

# **WELCOME**

## **I-290 NOISE WALL FORUM**

*October 2015*



# Purpose



- ✓ Provide I-290 study overview
- ✓ Present noise analysis process and findings
- ✓ Explain process for getting a noise wall
- ✓ Show noise wall options
- ✓ Provide opportunity for you to ask questions



**Questions?** Study team members will respond to anonymous questions presented by a moderator. If you have a question, please write it on this card and drop it in the question box. Also, please feel free to speak to one of the Study Team representatives.  
**Thank you for your participation!**

# Q&A Session

Please submit your comment card  
to a study team member



# *I-290 Study Overview*







## JOINT LEAD AGENCIES

Illinois Department of Transportation  
and  
Federal Highway Administration



## Project Consultant Team

Parsons Brinckerhoff – *Prime Consultant*

# I-290 Planning Process Overview

- **Initiated in Fall 2009**
- **Environmental Impact Statement (EIS)**
  - ✓ Most rigorous process for a transportation project
  - ✓ Formal agency reviews
  - ✓ Federal Highway Administration (FHWA) oversight
  - ✓ Engineering, environmental, stakeholder involvement considerations
- **Context Sensitive Solutions (CSS)**
  - ✓ Addresses all factors: safety, mobility, community, environment
  - ✓ Engages stakeholders on all factors

# I-290 Study Area

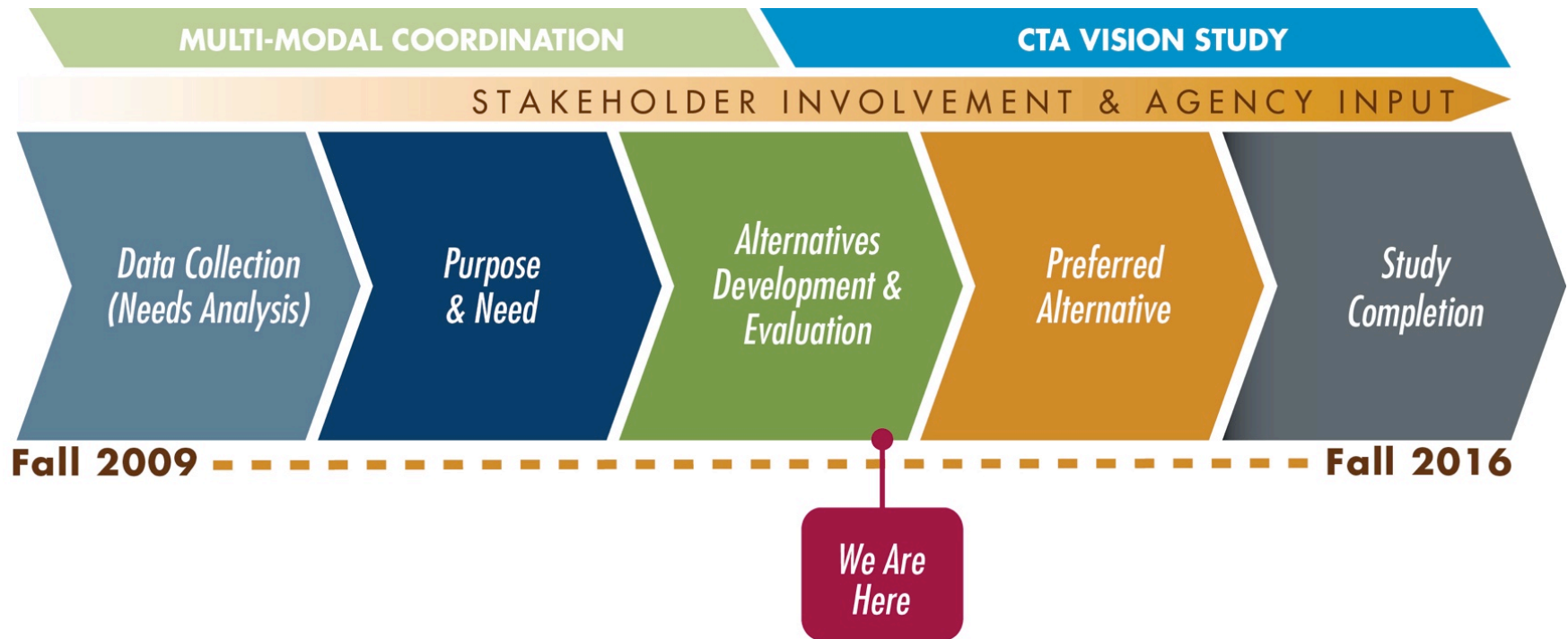
**Reconstruction  
Section  
(9 miles)**

