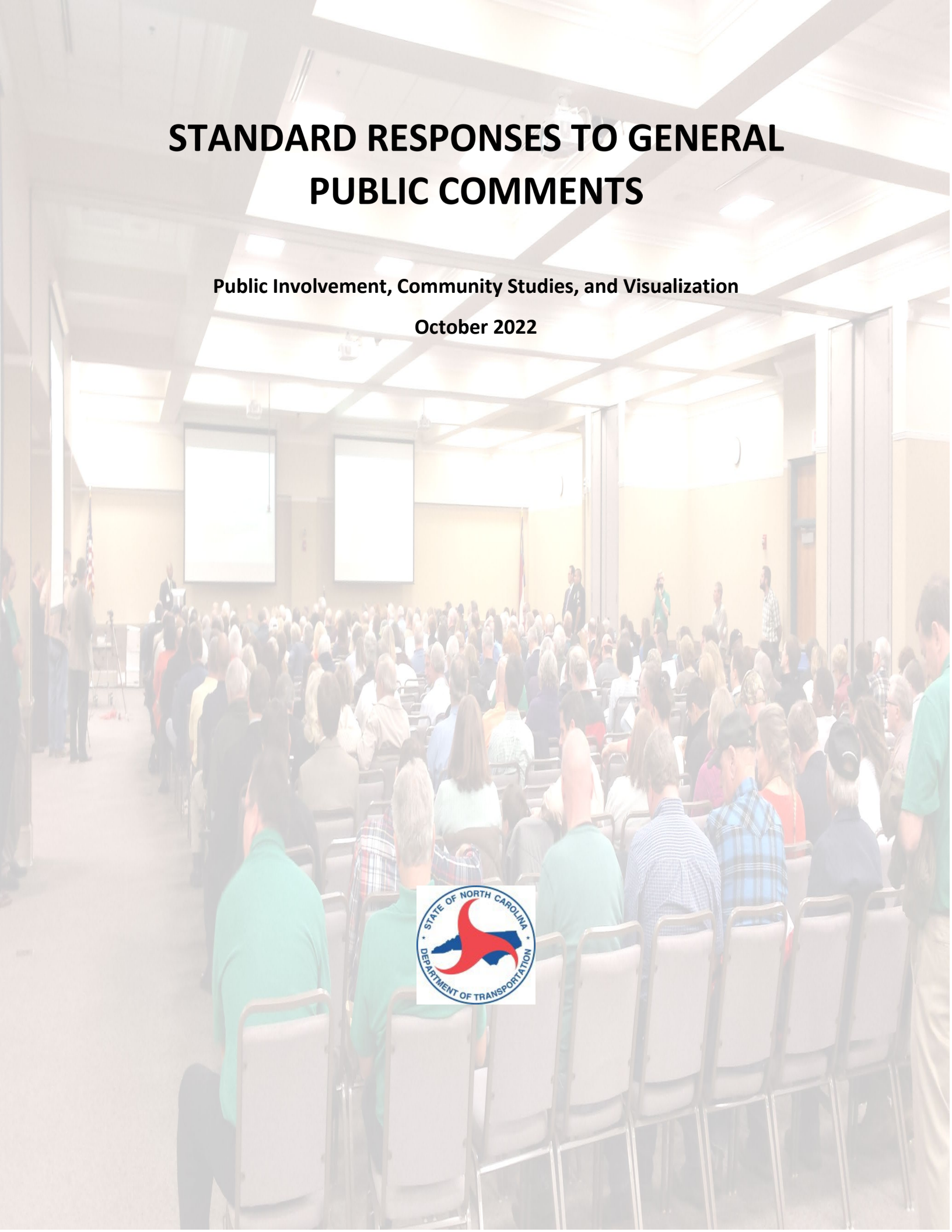
STANDARD RESPONSES TO GENERAL PUBLIC COMMENTS

Public Involvement, Community Studies, and Visualization

October 2022



FOREWORD

While NCDOT projects differ in their proposed improvements and their potential impacts, comments received from the public reveal common topics. This document is a compilation of standard responses, arranged by topic, to public comments. It is intended to assist project team members during the post public meeting/hearing phase, when NCDOT is formulating responses to public comments.

Notes:

1. ***We still recommend coordination with the Subject Matter Experts for review of responses, especially when a specialized response is needed.***
2. ***Draft comment responses should be sent to project team at least 1 week (minimum) prior to the post meeting.***

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Topic: Access Concerns

Access concern response:

NCDOT recognizes that there may be substantial changes in access to local neighborhoods and businesses within the study area due to the project. NCDOT is committed to minimizing adverse effects due to these necessary changes. After identification of the preferred alternative, NCDOT will continue to coordinate with the local municipalities and emergency management services to address access concerns. Where the project is eliminating access to a public street, NCDOT will prepare a service road study to identify potential solutions to avoid land-locking properties. Adjacent businesses should share or interconnect access where possible.

Access Concern response:

NCDOT is committed to minimizing adverse effects due to these necessary changes. NCDOT personnel have been working with residents to explain how access to their properties will change as a result of the proposed project, including the use of service roads at select locations. Restricting crossing movements with the median and limiting crossover locations reduces the number of conflict points and optimizes safety.

Access impact of RCI response:

Median and U-turn bulbs are a standard component of reduced conflict intersection (RCI) design and are utilized successfully throughout the state. Traffic analyses have been completed for this project, and the results of these analyses were carefully considered in the roadway design decisions.

Response to concern about property impacts or driveway access:

One of the goals of a roadway widening project is to retain as much existing pavement as possible. When determining a "best fit" alignment, impacts to residents, businesses, and natural resources are key considerations in determining which side of the road to widen. Impacts shown on the public meeting/hearing maps reflect the "worst-case" scenario anticipated based on the most current data; they are preliminary and subject to change. NCDOT will continue to make every effort during the final design stages to maintain access to all existing properties, where possible. Businesses are encouraged to combine access points and provide connectivity through shared property access.

Response to comment about direct left turns:

The Department is currently evaluating direct left turns from [*name of street #1*] to [*name of street #2*].

A direct left turn from [*name of street #1*] to [*name of street #2*] is not currently being considered because left turn storage needed at this location would be in conflict with the U-turn movement included in the design. Left turns into [*name of street #2*] are being accommodated by a U-turn bulb.

The entire project corridor is expected to experience improved emergency response times during peak hours due to reduced congestion.

Reduced conflict intersections function by reducing more than half of the potential impact locations, or conflict points, where drivers and pedestrians can collide, thereby improving safety in the corridor. The RCI does not eliminate left turns but rather redirects left turns to a U-turn bulb.

Response to comment about limiting the number of curb cuts:

Where currently existing, parcel access (i.e., driveways) is generally being maintained. Property access for future development is evaluated and decisions are made on a case-by-case basis through the driveway permitting process.

Topic: Air/Noise

Response:

One of the goals of local area plans highlighted in the [*insert and spell out document type: DEIS, FEIS, EA, etc.*] is to minimize air quality impacts. By providing free-flowing roadways, especially along the interstate, the air quality would be consistent with this goal, and would not exceed the air quality thresholds set forth under the Clean Air Act. The proposed project is located in an attainment area (A geographic **area** that meets or does better than the national ambient **air quality** standard is called an **attainment area**; an **area** that doesn't meet this standard is called a nonattainment **area**.) and it is not anticipated to create any adverse effects on the air quality within the attainment area.

