

# TFMS - Segment Forecast Report

Username	Email	Script Import Date	Script Version	Model Version
hailey.robey	hailey.robey@dot.ohio.gov	4/14/2020 5:30:19 PM	2020.001	2023.1900

## Forecast Summary

Project ID	Project Name	Opening Year	Design Year
121294	DEF SR 15 12.02	2028	2048

**Project Description**

Construction of a roundabout at the intersection of SR 15 and SR 18.

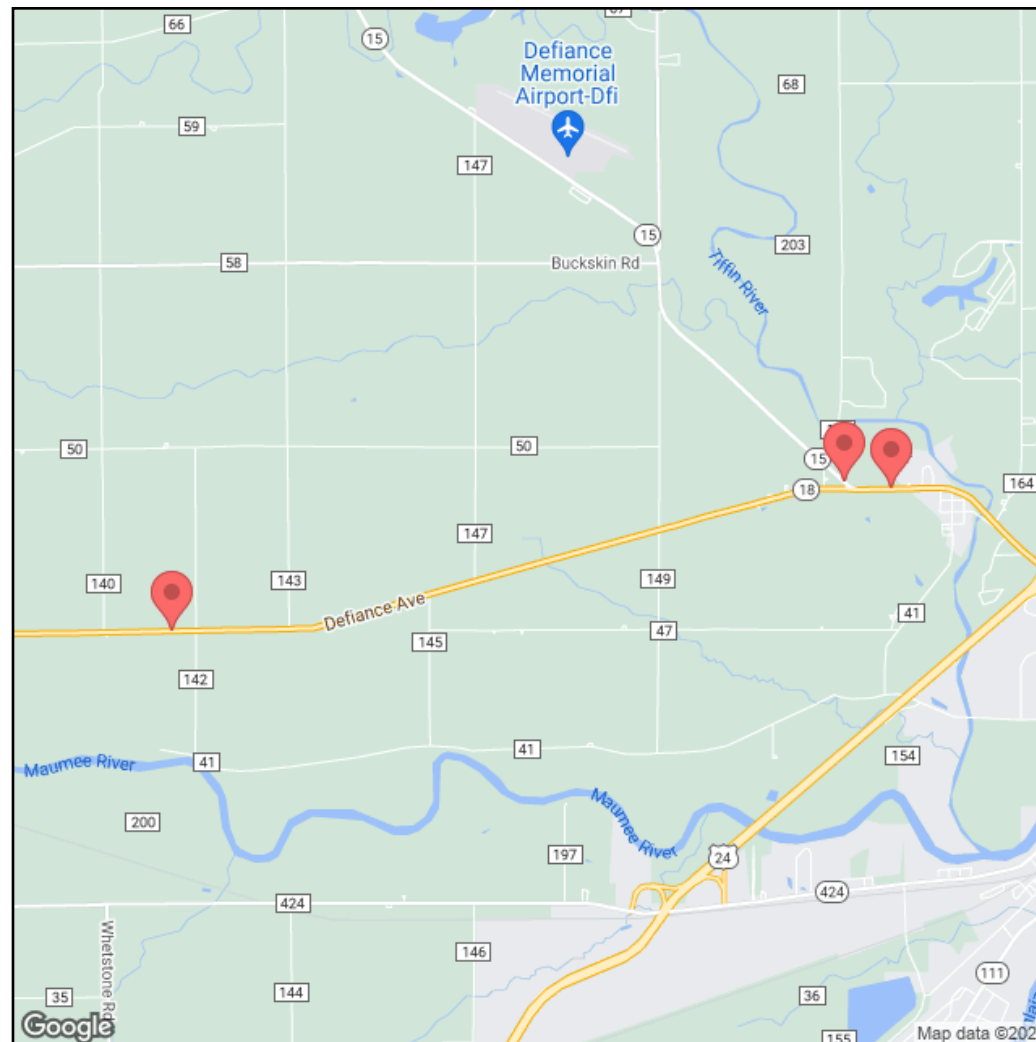
\*Users of this data need to be aware that there are limitations to the forecasts generated by this product that make it suitable only for roadway design projects which are low risk.

