



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

MEMO TO: File

FROM: Doug Taylor, PE
Roadway Design Project Engineer

DATE: June 23, 2010

SUBJECT: Project: 34745.1.1 (U-71) Durham County
F.A. Project: NHF-76-1(2)
Durham East End Connector from NC 147 (Buck Dean Freeway) to
North of NC 98

Project Post Hearing Meeting / Coordination with City of Durham Meeting

On March 25, 2010 and April 27, 2010, two separate Workshop and Design Public Hearings were held for the above referenced project. On April 5, 2010 Recommendations for Mitigation Measures were submitted by the East End Connector Ad Hoc Committee.

The purpose of this meeting is to bring together representatives from the City of Durham, FHWA and NCDOT to discuss comments and questions provided both orally and written from the two Design Public Hearings and to discuss NCDOT's responses to the recommendations provided by the East End Connector AD Hoc Committee. See attached, for a list of attendees.

Below are comments provided from the Design Public Hearings both written and oral, responses proposed by NCDOT and additional discussions from the June 22, 2010 meeting with the City of Durham are in bold:

- 1) Wanted information. (4 Comments – Beth Roll, Ethel Breeze, Robin Harris, Henry Nicholson)
Information sent or will be sent.

Conclusion: No additional comments.

- 2) Loading dock area impacted which will limit use. (1 comment – Henry Nicholson)

Taking a portion of rear parking with DFFLY. Will look to minimize and investigate possible retaining wall as design progresses.

Conclusion: No additional comments.

- 3) Pave Harvard Avenue. (1 comment – Joanna Cafferty)
Harvard is a City street and outside the limits of project.

Conclusion: Wesley Parham commented that a section of Harvard that is unpaved was being considered for paving by the City of Durham. It was decided to leave our response as is.

- 4) Build Muldee Street Connector closer to NC 98 as a service road. (1 comment – Tim McMannen)
The alignment proposed utilizes vacant land and existing right of way.

Conclusion: No additional comments.

- 5) Bicycle and Pedestrian considerations. (3 comments – Greg Garnean, Alan Dippy, Erwin Hammeke)
Lower speed limits, use Complete Street Design on all thoroughfares on project, and provide pedestrian refuge areas on NC 98 at ramp terminals. *Consult Durham's bike and pedestrian plan and coordinate with city of Durham. On April 22nd there was a meeting to review the Ad Hoc Committee Recommendations for Mitigation of project impacts. East End Avenue, the West side of Lynn Road, and Muldee Road Extension between Hoover and Southerland will be changed to curb & gutter with sidewalks and bike lanes. Pedestrian refuge areas will be looked at during final design stage.*

Conclusion: Wesley Parham asked what the complete street design consisted of. Doug Taylor explained it would consist of 16' of pavement, curb and gutter and 8' berm for sidewalk. Sidewalk would be added under a cost sharing agreement.

Ellen Beckmann asked if the complete street design could be added to Hoover St. (-SR2-). It was agreed that we could utilize a 4' paved shoulder along the -SR2- alignment.

Action: NCDOT will add 4' paved shoulder to -SR2-. NCDOT will provide the City of Durham with a cost estimate for the municipality share of the sidewalk (50/50).

- 6) Complaints of trucks and traffic on local streets. (2 comments – Dorothy Parrish, Kelli & Louise Allen)
City streets should not see increased traffic.

Conclusion: The location of the property owned in relation to the project for the 2 comments provided was asked. Per the comment sheet, it was concluded that both property owners were located along/near East End Ave. The proposed response was considered sufficient for these comments.