**Re-striping  
Section  
(4 miles)**

**Jane Byrne  
Interchange  
Improvements**

- ✓ 13 miles
- ✓ West of Mannheim Road to Racine Avenue
- ✓ Connects between:
  - *I-88 on the west*
  - *Jane Bryne Interchange on the east*

# I-290 Study Overview





# Public Involvement Efforts



6 Newsletters  
and Factsheets

21 Corridor Advisory Group/  
Task Force Meetings



Over 100  
Community and Transit  
Agency Meetings



3 Public Meetings



[www.EisenhowerExpressway.com](http://www.EisenhowerExpressway.com)

# Transportation Needs, Alternatives Summary



## Transportation needs to be addressed

- ✓ Mobility, safety, condition, design
- ✓ Connections between travel modes
- ✓ Access to jobs

### OVERALL GOAL

*Create an asset for adjoining communities*



# Transportation Needs, Alternatives Summary



## Alternatives development evaluation

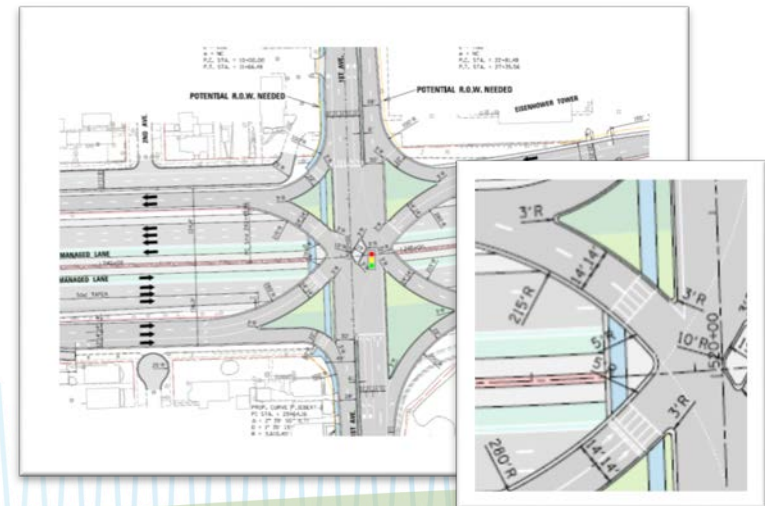
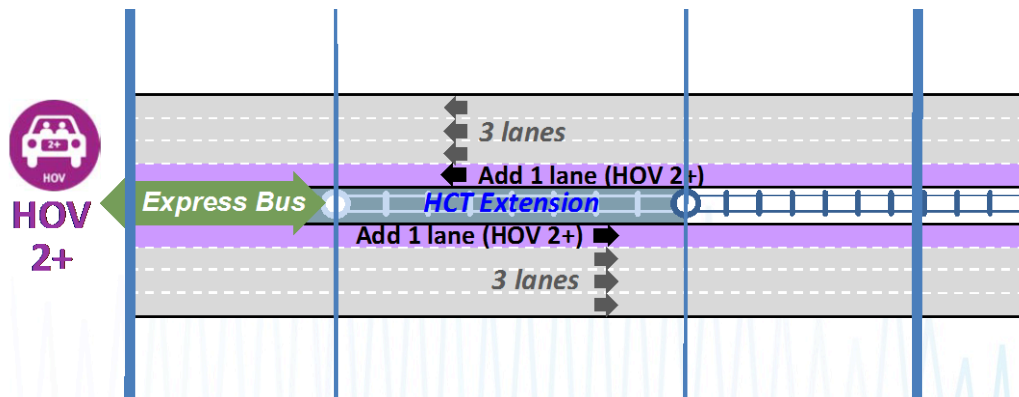
- Three evaluation rounds, CTA Blue Line Vision Study

