



**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL DIVISION**
SUITE 900 - JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-0334
(615) 741-3655

D-List Categorical Exclusion

To Gary Fottrell
Environmental Program Engineer
Federal Highway Administration
404 BNA Drive, Bldg 200, Suite 508
Nashville, TN 37217

From Ann Andrews
Transportation Manager II, TDOT Environmental Manager

Date June 24, 2011

Project Information

Route Interstate 40 (I-40)
Termini

I-40 from west of SR 171 to east of SR 109

County Wilson **PIN #** 114169.00

	PE #	Right of Way #	Construction #
Federal	IM-40-5(140)	IM-40-5(140)	IM-40-5(140)
State	PE-N 95100-0105-44	95100-2105-44 (pending)	95100-3105-44 (pending)
	PE-D 95100-11-0544		

Planning

Project is in an MPO/TPO.

The relevant TIP page is attached in the appendix.

Project is in an RPO.

The relevant STIP page is attached in the appendix.

Project Description

This project involves proposed lane additions to Interstate 40 (I-40) in Wilson County. These improvements will result in four (4), twelve (12) foot wide travel lanes each direction (including one HOV lane) separated by a median barrier per TDOT standard drawing RD01-TS-5B. Approximate project limits are the Central Pike underpass (LM 2.02) to approximately one (1) mile east of the SR 109 eastbound on-ramp (LM 10.52). Total length of project study area is approximately 8.5 miles. The location map depicting the project study area is

included in Attachment 1.

Within the project area, I-40 is a multi-lane highway facility with twelve (12) foot lanes and ten (10) to twelve (12) foot shoulders. Between Central Pike and SR 171, I-40 consists of four (4) lanes, including one (1) high occupancy vehicle (HOV) lane in each direction, with a median barrier. Through the SR 171 interchange and extending approximately 1.7 miles east, I-40 consists of three (3) lanes, including an HOV lane in each direction with a median barrier. The remaining length of the project consists of two (2) lanes in each direction with a depressed median. Near LM 7.43, I-40 crosses Wilson Creek on parallel bridges spans.

Three (3) interchanges are located within the project. Exit 226 to SR 171, Mt Juliet Road (LM 3.12) that is basically a diamond interchange with a cloverleaf added for the eastbound I-40 to northbound SR 171 movement. Exit 229 to Beckwith Road (LM 6.28) is a partial cloverleaf configuration. Exit 232 to SR 109, Gallatin (LM 9.10) that is basically a diamond interchange with a cloverleaf added for the eastbound I-40 to northbound SR 109 movement. No significant interchange reconfigurations are anticipated during this project, however 800 linear feet of Leeville Road will require relocation near LM 8.5.

The proposed I-40 improvements will provide eight (8) twelve (12) foot wide travel lanes, including one (1) HOV lane each direction, with ten (10) foot wide paved outside shoulders and twelve (12) foot wide paved inside shoulders from Central Pike to SR 109. The improvements will require one shoulder width design exception at the SR 171 underpass, a bridge widening at Wilson Creek near LM 7.43, the replacement of the Automatic Traffic Recorder (ATR#34) near LM 5.91 and the relocation of Leeville Road.

From Central Pike to 1.5 miles east of the SR 171 overpass, the I-40 improvements will consist of milling and overlaying the existing three lanes and adding a twelve (12) foot wide travel lane and ten (10) foot wide paved outside shoulder in each direction. The eastbound auxiliary lanes and a concrete barrier wall to SR 171 will require reconstruction. No improvements are anticipated to the inside shoulders or existing median barrier.

The remaining 5.5 miles consist of adding a twelve (12) foot HOV lane, twelve (12) foot wide inside shoulder and median barrier between the east and west bound lanes. Additionally, ten (10) to twelve (12) feet of roadway widening and ten (10) feet of shoulder paving are required adjacent to the existing outside travel lanes. All remaining pavement will be milled and overlaid within this section.

TDOT Project Planning Division has an existing Automatic Traffic Recorder (ATR #34) located at the end of the Beckwith Road interchange westbound on-ramp (near LM 5.91). This ATR presently collects traffic data for both eastbound and westbound directions. The planned I-40 improvements will require an additional ATR for collecting the eastbound traffic. The existing ATR (located westbound) will require replacement due to the proposed widening.

