

Type III Categorical Exclusion Action Classification Form

STIP Project No.	<u>I-6016</u>
WBS Element	<u>47968.1.1</u>
Federal Project No.	<u>N/A</u>

A. Project Description:

State Transportation Improvement Program (STIP) Project No. I-6016 proposes to improve the I-85/I-485 interchange. The project is in western Mecklenburg County, northwest of Charlotte Douglas International Airport. A vicinity map is located in **Appendix A, Figure 1**.

Under existing conditions, the exit ramps from I-485 Inner (northbound) and Outer (southbound) to southbound¹ I-85 merge into a single three-lane on-ramp. This on-ramp narrows to one lane by the time traffic enters I-85, about 1,600 feet west of the merge and 1,300 feet east of the Sam Wilson Road overpass. The transition from three lanes to one lane increases traffic congestion, vehicle conflicts, and prevents travelers from maintaining speed to safely merge onto I-85 South particularly during peak hours.

The project proposes to build a new two-lane collector-distributor (C-D) road allowing vehicles to exit I-485 Inner and Outer to I-85 South with more room to improve traffic flow. The C-D road will parallel I-85 South and pass under a new grade separated bridge on Sam Wilson Road between the existing I-85 grade separated bridge and existing interchange ramps. The existing on ramp from Sam Wilson Road to I-85 South will be realigned so that traffic will enter the C-D road. Traffic from the C-D road will enter I-85 about one-half mile west of Sam Wilson Road. The new C-D road will be two lanes as it merges back into I-85 South and then will narrow to one lane that will continue along I-85 South as an auxiliary lane that ties into the weigh station off ramp.

Roadway improvements are not proposed on northbound I-85; however a noise wall is proposed along the I-85 North exit ramp to Sam Wilson Road at the residential area south of N. Lakebrook Road and west of Oakland Terrace.

B. Description of Need and Purpose:

The identified need for the project is increased traffic congestion at the I-485/I-85 interchange west of Charlotte, especially along the movement from I-485 to I-85 southbound. A Traffic Simulation Analysis was completed in May 2023 which shows substantial delays and inadequate Level of Service (LOS)*. During the PM Peak for I-85 southbound, the current LOS is F beginning around 3PM and continuing through 7PM. The congestion also continues back to the I-485 Outer and Inner ramps. During the PM Peak hours, this congestion causes between 609.2 hours and 1,055.0 hours of total delays based on vehicles making a complete trip through the project corridor.

The purpose of this project is to improve the traffic flow, reduce travel delays, and increase the LOS along the busy I-485 ramp to I-85 southbound. The project is consistent with the North Carolina Strategic Highway Corridor vision, which is to create a network of safe, reliable, efficient highways throughout the state of North Carolina.

*Level of Service is a measure of drivers' experience on the road. Sections of roadway are scored based on speed, traffic delay, safety, and maneuverability.

¹ Although I-85 runs west to east in the project area, the highway is signed as either south (toward South Carolina) or north (toward Greensboro), and those directional designations are used in this report.

C. Categorical Exclusion Action Classification:

Type III

D. Proposed Improvements:

Type III

E. Special Project Information:

Cost Estimate:

The 2024-2033 STIP allocated preliminary engineering funds for this project. On November 2, 2023, the project received funding from the N.C. House Speaker's discretionary funds to advance the project from the design stage to construction in Fall 2025.

The estimated cost of the proposed project is as follows:

Right of Way	\$2,000,000.00
Construction	<u>\$43,000,000.00</u>
Total Project Cost	\$45,000,000.00

Annual Average Daily Traffic (AADT):

Roadway	Existing AADT (2024)	Projected AADT (2030)
I-85	151,400	158,125
I-485 to I-85 SB Ramp	32,800	34,325
SR 1625 (Sam Wilson Road)	17,350	18,450
Sam Wilson to I-85 SB On Ramp	4,675	4,800

Alternative Discussion:

NCDOT considered two build concepts in the project scoping phase (Concept 1B-1 and Concept 1B-2). The difference between these two concepts is how the collector-distributor (C-D) road carrying the I-485 off ramp traffic would travel under Sam Wilson Road. The construction of a new, longer Sam Wilson Road bridge over I-85 and the proposed C-D road was considered in Concept 1B-2. This concept would be more costly than Concept 1B-1 and would involve complicated construction logistics which would result in additional traffic impacts to I-85 during construction. Therefore, Concept 1B-2 was not carried forward into project development or NEPA analysis.

Two alternatives were considered during NEPA analysis: No build and Concept 1B-1.

No Build:

- No improvements would be made and there would be no construction impacts to the environment.

Concept 1B-1:

This concept proposes the following improvements:

- Widen the existing I-485 off ramp bridge over Sam Wilson Road off ramp.
- Construct a new C-D road parallel to I-85 South that passes under Sam Wilson Road via a new grade separation bridge to be constructed between the existing I-85 grade separation bridge and existing interchange ramps.
- Relocate the Sam Wilson Road to I-85 South on ramp to tie into C-D road.
- Widen along I-85 South as necessary for merging/traffic operations.

