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Noise Impact Assessment

Hamburg Crossings

Hamburg, New York

Prepared for
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May 1, 2007

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Project overview

A noise assessment was performed to assess the potential community noise impacts from the planned Hamburg Crossings shopping plaza project on the site of the former Days Inn, the current Fisher Bus Services, and undeveloped areas in Hamburg, NY. The plaza site is on the west site of State Route 75 (Camp Road) between State Route 20 (Southwestern Boulevard) and Interstate Route 90 (I90, New York State Thruway). The noise study analyzed potential noise impacts at adjoining property lines and other nearby properties with potential sensitive receptors.

The plaza site neighbors a residential development area along a portion of its west and southwest boundaries (Creekview Drive and Parkwood Common). The residential development contains the closest residential receptors and boundaries. Northeast of the site on the east side of Camp Road is an additional residential area (Dartmouth Street and Columbia Street). The Thruway borders the site to the south. Directly south of the plaza site on along the south side of the Thruway is a residential area (Holiday Lane and Brookwood Drive), a hotel (Holiday Inn), and a number of commercial facilities. North and northeast of the plaza site are a number of commercial properties including automobile sales facilities. The east property line of the site borders the I90 Exit 57 on-ramp and off-ramp for southbound Rt. 75 traffic, currently forested undeveloped land, and two commercial office buildings. Southeast of the site along the Thruway are two existing hotels (Comfort Inn and Red Roof Inn), two office buildings, and a medical office building. East of the site on the east side of Camp Road are a number of commercial facilities and a hotel (Tallyho-Tel). North of the site on the north side of Southwestern Boulevard are a golf facility, commercial facilities, and park land that includes a cemetery.

The Hamburg Crossings plaza is proposed to comprise as main tenants a general retail store, a home improvement center, and a sporting goods store. A subdivided retail building is also planned. These buildings will be located in a row along the north and west edges of the site. A hotel and a number of small retail out-parcels will be located along the east and southeast potions of the site adjoining Camp Road, the I90 Exit 57 ramps, Commerce Place, and the Thruway. The current bus operations will be relocated off site, and the bus facility and the former Days Inn building will be removed.

The Hamburg Crossings plaza will be accessible from Camp Road near the southeast corner using the existing Commerce Place and from a site road near the northeast corner in the vicinity of the present entrance to Days Inn and Fisher Bus Services. Service access to each of the main retail buildings will be on the western sides.

The plaza design incorporates a number of features to provide noise mitigation for the nearest receptors to the west. Wide areas of existing mature foresting (estimated 120-180 ft deep, 40-50 ft tall) will be retained as buffer along the western and southwestern boundaries. An earthen berm that is several feet high will be maintained along the northern segment of the western boundary that is north of the forest buffer. The main retail buildings are arranged in a manner that will largely screen sounds of automobiles and service vehicles in the main parking lots and on interior access roads. The loading docks in the service areas will be shielded by screen walls. Delivery truck loading dock turning zones will be screened by the forested buffer.

The plaza noise study includes assessment of a number of potential plaza noise components. Studied noise sources include patron vehicles operating on site access roads and in parking lots, building mechanical systems, and plaza support and maintenance services that include merchandise deliveries, waste container services, parking lot sweeping, and snow removal. The building mechanical systems that are represented are rooftop building air handling components, rooftop refrigeration chillers associated with food coolers and freezers, and at-grade waste compactors. The community noise sources that are included are traffic on surrounding major roadways. Noise assessments employed three main scenarios representing the existing local traffic volumes as an initial baseline, the future baseline representing local traffic with anticipated natural growth, and the future site development with associated patron traffic in addition to normal local traffic growth. Additional assessments separately evaluated the noise components of plaza services and site maintenance activities. Note that certain variable sources of community noise including resident activities and local traffic on most side streets were not included as sources.

The geography of the development site is relatively uniform without major contour features that would create sound reflection or shielding. The majority of the adjoining local roadways are at a similar grade to the project site. Exceptions are that the Thruway elevation is depressed in the vicinity of the Route 75 overpass with the Thruway, the elevation of Route 75 at the overpass increases by several feet, and the Route 75 southbound on and off ramp to the Thruway raises in elevation to join the overpass of Route 75.

At the boundaries of the site and in neighboring receptor areas, major sources of background noise are traffic

on the New York State Thruway, the associated Exit 57 ramps, Southwestern Boulevard, Camp Road, and respective local traffic. Additional noise is frequently generated by whistles and passages of railroad traffic on the Norfolk Southern line paralleling State Route 5 that is over a mile from the site.

Plaza noise assessment summary conclusions

A. Noise levels in the community surrounding the plaza site are currently highly influenced by traffic on the adjoining highways of I90 (Thruway), Rt. 20 (Southwestern Boulevard), and Rt. 75 (Camp Road). The background noise levels were found to continuously vary seeming with traffic volume, and were found to be the highest during observed morning and afternoon peak traffic periods, and the lowest during observed weekend and nighttime hours. Traffic on local streets adds additional influence. Other notable sources include outdoor activities of neighbors, birds, wind, and frequent whistles of railroad trains on the Norfolk Southern rail lines located north approximately one mile. Existing operations of Fisher Bus Service also contribute to the existing background noise levels at the western boundary, in particular during early morning and early afternoon hours when employees arrive, buses are started and idled, buses depart and return from school runs, and employees depart. (Current website information of FBS describes availability of approximately 62 school buses, several spares and charter busses, and approximately 110 employees). Existing community background noise levels were measured at the western boundary and at several other surrounding locations. Surveys were obtained on a number of different occasions on different days to obtain a wide sampling of existing background noise levels.

1. At Location 1 on the western side of the existing earthen berm along the northern segment of the site's western property line, daytime noise levels measured with a portable analyzer averaged as follows (ten-minute samples):
    a. 6:20- 6:45 a.m. in two samples of a weekday morning with bus operations, 59-60 dBA.
    b. 4:45-5:15 p.m. in two samples of weekday afternoons during traffic peaks, 57 dBA.
2. At the same location, weekend daytime levels averaged as follows:
    a. 11:45 a.m.-2:00 p.m. in three samples on Saturdays during traffic peaks, 45-47 dBA
    b. 5:40-5:50 p.m. Saturday afternoon, 52 dBA.
    c. 1:40-1:50 p.m. Sunday afternoon, 43 dBA
3. At the same location in weekday nighttime hours, the ranges of five-minute average noise levels obtained from continuous noise logging over a period of four days are as follows:
    a. 10:00 p.m. to 5:00 a.m., 46-61 dBA.
    b. 5:00 a.m. to 7:00 a.m., with increasing traffic, 54-62 dBA.
4. At the same location in weekend nighttime hours, the ranges of five-minute average noise levels

obtained from continuous noise logging are as follows:

a. 10:00 p.m. to 5:00 a.m., 44-63 dBA.
b. 5:00 a.m. to 7:00 a.m., with increasing traffic, 49-59 dBA.

B. Predictions were prepared of existing background noise levels at each receptor produced by existing peak traffic volumes. Prediction inputs include peak traffic volumes for the weekday afternoon and Saturday noontime peak periods from the project traffic engineering report. Predictions of nighttime background noise levels were made using estimates of nighttime traffic based on NYSDOT published local traffic data. For the western boundary location used for portable surveys and logging, the following are the modeled existing background noise levels for the peak periods:

1. 54.5 dBA, weekday afternoon peak traffic period.
2. 52.8 dBA, Saturday noontime peak traffic period.
3. 43.7 dBA, weekday nighttime estimate.
4. 43.8 dBA, Saturday nighttime estimate.

C. Predictions were prepared of future background noise levels at each receptor due to future traffic with anticipated natural growth without plaza noise components. Prediction inputs include traffic volume projections from the traffic engineering report and estimates based on NYSDOT published local traffic data. For the western boundary location, the following are the modeled future background noise levels with normal growth:

1. 54.7 dBA, weekday afternoon peak traffic period.
2. 53.6 dBA, Saturday noontime peak traffic period.
3. 43.7 dBA, weekday nighttime estimate.
4. 43.8 dBA, Saturday nighttime estimate.

D. Predictions were prepared of future background noise levels including future traffic growth and assumed plaza noise components. Prediction inputs include traffic volume projections, traffic estimates based on NYSDOT published local traffic data, and plaza component sources. For the western boundary location, the following are the modeled future development noise levels:

1. 56.4 dBA, weekday afternoon peak traffic period.
2. 55.5 dBA, Saturday noontime peak traffic period.
3. 43.7 dBA, weekday nighttime estimate.
4. 48.3 dBA, Saturday nighttime estimate.

E. The noise modeling results at other western boundary line modeling locations are similar to those at the midpoint, only slightly increasing for locations north or south of the center point of the western boundary segment, as distances from Route 20 or the Thruway relatively decrease. Based on the noise model projections the following are concluded:

1. Anticipated natural growth in local highway traffic will cause average background noise levels to increase by approximately one decibel or less during peak traffic periods on weekdays and by less than two decibels on Saturdays in the year 2012.
2. Anticipated additional traffic associated with the Hamburg Crossings plaza will cause average background noise levels to increase by approximately one and a half decibels on weekdays and by approximately two decibels Saturdays beyond background noise levels projected for the year 2012.
3. The projected difference between existing and future average background noise levels (1-2 dB) will be negligible and imperceptible in accord with NYSDEC noise assessment guidelines and psychological acoustics studies that conclude that noise increases up to three decibels are imperceptible and have no appreciable effect on receptors. Similarly, the minor increase in average background noise levels attributed to total added plaza traffic and building sources (1.5-2 dB) will also be imperceptible and generate no noise impacts.

F. No significant noise impacts are projected with respect to the Code of the Town of Hamburg in Chapter 175 *Noise* that prohibits the creation of "unnecessary and unreasonably loud or disturbing noise" ... "of such character, intensity and duration as to be detrimental to the life, health or welfare of the inhabitants of the Town of Hamburg...". The noise levels and noise character to be generated by plaza site traffic will correspond to the levels and character of existing background noise presently generated by traffic on the Thruway, on other adjoining highways, and on local streets.

G. No significant noise impacts are projected with respect to the Code in Chapter 280 *Zoning* that limits activities on lands zoned C-1 from producing "offensive noise", and that limits permitted activities on lands zoned M-1 Industrial Park District from resulting in "dissemination of ... noise into any R (Residential) or C (Commercial) District". The definition of "disseminable noise" (which is not specified in the Code) is referenced from noise assessment guidelines of New York State Department of Environmental Conservation (NYSDEC) and psychological acoustical studies.

H. The NYSDEC noise assessment guidelines describe that noise level increases of 0 to 3 dB should have no appreciable effect on receptors, and that increases from 3 to 6 dB may have potential for adverse

impact only upon the most sensitive of receptors. The guidelines alternately reference that increases of 0 to 5 dB are unnoticeable or tolerable. The guidelines state that increases of more than 6 dB may require further study of impact potential, depending on the background levels and community type. An increase of 10 dB is stated to deserve consideration of avoidance and mitigation. The guidelines state that the thresholds are to be viewed as subject to adjustment appropriate to the circumstances.

I. Component plaza noise sources operating in the daytime will not generate noise impacts in contrast to daytime background traffic noise levels.
   1. Building mechanical sources will not generate perceptible noise levels based on the selected types of sources, the distances between the sources and receivers, the shielding of roof edges and parapets, and other sound attenuation factors. At the western boundary line, the sound levels from individual mechanical equipment range from approximately 10 to 37 dB for the closest building sources and under 10 dB for the distant sources. Logarithmically combined, the total expected noise level at the western boundary location with all mechanical equipment operating simultaneously (maximum assessment) is 43.9 dBA. The total is 10 dB lower than the weekday and Saturday background noise levels. As a result, maximum operations of mechanical equipment will not be perceived.
   2. Site access road traffic will not generate significant noise levels compared to the background noise levels. At the western boundary location, on the east side of the berm, component noise levels from each of the modeled site road segments range from approximately 26 dBA to 38 dBA during the weekday traffic peak or 27 dBA to 40 dBA during the Saturday traffic peak. The total noise level at the western boundary from all site road segments is projected to be 45.4 dBA during the weekday traffic peak and 46.7 dBA during the Saturday traffic peak. Each of the combined component levels are several decibels lower than the total noise levels received from all sources at the western boundary. As a result, site roadway traffic will not be perceived at the western boundary.
   3. Site traffic in parking lots will not generate significant noise levels compared to the background noise levels. At the western boundary location, component noise levels from the several parking lots range from approximately 10 dBA to 41 dBA during the and Saturday traffic peaks. The total noise level from all parking lots is projected to be 45.3 dBA at the western boundary. The total parking lot noise level will be 9-10 dB lower than the projected daytime background noise levels. As a result, traffic in parking lots will not be perceived.
   4. Individual plaza service sources consisting of delivery trucks moving on the service road, trailer switch-outs in each loading dock area, and idling of refrigerated trailers at the retail store loading dock will in general not produce noise levels above daytime background noise levels at the western

boundary and will not be perceptible. Minor noise level increases may be generated by passbys of trucks and trailer switch-outs behind the main retail store directly opposite the unforested boundary segment, which may generate maximum levels of 55-56 dBA on the shielded west side of the berm. The berm-shielded delivery truck noise levels will at most be 2 dB higher than projected background noise levels, which increases will be imperceptible.

5. Plaza snow removal and parking lot sweeping scheduled during morning commuter hours are projected to not generate noise levels greater than existing background noise levels under normal operations in parking lots. Operations in the service areas behind the main retail store and home improvement store along the western boundary are projected to reach maximums of 58-59 dBA at certain receptors on the western side of the perimeter berm, which compares to weekday morning measured average noise levels of 59-60 dBA. Snow removal activities performed at other times may be perceived to generate relative noise increases, although noise increases would be brief and could be minimized by limiting operations in the service areas to specific appropriate times.
6. Plaza waste removal services will not generate intolerable noise increases at many of the receptors due to factors of distance and shielding by the forest buffer along th western boundary. For certain receptors along the extant berm on the western boundary that are not shielded by the forest buffer and that are opposite the retail store waste station, maximum noise are modeled to potentially reach up to 68.8 dBA. This is based on the maximum source levels associated with overhead lift container operations, which may produce maximum noise levels during container shaking to dislodge materials, commonly lasting up to several seconds. In contrast to measured existing morning peak background noise levels of 59-60 dBA, the relative increases might briefly be 9-10 dB. In contrast to modeled noise levels for the weekday afternoon peak traffic hour, the noise increase might be 12 dB or greater. Because the generated maximum noise levels occur for a relatively short duration, the noise impacts should be limited. Source noise levels can be mitigated with use of alternate waste removal services, such as roll-off container services that produce maximum levels which are 4 dB or more lower than overhead services. Received levels can be mitigated with an eight foot high continuous board fence installed on top of the western property line berm, which could reduce received levels by 5 dB or more. For the main retail store, waste containers might be located behind the planned loading dock screen wall.

J. Nighttime noise impacts at the nearest receptors are not projected to result from the plaza.
   1. Traffic on plaza roads and in parking lots in nighttime hours would be minimal or non-existent. Generated noise will as result be minimal and imperceptible at the nearest receptors.

2. Noise impacts from deliveries will be averted since receiving will be limited to daytime hours.
3. Nighttime operation of building air conditioning and chiller equipment are projected to generate maximum noise levels of approximately 44 dBA at the western property line with all equipment operating. The maximum mechanical noise level corresponds to the modeled future nighttime background noise levels. As result, operating mechanical operations will not be obtrusive.
4. Scheduling of snow removal activities in nighttime hours would be limited to snow emergencies, which will avert most nighttime noise impacts. The maximum projected snow plow level of 48 dBA on the west side of the western property line berm is 4 dB above projected nighttime noise levels, which may be imperceptible or would be considered tolerable.

Plaza noise assessment overview

A computerized noise model was generated representing the planned site and surrounding community to investigate the potential influences of the various plaza noise sources. The noise model employed was CADNA/A v3.6.120 by Datakustik, GmbH, a nationally and internationally well-accepted software program for environmental noise level prediction.

The noise assessment model was designed to include the various existing and planned main site features including forested areas, nearby existing commercial buildings and hotels, surrounding highways and local streets, and planned plaza buildings and parking lots. Site layouts and building layouts were developed from current development plans, aerial photographs, USG terrain maps, and site surveys. Building parameters including building size, heights, and mechanical equipment selections were projected from the site development plans, reference project information from similar Benderson plaza developments, and reference examinations of similar facilities.

The mechanical component sources were individually represented in the noise model using manufacturer equipment noise level ratings of typical manufacturers selected on other Benderson projects studied in other recent similar noise assessments. Selections of air conditioning mechanical equipment associated with the large retail, home improvement, strip retail, and outdoor recreational stores were fairly large Carrier models ranging from 17.5 to 30 ton capacities. Air conditioning for the hotel were chosen as Carrier models with 40 ton capacities. Air conditioning for the retail out-parcels were chosen as Carrier models with 17.5 ton capacities. Selections of refrigeration chillers for the large retail store consisted of Carrier 48 series with 17.5 ton capacities.

The noise assessment model assumes that all mechanical components are operating simultaneously as a representation of the worst case scenario, including for the nighttime analysis. This may only occur for specific summer periods and not be the typical average scenario. Air conditioning equipment typically cycles on and off, or changes from a high speed to a low speed that generates less noise. Peak operations as such with all equipment on may not necessarily coincide with the peak traffic periods applied in the model. As a result, the plaza noise modeling assumptions for mechanical operations are fairly conservative. Actual equipment types and layouts, and associated noise levels, may somewhat differ from the practical assumptions. However, combined noise levels are not expected should significantly change since it would take a very large increase in number of sources (e.g., doubling) to affect just a small change in level (e.g., 3 dB), which is unlikely to be feasible. Minor modifications to selections may produce no difference or only negligible increases in mechanical component noise levels.

