

**Appendix H: Noise**

- INDOT Approval – January 24, 2018
- Noise Analysis and Report (Excerpts) – January 19, 2018

**From:** [Hope, Briana](#)  
**To:** [Boits, Leah](#)  
**Subject:** Fwd: Des No. 1382612, Heavy Haul Transportation Corridor, Clark County, Indiana (Noise Report)  
**Date:** Wednesday, January 24, 2018 8:45:05 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)

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Sent from my iPhone

Begin forwarded message:

**From:** "Miller, Brandon" <[BraMiller1@indot.IN.gov](mailto:BraMiller1@indot.IN.gov)>  
**Date:** January 24, 2018 at 7:50:37 AM EST  
**To:** Kurt Fowerbaugh <[kfowerbaugh@journeyeng.com](mailto:kfowerbaugh@journeyeng.com)>, "[CHRISP@ucindy.com](mailto:CHRISP@ucindy.com)" <[CHRISP@ucindy.com](mailto:CHRISP@ucindy.com)>  
**Cc:** "Bales, Ronald" <[rbales@indot.IN.gov](mailto:rbales@indot.IN.gov)>, "Heustis, Ronald" <[RHEUSTIS@indot.IN.gov](mailto:RHEUSTIS@indot.IN.gov)>, "Nichols, Angela L" <[ANichols@indot.IN.gov](mailto:ANichols@indot.IN.gov)>, "[Jeromy.Richardson@ucindy.com](mailto:Jeromy.Richardson@ucindy.com)" <[Jeromy.Richardson@ucindy.com](mailto:Jeromy.Richardson@ucindy.com)>, "[bhope@structurepoint.com](mailto:bhope@structurepoint.com)" <[bhope@structurepoint.com](mailto:bhope@structurepoint.com)>  
**Subject:** Des No. 1382612, Heavy Haul Transportation Corridor, Clark County, Indiana (Noise Report)

A traffic noise analysis report was completed by Journey Engineering in January 2018 to evaluate potential traffic noise impacts for the proposed Heavy Haul Transportation Corridor Project in Clark County, Indiana. Traffic noise was evaluated at all receptors within 500 feet of edge of pavement within the study area. Traffic noise levels were evaluated for the existing (2010) and projected (2040) traffic volumes for the build alternative.

This report evaluated potential noise impacts for the proposed improvements for the Heavy Haul Transportation Corridor project in compliance with the Federal Highway Administration's (FHWA) Procedures for Abatement of Highway Traffic Noise and Construction Noise as presented in the Code of Federal Regulations, Title 23 Part 772 (23 CFR 772) and the Indiana Department of Transportation (INDOT) *Traffic Noise Analysis Procedure* (2017).

Existing modeled (2010) peak hour noise levels ranged from 29.4 to 51.9 dB(A). Based on noise measurements taken, there is more ambient noise from existing industrial activities than from traffic sources. As a result, the existing noise measurements were averaged for an existing base peak noise level of 51.7 dB(A). Predicted design year (2040) noise levels would approach or exceed the Noise Abatement Criteria (NAC) at 2 (two) receptors, resulting in the need to evaluate noise abatement. A third receptor would exceed the NAC but it is a planned relocation. Noise abatement was analyzed, however no noise barrier met both the feasibility and reasonableness criterion established by the INDOT *Traffic Noise Analysis Procedure* (2017).

Based on the studies thus far accomplished, the State of Indiana has not identified any locations where noise abatement is likely. A re-evaluation of the noise analysis will occur during final design. If during final design it has been determined that conditions have changed such that noise abatement

is feasible and reasonable, the abatement measures might be provided. The final decision on the installation of any abatement measure(s) will be made upon the completion of the project's final design and the public involvement process.

This email will serve as INDOT's approval of the traffic noise analysis report for the Heavy Haul Transportation Corridor Project (Des 1382612).

**Brandon Miller**

***Major Projects/LPA Review Liaison***

***INDOT Environmental Services***

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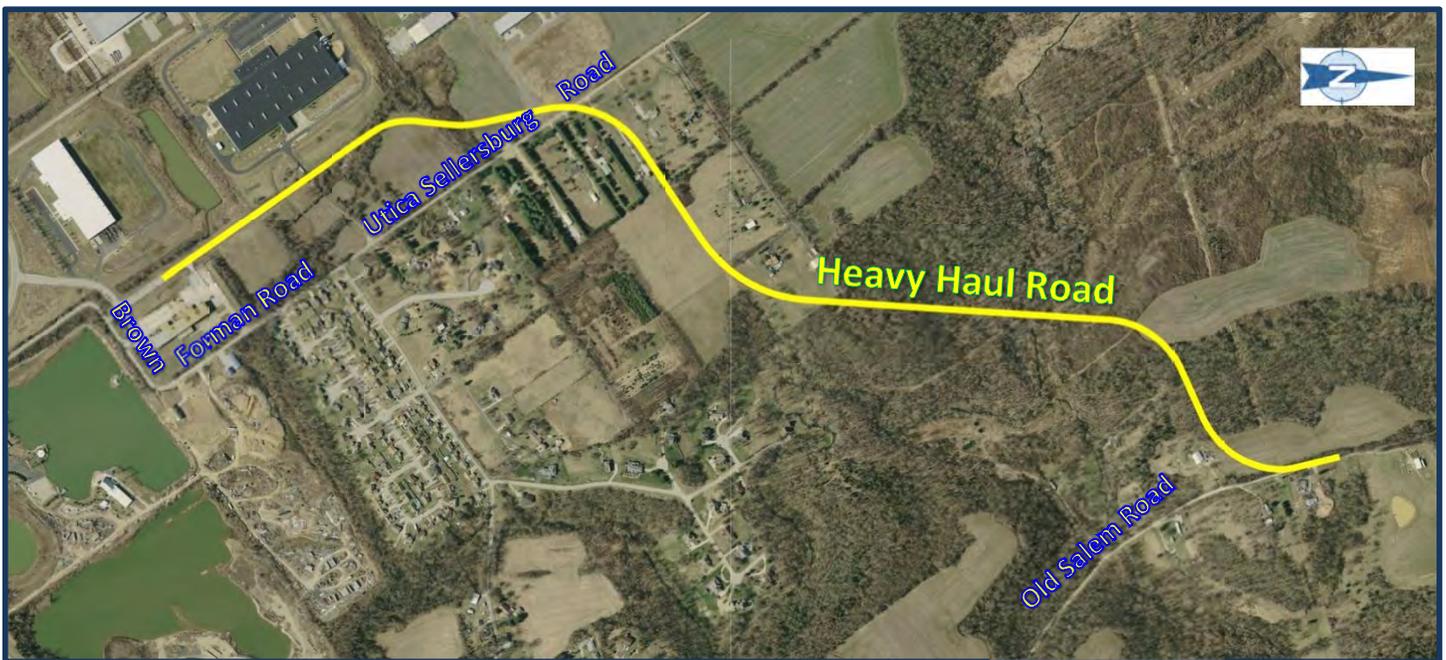
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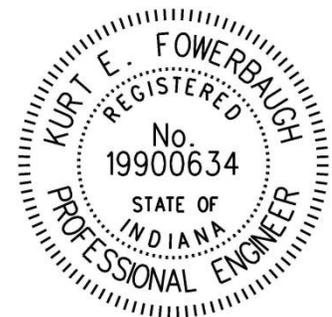


