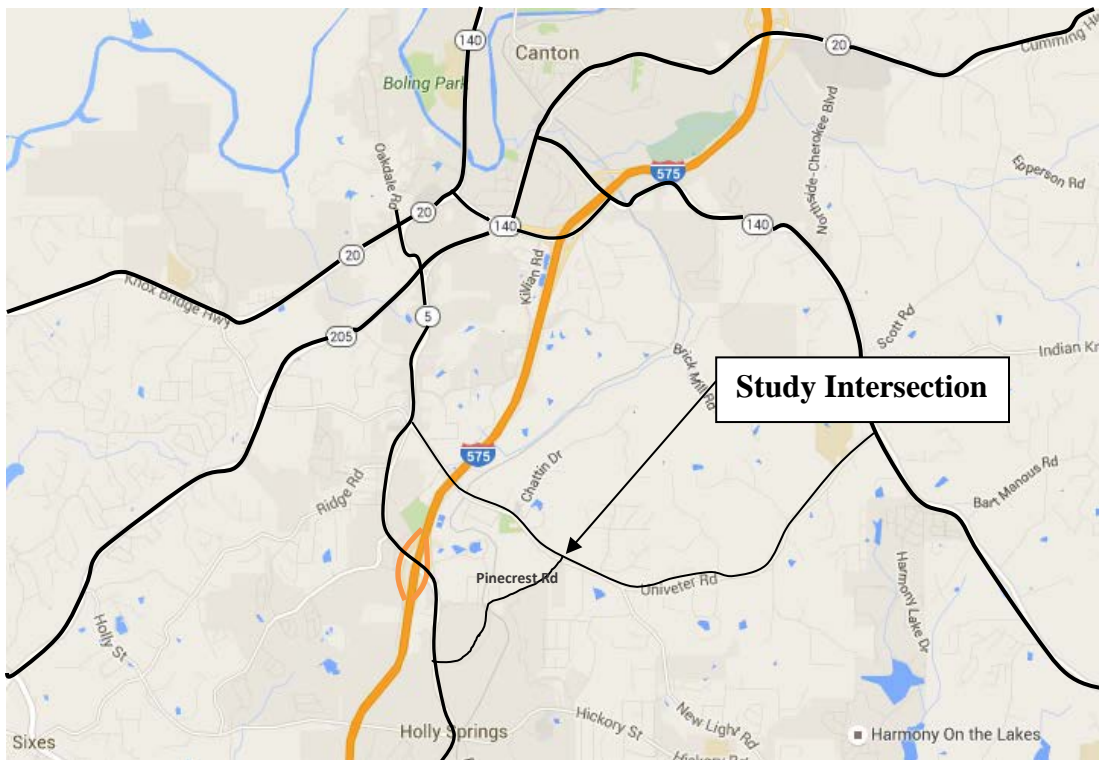


**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
TRAFFIC ENGINEERING REPORT**

For the intersection of  
Univeter Road at Pinecrest Road  
Cherokee County



**Figure 1: Site Location**

*Report prepared by:* David Fairlie, P.E.  
*Title:* Traffic Engineer  
*Address:* Moreland Altobelli Associates, LLC.  
2450 Commerce Avenue, Suite 100 Duluth, Georgia 30096  
*Phone / Fax:* (770) 263-5945 / (770) 263-0166  
*Reviewed by:* Karla Poshedly, Senior Traffic Engineer  
*E-Mail Address:* kposhedly@maai.net

*Contact:* Mr. Geoffrey E. Morton, P.E.  
*Title:* County Engineer  
Cherokee County  
*Address:* 1130 Bluffs Parkway  
Canton, GA 30114  
*Phone:* (678) 493-6077

Report Date: March 3, 2018

**Location:**

The intersection of Univeter Road at Pinecrest Road, in Cherokee County, is located approximately 1.7 miles north of the City of Holly Spring’s downtown area. A reference map of the site location is shown in Figure 1.

**Reason for the Investigation:**

Moreland Altobelli Associates received a request from Cherokee County to conduct an update on a traffic signal warrant analysis for the intersection of Univeter Road at Pinecrest Road with more recent traffic counts.

**Description of the Intersection:**

Univeter Road, in the vicinity of the intersection, is a two-lane roadway in an east-west orientation. Pinecrest Road is a two-lane north-south roadway that intersects Univeter Road from the south, forming a “T” intersection which is stop-sign controlled on the Pinecrest Road approach.

Pinecrest Road intersects Univeter Road with a single lane from which vehicles can turn left or right.

**Figure 2: Aerial View**



The area in the vicinity of the site is mainly residential to the south and to the east of the intersection, but becomes industrial to the west.

**Existing Traffic Volumes:**

Turning movement vehicular counts were conducted in 15 minute intervals at the subject intersection, from 7:00 AM to 7:00 PM on Tuesday, January 30, 2018 to determine the typical traffic and turning movement volumes during peak hours. See the Appendix for the traffic count data.

The 12 hours of turning movements collected at the intersection show that more than 80% of vehicles that exit Pinecrest Road turn right onto Univeter Road. Right turns from a minor road onto a major road can be completed with shorter gaps and relative ease when compared to a through or left turn movement. However, if a left-turning vehicle has difficulty to complete its maneuver, it will delay the right-turning vehicles that queue behind it.

