Kimley»Horn

May 13, 2021

Mr Jason Brenner
Assistant Engineer
New York State Department of Transportation
4 Burnett Boulevard,
Poughkeepsie, NY 12603

Re: SEQR 20-174
Sinclair Gas Station
US Route 6 Town of Cortlandt

Dear Mr. Brenner:

Below is the additional information you requested in your December 7, 2020 Email.

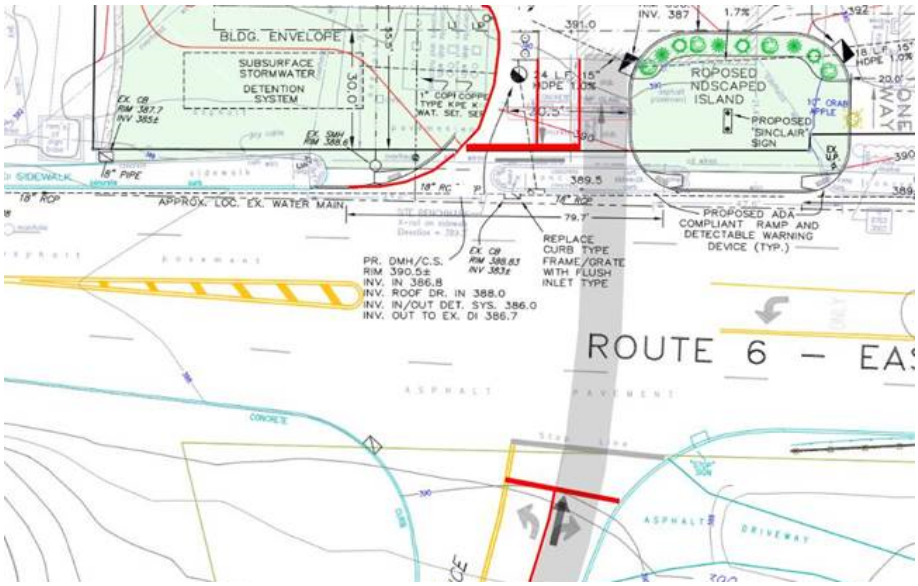
1. The Signal Timing for the Route 6 and Bear Mountain parkway does not Match:

   Response: We were specifically instructed to mirror the traffic signal timing from the Gasland Traffic Study on the other side of the Parkway (AKRF Memo 10/2/20 Comment #9), there is not a great difference between the two (see attached), and the future timing is somewhat speculative as there are changes that will be made to the signal at the west side of the Parkway which, presumably, will result in an adjustment of the signal timing to accommodate prevailing traffic volumes when that project is complete.

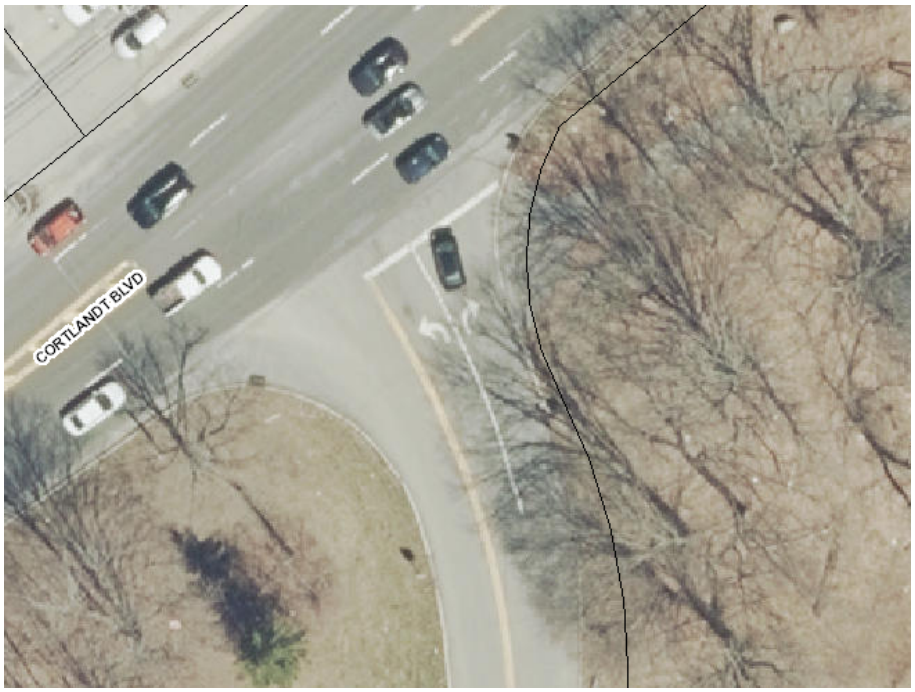
2. Is it possible to put in a through lane from the off ramp and can there be a left turn lane on northeast Route 6:

   Response: The proposed through/right-turn lane could be aligned more directly with the Site entrance driveway (see below). However, the Town's tax maps indicate there is not enough ROW available to widen the off ramp to provide a separate right-turn lane and a separate through lane (also shown below), and there are projected to be a maximum of only 25 through trips, which is not a sufficient number to justify the additional expense of widening the roadway to provide separate through and right-turn lanes.

Alignment of Through/right-turn Lane Opposite Site Driveway

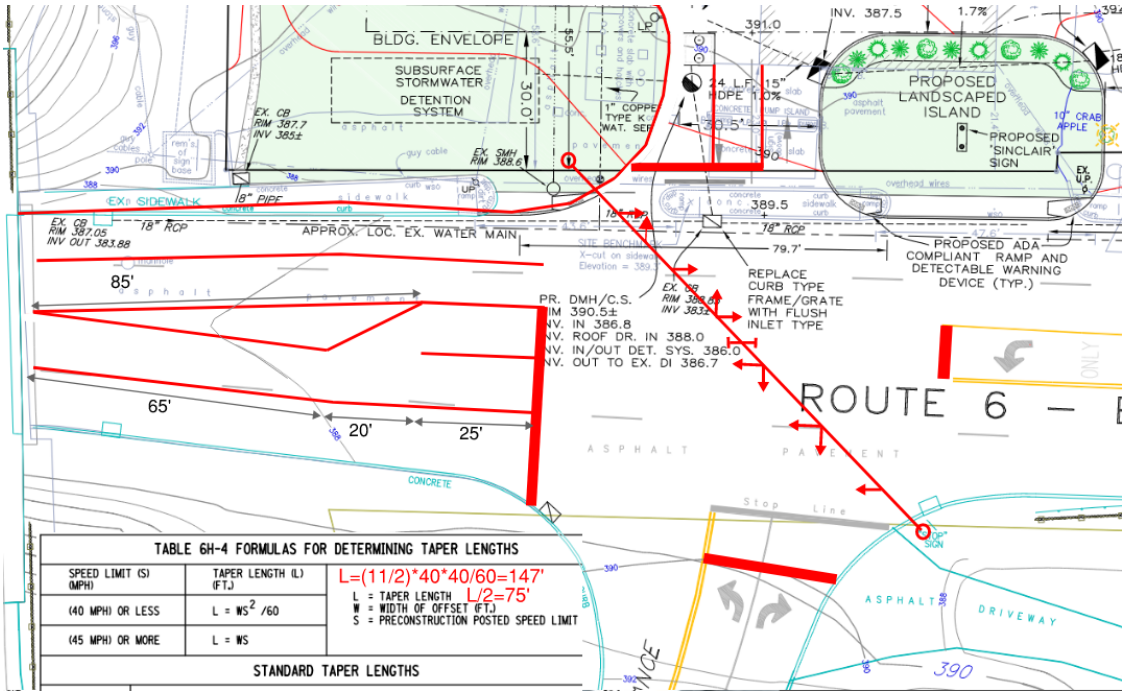


Town Tax Map Showing Property Line Next to Existing Right-turn Lane



Regarding adding a left-turn lane on eastbound Route 6, there is an insufficient distance between the existing westbound Parkway off Ramp and the Bear Mountain Parkway overpass to construct a left-turn lane that would comply with the minimum NYSDOT standards (see below).

Concept of Sub-standard Left-turn Lane Design (lane length and taper too short)



While it would be desirable to provide an eastbound left-turn lane, for signalized intersections, the AASHTO Policy on Geometric Design of Highways and Streets recommends (on page 9-109) that "left-turn lanes should be considered where left-turn volumes exceed 100 veh/h". The maximum projected left-turn volume on the eastbound left-turn movement is just 65 veh/h.

3. This traffic signal must be coordinated with the other signals on Route 6 with adaptive timing.

   Response: Comment noted and agreed.

4. How was it determined what amount of traffic was going to diverted to the new signal from Locust and Conklin Ave? Please show existing traffic on Locust drive to determine what percent take lefts at the Route 6 intersection.

   Response: Travel time surveys were conducted using Googlemaps to compare travel times on other routes during off-peak-hours. Where travel times are equal or almost equal, on multiple routes between the same two points, it stands to reason that traffic volumes on each route would be divided roughly equally. Three routes of equal travel time were identified between 3303 Crompond Road and 1700 US Route 6 (Dayton Lane, Conklin Avenue and the westbound Bear Mountain parkway off-ramp, if a signal were installed). Two routes of equal travel time were identified between 3303 Crompond Road and 3100 Main Street (westbound Bear Mountain parkway off-ramp, if a signal were installed, and Locust Avenue). The travel time comparisons are attached herewith.

The projected 2021 peak-hour turning volumes (assuming a return to near normal conditions by the end of the year) at the intersections of these four roadways with US Route 6 are provided below.

2021 Projected traffic Volumes[1]

	Dayton Lane			Conklin Avenue			WB Bear Mt Parkway		Locust Avenue		
Peak Hour	Left	Through	Right	Left	Through	Right	Left	Right	Left	Through	Right
AM	**95**	**6**	**NA**	**15**	**6**	**226**	**24**	**35**	**50**	**50**	**110**
PM	**327**	**1**	**NA**	**24**	**10**	**283**	**33**	**44**	**50**	**84**	**84**
Sat	**211**	**3.5**	**NA**	**20**	**8**	**255**	**44**	**72**	**58**	**74**	**151**

1. Dayton Lane and Conclin Avenue from Chapter 11 of the Medical Oriented District (DGEIS) and MOD Development Plan (DEIS)
WB Bear Mountain parkway Exit Ramps from Gasland Traffic Impacy Study
Locust Avenue from Cortlandt Crossing 2013 Existing Volumes increased by 4%
Sat Dayton and Conklin Volumes are the Average of the AM and PM

If a signal were installed at the westbound Bear Mountain Parkway exit ramp to US 6, and capacity increased/delays reduced, it is projected that 66 vehicles would divert to the ramp in the AM peak hour, 84 in the PM peak hour and also 84 on Saturdays (a reduction from the 110, 61 and 77 previously projected in the October 20, 2020 traffic study).

The new peak-hour diversion values generally represent 15% or fewer of all potential left-turners and 9% or fewer of all potential right-turners off the ramp. When added to the existing ramp volumes, the combined traffic volumes at the Route 6 westbound exit ramp will constitute approximately 27% or fewer of all potential left-turners and 22% or fewer of all potential right-turners off the ramp.

