



Standard Language for Documenting Traffic Noise Analyses

How to use the standardized language and associated templates for NEPA documentation specific to a traffic noise analysis prepared in accordance with TxDOT's 2019 Noise Policy

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Instructions

The requirements for documenting a traffic noise analysis are discussed in Section 10.0 of the Environmental Affairs Division's (ENV) Traffic Noise Policy Implementation Guidance.

This document and the associated templates provide standardized language for the preparation of a traffic noise analysis report, the noise section of an Environmental Assessment (EA) or Environmental Impact Statement (EIS), or other noise documentation.

Traffic noise analysis report templates in ENV's online Traffic Noise Toolkit include the minimum required language and list of attachments for documenting the three typical outcomes of a traffic noise analysis:

Templates in the Noise Toolkit:
Template – Analysis with No Noise Impacts
Template – Analysis with Noise Impacts and No Feasible and Reasonable Abatement
Template – Analysis with Noise Impacts and Feasible and Reasonable Abatement

This document includes standardized noise language for the validation study, for documenting noise abatement analyses, for environmental documents, for reevaluations, and instructions for atypical noise analyses not covered by the templates listed above.

Standard Language in this Document:
Example A – Analysis Not Required
Example B – Existing Model Validation Study
Example C – Example Noise Abatement Paragraphs
Example D – Analysis Summary for Environmental Assessment or Environmental Impact Statement documents
Example E – Analysis Reevaluation
Example F – Atypical Analysis – All Undeveloped Land
Example G – Atypical Analysis – All Retail or Industrial and Undeveloped Land
Example H – Atypical Analysis – All Retail or Industrial

Gray highlighting, in this document and in the templates, indicates instructions or project specific information that must be included, as applicable.

Remove gray highlighting before submitting the documentation.

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Notes

The following notes apply to all templates and standard language:

- NOTE 1:** Report noise levels in whole numbers. However, DO NOT ROUND to the nearest whole number. Simply drop or truncate the number after the decimal point. For validation study results, report noise levels and comparisons to the nearest tenth of a decimal.
- NOTE 2:** For new location projects where existing noise levels were determined based on ambient noise measurements, include a short discussion of methodology and attach data sheets to the report.
- NOTE 3:** The summary validation text in the templates assumes that existing model(s) met validation requirements. If the existing model did not validate, then additional explanation or discussion is required (see Section 5.1.3 in the Traffic Noise Policy Implementation Guidance and Example B below).
- NOTE 4:** For especially long or complex projects with many representative receivers over a large area, ENV recommends adding a column to the Traffic Noise Levels results table to indicate which map figure(s) show the receiver locations.
- NOTE 5:** Document estimated contour distances by rounding to the nearest five or ten foot distance.

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Example A – Analysis Not Required

Use this text when a traffic noise analysis is not required (i.e. project is not a Type I project).

For non-Type I projects, this is the negative declaration finding statement that is automatically entered to the Environmental Compliance Oversight System (ECOS) during the scoping or work plan development (WPD) phase of the project.

This language is also used in an Environmental Assessment or an Environmental Impact Statement, when a traffic noise analysis is not required.

This text may also be entered to ECOS by a ENV noise SME when he or she determines that a project is not a Type I project.

The proposed project would not be on a new location, would not substantially alter either the horizontal or vertical alignment, and would not increase the number of through-traffic lanes or auxiliary lanes; therefore, a traffic noise analysis is not required by Federal Highway Administration (FHWA) Regulation 23 CFR 772 or TxDOT's (FHWA-approved) Traffic Noise Policy (2019).

Noise associated with the construction of the project is difficult to predict. Heavy machinery, the major source of noise in construction, is constantly moving in unpredictable patterns. However, construction normally occurs during daylight hours when occasional loud noises are more tolerable. No extended disruption of normal activities is expected. Provisions will be included in the plans and specifications that require the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and proper maintenance of muffler systems.

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Example B – Existing Model Validation Study

Use this text for documenting the traffic noise validation study. The following is just an **example** – your methodology may vary; modify the standard language accordingly. For example, on low-volume roadways, traffic may be counted manually, rather than by video camera.

