<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects Tab</td>
<td>34</td>
</tr>
<tr>
<td>Project</td>
<td>35</td>
</tr>
<tr>
<td>Project Tool Strip</td>
<td>35</td>
</tr>
<tr>
<td>Project Grid</td>
<td>36</td>
</tr>
<tr>
<td>Project Details Panel</td>
<td>36</td>
</tr>
<tr>
<td>Project Steps Grid</td>
<td>39</td>
</tr>
<tr>
<td>Project Journal</td>
<td>40</td>
</tr>
<tr>
<td>Administrative</td>
<td>41</td>
</tr>
<tr>
<td>Administrative Tool Strip</td>
<td>41</td>
</tr>
<tr>
<td>Manage Users Dialog</td>
<td>41</td>
</tr>
<tr>
<td>Manage Rankings</td>
<td>42</td>
</tr>
<tr>
<td>TRIMS Data Exchange</td>
<td>42</td>
</tr>
</tbody>
</table>
Introduction

TRIMS Project Background and Description

The Texas Department of Transportation (TxDOT) is organized under the Executive Director by Offices, Divisions, and Districts. The Rail Division (RRD) consolidates the department’s major rail responsibilities. Within the RRD, the Rail-Highway section develops and manages railroad-related programs, including railroad crossing improvements and highway projects that interface with railroad right-of-way.

The Rail-Highway section currently uses TxRAIL, a Microsoft Access database, to manage inventory data, prioritization ranking calculations, and railroad crossing projects. The system is not accessible outside of the Rail Division and does not incorporate TxDOT mapping data. The purpose of the Texas Railroad Information Management System (TRIMS) project is to develop a railroad crossing information system that will replace TxRAIL, fulfill a number of RRD business requirements, and:

- Expand access to inventory information
- Increase the accuracy of data used and shared by the RRD
- Facilitate coordination within RRD and with other stakeholders
- Enhance the cost effectiveness of the Division’s business processes
- Improve safety at railroad crossings through improved information and decision-making tools
The Texas Railroad Information Management System (TRIMS) suite includes a central database and three applications: FieldTRIMS: a GPS and GIS-enabled field data collection tool; WebTRIMS, a web-based tool that will allow TxDOT to share crossing-related data with partners outside of the Department; and TRIMS: a powerful GIS-based inventory, prioritization, and project management tool.
The first application, named FieldTRIMS, is a mobile data collection tool that uses Microsoft SQL Compact Edition as a mobile database so that it does not require access to the central database to function, however it is capable of syncing with the central database any time that an internet connection is present. Syncing provides for both uploading and downloading of the latest data, so that the mobile user has access to up-to-date inventory information and photo thumbnails for crossings throughout the state as needed. Through the use of a GPS technology, the user has a real-time display of the current vehicle location compared to crossing positions. Rugged, simple field data collection tools are loaded with FieldTRIMS to allow data collection with an integrated field computer, GPS unit, and digital camera.
WebTRIMS is a web-based application that is accessed through an internet browser and provides basic mapping functionality and railroad crossing data access to users outside TxDOT. WebTRIMS is a Rich Internet Application (RIA) based on Microsoft Silverlight technology, and will provide broad access to specific railroad crossing data for users given permission by TxDOT. WebTRIMS allows for powerful searching, mapping, and reporting of crossing data, while providing for limited user input as needed by TxDOT. For example, users may enter comments regarding needed data changes.
The final and most advanced application, named TRIMS, is a Smart Client application that provides advanced mapping functionality, a high degree of interaction with crossing data and projects depending on user roles, and other advanced features. TRIMS is a Windows Presentation Foundation (WPF) application that communicates with the centralized database and with ArcGIS Server for GIS mapping. Powerful data-based searching functions allow the user to develop a search based on a vast number of possible criteria, as well as allowing the user to select precisely which fields will be displayed in the Search Results. Searches can be saved on an individual user basis for repeated use, and Standard Searches can be created by system administrators based on the needs of the user base in a given timeframe. Search results can then be inspected individually on the crossing level, can be mapped in the GIS map for geographic analysis, or can be exported to an Excel spreadsheet for use in outside reports or to be provided as inputs to other systems.

The system also provides print functionality, so that a user can generate a printable display of all of the data for a crossing. Additional features of TRIMS include the Safety and Project Management modules. The Safety module draws from state and federal crash records to provide a history of accidents at each crossing, and uses this...
information along with traffic and inventory data to calculate crossing priority rankings for safety improvements. TxDOT staff will use these rankings to select crossings for diagnostic investigations with railroads, FHWA, and local communities. Once projects are programmed, the Project Management module tracks the projects from inception to completion. The Project Management module puts project status information and associated documents in one easy-to-access system, providing TxDOT staff with a view of the overall status of the safety program, and the ability to drill down to an individual project or document related to the project.

**How To**

**Request a TRIMS Login**

**TRIMS Core and FieldTRIMS**

Send an email to the TRIMS administrator ([RRD-TRIMS@txdot.gov](mailto:RRD-TRIMS@txdot.gov)) requesting a login. You will be notified when a login has been created for you. Once you’ve been notified, you will use your TxDOT user name and password to log into TRIMS as well.

