

PROJECT DESCRIPTIONS

NCDOT is working on two projects to improve traffic along I-40 and at the I-40/I-440/U.S. 1/U.S. 64 interchange.

Project I-5701: Addition of Lanes to I-40

This project includes the addition of lanes on I-40 from the I-440/U.S. 1/U.S. 64 interchange to Lake Wheeler Road (S.R. 1370).

The project will convert the existing 6-lane facility to an 8-lane facility; new auxiliary lanes will also be constructed. The project is proposed to be constructed within existing right-of-way. Project I-5701 is included in the 2018-2027 State Transportation Improvement Program (STIP) and has a scheduled construction start date of 2022. This project is estimated to cost \$27,250,000.

Project I-5703: Interchange Reconstruction

This project will reconstruct the existing I-40/I-440/U.S. 1/U.S. 64 interchange. Additional right-of-way may be needed, depending on the selected design alternative.

Project I-5703 is included in the 2018-2027 STIP and has a scheduled construction start date of 2022. This project is estimated to cost \$151,750,000.

NEED FOR THESE PROJECTS

- The I-40 and I-440 corridors are very important, high volume corridors in North Carolina serving commuter and long-distance traffic.
- Wake County is one of the nation's fastest growing counties and continues to be ranked as one of the best places to live and work.
- Wake County reached 1 million residents in 2014, and this population is expected to double in size and reach approximately 2 million residents by 2054.
- The traffic volumes in this area are projected to increase 55-70% over the next 25 years.

PURPOSE OF THESE PROJECTS

Project I-5701: The widening of I-40 will improve the traffic carrying capacity along the interstate with the addition of two travel lanes (one in each direction). New auxiliary lanes will also be constructed. The additional lanes will help accommodate projected growth and increases in traffic.

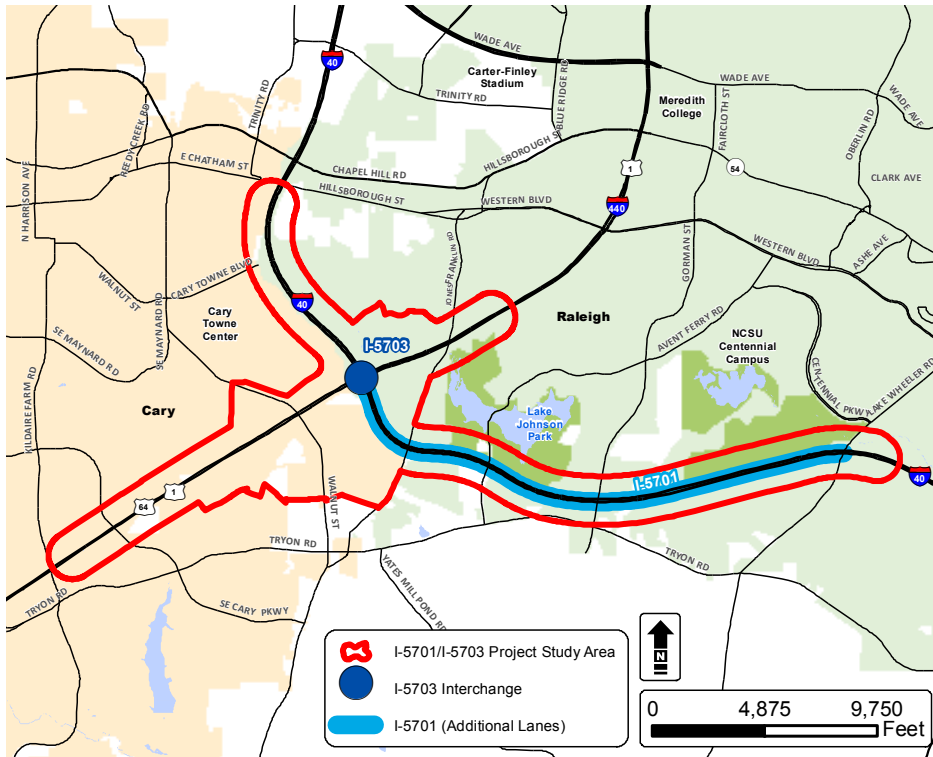
Project I-5703: Reconstruction of the existing interchange will allow for better traffic operations. The existing full-cloverleaf interchange does not meet an acceptable level of service and operations will continue to decline with increasing travel needs.