**Noise Analysis & Report**  
**Heavy Haul Transportation Corridor**  
**Clark County, Indiana**  
**INDOT DES. #1382612**



Prepared by: Kurt Fowerbaugh, P.E.

Date: January 19, 2017



## Executive Summary

The Indiana Department of Transportation (INDOT), in partnership with the Federal Highway Administration (FHWA), the Indiana Economic Development Corporation (IEDC), the Ports of Indiana (Port), the Board of Commissioners of Clark County (Clark County), the City of Jeffersonville Redevelopment Commission (Jeffersonville), and the River Ridge Development Authority (RRDA) is in the process of constructing Segment B of the Heavy Haul Transportation Corridor (HHTC) in the southern central portion of Clark County, Indiana. Preliminary corridor studies have identified an approximately 1.3 mile wide corridor between the Port of Indiana, Jeffersonville and recently constructed State Road 265 to establish roadway alignments for the HHTC. The main proposed scope items on this project include construction of the HHTC on new terrain alignments, building a bridge for the HHTC crossing at Lentizer Creek, tying current dead end commercial development roads into the HHTC alignment, and constructing cul-de-sacs for local surface roads that are intercepted by new HHTC alignments. Refer to Figure 1 for a comprehensive project site map.

Due to the construction of new terrain roadways, the proposed project improvements are categorized as a Type I project from criteria set forth by the FHWA and INDOT. Therefore, in accordance with 23 CFR Part 772-*Procedures for Abatement of Highway Noise* and the INDOT Traffic Noise Policy approved by FHWA effective July 1, 2017, a noise impact analysis is required as part of project development.

All receptors of noise (dwelling, office, commercial building, undeveloped lands, etc.) within 500 feet of the proposed construction of the HHTC were identified and classified according to land uses and applicable noise abatement criteria (NAC). Identified receptors were incorporated into the project's traffic noise model as generated by the Federal Highway Administration Traffic Noise Model, Version 2.5 (FHWA-TNM). Existing noise levels were applied based on ambient sound measurements taken from representative receptor locations. Future noise levels were generated from projected traffic volumes (2040) and proposed edges of pavement for the developed HHTC alignment.

If future noise levels impact identified receptors, possible abatement of traffic noise impacts will be evaluated to accomplish specific noise reduction goals. FHWA defines highway traffic noise impacts as: 1) projected traffic noise levels approach or exceed the NAC specified, or 2) projected traffic noise levels substantially exceed existing traffic noise levels in an area. INDOT further defines a substantial noise level growth as an increase of at least 15.0 dB(A) between existing and future noise levels.

The goal of any proposed noise abatement measure is to satisfy what has been defined as the "Noise Reduction Design Goal". For Type I projects, INDOT defines this Noise Reduction Design Goal as reducing noise levels at least 7 dB(A) for a majority (> 50%) of benefited first row receptors.

Furthermore, first row receptors have been defined as the first parcel that exhibits the qualities of a receptor that is directly adjacent to the roadway.

Noise abatement measures incorporated into Type I projects must be both *feasible* and *reasonable*. There are two components to a feasible determination; acoustic feasibility and engineering feasibility. To satisfy the acoustic feasibility benchmarks, INDOT requires proposed noise barriers provide at least a 5.0 dB(A) reduction in future traffic noise levels for a majority of the impacted receptors. To meet engineering feasibility criteria, the physical location and geometry of noise barriers including offsets, heights, and lengths are considered for optimum noise absorption performance.

The reasonableness of noise abatement measures is firstly based on cost effectiveness of construction. INDOT considers proposed noise abatement measures reasonable if the construction year cost of the proposed noise barriers is no more than \$30,000 per benefited receptor for new terrain construction. Results from opinion surveys of benefited receptors (residents and property owners) can also factor into the final determination of reasonableness for any proposed noise barriers.

