EAST END CONNECTOR

From NC 147 (Durham Freeway) to North of NC 98 (Holloway Street)
Durham, Durham County

Federal Aid Project No. NHF-76-1(2)
State Project No. 8.1351501
TIP Project No. U-0071

Administrative Action

Finding of No Significant Impact

Submitted Pursuant to 42 USC 4332(2)(c) and 49 USC 303
U.S. Department of Transportation
Federal Highway Administration
and
North Carolina Department of Transportation

Cooperating Agency:
Department of the Army, Corps of Engineers

_____	_____
Date of Approval	**Gregory J. Thorpe, Ph.D., Director** **Project Development and** **Environmental Analysis Branch,** **North Carolina Department of Transportation**
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Date of Approval	**John F. Sullivan, III, PE, Division Administrator** **Federal Highway Administration**

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This Finding of No Significant Impact and corresponding Environmental Assessment (dated December, 2009) together evaluate the adequacy of the FEIS for the East-West Freeway Project dated July 23, 1982. This previous 1982 study evaluated four build alternatives with respect to social and economic impacts, environmental impacts, and cost of a proposed facility east of the City of Durham.

EAST END CONNECTOR

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Administrative Action

Finding of No Significant Impact

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For the:

North Carolina Department of Transportation
Project Development and Environmental Analysis Branch

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PROJECT COMMITMENTS

East End Connector
From NC 147 (Durham Freeway) to North of NC 98 (Holloway Street)
Durham, Durham County
Federal Aid Project No. NHF-76-1(2)
State Project No. 8.1351501
TIP Project No. U-0071

The special commitments provided in the December 2009 Environmental Assessment have been amended and agreed to by NCDOT as follows:

PDEA / Roadway Design

1. The design noise study, completed by the NCDOT PDEA in March, 2010, concluded that 17 receptors (residences/buildings) in the vicinity of Rowena Avenue will be impacted by the highway traffic noise of the proposed East End Connector (EEC) project. In order to abate these noise impacts, a noise barrier wall is recommended. The optimized design of a concrete barrier that will provide the necessary noise reduction is 1,185 feet long with an exposed height ranging from 8 to 12 feet. This barrier wall will be located along the EEC's westbound roadway shoulder from approximately 600 feet west of Rowena Avenue to approximately 600 feet east of Rowena Avenue and would benefit 14 receptors. This barrier length and location meet the feasibility and reasonableness requirements of NCDOT and therefore is recommended for construction.

   The proposed noise barrier wall length, width or location may change if the EEC roadway design plans are modified during final design. The final decision on construction of noise abatement measures will be made upon completion of the final roadway design, and approval by the local residents and the Federal Highway Administration.

2. The NCDOT will partner with the City of Durham to provide additional improvements along East End Avenue, Lynn Road, Pleasant Drive, Muldee Street, and Hoover Road. The NCDOT and the City of Durham will equally share the sidewalk improvements costs. Improvements along these facilities include the following:

   a. <u>NC 98:</u> Pedestrian refuge islands along NC 98 at the US 70 ramp termini intersections.
   b. <u>Realigned East End Avenue:</u> Two 12' travel lanes with 4' bike lanes, 5' sidewalks, and curb and gutter along both directions of travel.
   c. <u>Lynn Road Extension:</u> One 12' travel lane with 4' bike lanes, 5' sidewalks, and curb and gutter on western side of Lynn Road; and one 12' travel lane with 4' paved shoulder on eastern side of Lynn Road.
   d. <u>Muldee Street between Southerland Street and Hoover Road:</u> Two 12' travel lanes with 4' bike lanes, 5' sidewalks, and curb and gutter along both directions.
   e. <u>Hoover Road:</u> Two 12' travel lanes with 4' bike lanes, 5' sidewalks and curb and gutter on both directions.

Right-of-Way Branch

3. The NCDOT will mitigate the acquisition of 0.30 acres of parkland from C. R. Wood Park by acquiring land adjacent to the C. R. Wood Park and donating this land to the City of Durham Parks and Recreation Department in accordance with Section 6(f) of the Land and Water Conservation Fund Act.

PDEA/Division 5

4. The NCDOT will also mitigate the acquisition of 0.30 acres of parkland from C. R. Wood Park by paving the C. R. Wood basketball courts or parking lot, in coordination with the City of Durham Parks and Recreation Department.

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1.0 TYPE OF ACTION

This document is a Federal Highway Administration (FHWA) Administrative Action, Finding of No Significant Impact (FONSI) for the North Carolina Department of Transportation (NCDOT) East End Connector (EEC) project connecting NC 147 to US 70 in Durham, NC. In accordance with the National Environmental Policy Act (NEPA), a FONSI describes why the proposed project would not have a significant effect on the environment and concludes that an Environmental Impact Statement will not be required (40 CFR 1508.13).

This FONSI is subsequent to and supplements the December 16, 2009 Environmental Assessment (EA). The EA was evaluated by FHWA and determined to have adequately and accurately discussed the need, environmental issues and impacts of the proposed project and appropriate mitigation measures; adequately selected a Preferred Alternative with no significant impacts on the human or natural environment; and adequately provided evidence and analysis for determining that an Environmental Impact Statement (EIS) is not required. The FHWA takes full responsibility for the accuracy, scope and content of the EA.

2.0 ADDITIONAL INFORMATION

The following persons may be contacted for additional information concerning this document:

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3.0 DESCRIPTION OF PROPOSED ACTION

The NCDOT 2009–2015 State Transportation Improvement Program (STIP) includes the East End Connector project beginning on NC 147 in the vicinity of Glover Road and ending on US 70 just south of Cheek Road. The proposed project will upgrade US 70 to a freeway from NC 98 (Holloway Street) to Pleasant Drive. US 70 has already been upgraded to a freeway north of NC 98, providing a continuous freeway connection to I-85. The project is located within the City of Durham in Durham County, North Carolina (Figure 1 – note that all figures are included in Appendix A). The NCDOT 2012-2018 Draft STIP indicates that the right-of-way acquisition would begin in 2012 with construction to start in 2014.

The purpose of the proposed East End Connector project is to improve capacity on the Durham Freeway (NC 147) and US 70 and improve connectivity between these high speed routes which provide direct access to I-40 to the south, and I-85 to the north. The proposed improvement will offer a number of secondary benefits to travelers and residents in East Durham, including improved access to major employment centers, particularly the Research Triangle Park; enhance connectivity between suburban areas to the north and east of downtown Durham; and divert through traffic away from local surface streets, such as Magnum Street and Roxboro Street.

The East End Connector will be designed to interstate standards. Freeway-to-freeway junctions will be provided between US 70 and the East End Connector and between the East End Connector and NC 147. The proposed facility is approximately 3.6 miles long and will ultimately include three continuous through lanes in each direction plus auxiliary lanes as needed. Corresponding design elements include a median 26 feet wide, 12-foot wide inside shoulders, and 14-foot wide outside shoulders (Figure 2, top section). This roadway geometry will provide a free-flow traffic movement at high speeds, connecting the area's freeway and interstate facilities.

Due to budgetary constraints, project construction phasing studies were performed resulting in an alternative build section. This alternative section includes four lanes for the East End Connector (two continuous lanes in each direction) with a median 50 feet wide allowing for future median widening (Figure 2, middle section).

During the planning process the ultimate six-lane section was analyzed in order to clarify final roadway conditions and develop resulting environmental impacts. The build section was studied only for purposes of reducing initial project construction costs.

During the Design Public Hearings, held subsequent to the completion of the December 2009 EA, several requests were received related to providing a full access US 70 interchange at Carr Road rather than the partial access interchange previously planned. NCDOT evaluated these requests and determined an interchange could be provided at this location that would safely accommodate traffic operations. NCDOT intends to work with adjacent land owners and business interests in development of this interchange moving forward into final design and construction. A more detailed discussion on citizen comments received during the Design Public Hearings is presented in Section 7.0 – Public Involvement and Agency Coordination. Impacts associated with this US 70/ Carr Road interchange modification are presented in Section 8.0 – Additions and Revisions to the Environmental Assessment.

4.0 ALTERNATIVES CONSIDERED

The December 16, 2009 EA served as a reevaluation of the 1982 Final Environmental Impact Statement (FEIS) for the Durham East-West Freeway. The 1982 FEIS evaluated the impacts associated with both the Durham Freeway (NC 147) and the East End Connector; however, only the Durham Freeway was constructed. The Federal Highway Administration has concluded, in accordance with 23 CFR 771.130(c), that an EA is the appropriate document for conducting a reevaluation of the 1982 FEIS to "assess the impacts of changes, new information, or new circumstances" that have transpired since 1982.

The 1982 FEIS evaluated the impacts of four alternatives for the East End Connector. Under the 2009 EA, a new range of reasonable alternatives were considered. Other alternatives chosen for evaluation included the No-Build Alternative, the Improve Existing Roadways Alternative, the Transportation Management Alternative, and the utilization of Alternative Transportation Modes. Also included were modifications to the four Build Alternatives from the 1982 FEIS study. All alternatives considered under the EA are described below.

4.1 No-Build Alternative

The No-Build Alternative analysis investigated future conditions if no transportation improvements are realized. The traffic projections indicate that under the No-Build Alternative, the traffic demand along local streets in downtown Durham would increase by 24-94% in the next 25 years. The EA findings indicated that this alternative will not meet any of the purposes identified for the project, nor will it address any of the needs described in the project's Purpose and Need Statement. A No-Build Alternative could have the potential to adversely impact social and economic conditions in downtown Durham and the area east of downtown, given the increased congestion on NC 147 and increased delay at local intersections.

4.2 Improve Existing Roadways Alternative

The Improve Existing Roadways Alternative included study of roadway widening and intersection improvements along Duke Street/Gregson Street and Mangum Street/Roxboro Street (one-way pairs), Alston Avenue/Avondale Drive, Ellis Avenue, Glover Road, Lynn Road, Pleasant Drive and East End Avenue. Improvements considered for these local roadways consisted of adding lanes and/or improving intersections to increase capacity between US 70 and NC 147.

A qualitative analysis of this alternative indicated that additional right-of-way acquisition will be required in a highly urbanized and/or historic portion of Durham and could require significant relocation of residences and businesses. Also, proposed improvements will cause congestion and traffic disruption during construction. Possible improvements will not be sufficient to meet 2035 traffic demand. This alternative will not satisfy the capacity, connectivity, and consistency needs described in the project's Purpose and Need Statement.

4.3 Transportation Management Alternative

Transportation Management Alternatives include Transportation Demand Management and Transportation System Management strategies as alternatives to the proposed project.

Transportation Demand Management improvements focus on reducing the peak travel demand and Transportation System Management improvements focus on operational and physical improvements to roadways and intersections. Some actions may have impacts on the natural, human and physical environment. Actions related to the Transportation Management Alternative are an important component of efficient transportation; however, the effect of these actions are not sufficient to meet the purposes identified for the project, nor will it address any of the needs described in the Purpose and Need Statement.

4.4 Alternative Transportation Modes

The Durham Area Transit Authority (DATA) provides local bus, paratransit, park-and-ride, and vanpool service within the City of Durham and Durham County. Triangle Transit complements the local DATA service by providing regional bus and car/vanpool services. Triangle Transit also will be the operator for the proposed light rail system that will link Durham to Raleigh (through the project study area). The Alternative Transportation Mode Alternative will not meet the purposes identified for the project, nor will it address the needs described in the Purpose and Need Statement. Alternative transportation modes do not provide connectivity between NC 147 and US 70, but rather serve local trips between neighborhoods and employment centers in downtown Durham. Planned transit system improvements in the region will not provide the capacity or frequency of service to satisfy the demand for travel between NC 147 and US 70, or by extension, demand between I-40 and I-85.

4.5 Build Alternatives

Four Build Alternative corridors similar to the alternatives reviewed in the 1982 study were evaluated as part of the EA. Additional environmental studies were performed including jurisdictional water investigations and inventories. As a result, corridor adjustments and alignment modifications to the 1982 alternatives were performed in order to reduce impacts to streams and wetlands where possible. Also, these updated alternatives were designed for a higher classification of interstate roadway, allowing the East End Connector to potentially be signed as a connecting interstate route. These interstate standards further modified the original geometry of the 1982 alternatives. Listed below are descriptions for each build alternative considered.

Alternative 1 – Alternative 1 is closest to downtown Durham and is similar to the 1982 FEIS Alternative 1. Alternative 1 begins on US 70 south of its interchange with Cheek Road, continues traveling west to east between East End Avenue and Hoover Road, joining NC 147 south of Briggs Avenue. The alternative terminates south of Glover Road (Figure 3).

Alternative 2 – Alternative 2 is located just south of Alternative 1 and is similar to the 1982 FEIS Alternative 2; however the more recent Alternative 2 has been shifted slightly west to minimize jurisdictional surface water impacts. Alternative 2 begins on US 70 south of its interchange with Cheek Road, continues traveling west to east, crossing East End Avenue and joining NC 147 south of Briggs Avenue. The alternative terminates south of Glover Road (Figure 4).

Alternative 3 (Preferred Alternative) – Alternative 3 is located south of East End Avenue. It begins on US 70 south of its interchange with Cheek Road, continues traveling west to east crossing Rowena Avenue and joining NC 147 south of Briggs Avenue. The alternative terminates south of Glover Road (Figure 5).

Alternative 3 is similar to the 1982 FEIS recommended design; however, more extensive public involvement and natural system studies were performed during the EA study, resulting in new design features. Design differences between the 1982 FEIS and this EA study are listed below:

- The most recent alignment has been designed to interstate standards.
- Previously a single-point urban interchange was proposed for NC 98. The EA provides for a compressed diamond design at this location.
- Rowena Avenue has not been extended to Miami Boulevard as previously proposed. Instead, East End Avenue and Rowena Avenue will have access to US 70 via the Carr Road interchange.
- In the 1982 FEIS, a proposed service road connecting Lynn Road and Pleasant Road was mentioned; however, no design was provided. As part of the EA, a service road design is provided between the two roadways.
- A service road between Rowena and Angier Avenue is not provided.
- A northbound off-ramp from US 70 is provided for access to Carr Road.
- East End Connector roadway bridges over both Angier Avenue and Norfolk Southern rail lines are provided in lieu of the railroad bridges previously shown in the 1982 document.
- A new typical section for US 70 (six-lane divided highway with variable-width median) from north of NC 98 to the East End Connector is provided.
- A new single box culvert to carry flow at Little Lick Creek and one of its tributaries is provided.

Alternative 4 – Alternative 4 is the southernmost alternative and is located close to Glover Road. Alternative 4 is similar to the 1982 FEIS Alternative 3, beginning on US 70 south of its interchange with Cheek Road and continuing west to east between Pleasant Drive and Glover Road. The alternative terminates north of Ellis Road (Figure 6).

5.0 PREFERRED ALTERNATIVE

The proposed East End Connector EA was prepared through the NEPA/404 Merger Process, an interagency process that integrates the NEPA planning process and the Clean Water Act Section 404 permitting process. This process allows regulatory and resource agencies to participate and concur with project direction through a series of milestone meetings called "concurrence points."

As documented in the EA, concurrence was reached at each project milestone including "Concurrence Point 3 (CP3) – Least Environmentally Damaging Practicable Alternative (LEDPA/Preferred Alternative)." At this CP3 meeting Alternative 3 was selected as the LEDPA/Preferred Alternative because this alternative has the shortest total project length; the fewest residential and business relocations; minimal natural system impacts; the least amount of required right-of-way; and the lowest project cost. The Durham City Council voted in support of selecting the Alternative 3 as the preferred alternative in February 2007.

Table 1 summarizes the functional design impacts of each build alternative. Not included in the table is the consideration that none of the alternatives impacted threatened or endangered species, water supply critical areas, 100-year floodplains, or greenways. The selection of Alternative 3 as the LEDPA is a confirmation of the preferred alternative selected under the 1982 FEIS.

Table 1: Alternatives Analysis Summary

Impact Category	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Project Description				
Project Length (Miles)	3.58	3.77	3.61	**5.04**
Total Length - all roadway improvements (Miles)	22.02	**21.5**	15.7	20.3
Replace Existing Structures				
Number of Railroad Structures	1	1	1	1
Square Feet of Railroad Structures	21,955	**22,774**	15,134	15,134
Number of Grade Separation	6	**7**	2	2
Square Feet of Grade Separation	104,862	**119,417**	51,967	51,967
Temporary Railroad Structures (detour)				
Number of Railroad Structures	2	3	**2**	**2**
Square Feet of Railroad Structures	13,440	**19,848**	3,850	3,850
Proposed Structures (New Locations)				
Number of Railroad Structures	**1**	**2**	0	0
Square Feet of Railroad Structures	8,184	**8,571**	0	0
Number of Grade Separation	11	**12**	7	8
Square Feet of Grade Separation	**331,250**	308,809	158,605	144,918
Constructability - Design/Phasing Complexity				
Low, Moderate or Highly Complex	**High**	**High**	Moderate	Moderate
Roadway Capacity				
Traffic Volume (Vehicles per day)	106,300	106,300	106,300	106,300
Natural Resources Impacts				
Wetlands & Ponds (acres)	0.25	1.05	1.4	**2.3**
Stream Crossings (Linear Feet)	4,700	6,000	5,711	**15,000**
Stream Buffers (acres)	11	14	12	**36**
Human Environment Impacts				
Residential Relocations (number)	18	**75**	17	39
Business Relocations (number)	**15**	25	9	10
Environmental Justice Areas	Yes	Yes	Yes	Yes
Churches (number of takings)	1 church office	**3 churches; 1 church office**	1 church office; 1 church (lease space)	1 chuch office
Cemeteries (number of takings)	**1 cemetery (5 gravesites)**	**1 cemetery (5 gravesites)**	1 cemetery (0 gravesites)	1 cemetery (0 gravesites)
Physical Environment Impacts				
Railroad Crossings	**11**	6	2	2
USEPA- Superfund Sites Impacted	1site (1.1 ac.)	**1 site (1.6 ac.)**	0	0
Right-of Way				
Right-of-Way (acres)	133	119	88	**225**
Construction Limits (acres)	262	277	205	**326**
Costs				
Construction Costs (Millions)	$190	**$195**	$137	$150

Notes:

- Boxes shown in black have the greatest impacts as compared to the other alternatives.
- Construction costs do not include right-of-way or relocation costs.
- Impacts based on ultimate EEC six-lane section (three continuous lanes each direction)

6.0 PERMIT CLARIFICATION

Section 401 General Water Quality Certification: A Section 401 General Water Quality Certification will be required for any activity that may result in a discharge into "Waters of the United States" or for which an issuance of a federal permit is required. The issuance of a Section 401 certification is a prerequisite to the issuance of a Section 404 permit. A North Carolina Division of Water Quality (DWQ) Water Quality Certification would be required with a United States Army Corps of Engineers (USACE) Nationwide Permit (NWP) 14, NWP 3, or General Permit (GP) 198200031. Written authorization would be required if a USACE NWP 14 or GP 198200031 is used. Since the project impacts are expected to exceed the NWP impact thresholds (300' of jurisdictional stream and/or 0.5 acres of jurisdictional wetlands), an individual Section 401 Water Quality Certification will be required.

Section 404 (Impacts to "Waters of the United States"): Impacts to "Waters of the United States" come under the jurisdiction of the USACE. Discharge of dredge or fill material into jurisdictional wetlands, streams, or open waters associated with the construction of the bridge or other roadway improvements will require a Section 404 permit from the USACE. GP 198200031, NWP 14, or NWP 3 may cover the impacts to the jurisdictional wetlands and open waters within the project study area. Since the project impacts are expected to exceed the NWP permit thresholds (300' of jurisdictional stream and/or 0.5 acres of jurisdictional wetlands), an individual Section 404 permit will be required. Any required compensatory mitigation will be coordinated with the NC Ecosystem Enhancement Program and will abide with the 2003 Memorandum of Agreement between NCDOT, North Carolina Department of Environmental and Natural Resources (NCDENR) and USACE.

The geotechnical investigation work required under this project will be approved under General 401 Certification Number 3687/Nationwide Permit No. 6 for survey activities.

Neuse River Riparian Buffer Authorization: The NCDOT will coordinate with the NCDWQ to obtain the required authorization certificate for the Neuse River riparian buffer impacts.

Final determination of permit applicability lies with the USACE and the NCDWQ. After completion of the final design, NCDOT will coordinate with the regulatory agencies to obtain the necessary permits.

Where the need for stream relocations is anticipated, coordination with the US Fish and Wildlife Service (USFWS) and the NC Wildlife Resources Commission (NCWRC) will be completed in accordance with mandates expressed in the Fish and Wildlife Coordination Act (72 Stat. 563, as amended, 16 USC 661 et seq. [1976]).

7.0 PUBLIC INVOLVEMENT AND AGENCY COORDINATION

The following section provides a summary of the public involvement and agency coordination efforts that took place after approval of the Environmental Assessment (EA) in December, 2009.

7.1 Circulation of the Environmental Assessment

The EA was approved by the NCDOT and FHWA in December, 2009. The approved EA was circulated to the following federal, state and local agencies for review and comments.

Federal Agencies
- *U. S. Army Corps of Engineers (USACE)
- *U. S. Environmental Protection Agency (USEPA)
- U. S. Department of the Interior
  - *Fish and Wildlife Service (USFWS)
  - Bureau of Outdoor Recreation
- U. S. Department of Transportation - Federal Railroad Administration Region IV

State Agencies
- N. C. Department of Administration
  - State Clearinghouse
  - State Publications Clearinghouse
- *N. C. Wildlife Resources Commission (NCWRC)
- N. C. Department of Environment and Natural Resources (NCDENR)
  - *Division of Water Quality (NCDWQ)
  - *Division of Environmental Health

Local Agencies
- City of Durham

In addition, the EA was available for public review at the following locations in Durham:
City of Durham Town Hall – Transportation Division (101 City Hall Plaza)
NCDOT Highway Division 5 Office (2612 N. Duke Street)

An electronic version of the EA and the Public Hearing maps remain available online at: www.ncdot.gov/projects/eastendconnector

7.2 Agency Comments Received on the Environmental Assessment

Agencies that provided written comments on the EA are indicated with an asterisk (*) above. Copies of the agencies' written comments are included in Appendix B. The following are specific comments requiring a detailed response.

US Environmental Protection Agency (February 26, 2010)

1. *"EPA requests that the NCDOT 2004 Traffic Noise Abatement Policy be applied and that full consideration be given to providing noise barriers or other abatement measures consistent with that policy. There is a 'potential' noise barrier wall approximately 1,082*

feet long and 10-12 feet that is proposed in the vicinity of Rowena Avenue. This noise wall would benefit five receptors. EPA believes that unless there is significant public opposition to the construction of the noise wall, NCDOT and FHWA should construct this noise wall within the future public right of way consistent with other new location projects and the NCDOT 2004 Traffic Noise Abatement Policy."

Response: The design noise study, completed by the NCDOT PDEA in March, 2010, concluded that 17 receptors (residences/buildings) in the vicinity of Rowena Avenue will be impacted. In order to abate these noise impacts, a noise barrier is recommended. The optimized design of a concrete barrier that will provide the necessary noise reduction is 1,185 feet long with an exposed height ranging from 8 to 12 feet. This noise barrier will be located along the East End Connector's westbound roadway shoulder from approximately 600 feet west of Rowena Avenue to approximately 600 feet east of Rowena Avenue and would benefit 14 receptors. This barrier length and location meet the feasibility and reasonableness requirements of NCDOT and therefore is recommended for construction.

The proposed noise barrier length, width or location may change if the roadway design plans of the proposed project are modified during the final design. The final decision on construction of noise abatement measures will be made upon completion of the final roadway design, and approval by the affected local residents and the Federal Highway Administration.

2. "*The EA identifies impacts to terrestrial forest communities in Section 4.4.1.1. Mixed Pine/Hardwood Forest and Pine Forest represent the two major terrestrial community types impacted by the proposed project. Total impacts to these forest types are estimated at approximately 138 acres. Another 137 acres is maintained/disturbed areas as shown in Table 4-4. EPA notes that this summary table does not include terrestrial forest impacts and noise receptor impacts.*"

Response: Terrestrial forest and noise receptor impacts have been added under this document's Section 11.0 – Summary of Project Impacts.

3. *"EPA has previously commented on other projects involving MSAT emissions and the need to perform an additional analysis for potential sensitive receptors that will be near the new freeway. The EA does not identify if there are any near roadway sensitive receptors. The FONSI should include a more robust and project specific analysis on this issue."*

Response: Generally, for MSAT emissions, FHWA recommends three tiers of air quality analysis during the environmental/planning process of a highway project. Under the first level, for projects above 150,000 Annual Average Daily Traffic (AADT), a quantitative analysis is performed. Under the second level, for projects under 150,000 AADT, a qualitative analysis is performed. Under the third level, no analysis is required for small projects or exempt projects.

For the proposed East End Connector project, the projected 2035 AADT is less than 150,000 vehicles per day. Therefore, the NCDOT performed a qualitative analysis (second level), indicating that the overall air quality is expected to improve due to reduced congestion resulting

from the proposed project completion. Also, as the vehicle technology improves over time, vehicle air pollutants are expected to reduce.

North Carolina Department of Environment and Natural Resources, Division of Water Quality (February 10, 2010)

4. *NCDWQ is very concerned with sediment and erosion impacts that could result from this project. NCDWQ recommends that highly protective and most protective sediment and erosion control BMPs be implemented in accordance with Design Standards in Sensitive Watersheds to reduce the risk of nutrient runoff to these waters. NCDWQ requests that road design plans provide treatment of the storm water runoff through best management practices as detailed in the most recent version of NCDWQ's Stormwater Best Management Practices.*

Response: Comment noted and best management practices will be implemented into final designs.

5. *Part of this project is within the Neuse River Basin. Riparian buffer impacts shall be avoided and minimized to the greatest extent possible pursuant to 15A NCAC 2B.0233. New development activities located in the protected 50-foot wide riparian areas within the basin shall be limited to "uses" identified within and constructed in accordance with 15A NCAC 2B.0233. Buffer mitigation may be required for buffer impacts resulting from activities classified as "allowable with mitigation" within the "Table of "Uses" section of the Buffer Rules or require a variance under the Buffer Rules. A buffer mitigation plan, including use of the NC Ecosystem Enhancement Program, must be provided to NCDWQ prior to approval of the Water Quality Certification. Buffer mitigation may be required for buffer impacts resulting from activities classified as "allowable with mitigation" within the "Table of Uses" section of the Buffer Rules or require a variance under the Buffer Rules. A buffer mitigation plan, including use of the NC Ecosystem Enhancement Program, must be provided to NCDWQ prior to approval of the Water Quality Certification.*

Response: Comment noted and best management mitigation practices will be implemented into final designs.

6. *Part of this project is within the Jordan Lake Basin. Since this project reached concurrence point 4A (Avoidance and minimization) prior to the passage of 15A NCAC 2B.0267, any impacts to Jordan Buffers are allowed and do not require a Jordan Buffer Authorization. However, any significant increases in impacts to Jordan Basin streams in the future (such a permit modification or future phases) may require a Jordan Buffer Authorization and mitigation.*

Response: Comment noted and buffer will be observed on future modifications/phases.

North Carolina Department of Environment and Natural Resources (February 16, 2010)

7. *Any open burning associated with subject proposal must be in compliance with 15 A NCAC2D.1900.*

Response: *Comment noted and the referenced requirement will be implemented into construction* specifications.

8. *Demolition or renovations of structures containing asbestos material must be in compliance with 15 A NCAC 20.1110(a) (1) which requires notification and removal prior to demolition. Contact Asbestos Control Group 919-707-5950.*

Response: Comment noted and the referenced requirement will be implemented into construction specifications.

9. *Sedimentation and erosion control must be addressed in accordance with NCDOT's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable stormwater conveyances and outlets.*

Response: Comment noted and the referenced best management practices will be implemented into final design and construction specifications.

10. *Abandonment of any wells, if required must be in accordance with Title 15 A. Subchapter 2C.0100.*

Response: Comment noted and the referenced requirement will be implemented into final designs and construction specifications.

Department of Environment and Natural Resources, Division of Environmental Health (January 22, 2010)

11. *"Relocation of waterlines must be approved prior to moving the water mains."*

Response: Comment noted and the referenced requirement will be implemented into final designs and construction specifications.

12. *"New waterlines must be approved in accordance with Rules Governing Public Water Systems."*

Response: Comment noted and the referenced requirement will be implemented into final designs and construction specifications.

7.3 Pre-Hearing Open House and Public Hearings

In accordance with 23 USC 128, the North Carolina Department of Transportation certified that a public hearing for the subject project has been held, and the social, economic, and environmental impacts, consistency with local community planning and goals and objectives, and comments from individuals have been considered in the selection of the Preferred Alternative for this project.

A Pre-Hearing Open House and a Design Public Hearing were held on March 25, 2010 at the Holton Career and Resource Center in Durham, NC. This meeting included an open house, from 4:00 PM to 6:30 PM, followed by a formal Public Hearing at 7:00 PM. Newsletter announcements of the Public Hearing were mailed to over 4,500 citizens and postings of the Public Hearing were released by the local media.

Due to a post office delay in the newsletter delivery, some citizens expressed a concern about receiving timely notification of the March 25th Public Hearing. In response to these concerns, NCDOT held a second informal Public Hearing on Tuesday, April 27, 2010.

Based on sign-in sheets, approximately 100 citizens attended the workshops combined.

7.4 Public Hearing Comments

During the formal Public Hearing on March 25, 2010, nine area citizens and officials provided verbal comments. In addition, approximately 25 written comments were received at the two formal and informal Public Hearings and during the subsequent 50 day comment period. Most of the comments received were either in full support of the project or suggested adding a full interchange at Carr Road along US 70. One citizen clearly stated that he is against the project as a whole and did not believe that this project will be funded. Two citizens raised concerns about toxics and mobile source air toxic compounds (MSATs).

