

5.0 Scenario Development and Analysis

Community development changes can have significant transportation impacts. To evaluate land use development options for the study area, scenarios were tested to determine the varied impacts on the roadway network. This scenario testing allows decision makers to understand and anticipate the impacts of prospective developments.

The following describes the rationale behind each of the scenarios and their impacts to the roadway network. The scenarios are not proposals, alternatives, recommendations, or options but tests of the types and patterns of land uses that could occur, and the impact they would have on the local transportation network.

5.1 Planning Scenarios

Land use changes were formulated to analyze various potential development patterns/scenarios and their transportation impacts. Three scenarios were defined and incorporated into the travel demand model to determine the effects on traffic in the study area:

- *Scenario A* – Base Case Scenario (no build)
- *Scenario B* – Zoning (full) build-out
- *Scenario C* – Public Preferred.

Each scenario is feasible based on the available land and historical development patterns. Similar areas in the state with interstate and land access also validate the scenario feasibility. Total development under each scenario would require approximately 20 to 30 years. Therefore, the travel demand model was used to simulate the traffic demand on the existing roadway for the years 2020 and 2030.

For the traffic analysis, the reader should note that projected change in traffic volume is a function of the specific land use scenarios. Land use characteristics serve as “inputs” into the travel demand model. Each land use is assigned a trip generation rate which is the number of trips a particular land use produces and attracts per one specific unit of measure. For example, for every single family dwelling unit, there is an average of 9.57 trips generated per day. These rates are established by the Institute of Transportation Engineers (ITE) (shown in the appendix) and were used to develop trip tables for each of three scenarios which represent the changes in land use and the corresponding changes in traffic generation.

The scenarios and resulting traffic changes were applied to the Erie County Travel Demand Model to estimate their impacts. All scenarios are assumed to occur over time to the year 2030, the assumed period for development to occur.

The information for each scenario is presented in terms of traffic volumes, volume to capacity (V/C) ratios, and Level of Service (LOS).

- Traffic Volumes – The number of vehicles for any given time period. These are shown in this analysis for 24 hours, AM Peak, and PM Peak.
- Volume to Capacity (V/C) ratios – A quantitative measure of congestion during peak periods, V/C ratios show the number of vehicles relative to a roadway’s designed capacity.

- Level of Service (LOS) – A qualitative measure of congestion derived from V/C ratios and expressed as “A” through “F”. An LOS A represents a free flow of traffic where an LOS F denotes significant congestion and reduced speeds (over a roadway’s designed capacity).

The scenarios are described and compared in the following sub-sections.

5.1.1 Scenario A - Base Case Scenario (no build)

Commercial development has flourished over the past 20 years in the corridor because of interstate access and available land. These attributes have put increasing pressure on the local transportation infrastructure and the large parcels retailers seek for siting facilities. This trend could continue if land owners seek to sell their properties to these developers and commercially-based businesses continue to find it feasible to expand or relocate to the US 19 corridor. The attractiveness of the corridor to commercial businesses is based on its accessibility to the land requirements, labor pool and interstate access it needs to operate profitably.

With this possibility, the study team developed the first land use scenario to determine the impacts this type of development would have on the local transportation system. Figure 12 and the accompanying bullet points provide more details on a comparison of existing conditions versus the 2030 base model year.

