

2018 Pennsylvania Traffic Data



**Bureau of Planning and Research
Transportation Planning Division**



In cooperation with:
US Department of Transportation
Federal Highway Administration
PUB 601 (4-19)

On The Cover:

PA -241 in Lebanon County, 500 feet east of CAVC 816.

Table of Contents

Table of Contents	1
Introduction.....	2
How to Use This Booklet.....	2
New Developments	3
New CAVC Site Installations.....	3
New VWIM Site Installations.....	3
Traffic Data Collection	4
Type of Data Collected.....	4
Traffic Data Collection Sources	5
Permanent Sites.....	6
Permanent Traffic Recorders.....	6
Traffic Pattern Group (TPG).....	7
Permanent Site Station Locations.....	8
Long Term Pavement Performance Program (LTPP)	12
Permanent Site ATR/CAVC Map	13
Permanent Site WIM/VWIM Map	14
Permanent Site Locations by TPG.....	15
2018 Peak Hour Summary by TPG	18
2018 30th Highest Hour Summary by TPG	20
2018 50th Highest Hour Summary by TPG	22
2018 Design Hour Summaries (Charts).....	24
Five Year Summary of Annual Average Daily Traffic (AADT) from Permanent Sites	26
Statewide Traffic Trends (Table).....	30
Statewide Traffic Trends (Chart).....	31
Heaviest Holiday Travel Periods: 2018.....	32
Factoring Process	34
Traffic Adjustment Factors	34
Table 350: Hourly Percentages Compiled for Total Vehicles	35
Table 360: Hourly Percentages Compiled for Truck Traffic.....	40
Hourly Percentages: Total Vehicles (Chart).....	42
Hourly Percentages: Truck Traffic (Chart)	42
Table 355: Average Day of Week by Month Factors Compiled for Total Vehicles	43
Monthly Variation Charts By Traffic Pattern Group (TPG).....	48
Table 365: Average Day of Week by Month Factors Compiled for Truck Traffic	49
Table 370: Yearly Growth Factors	50
Functional Class Groups (FCGs).....	51
Table 380: Axle Correction Factors	52
Table 385: Design Hour Factor Default Value	53
Table 390: Rigid Equivalent Single Axle Load (ESAL) Factors	54
Table 395: Flexible ESAL Factors	54
Roadway Management System (RMS) Factor Table Application Flow Chart.....	55
Acronyms	56
Index.....	57

Introduction

The “Pennsylvania Traffic Data Book” documents procedures for developing accurate estimates of highway traffic volumes based on sample traffic counts.

Traffic information is critical in transportation decision-making related to highway funding, traffic engineering, highway design, air quality analysis, planning and programming, as well as winter services, highway maintenance and construction.

The “Pennsylvania Traffic Data Book” provides current traffic expansion factors through the use of tables, charts, and graphs. Expansion factors allow the traffic professional to use a sample traffic count and develop reliable and comparable Annual Average Daily Traffic (AADT) estimates. All tables & charts in the “Pennsylvania Traffic Data Book” are derived from the data of permanent sites. Of the 127 sites in Pennsylvania, 107 were used to calculate the factors.

Some of the permanent sites are excluded on a year to year basis. If it is determined a permanent site has less than 50% of the current year’s data, it is not used for the factors. Reasons for a permanent site having less than 50% of the current year’s data would be construction projects or equipment malfunction.

How to Use this Booklet

This booklet provides current traffic expansion factors through the use of tables, charts, and graphs. All of the tables, charts, and graphs are listed in the Table of Contents. Refer to the description provided with each table, chart, and graph to ensure that the data presented is what you need.

Acronyms are used quite often throughout this publication. A complete list of acronyms and their meanings are located in the back of the booklet. In addition, an index was created for this booklet to help you find a particular topic quickly.

We would appreciate any comments or suggestions you can provide on information presented in this booklet. Questions or comments relating to data presented in this publication can be directed to:

Andrew O’Neill
Telephone: (717) 346-3250
Fax: (717) 783-9152
Email: andoneill@pa.gov

The 2018 Traffic Data Book and County Traffic Volume Maps are available free on our website! Traffic Volume Maps can also be purchased through our Maps and Publications Sales Store on the website.

www.penndot.gov
Select: Projects & Programs
Select: Planning
Select: Maps for the County Traffic Volume Maps
or select Traffic Information for the Traffic Data Book
or select Maps followed by Sales Store List to purchase a map

New Developments

New Permanent Continuous Automatic Vehicle Classification (CAVC) Site Installations

Seven new CAVC sites were installed in the 2018 calendar year. All seven sites were installed to collect classification data in all lanes of travel. A list of the sites are below, showing their location and when the site began collecting data.

- CAVC 839 – I-380 in Coolbaugh Township, Monroe County, began in January.
- CAVC 840 – I-279 in Ross Township, Allegheny County, began in May.
- CAVC 842 – I-180 in Delaware Township, Northumberland County, began in August.
- CAVC 843 – I-80 in White Deer Township, Union County, began in August.
- CAVC 844 – I-81 in South Abington Township, Lackawanna County, began in August.
- CAVC 845 – I-99 in Allegheny Township, Blair County, began in October.
- CAVC 846 – SR 2013 in Upper Allen Township, Cumberland County, began in August.

New Virtual Weigh-In-Motion (VWIM) Site Installations

Two new VWIM sites were installed in the 2018 calendar year. Site 706, located on I-79 in Perry Township, Greene County began collecting data in November. Site 706 captures images in the northbound direction. Site 712, located on I-81 in Antrim Township, Franklin County takes images in the northbound direction and began collecting data in November.



Installation of VWIM 712 in Franklin County

Traffic Data Collection

Traffic data is collected on 40,000 miles of PennDOT owned roads and 3,700 miles of local federal aid roads in Pennsylvania. Approximately 10,000 raw traffic counts are collected per year by:

- 3 Bureau of Planning and Research (BPR) Field Staff
- PennDOT Engineering District 2-0, 10-0, and 12-0
- 9 Metropolitan Planning Organizations (MPOs)
- Contractors

Volume: The majority of the counts taken as part of our statewide count program record volume of traffic on a roadway. Volume is usually expressed as Annual Average Daily Traffic (AADT), which represents traffic volume over an average 24-hour period.

Classification: One method of data collection used for our count program is vehicle classification. Vehicles are classified into 13 classes ranging from cars to trucks in accordance with the Federal Highway Administration vehicle classification scheme.

Weight: Truck weight data is collected from WIM stations.

Speed: Speed data is collected from permanent traffic recorders.



Short-Term classification count installed.

Traffic Data Collection Sources

Automatic Traffic Recorders (ATRs)

26 ATRs strategically located throughout the state count volume and speed data on a continuous basis 365 days per year. A map showing the locations of ATRs throughout the state is provided on page 13.

Short-Term In-Pavement Sites (STIP)

Approximately 92 inductive loop sites, referred to as STIP sites are installed throughout the state of Pennsylvania. Volume data is collected from these permanent sites for a 24-hour period.

Continuous Automatic Vehicle Classifier (CAVC)

79 CAVC sites collect continuous vehicle classification data. A map showing CAVC locations are provided on page 13.

Weigh-In-Motion (WIM)

22 WIM stations provide continuous truck weight and vehicle classification data. 14 of the 22 sites are VWIM. WIM stations are shown on the map on page 14.

Pneumatic Tubes

The majority of the counts are collected using pneumatic tubes. Axle counts are collected using a traffic counting device in association with a single pneumatic tube stretched across the roadway. An axle correction factor is applied to adjust vehicle axle base data for the incidence of vehicles with more than two axles.

Two tubes are used to count and classify vehicles by type based on axle configuration.

Manual Counts

Manual counts are taken on sections of roadways that are not accessible to automated data collection equipment or have safety limitations. Observers classify vehicles by type based on axle configuration.

Toll Receipts

The Delaware River Joint Toll Bridge Commission and the Delaware River Port Authority document traffic between Pennsylvania and New Jersey.

The Pennsylvania Turnpike Commission toll receipt surveys provide data on the Commonwealth's toll roads.

Permanent Traffic Recorders

Pennsylvania maintains permanent traffic recorders at 127 strategically selected locations throughout the state. These permanent sites collect traffic volume data on a continuous basis throughout the year. This data is used to develop daily and seasonal factors, as well as to identify changes in traffic patterns. Based on a research study performed by Pennsylvania State University and West Virginia University, it was determined that PennDOT locations in the traffic pattern groups were acceptable according to the FHWA Traffic Monitoring Guide.



CAVC 846 in Cumberland County

The permanent sites use magnetic loops embedded in the pavement for vehicle detection. Additionally, CAVC sites utilize piezo sensors to classify and WIM sites utilize Lineas™ quartz sensors to weigh. The data is stored on-site in traffic counters, prior to being automatically polled every night through the use of modems located at each permanent site.

Traffic Pattern Group (TPG)

Highway traffic characteristics can vary by geographical area, roadway type, and population density. Therefore, individual traffic volume counts are categorized into one of ten Traffic Pattern Groups (TPGs). The TPGs are based on highway functional classification, geographic area, and urban/rural characteristics. Each permanent site is associated with one of the ten TPGs listed below.

TRAFFIC PATTERN GROUP	DESCRIPTION
TPG 1	URBAN - INTERSTATE
TPG 2	RURAL - INTERSTATE
TPG 3	URBAN - OTHER PRINCIPAL ARTERIALS
TPG 4	RURAL - OTHER PRINCIPAL ARTERIALS
TPG 5	URBAN - MINOR ARTERIALS, COLLECTORS, LOCAL ROADS
TPG 6	NORTH RURAL - MINOR ARTERIALS
TPG 7	CENTRAL RURAL- MINOR ARTERIALS
TPG 8	NORTH RURAL - COLLECTORS AND LOCAL ROADS
TPG 9	CENTRAL RURAL- COLLECTORS AND LOCAL ROADS
TPG 10	SPECIAL RECREATIONAL

Permanent Site data is used in computing:

- Daily, monthly, and seasonal adjustment factors by highway functional classification and geographic location.
- Yearly growth factors which are used to update older counts in the Department's Roadway Management System (RMS).
- Design hour factors (peak hour, 30th highest, and 50th highest hour) used for the design of highways.

Permanent Site Locations

This chart lists the permanent site stations by number, county, municipality, traffic route number, state route (SR), segment, and also by a physical description of where the permanent site is located in the state.

SITE #	COUNTY	MUNICIPALITY	ROUTE	SR	SEGMENT	LOCATION
1 *	Erie	Springfield Twp.	US 20	20	10	0.4 mi. E of Ohio/Pennsylvania Line (West Springfield)
2	Crawford	Richmond Twp.	PA 77	77	270	0.5 mi. W of PA 408 (New Richmond)
3 *	Clearfield	Huston Twp.	PA 255	255	280	1.4 mi. N of PA 153 (Penfield)
4	Tioga	Delmar Twp.	US 6	6	400	0.9 mi. W of PA 287 (Wellsboro)
5 *	Bradford	Wysox Twp.	***	1043	10	0.1 mi. NW of SR 1041 (Towanda)
8	Montgomery	Whitemarsh Twp.	PA 73	73	534	1.4 mi. NW of PA 309-Skipack Pike (Whitemarsh)
15	Fulton	Todd Twp.	US 522	522	540	1.3 mi. N of US 30 (McConnellsburg)
18 *	Butler	Summitt Twp.	PA 38	38	20	0.7 mi. NW of PA 68 (Butler)
19 *	Washington	Union Twp.	PA 88	88	750	0.4 mi. S of SR1006-Washington Ave. (Finleyville)
20 *	Lawrence	Shenango Twp.	PA 65	65	264	0.6 mi. S of US 422 (New Castle)
24 *	Westmoreland	Derry Twp.	US 22	22	340	1.0 mi. E of PA 981 (New Alexandria)
27	Elk	Highland Twp.	PA 66/948	66	60	1.1 mi. E of PA 948 (Russell City)
29 *	Susquehanna	Rush Twp.	PA 267	267	190	0.9 mi. S of PA 706 (Lawton)
40 *	Schuylkill	Schuylkill Twp.	US 209	209	860	0.6 mi. S of PA 309 (Tamaqua)
48 *	Susquehanna	New Milford Twp.	US 11	11	420	0.8 mi. S of PA 848 (New Milford)
51	Potter	Eulalia Twp.	PA 44	44	700	1.3 mi. SW of PA 49 (Coudersport)
106 **	Berks	Windsor Twp.	I-78	78	330	2.3 mi. W of PA 143 (Hamburg)
126 *	Jefferson	Brookville Boro.	I-80	80	790	0.6 mi. E of PA 36 (Brookville)
158 **	Centre	Boggs Twp.	I-80	80	1580	0.6 mi. E of PA 150 (Milesburg)
203 *	Allegheny	Leetsdale Boro.	PA 65	65	270	1.0 mi. S of SR 4036 (Leetsdale)
205 *	York	Manchester Twp.	I-83	83	220	1.4 mi. S of PA 238 (North York)
206	Cumberland	Wormleysburg Boro.	***	1014	30	Harvey Taylor Bridge on west approach (Harvey Taylor Bridge)
207	Erie	Springfield Twp.	I-90	90	10	1.1 mi. E of Ohio/Pennsylvania Line (West Springfield)
208	Allegheny	Churchill Boro.	I-376	376	794	0.7 mi. W of PA 791 (Monroeville)
216 *	Susquehanna	Great Bend Twp.	I-81	81	2314	1.1 mi. N of PA 171 (Hallstead)
301	Erie	Lawrence Park Twp.	PA 5	5	680	0.5 mi. W of PA 955 (Erie)
304	Lycoming	S. Williamsport Boro.	US 15	15	250	0.3 mi. S of I-180 (Williamsport)
306 *	Pike	Palmyra Twp.	PA 507	507	280	0.9 mi. S of US 6 (Hawley)
317 **	Blair	Freedom Twp.	I-99	99	214	1.0 mi. S of PA 36/PA 164 (East Freedom)
323 *	Bedford	Bedford Twp.	US 220	220	310	0.7 mi. S of Business US 220 (Bedford Springs)
324 **	Elk	Ridgway Boro.	PA 120	120	42	1.1 mi. E of US 219 (Ridgway)
326 *	Clarion	Paint Twp.	US 322	322	280	0.5 mi. E of PA 66 (Clarion)
328 *	Centre	Boggs Twp.	PA 150	150	194	1.1 mi. N of I -80 (Milesburg)

* Indicates CAVC site

** Indicates WIM site

*** Indicates road is not a PA, US, or Interstate Route

Permanent Site Locations (Continued)

SITE #	COUNTY	MUNICIPALITY	ROUTE	SR	SEGMENT	LOCATION
330	Bucks	Northampton Twp.	PA 532	532	130	1.4 mi. SW of PA 413 (Newtown)
334 *	York	W. Manchester Twp.	US 30	30	170	0.7 mi. W of PA 116 (Thomasville)
349	Lehigh	Upper Saucon Twp.	PA 309	309	30	0.7 mi. S of PA 378 (Coopersburg)
360	Clearfield	Bloom Twp.	US 219	219	670	3.2 mi. S of US 322 (Luthersburg)
362	York	North Codorus Twp.	PA 616	616	240	1.6 mi. N of PA 214 (New Salem)
363	McKean	Lafayette Twp.	US 219	219	290	0.1 mi. N of PA 59 (Lewis Run)
364 *	Lackawanna	Newton Twp.	PA 307	307	360	50 ft. W of SR 4017 (Clarks Summit)
367	Union	West Buffalo Twp.	PA 45	45	250	0.6 mi. W of PA 104 (Mifflinburg)
370 *	Westmoreland	Rostraver Twp.	I-70	70	450	0.9 mi. W of PA 51 (Belle Vernon)
371 *	Fulton	Brush Creek Twp.	I-70	70	1522	1.1 mi. S of PA 915 (Crystal Springs)
372 *	Union	White Deer Twp.	I-80	80	2104	0.7 mi. E of US 15 (Milton)
374	Butler	Lancaster Twp.	I-79	79	904	2.2 mi. N of PA 68 (Zelienople)
375 *	Allegheny	N. Fayette Twp.	US 22/30	22	80	0.8 mi. E of PA 978 (Imperial)
376 *	Luzerne	Wilkes-Barre Twp.	I-81	81	1664	1.7 mi. N of PA 309-Exit 165A/165B (Wilkes-Barre)
377	Bucks	Bristol Twp.	I-295	295	404	2.5 mi. S of US 1 (PennDel)
378 *	Fayette	Redstone Twp.	US 40	40	160	1.0 mi. W of SR 4010 (Briar Hill)
379 *	Blair	Logan Twp.	***	4013	80	0.5 mi. E of SR 4015 (Altoona)
380 *	Berks	Exeter Twp.	PA 562	562	40	0.2 mi. W of SR 2033 (St. Lawrence)
381 *	Mercer	Hermitage City	***	3019	20	0.9 mi. N of PA 718 (Sharon)
382	Cambria	Lower Yoder Twp.	***	3005	40	0.7 mi. SW of PA 56 (Morrellville)
383 *	Clinton	Pine Creek Twp.	PA 150	150	360	0.5 mi. N of SR 1005 (Chatham Run)
384	Tioga	Lawence Twp.	***	4022	50	1.9 mi. E of PA 49 (Nelson)
385 *	Warren	Southwest Twp.	***	3002	30	0.7 mi. W of PA 27 (Enterprise)
386 *	Montour	Limestone Twp.	PA 254	254	10	2.0 mi. E of I-80 (Limestoneville)
387 *	Somerset	Brothers Valley Twp.	***	2031	120	2.0 mi. S of US 219 (Garrett)
388 *	Monroe	Ross Twp.	***	3004	170	0.4 mi. SW of SR 3015 (Saylorsburg)
389 *	Jefferson	Perry Twp.	PA 536	536	210	0.3 mi. W of SR 3011 (Frostburg)
390 *	Lancaster	Mount Joy Twp.	PA 230	230	20	1.7 mi. W of PA 743/PA 241 (Elizabethtown)
391	Chester	Warwick Twp.	PA 23	23	110	1.5 mi. E of PA 345 (Warwick Area)
392	Luzerne	Foster Twp.	I-80	80	2684	5.9 mi. E of PA 309 (White Haven)
393 *	Washington	Donegal Twp.	I-70	70	2	0.3 mi. E of W. Virginia/Pennsylvania Line (West Alexander)
394 *	Lehigh	Upper Saucon Twp.	I-78	78	614	1.1 mi. E of PA 309/PA 145/I-78 Interchange (Allentown)
395	Fayette	German Twp.	PA 21	21	230	0.1 mi. E of SR 3023 (Uniontown)
396	Washington	Canton Twp.	US 40	40	320	0.4 mi E of SR 3013 (Washington)
410 **	Tioga	Nelson Twp.	PA 49	49	520	0.5 mi. W of SR 4027 (Nelson)
501 **	Tioga	Liberty Twp.	US 15	15	142	2.7 mi. N of SR 2005 (Blossburg)

* Indicates CAVC site

** Indicates WIM site

*** Indicates road is not a PA, US, or Interstate Route

Permanent Site Locations (Continued)