The Official Public Hearing Transcript is included in Appendix C. Also, Post Hearing Meeting Summary, with NCDOT responses are included in Appendix D.

7.5 Additional Project Coordination

As previously mentioned, during the Design Public Hearings held subsequent to the completion of the December 2009 EA, several requests were received related to providing a full access US 70 interchange at Carr Road versus the partial access interchange previously planned. NCDOT evaluated these requests and determined an interchange could be provided at this location that would safely accommodate traffic operations. NCDOT intends to work with adjacent land owners and business interests in development of this interchange moving forward into final design and construction.

Subsequent to the EA document completion, three additional Ad Hoc Advisory Committee meetings were held to present the EA; share the information discovered during the Public Hearings; and discuss the Ad Hoc Advisory Committee recommendations. Recommendations from the committee have been formally presented to the City of Durham and NCDOT. NCDOT's responses to these comments are included in Post Hearing Meeting Summary (Appendix D).

8.0 ADDITIONS AND REVISIONS TO THE ENVIRONMENTAL ASSESSMENT

8.1 Project Commitments

The EA Project Commitments page incorrectly reported park impact mitigation as the paving of parking lot and/ or tennis courts. The following text should be replaced as shown below (bold text denotes revisions).

Page 1 (Project Commitments) – PDEA/Division 5 – Revise the sentence: "The NCDOT will mitigate the use of parkland from C. R. Wood Park by paving the C. R. Wood **basket ball courts or parking lot**, in coordination with the City of Durham Parks and Recreation Department."

8.2 Park Impacts

As reported in Chapters 4 and 6 of the EA (Section 4.1.3.2), the East End Connector will result in a Section 4(f) *de minimis* impact to the C. R. Wood Park. In the EA, it was reported that the preferred alternative will require the use of approximately 0.08 acres of land from the extreme southeastern corner of the C.R. Wood Park; however, since the completion of the EA, more detailed roadway design impact limits have been determined resulting in a required acquisition of 0.30 acres of land from the park. Section 9 of this report provides a summary of the Section 4(f) *de minimis* impact analysis.

Section 2.5.2.2 of the EA incorrectly reported that there are no impacts to parks. As reported in Section 4.1.3.2 of the EA, the proposed East End Connector will cause a *de minimis* impacts to C. R. Wood Park.

8.3 Carr Road Interchange Update

Through coordination with adjacent landowners and business interests, NCDOT intends to provide a full access US 70 interchange at Carr Road rather than the partial access interchange previously planned (Figure 7). These changes will improve overall traffic flow and access for local traffic, including the nearby community of Hayestown along with other adjacent residential areas. The full access interchange will provide better access to the community and is expected to have an overall positive economic development impact with direct/fully directional access to the adjacent Borden property, which has plans for industrial development.

The preliminary design plans for this interchange indicate minor additional impacts to natural environmental features, which are described in Section 10.0. No significant human or physical environmental impacts are expected. The proposed Carr Road interchange may cause impacts to an active junk yard, which is located in the northeast quadrant of the interchange. During the final design, NCDOT will perform additional studies to evaluate if hazardous material locations will be impacted and if mitigation measures are required.

NCDOT held a Citizens Informational Workshop on September 20, 2010 specifically addressing the Carr Road Interchange modifications. Approximately 4,500 copies of newsletter announcements were mailed to the project's mailing list; a formal informational letter providing additional interchange details was mailed to approximately 450 Hayestown Community citizens adjacent to the interchange area; announcements were provided to the local media for

broadcast; and meeting information was posted on the website www.ncdot.gov/projects/eastendconnector. Approximately 60 citizens were in attendance and 24 comment cards were received with 23 comments supporting the interchange modification.

8.4 Update Right-of-Way and Cost Estimates

In March 2011, the NCDOT right-of-way branch updated the right-of-way acquisition and estimates as presented in the Table 2, showing a reduction in acquisitions. These estimates are based on the preliminary interchange modification designs at Carr Road.

Table 2: Right-of-Way Estimate - March, 2011

Category	Previous (March 13, 2007)	Updated (March ??, 2011)
Number of parcels	146	
Residential relocations	23 ($345,000)	
Business relocations	10 ($200,000)	
Land and damage	$42,450,000	
Acquisition	$876,000	
Total estimated right-of-way cost	**$43,871,000**	

Also, in March 2011, NCDOT updated constructions costs based on the preliminary interchange modification designs at Carr Road as shown in Table 3.

Table 3: Updated Construction Costs – March 2011

(Insert Table 3)

As shown in Table 3 ……. <<summarize Table 3>>.

8.5 Land Use and Transportation Planning

As indicated on Page 3-17 of the EA, at the time of document preparation, the Durham-Chapel Hill-Carrboro (DCHC) Metropolitan Planning Organization (MPO) was in the process of updating their Long Range Transportation Plan (LRTP). On May 13, 2009 the DCHC policy board, the Transportation Advisory Committee, approved the final 2035 LRTP and Air Quality Report, followed by which, the MPO received the FHWA's approval on June 15, 2009.

The Durham County portion of Durham-Chapel Hill-Carrboro Urban Area thoroughfare plan of 1992 is the most current thoroughfare plan and is referenced herein as a current transportation plan.

8.6 Updated Federally Protected Species Survey

As reported in the EA, earlier surveys by the NCDOT Natural Environment Unit (NEU) indicated that the proposed project would not effect the smooth coneflower or Michaux's sumac protected species in the study area.

An update to the original protected species survey was conducted on June 8, 2010. During this survey, no population of the smooth coneflower or Michaux' sumac were identified within the project study area. Additionally, a review of the NC Natural Heritage Program (NCNHP) database revealed no known populations within one mile of the project.

8.7 Noise Impacts and Mitigation Measures

Subsequent to the EA, a project design noise study was completed in March 2010 by the NCDOT PDEA Branch. This study concluded that 17 receptors (residences/buildings) in the vicinity of Rowena Avenue will be impacted by the highway traffic noise of the proposed East End Connector (EEC) project. In order to abate these noise impacts, a noise barrier is recommended. The optimized design of a concrete barrier that will provide the necessary noise reduction is 1,185 feet long with an exposed height ranging from 8 to 12 feet. This noise barrier will be located along the EEC's westbound roadway shoulder from approximately 600 feet west of Rowena Avenue to approximately 600 feet east of Rowena Avenue and would benefit 14 receptors. This barrier length and location meet the feasibility and reasonableness requirements of NCDOT and therefore is recommended for construction.

The proposed noise barrier length, width or location may change if the EEC roadway design plans are modified during final design. The final decision on construction of noise abatement measures will be made upon completion of the final roadway design, and approval by the affected local residents and the Federal Highway Administration.

9.0 C R WOOD PARK - SECTION 4(F) DE MINIMIS IMPACT ANALYSIS

9.1 Section 4(f) De Minimis Impact Background

Section 4(f) of the Department of Transportation Act of 1966, as amended, (23 U.S.C. 138) states that the U.S. Department of Transportation "may not approve the use of land from a significant publicly-owned park, recreation area, or wildlife and waterfowl refuge, or any significant historic site unless a determination is made that: (i) There is no feasible and prudent alternative to the use of land from the property; and (ii) The action includes all possible planning to minimize harm to the property resulting from such use." For Section 4(f), a "use" is defined as one of the following:

- A direct use – property is permanently incorporated into the right-of-way of the transportation project;

- A temporary use – property is temporarily occupied in a way that is adverse to the property's purpose; or

- A constructive use – a use that occurs when the "the transportation project does not incorporate land from a Section 4(f) property, but the project's proximity impacts are so severe that the property activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished." (23 CFR 774.15(a))

In 2005, Congress amended Section 4(f) in its passage of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), specifically in Section 6009(a). An important change was the introduction of the *de minimis* procedures for processing minor impacts to Section 4(f) resources. Subsequent to the passage of SAFETEA-LU, the FHWA amended the Section 4(f) regulations (23 CFR 774.3(b), 23 CFR 774.5(b) and 23 CFR 774.17) and issued guidance for determining *de minimis* findings (*Guidance for Determining De Minimis Impacts for Section 4(f) Resources)*.

Based on these regulations and guidance documents, the use of land from a publicly-owned park, recreation area, or wildlife and waterfowl refuge may be determined to be *de minimis* if:

1. The transportation use of the park, together with any impact, avoidance, minimization, and mitigation or enhancement measures do not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f).

2. The official(s) with jurisdiction over the property is informed of FHWA's intent to make the *de minimis* impact finding, based on his/her written concurrence that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f).

3. The public has been afforded an opportunity to review and comment on the affects of the project on the proposed activities, features, and attributes of the Section 4(f) resource.

According to the provisions set forth in Section 6009(a) of SAFETEA-LU, once the US Department of Transportation determines that a transportation use of property from a Section 4(f) resource constitutes a *de minimis* impact, analysis of avoidance alternatives is not required and the Section 4(f) evaluation process is complete.

9.2 Area of Concern - C.R Wood Park

C.R. Wood Park is a 17.4 acre park owned by the City of Durham. It is located at 417 S. Commonwealth Avenue, between East End Avenue to the north and Angier Avenue to the south (see Figure 8). The proposed East End Connector will lie to the southeast of the park. The park includes a ball field, basketball court, the Hayestown Community Center, a playground, and picnic facilities. The playground at the park was recently renovated and other improvements are planned by the City. The park's recreational facilities are located on the northern side of the park, with the southern side remaining undeveloped and wooded to serve as a buffer to the planned freeway.

9.3 Impacts to C.R. Wood Park

The preferred alternative will require the use of approximately 0.30 acre of land from the extreme southeastern corner of the 17.38 acre C.R. Wood Park, as shown in Figure 8. The land impacted is undeveloped and wooded and contains no recreational facilities. Access to the park will be maintained at its current location. No trails or paths are located in the impacted area.

After coordination with officials from the City of Durham Parks and Recreation Department and the NCDOT and review of the project's impacts, the Federal Highway Administration finds that the East End Connector will not adversely affect the activities, features, and attributes that qualify the park for protection under Section 4(f). This *de minimis* finding includes the Section 4(f) requirement that all possible planning to minimize harm to the resource have been achieved (23 CFR 774.117(5)). The NCDOT has agreed to mitigate the use of the parkland by paving the C.R. Wood parking lot and/or basketball court, as proposed by the City of Durham. This will be coordinated with the City of Durham Parks and Recreation Department at the time of construction.

The City of Durham was informed of FHWA's determination that no adverse effects to the park will result from the project and of the agency's expectation that the impact will constitute a *de minimus* use of land from a Section 4(f) resource. The City concurs that the East End Connector will have no adverse effect on the C.R. Wood Park (see letter dated August 28, 2009 in Appendix E).

9.4 Public Involvement

The proposed use of park land from the C.R. Wood Park was presented at the March 25, 2010 and April 27th, 2010 public hearings for the East End Connector project. No citizens commented on the impacts to the park at the public hearings or during the subsequent comment period which ended May 10, 2010.

The East End Connector Ad Hoc Committee, a committee of citizens from the project area, was informed of the impact to the park and the proposed mitigation. They were asked for comments and concerns, but none were expressed. The Committee indicated support for the mitigation

proposed by the City of Durham Parks and Recreation Department. On February 5, 2010, the City of Durham, on behalf of the East End Connector Ad Hoc Committee, presented the NCDOT with a memorandum detailing the mitigation measures the Ad Hoc Committee had identified as their requests to be included in the East End Connector project. Among these measures were the following, which pertained to the C.R. Wood Park:

- Minimize impacts to the park during construction.
- Minimize disturbance of vegetation and provide replacement vegetation for any unavoidable impacts.
- Paving of the parking lot and/or basketball courts.
- Provision of replacement land in exchange for the land taken from the park.

9.5 Section 6(f) of the Land and Water Conservation Fund Act (LWCF)

The Land and Water Conservation Fund Act of 1965, as amended (16 USC 4601-4 et seq), established a federal program to stimulate preservation and development of outdoor recreational resources by providing matching grants to states and local governments for use in acquiring and developing public outdoor recreation facilities. The program is currently administered by the National Park Service.

A number of "post completion" responsibilities apply to each recreation area or facility assisted with Land and Water Conservation Fund (LWCF) grants, as documented in Section 6(f)(3) of the Act. One such responsibility in the law states that property acquired or improved with LWCF monies must remain in public outdoor recreation use and cannot be partly or wholly converted to another use without approval by the National Park Service, pursuant to 36 CFR 59 and guidelines set forth by the National Park Service in the *Land and Water Conservation Fund State Assistance Program: Federal Financial Assistance Manual* (October, 2008). Replacement land of equal value and recreational use must be provided for any land converted to non-recreational uses.

The entire C.R. Wood Park is included within the 6(f)(3) boundary map for LWCF grant number 37-00118.8. A formal request to the U.S. Department of Interior, National Park Service to convert the 0.30 acre of land needed for the East End Connector was made by the project sponsor, the City of Durham, with assistance from the NCDOT.

The LWCF boundaries comprising C.R. Wood Park in the City of Durham, NC are revised to exclude a 0.30 acre area in the park's southeastern corner, and include a 1.33 acre tract adjacent to the park's southern boundary. The 1.33 acre tract provides replacement land for the 0.30 acre portion removed from the park boundary. The C.R. Wood Park was originally 17.38 acres in size. The 6(f) conversion, with the addition of the replacement land, will increase the overall park size to 18.41 acres.

The NCDOT coordinated extensively with Parks and Recreation officials with the City of Durham and the LWCF Coordinator with the North Carolina Parks and Recreation Division to discuss the parkland conversion and identify possible replacement land options. The City of Durham is on record as supporting the use of the 0.30 acre area of the C.R. Wood Park for the proposed East End Connector and has served as the project sponsor in the land conversion process. Appendix E includes documentation of support for the park land conversion and replacement land from the City of Durham. The Durham City Council approved the conversion at the meeting on February 7, 2011.

The US Department of Interior, National Park Service, approved the conversion of land from the C.R. Wood Park on February 11, 2011 (see letter in Appendix E.). Prior to approval of the conversion, the following steps were accomplished:

Step 1: All practical alternatives to the conversion were considered before moving forward with the proposed use of the 0.30 acre area from the C.R. Wood Park. Alternatives considered included construction of retaining walls and realigning the freeway. Designs that incorporated a retaining wall were prepared and evaluated. The retaining wall option was determined to be infeasible because it did not eliminate the need for a permanent access easement on park property to allow vehicular access to the wall for maintenance. Also, the wall would be 20 feet high at its highest point. It was concluded that given its relative isolation at the southeastern end of C.R. Wood Park, it could be an attractive nuisance, attracting graffiti and other vandalism, in addition to being inconsistent with the natural woodland setting of the eastern side of the C.R. Wood Park.

Realigning the freeway with a shift to the east also was evaluated. However, the impacted park area is located in a tangent, or straight section between two interchanges. Moving the roadway tangent shifts both interchanges, substantially altering their design and increasing their impacts, particularly to wetlands, streams, and businesses along US 70. It also would increase the number of electrical transmission towers on an adjacent utility easement that would require relocation, substantially increasing the cost of the project.

The City of Durham's Park and Recreation Department has taken the planned East End Connector into account in the development of the C.R. Wood Park. Approximately five acres of the 17.38 acre park is developed, all in the northern and western portions of the park. The southeastern side of the park was left undeveloped and wooded to serve as a visual and auditory buffer to the freeway from the active recreational areas, once the freeway is constructed. The Parks and Recreation Department's future development plans for the C.R. Wood Park will be unaffected by the proposed small conversion. The Department indicated a preference for a vegetative slope rather than a concrete retaining wall for the reasons cited above.

Step 2: The fair market value of both the property to be converted and the replacement property were determined. The replacement property must be of at least equal value to the property to be converted. The conversion land within C.R. Wood Park has an appraised value of $3,250.00. The adjacent 1.33 acre replacement land has an appraised value of $11,100.

Step 3: The replacement property must be of "reasonably equivalent usefulness and location" as the converted property. The 1.33 acre replacement land is located immediately adjacent to the C.R. Wood Park's southern boundary at 3215 Angier Avenue, Durham NC, 27703-4419. It can serve as a buffer area between the active recreational areas of C.R. Wood Park. However, the replacement land has frontage on Angier Avenue, a Durham arterial. This frontage provides the City of Durham with an opportunity to use the replacement land to improve access to the park, if so desired. Currently, access to the park is via residential streets off Angier Avenue, including Commonwealth Drive. The replacement land is currently in residential use. The NCDOT will remove the existing structure on the property prior to transferring title to the City of Durham. Otherwise, the property is level and largely wooded.

Step 4: The replacement property must meet the eligibility requirements for LWCF assisted acquisition and must be a viable recreation area. The replacement land can be used as a buffer

to the East End Connector, which will be located to the east of the C.R. Wood Park, to provide another entrance to the park, or for some other recreational purpose.

Step 5: The impact of the conversion on the remainder of the Section 6(f)(3) resource must be considered. The unconverted area of the C.R. Wood Park will remain recreationally viable. None of the existing recreational facilities will be affected. Because the replacement land adds a net gain in the park's total acreage and provides an opportunity for a more visible access drive, the conversion can be viewed as an overall net benefit for the park and its users.

Step 6: All necessary coordination with the appropriate federal agencies has been satisfied, including compliance with Section 4(f) of the Department of Transportation Act of 1966, as described in earlier in this section.

Step 7: The environmental review requirements under NEPA have been satisfied and all environmental review requirements for all federal actions involving the park have been met and approved by the U.S. Department of Interior, National Park Service.

Step 8: All state intergovernmental review procedures will be followed for this FONSI. The State of North Carolina Parks and Recreation Department has not developed an Intergovernmental Review Process pursuant to Executive Order 12372.

Step 9: The proposed conversion and replacement land is consistent with the State Comprehensive Outdoor Recreation Plan (SCORP), the *North Carolina Outdoor Recreation Plan 2009-2013.*

10.0 JURSIDICTIONAL WATERS FINDING

In 2004 and 2007 natural system studies were performed that covered the project study area boundaries. During the studies, onsite meetings were held with representatives of the US Army Corps of Engineers (USACE) and the North Carolina Department of Water Quality (NCDWQ) to obtain jurisdictional concurrence of the wetland, stream, and riparian buffer delineations. A summary of the wetlands, streams, and buffers identified and mapped within the project study area are illustrated in Figure 9.

Tables 4, 5, and 6 below identify the project's estimated impacts to streams, ponds, and wetlands respectively.

Table 4: Estimated Stream Impacts

Stream / Seasonality	Stream Name	Estimated Impacts		
		Linear Impacts (Ft)	Zone 1 Buffer Impacts (Ac)	Zone 2 Buffer Impacts (Ac)
Intermittent	S-2 – UT to Little Lick	105	0.14	0.10
Perennial	S-6 – UT to Little Lick	940	1.29	0.86
Intermittent	S-7 – UT to Little Lick	185	0.25	0.17
Intermittent	S-16 – UT to Little Lick	558	0.77	0.51
Perennial	S-18 – UT to Little Lick	750	1.03	0.69
Intermittent	S-19 – UT to Little Lick	618	0.85	0.57
Intermittent	S-26 – UT to Little Lick	480	0.66	0.44
Perennial	S-30 – UT to Northeast	250	N/A*	N/A*
Intermittent	S-35 – UT to Little Lick	468	0.64	0.43
Intermittent **	S-A – UT to Little Lick	490	0.67	0.45
Intermittent	S-B – UT to Little Lick	462	0.64	0.42
Perennial	S-D – UT to Third Fork Creek	225	N/A *	N/A *
Lynn Rd. Realignment				
Intermittent	S-2 – UT to Little Lick	180	0.25	0.17
Total		**5,711**	**7.19**	**4.81**

* Cape Fear Basin – No Buffer Regulation

** Mitigation Required by the USACE

Table 5: Estimated Pond Impacts

Pond	Impact (acres)	Description	Type	NCDWQ Rating
Pond 8	0.84	PUBHh	N/A	N/A
Pond 10	0.07	PUBEhd	N/A	N/A
Pond 12	0.22	PUBHhxd	N/A	N/A
Total	**1.13**			

Table 6: Estimated Wetland Impacts

Wetland	Impact (acres)	Description	Type	NCDWQ Rating
W-28	0.04	PEM1A	Riverine	29
W-B	0.09	PF01A	Riverine	47
W-31	0.07	PSS1E	Non-riverine	16
W-39	0.04	PF01A	N/A	49
Pond 11	0.05	PUBEx	Non-riverine	16
Total	**0.29**			

As shown in the tables above, stream impacts will exceed the nationwide permit impact thresholds of 300' of jurisdictional stream impacts and wetland impact threshold of 0.5 acres. Therefore both an individual NCDWQ Section 401 Water Quality Certification and an individual USACE Section 404 permit will be required for the project.

The Carr Road interchange modifications resulted in minor additional jurisdictional waters impacts to two streams (S-18 and S-26) and two wetlands (W-25 and W-39). As shown in Tables 7 and 8, the addition of Carr Road interchange will result in an additional 179 linear feet of stream impacts; 0.15 acres of zone 1 buffer impacts; 0.10 acres of zone 2 buffer impacts; and 0.05 acres of wetlands impacts. The interchange modification would cause no additional impacts to ponds.

During the final design process, measures to further minimize the jurisdictional impacts will be explored. Some of the possible minimization efforts were listed in the EA document along with potential locations for on-site mitigation. Potential avoidance and mitigation measures will be discussed during the Merger 01 4B and 4C concurrence meetings. Decisions regarding final mitigation plans will be made in cooperation with the North Carolina Ecological Enhancement Program, the USACE, and the NCDWQ.

Table 7: Additional Stream Impacts – Carr Road Interchange

Stream / Seasonality	Stream Name	Impact Category	Impacts without Carr Road Interchange (December 2009 EA)	Impacts with Carr Road Interchange	Additional Impacts due to Carr Road Interchange
Perennial	S-18 – UT to Little Lick	Linear (Ft)	750	856	106
		Zone 1Buffer (Ac)	1.03	1.18	0.15
		Zone 2 Buffer (Ac)	0.69	0.79	0.10
Intermittent	S-26 – UT to Little Lick	Linear (Ft)	480	553	73
		Zone 1Buffer (Ac)	0.66	0.66	0
		Zone 2 Buffer (Ac)	0.44	0.44	0

Table 8: Additional Wetland Impacts – Carr Road Interchange

Wetland	Description	Type	NCDWQ Rating	Impacts without Carr Road Interchange (December 2009 EA)	Impacts with Carr Road Interchange	Additional Impacts due to Carr Road Interchange
W-25	PEM1A	Riverine	29	0.00 (Ac.)	0.01 (Ac.)	0.01 (Ac.)
W-39	PF01A	N/A	49	0.04 (Ac.)	0.08 (Ac.)	0.04 (Ac.)

11.0 FLOODPLAIN FINDING

Durham County and the City of Durham are participants in the National Flood Insurance Regulatory Program. The proposed alignment for the East End Connector project will not directly impact areas designated as 100-year floodplain/floodway. One mapped flood zone just outside the project limits is worth noting. The site is located just north of the intersection at Holloway Street (NC98) and North Miami Boulevard. (Business US70). The limits of work along Holloway Street stop just north of the culvert/stream crossing. Therefore, the proposed alternative currently has no impact to the flood zone. If during the final design the project limits are extended, the established floodway may be impacted, in which case, the necessary hydraulic modeling will be performed to determine if a FEMA flood map revision is required.

12.0 SUMMARY OF PROJECT IMPACTS

Table 9provides an analysis of the Preferred Alternative Impacts as described under the EA document.

Table 9: Preferred Alternative – Significant Impact Analysis

Section of EA	Significant Impact?
4.1.1 Community	No. Community cohesion will be maintained through the extension of Rowena Avenue to US 70 and a grade separation of the East End Connector over Rowena Avenue to maintain its connection to Carter Avenue.
4.1.1.1 Transportation Services	No. The existing and proposed rail transit systems, bicycle routes and greenways are not expected to be impacted, but some of the current Durham Area Transit Authority bus routes will be modified. During construction, there will be no interruption to rail service along the major freight railroad corridors located in the study area.
4.1.1.1 Access Changes	No. Generally, for the preferred alternative, the major changes to local access and travel routes within the EEC study area will be associated with the reconstruction of US 70 from Holloway Street to Pleasant Drive. The project will change travel patterns for motorists traveling from south of Durham to I-85 by providing a freeway-to-freeway alternative to the current through-town routes to I-85, via Gregson and Duke Streets. As a result, traffic volumes on those roadways are expected to be maintained at 2006 levels in 2035, rather than increase by 24 percent under the no-build condition. In order to maintain adequate access to roadways and properties in the study area, the construction of Alternative 3 will include the provision of new roadway connections and alternate access routes. In addition, the reconstruction of US 70; realignment of East End Avenue/Lynn Road; construction of the full interchange at Carr Road; and changes to the existing US 70/Lynn Road/Pleasant Drive intersections will create some new travel patterns for local traffic circulation within the study area.

Section of EA	Significant Impact?
4.1.2 Relocations	No. The preferred alternative will displace 17 residents, 9 businesses, and 1 church.
4.1.3 Community Facilities & Services	No. The preferred alternative will impact the Living Water Christian Church office at the intersection of US 70 and Lynn Road and the Believers Assembly Christian Church on Harvard Avenue. One 4(f) and 6(f) resource will be impacted – City of Durham's C. R. Wood Park. Approximately 0.30 acre of undeveloped land will be acquired from the park. A *de minimis* impact has been determined for this resource. Approximately 1.33 acres of replacement land will be provided adjacent to the park property.
4.1.4.4 Environmental Justice	No. The preferred alternative alignment, Alternative 3, either follows existing facilities or, where there is a new alignment, crosses mainly undeveloped property adjacent to three neighborhoods. The number of non-minority relocation impacts equals or exceeds the number of minority and low income relocation impacts. Relocation opportunities are expected to be readily available within the project area. Also, the impacted properties are not concentrated in one neighborhood, but are instead dispersed through the project corridor. Users of public facilities and services, including minority and/or low-income populations, will have substantially the same accessibility to these facilities with the East End Connector and other related roadway improvements as exists today. The provision of new service roadways and other local roadway extensions to those areas that currently have very limited or no access could also stimulate growth and increase development.

Section of EA	Significant Impact?
4.1.5 Economic Impact	No. The East End Connector facility is expected to have an overall positive economic impact on the Durham area. The new freeway connector along with the construction of additional local access/service roads will provide greater accessibility to some existing businesses and some undeveloped properties in the study area. The EEC facility will also provide a direct route for commercial truck traffic through the area which could result in fewer trucks on local streets, enhanced marketability of industrial sites, and reduced travel costs for existing businesses in the area.
4.1.7 Noise	No. During the EA development, a noise-impacted area was identified along the proposed alignment on the north end of the East End Connector in the vicinity of Rowena Avenue. Based on the NCDOT Traffic Noise Abatement Policy, a noise barrier was determined to be feasible and reasonable at this location. Subsequent to the EA, a project design noise study was completed in March 2010 by the NCDOT PDEA Group. This study concluded that 17 receptors (residences/buildings) in the vicinity of Rowena Avenue will be impacted by the highway traffic noise of the proposed East End Connector (EEC) project. In order to abate these noise impacts, a noise barrier is recommended. The optimized design of a concrete barrier that will provide the necessary noise reduction is 1,185 feet long with an exposed height ranging from 8 to 12 feet. This noise barrier will be located along the EEC's westbound roadway shoulder from approximately 600 west of Rowena Avenue to approximately 600 feet east of Rowena Avenue and would benefit 14 receptors. This barrier length and location meet the feasibility and reasonableness requirements of NCDOT and therefore is recommended for construction.
4.1.8 Air Quality	No. The carbon monoxide hotspot analysis determined the project is in conformity with air quality standards. The localized levels of Mobile Source Air Toxics (MSAT) emissions for the preferred alternative could be higher relative to the No-Build Alternative, but this could be offset due to increases in speeds and reductions in congestion.

Section of EA	Significant Impact?
4.1.9 Farmlands	No. The study area is located within the designated Urban Growth Area boundary for the City of Durham; therefore, no consideration of potential impacts is required.
4.1.10 Utilities	No. Construction of the preferred alternative will require some adjustment, relocation, or modification to public utilities in the study area. Also, relocation of up to nine large transmission towers will be required east of Angier Avenue. During final design, all utility providers will be contacted, and coordination will be undertaken to ensure that the proposed design will not lead to a substantial disruption of service during construction
4.1.11 Aesthetics	No. In most cases the proposed roadway's visual impacts will be negligible due to its separation from the nearby properties and because of natural vegetation buffers. Also, for many properties the project will be an improvement to a roadway that already exists, resulting in minimal increased visual impacts.
4.1.12 Hazardous Materials	No. Nine underground storage tank sites are located within 100 feet of the preferred alternative. Also, four hazardous waste sites are located within the project study area, but none are in proximity to the proposed alignment. None of these sites are currently anticipated to be impacted by the project.
4.2 Land Use & Trans-portation Planning	No. The preferred alternative is consistent with all land use and transportation plans adopted by local and State planning agencies.
4.3 Cultural Resources	No. There are no historic or cultural resources impacts located within the study area.

