

Tabulation of Pavement Markings

The following items are included in the tab sheet:

- Pay Items are shown across the top and are sorted by ascending Pay Item number
- The Structure Number, Alignment Name For Station Offset Call-out, and Station Offset columns are fixed; all others can be deleted using the Data Entry button
- Project totals are calculated for each Pay Item and shown at the bottom of the tab sheet

Important! The *Markings Data* tab is used to manage the contents of the Traffic ITS Sheet. **Do not modify** the data on this tab.

There are four major steps involved in using tab sheets:

1. Locating the Pay Item list
2. Entering pay item data into an excel spreadsheet
3. Preparing the spreadsheet for use in a plan set
4. Linking the tab sheet to a MicroStation drawing

Detailed instructions are covered in [Chapter 15 - Tabs Sheets](#) of *A Practical Guide for Using InRoads*.

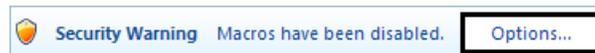
1.0 Locating the Pay Item List

The default Pay Item list an Excel file named *Trnsport_Itemlist.csv*. This file is located in the *C:\Workspace\Workspace-CDOT_XM\Standards-Global* folder and is generally updated by ServerCop.

To get started:

1. Open the *12345TRAF_Tabulation of Traffic Markings.xls* file from the *C:\Projects\12345\Traffic ITS\Drawings\Tabs* folder or copy the default file from the *C:\Workspace\Workspace-CDOT_XM\Project Template\Traffic ITS\Drawings\Tabs* folder.

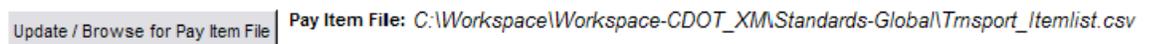
Note: Some computers may generate a *Security Warning* that *Macros have been disabled* similar to the one below.



If this happens, be sure to **Enable** the Macros before continuing.

2. Verify the *Pay Item file* being used.

The Pay Item file being used in the tab sheet is listed next to the *Update/Browse for Pay Item File* button as shown below.



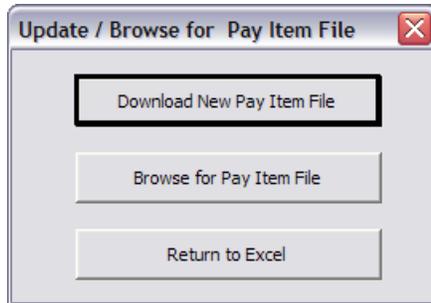
Note: If the location of the file is listed in red text, this indicates that the Pay Item file is not found.

The steps below illustrate how to attach a different Pay Item list to the tab sheet using the **Update/Browse for Pay Item File** dialog box.

3. <D> the **Update/Browse for Pay Item File** button.

This displays the **Update/Browse for Pay Item File** dialog box.

4. <D> the **Download New Pay Item File** button to access the most current Pay Item file from the internet.

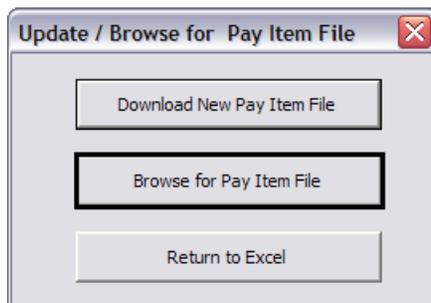


This will bring up a spreadsheet in Excel.

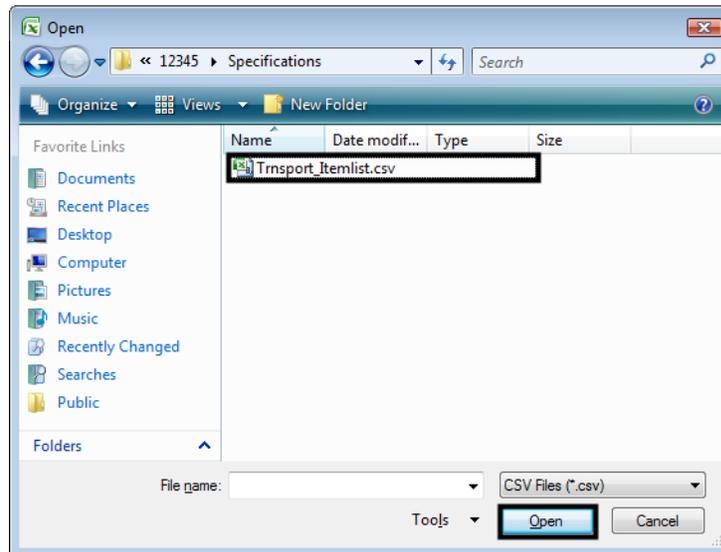
5. **Save** the file to a known location, preferably the **|Specification** folder of in the project directory.