Refer to Section 5.1.3 in ENV's Traffic Noise Policy Implementation Guidance for validation study guidance. In most noise reports, this validation study writeup is attached to the report after the maps and traffic data.

Discuss site selection, equipment, and methodology. Reference and attach field data sheets with observations, measurements, traffic counts, and speed measurements. Include location maps and photographs of measurement setup and location(s). A photograph of the sound level meter screen at the end of the measurement period is also recommended.

Validation materials should be attached or submitted along with the validation model files. See Section 10.5.3 in ENV's Traffic Noise Policy Implementation Guidance for instructions on how to prepare noise model files for submittal. ENV recommends including "validation" in the zip file name for the existing model validation runs.

A validation study was performed in order verify that the existing model accurately predicts existing traffic noise based on current conditions and to ensure that traffic noise is the main source of noise. Model validation compares field-collected sound level measurements to traffic noise levels calculated in an existing condition model that used field-collected traffic parameters.

Two validation sites were selected along the project ROW (**Figure X**) <Note: Validation site maps can be included with the Validation writeup, or the validation site locations may be included in the main map figures for the noise analysis> after consultation with TxDOT district staff and ENV noise subject matter experts. Field measurements were collected on date(s) between X AM and X PM. The weather was sunny and dry, with calm to light winds. During the measurements, traffic was free-flowing and traveling at a relatively constant speed.

A <indicate Type, brand, and model #> sound level meter was used to measure sound levels in dB(A) Leq. The sound level meter was positioned on a tripod with the microphone facing the roadway and set at a height of five feet. The measurement duration was 15 minutes. The meter was calibrated before measurements were taken and at the end of the day.

Concurrently with the sound level measurement, video cameras were used to record traffic conditions for all existing travel lanes adjacent to the noise meter. Due to line-of-sight issues, separate cameras with synchronized time stamps were used to record eastbound and westbound traffic. A laser speed detector <indicate how speeds were determined> was used to estimate average traffic speeds in both directions. Weather conditions, including temperature and wind speed/direction, were also recorded during the measurement period. Field data sheets are included in **Appendix X**.

<Discuss any unusual or atypical factors that may have affected the data collection, such as train noise, sirens, barking dogs, etc. Discuss post-processing, data massaging, or assumptions made due to these factors.>

Upon return from the field, traffic video recordings were reviewed to obtain traffic counts by vehicle classification (car, medium truck, and heavy truck). Because the noise modeling software uses a vehicle per hour input, vehicle counts for the 15-minute measurement interval were multiplied by four to convert the values to the hourly condition. Traffic counts and model inputs are included in **Appendix X**.

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The FHWA traffic noise modeling software (TNM 2.5) was used to calculate existing traffic noise levels at each validation location, based on the field-observed conditions. The validation model run(s) used the existing roadway parameters, observed hourly traffic counts, and observed speeds.

The traffic noise model validation results are shown in **Table X**. *<Note: Unlike with TNM values reported in the Results table of the main report, do not truncate the numbers. Instead, report dB(A) numbers in the Validation table to the first decimal place. The Difference column should be calculated as modeled level minus the field measured value. Please include the + or – signs as applicable.>*

Table X. Traffic Noise Model Validation

Validation Site	Field-Measured Level dB(A) Leq	Modeled Level dB(A) Leq	Difference (+/-)	Validated?
Site 1 – Oak Street	63.1	62.6	-0.5	Yes
Site 2 – Pine Street	59.1	60.3	+1.2	Yes
etc.				

Differences between the measured and model-calculated sound levels were within the +/- 3 dB(A) tolerance allowed by FHWA. Therefore, the existing noise model is considered validated for this project.

If the model did not validate, discuss any modifications to the validation model that were tried (such as adding terrain lines, whether other sources of noise were dominant, etc.). Discuss whether the model is under- or over-predicting traffic noise compared to observed conditions.

Example C – Noise Abatement Paragraph Instructions and Examples

Below are examples of noise abatement paragraphs, which can be used to document the outcome of the abatement considered for impacted receptor locations. Also included are example abatement paragraphs for Category C activity areas.