Traffic source data employed in the model were taken from results of the community traffic study prepared by traffic engineers SRF and Associates of Rochester, NY. The traffic data describe the numbers of vehicles passing in each direction on roadway segments and turning at intersections. The counts and projections represent current, future background, and future project traffic for the weekday afternoon peak period and the Saturday noontime peak period. Estimates of nighttime traffic volumes were based on published New York State Department of Transportation (NYSDOT) hourly count data for the designated State highways.

Sound levels generated by service events including delivery truck passbys, trailer switch-outs, waste container services, package waste compactors, snow plowing, and parking lot sweeping were obtained in surveys of Benderson facilities by Angevine Acoustical Consultants, Inc.

Community noise criteria

Town of Hamburg

The sections of the Code of the Town of Hamburg that are applicable to noise generation are summarized below. The sections are taken from online materials currently available on the government website of the Town of Hamburg. Underlining is added for emphasis.

Chapter 175: NOISE

[HISTORY: Adopted by the Town Board of the Town of Hamburg 9-3-1963; effective 9-21-1963. Amendments noted where applicable.]

ARTICLE I Legislative Intent

§ 175-1. Legislative intent.

By adoption of this chapter, the Town Board of the Town of Hamburg declares its intent to prohibit and/or regulate in a manner consistent with the health, welfare and safety of the citizens of this town breaches of the peace, improper assembly, unreasonably loud and disturbing noises, profane, vulgar and/or obscene language or conduct. Therefore, the Town Board, in the exercise of its police power vested in it under § 130 of the Town Law of the State of New York, does hereby enact the following ordinance:

ARTICLE II Loud Noises Prohibited

§ 175-2. Prohibitions. [Amended 6-14-1982 by L.L. No. 2-1982]

A. The creation of any unnecessary and unreasonably loud or disturbing noise is prohibited as a public nuisance.
B. Noise of such character, intensity and duration as to be detrimental to the life, health or welfare of the inhabitants of the Town of Hamburg is prohibited as a public nuisance.
C. In particular, without excluding other types of prohibited sounds by failure to enumerate them, all sleep-disturbing noises are prohibited. Sleep-disturbing noises shall mean any unnecessary and unreasonably loud or disturbing sounds occurring during the hours between 11:00 p.m. and 7:00 a.m. and unreasonably interfering with the sleep, comfort, health and repose of any individual within hearing thereof or in the vicinity.

The pertinent information in Chapter 175 *Noise* is that it generally prohibits the creation of "unnecessary and unreasonably loud noise". No subjective definitions of these terms is given. Additionally, no specific noise level limits are given (e.g., 65 dBA in the daytime, 55 dBA in the nighttime) that are typical of some other community noise ordinances.

The Code in Chapter 280 *Zoning* provides additional statements regarding activities in specified zoned areas.

ARTICLE XIII C-1 Local Retail Business District [Amended 1-11-1993 by L.L. No. 1-1993; 7-12-1993 by L.L. No. 6-1993; 1-26-1998 by L.L. No. 1-1998]

§ 280-69. Intent

... Commercial uses in this district are not overly intrusive to the surrounding residential areas and include, but are not limited to, the following characteristics: low noise levels and odor generation, unobtrusive lighting, and hours of operation from 8:00 a.m. to 9:00 p.m. (EST.), limited signage, minimization of points of egress/ingress and encouragement of shared access.

§ 280-70. Permitted uses and structures.

Uses and structures permitted in the C-1 District are as follows ... :

B. Accessory uses and structures:

(3) Shops for the manufacture or processing of articles incidental to the conduct of a retail business lawfully conducted on the premises, provided that:

(c) Such activity shall not produce offensive odors, noise, vibration, heat, glare or dust.

The sections of Chapter 280 Section 70 pertinent to noise state that activities on lands zoned C-1 Local Retail Business District shall not produce "offensive noise". No subjective definitions of offensive sounds are provided, however.

ARTICLE XVIII M-1 Industrial Park - Research and Development District

§ 280-119. Permitted uses and structures.

Uses and structures permitted in the M-1 District are as follows ... :

C. Limitations on permitted uses in the M-1 District:

(1) No use of land, building or structure shall be permitted, the operation of which normally results in any ... :

(b) Dissemination of atmospheric pollutant, noise or odor into any R or C District.

The sections of Chapter 280 Section 119 pertinent to noise in summary state that activities on lands zoned M-1 Industrial Park - Research and Development District shall not have operations that produce "dissemination" of noise into any R or C district.

The same Chapter in other sections includes similar statements regarding activities on lands zoned M-1 Industrial Park District that shall not result in dissemination of noise into any R Residential or C Commercial district. The Chapter further similarly provides limits on dissemination of noise produced on M-2 and M-3 zoned lands in R and C districts, as well as respectively lower-numbered M districts.

The Chapter does not contain restrictions on noise produced on lands zoned R Residential or R-A Residential Agricultural District received in R Residential Districts. Although there are present sections of the Hamburg Crossings site that appear to be zoned R-A, conservatively, the requirements for M-1 zoned districts (i.e., for non-dissemination of noise) are applied throughout the noise assessment for R-A site areas. Similarly, the M-1 criterion is uniformly applied for the C-1 zoned site areas whose criterion is not well defined (i.e., non-offensive noise).

Because no subjective definitions of "disseminable" noise are provided in the Code of the Town of Hamburg, a candidate noise acceptability criterion is referenced that is available in the current noise assessment guidelines of the New York State Department of Environmental Conservation.

New York State Department of Environmental Conservation

The New York State Department of Environmental Conservation has developed and currently employs reference noise assessment guidelines for evaluating noise impacts around certain facilities. NYSDEC Program Policy DEP-00-1 (10/6/2000, rev 2/2/2001) describes recommended approaches for evaluating sound sources by a number of common approaches. Noise acceptability in each case is based on studied human reactions to noise levels and noise characteristics.

The acceptability of noise from a facility following the NYSDEC policy can be determined by examining the potential noise level increases in comparison to typical or potential human reactions. Specific ranges of noise level increases and associated acceptability are summarized from the NYSDEC guidelines as follows.

Level Increase	Acceptability/Subjective Reaction
0 to 3 dB	Should have no appreciable effect on receptors
3 to 6 dB	May have potential for adverse noise impact only in cases of most sensitive of receptors
> 6 dB	May require a closer analysis of impact potential depending on existing levels & receptor character
~10 dB	Perceived doubling of loudness, deserves consideration of avoidance and mitigation in most cases

It can be concluded that noise level increases up to 3 dB are imperceptible. An alternate noise level increase acceptability table is also given in the NYSDEC noise assessment guidelines:

Level Increase	Acceptability/Subjective Reaction
< 5 dB	Unnoticed to tolerable
5 to 10 dB	Intrusive
10 to 15 dB	Very noticeable
15 to 20 dB	Objectionable
> 20 dB	Very objectionable to intolerable

Where significant noise impacts are identified, NYSDEC recommends reasonable and necessary measures to mitigate noise. The effectiveness and feasibility of proposed mitigations must first be reviewed to

determine if mitigation options are actually appropriate.

The NYSDEC noise assessment guidelines are originally intended to be used by Staff to review environmental applications prepared by applicants and by applicants preparing the environmental assessments for facilities that are permitted and regulated by NYSDEC. The NYSDEC guidelines do not supersede any local noise ordinances or regulations. For communities where specific noise level limits are not provided either in regulations of New York State or in codes of the local community, the NYSDEC noise assessment guidelines have proven useful for assessing noise from local facilities and developments.

Measured Community background noise levels

To characterize the existing community noise environment surrounding the project site, background traffic noise levels were measured at the western boundary line and at six other locations within the surrounding community at several different times on different weekdays and weekend days using a portable sound level analyzer. Measurements included the average, maximum, and minimum A-weighted levels. Measurements were made with a CEL model 593.C1R sound level analyzer, s/n 3/0991604; with CEL model mk250 ½-inch microphone , s/n 2039; CEL model 527 preamplifier, s/n 3/099/1527. The instrument meets or exceeds requirements of American National Standard ANSI S1.4-1983 (R2006) with S1.4A-1985 (R2006) amendment. The meter was calibrated before and after each series of measurements with the acoustic calibrator whose signal meets or exceeds requirements of ANSI S1.40-2006 standard. Results of the community background noise surveys are listed in the following table.

Table 1

Hamburg Crossings

Measured Background Sound Levels at Surrounding Receptors (10 min avg.)

Loc.	Description	Day	Date	Start Time	Measured Background Sound Levels (dBA) Avg	Max	Min
1	West Property Line	Sat	3/24/2007	5:39 pm	51.7	67.2	46.0
		Sun	3/25/2007	1:38 pm	43.4	53.1	51.0
		Sat	4/14/2007	11:47 am	46.6	58.2	40.0
		Thur	4/19/2007	6:20 am	58.7	62.7	55.0
		Thur	4/19/2007	6:36 am	59.6	69.4	57.0
		Thur	4/19/2007	8:27 am	50.5	65.8	460
		Thur	4/19/2007	4:44 pm	56.6	71.6	50.0
		Sat	4/21/2007	11:46 am	45.2	55.9	40.0
		Sat	4/21/2007	1:49 pm	44.9	61.0	41.0
		Mon	4/23/2007	5:03 pm	557.2	74.8	46.0
2	West End of Commerce Pl	Sat	3/24/2007	6:04 pm	56.1	73.6	48.0
		Sun	3/25/2007	1:55 pm	53.4	63.1	47.0
		Sat	4/14/2007	12:02 pm	51.6	61.7	47.0
		Thur	4/19/2007	7:58 am	57.4	66.1	54.0
		Thur	4/19/2007	5:56 pm	60.2	74.1	55.0
		Sat	4/21/2007	1:05 pm	51.4	63.4	45.0
		Mon	4/23/2007	6:19 pm	64.5	77.9	55.0
3	Holiday Lane at Rovner Pl	Sat	3/24/2007	6:31 pm	57.3	74.9	47.0
		Sun	3/25/2007	2:13 pm	56.9	70.8	42.0
		Sat	4/14/2007	12:17 pm	59.0	72.8	48.0
		Thur	4/19/2007	7:43 am	62.0	76.1	53.0
		Thur	4/19/2007	5:41 pm	62.8	79.7	52.0
		Sat	4/21/2007	12:51 pm	57.7	72.9	48.0
		Mon	4/23/2007	6:01 pm	64.7	77.8	52.0
4	Creekview Dr	Sat	3/24/2007	6:51 pm	47.7	65.1	42.0
	(NE corner of devel.)	Sun	3/25/2007	2:33 pm	53.2	70.4	43.0
		Sat	4/14/2007	12:52 pm	48.1	66.9	41.0
		Thur	4/19/2007	7:00 am	59.2	78.0	55.0
		Thur	4/19/2007	5:12 pm	57.7	74.3	49.0
		Sat	4/21/2007	12:32 pm	50.3	63.4	41.0
		Mon	4/23/2007	5:30 pm	62.4	76.5	49.0

Loc.	Description	Day	Date	Time	Measured Background Sound Levels (dBA) Avg	Max	Min
5	Creekview Dr	Sat	3/24/2007	7:03 pm	47.0	65.7	41.0
	(SE corner of devel.)	Sun	3/25/2007	2:45 pm	54.4	69.4	43.0
		Sat	4/14/2007	1:05 pm	44.7	56.0	38.0
		Thur	4/19/2007	7:11 am	59.4	78.8	55.0
		Thur	4/19/2007	5:23 pm	53.9	70.9	49.0
		Sat	4/21/2007	12:20 pm	55.4	75.4	40.0
		Mon	4/23/2007	5:20 pm	61.2	77.3	46.0
6	Dartmouth St at Camp Rd	Sat	3/24/2007	7:25 pm	56.3	70.0	46.0
	(second house east of Camp)	Sun	3/25/2007	3:02 pm	59.4	79.2	47.0
		Sat	4/14/2007	1:31 pm	59.6	74.0	48.0
		Thur	4/19/2007	8:13 am	64.2	85.0	52.0
		Thur	4/19/2007	6:09 pm	61.6	77.8	51.0
		Sat	4/21/2007	1:34 pm	59.8	78.4	49.0
		Mon	4/23/2007	6:49 pm	62.5	73.4	55.0
7	Creekview Dr	Sat	4/14/2007	12:40 pm	54.5	72.4	44.0
	(NW corner of devel.)	Thur	4/19/2007	7:24 am	58.8	71.7	54.0
		Thur	4/19/2007	5:00 pm	62.4	82.2	48.0
		Sat	4/21/2007	12:07 pm	50.9	67.7	42.0
		Mon	4/23/2007	5:45 pm	63.6	76.5	49.0

Background noise level data obtained by continuous noise logging at the western property line are reported in Appendix A. One series of logging extended from a Thursday morning through Saturday afternoon , followed by a series extending from the same Saturday afternoon through the following Monday evening. The data are presented in tabular form, including L_{av} (average), L_{max} (maximum), L_{10}, and L_{99} (minimum). Data are also presented graphically (L_{av}, L_{max}). All of the data are measured with A-weighting and Slow time response, corresponding to properties of human hearing.

Plaza noise assessment findings

It is concluded from the survey observations that the community background noise environment at each location is largely influenced by traffic on the Thruway, on State Route 75 (Camp Road), and on State Route 20 (Southwestern Boulevard). Depending on the community location, traffic on the surrounding local streets may be significant. Additional noise sources include resident activities, birds, wind, and whistles from trains operating on rail lines located one mile north of the site. At the western boundary location and at locations along Creekview Drive, existing bus garage operations of Fisher Bus Service were contributory to measured

levels, in particular during bus startup and idling. Noise levels varied by time of day and day of the week, and were generally highest in correspondence to peak traffic periods.

The results of noise modeling are presented graphically in Appendix B and in tabular form in Table 2. The first figure in Appendix B is a key to the locations of measurement points and modeling points. Noise level boxes are shown that correspond to survey locations 1 to 7. The modeled existing traffic noise levels for these locations correspond to the survey findings for the weekday and Saturday peak traffic periods. Minor differences may exist between measured and modeled baseline existing noise level results due to differences in actual existing traffic volumes at the time of survey in contrast to peak traffic counts employed in the model. Measured levels may also differ from modeled results due to contributions of certain community sources (neighbor activities, local street traffic, aircraft pass-overs, etc.) that were not included in the noise model. Modeled results for other community receptor locations are shown in the results of Appendix B at locations A to P. The scenarios include representations of weekday (4:30-5:30 p.m.) and Saturday (11:45 a.m.-12:45 p.m.) peak traffic periods, for the existing scenario, for the future background scenario (year 2012) excluding the plaza sources, and for the future develop scenario with combined plaza sources in the peak periods. Other scenarios represent weekday and Saturday nighttime (2:00-3:00 a.m.) periods.

It is concluded from the plaza noise assessment modeling that natural traffic growth will cause community background noise levels to increase above existing noise levels by approximately 1 dB or less at each studied residential receptor location on weekdays and by 2 dB or less on Saturdays. Typical future development sources at the Hamburg Crossings plaza are expected to generate average noise level increases of approximately 1.5 dB or less at each residential receptor on weekdays and by approximately 2 dB or less on Saturdays. These projected noise level increases at the residential receptors are sufficiently below the 3 dB perceptibility criterion referenced by NYSDEC noise assessment guidelines, and therefore should meet the Town of Hamburg noise code requirements regarding noise dissemination.

Plaza support and maintenance services, including deliveries, idling trucks, trailer switch-outs, snow plowing, and parking lot sweeping performed during daytime hours are not anticipated to generate significant noise level increases with respect to the reference 3 dB criterion. Overhead lift waste container services may generate brief noise level increases along the western boundary berm that are 10 dB or more above weekday daytime background noise levels, however, due to limited durations of the maximums the noise impacts would be limited. Mitigations to waste removal operations would include use of alternate container services that generate reduced noise, use of added solid fencing on top of the property berm, and location of waste

containers behind planned loading dock screen walls.

Operations of building mechanical equipment sources are not projected to generate noise that exceeds the reference 3 dB noise level increase criterion during the daytime or nighttime. Mechanical noise is predicted to be acceptable including during maximum system loading with all sources operating.

The character of the plaza noise sources will not be significantly different from the background traffic noise character.

Summary noise mitigations

The following plaza design factors, which beneficially contribute to plaza noise source mitigation, are included in the noise modeling assessment:

1. Layout of buildings that substantially shield site traffic sources on site access roads and in parking lots the nearest residential receptors along western boundary from .
2. Maintenance of a wide area of mature foresting along a large portion of the western and southwestern boundaries to screen the nearest residential development.
3. Maintenance and improvement of an earthen berm along the northern segment of the western boundary.
4. Use of screen walls at loading docks to screen idling trucks and trailers.
5. Screening of rooftop mechanical equipment by building roof edges and parapets.
6. Limiting main plaza operations to normal daytime hours.
7. Location of hotel operations distant from the western boundary.
8. Scheduling of deliveries and plaza maintenance operations to daytime hours.

Mitigations to reduce waste services noise level increases include:

1. Use of alternate waste removal services such as those involving roll-off containers, which generate lesser noise increases.
2. Installation of an added solid fence on top of the western perimeter berm.
3. Placement of waste containers behind planned loading dock screen walls or similar, where practical.

Noise prediction model and results

The community noise modeling results shown in Appendix B graphically show the source dominance of each highway and the Thruway ramps. Overlaid on the noise contours are sound level boxes generated by the noise contour calculations. The level boxes are positioned at the same locations used for sound surveys (Locations 1 to 6) and at other receptor locations along the western boundary and at other community locations (Locations A-P). The levels in each box can be respectively compared to the levels other figures for determination of anticipated increases in A-weighted background noise levels. Note that survey/model location 1 is placed on the exposed eastern side of the current property line berm, which does not include the sound attenuation afforded by the berm. Corresponding model location C is placed adjacent on the western side of the berm vicinity and includes the sound attenuation of the berm.