**WebTRIMS**

Send an email to TRIMS administrator ([RRD-TRIMS@txdot.gov](mailto:RRD-TRIMS@txdot.gov)) requesting a login. You will be sent a form to fill out with user information, along with additional instructions on how to submit the form. You will be notified when your WebTRIMS user name is active.

**Start the Application**

**TRIMS Core and FieldTRIMS**

Double-click the application shortcut on your desktop, or navigate to Start>All Programs>Jacobs>TRIMS and select the application.

**WebTRIMS**

Browse to [https://apps.dot.state.tx.us/apps/webtrims/](https://apps.dot.state.tx.us/apps/webtrims/)

Login with the Login Form using your User name and Password.

Upon application startup, the login form is displayed. Log in using your username and password. If you forgot your password or are a new user, use the links at the bottom of the screen.
**New user account**  
Click to retrieve a form for requesting a new TRIMS user account.

**Retrieve user name**  
Click to retrieve a forgotten user name.

**Retrieve password**  
Click to answer security questions and retrieve your password.

**Reset password**  
Click to have your password reset.

**Work with the application components**  
TRIMS consists of several components that provide the functionality required to view, save, and retrieve crossing data both visually through the map and via several forms. Each component resides within the main application window and may include a toolbar, a user interface panel, and additional dialogs for performing a variety of functions. These components include:

| Map | Crossing Search | Crossing Details | Project | Layout | Administration |

- Map
- Crossing Search
- Crossing Details
- Project
- Layout
- Administration

Use the pin button in the upper-right corner of the application panels to either pin the panel in the open position or allow the panel to hide out of the way of the other panels.

You can move application panels around by clicking on the panel header bar with your mouse and dragging the panel. To dock a panel in the application, drag the mouse onto one of the docking icons (top, bottom, left, right).

The following sections describe the application components, including their toolbars, panels, and dialogs, as well as “how-to” sections for specific functions.
Layout

TRIMS allows the user to rearrange the panes in the application, and to save the arrangement as a personal “layout” that can be reset at any time.

TRIMS Layout Toolbar

Save as My Layout

Save as my layout. Click here to save the current layout (panes) as my layout.

Reset to My Layout

Reset to my layout. Click here to reset the current layout (panes) to my previously saved layout.

Default Layout

Reset to default layout. Click here to reset the current layout (panes) to default layout.
Map

TRIMS includes a GIS map that displays rail and crossing locations and provides a geographic display of search results and selections.

Map Toolbar

**Pan**

Pan the map extents. Click and drag to recenter the map.

**Zoom In**

Zoom in to a selected area in the map. Click and drag a box to define the map extents.

**Zoom Out**

Zoom out from a selected area in the map. Click and drag a box to define size of the map extents to zoom out.

**Measure**

Measure the distance between two points in the map. Click first point, then second point for measurement. Continue to additional points for more measurements. Double-click to finish measurement.

**Zoom Previous**

Zoom to the previous extent. Click to go to the previous extent. Disabled when no previous extent exists.

**Zoom Next**

Zoom to the next extent in the map. Click to go to the next extent. Disabled when no next extent exits.

**Zoom Extents**

Zoom to full extent in the map. Click to zoom to the full extent.

**Copy To Clipboard**

Copy map to clipboard. Click to copy the map to the clipboard.

**Select**

Select railroad crossings in the map. Click and drag a box over the crossings to be selected.

**Clear Selection**

Clear all selected crossings. Click to clear all selected crossings. Disabled when no crossings are selected on the map.
Relocate Crossing

Relocate the location of a crossing in the map. Click to relocate the location of a crossing when the current open crossing is in edit mode. Disabled when current open crossing is not in edit mode.

Street Map

Toggle the map to street map view. Click to toggle the map from aerial map view to street map view.

Aerial Map

Toggle the map to aerial map view. Click to toggle the map from street map view to aerial map view.

Railroad Network

Toggle the Railroad Network layer on/off. Click to toggle the Railroad Network layer on/off.

Map Panel

The Map Panel consists of an interactive GIS map and a static Legend that can be expanded or minimized by clicking the arrow button next to the Legend title. The Legend shows the symbols for the main crossing classifications in TRIMS. Use the tools in the Map Toolbar to pan and zoom in the map, to change the basemap between street map and aerial photos, and to toggle on and off the railroad centerlines. When the map is zoomed out to a regional level, rail centerlines are displayed as thick lines symbolized by operating railroad company, and crossings are not displayed. Zoom the map in to a county or metro area to display crossing locations and see railroad centerlines displayed with a traditional railroad symbol. Map selections are reflected in the search results grid, and from the crossing details panel the map can be quickly zoomed to the location of the crossing in question.
**Crossing Search**

The Crossing Search component allows you to create and run a variety of searches of Railroad Crossings.

### Search Toolbar

- **Selected Search**
  - Select the desired search. Click the pulldown to select the desired search.

- **Run**
  - Run the selected search. Click to run the selected search.

- **Edit**
  - Edit the selected search. Click to edit the selected search in the Search Definition Dialog.

- **Delete**
  - Delete the selected search. Click to delete the selected search.

- **Set As Default**
  - Set the selected search as default search. Click to set the selected search as default search. Disabled when the current selected search is already the default search.

