Instruction Guide

for using the

Compliance Plan Template
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This document provides instruction for creating a personalized compliance plan for your specific agency by using the files CompliancePlan.docm and complianceplan_blank.csv distributed to you by the Center for Technology & Training in collaboration with the Transportation Asset Management Council and the Michigan Department of Transportation. Compliance plan data for your agency will need to come from the Pavement Asset Management Plan workbook or Bridge Asset Management Plan workbook or will need to be entered manually into the complianceplan_blank.csv Microsoft Excel spreadsheet. This Instruction Guide will detail how to merge data into the Word template and will provide guidance for entering data into the Excel sheet.

**Saving the template files on your computer**

The two template files for creating a compliance plan will be provided to you on a USB drive. *Do not rename these files at any time while working with them.* These files should be stored on your PC in a location that is easy to find and access. It is recommended that a new subfolder be created in your Documents or My Documents folder or on your desktop. This new (sub)folder should be given a unique name, such as “Compliance-Plan-2019”. Copies of the .docm and .csv files should be saved in that new (sub)folder. It is also recommended that any other content needed for your compliance plan—such as logos and images—be kept in this folder, as well (see figure below).
**NOTE:** You will have two initial files within your main compliance folder: CompliancePlan_v2019.docm and complianceplan_blank.csv. If you have used the 2019 pavement asset management plan or the revised 2019 bridge asset management plan tools, you will have two additional files that should be stored in this folder- bcomplianceplan_agencyabbr.csv and pcomplianceplan_agencyabbr.csv (see figure below).
Data for complianceplan.csv
Data for the complianceplan.csv file can be manually inserted into the complianceplan_blank.csv file using Microsoft Excel or can be automatically from 2019 pavement asset management plan workbook (i.e., DataMacro_pavementAMP_v2019.xlsm) and/or the revised 2019 bridge asset management plan workbook (i.e., BridgeAMP-Data_v2019.xlsm) exports using Microsoft Word. Both procedures are detailed here.

Manually input data into CSV

NOTE: If you have used the 2019 pavement asset management plan workbook (i.e., DataMacro_pavementAMP_v2019.xlsm) and/or the revised 2019 bridge asset management plan workbook (i.e., BridgeAMP-Data_v2019.xlsm), you can auto-generate data for the complianceplan.csv file. Please refer to the instructions in the Auto-generate data for CSV section below.

1. Open the complianceplan_blank.csv file in Microsoft Excel.

2. Input data in row 2 based on the prompts in row 1 and your agency’s situation (see figure below).

   NOTE: Do not change column headings in row 1. These headings correspond with fields set in the Microsoft Word template.

3. Save the .csv as complianceplan.csv.
Auto-generate data for CSV

**NOTE:** If you have not used the 2019 pavement asset management plan workbook (DataMacro_pavementAMP_v2019.xlsm) or the revised 2019 bridge asset management plan workbook (i.e., BridgeAMP-Data_v2019.xlsm), you must manually update the complianceplan.csv file. Please refer to the instructions in the *Manually Input data into CSV* section above.

**NOTE:** This instruction uses two files named “pcomplianceplan_agencyabbr.csv” and “bcomplianceplan_agencyabbr.csv” for demonstration purposes. Your output files from the 2019 pavement asset management plan workbook (DataMacro_pavementAMP_v2019.xlsm) and the revised 2019 bridge asset management plan workbook (i.e., BridgeAMP-Data_v2019.xlsm) will be named with the agency name abbreviation that you entered into the questionnaire worksheet instead of “agencyabbr”.

1. Open the CompliancePlan_v2019.docm file in Microsoft Word.
2. Select the **Build CP CSV** button in the *Quick Access* toolbar (see figure below).

   ![Build CP CSV button](image)

   ⇒ An input box requesting the file path for your compliance plan files will open.

3. Enter the folder path (excluding any final backslash (\)) where your compliance plan files (CompliancePlan_v2019.docm and complianceplan_blank.csv and, optionally, bcomplianceplan_agencyabbr.csv and pcomplianceplan_agencyabbr.csv) are stored (see figure below).

   ![Folder path input box](image)

4. Select **OK**.

   ⇒ The *Select the blank COMPLIANCE PLAN CSV file you wish to use* window will open (see figure below).
5. Select your complianceplan_blank.csv file from within the window (see figure below).

6. Select OK.

⇒ The Select the blank PAVEMENT CSV file you wish to use window will open (see figure below).

7. Select your pcomplianceplan_agencyabbr.csv file from within the window (see figure below).

8. Select OK.

⇒ The Select the blank BRIDGE CSV file you wish to use window will open (see figure below).

9. Select your bcomplianceplan_agencyabbr.csv file from within the window (see figure below).

10. Select OK.

⇒ Dialogue box prompts will open for any data field that has divergent data entries between the complianceplan_blank.csv, the pcomplianceplan_agencyabbr.csv, and the bcomplianceplan_agencyabbr.csv files (see figure below).
NOTE: Since this procedure merges data from your 2019 pavement asset management plan workbook (DataMacro_pavementAMP_v2019.xlsm) and your revised 2019 bridge asset management plan workbook (i.e., BridgeAMP-Data_v2019.xlsm) outputs, any data fields that appear in both workbooks will need to be merged into one field at this point (see figure below).

11. Select Yes to retain or No to replace the identified information.

The complianceplan_blank.csv file will now be saved as complianceplan.csv. The complianceplan.csv file will contain all output data from your 2019 pavement asset management plan workbook (i.e., data that was output as pcomplianceplan_agencyabbr.csv) and your revised 2019 bridge asset management plan workbook (i.e., data that was output as bcomplianceplan_agencyabbr.csv) (see figure below).
Opening the Word template
Opening the compliance plan Word template (i.e., CompliancePlan_v2019.docm) will immediately cause Microsoft Word to request the link between the Word template and the Excel spreadsheet data to be established. It is safest to re-link the file using the Mailing tools in Word (procedure detailed below) rather than initiating the link in response to the warning dialogue box that appears upon opening the Word template.