This project's traffic noise model identified twenty-seven (27) receptors within 500 feet of the proposed HHTC alignment. Of the total identified study area receptors, three (3) are planned for relocations as part of the project construction. A summary of project receptors is included in Table 2. Of the twenty-four (24) remaining receptors, two are predicted to experience future traffic noise impacts. These receptors are classified as residential and are projected to experience a future traffic noise level equal to or above 66.0 dB(A). These future noise levels are within 1.0 dB(A) of the NAC defined value of 67.0 dB(A) for Activity Category B.

The presence of existing ambient noise from nearby industrial operations also limits the feasibility of noise barriers. As evidenced by ambient noise measurements, the existing traffic noise from modeling underrepresented existing noise levels throughout the project site. An average value of five out of six existing ambient noise measurements is 51.7 dB(A). Only three receptor locations have existing traffic noise levels within three dB(A) of the average ambient noise measurement. The existing modeled noise levels for the remaining twenty-four (24) receptors ranged from 28.9 dB(A) to 46.2 dB(A). As a result of this increased ambient noise level, the average existing noise levels were assumed to be the existing average noise level.

All developed land uses and activities near the project site will be affected by noise generated from the contractor's equipment during construction of the HHTC. To minimize these temporary noise impacts, the contractor should operate and maintain all equipment in compliance with all Federal, state and local applicable rules and regulations.

With only two impacted receptors remaining after construction is complete the issue of feasibility was examined with potential noise barrier wall geometry at each impacted receptor. Proposed noise barrier geometry included a horizontal alignment near the 16'-0" clear zone (roadway on fill) and wall heights varying from thirteen to sixteen feet. Providing uninterrupted lengths of noise barrier at both impacted receptor locations can result in noise reductions that satisfy the feasibility goal of 7.0 dB(A). However, the noise barrier heights and lengths required to meet feasibility criteria at each location has a corresponding construction cost that exceeds the cost-effectiveness criteria established for reasonability.

In summary, noise abatement measures in the form of two separate noise barriers for the potential benefit of the two impacted receptors are feasible but the cost of noise abatement is not reasonable. We do **not** recommend noise barriers be constructed as a part of this project.

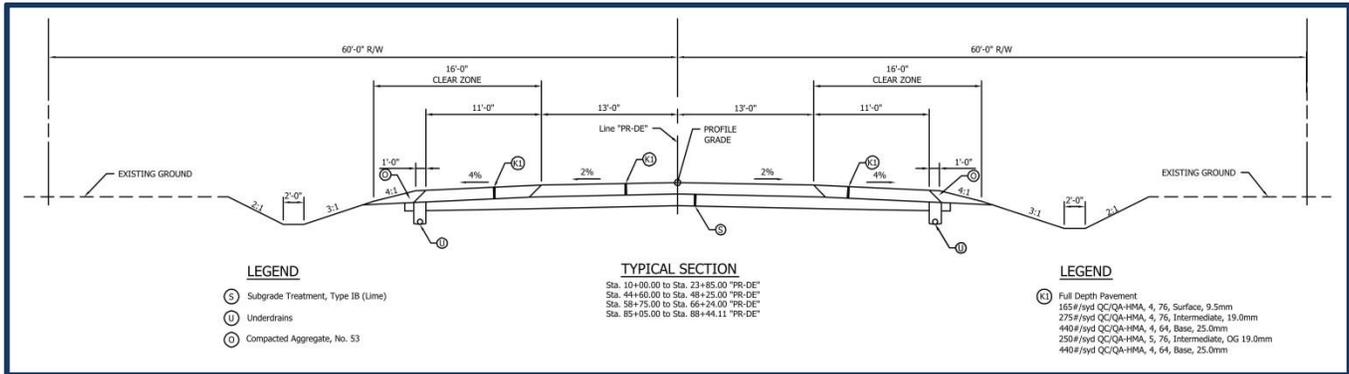


Figure 2: Proposed Section for Heavy Haul Transportation Corridor

The proposed pavement configuration for HHTC shown in Figure 2 consists of 13-foot through lanes in each direction bordered by 11-foot paved shoulders. A proposed intersection where HHTC intercepts Utica Sellersburg Road and the extension of New Middle Road will be controlled with stop signs for Utica Sellersburg Road and New Middle Road. All signage and pavement markings will be updated and in accordance with the current Indiana Manual on Uniform Traffic Control Devices (MUTCD) as published by INDOT.

## Traffic Noise Calculations

This noise analysis and report quantifies traffic noise impacts to sound receptors (dwellings, offices, commercial buildings, etc.) within the study area. Existing ambient noise levels are measured in accordance with FHWA guidance for “Existing Noise Measurements in the Vicinity of Highways” and future traffic noise levels are predicted within the model from forecast traffic volumes. Existing ambient noise levels and future traffic noise levels for each receptor are considered for “traffic noise impacts”. As defined by FHWA, a highway traffic noise impact occurs when the projected highway traffic noise levels approach or exceed the noise abatement criteria in 23 CFR 772, or the projected highway traffic noise levels substantially exceed existing ambient noise levels in the study area.

The FHWA-TNM is required for use in all highway traffic noise analysis projects on federally funded projects. Any numeric modeling effort is inherently limited to the assumptions and inputted values and represents a simplification of actual environments. The modeling results are affected by the internal calculations used to solve noise equations and the accuracy of inputted values such as receptor elevations, traffic data, and surrounding terrain characteristics.

