

Speed Limits Study Results

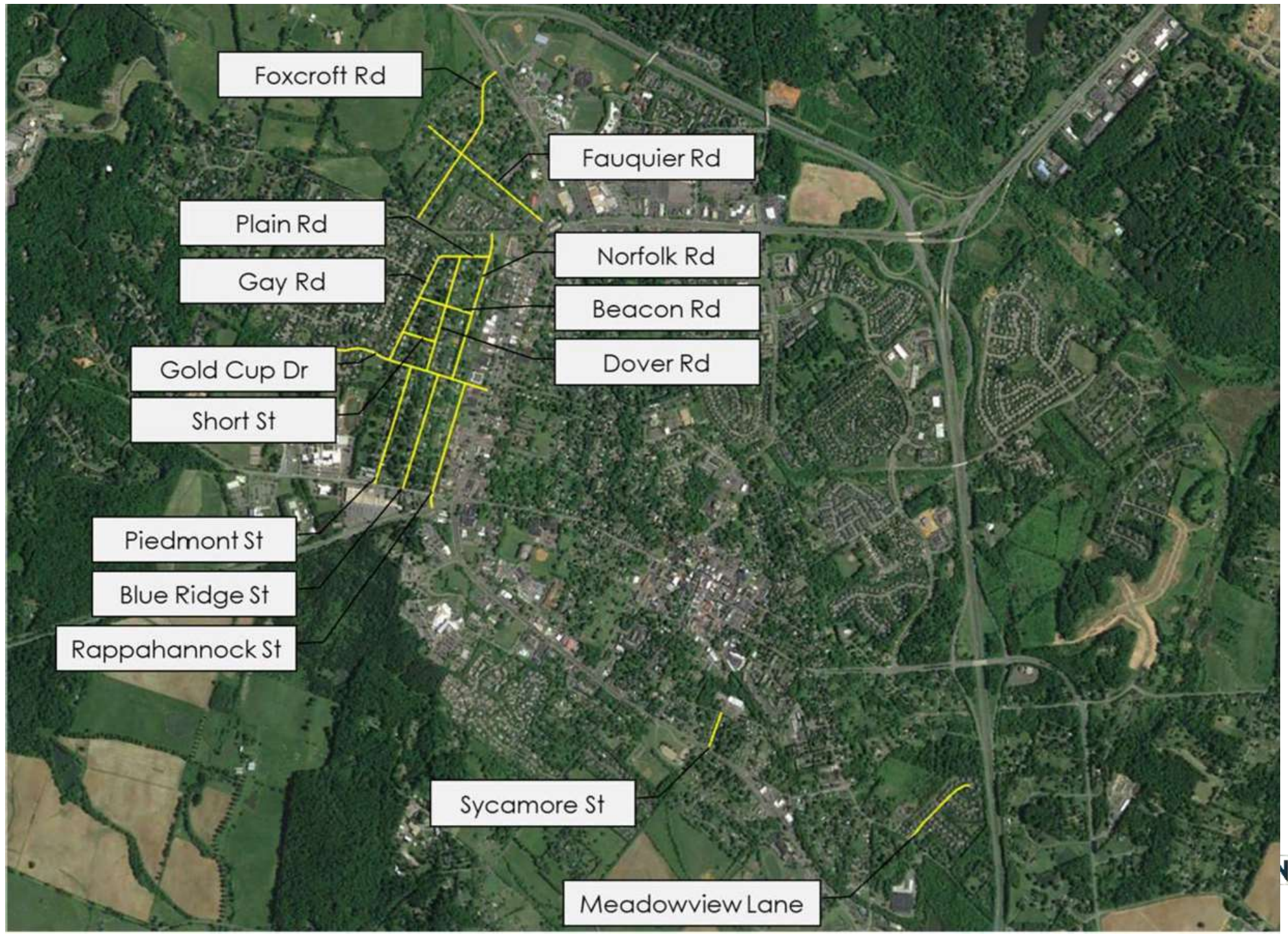


**Warrenton Police Department
briefing to Town Council on
April 11, 2023**

RECAP

In January and February 2023, Kittelson & Associates conducted traffic studies on the following Town streets:

- Foxcroft Rd.
- Piedmont St.
- Sycamore St.
- Blue Ridge St.
- Rappahannock St.
- Norfolk Dr.
- Fauquier Rd.
- Dover Rd.
- Plain Rd.
- Gay Rd.
- Beacon Rd.
- Short St.
- Gold Cup Dr.
- Meadowview Ln.



