MINIMUM CRITERIA DETERMINATION CHECKLIST

TIP Project No.: B-5372

State Project No.: 46087.1.1

Project Location: Cabarrus County, NC

Project Description: NCDOT Project No. B-5372 proposes to replace Bridge No. 109 on S.R. 1706 (East 1st Street) over U.S. 29 with a signalized at-grade intersection in Kannapolis. The project will remove the existing bridge and the ramps that lead to the bridge and bring East 1st Street down to the same level as U.S. 29. A new signalized intersection will be created just north of the location of the existing bridge. In addition, striped bicycle lanes and sidewalks will be included along both sides of East 1st Street (refer to Figure 3). The purpose of the project is to remove a structurally deficient bridge and create a new intersection that can accommodate future projected traffic volumes.

The existing bridge will be removed, and traffic will be detoured onsite, utilizing the existing ramps and the existing bridge during the construction period (see Figure 2).

Anticipated Permit or Consultation Requirements: A Nationwide Permit (NWP) will likely be applicable for the proposed project. The USACE holds the final discretion as to what permit will be required to authorize project construction. If a Section 404 permit is required, then a Section 401 Water Quality Certification (WQC) from the NCDWR will be needed.

Special Project Information:

Purpose and Need: The purpose of the proposed project is to remove a structurally deficient bridge and create a new intersection that can accommodate future projected traffic volumes. NCDOT Bridge Management Unit records indicate Bridge No. 109 currently has a sufficiency rating of 19 out of a possible 100 for a new structure. The bridge is considered structurally deficient due to a superstructure condition appraisal of 3 out of 9 according to Federal Highway Administration standards. The bridge also meets the criteria for functionally obsolete due to structural appraisal of 3 out of 9.

Estimated Traffic:

Current Year (2020)	3,520 vpd
Future Year (2040)	5,600 vpd
TTST	1%
Dual	4%

02/21/19 1 of 7

Alternatives Evaluation:

No Build – The no build alternative would result in eventually closing the road, which is unacceptable given the volume of traffic served by SR 1706.

Rehabilitation – The bridge was constructed in 1953 and is reaching the end of its useful life. Rehabilitation would only provide a temporary solution to the structural deficiency of the bridge.

Replace Bridge No. 109 In-Place with a New Bridge – Replacing the existing bridge with a new bridge in the same location was evaluated. However, a Planning-Level Study was performed by NCDOT Congestion Management, in which the results of this study showed that replacing the existing bridge with a signalized at-grade intersection would be a viable option. A detailed traffic analysis confirmed these findings. In addition, by replacing the bridge with an at-grade intersection, the cost of replacing and maintaining the bridge would be saved.

Remove Bridge No. 109, Replace with At-Grade Signalized Intersection - Onsite Detour (Recommended) – Bridge No. 109 will be removed, and a new at-grade signalized intersection will be installed just north of the existing bridge. During the construction period, the existing ramps and the existing bridge will remain open to local and business traffic.

Staged Construction – Staged construction was not considered because of the availability of an acceptable onsite detour.

Offsite Detour - An offsite detour was not evaluated due to the presence of an acceptable onsite detour.

Pedestrian and Bicycle Accommodations: The bridge is within an established residential area with pedestrian and bicycle trip generators, including schools, churches and commercial establishments in close proximity. The Kannapolis Bicycle Plan indicates that East 1st Street carries the Central/East Bike Route. The current bridge includes sidewalks. The City of Kannapolis requested that striped bike lanes and sidewalks be included on both sides of the East 1st Street along the entire construction limits for this project. These bicycle and pedestrian accommodations have been incorporated into the designs. Construction of sidewalks is contingent upon the completion of a cost-sharing municipal agreement between the City of Kannapolis and NCDOT.

02/21/19 2 of 7

Estimated Costs:

The proposed project is included in the North NCDOT State Bridge Program. Right of way acquisition and construction are scheduled for Fiscal Year (FY) 2019 and FY 2020, respectively. Current cost estimates, based on 2019 prices, are as follows:

Right of Way:	\$ 70,360
Utilities:	\$ 195,100
Construction:	\$ 2,530,000
Total:	\$ 2,795,460

Design Exceptions: There are no anticipated design exceptions.