Note: Do not change the name of the file, only the location.

6. Load the new/updated Pay Item file by <D> the **Browse for Pay Item File** button.

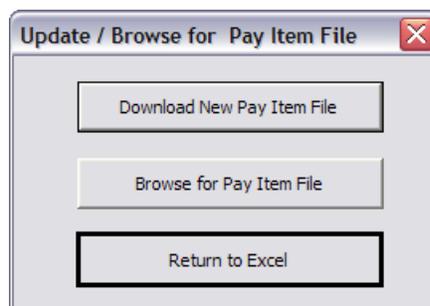


7. In the *Open* dialog box, navigate to the Pay Item list file just downloaded and open it.



After choosing Open, the *Update/Browse for Pay Item File* dialog box should display again.

8. In the *Update/Browse for Pay Item File* dialog box, <D> Return to Excel to dismiss the *Update/Browse for Pay Item File* dialog box and return to the spreadsheet.



9. Save the *12345TRAF_Tabulation of Traffic Markings.xls* file so that the Pay Item file remains attached to the spreadsheet.

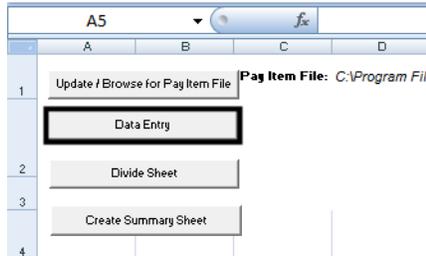
2.0 Entering Pay Item Data Into an Excel Spreadsheet

The overall steps for modifying the tab sheet are:

1. Adding a Pay Item
2. Removing a Pay Item
3. Entering Quantity Data
4. Adding or Deleting rows

2.1 Adding a Pay Item

1. Verify that the 12345TRAF_Tabulation of Traffic Markings.xls file is open.
2. <D> the **Data Entry** button. This displays the *Pavement Markings Data Entry* dialog box.

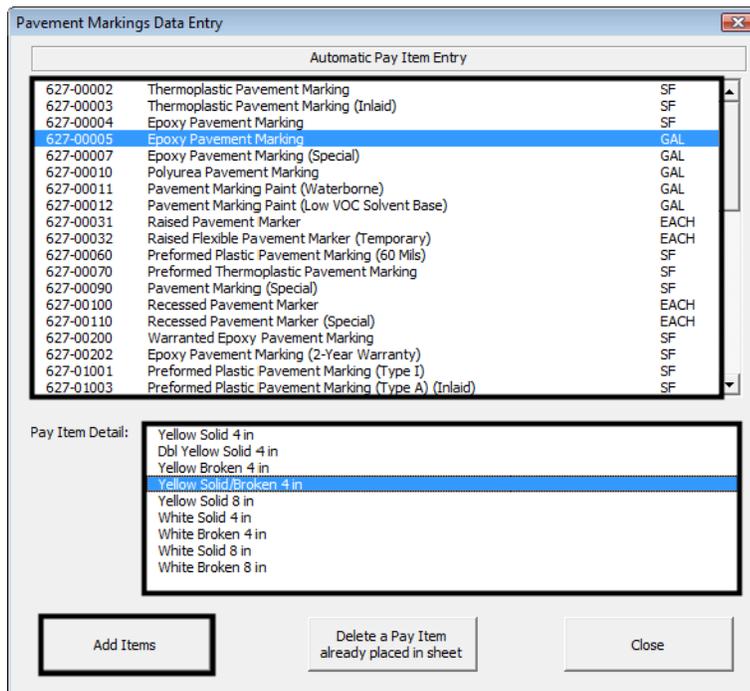


3. Select the desired Pay Item from the list.

Some Pay Items require additional selections. These selection options are shown in the *Pay Item Detail* section. Until a Pay Item Detail option is selected, the *Add Items* button will be disabled.

Note: Because additional data is required by some Pay Items, only one Pay Item can be added at a time.