Figure 13: Base Versus 2030 Model Year

Location	% Change in Daily Traffic		AM Level of Service				PM Level of Service			
	SB/EB	NB/WB	Existing		2030		Existing		2030	
			SB/EB	NB/WB	SB/EB	NB/WB	SB/EB	NB/WB	SB/EB	NB/WB
US 19 South of I-90	19.6%	25.8%	A	B	B	C	B	A	C	B
US 19 North of Townhall Rd.	52.2%	37.3%	B	A	B	C	A	A	C	B
US 19 North of Elk Creek	55.2%	48.2%	A	A	B	C	A	A	C	B
US 19 South of Moore	58.6%	54.1%	A	A	B	B	A	A	B	B
US 19 North of Talcott	60.8%	58.5%	A	A	B	C	A	A	B	B
US 19 North of Rt. 97 Merge	63.9%	61.9%	A	A	B	B	A	A	B	B
US 19/PA 97 South of 19/97 Merge	57.6%	53.5%	B	E	E	F	B	C	E	F
Moore between US 19 and Rt. 97	11.2%	5.8%	A	A	A	A	A	A	A	A
Townhall between Old French and Rt. 97	4.6%	5.6%	A	A	A	A	A	A	A	A
Robinson between Parson and Old French	28.2%	128.6%	A	A	A	A	A	A	A	A
Rt. 97 South of I-90	46.5%	43.8%	A	A	A	A	A	A	A	A
Rt. 97 North of Townhall Rd.	64.5%	51.4%	A	A	A	A	A	A	A	A
Rt. 97 North of Elk Creek	64.9%	62.4%	A	A	A	A	A	A	A	A
Rt. 97 North of Talcott	72.3%	57.8%	A	A	A	A	A	A	A	A
Rt. 97 North of US 19 Merge	67.7%	53.7%	A	A	A	A	A	A	A	A
US 19/PA 97 North of US 19/PA 97 Split	49.0%	58.3%	C	D	F	F	A	B	E	F
US 19 South of US 19/PA 97 Split	37.0%	38.2%	A	A	A	A	A	A	A	A
PA 97 South of US 19/PA 97 Split	66.5%	59.6%	A	A	C	C	A	A	B	B

- The corridor is expected to operate at unacceptable levels of service in 2030 during the AM and PM peak at both of US 19’s intersections with PA 97.
- The greatest rate of change is expected to occur on Robison Road, between Parson and Old French Road (129 percent). In spite of the increase, the roadway is still anticipated to operate at acceptable levels of service in 2030 (A) during both the AM and PM peaks.



Intersection of Robison and Old French Roads, looking east

5.1.2 Scenario B – Zoning (full) Build-Out

The Zoning Build-out Scenario generates traffic from the development of parcels based on their current zoning. This build-out of residential, commercial, and industrial development was tested to determine how the area would function if the allotted development occurs by the year 2030. A summary of the traffic at key locations is shown in Figure 14 below.

Figure 14: 2030 Traffic - Zoning Build Out

Location	24 Hour Vol		AM Peak Vol		AM Peak V/C Ratios		PM Peak Vol		PM Peak V/C Ratios	
	SB/EB	NB/WB	SB/EB	NB/WB	SB/EB	NB/WB	SB/EB	NB/WB	SB/EB	NB/WB
1 US 19 South of I-90	14,772	14,223	991	1,061	0.79	0.85	1,149	1,053	0.92	0.84
2 US 19 North of Townhall Rd.	11,032	9,996	763	819	0.69	0.74	895	723	0.81	0.66
3 US 19 North of Elk Creek	10,097	9,611	712	814	0.65	0.74	825	703	0.75	0.64
4 US 19 South of Moore	9,416	9,089	695	763	0.63	0.69	771	680	0.70	0.62
5 US 19 North of Talcott	8,980	8,715	698	711	0.70	0.71	719	664	0.72	0.66
6 US 19 North of Rt. 97 Merge	8,349	8,158	677	661	0.68	0.66	658	628	0.66	0.63
7 US 19/PA 97 South of 19/97 Merge	12,213	12,276	925	935	0.93	1.17	913	949	0.91	1.19
8 Moore between US 19 and Rt. 97	259	171	11	13	0.01	0.03	24	13	0.03	0.03
9 Townhall between Old French and Rt. 97	288	336	13	32	0.03	0.03	32	22	0.06	0.02
0 Robinson between Parson and Old French	3,205	4,040	206	359	0.21	0.36	299	283	0.30	0.28
1 Rt. 97 South of I-90	10,143	9,086	655	718	0.66	0.72	770	648	0.77	0.65
2 Rt. 97 North of Townhall Rd.	6,437	6,318	451	548	0.45	0.55	575	492	0.58	0.49
3 Rt. 97 North of Elk Creek	5,608	5,379	415	497	0.38	0.45	505	422	0.46	0.38
4 Rt. 97 North of Talcott	5,503	5,436	419	538	0.38	0.49	491	416	0.45	0.38
5 Rt. 97 North of US 19 Merge	5,615	5,594	446	514	0.45	0.51	481	443	0.48	0.44
6 US 19/PA 97 North of US 19/PA 97 Split	13,399	12,912	1,032	1,023	1.03	1.02	1,067	976	1.07	0.98
7 US 19 South of US 19/PA 97 Split	4,566	4,350	343	356	0.31	0.32	384	335	0.35	0.30
8 PA 97 South of US 19/PA 97 Split	9,056	8,785	708	687	0.71	0.69	703	662	0.70	0.66