SITE #	COUNTY	MUNICIPALITY	ROUTE	SR	SEGMENT	LOCATION
502 **	Mercer	Wolf Creek Twp.	I-80	80	220	1.4 mi. W of PA 173 (Barkeyville)
503 **	Warren	Youngsville Boro.	US 6	6	420	0.6 mi. E of Railroad St (Youngsville)
504 **	Delaware	Chadds Ford Twp.	US 202	202	114	0.8 mi. N of US 1 (Dilworthtown)
505 **	Perry	Howe Twp.	US 22	22	160	0.7 mi. E of PA 34 (Newport)
506 **	Blair	Allegheny Twp.	***	1001	30	0.2 mi. N of SR 1002 (Altoona)
600	Franklin	Southampton Twp.	I-81	81	244	0.7 mi. N of PA 696 (Shippensburg)
700 **	Indiana	Armstrong Twp.	US 422	422	120	0.5 mi. W of SR 4004 (Indiana)
701 **	Dauphin	East Hanover Twp.	I-81	81	774	0.75 mi. N of PA 39 Manada Hill/Hershey Interchange (Grantville)
702 **	Dauphin	East Hanover Twp.	I-81	81	810	0.7 mi. N of SR 2025 (Grantville)
703 **	Lancaster	Brecknock Twp.	US 222	222	1034	0.3 mi. S of Lancaster/Berks County Line (Adamstown)
704 **	Fulton	Bethel Twp.	I-70	70	1702	0.1 mi. N of Maryland/Pennsylvania Line (Warfordsburg)
705 **	Northampton	Williams Twp.	I-78	78	724	1.0 mi. E of SR 33 (Easton)
706 **	Greene	Perry Twp.	I-79	79	14	1.0 mi. N of SR 2002 (Mt. Morris)
707 **	Allegheny	South Fayette Twp.	I-79	79	496	1.4 mi. N of SR 1010 (Bridgeville)
709 **	Columbia	Mifflin Twp.	I-80	80	2444	2.7 mi. E of PA 339 (Columbia)
710 **	Butler	Cranberry Twp.	I-79	79	790	1.2 mi. N of PA 228 (Butler)
712 **	Franklin	Antrim Twp.	I-81	81	64	1.75 Mi. N of PA 16 (Greencastle)
800 *	Centre	Spring Twp.	I-99	99	800	1.2 mi. N of PA 150 (Bellefonte)
801 *	Dauphin	Lower Paxton Twp.	I-81	81	714	0.7 mi. S of SR 3019 (Paxtonia)
802 *	Monroe	Coolbaugh Twp.	PA 423	423	140	0.2 mi. E of I-380 (Tobyhanna)
803 *	Adams	Freedom Twp.	US 15	15	20	0.5 mi. N of Maryland/Pennsylvania Line (Gettysburg)
804 *	Washington	Canton Twp.	I-70	70	154	1.3 mi. E of US 40 (Washington)
805 *	Crawford	N. Shenango Twp.	PA 285	285	20	0.1 mi. E of SR 3007 (Espyville)
806 *	Westmoreland	Hempfield Twp.	US 30	30	170	0.2 mi. E of Strawberry Lane (Jeannette)
807 *	Washington	Twilight Boro.	I-70	70	390	0.6 mi. W of Exit 39 (Speers)
808 *	Indiana	W. Wheatfield Twp.	US 22	22	242	0.1 mi. E of Bethel Cemetery Rd. (Clyde)
809 *	McKean	Foster Twp.	US 219	219	594	0.1 mi. N of Tuna Crossroads Bridge (Foster Brook)
810 *	Bucks	Doylestown Twp.	US 611	611	130	0.3 mi. S of SR 4202 (Doylestown)
811 *	Cumberland	Hampden Twp.	PA 581	581	10	Between the I-81 Junction and Creekview Rd. Exit (Creekview)
812 *	Westmoreland	S. Greenburg Twp.	US 30	30	300	Between Exits for SR 119 and Cedar St. (Cedar Creek)
813 *	Cumberland	Camp Hill Boro.	PA 581	581	120	Between US 11/15 and I-83 (Camp Hill)
815 *	Columbia	Hemlock Twp.	PA 44	44	10	0.25 mi. W of PA 42 (Buckhorn)
816 *	Lebanon	South Annville Twp.	PA 241	241	120	1.1 mi. S of US 322 (Mt. Gretna)
817 *	Jefferson	Winslow Twp.	SR 1002	1002	70	0.1 mi. E of SR 2033 (Reynoldsville)
818 *	Pike	Matamoras Boro.	I-84	84	540	0.1 mi. W of New York/Pennsylvania Line (Matamoras)
821 *	Tioga	Lawrence Twp.	US 15	15	774	0.1 mi. S of T-722 Tioga River Rd overpass (Lawrence)

* Indicates CAVC site

** Indicates WIM site

*** Indicates road is not a PA, US, or Interstate Route

Permanent Site Locations (Continued)

SITE #	COUNTY	MUNICIPALITY	ROUTE	SR	SEGMENT	LOCATION
823 *	Dauphin	Swatara Twp.	PA 283	283	4	1.1 mi. S of SR 441 (Swatara)
824 *	Chester	Uwchlan Twp.	PA 100	100	260	Between SR 1001 and PA 113 (Exton)
825 *	York	Shrewsbury Twp.	I-83	83	2	0.2 mi. N of Maryland/Pennsylvania Line (New Freedom)
826 *	Berks	Exeter Twp.	US 422	422	450	0.7 mi. E of I-176 (Exeter)
827 *	Union	White Deer Twp.	US 15	15	320	1.1 mi. N of SR 1004 (New Columbia)
828 *	Crawford	Vernon Twp.	I-79	79	1500	3.3 mi. N of US 6 (Meadville)
829 *	Mercer	Shenango Twp.	I-80	80	24	1.3 mi. W of I-376 (West Middlesex)
830 *	Cumberland	Middlesex Twp.	I-81	81	490	1.0 mi. N of PA 641 (Carlisle)
831 *	Cumberland	Silver Spring Twp.	I-81	81	550	1.4 mi. S of PA 114 (Silver Spring)
832 *	Berks	Robeson Twp.	I-176	176	74	At Morgantown Rd Overpass (Green Hills)
833 *	Cumberland	E. Pennsboro Twp.	I-81	81	634	0.8 mi. North of PA 944 (Enola)
834 *	Erie	North East Twp.	I-90	90	450	0.5 mi. E of US 20 (North East)
835 *	Erie	Greenfield Twp.	I-86	86	60	2.4 mi. E of PA 89 (Erie South Tier)
837 *	Schuylkill	Kline Twp.	I-81	81	1364	2.5 mi. N of SR 1017 (Delano)
839 *	Monroe	Coolbaugh Twp.	I-380	380	70	Between Exits for SR 940 and SR 423 (Pocono Summit)
840 *	Allegheny	Ross Twp.	I-279	279	86	0.4 mi. N of SR 4021 (Franklin Park)
842 *	Northumberland	Delaware Twp.	I-180	180	580	At PA 44 overpass (Warrior Run)
843 *	Union	White Deer Twp.	I-80	80	2060	3.83 mi. W of US 15 (White Deer)
844 *	Lackawanna	South Abington Twp.	I-81	81	1930	0.6 mi. N of US 11 (Dickson City)
845 *	Blair	Allegheny Twp.	I-99	99	290	0.7 mi. N of SR 8004 (Hollidaysburg)
846 *	Cumberland	Upper Allen Twp.	SR 2013	2013	40	0.7 mi. E of Winding Hill Rd (Winding Hill)
985 *	Cambria	Richland Twp.	US 219	219	120	1.6 mi. N of PA 56 (St. Michael)

* Indicates CAVC site

** Indicates WIM site

*** Indicates road is not a PA, US, or Interstate Route

Long-Term Pavement Performance Program (LTPP)

The Long Term Pavement Performance (LTPP) program was established under the Strategic Highway Research Program (SHRP). The first five years of the LTPP program were funded and managed under SHRP. Beginning in 1991, the Federal Highway Administration (FHWA) has sustained the management and funding of the program.

The Federal Highway Administration assumed coordination of a national program to move the products evaluated or developed under SHRP to the state and local agencies upon completion of the research phase.

LTPP, which is a study of in-service pavements, provides the basis for pavement design, maintenance, rehabilitation, and construction methodologies. The LTPP program monitors and collects pavement performance data on all active LTPP sites. The Bureau supports this program by collecting weight and vehicle classification data and reporting the data to LTPP.

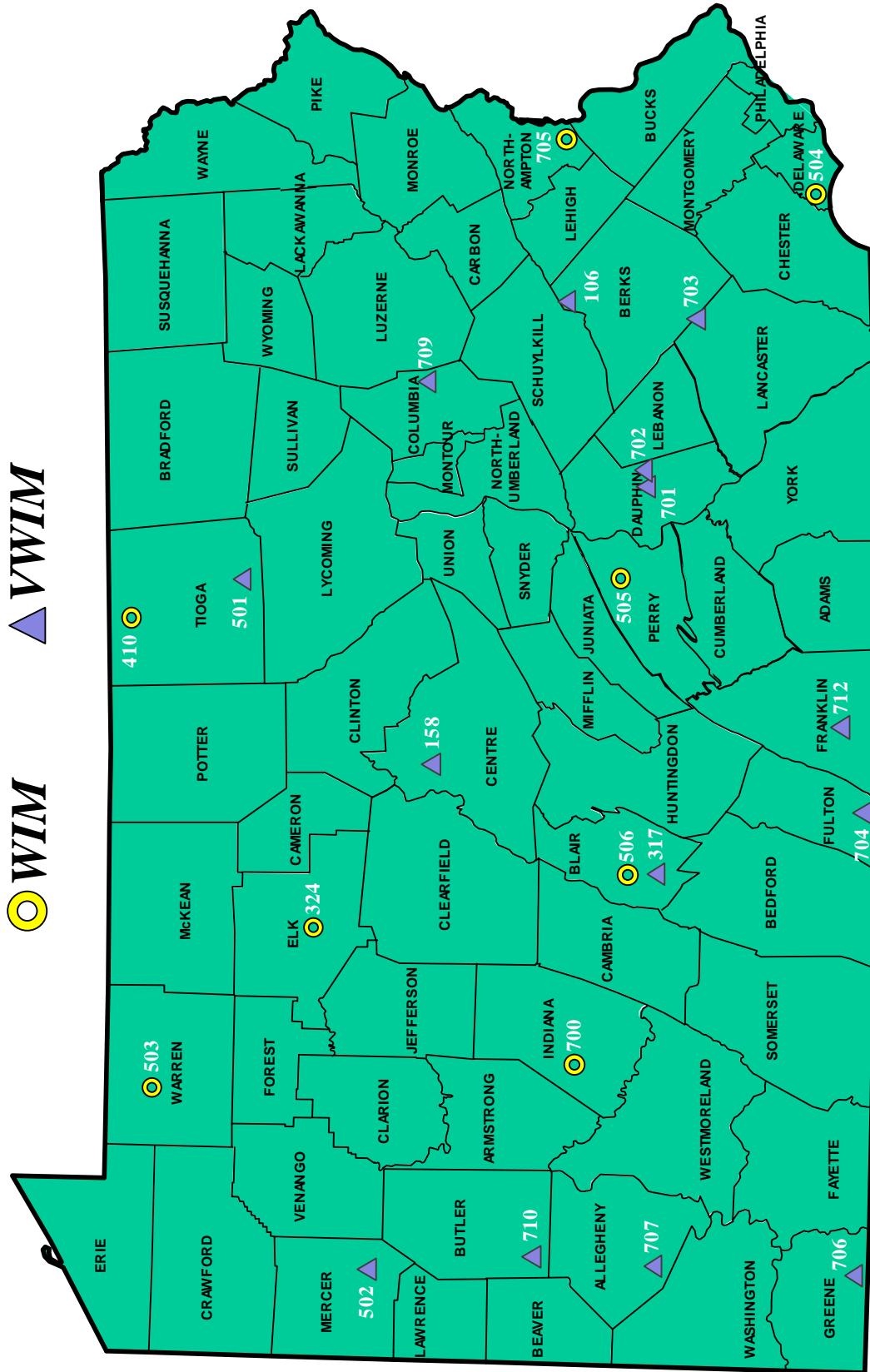
ATR, CAVC and WIM Locations Map (Opposite)

The ATR, CAVC, and WIM location maps of Pennsylvania, which are shown on the following two pages, give an overview of where all of the 127 ATR, CAVC and WIM sites are located. Symbols are used in addition to the site number to identify the location of the site.



CAVC 205 Sensor Array on I-83 in York County

CONTINUOUS MONITORING SITES



WIM VWIM

Permanent Site Locations by Traffic Pattern Group (TPG)

This chart groups the permanent site locations by Traffic Pattern Group. It gives the permanent site number, route, and the urban area or county depending on the TPG into which the permanent site falls. The Annual Average Daily Traffic (AADT) for each permanent site is also listed on this chart. Of the 127 sites in Pennsylvania, 107 were used to calculate the AADT.

PERMANENT SITE LOCATIONS BY TPG							
TPG 1: URBAN INTERSTATE				TPG 2: RURAL INTERSTATE			
SITE #	ROUTE	URBAN AREA	AADT	SITE #	ROUTE	COUNTY	AADT
205	I-83	YORK	57,157	106	I-78	BERKS	44,255
208	I-376	PITTSBURGH	94,814	126	I-80	JEFFERSON	25,662
216	I-81	BINGHAMTON	26,940	158	I-80	CENTRE	23,233
317	I-99	ALTOONA	14,301	371	I-70	FULTON	19,558
370	I-70	MONESSEN	31,294	393	I-70	WASHINGTON	35,219
372	I-80	UNION	31,735	502	I-80	MERCER	26,422
376	I-81	WILKES-BARRE	62,938	600	I-81	FRANKLIN	42,309
377	I-295	PHILADELPHIA	63,041	704	I-70	FULTON	21,958
394	I-78	ALLENTOWN	67,759	705	I-78	NORTHAMPTON	70,315
701	I-81	HARRISBURG	63,224	800	I-99	CENTRE	23,678
702	I-81	HARRISBURG	59,423	807	I-70	WASHINGTON	31,677
707	I-79	PITTSBURGH	72,661	825	I-83	YORK	46,494
710	I-79	PITTSBURGH	50,166	828	I-79	CRAWFORD	20,023
804	I-70	PITTSBURGH	53,699	829	I-80	MERCER	29,181
818	I-84	PORT JERVIS	30,683	834	I-90	ERIE	21,140
823	I-283	HARRISBURG	53,523	835	I-86	ERIE	9,527
830	I-81	HARRISBURG	64,713	837	I-81	SCHUYKILL	26,576
831	I-81	HARRISBURG	66,088	839	I-380	MONROE	26,875
832	I-176	READING	21,004				
833	I-81	HARRISBURG	73,044				
840	I-279	PITTSBURGH	51,884				

Permanent Site Locations by TPG (Continued)

PERMANENT SITE LOCATIONS BY TPG							
TPG 3: URBAN PRINCIPAL ARTERIAL				TPG 4: RURAL PRINCIPAL ARTERIAL			
SITE #	ROUTE	URBAN AREA	AADT	SITE #	ROUTE	COUNTY	AADT
8	PA 73	PHILADELPHIA	19,672	4	US 6	TIOGA	2,665
203	PA 65	PITTSBURGH	20,299	19	PA 88	WASHINGTON	5,656
206	H. Taylor Br.	HARRISBURG	26,892	24	US 22	WESTMORELAND	21,787
301	PA 5	ERIE	13,068	323	US 220	BEDFORD	4,692
304	US 15	WILLIAMSPORT	29,192	324	PA 120	ELK	4,429
326	US 322	CLARION	8,567	360	US 219	CLEARFIELD	2,691
330	PA 532	PHILADELPHIA	10,973	363	US 219	MCKEAN	5,114
334	US 30	YORK	16,348	378	US 40	FAYETTE	7,661
349	PA 309	ALLENTOWN	38,071	501	US 15	TIOGA	10,853
375	US 22	PITTSBURGH	26,285	703	US 222	LANCASTER	38,029
395	PA 21	UNIONTOWN	10,088	808	US 22	INDIANA	14,531
396	US 40	PITTSBURGH	12,248	809	US 219	MCKEAN	8,282
806	US 30	GREENSBURG	28,968	821	US 15	TIOGA	10,610
810	PA 611	DOYLESTOWN	35,930	985	US 219	CAMBRIA	18,723
811	PA 581	HARRISBURG	48,462				
812	US 30	GREENSBURG	46,721				
813	PA 581	HARRISBURG	90,593				
824	PA 100	PHILADELPHIA	38,472				
826	US 422	READING	50,878				
827	US 15	MILTON	23,067				

PERMANENT SITE LOCATIONS BY TPG							
TPG 5: URBAN MINOR ARTERIAL/COLLECTOR				TPG 6: NORTH RURAL MINOR ARTERIAL			
SITE #	ROUTE	URBAN AREA	AADT	SITE #	ROUTE	COUNTY	AADT
18	PA 38	BUTLER	6,172	2	PA 77	CRAWFORD	1,911
381	SR 3019	YOUNGSTOWN	374	3	PA 255	CLEARFIELD	5,191
390	PA 230	LANCASTER	7,217	27	PA 66	ELK	2,801
506	SR 1001	ALTOONA	16,433	48	US 11	SUSQUEHANNA	5,364
815	PA 44	BLOOMSBURG	3,895	51	PA 44	POTTER	3,115
				328	PA 150	CENTRE	4,937

Permanent Site Locations by TPG (Continued)

PERMANENT SITE LOCATIONS BY TPG							
TPG 7: CENTRAL RURAL MINOR ARTERIAL				TPG 8: NORTH RURAL COLLECTOR			
SITE #	ROUTE	COUNTY	AADT	SITE #	ROUTE	COUNTY	AADT
1	US 20	ERIE	3,698	5	SR 1043	BRADFORD	1,764
15	US 522	FULTON	5,394	383	PA 150	CLINTON	3,493
40	US 209	SCHUYLKILL	4,199	384	SR 4022	TIOGA	418
367	PA 45	UNION	6,093	385	SR 3002	WARREN	1,715
391	PA 23	CHESTER	8,323	802	PA 423	MONROE	4,648
				817	SR 1002	JEFFERSON	1,649

PERMANENT SITE LOCATIONS BY TPG							
TPG 9: CENTRAL RURAL COLLECTOR				TPG 10: SPECIAL RECREATIONAL			
SITE #	ROUTE	COUNTY	AADT	SITE #	ROUTE	COUNTY	AADT
362	PA 616	YORK	6,041	306	PA 507	PIKE	5,850
364	PA 307	LACKAWANNA	4,949	805	PA 285	CRAWFORD	2,937
379	SR 4013	BLAIR	1,394				
382	SR 3005	CAMBRIA	1,702				
386	PA 254	MONTOUR	2,253				
387	SR 2031	SOMERSET	2,967				
388	SR 3004	MONROE	2,650				
389	PA 536	JEFFERSON	1,830				
803	US 15	ADAMS	23,265				
816	PA 241	LEBANON	3,343				