Although the no build alternative has no environmental impacts, it does not satisfy the purpose and need of the project. Concept 1B-1 is constructable and satisfies the purpose and need of the project, so it is identified as the preferred alternative.

Human Environment

Community Studies:

A Short Form Community Impact Assessment (CIA) was prepared in December 2021 and includes the following recommendations:

- The NCDOT Project Manager should shorten the durations of any road and ramp closures to the extent possible, so as to minimize impacts on business operations, EMS response times, and access to churches and schools.
 - The Sam Wilson Road bridge over I-85 is anticipated to be closed for approximately one year during construction. Additional details are provided below in response to question 23. Temporary interstate lane and ramp closures may be necessary, but the duration of these will be minimal.
- The NCDOT Project Manager should coordinate with NCDOT Public Involvement about the need for a project website, public meetings, and small group meetings to inform residents and business owners about detours and higher traffic volumes.
 - Public outreach efforts included a project website, postcards, phone calls and emails. Additional details are provided below in the Public Involvement section.
- The NCDOT Project Manager should coordinate with the owner of Shell regarding permanent access. Accommodating U turns at or before Performance Road may minimize effects.
 - Improvements along Sam Wilson Road will not alter the existing access to the Shell gas station.
- The NCDOT Project Manager should arrange for wayfinding directional signage to be placed on I-85 and I-485 informing motorists as to how they can reach Sam Wilson Road if the north side ramps (to/from southbound I-85) at the I-85/Sam Wilson Road interchange are closed.
 - **(Commitment – See Green Sheet)**
- The NCDOT Project Manager should communicate with EMS providers prior to any road closures so that they can prepare accordingly.
 - **(Commitment – See Green Sheet)**
- The NCDOT Project Manager should coordinate construction activities with Charlotte-Mecklenburg Schools staff to avoid travel time delays during arrival and dismissal times of the school day. In addition, the local school transportation official recommended contacting local area school principals so that they are kept informed of the project.
 - **(Commitment – See Green Sheet)**
- Because notable Spanish, Other Indo-European, and Asian/Pacific language-speaking populations are located in the project vicinity, the NCDOT Project Manager should consult with NCDOT Public Involvement to determine appropriate measures assuring meaningful public involvement to satisfy the requirements of Executive Order 12898.
 - Since LEP and LA thresholds did not meet the requirements for a translator, NCDOT Public Involvement determined one was not warranted at the public information meeting. However, a bilingual postcard was mailed to a Hispanic church due to its proximity to the project.

Noise:

Ambient noise measurements were performed on September 19, 2022 and the results ranged from approximately 60 dB(A) Leq to 79 dB(A) Leq as documented in the Design Noise Report (December 2023). One (1) traffic noise abatement measure assessed in this traffic noise analysis preliminarily meets NCDOT Policy feasibility and reasonableness criteria and is considered likely to be installed for the Improvements to the I-485/I-85 Interchange, I-6016 project. Additional information is provided below in response to question 27.

Agency and Public Involvement:

NCDOT sought input from residents/property owners, businesses and non-profits within the study area and along the proposed detour routes. In addition, local officials and agencies that may have a vested interest in the project area were notified. Key components of the engagement efforts implemented during project development are summarized below.

Postcards – A postcard was mailed on January 23, 2024 to 569 residents, businesses, and non-profits located near the project corridor and along the detour routes to notify them of the public meeting. The postcard contained a link to the project webpage, described below.

Website - A project webpage was established on NCDOT's website: [NCDOT: I-85/I-485 Interchange Improvements, West of Charlotte](#). The webpage provides a summary of the planning process, proposed improvements, detour routes and downloadable copies of the public meeting maps.

Public Meeting – A public meeting was held at Mount Camel Baptist Church between 4-7 PM on February 8, 2024. In addition to the postcards described above, the public was notified about the meeting through advertisements placed in the local print and on-line media. NCDOT Communications Office coordinated with WBTV, WJZ, QCNews, WJZY, Spectrum News and neighborhood TV to provide coverage about the project and public meeting. Approximately 43 people attended the meeting.

Local Officials Informational Meeting – A Local Officials Informational Meeting was held the afternoon of the public meeting.

Business Outreach – A business outreach plan was developed due to the high concentration of businesses within the corridor. A total of 56 local businesses were contacted via phone and/or email. A virtual small group meeting with local business owners was held on February 12, 2024.

Public Comments – Public comments were accepted until February 27, 2024. A total of 7 comments were received from the public. In addition to these written and verbal comments, the local volunteer fire department expressed concerns about their emergency response times on the northern side of I-85 while Sam Wilson Road bridge is closed during construction. Coordination is ongoing to address these concerns. (**Commitment – See Green Sheet**)

Agency Involvement – Email coordination occurred with external agencies with potential resources within the project study area. Comments were received from the following agencies:

- NC Department Division of Water Resources (NCDWR) (January 29, 2024)
- Federal Highway Administration (FHWA) (January 31, 2024)
- NC Wildlife Resources Commission (NCWRC) (January 31, 2024)
- US Army Corps of Engineers (USACE) (February 2, 2024)

Right of Way Impacts:

Additional right of way will be necessary for the construction and maintenance of the proposed project, but no relocations are anticipated.