⇒ A Microsoft Word warning box will open (see figure below).

2. Select No.

⇒ The Word template will open. Proceed to the instructions for Linking the Excel spreadsheet data to the Word template.

Linking the Excel spreadsheet data to the Word template
To link the Excel spreadsheet data with the Word template and auto-fill corresponding text fields:

1. Open the CompliancePlan_v2019.docm Word template in Microsoft Word.

2. Select the Mailings tab.
3. In the Mailings tab, select the Select Recipients from the Start Mail Merge group; then, select

![Select Recipients](image1.png)

4. Navigate to the save location for your compliance plan files—specifically your complianceplan.csv file—using the Select Data Source window; then, select the complianceplan.csv file and select Open.

![Select Data Source](image2.png)

⇒ The File Conversion window will appear (see figure below).

5. Select Window (Default) in the File Conversion – complianceplan.csv window, and select OK (see figure below).  

![File Conversion](image3.png)
The complianceplan.csv file is now linked to the Word template and the data has been imported into the document.

6. In the Mailings tab (after opening up the complianceplan.csv), select **Preview Results** in the **Preview Results** group to preview the document with this auto-filled data (see figure below).

Scroll through the document: Text fields previously enclosed with double-right and double-left carets (e.g.: «Agency_NameAbbreviation») should now be replaced with the appropriate data from row 2 of the complianceplan.csv Excel spreadsheet (see figure below).
Inserting content into the compliance plan Word template

Inserting a logo
There is one instance in the compliance plan where you will need to insert an image—the title page should incorporate your agency’s logo. A Picture placeholder indicates where the logo should be inserted.

To insert a logo into the Picture placeholder:

1. Select the Picture placeholder where you plan to insert a logo (not a chart) (see figure below).

2. Select the icon in the center of the placeholder.

⇔ The Insert Pictures dialogue box will open (see figure below).

3. Select Browse > in the From a file option row in the Insert Pictures dialogue box (see figure below).
The *Insert Picture* window will open (see figure below).

4. Navigate to your desired image using the *Insert Picture* window; select the image and then select **Insert** (see figure below).

![Insert Picture Window](image)

The *Picture* placeholder will be replaced with the selected logo or graphic.

**Inserting charts**

You may also choose to add Excel charts or graphs to your compliance plan Word template (i.e., CompliancePlan_v2019.docm). To insert Microsoft Excel charts/graphs into the Word document:

1. In the Excel workbook, select a chart/graph (see figure below).

![Chart Graph](image)

2. In the Excel workbook’s *Home* tab, select **Copy** from the *Clipboard* group to copy the chart/graph to the Windows clipboard.

   **OR:** Right-click on the chart/graph; select **Copy** from the dropdown menu.

   **OR:** Use the **Ctrl + C** keyboard shortcut.
3. In your compliance plan Word template (i.e., complianceplan_v2019.docm), place cursor at the position in the document where the chart or graph should be inserted.

**NOTE:** If your compliance plan Word template was not open before you started this procedure, you may open it now.

4. In Word’s *Home* tab, select **Paste** from the *Clipboard* group to paste the chart/graph that was copied to the Windows clipboard.

OR: Right-click where your cursor is positioned, and select **Paste** from the dropdown menu.

OR: Use the **Ctrl+V** keyboard shortcut.

**Inserting images**
Maps and other images will help communicate your inventory of assets and your asset management goals.

**NOTE:** The procedure for creating maps in Roadsoft, exporting them as PDFs, and saving them as image files is detailed below.

To insert an image into the Word template:

1. Place cursor where you desire to insert an image.

2. Select **Pictures** in the *Insert* ribbon *Illustrations* group.

   ![Insert Picture window](image)

   ⇨ The *Insert Picture* window will open (see figure below).

3. Navigate to your desired image using the *Insert Picture* window; select the image and then select **Insert** (see figure below).
The picture will insert into the Word template.

4. Adjust by selecting the image and using **Wrap Text** option in the *Picture Tools > Format* ribbon (see figure below).
Creating map images from Roadsoft

The compliance plan Word template has four map images: figure 1 – inventory of pavement assets, figure 6 – pavement assets’ planned projects, figure 7 – inventory of bridge assets, and figure 9 – critical links in the road and bridge network. The following procedures detail the creation of each of these maps in Roadsoft and exporting them PDF files; an additional procedure explains the process of saving a PDF file as an image. The preceding section (above)—Inserting content into the compliance plan Word Template—details the procedure for inserting images into a Word document.

Creating image for 1. Pavement Assets > Inventory of Assets (Figure 1)

1. Display roads according to rating.
   
   a. Select **Show Legend Window** ( ) in the **Map tool options** bar.
      
      ⇒ The **Road Legend** window will open (see figure below).
   
   b. Select **Open Legend Builder** ( ) in the **Road Legend** window (see figure below).
      
      ⇒ The **Legend Builder** window will open (see figure below).
c. Choose the **Good/Fair/Poor** field from the *Legend Field* dropdown list (see figure above).

d. Move the good, fair, and poor rated road values down to the *Query* box of the *Legend Builder* window.

   i. Highlight good, fair and poor unique values by selecting the first value (e.g., Good), holding down the *Alt* key on your keyboard, and selecting the subsequent unique values (e.g., Fair and Poor).

   ii. Select **Add Selected Unique Value(s)** (>Add Selected Unique Value(s)).

e. Select one condition Query value in the *Items* list.

f. Adjust color and font size of the selected value using *Feature* and *Outline* in the *Item Properties* box (see figure below).

g. Select **Apply Property to All Items** to apply adjusted color and font size to all Query items (see figure below).

   ⇒ The *Apply Selected Property* dialogue box will open (see figure below).

![Apply Selected Property Dialogue Box](image)

h. Select **Yes** in the *Apply Selected Property* dialogue box (see figure above).

i. Select **Apply (Apply)** in the bottom right of the *Legend Builder* window once the legend settings are correct.
2. Add an unpaved road filter.
   
a. Select \textit{Filter (Filter)} in the \textit{Map tool options} bar.

b. Select \textbf{Apply Saved Filter as Selection…} from the \textit{Filter} dropdown list.

