# Halifax Traffic Study

# Halifax, VT – October 2022

In October of 2022, Windham Regional Commission staff set traffic counters in several locations in Halifax. The primary purpose of the count at each location is to assist Halifax in addressing maintenance concerns on unpaved roads, due to increased traffic volume. Three counters were placed on Hatch School Rd: east and west of Shearer Hill Rd, and just west of Butterfield Rd. Counters were also placed on Moss Hollow Rd north of Green River Rd, and Jacksonville Stage Rd just east of the paved portion of the road. The counters collected data on traffic volume, vehicle class, and speed for a period of two weekend days and at least three weekdays. Vehicle class data for the Moss Hollow Rd and Jacksonville Stage Rd locations are not included in this report due to an unusually high number of unclassed vehicles. A summary of the data for each location is included in this report.

In general traffic volume and speed data on the three roadways in this study was in line with comparable unpaved town highways around our region. Hatch School Road registered the highest number of daily vehicles with over 300 per day on average, while both Jacksonville Stage and Moss Hollow averaged less than 150 vehicles per day. The single highest daily total recorded between the five count locations was 421 vehicles on Hatch School Road east of Shearer Hill on Wednesday October, 12th. The single highest hourly total was 44 vehicles counted on Hatch School Road west of Butterfield Road between 3pm-4pm on that same day, Wednesday the 12th. Traffic volumes on both Moss Hollow and Jacksonville Stage Rd were significantly lower at fewer than 150 vehicles per day.

For all counts except Moss Hollow, the average speed was between 34-36 mph, in line with the 35 mph statutory speed limit, and the 85th percentile speed was between 40-42 mph. The significance of the 85th percentile speed for setting speed limits and general transportation planning is explained in the attached Traffic Study Appendix. Speeds on Moss Hollow Road were significantly lower, the average speed registering at 30 mph and the 85th percentile at 34 mph.

**Hatch School Road**

Of the three, Hatch School Road had the highest traffic volumes, experiencing on average more than 300 vehicles per day at all 3 locations, including approximately 350 vehicles or greater on weekdays and more than 250 vehicles per day on weekends. Of the 3 count locations volumes were highest on Hatch School Road east of Shearer Hill, registering on average 396 vehicles per day on weekdays and 327 vehicles per day on weekends. Volumes were lowest on Hatch School Rd west of Shearer Hill, at 318 vehicles per day.

This likely is an indication that a significant number of residents are taking Hatch School and Hanson Rd and then using Shearer Hill Rd to connect with VT-9 in Wilmington and access grocery shopping and other amenities available in Downtown Wilmington. This is also supported by the higher weekend vehicle totals at this location, many people likely shopping or dining on Saturday or Sunday. The count east of Shearer Hill was the only location of the five to record more than 300 vehicles per day on average on the weekend. It is also possible that some out of state traffic coming north from I-91 is also using Hanson Rd to Shearer Hill Rd to connect to VT-9, however the huge majority of out of state travelers are likely staying on Route 112, average daily traffic on Route 112 exceeding 1,100 vehicles per day in Halifax according to a 2019 VTrans traffic study.

Speed data on Hatch School Rd indicated that a majority of drivers are within a few miles per hour of the statutory 35 mph speed limit, more than 80% of all vehicles counted travelling less than 40 mph. Speeds were highest to the east of Shearer Hill Rd, and vehicles travelling eastbound were going significantly faster than vehicles travelling westbound. More than 25% of eastbound vehicles were counted faster than 40 mph at the count location immediately east of Shearer Hill compared with only 16% of those travelling westbound. The average speed eastbound was 36 mph compared with 33 mph westbound. This is likely due to the sharp turn in Hatch School Road immediately east of Shearer Hill at Hanson Rd causing westbound drivers to slow down. A more detailed explanation of what circumstances impact vehicle speed is attached in the WRC Traffic Study Appendix.

 Of the roads included in this traffic study report, paving on Hatch School Rd would be the most reasonable given the higher traffic volumes compared with Moss Hollow or Jacksonville Stage. Although not included in the study, based on the locational data for the three counts on Hatch School, it can be inferred that a significant number of drivers are using Shearer Hill-Hatch School-Hanson Rd to connect to the West Halifax Village from VT-9 and this corridor could be a priority for future paving depending on the needs of the community.