PROJECT DEVELOPMENT

NCDOT is now conducting detailed analysis on concepts for I-5701 and I-5703. NCDOT and project consultants have started planning, project development, traffic analysis, environmental studies, and engineering studies for these projects. These studies are underway to develop a decision on a preferred alternative for both I-5701 and I-5703, planned for presentation in late 2019.

PROJECT LOCATION MAP



PREVIOUS STUDIES

Projects I-5701 and I-5703 are funded in the 2018-2027 STIP. The Capital Area Metropolitan Planning Organization (CAMPO) is the regional transportation planning organization serving the communities in Franklin, Granville, Harnett, Johnston, and Wake Counties. Both of these projects are also recommended in the CAMPO 2045 Metropolitan Transportation Plan. Previous feasibility studies have been conducted to examine operations and potential alternatives for I-40 and the interchange.

NCDOT I-40 Feasibility Study for Managed Lanes

NCDOT Feasibility Study FS-1005A was completed in October of 2015 to address upgrading 17 miles of I-40 with managed lanes. This study also evaluated interchange concepts at I-40/I-440/U.S. 1/U.S. 64 for general purpose lanes as well as direct access to managed lanes. This initial study identified potential problems that require consideration during the more detailed planning and design phases for these improvements. General purpose lanes along I-40 are proposed for the current projects; however, project I-5701 and I-5703 do not preclude managed lanes along this interstate in the future.

CAMPO Interchange Feasibility Study

CAMPO completed the I-40 at I-440/U.S. 1/U.S. 64 Interchange Feasibility Study in August of 2015 to identify potential solutions for the interchange that would accommodate future capacity while minimizing impacts to surrounding development. This interchange is the highest volume interchange in the CAMPO area and has capacity constraints due to the weaving operations between the four existing loops. The study examined previous studies and long-term plans for the interchange as well as existing and future land use, traffic, and roadway characteristics. This feasibility study examined many alternative potential designs and targeted three concepts for further review and analysis. The concepts included a Stack Concept, a Box Concept, and a Turbine Concept design for the interchange.



PROJECT CHALLENGES

Project I-5701 (I-40 widening) is proposed to take place within existing right-of-way and minimal impacts are anticipated.

Project I-5703 (the interchange reconfiguration) is a more complex project and will likely require the acquisition of additional right-of-way. Potential issues with the interchange reconfiguration identified in the initial feasibility studies are being considered in the planning and design phases of the projects.

Potential issues and concerns identified include:

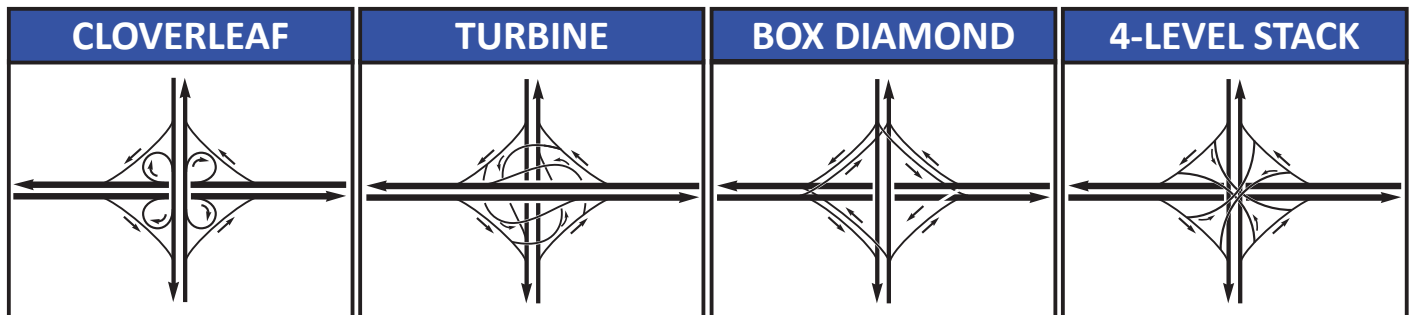
- Impacts to Walnut Creek
- Proximity to South Hills Mall and Plaza and Crossroads Plaza
- Proximity to Hope Community Church/Grace Christian School
- Reconstruction required for existing bridge structures and ramps
- Proximity to high voltage power line and towers

CONCEPTS BEING STUDIED

There are numerous types of interchanges each of which must be designed to fit specific local conditions and controls.

