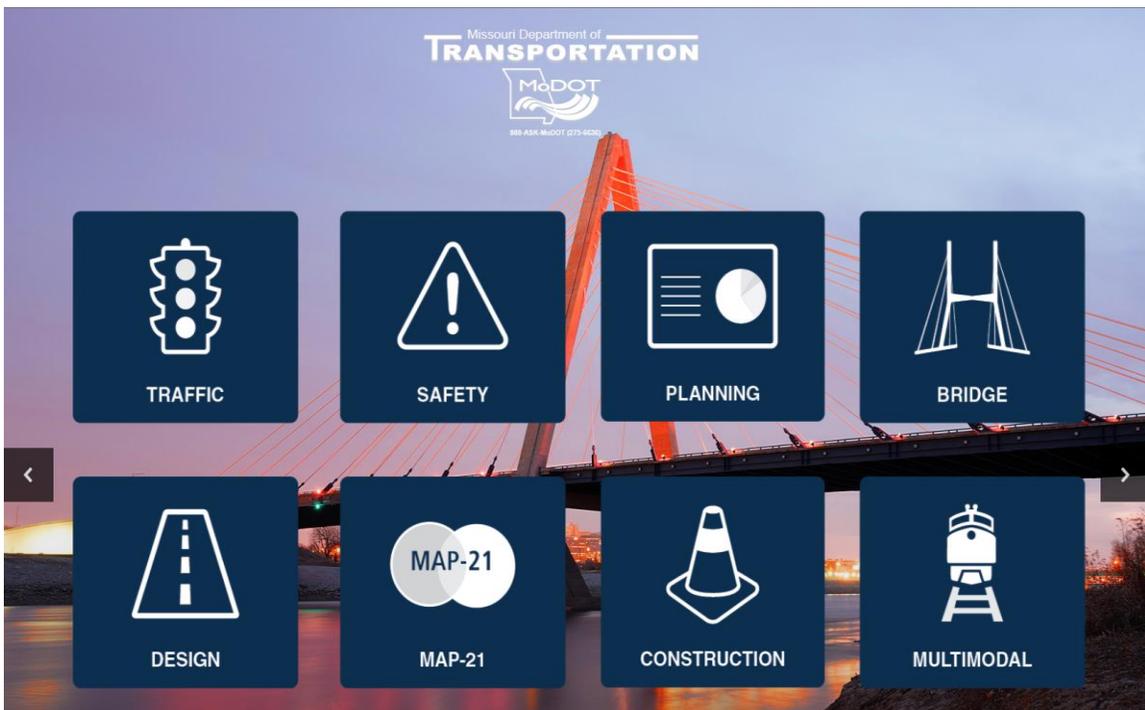


# Data Zone Training Manual

---

## Data Summary Tool



Revised July 2016

### **TRANSPORTATION PLANNING**

105 West Capitol Avenue  
P.O. Box 270  
Jefferson City, MO 65102  
TMS Help Desk (573) 526-8055  
or (573) 522-8464



## **Contact Numbers**

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

### **TMS HELP DESK:**

Jeannemarie LeBeau	(573) 526-8055
Yvonne Wilbers	(573) 522-8464

### **AFTER HOURS CONTACT:**

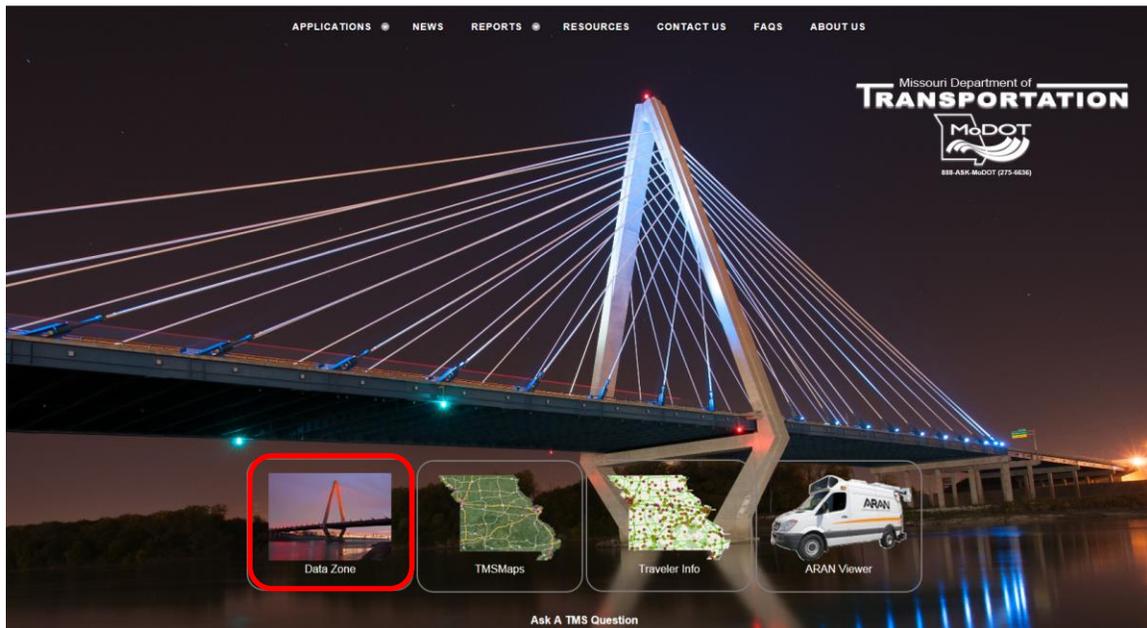
Information Systems Help Desk	(573) 751-5000
-------------------------------	----------------

