



## NCDOT 2015 Vehicle Classification Station Shapefile

The NCDOT monitors all truck routes for vehicle classification in North Carolina. The primary purpose of this process is to generate truck travel estimates on those routes. The annualized truck percentages generated from count data collected at the vehicle class (VC) stations is applied to the Annual Average Daily Traffic (AADT) estimates on those routes to generate truck AADT. This data is used to meet federal reporting requirements for truck monitoring on the National Highway System (NHS) routes and provides travel data on all truck network routes in North Carolina. The truck AADT estimates on these routes is reported in the NCDOT 2015 Traffic Segments shapefile. The data provided in the stations shapefile includes these estimates for the station locations and additional statistics are provided for truck distributions and peak hour statistics.

There were 3,121 VC stations required to monitor trucks on all truck routes in 2015. The VC station points were digitized at the location counted using the 2015 Quarter 1 publication of the NCDOT Linear Referencing System (LRS) Arcs maintained by the GIS Unit. That version of the LRS Arcs are the official 2015 route locations and the station points align with this reference. You may find differences if you use this data set with a different version of the LRS Arcs. VC stations are updated on a 3 year cycle and approximately one third are counted each year to generate updated class distributions. Volume estimates are updated every year and all volumes are 2015 estimates.

### Attribute Table Fields

The traffic statistics provided are based on seasonally factored count data. The fields provided in the attribute table are:

### Summary Statistics

**AADT\_2015:** Estimated 2015 Annual Average Daily Traffic

**SU\_AADT:** Estimated 2015 Single Unit Truck AADT (FHWA Class 4 – 7)

**MU\_AADT:** Estimated 2015 Multi Unit Truck AADT (FHWA Class 8 – 13)

**TRUCK\_AADT:** Estimated 2015 Truck AADT (FHWA Class 4 – 13)

**SU\_PCT:** Percent of AADT that are Single Unit Trucks (FHWA Class 4 – 7)

**MU\_PCT:** Percent of AADT that are Multi Unit Trucks (FHWA Class 8 – 13)

**TRUCK\_PCT:** Percent of AADT that are Trucks (FHWA Class 4 – 13)



### **FHWA Class Percentages**

- MC\_PCT:** Percent of AADT that are Motorcycles (Class 1)  
**CARS\_PCT:** Percent of AADT that are Cars (Class 2)  
**2A4T\_PCT:** Percent of AADT that are SUVs, Pickups, or Vans (Class 3)  
**BUS\_PCT:** Percent of AADT that are Buses (Class 4)  
**2ASU\_PCT:** Percent of AADT that are 2 axle single unit trucks (Class 5)  
**3ASU\_PCT:** Percent of AADT that are 3 axle single unit trucks (Class 6)  
**4ASU\_PCT:** Percent of AADT that are 4+ axle single unit trucks (Class 7)  
**4AST\_PCT:** Percent of AADT that are 3 or 4 axle multi-unit single trailer trucks (Class 8)  
**5AST\_PCT:** Percent of AADT that are 5 axle multi-unit single trailer trucks (Class 9)  
**6AST\_PCT:** Percent of AADT that are 6+ axle multi-unit single trailer trucks (Class 10)  
**5AMT\_PCT:** Percent of AADT that are 5 axle multi-unit twin trailer trucks (Class 11)  
**6AMT\_PCT:** Percent of AADT that are 6 axle multi-unit twin trailer trucks (Class 12)  
**7AMT\_PCT:** Percent of AADT that are 7+ axle multi-unit twin trailer trucks (Class 13)

### **Vehicle Class Distribution (VCD)**

Distribution of Truck AADT into the 10 FHWA Truck Classes (MEPDG Design Input):

