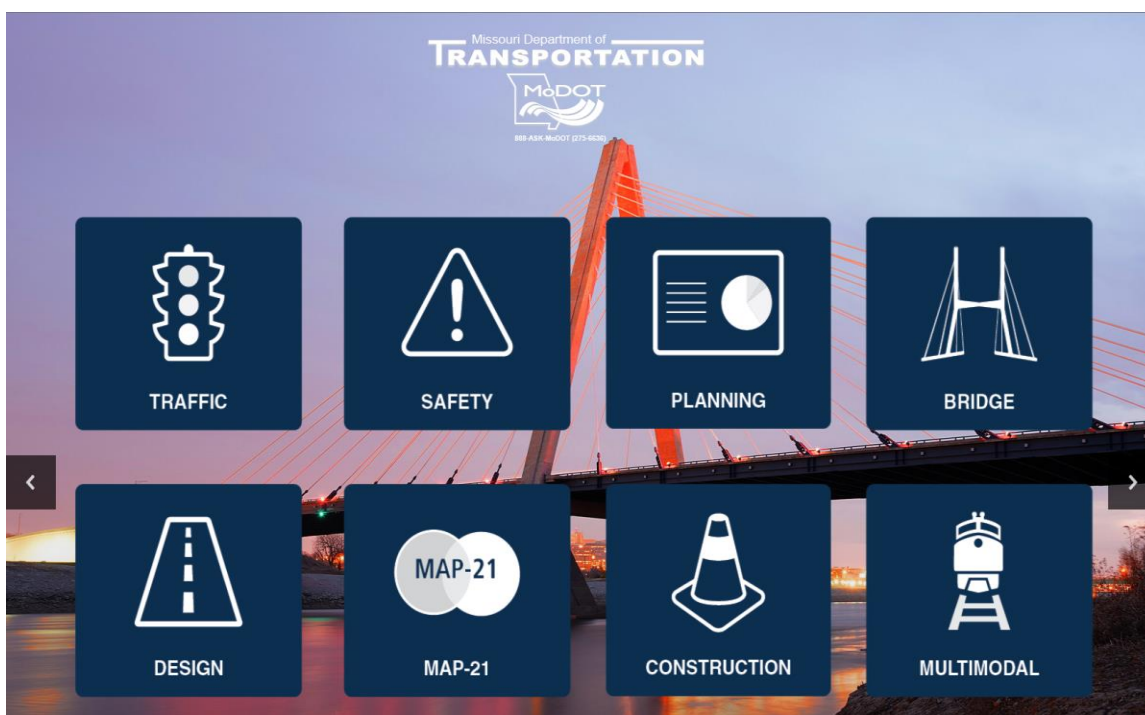


Data Zone Training Manual

Average Annual Daily Traffic Map



Revised

September 2019

TRANSPORTATION PLANNING

105 West Capitol Avenue
P.O. Box 270
Jefferson City, MO 65102



Contact Numbers

Following is a list of contact numbers if you have questions regarding the material covered in this manual.

TMS HELP DESK:

Valerie Minnick	(573) 526-8055
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AFTER HOURS CONTACT:

Information Systems Help Desk	(573) 751-5000
-------------------------------	----------------

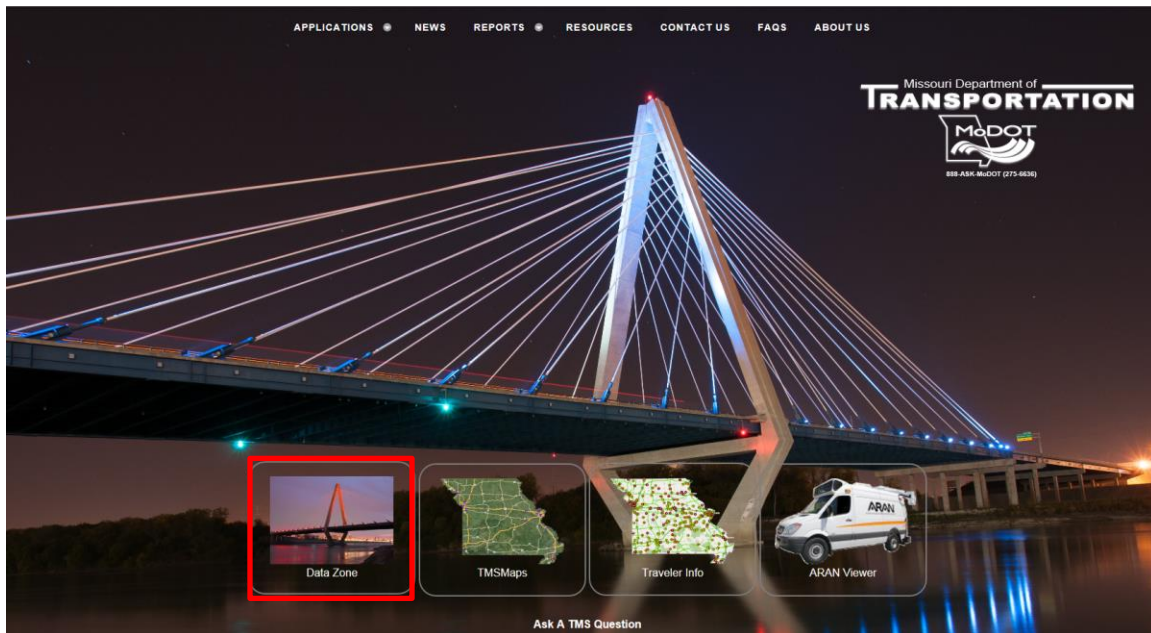
FAX:

Transportation Planning	(573) 526-8052
-------------------------	----------------

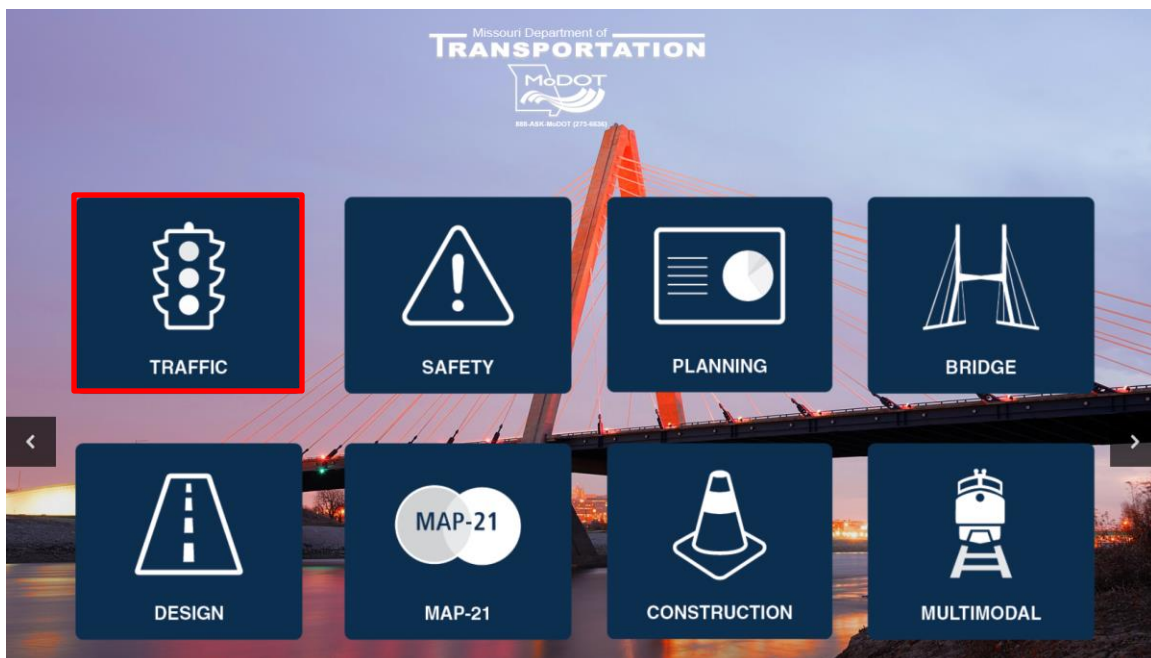
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- From the TMS Homepage, select the "Data Zone" icon.