For each impacted representative receptor location, a barrier evaluation should be discussed in the traffic noise analysis report. These “abatement paragraphs” describe the results of the barrier analysis and include the reasoning for why abatement is or is not proposed for receptors with predicted noise impacts.

Receptors may be grouped together into a single paragraph if they have similar land uses and similar reasons for not being reasonable and/or feasible. Receptors for proposed barriers should be grouped by neighborhood or common noise environment.

Abatement paragraphs must discuss the following, in this order:

1. Identify what the modeled representative receiver represents (description of the Land Use Activity Area and the number represented) and the number of associated impacted receptors.
2. Describe any relevant site-specific factors, such as orientation of the receptors relative to the roadway, existing access, or existing masonry walls.
3. Describe the location and placement of the tested barrier, such as adjacent to the proposed ROW line or between the mainlanes and frontage road; that the barrier is continuous or has gaps to maintain access to existing streets, utilities, drainage, etc.
4. Describe the dimensions of the tested or proposed barrier.
5. Indicate how the barrier did or did not meet the feasible and reasonable abatement criteria.
 - a. First discuss if the barrier did or did not meet the 5 dB(A) reduction requirements.
 - b. Then discuss if the barrier did or did not meet the 7 dB(A) noise reduction design goal.
 - c. If both acoustic reduction criteria were met, then describe if the barrier did or did not meet the cost reasonableness square footage allowance.
 - d. If both acoustic reduction criteria were not met, then do not discuss cost reasonableness.

If multiple barriers were tested, discuss/propose the most optimized barrier or discuss the barrier configuration that was closest to meeting the abatement criteria.

Backup documentation, such as spreadsheets, and results for other tested barrier options may be submitted with the models for the project file, but are usually not included or attached to the traffic noise analysis report.

Abatement Feasible and Reasonable

Abatement proposed – Barrier meets feasible and reasonable criteria
<i>These example paragraphs are for when a barrier meets the feasible and reasonable criteria and is therefore proposed for the project.</i>

R5 and R6 – These receivers represent 10 first and second row residences in the Mountain View neighborhood, of which 8 have predicted noise impacts. A continuous noise barrier would block access to the neighborhood, so a barrier in two sections was modeled. Based on preliminary calculations, a noise

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barrier approximately 750 feet in total length and 8 feet in height would reduce noise levels by at least 5 dB(A) for five first-row impacted receptors and meet the noise reduction design goal of 7 dB(A) for one of those receptors. With a total area of abatement of 6,000 square feet or 1,200 square feet per benefited receptor, the barrier would be cost reasonable.

R12 through R15 - These receivers represent 20 residences in The Oaks subdivision with backyards that face the roadway. Eighteen of the first-row receptors have predicted traffic noise impacts. Based on preliminary calculations, a noise barrier approximately 1,920 feet in length and 10 feet in height would reduce noise levels by at least 5 dB(A) for 14 benefited receptors and meet the noise reduction design goal of 7 dB(A) for two of those receptors. With a total area of abatement of 19,200 square feet or 1,378 square feet per benefited receptor, the barrier would also be cost reasonable.

Abatement Not Feasible

Abatement not feasible – does not benefit a minimum of two impacted receptors

These example paragraphs cover situations in many rural areas, where there are one or two isolated, individual houses (i.e. not part of a defined neighborhood, subdivision, or cluster of houses). This also applies to impacts in mixed use developed areas with scattered individual houses or individual Category E restaurants and offices.

R11 - This receiver represents a single, isolated house. Because a noise abatement measure must potentially benefit a minimum of two impacted receptors, noise abatement for this location is not feasible.

R12, R15, and R23 – These receivers represent separate, individual residences, which are not associated with a neighborhood or a larger group of houses. Because a noise abatement measure must potentially benefit a minimum of two impacted receptors, noise abatement for these locations is not feasible.

R21 – This receiver represents two adjacent impacted houses with driveways that connect to the roadway. A continuous noise barrier would block access to these houses, but a noise barrier with gaps to maintain access would not benefit both receptors. Because a noise abatement measure must potentially benefit a minimum of two impacted receptors, noise abatement for these locations is not feasible.

R32 – This receiver represents an outdoor seating area at restaurant (Starbucks), located in a developed retail area. Because a noise abatement measure must potentially benefit a minimum of two impacted receptors, noise abatement for this location is not feasible.