**Existing Traffic Control:**

The intersection of Univeter Road at Pinecrest is currently stop-sign controlled at Pinecrest Road. Traffic on Univeter Road does not stop.

**Vehicular Speeds:**

The posted speed limit on Univeter Road, in the vicinity of the subject intersection, is 35 miles per hour (mph). The posted speed limit on Pinecrest Road is also 35 mph.

**Other Modes of Transportation:**

None.

**Parking:**

There is no existing or planned on-street parking on Univeter Road or Pinecrest Road in the vicinity of the subject intersection.

**Adjacent Signalized Intersections:**

The nearest traffic signals to this intersection are approximately 1.4 miles to the west, at the intersection of Univeter Road at Marietta Highway, and 2.5 miles to the east at the intersection of Univeter Road at Hickory Flat Highway.

**Crash History:**

Table 1 summarizes available GDOT crash data for the latest 6 years at this intersection. See Appendix for collision diagram and listing of crash history.

**Table 1: Crash History**

Year	Crash Type				Totals		
	Rear-end	Angle	Off-Road	Head-on	Injury	Fatal	Total
2017	3	0	0	0	4	0	3
2016	2	0	0	0	3	0	2
2015	3	1	2	1	5	0	7
2014	1	0	1	1	0	0	3
2013	0	0	1	0	0	0	1
2012	1	1	1	0	1	0	3



### **Sight Distances:**

A field review had been previously conducted on July 5, 2017 to determine if any sight-distance limitations existed at the intersection that would make it difficult for motorists to judge if a vehicle was approaching the intersection. Figure 3 and Figure 4 show the sight lines looking left and right from Pinecrest Road onto Univeter Road.

The sight distances from Pinecrest Road looking left was measured to be beyond 700 feet (see Figure 3), which exceeds the minimum 390 feet recommended by AASHTO for a speed limit of 35 mph.

**Figure 3: Sight line from Pinecrest Road Looking Left**



Similarly, the sight distance looking right, was measured at 420 feet (see Figure 4), which exceeds the 390 feet recommended by AASHTO for a speed of 35 mph.

**Figure 4: Sight Line from Pinecrest Road Looking Right**



### **Left turns onto the minor road:**

The 12-hour turning movement volumes show that most of the vehicles entering and exiting Pinecrest Road comes from and goes to the east. During the busiest times of the day, the volume of left-turning vehicles on Univeter Road can be as high as 112 vehicles in an hour. If the opposing (eastbound) traffic on Pinecrest Road is heavy enough these left-turning vehicles may have trouble completing the turn, which would create queues on Pinecrest Road as well as expose them to being struck from behind by a westbound vehicle. The crash data seems to suggest that this is the case, since there is a tendency for rear-end collisions in the westbound direction.

According to GDOT's "Regulations for Driveway and Encroachment Control" manual, the volume of lane turning vehicles and the opposing through movement suggest that a left-turn bay on Univeter Road would be beneficial for traffic operations and improve safety at the intersection. The Transportation Research Board (TRB) also offers other criteria for evaluating the need for a left-turn bay on a main road. According to a TRB publication titled "Guidelines for Left-Turn Bays at Unsignalized Access Locations", a left-turn bay is also recommended for this intersection, based on the peak hour volumes.

### **Traffic Signal Warrants**

The volumes obtained between the hours of 7:00 AM and 7:00 PM on January 30, 2018 were used to determine if the intersection met the warranting criteria for the installation of a traffic control signal as described in the Manual on Uniform Traffic Control Devices (MUTCD), 2009 edition.

All right-turning vehicular volumes from the minor street approach (in this case, Pinecrest Road) were discounted for the warrant evaluation.

#### ***Warrants 1, Condition A (Minimum Vehicular Volume):***

This warrant is intended for locations where a large number of vehicles approach the intersection from the minor road. In this case, Pinecrest Road does not present sufficient vehicular volumes to satisfy this criterion.

#### ***Warrant 1, Condition B (Interruption of Continuous Traffic):***

This warrant is intended for locations where the volume on the major road is so heavy, that traffic on the minor intersecting street suffers excessive delay or conflict in entering or crossing the major street. This warrant was not met

#### ***Warrant 1 A&B (Combination of Warrants):***

When the warranting criteria is not met for neither warrant 1A or 1B, and any other measures to improve traffic flow have failed, an evaluation can be performed to determine if conditions A and B combined are met when the required volumes are decreased to 80%. The combination of A and B was tested but was also not satisfied.

#### ***Warrant 2 (Four Hour Volumes):***

This warrant is applied when the traffic volume on the minor street is the principal reason to consider installing a traffic control signal. For the urban warrant, no hours exceeded the minimum volume of the four that are required. Therefore, the warrant was not met.

***Warrant 7 (Crash Experience):***

This warrant requires a minimum of five crashes of the type that could be corrected by the installation of a traffic signal, to have occurred within the most recent 12-month period of available data and meet 80% of the volume warrants. The subject intersection does not have such a pattern of crashes and does not meet volume warrants.