## Engineering considerations

- Evaluation rounds 1 and 2 – conceptual alternatives, travel model
- Evaluation round 3 – geometry

## Environmental Considerations

- Communities are the environment





# CTA Vision Study Recommendations



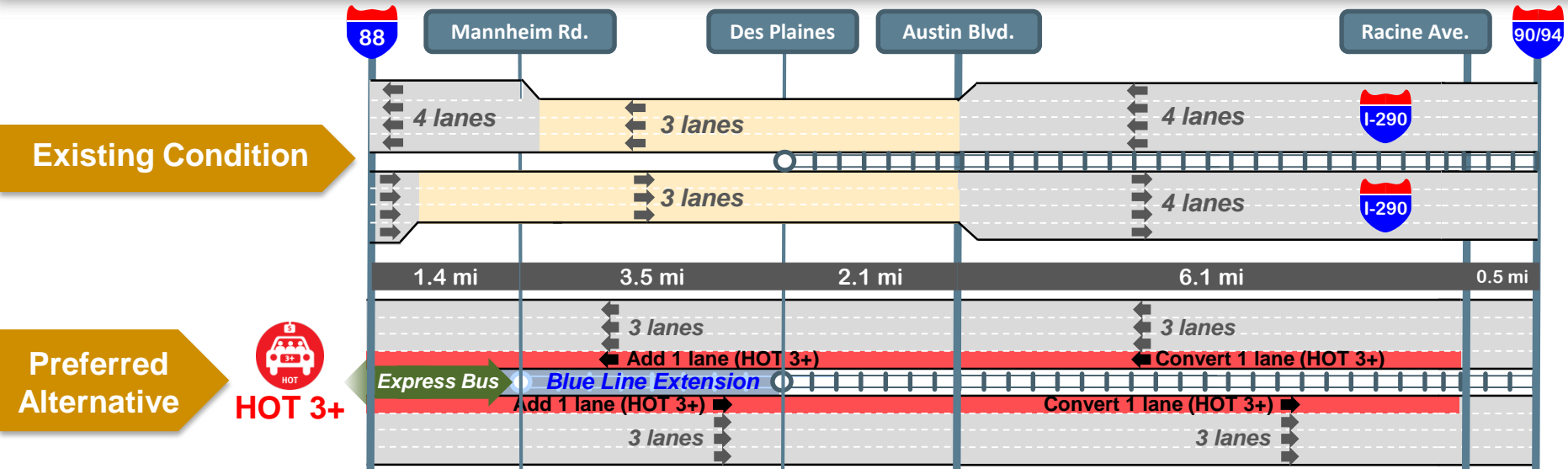
## *Complete reconstruction/modernization for the Forest Park branch*

- ✓ Bring existing service speeds up to state of good repair
- ✓ Maintain existing station access
- ✓ Maintain existing service – no 3<sup>rd</sup> track or express service
- ✓ Remove stations closed in the 1970's
- ✓ Redesign Forest Park terminal, yard and shop

*Work with IDOT to refine design, develop staging concept, explore joint funding opportunities*