Abatement not acoustically feasible – does not meet minimum 5 dB(A) reduction requirements

These example paragraphs are for when a barrier does not meet the “minimum 5 dB(A) reduction at >50% of first-row impacted receptors” criterion.

R1 and R2 – These receivers represent a group of 5 residences with driveways that connect to the frontage road. A continuous noise barrier would restrict access to these residences. Gaps in the noise barrier would satisfy access requirements, but the resulting non-continuous wall segments would not be sufficient to achieve the minimum, feasible reduction of 5 dB(A) for a majority of impacted receptors or the noise reduction design goal of 7 dB(A).

R3 and R4 – These receivers represent 15 houses in the Clear Creek subdivision with backyards that face the roadway. A continuous noise barrier placed along the ROW line, up to 20 feet in height, would

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not be sufficient to achieve the minimum, feasible reduction of 5 dB(A) for a majority of impacted receptors or the noise reduction design goal of 7 dB(A).

Abatement not feasible – due to constructability (not cost)

This example paragraph is for a situation in which it is not possible to construct noise abatement given site constraints such as topography, access requirements, other noise sources, drainage, utilities, or maintenance. This does not include situations in which these issues could be accommodated through utility adjustments, additional ROW, or additional design elements. If cost is the issue, see the example titled “Abatement not reasonable – construction costs are unreasonably high”.

R25 and R26 - These receivers represent impacted first floor patios and second floor balconies at the Westgate Apartments. A modeled barrier along the ROW line approximately 16 feet in height would provide reasonable and feasible abatement; however, there is an existing retaining wall, existing overhead and underground utilities, and constrained existing ROW. Due to these site constraints, a noise barrier is not feasible at this location. A constructability memo from the project design team has been uploaded to the project file.

Abatement Not Reasonable

Abatement not reasonable – does not meet 7 dB(A) noise reduction design goal

This example paragraph is for when a barrier meets the feasible acoustic reduction requirements but does not meet the noise reduction design goal (“at least one benefited receptor must achieve a substantial noise reduction of at least 7 dB(A)”).

R7 – This receiver represents two adjacent restaurants with outdoor seating areas that face the roadway. A continuous noise barrier was tested along the ROW line. A barrier, approximately 350 feet in length and up to 20 feet in height, would reduce noise levels at both restaurants by at least 5 dB(A), but would not meet the 7 dB(A) noise reduction design goal.

Abatement not reasonable – greater than 1,500 square feet per benefited receptor

These example paragraphs are for when a barrier meets the acoustic criteria, but the “standard barrier cost” is more than 1,500 square feet per benefited receptor.

R5 and R6 – These receivers represent 10 first and second row residences in the Prairie Village neighborhood (**Figure X.X**), of which 8 have predicted noise impacts. A continuous noise barrier would block access to the neighborhood, therefore a barrier in two sections was modeled. Based on preliminary calculations, a noise barrier approximately 1,000 feet in total length and 15 feet in height would reduce noise levels by at least 5 dB(A) for five first-row impacted receptors and meet the noise reduction design goal of 7 dB(A) for two of those receptors. However, with the total surface area of abatement at 15,000 square feet or 3,000 square feet per benefited receptor, the barrier would exceed the cost-reasonableness criterion of 1,500 square feet per benefited receptor.

R8 and R9 - These receivers represent 12 impacted receptors in a neighborhood with backyards that face the roadway. A continuous noise barrier 18 feet in height and approximately 1,250 feet in length was modeled along the ROW. This barrier would achieve the minimum feasible reduction of 5 dB(A) for 7

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receptors while meeting the 7 dB(A) noise reduction design goal at one of these receptors. However, with the total surface area of abatement at 22,500 square feet or 3,750 square feet per benefited receptor, the barrier would exceed the cost-reasonableness criterion of 1,500 square feet per benefited receptor.

Abatement not reasonable – construction costs are unreasonably high

This example paragraph is for when a barrier is reasonable and feasible, but associated costs to construct the barrier are more than two times the “standard barrier cost.”