## Traffic Data

Future traffic data splits for HHTC came from forecasted traffic volumes in 2040 as shown on the title sheet of the proposed construction plans. Hourly traffic volumes input into FHWA-TNM are separated

into automobiles, heavy and medium trucks, buses, and motorcycles. Existing and future traffic data splits for Utica Sellersburg Road, Brown Forman Road, and Old Salem Road were provided by United Consulting and utilized for existing and future traffic noise levels. The FHWA-TNM input values for this project attributed to automobiles, medium trucks, and heavy trucks were determined by calculating the Design Hourly Volume (DHV) with a K-factor of 12% or 15% applied to the Average Daily Traffic (ADT) values provided. A summary of each roadway’s traffic count data is presented in Appendix B. Intersecting roads within the study area are New Middle Road, Utica Sellersburg Road, and Old Salem Road.

## Classification of Receptors

Based on FHWA’s descriptions of land use activity for potential receptors, an NAC value is assigned to each receptor identified within the study area. Table 1 includes a complete description of activity categories. The study area extends 500 feet from proposed edges of pavement of HHTC and includes twenty-seven (27) total receptors. Land use in the study area includes manufacturing, industrial, warehousing, residential, and undeveloped lands. Due to construction of HHTC on a new terrain alignment, some existing receptors are planned for relocation as part of the construction project. A summary of receptors by activity category is included in Table 2 on the following page.

Activity Category	NAC	Activity Description
A	57 (exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (exterior)	Residential
C	67 (exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, daycare centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72 (exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in Activity Category A, B, C, D or F.
F	-	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	-	Undeveloped lands that are not permitted.

**Table 1: Noise Abatement Criteria (NAC)**

Activity Category	Total # of Receptors	
	Existing	Future
A	0	0
B	17	14
C	0	0
D	0	0
E	0	0
F	6	6
G	4	4
$\Sigma =$	27	24

**Table 2: Summary of Study Area Receptors**

A single family residence is evaluated as a single receptor regardless of the number of occupants. A commercial or office building is considered a single receptor notwithstanding the size or business type. Manufacturing and industrial facilities within the study area were added to the modeling for informational purposes. Undeveloped lands without permitting or foundations in place were also added to the modeling for informational purposes. These manufacturing facilities and undeveloped properties are not evaluated for noise impacts since there is no NAC established for these parcels. There are no public parks, trails, or multiple occupancy dwellings such as apartments or hotels within the study area. A complete, detailed listing of study area receptors is included in Appendix C.

### Determination of Existing Noise Levels

Ambient noise measurements representing common noise environments were taken August 29, 2017 between 9:00 AM and 12:30 PM to provide a baseline for existing noise levels to compare with predicted existing traffic noise levels from the traffic noise model. Noise measurements were taken at six representative locations throughout the project length with a Quest Technologies model 2800 integrating sound level meter. Field measurement data sheets for each ambient noise measurement location are included in Appendix E. Ambient noise measurements taken August 29, 2017 were significantly above existing traffic noise values from the FHWA-TNM modeling. A consistent and prevalent noise source during these measurements was flying insects such as crickets and/or cicadas. A second round of ambient noise measurements were taken November 16, 2017 to quantify the seasonal influence from the insects. Sound readings without insects measured 7.3 dB(A) to 18.8 dB(A) lower than readings with insects present. A summary of ambient noise measurements within the study area is offered in Table 3 on the following page.

Traffic volumes for 2010 were provided to United Consulting by the Kentuckiana Regional Planning & Development Agency (MPO). These volumes were modeled for Utica Sellersburg Road, Old Salem Road, and Brown Forman Road to generate existing noise levels. The existing traffic modeling produced noise values ranging from 28.9 dB(A) to 51.9 dB(A).

During both the August 2017 and the November 2017 field measurements, there was continual and appreciable noise originating from the variety of manufacturing and industrial activities occurring adjacent to the Port of Indiana and the Clark Maritime Center. Other outside influences included a number of commercial aircraft descending from points north of the sampling sites toward Louisville International Airport to the south. These activities proved to be a considerable influence on noise levels throughout the study area and yielded ambient noise readings between 49.5 dB(A) and 57.7 dB(A). These ambient readings clearly exceeded all but one existing noise levels predicted by FHWA-TNM inputs.

Location	Noise Levels (dB(A))			Outside influences
	8/29/2017	11/16/2017	Modeled	
#11) 1702 Utica Sellersburg Road	67.0	49.7	44.5	industrial activities, aircraft
#3) 1722 Utica Sellersburg Road	65.5	54.0	38.1	industrial activities, aircraft
#14) 5171 Maritime Road	68.3	49.5	34.3	Industrial activities
#24) 1415 Old Salem Road	65.0	57.7	40.5	Contractor paving Old Salem Road
#18) New Middle Road cul-de-sac	65.1	53.2	37.6	Industrial activities
#22) new terrain HHTC alignment	65.7	52.1	28.9	SR 265 to the north
Noise level <sub>avg</sub> (excluding #24) =		51.7		

**Table 3: Ambient Noise Measurements**

The ambient noise measurements taken August 29, 2017 were disregarded due to inflated readings from flying insects such as crickets and/or cicadas. The measurements taken November 16, 2017 were more representative of principal ambient noise levels from existing traffic volumes, manufacturing, and industrial activities. Due to the differences between noise levels predicted by existing traffic volumes influences and the November 2017 ambient noise measured from non-traffic related sources, an average value of ambient noise measurements should be considered for “substantial noise increase” impacts to receptors. The average ambient noise measurement value should not include the reading that was elevated by contractor operations paving Old Salem Road at the time noise levels were sampled. Therefore, the overall existing noise level to be used for evaluation of substantial noise increases ( $\geq 15$  dB(A)) at each receptor should be 51.7 dB(A).

Validation of the model created for this project considered the ambient measurement locations with respect to existing roadways and external noise sources. Five of six ambient measurement locations were within 3.0 dB(A) of the model when adjusted for external noise sources as shown below.