The analysis, which is summarized in the Table below, suggests that the average of 30 vehicles per lane on the westbound exit ramp without a signal in 2021 would approximately double to an average of 63 vehicles per lane in the AM peak hour. In the PM peak hour, the analysis projects that the installation of a signal would double the 40 vehicle-per lane average to 80, while on Saturdays, it would increase the average of 58 vehicles per lane by 73% to an average of 100 vehicles per lane.

Projected Peak-hour Traffic volumes on the WB Bear Mt. Parkway Exit Ramp at Route 6, with and without a Traffic Signal

	WB Bear Mt Parkway Exit at Route 6			
	w/o Signal		With Signal	
Peak Hour	Left	Right	Left	Right
AM	**24**	**35**	**53**	**72**
PM	**33**	**44**	**71**	**90**
Sat	**44**	**72**	**79**	**121**

The signal warrants were reevaluated based on these new trip diversions and are attached. During the critical daytime hours (between 7 a.m. and 7 p.m.) the new warrant volumes were determined to be very similar to the old volumes on weekdays (generally averaging 1% lower

on Route 6 and 3% lower on the minor street) and Warrants 1, 2 and 3 were all satisfied. During the critical daytime hours (between 7 a.m. and 7 p.m.) the new warrant volumes were determined to be significantly different from the old volumes (generally averaging 24% lower on Route 6 and 69% higher on the minor street) and Warrants 1, 2 and 3 were all satisfied. The revised Warrant Analyses are attached.

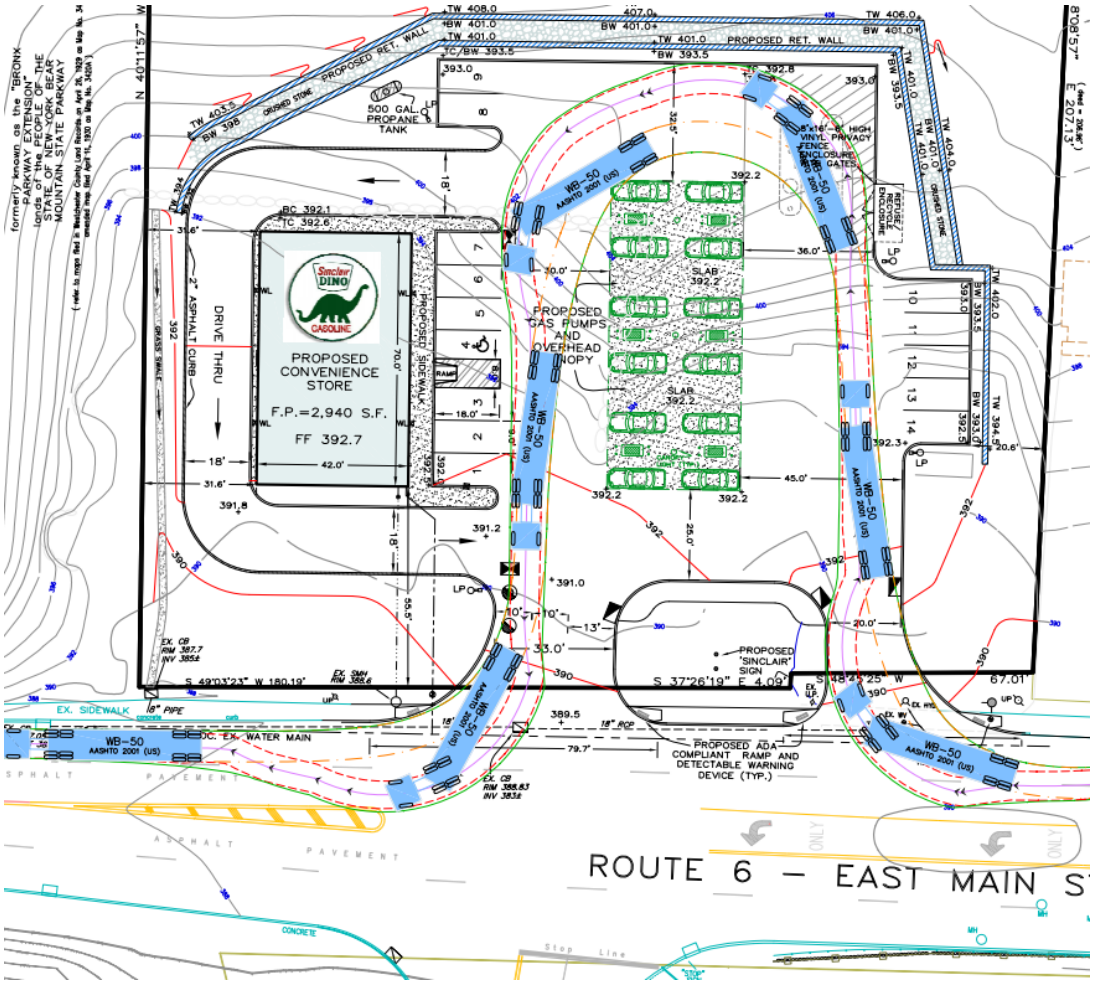
US Route 6 & BMP WB Ramp/Palisades Site Drwy
Signal Warrant Summary - 2022 Build Conditions
</= 40 mph

	Warrant No. 1		Warrant No. 2	Warrant No. 3
	Condition A	Condition B	Four-Hour Warrant	Peak-Hour Warrant
	Number of Hours Met			
Weekday	0	13	12	2
Saturday	0	11	11	9

5. What is the reason for the second driveway? If it is for truck turning, mountable curbing for the driveway to make turns will be allowed.

Response: the second right-turn in-only driveway, is needed to allow trucks to make deliveries (see below) and to provide additional capacity for the eastbound left-turn movement by removing opposing right-turn entering movements from the main driveway.

Fuel Delivery Vehicle Circulation Plan



6. Show how much added delay the new signal will have along the Route 6 roadway

   Response: As can be seen from the Table below, the analysis (which has been revised to reflect the reduced diversions, described above, and which is appended hereto) indicates that the new traffic signal is projected to increase the average delay by 3.5 seconds in the AM peak hour, 11.5 seconds in the PM peak hour and 12 seconds in the Saturday Peak hour.

Projected Increase in Delay to US Route 6 in the Future Build Condition

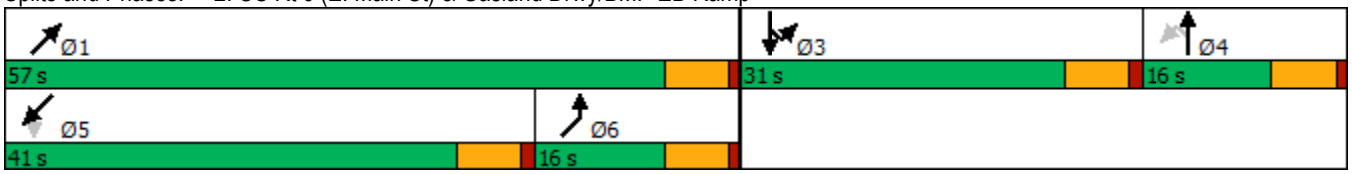
		Without Signal Seconds/Vehicle	With Signal Seconds/Vehicle	Delay Increase Seconds/Vehicle
AM	EB	8	13	5
	WB	11	13	2
PM	EB	11	30	19
	WB	15	19	4
SAT	EB	11	30	19
	WB	17	22	5

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	1	0	1	304	2	86	28	522	1	1	523	147
Future Volume (vph)	1	0	1	304	2	86	28	522	1	1	523	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	11	11	12	10	11	11
Grade (%)		0%			-6%			1%			0%	
Storage Length (ft)	0		0	135		0	45		0	0		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			86			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95
Frt		0.932			0.853						0.967	
Flt Protected		0.976		0.950			0.950					
Satd. Flow (prot)	0	1694	0	1745	1582	0	1669	3276	0	0	3238	0
Flt Permitted				0.950			0.950				0.954	
Satd. Flow (perm)	0	1736	0	1745	1582	0	1669	3276	0	0	3089	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		157			96						37	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		170			339			421			434	
Travel Time (s)		3.9			7.7			7.2			7.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	4%	6%	2%	2%	4%	5%
Adj. Flow (vph)	1	0	1	338	2	96	31	580	1	1	581	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2	0	338	98	0	31	581	0	0	745	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	0.96	1.05	1.05	1.01	1.09	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Turn Type	Perm	NA		Split	NA		custom	NA		Perm	NA	
Protected Phases		4		3	3		6	1			5	
Permitted Phases	4						6			5		
Detector Phase	4	4		3	3		6	1		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0		32.0	32.0	
Total Split (s)	16.0	16.0		31.0	31.0		16.0	57.0		41.0	41.0	
Total Split (%)	15.4%	15.4%		29.8%	29.8%		15.4%	54.8%		39.4%	39.4%	
Maximum Green (s)	10.0	10.0		25.0	25.0		10.0	51.0		35.0	35.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)		6.0		6.0	6.0		6.0	6.0			6.0	
Lead/Lag	Lag	Lag		Lead	Lead		Lag			Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		Min	Min	
Walk Time (s)										8.0	8.0	
Flash Dont Walk (s)										18.0	18.0	
Pedestrian Calls (#/hr)										5	5	
Act Effct Green (s)		5.9		18.1	18.1		6.8	24.5			20.7	
Actuated g/C Ratio		0.10		0.31	0.31		0.12	0.42			0.36	
v/c Ratio		0.01		0.62	0.17		0.16	0.42			0.66	
Control Delay		0.0		27.2	7.1		35.3	12.5			20.1	
Queue Delay		0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay		0.0		27.2	7.1		35.3	12.5			20.1	
LOS		A		C	A		D	B			C	
Approach Delay					22.6			13.6			20.1	
Approach LOS					C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 104			
Actuated Cycle Length: 58			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 18.5		Intersection LOS: B	
Intersection Capacity Utilization 56.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: US Rt 6 (E. Main St) & Gasland Drwy/BMP EB Ramp