Cultural Resources:

Tribal Coordination – Coordination letters/emails were sent to the Cherokee Nation and the Catawba Indian Nation on January 9, 2024 with a response requested by February 9, 2024. The Cherokee Nation provided a response on February 5, 2024 indicating they do not foresee the project impacting Cherokee Resources at this time. A response was not received by the Catawba Indian Nation, so a follow up letter was sent through certified mail and email on February 26, 2024. To date, a response has not been received.

Historic Architecture – The project was reviewed by a NCDOT architectural historian. Following desktop review of the project area, a survey required form was issued on December 19, 2021 due

to a number of structures over 50 years of age within the Area of Potential Effect (APE). On January 12, 2022, a survey of the APE was conducted by NCDOT architectural historian and concluded there are no properties which warrant further evaluation for National Register eligibility. A finding of "No Historic Properties Present" is deemed appropriate. This project was evaluated to comply with Section 106 of the National Historic Preservation Act and NC GS 121 (12)a. The signed Survey Required and survey forms are presented in **Appendix B**. As of March 26, 2024, the conditions have not changed.

Archaeological Resources – The project was reviewed by a NCDOT Archaeologist and a finding of "Survey Required" was determined on November 16, 2023. There are no known existing National Register of Historic Places (NRHP) eligible archaeological sites within the project APE, however the project includes proposed right of way within Mt. Zion Cemetery. The cultural background review established that the cemetery contains between 26 and 49 marked graves and additional unmarked grave locations. An archaeological ground penetrating radar (GPR) survey was recommended. The signed Survey Required Form is presented in **Appendix B**. Additional details are provided in response to question 13 below. (**Commitment – See Green Sheet**)

Natural Environment

Water Resources:

The study area is part of the Catawba River Basin (United States Geological Survey [USGS] Hydrologic Unit [HUC] 03050101). Eleven streams, three wetlands and one surface water were identified in the study area.

There are no designated Outstanding Resource Waters (ORW), High-Quality Waters (HQW), or Water Supply I or II Watersheds (WS-I or WS-II) within the study area or within 1.0 mile downstream of the study area. The North Carolina 2020 Final 303(d) list of impaired waters identifies the Catawba River within 1.0 mile downstream of the study area as an impaired water due to Polychlorinated biphenyl (PCB) Fish Tissue Advisory.

Streamside riparian zones within the study area are not protected under provisions of any riparian buffer rules administered by NCDWR. No streams have been designated by the USACE as a Navigable Water under Section 10 of the Rivers and Harbors Act.

Jurisdictional Impacts:

Impacts to three unnamed tributaries to the Catawba River are anticipated, but impacts to wetlands have been avoided. The total impacts to tributaries include approximately 180 linear feet of permanent impacts and 140 linear feet of temporary impacts.

Floodplain:

A floodplain is present within the project study area through the I-85 and I-485 system to system interchange, however the proposed roadway improvements avoid impacts to the floodplain.

Protected Species:

A Natural Resources Technical Report (NRTR) was prepared in November 2021 which evaluated potential impacts to federally protected species. It was determined there would be no effect to four species: Smooth coneflower (*Echinacea laevigata* - Endangered), Schweinitz's sunflower (*Helianthus schweinitzii* – Endangered), Michaux's sumac (*Rhus michauxii* – Endangered), and the Bald Eagle (*Haliaeetus leucocephalus* – protected under the Bald and Golden Eagle Protection Act). The biological conclusion for Northern long-eared bat (*Myotis septentrionalis* – Endangered) and Carolina heelsplitter (*Lasmigona decorata* – Endangered) were unresolved in the NRTR. An updated protected species list was retrieved from US Fish and Wildlife (USFWS) Information for Planning and Consultation (IPaC) which indicated the Northern long-eared bat and Carolina heelsplitter are no longer listed within the project area, however the Tricolored bat (*Perimyotis*

subflavus) is proposed for listing as endangered. A memo to update the species list was prepared by NCDOT Environmental Coordination and Permitting (ECAP) on January 10, 2024.

GeoEnvironmental:

A GeoEnvironmental Phase 1 Report prepared on April 28, 2022, and right of way plans will be reviewed to determine if a Phase 2 assessment is needed. Additional details are provided in response to question 14 below.

Anticipated Permits or Consultation Requirements:

The proposed project has been designated as a Categorical Exclusion (CE) for the purposes of National Environmental Policy Act (NEPA) documentation. A USACE Section 404 Regional General Permit, and corresponding NC 401 Water Quality Certification, will be applicable for anticipated impacts to "Waters of the United States" resulting from the proposed project.