R13 – This receiver represents 10 impacted condominiums at Ravenwood Townhomes. Based on preliminary calculations, a noise barrier approximately 800 feet long and 12 feet in height would reduce noise levels by at least 5 dB(A) for eight first-row impacted receptors and meet the noise reduction design goal of 7 dB(A) for one receptor. With a total area of abatement of 9,600 square feet or 1,200 square feet per benefited receptor, the barrier is cost reasonable. However, an existing 12-inch water line, underground fiber optic cable, and overhead electric utilities are located within the proposed ROW at this location and would interfere with the construction of the noise barrier. Based on the estimated costs to relocate these utilities (approximately \$550,000), this barrier is not cost reasonable. A copy of the Alternate Barrier Cost Assessment Worksheet has been uploaded to the project file.

Category C Examples

Abatement proposed – Category C activity area

These example paragraphs are for when a barrier for a Category C activity area meets the feasible and reasonable criteria and is therefore proposed for the project. Category C includes land uses such as active sport areas, cemeteries, playgrounds, parks, picnic areas, places of worship.

R17 – This receiver represents an impacted playground area associated with River City Park. The impacted area of the park is predicted to be approximately 0.88 acre and is equivalent to six residential receptors, based on a 0.15-acre average residential lot size in the project area. Other noise-sensitive areas within the impacted area of the park include several picnic tables, a gazebo, and a trailhead. Based on preliminary calculations, a continuous noise barrier, 14 feet in height and approximately 550 feet in length would reduce noise levels by at least 5 dB(A) for a majority of these receptors and meet the noise reduction design goal of 7 dB(A) for one location. With a total area of abatement of 7,700 square feet, or 1,283 feet per equivalent benefited receptor, the barrier would be cost reasonable.

R19 – This receiver represents the Flowers Cemetery, which has a driveway that connects to the frontage road. Outdoor gathering areas at the cemetery include a gazebo and a reflection garden with benches. The impacted area of the cemetery is predicted to be approximately 1.2 acre, which is equivalent to 10 residential receptors, based on a 0.12-acre average residential lot size in the project area. A continuous noise barrier would block access to the cemetery, so a barrier in two sections, approximately 16 feet in height and 800 total feet in length was modeled along the ROW line. Based on preliminary calculations, this barrier would reduce noise levels by at least 5 dB(A) for the impacted outdoor activity areas and meet the noise reduction design goal of 7 dB(A). With a total area of abatement of 12,800 square feet, or 1,280 per equivalent benefited receptor, the barrier would be cost effective.

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Abatement not proposed – Category C activity area

These example paragraphs are for when a barrier for a Category C activity area does not meet the feasible and reasonable criteria. Category C includes land uses such as active sport areas, cemeteries, playgrounds, parks, picnic areas, places of worship.

R8 – This receiver represents an impacted playground area associated with Badger Park. The impacted area of the park is predicted to be approximately 0.9 acre and is equivalent to one residential receptor, based on a 0.6-acre average residential lot size in the project area. Other noise-sensitive areas within the impacted area of the park include several picnic tables, a gazebo, and a trailhead. Because the representative receiver area is less than two receptors, this barrier is not feasible.

R10 – This receiver represents an impacted playground area associated with Mount Vernon Park. The impacted area of the park is predicted to be approximately 3.2 acre and is equivalent to 21 residential receptors, based on a 0.15-acre average residential lot size in the project area. Other noise-sensitive areas within the impacted area of the park include several picnic tables, a gazebo, and a trailhead. Based on preliminary calculations, a continuous noise barrier 20 feet in height and approximately 1000 feet in length would reduce noise levels by at least 5 dB(A) and meet the noise reduction design goal of 7 dB(A) for the receptor representing the playground. However, with a total surface area of abatement of 33,600 square feet, or 1,600 square feet per benefited receptor, the barrier would exceed the cost-reasonableness criterion of 1,500 square feet per benefited receptor.

R36 – This receiver represents a reflecting pool associated with Memorial Park. The impacted area of the park is predicted to be approximately 4.8 acres and is equivalent to 32 residential receptors, based on a 0.15-acre average residential lot size in the project area. Other noise-sensitive areas within the impacted area of the park include several picnic tables, a gazebo, and a sculpture garden. A continuous noise barrier, 20 feet in height and approximately 1000 feet in length, would not reduce noise levels by at least 5 dB(A) or meet the noise reduction design goal of 7 dB(A) for the receptor representing the reflecting pool.