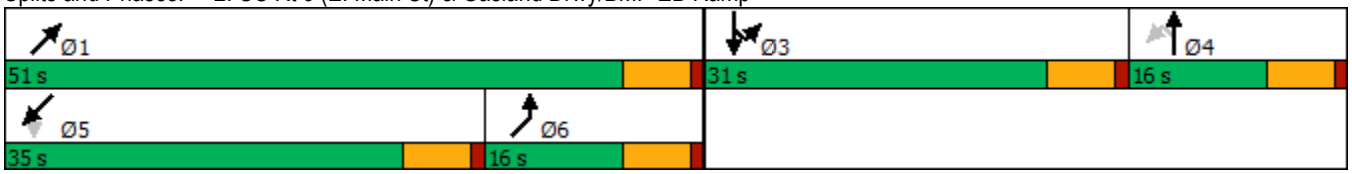


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	1	0	1	304	2	86	28	522	1	1	523	147
Future Volume (vph)	1	0	1	304	2	86	28	522	1	1	523	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	11	11	12	10	11	11
Grade (%)		0%			-6%			1%			0%	
Storage Length (ft)	0		0	135		0	45		0	0		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			86			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95
Frt		0.932			0.853						0.967	
Flt Protected		0.976		0.950			0.950					
Satd. Flow (prot)	0	1694	0	1745	1582	0	1669	3276	0	0	3238	0
Flt Permitted				0.950			0.950				0.954	
Satd. Flow (perm)	0	1736	0	1745	1582	0	1669	3276	0	0	3089	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		167			96						37	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		170			339			421			434	
Travel Time (s)		3.9			7.7			7.2			7.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	4%	6%	2%	2%	4%	5%
Adj. Flow (vph)	1	0	1	338	2	96	31	580	1	1	581	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2	0	338	98	0	31	581	0	0	745	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	0.96	1.05	1.05	1.01	1.09	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Turn Type	Perm	NA		Split	NA		custom	NA		Perm	NA	
Protected Phases		4		3	3		6	1			5	
Permitted Phases	4						6			5		
Detector Phase	4	4		3	3		6	1		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0		32.0	32.0	
Total Split (s)	16.0	16.0		31.0	31.0		16.0	51.0		35.0	35.0	
Total Split (%)	16.3%	16.3%		31.6%	31.6%		16.3%	52.0%		35.7%	35.7%	
Maximum Green (s)	10.0	10.0		25.0	25.0		10.0	45.0		29.0	29.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)		6.0		6.0	6.0		6.0	6.0			6.0	
Lead/Lag	Lag	Lag		Lead	Lead		Lag			Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		Min	Min	
Walk Time (s)										8.0	8.0	
Flash Dont Walk (s)										18.0	18.0	
Pedestrian Calls (#/hr)										5	5	
Act Effct Green (s)		5.8		17.5	17.5		6.7	23.5			19.7	
Actuated g/C Ratio		0.10		0.31	0.31		0.12	0.42			0.35	
v/c Ratio		0.01		0.62	0.18		0.16	0.43			0.67	
Control Delay		0.0		26.2	6.8		33.9	12.6			20.6	
Queue Delay		0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay		0.0		26.2	6.8		33.9	12.6			20.6	
LOS		A		C	A		C	B			C	
Approach Delay					21.8			13.7			20.6	
Approach LOS					C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 98			
Actuated Cycle Length: 56.3			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 18.5		Intersection LOS: B	
Intersection Capacity Utilization 56.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: US Rt 6 (E. Main St) & Gasland Drwy/BMP EB Ramp



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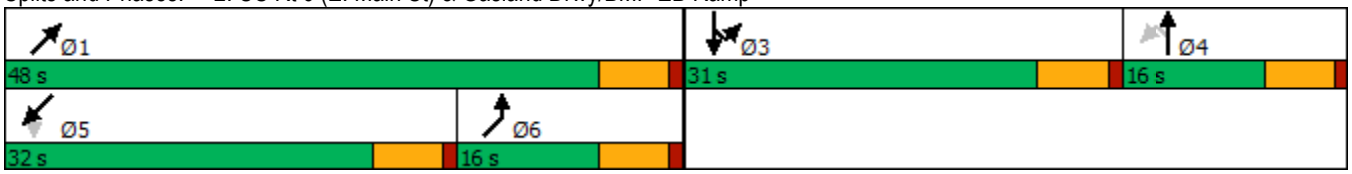
Traffic Volume (vph)	1	0	1	304	2	86	28	522	1	1	523	147
Future Volume (vph)	1	0	1	304	2	86	28	522	1	1	523	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	11	11	12	10	11	11
Grade (%)		0%			-6%			1%			0%	
Storage Length (ft)	0		0	135		0	45		0	0		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			86			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95
Frt		0.932			0.853						0.967	
Flt Protected		0.976		0.950			0.950					
Satd. Flow (prot)	0	1694	0	1745	1582	0	1669	3276	0	0	3238	0
Flt Permitted				0.950			0.950				0.954	
Satd. Flow (perm)	0	1736	0	1745	1582	0	1669	3276	0	0	3089	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		172			96						37	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		170			339			421			434	
Travel Time (s)		3.9			7.7			7.2			7.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	4%	6%	2%	2%	4%	5%
Adj. Flow (vph)	1	0	1	338	2	96	31	580	1	1	581	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2	0	338	98	0	31	581	0	0	745	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	0.96	1.05	1.05	1.01	1.09	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Turn Type	Perm	NA		Split	NA		custom	NA		Perm	NA	
Protected Phases		4		3	3		6	1			5	
Permitted Phases	4						6			5		
Detector Phase	4	4		3	3		6	1		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0		32.0	32.0	
Total Split (s)	16.0	16.0		31.0	31.0		16.0	48.0		32.0	32.0	
Total Split (%)	16.8%	16.8%		32.6%	32.6%		16.8%	50.5%		33.7%	33.7%	
Maximum Green (s)	10.0	10.0		25.0	25.0		10.0	42.0		26.0	26.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)		6.0		6.0	6.0		6.0	6.0			6.0	
Lead/Lag	Lag	Lag		Lead	Lead		Lag			Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		Min	Min	
Walk Time (s)										8.0	8.0	
Flash Dont Walk (s)										18.0	18.0	
Pedestrian Calls (#/hr)										5	5	
Act Effct Green (s)		5.8		17.0	17.0		6.6	23.5			19.7	
Actuated g/C Ratio		0.10		0.31	0.31		0.12	0.42			0.35	
v/c Ratio		0.01		0.63	0.18		0.16	0.42			0.67	
Control Delay		0.0		26.2	6.6		33.2	12.5			20.6	
Queue Delay		0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay		0.0		26.2	6.6		33.2	12.5			20.6	
LOS		A		C	A		C	B			C	
Approach Delay					21.8			13.5			20.6	
Approach LOS					C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 55.7			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 18.4		Intersection LOS: B	
Intersection Capacity Utilization 56.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: US Rt 6 (E. Main St) & Gasland Drwy/BMP EB Ramp

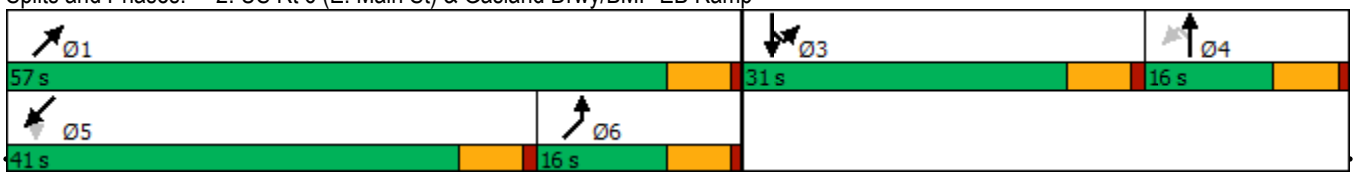


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	1	0	5	406	0	47	31	829	0	2	709	153
Future Volume (vph)	1	0	5	406	0	47	31	829	0	2	709	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	11	11	12	10	11	11
Grade (%)		0%			-6%			1%			0%	
Storage Length (ft)	0		0	135		0	45		0	50		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			86			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor							1.00				1.00	
Frt		0.887			0.850						0.973	
Flt Protected		0.992		0.950			0.950					
Satd. Flow (prot)	0	1639	0	1762	1576	0	1686	3404	0	0	3314	0
Flt Permitted				0.950			0.950				0.953	
Satd. Flow (perm)	0	1652	0	1762	1576	0	1683	3404	0	0	3158	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		157			429						26	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		170			339			421			434	
Travel Time (s)		3.9			7.7			7.2			7.4	
Confl. Peds. (#/hr)							3					3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%
Adj. Flow (vph)	1	0	5	427	0	49	33	873	0	2	746	161
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	6	0	427	49	0	33	873	0	0	909	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	0.96	1.05	1.05	1.01	1.09	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Split	NA		custom	NA		Perm	NA	
Protected Phases		4		3	3		6	1			5	
Permitted Phases	4						6			5		
Detector Phase	4	4		3	3		6	1		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0		32.0	32.0	
Total Split (s)	16.0	16.0		31.0	31.0		16.0	57.0		41.0	41.0	
Total Split (%)	15.4%	15.4%		29.8%	29.8%		15.4%	54.8%		39.4%	39.4%	
Maximum Green (s)	10.0	10.0		25.0	25.0		10.0	51.0		35.0	35.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)		6.0		6.0	6.0		6.0	6.0			6.0	
Lead/Lag	Lag	Lag		Lead	Lead		Lag			Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		Min	Min	
Walk Time (s)										8.0	8.0	
Flash Dont Walk (s)										18.0	18.0	
Pedestrian Calls (#/hr)										5	5	
Act Effct Green (s)		5.3		25.9	25.9		6.4	32.3			25.4	
Actuated g/C Ratio		0.07		0.36	0.36		0.09	0.45			0.35	
v/c Ratio		0.02		0.68	0.06		0.22	0.58			0.81	
Control Delay		0.2		31.6	0.1		40.7	15.9			28.2	
Queue Delay		0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay		0.2		31.6	0.1		40.7	15.9			28.2	
LOS		A		C	A		D	B			C	
Approach Delay		0.2			28.3			16.8			28.2	
Approach LOS		A			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 104			
Actuated Cycle Length: 72.5			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 23.7		Intersection LOS: C	
Intersection Capacity Utilization 65.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: US Rt 6 (E. Main St) & Gasland Drwy/BMP EB Ramp

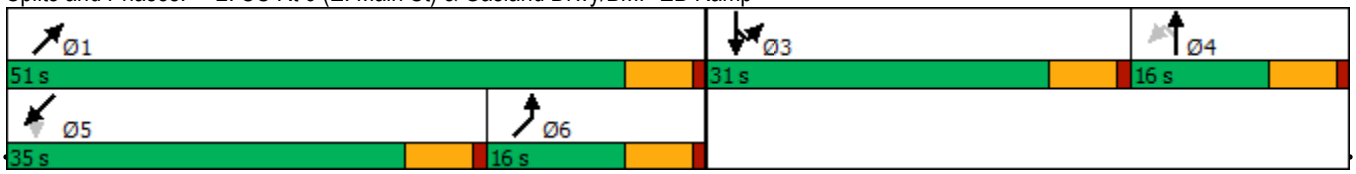


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	1	0	5	406	0	47	31	829	0	2	709	153
Future Volume (vph)	1	0	5	406	0	47	31	829	0	2	709	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	11	11	12	10	11	11
Grade (%)		0%			-6%			1%			0%	
Storage Length (ft)	0		0	135		0	45		0	50		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			86			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor							1.00				1.00	
Frt		0.887			0.850						0.973	
Flt Protected		0.992		0.950			0.950					
Satd. Flow (prot)	0	1639	0	1762	1576	0	1686	3404	0	0	3314	0
Flt Permitted				0.950			0.950				0.953	
Satd. Flow (perm)	0	1652	0	1762	1576	0	1683	3404	0	0	3158	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		167			463						26	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		170			339			421			434	
Travel Time (s)		3.9			7.7			7.2			7.4	
Confl. Peds. (#/hr)							3					3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%
Adj. Flow (vph)	1	0	5	427	0	49	33	873	0	2	746	161
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	6	0	427	49	0	33	873	0	0	909	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	0.96	1.05	1.05	1.01	1.09	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Split	NA		custom	NA		Perm	NA	
Protected Phases		4		3	3		6	1			5	
Permitted Phases	4						6			5		
Detector Phase	4	4		3	3		6	1		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0		32.0	32.0	
Total Split (s)	16.0	16.0		31.0	31.0		16.0	51.0		35.0	35.0	
Total Split (%)	16.3%	16.3%		31.6%	31.6%		16.3%	52.0%		35.7%	35.7%	
Maximum Green (s)	10.0	10.0		25.0	25.0		10.0	45.0		29.0	29.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)		6.0		6.0	6.0		6.0	6.0			6.0	
Lead/Lag	Lag	Lag		Lead	Lead		Lag			Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		Min	Min	
Walk Time (s)										8.0	8.0	
Flash Dont Walk (s)										18.0	18.0	
Pedestrian Calls (#/hr)										5	5	
Act Effct Green (s)		5.3		23.3	23.3		6.3	30.7			26.3	
Actuated g/C Ratio		0.08		0.34	0.34		0.09	0.45			0.39	
v/c Ratio		0.02		0.71	0.06		0.21	0.57			0.74	
Control Delay		0.2		31.1	0.1		37.8	15.6			24.3	
Queue Delay		0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay		0.2		31.1	0.1		37.8	15.6			24.3	
LOS		A		C	A		D	B			C	
Approach Delay		0.2			27.9			16.5			24.3	
Approach LOS		A			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 98			
Actuated Cycle Length: 68.2			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 21.9		Intersection LOS: C	
Intersection Capacity Utilization 65.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: US Rt 6 (E. Main St) & Gasland Drwy/BMP EB Ramp