Response (when TNR is not yet complete):

Regarding noise impact concerns, a preliminary traffic noise analysis is currently underway, and the results are not yet available. Once the analysis is complete, the results will be documented in an initial noise study called a Traffic Noise Report (TNR). This TNR will present predicted traffic noise impacts based on the project's preliminary design, and will identify locations where noise abatement preliminarily meets feasibility and reasonableness criteria. When this noise study is complete, maps will be posted on the project website that show the areas likely to get noise abatement based on that preliminary analysis. If the TNR identifies areas likely to qualify for noise abatement, then additional noise studies will be conducted as part of the project's final design activities to identify recommended noise barrier locations.

Response when TNR is complete and there are no impacts:

During planning and design for highway projects, NCDOT must identify traffic noise impacts, examine potential noise abatement, incorporate feasible and reasonable noise abatement measures, and coordinate with local officials to provide helpful information on compatible land use planning and

control. The procedures for doing this are stipulated by Federal regulation (23 CFR 772) and the NCDOT Traffic Noise Policy.

NCDOT has performed preliminary noise analyses for this project and an initial Traffic Noise Report has been prepared. Based on that analysis, traffic noise levels due to the project are not predicted to be high enough in the project's design year to constitute a traffic noise impact as defined by NCDOT Traffic Noise Policy. Since no impacts are predicted, consideration for noise abatement is not warranted under Federal law and State policy.

Response when TNR is complete and there are impacts but walls aren't likely:

During planning and design for highway projects, NCDOT must identify traffic noise impacts, examine potential noise abatement, incorporate feasible and reasonable noise abatement measures, and coordinate with local officials to provide helpful information on compatible land use planning and control. The procedures for doing this are stipulated by Federal regulation (23 CFR 772) and the NCDOT Traffic Noise Policy.

NCDOT has performed preliminary noise analyses for this project and an initial Traffic Noise Report has been prepared. Based on that analysis, traffic noise levels due to the project are predicted to be high enough in the project's design year to constitute a traffic noise impact as defined by NCDOT Traffic Noise Policy. Where noise impacts are predicted, noise abatement was considered. No noise barriers evaluated met the feasibility and reasonableness criteria defined in the NCDOT Traffic Noise Policy.

Can provide specific explanations of why not.

Response when TNR is complete and there are impacts and walls are likely:

During planning and design for highway projects, NCDOT must identify traffic noise impacts, examine potential noise abatement, incorporate feasible and reasonable noise abatement measures, and coordinate with local officials to provide helpful information on compatible land use planning and control. The procedures for doing this are stipulated by Federal regulation (23 CFR 772) and the NCDOT Traffic Noise Policy.

NCDOT has performed preliminary noise analyses for this project and an initial Traffic Noise Report has been prepared. Based on that analysis, traffic noise levels due to the project are predicted to be high enough in the project's design year to constitute a traffic noise impact as defined by NCDOT Traffic Noise Policy. Where noise impacts are predicted, noise abatement was considered. Noise walls were evaluated and found to preliminarily meet feasibility and reasonableness criteria defined in the NCDOT Traffic Noise Policy in the [*XX*] locations.

Can provide additional information on noise walls.

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.

Response to comment about using asphalt pavement to reduce noise:

Pavement decisions are not made based on noise issues, but rather on life-cycle cost. There are types of concrete and asphalt pavement that are quieter than others that may be appropriate to use in certain situations. Consideration may be given to one of these pavement types on this project if conditions warrant.

Response to comment about how noise walls decisions are made:

Decisions about recommended noise wall locations are made in compliance with Federal regulation (23 CFR 772) and the NCDOT Traffic Noise Policy. First, noise impacts are identified, and where impacts occur, noise abatement is considered. Where noise walls are feasible and reasonable according to the Traffic Noise Policy criteria, they will be constructed.

Response for when a noise study isn't done (Federal Type III projects):

The North Carolina Department of Transportation (NCDOT) established the NCDOT Traffic Noise Policy to comply with Federal Highway Administration (FHWA) rules regarding traffic noise (found in Title 23 Code of Federal Regulations Part 772 - "Procedures for Abatement of Highway Traffic Noise and Construction Noise"). These documents require that traffic noise studies be performed for all "Type I" highway projects, which are essentially those that construct new highways, or add through traffic lanes ~~to~~ or substantially alter existing highways. Since this project is not a Type I project, no noise study will be conducted, and there will be no consideration of noise abatement.

Response for when a noise study isn't done (State MCDC projects):

A noise study was not performed for the [*insert STIP number*] project. Since this project is not using any federal funds, and since it falls below the minimum criteria thresholds that determine when an environmental document is required under the NC Environmental Policy Act, a traffic noise study was not required. *If the project is a widening project (as opposed to a new location project), you can add the following statement.* However, this project is not expected to noticeably increase traffic noise levels. When a noise source is doubled (in this case, the volume of traffic), the noise increase is theoretically limited to 3 decibels, which is an increase just barely detectable to a person of average hearing. This is considered theoretical, because a 3-decibel increase would require that all the sound being generated by the traffic reach the hearer's ear unabated. In actuality, the increase would generally be less, since some noise energy is scattered by ground coverings (e.g., grass and shrubs), and some is blocked or reflected by the vehicles or nearby structures, and noise energy dissipates as it travels over distance. The traffic on [*insert road name or route number*] in the project's design year [*insert year*] will

be about [*insert percentage*] % greater than the existing traffic. This is far from the 100% increase in noise source required to produce the theoretical maximum increase of 3 decibels.

Response to comment about reducing speed limits to reduce noise:

Reducing the speed limit is not an effective way to reduce traffic noise. Even if a lower speed limit were consistently enforced, a 10-mph drop in speed limit, for example, would be expected to result in only a 1-2 decibel reduction in noise level, which is not perceptible to the human ear.

OR

NCDOT reviewed the impact on noise levels of reducing the speed limit on [*insert name of street*] to [*insert number*] mph. Reducing the speed limit on [*insert name of street*] from [*insert number*] mph to [*insert number*] mph will have a negligible effect on traffic noise. Even if the lower speed limit were consistently enforced, this drop-in speed would be expected to result in only a [*insert number*] decibel reduction in noise level, which is not perceptible to the human ear.

Should vet this response on a case-by-case basis, as it may not hold true if the drop in speed limit is dramatic.

Response to question about noise increases due to the addition of a turn lane:

The purpose of the project is to improve the current traffic flow and address future traffic volume, so you should not see an increase in traffic congestion. Traffic analysis conducted for this project proposes improvements in traffic operation and congestion with the construction of the project. Also, the project may alter traffic patterns in the area and help to alleviate overall congestion in the area. In terms of additional noise as a result of the project, the addition of a turn lane would not result in any notable increase in noise levels.