Interaction with other nearby projects:

- **B-6051 – US 29/74 replace bridge 350091 over Catawba River**
Project B-6051 is located approximately 1.5 miles southwest from the center of I-6016 and is expected to go to construction in 2024. Improvements for B-6051 overlap the I-6016 western detour route. Project teams for B-6051 and I-6016 will continue to coordinate regularly.
- **I-5719 and U-5800 – I-85 Widening from US 321 to NC 273**
Project I-5719 and U-5800 is a Design Build project located approximately 1.25 miles west of I-6016 and is anticipated be let on February 18, 2025. The construction schedule could overlap with I-6016.
- **Square Grooves Development**
The Keith Corporation proposes to develop 1,530,000 SF of warehousing. The proposed site is located east of Moores Chapel Road between I-85 and Wilkinson Boulevard in Charlotte, NC. Site development includes realignment of Moores Chapel Road to tie into Old Dowd Road and the removal of Moores Chapel Loop which is anticipated to occur in 2024. Traffic volumes for the development are included in I-6016 detour traffic analysis.
- **I-85 Southbound Weigh station**
A truck weigh station is located along I-85 South immediately east of I-6016. The project team has been coordinating with the NC State Highway Patrol on potential options to address congestion related to trucks entering and exiting the weigh station.

F. Project Impact Criteria Checklists:

F3. Type III Actions				
<p>Proposed improvement(s) that fit Type III Actions (NCDOT-FHWA CE Programmatic Agreement, Appendix C) answer questions below.</p> <ul style="list-style-type: none"> • <i>NCDOT will certify the Categorical Exclusion for FHWA approval.</i> • <i>If any questions are marked "Yes" then additional information will be required for those questions in Section G.</i> 				
			Yes	No
1	Does the project involve potential effects to Threatened or Endangered species listed by the US Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGEPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5	Does the project involve substantial residential or commercial displacements or right of way acquisition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6	Does the project include a determination under Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7	Is a project-level analysis for direct, indirect, or cumulative effects required based on the NCDOT community studies screening tool?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8	Does the project impact anadromous fish spawning waters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9	Does the project impact waters classified as Outstanding Resource Waters (ORW), High Quality Waters (HQW), Water Supply Watershed Critical Areas, 303(d)-listed impaired water bodies, buffer rules, or submerged aquatic vegetation (SAV)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10	Does the project impact Waters of the United States in any of the designated mountain trout streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
11	Does the project require a US Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
12	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
13	Does the project include Section 106 of the National Historic Preservation Act (NHPA) effects determination other than a No Effect, including archaeological remains?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
14	Does the project involve GeoEnvironmental Sites of Concerns such as gas stations, dry cleaners, landfills, etc.?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
15	Does the project require work encroaching and adversely effecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
16	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Areas of Environmental Concern (AEC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

<u>Type III Actions (continued)</u>		Yes	No
17	Does the project require a US Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	Does the project involve Coastal Barrier Resource Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project impact federal lands (e.g. US Forest Service (USFS), US Fish and Wildlife Service (USFWS), etc.) or Tribal (Trust) Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	Does the project involve any changes in access control or the modification or construction of an interchange on an interstate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
22	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23	Will maintenance of traffic cause substantial disruption?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
24	Is the project inconsistent with the STIP, and where applicable, the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, TVA, Tribal Lands, or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
26	Does the project involve Federal Emergency Management Act (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Is the project considered a Type I under the NCDOT's Noise Policy?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
28	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29	Is the project in an Air Quality non-attainment or maintenance area for a National Ambient Air Quality Standard (NAAQS)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
30	Are there other issues that arose during the project development process that affected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

G. Additional Documentation as Required from Section F (ONLY for questions marked 'Yes'):

Response to Question 1 – On September 14, 2022, the U.S. Fish and Wildlife Service announced a proposal to list the tricolored bat (*Perimyotis subflavus* - PESU) as endangered under the Endangered Species Act. If listed, NCDOT will resolve Section 7 prior to let as appropriate. Construction activities for this project will not take place until NCDOT (in coordination with our lead federal agency) satisfies Endangered Species Act compliance for PESU.

Response to Question 13 – There are no known existing NRHP eligible archaeological sites within the project APE, however the project includes proposed right of way within Mt. Zion Cemetery. The cultural background review established that the cemetery contains between 26 and 49 marked graves and additional unmarked grave locations. An archaeological ground penetrating radar (GPR) survey was recommended.

The initial reconnaissance by the archaeological consulting firm hired to perform GPR survey confirmed the presence of approximately 15 gravesites in the presently defined APE. GPR survey of Mt Zion Cemetery was performed the week of February 5, 2024. Following GPR interpretation, the location of subsurface anomalies was provided to the design team and plans were revised in an effort to avoid impacts to the cemetery resource. If the cemetery cannot be avoided, per state law GS65, NCDOT right of way may be responsible for the removal and relocation of the graves. Consultation with the Office of State Archaeology (OSA) will be conducted by the NCDOT Archaeology Unit on the resources identified. **(Commitment – See Green Sheet)**

Response to Question 14 – The GeoEnvironmental Phase 1 Report prepared on April 28, 2022, identified four (4) sites of concern within the project area.

- Ramsey Products – 3701 Performance Road, Charlotte, NC
- Mc Food Mart, Shell – 2624 Sam Wilson Road, Charlotte, NC
- Loves Travel Center 714 AKA Phillips 66 021647 – 2627 Sam Wilson Road, Charlotte, NC
- Abandoned Gas Station – 2900 Sam Wilson Road, Charlotte, NC

Sites of concern should be reviewed by the NCDOT GeoEnvironmental Section once the Final Right of Way plans are complete to determine if Phase II Investigations are necessary.