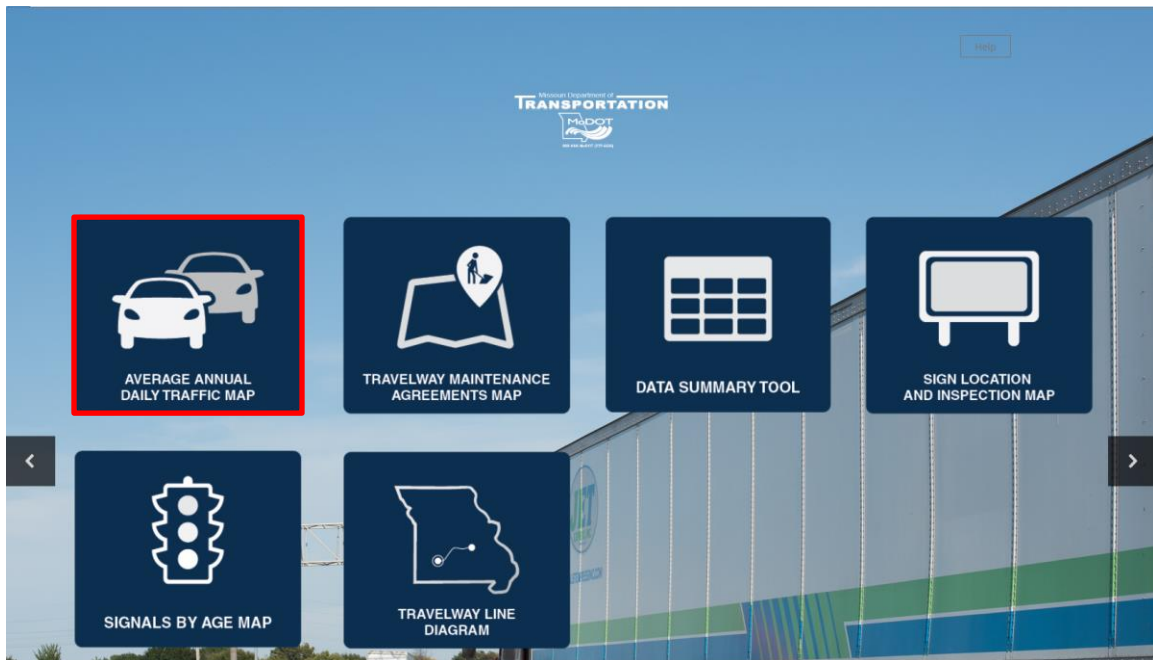


The following page will be displayed.



There are several mapping tools and resources available for use categorized by business area.

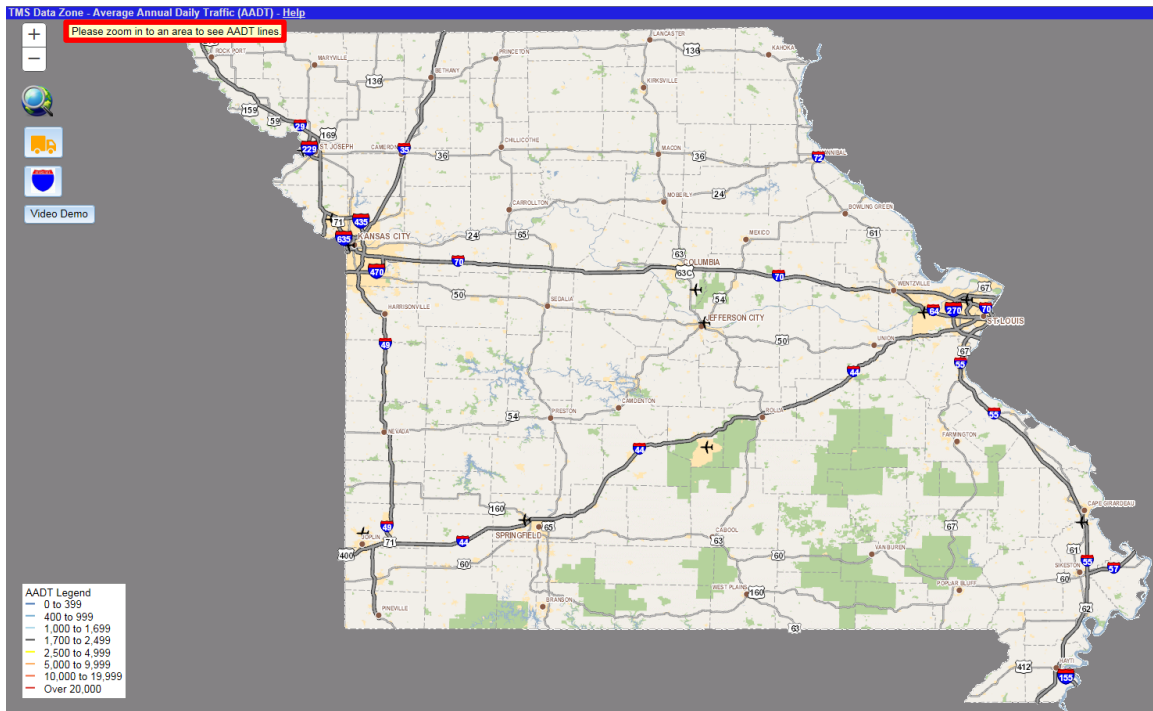
- Click the "Traffic" icon.



- Click on the "Average Annual Daily Traffic Map" icon. This will flow to the "Average Annual Daily Traffic (AADT)" map.

Average Annual Daily Traffic Map



The data displayed on the map is for 2018, as this is the most current we have in the system.

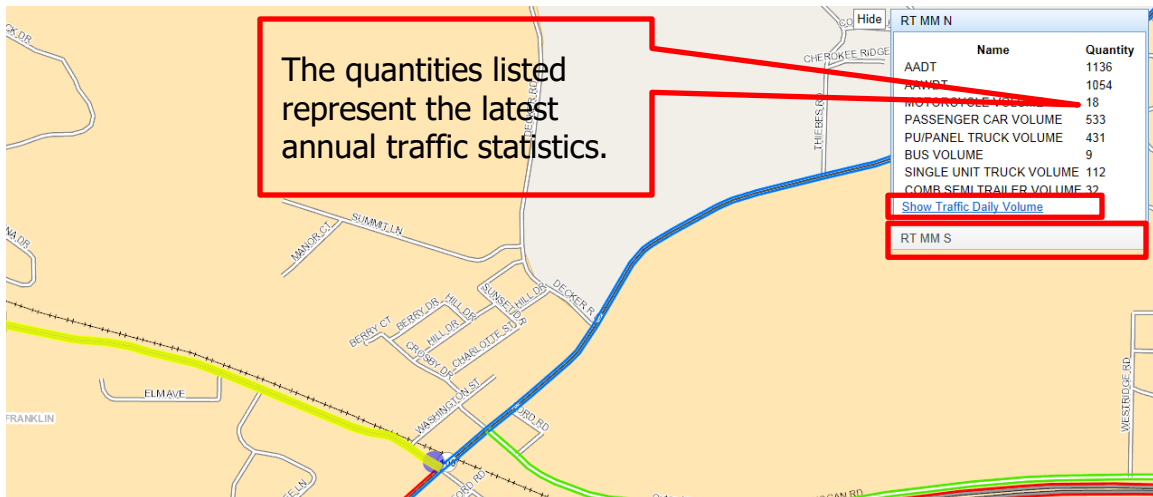


- As indicated at the top left, zoom into an area so the data will be displayed. Then click on the route to display the AADT for the specific area chosen.