Guide signage along this section of I-40 will require relocation of several signs based on the proposed widening. All signs identified during design that do not meet the 2009 Manual on Uniform Traffic Control Devices (MUTCD) retro-reflectivity requirements shall be replaced. The functional plans note any proposed and/or modification to existing guide signs.

The project may require additional ROW, including one area of new ROW (Sheet 6) and four drainage easements (Sheets 4, 9, 17 and 20), which FHWA considers a permanent conversion to a transportation project use. The functional layout sheets are marked with the maximum worse case ROW take. No displacements as a result of the proposed project are anticipated.

The typical sections and layout plan sheets are included in Attachment 7.

Purpose & Need

The project is part of the Nashville Area MPO Fiscal Years 2011-2015 Transportation Improvement Program (TIP) (TIP # 2011-72-107). The TIP project covers I-40 from SR 171 to SR 109, thus, a TIP amendment will

be required to extend funding for road widening from SR 171 to Central Pike. A copy of the TIP page is included in Attachment 2.

The project is needed to reduce congestion on I-40. According to the technical report for the project dated April 1, 2011, the existing Annual Average Daily Traffic (AADT) volume is 70,950 vehicles and by 2033, the traffic should increase by 35 percent to an AADT of 95,740.

A capacity analysis was performed at the Mt. Juliet ramps and the weave located between Mt. Juliet on-ramp and the eastbound truck parking area. Below is a list of the results:

- Diverge to SR 171 will reach an LOS F in the P.M. peak (improving the LOS will require an additional travel lane between Mt. Juliet and Nashville due to the heavy through traffic volume.)
- Merge from SR 171 will reach an LOS F in the A.M. peak (improving the LOS will require an additional travel lane between Mt. Juliet and Nashville due to the heavy through traffic volume.)
- Weave between SR 171 and the truck parking area will reach an LOS D in the P.M. west of SR 171

Public Involvement

A public meeting/hearing was held on the project.

Summary of Public Involvement

There was no public meeting/hearing on the project.

Project Alternatives

Summary for project alternatives

Build and No-Build Alternatives were considered for this project.

Relocation Impacts

The project involves relocation and the relevant Conceptual Stage Relocation Plan is included in the appendix.

Summary for relocation impacts

The project does not involve relocation.

TECHNICAL STUDIES

Ecology

Summary for ecology

Ecology Report is included in the appendix.

An ecology report was prepared on May 26, 2011 for the project. Studies to determine the impacts of the proposed alternative alignments on the local ecology included literature and database surveys as well as on-foot reconnaissance. Since the final ROW plans were not developed at the time, an area extending a minimum of 100 feet to either side of the existing I-40 roadway was surveyed.

Streams

A total of 41 streams/spring sites were identified within the limits of the proposed project. Sedimentation from stormwater runoff could also impact all of the project streams to varying degrees. However, implementation and maintenance of effective erosion and sediment control measures throughout the construction process should keep the overall impacts to these aquatic resources to a minimum.

The functional plans that were provided for the field review did not depict cut/fill lines. It is unknown, based on

the information available, whether or not direct stream impacts will occur or if mitigation will be necessary. The determinations as to which are waters of the State and/or of the U.S. have not been confirmed by TDEC and the Corps. All aquatic impacts identified as project development continues will be avoided, minimized, or mitigated to the extent possible, and incorporated into the permitting.

Threatened and Endangered Species

There are records for 12 state or federally listed species within a four mile radius of the proposed alignment (see Table 2 in ecology report). The two federally listed endangered species include the Spring Creek bladderpod (*Lesquerella perforate*) and the Indiana bat (*Myotis sodalis*). Suitable habitat does not exist within the project ROW for the Spring Creek bladderpod. In addition, this plant species was not seen during the field survey and it is considered not likely present based on the field study.

Potential habitat is present within the proposed alignment corridor for the federally listed Indiana bat. The potential habitat is due to the exfoliating bark species observed. Although the areas identified receive direct sunlight for more than half a day and were located along fence lines, with semi-open understory, overall, the areas provide only marginal roost and foraging habitat due small acreages of forested area. In addition, given the highly altered (developed-urban) state of the proposed project corridor, none of the other state listed species are expected to be potentially impacted. Strict adherence to standard Best Management Practices will be necessary to reduce or eliminate impacts to the species of concern.