   \textbf{The Load Saved Filter window will open (see figure below).}

   c. From the list of filters, apply \textit{both} the city \textit{and} county unpaved roads filters (see figure below).

   \textbf{d. Select OK.}
The filters will be applied.

e. Select File from the main menu, and select Export/Upload >.

f. Select Export Layer to File from the Export/Upload > flyout menu (see figure below).

The Export Road to Shapefile window will open (see figure below).

g. Select an Export Path (e.g., folder where you are storing your materials for your compliance plan) and enter a File Name (e.g. unpavedroadlayer) (see figure above).

h. Import the shape file as a layer.
i. Right-click on **Road** from the *Map Layers* window (see figure below).

![Map Layers window](image1.png)

ii. Select **Add Layer** from the flyout menu (see figure above).

⇒ The *Add Map Layer* window will open (see figure below).

![Add Map Layer window](image2.png)

iii. Select the **External Layer** tab in the *Add Map Layer* window (see figure above).

iv. Browse for the exported shape file using the *Path* browse button (see figure above).

⇒ The *Select external file to add to the map* window will open (see figure below).

![Select external file window](image3.png)

v. Navigate in the *Select external file to add to the map* window to the shape file exported in step 1, select the shape file, and select **Open**. (see figure below).
vi. Select OK in the Add Map Layer window.

⇒ The shape file will be added as a Line Layer in the Map Layers window (see figure below).

i. Right-click on the Road category once again (see figure above).

j. Select Layer Properties ( ).

⇒ The Road Layer Properties window will open (see figure below).

k. Select the Legend tab of the Road Layer Properties window (see figure below).

l. Adjust color and font size of the roads in the unpaved road layer (see figure below).

m. Select Apply (see figure below).

n. Ensure that both the shape layer (e.g., unpavedroadlayer) and the Road layer are selected in the Line Layers group of the Map Layers window; de-select the Bridge and Intersection layers of the Point Layers group.
3. Print the map as a PDF.

   a. When the map is ready, select **File** from the main menu (see figure below).

   b. Select **Print Current Map View** from the **File** menu (see figure below).

   ➔ The **Map Print Setup** window will open (see figure below).
c. Enter desired label information into the **Title** and **Subtitle** input boxes, and adjust the **Scalebar Units** and **legend** as desired (see figure above).

d. **Select Print Map** (see figure above).

⇒ The **Windows Print** window will open (see figure below).

![Print Map Window](image)

 e. **Select Microsoft Print to PDF** from the **Print window** (see figure above).

 f. **Select Print** (see figure above).

⇒ The **Save Print Output As** window will open.

 g. Navigate in the **Save Print Output As** window to the desired folder containing compliance plan materials, enter a descriptive file name in the **File name** input box (e.g., *complianceplan_figure1*), and select **Save**.
1. View projects.

   a. Select **Show Legend Window** (מנות) in the **Map tool options** bar.

      ⇒ The **Road Legend** window will open (see figure below).

[Image]

   b. Select **Open Legend Builder** (גמזר) in the **Road Legend** window (see figure above).

      ⇒ The **Legend Builder** window will open (see figure above).

   c. Select **Scheduled Maintenance Year** from the **Legend Field** dropdown box in the **Legend Builder** window (see figure above).
d. Select a span of years in the *Unique Values* box by clicking the first year, holding down the *Shift* key, and then clicking the last year in the range (see figure below).

**NOTE:** Since the compliance plan is looking forward at the project you plan to do on your network, the selected span of years should begin during or after the publication year of your compliance plan and include the subsequent years corresponding to the subsequent years covered in your compliance plan.

All the selected years should be highlighted in blue.

e. Select *Add Selected Unique Value(s)* in the *Unique Values* box of the *Legend Builder* window (see figure above).

**NOTE:** The years should appear in the *Items* box (lower left).

**NOTE:** If any other values are listed in the *Items* box, these values should be deleted so that only the desired project years are listed (see figure below).

f. Select one year Query item in the *Items* list.
g. Adjust color and font size of the selected item using *Feature* and *Outline* in the *Item Properties* box (see figure below).

h. Select **Apply Property to All Items** to apply adjusted color and font size to all Query items (see figure below).

i. The **Apply Selected Property** dialogue box will open (see figure below).

![Image of Apply Selected Property dialogue box]

j. Select **Yes** in the **Apply Selected Property** dialogue box (see figure above).

k. Select **Apply** in the bottom right of the *Legend Builder* window once the legend settings are correct.

دليل طريق *Road Legend* window will display the applied legends (see figure below).

![Image of Road Legend window displaying applied legends]
1. Ensure that the Road layer is selected in the Line Layers group of the Map Layers window; de-select the Bridge and Intersection layers of the Point Layers group (see figure above).

2. Create a new project.

   a. In the Map window, select Road Segment in the Map tool options bar (see figure below).

   ![Map window with selected Road Segment](image)

   b. Select the segment(s) of road on the map where the project will take place (see figure above).

   ⇒ Selected segment(s) will be highlighted.

   c. Select the Projects in the Map tool options bar (see figure above).

   d. Select Add Project Using Selection… in the Projects dropdown menu.

   ⇒ The Add Project window will open (see figure below).
e. Fill out Project Information fields (i.e., Location, Project Number/OD, Surface Subtype, Life Expectancy, Estimated Costs, Total Costs, Start Date, status, Completion/Open To Traffic Date, Reactionary Project, Warranty Project, Description, Source of Funds, Memo).

   **NOTE:** As long as the Start Date field data falls within the selected span of years (see step 1.c), the road segments will be displayed with the same color as the other road projects within the same span of years.

f. Select Save.

3. Print the map as a PDF.

   a. When the map is ready, select File from the main menu (see figure below).
b. Select **Print Current Map View** from the *File* menu (see figure below).

![Print Current Map View](image1.png)

⇒ The *Map Print Setup* window will open (see figure below).

