



Friday, November 17, 2023

Dean Shankle, Town Manager
Town of Amherst
2 Main Street
Amherst, NH

Re: Truck Traffic Survey along Boston Post Road and New Boston Road

Dear Mr. Shankle:

The Nashua Regional Planning Commission (NRPC) conducted a survey of vehicle traffic along Boston Post Road and New Boston Road. This report is a review and analysis of vehicle classification data from 5 traffic count sites in Amherst. The purpose of the data analysis is basic research for policy recommendations to the Town of Amherst on non-local and through truck traffic along Boston Post Road and New Boston Road. Vehicle classification counts were collected over several consecutive weeks during October and November 2023 and covering weekdays.

Vehicle Classification Counts

Visualization of the constituent vehicle within the traffic flow of a road is a critical component of understanding function of a road. Vehicle classification data is more difficult to visualize because of the numerous categories and is most frequently depicted using the distribution of vehicle type percentages. FHWA developed a 13-class vehicle classification system in the mid-1980s. This system was the result of compromises designed to meet the needs of many traffic data users. A key user are communities highly interested in the amount of travel occurring in multi-unit vehicles along their roads. The NRPC traffic counters can measure the presence of vehicles, detecting the number of axles, and determining the distance between consecutive axles based on the timing of each vehicle as it passed over the sensors.

FHWA Vehicle Class Definitions

- Class 1 – Motorcycles. All 2- or 3-wheeled motorized vehicles. Typical vehicles in this category have saddle type seats and are steered by handlebars rather than steering wheels. This category includes motorcycles, motor scooters, mopeds, motor-powered bicycles, and 3-wheel motorcycles.
- Class 2 – Passenger Cars. All sedans, coupes, and station wagons manufactured primarily for the purpose of carrying passengers and including those passenger cars pulling recreational or other light trailers.

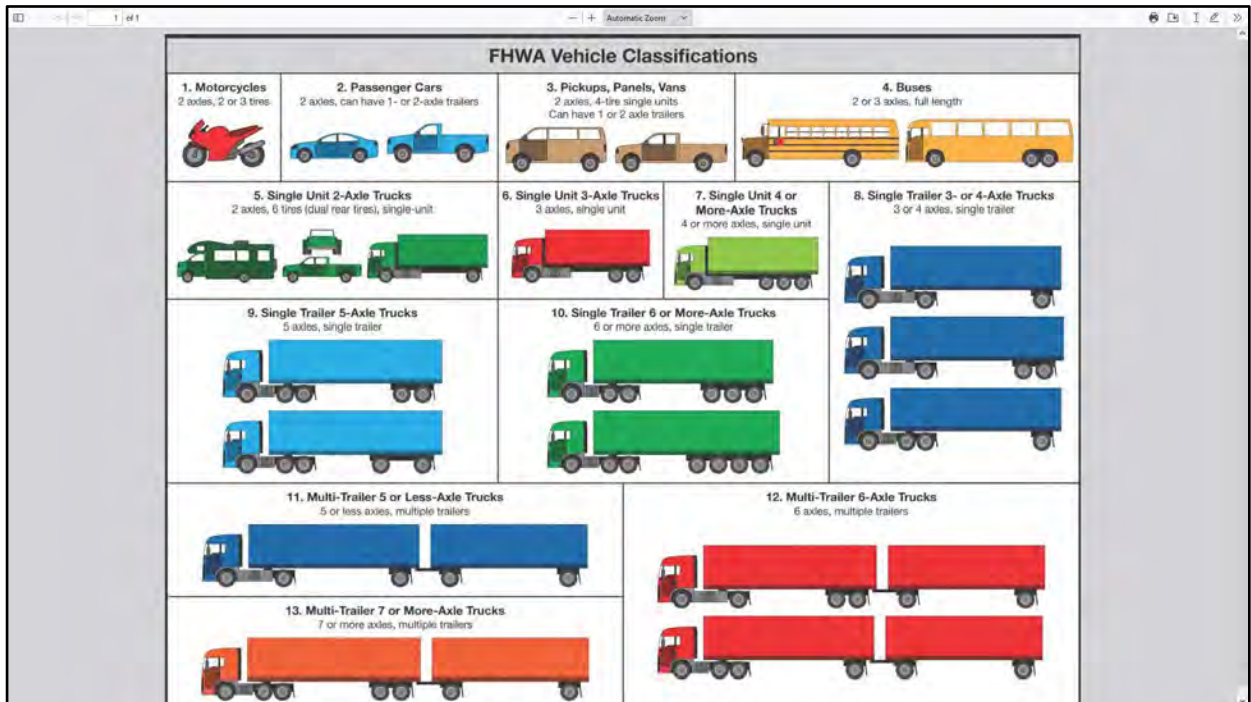
- Class 3 – Other 2-Axle, 4-Tire Single Unit Vehicles (Pickup trucks). All 2-axle, 4-tire vehicles, other than passenger cars. Included in this classification are pickups, panels, vans, and other vehicles such as campers, motor homes, ambulances, hearses, carryalls, and minibuses. Other 2-axle, 4-tire single-unit vehicles pulling recreational or other light trailers are included in this classification.
- Class 4 – Buses. All vehicles manufactured as traditional passenger-carrying buses with 2 axles and 6 tires or 3 or more axles. This category includes only traditional buses (including school buses) functioning as passenger-carrying vehicles.
- Class 5 – 2-Axle, 6-Tire, Single-Unit Trucks. All vehicles on a single frame, including trucks, camping and recreational vehicles, motor homes, etc., with 2 axles and dual rear wheels.
- Class 6 – Three-Axle Single-Unit Trucks. All vehicles on a single frame, including trucks, camping and recreational vehicles, motor homes, etc., with 3 axles.
- Class 7 – Four or More Axle Single-Unit Trucks. All trucks on a single frame with 4 or more axles.
- Class 8 – Four or Fewer Axle Single-Trailer Trucks. All vehicles with 4 or fewer axles consisting of 2 units, one of which is a tractor or straight truck power unit.
- Class 9 – Five-Axle Single-Trailer Trucks. All 5-axle vehicles consisting of 2 units, one of which is a tractor or straight truck power unit.
- Class 10 – Six or More Axle Single-Trailer Trucks. All vehicles with 6 or more axles consisting of 2 units, one of which is a tractor or straight truck power unit.
- Class 11 – Five or fewer Axle Multi-Trailer Trucks. All vehicles with 5 or fewer axles consisting of 3 or more units, one of which is a tractor or straight truck power unit.
- Class 12 – Six-Axle Multi-Trailer Trucks. All 6-axle vehicles consisting of 3 or more units, one of which is a tractor or straight truck power unit.
- Class 13 – Seven or More Axle Multi-trailer Trucks. All vehicles with 7 or more axles consisting of 3 or more units, one of which is a tractor or straight truck power unit.