Public Involvement:

On November 15, 2018, a Local Officials Meeting and Public Meeting was held. The meetings were held at the Faith Baptist Church in Kannapolis, NC. The Local Officials Meeting was held 3:00pm until 4:00pm, and the public meeting was held from 5:00pm until 7:00pm. Six local officials were in attendance at the Local Officials Meeting. Approximately nine persons signed in to the informal "open house" public meeting.

Written comments were submitted by 11 people at the meeting and during the comment period. The majority of the comments received were related to concerns with removing the bridge, and the precepted additional traffic that may result from a new signalized intersection in this area.

Floodplain:

This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine status of project with regard to applicability of NCDOT'S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

02/21/19 3 of 7

PART A: MINIMUM CRITERIA

		VEC	NO
1.	Is the proposed project listed as a type and class of activity allowed under the Minimum Criteria Rule in which environmental documentation is <u>not</u> required?	YES	NO
	e answer to number 1 is "no", then the project <u>does not</u> qualify as a mum criteria project. A state environmental assessment is required.		
If ye	s, under which category? <u>8</u>		
If eit	her category #8, #12(i) or #15 is used complete Part D of this checklist.		
PAF	RT B: MINIMUM CRITERIA EXCEPTIONS		
2.	Could the proposed activity cause significant changes in land use concentrations that would be expected to create adverse air quality	YES	NO
3.	impacts? Will the proposed activity have secondary impacts or cumulative impacts that may result in a significant adverse impact_to human health or the environment?		
4.	Is the proposed activity of such an unusual nature or does the proposed activity have such widespread implications, that an uncommon concern for its environmental effects has been expressed to the Department?		
5.	Does the proposed activity have a significant adverse effect on wetlands; surface waters such as rivers, streams, and estuaries; parklands; prime or unique agricultural lands; or areas of recognized scenic, recreational, archaeological, or historical value?		
6.	Will the proposed activity endanger the existence of a species on the Department of Interior's threatened and endangered species list?		\boxtimes
7.	Could the proposed activity cause significant changes in land use concentrations that would be expected to create adverse water quality or ground water impacts?		

02/21/19 4 of 7

8.	Is the proposed activity expected to have a significant adverse effect on long-term recreational benefits or shellfish, finfish, wildlife, or their natural habitats		
PAR	RT C: COMPLIANCE WITH STATE AND FEDERAL REGULA	ATIONS	
		YES	NO
9.	Is a federally protected threatened or endangered species, or its habitat, likely to be impacted by the proposed action?		
10.	Does the action require the placement of temporary or permanent fill in waters of the United States?		
11.	Does the project require the placement of a significant amount of fill in high quality or relatively rare wetland ecosystems, such as mountain bogs or pine savannahs?		
12.	Is the proposed action located in an Area of Environmental Concern, as defined in the coastal Area Management Act?		
13.	Does the project require stream relocation or channel changes?		\boxtimes
<u>Cult</u>	ural Resources		
14.	Will the project have an "effect" on a property or site listed on the National Register of Historic Places?		
15.	Will the proposed action require acquisition of additional right of way from publicly owned parkland or recreational areas?		
Schv	bonse to Question 9 – weinitz's sunflower - Potentially suitable habitat for the Schweinitz's ianthus schweinitzii) is present within the study area, along maintaine		

YES

NO

Schweinitz's sunflower - Potentially suitable habitat for the Schweinitz's sunflower (Helianthus schweinitzii) is present within the study area, along maintained road shoulders. A survey to determine the presence/absence of this species was conducted on August 27, 2016. Records held by the North Carolina Natural Heritage Program do not indicate any known occurrences of the target species within 1.0 mile of the project study area as of August 27, 2016. Prior to initiation of the field effort, a known reference population was reviewed to familiarize the field biologist with the current flowering status. All potentially suitable habitat within the project study area was subjected to pedestrian evaluations. No evidence of the target species was identified. A Biological Conclusion of **No Effect** is warranted for this species.

