

Type I or II Categorical Exclusion Action Classification Form

TIP Project No.	B-5372
WBS Element	46087.1.1
Federal Project No.	N/A

A. Project Description:

The proposed project involves replacing Bridge No. 109 on S.R. 1706 (Martin Luther King Jr. Avenue) over U.S. 29 (N. Cannon Blvd) in Cabarrus County. It will also add curb and gutter and sidewalks along both sides of U.S. 29. Bridge No. 109 is 190 feet long and the replacement structure will be a bridge approximately 175 feet long, providing a minimum 49-foot clear deck width. The new bridge will include two 12-foot travel lanes and 7-foot paved offsets, or “shoulders”, on each side to accommodate bicycles. 5-foot 6-inch sidewalks and a 54-inch two bar metal rail will be provided on both sides of the bridge. The roadway grade of the new structure will be approximately two feet higher than the existing structure to allow for the proper vertical roadway clearance over U.S. 29.

Along S.R. 1706, the roadway approaches will extend approximately 265 feet from the west end of the new bridge and 433 feet from the east end of the new bridge. The approaches will be widened to provide two 12-foot travel lanes, 7-foot bicycle lanes, 5-foot 6-inch sidewalks, and 10-foot grassed shoulders on both sides.

Along U.S. 29 (under the bridge), improvements will extend approximately 330 feet north of S.R. 1706 and 230 feet south of S.R. 1706. Improvements include upgrading U.S. 29 to a curb and gutter section, with 5-foot paved offsets, and 5-foot sidewalks along each side of U.S. 29.

The new bridge will be constructed on existing location, with traffic being detoured off site during construction. However, the existing entrance and exit ramps will remain open to local and business traffic during construction (see Figure 1).

S.R. 1706 will be designed as a Minor Collector and U.S. 29 will be designed as an Urban Collector, both utilizing Sub-Regional Tier Guidelines with a 40 mile per hour design speed.

B. Description of Need and Purpose:

The purpose of the proposed project is to replace a structurally deficient bridge. NCDOT Bridge Management Unit records indicate Bridge No. 109 is considered structurally deficient due to a deck condition and superstructure condition appraisal of 4 out of 9 according to Federal Highway Administration standards.

C. Categorical Exclusion Action Classification:

Type I(A) - Ground Disturbing Action

D. Proposed Improvements:

28. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings if the actions meet the constraints in 23 CFR 771.117(e)(1-6).

E. Special Project Information:

Estimated Traffic:

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

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 S.R. 1706.

Rehabilitation – The existing 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.

Remove Bridge No. 109, Replace with At-Grade Signalized Intersection - Offsite Detour – 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. Bridge No. 109 would be removed, and a new at-grade signalized intersection would be installed just north of the existing bridge. During the construction period, the existing ramps and the existing bridge would remain open to local and business traffic. However, as a result of comments received from the public and further coordination with the City of Kannapolis, this alternative was not selected.

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

Replace Bridge No. 109 In-Place with a New Bridge – Offsite Detour (Recommended) – Bridge No. 109 will be replaced on its existing alignment. Traffic will be detoured offsite (see Figure 1) during the construction period. NCDOT Guidelines for Evaluation of Offsite Detours for Bridge Replacement Projects considers multiple project variables beginning with the additional time traveled by the average road user resulting from the offsite detour. The offsite detour for this project would include S.R. 1706, N. Main Street, Jackson Park Road, and Little Texas Road. The majority of traffic on S.R. 1706 is through traffic. The existing ramps would remain open to local and business traffic during construction. The detour for the average road user would result in 4 minutes of additional travel time (2 miles of additional travel). Up to a 12-month duration of construction is expected on this project.

Based on the Offsite Detour Guidelines, the criteria above indicate that, on the basis of delay alone, the proposed offsite detour is acceptable. Cabarrus County Emergency Services has indicated that the detour is acceptable. NCDOT Division 10 has indicated the condition of all roads, bridges and intersections on the offsite detour are acceptable without improvement and concurs with the use of the detour, as identified in Figure 1.

Pedestrian and Bicycle Accommodations: The existing 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 S.R. 1706 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 S.R. 1706 within the construction limits for this project. In addition, the City of Kannapolis requested that curb and gutter, wide outside shoulders, and sidewalks be included

along U.S. 29. 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.

Estimated Costs:

The proposed project is included in the NCDOT State Bridge Program. Right of way acquisition and construction are scheduled for Fiscal Year (FY) 2022 and FY 2023, respectively. Current cost estimates, based on 2022 prices, are as follows:

Right of Way:	\$ 9,600
Utilities:	\$ 125,000
Construction:	\$ 5,324,500
Total:	\$ 5,459,100

Design Exceptions: There are no anticipated design exceptions.

Public Involvement:

STIP Project B-5372 was originally scoped as a bridge replacement project. However, in early 2018, NCDOT Congestion Management did a high-level traffic capacity analysis and determined that replacing the existing bridge with an at-grade intersection was a viable, cost-saving alternative to replacing the bridge. Based on this capacity analysis, NCDOT changed the scope of the original B-5372 project from a bridge replacement to a conversion of the interchange to an at-grade signalized intersection.

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 from 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 assumption that additional traffic may occur with a new signalized intersection in this area. Based on input received during and after the public meeting, the City of Kannapolis requested that the scope return to its original concept of replacing Bridge No. 109 with a new bridge on existing location.

To announce this change of scope back to a bridge replacement, a newsletter was developed and mailed out to the public. This newsletter provided updated project information including updated design data, project schedule, project decisions, and graphics. The newsletter was mailed out on July 21, 2022. No comments have been received to date.