*Preserve footprint for future extension (supportive land use required)*

# Preliminary Preferred Alternative – HOT 3+ & Supporting Transit

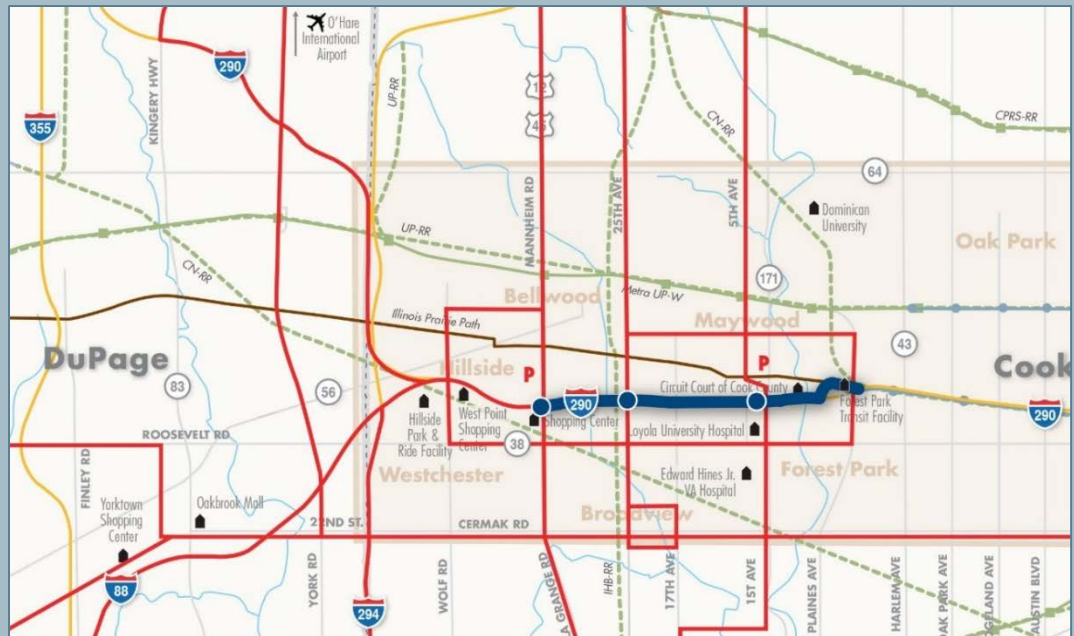


## SUPPORTING TRANSIT

> *Bus feeder service*

> *Blue Line extension to Mannheim*

- *Initial service option - bus in managed lane*
- *I-290 corridor improvements will enable/leverage transit improvements*



# *Noise Analysis Overview*





# When Are Noise Walls Considered?

## TYPE I PROJECT →

- New Roadway
- New travel lanes
- Substantial alteration

## New Roadway



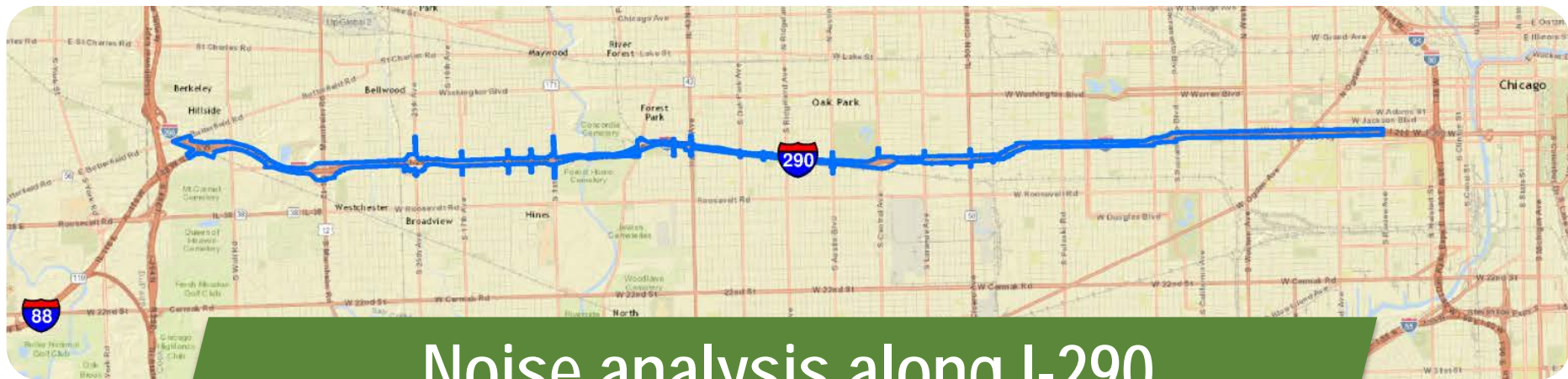
## Existing Roadway



## ← TYPE II PROGRAM

*Illinois has NO Type II (retrofit) Program therefore noise walls cannot be considered.*

