



CUY-90-14.90

PID 77332/85531

APPENDIX EC-05

**City of Cleveland Noise Ordinance Variance
(Contract Document)**

State of Ohio
Department of Transportation
Jolene M. Molitoris, Director

**Innerbelt Bridge
Construction Contract Group 1 (CCG1)**

As of 11-30-2009

CONSTRUCTION NOISE

The contractor should schedule his work to minimize night work in the Tremont Area. The contractor may request a noise variance for nighttime work within the Tremont Area for a maximum of 14 calendar days within any one six month period for each of the four bridges. The four bridges are IR-90 over Starkweather Avenue, IR-90 over Kenilworth Avenue, IR-90 over Fairfield Avenue, and Abbey Avenue over Scranton Road. This request shall be submitted to ODOT and Cleveland at least thirty days prior to the start of the nighttime work. The request shall include a full disclosure of the expected night time work, including anticipated equipment and noise levels. If the contractor desires to perform nighttime work outside of the approved 14 calendar days, the contractor shall obtain approval from the City of Cleveland Department of Public Safety, Director Martin L. Flask, ten day prior to nighttime work.

- The Contractor shall utilize measures to minimize the impact of construction noise. The following measures shall be implemented:
Limit operation of heavy equipment and other noisy procedures to daylight hours whenever possible.
- Install and maintain effective mufflers on equipment
- Locate equipment and vehicle staging areas as far from noise sensitive areas as possible
- Limit unnecessary idling of equipment

The notification to the City of Cleveland shall include:

- Director of Engineering and Construction
- Director of Planning
- Director of Public Safety
- Director of Public Service

Noise Ordinance Variance Correspondence:

"Silliman, Ken"
<KSilliman@city.cleveland.oh.us>

11/28/2009 12:53 PM

To: "Bonnie.Teeuwen@dot.state.oh.us"
<Bonnie.Teeuwen@dot.state.oh.us>

cc: "Thomas.Hyland@dot.state.oh.us"
<Thomas.Hyland@dot.state.oh.us>,"
"Mark.Carpenter@dot.state.oh.us"
<Mark.Carpenter@dot.state.oh.us>,"Wasik,
Jomarie" <JWasik@city.cleveland.oh.us>,"Mavec,
Robert" <rmavec@city.cleveland.oh.us>,"Flask,
Marty" <MFlask@city.cleveland.oh.us>,"Brown,
Robert" <rbrown@city.cleveland.oh.us>

Subject RE: Cleveland Innerbelt Construction Noise Variance

Bonnie,

Based on our review of the November 6, 2009 materials you sent to us, we concur with your approach subject to the following additional requirement: our consent to the 14 day variance for any six month period is conditional upon ODOT providing to all City officials copied on this email at least 30 days notice of the identified dates **AND** a full disclosure of the type and level of noise.

Ken

Ken Silliman
Chief of Staff

From: Mark.Carpenter@dot.state.oh.us [<mailto:Mark.Carpenter@dot.state.oh.us>]

Sent: Thursday, November 19, 2009 12:41 PM

To: Flask, Marty; Silliman, Ken; Brown, Robert

Cc: Wasik, Jomarie; Mavec, Robert; Thomas.Hyland@dot.state.oh.us; Bonnie.Teeuwen@dot.state.oh.us
Subject: Cleveland Innerbelt Construction Noise Variance

Gentlemen:

Have you had time to review the Noise Impact maps and Construction Noise Variance letter for the Cleveland Innerbelt project?

I have attached a copy of the letter and maps for reference.

If you have any questions, please contact me at (216) 584-2089 or by e-mail.

Thank you,

Mark Alan Carpenter, P.E.
District 12 Environmental Engineer
(216) 584-2089



OHIO DEPARTMENT OF TRANSPORTATION

DISTRICT 12 * 5500 TRANSPORTATION BLVD * GARFIELD HEIGHTS, OH 44125 * (216) 581-2100

TED STRICKLAND, GOVERNOR * JOLENE MOLITORIS, DIRECTOR * BONITA G. TEEUWEN, P.E. DISTRICT DEPUTY DIRECTOR

November 6, 2009

Martin L. Flask, Director
Department of Public Safety
610 Lakeside Avenue, Room 230
Cleveland, Ohio 44114

**Re: CUY-Cleveland Innerbelt (PID 77510);
CUY – 90 – 14.90 WB Design Build (PID 85531);
Construction Noise Impact Area Maps**

Dear Director Flask:

The enclosed Construction Noise Impact Area Maps have been prepared as requested by the City of Cleveland to identify the areas of potential noise impacts during construction activities at night for the Cleveland Innerbelt Construction Contract Group 1. The project is scheduled to start in early 2011 and to be completed by the end of 2013.