Threatened and Endangered Species

As of August 22, 2022, the United States Fish and Wildlife Service (USFWS) lists two federally protected species for Cabarrus County (Northern long-eared bat [NLEB] and Schweinitz's sunflower).

Norther long-eared bat (NLEB) - Habitat for NLEB is present within the project study area. According to the North Carolina Natural Heritage (NHP) Biotics Database, most recently updated July 2021, the nearest NLEB hibernacula record is approximately 79 miles west of the project and no known NLEB roost trees occur within 150 feet of the project area. NCDOT has also reviewed the 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 74.5 miles to the west (Upper Wilson Creek) in Avery County. A Section 7 Survey for NLEB was conducted on August 10, 2021. Bridge No. 109 was assessed for potential NLEB habitat. Some crevices suitable for roosting were present on the structures, but no evidence (bats, staining, and guano) of bats was observed. Based on the lack of evidence of bats using the bridge, and no known roost trees within 150 feet of the project area, NCDOT recommends a Biological Conclusion of **May Affect Not Likely To Adversely Affect** for the

northern long-eared bat. Final design, tree clearing, and percussive activities information will be provided in the permit application.

Schweinitz's sunflower (*Helianthus schweinitzii*) – Habitat for Schweinitz's sunflower is present within the project study area. On October 18, 2021, a plant-by-plant survey for Schweinitz's sunflower was conducted within the project site. Marginally suitable habitat for Schweinitz's sunflower was present within the project site in areas with moderate disturbance regimes and little-to-no canopy cover. However, no individuals were present. Additionally, no typical associate species were identified. A review of the North Carolina Natural Heritage Program (NCNHP) October 2021 dataset revealed no known Schweinitz's sunflower occurrences within the study area or within one mile of the project site. Due to the negative survey results of this survey and the lack of known occurrences within one mile of the project, the Biological Conclusion rendered for the species is **No Effect**.

Bald Eagle and Golden Eagle Protection Act - Habitat for the bald eagle primarily consists of mature forest in proximity to large bodies of open water for foraging. Large dominant trees are utilized for nesting sites, typically within 1.0 mile of open water. A desktop-GIS assessment of the project study area, as well as the area within a 1.13-mile radius (1.0 mile plus 660 feet) of the project limits, was performed on March 25, 2015 using 2014 color aerials. No water bodies large enough or sufficiently open to be considered potential feeding sources were identified. Since there was no foraging habitat within the review area, a survey of the project study area and the area within 660 feet of the project limits was not conducted. Additionally, a review of the NCNHP database on 25 March 2015 revealed no known occurrences of this species within 1.0 mile of the project study area. Due to the lack of habitat, known occurrences, and minimal impact anticipated for this project, it has been determined that this project will **not affect** this species.

F. Project Impact Criteria Checklists:

F2. Ground Disturbing Actions – Type I (Appendix A) & Type II (Appendix B)				
<p>Proposed improvement(s) that fit Type I Actions (NCDOT-FHWA CE Programmatic Agreement, Appendix A) including 2, 3, 6, 7, 9, 12, 18, 21, 22 (ground disturbing), 23, 24, 25, 26, 27, 28, &/or 30; &/or Type II Actions (NCDOT-FHWA CE Programmatic Agreement, Appendix B) answer the project impact threshold questions (below) and questions 8 – 31.</p> <ul style="list-style-type: none"> • If any question 1-7 is checked “Yes” then NCDOT certification for FHWA approval is required. • If any question 8-31 is checked “Yes” then additional information will be required for those questions in Section G. 				
<u>PROJECT IMPACT THRESHOLDS</u> (FHWA signature required if any of the questions 1-7 are marked “Yes”.)			Yes	No
1	Does the project require formal consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS)?	<input type="checkbox"/>	<input checked="" 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 a residential or commercial displacement, or a substantial amount of right of way acquisition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6	Does the project require an Individual Section 4(f) approval?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7	Does the project include adverse effects that cannot be resolved with a Memorandum of Agreement (MOA) under Section 106 of the National Historic Preservation Act (NHPA) or have an adverse effect on a National Historic Landmark (NHL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any question 8-31 is checked “Yes” then additional information will be required for those questions in Section G.				
<u>Other Considerations</u>			Yes	No
8	Is an Endangered Species Act (ESA) determination unresolved or is the project covered by a Programmatic Agreement under Section 7?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9	Is the project located in anadromous fish spawning waters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (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"/>	
11	Does the project impact Waters of the United States in any of the designated mountain trout streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

<u>Other Considerations for Type I and II Ground Disturbing Actions (continued)</u>		Yes	No
14	Does the project include a Section 106 of the National Historic Preservation Act (NHPA) effects determination other than a No Effect, including archaeological remains?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15	Does the project involve GeoEnvironmental Sites of Concerns such as gas stations, dry cleaners, landfills, etc.?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16	Does the project require work encroaching and adversely affecting 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 checked="" type="checkbox"/>	<input type="checkbox"/>
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	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"/>
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	Does the project impact federal lands (e.g. U.S. Forest Service (USFS), USFWS, etc.) or Tribal Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control or the modification or construction of an interchange on an interstate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25	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"/>
26	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, Tennessee Valley Authority (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"/>
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Does the project include a <i>de minimis</i> or programmatic Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
29	Is the project considered a Type I under the NCDOT Noise Policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
30	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"/>
31	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 16 - 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 NCDOT Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine status of the 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).