## Segment Information

Segment ID	LRS ID	BMP	EMP	Length	Latitude	Longitude
1832996	SDEFSR00015**C	11.976	12.044	0.068	-84.3988632571185	41.3088282371928
1832997	SDEFSR00015**C	12.044	12.521	0.477	-84.3938776366168	41.3083148017162
1833059	SDEFSR00018**C	14.625	22.303	7.678	-84.470031801995	41.2969798666695

## Forecast Information

Segment ID	2028 AADT	2048 AADT	DHV-30	K%	D%	T24%	TD%
1832996	9,300	10,000	1,200	12.4	53.1	8	4
1832997	9,200	9,900	1,200	12.4	53.1	8	4
1833059	2,300	2,400	350	15.5	56.0	9	5



**Definitions:**

- o AADT – Annual Average Daily Traffic
- o DHV30 – Design Hour Volume for 30th highest hour of the year
- o  $DHV30 = K * AADT$
- o K % – Design Hour Factor
- o D % – Peak Direction Factor
- o T24 % – Percent Daily Trucks
- o TD % – Percent Design Hour Trucks

Forecast Segment ID	Route	BMP	EMP
1832996	SDEF SR00015**C	11.976	12.044

## Forecast

Year	K%	T24 % (Existing)	PA AADT	PA Method	PA Growth Rate %	PA Calculated Rate %
2050	◆ 12.4	5	9,300	Average	0.300	0.300
AADT	D%	TD % (Existing)	BC AADT	BC Method	BC Growth Rate %	BC Calculated Rate %
10,070	◆ 53.1	3	770	Model	2.300	2.300

◆ K/D factors from TCDS were used.

## Regression

Method Number	PA AADT	BC AADT	AADT
2	9,591	740	10,331

95% Confidence Min/Max

PA Min	PA Max	BC Min	BC Max	Year
3464	20407	-180	2196	2050

Method Number	PA Growth %	BC Growth %	PA Drop Count	BC Drop Count	PA AADT	BC AADT	PA Adjustment	PA Adjustment
1	0.58	2.45	0	0	10,367	849	9,981	791
2	0.42	2.06	3	3	10,043	806	9,591	740
3	1.02	3.68	0	0	11,559	1,029	11,043	952
4	1.02	3.68	4	4	11,402	1,004	11,044	952
5	1.04	3.36	0	0	11,626	983	11,104	910
6	1.40	4.33	4	4	12,385	1,096	11,954	1,037

## Adjustment Info

ID	Adjustment Methods Name	Model vs Count AADT	Adjusted AADT	Model vs Count BC	Adjusted BC	PA Growth Rate %	BC Growth Rate %
1	DIF	1,957	9,614	181	725	0.12	1.95
2	RAT	1.28	9,766	1.63	885	0.12	3.17
3	MRAT	1.08	9,755	1.89	810	0.15	2.60
4	RAF		9,684		767	0.14	2.27

Adjust Method AADT	Adjust Method BC	Selected PA Growth Rate %	Selected BC Growth Rate %
Average	Average	0.100	2.300