Carolina heelsplitter - A mussel survey for the Carolina heelsplitter (Lasmigona decorata) was conducted within the study area. Prior to conducting in-stream surveys, a review of the NC Natural Heritage Program database was conducted (September 28, 2015) to determine if there were any records of rare mussels within the proposed project study area or receiving waters. This review indicated that there are no known occurrences

02/21/19 5 of 7

of the federally endangered Carolina heelsplitter in the waterbodies crossed by this project. The closest known occurrence of Carolina heelsplitter is over 30 river miles downstream from this project in Goose Creek. A habitat assessment of the two unnamed tributaries to Cold Water Creek was conducted on September 29, 2015 by NCDOT biologists. Due to the size of the streams, no Carolina heelsplitters or mollusks of any kind being found during the assessment, this project is in an urban setting which contributes to more runoff from impervious surfaces, the streams crossed by the project flow into Lake Concord and a wetland complex, which decreases the chance for recolonization of Carolina heelsplitter to occur, and that there are no known occurrences of Carolina heelsplitter in these streams, this project will have **No Effect** on these species.

Northern long-eared bat - Potentially suitable habitat for the Northern long-eared bat (Myotis septentrionalis) (NLEB) is present within the study area. According to the North Carolina Natural Heritage Program (NHP) Biotics Database, most recently updated October 2018, the nearest NLEB hibernacula record is 78 miles northwest of the project (EO ID 32171) and no known NLEB roost trees occur within 150 feet of the project area. EO 32171 represents Grandfather Mountain site with multiple observations from 1986 to 2011. NCDOT has also reviewed the USFWS Asheville Field office website (http://www.fws.gov/asheville/htmls/project_review/NLEB_in_WNC.html) for consistency with NHP records. This project is located entirely outside of the red highlighted areas (12-digit HUC) that the USFWS Asheville Field Office has determined to be representative of an area that may require consultation. The closest 12 digit (030501010502) red HUC is approximately 74 miles away (Upper Wilson Creek). On May 22, 2018, NCDOT biologists assessed Bridge No. 109 for potential northern long-eared bat habitat. Shallow vertical top sealed crevices suitable for roosting were present on the structure. No evidence (bats, staining, and guano) of bats was observed.

The U.S. Army Corps of Engineers (USACE) will act as the lead agency for issues related to the NLEB. The USACE has developed a Standard Local Operating Procedure for Endangered Species (SLOPES) to address NLEB when they are the lead agency, which NCDOT will follow for this project. This procedure applies to projects in NCDOT Divisions 9-14. The requirements of the SLOPES for NLEB will be completed prior to Let and will be submitted to USACE. Survey information for this species will be provided by NCDOT –BSG. Final design, tree clearing, and percussive activities information will be provided in the permit application.

Response to Question 10 – Five jurisdictional streams were identified in the project study area (Figure 2). Project construction will result in approximately 240 feet of stream impacts. A Nationwide Permit (NWP) will likely be applicable for the proposed project. The USACE holds the final discretion as to what permit will be required to authorize project construction. If a Section 404 permit is required, then a Section 401 Water Quality Certification (WQC) from the NCDWR will be needed.

02/21/19 6 of 7

PART D: (To be completed when either category #8, 12(i) or #15 of the rules are used.)

16.	Project length:	0.25 mile
17.	Right of Way width:	100'-158'
18.	Project completion date:	Construction to begin January 21, 2020
19.	Total acres of newly disturbed ground surface:	0.3 acres
20.	Total acres of wetland impacts:	0
21.	Total linear feet of stream impacts:	240 feet

22. Project purpose: The purpose of the project is to remove a

structurally deficient bridge and create a new intersection that will be able to handle the future

projected traffic volumes.

Prepared by:

Date:

2/25/2019

Jackie Obediente, PE Three Oaks Engineering

Approved by:

DocuSigned by: Kevin Fischer

Date:

2/25/2019

Kevin Fischer, PE, Asst. State Structures

Engineer

NCDOT Structures Management Unit

North Carolina Department of Transportation

02/21/19 7 of 7

Project Commitments

Cabarrus County
Replace Bridge No. 109 on S.R. 1706 (East 1st Street)
over U.S. 29 with a signalized at-grade intersection
WBS No. 46087.1.1
Project No. B-5372

<u>Continued Coordination and Outreach</u> (NCDOT Division 10, NCDOT Structures Management Unit [SMU])

- In order to have time to adequately reroute school buses, Kannapolis City Schools will be contacted at (704) 938-4848 at least six months prior to road closure.
- Kannapolis Fire and EMS departments will be contacted at (704) 920-4260 at least one month prior to road closure to make the necessary temporary reassignments to primary response units.
- The Division will coordinate with the officials from the "Rider Concord Kannapolis Area Transit" [(704) 920-7433] regarding temporary impacts to the "Blue Route" bus route and associated transit stops.
- The A.L. Brown High School athletic director [(704) 932-6125] will be notified at least 6 months prior to the project construction.