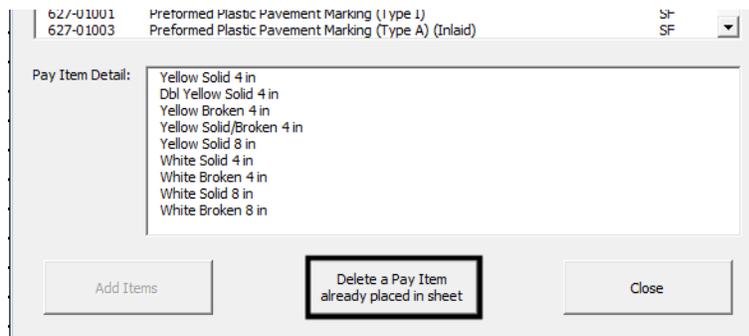
4. Highlight the desired **Pay Item Detail**.
5. <D> the **Add Items** button to update the spreadsheet with the selected Pay Items.



2.2 Removing a Pay Item

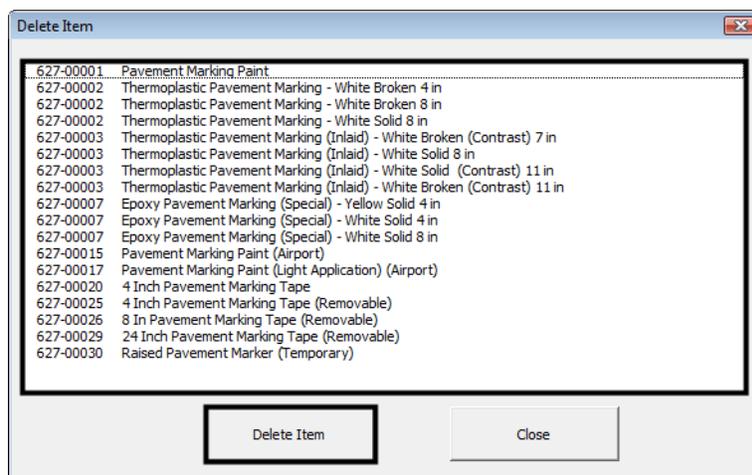
Important! Do not delete the Pay Item columns manually. This will corrupt the file and you will have to start over with data entry. Use the following steps to remove a Pay Item from the Markings Sheet.

1. To remove a Pay Item, <D> the **Data Entry** button.
2. <D> the **Delete a Pay Item already placed in sheet** button. The **Delete Pay Item** dialog box is displayed.



3. Highlight the Pay Item to be deleted and <D> the **Delete Item** button. This removes the Pay Item from the spreadsheet and condenses the remaining data.

Note: Only one item can be deleted at a time.



4. Close the **Delete Pay Item** dialog box.
5. Close to the **Pavement Markings Data Entry** dialog box.

2.3 Entering Quantity Data

Once the Tabulation of Pavement Markings table is laid out, quantity data can be added. The first four columns of the table refer to the location and type of pavement marking. The remainder of the table is for quantity data.

1. <D> in the first column of the desired row and key in the **Highway Number** or **Section** then press the **Tab** key to move to the next column.
2. In the **From** column, key in the **starting station** and press the **Tab** key.
3. In the **To** column, key in the **ending station** and press the **Tab** key.
Note: Stations are rounded to the nearest whole station. The “+” sign is automatically inserted into the station number.
4. Use the drop down menu in the **Marking Type** column to select the type of marking used.

HIGHWAY NO/ SECTION	Station		Marking Type	Pavement Marking Paint	Thermoplastic Pavement		
	From	To			GAL	White Broken 4 in	White Broken 8 in
						SF	
I-25	3+00	7+00	Center				
			Center				
			Lane				
			Edge				
			Lane Drop				
			Dotted				
			Channelizing				
			Crosshatch				
			Symbol				

5. **Tab** to the desired Pay Item column and key in the desired value for the quantity.
 Totals are automatically calculated at the bottom of the table. These are in units of Gallons, Square Feet, or Linear Feet depending on the Pay Item used.