Response to Question 21 – Full control of access will be maintained along I-85. The design of two existing interchanges will be modified: I-485 Inner and Outer exit ramps to I-85 and I-85 at Sam Wilson Road. A detailed analysis is documented in the Interchange Access Request (IAR) prepared on June 21, 2023.

Response to Question 23 – As the project developed, it was determined that a temporary closure of the Sam Wilson Road bridge over I-85 is necessary to construct a new bridge to the north of the existing bridge over the new C-D road. The detour is anticipated to be in place for one year.

Two detour routes were developed for when the Sam Wilson bridge over I-85 is closed for construction as seen in **Appendix A, Figure 2**. Impacts to traffic patterns and potential improvements along these routes are being considered.

- West Detour – From the north end of Sam Wilson Road bridge, travel north 560-feet then turn left onto Performance Road and continue until its intersection with Moores Chapel Road. Turn left onto Moores Chapel Road and continue until its intersection with Andrew Jackson Highway/Wilkinson Boulevard (US 29/74). Continue on US 29/74 for 1.1-miles until its intersection with Sam Wilson Road.
- East Detour – From the north end of the Sam Wilson Road bridge, travel north to the intersection of Moores Chapel Road and turn right. Follow Moores Chapel Road 0.6-miles to the I-485 interchange and use the on-ramp to travel along I-485 Outer (southbound) to exit 9. Turn left onto US 29/74 and continue 0.67-miles until its intersection with Sam Wilson Road.

Temporary lane and ramp closures may be necessary, but if needed they are anticipated to be in place for short durations.

Response to Question 27 – The source of this traffic noise information is Design Noise Report (DNR) for Improvements to the I-485/I-85 Interchange in West Charlotte, Mecklenburg County prepared by Stantec in December 2023.

Traffic Noise Impacts

The maximum number of receptors in each project alternative predicted to become impacted by future traffic noise is shown in the table below. The table includes those receptors expected to experience traffic noise impacts by either approaching or exceeding the FHWA Noise Abatement Criteria or by a substantial increase in exterior noise levels as defined in the NCDOT Traffic Noise Policy.

Predicted Traffic Noise Impacts by Alternative*

Traffic Noise Impacts				
Alternative	Residential (NAC B)	Places of Worship/Schools, Parks, etc. (NAC C & D)	Businesses (NAC E)	Total
Build 1	22	1	0	23

*Per TNM 2.5 and in accordance with 23 CFR Part 772

Traffic Noise Abatement Measures

Measures for reducing or eliminating the traffic noise impacts, including noise barriers, were considered for all impacted receptors in each alternative. Noise barriers include two basic types: earthen berms and noise walls. These structures act to diffract, absorb, and reflect highway traffic noise.\

Noise Barriers

A noise barrier evaluation was conducted for this project utilizing the Traffic Noise Model (TNM 2.5) software developed by the FHWA. The following table summarizes the results of the evaluation.

Preliminary Noise Barrier Evaluation Results*

NSA	Noise Barrier Location	Length / Height ¹ (feet)	Square Footage	Number of Benefited Receptors	Square Feet per Benefited Receptor / Allowable Square Feet per Benefited Receptor	Preliminarily Feasible and Reasonable (“Likely”) for Construction ²
NSA 2	NW 2 - Along Northbound of I-85 and east of Moores Chapel Road	1,290 / 26	33,899	2	11,300 / 1,500	No ³
NSA 4	NW 4 – Along Northbound of I-85 and west of Sam Wilson Road	660 / 9	5,752	4	1,438 / 1,500	Yes

¹Average wall height. Actual wall height at any given location may be higher or lower.

²The likelihood of a barrier’s construction is preliminary and subject to change, pending completion of final design and the public involvement process.

³Barrier is not reasonable due to the quantity per benefited receptor exceeding the allowable quantity per benefited receptor.

A traffic noise evaluation was performed that identified one (1) noise barrier that preliminarily meets feasibility and reasonableness criteria found in the NCDOT Traffic Noise Policy. A more detailed analysis will be completed during project final design. Noise barriers preliminarily found to be feasible and reasonable during the preliminary noise analysis may not be found to be feasible and reasonable during the final design noise analysis due to changes in proposed project alignment and other design considerations, surrounding land use development, or utility conflicts, among other factors. Conversely, noise barriers that preliminarily were not considered feasible and reasonable may meet the established

criteria and be recommended for construction. This evaluation was conducted in accordance with the highway traffic noise requirements of Title 23 CFR Part 772.

In accordance with NCDOT Traffic Noise Policy, the Federal/State governments are not responsible for providing noise abatement measures for new development for which building permits are issued after the Date of Public Knowledge. The Date of Public Knowledge of the proposed highway project will be the approval date of the Categorical Exclusion (CE). NCDOT strongly advocates the planning, design and construction of noise-compatible development and encourages its practice among planners, building officials, developers and others.

Streamlined text is based on draft DNR and cannot be finalized until DNR is final.