<u>Sidewalks</u> (Financial Management Division, Division 10 Construction, NCDOT SMU)

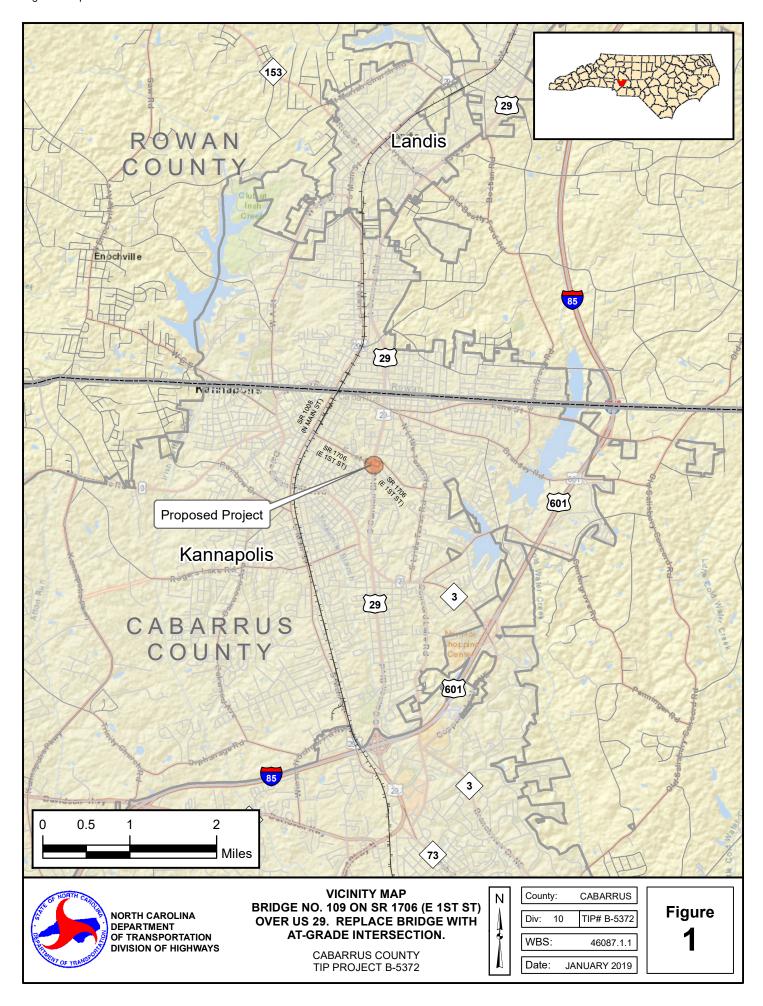
• The City of Kannapolis has committed to cost share for the construction of sidewalks on the project. NCDOT-SMU and Division 10 will continue to coordinate with the City through the design development process in the development of a municipal agreement.