![Map Print Setup](image2.png)

c. Enter desired label information into the *Title* and *Subtitle* input boxes, and adjust the *Scalebar Units* and *legend* as desired (see figure above).

d. Select **Print Map** (see figure above).

⇒ The Windows *Print* window will open (see figure below).

![Windows Print](image3.png)
e. Select **Microsoft Print to PDF** from the *Print* window (see figure above).

f. Select **Print** (see figure above).

⇒ The *Save Print Output As* window will open.

g. Navigate in the *Save Print Output As* window to the desired folder containing compliance plan materials, enter a descriptive file name in the *File name* input box (e.g., *complianceplan_figure6*), and select **Save**.

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**Creating image for 2. Bridge Assets > Inventory of Assets (Figure 7)**

1. Display bridges according to rating.

   a. Ensure **Road** is selected in the *Line Layers* group of the *Map Layers* window but has no legends associated with it.

   **NOTE:** To view legends associated with the *Road* layer:

      i. Select **Road** in the *Map Layers* window.

      ii. Select **Show Legend Window** ( ) in the *Map tool options* bar.

      iii. Select any legends listed, and select **Delete a saved legend** ( ).

   b. Select **Bridge** in the *Map Layers* window.

⇒ A prompt will appear if bridge data needs to be imported.
NOTE: To re-import bridge data, right-click on the Bridge and select **Re-Import Bridge Data** from the dropdown menu (see figure below).

c. Right-click on **Bridge** in the *Map Layers* window.

d. Select **Legend Builder…** ( ) from the dropdown menu.

⇒ The **Legend Builder** window will open (see figure below).

e. Select **Good/Fair/Poor Rating** from the *Legend Field* dropdown list.

⇒ Relevant unique values will populate the *Unique Values* box.

f. Select the **Good**, **Fair**, and **Poor** values by clicking the value (e.g., Good), holding down the **Ctrl** key, and then clicking all subsequent desired values (e.g., Fair and Poor).
All the selected unique values should be highlighted in blue.

g. **Add Selected Unique Value(s)** in the *Unique Values* box of the *Legend Builder* window.

**NOTE:** The good, fair, and poor values should appear in the *Items* box (lower left).

**NOTE:** If any other values are listed in the *Items* box, these values should be deleted so that only the desired project years are listed (see figure below).

h. Select the first Query item in the *Items* list, i.e., **Good/Fair/Poor Rating = Good**.

i. Adjust color to green and font size of the selected item using *Feature* and *Outline* in the *Item Properties* box.

j. Repeat steps 1h and 1i for **Good/Fair/Poor Rating = Fair** adjusting color to yellow and **Good/Fair/Poor Rating = Poor** adjusting color to red.

k. Select **Apply**.

The map will display all bridges in the county with the rating-specific legend applied (see figure below).

2. Add a filter to display bridges based on ownership.

a. Select **Filter** in the *Map tool options* bar.

b. Select **Filter Builder…** from the *Filter* dropdown menu.
The Bridge Filter Builder window will open (see figure below).

![Bridge Filter Builder window](image)

1. Search for “owner” in the search bar of the Bridge Filter Builder window (see figure above).

2. Select **Owner** in the *Field* list (see figure above).

3. The available operator(s) and value(s) will display.

4. Select the desired operator in the *Operator* box and the desired value(s) associated with the selected operator in the *Value* box (see figure above).

5. Select **Add** (to the right of the Value box) (see figure above).

6. Select **Apply as Filter** in the Bridge Filter Builder window.

**NOTE:** You may be prompted to save this filter in order to apply it. In this case, the *Save Filter* window will open; enter a unique name in the *Name* input box, (optional) associate the filter with a group using the *Group* dropdown list, (optional) share/create a private the filter by selecting/de-selecting *Shared Filter* check box, and then select **Save As**. Alternatively, if you are updating an already-saved filter, you may have to re-save the filter; select **Save** in the window prompting you to update the saved filter.

7. Exit the Bridge Filter Builder window using the ✗ in the top right corner.

8. Check to make sure only the bridges owned by the value(s) chosen are displayed on the map.

3. Print the map as a PDF.

   a. When the map is ready, select **File** from the main menu (see figure below).
b. Select **Print Current Map View** from the *File* menu (see figure below).

![Map Print Setup window](image)

⇒ The **Map Print Setup** window will open (see figure below).

c. Enter desired label information into the *Title* and *Subtitle* input boxes, and adjust the *Scalebar Units* and *legend* as desired (see figure above).

![Title and Subtitle input boxes](image)

d. Select **Print Map** (see figure above).

⇒ The Windows *Print* window will open (see figure below).
e. Select **Microsoft Print to PDF** from the *Print* window (see figure above).

f. Select **Print** (see figure above).

⇒ The *Save Print Output As* window will open.

g. Navigate in the *Save Print Output As* window to the desired folder containing compliance plan materials, enter a descriptive file name in the *File name* input box (e.g., *complianceplan_figure7*), and select **Save**.

**Creating image for 6. Risk of Failure Analysis (Figure 9)**

1. Select **Road** in the *Map Layers* window.

2. Select **Road Segment** in the *Map tool options* bar (see figure below).

3. In the *Map* window, select a segment or multiple segments of road (see figure below).

**NOTE:** Hold down the *Ctrl* on your keyboard when selecting with the mouse in order to make multiple selections, or hold down the *Alt* key on your keyboard when selecting with the mouse in order to de-select a segment.

4. Right-click on any of the selected segments (see figure above).
5. Select **Save Selection as Filter**… from the dropdown list (see figure below).

![Image](image.png)

⇒ The **Save Selection as Filter** window will open (see figure below).

![Save Selection as Filter Window](image.png)

6. Enter a name in the **Name** input box for filter.

7. If a risk group already exists, select risk group from the **Group** dropdown list.

   OR: If a risk group does not exist, type in the name of a new risk group in the **Group** field.

8. Right-click on a selected high-risk segment in the **Map** window.

9. Select **View Module**… from the dropdown list.
10. Select the **User-Defined** tab located on the left side of the **Road Module** tab (see figure above).