The figures for the Existing Background scenario represent the modeling results of the current community noise environment around the project site (weekday afternoon peak period - 4:30-5:30 p.m., Saturday noontime peak period - 11:45 a.m.-12:45 p.m., weekday night minimum - 2:00-3:00 a.m., Saturday night minimum - 2:00-3:00 a.m.). Traffic source inputs for the various highway segments between intersections were developed for the peak periods from traffic volume data presented in the traffic report Figure 3 prepared by SRF and Associates. The traffic figure represents both the existing weekday afternoon peak hour counts and the existing Saturday midday peak hour counts.

The second noise modeling scenario represents the Future Background noise environment. The traffic source inputs for the peak periods are based on traffic projections given in Figure 5A of the SRF traffic report. The third noise assessment scenario represents the Future Development background noise environment including the plaza source. The traffic source inputs for the peak periods are based on traffic volume projections in Figure 8A of the SRF and Associates traffic report.

Thruway source inputs for each of the three noise model scenarios (Existing Background, Future Background, Future Development) are based on New York State Thruway traffic count data taken from the most recent annual State traffic report for the year 2005. The Annual Average Daily Traffic counts (AADT) used to develop hourly lane volumes were obtained for Thruway segments Exits 57A to 57 (daily average 29710, or 14855 each direction) and Exits 57 to 56 (daily average total 36470, or 18235). The noise model in accord with international traffic modeling standards assumes an hourly average that is approximately 6% of the daily total, which is 891 vehicles per hour each direction and 1094 vehicles per hour each direction respectively. Model inputs for Saturday volumes are based on estimates representing 85% of the weekday volume (respectively 758 and 930 vehicles per hour in each direction). The Thruway truck mix employed was 17% based on NYSDOT

summary findings.

Traffic source inputs for each of the nighttime periods were developed from NYSDOT hourly traffic count information for the year 2006 and 2007. From these hourly data, scenarios of weekday nighttime and Saturday nighttime were developed for the 2:00-3:00 a.m. hour, which is typically the lowest volume traffic hour each day of the week. Nighttime noise scenario inputs for the Thruway segments respectively amounted to volumes of 160 vehicles per hour with 60% trucks on the weekday in each direction, and 140 vehicles per hour with 40% trucks on Saturday in each direction.

Because the Thruway traffic volumes can vary significantly between different days and months, the use of the average annualized data was concluded to be a means approximation of reasonable daytime average for purposes of the comparative noise assessments of the three community scenarios. For ease of modeling, the Thruway traffic counts were held to the same hourly averages for each of the three scenarios. The inputs were not increased for future years partly because NYSDOT does not provide estimates of future traffic volumes. It should also be noted that recent changes in gasoline prices and Thruway tolls have altered traffic volumes for the previous year compared to the previous several years, and historic traffic volume data might not accurately be used to estimate future traffic patterns.

Table 2 below summarizes the modeled noise levels at each receptor location for the Existing Background, Future Background, and Future Development scenarios. The data are transposed from the level boxes of the graphical noise model contours of Appendix B.

Table 2

Hamburg Crossings

Summary of Modeled Average Daytime Noise Levels (dBA) at Surrounding Receptors

With Level Differences (dBA) Between Scenarios

	Existing Background		Future Background				Future Development			
Recvr	Weekday	Sat	Weekday	Diff	Sat	Diff	Weekday	Diff	Sat	Diff
1	54.5	52.8	54.7	0.2	53.6	0.8	56.4	1.7	56.0	2.4
2	57.9	56.6	58.1	0.2	56.9	0.3	61.2	3.1	61.2	4.5
3	61.8	60.1	62.2	0.4	60.7	0.6	62.9	0.7	62.0	1.3
4	53.3	51.9	54.1	0.8	53.2	0.3	55.1	1.0	54.6	1.4
5	51.0	49.9	51.4	0.4	50.4	0.5	52.4	1.0	51.9	1.5
6	61.8	60.3	62.4	0.6	61.2	0.9	63.3	0.9	62.8	1.6
7	54.7	53.5	55.9	1.2	55.3	1.8	56.2	0.3	55.8	0.5
A	53.6	52.3	54.5	0.9	53.6	1.3	55.7	1.2	55.3	1.7
B	52.7	51.1	53.0	0.3	51.9	0.8	54.0	1.0	53.5	1.6
C	50.0	48.5	50.6	0.6	49.7	1.2	51.7	1.1	51.2	1.5
D	54.2	52.8	54.4	0.2	53.3	0.5	55.9	1.5	55.5	2.2
E	54.6	53.5	54.8	0.2	53.9	0.4	56.1	1.3	55.7	1.8
F	60.7	59.2	61.0	0.3	59.7	0.7	61.6	1.6	60.7	1.0
G	60.5	59.3	61.7	1.2	61.2	1.9	62.0	0.3	61.6	0.4
H	62.1	61.7	62.7	0.6	62.5	0.8	63.2	0.5	63.1	0.6
I	59.1	58.0	59.5	0.4	58.5	0.5	60.4	0.9	59.9	1.4
J	54.5	53.3	55.0	0.5	53.7	0.4	54.8	-0.2	54.3	0.7
K	57.1	55.6	58.2	1.1	57.1	1.5	59.1	0.3	58.6	1.5
L	52.2	51.4	52.5	0.3	51.7	0.3	53.4	0.9	52.9	1.2
M	61.7	60.0	62.2	0.5	60.7	0.7	62.7	0.5	61.6	0.9
N	64.6	63.4	65.9	1.3	65.2	1.8	66.2	0.3	65.4	0.2
O	60.3	59.5	60.3	0	59.5	0	60.5	0.2	59.7	0.2
P	61.5	60.2	61.9	0.4	60.6	0.4	62.4	0.5	61.7	1.1

From the middle columns of data, the future background noise level averages differ from the existing modeled background noise levels by approximately 1 dB or less on weekdays and by less than 2 dB or less on Saturdays. The increases are due to projected increases in local highway traffic on Camp Road and Southwestern Boulevard for the year 2012 excluding the plaza traffic and building sources.

From the rightmost columns of data, the future development noise level averages differ from the existing modeled background noise levels by approximately 1.5 dB or less on weekdays and by approximately 2 dB or less on Saturdays. The increases are due to projected increases in local highway traffic on Camp Road and Southwestern Boulevard for the year 2012 together with plaza traffic and building sources.

Table 3 below summarizes the modeling of maximum noise levels from specific point sources that represent plaza support and maintenance services operating in the building service areas and on the service access road behind (west of) the main retail buildings, and in the various main parking lots between and east of the main retail buildings.

Table 3

Maximum Noise Level from Service Vehicle Sources

Receiver	Deliv Passby Service Rd Rear (NW) Subdiv Retail	Deliv Passby Service Rd Rear (SW) Gen Retail	Deliv Passby Service Rd Rear (NW) Gen Retail	Deliv Passby Service Rd Rear (west) Home Impr	Deliv Passby Service Rd Rear (west) Outdoor Store
1	35.7	67.1	53.7	46.8	29.9
2	32.2	35.9	26.1	30.2	39.4
3	25.5	28.5	21.1	21.0	27.1
4	41.4	42.8	45.6	32.5	22.0
5	33.5	39.2	39.9	44.6	37.1
6	46.8	29.2	44.2	25.5	21.1
7	29.6	27.5	33.8	24.8	22.4
A	45.7	45.1	52.4	35.5	26.9
B	34.1	52.2	49.1	39.2	28.5
C	33.0	55.8	49.6	39.6	29.8
D	36.3	49.5	43.7	51.3	42.8
E	26.6	36.4	35.3	54.9	48.0
L	29.6	21.6	30.3	33.5	45.2

Plaza service sources consisting of delivery truck pass-bys, trailer switch-outs, trailer unloading by fork lift at the home improvement store, and refrigerated trailer idling behind the loading dock screen at the general retail store, are expected to typically generate maximum noise levels that are lower than projected future daytime background noise levels and not be perceived. Limited minor noise increases may result from pass-bys of delivery trucks on the service road and trailer switch-outs in the service areas occurring directly opposite a particular receptor location. Such increases would typically be limited to less than 3 dB, and therefore would not be perceptible. There may be limited instances where possible maximum noise level increases would be above 3 dB although less than 6 dB, which should be acceptable since delivery service occurrences will typically be brief. The estimates for Location 1 represent the unshielded western side of the berm. In comparison, the results for corresponding Location C include several decibels of noise shielding by the included western property line berm.

Receiver	Deliv Trk Unload Rear (west) Subdiv Retail	Trailer Switch Rear (west) Gen Retail	Trailer Switch Rear (west) Home Impr	Trailer Switch Rear (west) Outdoor Store	Fork Lift Rear (west) Home Impr
1	16.3	61.1	34.9	23.9	24.8
2	12.7	36.7	28.0	30.5	21.7
3	5.6	31.3	18.9	26.3	8.3
4	28.7	48.5	26.1	17.4	16.2
5	11.7	44.9	48.3	27.9	43.0
6	25.3	31.1	22.6	19.9	8.1
7	17.8	26.0	28.8	23.5	18.9
A	31.5	47.5	30.0	23.2	18.9
B	19.8	54.1	32.3	23.3	22.3
C	15.6	54.7	36.8	24.2	26.8
D	8.5	52.9	41.8	29.4	33.8
E	3.7	40.5	54.2	30.6	52.5
L	6.7	28.1	33.1	32.0	30.7

Receiver	Compactor Rear (west) Gen Retail	Compactor Rear (west) Home Impr	Compactor Rear (west) Outdoor Store	Refrig Trailer Idling Behind Dock Screen Gen Retail
1	43.6	2.9	0	21.3
2	3	3.7	0	24.8
3	0	0	0	17.7
4	10.3	0	0	16.8
5	11	7.5	0	32.0
6	0	0	0	16.3
7	0	0	0	11.2
A	10.9	0	0	17.9
B	17.7	0	0	17.3
C	20.1	2.4	0	21.7
D	24.1	4.5	0	26.1
E	8.7	14.7	0	39.7
L	0	0	0.4	32.1

Operations of enclosed waste packaging compactors in the services areas behind the main retail stores are shown above to be relatively quiet and will not generate significant noise at any of the receptors.

Receiver	Snow Plow Side SW Lot Subdiv Retail	Snow Plow Main East Lot Gen Retail	Snow Plow Service Rd Gen Retail	Snow Plow Service Rd Home Impr	Snow Plow Main East Lot Outdoor Store
1	41.0	57.6	70.5	51.4	32.1
2	33.1	44.0	39.4	33.4	52.5
3	29.2	33.9	32.6	24.4	36.6
4	47.1	37.8	46.4	36.9	29.4
5	34.0	38.5	41.6	49.2	37.3
6	44.3	40.5	32.3	29.1	30.8
7	40.0	32.6	34.7	27.7	24.0
A	55.1	35.4	49.2	39.9	27.1
B	40.6	37.4	56.1	43.8	30.9
C	38.5	48.3	59.4	44.0	34.4
D	39.7	51.7	51.9	55.9	40.7
E	25.4	35.7	40.3	58.2	48.4
L	32.0	30.8	26.9	36.0	40.4

Receiver	Sweeper Side SW Lot Subdiv Retail	Sweeper Main East Lot Gen Retail	Sweeper Service Rd Gen Retail	Sweeper Service Rd Home Impr	Sweeper Main East Lot Outdoor Store
1	35.2	53.5	65.9	48.5	22.0
2	24.6	40.9	34.2	25.1	48.3
3	22.7	32.6	27.6	17.3	33.1
4	36.8	27.6	38.7	32.1	11.9
5	28.5	32.5	37.0	45.6	28.2
6	32.8	25.6	27.2	22.2	14.1
7	32.4	29.2	30.9	24.8	7.3
A	50.0	25.4	45.7	37.3	6.4
B	35.2	29.8	50.5	40.5	17.2
C	33.2	44.6	53.6	39.7	19.6
D	31.7	47.4	47.7	52.1	26.8
E	19.3	32.4	36.5	54.1	39.0
L	24.7	26.3	18.3	30.0	40.5

Snow plows and parking lot sweepers received at the residential receptors will typically not generate significant maximum noise levels or cause perceptible noise increases compared to future projected daytime average background noise levels. Limited minor noise increases may result from pass-bys of snow plows on the service road directly opposite a particular receptor location. Such possible increases would typically

be limited to less than 3 dB, and would therefore not be perceptible. There may be limited instances where possible maximum noise level increases may be above 3 dB although less than 6 dB, which should be acceptable since snow plow pass-bys on the service road will typically be brief. Although mention does not appear to exist in the Code of the Town of Hamburg regarding snow removal, it should be noted that reference community codes commonly exempt the noise from safety and emergency activities.

Receiver	Waste Srvc Overhead Lift Rear (west) Subdiv Retail	Waste Srvc Overhead Lift Rear (west) Gen Retail	Waste Srvc Overhead Lift Rear (west) Home Impr	Waste Srvc Overhead Lift Rear (west) Outdoor Store
1	46.3	73.0	47.2	28.9
2	37.0	36.2	44.2	32.2
3	28.5	26.5	29.8	25.6
4	56.1	57.3	38.8	28.9
5	44.5	60.1	57.4	39.2
6	52.8	31.9	33.1	26.7
7	51.0	47.7	38.7	31.8
A	63.5	52.9	43.2	31.9
B	48.5	65.1	42.7	32.4
C	47.5	68.8	46.1	32.8
D	36.2	66.7	51.7	35.3
E	30.9	54.0	63.9	37.1
L	51.4	36.8	44.4	38.2

Waste container services consisting of overhead lift and dump operations performed at the retail buildings closest to the western boundary may generate noise increases at certain receptors during possible container shaking. It has been observed from a series of reference measurements on different equipment that the actual durations of the maximum noise levels are typically limited to just several seconds. Although the associated noise level increases at the receptors may be 10 dB or more, any noise impacts would be minimized based on the limited duration of the noise peaks. The noise peaks from the waste services might be reduced by a predicted 5 dB from a solid wooden fence installed on top of the extant perimeter berm. Should it be practical to place waste containers behind the planned loading dock screen walls and if the screens are sufficiently tall, the noise peaks might be reduced a similar amount.The noise peaks might alternately be reduced by approximately 4 dB or more by use of alternate waste removal services, such as roll-off container services.

Conclusions

A. The background noise environment at each of the observed receptor locations was found to be strongly dominated by sounds of traffic on highways surrounding the Hamburg Crossings plaza site, in particular during peak traffic periods. As reference, at Location 1 on the western boundary of the site on the western side of the existing berm, current background noise levels measured as follows:
   1. 59-60 dBA, weekday morning peak traffic period.
   2. 57 dBA, weekday afternoon peak traffic period.
   3. 45-47 dBA, Saturday noontime peak traffic period.
   4. 46-62 dBA, weekday nighttime.
   5. 44-63 dBA, Saturday nighttime.

B. Modeled predicted noise levels for the Existing Background scenario were generated using existing peak traffic volumes obtained from the project traffic engineering report and NYSDOT published local traffic data. At Location 1, the following are the modeled existing background noise levels for the peak periods. Note that modeled results may differ from measured background levels considering the presence of additional measured sources that were not all modeled, and possible differences in traffic volumes.
   1. 54.5 dBA, weekday afternoon peak traffic period.
   2. 52.8 dBA, Saturday noontime peak traffic period.
   3. 43.7 dBA, weekday nighttime estimate.
   4. 43.8 dBA, Saturday nighttime estimate.

C. Modeled predicted noise levels for the Future Background scenario were generated using traffic volume projections from the traffic engineering report and estimates based on NYSDOT published local traffic data. At Location 1, the following are the modeled future background noise levels with normal growth:
   1. 54.7 dBA, weekday afternoon peak traffic period.
   2. 53.6 dBA, Saturday noontime peak traffic period.
   3. 43.7 dBA, weekday nighttime estimate.
   4. 43.8 dBA, Saturday nighttime estimate.

D. Modeled predicgted noise levels for the Future Development scenario were generated using traffic volume projections, traffic estimates based on NYSDOT published local traffic data, and plaza component sources. At Location 1, the following are the modeled future development noise levels:
   1. 56.4 dBA, weekday afternoon peak traffic period.

2. 55.5 dBA, Saturday noontime peak traffic period.
3. 43.7 dBA, weekday nighttime estimate.
4. 48.3 dBA, Saturday nighttime estimate.

E. Community background noise levels are projected to increase at residential receptors by 1 dB or less on weekdays and less than 2 dB on Saturdays in the year 2012 due to natural traffic growth. Background levels are projected to increase at residential receptors by approximately 1.5 dB on weekdays and 2 dB on Saturdays. Each of these are less than the presented 3 dB perceptibility criterion that is referenced from noise assessment guidelines of New York State Department of Environmental Conservation Program Policy. As a result, no noise impacts are projected will occur from normal daily operations of the Hamburg Crossings plaza from site traffic on access roadways and in parking lots and from building mechanical equipment.

F. Combined mechanical equipment noise levels are projected at approximately 43.9 dBA at Location 1 on the western boundary. This will be 10 dB lower than the weekday and Saturday background noise levels. As a result, maximum operations of mechanical equipment will not be perceived.

G. Traffic on site roads will generate a combined noise level of approximately 45.4 dBA during the weekday traffic peak and 46.7 dBA during the Saturday traffic peak. The component levels will be several decibels lower than the total noise levels at the western boundary. As a result, site roadway traffic will not be perceived.

H. Traffic in parking lots are projected to produce a component noise level of 45.3 dBA at Location 1 on the western boundary. The total parking lot noise level will be 9-10 dB lower than the projected daytime background noise levels. As a result, traffic in parking lots will not be perceived.

I. Plaza services, which will be normally limited to daytime operations, will not generate noise levels greater than the projected future background noise levels under normal circumstances. Minor noise level increases may be generated in limited occurrences by certain sources operating close to certain receptors, however, such increases will be limited to approximately 3 dB or less, and will be relatively brief as exemplified by pass-bys of delivery trucks on the service road and switch-outs of trailers in loading docks. Modeled plaza waste removal services consisting of overhead lift and dump may generate maximum noise levels that extend 6 or more decibels above projected background daytime noise levels in some instances or 10 dB or more in others. Noise increases could be reduced by adding a fence on

top of the extant perimeter berm or alternately by use of alternate waste removal services.