H. Project Commitments:

NCDOT PROJECT COMMITMENTS

TIP Project No. **B-5372**

Replace Bridge No. 109 in S.R. 1706 (Martin Luther King Jr. Ave.) over U.S. 29

Cabarrus County

Federal Aid Project No. N/A

WBS Element 46087.1.1

Continued Coordination and Outreach (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 one month 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 one month prior to the project construction.

Sidewalks (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 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.

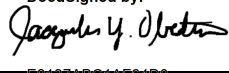
Floodplain Mapping Coordination (NCDOT Hydraulic Design Unit)

- 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).

I. Categorical Exclusion Approval:


TIP Project No.	<u>B-5372</u>
WBS Element	<u>46087.1.1</u>
Federal Project No.	<u>N/A</u>

Prepared By:

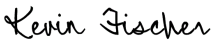
<u>10/5/2022</u>	<small>DocuSigned by:</small> 
Date	<small>E8137ABC1AF64D0...</small> Jackie Obediente, PE Three Oaks Engineering

Prepared For: North Carolina Department of Transportation

Reviewed By:

<u>10/5/2022</u>	<small>DocuSigned by:</small> 
Date	<small>CA084B4A6412432...</small> John Jamison NCDOT Environmental Policy Unit

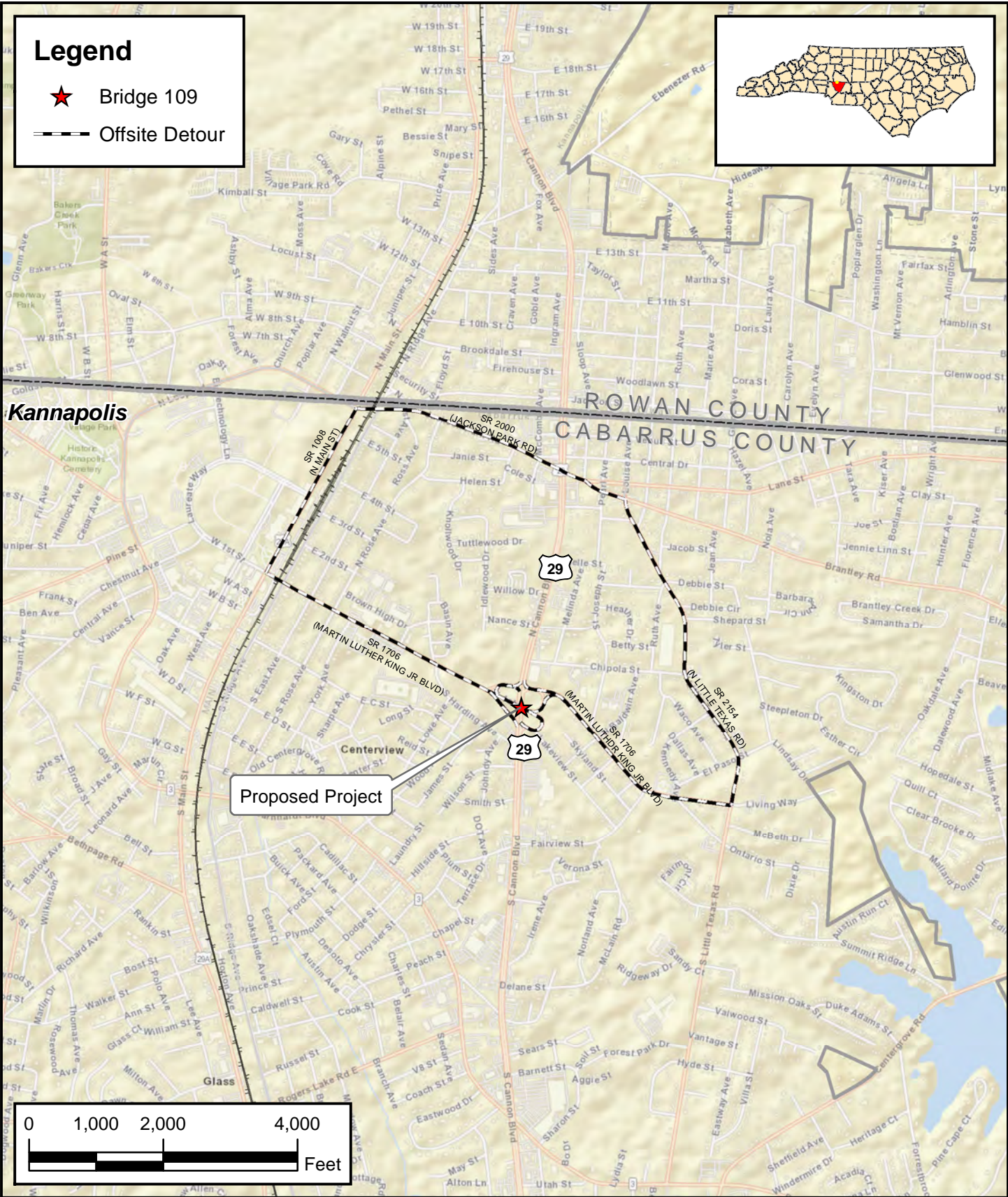
- Approved**
 - If NO grey boxes are checked in Section F (pages 2 and 3), NCDOT approves the Type I or Type II Categorical Exclusion.
- Certified**
 - If ANY grey boxes are checked in Section F (pages 2 and 3), NCDOT certifies the Type I or Type II Categorical Exclusion for FHWA approval.
 - If classified as Type III Categorical Exclusion.