Design of these interchanges must consider connectivity, operations, volumes of traffic, topography, safety, site constraints, impacts, and cost. Below are basic types of interchanges.

INTERCHANGE OPTIONS FROM PREVIOUS FEASIBILITY STUDIES



Concepts from the 2015 feasibility studies were evaluated and modified to ensure engineering functionality and constructibility.

In order to further develop concepts, the project team based their focus on improving the operation of the heaviest traffic movements (west and east to south and the reverse), maintaining the project budget, ensuring engineering functionality, constructibility, and minimizing impacts.

Three interchange concepts are currently under study - including a partial box interchange and two options for partial turbine interchanges.

Relocation of the southeastern portion of the U.S. 1/Walnut Street interchange is also being evaluated. Shifting the on and off ramps to the south is expected to benefit northbound U.S. 1 traffic by increasing the distance to the I-40 ramps.

Concepts under consideration include a new connection from U.S. 1/U.S. 64 to Dillard Drive/Piney Plains Road. This new connection is expected to improve operations along Walnut Street.

YOUR INPUT IS IMPORTANT

Public involvement is an important part of the project development process. NCDOT encourages public input throughout the development of these projects and considers this input when selecting alternatives for projects. Public outreach will be conducted to provide information and gather input on both projects. Public meetings, small group/neighborhood meetings, newsletters, and other outreach efforts are planned to provide information on project progress and preliminary

design development. Project information and updates will be posted to the website.

These projects are located within multiple jurisdictions. NCDOT coordinated with Wake County, the City of Raleigh, the Town of Cary, and CAMPO during early project development. NCDOT will continue to coordinate with local jurisdictions during the development of these projects.

NEXT STEPS

- NCDOT is presenting design concepts at this public meeting and plans to present more detailed design information in a second design public meeting planning for late 2019.
- The general public, stakeholders, and local and state agencies will be given the opportunity to provide input on these projects throughout the process.
- Preliminary designs will be developed, and environmental effects of these designs will be evaluated in the environmental documents for each project.
- It is expected that both projects will classify as Categorical Exclusion (CE). These documents are planned for completion in late 2019. The CE will identify the selected alternative for each project.

PROJECT TIMELINE (FOR BOTH PROJECTS)

Small Group/Neighborhood Meetings	February 2019 to August 2019
First Public Meeting	Early 2019
Second Public Meeting	Late 2019
Environmental Document (Categorical Exclusion)	Late 2019
Construction	2022

CONTACT INFORMATION

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ATKINS
Member of the SNC-Lavalin Group

Submit comments to: 40-440-US1-Interchange@publicinput.com

ADDITIONAL INFORMATION

Visit the project website at:

www.ncdot.gov/projects/40-440-us-1-interchange/



COMMENT FORM

Tell us your thoughts...

You may provide comments on the project website at: www.ncdot.gov/projects/40-440-us-1-interchange/ or through our public engagement platform for the project at: publicinput.com/40-440-US1-interchange. You may also submit a comment form tonight. Once completed, place the comment form in the comment box, email your comments to: 40-440-US1-Interchange@publicinput.com, or send to the address below by June 7, 2019.

NCDOT Environmental Analysis Unit
Attn: Diane Wilson, Public Involvement Officer
1598 Mail Service Center
Raleigh, NC 27699-1598
Phone: (919) 707-6073

1. Which of the following interstates/highways do you frequently travel on and what modes of transportation do you use to travel on them? (place a check inside all boxes that apply)

	Automobile	Bus
I-40		
I-440		
U.S. 1/U.S. 64		

2. Which of the following roads do you frequently travel on and what modes of transportation do you use to travel on them? (place a check inside all boxes that apply)

	Automobile	Bus	Bicycle	Walk
Walnut Street				
Piney Plains Road				
Dillard Drive				
Gorman Street				
Lake Wheeler Road				

3. After reviewing the information provided, please circle how supportive you are of the project to add lanes to I-40.

- a. Very Supportive
- b. Somewhat Supportive
- c. Neutral
- d. Somewhat Unsupportive
- e. Very Unsupportive
- f. I'm unsure. I need more information.