# Table of Contents

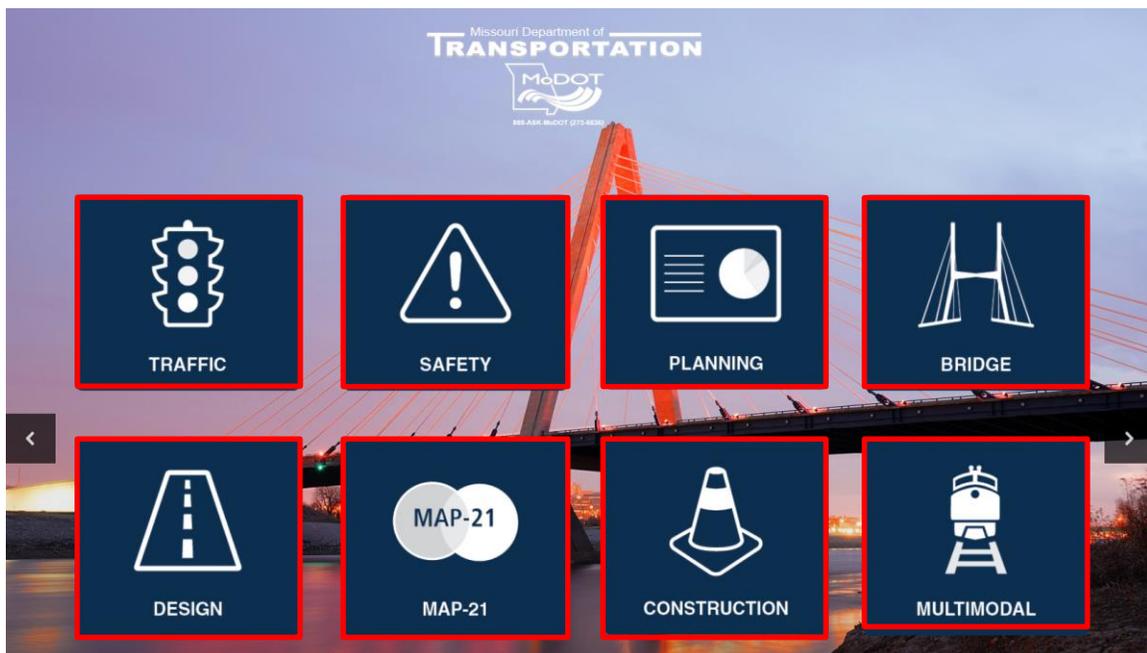
---

Data Summary Tool .....	5
Official Miles.....	6
Change Data .....	8
Saving a Layout.....	12
Signs.....	14
Traffic Fixtures .....	15
Definitions .....	16
Official Miles.....	16
Signs .....	19
Traffic Fixtures .....	20

From the TMS Homepage select the DataZone icon.

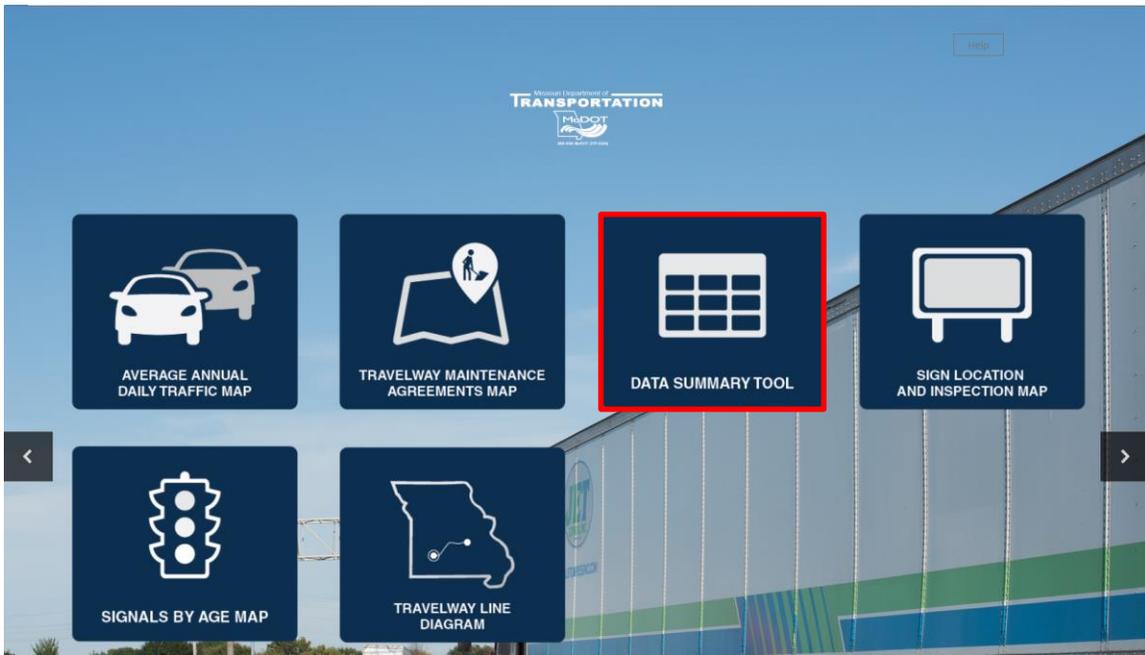


The following page will be displayed.