***Other Warrants:***

Warrant 3 (Peak hour volumes), Warrant 4 (Pedestrian Volumes), and Warrant 5 (School Crossing) were not applicable at this location. Warrant 6 (Coordinated System) was not applicable since there are no existing signals in close proximity to this intersection.

***Optional Warrant:***

At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher of the major-street left-turn volumes as the “minor-street” volume and the corresponding single direction of opposing traffic on the major street as the “major-street” volume.

The subject intersection was analyzed with the left-turn volume on Univeter Road as the “minor street” volume and the eastbound opposing traffic on Univeter Road as the “major-street” volume. None of the volume warrants were met under this optional warrant criteria.

**Conclusions:**

The intersection of Univeter Road at Pinecrest Road does not meet the minimum volume warranting criteria for the installation of a traffic control signal at this time.

The intersection of Univeter Road at Pinecrest Road does not present a pattern of crashes of the type that could be corrected by the installation of a traffic control signal.

Sight distances at the intersection exceed the AASHTO guidelines recommendation for the posted speed limit on Univeter Road.

More than 80% of vehicles that exit Pinecrest Road turn right, and are not taken into account for the evaluation of a traffic signal warrant. However, due to the volume of vehicles exiting Pinecrest Road, a channelized right-turn lane would improve traffic operations at the intersection.

The volume of left turning vehicles onto Pinecrest Road meet GDOT’s and the TRB’s criteria for implementing a left-turn bay on Univeter Road. The crash history at this location also indicates that a left-turn bay would improve traffic safety.

**Recommendations:**

The relatively low number of left-turning vehicles from Pinecrest Road onto Univeter Road, and the lack of a history of the type of crashes that would be corrected by the installation of a traffic control signal at the intersection, are not conducive to the installation of a traffic control signal at this time.

Since delays on Pinecrest Road could be reduced by a channelized right-turn lane onto Univeter Road, it is recommended that a channelized right-turn lane be installed at the intersection.

Due to a pattern of westbound rear-end collisions on Univeter Road, and the vehicular volumes at this intersection, it is recommended that a left-turn bay be implemented on Univeter Road to turn left onto Pinecrest Road.

## **Appendix**

- Traffic Signal Warrants Report
- Traffic Volume Data
- Crash data & Collision Diagram





**Moreland Altobelli Associates, Inc.**

Univeter Road at Pinecrest Road  
 2018 Existing Warrant Study Without Right Turns

Study Name : UniveterRd@Pinecrest-2018  
 Study Date : 02/22/18

**Signal Warrants - Summary**

**Major Street Approaches**

**Eastbound: Univeter Road**

Number of Lanes: 1  
 85% Speed < 40 MPH.  
 Total Approach Volume: **3,833**

**Westbound: Univeter Road**

Number of Lanes: 1  
 85% Speed < 40 MPH.  
 Total Approach Volume: **4,540**

**Minor Street Approaches**

**Northbound: Pinecrest Road**

Number of Lanes: 1  
 Total Approach Volume: **210**

**Warrant Summary** (Urban values apply.)

<b>Warrant 1 - Eight Hour Vehicular Volumes</b> .....	<b>Not Satisfied</b>
<b>Warrant 1A - Minimum Vehicular Volume</b> ..... <b>Not Satisfied</b>	
Required volumes reached for 0 hours, 8 are needed	
<b>Warrant 1B - Interruption of Continuous Traffic</b> ..... <b>Not Satisfied</b>	
Required volumes reached for 0 hours, 8 are needed	
<b>Warrant 1 A&amp;B - Combination of Warrants</b> ..... <b>Not Satisfied</b>	
Required volumes reached for 0 hours, 8 are needed	
<b>Warrant 2 - Four Hour Volumes</b> .....	<b>Not Satisfied</b>
Number of hours (0) volumes exceed minimum < minimum required (4).	
<b>Warrant 3 - Peak Hour</b> .....	<b>Not Evaluated</b>
<b>Warrant 3A - Peak Hour Delay</b> ..... <b>Not Evaluated</b>	
<b>Warrant 3B - Peak Hour Volumes</b> ..... <b>Not Evaluated</b>	
<b>Warrant 4 - Pedestrian Volumes</b> .....	<b>Not Evaluated</b>
<b>Warrant 5 - School Crossing</b> .....	<b>Not Evaluated</b>
<b>Warrant 6 - Coordinated Signal System</b> .....	<b>Not Evaluated</b>
<b>Warrant 7 - Crash Experience</b> .....	<b>Not Satisfied</b>
Number of accidents (3) is less than minimum (5). Volume minimums are not met.	
<b>Warrant 8 - Roadway Network</b> .....	<b>Not Evaluated</b>
<b>Warrant 9 - Intersection Near a Grade Crossing</b> .....	<b>Not Evaluated</b>