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Example D – Standard Language for Environmental Documents

Use this annotated example as a guide to summarize impacts and include the applicable required statements related to noise. The standard language may vary based on the results of the noise study and whether noise abatement is proposed.

As stated in ENV's Environmental Assessment (EA) Handbook and EA Outline, the traffic noise discussion in the EA (Section 5.13 Traffic Noise) must contain the following standard language.

The construction noise paragraph must appear in Section 5.16 Construction Phase Impacts.

If noise abatement is proposed and decisions about proposed barriers will be completed after environmental clearance (i.e. final design, constructability assessments and noise workshops have not yet occurred), acknowledgement of additional noise activities must be mentioned in Section 8.0.

Map figures showing noise receiver locations, color coded results, and locations of proposed noise abatement, as applicable, must be included with the resource-specific maps in Appendix E of the EA.

5.13 Traffic Noise

Identify policy year and reference the traffic noise analysis report

A traffic noise analysis was prepared in accordance with TxDOT's (FHWA-approved) *Traffic Noise Policy* (2019). The *Traffic Noise Analysis Report* (2024), which includes details about the analysis, is available for public review at the TxDOT **Location** District office.

Build Alternative

Existing and predicted traffic noise levels were modeled at representative land use activity areas (receptors) adjacent to the project that might be impacted by traffic noise and would potentially benefit from feasible and reasonable noise abatement.

Include the noise levels table here and/or something similar to the following summary paragraph. Include the noise figures from the traffic noise analysis report in Appendix E and reference in the text. Indicate if the project would or would not result in predicted traffic noise impacts.

Modeled noise-sensitive locations were primarily residential, but also included a cemetery, restaurants, a church playground, a park, and an elementary school. The traffic noise analysis determined that out of 55 representative receptors, 15 were predicted to have noise levels that approach or exceed the FHWA noise abatement criteria or that substantially exceed the existing noise levels; therefore, the proposed project would result in traffic noise impacts (see **Figure X** in **Appendix E**).

If noise impacts were identified, then include the following paragraph that summarizes the abatement criteria. If no noise impacts were identified, then skip down to the contour results paragraph instructions:

Noise abatement measures were considered and analyzed for each impacted receptor location. Abatement measures, typically noise barriers, must provide a minimum noise reduction, or benefit, at or above the threshold of 5 dB(A). A barrier is not acoustically feasible unless it reduces noise levels by at least 5 dB(A) at greater than 50% of first-row impacted receptors and benefits a minimum of two impacted receptors. To be reasonable, the barrier must not exceed the cost reasonableness allowance of 1,500 square feet per benefited receptor and must meet the noise reduction design goal of 7 dB(A) for at least one receptor.

Then discuss abatement analysis and summarize results:

One noise barrier was found to be both reasonable and feasible and is recommended for incorporation into the proposed project (**Table XX**). Noise barriers were not reasonable and feasible for the remaining

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impacted representative receivers, and abatement is not proposed for those locations. Additional details regarding the barrier analysis can be found in the *Traffic Noise Analysis Report (2024)*.

If abatement is proposed, include specific information about the barrier results and include the preliminary barrier proposal table:

A noise barrier is proposed for the following location:

R25 through R28 - These receivers represent 20 residences in The Oaks subdivision with backyards that face the roadway (**Figure X** in **Appendix F**). Eighteen of the first-row receptors have predicted traffic noise impacts. Based on preliminary calculations, a noise barrier approximately 1,920 feet in length and 10 feet in height would reduce noise levels by at least 5 dB(A) for 14 benefited receptors and meet the noise reduction design goal of 7 dB(A) for two of those receptors. With a total area of abatement of 19,200 square feet or 1,378 square feet per benefited receptor, the barrier would also be cost reasonable.