Location	Noise Levels (dB(A))			
	Ambient Measurement	Noise Model Output	Adjusted Model Output	Difference
#11) 1702 Utica Sellersburg Road	49.7	44.5	52.5	2.8
#3) 1722 Utica Sellersburg Road	54.0	38.1	51.9	-2.1
#14) 5171 Maritime Road	49.5	34.3	51.8	2.3
#24) 1415 Old Salem Road	57.7	40.5	52.0	-5.7
#18) New Middle Road cul-de-sac	53.2	37.6	51.9	-1.3
#22) new terrain HHTC alignment	52.1	28.9	51.7	-0.4

**Table 4: Noise Modeling Validation**

Contractors were working on Old Salem Road at the time ambient measurements were taken for the sixth location (#24). The external influences from the asphalt paving operations distorted the ambient readings and precluded this location from model validation. For these reasons, the noise model is considered valid.

### Prediction of Future Noise Levels

Future traffic noise levels were calculated with FHWA-TNM for each identified receptor with proposed edges of pavement, proposed profile grades, projected traffic volumes, design speeds, and receptor elevations inputted into the traffic noise model. Future traffic noise levels for receptors that are planned for removal during construction were still calculated as a means to verify output with expected results. The future traffic noise levels calculated by FHWA-TNM are listed by receptor in Appendix C and the actual output from FHWA-TNM is contained in Appendix D. Appendix C also tabulates noise level increases for each receptor that were considered to determine if any receptors experience future noise level increases at or above 15 dB(A), INDOT’s definition of substantial noise increase.

Three (3) residential receptors within the study area are predicted to experience future traffic noise levels within 1.0 dB(A) or above the prescribed NAC value of 67.0 dB(A). One of the receptors, located at 1722 Utica Sellersburg Road is a single family residence located immediately adjacent to the proposed HHTC alignment and will be relocated as part of the proposed construction. A second receptor, located at 1726 Utica Sellersburg Road, is also a single family residence located immediately adjacent to the

proposed HHTC alignment. This receptor has a predicted noise level of 66.4 dB(A); above the cutoff INDOT has defined as an impacted receptor. A third receptor, located at 1415 Old Salem Road, is also a single family residence with a predicted noise level of 69.2 dB(A). This location is also predicted to experience a “substantial increase” in future noise of 17.5 dB(A). The two impacted receptors that will remain after roadway construction is complete are separated by 4,500 feet and would require separate noise abatement evaluations.

## Noise Abatement Measures

The most common form of traffic noise abatement specified by INDOT is the construction of noise barriers. Other forms of abatement measures such as buffering land, berms or vegetation are evaluated on a case by case basis. Given the proximity of existing residences to impacted receptors, buffering land is not realistic. Also, current project right-of-way limits and project topography don't offer enough sufficient areas to construct berms or plant satisfactory vegetation to effectively screen impacted receptors.

Noise abatement measures incorporated into Type I projects must be both *feasible* and *reasonable*. There are two components to a feasible determination; acoustic feasibility and engineering feasibility. To satisfy the acoustic feasibility benchmarks, INDOT requires proposed noise barriers provide at least a 5 dB(A) reduction in future traffic noise levels for a majority of the impacted receptors. To meet engineering feasibility criteria, the physical location and geometry of noise barriers including offsets, heights, and lengths are considered for optimum noise absorption performance.

The reasonableness of noise abatement measures is based on cost effectiveness of construction. INDOT considers proposed noise abatement measures reasonable if the construction year cost of the proposed noise barriers is no more than \$30,000 per benefited receptor for new terrain construction. Results from opinion surveys of benefited receptors (residents and property owners) can also play a role in the determination of reasonableness for proposed noise barriers.

On this project, the geometry of proposed noise barriers for both impacted receptors on the project were evaluated first for acoustic feasibility goals. Because HHTC alignments are proposed as fill sections in the vicinity of the impacted receptors, horizontal alignments of the noise barrier were located just outside the 16'-0" clear zone. The proposed noise barrier benefiting receptor #4 meets the 7 dB(A) design goal for feasibility with an average height of 15.57 feet and a length of 732 feet. The resulting construction cost of \$341,977 per benefited receptor exceeds the reasonable cost threshold of \$30,000. The proposed noise barrier benefiting receptor #24 meets the 7 dB(A) design goal with an average height of 13.49 feet for 428 feet in length. The resulting construction cost for this proposed barrier is \$173,444 and also exceeds the reasonable cost threshold. Therefore, a noise barrier is not reasonable for either receptor.

## Recommendations

In accordance with INDOT's Traffic Noise Policy, Journey Engineering has conducted a traffic noise analysis and report for the Heavy Haul Transportation Corridor project between the Port of Indiana, Jeffersonville and Old Salem Road in south central Clark County, Indiana. Based on the results of the traffic noise model and in agreement with INDOT's Traffic Noise Policy, Journey Engineering **does not recommend construction of noise abatement measures as a part of this project.**

### *Statement of Likelihood*<sup>1</sup>

Based on the studies thus far accomplished, the State of Indiana has not identified any locations where noise abatement is likely. Noise abatement measures that were studied at these locations were based upon preliminary design costs and design criteria. Noise abatement has not been found to be reasonable based on noise abatement construction costs exceeding the established cost-effective criteria. A re-evaluation of the noise analysis will occur during final design. If during final design it has been determined that conditions have changed such that noise abatement is feasible and reasonable, the abatement measures might be provided. The final decision on the installment of any abatement measure(s) will be made upon the completion of the project's final design and the public involvement processes.

