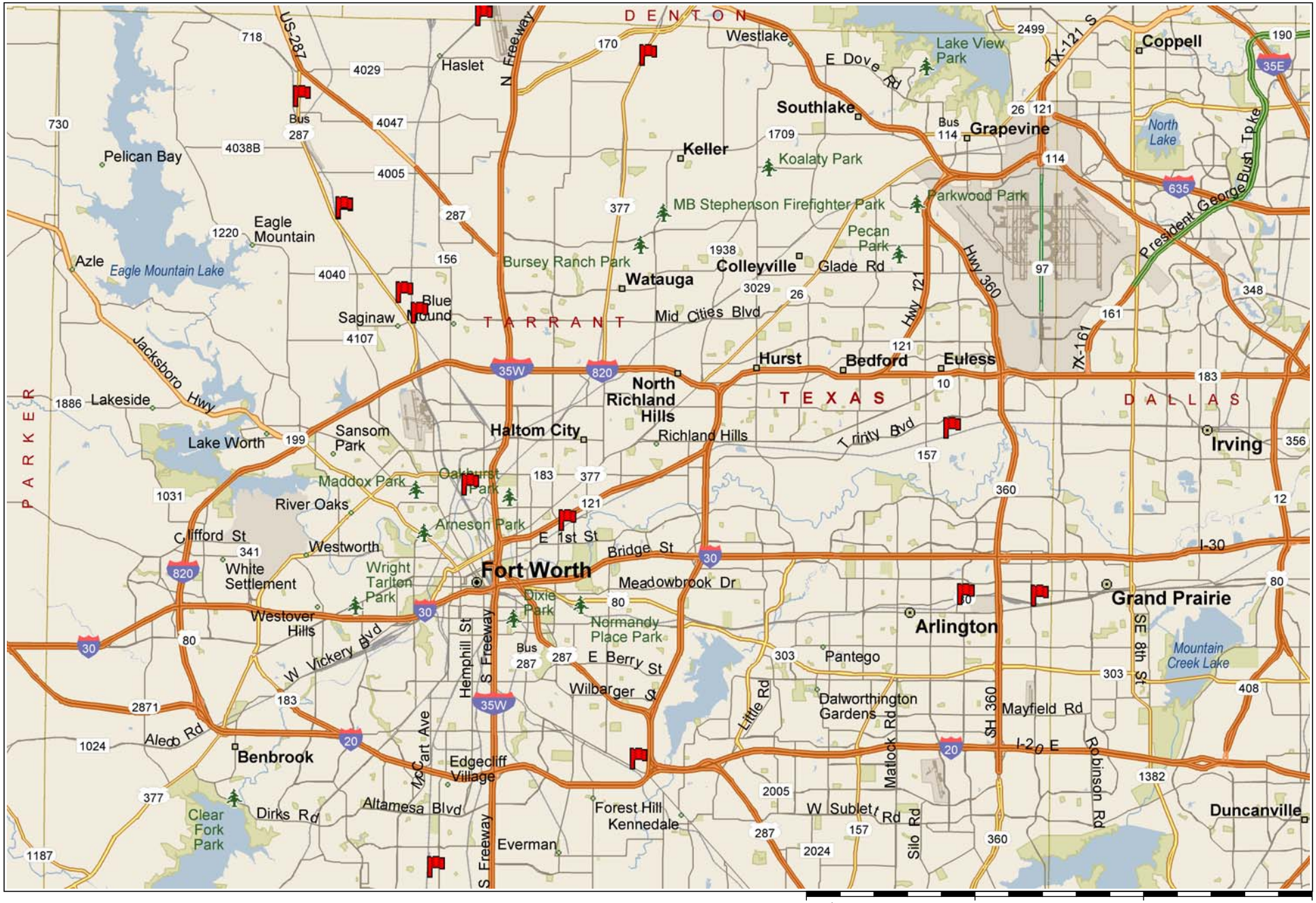

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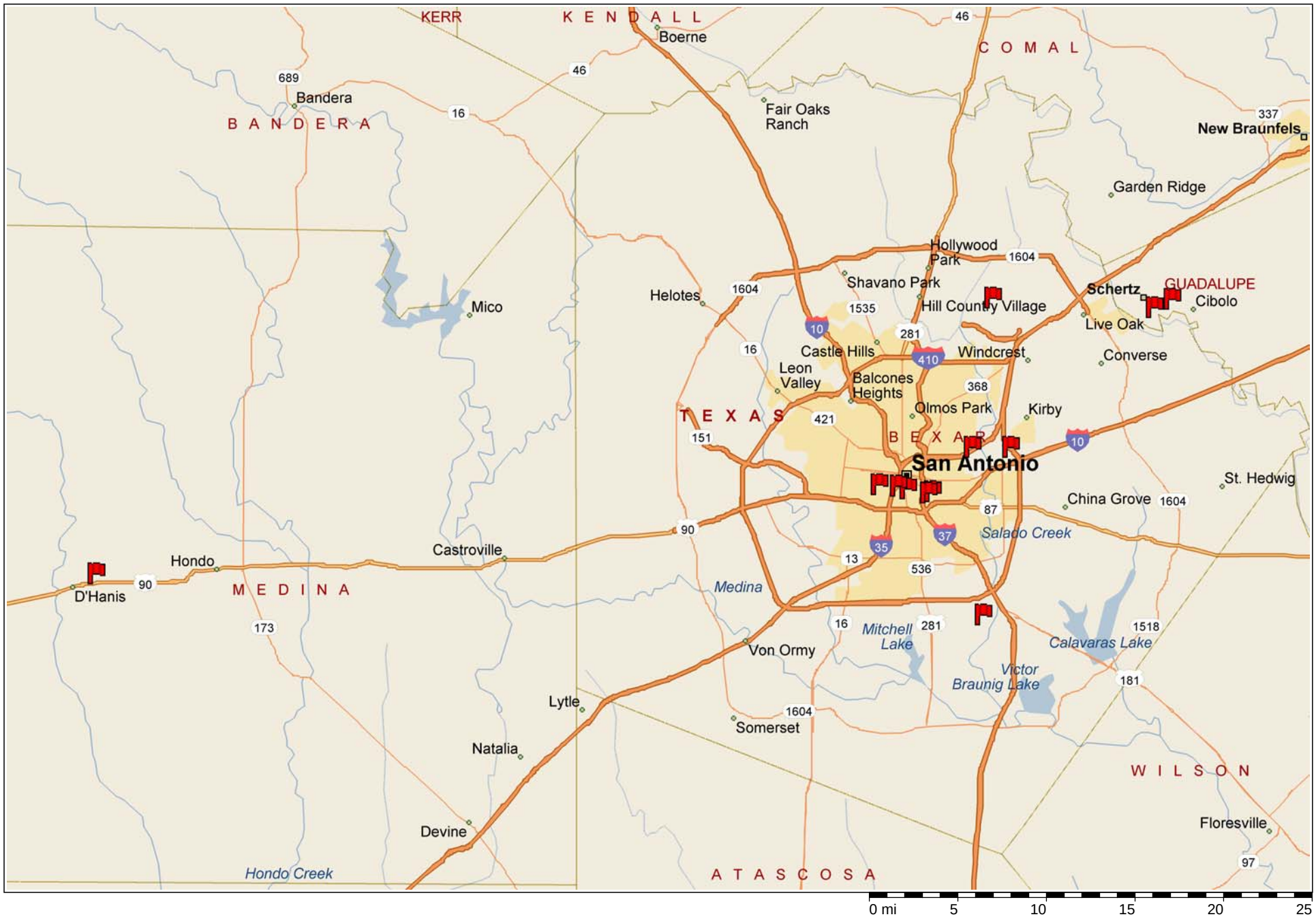
San Antonio District