- CL04\_VCD:** Proportion of AADTT that are Class 4 trucks  
**CL05\_VCD:** Proportion of AADTT that are Class 5 trucks  
**CL06\_VCD:** Proportion of AADTT that are Class 6 trucks  
**CL07\_VCD:** Proportion of AADTT that are Class 7 trucks  
**CL08\_VCD:** Proportion of AADTT that are Class 8 trucks  
**CL09\_VCD:** Proportion of AADTT that are Class 9 trucks  
**CL10\_VCD:** Proportion of AADTT that are Class 10 trucks  
**CL11\_VCD:** Proportion of AADTT that are Class 11 trucks  
**CL12\_VCD:** Proportion of AADTT that are Class 12 trucks  
**CL13\_VCD:** Proportion of AADTT that are Class 13 trucks

### **Peak Hour Statistics**

- PEAK\_HOUR:** Start time for the measured peak hour volume  
**K\_FACTOR:** Measured peak hour volume as a percent of AADT  
**D\_FACTOR:** Peak directional volume as a percent of the peak hour total volume

### **Count Metadata**

- COUNT TYPE:** Type of count collected; PVC is a portable vehicle classifier count that is axle based using the FHWA 13 class scheme with a 48 hour duration; MC is a manual class count that is direct observation using the NCDOT 4 class scheme with a 13 hour duration (see charts below for class schemes)  
**COUNT DATE:** Start date of the count collected to generate the statistics provided






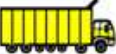



















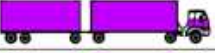










Additional Information

If additional information is needed, or an issue with the data is identified, please contact the Traffic Survey Group at (919) 661-5872 or email us at:

<https://apps.dot.state.nc.us/ContactUs/PostComment.aspx?Unit=TrafficCnt>

DISCLAIMER: The North Carolina Department of Transportation shall not be held liable for any errors in this data. This includes errors of omission, commission, errors concerning the content of the data, and relative and positional accuracy of the data. This data cannot be construed to be a legal document. Primary sources from which this data was compiled must be consulted for verification of information contained in this data.

**FHWA 13 Class Scheme**

<b>Class 1</b> Motorcycles		<b>Class 7</b> Four or more axle, single unit	
<b>Class 2</b> Passenger cars		<b>Class 8</b> Four or less axle, single trailer	
			
			
			
<b>Class 3</b> Four tire, single unit		<b>Class 9</b> 5-Axle tractor semitrailer	
			
			
<b>Class 4</b> Buses		<b>Class 10</b> Six or more axle, single trailer	
			
		<b>Class 11</b> Five or less axle, multi trailer	
<b>Class 5</b> Two axle, six tire, single unit		<b>Class 12</b> Six axle, multi-trailer	
			
		<b>Class 13</b> Seven or more axle, multi-trailer	
<b>Class 6</b> Three axle, single unit			
			
			

Source: Federal Highway Administration



**FHWA 13 Class and NCDOT 4 Class Scheme Correlation**

**VEHICLE CLASS SCHEMES**

<b><u>FHWA 13 CLASS SCHEME</u></b>	<b><u>NCDOT 4 CLASS SCHEME</u></b>
<i>Class 1 – Motorcycles</i>	<i>PV</i>
<i>Class 2 – Passenger Cars</i>	
<i>Class 3 – 2 Axle 4 Tire Vehicles (Pickups, SUVs, Vans)</i>	
<i>Class 4 – Buses</i>	<i>DUALS</i>
<i>Class 5 – 2 Axle SU</i>	
<i>Class 6 – 3 Axle SU</i>	
<i>Class 7 – 4 or More Axle SU</i>	
<i>Class 8 – 4 Axle TTST with a Single Trailer</i>	<i>TTST</i>
<i>Class 9 – 5 Axle TTST with a Single Trailer</i>	
<i>Class 10 – 6 or More Axle TTST with a Single Trailer</i>	
<i>Class 11 – 5 Axle TTST with Two Trailers</i>	<i>TWINS</i>
<i>Class 12 – 6 Axle TTST with Two Trailers</i>	
<i>Class 13 – 7 or More Axle TTST with Two Trailers</i>	

*PV - Passenger Vehicles  
SU - Single Unit Trucks  
TTST - Truck, Tractor with Semi Trailer*