Response to Question 29 – The project is in Mecklenburg County, which is within the Charlotte maintenance area for the prior 1997 ozone National Ambient Air Quality Standard (NAAQS) as defined by the EPA. This area was designated moderate nonattainment under the 1997 ozone NAAQS on June 15, 2004, and due to improved air quality in the region was re-designated maintenance on January 2, 2014. The Charlotte area was designated for the 2008 ozone NAAQS resulting in the 1997 ozone NAAQS being revoked on April 6, 2015. On February 16, 2018, the United States Court of Appeals for the District of Columbia Circuit in *South Coast Air Quality Mgmt. District v. EPA* (“South Coast II,” 882 F.3d 1138) held that transportation applies for the revoked 1997 ozone NAAQS areas. Transportation conformity for plans and TIPs for the 1997 Ozone NAAQS can be demonstrated without a regional emissions analysis pursuant to 40 CFR 93.109(c).

The project is in Mecklenburg County, which is within the Charlotte maintenance area for the 2008 ozone NAAQS as defined by the EPA. The Charlotte area was designated marginal nonattainment under the 2008 ozone NAAQS on July 20, 2012, and due to improved air quality in the region was re-designated maintenance on August 27, 2015. Section 176(c) of the CAAA requires that transportation plans, programs, and projects conform to the intent of the state air quality implementation plan (SIP). The current SIP does not contain any transportation control measures for Mecklenburg County. The Charlotte Region Transportation Planning Organization 2050 Metropolitan Transportation Plan (MTP) and the FY 2024-2027 Transportation Improvement Program (TIP) conform to the intent of the SIP. The USDOT made a conformity determination on the MTP on 09/28/2023 and the TIP on 09/28/2023. The current conformity determination is consistent with the final conformity rule found in 40 CFR Parts 51 and 93. There are no significant changes in the project’s design concept or scope, as used in the conformity analyses.

PROJECT COMMITMENTS

I-85 AT I-485 INTERCHANGE WEST OF CHARLOTTE. IMPROVE INTERCHANGE.

T.I.P Number:I-6016

Mecklenburg

Federal Aid Number: N/A

WBS:47968.1.1

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

Division Office - Coordinate with Fire Department

The NCDOT Team will continue coordination with the West Mecklenburg Volunteer Fire Department throughout final design and into the beginning of construction to address emergency response concerns during the Sam Wilson Road overpass closure.

Project Management (PMU/SMU/Division), NCDOT Work Zone Traffic Control and Signing and Delineation Unit - Directional Signage

NCDOT Project Manager should investigate the use of directional guide signage through coordination with the NCDOT Work Zone Traffic Control and Signing and Delineation Unit.

Project Management (PMU/SMU/Division), EAU – Cultural Resources - Mt Zion Cemetery Impacts

NCDOT Project Manager should continue coordination with NCDOT Cultural Resources Group to minimize impacts to gravesites identified within Mt Zion Cemetery and develop a plan for potential relocations if impacts cannot be avoided.

Project Management (PMU/SMU/Division) - School and EMS Coordination

NCDOT should provide Charlotte-Mecklenburg Schools and Mecklenburg EMS with the proposed detour map and project website link. This will allow the schools and EMS sufficient time to plan and request additional coordination with NCDOT prior to construction, if necessary.

COMMITMENTS FROM PERMITTING

No commitments developed during project permitting.

*******END OF PROJECT COMMITMENTS*******

I-85 MECKLENBURG COUNTY AT I-485 INTERCHANGE WEST OF CHARLOTTE. IMPROVE INTERCHANGE.

47968.1.1

I. Categorical Exclusion Approval:

STIP Project No.	<u>I-6016</u>
WBS Element	<u>47968.1.1</u>
Federal Project No.	<u>N/A</u>

Prepared By:

04/24/2024

Date

DocuSigned by:



74DA6E93AD49436...

Siobhan Gordon, Senior Environmental Planner
Mead & Hunt

Prepared For:

Radha Attaluri, PE, NCDOT Project Management Unit

Reviewed By:

04/24/2024

Date

DocuSigned by:



CA004B4A6412432...

for Marissa Cox, Western Regional Team Lead
NCDOT Environmental Policy Unit

Approved

Certified

- If classified as Type III Categorical Exclusion.

04/24/2024

Date

DocuSigned by:



CA084B4A6412432...

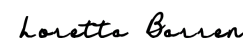
John Jamison, PWS, CPM, Unit Manager
NCDOT Environmental Policy Unit

FHWA Approved: For Projects Certified by NCDOT (above), FHWA signature required.

04/25/2024

Date

DocuSigned by:



68D0E254A36D46A...

for Yolonda K. Jordan, Division Administrator
Federal Highway Administration

Note: Prior to ROW or Construction authorization, a consultation may be required (please see Section VII of the NCDOT-FHWA CE Programmatic Agreement for more details).