- **Create New**
  - Create new search. Click to create a new search in the Search Definition Dialog.

- **Crossing Quick Search**
  - Crossing quick search. Enter a crossing (or partial) into the input box and click the go button. Search results grid is updated to match search criteria.

- **Zoom to Selection**
  - Zoom extents to the currently selected crossing(s) in the map. Click to zoom extents to the currently selected crossing. If multiple crossings are selected, will zoom extents to show all crossings.

- **Show Selected**
  - Display only selected crossings in the search results grid. Click to display only the selected crossings in the search results grid. Disabled if no crossings are selected in the search results grid.
Select All
Select all crossings in the search results grid. Click to select all in the crossings in the search results grid. Disabled if all crossings are selected in the search results grid.

Clear Selection
Clear any selected crossings in the search results grid. Click to clear any selected crossings in the search results grid. Disabled if no crossings are selected in the search results grid.

Reset Grid Layout
Reset the search results grid layout to default layout. Click to reset the grid layout to the default layout. Does not reset ordering of columns. Disabled when the grid layout matches the default layout.

Export Crossings
Export all crossings in the search results grid to Excel. Click to save all crossings in the search results grid to an Excel file.

Search Definition Dialog

The Search Definition Dialog is used to create and modify custom searches. Click the Edit button or the Create New button to open the dialog. Parameters to select in the dialog include:

Search Name
The name of the search that will appear in the searches list.
**SearchType**
Select the type of object to search. Currently, only crossing searches are available in TRIMS.

**Search Fields Available/Selected for Output**
Select data values from the comprehensive list on the left to be included in the search results on the right. Use the following buttons to select and arrange your desired search fields:

- Move Common Output Fields
- Move Output Field Left
- Move Output Field Right
- Move All Output Fields Left
- Move Output Field Down
- Move Output Field Up

**Search Conditions**
The criteria for the search. Select if all of the search parameters are required (AND search) or if any are required (OR search)

Select the search field from the first dropdown, the search operator from the second dropdown, and enter the value in the text box.

For this example:
- Search field: *Crossing Status*
- Operator: *Equals*
- Value: *Open*

AND

- Search field: *Crossing Position*
- Operator: *Equals*
- Value: *At Grade*

**Save Search As...**
Select the option for the desired search type. A temporary search lasts only for the duration of the current TRIMS session. A personal search will be saved for your login and will be available every time you login to TRIMS. A standard search is visible and usable by all users, and can only be created by an administrator.
**Verify Button**
Verify that the search is valid, as well as the number of crossings that will be returned by the search, without actually running the search.

**Save Button**
Save the current search.

**Save and Run Button**
Save the current search and perform the search so that the results are presented in the search results grid.

**Cancel Button**
Cancel out of the search definition dialog without saving changes.

**Search Results Panel**
After performing a search, the results are displayed in grid form in the Search Results Panel. Then columns displayed are parameters in a saved search and can be altered. A default set of columns are used for a quick crossing number search.

### How To

**Sort the results grid**
Sort the grid by any column by clicking on the column header, and reverse the sort by clicking the header a second time.
**Rearrange columns in the grid**
To rearrange columns, click on a column header and drag it to the desired position.

**Filter the grid based on data values**
To filter the grid, click on the filter button in the header of the column that you want to use for filtering. Select the checkboxes of the items you want to display in the grid, or use the filter options to select rows with values that match your criteria.

**Group by data columns**
Click on the header of the column that you want to group by, and drag the column into the area above the column headers.

The items in the grid will now be grouped according to your selected column. Click the x (remove) button on the grouped column header to remove grouping for that column.
Crossing Details

All data collected at a crossing can be viewed and edited in the Crossing Details Panel. The Crossing Details module includes the Tool Strip, the Crossing Details Panel and the following tabs within Crossing Details:

- Summary
- Location
- Features
- Controls
- Sight Distance
- Photos
- Review
- Safety
- Projects

Crossing Details Tool Strip

Create New Crossing. Click to create a new crossing. Opens the new crossing in the Crossing Details pane.

Begin Edit Session. Click to begin an edit session on the crossing selected in the Crossing Details pane. Disabled when the crossing is already in an edit session.

Save Edit Session. Click to save edit session on the crossing selected in the Crossing Details pane. Disabled when the selected crossing is not in an edit session.

Cancel Edit Session. Click to cancel edit session on the crossing selected in the Crossing Details pane. Disabled when the selected crossing is not in an edit session.
Close all open crossings. Click to close all open crossings in the Crossing Details pane. Disabled when there are no open crossings.

Photo-related buttons and tools are covered in the Photos Tab section (below)

Zoom extents on the map to the selected crossing. Click to zoom extents to the crossing selected in the Crossing Details pane.

Relocate the location of a crossing in the map. Click to relocate the location of a crossing when the current open crossing is in edit mode. Disabled when current open crossing is not in edit mode.

Show in External Map. Click the pulldown to select the external map of the selected crossing. Once selected, a new browser window opens with the selected map.

The options are:
- Bing Maps
- Flash Earth
- Google Earth
- Google Maps
- MapQuest
- TopoZone

Create Details Report. Click to create a printable version of the current crossing’s details. The printable report includes a page for each tab in the Crossing Details pane, and can be printed, emailed, or saved for future use.