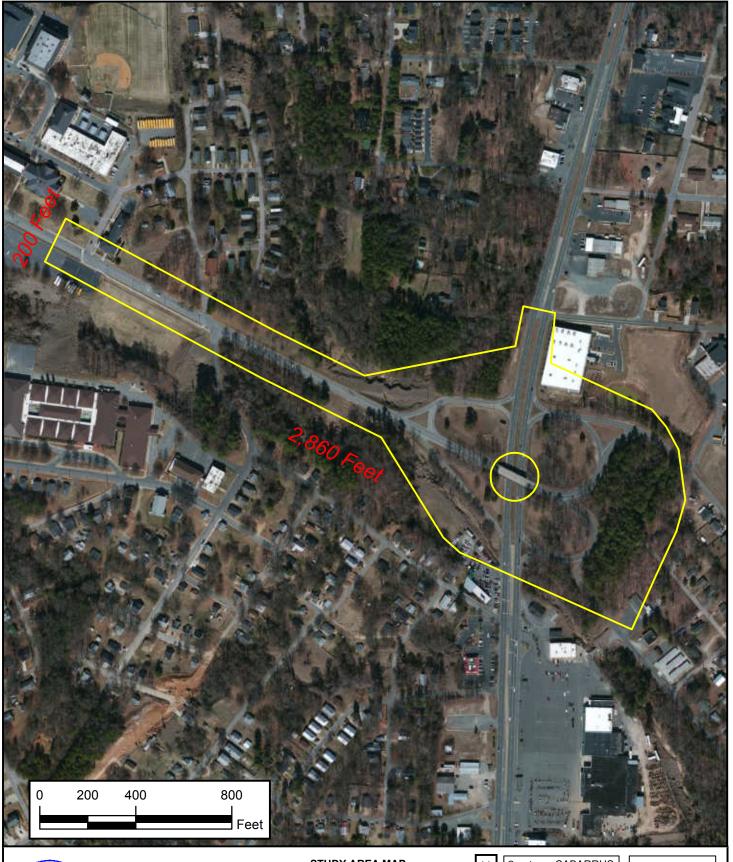
FEMA Floodplains and Floodways (Division 10 Construction, NCDOT SMU)

• This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

Floodplain Mapping Coordination (NCDOT Hydraulic Design Unit)

• The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine status of project with regard to applicability of NCDOT'S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).







STUDY AREA MAP BRIDGE NO. 109 ON SR 1706 (E 1ST ST) OVER US 29. REPLACE BRIDGE WITH AT-GRADE INTERSECTION.

> CABARRUS COUNTY NCDOT PROJECT B-5372

N	County:	CABARRUS
Λ	Div: 10	TIP# B-5372
\$	WBS:	46087.1.1
	Date: DE	CEMBER 2018

Figure **2**





15-02-0043



NO 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 Group.



PR	O	JE	CT	INFO	ORM	ATION

Project No:	B-5372		County	·:	Cabarrus	
WBS No:	46087.1.1		Docum	ent:	PCE or CE	
F.A. No:	NA		Fundin	g:	⊠ State	☐ Federal
Federal Permit Requ	ired?	es 🗵] No	Permit Ty	pe:	

Project Description:

The project calls for the replacement of Bridge No. 109 on SR 1706 (East 1st Street) over US 29 in Cabarrus County. The archaeological Area of Potential Effects (APE) for the project is defined as an approximate 2,900 foot (883.92 m) long corridor running along East 1st Street. From the center of the bridge, the corridor extends approximately 2,200 feet (670.56 m) to the northwest and 700 feet (213.36 m) to the southeast. The corridor has a variable width of 200 feet (60.96 m) at its northwestern end and expands to 850 feet (259.08 m) towards the southeast. The APE includes all existing ramps and a portion of US 29. In all, the APE encompasses approximately 30 acres.

SUMMARY OF CULTURAL RESOURCES REVIEW

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

Bridge No. 109 is located in Kannapolis and west of I-85 at the northern boundary of Cabarrus County, North Carolina. The project area is plotted in the northwest corner of the Concord USGS 7.5' topographic quadrangle (Figure 1).

A map review and site file search was conducted at the Office of State Archaeology (OSA) on February 19, 2015. No previously recorded archaeological sites have been identified within the APE or a mile of the bridge. According to the North Carolina State Historic Preservation Office online data base (HPOWEB 2015), the boundary for the Study Listed and Determined Eligible Kannapolis Mill Village (CA 264a) is just south of the archaeological APE. However, no surveyed or contributing archaeological resource falls within the APE. Topographic maps, USDA soil survey maps, aerial photographs (NC One Map), and historic maps (North Carolina maps website) were examined for information on environmental and cultural variables that may have contributed to prehistoric or historic settlement within the project limits and to assess the level of ground disturbance.