J. No significant noise level increase are projected in nighttime hours (11:00 p.m. - 7 00 a.m.) considering that regular plaza operations and services would not be scheduled in those hours. Possible snow removal activities on the closest service road and in loading dock areas might generate brief minor noise increases, although under emergency situations these occurrences would commonly be exempted from noise restrictions. Plowing of these areas to the extent practical could be limited to daytime hours.

K. Based on the conclusions above, no significant noise impacts are projected with respect to the Code of the Town of Hamburg in Chapter 175 *Noise* that prohibits the creation of "unnecessary and unreasonably loud or disturbing noise" ... "of such character, intensity and duration as to be detrimental to the life, health or welfare of the inhabitants of the Town of Hamburg...". The noise levels and noise character to be generated by plaza site traffic will correspond to the levels and character of existing background noise presently generated by traffic on the Thruway, on other adjoining highways, and on local streets.

L. In addition, based on the above conclusions, no significant noise impacts are projected with respect to the Code in Chapter 280 *Zoning* that limits activities on lands zoned C-1 from producing "offensive noise", and that limits permitted activities on lands zoned M-1 Industrial Park District from resulting in "dissemination of ... noise into any R (Residential) or C (Commercial) District".

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Noise Impact Assessment

Hamburg Crossings

Hamburg, New York

Prepared for
Benderson Development
570 Delaware Avenue
Buffalo, New York 14202

Prepared by: Daniel P. Prusinowski

May 1, 2007

APPENDIX A

Noise Logging Results

April 19 to April 21, 2007

ANGEVINE ACOUSTICAL CONSULTANTS, Inc.

SOUND TEST AA- 2150
DATE: 4/19-4/21/2007

SOUND LEVEL METER:

- ☐ Larson Davis 800B s/n 0327; ½" mic 2559, s/n 1422; 826B, s/n 141 (A kit)
- ☐ Larson Davis 800B s/n 0695; ½" mic 2559, s/n 2074; PRM826B, s/n 1471 (B kit)
- ☐ CEL 593.C1R s/n 025387; ½" mic mk250, s/n 0378; preamp CEL 527, s/n 025401 (red case)
- ☐ CEL 593.C1R s/n 3/0991604; ½" mic mk250, s/n 2039; preamp CEL 527, s/n 3/099/1527 (black case)
- ☐ CEL 493 s/n 351119; ½" mic mk225, s/n 579079
- ☐ GenRad 1982 s/n 1334; ½" mic 1962-9610, s/n 10769
- ☐ Metro. db306/14 s/n 5000; ¼" mic mk301LP, s/n 20942
- ☐ Metro. db306/27-80 s/n 5000; ¼" mic mk301HP, s/n 60963
- ☐ Metrosonics db307 s/n R124; ¼" mic s/n NA
- ☐ Metrosonics db308 s/n 002237; ½" mic s/n NA
- ☐ Metrosonics db308 s/n 002247; ½" mic s/n NA
- ☐ Metrosonics db3100 s/n 1163; ¼" mic mk3100R, s/n NA
- ☐ Metrosonics db3100 s/n 1658; ¼" mic mk3100R, s/n 2351
- ☒ Metrosonics db3100 s/n 3980; ¼" mic mk3100R, s/n 4722
- ☐ Metrosonics db3100 s/n 4415; ¼" mic mk3100R, s/n 5363
- ☐ Metrosonics db3100 s/n 4418; ¼" mic mk3100R, s/n 817
- ☐ Metrosonics db310 s/n 1212; ¼" mic s/n NA
- ☐ Metrosonics db310 s/n 1309; ¼" mic s/n NA
- ☐ Metrosonics db604 s/n 1158; ¼" mic s/n NA
- ☐ Metrosonics db604 s/n 1168; ¼" mic s/n NA
- ☐ Metrosonics db604 s/n 1242; ¼" mic s/n NA
- ☐ Metrosonics db604 s/n 1255; ¼" mic s/n NA
- ☐ Metrosonics db604 s/n 1256; ¼" mic s/n NA
- ☐ Rion SA-77 s/n 10151076; ½" mic BK4176R, s/n 1583199; Preamp NH-174, s/n 61582
- ☐ Metrosonics db3080 s/n 1414; ¼" mic s/n NA
- ☐ Metrosonics db3080 s/n 1505; ¼" mic s/n NA
- ☐ Metrosonics db3080 s/n 1511; ¼" mic s/n NA
- ☐ Metrosonics db3080 s/n 1808; ¼" mic s/n NA
- ☐ Metrosonics db3080 s/n 4049; ¼" mic s/n NA
- ☐ Metrosonics db3080 s/n 4400; ¼" mic s/n NA
- ☐ Metrosonics db3080 s/n 4401; ¼" mic s/n NA
- ☐ Metrosonics db3080 s/n 4441; ¼" mic s/n NA
- ☐ Metrosonics db3080 s/n 5727; ¼" mic s/n 310-0000-02

CALIBRATOR:

☐ GenRad 1562A	s/n 6818	☐ CEL 284/2	s/n 02512942	(593 red case)
☐ GenRad 1562A	s/n 20934	☐ CEL 284/2	s/n 4/09921209	(593 black case)
☐ GenRad 1567	s/n 15350	☐ CEL 284/2	s/n 864099	(493 kit)
☐ GenRad 1562	s/n HP138	☐ Metrosonics cl302	s/n 2040	
☐ GenRad 1562	s/n IT109	☐ Metrosonics cl304	s/n 2054	
☐ Metrosonics cl304	s/n 4541	☐ Metrosonics cl304	s/n 3067	
☐ Metrosonics cl304	s/n 01379	☐ Larson Davis CA250	s/n 0206	(A kit)
☐ Quest QC-10	s/n QC100B0012	☐ Larson Davis CA250	s/n 0886	(B kit)

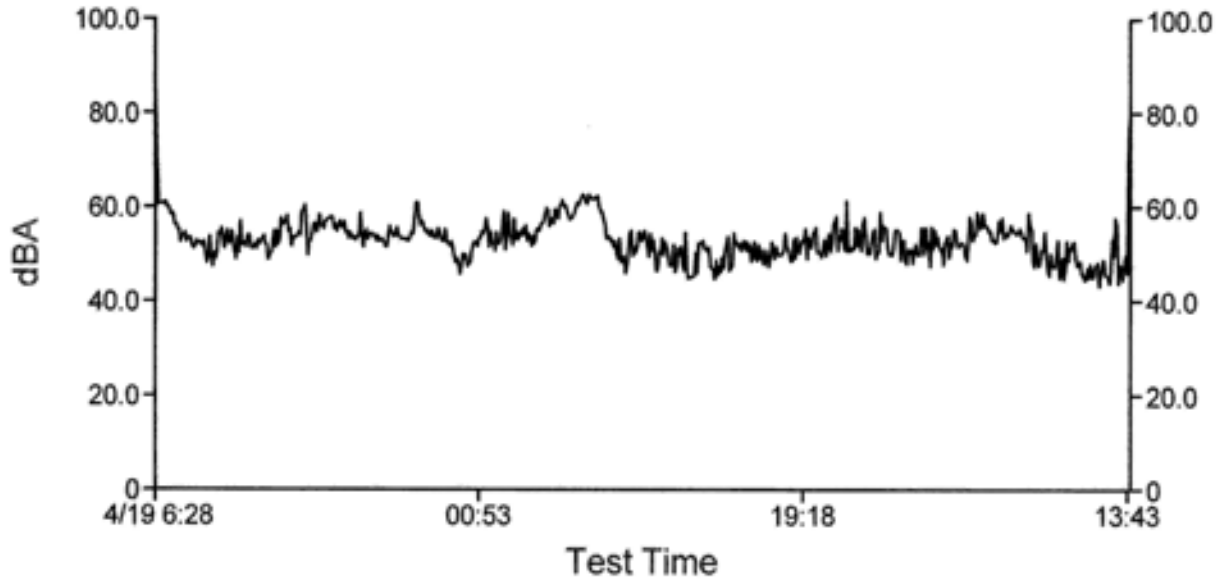
WEATHER:

☐ Clear ☐ Cloudy ☐ Rain ☐ Fog ☐ Snowing ☐ Snow on Ground ☐ Wet Streets

4/19 Temperature = 32-58°F; Winds = 7 mph mean; Precip = 0.0"
4/20 Temperature = 32-64°F; Winds = 7 mph mean; Precip = 0.0"
4/21 Temperature = 37-65°F; Winds = 10 mph mean; Precip = 0.0"

Hamburg Crossings - West Property Line (Loc. 1)

Average Sound Levels by 5 min. Samples, Leq (dBA)

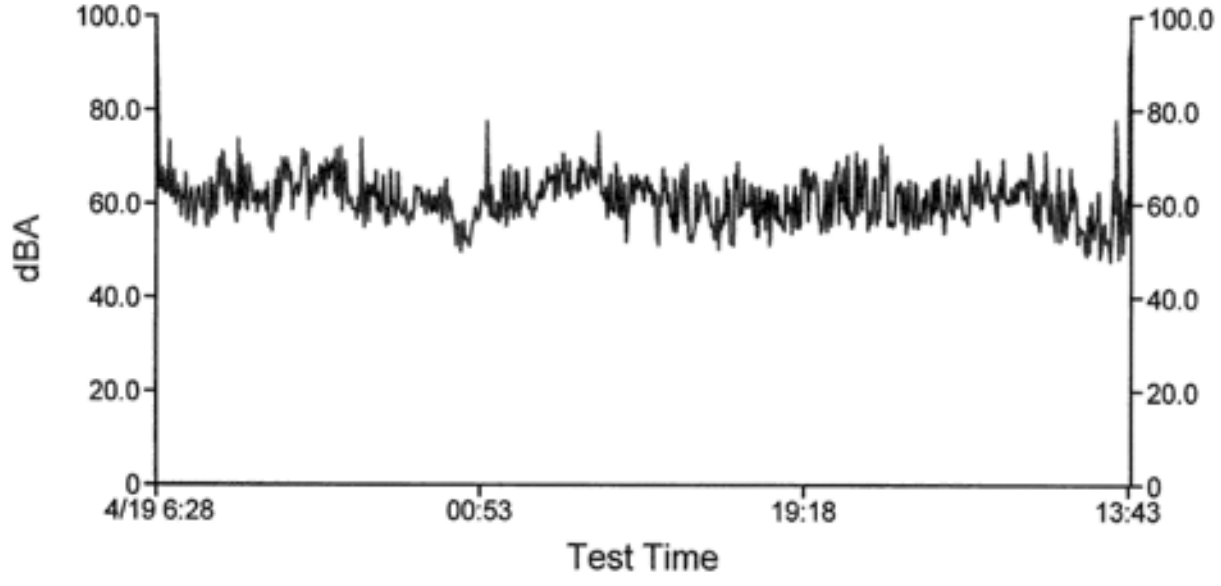


OverAll Lav = 59.5dB

Lav

Hamburg Crossings - West Property Line (Loc. 1)

Maximum Sound Levels by 5 min. Samples, Lmax (dBA)



Lmax

<<< TABULAR TIME HISTORY REPORT FROM FILE RAMBCRS1 >>>

Test Location.....Location 1
Employee Name.....West Property Line
Employee Number...
Department.....
Comment.....

Calibrator Type & Serial #...cl 304 sn 2054
Calibrator Calibration Date..

METROSONICS db-3100 SN 3980 V1.7
REPORT PRINTED 04/21/07 AT 17:33:25
OF PERIODS: 666 MODE: CONTINUOUS
PERIOD LENGTH: 0:05:00
TIME HISTORY CUTOFF: NONE
Ln(1): 10.0% Ln(2): 99.0%

DATE: 4/19/07

INT	TIME	Lav	Lmx	L1	L2
1	6:28:34	84.9	97.1	89	59
2	6:33:34	71.8	87.0	76	59
3	6:38:34	60.3	63.2	61	58
4	6:43:34	60.6	63.2	61	58
5	6:48:34	60.6	67.5	61	58
6	6:53:34	60.8	62.9	61	59
7	6:58:34	60.3	62.1	61	59
8	7:03:34	60.9	66.7	62	58
9	7:08:34	59.7	62.3	60	58
10	7:13:34	59.8	73.2	60	57
11	7:18:34	58.5	61.2	59	57
12	7:23:34	58.1	61.3	59	55
13	7:28:34	58.5	66.8	60	55
14	7:33:34	56.1	59.8	57	54
15	7:38:34	56.2	61.0	57	54
16	7:43:34	55.0	63.8	56	52
17	7:48:34	55.0	62.3	57	50
18	7:53:34	52.3	57.1	53	50
19	7:58:34	53.4	61.5	54	50
20	8:03:34	53.6	60.7	56	50
21	8:08:34	54.4	66.3	54	50
22	8:13:34	52.4	56.1	53	50
23	8:18:34	53.2	56.8	54	50
24	8:23:34	53.3	61.6	55	50
25	8:28:34	53.1	63.1	54	48
26	8:33:34	51.5	59.8	53	48
27	8:38:34	50.9	55.1	52	48
28	8:43:34	51.4	58.1	52	48
29	8:48:34	52.6	62.3	55	48
30	8:53:34	52.0	63.3	53	47
31	8:58:34	52.4	60.7	55	47
32	9:03:34	52.0	58.8	53	47
33	9:08:34	51.5	59.2	53	48
34	9:13:34	52.5	64.1	55	46
35	9:18:34	50.1	55.2	52	44
36	9:23:34	47.9	55.0	50	44
37	9:28:34	48.9	57.9	50	44
38	9:33:34	53.5	65.1	55	47
39	9:38:34	49.2	56.8	51	46
40	9:43:34	47.2	63.7	48	43
41	9:48:34	50.0	58.4	53	43
42	9:53:34	48.8	57.6	51	45
43	9:58:34	50.5	65.4	50	45
44	10:03:34	54.3	69.4	56	48
45	10:08:34	53.9	63.6	57	48
46	10:13:34	55.3	70.9	57	49
47	10:18:34	52.7	70.5	53	47
48	10:23:34	51.0	62.0	54	45
49	10:28:34	53.7	59.4	55	48
50	10:33:34	54.8	66.9	57	48
51	10:38:34	52.0	66.1	54	46
52	10:43:34	52.3	60.3	54	48
53	10:48:34	54.6	63.9	59	47

54	10:53:34	52.4	62.0	54	47
55	10:58:34	50.2	56.8	52	45
56	11:03:34	48.7	55.8	50	45
57	11:08:34	53.3	73.5	54	45
58	11:13:34	50.0	58.6	51	45
59	11:18:34	56.8	70.0	59	48
60	11:23:34	51.6	60.4	54	48
61	11:28:34	52.0	67.7	53	48
62	11:33:34	52.3	60.3	55	48
63	11:38:34	51.2	58.4	53	48
64	11:43:34	53.7	68.1	55	48
65	11:48:34	53.8	65.2	56	48
66	11:53:34	51.2	63.7	51	48
67	11:58:34	50.9	60.0	52	48
68	12:03:34	51.3	60.1	53	48
69	12:08:34	51.9	62.3	54	48
70	12:13:34	50.9	58.0	53	47
71	12:18:34	52.7	62.3	55	47
72	12:23:34	51.8	60.4	54	46
73	12:28:34	52.6	59.8	54	48
74	12:33:34	52.9	61.8	55	47
75	12:38:34	53.7	62.5	56	48
76	12:43:34	51.9	58.3	54	48
77	12:48:34	51.5	64.2	53	47
78	12:53:34	48.6	55.0	49	46
79	12:58:34	49.7	57.0	51	46
80	13:03:34	49.9	54.0	52	46
81	13:08:34	51.9	58.5	53	49
82	13:13:34	54.7	64.7	56	48
83	13:18:34	51.1	58.0	52	47
84	13:23:34	54.7	67.2	56	48
85	13:28:34	51.9	59.9	55	46
86	13:33:34	53.3	61.4	56	47
87	13:38:34	57.4	69.4	59	49
88	13:43:34	56.1	68.2	58	49
89	13:48:34	56.3	64.9	58	50
90	13:53:34	56.7	69.5	59	50
91	13:58:34	57.9	68.1	60	49
92	14:03:34	54.5	64.5	57	50
93	14:08:34	55.0	66.5	58	48
94	14:13:34	51.5	58.5	54	46
95	14:18:34	53.4	62.3	56	47
96	14:23:34	53.2	62.8	56	47
97	14:28:34	53.3	64.1	56	46
98	14:33:34	53.7	61.5	56	48
99	14:38:34	54.4	63.1	57	47
100	14:43:34	53.8	65.3	57	47
101	14:48:34	58.8	71.2	61	50
102	14:53:34	58.9	67.9	62	50
103	14:58:34	60.2	68.4	63	50
104	15:03:34	57.2	70.6	59	49
105	15:08:34	49.5	56.5	51	45
106	15:13:34	52.5	64.6	54	48
107	15:18:34	52.6	59.3	55	48
108	15:23:34	53.9	61.5	56	49
109	15:28:34	56.0	65.7	58	51
110	15:33:34	56.3	62.8	58	51
111	15:38:34	54.4	61.8	56	50
112	15:43:34	55.2	64.9	57	50
113	15:48:34	58.2	68.0	61	51
114	15:53:34	56.1	63.6	58	52
115	15:58:34	55.6	67.4	58	50
116	16:03:34	55.1	61.0	57	51
117	16:08:34	56.9	69.3	58	51
118	16:13:34	56.8	67.7	59	50
119	16:18:34	57.3	65.0	60	52
120	16:23:34	57.4	68.4	59	51
121	16:28:34	57.7	67.1	60	52
122	16:33:34	57.5	69.1	60	52
123	16:38:34	55.1	62.2	57	51
124	16:43:34	56.0	71.3	57	51
125	16:48:34	54.6	61.2	56	51
126	16:53:34	55.8	65.0	58	51
127	16:58:34	56.8	71.8	58	52