Section of EA	Significant Impact?
4.4.1 Biotic Community and Wildlife	No. The federally protected species listed for Durham County includes the bald eagle (de-listed), smooth coneflower, and Michaux's sumac. None of these species were found in the study area. Construction of the project will have various impacts on the biotic resources in the study area. Any construction-related activities in or near these resources have the potential to impact biological functions. Three terrestrial community types exist within the proposed alignment, including maintained/disturbed; mixed pine/hardwood forest; and pine forest. The area of impact is 137 acres, 100 acres, and 38 acres respectively. Impact areas may be higher or lower, depending on whether revisions/modifications are made during preliminary and final design. Note that approximately half of the project area terrestrial impacts are comprised of the maintained/ disturbed community which includes lawns, and right-of-way.
4.4.1.2 Impacts to Aquatic Communities	No. Prior to construction, an Erosion and Sedimentation Control Plan/Stormwater Pollution Prevention Plan will be developed for the preferred alternative in accordance with the NCDENR publication *Erosion and Sediment Control Planning and Design* and the NCDOT's *Best Management Practices for Protection of Surface Waters*, to minimize any adverse impacts to aquatic communities. These Plans will be implemented and maintained throughout the construction period.
4.4.2 Water Resources	No. All hydraulic structures will be designed to not substantially increase upstream flooding and not increase the flood hazard potential of the existing floodplain. The standard sedimentation and erosion control measures adopted by the NCDOT for the installation of culverts will be followed.
4.4.2.3 Flood Hazard Evaluation	No. The proposed alignment will not directly impact areas designated as 100-year floodplain/floodway.
4.4.3 Jurisdictional Areas	No. Approximately 5,711 linear feet of streams, 0.29 acres of wetlands, and 1.13 acres of ponds will be affected in the study area. The NCDOT will coordinate the project with the Ecological Enhancement Program (EEP) to mitigate the stream impacts identified above. Efforts will be made to mitigate the wetland impacts on-site. If suitable on-site wetland mitigation is unavailable, wetland impacts also will be mitigated through the EEP.

Section of EA	Significant Impact?
4.4.3.2 Permits	No. A Neuse River riparian buffer Authorization Certificate will be needed in addition to a USACE Section 404 permit and a DWQ Section 401 Water Quality Certification.
4.4.3.3 Mitigation	No. Decisions regarding final mitigation plans for the project will be made in cooperation with the Ecological Enhancement Program, the USACE, and the NCDWQ. If on-site opportunities are not sufficient to mitigate for potential wetland and stream impacts, or are not available for mitigation, off-site compensatory mitigation will be accomplished through coordination with the North Carolina Ecosystem Enhancement Program (NCEEP).
4.5 Construction	No. Construction of the preferred alternative may cause temporary adverse impacts to the local environment, including impacts to air quality, water quality, noise, and biotic communities. Construction impacts are generally short-term in nature and can be controlled, minimized, or mitigated through the use of Best Management Practices and standard NCDOT procedures.

13.0 BASIS FOR FINDING OF NO SIGNIFICANT IMPACT

The 2009 EA confirmed that the project's purpose and need and alternatives are consistent with the original 1982 FEIS document. The affected environment of the project area has also remained consistent with those documented previously, with the few exceptions appropriately addressed in the EA. The changes in the affected environment do not alter the selection or evaluations of the alternatives studied in detail in the previous FEIS.

The impacts listed in Table 9 have not resulted in any change to the regulatory compliance of the project. Additionally, these impacts do not affect the decision made in selecting the Preferred Alternative. Based on the results of the EA and as updated with this document, it is concluded that the 1982 FEIS prepared for the project remains a valid document in accordance with NEPA regulations.

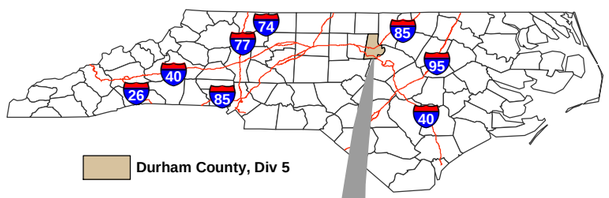
14.0 REFERENCES

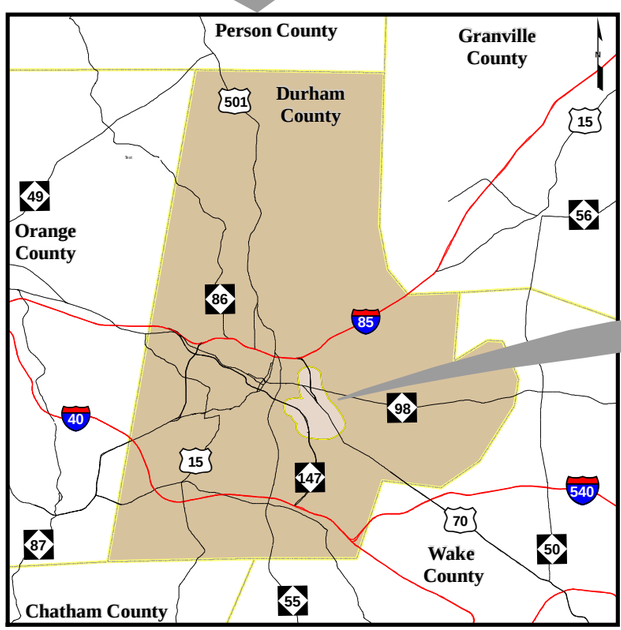
North Carolina Department of Transportation, Right-of-Way Branch, March 1, 2010, *Right-of-Way Cost Estimate, East End Connector.*

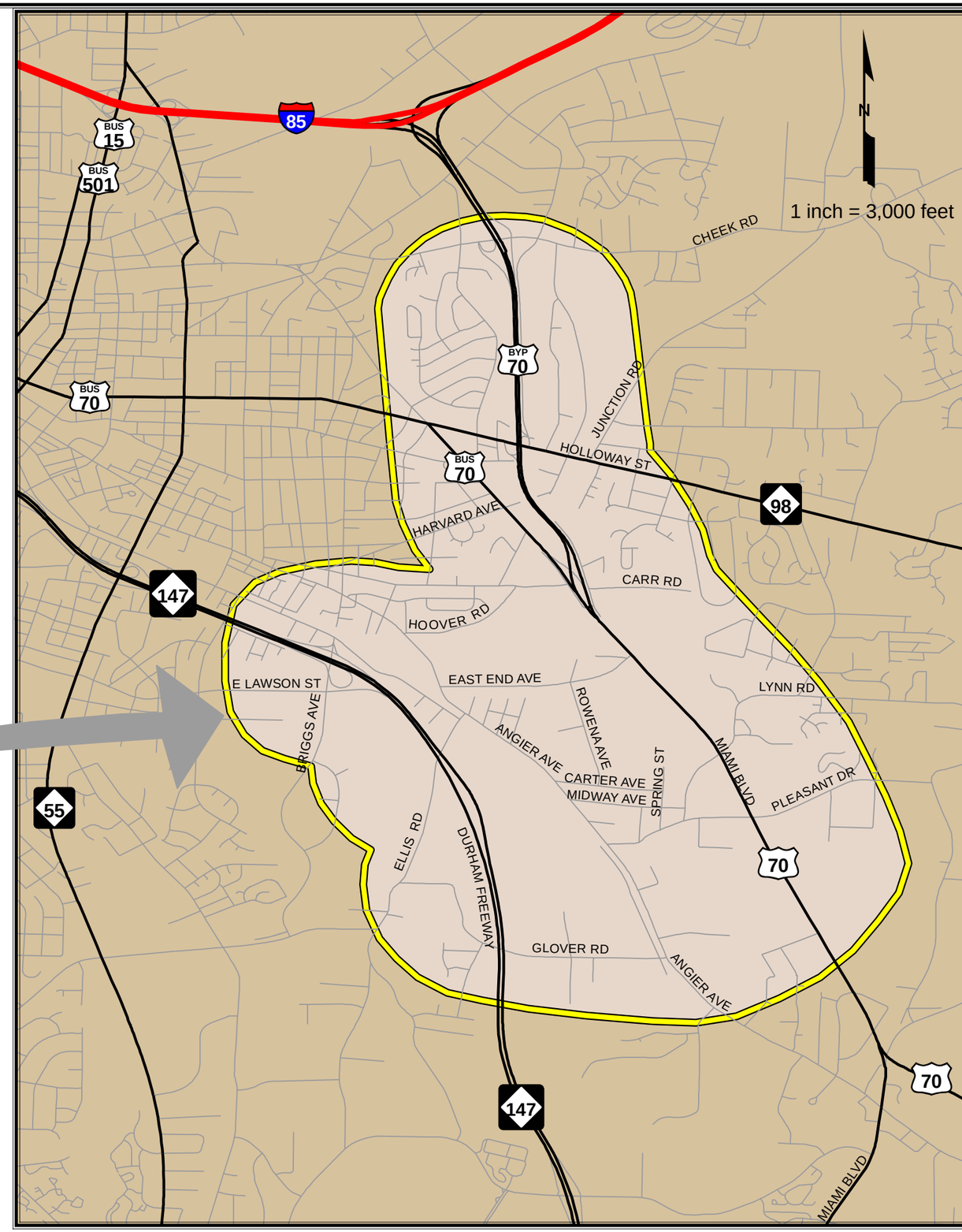
North Carolina Department of Transportation, Project Development and Environmental Analysis Branch, Natural Environment Unit. June 17, 2010. *Protected Species Update for U-0071 Durham County, East End Connector.*

North Carolina Department of Transportation, Project Development and Environmental Analysis Branch, Human Environment Unit. March 18, 2010. *Design Noise Report, East End Connector, Durham County.*

Appendix A – Figures







PROJECT STUDY AREA

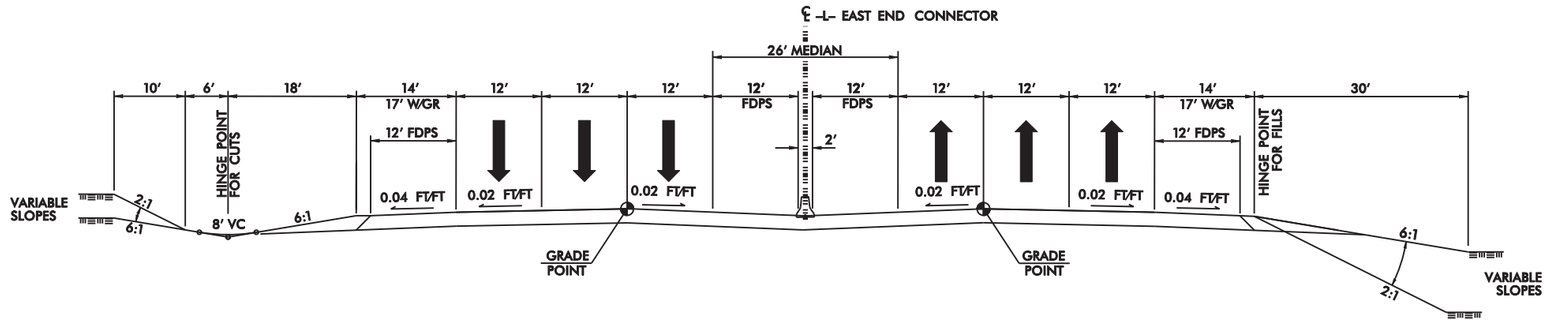
EAST END CONNECTOR

Legend

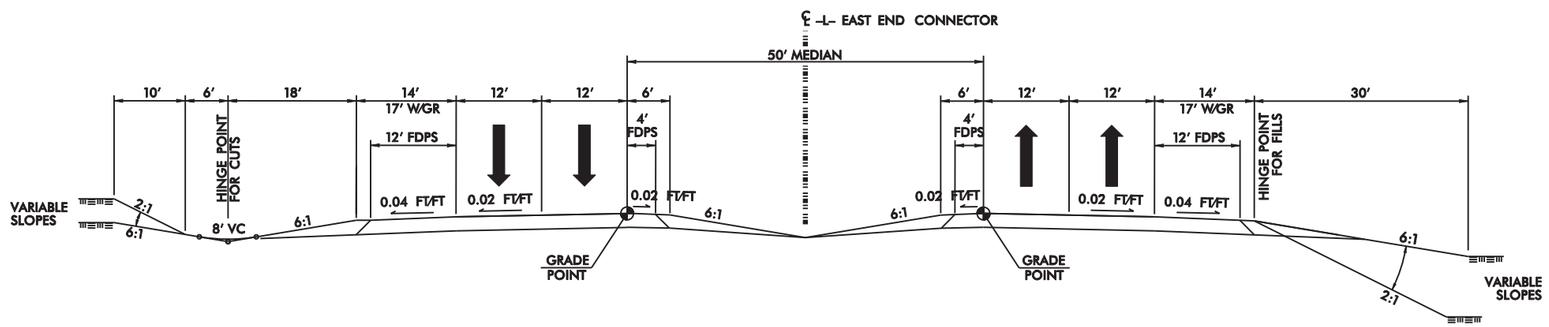
Study Area Boundary

East End Connector
DURHAM COUNTY (TIP Project No. U-0071)

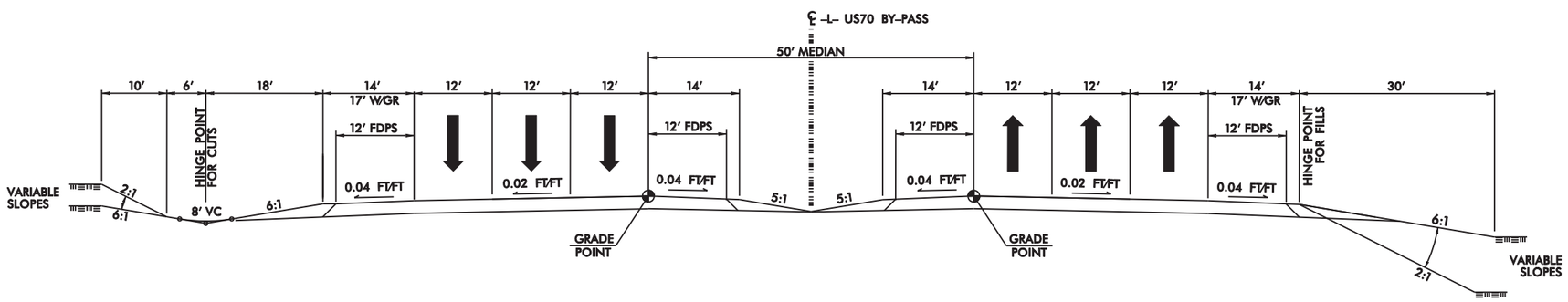
FIGURE 1



EAST END CONNECTOR TYPICAL SECTION (ULTIMATE SECTION)



EAST END CONNECTOR TYPICAL SECTION (BUILD SECTION)



US70 BY–PASS TYPICAL SECTION (BUILD SECTION)

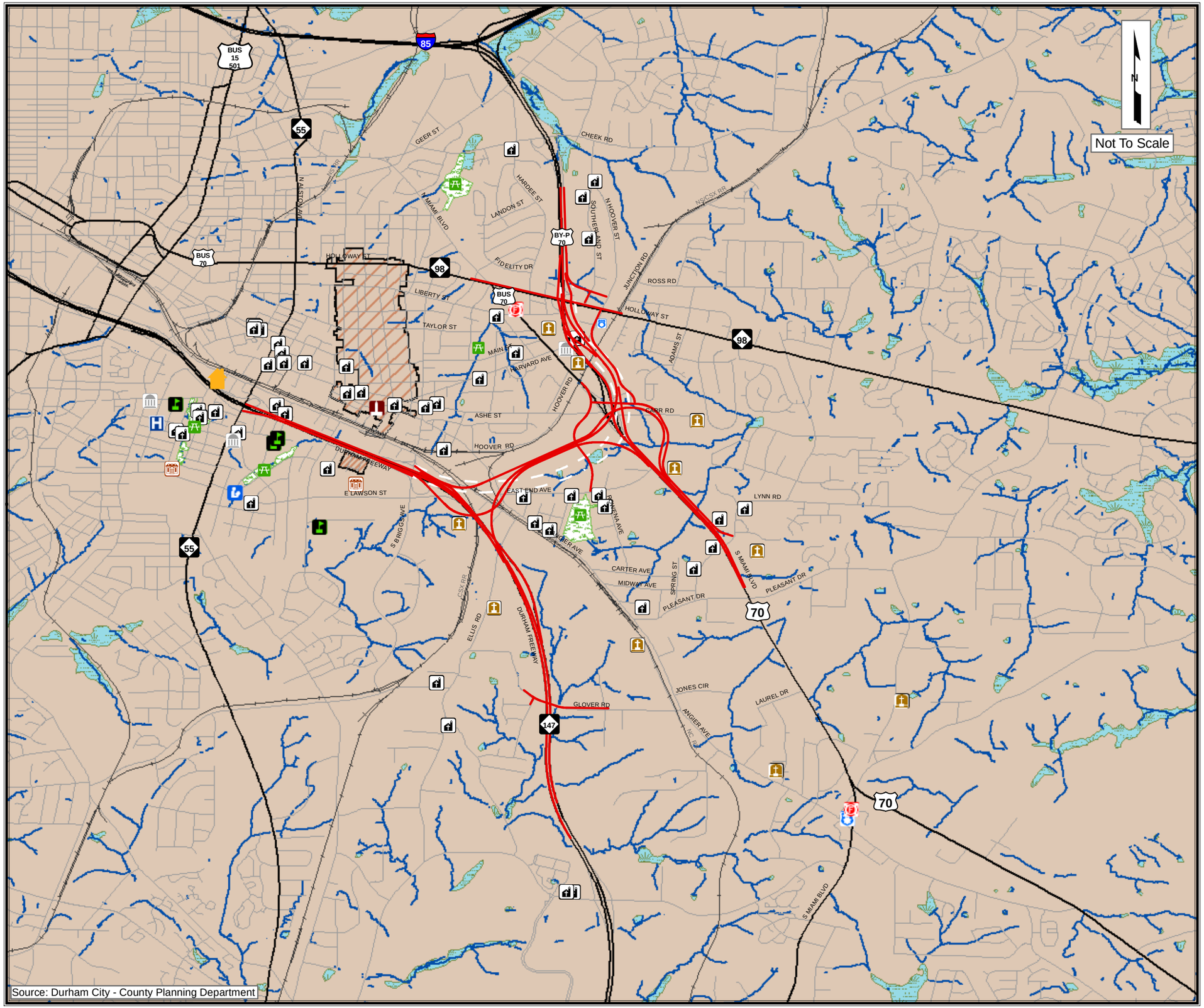
TYPICAL SECTIONS

EAST END CONNECTOR

NOT TO SCALE

East End Connector
DURHAM COUNTY (TIP Project No. U-0071)

FIGURE 2



Source: Durham City - County Planning Department

PRELIMINARY ALTERNATIVE 1

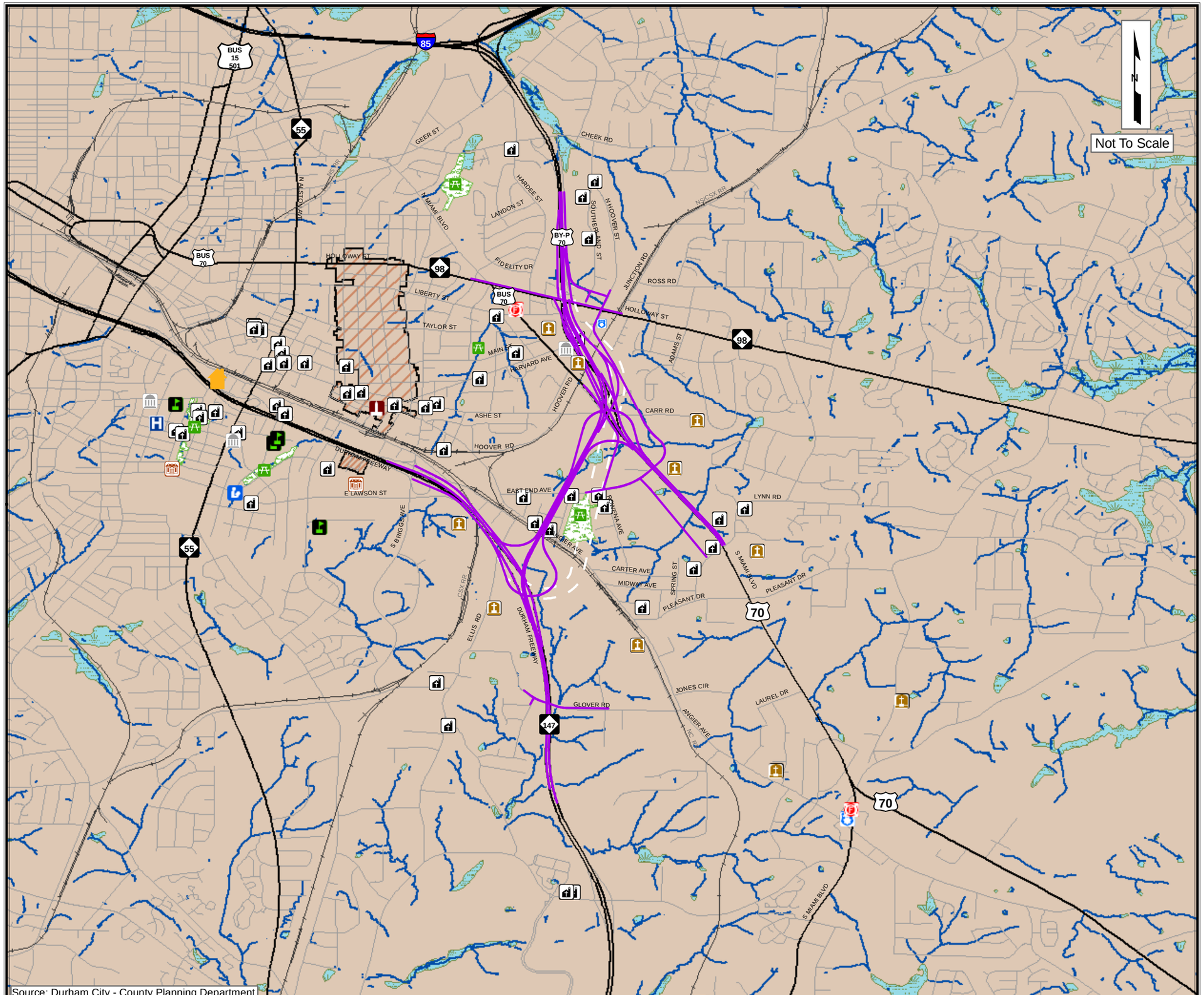
EAST END CONNECTOR

LEGEND

- Place of Worship
- Cemetery
- Local Historical Landmark
- Park
- Public School
- College or University
- Police Department
- Fire Station
- Government Building
- Community Centers
- Library
- Hospital
- National Historic District
- Wetlands (National Wetland Inventory)
- Streams
- 1982 FEIS Alternative 1 Design Corridor (Approximate Location)

East End Connector
DURHAM COUNTY (TIP Project No. U-0071)

FIGURE 3



Source: Durham City - County Planning Department

PRELIMINARY ALTERNATIVE 2

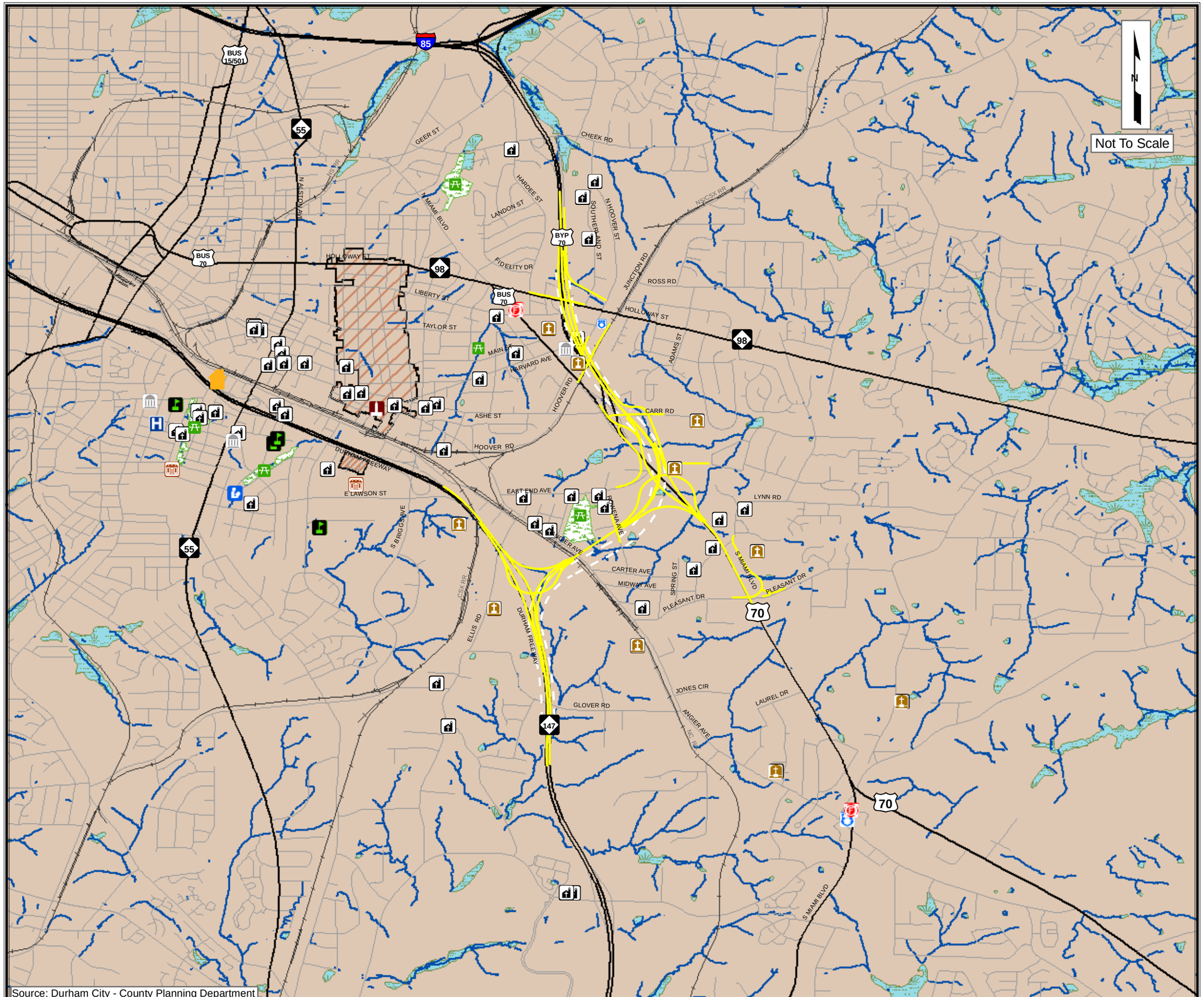
EAST END CONNECTOR

LEGEND

- Place of Worship
- Cemetery
- Local Historical Landmark
- Park
- Public School
- College or University
- Police Department
- Fire Station
- Government Building
- Community Centers
- Library
- Hospital
- National Historic District
- Wetlands (National Wetland Inventory)
- Streams
- 1982 FEIS Alternative 2 Design Corridor (Approximate Location)

East End Connector
DURHAM COUNTY (TIP Project No. U-0071)

FIGURE 4



Source: Durham City - County Planning Department

PRELIMINARY ALTERNATIVE 3

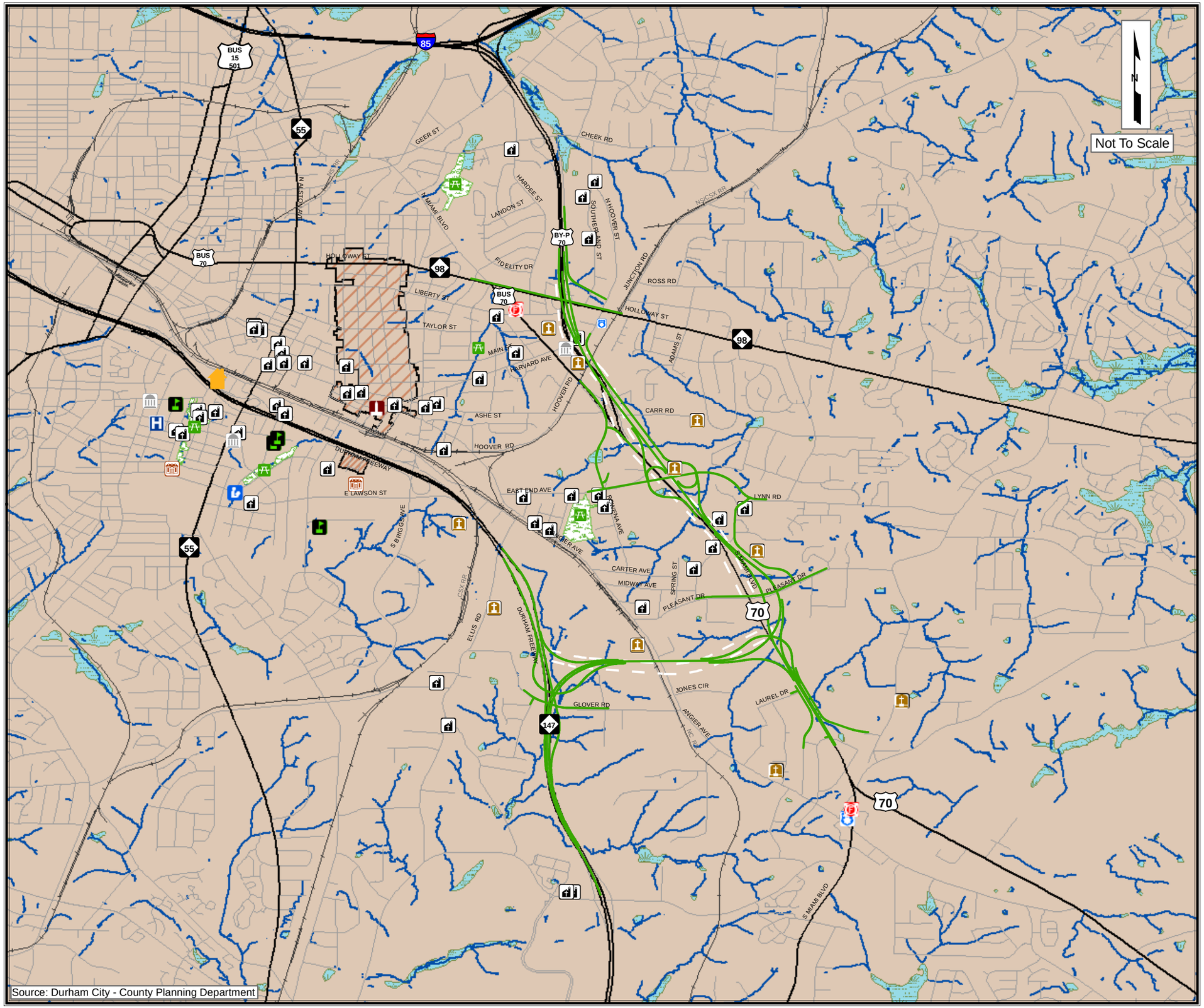
EAST END CONNECTOR

LEGEND

- Place of Worship
- Cemetery
- Local Historical Landmark
- Park
- Public School
- College or University
- Police Department
- Fire Station
- Government Building
- Community Centers
- Library
- Hospital
- National Historic District
- Wetlands (National Wetland Inventory)
- Streams
- 1982 FEIS Recommended Design Corridor (Approximate Location)