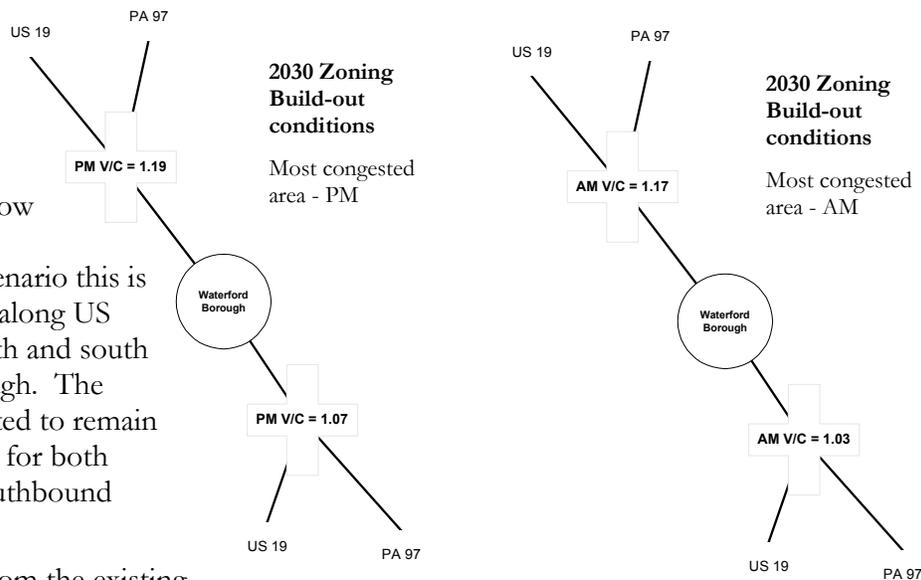
The zoning build-out scenario generates more traffic than would be expected under the 2030 base assumptions. Build-out of the areas close to the I-90 interchange would have a greater impact on US 19 during both AM and PM peak periods bringing the segments to more congested levels just south of the interchange. The most severe congestion is expected to remain at either end of Waterford Borough on US 19/PA 97. Figure 15 shows expected

changes in daily traffic volumes against the 2030 Zoning full build out. Segments experiencing unacceptable levels of service are highlighted in color.

Figure 15: Existing vs. 2030 Zoning Build Out

ID	Location	% Change in Daily Traffic		AM Level of Service				PM Level of Service			
		SB/EB	NB/WB	Existing		Zoning Buildout		Existing		Zoning Buildout	
				SB/EB	NB/WB	SB/EB	NB/WB	SB/EB	NB/WB	SB/EB	NB/WB
1	US 19 South of I-90	61.1%	57.8%	A	B	C	D	B	A	E	D
2	US 19 North of Townhall Rd.	72.2%	50.7%	B	A	B	C	A	A	D	B
3	US 19 North of Elk Creek	72.5%	61.4%	A	A	B	C	A	A	C	B
4	US 19 South of Moore	73.4%	66.2%	A	A	B	B	A	A	C	B
5	US 19 North of Talcott	75.7%	70.6%	A	A	B	C	A	A	C	B
6	US 19 North of Rt. 97 Merge	74.1%	70.4%	A	A	B	B	A	A	B	B
7	US 19/PA 97 South of 19/97 Merge	62.6%	65.4%	B	E	E	F	B	C	E	F
8	Moore between US 19 and Rt. 97	60.9%	10.3%	A	A	A	A	A	A	A	A
9	Townhall between Old French and Rt. 97	33.3%	133.3%	A	A	A	A	A	A	A	A
10	Robinson between Parson and Old French	117.0%	223.5%	A	A	A	A	A	A	A	A
11	Rt. 97 South of I-90	120.2%	122.5%	A	A	B	C	A	A	C	B
12	Rt. 97 North of Townhall Rd.	100.3%	90.8%	A	A	A	A	A	A	A	A
13	Rt. 97 North of Elk Creek	86.4%	88.5%	A	A	A	A	A	A	A	A
14	Rt. 97 North of Talcott	94.2%	82.4%	A	A	A	A	A	A	A	A
15	Rt. 97 North of US 19 Merge	90.3%	80.5%	A	A	A	A	A	A	A	A
16	US 19/PA 97 North of US 19/PA 97 Split	63.7%	60.6%	C	D	F	F	A	B	F	E
17	US 19 South of US 19/PA 97 Split	60.5%	62.6%	A	A	A	A	A	A	A	A
18	PA 97 South of US 19/PA 97 Split	67.6%	62.0%	A	A	C	B	A	A	C	B

Currently there is minor congestion on the network but all roadway segments analyzed remain below capacity. Under the zoning build-out scenario this is expected to change along US 19/PA 97 both north and south of Waterford Borough. The congestion is expected to remain during peak periods for both northbound and southbound movements.