I-85/I-485 Interchange Improvement
West of Charlotte
STIP No. I-6016
Mecklenburg County, North Carolina
Type III Categorical Exclusion



APPENDIX A

Project Maps



Mead & Hunt
 Mead & Hunt
 111 E Hargett Street
 Raleigh, NC 27601
 Tel. 919.714.8670
 www.meadhunt.com



Study Area Map
STIP No. I-6016
I-85/I-485 Interchange West of Charlotte
Improve Interchange
Mecklenburg County

TIP NO.: I-6016
 WBS NO 47968.1.1

DATE: 03/15/2022

FIGURE 1

VICINITY MAP

LEGEND

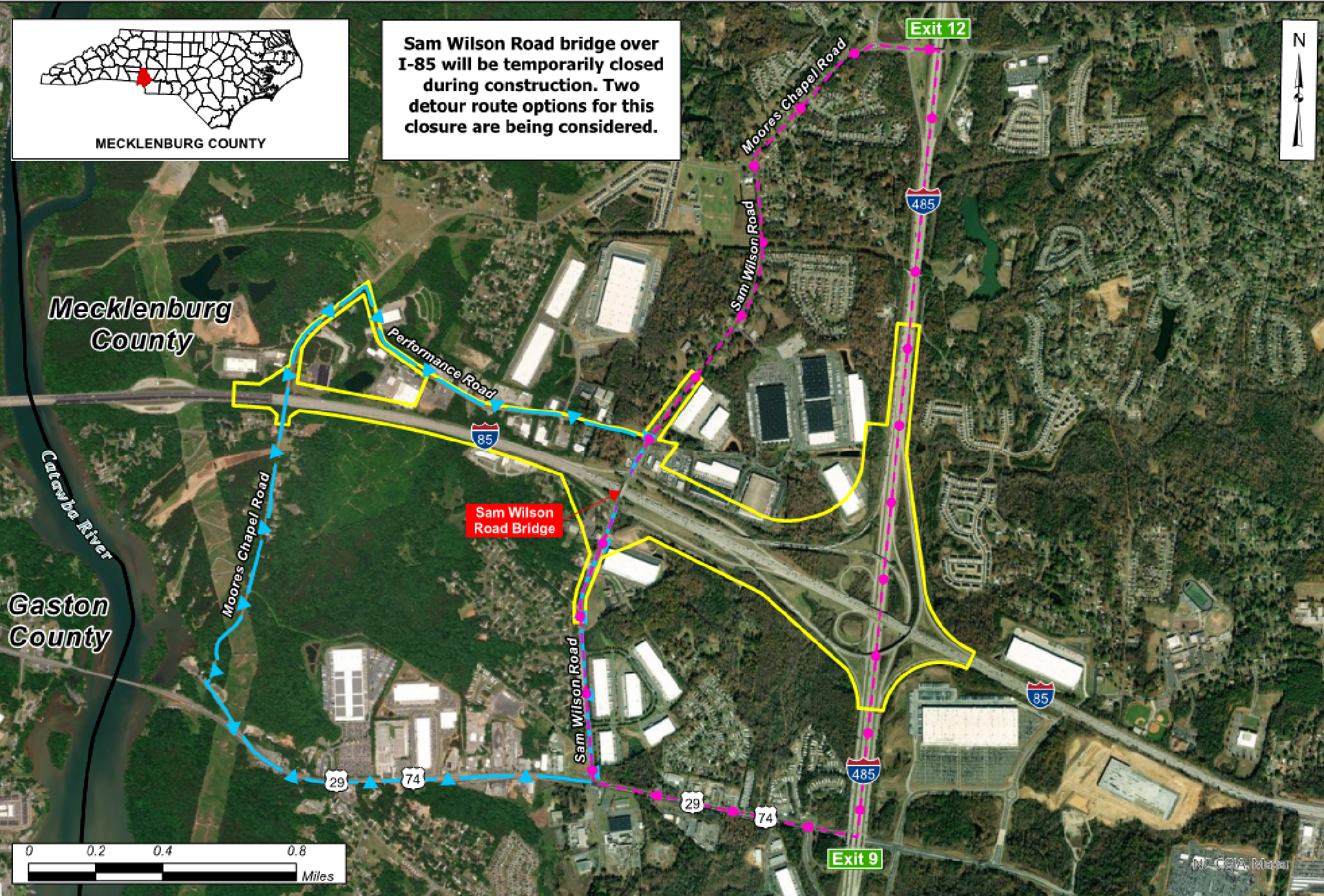
- Project Study Area (~383 acres)
- County Boundaries

Sources: ESRI, USGS, County and Municipality Data



MECKLENBURG COUNTY

Sam Wilson Road bridge over I-85 will be temporarily closed during construction. Two detour route options for this closure are being considered.



Mead & Hunt
Mead & Hunt
111 E Hargett Street
Raleigh, NC 27601
Tel. 919.714.8670
www.meadhunt.com



I-85/I-485 INTERCHANGE IMPROVEMENTS
WEST OF CHARLOTTE

MECKLENBURG COUNTY

TIP NO.: I-6016
WBS NO.: 47968.1.1

DATE: 12/20/2023
Figure 2

PROPOSED DETOUR MAP

- LEGEND
- Project Study Area
 - West Route Detour
 - County Boundaries
 - East Route Detour

Sources: ESRI, USGS, County and Municipality Data

I-85/I-485 Interchange Improvement
West of Charlotte
STIP No. I-6016
Mecklenburg County, North Carolina
Type III Categorical Exclusion



APPENDIX B

Cultural Resources Survey Forms



ARCHAEOLOGICAL SURVEY REQUIRED FORM

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Team.