# Noise Study Area



## Noise analysis along I-290

*from West of Mannheim Rd. to Racine Ave. (13 miles)*

# Traffic Noise Analysis Process



1

Identify Noise Receptors

2

Traffic Noise Level Determination

✓ *Modeling*

✓ *Validated by field monitoring*

3

Traffic Noise Impact Identification

4

Traffic Noise Abatement Analysis

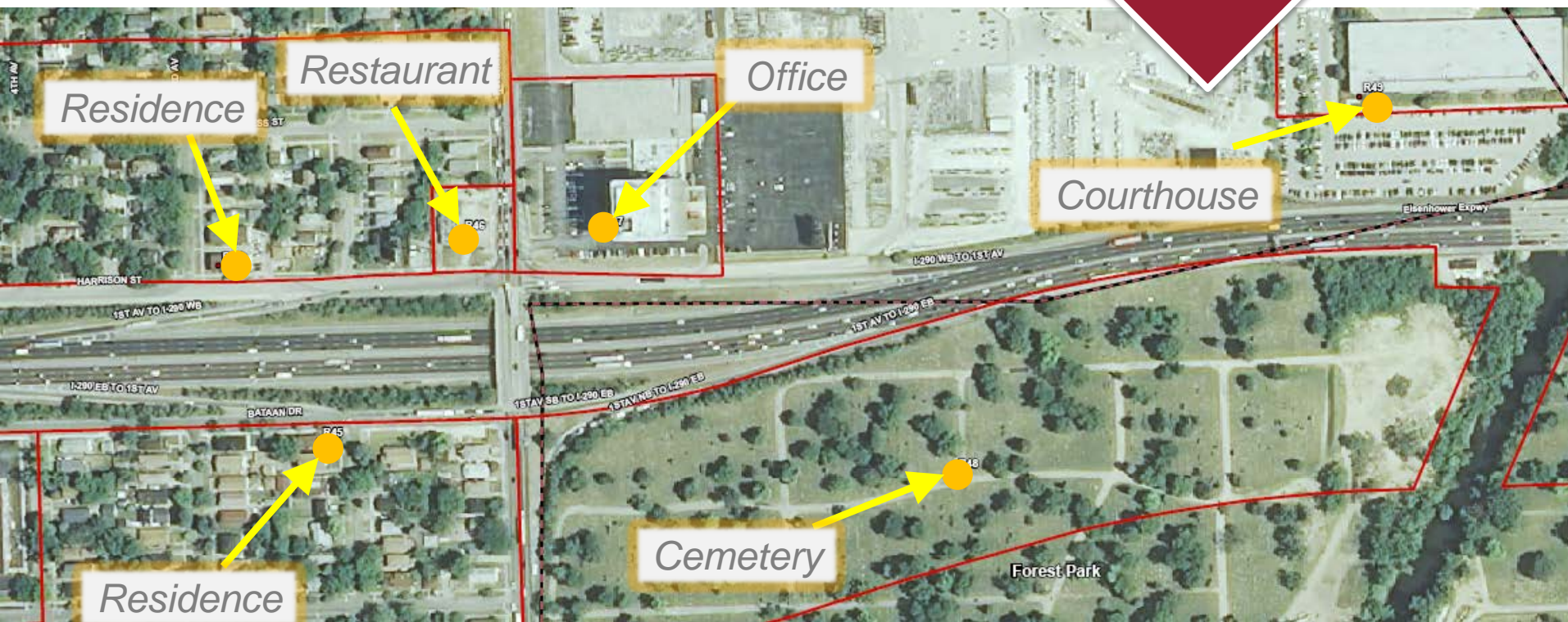


# Identify Noise Receptors



A receptor is an *outdoor* area of *frequent* human use that is analyzed for noise impacts due to the project.