Bridge No. 106 and East 1st Street cross US 29 from the northwest to southeast. Unnamed tributaries to Cold Water Creek run alongside East 1st Street to the north and south crossing under the road west of the bridge. These waterways are part of the Yadkin-Pee Dee drainage basin. The APE is situated mostly on ridges and side slope adjacent to the drainages, but the majority of the landforms has been modified (Figure 2). It is likely that some of the area was in floodplain prior to the construction of US 29 and the ramps. The channels for the tributaries have also been modified to improve drainage and prevent flooding. Although the APE is forested in places, it is characterized by urban development and residential properties. Overall, ground disturbance is very heavy.

15-02-0043

The USDA soil survey map suggests that the APE is composed of two soil types (see Figure 2). The Cecil-Urban land complex (CeB) covers most of the project area. These are mixed soils, where most of the natural soils have been altered or covered as the result of grading or digging. The series also contain households, pavement, and building complexes. It is very unlikely for intact deposits to be found in these altered soils. The second series, Cecil sandy clay loam (CcD2), is situated along the side slopes next to the tributaries. These are well drained but eroded soils with a slope of 8 to 15 percent. Due to soil erosion, it is unlikely for a significant site to be present.

A review of the site files shows few archaeological surveys and no sites within a mile of the project area. Although the current APE has not been reviewed or included in any previous studies, nearly all properties surround the project have been reviewed and cleared by OSA as low potential due to disturbance. The current project area shares the same characteristics as these other reviewed properties.

Lastly, a historic map review was conducted. Early and accurate historic maps of the project vicinity are rare. The 1910 soil map of Cabarrus County is the earliest map to depict the project area with any accuracy (Figure 3). This map shows no roads or structures in the vicinity of the current bridge. Likewise, subsequent early 20th century maps illustrate no additional features. As a result, it seems that no historic archaeological deposits should be affected by the proposed bridge replacement.

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:

The defined archaeological APE for the proposed replacement of Bridge No. 109 over US 29 consists of heavily disturbed soils associated with past urban development and road construction. It is very unlikely intact and significant archaeological deposits will be encountered within the APE. In addition, OSA has cleared many neighboring properties with similar characteristics as low potential for significant sites. Lastly, the historic maps suggest that no former historic structures and/or features are in the area. As long as impacts to the subsurface occur within the defined APE, no further archaeological work is recommended for the replacement of Bridge No. 109 in Cabarrus County. If construction should affect subsurface areas beyond the defined APE, further archaeological consultation might be necessary.

SUPPORT D	OCUMENTATION	
See attached:	<u> </u>	
FINDING BY	NCDOT ARCHAEOLOGIST	
NO ARCHAE	OLOGY SURVEY REQUIRED	
C. Dan	- Jan	2/23/15
C. Damon Jon NCDOT ARC	es HAEOLOGIST II	Date

15-02-0043



HISTORIC ARCHITECTURE AND LANDSCAPES NO SURVEY REQUIRED FORM

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 Cabarrus B-5372 County: Project No: PCE or CE WBS No.: 46087.1.1 Document Type: X State Federal Funding: N/A Fed. Aid No: N/A Yes No No Permit **Federal** Type(s): Permit(s): **Project Description**: Replacement of Bridge No. 109 on SR 1706 (E. 1st Street) over US 29. SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW Description of review activities, results, and conclusions: Review of HPO quad maps, HPO GIS information, historic designations roster, and indexes was undertaken on February 19, 2015. Based on this review, there are no existing NR, SL, LD, DE, or SS properties in the Area of Potential Effects, which is defined on the following maps. As this is a state funded project with no federal actions, it is subject to GS 121-12(a), which requires consideration of only National Register listed properties in the APE. There are no NR listed properties in the APE, therefore the project needs no architectural survey. Should the project acquire federal funding, permits, or other involvement, or if its scope changes in any way, it will require additional review. Why the available information provides a reliable basis for reasonably predicting that there are no unidentified significant historic architectural or landscape resources in the project area: HPO quad maps and GIS information recording NR, SL, LD, DE, and SS properties for the Cabarrus County survey and Google Maps are considered valid for the purposes of determining the likelihood of historic resources being present. There are no National Register listed properties within the APE and no survey is required. SUPPORT DOCUMENTATION Design Plans Correspondence Photos Map(s) Previous Survey Info. FINDING BY NCDOT ARCHITECTURAL HISTORIAN Historic Architecture and Landscapes -- NO SURVEY REQUIRED

NCDOT Architectural Historian

Date