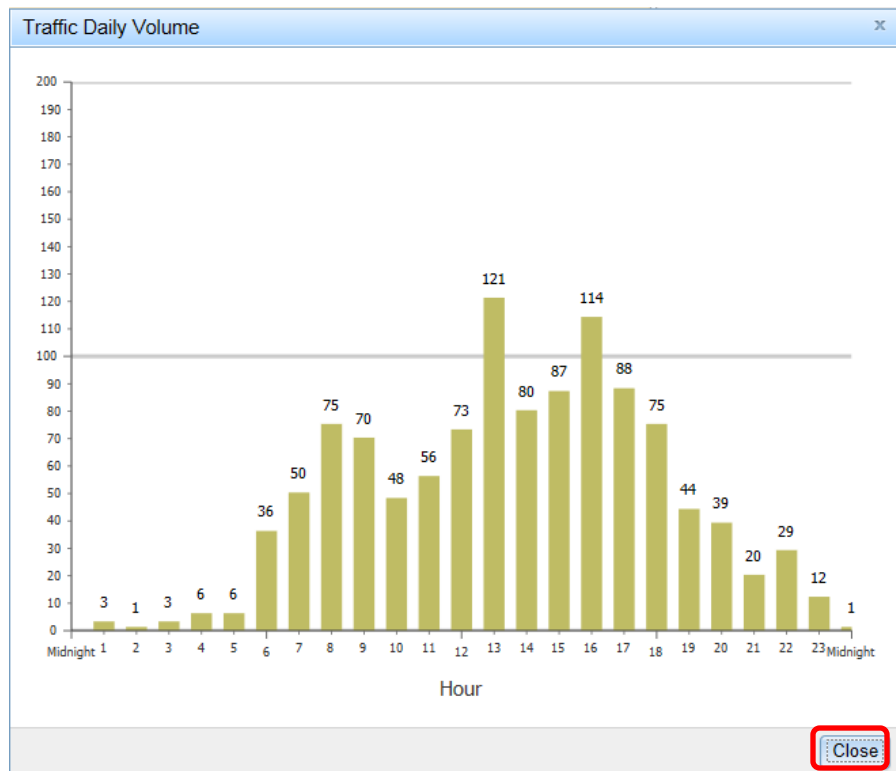
Zoom Methods

There are several methods to use when zooming into a particular area. The methods are as follows:

- Shift key – click and drag a box around the area
- Mouse roller
-  - zoom in
-  - zoom out



- Click on the route listed at the bottom (Route MM S). The traffic data for that direction will display.
- Click on the "Show Traffic Daily Volume" link, and a graph of the daily volumes will be displayed for the location chosen.



The AADT numbers are broken down into hourly segments.

- Click the "Close" button to remove the graph.

Icons



- Full extent



- ARAN Viewer



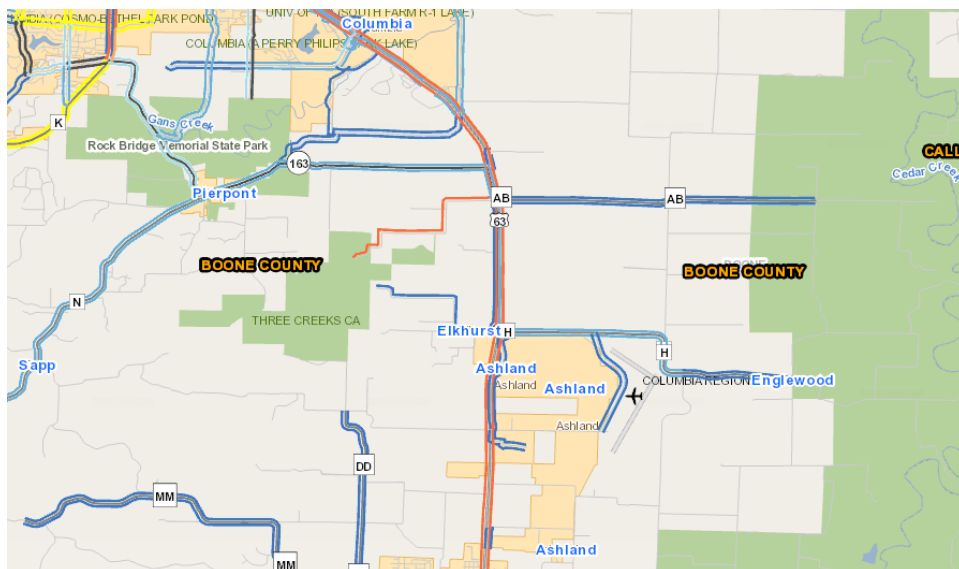
- Displays the shields above or below the line work



- Demonstrates how to use the application

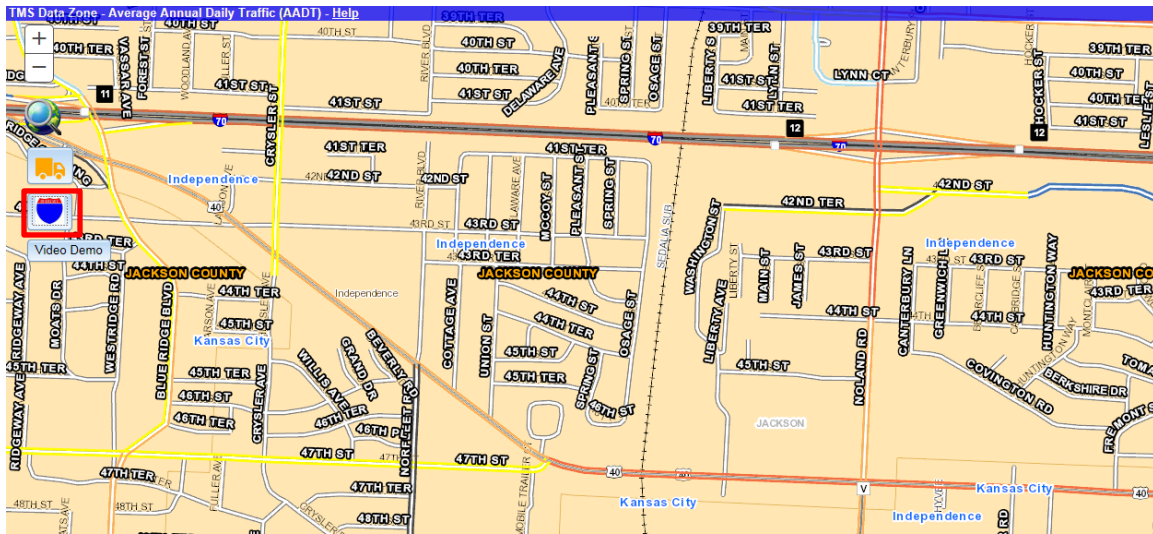
Legend

In the bottom left-hand corner is a legend which shows traffic volume for each color assigned to the travelway.