△ The **User-Defined** window will display (see figure below).

11. Select the plus sign to the left of the first user-defined field, “User Def 4” (see figure above).

△ This will expand the field options for that user defined field.

12. Select the **Change Label...** option associated with the **User Def 4** field options (see figure above).
13. Enter a name for the user-defined field in the input box: “Risk” (see figure above).

14. Select **OK**.

15. Select the **Add/Edit Risk…** option associated with the *Risk* field options.

16. Select **Add** (see figure above).

17. Enter a new name in the *Description* input field and an abbreviation in the *Abbreviation* input field for the new high-risk section.

18. Select **Save**.

**NOTE:** Save these options for the “Risk” user-defined field before creating values for every other high-risk section.
19. Select the X in the top right corner of the View/Edit Lookup/Defaults window to close the window and return to the map when finished.

⇒ User-defined values will now be added to the Road Module.

NOTE: These newly-added user-defined values still need to be applied to the appropriate segments. The Multi-edit tool is used to accomplish this.

20. Select the Map tab.

21. Right-click on the map.

22. Select Apply Saved Filter as Selection… from the dropdown menu.

23. Use the Group dropdown to locate the Risk group.

24. Select OK.

25. Select View Module (View Module) in the Map tool options bar.

26. Select Multi-edit (Multi-edit) in the Road Module tab (see figure below).

27. Select All Segments from the dropdown menu.
The Road Multi-edit window will open (see figure below).

28. Select ALL Selected Segments from the PR dropdown list.

29. Select User-Defined from the Inventory section of the window (see figure below).
30. Select Risk in the User Defined Fields box, and use the dropdown list at the right side of the field to select the first segment.

31. Repeat this steps 29 and 30 for each of the segments.

32. Apply legends to high-risk segments.

   c. Select **Show Legend Window** ( ) in the **Map tool options** bar.

      ⊳ The **Road Legend** window will open (see figure below).

   d. Select **Open Legend Builder** ( ) in the **Road Legend** window (see figure above).

      ⊳ The **Legend Builder** window will open (see figure above).

   e. Select **Risk** from the **Legend Field** dropdown box in the **Legend Builder** window (see figure above).

      ⊳ Relevant unique values will populate the **Unique Values** box.

   f. Select the desired segments.

      ⊳ All the selected segments should be highlighted in blue.

   g. Select **Add Selected Unique Value(s)** ( ) in the **Unique Values** box of the **Legend Builder** window.

   h. Values will be added to the Query in the **Items** box.

   i. Select the first Query item in the **Items** list.

   j. Adjust the color and font size using **Feature** and **Outline** in the **Item Properties** box.

   k. Select **Apply Property to All Items** to apply adjusted color and font size to all Query items.

      OR: Repeat steps 32g and 32h for each Query item to create a unique legend for each item.

   l. Select **Apply** ( ).
33. Print the map as a PDF.

c. When the map is ready, select **File** from the main menu (see figure below).

d. Select **Print Current Map View** from the **File** menu (see figure below).

[Image of print current map view menu]

⇒ The **Map Print Setup** window will open (see figure below).

[Image of map print setup window]

e. Enter desired label information into the **Title** and **Subtitle** input boxes, and adjust the **Scalebar Units** and **legend** as desired (see figure above).

f. Select **Print Map** (see figure above).
The Windows Print window will open (see figure below).

g. Select **Microsoft Print to PDF** from the Print window (see figure above).

h. Select **Print** (see figure above).

⇒ The Save Print Output As window will open.

i. Navigate in the Save Print Output As window to the desired folder containing compliance plan materials, enter a descriptive file name in the File name input box (e.g., `complianceplan_figure9`), and select **Save**.

### Creating images from PDF files

To create images from the four PDF Roadsoft map files, you will need a PDF reader/writer software program that allows you to save the PDF as an image. An example of this software is Adobe Acrobat.

1. Open each PDF map in the PDF software program.

2. Select **File** from the main menu.

3. Select **Save As** from the **File** menu.

4. Change **Save as type** to an image format (e.g., JPG, PNG, GIF, TIF).

Note: It is important to ensure that the save location for the file is the same folder where you are saving all of your compliance plan materials.
Note: The file name should remain the same as the PDF file name, but the extension will change from “.pdf” to the file extension corresponding with your selected image format.

5. Select **Save**.

6. Follow the procedures (detailed above) for inserting images into your compliance plan Word template.
Completing the Word template

The compliance plan Word template is automatically linked to your newly-generated complianceplan.csv file, which will populate the template with content based on your agency’s specified circumstances. However, several places in the Word template still require your input and editing.

1. Address all orange-text field prompts or comments/“Your Content Here” prompts (see figure below).

![Image of Word template](image)

**NOTE:** <#Orange text fields> are placeholders for user-entered data. Each of these placeholders can be identified by its field formatting, its orange color, and its unique tagging “<#”. Each of these placeholders has a different prompt depending on the type of information to be inputted. An example of an orange text field is:

   <# YOUR CONTENT HERE: Insert percent in ## format>

To address these prompts:

a. Navigate to the orange-text field prompts or comments/“Your Content Here” prompts.

   i. Place cursor on the cover page, then toggle to each prompt using the **F11** key on your keyboard.

   OR: Visually search the document for orange-text fields and/or “Your Content Here” prompts.
OR: Select **Find** from the *Home* ribbon *Editing* group, and enter “<#” in the *Search document* input box. (Note: This will also find the missed auto-fills; see step 4, below).

b. Fill in content/responses manually.

**NOTE:** Some orange text field prompts are associated with dropdown selections for content/responses. The chosen dropdown selection or the manually-entered content/response should flow with the context of the paragraph or section.