Response regarding trees and/or vegetation to help reduce noise:

Vegetation is not effective for reducing noise levels. It is not feasible to plant enough vegetation along a highway to achieve sufficient noise reduction, although planting trees or shrubs can provide aesthetic benefit and visual screening. Studies have shown that vegetation must be at least 100 feet thick, at least 20 feet high, and dense enough (100% opacity year-round) to provide a 5-decibel noise reduction. For these reasons, the Federal Highway Administration does not allow the use of vegetation for the purposes of noise abatement. Since trees are not necessarily permanent features, and since the sound-attenuating potential of deciduous trees changes as they lose their leaves, they are usually not included in the traffic noise models developed to predict traffic noise levels. This means the noise levels evaluated are loudest case, since they do not account for any noise-reducing effects the existing trees may have, however minor it may be. Modeling loudest-case noise levels increases the possibility that a noise wall will be found feasible and reasonable.

Response to comment about extending noise wall:

The North Carolina Department of Transportation (NCDOT) established the NCDOT Traffic Noise Policy to comply with Federal Highway Administration (FHWA) rules regarding traffic noise (found in Title 23 Code of Federal Regulations Part 772 - "Procedures for Abatement of Highway Traffic Noise and Construction Noise"). These documents require that traffic noise studies be performed for highway projects of a certain scope, including those that construct new highways or that add through traffic lanes to existing highways. When noise studies are conducted, NCDOT uses computer models to predict future noise levels along highway projects and, when the predicted traffic noise levels reach certain thresholds, noise reduction options are investigated. All noise reduction methods, such as noise walls, must remain within the constraints of the feasibility and reasonableness criteria defined within the NCDOT Policy. The heights and lengths of recommended noise walls are determined by complex modeling and an iterative analysis process, through which an optimal wall (length, height, and placement) that meets Policy requirements is identified.

The reason why a wall can or cannot be extended in any one location is highly situation specific and should be provided on a case-by-case basis.

Response to comment about a home behind a recommended noise wall that isn't benefited by the wall due to distance:

Noise walls are generally only effective at reducing traffic noise within a few hundred feet of the wall. Since this home is approximately [*insert number*] feet away from the proposed noise wall, it is too far away to experience substantial noise reduction due to the noise wall.

Response to comment about a whether a specific home is or is not getting a noise wall:

The North Carolina Department of Transportation (NCDOT) established the NCDOT Traffic Noise Policy to comply with Federal Highway Administration (FHWA) rules regarding traffic noise (found in Title 23 Code of Federal Regulations Part 772 - "Procedures for Abatement of Highway Traffic Noise and Construction Noise"). These documents require that traffic noise studies be performed for highway projects of a certain scope, including those that construct new highways or that add through traffic lanes to existing highways. When noise studies are conducted, NCDOT uses computer models to predict future noise levels along highway projects and, when the predicted traffic noise levels reach certain thresholds, noise reduction options are investigated. All noise reduction methods, such as noise walls, must remain within the constraints of the feasibility and reasonableness criteria defined within the NCDOT Policy. When a noise wall is not recommended, it is either because no traffic noise impacts are predicted to occur in the future with the project in place, or an evaluated noise wall did not meet the feasibility and reasonableness criteria stipulated by the Traffic Noise Policy. In this case, [*provide a tailored answer for the specific situation regarding why a noise wall isn't likely*].

Response:

Information about noise barriers is available at https://www.ncdot.gov/initiatives-policies/environmental/reducing-noise-pollution/Pages/noise-barriers.aspx

or by contacting the Traffic Noise & Air Quality Group Leader, Missy Pair, at (919) 707-6064 or mpair@ncdot.gov.

We recommend discussing the expectation of noise due to construction activities.

If the Division is committed to no nighttime activities, then provide that feedback. However, this is not usually determined until later.

Air pollution response:

A qualitative assessment was prepared for the detailed study alternatives, which indicates the amount of Mobile Source Air Toxics (MSATs) emitted would be proportional to the Vehicle Miles Traveled (VMT) assuming that other variables such as fleet mix are the same for the alternatives. Under each Build Alternative there may be localized areas where VMT would increase, and other areas where VMT would decrease. Therefore, it is possible that localized increases and decreases in MSAT emissions may occur. The localized increases in MSAT emissions would likely be most pronounced [*insert locations*]. MSAT emissions would also increase [*insert locations*]. However, even if these increases do occur, they too will be substantially reduced in the future due to implementation of EPA's vehicle and fuel regulations. The localized decreases in MSAT emissions would likely be most pronounced [*insert locations*].

Regardless of the alternative chosen, overall future MSAT emissions will likely be lower than present levels in the design year as a result of the EPA's national control programs that are projected to reduce annual MSAT emissions by over 90 percent from 2010 to 2050.

The project is located in [*insert county name(s)*], which [*is/are*] in compliance with the National Ambient Air Quality Standards (NAAQS), which were established in order to protect public health, safety, and welfare from known or anticipated effects of air pollutants. Therefore, the project is not anticipated to create any adverse effects on the air quality of this attainment area.

Topic: Bike/Ped

Response regarding Complete Streets improvements:

NCDOT is committed to Complete Streets improvements to provide for all modes of transportation and has continued to coordinate efforts with the (insert local jurisdiction) to incorporate these improvements into the project in compliance with applicable design and cost-sharing guidelines. In areas where existing sidewalks are being disturbed, the proposed design shows these sidewalks being replaced. In areas where future pedestrian accommodations are proposed, the design has been developed to facilitate their future construction.

Response regarding bike and pedestrian accommodations:

NCDOT is coordinating with the City to provide sidewalks in accordance with approved local plans. Bike lanes were considered; however, due to right-of-way constraints, as well as lack of connections to other bike lanes, currently it is not practicable to provide them. However, the project is being designed to facilitate future bicycle accommodations should the City decide to include them as part of a future project.

Response related to bicyclist and pedestrian safety:

Regarding the safety of bicyclists and pedestrians, the appropriate safety amenities have been included in the preliminary designs. This project will make the corridor more pedestrian friendly by providing sidewalk, multi-use paths and opportunities to safely cross the road. Exact locations for pedestrian/bicycle improvements will be determined during final design. All bicycle and pedestrian facilities will be designed according to the North Carolina Complete Streets Policy and Design Guidelines, AASHTO's (American Association of State Highway and Transportation Officials) Guide for the Development of Bicycle Facilities, and the AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities. A primary goal of planning, designing, and creating Complete Streets is to make it possible for motorists, pedestrians, bicyclists, and transit riders to all travel safely from their origins to their destinations.

More information about NCDOT's Complete Streets policy can be found at https://www.ncdot.gov/divisions/bike-ped/Pages/complete-streets.aspx

Bike/Ped Response:

Pursuant to NCDOT policies and guidelines regarding bicycle and pedestrian accommodations and Complete Streets, areas where existing sidewalks are being disturbed will be replaced. These features will be shown on the preliminary design developed after selection of the preferred alternative. In areas where the various plans propose future pedestrian accommodations, the preliminary design of the preferred alternative will be developed to facilitate inclusion of these elements (subject to developing cost sharing agreements with the applicable local governments).

In accordance with the Complete Streets Policy, the Department will pay the full cost of multi-use paths (MUP) that are included in an adopted Comprehensive Transportation Plan. The Department's standard width for MUP is 10 feet and the standard pavement type is asphalt. Concrete (or any other material) and wider MUP (including wider buffers) would be considered betterments and the municipality would be responsible for the additional cost. Construction of the MUPs will be contingent upon a municipal agreement.