*Nearly 300 worst-case noise receptors were identified along the Study Area representing thousands of individual receptors*



# Interior <sub>vs</sub> Exterior Noise



- *IDOT* and *FHWA* stipulate that outdoor areas of frequent human use be given primary consideration
- Interior noise for private residences not studied, as that analysis focuses on noise levels interfering with outdoor conversations



**“Only consider the interior levels at these land uses after FULLY COMPLETING an analysis of any outdoor activity areas or determining that exterior abatement measures are not feasible or reasonable.”**

*-- FHWA's Highway Traffic Noise: Analysis and Abatement Guidance*





*Noise  
calculated at  
worst-case receptor  
locations*

## *Predicted traffic noise levels using the FHWA Traffic Noise Model (TNM)*

- ✓ Existing, Future No-Build, Future Build (*HOT 3+ alternative*)
- ✓ Existing noise levels validated with field monitoring





*Impacts  
Identified for  
worst-case  
receptors*

## *2 methods for impact identification:*

- ✓ Future Build noise levels approach, meet, or exceed the FHWA Noise Abatement Criteria (NAC)
- ✓ Substantial increase in noise

# FHWA Noise Abatement Criteria (NAC)



## CATEGORY A

*Serene lands - rarely applies. (Tomb of the Unknown Soldier)*

## CATEGORY B:

*Residential*

## CATEGORY C:

*Hospitals, schools, places of worship, parks*

## CATEGORY D\*:

*Hospitals, libraries, places of worship, institutions, schools*

## CATEGORY E:

*Hotels, offices, restaurants*

\* Interior noise, to be studied only after exterior is studied, or if noise abatement is not feasible and reasonable