The actual noise level created by construction activities can vary so drastically based on the type of equipment being used, the amount of equipment being used at one time, and weather conditions, that predicting construction noise levels is not practical.

The enclosed Construction Noise Impact Area mapping was created based on experience from past construction projects around the state of Ohio and using the information obtained from the Noise Analysis as a baseline.

Baseline information from past Noise Analysis

90%-95% of noise complaints are from first line receptors that have a direct line of sight to the construction area. First line receptors are within 400-feet of the construction area. The mapping identifies about 23 homes in the Tremont area that would be considered first line receptors. All of the first line receptors are located on the west side of the Innerbelt.

The remainder of the noise complaints has come from homes behind the first line receptors up to as far away as two miles. However, if there is another arterial roadway between a home and the construction area, the noise from the arterial roadway overrides the noise from the construction area. Also, noise studies have shown that noise impacts are concentrated within 400-feet of the highway. Therefore, the additional homes between the construction area and an adjacent arterial roadway are defined as second line receptors. Second line receptors do not have a direct line of sight to the construction area because they are blocked by other buildings, embankment, or a large amount of trees. Second line receptors are within 800-feet of the construction area. Noise from the construction area can be heard but is not typically intrusive at second line receptors.

Based on this definition, all the homes on the east side of the Innerbelt in Tremont are second line receptors because there is no direct line of sight due to the existing roadway embankment.

In the Gateway area, there are 2 potential noise sensitive buildings, the Tactical Rescue Station and the Hilton Garden Inn. These are noise sensitive because there are bedrooms for sleeping. Both would be considered first line receptors.

ODOT has been in contact with the Hilton Garden Inn. The building was renovated with windows with a high Sound Transmission Class (STC). The Hilton Garden Inn officials felt that construction noise impacts would be negligible because of the renovated windows and that the Inn’s clients are there for short periods of time, usually less than a week. The Noise Analysis determined that there would be no long term noise impact at the Hilton Garden Inn.

The Tactical Rescue Station has second floor dormitories for firemen stationed at this location. There are no windows facing the Innerbelt. The Noise Analysis determined there would be no long term noise impact at the Tactical Rescue Station.

Construction Noise Impact Areas

The Cleveland Innerbelt Construction Contract Group 1 project can be separated into three Construction Noise Impact Areas. The three Areas are Tremont, Viaduct, and Gateway.

The Tremont Area is south of Abbey Avenue between the Innerbelt and Scranton Road, and south of University Avenue on the east side of the Innerbelt. There are 44 identified first line receptors in the Tremont Area. There are approximately 193 second line receptors in the Tremont Area. There are four bridges that are anticipated to require work at night in order to minimize inconvenience to the public and to shorten the overall time of construction. Therefore, the nighttime construction noise will be localized around each bridge. The impacted receptors have been identified for each bridge in the following table and on separate Noise Impact Maps.

Bridge	First Line Receptors	Second Line Receptors
IR-90 over Starkweather Avenue	8	88
IR-90 over Kenilworth Avenue	12	66
IR-90 over Fairfield Avenue	0	42
Abbey Avenue over Scranton Avenue	11	63

The Viaduct Area is the main bridge section over the industrial valley between University Avenue and Ontario Street. There is one first line receptor in the Viaduct Area, the Tactical Rescue Station as stated above. There are no second line receptors in the Viaduct Area

The Gateway Area is between Ontario Street and East 14th Street. There is one first line receptor in the Gateway Area, the Hilton Garden Inn as stated above. There are no second line receptors in the Gateway Area.

Request for Noise Variance

It is requested that the City of Cleveland grant a variance for ODOT and its contractor to City Ordinance 605.10 – Unnecessary Noises to allow work at night with no time restrictions in the Viaduct Area and Gateway Area for the Cleveland Innerbelt Construction Contact Group 1.

As the City recommended, in the Tremont Area, it is requested that a variance be granted for work to be permitted between 6:00 am and 10:00 pm at all times during the Cleveland Innerbelt Construction Contract Group 1. The variance will also allow ODOT to choose a maximum of 14 calendar days in any six month time period to allow work at night with no time restrictions for each of the four bridges in the Tremont Area. The four bridges are IR-90 over Starkweather Avenue, Kenilworth Avenue, and Fairfield Avenue, and Abbey Avenue over Scranton Road. ODOT will notify the City of the 14 calendar days chosen for each bridge at least ten day prior to the start of the nighttime work. If additional work is needed to be completed at night outside of the chosen 14 calendar days, a waiver request must be approved by the City of Cleveland at least ten days prior to the work.