Additionally, in some areas of the project, existing roads have bicycle accommodations which may include widened paved shoulders or the use of shared vehicle and bicycle lanes. NCDOT will replace these accommodations in kind if impacted by the project.

When NCDOT begins to develop preliminary design for the preferred alternative, NCDOT utilizes the latest adopted design guidelines available from sources such as the American Association of State Highway and Transportation Officials (AASHTO), FHWA, the National Center for Safe Routes to Schools, the US Access Board, and NCDOT guidance documents produced by the NCDOT. When NCDOT Standard typical sections do not agree with local standards, NCDOT will coordinate with local agencies about including local standards in the design, and any associated cost-sharing with the local agency.

Bike/Ped Impact of RCI Design Response:

A reduced conflict intersection (RCI) design can provide additional bicycle and pedestrian crossing opportunities than traditional all-movement signalized intersections. The simplification of traffic signals in an RCI design also allows less wait time for bicycles and pedestrians to cross busy streets compared to traditional all-movement traffic signals. As based on recent federal research (NCHRP 7-25), an RCI provides 25% fewer intersection safety concerns for pedestrians compared to a traditional all-movement signalized intersection.

Response to comment about creating additional separation between the vehicle travel lane and the multi-use path:

NCDOT works to maximize the safety of all modes of travel for all our projects. Initial design concepts included sidewalks and designated bicycle lanes or 14-foot wide outside lanes on both sides of the road. Following coordination with local planning staff, the functional design was modified to include multi-use paths (MUP) on [*one side or both sides*] of the road. Additional coordination resulted in the current design, which includes MUP on both sides of the road, which provides seven feet of separation between the travel lane and MUP, including a two-foot gutter.

The current design provides more separation than would have been provided for designated bicycle lanes. Five feet of separation between the face of the curb and the MUP meets AASHTO minimum design standards. Increasing this separation would be considered a betterment and the town would be responsible for the cost of the additional right-of-way.

Response to comment that NCDOT pay for the full cost of multi-use paths:

In accordance with the Complete Street Policy, the Department will pay the full cost of multi-use paths that are included in an adopted Comprehensive Transportation Plan. The Department's standard width for MUP is 10 feet and the standard pavement type is asphalt. Concrete (or any other material) and wider MUP (including wider buffers) would be considered betterments and the municipality would be responsible for the additional cost. Construction of the MUPs will be contingent upon a municipal agreement.

Response to comment requesting pedestrian and bicycle facilities:

Traffic signals and pedestrian and bicycle crossings will be evaluated during final design and signal and crossing location recommendations will be made for the entire corridor. If deemed appropriate, a traffic signal may be installed at this location which would allow for a Z-crossing for pedestrians and bicyclists.

Topic: Business Impacts

Business Impact response:

Impacts shown on the public meeting/hearing maps reflect the "worst-case" scenario anticipated based on the most current data; they are preliminary and subject to change.

NCDOT is committed to minimizing the number of business relocations due to this project. Once a preferred alternative is identified, the design will be further refined. NCDOT considers safety, human and natural environment impacts, traffic service, cost, and public comments. All of these things are considered when making decisions on projects. NCDOT will continue to look for other opportunities to further avoid and minimize relocations due to the project to the greatest extent practicable.

NCDOT will continue to further avoid and minimize impacts due to the project to the greatest extent practicable during final design and construction. The refined preliminary designs for the preferred alternative may incorporate features such as retaining walls in order to minimize impacts to the natural and human environments.

Once a preferred alternative is identified, additional public involvement and outreach efforts with local governments, businesses, and other stakeholders will be made.

Business Impact of RCI response:

The project will primarily include a Reduced Conflict Intersection (RCI) design, which allows right turns out of properties and side streets and provides U-turn bulbs of sufficient size to accommodate trucks. An RCI design redirects minor movements to improve the overall safety and efficiency of the corridor. RCIs have been constructed in multiple states (including North Carolina) and have been shown to help alleviate congestion while increasing travel capacity, reducing travel time during peak travel times, and reducing collisions at intersections. Improved traffic flow is possible by simplifying traffic signal phasing and allowing both directions of traffic to move simultaneously. Redirecting traffic to avoid high-risk movements reduces the number of conflict points where collisions might occur. RCIs are better for bicyclists and pedestrians than traditional all-movement intersections. RCIs also tend to be more cost effective than traditional intersections or interchanges because RCIs require less land and/or structures to separate roads generally with fewer impacts to properties than traditional full-movement intersections or interchanges. NCDOT continues to refine the project design. NCDOT will work to minimize impacts to the community and the natural environment.

Topic: Community Impacts

Response:

This project has been supported by all municipalities. The proposed design would not negatively impact travel within and outside the towns. Major street travel movements with the proposed design are no different from signalized arterial intersections. The proposed design simply redirects some minor intersection movements for the efficiency and safety of all road users.

Response:

NCDOT is not involved in the local growth/development land-use decisions and approvals. The traffic forecasts and capacity analysis are required to look at conditions in the future [*insert year*] to address the existing and future transportation deficiencies in this corridor.

Response:

A wide range of preliminary alternatives was developed and evaluated for their ability to meet the purpose and need for the project, as well as how they minimize impacts to the human and natural environments. The current detailed study alternatives were selected based on those evaluations. Opportunities to further minimize the impacts to the human and natural environment will continue to be evaluated during the refinement of preliminary and final designs.

Response related to relocation of church or cemetery:

NCDOT acknowledges and agrees that the relocation of churches and gravesites is undesirable, and avoidance of such important community features is a major consideration in the selection of a preferred alternative. NCDOT understands that the prospect of relocating graves is distressing to both the families and community. When relocation of graves is unavoidable, NCDOT takes great care in relocating any gravesites to appropriate locations. The process is handled by specialists who will work with relatives of the deceased to identify potential relocation sites and ensure that the relocation meets the requirements of State law.

Community Impact response:

An analysis of socioeconomic demographic information within the project's Direct Community Impact Area (DCIA) is one of the components intended to facilitate a better understanding of the relationship between the proposed transportation project and the potentially affected communities. This data is also used to pinpoint communities that would be affected by the proposed improvements. Demographic data was gathered from the 2010 US Census as well as the 2015-2019 American Community Survey. In addition to the utilization of current census data, interviews with City, Town, and county planning organizations were conducted. The methodology of assessing demographic trends was based on the

Federal Council on Environmental Quality (CEQ) regulations and Federal Highway Administration (FHWA), as well as NCDOT guidance on conducting Community Impact Assessments. An analysis of the potential community impacts is discussed in the project's environmental document, a [*insert document type*], which can be reviewed by visiting [*insert URL*].

NCDOT will continue to further avoid and minimize the project's impacts to the human and natural environments to the greatest extent practicable during the refinement of preliminary and final designs. NCDOT will coordinate with local governments, neighborhoods, and organizations during the design refinement process as well.

Senior Citizen concerns Response:

The proposed project and changes in access are proposed in order to meet the stated purpose and need of improving traffic operations along the corridor. NCDOT recognizes that there will be changes in access to neighborhoods and businesses within the study area due to the project and is committed to minimizing adverse effects due to these necessary changes. After identification of the preferred alternative, NCDOT will coordinate with the local municipalities, affected populations, local emergency management services, and communities to minimize any adverse impacts of the project design on access to local goods and services. It is not anticipated that the project will create barriers for citizens living within nearby communities or create mobility impairment for senior citizens needing access to medical or other facilities.