2018 Peak Hour by Traffic Pattern Group (TPG)

2018 Peak Hour by Traffic Pattern Group (TPG)													
TPG 1: Urban Interstate							TPG 2: Rural Interstate						
Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT	Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT
205	10/19	4:00 PM	Fri	5,668	9.92%	57,157	106	8/19	3:00 PM	Sun	4,259	9.62%	44,255
208	11/8	5:00 PM	Thu	8,299	8.75%	94,814	126	11/25	3:00 PM	Sun	3,786	14.75%	25,662
216	11/25	2:00 PM	Sun	4,760	17.67%	26,940	158	11/25	2:00 PM	Sun	3,894	16.76%	23,233
317	8/31	4:00 PM	Fri	1,816	12.70%	14,301	371	11/25	10:00 AM	Sun	3,629	18.56%	19,558
370	10/19	4:00 PM	Fri	3,426	10.95%	31,294	393	11/25	1:00 PM	Sun	4,665	13.25%	35,219
372	11/25	2:00 PM	Sun	5,022	15.82%	31,735	502	7/8	2:00 PM	Sun	3,117	11.80%	26,422
376	4/20	4:00 PM	Fri	6,705	10.65%	62,938	600	6/29	3:00 PM	Fri	4,342	10.26%	42,309
377	9/12	5:00 PM	Wed	8,640	13.71%	63,041	704	11/25	12:00 PM	Sun	3,740	17.03%	21,958
394	4/20	4:00 PM	Fri	6,333	9.35%	67,759	705	11/25	12:00 PM	Sun	6,695	9.52%	70,315
701	7/15	12:00 PM	Sun	6,029	9.54%	63,224	800	10/12	4:00 PM	Fri	3,036	12.82%	23,678
702	7/29	3:00 PM	Sun	6,054	10.19%	59,423	807	10/19	4:00 PM	Fri	3,346	10.56%	31,677
707	4/6	4:00 PM	Fri	7,522	10.35%	72,661	825	11/22	11:00 AM	Thu	4,478	9.63%	46,494
710	8/3	4:00 PM	Fri	5,629	11.22%	50,166	828	11/25	2:00 PM	Sun	2,715	13.56%	20,023
804	11/21	3:00 PM	Wed	5,631	10.49%	53,699	829	11/25	1:00 PM	Sun	3,551	12.17%	29,181
818	7/8	12:00 PM	Sun	3,196	10.42%	30,683	834	11/25	2:00 PM	Sun	3,434	16.24%	21,140
823	10/19	4:00 PM	Fri	4,474	8.36%	53,523	835	7/8	2:00 PM	Sun	1,453	15.25%	9,527
830	6/29	3:00 PM	Fri	6,035	9.33%	64,713	837	8/17	3:00 PM	Fri	2,937	11.05%	26,576
831	2/27	3:00 PM	Tue	6,576	9.95%	66,088	839	8/17	5:00 PM	Fri	3,184	11.85%	26,875
832	8/22	5:00 PM	Wed	2,539	12.09%	21,004							
833	4/20	4:00 PM	Fri	8,035	11.00%	73,044							
840	12/14	5:00 PM	Fri	5,711	11.01%	51,884							

2018 Peak Hour by Traffic Pattern Group (TPG)													
TPG 3: Urban Principal Arterial							TPG 4: Rural Principal Arterial						
Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT	Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT
8	11/8	7:00 AM	Thu	2,353	11.96%	19,672	4	6/2	9:00 AM	Sat	426	15.98%	2,665
203	12/19	4:00 PM	Wed	2,051	10.10%	20,299	19	11/14	4:00 PM	Wed	679	12.00%	5,656
206	4/19	7:00 AM	Thu	3,696	13.74%	26,892	24	11/25	3:00 PM	Sun	2,448	11.24%	21,787
301	5/8	4:00 PM	Tue	1,570	12.01%	13,068	323	10/5	4:00 PM	Fri	618	13.17%	4,692
304	4/20	4:00 PM	Fri	3,008	10.30%	29,192	324	5/17	3:00 PM	Thu	587	13.25%	4,429
326	5/24	4:00 PM	Thu	1,038	12.12%	8,567	360	11/10	12:00 PM	Sat	342	12.71%	2,691
330	5/8	5:00 PM	Tue	1,203	10.96%	10,973	363	8/31	3:00 PM	Fri	686	13.41%	5,114
334	6/13	4:00 PM	Wed	1,562	9.55%	16,348	378	5/9	4:00 PM	Wed	857	11.19%	7,661
349	3/6	7:00 AM	Tue	3,555	9.34%	38,071	501	11/25	3:00 PM	Sun	1,900	17.51%	10,853
375	7/26	5:00 PM	Thu	3,102	11.80%	26,285	703	4/20	4:00 PM	Fri	4,026	10.59%	38,029
395	12/14	3:00 PM	Fri	1,058	10.49%	10,088	808	11/25	3:00 PM	Sun	2,018	13.89%	14,531
396	7/1	4:00 PM	Sun	1,547	12.63%	12,248	809	8/3	3:00 PM	Fri	1,008	12.17%	8,282
806	12/19	4:00 PM	Wed	3,007	10.38%	28,968	821	7/29	8:00 PM	Sun	3,284	30.95%	10,610
810	5/23	5:00 PM	Wed	3,754	10.45%	35,930	985	10/17	4:00 PM	Wed	2,180	11.64%	18,723
811	11/20	4:00 PM	Tue	5,326	10.99%	48,462							
812	12/19	4:00 PM	Wed	4,675	10.01%	46,721							
813	5/30	3:00 PM	Wed	10,234	11.30%	90,593							
824	5/11	5:00 PM	Fri	4,195	10.90%	38,472							
826	8/23	4:00 PM	Thu	5,117	10.06%	50,878							
827	11/15	1:00 PM	Sun	2,641	11.45%	23,067							

2018 Peak Hour by TPG (Continued)

2018 Peak Hour by Traffic Pattern Group (TPG)													
TPG 5: Urban Minor Arterial/Collector							TPG 6: North Rural Minor Arterial						
Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT	Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT
18	9/27	4:00 PM	Thu	845	13.69%	6,172	2	8/23	5:00 PM	Thu	304	15.91%	1,911
381	1/8	4:00 PM	Mon	95	25.40%	374	3	9/3	12:00 PM	Mon	697	13.43%	5,191
390	9/24	4:00 PM	Mon	1,060	14.69%	7,217	27	9/3	12:00 PM	Mon	418	14.92%	2,801
506	12/21	3:00 PM	Fri	1,902	11.57%	16,433	48	8/23	4:00 PM	Thu	631	11.76%	5,364
815	6/13	4:00 PM	Wed	703	18.05%	3,895	51	8/30	4:00 PM	Thu	370	11.88%	3,115
							328	5/4	12:00 PM	Fri	655	13.27%	4,937

2018 Peak Hour by Traffic Pattern Group (TPG)													
TPG 7: Central Rural Minor Arterial							TPG 8: North Rural Collector						
Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT	Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT
1	8/18	5:00 PM	Sat	649	17.55%	3,698	5	9/20	4:00 PM	Thu	302	17.12%	1,764
15	10/19	2:00 PM	Fri	761	14.11%	5,394	383	9/28	4:00 PM	Fri	435	12.45%	3,493
40	11/14	3:00 PM	Wed	504	12.00%	4,199	384	9/5	5:00 PM	Wed	73	17.46%	418
367	8/10	5:00 PM	Fri	869	14.26%	6,093	385	5/25	4:00 PM	Fri	239	13.94%	1,715
391	5/11	4:00 PM	Fri	1,013	12.17%	8,323	802	8/24	3:00 PM	Fri	875	18.83%	4,648
							817	11/7	3:00 PM	Wed	226	13.71%	1,649

2018 Peak Hour by Traffic Pattern Group (TPG)													
TPG 9: Central Rural Collector							TPG 10: Special Recreational						
Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT	Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT
362	12/18	4:00 PM	Tue	773	12.80%	6,041	306	5/26	11:00 AM	Sat	957	16.36%	5,850
364	5/24	4:00 PM	Thu	581	11.74%	4,949	805	5/27	12:00 PM	Sun	820	27.92%	2,937
379	10/25	3:00 PM	Thu	212	15.21%	1,394							
382	5/2	10:00 AM	Wed	693	40.72%	1,702							
386	6/13	4:00 PM	Wed	467	20.73%	2,253							
387	5/25	5:00 PM	Fri	416	14.02%	2,967							
388	6/1	4:00 PM	Fri	340	12.83%	2,650							
389	5/3	3:00 PM	Thu	288	15.74%	1,830							
803	11/25	3:00 PM	Sun	3,065	13.17%	23,265							
816	6/14	4:00 PM	Thu	457	13.67%	3,343							

2018 30th Highest Hour by Traffic Pattern Group (TPG)

2018 30th Highest Hour by Traffic Pattern Group													
TPG 1: Urban Interstate							TPG 2: Rural Interstate						
Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT	Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT
205	9/19	4:00 PM	Wed	5,326	9.32%	57,157	106	7/29	4:00 PM	Sun	3,938	8.90%	44,255
208	9/7	5:00 PM	Fri	7,840	8.27%	94,814	126	8/31	5:00 PM	Fri	2,550	9.94%	25,662
216	7/8	5:00 PM	Sun	3,387	12.57%	26,940	158	8/12	1:00 PM	Sun	2,403	10.34%	23,233
317	11/2	4:00 PM	Fri	1,619	11.32%	14,301	371	8/19	3:00 PM	Sun	2,839	14.52%	19,558
370	10/26	4:00 PM	Fri	3,215	10.27%	31,294	393	12/26	5:00 PM	Wed	3,386	9.61%	35,219
372	8/31	5:00 PM	Fri	3,365	10.60%	31,735	502	5/25	5:00 PM	Fri	2,726	10.32%	26,422
376	11/20	3:00 PM	Tue	6,002	9.54%	62,938	600	4/20	2:00 PM	Fri	3,994	9.44%	42,309
377	2/20	5:00 PM	Tue	5,896	9.35%	63,041	704	8/5	12:00 PM	Sun	3,000	13.66%	21,958
394	6/14	4:00 PM	Thu	6,120	9.03%	67,759	705	4/1	5:00 PM	Sun	5,733	8.15%	70,315
701	5/28	3:00 PM	Mon	5,631	8.91%	63,224	800	10/9	7:00 AM	Tue	2,722	11.50%	23,678
702	5/25	3:00 PM	Fri	5,535	9.31%	59,423	807	9/7	4:00 PM	Fri	3,170	10.01%	31,677
707	5/10	4:00 PM	Thu	6,919	9.52%	72,661	825	9/21	5:00 PM	Fri	4,113	8.85%	46,494
710	7/6	5:00 PM	Fri	5,143	10.25%	50,166	828	7/8	1:00 PM	Sun	2,385	11.91%	20,023
804	12/22	3:00 PM	Sat	4,853	9.04%	53,699	829	8/17	4:00 PM	Fri	2,733	9.37%	29,181
818	7/14	2:00 PM	Sat	3,063	9.98%	30,683	834	9/3	3:00 PM	Mon	2,704	12.79%	21,140
823	1/31	7:00 AM	Wed	4,259	7.96%	53,523	835	7/27	4:00 PM	Fri	1,232	12.93%	9,527
830	7/27	3:00 PM	Fri	5,679	8.78%	64,713	837	6/22	3:00 PM	Fri	2,664	10.02%	26,576
831	10/26	4:00 PM	Fri	5,889	8.91%	66,088	839	7/6	3:00 PM	Fri	2,758	10.26%	26,875
832	3/5	7:00 AM	Mon	2,400	11.43%	21,004							
833	7/16	4:00 PM	Mon	7,568	10.36%	73,044							
840	9/7	4:00 PM	Fri	5,126	9.88%	51,884							

2018 30th Highest Hour by Traffic Pattern Group													
TPG 3: Urban Principal Arterial							TPG 4: Rural Principal Arterial						
Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT	Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT
8	4/17	7:00 AM	Tue	2,146	10.91%	19,672	4	7/5	1:00 PM	Thu	310	11.63%	2,665
203	9/27	4:00 PM	Thu	1,932	9.52%	20,299	19	9/14	4:00 PM	Fri	609	10.77%	5,656
206	9/27	4:00 PM	Thu	3,496	13.00%	26,892	24	10/19	5:00 PM	Fri	2,182	10.02%	21,787
301	8/27	4:00 PM	Mon	1,447	11.07%	13,068	323	5/25	5:00 PM	Fri	512	10.91%	4,692
304	7/27	4:00 PM	Fri	2,834	9.71%	29,192	324	5/3	3:00 PM	Thu	539	12.17%	4,429
326	11/14	3:00 PM	Wed	961	11.22%	8,567	360	5/24	3:00 PM	Thu	290	10.78%	2,691
330	4/17	5:00 PM	Tue	1,091	9.94%	10,973	363	9/28	3:00 PM	Fri	572	11.18%	5,114
334	9/11	4:00 PM	Tue	1,442	8.82%	16,348	378	5/11	4:00 PM	Fri	801	10.46%	7,661
349	6/28	4:00 PM	Thu	3,276	8.60%	38,071	501	11/21	2:00 PM	Wed	1,379	12.71%	10,853
375	10/5	4:00 PM	Fri	2,517	9.58%	26,285	703	4/27	4:00 PM	Fri	3,765	9.90%	38,029
395	8/30	4:00 PM	Thu	989	9.80%	10,088	808	9/30	12:00 PM	Sun	1,531	10.54%	14,531
396	3/19	3:00 PM	Mon	1,327	10.83%	12,248	809	8/9	4:00 PM	Thu	897	10.83%	8,282
806	11/1	4:00 PM	Thu	2,861	9.88%	28,968	821	5/28	1:00 PM	Mon	1,378	12.99%	10,610
810	5/14	5:00 PM	Mon	3,570	9.94%	35,930	985	3/22	4:00 PM	Thu	2,058	10.99%	18,723
811	11/21	3:00 PM	Wed	4,977	10.27%	48,462							
812	12/22	1:00 PM	Sat	4,408	9.43%	46,721							
813	11/28	7:00 AM	Wed	7,777	8.58%	90,593							
824	6/6	5:00 PM	Wed	3,924	10.20%	38,472							
826	4/5	5:00 PM	Thu	4,905	9.64%	50,878							
827	7/12	4:00 PM	Thu	2,304	9.99%	23,067							

2018 30th Highest Hour by TPG (Continued)

2018 30th Highest Hour by Traffic Pattern Group													
TPG 5: Urban Minor Arterial/Collector						TPG 6: North Rural Minor Arterial							
Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT	Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT
18	10/23	4:00 PM	Tue	697	11.29%	6,172	2	4/13	4:00 PM	Fri	219	11.46%	1,911
381	6/22	4:00 PM	Fri	47	12.57%	374	3	2/16	4:00 PM	Fri	573	11.04%	5,191
390	12/13	3:00 PM	Thu	759	10.52%	7,217	27	5/25	2:00 PM	Fri	350	12.50%	2,801
506	12/17	3:00 PM	Mon	1,719	10.46%	16,433	48	9/21	3:00 PM	Fri	556	10.37%	5,364
815	5/8	4:00 PM	Tue	441	11.32%	3,895	51	9/11	3:00 PM	Tue	344	11.04%	3,115
							328	10/10	7:00 AM	Wed	567	11.48%	4,937

2018 30th Highest Hour by Traffic Pattern Group													
TPG 7: Central Rural Minor Arterial						TPG 8: North Rural Collector							
Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT	Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT
1	8/4	12:00 PM	Sat	450	12.17%	3,698	5	9/25	7:00 AM	Tue	233	13.21%	1,764
15	10/21	12:00 PM	Sun	575	10.66%	5,394	383	7/5	3:00 PM	Thu	385	11.02%	3,493
40	5/1	4:00 PM	Tue	431	10.26%	4,199	384	7/20	4:00 PM	Fri	56	13.40%	418
367	8/7	5:00 PM	Tue	659	10.82%	6,093	385	2/23	4:00 PM	Fri	200	11.66%	1,715
391	5/18	4:00 PM	Fri	896	10.77%	8,323	802	7/6	3:00 PM	Fri	689	14.82%	4,648
							817	4/26	4:00 PM	Thu	205	12.43%	1,649

2018 30th Highest Hour by Traffic Pattern Group													
TPG 9: Central Rural Collector						TPG 10: Special Recreational							
Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT	Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT
362	11/1	4:00 PM	Thu	637	10.54%	6,041	306	5/25	3:00 PM	Fri	765	13.08%	5,850
364	5/24	5:00 PM	Thu	539	10.89%	4,949	805	5/26	10:00 AM	Sat	608	20.70%	2,937
379	10/8	3:00 PM	Mon	174	12.48%	1,394							
382	7/12	4:00 PM	Thu	201	11.81%	1,702							
386	6/6	4:00 PM	Wed	243	10.79%	2,253							
387	11/9	3:00 PM	Fri	353	11.90%	2,967							
388	12/18	4:00 PM	Tue	306	11.55%	2,650							
389	6/1	3:00 PM	Fri	223	12.19%	1,830							
803	11/25	5:00 PM	Sun	2,604	11.19%	23,265							
816	9/6	4:00 PM	Thu	420	12.56%	3,343							

2018 50th Highest Hour by Traffic Pattern Group (TPG)

2018 50th Highest Hour by Traffic Pattern Group													
TPG 1: Urban Interstate							TPG 2: Rural Interstate						
Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT	Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT
205	7/26	4:00 PM	Thu	5,276	9.23%	57,157	106	10/5	5:00 PM	Fri	3,892	8.79%	44,255
208	10/25	6:00 PM	Thu	7,762	8.19%	94,814	126	5/25	2:00 PM	Fri	2,478	9.66%	25,662
216	8/31	2:00 PM	Fri	3,265	12.12%	26,940	158	7/29	4:00 PM	Sun	2,349	10.11%	23,233
317	8/24	3:00 PM	Fri	1,571	10.99%	14,301	371	7/22	3:00 PM	Sun	2,760	14.11%	19,558
370	6/13	4:00 PM	Wed	3,175	10.15%	31,294	393	11/24	2:00 PM	Sat	3,285	9.33%	35,219
372	7/8	2:00 PM	Sun	3,196	10.07%	31,735	502	12/22	1:00 PM	Sat	2,632	9.96%	26,422
376	9/14	4:00 PM	Fri	5,886	9.35%	62,938	600	12/26	2:00 PM	Wed	3,881	9.17%	42,309
377	10/19	5:00 PM	Fri	5,792	9.19%	63,041	704	7/22	12:00 PM	Sun	2,874	13.09%	21,958
394	3/26	5:00 PM	Mon	6,056	8.94%	67,759	705	10/5	3:00 PM	Fri	5,658	8.05%	70,315
701	5/18	2:00 PM	Fri	5,539	8.76%	63,224	800	9/5	7:00 AM	Wed	2,684	11.34%	23,678
702	6/1	3:00 PM	Fri	5,400	9.09%	59,423	807	12/14	3:00 PM	Fri	3,117	9.84%	31,677
707	12/4	4:00 PM	Tue	6,849	9.43%	72,661	825	5/11	4:00 PM	Fri	4,027	8.66%	46,494
710	9/28	5:00 PM	Fri	4,957	9.88%	50,166	828	6/24	1:00 PM	Sun	2,318	11.58%	20,023
804	11/16	4:00 PM	Fri	4,790	8.92%	53,699	829	8/19	3:00 PM	Sun	2,675	9.17%	29,181
818	12/22	11:00 AM	Sat	3,005	9.79%	30,683	834	8/3	1:00 PM	Fri	2,617	12.38%	21,140
823	2/28	7:00 AM	Wed	4,230	7.90%	53,523	835	7/7	12:00 PM	Sat	1,199	12.59%	9,527
830	7/12	5:00 PM	Thu	5,627	8.70%	64,713	837	4/2	1:00 PM	Mon	2,557	9.62%	26,576
831	11/2	4:00 PM	Fri	5,794	8.77%	66,088	839	5/25	2:00 PM	Fri	2,707	10.07%	26,875
832	11/13	7:00 AM	Tue	2,365	11.26%	21,004							
833	5/31	4:00 PM	Thu	7,455	10.21%	73,044							
840	8/7	5:00 PM	Tue	5,066	9.76%	51,884							