Comment tools are described in the Review Tab section (below).

**Crossing Details Panel**

**Summary Tab**

The Classification group box allows the user to input the critical data that determines the crossing type and guides the remaining data entry. The rest of the data in the Summary tab summarizes the key data values for the entire crossing.
**Crossing Number**
The current crossing number assigned to the crossing. The application checks the format of the crossing number and displays a green check icon when the format is correct.

**Crossing Status**
Whether the crossing is open, under construction, closed, or no longer physically exists (no road/no tracks).

**Crossing Type**
Whether the crossing is designated as a public or private crossing.

**Crossing Position**
The elevation of the roadway with respect to the elevation of the crossing, including At-Grade, RR Under, or RR Over. Setting this value to RR Over or RR Under will hide the Features, Controls, and Sight Distance tabs.

**Roadway Type**
Identify the roadway as one-way, two-way, three-way, or four-way (select four-way for more than 4 approaches).

**Private Crossing Type**
If the crossing is designated as Private, indicate the type of private crossing (Commercial, Farm, Industrial, etc.).

**Inventory Date**
Date on which the crossing data was originally collected.

**Approach 1 Direction**
This is the direction that traffic flows for Approach 1 as selected by the inventory crew (northbound, eastbound, westbound, southbound, northwestbound, northeastbound,
southwestbound, southeastbound). If the crossing has more than one approach, setting the approach 1 value will assign the opposite direction to approach 2.

**Approach 3 Direction**
If the crossing has more than two approaches, this is the direction that traffic flows for Approach 3 as selected by the inventory crew. If the crossing has 4 (or more) approaches, setting the approach 3 value will assign the opposite direction to approach 4.

**Location Tab**
The Location tab is used to collect location information about the crossing, including street/highway names and the latitude and longitude of the crossing (using the GPS unit and/or the map).

**Railroad Reference Information**

**Railroad Parent**
Name of the parent company to the railroad owner.

**Railroad Owner**
Name of the railroad company that owns the crossing.

**Railroad Operator**
Name of the railroad company that operates on the crossing.

**Division**
The division of the operating railroad line.

**Subdivision**
The subdivision of the operating railroad line.

**Branch**
The branch of the operating railroad line.
**Timetable Name**
The timetable that governs operations concerning the crossing.

**Timetable Code**
A code used by some railroad companies for the timetable that governs operations over the crossing.

**RR Milepost**
Milepost along the rail, used by the operating railroad company.

**TxDOT Reference Information**

**Region**
The TxDOT Region in which the crossing is located. TxDOT has 4 Regions for the administration of construction and maintenance of the highway system. Region is not editable and is governed by the County that the crossing is located within.

**District**
The TxDOT District in which the crossing is located. TxDOT has 25 Districts for the administration of construction and maintenance of the highway system. The District is not editable and is governed by the county that the crossing is located within.

**County**
County in which the crossing is located.

**City**
Name of the city in which the crossing is located.

**On State Highway?**
Whether or not the crossing is located on the state highway system.

**Primary Street Information**

**Street, Roadway Type**
If the street name is known, the name of the street on which the crossing is located, such as “Main St” or “Martin Luther King Jr Blvd”.

**Hwy Prefix, Hwy Number, Hwy Suffix**
If a federal or local designation for the roadway is known, it should be entered into these three fields. For example, the highway US 50 East would have a Hwy Prefix of “US”, a Hwy Number of “50”, and a Hwy Suffix of “East”. If both a federal and local designation are known (such as US Highway and County road), the federal highway information should be entered here and the local information should be entered in the Alternate Street Information section (below).

**Bridge Number**
The National Bridge Inventory (NBI) code if available for grade separated crossings.

**Functional Class**
The functional class of the primary roadway for the crossing.
**Alternate Street Information**

**Street**
If an alternate name for the roadway is known, it should be entered here.

**Hwy Prefix, Hwy Number, Hwy Suffix**
Enter alternate highway information if known.

**GPS Location**

**Lat, Long, Elev**
Latitude, Longitude and Elevation of the crossing, collected with the GPS or from a map click. Use the Relocate Crossing button to change the crossing location by clicking on the map.

**Features Tab**
The Features tab is used to collect information about the entire railroad crossing, including rail information, road information, and general crossing information.

---

**Rail Information**

**Main Tracks**
Number of main tracks in the crossing.

**Other Tracks**
Number of other tracks in the crossing.

**Surface Type**
The surface of the crossing (asphalt, concrete, timber, etc.)

**Other Surface**
If the crossing surface is designated as “Other”, enter the other surface type.
**Crossing Angle**
The smallest actual measured geometric angle between the roadway and track alignments. The angle should have a value between 0 and 90 degrees.

**Quiet Zone?**
Is the crossing part of a quiet zone? (24-hour, No, Partial, Unknown)

**Quiet Zone Date**
If the crossing is part of a quiet zone, date the quiet zone was initiated.

**Track Orientation**
The direction that the railroad track is oriented. Options include North-South, East-West, Northeast-Southwest, and Northwest-Southeast.

**Track Down Street?**
Is the track running along the center of a street?

**Crossing Length**
Length of crossing in feet. This value may be directly measured or calculated by entering the number of panel sections and the length of panel sections.