2. Address all teal-commented optional sections (see figure below).

**NOTE:** Teal-commented optional sections signal entire sections that are optional and can be deleted based on your agency’s circumstances. These sections are placed in content controls. In many cases, you will have a choice between alternate teal-commented sections for the same entire section; you may delete one or all options for the entire section if it does not apply to your agency’s circumstances. Optional sections are accompanied by instructions in the teal-highlighted comment. An example of an optional section’s instructional comment is:

Use and/or modify the following section by right-clicking the content control and then “Remove Control” to retain text.
To delete, select the control handle (entire content control area will highlight) and use your Delete key to delete content.
Scrolling over an optional section will show its content control and will shade the content control in grey (see figure above). At this point, you may address the teal-commented optional section in one of three ways:

a. OPTION 1: Use and/or modify optional sections content:

i. Right-click anywhere inside the content control.

⇒ A drop-down menu will appear.

ii. Select **Remove Content Control** (see figure below).

⇒ The content control is now removed and the text has merged with the body of the document. You may now edit this section as part of the body itself.

b. OPTION 2: Create new sub-sections:

i. Place cursor in optional section content control.

⇒ The content control frame and handle (upper left corner) will open.

ii. Select the content control handle (see figure below).

iii. Copy the content control:

   In the **Home** ribbon, select **Copy** from the **Clipboard** group.
OR: Use the **Ctrl+ C** keyboard shortcut.

iv. Place cursor at the end and outside the content-controlled area.

v. Paste the copied content control:
   In the *Home* ribbon, select **Paste** from the *Clipboard* group.

OR: Use the **Ctrl+ V** keyboard shortcut.

c. **OPTION 3: Delete optional sections entirely.**

i. Place cursor in optional section content control.

⇒ The content control frame and handle (upper left corner) will open.

ii. Select the content control handle (see figure above).

iii. Press the **Delete** key on your keyboard.

⇒ This removes the entire optional section.
3. Address comments.

**NOTE:** Comments appear along the right side of the Word document. If you do not see comments, ensure that the markup dropdown menu in the Review ribbon Tracking group says “All Markup” or “Simple Markup”. If you select “Simple Markup”, you will need to select **Show Comments** in the Comments group (see figure below).
Pavement Asset Management Plan and Bridge Asset Management Plan Workbooks

The 2019 pavement asset management plan workbook (DataMacro_pavementAMP_v2019.xlsm) and the revised 2019 bridge asset management plan workbook (i.e., BridgeAMP-Data_v2019.xlsm) can be used for inserting data (through export of asset-specific .csv files that merge into the complianceplan_blank.csv file to create complianceplan.csv) and charts and formatting the the compliance plan Word template.

Using the Pavement Asset Management Plan workbook

**NOTE:** This instruction assumes you have completed your 2019 pavement asset management plan workbook (i.e., DataMacro_pavementAMP_v2019.xlsm).

**NOTE:** Before continuing with this procedure, ensure that all instances of Microsoft Word are closed. During this procedure, Microsoft Excel will automatically close the entire Microsoft Word program. When using the pavement asset management plan workbook (i.e., DataMacro_pavementAMP_v2019.xlsm) sequentially from the Instructions tab through to the Charts tab, the workbook will give you the option to save and close any open Word documents before closing the program entirely. If you are building your compliance plan by working sequentially through the pavement asset management plan workbook, the workbook will give you the option to save and close any open Word documents; if you are using a pavement asset management plan workbook that has already by populated with your data and bypassing steps to advance to the steps for building your compliance plan, this procedure bypasses the Excel option to save and close any open Microsoft Word documents. **Be sure all instances of Microsoft Word are closed before continuing with this procedure.**

1.  Open the DataMacro_pavementAMP_v2019.xlsm file in Microsoft Excel.
2. Right-click on the Instruction tab at the bottom of the worksheet (see figure below).

   A flyout menu will open.

3. Select Unhide from the flyout menu (see figure above).

   The Unhide window will open.

4. Select Charts from the list in the Unhide window.

5. Select OK.

   The Charts worksheet should open, and you should automatically proceed to the Charts worksheet.

6. Select Step 3a: Locate Compliance plan (CP) template (see figure below).
A dialogue box will open prompting you to find and select your compliance plan Word template file (i.e., CompliancePlan_v2019.docm) from a file dialogue box that will open (see figure below).

7. Select OK (see figure above).

The Please select your compliance plan template window will open (see figure below).

8. Navigate in the Please select your compliance plan template window to your compliance plan Word template file (e.g., CompliancePlan_v2019.docm), and select the file (see figure above).

9. Select Open.

The buttons for Step 3b and Step 3c will become active.
10. Select **Step 3b: Export CP charts & format template** (see figure below).

**NOTE:** Microsoft Excel will automatically close the entire Microsoft Word program during this step.

- A dialogue box will open informing you that your charts have been exported into the compliance plan Word template (see figure below). Your compliance plan Word template will be open at this point. The dialogue box will indicate that the process will continue by formatting the document based on your chosen modelling/forecasting method.

11. Select **OK** (see figure above).

- The workbook will continue to format your Word template according to your chosen modelling/forecasting method. Your compliance plan Word template will be saved and will close during this process. A dialogue box will open informing you that your compliance plan Word template has been formatted and reminding you to export a .csv file of your pavement asset management data (see figure below).
12. Select **Step 3c: Build CSV for CP** (see figure below).

> A dialogue box will open prompting you to agree to the default .csv file name or to create your own file name (see figure below).

13. Select **Yes** to accept the default file name (see figure above).

OR: Select **No** to create your own file name (see figure above).

OR: Select **Cancel** to exit this process without exporting a .csv file (see figure above).
If Yes or No was selected, a .csv file populated with your pavement asset management plan workbook (i.e., DataMacro_pavementAMP_v2019.xlsm) data will be output in a format useable by the compliance plan template files; this output will be saved in the same folder as your compliance plan materials (identified when selecting the Step 3a button).

Using the Bridge Asset Management Plan workbook

NOTE: This instruction assumes you have completed your revised 2019 bridge asset management plan workbook (i.e., BridgeAMP-Data_v2019.xlsm).