The ecology report concluded that although roosting habitat is marginally present for the Indiana bat, they are not currently known to occur within five miles of the project. Strict adherence to the seasonal restrictions on tree cutting and minimizing the amount of cleared forests would eliminate the possibility of mortality, and therefore, the project as proposed "is not likely to adversely affect" the Indiana bat species. A Biological Assessment was required, and a full copy is provided in Appendix 2.

Evidence of ecology coordination is located in Attachment 3. The full ecology report is provided in Appendix 1.

Executive Order 11990 – Protection of Wetlands

 Wetlands are impacted and supporting documentation is included in the appendix.

Summary for protection of wetlands

According to the ecology report that was prepared on May 26, 2011 for the project, twenty-six (26) wetlands were identified within or near the anticipated project limits. The project may directly impact approximately 1.52-acres of the 2.0-acres of wetlands currently known to exist within and adjacent to the ROW of the project corridor, and may have additional indirect impacts to the remaining 0.48-acre.

The functional plans that were provided for the ecology field review did not depict cut/fill lines. Since this is a Design/Build project, the updated plans will need to show cut/fill lines for mitigation. Until the TDOT plans are updated, it is unknown based on the information available, whether or not direct wetland impacts will occur. Efforts will be made by TDOT during further project design to avoid or minimize impacts to as many of these sites as possible. The proper Best Management Practices should be installed to minimize or reduce adverse drainage patterns and change in water level. Slopes will be steepened where possible to reduce footprint of roadway, etc.

All wetland impacts require either general or individual Aquatic Resources Alteration (ARAP) permits from the State of Tennessee. Almost all require either Nationwide or Individual permits from the U. S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act. Other agencies such as the U. S. Fish and Wildlife Service and the Environmental Protection Agency may be involved in the permitting process. TDOT will carry out further coordination with the regulatory agencies before preparing mitigation plans and submitting permit applications. Permit requirements and mitigation plans will be based on these discussions.

The ecology report is provided in Appendix 1.

No wetland area protected under Executive Order 11990 will be impacted.

Endangered Species

Summary for Federal and State protected species and their habitats

Ecology coordination letters are included in Attachment 3. The full ecology study is provided in Appendix 1.

- The proposed project meets the TDOT/U.S. Fish and Wildlife Service (USFWS) Memorandum of Agreement (MOA). No further coordination with USFWS is required.
- The proposed project has been coordinated with the USFWS Field Office. The USFWS response dated May 17, 2011 stated that the USFWS database indicates a summer roost habitat for the Indiana bat (*Myotis sodalis*) may exist within the project corridor and that TDOT should assess potential impacts and submit a copy of the biological assessment and findings for USFWS review and concurrence. On June 9, 2011, the USFWS concurred with TDOT's determination of "not likely to adversely affect" for the Indiana bat due to marginal roosting value of the trees to be removed and the presence of more suitable habitat nearby. This additional correspondence with USFWS confirmed that based on the best information available at this time, the USFWS believes that the requirements of Section 7 of the Endangered Species Act of 1973, as amended, are fulfilled.
- On April 18, 2011 the Tennessee Department of Environment and Conservation (TDEC) database was checked to determine if any federal or state listed endangered species are known to exist in the project area.
- N/A – A check of the TDEC database was not required.
- The proposed project was coordinated with TDEC Division of Natural Areas. The TDEC response dated Month, Date, Year stated highlight this text and include TDEC statement of response.
- N/A - Coordination with TDEC-DNA was not required because either no plant species of concern were found during the TDEC database check or were determined not to be affected by the project.
- The proposed project was coordinated with TWRA. TWRA response dated April 19, 2011 stated that TWRA's concerns with water quality and species of concern in the project area can be addressed by implementing all applicable Best Management Practices that prevent erosion/sediment transport during the construction process.
- N/A - Coordination with TWRA was not required because no animal species of concern were found during the TDEC database check.

Biological Assessment for Endangered Species

A Biological Assessment was completed on the project and is included in the appendix.

Summary for Biological Assessment

A habitat survey was performed for the Indiana bat (*Myotis sodalis*) and identified five potential locations for habitat (which are included in the Form N package). Direct impact is not anticipated; however, with only functional plans provided, the extent of direct impact to forested areas could not be determined at the time.

On June 2, 2011, TDOT coordinated with the USFWS, stating that five plots along the corridor for the proposed project were surveyed. It was the opinion of TDOT that this project is "not likely to adversely affect" for the Indiana bat. Although suitable roosting trees were found, most of the work will be done within the existing ROW of the interstate. Thus, TDOT believes that this would not be ideal habitat for Indiana bats because of the noise from the interstate and because of the fact that the much of the area has been developed. An additional limiting factor is that there are no significant bodies of water within the proposed project limits.