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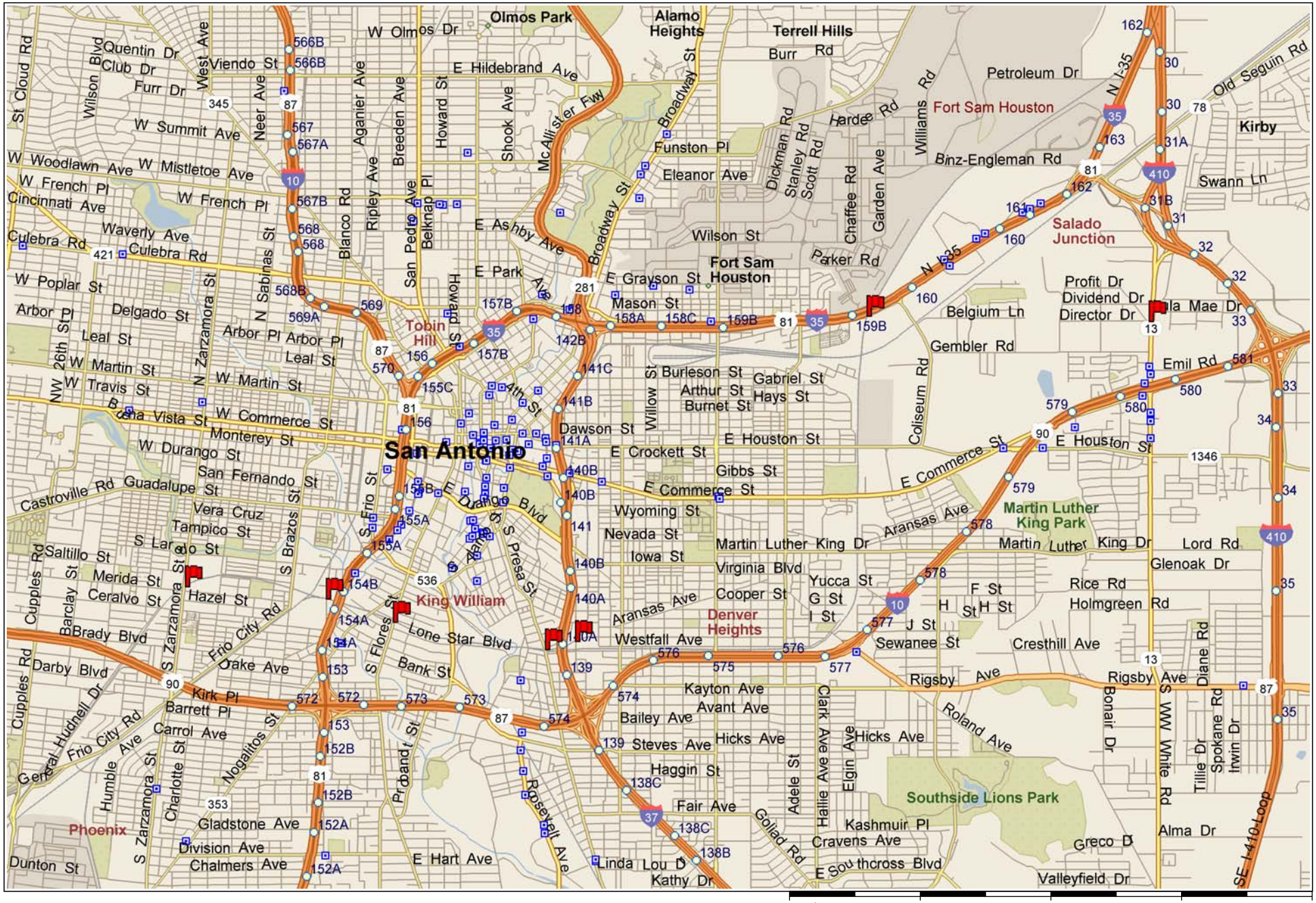
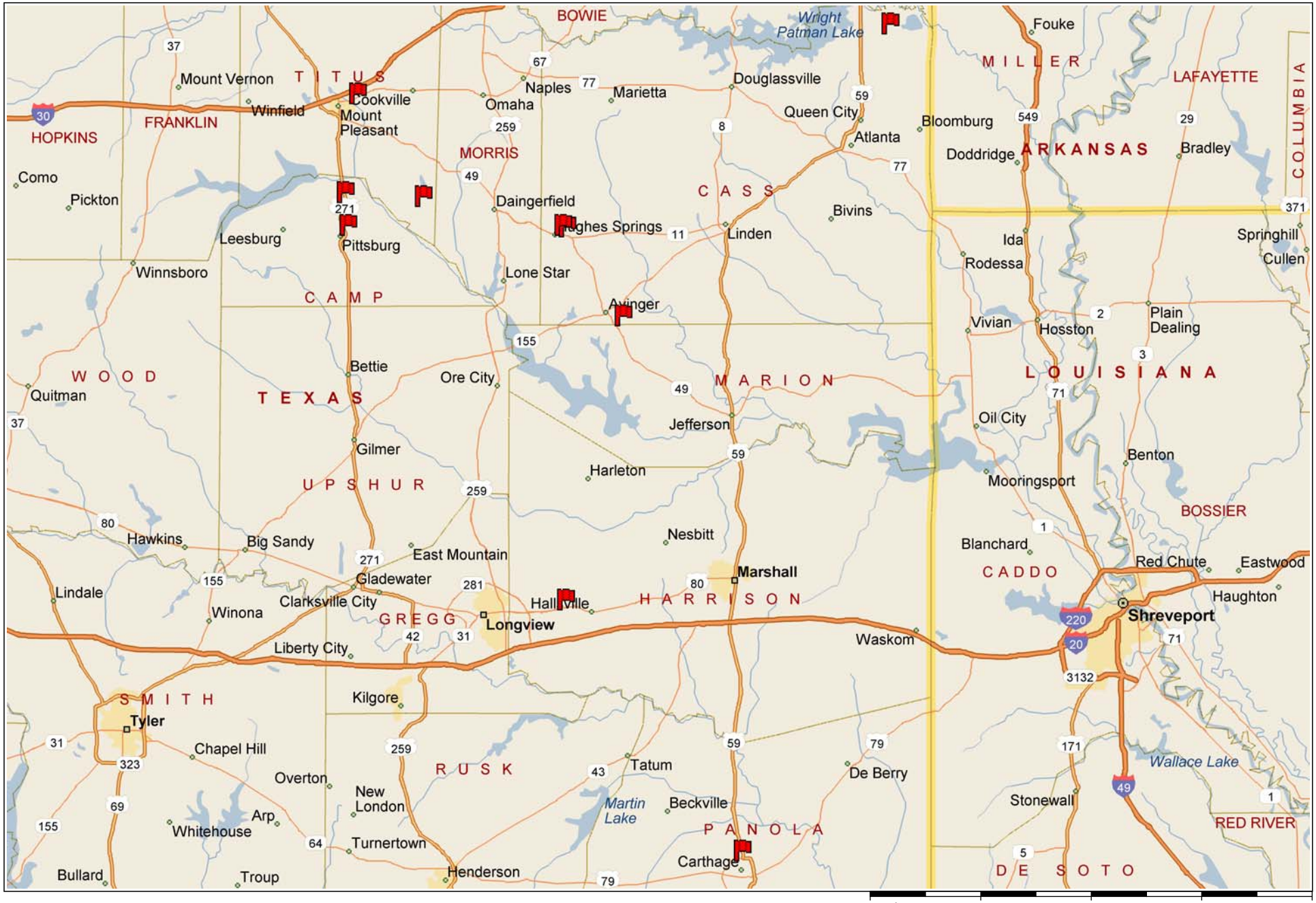