Mark Ahrendsen noted that Lynn/Pleasant Rd. may see increased traffic and commented on the possibility of additional access for Lynn Rd. to US 70. It was discussed to make Lynn Rd. a Rt-In/Rt-out. Due to safety concerns, it was decided to leave Lynn Rd. closed. No further action required. The project's Travel Analysis Report (Oct, 2006) was consulted after the meeting regarding changes in traffic volumes on Pleasant Dr. According to the report, the project will not affect traffic volumes on Pleasant Dr. west of US 70, which were projected to be approximately 4,400 vpd with or without the East End Connector in 2035. Under the no-build condition, traffic on Pleasant Dr. east of its US 70 intersection would be approximately 5,200 vpd. Traffic on Lynn Rd. east of US 70 would be approximately 10,500 vpd in the future no-build condition.

- 7) Pave all of Carr Road (1 comment – Ken Edwards)
This area is outside project limits

Conclusion: No additional comments.

- 8) Property owner on Checkerberry Lane wants to be a total take. (1 comment – Iris K. Douglas)
The construction limits determine how much property we take for R/W. Looking ahead at the drainage design we will probably take the property

Conclusion: No additional comments.

- 9) Lengthen bridges to provide room to build an access road/city street on the southwest side of the railroad switch yard. (2 comments – R. W. Pickle, Terry Rekeneg)
NCDOT will lengthen the bridges for future improvements. The Pettigrew St. extension will need to be added to the Long Range Transportation Plan by the CHDC MPOThe Rail Division supports lengthening the bridges to provide another roadway option, as they would like to close the Ellis Rd. railroad crossing for safety.

Conclusion: The typical section for the future extension of Pettigrew St. was requested. Wesley Parham proposed one alternate requiring 60' of right of way, 41' F-F (3 – 12' lanes w/C&G).

Action: David Clodgo will request the required typical from Wesley. Wesley agreed to coordinate with City staff and provide.

- 10) Add full movement interchange at Carr Road. (3 comments – Aidil Collens, Kennon Borden, Rev. Melvin Whitley)
NCDOT is doing a conceptual study to see if feasible. A full movement interchange to US 70 would provide better access to westbound US 70 for Hayestown residents, as well as increase the economic development potential for the area which will create jobs for east Durham.

Conclusion: See item 4 under EEC Ad Hoc Recommendations.

- 11) Increase radius on US 70 Fly thus shortening the roadway and ramp construction. (1 comment – Terry Rekeneg)
Physically, the realignment is probably possible, however, it may be difficult to get the vertical alignment to work. The realignment will have increased right of way impacts to the Living Waters Church property over the current alignment.

The current alignment crosses at a location which provides the shortest bridge for the flyover (approximately 600' long). The revised alignment would cause the bridge to be in the area of 1100' long.

The alignment goes through the middle of a stream and the associated Neuse river buffers. The current alignment already impacts the stream and buffers, however, the shifted alignment would cause significantly more impacts in this area, likely 2 to 3 times more.

We have had some very preliminary utility coordination discussions regarding the transmission towers and believe that the current alignment will require 5 of the utility towers in that area to be relocated/replaced/raised.

By pulling in the flyover alignment, we will still have at least 4 towers that will be impacted, so the cost of possibly saving one tower is offset by the costs incurred from the additional right of way and additional bridge length.

Conclusion: No additional comments.

- 12) Add road and bridge to tie Ellis Road to Angier Ave. and close railroad crossing. (1 comment – Terry Rekeneg)
This is outside scope of work and would increase damages to the C. R. Wood Park. Other studies are going on with rail division for closing various crossings.

Conclusion: No additional comments.

- 13) House not numbered, would like gate installed on proposed cemetery road to discourage dumping, parking, etc. and also, concerned with additional runoff and noise. (1 comment – Ethel Breeze)
Property is not impacted. The road will be a public road so a gate could not be used. During design Hydraulics will evaluate the runoff issue. In the noise

study only one area was shown to be noise sensitive which this location was not part of.