Response related to local municipalities planning:

NCDOT has consulted with the local towns throughout planning and preliminary design for this project. We reviewed and considered local area plans in the context of the project's purpose, which is to reduce congestion along the project corridor, and to provide bicycle and pedestrian accommodations. Traffic analyses have been completed for this project and were factored into the design decisions.

Roadway design comments will be taken into consideration as NCDOT continues to refine the project design. NCDOT will work to minimize impacts to the community and natural environment.

Topic: Construction Impacts

General response for Design-Build projects:

NCDOT utilizes the Design-Build process to complete projects faster, resolve constructability issues and afford opportunities for innovation. The Design-Build process allows NCDOT to have one contract with a team of designers and contractors for design, environmental permitting, right of way acquisition, utility relocation and construction. This approach reduces the overall construction time, helps NCDOT avoid cost inflation and allows the Design-Build Team to make innovations that save the taxpayer money, reduce environmental impacts and alleviate driving delays for motorists. The Design-Build Team is typically allowed to propose different alternatives or modify the Department's proposed alternative to

reduce costs, reduce impacts and / or accelerate the project completion. However, it is important to note that while design flexibility is allowed, the Design-Build Team must adhere to all the commitments on the "green sheet" located at the beginning of the [*insert and spell out document type*]. Additionally, if necessary, the Design-Build Team will be required to coordinate all design changes with the environmental agencies, local officials and the public.

Response:

Construction activities may result in temporary noise occurrences, but NCDOT will implement practices to minimize noise during construction. Existing trees/plantings generally do not provide noise reduction.

A detailed hydraulic analysis will be conducted during the final design. Potential impacts to an adjacent property will be evaluated at that time and minimized to the extent practicable.

NCDOT will work with utility companies during the final design as needed to determine where utilities should be relocated.

The project is not expected to have negative impacts on property values. The project is expected to provide a benefit to adjacent neighborhoods by providing operational improvements and safety enhancements in the project study area.

Response to concern about temporary construction impacts such as noise, dust, and/or bright lights at night:

Construction activities may result in temporary occurrences of noise and dust. However, NCDOT will implement practices to minimize noise during construction and will implement dust control measures as needed.

Construction Impacts Response:

Temporary visual impacts would affect properties adjacent to areas where construction, staging, and stockpiling operations occur. Upon project completion, the contractor would be required to remove all equipment and excess materials and reseed any disturbed areas. Generally, low-cost and easily implemented construction noise control measures should be incorporated into the project plans and specifications to the extent practicable. These measures may include, but are not limited to, work-hour limits, equipment exhaust muffler requirements, haul-road locations, elimination of "tail gate banging", ambient-sensitive backup alarms, construction noise complaint mechanisms, and consistent and transparent community communication.

Air quality impacts resulting from roadway construction activities are typically not a concern when contractors utilize appropriate control measures. During construction of the proposed project, all materials resulting from clearing and grubbing, demolition or other operations would be removed from the project, burned, or otherwise disposed of by the Contractor. Any burning would be done in accordance with applicable local laws and ordinances and regulations of the North Carolina State

Implementation Plan (SIP) for air quality in compliance with 15A NCAC 2D.1903. Care would be taken to ensure burning will be done at the greatest distance practical from dwellings and not when atmospheric conditions are such as to create a hazard to the public. Operational agreements that reduce or redirect work or shift times to avoid community exposures can have positive benefits. Burning would be performed under constant surveillance.

Topic: Design Elements

Generic drainage response:

A detailed hydraulic analysis will be conducted during final design. Potential impacts to adjacent property will be evaluated during final design and minimized to the extent practicable.

Response to comment favoring just adding more traditional lanes, instead of RCI:

The preferred [*#*]-lane Reduced Conflict Intersection (RCI) alternative was selected as a balance of traffic operational improvements, along with consideration of impacts to the community. RCIs also tend to be more cost effective than traditional intersections or interchanges because RCIs require less land and/or structures to separate roads generally with fewer impacts to properties than traditional full-movement intersections or interchanges.

In addition to simplifying how traffic moves and reducing the risk of collisions, reduced-conflict intersections also:

- Improve safety for motorists and pedestrians
- Can accommodate more traffic without increased delays
- Allow for a city or NCDOT to adjust the timing of traffic signals to regulate the speed at which drivers move through the corridor
- Require less right of way or property impacts than adding travel lanes or building interchanges and overpasses

A [#]-lane alternative with traditional all-movement intersections was also considered, but this alternative would have caused greater impacts, such as [*state impacts*], to properties and would cost more. NCDOT will continue to coordinate with local jurisdictions to refine the final design.

Alternatives Suggestions Response:

Multiple alternatives have been studied throughout the development of the project and each considered the impacts to the human and natural environments while also meeting the purpose and need of the project. Once a preferred alternative is chosen, NCDOT will update traffic projections, impact studies, and refine engineering designs.

In addition to the alternatives requested to be investigated by the public, NCDOT is also investigating modifications of existing alignments to further avoid and minimize impacts.

Response:

The current designs for the detailed study alternatives are prepared during the initial phase of the project to allow for a comparison of the detailed study alternatives. These designs are used as the basis for choice of the preferred alternative. Once the preferred alternative has been chosen, preliminary designs are then prepared, which are based upon detailed terrain mapping and available utility information.

When the development of the preliminary design for the preferred alternative begins, all design criteria are re-examined and updated to utilize the latest adopted design guidelines. When NCDOT Standard sections do not agree with local standards, NCDOT will coordinate with local agencies regarding inclusion of local standards in the designs, and the associated cost-sharing for which the local agency may be responsible.

Response to comment about reducing travel lane widths:

Provide background information about project corridor, such as classification in local transportation plan, functional classification, and percent truck traffic

Given the heavy truck volume on [*insert street name*], 12-foot lanes are appropriate and are in alignment with the guidance in AASHTO's Policy on design standards. Furthermore, 12-foot lanes in this section of [*insert street name*] are in alignment with the Highway Capacity Manual, which indicates a loss of capacity where lane widths are reduced to less than 12 feet.

When available, provide support of local buy-in of 12-foot lanes

Response to comment requesting landscaping:

The Department welcomes the opportunity to meet with the Town to discuss specific requests for landscaping and aesthetics.

Landscaping in and around medians will be designed in accordance with DOT planting guidelines and contingent upon a municipal agreement. Any landscaping measures beyond the DOT guidelines would be considered a betterment and the town would be responsible for the cost of the materials, installation, and maintenance.

Topic: Environmental Document Concerns

Environmental Document Concern response:

The relocation numbers are based on relocation reports generated in [*timeline*]. Generating these reports takes several months due to the level of on-site investigation and research needed to determine the amount of potential relocations. All team members preparing these impact studies have continually visited local neighborhoods throughout the project's development to assess communities, determine how they travel, identify where development is occurring, and where it is expected to occur in the future. The [*insert and spell out draft document type*] is meant to be a snapshot in time, and the project development team will be informed of this rapid development when comparing impacts and choosing a preferred alternative. Once a preferred alternative is chosen and the designs refined, these studies will be updated again (as well as other technical studies, as applicable). Information on relocations is continuously updated well into the final design process. These findings will be presented in the [*insert and spell out final document type*].