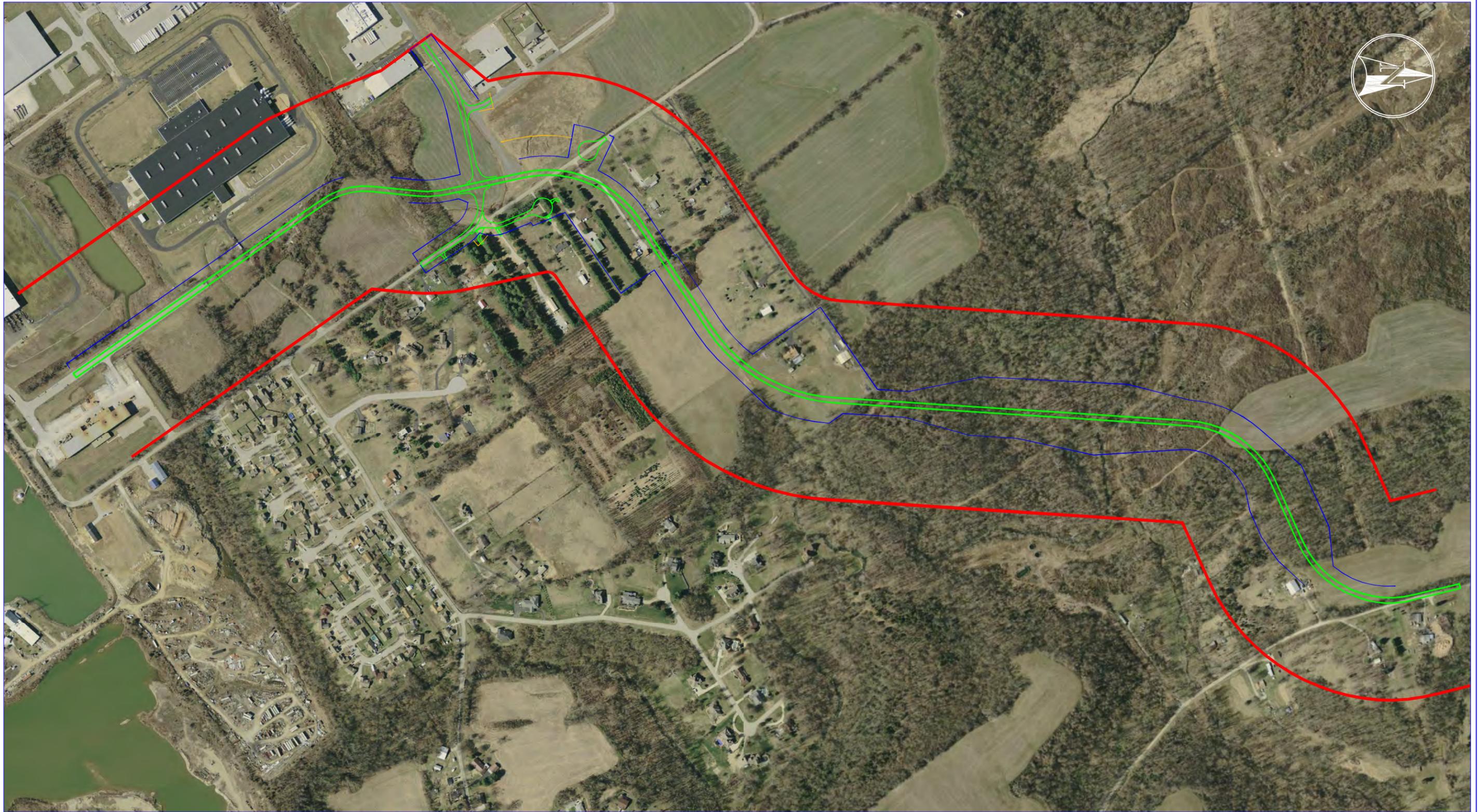
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<sup>1</sup> INDOT Traffic Noise Analysis Procedure, July 2017, page 9



## Appendix A

# Site Maps with Receptors



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 Fax: 888.908.2738  
 www.JourneyEng.com