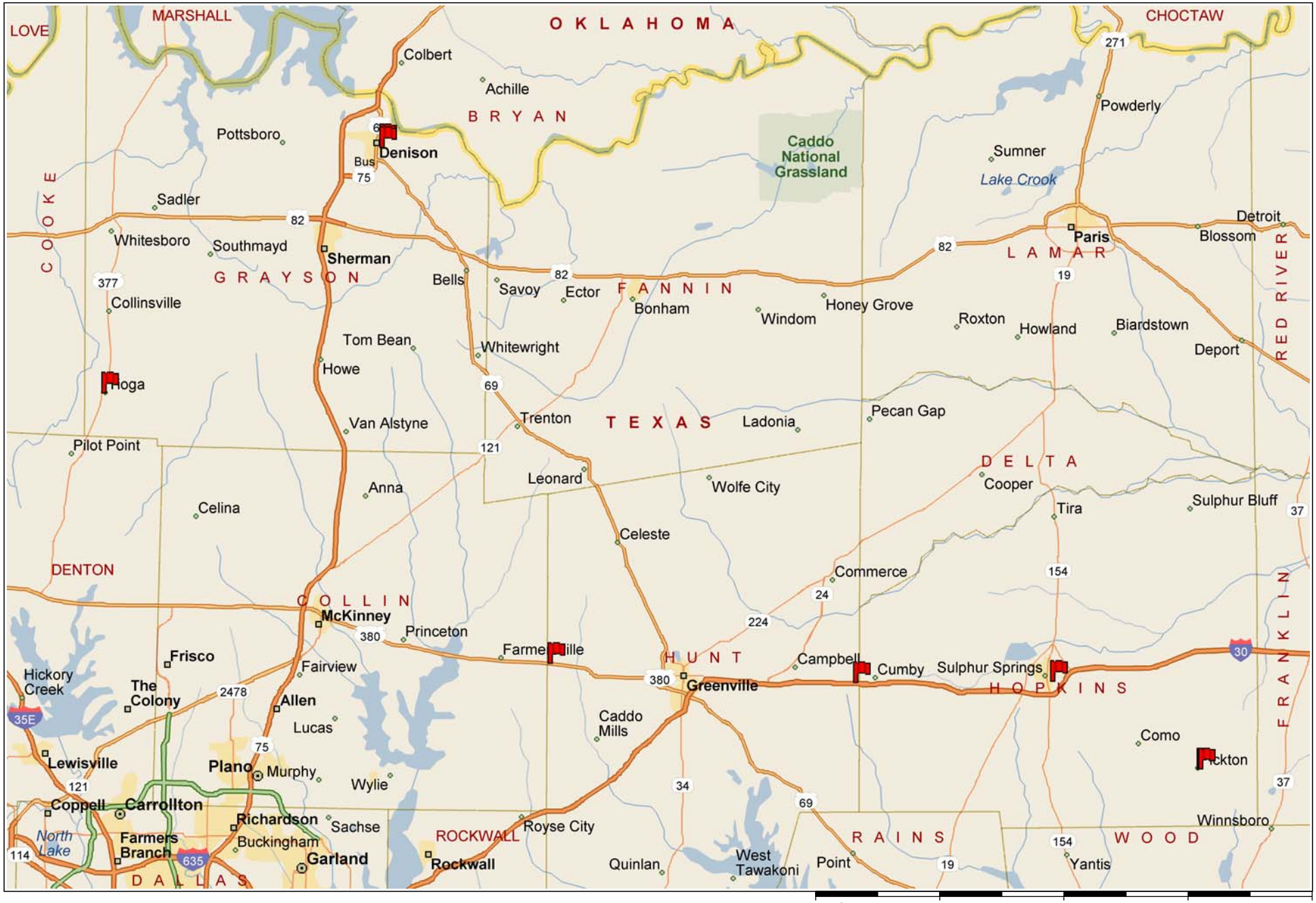
Beaumont District

Port Arthur (Inset)

Atlanta District



Paris District



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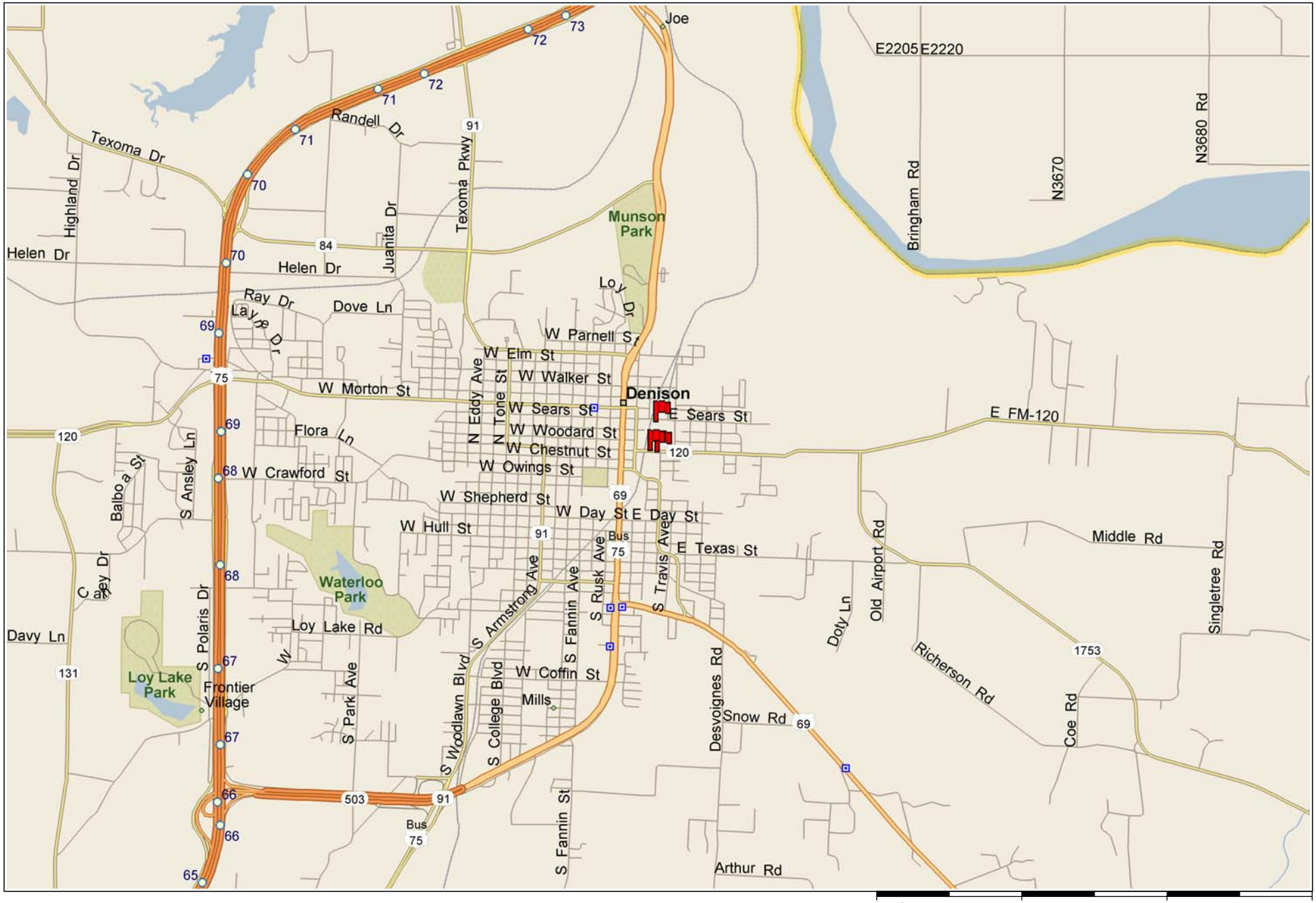

APPENDIX

(H) Status of Safety Projects at Multiple Collision Crossing Locations

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Status of Safety Projects at Multiple Incident Crossing Locations

