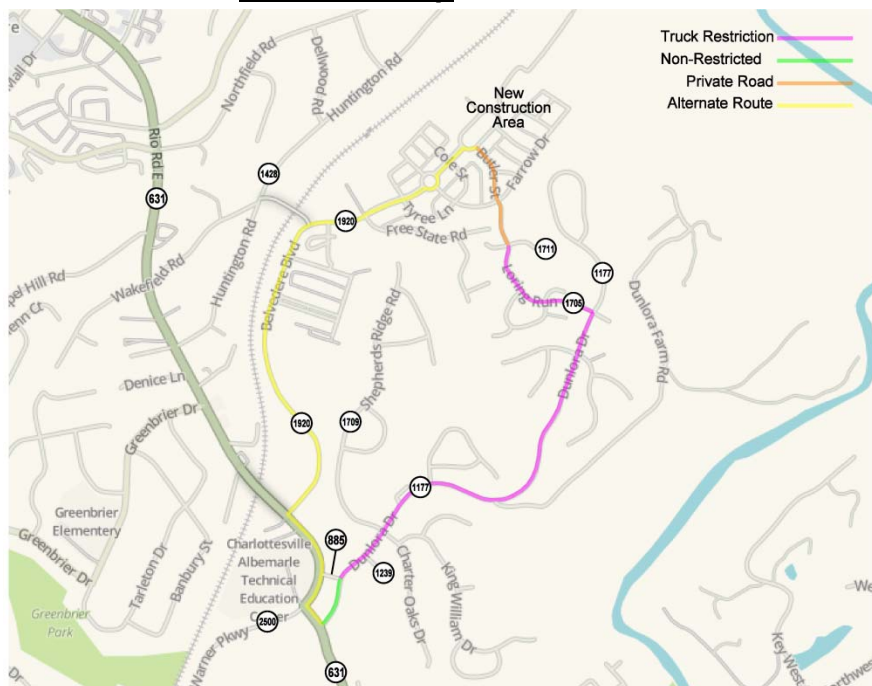


Through Truck Restriction Study
Routes: 1177 & 1705
Jurisdiction: Albemarle County
Study Date: August 1, 2018



Culpeper District Traffic

Location Map



VDOT - Traffic Engineering
Culpeper District
Traffic Engineer

Proposed Restricted Route

It is proposed that all THRU TRUCKS over 12,000 LBS (except for local deliveries) temporarily be restricted along Route 1177 and Route 1705 (see attached map for details) in accordance with the Code of Virginia section 46.2-1104, which provides that VDOT employees may restrict any vehicle or combination of vehicles passing over any highway or section of highway or bridge by weight or dimension (width, height, length) or speed whenever an engineering study discloses that it would promote the safety of travel or is necessary for the protection of any such highway. This temporary restriction shall be removed upon the substantial completion of the Belvedere Community grading and/or and road network construction as determined by VDOT.

Route 1177/Dunlora Dr. (0.78 miles, Urban Local)

From: Route 885/Dunlora Dr. north entrance (MP 0.10)
To: Route 1705/Loring Run Dr. (MP 0.88)

Route 1705/Loring Run Dr. (0.26 miles, Urban Local)

From: Route 1711/Breckenridge Ct. (MP 0.00)
To: Route 1177/Dunlora Dr. (MP 0.26)

Total length / Travel time for proposed restricted routing: 1.4 Miles* / 3 Minutes *Total travel length contains 0.10 miles of Route 1177 and 0.26 miles of private road (Butler St.) that are not a part of the restriction.

Proposed Alternate Routing

Routes 631 and 1920 are the proposed alternate route (see attached map for details).

*Route 1920 is currently in the process of being accepted into the state system.

Route 631/Rio Rd. E. (0.27 miles, Minor Arterial)

From: Route 1177/Dunlora Dr. (MP 12.72)
To: Route 1920/Belvedere Blvd. (MP 12.99)

Route 1920/Belvedere Blvd. (1.03 miles, Urban Local)

From: Route 631/Rio Rd. E. (MP TBD)
To: Private Rd./Butler St. (MP TBD)

Total length / Travel time: 1.3 Miles / 4 Minutes

Difference in total length / travel time for proposed restriction vs. alternate routing: 0.1 miles / 0 minutes

Summary of Study Results

Although this through truck weight restriction is proposed to be implemented per the Code of Virginia **46.2-1104** which does not require the involvement of the Commonwealth Transportation Board (CTB), this route does meet the requirements of the CTB in that the following three (3) criteria have been met for the proposed restriction.