Topic: Environmental Impacts

Response related to projecting impacting trees and vegetation:

NCDOT will consider incorporating landscaping into the project design to minimize the loss of vegetation. In areas where removal of vegetation is necessary, it is understood this can negatively impact water quality due to project construction runoff. In accordance with the North Carolina Sedimentation Pollution Control Act (15A NCAC 04B .0107), an erosion and sedimentation control plan must be prepared for land disturbing activities that cover one or more acres. Thus, prior to the start of project construction activities, an erosion and sedimentation control plan will be prepared in accordance with the NCDEQ publication *Erosion and Sediment Control Planning and Design Manual* (NCDNR 2013), NCDOT *Erosion and Sediment Control Design and Construction Manual* (NCDOT 2015), and the NCDOT *Best Management Practices for Construction and Maintenance Activities* (NCDOT 2003).

Response to Landscaping:

Through the planning process and public feedback, the need for a vegetation management plan, by the Roadside Environmental Unit - Aesthetic Engineering Section, shall be determined.

Response related to wildlife:

NCDOT works with our Federal and State Environmental Agencies at multiple steps throughout the project development and environmental permitting process, and continuously works to avoid and minimize impacts to the Natural Environment. Avoidance and minimization to wildlife can be accomplished in many different project/situation-specific methods. NCDOT and our State and Federal agency partners responsible for wildlife protection will examine what is most appropriate for the project.

Environmental Impacts Response:

Minimization measures for unavoidable impacts have been developed through coordination with federal and state environmental regulatory and resource agencies including the United States Fish and Wildlife Service, the North Carolina Wildlife Resources Commission, US Army Corps of Engineers, and the NC Division of Water Resources, among others. Following identification of the preferred alternative, designs will be refined based upon an updated traffic forecast. NCDOT will continue to evaluate ways to modify the alternative to further avoid and minimize impacts to physical and natural environments. Impacts to wetlands and streams that cannot be avoided or further minimized will be compensated with mitigation agreed to by the permitting agencies.

Water quality concerns will be avoided and/or mitigated through compliance with state and federal regulations covering watershed protection, floodplain protection, stream and river buffers, and stormwater management.

NCDOT will continue to avoid and minimize impacts due to the project to the greatest extent practicable during final design and construction. The refined preliminary designs for the preferred alternative may incorporate measures to further minimize impacts to the natural and human environments.

Topic: Environmental Justice

Environmental Justice Response:

The Draft Environmental Impact Statement (DEIS) acknowledges that impacts to populations identified as minority and/or low-income are anticipated with this project and identifies the general locations of these populations within the project study area. The severity of effects and potential of those effects to fall disproportionately on those communities will be determined through future public involvement, such as community meetings and workshops. Any identified moderate to severe impacts may then be assessed to determine whether avoidance, minimization, or mitigation can be proposed.

Response:

Relocation of affected tenants and homeowners will follow the Department's Relocation Assistance Program.

Topic: Historic/Archaeological

Historic and Archaeological Response:

NCDOT has coordinated with the State Historic Preservation Office (SHPO) throughout the development of this project, which has included evaluation of any sites that are listed on, or considered eligible for listing on, the National Register of Historic Places (NRHP). SHPO has concurred on which resources have adverse effects, no adverse effects, or no effect to them as a result of the detailed study alternatives based upon Section 106 of the National Historic Preservation Act. Once a preferred alternative is

identified, more detailed archaeological surveys will be completed which will identify any significant archaeological resources, assess the level of impacts to those resources, and recommend avoidance/minimization measures, as necessary.

Response:

As noted in the [*insert document type*], dated [*month, year*], there may be parts of the study area that have a high potential for the presence of eligible archaeological resources, particularly those dating back to the historic period of [*insert range of years*]. As the designs are refined and a preferred alternative chosen, NCDOT will coordinate with the State Historic Preservation Office to assess the potential effects of the project and the need for an archaeological investigation.

Response to comment about impacts to historic properties, cultural resources, and conservation easements:

Impacts to historic properties have been [*select one or both: avoided and minimized*]. Similarly, impacts to cemeteries have been [*select one or both: avoided and minimized*]. The entire [*insert street name*] corridor in the project study area was evaluated for historic and archaeological resources. The design has been coordinated with numerous state and federal regulatory agencies, including the State Historic Preservation Office and the U.S. Army Corps of Engineers pursuant to Section 106 of the National Historic Preservation Act (NHPA).

State location(s) of any easements, how impacts to easements have been avoided or minimized (or why impacts to easements cannot be avoided or minimized)

Topic: Need for Project

Response regarding need for project due to development:

Development activity has increased travel demand in the project study area as municipalities have approved/allowed substantial growth. The project is needed to improve existing and projected traffic flow and operational efficiency.

Topic: Neighborhood impact

Response:

NCDOT will continue to make efforts to avoid and minimize impacts to neighborhoods surrounding the project to the greatest extent practicable during final design and construction. If the acquisition of private property is required, NCDOT Right-of-Way and Relocation procedures will be followed.

Topic: Project Costs

Response regarding costs presented at public meeting:

The right-of-way, construction, and utility relocation costs presented at the [*insert correct meeting type*] are based on the preliminary design plans. The project has been included in the Metropolitan Planning Organization's Metropolitan Transportation Plan for several years as a fiscally constrained project.

Response regarding cost relative to project purpose:

The funds allocated for the project are to be used specifically for the proposed project. NCDOT maintenance funds are allocated from a separate source within NCDOT and cannot be transferred.

Response regarding project funding:

NCDOT capital projects are evaluated and identified for funding through a process called Strategic Prioritization. Projects are submitted into the prioritization process by MPO, RPO, and Division partners, and each project is assigned a score via a data-driven approach that also involves local input. Projects involved in this process include Highway, Aviation, Bicycle/Pedestrian, Ferry, Public Transportation, and Rail improvements. Prioritization occurs approximately every two years and uses the project scores to determine which projects will be scheduled for funding in the next 10-year STIP (State Transportation Improvement Program). Due to limited funds, NCDOT is unable to fund every requested improvement.

More information about Strategic Prioritization can be found at

https://www.ncdot.gov/initiatives-policies/Transportation/stip/Pages/strategic-prioritization.aspx

and

https://connect.ncdot.gov/projects/planning/Prioritization%20Data/Prioritization%206.0/Submittal%20Guidance/Individual%20Submittal%20Guidance%20Components%20(separate%20files)/01-NCDOT%20Project%20Prioritization%20Overview.pdf

Response regarding alternative funding sources for project:

Due to the high cost associated with construction of the project, NCDOT expects that not all costs will be funded solely by traditional funding mechanisms and funding from tolls or other sources may be required. The NC Turnpike Authority is currently preparing a sketch-level traffic and revenue study which preliminarily determines if tolling will be a potentially feasible funding mechanism. This effort will compare revenue generation among the detailed study alternatives. Also, once a preferred alternative is identified, the updated traffic forecast will include both tolling and non-tolling scenarios with estimates of what percentage of trucks and passenger cars would be anticipated to use the roadway under each scenario.