4. If you do not support the project to add lanes to I-40, please tell us why.



5. If you feel you don't understand the project to add lanes to I-40, is there information you would like the project team to supply about the project?

6. Are there other comments or information you wish to provide to the project team about the project to add lanes on I-40?

7. After reviewing the information provided, please circle how supportive you are of the project to reconstruct the I-40/I-440/U.S. 1/U.S. 64 interchange.

- a. Very Supportive
- b. Somewhat Supportive
- c. Neutral
- d. Somewhat Unsupportive
- e. Very Unsupportive
- f. I'm unsure. I need more information.

8. If you do not support the project to reconstruct the I-40/I-440/U.S. 1/U.S. 64 interchange, please tell us why.

9. If you feel you don't understand the project to reconstruct the I-40/I-440/U.S. 1/U.S. 64 interchange, is there information you would like the project team to supply about the project?

TITLE VI PUBLIC INVOLVEMENT FORM

Completing this form is **completely** voluntary. You are not required to provide the information requested in order to participate in this meeting.

Meeting Type: Public Meeting	Date: May 9, 2019
Location: Hilton Garden Inn, at Crossroads in Cary	
TIP No: I-5701/I-5703	
Project Description: Project I-5701: Addition of Lanes to I-40; Project I-5703: I-40/I-440/U.S. 1/U.S. 64 Interchange Reconstruction	

In accordance with Title VI of the Civil Rights Act of 1964 and related authorities, the N.C. Department of Transportation assures that no person(s) shall be excluded from participation in, denied the benefits of, or subjected to discrimination under any of the Department's programs, policies, or activities, based on their race, color, national origin, disability, age, income, or gender.

Completing this form helps meet our data collection and public involvement obligations under Title VI and NEPA, and will improve how we serve the public. Please place the completed form in the designated box on the sign-in table, hand it to an NCDOT official or mail it to the Environmental Analysis Unit, 1598 Mail Service Center, Raleigh, NC 27699-1598.

All forms will remain on file at the NCDOT as part of the public record.

Zip Code: _____	Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female
Street Name: (i.e. Main Street) _____	Age: <input type="checkbox"/> Less than 18 <input type="checkbox"/> 45-64 <input type="checkbox"/> 18-29 <input type="checkbox"/> 65 and older <input type="checkbox"/> 30-44
Total Household Income: <input type="checkbox"/> Less than \$12,000 <input type="checkbox"/> \$47,000 – \$69,999 <input type="checkbox"/> \$12,000 – \$19,999 <input type="checkbox"/> \$70,000 – \$93,999 <input type="checkbox"/> \$20,000 – \$30,999 <input type="checkbox"/> \$94,000 – \$117,999 <input type="checkbox"/> \$31,000 – \$46,999 <input type="checkbox"/> \$118,000 or greater	Have a Disability: <input type="checkbox"/> Yes <input type="checkbox"/> No
Race/Ethnicity: <input type="checkbox"/> White <input type="checkbox"/> Black/African American <input type="checkbox"/> Asian <input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Native Hawaiian/Pacific Islander <input type="checkbox"/> Hispanic/Latino <input type="checkbox"/> Other (please specify): _____	National Origin: (if born outside the U.S.) <input type="checkbox"/> Mexican <input type="checkbox"/> Central American: _____ <input type="checkbox"/> South American: _____ <input type="checkbox"/> European: _____ <input type="checkbox"/> Chinese <input type="checkbox"/> Vietnamese <input type="checkbox"/> Korean <input type="checkbox"/> Other (please specify): _____

How did you hear about this meeting? (newspaper advertisement, flyer, and/or mailing) _____

For more information regarding Title VI or this request, please contact the NCDOT Title VI Nondiscrimination Program at (919) 508-1808 or toll free at 1-800-522-0453, or by email at titleVI@ncdot.gov. Thank you for your participation!

Staple or tape here before mailing



NCDOT Environmental Analysis Unit
Attn: Diane Wilson, Public Involvement Officer
1598 Mail Service Center
Raleigh, NC 27699-1598

PLACE
STAMP
HERE

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Fold here to mail