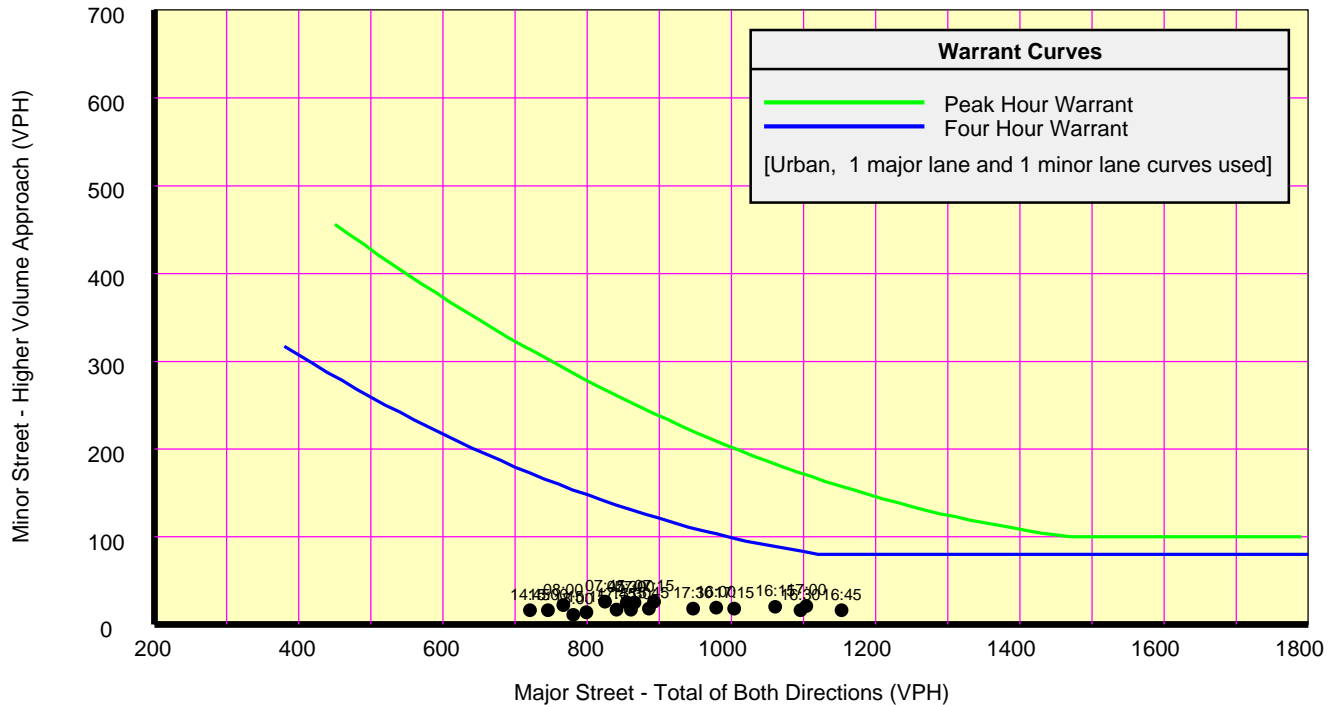


# Moreland Altobelli Associates, Inc.

Univeter Road at Pinecrest Road  
2018 Existing Warrant Study Without Right Turns

Study Name : UniveterRd@Pinecrest-2018  
Study Date : 02/22/18

## Signal Warrants - Summary



### Analysis of 8-Hour Volume Warrants:

War 1A-Minimum Volume

War 1B-Interruption of Traffic

War 1C-Combination of Warrants

Hour Begin	Major Total	Minor Vol	Dir	Maj 500	Min 150	Hour Begin	Major Total	Minor Vol	Dir	Maj 750	Min 75	Hour Begin	Major Total	Minor Vol	Dir	Maj 600	Min 120
16:45	1,153	16	NB	Yes	No	16:45	1,153	16	NB	Yes	No	16:45	1,153	16	NB	Yes	No
17:00	1,104	21	NB	Yes	No	17:00	1,104	21	NB	Yes	No	17:00	1,104	21	NB	Yes	No
16:30	1,096	16	NB	Yes	No	16:30	1,096	16	NB	Yes	No	16:30	1,096	16	NB	Yes	No
16:15	1,061	20	NB	Yes	No	16:15	1,061	20	NB	Yes	No	16:15	1,061	20	NB	Yes	No
17:15	1,004	18	NB	Yes	No	17:15	1,004	18	NB	Yes	No	17:15	1,004	18	NB	Yes	No
16:00	979	19	NB	Yes	No	16:00	979	19	NB	Yes	No	16:00	979	19	NB	Yes	No
17:30	947	18	NB	Yes	No	17:30	947	18	NB	Yes	No	17:30	947	18	NB	Yes	No
07:15	893	26	NB	Yes	No	07:15	893	26	NB	Yes	No	07:15	893	26	NB	Yes	No
15:45	886	18	NB	Yes	No	15:45	886	18	NB	Yes	No	15:45	886	18	NB	Yes	No
07:00	866	25	NB	Yes	No	07:00	866	25	NB	Yes	No	07:00	866	25	NB	Yes	No
15:30	861	17	NB	Yes	No	15:30	861	17	NB	Yes	No	15:30	861	17	NB	Yes	No
07:30	855	25	NB	Yes	No	07:30	855	25	NB	Yes	No	07:30	855	25	NB	Yes	No
17:45	841	17	NB	Yes	No	17:45	841	17	NB	Yes	No	17:45	841	17	NB	Yes	No
07:45	825	26	NB	Yes	No	07:45	825	26	NB	Yes	No	07:45	825	26	NB	Yes	No
15:15	799	14	NB	Yes	No	15:15	799	14	NB	Yes	No	15:15	799	14	NB	Yes	No
18:00	781	11	NB	Yes	No	18:00	781	11	NB	Yes	No	18:00	781	11	NB	Yes	No
08:00	767	22	NB	Yes	No	08:00	767	22	NB	Yes	No	08:00	767	22	NB	Yes	No
15:00	746	16	NB	Yes	No	15:00	746	16	NB	No	No	15:00	746	16	NB	Yes	No
14:45	721	16	NB	Yes	No	14:45	721	16	NB	No	No	14:45	721	16	NB	Yes	No
14:30	696	19	NB	Yes	No	14:30	696	19	NB	No	No	14:30	696	19	NB	Yes	No
14:00	687	20	NB	Yes	No	14:00	687	20	NB	No	No	14:00	687	20	NB	Yes	No
14:15	683	21	NB	Yes	No	14:15	683	21	NB	No	No	14:15	683	21	NB	Yes	No
08:15	669	20	NB	Yes	No	08:15	669	20	NB	No	No	08:15	669	20	NB	Yes	No
06:45	649	18	NB	Yes	No	06:45	649	18	NB	No	No	06:45	649	18	NB	Yes	No