Obs	COUNTY	GXID	DATE	HIGHWAY	CITY	DEVICE	RR	
1	BEXAR	415618L	6/14/2005, 2/27/2009	TEJASCO DRIVE	SAN ANTONIO	Cantilever Lights and No Gates	UP	2010 FSP
2	BEXAR	415624P	5/28/2005, 1/12/2007	IH 35 FRONTAGE ROAD	SAN ANTONIO	Gates and Flashing Lights	UP	Existing Gates; 2010 FSP
3	BEXAR	764270J	10/27/2005, 11/30/2006, 1/9/2007	CENTER ROAD	SAN ANTONIO	Crossbucks and flagging	UP	Gates Installed 1/08
4	BEXAR	764292J	9/17/2006, 6/8/2007, 10/7/2008	HOEFGEN STREET	SAN ANTONIO	Gates and Flashing Lights	UP	Existing Gates; 2010 FSP
5	BEXAR	764298A	8/26/2006, 3/14/2009, 11/1/2009	LP 0536; PROBANDT RD	SAN ANTONIO	Gates and Flashing Lights	ATK	Existing Gates; 2010 FSP
6	BEXAR	764302M	11/13/2005, 3/18/2007	S. SAN MARCOS STREET	SAN ANTONIO	Gates and Flashing Lights	UP	Existing Gates; 2010 FSP
7	BEXAR	764304B	5/23/2009, 8/24/2009	SAN JACINTO ST	SAN ANTONIO	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
8	BEXAR	764305H	3/6/2005, 6/28/2006, 2/11/2007, 1/1/2008	ZARZAMORA STREET	SAN ANTONIO	Gates and Flashing Lights	UP	Existing Gates; 2010 FSP
9	BEXAR	764362W	6/29/2007, 1/17/2008	RITTMAN RD		Gates	ATK	To be reviewed under 2012 FSP
10	BOWIE	789573P	2/23/2009, 7/11/2009	LAKE STREET	TEXARKANA	Cantilever Lights and No Gates	UP	Closed
11	BRAZORIA	023201F	4/23/2005, 5/5/2007	COUNTY ROAD 128	ALVIN	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
12	BRAZORIA	023204B	11/27/2005, 5/17/2006, 12/2/2006	BROADWAY ST	PEARLAND	Standard Fl	BNSF	Gates Installed; not FSP
13	BRAZORIA	448606J	4/28/2005, 11/10/2007	SH 228	ANGLETON	Cantilever Lights and No Gates	UP	Grade Separation
14	BRAZORIA	448675S	1/3/2005, 11/20/2006	FM 523/VELASCO BLVD	FREEPORT	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
15	BRAZOS	743215B	10/31/2007, 4/12/2008	GEO. BUSH FM 2347	COLLEGE STATION	Gates and Flashing Lights	UP	Existing Gates; 2010 FSP
16	BURNET	745259H	6/29/2006, 5/24/2007, 5/6/2009	HWY 281		Cantilever Fl Only	AUAR	Active Project
17	CASS	331471D	9/9/2005, 10/7/2005	POWER PLANT ROAD	AVINGER	Crossbucks only	KCS	Gates Installed 9/10
18	CASS	331484E	7/20/2005, 7/11/2006	PINE STREET	HUGHES SPRINGS	Crossbucks only	KCS	Gates Installed 2/09
19	CASS	331487A	5/23/2006, 11/1/2006	FM 250	HUGHES SPRINGS	Gates and Flashing Lights	KCS	To be reviewed under 2012 FSP
20	CHAMBERS	762810V	9/30/2005, 12/8/2006	FM 565	BAYTOWN	Cantilever Lights and No Gates	UP	Spur Track

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Status of Safety Projects at Multiple Incident Crossing Locations

21	CHEROKEE	426599P	4/23/2006, 5/17/2008	CR 3304	JACKSONVILLE	Crossbucks only	UP	2010 FSP
22	CHEROKEE	426623N	12/24/2005, 3/30/2006	FM 2750	TROUP	Cantilever Lights and No Gates	UP	Gates Installed 7/08
23	COLLIN	022122R	5/27/2005, 12/6/2005	CR 605	FARMERSVILLE	Crossbucks only	KCS	Gates Installed; not FSP
24	COLORADO	743818Y	7/10/2006, 7/24/2007	FM 3013	EAGLE LAKE	Gates and Flashing Lights	UP	Existing Gates; 2010 FSP
25	DALLAS	597759W	5/18/2007, 7/18/2009	MARKET CTR BLVD	DALLAS	Gates and Flashing Lights	BNSF	To be reviewed under 2012 FSP
26	DALLAS	763660T	6/21/2007, 10/12/2007	LENWAY STREET	DALLAS	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
27	DALLAS	794832J	3/22/2005, 6/11/2006, 2/24/2007	SAM HOUSTON ROAD	DALLAS	Gates and Flashing Lights	UP	Existing Gates; 2010 FSP
28	DALLAS	794926K	1/2/2005, 8/5/2005, 4/6/2006, 7/24/2009, 12/3/2009	WESTMORELAND ROAD	DALLAS	Gates and Flashing Lights	UP	Existing Gates; 2010 FSP
29	DALLAS	794955V	9/5/2008, 10/17/2009	SW 2ND STREET	GRAND PRAIRIE	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
30	DALLAS	795462L	3/13/2005, 9/28/2005	JEFFERSON	GRAND PRAIRIE	Crossbucks only	UP	Upgrade w/ SH 161 Road Job
31	DE WITT	746505U	9/20/2006, 5/14/2007	FORDTRAN	THOMASTON	Crossbucks only	KCS	Gates Installed 12/08
32	DEAF SMITH	014734S	5/30/2007, 10/26/2008	PROGRESSIVE RD		Gates	BNSF	To be reviewed under 2012 FSP
33	DENTON	020554H	9/16/2005, 1/10/2006	ST 0000	JUSTIN	Crossbucks only	ATK	Closed
34	DENTON	020632M	6/22/2005, 7/13/2009	EAGLE PKWY		Gates and Cantilever Lights	BNSF	To be reviewed under 2012 FSP
35	DENTON	795301R	8/3/2006, 7/26/2007	NEW HOPE ROAD	AUBREY	Crossbucks only	UP	Gates Installed 4/10
36	DENTON	795346X	2/8/2006, 6/14/2007, 1/30/2009	CR/HENRIETTA CREEK	ROANOKE	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
37	ECTOR	796242U	3/3/2005, 12/15/2005, 5/23/2006, 11/15/2008	KELLY	ODESSA	Gates and Flashing Lights	UP	Existing Gates; 2010 FSP
38	ECTOR	796293E	8/22/2006, 4/13/2007	MEADOW STREET	ODESSA	Gates and Flashing Lights	UP	Existing Gates; 2010 FSP
39	ECTOR	796308S	1/22/2005, 5/10/2007, 11/28/2007, 11/4/2008	CARGO STREET	ODESSA	Gates and Flashing Lights	UP	2010 FSP

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Status of Safety Projects at Multiple Incident Crossing Locations

40	EL PASO	741229C	3/16/2005, 2/20/2009	PENDALE ROAD	EL PASO	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
41	EL PASO	764225P	1/18/2006, 4/5/2008	CR / MOON ROAD	EL PASO	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
42	ELLIS	765540J	5/12/2008, 7/31/2009	EAST TYLER STREET	ENNIS	Crossbucks only	UP	Active Project
43	ELLIS	765869V	3/5/2005, 1/5/2006	MUNCHUS STREET	WAXAHACHIE	Crossbucks only	UP	Gates Installed 6/08
44	ELLIS	765870P	9/11/2005, 9/11/2006	AIKEN STREET	WAXAHACHIE	Crossbucks and flagging	UP	Gates Installed 5/09
45	ELLIS	765876F	2/20/2005, 1/1/2007, 12/13/2008, 1/16/2009	US 77/ELM STREET	WAXAHACHIE	Cantilever Lights and No Gates	UP	2010 FSP
46	ELLIS	765895K	1/18/2006, 11/21/2007	SEVENTH STREET	FERRIS	Crossbucks and flagging	UP	City will not close
47	ERATH	020968J	1/4/2007, 3/26/2007	FM 847		Cantilever Lights and No Gates	FWWR	Active Project
48	FORT BEND	743691M	2/12/2006, 7/25/2007, 11/2/2007	ST 0000; STAFFORD BE	STAFFORD	Gates and Flashing Lights	ATK	To be reviewed under 2012 FSP
49	FORT BEND	743692U	4/15/2005, 4/20/2007, 10/15/2007	FM-1092	STAFFORD	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
50	FORT BEND	743695P	10/9/2006, 11/3/2009	KIRKWOOD ROAD	STAFFORD	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
51	FORT BEND	745044J	9/12/2006, 5/24/2007, 10/18/2007	DAIRY ASHFORD WAY		Gates and Flashing Lights	BNSF	To be reviewed under 2012 FSP
52	FREESTONE	597188E	4/7/2006, 4/11/2007, 11/4/2008	MAIN ST.	TEAGUE	Gates	BNSF	Gates Installed 9/09
53	GALVESTON	859509K	2/1/2006, 9/17/2007	ROSS STREET	LA MARQUE	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
54	GARZA	015027D	9/7/2006, 7/27/2007	CR 235		Crossbucks and other devices	BNSF	Gates Installed 1/08
55	GRAY	014543G	12/8/2007, 4/7/2008	STARKWEATHER ST	PAMPA	Gates and Flashing Lights	BNSF	Existing Gates; 2010 FSP
56	GRAYSON	415440P	10/4/2005, 10/17/2005	MAIN ST.	DENISON	Crossbucks only	DGNO	Active Project
57	GRAYSON	795278Y	5/25/2005, 1/20/2006, 2/18/2006	GENE AUTRY DRIVE	TIOGA	Crossbucks and flagging	UP	Gates Installed 5/08
58	GREGG	448229X	5/2/2007, 6/4/2008, 2/12/2009	TEXAS IRON & STEEL (Private)	LONGVIEW	Crossbucks and flagging	UP	Private
59	GREGG	794658C	5/26/2007, 11/23/2008	US 271/ MAIN	GLADEWATER	Gates and Cantilever Lights	UP	To be reviewed under 2012 FSP