East End Connector
DURHAM COUNTY (TIP Project No. U-0071)

FIGURE 5



Source: Durham City - County Planning Department

PRELIMINARY ALTERNATIVE 4

EAST END CONNECTOR

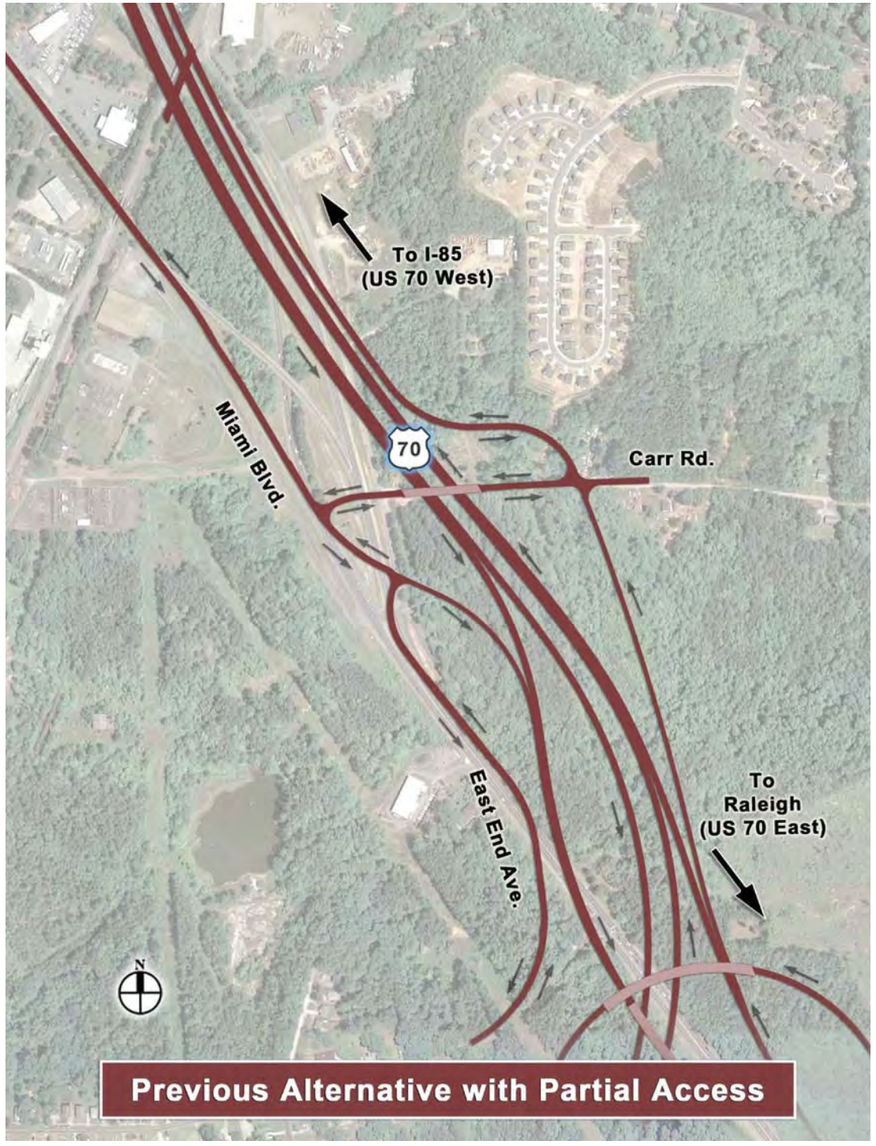
LEGEND

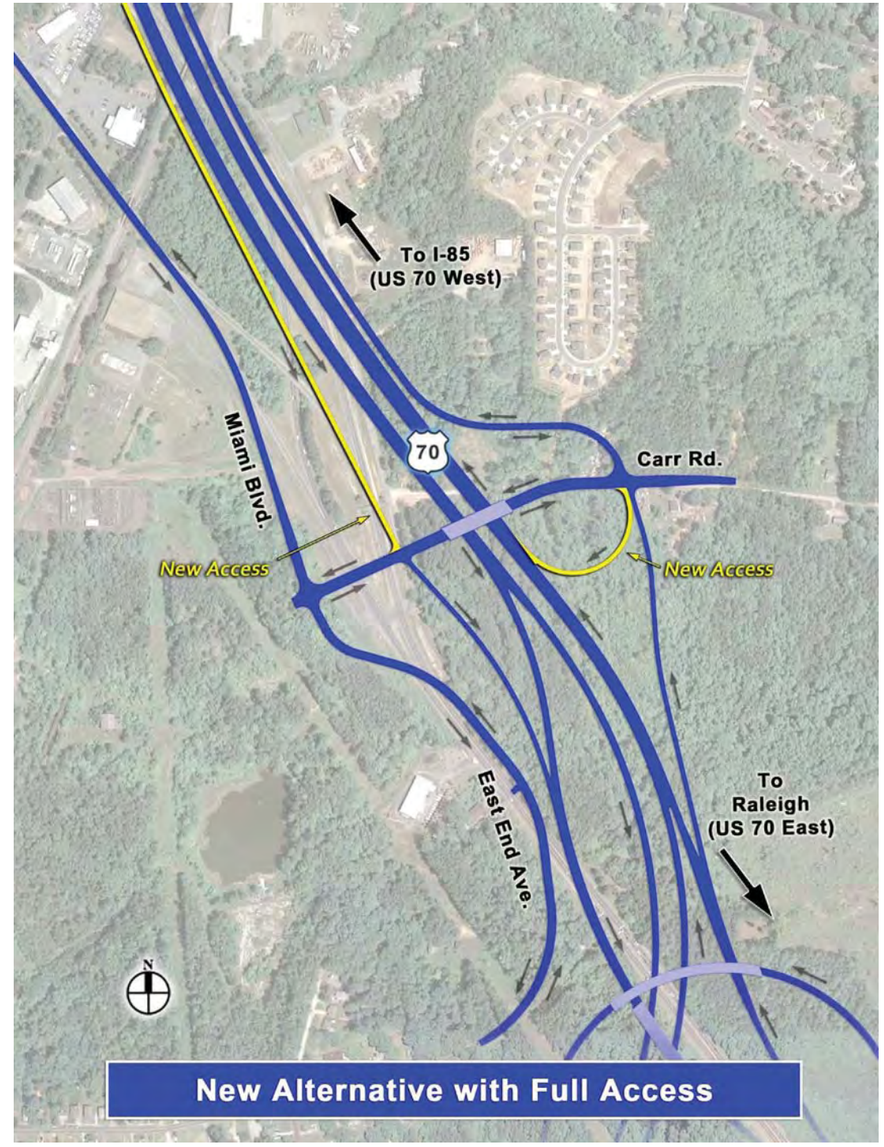
- Place of Worship
- Cemetery
- Local Historical Landmark
- Park
- Public School
- College or University
- Police Department
- Fire Station
- Government Building
- Community Centers
- Library
- Hospital
- National Historic District
- Wetlands (National Wetland Inventory)
- Streams
- 1982 FEIS Alternative 3 Design Corridor (Approximate Location)

East End Connector
DURHAM COUNTY (TIP Project No. U-0071)

FIGURE 6

Not To Scale



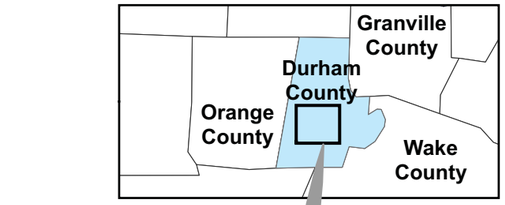


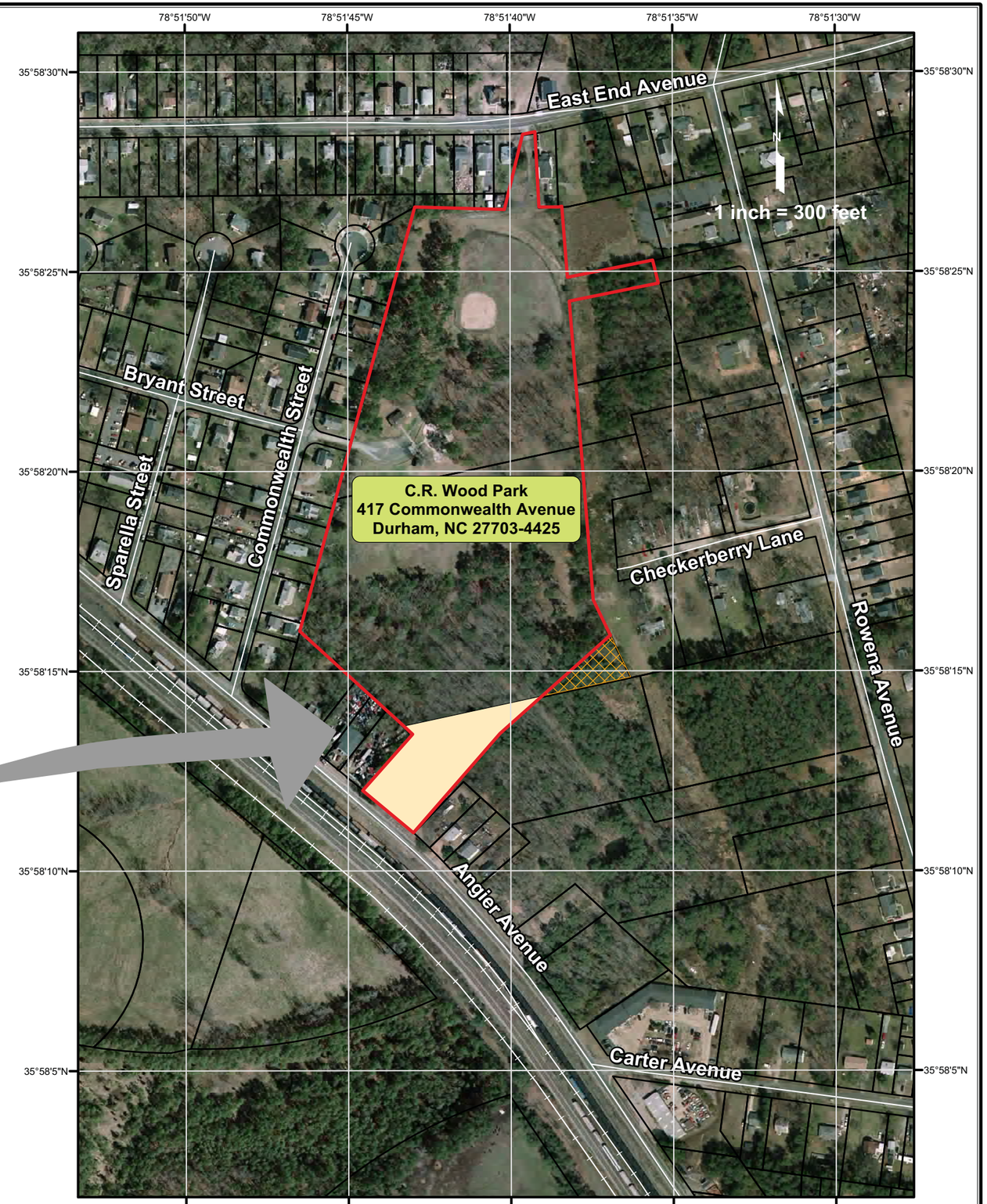
Proposed Access Changes to Carr Road Interchange

EAST END CONNECTOR

East End Connector
DURHAM COUNTY (TIP Project No. U-0071)

FIGURE 7





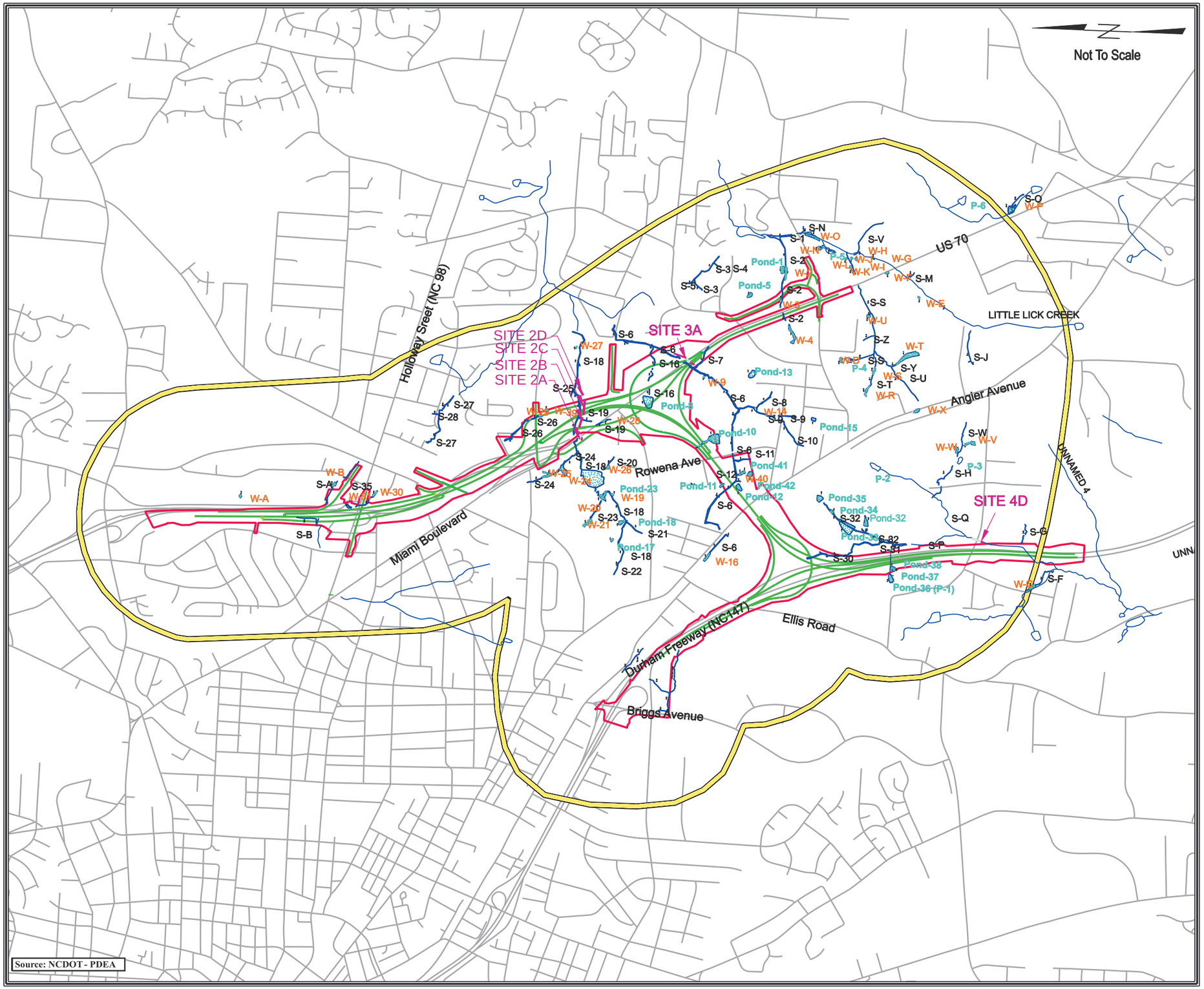
De Minimis Acquisition
C.R. Wood Park

EAST END CONNECTOR

- Revised Section 6 (f) Boundary
- Conversion Land (0.3 acre portion of C.R. Wood Park to be transferred to NCDOT)
- Replacement Land (1.33 acres of property owned by NCDOT to be transferred to City of Durham for addition to C.R Wood Park)

East End Connector
DURHAM COUNTY (TIP Project No. U-0071)

FIGURE 8



STREAMS AND WETLANDS

EAST END CONNECTOR

LEGEND

- Proposed Roadway
- Proposed Right-of-Way
- S - XX Streams
- W - XX Wetlands
- Pond - XX, P - XX Ponds
- SITE XX Culvert Locations

NOTE: Impounded Wetlands from 2007 Natural Systems Study Labeled as Ponds.

General Study Area Boundary

East End Connector
DURHAM COUNTY (TIP Project No. U-0071)

FIGURE 9

Appendix B: Agency Review Comments on the Environmental Assessment

NORTH CAROLINA STATE CLEARINGHOUSE
DEPARTMENT OF ADMINISTRATION
INTERGOVERNMENTAL REVIEW

COUNTY: DURHAM

F02: HIGHWAYS AND ROADS

STATE NUMBER: 10-E-4220-0257
DATE RECEIVED: 01/20/2010
AGENCY RESPONSE: 02/17/2010
REVIEW CLOSED: 02/22/2010

RECEIVED
JAN 21 2010
HISTORIC PRESERVATION OFFICE

MS RENEE GLEDHILL-EARLEY
CLEARINGHOUSE COORDINATOR
DEPT OF CULTURAL RESOURCES
STATE HISTORIC PRESERVATION OFFICE
MSC 4617 - ARCHIVES BUILDING
RALEIGH NC

CH 96-0147
(NC) DAH
A - 1/28/10

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DENR LEGISLATIVE AFFAIRS
DEPT OF AGRICULTURE
DEPT OF CULTURAL RESOURCES
DEPT OF TRANSPORTATION
TRIANGLE J COG

S - (NC) 1/29/10 LES

PROJECT INFORMATION

APPLICANT: NCDOT
TYPE: National Environmental Policy Act
Environmental Assessment

Due 2/8/10

DESC: Proposal East End Connector from NC 147 (Buck Dean Freeway) to north of NC 98, Durham county. TIP #U-0071

CROSS-REFERENCE NUMBER: 06-E-4220-0251

The attached project has been submitted to the N. C. State Clearinghouse for intergovernmental review. Please review and submit your response by the above indicated date to 1301 Mail Service Center, Raleigh NC 27699-1301.

If additional review time is needed, please contact this office at (919)807-2425.

AS A RESULT OF THIS REVIEW THE FOLLOWING IS SUBMITTED: [X] NO COMMENT [ ] COMMENTS ATTACHED

SIGNED BY: Renee Gledhill-Earley DATE: 2.2.10

JAN 25 2010

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 4 RALEIGH OFFICE
TERRY SANFORD FEDERAL COURTHOUSE
310 NEW BERN AVENUE
RALEIGH, NORTH CAROLINA 27601

Date: February 26, 2010

Dr. Gregory J. Thorpe, Ph.D.
Manager, Project Development and Environmental Analysis Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

SUBJECT: EPA Review Comments of the Federal Environmental Assessment (EA) for U-0071, Durham East End Connector, Durham County, North Carolina

Dear Dr. Thorpe:

The U.S. Environmental Protection Agency Region 4 (EPA) has reviewed the subject document and is commenting in accordance with Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act (NEPA). The North Carolina Department of Transportation (NCDOT) and Federal Highway Administration (FHWA) propose to construct a direct freeway connection between Durham Freeway (NC 147) and US 70 in Durham County. The proposed multi-lane project is approximately 3.6 miles in length.

The proposed project was placed into the NEPA/Section 404 Merger 01 process in December of 2006. The Merger team concurred on Purpose and Need (CP 1) on December 12, 2006, Detailed Study Alternatives (CP 2) on February 13, 2007, Bridging and Alignment Review (CP 2A) on June 17, 2007, the Least Environmentally Damaging Practicable Alternative (LEDPA/CP 3) on June 17, 2007, and Avoidance and Minimization (CP 4A) on December 13, 2007. EPA has been an active participant at these Merger team meetings. The Federal EA provides a project history that dates back to 1959 when the project was initially proposed.

NCDOT and FHWA issued a 1982 Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) that encompassed the Durham East End Connector project as part of the East-West Freeway (NC 147). Due to funding constraints, the Durham East End Connector portion was not built. This Federal EA represents a re-evaluation of the proposed project and updates the impacts and other changes that have occurred in the project study area.

EPA notes that the Federal EA is very comprehensive and was prepared in essentially an EIS format with the respective level of detail and analysis. EPA specific

technical comments are provided in an attachment to the letter (See Attachment A). EPA does not have any environmental objections to the proposed project. EPA will continue to work with NCDOT and other Merger team agencies on hydraulic review, final design and mitigation issues as the project proceeds towards permitting. Should you or your staff have any questions, please feel free to contact me at 919-856-4206 or by e-mail at militscher.chris@epa.gov. EPA requests receiving a copy of the Finding of No Significant Impact (FONSI) when it becomes available. Thank you for the opportunity to comment.

Sincerely,

Christopher A. Militscher, REM, CHMM
Merger Team Representative
USEPA Raleigh Office

For:
Heinz J. Mueller, Chief
EPA Region 4 NEPA Program Office

cc: Eric Alsmeyer, USACE
Clarence Coleman, FHWA
Rob Ridings, NCDWQ

Attachment A
Detailed Technical Comments on the Federal EA
U-0071, Durham East End Connector
Durham County

Purpose and Need and Alternatives Analysis

Section 1.5 of the EA addresses the project's need that is primarily capacity deficiencies along nearby facilities, poor connectivity, through traffic problems on local streets, and potentially enhances roadway safety in the roadway network. EPA previously concurred on the project's purpose and need during the Merger 01 process. Similarly, EPA concurred with NCDOT, FHWA and other agencies on the typical section, access control, roadway design criteria, preliminary corridor development and the detailed study alternatives that are addressed in Section 2.7 of the EA. EPA has no outstanding issues with the purpose and need or the detailed study alternatives carried forward in the EA.

Preferred Alternative and LEDPA

The NCDOT and FHWA have identified Alternative 3 as the preferred alternative and the Merger team agencies have concurred that this alternative is also the Least Environmentally Damaging Practicable Alternative (LEDPA).

Alternative 3 Environmental Impacts

The EA provides specific identification and detail in Sections 3 and 4 of the EA on the human and natural environment impacts from the proposed project. The impacts are also summarized in Table 2-2 on page 2-12 of the EA. Alternative 3 has the least residential and business relocations at 17 and 9, respectively. Alternative 3 has 1.4 acres of wetland and pond impacts and 5,711 linear feet of stream impacts. Jurisdictional wetland impacts include 0.29 acres of the 1.4 acres of total surface water impacts (referencing Table 4-8). Alternative 3 also has fewer impacts to community facilities and other existing infrastructure. EPA notes that this summary table does not include terrestrial forest impacts and noise receptor impacts.

Table 4-2 on page 4-16 of the EA details the noise receptor impacts from Alternative 3. There are 13 receptors that approach or exceed FHWA Noise Abatement Criteria (NAC) and 11 receptors that will experience a substantial increase in exterior noise levels, for a total of 24 impacted noise receptors. EPA requests that the NCDOT 2004 Traffic Noise Abatement Policy be applied and that full consideration be given to providing noise barriers or other abatement measures consistent with that policy. There is a 'potential' noise barrier wall approximately 1,082 feet long and 10-12 feet that is proposed in the vicinity of Rowena Avenue. This noise wall would benefit 5 receptors. EPA believes that unless there is significant public opposition to the construction of the noise wall, NCDOT and FHWA should construct this noise wall within the future public

1

right of way consistent with other new location projects and the NCDOT 2004 Traffic Noise Abatement Policy. 1

The EA identifies impacts to terrestrial forest communities in Section 4.4.1.1. Mixed Pine/Hardwood Forest and Pine Forest represent the two major terrestrial community types impacted by the proposed project. Total impacts to these forest types are estimated at approximately 138 acres. Another 137 acres is maintained/disturbed areas as shown in Table 4-4. 2

Section 4.1.4 details potential impacts to Environmental Justice communities and includes discussions and information on public involvement activities, community cohesion, and efforts to avoid, minimize impacts to minority and low-income populations. Total relocation impacts to minority residences and business are 9 out of 17 total. The EA also states on page 4-13 that Alternative 3 does not endanger community cohesion and existence.

Section 4.1.8 contains information on air quality. The project is located within the Raleigh-Durham-Chapel Hill non-attainment area for ozone and carbon monoxide. This section also includes qualitative generic information on Mobile Source Air Toxics (MSAT) based upon FHWA's Interim Guidance. EPA has previously commented on other projects involving MSAT emissions and the need to perform an additional analysis for potential sensitive receptors that will be near the new freeway. The EA does not identify if there are any near roadway sensitive receptors. The FONSI should include a more robust and project specific analysis on this issue. 3

Avoidance and Minimization and Compensatory Mitigation

Avoidance and minimization measures to jurisdictional streams and wetlands are detailed on pages 4-33 and 4-34 of the EA. Compensatory mitigation is discussed on pages 4-34 and 4-35 of the EA. There do not appear to be on-site mitigation opportunities and NCDOT and FHWA propose to utilize the N.C. Ecosystem Enhancement Program (EEP) for off-site, compensatory mitigation.

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Division of Highways

JAN 26 2010

Preconstruction
Project Development and
Environmental Analysis Branch

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726

January 21, 2010

Gregory J. Thorpe, Ph.D.
Project Development and Environmental Analysis
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Dr. Thorpe:

This letter is in response to your January 15, 2010 letter which requested comments from the U.S. Fish and Wildlife Service (Service) on the Federal Environmental Assessment (FEA) for the East End Connector from NC 147 (Durham Freeway) to north of NC 98 (Holloway Street) in Durham County, North Carolina (TIP No. U-0071). These comments are provided in accordance with provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and Section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531-1543).

The Service has provided input throughout the combined NEPA/Section 404 Merger Process for this project. We do not have any outstanding issues with the project. The Service concurred with the selection of Alternative 3 as the preferred alternative. We believe that this FEA adequately addresses the existing fish and wildlife resources, the waters and wetlands of the United States, and the potential impacts of this proposed project on these resources. We concur that the project will have no effect on federally threatened and endangered species.

The Service appreciates the opportunity to review this project. If you have any questions regarding our response, please contact Mr. Gary Jordan at (919) 856-4520, ext. 32.

Sincerely,

Gary Jordan
for Pete Benjamin
Field Supervisor

cc: Chris Militscher, USEPA, Raleigh, NC
Travis Wilson, NCWRC, Creedmoor, NC
Eric Alsmeyer, USACE, Raleigh, NC
John Sullivan, FHWA, Raleigh, NC

North Carolina
Department of Administration

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Division of Highways

FEB 25 2010

Preconstruction
Project Development and
Environmental Analysis Branch

Beverly Eaves Perdue, Governor

Britt Cobb, Secretary

February 23, 2010

Mr. Gregory Thorpe
NCDOT
Project Dev. & Environmental Analysis
1548 Mail Service Center
Raleigh, NC

Re: SCH File # 10-E-4220-0257; EA; Proposal East End Connector from NC 147 (Buck Dean Freeway) to north of NC 98, Durham county. TIP #U-0071

Dear Mr. Thorpe:

The above referenced environmental impact information has been submitted to the State Clearinghouse under the provisions of the National Environmental Policy Act. According to G.S. 113A-10, when a state agency is required to prepare an environmental document under the provisions of federal law, the environmental document meets the provisions of the State Environmental Policy Act. Attached to this letter for your consideration are the comments made by agencies in the course of this review.

If any further environmental review documents are prepared for this project, they should be forwarded to this office for intergovernmental review.

Should you have any questions, please do not hesitate to call.

Sincerely,

Chrys Baggett (STG)

Ms. Chrys Baggett
State Environmental Review Clearinghouse

Attachments

cc: Region J

Mailing Address:
1301 Mail Service Center
Raleigh, NC 27699-1301

Telephone: (919)807-2425
Fax (919)733-9571
State Courier #51-01-00
e-mail state.clearinghouse@doa.nc.gov

Location Address:
116 West Jones Street
Raleigh, North Carolina

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NCDENR
North Carolina Department of Environment and Natural Resources
Division of Water Quality
Coleen H. Sullins
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

February 10, 2010

MEMORANDUM

To: Melba McGee, Environmental Coordinator, Office of Legislative and Intergovernmental Affairs

From: Rob Ridings, Division of Water Quality, Transportation Permitting Unit RR

Subject: Comments on the Environmental Assessment related to proposed East End Connector from existing US 70 to Existing NC 147, Durham County, Federal Aid Project No. NHF-76-1(2), State Project No. 8.1351501, TIP No. U-0071, State Clearinghouse Project No. 10-0257.

This office has reviewed the referenced document dated received January 25, 2010. The NC Division of Water Quality (NCDWQ) is responsible for the issuance of the Section 401 Water Quality Certification for activities that impact Waters of the U.S., including wetlands. It is our understanding that the project as presented will result in impacts to jurisdictional wetlands, streams, and other surface waters. NCDWQ offers the following comments based on review of the aforementioned document:

Project Specific Comments:

1. This project is being planned as part of the 404/NEPA Merger Process. As a participating team member, NCDWQ will continue to work with the team.