**Moreland Altobelli Associates, Inc.**

Univeter Road at Pinecrest Road  
 2018 Existing Warrant Study - Left Turns vs. Opposing Traffic

Study Name : Univeter@Pinecrest-LTin  
 Study Date : 02/22/17

**Signal Warrants - Summary**

**Major Street Approaches**

**Eastbound: Univeter Road**  
 Number of Lanes: 1  
 85% Speed < 40 MPH.  
 Total Approach Volume: 3,833

**Minor Street Approaches**

**Northbound: Pinecrest Road**  
 Number of Lanes: 1  
 Total Approach Volume: 816

**Warrant Summary** (Urban values apply.)

<b>Warrant 1 - Eight Hour Vehicular Volumes</b> .....	<b>Not Satisfied</b>
<b>Warrant 1A - Minimum Vehicular Volume</b> ..... <b>Not Satisfied</b>	
Required volumes reached for 0 hours, 8 are needed	
<b>Warrant 1B - Interruption of Continuous Traffic</b> ..... <b>Not Satisfied</b>	
Required volumes reached for 0 hours, 8 are needed	
<b>Warrant 1 A&amp;B - Combination of Warrants</b> ..... <b>Not Satisfied</b>	
Required volumes reached for 0 hours, 8 are needed	
<b>Warrant 2 - Four Hour Volumes</b> .....	<b>Not Satisfied</b>
Number of hours (0) volumes exceed minimum < minimum required (4).	
<b>Warrant 3 - Peak Hour</b> .....	<b>Not Evaluated</b>
<b>Warrant 3A - Peak Hour Delay</b> ..... <b>Not Evaluated</b>	
<b>Warrant 3B - Peak Hour Volumes</b> ..... <b>Not Evaluated</b>	
<b>Warrant 4 - Pedestrian Volumes</b> .....	<b>Not Evaluated</b>
<b>Warrant 5 - School Crossing</b> .....	<b>Not Evaluated</b>
<b>Warrant 6 - Coordinated Signal System</b> .....	<b>Not Evaluated</b>
<b>Warrant 7 - Crash Experience</b> .....	<b>Not Satisfied</b>
Number of accidents (3) is less than minimum (5). Volume minimums are not met.	
<b>Warrant 8 - Roadway Network</b> .....	<b>Not Evaluated</b>
<b>Warrant 9 - Intersection Near a Grade Crossing</b> .....	<b>Not Evaluated</b>