Conclusion: Discussions revolved around the probability that this road would create an unwelcomed situation for the residence along Carolyn Dr. The road may be used to dump trash and as a place to go park. It was noted that the property on both sides of the proposed road belonged to the same family that owned the cemetery. One idea discussed was to look at the possibility of right of way abandonment, providing the land back to the original property owner of the adjacent land and cemetery. A driveway access would be constructed to the property line, where a gate could be placed. It would be the property owners responsibility to maintain access from the gate to the cemetery.

Action: PDEA will coordinate with Right-of-Way to investigate this scenario and talk to the property owners to see if they would agree to this.

- 14) Would like to be involved with project (1 comment – Amanda Wallace)
Will email address of web site

Conclusion: No additional comments.

- 15) In favor of the project; wants to see money appropriated to this project. (1 comment - John White, Durham Chamber of Commerce)

Conclusion: No additional comments.

- 16) Would like project value engineered to reduce cost while maintaining integrity of project. (1 comment – Joe Milazzo, Regional Transportation Alliance)
Value engineering is part of our design process.

Action: Roadway Design will send Mark Ahrendsen response that was provided to Joe Milazzo.

- 17) Health concerns. Concerned about Toxics in air due to increased traffic. How will this negatively effect residents particularly the elderly. Just how dangerous are the Toxics and MSAT's? (2 comments – Pastor Sylvester Williams, James Stansler)

In 2005, the Federal Highway Administration (FHWA) and the Environmental Protection Agency (EPA) began a study of air toxics compounds emitted by vehicles in close proximity to roadways. According to an abstract of the study design prepared by FHWA and the EPA, the study builds “on several studies, which have shown that the concentrations of some emissions return to

background concentrations within 1000 feet from roadways.” The purpose this study is to determine if this same relationship is true for benzene, butadiene, formaldehyde, acetaldehyde, acrolein and diesel particulate matter (DPM), which were identified as potential risk drivers by the Environmental Protection Agency (EPA) in its 2001 Mobile Source Air Toxics Rule.”

One desired outcome of the MSAT Study is a determination of the influence highway environments have on ambient concentrations of these pollutants. Factors such as topography, meteorology, and moving traffic may lead to variable impacts. Several sites will be studied across the country to provide information on how the emission and dispersion of MSAT compounds in the near-roadway environment may behave. Over a year, the variability of MSAT concentrations at each site will be examined. This is important so that mitigation strategies can be developed for reducing impacts, if necessary.

Monitoring at the first site, in Las Vegas, began in 2008. Monitoring at the second site in southeastern Michigan began in spring, 2010. Sites for the study are selected based on variety of criteria, including the volume of traffic on the roadway, prevailing winds, seasonal differentials, topography, and other factors. Because of the on-going status of this study, along with the fact that air quality monitoring is not, in itself, a mitigating measure of impacts, the FHWA will not agree to monitor for MSAT as an element of the East End Connector project.

Action: PDEA is preparing a detailed response.

- 18) Concerns project will not help economic development by not bringing traffic to local businesses. (2 comments – Pastor Sylvester Williams, Casem Wong)

Conclusion: Project will make the Borden Property, the largest undeveloped industrial tract in the area, more accessible. Felix Davila noted that the purpose of the project is not to produce increased business in the area, but will bring accessibility and connectivity.

- 19) Opposes project and does not believe project will be funded. (1 comment – Pastor Sylvester Williams)

Conclusion: No additional comments.

- 20) City of Durham/Ad Hoc Committee
A meeting was held on April 22, 2010 to discuss recommendations for mitigation of project impacts. (see attachment) Another meeting with City of Durham will be required to finalize what they would like to be incorporated into the project.

The attached meeting summary dated April 22, 2010 and letter dated April 5, 2010, from the EEC Ad Hoc Committee to the Durham City Council were discussed next. Below are the conclusions and actions agreed to for items 1 -16 from the April 22, 2010 meeting summary.