### Method 1 - 4 Volume

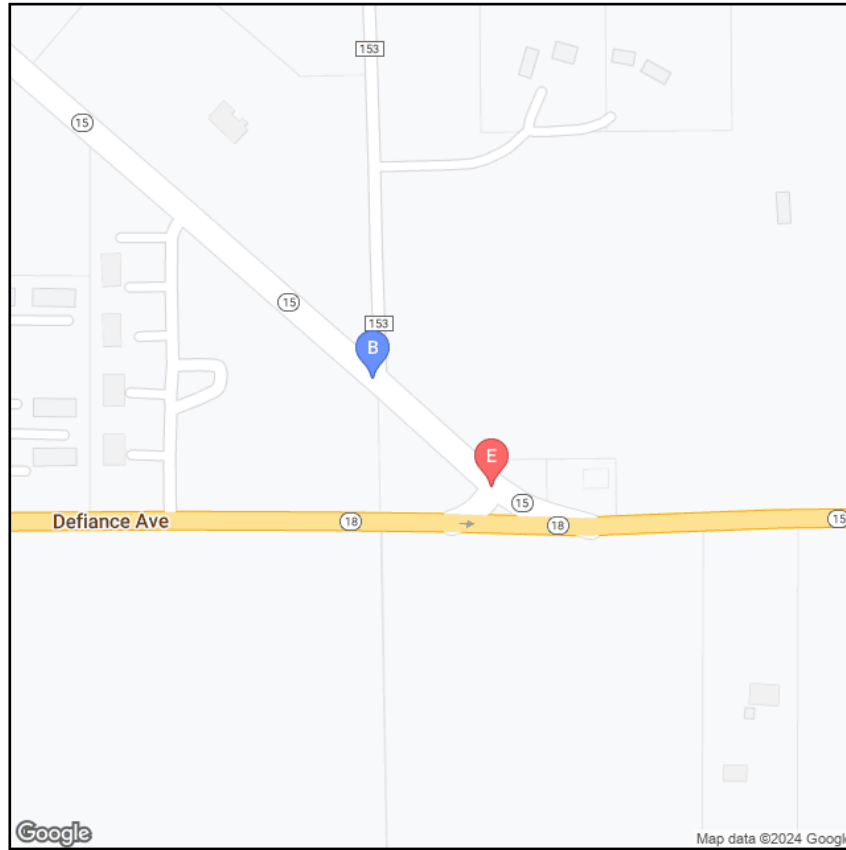
PA Min Volume	PA Max Volume	BC Min Volume	BC Max Volume	Total Min Volume	Total MaxVolume
8881	8945	725	885	9606	9830

Process Flag:	Adjusted model to counts with process per ODOT 255 spreadsheet
Comment:	No Comment

## Historical Count

Year	All	Cars	Trucks
2009	9,270	8,820	450
2010	8,400	8,070	330
2013	8,043	7,727	316
2016	9,756	9,213	542
2019	9,866	9,310	556
* 2022	9,061	8,592	469

\* Pivot Point



Segment ID	LRS ID	BMP	EMP	Length	Yr 2028 AADT	Yr 2048 AADT	DHV30	K %	D %	T24 %	TD %
1832996	SDEFSR00015**C	11.976	12.044	0.068	9,300	10,000	1200	12.4	53.1	8	4

Forecast Segment ID	Route	BMP	EMP
1832997	SDEF SR00015**C	12.044	12.521

## Forecast

Year	K%	T24 % (Existing)	PA AADT	PA Method	PA Growth Rate %	PA Calculated Rate %
2050	◆ 12.4	5	9,100	Average	0.200	0.200
AADT	D%	TD % (Existing)	BC AADT	BC Method	BC Growth Rate %	BC Calculated Rate %
9,910	◆ 53.1	3	810	Model	2.600	2.600

◆ K/D factors from TCDS were used.

## Regression

Method Number	PA AADT	BC AADT	AADT
2	9,591	740	10,331

95% Confidence Min/Max

PA Min	PA Max	BC Min	BC Max	Year
3464	20407	-180	2196	2050

Method Number	PA Growth %	BC Growth %	PA Drop Count	BC Drop Count	PA AADT	BC AADT	PA Adjustment	PA Adjustment
1	0.58	2.45	0	0	10,367	849	9,981	791
2	0.42	2.06	3	3	10,043	806	9,591	740
3	1.02	3.68	0	0	11,559	1,029	11,043	952
4	1.02	3.68	4	4	11,402	1,004	11,044	952
5	1.04	3.36	0	0	11,626	983	11,104	910
6	1.40	4.33	4	4	12,385	1,096	11,954	1,037

## Adjustment Info

ID	Adjustment Methods Name	Model vs Count AADT	Adjusted AADT	Model vs Count BC	Adjusted BC	PA Growth Rate %	BC Growth Rate %
1	DIF	-702	9,459	62	791	0.03	2.45
2	RAT	0.93	9,430	1.15	840	0.00	2.83
3	MRAT	1.04	9,431	1.79	818	0.01	2.66
4	RAF		9,445		805	0.02	2.56

Adjust Method AADT	Adjust Method BC	Selected PA Growth Rate %	Selected BC Growth Rate %
Average	Average	0.000	2.600