2018 50th Highest Hour by Traffic Pattern Group													
TPG 3: Urban Principal Arterial							TPG 4: Rural Principal Arterial						
Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT	Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT
8	2/26	8:00 AM	Mon	2,119	10.77%	19,672	4	7/7	4:00 PM	Sat	294	11.03%	2,665
203	9/12	4:00 PM	Wed	1,915	9.43%	20,299	19	12/13	4:00 PM	Thu	598	10.57%	5,656
206	8/30	4:00 PM	Thu	3,460	12.87%	26,892	24	5/11	5:00 PM	Fri	2,091	9.60%	21,787
301	5/3	4:00 PM	Thu	1,437	11.00%	13,068	323	10/19	5:00 PM	Fri	492	10.49%	4,692
304	9/28	3:00 PM	Fri	2,788	9.55%	29,192	324	3/6	3:00 PM	Tue	528	11.92%	4,429
326	5/9	4:00 PM	Wed	942	11.00%	8,567	360	12/19	3:00 PM	Wed	285	10.59%	2,691
330	10/9	5:00 PM	Tue	1,073	9.78%	10,973	363	8/24	1:00 PM	Fri	558	10.91%	5,114
334	7/13	3:00 PM	Fri	1,423	8.70%	16,348	378	9/14	5:00 PM	Fri	788	10.29%	7,661
349	5/18	3:00 PM	Fri	3,238	8.51%	38,071	501	11/21	3:00 PM	Wed	1,327	12.23%	10,853
375	5/15	5:00 PM	Tue	2,447	9.31%	26,285	703	5/10	4:00 PM	Thu	3,656	9.61%	38,029
395	9/11	3:00 PM	Tue	974	9.66%	10,088	808	8/24	4:00 PM	Fri	1,473	10.14%	14,531
396	4/11	4:00 PM	Wed	1,282	10.47%	12,248	809	7/27	2:00 PM	Fri	866	10.46%	8,282
806	10/23	4:00 PM	Tue	2,826	9.76%	28,968	821	8/19	1:00 PM	Sun	1,294	12.20%	10,610
810	5/2	5:00 PM	Wed	3,536	9.84%	35,930	985	6/8	4:00 PM	Fri	2,025	10.82%	18,723
811	11/7	7:00 AM	Wed	4,923	10.16%	48,462							
812	8/3	4:00 PM	Fri	4,366	9.34%	46,721							
813	6/11	4:00 PM	Mon	7,702	8.50%	90,593							
824	8/1	5:00 PM	Wed	3,873	10.07%	38,472							
826	11/7	4:00 PM	Wed	4,857	9.55%	50,878							
827	4/20	3:00 PM	Fri	2,249	9.75%	23,067							

2018 50th Highest Hour by TPG (Continued)

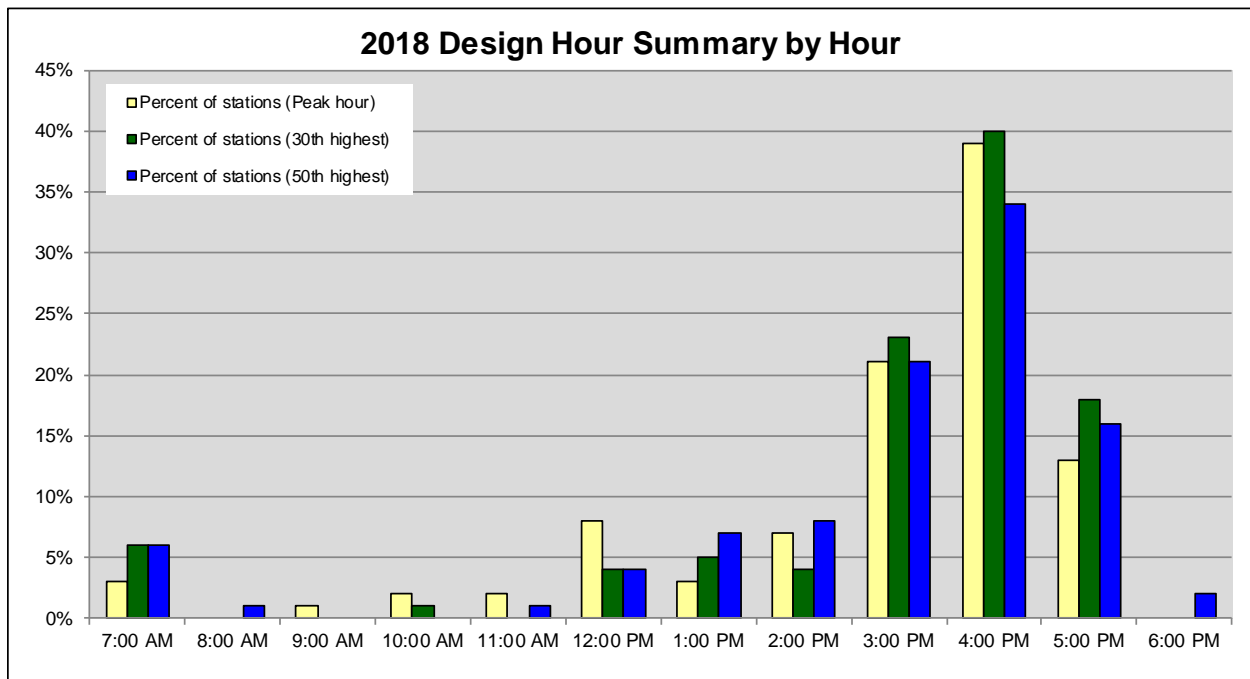
2018 50th Highest Hour by Traffic Pattern Group													
TPG 5: Urban Minor Arterial/Collector							TPG 6: North Rural Minor Arterial						
Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT	Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT
18	1/10	4:00 PM	Wed	679	11.00%	6,172	2	4/27	4:00 PM	Fri	211	11.04%	1,911
381	5/25	4:00 PM	Fri	45	12.03%	374	3	4/15	1:00 PM	Sun	547	10.54%	5,191
390	9/12	4:00 PM	Wed	741	10.27%	7,217	27	5/25	5:00 PM	Fri	340	12.14%	2,801
506	6/15	12:00 PM	Fri	1,686	10.26%	16,433	48	8/21	3:00 PM	Tue	545	10.16%	5,364
815	5/14	4:00 PM	Mon	425	10.91%	3,895	51	10/19	3:00 PM	Fri	336	10.79%	3,115
							328	5/25	4:00 PM	Fri	556	11.26%	4,937

2018 50th Highest Hour by Traffic Pattern Group													
TPG 7: Central Rural Minor Arterial							TPG 8: North Rural Collector						
Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT	Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT
1	7/7	1:00 PM	Sat	431	11.65%	3,698	5	7/9	3:00 PM	Mon	224	12.70%	1,764
15	5/18	2:00 PM	Fri	556	10.31%	5,394	383	10/4	3:00 PM	Thu	378	10.82%	3,493
40	2/21	3:00 PM	Wed	421	10.03%	4,199	384	2/26	5:00 PM	Mon	53	12.68%	418
367	8/31	5:00 PM	Fri	631	10.36%	6,093	385	1/19	4:00 PM	Fri	191	11.14%	1,715
391	10/26	4:00 PM	Fri	872	10.48%	8,323	802	9/6	4:00 PM	Thu	665	14.31%	4,648
							817	2/20	3:00 PM	Tue	197	11.95%	1,649

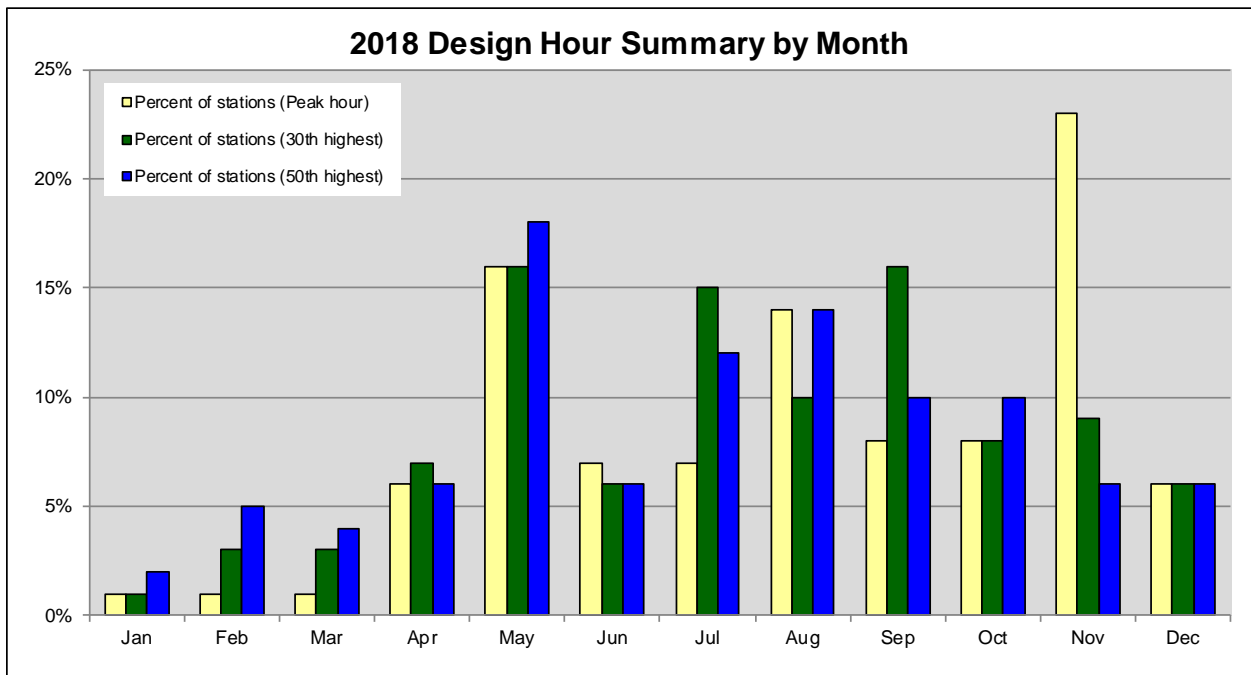
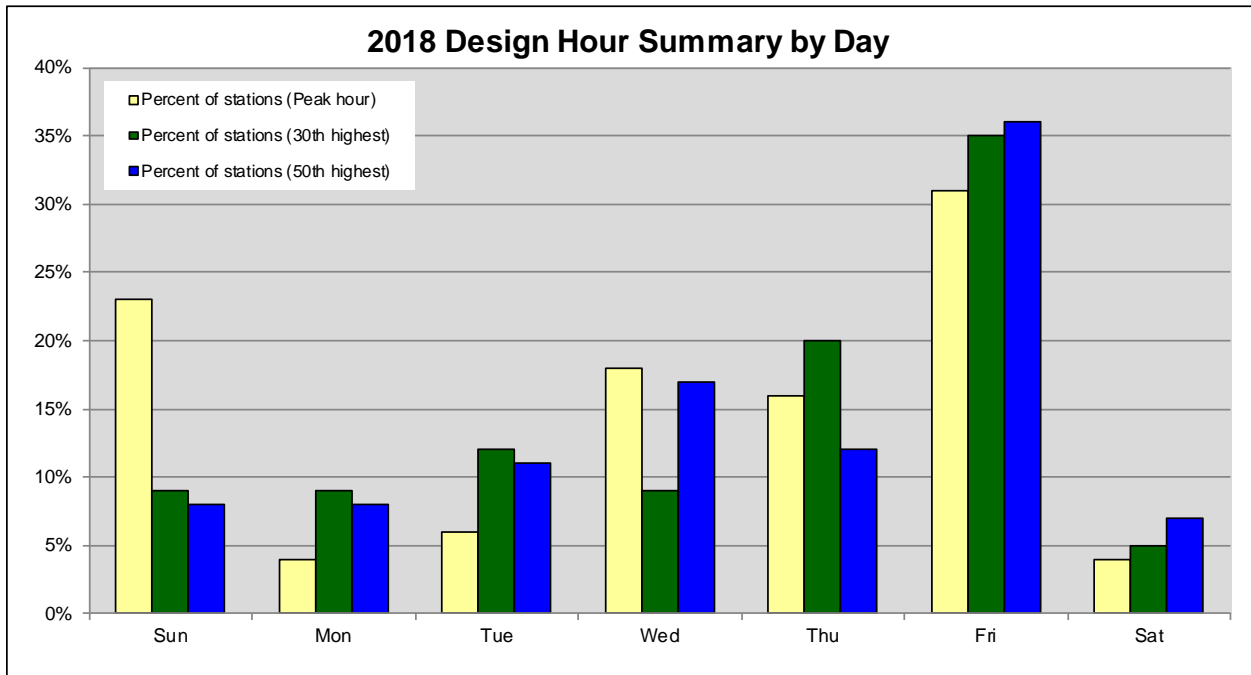
2018 50th Highest Hour by Traffic Pattern Group													
TPG 9: Central Rural Collector							TPG 10: Special Recreational						
Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT	Site #	Date	Hour (start)	DOW	Volume	% AADT	AADT
362	4/11	5:00 PM	Wed	623	10.31%	6,041	306	8/4	12:00 PM	Sat	738	12.62%	5,850
364	5/17	3:00 PM	Thu	526	10.63%	4,949	805	5/26	4:00 PM	Sat	566	19.27%	2,937
379	10/16	7:00 AM	Tue	163	11.69%	1,394							
382	7/31	4:00 PM	Tue	191	11.22%	1,702							
386	9/20	7:00 AM	Thu	236	10.47%	2,253							
387	6/15	6:00 PM	Fri	345	11.63%	2,967							
388	4/4	4:00 PM	Wed	298	11.25%	2,650							
389	3/22	3:00 PM	Thu	214	11.69%	1,830							
803	8/19	4:00 PM	Sun	2,539	10.91%	23,265							
816	3/26	4:00 PM	Mon	412	12.32%	3,343							

2018 Design Hour Summaries: Peak, 30th and 50th Highest Hour

Design Hour Volume (DHV) is the hourly traffic volume used in the design of highways. The DHV is usually represented by the 30th highest hourly volume of the future year chosen for design. The following three graphs show the peak, 30th and 50th highest hour summary by hour, day, and month.



2018 Design Hour Summaries: Peak, 30th and 50th Highest Hour



Five Year Summary of Annual Average Daily Traffic (AADT) from Permanent Sites

This chart shows the permanent site station numbers and their Annual Average Daily Traffic (AADT) for the past five years, 2014 through 2018. The percent change is also given for 2017 to 2018 and 2014 to 2018, showing where traffic has increased or decreased.

**Indicates there is no data available.*

Site #	Annual Average Daily Traffic (AADT)					Percent Change	
	2014	2015	2016	2017	2018	2017-2018	2014-2018
1	3,492	3,093	3,552	3,688	3,698	0.3%	5.9%
2	1,908	1,944	2,138	1,947	1,911	-1.8%	0.2%
3	5,337	5,585	5,317	5,208	5,191	-0.3%	-2.7%
4	2,669	2,602	2,654	2,687	2,665	-0.8%	-0.1%
5	1,542	1,505	1,595	1,745	1,764	1.1%	14.4%
8	17,358	17,477	18,150	18,738	19,672	5.0%	13.3%
15	5,083	5,208	5,142	5,276	5,394	2.2%	6.1%
18	6,824	6,628	6,291	6,502	6,172	-5.1%	-9.6%
19	5,783	5,739	5,824	5,698	5,656	-0.7%	-2.2%
20	7,106	7,179	7,287	7,083	**	0.0%	-0.3%
24	20,354	20,004	20,391	21,289	21,787	2.3%	7.0%
27	2,719	2,748	2,749	2,766	2,801	1.3%	3.0%
29	1,385	1,235	1,112	1,055	**	0.0%	-23.8%
40	4,325	4,374	4,387	4,402	4,199	-4.6%	-2.9%
48	**	**	**	5,358	5,364	0.1%	0.1%
51	3,047	3,105	3,121	3,203	3,115	-2.7%	2.2%
106	43,304	43,133	43,827	**	44,255	0.0%	2.2%
126	22,771	26,181	25,554	24,029	25,662	6.8%	12.7%
158	**	26,238	23,969	24,629	23,233	-5.7%	-11.5%
203	19,444	19,459	20,674	**	20,299	0.0%	4.4%
205	49,742	**	**	**	57,157	0.0%	14.9%
206	26,529	26,749	26,370	26,530	26,892	1.4%	1.4%
207	20,275	21,452	21,830	22,301	**	0.0%	10.0%
208	87,652	92,030	94,118	95,526	94,814	-0.7%	8.2%
216	**	**	**	**	26,940	0.0%	0.0%
301	13,347	13,620	13,364	13,247	13,068	-1.4%	-2.1%
304	**	28,218	29,482	29,760	29,192	-1.9%	3.5%
306	5,340	5,435	5,728	5,779	5,850	1.2%	9.6%
317	12,510	13,152	12,908	**	14,301	0.0%	14.3%
323	4,219	4,347	4,503	4,651	4,692	0.9%	11.2%
324	4,351	4,208	4,275	4,403	4,429	0.6%	1.8%
326	8,929	8,935	8,659	8,594	8,567	-0.3%	-4.1%
328	4,737	4,768	4,865	4,874	4,937	1.3%	4.2%
330	10,938	10,988	10,913	10,824	10,973	1.4%	0.3%
334	17,006	17,213	16,839	16,566	16,348	-1.3%	-3.9%

Five Year Summary of AADT from Permanent Sites (Continued)

*Indicates there is no data available.

Site #	Annual Average Daily Traffic (AADT)					Percent Change	
	2014	2015	2016	2017	2018	2017-2018	2014-2018
349	36,263	37,781	38,638	37,924	38,071	0.4%	5.0%
360	2,580	2,636	2,670	2,713	2,691	-0.8%	4.3%
362	5,740	6,043	6,222	6,108	6,041	-1.1%	5.2%
363	4,833	4,905	5,018	5,070	5,114	0.9%	5.8%
364	4,816	4,952	**	**	4,949	0.0%	2.8%
367	5,644	6,035	6,179	6,206	6,093	-1.8%	8.0%
370	30,650	30,969	29,848	30,781	31,294	1.7%	2.1%
371	18,439	19,391	18,733	18,968	19,558	3.1%	6.1%
372	27,612	26,767	28,350	28,809	31,735	10.2%	14.9%
374	**	**	**	**	**	N/A	N/A
375	23,173	23,191	**	25,133	26,285	4.6%	13.4%
376	56,987	59,023	60,176	61,228	62,938	2.8%	10.4%
377	58,994	60,154	61,638	62,354	63,041	1.1%	6.9%
378	7,591	7,561	7,317	7,593	7,661	0.9%	0.9%
379	**	**	1,353	1,317	1,394	5.8%	3.0%
380	**	**	**	**	**	N/A	N/A
381	**	437	423	421	374	-11.2%	-14.4%
382	1,735	1,722	1,742	1,770	1,702	-3.8%	-1.9%
383	3,858	4,179	3,665	3,474	3,493	0.5%	-9.5%
384	351	371	384	401	418	4.2%	19.1%
385	**	**	1,783	1,782	1,715	-3.8%	-3.8%
386	2,207	2,157	2,182	2,260	2,253	-0.3%	2.1%
387	3,250	3,351	3,396	3,416	2,967	-13.1%	-8.7%
388	2,844	**	**	2,794	2,650	-5.2%	-6.8%
389	1,935	1,905	1,914	1,896	1,830	-3.5%	-5.4%
390	6,410	6,216	6,245	6,366	7,217	13.4%	12.6%
391	7,775	8,054	8,325	8,506	8,323	-2.2%	7.0%
392	22,522	24,347	24,880	**	**	N/A	10.5%
393	34,076	34,213	34,337	36,633	35,219	-3.9%	3.4%
394	62,215	65,047	66,323	69,335	67,759	-2.3%	8.9%
395	10,400	9,490	9,114	9,575	10,088	5.4%	-3.0%
396	**	12,995	12,874	12,344	12,248	-0.8%	-5.7%
410	**	**	**	4,580	**	0.0%	N/A
501	9,196	10,343	10,203	10,675	10,853	1.7%	18.0%
502	**	26,521	26,860	28,361	26,422	-6.8%	-0.4%
503	3,958	**	**	**	**	N/A	0.0%
504	**	**	**	**	**	N/A	N/A
505	21,583	21,902	22,623	23,042	**	0.0%	6.8%

Five Year Summary of AADT from Permanent Sites (Continued)

*Indicates there is no data available.