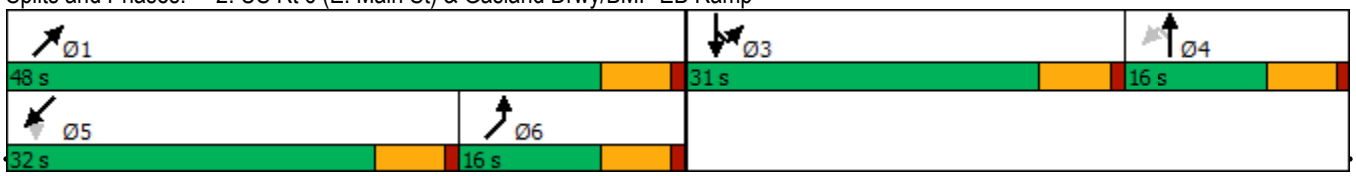


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	1	0	5	406	0	47	31	829	0	2	709	153
Future Volume (vph)	1	0	5	406	0	47	31	829	0	2	709	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	11	11	12	10	11	11
Grade (%)		0%			-6%			1%			0%	
Storage Length (ft)	0		0	135		0	45		0	50		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			86			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor							1.00				1.00	
Frt		0.887			0.850						0.973	
Flt Protected		0.992		0.950			0.950					
Satd. Flow (prot)	0	1639	0	1762	1576	0	1686	3404	0	0	3314	0
Flt Permitted				0.950			0.950				0.953	
Satd. Flow (perm)	0	1652	0	1762	1576	0	1683	3404	0	0	3158	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		172			486						26	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		170			339			421			434	
Travel Time (s)		3.9			7.7			7.2			7.4	
Confl. Peds. (#/hr)							3					3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%
Adj. Flow (vph)	1	0	5	427	0	49	33	873	0	2	746	161
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	6	0	427	49	0	33	873	0	0	909	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	0.96	1.05	1.05	1.01	1.09	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Split	NA		custom	NA		Perm	NA	
Protected Phases		4		3	3		6	1			5	
Permitted Phases	4						6			5		
Detector Phase	4	4		3	3		6	1		5	5	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		11.0	16.0		32.0	32.0	
Total Split (s)	16.0	16.0		31.0	31.0		16.0	48.0		32.0	32.0	
Total Split (%)	16.8%	16.8%		32.6%	32.6%		16.8%	50.5%		33.7%	33.7%	
Maximum Green (s)	10.0	10.0		25.0	25.0		10.0	42.0		26.0	26.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)		6.0		6.0	6.0		6.0	6.0			6.0	
Lead/Lag	Lag	Lag		Lead	Lead		Lag			Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		None	Min		Min	Min	
Walk Time (s)										8.0	8.0	
Flash Dont Walk (s)										18.0	18.0	
Pedestrian Calls (#/hr)										5	5	
Act Effct Green (s)		5.2		22.0	22.0		6.2	31.4			26.9	
Actuated g/C Ratio		0.08		0.33	0.33		0.09	0.47			0.40	
v/c Ratio		0.02		0.74	0.06		0.21	0.55			0.71	
Control Delay		0.2		31.9	0.1		36.5	15.3			24.0	
Queue Delay		0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay		0.2		31.9	0.1		36.5	15.3			24.0	
LOS		A		C	A		D	B			C	
Approach Delay		0.2			28.6			16.1			24.0	
Approach LOS		A			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 67.5			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 21.8		Intersection LOS: C	
Intersection Capacity Utilization 65.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: US Rt 6 (E. Main St) & Gasland Drwy/BMP EB Ramp

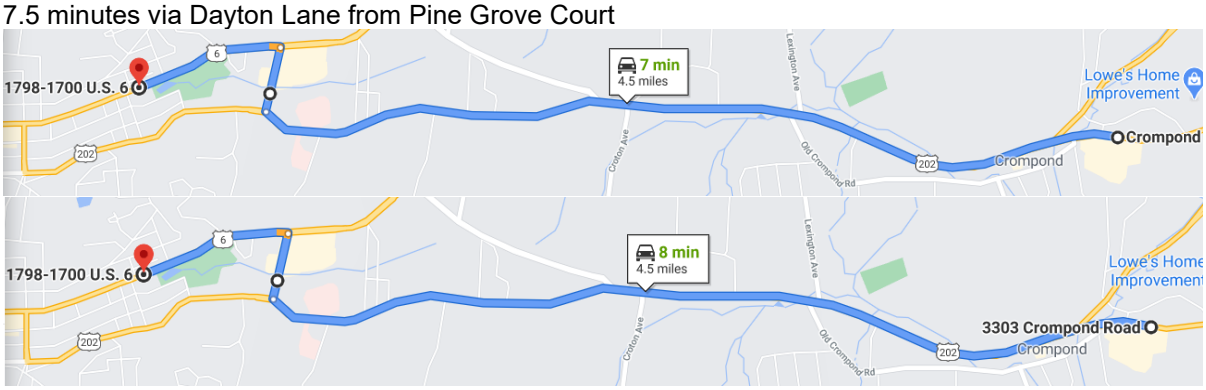


Demonstration of the Similar Travel Times via the Westbound Bear Mountain Parkway Exit to Route 6 when there are no capacity constraints at the intersection (i.e., when traffic volumes are low). Travel times recorded at 9 p.m. on Saturday March 20,2021.

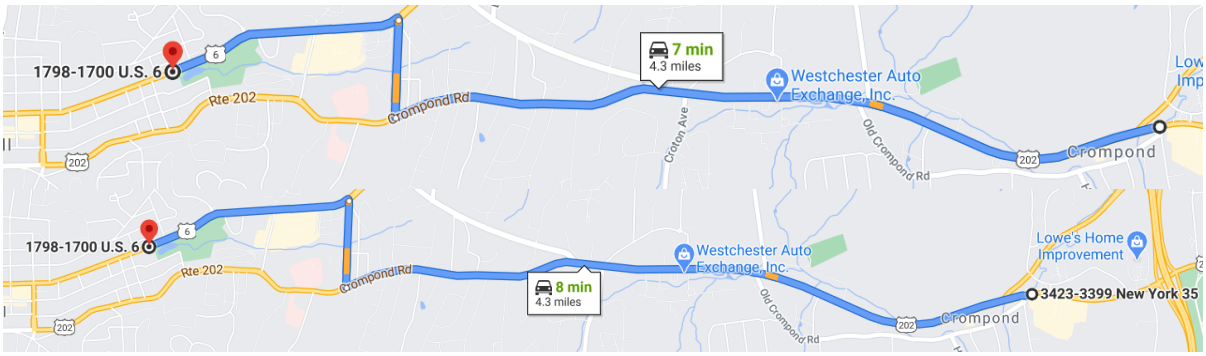
A review of Google Maps indicates that motorists would take either Conklin Avenue or the Bear Mountain parkway from US 202 and points east as far west as Main Street Commons at 1721 Main Street (beyond 1721, they would probably switch to Grant Avenue, which is about half a minute quicker)

A comparison of the travel times via Conklin Avenue or the Bear Mountain Parkway, provided below, indicates that it takes an almost identical time to travel via either Conklin Avenue or the Bear Mountain Parkway (perhaps a few seconds quicker via the Bear Mountain Parkway). Therefore, it is reasonable to assume that approximately half the traffic traveling from the east to US Route 6 beyond Conklin Avenue as far as 1721 Main Street would use the bear Mountain Parkway exit at Route 6 if there were not the inordinate delays at that exit that currently exist at that exit during the peak hours. The comparison further suggests that the vast majority of motorists traveling from the east to US Route 6 between Conklin Avenue and the Bear Mountain Parkway would use the bear Mountain Parkway exit at Route 6 if there were not inordinate peak-hour delays.

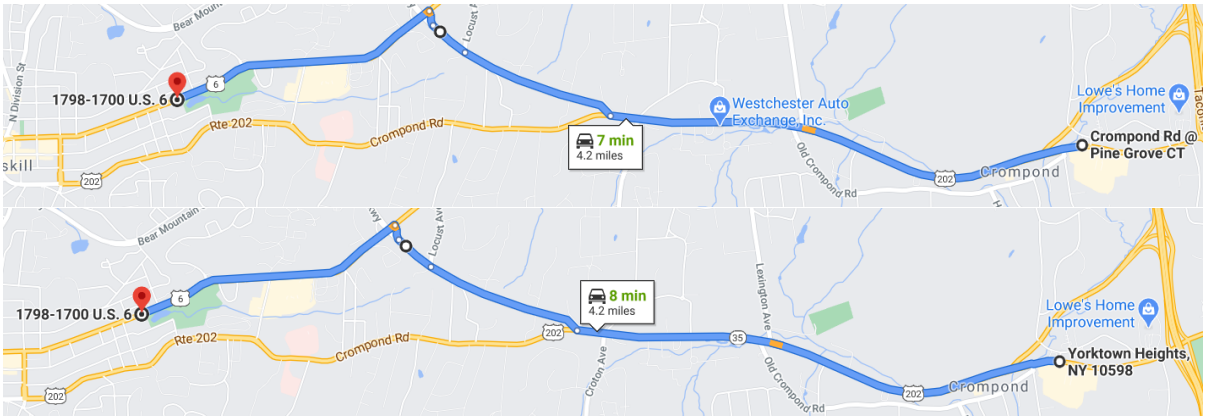
7.5 minutes via Dayton Lane from Pine Grove Court