### Method 1 - 4 Volume

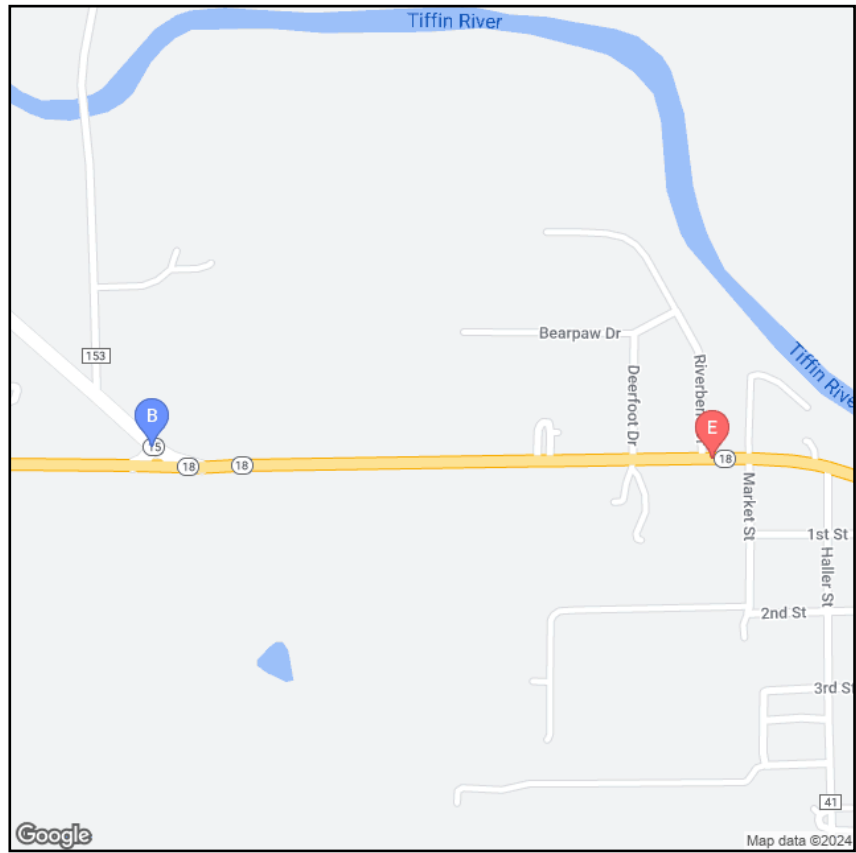
PA Min Volume	PA Max Volume	BC Min Volume	BC Max Volume	Total Min Volume	Total MaxVolume
8590	8668	791	840	9381	9508

Process Flag:	Adjusted model to counts with process per ODOT 255 spreadsheet
Comment:	No Comment

## Historical Count

Year	All	Cars	Trucks
2009	9,270	8,820	450
2010	8,400	8,070	330
2013	8,043	7,727	316
2016	9,756	9,213	542
2019	9,866	9,310	556
* 2022	9,061	8,592	469

\* Pivot Point



Segment ID	LRS ID	BMP	EMP	Length	Yr 2028 AADT	Yr 2048 AADT	DHV30	K %	D %	T24 %	TD %
1832997	SDEFSR00015**C	12.044	12.521	0.477	9,200	9,900	1200	12.4	53.1	8	4



Forecast Segment ID	Route	BMP	EMP
1833059	SDEFSR00018**C	14.625	22.303

## Forecast

Year	K%	T24 % (Existing)	PA AADT	PA Method	PA Growth Rate %	PA Calculated Rate %
2050	◆ 15.5	7	2,100	Average	● -0.300	0.000
AADT	D%	TD % (Existing)	BC AADT	BC Method	BC Growth Rate %	BC Calculated Rate %
2,330	◆ 56.0	4	230	Model	1.700	1.700

● Warning: The growth rate was negative and was capped.

◆ K/D factors from TCDS were used.