Table XX. Noise Barrier Proposal (preliminary)

Barrier	Representative Receivers	Total # Benefited	Length (feet)	Height (feet)	Total Square Footage	Sq. Ft. per Benefited Receptor
1	R25 through R28	14	1,920	10	19,200	1,371

If abatement is proposed, this paragraph is also REQUIRED:

Any subsequent project design changes may require a reevaluation of this preliminary noise barrier proposal. The final decision to construct the proposed noise barrier will not be made until completion of the project design, utility evaluation, and polling of all benefited and adjacent property owners and residents.

Regardless of whether there are noise impacts and/or proposed noise abatement, include or summarize the noise contour results. If noise contours were not required on a project (i.e. the corridor is fully developed), include a statement to that effect and do not include the template language below.

To avoid noise impacts that may result from future development of properties adjacent to the project, local officials responsible for land use control programs must ensure, to the maximum extent possible, that no new activities are planned or constructed along or within the following predicted (20XX) noise impact contours.

Land Use	Impact Contour	Distance from Right of Way
NAC category B & C	66 dB(A)	XX feet
NAC category E	71 dB(A)	XX feet

The Local Official Notification and Date of Public Knowledge statements must also be included in the EA document:

A copy of this traffic noise analysis will be made available to local officials to assist in future land use planning. On the date of approval of this document (Date of Public Knowledge), FHWA and TxDOT are no longer responsible for providing noise abatement for new development adjacent to the project.

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Finally, discuss noise for the No Build Alternative.

No Build Alternative

Under the No Build Alternative, the proposed project would not be constructed. If the No Build Alternative were implemented, traffic noise levels would be expected to increase with an associated future increase in traffic volumes.

Do NOT say that there would be no noise impacts if the project was not constructed.

If project is new location, revise statement to say that future traffic noise levels would be similar to existing conditions or would increase with increasing traffic on adjacent existing roadways.

5.16 Traffic Construction Phase Impacts

This construction noise paragraph (below) must be included in 5.16 Construction Phase Impacts section of the EA document:

Noise associated with the construction of the project is difficult to predict. Heavy machinery, the major source of noise in construction, is constantly moving in unpredictable patterns. However, construction normally occurs during daylight hours when occasional loud noises are more tolerable. None of the receptors is expected to be exposed to construction noise for a long duration; therefore, any extended disruption of normal activities is not expected. Provisions will be included in the plans and specifications that require the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and proper maintenance of muffler systems.

8.0 Post-Environmental Clearance Activities and Design/Construction Commitments

Include the local official notification statement below in Section 8.1 if noise impact contours were required for the project.

If traffic noise barriers are proposed for the project and additional work needs to be done by district environmental staff and/or project design engineer(s), include statements similar to the following in Section 8.1 and 8.2.

Note that the standard specifications to minimize construction noise do not need to be listed in Section 8.2, unless a project-specific commitment related to construction noise is proposed.

Under 8.1 Post-Environmental Clearance Activities:

A copy of the traffic noise analysis will be made available to local officials to assist in future land use planning, to avoid noise impacts that may result from future development of properties adjacent to the project.

Noise barriers are proposed for this project, based on a preliminary analysis. <you may add information describing the barriers here (location or neighborhood, height, etc) OR reference the noise analysis in Section 5.13> Pending evaluation of the noise barrier proposal(s) by the design engineer in a constructability assessment, a noise workshop will be held before project letting. A noise workshop is a meeting to solicit viewpoints (votes) from all benefiting and adjacent property owners and residents to decide if the noise barrier(s) will be constructed.

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Under 8.2 Design/Construction Commitments:

Noise barriers are proposed for this project, based on a preliminary analysis. As part of project design, the design engineer will prepare a constructability assessment to determine if noise barriers can be constructed based on site constraints or other factors. If determined constructable, a noise workshop will be held. If approved during the noise workshop, noise barrier(s) will be incorporated into the construction plans for project letting.

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Example E – Analysis Reevaluation

Use these text examples to document reevaluations in which there is no change to the noise analysis findings in the approved environmental document.

See also the notes below about reevaluations.

The original traffic noise analysis concluded that no noise abatement measures would be feasible and reasonable for any of the impacted receptors. Since that time, there have been no changes that would alter this conclusion; therefore, the original traffic noise analysis remains valid.