7.5 minutes via Conklin Avenue from Pine Grove Court



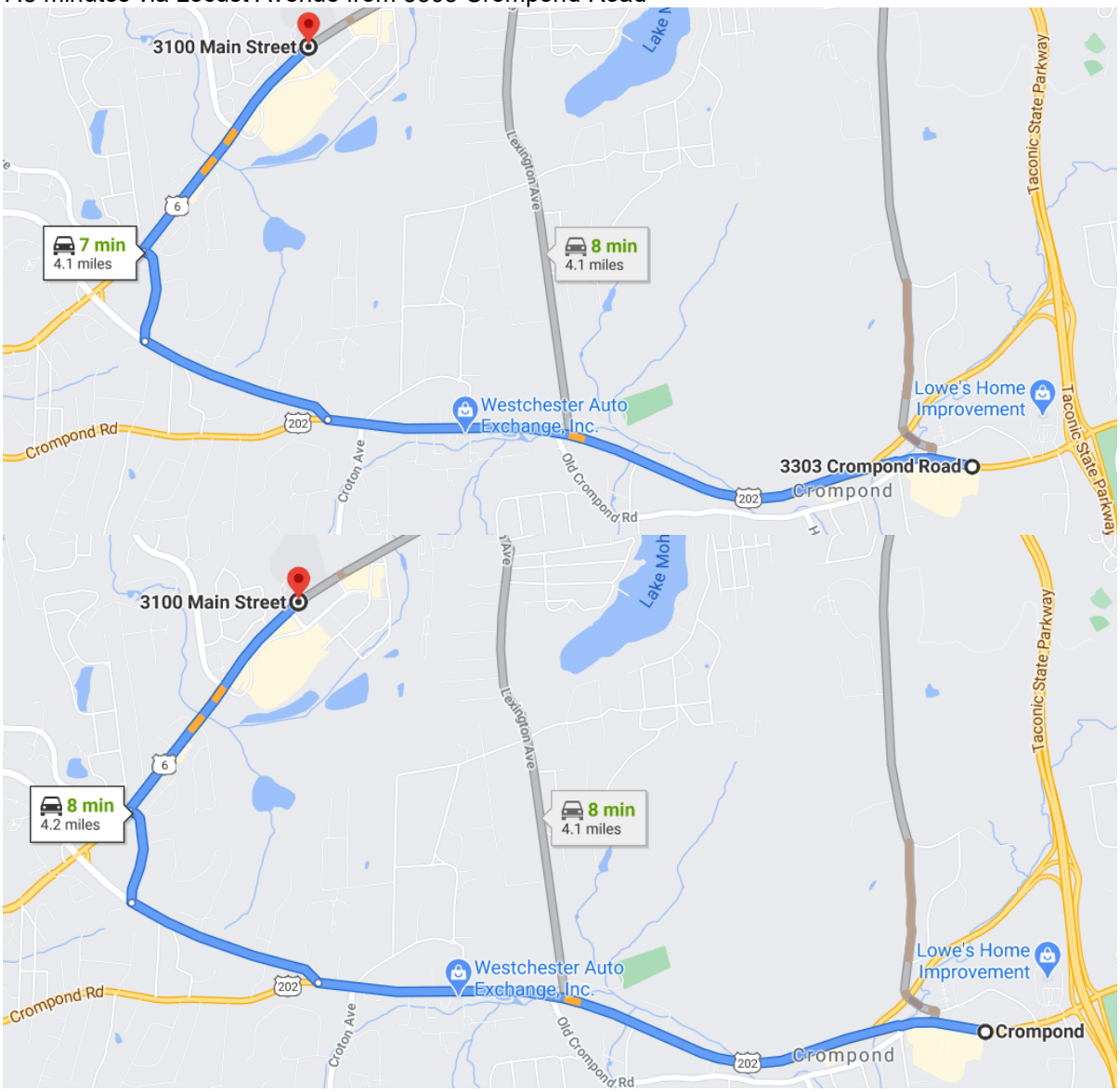
7.5 minutes via the Bear Mountain Parkway from Pine Grove Court



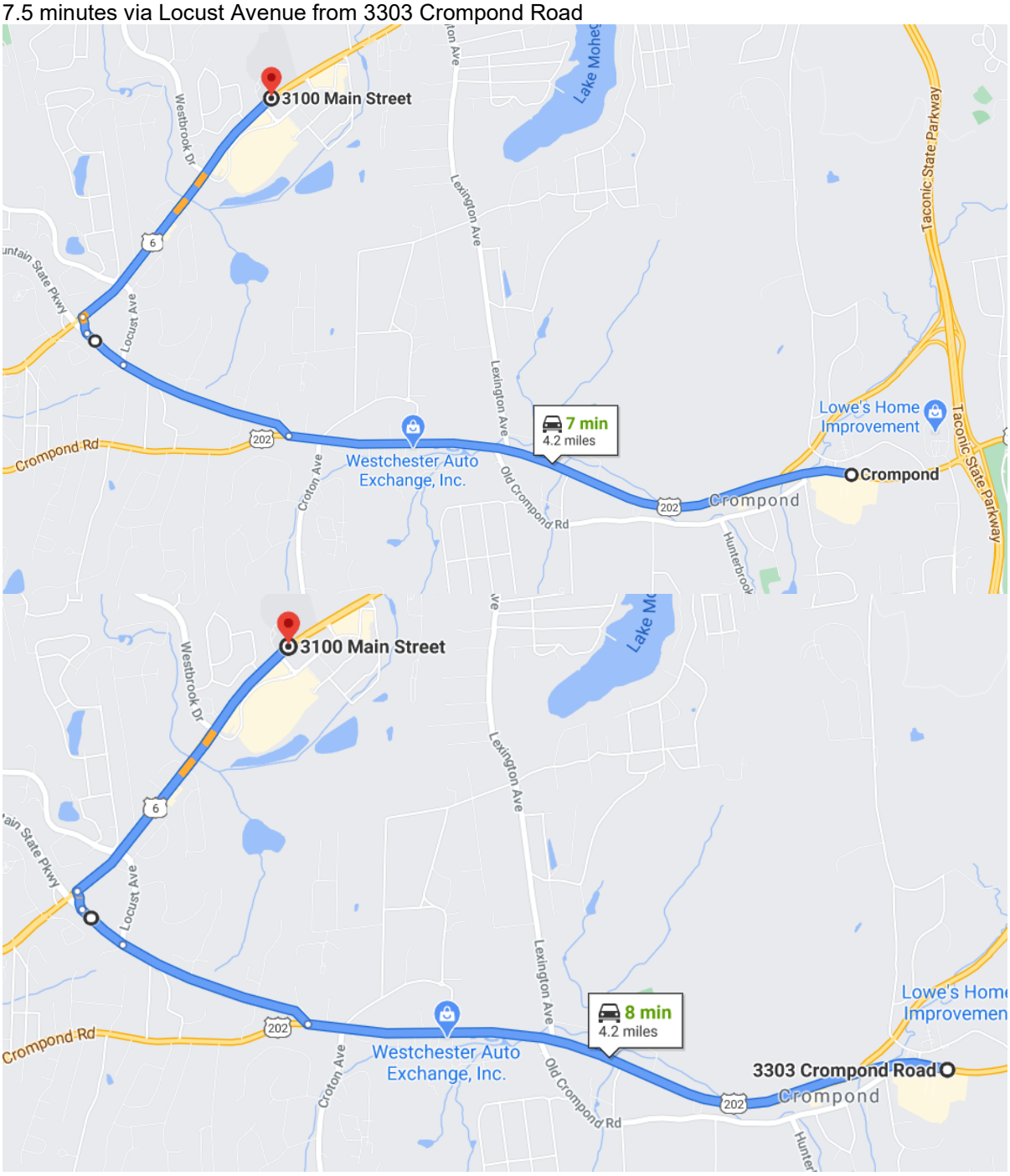
A review of Google Maps indicates that motorists would take either Locust Avenue or the Bear Mountain parkway from US 202 and points east as far east as the west ShopRite driveway at 3130 Main Street (beyond 3130, they would probably switch to Lexington Avenue, which is progressively quicker)

A comparison of the travel times via Locust Avenue or the Bear Mountain Parkway, provided below, indicates that it takes an almost identical time to travel via either Locust Avenue or the Bear Mountain Parkway (perhaps a few seconds quicker via the Locust Avenue). Therefore, it is reasonable to assume that approximately half the traffic traveling from the east to US Route 6 beyond Locust Avenue as far as 3130 Main Street would use the bear Mountain Parkway exit at Route 6 if there were not the inordinate delays at that exit that currently exist at that exit during the peak hours. The comparison further suggests that the vast majority of motorists traveling from the east to US Route 6 between Locust Avenue and the Bear Mountain Parkway would use the bear Mountain Parkway exit at Route 6 if there were not inordinate peak-hour delays.

7.5 minutes via Locust Avenue from 3303 Crompond Road



7.5 minutes via Locust Avenue from 3303 Crompond Road



2021 Projected traffic Volumes[1]

	Dayton Lane			Conklin Avenue			WB Bear Mt Parkway		Locust Avenue		
Peak Hour	Left	Through	Right	Left	Through	Right	Left	Right	Left	Through	Right
AM	**95**	**6**	**NA**	**15**	**6**	**226**	**24**	**35**	**50**	**50**	**110**
PM	**327**	**1**	**NA**	**24**	**10**	**283**	**33**	**44**	**50**	**84**	**84**
Sat	**211**	**3.5**	**NA**	**20**	**8**	**255**	**44**	**72**	**58**	**74**	**151**

1. Dayton Lane and Conclin Avenue from Chapter 11 of the Medical Oriented District (DGEIS) and MOD Development Plan (DEIS)
WB Bear Mountain parkway Exit Ramps from Gasland Traffic Impacy Study
Locust Avenue from Cortlandt Crossing 2013 Existing Volumes increased by 4%
Sat Dayton and Conklin Volumes are the Average of the AM and PM

Calculation of Trip Diversions on Left-Turn Movement

% of trips		2%	25%	20%	25%	5%			20%		
Diverted to											
WB BMP left											
# of trips	AM	2	2	3	2	11			10		
Diverted to	PM	7	0	5	3	14			10		
WB BMP left	Sat	4	1	4	2	13			12		
Total trips	AM						29				
Diverted to	PM						38				
WB BMP left	Sat						35				

Calculation of Trip Diversions on Left-Turn Movement

% of trips									33%	30%	5%
Diverted to											
WB BMP right											
# of trips	AM								16	15	6
Diverted to	PM								16	25	4
WB BMP right	Sat								19	22	8
Total trips	AM							37			
Diverted to	PM							46			
WB BMP right	Sat							49			

Comparison of Diverted Trips to all Trips that could Conceivably Divert

Total Trips West	AM						196	421	617		
Total Trips East	PM						445	495	940		
LT/R/Total	Sat						344	551	895		
# of trips	AM						29	37	66		
Diverted to	PM						38	46	84		
WB BMP L/R/Tot	Sat						35	49	84		
% of Total	AM						15%	9%	11%		
Trips West	PM						9%	9%	9%		
Trips East	Sat						10%	9%	9%		

Comparison of Projected WB Exit Ramp Traffic to Current Exit Ramp Trafffic and to all Trips that could Conceivably Divert.

