

Slide 1 - Slide 1

Course 200: Traffic Noise Analysis Process
Construction Noise

Module 6: Assess Construction Noise

1

Determine Study Area Limits

2

Build the TNM

3

Validate the TNM

4

Predict Noise Levels and Impacts

5

Evaluate Noise Abatement

6

Assess Construction Noise

7

Provide Information to Local Officials

8

Prepare a Noise Report

You will be able to:

- ◆ Define a traffic noise study area
- ◆ Obtain data for noise analysis
- ◆ Identify noise-sensitive receptors
- ◆ Demonstrate modeling point placement
- ◆ Gather field noise measurements
- ◆ Validate the TNM
- ◆ Predict traffic noise levels and impacts
- ◆ Determine where to place noise barriers
- ◆ Analyze traffic noise abatement measures
- ◆ Evaluate and control construction noise
- ◆ Provide information to local officials for undeveloped lands
- ◆ Prepare a noise report to NDOT standards

Audio Script and Notes to Reviewers

Welcome to Module Six, Assess Construction Noise. In this module, you will learn how to evaluate and control construction noise.

Text Captions

Module 6: Assess Construction Noise

You will be able to:

Assess Construction Noise

- ◆ Evaluate and control construction noise

Determine Study Area Limits

- ◆ Define a traffic noise study area

Build the TNM

- ◆ Obtain data for noise analysis
- ◆ Identify noise-sensitive receptors
- ◆ Demonstrate modeling point placement

Validate the TNM

- ◆ Gather field noise measurements
- ◆ Validate the TNM

Predict Noise Levels and Impacts

Page 1 of 12

- ◆ Predict traffic noise levels and impacts

Evaluate Noise Abatement

- ◆ Determine where to place noise barriers
- ◆ Analyze traffic noise abatement measures

Provide Information to Local Officials

- ◆ Provide information to local officials for undeveloped lands

Prepare a Noise Report

- ◆ Prepare a noise report to NDOT standards

Slide 2 - Slide 2

Course 200: Traffic Noise Analysis Process

Construction Noise

A man in a yellow short-sleeved button-down shirt and dark trousers stands in the foreground of a construction site. To his left is a red octagonal stop sign on a metal post, with orange and white striped barriers. In the background, a yellow tractor is parked on a dirt road. The scene is outdoors with trees and a clear blue sky.

You must evaluate and consider construction noise as well as traffic noise.

Audio Script and Notes to Reviewers

You must evaluate and consider construction noise as well as traffic noise.

Text Captions

You must evaluate and consider construction noise as well as traffic noise.

Slide 3 - Slide 3



Audio Script and Notes to Reviewers

The noise sensitive receptors that are located directly adjacent to the project are those that are of major concern in the study of construction noise. These same receptors were also of concern in the traffic noise study.
It's getting loud over here! Can you do something about it?

Text Captions

The noise sensitive receptors that are located directly adjacent to the project are those that are of major concern in the study of construction noise.
These same receptors were also of concern in the traffic noise study.
It's getting loud over here! Can you do something about it?

Slide 4 - Slide 4



Audio Script and Notes to Reviewers

Here are some basic categories of mitigation measures for construction noise that N-dot considers, including design considerations, community awareness, source control, site control, and time and activity constraints. Click on each tab to learn more about each one.

Text Captions

Here are some basic categories of mitigation measures for construction noise that NDOT considers. Click on each tab to learn more about each one.

Design Considerations

Community Awareness

Source Control

Site Control

Time and Activity Constraints

Slide 5 - Slide 5

Course 200: Traffic Noise Analysis Process
Construction Noise

Design Considerations

Design Considerations includes measures in the plans and specifications to minimize or eliminate adverse impacts.