Site #	Annual Average Daily Traffic (AADT)					Percent Change	
	2014	2015	2016	2017	2018	2017-2018	2014-2018
506	15,997	16,148	15,767	16,551	16,433	-0.7%	2.7%
600	**	42,039	39,840	44,041	42,309	-3.9%	0.6%
700	12,583	12,952	12,471	**	**	N/A	-0.9%
701	*	*	*	66,339	63,224	-4.7%	-4.7%
702	*	*	*	*	59,423	0.0%	0.0%
703	*	*	*	37,949	38,029	0.2%	0.2%
704	*	*	*	22,056	21,958	-0.4%	-0.4%
705	*	*	*	*	70,315	0.0%	0.0%
706	**	**	**	**	**	N/A	N/A
707	*	*	*	*	72,661	0.0%	0.0%
709	**	**	**	**	**	N/A	N/A
710	*	*	*	*	50,166	0.0%	0.0%
712	**	**	**	**	**	N/A	N/A
800	20,677	22,615	22,119	23,910	23,678	-1.0%	14.5%
801	76,034	77,422	77,240	**	**	N/A	1.6%
802	3,637	3,819	4,252	4,489	4,648	3.5%	27.8%
803	20,308	**	21,756	22,533	23,265	3.2%	14.6%
804	**	49,356	48,135	51,941	53,699	3.4%	8.8%
805	2,788	2,867	2,827	2,912	2,937	0.9%	5.3%
806	26,822	29,237	29,299	29,348	28,968	-1.3%	8.0%
807	32,727	32,619	30,167	29,738	31,677	6.5%	-3.2%
808	13,272	13,485	14,028	13,735	14,531	5.8%	9.5%
809	**	**	**	**	8,282	0.0%	0.0%
810	35,839	36,157	36,587	35,845	35,930	0.2%	0.3%
811	43,207	45,707	47,418	46,748	48,462	3.7%	12.2%
812	47,676	47,967	47,800	45,426	46,721	2.9%	-2.0%
813	77,087	86,195	90,265	93,568	90,593	-3.2%	17.5%
815	*	*	*	3,904	3,895	-0.2%	-0.2%
816	*	*	*	3,375	3,343	-0.9%	-0.9%
817	*	*	*	*	1,649	0.0%	0.0%
818	*	*	25,654	29,005	30,683	5.8%	19.6%
821	*	*	11,222	10,094	10,610	5.1%	-5.5%
823	*	54,840	55,584	56,041	53,523	-4.5%	-2.4%
824	*	*	40,182	38,996	38,472	-1.3%	-4.3%
825	*	*	44,965	46,479	46,494	0.0%	3.4%
826	*	*	49,585	48,205	50,878	5.5%	2.6%
827	*	*	20,151	20,751	23,067	11.2%	14.5%
828	*	*	*	18,932	20,023	5.8%	5.8%

Five Year Summary of AADT from Permanent Sites (Continued)

*Indicates there is no data available.

Site #	Annual Average Daily Traffic (AADT)					Percent Change	
	2014	2015	2016	2017	2018	2017-2018	2014-2018
829	*	*	*	28,236	29,181	3.3%	3.3%
830	*	*	60,968	64,563	64,713	0.2%	6.1%
831	*	*	64,652	65,693	66,088	0.6%	2.2%
832	*	*	*	20,108	21,004	4.5%	4.5%
833	*	*	*	70,787	73,044	3.2%	3.2%
834	*	*	*	*	21,140	0.0%	0.0%
835	*	*	*	*	9,527	0.0%	0.0%
837	*	*	*	*	26,576	0.0%	0.0%
839	*	*	*	*	26,875	0.0%	0.0%
840	*	*	*	*	51,884	0.0%	0.0%
842	**	**	**	**	**	N/A	N/A
843	**	**	**	**	**	N/A	N/A
844	**	**	**	**	**	N/A	N/A
845	**	**	**	**	**	N/A	N/A
846	**	**	**	**	**	N/A	N/A
985	18,654	18,537	18,416	18,308	18,723	2.3%	0.4%

* 823 2015 was first full year of data.

* 818, 821, 824, 825, 826, 827, 830, & 831 2016 was first full year of data.

* 701, 703, 704, 815, 816, 828, 829, 832, & 833 2017 was first full year of data.

* 702, 705, 707, 710, 817, 834, 835, 837, 839, & 840 2018 was first full year of data.

** Site inactive or full year of data unavailable.

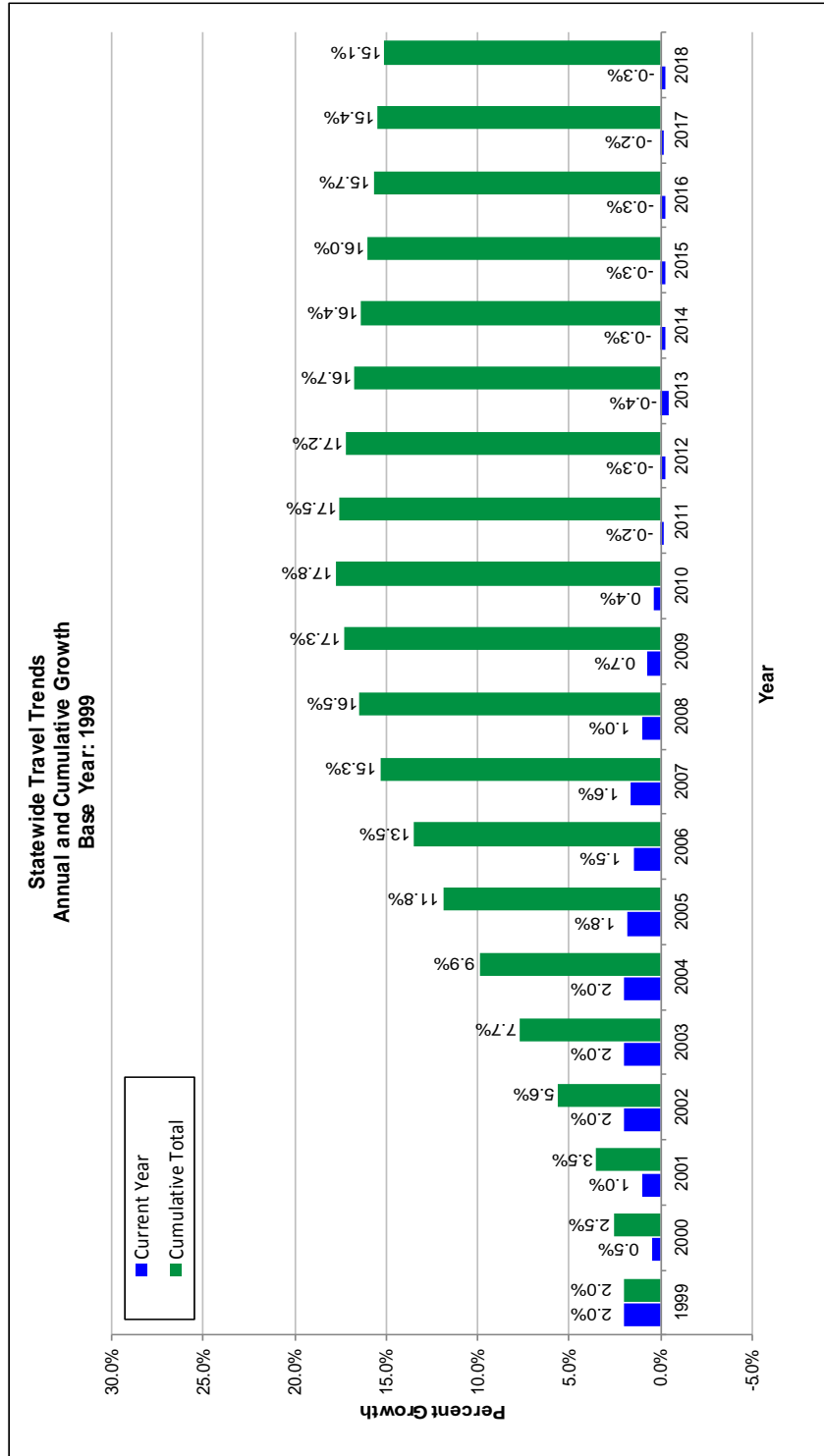
Statewide Traffic Trends: Annual and Multi-Year Change By Traffic Pattern Group

This table shows percent change for the traffic pattern groups at one-year intervals starting with 2013/2014 up to 2017/2018. An overall change in growth over the 5 year period for the traffic pattern groups is also shown on this table.

Percent Change Per Year, 2013 - 2018						
TRAFFIC PATTERN GROUPS	2013-14	2014-15	2015-16	2016-17	2017-18	2013-18
TPG 1 Urban Interstate	0.1%	0.5%	0.8%	0.9%	1.1%	3.4%
TPG 2 Rural Interstate	1.2%	1.3%	1.0%	1.1%	1.1%	5.7%
TPG 3 Urban Principal Arterial	-0.7%	-0.8%	-0.7%	-0.7%	-0.8%	-3.7%
TPG 4 Rural Principal Arterial	-0.5%	-0.5%	-0.5%	-0.5%	-0.6%	-2.6%
TPG 5 Urban Minor Arterials or Collectors	-0.7%	-0.8%	-0.7%	-0.7%	-0.8%	-3.7%
TPG 6 North Rural Minor Arterials	-0.5%	-0.5%	-0.5%	-0.5%	-0.6%	-2.6%
TPG 7 Central Rural Minor Arterials	-0.5%	-0.5%	-0.5%	-0.5%	-0.6%	-2.6%
TPG 8 North Rural Collectors	-0.5%	-0.5%	-0.5%	-0.5%	-0.6%	-2.6%
TPG 9 Central Rural Collectors	-0.5%	-0.5%	-0.5%	-0.5%	-0.6%	-2.6%
TPG 10 Special Recreational	-0.5%	-0.5%	-0.5%	-0.5%	-0.6%	-2.6%
Statewide	-0.3%	-0.3%	-0.3%	-0.2%	-0.3%	-1.4%

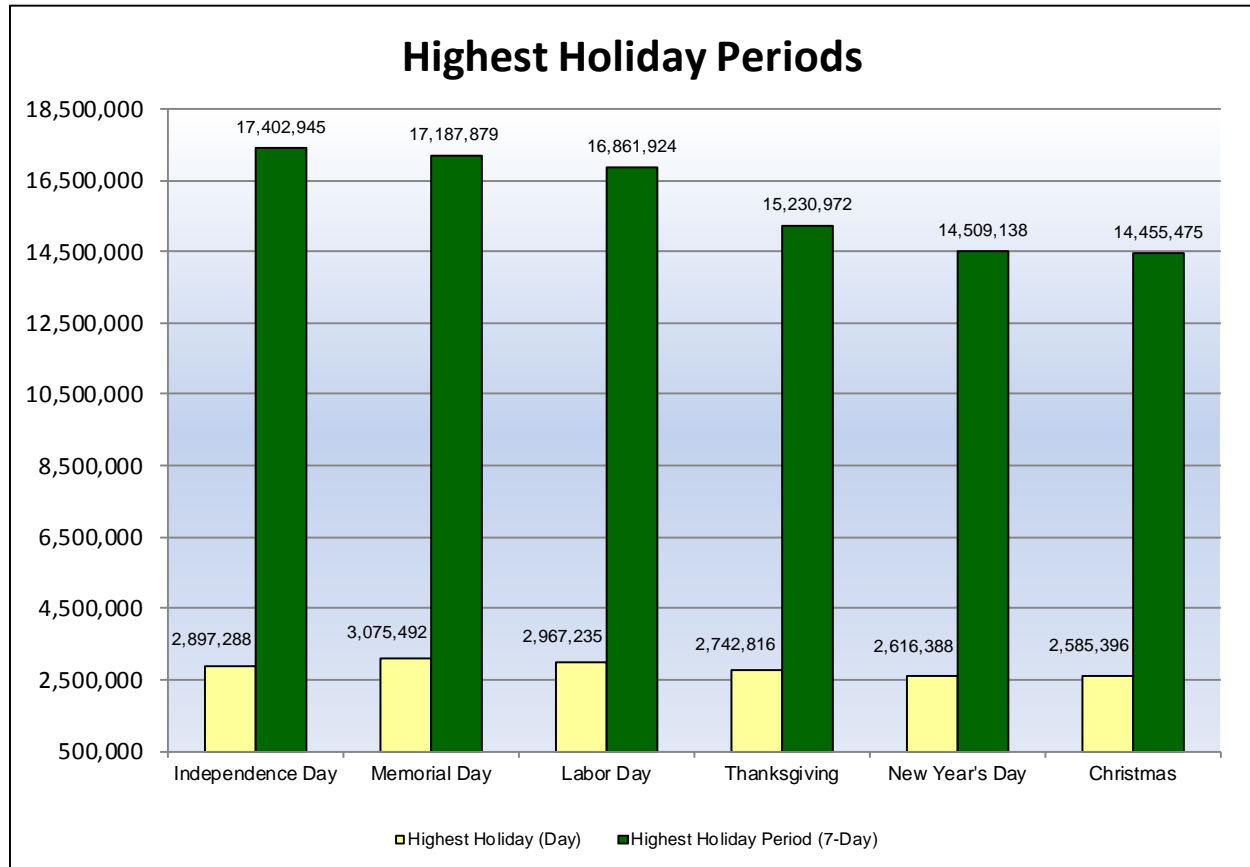
Statewide Traffic Trends

This chart shows yearly changes from 1999 to 2018 and a 20-year cumulative trend for the same period.



Heaviest Holiday Travel Periods: 2018

The 107 permanent sites, which are the total number of sites with a minimum of six months of data, were used to calculate the holidays having the highest seven-day periods of traffic. The highest seven-day holiday periods and the highest day within the seven-day holiday period (total traffic at all permanent site stations) are shown on the chart below:



The chart indicates that Independence Day had the highest seven-day holiday period in 2018 with a total volume of 17,402,945. Memorial Day ranked second (17,187,879) followed by Labor Day (16,861,924) and Thanksgiving Day (15,230,972). New Year's Day and Christmas ranked fifth (14,509,138) and sixth (14,455,475) respectively.

The highest day during a seven-day holiday period in 2018 was the Friday before Memorial Day (May 25, 2018), which had a volume of 3,075,492. The second highest day was the Friday before Labor Day (August 31, 2018), which had a volume of 2,967,235. The Friday before Independence Day (June 29, 2018), ranked third with 2,897,288, while the Wednesday before Thanksgiving Day (November 21, 2018), ranked fourth with 2,742,816. The Friday before New Year's Day (December 29, 2017) ranked fifth with 2,616,388, while the Friday before Christmas Day (December 21, 2018) ranked sixth with 2,585,396.

Heaviest Holiday Travel Period Comparisons: 2017-2018

Highest Holiday (Day)				
2017			2018	
Holiday	Total Volume		Holiday	Total Volume
1. Thanksgiving	2,519,556		1. Memorial Day	3,075,492
2. Labor Day	2,475,918		2. Labor Day	2,967,235
3. Independence Day	2,410,470		3. Independence Day	2,897,288
4. Memorial Day	2,404,996		4. Thanksgiving	2,742,816
5. Christmas	2,258,956		5. New Years Day	2,616,388
6. New Year's Day	2,115,165		6. Christmas	2,585,396

Highest Holiday Period (7-Day)				
2017			2018	
Holiday	Total Volume		Holiday	Total Volume
1. Thanksgiving	14,036,716		1. Independence Day	17,402,945
2. Labor Day	13,833,160		2. Memorial Day	17,187,879
3. Memorial Day	13,521,775		3. Labor Day	16,861,924
4. Independence Day	13,278,543		4. Thanksgiving	15,230,972
5. Christmas	12,641,902		5. New Year's Day	14,509,138
6. New Year's Day	12,487,025		6. Christmas	14,455,475

Factoring Process: Traffic Adjustment Factors

Traffic Adjustment Factors

Traffic Adjustment Factors are numbers that are used to create traffic statistics representing an average day. Factors are generated by applying statistical methods and programs to raw traffic counts. The different procedures used to factor counts depend on the following outcomes:

24-Hour Total Traffic and Truck Traffic Estimation

Count data less than 24-hours (short term counts) must first be expanded to a 24-hour total, which is accomplished through the use of hourly percentage tables. Separate tables are utilized for total vehicles and truck data application.

AADT and ADTT Estimation

A 24-hour count is processed to an Annual Average Daily Traffic (AADT) and Average Daily Truck Traffic (ADTT) through the application of a “day of week by month” factor. Separate tables are utilized for total vehicle and truck data application.

Axle Correction

Axle volume count data is collected by counting the number of axles striking a single pneumatic tube stretched across a section of highway and dividing by two. This type of data must be corrected to compensate for vehicles containing more than two axles (specifically truck data) to obtain a representative number of vehicles actually traveling that road section. This representation is obtained through the application of an axle correction factor.

Equivalent Single Axle Load Adjustment (ESAL)

ESAL adjustment factors are applied to the ADTT for each type of truck classification, to determine the loading effect these truck classes have on the pavement. Two separate calculations are performed: one for rigid type pavement (concrete) and one for flexible type pavement (bituminous). The AASHTO Mechanistic Empirical Pavement Design Guide has incorporated improved methods of determining loading effects of traffic termed axle-load spectra. In the future, these new methods will supersede the use of ESAL factors.

Growth Factor

If the count to be analyzed was taken earlier than the current year, a county growth trend is applied to project the older count data to a representative current year estimate. County growth trends are established based on Functional Class Group (FCG).

Design Hour Volume Factor, DHV (K)

The K-factor represents the percentage of AADT during the design hour. It is calculated by dividing the peak hour volume by the AADT. A 24-hour count is required to calculate the K-factor. If this condition is not met (in the case of manual counts), a default value is applied. The default value is calculated from the 107 permanent site stations using the 30th highest hour and is established based on Traffic Pattern Group (TPG).

Table 350
Hourly Percentages Compiled for Total Vehicles

The following table shows hourly percentages of total vehicles sorted by Traffic Pattern Group (TPG) for the year 2018. Factors from this table are applied to raw traffic counts of less than 24 hours, which may include volume counts (axle and loop), automatic vehicle classification (AVC), or manual classification counts. Hourly percentages from this table are applied to the known hour periods of the raw count, converting it to a 24-hour total.

The factors were developed using the Department's Traffic Data System (TDS) Statistical Analysis tool. Raw count data from 20,000 AVC counts, collected statewide and averaged over the last five years, was assigned to the respective TPG and a summary was produced showing the hourly percentage tables by direction (applied to divided roadways).