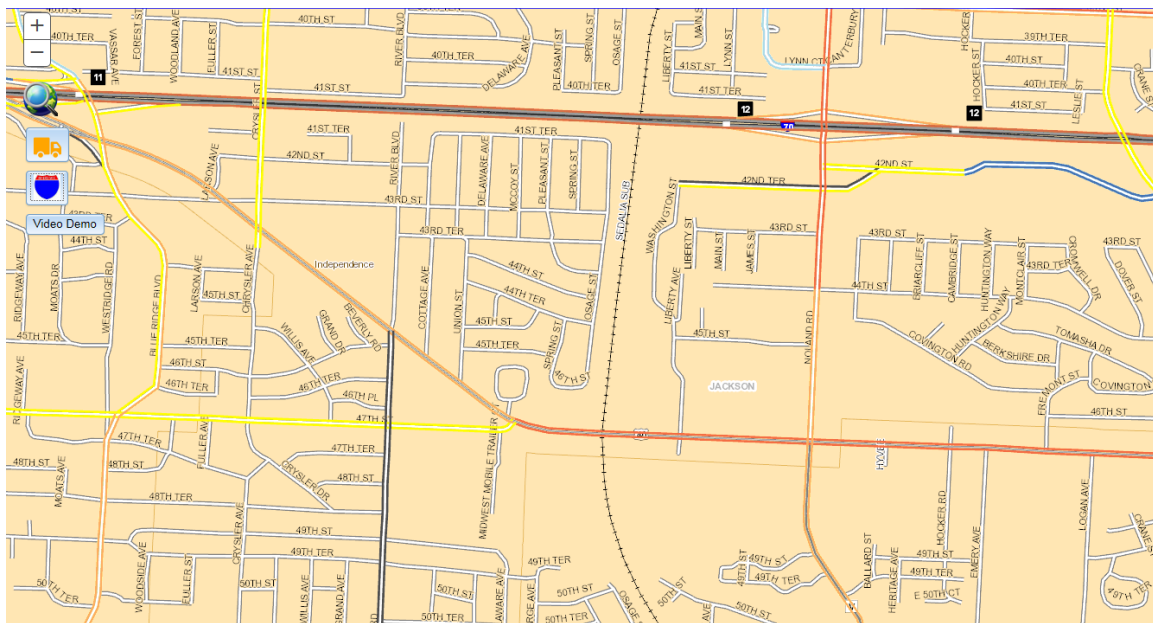
AADT Legend	
Blue line	1 to 399
Light blue line	400 to 999
Medium blue line	1,000 to 1,699
Dark blue line	1,700 to 2,499
Yellow line	2,500 to 4,999
Orange line	5,000 to 9,999
Red line	10,000 to 19,999
Dark red line	Over 20,000

Shield Toggle Button



The "Shield Toggle" button turns on and off the top layer of shields and labels on the map.

- Click the "Shield Toggle" icon.



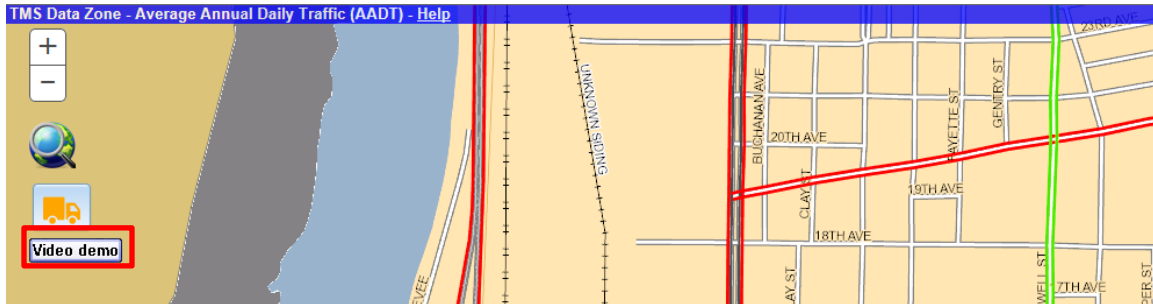
Notice how the shields and labels are grayed out from the picture above.

- To turn the labels back on, click the "Shield Toggle" icon.

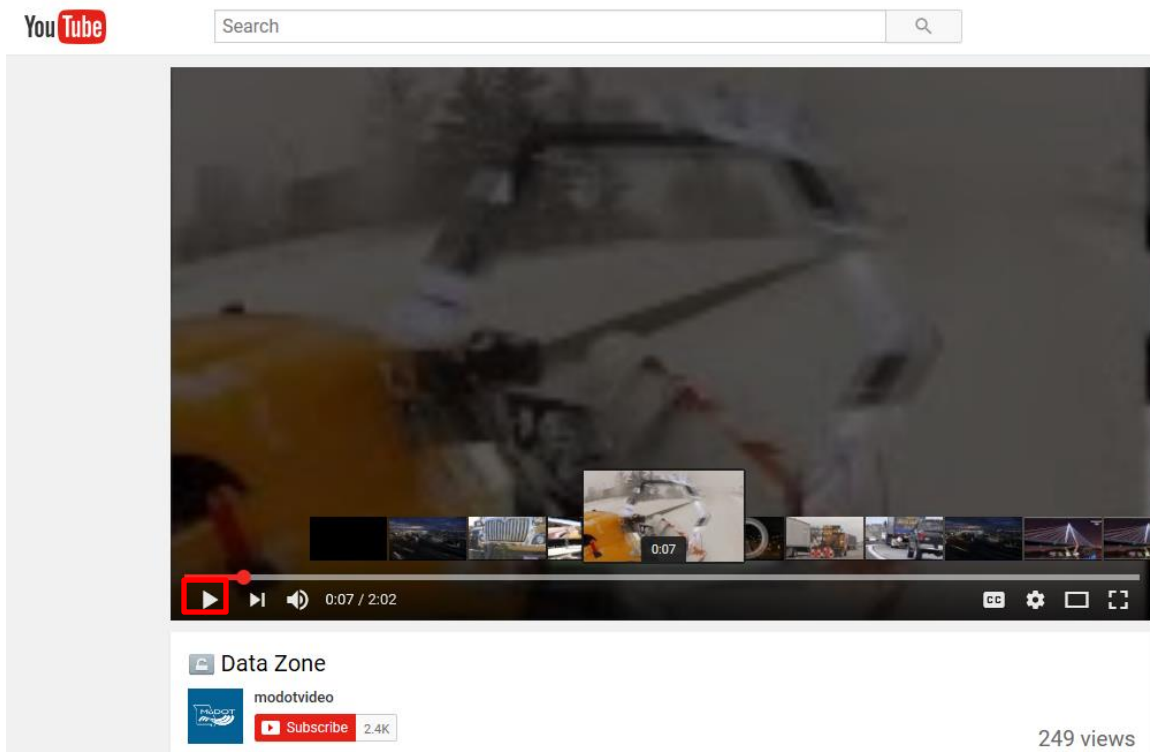
Video Demo Button

The "Video demo" button demonstrates how the application works.

- Open the "Average Annual Daily Traffic (AADT)" map.
- Click the "Video demo" button.



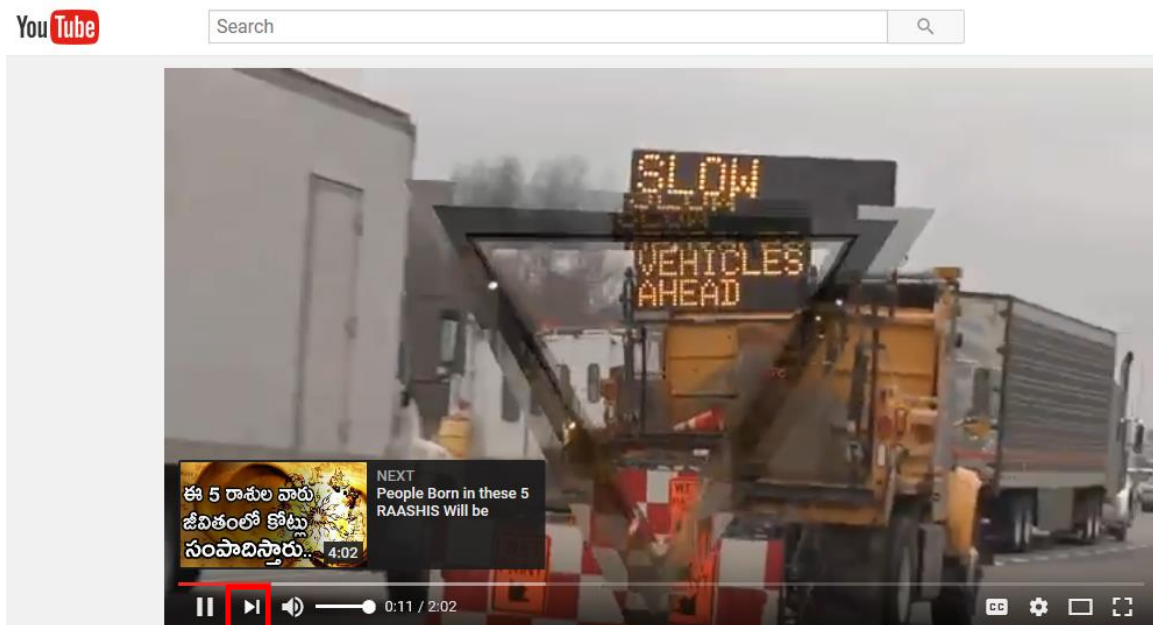
A You Tube window will be displayed.