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Status of Safety Projects at Multiple Incident Crossing Locations

60	GUADALUPE	742632G	2/4/2006, 9/7/2007, 8/7/2008	FM 1518/FIRST STREET	SCHERTZ	Gates and Flashing Lights	UP	Existing Gates; 2010 FSP
61	GUADALUPE	742637R	2/24/2009, 4/10/2009	CO 0000; E. CIBOLO		Gates	ATK	To be reviewed under 2012 FSP
62	GUADALUPE	742709S	9/29/2007, 11/10/2008	AUSTIN STREET (SH-12	SEGUIN	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
63	HALE	017304S	9/6/2005, 4/17/2009	COUNTY ROAD 135		Crossbucks only	BNSF	To be reviewed under 2012 FSP
64	HALE	017306F	10/4/2007, 10/27/2008	COUNTY ROAD 145		Crossbucks only	BNSF	To be reviewed under 2012 FSP
65	HARDEMAN	274745V	10/18/2005, 6/27/2006	MAIN ST	QUANAH	Gates and Flashing Lights	BNSF	District Declines Medians
66	HARRIS	023207W	10/1/2008, 3/6/2009	ALAMEDA GENOA RD	HOUSTON	Gates and Flashing Lights	BNSF	To be reviewed under 2012 FSP
67	HARRIS	023214G	11/10/2005, 12/7/2005, 6/20/2006, 9/26/2007, 11/25/2008, 2/24/2009,	LONG DRIVE	HOUSTON	Standard Fl	UP	Possible roadway relocation
68	HARRIS	276125N	7/12/2005, 11/3/2006	BINGLE	HOUSTON	Crossbucks and other devices	BNSF	Gates Installed 9/09
69	HARRIS	288050B	7/27/2006, 8/17/2007	LAWNDALE	HOUSTON	Gates and Flashing Lights	BNSF	To be reviewed under 2012 FSP
70	HARRIS	288268V	10/10/2005, 7/29/2008	CALVACADE	HOUSTON	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
71	HARRIS	430064X	12/6/2007, 9/19/2008	HARDY ROAD	SPRING	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
72	HARRIS	447977R	6/18/2005, 2/23/2006, 3/6/2006, 6/7/2007	ALMEDA-GENOA ROAD	HOUSTON	Cantilever Lights and No Gates	UP	Gates Installed 5/09
73	HARRIS	447989K	3/18/2005, 6/24/2005	MOWERY ROAD	HOUSTON	Crossbucks only	UP	Gates Installed 8/06
74	HARRIS	597086L	1/31/2007, 6/20/2008	ALABONSON RD	HOUSTON	Gates and Flashing Lights	BNSF	To be reviewed under 2012 FSP
75	HARRIS	743120T	2/23/2006, 10/12/2006	MAURY STREET	HOUSTON	Gates and Flashing Lights	UP	Existing Gates; 2010 FSP
76	HARRIS	743633S	6/23/2006, 3/2/2007, 12/2/2007	CYPRESS DRIVE (Private)	CYPRESS	Crossbucks and flagging	UP	Private
77	HARRIS	745046X	11/6/2005, 2/22/2006	SOUTH 75TH ST		Gates	BNSF	To be reviewed under 2012 FSP
78	HARRIS	755621G	3/30/2007,	ST0000 ; CHIMNEY	HOUSTON	Gates and Flashing Lights	ATK	To be reviewed under 2012 FSP

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Status of Safety Projects at Multiple Incident Crossing Locations

79	HARRIS	755622N	2/8/2005, 5/9/2005, 6/16/2005	HILLCROFT STREET	HOUSTON	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
80	HARRIS	755624C	7/28/2005, 8/8/2005, 8/20/2005, 4/4/2009, 4/15/2009,	FONDREN ROAD		Gates and Flashing Lights	BNSF	To be reviewed under 2012 FSP
81	HARRIS	755627X	11/22/2007, 12/13/2007, 12/16/2007, 11/20/2008	MYKAWA ROAD		Cantilever Lights and No Gates	BNSF	Bad Geometry
82	HARRIS	755628E	9/9/2005, 9/14/2007, 3/12/2008	LONG DR.	HOUSTON	Cantilever Lights and No Gates	UP	Active Project; FSP 2010
83	HARRIS	755630F	3/4/2007, 12/26/2008	CULLEN BLVD	HOUSTON	Gates and Cantilever Lights	BNSF	To be reviewed under 2012 FSP
84	HARRIS	758731C	1/15/2005, 11/12/2005	LORRAINE ST		Gates and Flashing Lights	BNSF	Existing Gates; 2010 FSP
85	HARRIS	758743W	5/28/2005, 11/3/2005	MELBOURNE STREET	HOUSTON	Crossbucks only	UP	Gates Installed 10/07
86	HARRIS	758757E	3/17/2006, 7/4/2009	LITTLE YORK ROAD	HOUSTON	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
87	HARRIS	762901B	1/2/2007, 5/16/2008	VAN HUT RD		Gates and Flashing Lights	BNSF	Existing Gates; 2010 FSP - Active Project Preemption
88	HARRIS	762904W	11/2/2006, 7/11/2007, 1/21/2007, 8/22/2007, 7/23/2008, 8/21/2008,	C E KING PARKWAY	HOUSTON	Gates and Flashing Lights	KCS	Existing Gates; 2010 FSP - Active Project Upgrade Circuitry
89	HARRIS	762907S	1/22/2005, 1/1/2006, 1/30/2007	RALSTON RD		Gates	BNSF	Active Project
90	HARRIS	911817F	5/4/2007, 6/12/2008	JACINTOPORT BLVD, IG	HOUSTON	Crossbucks only	PTRA	To be reviewed under 2012 FSP
91	HARRIS	924337G	6/10/2006, 4/29/2008	RAILWOOD	HOUSTON	Crossbucks only	UP	To be reviewed under 2012 FSP
92	HARRISON	794623B	8/9/2006, 10/7/2008	LANSING SW ROAD	LONGVIEW	Gates and Flashing Lights	UP	Existing Gates; 2010 FSP
93	HIDALGO	448821V	6/16/2006,	FM 2061 MCCOLL ST	MCALLEN	Cantilever Fl Only	RVSC	No daily trains