2. Northwest Creek and its tributaries are class C; NSW waters of the State. NCDWQ is very concerned with sediment and erosion impacts that could result from this project. NCDWQ recommends that highly protective sediment and erosion control BMPs be implemented to reduce the risk of nutrient runoff to Northwest Creek. NCDWQ requests that road design plans provide treatment of the storm water runoff through best management practices as detailed in the most recent version of NCDWQ's *Stormwater Best Management Practices*.

Little Lick Creek and its tributaries are class WS-IV, NSW; 303(d) waters of the State. Third Fork Creek and its tributaries are class C, NSW; 303(d) waters of the State. NCDWQ is very concerned with sediment and erosion impacts that could result from this project. NCDWQ recommends that the most protective sediment and erosion control BMPs be implemented in accordance with *Design Standards in Sensitive Watersheds* to reduce the risk of nutrient runoff to these waters. NCDWQ requests that road design plans provide treatment of the storm water runoff through best management practices as detailed in the most recent version of NCDWQ's *Stormwater Best Management Practices*. 4

Transportation Permitting Unit
1650 Mail Service Center, Raleigh, North Carolina 27699-1650
Location: 2321 Crabtree Blvd., Raleigh, North Carolina 27604
Phone: 919-733-1786 \ FAX: 919-733-6893
Internet: http://h2o.enr.state.nc.us/ncwetlands/

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4. Part of this project is within the Neuse River Basin. Riparian buffer impacts shall be avoided and minimized to the greatest extent possible pursuant to 15A NCAC 2B.0233. New development activities located in the protected 50-foot wide riparian areas within the basin shall be limited to "uses" identified within and constructed in accordance with 15A NCAC 2B.0233. Buffer mitigation may be required for buffer impacts resulting from activities classified as "allowable with mitigation" within the "Table of Uses" section of the Buffer Rules or require a variance under the Buffer Rules. A buffer mitigation plan, including use of the NC Ecosystem Enhancement Program, must be provided to NCDWQ prior to approval of the Water Quality Certification. Buffer mitigation may be required for buffer impacts resulting from activities classified as "allowable with mitigation" within the "Table of Uses" section of the Buffer Rules or require a variance under the Buffer Rules. A buffer mitigation plan, including use of the NC Ecosystem Enhancement Program, must be provided to NCDWQ prior to approval of the Water Quality Certification. 5

5. Part of this project is within the Jordan Lake Basin. Since this project reached concurrence point 4A (Avoidance and minimization) prior to the passage of 15A NCAC 2B.0267, any impacts to Jordan Buffers are allowed and do not require a Jordan Buffer Authorization. However, any significant increases in impacts to Jordan Basin streams in the future (such as permit modification or future phases) may require a Jordan Buffer Authorization and mitigation. 6

General Comments:

2. The environmental document shall provide a detailed and itemized presentation of the proposed impacts to wetlands and streams with corresponding mapping. If mitigation is necessary as required by 15A NCAC 2H.0506(h), it is preferable to present a conceptual (if not finalized) mitigation plan with the environmental documentation. Appropriate mitigation plans will be required prior to issuance of a 401 Water Quality Certification.

3. Environmental assessment alternatives shall consider design criteria that reduce the impacts to streams and wetlands from storm water runoff. These alternatives shall include road designs that allow for treatment of the storm water runoff through best management practices as detailed in the most recent version of NCDWQ's *Stormwater Best Management Practices*, such as grassed swales, buffer areas, preformed scour holes, retention basins, etc.

4. After the selection of the preferred alternative and prior to an issuance of the 401 Water Quality Certification, the NCDOT is respectfully reminded that they will need to demonstrate the avoidance and minimization of impacts to wetlands (and streams) to the maximum extent practical. In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506(h)}, mitigation will be required for impacts of greater than 1 acre to wetlands. In the event that mitigation is required, the mitigation plan should be designed to replace appropriate lost functions and values. The NC Ecosystem Enhancement Program may be available for use as wetland mitigation.

5. In accordance with the Environmental Management Commission's Rules {15A NCAC 2H.0506(h)}, mitigation will be required for impacts of greater than 150 linear feet to any single stream. In the event that mitigation is required, the mitigation plan shall be designed to replace appropriate lost functions and values. The NC Ecosystem Enhancement Program may be available for use as stream mitigation.

6. Future documentation, including the 401 Water Quality Certification Application, should continue to include an itemized listing of the proposed wetland and stream impacts with corresponding mapping.

7. NCDWQ is very concerned with sediment and erosion impacts that could result from this project. NCDOT shall address these concerns by describing the potential impacts that may occur to the aquatic environments and any mitigating factors that would reduce the impacts.

8. An analysis of cumulative and secondary impacts anticipated as a result of this project is required. The type and detail of analysis shall conform to the NC Division of Water Quality Policy on the assessment of secondary and cumulative impacts dated April 10, 2004.

9. NCDOT is respectfully reminded that all impacts, including but not limited to, bridging, fill, excavation and clearing, and rip rap to jurisdictional wetlands, streams, and riparian buffers need to be included in the final impact calculations. These impacts, in addition to any construction impacts, temporary or otherwise, also need to be included as part of the 401 Water Quality Certification Application.

10. Where streams must be crossed, NCDWQ prefers bridges be used in lieu of culverts. However, we realize that economic considerations often require the use of culverts. Please be advised that culverts shall be countersunk to allow unimpeded passage by fish and other aquatic organisms. Moreover, in areas where high quality wetlands or streams are impacted, a bridge may prove preferable. When applicable, NCDOT should not install the bridge bents in the creek, to the maximum extent practicable.

11. Whenever possible, NCDWQ prefers spanning structures. Spanning structures usually do not require work within the stream or grubbing of the streambanks and do not require stream channel realignment. The horizontal and vertical clearances provided by bridges shall allow for human and wildlife passage beneath the structure. Fish passage and navigation by canoeists and boaters shall not be blocked. Bridge supports (bents) shall not be placed in the stream when possible.

12. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of NCDWQ's *Stormwater Best Management Practices.*

13. Sediment and erosion control measures shall not be placed in wetlands or streams.

14. Borrow/waste areas shall avoid wetlands to the maximum extent practical. Impacts to wetlands in borrow/waste areas will need to be presented in the 401 Water Quality Certification and could precipitate compensatory mitigation.

15. The 401 Water Quality Certification application will need to specifically address the proposed methods for stormwater management. More specifically, stormwater shall not be permitted to discharge directly into streams or surface waters.

16. Based on the information presented in the document, the magnitude of impacts to wetlands and streams may require an Individual Permit application to the Corps of Engineers and corresponding 401 Water Quality Certification. Please be advised that a 401 Water Quality Certification requires satisfactory protection of water quality to ensure that water quality standards are met and no wetland or stream uses are lost. Final permit authorization will require the submittal of a formal application

by the NCDOT and written concurrence from NCDWQ. Please be aware that any approval will be contingent on appropriate avoidance and minimization of wetland and stream impacts to the maximum extent practical, the development of an acceptable stormwater management plan, and the inclusion of appropriate mitigation plans where appropriate.

17. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.

18. If temporary access roads or detours are constructed, the site shall be graded to its preconstruction contours and elevations. Disturbed areas shall be seeded or mulched to stabilize the soil and appropriate native woody species shall be planted. When using temporary structures the area shall be cleared but not grubbed. Clearing the area with chain saws, mowers, bush-hogs, or other mechanized equipment and leaving the stumps and root mat intact allows the area to re-vegetate naturally and minimizes soil disturbance.

19. Placement of culverts and other structures in waters, streams, and wetlands shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by NCDWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact the NCDWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.

20. If multiple pipes or barrels are required, they shall be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation, floodplain benches, and/or sills may be required where appropriate. Widening the stream channel shall be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.

21. If foundation test borings are necessary; it sball be noted in the document. Geotechnical work is approved under General 401 Certification Number 3687/Nationwide Permit No. 6 for Survey Activities.

22. Sediment and erosion control measures sufficient to protect water resources must be implemented and maintained in accordance with the most recent version of Northb Carolina Sediment and Erosion Control Planning and Design Manual and the most recent version of NCS000250. .

23. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.

24. While the use of National Wetland Inventory (NWI) maps, NC Coastal Region Evaluation of Wetland Significance (NC-CREWS) maps and soil survey maps are useful tools, their inherent inaccuracies require that qualified personnel perform onsite wetland delineations prior to permit approval.

25. Heavy equipment shall be operated from the bank rather than in stream channels in order to minimize sedimentation and reduce the likelihood of introducing other pollutants into streams. This equipment should be inspected daily and maintained to prevent contamination of surface waters from leaking fuels, lubricants, hydraulic fluids, or other toxic materials.

26. Riprap shall not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures shall be properly designed, sized and installed.

27. Riparian vegetation (native trees and shrubs) shall be preserved to the maximum extent possible. Riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.

NCDWQ appreciates the opportunity to provide comments on your project. Shall you have any questions or require any additional information, please contact Rob Ridings at 919-733-9817.

cc: Eric Alsmeyer, US Army Corps of Engineers, Raleigh Field Office
Clarence Coleman Jr., Federal Highway Administration
Dr. Gregory J. Thorpe, Ph.D., NCDOT PDEA
Chris Murray, Division 5 Environmental Officer
File Copy

North Carolina Department of Environment and Natural Resources

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

MEMORANDUM

TO: Valerie McMillan
State Clearinghouse

FROM: Melba McGee
Environmental Review Coordinator

RE: 10-0257 EA for the Proposed East End Connector in Durham, Durham County

DATE: February 16, 2010

The Department of Environment and Natural Resources has reviewed the proposed information. The attached comments are for the applicant's information.

Thank you for the opportunity to review.

Attachments

1601 Mail Service Center, Raleigh, North Carolina 27699-1601
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State of North Carolina
Department of Environment and Natural Resources

Reviewing Office: _____

INTERGOVERNMENTAL REVIEW - PROJECT COMMENTS

Project Number: 10-0257 Due Date: _____

After review of this project it has been determined that the ENR permit(s) and/or approvals indicated may need to be obtained in order for this project to comply with North Carolina Law. Questions regarding these permits should be addressed to the Regional Office indicated on the reverse of the form. All applications, information and guidelines relative to these plans and permits are available from the same Regional Office.

	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (statutory time limit)
☐	Permit to construct & operate wastewater treatment facilities, sewer system extensions & sewer systems not discharging into state surface waters.	Application 90 days before begin construction or award of construction contracts. On-site inspection. Post-application technical conference usual.	30 days (90 days)
☐	NPDES - permit to discharge into surface water and/or permit to operate and construct wastewater facilities discharging into state surface waters.	Application 180 days before begin activity. On-site inspection. Pre-application conference usual. Additionally, obtain permit to construct wastewater treatment facility-granted after NPDES. Reply time, 30 days after receipt of plans or issue of NPDES permit-whichever is later.	90-120 days (N/A)
☐	Water Use Permit	Pre-application technical conference usually necessary	30 days (N/A)
☐	Well Construction Permit	Complete application must be received and permit issued prior to the installation of a well.	7 days (15 days)
☐	Dredge and Fill Permit	Application copy must be served on each adjacent riparian property owner. On-site inspection. Pre-application conference usual. Filling may require Easement to Fill from N.C. Department of Administration and Federal Dredge and Fill Permit.	55 days (90 days)
☐	Permit to construct & operate Air Pollution Abatement facilities and/or Emission Sources as per 15 A NCAC (2Q.0100 thru 2Q.0300)	Application must be submitted and permit received prior to construction and operation of the source. If a permit is required in an area without local zoning, then there are additional requirements and timelines (2Q.0113).	90 days
☐	Permit to construct & operate Transportation Facility as per 15 A NCAC (2D.0800, 2Q.0601)	Application must be submitted at least 90 days prior to construction or modification of the source.	90 days
☒	Any open burning associated with subject proposal must be in compliance with 15 A NCAC 2D.1900	7	
☒	Demolition or renovations of structures containing asbestos material must be in compliance with 15 A NCAC 20.1110 (a) (1) which requires notification and removal prior to demolition. Contact Asbestos Control Group 919-707-5950.	8 N/A	60 days (90 days)
☐	Complex Source Permit required under 15 A NCAC 2D.0800		
☐	The Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres to be disturbed. Plan filed with proper Regional Office (Land Quality Section) At least 30 days before beginning activity. A fee of $65 for the first acre or any part of an acre. An express review option is available with additional fees.		20 days (30 days)
☒	Sedimentation and erosion control must be addressed in accordance with NCDOT's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable stormwater conveyances and outlets.	9	(30 days)
☐	Mining Permit	On-site inspection usual. Surety bond filed with ENR Bond amount varies with type mine and number of acres of affected land. Any are mined greater than one acre must be permitted. The appropriate bond must be received before the permit can be issued.	30 days (60 days)
☐	North Carolina Burning permit	On-site inspection by N.C. Division Forest Resources if permit exceeds 4 days	1 day (N/A)
☐	Special Ground Clearance Burning Permit - 22 counties in coastal N.C. with organic soils	On-site inspection by N.C. Division Forest Resources required "If more than five acres of ground clearing activities are involved. Inspections should be requested at least ten days before actual burn is planned."	1 day (N/A)
☐	Oil Refining Facilities	N/A	90-120 days (N/A)
☐	Dam Safety Permit	If permit required, application 60 days before begin construction. Applicant must hire N.C. qualified engineer to: prepare plans, inspect construction, certify construction is according to ENR approved plans. May also require permit under mosquito control program. And a 404 permit from Corps of Engineers. An inspection of site is necessary to verify Hazard Classification. A minimum fee of $200.00 must accompany the application. An additional processing fee based on a percentage or the total project cost will be required upon completion.	30 days (60 days)

	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (statutory time limit)
☐	Permit to drill exploratory oil or gas well	File surety bond of $5,000 with ENR running to State of NC conditional that any well opened by drill operator shall, upon abandonment, be plugged according to ENR rules and regulations.	10 days N/A
☐	Geophysical Exploration Permit	Application filed with ENR at least 10 days prior to issue of permit. Application by letter. No standard application form.	10 days N/A
☐	State Lakes Construction Permit	Application fees based on structure size is charged. Must include descriptions & drawings of structure & proof of ownership of riparian property.	15-20 days N/A
☐	401 Water Quality Certification	N/A	60 days (130 days)
☐	CAMA Permit for MAJOR development	$250.00 fee must accompany application	55 days (150 days)
☐	CAMA Permit for MINOR development	$50.00 fee must accompany application	22 days (25 days)
☐	Several geodetic monuments are located in or near the project area. If any monument needs to be moved or destroyed, please notify: N.C. Geodetic Survey, Box 27687 Raleigh, NC 27611		
☒	Abandonment of any wells, if required must be in accordance with Title 15A. Subchapter 2C.0100.		10
☐	Notification of the proper regional office is requested if "orphan" underground storage tanks (USTS) are discovered during any excavation operation.		
☐	Compliance with 15A NCAC 2H 1000 (Coastal Stormwater Rules) is required.		45 days (N/A)
☐	Tar Pamlico or Neuse Riparian Buffer Rules required.		

* Other comments (attach additional pages as necessary, being certain to cite comment authority)

REGIONAL OFFICES

Questions regarding these permits should be addressed to the Regional Office marked below.

☐ Asheville Regional Office
2090 US Highway 70
Swannanoa, NC 28778
(828) 296-4500

☐ Fayetteville Regional Office
225 North Green Street, Suite 714
Fayetteville, NC 28301-5043
(910) 433-3300

☐ Mooresville Regional Office
610 East Center Avenue, Suite 301
Mooresville, NC 28115
(704) 663-1699

☒ Raleigh Regional Office
3800 Barrett Drive, Suite 101
Raleigh, NC 27609
(919) 791-4200

☐ Washington Regional Office
943 Washington Square Mall
Washington, NC 27889
(252) 946-6481

☐ Wilmington Regional Office
127 Cardinal Drive Extension
Wilmington, NC 28405
(910) 796-7215

☐ Winston-Salem Regional Office
585 Waughtown Street
Winston-Salem, NC 27107
(336) 771-5000

North Carolina Wildlife Resources Commission

Gordon Myers, Executive Director

MEMORANDUM

TO: Melba McGee
Office of Legislative and Intergovernmental Affairs, DENR

FROM: Travis Wilson, Highway Project Coordinator
Habitat Conservation Program

DATE: February 12, 2010

SUBJECT: North Carolina Department of Transportation (NCDOT) Environmental Assessment (EA) for the proposed East End Connector in Durham, Durham County, North Carolina. TIP No. U-0071 SCH Project No. 10-0257.

Staff biologists with the N. C. Wildlife Resources Commission (NCWRC) have reviewed the subject EA and are familiar with habitat values in the project area. The purpose of this review was to assess project impacts to fish and wildlife resources. Our comments are provided in accordance with certain provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

NCDOT is proposing to construct a new location connector route between NC 147 and NC 98 in Durham. We have reviewed the data provided in the EA. The EA reflects NCWRC comments from prior coordination, including the selection of the Least Environmentally Damaging Practicable Alternative (LEDPA) as well as avoidance and minimization measures specific to the LEDPA . We will continue to assess the proposed project and coordinate with NCDOT to reduce impacts during project design and construction. At this time we concur with the EA for this project. Thank you for the opportunity to comment. If we can be of any further assistance please call me at (919) 528-9886.

cc: Gary Jordan, U.S. Fish and Wildlife Service, Raleigh
Rob Ridings, DWQ
Eric Alsmeyer, USACE
Chris Militscher, EPA

Mailing Address: Division of Inland Fisheries • 1721 Mail Service Center • Raleigh, NC 27699-1721
Telephone: (919) 707-0220 • **Fax:** (919) 707-0028

JAN 27 2010
NC PWSS

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

Inter-Agency Project Review Response

Project Number
10-0257

County
Durham

Project Name USDOT/Fed Hwy Admin/NCDOT, Div. of Hwys

Type of Project EA - East End Connector from NC 147 (Durham Freeway) to North of NC 98 (Holloway Street).

Comments provided by:

- ☐ Regional Program Person
- ☒ Regional Supervisor for Public Water Supply Section
- ☐ Central Office program person

Name Michael Douglas-Raleigh RO Date: 01/22/2010

Telephone number: 919-791-4200

Program within Division of Environmental Health:

- ☒ Public Water Supply
- ☐ Other, Name of Program: _____

Response (check all applicable):

- ☐ No objection to project as proposed
- ☐ No comment
- ☐ Insufficient information to complete review
- ☐ Comments attached
- ☒ See comments below

Relocation of waterlines must be approved prior moving the water mains. 11

New waterlines must be approved in accordance with "Rules Governing Public Water Systems" 12

Return to:
Public Water Supply Section
Environmental Review Coordinator for the
Division of Environmental Health

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

Project Number
10-0257
County
Durham

Inter-Agency Project Review Response

Project Name USDOT/Fed Hwy Admin/NCDOT, Div. of Hwys

Type of Project EA - East End Connector from NC 147 (Durham Freeway) to North of NC 98 (Holloway Street).

☐ The applicant should be advised that plans and specifications for all water system improvements must be approved by the Division of Environmental Health prior to the award of a contract or the initiation of construction (as required by 15A NCAC 18C .0300et. seq.). For information, contact the Public Water Supply Section, (919) 733-2321.

☐ This project will be classified as a non-community public water supply and must comply with state and federal drinking water monitoring requirements. For more information the applicant should contact the Public Water Supply Section, (919) 733-2321.

☐ If this project is constructed as proposed, we will recommend closure of _____ feet of adjacent waters to the harvest of shellfish. For information regarding the shellfish sanitation program, the applicant should contact the Shellfish Sanitation Section at (252) 726-6827.

☐ The soil disposal area(s) proposed for this project may produce a mosquito breeding problem. For information concerning appropriate mosquito control measures, the applicant should contact the Public Health Pest Management Section at (919) 733-6407.

☐ The applicant should be advised that prior to the removal or demolition of dilapidated structures, an extensive rodent control program may be necessary in order to prevent the migration of the rodents to adjacent areas. For information concerning rodent control, contact the local health department or the Public Health Pest Management Section at (919) 733-6407.

☐ The applicant should be advised to contact the local health department regarding their requirements for septic tank installations (as required under 15A NCAC 18A. 1900 et. sep.). For information concerning septic tank and other on-site waste disposal methods, contact the On-Site Wastewater Section at (919) 733-2895.

☐ The applicant should be advised to contact the local health department regarding the sanitary facilities required for this project.

☐ If existing water lines will be relocated during the construction, plans for the water line relocation must be submitted to the Division of Environmental Health, Public Water Supply Section, Technical Services Branch, 1634 Mail Service Center, Raleigh, North Carolina 27699-1634, (919) 733-2321.

☒ For Regional and Central Office comments, see the reverse side of this form.

Jim McRight	PWSS	01/22/2010
Reviewer	Section/Branch	Date

NORTH CAROLINA STATE CLEARINGHOUSE
DEPARTMENT OF ADMINISTRATION
INTERGOVERNMENTAL REVIEW

Scott Whitstone

COUNTY: DURHAM

F02: HIGHWAYS AND ROADS

STATE NUMBER: 10-E-4220-0257
DATE RECEIVED: 01/20/2010
AGENCY RESPONSE: 02/17/2010
REVIEW CLOSED: 02/22/2010

MS SHIRLEY FOYE
CLEARINGHOUSE COORDINATOR
DEPT OF TRANSPORTATION
STATEWIDE PLANNING - MSC #1554
RALEIGH NC

REVIEW DISTRIBUTION

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DEPT OF TRANSPORTATION
TRIANGLE J COG

PROJECT INFORMATION

APPLICANT: NCDOT
TYPE: National Environmental Policy Act
Environmental Assessment

DESC: Proposal East End Connector from NC 147 (Buck Dean Freeway) to north of NC 98, Durham county. TIP #U-0071

CROSS-REFERENCE NUMBER: 06-E-4220-0251

The attached project has been submitted to the N. C. State Clearinghouse for intergovernmental review. Please review and submit your response by the above indicated date to 1301 Mail Service Center, Raleigh NC 27699-1301.

If additional review time is needed, please contact this office at (919)807-2425.

AS A RESULT OF THIS REVIEW THE FOLLOWING IS SUBMITTED: ☐ NO COMMENT ☑ COMMENTS ATTACHED

SIGNED BY: _____ DATE: 2/18/2010

JAN 2010 RECEIVED NCDOT TRANSPORTATION PLANNING

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

February 18, 2010

MEMO TO: North Carolina State Clearinghouse
Department of Administration
Intergovernmental Review

FROM: Julie B. Bollinger, P.E.
NCDOT-Transportation Planning Branch

SUBJECT: 10-E-4220-0257 Proposed East End Connector from NC 147 to north of NC 98 in Durham County, TIP# U-0071

Thank you for allowing the Transportation Planning Branch to review this document. From the environmental assessment document, there are some discrepancies in current transportation plan dates.

The Durham-Chapel Hill-Carrboro Metropolitan Planning Organization has a 2035 Long Range Transportation Plan (LRTP) that was adopted mid 2009. This current 2035 LRTP should be referenced as the current LRTP instead of the 2030 LRTP.

The Durham County portion of Durham-Chapel Hill-Carrboro Urban Area thoroughfare plan of 1992 is the most current thoroughfare plan and should be referenced as a current transportation plan.

I hope consideration of these comments will be made in the finalization of plans.

If you have any questions, please do not hesitate to call me at 919-733-4705.

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PLANNING BRANCH
1554 MAIL SERVICE CENTER
RALEIGH NC 27699-1554

NCDOT TPB
TRANSPORTATION PLANNING BRANCH
http://www.ncdot.org/doh/preconstruct/tpb/

LOCATION:
TRANSPORTATION BUILDING
1 SOUTH WILMINGTON STREET
RALEIGH, NC 27601
Phone: 919-733-4705
Fax: 919-733-2417

REVISIONS ADOPTED BY:

CITY OF DURHAM	STATEWIDE PLANNING BRANCH	NCDOT

THOROUGHFARE APPROVAL DATES:

PUBLIC HEARING DATES: 11/1/89 3/21/90

CITY OF DURHAM 11/18/91

STATEWIDE PLANNING BRANCH 12/12/91 M.R. Peck

NCDOT 1/10/92

LEGEND

THOROUGHFARES	EXISTING	PROPOSED
FREEWAYS		
MAJOR		
MINOR		
INTERCHANGE	●	◉
GRADE SEPARATION	○	◌

NOTE: THE FINAL ALIGNMENT OF ENO DRIVE AT ROXBORO ROAD WILL BE DETERMINED BY THE ENVIRONMENTAL IMPACT STATEMENT UNDERWAY AS OF JUNE, 1991.

DURHAM COUNTY PORTION OF

DURHAM - CHAPEL HILL - CARRBORO URBAN AREA THOROUGHFARE PLAN

NORTH CAROLINA

OCTOBER 2, 1991

PREPARED BY THE

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS-PLANNING AND ENVIRONMENTAL BRANCH

IN COOPERATION WITH

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

0 2500 5000 7500 10000

SCALE IN FEET

THIS MAP IS AN EXACT REPRODUCTION OF THE DURHAM-CHAPEL HILL-CARRBORO URBAN AREA THOROUGHFARE PLAN MAP DATED OCTOBER 2, 1991

QUAIL ROOST RD.
RANGE RD.
BAHAMA RD.
STAGGSVILLE RD.
CASSIAN TILLEY RD.
DURHAM CO.
GRANVILLE CO.
GUESS RD.
ORANGE CO.
DURHAM CO.
OLD OXFORD HWY.
MASON RD.
ORANGE FACTORY RD.
TREYBURN PKWY.
RUSSELL RD.
MILTON RD.
US 501
SNOW HILL RD.
RED MILL RD.
CRAIG RD.
BIVENS RD.
OLD OXFORD RD.
INFINITY RD.
LATTA RD.
UMSTEAD RD.
GRANVILLE CO.
DURHAM CO.
HAMLIN RD.
HORTON RD.
ROSE OF SHARON RD.
GUESS RD.
END DRIVE
GOLF MILL RD.
GLENN RD.
END DR.
OLD OXFORD RD.
CARVER ST.
STADIUM DR.
I-85
US 70 BUSINESS
MURRAY AVE.
PRESTON AVE.
NEAL RD.
CARPENTER RD.
BUTTON RD.
CLUB BLVD.
FERNDALE RD.
NC 751
BYPASS
ERWIN RD.
GREGSON ST.
DURHAM ST.
ANGIER ST.
ROXBORO ST.
ALSTON AVE. EXT.
GEER ST.
MIDLAND TERRACE
CHEEK RD.
FLETCHERS CHAPEL RD.
NORTHERN FREEWAY
MORGAN ST.
MORRIS ST.
FOSTER ST.
MANGUM ST.
CHAPEL HILL ST.
ROXBORO ST.
RAMSEUR ST.
MAIN ST.
HOLLOWAY ST.
LIBERTY ST.
DUKE ST.
BLACKWELL ST.
BUCK DEAN FREEWAY
DILLARD ST.
FAYETTEVILLE RD.
LAKEWOOD AVE.
CBD INSET

Appendix C: Public Hearing Meeting Transcript

OFFICIAL PUBLIC HEARING TRANSCRIPT
Design Public Hearing for the East End Connector
From 147 (Durham Freeway) to North of NC 98 (Holloway Street)
Holton Career and Resource Center
March 25, 2010
U-0071

Okay, we're going to go ahead and get started. I'd like to welcome everyone to the Design Public Hearing for the East End Connector from NC 147 (Durham Freeway) to north of NC 98 (Holloway Street). It's TIP Project U-0071 here in Durham County. Before we get started I would ask if you have cell phones, please cut them off or put them on vibrate out of respect for everyone else so that everyone will be able to hear and understand what is going on here this evening. Also, logistically there are restrooms outside if you need them. Just outside to the right there are restrooms, men's and women's and then there are some larger restrooms farther down the hall on the left outside.

My name is Drew Joyner and I'm a Public Hearing Officer for the North Carolina Department of Transportation. I'm going to start with a couple of quick introductions of some folks that are here today. I did want to recognize a couple of city council members from the City of Durham, Mike Woodard, is here. Brenda Howerton, the Durham County Commissioner was here earlier and she was not able to stay until the formal part of the presentation. Are there any other public officials that I've missed? I certainly want to make sure to recognize everyone who is in attendance. We do have some other folks from the City of Durham staff: Wesley Parham, Mark Alrendsen, Ellen Beckman, and Felix Nwoko. From Federal Highway Administration we have Felix Davilla. NCDOT staff, we have a whole bunch of folks here. From Division 5 staff, this is your local division here in Durham, Wally Bowman, Dennis Jernigan, Al Grandy and Tasha Johnson. From the Project Development and Environmental Analysis Branch, those are the folks that are actually doing the project development studies for this particular project; we have Derrick Weaver, Eric Midkiff and Leza Mundt. Roadway Design, these are the folks that have helped put this design together for the project, we have Doug Taylor, Jason Moore, Kevin Moore, David Clodgo, Justin Green, Herman Edwards, and Dave Scheffel. Our Right of Way staff this evening, we have several folks, these are the right of way agents that if you have property to be purchased as a part of this project, these are the folks that you'll be seeing and they were here tonight for your questions, Kathy Smith, Timette Hales, and Terry Niles. From our DOT Office of Civil Rights, Aketa Emptage. Our consultant, well actually, I'm always forgetting some people at DOT so let me get those real quick. From our Human Environment Unit, Harrison Marshall is with Community Studies and Greg Smith our Noise & Air Quality Specialist. I certainly don't want to forget from our Quality Enhancement Unit, Doug Cox is here tonight. Last but not least on the DOT folks, I don't want to forget the staff that helps me out the most here which is the Public Involvement Staff. These are my folks that I couldn't do this with out and that is Ed Lewis, Jamille Robbins, and Eileen Fuchs. And, Chad Webb has also been working with us the last couple of months, is here.