Hourly Percentages: Total Vehicles							
TPG 1				TPG 2			
HOUR	DIR 1	DIR 2	TOTAL	HOUR	DIR 1	DIR 2	TOTAL
1	0.93%	1.09%	1.02%	1	1.20%	1.31%	1.42%
2	0.72%	0.78%	0.75%	2	0.98%	1.08%	1.15%
3	0.67%	0.69%	0.69%	3	0.92%	1.00%	1.07%
4	0.80%	0.78%	0.79%	4	1.06%	1.09%	1.16%
5	1.26%	1.14%	1.20%	5	1.51%	1.40%	1.52%
6	2.88%	2.21%	2.58%	6	2.82%	2.28%	2.52%
7	6.04%	4.17%	5.12%	7	5.35%	3.79%	4.16%
8	8.35%	5.61%	6.82%	8	7.20%	5.01%	5.35%
9	7.14%	5.35%	6.14%	9	6.13%	4.93%	5.22%
10	5.62%	4.90%	5.26%	10	5.42%	4.87%	5.19%
11	5.18%	4.86%	5.06%	11	5.51%	5.08%	5.45%
12	5.21%	5.10%	5.22%	12	5.62%	5.28%	5.65%
13	5.35%	5.34%	5.41%	13	5.69%	5.58%	5.80%
14	5.44%	5.57%	5.56%	14	5.78%	5.89%	6.00%
15	5.94%	6.33%	6.14%	15	6.16%	6.57%	6.44%
16	6.57%	7.77%	7.07%	16	6.57%	7.69%	7.01%
17	6.91%	8.78%	7.66%	17	6.75%	8.43%	7.26%
18	6.73%	8.46%	7.44%	18	6.44%	7.88%	6.81%
19	5.21%	5.97%	5.62%	19	4.99%	5.52%	5.28%
20	3.82%	4.35%	4.19%	20	3.90%	4.27%	4.26%
21	3.12%	3.60%	3.46%	21	3.27%	3.68%	3.65%
22	2.62%	3.05%	2.91%	22	2.82%	3.07%	3.13%
23	2.04%	2.35%	2.25%	23	2.23%	2.42%	2.53%
24	1.45%	1.75%	1.64%	24	1.68%	1.88%	1.97%
TOTAL	100.00%	100.00%	100.00%	TOTAL	100.00%	100.00%	100.00%

Table 350
Hourly Percentages Compiled for Total Vehicles (Continued)

Hourly Percentages: Total Vehicles							
TPG 3				TPG 4			
HOUR	DIR 1	DIR 2	TOTAL	HOUR	DIR 1	DIR 2	TOTAL
1	0.66%	0.85%	0.71%	1	0.69%	0.87%	0.71%
2	0.43%	0.52%	0.44%	2	0.51%	0.57%	0.49%
3	0.39%	0.43%	0.37%	3	0.49%	0.52%	0.46%
4	0.49%	0.46%	0.44%	4	0.68%	0.62%	0.59%
5	1.00%	0.74%	0.83%	5	1.34%	0.98%	1.16%
6	2.81%	1.76%	2.20%	6	3.34%	2.12%	2.76%
7	6.12%	3.77%	4.71%	7	6.20%	3.94%	5.03%
8	8.50%	5.51%	6.70%	8	7.86%	5.43%	6.47%
9	7.43%	5.31%	6.26%	9	6.57%	5.04%	5.80%
10	5.75%	4.79%	5.35%	10	5.58%	4.78%	5.32%
11	5.24%	4.74%	5.16%	11	5.49%	4.88%	5.41%
12	5.34%	5.16%	5.47%	12	5.59%	5.20%	5.61%
13	5.57%	5.58%	5.80%	13	5.67%	5.52%	5.82%
14	5.57%	5.70%	5.83%	14	5.83%	5.87%	6.00%
15	5.97%	6.53%	6.37%	15	6.29%	6.70%	6.62%
16	6.60%	8.04%	7.28%	16	7.01%	8.34%	7.62%
17	6.88%	9.03%	7.80%	17	7.17%	9.33%	8.04%
18	6.83%	8.85%	7.71%	18	6.77%	8.61%	7.51%
19	5.42%	6.51%	6.04%	19	4.99%	5.92%	5.44%
20	4.04%	4.81%	4.57%	20	3.68%	4.41%	4.08%
21	3.23%	3.92%	3.71%	21	2.92%	3.72%	3.35%
22	2.58%	3.17%	2.90%	22	2.38%	3.04%	2.63%
23	1.89%	2.23%	2.01%	23	1.77%	2.06%	1.83%
24	1.26%	1.59%	1.34%	24	1.18%	1.53%	1.25%
TOTAL	100.00%	100.00%	100.00%	TOTAL	100.00%	100.00%	100.00%

Table 350
Hourly Percentages Compiled for Total Vehicles (Continued)

Hourly Percentages: Total Vehicles							
TPG 5				TPG 6			
HOUR	DIR 1	DIR 2	TOTAL	HOUR	DIR 1	DIR 2	TOTAL
1	0.62%	0.78%	0.62%	1	0.63%	0.67%	0.62%
2	0.40%	0.47%	0.37%	2	0.40%	0.38%	0.39%
3	0.37%	0.39%	0.32%	3	0.43%	0.36%	0.36%
4	0.46%	0.41%	0.37%	4	0.51%	0.42%	0.45%
5	0.92%	0.67%	0.72%	5	0.89%	0.86%	0.94%
6	2.55%	1.59%	1.98%	6	2.61%	1.93%	2.42%
7	5.76%	3.62%	4.42%	7	5.77%	4.10%	4.71%
8	8.21%	5.47%	6.63%	8	7.67%	6.28%	6.15%
9	7.35%	5.22%	6.15%	9	6.45%	5.99%	5.63%
10	5.63%	4.65%	5.18%	10	5.26%	5.06%	5.40%
11	5.11%	4.56%	5.04%	11	5.22%	4.67%	5.58%
12	5.31%	5.02%	5.45%	12	5.57%	5.13%	5.87%
13	5.65%	5.50%	5.85%	13	5.69%	5.38%	6.10%
14	5.64%	5.56%	5.80%	14	5.54%	5.36%	6.20%
15	6.03%	6.50%	6.41%	15	6.38%	6.71%	6.89%
16	6.81%	8.35%	7.52%	16	7.17%	7.98%	7.87%
17	7.21%	9.63%	8.20%	17	7.53%	8.63%	8.14%
18	7.18%	9.39%	8.16%	18	7.53%	8.66%	7.44%
19	5.62%	6.72%	6.26%	19	5.78%	6.64%	5.61%
20	4.18%	4.88%	4.74%	20	4.24%	4.96%	4.32%
21	3.33%	3.87%	3.83%	21	3.18%	3.65%	3.42%
22	2.62%	3.08%	2.86%	22	2.49%	2.79%	2.57%
23	1.86%	2.15%	1.90%	23	1.90%	1.94%	1.77%
24	1.18%	1.52%	1.22%	24	1.16%	1.45%	1.15%
TOTAL	100.00%	100.00%	100.00%	TOTAL	100.00%	100.00%	100.00%

Table 350
Hourly Percentages Compiled for Total Vehicles (Continued)

Hourly Percentages: Total Vehicles							
TPG 7				TPG 8			
HOUR	DIR 1	DIR 2	TOTAL	HOUR	DIR 1	DIR 2	TOTAL
1	0.79%	0.97%	0.65%	1	0.78%	0.97%	0.67%
2	0.56%	0.62%	0.42%	2	0.54%	0.60%	0.43%
3	0.52%	0.57%	0.39%	3	0.48%	0.48%	0.38%
4	0.71%	0.64%	0.50%	4	0.61%	0.46%	0.44%
5	1.21%	0.97%	1.04%	5	1.03%	0.74%	0.86%
6	2.96%	2.02%	2.71%	6	2.58%	1.63%	2.18%
7	6.05%	3.95%	5.11%	7	5.51%	3.50%	4.51%
8	8.03%	5.24%	6.54%	8	7.51%	5.37%	6.30%
9	6.78%	4.93%	5.71%	9	6.63%	5.21%	5.79%
10	5.59%	4.61%	5.13%	10	5.44%	5.17%	5.19%
11	5.41%	4.77%	5.16%	11	5.26%	5.17%	5.24%
12	5.36%	5.09%	5.39%	12	5.45%	5.43%	5.56%
13	5.58%	5.56%	5.66%	13	5.89%	5.78%	5.95%
14	5.56%	5.71%	5.79%	14	5.72%	5.71%	5.92%
15	6.09%	6.51%	6.52%	15	6.26%	6.52%	6.57%
16	6.88%	8.14%	7.70%	16	6.81%	8.11%	7.73%
17	7.27%	9.07%	8.22%	17	7.09%	8.81%	8.23%
18	6.93%	8.90%	7.90%	18	6.82%	8.60%	7.88%
19	5.36%	6.34%	5.80%	19	5.54%	6.44%	5.95%
20	3.85%	4.59%	4.33%	20	4.35%	4.67%	4.60%
21	3.02%	3.87%	3.56%	21	3.58%	3.75%	3.73%
22	2.39%	3.12%	2.70%	22	2.84%	2.99%	2.77%
23	1.83%	2.25%	1.86%	23	2.02%	2.23%	1.88%
24	1.27%	1.56%	1.21%	24	1.26%	1.66%	1.24%
TOTAL	100.00%	100.00%	100.00%	TOTAL	100.00%	100.00%	100.00%

Table 350
Hourly Percentages Compiled for Total Vehicles (Continued)

Hourly Percentages: Total Vehicles							
TPG 9				TPG 10			
HOUR	DIR 1	DIR 2	TOTAL	HOUR	DIR 1	DIR 2	TOTAL
1	0.74%	0.95%	0.64%	1	0.53%	0.79%	0.56%
2	0.51%	0.63%	0.41%	2	0.33%	0.31%	0.34%
3	0.49%	0.56%	0.36%	3	0.36%	0.31%	0.32%
4	0.59%	0.58%	0.43%	4	0.51%	0.36%	0.40%
5	1.16%	0.84%	0.90%	5	0.93%	0.60%	0.70%
6	2.87%	1.75%	2.37%	6	3.03%	1.43%	1.77%
7	6.02%	3.52%	4.78%	7	8.73%	3.27%	4.11%
8	7.89%	5.13%	6.61%	8	7.93%	5.12%	6.08%
9	6.93%	5.30%	5.86%	9	7.24%	4.88%	5.68%
10	5.78%	4.79%	5.05%	10	6.39%	3.82%	5.53%
11	5.28%	4.72%	5.00%	11	5.47%	4.10%	5.61%
12	5.35%	5.04%	5.30%	12	5.16%	4.55%	6.09%
13	5.66%	5.53%	5.65%	13	5.21%	5.02%	6.27%
14	5.67%	5.71%	5.72%	14	5.42%	5.41%	6.41%
15	6.00%	6.55%	6.45%	15	5.08%	6.56%	6.81%
16	6.55%	8.05%	7.71%	16	5.62%	8.63%	7.61%
17	6.91%	9.31%	8.30%	17	6.40%	10.14%	8.10%
18	6.85%	8.96%	8.06%	18	7.47%	10.35%	7.93%
19	5.47%	6.56%	6.10%	19	5.66%	7.39%	5.91%
20	4.07%	4.77%	4.62%	20	4.20%	5.37%	4.66%
21	3.30%	3.84%	3.75%	21	3.23%	4.96%	3.69%
22	2.63%	3.10%	2.81%	22	2.45%	3.47%	2.67%
23	1.96%	2.19%	1.90%	23	1.62%	1.95%	1.72%
24	1.32%	1.62%	1.22%	24	1.03%	1.21%	1.03%
TOTAL	100.00%	100.00%	100.00%	TOTAL	100.00%	100.00%	100.00%

Table 360
Hourly Percentages Compiled for Truck Traffic

The following four tables and two charts show hourly percentages of truck traffic sorted by Maintenance Functional Class (MFC). These tables are applied separately to raw truck data of less than 24-hours, including both automatic vehicle classification (AVC) and manual counts. Manual classification counts are the primary source of data using these tables. The hourly percentages are calculated from these tables and applied to the sum of the known hour periods and in turn converted to a 24-hour truck total.

The factors were developed using 20,000 AVC counts, collected and verified over the last five years. The raw count data was assigned to the respective Traffic Pattern Group (TPG), the truck data was extracted by vehicle type, and the TDS Statistical Analysis tool generated a summary showing the hourly percentage table by direction (applied to divided roadways). Truck data is tabulated according to MFC. Hourly weekday truck distribution provides evidence that the hourly percentage changes by MFC provide a valid breakdown of groups. Therefore, a summary was produced converting the TPGs to comparable MFC groups to be consistent with the characteristics of the 2018 Hourly Percentages (Truck Traffic) tables.

TPG 1 & 2				TPG 3 & 4			
MAINTENANCE FUNCTIONAL CLASS A (INTERSTATES)				MAINTENANCE FUNCTIONAL CLASS B (PRINCIPAL ARTERIALS)			
HOURL	DIR 1	DIR 2	TOTAL	HOURL	DIR 1	DIR 2	TOTAL
1	1.99%	2.28%	2.21%	1	1.07%	1.24%	1.01%
2	1.75%	2.12%	2.02%	2	1.02%	1.16%	0.95%
3	1.79%	2.11%	2.02%	3	1.09%	1.24%	1.05%
4	1.99%	2.36%	2.26%	4	1.38%	1.59%	1.36%
5	2.43%	2.79%	2.69%	5	2.01%	2.18%	2.02%
6	3.26%	3.57%	3.46%	6	3.50%	3.38%	3.46%
7	4.43%	4.53%	4.40%	7	5.56%	5.22%	5.51%
8	4.85%	4.88%	4.78%	8	6.41%	6.10%	6.55%
9	5.15%	5.10%	5.10%	9	6.83%	6.36%	6.90%
10	5.61%	5.37%	5.43%	10	6.73%	6.46%	6.82%
11	5.92%	5.31%	5.58%	11	6.68%	6.42%	6.79%
12	5.99%	5.36%	5.66%	12	6.71%	6.47%	6.82%
13	5.94%	5.44%	5.67%	13	6.62%	6.56%	6.72%
14	5.88%	5.54%	5.72%	14	6.64%	6.60%	6.76%
15	5.98%	5.71%	5.80%	15	6.79%	6.77%	6.91%
16	6.01%	5.65%	5.74%	16	6.51%	6.60%	6.65%
17	5.62%	5.46%	5.44%	17	5.73%	5.91%	5.78%
18	5.17%	5.09%	5.05%	18	4.82%	4.85%	4.73%
19	4.64%	4.60%	4.57%	19	3.76%	3.91%	3.67%
20	4.00%	4.09%	4.04%	20	2.87%	3.12%	2.79%
21	3.50%	3.64%	3.60%	21	2.36%	2.47%	2.23%
22	3.11%	3.35%	3.28%	22	1.99%	2.13%	1.82%
23	2.69%	3.00%	2.93%	23	1.61%	1.76%	1.48%
24	2.30%	2.65%	2.55%	24	1.31%	1.50%	1.22%
TOTAL	100.00%	100.00%	100.00%	TOTAL	100.00%	100.00%	100.00%

Table 360
Hourly Percentages Compiled for Truck Traffic (Continued)

TPG 5, 6 & 7				TPG 8 & 9			
MAINTENANCE FUNCTIONAL CLASS C (MINOR ARTERIALS)				MAINTENANCE FUNCTIONAL CLASS D, E & F (RURAL COLLECTORS)			
HOUR	DIR 1	DIR 2	TOTAL	HOUR	DIR 1	DIR 2	TOTAL
1	1.06%	1.20%	0.77%	1	1.35%	1.84%	0.88%
2	1.00%	1.17%	0.72%	2	1.19%	1.74%	0.81%
3	1.08%	1.29%	0.79%	3	1.33%	1.84%	0.87%
4	1.32%	1.59%	1.03%	4	1.51%	2.16%	1.10%
5	1.95%	2.20%	1.61%	5	2.13%	2.74%	1.69%
6	3.39%	3.38%	3.00%	6	3.13%	3.85%	3.04%
7	5.58%	5.12%	5.39%	7	4.98%	4.97%	5.36%
8	6.74%	6.03%	7.03%	8	6.17%	5.51%	6.86%
9	7.14%	6.57%	7.26%	9	6.31%	5.93%	7.05%
10	6.86%	6.48%	6.86%	10	6.57%	6.18%	6.70%
11	6.84%	6.39%	6.79%	11	6.70%	5.93%	6.70%
12	6.66%	6.51%	6.87%	12	6.87%	6.04%	6.76%
13	6.79%	6.44%	6.82%	13	6.46%	6.24%	6.75%
14	6.68%	6.55%	6.89%	14	6.68%	5.93%	6.79%
15	6.71%	6.85%	7.24%	15	6.58%	6.13%	7.14%
16	6.66%	6.83%	7.30%	16	6.35%	5.96%	7.31%
17	5.71%	6.09%	6.26%	17	5.70%	5.66%	6.28%
18	4.69%	4.98%	5.03%	18	4.63%	4.67%	5.03%
19	3.72%	3.84%	3.69%	19	3.90%	3.97%	3.72%
20	2.77%	2.97%	2.71%	20	3.08%	3.09%	2.79%
21	2.21%	2.44%	2.10%	21	2.60%	2.85%	2.20%
22	1.79%	1.95%	1.63%	22	2.25%	2.50%	1.73%
23	1.44%	1.74%	1.24%	23	1.90%	2.15%	1.35%
24	1.21%	1.39%	0.97%	24	1.63%	2.12%	1.09%
TOTAL	100.00%	100.00%	100.00%	TOTAL	100.00%	100.00%	100.00%

Hourly Percentages Charts

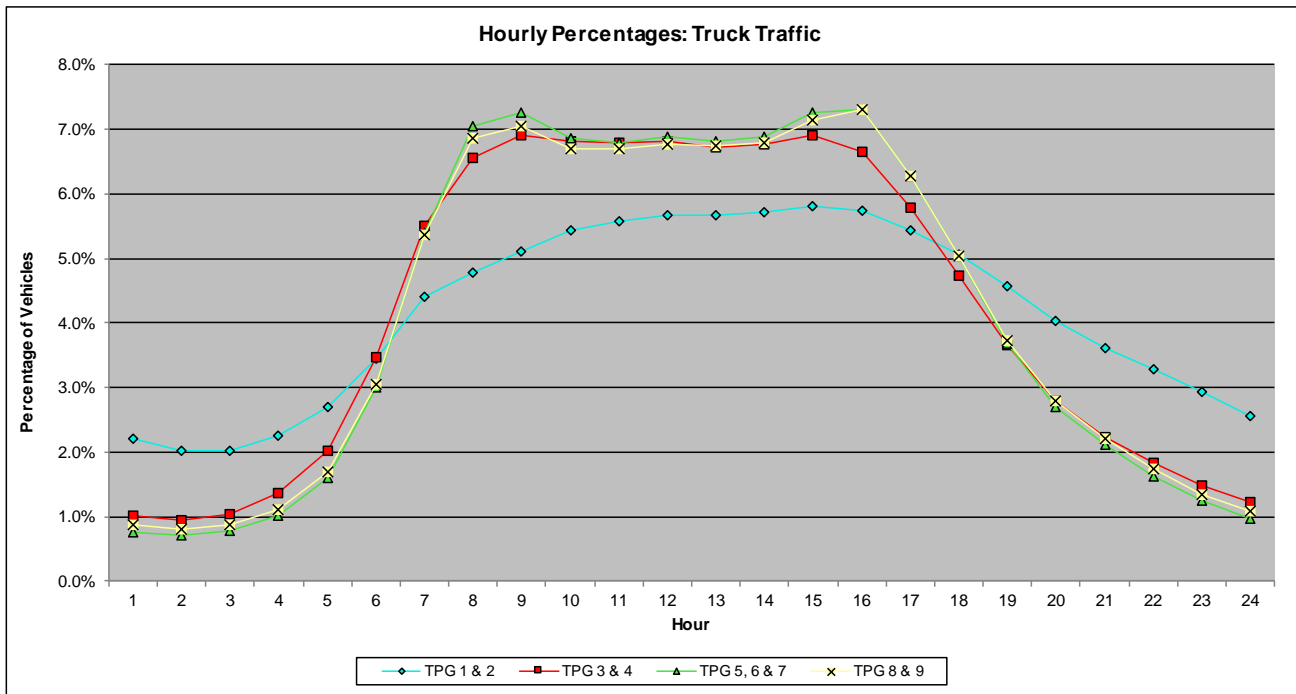
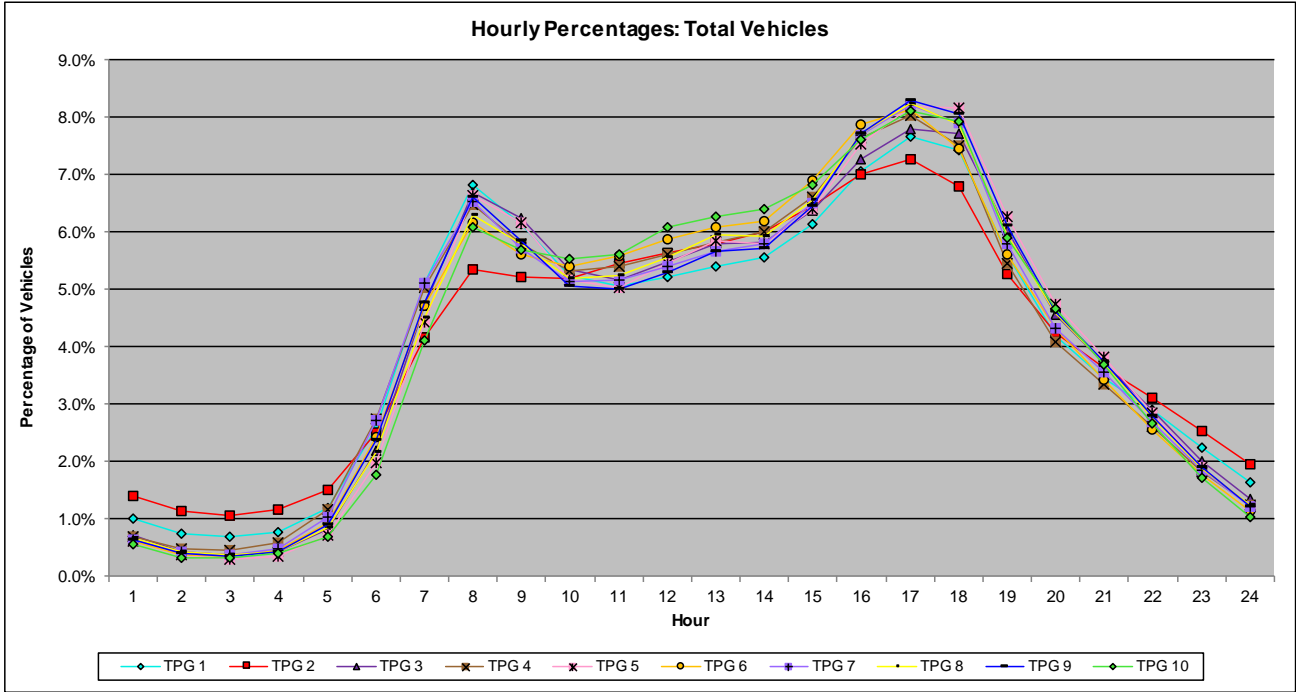


Table 355
Average Day of Week by Month Factors Compiled for Total Vehicles

The following 12 tables show average day of week factors by month compiled for total vehicles for the year 2018. Current year permanent site traffic data is assembled and the data is placed in the respective TPG. Annual Average Daily Traffic (AADT) is tabulated individually for each of the 107 permanent site stations. A factor is calculated for each day from each station and a list is tabulated by month and day of the week. This data is assembled by day and TPG for each station. The result is a group factor, which can be applied to a 24-hour raw traffic count taken during any day of the year to develop an AADT volume.