<u>10/5/2022</u>	<small>DocuSigned by:</small> 
Date	<small>ED19A18D99EC496...</small> Kevin Fischer, PE, Asst. State Structures Engineer North Carolina Department of Transportation

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

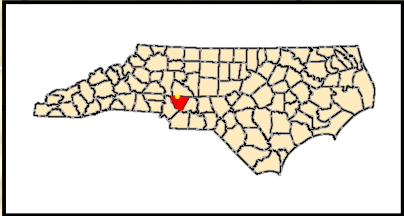
<u>N/A</u>	
Date	for John F. Sullivan, III, PE, Division Administrator Federal Highway Administration

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).



Legend

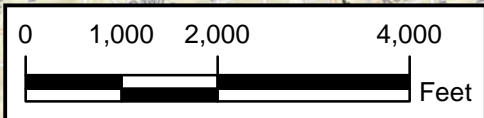
-  Bridge 109
-  Offsite Detour



Kannapolis

ROWAN COUNTY
CABARRUS COUNTY

Proposed Project



**NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION
DIVISION OF HIGHWAYS**

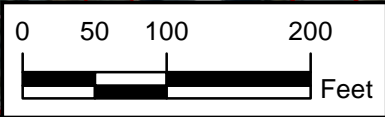
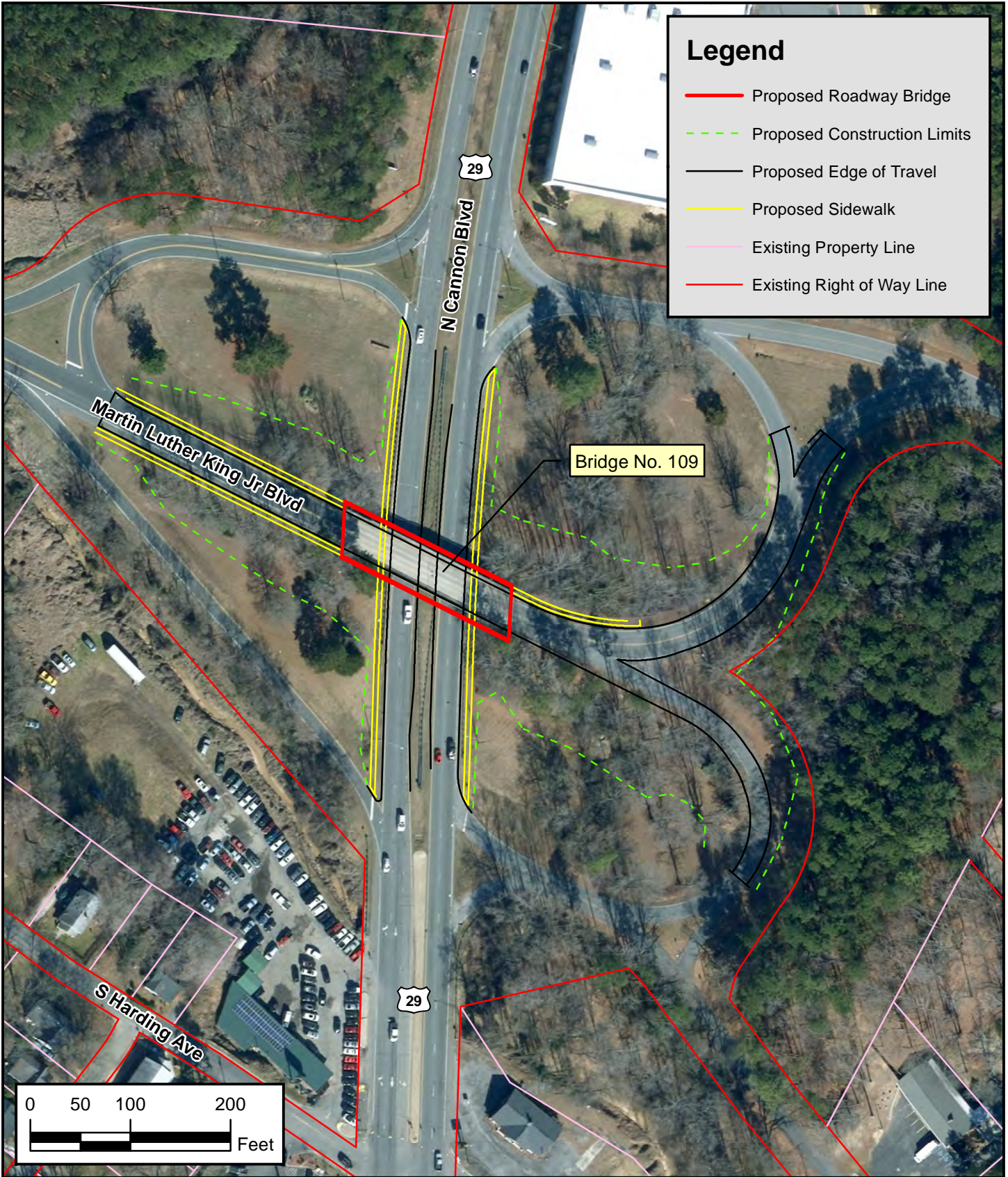
**VICINITY MAP
REPLACE BRIDGE NO. 109
ON SR 1706
(MARTIN LUTHER KING JR BLVD)
OVER US 29.**

CITY OF KANNAPOLIS



County:	CABARRUS
Div:	10
TIP#	B-5372
WBS:	46087.1.1
Date:	JULY 2022

**Figure
1**



NORTH CAROLINA
DEPARTMENT
OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROJECT DESIGN MAP
REPLACE BRIDGE NO. 109
ON SR 1706
(MARTIN LUTHER KING JR BLVD)
OVER US 29.**