PROJECT INFORMATION

Project No: **I-6016** *County:* Mecklenburg
WBS No: 47968.1.1 *Document:* Federal CE
F.A. No: 0085062 *Funding:* State Federal
Federal Permit Required? Yes No *Permit Type:* NWP 3 / NWP 14

Project Description:

The project proposes to improve the interchange of I-85 and I-485 west of Charlotte in Mecklenburg County, North Carolina. The archaeological Area of Potential Effects (APE) encompasses all areas of potential disturbance as presented on the accompanying ARC-GIS mapping. For purposes of this study, only the proposed and existing right-of-ways in the vicinity of Mount Zion Cemetery will be inspected. The APE measures roughly 8.00 acres in area.

SUMMARY OF ARCHAEOLOGICAL RESOURCES REVIEW: *SURVEY REQUIRED*

Brief description of review activities, results of review, and conclusions:

Permitting and funding information was reviewed for determining the level of archaeological input required by state and federal laws. Section 106 of the National Historic Preservation Act will apply because the project will utilize federal documentation and permits. The (FHWA) will serve as the lead federal agency. Next, construction design and other data was examined (when applicable) to define the character and extent of potential impacts to the ground surfaces embracing the improvement work. At this juncture, the APE was designed to capture all areas of potential impact within the Mt. Zion Cemetery locale.

Once an APE was defined, a map review and site file search was conducted utilizing on-line resources available from the Office of State Archaeology on Thursday, November 9, 2023. No previously documented archaeological sites are situated within the APE.

Examination of National Register of Historic Places (NRHP), State Study Listed (SL), Locally Designated (LD), Determined Eligible (DE), and Surveyed Site (SS) properties employing resources available on the NCSHPO website is important in establishing the location of noteworthy historic occupations related to a perspective construction impact area. A cross-check of these mapped resources concluded that none of the above properties with potential contributing archaeological components are situated within the APE.

In addition, historic maps of Mecklenburg County were appraised to review Mt. Zion Cemetery more closely. Archaeological/historical reference materials were inspected as well. In general, the cultural background review established that Mt. Zion Cemetery contains between 26 and 49 marked graves and additional unmarked grave locations. The majority of the burial interments date to the 1950s and 1960s with a few dating as late as the mid 1990s.

Also, aerial photographs (NCDOT Spatial Data Viewer & other on-line sources) were examined and the Google Street View map application was utilized (when amenable) for gaining a virtual, first-hand perspective of the overall study area and for assessing disturbances, both natural and human induced, which compromise the integrity of archaeological sites/deposits. Photographs reveal that there is a very high likelihood of the proposed right-of-way containing marked and unmarked graves.

An archaeological ground penetrating radar survey is recommended prior to construction activities. This work will seek to determine if gravesites are contained within the project APE which includes both the proposed and existing rights of way. All documented sites will be evaluated for NRHP eligibility. Once we have a better idea of what is contained and present in the APE, we can then take steps to either avoid the cemetery, or remove and rebury the affected remains through consultation with the Office of State Archaeology.

We can complete these investigations using one of the Archaeology Team's on-call firms or if Division 10 would like to manage and complete the survey they can use a NCDOT prequalified archaeologist under contract with one of Division's on-call firms. We can provide a scope of work for the Division to use, but we do need to know within seven days which path the Division plans to follow. All products produced by the Division's consultant will need to be submitted to the Archaeology Team for review, acceptance, and submittal to the Office of State Archaeology as per the Programmatic Agreement. We would be happy to discuss this approach with you.

(This project falls within a North Carolina County in which the following federally recognized tribes have expressed an interest: Catawba Nation and the Cherokee Nation. We recommend that you ensure that this documentation is forwarded to these tribes using the process described in the current NCDOT Tribal Protocol and PA Procedures Manual.)

SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Photos Correspondence
Other:

FINDING BY NCDOT ARCHAEOLOGIST – SURVEY REQUIRED

Scott Halvorsen



11/16/2023

NCDOT ARCHAEOLOGIST

Date

Winter 2023/2024

Proposed fieldwork completion date

21-11-0031



HISTORIC ARCHITECTURE AND LANDSCAPES NO HISTORIC PROPERTIES PRESENT

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

PROJECT INFORMATION

Project No:	I-6016	County:	Mecklenburg
WBS No.:	47968.1.1	Document Type:	Federal CE
Fed. Aid No:	0085062	Funding:	<input type="checkbox"/> State <input checked="" type="checkbox"/> Federal
Federal Permit(s):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Permit Type(s):	USACE
<u>Project Description:</u>			
Improve interchanges and add a southbound auxiliary lane or Collector Distributer road parallel to I-85 at I-485			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

<u>Description of review activities, results, and conclusions:</u>
Review of HPOGIS web service was undertaken on December 19, 2021. Based on this review, there are no NR, DE, LL, SL, or SS in the project area. There are a number of structures over 50 years of age in the Area of Potential Effect (APE). An NCDOT architectural historian conducted a site visit on January 12, 2022. There are no properties in the APE which warrant further evaluation for National Register eligibility.

SUPPORT DOCUMENTATION

Map(s) Previous Survey Info. Photos Correspondence Design Plans

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- ****SURVEY REQUIRED****

Shelby Reap

February 3, 2021

NCDOT Architectural Historian

Date