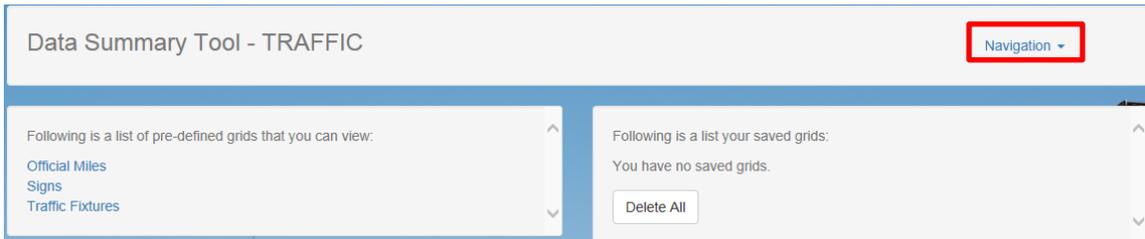
There are several mapping tools and resources available for use. They are categorized by business area.

- Click the "Traffic" icon. In the future, you will be able to click on any business area icons to get to this tool.

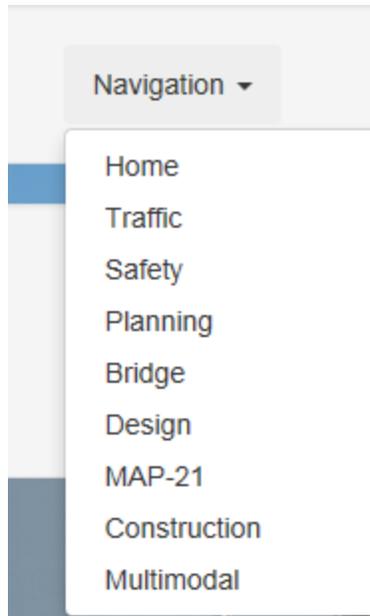


- Click on the “Data Summary Tool” icon. This will flow to the “Data Summary Tool” main page.

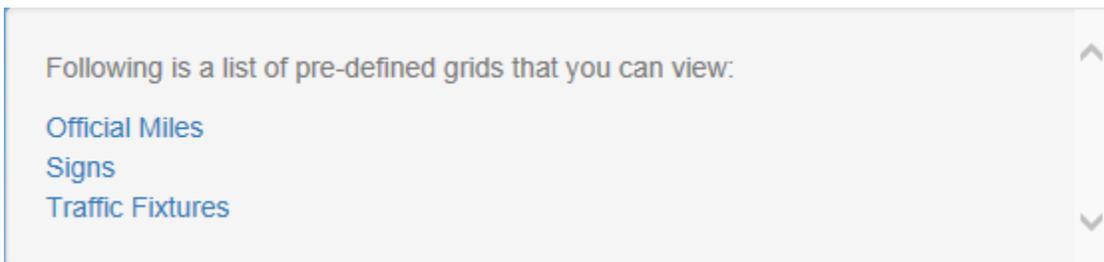
## Data Summary Tool



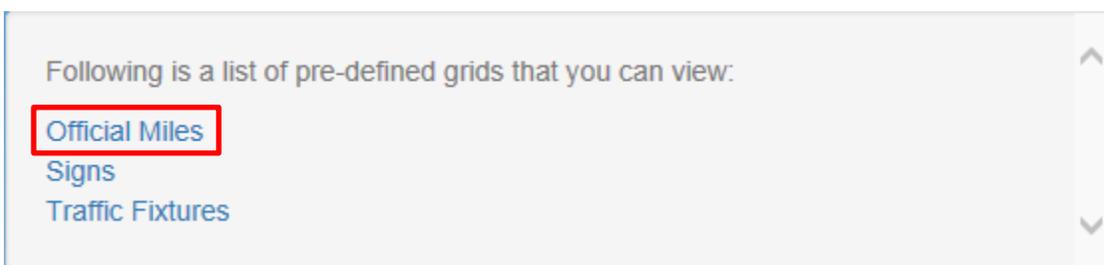
Once the “Data Summary Tool” is open, use the “Navigation” menu to visit any of the pages listed in the drop-down or return to the home page.



There is a listing of pre-defined grids that can be viewed for "Official Miles", "Signs", and "Traffic Fixtures".



## Official Miles



➤ Click on "Official Miles".

Official Miles Navigation ▾

My Layouts Save Layout Export to Excel Summary Type Sum ▾

**Filter Area**

- LANE\_MILES
- NUMBER\_OF\_LANES
- CENTERLINE
- RAMP\_LANEMILES
- MAJOR\_MINOR

**Column Area**

- STATE\_SYSTEM\_CLASS

**Row Area**

- DISTRICT\_ABBR

**Data Area**

- OFFICIAL\_CENTERLINE
- OFFICIAL\_LANEMILES

Defer Layout Update Update

	INTERSTATE		NOT ON SYSTEM		PRIMARY		SUPPLEMENTARY	
	OFFICIAL_CENTERLINE	OFFICIAL_LANEMILES	OFFICIAL_CENTERLINE	OFFICIAL_LANEMILES	OFFICIAL_CENTERLINE	OFFICIAL_LANEMILES	OFFICIAL_CENTERLINE	OFFICIAL_LAN
CD	380	1,569	0	0	2,296	5,652	7,807	
KC	525	2,660	0	0	1,175	3,368	4,502	
NE	81	334	0	0	1,864	4,935	7,147	
NW	379	1,550	0	0	1,832	4,297	8,379	
SE	396	1,624	0	0	3,343	8,360	11,086	
SL	501	3,412	0	0	535	2,044	2,445	
SW	496	2,048	0	0	2,558	6,624	10,037	
Sum	2,759	13,196	0	0	13,602	35,281	51,403	

When first opened, the data grid will display the following four sections: "Filter Area", "Row Area", "Column Area" and "Data Area". Click and drag field names to the various sections to perform data queries. The query shown below will display centerline and lane miles by state system class by district.