One final consideration is the 85th percentile speed. While speeds were not unreasonably high on Hatch School Rd, the 85th percentile speed was at least 5 mph higher than the statutory speed limit of 35 mph at all three locations along Hatch School. According to the Federal Highways Manual on Uniform Traffic Control Devices (MUTCD) as well as the VTrans Orange Book, the 85th percentile speed is the most effective data point to use when setting a speed limit and speed limits outside of villages or downtown areas should be set as close to the 85th percentile speed as possible to maximize both efficiency of traffic flow and safety.

While the current data does not indicate a concerning enough disparity to necessitate any immediate action on the part of the town, it should be noted that if Hatch School Rd was paved it is likely that both the average and 85th percentile speed would increase, drivers generally travelling faster on paved rural town highways than unpaved ones. In this situation it would be recommended that the town consider either raising the posted speed limit beyond 35 mph or implementing traffic calming measures to bring drivers closer to the desired speed. Again, more information on the significance of the 85th percentile speed is available in the attached WRC Traffic Study Appendix.

**Moss Hollow Road**

Moss Hollow Rd had the lowest recorded average daily traffic of the five locations in this traffic study. On average 129 vehicles per day were counted on Moss Hollow. Interestingly, weekend totals were actually higher than weekday totals, 137 vehicles per day counted on Saturday and Sunday compared with 125 vehicles per day on the weekends. The single highest daily total on Moss Hollow was 149 vehicles on Saturday October 15th, with the highest hourly total during the week coming to 21 vehicles between 2pm-3pm on that same Saturday October 15th.

Speed data on Moss Hollow Rd indicated no significant issues with speeding at this location. The average speed on Moss Hollow was 30 mph, 5 mph less than the posted speed limit of 35 mph, and in total only 12.5 % of drivers were clocked at 35 mph or greater, an extremely low figure compared with data from the huge majority of WRC traffic studies on unpaved Class 3 town highways with speed limits of 35 mph.

Given both the low traffic volumes and generally low vehicle speeds on Moss Hollow Road, there does not seem to be a substantial need for paving or other changes on this stretch of town highway. The most significant piece of data collected at this location is the higher number of vehicles counted on the weekends than the weekdays. In general, this is unusual for traffic data collected around the region, however given this count was done near the height of the fall foliage season it’s possible that this weekend number is an anomaly that would not be repeated during other times of year. More data collection would need to be done to confirm this.

**Jacksonville Stage Road**

Data was collected at the beginning of the unpaved section of Jacksonville Stage Rd just to the east of the West Halifax Village. Overall traffic volumes were low at less than 150 vehicles per day. Volumes were slightly higher on the weekdays than on the weekend, at 159 and 135 vehicles per day respectively, consistent with most traffic studies on comparable stretches of town highway in the Windham Region. The single highest daily total was 185 vehicles on Tuesday, October 18th and the single highest hourly total was 23 vehicles counted between 5pm and 6pm that same day.

Vehicle speeds on Jacksonville Stage Rd were consistent with the data collected at other locations in town during this study, vehicles travelling on average 34 mph, with 16.7% of all those counted driving at speeds greater than 40 mph. There was, however, a significant disparity in westbound vs eastbound speeds on Jacksonville Stage Rd with westbound vehicles travelling noticeably faster than those coming eastbound from the West Halifax village. Vehicles eastbound from the village were on average counted at 32 mph, with an 85th percentile speed of 38 mph. Only 11% of eastbound vehicles were recorded at faster than 40 mph.

In comparison, vehicles westbound into the village were counted at an average of 35 mph and 20% of all those counted were clocked at 40 mph or greater, nearly double the eastbound number. The 85th percentile speed on Jacksonville Stage Rd for westbound vehicles was 42 mph. Jacksonville Stage Road west of the intersection with Tucker Rd is a relatively flat, straight stretch of roadway which in general will lead to higher speeds from drivers. Although the section closer to the West Halifax village is paved, its steep, winding character will slow down drivers and contribute to the lower eastbound speeds that we observed in this traffic count.

Given the low volume of vehicles on Jacksonville Stage Rd there is likely not a huge need for paving or other improvements on the unpaved section of the roadway. However, given its location in the immediate area of the West Halifax village, and acknowledging the somewhat higher than average westbound speed data in particular, the town might consider future improvements or traffic calming infrastructure on this section of Jacksonville Stage, possibly as part of a longer term village or bike ped planning process.