A notable change from the existing condition is the level of service decrease on US 19 just south of the I-90 interchange. Under the existing and base 2030 analysis this segment of roadway is forecast to remain relatively uncongested. If the area develops within its existing building envelope, the area around the interchange is expected to be more congested but within the capacity of the roadways.

The zoning build-out will also increase traffic volumes along secondary roads. Townhall Road traffic would be expected to more than double if this scenario were to become reality. Traffic volumes would still remain minimal and would not pose congestion problems. Robison Road would be expected to triple, but would likewise not result in significant capacity issues.

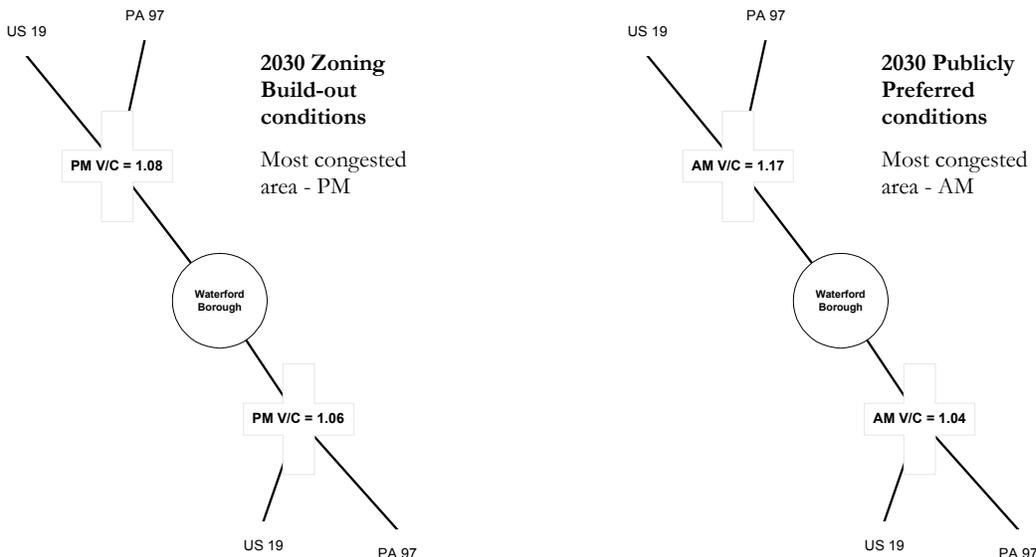
5.1.3 Scenario C – Public Preferred

The publicly preferred scenario was generated as a result of comments received at public meetings, as well as from study steering committee members. The study team asked the public to provide comments about how they would wish to see the study area develop through the year 2030. Comments collected were then transferred into development and tested within the Erie County Travel Demand Model to estimate potential traffic impacts. A summary of traffic volumes at key locations is shown in Figure 16, below.