**Minimum Speed**
Minimum train speed across the crossing (mph).

**Maximum Speed**
Maximum train speed across the crossing (mph).

**Total Trains Through**
Total number of through trains per day.

**Total Trains Switching**
Total number of switching movements across the crossing per day.

**Road Information**

**Traffic Lanes**
Total number of traffic lanes at the crossing in both directions including left, right and through traffic lanes. In the event that the number of approach lanes varies on each side of the crossing (i.e., 2 to 4 lanes), it should be noted in the comments section.

**Truck Lane?**
Is there a truck lane at the crossing (yes/no)?

**Sidewalks**
The total number of sidewalks at the crossing, including sidewalks that pass through the crossing and sidewalks that are broken by the crossing (generally 0, 1, or 2).

**Sidewalks Through**
The total number of sidewalks that pass through the crossing.
**Road Surface**
The roadway surface (Unpaved, Gravel, Asphalt, Concrete, Other Paved, or Unknown).

**Roadway Width**
Width of the roadway in feet.

**Shoulder Type**
The type of shoulder present at the roadway (e.g. Brick, Concrete, Earth). In the event that each approach has a different shoulder type, it should be noted in the comments section.

**Shoulder Width**
Width of the road’s shoulder in feet. In the event that the shoulder widths vary this should be noted in the comments section.

**Adjacent Crossing?**
Whether there is a crossing immediately adjacent to the current crossing on the same roadway.

**Adjacent Crossing Number**
The AAR DOT number of the adjacent crossing, if available (must be a valid crossing number).

**Edge Lines?**
Whether there are edge lines painted on the roadway.

**Edge Lines Through?**
Whether the edge lines pass through the crossing

**Centerlines?**
Whether a centerline is painted on the roadway.

**Centerlines Through?**
Whether the centerline passes through the crossing.

**Crossing Information**

**Illuminated?**
Whether the crossing has overhead lighting.

**Development Type**
What type of development is present around the crossing (Open Space, Residential, Commercial, Industrial, or Institutional)?

**Emergency Notification Sign?**
Whether the ENS number is posted at the crossing (Yes/No)?

**Phone Number**
If the ENS number is posted, enter the telephone number.
Area Landuse
This is an observation to be made by the field crew as to whether the crossing is located within an urban area or a rural area.

AADT
Average annual daily traffic for the roadway.

PAADT
Programming average annual daily traffic for the roadway.

Special Vehicles
Number of special vehicles per day.

Percent Trucks
Percent of traffic comprised of trucks.

Low Clearance Issue?
Whether there is an issue for low clearance vehicles getting over the crossing (hump or dip).

Controls Tab
The Controls tab is used to collect a detailed inventory of the various types of traffic controls found for both sides of each approach of the crossing. The top portion of the tab allows the user to enter information that is valid for the entire approach. Each Approach in the Controls tab is laid out schematically so that the user enters information about the left side of the approach (facing the crossing) on the left side of the screen, and the right side of the approach on the right side of the screen.

Approach Tabs
The number of approach tabs is based on the number of roadway approaches to the crossing. Control data is collected once for each approach, up to four approaches. For
crossings with more than four approaches, inventory controls for additional approaches as part of one of the four approaches, and make a note in the inventory comments. Clicking on each approach button brings up the data entry form for that approach.

**Information for Entire Approach**

**Speed Limit**
The speed limit for this approach.

**Masts with Gate**
The number of gated active warning devices (can be placed on the right side of approach, in the median, or between opposing roadway traffic lanes).

**Masts Without Gate**
The number of masts without a gate.

**Median Gates**
The number of median gates.

**Pedestrian Gates**
Number of pedestrian gates affecting pedestrian traffic originating from this approach.

**Exit Gates**
Number of gated active warning devices placed along the roadway exiting the highway/rail intersection (quad gates).

**Cantilevers**
The number of cantilevers over the roadway approach.

**Bells**
Whether bells are present (Yes/No).

**Advanced Warning Signs**
The number of advanced warning signs. Including W10-1, W10-2, W10-3, W10-4, W10-11, and W10-12 signs.

**Roundel Size**
The diameter of the flashing light lenses or light emitting diode (LED) clusters at active warning device locations (either 8” or 12”).

**LEDs?**
Whether LEDs are present (Yes/No).

**Traffic Signal?**
Whether the current approach is controlled by a traffic signal (Yes/No).

**Advanced Flashers?**
Whether any advanced flashers are present (Yes/No).
**Hump Signs?**
Whether any hump signs (W10-5) are present (Yes/No).

**Median?**
Is there a median (Yes/No)?

**Channelized?**
Is channelization present (Yes/No)?

**Nearby Intersection Data**
The controls depicted in the central part of the Controls tab are meant to depict information about an intersection on the other side of the tracks from the current approach (because a queue at that intersection could potentially back up traffic so that it affects the current approach).

**Nearby Intersection?**
The distance measured from the closest edge of a nearby intersection to the nearest 15’ offset from the centerline of the track.

