



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

JAMES H. TROGDON, III  
SECRETARY

DATE: February 3, 2017  
TO: District Engineers  
FROM: Michael L. Holder, PE  
Chief Engineer  
SUBJECT: NCDOT Bus Shelter & Bus Stop Guidelines

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*Mike Holder*  
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The attached NCDOT Bus Shelter & Bus Stop guidelines have been developed for your use. These guidelines cover procedures related to design, location, safety, and maintenance aspects when allowing bus stop shelters and benches in the right of way. District Engineers are encouraged to consult with central NCDOT subject matter experts or engineering consultants as needed for assistance in design review.

MLH/rlb

Attachments

cc w/attachments: Division Engineers  
Ron Hancock, PE  
Greg Perfetti, PE  
Kevin Lacy, PE  
Rodger Rochelle, PE  
Glenn Mumford, PE

## NCDOT Bus Shelter & Bus Stop Guidelines – February 3, 2017

As multi-modal consideration and to allow for safe and uniform placement of bus shelters, bus benches and bus stops statewide within NCDOT right of way, the following Guidelines have been established by the Department. Bus Shelters and/or Bus Stops will be allowed within NCDOT right of way by encroachment if the following criteria are met.

1. Bus shelters and bus benches may be allowed within NCDOT Right of Way by Encroachment Agreement. “Form R/W 16.1A, Right of Way Encroachment Agreement for Non-Utility Encroachments on Primary and Secondary Highways” is the appropriate form to use and should be signed by the Division Engineer, District Engineer or their designee. Multiple bus shelters may be approved under one Encroachment Agreement if all of the policy requirements are met. Form 16.1A is located at:

<https://connect.ncdot.gov/municipalities/Utilities/EncroachmentForms/EA16-1A.doc>

2. Encroachment Agreements for bus shelters and bus benches may be approved only for Municipalities or other Governmental Agencies, such as a Transit Authority.
3. Maintenance of bus shelters, bus stop benches, bus stops and the areas adjacent to these shall be the responsibility of the Encroaching Party.
4. The posted speed limit of the adjacent roadway should be 45 mph or less for bus shelter and bus bench installations.
  - In standard 2'-6" curb and gutter installations, the bus shelter should be located behind the sidewalk. The minimum distance from the edge of pavement (edge of gutter) to the face of the bus shelter structure or bus shelter bench is: 12 ft. for 45 mph; 10 ft. for 35 mph; and 8 ft. for 25 mph.
  - In shoulder section and mountable curb installations, the bus shelter or bus bench should be located outside the clear recovery area as defined by the latest version of the AASHTO Roadside Design Guide.
5. The Encroaching Party should include a statement signed and sealed by a North Carolina Licensed Professional Engineer to the effect that "the proposed bus shelter is outside of the clear recovery area as defined by the most current version of the AASHTO Roadside Design Guide or the proposed bus shelter will not adversely obstruct sight distances nor create an increased safety hazard within the clear recovery area.
6. Bus shelters and bus stops are to be placed in locations that ensure safe and efficient operations of vehicular and pedestrian traffic and each site should be independently engineered and designed.

7. Bus Shelter Structure – To ensure the structural adequacy of the bus shelter, the Bus Shelter Manufacturer/Vendor must have a North Carolina Licensed Professional Engineer (PE), seal, sign and date the NCDOT Product Evaluation Program Bus Shelter Structural Adequacy Document. It is recommended that when Municipalities and Transit Authorities advertise Bus Shelter Manufacturers/Vendors for their services, that they write into their RFP's (Request for Proposals), the requirement of the NCDOT Product Evaluation Program Bus Shelter Structural Adequacy Document.

This document is to be completed prior to submitting the bus shelter encroachment package to the Department. Once the document has been completed and sealed:

- A. It should be returned to NCDOT Product Evaluation Program (PEP) office along with a PEP application via e-mail to: [productevaluation@ncdot.gov](mailto:productevaluation@ncdot.gov). The submittal will be reviewed for acceptable completion and a letter will be sent to the manufacturer/vendor notifying them of the approval of the bus shelter for inclusion on the Department's Approved Product List (APL). (All acceptable bus shelters are assigned a status of "Approved for Provisional Use" as they must adhere to the maximum design wind speed as certified by the PE and follow the encroachment process for site specific foundation designs.)
- B. The District Engineer can move forward with the encroachment process once the signed, sealed and dated Bus Shelter Structural Adequacy Document has been received by the Department.
- C. Once listed on the APL, the bus shelter can be used in locations that adhere to the max wind speed allowed for that specific bus shelter. The wind speed map is on page 2 of the Bus Shelter Structural Adequacy Document.
- D. As part of the encroachment process, the site specific soil conditions of each bus shelter within NCDOT Right of Way must be evaluated by a PE licensed in the state of North Carolina to verify that the foundation is designed according to current AASHTO or ACI requirements. As a minimum the bus shelter foundation and connections must satisfy the manufacturer's recommendations.

The following documents are located at:

<https://connect.ncdot.gov/resources/Products/Pages/default.aspx>

- a. The NCDOT Structural Adequacy Document for Bus Shelters
- b. The NCDOT PEP Application
- c. The link to the NCDOT Approved Products List
- d. The NCDOT Bus Shelter & Bus Stop Guidelines
- e. The Bus Shelter Encroachment Process (Flow Chart)

8. Bus turn-outs should be evaluated at each bus stop and each bus shelter location by the Municipality or Authority to determine if their placement is applicable for the type of roadway facility that it is being placed. The recommended placement of bus turn-outs shall be reviewed and approved by the Division Engineer or designee.
9. Commercial advertising should not be allowed on bus shelters within the NCDOT Right of Way. Exceptions shall be subject to approval by the Federal Highway Administration.
10. The area around the bus shelters shall allow for circulation of pedestrians and have connectivity to a sidewalk system. All bus shelters shall be ADA compliant and meet ADA Mobility Guidelines.
11. Bus Shelters should have their own lighting for the safety of riders and pedestrians or located within an area where adequate lighting exists. It is preferred that the bus shelter be lit internally or externally with solar lighting, so that additional electrical appurtenances on the right of way will be eliminated. The bus shelter lighting should not cause glare to motorists.
12. There should be appropriate bus signage for each bus stop. The bus signage should comply with the latest version of the MUTCD.
13. Proposed bus shelters & bus stops that do not meet all of the criteria expressed in these Guidelines may be considered on a case by case basis and approved at the discretion of the Division Engineer.
14. NCDOT reserves the right to request removal of any bus shelter and bus shelter bench within NCDOT right of way found to be a hazard to the traveling public.
15. NCDOT may request that the municipality remove any bus shelter and bus shelter bench within NCDOT right of way found to be a hazard to the traveling public. If the municipality does not comply, NCDOT reserves the right to proceed with removal at the municipality's expense.