2.4 Adding or Deleting Rows

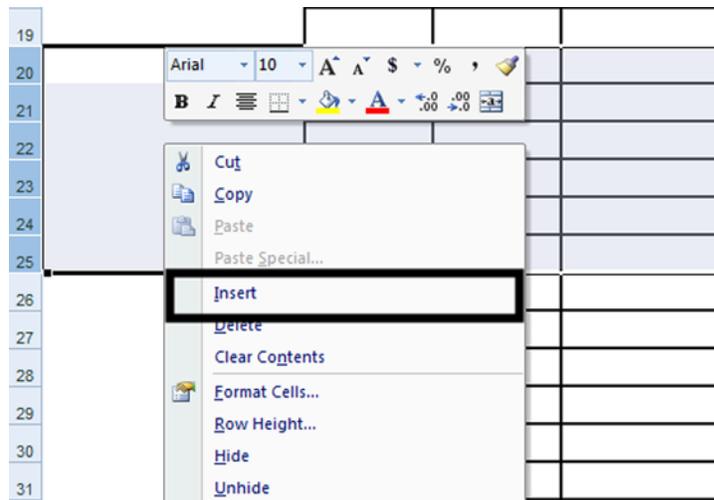
To add an additional row:

1. <R> on a row number that is within the table (below the headings and above the totals) and select **Insert** from the menu. A new row is added above the row that is selected.

To add multiple rows:

2. Highlight the number of rows within the table to be added.

3. <R> and select **Insert** from the menu. The additional rows are added above the highlighted rows.



To delete rows:

4. Use the same steps as for adding rows except choose **Delete** from the selection menu.
5. **Save** the spreadsheet.

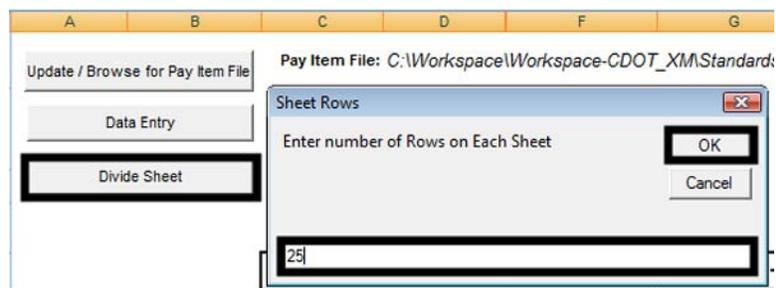
3.0 Prepare Tab Sheet for Use in Plan Sheet

1. Dividing long sheets
2. Dividing wide sheets

3.1 Dividing Long Sheets

All project quantities should be entered on the Markings Sheet. As a result this sheet may need to be divided into sub sheets. To divide this sheet into sub sheets:

1. <D> the **Divide Sheet** button. This displays the *Sheet Rows* dialog box.
2. Key in the number of rows of data you want to appear on each sheet.
3. <D> the **OK** button.



- ◆ This will create a number of new worksheets named *Sub Sheet 1*, *Sub Sheet 2*, etc.

- ◆ Additionally, a **Sub Sheet Totals** worksheet is created which contains a table of total from each sub sheet and a grand total.

Sub Sheet 1	Sub Sheet 2	Sub Sheet 3	Sub Sheet Totals
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Important! If the table needs to be re-divided, delete the Sub Sheet and Sub Sheet Totals worksheets prior to executing the command.

4. Link the Sub Sheets tables to the MicroStation sheet border file following the instructions in [Chapter 15 - Tabs Sheets](#) of *A Practical Guide for Using InRoads*.

3.2 Dividing Wide Sheets

If the table is deemed to be too wide after data is entered, use the following procedure:

1. Determine the number of columns that will fit on the sheet.
2. **Save** a copy of the original file with a different filename.
3. Reopen the original file.
4. On the **Traffic_ITS Sheet** worksheet, <D> the **Data Entry** button.
5. In the **Data Entry** dialog box, <D> the **Delete a Pay Item already placed in sheet** button. This displays the **Delete Item** dialog box.
6. From the **Delete Item** dialog box, highlight the first Pay Item to be removed from the first sheet.
7. <D> the **Delete Item** button. This removes the Pay Item column and any data in that column from the **Traffic_ITS Sheet** worksheet.
8. Repeat steps 7 and 8 until only the Pay Items for the first sheet are left.
9. Save and close the original file.
10. Open the copied file.
11. Repeat steps 5 through 9, deleting the Pay Items that appear on the original sheet.
12. Repeat steps 1 through 12 if a third or subsequent sheets are required.

If sheets need to be divided by both length and width, divide them by width first. This is because the Sub Sheets are not automatically updated by the addition or deletion of Pay Items.