- Click the right pointing arrow to start the video.

The video will automatically begin illustrating how the application works.

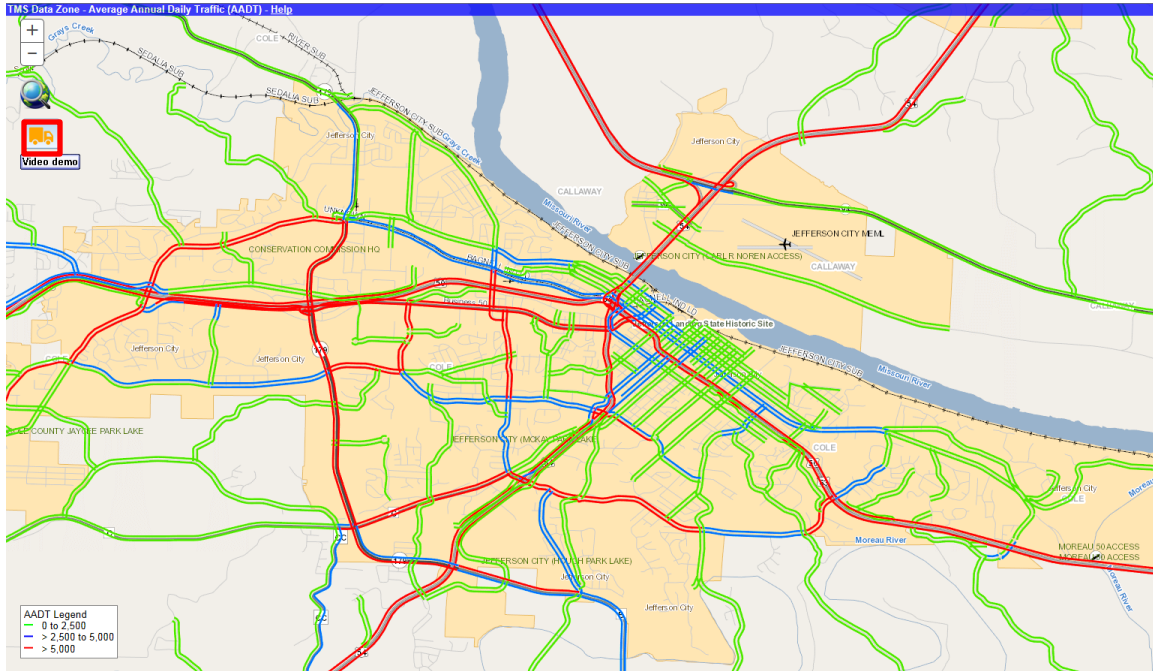
- To stop the video, click the right pointing arrow with a line.



The video is two minutes long.

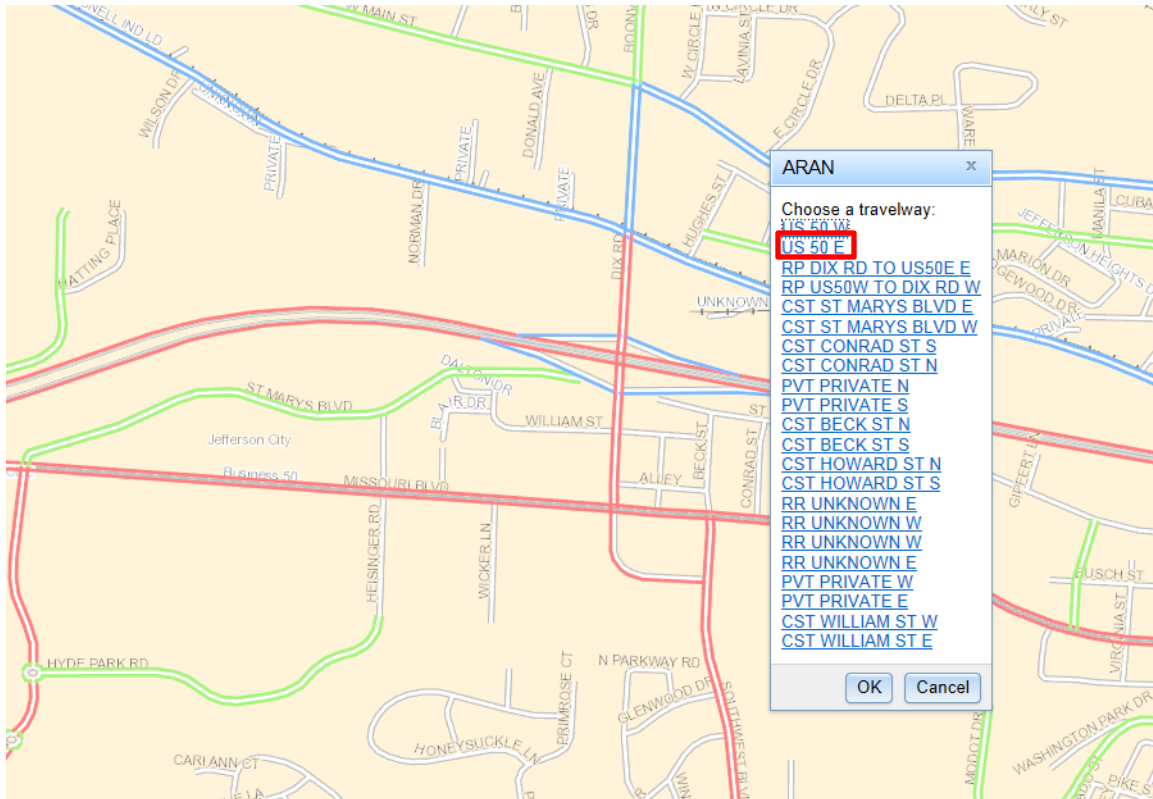
ARAN Viewer

On the "Average Annual Daily Traffic (AADT)" map, there is an icon for the ARAN video.



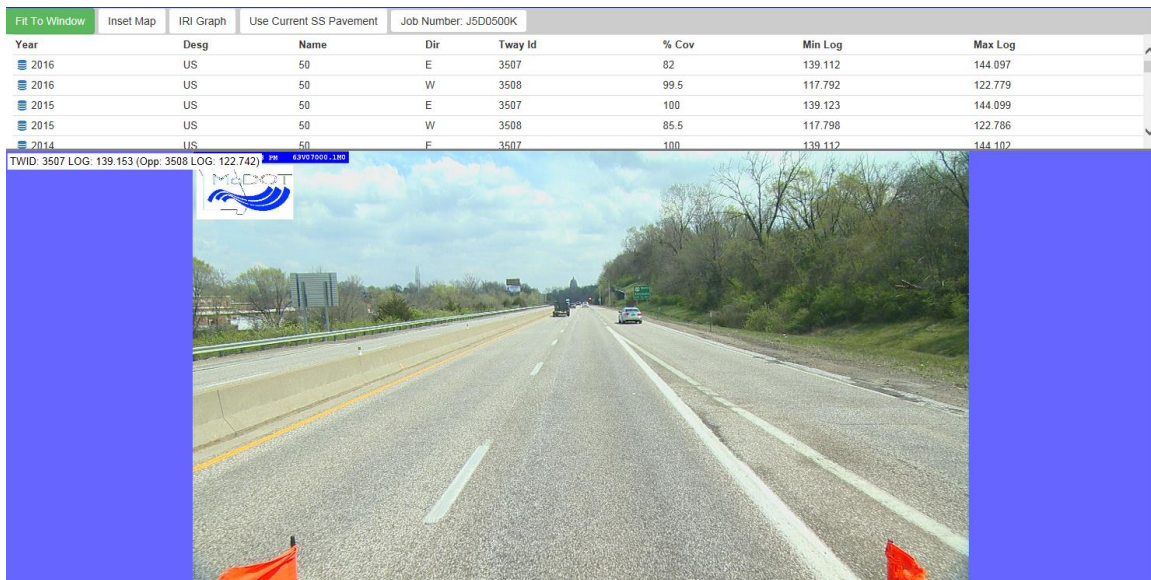
- Click on the ARAN icon.
- Select a route.