On June 9, 2011, the USFWS concurred with TDOT's determination of "not likely to adversely affect" for the Indiana bat due to marginal roosting value of the trees to be removed and the presence of more suitable

habitat nearby. Therefore, it was in the opinion of the USFWS that the requirements under Section 7 of the Endangered Species Act of 1973, as amended, are fulfilled.

Form N and the evidence of agency coordination with USFWS is included in Attachment 3. The full Biological Assessment, which includes Form N, aerial maps and evidence of agency coordination, is provided in Appendix 2.

Concurrence letter dated June 9, 2011 is included in the appendix.

No Biological Assessment is needed.

Executive Order 11988 – Floodplain Management

Encroachments upon the 100-year floodplain are involved and a FEMA map has been included in the appendix.

Summary for floodplain management

Ecological values associated with the floodplains of the surveyed streams are the bottomland hardwoods that provide shading, bank stabilization, filtration of sediments, and food and cover for wildlife and fishes. Impacts to these have been avoided with appropriately sized bridges and culverts. A copy of sections of the Flood Insurance Rate Maps (FIRM) for Wilson County is located in the Appendix C of the ecology report.

The design of the roadway system is in compliance with the floodplain management criteria set forth in the National Flood Insurance Regulations of Title 44 of the Code of Federal Regulations (CFR). They are also consistent with requirements of floodplain management guidelines for implementing Executive Order 11988 and Federal Highway Administration guidelines 23 CFR 650A.

The ecology report is provided in Appendix 1.

No encroachments upon the 100-year floodplain protected under Executive Order 11988 are involved.

Fish and Wildlife Service Coordination Act 1958

Summary for channelization

Since the functional plans that were provided for the ecology field review did not depict cut/fill lines, then it is unknown, based on the information available, whether or not direct stream impacts will occur or if mitigation will be necessary. The project will, or could potentially affect 41 stream/spring sites. It appears that most of the stream channels will be crossed, but previous mitigation and potential culvert extensions are not known at this time. Any project related impacts to aquatic resources within the project limits will be mitigated as required by the appropriate permitting agencies.

The ecology report is provided in Appendix 1.

Air Quality Please refer to transportation conformity and MSAT guidance when completing this section of the document.

Summary for transportation conformity

Supporting documentation is included in the appendix.

Wilson County is currently in attainment of the NAAQS for all regulated criteria pollutants. Therefore, conformity does not apply to this project. The Air Quality and Noise Evaluation report for the project is provided in Appendix 3.

Summary for Mobile Source Air Toxics (MSAT)

Supporting documentation is included in the appendix.

On February 3, 2006, the FHWA released "*Interim Guidance on Air Toxic Analysis in NEPA Documents.*" This guidance was superseded on September 30, 2009 by FHWA's "*Interim Guidance Update on Air Toxic Analysis in NEPA Documents.*" The purpose of FHWA's guidance is to advise on when and how to analyze Mobile Source Air Toxics (MSATs) in the NEPA process for highways. This guidance is interim, because MSAT science is still evolving. As the science progresses, FHWA will update the guidance.

Technical shortcomings of emissions and dispersion models and uncertain science with respect to health

effects prevent meaningful or reliable estimates of MSAT emissions of this project. However, even though reliable methods do not exist to accurately estimate the health impacts of MSATs at the project level, it is possible to qualitatively assess the levels of future MSAT emissions. The qualitative assessment presented below has been prepared in accordance with FHWA's Interim Guidance derived in part from a study conducted by the FHWA entitled "*A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives.*"

FHWA's Interim Guidance groups projects into the following categories:

- Exempt Projects and Projects with no Meaningful Potential MSAT Effects;
- Projects with Low Potential MSAT Effects; and,
- Projects with Higher Potential MSAT Effects.

FHWA's Interim Guidance provides examples of "Projects with Low Potential MSAT Effects." These projects include minor widening projects and new interchanges, such as those that replace a signalized intersection on a surface street or where design year traffic projections are less than 140,000 to 150,000 AADT.

FHWA's Interim Guidance provides examples of "Projects with Low Potential MSAT Effects." These projects include minor widening projects and new interchanges, such as those that replace a signalized intersection on a surface street or where design year traffic projections are less than 140,000 to 150,000 AADT.