34' - 68' - WIDTH OF PAVEMENT

Proposed CL 34' - EXISTING WIDTH OF PAV

10' SHLDR 12' SB Passing Lane 12' SB Passing Lane 12' NB Passing Lane 12' NB Passing Lane

← VARIES P.G.L. VARIES →

12" Subbase (CL 2)

*EXISTING PAVEMENT

Design Considerations

Community Awareness

Source Control

Site Control

Time and Activity Constraints

Audio Script and Notes to Reviewers

Design Considerations includes measures in the plans and specifications to minimize or eliminate adverse impacts.

Text Captions

Design Considerations includes measures in the plans and specifications to minimize or eliminate adverse impacts.

Design Considerations

Community Awareness

Source Control

Site Control

Time and Activity Constraints

Slide 6 - Slide 6

The screenshot shows a presentation slide with a dark blue header containing 'Course 200: Traffic Noise Analysis Process' and 'Construction Noise'. The main content area has a yellow background with the text: 'Make people aware of the possible inconvenience and its approximate duration so they can plan their activities accordingly. It is NDOT's policy that information concerning upcoming project construction is submitted to all local news media.' Below the text is a photograph of a person's head in profile, looking at a television screen displaying colorful bokeh lights. At the bottom, a navigation bar features five chevron-shaped buttons: 'Design Considerations', 'Community Awareness' (highlighted in yellow), 'Source Control', 'Site Control', and 'Time and Activity Constraints'.

Audio Script and Notes to Reviewers

When considering Community Awareness, make people aware of the possible inconvenience and its approximate duration so they can plan their activities accordingly. It is N-dot's policy that information concerning upcoming project construction is submitted to all local news media.

Text Captions

Make people aware of the possible inconvenience and its approximate duration so they can plan their activities accordingly. It is NDOT's policy that information concerning upcoming project construction is submitted to all local news media.

Source Control

Site Control

Time and Activity Constraints

Community Awareness

Design Considerations

Slide 7 - Slide 7

Course 200: Traffic Noise Analysis Process
Construction Noise

Source Control



Reduce construction noise impacts by controlling noise emissions at their source. You can specify proper muffler systems as a requirement in the plans and specifications or through an established local noise ordinance requiring mufflers. Contractors generally maintain proper muffler systems on their equipment to ensure efficient operation and to minimize noise for the benefit of their personnel, as well as adjacent receptors.

Design Considerations

Community Awareness

Source Control

Site Control

Time and Activity Constraints

Audio Script and Notes to Reviewers

Reduce construction noise impacts by controlling noise emissions at their source. You can specify proper muffler systems as a requirement in the plans and specifications or through an established local noise ordinance requiring mufflers. Contractors generally maintain proper muffler systems on their equipment to ensure efficient operation and to minimize noise for the benefit of their own personnel, as well as adjacent receptors.

Text Captions

Reduce construction noise impacts by controlling noise emissions at their source. You can specify proper muffler systems as a requirement in the plans and specifications or through an established local noise ordinance requiring mufflers. Contractors generally maintain proper muffler systems on their equipment to ensure efficient operation and to minimize noise for the benefit of their personnel, as well as adjacent receptors.

Source Control

Site Control

Time and Activity Constraints

Design Considerations

Community Awareness

Slide 8 - Slide 8

Course 200: Traffic Noise Analysis Process
Construction Noise

Site Control



Specify certain areas where extra precautions should be taken. For example, operate stationary equipment as far from sensitive receptors as possible. Another example is placing a temporary noise barrier in front of the equipment. Good coordination between the project engineer, contractor, and affected receptors is less confusing, less likely to increase project cost, and a more personal approach to establish ways to minimize construction noise impacts.

Design Considerations

Community Awareness

Source Control

Site Control

Time and Activity Constraints

Audio Script and Notes to Reviewers

Specify certain areas of the site where extra precautions should be taken to minimize construction noise. For example, operate stationary equipment, such as air compressors or generators, as far from the sensitive receptors as possible. Another example is placing a temporary noise barrier in front of the equipment. As a general rule, good coordination between the project engineer, the contractor, and the affected receptors is less confusing, less likely to increase project cost, and is a more personal approach to establish ways to minimize construction noise impacts in more noise-sensitive areas.