January 2018										
DAY	TPG 1	TPG 2	TPG 3	TPG 4	TPG 5	TPG 6	TPG 7	TPG 8	TPG 9	TPG 10
Monday	1.126	2.082	1.055	1.142	1.072	1.170	1.119	1.237	1.093	1.530
Tuesday	1.035	1.251	1.021	1.111	1.072	1.152	1.118	1.252	1.101	1.564
Wednesday	1.002	1.405	0.974	1.082	0.994	1.106	1.091	1.178	1.051	1.476
Thursday	0.994	1.122	0.952	1.039	0.985	1.058	1.003	1.073	1.041	1.562
Friday	0.933	1.190	0.937	1.011	0.986	1.075	0.979	1.119	1.023	1.629
Saturday	1.144	1.344	1.232	1.334	1.136	1.427	1.224	1.396	1.308	1.449
Sunday	1.365	1.427	1.465	1.462	1.316	1.630	1.462	1.520	1.447	1.726
DAY OF MONTH	1.085	1.403	1.091	1.169	1.080	1.231	1.142	1.254	1.152	1.562

February 2018										
DAY	TPG 1	TPG 2	TPG 3	TPG 4	TPG 5	TPG 6	TPG 7	TPG 8	TPG 9	TPG 10
Monday	1.022	1.142	1.029	1.055	1.018	1.107	1.081	1.163	1.051	1.533
Tuesday	0.942	1.072	0.924	1.010	0.926	1.041	1.003	1.078	0.962	1.377
Wednesday	1.023	1.133	0.959	1.047	1.065	1.094	1.120	1.039	1.162	1.695
Thursday	0.939	1.046	0.927	1.020	0.967	1.081	0.995	1.107	0.977	1.353
Friday	0.917	0.981	0.927	0.978	0.931	1.033	0.960	1.074	0.982	1.299
Saturday	1.122	1.203	1.149	1.173	1.082	1.242	1.150	1.244	1.184	1.267
Sunday	1.355	1.315	1.477	1.436	1.535	1.585	1.534	1.566	1.474	1.823
DAY OF MONTH	1.046	1.127	1.056	1.103	1.075	1.169	1.120	1.181	1.113	1.478

Table 355
Average Day of Week by Month Factors Compiled for Total Vehicles
(Continued)

March 2018										
DAY	TPG 1	TPG 2	TPG 3	TPG 4	TPG 5	TPG 6	TPG 7	TPG 8	TPG 9	TPG 10
Monday	0.952	1.013	0.931	0.993	0.989	1.022	0.998	1.027	0.954	1.294
Tuesday	0.925	1.237	0.922	0.996	0.975	1.046	1.002	1.045	0.974	1.400
Wednesday	0.910	1.300	0.946	1.014	0.978	1.088	0.991	1.062	1.008	1.554
Thursday	0.889	1.143	0.893	0.959	0.957	1.023	0.962	1.020	0.920	1.355
Friday	0.881	0.912	0.906	0.945	0.975	1.039	0.998	1.070	0.967	1.325
Saturday	0.997	1.064	1.080	1.084	1.080	1.214	1.067	1.152	1.110	1.168
Sunday	1.167	1.110	1.241	1.229	1.270	1.355	1.258	1.275	1.236	1.517
DAY OF MONTH	0.960	1.111	0.989	1.032	1.032	1.112	1.039	1.093	1.024	1.373

April 2018										
DAY	TPG 1	TPG 2	TPG 3	TPG 4	TPG 5	TPG 6	TPG 7	TPG 8	TPG 9	TPG 10
Monday	0.937	0.962	0.942	0.951	0.938	0.980	0.988	1.005	0.955	1.186
Tuesday	0.893	0.975	0.896	0.968	0.927	1.000	0.974	1.004	0.928	1.202
Wednesday	0.881	0.950	0.874	0.932	0.909	0.973	0.928	0.986	0.910	1.205
Thursday	0.846	0.899	0.853	0.897	0.867	0.939	0.913	0.950	0.876	1.111
Friday	0.807	0.851	0.825	0.822	0.855	0.871	0.848	0.894	0.830	0.936
Saturday	0.957	0.969	1.029	1.038	0.984	1.054	0.965	1.089	1.042	0.932
Sunday	1.062	0.974	1.245	1.120	1.054	1.138	1.164	1.194	1.174	1.291
DAY OF MONTH	0.912	0.940	0.952	0.961	0.933	0.993	0.969	1.017	0.959	1.123

May 2018										
DAY	TPG 1	TPG 2	TPG 3	TPG 4	TPG 5	TPG 6	TPG 7	TPG 8	TPG 9	TPG 10
Monday	1.043	0.914	0.996	0.956	0.939	0.897	0.988	0.903	0.961	0.937
Tuesday	0.954	0.921	0.869	0.892	0.841	0.891	0.887	0.880	0.863	0.926
Wednesday	0.864	0.909	0.847	0.878	0.835	0.877	0.858	0.856	0.850	0.919
Thursday	0.840	0.851	0.832	0.841	0.840	0.854	0.856	0.833	0.836	0.877
Friday	0.790	0.775	0.811	0.787	0.775	0.788	0.805	0.781	0.800	0.711
Saturday	1.083	0.905	1.031	1.000	0.955	0.975	0.963	1.000	1.003	0.743
Sunday	1.100	0.954	1.198	1.111	1.111	1.045	1.129	1.052	1.188	0.696
DAY OF MONTH	0.953	0.890	0.940	0.924	0.899	0.904	0.927	0.901	0.929	0.830

Table 355
Average Day of Week by Month Factors Compiled for Total Vehicles
(Continued)

June 2018										
DAY	TPG 1	TPG 2	TPG 3	TPG 4	TPG 5	TPG 6	TPG 7	TPG 8	TPG 9	TPG 10
Monday	0.859	1.357	0.961	1.023	0.893	0.902	0.943	0.873	0.908	0.862
Tuesday	0.841	0.990	0.870	1.045	0.866	0.908	0.911	0.869	0.881	0.875
Wednesday	0.844	0.969	0.860	0.886	0.847	0.899	0.899	0.897	0.881	0.900
Thursday	0.822	0.937	0.850	1.007	0.837	0.859	0.869	0.837	0.861	0.811
Friday	0.767	0.739	0.816	0.908	0.811	0.818	0.819	0.777	0.828	0.664
Saturday	0.923	0.868	1.035	0.984	0.931	0.974	0.902	0.949	1.005	0.655
Sunday	0.994	0.898	1.168	1.035	0.985	0.990	1.020	0.997	1.111	0.733
DAY OF MONTH	0.864	0.965	0.937	0.984	0.881	0.907	0.909	0.886	0.925	0.786

July 2018										
DAY	TPG 1	TPG 2	TPG 3	TPG 4	TPG 5	TPG 6	TPG 7	TPG 8	TPG 9	TPG 10
Monday	0.851	0.814	0.904	0.869	0.911	0.892	0.947	0.869	0.906	0.780
Tuesday	0.850	0.851	0.871	0.983	0.889	0.895	0.932	0.875	0.899	0.802
Wednesday	1.277	0.875	0.986	1.284	1.027	0.950	0.921	0.862	0.927	0.795
Thursday	0.967	0.787	0.848	0.971	0.874	0.844	0.886	0.814	0.866	0.731
Friday	0.749	0.711	0.843	0.787	0.878	0.803	0.850	0.773	0.832	0.610
Saturday	0.895	0.810	1.045	0.955	1.019	0.933	0.945	0.891	0.982	0.518
Sunday	1.023	0.807	1.189	1.009	1.115	0.946	0.973	0.941	1.000	0.635
DAY OF MONTH	0.945	0.808	0.955	0.980	0.959	0.895	0.922	0.861	0.916	0.696

August 2018										
DAY	TPG 1	TPG 2	TPG 3	TPG 4	TPG 5	TPG 6	TPG 7	TPG 8	TPG 9	TPG 10
Monday	0.833	0.846	0.901	0.852	0.899	0.888	0.938	0.867	0.931	0.876
Tuesday	0.833	0.875	0.870	0.865	0.886	0.907	0.925	0.886	0.919	0.928
Wednesday	0.829	0.852	0.854	0.856	0.863	0.876	0.895	0.863	0.898	0.925
Thursday	0.788	0.804	0.841	0.816	0.857	0.851	0.880	0.823	0.866	0.842
Friday	0.760	0.702	0.829	0.815	0.819	0.780	0.827	0.789	0.867	0.712
Saturday	0.906	0.791	1.047	0.938	0.984	0.918	0.967	0.945	1.052	0.639
Sunday	0.947	0.816	1.195	1.001	1.072	0.970	0.914	0.937	1.079	0.704
DAY OF MONTH	0.842	0.812	0.934	0.878	0.911	0.884	0.907	0.873	0.945	0.804

Table 355
Average Day of Week by Month Factors Compiled for Total Vehicles
(Continued)

September 2018										
DAY	TPG 1	TPG 2	TPG 3	TPG 4	TPG 5	TPG 6	TPG 7	TPG 8	TPG 9	TPG 10
Monday	1.107	0.990	1.054	0.979	0.987	0.938	1.024	0.950	1.070	1.075
Tuesday	1.296	0.959	0.893	0.893	0.887	0.917	0.955	0.887	0.940	1.090
Wednesday	0.854	0.949	0.859	1.219	0.901	0.906	0.909	0.868	0.896	1.073
Thursday	0.831	0.909	0.849	0.851	0.853	0.875	0.914	0.859	0.887	1.025
Friday	0.978	0.815	0.818	1.143	0.844	0.816	0.862	0.795	0.839	0.867
Saturday	1.378	0.955	1.035	1.148	1.009	0.956	0.982	0.973	1.063	0.770
Sunday	1.041	0.937	1.223	1.050	1.243	1.021	1.104	1.042	1.162	0.933
DAY OF MONTH	1.069	0.931	0.962	1.040	0.961	0.919	0.964	0.911	0.979	0.976

October 2018										
DAY	TPG 1	TPG 2	TPG 3	TPG 4	TPG 5	TPG 6	TPG 7	TPG 8	TPG 9	TPG 10
Monday	0.943	0.933	0.911	0.910	0.932	0.939	0.984	0.956	0.902	1.122
Tuesday	0.999	0.964	0.869	0.892	0.888	0.924	0.935	0.927	0.888	1.124
Wednesday	1.025	0.953	0.864	0.886	0.865	0.916	0.903	0.908	0.864	1.124
Thursday	1.061	0.900	0.855	0.855	0.877	0.878	0.903	0.887	0.851	1.080
Friday	0.745	0.785	0.825	0.809	0.828	0.822	0.851	0.834	0.803	0.897
Saturday	1.143	0.960	1.059	1.007	1.035	1.016	1.016	1.017	1.026	0.911
Sunday	1.017	0.934	1.228	1.050	1.153	1.056	1.135	1.079	1.075	1.199
DAY OF MONTH	0.990	0.918	0.944	0.915	0.940	0.936	0.961	0.944	0.916	1.065

Table 355
Average Day of Week by Month Factors Compiled for Total Vehicles
(Continued)

November 2018										
DAY	TPG 1	TPG 2	TPG 3	TPG 4	TPG 5	TPG 6	TPG 7	TPG 8	TPG 9	TPG 10
Monday	0.932	0.977	0.986	0.984	0.996	1.048	1.057	1.085	1.029	1.303
Tuesday	0.893	0.959	0.898	0.942	0.909	0.996	0.987	0.994	0.957	1.319
Wednesday	0.871	0.973	0.877	0.921	0.898	0.991	0.963	0.966	0.942	1.269
Thursday	0.907	0.961	1.008	0.994	1.038	1.105	1.065	1.056	1.092	1.294
Friday	0.856	0.891	0.895	0.909	0.917	0.970	0.932	1.019	0.952	1.139
Saturday	1.009	1.016	1.114	1.107	1.037	1.158	1.119	1.249	1.178	1.135
Sunday	1.046	0.999	1.255	1.179	1.247	1.341	1.271	1.233	1.279	1.452
DAY OF MONTH	0.931	0.968	1.005	1.005	1.006	1.087	1.056	1.086	1.061	1.273

December 2018										
DAY	TPG 1	TPG 2	TPG 3	TPG 4	TPG 5	TPG 6	TPG 7	TPG 8	TPG 9	TPG 10
Monday	1.044	1.133	1.008	1.108	1.069	1.144	1.079	1.141	1.332	1.334
Tuesday	1.099	1.166	1.020	1.225	0.992	0.997	0.978	1.146	1.375	1.321
Wednesday	0.878	0.943	0.904	0.970	0.933	1.031	0.986	1.052	1.207	1.280
Thursday	0.844	0.915	0.877	0.926	0.934	1.011	0.989	1.014	1.263	1.335
Friday	0.840	0.866	0.867	0.900	0.924	0.976	0.928	0.958	1.362	1.188
Saturday	1.005	1.028	1.070	1.096	1.061	1.208	1.111	1.167	1.591	1.288
Sunday	1.170	1.156	1.272	1.258	1.147	1.332	1.287	1.322	1.764	1.521
DAY OF MONTH	0.983	1.030	1.003	1.069	1.009	1.100	1.051	1.114	1.414	1.324

Monthly Variation Charts by Traffic Pattern Group (TPG)

The chart below shows the different variations between months and traffic pattern groups (TPG). The seasonal factors, which are the data this chart is derived from, show the percentage difference between the raw data count and the annual average daily traffic (AADT). The seasonal factors data can be found in Table 355.

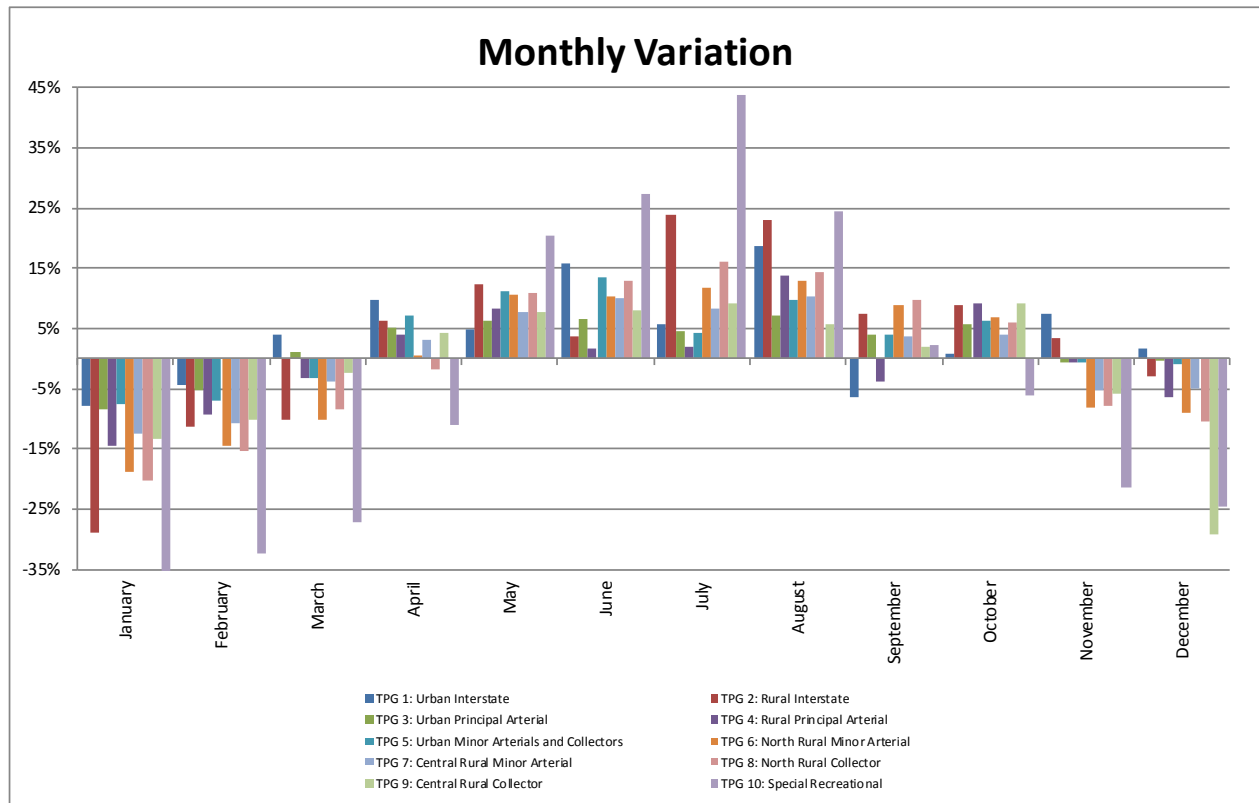


Table 365
Average Day of Week by Month Factors Compiled for Truck Traffic

The following table shows average day of week factors by month compiled for truck traffic. This data is used to convert 24-hour truck data to Average Daily Truck Traffic (ADTT). The ADTT is determined by applying the appropriate factor for the day of week and month to the truck traffic. Truck seasonal variation charts, which are based on truck traffic studies, indicate that truck traffic varies little for both the Interstate and Non-Interstate systems. On the other hand, day of week distribution does indicate a variation between weekdays (Monday through Friday) versus weekend (Saturday through Sunday) truck flow.