128	17:03:34	55.6	58.3	57	53
129	17:08:34	55.3	65.3	56	53
130	17:13:34	56.7	68.9	60	49
131	17:18:34	54.3	63.2	55	50
132	17:23:34	54.5	59.8	56	50
133	17:28:34	53.1	60.6	54	50
134	17:33:34	54.4	61.0	56	50
135	17:38:34	53.6	58.6	55	50
136	17:43:34	53.0	58.8	55	49
137	17:48:34	53.3	58.6	54	49
138	17:53:34	52.7	56.6	54	48
139	17:58:34	53.6	61.1	55	48
140	18:03:34	53.5	57.9	54	51
141	18:08:34	58.5	73.6	59	49
142	18:13:34	53.8	63.2	55	49
143	18:18:34	51.2	54.8	52	48
144	18:23:34	54.0	62.2	56	49
145	18:28:34	54.9	64.0	58	49
146	18:33:34	52.9	56.0	54	50
147	18:38:34	53.6	63.5	54	49
148	18:43:34	54.2	61.6	56	49
149	18:48:34	54.0	63.7	55	50
150	18:53:34	53.4	61.3	55	50
151	18:58:34	53.8	66.7	56	48
152	19:03:34	52.5	58.3	53	49
153	19:08:34	53.6	62.2	55	48
154	19:13:34	52.5	57.9	54	49
155	19:18:34	52.7	58.6	54	49
156	19:23:34	52.9	65.7	54	48
157	19:28:34	52.3	58.1	53	49
158	19:33:34	51.3	55.1	53	48
159	19:38:34	51.2	59.1	52	49
160	19:43:34	53.2	55.6	54	49
161	19:48:34	55.7	66.9	56	52
162	19:53:34	54.3	59.4	55	52
163	19:58:34	54.3	60.5	55	51
164	20:03:34	53.4	57.0	54	50
165	20:08:34	53.5	59.0	54	51
166	20:13:34	55.4	66.4	56	51
167	20:18:34	53.8	58.7	55	50
168	20:23:34	53.3	58.3	54	51
169	20:28:34	53.1	57.4	54	51
170	20:33:34	52.9	58.8	54	50
171	20:38:34	53.0	60.7	54	50
172	20:43:34	53.0	56.4	54	50
173	20:48:34	52.5	55.3	54	49
174	20:53:34	52.6	57.4	54	50
175	20:58:34	53.5	58.0	54	52
176	21:03:34	54.4	56.4	55	52
177	21:08:34	54.0	59.0	55	51
178	21:13:34	57.0	63.4	61	50
179	21:18:34	60.6	62.8	61	59
180	21:23:34	60.8	62.7	61	59
181	21:28:34	58.5	63.2	62	53
182	21:33:34	55.9	59.3	57	53
183	21:38:34	56.8	61.9	58	54
184	21:43:34	56.0	60.5	57	53
185	21:48:34	54.8	57.6	56	52
186	21:53:34	54.3	60.3	55	52
187	21:58:34	54.8	62.6	56	52
188	22:03:34	53.8	58.7	55	50
189	22:08:34	53.5	57.9	55	50
190	22:13:34	54.7	61.2	56	51
191	22:18:34	53.3	58.3	55	50
192	22:23:34	53.6	61.2	55	49
193	22:28:34	53.1	57.9	54	50
194	22:33:34	55.2	59.8	56	52
195	22:38:34	54.5	63.2	56	49
196	22:43:34	53.0	55.7	54	49
197	22:48:34	52.4	57.5	54	48
198	22:53:34	52.6	62.5	54	47
199	22:58:34	55.0	65.0	57	50
200	23:03:34	52.2	56.6	53	49
201	23:08:34	52.2	61.0	54	47

202	23:13:34	51.6	60.1	52	48
203	23:18:34	52.4	57.5	54	47
204	23:23:34	51.4	56.3	53	48
205	23:28:34	49.3	54.8	51	44
206	23:33:34	48.0	50.9	49	44
207	23:38:34	48.8	55.4	51	45
208	23:43:34	47.6	55.6	49	44
209	23:48:34	45.5	49.6	47	42
210	23:53:34	47.3	52.5	49	43
211	23:58:34	49.7	56.1	51	44
212	0:03:34	48.8	52.0	50	45
213	0:08:34	49.6	52.6	51	46
214	0:13:34	47.2	51.4	49	42
215	0:18:34	47.6	50.8	49	43
216	0:23:34	47.9	53.8	49	44
217	0:28:34	50.2	55.7	52	45
218	0:33:34	51.7	56.0	53	45
219	0:38:34	52.4	59.0	55	45
220	0:43:34	52.1	57.3	54	47
221	0:48:34	51.4	56.4	53	46
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227	1:18:34	57.3	77.4	56	50
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230	1:33:34	54.4	63.6	57	46
231	1:38:34	52.0	56.9	54	45
232	1:43:34	52.2	57.5	53	48
233	1:48:34	50.5	56.4	52	45
234	1:53:34	54.4	60.1	57	49
235	1:58:34	52.0	55.9	54	46
236	2:03:34	52.0	59.6	56	45
237	2:08:34	53.0	57.1	54	49
238	2:13:34	55.2	66.8	58	44
239	2:18:34	58.8	64.5	61	54
240	2:23:34	50.7	55.1	53	43
241	2:28:34	53.0	57.2	55	48
242	2:33:34	58.5	67.9	60	52
243	2:38:34	53.7	59.0	56	47
244	2:43:34	53.5	59.6	55	47
245	2:48:34	51.7	56.7	54	43
246	2:53:34	57.2	66.7	61	50
247	2:58:34	52.8	58.1	55	46
248	3:03:34	54.4	66.5	56	46
249	3:08:34	52.9	57.1	55	48
250	3:13:34	54.4	59.6	56	49
251	3:18:34	53.7	59.7	55	47
252	3:23:34	55.2	62.3	58	45
253	3:28:34	53.8	60.7	56	43
254	3:33:34	55.8	67.4	56	48
255	3:38:34	52.6	58.9	55	47
256	3:43:34	54.0	60.5	56	49
257	3:48:34	53.3	58.2	55	46
258	3:53:34	51.5	56.9	54	44
259	3:58:34	53.6	58.9	56	48
260	4:03:34	52.1	58.6	54	46
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263	4:18:34	54.6	60.9	56	50
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267	4:38:34	58.1	63.2	60	53
268	4:43:34	59.5	67.5	61	55
269	4:48:34	59.1	64.4	61	51
270	4:53:34	55.7	64.9	57	50
271	4:58:34	56.5	65.9	59	48
272	5:03:34	57.4	65.8	59	53
273	5:08:34	56.3	60.6	57	53
274	5:13:34	59.3	68.2	61	54
275	5:18:34	58.9	65.0	60	55

276	5:23:34	57.3	61.6	58	55
277	5:28:34	59.9	67.0	61	56
278	5:33:34	60.4	66.5	61	58
279	5:38:34	61.2	70.5	61	59
280	5:43:34	59.8	67.7	60	58
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282	5:53:34	59.1	63.0	61	55
283	5:58:34	58.1	68.9	59	54
284	6:03:34	57.1	61.1	58	53
285	6:08:34	57.4	63.4	59	54
286	6:13:34	57.7	63.8	59	54
287	6:18:34	58.6	63.4	60	55
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289	6:28:34	60.7	67.2	62	57
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291	6:38:34	61.1	69.6	62	58
292	6:43:34	61.8	66.9	64	57
293	6:48:34	62.5	69.0	65	59
294	6:53:34	62.0	65.8	63	59
295	6:58:34	60.7	64.1	61	58
296	7:03:34	60.5	63.1	61	58
297	7:08:34	62.4	68.0	63	60
298	7:13:34	61.6	67.0	63	56
299	7:18:34	61.8	65.2	63	59
300	7:23:34	61.4	67.6	62	59
301	7:28:34	61.5	64.1	63	57
302	7:33:34	61.8	66.2	63	59
303	7:38:34	62.2	75.0	63	59
304	7:43:34	60.0	66.9	61	56
305	7:48:34	58.8	61.9	60	56
306	7:53:34	58.8	62.2	60	56
307	7:58:34	57.1	60.6	58	54
308	8:03:34	56.3	63.4	58	52
309	8:08:34	53.1	56.9	54	50
310	8:13:34	53.3	58.9	54	50
311	8:18:34	53.5	66.1	55	50
312	8:23:34	52.4	58.9	54	49
313	8:28:34	52.8	58.4	54	49
314	8:33:34	51.2	58.0	53	47
315	8:38:34	52.4	68.4	55	46
316	8:43:34	49.9	61.8	51	45
317	8:48:34	48.7	57.2	50	46
318	8:53:34	53.0	65.6	56	45
319	8:58:34	48.0	56.8	50	44
320	9:03:34	48.9	58.6	51	45
321	9:08:34	49.2	64.2	53	43
322	9:13:34	45.7	51.6	46	43
323	9:18:34	47.3	57.9	51	42
324	9:23:34	50.2	60.4	54	42
325	9:28:34	54.3	65.9	57	45
326	9:33:34	54.7	64.0	58	44
327	9:38:34	49.4	60.0	52	44
328	9:43:34	51.2	64.7	56	43
329	9:48:34	50.0	65.9	54	42
330	9:53:34	51.4	63.0	54	43
331	9:58:34	54.3	64.7	58	47
332	10:03:34	54.4	64.5	58	47
333	10:08:34	52.5	62.1	56	46
334	10:13:34	53.1	60.5	56	46
335	10:18:34	54.7	65.3	58	47
336	10:23:34	53.7	65.7	56	46
337	10:28:34	51.2	62.7	54	43
338	10:33:34	49.2	62.4	50	44
339	10:38:34	54.1	64.0	57	47
340	10:43:34	50.6	59.7	52	45
341	10:48:34	52.8	62.5	55	45
342	10:53:34	50.8	61.9	54	44
343	10:58:34	46.3	52.8	47	44
344	11:03:34	46.3	51.1	48	44
345	11:08:34	50.1	61.5	52	45
346	11:13:34	49.9	59.6	53	45
347	11:18:34	53.1	67.4	55	45
348	11:23:34	49.5	62.8	51	45
349	11:28:34	52.4	65.4	54	46

350	11:33:34	51.4	60.2	54	46
351	11:38:34	50.1	62.1	50	44
352	11:43:34	47.4	57.0	49	44
353	11:48:34	47.7	57.5	49	44
354	11:53:34	47.3	54.2	48	44
355	11:58:34	51.7	65.0	55	45
356	12:03:34	46.0	53.8	47	43
357	12:08:34	47.5	55.6	49	45
358	12:13:34	50.9	62.2	53	45
359	12:18:34	49.6	64.4	51	45
360	12:23:34	51.4	67.0	51	44
361	12:28:34	47.6	60.0	49	44
362	12:33:34	46.3	55.9	47	43
363	12:38:34	54.3	68.3	58	44
364	12:43:34	46.4	59.2	47	44
365	12:48:34	44.6	52.0	46	42
366	12:53:34	44.7	53.2	46	42
367	12:58:34	44.8	51.8	46	42
368	13:03:34	45.1	53.5	46	42
369	13:08:34	45.1	55.4	46	42
370	13:13:34	50.1	64.1	53	42
371	13:18:34	45.7	56.1	46	43
372	13:23:34	52.0	58.9	55	44
373	13:28:34	51.9	60.7	55	44
374	13:33:34	52.2	62.5	55	44
375	13:38:34	52.6	64.7	56	46
376	13:43:34	50.9	63.1	53	45
377	13:48:34	51.0	57.8	53	45
378	13:53:34	50.4	62.3	53	44
379	13:58:34	51.2	56.7	53	46
380	14:03:34	47.0	54.9	48	42
381	14:08:34	46.8	55.3	48	42
382	14:13:34	46.5	52.6	48	43
383	14:18:34	44.4	52.3	45	42
384	14:23:34	48.4	61.1	51	43
385	14:28:34	45.3	50.1	46	43
386	14:33:34	47.2	56.3	49	43
387	14:38:34	45.9	54.5	47	43
388	14:43:34	49.0	57.6	51	45
389	14:48:34	46.8	55.8	48	43
390	14:53:34	50.5	65.5	52	44
391	14:58:34	51.8	57.3	54	47
392	15:03:34	53.5	62.9	55	44
393	15:08:34	46.3	51.4	48	43
394	15:13:34	46.8	51.5	47	44
395	15:18:34	47.4	51.0	48	45
396	15:23:34	54.2	66.2	59	45
397	15:28:34	52.2	63.2	54	46
398	15:33:34	52.3	68.7	52	49
399	15:38:34	51.3	57.2	52	49
400	15:43:34	51.9	58.4	54	49
401	15:48:34	50.5	57.7	51	47
402	15:53:34	52.0	65.1	54	47
403	15:58:34	52.6	59.3	55	48
404	16:03:34	50.7	59.9	52	47
405	16:08:34	52.4	59.1	54	48
406	16:13:34	50.3	59.7	52	46
407	16:18:34	51.7	64.1	54	46
408	16:23:34	48.2	59.5	49	45
409	16:28:34	49.7	55.7	52	45
410	16:33:34	52.4	63.3	55	47
411	16:38:34	48.8	52.8	50	46
412	16:43:34	48.4	52.9	49	46
413	16:48:34	51.7	63.5	55	45
414	16:53:34	48.8	57.0	51	45
415	16:58:34	50.6	59.6	54	44
416	17:03:34	47.8	60.8	48	44
417	17:08:34	47.6	54.4	49	44
418	17:13:34	50.6	62.7	51	46
419	17:18:34	48.8	62.5	49	45
420	17:23:34	47.0	51.1	48	44
421	17:28:34	49.6	61.1	51	45
422	17:33:34	52.3	62.6	55	46
423	17:38:34	50.5	57.7	53	47

424	17:43:34	48.8	56.5	50	46
425	17:48:34	51.3	61.7	54	46
426	17:53:34	49.6	55.7	51	46
427	17:58:34	49.6	57.1	50	47
428	18:03:34	49.5	55.4	51	46
429	18:08:34	49.9	54.7	51	47
430	18:13:34	50.3	54.1	51	47
431	18:18:34	54.1	63.8	55	49
432	18:23:34	51.5	57.8	53	49
433	18:28:34	50.8	60.0	52	47
434	18:33:34	49.8	58.9	51	46
435	18:38:34	48.2	53.5	49	46
436	18:43:34	48.4	61.1	50	45
437	18:48:34	53.0	63.5	55	47
438	18:53:34	48.9	54.8	51	46
439	18:58:34	53.2	61.5	55	48
440	19:03:34	50.3	54.7	53	45
441	19:08:34	50.0	55.7	52	46
442	19:13:34	52.5	67.1	53	46
443	19:18:34	52.2	63.5	54	47
444	19:23:34	53.3	67.4	54	48
445	19:28:34	55.1	67.2	59	47
446	19:33:34	48.7	56.2	50	45
447	19:38:34	53.3	65.6	56	46
448	19:43:34	52.6	63.3	56	45
449	19:48:34	51.1	62.7	52	46
450	19:53:34	54.0	66.6	54	48
451	19:58:34	54.6	65.0	56	51
452	20:03:34	55.4	64.4	58	48
453	20:08:34	50.1	57.4	51	46
454	20:13:34	50.4	56.5	52	47
455	20:18:34	49.8	53.8	51	47
456	20:23:34	49.1	54.9	50	46
457	20:28:34	51.4	58.5	53	46
458	20:33:34	52.9	64.9	54	46
459	20:38:34	49.4	54.0	50	46
460	20:43:34	51.6	58.3	54	46
461	20:48:34	54.1	64.7	55	48
462	20:53:34	50.3	55.2	52	47
463	20:58:34	51.9	59.5	54	47
464	21:03:34	56.0	66.5	58	50
465	21:08:34	56.8	66.5	59	50
466	21:13:34	57.8	69.0	59	50
467	21:18:34	50.6	55.7	52	47
468	21:23:34	53.6	64.2	56	48
469	21:28:34	52.8	60.6	54	48
470	21:33:34	55.2	67.6	57	47
471	21:38:34	52.1	59.0	54	47
472	21:43:34	50.6	57.8	52	47
473	21:48:34	61.1	70.2	65	49
474	21:53:34	50.3	56.9	52	46
475	21:58:34	51.2	58.2	53	47
476	22:03:34	50.4	54.8	52	46
477	22:08:34	51.2	55.8	53	47
478	22:13:34	50.9	61.0	53	45
479	22:18:34	55.4	70.9	55	48
480	22:23:34	51.5	57.6	54	47
481	22:28:34	55.0	68.1	55	48
482	22:33:34	52.7	63.0	56	45
483	22:38:34	50.5	58.7	51	47
484	22:43:34	55.8	67.4	58	49
485	22:48:34	57.5	69.4	60	52
486	22:53:34	53.6	63.5	56	48
487	22:58:34	49.8	54.3	51	45
488	23:03:34	50.8	58.3	53	44
489	23:08:34	49.8	55.7	51	46
490	23:13:34	52.4	57.1	54	48
491	23:18:34	54.6	65.4	58	48
492	23:23:34	55.1	65.3	57	45
493	23:28:34	48.8	55.6	51	45
494	23:33:34	50.2	58.3	51	43
495	23:38:34	50.2	57.0	53	43
496	23:43:34	58.7	72.3	57	45
497	23:48:34	52.6	62.9	55	45