**Nearby Intersection Signalized?**
If a nearby intersection is present, whether it has a traffic signal.

**Preemption**
If preemption information is available (Not Interconnected, Advance Preemption, Simultaneous Preemption).

**Pavement Markings**
Whether or not there are pavement markings, including stop lines and railroad crossing symbols.

**Left Side / Right Side of Approach**

**Stop Signs**
The number of stop signs.

**Cross Bucks**
The number of crossbucks.

**Yield Signs**
The number of yield signs.

**Side Lights**
Whether any of the flashing pairs providing active warning to nearby intersections (Yes/No).

**Mast-Mounted Flashing Pairs**
The number of mast-mounted flashing pairs.
**Flashing Pairs Over Lane**
The number of flashing pairs cantilevered over the lane(s).

**Flashing Pairs Not Over Lane**
The number of flashing pairs not mounted on the primary signal mast and not cantilevered over the lane(s). These may be mounted on a short cantilever, or mounted on a cantilever but not located over the lane(s).

**Other Signs**
If other signs are present at the crossing that are not listed elsewhere in the controls tab, add them here. Clicking on the “+” button will add more text boxes and clicking on the “-“ will remove the text box next to the button. Sign verbiage or type may be selected from the dropdown or may be typed into the pulldown menu if not available.

**Sight Distance Tab**
The Sight Distance tab is used to display sight distance information collected for public crossings with passive warning devices (crossbucks).

---

**Approach 1 and Approach 2**

**Which Side of Approach is Obstructed?**
The side of approach that is obstructed for the approaching vehicle (left, right, unobstructed).

**Distance for Unobstructed View**
The vehicle sight distance (VSD) from a point 15 feet from the nearest rail to the crossing along the roadway, at which point the line of sight for the motorist to the point on the track designated by the calculated track distance (TD) should be clear. This value is calculated automatically based on the speed of the train and the posted speed for the roadway.
**Distance until Actual View Obstruction**
The actual distance measured from a point 15 feet from the nearest rail along the roadway at which point the line of sight for the motorist to the point on the track designated by the calculated track distance (TD) becomes obstructed.

**Approach Obstruction Type**
The type of obstruction blocking the line of sight (Permanent Structure, Standing Rail Equipment, Passing Train, Topography, Vegetation, Highway Vehicles, Other, or View Not Obstructed).

**Check Stopped Sight Distance?**
Whether the VSD should be verified. This check is generated automatically based on the sight obstruction values.

**Stopped Obstruction**
Type of obstruction blocking the required stopped sight distance line of sight (Permanent Structure, Standing Rail Equipment, Passing Train, Topography, Vegetation, Highway Vehicles, Other, or View Not Obstructed).

**Train Information**

**Train Speed**
The maximum speed the railroad is authorized to operate any of the rail equipment through the crossing (miles per hour).

**Total Trains**
The estimated total number of trains that will pass through the crossing each day.

**DT (Table 1)**
Track distance, automatically calculated from Table 1 in the Sight Distance chapter of this manual.

**SDT (Table 4)**
Clearing sight distance (CSD), automatically calculated from Table 4 in the Sight Distance chapter of this manual.

**Recommendations (each approach)**

**Location of A.W. Sign**
The distance in feet from the crossing where an Advanced Warning sign is recommended for placement is given in Table 2 in the Sight Distance chapter of this manual, and provided automatically in the tab based on the sight distance evaluation. The actual placement will be based on these recommendations and a review of the physical obstructions on the crossing approach.

**A.W. Speed Limit**
The speed limit recommended for the advisory speed plaque to be attached to the Advanced Warning sign when deemed necessary.
**Sign**
The regulatory sign recommended for the crossing approach based on the sight distance evaluation results (Stop or Yield).

**Photos Tab**
This tab is used to collect, view, and provide captions of digital photos of the crossing using the photo control, as well as to archive old photos and delete unwanted photos.

Add photo to the selected crossing. Click to browse to add photos to the selected crossing in the Crossing Details pane. Disabled if the selected crossing is not in an edit session or the Photos tab is not selected.

Archive currently selected photo. Click to archive the currently selected photo. Enabled only if the selected crossing is in an edit session and a photo is selected in the Current Photos tab.

Unarchive currently selected photo. Click to unarchive the currently selected photo. Enabled only if the selected crossing is in an edit session and a photo is selected in the Archived Photos tab.

Delete currently selected photo. Click to delete the currently selected photo. Enabled only if the selected crossing is in an edit session and a photo is selected in the Current Photos tab.

Undelete currently selected photo. Click to undelete the currently selected photo. Enabled only if the selected crossing is in an edit session and a photo is selected in the Deleted Photos tab.

Move the currently selected photo left. Click to move the currently selected photo one spot to the left. Disabled if the selected crossing is not in an edit session or the Photos tab is not selected.
Move Right
Move the currently selected photo right. Click to move the currently selected photo one spot to the right. Disabled if the selected crossing is not in an edit session or the Photos tab is not selected.

Rotate Left 90°
Rotate the currently selected photo left 90 degrees. Click to rotate the currently selected photo left 90 degrees. Disabled if the selected crossing is not in an edit session or the Photos tab is not selected.

Rotate Right 90°
Rotate the currently selected photo right 90 degrees. Click to rotate the currently selected photo right 90 degrees. Enabled if the selected crossing is in an edit session and the Photos tab is selected.