AVERAGE DAY OF WEEK BY MONTH FOR TRUCK TRAFFIC							
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
JANUARY	1.55	1.02	0.94	0.91	0.98	2.11	2.99
FEBRUARY	1.19	0.91	0.97	0.91	0.95	1.99	3.00
MARCH	1.02	0.86	0.93	0.91	0.96	1.91	2.67
APRIL	1.04	0.86	0.83	0.78	0.82	1.73	2.46
MAY	1.12	0.76	0.71	0.71	0.72	1.46	2.17
JUNE	0.89	0.77	0.78	0.76	0.77	1.51	2.06
JULY	0.94	0.79	1.11	0.77	0.78	1.53	1.96
AUGUST	0.95	0.79	0.78	0.76	0.79	1.55	2.07
SEPTEMBER	1.20	0.81	0.75	0.73	0.74	1.48	2.13
OCTOBER	0.89	0.76	0.74	0.74	0.76	1.60	2.15
NOVEMBER	1.07	0.83	0.79	1.04	0.97	1.62	2.12
DECEMBER	1.46	1.41	0.94	0.89	0.97	1.84	2.71

Table 370
Yearly Growth Factors

The yearly growth factors (shown in the following tables) are used to compute the current estimated average daily traffic for count data that is older than the current year. The factor application is applied by Traffic Pattern Group (TPG) and is used to calculate total vehicles and truck estimates. A limited amount of count data is processed through the Yearly Growth Factor table, since most traffic counts are for the current year.

To use this table, select the base year of the count from the "YEAR" column and multiply it by the percentage under the corresponding "TPG" row.

For example, to determine the current year estimate (2018) of a 2009 base year count having a TPG 5, multiply 0.943 (-5.7%) by the AADT of the 2009 count.

Yearly Growth Factors: 2009-2018										
TPG	08-09 (2009)	09-10 (2010)	10-11 (2011)	11-12 (2012)	12-13 (2013)	13-14 (2014)	14-15 (2015)	15-16 (2016)	16-17 (2017)	17-18 (2018)
TPG 1	1.0%	0.0%	-0.7%	-0.9%	-1.1%	0.1%	0.5%	0.8%	0.9%	1.1%
TPG 2	2.2%	1.6%	1.7%	2.2%	2.2%	1.2%	1.3%	1.0%	1.1%	1.1%
TPG 3	0.3%	0.2%	-0.6%	-1.0%	-1.0%	-0.7%	-0.8%	-0.7%	-0.7%	-0.8%
TPG 4	0.5%	0.3%	-0.3%	-0.4%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.6%
TPG 5	0.3%	0.2%	-0.6%	-1.0%	-1.0%	-0.7%	-0.8%	-0.7%	-0.7%	-0.8%
TPG 6	0.5%	0.3%	-0.3%	-0.4%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.6%
TPG 7	0.5%	0.3%	-0.3%	-0.4%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.6%
TPG 8	0.5%	0.3%	-0.3%	-0.4%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.6%
TPG 9	0.5%	0.3%	-0.3%	-0.4%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.6%
TPG 10	0.5%	0.3%	-0.3%	-0.4%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.6%

The table below shows yearly growth percentages by TPG for 2009 through 2018.

Percent Growth: 2009-2018										
TPG	08-17 (2009)	09-17 (2010)	10-17 (2011)	11-17 (2012)	12-17 (2013)	13-17 (2014)	14-17 (2015)	15-17 (2016)	16-17 (2017)	17-18 (2018)
TPG 1	1.7%	0.7%	0.7%	1.4%	2.3%	3.4%	3.3%	2.8%	2.0%	1.1%
TPG 2	16.7%	14.2%	12.4%	10.5%	8.2%	5.8%	4.6%	3.2%	2.2%	1.1%
TPG 3	-5.7%	-5.9%	-6.1%	-5.6%	-4.6%	-3.6%	-3.0%	-2.2%	-1.5%	-0.8%
TPG 4	-3.0%	-3.4%	-3.7%	-3.4%	-3.1%	-2.6%	-2.1%	-1.6%	-1.1%	-0.6%
TPG 5	-5.7%	-5.9%	-6.1%	-5.6%	-4.6%	-3.6%	-3.0%	-2.2%	-1.5%	-0.8%
TPG 6	-3.0%	-3.4%	-3.7%	-3.4%	-3.1%	-2.6%	-2.1%	-1.6%	-1.1%	-0.6%
TPG 7	-3.0%	-3.4%	-3.7%	-3.4%	-3.1%	-2.6%	-2.1%	-1.6%	-1.1%	-0.6%
TPG 8	-3.0%	-3.4%	-3.7%	-3.4%	-3.1%	-2.6%	-2.1%	-1.6%	-1.1%	-0.6%
TPG 9	-3.0%	-3.4%	-3.7%	-3.4%	-3.1%	-2.6%	-2.1%	-1.6%	-1.1%	-0.6%
TPG 10	-3.0%	-3.4%	-3.7%	-3.4%	-3.1%	-2.6%	-2.1%	-1.6%	-1.1%	-0.6%

Functional Class Groups

Traffic volume data displayed in PennDOT's Roadway Management System (RMS) is projected to a current estimate year (2018) based on County/Functional Class Group (FCG). This provides the user with trends relative to a specific county. The factors are applied annually to the Department's Roadway Management System (RMS) to produce the current year traffic volume estimate values.

The first table shows the PennDOT FCG's with a description and corresponding Functional Class Codes (FCCs). The second table shows the FHWA revision of highway functional classifications. FHWA finalized the functional class guidelines in 2013. RMS was updated to reflect these changes in late summer 2016.

FCG	DESCRIPTIVE NAME	FCC
FCG 1	URBAN INTERSTATE	FCC 11
FCG 2	RURAL INTERSTATE	FCC 01
FCG 3	URBAN - OTHER FREEWAYS/EXPRESSWAYS	FCC 12
	URBAN - OTHER PRINCIPAL ARTERIALS	FCC 14
	URBAN - MINOR ARTERIALS	FCC 16
	RAMPS	FCC 99
FCG 4	RURAL - OTHER PRINCIPAL ARTERIALS	FCC 02
	RURAL - MINOR ARTERIAL	FCC 06
FCG 5	URBAN COLLECTORS	FCC 17
	URBAN - LOCAL	FCC 19
FCG 6	RURAL - MAJOR COLLECTOR	FCC 07
	RURAL - MINOR COLLECTOR	FCC 08
	RURAL - LOCAL	FCC 09

FCC	DESCRIPTIVE NAME	OLD FCC
1	INTERSTATE	01-11
2	OTHER FREEWAY / EXPRESSWAY	03-12
3	OTHER PRINCIPAL ARTERIAL	02-14
4	MINOR ARTERIAL	06-16
5	MAJOR COLLECTOR	07-17
6	MINOR COLLECTOR	08-18
7	LOCAL	09-19

** The Federal Functional Classification of a ramp reflects the highest order of Federal Functional Classification of the roadways to which the ramp connects. As an example, Adams County, SR 8001 is the interchange at US 15, a principal arterial, and SR 3001, a minor arterial; therefore, the segments associated with SR 8001 are assigned a Federal Functional Classification of principal arterial.

Table 380 Axle Correction Factors

Axle volume count data is collected by counting vehicle axles (two axle strikes equals one vehicle).

Since these counts may include a number of trucks with more than two axles, they must be corrected to represent the actual volume of total vehicles. The axle correction factors are applied to raw axle volume count data, adjusting it to a correct representative volume.

2018 Axle Correction Factors are shown in the table below.

TPG	Axle Correction Factor
1	84.40%
2	71.33%
3	95.67%
4	88.40%
5	97.45%
6	92.46%
7	94.64%
8	95.04%
9	95.74%
10	95.81%

Table 385 Design Hour Factor Default Values

The design hour factor (K-factor) represents the percent of Annual Average Daily Traffic (AADT) occurring in the peak hour. This value is important in the design of roadways and capacity analysis studies.

Count data less than 24-hours and/or data not having directional volumes will not have the necessary raw data required to compute actual K-factor values. The K-factor default values were produced to complete unknown values not generated through the raw count factoring process, and to satisfy Highway Performance Monitoring System (HPMS) reporting requirements. They were developed by processing the actual hourly data from the 107 permanent site stations to identify the 30th highest hour; this hourly volume was divided by the AADT for each station, producing a K-factor. The factors were then averaged by Traffic Pattern Group (TPG).

During the raw count factoring process, the K-factor value is programmatically inserted into the Roadway Management System (RMS) database if the raw count data is insufficient to calculate an actual K-factor.

2018 K-Factors and corresponding TPGs are shown in the table below.

TPG	K factor default value
1	9%
2	10%
3	10%
4	11%
5	11%
6	11%
7	11%
8	13%
9	11%
10	16%

Tables 390 and 395 Equivalent Single Axle Load Factors

Equivalent Single Axle Load (ESAL) tables are used to calculate pavement loadings (rigid and flexible types) to produce a common parameter for design and planning purposes.

ESAL factors used in RMS were derived through a composite of data obtained from AASHTO guidelines and test data collected from historical Loadometer Surveys. Data obtained through WIM equipment is under review at this time and will be considered in development of future ESAL factors. The AASHTO Mechanistic Empirical Design Guide (MEPDG) has incorporated improved methods of determining loading effects of traffic termed axle-load spectra. In the future, these new methods will supersede the use of ESAL factors.

2018 ESAL factors for rigid pavements are shown by Traffic Pattern Group (TPG) and vehicle classification in **Table 390**, below.

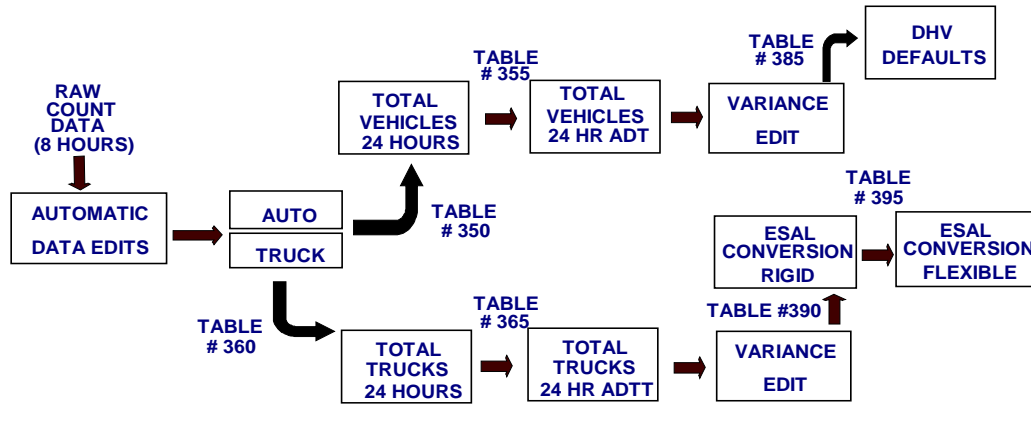
RIGID ESAL FACTORS										
CLASS	TPG 1	TPG 2	TPG 3	TPG 4	TPG 5	TPG 6	TPG 7	TPG 8	TPG 9	TPG 10
BUS	0.240	0.240	0.240	0.240	0.240	0.240	0.240	0.240	0.240	0.240
2 AXLE SIX TIRE	0.240	0.240	0.240	0.240	0.240	0.240	0.240	0.240	0.240	0.240
3 AXLE SINGLE UNIT	1.150	1.150	1.150	1.150	1.150	1.150	1.150	1.150	1.150	1.150
4 AXLE SINGLE UNIT	7.000	7.000	7.000	7.000	7.000	7.000	7.000	7.000	7.000	7.000
3 AXLE WITH TRAILER	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600
3 AXLE MULTI-AXLE TRAILER	1.590	1.590	1.590	1.590	1.590	1.590	1.590	1.590	1.590	1.590
6 AXLE SINGLE TRAILER	1.421	1.421	1.421	1.421	1.421	1.421	1.421	1.421	1.421	1.421
5 AXLE MULTI TRAILER	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400
6 AXLE MULTI TRAILER	1.421	1.421	1.421	1.421	1.421	1.421	1.421	1.421	1.421	1.421
7 AXLE MULTI TRAILER	1.421	1.421	1.421	1.421	1.421	1.421	1.421	1.421	1.421	1.421

2018 ESAL factors for flexible pavements are shown by Traffic Pattern Group (TPG) and vehicle classification in **Table 395**, below.

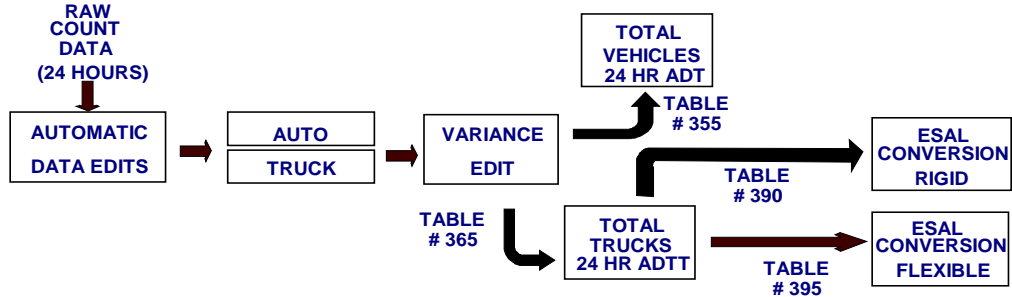
FLEXIBLE ESAL FACTORS										
CLASS	TPG 1	TPG 2	TPG 3	TPG 4	TPG 5	TPG 6	TPG 7	TPG 8	TPG 9	TPG 10
BUS	0.240	0.240	0.240	0.240	0.240	0.240	0.240	0.240	0.240	0.240
2 AXLE SIX TIRE	0.240	0.240	0.240	0.240	0.240	0.240	0.240	0.240	0.240	0.240
3 AXLE SINGLE UNIT	0.820	0.820	0.820	0.820	0.820	0.820	0.820	0.820	0.820	0.820
4 AXLE SINGLE UNIT	4.500	4.500	4.500	4.500	4.500	4.500	4.500	4.500	4.500	4.500
3 AXLE WITH TRAILER	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440
3 AXLE MULTI-AXLE TRAILER	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
6 AXLE SINGLE TRAILER	0.750	0.750	0.750	0.750	0.750	0.750	0.750	0.750	0.750	0.750
5 AXLE MULTI TRAILER	2.330	2.330	2.330	2.330	2.330	2.330	2.330	2.330	2.330	2.330
6 AXLE MULTI TRAILER	1.276	1.276	1.276	1.276	1.276	1.276	1.276	1.276	1.276	1.276
7 AXLE MULTI TRAILER	1.276	1.276	1.276	1.276	1.276	1.276	1.276	1.276	1.276	1.276

Roadway Management System Factor Table Application Flow Chart

I. MANUAL COUNT (LESS THAN 24 HOURS)

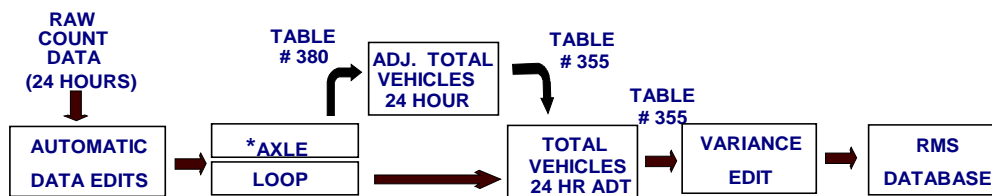


II. AUTOMATIC VEHICLE CLASSIFICATION COUNT



Note: DHV is computed from the raw count data.

III. AXLE AND LOOP VOLUME COUNTS



* Total Vehicles are computed by counting axles (2 axles equals 1 Vehicle)

Acronyms

AADT	Annual Average Daily Traffic
AASHTO	American Association of State Highway & Transportation Officials
ADT	Average Daily Traffic
ADTT	Average Daily Truck Traffic
ATR	Automatic Traffic Recorder
AVC	Automatic Vehicle Classification
BPR	Bureau of Planning and Research
CAVC	Continuous Automatic Vehicle Classification
DHV	Design Hour Volume
DOW	Day of Week
DRJTBC	Delaware River Joint Toll Bridge Commission
DVMT	Daily Vehicle Miles of Travel
ESAL	Equivalent Single Axle Load
FCC	Functional Classification Code
FCG	Functional Classification Group
FHWA	Federal Highway Administration
GIS	Geographic Information System
HPMS	Highway Performance Monitoring System
LTPP	Long Term Pavement Performance
MEPDG	Mechanistic Empirical Design Guide
MFC	Maintenance Functional Classification
MPO	Metropolitan Planning Organization
RPO	Rural Planning Organization
RMS	Roadway Management System
SHRP	Strategic Highway Research Program
SR	State Route
STIP	Short-Term In-Pavement
TDS	Traffic Data System
TMAS	Traffic Monitoring Analysis System
TMG	Traffic Monitoring Guide
TPG	Traffic Pattern Group
WIM	Weigh-in-Motion
VWIM	Virtual Weigh-in-Motion

Index

<p>AADT..... 2, 4, 26, 27, 28, 29, 34, 43, 48, 53, 56</p> <p>ADTT..... 34, 49, 56</p> <p>Automatic Traffic Recorder..... 5, 12, 13, 56</p> <p>Permanent Traffic Recorders 6</p> <p style="padding-left: 20px;">Site Locations..... 8, 9, 10, 11, 13, 14</p> <p style="padding-left: 20px;">Locations by Traffic Pattern Group..... 15, 16, 17</p> <p style="padding-left: 20px;">Five Year AADT Summary..... 26, 27, 28, 29</p> <p style="padding-left: 20px;">Peak Hour 18, 19</p> <p style="padding-left: 20px;">Statewide Traffic Trends 30, 31</p> <p style="padding-left: 20px;">30th Highest Hour 20, 21</p> <p style="padding-left: 20px;">50th Highest Hour 22, 23</p> <p>Axle Counts..... 5</p> <p>Continuous Automatic Vehicle Classification 5, 6, 12, 13, 56</p> <p>Data Collection..... 4, 5</p> <p>Design Hour Volume 24, 25, 34, 56</p> <p>Design Hour Summaries 24, 25</p> <p>Factors 34</p> <p style="padding-left: 20px;">Average Day of Week for Total Vehicles... 43, 44, 45, 46, 47</p> <p style="padding-left: 20px;">Average Day of Week for Truck Traffic 49</p> <p style="padding-left: 20px;">Axle Correction..... 34, 52</p> <p style="padding-left: 20px;">County Functional Class Groups..... 51</p> <p style="padding-left: 20px;">Factor Table Application Flowchart..... 55</p> <p style="padding-left: 20px;">Growth Factor 34, 50</p> <p style="padding-left: 20px;">Hourly Percentages for Total Vehicles 35, 36, 37, 38, 39, 42</p> <p style="padding-left: 20px;">Hourly Percentages for Truck Traffic..... 40, 41, 42</p> <p>ESAL..... 34, 54, 56</p> <p style="padding-left: 20px;">Rigid..... 34, 54</p> <p style="padding-left: 20px;">Flexible..... 34, 54</p> <p style="padding-left: 20px;">K-Factor 34, 53</p>	<p>Monthly Variation 48</p> <p>Yearly Growth 50</p> <p>Functional Class Groups 51, 56</p> <p>Heaviest Holiday Period 32, 33</p> <p>Inductive Loops 5</p> <p>LTPP 12, 56</p> <p>Manual Counts 5</p> <p>Pneumatic Tubes 5</p> <p>Toll Receipts 5</p> <p>Traffic Pattern Group..... 7, 15, 56</p> <p>Weigh-In-Motion 5, 6, 12, 14, 56</p>
---	--