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Georgia Department of Transportation

January 23, 2020

«AddressBlock»

Re: Responses to Community Comments Received at the Noise Information Meeting for P.I. Nos. 0012757 & 0012758, Chatham County – Interstate 16 (I-16) Widening and I-16 / Interstate 95 (I-95) Interchange Reconstruction Projects

«GreetingLine»

Thank you for your comments concerning the noise impact analysis presented for the I-16 widening and I-16/I-95 interchange reconstruction projects. We appreciate your participation and the input that was received from the Southbridge Community as a result of the *December 3, 2019* meeting. The purpose of the meeting was to provide the Southbridge Home Owners Association (HOA) Board members and the Southbridge Sub-HOA Board members further information in regards to the process and determination included in the Noise Study conducted as part of the environmental reevaluation, the methodology used when conducting a noise study, and to answer questions and concerns the community had regarding the study and potential noise abatement measures for the projects.

A total of 65 community leaders and residents attended the meeting, and approximately 40 comments were submitted on 19 questionnaire forms provided at the meeting. Some of the comments were addressed by the project team and the Georgia Department of Transportation (GDOT) staff after the presentation however, there was not enough time to address all of the questions/concerns. As a result, every project-related written comment received is being addressed in this response letter.

The attendees of the community meeting that provided comments raised the following questions. GDOT has prepared this one response letter to address all comments received so everyone is aware of the nature of the comments received and the responses provided. Please find the comments summarized below (in *italics*) followed by our response.

- *Why was truck diversion and the interchange not taken into account?*

Response: Existing and future truck traffic was included as part of the traffic forecasting for the projects. Base network volume data included field measurements of truck traffic throughout the study area collected in late-2015 to early-2016. Future long-term growth estimates included information from the Chatham County – Savannah Metropolitan Planning Commission (MPC) travel demand model, which includes input data about future projects, households, population, income, retail and manufacturing employment, and students. Additional traffic was included in the build model conditions to account for added latent traffic demand from the project. Anticipated travel times, congestion, and speeds were the results of calibrated microsimulation models that included the geometry for the Dean Forest Road interchange improvements, as well as signalization at Pine Meadow Drive.

- *I live at the front of the Woodlands. You reference the berm is already in place. While there is one in front of Building 10 and behind Building 9, it stops at Building 11, where I live. Not only do I hear traffic – I can see it. Is that berm going to be built up and extended north on 95 up to and including the ramp onto I-16 East?*

Response: There are no plans to modify any of the existing berms, as they are located outside of GDOT's right-of-way (ROW). However, a noise barrier is proposed at this location and will reduce noise levels and block sightlines between residences and I-95.

- *How far will a new lane on I-95 North encroach towards Woodside Crossing?*

Response: The new edge of pavement would be approximately 50 feet closer than its current location.

- *Will the existing berm be built up or will walls be erected?*

Response: All proposed noise barriers will be built on the existing ground. There are no plans to modify any of the existing berms.

- *What is going to be done where there is no berm?*

Response: Barriers 1 and 2 are cost-reasonable and are proposed for construction in areas with gaps between existing berms. However, Barrier 3 is not proposed for construction since the existing berms prevent sufficient noise reduction (i.e., benefit) from that barrier to be cost-reasonable. For areas east of Barrier 3, a noise barrier is not warranted since existing berms prevent all future noise impacts. This also applies to areas with less berm coverage since adjacent berms are providing sufficient noise reduction to prevent future noise impacts.

- *Is the monitoring program (TNM) the one recent test?*

Response: The Federal Highway Administration Traffic Noise Model (FHWA TNM) is the federally mandated noise model used on all Type 1 projects that warrant noise modeling.

- *Are all other projections based off older data?*

Response: All traffic data for the projects is considered current. Traffic volume projections are based on level-of-service C capacity scenario, or "fully loaded at max speed" condition. Future truck growth is based on a 20-year projection per traffic demand modeling.

- *Noise abatement testing with projections based on our specific mix of cars and trucks?*

Response: Yes, truck growth projections were based on locally collected data.

- *When was it done in our area to validate model?*

Response: Traffic data were collected for the entire project study area in December 2015 and January 2016. Additional traffic data for the study area was provided by the GDOT Office of Planning in December 2015. As part of the comprehensive data collection effort, 31 intersection turning movement counts (TMCs) and volumes for 10 mainline segments, 46 ramps, and 51 arterials and side streets were collected.

- *Truck "jake brakes" are used as trucks exit I-95 North onto I-16 East. Why is this not included in the data?*

Response: FHWA and GDOT traffic noise assessments do not include non-standard noise sources such as "jake brakes," cars with modified exhausts, etc.

- *How will you reduce the noise from truck horns, car horns, sirens, trucks radically downshifting, racing motorcycles, etc.?*

Response: FHWA and GDOT traffic noise assessments do not include mitigation measures for non-standard noise sources such as "jake brakes," cars with modified exhausts, etc.

- *When are you going to start moving dirt and driving pilings?*

Response: Ground disturbing activities and pile driving are set to begin sometime between February 2020 and March 2020.

- *Could you reiterate the* benefit *to the community by switching to the turbine interchange and moving that much further to the west?*

Response: The turbine configuration utilizes the existing GDOT ROW more effectively, provides a lower profile bridge structure which has lower associated long-term maintenance cost, while obtaining the desired operational improvements to both traffic operations and increased safety benefits to the interchange.

- *Are trees important in your noise abatement modeling? If they are, have you fully taken into consideration:*
  1) *Trees downed by Hurricane Matthew?*
  2) *Trees pruned or removed along I-16 by GDOT in the last 2 years?*
  3) *Additional trees which will be pruned or removed during the upcoming widening of I-16?*

Response: Trees are an inconsistent and typically minimal source of noise abatement and were not considered in the noise model. Furthermore, trees were excluded from the noise modeling in an effort to present a worst case/loudest hour analysis scenario that is favorable to the residences.