498	23:53:34	55.8	68.3	57	43
499	23:58:34	55.4	66.3	58	45
500	0:03:34	55.2	70.1	54	44
501	0:08:34	51.0	55.2	53	44
502	0:13:34	49.7	55.4	52	43
503	0:18:34	50.1	56.1	52	44
504	0:23:34	49.5	55.0	51	42
505	0:28:34	50.8	55.6	53	42
506	0:33:34	54.7	62.9	57	48
507	0:38:34	54.9	63.9	57	50
508	0:43:34	54.7	62.3	57	47
509	0:48:34	54.2	64.5	56	49
510	0:53:34	48.5	56.1	51	42
511	0:58:34	52.5	61.9	55	41
512	1:03:34	52.7	63.5	55	42
513	1:08:34	48.2	53.6	51	40
514	1:13:34	47.7	55.7	51	40
515	1:18:34	50.8	64.9	53	42
516	1:23:34	49.9	59.1	53	40
517	1:28:34	50.7	57.4	53	44
518	1:33:34	47.8	54.9	50	41
519	1:38:34	50.5	64.4	52	41
520	1:43:34	51.8	63.4	54	46
521	1:48:34	49.8	54.7	52	44
522	1:53:34	49.6	57.7	53	41
523	1:58:34	49.6	56.0	52	44
524	2:03:34	55.3	60.5	59	46
525	2:08:34	55.0	61.2	59	47
526	2:13:34	49.7	55.9	53	44
527	2:18:34	55.3	62.9	57	47
528	2:23:34	51.1	59.7	54	43
529	2:28:34	52.2	59.6	56	44
530	2:33:34	47.1	55.7	50	40
531	2:38:34	55.5	64.5	58	49
532	2:43:34	50.9	58.0	54	45
533	2:48:34	54.8	65.0	57	45
534	2:53:34	51.8	58.8	56	43
535	2:58:34	53.4	65.3	56	44
536	3:03:34	51.7	61.6	55	40
537	3:08:34	50.6	57.3	53	41
538	3:13:34	50.9	58.5	54	43
539	3:18:34	47.5	53.6	50	40
540	3:23:34	52.0	59.3	55	43
541	3:28:34	52.8	64.1	55	44
542	3:33:34	53.6	66.0	56	48
543	3:38:34	49.0	58.3	51	41
544	3:43:34	52.1	58.4	54	43
545	3:48:34	51.3	57.1	53	45
546	3:53:34	55.0	63.8	58	43
547	3:58:34	54.9	60.1	57	46
548	4:03:34	52.8	59.2	55	45
549	4:08:34	51.3	65.1	54	42
550	4:13:34	51.6	61.2	54	44
551	4:18:34	52.1	59.4	55	42
552	4:23:34	52.1	56.7	54	46
553	4:28:34	51.4	57.3	54	44
554	4:33:34	49.2	57.3	51	42
555	4:38:34	48.4	55.5	51	42
556	4:43:34	53.2	59.2	56	45
557	4:48:34	57.7	66.1	61	48
558	4:53:34	56.2	64.7	59	47
559	4:58:34	52.6	60.3	55	45
560	5:03:34	54.0	63.9	57	45
561	5:08:34	54.0	60.0	57	45
562	5:13:34	58.7	69.3	61	48
563	5:18:34	57.3	64.1	59	52
564	5:23:34	55.2	58.9	57	50
565	5:28:34	55.7	59.3	57	50
566	5:33:34	58.5	64.2	61	54
567	5:38:34	55.6	64.3	58	46
568	5:43:34	55.9	67.0	59	48
569	5:48:34	55.4	65.3	57	50
570	5:53:34	54.4	61.1	57	47
571	5:58:34	54.7	60.4	57	48

572	6:03:34	52.6	60.4	55	47
573	6:08:34	53.0	62.0	55	48
574	6:13:34	52.2	58.3	54	46
575	6:18:34	52.3	56.5	54	48
576	6:23:34	54.3	63.7	56	49
577	6:28:34	56.8	65.4	58	53
578	6:33:34	54.7	61.2	57	50
579	6:38:34	57.5	69.4	60	48
580	6:43:34	53.1	61.7	55	46
581	6:48:34	54.3	60.2	56	50
582	6:53:34	53.6	61.0	56	48
583	6:58:34	53.7	59.9	56	49
584	7:03:34	54.8	60.6	57	48
585	7:08:34	55.9	63.4	57	51
586	7:13:34	54.6	60.1	56	51
587	7:18:34	54.9	60.6	56	50
588	7:23:34	54.2	64.3	57	49
589	7:28:34	54.0	60.5	56	49
590	7:33:34	54.1	64.7	56	50
591	7:38:34	55.2	65.1	57	49
592	7:43:34	54.3	63.1	58	46
593	7:48:34	53.3	64.8	54	48
594	7:53:34	53.3	65.1	57	48
595	7:58:34	53.0	62.2	55	48
596	8:03:34	50.4	59.8	52	45
597	8:08:34	58.5	70.8	58	55
598	8:13:34	55.9	70.1	59	45
599	8:18:34	54.9	66.9	57	47
600	8:23:34	48.4	57.0	50	44
601	8:28:34	47.0	56.0	48	44
602	8:33:34	52.0	62.8	55	44
603	8:38:34	48.5	55.8	50	44
604	8:43:34	47.2	54.1	49	44
605	8:48:34	48.7	62.6	51	42
606	8:53:34	50.7	64.4	52	43
607	8:58:34	50.4	59.8	52	47
608	9:03:34	54.4	71.0	54	43
609	9:08:34	49.5	62.4	50	42
610	9:13:34	46.2	56.4	48	42
611	9:18:34	45.2	55.8	47	41
612	9:23:34	49.8	62.2	52	41
613	9:28:34	47.2	57.0	51	41
614	9:33:34	47.1	54.8	49	42
615	9:38:34	47.0	52.0	49	42
616	9:43:34	49.6	62.6	51	42
617	9:48:34	52.7	67.6	54	42
618	9:53:34	44.6	51.8	47	40
619	9:58:34	45.7	54.0	49	41
620	10:03:34	49.0	62.7	52	40
621	10:08:34	44.4	53.6	46	40
622	10:13:34	47.2	52.8	50	40
623	10:18:34	52.5	57.6	54	47
624	10:23:34	48.3	56.7	51	42
625	10:28:34	51.0	67.4	52	43
626	10:33:34	50.8	58.7	52	47
627	10:38:34	52.1	63.3	55	46
628	10:43:34	52.3	62.3	55	45
629	10:48:34	48.6	58.2	50	45
630	10:53:34	47.2	51.4	48	43
631	10:58:34	47.5	55.1	48	45
632	11:03:34	48.2	53.7	50	45
633	11:08:34	45.7	54.2	47	41
634	11:13:34	45.4	53.9	47	42
635	11:18:34	44.3	49.5	46	41
636	11:23:34	44.3	48.8	45	42
637	11:28:34	46.7	57.2	48	42
638	11:33:34	44.7	49.5	46	43
639	11:38:34	47.6	60.2	50	42
640	11:43:34	45.2	54.6	47	41
641	11:48:34	44.7	52.5	47	42
642	11:53:34	46.9	56.0	49	42
643	11:58:34	47.4	57.0	51	42
644	12:03:34	47.9	62.4	51	41
645	12:08:34	42.9	48.2	43	41

646	12:13:34	45.1	49.8	47	41
647	12:18:34	47.3	55.0	50	42
648	12:23:34	48.5	55.6	51	43
649	12:28:34	45.5	51.5	47	42
650	12:33:34	45.3	52.2	47	41
651	12:38:34	44.7	52.3	46	42
652	12:43:34	43.5	47.6	44	40
653	12:48:34	45.7	52.0	47	43
654	12:53:34	52.9	64.9	56	43
655	12:58:34	49.2	57.9	53	42
656	13:03:34	57.4	77.7	50	42
657	13:08:34	56.1	69.6	61	42
658	13:13:34	43.4	48.1	45	40
659	13:18:34	47.5	62.7	50	41
660	13:23:34	47.1	54.8	49	43
661	13:28:34	44.2	49.4	45	42
662	13:33:34	47.4	58.6	49	43
663	13:38:34	49.4	61.0	51	44
664	13:43:34	45.6	53.7	47	42
665	13:48:34	71.9	90.9	75	43
666	13:53:34	79.2	94.4	82	46

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Member: National Council of Acoustical Consultants

Noise Impact Assessment

Hamburg Crossings

Hamburg, New York

Prepared for
Benderson Development
570 Delaware Avenue
Buffalo, New York 14202

Prepared by: Daniel P. Prusinowski

May 1, 2007

APPENDIX A

Noise Logging Results

April 21 to April 23, 2007

ANGEVINE ACOUSTICAL CONSULTANTS, Inc.

SOUND TEST AA- 2150
DATE: 4/21-4/23/2007

SOUND LEVEL METER:

- ☐ Larson Davis 800B s/n 0327; ½" mic 2559, s/n 1422; 826B, s/n 141 (A kit)
- ☐ Larson Davis 800B s/n 0695; ½" mic 2559, s/n 2074; PRM826B, s/n 1471 (B kit)
- ☐ CEL 593.C1R s/n 025387; ½" mic mk250, s/n 0378; preamp CEL 527, s/n 025401 (red case)
- ☐ CEL 593.C1R s/n 3/0991604; ½" mic mk250, s/n 2039; preamp CEL 527, s/n 3/099/1527 (black case)
- ☐ CEL 493 s/n 351119; ½" mic mk225, s/n 579079
- ☐ GenRad 1982 s/n 1334; ½" mic 1962-9610, s/n 10769
- ☐ Metro. db306/14 s/n 5000; ¼" mic mk301LP, s/n 20942
- ☐ Metro. db306/27-80 s/n 5000; ¼" mic mk301HP, s/n 60963
- ☐ Metrosonics db307 s/n R124; ¼" mic s/n NA
- ☐ Metrosonics db308 s/n 002237; ½" mic s/n NA
- ☐ Metrosonics db308 s/n 002247; ½" mic s/n NA
- ☐ Metrosonics db3100 s/n 1163; ¼" mic mk3100R, s/n NA
- ☐ Metrosonics db3100 s/n 1658; ¼" mic mk3100R, s/n 2351
- ☐ Metrosonics db3100 s/n 3980; ¼" mic mk3100R, s/n 4722
- ☐ Metrosonics db3100 s/n 4415; ¼" mic mk3100R, s/n 5363
- ☒ Metrosonics db3100 s/n 4418; ¼" mic mk3100R, s/n 817
- ☐ Metrosonics db310 s/n 1212; ¼" mic s/n NA
- ☐ Metrosonics db310 s/n 1309; ¼" mic s/n NA
- ☐ Metrosonics db604 s/n 1158; ¼" mic s/n NA
- ☐ Metrosonics db604 s/n 1168; ¼" mic s/n NA
- ☐ Metrosonics db604 s/n 1242; ¼" mic s/n NA
- ☐ Metrosonics db604 s/n 1255; ¼" mic s/n NA
- ☐ Metrosonics db604 s/n 1256; ¼" mic s/n NA
- ☐ Rion SA-77 s/n 10151076; ½" mic BK4176R, s/n 1583199; Preamp NH-174, s/n 61582
- ☐ Metrosonics db3080 s/n 1414; ¼" mic s/n NA
- ☐ Metrosonics db3080 s/n 1505; ¼" mic s/n NA
- ☐ Metrosonics db3080 s/n 1511; ¼" mic s/n NA
- ☐ Metrosonics db3080 s/n 1808; ¼" mic s/n NA
- ☐ Metrosonics db3080 s/n 4049; ¼" mic s/n NA
- ☐ Metrosonics db3080 s/n 4400; ¼" mic s/n NA
- ☐ Metrosonics db3080 s/n 4401; ¼" mic s/n NA
- ☐ Metrosonics db3080 s/n 4441; ¼" mic s/n NA
- ☐ Metrosonics db3080 s/n 5727; ¼" mic s/n 310-0000-02

CALIBRATOR:

☐ GenRad 1562A	s/n 6818	☐ CEL 284/2	s/n 02512942	(593 red case)
☐ GenRad 1562A	s/n 20934	☐ CEL 284/2	s/n 4/09921209	(593 black case)
☐ GenRad 1567	s/n 15350	☐ CEL 284/2	s/n 864099	(493 kit)
☐ GenRad 1562	s/n HP138	☐ Metrosonics cl302	s/n 2040	
☐ GenRad 1562	s/n IT109	☐ Metrosonics cl304	s/n 2054	
☐ Metrosonics cl304	s/n 4541	☐ Metrosonics cl304	s/n 3067	
☐ Metrosonics cl304	s/n 01379	☐ Larson Davis CA250	s/n 0206	(A kit)
☐ Quest QC-10	s/n QC100B0012	☐ Larson Davis CA250	s/n 0886	(B kit)

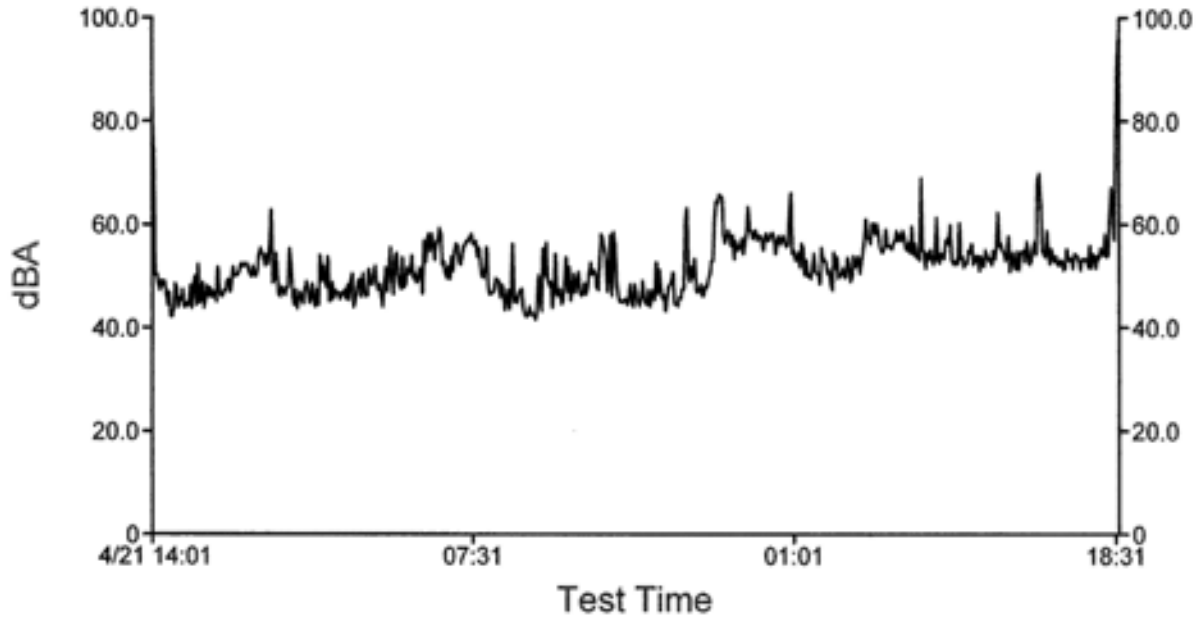
WEATHER:

☐ Clear ☐ Cloudy ☐ Rain ☐ Fog ☐ Snowing ☐ Snow on Ground ☐ Wet Streets

4/21 Temperature = 37-65°F; Winds = 10 mph mean; Precip = 0.0"
4/22 Temperature = 39-72°F; Winds = 9 mph mean; Precip = 0.0"
4/23 Temperature = 41-76°F; Winds = 12 mph mean; Precip = 0.28" (light rain in last hour of survey)

Hamburg Crossings - West Property Line (Loc. 1)

Average Sound Levels by 5 min. Samples, Leq (dBA)

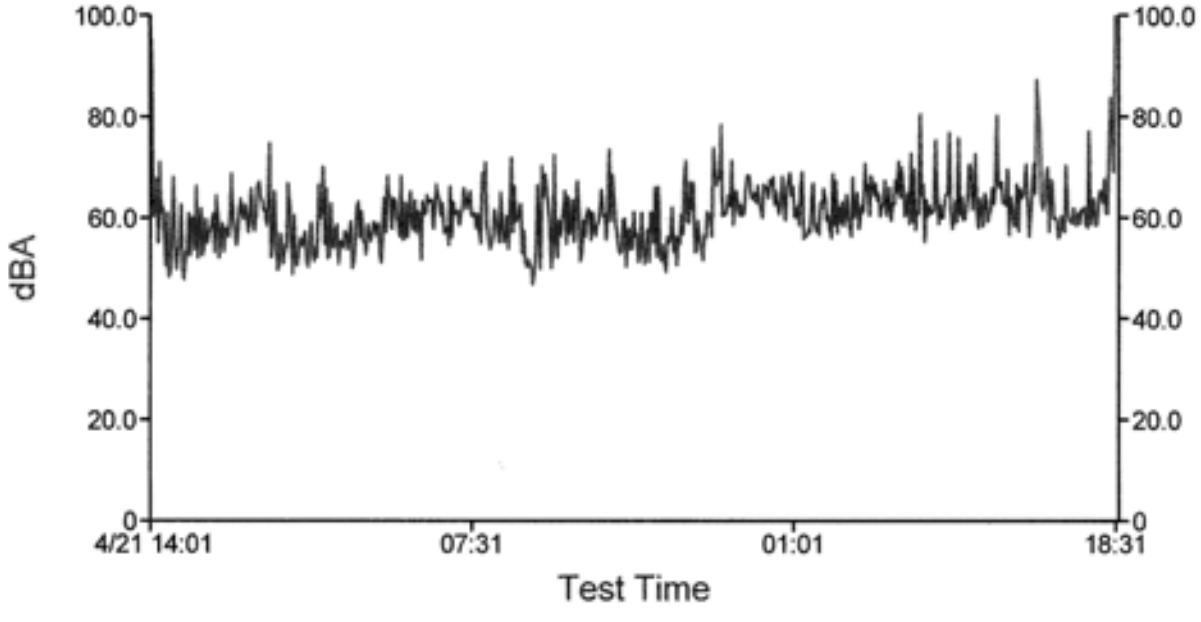


OverAll Lav = 71.1dB

Lav

Hamburg Crossings - West Property Line (Loc. 1)

Maximum Sound Levels by 5 min. Samples, Lmax (dBA)



Lmax

<<< TABULAR TIME HISTORY REPORT FROM FILE HAMBCRS2 >>>

Test Location.....Location 1
Employee Name.....West Property Line
Employee Number...Hamburg Crossings
Department.....
Comment.....