NOTE: Before continuing with this procedure, ensure that all instances of Microsoft Word are closed. During this procedure, Microsoft Excel will automatically close the entire Microsoft Word program. When using the bridge asset management plan workbook (i.e., BridgeAMP-Data_v2019.xlsm) sequentially from the Instructions tab through all of the numbered tabs to the TOC tab, the workbook will give you the option to save and close any open Word documents before closing the program entirely. If you are building your compliance plan by working sequentially through the bridge asset management plan workbook, the workbook will give you the option to save and close any open Word documents; if you are using a bridge asset management plan workbook that has already been populated with your data and bypassing steps to advance to the steps for building your compliance plan, this procedure bypasses the Excel option to save and close any open Microsoft Word documents. Be sure all instances of Microsoft Word are closed before continuing with this procedure.

1. Open the BridgeAMP-Data_v2019.xlsm file in Microsoft Excel.
2. Right-click on the Instruction tab at the bottom of the worksheet (see figure below).
A flyout menu will open.

3. Select **Unhide** from the flyout menu (see figure above).

⇒ The **Unhide** window will open.

4. Select **TOC** from the list in the **Unhide** window.

5. Select **OK**.

⇒ The **TOC** worksheet should open, and you should automatically proceed to the **TOC** worksheet (see figure below).

6. Select **Build a Compliance Plan** (see figure above).
A dialogue box will open prompting you to find and select your compliance plan Word template file (i.e., CompliancePlan_v2019.docm) from a file dialogue box that will open (see figure below).

7. Select OK (see figure above).

The Please select your COMPLIANCE PLAN CSV template file window will open (see figure below).

8. Navigate in the Please select your COMPLIANCE PLAN CSV template file window to your compliance plan Word template file (i.e., CompliancePlan_v2019.docm), and select the file (see figure above).

9. Select Open.
The buttons for CP Step 1, CP Step 2, Step 3, and DONE will become active. A dialogue box will open prompting you to proceed to CP Step 1 (see figure below).

10. Select **Yes** to proceed to CP Step 1 (see figure above).

    OR: Select **No** to proceed to DONE (proceed to step 19, below) (see figure above).

11. If Yes was selected, select **CP Step 1: Export PT Graph** (see figure below).
You will advance to the 5-ProgressTracking worksheet, and a dialogue box will open asking you if you would like to insert your progress tracking graph into your compliance plan Word template (i.e., CompliancePlan_v2010.docm) (see figure below).

12. Select **Yes** to insert your progress tracking graph into your compliance plan template (see figure above).

OR: Select **No** to skip inserting your progress tracking graph into your compliance plan template (see figure above).

OR: Select **Cancel** to exit this process without exporting the progress tracking graph to the template (see figure above).

**NOTE:** Microsoft Excel will automatically close the entire Microsoft Word program at this point.
If Yes was selected, your graph will be exported to the compliance plan Word template file (e.g., CompliancePlan_v2019.docm) that you chose in steps 8 and 9, above. Your compliance plan Word template will open, be saved, and close at this point; and, the entire Microsoft Word program will close. A dialogue box will also open prompting you to proceed to CP Step 2 (see figure below).

If No was selected, a subsequent dialogue box will open to confirm that you wish to bypass inserting your progress tracking graph into your compliance plan Word template. Select Yes if you are sure you want to skip inserting the progress tracking graph into your compliance plan Word template. OR, select No if you want to insert the progress tracking graph into your compliance plan Word template (see figure below). A dialogue box will then open prompting you to proceed to CP Step 2 (see figure above).
13. In the dialogue box prompting you to proceed to CP Step 2, select **Yes** to proceed to CP Step 2 (see figure with *If Yes was selected*, above).

OR: Select **No** to proceed to DONE (proceed to step 19, below) (see figure with *If Yes was selected*, above).

14. Select **CP Step 2: Export CSV for CP** (see figure below).

**NOTE**: If you have already performed this procedure and created a .csv file for your compliance plan Word template (e.g., CompliancePlan_v2019.docm), a warning box will ask you if you wish to overwrite this file (see figure below). Select **Yes** to overwrite the file and proceed to the next step. OR, select **No** to locate and delete the previously-created file yourself; the select **CP Step2: Export CSV for CP** again to continue with the process.
A .csv file named bcomplianceplan_agencyabbr.csv (where “agencyabbr” is the abbreviated name you assigned your agency in the questionnaire worksheet) will be created in the same folder as the compliance plan Word template (e.g., CompliancePlan_v2019.docm) identified in steps 8 and 9, above. A dialogue box will also open prompting you to proceed to CP Step 3 (see figure below).

15. In the dialogue box prompting you to proceed to CP Step 3, select Yes to proceed to CP Step 3 (see figure above).

   OR: Select No to proceed to DONE (proceed to step 19, below) (see figure above).
16. Select **Step3: Open Appendixes to Print** (see figure below).

![Diagram of Excel worksheet with contents and actions]

⇒ The three Appendix worksheets will open (see figure below).

![Excel worksheet screenshot]

17. Print each appendix worksheet as a PDF to attach to the compliance plan as appendixes.

**NOTE:** The Appendix worksheets have formulas associated with each cell. These formulas parse the data from other worksheets into an appendix format. To help ensure that the formulas are not inadvertently altered, the appendix worksheets are protected sheets. The protection is set to allow you to format the cells with column and row lines. If, for any reason, you need to unprotect the sheet, open the **Review** tab and select **Unprotect Sheet** from the **Changes** group; this will leave the worksheet’s formulas vulnerable to inadvertent changes that will render the Excel file useless for inserting data into the Word template.

a. Verify that the information transferred correctly into the appendix worksheets by visually assessing the worksheets.

**NOTE:** The three appendixes are indicated by Appendix A-1, Appendix A-2, and Appendix A-3 tabs. Selecting the tab makes that worksheet active (see figure above).
b. Select the tab for the first appendix that you wish to export for your bridge asset management plan (see figure above).

c. Select the A1 cell (this is a merged cell, so it will span several columns) in the selected appendix and, while holding down the left mouse button, drag your cursor to and inclusive of the last row of data and to and inclusive of the last column of data. Release the left mouse button (see figure below).