The Build Alternative includes the widening of I-40 and meets the definition of a project with low potential MSAT effects as the highest design year 2033 AADT on I-40 in the project area is 93,560 and lower than the FHWA criterion.

For both the No-Build and Build Alternative, the amount of MSATs emitted would be proportional to the vehicle miles traveled, or VMT, assuming that other variables such as fleet mix are the same for each alternative. The estimated VMT for the Build Alternative is essentially the same as the VMT for the No-Build Alternative. Therefore, it is expected that there would be no appreciable difference in overall MSAT emissions between the No-Build and Build Alternatives.

Additionally, travel speeds for the Build Alternative are expected to be higher than for the No-Build Alternative particularly during off-peak periods. According to EPA's MOBILE6 emissions model, emissions of all of the priority MSATs except for diesel particulate matter decrease as speed increases. The extent to which these speed-related emissions decreases will offset VMT-related emissions increases cannot be reliably projected due to the inherent deficiencies of technical models.

Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce MSAT emissions by 72 percent between 1999 and 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

The Build Alternative will have the effect of moving some traffic slightly closer to nearby residences and businesses; therefore, under the Build Alternative there may be localized areas where ambient concentrations of MSATs could be higher than under the No-Build Alternative. However, as discussed above, the magnitude and the duration of these potential increases compared to the No-Build Alternative cannot be reliably quantified due to incomplete or unavailable information in forecasting project-specific MSAT health impacts.

In summary, when a highway is widened, the localized level of MSAT emissions for the Build Alternative could be higher relative to the No-Build Alternative, but this could be offset due to increases in speeds and reductions in congestion (which are associated with lower MSAT emissions). Also, MSAT will be lower in other locations when traffic shifts away from them. However, on a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide MSAT levels to be significantly lower than today.

Substantial construction-related MSAT emissions are not anticipated for this project as construction is not planned to occur over an extended building period. However, construction activity may generate temporary increases in MSAT emissions in the project area.

The Air Quality and Noise Evaluation report for the project is provided in Appendix 3.

Noise Please refer to noise guidance when completing this section of the document.

This project is Type 1

Summary for Type 1 Noise Analysis

Supporting documentation is included in the appendix.

The Air Quality and Noise Evaluation report for the project is provided in Appendix 3.

The noise analysis was completed in accordance with Federal Highway Administration (FHWA) noise standards, *Procedures for Abatement of Highway Traffic and Construction Noise, 23 CFR 772* and the Tennessee Department of Transportation's *Policy on Highway Traffic Noise Abatement*.

Review of mapping and field reconnaissance revealed five areas on noise-sensitive land uses in the project area. Measurements were conducted at several locations on May 5, 2011 to characterize the existing noise environment. Existing worst hour sound levels range from 59 to 67 dBA depending on location. Design year sound levels for the No-Build Alternative are predicted to be approximately 1 dB higher than existing sound levels.

Noise modeling of the project area was completed using the FHWA Traffic Noise Model (TNM 2.5) computer program. The program calculated peak hour sound levels in the design year 2033 with the project. Design year sound levels for the Build Alternative are predicted to be between 61 and 76 dBA depending on location.

Noise impact is determined by comparing future project sound levels: (1) to a set of Noise Abatement Criteria (NAC) for a particular land use category, and (2) to existing sound levels.

The FHWA noise standards (contained in 23 CFR 772) and TDOT noise policy state that traffic noise impacts that warrant consideration of abatement occur when future sound levels are 66 dBA or higher for Category B land uses.

The FHWA noise standards and TDOT policy also define impacts to occur if there is a 10 dB increase in future year sound levels above existing sound levels

Future year 2033 sound levels for the Build Alternative are predicted to be 1 to 4 dB higher than existing sound levels. These increases are defined as "minor" in accordance with TDOT's noise policy so none of the uses are predicted to be impacted based on a substantial increase in existing sound levels.

Land uses in Noise Analysis Areas 1, 2, 3 and 5 are predicted to be impacted, for a total of 51 impacts. The predicted exterior sound level at the Villages Church of Christ is 69 dBA. However, no exterior areas of "frequent human use" exist at this site. Therefore, impacts are assessed for Category E interior conditions. The building is air-conditioned and would normally be expected to operate under "closed windows" conditions. The application of a 25 dB reduction for building attenuation per FHWA's *Highway Traffic Noise Analysis and Abatement Policy and Guidance* [6] results in a predicted interior sound level of 44 dBA, which is well below the NAC of 52 dBA for Activity Category E land uses. As a result, the Church is not predicted to be impacted.