OR

The original traffic noise analysis concluded that no noise abatement measures would be feasible and reasonable for any of the impacted receptors. The changes addressed in this reevaluation would not alter this conclusion nor result in any new impacts for which any noise abatement would be feasible and reasonable; therefore, the original traffic noise analysis remains valid.

OR

The original traffic noise analysis concluded that no receptors would be impacted. Since that time, there have been no changes that alter this conclusion; therefore, the original traffic noise analysis remains valid.

OR

An analysis of the land use activity areas along this portion of ROADWAY indicates that none of the receptors included in the approved <indicate document type> would be impacted by highway traffic noise and benefit from any feasible and reasonable noise abatement measures. Also, the minor scope of the proposed changes along this portion of ROADWAY does not warrant an analysis of any areas/receptors developed after the <CE or FONSI or ROD> was approved.

Note: *If there are substantial changes in the project design, a more in-depth or totally new analysis for the reevaluation area may be required.*

Also, the original analysis should have included the following statement:

“On the date of approval of this document (Date of Public Knowledge), FHWA and TxDOT are no longer responsible for providing noise abatement for new development adjacent to the project.”

Therefore, for a reevaluation, a new noise analysis is not required for any new development (e.g., new residential development) that occurred after the date of approval of the original document UNLESS there have been substantial changes in the project design, such that a Type I project category would be triggered by the design change.

Example F – Atypical Analysis – All Undeveloped Land

Use this text when the traffic noise analysis is for a corridor where all adjacent land uses are undeveloped lands that are not permitted (NAC Category G) and only noise contours were determined.

Start with the Template – No Impact in ENV’s online Noise Toolkit.

- *Keep the Introduction section*
- *Remove the Analysis and Validation sections.*
- *Substitute the following for the Results section*
- *Keep the Noise Contours for Land Use Planning, Construction Noise, Local Official Notification and Date of Public Knowledge Statement, and List of Attachments sections.*

Results

All land use activity areas adjacent to the project are currently undeveloped land which is not permitted for development. Therefore, the project would not result in any predicted noise impacts.

Example G – NAC F All Retail or Industrial and Undeveloped Land

Use this text when the traffic noise analysis is for a corridor where adjacent land uses are all retail or industrial (NAC Category F) and include undeveloped lands that are not permitted (NAC Category G). In this case, only noise contours would be determined.

Start with the *Template – No Impact* in ENV's online Noise Toolkit.

- Keep the Introduction section
- Remove the Analysis and Validation sections.
- Substitute the following for the Results section
- Keep the Noise Contours for Land Use Planning, Construction Noise, Local Official Notification and Date of Public Knowledge Statement, and List of Attachments sections.

Results

The land use activity areas adjacent to the proposed project currently consist of commercial development (NAC F) and land that is not permitted for development (NAC G). Therefore, there are no receptors that would be impacted by traffic noise and benefit from any feasible and reasonable noise abatement measures.

Standard Language for Documenting Traffic Noise Analyses

Example H – NAC F All Retail or Industrial

Use this text when the traffic noise analysis is for a corridor where all adjacent land uses are retail or industrial (NAC Category F) and are fully developed, with no vacant or undeveloped properties.

Note that this is the only example situation where we would not develop contours and therefore would not notify local officials.

Start with the Template – No Impact in ENV’s online Noise Toolkit.

- Keep the Introduction section
- Remove the Analysis and Validation sections.
- Substitute the following for the Results section
- Remove the Noise Contours for Land Use Planning section
- Keep the Construction Noise, Local Official Notification and Date of Public Knowledge Statement, and List of Attachments sections.

Results

The land use activity areas adjacent to the proposed project currently consist of commercial development (NAC F). Therefore, there are no receptors that would be impacted by traffic noise and benefit from any feasible and reasonable noise abatement measures. There are also no undeveloped or vacant properties adjacent to the project.

Appendix A – Revision History

The following table shows the revision history for this guidance document.

Revision History	
Effective Date Month, Year	Reason for and Description of Change
September 2024	Version 2 Edits to instructions in Example B (Validation Study). Edits to Example D (Standard Language for Environmental Documents) for consistency with EA outline.
December 2019	Version 1 was released.