Total trips	AM						53	72	125		
w/diversions	PM						71	90	161		
WB BMP Ramp	Sat						79	121	200		
% Increase	AM						122%	106%	112%		
From w/o	PM						116%	104%	109%		
Signal	Sat						80%	68%	73%		
% of Total	AM						27%	17%	20%		
Trips West	PM						16%	18%	17%		
Trips East	Sat						23%	22%	22%		

US Route 6 & BMP WB Ramp/Palisades Site Drwy
Weekday - Signal Warrant Analysis - 2022 Build Volumes

	Warrant No. 1 - Eight-Hour Vehicle Warrant - 100%					
	Condition A - Minimum Vehicular Volume			Condition B - Interruption of Continuous Traffic		
Time Start	Major St	Minor St	Meets	Major St	Minor St	Meets
	US Route 6	BMP Off-Ramp	Warrant?	US Route 6	BMP Off-Ramp	Warrant?
12:00 AM	214	14	NO	214	14	NO
1:00 AM	119	11	NO	119	11	NO
2:00 AM	65	3	NO	65	3	NO
3:00 AM	97	8	NO	97	8	NO
4:00 AM	143	21	NO	143	21	NO
5:00 AM	343	45	NO	343	45	NO
6:00 AM	908	88	NO	908	88	NO
7:00 AM	1876	130	NO	1876	130	**YES**
8:00 AM	2032	146	NO	2032	146	**YES**
9:00 AM	1544	102	NO	1544	102	**YES**
10:00 AM	1916	117	NO	1916	117	**YES**
11:00 AM	1924	118	NO	1924	118	**YES**
12:00 PM	1937	120	NO	1937	120	**YES**
1:00 PM	1924	117	NO	1924	117	**YES**
2:00 PM	1937	120	NO	1937	120	**YES**
3:00 PM	1953	122	NO	1953	122	**YES**
4:00 PM	2571	182	NO	2571	182	**YES**
5:00 PM	2619	186	NO	2619	186	**YES**
6:00 PM	1959	124	NO	1959	124	**YES**
7:00 PM	1953	120	NO	1953	120	**YES**
8:00 PM	1403	80	NO	1403	80	NO
9:00 PM	958	68	NO	958	68	NO
10:00 PM	639	47	NO	639	47	NO
	Number of Hours met:		***0***	***Number of Hours met:***		***13***

Condition A thresholds: Major street 600 vph; Minor street 200 vph.
Condition B thresholds: Major street 900 vph; Minor street 100 vph.

Kimley»Horn
of New York, P.C.

US Route 6 & BMP WB Ramp/Palisades Site Drwy
Saturday - Signal Warrant Analysis - 2022 Build Volumes

	Warrant No. 1 - Eight-Hour Vehicle Warrant - 100%					
	Condition A - Minimum Vehicular Volume			Condition B - Interruption of Continuous Traffic		
Time Start	Major St	Minor St	Meets	Major St	Minor St	Meets
	US Route 6	BMP Off-Ramp	Warrant?	US Route 6	BMP Off-Ramp	Warrant?
12:00 AM	463	20	NO	463	20	NO
1:00 AM	336	14	NO	336	14	NO
2:00 AM	203	9	NO	203	9	NO
3:00 AM	143	6	NO	143	6	NO
4:00 AM	207	9	NO	207	9	NO
5:00 AM	345	15	NO	345	15	NO
6:00 AM	882	38	NO	882	38	NO
7:00 AM	1382	60	NO	1382	60	NO
8:00 AM	1739	75	NO	1739	75	NO
9:00 AM	2118	147	NO	2118	147	**YES**
10:00 AM	2503	173	NO	2503	173	**YES**
11:00 AM	2799	194	NO	2799	194	**YES**
12:00 PM	2684	186	NO	2684	186	**YES**
1:00 PM	3235	224	YES	3235	224	**YES**
2:00 PM	2960	205	YES	2960	205	**YES**
3:00 PM	2905	201	YES	2905	201	**YES**
4:00 PM	2595	180	NO	2595	180	**YES**
5:00 PM	2638	183	NO	2638	183	**YES**
6:00 PM	2572	178	NO	2572	178	**YES**
7:00 PM	2003	139	NO	2003	139	**YES**
8:00 PM	1907	82	NO	1907	82	NO
9:00 PM	1711	74	NO	1711	74	NO
10:00 PM	1262	54	NO	1262	54	NO
	Number of Hours met:		***0***	***Number of Hours met:***		***11***

Condition A thresholds: Major street 600 vph; Minor street 200 vph.
Condition B thresholds: Major street 900 vph; Minor street 100 vph.

Kimley»Horn
of New York, P.C.

Weekday

	Warrant No. 2 - Four-Hour Vehicle Warrant			Warrant No. 3 - Peak-Hour Vehicle Warrant		
Time End	Major St	Minor St	**Meets Warrant?**	Major St	Minor St	**Meets Warrant?**
	US Route 6	BMP Off-Ramp	40 mph or more	US Route 6	BMP Off-Ramp	40 mph or more
12:00 AM	214	14	NO	214	14	NO
1:00 AM	119	11	NO	119	11	NO
2:00 AM	65	3	NO	65	3	NO
3:00 AM	97	8	NO	97	8	NO
4:00 AM	143	21	NO	143	21	NO
5:00 AM	343	45	NO	343	45	NO
6:00 AM	908	88	NO	908	88	NO
7:00 AM	1876	130	**YES**	1876	130	NO
8:00 AM	2032	146	**YES**	2032	146	NO
9:00 AM	1544	102	NO	1544	102	NO
10:00 AM	1916	117	**YES**	1916	117	NO
11:00 AM	1924	118	**YES**	1924	118	NO
12:00 PM	1937	120	**YES**	1937	120	NO
1:00 PM	1924	117	**YES**	1924	117	NO
2:00 PM	1937	120	**YES**	1937	120	NO
3:00 PM	1953	122	**YES**	1953	122	NO
4:00 PM	2571	182	**YES**	2571	182	**YES**
5:00 PM	2619	186	**YES**	2619	186	**YES**
6:00 PM	1959	124	**YES**	1959	124	NO
7:00 PM	1953	120	**YES**	1953	120	NO
8:00 PM	1403	80	NO	1403	80	NO
9:00 PM	958	68	NO	958	68	NO
10:00 PM	639	47	NO	639	47	NO
	Number of Hours met:		***12***	***Number of Hours met:***		***2***

Kimley»Horn
of New York, P.C.

Saturday

	Warrant No. 2 - Four-Hour Vehicle Warrant			Warrant No. 3 - Peak-Hour Vehicle Warrant		
Time End	Major St	Minor St	**Meets Warrant?**	Major St	Minor St	**Meets Warrant?**
	US Route 6	BMP Off-Ramp	40 mph or more	US Route 6	BMP Off-Ramp	40 mph or more
12:00 AM	463	20	NO	463	20	NO
1:00 AM	336	14	NO	336	14	NO
2:00 AM	203	9	NO	203	9	NO
3:00 AM	143	6	NO	143	6	NO
4:00 AM	207	9	NO	207	9	NO
5:00 AM	345	15	NO	345	15	NO
6:00 AM	882	38	NO	882	38	NO
7:00 AM	1382	60	NO	1382	60	NO
8:00 AM	1739	75	NO	1739	75	NO
9:00 AM	2118	147	**YES**	2118	147	NO
10:00 AM	2503	173	**YES**	2503	173	**YES**
11:00 AM	2799	194	**YES**	2799	194	**YES**
12:00 PM	2684	186	**YES**	2684	186	**YES**
1:00 PM	3235	224	**YES**	3235	224	**YES**
2:00 PM	2960	205	**YES**	2960	205	**YES**
3:00 PM	2905	201	**YES**	2905	201	**YES**
4:00 PM	2595	180	**YES**	2595	180	**YES**
5:00 PM	2638	183	**YES**	2638	183	**YES**
6:00 PM	2572	178	**YES**	2572	178	**YES**
7:00 PM	2003	139	**YES**	2003	139	NO
8:00 PM	1907	82	NO	1907	82	NO
9:00 PM	1711	74	NO	1711	74	NO
10:00 PM	1262	54	NO	1262	54	NO
	Number of Hours met:		***11***	***Number of Hours met:***		***9***

US Rt 6 (E. Main St)

Direction	NE	SW	All
Control Delay / Veh (s/v)	8	11	10
Queue Delay / Veh (s/v)	0	0	0
Total Delay / Veh (s/v)	8	11	10
Total Delay (hr)	4	6	10
Performance Index	5.6	8.6	14.3

Measures of Effectiveness

AM Revised Build with Signal
05/12/2021

US Rt 6 (E. Main St)

Direction	NE	SW	All
Control Delay / Veh (s/v)	13	13	13
Queue Delay / Veh (s/v)	0	0	0
Total Delay / Veh (s/v)	13	13	13
Total Delay (hr)	6	7	13
Performance Index	8.7	9.3	18.0

US Rt 6 (E. Main St)

Direction	NE	SW	All
Control Delay / Veh (s/v)	11	15	13
Queue Delay / Veh (s/v)	0	0	0
Total Delay / Veh (s/v)	11	15	13
Total Delay (hr)	8	10	18
Performance Index	10.6	16.1	26.7

US Rt 6 (E. Main St)

Direction	NE	SW	All
Control Delay / Veh (s/v)	29	19	24
Queue Delay / Veh (s/v)	1	0	1
Total Delay / Veh (s/v)	30	19	25
Total Delay (hr)	22	13	35
Performance Index	27.6	16.4	44.1

US Rt 6 (E. Main St)

Direction	NE	SW	All
Control Delay / Veh (s/v)	11	17	14
Queue Delay / Veh (s/v)	0	0	0
Total Delay / Veh (s/v)	11	17	14
Total Delay (hr)	9	14	22
Performance Index	12.0	22.5	34.5

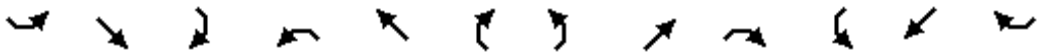
Measures of Effectiveness

Sat Revised Build with Signal
05/12/2021

US Rt 6 (E. Main St)

Direction	NE	SW	All
Control Delay / Veh (s/v)	30	22	26
Queue Delay / Veh (s/v)	0	0	0
Total Delay / Veh (s/v)	30	22	26
Total Delay (hr)	23	18	41
Performance Index	28.8	22.3	51.1

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	42	13	70	60	24	72	58	899	93	210	733	44
Future Volume (vph)	42	13	70	60	24	72	58	899	93	210	733	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	11	12	12	12	12	12	11	12	12
Grade (%)		-1%			-4%			1%			0%	
Storage Length (ft)	0		0	65		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	1.00	0.99						1.00			1.00	
Frt		0.874			0.888			0.987			0.991	
Flt Protected	0.950			0.950				0.997		0.950		
Satd. Flow (prot)	1660	1510	0	1745	1663	0	0	3344	0	1711	3439	0
Flt Permitted	0.690			0.700				0.848		0.186		
Satd. Flow (perm)	1204	1510	0	1286	1663	0	0	2844	0	335	3439	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		74			77			17			15	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		190			295			434			510	
Travel Time (s)		4.3			6.7			7.4			8.7	
Confl. Peds. (#/hr)	1		1				1					1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	2%	2%	4%	2%	6%	5%	2%	4%	2%
Adj. Flow (vph)	45	14	74	64	26	77	62	956	99	223	780	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	88	0	64	103	0	0	1117	0	223	827	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	0.99	1.02	0.97	0.97	1.01	1.01	1.01	1.04	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