Response clarifying difference in construction and maintenance funds:

The right-of-way, construction, and utility relocation costs presented at the [*insert correct meeting type*] are based on the preliminary design plans. The project has been included in the Metropolitan Planning Organization's Metropolitan Transportation Plan for several years as a fiscally constrained project. The funds allocated for the project are to be used specifically for the proposed project. NCDOT maintenance funds are allocated from a separate source within NCDOT and cannot be transferred.

Topic: Project/Construction Schedule

Project/Construction Schedule Response:

The purpose of the project planning phase is to identify the best transportation solution for the project. Milestones are incorporated into the schedule to ensure that Federal and State regulatory agencies are informed throughout the lifecycle of the project. The current State Transportation Improvement Program (STIP) lists the project as [*insert STIP number*]. Currently, right of way is scheduled for [*insert date*] and let is scheduled for [*insert date*]; these dates are subject to change.

Topic: Property Impacts

Response related to water run off:

A detailed hydraulic analysis will be conducted during final design. Potential impacts to adjacent property will be evaluated during final design and minimized to the extent practicable.

Response related to property impacts:

Since the project is being funded with federal dollars, the NCDOT must follow specific procedures, which includes presenting preliminary designs to the public for review and comment. The public meeting or hearing mapping is labeled with property owners' names so that attendees can easily identify their property on the map.

If right-of-way or easement is required, NCDOT will offer fair market value for the property. A right-of-way agent will contact property owners and work with them directly during the right-of-way acquisition phase of the project.

Residential impact response:

In certain instances, private property must be acquired to provide North Carolinians with a safe and modern transportation system. When a property is shown to be impacted, many factors have been taken into consideration in determining that the affected site is the most practical location for the transportation project. The study corridors of each alternative shown on the public hearing maps typically represent a 1,000-foot wide study area in which all resources (both human and natural) and

potential hazards were delineated. The corridor shown on the maps should not be confused with the proposed right-of-way of the roadway, which is where the acquisition of property will occur. Once a preferred alternative corridor is determined, the design will be further refined and will take into consideration engineering feasibility, safety, economics, public well-being, and the least amount of impact and inconvenience to the public. NCDOT will continue to avoid and minimize property impacts to the greatest extent practicable. After decisions are made regarding the final design, the proposed right-of-way limits will be staked on the ground. Affected property owners will be contacted by a NCDOT or NCDOT-contracted right-of-way agent to explain the plans, discuss any impacts to their property, and provide information regarding property owner rights. Appraisals and negotiations with the state will then take place. Property appraisals take into consideration several factors including, lot size, square footage, any updates or improvements, location, and the current real estate market. The proposed project would not be the only factor considered when determining property values and the amount of any compensation.

Topic: Property Values

Response about property values:

The project is not expected to have negative impacts to property values and is expected to provide a benefit to adjacent neighborhoods. The project will provide operational improvements and safety enhancements in the project study area. An improved and more efficient project corridor can be expected to improve market reach of businesses along and in the vicinity of the project.

Topic: RCI

Response:

The term “Reduced Conflict Intersection” or “RCI” refers to the type of intersection treatment and does not imply a high-speed highway. An RCI design redirects minor lower volume movements to improve the overall safety and efficiency of the corridor. NCDOT will work with local authorities to determine what the posted speed limit will be. The design of the U-turn bulbs is based on the type of vehicle that needs to be accommodated as well as the number of lanes needed for U-turns. Typically, U-turns are designed to accommodate school buses and larger vehicles.

RCI design response (compare to 4-lane undivided):

The medians provide opportunities for separate left-turn lanes without causing traffic back-ups into through lanes. If the roadway was widened to 4-Lane undivided (no median section), through traffic would back up while waiting for vehicles to make left turns. This situation would not relieve traffic congestion and has the potential for an increase in crashes. The 4-Lane Reduced Conflict Intersection design provides better overall projected traffic operations and reduced potential for crashes than other design options while maintaining a locally desired four-lane typical section throughout the project. U-turn locations may be adjusted during the final design to maintain access to properties where feasible.

General RCI response:

Reduced Conflict Intersections (RCI) have been constructed in multiple states (including North Carolina) and have been proven to help alleviate traffic congestion while increasing travel capacity and reducing collisions at intersections. Improved traffic flow is possible by simplifying traffic signal phasing and allowing both directions of traffic to move simultaneously. Redirecting minor traffic movements to avoid high-risk movements reduces the number of conflict points where collisions might occur. RCIs also tend to be more cost-effective than traditional all-movement intersections or interchanges, which could require more land and/or structures to separate roads. As NCDOT continues to refine the project design, NCDOT will work to minimize impacts to the community and natural environment.

Give examples of successful RCIs in other parts of NC

U-turn bulbs are a standard component of Reduced Conflict Intersection (RCI) designs and are utilized successfully throughout the state.

Traffic analyses have been completed for this project and were factored into the roadway design decisions. The proposed reduced conflict intersection (RCI) design helps to alleviate traffic congestion while increasing travel capacity, reducing travel time along the corridor during peak travel times, and reducing the number of collisions at intersections. Through coordination with town planning staff, the proposed speed limit in the project corridor may be reduced.

By simplifying traffic signal phasing (e.g., eliminating the need for left-turn signals or reducing the time spent at a traffic light) and allowing both directions of traffic to move simultaneously, traffic flow at the subject intersection using the reduced conflict intersection (RCI) design will be improved. It is common that an RCI design with fewer travel lanes and fewer property impacts can perform better than a traditional full-movement design with more travel lanes.

Additional information on RCI can be found at:

https://ops.fhwa.dot.gov/publications/amprimer/access_mgmt_primer.htm

and

Reduced Conflict Intersection Brochure.pdf (ncdot.gov)

Response to comment about allowing full vehicle turning movements:

The current preliminary design at this location is a reduced conflict intersection (RCI), which redirects left turns from [*insert street name #1*] to a U-turn located about [*insert distance and direction*] of the intersection. The Department is currently evaluating a Reverse RCI design, where left turns from [*insert street name #1*] to [*insert street name #2*] can be allowed and left turns to [*insert street name #1*] are redirected to U-turns.

A full movement intersection would have multi-phase signals, minimizing the efficiency gained through the RCI or Reverse RCI concepts along the corridor and impacting progression (the ability for local and regional traffic to travel along [*insert street name*]). Full movement intersections also require more turn lanes, and therefore have larger intersection footprints than RCIs in order to serve the same volume of

traffic. This translates to greater right-of-way impacts and cost. Additionally, more lanes, a larger intersection footprint, and multi-phase signals are less efficient for bicyclists and pedestrians crossing the main road due to the longer crossing time and increased exposure of bicyclists and pedestrians to motorists.

Both the RCI and Reverse RCI concepts improve emergency response time during peak hours by reducing gridlock at intersections, thereby improving emergency vehicles access through intersections.

Allowing all turning movements at the intersection of [*insert street names*] would be unacceptable, because the project would not meet purpose and need. The RCI is a proven safety countermeasure and is part of a data-driven approach promoted by the US Department of Transportation, Federal Highway Administration.