For this survey Class 1/Motorcycles, Class 2/Passenger Cars, Class 3/Pickup trucks, Class 4/Buses were considered as part of the general residential traffic flow originating from a residence or having a residential purpose. All other traffic classes were considered non-local or through truck traffic.

Table 1 – Vehicle Classification report

Location	Percent of Traffic		Number of Trucks per Day
	Residential Traffic	Heavy Trucks	
Mont Vernon Road - east of Secomb Rd	85.5%	14.5%	318
Boston Post Road – north of New Boston Road	87.3%	12.7%	347
New Boston Rd – near Mont Vernon town line	90.8%	9.2%	57
New Boston Rd - south of Brookwood Drive	93.9%	6.1%	102
Boston Post Rd - south of New Boston Road	89.2%	10.8%	481

Figure 1 – Vehicle Classification Types



Observations

- All traffic at all the locations was evenly split approximately 50/50 between each travel lane and direction.
- For United States, truck traffic represents 23.7% of all traffic on rural interstates and 11.4% on urban interstates. The distribution of vehicle classes for Boston Post Road and New Boston Road are well within the averages found on other local roads.
- Boston Post Road north of New Boston Road had an identical split between passenger vehicles and truck traffic in 2022 when another vehicle classification was conducted as part of the annual NHDOT traffic count program.

Recommendation:

- To reduce truck traffic consider creating an ordinance regulating truck traffic along public roads that are duly signed. Several good examples currently exist and are being employed by communities in New Hampshire. The City of Nashua has an excellent example that details every street in the city what vehicles classes are permitted, timing of certain vehicle classes, and size of vehicles. The Town of Nottingham also has a good although much more simplified example.

Please do not hesitate to contact us if you have any questions or if we can be of any further assistance.

Sincerely,

NASHUA REGIONAL PLANNING COMMISSION

Edward Connell (Ned)
Transportation Planner

CC: Jay Minkarah



Tuesday, December 19, 2023

Dean Shankle, Town Manager
Town of Amherst
2 Main Street
Amherst, NH

Re: Truck Traffic Survey along Chestnut Hill Road

Dear Mr. Shankle:

The Nashua Regional Planning Commission (NRPC) conducted a survey of vehicle traffic along Chestnut Hill Road. This letter is a review and analysis of the vehicle classification data from that site in Amherst. The purpose of the data analysis is basic research for policy recommendations to the Town of Amherst on non-local and through truck traffic along Chestnut Hill Road. A vehicle classification count was collected over seven consecutive days during December 2023.

Vehicle Classification Counts

Visualization of the constituent vehicle within the traffic flow of a road is a critical component of understanding function of a road. Vehicle classification data is more difficult to visualize because of the numerous categories and is most frequently depicted using the distribution of vehicle type percentages. FHWA developed a 13-class vehicle classification system in the mid-1980s. This system was the result of compromises designed to meet the needs of many traffic data users. A key user are communities highly interested in the amount of travel occurring in multi-unit vehicles along their roads. The NRPC traffic counters can measure the presence of vehicles, detecting the number of axles, and determining the distance between consecutive axles based on the timing of each vehicle as it passed over the sensors.