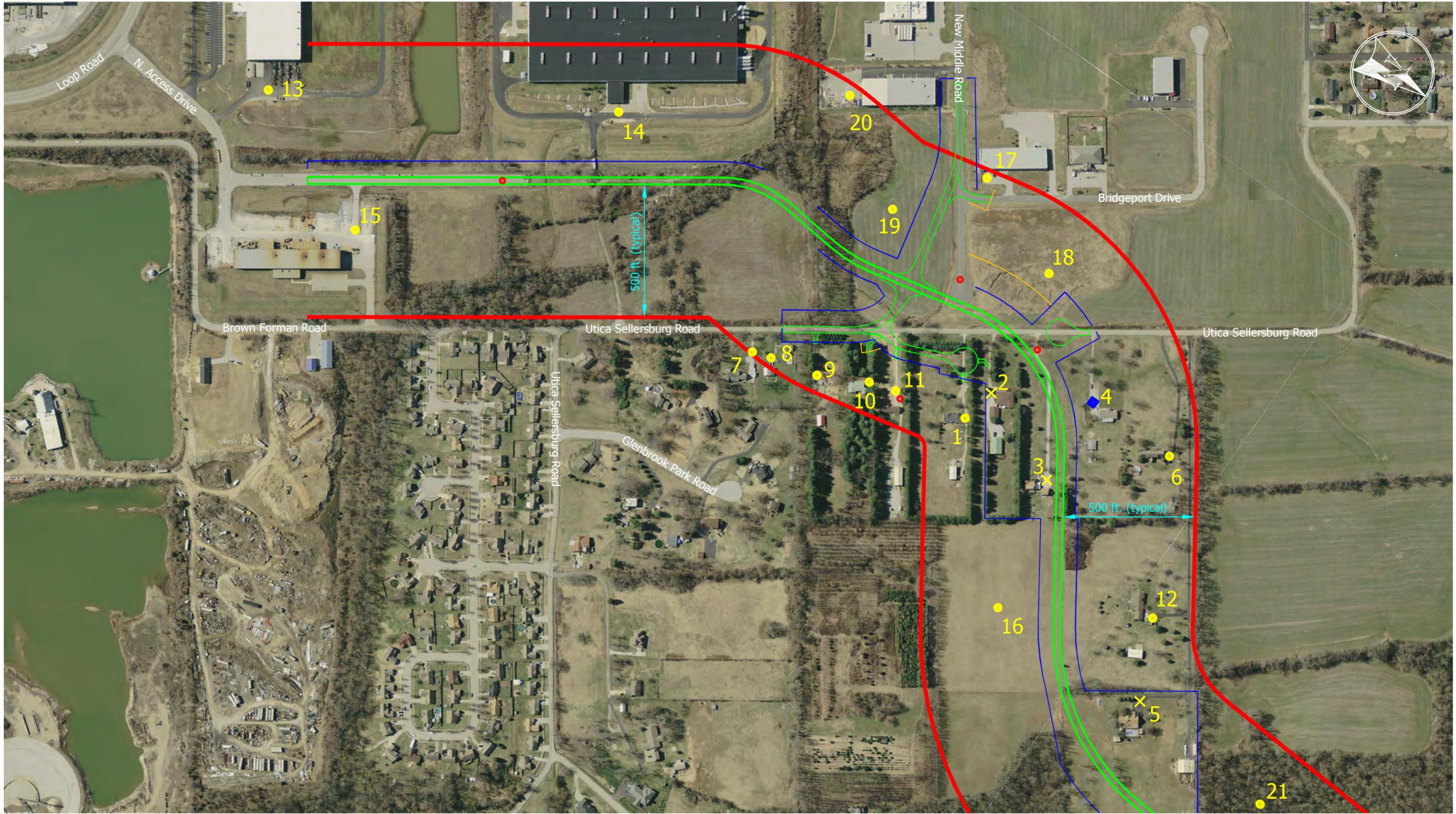


**LEGEND**

- Noise Analysis Study Area
- Edge of Proposed Travel Lanes
- Proposed Right-of-Way
- Temporary Right-of-Way

INDIANA  
 DEPARTMENT OF TRANSPORTATION  
 HEAVY HAUL TRANSPORTATION CORRIDOR  
 NOISE ANALYSIS STUDY AREA

SCALE	BRIDGE FILE
	DESIGNATION 1382612
SURVEY BOOK	SHEETS
	of
CONTRACT	PROJECT



2001 Alabama Street  
 Indianapolis, IN 46202  
 Phone: 317.289.8395  
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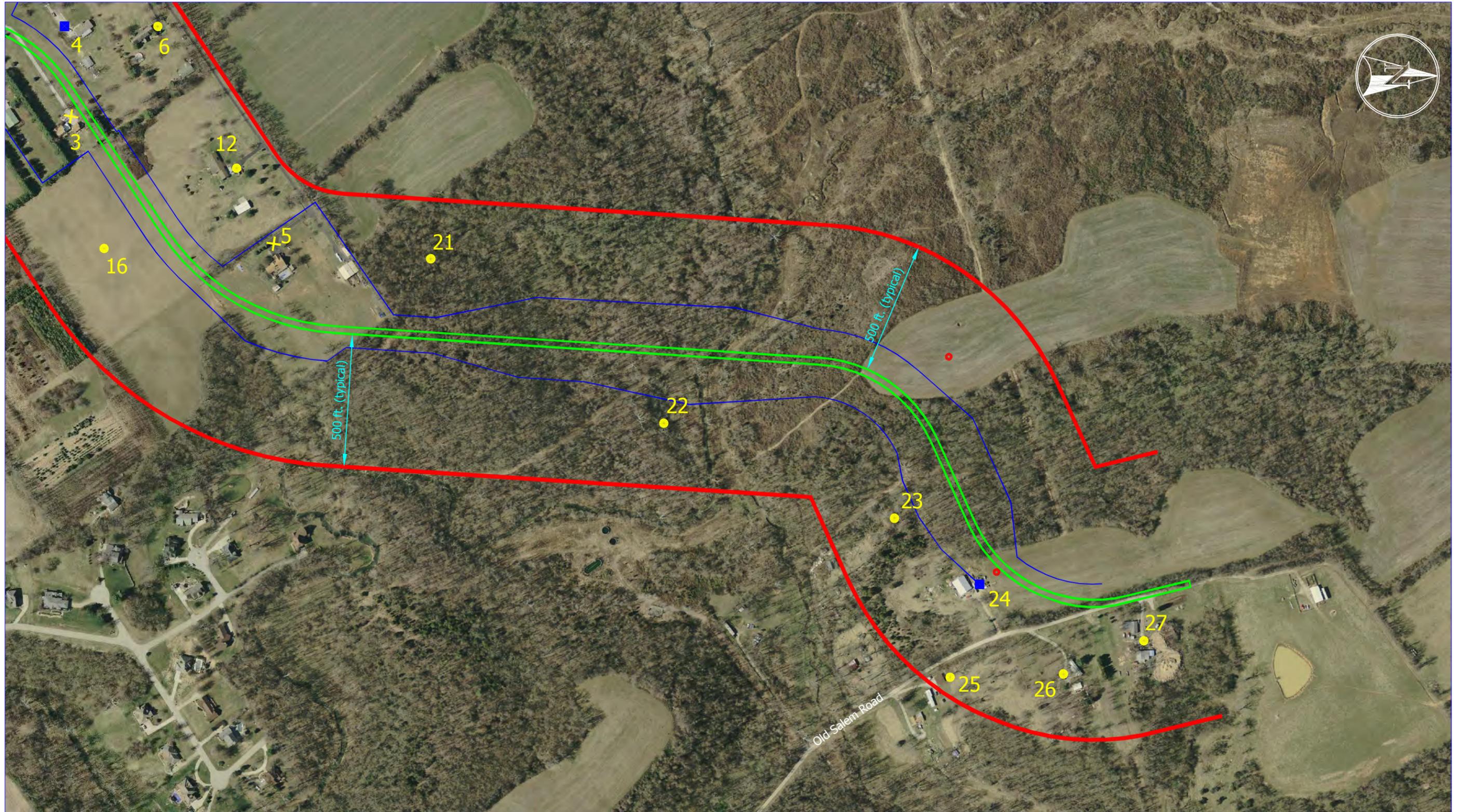
**LEGEND**