A listing of travelways will be displayed.



- Select a route from the list – “US 50 E”.

The ARAN Viewer will open to the location selected.



Play/Pause Buttons

The screenshot shows the ARAN Viewer software interface. At the top, there's a title bar with 'ARAN Viewer' and a search bar. Below it, a menu bar includes 'File To Window', 'Inset Map', 'IRI Graph', 'Use Current SS Pavement', and 'Job Number: JSD0500K'. A table displays data for various years (2014-2016) with columns for Year, Desg, Name, Dir, Tway Id, % Cov, Min Log, and Max Log. The main area shows a video of a highway with orange traffic cones. On the right, there's a sidebar with dropdown menus for 'SECTION_TRACKER', 'GOOD', 'SECTION_IRI', and 'SECTION_COND_IDX'. At the bottom, there's a video control bar with buttons for '5 mi', 'Fast', and 'Slow'.

Year	Desg	Name	Dir	Tway Id	% Cov	Min Log	Max Log
2016	US	50	E	3507	82	139.112	144.097
2016	US	50	W	3508	99.5	117.792	122.779
2015	US	50	E	3507	100	139.123	144.099
2015	US	50	W	3508	85.5	117.798	122.786
2014	US	50	E	3507	100	139.112	144.102

The bottom buttons operate just like a DVD with forward, reverse and stop.



- The previous five miles



- Move to the start of the video



- Step backward one frame at a time



- Play backward



- Stop



- Play forward



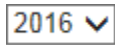
- Step forward one frame at a time



- Move to the end of the video



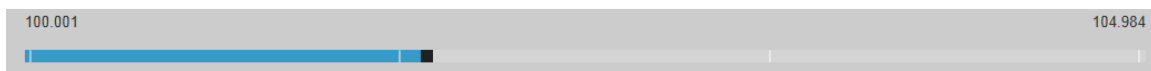
- The next five miles



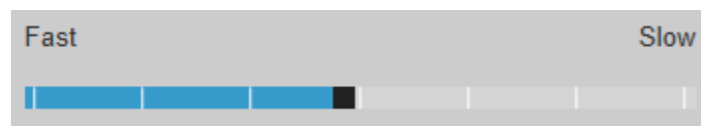
- Calendar year that data is available for the travelway selected

Scrub Bar

The scrub bar will move along the track as the ARAN truck moves down the road. Alternately, you can drag the scrub bar to the location you want to view in the selected section of roadway.



The bar next to the scrub bar is used to set how fast you want the frames to change when playing the video.



Data

On the right-hand side of the video screen, there are 12 drop-down selection boxes to choose which data elements to view. These will display data from either or both of two sources: the ARAN table and the State of the System pavement table.

It is important to note that there are two options regarding the SS_PAVEMENT data. One option is to view the state of the system data from the same year as the video selected. The other is to view everything using the current state of the system data. This is accomplished by activating the "Use Current SS Pavement" button.



Change the Data Elements

- Select a data type from the drop-down arrow. Multiple changes can be made at one time.
- Select "COUNTY_NAME" from the list.

The image shows two side-by-side screenshots of a data entry form. The left screenshot shows a list of data elements on the left and a form on the right. The right screenshot shows the same form with 'COUNTY_NAME' selected in a dropdown menu and 'COLE' entered in the field below it.

Left Panel Data Elements:

- FED_CLS_NHS
- NATIONAL HIGHWAY SYSTEM
- SECTION_ENDLOG
- 101.052
- SECTION_TRACKER
- GOOD
- SECTION_IRI
- 54.59
- SECTION_COND_IDX
- 10
- ARAN_IRI
- 45.32
- ARAN_COND_IDX
- 10
- AADT
- 14513
- AADT
- 14513
- AADT
- 14513
- AADT
- ACCESS_CAT_NAME
- ARAN_COND_IDX
- ARAN_IRI
- ARAN_LOG
- ARAN_YEAR_2
- AREA_DESG_NAME
- AREA_ENGINEER
- AUTO_COND_SURV_ID
- AVERAGE_RUT
- CITY_NAME
- CNTL_TW_ID
- CNTY_LOG
- COM_VOL_BY_DIR
- COUNTY_NAME
- COUNTY_NUMBER
- CROSSFALL
- DATE_COLLECTED
- DESG_BYWAY_CLS_NM
- DESG_TRUCK_RTE_NM
- DISTRICT
- DISTRICT_NAME
- DIVIDED_UNDIVIDED
- DRIVER_IRI
- ELEVATION
- FED_CLS_NFS
- FED_CLS_NHS
- FED_CLS_PRIORITY
- FED_CLS_STRAHCON
- FED_CLS_STRAHNET

Right Panel Form Data:

- FED_CLS_NHS
- NATIONAL HIGHWAY SYSTEM
- SECTION_ENDLOG
- 139.175
- SECTION_TRACKER
- GOOD
- SECTION_IRI
- 57.16
- SECTION_COND_IDX
- 8
- ARAN_IRI
- 56.885
- ARAN_COND_IDX
- 8
- COUNTY_NAME
- COLE
- AADT
- 21311
- AADT
- 21311
- AADT
- 21311
- AADT
- 21311
- Reset to Default

The ARAN data will change with every image, approximately every 0.02 mile.

Hide Data

If no data is needed, it can be hidden to expand the image window.

- Click the "Hide Data" button.

The screenshot shows a user interface with a button labeled "Hide Data" highlighted with a red box. Below the button is a form with several dropdown menus and text fields. The form is titled "NATIONAL HIGHWAY SYSTEM" and contains the following fields: "FED_CLS_NHS" (dropdown), "SECTION_ENDLOG" (dropdown), "101.052" (text), "SECTION_TRACKER" (dropdown), "GOOD" (text), "SECTION_IRI" (dropdown), "54.59" (text), "SECTION_COND_IDX" (dropdown), "10" (text), "ARAN_IRI" (dropdown), and "45.32" (text).

This will remove the data from the page. If the data is needed, click the "Show Data" button.

The screenshot shows a navigation bar with several buttons: "Ex. IS 70 E BOONE", "Export", "Print", "Hide Other Years/Dirs", and "Show Data". The "Show Data" button is highlighted with a red box.

Change Years/Data

You may want to see previous years' ARAN data. This can be done two ways:

- (1) by using the year drop-down box next to the pause and play buttons or
- (2) using the year selection at the top of the page.

Fit To Window	Inset Map	IRI Graph	Use Current SS Pavement	Job Number: J5I0763			
Year	Desg	Name	Dir	Tway Id	% Cov	Min Log	Max Log
2015	IS	70	E	19	100	100.041	105.024
2015	IS	70	W	3506	100	144.973	149.97
2014	IS	70	E	19	100	100.033	105.016

Use the scroll bar located on the right-hand side to find the year or direction of data to view. Divided routes have video in both directions, and all other routes have video in at least one direction.

Job Number

The job number is a set of alphanumeric digits assigned to represent a construction project. The job number shown will be the most recent project completed at that location for the year selected. If a job number is listed, click on it to display the plans for that project.

Fit To Window Inset Map IRI Graph Use Current SS Pavement Job Number: J411507				
Year	Desg	Name	Dir	Tway Id
2016	IS	35	S	4986
2016	IS	35	N	4984
2015	IS	35	N	4984
2015	IS	35	S	4986
2014	IS	35	N	4984

Fit to Window

By default, the "Fit to Window" button is active. Click the button to deactivate, and the image will display full size. Use the scroll bars located on the bottom and right side to adjust the view.