# Moreland Altobelli Associates, Inc.

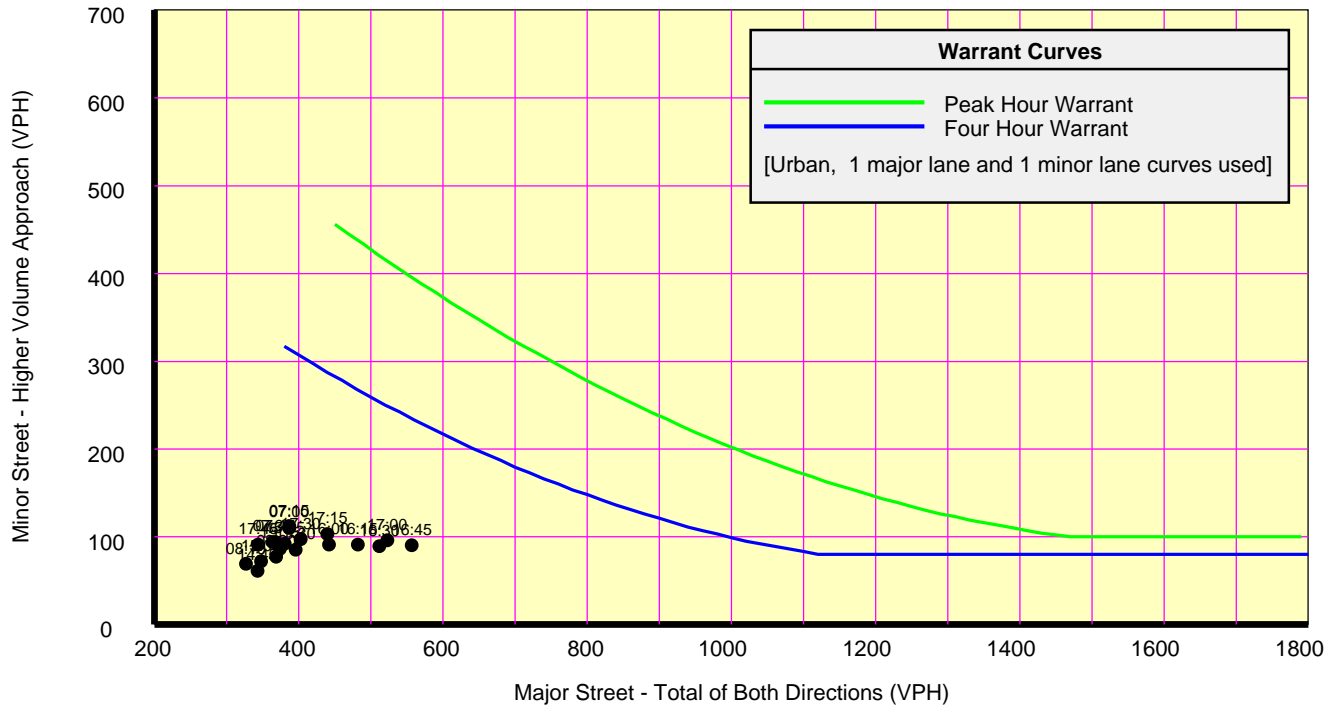
Univeter Road at Pinecrest Road

2018 Existing Warrant Study - Left Turns vs. Opposing Traffic

Study Name : Univeter@Pinecrest-LTin

Study Date : 02/22/17

## Signal Warrants - Summary



### Analysis of 8-Hour Volume Warrants:

War 1A-Minimum Volume

War 1B-Interruption of Traffic

War 1C-Combination of Warrants

Hour Begin	Major Total	Minor Vol	Dir	Maj 500	Min 150	Hour Begin	Major Total	Minor Vol	Dir	Maj 750	Min 75	Hour Begin	Major Total	Minor Vol	Dir	Maj 600	Min 120
16:45	557	90	NB	Yes	No	16:45	557	90	NB	No	Yes	16:45	557	90	NB	No	No
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15:45	381	92	NB	No	No	15:45	381	92	NB	No	Yes	15:45	381	92	NB	No	No
15:15	374	86	NB	No	No	15:15	374	86	NB	No	Yes	15:15	374	86	NB	No	No
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07:30	364	94	NB	No	No	07:30	364	94	NB	No	Yes	07:30	364	94	NB	No	No
15:00	348	72	NB	No	No	15:00	348	72	NB	No	No	15:00	348	72	NB	No	No
17:45	344	91	NB	No	No	17:45	344	91	NB	No	Yes	17:45	344	91	NB	No	No
14:45	343	61	NB	No	No	14:45	343	61	NB	No	No	14:45	343	61	NB	No	No
08:15	327	69	NB	No	No	08:15	327	69	NB	No	No	08:15	327	69	NB	No	No
14:30	314	64	NB	No	No	14:30	314	64	NB	No	No	14:30	314	64	NB	No	No
06:45	311	80	NB	No	No	06:45	311	80	NB	No	Yes	06:45	311	80	NB	No	No
08:30	309	57	NB	No	No	08:30	309	57	NB	No	No	08:30	309	57	NB	No	No
14:00	308	63	NB	No	No	14:00	308	63	NB	No	No	14:00	308	63	NB	No	No
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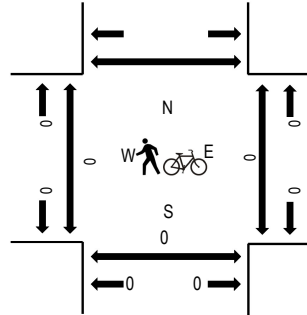
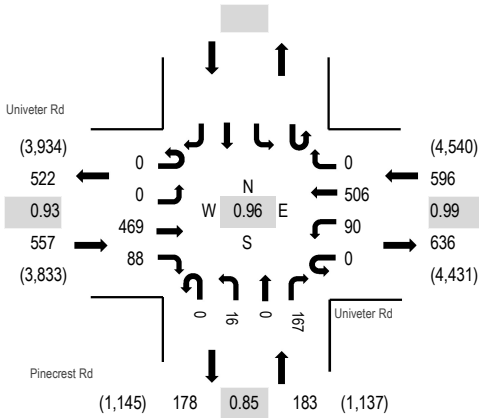


(303) 216-2439  
www.alltrafficdata.net

**Location:** 2 Pinecrest Rd & Univeter Rd AM  
**Date:** Tuesday, January 30, 2018  
**Peak Hour:** 04:45 PM - 05:45 PM  
**Peak 15-Minutes:** 05:00 PM - 05:15 PM

**Peak Hour - All Vehicles**

**Peak Hour - Pedestrians/Bicycles in Crosswalk**



Note: Total study counts contained in parentheses.