INTERSTATE	NOT ON SYSTEM		PRIMARY		Sum
	OFFICIAL_LANEMILES	OFFICIAL_CENTERLINE	OFFICIAL_LANEMILES	OFFICIAL_CENTERLINE	
380	1,569	0	0	2,296	5,652
525	2,660	0	0	1,175	3,368
81	334	0	0	1,864	4,935
379	1,550	0	0	1,832	4,297
396	1,624	0	0	3,343	8,360
501	3,412	0	0	535	2,044
496	2,048	0	0	2,558	6,624
759	13,196	0	0	13,602	35,281

**Lane miles** (points to OFFICIAL\_LANEMILES column)

**Centerline** (points to OFFICIAL\_CENTERLINE column)

**NOTE:** The sum columns on the far right represent a total for each attribute in the "Data Area". If you have more than one "Data Area" attribute more sum columns will be added. This holds true for the "Column Area".

In the above example, there are two sum columns. This is because there is a sum for "OFFICIAL\_LANEMILES" and "OFFICIAL\_CENTERLINE" columns.

## Change Data

If not already there, click and drag "STATE\_SYSTEM\_CLASS" to the "Column Area". An arrow at each end of the field name will display when it is ready to be dropped. Place "DISTRICT\_ABBR" in the "Row Area" and "OFFICIAL\_VMT" in the "Data Area" if not already there.

The screenshot shows a data configuration interface with four main sections:

- Filter Area:** Contains a list of fields: LANE\_MILES, OFFICIAL\_LANEMILES, NUMBER\_OF\_LANES, CENTERLINE, and RAMP\_LANEMILES.
- Column Area:** Contains the field STATE\_SYSTEM\_CLASS.
- Row Area:** Contains the field DISTRICT\_ABBR.
- Data Area:** Contains the field OFFICIAL\_VMT.

At the bottom left, there is a checkbox labeled "Defer Layout Update". At the bottom right, there is an "Update" button.

Before reviewing results, click on the "Year" drop-down in the "Filter Area" and uncheck "Show All". Then check the box next to "2015".

The screenshot shows the "Filter Area" with a "YEAR" drop-down menu. A red box highlights the drop-down arrow icon on the right side of the menu.

The screenshot shows the "YEAR" drop-down menu with the following options:

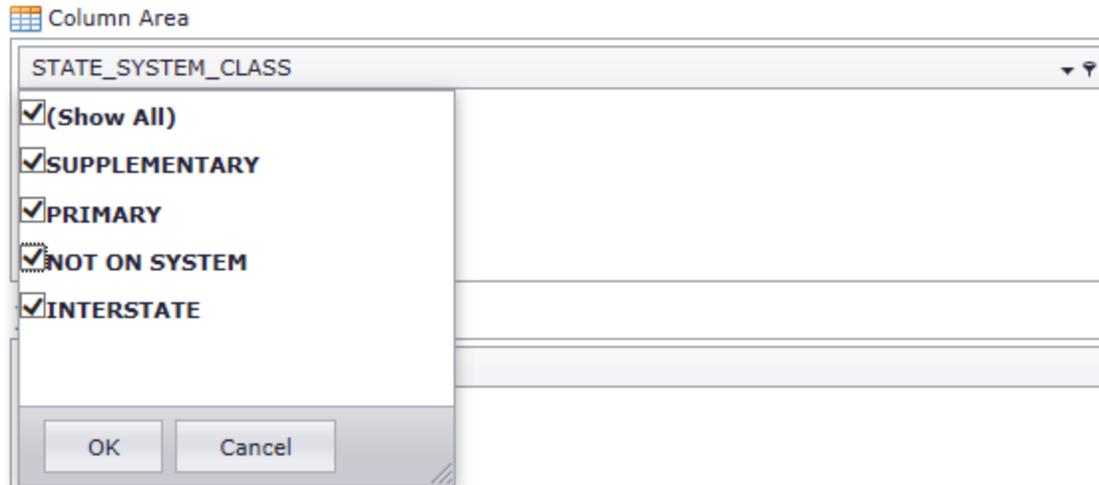
- (Show All)
- 2014
- 2015

At the bottom of the menu, there are "OK" and "Cancel" buttons. Red boxes highlight the "(Show All)" option, the "2015" option, and the "OK" button.

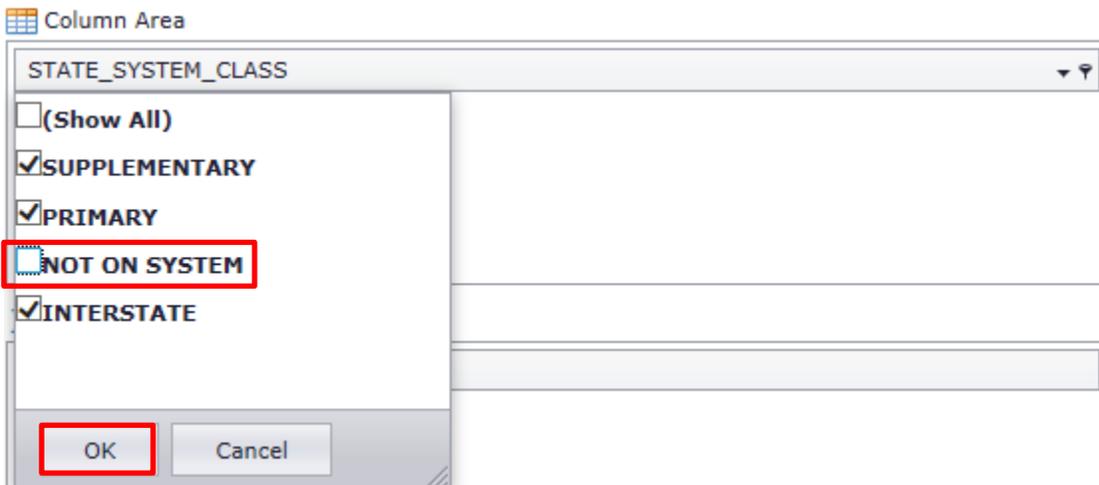
➤ Click the "OK" button.