Figure 16: 2030 Traffic - Publicly Preferred Scenario

ID	Location	24 Hour Vol		AM Peak Vol		AM Peak V/C Ratios		PM Peak Vol		PM Peak V/C Ratios	
		SB/EB	NB/WB	SB/EB	NB/WB	SB/EB	NB/WB	SB/EB	NB/WB	SB/EB	NB/WB
1	US 19 South of I-90	14,310	13,452	974	1,018	0.78	0.81	1,190	997	0.95	0.80
2	US 19 North of Townhall Rd.	11,261	9,926	791	842	0.72	0.77	993	738	0.90	0.67
3	US 19 North of Elk Creek	10,261	9,487	740	852	0.67	0.77	917	715	0.83	0.65
4	US 19 South of Moore	9,543	9,031	716	817	0.65	0.74	850	690	0.77	0.63
5	US 19 North of Talcott	8,999	8,556	715	752	0.72	0.75	783	669	0.78	0.67
6	US 19 North of Rt. 97 Merge	8,350	7,978	695	695	0.70	0.70	712	632	0.71	0.63
7	US 19/PA 97 South of 19/97 Merge	11,978	11,744	908	938	0.91	1.17	937	866	0.94	1.08
8	Moore between US 19 and Rt. 97	265	187	11	14	0.01	0.03	27	13	0.03	0.03
9	Townhall between Old French and Rt. 97	282	290	12	26	0.02	0.02	30	20	0.06	0.02
10	Robinson between Parson and Old French	2,682	3,457	181	296	0.18	0.30	229	254	0.23	0.25
11	Rt. 97 South of I-90	9,501	8,583	603	701	0.60	0.70	729	597	0.73	0.60
12	Rt. 97 North of Townhall Rd.	6,010	6,031	431	536	0.43	0.54	514	458	0.51	0.46
13	Rt. 97 North of Elk Creek	5,223	5,290	485	404	0.44	0.37	397	454	0.36	0.41
14	Rt. 97 North of Talcott	5,170	5,226	404	504	0.37	0.46	438	394	0.40	0.36
15	Rt. 97 North of US 19 Merge	5,239	5,312	426	479	0.43	0.48	431	411	0.43	0.41
16	US 19/PA 97 North of US 19/PA 97 Split	13,364	12,878	1,037	1,017	1.04	1.02	1,063	982	1.06	0.98
17	US 19 South of US 19/PA 97 Split	4,552	4,355	345	359	0.31	0.33	385	338	0.35	0.31
18	PA 97 South of US 19/PA 97 Split	9,059	8,770	712	677	0.71	0.68	699	665	0.70	0.67

The publicly preferred scenario should produce more traffic than the 2030 base assumption much like that of the zoning build-out scenario. This traffic increase is also expected to be centered around the I-90 interchange during both AM and PM peak periods. The most severe congestion is expected to remain at either end of Waterford Borough on US 19/PA 97.



In this localized area AM conditions are expected to remain consistent with those of the zoning build-out scenario however PM conditions are slightly less congested though remain over capacity.

Figure 17: Existing vs. 2030 Publicly Preferred

ID	Location	% Change in Daily Traffic		AM Level of Service				PM Level of Service			
				Existing		Pub. Pref		Existing		Pub. Pref	
				SB/EB	NB/WB	SB/EB	NB/WB	SB/EB	NB/WB	SB/EB	NB/WB
1	US 19 South of I-90	56.0%	49.2%	A	B	C	D	B	A	E	C
2	US 19 North of Townhall Rd.	75.8%	49.6%	B	A	C	C	A	A	E	B
3	US 19 North of Elk Creek	75.3%	59.3%	A	A	B	C	A	A	D	B
4	US 19 South of Moore	75.8%	65.1%	A	A	B	C	A	A	C	B
5	US 19 North of Talcott	76.1%	67.5%	A	A	C	C	A	A	C	B
6	US 19 North of Rt. 97 Merge	74.1%	66.7%	A	A	B	B	A	A	C	B
7	US 19/PA 97 South of 19/97 Merge	59.5%	58.3%	B	E	E	F	B	C	E	F
8	Moore between US 19 and Rt. 97	64.6%	20.6%	A	A	A	A	A	A	A	A
9	Townhall between Old French and Rt. 97	30.6%	101.4%	A	A	A	A	A	A	A	A
10	Robinson between Parson and Old French	81.6%	176.8%	A	A	A	A	A	A	A	A
11	Rt. 97 South of I-90	106.3%	110.2%	A	A	B	C	A	A	C	A
12	Rt. 97 North of Townhall Rd.	87.0%	82.1%	A	A	A	A	A	A	A	A
13	Rt. 97 North of Elk Creek	73.6%	85.4%	A	A	A	A	A	A	A	A
14	Rt. 97 North of Talcott	82.5%	75.3%	A	A	A	A	A	A	A	A
15	Rt. 97 North of US 19 Merge	77.6%	71.4%	A	A	A	A	A	A	A	A
16	US 19/PA 97 North of US 19/PA 97 Split	63.3%	60.2%	C	D	F	F	A	B	F	E
17	US 19 South of US 19/PA 97 Split	60.1%	62.7%	A	A	A	A	A	A	A	A
18	PA 97 South of US 19/PA 97 Split	67.7%	61.7%	A	A	C	B	A	A	B	B

Currently there is minor congestion on the network but all roadway segments analyzed remain below capacity. Under the publicly preferred scenario (just as the zoning build-out) this is expected to change along US 19/PA 97 both north and south of Waterford Borough. The congestion is expected to remain during peak periods for both northbound and southbound movements.