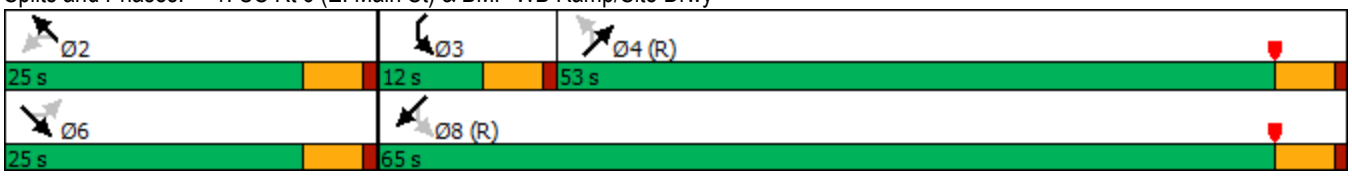


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		6			2			4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	23.0	23.0		23.0	23.0		23.0	23.0		10.0	23.0	
Total Split (s)	25.0	25.0		25.0	25.0		53.0	53.0		12.0	65.0	
Total Split (%)	27.8%	27.8%		27.8%	27.8%		58.9%	58.9%		13.3%	72.2%	
Maximum Green (s)	20.0	20.0		20.0	20.0		48.0	48.0		7.0	60.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		Min	C-Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0			11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	9.9	9.9		9.9	9.9			57.1		72.2	73.2	
Actuated g/C Ratio	0.11	0.11		0.11	0.11			0.63		0.80	0.81	
v/c Ratio	0.34	0.38		0.45	0.41			0.62		0.53	0.30	
Control Delay	42.8	16.4		46.8	18.1			8.0		7.8	3.2	
Queue Delay	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Delay	42.8	16.4		46.8	18.1			8.0		7.8	3.2	
LOS	D	B		D	B			A		A	A	
Approach Delay		25.3			29.1			8.0			4.2	
Approach LOS		C			C			A			A	
90th %ile Green (s)	14.3	14.3		14.3	14.3		48.0	48.0		12.7	65.7	
90th %ile Term Code	Hold	Hold		Gap	Gap		Coord	Coord		Max	Coord	
70th %ile Green (s)	11.7	11.7		11.7	11.7		51.8	51.8		11.5	68.3	
70th %ile Term Code	Hold	Hold		Gap	Gap		Coord	Coord		Gap	Coord	
50th %ile Green (s)	9.8	9.8		9.8	9.8		54.6	54.6		10.6	70.2	
50th %ile Term Code	Hold	Hold		Gap	Gap		Coord	Coord		Gap	Coord	
30th %ile Green (s)	8.0	8.0		8.0	8.0		58.1	58.1		8.9	72.0	
30th %ile Term Code	Hold	Hold		Gap	Gap		Coord	Coord		Gap	Coord	
10th %ile Green (s)	0.0	0.0		0.0	0.0		73.2	73.2		6.8	85.0	
10th %ile Term Code	Skip	Skip		Skip	Skip		Coord	Coord		Gap	Coord	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 5 (6%), Referenced to phase 4:NETL and 8:SWTL, Start of Yellow	
Natural Cycle: 70	

Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 8.7	Intersection LOS: A
Intersection Capacity Utilization 73.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: US Rt 6 (E. Main St) & BMP WB Ramp/Site Drwy



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	51	25	51	338	33	138	35	661	0	45	636	182
Future Volume (vph)	51	25	51	338	33	138	35	661	0	45	636	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	11	11	12	11	11	12	10	11	11
Grade (%)		0%			-6%			1%			0%	
Storage Length (ft)	0		0	135		135	45		0	80		0
Storage Lanes	0		1	1		1	1		0	1		0
Taper Length (ft)	25			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850			0.850					0.967	
Flt Protected		0.968		0.950	0.961		0.950			0.950		
Satd. Flow (prot)	0	1923	1689	1658	1680	1631	1669	3276	0	1652	3238	0
Flt Permitted		0.968		0.950	0.961		0.199			0.303		
Satd. Flow (perm)	0	1923	1689	1658	1680	1631	350	3276	0	527	3238	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			145			153					42	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		170			339			421			434	
Travel Time (s)		3.9			7.7			7.2			7.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	4%	6%	2%	2%	4%	5%
Adj. Flow (vph)	57	28	57	376	37	153	39	734	0	50	707	202
Shared Lane Traffic (%)				45%								
Lane Group Flow (vph)	0	85	57	207	206	153	39	734	0	50	909	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.92	0.92	0.92	1.01	1.01	0.96	1.05	1.05	1.01	1.09	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

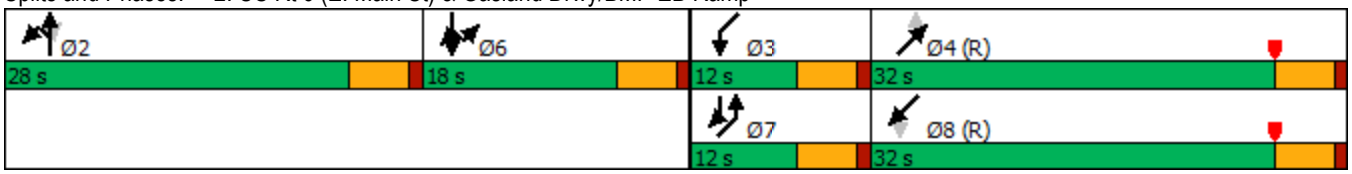
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Turn Type	Split	NA	Perm	Split	NA	custom	pm+pt	NA		pm+pt	NA	
Protected Phases	2	2		6	6	6 7	7	4		3	8	
Permitted Phases			2			6	4			8		
Detector Phase	2	2	2	6	6	6 7	7	4		3	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		10.0	10.0		10.0	10.0	
Total Split (s)	28.0	28.0	28.0	18.0	18.0		12.0	32.0		12.0	32.0	
Total Split (%)	31.1%	31.1%	31.1%	20.0%	20.0%		13.3%	35.6%		13.3%	35.6%	
Maximum Green (s)	23.0	23.0	23.0	13.0	13.0		7.0	27.0		7.0	27.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	2.0	2.0		2.0	2.0		3.0	2.0	
Recall Mode	None	None	None	Min	Min		None	C-Min		None	C-Min	
Walk Time (s)				7.0	7.0			7.0			8.0	
Flash Dont Walk (s)				16.0	16.0			14.0			18.0	
Pedestrian Calls (#/hr)				0	0			0			1	
Act Effct Green (s)		9.3	9.3	17.2	17.2	27.8	47.1	43.4		46.7	40.0	
Actuated g/C Ratio		0.10	0.10	0.19	0.19	0.31	0.52	0.48		0.52	0.44	
v/c Ratio		0.43	0.19	0.66	0.64	0.25	0.15	0.47		0.14	0.62	
Control Delay		43.7	1.4	43.1	42.4	4.4	13.9	20.9		13.1	24.6	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		43.7	1.4	43.1	42.4	4.4	13.9	20.9		13.1	24.6	
LOS		D	A	D	D	A	B	C		B	C	
Approach Delay		26.7			32.4			20.5			24.0	
Approach LOS		C			C			C			C	
90th %ile Green (s)	12.8	12.8	12.8	23.0	23.0		7.2	27.0		7.2	27.0	
90th %ile Term Code	Gap	Gap	Gap	Gap	Gap		Max	Coord		Max	Coord	
70th %ile Green (s)	10.8	10.8	10.8	19.8	19.8		6.2	31.8		7.6	33.2	
70th %ile Term Code	Gap	Gap	Gap	Gap	Gap		Gap	Coord		Gap	Coord	
50th %ile Green (s)	9.3	9.3	9.3	17.2	17.2		5.4	36.8		6.7	38.1	
50th %ile Term Code	Gap	Gap	Gap	Gap	Gap		Gap	Coord		Gap	Coord	
30th %ile Green (s)	7.9	7.9	7.9	14.7	14.7		4.9	52.4		0.0	42.5	
30th %ile Term Code	Gap	Gap	Gap	Gap	Gap		Gap	Coord		Skip	Coord	
10th %ile Green (s)	0.0	0.0	0.0	11.1	11.1		4.5	68.9		0.0	59.4	
10th %ile Term Code	Skip	Skip	Skip	Gap	Gap		Gap	Coord		Skip	Coord	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 4:NETL and 8:SWTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66

Intersection Signal Delay: 25.0	Intersection LOS: C
Intersection Capacity Utilization 56.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: US Rt 6 (E. Main St) & Gasland Drwy/BMP EB Ramp

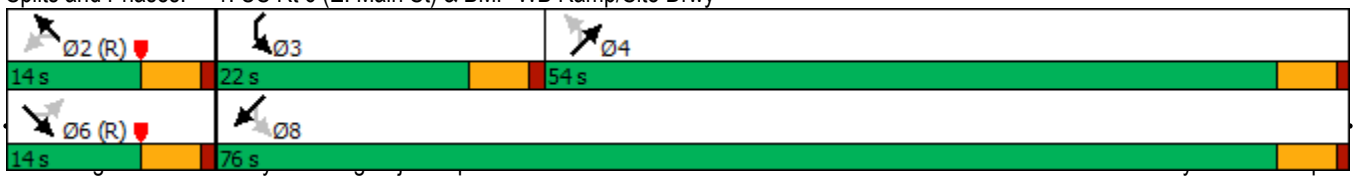


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	46	14	78	71	25	90	65	1344	155	307	989	49
Future Volume (vph)	46	14	78	71	25	90	65	1344	155	307	989	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	11	12	12	12	12	12	11	12	12
Grade (%)		-1%			-4%			1%			0%	
Storage Length (ft)	0		0	65		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	1.00	0.99						1.00			1.00	
Frt		0.872			0.883			0.985			0.993	
Flt Protected	0.950			0.950				0.998		0.950		
Satd. Flow (prot)	1660	1466	0	1745	1570	0	0	3462	0	1711	3511	0
Flt Permitted	0.629			0.696				0.836		0.072		
Satd. Flow (perm)	1095	1466	0	1278	1570	0	0	2900	0	130	3511	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		80			92			20			19	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		190			295			434			510	
Travel Time (s)		4.3			6.7			7.4			8.7	
Confl. Peds. (#/hr)	3		3				3					3
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	5%	2%	2%	11%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	47	14	80	72	26	92	66	1371	158	313	1009	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	94	0	72	118	0	0	1595	0	313	1059	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	0.99	1.02	0.97	0.97	1.01	1.01	1.01	1.04	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		6			2			4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		4.0	5.0	
Minimum Split (s)	23.0	23.0		23.0	23.0		23.0	23.0		10.0	23.0	
Total Split (s)	14.0	14.0		14.0	14.0		54.0	54.0		22.0	76.0	
Total Split (%)	15.6%	15.6%		15.6%	15.6%		60.0%	60.0%		24.4%	84.4%	
Maximum Green (s)	9.0	9.0		9.0	9.0		49.0	49.0		17.0	71.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0		5.0	5.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0							
Flash Dont Walk (s)	11.0	11.0		11.0	11.0							
Pedestrian Calls (#/hr)	0	0		0	0							
Act Effct Green (s)	9.0	9.0		9.0	9.0			50.9		71.0	71.0	
Actuated g/C Ratio	0.10	0.10		0.10	0.10			0.57		0.79	0.79	
v/c Ratio	0.43	0.43		0.57	0.49			0.97		0.85	0.38	
Control Delay	51.1	18.6		57.3	20.4			31.6		44.4	3.3	
Queue Delay	0.0	0.1		0.0	0.0			1.8		0.0	0.0	
Total Delay	51.1	18.7		57.3	20.4			33.4		44.4	3.3	
LOS	D	B		E	C			C		D	A	
Approach Delay		29.5			34.4			33.4			12.7	
Approach LOS		C			C			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 11 (12%), Referenced to phase 2:NWTL and 6:SETL, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 24.7		Intersection LOS: C	
Intersection Capacity Utilization 100.4%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 1: US Rt 6 (E. Main St) & BMP WB Ramp/Site Drwy