Next, click on the "STATE\_SYSTEM\_CLASS" filter (funnel in the upper right corner) in the "Column Area" to modify the criteria.

The screenshot shows the "Column Area" with the field "STATE\_SYSTEM\_CLASS". A red box highlights the funnel icon in the upper right corner of the field.



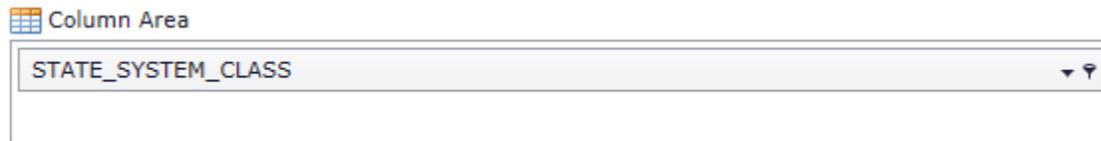
- Uncheck the "NOT ON SYSTEM" check box.
- Click the "OK" button.



	SUPPLEMENTARY	PRIMARY	INTERSTATE	Sum
CD	4,550,976	7,305,628	5,650,368	17,506,972
KC	6,908,594	5,275,976	13,577,212	25,761,782
NE	1,983,716	5,264,937	1,397,811	8,646,464
NW	1,865,610	3,083,824	3,010,214	7,959,648
SE	4,554,733	7,153,818	3,539,282	15,247,833
SL	8,541,014	6,160,400	23,861,035	38,562,449
SW	7,677,598	9,130,702	5,635,661	22,443,961
Sum	36,082,241	43,375,285	56,671,583	136,129,109

Under the "Sum" column, the official VMT (136,129,109) is displayed for year 2015.

- Click on the data elements and drag and drop to modify the "Row Area", "Column Area" and "Data Area".
- Click and hold on "STATE\_SYSTEM\_CLASS". Drag the field name to the "Filter Area".



When dragging a field to the "Filter Area", hold and hover until an arrow appears on each end of the box. Then drop the field into the "Filter Area". It can take a few seconds for the result to display.

- Drag "OFFICIAL\_CENTERLINE" from the "Filter Area" to the "Data Area".




---

	INTERSTATE	PRIMARY	SUPPLEMENTARY	Sum
CD	5,650,368	7,305,628	4,550,976	17,506,972
KC	13,577,212	5,275,976	6,908,594	25,761,782
NE	1,397,811	5,264,937	1,983,716	8,646,464
NW	3,010,214	3,083,824	1,865,610	7,959,648
SE	3,539,282	7,153,818	4,554,733	15,247,833
SL	23,861,035	6,160,400	8,541,014	38,562,449
SW	5,635,661	9,130,702	7,677,598	22,443,961
Sum	56,671,583	43,375,285	36,082,241	136,129,109

- Remove "OFFICIAL\_VMT" from the "Data Area" by clicking and dragging to the "Filter Area".

The "OFFICAL\_VMT" field is now in the "Filter Area".

Filter Area

STATE_SYSTEM_CLASS	▼
OFFICIAL_VMT	▼
OFFICIAL_LANEMILES	▼
LANE_MILES	▼
CENTERLINE	▼

- Find "MAJOR\_MINOR" in the "Filter Area", and then click and drag it to the "Column Area".

Filter Area

MAJOR_MINOR	▼
FEDERAL_AID_ELIGIBLE	▼
OWNER_NAME	▼
OWNER_TYPE	▼
URBAN_RURAL	▼

Column Area

MAJOR_MINOR	▲ ▼
-------------	-----

<p>Filter Area</p> <table border="1"><tr><td>STATE_SYSTEM_CLASS</td><td>▼</td></tr><tr><td>OFFICIAL_LANEMILES</td><td>▼</td></tr><tr><td>LANE_MILES</td><td>▼</td></tr><tr><td>CENTERLINE</td><td>▼</td></tr><tr><td>RAMP_LANEMILES</td><td>▼</td></tr></table>	STATE_SYSTEM_CLASS	▼	OFFICIAL_LANEMILES	▼	LANE_MILES	▼	CENTERLINE	▼	RAMP_LANEMILES	▼	<p>Column Area</p> <table border="1"><tr><td>MAJOR_MINOR</td><td>▲ ▼</td></tr></table>	MAJOR_MINOR	▲ ▼
STATE_SYSTEM_CLASS	▼												
OFFICIAL_LANEMILES	▼												
LANE_MILES	▼												
CENTERLINE	▼												
RAMP_LANEMILES	▼												
MAJOR_MINOR	▲ ▼												
<p>Row Area</p> <table border="1"><tr><td>DISTRICT_ABBR</td><td>▲ ▼</td></tr></table>	DISTRICT_ABBR	▲ ▼	<p>Data Area</p> <table border="1"><tr><td>OFFICIAL_CENTERLINE</td><td></td></tr></table>	OFFICIAL_CENTERLINE									
DISTRICT_ABBR	▲ ▼												
OFFICIAL_CENTERLINE													