**Traffic Counts**

Interval Start Time	Univeter Rd Eastbound				Univeter Rd Westbound				Pinecrest Rd Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	106	1	0	18	77	0	0	7	0	22					231	971	0	0	0	
7:15 AM	0	0	101	3	0	38	82	0	0	7	0	22					253	990	0	0	0	
7:30 AM	0	0	93	6	0	24	100	0	0	4	0	24					251	950	0	0	0	
7:45 AM	0	0	72	4	0	30	111	0	0	7	0	12					236	909	0	0	0	
8:00 AM	0	0	103	4	0	20	102	0	0	8	0	13					250	848	0	0	0	
8:15 AM	0	0	77	4	0	20	85	0	0	6	0	21					213	745	0	0	0	
8:30 AM	0	0	102	1	0	24	66	0	0	5	0	12					210	678	0	0	0	
8:45 AM	0	0	74	3	0	13	69	0	0	3	0	13					175	581	0	0	0	
9:00 AM	0	0	59	6	0	12	54	0	0	6	0	10					147	544	0	0	0	
9:15 AM	0	0	58	5	0	8	63	0	0	4	0	8					146	518	0	0	0	
9:30 AM	0	0	42	3	0	8	48	0	0	2	0	10					113	482	0	0	0	
9:45 AM	0	0	55	2	0	12	61	0	0	2	0	6					138	473	0	0	0	
10:00 AM	0	0	39	3	0	14	52	0	0	2	0	11					121	449	0	0	0	
10:15 AM	0	0	62	4	0	7	30	0	0	3	0	4					110	449	0	0	0	
10:30 AM	0	0	35	3	0	8	51	0	0	2	0	5					104	465	0	0	0	
10:45 AM	0	0	50	2	0	12	36	0	0	5	0	9					114	516	0	0	0	
11:00 AM	0	0	42	7	0	11	51	0	0	0	0	10					121	533	0	0	0	
11:15 AM	0	0	55	1	0	13	45	0	0	1	0	11					126	554	0	0	0	
11:30 AM	0	0	49	18	0	12	54	0	0	3	0	19					155	566	0	0	0	
11:45 AM	0	0	58	6	0	9	43	0	0	1	0	14					131	562	0	0	0	
12:00 PM	0	0	63	5	0	12	53	0	0	3	0	6					142	576	0	0	0	
12:15 PM	0	0	47	6	0	14	53	0	0	5	0	13					138	607	0	0	0	
12:30 PM	0	0	61	2	0	12	53	0	0	4	0	19					151	617	0	0	0	
12:45 PM	0	0	45	2	0	15	54	0	0	13	0	16					145	637	0	0	0	
1:00 PM	0	0	62	4	0	8	77	0	0	6	0	16					173	642	0	0	0	
1:15 PM	0	0	56	7	0	18	49	0	0	4	0	14					148	656	0	0	0	
1:30 PM	0	0	66	4	0	13	70	0	0	4	0	14					171	703	0	0	0	
1:45 PM	0	0	61	2	0	9	62	0	0	6	0	10					150	724	0	0	0	
2:00 PM	0	0	79	5	0	16	69	0	0	5	0	13					187	782	0	0	0	
2:15 PM	0	0	73	2	0	19	77	0	0	6	0	18					195	792	0	0	0	
2:30 PM	0	0	53	11	0	17	84	0	0	6	0	21					192	804	0	0	0	
2:45 PM	0	0	81	3	0	11	87	0	0	3	0	23					208	830	0	0	0	
3:00 PM	0	0	77	6	0	8	74	0	0	6	0	26					197	855	0	0	0	
3:15 PM	0	0	73	10	0	28	73	0	0	4	0	19					207	903	0	0	0	
3:30 PM	0	0	86	7	0	14	83	0	0	3	0	25					218	981	0	0	0	

3:45 PM	0	0	84	5	0	22	96	0	0	3	0	23	233	1,026	0	0	0
4:00 PM	0	0	94	15	0	22	87	0	0	4	0	23	245	1,129	0	0	0
4:15 PM	0	0	94	11	0	27	114	0	0	7	0	32	285	1,233	0	0	0
4:30 PM	0	0	73	5	0	21	116	0	0	4	0	44	263	1,284	0	0	0
4:45 PM	0	0	112	38	0	21	129	0	0	4	0	32	336	1,336	0	0	0
5:00 PM	0	0	125	24	0	22	129	0	0	5	0	44	349	1,291	0	0	0
5:15 PM	0	0	122	13	0	25	121	0	0	3	0	52	336	1,172	0	0	0
5:30 PM	0	0	110	13	0	22	127	0	0	4	0	39	315	1,086	0	0	0
5:45 PM	0	0	104	12	0	27	108	0	0	9	0	31	291	962	0	0	0
6:00 PM	0	0	56	10	0	29	105	0	0	2	0	28	230	890	0	0	0
6:15 PM	0	0	94	4	0	19	107	0	0	3	0	23	250		0	0	0
6:30 PM	0	0	59	5	0	16	86	0	0	3	0	22	191		0	0	0
6:45 PM	0	0	62	12	0	16	101	0	0	3	0	25	219		0	0	0

### Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	2	0	0	0	0	0					2
Lights	0	0	460	87	0	89	498	0	0	16	0	165					1,315
Mediums	0	0	9	1	0	1	6	0	0	0	0	2					19
Total	0	0	469	88	0	90	506	0	0	16	0	167					1,336



Date	Time	Route	Milelog	IntersectingRoute	Injuries	Fatalities	MannerOfCollision	DirVeh1	DirVeh2	MnvrVeh1	MnvrVeh2	LatDecimal	LongDecimal
6/10/2012	11:00:00	UNIVETER RD		PINECREST RD	1	0	Rear End	West	West	Straight	Turning Left	34.1122	-84.292
6/22/2012	13:13:00	UNIVETER RD		PINECREST RD	0	0	Angle	North	South	Turning Left	Straight	34.18971	-84.48897
12/14/2012	18:17:00	UNIVETER RD		PINECREST RD	0	0	Not A Collision with Motor Vehicle	West		Negotiating A Curve		34.18974	-84.48901
2/16/2013	22:53:00	PINECREST RD	1.09	UNIVETER RD	0	0	Not A Collision with Motor Vehicle	North		Negotiating A Curve		34.188588	-84.490259
7/5/2014	7:54:00	PINECREST RD	1.36	UNIVETER RD	0	0	Head On	South	North	Turning Left	Stopped	34.189663	-84.488964
9/15/2014	1:45:00	UNIVETER RD	1.36	PINECREST RD	0	0	Not A Collision with Motor Vehicle	Southeast		Turning Right		34.189692	-84.489029
10/31/2014	21:23:00	UNIVETER RD	1.36	PINECREST RD	0	0	Rear End	South	South	Straight	Stopped	34.18975	-84.489056
2/24/2015	7:31:00	UNIVETER RD	1.28	PINECREST RD	0	0	Rear End	West	West	Straight	Stopped	34.190289	-84.490281
6/2/2015	20:20:00	UNIVETER RD	1.36	PINECREST RD	1	0	Rear End	Northwest	Northwest	Straight	Turning Left	34.189671	-84.488832
8/1/2015	20:11:00	UNIVETER RD		PINECREST RD	4	0	Head On	West	East	Turning Left	Straight	34.189714	-84.488956
9/8/2015	2:43:00	UNIVETER RD		PINECREST DR	0	0	Not A Collision with Motor Vehicle	West		Negotiating A Curve		34.190312	-84.490371
9/27/2015	17:20:00	PINECREST RD		UNIVETER RD	0	0	Not A Collision with Motor Vehicle	East		Straight			
12/7/2015	7:40:00	UNIVETER RD	1.36	PINECREST RD	0	0	Rear End	West	West	Straight	Stopped	34.189699	-84.488954
12/31/2015	11:26:00	UNIVETER RD	1.36	PINECREST RD	0	0	Angle	North	East	Turning Left	Negotiating A Curve	34.189703	-84.488964
7/20/2016	13:41:00	UNIVETER RD	1.36	PINECREST RD	3	0	Rear End	South	South	Straight	Stopped	34.189684	-84.488865
7/26/2016	7:23:00	UNIVETER RD	1.36	PINECREST RD	0	0	Rear End	Southeast	Southeast	Straight	Straight	34.189511	-84.488312
1/18/2017	16:53:00	UNIVETER RD	1.36	PINECREST RD	0	0	Rear End	West	West	Straight	Turning Left	34.189707	-84.48898
2/2/2017	18:05:00	UNIVETER RD	1.36	PINECREST RD	2	0	Rear End	West	West	Straight	Stopped	34.189681	-84.488895
12/16/2017	15:10:00	UNIVETER RD		PINECREST RD	2	0	Rear End	Northwest	Northwest	Straight	Stopped	34.189716	-84.488961



Univeter Road

OFF-ROAD  
9/8/15

- 6/10/12 REAR-END
- 7/20/16 REAR-END
- 10/31/14 REAR-END
- 6/2/15 REAR-END
- 12/7/15 REAR-END
- 1/18/17 REAR-END
- 2/2/17 REAR-END
- 12/16/17 REAR-END

12/14/12 ANIMAL

2/24/15 REAR-END

8/1/15

HEAD ON

HEAD ON

ANGLE

ANGLE

REAR-END 7/26/16

9/15/14 OFF-ROAD

2/16/13 OFF-ROAD

Univeter Road

12/31/15

6/22/12

7/5/14

9/27/15 OFF-ROAD

Pinecrest Road

CRASH DATA FOR 6 YEARS

1/1/12 - 12/31/17

● INJURY

19 CRASHES

13 INJURIES

COLLISION DIAGRAM  
UNIVETER ROAD  
AT PINECREST ROAD

CHEROKEE COUNTY, GA