1. **Provision of reasonable alternative routes:** There is an alternative route (Route 631 and Route 1920) that is better suited for trucks over 12,000 LBS. The alternative route is 0.1 miles shorter, and takes the same amount of travel time. It is a wider roadway designed for larger vehicles, has better turning radii, includes center and edge line pavement markings, is median divided in some portions, includes bike and pedestrian facilities, and only impacts a 0.25 mile residential section (which includes sidewalk and marked crosswalks).
2. **Compatibility of truck traffic with the proposed restricted routing:** The proposed restricted route (Routes 1177 & 1705) is **not suitable** for through trucks. This is due to the residential nature of the route, observed on-street parking, pedestrian and cyclists, no sidewalks, narrow lanes, and some observed pavement cracks.
3. **Functional Class of either Local or Collector for proposed restriction:** The roadway is classified as urban local.

A. Roadway characteristics

Proposed Restricted Routing

Routes 1177 and 1705 are relatively low volume roadways for a large portion of the restricted route (AADT ranges from 2,300 VPD at Route 631, to 360 VPD at Route 1711) with a posted speed of 25 MPH. The route has 0.98 miles of 22' pavement with no pavement markings and 0.16 miles of 26' pavement width including center and edgeline pavement markings. The largest factor contributing to the through truck weight restriction is safety due the narrow residential nature of the roadway which includes on-street parking, and no designated bicycle or pedestrian facilities. Additionally the pavement structure along the majority of the route does not appear to be designed for heavy loads, with some observed pavement cracking and deterioration on the shoulders.

Proposed Alternate Routing

Routes 631 and 1920 are high-medium volume roadways for a large portion of the alternate route (AADT on Route 631 is 28,000 VPD, the AADT on Route 1920 is not yet established but is judged to be medium based on field observation and land use) with posted speeds of 35 MPH for the majority of the route, with 25 MPH in the residential section. The majority of the route a wide roadway including 12' lanes designed for larger vehicles, has appropriate turning radii, includes center and edge line pavement markings, is median divided in some portions, includes bike and pedestrian facilities, and only impacts a 0.25 mile residential section (which includes sidewalks, marked crosswalks, and bike lanes).

B. Roadside Environment:

Proposed Restriction

Routes 1177 and 1705 are primarily grass shoulder section roadways with multiple residential units in close proximity to the roadway and numerous entrances. They are residential in nature including observed on-street parking, pedestrian and cyclists, and no sidewalks. There are mailboxes, and vegetation along both sides of the road.

Alternative Routing for Proposed Restriction

Routes 631 and 1920 primarily curb and gutter section roadways, including bike paths, sidewalk, and some median divided sections. The primary land use is commercial (including a church), with a residential area generally confined to the end of the alternate route near the ongoing subdivision construction.

C. Reported crash experience

The following Crash records are obtained through RNS and are for the period from: 01/01/2014 to: 12/31/2017

length of period: 3 Years

Note: Records of crashes where no injuries were sustained and property damage was below \$1,500 are not required to be reported and therefore may not be included in the crashes indicated below.

Discussion of crash experience and relevant information:

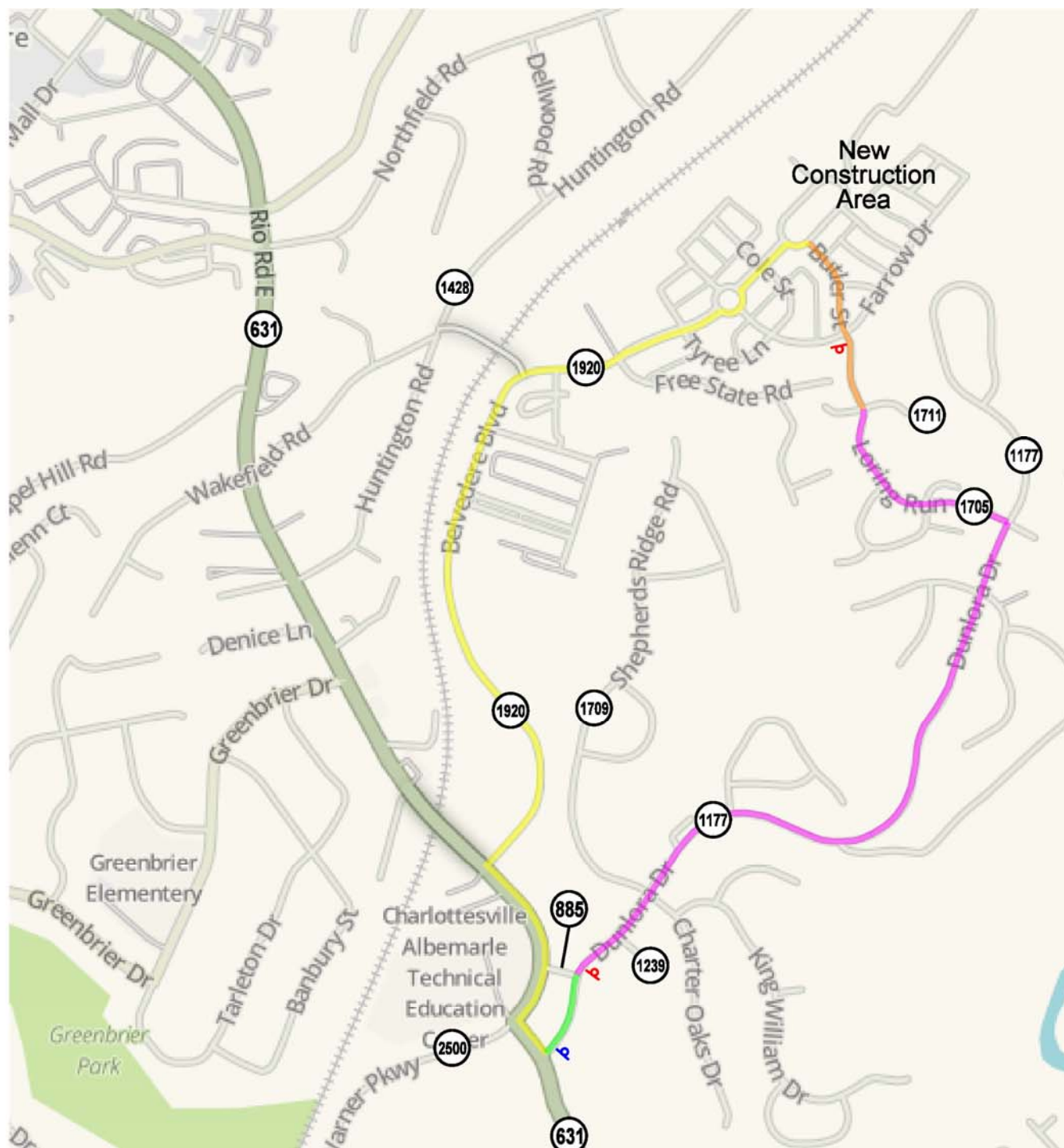
Route 1177 had four recorded crashes in the study period. None of the crashes involved trucks. Two of the crashes were angle crashes related to drivers not paying attention to the stop signs (one at 1705 & one at 1172), one was a road departure, and one was a sideswipe involving snow and slippery road conditions.

Route 1705 had no recorded crashes in the three year study period.

Additional Comments

- See the attached sign plan for the THRU TRUCK weight restriction signs. The proposed sign at Route 1705 and Farrow Dr should be placed in within the proposed future State ROW, in coordination with the developer.
- As-built drawings show the following pavement designs:
 - Route 1177/Dunlora Drive : 1.5" SM-2A / 6" B-3 / 8" 21A, changing to 1.5"/3" B-3/ 12" 21A
 - Route 1705/Loring Run: 1.5" SM-9.5A / 3" BM 25.0 / 6" 21A
 - Route 1920/Belvedere Blvd.: 2" SM 9.5A / 6" BM 25.0 / 8" 21A

Study Map and Sign Locations



Truck Restriction



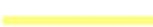
Non-Restricted



Private Road



Alternate Route



Proposed Sign
R12-3 Mod. 24"X36"
Approx. Location



NO THRU
TRUCKS
OVER
12,000 LBS
EMPTY WT

Proposed Signs
R5-2, 24"X24"
R3-17AP, 24"X8"
Approx. Location