Defer Layout Update Update

	LOWVOL	MAJOR	MINOR	NA	Sum
CD	1,269	737	3,237	0	5,243
KC	637	818	1,640	0	3,095
NE	1,981	601	1,963	0	4,546
NW	3,056	737	1,508	0	5,302
SE	2,336	908	4,170	0	7,414
SL	72	662	1,001	0	1,735
SW	1,729	1,030	3,779	0	6,538
Sum	11,080	5,494	17,298	0	33,873

**Notice the caution banner which indicates any fields that are filtered.**

Caution! This grid has fields that are filtered. Those fields are: YEAR

This banner shows that "Year" has a filter on the query.

### Saving a Layout

There is an option to save the grid layout once the columns are arranged to your satisfaction.

- Click the "Save Layout" button.

My Layouts **Save Layout** Export to Excel Summary Type Sum

- Give the layout a name.
- Click the "Save Changes" button.

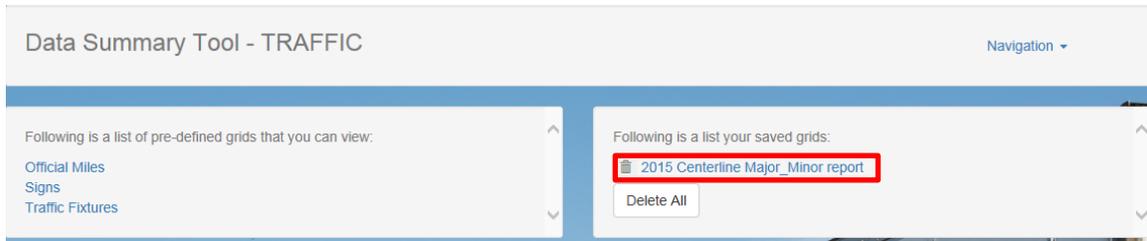
Save Layout to Favorites... x

Name

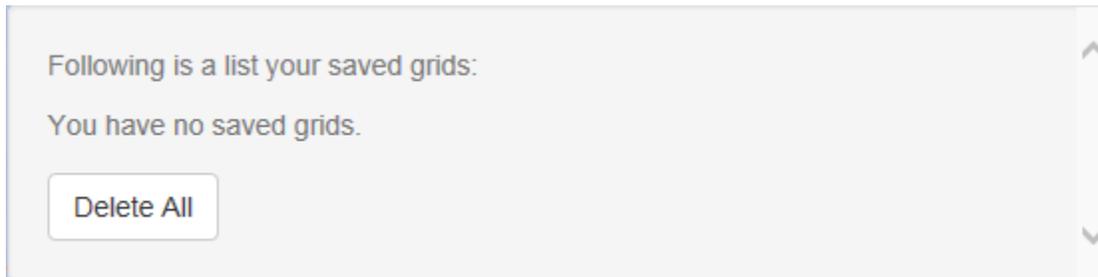
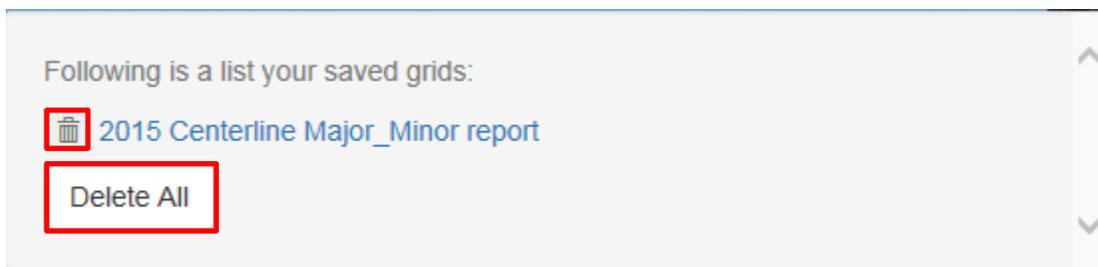
2015 Centerline Major\_Minor report x

Close **Save Changes**

The saved layout will be displayed under the saved grids on the "Data Summary Tool" page as shown below.



If the report is no longer needed for a saved grid, there is an option to delete by clicking on the trashcan to the left of the saved grid.



The "Delete All" button will remove all the grids that have been saved. This will be done on a group basis and not individually, so make sure to use the trashcan method.

"Signs" and "Traffic Fixtures" function in the same manner as "Official Miles". For more information regarding the field names, review the definitions on the next few pages.

# Signs

Signs
Navigation ▾

My Layouts
Save Layout
Export to Excel
Summary Type
Sum ▾

**Filter Area**

- NUMBER\_OF\_LANES ▾
- TW\_SPEED\_LIMIT\_CD ▾
- DIVIDED\_UNDIVIDED ▾
- MAJOR\_MINOR ▾
- FEDERAL\_AID\_ELIGIBLE ▾

**Column Area**

STATE\_SYSTEM\_CLASS ▾

**Row Area**

DISTRICT\_ABBR ▾

**Data Area**

TOTAL\_SIGNS

Defer Layout Update
 Update

	INTERSTATE	NOT ON SYSTEM	PRIMARY	SUPPLEMENTARY	Sum
CD	4,954	7,447	21,508	56,583	90,492
KC	9,565	9,395	13,266	36,718	68,944
NE	1,111	5,516	20,528	42,320	69,475
NW	4,371	8,525	16,095	47,360	76,351
SE	4,444	6,278	32,797	76,673	120,192
SL	12,020	10,893	7,753	39,323	69,989
SW	6,488	11,556	32,315	83,229	133,588
Sum	42,953	59,610	144,262	382,206	629,031