Calibrator Type & Serial #...cl 304 sn 2054
Calibrator Calibration Date..

METROSONICS db-3100 SN 4418 V1.7
REPORT PRINTED 04/24/07 AT 11:47:41
OF PERIODS: 633 MODE: CONTINUOUS
PERIOD LENGTH: 0:05:00
TIME HISTORY CUTOFF: NONE
Ln(1): 10.0% Ln(2): 99.0%

DATE: 4/21/07

INT	TIME	Lav	Lmx	L1	L2
1	14:01:57	84.6	103.4	87	45
2	14:06:57	74.5	90.9	79	41
3	14:11:57	50.0	60.1	52	44
4	14:16:57	50.2	61.4	52	43
5	14:21:57	48.4	67.5	48	43
6	14:26:57	47.1	54.9	50	43
7	14:31:57	49.0	70.8	47	43
8	14:36:57	47.9	61.0	49	44
9	14:41:57	48.8	61.7	48	43
10	14:46:57	47.0	56.0	48	42
11	14:51:57	44.3	50.3	46	42
12	14:56:57	46.7	60.7	48	40
13	15:01:57	42.1	48.1	43	40
14	15:06:57	41.9	49.1	43	39
15	15:11:57	43.4	58.8	43	39
16	15:16:57	48.3	67.8	46	39
17	15:21:57	47.5	55.7	50	42
18	15:26:57	43.8	49.7	46	40
19	15:31:57	45.6	53.5	47	42
20	15:36:57	45.1	54.2	47	41
21	15:41:57	47.2	62.4	49	40
22	15:46:57	43.8	49.5	45	40
23	15:51:57	43.9	47.6	45	40
24	15:56:57	44.7	52.9	46	40
25	16:01:57	44.1	52.5	47	38
26	16:06:57	48.0	60.6	52	40
27	16:11:57	43.6	52.4	45	40
28	16:16:57	47.9	59.7	52	40
29	16:21:57	49.8	59.8	55	40
30	16:26:57	44.2	53.6	47	40
31	16:31:57	52.0	66.1	55	41
32	16:36:57	44.6	51.8	47	40
33	16:41:57	45.3	57.7	47	40
34	16:46:57	48.6	61.5	52	40
35	16:51:57	43.7	52.4	46	40

36	16:56:57	45.7	54.4	48	41
37	17:01:57	47.9	59.5	50	40
38	17:06:57	46.0	54.8	47	41
39	17:11:57	47.5	56.8	50	43
40	17:16:57	45.7	57.2	47	42
41	17:21:57	46.8	58.8	47	42
42	17:26:57	46.0	60.6	47	41
43	17:31:57	44.9	53.0	46	41
44	17:36:57	51.5	64.1	55	41
45	17:41:57	47.1	59.7	48	42
46	17:46:57	45.9	51.9	48	42
47	17:51:57	46.0	57.3	47	42
48	17:56:57	47.0	58.7	48	43
49	18:01:57	47.0	53.2	48	43
50	18:06:57	48.7	57.6	49	44
51	18:11:57	49.2	57.5	52	43
52	18:16:57	46.8	56.1	48	42
53	18:21:57	48.5	59.8	50	42
54	18:26:57	51.6	68.5	50	42
55	18:31:57	49.9	59.9	51	44
56	18:36:57	49.9	57.7	52	44
57	18:41:57	50.0	54.4	51	47
58	18:46:57	50.8	56.2	52	47
59	18:51:57	52.2	61.2	54	47
60	18:56:57	51.6	63.5	53	45
61	19:01:57	52.2	60.5	55	45
62	19:06:57	51.8	59.7	54	46
63	19:11:57	52.2	62.3	55	46
64	19:16:57	51.2	60.0	54	45
65	19:21:57	50.2	57.0	52	43
66	19:26:57	49.7	60.1	52	44
67	19:31:57	51.7	65.6	52	43
68	19:36:57	50.1	59.5	53	44
69	19:41:57	49.8	57.3	52	43
70	19:46:57	51.2	60.1	54	43
71	19:51:57	54.3	66.1	56	45
72	19:56:57	55.2	66.8	57	45
73	20:01:57	54.1	64.3	56	49
74	20:06:57	53.7	63.4	56	47
75	20:11:57	51.8	61.3	53	47
76	20:16:57	53.9	61.2	57	48
77	20:21:57	52.2	58.3	54	47
78	20:26:57	56.7	64.5	60	47
79	20:31:57	62.6	74.5	68	46
80	20:36:57	48.5	52.0	49	45
81	20:41:57	49.0	55.0	50	45
82	20:46:57	54.2	65.0	56	48
83	20:51:57	49.8	57.2	52	45
84	20:56:57	46.1	49.5	47	44
85	21:01:57	45.9	49.8	47	43
86	21:06:57	47.7	56.5	49	44
87	21:11:57	47.0	52.6	48	44
88	21:16:57	46.1	50.8	47	43
89	21:21:57	47.6	54.3	49	43
90	21:26:57	47.7	53.9	51	42
91	21:31:57	55.1	66.5	58	46

92	21:36:57	52.1	63.0	54	46
93	21:41:57	46.3	54.9	48	41
94	21:46:57	44.2	48.6	46	41
95	21:51:57	47.1	60.2	49	40
96	21:56:57	43.5	51.1	45	40
97	22:01:57	45.2	50.3	47	42
98	22:06:57	46.7	53.4	49	40
99	22:11:57	45.3	55.7	47	40
100	22:16:57	44.5	54.3	46	40
101	22:21:57	47.2	54.7	50	41
102	22:26:57	48.7	56.9	50	42
103	22:31:57	47.5	51.6	49	41
104	22:36:57	44.6	50.1	46	40
105	22:41:57	45.8	54.3	48	41
106	22:46:57	48.3	58.8	51	42
107	22:51:57	44.7	52.9	46	40
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109	23:01:57	47.2	54.0	49	41
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111	23:11:57	53.8	66.3	56	42
112	23:16:57	48.9	59.7	53	41
113	23:21:57	51.8	61.2	55	44
114	23:26:57	49.1	69.9	49	42
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117	23:41:57	45.0	51.8	47	41
118	23:46:57	45.0	52.1	46	41
119	23:51:57	48.6	62.6	51	41
120	23:56:57	45.5	54.1	49	40
121	0:01:57	47.0	53.9	50	41
122	0:06:57	46.5	57.6	49	41
123	0:11:57	46.5	58.4	49	39
124	0:16:57	45.3	50.7	48	41
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126	0:26:57	46.2	54.6	48	41
127	0:31:57	47.1	53.9	49	41
128	0:36:57	45.4	57.0	47	39
129	0:41:57	48.0	56.7	51	42
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135	1:11:57	46.6	54.9	49	39
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143	1:51:57	51.1	58.4	54	46
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147	2:11:57	51.7	58.9	54	46

148	2:16:57	48.4	58.5	51	38
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154	2:46:57	51.4	63.8	55	42
155	2:51:57	46.8	56.9	49	41
156	2:56:57	50.9	68.0	54	38
157	3:01:57	55.3	64.5	56	53
158	3:06:57	48.9	63.4	48	40
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174	4:26:57	48.5	63.2	51	41
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181	5:01:57	55.8	60.8	57	50
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205	7:01:57	55.5	61.5	58	49
206	7:06:57	55.9	65.6	60	46
207	7:11:57	56.6	63.7	59	49
208	7:16:57	56.5	61.7	58	54
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213	7:41:57	56.5	60.5	58	51
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226	8:46:57	49.3	61.3	51	41
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228	8:56:57	48.7	57.4	51	41
229	9:01:57	45.7	55.0	48	41
230	9:06:57	48.0	64.7	50	41
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233	9:21:57	45.3	55.8	47	39
234	9:26:57	47.0	60.0	50	39
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251	10:51:57	42.2	46.6	43	39
252	10:56:57	41.3	49.0	42	39
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254	11:06:57	49.9	66.2	53	40
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256	11:16:57	43.0	49.7	44	40
257	11:21:57	55.1	70.0	53	43
258	11:26:57	49.9	64.0	53	40
259	11:31:57	56.2	68.4	59	40

260	11:36:57	49.0	65.3	49	41
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299	14:51:57	46.8	55.5	50	41
300	14:56:57	49.5	62.4	52	42
301	15:01:57	57.7	73.3	63	41
302	15:06:57	46.0	59.2	45	41
303	15:11:57	58.2	68.3	59	43
304	15:16:57	55.7	63.9	59	43
305	15:21:57	48.6	58.7	51	42
306	15:26:57	46.3	56.7	49	41
307	15:31:57	44.8	53.7	46	42
308	15:36:57	44.9	52.7	47	40
309	15:41:57	44.7	53.2	46	40
310	15:46:57	45.2	59.4	47	40
311	15:51:57	45.4	59.6	47	41
312	15:56:57	44.2	50.2	46	41
313	16:01:57	45.3	57.0	46	41
314	16:06:57	48.2	57.6	52	41
315	16:11:57	44.7	53.6	46	41

316	16:16:57	43.9	53.8	45	41
317	16:21:57	48.2	60.9	51	42
318	16:26:57	46.2	56.1	48	41
319	16:31:57	44.9	56.6	46	41
320	16:36:57	44.0	51.1	45	40
321	16:41:57	45.8	52.2	48	43
322	16:46:57	48.8	60.7	52	42
323	16:51:57	45.5	54.4	46	43
324	16:56:57	44.7	50.7	46	42
325	17:01:57	44.2	53.0	46	40
326	17:06:57	47.1	57.4	50	40
327	17:11:57	43.9	51.1	45	41
328	17:16:57	45.9	60.8	47	40
329	17:21:57	47.0	60.9	48	40
330	17:26:57	45.2	54.9	47	41
331	17:31:57	52.4	65.7	54	42
332	17:36:57	46.4	52.1	48	43
333	17:41:57	51.0	65.9	50	40
334	17:46:57	47.3	53.4	48	44
335	17:51:57	45.5	51.3	48	39
336	17:56:57	46.0	54.3	50	40
337	18:01:57	43.0	51.1	44	40
338	18:06:57	45.3	49.1	47	40
339	18:11:57	47.9	56.0	49	46
340	18:16:57	48.1	55.0	49	46
341	18:21:57	49.0	56.0	51	46
342	18:26:57	50.5	61.8	52	42
343	18:31:57	44.4	53.0	46	40
344	18:36:57	44.4	56.0	46	40
345	18:41:57	44.0	50.4	45	41
346	18:46:57	45.6	55.9	48	41
347	18:51:57	45.4	54.7	47	41
348	18:56:57	47.3	60.3	49	43
349	19:01:57	47.3	56.5	50	42
350	19:06:57	60.5	67.7	64	42
351	19:11:57	62.9	71.0	64	43
352	19:16:57	50.2	59.1	52	44
353	19:21:57	48.7	58.9	50	44
354	19:26:57	51.5	66.8	53	44
355	19:31:57	49.5	61.6	51	44
356	19:36:57	53.1	66.6	55	44
357	19:41:57	47.2	52.9	49	44
358	19:46:57	46.6	53.4	49	42
359	19:51:57	46.9	59.0	48	43
360	19:56:57	48.1	55.0	51	43
361	20:01:57	46.0	54.0	47	43
362	20:06:57	46.0	51.4	48	42
363	20:11:57	47.9	56.2	49	44
364	20:16:57	47.6	55.9	50	43
365	20:21:57	49.2	60.9	51	44
366	20:26:57	50.1	60.3	52	45
367	20:31:57	52.6	59.1	55	45
368	20:36:57	52.9	56.1	54	50
369	20:41:57	60.1	73.6	64	51
370	20:46:57	64.2	69.8	64	62
371	20:51:57	63.9	66.3	64	62

372	20:56:57	65.5	67.7	66	64
373	21:01:57	65.3	67.6	65	64
374	21:06:57	65.0	78.1	65	54
375	21:11:57	57.8	60.2	59	53
376	21:16:57	56.2	60.4	57	53
377	21:21:57	57.5	60.5	58	53
378	21:26:57	58.6	61.9	59	57
379	21:31:57	57.3	64.3	59	50
380	21:36:57	55.6	62.2	57	52
381	21:41:57	57.6	71.1	58	52
382	21:46:57	53.0	58.5	54	50
383	21:51:57	56.5	64.3	58	52
384	21:56:57	54.9	65.1	55	51
385	22:01:57	54.9	62.0	56	51
386	22:06:57	55.8	60.4	58	50
387	22:11:57	57.0	62.3	59	50
388	22:16:57	54.1	60.2	56	47
389	22:21:57	56.2	60.9	59	48
390	22:26:57	58.1	65.2	60	50
391	22:31:57	63.1	67.9	64	54
392	22:36:57	58.8	68.2	61	53
393	22:41:57	58.4	66.7	61	50
394	22:46:57	57.0	63.8	59	52
395	22:51:57	58.1	63.5	60	52
396	22:56:57	58.6	64.7	60	52
397	23:01:57	56.7	62.8	59	51
398	23:06:57	57.5	66.1	60	51
399	23:11:57	57.5	62.7	60	52
400	23:16:57	56.4	61.5	59	51
401	23:21:57	54.8	59.9	57	50
402	23:26:57	57.4	66.3	59	52
403	23:31:57	58.0	65.9	60	51
404	23:36:57	56.6	65.6	59	50
405	23:41:57	56.8	63.8	59	52
406	23:46:57	57.8	67.3	59	52
407	23:51:57	58.1	66.4	60	55
408	23:56:57	56.9	67.8	58	52
409	0:01:57	54.0	62.5	56	49
410	0:06:57	56.3	65.0	58	52
411	0:11:57	57.5	62.1	59	54
412	0:16:57	55.9	60.5	57	53
413	0:21:57	56.8	62.8	58	53
414	0:26:57	57.5	67.9	58	54
415	0:31:57	56.3	63.5	58	53
416	0:36:57	55.5	59.4	57	52
417	0:41:57	55.8	65.6	57	52
418	0:46:57	62.2	67.4	66	53
419	0:51:57	65.8	68.7	66	51
420	0:56:57	54.1	64.3	55	49
421	1:01:57	54.7	66.0	56	51
422	1:06:57	52.8	60.0	54	49
423	1:11:57	53.0	60.0	54	50
424	1:16:57	54.4	62.0	56	50
425	1:21:57	51.5	58.4	53	47
426	1:26:57	56.0	66.1	58	50
427	1:31:57	55.1	68.8	57	48

428	1:36:57	50.0	55.7	52	47
429	1:41:57	52.9	56.3	54	46
430	1:46:57	49.8	56.2	51	46
431	1:51:57	50.0	57.4	52	44
432	1:56:57	49.3	56.8	52	43
433	2:01:57	51.0	62.1	54	42
434	2:06:57	54.1	66.6	56	44
435	2:11:57	50.7	59.0	53	44
436	2:16:57	50.3	57.2	52	45
437	2:21:57	50.3	58.4	53	43
438	2:26:57	48.3	56.5	51	42
439	2:31:57	55.2	62.8	58	45
440	2:36:57	52.8	61.8	55	43
441	2:41:57	52.9	65.5	54	45
442	2:46:57	52.1	63.8	54	45
443	2:51:57	50.3	59.3	53	42
444	2:56:57	50.9	60.1	54	43
445	3:01:57	48.4	57.4	51	39
446	3:06:57	47.1	55.8	49	42
447	3:11:57	54.3	68.5	56	45
448	3:16:57	51.3	58.4	54	41
449	3:21:57	53.4	67.1	54	45
450	3:26:57	49.4	56.8	52	39
451	3:31:57	50.2	61.9	53	43
452	3:36:57	50.1	58.9	52	42
453	3:41:57	51.3	62.9	54	42
454	3:46:57	49.5	58.2	52	38
455	3:51:57	49.7	59.9	53	41
456	3:56:57	53.3	64.3	55	45
457	4:01:57	51.8	60.1	54	40
458	4:06:57	48.7	57.5	52	39
459	4:11:57	49.7	56.1	53	39
460	4:16:57	53.6	67.7	56	43
461	4:21:57	51.5	59.9	54	43
462	4:26:57	52.1	62.1	55	42
463	4:31:57	53.5	64.7	56	42
464	4:36:57	50.3	57.6	52	45
465	4:41:57	52.7	60.4	55	46
466	4:46:57	54.1	62.2	58	45
467	4:51:57	56.7	61.0	58	51
468	4:56:57	60.7	70.5	65	48
469	5:01:57	57.5	65.2	59	52
470	5:06:57	56.9	66.3	58	51
471	5:11:57	56.0	60.3	57	51
472	5:16:57	59.9	68.0	62	55
473	5:21:57	59.9	66.7	61	56
474	5:26:57	57.9	64.4	61	48
475	5:31:57	59.8	66.6	62	53
476	5:36:57	58.6	63.3	60	54
477	5:41:57	55.7	64.5	58	49
478	5:46:57	54.7	60.1	56	50
479	5:51:57	54.3	62.1	57	48
480	5:56:57	55.3	62.6	57	50
481	6:01:57	58.8	67.1	60	52
482	6:06:57	55.5	60.3	58	50
483	6:11:57	55.7	61.8	57	51