CITY OF KANNAPOLIS

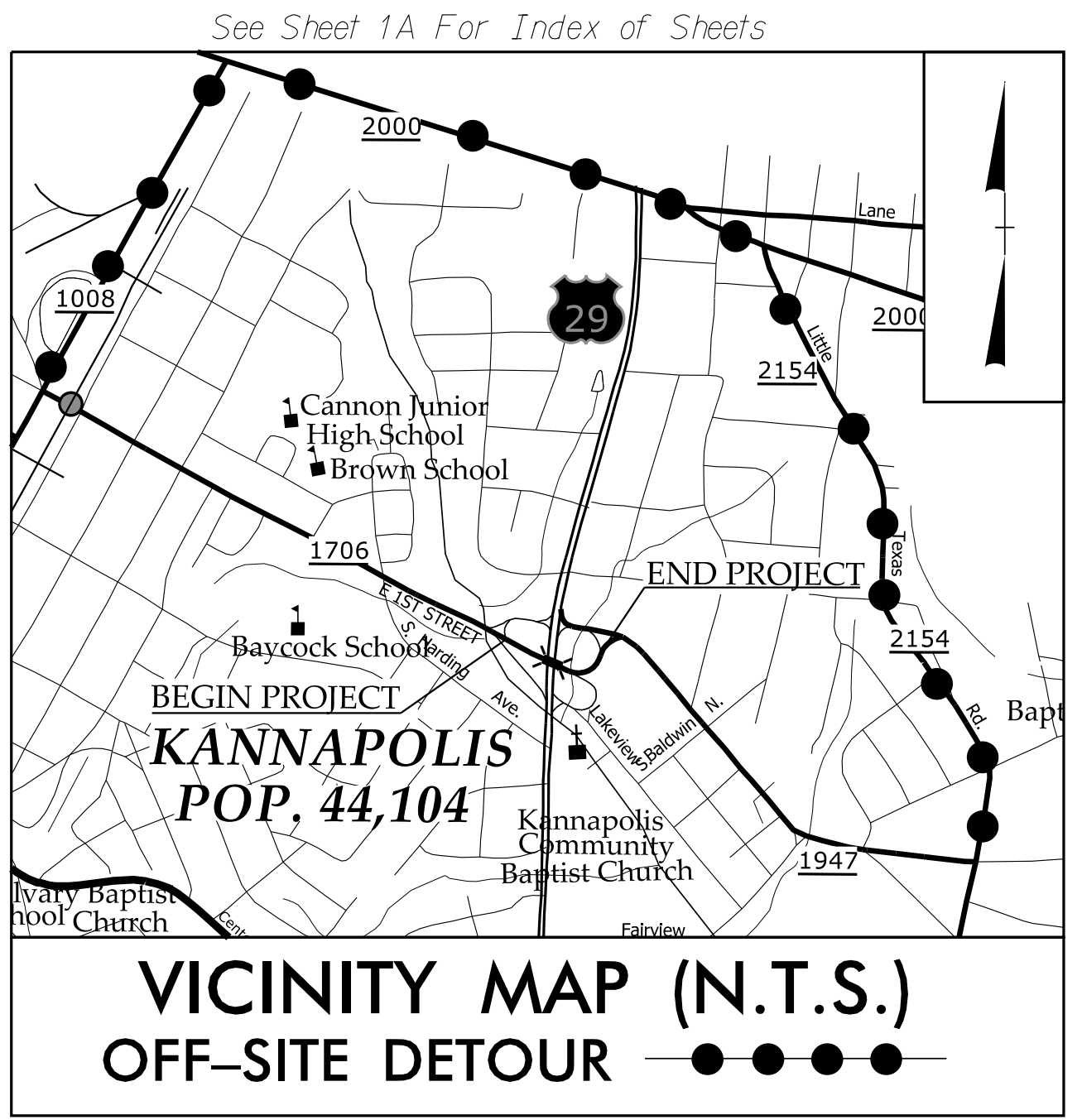


County:	CABARRUS	
Div:	10	TIP# B-5372
WBS:	46087.1.1	
Date:	JULY 2022	

**Figure
2**

09_08/2019

TIP PROJECT: B-5372



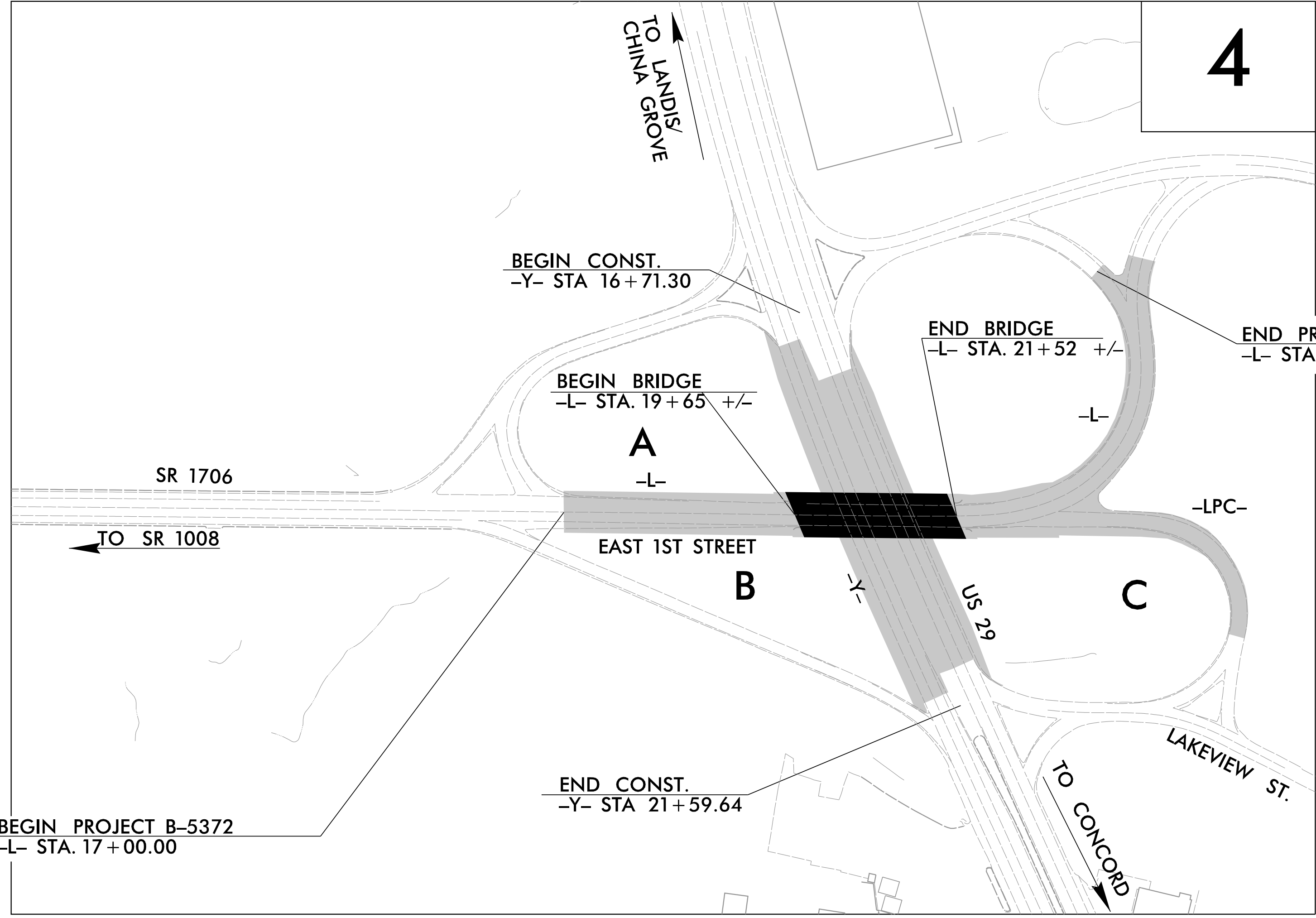
**VICINITY MAP (N.T.S.)
OFF-SITE DETOUR**

REVISED 25% PLANS (DECEMBER 2020)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
CABARRUS COUNTY

LOCATION: BRIDGE NO. 109 ON SR 1706 (E. 1st St.) OVER US 29
TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE

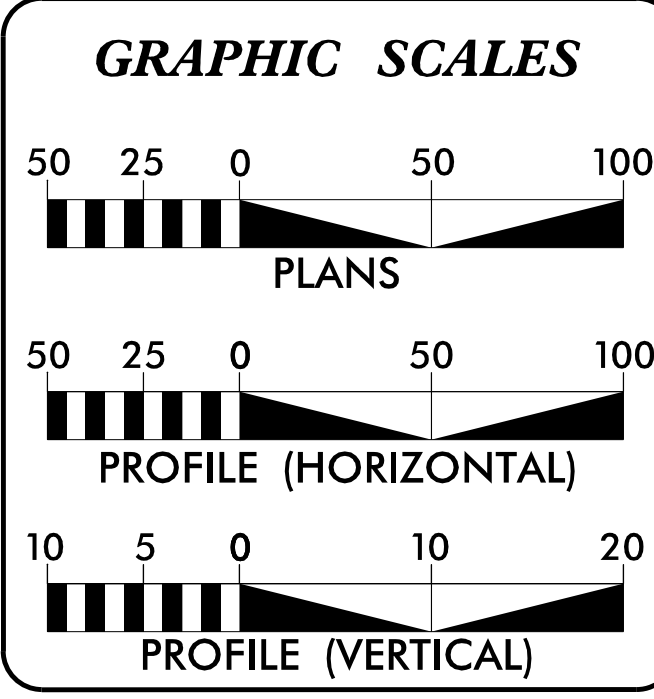
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5372	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46087.1.1		P.E.	



THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARY OF KANNAPOLIS
THIS PROJECT IS PARTIAL ACCESS CONTROL.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACT:



DESIGN DATA

ADT 2020 =	3,520
ADT 2040 =	5,600
K =	11%
D =	55%
T =	5% *
V =	40 MPH
* TTST = 1% DUAL = 4%	
FUNC CLASS =	MINOR COLLECTOR
SUB-REGIONAL TIER	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-5372 =	0.133 MILES
LENGTH STRUCTURE TIP PROJECT B-5372 =	0.035 MILES
TOTAL LENGTH TIP PROJECT B-5372 =	0.168 MILES

Prepared in the Office of:
VAUGHN & MELTON, INC.
3509 Haworth Dr. #100, Raleigh NC, 27609 Phone (919)-977-9455

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
OCTOBER 25, 2022

LETTING DATE:
JUNE 23, 2023

REECE M. SCHULER, P.E., P.L.S.
PROJECT ENGINEER

JON FORD, P.E.
PROJECT DESIGN ENGINEER

DAVID STUTTS, P.E.
NCDOT CONTACT

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.