Fit To Window Inset Map IRI Graph Use Current SS Pavement Job Number: J5D0500K							
Year	Desg	Name	Dir	Tway Id	% Cov	Min Log	
2016	US	50	E	3507	82	139.112	
2016	US	50	W	3508	99.5	117.792	
2015	US	50	E	3507	100	139.123	

TWID: 3507 LOG: 139.153 (Opp: 3508 LOG: 122.742) 5-26 1:17:03 PM 63V07000.JPG

Year	Desg	Name	Dir	Tway Id	% Cov	Min Log	Max Log
2016	US	50	E	3507	82	139.112	144.097
2016	US	50	W	3508	99.5	117.792	122.779
2015	US	50	E	3507	100	139.123	144.099

TWID: 3507 LOG: 139.153 (Opp: 3508 LOG: 122.742) .1M0

To return the screen to normal, click the “Fit to Window” tab again.

Inset Map

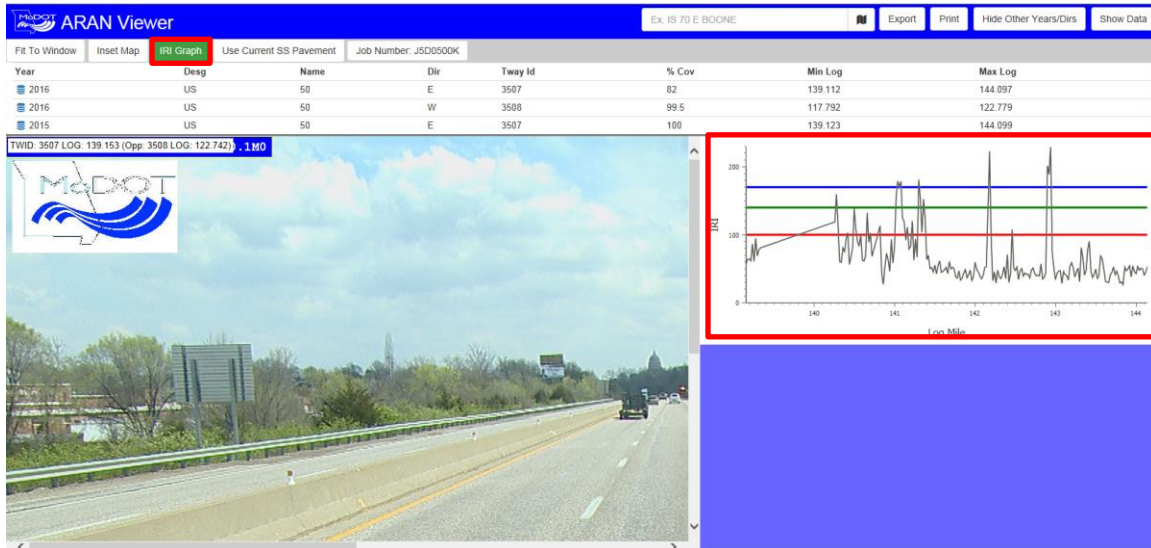
Click the “Inset Map” button, and a map will be displayed to the right of the video. This map will show the location of the image and will follow the path of the images while you are driving.

If you are not familiar with the area, use this tool. The map can be used as a secondary tool to follow the ARAN video. As the vehicle is driving down the roadway, the blue dot will follow the same path along the map.

IRI Graph

The IRI (International Roughness Index) graph is used to tell the smoothness of the road over a tenth of a mile.

- Click the "IRI Graph" tab. The graph will be displayed to the right of the video. This graph represents the tenth-mile average of IRI for the section and year selected.



Export Data

There is the ability to export data to either a movie or JPG. The default will be an output type of movie.

- Click the "Export" button on the top menu bar.



Export

×

You are exporting US 50 E from log mile 139.153 to log mile 144.137 for the year 2016.

Name

US_50_E_2016_139_153_to_144_137

Email Address

Output Type

Movie (WMV) ▼

Movie Size*

Small (Quarter Size) ▼

Frame Rate*

1 fps (74 mph) ▼

*These settings only apply to an output type of Movie (WMV). If you choose Files (JPG), these settings are ignored.

Cancel

Submit

“Movie Size” and “Frame Rate” are mandatory fields. These fields can be changed with data from the drop-down lists.

- Click the “Submit” button. A notification message will be displayed.

Export

You are exporting US 50 E from log mile 139.153 to log mile 144.137 for the year 2016.

Name

US_50_E_2016_139_153_to_144_137

Email Address

Output Type

Movie (WMV)

Movie Size*

Small (Quarter Size)

Frame Rate*

1 fps (74 mph)

*These settings only apply to an output type of Movie (WMV). If you choose Files (JPG), these settings are ignored.

e-mail address field is empty

Cancel

Submit

NOTE: Make sure to enter a valid email address on the "Export" page. If there is no email address, an error message will be displayed saying "email address field is empty". After the export is submitted, a message at the bottom of the page will state the email is valid.

- Click the "Submit" button after all the fields are filled in.

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Export

You are exporting US 50 E from log mile 139.153 to log mile 144.137 for the year 2016.

Name

US_50_E_2016_139_153_to_144_137

Email Address

jeannemarie.lebeau@modot.mo.gov

Output Type

Movie (WMV)

Movie Size*

Small (Quarter Size)

Frame Rate*

1 fps (74 mph)

*These settings only apply to an output type of Movie (WMV). If you choose Files (JPG), these settings are ignored.

"jeannemarie.lebeau@modot.mo.gov" is a valid e-mail address

Cancel

Submit

➤ Click the "OK" button.

24 | Page

You will receive an email in Outlook from AranVideoProcessor.

✉ AranVideoProces... ARAN Video

Wed 7/19/2017 1:26 PM 3 KB

- Open the email.
- Click on one of the links.

The ARAN Video Processor (AVP) has completed. Below is a link to your file(s). This link is only available when connected to the MoDOT network. If you receive this email on a device not connected to the MoDOT network, you will not be able to access the link. The output located at this link will be deleted after 48 hours. Please retrieve your file(s) within 48 hours.

The following information was used to create your output.

Travelway ID = 3507

Begin Log = 125.222

End Log = 130.205

Year = 2016

Output = US_50_E_2016_125_222_to_130_205 Image Only = False Email Address = jeannemarie.lebeau@modot.mo.gov Frame Rate = 1 Width = -4 Height = -4

Please pick up your file(s) at the following location:

[\\ghdata022\ghq_public\ARANExport\US_50_E_2016_125_222_to_130_205.wmv](file://ghdata022\ghq_public\ARANExport\US_50_E_2016_125_222_to_130_205.wmv)

Or, use this link to play the movie, or, open the folder containing your JPEG files:

file://ghdata022\ghq_public\ARANExport\US_50_E_2016_125_222_to_130_205.wmv

If you have any questions or problems, please forward this email to 'IS-DataServiceMgt-TMS@modot.mo.gov' with a detailed description of your issue. Thanks for using the ARAN Video Processor!

This will open to a movie created by the output.

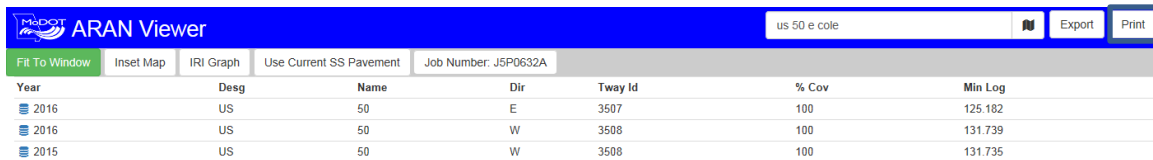


NOTE: *The link will be deleted after 48 hours.*

Print

In order to print the data that is displayed, do the following:

- Select the location.
- Click the "Print" button.



Year	Desg	Name	Dir	Tway Id	% Cov	Min Log
2016	US	50	E	3507	100	125.182
2016	US	50	W	3508	100	131.739
2015	US	50	W	3508	100	131.735

The picture of the selected roadway will be printed.

Hide Other Years/Dirs

The "Hide Other Years/Dirs" button is used to hide the upper part of the screen which displays the years, designation, name and direction information.

- Click on the "Hide Other Years/Dirs" button.



