TO: City-County Planning Board  
FROM: Marco Andrade, Project Planner  
DATE: October 27, 2020  
SUBJECT: Doral Drive/Reynolda Road Interchange Plan

At the October work session, staff presented additional language to be included in the draft Doral Drive/Reynolda Road Interchange Plan to address a couple of points raised by Melynda Dunigan. As promised, this language is included below for your information. Also included is additional language relating to the plan boundary as requested by Jack Steelman.

**Doral Drive Interchange Plan Boundary**

An interchange plan typically takes into consideration all four quadrants of an interchange. However, properties located north of the beltway, including an existing single-family development and a working farm within the Village of Tobaccoville, are proposed to remain as a single-family land use. The southwest quadrant includes a Local Historic Landmark, the Samuel B. Stauber House and Barn, with limited land available for future development. Therefore, this plan only provides a design vision for the southeast quadrant of the Doral Drive/Northern Beltway interchange.

**Street Connectivity**

Street connectivity is an important element in reducing congestion on the local street network. Where it is feasible, connectivity has been incorporated into many developments in the community. Traditionally, developers have not been expected to provide a connection in situations where it would cause a significant expense, such as making a crossing over a creek. However, in certain situations making a street connection, even if it includes an expense such as a creek crossing, can significantly reduce the travel times of residents in an area. In such cases, all reasonable options to create such connections should be explored.

Without building a connection over Muddy Creek to the existing Long Creek Village neighborhood as described in this plan, development in the northern section of the plan area could only be accessed from Bethania-Tobaccoville Road. Having a single access point for development could have a negative effect on traffic on this road and could also trap residents in their homes if an emergency happened near this access point. Not constructing this connection would also mean that Turfwood Drive would remain the only connection into the Long Creek Village neighborhood, as no other opportunities for connectivity exist between the neighborhood.
and the surrounding area. All traffic from this development currently exists onto Turfwood Drive, and traffic at this location is likely to increase without a second connection, as an additional phase of Long Creek Village has yet to develop.

To help with situations such as the one described above, this plan recommends that the City explore funding mechanisms to help realize creek crossing connections. Examples of potential mechanisms include a bond referendum or designating a percentage of property taxes to assists developers with the cost of installing road infrastructure.

**Noise Walls**

The preliminary design for the Doral Drive Road Interchange shows Bethania-Tobaccoville Road being raised over the beltway. Lowering the surface of the beltway at this location will provide some natural sound mitigation for the single family development proposed in the area.

The North Carolina Department of Transportation (NCDOT) does consider the auditory impacts of new roads (such as the Northern Beltway) on residents as part of its Traffic Noise Policy. The policy states that NCDOT will discuss noise impacts and possible noise abatement options with residents at the start of the noise study process. NCDOT will present information on expected highway traffic noise and present the effects of potential noise abatement options. Agency staff will also explain how public preferences for noise abatement are solicited via a balloting process. This plan recommends that interested citizens attend future NCDOT public meetings on the development of this interchange where the specifics related to potential noise abatement measures will be discussed further.

To reduce the auditory impact on residents, this plan recommends substantial vegetative buffers be installed as part of new development adjacent to the beltway and interchange.