No Established  
NAC

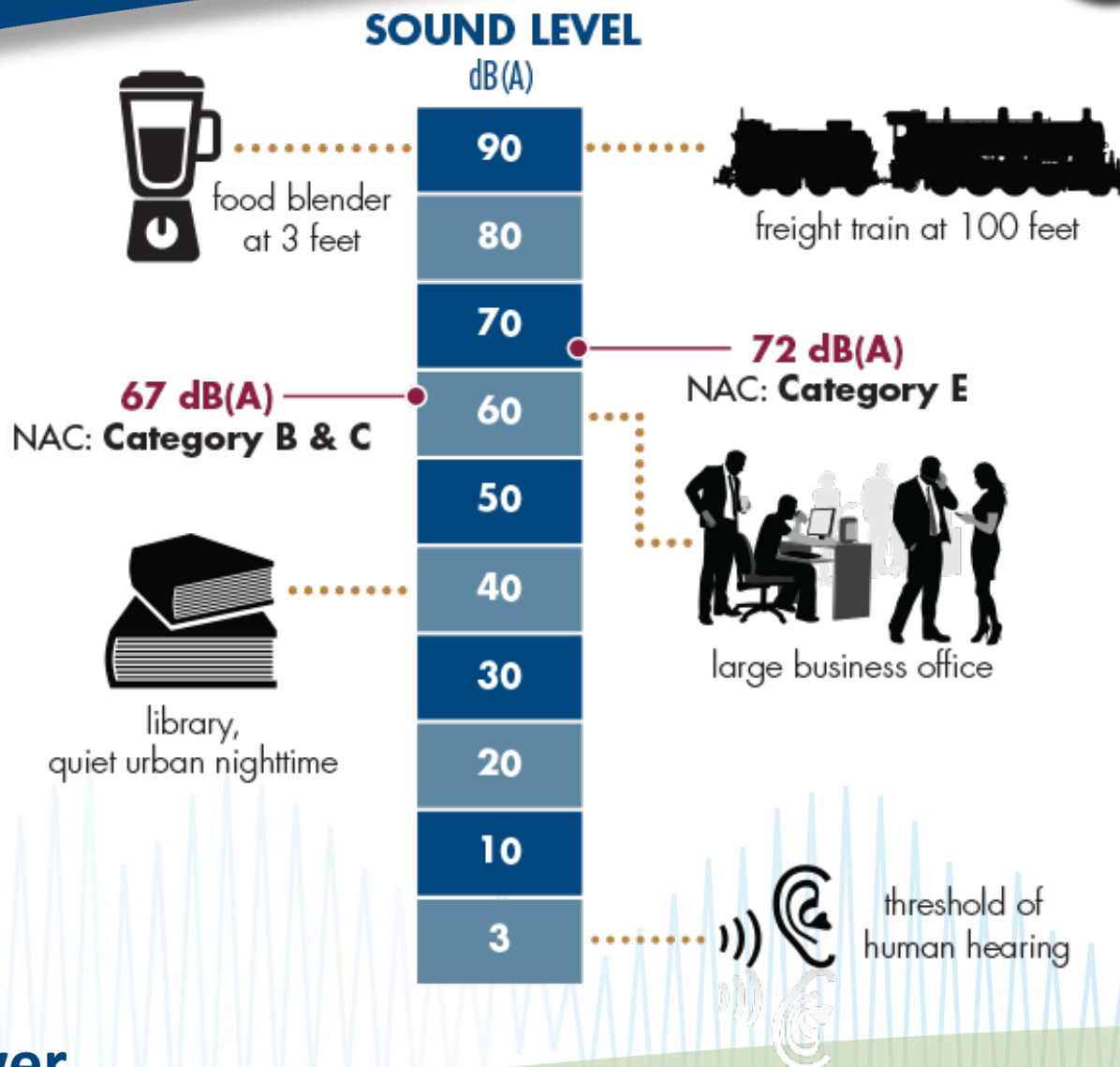
## CATEGORY F

*Agricultural,  
industrial, retail,  
utilities*

## CATEGORY G:

*Undeveloped lands*

# Common Noise Levels





# Where Are Noise Impacts?



## Noise Approaches/Meets/Exceeds NAC

Existing	220 receptors
Future No Build	227 receptors
Preliminary Preferred ( <i>Noise Impacts</i> )	228 receptors

# No Build vs. Build Noise Levels



NOISE LEVEL PERCEPTION	Decibel Change	# of Worst-Case Receptors
Readily Perceptible	$\geq +5$	0
Barely Perceptible	$\geq +3$	1
Less than Barely Perceptible	2 to -2	283
Barely Perceptible	$\leq -3$	3
Readily Perceptible	$\leq -5$	1
<b><i>TOTAL</i></b>		<b>288</b>



*Abatement analysis completed in area with impacted Receptors*

- ✓ Noise walls only option for I-290 corridor

*To be implemented, noise barriers **MUST** be:*

- ✓ "Feasible" AND "Reasonable"



# Where Were Walls Studied?

- ✓ Walls located between cross streets, where **NOISE IMPACTS** are identified.



# Would Wall Reduce Noise by 5 db(A)?

- ✓ Is wall **constructible**?
- ✓ Does wall provide a *benefit*, a readily perceptible **noise reduction**
- ✓ This wall *reduces noise* by **5 dB(A)** at properties in yellow





# Would Wall Reduce Noise by 8 db(A)?

- ✓ This wall *REDUCES* noise by 8dB(A) at the properties *YELLOW*





# Would Wall Be Cost Effective?

- ✓ This wall *benefits* 40 receptors
  - Allowable cost per benefitted receptor = \$29,750
- ✓ Allowable wall cost is \$1,190,000
- ✓ Actual wall would cost \$492,000

ACTUAL wall cost < ALLOWABLE wall cost

Wall is **COST EFFECTIVE**



# Is Wall Supported By Those It Benefits?

- ✓ Benefitted receptors vote *FOR* or *AGAINST* proposed noise wall
- ✓ Viewpoint solicitation"
- ✓ Simple *majority vote*





# Viewpoints Solicitation



- ✓ **Rental properties:** One vote for tenant, one vote for owner (per unit)
- ✓ Receptors that share property line with I-290 receive **TWO VOTES**
- ✓ Up to **TWO ROUNDS** of voting to **MAXIMIZE** response rates



**RESPONSE GOAL OF 33%**  
of benefited receptors per proposed barrier

*If more than half of the votes are in favor of a barrier, the proposed abatement measure will be likely to be implemented*



# Viewpoints Example Letter and Form



**FILE COPY**

**Illinois Department of Transportation**  
Division of Highways/Region One / District One  
201 West Center Court/Schaumburg, Illinois 60196-1096

Project and Environmental Studies  
I-55 at Weber Road  
Weber Road from 135<sup>th</sup> Street/Romeo Road to 119<sup>th</sup> Street/Rodeo Drive  
Will County

November 8, 2013

Re: Viewpoint Solicitation – First Notice  
Noise Barrier Implementation

-fullname-  
-Address1-  
-Address2- -zip-

Dear Property Owner or Resident:

The Illinois Department of Transportation (Department) in cooperation with Will County Department of Highways (County) are currently engaged in preliminary engineering and environmental studies (Phase I) for Weber Road from 135<sup>th</sup> Street/Romeo Road to 119<sup>th</sup> Street/Rodeo Drive including the Weber Road interchange at I-55. The proposed improvements include reconstruction of the existing diamond interchange of I-55 at Weber Road to a diverging diamond interchange and widening of Weber Road from four lanes to six lanes. The I-55 at Weber Road improvements are included in the Department's FY 2014-2019 Proposed Multi-Modal Transportation Improvement Program contingent upon the sale of approximately 200 acres of unused property currently owned by the Illinois Department of Corrections as stipulated in Public Act 95-0019, and contingent upon local financial participation for improvements to adjacent highway facilities under local jurisdiction.

As part of the Phase I Study, traffic noise was evaluated for the proposed roadway improvements. The traffic noise analysis indicated that noise levels in your area warrant the consideration of noise abatement. Based on the noise abatement analysis, a noise wall approximately 10 feet high is warranted along the west side of Weber Road from approximately 300 feet north of Rodeo Drive to just north of Countryside Drive. See the enclosed figure for the location of the proposed noise wall. The proposed wall in your area is labeled as "B1B".

The Department is requesting your viewpoint regarding your desire for the noise wall proposed near your location. This letter has been provided to all property owners and tenants who would "benefit" from a noise barrier.

**Viewpoint Form**

I-55 at Weber Road  
Weber Road from 135<sup>th</sup> Street/Romeo Road to 119<sup>th</sup> Street/Rodeo Drive  
Will County  
Wall – B1B

Please provide your response by December 9, 2013.

I am in favor of a noise barrier:

☐ Yes  
☐ No

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Owner: \_\_\_\_\_ OR Tenant: \_\_\_\_\_

Address: \_\_\_\_\_

Date: \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Proposed Noise Walls – I-290 Corridor



**92** noise walls studied to abate the **228** impacted areas

**76** of the **92** walls were **FEASIBLE**

**61** of the **76** walls were **REASONABLE**

✓ 9' – 19' tall walls recommended at 61 locations

Exhibits  
depicting  
potential locations  
available

**FINAL RECOMMENDED WALLS**  
Determined after the viewpoint solicitation

# What Will the Noise Walls Look Like?



## *IDOT CURRENT TYPICAL WALL*





# Next Steps - Overall



- ✓ Noise analysis and coordination
- ✓ Technical Analysis
- ✓ Community and agency meetings – continued
- ✓ **Noise Wall Viewpoints Solicitation Surveys – Early November**

- ✓ Corridor Advisory Group #22 – February 2016
- ✓ Draft Environmental Impact Statement Release – February 2016
- ✓ Public Hearing – March 2016
- ✓ Corridor Advisory Group #23 – Summer 2016
- ✓ Final Environmental Impact Statement/Record of Decision – Fall 2016



# Comment Form

*Project  
website*

The image shows two laptops. The laptop on the left displays a photograph of a concrete noise wall with a chain-link fence in front of it, and several bicycles parked along the sidewalk. The laptop on the right displays the Eisenhower Expressway website. The website has a blue header with the 'Eisenhower expressway' logo. Below the header is a navigation bar with links: Home, Questions or Comments?, History, and a search bar. The main content area features a large photo of the noise wall and a text box titled 'Noise Wall Forums to be held October 27, 28, 29' with a 'Read more »' link. To the left of this are two smaller links: 'Meetings Calendar' and 'Submit Comments'. Below the main photo are three sections: 'Get Involved' with the same two links, 'What's New' with a link to 'What are the Round 2 Findings to Date?', and 'Featured Video' with a video player showing a construction scene. A 'New Video' button is next to the video player.



**Eisenhower**  
*expressway*



**Questions?** Study team members will respond to anonymous questions presented by a moderator. If you have a question, please write it on this card and drop it in the question box. Also, please feel free to speak to one of the Study Team representatives.  
**Thank you for your participation!**



# Q&A Session

Please submit your comment card  
to a study team member.





# THANK YOU

## I-290 NOISE WALL FORUM

*Visit the exhibit area to view aerial maps  
and speak with study team members.*