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94	HOOD	020871M	2/5/2007, 6/11/2007, 4/25/2008, 5/9/2008, 7/27/2008, 2/19/2009,	US 377		Cantilever Lights and No Gates	FWWR	Active Project
95	HOPKINS	331625L	5/26/2005, 12/27/2006	JACKSON ST	SULPHUR SPRINGS	Crossbucks only	KCS	Gates Installed 5/09
96	HOWARD	796165W	12/29/2005, 7/12/2006	MIDWAY	BIG SPRING	Crossbucks and flagging	UP	Gates Installed 5/08
97	JEFFERSON	023691A	10/29/2005, 10/30/2007	MAGNOLIA AVE		Gates and Flashing Lights	BNSF	City will not close
98	JEFFERSON	023704Y	3/12/2006, 4/16/2009	CALDER AVE	BEAUMONT	Cantilever Lights and No Gates	KCS	Active Project
99	JEFFERSON	329556F	10/19/2007, 1/17/2008	14TH STREET	PORT ARTHUR	Crossbucks only	KCS	Active Project
100	JEFFERSON	329557M	1/25/2008, 3/2/2009	THOMAS BLVD	PORT ARTHUR	Cantilever Lights and No Gates	KCS	To be reviewed under 2012 FSP
101	JEFFERSON	329558U	11/11/2005, 3/6/2006, 10/18/2006	9TH STREET	PORT ARTHUR	Crossbucks only	KCS	Gates Installed 7/09
102	JIM HOGG	923779H	9/29/2006, 2/14/2007	SIGRID ST	HEBBRONVILLE	Crossbucks only	KCS	Active Project; 2010 FSP
103	JIM WELLS	793811M	11/6/2006, 3/7/2007	JOHNSON	ALICE	Gates and Flashing Lights	KCS	Existing Gates; 2010 FSP
104	JIM WELLS	793815P	8/28/2006, 8/12/2008	REYNOLDS STREET	ALICE	Gates and Flashing Lights	KCS	Existing Gates; 2010 FSP
105	JOHNSON	020460G	9/30/2007, 12/8/2009	COUNTY ROAD		Gates	BNSF	To be reviewed under 2012 FSP
106	JOHNSON	021549P	6/5/2005, 6/10/2008	800 W. INDUSTRIAL BD	CLEBURNE	Crossbucks only	FWWR	Gates Installed 5/09
107	JOHNSON	416001J	4/1/2007, 10/14/2008	CR 106	GRANDVIEW	Crossbucks only	UP	Gates Installed 5/10
108	KAUFMAN	748507P	6/28/2008, 7/24/2009	METROCREST WAY	TERRELL	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
109	KAUFMAN	794794C	4/6/2005, 11/30/2007	CR 211	TERRELL	Crossbucks and flagging	UP	Gates Installed 8/05
110	LIBERTY	755919U	1/10/2007, 9/14/2009	JUNCTION STREET	CLEVELAND	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
111	LIBERTY	762790L	5/23/2008, 12/18/2008	US 90	DAYTON	Gates and Flashing Lights	BNSF	To be reviewed under 2012 FSP
112	LIMESTONE	744868F	4/29/2006, 5/29/2006	FOURTEENTH STREET	THORNTON	Crossbucks only	UP	Gates Installed 4/10
113	LUBBOCK	014992W	1/16/2009, 12/4/2009	COUNTY RD 2900		Crossbucks only	BNSF	Active Project
114	MADISON	597143X	8/31/2007,	PLEASENT GROVE	NORTH ZULCH	Crossbucks and other devices	BNSF	Gates Installed 4/10

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Status of Safety Projects at Multiple Incident Crossing Locations

115	MARTIN	796358V	12/24/2005, 7/6/2006	SAINT BONIFACE	STANTON	Crossbucks and other devices	UP	Gates Installed 10/06
116	MARTIN	796359C	2/8/2006, 4/26/2006, 12/31/2006	ST PETERS	STANTON	Crossbucks only	UP	Gates Installed 5/09
117	MATAGORDA	023371A	9/19/2008, 9/22/2008, 11/12/2009	GRACE	BAY CITY	Crossbucks and other devices	BNSF	Gates Installed 7/10
118	MCLENNAN	430336H	7/8/2005, 1/11/2008	LIVESTOCK (Private)	WACO	Crossbucks only	UP	Private
119	MIDLAND	796328D	8/10/2005, 3/8/2007, 7/18/2007	EISENHOWER STREET	MIDLAND	Gates and Flashing Lights	UP	Existing Gates; 2010 FSP
120	MIDLAND	796348P	1/20/2008, 6/15/2008	US 80 FRONTAGE RD	MIDLAND	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
121	NOLAN	796122D	7/5/2007, 6/5/2008	CR 111		Crossbucks only	UP	Gates Installed 12/09
122	NUECES	427602Y	11/16/2005, 5/14/2009	COUNTY ROAD 34	ROBSTOWN	Crossbucks only	UP	To be reviewed under 2012 FSP
123	NUECES	793665J	12/20/2006, 9/9/2007, 1/27/2009	CR 103	AGUA DULCE	Crossbucks only	KCS	Active Project
124	NUECES	793824N	10/10/2006, 5/7/2008	CR 38	BANQUETE	Crossbucks only	KCS	To be reviewed under 2012 FSP
125	ORANGE	447477T	10/15/2007, 2/23/2008	2739 FM 1006	ORANGE	Cantilever Lights and No Gates	RASX	To be reviewed under 2012 FSP
126	PALO PINTO	839393G	3/16/2007, 7/15/2007	WASHINGTON	STRAWN	Crossbucks only	UP	Gates Installed 8/07
127	PANOLA	024072W	6/2/2007, 6/12/2009	US HWY 79		Gates	BNSF	To be reviewed under 2012 FSP
128	PARMER	014764J	4/28/2008, 8/11/2009	FM 3140		Cantilever Lights and No Gates	BNSF	To be reviewed under 2012 FSP
129	PARMER	014787R	8/9/2005, 12/14/2007	US 70/84	FARWELL	Gates and Flashing Lights	BNSF	To be reviewed under 2012 FSP
130	POLK	755949L	5/13/2005, 6/15/2006	CHURCH ST./US 190	LIVINGSTON	Gates and Flashing Lights	UP	Existing Gates; 2010 FSP
131	POTTER	014602G	5/30/2006, 10/3/2009	EASTERN STREET	AMARILLO	Gates	BNSF	Existing Gates; 2010 FSP
132	REEVES	796230A	7/26/2007, 9/23/2008	FM 2119		Cantilever Lights and No Gates	UP	Gates Installed 8/10
133	ROBERTSON	432250F	4/5/2006, 1/13/2007	PIN OAK RD	FRANKLIN	Crossbucks only	UP	Gates Installed 1/08
134	SAN PATRICIO	436013H	4/5/2008, 11/13/2009	S RACHAL STREET	SINTON	Gates	KCS	To be reviewed under 2012 FSP
135	SAN PATRICIO	746288W	8/12/2005, 12/9/2005, 4/4/2006	SH - 361	INGLESIDE	Cantilever Lights and No Gates	UP	Gates Installed 12/09

Appendix H

Status of Safety Projects at Multiple Incident Crossing Locations

136	SHELBY	755492U	3/23/2007, 10/12/2009	COUNTY ROAD 33794	JOAQUIN	Crossbucks only	UP	To be reviewed under 2012 FSP
137	TARRANT	020468L	11/2/2005, 1/30/2006	CUNNINGHAM ST	FORT WORTH	Crossbucks and other devices	BNSF	Gates Installed 1/08
138	TARRANT	020478S	3/22/2009, 4/5/2009	W SEMINARY DR	FORT WORTH	Gates	BNSF	To be reviewed under 2012 FSP
139	TARRANT	020486J	1/9/2009, 11/22/2009	HEMPHILL ST	FORT WORTH	Gates and Cantilever Lights	BNSF	To be reviewed under 2012 FSP
140	TARRANT	020532H	2/20/2007, 2/6/2008	PUBLIC	SAGINAW	Crossbucks and other devices	BNSF	No daily trains
141	TARRANT	020632M	11/14/2008, 3/1/2009	EAGLE PKWY		Gates and Cantilever Lights	BNSF	To be reviewed under 2012 FSP
142	TARRANT	020644G	8/30/2007, 11/14/2007	ST 0000; INTERMODAL		Gates and Cantilever Lights	ATK	Existing Gates; 2010 FSP
143	TARRANT	598303M	3/10/2005, 7/9/2006	CR-TINSLEY LANE	NEWARK	Crossbucks and flagging	UP	Gates Installed 9/07
144	TARRANT	598307P	6/1/2005, 11/7/2005	CR-HICKS FIELD ROAD	SAGINAW	Standard Fl	UP	Gates Installed 1/08
145	TARRANT	598310X	3/23/2007, 6/6/2007, 6/11/2007, 6/14/2007, 9/13/2007, 9/21/2007,	MINTON ROAD	SAGINAW	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP; preemption
146	TARRANT	598311E	9/20/2005, 9/28/2006, 9/19/2007, 9/27/2007,	MCLEROY BLVD.	SAGINAW	Cantilever Lights and No Gates	UP	Gates Installed 5/08
147	TARRANT	598337G	5/22/2007, 9/9/2008	GALVEZ AVENUE	FORT WORTH	Gates and Flashing Lights	TRE	To be reviewed under 2012 FSP
148	TARRANT	598341W	4/28/2005, 7/12/2006	BEACH STREET	FORT WORTH	Gates	TRE	Existing Gates; 2010 FSP
149	TARRANT	598361H	3/5/2005, 12/7/2005	CALLOWAY CEMETERY RD	HURST	Gates	TRE	To be reviewed under 2012 FSP
150	TARRANT	794971E	6/23/2006, 4/12/2008	GREAT SW PARKWAY	GRAND PRAIRIE	Gates and Flashing Lights	UP	Existing Gates; 2010 FSP
151	TARRANT	794974A	3/10/2005, 12/7/2007	STADIUM DRIVE EAST	ARLINGTON	Gates and Flashing Lights	UP	Existing Gates; 2010 FSP
152	TARRANT	795430F	4/11/2006, 10/30/2007	WESTPORT PKWY	ROANOKE	Gates and Flashing Lights	UP	Existing Gates; 2010 FSP
153	TITUS	789424N	1/20/2005, 5/17/2006	BELMONT STREET	MOUNT PLEASANT	Crossbucks only	UP	Gates Installed 12/09
154	VICTORIA	435952L	8/16/2007, 1/22/2008	FM 1432	VICTORIA	Crossbucks only	UP	Gates Installed 9/08
155	WARD	796260S	1/4/2007, 7/3/2009	CR - 138	BARSTOW	Crossbucks only	UP	To be reviewed under 2012 FSP