A notable change from the existing condition is the level of service decrease on US 19 just south of the I-90 interchange. Under the existing and base 2030 analysis this segment of roadway is forecast to remain relatively uncongested. If the area develops as the public would desire, the area around the interchange is expected to be more congested but within the capacity of the roadway network. The extent of which would be more severe with US 19 becoming more congested to the north of the corridor and less congested toward the south.

As with the zoning build-out scenario there will also increase traffic volumes along secondary roads. Townhall Road and Robison Road traffic would be expected increase significantly however not to the extent of the zoning build-out. Both roadways are expected to result in acceptable levels of service.

5.2 Traffic Summary

Figure 18 and the corresponding text below summarize the analysis of the different scenarios including the existing conditions and the 2030 base condition.

Figure 18: Scenario Traffic Comparison

Location	2002 Model		2030 Base Case Scenario			Zoning Buildout Scenario			Publicly Preferred Scenario		
	Volume	Peak LOS	Volume	02 to 30 Change	30 Peak LOS	Volume	02 to 30 Change	30 Peak LOS	Volume	02 to 30 Change	30 Peak LOS
1 US 19 South of I-90	18,186	B	22,310	22.68%	C	28,995	59.44%	E	27,762	52.66%	E
2 US 19 North of Townhall Rd.	13,040	B	18,862	44.65%	C	21,028	61.26%	D	21,187	62.48%	E
3 US 19 North of Elk Creek	11,810	A	17,917	51.71%	C	19,708	66.88%	C	19,748	67.21%	D
4 US 19 South of Moore	10,898	A	17,036	56.32%	B	18,505	69.80%	C	18,574	70.43%	C
5 US 19 North of Talcott	10,219	A	16,316	59.66%	C	17,695	73.16%	C	17,555	71.79%	C
6 US 19 North of Rt. 97 Merge	9,582	A	15,611	62.92%	B	16,507	72.27%	B	16,328	70.40%	C
7 US 19/PA 97 South of 19/97 Merge	14,932	E	23,226	55.55%	F	24,488	64.00%	F	23,722	58.87%	F
8 Moore between US 19 and Rt. 97	316	A	343	8.54%	A	430	36.08%	A	452	43.04%	A
9 Townhall between Old French and Rt. 97	360	A	378	5.00%	A	624	73.33%	A	572	58.89%	A
0 Robison between Parson and Old French	2,726	A	4,748	74.17%	A	7,245	165.77%	A	6,139	125.20%	A
1 Rt. 97 South of I-90	8,689	A	12,619	45.23%	A	19,229	121.30%	C	18,084	108.13%	C
2 Rt. 97 North of Townhall Rd.	6,526	A	10,304	57.89%	A	12,755	95.45%	A	12,041	84.51%	A
3 Rt. 97 North of Elk Creek	5,862	A	9,595	63.68%	A	10,987	87.43%	A	10,513	79.34%	A
4 Rt. 97 North of Talcott	5,814	A	9,586	64.88%	A	10,939	88.15%	A	10,396	78.81%	A
5 Rt. 97 North of US 19 Merge	6,050	A	9,712	60.53%	A	11,209	85.27%	A	10,551	74.40%	A
6 US 19/PA 97 North of US 19/PA 97 Split	16,222	D	24,921	53.62%	F	26,311	62.19%	F	26,242	61.77%	F
7 US 19 South of US 19/PA 97 Split	5,520	A	7,595	37.59%	A	8,916	61.52%	A	8,907	61.36%	A
8 PA 97 South of US 19/PA 97 Split	10,826	A	17,649	63.02%	C	17,841	64.80%	C	17,829	64.69%	C
Overall Increase from 2002				49.31%			78.23%			71.89%	

Currently, traffic volumes in the study area do not pose significant problems on the study area roadways. However, there are significant roadway impacts for each scenario tested not only in the area infrastructure’s physical ability to accommodate such traffic, but community impacts as well.

