

RTA observations on US 70 between Durham and I-540

RTA applauds the ongoing, cooperative efforts of the Durham-Chapel Hill-Carrboro MPO, NCDOT, the City of Durham, the County of Durham, and other partners on the need for an improved, multimodal US 70 corridor in Durham between I-885 and the proposed freeway upgrade of US 70 near I-540 in west Raleigh.

RTA has long supported a multimodal, context sensitive freeway for the corridor. We still do. However, we would also be open to supporting a regional boulevard design, in particular a concept along the lines of what has been presented during the past month by DCHC MPO with parallel service roads.

As there was no direct comparison between freeway and non-freeway boulevard alternatives, no cost information provided for the latter, and no sense of either the likelihood of state funding or of the comparative implementation time potential for the various alternatives, we do not have a current “favorite” alternative.

Given this context, we offer the following feedback and suggestions as the community, region, and state contemplate the future of US 70.

Objectives

We concur with several of the concerns expressed by both DCHC MPO and the City of Durham as [described in the DCHC study FAQs](#) about the two freeway options proposed by NCDOT: the limited number of crossings for bicyclists and pedestrians across the 70 corridor, and the presence of only one proposed service interchange between I-885 and Wake County (i.e., at Miami/Sherron).

Any design selected – freeway or regional boulevard – should create less of a barrier for vulnerable users crossing the corridor than the existing configuration, taking full advantage of topography to provide increased crossing opportunities for pedestrians and bicyclists.

The US 70 corridor directly connects two Interstates (I-885 and I-540) while serving as the main regional reliever to I-40 between Durham and Raleigh. As such, regional and indeed statewide mobility must continue to be of primary importance for this National Highway System corridor.

Expected benefits and tradeoffs

We expect that either of the [boulevard concepts proposed by DCHC MPO](#) will be less expensive, have fewer impacts, and lower capacity, than the [freeway alternatives proposed by NCDOT](#).

The regional boulevard without parallel roads design ([alternative 1](#)), which would provide two-phase signals throughout the US 70 corridor while minimizing impacts, would provide a substantial improvement over travel today from a capacity, delay, and safety standpoint. The regional boulevard with parallel roads design ([alternative 2](#)), which also incorporates multiple grade separations in addition to service roads, would provide even higher mobility and safety benefits while creating a more comprehensive, multimodal approach to access than the existing configuration for US 70.

We recognize that either of the regional boulevard concepts, with two proposed through lanes per direction, will have lower capacity, as well as longer travel time/more delay, than any freeway alternative. To that point, a two lane freeway design would even have slightly more capacity than a three lane regional boulevard with two phase signals, as well as lower peak and off-peak delay.

(comments continued on reverse side)

Suggested transit enhancement elements

Any design selected – either freeway or regional boulevard – should include a 14’ inside dynamic transit priority shoulder to support future regional BRT, similar to that proposed for I-40 in RTP (STIP H184316). In addition, if a regional boulevard corridor concept were selected or included, the design should allow for transit signal priority along both the mainline boulevard corridor as well as service roads that include transit.

Questions and additional concepts to consider

If a regional boulevard with parallel service roads concept were selected, could some or all of the multiuse paths along mainline US 70 be deleted, with the space proposed for multiuse paths either repurposed to further limit impacts and/or to simplify the inclusion of a dynamic 14’ inside shoulder for transit priority / regional BRT? The reason for suggesting consideration of this is that the multiuse paths along the continuous service roads may provide a better travel experience for vulnerable users.

Since a freeway design will have far higher capacity than a boulevard for the same number of lanes, could a regional boulevard with service roads configuration could be selected – except as a two lanes per direction “junior freeway” along the existing alignment? Corridors such as US 50 in Anne Arundel County, Maryland; US 70 upgrades to I-42 in James City, NC; US 421/Salem Parkway in Winston-Salem, NC; and similar locations with modified design criteria including more closely spaced interchanges could inform the development of this concept. (*For example, [this less segment of US 50 has five interchanges within two miles](#) as well as [very low-speed exits to minimize impacts](#)*). Inclusion of a dynamic transit priority shoulder along US 70 would still apply; the previous question about multiuse paths would apply here as well.

Could one of NCDOT’s largely new location freeway options (i.e., [here](#) and [here](#)) be further modified to reduce impacts to adjacent properties along US 70, while giving the remaining service road segments along the existing US 70 corridor alignment a “road diet” to better support pedestrian, bicycle, and transit uses? (*Note: the NCDOT freeway option maps state that portions of existing US 70 will remain as service roads*). A number of “road diet” lane configurations along the existing, repurposed US 70 alignment could be evaluated. In addition, consideration of additional service interchanges besides Miami/Sherron along the new location freeway should also be evaluated to provide additional access, again perhaps along the lines of US 50 in Anne Arundel Co., Md. to minimize impacts.

A comparison of two versus three through travel lanes should be evaluated for either or both of the regional boulevard alignments, as well as either a “junior freeway” concept along existing US 70 alignment and/or a modified new location freeway corridor. This evaluation would better clarify the capacity and mobility tradeoffs of various lane, access, and grade separation configurations, in addition to limiting impacts and reducing impervious surface. The inclusion of a dynamic inside shoulder would apply in all cases to advance regional BRT and create peak period flexibility.

Conclusions

We expect that the final concept selected will be informed by the freeway and regional boulevard alternatives proposed thus far by NCDOT and DCHC MPO, but not necessarily be exactly one of these particular concepts that have been presented to date. We also expect that the availability and timing of state funding will play a critical role in selection of the final concept.

The regional business community — and pretty much anyone who travels in and around the Triangle — knows the importance of US 70 to our metropolitan area. We are confident that a thoughtful comparison of alternatives, including consideration of innovative concepts, will provide a pathway to a viable, consensus solution that addresses the legitimate access, regional travel, and multimodal mobility needs for the corridor.

We appreciate the leadership of DCHC MPO, NCDOT, and other area partners for the future of US 70 in our growing region.

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