Appendix H

Status of Safety Projects at Multiple Incident Crossing Locations

156	WEBB	446796H	10/15/2007, 3/12/2008	JEFFERSON	LAREDO	Gates and Flashing Lights	UP	To be reviewed under 2012 FSP
157	WEBB	793617U	11/24/2006, 11/29/2006, 2/15/2007, 2/13/2008,	JENNINGS ROAD	AGUILARES	Crossbucks only	KCS	Gates Installed 10/10
158	WEBB	793618B	3/29/2007, 6/8/2009	VAQUILLAS ROAD	AGUILARES	Crossbucks only	KCS	County planning to close
159	WISE	274636S	7/10/2007, 2/8/2008	CR4923		Crossbucks and other devices	BNSF	Gates Installed 10/10

APPENDIX

(I) Federal Railroad Administration Statistics

TABLE 1-14 TOTAL HIGHWAY-RAIL GRADE CROSSING INCIDENT CASUALTIES BY STATE

States	Fatalities					Nonfatal					5 year Total	
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009	Kld	Nonf
Alabama	17	11	15	10	4	45	49	38	34	27	57	193
Alaska	-	-	-	-	1	-	-	-	-	-	1	-
Arizona	2	6	-	1	3	5	11	9	13	5	12	43
Arkansas	8	9	12	7	9	40	27	35	21	17	45	140
California	23	36	47	25	29	62	39	78	97	33	160	309
Colorado	6	10	2	8	1	18	33	10	3	9	27	73
Connecticut	3	-	-	-	1	2	3	4	1	-	4	10
Delaware	1	-	-	-	-	3	4	3	-	2	1	12
Florida	17	10	20	25	10	21	35	66	30	24	82	176
Georgia	12	8	17	8	6	26	37	46	38	36	51	183
Idaho	1	3	3	2	-	6	2	5	4	7	9	24
Illinois	31	25	29	27	18	83	74	69	74	50	130	350
Indiana	21	13	19	20	14	32	37	48	46	38	87	201
Iowa	6	6	7	5	4	32	20	27	25	19	28	123
Kansas	7	15	9	9	2	31	27	18	16	15	42	107
Kentucky	7	9	9	4	1	26	28	21	17	22	30	114
Louisiana	20	8	14	15	11	44	81	57	46	36	68	264
Maine	-	1	1	-	-	2	2	1	-	4	2	9
Maryland	1	1	1	-	-	1	7	5	4	9	3	26
Massachusetts	1	2	-	1	-	6	30	2	3	1	4	42
Michigan	5	10	3	4	12	14	30	19	21	14	34	98
Minnesota	9	12	5	6	6	28	17	18	20	14	38	97
Mississippi	10	13	3	14	8	30	37	23	79	24	48	193
Missouri	17	7	7	10	8	32	26	26	17	17	49	118
Montana	3	1	2	2	1	4	7	4	4	3	9	22
Nebraska	12	5	8	2	8	22	19	17	20	18	35	96
Nevada	1	-	-	-	-	-	1	-	3	1	1	5
New Hampshire	-	-	-	-	-	-	1	-	1	-	-	2
New Jersey	2	9	3	1	4	11	11	4	19	18	19	63
New Mexico	4	5	7	1	3	7	6	7	4	5	20	29
New York	13	5	5	6	9	10	10	12	13	3	38	48
North Carolina	6	8	6	8	8	38	23	19	31	34	36	145
North Dakota	8	-	4	1	3	4	4	4	5	5	16	22
Ohio	8	17	8	12	9	46	38	40	35	21	54	180
Oklahoma	6	16	9	8	4	34	36	36	31	23	43	160
Oregon	1	1	1	2	1	4	9	4	1	2	6	20
Pennsylvania	5	4	5	6	1	22	13	28	12	17	21	92
South Carolina	9	12	7	6	6	17	14	30	17	16	40	94
South Dakota	2	2	1	1	3	9	7	3	9	11	9	39
Tennessee	7	8	6	5	2	28	20	21	26	17	28	112
Texas	23	44	34	17	23	144	150	140	97	79	141	610
Utah	2	-	-	-	2	9	3	7	4	1	4	24
Vermont	-	-	-	-	2	3	2	-	2	2	2	9
Virginia	2	-	-	4	3	13	7	12	14	9	9	55
Washington	6	7	6	4	2	14	11	15	6	5	25	51
West Virginia	1	4	-	2	3	4	9	4	9	8	10	34
Wisconsin	13	6	3	1	2	20	12	22	14	17	25	85
Wyoming	-	-	1	-	-	1	1	1	2	-	1	5
Total	359	369	339	290	247	1,053	1,070	1,058	988	738	1,604	4,907