Review Tab
The Review Tab is used to track two types of comments related to crossings: Inventory Comments and Review Comments. Inventory Comments are used to enhance the inventory data and to record exceptions or unusual circumstances at the crossings that aren’t covered in the rest of the Details tabs. Review Comments, on the other hand, are used to track user comments about the state of the crossing data, such as incorrect values or the need for updating of data.

Add
Add a review comment to selected crossing. Click to add a review comment to the crossing selected in the Crossing Details pane. WebTRIMS only

Edit
Edit the currently selected review comment in the selected crossing. Click to edit the currently selected review comment in the crossing selected in the Crossing Details pane. WebTRIMS only

Delete
Delete the currently selected review comment in the selected crossing. Click to delete the currently selected review comment in the crossing selected in the Crossing Details pane. WebTRIMS only

Comment Date
Date that the comment was added to the system.
**Comment Type**
The type of comment that was added (Approve, Reject, Need Clarification, Validation Errors, Distance From Old Point, Appears Out of Order, Crossing Number Modified, or Validation Complete).

**Comment**
The text of the comment.

**User**
The user who submitted the comment.

**Safety Tab**
The safety tab displays the crashes that have occurred involving the selected crossing. Crash data is loaded periodically into the database by an administrator from both the FRA and TxDOT. For public, open, at-grade crossings, the tab also displays the most recent priority index ranking information for the crossing.

<table>
<thead>
<tr>
<th>Crash Number</th>
<th>Crash Date</th>
<th>Injury Count</th>
<th>Fatality Count</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>01002001</td>
<td>1/4/1992 8:51:00 AM</td>
<td>0</td>
<td>1</td>
<td>FRA</td>
</tr>
<tr>
<td>010090203</td>
<td>9/11/1990 10:55:00 PM</td>
<td>0</td>
<td>0</td>
<td>FRA</td>
</tr>
<tr>
<td>200230201</td>
<td>2/2/1982 8:05:00 PM</td>
<td>0</td>
<td>0</td>
<td>FRA</td>
</tr>
<tr>
<td>200230204</td>
<td>2/4/1993 3:37:00 AM</td>
<td>0</td>
<td>0</td>
<td>FRA</td>
</tr>
<tr>
<td>201340201</td>
<td>11/10/1984 6:00:00 PM</td>
<td>0</td>
<td>0</td>
<td>FRA</td>
</tr>
<tr>
<td>201340207</td>
<td>12/10/1982 4:05:00 PM</td>
<td>0</td>
<td>0</td>
<td>FRA</td>
</tr>
<tr>
<td>20135007</td>
<td>12/18/1989 2:25:00 AM</td>
<td>0</td>
<td>0</td>
<td>FRA</td>
</tr>
<tr>
<td>A01299200</td>
<td>12/5/1999 11:00:00 PM</td>
<td>0</td>
<td>0</td>
<td>FRA</td>
</tr>
<tr>
<td>K00042000</td>
<td>4/5/2002 5:30:00 PM</td>
<td>0</td>
<td>0</td>
<td>FRA</td>
</tr>
<tr>
<td>K000420203</td>
<td>6/13/2002 6:50:00 AM</td>
<td>0</td>
<td>0</td>
<td>FRA</td>
</tr>
<tr>
<td>K0004204</td>
<td>9/26/2003 12:00:00 AM</td>
<td>0</td>
<td>0</td>
<td>FRA</td>
</tr>
<tr>
<td>K000700200</td>
<td>12/8/2007 2:18:00 AM</td>
<td>1</td>
<td>1</td>
<td>FRA</td>
</tr>
</tbody>
</table>

**Current Rank**
The name of the most recent priority index ranking calculation.

**Calculation Date**
The date that the most recent priority index calculation was performed.

**Rank**
The most recent priority rank calculated for the crossing.

**Priority Index**
The most recent TxDOT Priority Index calculated for the crossing.
**5yr Crash Count**
The total number of crashes used for the most recent priority ranking calculation (5-year sum).

**5yr Crash Period**
The total number of crashes used for the most recent priority ranking calculation (5-year sum).

**Included?**
Whether or not the crossing is currently included in this year’s safety program.

**Project in DB?**
Whether a project existed in the database for the crossing when the ranking calculation occurred.

**Crashes**

**Crash Number**
Identifier for the source database from which the crash was loaded into TRIMS.

**Crash Date**
The date and time that the crash occurred.

**Injury Count**
Count of persons injured in the crash.

**Fatality Count**
Count of fatalities associated with the crash.

**Source**
The database that was the source of the crash (FRA or CRIS).

**Projects Tab**
This tab contains a list of all projects the selected crossing is associated with. Crossings can be added to a project using the project form.
Project

The Project component is used to keep track of current and past projects. TxDOT staff can track the pertinent information and project steps related to a number of project types, including safety, replanking, and construction projects. The RRD has developed templates for each project type that allow you to set up a schedule of anticipated project steps and to track when and if each project step actually occurs. The following section describes the tools and features that make up the Project component of the TRIMS application.

Project Tool Strip

Create New Project. Click to create a new Project. Opens the new Project in the Project Details pane.

Begin edit session on selected Project. Click to begin an edit session on the Project selected in the Project Details pane. Disabled when the Project is already in an edit session.