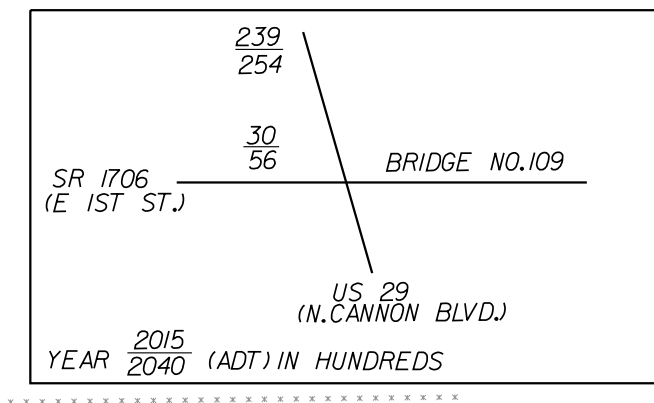
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User: jphilip

8.17.17.99

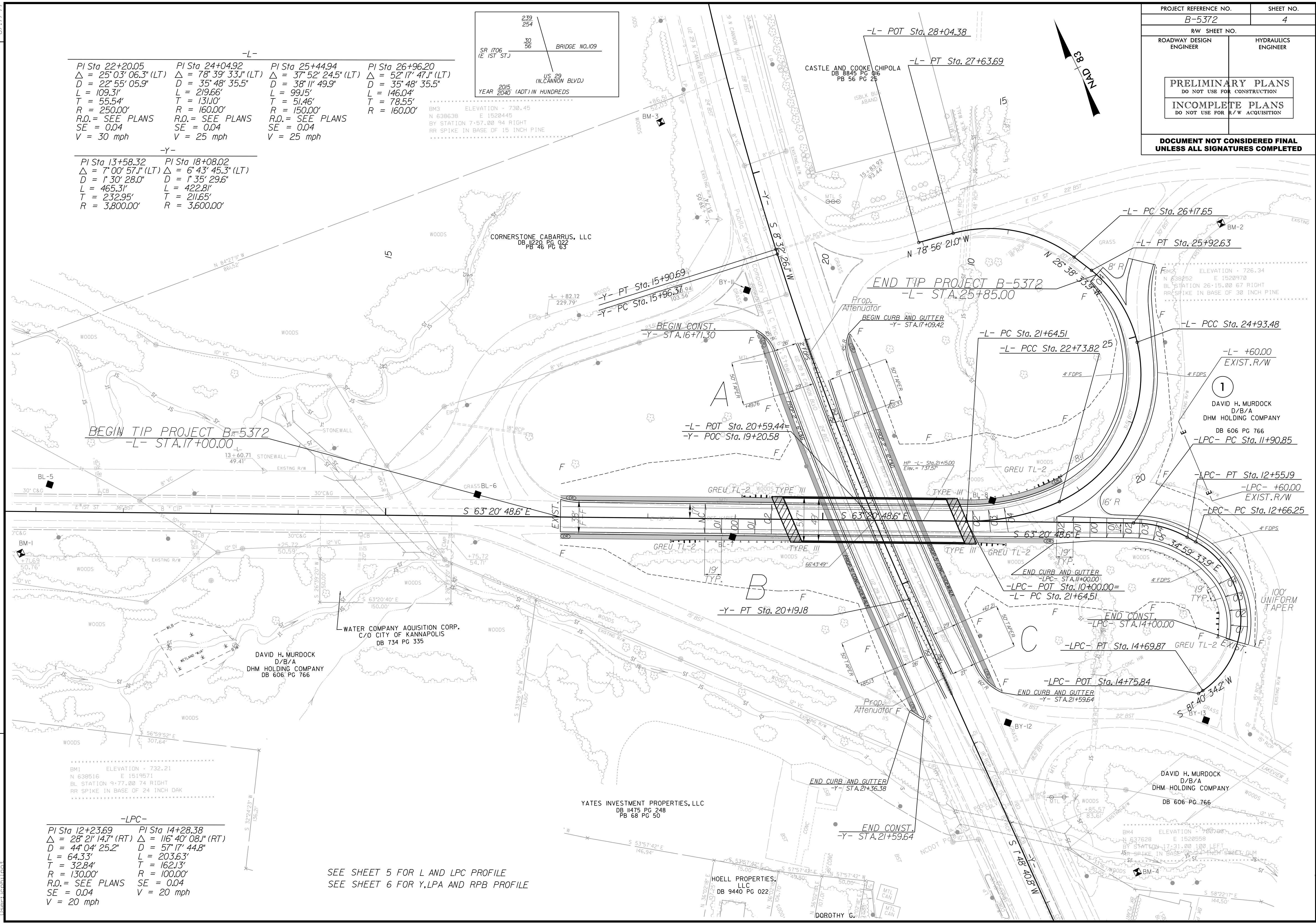
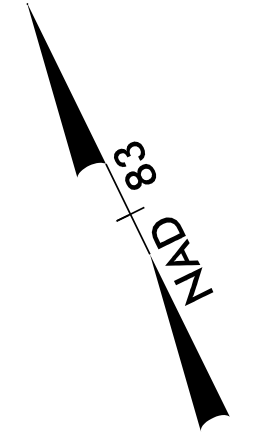
PROJECT REFERENCE NO.		SHEET NO.	
B-5372		4	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER			
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