# Traffic Fixtures

Traffic Fixtures
Navigation ▾

---

My Layouts
Save Layout
Export to Excel
Summary Type
Sum ▾

---

**Filter Area**

- URBAN\_AREA\_NAME ▾
- PLANNING\_ORG ▾
- TMA\_NON\_TMA ▾
- NHS ▾
- FUNCTIONAL\_CLASS ▾

**Column Area**

- STATE\_SYSTEM\_CLASS ▾

---

**Row Area**

- DISTRICT\_ABBR ▾

**Data Area**

- QUANTITY

---

Defer Layout Update
 Update

---

	INTERSTATE	NOT ON SYSTEM	PRIMARY	SUPPLEMENTARY	Sum
CD	242	209	644	643	1,738
KC	4,438	885	764	2,179	8,266
NE	218	35	501	121	875
NW	631	89	789	228	1,737
SE	378	59	517	331	1,285
SL	6,325	1,188	472	2,008	9,993
SW	343	241	898	1,153	2,635
Sum	12,575	2,706	4,585	6,663	26,529

## Definitions

### Official Miles

**NUMBER\_OF\_LANES** – Number of lanes (includes driving and turn lanes).

**LANE\_MILES** – Number of lanes \* segment length for all directions of travelways.

**CENTERLINE** – Sum of mileage calculated for travelways with directions of South and East.

**RAMP\_LANEMILES** – Sum of lane miles for travelways with a designation of ‘RP’ (ramp).

**MAJOR\_MINOR** – Indicates if a travelway is classified as major, minor or low volume (minor).

**FEDERAL\_AID\_ELIGIBLE** – Indicates if a travelway is eligible for federal aid.

**OWNER\_NAME** – Name of the entity that owns a travelway.

**OWNER\_TYPE** – Classification of owners include CITY, COUNTY, FEDERAL, PRIVATE, SPECIAL ROAD DISTRICT and STATE.

**URBAN\_RURAL** – Rural indicates population less than 5,000. Urban indicates population of 5,000 or greater. Urbanized indicates populations 50,001 to 200,000. Metropolitan indicates population over 200,000.

**URBAN\_AREA\_NAME** – Name of the urban area.

**PLANNING\_ORG** – Name of a metropolitan planning organization or regional planning commission.

**BOONSLICK REG PLAN COMM** - BOONSLICK REGIONAL PLANNING COMMISSION

**BOOTHEEL REG PLAN & ECON DEV** - BOOTHEEL REGIONAL PLANNING AND ECONOMIC DEVELOPMENT COUNCIL

**CAMPO MPO** - CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION

**CATSO MPO** - COLUMBIA AREA TRANSPORTATION STUDY ORGANIZATION

**EWGCC MPO** - EAST-WEST GATEWAY COORDINATING COUNCIL MPO

**EWGCC RPC** - EAST-WEST GATEWAY COORDINATING COUNCIL RPC

**GREEN HILLS REG PLAN COMM** - GREEN HILLS REG PLAN COMM - GREEN HILLS REGIONAL PLANNING COMMISSION

**HARRY S. TRUMAN COORD COUN** - HARRY S. TRUMAN COORDINATING COUNCIL

**JATSO MPO** - JOPLIN AREA TRANSPORTATION STUDY ORGANIZATION

**KAYSINGER BASIN REG PLAN COMM** - KAYSINGER BASIN REGIONAL PLANNING COMMISSION

**LAKE OZARK COUN OF LOCAL GOVTS** - LAKE OF THE OZARKS COUNCIL OF LOCAL GOVERNMENTS

**MARK TWAIN REG COUN OF GOVTS** - MARK TWAIN REGIONAL COUNCIL OF GOVERNMENTS

**MERAMEC REG PLAN COMM** - MERAMEC REGIONAL PLANNING COMMISSION

**MARC MPO** - MID-AMERICA REGIONAL COUNCIL MPO

**MARC RPC** - MID-AMERICA REGIONAL COUNCIL RPC  
**MID-MO REG PLAN COMM** - MID-MISSOURI REGIONAL PLANNING COMMISSION  
**MO-KAN REGIONAL COUNCIL**  
**NE MO REG PLAN COMM** - NORTHEAST MISSOURI REGIONAL PLANNING COMMISSION  
**NWARPC RPC** - NORTHWEST ARKANSAS REGIONAL PLANNING COMMISSION  
**NW MO REG COUN OF GOVTS** - NORTHWEST MISSOURI REGIONAL COUNCIL OF GOVERNMENTS  
**OZARK FOOTHILLS REG PLAN COMM** - OZARK FOOTHILLS REGIONAL PLANNING COMMISSION  
**OTO MPO** - OZARKS TRANSPORTATION ORGANIZATION  
**PIONEER TRAILS REGIONAL COUN** - PIONEER TRAILS REGIONAL COUNCIL  
**SO CENTRAL OZARK COUN OF GOVTS** - SOUTH CENTRAL OZARK COUNCIL OF GOVERNMENTS  
**SEMPO MPO** - SOUTHEAST METROPOLITAN PLANNING ORGANIZATION  
**SE REG PLAN & ECON DEV COMM** - SOUTHEAST REGIONAL PLANNING & ECONOMIC DEVELOPMENT COMMISSION  
**SW MO ADVISORY COUN OF GOVTS** - SOUTHWEST MISSOURI ADVISORY COUNCIL OF GOVERNMENTS  
**SJATSO** - ST. JOSEPH AREA TRANSPORTATION STUDY ORGANIZATION

**TMA\_NON\_TMA** – “Y” indicates a transportation management area. A TMA is an urbanized area with a population over 200,000, designated by the Secretary of Transportation.