## Regression

Method Number	PA AADT	BC AADT	AADT
2	1,955	284	2,239

95% Confidence Min/Max

PA Min	PA Max	BC Min	BC Max	Year
-519	3977	-756	595	2050

Method Number	PA Growth %	BC Growth %	PA Drop Count	BC Drop Count	PA AADT	BC AADT	PA Adjustment	PA Adjustment
1	-0.16	-2.60	0	0	2,194	108	2,036	42
2	-0.30	3.01	4	6	2,038	421	1,955	284
3	0.01	-3.18	0	0	2,306	80	2,136	17
4	0.01	4.01	4	6	2,237	467	2,136	327
5	-0.78	-5.87	0	0	1,789	-49	1,669	-99
6	-0.27	-7.79	4	5	2,060	-167	1,972	-182

## Adjustment Info

ID	Adjustment Methods Name	Model vs Count AADT	Adjusted AADT	Model vs Count BC	Adjusted BC	PA Growth Rate %	BC Growth Rate %
1	DIF	-585	2,159	35	220	-0.32	1.53
2	RAT	0.80	2,185	1.30	240	-0.31	1.99
3	MRAT	0.96	2,185	1.56	233	-0.30	1.83
4	RAF		2,172		227	-0.31	1.69

Adjust Method AADT	Adjust Method BC	Selected PA Growth Rate %	Selected BC Growth Rate %
Ratio	Average	-0.300	1.700

### Method 1 - 4 Volume

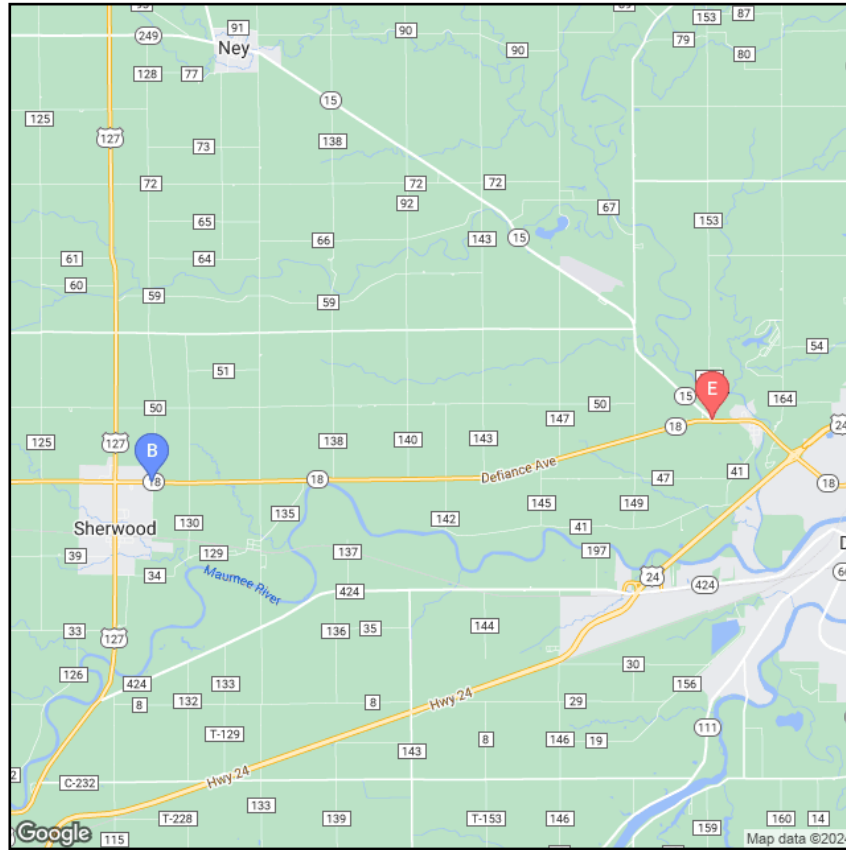
PA Min Volume	PA Max Volume	BC Min Volume	BC Max Volume	Total Min Volume	Total MaxVolume
1939	1958	220	240	2159	2198

Process Flag:	Adjusted model to counts with process per ODOT 255 spreadsheet
Comment:	No Comment

## Historical Count

Year	All	Cars	Trucks
2009	2,640	2,380	260
2010	2,450	2,200	250
2013	2,474	2,227	247
2016	2,865	2,579	286
2019	2,661	2,368	293
* 2022	2,286	2,132	154

\* Pivot Point



Segment ID	LRS ID	BMP	EMP	Length	Yr 2028 AADT	Yr 2048 AADT	DHV30	K %	D %	T24 %	TD %
1833059	SDEFSR00018**C	14.625	22.303	7.678	2,300	2,400	350	15.5	56.0	9	5