Save edit session on selected Project. Click to save edit session on the Project selected in the Project Details pane. Disabled when the selected Project is not in an edit session.

Cancel edit session on selected Project. Click to cancel edit session on the Project selected in the Project Details pane. Disabled when the selected Project is not in an edit session.

Set the selected search as default search. Click to set the selected search as default search. Disabled when the current selected search is already the default search.

Close all open projects. Click to close all open projects in the Project Details Panel. Disabled when there are no open projects.
**Project Grid**

The project grid contains all projects in the TRIMS database. Use the sorting and filtering features in the column headings to view the projects that pertain to your work. Double-click a project row to open the Project Details Panel.

---

**Project Details Panel**

---
Project ID

Project Code
A TRIMS-generated unique identifier for the project based on the project type and program year. For a new project, select the Program Year and Project Type, then save in order to generate the Project Code.

Program Year
The program year for which the project was first created.

Project Type
The general project type (Safety, Replanking, Construction).

SubType
The specific project type.

Description
A written description of the project.

Scope Items
A list of scope items to be accomplished through the project. In edit mode, click the button to add scope items and the button to remove scope items.

Status
Current Step
The current step of the project, calculated by finding the step after step that has the latest actual date value. If no actual dates have been entered, the first step is the current step. If the projected date of the current step is past due, it will be indicated by a red box around the current step, along with an indicator of the due date below.

Letting Date
The letting date of the current project.

Completion Date
The completion date of the current project.

Project Number

TxDOT
The official TxDOT project number for the project (if one exists).

Railroad
Reference project number provided by the railroad (if available).

Control-Section-Job Planning
The Planning CSJ number for the project (if available).
**Controlling**
The Controlling CSJ number for the project (if available).

**Actual**
The Actual CSJ number for the project (if available).

**Cost**
**Programmed**
The project budget as programmed by the RRD.

**Estimated**
The project cost estimate.

**Obligated**
The amount of funds obligated to the project by the Department.

**Actual**
Final actual cost of the project.

**Agreement**
**Master Agreement?**
Whether the current project is managed under a master agreement (yes/no).

**Execution Date**
If the project is managed under a master agreement, the execution date of that agreement.

**Multi-Party Agreement?**
Whether the current project is managed under a multi-party agreement (yes/no).

**Parties**
Brief note describing parties to a multi-party agreement, if any.

**Railroad**
In the case that the Project is associated with at least one railroad crossing, Railroad information will come from the crossing inventory data (and will not be editable). Otherwise, enter the correct Railroad data for the Project.

**RR Owner**
The company that owns the railroad crossing.

**RR Operator**
The company that operates on the railroad crossing.

**Milepost**
The milepost location of the project on the railroad line (according to the railroad company).
**Crossings**

Crossing(s) that are associated with the project. In edit mode, click the **+** button to add crossings and the **-** button to remove crossings. Enter a crossing number and indicate whether the crossing is the “controlling” crossing that controls the location data for the project. Click Add to add the crossing or Cancel to quit without attaching a crossing.

**Project Steps Grid**

Project steps are applied from a template based on the Project Type and a starting date. Projected dates for the project steps are automatically set by TRIMS based on the template offsets. As a project step is accomplished, edit the actual date and add any notes about the step. In edit mode, click the **+** button to add a new step and the **-** button to remove a step. Add, view, and delete attachments using the buttons below the add and delete step buttons.
Project Journal

Use the Project Journal to track comments and notes about the project that don’t specifically relate to individual project steps. In edit mode, click the + button to add a new journal entry and the − button to remove a journal entry. Edit the journal notes directly in the grid as needed.

Adding a journal entry brings up a dialog where you can select the journal entry type and enter the journal note. Click Add to add the journal entry, or Cancel to opt out of the Journal Entry dialog.
Administrative

Administrative Tool Strip

Manage Users

Manage TRIMS users. Click to open the Manage Users dialog.

Manage Rankings

Manage priority ranking calculations. Click to open the Manage Rankings dialog, which allows the administrator to calculate crossing rankings and record decisions and notes related to the safety program.

Manage Users Dialog

The manage users form allows administrative level users to add and modify data about the users of TRIMS. An administrator can change the first name, last name, email and if the user is a field crew member.

To edit a user’s details, select the user in the grid and click the “Edit Selected User” button. To add a new user, click the “Add New User” button. When the Add New User dialog appears, type in the user’s TxDOT username and click the “Get TxDOT User” button. A dialog will appear with the user’s details.
Confirm the details are correct, select the user role, and click “Save” to save the user or “Cancel” to cancel out of the dialog.

**Manage Rankings**

Crossings are ranked through a calculation that includes traffic on the road and the rail. This ranking calculation is called the accident prediction index (API).

Using the View Rankings tab in the Manage Rankings form, administrative users can view current and historical rankings, include a crossing in the safety program, and add comments about the crossing.

These rankings can be exported to excel using the Export Ranking button.

After new collision data has been entered or crossings have been modified, a new ranking can be created in the Create Ranking tab.

Click the Calculate Current Rankings button to generate the new ranking list. Once generated, you may decide to save the rankings by clicking the Save Displayed Ranking button, export the rankings using the Export Displayed Ranking or discard the new ranking list by closing the form.

**TRIMS Data Exchange**

Not currently functional