TABLE 8-1 RATES FOR MOTOR VEHICLE INCIDENTS AT PUBLIC CROSSINGS BY STATE, 2009

States	Accidents				Deaths				Nonfatal			
	Cnt	Per 100 Xings	Per 100K Vehicles	Per 100K ADT	Cnt	Per 100 Xings	Per 100K Vehicles	Per 100K ADT	Cnt	Per 100 Xings	Per 100K Vehicles	Per 100K ADT
Alabama	58	2.05	1.19	1.03	2	0.07	0.04	0.04	24	0.85	4.94	0.43
Alaska	4	2.33	0.56	0.83	1	0.58	0.14	0.21	.	.	.	.
Arizona	13	1.67	0.29	0.48	1	0.13	0.02	0.04	1	0.13	0.22	0.04
Arkansas	38	1.28	1.80	1.09	6	0.20	0.28	0.17	17	0.57	8.05	0.49
California	70	1.08	0.20	0.20	9	0.14	0.03	0.03	21	0.32	0.61	0.06
Colorado	18	1.04	1.04	0.55	1	0.06	0.06	0.03	4	0.23	2.30	0.12
Connecticut	4	1.09	0.13	0.31	1	0.27	0.03	0.08	.	.	.	.
Delaware	3	1.12	0.34	0.27	.	.	.	.	1	0.37	1.12	0.09
Dist Of Columbia	.	.	.	.	.	.	.	.	.	.	.	.
Florida	33	0.88	0.19	0.14	5	0.13	0.03	0.02	11	0.29	0.64	0.05
Georgia	91	1.69	1.04	0.92	4	0.07	0.05	0.04	31	0.58	3.54	0.31
Hawaii	.	.	.	.	.	.	.	.	.	.	.	.
Idaho	8	0.62	0.58	0.47	.	.	.	.	6	0.47	4.34	0.35
Illinois	72	0.92	0.71	0.37	11	0.14	0.11	0.06	39	0.50	3.85	0.20
Indiana	82	1.38	1.35	0.60	12	0.20	0.20	0.09	28	0.47	4.63	0.21
Iowa	43	0.98	1.19	0.81	2	0.05	0.06	0.04	17	0.39	4.71	0.32
Kansas	38	0.71	1.50	0.86	2	0.04	0.08	0.05	11	0.21	4.34	0.25
Kentucky	52	2.21	1.42	1.41	1	0.04	0.03	0.03	20	0.85	5.45	0.54
Louisiana	69	2.28	1.70	1.12	9	0.30	0.22	0.15	33	1.09	8.15	0.54
Maine	2	0.24	0.18	0.10	.	.	.	.	2	0.24	1.77	0.10
Maryland	11	1.72	0.24	0.50	.	.	.	.	9	1.41	1.95	0.41
Massachusetts	2	0.24	0.04	0.04	.	.	.	.	1	0.12	0.18	0.02
Michigan	43	0.89	0.52	0.31	10	0.21	0.12	0.07	13	0.27	1.58	0.09
Minnesota	32	0.70	0.64	0.50	4	0.09	0.08	0.06	10	0.22	1.99	0.16
Mississippi	38	1.69	1.84	0.93	8	0.36	0.39	0.19	23	1.02	11.15	0.56
Missouri	30	0.76	0.60	0.72	6	0.15	0.12	0.14	15	0.38	3.02	0.36
Montana	9	0.65	0.87	0.66	.	.	.	.	1	0.07	0.96	0.07
Nebraska	35	1.16	1.94	1.88	5	0.17	0.28	0.27	18	0.60	10.00	0.97
Nevada	3	1.05	0.20	0.33	.	.	.	.	1	0.35	0.67	0.11
New Hampshire	2	0.57	0.15	0.27	.	.	.	.	1	0.29	0.77	0.14
New Jersey	35	2.25	0.55	0.38	3	0.19	0.05	0.03	17	1.09	2.65	0.18
New Mexico	10	1.38	0.62	1.05	2	0.28	0.12	0.21	5	0.69	3.09	0.52
New York	13	0.48	0.11	0.17	6	0.22	0.05	0.08	2	0.07	0.17	0.03
North Carolina	49	1.25	0.77	0.38	8	0.20	0.13	0.06	33	0.84	5.18	0.25
North Dakota	14	0.40	1.87	1.35	3	0.09	0.40	0.29	5	0.14	6.68	0.48
Ohio	49	0.84	0.43	0.33	1	0.02	0.01	0.01	16	0.27	1.42	0.11
Oklahoma	41	1.05	1.20	0.96	3	0.08	0.09	0.07	20	0.51	5.87	0.47
Oregon	6	0.32	0.19	0.14	.	.	.	.	2	0.11	0.62	0.05
Pennsylvania	33	0.95	0.31	0.51	1	0.03	0.01	0.02	11	0.32	1.02	0.17
Rhode Island	.	.	.	.	.	.	.	.	.	.	.	.
South Carolina	35	1.29	0.94	0.58	5	0.18	0.13	0.08	14	0.52	3.78	0.23
South Dakota	15	0.78	1.55	1.35	3	0.16	0.31	0.27	11	0.57	11.39	0.99
Tennessee	49	1.74	0.93	0.86	1	0.04	0.02	0.02	15	0.53	2.86	0.26
Texas	141	1.44	0.76	0.41	17	0.17	0.09	0.05	68	0.69	3.65	0.20
Utah	10	1.43	0.40	0.37	.	.	.	.	.	.	.	.
Vermont	7	1.86	1.15	1.12	2	0.53	0.33	0.32	1	0.27	1.64	0.16
Virginia	21	1.08	0.32	0.40	2	0.10	0.03	0.04	5	0.26	0.76	0.10
Washington	16	0.63	0.26	0.35	1	0.04	0.02	0.02	1	0.04	0.16	0.02
West Virginia	12	0.83	0.83	0.76	.	.	.	.	2	0.14	1.38	0.13
Wisconsin	41	1.01	0.77	0.46	2	0.05	0.04	0.02	15	0.37	2.82	0.17
Wyoming	2	0.51	0.29	0.56	.	.	.	.	.	.	.	.
Total...	1,502	1.12	0.59	0.47	160	0.12	0.06	0.05	601	0.45	2.36	0.19

TABLE 9-2 AT-GRADE HIGHWAY-RAIL CROSSINGS BY STATE, 2009

States	Total		Pedestrian		Private Vehicle		Public Vehicle	
	Cnt	%	Cnt	%	Cnt	%	Cnt	%
Alabama	4,565	2.1	19	0.0	1,711	0.8	2,835	1.3
Alaska	274	0.1	5	0.0	97	0.0	172	0.1
Arizona	1,300	0.6	6	0.0	516	0.2	778	0.4
Arkansas	4,396	2.0	8	0.0	1,427	0.7	2,961	1.3
California	10,331	4.7	169	0.1	3,671	1.7	6,491	3.0
Colorado	2,836	1.3	27	0.0	1,083	0.5	1,726	0.8
Connecticut	645	0.3	9	0.0	269	0.1	367	0.2
Delaware	388	0.2	2	0.0	118	0.1	268	0.1
Dist Of Columbia	34	0.0	10	0.0	19	0.0	5	0.0
Florida	5,042	2.3	58	0.0	1,217	0.6	3,767	1.7
Georgia	7,803	3.6	44	0.0	2,369	1.1	5,390	2.5
Hawaii	8	0.0	-	-	-	-	8	0.0
Idaho	2,441	1.1	13	0.0	1,139	0.5	1,289	0.6
Illinois	12,257	5.6	338	0.2	4,081	1.9	7,838	3.6
Indiana	7,951	3.6	47	0.0	1,976	0.9	5,928	2.7
Iowa	7,290	3.3	43	0.0	2,843	1.3	4,404	2.0
Kansas	8,035	3.7	23	0.0	2,660	1.2	5,352	2.4
Kentucky	4,809	2.2	35	0.0	2,418	1.1	2,356	1.1
Louisiana	5,673	2.6	32	0.0	2,614	1.2	3,027	1.4
Maine	1,699	0.8	10	0.0	863	0.4	826	0.4
Maryland	1,302	0.6	20	0.0	642	0.3	640	0.3
Massachusetts	1,377	0.6	27	0.0	515	0.2	835	0.4
Michigan	7,206	3.3	89	0.0	2,270	1.0	4,847	2.2
Minnesota	7,122	3.2	59	0.0	2,505	1.1	4,558	2.1
Mississippi	4,147	1.9	18	0.0	1,883	0.9	2,246	1.0
Missouri	6,795	3.1	46	0.0	2,785	1.3	3,964	1.8
Montana	3,256	1.5	13	0.0	1,850	0.8	1,393	0.6
Nebraska	4,965	2.3	6	0.0	1,943	0.9	3,016	1.4
Nevada	530	0.2	5	0.0	239	0.1	286	0.1
New Hampshire	598	0.3	16	0.0	234	0.1	348	0.2
New Jersey	2,160	1.0	49	0.0	556	0.3	1,555	0.7
New Mexico	1,235	0.6	9	0.0	503	0.2	723	0.3
New York	5,348	2.4	72	0.0	2,593	1.2	2,683	1.2
North Carolina	6,911	3.1	54	0.0	2,945	1.3	3,912	1.8
North Dakota	4,786	2.2	15	0.0	1,274	0.6	3,497	1.6
Ohio	8,709	4.0	41	0.0	2,820	1.3	5,848	2.7
Oklahoma	5,296	2.4	14	0.0	1,392	0.6	3,890	1.8
Oregon	4,094	1.9	73	0.0	2,163	1.0	1,858	0.8
Pennsylvania	6,201	2.8	102	0.0	2,609	1.2	3,490	1.6
Rhode Island	123	0.1	26	0.0	30	0.0	67	0.0
South Carolina	3,972	1.8	17	0.0	1,245	0.6	2,710	1.2
South Dakota	2,994	1.4	6	0.0	1,074	0.5	1,914	0.9
Tennessee	4,694	2.1	31	0.0	1,848	0.8	2,815	1.3
Texas	15,084	6.9	29	0.0	5,238	2.4	9,817	4.5
Utah	1,288	0.6	4	0.0	586	0.3	698	0.3
Vermont	927	0.4	49	0.0	501	0.2	377	0.2
Virginia	4,396	2.0	39	0.0	2,412	1.1	1,945	0.9
Washington	5,264	2.4	46	0.0	2,678	1.2	2,540	1.2
West Virginia	3,398	1.5	54	0.0	1,902	0.9	1,442	0.7
Wisconsin	6,446	2.9	88	0.0	2,288	1.0	4,070	1.9
Wyoming	1,094	0.5	1	0.0	704	0.3	389	0.2
Total	219,495	100.0	2,016	0.9	83,318	38.0	134,161	61.1