Abatement is generally evaluated when impacts are predicted to occur. Noise abatement measures may include alteration of horizontal and vertical alignment and traffic management measures (such as reducing speed limits, prohibition of heavy trucks, etc). These forms of mitigation are not feasible for this project. Noise barriers were determined to be the best available abatement measures to reduce sound levels for the

impacted areas.

In order for noise barriers to be included in the project plans for the impacted noise analysis areas, they must be determined to be both feasible and reasonable in accordance with TDOT's noise policy.

TDOT's noise policy states that noise abatement will generally not be considered to be reasonable for active sports facilities. As a result, noise abatement was not evaluated for Noise Analysis Area 3 (Sergeant Jerry Mundy Memorial Park) since it consists of active sports facilities.

TDOT's noise policy also states that noise abatement will generally not be considered reasonable for isolated residences due to the cost of abatement versus the benefits provided. As a result, noise abatement was not evaluated for the single noise impact in Noise Analysis Area 5.

Finally, TDOT's noise policy states that noise abatement will not be considered reasonable for impacted land uses that were constructed after the highway unless the project will cause an increase in the design year No-Build sound levels of 3 dB or more.

This section of I-40 was constructed in 1965. All of the land uses in the remaining impacted Noise Analysis Areas were constructed well after I-40 and with full knowledge of the existence of I-40 traffic noise.

Detailed modeling of the No-Build and Build Alternatives in the design year 2032 indicated that the Build Alternative will increase sound levels between 0 and 1 dB compared to the No-Build Alternative at nearby noise-sensitive land uses for Noise Analysis Areas 1 and 2.

Since the project will not increase No-Build sound levels by 3 dB or more, noise abatement is not reasonable for these Noise Analysis Areas.

Construction Noise

It is expected that TDOT's construction specifications will apply to this project. As a result, construction procedures shall be governed by the *Standard Specifications for Road and Bridge Construction* as issued by TDOT and as amended by the most recent applicable supplements. The contractor will be bound by Section 107.01 of the Standard Specifications to observe any noise ordinance in effect within the project limits. Detoured traffic shall be routed during construction so as to cause the least practicable noise impact upon noise-sensitive areas.

Coordination With Local Officials

The land along the project is already developed with most areas protected by noise barriers. The vast majority of the land uses behind these barriers are not impacted by traffic noise.

However, it should be noted that TDOT encourages the local governments with jurisdiction over undeveloped lands as well as potential developers to practice noise compatibility planning in order to avoid future noise impacts. The following language is included in TDOT's noise policy:

"Highway traffic noise should be reduced through a program of shared responsibility. Local governments should use their power to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway or that the developments are planned, designed and constructed in such a way that noise impacts are minimized."

Additionally, TDOT's noise policy states that "noise abatement will also not be considered reasonable for land uses constructed after the date of adoption of this noise policy (based upon local Assessor's records), except for projects involving construction of a roadway on a new alignment."

TDOT's noise policy was effective in September, 2005. Development constructed after this date will not be

eligible for noise abatement for future projects.

Finally, TDOT currently has an active Type II Noise Barrier Program to facilitate the construction of "retrofit" noise barriers along existing highways. To be eligible for a Type II noise barrier, an area must meet the following criteria:

- The neighborhood must be located along a limited-access roadway;
- The neighborhood must be primarily residential;
- The majority (more than 50%) of residences in the neighborhood near the highway pre-dated the initial highway construction;
- A noise barrier for the neighborhood must not have been previously determined to be not reasonable or not feasible as part of a new highway construction or through-lane widening study (Type I project);
- Existing noise levels measured in the neighborhood must be above the Noise Abatement Criteria (NAC) of 66 dBA;
- A barrier must be feasible to construct and will provide substantial noise reduction; and,
- A barrier must be reasonable (barrier cost per benefitted residence) in accordance with TDOT's noise policy. A residence is considered "benefitted" if the noise barrier will reduce the traffic noise by at least 5 dB.

This project is not Type 1

Section 4(f) of the Department of Transportation Act of 1966

Section 4(f) is involved.

Summary for Section 4(f)

Supporting documentation is included in the appendix.