484	6:16:57	55.4	65.8	57	50
485	6:21:57	55.0	59.3	57	51
486	6:26:57	56.2	62.6	58	53
487	6:31:57	56.5	62.5	58	53
488	6:36:57	58.5	67.2	62	52
489	6:41:57	56.6	65.0	59	52
490	6:46:57	57.8	70.9	59	52
491	6:51:57	56.6	63.9	58	52
492	6:56:57	58.5	69.7	60	53
493	7:01:57	57.6	65.6	60	53
494	7:06:57	55.1	60.2	58	50
495	7:11:57	54.8	60.8	57	49
496	7:16:57	56.3	64.6	57	52
497	7:21:57	54.3	58.6	56	51
498	7:26:57	59.4	72.5	61	52
499	7:31:57	53.9	59.0	56	50
500	7:36:57	56.0	69.4	58	50
501	7:41:57	53.4	57.4	54	51
502	7:46:57	54.0	61.0	57	48
503	7:51:57	52.9	60.7	54	50
504	7:56:57	68.7	80.3	74	51
505	8:01:57	54.7	64.2	58	48
506	8:06:57	54.5	66.3	56	49
507	8:11:57	51.3	55.0	52	48
508	8:16:57	54.2	63.3	56	49
509	8:21:57	53.0	60.2	55	49
510	8:26:57	54.8	62.1	57	50
511	8:31:57	53.4	60.7	55	49
512	8:36:57	52.0	60.9	53	47
513	8:41:57	53.2	61.3	55	48
514	8:46:57	61.0	75.1	59	48
515	8:51:57	52.9	64.3	54	48
516	8:56:57	52.3	58.6	54	48
517	9:01:57	54.1	62.2	57	47
518	9:06:57	53.7	59.9	56	47
519	9:11:57	53.1	59.8	54	48
520	9:16:57	56.5	63.3	58	50
521	9:21:57	56.9	64.5	58	54
522	9:26:57	55.9	64.7	59	48
523	9:31:57	59.6	76.6	60	48
524	9:36:57	52.9	61.4	54	47
525	9:41:57	52.3	57.7	54	47
526	9:46:57	52.0	59.0	54	47
527	9:51:57	52.9	63.0	55	47
528	9:56:57	52.1	59.0	54	47
529	10:01:57	60.0	75.6	61	46
530	10:06:57	53.1	60.5	56	47
531	10:11:57	53.4	63.9	55	48
532	10:16:57	51.5	59.4	53	47
533	10:21:57	52.3	59.5	54	46
534	10:26:57	52.3	61.5	54	47
535	10:31:57	54.6	64.6	57	46
536	10:36:57	54.4	70.4	55	46
537	10:41:57	55.9	69.5	57	48
538	10:46:57	52.0	61.5	54	47
539	10:51:57	52.6	65.0	54	46

540	10:56:57	53.7	72.3	54	47
541	11:01:57	53.6	60.3	56	47
542	11:06:57	50.8	57.8	53	47
543	11:11:57	53.6	63.6	56	47
544	11:16:57	52.2	61.0	54	47
545	11:21:57	51.6	58.1	53	45
546	11:26:57	54.7	64.6	56	49
547	11:31:57	53.8	63.5	56	47
548	11:36:57	52.8	59.1	55	47
549	11:41:57	53.2	60.6	55	48
550	11:46:57	51.9	61.7	54	46
551	11:51:57	54.6	65.6	58	48
552	11:56:57	53.0	62.6	55	46
553	12:01:57	54.8	66.7	56	47
554	12:06:57	62.0	80.0	65	47
555	12:11:57	55.5	66.4	59	47
556	12:16:57	56.1	65.8	58	47
557	12:21:57	54.7	66.8	56	46
558	12:26:57	54.4	62.7	58	48
559	12:31:57	52.8	63.1	54	48
560	12:36:57	53.6	62.3	56	48
561	12:41:57	57.5	69.3	62	46
562	12:46:57	50.6	56.5	53	45
563	12:51:57	53.2	63.9	55	46
564	12:56:57	54.3	61.9	57	48
565	13:01:57	51.4	58.4	53	47
566	13:06:57	51.1	58.2	53	47
567	13:11:57	54.5	66.4	59	46
568	13:16:57	51.1	57.2	53	46
569	13:21:57	54.3	65.5	56	47
570	13:26:57	54.4	63.8	57	49
571	13:31:57	54.7	64.3	56	50
572	13:36:57	52.5	65.8	53	47
573	13:41:57	56.4	70.4	59	48
574	13:46:57	54.5	63.8	56	51
575	13:51:57	52.0	56.1	53	49
576	13:56:57	53.0	61.1	54	49
577	14:01:57	55.0	64.3	58	50
578	14:06:57	56.3	70.5	58	46
579	14:11:57	54.0	64.6	57	47
580	14:16:57	68.3	87.1	71	51
581	14:21:57	69.6	82.2	73	55
582	14:26:57	63.9	77.5	67	52
583	14:31:57	55.0	63.2	57	51
584	14:36:57	53.9	61.4	55	51
585	14:41:57	53.5	62.5	55	50
586	14:46:57	58.5	67.9	61	51
587	14:51:57	54.3	69.7	55	51
588	14:56:57	52.1	57.1	54	49
589	15:01:57	55.0	67.3	56	49
590	15:06:57	53.3	66.7	54	46
591	15:11:57	52.6	59.6	54	48
592	15:16:57	53.6	59.9	55	50
593	15:21:57	52.1	59.2	53	48
594	15:26:57	51.8	55.8	53	48
595	15:31:57	52.9	56.5	54	50

596	15:36:57	52.6	60.1	54	48
597	15:41:57	51.0	58.1	52	46
598	15:46:57	51.4	57.0	54	46
599	15:51:57	55.0	70.1	54	48
600	15:56:57	52.8	60.8	54	49
601	16:01:57	53.3	59.8	55	49
602	16:06:57	53.1	59.0	55	49
603	16:11:57	51.2	58.7	52	47
604	16:16:57	54.0	61.6	56	50
605	16:21:57	53.9	58.9	57	49
606	16:26:57	53.4	58.3	55	50
607	16:31:57	52.5	60.7	54	49
608	16:36:57	51.0	58.7	52	47
609	16:41:57	53.1	61.4	55	48
610	16:46:57	52.9	61.1	55	48
611	16:51:57	53.1	61.8	56	48
612	16:56:57	52.8	58.5	54	50
613	17:01:57	51.5	57.9	53	48
614	17:06:57	55.6	76.9	55	46
615	17:11:57	51.3	58.6	53	48
616	17:16:57	54.0	60.8	56	49
617	17:21:57	53.4	63.6	56	47
618	17:26:57	51.3	58.4	53	47
619	17:31:57	53.7	58.5	55	48
620	17:36:57	53.2	61.3	55	48
621	17:41:57	55.1	65.1	56	48
622	17:46:57	54.1	64.9	56	49
623	17:51:57	53.8	62.9	55	49
624	17:56:57	57.8	67.4	61	51
625	18:01:57	53.5	60.8	55	48
626	18:06:57	54.0	60.6	57	49
627	18:11:57	61.5	72.7	66	54
628	18:16:57	66.9	83.6	69	55
629	18:21:57	62.8	77.3	67	51
630	18:26:57	56.8	68.9	58	49
631	18:31:57	79.0	95.5	81	53
632	18:36:57	92.4	111.0	94	53
633	18:41:57	97.6	115.6	96	53

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Noise Impact Assessment

Hamburg Crossings

Hamburg, New York

Prepared for
Benderson Development
570 Delaware Avenue
Buffalo, New York 14202

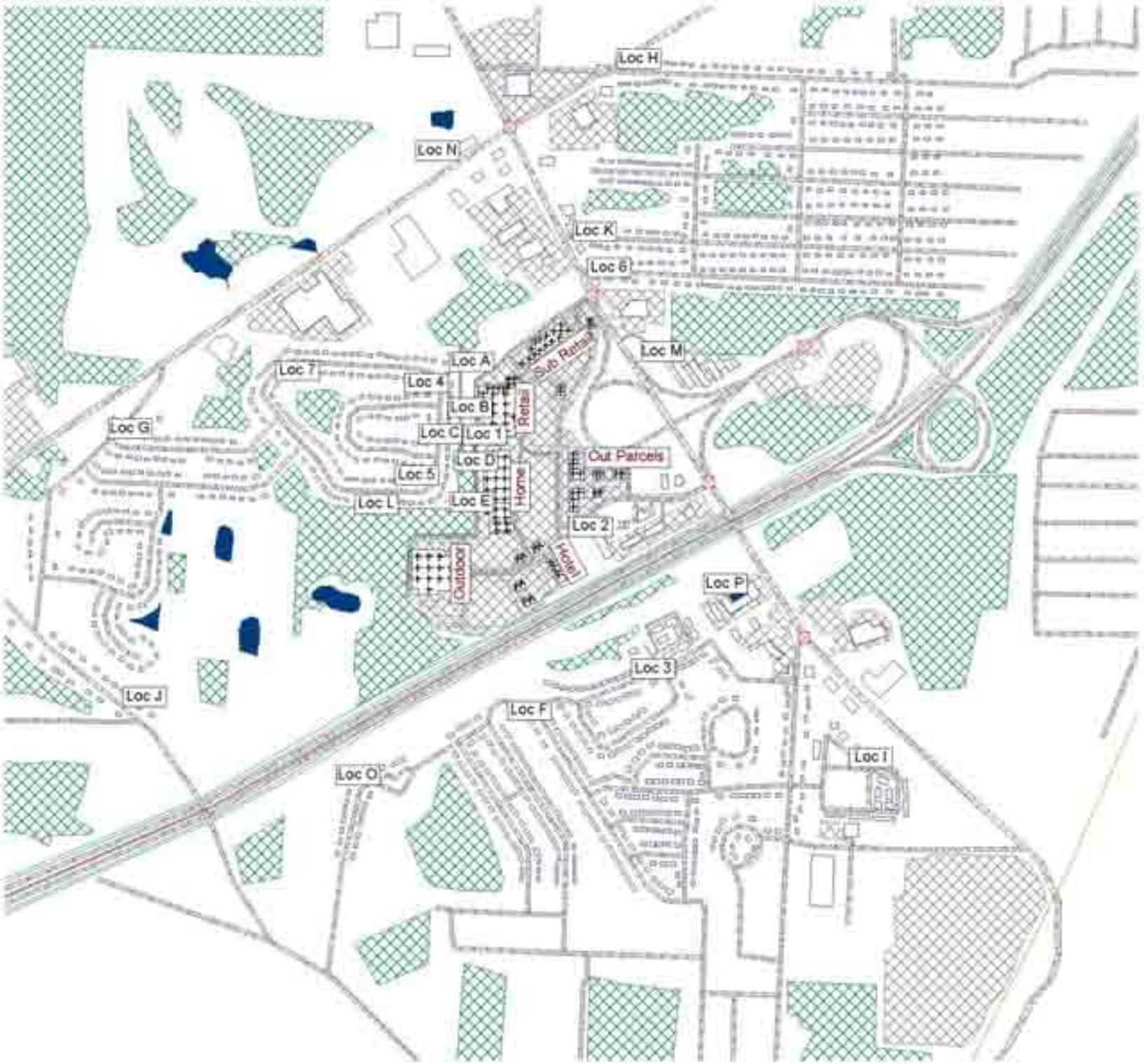
Prepared by: Daniel P. Prusinowski

May 1, 2007

APPENDIX B

Noise Modeling Results

Existing Background Noise Environment



Noise Prediction Model
Hamburg Crossings
Hamburg, New York
Survey Locations 1-7
Model Locations 1-7, A-P

Map Scale: 1 : 17000

Modeling Software:
Cadna/A v3.6.119
by Datakustik

Prepared by:
Angevine Acoustical
Consultants, Inc.
East Aurora, NY

Noise Prediction Model
Hamburg Crossings
Hamburg, New York
Existing Background
Weekday PM Peak Traffic

- > 0.0 dB
- > 35.0 dB
- > 40.0 dB
- > 45.0 dB
- > 50.0 dB
- > 55.0 dB
- > 60.0 dB
- > 65.0 dB
- > 70.0 dB
- > 75.0 dB
- > 80.0 dB
- > 85.0 dB

Map Scale: 1 : 17000

Modeling Software:
Cadna/A v3.6.119
by Datakustik

Prepared by:
Angevine Acoustical
Consultants, Inc.
East Aurora, NY

Noise Prediction Model
Hamburg Crossings
Hamburg, New York
Existing Background
Saturday Peak Traffic

- > 0.0 dB
- > 35.0 dB
- > 40.0 dB
- > 45.0 dB
- > 50.0 dB
- > 55.0 dB
- > 60.0 dB
- > 65.0 dB
- > 70.0 dB
- > 75.0 dB
- > 80.0 dB
- > 85.0 dB

Map Scale: 1 : 17000

Modeling Software:
Cadna/A v3.6.119
by Datakustik

Prepared by:
Angevine Acoustical
Consultants, Inc.
East Aurora, NY

Noise Prediction Model
Hamburg Crossings
Hamburg, New York
Existing Background
Weekday Nighttime Traffic

- > 0.0 dB
- > 35.0 dB
- > 40.0 dB
- > 45.0 dB
- > 50.0 dB
- > 55.0 dB
- > 60.0 dB
- > 65.0 dB
- > 70.0 dB
- > 75.0 dB
- > 80.0 dB
- > 85.0 dB

Map Scale: 1 : 17000

Modeling Software:
Cadna/A v3.6.119
by Datakustik

Prepared by:
Angevine Acoustical
Consultants, Inc.
East Aurora, NY

Noise Prediction Model
Hamburg Crossings
Hamburg, New York
Existing Background
Saturday Nighttime Traffic

- > 0.0 dB
- > 35.0 dB
- > 40.0 dB
- > 45.0 dB
- > 50.0 dB
- > 55.0 dB
- > 60.0 dB
- > 65.0 dB
- > 70.0 dB
- > 75.0 dB
- > 80.0 dB
- > 85.0 dB

Map Scale: 1 : 17000

Modeling Software:
Cadna/A v3.6.119
by Datakustik

Prepared by:
Angevine Acoustical
Consultants, Inc.
East Aurora, NY

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Member: National Council of Acoustical Consultants

Noise Impact Assessment

Hamburg Crossings

Hamburg, New York

Prepared for
Benderson Development
570 Delaware Avenue
Buffalo, New York 14202

Prepared by: Daniel P. Prusinowski

May 1, 2007

APPENDIX B

Noise Modeling Results

Future Background Noise Environment

Noise Prediction Model
Hamburg Crossings
Hamburg, New York
Future Background
Weekday PM Peak Traffic

- > 0.0 dB
- > 35.0 dB
- > 40.0 dB
- > 45.0 dB
- > 50.0 dB
- > 55.0 dB
- > 60.0 dB
- > 65.0 dB
- > 70.0 dB
- > 75.0 dB
- > 80.0 dB
- > 85.0 dB

Map Scale: 1 : 17000

Modeling Software:
Cadna/A v3.6.119
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East Aurora, NY

Noise Prediction Model
Hamburg Crossings
Hamburg, New York
Future Background
Saturday Peak Traffic

- > 0.0 dB
- > 35.0 dB
- > 40.0 dB
- > 45.0 dB
- > 50.0 dB
- > 55.0 dB
- > 60.0 dB
- > 65.0 dB
- > 70.0 dB
- > 75.0 dB
- > 80.0 dB
- > 85.0 dB

Map Scale: 1 : 17000

Modeling Software:
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Noise Prediction Model
Hamburg Crossings
Hamburg, New York
Future Background
Weekday Nighttime Traffic

- > 0.0 dB
- > 35.0 dB
- > 40.0 dB
- > 45.0 dB
- > 50.0 dB
- > 55.0 dB
- > 60.0 dB
- > 65.0 dB
- > 70.0 dB
- > 75.0 dB
- > 80.0 dB
- > 85.0 dB

Map Scale: 1 : 17000

Modeling Software:
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Noise Prediction Model
Hamburg Crossings
Hamburg, New York
Future Background
Saturday Nighttime Traffic

- > 0.0 dB
- > 35.0 dB
- > 40.0 dB
- > 45.0 dB
- > 50.0 dB
- > 55.0 dB
- > 60.0 dB
- > 65.0 dB
- > 70.0 dB
- > 75.0 dB
- > 80.0 dB
- > 85.0 dB

Map Scale: 1 : 17000

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Noise Impact Assessment

Hamburg Crossings

Hamburg, New York

Prepared for
Benderson Development
570 Delaware Avenue
Buffalo, New York 14202

Prepared by: Daniel P. Prusinowski

May 1, 2007

APPENDIX B

Noise Modeling Results

Future Development Noise Environment

Noise Prediction Model
Hamburg Crossings
Hamburg, New York
Development Background
Weekday PM Peak Traffic

- > 0.0 dB
- > 35.0 dB
- > 40.0 dB
- > 45.0 dB
- > 50.0 dB
- > 55.0 dB
- > 60.0 dB
- > 65.0 dB
- > 70.0 dB
- > 75.0 dB
- > 80.0 dB
- > 85.0 dB

Map Scale: 1 : 17000

Modeling Software:
Cadna/A v3.6.119
by Datakustik

Prepared by:
Angevine Acoustical
Consultants, Inc.
East Aurora, NY

Noise Prediction Model
Hamburg Crossings
Hamburg, New York
Development Background
Saturday Peak Traffic

- > 0.0 dB
- > 35.0 dB
- > 40.0 dB
- > 45.0 dB
- > 50.0 dB
- > 55.0 dB
- > 60.0 dB
- > 65.0 dB
- > 70.0 dB
- > 75.0 dB
- > 80.0 dB
- > 85.0 dB

Map Scale: 1 : 17000

Modeling Software:
Cadna/A v3.6.119
by Datakustik

Prepared by:
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East Aurora, NY

Noise Prediction Model
Hamburg Crossings
Hamburg, New York
Development Background
Weekday Nighttime Traffic

- > 0.0 dB
- > 35.0 dB
- > 40.0 dB
- > 45.0 dB
- > 50.0 dB
- > 55.0 dB
- > 60.0 dB
- > 65.0 dB
- > 70.0 dB
- > 75.0 dB
- > 80.0 dB
- > 85.0 dB

Map Scale: 1 : 17000

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Noise Prediction Model
Hamburg Crossings
Hamburg, New York
Development Background
Saturday Nighttime Traffic

- > 0.0 dB
- > 35.0 dB
- > 40.0 dB
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- > 65.0 dB
- > 70.0 dB
- > 75.0 dB
- > 80.0 dB
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Map Scale: 1 : 17000

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