Topic: Right of Way

Response:

After the final design has been approved, the proposed right-of-way limits will be staked on the ground. Impacted property owners will be contacted by an NCDOT right-of-way agent or representative to discuss the next steps.

If permanent right-of-way is required, independent appraisals are developed to determine the highest and best use. A NC General Certified appraiser will appraise your property and determine just compensation. Any damages to the remaining property are addressed in the appraisal and an offer for those damages will be included as part of the written offer for just compensation. In some cases where project impacts are minimal to the subject property, a right of way agent may prepare a waiver valuation to determine just compensation. The appraisals will be reviewed for completeness and accuracy, and the right-of-way agent will make you, the property owner, a written offer. The current market value of the property, at its highest and best use, will be offered as compensation. The Department of Transportation must treat all owners and tenants equally; fully explain the owner's rights; pay just compensation in exchange for property value; and furnish relocation advisory assistance, where applicable. More about the Right-of-Way acquisition process and relocation assistance can be found here:

https://connect.ncdot.gov/business/ROW/ROWManualsandPublications/Right%20of%20Way%20Brochure%20-%20Brochure%20Layout.pdf

and

https://connect.ncdot.gov/business/ROW/ROW%20Documents/Relocation%20Assistance%20Brochure.pdf

For this project, the Division Right of Way Agent is [*insert name*] and he/she can be reached at [*insert phone number and email address*].

Response to comment about property acquisition and/or relocation:

Impacts shown on the public meeting/hearing maps reflect the "worst-case" scenario anticipated based on the most current data; they are preliminary and subject to change. NCDOT will continue to make every effort to minimize impacts and relocations where possible, and additional measures to minimize relocations will be investigated during the final design.

Response:

A NC General Certified appraiser will appraise your property and determine just compensation. In some cases where project impacts are minimal to the subject property, a right of way agent may prepare a waiver valuation to determine just compensation. NCDOT will continue to coordinate with local jurisdictions to refine the final design and minimize impacts where possible.

Response to concern about right-of-way and temporary construction easements:

Some right-of-way and temporary construction easements may be required. A temporary construction easement (TCE) is used to provide the contractor sufficient working area to construct slopes, ditches, silt control areas, etc. where continuous maintenance will not be required. The TCE will be staked before construction begins so that the contractor knows the boundary within which work is allowed. If a TCE is required, the property owner will be reimbursed.

Response to concern about right-of-way decisions:

One of the goals of a roadway widening project is to retain as much existing pavement as possible. When determining a "best fit" alignment, impacts to residents, businesses, and natural resources are key considerations in determining which side of the road to widen. NCDOT will continue to coordinate with local jurisdictions to refine the final design.

Response clarifying difference in study corridor and right-of-way limits:

The study corridor should not be confused with the proposed right-of-way of the roadway. The study corridor limits shown on the public hearing maps typically encompass a 1,000-foot wide study area in which all resources (both human and natural) and potential hazards (wetlands and streams) are defined. The proposed right-of-way of the roadway defines where the ultimate acquisition of property will occur. The typically proposed right-of-way needed on new location roadway segments is approximately 300 feet wide.

Topic: Roundabouts

Response:

NCDOT builds roundabouts to improve safety for drivers, pedestrians, and bicyclists. They also help reduce the congestion and backups more typical of traditional intersections with stop signs and traffic signals. A driver generally enters the roundabout more quickly than if waiting at a traffic signal. If necessary, semitrucks may use the concrete island – called the truck apron – to help drives maneuver around the roundabout.

More information about roundabouts is available at https://www.ncdot.gov/initiatives-policies/Transportation/safety-mobility/roundabouts/Pages/default.aspx)

Topic: Safety

Response:

Designing roadways that promote safe passage and provide flexibility for predicted traffic growth is a priority for NCDOT projects. The design of the preferred alternative follows AASHTO's (American Association of State Highway and Transportation Officials) Policy on design standards (designed to ensure safety, permanence, utility, and flexibility to provide for predicted traffic growth). The design also follows NCDOT's Roadway Design Manual and NCDOT's Complete Streets Policy.

Response to comment concerning potential increase in crime:

NCDOT will continue to engage with local law enforcement to address raised concerns related to our proposed designs and a potential increase in crime.

Safety response related to carrying hazardous materials over the roads:

The State Highway Patrol Motor Carrier Enforcement Administration Section is responsible for enforcing state and federal laws regulating the transportation and safe movement of hazardous materials and motor carrier safety.

Safety regarding RCI response:

Traffic analyses have been completed for this project and factored into the roadway design decisions. Median and U-turn bulbs are a standard component of reduced conflict intersection (RCI) design and are utilized successfully throughout the state. Traffic analyses for RCI designs typically indicated safer travel and a reduced travel time for all vehicles during peak traffic hours, including those making U-turns, despite a longer travel distance. U-turn bulbs are also typically designed to accommodate large vehicles with a wheel base of up to 67 feet.

Topic: Traffic

Response:

The project is being designed to address project future traffic volume needs which include both local and regional growth in traffic, as well as the other identified needs in the purpose and need section of the [*insert document type*]. The scale of the project is appropriate to meet future traffic needs and to maintain adequate traffic operations for all road users. NCDOT will continue to make efforts to further avoid and minimize impacts due to the project to the greatest extent practicable during final design and construction.

If the question is more relevant to how the TIP project came to be, then include a discussion of the Prioritization process.

Response:

As evidenced by median projects across North Carolina and the United States, studies show that a median minimizes vehicular conflict points and makes the roadway safer by reducing crashes. As the design progresses and the roadway plans are finalized, right-of-way and easement requirements will be refined. Property owners who may be impacted by this final design will be contacted by representatives of NCDOT Right-of-Way to further discuss the project and potential property impacts.

Response:

The roadway improvements not only address traffic congestion witnessed today but also 20 years or more in the future. School traffic is only a portion of the overall traffic volumes that are being accommodated by this project.

Response:

Redirecting left turns and minor movements from main intersections has proven successful in reducing congestion, improving safety, and increasing mobility in North Carolina, and RCI (Reduced Conflict Intersection) designs are promoted nationally by FHWA with successful deployments across the country. The proposed project will handle traffic acceptably into the design year [*insert year*]. This innovative intersection concept also has less right of way and property impacts than other design options.

Response to concerns about cut-through traffic:

NCDOT will coordinate with the neighborhood to evaluate potential measures (such as speed humps, chicanes, signage, providing alternate routes, etc.) to mitigate cut through traffic and improve safety.

Response:

Traffic analyses are being completed for this project. Roadway design comments will be taken into consideration as NCDOT continues to refine the project design. NCDOT will work to minimize impacts to the community and natural environment.

Topic: Wetlands impacts

Response:

Surface waters (lakes, rivers, and streams) and wetlands are subject to jurisdictional considerations under the Section 404 and Section 401 program of the Clean Water Act. Under this program, any action that proposes to place fill material into these areas falls under the jurisdiction of the U.S. Army Corps of Engineers and the North Carolina Division of Water Resources. As required by law, during the development of the preliminary design, efforts were made to avoid and minimize impacts to wetlands and streams wherever practicable. Several wetlands avoidance and minimization measures have been incorporated into the proposed project, including alignment revisions.