Text Captions

Specify certain areas where extra precautions should be taken. For example, operate stationary equipment as far from sensitive receptors as possible. Another example is placing a temporary noise barrier in front of the equipment. Good coordination between the project engineer, contractor, and affected receptors is less confusing, less likely to increase project cost, and a more personal approach to establish ways to minimize construction noise impacts.

Site Control

Time and Activity Constraints

Design Considerations

Community Awareness

Source Control

Slide 9 - Slide 9

Course 200: Traffic Noise Analysis Process
Construction Noise

Time and Activity Constraints

Avoid construction activities at night or on weekends if possible. Enforcement of these constraints could be handled through a general city or county ordinance, either listing the exceptions or granting them on a case-by-case basis. Exceptions due to weather and schedule, such as working at night to benefit day-time traffic operations, are possible.



Design Considerations

Community Awareness

Source Control

Site Control

Time and Activity Constraints

Audio Script and Notes to Reviewers

Avoid construction activities at night or on weekends if possible. Enforcement of these constraints could be handled through a general city or county ordinance, either listing the exceptions or granting them on a case-by-case basis. Exceptions due to weather and schedule, such as working at night to benefit day-time traffic operations, are possible.

Text Captions

Avoid construction activities at night or on weekends if possible. Enforcement of these constraints could be handled through a general city or county ordinance, either listing the exceptions or granting them on a case-by-case basis. Exceptions due to weather and schedule, such as working at night to benefit day-time traffic operations, are possible.

Time and Activity Constraints

Design Considerations

Community Awareness

Source Control

Site Control

Slide 10 - Slide 10

Course 200: Traffic Noise Analysis Process

Construction Noise

Work with
NDOT to
identify
mitigation
measures
that are
appropriate
for your
project.

A close-up photograph of a man with a mustache wearing a yellow hard hat. The hard hat has a white sticker on the front that reads "NEBRASKA DEPARTMENT OF TRANSPORTATION". He is wearing an orange safety vest over a light-colored shirt. The background is blurred, suggesting an outdoor construction or work site.

Audio Script and Notes to Reviewers

Text Captions

Work with NDOT to identify mitigation measures that are appropriate for your project.

Slide 11 - Slide 11

The screenshot shows a course slide titled "Construction Noise" from "Course 200: Traffic Noise Analysis Process". On the left, a man in a yellow shirt is speaking. A blue speech bubble above him says: "That completes Module 6, Construction Noise. You learned how to evaluate and mitigate construction noise." A light blue speech bubble below him says: "If you're ready to learn how to provide information to local officials, click the Forward button to continue to Module 7. Or use the Back button to review previous material first." On the right, a yellow box contains the title "6 Construction Noise" and a list of bullet points:

- ◆ Evaluate construction noise as well as traffic noise.
- ◆ The noise sensitive receptors that are located directly adjacent to a project are of major concern and are the same receptors of concern in the traffic noise study.
- ◆ Basic mitigation measures for construction noise include:
 - Design Considerations
 - Community Awareness
 - Source Control
 - Site Control
 - Time and Activity Constraints

Audio Script and Notes to Reviewers

That completes Module Six, Construction Noise. In this module, you learned how to evaluate and mitigate construction noise impacts. Here's a quick summary. If you're ready to learn how to provide information to local officials, click the Forward button to continue to Module Seven. Or use the Back button to review previous material first.

QUESTION TO REVIEWER: Do we want audio for the summary text too, or just let them read it. It might get long-winded with audio.

Text Captions

That completes Module 6, Construction Noise. You learned how to evaluate and mitigate construction noise.
Construction Noise

- ◆ Evaluate construction noise as well as traffic noise.
- ◆ The noise sensitive receptors that are located directly adjacent to a project are of major concern and are the same receptors of concern in the traffic noise study.

If you're ready to learn how to provide information to local officials, click the Forward button to continue to Module 7. Or use the Back button to review previous material first.