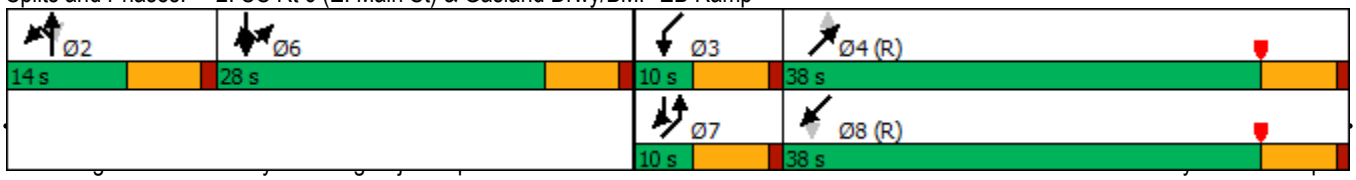


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	56	28	60	459	35	104	42	1045	0	50	891	197
Future Volume (vph)	56	28	60	459	35	104	42	1045	0	50	891	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	14	14	11	11	12	11	11	12	10	11	11
Grade (%)		0%			-6%			1%			0%	
Storage Length (ft)	0		0	135		135	45		0	80		0
Storage Lanes	0		1	1		1	1		0	1		0
Taper Length (ft)	25			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor							1.00				1.00	
Frt			0.850			0.850					0.973	
Flt Protected		0.968		0.950	0.959		0.950			0.950		
Satd. Flow (prot)	0	1923	1689	1674	1690	1631	1686	3404	0	1652	3314	0
Flt Permitted		0.968		0.950	0.959		0.105			0.137		
Satd. Flow (perm)	0	1923	1689	1674	1690	1631	186	3404	0	238	3314	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			109					32	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		170			339			421			434	
Travel Time (s)		3.9			7.7			7.2			7.4	
Confl. Peds. (#/hr)							3					3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%
Adj. Flow (vph)	59	29	63	483	37	109	44	1100	0	53	938	207
Shared Lane Traffic (%)				46%								
Lane Group Flow (vph)	0	88	63	261	259	109	44	1100	0	53	1145	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.92	0.92	0.92	1.01	1.01	0.96	1.05	1.05	1.01	1.09	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA	Perm	Split	NA	custom	pm+pt	NA		pm+pt	NA	
Protected Phases	2	2		6	6	6 7	7	4		3	8	
Permitted Phases			2			6	4			8		
Detector Phase	2	2	2	6	6	6 7	7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	11.0	11.0	11.0	32.0	32.0		11.0	11.0		11.0	11.0	
Total Split (s)	14.0	14.0	14.0	28.0	28.0		10.0	38.0		10.0	38.0	
Total Split (%)	15.6%	15.6%	15.6%	31.1%	31.1%		11.1%	42.2%		11.1%	42.2%	
Maximum Green (s)	8.0	8.0	8.0	22.0	22.0		4.0	32.0		4.0	32.0	
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	2.0		2.0	2.0	
Recall Mode	None	None	None	Min	Min		None	C-Max		None	C-Min	
Walk Time (s)				8.0	8.0			8.0			8.0	
Flash Dont Walk (s)				18.0	18.0			18.0			18.0	
Pedestrian Calls (#/hr)				5	5			5			5	
Act Effct Green (s)		7.6	7.6	18.7	18.7	29.8	44.5	41.7		43.1	39.3	
Actuated g/C Ratio		0.08	0.08	0.21	0.21	0.33	0.49	0.46		0.48	0.44	
v/c Ratio		0.54	0.20	0.75	0.74	0.18	0.25	0.70		0.28	0.78	
Control Delay		52.4	1.5	47.1	46.1	5.0	16.5	25.8		15.6	26.2	
Queue Delay		0.0	3.1	0.2	0.1	0.0	0.0	0.3		0.0	0.1	
Total Delay		52.4	4.6	47.2	46.3	5.0	16.5	26.2		15.6	26.3	
LOS		D	A	D	D	A	B	C		B	C	
Approach Delay		32.5			39.5			25.8			25.8	
Approach LOS		C			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 45 (50%), Referenced to phase 4:NETL and 8:SWTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 28.9		Intersection LOS: C	
Intersection Capacity Utilization 70.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 2: US Rt 6 (E. Main St) & Gasland Drwy/BMP EB Ramp

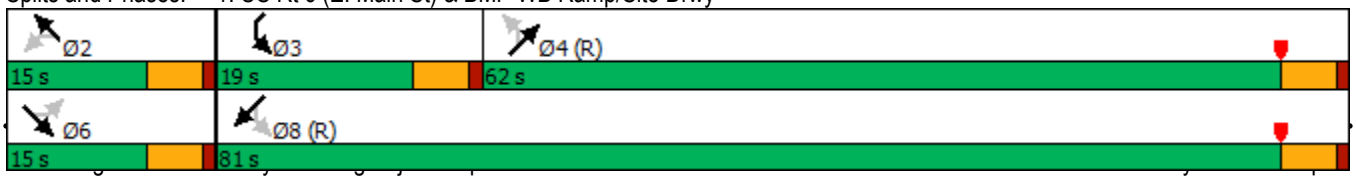


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	44	14	74	79	24	121	62	1439	151	311	1226	46
Future Volume (vph)	44	14	74	79	24	121	62	1439	151	311	1226	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	11	12	12	12	12	12	11	12	12
Grade (%)		-1%			-4%			1%			0%	
Storage Length (ft)	0		0	65		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	1.00	0.98						1.00			1.00	
Frt		0.874			0.875			0.986			0.995	
Flt Protected	0.950			0.950				0.998		0.950		
Satd. Flow (prot)	1660	1504	0	1711	1662	0	0	3465	0	1711	3519	0
Flt Permitted	0.452			0.697				0.810		0.065		
Satd. Flow (perm)	786	1504	0	1256	1662	0	0	2812	0	117	3519	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		77			126			20			13	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		190			295			434			510	
Travel Time (s)		4.3			6.7			7.4			8.7	
Confl. Peds. (#/hr)	4		4				4					4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	46	15	77	82	25	126	65	1499	157	324	1277	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	46	92	0	82	151	0	0	1721	0	324	1325	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	0.99	1.02	0.97	0.97	1.01	1.01	1.01	1.04	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		6			2			4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	11.0	11.0		11.0	11.0		23.0	23.0		11.0	23.0	
Total Split (s)	15.0	15.0		15.0	15.0		62.0	62.0		19.0	81.0	
Total Split (%)	15.6%	15.6%		15.6%	15.6%		64.6%	64.6%		19.8%	84.4%	
Maximum Green (s)	10.0	10.0		10.0	10.0		57.0	57.0		14.0	76.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			-1.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0			4.0		5.0	5.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		None	C-Min	
Walk Time (s)	7.0	7.0		7.0	7.0							
Flash Dont Walk (s)	11.0	11.0		11.0	11.0							
Pedestrian Calls (#/hr)	0	0		0	0							
Act Effct Green (s)	9.3	9.3		9.3	9.3			58.0		76.7	76.7	
Actuated g/C Ratio	0.10	0.10		0.10	0.10			0.60		0.80	0.80	
v/c Ratio	0.61	0.43		0.68	0.55			1.01		0.96	0.47	
Control Delay	74.9	19.4		69.5	19.2			34.6		69.2	3.8	
Queue Delay	0.0	0.3		0.0	0.0			0.0		0.0	0.2	
Total Delay	74.9	19.7		69.5	19.2			34.6		69.2	4.0	
LOS	E	B		E	B			C		E	A	
Approach Delay		38.1			36.9			34.6			16.8	
Approach LOS		D			D			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 96			
Actuated Cycle Length: 96			
Offset: 3 (3%), Referenced to phase 4:NETL and 8:SWTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 27.0		Intersection LOS: C	
Intersection Capacity Utilization 110.5%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 1: US Rt 6 (E. Main St) & BMP WB Ramp/Site Drwy



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	53	23	55	480	31	146	53	1117	0	49	1078	250
Future Volume (vph)	53	23	55	480	31	146	53	1117	0	49	1078	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	11	11	12	10	11	11
Grade (%)		0%			-6%			1%			0%	
Storage Length (ft)	0		0	135		135	45		0	80		0
Storage Lanes	0		1	1		1	1		0	1		0
Taper Length (ft)	25			86			86			86		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor											0.99	
Frt			0.850			0.850					0.972	
Flt Protected		0.966		0.950	0.958		0.950			0.950		
Satd. Flow (prot)	0	1631	1583	1674	1688	1631	1702	3404	0	1652	3308	0
Flt Permitted		0.966		0.950	0.958		0.086			0.134		
Satd. Flow (perm)	0	1631	1583	1674	1688	1631	154	3404	0	233	3308	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			136			83					36	
Link Speed (mph)		30			30			40			40	
Link Distance (ft)		170			339			421			434	
Travel Time (s)		3.9			7.7			7.2			7.4	
Confl. Peds. (#/hr)						1	4					4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	17%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	56	24	58	505	33	154	56	1176	0	52	1135	263
Shared Lane Traffic (%)				47%								
Lane Group Flow (vph)	0	80	58	268	270	154	56	1176	0	52	1398	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.01	1.01	0.96	1.05	1.05	1.01	1.09	1.04	1.04
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA	Perm	Split	NA	pt+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	2	2		6	6	6 7	7	4		3	8	
Permitted Phases			2				4			8		
Detector Phase	2	2	2	6	6	6 7	7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		11.0	31.0		29.0	31.0	
Total Split (s)	12.0	12.0	12.0	27.0	27.0		11.0	46.0		11.0	46.0	
Total Split (%)	12.5%	12.5%	12.5%	28.1%	28.1%		11.5%	47.9%		11.5%	47.9%	
Maximum Green (s)	7.0	7.0	7.0	22.0	22.0		6.0	41.0		6.0	41.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		3.0	2.0	
Recall Mode	None	None	None	Min	Min		None	C-Min		None	C-Min	
Walk Time (s)										7.0	8.0	
Flash Dont Walk (s)										16.0	18.0	
Pedestrian Calls (#/hr)										1	4	
Act Effct Green (s)		6.7	6.7	18.8	18.8	29.4	53.2	48.6		53.1	47.0	
Actuated g/C Ratio		0.07	0.07	0.20	0.20	0.31	0.55	0.51		0.55	0.49	
v/c Ratio		0.71	0.25	0.82	0.82	0.28	0.32	0.68		0.24	0.85	
Control Delay		76.3	2.5	56.8	56.5	12.6	15.3	23.2		10.7	28.0	
Queue Delay		0.0	0.1	0.0	0.0	0.0	0.0	0.4		0.0	0.2	
Total Delay		76.3	2.5	56.8	56.5	12.6	15.3	23.6		10.7	28.1	
LOS		E	A	E	E	B	B	C		B	C	
Approach Delay		45.3			46.9			23.2			27.5	
Approach LOS		D			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 96			
Actuated Cycle Length: 96			
Offset: 93 (97%), Referenced to phase 4:NETL and 8:SWTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 30.5		Intersection LOS: C	
Intersection Capacity Utilization 73.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: US Rt 6 (E. Main St) & Gasland Drwy/BMP EB Ramp