**NHS** – National Highway System.

**FUNCTIONAL\_CLASS** – Is defined as follows:

**Rural**

- 1 **Interstate** – The interstate highway system provides service for long distance trips. These trips may begin and end in Missouri, travel through Missouri, or begin or end in another state. All cities with a population of 50,000 or more are served by an interstate route. Interstate highway standards are such that speeds are high. Access is fully controlled on interstates, which means entering and leaving the interstate can only be done at an interchange.
  
- 2 **Principal Arterial** – Principal arterials serve long distance through trips within a state or from state to state. Together with the interstate system they serve nearly all cities with a population of 5,000 or more. They also serve major recreational areas. These routes should be two-lane, limited access or fully controlled access divided highways. Provisions should be made to limit traffic interruptions on principal arterials.
  
- 6 **Minor Arterial** – Minor arterials serve moderate length trips within or between counties. They connect almost all the remaining cities with population over 1,000, and provide access to the principal arterial or interstate principal arterials; most of the minor arterials are two-lane routes.
  
- 7 **Major Collectors** – Major collectors primarily serve trips within a county. They link the county seat and any larger towns, if not on an arterial, to the

arterial system. In addition, the major collectors provide service to traffic generators of countywide importance, such as consolidated schools, shipping points, other modes of transportation, important mining or agricultural areas, state parks and recreational areas.

- 8 **Minor Collectors** – The Minor collectors link the remaining communities and locally important traffic generators to a major collector or arterial route.
- 9 **Local** – The local road system provides access to adjacent land along its entire length. Trips are relatively short and at low speeds. The local functional classification accounts for all mileage not included in the collector or arterial systems.

### URBAN

- 11 **Interstate** – The urban interstate routes provide "cut through" the urban area or travel around the urban area on or near its perimeter. As with the rural interstate system, these routes are fully access controlled to encounter as little traffic interruption as possible.
- 12 **Freeway and Expressway** – These routes serve relatively long trips within an urban area. The speeds are not as fast as on the interstate system but are generally high. Because the emphasis of the other freeway and expressways is on traffic mobility, these routes should be fully or partially access controlled.
- 14 **Principal Arterial** – The other principal arterials provide relatively direct routes to major urban attractions, not on the interstate or other freeway and expressway system. These trips are also relatively long. The other principal arterials also provide continuity to rural arterials, which intercept the urban boundary. Any direct access to adjacent land is purely incidental.
- 16 **Minor Arterial** – The minor arterial system should connect and supplement the principal arterials and provide service to trips of moderate length at a lower degree of mobility than the principal arterials.
- 17 **Collector** – The collectors channel traffic from residential, industrial, or commercial areas to the arterial system. Conversely, they channel traffic from the arterials into such areas. Because they provide a higher degree of land access than the arterial system, speeds are lower than on the arterials.

- 19 **Local** – Local streets provide access to abutting land along their length and to the collector and arterial systems. The local functional classification includes all urban mileage that is not on a higher system.

**COUNTY\_NAME** – The name of one of Missouri’s 114 counties or the City of St. Louis.

**YEAR** – Indicates the year that the data was generated.

**TW\_SPEED\_LIMIT\_CD** – Indicates a speed limit value.

**DIVIDED\_UNDIVIDED** – Indicates one-way (divided) or head-to-head (undivided) traffic.

**OFFICIAL\_LANEMILES** – Sum of lane miles of MoDOT-owned routes.

**COMMERCIAL\_VMT** – Measurement of miles traveled daily by commercial vehicles within a specified region.

**VMT** – Measurement of miles traveled daily by vehicles within a specified region.

**DISTRICT\_ABBR** – Two-letter code identifying MoDOT’s seven districts.

**STATE\_SYSTEM\_CLASS** – Classifies a travelway as “Interstate”, “Primary” or “Supplementary”.

**OFFICIAL\_CENTERLINE** – Sum of centerline miles of MoDOT owned travelways.

**OFFICIAL\_VMT** – Measurement of miles traveled daily on MoDOT-owned travelways by vehicles within a specified region.

## Signs

ALL of the definitions from “Official Miles” apply to the “Signs” category along with the following:

**SIGN\_TYPE** – Includes the various types of signs.

**TOTAL\_SIGNS** – Total number of signs.

## Traffic Fixtures

ALL of the definitions from “Official Miles” apply to the “Traffic Fixtures” category along with the following:

**OWNER** – Values include City, County, Fire Department, MoDOT, School, Private or Other.

**POWER\_BILLED** – Party responsible for paying the power cost. Values include City, County, Fire Department, MoDOT, School, Private, Other or Alt Energy Src (alternate energy source).

**ITEM\_TYPE** – Varies depending on DATA\_TYPE. When “Signal” is selected, data will be grouped by make and model. When “Flasher” is selected, data will be grouped by installation type. When “Lighting” is selected, data will be grouped by bulb type.

**DATA\_TYPE** – Includes values of Signal, Lighting and Flasher.

**MAINTENANCE** – Indicates who is responsible for maintaining a traffic fixture. Values include City, County, Fire Department, MoDOT, School, Private or Other.

**QUANTITY** – A measure of the number of traffic fixtures.