- 1 - **Conclusion: No additional comments. See item 9 from the Post Hearing Meeting for additional info.**
- 2 - **Conclusion: No additional comments.**
- 3 - **Conclusion: City of Durham is not interested in cost sharing for aesthetic improvements to the railroad structure.**

Action: NCDOT will check with the railroad agencies to see if some improvements can be incorporated at no additional cost.

- 4 - **Two alternates were shown to the meeting attendees. Alternate 1 included a half clover design with back to back off ramps for traffic traveling to Carr Rd. or to NC 147. Alternate 2 utilized a collector/distributor road with Carr Rd. traffic exiting at NC 98, crossing over NC 98 and continuing on to Carr Rd.**

Conclusion: Alternate 1 was ruled out because of the proximity of the back to back exits. Alternate 2 was supported by all in attendance with a little modification. Alternate 2 proposed a connection to Rowena Ave. which would allow East End Ave. to be cul-de-saced. The City of Durham requested to maintain the connection to East End Ave. as currently proposed and remove the connection to Rowena Ave. NCDOT supports this request and will change the design accordingly. It was discussed that coordination with Mr. Kennon Borden was crucial and that a commitment from him to complete a connector street through his development was vital to traffic patterns and connectivity with the surrounding community. Without this connector street, the possible increased truck traffic could cause adverse EJ issue.

Action: PDEA will task RS&H to do a detailed study for Build/No Build alternates for Carr Rd. Interchange (Allow approx. 2 weeks). PDEA will set up a meeting between Mr. Kennon Borden, City of Durham and NCDOT to propose the Carr Rd. interchange and seek his commitment to build a connector road through his property to Angier Ave.. Roadway Design will task MA Engineering to move forward with the alternate 2 Carr Rd. interchange design.

- 5 - **Conclusion: No additional comments.**

- 6 - **Conclusion: No additional comments. See item 5 from the Post Hearing Meeting for additional info.**
- 7 - **Action: NCDOT will look at pedestrian crossing at the NC 98 (Holloway ST.) ramps, as design progresses.**
- 8 - **Conclusion: The roundabout study conducted by Congestion Management concluded that a stop condition would function at a good LOS at the intersection of Lynn Rd. and Pleasant Rd. Therefore a roundabout was ruled out in this area. The City of Durham has some concerns about this intersection and the distance to the intersection of Lynn Rd. and US 70. They requested that NCDOT look at some alternative solutions.**

No additional comments pertaining to NCDOT's original responses to the other roundabouts previously requested by the City of Durham and analyzed by Congestion Management.

Action: PDEA will look at this area to determine when the stop conditions will fail and see what can be done to minimize the queing distances. Congestion Management will look at the effects of a thru/right lane at Lynn Rd. and US70. Congestion Management will analyze roudabouts at the Carr Rd. interchange.

- 9 - **Conclusion: All in attendance agreed, NCDOT will provide conduit on the bridges at Holloway St. and Rowena Ave. The City of Durham would be responsible for providing, installing and maintaining the lighting. No provisions for lights would be provided at Angier Ave.**

Action: PDEA will provide the Lighting Analysis to the City of Durham and ask Jay Stancil to contact the City.

- 10 - **Conclusion: NCDOT will coordinate with the City of Durham on signing. The current signing policy will be adhered to during this coordination.**
- 11 - **Conclusion: Leza Mundt expanded on the original response denying insulation provided to various buildings. The City of Durham requested that aesthetic options be considered for the noise wall such as brick. It was noted that this noise wall will be constructed over a bridge and weight will be an issue when the design is considered.**

Actions: NCDOT will investigate the options that are available for aesthetic improvements to the noise wall and coordinate with the City of Durham. PDEA will have Greg Smith call Mark

**Ahrendsen to discuss noise impacts to the apartments on US
70 near Muldee Street.**

- 12 - Conclusion: No additional comments.**
- 13 - Conclusion: No additional comments.**
- 14 - Conclusion: No additional comments.**
- 15 - Conclusion: No additional comments.**
- 16 - Conclusion: No additional comments.**