FHWA Vehicle Class Definitions

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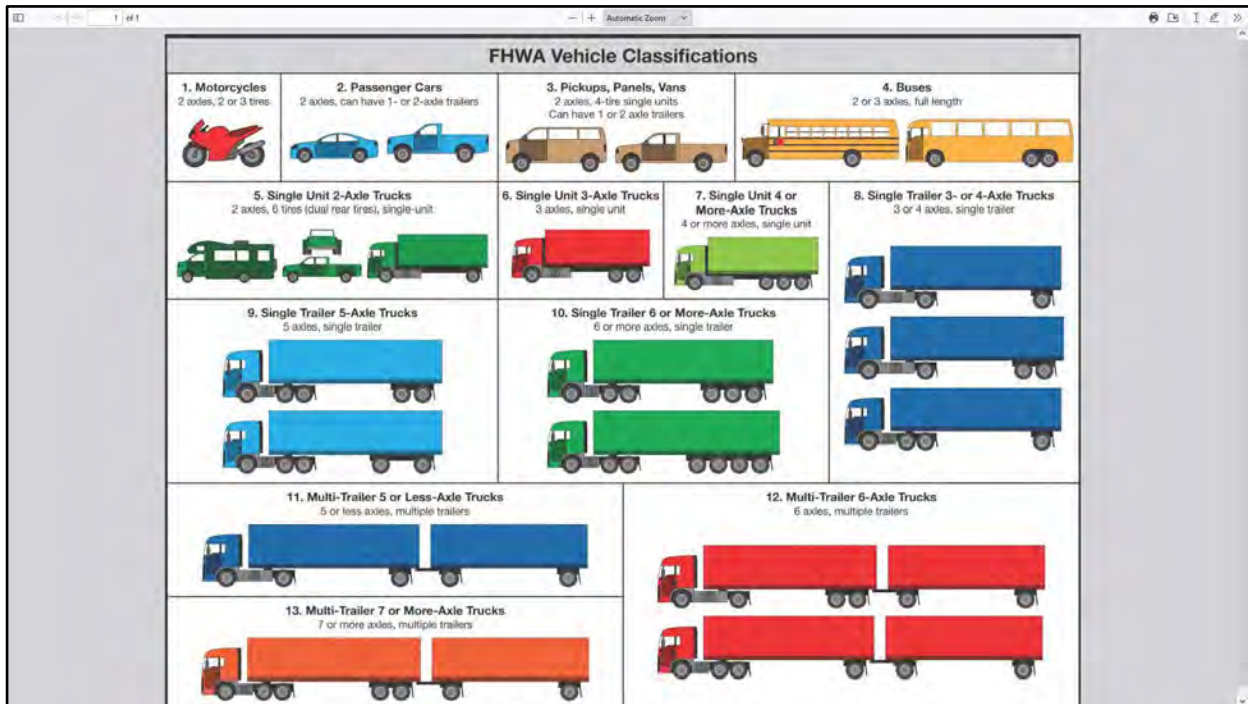
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For this survey Class 1/Motorcycles, Class 2/Passenger Cars, Class 3/Pickup trucks, Class 4/Buses were considered as part of the regular residential traffic flow originating from a residence or having a residential purpose. All other vehicle classes were considered non-local or through truck traffic.

Table 1 – Vehicle Classification report

Location	Percent of Traffic		Number of Trucks per Day
	Residential Traffic	Large Trucks	
Chestnut Hill Rd – near Wolfe Lane	85.9%	14.1%	115
Other vehicle class counts recently completed in Amherst			
Mont Vernon Rd - east of Secomb Rd	85.5%	14.5%	318
Boston Post Rd – north of New Boston Road	87.3%	12.7%	347
New Boston Rd – near Mont Vernon town line	90.8%	9.2%	57
New Boston Rd - south of Brookwood Drive	93.9%	6.1%	102
Boston Post Rd - south of New Boston Road	89.2%	10.8%	481

Figure 1 – Vehicle Classification Types



Observations

- The traffic at this location was evenly split between each travel lane and direction.
- For United States, truck traffic represents 23.7% of all traffic on rural interstates and 11.4% on urban interstates. The distribution of vehicle classes for Chestnut Hill Road is well within the averages found on other local roads.
- Chestnut Hill Road had a very similar split between passenger vehicles and truck traffic as Mont Vernon Road, New Boston Rd, and Boston Post Road which were surveyed earlier this Fall.

Recommendation:

- To reduce truck traffic consider creating an ordinance regulating truck traffic along public roads that are duly signed. Several good examples currently exist and are being employed by communities in New Hampshire. The City of Nashua has an excellent example that details every street in the city what vehicles classes are permitted, timing of certain vehicle classes, and size of vehicles. The Town of Nottingham also has a good although much more simplified example.

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