Okay, I just got a note that State Representative Winky Wilkins is here. Thank you. I certainly want to make sure everybody knows their elected officials are here representing them so thank you for that. Then, let's see here, we have a private consultant firm that is also working on this project that has done a lot of the work for us, RS&H. They have a lot of staff here but some of the key folks, Chad Critcher, Radha (Inaudible) and Jan Anderson are here. And let's see, I think that should cover all of the folks unless there's somebody else that I need to recognize. I think that is half the county out here.

Okay, so before we get started, I'm going to go through a quick agenda. Here's what we'll cover this evening. The first thing I'm going to do is run quickly through the handouts. Hopefully, everybody got handouts. If anyone did not get a handout, please let me know. Okay raise your hand and Mr. Lewis will be glad to get you one. Any of our staff will be glad to get you a handout. Thank you. Once I've completed/run through the handout, I'll run through the map real quick and explain that for those of you who have not had and opportunity to look at it yet. Then we'll open it up for public comments. That's the most important reason we're here is to hear from you, the local community, what you think about the project as it is now. I will mention now, we are going to have a 3 minute time limit on speakers in the interest of time to allow everyone the opportunity to speak. However, once everyone has had an opportunity to speak, if you want to come back up a second time to continue and have any additional comments, you'll be able to do that at that time, but I do want to make sure that everyone in the interest of time has an opportunity to speak. This hearing is being recorded and a written transcript will be prepared for that so that when we do have the opportunity to speak into the microphone so that we can record it.

And, I will get started running through our public hearing handout. I'll breeze through sort of the high level stuff on this. First of all, Why are we here? Again, the main purpose of this is to obtain public input. We want to hear what you have to say about this project so that is really why we're out here. We certainly have information that we want to pass along to you but mostly we want to hear from you and what you think about this. We're looking for pubic input on both the design and the Environmental Assessment for the project. An Environmental Assessment, for the project was completed late last year. This is it. This is the document that covers all the project development studies that have been done on this project recently. It talks about the alternatives that were studied, the preferred alternative – why it was chosen, and the impacts to both the human and natural environment of the project. Copies of the Environmental Assessment and the public hearing map have been available for the last month or so in the City of Durham Transportation Division at City Hall Plaza on the 4th floor and at DOT's Highway Division 5 Office on 2612 North Duke Street. We've also had them on our website which is listed there on page 1, ncdot.gov/projects/eastendconnector (that's one word) so all of this information is available online as well.

We really want your comments. There are many ways you can give us your comments on the project. One way is to come up here and speak at tonight's hearing. We've got a sign-up sheet that hopefully everybody has had an opportunity to sign in. Once that list is done, I'll open it up to the floor so if there's anybody that did not sign in who wishes to speak, they're welcome to come up at that time. Another way you can comment is to

send in your comment sheets. On the back of these handouts, you'll find a comment sheet. Let me just rip that off and mail that in to us. You can either mail it in to us; if you fold it in half and put a piece of tape here. We've got the mailing address there, so you just put a stamp on it and stick it in the mail. Or you can leave it on the way out in our comment box. Or you can fax it to me, the fax number is in here. Or you can email me your comment. So we've got lots of ways that you can comment to us. If you do send an email, please be sure to reference the "East End Connector TIP Project U-71". That will help me to route it to make sure it gets to the right project team.

We do have a time limit on comments. We would like all comments in by April 30th so that gives us an opportunity to get the comments together and make good changes to the project, make the project better for you.

Another thing to remember about tonight's hearing is that we'd like to make sure that we respect everyone's opinion, even if it's very different from your own. Even if you don't agree with someone that's come up here, we want to be respectful and give everyone the opportunity to speak. So, if you're going to come up and speak, please do and everyone in the audience all them to speak. If you have a differing opinion then you're welcome to come up to speak as well or write your comments in and send them. Written comments and verbal comments are weighed the same. Basically we take all the comments together whether you come up here to speak or not. We look at all the comments whether it is a verbal or written comment. Another thing to note is this is not a vote. We are not voting on any pieces of the project today. We're here to listen to your comments and be able to add those to the project record and look at them, like I said, and make this project better for you.

So what's done with the input? What do we do with all these comments that we get in here? After April 30, we'll take all the spoken and written comments and pass those out to the project team to look at. Then we'll have what is called a post hearing meeting. The DOT project team, which consists of a bunch of different disciplines, all of those folks that I listed earlier today. All of those folks that I listed and more, will be involved in the post hearing meeting. We will go through each and every comment and address those and make appropriate changes to the project based off of those. Minutes of that post hearing meeting will be prepared. A summary will be put together. If you'd like a copy of that when the meeting is completed, just let us know. Put that on the comment sheet that you would like a copy of the post hearing meeting minutes or you can send me an email or give me a call and let me know you want a copy of that. Then when it's done, we'll be glad to get that out to you. Some of the other entities that are involved in decision making on the project in addition to our project team include City of Durham staff, include other State and Federal agencies such as the US Army Corps of Engineers, the Federal Highway Administration and the North Carolina Department of Environment and Natural Resources. All of those are also involved in our project decision making so it is important to note that.

So what happens next? What are our next steps on the project? It's certainly the post hearing meeting as we mentioned. Then the final planning document will be completed. We're anticipating a "Finding of No Significant Impact" or FONSI to be completed by

the end of this year. Final design plans will be completed. They'll take this design and finalize that so that we can begin to purchase right of way for the project. Once right of way is purchased then we will begin construction on the project.

The project is a Federal-Aid project. 80% of the funding comes from the Federal government and 20% of the funding comes from State funds.

Previously the right of way acquisition scheduled for the project was to begin buying right of way this year, begin acquiring right of way this year. However, NCDOT is re-evaluating all of their project schedules based on funding and needs at this particular time and we'll be coming out with a draft State Transportation Improvement Program. That State Transportation Improvement Program is basically a list of all the projects that we are looking at planning and/or funding over the next 7 to 10 years. That draft document should come out later this year, excuse me, later in the next several months. So sometime this summer we anticipate being able to get back out with everybody with a new schedule for the project. We do have a link if you're interested in the prioritization process and how we're doing funding. If you go to DOT's website which is listed at the top of page 3, www.ncdot.gov, it talks about our prioritization process and how that works.

So why are we building this project? Why are we planning this project? The purpose of the project is to improve traffic capacity by relieving future traffic congestion in downtown Durham, or excuse me, on the Durham freeway and other north-south routes in downtown Durham. It will provide a connection from US 70 to the Durham Freeway. When we talk about traffic capacity, that's a big engineering language and that sort of thing, essentially what we're saying is we're going to try to put enough lanes out there that cars will be able to move freely and get where they need to go. That's what we're talking about as far as improving traffic capacity. I think everyone knows what congestion is so I won't define that one. The project is consistent with state and local transportation plans, land use and transportation plans, and an added benefit to the project is to enhance transportation safety in the project area by pulling transportation off of some of the streets in Durham such as Roxboro, Mangum, Gregson and Duke Streets.

So, we've talked about the project and it is the East End Connector. Again, it connects US 70 with the Durham Freeway. It will also upgrade US 70 between NC 98 here (Holloway Street) and Pleasant Drive. That area will be upgraded to a freeway as opposed to a full access roadway that we have today.

So, we talked about the Environmental Assessment. In it, it concludes Alternative 3 as the preferred alternative. This is Alternative 3, it is the map that you've been seeing for the project. Shown on here, is what's called a typical section. If you'll look on page 7, there's a picture of this typical section. What this is, if you're driving down a road and you just slice it right down the front of you, this is what you would see, two lanes going on this initial phase and two lanes going in one direction, two lanes going in another. That's the two arrows. What this demonstrates is that there are two phases to the project. The initial phase of the project will build two lanes in each direction with a 50-foot median as part of the project. Later on down the road as traffic increases, and money becomes available, we can go back in and add and extra lane in each direction in the

median to decrease it to a 26-foot median. Now you'll see up here this is the future phase. It's what's shown on here. So that's what the future phase is on the design map. The other thing you'll probably notice is that rather than three lanes in each direction , it looks like four in many places. Those extra lanes are merge lanes coming on and off of ramps. Those are not for the main line of traffic. Those are actually merge lanes that are added in there. So for the initial phase you may see what looks like as many as six lanes out there, three in each direction, but those outside lanes are merge lanes got for the project.

The project is 3.6 miles in length and it will be designated interstate standards. Most folks are familiar with interstates, you do not have driveway accesses. There are no traffic lights on there. You get on and off, only at interchanges and that's what we're looking at here. The total cost of the project is $182.2 million. We've got some breakdowns of the cost in there if you would like to see that. Project impacts – this particular project we are looking at 16 residential relocations, 16 people/residences that will be relocated as a result of this project, 9 businesses, 1 church and 1 church office that will be removed as part of the project. One cemetery will be impacted by the project but it does not impact the gravesites itself. It does not involve moving any of the gravesites. There are .29 acres of wetland impacts, 1.13 acres of pond impacts, and 5,700 linear feet of stream impacts.

Another thing I want to make note of is the C.R. Wood Park which is on Commonwealth Avenue, between East End Avenue and Angier Avenue right in here for those who are familiar with that. The proposed East End Connector is going to clip the corner of that property eight hundredths (0.08) of an acre. It's wooded, undeveloped and contains no recreational facilities. The City of Durham concurs with us that the East End Connector will have no adverse affect on the park. But this park is protected by Section 4(f) of the Department of Transportation Act and the park is also protected by Section 6(f) of the Land and Water Conservation Fund Act. So there's some protections on this park that we have to kind of work through. And as part of that, we have to kind of disclose that and give an opportunity for the public to comment on any impacts to that park. The Federal Highway Administration is proposing that there is a determination of de minimus impact as far as Section 4(f) and what that means is very minimal impacts. So that's what they're proposing is de minimus call on that project or on that park.

Let's talk about the Noise Abatement Policy real quickly. What we mean by traffic noise abatement is reducing noise impacts, that's noise abatement. Usually we'll put in noise walls. That's NCDOT sort of standard for reducing noise impacts. The only area we have of concern on this project as far as noise impacts that fits within the noise policy or that is covered by the noise policy, certainly there will be other noise impacts, but the area that is covered by the noise policy is this area here near Rowena Avenue on the Connector portion. It's shown on the design and listed on the Environmental Assessment as a noise sensitive area, as an area we needed to go back and study further. Since the EA on this design has been completed, we have done additional noise studies and we are proposing a wall in that area. Now that noise wall will be pending a vote by property owners that are directly adjacent to the noise wall. We give the adjacent property owners

an opportunity to vote yes or no on the property, I mean on the wall. If we get above 50% back that say yes we want the wall then we go ahead and put the wall in.

Another key point of our Noise Abatement Policy is that Federal and State governments are no longer responsible for providing noise abatement for the new development which permits were issued after the Date of Public Knowledge. Now the Date of Public Knowledge on this project will be the completion of the Finding of No Significant Impact which I mentioned is slated for later this year. After that time, it is the responsibility of the local governments and property owners to do a noise sensitive design. Federal and State government is no longer responsible for noise abatement.

Alright right of way procedures. I'm going to run through this with a little bit of depth to make sure everybody catches all this. After the final design is complete, the proposed right-of-way limits will be staked on the ground. If you are an affected property owner, a Right-of-Way Agent will contact you to arrange a meeting. The agent will explain the plans and advise you as to how the project will affect you. The agent will inform you of your rights as a property owner. If permanent right-of-way is required, professionals who are familiar with real estate values will evaluate or appraise your property. The evaluations of or appraisals will be reviewed for completeness and accuracy; then the Right-of-Way Agent will make a written offer to you. The current market value of the property at its highest and best use when appraised will be offered as compensation. This is the same type of appraisal that you would get if you went to put your property on the market today. So it would be appraised and they would look at comparison property in the area just like you would do if you were trying to sell your property today. The Department of Transportation must: 1. Treat all owners and tenants equally; 2. Fully explain owner's rights; 3. Pay just compensation in exchange for property rights; and 4. Furnish relocation advisory assistance.

If you are a relocate, that is, if your residence or business is to be acquired as part of the project, additional assistance in the form of advice and compensation is available. You will be provided with assistance in location of comparable housing and/or commercial establishments, moving procedures, and moving aid. Moving expenses may be paid to you. Additional monetary compensation is available to help homeowners cope with mortgage increases, increased value of comparable housing, closing costs, etc. A similar program is available to assist business owners. Our Right-of-Way Agents that were here tonight, can assist you with that in further details. If you did not have an opportunity to talk to them, send me an email or give me a call and I'll make sure to get you in touch with them.

I've got a little section in here on additional information. Comment sheets do need to come to the address that we have listed in here. But, if you want additional information, again our website is listed here as well as the project hotline 1-800-734-7062, and that's a toll-free hotline.

Okay, so let's run through the map real quick. Okay, can everybody hear me? If anybody has any problems in the back just holler down here and I'll go louder. Okay, so we'll quickly go through the map. The first thing we want to do is run through the colors

on the map and what those colors mean. The brown represents our buildings. The dark green is existing right of way that DOT already owns. The light green is right-of-way that NCDOT is proposing to acquire for the project. The easements which can be either temporary or permanent, it could be that we need to use a piece of property during construction to get the construction complete and then after the construction is done, then those pieces revert back to the property owner. We just use them temporary. There's also permanent easements for drainage and different things of that nature that may be part of the project. Those are listed as light green with cross hatchings in it. The existing roadway is gray. Existing roadway to be removed is gray with hatching through it. The Orange is existing roadway to be repaved as part of the project. The new proposed road is in yellow. And temporary detours, its not actually a roadway detour is a railway detour, we're going to have a temporary detour here is in a sort of yellow-brown. Red are proposed structures such as bridges and culverts, curb and gutter, islands and those kind of things, that's in red. The candy-cane striped red and white is existing structures that are going to be removed, excuse me the existing structures to be retained are white and red. . The black and red are existing structures to be removed as part of this project. The blue are lakes, rivers, streams and water bodies. Railroad right-of-way is the light purple in here and here. Then the other sort of purplish color is … forgive me for not having a good description of these colors, I'm a guy and I don't know what the different colors are, I think it is fucha or something of that nature. But, these are utility easements in this color here. That second color with the hatchings in it is the cemetery. Proposed control of access, again we're having full access control on this project, that means no driveways and no roads connecting right up to the project, that shows a redline with a red circle that says CA. Existing control of access is a black hatched line that has CA and a white circle. The traffic that is listed here and that's gained traffic for both 2009 and 2035 predicted use of traffic, that's shown on a lot of different areas of the project. The noise sensitive area that I mentioned before is a red cross hatched area (Inaudible) of the project. Existing traffic lights, the red-yellow-green traffic lights, if it has a hatching in it, it's existing. If it does not have a hatching in it, it is proposed as a part of the project. Wetlands boundaries are the blue dashed lines with WLD. Stream buffer zones area a black dashed line with BZ on them. In this area, there are buffers around the steams to prohibit land development in those buffer zones around the streams.

So, again the project begins on US 70just north of NC 98 which is Holloway Street. The interchange at Holloway Street which currently has ramps and loops, and by the ramps, ramps are the ones where you make the right turn and you hop on the ramp and you go straight, loops are when you are on Holloway Street and you go across the bridge and you make that right turn and then all of sudden you do that loop. That's a loop. So, let's see here. That's what's out there now. What we are proposing now is a compressed diamond. A diamond interchange is four ramps where you're just going straight on and straight off. There are no loops in this particular project. The other important thing to note about Holloway Street is that we do have access controlled down Holloway Street in each direction both east and west on Holloway Street. That will mean that some of the properties there will have access control in front of their house and typically with access control, we do put in access control fencing. So on rural areas of the project or the undeveloped areas of the project, you'll see the wooden post with woven wire fence that you see on the interstates when you are just driving out in the country you'd have woven

wire fences. In urban areas we typically will look at a chain link fence and we can do some other things with that if not …(Inaudible) … So that's what we're looking at in that area and that's important for us to kind of point out. Focusing as far as access right now, Southerland Road has direct access to Holloway Street. As part of this project, we will be extending Rowena Street to tie into Hoover Road. So if you want to get from Southerland to Holloway Street now you will need to take that connection over to Hoover and access Holloway at the existing traffic light that is right there. So that is a little change of access there. The project continues on and as I mentioned, it crosses the railroad here and you're going to have a temporary detour for the trains during time period. Carr Road currently connects directly to Business 70. Excuse me, Carr Road currently connects to 70 Bypass. With this project, it will now connect to Business 70 which means if you want to go south onto 70, you can continue down and there will be a …(Inaudible)… If you go north what you will actually need to do is take an access road that will connect to Holloway into this interchange or come all the way down to Business 70 and come back up 98 on Holloway to get to this interchange. So you won't have direct access to the Bypass from Carr Road anymore. Another change that we have along here, another change that you will see is the Lynn Road. Lynn Road currently connects to 70. You have a full connection right now. We're going to have a median all the way down in this section all the way down to Pleasant Drive. Lynn Road will now connect to Pleasant Drive and have a connection there at the traffic light with Pleasant Drive for Lynn Road coming from the east to the west. Coming from the west it will have this sort of right in right out access. You will be able to get to Lynn Road but then you will go across the median and then go left coming out. You can go right in and right out. If you want to go north, you'll need to come right out and then go to this traffic light and make a u-turn and head back and then go north on 70 if you're coming from the west side. Okay coming east there will be an access road that gets you to that traffic light at Pleasant Drive.

The connector continues down across Rowena. There's no direct connection. There's a road at the top of Rowena and then at the top of the railroad and then connects to Durham Freeway. The end of the project is here at Glover Road. So that's, in a very large nutshell, the project.

Now comes the most important part of the public hearing now that I have bored you with all of that. This is to hear from the community. This is to hear from you. This is why we're really here for the project. Again, I'm going to go through the speakers here that have signed up first. I'll go one at a time. We will ask you for a 3 minute time limit. Eileen has got a couple of signs. When you have one minute left, she will give you the one minute warning and when you are out of time you will see the stop sign. At the stop sign, if you would, please wrap up the last sentence or two. I'm not going to pull out the bullwhip unless I have to. But if you would, go ahead and wrap up what you're talking about and give the next person an opportunity to speak.

Again, this is not a debate. Please be respectful of everyone's opinions. It also is not a vote. This is being recorded, so please when you come up, state your name and address for the record, and annunciate and kind of lean in to the mic a little bit if you would. That will help us to make sure we get you recorded. So I appreciate that. If you are not a

good public speaker like I am, I'm a horrible public speaker, and I hate being up here. I'm only kidding. If you're a horrible public speaker or you are not comfortable with public speaking, you can send in written comments. That's fine. They do carry the same weight. We look at all the comments and go through everything whether it is spoken or written comments. You're welcomed to do that to go either way. So, with that, I'll call the first speaker up here. If you would, I think everybody is on this side anyway, I don't think anybody is going to come around here. There are some cords over here so please make sure you do come in from this side over here. I would appreciate that. The first speaker is Reverend Melvin Whitley.

Rev. Melvin Whitley: My name is Melvin Whitley. I live 2614 Harvard Avenue in East Durham.

East Durham in the last couple of years has done a lot to make itself marketable for development. The idea of bringing forth the East End Connector, we were first to champion the idea of bringing it through East Durham because we saw economical potential for us. We want to thank DOT for this opportunity to have this public hearing. But, we would like to suggest to them that they do a little bit more. Right now we are loosing access getting on and off in East Durham. We can only get on and off on Holloway Street and Lynn Road. What we would ask for is a complete loop at Carr Road, one that would give us a full motion interchange at … I don't have a little red light on my light.

Moderator: You can borrow mine if you'd like. If you want to stand over here, you're more than welcomed. Just don't point this at anybody. It could be dangerous. Push that red button right there. If you're going to speak, do stay over here and speak in the microphone otherwise we won't be able to pick you up.

Rev. Melvin Whitley: What is does is it opens up all this land right in here. There's a potential for an industrial park that will create jobs for East Durham but not having to loop there really doesn't make it marketable. At least, it increases the potential for economic development. We're asking that this idea may cost a little bit more but we'll get a lot more for it. And, it would give us some social justice in exchange for our support for this project. Thank you so much. Thank you.

Moderator: Thank you Rev. Whitley. We next have Kennan Borden.

Kennan Borden: Hello my name is Kennan Borden. I live at 5 Kimberly Drive here in Durham.

As Rev. Whitley described, we … I represent a company that owns 100 acres adjacent to Highway 70 between East End Avenue, Hoover Road and Angier Avenue. This is one of the largest pieces of undeveloped land in the city of Durham with zoning, water and sewer and all utilities. Our goal, and our goal has been to develop this property into a business park that would bring jobs to East Central Durham. Presently we have a deeded right of access to Highway 70 which gives us eastbound and westbound access to Highway 70. The present plan that DOT has provided would allow access to

Carr Road and our property is across the street from Carr Road on Highway 70. So the present plan would give us access from going west and then access going east but we feel that providing a full movement access east and westbound at the Carr Road Bridge and Interchange would help access to all the residents in East Durham, would enhance economic development and would not hurt the design but improve the design of the road and have a minimal impact and would have a great impact to the community.

So we support the East End Connector Project, I do and the owners of this property do. We would like to see improved access to Highway 70. it's always been a road that you could access. Now it will be a controlled access road. What we'd like to see is improved access by adding a full movement interchange there at Carr Road. I have submitted some plans there to the Department of Transportation to Ms. Leeza Mundt and Mr. Taylor. I have the plans here with me. I'd like to enter those into the public record if that is permitted and I thank you for your time.

Moderator: If you're giving a copy to me that's fine or if you've given a copy to the two of them, that's fine. In giving them copies, you've entered it into record.

Thank you Mr. Borden. Let's see, the next one is John White. Is that right? And I'll apologize if I've mispronounced anyone's name. I'm pretty atrocious at names so I apologize ahead of time.

John White: With a name like John White, I don't think you have any troubles so …

Moderator: I think I got that one.

John White: Good evening, John White on behalf of the Greater Durham Chamber of Commerce. I just wanted to come out this evening and express our support for this project.

The Durham Chamber, as you know, as most chambers, are focused on economic development. We work closely with the property brokers family as well as we understand the concerns that folks have brought to us such as Rev. Whitley. But before I even go down that road, I would like to first say thank you to DOT, those folks that have helped us and been advocates for this project. Wally Bowman and Chuck Watts are greatly appreciated.

On January 6, there were about 12 people that we took into Secretary Conti's office to express our support for the work on this project. It wasn't just folks from Durham, this was a regional initiative in which the Mayor of Durham, Bill Bell as well as the Mayor of Raleigh, Charles Meeker were at the table to state how much this means to the community and ultimately to the region.

What we would like to do is we would just like to continue to not only just have this conversation but more so, we would like to see the dollars appropriated to this project. For Durham, there is a small boundary as many of you know in this community

of where you can develop, where the property is available for development. Ultimately what we'd like to do is we'd like to see some of this property that is available developed on and ultimately we'd like to alleviate some of the congestion which currently exists between not only 70 and 147 but also 85 and 40. So, if at all possible, we would just like to go on the record tonight and state that the business community supports this not only here in Durham but over in Raleigh and we just ask for the community to continue to support this project and ultimately for DOT to find the dollars necessary to fund it. So, we greatly appreciate it.

Moderator: Thank you Mr. White. The next speaker is Joe Milozzo.

Joe Milozzo: Hey I'm Joe Milozzo. I'm the Executive Director of an organization called the Regional Transportation Alliance. It's a regional business group founded by the Chamber of Commerce here in Durham, Raleigh, Cary and Chapel Hill. We're based with the Chamber in Raleigh and we're located at 800 South Salisbury Street in Raleigh.

The Alliance represents about 100 business and 23 Chambers of Commerce in the region. We do focus on economic vitality and quality of life issues by trying to advance critical highway transit and air service projects or regional significance.

We often refer to the connector as the Triangle Connector to I-85. When complete and when coupled with the under construction Triangle Expressway in southern Durham and western Wake counties, this project will create a new north-south freeway between I-85 and US 1. The project will link existing and emerging job centers in Durham, including Treyburn to the north and Research Triangle Park to the south. It will also link I-85 in the Durham area to Cary and Apex in western Wake County. In addition, it's called the "Connector" on our mind for another reason. It will create a new east-west linkage between downtown Durham and 70. That will streamline traffic between downtown and Miami Boulevard and points east. The Connector is our top freeway project priority for the region and the Connector will remain so until it is completed.

We applaud the Department and all the members of the project team for their continuing efforts. We encourage the team to continue to value engineer the project and look for opportunities to reduce cost while maintaining the integrity of the new freeway linkages that this project will create the critical project for our regional community and we hope that it will receive the loop of funding needed to allow it to move forward. I appreciate it.

Moderator: Thank you Mr. Milozzo. The next speaker is Pastor Sylvester Williams.

Pastor Sylvester Williams: I am Pastor Sylvester Williams. I live at 404 Sparella Street, Durham North Carolina, zip code 27703. I am President of Hayes Town Community. I am also the Vice Chair for the Durham Community Affairs for Black

People for Economic Development, and also the Chair for Economic Development for the Durham Business and Professional Chain.

Opposition to the building of the East End Connector has been joined by the Durham Community Affairs for Black People for Economic Development and the Durham Professional Chain which I am Chair of economic development. There are three reasons why we are opposed to the building of the East End Connector. The first one is health concerns. Section 4.1.8 on Air Quality states that msat or mobile source of air toxins would be increased due the increased traffic on the East End Connector. The document does not take into the account how the elderly residents of Hayes Town health will be negatively impacted by the initiative msat's. The Environmental Assessment Document emphasized that msat's cause cancer in animals and that there is currently not a way to measure levels of these toxins. The localized levels are mobilized emissions for the preferred alternative could be higher relative to the no-build alternative. Why would the State of North Carolina want to build a road that could impair the health of local tax paying citizens? There is mitigation for wildlife, but there is nothing in place to protect the health of residents in the East End Connector area.

The second thing is economic development. The proposed road would not significantly add to traffic being driven to the local businesses along Holloway Street and Highway 98. Why Durham communities continue to suffer double digits unemployment rates, why are roads being built that would not address this economic malaise? The East Connector should provide better access to these businesses in orchestrate economic growth in a predominantly minority community. If given the opportunity we can make the economic base of northeast central Durham much stronger without the East End Connector. We can not do this with erroneous zoning laws with threats of eminent domain.

Lastly, lack of funding. I'm on the adhoc committee and one of the things that I heard out of each of the meetings that I went to is that there is not enough money now currently to fund the total completion of the East End Connector. So then comes my next question. Why then are they pursuing this or even making a threat of eminent domain? We see this no more than a land graph. It is the same thing that was done with Highway 147 and destroyed communities for the sake of building highway through businesses that were vibrant and we see the same thing happening again. So we are opposed to it because we don't see the money there with the City nor with the State to provide the adequate money to build.

We think that all it is just a threat of eminent domain to drive people out of their homes and to get them to be afraid and sell their land for pennies on the dollar. As was said earlier about fair market value for your homes, we need to know that there is no such thing for those that have experienced eminent domain. Thank you and I am Pastor Sylvester Williams. I love the Lord Jesus with all my heart and I'm not ashamed of my community in which I live. Thank you.

Moderator: Thank you Pastor Williams. And the next name is Erin Hammeke? I know I've got that one wrong.

Erin Hammeke: My name is Erin Hammeke and I live at 613 Pleasant Drive.

Since the goal of the project is to alleviate car traffic congestion, I would like to ask what type of support for alternative methods or transports, such as for pedestrians or cyclists has been considered as a part of this project? And I would also like to ask the Department of Transportation to prioritize the construction of better sidewalks and bike lanes that can be a better alternative for people to commute in the city of Durham.

Moderator: Thank you. That's all the folks we have on our list to speak. Is there anyone else who would like to speak? Is there anyone in the audience who has not spoken that would like to speak? Certainly, come on up. And again, please state your name and address for the record. Thank you.

James Stansler: My name is James Stansler. I live at 3101 Bryant Street. I am just outside the CR Wood Park.

And, I'd like to know… I understand you have a person here who is in charge of air quality. I'd like to have them address the issue of toxins that will be created by this construction and how safe or unsafe it's going to be.

Moderator: Okay, let me do one of a couple of things here. If you'd like to there's a lot more information than what's in the Environmental Assessment or a lot more detail than what's in the Environmental Assessment. If you'd like to, you can talk to him afterwards. Have you talked with him yet tonight? If you haven't ….where is he hiding? There he is. Would you raise your hand a little bit so when we're done here why don't you connect up with him and have him discuss this in a whole lot more detail with you and answer your question in complete detail. We'll be glad to …

James Stansler: Can I get a short answer?

Moderator: A short answer for that? I don't know, is there a short answer for mobile source air toxins stuff? You can't hear me? I'm sorry. He was asking this, I apologize, he asked me if there was a short answer for his question about mobile source air toxins. Is that an easy explanation to do here?

Greg Smith: I'll try but I didn't hear his question.

Moderator: Oh, you didn't hear his question? Okay.

James Stansler: (Inaudible)

Moderator: No actually sir just to make sure it's on public record, if you wouldn't mind, step back up here and we'll just make sure he can hear that and then that way we'll have it in the record. So if you don't mind, I apologize for getting you up and

down. No, step up here if you would. Yeah, I'm sorry for getting you up and down and up and down. You're getting you exercise tonight. If you would repeat the question a little closer to mic so he can hear it.

James Stansler: My question was in reference to air toxins that will be created from the construction. Can you tell me how dangerous this is going to be for us? I live right outside the C. R. Woods Park. That's going to be a direct impact on my community as well as myself.

Moderator: I didn't know if that was an easy short answer or if that is something that he needs to have a more detailed discussion with you on that. Okay. We'll handle it that way if you don't mind.

All right, is there anyone else? Yes sir. And while he's coming up too, I failed to mention your Board of Transportation member that represents this area, Chuck Watts, is present. He's in the back over there. I did want to mention that he's here or that he was here. Did he … Oh yeah, there he is. I thought I saw him back there. Chuck Watts is in attendance and I wanted to make sure to recognize that he is her serving you.