Year	Desg	Name	Dir	Tway Id	% Cov	Min Log
2013	IS	70	E	19	100	99.935
2013	IS	70	W	3506	100	145.077
2012	IS	70	E	19	100	99.935
2012	IS	70	W	3506	100	145.077
2011	IS	70	E	19	100	99.921
2011	IS	70	W	3506	100	145.084

Notice that the upper part of the screen is now hidden. To make data reappear, click the "Show Other Years/Dirs" button.



Year	Desg	Name	Dir	Tway Id	% Cov	Min Log
2013	IS	70	E	19	100	99.935
2013	IS	70	W	3506	100	145.077
2012	IS	70	E	19	100	99.935
2012	IS	70	W	3506	100	145.077
2011	IS	70	E	19	100	99.921
2011	IS	70	W	3506	100	145.084

There are two ways to select a location: (1) free form typing or (2) from the map.

Free Form

- In the text box, type the name of the location or the partial name.

Location	Stationing	City/Area
US 54 E MILLER	125.459 148.649	MILLER
US 54 E MEXICO	216.264 217.585	City of MEXICO
US 54 E MEXICO	211.502 213.123	City of MEXICO
US 54 E MACKS CREEK	96.581 97.725	City of MACKS CREEK
US 54 E LADDONIA	232.661 232.783	City of LADDONIA
US 54 E ELDON	139.604 140.196	City of ELDON
US 54 E HERMITAGE	74.724 76.667	City of HERMITAGE
US 54 E LADDONIA	231.719 232.625	City of LADDONIA
US 54 E WEAUBLEAU	60.738 62.028	City of WEAUBLEAU
US 54 E	0 271.741	(VERNON)
US 54 E CALLAWAY	168.948 207.935	CALLAWAY
US 54 E AUDRAIN	207.935 245.283	AUDRAIN
US 54 E HICKORY	59.715 90.244	HICKORY
US 54 E VERNON	0 34.173	VERNON

- Press "Enter" on the keyboard.

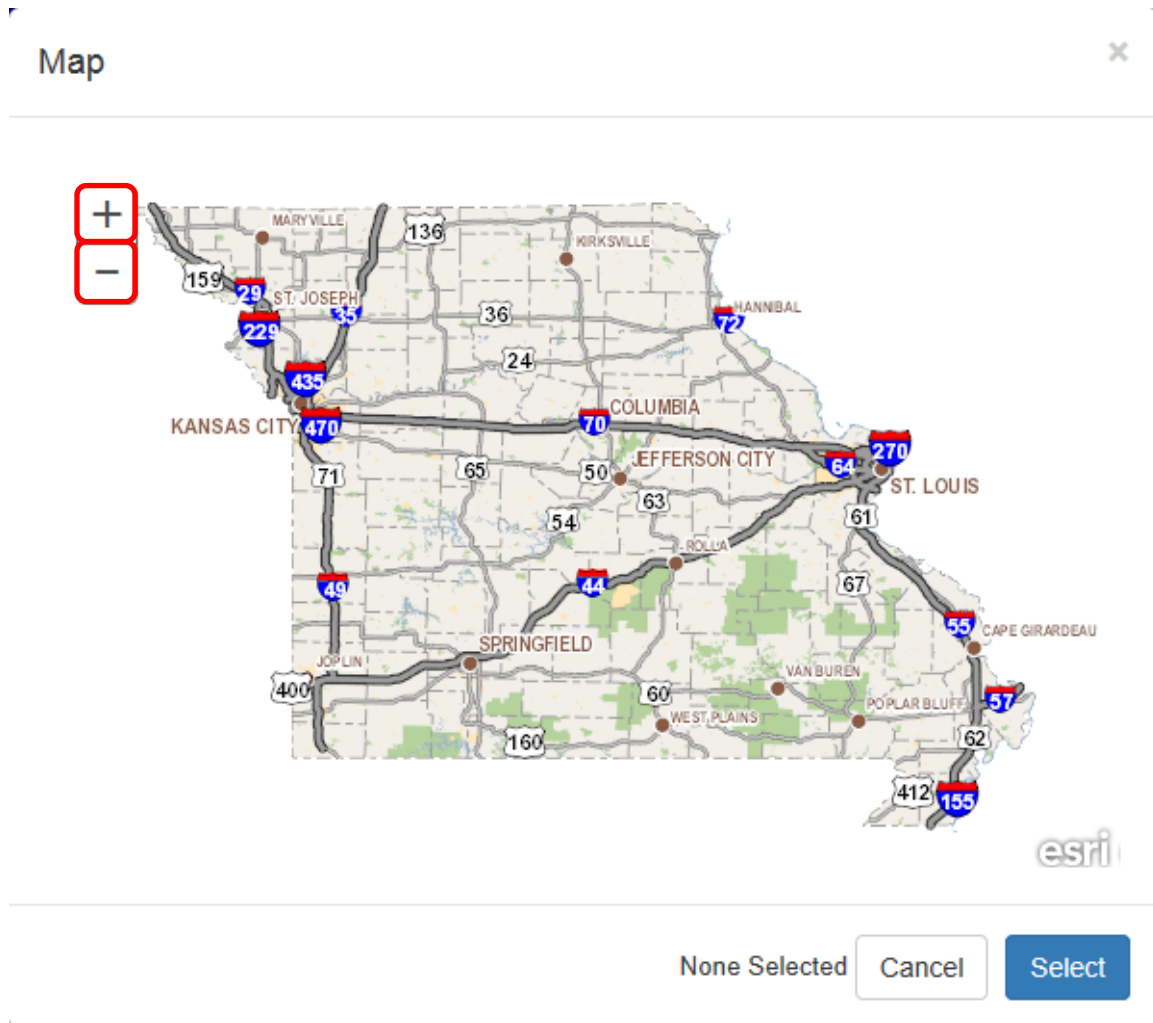
Year	Desg	Name	Dir	Tway Id	% Cov	Min Log	Max Log
2015	US	54	W	1986	100	141.526	146.587
2015	US	54	E	1985	99	125.428	130.405
2014	US	54	W	1986	100	141.512	146.494
2014	US	54	E	1985	100	125.435	130.41
2013	US	54	E	1985	100	125.423	130.403

Map Button

To the right of the free form text box, there is an icon that resembles a flag



- Click the icon. A map will be displayed.
- Click on a roadway. If the roadway is not visible, use the plus or minus button to zoom in or out on the map.
- A listing of the travelways in the area will be displayed.



Map

RT M W (3977) Log: 0.043
RT MM N (3549) Log: 0.999
RT MM S (3548) Log: 2.781
RT M E (3976) Log: 5.957
CRD GAGEVILLE RD S (53184) Log: 3.263
CRD ROSS DR W (177035) Log: 0.848
CRD CROSS COUNTRY RD W (177071) Log: 0.235
CRD GAGEVILLE RD N (177069) Log: 2.463
CRD CENTRAL HILL RD S (53148) Log: 0.131
CRD ROSS DR E (53149) Log: 0.369
CRD CROSS COUNTRY RD E (53185) Log: 1.324
CRD CENTRAL HILL RD N (177034) Log: 2.003
PVT UNKNOWN N (966696) Log: 0
PVT UNKNOWN S (966451) Log: 0.19

None Selected

Cancel

Select

- Select a location.
- Click the "Select" button. This will flow to the new location on the ARAN Viewer.

ARAN Viewer

Ex. IS 70 E BOONE

Export

Print

Hide Other

Fit To Window

Inset Map

IRI Graph

Use Current SS Pavement

Job Number: J5P0768

Year	Desg	Name	Dir	Tway Id	% Cov	Min Log	Max Log
2016	US	54	W	1986	100	115.506	120.501
2016	US	54	E	1985	100	151.433	156.413
2015	US	54	W	1986	100	115.509	120.484
2015	US	54	E	1985	100	151.445	156.416
2014	US	54	F	1985	105	151.439	156.411

TWID: 1985 LOG: 151.473 (Opp: 1986 LOG: 120.454)