- Traffic volumes at the north and south ends of Waterford Borough are expected to exceed available capacity regardless of scenario.
- The highest traffic volumes are expected along US 19 at the I-90 interchange for all scenarios. As a result of public preferences to concentrate development in this area, this scenario results in the highest amount of traffic at this location. However, regardless of which scenario is chosen the roadway is expected to remain below capacity.
- The highest percent increases are expected to occur on Robison Road between Parsons Road and Old French Road. Although traffic is forecasted to increase from between 74 percent to 166 percent (depending on scenario), the roadway is expected to function well in its current configuration.
- The most significant increases in traffic occur on US 19/PA 97 as a result of land use reflected in each scenario. In each scenario, traffic increases from a low of 54 percent in the Base Scenario to a high of 62 percent in the Zoning Build-out Scenario. The roadway is currently functioning at or near capacity. Regardless of future development pattern, projected population and employment will result in higher traffic volumes through Waterford Borough, resulting in congestion during peak periods.

Table 17 below summarizes the land use and subsequent traffic changes for each scenario.

Table 17: Scenario Definitions

Scenario	Land Use Changes	Traffic Changes*
<p>2030 Base Case Scenario</p>	<ul style="list-style-type: none"> • Population and employment increases within its historic patterns. • No changes in the current zoning or functioning of the study area land uses. • Population and employment projections are a result of the Erie County Travel Demand Model Update of 2002. • Includes projects included in the 2003 Transportation Improvement Program. 	<ul style="list-style-type: none"> • Increased volumes (approx. 60 percent) on US 19 north of Waterford Borough and the US 19/PA 97 intersection. • Substantially increased volumes on Robison Road between Parsons Road and Old French Road (74 percent) as a result of increased population. • Relatively constant traffic growth along PA 97 and US 19. • Except for the sections of US 19/PA 97 to the north and south of Waterford Borough, the highway system is expected to operate below capacity within the study area.
<p>2030 Base Case Scenario Summary: This scenario yielded the best performing transportation system of the three scenarios. The land-use development is less intensive and centers on the existing major traffic routes and interchanges. <i>This scenario yielded the best level of service on all 14 segments in comparison to the other scenarios.</i></p>		
<p>Zoning Build-out Scenario</p>	<ul style="list-style-type: none"> • Increased commercial retail along US 19 from I-90 to Waterford Borough. • Increased commercial retail along PA 97 from I-90 to Waterford Township. • Increased retail concentration in Summit Township in the area of US 19 and I-90 interchange. • Residential development in Summit and Waterford Townships and Waterford Borough. 	<ul style="list-style-type: none"> • Increased volumes on US 19 from I-90 to Waterford Borough as a result of increased commercial development. The bulk of this traffic is concentrated close to the interstate. • Increased volumes on Townhall and Robison Roads as a result of the allotted build-out of currently zoned agricultural land. • Congestion on US 19/PA 97 to the north and south of Waterford Borough fractionally worse than the Base Scenario is expected.
<p>Zoning Build-out Scenario Summary: With this scenario, traffic volumes increase more dramatically than in the Base Scenario due to more intensive land use (the higher density residential, commercial, and industrial development) throughout the study area. The scenario is the most land intensive of the three tested. <i>This scenario generated fourteen of the poorest producing segments analyzed.</i></p>		

* ID refers to the corresponding segment on the scenario analysis tables.

Scenario	Land Use Changes	Traffic Changes*
<p>Publicly Preferred Scenario</p>	<ul style="list-style-type: none"> • Increased commercial development along US 19 and PA 97 but with reduced densities than is allowed by zoning. • Maintains the focus of commercial development near the US 19 and I-90 interchange in Summit Township. 	<ul style="list-style-type: none"> • Growth in traffic is more concentrated at the US 19/I-90 interchange with US 19 expected to operate at capacity by the year 2030. • Increased volumes on US 19 from I-90 to Waterford Borough as a result of increased commercial development however less than the zoning build-out. • Increased volumes on Townhall and Robison Roads as a result of the allotted build-out of currently zoned agricultural land. • Congestion on US 19/PA 97 to the north and south of Waterford Borough should continue to be expected, although not as severe.
<p>Publicly Preferred Scenario Summary: This scenario was derived from input received at the study's two open houses. The goals were to maintain the area's rural character, improve safety, and reduce congestion compared to the Zoning Build-out Scenario. This scenario is therefore based on the zoning build-out with more development in Summit Township at the I-90 interchange and less intensive growth along US 19 and PA 97. <i>This scenario generated four of the poorest producing segments analyzed.</i></p>		