Casem Wong: Good evening. My name is Casem Wong. I'm the property owner of 901 South Miami Boulevard. It's commercial property. It's a car dealership, about 2 acres. Also a 1 acre lot on the main road.

I was for this project. But first of all, I was not prepared to talk tonight. This is just some idea right after I heard a couple of comments earlier. I was for this project until tonight. After I heard it, I kind of have doubts. First of all, helping local economy? I don't think so. I spend nine hours a day sitting in a corner on South Miami Boulevard watching traffic. 95% is my gut feeling, 95% is transient traffic. When I say transient traffic, they're not here to spend money. They're commuting traffic. There's no business for them to stop. It's already bad as is. If this project going out would control access, it's pretty much DOT is building a tunnel going through this area and wiping out my business and a bunch of other businesses. Is it helping the local economy? I don't think so. Maybe a little bit with a 100 acres of business park, possibly. But even that is limited access.

So, I live in Chapel Hill myself. I commuted to Miami Boulevard, to my business every day. I know we need some kind of connector because we have the zig zag through local traffic and through the local streets. But, with limited access to the highway, this whole area, you can't get to a local area. You have to go, you have to travel all the way through the big loop some way, some how zig-zagging into your local street to a local business. So basically we're providing, we're sacrificing ourself. We're providing a super highway for commuting traffic. Maybe folks in Raleigh who live in North Durham or whatever. They're not going to stop. I don't see where any business can be created from this thing unless 100 acres … I'm not talking for you, but with 100 acres anything can happen, possibly but … So please if you're a resident in this area, give a serious thought. We need a connector but not this kind. We need more access. Give more access to local growth. Do not block our access. Thank you.

Moderator: Thank you Mr. Wong. Is there anyone else who would like to speak who has not already spoken? Yes sir.

Unidentified Male: I too wasn't planning on speaking here tonight, but I guess I felt a little spur urged on to voice my opinion. You know at a wedding they say 'speak now or forever hold your peace'. I just want to correct one thing, you are a good speaker.

By my name is Kent Walton. Myself and two other friends of mine, David Stowe and R. B. Patel, we're here tonight. About 11 years ago, and I'm going to try to not get the card, 'cause I know I'm going to run long but I'm going to leave when she flashes that stop card here. But we bought some brought some property about 11 years ago at 909 South Miami. At the time we bought it, we bought an investment purpose. We thought Food Lion was going to build a grocery store and a shopping center was going to come maybe directly across the road from us. That was the good news. But it seems as soon as we bought it, that fell through and Food Lion never bought and developed. So for about 11 years, we've spent a good part of that cleaning up tires, junk, household items, bags of trash on our property that people have just abused for the last 11 years. For the last 2 or 3 weeks, we spent many hours over there making that property look better and not be an eye sore to the traffic and people coming by. They've stole siding off of our house. It's really been a headache.

So, like I say, I don't live there but I feel like I have a small voice having property there. So I would just ask DOT when it comes time and you do start buying up a part of our property. Part of our property it's going to be busted up. Part of the front is going to be bought and part of the middle is where the service road to Lynn Road Expressway is going to come through. I would only ask DOT to treat me fairly. That's all I've ever asked and I think my partners would feel the same. I feel like I've been took advantage of for the last several years and I try to live by the Golden Rule, 'Do unto others as you would have them do unto you'. That's all I ask is just to be treated fairly when it comes to the time to buy our property. Thank you.

Moderator: Thank you Mr. Walton. And as we mentioned earlier, we do offer fair market value for the property so I hope you will be satisfied when we do approach you and your partners.

Is there anyone else who would like to speak that has not already spoken? Okay. Is there anyone who has spoken that would like another couple of minutes? Okay, well if that's it, I appreciate everyone's attendance tonight. I thank you and please drive safely.

Hearing Adjourned.

Drew Joyner, Moderator
Human Environment Unit
March 25, 2010

Typed by Demorris N. Hukins

Appendix D: Post Hearing Meeting Notes

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: July 1, 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)

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WEBSITE: WWW.NCDOT.ORG/DOH

LOCATION:
CENTURY CENTER COMPLEX
BUILDING A
1000 BIRCH RIDGE DRIVE
RALEIGH NC

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 limits of project.

Conclusion: Wesley Parham commented that 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, left and right of the centerline. 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 for bicycle accomodation.

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. It was noted that Lynn/Pleasant Rd. may see increased traffic. Mark Ahrendsen 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 MPO . The 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 expense to the Living Waters 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 stretch 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 run off 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 traffic impact study for Build/No Build alternates for Carr Rd. Interchange to determine any impacts to the Hayestown Community (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.

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

MEETING SUMMARY

Subject: U-71, East End Connector, Response to Ad Hoc Committee Recommendations for Mitigation of Project Impacts

Date: April 22, 2010

Location: Roadway Design Conference Room, Century Center

Participants: Aketa Emptage, NCDOT Office of Civil Rights
Dennis Jernigan, NCDOT Division 5
Doumit Ishak, NCDOT Congestion Management
Jay Bennett, NCDOT Roadway Design
Harrison Marshall, NCDOT HEU, Community Studies
Jason Orthner, NCDOT Rail Division
Jahmal Pullen, NCDOT Rail Division
Doug Taylor, NCDOT Roadway Design
David Clodgo, NCDOT Roadway Design
Kevin Moore, NCDOT Roadway Design
Derrick Weaver, NCDOT PDEA
Leza Wright Mundt, NCDOT PDEA
Eric Midkiff, NCDOT PDEA
Wally Bowman, NCDOT Division 5
Clarence Coleman, Federal Highway Administration
Felix Davila, Federal Highway Administration
Shantry Dickens, NCDOT Office of Civil Rights
Joey Hopkins, NCDOT Division 5
Greg Smith, NCDOT HEU, Air and Noise Studies

The following is a summation of the discussion that occurred and decisions reached at the meeting described above:

i. Introductions were made and Leza Mundt provided an update on the project status.

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1 SOUTH WILMINGTON STREET
RALEIGH NC 27601

ii. The East End Connector Ad Hoc Committee appointed by the Durham City Council is comprised of citizens throughout the project study area. It has met 11 times. The City Transportation staff presented two lists to the Committee, one at each of the last two committee meetings, of items they would like included in the East End Connector (EEC) design. The second list was couched in terms of mitigation for environmental justice impacts. The Ad Hoc Committee voted to recommend the second list in its totality to the City Council. The staff will present this to the Council on May 6 with a recommendation that it endorse it to the NCDOT.

iii. Leza Mundt presented a list to the group which broke out the project additions requested in the City's March 31, 2010 list to the Ad Hoc Committee. She noted that many of the items had been requested before by the City in a letter dated June 26, 2008. The Department responded to the requests in a letter date April 22, 2009.

iv. The objectives of the meeting were three-fold: a) do we stand by the April 22, 2009 letter for each request; b) do we agree with the city's conclusions regarding environmental justice impacts; and c) how do we address the new items requested given the context presented.

v. A discussion about environmental justice and where it is of most concern within the project study area ensued. It was noted that the Hayestown community, which is centered on East End Avenue and Rowena Avenue, will bear the most impact of the project compared to other neighborhoods in the study area. That community is comprised predominantly of low-income and minority households. Therefore, actions that target the Hayestown area and/or provide an offsetting benefit or furthers economic development in the area is should be considered and may be appropriate.

vi. Discussion of the list of improvements and recommendations in the Durham memorandum dated March 31, 2010 commenced. Because the City's recommendations are couched in terms of mitigation for impacts to environmental justice populations, the meeting attendees discussed whether environmental justice applied to each item, and whether each item should be included in the project, as follows:

1. <u>Lengthen EEC bridges over the NCRR and Angier Ave</u>: The April 22, 2009 letter to Durham stated that NCDOT would extend the bridges to permit an extension of Pettigrew St if Pettigrew St is on the CHDC MPO Long Range Transportation Plan (LRTP) or if the City agrees to cost-share. The two fatalities that occurred recently at Ellis Road, a nearby crossing were noted. Jason Orthner noted that Ellis Rd sits in the middle of a siding yard, therefore safety, as well as operational problems exists. The Rail Division is installing enhanced crossing safety equipment, but this doesn't address the operational issues. Because of its location, grade-separating

Ellis would significantly impact operations. Jahmal Pullen stated that the Rail Division has had discussions with Durham regarding a traffic separation study from Neal Road to Cornwallis Street. Ellis Road would be in Phase 1. No agreement for a study is in place. Extending the length of the bridges will increase costs. (Hazard Elimination Funds may be available to assist (5 percent), but they require a crossing closure.) Clarence Coleman said that FHWA could support lengthening the bridges over the EEC if it is to support a safety issue. Felix Davila noted that the importance of having Pettigrew St. on the LRTP to ensure that its extension is a reasonably foreseeable project. Jason Orthner noted it is likely the NCRR will not want Pettigrew on their right-of-way; that will have to be taken into account.

- Recommendation – Environmental Justice does not apply. Wally Bowman will talk with the City about amending their LRTP to include Pettigrew St. Revise plans to lengthen bridges.

2. Grade-separated pedestrian crossing over US 70: Derrick Weaver and Leza Mundt indicated the area between East End Ave and Pleasant Dr where the City is requesting the crossing and noted that no evidence of pedestrian activity exists and no greenway is planned.
    - Recommendation – Environmental Justice does not apply. Response in the April 22, 2009 letter not to construct a grade separated crossing stands.

3. Aesthetic treatment on CSX bridge over US 70 and Carr Rd bridge over US 70: CSX and Norfolk Southern RRs control the bridge. According to Jason Orthner, the Railroads do not typically agree to aesthetic treatments, though they may be willing to paint the bridge.
    - Recommendation – Environmental Justice does not apply. City should coordinate with CSX and Norfolk Southern directly for any aesthetic upgrades. Aesthetic treatments on Carr Rd grade-separation are dependent on the redesign, but cost-sharing with the City would be required for the bridge as stated in April 22, 2009 letter.

4. Carr Road Interchange: Borden property developer (100 ac tract) and citizens in the East End Ave area have asked for the interchange to be constructed as a full movement interchange. Congestion Management has looked at it; the Borden tract development alone does not warrant it. Roadway Design needs to look at the vertical design. Borden had presented horizon concepts. A half clover may work best, but may require more right-of-way, including some from the Borden tract. If so, we will ask him to donate it. Wally Bowman stated that this improvement would be a benefit to the area for many reasons.

- Recommendation – Environmental Justice applies, as it serves the Hayestown area and supports economic development in the project area. While the design as currently proposed does not reach the level of a disproportionate impact, it does change the Hayestown community's access to US 70 from direct, full movement access to more circuitous access, with eastbound traffic required to access US 70 at Holloway Street. Roadway Design will look at the vertical design to see if will work and how much it will cost. In addition to the vertical design, an operational analysis should be conducted by the Congestion Management Unit to verify that the minimum spacing is met so as not to negatively impact the traffic operations of the proposed corridor. Will discuss at the post-hearing meeting.

5. New Roadways: The City requested that the NCDOT construct a connector road through the Borden property and extend Pettigrew Street. Everyone agreed that the Borden developer is responsible for constructing streets internal to his site, and that extending Pettigrew Street does not serve the project's purpose and need.
    - Recommendation – Environmental Justice does not apply. NCDOT will not construct these roadways as part of the U-71 project.

6. Provide Sidewalks, Bike Lanes, and Curb/Gutter on Carr Rd and Carr Rd Ext, East End Ave, Lynn Rd and Lynn Rd Ext, Pleasant Dr, Hoover Rd and Hoover Rd Ext, Muldee St and Muldee St Ext: This was requested in the City's letter to NCDOT in 2008; we responded in April 22, 2009 letter with an explanation of our sidewalk cost-share policy.
    - Recommendations: Environmental Justice does not apply.
        - Will consider sidewalks, etc on Carr with the Carr Rd interchange design.
        - Include curb/gutter 11′ travel lanes and 4′ 5' bike lanes on East End Ave; sidewalks can be provided if Durham agrees to cost-share.
        - Lynn Rd and Pleasant Dr – existing sidewalks will be replaced. Lynn Rd Ext – curb/gutter will be provided on the west side, two 11′ travel lanes with 4′ bike lane. Shoulder section on the west side; sidewalks will be provided if Durham agrees to cost-share.
        - Muldee St and Muldee St Ext – curb & gutter, 11′ lanes, 4′ bike lanes in neighborhood between Hoover Rd and Southerland St with cost-share on sidewalk. Shoulder section from Southerland Street west.

    Pavement should accommodate bike lanes, but do not paint them at this point, due to lack of continuity, although vehicular lanes should be striped 11 feet.

7. NC 98 (Holloway St):
    - Recommendation – Environmental Justice does not apply. Match U-4010 typical, as stated in April 22, 2010 letter.

8. Roundabouts: Doumit Ishak referred to the previous roundabout analysis conducted on intersections which Durham had requested. He noted that stop control will work at a good LOS at the intersection of Lynn Rd and Ivey Wood Ln and at S. Miami Blvd and East End Ave intersections; roundabouts would be an over-design. The US 70 off-ramp/Hoover Rd/Carr Rd and the Carr Rd and Miami Blvd intersections would require turn lanes and signals; roundabouts would work, contingent on the Carr Rd interchange design.
    - Recommendation – Environmental Justice does not apply. Final decisions on roundabouts will be made in final design based on operational considerations and right-of-way.

9. Lighting: Durham requested pedestrian lighting under Holloway St, Rowena Ave, and Angier Ave bridges; roadway lighting on the EEC interchanges with NC 147, US 70, and NC 98; or conduit and any necessary right-of-way to accommodate future lighting. Leza Mundt noted that a lighting analysis had been completed for the project and roadway lighting was found not to be warranted. Further, our policy is to accommodate pedestrian lighting under bridges only through a cost-sharing agreement. Aketa Emptage noted that a CIA report prepared by UNC students indicated that Hayestown residents felt their community was safe, suggesting that lighting may not be needed under the Rowena Ave and Angier Ave bridges. Doug Taylor noted that the Angier Ave bridges would be 30 feet high, allowing ample light under the bridge.
    - Recommendation – Environmental Justice does not apply. Interchange lighting is not warranted per lighting analysis. Provide conduit for lighting at Holloway and Rowena Ave. Installations, including conduit would require a cost-sharing agreement.

10. Signage: Durham requested directional signs on US 70 to businesses between Pleasant Dr and Lynn Rd; directional signs on the EEC to businesses and cultural and historic resources in east Durham; and designated truck routes to roads serving industry in the project area. Wally Bowman stated that because we are changing access to the businesses on US 70 between Pleasant and Lynn Rd we can provide some type of signage. Way-finding signage per the NCDOT signing policy can be provided for other public facilities in east Durham; more information will be needed. Truck route designation is a local issue.
    - Recommendation – Environmental Justice does not apply. Coordinate with local government concerning way-finding signage and other signage for

businesses once construction nears. Signage can be both temporary during construction and permanent.

11. Noise abatement: Durham requested building insulation for apartment buildings on Hardee Street, Calvary Baptist Church, and residents on the south side of the EEC on Rowena Ave. An aesthetic treatment to the noise wall on Rowena was also requested. Greg Smith noted that noise reduction measures were considered in all areas where traffic noise impacts are predicted to occur. The only such measure found to be feasible and reasonable in accordance with the NCDOT Traffic Noise Abatement Policy is the noise wall at Rowena Avenue. Noise insulation is considered for public or non-profit institutions that are predicted to receive impacts from traffic noise; however, the cost for insulation is estimated to exceed the abatement cost of $35,000 allowed per benefited receptor. No residences south of the EEC at Rowena Ave. are predicted to receive noise levels in excess of the abatement threshold.
    - Recommendation – Environmental Justice does not apply to the existing buildings on Hardee St. and Calvary Baptist Church. Environmental Justice considerations should be taken into account regarding with noise wall at Rowena. Greg Smith will look at aesthetic options. A municipal agreement may be needed.

12. Public Involvement: Durham requests that we coordinate with local businesses during construction and ensure access. Also requests that emergency services response times be maintained at acceptable levels.
    - Recommendation – Environmental Justice does not apply. We will keep the public, particularly affected businesses informed during construction via newsletters, public notices, and other means. The project will be coordinated with emergency service providers as per standard procedures.

13. Landscaping: The City requested landscaping to shield neighborhoods from the roadway; that we relocate the Durham welcome monument and associated landscaping; and provide landscaping in roundabouts. Wally Bowman noted that 0.5 to 0.75 percent of project construction costs goes to landscaping. Dennis Jernigan noted that Durham welcome monument is an existing illegal encroachment in NCDOT right-of-way.
    - Recommendation – Environmental Justice does not apply. We will coordinate project landscaping with the city. The welcome monument must be relocated outside the NCDOT right-of-way by the City. Decisions on landscaping within roundabouts pending final design decision regarding appropriateness of roundabouts.

14. C.R. Wood Park: The City requests that we provide replacement vegetation for any impacted vegetation; pave the park's parking lot and/or basketball court; provide replacement land; and improve the Hayestown Community Center in the park. We have acquiring approximately 0.07 ac of undeveloped, wooded land from a corner of the park. A *de minimis* 4(f) finding will be in the FONSI and 6(f) of the LWCF applies, requiring replacement land. The tract we are planning to use for replacement is wooded and immediately adjacent to the park.
    - Recommendation – Environmental Justice does not apply. We have agreed to the paving request as mitigation for the 4(f)/6(f) impact and it is included in the EA green sheet. FHWA notes that the community center is not affected by the project; therefore the NCDOT will not include improvements to the building in the project.

15. Relocations: Durham requests that acquisition of right-of-way begin as soon as the FONSI is signed; that displaced residents and businesses receive early notification; that acquired properties are demolished to avoid crime; and that we provide property owners with relocation assistance.
    - Recommendation: Environmental Justice does not apply. Right-of-way acquisition will begin based on availability of funding. Per NCDOT policy, displaced residents and businesses are the first to be notified once right-of-way acquisition is authorized. Per NCDOT policy, properties that are acquired early may be leased or maintained rather than demolished. Property owners also have the option to relocate the structure. Other assistance is provided to relocates per NCDOT policy and the Uniform Relocation Assistance Act. The Department is required to adhere to nondiscrimination obligations as mandated by Title VI of the Civil Rights Act of 1964 and the Uniform Relocation Assistance Act.

16. Miscellaneous: a) A workforce development goal to hire construction workers from Durham was requested; B) Provide traffic calming measures on East End Ave, Pleasant Dr and Lynn Rd; c) Provide pedestrian crossing equipment and pavement markings at US 70 and Pleasant Dr; d) Reevaluate the intersection of Lynn Rd Extension and Pleasant Dr; e) Enforce prohibitions on truck traffic on local streets; f) Sign control is needed; g) Reduce project cost through design exceptions.
    - Recommendation: Environmental Justice does not apply. a) NCDOT cannot accommodate this request due to requirements of federal laws to select low-bidders, etc; b) Traffic calming measures are not needed on East End Ave and Pleasant Dr because the project will result in a decrease in traffic volumes and discourage through traffic on East End Ave. Lynn Rd will serve businesses therefore traffic calming is inappropriate; c) NCDOT agrees to provide pedestrian accommodations at US 70 and Pleasant Dr; d)

Congestion Management will reevaluate the design of the intersection of Lynn Rd Extension and Pleasant Dr – a "T" intersection may provide more storage and operate more efficiently; e) NCDOT cannot enforce truck prohibitions; this is a local ordinance requirement; f) Sign control is a local ordinance issue.

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Attachment A

Date: **April 5, 2010**

To: **Durham City Council**
From: **East End Connector Ad Hoc Committee**
Subject: **Recommendations for Mitigation Measures for U-0071, East End Connector**

In February 2007, City Council recommended the formation of an Ad Hoc Committee to work with NCDOT and the City on identifying mitigation measures for the proposed East End Connector project. The committee has held eleven meetings beginning in August 2007. The committee has discussed the following topics related to the project: noise impacts, local traffic and connectivity, bicycle and pedestrian issues, community outreach, right-of-way acquisition, the relocation process, economic development impacts, and environmental justice. During the preparation of the Environmental Assessment over the past three years, the committee has offered valuable input to the City and NCDOT on the level of public outreach, the materials presented to the public at workshops and through newsletters, the selection of the preferred alternative, and the preliminary identification of some mitigation measures.

The Environmental Assessment includes a description of the community and natural environmental impacts for the preferred alternative. The impacts may be mitigated through the project design, special features or enhancements to the project, community outreach, the process employed by NCDOT to acquire right-of-way and construct the project, etc. The Ad Hoc Committee reviewed the Environmental Assessment and developed the following recommendations for mitigation measures.

Impacts and Recommended Mitigation Measures

The following mitigation measures are organized by impact. One impact, the impact to environmental justice populations, overlaps with the specific impacts listed below. The East End Connector study area has minority and low-income populations that are above the county and statewide averages. NCDOT must avoid, minimize, and mitigate disproportionately high and adverse impacts to those populations. In addition, the cumulative historic impact of the construction of highway projects in Durham on minority and low-income populations must also be considered. The descriptions below include a note on how each impact relates to the environmental justice populations in the study area. A description of how each mitigation measure avoids, minimizes, or mitigates for the impact is provided. Inclusion in this list does not necessarily indicate that the impact to the population is disproportionately high and adverse.

Economic Development

- Impact: The East End Connector will affect economic development opportunities in the area by changing the accessibility of parcels to local streets and freeways. Areas of concern include the Holloway Street corridor, the Borden Brick property, parcels on the northeast-side of US 70, and parcels between the railroad tracks and NC 147 (Rand property). In addition, construction of the project may negatively impact, temporarily or permanently, access to existing businesses on NC 98 and US 70.

- Mitigation:
  - Access roads off US 70 should be located to maximize the accessibility of undeveloped parcels - economic development
  - The East End Connector bridge over the railroad tracks and Angier Avenue should be lengthened to provide clearance for the extension of Pettigrew Street to provide access to undeveloped parcels
  - Include a workforce development goal to hire construction employees from Durham.
  - Provide access at Carr Road to westbound US 70 and from eastbound US 70.
  - Provide directional signing on US 70 to the businesses on US 70 between Pleasant Drive and Lynn Road.
  - Provide directional signage to businesses and cultural and historic resources in east Durham from the East End Connector.
  - Provide additional opportunities for feedback from local businesses in east Durham and on the NC 98 and US 70 corridors. Access to these businesses must be maintained during construction.
- Relationship to Environmental Justice Populations:
  - Improved access at Carr Road may help encourage economic development of the Borden property, a large industrially zoned area between Angier Avenue, US 70, East End Avenue, and Hoover Road. Improved access to the area between NC 147 and the railroad tracks may help encourage economic development of the Rand property, a large industrially zoned area between Angier Avenue, US 70, East End Avenue, and Hoover Road. Economic development and development of job opportunities are a priority in the Northeast Central Durham Neighborhood Plan and PAC 1. This may help directly mitigate for the historic negative impact that the construction of NC 147 had on minority-owned businesses and industries in east Durham.
  - Directional signage and maintaining access to existing businesses will help ensure that these businesses are not harmed by the project and are provided increased accessibility through the improvements. These existing businesses on NC 98 and US 70 serve minority and low-income neighborhoods and offer employment to these communities.

Connectivity of Local Streets

- Impact: Access to/from/across US 70 will be limited south of Holloway Street to Pleasant Drive. Affects Carr Rd., East End Ave., and Lynn Rd.
  - With the project built, the Hayestown area will have access to US 70 through the extension of East End Avenue north to the Carr Road interchange. Access will only be provided for travel onto eastbound US 70 and from westbound US 70.
  - With the project built, the Lynn Road/Pleasant Drive area will have access to US 70 through the intersection at Pleasant Drive and right-in, right-out only access from Lynn Road onto US 70 eastbound.
- Mitigation:
  - Provide access at Carr Road to westbound US 70 and from eastbound US 70. (also listed under Economic Development)
  - Provide directional signing on US 70 to the businesses on US 70 between Pleasant Drive and Lynn Road. (also listed under Economic Development)
- Relationship to Environmental Justice Populations:
  - See description under Economic Development.

- Impact: The construction of the East End Connector could preclude the construction of an extension of Pettigrew Street on the southwest side of the railroad tracks between Ellis Road and Glover road
- Mitigation:
    - The East End Connector bridge over the railroad tracks and Angier Avenue could be lengthened to provide clearance for the extension of Pettigrew Street. (also listed under economic development)
- Relationship to Environmental Justice Populations:
    - See description under Economic Development.

Through Traffic on Local Streets

- Impact: Due to changes in connectivity local streets may experience a change in through traffic. East End Avenue, Lynn Road, and Pleasant Drive are primarily residential streets that are most likely to be affected.
    - According to the July 2009 traffic forecast, in 2009 East End Avenue carried 3,800-4,000 vehicles per day. In the 2035 build scenario East End Avenue will carry 2,400 vehicles per day.
    - According to the July 2009 traffic forecast, in 2009 Lynn Road (Pleasant to US 70) carried 4,000 vehicles per day. In the 2035 build scenario Lynn Road will carry 1,500 vehicles per day.
    - According to the July 2009 traffic forecast, in 2009 Pleasant Drive (Lynn to US 70) carried 3,600 vehicles per day. In the 2035 build scenario Pleasant Drive will carry 4,300 vehicles per day.
    - Traffic is decreased on East End Avenue and Lynn Road due to the decrease in access provided to US 70. If additional access is provided at the Carr Road interchange with US 70, the traffic forecast for East End Avenue should be re-evaluated. Traffic is increased on Pleasant Drive because it will now be the only street that provides direct access from Angier to US 70 and the East End Connector
- Mitigation:
    - Traffic calming measures, such as roundabouts at intersections where appropriate (speed humps are only constructed on City streets between 500 and 2,500 AADT that are not bus routes)
    - Marked crosswalks and pedestrian crossing equipment at Pleasant Drive intersection of US 70
    - Enforce prohibitions on truck traffic or through traffic on local streets
    - Designated truck routes that provide access to roads from parcels likely to be developed as industrial uses.
    - If additional access is provided at the Carr Road interchange, an additional connector road between Carr Road and Angier Avenue north of East End Avenue should be provided in order to serve the industrial area and to reduce through traffic on East End Avenue.
- Relationship to Environmental Justice Populations:
    - East End Avenue, Lynn Road, and Pleasant Drive are located in neighborhoods with higher than average minority and low-income populations. Ensuring that the project does not negatively affect the quality of life in these neighborhoods through increased through traffic will help mitigate for impacts to these communities.

Pedestrian and Bicycle Access on and across US 70

- Impact: No pedestrian or bicycle facilities or crosswalks are provided on US 70 today. However, pedestrian activity is present due to the nearby neighborhoods and DATA bus routes. Pedestrians and bicyclists can currently cross US 70 at-grade at the East End Avenue, Pleasant Drive, and Lynn Road intersections. No pedestrian or bicycle facilities or crosswalks are proposed as part of the East End Connector project. Carr Road will be a grade-separated crossing of US 70. Pedestrians and bicyclists will not be able to cross at Lynn Road due to a median divider. Pedestrians and bicyclists will be able to cross at-grade at the Pleasant Drive intersection
- Mitigation:
    - Sidewalks and bicycle lanes over US 70 on the Carr Road overpass of US 70
    - Marked crosswalks and pedestrian crossing equipment at Pleasant Drive intersection (also listed under Through Traffic on Local Streets)
    - A grade-separated pedestrian crossing between Carr Road and Pleasant Drive
- Relationship to Environmental Justice Populations:
    - The Carr Road overpass and Pleasant Drive intersection will provide the only crossings of US 70 for pedestrian and bicycle traffic from the nearby neighborhoods. These neighborhoods are environmental justice communities. Ensuring that the project does not negatively impact the safety and convenience of pedestrians and bicyclists in these neighborhoods will improve the quality of life in these neighborhoods, improve safety, provide more exercise options for residents, and improve accessibility to local businesses for pedestrians, bicyclists, and transit users. This will help mitigate for the negative impact the project may have on these communities.

Pedestrian and Bicycle Facilities on Local Streets

- Impact: The East End Connector project includes several extensions or rebuilding of local streets such as East End Avenue, Miami Boulevard, Carr Road, Hoover Road, Lynn Road, Pleasant Drive, Muldee Street, Holloway Street, and Carolyn Drive. Other than the replacement of existing pedestrian facilities, no new pedestrian or bicycle facilities are included in the project. It is often more costly to retrofit local streets for pedestrian and bicycle facilities and funding is very limited. Residents of this area will not have adequate pedestrian and bicycle facilities for many years if the roads are built without these facilities.
- Mitigation:
    - The construction of complete streets with pedestrian and bicycle facilities should be part of the project. These project elements should be considered as part of the total project cost and should not require local matching funds for construction.
    - All local streets should include pedestrian and bicycle facilities as recommended in the DurhamWalks! Pedestrian Plan and Durham Comprehensive Bicycle Plan. The following cross-sections should be used:
    - East End Avenue extension and South Miami Boulevard:
        - Curb and gutter along both sides
        - Sidewalk on west-side only (away from the East End Connector)
        - Two 11' travel lanes
        - Two 4' striped bicycle lanes
        - Two 2' gutter pans
    - Lynn Road and Lynn Road extension:
        - Curb and gutter along both sides
        - Sidewalk on both sides

        - Two 11' travel lanes
        - Two 4' striped bicycle lanes
        - Two 2' gutter pans
    - Pleasant Drive
        - Curb and gutter along both sides
        - Sidewalk on both sides
        - Two 11' travel lanes
        - Two 4' striped bicycle lanes
        - Two 2' gutter pans
        - Pedestrian crossing signals and marked crosswalks at US 70 intersection.
    - Carr Road and Carr Road extension (including new bridge over US 70)
        - Curb and gutter along both sides
        - Sidewalk on both sides
        - Two 11' travel lanes
        - Two 4' striped bicycle lanes
        - Two 2' gutter pans
    - Hoover Road and Hoover Road extension
        - Curb and gutter along both sides
        - Sidewalk on east-side only (away from the East End Connector)
        - Two 11' travel lanes
        - Two 4' striped bicycle lanes
        - Two 2' gutter pans
    - Muldee Street and Muldee Street extension
        - Curb and gutter along both sides
        - Existing Muldee Street to Southerland Street: Sidewalk on east-side only (away from the East End Connector)
        - Muldee Street extension from Southerland Street to Hoover Road: Sidewalk on both sides
        - Two 11' travel lanes
        - Two 4' striped bicycle lanes
        - Two 2' gutter pans
    - NC 98/Holloway Street (North Miami Boulevard to U-4010 project limits)
        - Curb and gutter along both sides
        - Sidewalk on both sides
        - 14' wide outside lanes for bicycles to match U-4010
        - Pedestrian crossing signals and marked crosswalks at US 70 ramps
        - Landscaped medians as appropriate for traffic control and to serve as pedestrian refuges at crosswalks
- Relationship to Environmental Justice Populations:
    - All of the roads are located in neighborhoods that have higher than average minority and/or low-income populations. Ensuring that improvements to roads in these neighborhoods include bicycle and pedestrian accommodations as recommended by the local plans will improve the quality of life in these neighborhoods, improve safety, provide more exercise options for residents, and improve accessibility to local businesses for pedestrians, bicyclists, and transit users. This will help mitigate for the negative impact the project may have on these communities.