- Park, recreational land, wildlife refuges Section 4(f) document dated Month, Date, Year is included in the appendix.
- Historic/Architectural Section 4(f) document dated Month, Date, Year is included in the appendix.
- Archaeological Section 4(f) document dated Month, Date, Year is included in the appendix.

No land given protection under Section 4(f) will be affected by this project.

Section 6(f) of the Land and Water Conservation Fund Act of 1965

Section 6(f) is involved. (Land and water conservation funds)

Summary for Section 6(f)

Supporting documentation is included in the appendix.

Section 6(f) is not involved.

Section 106 of the National Historic Preservation Act of 1966

Cultural resources (historic/architectural & archaeological)

Supporting documentation is included in the appendix.

Combined Cultural Resources Report:

State Historic Preservation Office (SHPO) combined cultural resources letter dated June 7, 2011 is included in the appendix.

Separate Cultural Resources Report:

SHPO historic/architectural resources letter dated Month, Date, Year is included in the appendix.

- National Register of Historic Places listed or eligible historic/architectural properties are affected.
- No National Register of Historic Places listed or eligible historic/architectural properties are affected.

SHPO archaeological resources letter dated Month, Date, Year is included in the appendix.

- National Register of Historic Places listed or eligible archaeological properties are affected.
- No National Register of Historic Places listed or eligible archaeological properties are affected.

Summary for Cultural resources (historic/architectural & archaeological)

The combined Architectural and Archeological Assessment, dated June 6, 2011, stated that the TDOT cultural resource staff performed a search of the files of the TN-SHPO to find that there are no National Register of Historic Places (NRHP) listed properties in the general project area. TDOT historians surveyed the project area in April 2011 and identified no additional properties as eligible for the National Register. It is the opinion of TDOT historians that there are no cultural resources within the project area of potential effect. Therefore, there would be no Section 4(f) use of a historic property. The TDOT Archaeology Section checked the Division of Archaeology site files and there were no sites within the proposed project area of potential effect. If fill material for this project must be obtained from outside the proposed ROW, it will be acquired in accordance with Federal Aid Provision 107.06.

The SHPO letter dated June 7, 2011, concurred with the recommendations of the report and stated that the area of potential effects for the project contains no cultural resources eligible for listing in the NRHP. All borrow areas outside proposed ROW will require separate certification as specified under Section 107.06-Federal Aid Provisions. If TDOT proposes any modifications to current project plans or discovers any archeological remains during the ground disturbance or construction phase, then the SHPO should be notified to determine what further action, if any, will be necessary to comply with Section 106 of the National Historic Preservation Act.

The combined historic/architectural and archaeological report is provided in Appendix 4. Section 106 Coordination is included in Attachment 4.

- Mitigation measures are included in the appendix.

Native American Consultation

- Pursuant to 36 CFR 800, a consultation letter dated June 2, 2011 was sent to the following tribes (please check all tribes that apply) and is included in the appendix.

- | | |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Absentee – Shawnee Tribe of Oklahoma | <input checked="" type="checkbox"/> Kialegee Tribal Town |
| <input type="checkbox"/> Alabama Quassarte Tribal Town | <input checked="" type="checkbox"/> Muscogee (Creek) Nation |
| <input checked="" type="checkbox"/> Cherokee Nation | <input type="checkbox"/> Poarch Band of Creek Indians |
| <input type="checkbox"/> Chickasaw Nation | <input type="checkbox"/> Quapaw Tribe of Oklahoma |
| <input type="checkbox"/> Choctaw Nation of Oklahoma | <input checked="" type="checkbox"/> Shawnee Tribe |
| <input checked="" type="checkbox"/> Eastern Band of Cherokee Indians | <input checked="" type="checkbox"/> Thlopthlocco Tribal Town |
| <input checked="" type="checkbox"/> Eastern Shawnee Tribe of Oklahoma | <input checked="" type="checkbox"/> United Keetoowah Band of Cherokee Indians in Oklahoma |

Responses

- No tribal responses were received.
- Responses were received from the following tribes and are included in the appendix.

Summary of tribal responses and other concerns:

No tribal responses were received.