- *The parameters of your noise study defy logic. The vehicle noise during rush hours during an average work day can be heard throughout Southbridge now, so your scheduling a noise study during an evacuation is ridiculous. Perhaps you can visit Southbridge during rush hour?*

Response: The field data collected prior to the hurricane evacuation is valid for the purpose of noise model validation. Noise impact determinations were made based on future level-of-service C (i.e., fully loaded at max speed) traffic projections for a six-lane I-16 configuration, not field data.

- *You are adding two lanes, increasing flow by a possible 50 percent and this is not factored into your math?*

Response: Noise impact determinations were based on level-of-service C (i.e., fully loaded at max speed) traffic projections for the 2022 six-lane I-16 scenario.

- *On the construction phase: does this project run 24 hours/7 days a week for the entire duration of the project until completion?*

Response: The project will mainly be night and day shift work, which includes weekend work. Construction activities that will require traffic interruptions will occur on I-16 or I-95 between the hours of 7:00 p.m. to 6:00 a.m. and 9:00 a.m. to 3:00 p.m. No long-term closures of I-16 at I-95 interchange ramps will occur at any time. No work will be allowed on state or county road interchange ramps between the hours of 6:00 a.m. to 6:00 p.m. daily.

- *2101 Woodside Crossing: Noise where there are no barriers, direct sight line to highway. Did someone come by my property? How far from the highway do you measure?*

Response: A noise barrier is proposed in front of this property. There was a noise reading taken south of your location approximately 300 feet from I-95.

- *What can be done to change the current plan? How and whom makes the final determination? Can the state put barriers in the woods?*

Response: The revised concept, as presented at the June 2019 PIOH, is generally the concept GDOT plans to move forward with to construction. As the project progresses, some modifications may occur, but major changes are not likely at this time.

- *The last slide, can you better describe the proposed areas where there will be a recommended noise barrier? From what street to what street? Will the presentation be made available?*

Response: The complete noise study will be available for public review once finalized. In addition, the December 3, 2019 presentation will be made available on the project website at www.dot.ga.gov/BS/Projects/SpecialProjects/1695Improvement .

- *My house is at 20 Woodland Creek Road. On the back side, there is a golf course and on the left side a spa and gym. Where does the sound barrier come to the golf course? Is the golf course being taken care of by the barrier? The part of noise is trucks entering Dean Forest Road and going to US 80. Did this figure into your model? Is decibel 64 too low for a barrier?*

Response: This location is approximately 3,000 feet from the interstate and not included inside the noise study area. The noise study accounts for heavy truck traffic on Dean Forest Road; please refer to traffic study for details. Sixty-four (64) dBA is not considered impact and would not warrant consideration of a noise barrier.

- *According to the noise study, Barrier 3 is feasible, but the cost is not reasonable. We have 50 residential homes in the Steeple Run neighborhood. If the test for reasonableness is $55,000 per affected unit, the reasonable barrier cost for Barrier 3 should be $2,750,000. The estimated cost of Barrier 3 is $400,000. Why is Barrier 3 deemed unreasonable.*

Response: Due to the existing berms in front of this neighborhood, these homes do not meet the criteria as affected units. As such, the $55,000 per affected unit criteria is not applicable.

- *According to the noise study, the traffic counts were done in December 2015, reflecting a relatively normal traffic condition. The computer model used this data to predict current noise levels. The field measurements taken to verify the model were done on October 5th and 6th, 2016. This was during evacuation conditions for Hurricane Matthew. It stands to reason that the traffic conditions during field measurements would be lower than predicted. The noise study says the computer model is verified. This cannot be correct! Will you take new measurements?*

Response: There is no relationship between the 2015 traffic counts and the 2016 noise monitoring program. The traffic conditions documented during the noise monitoring program prior to the

hurricane evacuation are valid for the purpose of noise model verification. The field data collected for the noise monitoring program were not used in noise impact determinations.

- *Federal money? If so, why is GDOT so concerned regarding cost?*

Response: A set number of federal funds have been stipulated for this project by GDOT and agreed to by FHWA. As such, the projects have to be in compliance with the FHWA and GDOT Noise Policy, which does have a cost component when considering noise abatement.

- *Why no compromise?*

Response: The noise study methodology and process are standardized by FHWA and GDOT and apply to all projects.

- *Data collected has been called into question, but no attempt to recollect or reassess? 15 minutes x 4? Model = Garbage in = Garbage out*

Response: The noise model calculates an hourly average of noise exposure and not a cumulative total of sound energy during an hour; therefore, the 15-minute average is a valid representation of the hourly average. This is standard operating procedure for all FHWA and GDOT noise analyses. Furthermore, the field data collected during the noise monitoring program meets all required specifications, including freely flowing traffic conditions during daytime hours.

- *How was the model calibrated? You describe the data collection process, but not model calibration. Actually, you described calibration and called it an accepted model by federal standards? You never really described how you validated the model.*

Response: The terms validation and calibration have been used interchangeably. The data collected from the noise monitoring program were used to calibrate the noise models. For details on model validation, please refer to www.fhwa.dot.gov/environment/noise/traffic_noise_model/model_validation/ .

Thank you for your comments. If you have further questions, comments or concerns, please call the project Hotline at 912-480-9625, email 1695improvements@dot.ga.gov, or visit the project website at www.dot.ga.gov/BS/Projects/SpecialProjects/1695Improvements.

Sincerely,

W. Ron Nelson
GDOT Project Principal

cc: Mrs. Ann R. Purcell, Board Member Congressional District 1
Project File