- Noise Analysis Study Area
- Proposed Right-of-Way
- Edge of Proposed Travel Lanes
- Temporary Right-of-Way

- Receptor Location
- Existing Noise Measurement
- Impacted Receptor
- X Eliminated Receptor

INDIANA  
 DEPARTMENT OF TRANSPORTATION  
 HEAVY HAUL TRANSPORTATION CORRIDOR  
 NOISE ANALYSIS RECEPTOR LOCATIONS

SCALE	BRIDGE FILE
	DESIGNATION 1382612
SURVEY BOOK	SHEETS of
CONTRACT	PROJECT



2001 Alabama Street  
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**LEGEND**

- Noise Analysis Study Area
- Edge of Proposed Travel Lanes
- Proposed Right-of-Way
- Temporary Right-of-Way

- Receptor Location
- Existing Noise Measurement
- Impacted Receptor
- ✕ Eliminated Receptor

INDIANA  
 DEPARTMENT OF TRANSPORTATION

HEAVY HAUL TRANSPORTATION CORRIDOR  
 NOISE ANALYSIS RECEPTOR LOCATIONS

SCALE	BRIDGE FILE
	DESIGNATION 1382612
SURVEY BOOK	SHEETS
	of
CONTRACT	PROJECT



## Appendix C

# Detailed Receptors Summary

### Project Receptors Summary

#### Heavy Haul Transportation Corridor in Clark County, IN (DES No. 1382612)

Receptor #	Existing Noise (dB)		Future Noise (dB)	Measured Increase	NAC	Owner	Address	Future status	Front Row receptor ?
	Measured	Modeled							
1		41.8	62.5	10.8	B	Daniel & Cheri Keller	1706 Utica Sellersburg Road		Yes
2		44.7	65.2	13.5	B	Steven & Bonita Willman	1720 Utica Sellersburg Road	relocated	Yes
3	54.0	38.1	75.5	23.8	B	John & Sandra Clark	1722 Utica Sellersburg Road	relocated	Yes
4		44.2	66.7	15.0	B	Gary & Melinda Romans	1726 Utica Sellersburg Road		Yes
5		30.8	61.8	10.1	B	Stephen & Anne Starck	1804 Utica Sellersburg Road	relocated	Yes
6		33.1	64.7	13.0	B	Roberta Kent	1806 Utica Sellersburg Road		Yes
7		51.9	59.7	8.0	B	John & Cheryl Skinner	1608 Utica Sellersburg Road		Yes
8		49.4	59.8	8.1	B	Douglas Womack	1610 Utica Sellersburg Road		Yes
9		46.2	60.3	8.6	B	Brian & Debra Hill	1616 Utica Sellersburg Road		Yes
10		45.6	61.4	9.7	B	Cheryl & Brian Bunn	1622 Utica Sellersburg Road		Yes
11	49.7	44.5	61.5	9.8	B	Floyd & Donna Kittrell	1702 Utica Sellersburg Road		Yes
12		39.4	59.8	8.1	B	Garland & Paulette Oakes	1808 Utica Sellersburg Road		Yes
13		37.9	49.0	-2.7	F	Roll Forming Corporation	1205 Brown Forman Road		Yes
14	49.5	34.3	62.0	10.3	F	Griffin Powell Properties, LLC	5171 Maritime Road		Yes
15		39.8	53.5	1.8	G	State of Indiana	1117 Brown Forman Road		Yes
16		30.7	64.6	12.9	G	Garland & Paulette Oakes	1808 Utica Sellersburg Road		Yes
17		42.9	64.8	13.1	F	JPMC, LLC	4750 New Middle Road		Yes
18	53.2	37.6	58.1	6.4	F	Coldwater Veneer Investments, LLC	1201 Bridgeport Drive		Yes
19		38.7	60.1	8.4	F	Koetter Development, Inc.	4008 Utica Sellersburg Road		Yes
20		46.1	62.6	10.9	G	R K Properies	4750 New Middle Road		Yes
21		29.4	64.7	13.0	F	Arthur & Virginia Sutton	2000 Utica Sellersburg Road		Yes
22	52.1	29.7	65.3	13.6	G	Gilmore Construction, Inc.	New Chapel Road		Yes
23		32.1	63.1	11.4	B	Thomas Stillwell	1311 Old Salem Road		Yes
24	57.7	41.6	69.7	18.0	B	Charles Reven	1415 Old Salem Road		Yes
25		49.6	62.3	10.6	B	Clark County Bd. of Commissioners	1318 Old Salem Road		Yes
26		41.6	63.6	11.9	B	Joe & Peggy Nealy	1508 Old Salem Road		Yes
27		42.5	65.6	13.9	B	James Lee	1510 Old Salem Road		Yes

Average = **51.7**

**≥ 66 dB**   **≥ 15 dB**