- | | |
|---------------------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Absentee – Shawnee Tribe of Oklahoma | <input type="checkbox"/> Kialegee Tribal Town |
| <input type="checkbox"/> Alabama Quassarte Tribal Town | <input type="checkbox"/> Muscogee (Creek) Nation |
| <input type="checkbox"/> Cherokee Nation | <input type="checkbox"/> Poarch Band of Creek Indians |
| <input type="checkbox"/> Chickasaw Nation | <input type="checkbox"/> Quapaw Tribe of Oklahoma |

- Choctaw Nation of Oklahoma
- Eastern Band of Cherokee Indians
- Eastern Shawnee Tribe of Oklahoma

- Shawnee Tribe
- Thlopthlocco Tribal Town
- United Keetoowah Band of Cherokee Indians in Oklahoma

Hazardous Materials

- Hazardous material site(s) are involved.

Summary for hazardous materials

Supporting documentation is included in the appendix.

The project location does not involve any hazardous material sites. In the event hazardous substances/wastes are encountered within the proposed right-of-way, their disposition shall be subject to all applicable regulations, including the applicable sections of the Federal Resource Conservation and Recovery Act, as amended; and the Comprehensive Environmental Response, Compensation, and Liability Act, as amended; and the Tennessee Hazardous Waste Management Act of 1983, as amended.

Direction from TDOT stating that hazardous materials studies are not needed for a project of this nature is included in Attachment 5.

- No underground storage tanks or sources of hazardous materials are, or have been, located in the project impact area. If any hazardous materials are found during construction they will be handled and disposed of in compliance with applicable federal and state regulations.

Other Issues

- Other issue(s) are involved.

Summary for other issues (e.g., Environmental Justice)

Supporting documentation is included in the appendix.

- No other issues are involved

Other Supporting Documents

- There are other supporting documents included in the appendix.

Commitments

- Commitments are involved on the project.

List of commitments (Environmental and other)

Supporting documentation is included in the appendix.

Stream and miscellaneous water quality permits

Alterations to streams or other aquatic sites designated as waters of the State or waters of the United States require either individual or general ARAP from the State of Tennessee, individual or Nationwide 404 U. S. Army Corps of Engineers permits and, where applicable, a TVA 26a permit or letter of no objection. Construction projects disturbing one or more acres of land require storm water control permits issued by the State of Tennessee pursuant to the National Pollutant Discharge Elimination System. For any project that affects water flowing into an open sinkhole or cave, or for any impact that may affect the ground water via a sinkhole, a Class V Injection Well permit may be required. This process involves obtaining a permit before the project is let if open sinkholes are known to exist. If other sinkholes are encountered after construction has begun, the appropriate TDOT offices will be notified and the appropriate steps taken to comply with laws, regulations, and permits. These or any other permit requirements identified in the project development process will be complied.

Wetland Permits

All wetland impacts require confirmation by, and coordination with, permitting agencies. All require either general or individual ARAP permits from the State of Tennessee. Almost all require either Nationwide or Individual permits from the U. S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act. Other agencies such as the U. S. Fish and Wildlife Service and the Environmental Protection Agency may be involved in the permitting process.

Wetland impacts which are subject to either State or Federal jurisdiction, and which do not meet criteria for either general, or nationwide permits require individual permits. These impacts typically require compensatory mitigation. In general, wetlands with less than 0.10 acre impacts may come under the guidelines of a general permit issued by the State of Tennessee and no mitigation is required. General permits may be used if the total of a series of small impacts is less than 0.25 acres. Some wetland impacts of less than 0.5 acres qualify for Corps of Engineers nationwide permits. TDOT will carry out further coordination with the regulatory agencies before preparing mitigation plans and submitting permit applications. Permit requirements and mitigation plans will be based on these discussions.

The Environmental Commitments Green Sheet is provided in Attachment 6.

Commitments are not involved.

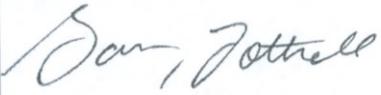
This project as proposed will not involve significant impacts to planned growth, land use, or existing travel patterns. The above findings demonstrate the fact that the proposed improvements will not indirectly or cumulatively have any significant environmental impacts. Therefore; it is our recommendation that this project be classified as Categorical Exclusion under the provision of 23 CFR, 771.117(d).

Approved by: 
Ann Andrews
Transportation Manager II, TDOT
Environmental Manager

July 7, 2011

FHWA Concurrence

Signature of FHWA representative



Name Gary Fottrell
Position/Title Environmental Program Engineer
Date of Concurrence 7/11/11

CC:

Suzanne Herron, Danielle Hagewood, Ronnie Porter, David Thompson, Bob Allen, Lia Obaid