Traffic Volume

	Northbound					Southbound				
Roadway	Average Daily Traffic	AM Peak	AM Peak Volume	PM Peak	PM Peak Volume	Average Daily Traffic	AM Peak	AM Peak Volume	PM Peak	PM Peak Hour
Foxcroft Rd.	734	7:00	49	3:00	113	382	6:00	30	4:00	41
Piedmont St.	305	7:00	32	4:00	42	315	7:00	24	2:00	33
Sycamore St.	128	7:00	11	6:00	11	123	7:00	7	3:00	14
Blue Ridge St.	326	7:00	31	2:00	50	308	7:00	20	4:00	50
Rappahannock St.	338	7:00	21	4:00	47	168	7:00	13	4:00	32
Norfolk Dr.	683	7:00	52	4:00	90	451	7:00	37	4:00	72
Dover Rd.	80	7:00	8	4:00	10	116	7:00	9	2:00	11
Gay Rd.	135	8:00	14	4:00	12	120	8:00	8	5:00	15
Beacon Rd.	18	7:00	2	4:00	2	13	6:00	2	1:00	1
Meadowview Ln.	92	10:00	9	3:00	12	104	10:00	10	12:00	11
Fauquier Rd.	149	7:00	10	4:00	19	118	9:00	9	4:00	13
	Eastbound					Westbound				
Plain Rd.	148	8:00	15	6:00	13	137	8:00	9	4:00	20
Short St.	11	1:00 ¹	1	12:00 ¹	1	14	1:00 ¹	1	2:00	2
Gold Cup Dr.	165	7:00	14	4:00	17	177	11:00	12	5:00	22

Traffic Speeds

		Northbound				Southbound			
Roadway	Posted Speed	Average Speed	85th Percentile Speed	Median Speed	Mode Speed	Average Speed	85th Percentile Speed	Median Speed	Mode Speed
Foxcroft Rd.	15	21	26	21	23	22	29	22	23
Piedmont St.	15	19	25	19	18	20	26	20	23
Sycamore St.	15	19	26	19	18	20	25	20	23
Blue Ridge St.	15	20	25	20	23	18	24	18	18
Rappahannock St.	15	23	30	23	23	21	29	21	23
Norfolk Dr.	15	19	24	19	18	21	26	21	23
Dover Rd.	15	18	24	18	18	17	22	17	18
Gay Rd.	15	18	24	18	18	18	24	18	18
Beacon Rd.	N.P.	15	22	15	8	16	19	16	18
Meadowview Ln.	15	9	15	9	8	11	17	11	8
Fauquier Rd.	15	20	24	20	23	20	24	20	23
		Eastbound				Westbound			
Plain Rd.	N.P.	12	18	12	8	15	18	15	8
Short St.	N.P.	14	19	14	8	16	19	16	18
Gold Cup Dr.	15	19	24	19	18	18	23	18	18



Guidance in the *Manual on Uniform Traffic Control Devices* (MUTCD) suggests the posted speed should be within five mph of the 85th percentile speed of free-flowing traffic. Using this guidance, the following roadways would have 85th-percentile speeds greater than the posted speed limits:

- Foxcroft Rd.
- Piedmont St.
- Sycamore St.
- Blue Ridge St.
- Rappahannock St.
- Norfolk Dr.
- Dover Rd.
- Gay Rd.
- Fauquier Rd.
- Gold Cup Dr.



Safety Analysis

- 5-year VDOT crash data analysis (1/1/2018 to 12/31/2022)
- Evaluated the frequency, type, and severity of crashes
- 11 of 14 roadways did not have any crashes in 5 years
- Crashes: Gold Cup Dr., Blue Ridge St., Rappahannock St.
- 12 crashes on Gold Cup Dr. in 5 years; ½ resulted in injury
- No crashes had severe injuries
- Most crashes were angle crashes; 7 of 12 on Gold Cup Dr.
- 10 of 12 crashes on Gold Cup occurred between Norfolk Drive and US-17/Broadview Avenue



Conclusions

- 10 roadways experienced 85th percentile speeds greater than the posted speed limit
- MUTCD only provides “guidance” that speed limits should be posted at 85th percentile
- Seven of the 10 roadways experienced NO crashes during the 5-year review period
- Existing speed limits may be appropriate for these 10 roadways when taken in context with other factors specific to those streets
- The current speed limits on these streets “appear effective for most drivers” and “generally produce desired driver behaviors.”
- A change of the posted speed limits to the 85th percentile may possibly cause higher speeds to occur
- More enforcement of the posted speeds may support more drivers observing the speed