-L-			
PI Sta 22+20.05 Δ = 25° 03' 06.3" (LT) D = 22' 55' 05.9" L = 109.31' T = 55.54' R = 250.00' R.O. = SEE PLANS SE = 0.04 V = 30 mph	PI Sta 24+04.92 Δ = 78° 39' 33.1" (LT) D = 35' 48' 35.5" L = 219.66' T = 131.0' R = 160.00' R.O. = SEE PLANS SE = 0.04 V = 25 mph	PI Sta 25+44.94 Δ = 37° 52' 24.5" (LT) D = 38' 11' 49.9" L = 99.15' T = 51.46' R = 150.00' R.O. = SEE PLANS SE = 0.04 V = 25 mph	PI Sta 26+96.20 Δ = 52° 17' 47.1" (LT) D = 35' 48' 35.5" L = 146.04' T = 78.55' R = 160.00'

-Y-	
PI Sta 13+58.32 Δ = 7° 00' 57.1" (LT) D = 1' 30' 28.0" L = 465.31' T = 232.95' R = 3,800.00'	PI Sta 18+08.02 Δ = 6° 43' 45.3" (LT) D = 1' 35' 29.6" L = 422.81' T = 211.65' R = 3,600.00'



BM3 ELEVATION = 730.45
N 638638 E 1520445
BY STATION 7+57.00 94 RIGHT
RR SPIKE IN BASE OF 15 INCH PINE



BEGIN TIP PROJECT B-5372
-L- STA. 17+00.00

-L- POT Sta. 20+59.44
-Y- POC Sta. 19+20.58

-L- PC Sta. 21+64.51
-L- PCC Sta. 22+73.82

-L- PC Sta. 26+17.65
-L- PT Sta. 25+92.63

1
DAVID H. MURDOCK
D/B/A
DHM HOLDING COMPANY
DB 606 PG 766
-LPC- PC Sta. 11+90.85

-LPC- PT Sta. 12+55.19
-LPC- +60.00 EXIST. R/W
-LPC- PC Sta. 12+66.25

END CURB AND GUTTER
-LPC- STA. 11+00.00
-LPC- POT Sta. 10+00.00
-L- PC Sta. 21+64.51

END CONST.
-LPC- STA. 14+00.00
-LPC- PT Sta. 14+69.87

-LPC- POT Sta. 14+75.84
END CURB AND GUTTER
-Y- STA. 21+59.64

END CURB AND GUTTER
-Y- STA. 21+36.38

END CONST.
-Y- STA. 21+59.64

-LPC-	
PI Sta 12+23.69 Δ = 28° 21' 14.7" (RT) D = 44' 04' 25.2" L = 64.33' T = 32.84' R = 130.00' R.O. = SEE PLANS SE = 0.04 V = 20 mph	PI Sta 14+28.38 Δ = 116° 40' 08.1" (RT) D = 57' 17' 44.8" L = 203.63' T = 162.13' R = 100.00' R.O. = SEE PLANS SE = 0.04 V = 20 mph

SEE SHEET 5 FOR L AND LPC PROFILE
SEE SHEET 6 FOR Y, LPC AND RPB PROFILE

REVISIONS

6/16/2022 8:41:15 AM
11:15:27.r.dwg_psf04.dgn
11:15:27.r.dwg_psf04.dgn

20-01-0002



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

Project No:	B-5372	County:	Cabarrus
WBS No.:	46087.1.1	Document Type:	PCE or CE
Fed. Aid No:	N/A	Funding:	<input type="checkbox"/> State <input checked="" type="checkbox"/> Federal
Federal Permit(s):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Permit Type(s):	N/A
Project Description: Replacement of Bridge No. 109 on SR 1706 (E. 1 st Street) over US 29.			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

<u>Description of review activities, results, and conclusions:</u>
<p>*Previously reviewed under 15-02-0043* Review of HPO quad maps, HPO GIS information, historic designations roster, and indexes was undertaken on January 7, 2020. 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. All properties over fifty years of age within the APE were visually inspected, and no properties warrant further evaluation. The Study Area borders the Determined Eligible/Study Listed Kannapolis Mill Village Historic District: Black Section (CA0264A), however the district will not be affected by this project and does not fall within the APE. Bridge No. 109 is not eligible for NR listing. There are no National Register listed or eligible properties. If design plans change, additional review will be required.</p>
<u>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:</u>
<p>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 or eligible properties within the APE and no survey is required.</p>

SUPPORT DOCUMENTATION

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

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes -- NO SURVEY REQUIRED

Kate Husbar

NCDOT Architectural Historian

1/7/2020

Date

15-02-0043
Revised



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.



PROJECT INFORMATION

Project No: **B-5372** County: **Cabarrus**
 WBS No: **46087.1.1** Document: **CE**
 F.A. No: **na** Funding: State Federal
 Federal Permit Required? Yes No Permit Type: **USACE**

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 extending approximately 825 feet (251.46 m) to the north and 420 feet (128.02 m) to the south along US 29 from the bridge. In all, the APE encompasses approximately 32 acres, which will cover all ground disturbing activities.

It is anticipated that this project will require federal permits. Therefore, the archaeological review of Bridge No. 109 was conducted pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance (36 CFR Part 800).

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 were conducted at the Office of State Archaeology (OSA) on February 19, 2015 with a subsequent review on December 18, 2019 due to the project's resubmittal. 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

15-02-0043 Revised

(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.

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.

Please note, this project falls within a North Carolina County in which the Catawba Nation have expressed an interest. It is recommended that you contact each federal agency involved with this project to determine their Section 106 Tribal consultation requirements.

SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Photos Correspondence
 Photocopy of County Survey Notes Other: **Images from historic maps**

FINDING BY NCDOT ARCHAEOLOGIST

NO ARCHAEOLOGY SURVEY REQUIRED



C. Damon Jones
 NCDOT ARCHAEOLOGIST II

1/2/20

Date