OR: Select the A1 cell (this is a merged cell, so it will span several columns). While holding down the Shift key on your keyboard, use the and arrow keys to select all of the cells to and inclusive of the last row and last column of data. Release the Shift key and the arrow keys (see figure below).

d. Select File from the main menu (see figure below).

e. Select Export from the File options (see figure below).

⇒ The Publish as PDF or XPS window will open (see figure below).

f. Select the desired file location for saving the Appendix export in the Publish as PDF or XPS window (see figure below); and, enter the desired file name in the File Name field. **NOTE:** Leave the Save as type option set to PDF (*.pdf) (see figure below).
**NOTE:** It is recommended to save the Appendix exports in the same location as the compliance plan files.

**g.** Select the **Options…** button in the *Publish as PDF or XPS* window (see figure above).

⇒ The **Options** window will open (see figure below).

**h.** Select **Selection** in the *Publish what* group; leave the other options set to their defaults (see figure above).

**i.** Select the **OK** button in the **Options** window (see figure above).

**j.** Select the **Publish** button in the *Publish as PDF or XPS* window.
A .pdf file of your selected appendix will be generated and will be saved in the location that you specified.

k. Repeat steps b through j for the remaining two appendices.

**NOTE:** This procedure will generate three PDF files, one for each appendix. A similar export process can be done in Word to convert the Word portion of the bridge asset management plan into a PDF, as well; a PDF of the Word portion of the bridge asset management plan can serve as appendix B for the compliance plan. The full version of Adobe Acrobat or a free, open-source app can give you the capability to merge the four PDFs into a single PDF file.

18. Select **Hide** in the *Appendixes* row to hide the appendix worksheets (see figure below).

![Worksheet Table of Contents](image)

19. Select **DONE** (see figure below).

⇒ The Build a Compliance Plan buttons will deactivate. Your compliance plan Word template (i.e., CompliancePlan_v2019.docm) is now populated with your bridge asset management data.
Generating annual cost projection data for bridge assets from budget template

The BridgeAM-Budget_v2019.xlsx Excel workbook is a comprehensive budgeting tool that allows you to plan your bridge maintenance budget allocations by organizing various types of bridge maintenance projects and their associated costs. It also helps to identify gaps in funding. Refer to the Instruction Guide for using the Bridge Asset Management Plan Template’s section Generating annual cost projection/gap analysis data from the budget template for complete instructions on using the BridgeAM-Budget_v2019.xlsx workbook.

To create a cost projection/gap analysis table for your compliance plan, follow the first two steps in the subsection Creating a Cost Projection/Gap Analysis Table; then, continue with the following steps:


4. In Word, navigate to section 2. Bridge Assets and subsection Programmed/Funded Projects, Gap Analysis, and Planned Projects, and locate Table 3: Planned Projects and Gap Analysis.

5. Select the [Delete table below, and paste new cost-projection/gap table here] placeholder and the empty table below the placeholder (see figure below).

6. Paste your cost projection/gap analysis table into the Word template (see figure below): In the Home ribbon, select Paste from the Clipboard group.

   OR: Right-click on your selection and select Paste from the dropdown menu.

   OR: Use the Ctrl + V keyboard shortcut.

7. Format the table as desired.

8. Return to Excel, save the file, and close the program.
Reviewing the template for errors and finalizing

The template can be checked for unfilled text fields that should have been replaced with required information. This check should be done to ensure that no text field is overlooked and forgotten. To check the template:

1. In the Mailings tab, select Check for Errors in the Preview Results group.

   ⇢ Word will open the Checking and Reporting Errors dialog box.

2. Select Complete the merge, pausing to report each error as it occurs, and select OK.

   ⇢ Word will prompt you to complete any unfilled text fields using a Microsoft Word information prompt window, such as the one below.

3. Enter in the requested information in the Microsoft Word information prompt window, and select OK.

4. Repeat step 3 until there are no more Microsoft Word information prompt windows remaining.

   ⇢ Microsoft Word will generate a new file, named Letters 01.docx, of your final asset management plan.
5. Save Letters 01.docx with a unique name—such as BridgeAMP_agencyabbr_2019.docx—in the desired location on your computer (see recommended save location information on page 1).
Updating the Table of Contents

Finally, make sure to update the Contents field to match the completed document.

1. Go to the Contents section on the second page of the document.

2. Select the Contents field.
   ⇒ The Contents listing will appear boxed with buttons located in the upper left corner of the field.

3. Select the Update Table button.

4. Select Update page numbers only from the Update Table of Contents dialog box that opens.

**NOTE:** These procedures for the MS Word template file will generate one Word document. An export-to-PDF process similar to the Excel export detailed in the *Entering data into the Excel template: Appendix* section can be used to save the Word file as a PDF. This PDF can be merged with the three PDF appendix files using the full version of Adobe Acrobat or a free, open-source app that has a PDF-merge capability.
Inserting Appendixes

To create a single compliance plan document, save the compliance plan Word template, the pavement asset management plan Word document, the bridge asset management plan Word document, and any other associated files as PDFs. Then, using a PDF editing software program, merge the PDFs into a single PDF.

To save a Word document as a PDF:

1. Select **File** in the ribbon menu.

![Image of the ribbon menu with File selected]

2. Select **Save as Adobe PDF** in the **File** sidebar menu (see figure below).

![Image of the File sidebar menu with Save as Adobe PDF selected]

OR: Select **Print** in the **File** sidebar menu (see figure above).

⇒ The Windows **Print** window will open (see figure below).
a. Select **Microsoft Print to PDF** from the *Print* window (see figure above).

b. Select **Print** (see figure above).

⇒ The *Save Print Output As* window will open.

c. Navigate in the *Save Print Output As* window to the desired folder containing compliance plan materials, enter a descriptive file name in the *File name* input box (e.g., *complianceplan_2019* or *complianceplan-appendix1_2019*), and select **Save**.

OR: In the *Home* ribbon, select **Create and Share Adobe PDF** in the *Adobe Acrobat* group (see figure below).

3. Once all necessary files have been saved as a PDF, proceed with using a PDF editor to compile all necessary PDFs into a single PDF.