Lighting on local streets

- Impact: The East End Connector will include three bridges over local streets at Holloway Street, Rowena Avenue and Angier Avenue. Low light levels under these bridges may be unsafe for motorists and pedestrians and attract crime.
- Mitigation:
    - Provide lighting under these structures
- Relationship to Environmental Justice Populations:
    - These streets are in environmental justice communities. Crime prevention strategies, like adequate lighting, on Holloway Street, Rowena Avenue, and Angier Avenue will help mitigate for the negative impact the project may have on these communities.

Noise

- Impact: The East End Connector will result in a noise sensitive area north of the crossing of Rowena Avenue. Other areas that may be impacted by noise but do not meet the criteria of noise sensitive areas include the apartment buildings on Hardee Street near US 70, Calvary Baptist Church on US 70, and the south-side of Rowena Avenue.
- Mitigation:
    - Noise walls on the north-side of the East End Connector at Rowena Avenue are included.
    - Noise insulation in individual buildings affected by noise.
- Relationship to Environmental Justice Populations:
    - Rowena Avenue is in an area with a higher than average minority and low-income population. Ensuring that noise does not negatively impact the quality of life of these residents will help mitigate for the negative impact the project may have on this neighborhood.

C.R. Wood Park

- Impact: The East End Connector requires the use of approximately 0.08 acres of land from the extreme southeastern corner of the C.R. Wood Park
- Mitigation:
    - Minimize impacts to the park during construction
    - Minimize disturbance of vegetation and provide replacement vegetation for any unavoidable impacts.
    - Paving of the parking lot and/or basketball courts.
    - Provision of replacement land in exchange for the land taken from the park.
    - Improvements to the Hayestown Community Center within the park.
- Relationship to Environmental Justice Populations:
    - The C.R. Wood Park is a neighborhood park that serves the East End Avenue and Hayestown neighborhoods. These neighborhoods are environmental justice communities. Minimizing impacts to the park and mitigation for any unavoidable impacts will ensure that this resource continues to be an asset for the community and may help mitigate for negative impacts to these neighborhoods.

Railroad Crossings

- Impact: The East End Connector does not change the existing at-grade crossings of railroad tracks at Ellis Road or Glover Road. However, the design of the project could preclude future grade crossing closures or improvements in these areas.

- Mitigation:
  - The East End Connector bridge over the railroad tracks and Angier Avenue could be lengthened to provide clearance for the extension of Pettigrew Street (also listed under Economic Development).
  - An extension of Pettigrew Street will provide for better access to areas cut-off from Angier Avenue by the railroad tracks preventing the need for future railroad crossings and increasing options for crossing closure and/or grade separation projects at Ellis and Glover Roads.
- Relationship to Environmental Justice Populations:
  - Residents of the nearby neighborhoods, such as East End Avenue and Hayestown, travel across the railroad tracks at Ellis Road daily to access other parts of Durham. Ensuring that the project does not preclude future railroad crossing closures and/or grade separations will help improve safety for these residents.

Landscaping and Aesthetics

- Impact: The addition of a grade-separated freeway and large overpasses and interchanges will change the aesthetics in the project area. Grading and tree clearance is expected during construction. This area serves as a gateway to the City of Durham. Billboards currently exist along US 70 may be impacted by the construction of the project.
- Mitigation:
  - Adequate landscaping provided to shield the view of the roadway from neighborhoods.
  - Relocation of the City of Durham welcome monument and landscaping along US 70.
  - The provision of landscaped roundabouts at intersections (also listed under Through Traffic on Local Streets)
  - Aesthetic treatment of the noise wall at Rowena Avenue.
  - Aesthetic treatment of the railroad bridge over US 70 and Carr Road over US 70.
  - A sign control ordinance and/or major transportation corridor overlay district along the project similar to I-40.
- Relationship to Environmental Justice Populations:
  - Residents of the nearby neighborhoods will be the most impacted by the landscaping and change in aesthetics caused by the construction of the project. Mitigation for these visual impacts will help mitigate for the negative impact caused by the project to these nearby neighborhoods such as Hayestown and Rowena Avenue. These neighborhoods are environmental justice communities.

Relocations

- Impact: 17 residential relocations and 9 business relocations are estimated for the project. 6 residential relocations and 3 business relocations are minority or low-income impacts.
- Mitigation:
  - Ensure adequate compensation for property.
  - Ensure that residents and businesses understand the process and receive real estate and legal assistance.
  - Ensure that residences and businesses receive notification early, have adequate time to relocate, and receive compensation for moving and relocation costs.

    - Ensure that tenants are notified early and have adequate time to relocate.
    - Ensure that tenants receive compensation for moving and relocation costs.
    - Initiate right-of-way acquisition quickly after the FONSI to reduce uncertainty in the affected neighborhoods.
    - Acquired properties should be demolished and/or monitored so as not to attract crime and blight.
- Relationship to Environmental Justice Populations:
    - While the relocations are not disproportionately affecting minority and low-income businesses and residents, they are occurring within minority and low-income neighborhoods. Angier Avenue, Rowena Avenue, Carr Road, and US 70 are the most affected areas. As such, in addition to the mitigation measures for property owners listed above, particular attention should be provided to ensure that the relocations do not have a negative impact on neighborhood cohesiveness, safety, and aesthetics. Right-of-way acquisition should be initiated as soon as possible after the FONSI. These properties should be demolished and/or monitored so as not to attract crime and blight.

Emergency Vehicle Response Time

- Impact: Emergency vehicle response times may be affected by the construction of the project.
- Mitigation:
    - Ensure that emergency service providers can maintain acceptable response times and service levels during construction and after the project is complete.
- Relationship to Environmental Justice Populations:
    - The neighborhoods most likely to be impacted by an increase in emergency vehicle response time are East End Avenue, Hayestown, Lynn Road, and Carr Road. These are environmental justice communities.

Air Quality

- Impact: The project meets the national standards for CO and ozone as analyzed through the air quality conformity process. Only a qualitative analysis of Mobile Source Air Toxics is required for projects under 150,000 AADT like the East End Connector. As a result, project-specific health impacts of Mobile Source Air Toxics are not able to be predicted using available technical tools. Mobile Source Air Toxics are typically highest at congested signalized intersections due to idling and accelerations. Mobile Source Air Toxics are lower on higher speed roads without congestion. In addition, historically pollution levels have decreased despite increases in vehicle miles traveled due to improvements in vehicle technology.
- Mitigation:
    - Proper disposal of construction materials by the contractor
    - Dust control during construction.
    - Installation of an air quality monitor in the vicinity of the project to measure Mobile Source Air Toxics.
    - Since the exact impacts are not able to be assessed, appropriate mitigation strategies are not able to be identified.
- Relationship to Environmental Justice Populations:
    - The local air quality impacts of Mobile Source Air Toxics are not able to be determined in the EA. The project may or may not result in increased Mobile Source Air Toxics for the nearby neighborhoods.

Other Project Design Features Needed to Improve Traffic Safety and Operations

The following project design features may also be included in the City of Durham's comments on the project, but would not necessarily be considered mitigation measures for a particular project impact. Rather these design features are elements of the project that will help the East End Connector operate better, more efficiently, or more safely.

- The design of intersections and installation of traffic signals and signs
  - Intersections that operate at an acceptable or better level of service using roundabouts as opposed to traffic signals should be built using roundabouts. NCDOT should initiate a study to evaluate the effectiveness of roundabouts at Lynn Road and Ivey Wood Lane, US 70 Off-ramp and Hoover Road Extension and Carr Road, Carr Road and S. Miami Blvd., and S. Miami Blvd. and East End Avenue Extension
  - The new intersection of Lynn Road and Pleasant Drive on the northeast-side of US 70 will not operate at an acceptable level of service. Further measures need to be identified to improve traffic flow through this intersection.
- Lighting of the East End Connector
  - Adequate lighting should be provided at the interchanges of the East End Connector and NC 147, US 70, and Holloway Street to improve safety.
  - If lighting is not provided, the conduit and right-of-way needed to add lighting at a later date should be included in the design.
- The capacity and design of the proposed freeway
  - Reducing the cost of the project through design exceptions should be pursued as long as the overall integrity and function of the project is maintained.
- The impact on utilities
  - Power lines, utility poles, gas lines, water lines, and sewer lines impacted by the project will require relocation or modification

Appendix E: Section 4(f) *de minimis* Impact Documentation

DURHAM
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CITY OF DURHAM
City Manager's Office
101 CITY HALL PLAZA | DURHAM, NC 27701
919.560.4222 | F 919.560.4949

www.durhamnc.gov

August 28, 2009

Ms. Leza Wright Mundt, Project Planning Engineer
NCDOT Project Development and Environmental Analysis Branch
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

RE: Durham East End Connector, C.R. Wood Park Impact

Dear Ms. Mundt:

On June 24, 2009, Beth Timson, Assistant Director for Development, Parks & Recreation, Mark Ahrendsen, Transportation Manager, and Ellen Beckmann, Transportation Planner, Public Works met with you to discuss the probable impact of the proposed East End Connector highway project on the C. R. Wood Park. As the design for the roadway has progressed, it became apparent that a small amount of right-of-way will be needed from C. R. Wood Park for the East End Connector project. The long-planned project will provide a high-speed connection between from the Durham Freeway and US 70, linking the two arterials with I-85.

The affected area within the park is located in its extreme southeast corner, adjacent to the power-line easement. Based on the current design, the area that will be converted to transportation use is estimated to be 3,774 square feet in size, or approximately 0.08 acre. The attached map illustrates the location of the impacted area within the park. According to Ms. Timson, the land is used as a buffer for the active recreational uses on the northern side of the park, and there are no plans to develop it for recreational purposes.

As a recreational facility owned by the City of Durham, C. R. Wood Park is afforded protection under Section 4(f) of the Department of Transportation Act, as amended (49 USC 303 and 23 USC 138), and Section 6009(a) of SAFETEA-LU (23 CFR 774). Provisions in SAFETEA-LU allow the Federal Highway Administration (FHWA) to make a finding of a *de minimis* impact to a Section 4(f) resource if certain conditions are met. These conditions include:

1. The transportation use of the park, together with any impact, avoidance, minimization, and mitigation or enhancement measures do not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f).

Good Things are Happening in Durham

2. The official(s) with jurisdiction over the property are informed of FHWA's intent to make the *de minimis* impact finding, based on his/her written concurrence that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f).

3. The public has been afforded an opportunity to review and comment on the affects of the project on the proposed activities, features, and attributes of the Section 4(f) resource. (This can be accomplished through the project development process underway for the East End Connector.)

The sale of the 0.08 acres of City property has not yet gone to the Durham City Council, and will ultimately need to do so. However, with assurances that NCDOT will provide the following mitigations to the reasonable satisfaction of the City Manager, the City of Durham will be able to concur that the proposed East End Connector will not adversely affect the activities, features, and attributes that make the park a significant recreational resource and qualify it for protection under Section 4(f):

1. During the project's final design phase, the NCDOT will make every effort to further minimize the use of land from the C. R. Wood Park.

2. NCDOT will provide reasonable replacement landscaping as a buffer between the park and the East End Connector, and will consider paving the existing parking lot and/or resurfacing the tennis courts, or providing something of similar value to the park. Alternatively, the monetary equivalent of such mitigation could be provided to the City to carry out these activities.

I will look forward to receiving a letter or other written communication providing assurance that the mitigations referenced above will be incorporated into the East End Connector Project. The City of Durham has been informed that, based on this concurrence, the FHWA intends to make a de minimis finding regarding impacts to the C.R. Wood Park, thus satisfying the requirements of Section 4(f).

Sincerely,

Theodore L. Voorhees

Theodore L. Voorhees
Deputy City Manager

/tlv

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1869
CITY OF MEDICINE

CITY OF DURHAM | NORTH CAROLINA

Date: December 15, 2010

To: Thomas J. Bonfield, City Manager

Through: Theodore L. Voorhees, Deputy City Manager

From: Joel Reitzer, Director, General Services Department
Rhonda B. Parker, Director, Department of Parks and Recreation
David Fleischer, Senior Real Estate Officer, General Services Department
Beth Timson, Senior Planner, Department of Parks and Recreation

Subject: Exchange of Property between the City and the NC Department of Transportation at C. R. Wood Park

Executive Summary

The North Carolina Department of Transportation (NCDOT) is requesting that the City exchange .3 acres of land in C. R. Wood Park for 1.33 acres of land adjacent to the park in a different location. The smaller section is needed for the right-of-way for the proposed Alternative 3 route of the East End Connector. The land for the right-of-way is not essential to the park's function, and NCDOT is preparing the survey and assessments necessary to submit the land exchange to the National Park Service for its consideration since the park is encumbered by a Land and Water Conservation Fund (LWCF) grant.

The property to be transferred to the City is not yet owned by the NCDOT. This proposed property transfer will close once NCDOT actually takes possession of their parcel, anticipated to be in the fall of 2012.

Recommendation

The General Services Department and Parks and Recreation Department recommend that the City Council, 1) pursuant to G.S. 160A-274, which allows exchange of property between governmental units, authorize the exchange of approximately .3 acres of City-Owned property (a portion of Parcel ID # 131048) for approximately 1.33 acres of land owned by the North Carolina Department of Transportation (a portion of Parcel ID # 131023), and 2) authorize the City Manager or Mayor to convey the City-owned property by non-warranty deed.

Background

The City of Durham, in partnership with the NCDOT, proposes to construct the 3.6 mile East End Connector, a 6-lane freeway between NC 147 and US 70. The freeway connector has a long history, first appearing in Durham's transportation plans in 1959. It was identified as the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization's top transportation priority in 2000. The East End Connector will allow motorists traveling south-north from I-40 and the Research Triangle Park area to access I-85 north of Durham without traveling on local Durham

streets. The NCDOT prepared an Environmental Assessment for the East End Connector project (*East End Connector from NC 147 to US 70 north of NC 98, Durham, Durham County*, Administrative Action, Environmental Assessment, FHWA, December 16, 2009). Two public hearings have been held.

NCDOT evaluated four alternative corridors for the freeway. Environmental surveys were conducted for each alternative. These included surveys for threatened and endangered species habitat, wetlands and streams, properties and sites potentially eligible for the National Register of Historic Places, community impacts, cultural resources, air and noise impacts, and other environmental concerns. Alternative 3 was selected by the City Council as the preferred alternative because it has the least overall impact to the communities in the study area, including the fewest residential and business displacements and second-lowest impacts to wetlands and streams.

A portion of C.R. Wood Park is located within the detailed study corridor of the preferred alternative, Alternative 3, for the East End Connector. NCDOT initially believed the park itself could be avoided; however, as detailed design on the roadway progressed, using more detailed topography survey data, it became apparent that a minor land acquisition from C.R. Wood Park would be unavoidable. Minor acquisition of land is necessary to accommodate the earthen slopes that will support the portion of the freeway approaching the bridge over the North Carolina Railroad and Angier Avenue, both of which are located just south of C.R. Wood Park. The slopes are constructed at a 2:1 ratio to prevent erosion and allow vegetative growth. Appropriate drainage structures will be provided at the toe of the slope to ensure that runoff from the slope is contained within NCDOT right-of-way. The NCDOT will install a fence to prevent park patrons from entry into the freeway right-of-way. Landscaping will be installed along the fence to screen the view and further discourage entry from the park to the freeway right-of-way.

The parcel proposed for the exchange is owned by a willing seller, and NCDOT proposes to demolish the house currently existing on the site and re-vegetating the site before turning over the property to the City.

Issues/Analysis

DPR has taken the planned East End Connector into account in the development of the C.R. Wood Park. Approximately five acres of the 17.38 acre park is developed, all in the northern and western portions of the park. The southeastern side of the park was left undeveloped and wooded to serve as a visual and auditory buffer to the freeway from the active recreational areas, once the freeway is constructed. Future development plans for the C.R. Wood Park will be unaffected by the proposed property exchange, and DPR prefers a vegetated slope to a concrete retaining wall as the park's boundary. The proposed new parcel in fact has the potential to allow a better access to the park than currently exists.

C. R. Wood Park is encumbered by a past LWCF grant, thus any reduction of the property that is contained in the park parcel requires mitigation (replacement by an equivalent parcel) and approval by the National Park Service. NCDOT is offering to mitigate the .3 acre section of property the roadway right-of-way requires with a 1.33 acre parcel that is adjacent to the park a bit further west (see attached maps).

Alternatives

Alternatives to avoid using parkland were considered, including construction of retaining walls and realigning the freeway. Designs that incorporated a retaining wall were prepared and

evaluated. The retaining wall option was determined to be undesirable because it did not eliminate the need for a permanent access easement on park property to allow vehicular access to the wall for maintenance. Also, the wall would be 20 feet high at its highest point. It was concluded that given its relative isolation in C.R. Wood Park, it would be an attractive nuisance, attracting graffiti and other vandalism, in addition to being inconsistent with the natural woodland setting of the eastern side of the park.

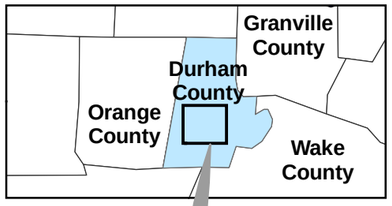
Realigning the freeway with a shift to the east also was evaluated. However, the impacted area is located in a tangent, or straight section between two interchanges. Moving the roadway tangent shifts both interchanges, substantially altering their design and increasing their impacts, particularly to wetlands, streams, and businesses along US 70. It also would increase the number of electrical transmission towers on an adjacent utility easement that would require relocation, substantially increasing the cost of the project.

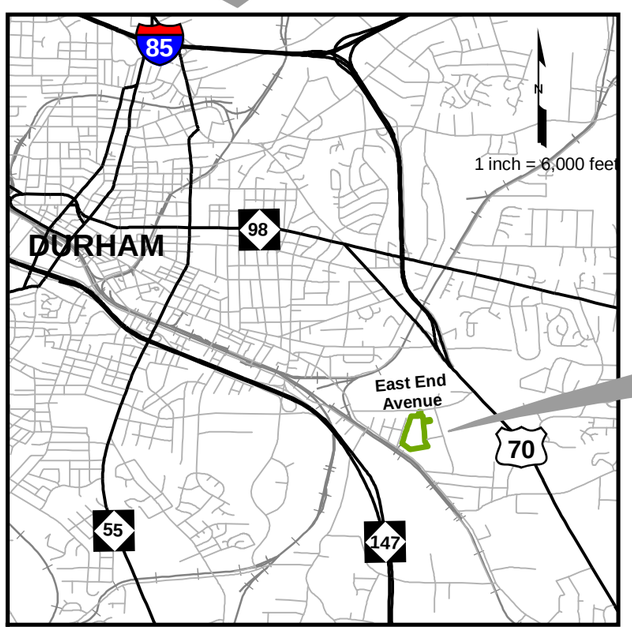
Financial Impact
There is no financial impact to the City from this proposed property exchange.

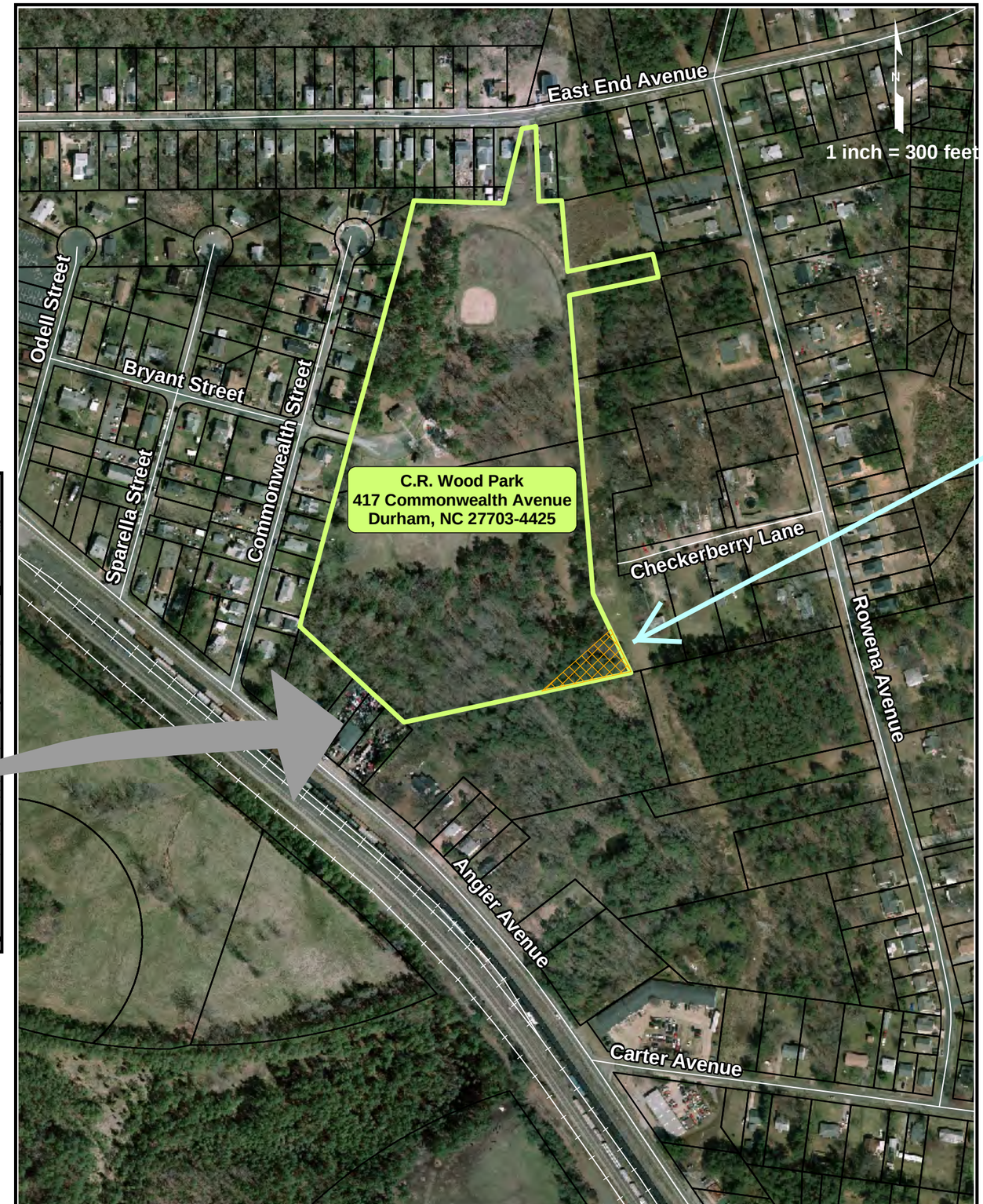
SDBE Summary
There is no SDBE impact from this proposed property exchange.

Attachment: 3 maps

Figure 1 of the Durham City Manager Letter



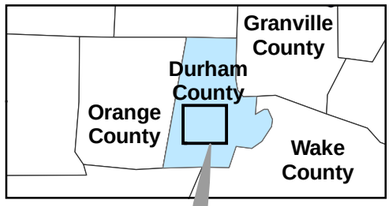


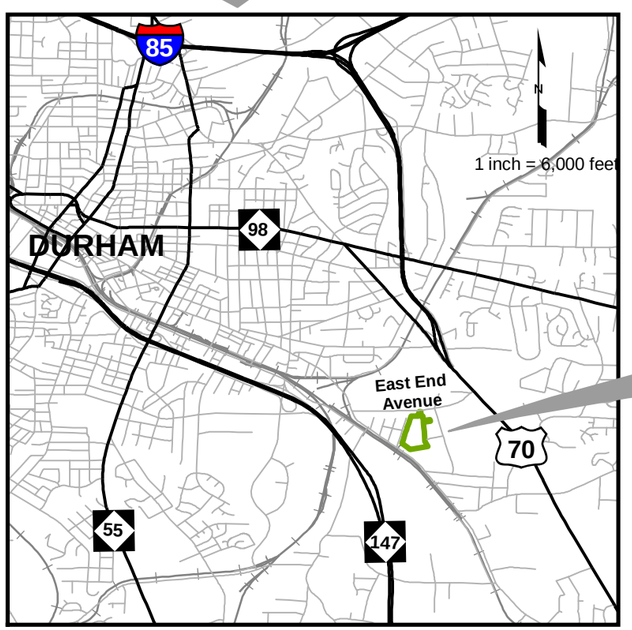


C.R.Wood Park Location

.3 Acre Portion of C.R. Wood Park to be transferred to NC DOT

DURHAM NORTH CAROLINA	FIGURE 2





Proposed Replacement Land, C.R.Wood Park

1.33 Acres of Property owned by NC DOT to be transferred to City for addition to C.R. Wood Park.

DURHAM NORTH CAROLINA	FIGURE 3

United States Department of the Interior

NATIONAL PARK SERVICE
Southeast Regional Office
Atlanta Federal Center
1924 Building
100 Alabama St., S.W.
Atlanta, Georgia 30303

L3219(SERO-RPB)
37-00118

February 11, 2011

Ms. Carol Tingley
Alternate State Liaison Officer
Department of Environment and
Natural Resources
Division of Parks and Recreation
1615 Mail Service Center
Raleigh, North Carolina 27699-1615

Dear Ms. Tingley:

We have reviewed and approved the State's request for a partial conversion of .30± of an acre of land at Durham Special Parks, specifically C. R. Wood Park, which received Land and Water Conservation Fund (L&WCF) development assistance under project number 37-00118 in May 1968. Approximately, 17.08+/- acres will remain unconverted and available for outdoor recreation use. According to the State, the converted property will be used as a right-of-way for a roadway. Recreation facilities and opportunities developed at C. R. Wood Park with L&WCF assistance included, but were not limited to, the development of sports and playfields, picnic areas and a community center.

The documentation that the State submitted indicates that the replacement property totals 1.33+/- of an acre of land and is also located in Durham, North Carolina. The park name of C. R. Wood Park will add passive recreational facilities. In addition, the appraisal for the converted property in the amount of $3,250.00; and the appraisal for the replacement property in the amount of $11,100.00 were approved by the State's Review Appraiser and concurred with by the Alternate State Liaison Officer.

Enclosed is your copy of the signed Amendment to the Project Agreement approving the conversion. Please submit an "as-built" site plan for the replacement property once any development has been completed. If you have any questions, please do not hesitate to contact me at 404-507-5687 or by email at lydia_williams@nps.gov.

Sincerely,

Lydia J. Williams

Lydia J. Williams
Acting Chief
Recreation Programs Branch
Southeast Region

Enclosure

cc
Mr. John Poole
Grants Program Manager

TAKE PRIDE® IN AMERICA

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

STATE North Carolina

Project Amendment No. 8

AMENDMENT TO PROJECT AGREEMENT

(OMB No 1024-0033 August 31, 2010)

THIS AMENDMENT To Project Agreement No. 37-00118 is hereby made and agreed upon by the United States of America, acting through the Director of the National Park Service and by the State of North Carolina pursuant to the Land and Water Conservation Fund Act of 1965, 78 Stat. 897 (1964).

The State and the United States, in mutual consideration of the promises made herein and in the agreement of which this is an amendment, do promise as follows:

That the above mentioned agreement is amended by adding the following:

In accordance with Section 6(f)(3), DENR request to delete .30 acres valued at $3,250 and to replace the converted land with 1.33 acres valued at $11,100.

In all other respects the agreement of which this is an amendment, and the plans and specifications relevant thereto, shall remain in full force and effect. In witness thereof the parties hereto have executed this amendment as of the date entered below.

THE UNITED STATES OF AMERICA

By Lydia J. Williams
(Signature)
Acting Chief
Recreation Programs Branch
(Title)

National Park Service
United States Department of the Interior

Date 2/11/11

STATE

North Carolina
(State)

By Carol Tingley
(Signature)

Carol Tingley
(Name)

Alternate State Liaison Officer
(Title)

Estimated Burden Statement: The public reporting burden for this collection of information is estimated to average 3 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form should be sent to the National Park Service, State and Local Assistance Programs Division, 1849 C Street NW, Washington, DC 20240.

Paperwork Reduction Act Statement: This form is necessary to provide data input into an NPS project database which provides timely data on projects funded over the life of the program. Such data is used to monitor project progress and to analyze program trends. A Federal Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Any comments on the burden estimate or other aspects of this collection of information may be addressed to the National Park Service, State and Local Assistance Programs Division, 1849 C Street NW, Washington, DC 20240.

NPS 10-902A (July 1981)